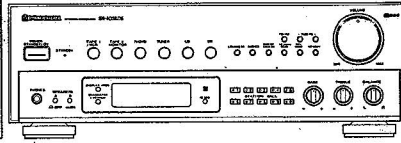


Service Manual

PIONEER®
The Art of Entertainment



The illustration shows model SX-403RDS.

ORDER NO.
ARP2859

STEREO RECEIVER

SX-403RDS

SX-303RDS

SX-203RDS

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.
	SX-403RDS	SX-303RDS	SX-203RDS		
HEXK	○	○	○	AC220-230V	AC240V, *
HBXK	—	○	○	AC240V	AC220-230V, *
HEWZXX	○	○	○	AC220-230V	AC240V, *

*: Alter the wiring of the Power-supply block at the primary winding of Power transformer referring to the "Line Voltage Selection" described in Service Manual.

- For the following: SX-403RDS/HEWZXX; SX-303RDS/HBXK and HEWZXX; SX-203/HBXK and HEWZXX, refer to page 40.

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O-DFO MAY 1994 Printed in Japan

SX-403RDS, SX-303RDS, SX-203RDS

1. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES :

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

Parts List of Exterior and Packing

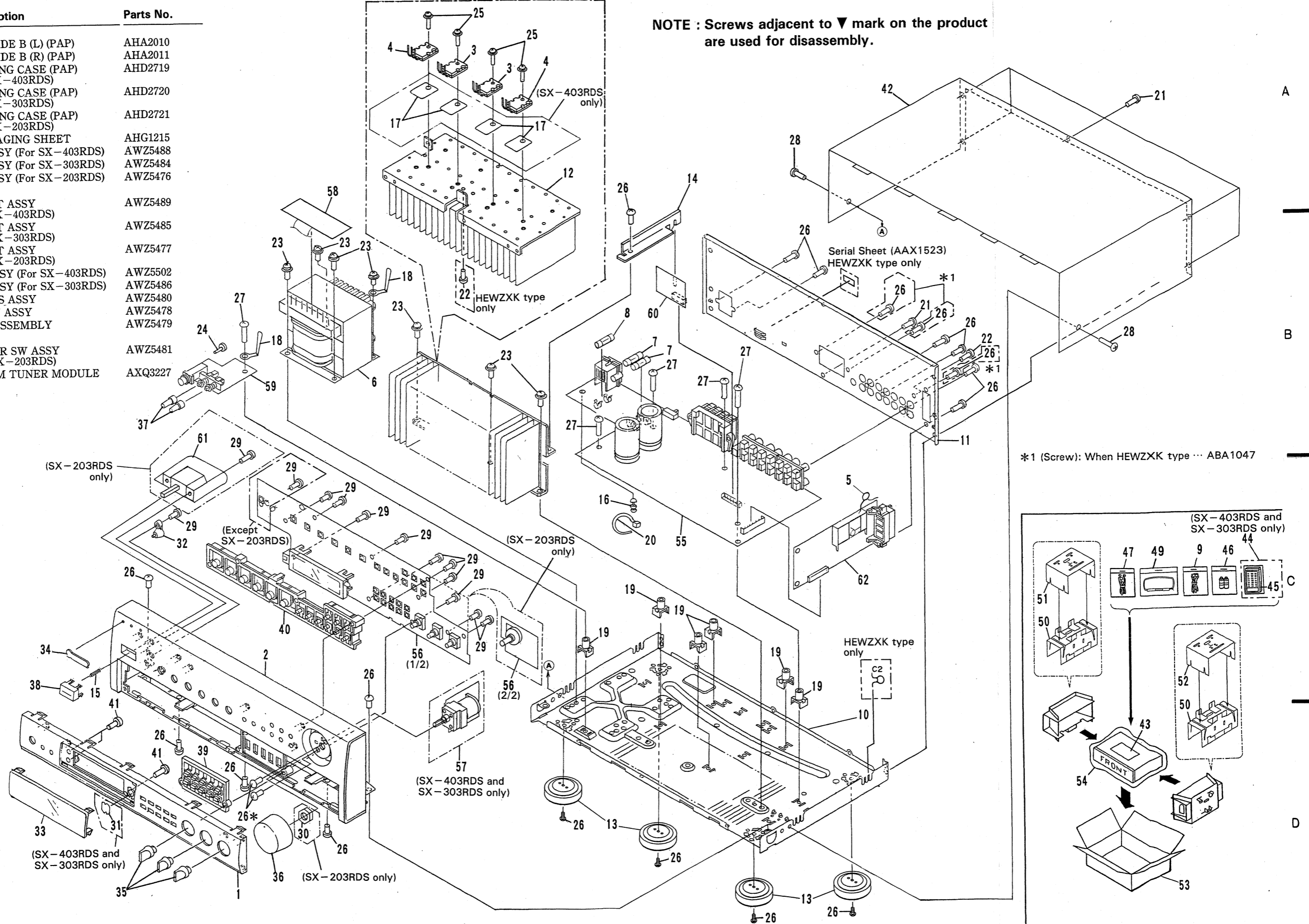
(For SX-403RDS/HEXK, SX-303RDS/HEXK and SX-203RDS/HEXK)

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	SUB PANEL (PLS)	AAP1465	21	SCREW (For SX-403RDS)	VCT30P080FZK	
	2	FRONT PANEL (PLS) (For SX-403RDS)	AMB2222	21	SCREW (For SX-303RDS and SX-203RDS)	BCZ30P080FZK	
	2	FRONT PANEL (PLS) (For SX-303RDS)	AMB2226	22	SCREW (STEEL)	ABA1047	
	2	FRONT PANEL (PLS) (For SX-203RDS)	AMB2227	23	SCREW	ABA1054	
Δ	3	TRANSISTOR (Q3, Q4) (For SX-403RDS)	2SA1302	24	SCREW (STEEL)	ABA1095	
Δ	3	POWER TRANSISTOR (Q3, Q4) (For SX-303RDS)	2SA1804	25	SCREW (STEEL)	ABA1194	
Δ	3	POWER TRANSISTOR (Q3, Q4) (For SX-203RDS)	2SA1803	26	SCREW	BBZ30P080FMC	
Δ	4	TRANSISTOR (Q1, Q2) (For SX-403RDS)	2SC3281	27	SCREW	BBZ30P200FMC	
Δ	4	POWER TRANSISTOR (Q1, Q2) (For SX-303RDS)	2SC4689	28	SCREW	BCZ30P080FZK	
Δ	4	POWER TRANSISTOR (Q1, Q2) (For SX-203RDS)	2SC4688	29	SCREW	BPZ26P080FMC	
	5	CERAMIC CAPACITOR (C1)	CKDYB102K50	30	NUT (SX-203RDS only)	NK90FUC	
Δ	6	POWER TRANSFORMER (T1) (For SX-403RDS)	ATS1544	31	IR FILTER (PLS) (SX-403RDS and SX-303RDS only)	AAK2551	
Δ	6	POWER TRANSFORMER (T1) (For SX-303RDS)	ATS1543	32	LED LENS (PLS)	AAK2553	
Δ	6	POWER TRANSFORMER (T1) (For SX-203RDS)	ATS1542	33	FL PANEL (PLS) (For SX-403RDS and SX-303RDS)	AAK2556	
Δ	7	FUSE (T800MA/250V, FU3, FU4)	AEK-507	33	FL PANEL (PLS) (For SX-203RDS)	AAK2557	
Δ	8	FUSE (T2A/250V, FU1) (For SX-403RDS)	AEK-511	34	NAME PLATE	PAM1608	
Δ	8	FUSE (T1.6A/250V, FU1) (For SX-303RDS)	AEK-510	35	ROUND KNOB S (PLS)	AAB1389	
Δ	8	FUSE (1.25A/250V, FU1) (For SX-203RDS)	AEK-509	36	ROUND KNOB L (PLS)	AAB1390	
Δ	9	AC POWER CORD	ADG1135	37	PUSH BUTTON (PLS)	AAD2530	
NSP	10	CHASSIS (MET)	ANA1481	38	POWER BUTTON (PLS)	AAD2531	
	11	REAR PANEL (MET) (For SX-403RDS)	ANC2213	39	STATION BUTTON (PLS)	AAD2532	
	11	REAR PANEL (MET) (For SX-303RDS)	ANC2164	40	HINGE BUTTON (PLS) (For SX-403RDS)	AAD2534	
	11	REAR PANEL (MET) (For SX-203RDS)	ANC2165	40	HINGE BUTTON (PLS) (For SX-303RDS and SX-203RDS)	AAD2533	
NSP	12	RADIATOR (MET) (For SX-403RDS)	ANH1475	41	PUSH BUTTON (PLS)	AAD2535	
NSP	12	RADIATOR (MET) (For SX-303RDS)	ANH1476	42	BONNET CASE (MET)	ANE1502	
NSP	12	RADIATOR (MET) (For SX-203RDS)	ANH1477	43	OPERATING INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1312	
	13	INSULATOR	PNW1912	44	REMOTE CONTROL UNIT (CU-SX087) (SX-403RDS and SX-303RDS only)	AXD1397	
	14	HOLDER (MTL)	ANG1928	45	BATTERY COVER (SX-403RDS and SX-303RDS only)	AZA7031	
	15	SPRING (FE)	ABH1095	NSP 46	BATTERY (R6P, AA) (SX-403RDS and SX-303RDS only)	AEX-010	
	16	PCB SUPPORT	AEC1581	47	FM ANTENNA ASS'Y	ADH1019	
	17	SHEET (SX-403RDS only)	AEE1014	48	.....	
	18	BINDER	AEP-215	49	LOOP ANTENNA (L8042)	ATB1011	
	19	PCB MOLD (PP)	AMR2533	50	PAD SIDE A (PAP)	AHA2009	
NSP	20	BINDER (BK-1)	Z09-057				

Mark	No.	Description	Parts No.
	51	PAD SIDE B (L) (PAP)	AHA2010
	52	PAD SIDE B (R) (PAP)	AHA2011
	53	PACKING CASE (PAP) (For SX-403RDS)	AHD2719
	53	PACKING CASE (PAP) (For SX-303RDS)	AHD2720
	53	PACKING CASE (PAP) (For SX-203RDS)	AHD2721
	54	PACKAGING SHEET	AHG1215
	55	AF ASSY (For SX-403RDS)	AWZ5488
	55	AF ASSY (For SX-303RDS)	AWZ5484
	55	AF ASSY (For SX-203RDS)	AWZ5476
	56	FRONT ASSY (For SX-403RDS)	AWZ5489
	56	FRONT ASSY (For SX-303RDS)	AWZ5485
	56	FRONT ASSY (For SX-203RDS)	AWZ5477
	57	VR ASSY (For SX-403RDS)	AWZ5502
	57	VR ASSY (For SX-303RDS)	AWZ5486
	58	TRANS ASSY	AWZ5480
	59	SP SW ASSY	AWZ5478
	60	RDS ASSEMBLY	AWZ5479
	61	POWER SW ASSY (For SX-203RDS)	AWZ5481
	62	FM/AM TUNER MODULE	AXQ3227

Note : No. 12 illustration shows SX-403RDS.

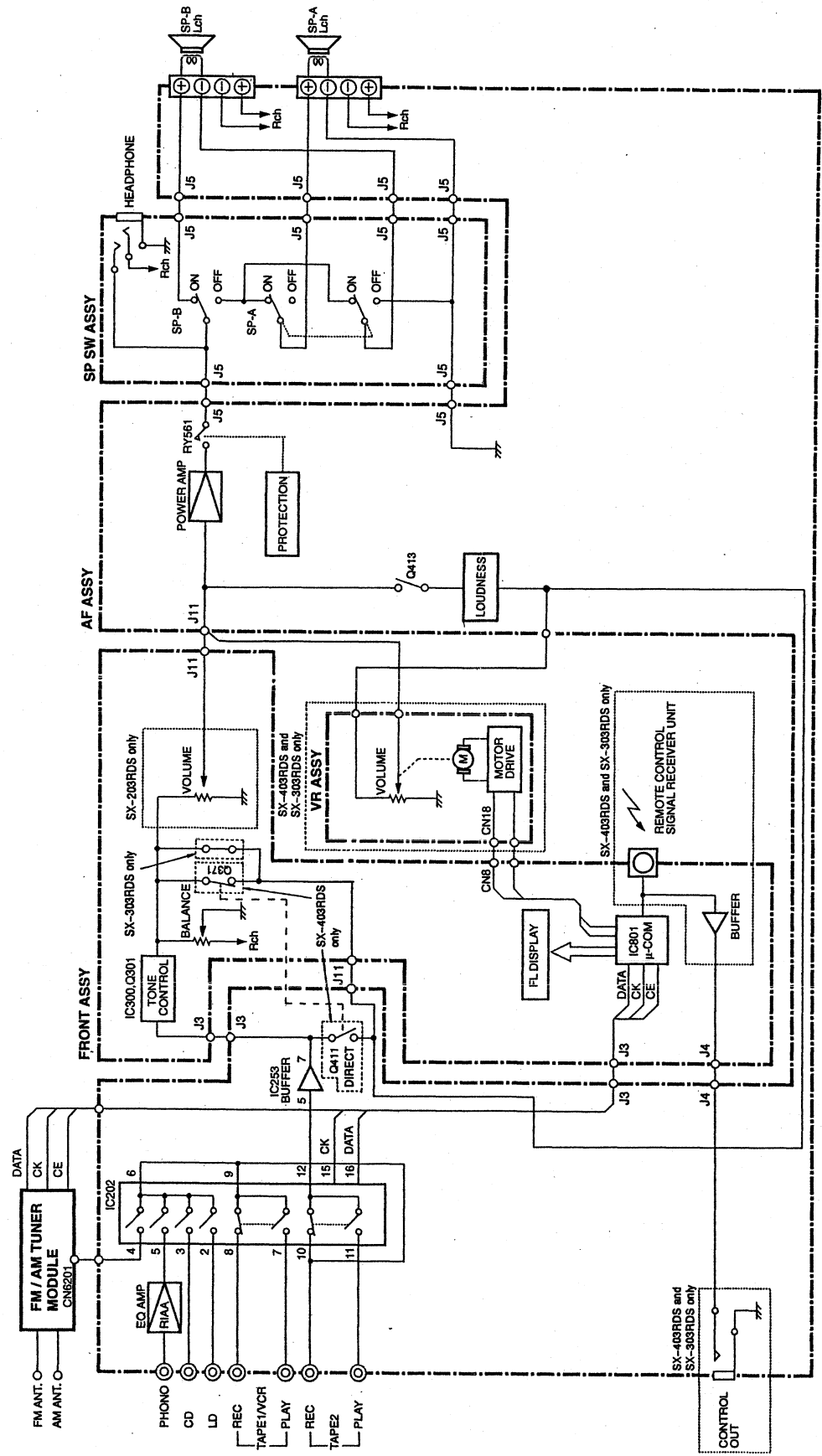
NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.



*1 (Screw): When HEWZXX type ... ABA1047

* : SX-403RDS and SX-303RDS only

2. BLOCK DIAGRAM



3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

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: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:

AF AMPLIFIER SECTION:

: 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.

TUNER SECTION:

: Signal voltage at FM 1kHz, 100% MOD.
 or - V :

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

7. OTHERS:

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

8. SCH-□ ON THE SCHEMATIC DIAGRAM:

• SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. SWITCHES (Underline indicates switch position):

FRONT assy			
S801	0	S816	LOUDNESS
S802	9	S817	TUNING +
S803	8	S818	TUNING -
S804	7	S819	FM/AM
S805	6	S820	CD
S806	5	S821	LD
S807	4	S822	TUNER
S808	3	S823	PHONO
S809	2	S824	TAPE2
S810	1	S825	TAPE1/VCR
S811	MEMORY	S826	RECEIVER
S812	MPX MODE	S827	CLASS
S813	MEMORY SCAN	S828	CHARACTER/SEARCH
S814	DIRECT ACCESS	S829	DISPLAY MODE
S815	DIRECT (SX-403RDS ONLY)		
S815	RF ATT (EXCEPT SX-403RDS)		

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)

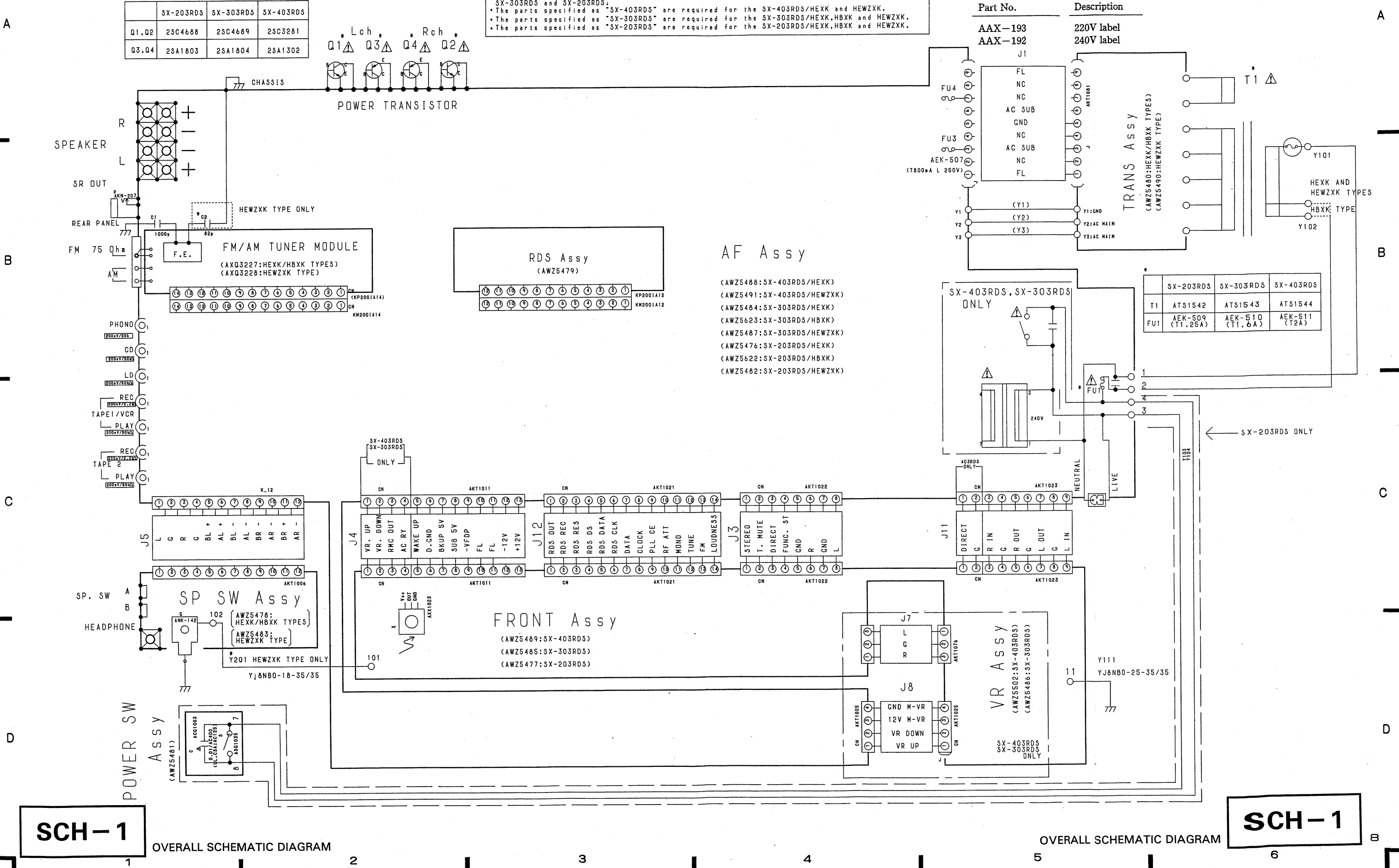
3. The transistor terminal marked with E or shows the emitter.
4. The diode terminal marked with or shows cathode side.
5. The capacitor terminal marked with or shows negative terminal.

3.1 OVERALL SCHEMATIC DIAGRAM

Line Voltage Selection

- Line Voltage can be changed by the following modification:
1. Disconnect the AC power cord.
 2. Remove the cover.
 3. Change the connection of the power transformer primary taps.
 4. Stick a line voltage label on the rear panel.

SCH-1



	SX-203RDS	SX-303RDS	SX-403RDS
Q1,Q2	2SC4688	2SC4689	2SC3281
Q3,Q4	2SA1803	2SA1804	2SA1302

NOTE:

- The parts specified as "HEXK/HBXX TYPES" are required for the SX-403RDS/HEXK;HEXK and HBXX of SX-303RDS and SX-203RDS.
- The parts specified as "HBXX TYPE" are required for the HBXX of SX-303RDS and SX-203RDS.
- The parts specified as "HEWZXX TYPE" are required for the HEWZXX of SX-403RDS, SX-303RDS and SX-203RDS.
- The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXX.
- The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK,HBXX and HEWZXX.
- The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK,HBXX and HEWZXX.

