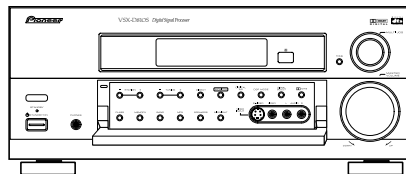


Service Manual

Pioneer



ORDER NO.
RRV2431

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D810S

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

Type	Model	Power Requirement	Remarks
	VSX-D810S		
KUXJI	○	AC120V	
KCXJI	○	AC120V	

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PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
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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

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

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.

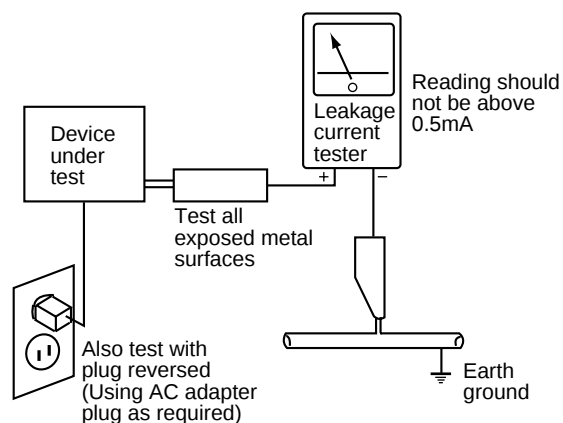
(FOR USA MODEL ONLY)

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.

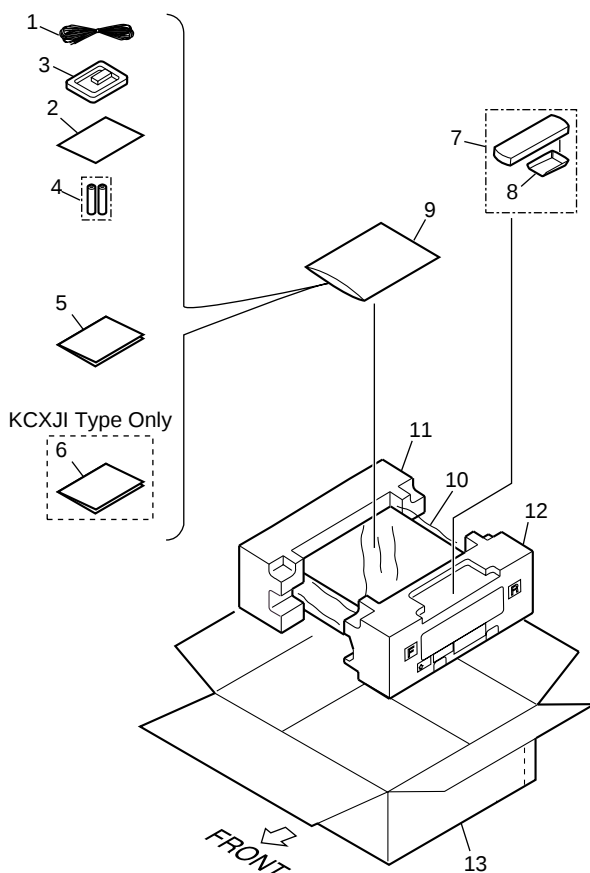
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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

2.1 PACKING



(1) PACKING PARTS LIST

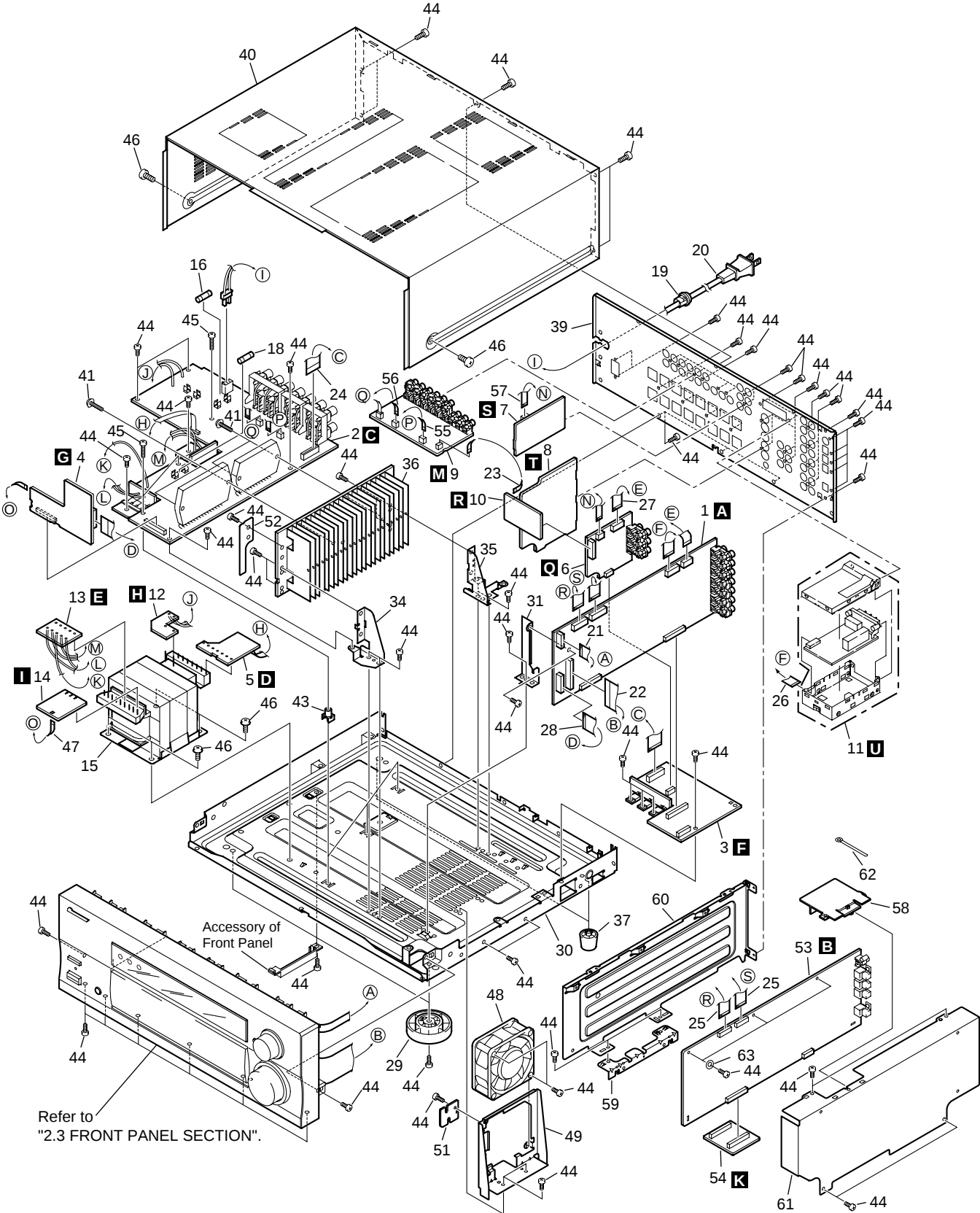
Mark	No.	Description	Part No.
NSP	1	FM Wire Antenna	ADH7004
	2	Warranty Card	ARY7045
	3	AM Loop Antenna	ATB7009
NSP	4	Dry Cell Battery (R6P, AA)	VEM-013
	5	Operating Instructions (English)	XR3004
	6	Operating Instructions (French)	See Contrast table (2)
	7	Remote Control Unit	XXD3028
	8	Battery Cover	XZA3002
NSP	9	Polyethylene Bag (0.03 x 230 x 340)	Z21-038
	10	Packing Sheet	AHG7069
	11	Left Pad R4	XHA3024
	12	Right Pad R4	XHA3025
	13	Packing Case 810/KC	XHD3147

(2) CONTRAST TABLE

VSX-D810S/KUXJI and KCXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			VSX-D810S /KUXJI	VSX-D810S /KCXJI	
	6	Operating Instructions (French)	Not used	XRC3030	

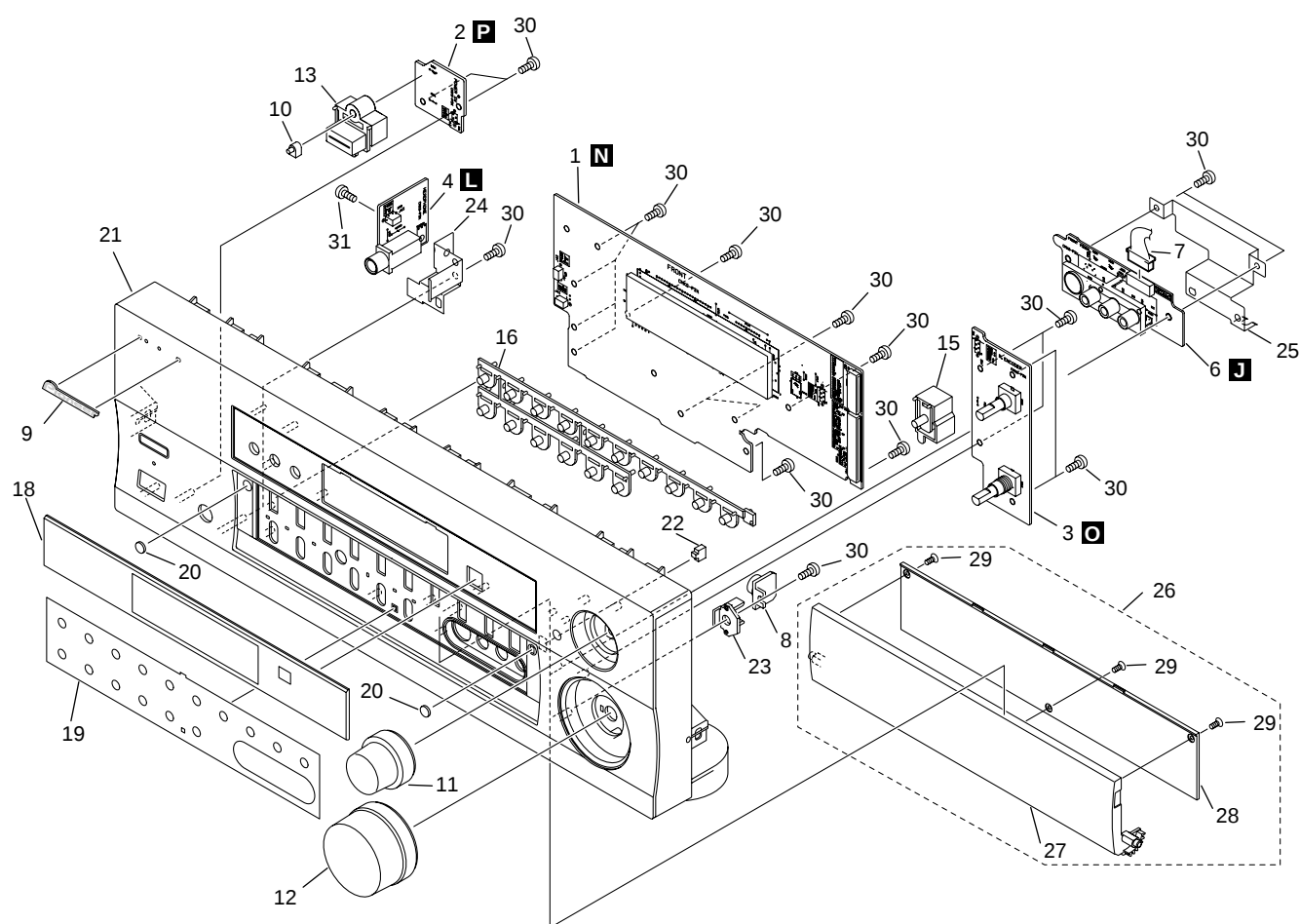
2.2 EXTERIOR SECTION



● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	D.D UCOM Assy	XWZ3397		31	PCB Angle	ANG7253
	2	AMP&PRIMARY Assy	XWZ3380		32	•••••	
	3	REGULATOR Assy	XWZ3386	NSP	33	Heat Sink Assy 0.4×40	XNH3020
	4	AMP INPUT Assy	XWZ3389		34	Heat Sink Angle F	ANG7251
	5	TRANS 2 Assy	XWZ3404		35	Heat Sink Angle R	ANG7252
	6	VIDEO&6CH IN Assy	XWZ3335	NSP	36	Heat Sink 0.4×40	XNH3019
	7	6CH IN Assy	XWZ3350		37	Foot Assy	REC1263
	8	S. VIDEO Assy	XWZ3363		38	•••••	
	9	COMPONENT Assy	XWZ3366		39	Rear Panel 810	XNC3077
	10	BOARD TO BOARD Assy	XWZ3371		40	Bonnet Case	XZN3112
NSP	11	FM/AM TUNER MODULE	AXQ7231		41	Screw	ABA7043
NSP	12	TRANS 1 Assy	XWZ3390		42	•••••	
	13	TRANS 3 Assy	XWZ3392		43	PCB Mold	AMR2533
△	14	TRANS 4 Assy	XWZ3369		44	Screw	BBZ30P080FMC
	15	Power Transformer (AC120V)	XTS3044		45	Screw	BBZ30P200FMC
△	16	Fuse (FU1 : 10A)	REK1087		46	Screw	FBT40P080FZK
	17	•••••			47	FFC (J22 : 3P/30V)	XDD3061
△	18	Fuse (FU701 : 10A)	REK1087			(TRANS 4 CN891	
	19	Cord Stopper	CM-22C			↔ AMP INPUT CN251)	
△	20	AC Power Cord	ADG7024		48	Fan Motor	XXM3002
	21	FFC (J32 : 13P/30V)	XDD3062		49	Fan Holder R4	XNG3040
		(D.D UCOM CN103			50	•••••	
		↔ FRONT CN401)		NSP	51	Binder Assy	XWZ3401
	22	FFC (J31 : 31P/30V)	XDD3063	NSP	52	Hold Assy	XWZ3402
		(D.D UCOM CN102			53	D.D DSP Assy	XWZ3395
		↔ FRONT CN402)			54	D TO O Assy	XWZ3368
	23	FFC (J38 : 5P/30V)	XDD3073		55	FFC (J45 : 4P/30V)	XDD3066
		(BOARD TO BOARD CN392				(AMP INPUT CN603	
		↔ COMPONENT CN5501)				↔ COMPONENT CN1576)	
	24	FFC (J36 : 23P/30V)	XDD3064		56	FFC (J46 : 7P/30V)	XDD3067
		(REGULATOR CN801				(AMP INPUT CN604	
		↔ AMP&PRIMARY CN53)				↔ COMPONENT CN1575)	
	25	FFC (J39, J40 : 20P/30V)	XDD3065		57	FFC (J48 : 9P/30V)	XDD3070
		(D.D UCOM CN9501				(VIDEO&6CH IN CN304	
		↔ D.D DSP CN9806)				↔ 6CH IN CN307)	
		(D.D UCOM CN9502			58	FFC Cover R4	XMR3019
		↔ D.D DSP CN9805)			59	SH Support R4	XNG3041
	26	FFC (J34 : 13P/30V)	XDD3059		60	Shield A R4	XNG3042
		(D.D UCOM CN105					
		↔ FM/AM TUNER UNIT)			61	Shield B R4	XNG3043
	27	FFC (J33 : 15P/30V)	XDD3069		62	Cord Clamper	RNH-184
		(D.D UCOM CN104			63	Washer	VEC1254
		↔ VIDEO&6CH IN CN303)					
	28	FFC (J35 : 19P/30V)	XDD3071				
		(D.D UCOM CN106					
		↔ AMP INPUT CN254)					
NSP	29	Insulator	PNW2766				
	30	Under Base 409	ANA7094				

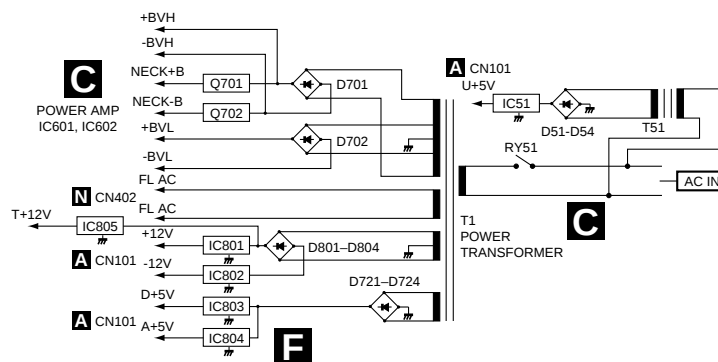
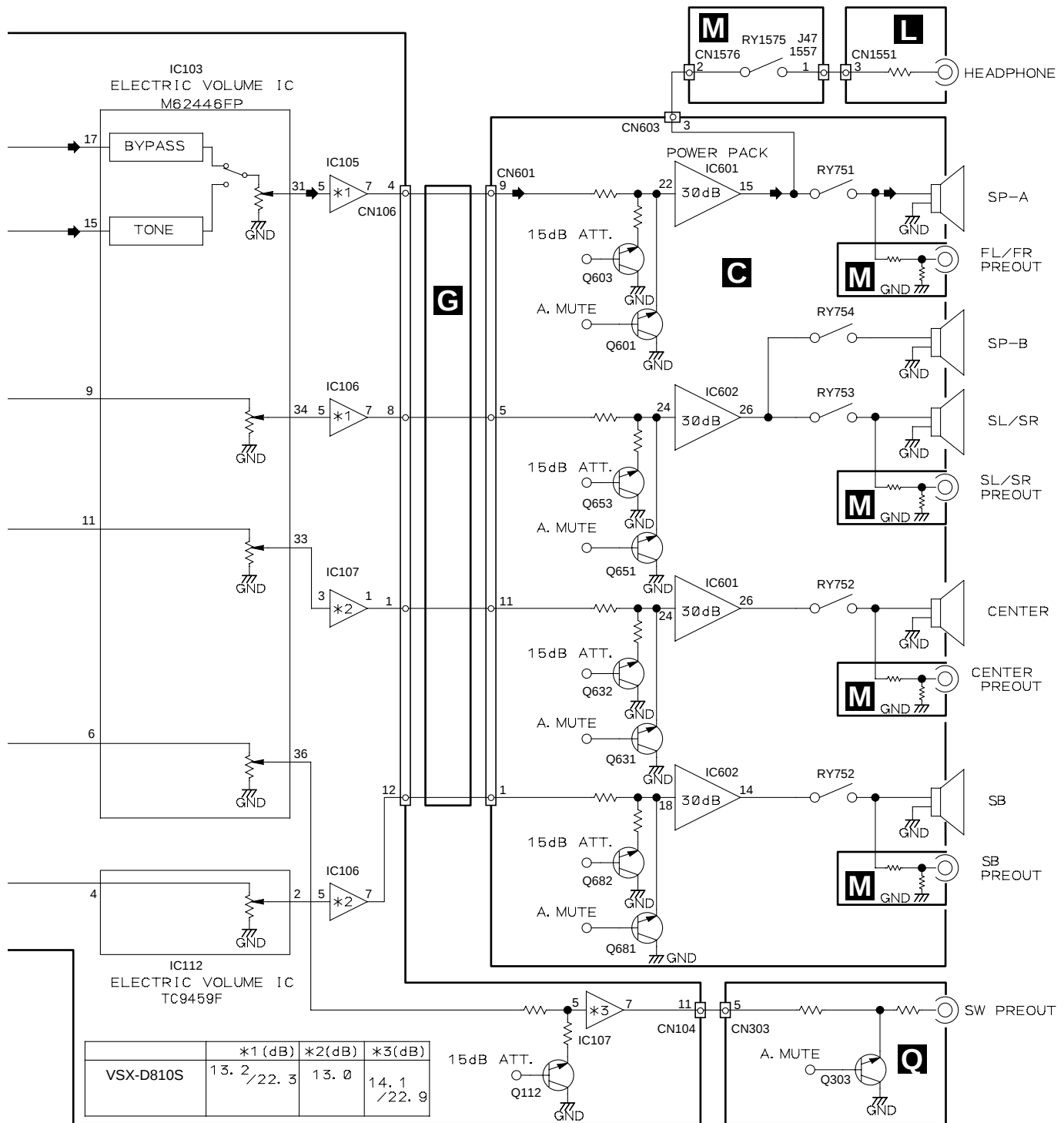
2.3 FRONT PANEL SECTION



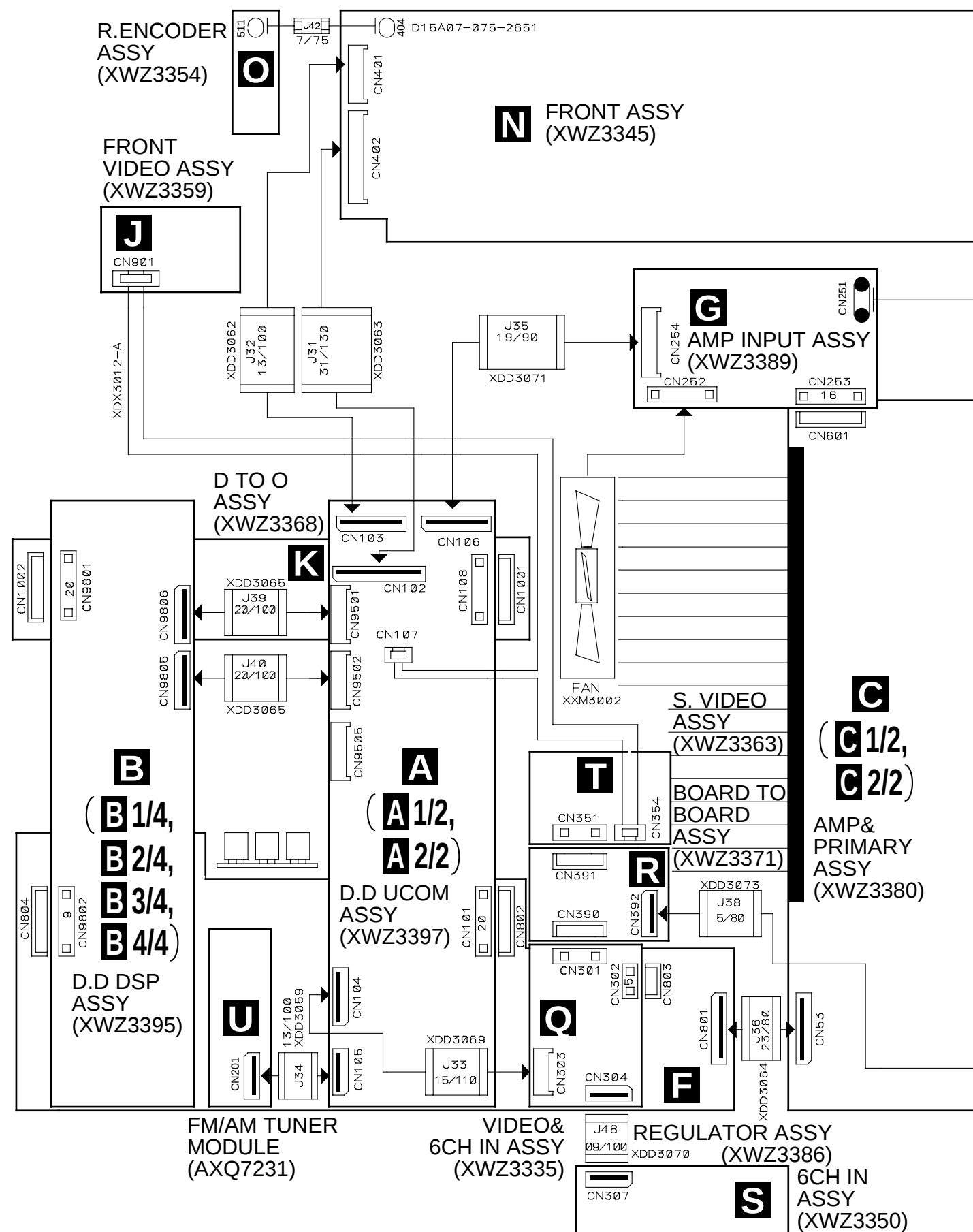
● FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	FRONT Assy	XWZ3345	16	Door Button R4B	XAD3070	
	2	POWER SW Assy	XWZ3352	17			
	3	R. ENCODER Assy	XWZ3354	18	Display Panel O/KC	XAK3172	
	4	H.P. Assy	XWZ3357	19	Button Cover R4U2	XAK3253	
	5			20	Cushion R4B	XED3001	
	6	FRONT VIDEO Assy	XWZ3359	21	Front Panel 810/KC	XMB3033	
	7	8P Shield Cable	XDX3012	22	Magnet 35	AMF7007	
	8	Damper Assy	AXA7052	23	Holder L R4	XMR3016	
	9	Name Plate	PAM1776	24	Earth Plate A R4	XNG3044	
	10	LED Lens	PNW2019	25	Earth Plate B R4	XNG3045	
	11	Select Knob R4B	XAB3008	26	Door Assy R4B	XXG3068	
	12	Volume Knob R4B	XAB3011	27	Door R4B	XAK3173	
	13	Power Button R4B	XAD3062	28	Door Cover R4B	XAK3175	
	14			29	Screw	XBA3001	
	15	Jog Button R4B	XAD3065	30	Screw	PPZ30P080FMC	
				31	Screw	BBZ30P080FMC	

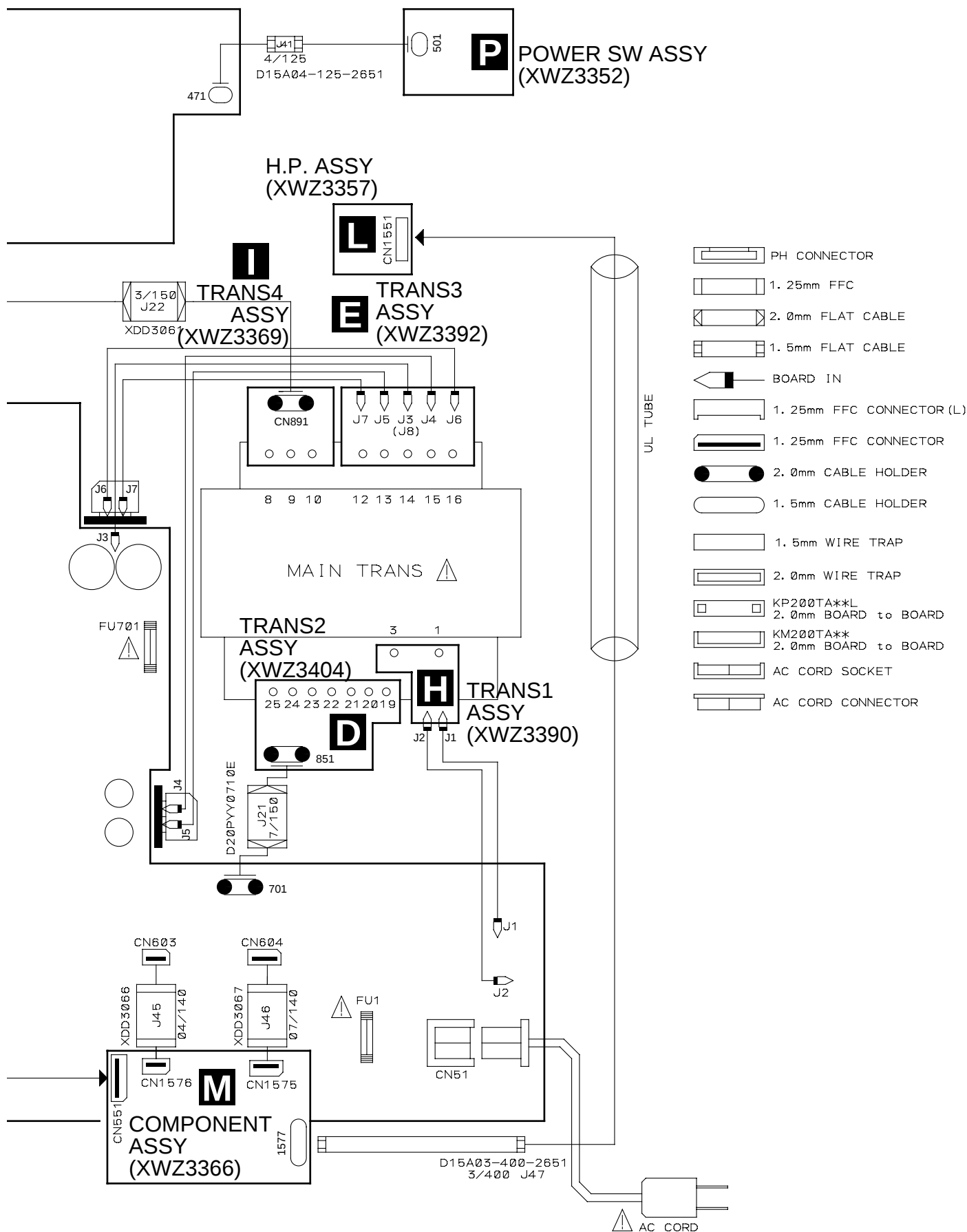
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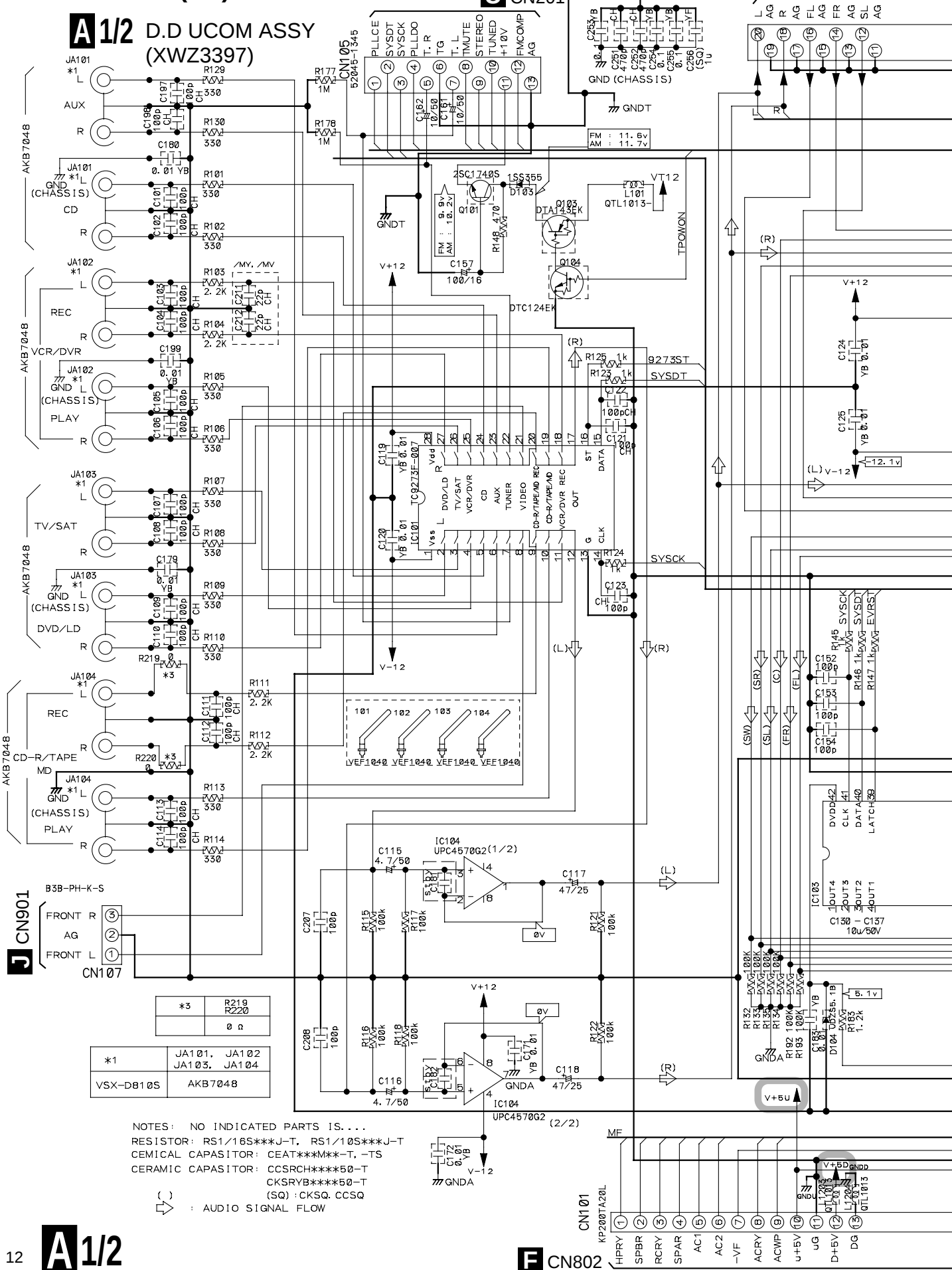
3.2 OVERALL WIRING CONNECTION DIAGRAM

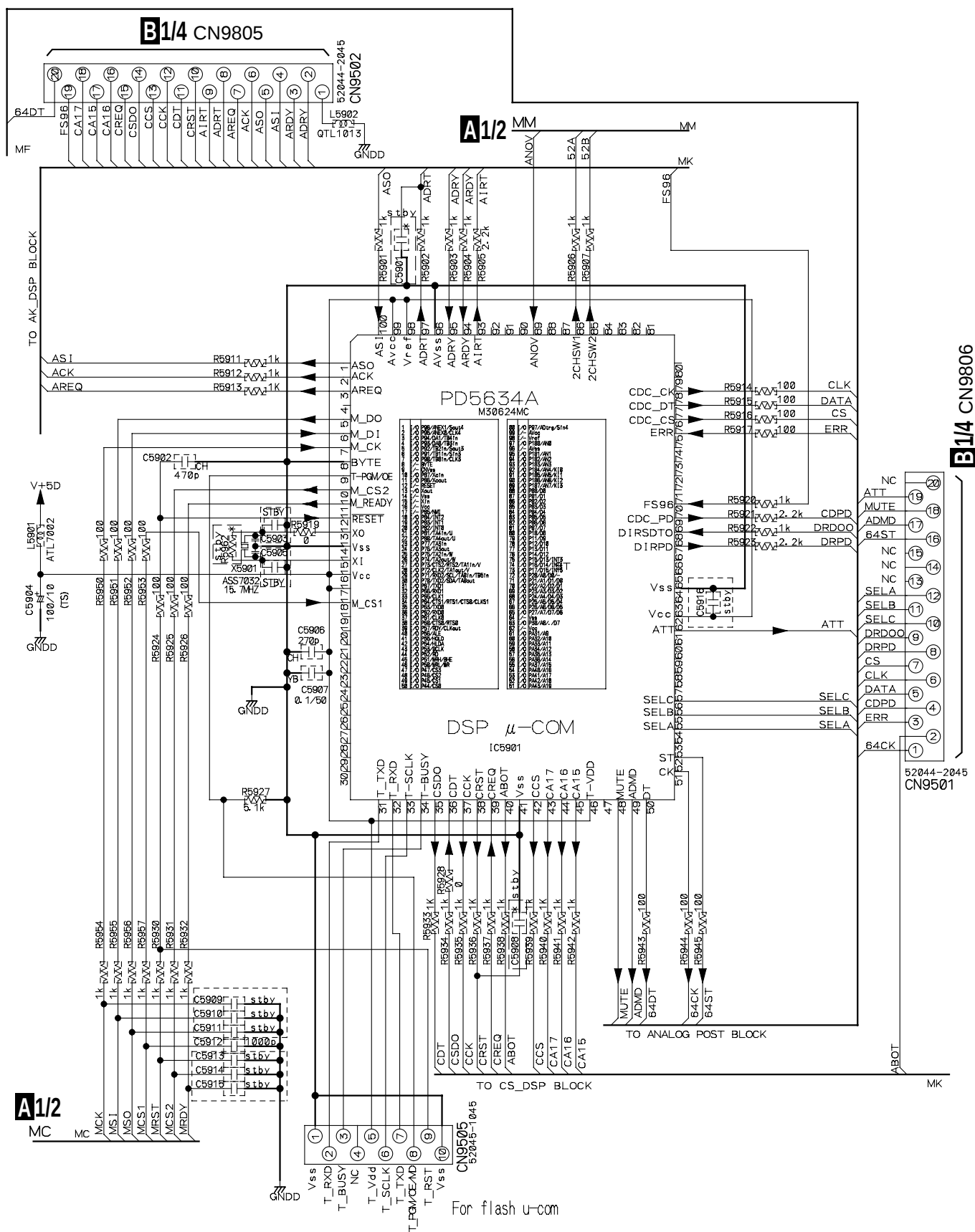


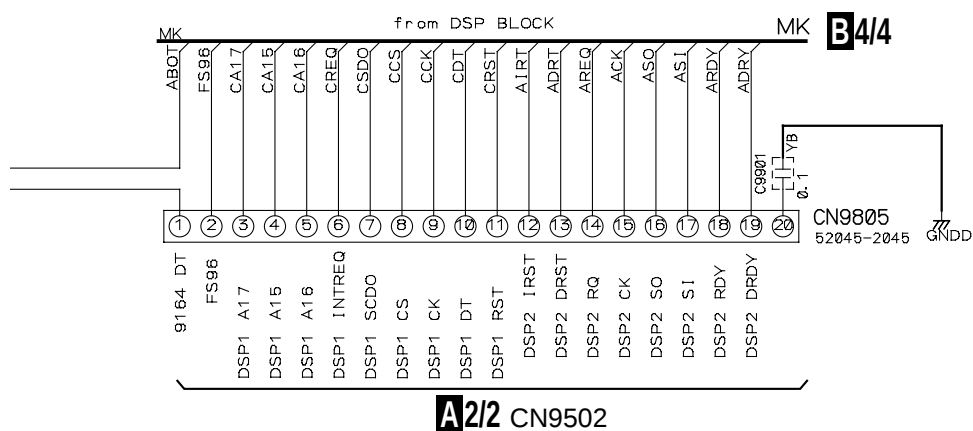
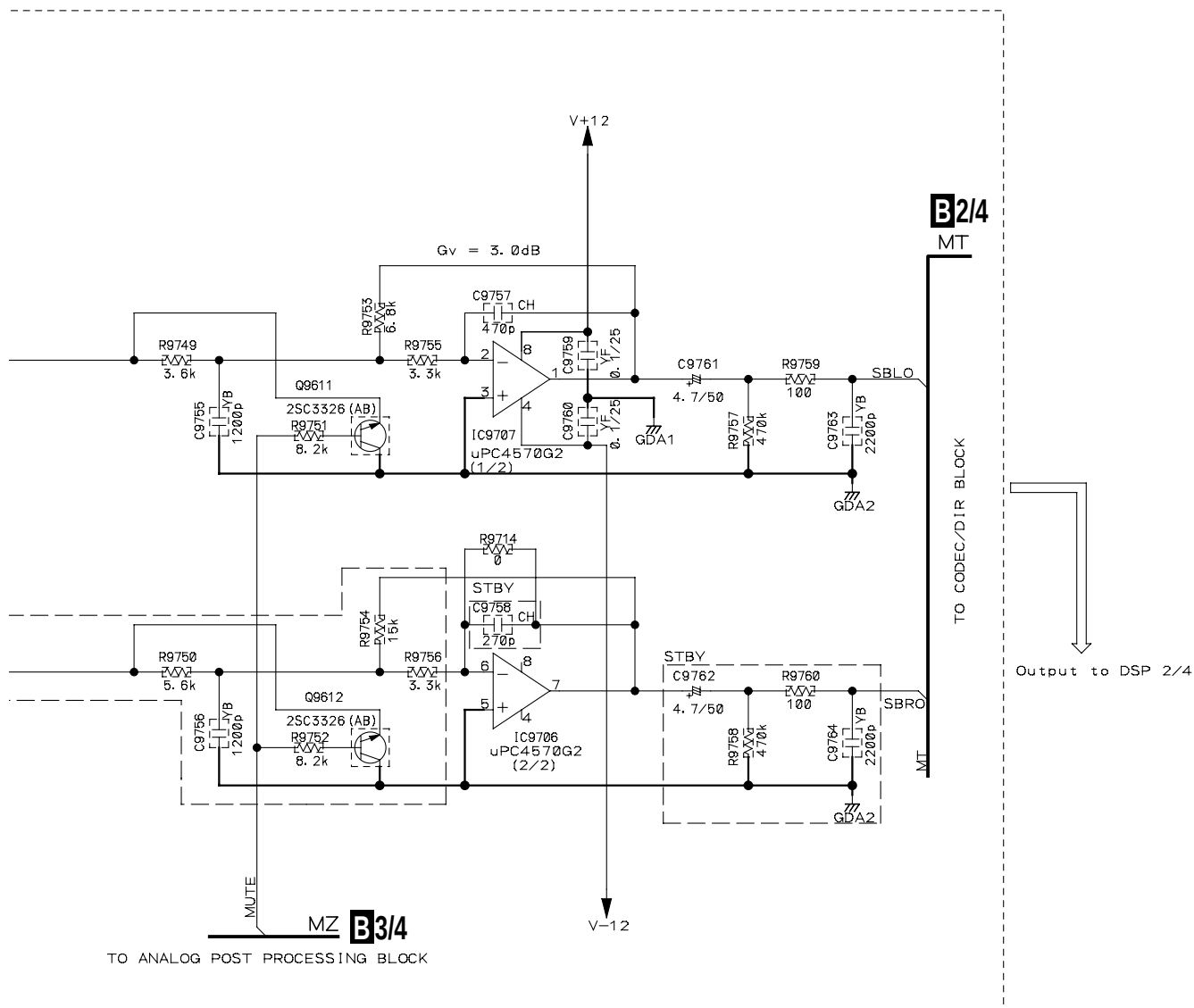
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".

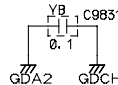


3.3 D.D UCOM (1/2) ASSY



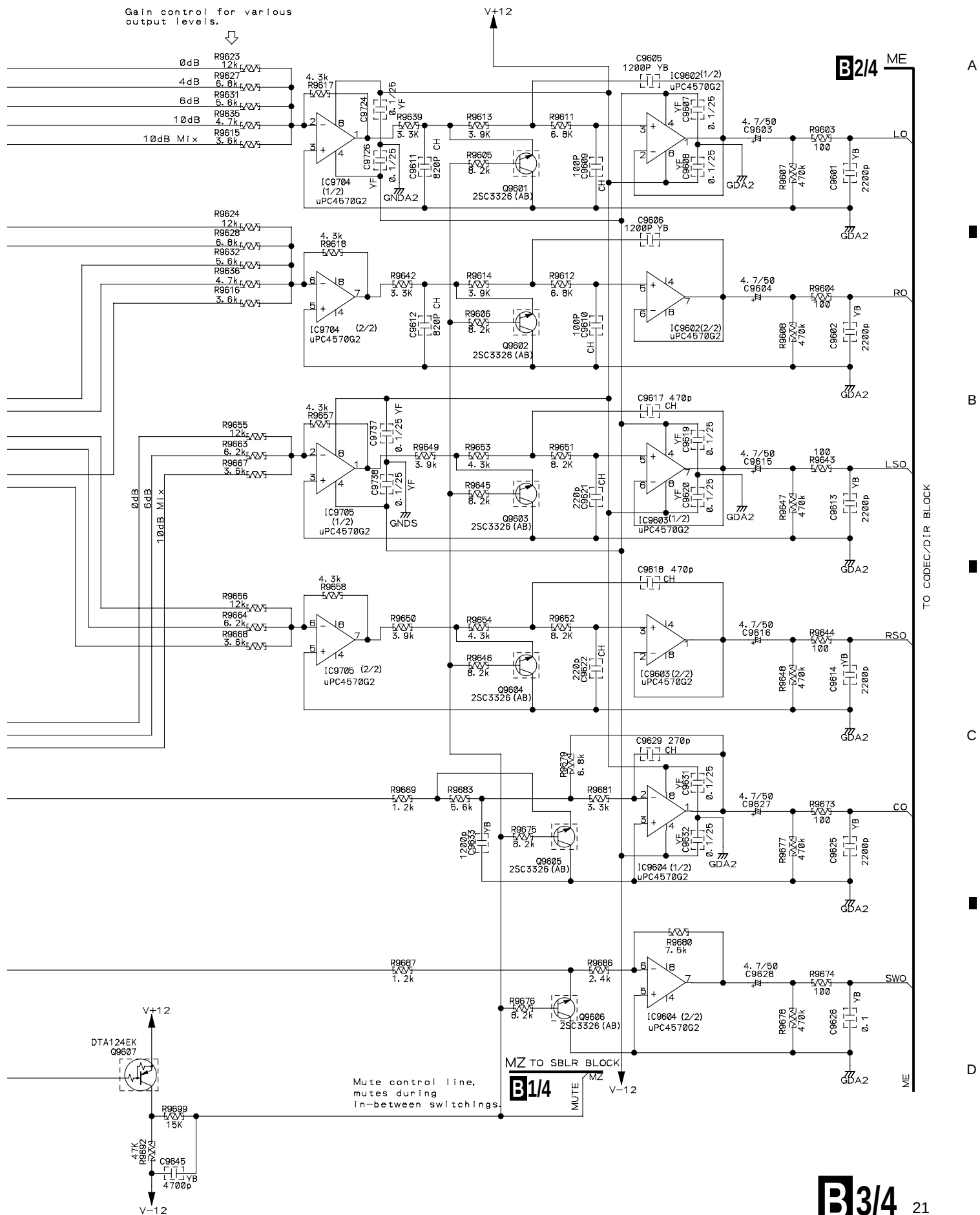






B

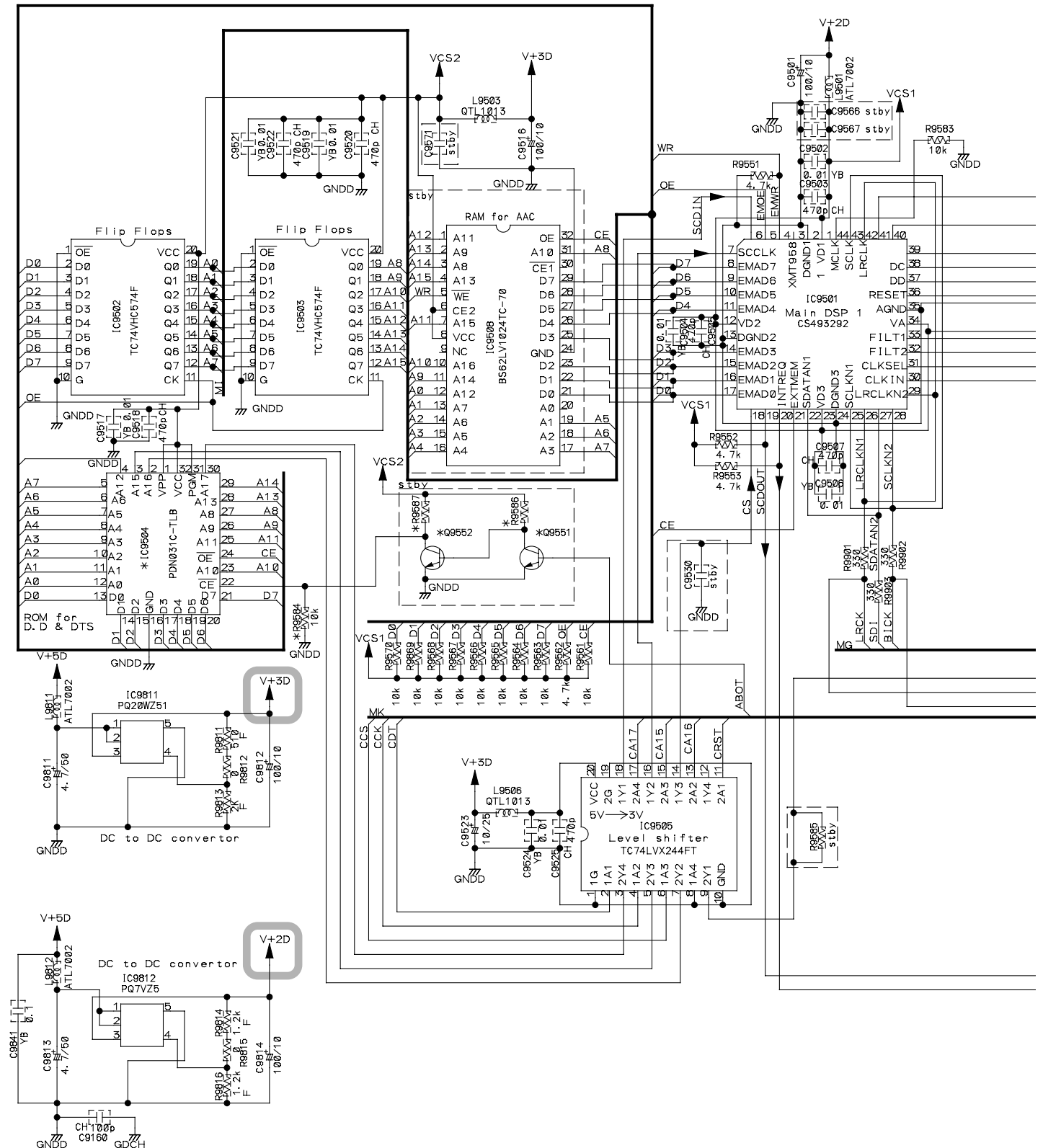


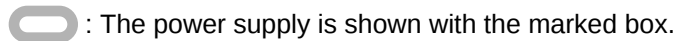


3.8 D.D DSP ASSY (4/4)

B 4/4 D.D DSP ASSY (XWZ3395)

Main DSP 1 decodes D.D and DTS signals.

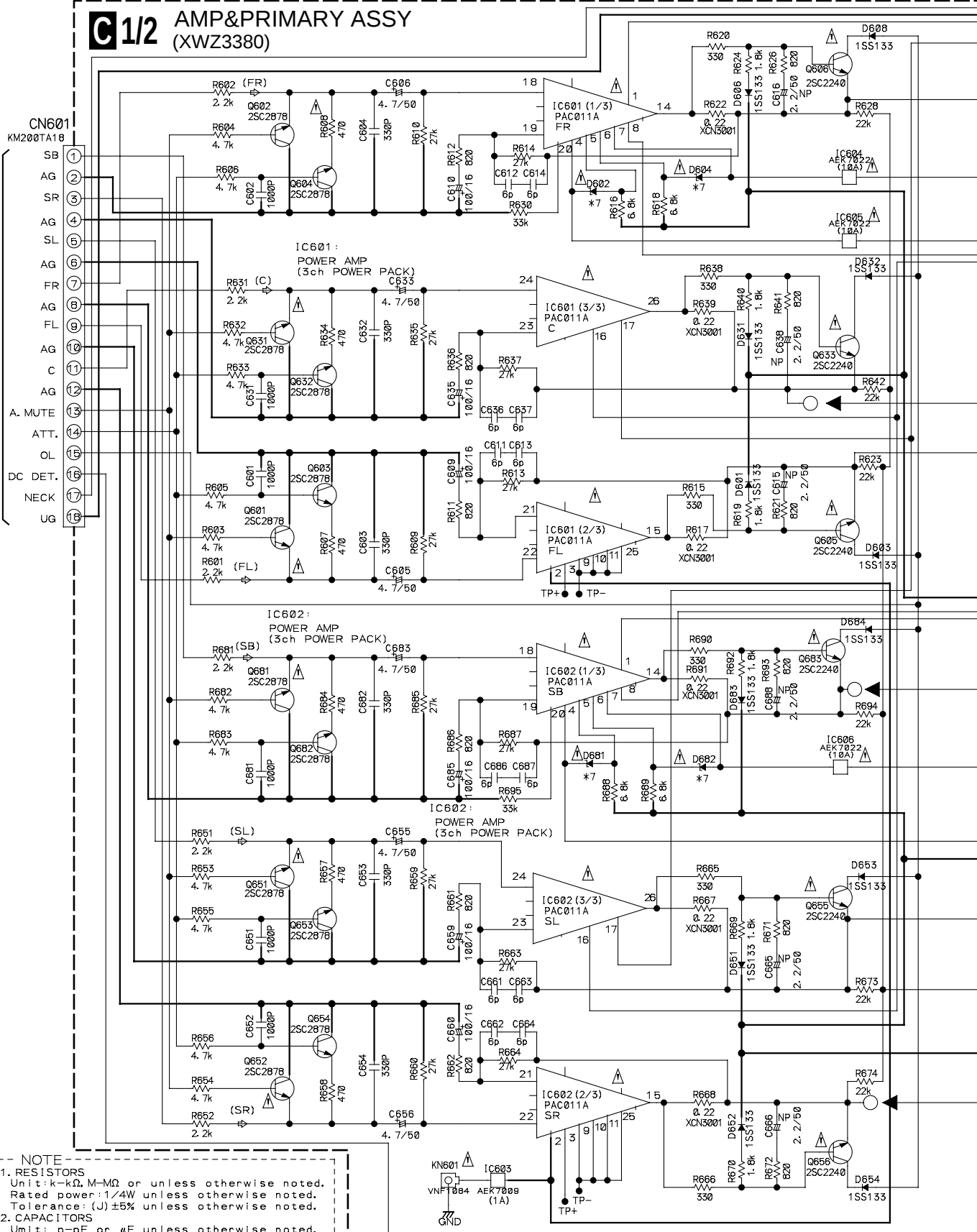




DSP 2 creates soundscapes and has D. D EX and DTS ES capability.

RAM for audio delay

3.9 AMP&PRIMARY (1/2), TRANS2 and TRANS3 ASSYS

C1/2 AMP&PRIMARY ASSY
(XWZ3380)

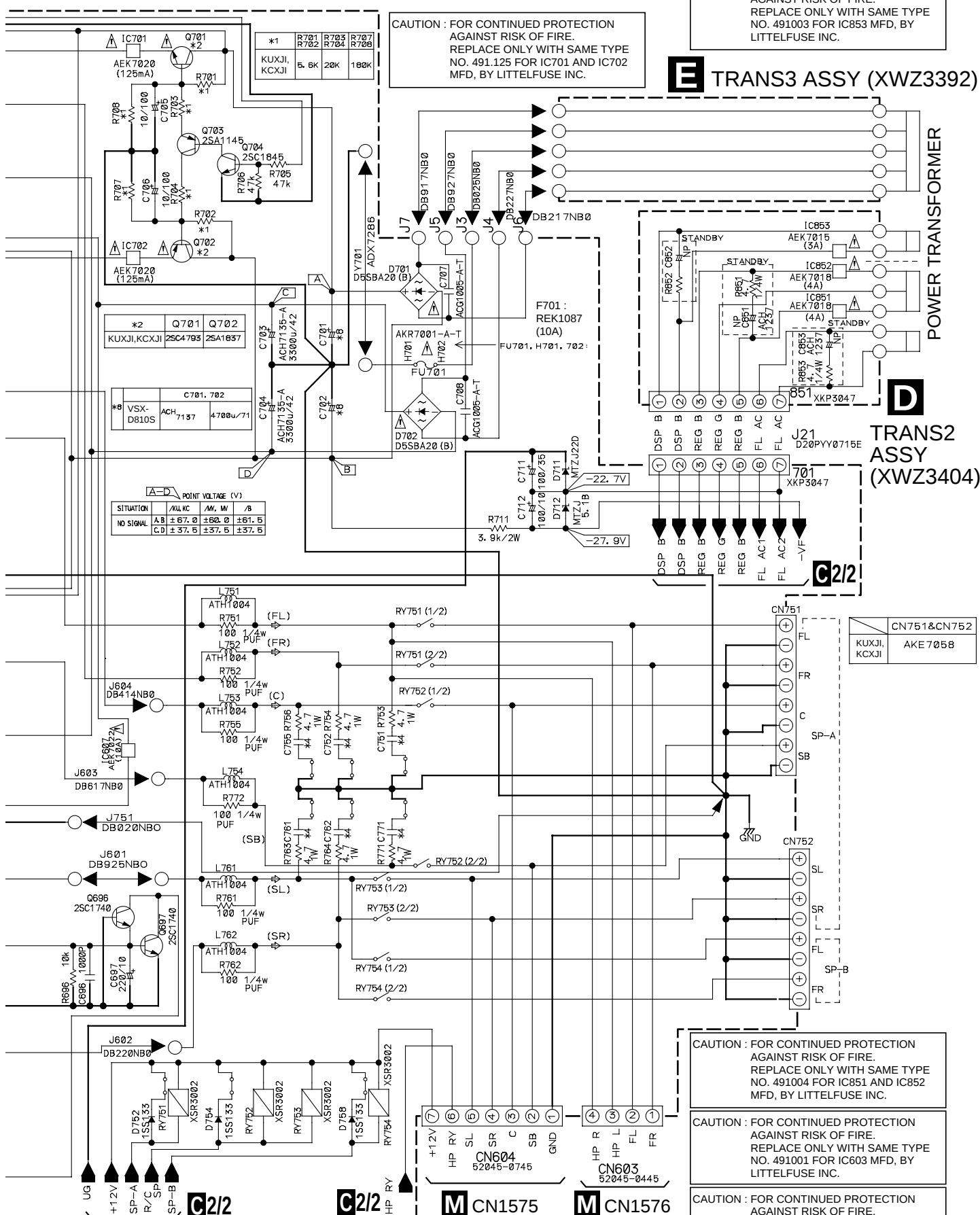
- NOTE**
- RESISTORS
Unit: k- Ω , M-M Ω or unless otherwise noted.
Rated power: 1/4W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.
 - CAPACITORS
Unit: p-pF or μ F unless otherwise noted.
Ratings: Capacity (μ F)/Voltage (V) unless otherwise noted.
Rated Voltage: 50V except for electrolytic capacitors.
 - DIODES
Indicated in 1SS133-T

*4	C751, 752, 755, 761, 762, 771	KUXJI, KCXJI	0.1 YA
----	-------------------------------	--------------	--------

*7	KUXJI, KCXJI	MTZJ16A
----	--------------	---------

Q605, 606, 633, 655, 656, 683:
OVERLOAD DETECTOR
Q696, 697:
() DC OUTPUT DETECTOR
◇: AUDIO SIGNAL ROUTE

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491003 FOR IC853 MFD, BY
LITTELFUSE INC.