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

	SX-203RDS	SX-303RDS	SX-403RDS
T1	ATS1542	ATS1543	ATS1544
FU1	AEK-509 (T1.25A)	AEK-510 (T1.6A)	AEK-511 (T2A)

SCH-1

OVERALL SCHEMATIC DIAGRAM

OVERALL SCHEMATIC DIAGRAM

SCH-1

3.2 FM/AM TUNER MODULE

FM/AM TUNER MODULE
(AXQ3227:HEXX and HBXX types)
(AXQ3228:HEWZXX type)

Note:
. Value in () is HEWZXX type.
. The parts specified as "HEXX and HBXX" are required for SX-403RDS/HEXX;HEXX and HBXX types of SX-303RDS and SX-203RDS.
. The parts specified as "HEWZXX" are required for HEWZXX type of SX-403RDS,SX-303RDS and SX-203RDS.

IC6201 (LA1836M)

SCH-2

A

B

C

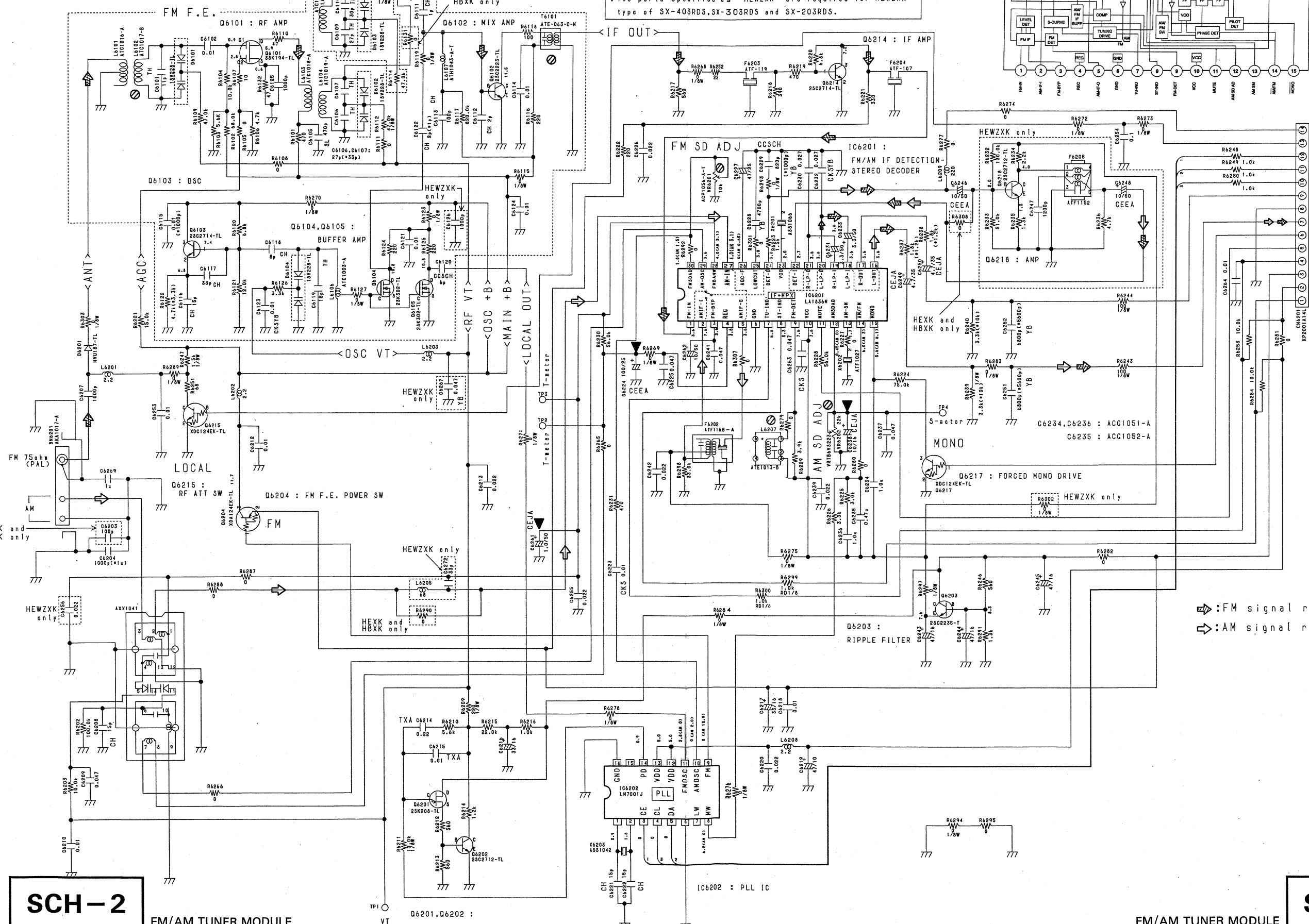
D

A

B

C

D



RDS LOCAL
CF
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO

TO AF ASSY (→ SCH-3)

↗: FM signal route
↘: AM signal route

SCH-2

SCH-2

FM/AM TUNER MODULE

FM/AM TUNER MODULE

Q6201, Q6202 : PLL LOOP FILTER DC AMP

IC6202 : PLL IC

5

6

• This diagram is viewed from the foil side.

-To RDS Assy CM801

-To AF Assy J2

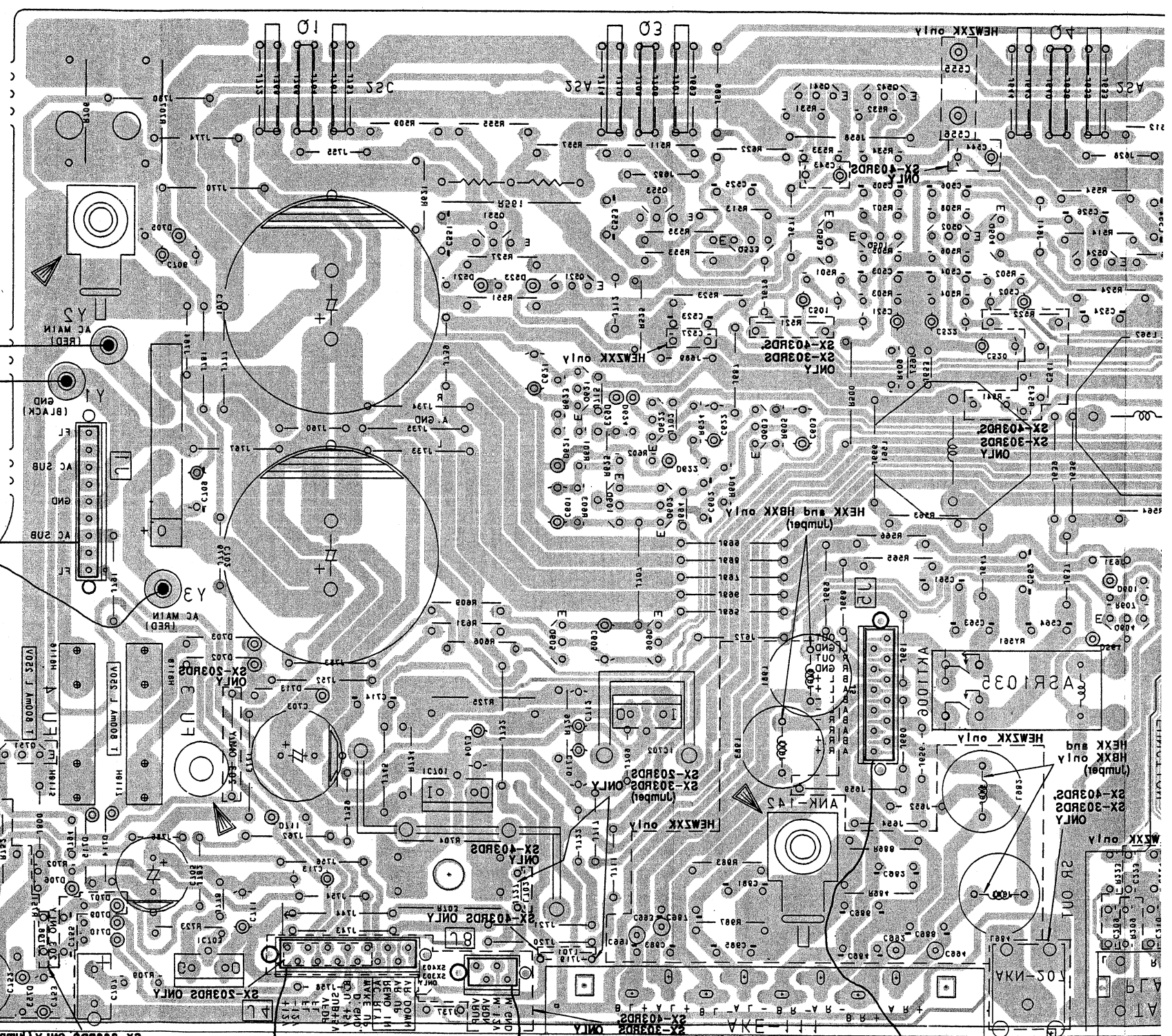
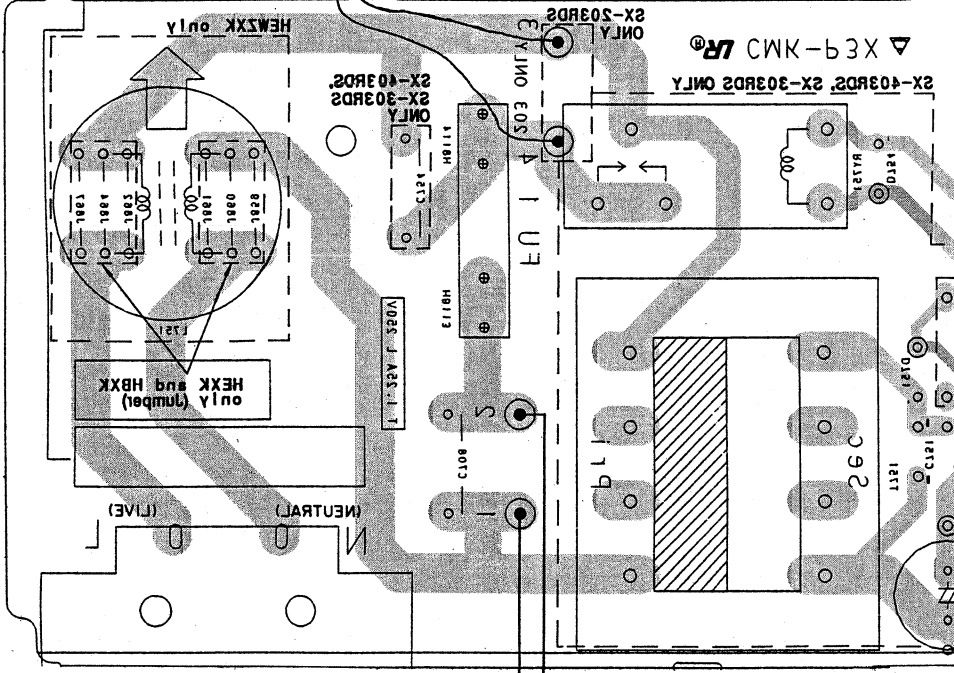
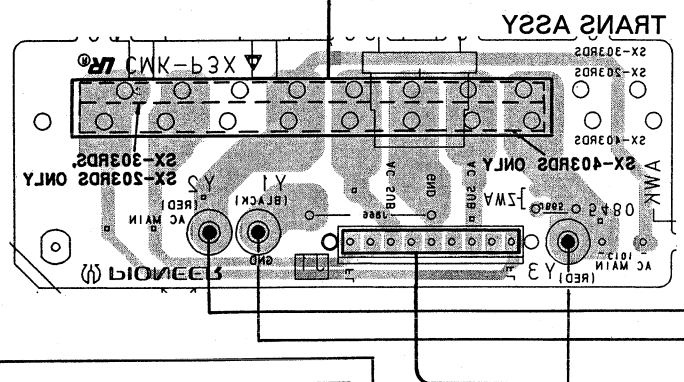
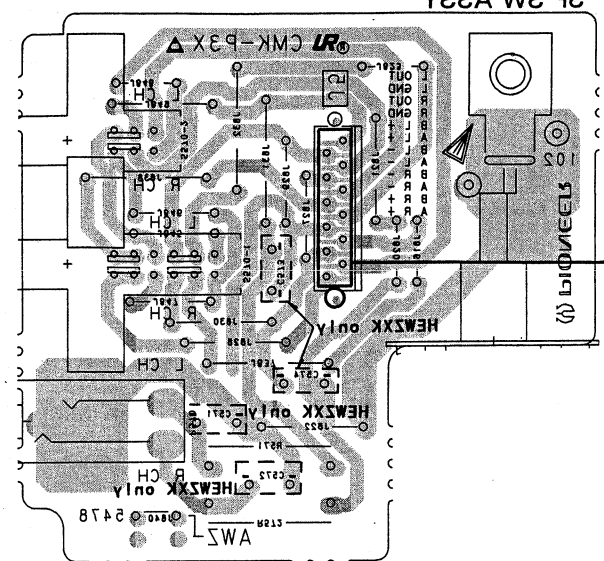
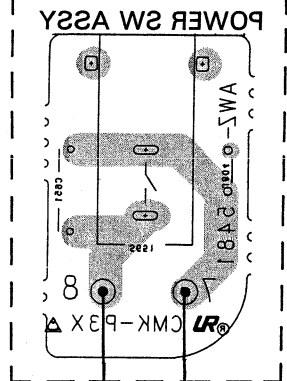
-To SP SW Assy J2

-To VR Assy J8

-To FRONT Assy J4

-To POWER TRANSFORMER T1

POWER SW ASSY



IC205 0808 0802
IC201
IC203

Q251

-To POWER TRANSFORMER T1

A

B

C

D

8

7

6

5

4

3

8

7

6

5

4

3

• This diagram is viewed from the mounted parts side.

FM/AM TUNER MODULE

A

A

Q6101

Q6215

Q6204

Q6102 Q6214

Q6104

Q6103
Q6105

B

B

C

C

IC6202

IC6201

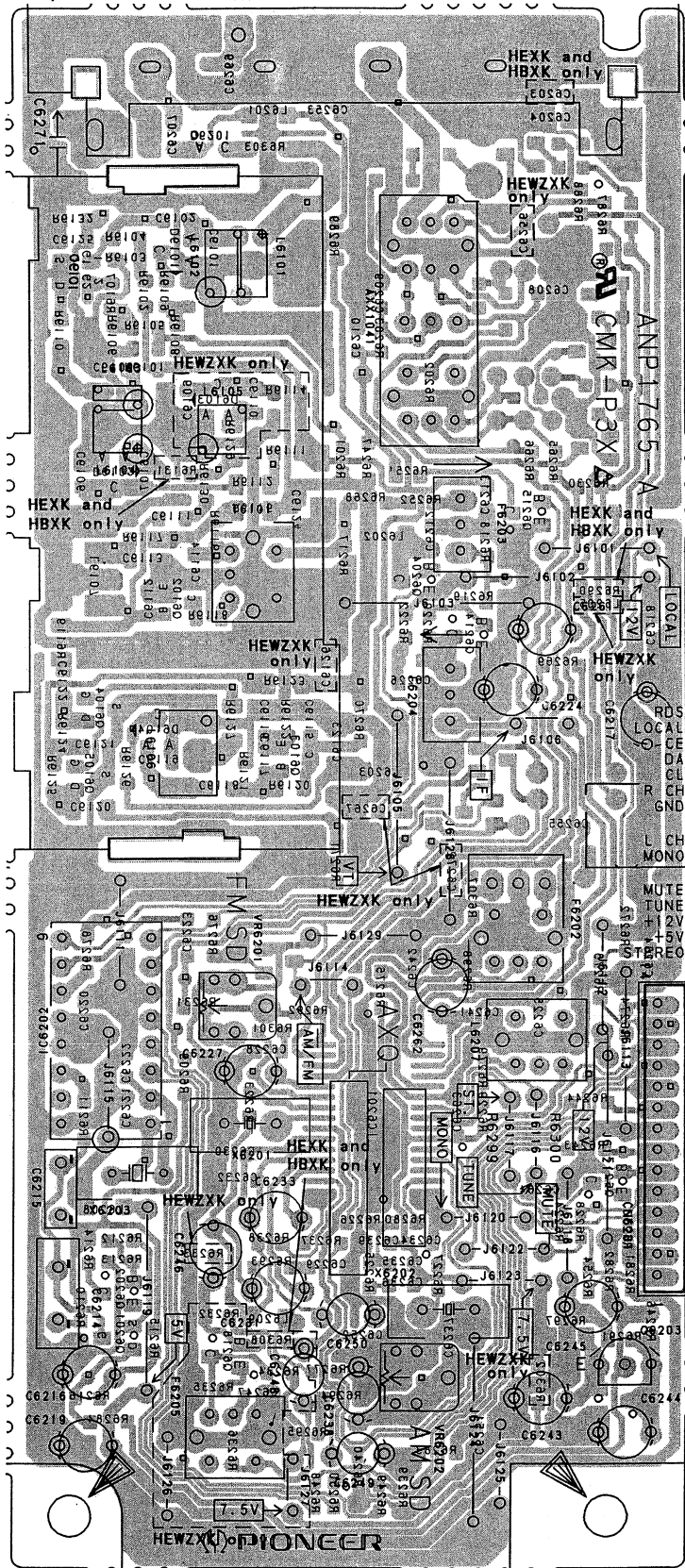
Q6217

Q6202

Q6201 Q6203
Q6218

D

D



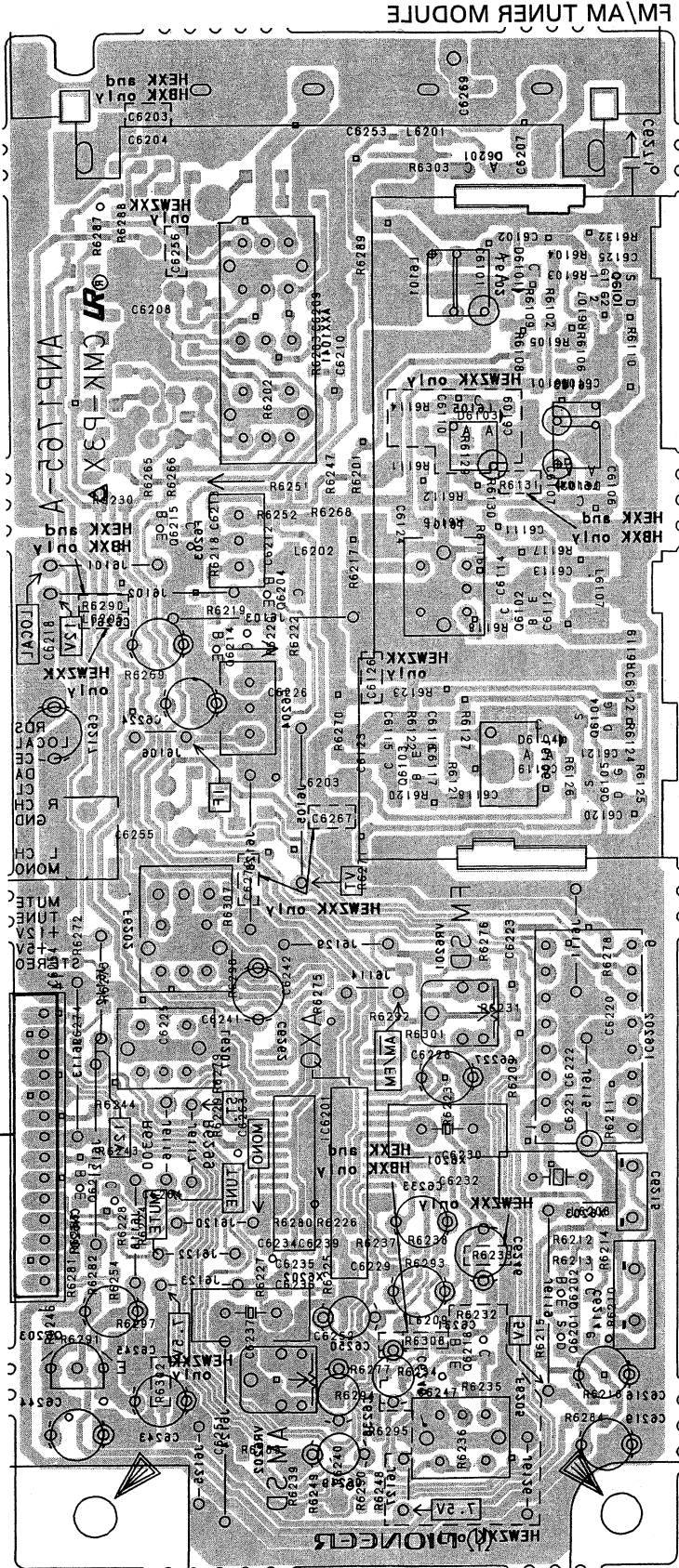
VR6201

VR6202

To AF assy

● This diagram is viewed from the foil side.