• NOTE FOR FUSE REPLACEMENT

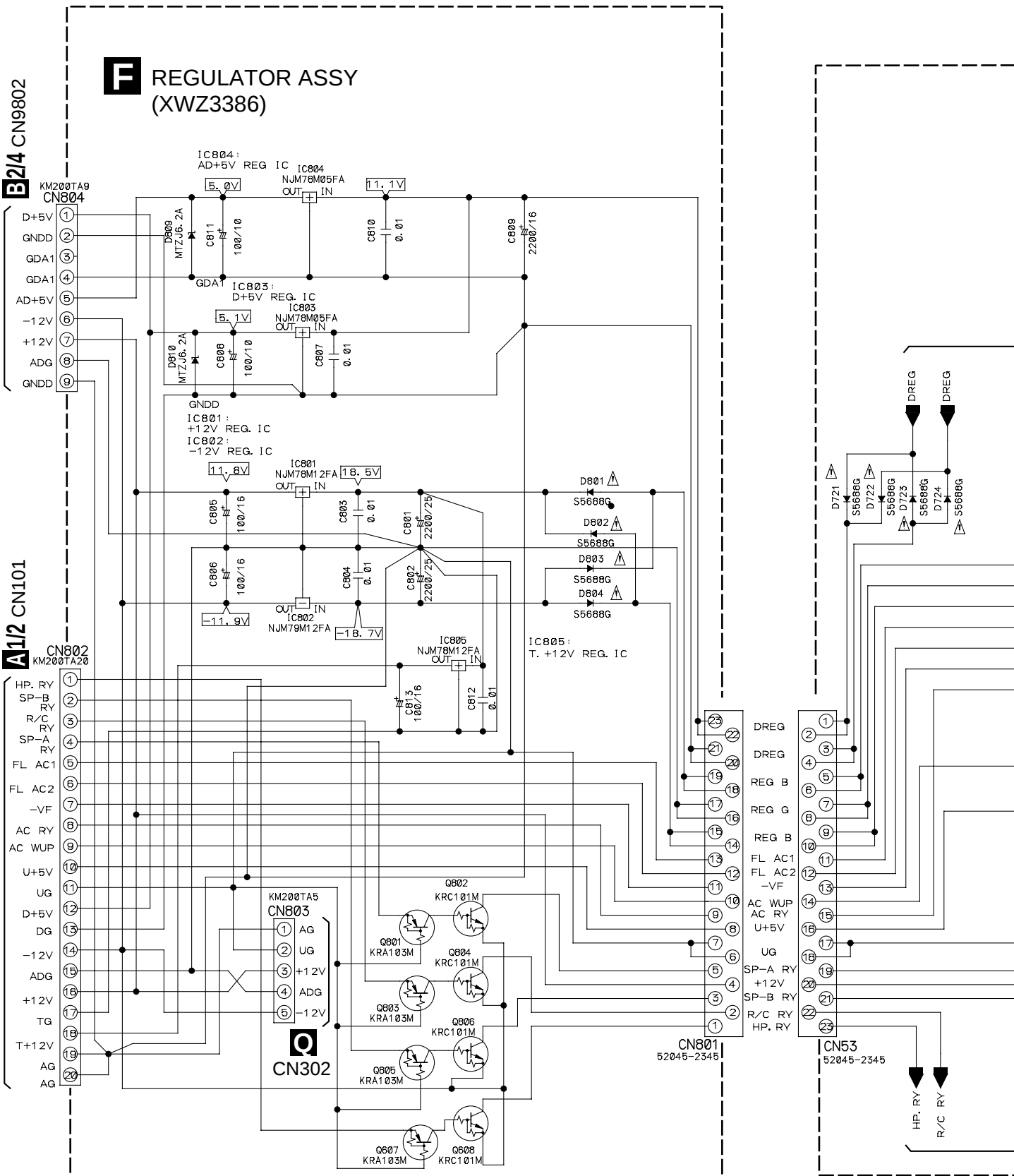
CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE WITH SAME TYPE AND RATINGS ONLY.

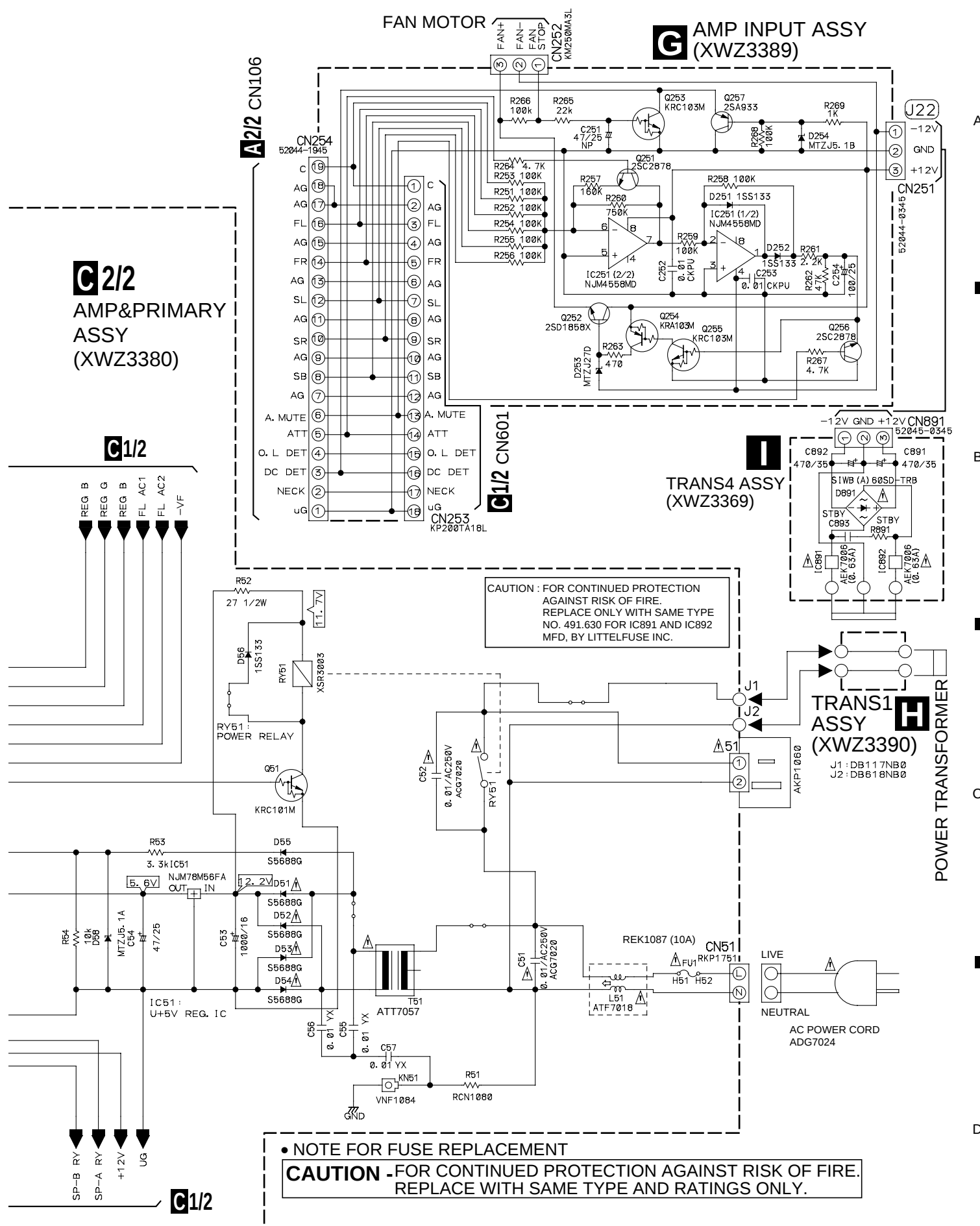
CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491004 FOR IC851 AND IC852
MFD. BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491001 FOR IC603 MFD, BY
LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491010 FOR IC604, IC605, IC606,
AND IC607 MFD. BY LITTELFUSE INC.

3.10 AMP&PRIMARY (2/2), REGULATOR, AMP INPUT, TRANS1 and TRANS4 ASSYS

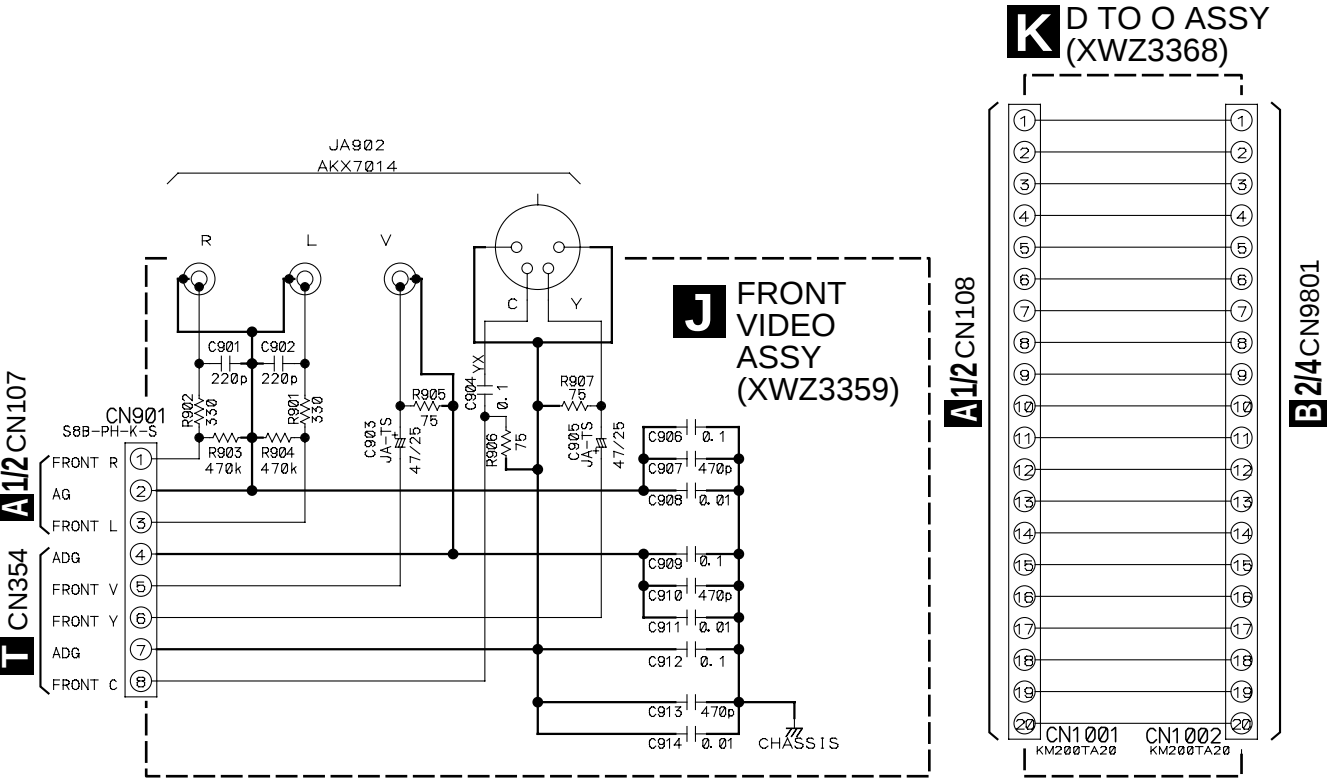




3.11 FRONT VIDEO, D TO O, H. P. and COMPONENT ASSYS

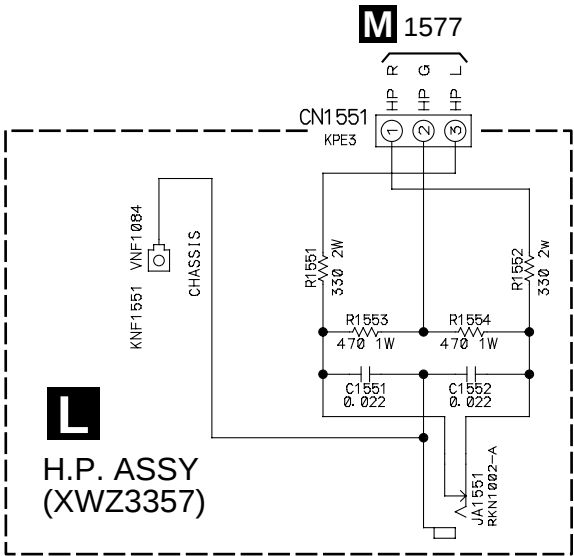
A

B



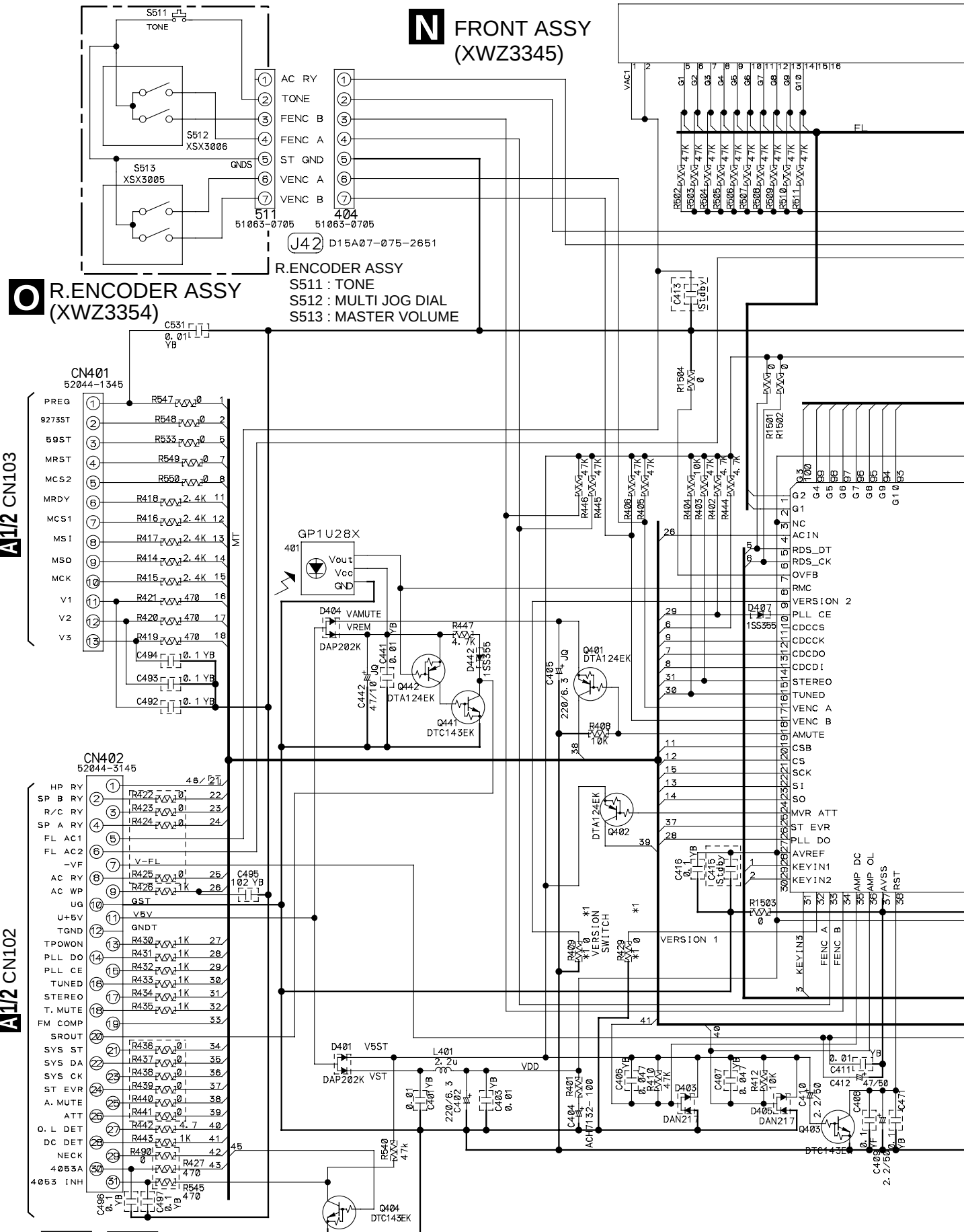
C

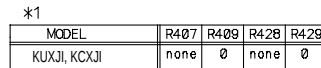
D





3.12 FRONT, R. ENCODER and POWER SW ASSYS





NJM2296D control port status

SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
1	0	(1)	0	1	Vin2	Vin2	mute
1	1	(1)	0	1	Vin3	Vin3	Vin3
1	1	0	1	1	Vin4	Vin4	Vin4
1	1	1	1	1	Vin5	Vin5	Vin5
0	0	(0)	(0)	0	mute	mute	mute

VIN 2. VCR

VIN 3. DVD/LD

VIN 4. TV/SAT

VIN 5. FRONT

Vout1. MON out

Vout2. MR out

Vout3. VCR out

-NOTE-

1. RESISTORS

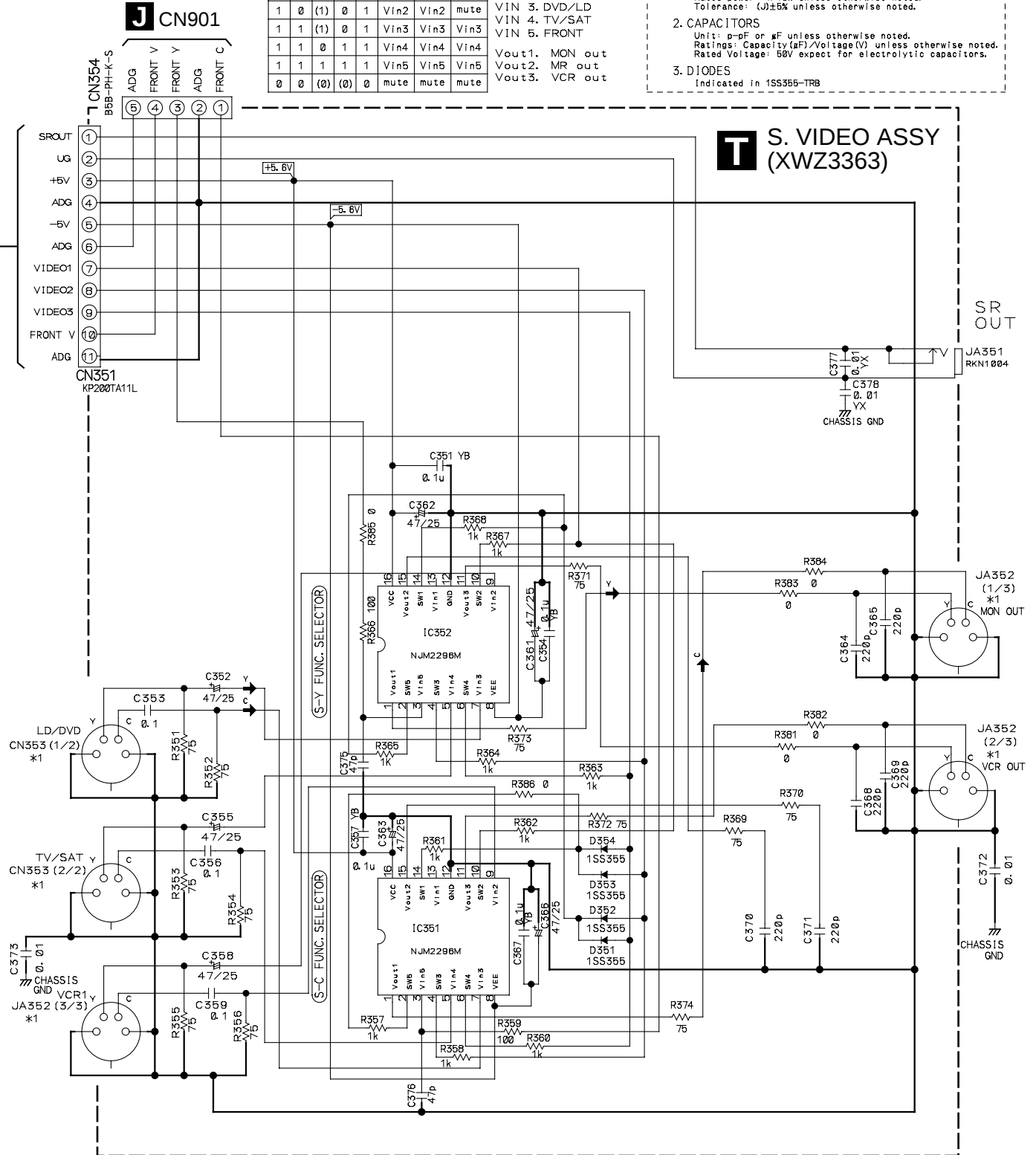
Unit: k- Ω , M-M Ω or Ω unless otherwise noted.
 Rated power: 1/10W unless otherwise noted.
 Tolerance: ($\pm$ 5% unless otherwise noted).

2. CAPACITORS

Unit: p-pF or μ F unless otherwise noted.
 Ratings: Capacity(μ F)/Voltage(V) unless otherwise noted.
 Rated Voltage: 50V expect for electrolytic capacitors.

3. DIODES

Indicated in 1SS355-TRB



*1	CN305	308	JA352	CN353
VSX-D810S	AKB7123	AKB7089	XKP3045	XKP3044

→ VIDEO SIGNAL FLOW
 ⇄ AUDIO SIGNAL FLOW



Notes

1. RESISTORS

Indicated in Ω , $1/16W \pm 5\%$ Tolerance unless otherwise noted K:K Ω , M:M Ω .

2. CAPACITORS

Indicated in Capacity (μF)/VOLTAGE (V) unless otherwise noted P:PF.

3. DIODES

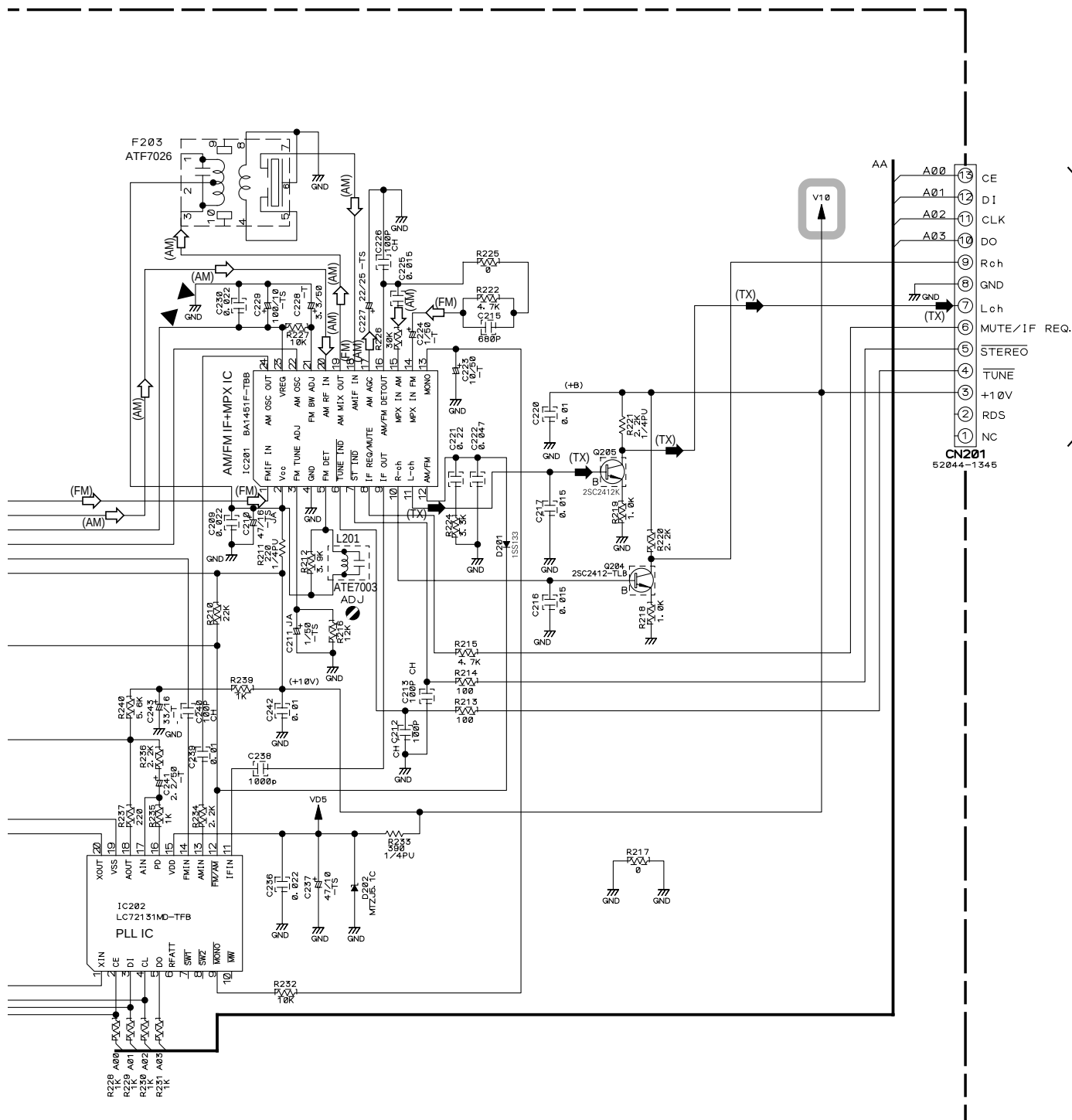
No mark diode is 1SS133.

 : The power supply is shown with the marked box.

(TX)  : AUDIO SIGNAL ROUTE (TUNER)

(AM)  : AM SIGNAL ROUTE

(FM)  : FM SIGNAL ROUTE



A1/2 CN105

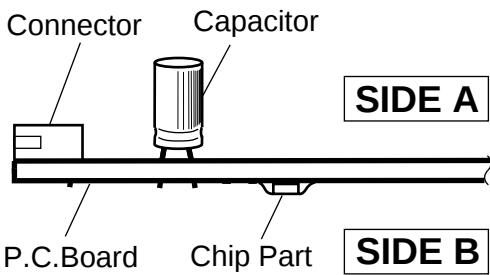
4. PCB CONNECTION DIAGRAM

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.

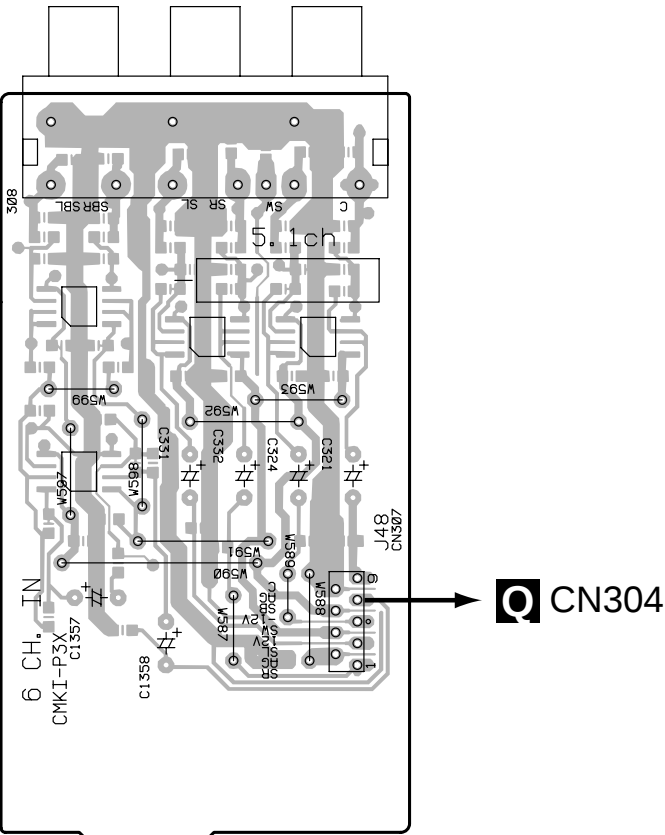
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

- 3. The parts mounted on this PCB include all necessary parts for several destinations.
- For further information for respective destinations, be sure to check with the schematic diagram.
- 4. View point of PCB diagrams.



4.1 6CH IN ASSY

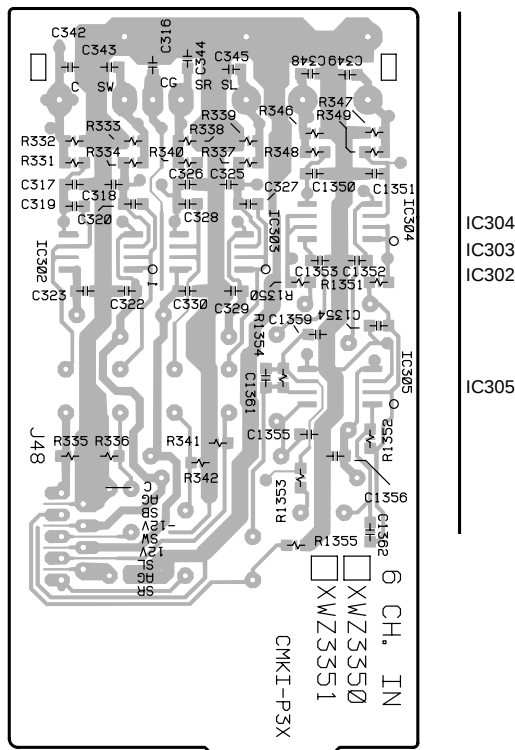
S 6CH IN ASSY



(XNP3032-B)

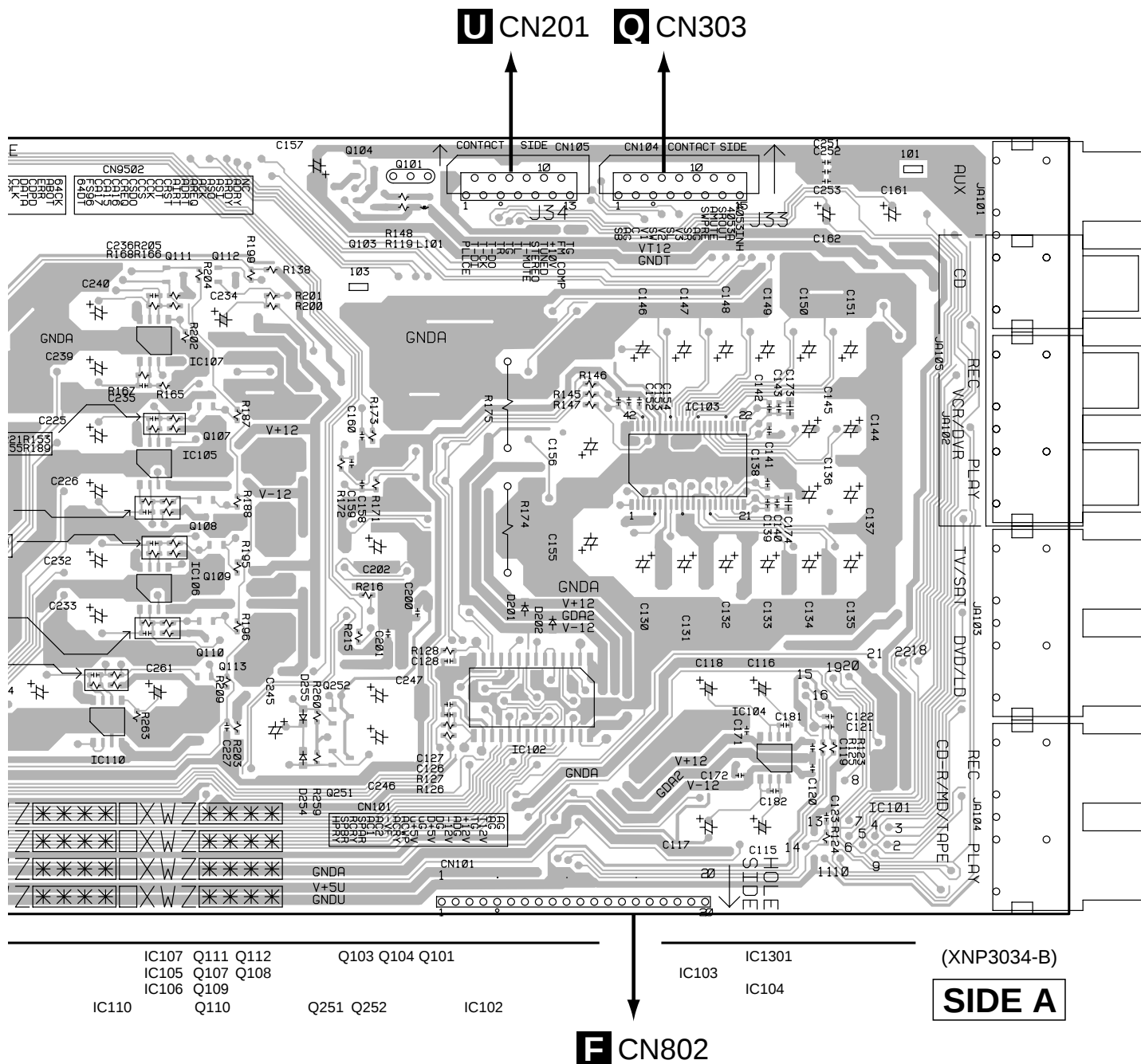
SIDE A

S 6CH IN ASSY

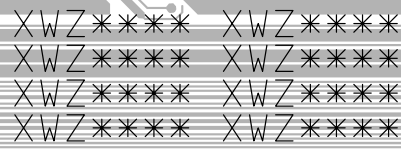


(XNP3032-B)

SIDE B



A



IC112 IC111



SIDE B

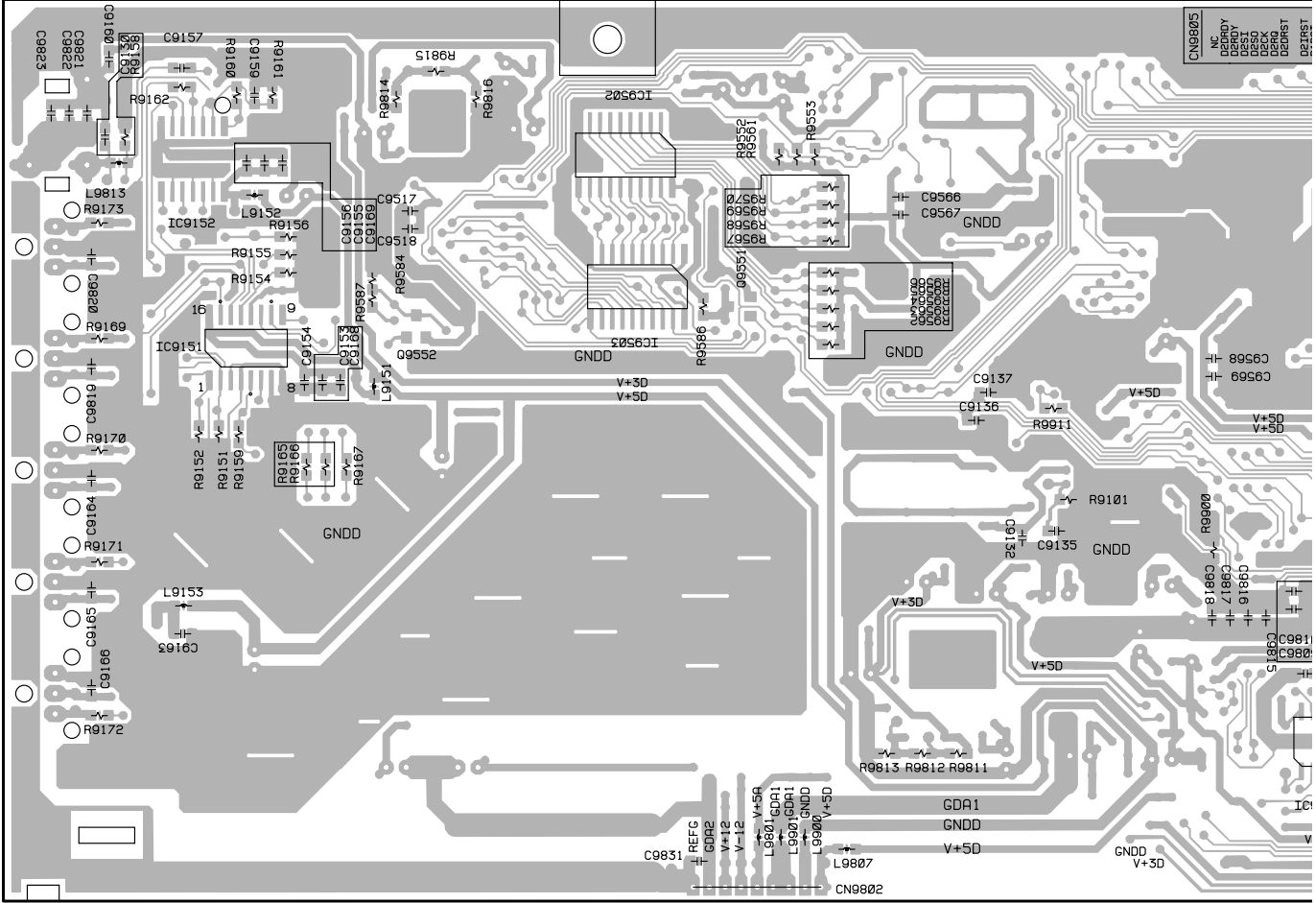
B D.D DSP ASSY



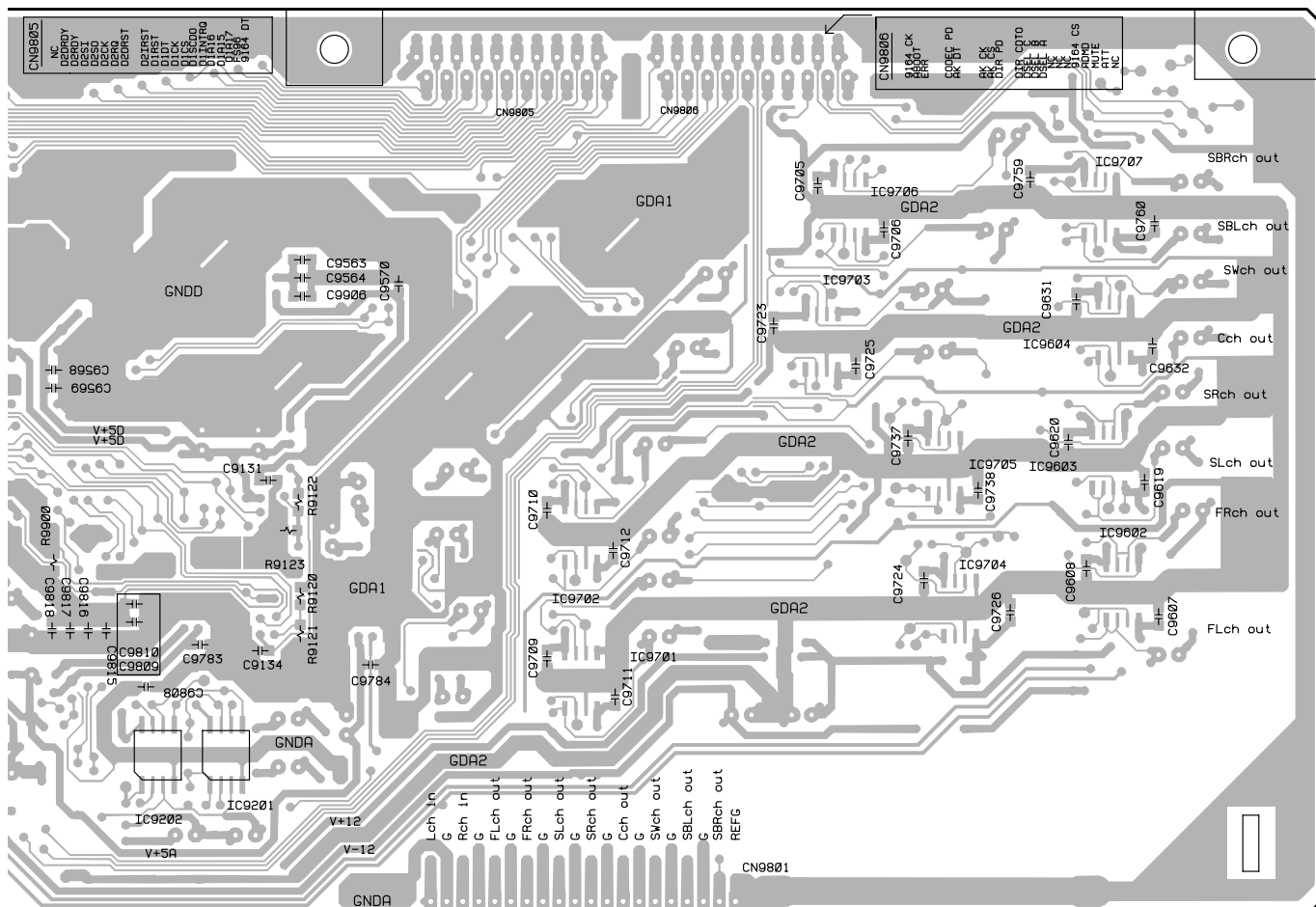


SIDE A

B D.D DSP ASSY



IC9152 IC9151 IC9552 IC9502 IC9503 IC92



IC9202 IC9201

IC9701 IC9702

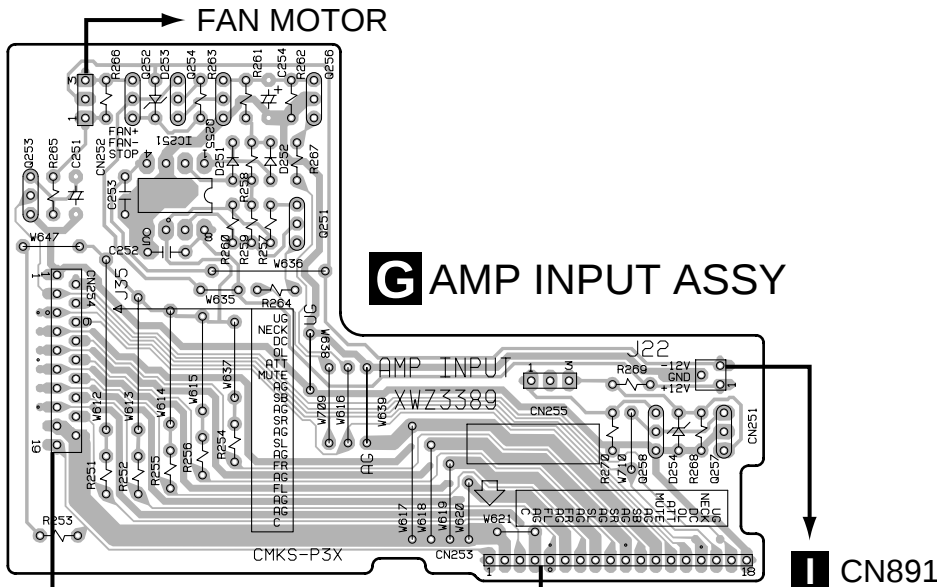
IC9703 IC9706 IC9704 IC9705 IC9707 IC9604 IC9603 IC9602

(XNP3034-B)

SIDE B

4.5 AMP INPUT and AMP&PRIMARY ASSYS

A

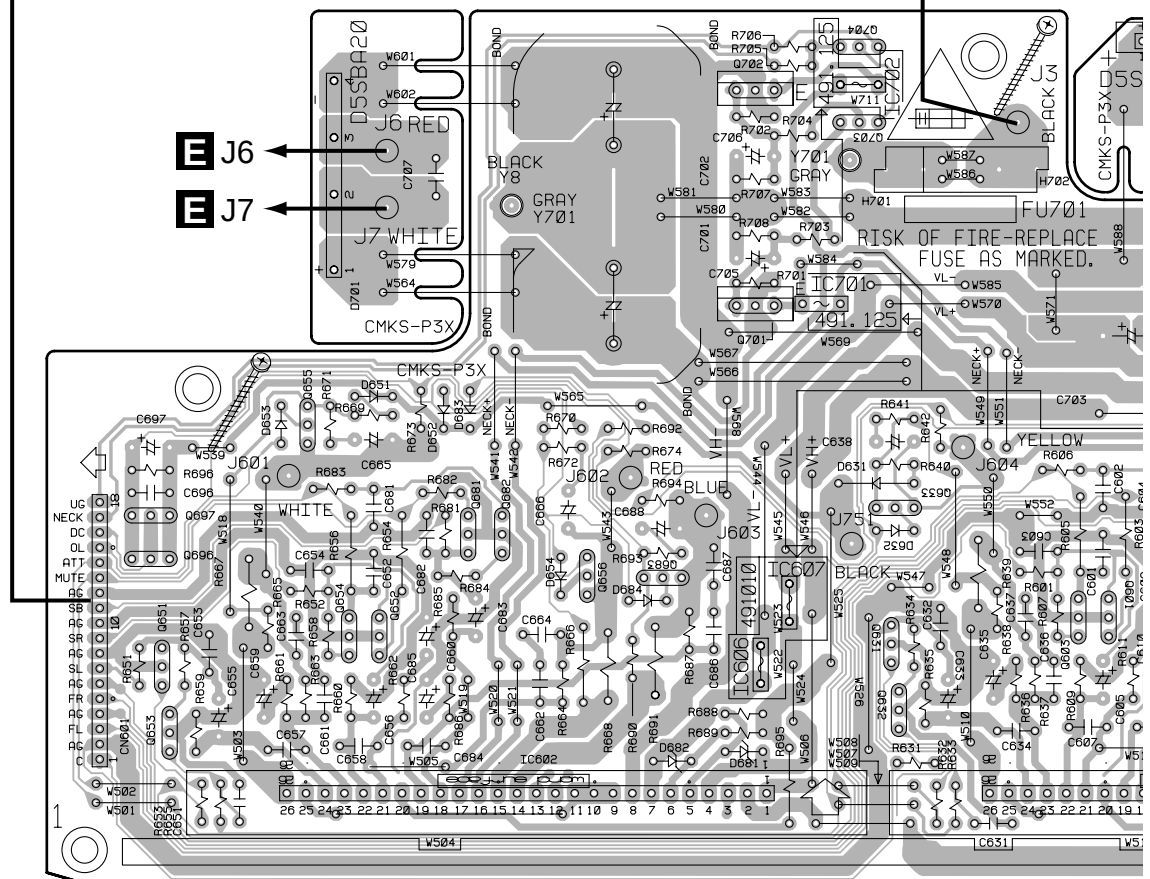


A CN106

(XNP3033-B)