A
B
C
D



A
B
C
D

0E101
0E512
0E504
0E514
0E104
0E103
0E102
AVR501
IC605
IC601
0E517
0E505
0E501
0E503
0E518

3.3 AF ASSY, SP SW ASSY, POWER SW ASSY AND TRANS ASSY

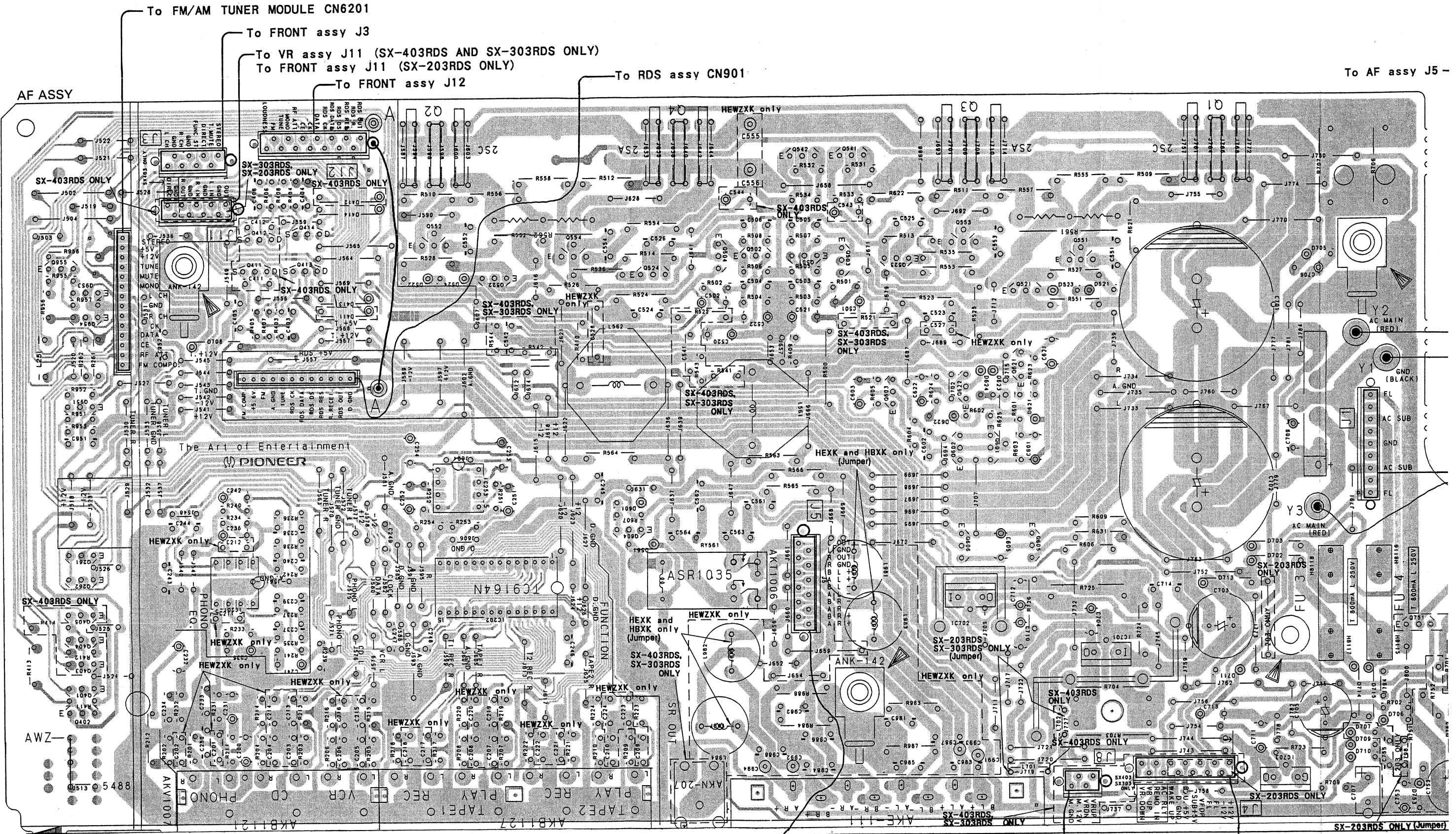
This diagram is viewed from the mounted parts side.

A

B

C

D



To AF Assy J5 -

To FM/AM TUNER MODULE CN6201

To FRONT assy J3

To VR assy J11 (SX-403RDS AND SX-303RDS ONLY)
To FRONT assy J11 (SX-203RDS ONLY)

To FRONT assy J12

To RDS assy CN901

AF ASSY

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AWZ

Q955 Q953 Q954
Q951 Q261 Q262
Q401-Q405

Q411 Q412
IC201

Q413 Q414
Q522
IC253
IC202

Q544
Q524
Q604

Q504 Q502
Q542 Q501 Q541 Q503 Q523
Q553 Q521
Q602 Q622 Q601 Q621
IC702 Q605 Q605

Q551
IC701

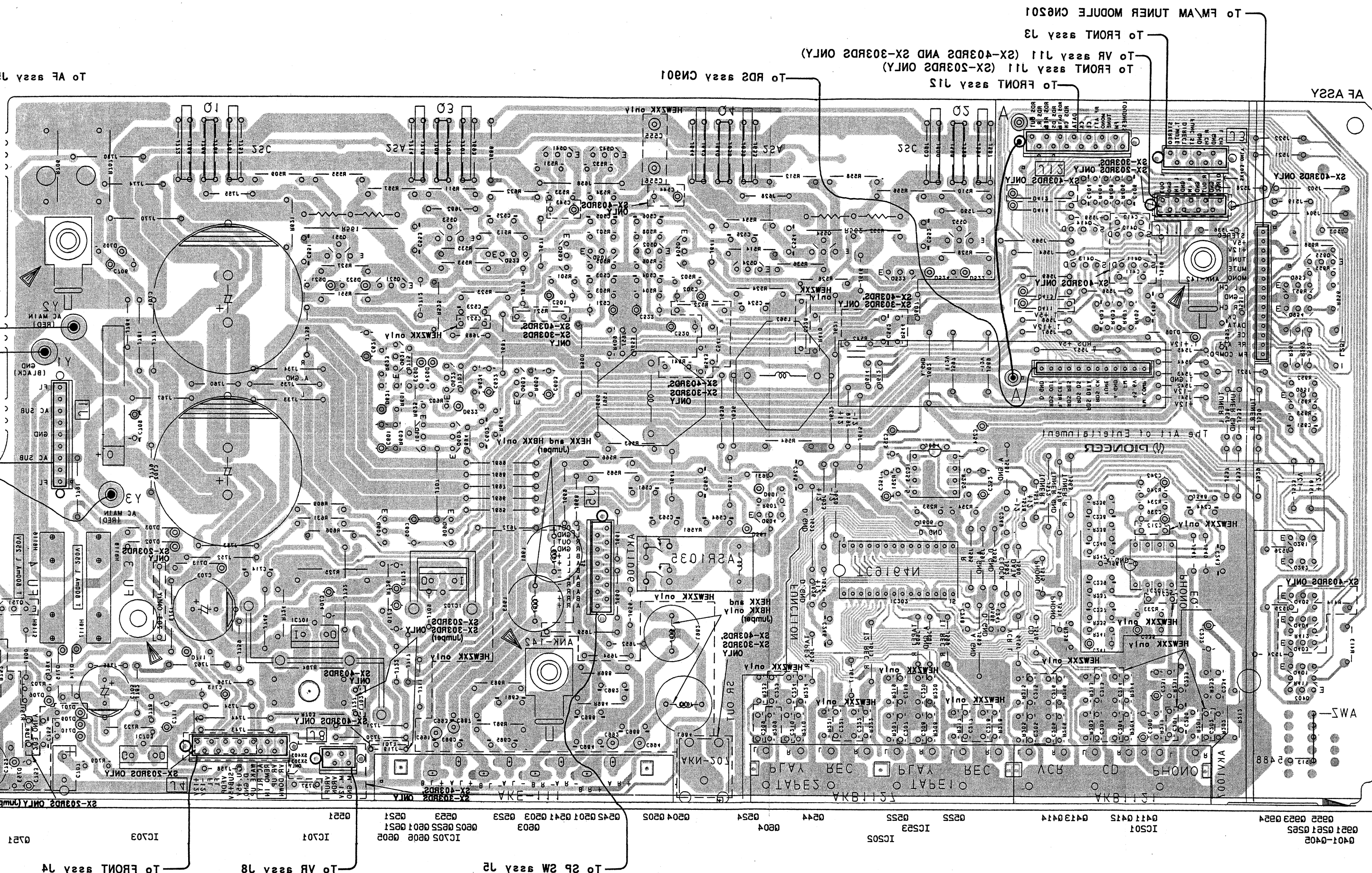
IC703
Q751

To SP SW assy J5

To VR assy J8

To FRONT assy J4

This diagram is viewed from the foil side.



TO FM/AM TUNER MODULE C6201
 TO FRONT assy 13

TO FRONT assy 111 (SX-203RDS ONLY)
 TO VR assy 111 (SX-403RDS AND SX-303RDS ONLY)

TO RDS assy C6001

To AF assy 11

AF ASSY

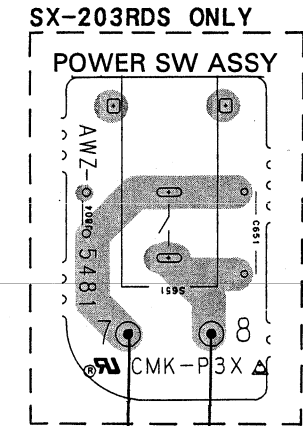
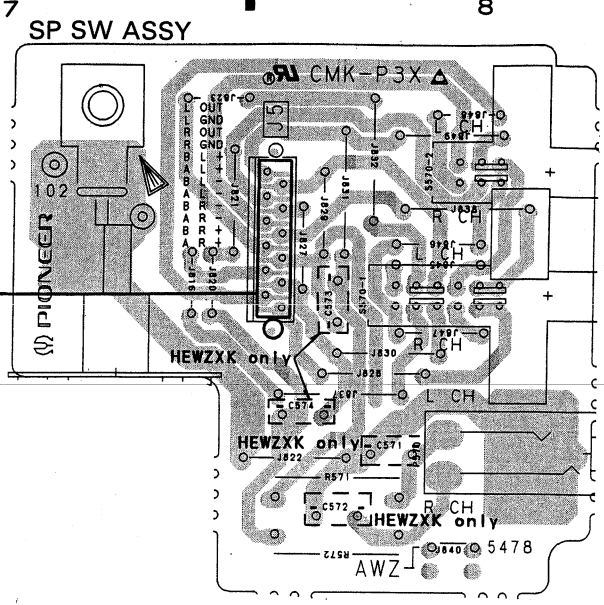
A
B
C
D

TO VR assy 18
 TO SP SW assy 12

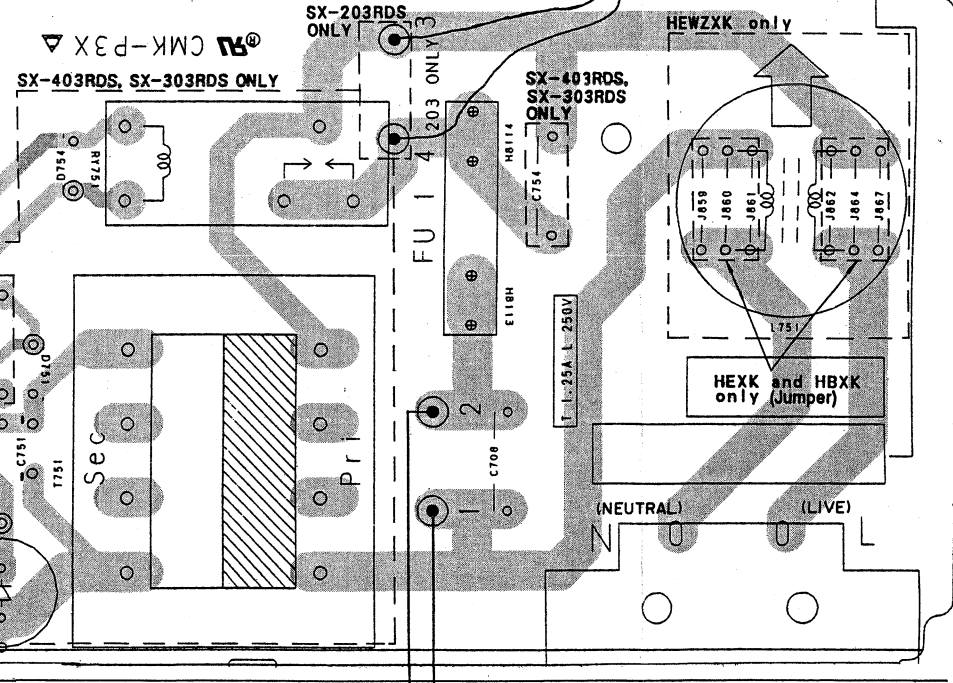
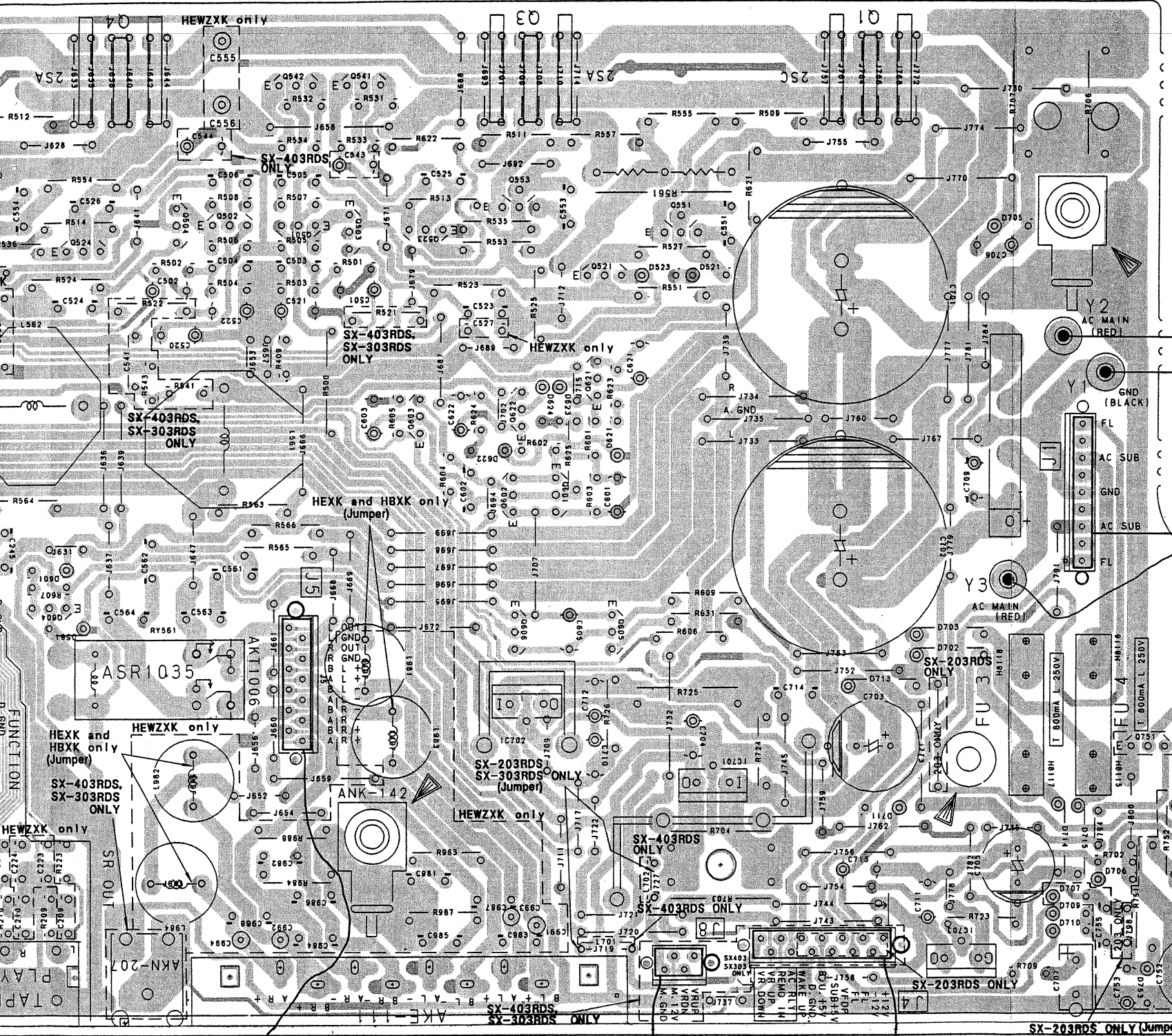
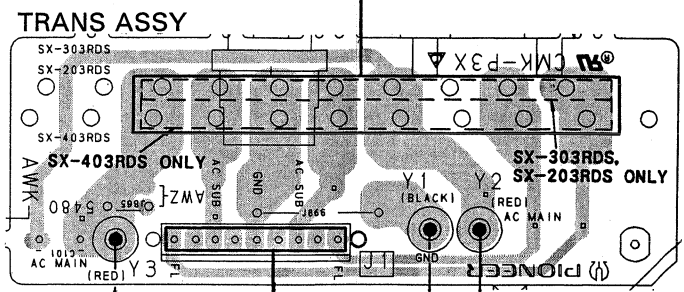
• This diagram is viewed from the mounted parts side.