SIDE A

CAMP&PRIMARY ASSY

E J3

Q704
Q702
Q703

Q701

Q655

Q691

0692

400

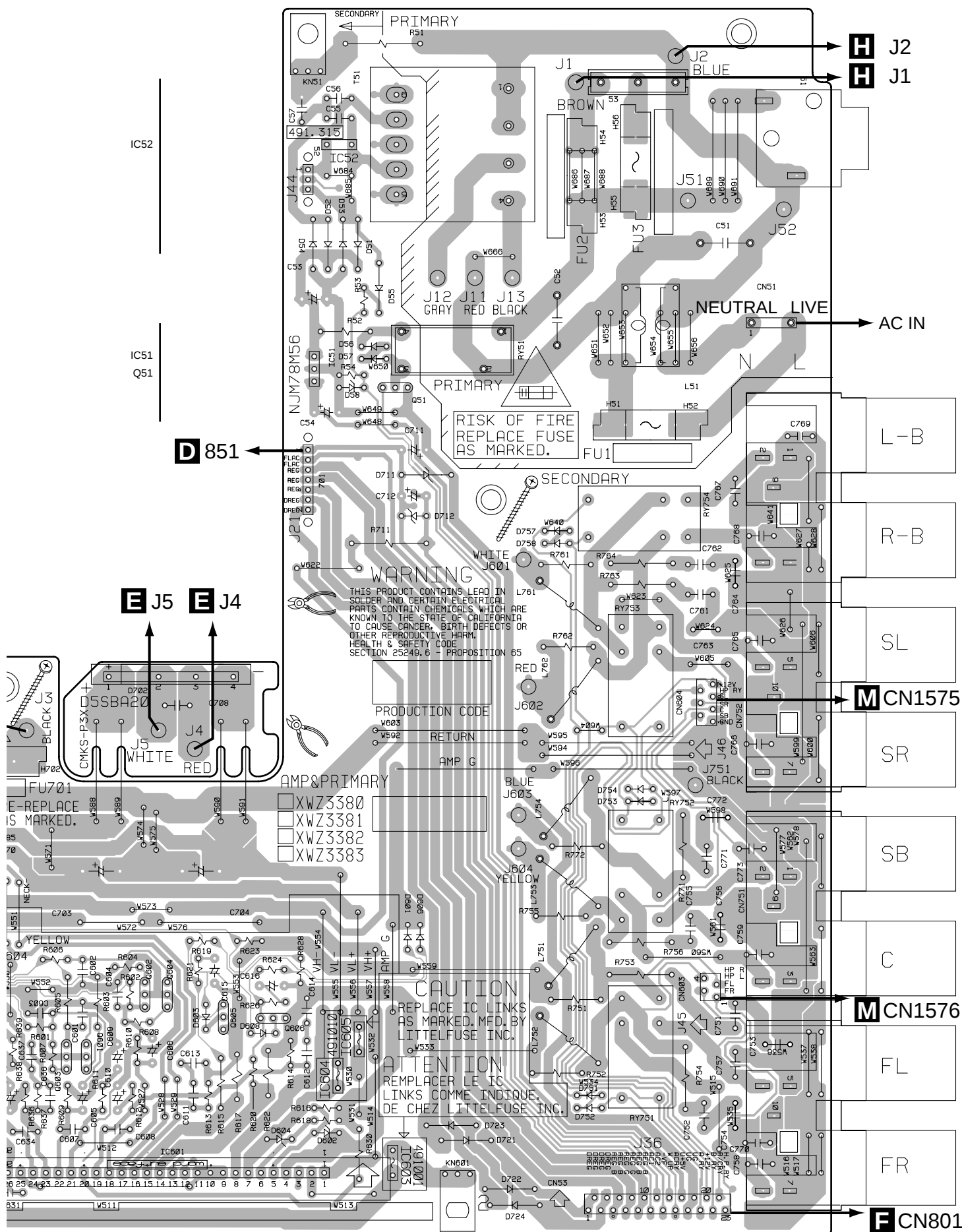
Q652

Q654

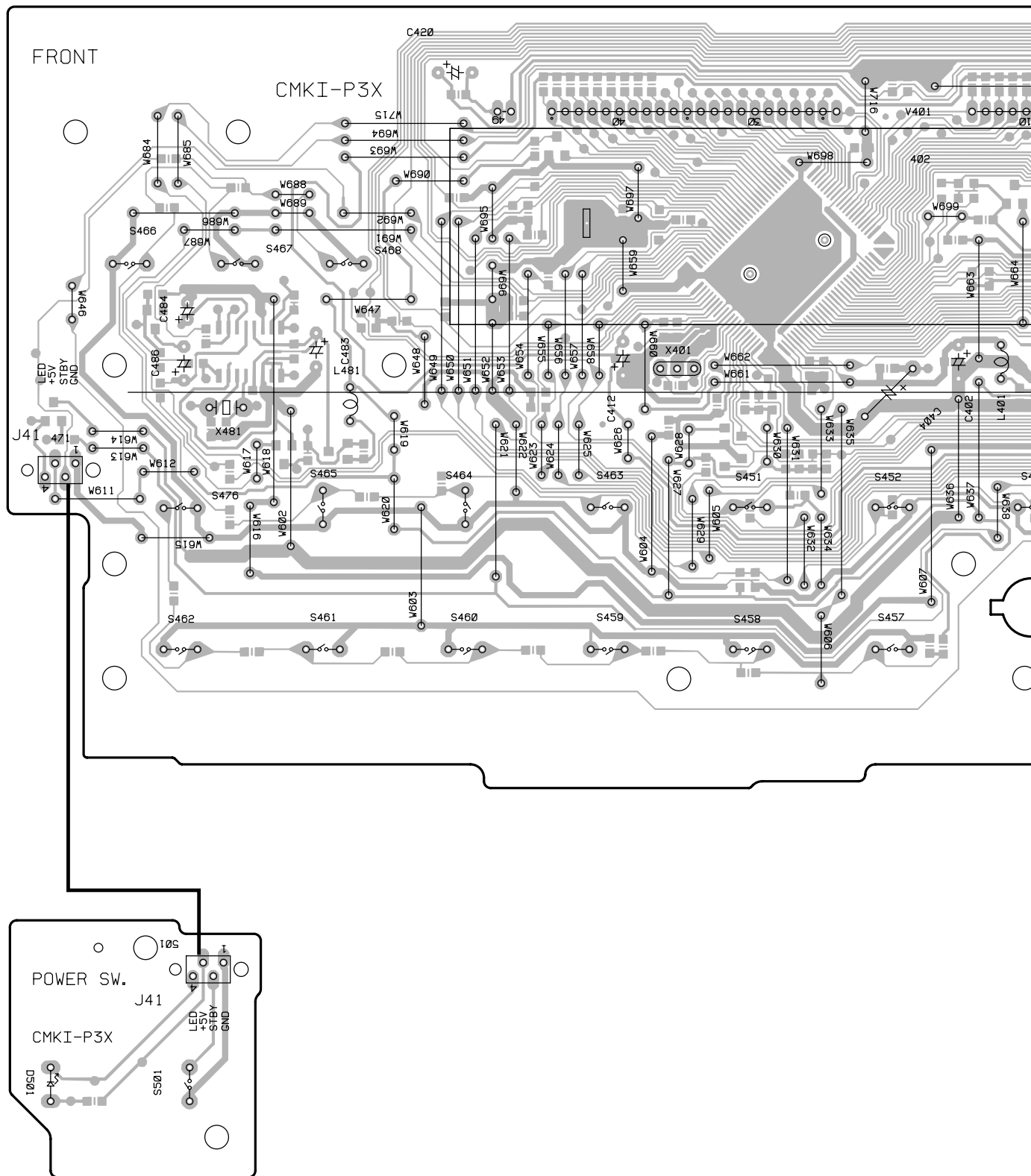
Q6E1

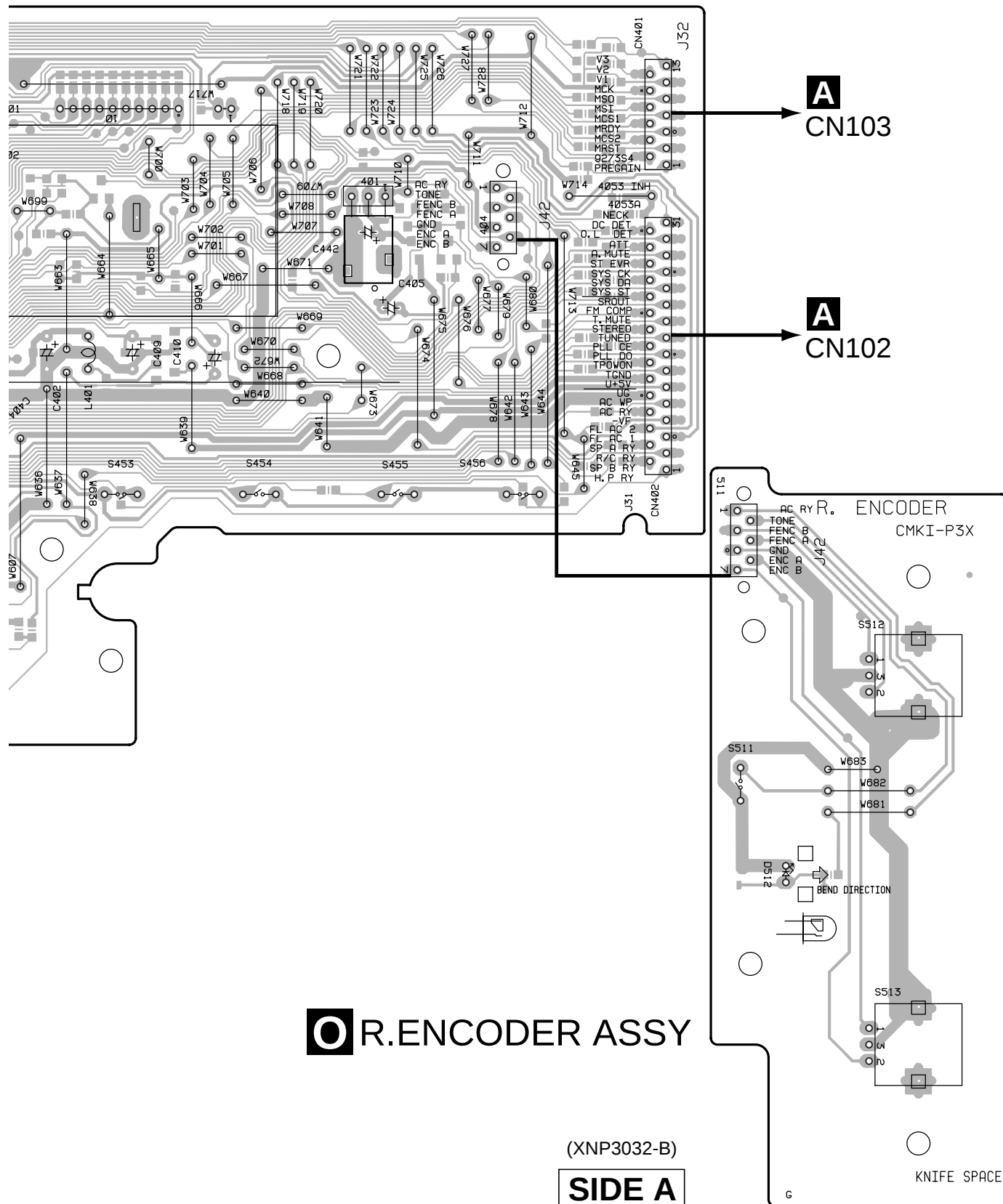
IC602	IC601
	IC603

SIDE A

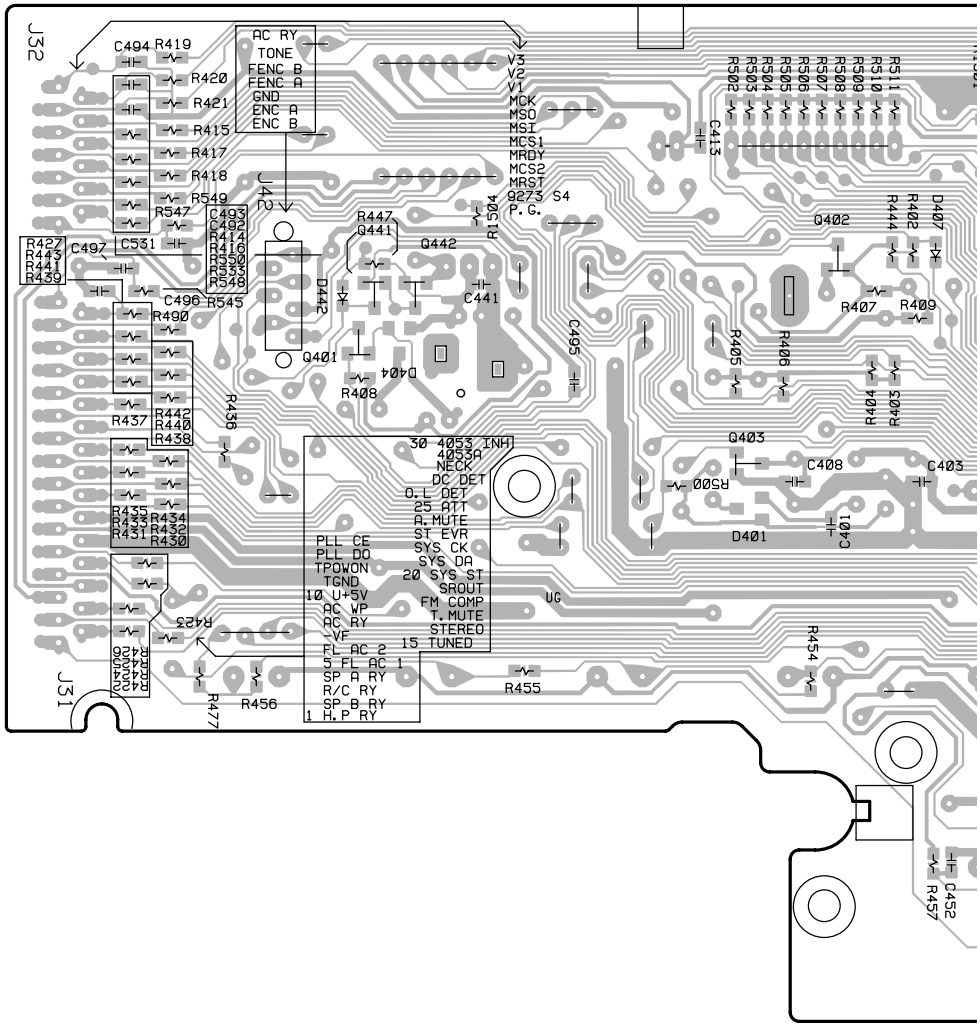


4.6 FRONT, R.ENCODER and POWER SW ASSYS

N FRONT ASSY**P** POWER SW ASSY

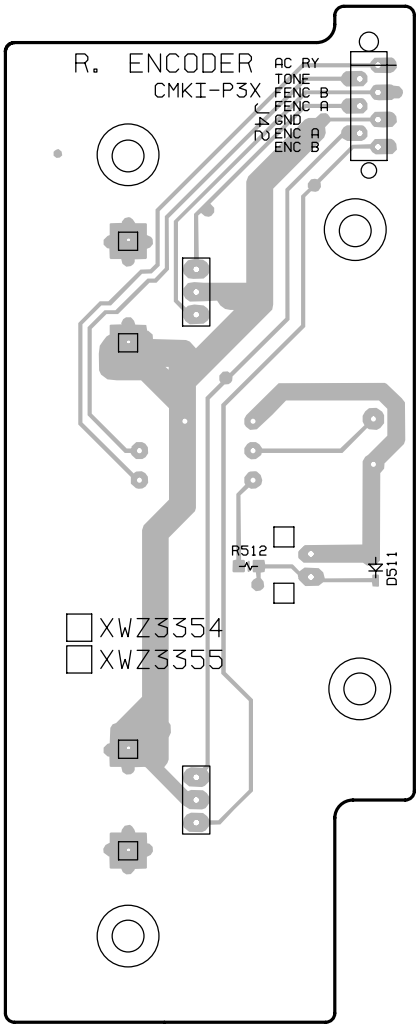


N FRONT ASSY



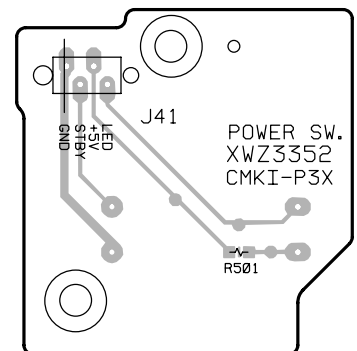
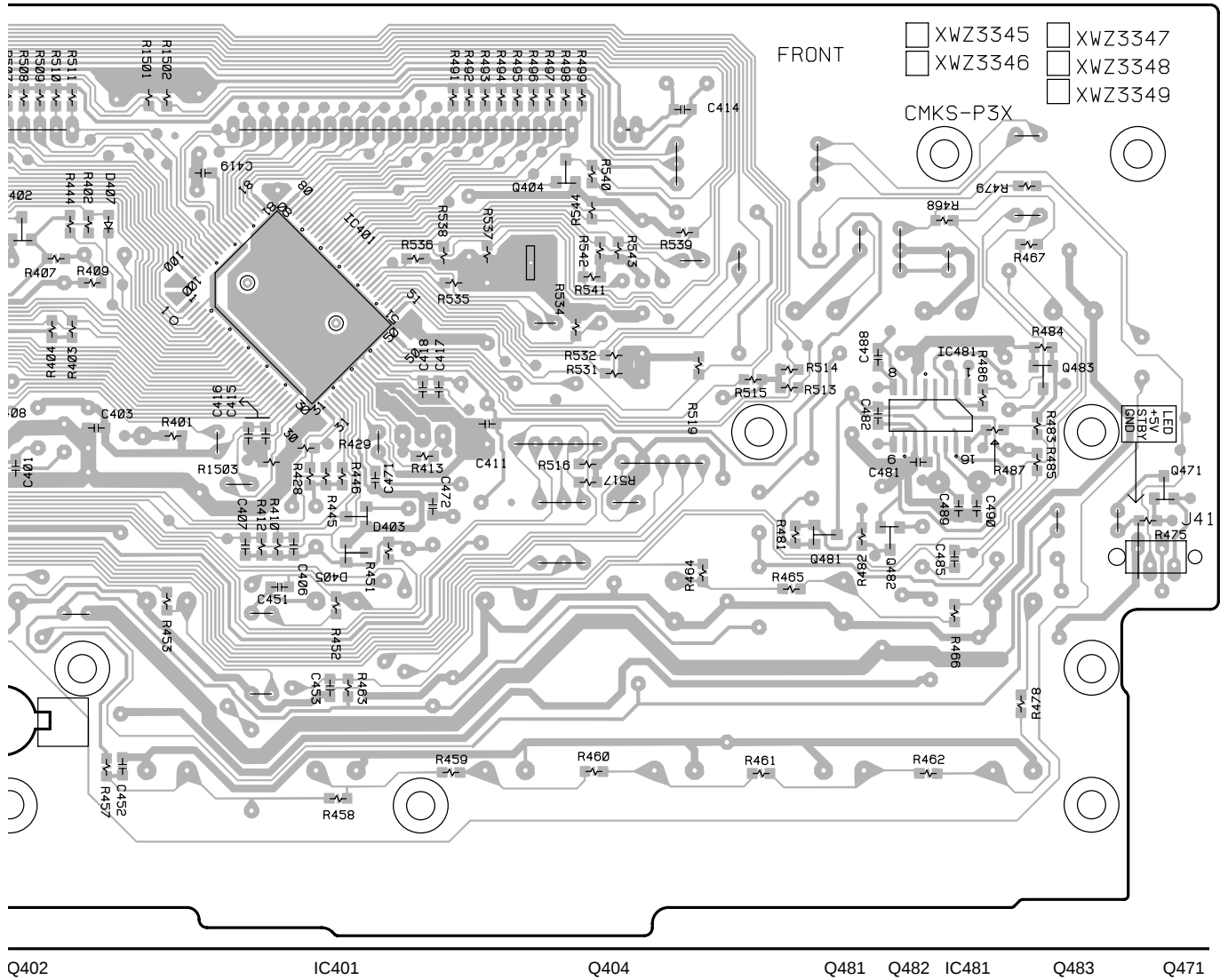
Q401 Q441 Q442 Q403 Q402

O R.ENCODER ASSY



(XNP3032-B)

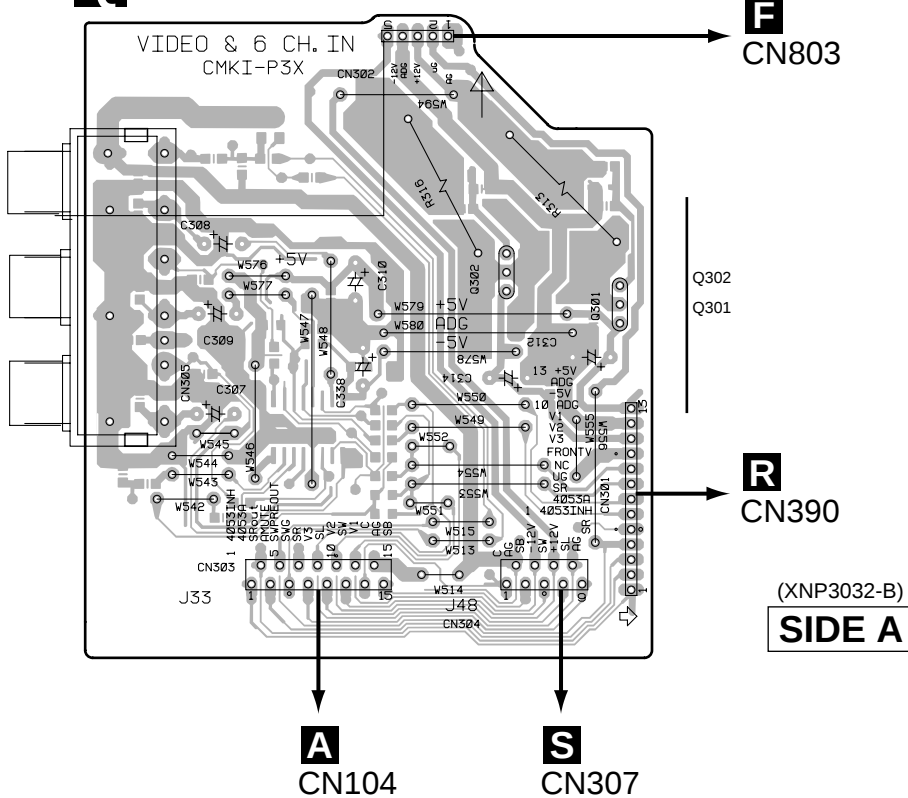
SIDE B



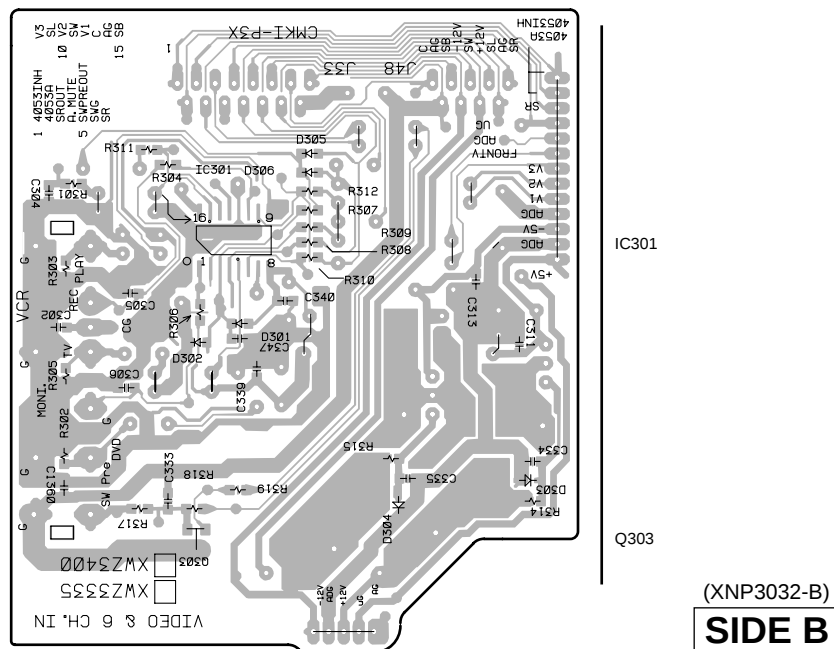
P POWER SW ASSY

4.7 VIDEO&6CH IN ASSY

Q VIDEO&6CH IN ASSY



Q VIDEO&6CH IN ASSY



J FRONT VIDEO ASSY



4.9 H.P. and COMPONENT ASSYS

A

L H.P. ASSY

M COMPONENT ASSY

C CN603

C CN604

R CN392

B

(XNP3032-B)
SIDE A

M COMPONENT ASSY

C

(XNP3032-B)
SIDE B

D

L H.P. ASSY

5. PCB PARTS LIST

NOTES: ● 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.

● 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 $\rightarrow$ 56×10^1 $\rightarrow$ 561 RD1/4PU 5 6 1 J
 47k Ω $\rightarrow$ 47×10^3 $\rightarrow$ 473 RD1/4PU 4 7 3 J
 0.5 Ω $\rightarrow$ R50 RN2H R 5 0 K
 1 Ω $\rightarrow$ 1R0 RS1P 1 R 0 K

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

5.62k Ω $\rightarrow$ 562×10^1 $\rightarrow$ 5621 RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.
		FM/AM TUNER MODULE	AXQ7231
NSP		COMPLEX ASSY	XWK3010
		— VIDEO&6CH IN ASSY	XWZ3335
		— FRONT ASSY	XWZ3345
		— 6CH IN ASSY	XWZ3350
		— POWER SW ASSY	XWZ3352
		— R.ENCODER ASSY	XWZ3354
		— H.P. ASSY	XWZ3357
		— FRONT VIDEO ASSY	XWZ3359
		— S.VIDEO ASSY	XWZ3363
		— COMPONENT ASSY	XWZ3366
		— D TO O ASSY	XWZ3368
		— TRANS4 ASSY	XWZ3369
		— BOARD TO BOARD ASSY	XWZ3371
NSP		AMP&PS ASSY	XWK3023
		— AMP&PRIMARY ASSY	XWZ3380
		— REGULATOR ASSY	XWZ3386
		— AMP INPUT ASSY	XWZ3389
		— TRANS2 ASSY	XWZ3404
NSP		— TRANS1 ASSY	XWZ3390
NSP		— TRANS3 ASSY	XWZ3392
NSP		D.D & INPUT ASSY	XWK3027
		— D.D DSP ASSY	XWZ3395
		— D.D UCOM ASSY	XWZ3397

COMPLEX ASSY

OTHERS

J47	JUMPER WIRED	D15A03-400-2651
J41	JUMPER WIRED	D15A04-125-2651
J42	JUMPER WIRED	D15A07-075-2651

AMP&PS ASSY

OTHERS

Y701	AWG14 BOARD IN	ADX7286
J21	JUMPER WIRED	D20PYY0715E

A D.D UCOM ASSY SEMICONDUCTORS

IC103	M62446FP
IC5901	PD5634A
IC102	TC9163AF
IC111	TC9215AF
IC101	TC9273F-007

Mark	No.	Description	Part No.
		IC112	TC9459F
		IC104-IC107, IC110	UPC4570G2-TFB
		Q101	2SC1740S
		Q251, Q252	2SC2412K
		Q107-Q112	2SC3326
		Q103	DTA143EK
		Q104	DTC124EK
		D103, D105, D106, D254, D255	1SS355
		D201, D202	RB501V-40
		D104, D256	UDZS5.1B
		D101, D102	UDZS6.8B

COILS AND FILTERS

L5901	CHIP SOLID INDUCTOR	ATL7002
L101, L102, L1203, L1204		QTL1013
L1601, L1602, L5902		QTL1013
	CHIP SOLID INDUCTOR	

CAPACITORS

C101-C114, C121-C123	CCSRCH101J50
C126-C128, C152-C154	CCSRCH101J50
C158-C160, C197, C198	CCSRCH101J50
C207, C208, C221, C222	CCSRCH101J50
C228, C229	CCSRCH101J50
C235, C241	CCSRCH221J50
C5906	CCSRCH271J50
C251, C252, C5902	CCSRCH471J50
C130-C137, C146-C151	CEAT100M50
C161, C162, C202, C245-C247	CEAT100M50
C261	CEAT100M50
C5904	CEAT101M10
C157	CEAT101M16
C144, C145, C250	CEAT3R3M50
C117, C118	CEAT470M25
C225, C226, C232, C233, C239	CEAT470M50
C244	CEAT470M50
C155, C156	CEAT471M10
C115, C116, C234, C240	CEAT4R7M50
C173, C174	CKSQYB224K16

C256	CKSQYF105Z16
C271, C5912	CKSRYB102K50
C119, C120, C124, C125	CKSRYB103K50
C171, C172, C179, C180, C183	CKSRYB103K50
C199-C201, C203, C204	CKSRYB103K50

Mark	No.	Description	Part No.
	C223, C224, C230, C231		CKSRYB103K50
	C237, C238, C242, C243		CKSRYB103K50
	C248, C249		CKSRYB103K50
	C140, C143, C253–C255, C5907		CKSRYB104K16
	C236		CKSRYB152K50
	C139, C142		CKSRYB153K50
	C138, C141		CKSRYB822K50
	C227		CKSRYF104Z16
	C1631, C1632		CKSRYF104Z25
	C184, C185		CKSRYF473Z50

RESISTORS

△	R171–R173	RS1/16S102J
△	R174, R175	RS1LMF101J
	Other Resistors	RS1/16S□□□J

OTHERS

CN9501, CN9502	20P CONNECTOR	52044-2045
CN9505	10P CONNECTOR	52045-1045
CN103, CN105	13P CONNECTOR	52045-1345
CN104	15P CONNECTOR	52045-1545
CN106	19P CONNECTOR	52045-1945

CN102	31P CONNECTOR	52045-3145
JA101–JA104	PIN JACK (4P)	AKB7048
CN107	CONNECTOR POST	B3B-PH-K
CN101, CN108	19P SOCKET	KP200TA20L
101–104	PCB BINDER	VEF1040

X5901	CERAMIC RESONATOR (15.7MHz)	ASS7032
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B D.D DSP ASSY

SEMICONDUCTORS

IC9101	AK4112AVF
IC9102	AK4527VQ
IC9551	AK7706VT
IC9103	CS4391
IC9501	CS493292
IC9201, IC9202	NJM2100M
IC9504	PDN031C
IC9811	PQ20WZ51
IC9812	PQ7VZ5
IC9552	TC551001CFT-70L
IC9151	TC74ACT151F
IC9152	TC74HCU04AF
IC9505	TC74LVX244FT
IC9502, IC9503	TC74VHC574F
IC9506	TC74VHCT244AFT
IC9507	TC7WU04FU
IC9601	TC9164AF
IC9602–IC9604, IC9701–IC9707	UPC4570G2-TFB
Q9201, Q9202, Q9601–Q9606, Q9611	2SC3326
Q9102, Q9104, Q9203, Q9607	DTA124EK
Q9609, Q9610	DTA124EK
Q9101, Q9103, Q9204, Q9608	DTC124EK
D9601, D9602	1SS181

COILS AND FILTERS

L9501, L9551, L9801, L9802, L9807	ATL7002
L9809, L9811, L9812, L9900, L9901	ATL7002
CHIP SOLID INDUCTOR	
L9101–L9107, L9151–L9153	QTL1013
L9502, L9503, L9506, L9507, L9552	QTL1013
L9813	CHIP SOLID INDUCTOR
	QTL1013

Mark	No.	Description	Part No.
CAPACITORS			
	C9510, C9511		CCSRCH100D50
	C9115, C9135, C9160, C9609, C9610		CCSRCH101J50
	C9721, C9722, C9735, C9900		CCSRCH101J50
	C9822		CCSRCH102J50
	C9107		CCSRCH150J50
	C9106		CCSRCH180J50
	C9621, C9622, C9749, C9751, C9809		CCSRCH221J50
	C9509, C9629		CCSRCH271J50
	C9159		CCSRCH470J50
	C9101, C9104, C9112, C9114, C9119		CCSRCH471J50
	C9122, C9130, C9154, C9156, C9503		CCSRCH471J50
	C9505, C9507, C9513, C9515, C9518		CCSRCH471J50
	C9520, C9522, C9525, C9528, C9553		CCSRCH471J50
	C9555, C9557, C9559, C9561, C9564		CCSRCH471J50
	C9617, C9618, C9639, C9757		CCSRCH471J50
	C9201, C9202		CCSRCH560J50
	C9707, C9708		CCSRCH820J50
	C9611, C9612, C9736		CCSRCH821J25
	C9113		CEAT221M10
	C9523, C9526, C9643, C9644, C9770		CEJQ100M25
	C9501, C9516, C9551, C9740		CEJQ101M10
	C9801, C9802, C9812, C9814		CEJQ101M10
	C9123, C9125		CEJQ1R0M50
	C9127, C9529		CEJQ2R2M50
	C9713, C9714, C9727, C9728, C9739		CEJQ330M10
	C9753, C9765–C9769		CEJQ330M10
	C9102, C9108, C9117, C9120		CEJQ470M16
	C9151, C9152, C9162, C9562		CEJQ470M16
	C9803, C9805		CEJQ470M25
	C9203, C9204, C9206, C9207		CEJQ4R7M50
	C9603, C9604, C9615, C9616		CEJQ4R7M50
	C9627, C9628, C9761, C9811, C9813		CEJQR47M50
	C9110		CKSRYB102K50
	C9131, C9745, C9781, C9815		CKSRYB103K50
	C9103, C9105, C9118, C9121, C9124		CKSRYB103K50
	C9133, C9134, C9153, C9155		CKSRYB103K50
	C9157, C9158, C9502, C9504, C9506		CKSRYB103K50
	C9508, C9512, C9514, C9517, C9519		CKSRYB103K50
	C9521, C9524, C9527, C9531, C9552		CKSRYB103K50
	C9554, C9556, C9558, C9560, C9563		CKSRYB103K50
	C9572, C9636, C9637, C9816		CKSRYB103K50
	C9109, C9116, C9126, C9626, C9784		CKSRYB104K16
	C9804, C9806, C9817, C9818, C9831		CKSRYB104K16
	C9841, C9901, C9904, C9905		CKSRYB104K16
	C9605, C9606, C9633, C9755		CKSRYB122K50
	C9211, C9212		CKSRYB152K50
	C9703, C9704, C9715, C9716, C9729		CKSRYB182K50
	C9601, C9602, C9613, C9614, C9625		CKSRYB222K50
	C9763		CKSRYB222K50
	C9701, C9702		CKSRYB272K50
	C9732		CKSRYB333K16
	C9645		CKSRYB472K50
	C9111		CKSRYB682K50
	C9717, C9718, C9731		CKSRYB821K50
	C9163, C9164, C9166, C9205		CKSRYF104Z25
	C9208–C9210, C9607, C9608		CKSRYF104Z25
	C9619, C9620, C9631, C9632		CKSRYF104Z25
	C9705, C9706, C9709–C9712		CKSRYF104Z25
	C9723–C9726, C9730, C9737, C9738		CKSRYF104Z25
	C9759, C9760, C9810, C9819–C9821		CKSRYF104Z25
	C9823		CKSRYF104Z25

VSX-D810S

Mark	No.	Description	Part No.
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RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

CN9805, CN9806 20P CONNECTOR	52045-2045
JA9150, JA9152, JA9153	GP1FA551RZ
OPTICAL LINK IN	
JA9155 OPTICAL LINK OUT	GP1FA551TZ
CN9801 20P SOCKET	KP200TA20L
CN9802 9P SOCKET	KP200TA9L
JA9151 1P PIN JACK	VKB1077
X9101 CRYSTAL RESONATOR (24MHz)	ASS7025
X9501 CRYSTAL RESONATOR (27.0MHz)	VSS1086

C AMP&PRIMARY ASSY

SEMICONDUCTORS

△ IC603 PROTECTOR (1A)	AEK7009
△ IC701, IC702 PROTECTOR (125MA)	AEK7020
△ IC604-IC607 PROTECTOR (10A)	AEK7022
IC51	NJM78M56FA
△ IC601, IC602	PAC011A
Q703	2SA1145
Q702	2SA1837
Q696, Q697	2SC1740S
Q704	2SC1845
Q605, Q606, Q633, Q655, Q656	2SC2240
Q683	2SC2240
Q601-Q604, Q631, Q632	2SC2878
Q651-Q654, Q681, Q682	2SC2878
Q701	2SC4793
Q51	KRC101M
D56, D601, D603, D606, D608	1SS133
D631, D632, D651-D654	1SS133
D683, D684, D752, D754, D758	1SS133
△ D701, D702	D5SBA20(B)
D602, D604, D681, D682	MTZJ16A
D711	MTZJ22D
D58	MTZJ5.1A
D712	MTZJ5.1B
△ D51-D55, D721-D724	S5688G

COILS AND FILTERS

△ L51 LINE FILTER	ATF7018
L751-L754, L761, L762 COIL	ATH1004

SWITCHES AND RELAYS

RY751-RY754 RELAY	XSR3002
△ RY51 JOE LOWPOWER RELAY	XSR3003

CAPACITORS

△ C707, C708 (0.01μF/AC250V)	ACG1005
C51, C52 (10000pF/AC250V)	ACG7020
C703, C704 (3300μF/42V)	ACH7135
C701, C702	ACH7137
C611-C614, C636, C637	CCCSL6R0D50
C661-C664, C686, C687	CCCSL6R0D50
C615, C616, C638, C665, C666	CEANP2R2M50
C688	CEANP2R2M50
C712	CEAT101M10
C609, C610, C635, C659, C660	CEAT101M16

Mark	No.	Description	Part No.
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C685	CEAT101M16
C711	CEAT101M35
C53	CEAT102M16
C697	CEAT221M10
C54	CEAT470M25
C605, C606, C633, C655, C656	CEAT4R7M50
C683	CEAT4R7M50
C705, C706	CEHAT100M2A
C751, C752, C755, C761, C762	CFTYA104J50
C771	CFTYA104J50
C55-C57	CGCYX103M25
C601, C602, C652, C681, C696	CKCYB102K50
C603, C604, C632, C653, C654	CKCYB331K50
C682	CKCYB331K50
C631, C651	CKPUYB102K50

RESISTORS

△ R51 (2.2MΩ/ 1/2W)	RCN1080
△ R52	RD1/2PM270J
△ R615	RD1/4PU331J
△ R751, R752, R755, R761, R762	RD1/4PUF101J
△ R772	RD1/4PUF101J
△ R753, R754, R756, R763, R764	RS1LMF4R7J
△ R771	RS1LMF4R7J
△ R711	RS2LMF392J
△ R617, R622, R639, R667, R668	XCN3001
△ R691 (0.22Ω/5W)	XCN3001
Other Resistors	RD1/4PU□□□J

OTHERS

CN603 4P CONNECTOR	52045-0445
CN604 7P CONNECTOR	52045-0745
CN53 23P CONNECTOR	52045-2345
CN751, CN752	AKE7058
SPEAKER TERMINAL 8-P	
51 AC SOCKET 1-P	AKP1060
H 51, H 52, H 701, H 702	AKR7001
△ T 51 STANDBY TRANSFORMER	ATT7057
CN601 18P PLUG	KM200TA18
CN51 AC CODE SOCKET	RKP1751
KN51, KN601EARTH METAL FITTING	VNF1084
701 7P CABLE HOLDER	XKP3047

D TRANS2 ASSY

SEMICONDUCTORS

△ IC853 PROTECTOR (3A)	AEK7015
△ IC851, IC852 PROTECTOR (4A)	AEK7018

OTHERS

851 7P CABLE HOLDER	XKP3047
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E TRANS3 ASSY

TRANS3 ASSY has no service part.

Mark	No.	Description	Part No.
F	REGULATOR ASSY		
	SEMICONDUCTORS		
	IC803, IC804	NJM78M05FA	
	IC801, IC805	NJM78M12FA	
	IC802	NJM79M12FA	
	Q801, Q803, Q805, Q807	KRA103M	
	Q802, Q804, Q806, Q808	KRC101M	
	D809, D810	MTZJ6.2A	
△	D801-D804	S5688G	
	CAPACITORS		
	C808, C811	CEAT101M10	
	C805, C806, C813	CEAT101M16	
	C801, C802	CEAT222M25	
	C809	CEAT332M16	
	C803, C804, C807, C810, C812	CGCYX103M25	
	OTHERS		
	CN801 23P CONNECTOR	52045-2345	
	CN802 20P PLUG	KM200TA20	
	CN803 5P PLUG	KM200TA5	
	CN804 9P PLUG	KM200TA9	
G	AMP INPUT ASSY		
	SEMICONDUCTORS		
	IC251	NJM4558D-D	
	Q257	2SA933S	
	Q251, Q256	2SC2878	
	Q252	2SD1858X	
	Q254	KRA103M	
	Q253, Q255	KRC103M	
	D251, D252	1SS133	
	D253	MTZJ27D	
	D254	MTZJ5.1B	
	CAPACITORS		
	C251	CEANP470M25	
	C254	CEAT101M25	
	C252, C253	CKPUYF103Z25	
	RESISTORS		
	All Resistors	RD1/4PU□□□J	
	OTHERS		
	CN251 3P CONNECTOR	52044-0345	
	CN254 19P CONNECTOR	52044-1945	
	CN252 3P PLUG	KM250MA3L	
	CN253 18P SOCKET	KP200TA18L	
H	TRANS1 ASSY		
	TRANS1 ASSY has no service part.		
I	TRANS4 ASSY		
	SEMICONDUCTORS		
△	IC891, IC892 PROTECTOR (630mA)	AEK7006	
	D891	S1WB(A)60SD	

Mark	No.	Description	Part No.
	CAPACITORS		
	C891, C892	CEAT471M35	
	OTHERS		
	CN891 3P CONNECTOR	52045-0345	
J	FRONT VIDEO ASSY		
	CAPACITORS		
	C903, C905	CEJQ470M25	
	C908, C911, C914	CKSRYB103K50	
	C904, C906, C909, C912	CKSRYB104K25	
	C901, C902	CKSRYB221K50	
	C907, C910, C913	CKSRYB471K50	
	RESISTORS		
	All Resistors	RS1/16S□□□J	
	OTHERS		
	JA902 PIN JACK (4P)	AKX7014	
	CN901 CONNECTOR	S8B-PH-K-S	
K	D TO O ASSY		
	OTHERS		
	CN1001, CN1002 20P PLUG	KM200TA20	
L	H.P. ASSY		
	CAPACITORS		
	C1551, C1552	CKSRYB223K50	
	RESISTORS		
△	R1553, R1554	RS1LMF471J	
△	R1551, R1552	RS2LMF331J	
	OTHERS		
	CN1551 CONNECTOR(3P)	KPE3	
	JA1551 JACK	RKN1002	
	KN1551 EARTH METAL FITTING	VNF1084	
M	COMPONENT ASSY		
	SEMICONDUCTORS		
	IC551	TC74HC4053AF	
	IC552, IC553	TK15420M	
	D1575, D1576	1SS355	
	SWITCHES AND RELAYS		
	RY1575 RELAY	XSR3002	
	CAPACITORS		
	C551-C554, C557, C558	CEAT101M10	
	C1581, C555, C556, C559-C562	CKSRYB103K50	
	C566, C568	CKSRYB103K50	
	RESISTORS		
	All Resistors	RS1/16S□□□J	

VSX-D810S

Mark	No.	Description	Part No.
OTHERS			
	1577	CABLE HOLDER(3P)	51063-0305
	CN1576	4P CONNECTOR	52045-0445
	CN551	5P CONNECTOR	52045-0545
	CN1575	7P CONNECTOR	52045-0745
	1575	PIN JACK(6P)	AKB7089
	JA553	3P RCA PINJACK	AKB7124
	JA551	6P RCA PINJACK	AKB7128

FRONT ASSY

SEMICONDUCTORS

IC401	PDG261A
Q401, Q402, Q442, Q471	DTA124EK
Q403, Q404, Q441	DTC143EK
D407, D442	1SS355
D403, D405	DAN217
D401, D404	DAP202K

COILS AND FILTERS

L401	LFEA2R2J
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SWITCHES AND RELAYS

S451-S465, S476	ASG1051
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CAPACITORS

C420 (220μF/35V)	ACH7101
C404 (0.047F/5.5V)	ACH7132
C402	CEAT221M6R3
C409, C410	CEAT2R2M50
C412	CEAT470M50
C405	CEJQ221M6R3
C442	CEJQ470M10
C451-C453, C472, C495	CKSRYB102K50
C401, C403, C411, C419, C441	CKSRYB103K50
C531	CKSRYB103K50
C408, C416, C418, C471	CKSRYB104K16
C492-C494, C496, C497	CKSRYB104K16
C406, C407	CKSRYB473K16

RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

471	CABLE HOLDER (4P)	51063-0405
404	CABLE HOLDER (7P)	51063-0705
CN401	13P CONNECTOR	52044-1345
CN402	31P CONNECTOR	52044-3145
V401	FL TUBE	XAV3010
X401	CERAMIC RESONATOR (7.2MHz)	ASS7018
401	REMOTE RECEIVER UNIT	GP1U28X

R.ENCODER ASSY

SWITCHES AND RELAYS

S511		ASG1051
S513	ROTARY ENCODER	XSX3005
S512	ROTARY ENCODER	XSX3006

OTHERS

511	CABLE HOLDER (7P)	51063-0705
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Mark	No.	Description	Part No.
 POWER SW ASSY			
SEMICONDUCTORS			
	D501		BR3371XJ30A
SWITCHES AND RELAYS			
	S501		ASG1051

RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

501	CABLE HOLDER (4P)	51063-0405
-----	-------------------	------------

VIDEO&6CH IN ASSY

SEMICONDUCTORS

IC301	NJM2296M
Q302	2SA1515
Q303	2SC3326
Q301	2SC3377
D301, D302, D305, D306	1SS355
D303, D304	UDZS6.2B

CAPACITORS

C347	CCSRCH470J50
C307-C310, C312, C314, C338	CEAT470M25
C1360, C302	CKSRYB103K50
C339, C340	CKSRYB104K25
C304-C306	CKSRYB221K50
C333	CKSRYB331K50
C311, C313	CKSRYB473K25

RESISTORS

 R313, R316	RS3LMF390J
Other Resistors	RS1/16S□□□J

OTHERS

CN304	9P CONNECTOR	52044-0945
CN303	15P CONNECTOR	52044-1545
CN305	6P PIN JACK	AKB7123
CN301	13P SOCKET	KP200TA13L
CN302	5P SOCKET	KP200TA5L

BOARD TO BOARD ASSY

OTHERS

CN392	5P CONNECTOR	52045-0545
CN391	11P PLUG	KM200TA11
CN390	3P PLUG	KM200TA13

6CH IN ASSY

SEMICONDUCTORS

IC302-IC305	NJM4558MD
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CAPACITORS

C1354, C1359, C319, C320	CCSRCH101J50
C327, C328, C342-C345	CCSRCH101J50
C348, C349	CCSRCH101J50
C1362	CCSRCH121J50
C1361	CCSRCH680J50

Mark	No.	Description	Part No.
	C1357		CEAT220M25
	C1358, C321, C324, C331, C332		CEAT4R7M50
	C1352, C1353, C1355, C1356, C316		CKSRYB103K50
	C322, C323, C329, C330		CKSRYB103K50
	C1350, C1351, C317, C318		CKSRYB221K50
	C325, C326		CKSRYB221K50

RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

CN307	9P CONNECTOR	52044-0945
308	PIN JACK(6P)	AKB7089

T S. VIDEO ASSY

SEMICONDUCTORS

IC351, IC352	NJM2296M
D351-D354	1SS355

CAPACITORS

C375, C376	CCSRCH470J50
C352, C355, C358, C361-C363	CEAT470M25
C366	CEAT470M25
C372, C373, C377, C378	CKSRYB103K50
C351, C353, C354, C356, C357	CKSRYB104K25
C359, C367	CKSRYB104K25
C364, C365, C368-C371	CKSRYB221K50

RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

CN354	CONNECTOR POST	B5B-PH-K
CN351	11P SOCKET	KP200TA11L
JA351	JACK	RKN1004
CN353	2-4P MINI DIN SOCKET	XKP3044
CN352	3-4P MINI DIN SOCKET	XKP3045

U FM/AM TUNER MODULE

SEMICONDUCTORS

IC201	BA1451F
IC202	LC72131MD-TFB
Q201, Q204, Q205	2SC2412K
Q202	DTA124ES
Q203	DTC124EK
D201	1SS133
D202	MTZJ5.1C

COILS AND FILTERS

L201	FM DETECTOR COIL	ATE7003
F202	CERAMIC FILTER	ATF-107
F201	CERAMIC FILTER	ATF-119
F203	AM CERAMIC FILTER	ATF7026

CAPACITORS

C206	CCSRCH100D50
C212, C213, C226, C233-C235	CCSRCH101J50
C240	CCSRCH101J50
C231, C232	CCSRCH150J50
C223	CEAT100M50

Mark	No.	Description	Part No.
	C229		CEAT101M10
	C224		CEAT1R0M50
	C227		CEAT220M25
	C241		CEAT2R2M50
	C243		CEAT330M16
	C228		CEAT3R3M50
	C237		CEAT470M10
	C211		CEJA1R0M50
	C210		CEJA470M16
	C204, C238, C602		CKSRYB102K50
	C101, C102, C208, C220, C239		CKSRYB103K50
	C242, C601		CKSRYB103K50
	C216, C217, C225		CKSRYB153K50
	C201, C205, C209, C214, C230		CKSRYB223K50
	C236, C603		CKSRYB223K50
	C221		CKSRYB224K10
	C202, C222		CKSRYB473K16
	C215		CKSRYB681K50

RESISTORS

R211	RD1/4PU221J
R221	RD1/4PU222J
R233	RD1/4PU391J
R243	RS1/10S0R0J
R103	RS1/10S331J
R104	RS1/10S391J
Other Resistors	RS1/16S□□□J

OTHERS

CN201	13P CONNECTOR	52044-1345
BN201	TERMINAL 4-P	AKA7003
	SHIELD CASE T	ANK7072
	SHIELD CASE B	ANK7073
X201	CRYSTAL RESONATOR (7.2MHz)	ASS1093
	FM FRONT END	AXF7003
	AM RF TUNING BLOCK	AXX7071

6. ADJUSTMENT

6.1 TUNER SECTION

■ AM Tuner Section

- There is no adjustment in the AM tuner.

■ FM Tuner Section

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

Step No.	Adjustment Title	ANT. Input level and signal condition			Adjustment	
		Frequency (MHz)	Modulation	Input Level (dBμV)	Adjust point	Contents
1	T-METER Adjustment	98	OFF	80	L201	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point V _{tm}) gets within 0 ± 50mV.

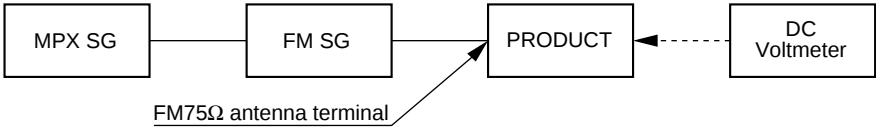


Fig.1 Adjustment Wiring Diagram

U FM/AM TUNER MODULE

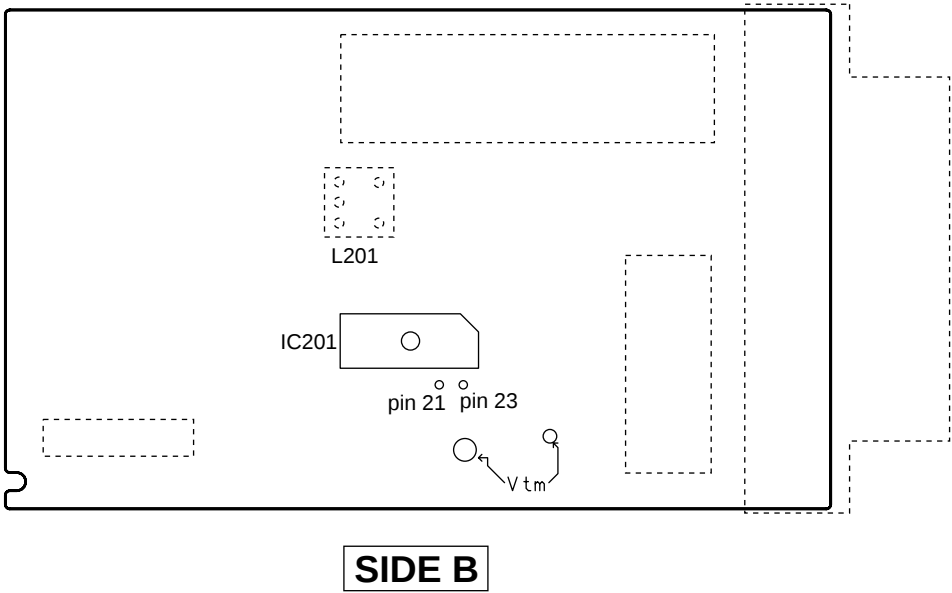


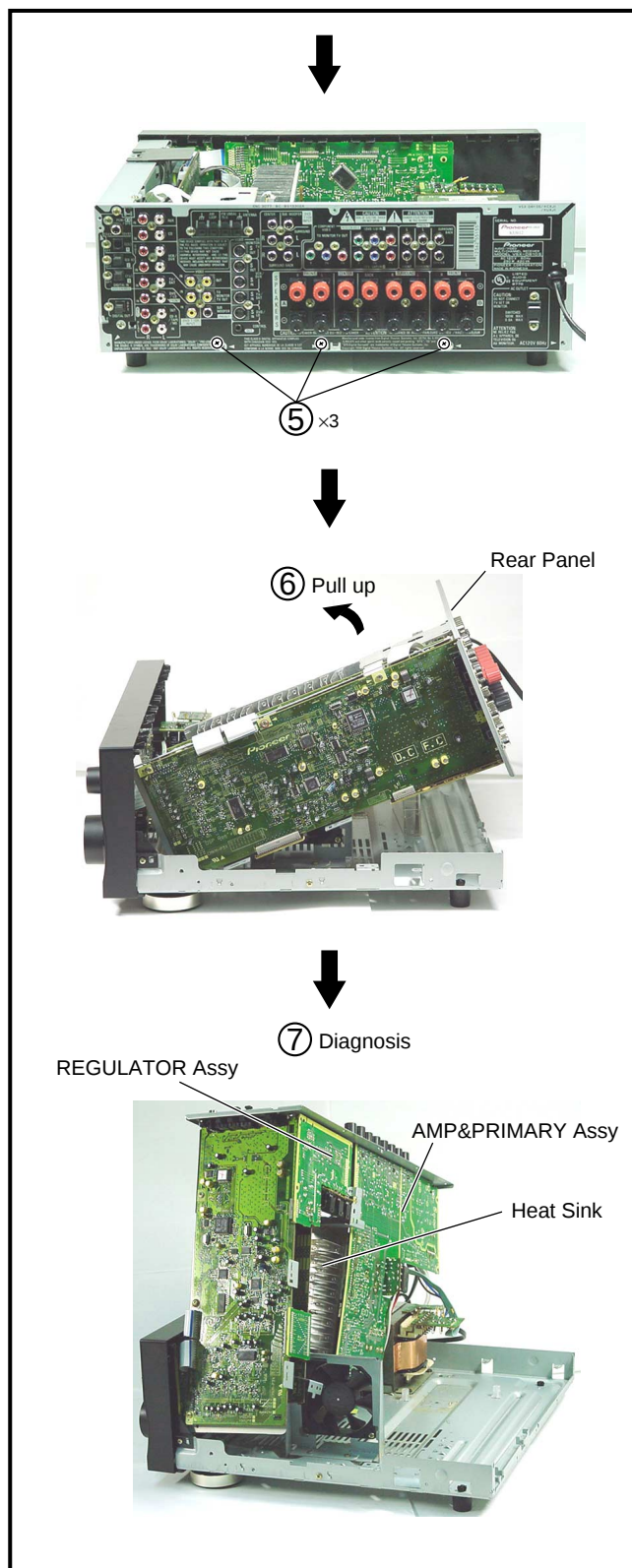
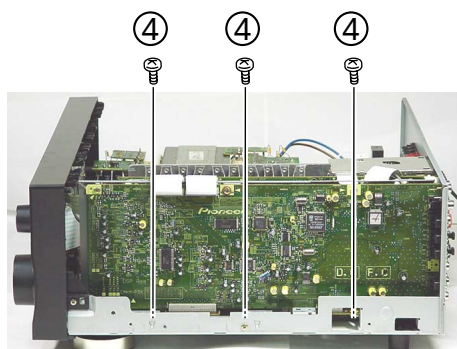
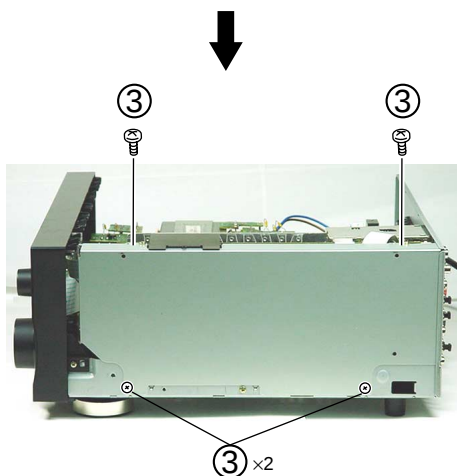
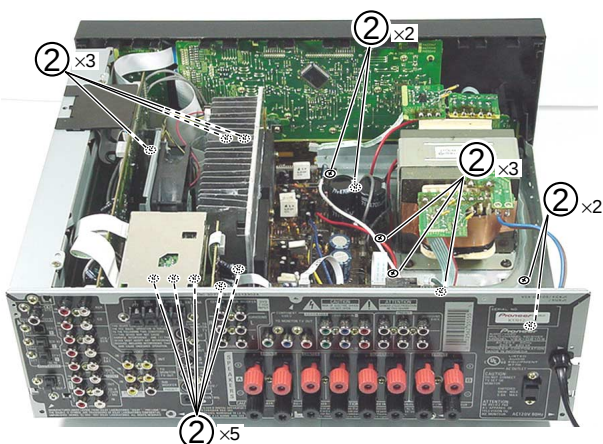
Fig.2 Adjustment Point

7. GENERAL INFORMATION

7.1 DISASSEMBLY AND DIAGNOSIS

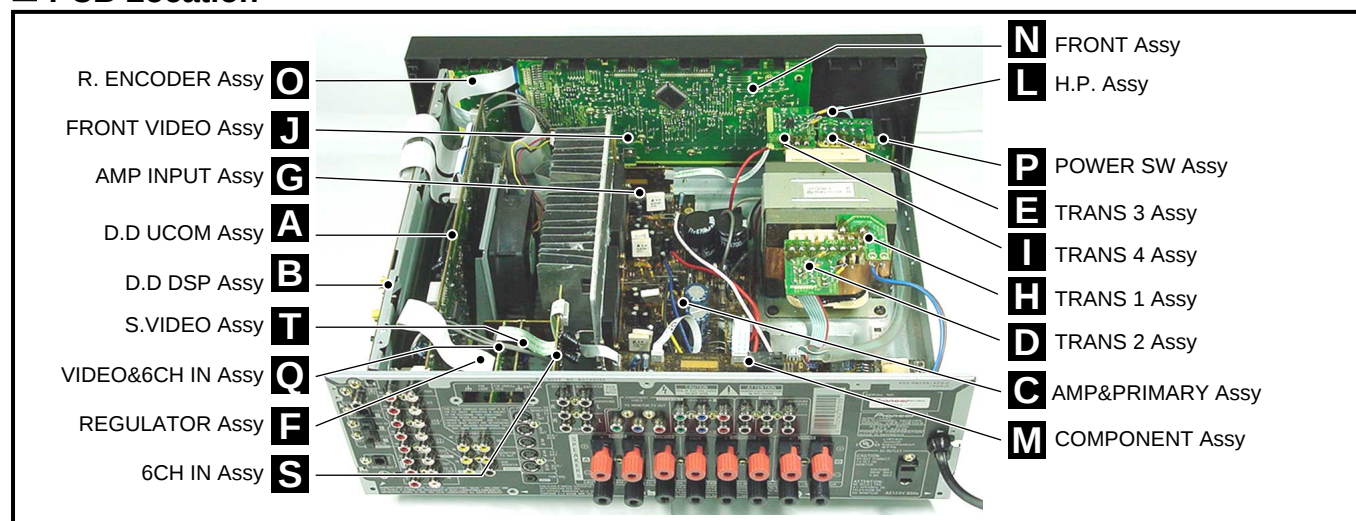
■ Diagnosis

① Remove the Bonnet (seven screws).



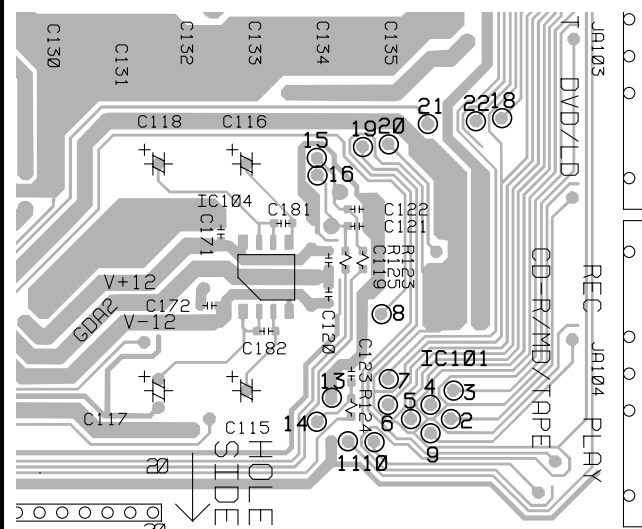
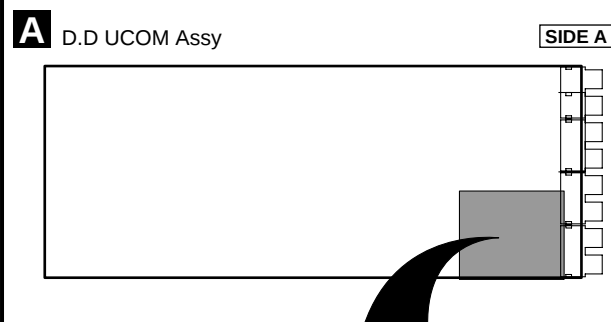
Note : The product does not operate when the screws of Speaker Terminal are taken off from Rear Panel.
When FM/AM TUNER MODULE was removed, the product operates except FM/AM TUNER.

PCB Location



Diagnosis of D.D UCOM Assy and D.D DSP Assy

Please check IC101(Function IC) mounted on SIDE B from SIDE A.
The Pin number points on SIDE A of IC101 are shown as follows.



7.2 PARTS

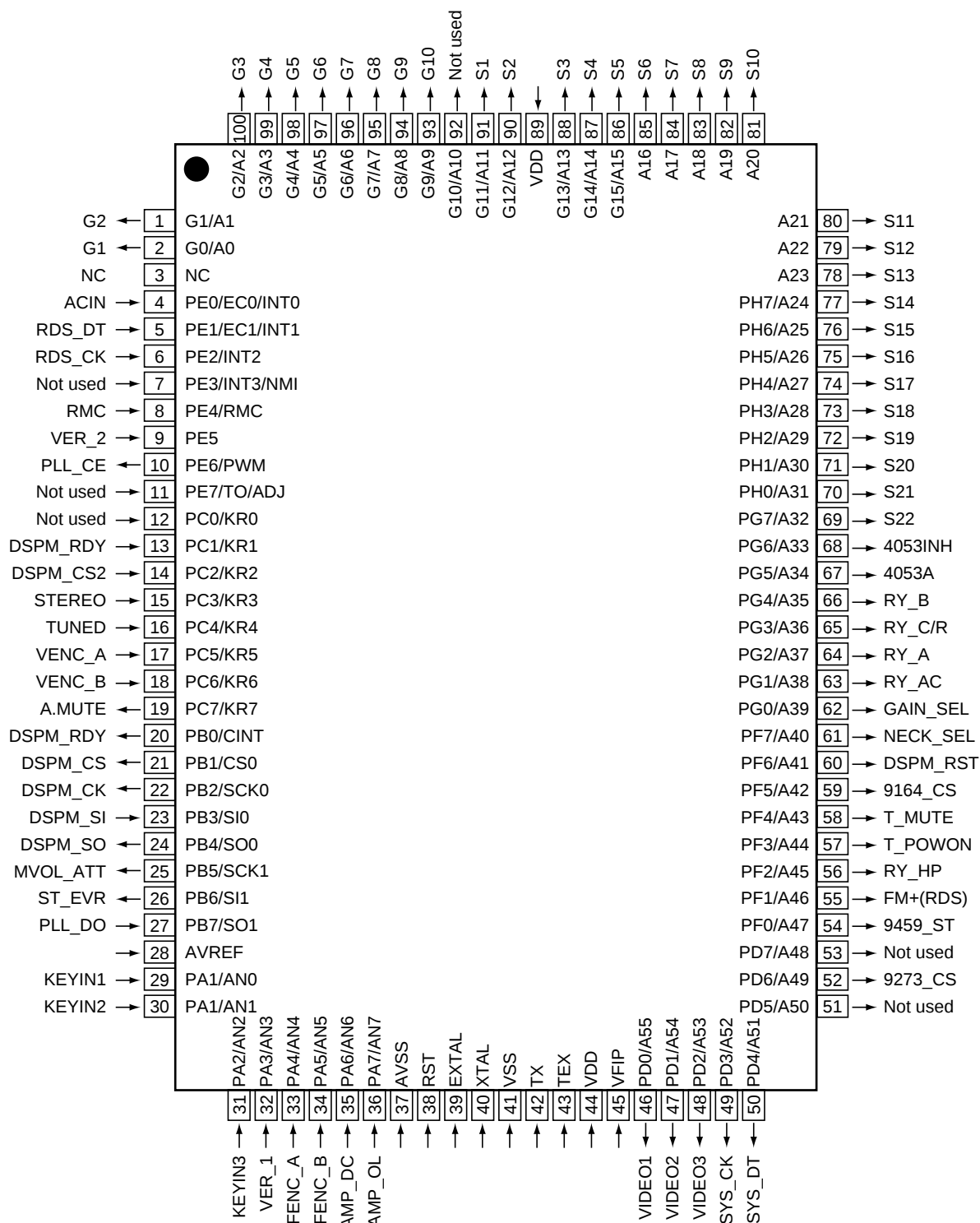
7.2.1 IC

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

■ PDG261A (FRONT ASSY : IC401)

- **System Control MCU**

- **Pin Arrangement (Top View)**



● Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	G2	O	Grid output 2	H
2	G1	O	Grid output 1	H
3	NC	–	Connect to VDD	
4	ACIN	I	AC pulse input	
5	RDS_DT	I	Serial control DATA signal of RDS communication	
6	RDS_CK	I	Serial control CLOCK signal of RDS communication	
7	Not used	I	Connect to GND	
8	RMC	I	Remote control signal input (no-carrier signal)	
9	VER_2	I	Destination switch 2	
10	PLL_CE	O	Chip select signal for communication with LC72131 (tuner)	H
11	Not used	O		
12	Not used	O		
13	DSPM_RDY	I	DSP Micro Computer READY input	
14	DSPM_CS2	I	CS input for DSP Micro Computer	
15	STEREO	I	Stereo/Monoral signal judgment signal	
16	TUNED	I	TUNED information	
17	ENC_A	I	EVOL Rotary encoder signal input A	
18	ENC_B	I	EVOL Rotary encoder signal input B	
19	AMUTE	O	Audio mute	L
20	DSPM_RDY	O	RADY of DSP Micro Computer communication	
21	DSPM_CS1	O	Chip select output for control of DSP Micro Computer	L
22	DSPM_CK	O	Clock signal for communication with DSP Micro Computer	H
23	DSPM_SI	I	DATA input signal for communication with DSP Micro Computer	
24	DSPM_SO	O	DATA output signal for communication with DSP Micro Computer	H
25	MVRATT	O	ATT control of master volume (L : Less than -15dB)	H
26	ST_EVR	O	Strobe signal for communication with electric volume IC	H
27	PLL_DO	I	Data input signal for communication with LC72131 (tuner)	
28	AVref	–	Connect to VDD	
29	KEYIN1	I	Key input A/D conversion port 1	
30	KEYIN2	I	Key input A/D conversion port 2	
31	KEYIN3	I	Key input A/D conversion port 3	
32	VER_1	I	Destination switch (A/D input)	
33	FENC_A	I	FUNC Rotary encoder signal input A	
34	FENC_B	I	FUNC Rotary encoder signal input B	
35	AMP_DC	I	DC abnormality detection of protection circuit (L : Abnormality detection) *1	L
36	AMP_OL	I	Over-load detection of protection circuit (L : Abnormality detection) *2	L
37	AVSS	–	Connect to VSS	
38	RST	–	Reset	
39	EXTAL	–	Connect to the oscillator (7.2MHz)	
40	XTAL	–		
41	VSS	–	Connect to VSS	
42	TX	–	Open	
43	TEX	–	Connect to VSS	
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	VIDEO1	O	NJM2296D control	H
47	VIDEO2			
48	VIDEO3			
49	SYS_DT	O	Data signal for communication with M62446, TC9163, TC9164 and PLL	H
50	SYS_CK	O	Clock signal for communication with M62446, TC9163, TC9164 and PLL	H

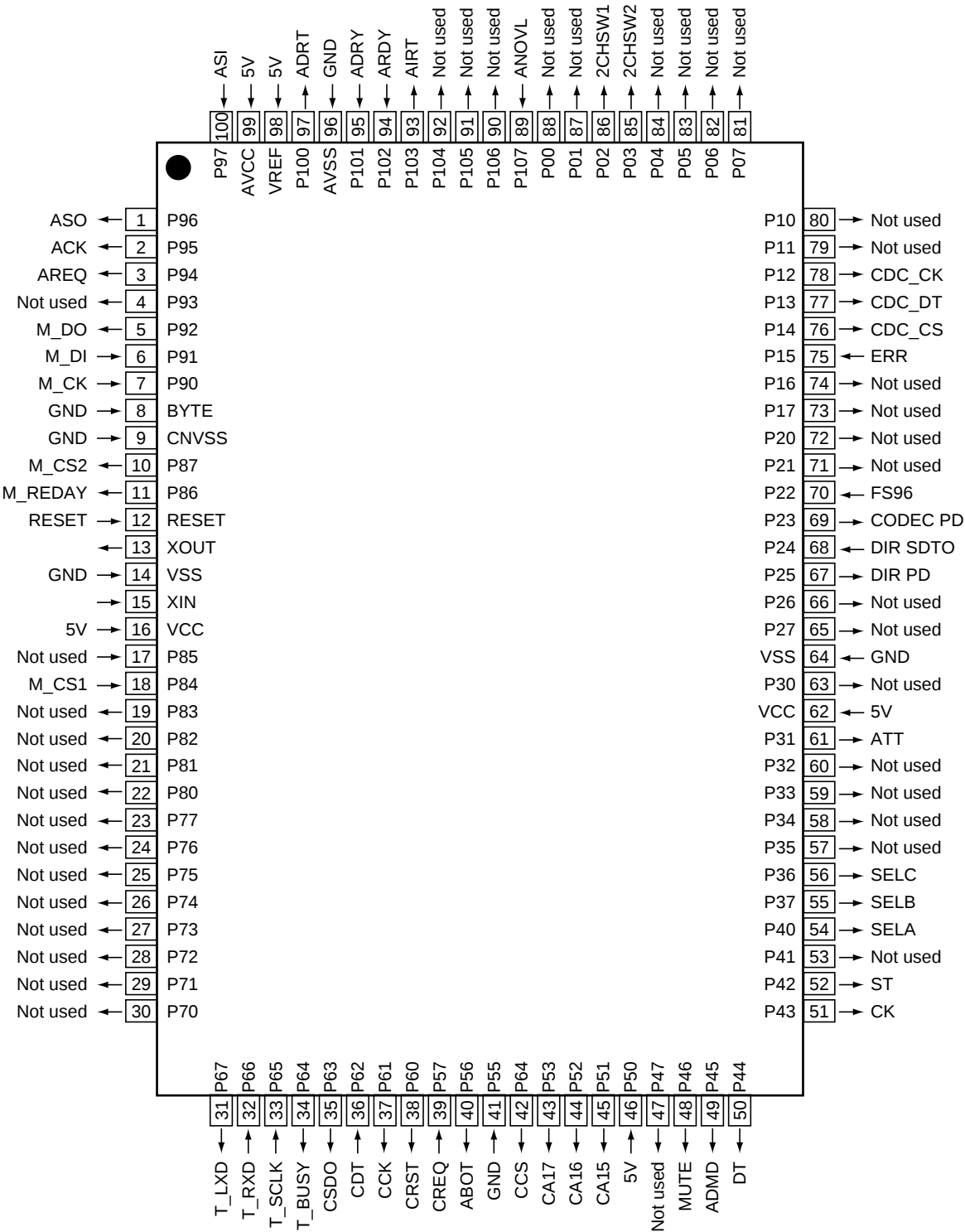
*1 : When DC voltage was output from amplifier, "POWER OFF" is displayed at FL display.