To RDS assy CN901

To AF assy J5



To POWER TRANSFORMER T1



To SP SW assy J5

To VR assy J8

To FRONT assy J4

To POWER TRANSFORMER T1

Q524 Q604

Q504 Q502

Q542 Q501 Q541 Q503 Q523 Q603

Q553 Q521 Q551 Q502 Q522 Q501 Q521 IC702 Q606 Q605

IC701

IC703

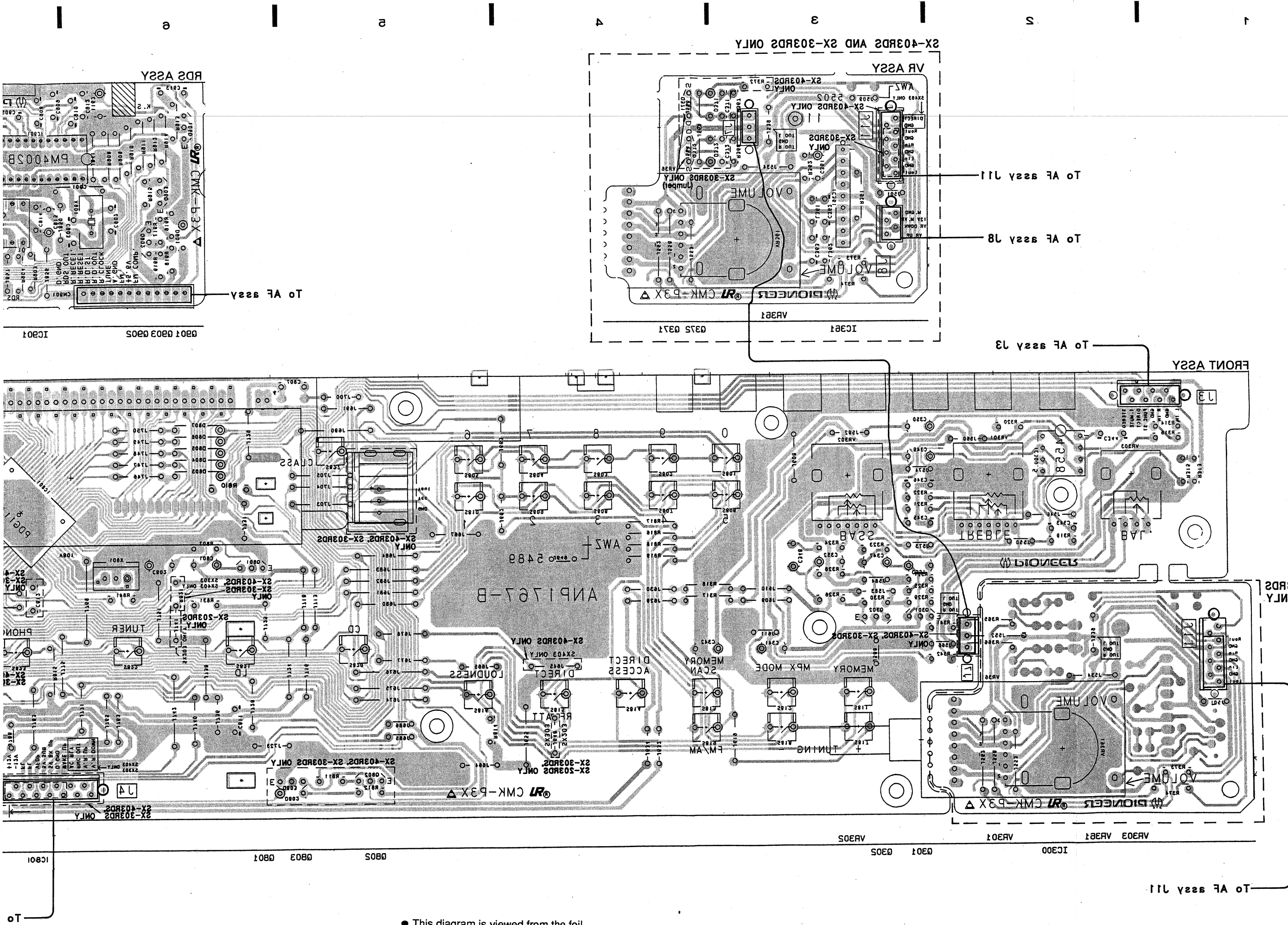
Q751

A

B

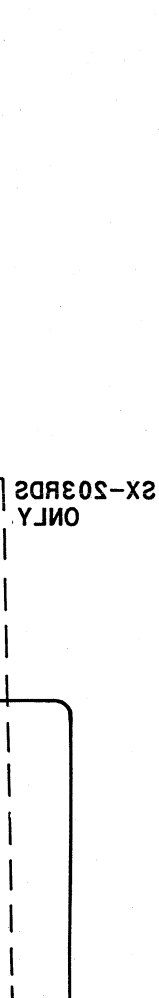
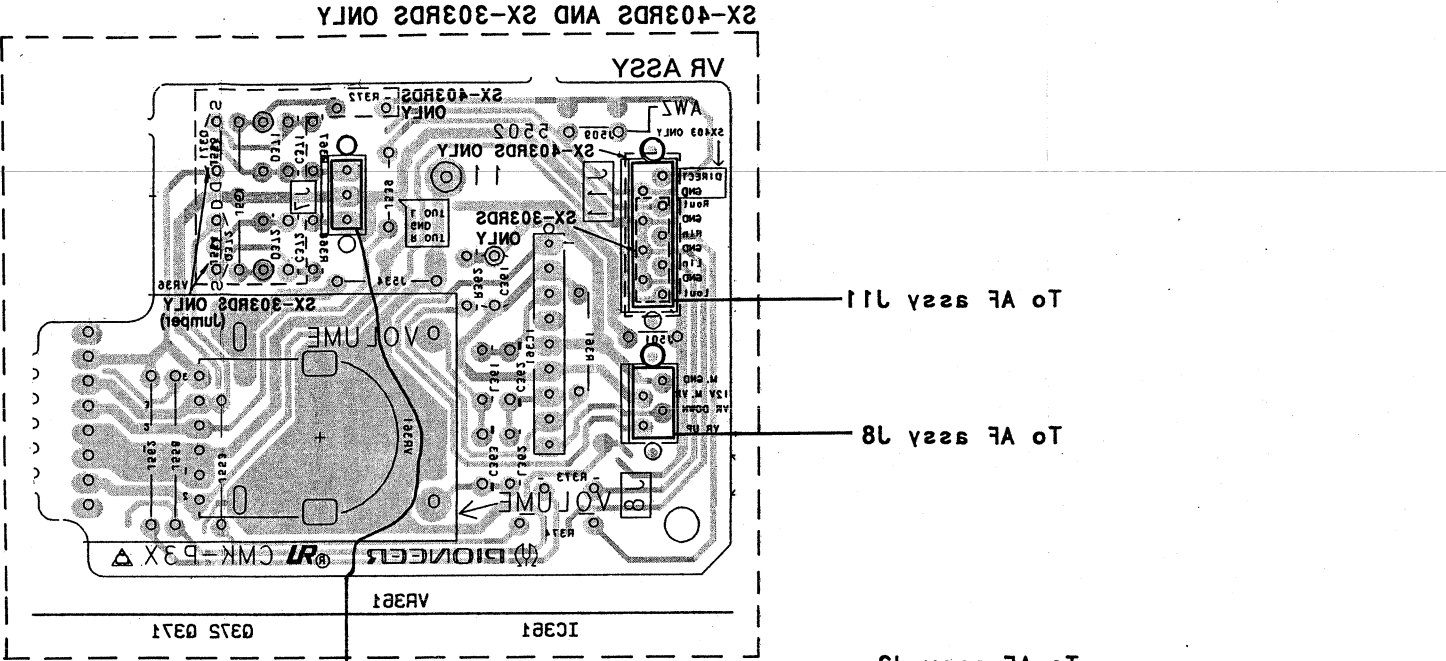
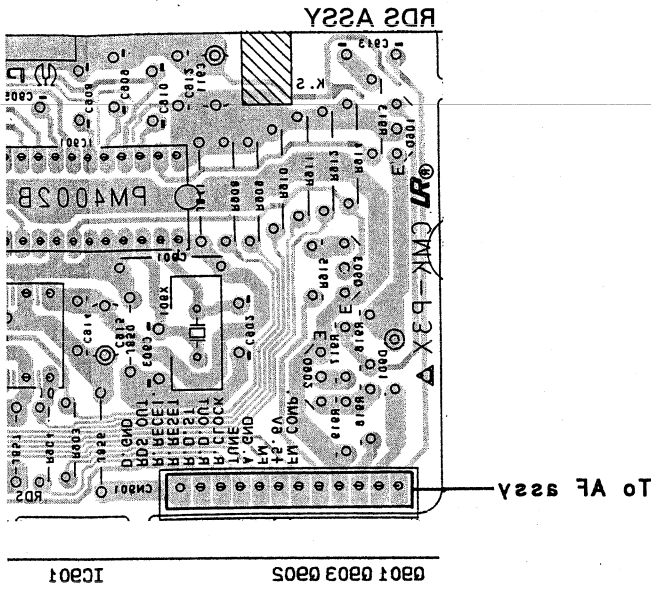
C

D



To AF Assy 111

● This diagram is viewed from the foil side.



A
B
C
D

1
2
3
4
5
6
7
8

1
2
3
4
5
6
7
8

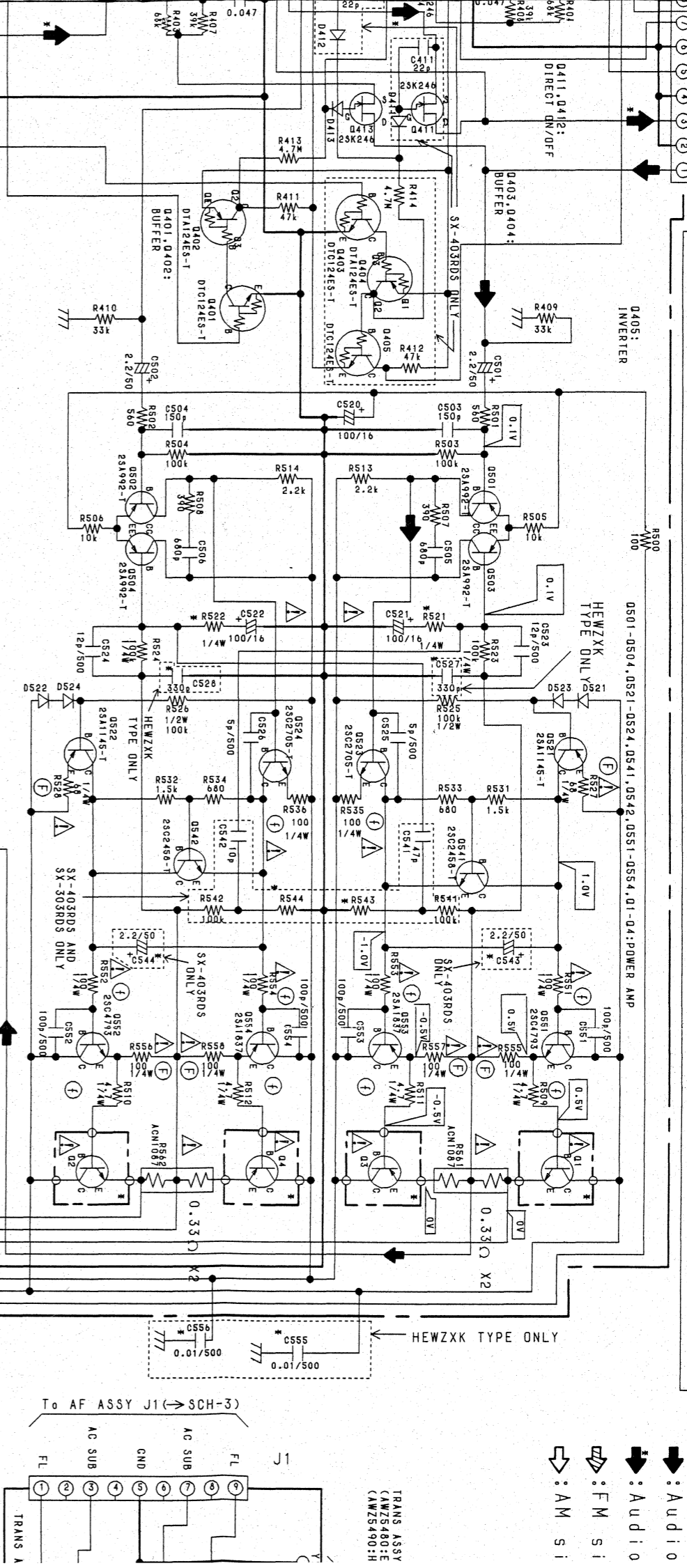
To VR ASSY J11(→SCH-4)

To FRONT ASSY J11(→SCH-4)

NOTE:

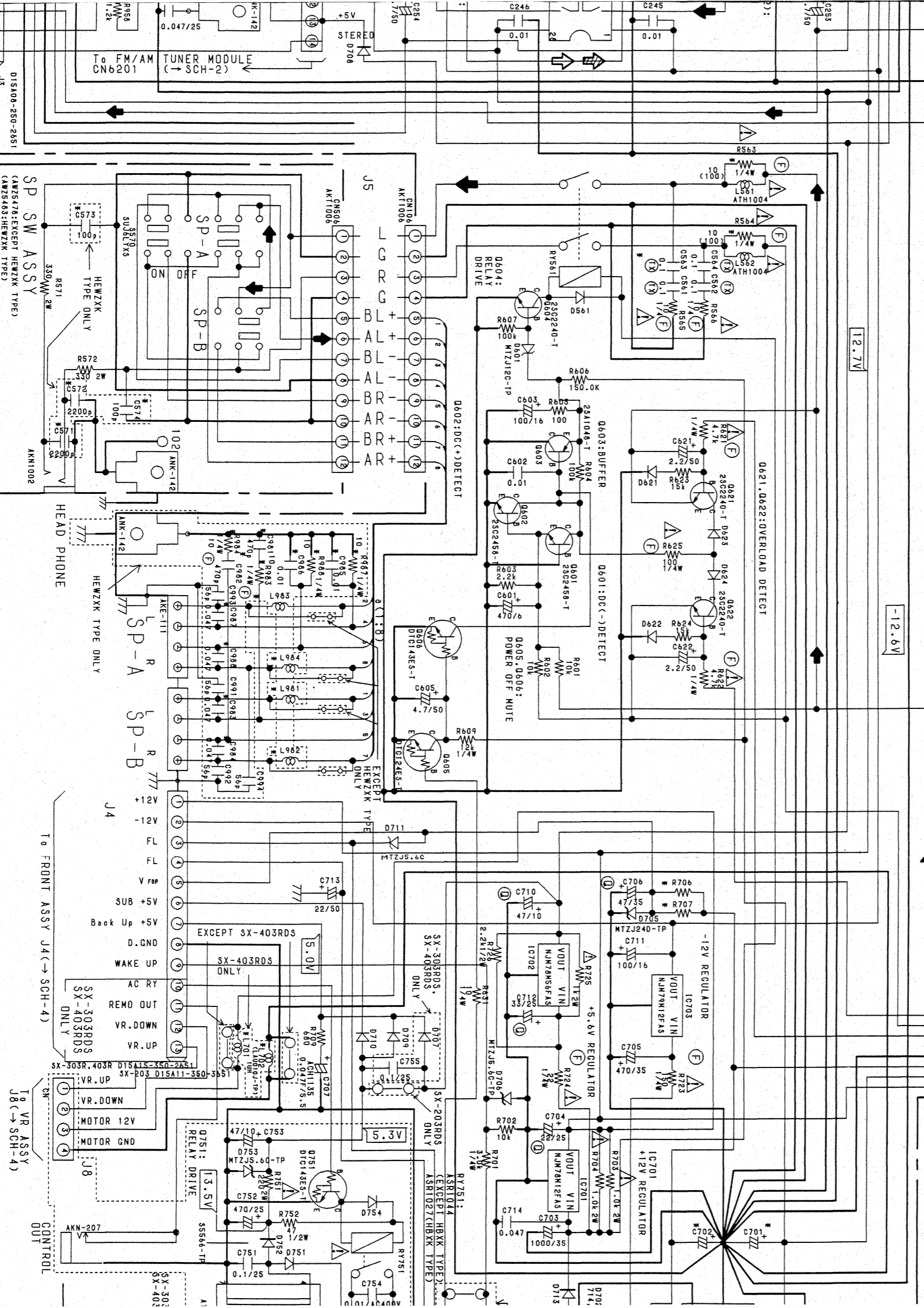
- Value in () is HEWZK TYPE.
- The parts specified as "HEWZK TYPE" are required for the SX-403RDS/HEWZK, SX-303RDS/HEWZK, SX-203RDS/HEWZK and SX-403RDS/HEWZK.
- The parts specified as "HEWZK TYPE" are required for the SX-403RDS/HEWZK, SX-303RDS/HEWZK, SX-203RDS/HEWZK and SX-403RDS/HEWZK.
- The parts specified as "HEWZK TYPE" are required for the SX-403RDS/HEWZK, SX-303RDS/HEWZK, SX-203RDS/HEWZK and SX-403RDS/HEWZK.

- The parts specified as "HEWZK TYPE" are required for the SX-403RDS/HEWZK, SX-303RDS/HEWZK, SX-203RDS/HEWZK and SX-403RDS/HEWZK.
- The parts specified as "HEWZK TYPE" are required for the SX-403RDS/HEWZK, SX-303RDS/HEWZK, SX-203RDS/HEWZK and SX-403RDS/HEWZK.
- The parts specified as "HEWZK TYPE" are required for the SX-403RDS/HEWZK, SX-303RDS/HEWZK, SX-203RDS/HEWZK and SX-403RDS/HEWZK.



- ⇓ : Audio
- ⇓ : Audio
- ⇓ : FM SI
- ⇓ : AM SI

TRANS ASSY
(ANZ5480:E
CANZ5490:H)



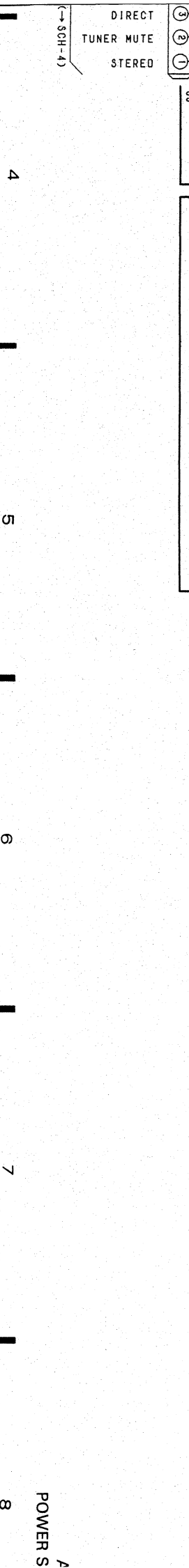
To FM/AM TUNER MODULE
(CN6201)

HEWZK TYPE ONLY

To FRONT ASSY J4(→SCH-4)