*2 : When the output of amplifier became overload state, "OVER LOAD" is displayed at FL display.

No.	Pin Name	I/O	Pin Function	Active
51	Not used			
52	9273_CS	O	TC9273 Chip select	H
53	Not used	O		
54	9459_ST	O	Electronic volume TC5496 Strobe for SB	H
55	FM+(RDS)	O	Tr switch ON/OFF for power supply of RDS decoder (L : AM, power OFF , H : Other)	H
56	RY_HP	–	HP relay ON/OFF	H
57	T_POWON	O	Tuner module ON/OFF (North America model only)	H
58	T_MUTE	O	Tuner mute	H
59	9164_CS	O	TC9163, TC9164 Chip select	
60	DSP_RST	O	DSP Micro Computer reset	
61	NECK_SEL	O	5.1ch, surround mode and A+B Stereo : H / Stereo : L	
62	GAIN_SEL	O	Gain select (5.1ch and Stereo of analog input : H)	H
63	RY_AC	O	AC relay ON/OFF	H
64	RY_A	O	Speaker A relay ON/OFF	H
65	RY_C/R	O	Rear/Center Speaker relay ON/OFF	H
66	RY_B	O	Speaker B relay ON/OFF	H
67	4053A	O	Component terminal control	H
68	4053INH	O	Component terminal control	H
69	S22	O	Segment output 22	H
70	S21		Segment output 21	
71	S20		Segment output 20	
72	S19		Segment output 19	
73	S18		Segment output 18	
74	S17		Segment output 17	
75	S16		Segment output 16	
76	S15		Segment output 15	
77	S14		Segment output 14	
78	S13		Segment output 13	
79	S12		Segment output 12	
80	S11		Segment output 11	
81	S10		Segment output 10	
82	S9		Segment output 9	
83	S8		Segment output 8	
84	S7		Segment output 7	
85	S6		Segment output 6	
86	S5		Segment output 5	
87	S4		Segment output 4	
88	S3		Segment output 3	
89	VDD	–	5V	
90	S2	O	Segment output 2	H
91	S1		Segment output 1	
92	Not used	O	Not used (Fixed Vfdp)	
93	G10	O	Grid output 10	H
94	G9		Grid output 9	
95	G8		Grid output 8	
96	G7		Grid output 7	
97	G6		Grid output 6	
98	G5		Grid output 5	
99	G4		Grid output 4	
100	G3		Grid output 3	

■ PD5634A (D.D UCOM ASSY : IC5901)

- Receiver Control microcomputer
- Pin Arrangement (Top View)



● Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	ASO	O	AK7706 DATA output	
2	ACK	O	AK7706 CLOCK output	
3	AREQ	O	AK7706 REQ	
4	Not used	O		
5	M_DO	O	DATA OUT to Main microcomputer	
6	M_DI	I	DATA IN from Main microcomputer	
7	M_CK	I	CLOCK IN for Main microcomputer communication	
8	BYTE	I	GND	
9	T_PGM/OE	I	Pull down to CNVss, GND (For FLASH rewriting)	
10	M_CS2	O	CS output for Main microcomputer communication	
11	M_READY	O	READY output for Main microcomputer communication	
12	RESET	–	Reset (from Main microcomputer)	
13	XOUT	–	Oscillator	
14	VSS	–	GND	
15	XIN	–	Oscillator	
16	VCC	–	5V	
17	MN1	I	5V	
18	M_CS1	I	CS input for Main microcomputer communication	
19	Not used	O		
20	Not used	O		
21	Not used	O		
22	Not used	O		
23	Not used	O		
24	Not used	O		
25	Not used	O		
26	Not used	O		
27	Not used	O		
28	Not used	O		
29	Not used	O		
30	Not used	O		
31	TXD	O	For FLASH rewriting	
32	RXD	I	For FLASH rewriting	
33	T-SCLK	I	For FLASH rewriting	
34	T-BUSY	O	For FLASH rewriting	
35	CSDO	O	DATA OUT for Crystal DSP	
36	CDT	I	DATA IN for Crystal DSP	
37	CCK	O	CLK for Crystal DSP	
38	CRST	O	RESET for Crystal DSP	
39	CREQ	I	REQ for Crystal DSP	
40	ABOT	O	ABOOT for Crystal DSP	
41	VSS	–		
42	CCS	O	CS for Crystal DSP	
43	CA17	O	For Crystal DSP	
44	CA16	O	For Crystal DSP	
45	CA15	O	For Crystal DSP	
46	T-Vdd	I	5V	
47	Not used	O		
48	MUTE	O	For E-SW (TC9164)	
49	ADMD	O	For E-SW (TC9164)	
50	DT	O	For E-SW (TC9164)	

VSX-D810S

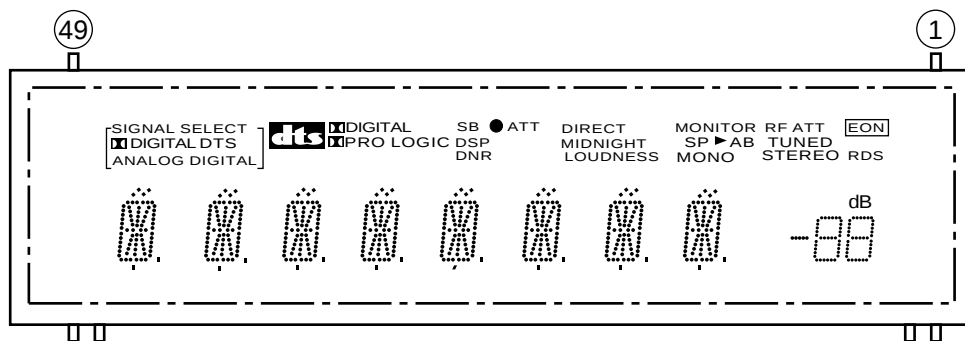
No.	Pin Name	I/O	Pin Function	Active
51	CK	O	For E-SW (TC9164)	
52	ST	O	For E-SW (TC9164)	
53	Not used	O		
54	SELA	O	For LOGIC IC, TC74ACT151F	
55	SELB	O	For LOGIC IC, TC74ACT151F	
56	SELC	O	For LOGIC IC, TC74ACT151F	
57	Not used	O		
58	Not used	O		
59	Not used	O		
60	Not used	O		
61	ATT	O	ATT output	
62	VCC	–	5V	
63	Not used	O		
64	VSS	–	GND	
65	Not used	O		
66	Not used	O		
67	DIR_PD	O	Power down for DIR	
68	DIR_SDTO	I	DIR DATA IN	
69	CDC_PD	O	Power down for CODEC	
70	FS96	I	96K	
71	Not used	O		
72	Not used	O		
73	Not used	O		
74	Not used	O		
75	ERR	I	DIR	
76	CDC_CS	O	CS for CODEC communication	
77	CDC_DT	O	DATA OUT for CODEC communication	
78	CDC_CK	O	Clock for CODEC communication	
79	Not used	O		
80	Not used	O		
81	Not used	O		
82	Not used	O		
83	Not used	O		
84	Not used	O		
85	2CHSW2	O	For TC9215 control (SW H : PASSIV, L : POWERED)	
86	2CHSW1	O	For TC9215 control (SB H : DSP, L : 6CH)	
87	Not used	O		
88	Not used	O		
89	ANOV	I	Analog input overload detection (A/D)	
90	Not used	O		
91	Not used	O		
92	Not used	O		
93	AIRT	O	AK7706DSP INIT reset (control it only in a power start)	
94	ARDY	I	AK7706 writing READY input	
95	ADRY	I	AK7706 output data READY input	
96	AVSS	–	GND	
97	ADRT	O	AK7706 DSP reset	
98	VREF	–	5V	
99	AVCC	–	5V	
100	ASI	I		

7.2.2 DISPLAY

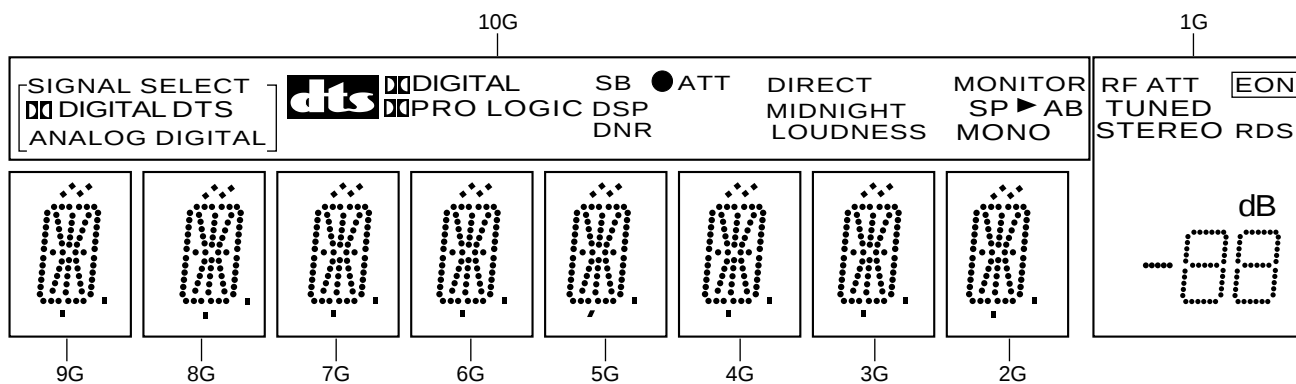
■ XAV3010 (FRONT ASSY : V401)

• FL DISPLAY

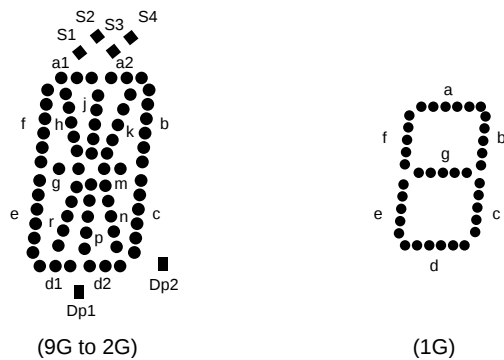
• Pin Assignment



• Grid Assignment



• Segment Designation



• Pin Connection

Pin No.	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Connection	F2	F2	NP	NP	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	

NOTE 1) F1, F2..... Filament
 2) NP..... No pin
 3) NX..... No extend pin
 4) DL..... Datum Line
 5) 1G to 10G..... Grid
 6) Field of vision is a minimum of 29° from the lower side.

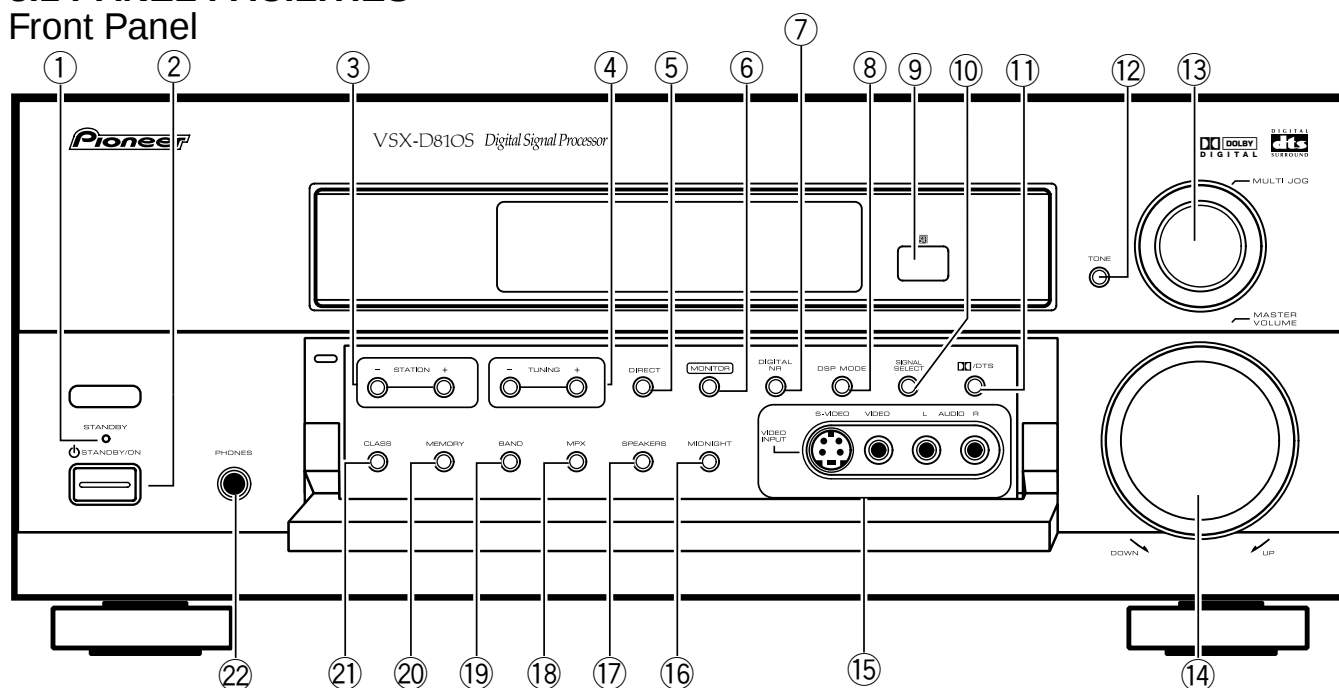
• Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	MONO	a1	a1	a1	a1	a1	a1	a1	a1	dB
P2	B	a2	a2	a2	a2	a2	a2	a2	a2	2a
P3	A	h	h	h	h	h	h	h	h	2b
P4	SP ►	j	j	j	j	j	j	j	j	2f
P5	MONITOR	k	k	k	k	k	k	k	k	2g
P6	LOUDNESS	b	b	b	b	b	b	b	b	2c
P7	MIDNIGHT	f	f	f	f	f	f	f	f	2e
P8	DIRECT	m	m	m	m	m	m	m	m	2d
P9	DNR	g	g	g	g	g	g	g	g	1a
P10	ATT	c	c	c	c	c	c	c	c	1b
P11	●	e	e	e	e	e	e	e	e	1f
P12	DSP	r	r	r	r	r	r	r	r	1g
P13	SB	p	p	p	p	p	p	p	p	1c
P14	PRO LOGIC	n	n	n	n	n	n	n	n	1e
P15	DIGITAL	d1	d1	d1	d1	d1	d1	d1	d1	1d
P16	CS	d2	d2	d2	d2	d2	d2	d2	d2	
P17	ANALOG	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	RDS
P18	DIGITAL	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	RF ATT
P19	[]	S1	S1	S1	S1	S1	S1	S1	S1	EON
P20	DTS	S4	S4	S4	S4	S4	S4	S4	S4	
P21	DIGITAL	S2	S2	S2	S2	S2	S2	S2	S2	TUNED
P22	SIGNAL SELECT	S3	S3	S3	S3	S3	S3	S3	S3	STEREO

8. PANEL FACILITIES AND SPECIFICATIONS

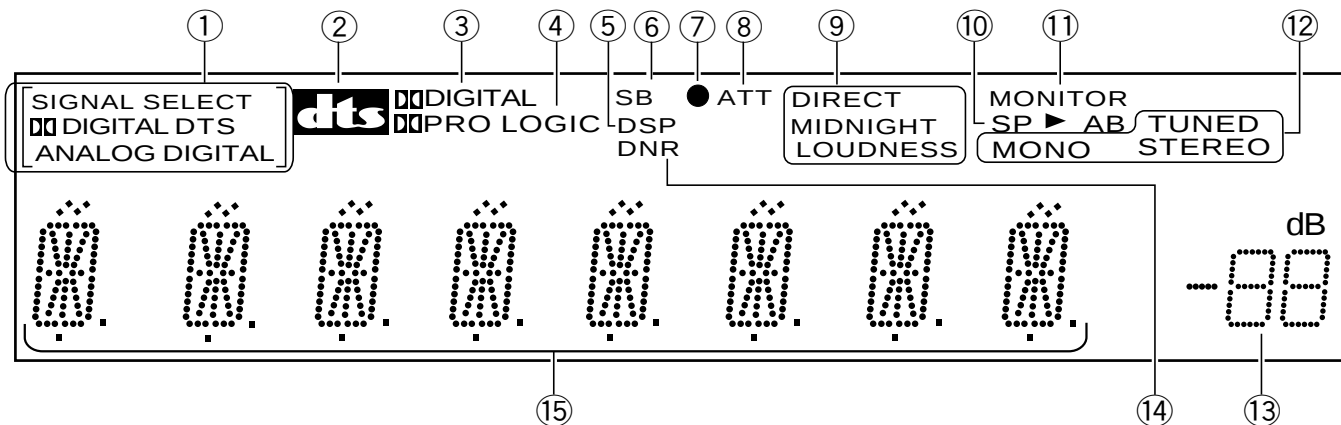
8.1 PANEL FACILITIES

Front Panel



- ① **STANDBY indicator**
Lights when the receiver is in standby mode (note that the receiver consumes a small amount of power (1W) in standby mode).
- ② **STANDBY/ON button**
Switches the receiver between on and standby (note that the receiver consumes a small amount of power (1W) in standby mode).
- ③ **STATION (+/-) buttons**
Selects station memories when using the tuner.
- ④ **TUNING (+/-) buttons**
Selects the frequency when using the tuner.
- ⑤ **DIRECT button**
Use to switch DIRECT playback on or off. This mode bypasses the tone controls, channel levels, DOLBY/DTS and DSP modes for the most accurate reproduction of a program source.
- ⑥ **MONITOR button**
Press to switch tape monitoring on/off.
- ⑦ **DIGITAL NR button**
Switches the DIGITAL NR on or off .
On the VSX-D810S use this button to switches the DIGITAL NR on or off.
- ⑧ **DSP MODE button**
Use to switch between the various DSP modes available (**HALL1, HALL 2, JAZZ, DANCE, THEATER1, THEATER 2, 6CH STEREO**) and **DSP off**. Use this button to create different surround sound effects from any stereo source.
- ⑨ **Remote sensor**
Receives the signals from the remote control.
- ⑩ **SIGNAL SELECT button**
Use to select an analog or digital or AUTO signal.
- ⑪ **DOLBY /DTS button**
Use to switch between the various Dolby/DTS surround modes.
- ⑫ **TONE button**
This button allows you to activate the **BASS & TREBLE** controls. To adjust the **BASS** and/or **TREBLE** use the
- MULTI JOG DIAL.** Tone can only be used in 2 channel stereo sound mode. The tones controls have no effect on the **B** speaker system.
- ⑬ **MULTI JOG dial**
You can use this dial for two purposes. Firstly, in normal mode turn it to select a source component. Secondly, use it to adjust the **BASS** and/or **TREBLE** levels when the **TONE** button has been activated (as explained above).
- ⑭ **MASTER VOLUME**
Use to set the overall listening volume.
- ⑮ **VIDEO INPUT jacks**
Connect a video camera, video game system, etc. to the **VIDEO INPUT** jacks.
- ⑯ **MIDNIGHT button**
Use when listening to movie soundtracks at low volume. This feature will enable you to hear quiet sounds and not get jolted by loud or sudden sound effects.
- ⑰ **SPEAKERS button**
Use to switch the speaker system **A → B → A+B → off**. In **B** and **A+B** speaker modes you hear only 2 channel stereo sound.
- ⑱ **MPX button**
If the **TUNED** or **STEREO** indicators don't light when tuning to an FM station because the signal is weak, press the **MPX** button to switch the receiver into mono reception mode. This should improve the sound quality and allow you to enjoy the broadcast.
- ⑲ **BAND button**
Press to select the AM or FM band.
- ⑳ **MEMORY button**
Press to memorize a station for recall using the **STATION (+/-)** buttons.
- ㉑ **CLASS button**
Switches between the three banks (classes) of station memories.
- ㉒ **PHONES jack**
Use to connect headphones but this does not switch the speakers off.

Display



① SIGNAL SELECT indicators

Light to indicate the type of input signal assigned for the current component (see "Front Panel", ⑩ SIGNAL SELECT). When the AUTO setting is being used on VSX-D810S receivers a set of brackets will appear around the SIGNAL SELECT indicators.

DIGITAL : Lights when a DOLBY DIGITAL signal is played.

DTS: Lights when a source with DTS audio signals is played.

ANALOG : Lights when an analog signal is selected.

DIGITAL : Lights when a digital audio signal is selected.

[]: Lights when the AUTO setting is selected.

② DTS indicator

Lights when DTS mode is being used.

③ DIGITAL indicator

When the **DIGITAL** (DOLBY)/DTS mode of the receiver is on, this lights to indicate playback of a Dolby Digital signal. However, **PRO LOGIC** lights during **DIGITAL** channel playback of Dolby Digital.

④ PRO LOGIC indicator

When the **DIGITAL** (DOLBY)/DTS mode of the receiver is on, this lights to indicate playback of a Dolby Pro Logic source.

⑤ DSP indicator

Lights when any Advanced Theater or DSP mode is selected.

⑥ Surround Back indicator

Lights when most Surround Back channel flag encoded (6.1channel) software is playing. (With some Surround Back channel software the surround back indicator won't light because there is no flag encoded in the software.) If you play DTS 5.1/6.1 channel software surround sound will be heard whether it is encoded with a surround back channel flag or not.

⑦ OVERLOAD indicator

This lights when an analog signal is too strong (the SIGNAL SELECT needs to be on ANALOG). It indicates the sound is distorting and the input signal should be reduced.

⑧ ATT indicator

Lights when ATT is used to attenuate (reduce) the level of the input signal (can only be used in ANALOG mode).

⑨ DIRECT indicator

Lights when source DIRECT is in use. This function bypasses all tone, channel levels, DSP and Dolby Surround effects.

MIDNIGHT indicator

Lights when MIDNIGHT listening mode is in use.

LOUDNESS indicator

Lights when the LOUDNESS is on. LOUDNESS is used to boost the bass and treble when listening at low levels.

⑩ SPEAKER indicator

Shows if the speaker system is on or not. SP ►A (and/or) B means speakers are switched on. SP ► means speakers are switched off.

⑪ MONITOR indicator

Lights when **MONITOR** is selected to hear a recording as it's being made.

⑫ TUNER indicators

MONO:

Lights when the mono mode is set using the MPX MODE button.

TUNED:

Lights when a broadcast is being received.

STEREO:

Lights when a stereo FM broadcast is being received in auto stereo mode.

⑬ MASTER VOLUME LEVEL

Shows the overall volume level. Volume level is maintained even when the power is off. ---dB indicates the minimum level, and 0dB indicates the maximum level.

- Depending on the level settings you make for individual channels, the MAX level can range between -10dB and 0dB.

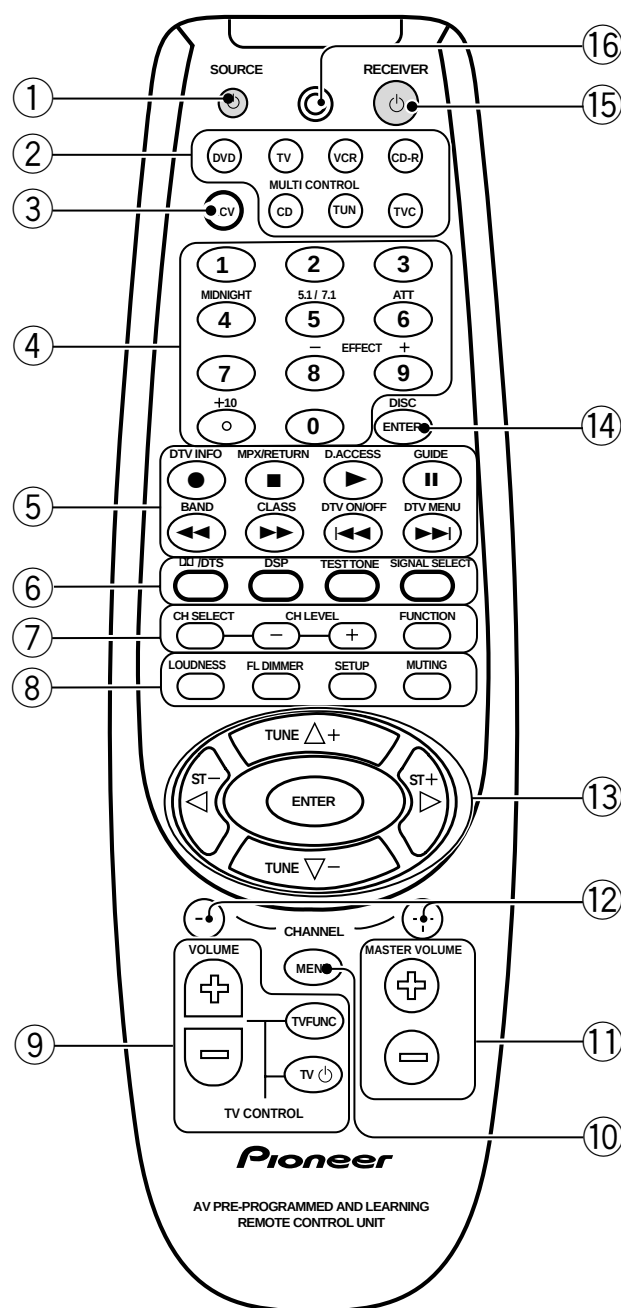
⑭ DNR indicator

Lights when the digital noise reduction is on. Use to reduce extraneous noise. It can be used with any sound mode.

⑮ CHARACTER display

Shows the radio frequency or function (DVD/LD, CD, etc.) receiver is using.

Remote Control

① **SOURCE** button

Use to turn on/off other components connected to the receiver.

② **MULTI CONTROL** buttons

Use to put the receiver/remote control in the stated mode.

For other equipment controls, see Controlling the Rest of Your System.

③ **RCV** button

Use this button when setting up the surround sound for the receiver. Also press it if you want to use special features attached to some of the number buttons, for example MIDNIGHT, 5.1/7.1, or ATT.

④ **NUMBER/MODE** buttons

Use the number buttons to select the radio frequency in tuner DIRECT ACCESS mode or the tracks in CD, DVD mode etc.

Also, buttons marked with the following names have special functions. If you try to use one of these functions but the display flashes it means that function cannot be used in the current mode (for example DSP modes cannot be used when 5.1 Ch setting is on).

MIDNIGHT

Use to put receiver in MIDNIGHT mode. To use first press the **RCV** button then operate this button.

7.1Ch

When the DVD/LD or DVD 5.1/7.1 Ch function is selected each press switches the DVD/LD input between DVD/LD and DVD 5.1/7.1 Ch. To use first press the **RCV** button then operate this button.

ATT

When the overload indicator lights use this button to attenuate (lower) the level of an analog input signal and prevent distortion. To use first press the **RCV** button then operate this button.

EFFECT +/- buttons

Use to add or subtract the amount of effect in different DSP sound modes (except 6 Ch Stereo) or advanced listening modes.

To use first press the **RCV** button then operate these buttons.

⑤ **THE FOLLOWING BUTTONS ARE BOTH CONTROLS FOR OTHER COMPONENTS (LIKE A DVD PLAYER) AND DEDICATED TUNER CONTROLS. THE TUNER CONTROLS ARE EXPLAINED HERE. YOU CAN USE THEM AFTER YOU HAVE PUSHED THE TUNER MULTI CONTROL BUTTON.**

BAND button

Use to switch between the AM and FM band when in TUNER mode.

CLASS button

Use to switch between the three banks (classes) of station memories.

MPX/RETURN button

Use to switch between auto stereo and mono reception of FM broadcasts. If the signal is weak then switching to MONO will improve the sound quality. Also, this is the pause button for CDs, tapes, DVDs, etc.

D. ACCESS button

Use to directly access a radio station by pressing the number of the station you want.