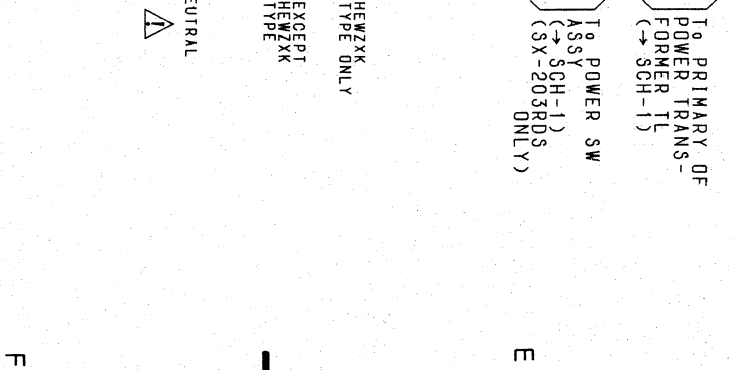
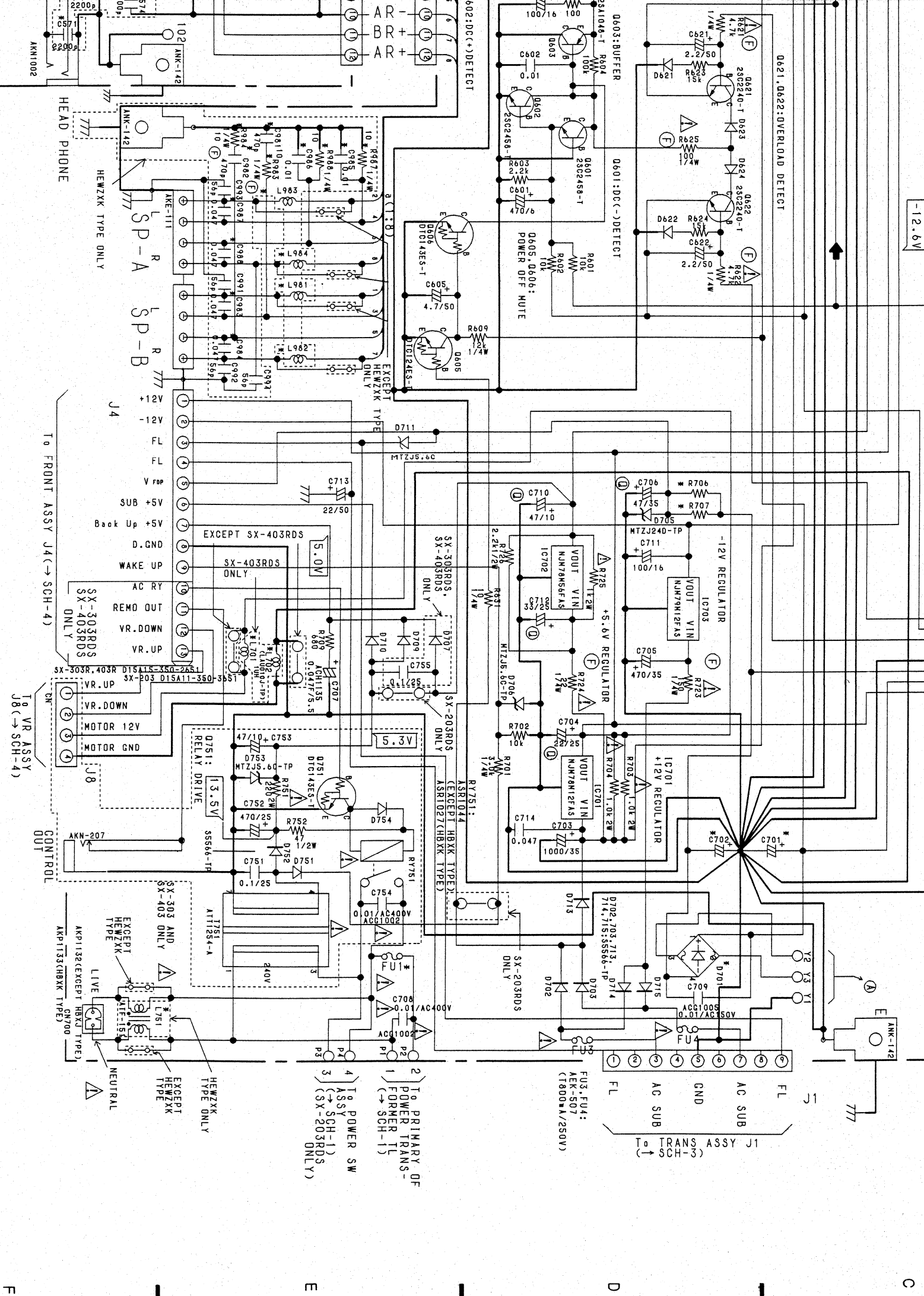
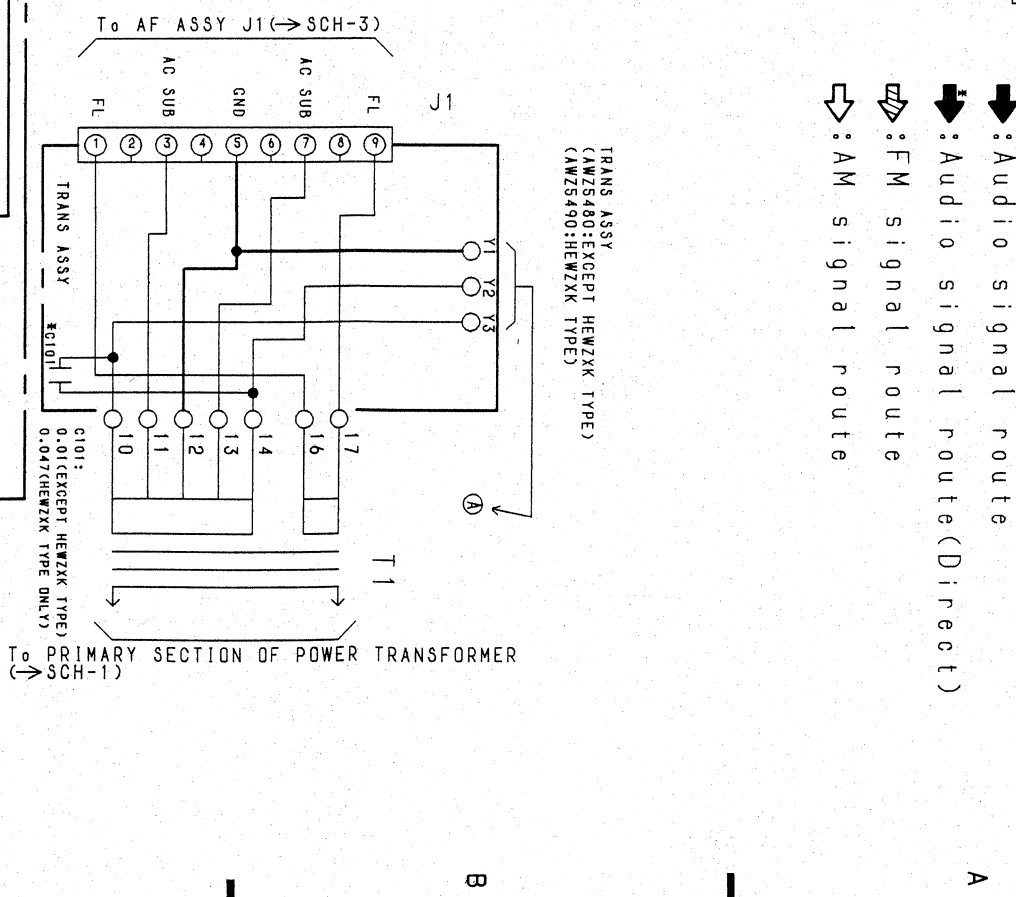
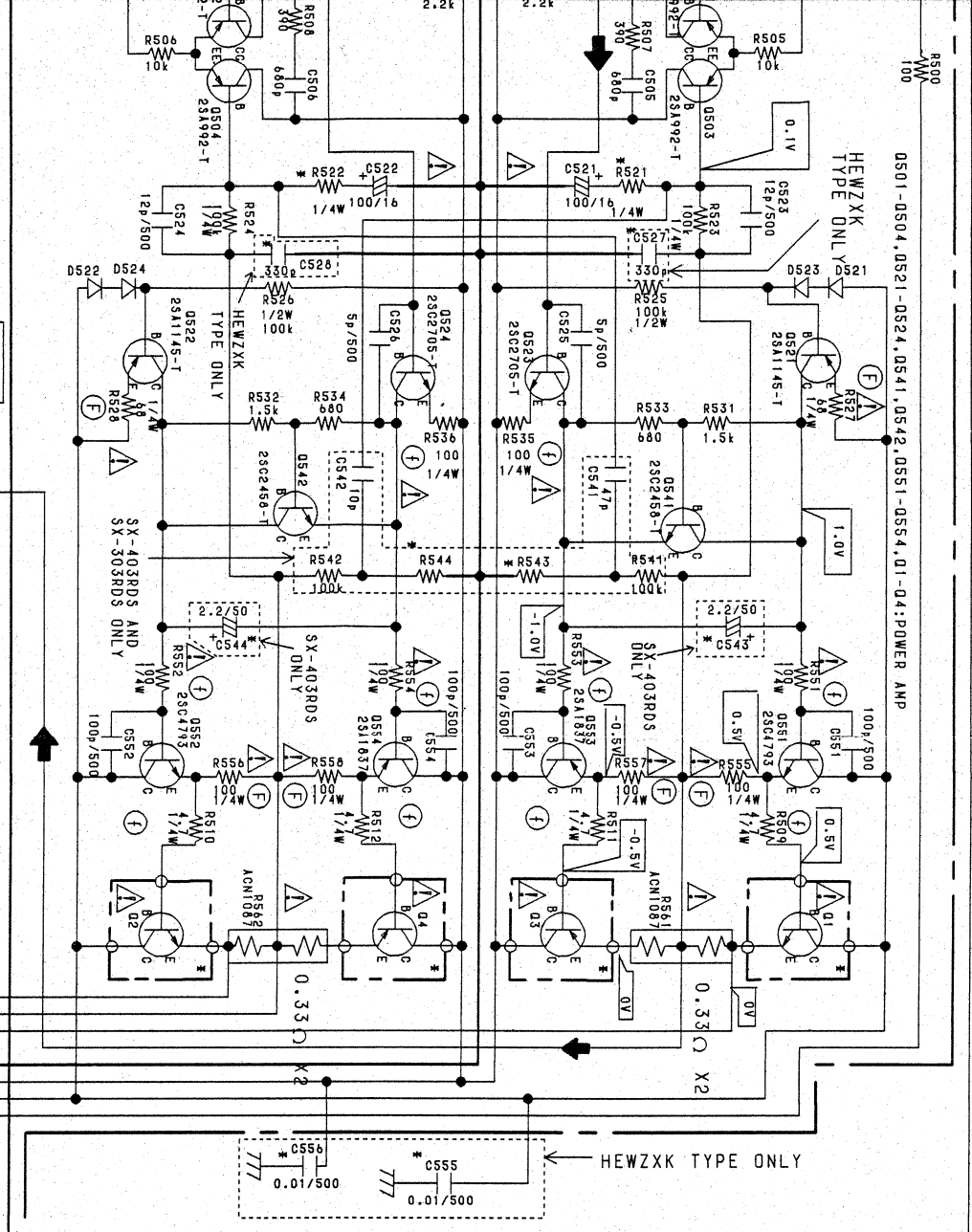
To FRONT ASSY J8(→SCH-4)

POWER S



POWER S

TYPE are required for...
The parts specified as "HEWZK TYPE ONLY" are required for the SX-403RDS/HBXK and SX-303RDS/HBXK. The parts specified as "HEWZK TYPE" are required for the SX-203RDS/HBXK and SX-203RDS/HEWZK.

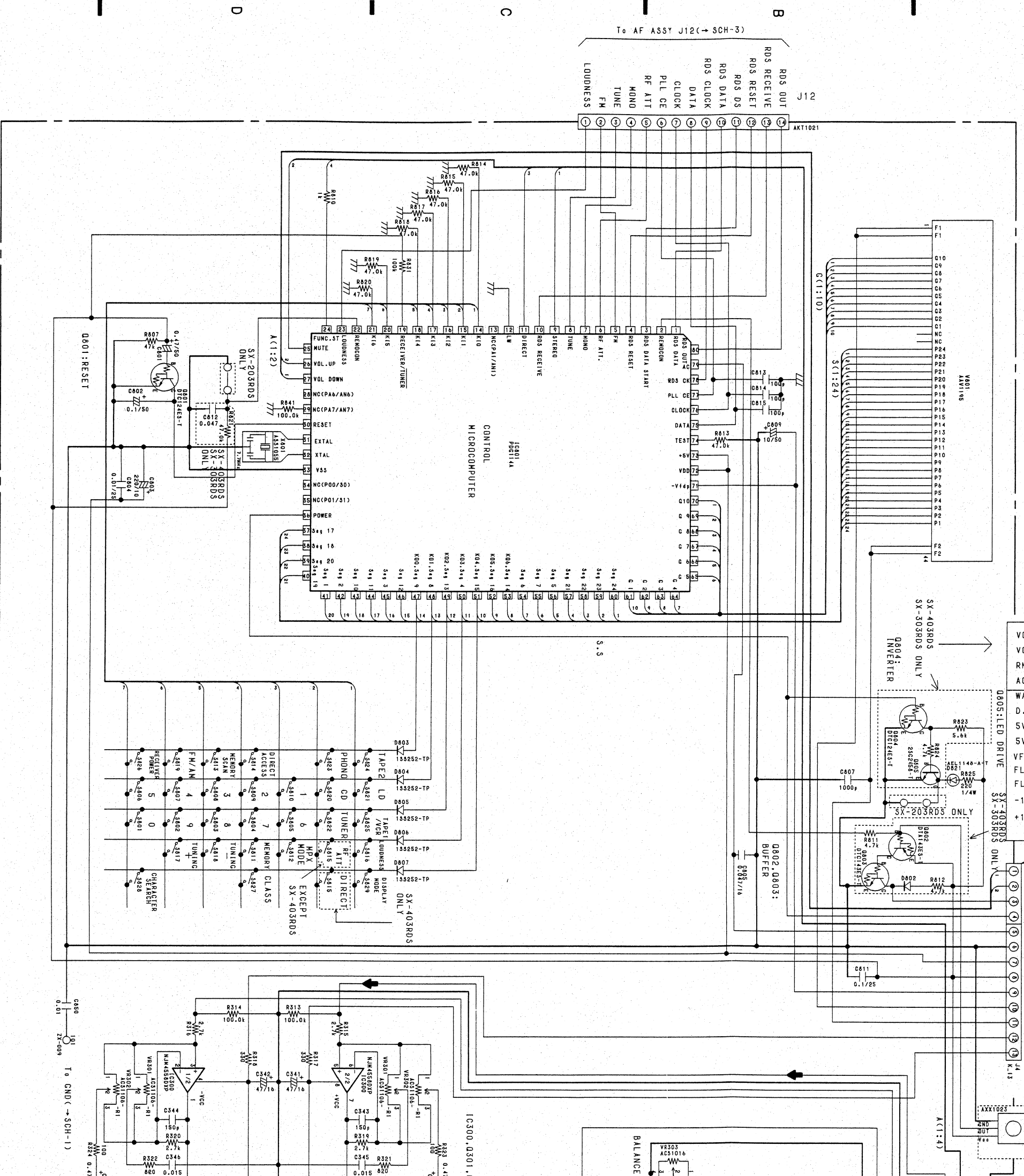


SCH-3

3.4 FRONT ASSY, VR ASSY AND RDS ASSY

FRONT ASSY (AWZ5489: SX-403RDS)
(AWZ5485: SX-303RDS)
(AWZ5477: SX-203RDS)

NOTE:
• The parts specified as "SX-403RDS" are required for the SX-403RDS/HEXK and HEWZXX.
• The parts specified as "SX-303RDS" are required for the SX-303RDS/HEXK, HBXK and HEWZXX.
• The parts specified as "SX-203RDS" are required for the SX-203RDS/HEXK, HBXK and HEWZXX.

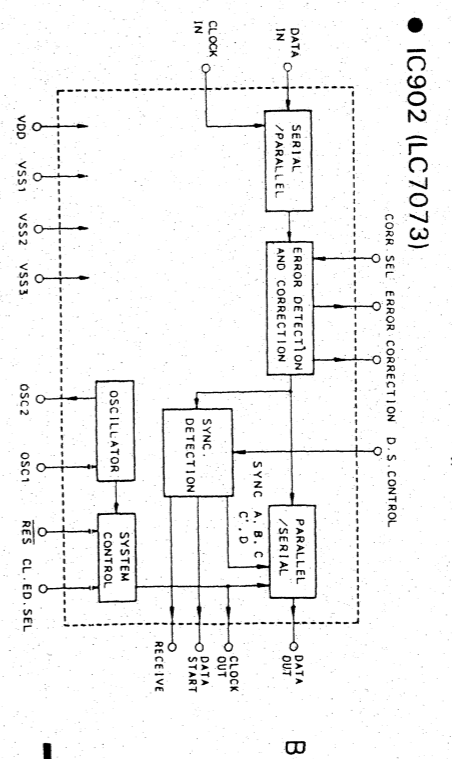
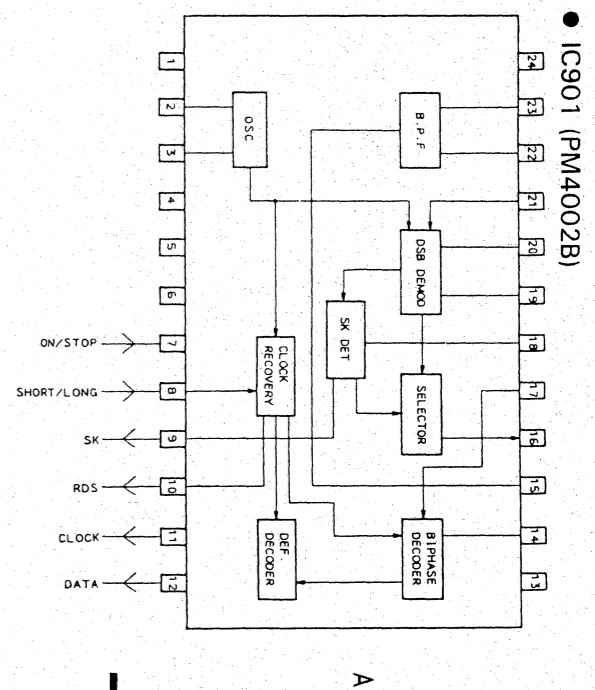
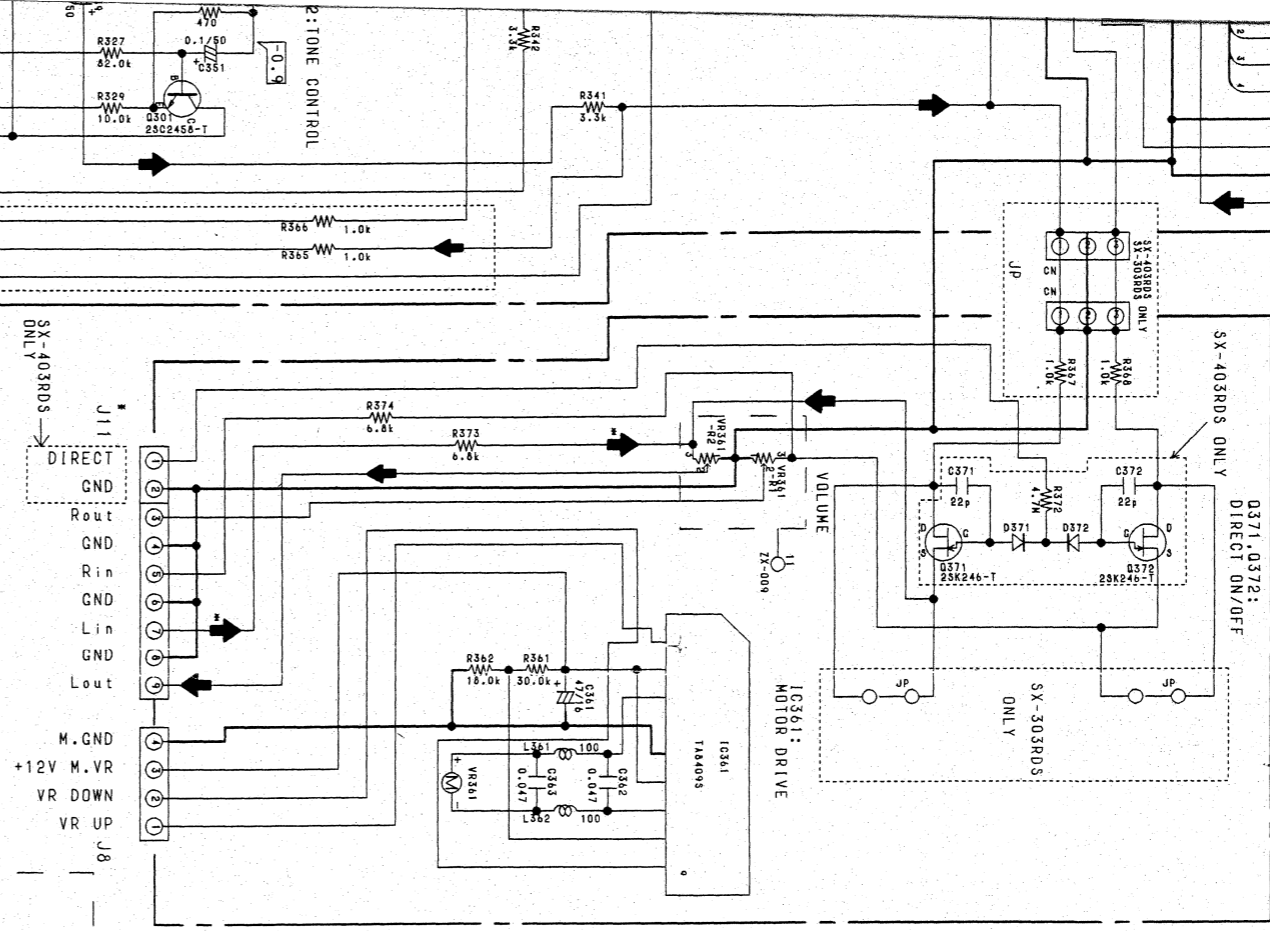


SCH-4

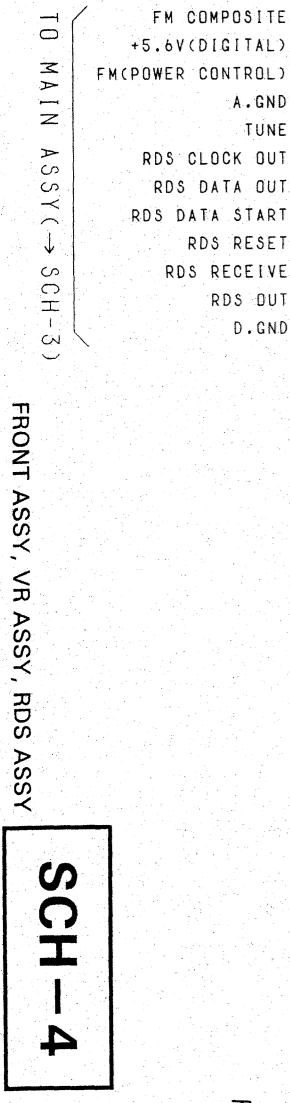
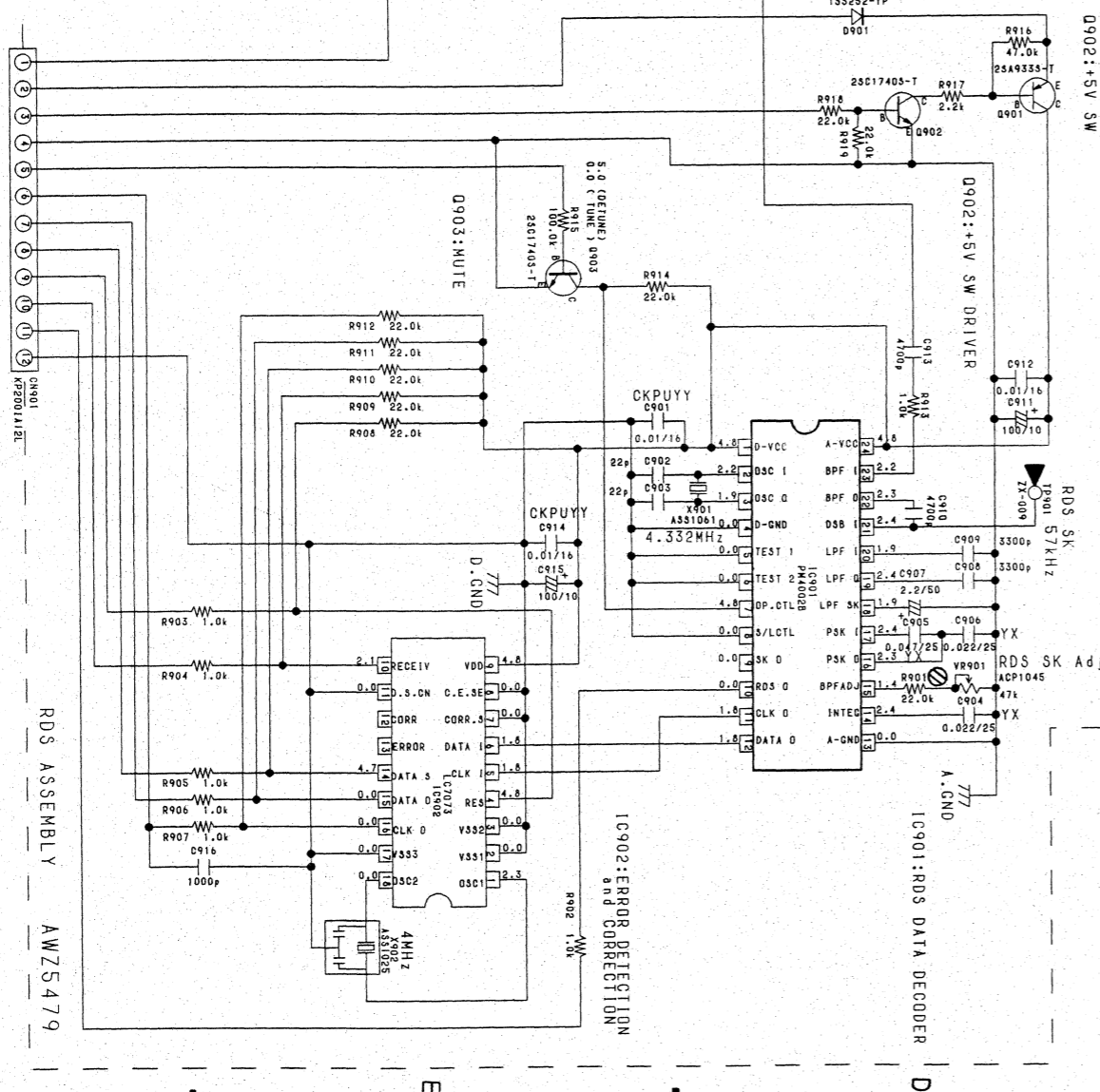
FRONT ASSY, VR ASSY, RDS ASSY

•: Audio signal route
 •: Audio signal route(Direct)

VR ASSY (AWZ5489: SX-403RDS)
 (AWZ5485: SX-303RDS)
 (SX-403RDS AND SX-303RDS ONLY)



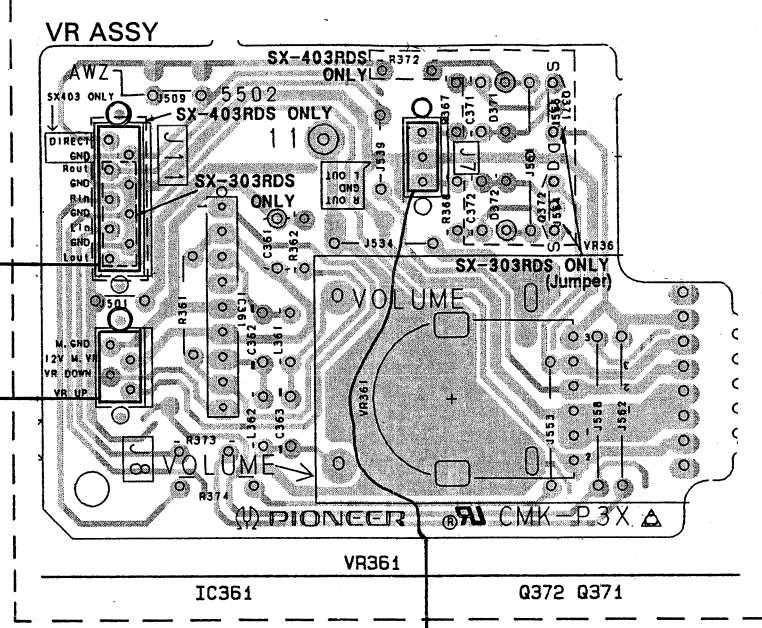
SCH-4



SCH-4

1 2 3 4 5 6

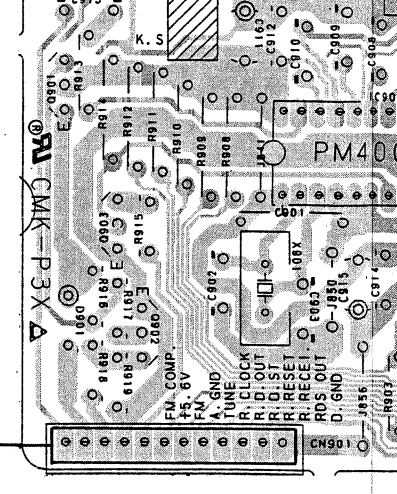
SX-403RDS AND SX-303RDS ONLY



To AF assy J11

To AF assy J8

RDS ASSY

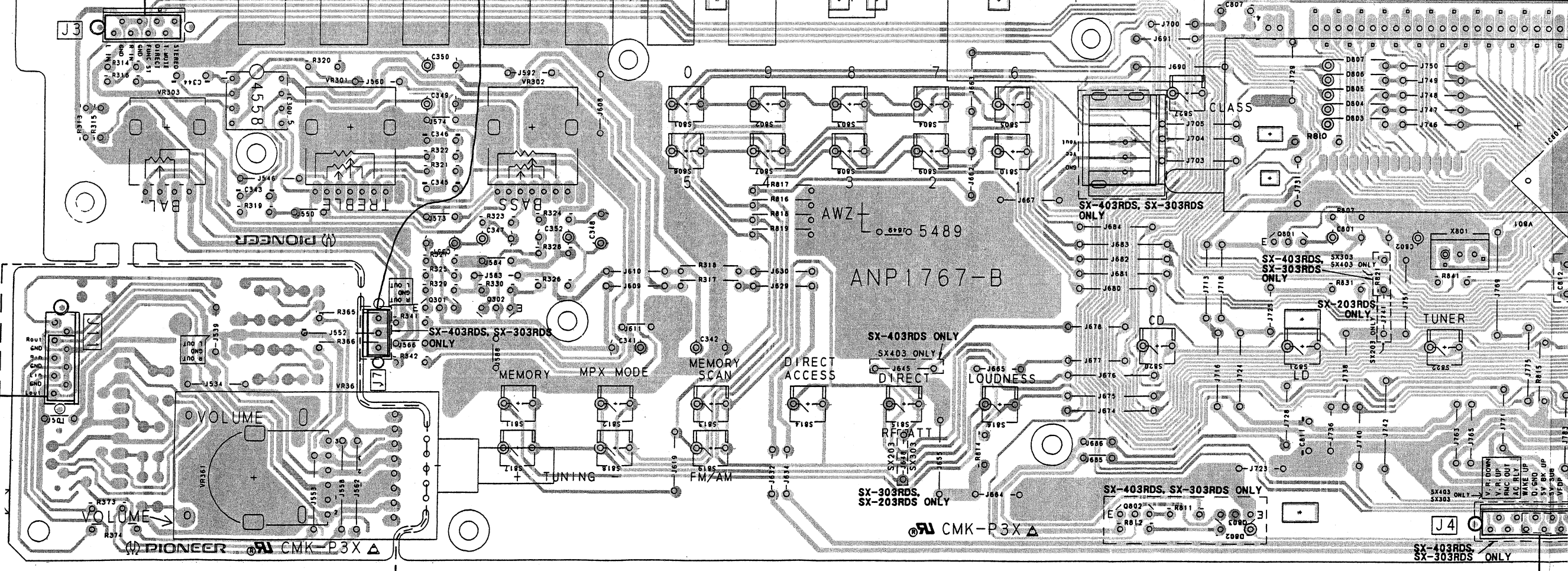


To AF assy

A

B

FRONT ASSY



To AF assy J3

SX-203RDS ONLY

C

D

To AF assy J11

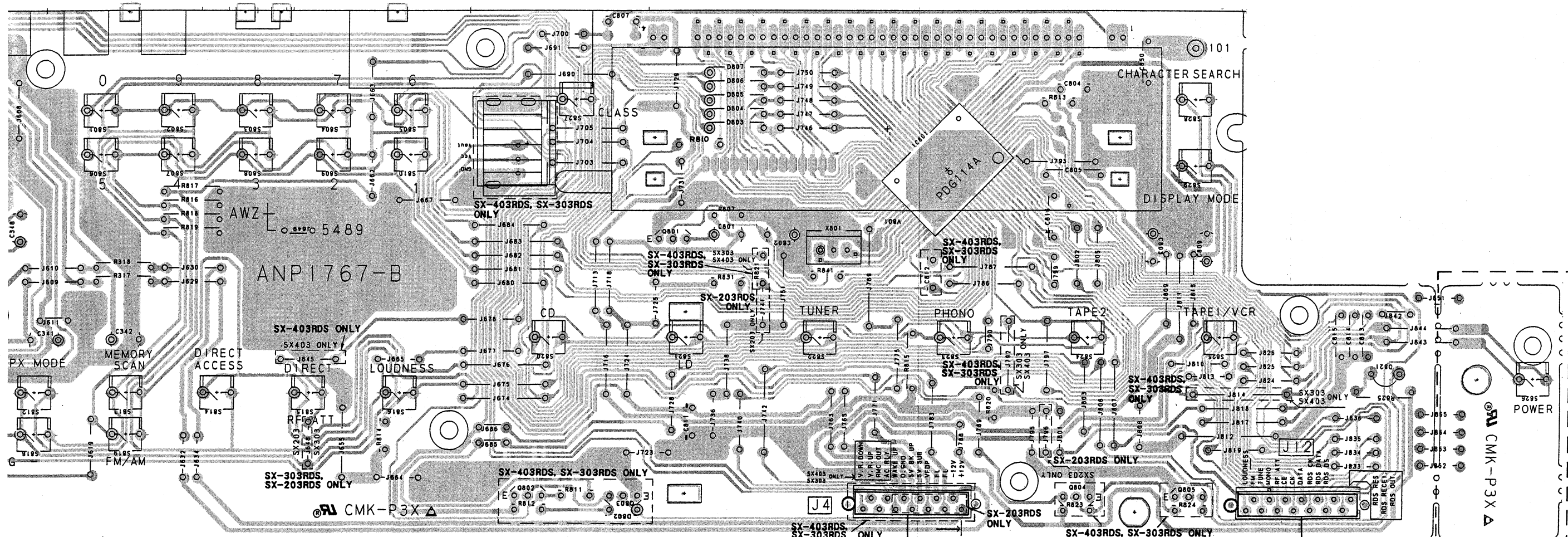
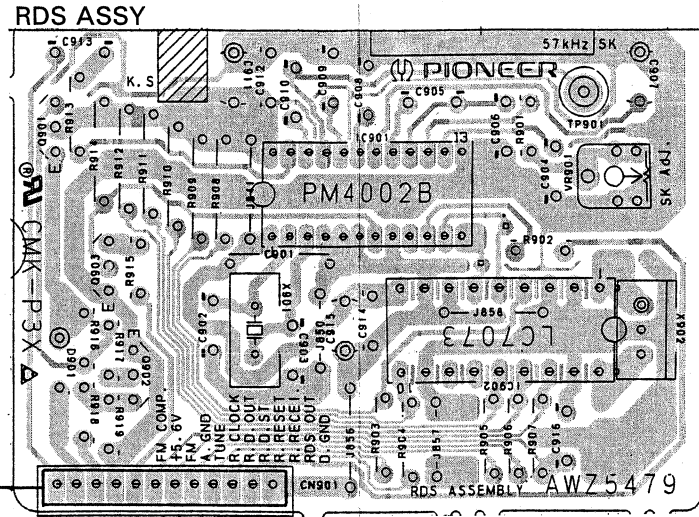
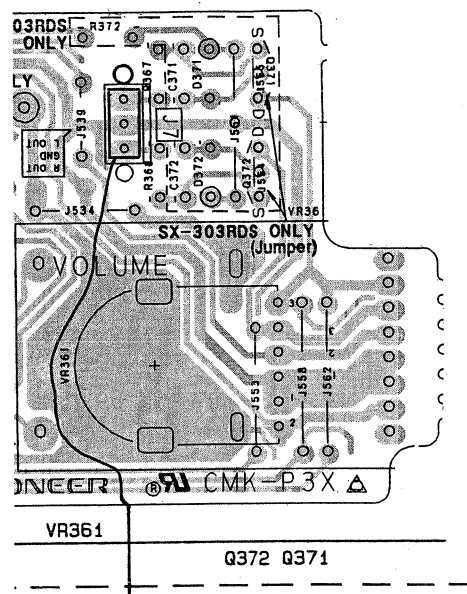
• This diagram is viewed from the mounted parts side.

1 2 3 4 5 6

SX-403RDS, SX-303RDS, SX-203RDS

PCB-3

3RDS ONLY



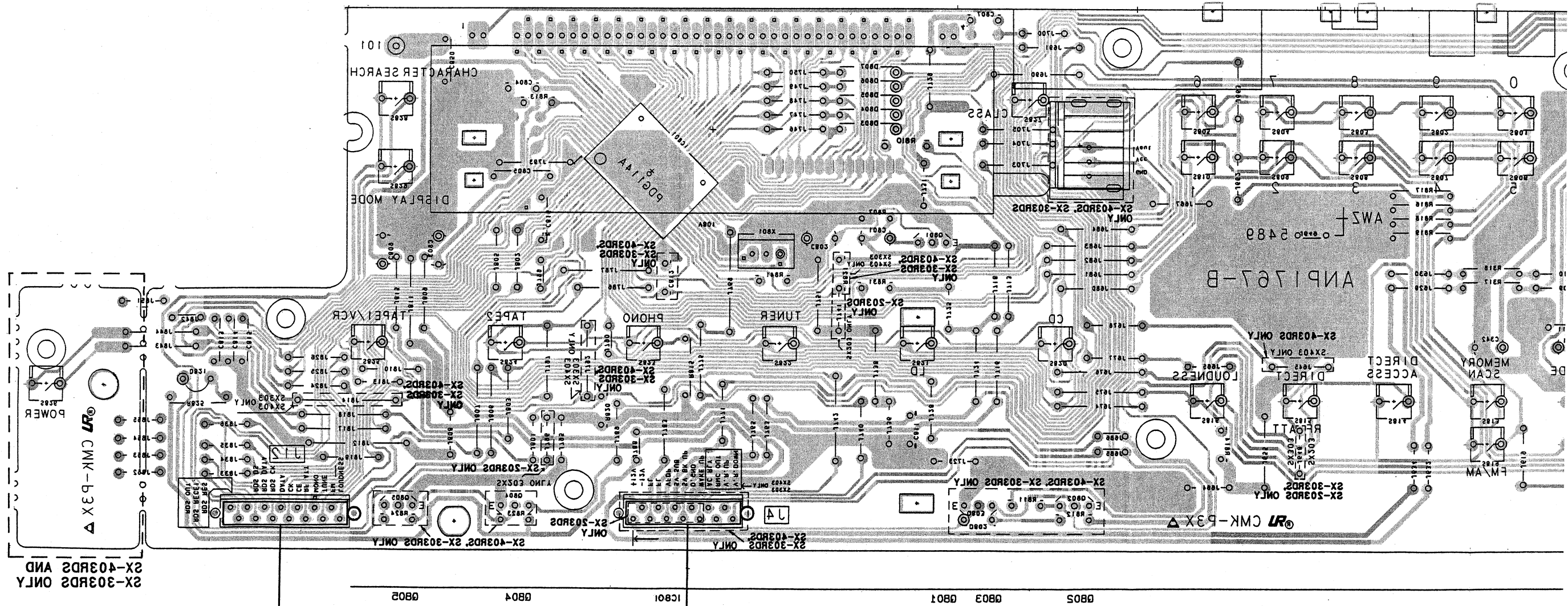
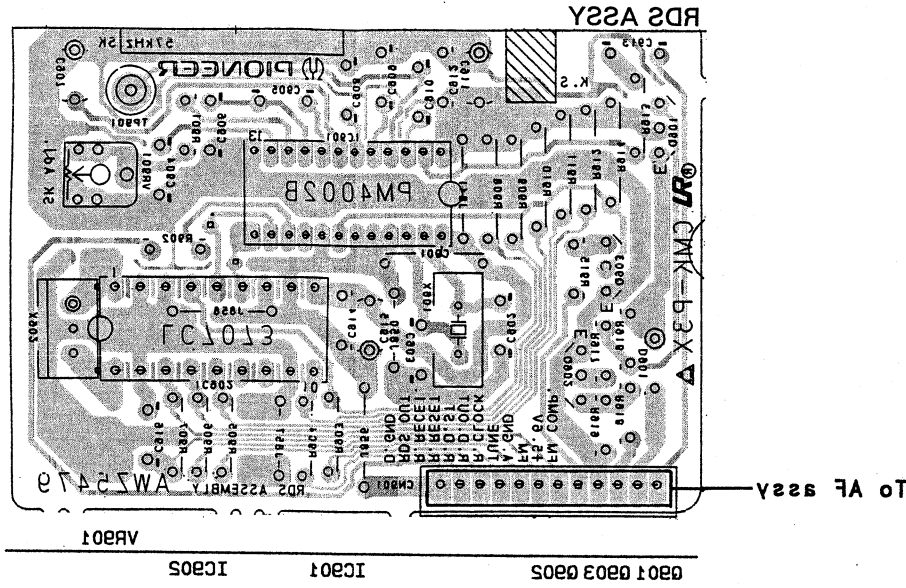
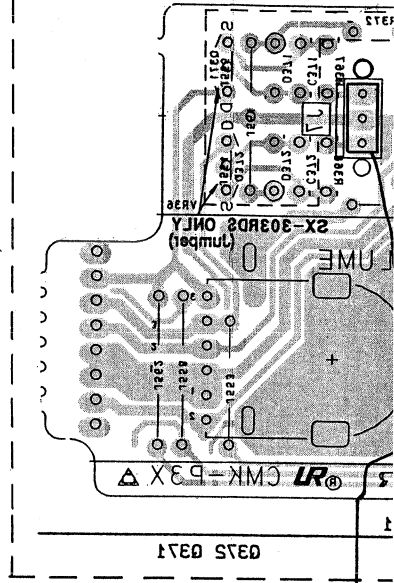
• This diagram is viewed from the mounted parts side.

To AF assy J4

To AF assy J2

SX-403RDS, SX-303RDS, SX-203RDS

ONLY



B

C

D

SX-303RDS AND SX-403RDS ONLY

To AF assy JS

To AF assy JA

● This diagram is viewed from the foil side.

SX-403RDS, SX-303RDS, SX-203RDS

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	Q523, Q524		2SC2705		C752 (SX-403RDS and SX-303RDS only)		CEAS471M25
	Q551, Q552		2SC4793		C705		CEAS471M35
	Q411, Q412 (SX-403RDS only)		2SK246		C601		CEAS471M6
	Q413, Q414		2SK246		C253, C254, C605		CEAS4R7M50
	Q402		DTA124ES				
	Q404 (SX-403RDS only)		DTA124ES		C521, C522 (For SX-403RDS)		CEEA101M16
	Q261, Q262, Q401		DTC124ES		C521, C522 (For SX-303RDS)		CEAS101M16
	Q403, Q405 (SX-403RDS only)		DTC124ES		C521, C522 (For SX-203RDS)		CEAS470M16
	Q605		DTC124ES		C501, C502 (For SX-403RDS)		CEEA2R2M50
	Q606		DTC143ES		C501, C502 (For SX-303RDS and SX-203RDS)		CEAS2R2M50
	Q751 (SX-403RDS and SX-303RDS only)		DTC143ES				
	D411, D412 (SX-403RDS only)		1SS252		C704		CEHAQ220M25
	D413, D414, D521-D524, D561		1SS252		C712		CEHAQ330M25
	D621-D624, D708-D710		1SS252		C710		CEHAQ470M10
	D707, D751, D754		1SS252		C706		CEHAQ470M35
	(SX-403RDS and SX-303RDS only)						
	D701 (For SX-403RDS)		D5SB20F		C520 (For SX-403RDS)		CEXA101M25
	D701 (For SX-303RDS and SX-203RDS)		D3SBA20 (A)		C520 (For SX-303RDS and SX-203RDS)		CEAS101M16
	D601		MTZJ12C		C561-C564		CFTXA104J50
	D705		MTZJ24D		C405, C406		CFTXA473J50
	D711		MTZJ5.6C		C243-C246, C602		CKCYF103Z50
	D706		MTZJ5.6C		C714		CKCYF473Z50
	D753 (SX-403RDS and SX-303RDS only)		MTZJ5.6C		C751, C755 (For SX-403RDS and SX-303RDS only)		CKCYX104M25
	D702, D703, D713-D715		S5566		C505, C506		CKDYG681K50
	D752 (SX-403RDS and SX-303RDS only)		S5566		C951		CKDYF103Z50
					C250		CKDYX104M25
					C952		CKDYX473M25
					C233, C234, C247, C248		CKPUYB331K50
					C249		CKPUYB471K50
					C239, C240		CQMA242J50
					C237, C238		CQMA822J50
COILS AND FILTERS							
	L251		LAU2R2J				
	L561, L562 (0.7uH)		ATH1004				
	L701, L702 (SX-403RDS only)		LAU010J				
TRANSFORMERS				RESISTORS			
	T751 (SX-403RDS and SX-303RDS only)		ATT1254	△	R561, R562 (0.33/5W)		ACN-139
SWITCHES AND RELAYS					R525, R526		RD1/2PM104J
	RY561 (For SX-403RDS)		ASR-112		R726		RD1/2PM222J
	RY561 (For SX-303RDS and SX-203RDS)		ASR1035		R752 (SX-403RDS and SX-303RDS only)		RD1/2PM470J
	RY751 (SX-403RDS and SX-303RDS only)		ASR1044		R631		RD1/4PM100J
CAPACITORS							
△	C708 (0.01/AC400V)		ACG1002		R523, R524		RD1/4PM104J
△	C754 (0.01/AC400V)		ACG1002		R609		RD1/4PM123J
	(SX-403RDS and SX-303RDS only)				R701		RD1/4PM302J
	C709 (0.01/AC150V)		ACG1005	△	R521, R522 (For SX-403RDS)		RD1/4PM911J
	C707 (0.047F/5.5)		ACH1135	△	R521, R522 (For SX-303RDS)		RD1/4PM102J
				△	R521, R522 (For SX-203RDS)		RD1/4PM122J
	C701, C702 (8200/50) (For SX-403RDS)		ACH1265	△	R563-R566		RD1/4PMF100J
	C701, C702 (6800/50) (For SX-303RDS)		ACH1105	△	R555-R558, R625		RD1/4PMF101J
	C701, C702 (5600/50) (For SX-203RDS)		ACH1266	△	R621, R622		RD1/4PMF472J
	C542 (SX-403RDS and SX-303RDS only)		CCCSL100C50	△	R527, R528		RD1/4PMF680J
	C525, C526		CCCSL050C500	△	R535, R536, R551-R554		RFA1/4PS101J
				△			
	C551-C554		CCCSL101K500	△	R723		RFA1/4PS151J
	C523, C524		CCCSL120K500	△	R724		RFA1/4PS220J
	C503, C504		CCCSL151J50	△	R509-R512		RFA1/4PS4R7J
	C403, C404		CCCSL271J50	△	R703, R704, R725		RS2LMF102J
	C411, C412 (SX-403RDS only)		CCPUSL220J50	△	R751 (SX-403RDS and SX-303RDS only)		RS2LMF221J
	C541 (SX-403RDS and SX-303RDS only)		CCPUSL470J50		R706, R707		RS2LMF272J
	C200		CEAS010M50		(For SX-403RDS and SX-303RDS)		
	C231, C232		CEAS100M50		R706, R707 (For SX-203RDS)		RS2LMF222J
	C235, C236, C603, C711		CEAS101M16		R412 (SX-403RDS only)		RD1/8PM473J
	C703		CEAS102M35		R414 (SX-403RDS only)		RD1/8PM475J
					R541, R542		RD1/8PM104J
					(SX-403RDS and SX-303RDS only)		
	C713		CEAS220M50		R543, R544 (For SX-403RDS)		RD1/8PM911J
	C241, C242, C251, C252		CEAS2R2M50		R543, R544 (For SX-303RDS)		RD1/8PM102J
	C543, C544 (SX-403RDS only)		CEAS2R2M50		Other Resistors		RD1/8PM□□□□
	C621, C622		CEAS2R2M50				
	C753 (SX-403RDS and SX-303RDS only)		CEAS470M10				

SX-403RDS, SX-303RDS, SX-203RDS

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
OTHERS				OTHERS			
		PIN JACK 6P (PHONO, CD, VCR)	AKB1121	V801	FL TUBE	AAV1195	
		PIN JACK 8P (TAPE1 PLAY/REC, TAPE2 PLAY/REC)	AKB1127		CABLE HOLDER (3P) (For SX-403RDS and SX-303RDS)	AKT1076	
		SPEAKER TERMINAL 8-P JACK (CONTROL OUT) (SX-403RDS and SX-303RDS only)	AKE-111 AKN-207	X801	(7.70MHZ) REMOTE RECEIVER UNIT (SX-403RDS and SX-303RDS only)	ASS1055 AXX1023	
CN700		AC INLET (1P)	AKP1132				
		CABLE HOLDER (9P)	AKT1082				
		HEAT SINK	ANH-575				
		SCREW	BBZ30P080FMC				
CN302		12P PLUG	KM200IA12				
FRONT ASSY				VR ASSY (SX-403RDS and SX-303RDS only)			
SEMICONDUCTORS				SEMICONDUCTORS			
		IC300	NJM4558DXP		IC361	TA8409S	
		IC801	PDG114A		Q371, Q372 (SX-403RDS only)	2SK246	
		Q301, Q302	2SC2458		D371, D372 (SX-403RDS only)	ISS252	
		Q805 (SX-403RDS and SX-303RDS only)	2SC2458				
		Q802 (SX-403RDS and SX-303RDS only)	DTA143ES				
		Q801	DTC124ES				
		Q804 (SX-403RDS and SX-303RDS only)	DTC124ES				
		Q803 (SX-403RDS and SX-303RDS only)	DTC143ES				
		D802 (SX-403RDS and SX-303RDS only)	1SS252				
		D803-D807	1SS252				
		D821 (RED)	AEL1148				
SWITCHES AND RELAYS				COILS AND FILTERS			
		S801-S825, S827-S829	ASG1029		L361, L362	LAU101K	
		S826 (SX-403RDS and SX-303RDS only)	ASG1029				
CAPACITORS				CAPACITORS			
		C343, C344	CCDSL151J50		C371, C372 (SX-403RDS only)	CCPUSL220J50	
		C349, C350	CEAS100M50		C361	CEAS470M16	
		C351, C352, C802	CEJA0R1M50		C362, C363	CKPUYF473Z16	
		C809	CEJA100M50				
		C803	CEJA221M10				
		C341, C342	CEJA470M16				
		C347, C348, C801	CEJAR47M50				
		C345, C346	CFTXA153J50				
		C811	CKDYX104M25				
		C813-C815	CKPUYB101K50				
		C807	CKPUYB102K50				
		C804, C850	CKPUYF103Z25				
		C805, C816	CKPUYF473Z16				
		C812 (SX-403RDS and SX-303RDS only)	CKPUYF473Z16				
RESISTORS				RESISTORS			
		VR303 (500k-B)	ACS1016		VR361 (100k-A5x2)	ACX1069	
		VR301, VR302 (30k-B5x2)	ACS1106		R372 (SX-403RDS only)	RD1/8PM475J	
		VR361 (SX-203RDS only)	ACT1071		Other Resistors	RD1/8PM□□□□	
		R825	RD1/4PM221J				
		R365, R366 (SX-203RDS only)	RD1/8PM102J				
		R373, R374 (SX-203RDS only)	RD1/8PM682J				
		R811, R812, R824 (SX-403RDS and SX-303RDS only)	RD1/8PM472J				
		R821 (SX-403RDS and SX-303RDS only)	RD1/8PM473J				
		R823 (SX-403RDS and SX-303RDS only)	RD1/8PM562J				
		Other Resistors	RD1/8PM□□□□				
				OTHERS			
					CABLE HOLDER (3P)	AKT1076	
				POWER SW ASSY (SX-203RDS only)			
				CAPACITORS			
					C651 (0.01/AC400V)	ACG1003	
				SWITCHES AND RELAYS			
					S651	ASG1035	
				FM/AM TUNER MODULE			
				SEMICONDUCTORS			
					IC6201	LA1836M	
					IC6202	LM7001J	
					Q6102	2SC2223	
					Q6203	2SC2235	
					Q6202	2SC2712	
					Q6103, Q6214	2SC2714	
					Q6201	2SK208	
					Q6104, Q6105	2SK302	
					Q6101	3SK194	
					Q6204	XDA124EK	
					Q6215, Q6217	XDC124EK	
					D6101, D6102, D6104	1SV228	
					D6201	HVU187	
				COILS AND FILTERS			
					L6106	ATC1003	
					L6101	ATC1016	
					L6102	ATC1017	
					L6103	ATC1018	
					L6104	ATC1019	

SX-403RDS, SX-303RDS, SX-203RDS

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	T6101		ATE-063		R6237		RS1/8S182J
	L6207 (F=10.7MHZ)		ATE1013		R6209		RS1/8S221J
	F6204		ATF-107		R6239		RS1/8S332J
	F6203		ATF-119		R6112		RS1/8S473J
	F6202 (F=450KHZ)		ATF1155		Other Resistors		RS1/10S□□□J
	L6107		ATH1043	OTHERS			
	L6209		LCTA221J3225		2P TERMINAL WITH PAL		AKA1017
	L6201, L6202, L6203, L6208		LCTA2R2J3225	X6203 (7.200MHZ)			ASS1042
CAPACITORS				X6201 (456kHZ)			ASS1066
	C6234, C6236, C6254, C6269		ACG1051	X6202 (450kHZ)		AM RF TUNING BLOCK	ATF1027
	C6235		ACG1052				AXX1041
	C6120		CCSCH060D50				
	C6229		CCSCH821J50				
	C6111		CCSQCH010C50				
	C6112, C6122		CCSQCH020C50				
	C6118		CCSQCH080D50				
	C6113, C6203		CCSQCH101J50				
	C6116, C6208, C6221, C6222		CCSQCH150J50				
	C6117		CCSQCH330J50				
	C6105		CCSQSL471J50				
	C6101		CCSQTH110J50				
	C6119		CCSQTH150J50				
	C6106, C6107		CCSQTH270J50				
	C6262		CEAS100M50				
	C6231, C6233		CEAS3R3M50				
	C6216, C6217		CEAS330M16				
	C6219		CEAS470M10				
	C6243, C6244, C6245		CEAS470M16				
	C6227		CEAS470M25				
	C6246		CEEA100M50				
	C6224		CEEA101M25				
	C6261		CEJA010M50				
	C6238		CEJA100M16				
	C6249, C6250		CEJA4R7M35				
	C6215		CFTXA103J50				
	C6214		CFTXA224J50				
	C6125, C6204, C6207		CKSQYB102K50				
	C6102, C6114, C6115, C6121, C6124		CKSQYB103K50				
	C6210, C6253, C6264		CKSQYB103K50				
	C6213		CKSQYB223K50				
	C6230		CKSQYB273K50				
	C6228		CKSQYB472K50				
	C6209, C6237		CKSQYB473K50				
	C6251, C6252		CKSQYB682K50				
	C6212, C6218		CKSQYF103Z50				
	C6220, C6226, C6239, C6242, C6255		CKSQYF223Z50				
	C6241		CKSQYF473Z50				
	C6123		CKSYB103K50				
	C6232		CKSYB273K50				
	C6223		CKSYF103Z50				
	C6263		CKSYF473Z50				
RESISTORS							
	VR6201 (10k)		ACP1056				
	VR6202		VRTB6VS223				
	R6299, R6300		RD1/8PM102J				
	R6115, R6119, R6123, R6127, R6268		RS1/8S000J				
	R6269-R6273, R6275, R6276, R6278		RS1/8S000J				
	R6283, R6284, R6289, R6290, R6293		RS1/8S000J				
	R6294, R6297, R6303		RS1/8S000J				
	R6243, R6244		RS1/8S101J				
	R6211		RS1/8S103J				
	R6247		RS1/8S152J				

5. ADJUSTMENTS

■ FM TUNER SECTION

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

Step No.	Adjustment Title	FM SG (1kHz, ± 75 kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB μ V)			
1	Center Adjustment	98 Non modulation	80 or more	98MHz	L6207	Adjust so that the DC voltage between Pin 4 and Pin 28 (or \oplus leads of C6224 and C6261) of IC6201 becomes $0V \pm 50mV$.
2	Front End Sensitivity	98	10-30	98MHz	L6104 L6105*1 L6102 T6101	Adjust so that the DC voltage between Pin12 (or \oplus leads of C6238) of IC6201 (S-meter) and GND becomes at maximum level.
3	TUNED IND. Lighting Level	98	15 ± 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.
4	SK Level Adjustment	88 EXTERNAL *2 (RDS SG)	60	88MHz NORMAL (RF ATT ON)	VR901	Adjust so that the output level 57kHz between TP901 and GND becomes maximum.

*1 : HEWZXX type only

*2 : RDS SG (AUDIO, PILOT, RDS, BK and DK: OFF, SK: ON)

Notes:

- Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.
- Make indicator adjustments in order of AM \rightarrow FM.

■ AM TUNER SECTION

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

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

SX-403RDS, SX-303RDS, SX-203RDS

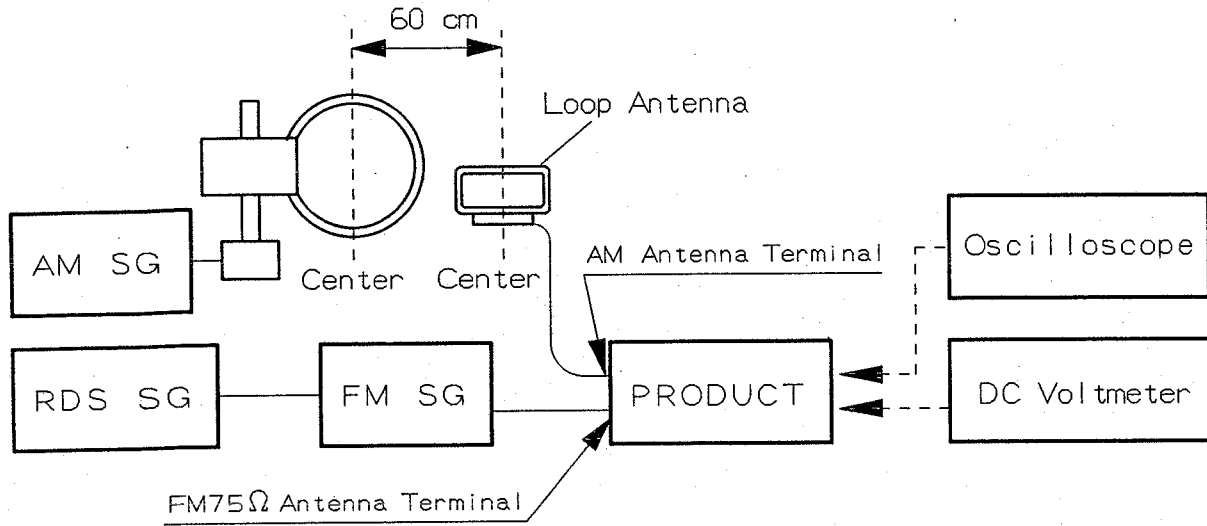
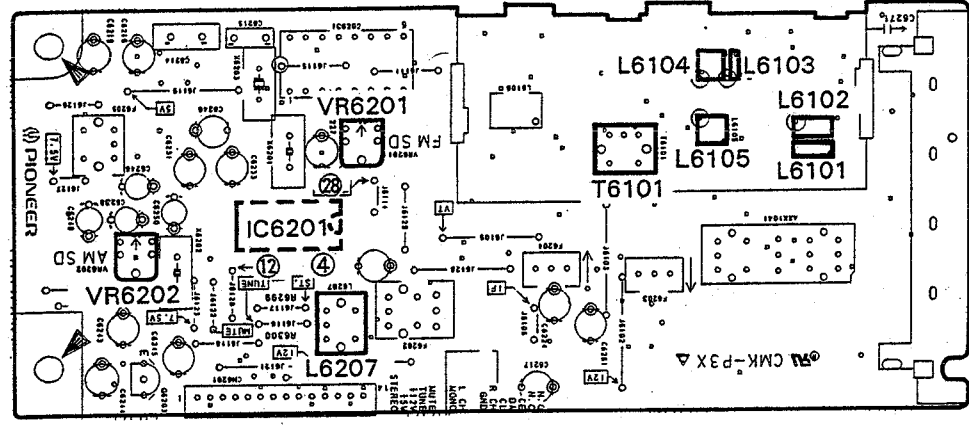


Fig. 1 FM and AM Adjustment Wiring Diagram

FM/AM TUNER MODULE



RDS Assy

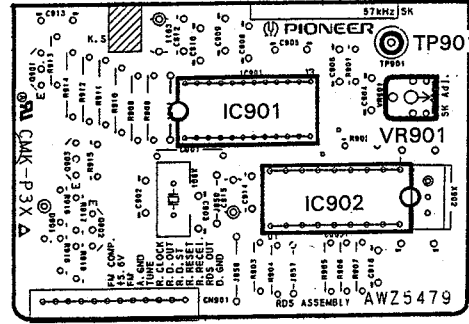


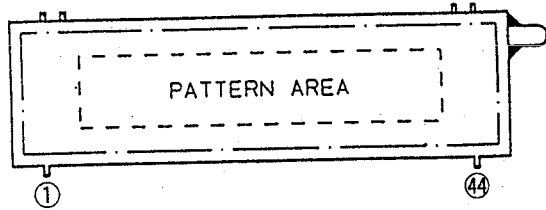
Fig. 2 Adjustment Points

SX-403RDS, SX-303RDS, SX-203RDS

6. FL INFORMATION

● **AAV1195(V801)**

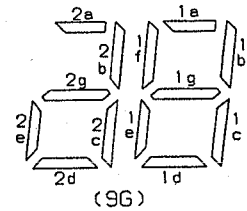
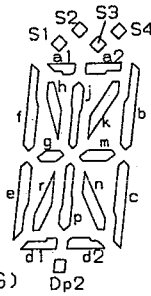
PIN LOCATION



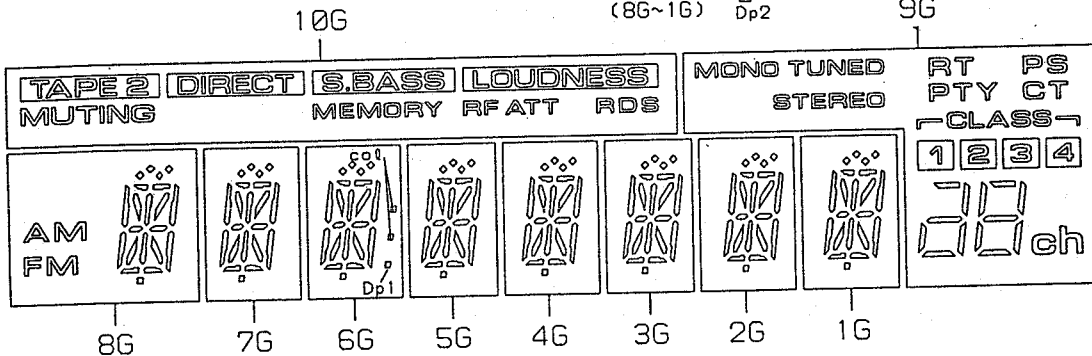
PIN CONNECTION

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	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44							
CONNECTION	F	F	N	N	0	9	8	7	6	5	4	3	2	1	N	N	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	N	N	F	F	2	2
	1	1	P	P	G	G	G	G	G	G	G	G	C	C	4	3	2	1	0	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1	0	9	8

- NOTE**
- 1) F1, F2 --- Filament
 - 2) NP ----- No pin
 - 3) NC ----- No connection
 - 4) DL ----- Datum Line
 - 5) 1G~10G --- Grid



GRID ASSIGNMENT



ANODE CONNECTION


	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	-	TUNED	S1	S1	S1	S1	S1	S1	S1	S1
P2	-	STEREO	S2	S2	S2	S2	S2	S2	S2	S2
P3	-	[2]	S4	S4	S4	S4	S4	S4	S4	S4
P4	-	[3]	S3	S3	S3	S3	S3	S3	S3	S3
P5	MEMORY	MONO	a1	a1	a1	a1	a1	a1	a1	a1
P6	RFATT	[4]	a2	a2	a2	a2	a2	a2	a2	a2
P7	-	[CLASS]	h	h	h	h	h	h	h	h
P8	-	[1]	j	j	j	j	j	j	j	j
P9	[TAPE 2]	2b	b	b	b	b	b	b	b	b
P10	-	RT	k	k	k	k	k	k	k	k
P11	MUTING	1a	g	g	g	g	g	g	g	g
P12	[LOUDNESS]	1b	f	f	f	f	f	f	f	f
P13	-	2c	m	m	m	m	m	m	m	m
P14	-	CT	c	c	c	c	c	c	c	c
P15	-	PTY	p	p	p	p	p	p	p	p
P16	-	PS	r	r	r	r	r	r	r	r
P17	-	1g	n	n	n	n	n	n	n	n
P18	[S.BASS]	1e	d1	d1	d1	d1	d1	d1	d1	d1
P19	[DIRECT]	1c	e	e	e	e	e	e	e	e
P20	RDS	1d	d2	d2	d2	d2	d2	d2	d2	d2
P21	-	1f	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2
P22	-	Ch	AM	-	col	-	-	-	-	-
P23	-	2a, 2d, 2g	FM	-	Dp1	-	-	-	-	-
P24	-	2e	-	-	-	-	-	-	-	-



7. IC INFORMATION

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

■ PDG114A (IC801) CONTROL MICROCOMPUTER

● Pin Function

No.	NAME	I/O	FUNCTION	ACT
1	RDS DATA	I	Data from LC7073 input	—
2	REMOCON	I	Remote control signal input	—
3	RDS DATA START	I	Synchronizing signal of each block from LC7073 input	—
4	RDS RESET	O	Reset signal output to LC7073 when receiving frequency converted	
5	FM	O	FM BAND select output	H
6	RF ATT	O	RF ATT ON/OFF output	H
7	MONO	O	FM MONO output	H
8	TUNE	I	TUNE indicator signal input	L
9	STEREO	I	STEREO indicator signal input	L
10	RDS RECEIVE	I	Signal showing RDS station or not input	L
11	DIRECT	O	DIRECT ON/OFF (Receiver only) *1	H
12	LW be or not	I	L: LW not being H: LW being (Tuner only) *1	—
13	LOUDNESS	O	LOUDNESS ON/OFF (Receiver only) *1	H
14	K10	I	KEYSCAN input 0	H
15	K11	I	KEYSCAN input 1	H
16	K12	I	KEYSCAN input 2	H
17	K13	I	KEYSCAN input 3	H
18	K14	I	KEYSCAN input 4	H
19	RECEIVER/ TUNER	I	Change-over of RECEIVER/ TUNER (L: Tuner H: Receiver)	—
20	K15	I	KEYSCAN input 5 (Receiver only) *1	H
21	K16	I	KEYSCAN input 6 (Receiver only) *1	H
22	REMOCON be or not	I	Change-over of destination (Receiver only) *1	H

No.	NAME	I/O	FUNCTION	ACT
23	NC		Not used	H
24	FUNCTION ST	O	Change-over of FUNCTION IC (TC9164N) Strobe (Receiver only) *1	
25	MUTE	O	TUNER, MUTE control output	H
26	VOL UP	O	VOLUME UP output	H
27	VOL DOWN	O	VOLUME DOWN output	H
28	Rotary input	O	Rotary encoder input A (Tuner only) *1	H
29	Rotary input	O	Rotary encoder input B (Tuner only) *1	H
30	$\overline{\text{RST}}$	I	Reset input	
31	EX' TAL		Connecting 7.7 MHz oscillation crystal between pins	—
32	X' TAL			—
33	Vss		GND standard electric potential	—
34	NC		Not used	—
35	FL AC	O	FL AC ON/OFF	L
36	POWER	O	POWER ON/OFF	H
37	Seg 17	O	Segment indication output	H
38	Seg 18	O		
39	Seg 20	O		
40	Seg 19	O		
41	Seg 1	O		
42	Seg 2	O		
43	Seg 10	O		
44	Seg 11	O		
45	Seg 3	O		
46	Seg 12	O		
47	K00/S9	O	Segment indication output / KEYSCAN output	H

SX-403RDS, SX-303RDS, SX-203RDS

No.	NAME	I/O	FUNCTION	ACT
48	K01/S8	O	Segment indication output / KEYSCAN output	H
49	K02/S13	O		
50	K03/S4	O		
51	K04/S15	O		
52	Seg 16	O	Segment indication output	H
53	Seg 14	O		
54	Seg 6	O		
55	Seg 7	O		
56	Seg 5	O		
57	Seg 21	O		
58	Seg 22	O		
59	Seg 23	O	Segment indication output (Receiver only) *1	H
60	Seg 24	O		
61	R: G 1 T: G 10	O	Grid FL indication output	H
62	R: G 2 T: G 9	O		
63	R: G 3 T: G 8	O		
64	R: G 4 T: G 7	O		
65	R: G 5 T: G 6	O		
66	R: G 6 T: G 1	O		
67	R: G 7 T: G 2	O		
68	R: G 8 T: G 3	O		
69	R: G 9 T: G 4	O		
70	R: G 10 T: G 5	O		

No.	NAME	I/O	FUNCTION	ACT
71	-VFDP		Electric potential for FL display (-30 V)	—
72	V _{DD}		+5 V Power source input	—
73	NC		+5 V Power source input	—
74	TEST	I	TEST MODE judgement input	H
75	PLL_DT	O	PLL communication data output (LM7001) and change-over function (TC9164N)	—
76	PLL_CK	O	PLL communication clock output (LM7001) and change-over function (TC9164N)	—
77	PLL_CE	O	PLL communication chip enable output (LM7001)	H
78	RDS_CK	I	Each bit from LC7073 synchronizing clock input	—
79	AC	I	WAKE • UP AC pulse input	—
80	RDS_OUT	I	Judging RDS signals output or not	L

*1 : Functions will be changed according to setting (L or H) of Pin 19.

SX-403RDS, SX-303RDS, SX-203RDS

AF ASSY (For SX-303RDS)

AWZ5623, AWZ5487 and AWZ5484 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ5484	AWZ5623	AWZ5487	
△	RY751	ASR1044	ASR1027	ASR1044	
△	L751	.....	.....	ATF-151	
	L981-L984	.....	.....	ATH-133	
	C201, C202	.....	.....	CKPUYB181K50	
	C203-C210, C213-C224	.....	.....	CKPUYB391K50	
	C211, C212	.....	.....	CKPUYB821K50	
	C527, C528	.....	.....	CKPUYB331K50	
	C555, C556	.....	.....	CKDYB103K500	
	C981, C982	.....	.....	CKDYB471K50	
	C983, C984, C987, C988	.....	.....	CFTXA473J50	
	C985, C986	.....	.....	CKDYF103Z50	
	C991-C994	.....	.....	CCDSL560J50	
△	R211, R212	RD1/8PM331J	RD1/8PM331J	RD1/8PM102J	
	R563, R564	RD1/4PMF100J	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	.....	.....	RD1/4PMF100J	
	CN700 AC inlet (1P)	AKP1132	AKP1133	AKP1132	

AF ASSY (For SX-203RDS)

AWZ5622, AWZ5482 and AWZ5476 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ5476	AWZ5622	AWZ5482	
△	L751	.....	.....	ATF-151	
	L981-L984	.....	.....	ATH-133	
	C201, C202	.....	.....	CKPUYB181K50	
	C203-C210, C213-C224	.....	.....	CKPUYB391K50	
	C211, C212	.....	.....	CKPUYB821K50	
	C527, C528	.....	.....	CKPUYB331K50	
	C555, C556	.....	.....	CKDYB103K500	
	C981, C982	.....	.....	CKDYB471K50	
	C983, C984, C987, C988	.....	.....	CFTXA473J50	
	C985, C986	.....	.....	CKDYF103Z50	
	C991-C994	.....	.....	CCDSL560J50	
△	R211, R212	RD1/8PM331J	RD1/8PM331J	RD1/8PM102J	
	R563, R564	RD1/4PMF100J	RD1/4PMF100J	RD1/4PMF101J	
	R983, R984, R987, R988	.....	.....	RD1/4PMF100J	
	CN700 AC inlet (1P)	AKP1132	AKP1133	AKP1132	

SX-403RDS, SX-303RDS, SX-203RDS

FM/AM TUNER MODULE

AXQ3228 and AXQ3227 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AXQ3227	AXQ3228	
Q6218		2SC2712	
D6103		1SV228	
F6205		ATF1152	
L6105		ATC1015	
L6205		LCTA680J3225	
C6106		CCSQTH270J50	CCSQTH330J50	
C6107		CCSQTH270J50	CCSQTH300J50	
C6109		CCSQTH270J50	
C6110		CCSQTH300J50	
C6115		CKSQYB103K50	CKSQYB102K50	
C6122		CCSQCH020C50	CCSQCH010C50	
C6126		CKSQYB102K50	
C6203		CCSQCH101J50	.....
C6204		CKSQYB102K50	ACG1051	
C6229		CCSCH821J50	CCSCH102J50	
C6247		CKSQYB122K50	
C6248		CBEA100M50	
C6251, C6252		CKSQYB682K50	CKSQYB562K50	
C6256		CKSQYF223Z50	
C6267		CKSQYB473K50	
C6272		CCSQSL330J50	
R6114		RS1/10S473J	
R6122		RS1/10S472J	RS1/10S332J	
R6129, R6302		RS1/8S000J	
R6131, R6308		RS1/10S000J	.....
R6232		RS1/10S134J	
R6233		RS1/10S513J	
R6234		RS1/10S222J	
R6235		RS1/10S132J	
R6236		RS1/10S472J	
R6237		RS1/8S182J	RS1/8S122J	
R6238		RS1/10S182J	RS1/10S122J	
R6239		RS1/8S332J	RS1/8S103J	
R6240		RS1/10S332J	RS1/10S103J	
R6251		RS1/10S620J	RS1/10S680J	
R6290		RS1/8S000J	.....

SX-403RDS, SX-303RDS, SX-203RDS

TRANS ASSY

AWZ5490 and AWZ5480 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5480	AWZ5490	
C101		CQMXA103J100	CQMXA473J100	

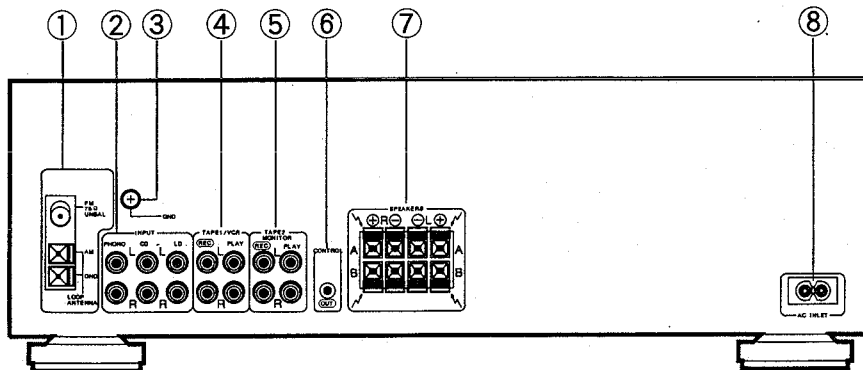
SP SW ASSY

AWZ5483 and AWZ5478 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ5478	AWZ5483	
C571, C572 C573, C574		CKDYB222K50 CCDSL101J50	

9. PANEL FACILITIES

9.1 REAR PANEL FACILITIES



• The illustration shows SX-403RDS.

① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② INPUT jacks

PHONO Connect to the output cables from a turntable.
CD Connect to the output jacks of a compact disc player.
LD Connect to the output jacks of a LD player.

③ GND terminal

Connect to the ground lead of a turntable.
 Use a screwdriver to connect with the ground terminal.


④ TAPE 1/VCR jacks


Connect these jacks to the cassette deck or video cassette recorder.

⑤ TAPE 2 MONITOR jacks

Connect these jacks to the cassette deck.

⑥ CONTROL OUT jacks (SX-403RDS and SX-303RDS)

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

- ① To the CONTROL IN jack of other component.
- ② Receiver
- ③ Pioneer component bearing the  mark.
- ④ Remote control unit.

⑦ SPEAKERS terminals

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

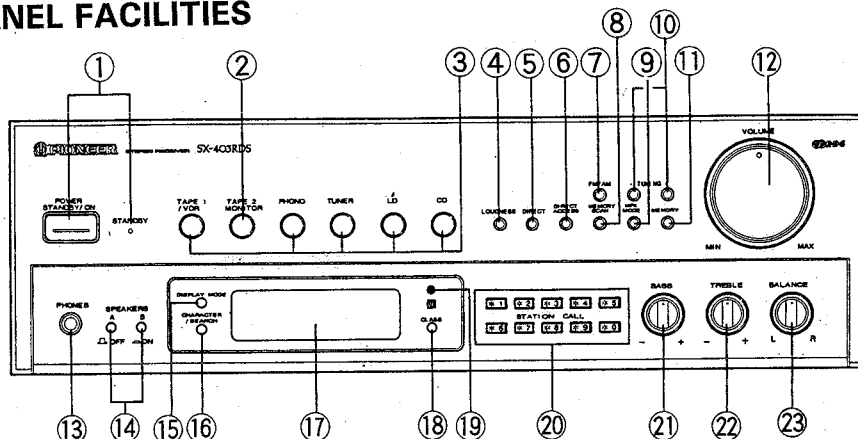
NOTE:

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.

⑧ AC INLET

Connect the power cord first to the unit, then plug it into the AC wall outlet.

9.2 FRONT PANEL FACILITIES



• The illustration shows SX-403RDS.

① POWER (STANDBY/ON) switch/STANDBY indicator (SX-403RDS, SX-303RDS)

This is the switch for electric power.

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

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

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

NOTE:

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

① POWER switch/indicator (SX-203RDS)

When this switch is pressed, the indicator showing power is being supplied lights up.

Press the switch again to turn power OFF.

[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 approx 5 seconds.

② TAPE 2 MONITOR button

Press when listening to tape playback with the cassette deck 2.

③ Function buttons

Use to select playback source.

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

[PHONO] — Press when listening to record playback on a turntable.

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

[LD] — Press when listening to laser disc with a laser disc player.

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

④ LOUDNESS button

Use when listening at low volume levels.

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

OFF: Normal position.

NOTE:

This button does not operate when the DIRECT button is in the ON position (SX-403RDS).

⑤ DIRECT button (SX-403RDS)

Use this button when you do not wish to pass the output from input terminal through the various frequency adjusting circuits (TREBLE, BASS and LOUDNESS). When this button is on, the BALANCE control does not operate.

⑤ RF ATT button (SX-303RDS/SX-203RDS)

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

Normally, this button should be set to OFF.

This button has no effect on reception of AM broadcasts.

NOTE:

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

⑥ 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.

⑦ FM/AM selector button

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

⑧ MEMORY SCAN button

This button is used for station memory scan.

MEMORY SCAN is not executed at the time of SLEEP timer operation.

⑨ MPX MODE selector 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 is lighted.

Auto stereo mode:

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

Monaural mode:

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

NOTE:

This button has no effect on reception of AM broadcasts.

SX-403RDS, SX-303RDS, SX-203RDS

⑩ TUNING buttons (-, +)

Use for tuning. Press the buttons to change the frequency display (3-speed Accel Tuning) in the Manual Name input mode and PTY search mode, use to select characters and program types.

⑪ MEMORY button

When the unit is in the frequency display mode, pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.

NOTE:

The MEMORY button does not function during SLEEP timer operation.

⑫ VOLUME control

Use to adjust volume level.

⑬ PHONES jack

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

⑭ SPEAKERS (OFF, ON) buttons

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

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

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

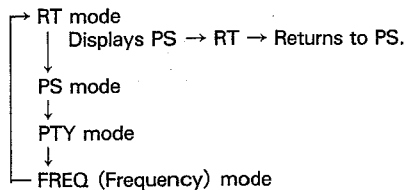
- Turn both A and B speakers to OFF position when only the headphones are in use.

NOTE:

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

⑮ DISPLAY MODE button

Use only during FM reception. Use this to switch between display modes. Each time you press it, the display changes as follows.



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

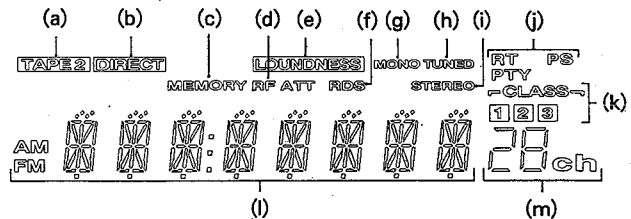
⑯ CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, PS modes: Press the button, "INPUT" is displayed, and the mode switches to manual station name input.

When in the FM PTY mode:

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

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



⑰ OPERATION DISPLAY panel

- (a) TAPE 2 monitor indicator
- (b) DIRECT indicator (SX-403RDS)
- (c) MEMORY indicator
- (d) RF ATT indicator
- (e) LOUDNESS indicator
- (f) RDS indicator
- (g) MONO indicator
- (h) TUNED indicator
- (i) STEREO indicator
- (j) RT, PS, PTY indicator
- (k) CLASS indicator
- (l) Frequency, function, character display
- (m) Channel display

⑱ CLASS button

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

⑲ Remote sensor

⑳ STATION CALL buttons

These buttons are used to preset and recall desired broadcasting stations and direct access tuning.

㉑ BASS tone control

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

NOTE:

This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

㉒ TREBLE tone control

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

NOTE:

This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

㉓ BALANCE control

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

NOTE:

This control does not operate when the DIRECT button is in the ON position. (SX-403RDS)

10. SPECIFICATIONS

Amplifier Section

Continuous Power Output (DIN)	
(SX-403RDS) 1 kHz, T.H.D. 1%, 4 Ω	85 W + 85 W
(SX-303RDS) 1 kHz, T.H.D. 1%, 4 Ω	60 W + 60 W
(SX-203RDS) 1 kHz, T.H.D. 1%, 4 Ω	40 W + 40 W
Continuous Power Output (both channel driven)*	
(SX-403RDS) 20 Hz - 20 kHz, T.H.D. 0.07%, 8 Ω ...	60 W + 60 W
(SX-303RDS) 40 Hz - 20 kHz, T.H.D. 0.09%, 8 Ω ...	50 W + 50 W
(SX-203RDS) 40 Hz - 20 kHz, T.H.D. 0.09%, 8 Ω ...	35 W + 35 W
Dynamic power output (with EIA test signal)	
(SX-403RDS) 2/4/8 Ω	120 W/110 W/80 W
(SX-303RDS) 4/8 Ω	90 W/70 W
(SX-203RDS) 4/8 Ω	60 W/50 W
Input (Sensitivity/Impedance)	
PHONO	2.5 mV/47 k Ω
CD, LD, TAPE 1/VCR, TAPE 2	200 mV/22 k Ω
Phono Overload Level (T.H.D. 0.1%, 1 kHz)	
PHONO	100 mV
Output (Level/Impedance)	
TAPE 1/VCR REC, TAPE 2 REC MONITOR	200 mV/2.2 k Ω
Frequency Response	
PHONO (RIAA Equalization)	20 Hz to 20,000 Hz \pm 0.5 dB
CD, LD, TAPE 1/VCR, TAPE 2	10 Hz to 70,000 Hz \pm 0.5 dB
Signal-to-Noise Ratio (IHF, short circuited, A network)	
(SX-403RDS)	
PHONO MM	81 dB
(SX-303RDS/SX-203RDS)	
PHONO	72 dB
(SX-403RDS)	
CD, LD, TAPE 1/VCR, TAPE 2 (DIRECT ON)	105 dB
TAPE 2 (DIRECT OFF)	100 dB
(SX-303RDS/SX-203RDS)	
CD, LD, TAPE 1/VCR, TAPE 2	96 dB
Tone control	
BASS	\pm 10 dB (100 Hz)
TREBLE	\pm 10 dB (10 kHz)
LOUDNESS	+6 dB (100 Hz at -40dB)
	+4 dB (10 kHz at -40dB)

FM Tuner Section

Frequency range	87.5 MHz to 108 MHz
Usable Sensitivity	14.2 dBf, IHF (1.4 μ V/75 Ω)
Sensitivity (DIN)	
MONO	1.0 μ V/75 Ω
STEREO	50 μ V/75 Ω
Signal-to-Noise Ratio	
MONO	74 dB (at 80 dBf)
STEREO	72 dB (at 80 dBf)
Signal-to-Noise Ratio (DIN)	
MONO	60 dB
STEREO	58 dB
Distortion	
STEREO	0.6% (1 kHz)
Alternate Channel Selectivity	65 dB (400 kHz)
Stereo Separation	40 dB (1 kHz)
Frequency Response	30 Hz to 15 kHz (\pm 1 dB)
Antenna Input	75 Ω unbalanced

AM Tuner Section

Frequency range	531 kHz to 1,602 kHz
Sensitivity	
IHF, Loop antenna	350 μ V/m
Selectivity	25 dB
Signal-to-Noise Ratio	45 dB
Antenna	AM Loop Antenna

Miscellaneous

Power Requirements	a.c. 220-230 Volts, 50 Hz
Power Consumption (SX-403RDS)	460 W
(SX-303RDS)	290 W
(SX-203RDS)	190 W
Dimensions	420 (W) X 140 (H) X 297.5 (D) mm
Weight (without package) (SX-403RDS)	6.8 kg
(SX-303RDS)	5.6 kg
(SX-203RDS)	4.9 kg

Furnished Parts

FM Antenna	1
AM Loop Antenna	1
Remote control unit (except for SX-203RDS)	1
Dry cell batteries (size "AA" (R6P)) (except for SX-203RDS)	2
Power cord	1
Operating Instructions	1

NOTE:

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

* Measured By Audio Spectrum Analyzer.