DTV INFO button

Use to bring up information screens on a digital TV.

DTV MENU button

Use to bring up menus on a digital TV.

DTV ON/OFF button

Use to turn a digital TV on/off.

GUIDE button

Use to bring up the guides on a digital TV.

⑥ **DD /DTS button**

Use to put receiver in DOLBY DIGITAL, DOLBY SURROUND and DTS modes.

DSP button

Use to put receiver in one of the DSP modes.

TEST TONE button

Use to sound the TEST TONE when setting up the surround sound of the receiver (the DD /DTS mode must be on).

SIGNAL SELECT

Use to select the proper signal (analog, digital) for the source you are inputting. On the VSX-D810S receivers there is an AUTO setting. In this setting the receiver will automatically switch between the analog and digital signals according to what is being input. If both signals are input the AUTO setting will choose the digital one. This setting is convenient as the receiver will always choose the best or appropriate signal.

⑦ **CH SELECT button**

Use to select a speaker when setting up the surround sound of the receiver. To use first press the RCV button then operate this button.

CH LEVEL +/-

Use to set up the levels of the surround sound of the receiver. To use first press the RCV button then operate this button.

FUNCTION button

Use to select the playback or recording source. This button lets you cycle through the different functions of the receiver in the following order: CD, TUNER, AUX, CDR/TAPE, VCR/DVR, DVD/LD, DVD 7.1 Ch, VIDEO, and TV/SAT.

CD, TUNER, AUX, CDR/TAPE, VCR/DVR, DVD/LD, VIDEO, and TV/SAT.

⑧ **LOUDNESS button**

Use to switch on the loudness. This feature is useful for getting good bass and treble sounds listening at low volumes.

FL DIMMER button

Use this button to make the fluorescent display (FL) dimmer or brighter. There are three brightness settings as well as an off setting.

SETUP button

Use this button when setting up the remote control to control other components.

MUTING button

Use to mute the sound or restore the sound if it has been muted.

⑨ **THE FOLLOWING BUTTONS ARE DEDICATED TV CONTROL. THEY ARE ONLY USED FOR CONTROLLING YOUR TV.**

TV FUNC button

Use select the TV function.

TV $\odot$ button

Use to turn on/off the power of the TV.

TV VOLUME +/- buttons

Use to adjust the volume on your TV.

⑩ **MENU button**

Use to access different menus associated with your DVD player.

⑪ **MASTER VOLUME +/- buttons**

Use to set the overall listening volume.

⑫ **CHANNEL +/- buttons**

Use to select the stations of memorized radio frequencies. Also use to skip tracks backward or forward on CDs, DVDs, etc.

⑬ **$\triangleleft \triangle \triangleright \triangledown$ (TUNE/ST +/-) & ENTER buttons**

Use these arrow buttons when setting up your surround sound system. These buttons are also used to control DVD menus/options and for deck 1 of a double cassette deck player. The TUNE/ST +/- buttons can be used to find radio frequencies and preset stations, respectively.

⑭ **DISC (ENTER) button**

Use to select a disc an in multi-CD player. To use first press the RCV button then operate this button.

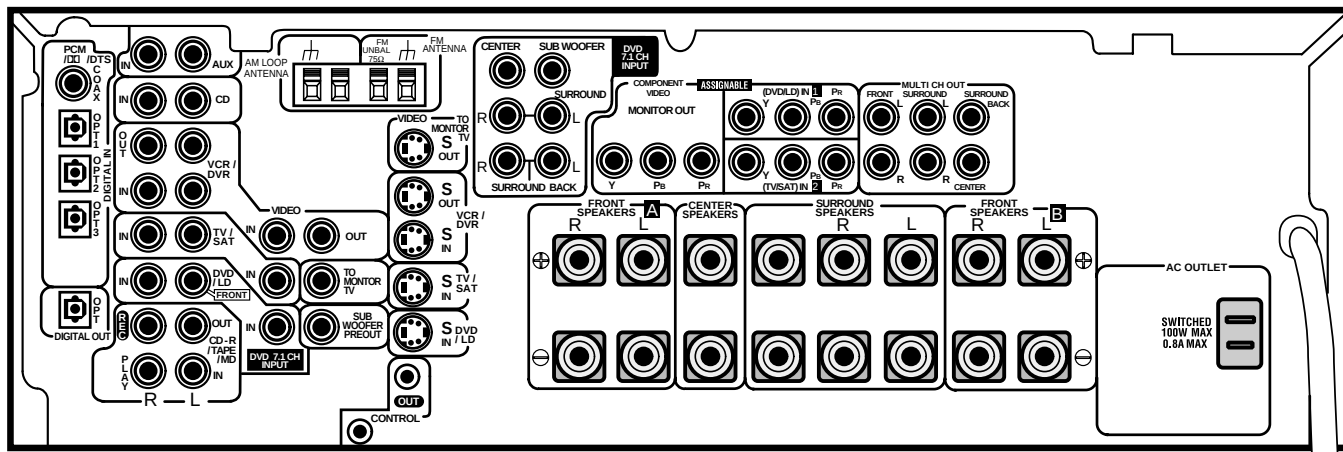
⑮ **RECEIVER $\odot$ (POWER) button**

This switches between STANDBY mode and power ON for this receiver.

⑯ **LED DISPLAY**

This display flashes when a command is sent from the remote control to the receiver. It also flashes at other times, for example when teaching the receiver preset codes, with specific meanings.

Rear Panel



8.2 SPECIFICATIONS

Amplifier Section

Continuous average power output of 100 watts * per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.2 % total harmonic distortion (front).**

Continuous Power Output

Front 100 W per channel (1kHz, 1.0 %, 8 Ω)
Center 100 W (1kHz, 1.0 %, 8 Ω)
Surround 100 W per channel (1kHz, 1.0 %, 8 Ω)
Surround Back 100 W (1kHz, 1.0 %, 8 Ω)

Input (Sensitivity/Impedance)

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,
TV/SAT, VIDEO 200 mV/47 k Ω

Frequency Response

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,
TV/SAT, VIDEO 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)

VCR/DVR REC, CD-R/TAPE/MD REC
..... 200 mV/2.2 k Ω

Tone Control

BASS ± 6 dB (100 Hz)
TREBLE ± 6 dB (10 kHz)
LOUDNESS +9 dB (100 Hz/10 kHz)

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

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,
TV/SAT, VIDEO 96 dB

Signal-to Noise Ratio [EIA, at 1 W (1 kHz)]

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,
TV/SAT, VIDEO 79 dB

Video Section

Input (Sensitivity/Impedance)

VCR/DVR, DVD/LD, TV/SAT, VIDEO 1 Vp-p/75 Ω

Output (Level/Impedance)

VCR/DVR 1 Vp-p/75 Ω

Frequency Response

VCR/DVR, DVD/LD, TV/SAT, VIDEO $\rightarrow$ MONITOR
..... 5 Hz to 7 MHz $^{+0}_{-3}$ dB

Signal-to-Noise Ratio 55 dB

FM Tuner Section

Frequency Range 87.5 MHz to 108 MHz

Usable Sensitivity Mono:13.2 dBf, IHF (1.3 μ V/ 75 Ω)

50 dB Quieting Sensitivity Mono: 20.2 dB

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 (DIN) 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 V, 60 Hz

Power Consumption 290 W

420 VA

In Standby 1 W

AC Outlet 100 W MAX. (SWITCHED)

Dimensions 420 (W) x 158 (H) x 401 (D) mm

(16-9/16 (W) x 6-4/16 (H) x 15-13/16 (D) in.)

Weight (without package) 10.5 kg (23 lb 3 oz)

Furnished Parts

FM wire Antenna 1

AM loop Antenna 1

Dry Cell Batteries : AA Size / IEC R6P 2

Remote Control Unit 1

Operating Instructions 1

NOTE:

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

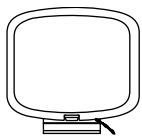
- * Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.

- ** Measured by Audio Spectrum Analyzer.

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"DTS", "ES" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc. Manufactured under license from Digital Theater Systems, Inc.

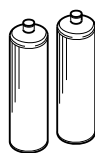
Accessories



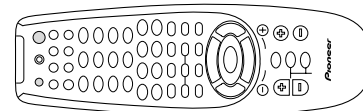
AM loop antenna
(ATB7009)



FM wire antenna
(ADH7004)



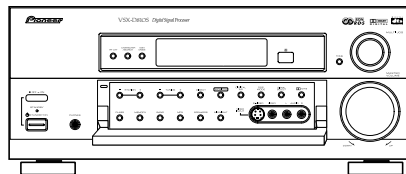
AA size IEC R6P
Dry cell batteries (x2)



Remote control unit
(XXD3028)

Service Manual

Pioneer



ORDER NO.
RRV2446

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D810S

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

Type	Model	Power Requirement	Remarks
	VSX-D810S		
MYXJIEW	○	AC220-230V	
MYXJIGR	○	AC220-230V	
MVXJI	○	AC230V	

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T – ZZK APR. 2001 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

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

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.

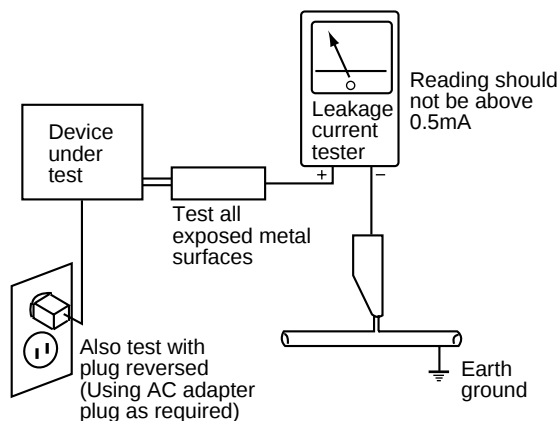
(FOR USA MODEL ONLY)

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.

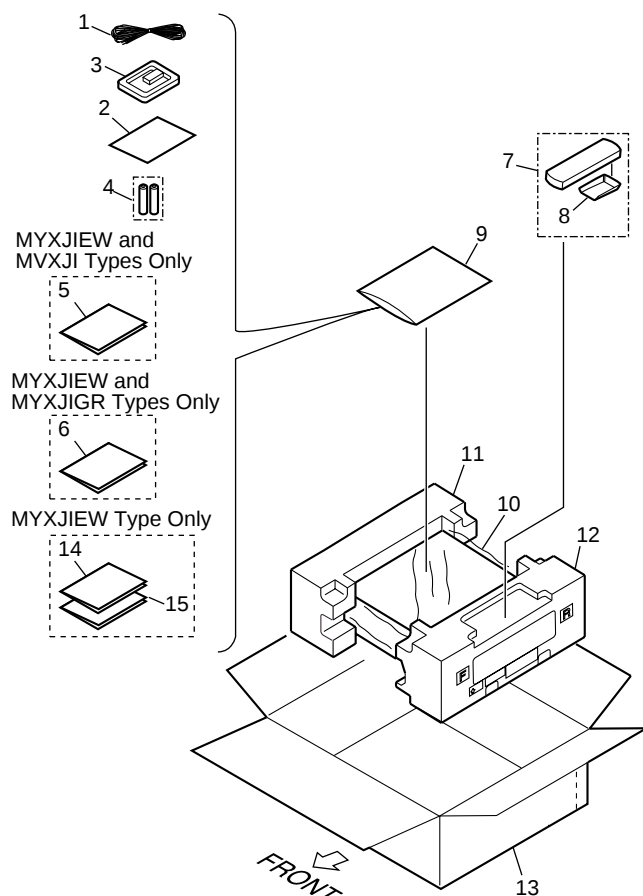
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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 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.
 ● Screws adjacent to ∇ mark on the product are used for disassembly.

2.1 PACKING



(1) PACKING PARTS LIST

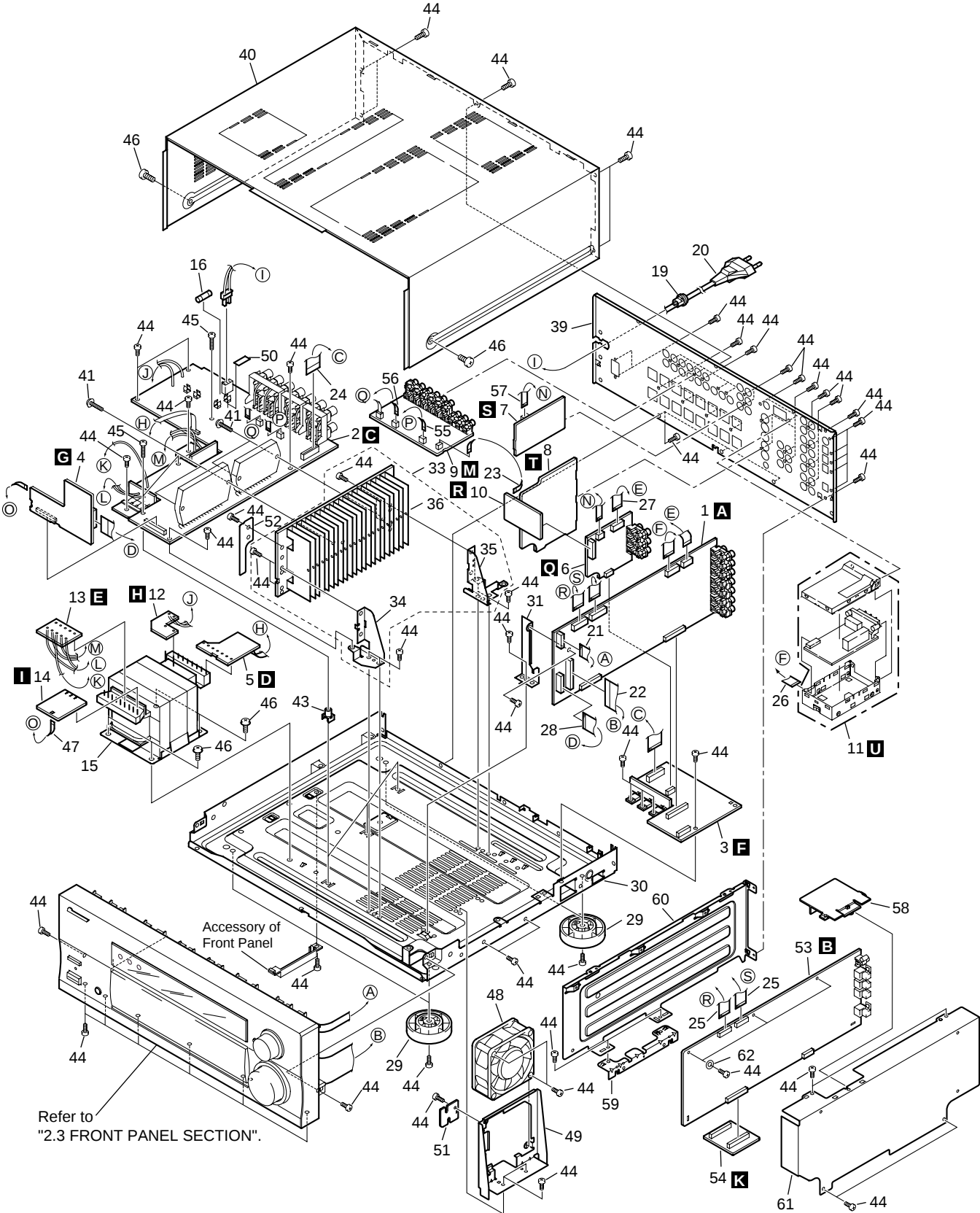
Mark	No.	Description	Part No.
NSP	1	FM Wire Antenna	ADH7005
	2	Warranty Card	ARY7022
	3	AM Loop Antenna	ATB7009
NSP	4	Dry Cell Battery (R6P, AA)	VEM-013
	5	Operating Instructions (English)	See Contrast table (2)
NSP	6	Operating Instructions (German)	See Contrast table (2)
	7	Remote Control Unit	XXD3029
	8	Battery Cover	XZA3002
	9	Polyethylene Bag (0.03 × 230 × 340)	Z21-038
	10	Packing Sheet	AHG7069
	11	Left Pad R4	XHA3024
	12	Right Pad R4	XHA3025
	13	Packing Case 810/MY	XHD3152
	14	Operating Instructions (Dutch/Swedish/Portuguese)	See Contrast table (2)
	15	Operating Instructions (French/Italian/Spanish)	See Contrast table (2)

(2) CONTRAST TABLE

VSX-D810S/MYXJIEW, MYXJIGR and MVXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			VSX-D810S /MYXJIEW	VSX-D810S /MYXJIGR	VSX-D810S /MVXJI	
	5	Operating Instructions (English)	XRB3005	Not used	XRB3005	
	6	Operating Instructions (German)	XRC3031	XRC3031	Not used	
	14	Operating Instructions (Dutch/Swedish/Portuguese)	XRC3032	Not used	Not used	
	15	Operating Instructions (French/Italian/Spanish)	XRC3033	Not used	Not used	

2.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

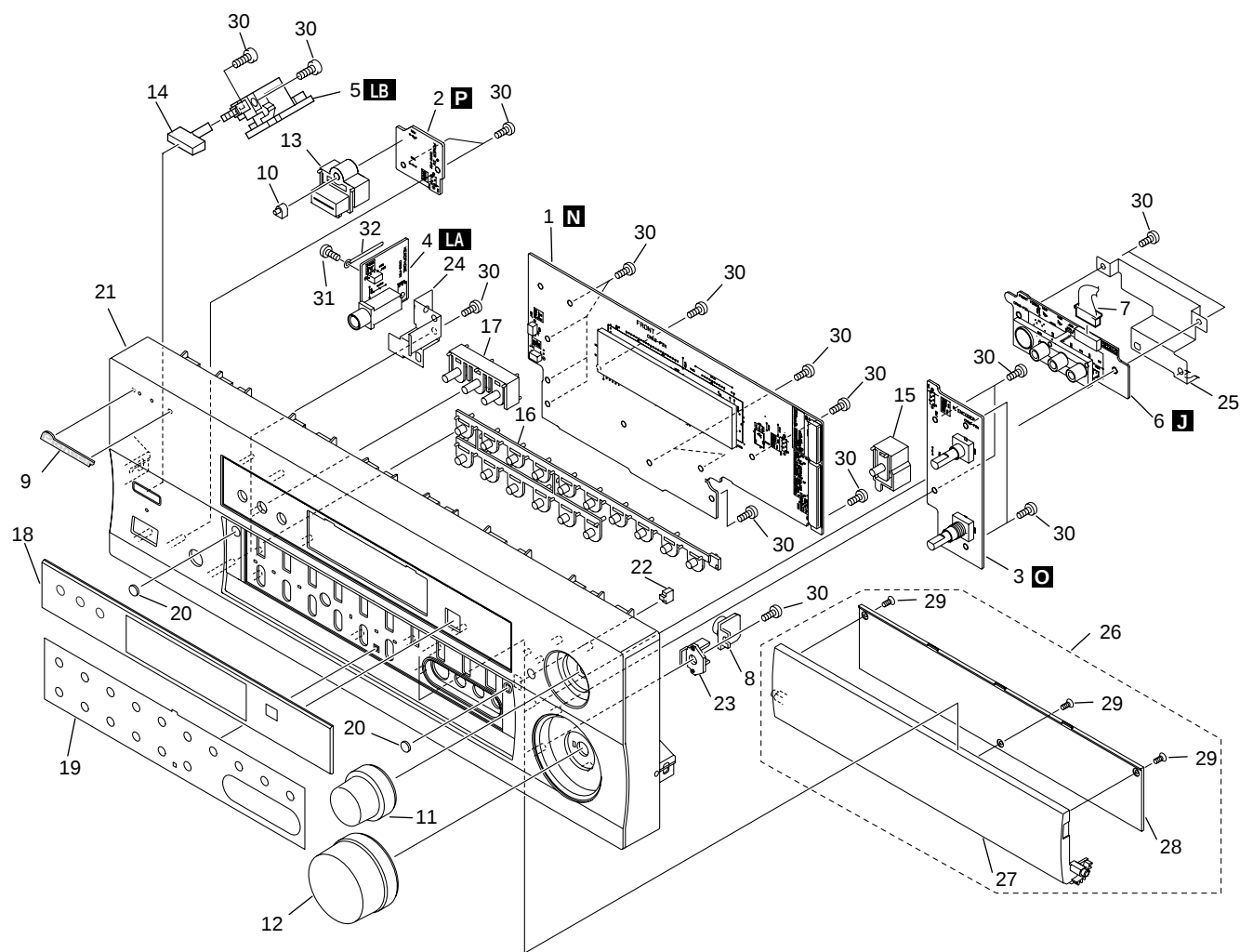
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	D.D UCOM Assy	XWZ3398		31	PCB Angle	ANG7253
	2	AMP&PRIMARY Assy	XWZ3381		32	•••••	
	3	REGULATOR Assy	XWZ3386	NSP	33	Heat Sink Assy 0.4×40	XNH3020
	4	AMP INPUT Assy	XWZ3389		34	Heat Sink Angle F	ANG7251
	5	TRANS 2 Assy	XWZ3404		35	Heat Sink Angle R	ANG7252
	6	VIDEO&6CH IN Assy	XWZ3335	NSP	36	Heat Sink 0.4×40	XNH3019
	7	6CH IN Assy	XWZ3350		37	•••••	
	8	S. VIDEO Assy	XWZ3363		38	•••••	
	9	COMPONENT Assy	XWZ3366		39	Rear Panel 810MY	XNC3073
	10	BOARD TO BOARD Assy	XWZ3371		40	Bonnet Case	XZN3112
NSP	11	FM/AM TUNER MODULE	AXQ7232		41	Screw	ABA7043
NSP	12	TRANS 1 Assy	XWZ3390		42	•••••	
	13	TRANS 3 Assy	XWZ3392		43	PCB Mold	AMR2533
	14	TRANS 4 Assy	XWZ3369		44	Screw	BBZ30P080FMC
△	15	Power Transformer (T1) (AC220-230V)	XTS3047		45	Screw	BBZ30P200FMC
△	16	Fuse (FU1 : T3.15A)	REK1027		46	Screw	FBT40P080FZK
	17	•••••			47	FFC (J22 : 3P/30V) (TRANS 4 CN891 ↔ AMP INPUT CN251)	XDD3061
	18	•••••			48	Fan Motor	XXM3002
△	19	Cord Stopper	CM-22B		49	Fan Holder R4	XNG3040
	20	AC Power Cord	See Contrast table (2)		50	Fuse Card	AAX7493
	21	FFC (J32 : 13P/30V) (D.D UCOM CN103 ↔ FRONT CN401)	XDD3062	NSP	51	Binder Assy	XWZ3401
	22	FFC (J31 : 31P/30V) (D.D UCOM CN102 ↔ FRONT CN402)	XDD3063	NSP	52	Hold Assy	XWZ3402
	23	FFC (J38 : 5P/30V) (BOARD TO BOARD CN392 ↔ COMPONENT CN5501)	XDD3073		53	D.D DSP Assy	XWZ3395
	24	FFC (J36 : 23P/30V) (REGULATOR CN801 ↔ AMP&PRIMARY CN53)	XDD3064		54	D TO O Assy	XWZ3368
	25	FFC (J39, J40 : 20P/30V) (D.D UCOM CN9501 ↔ D.D DSP CN9806) (D.D UCOM CN9502 ↔ D.D DSP CN9805)	XDD3065		55	FFC (J45 : 4P/30V) (AMP INPUT CN603 ↔ COMPONENT CN1576)	XDD3066
	26	FFC (J34 : 13P/30V) (D.D UCOM CN105 ↔ FM/AM TUNER UNIT)	XDD3059		56	FFC (J46 : 7P/30V) (AMP INPUT CN604 ↔ COMPONENT CN1575)	XDD3067
	27	FFC (J33 : 15P/30V) (D.D UCOM CN104 ↔ VIDEO&6CH IN CN303)	XDD3069		57	FFC (J48 : 9P/30V) (VIDEO&6CH IN CN304 ↔ 6CH IN CN307)	XDD3070
	28	FFC (J35 : 19P/30V) (D.D UCOM CN106 ↔ AMP INPUT CN254)	XDD3071		58	FFC Cover R4	XMR3019
NSP	29	Insulator	PNW2766		59	SH Support R4	XNG3041
	30	Under Base 409	ANA7094		60	Shield A R4	XNG3042
					61	Shield B R4	XNG3043
					62	Washer	VEC1254

(2) CONTRAST TABLE

VSX-D810S/MYXJIEW, MYXJIGR and MVXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			VSX-D810S /MYXJIEW	VSX-D810S /MYXJIGR	VSX-D810S /MVXJI	
△	20	AC Power Cord	VDG1080	VDG1080	VDG1076	

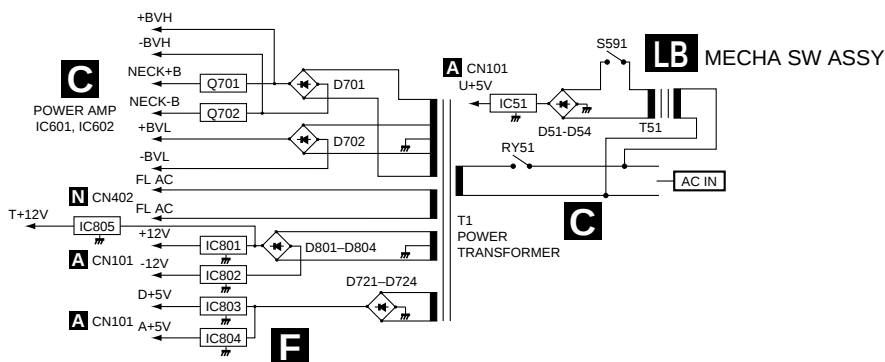
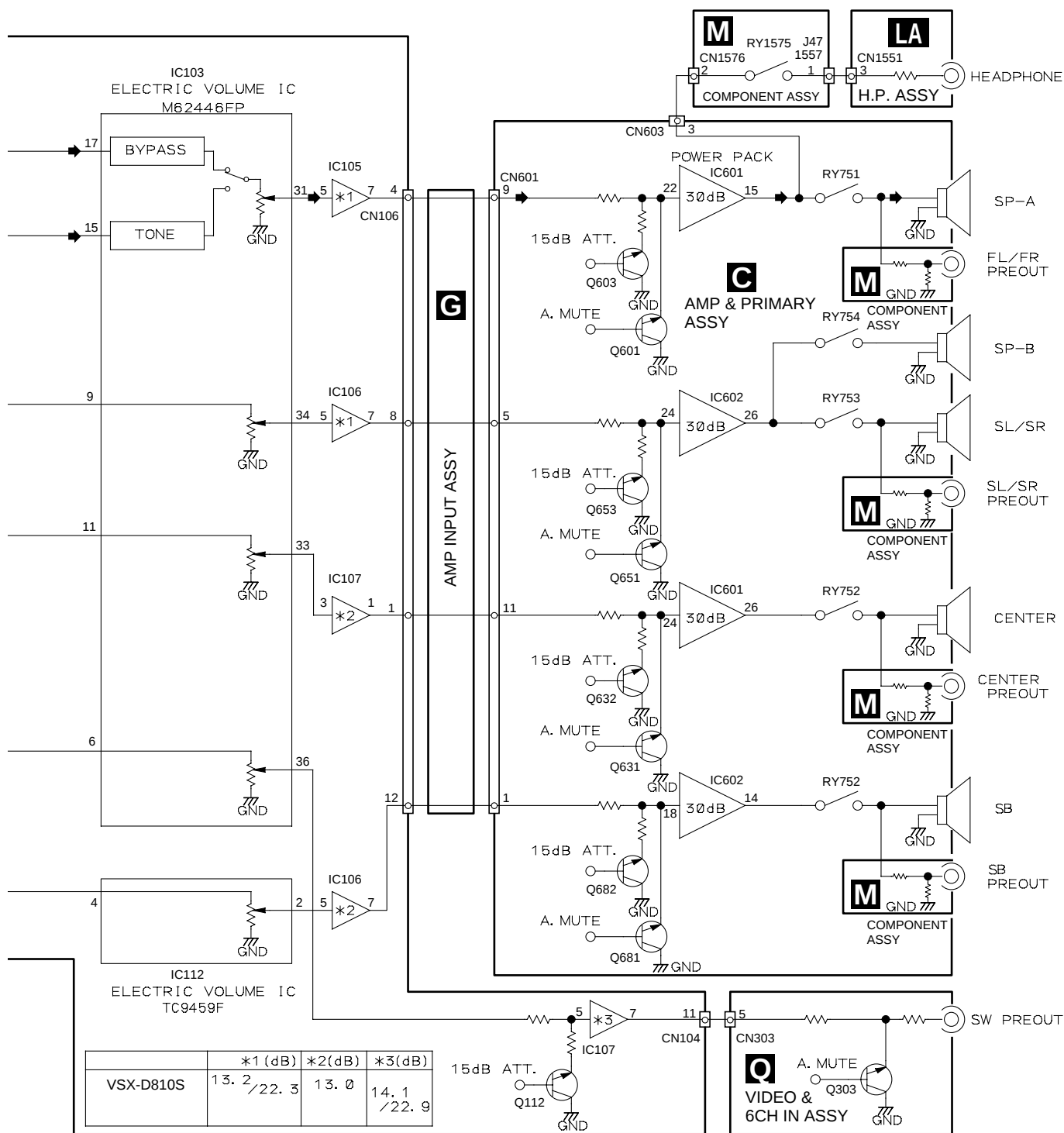
2.3 FRONT PANEL SECTION



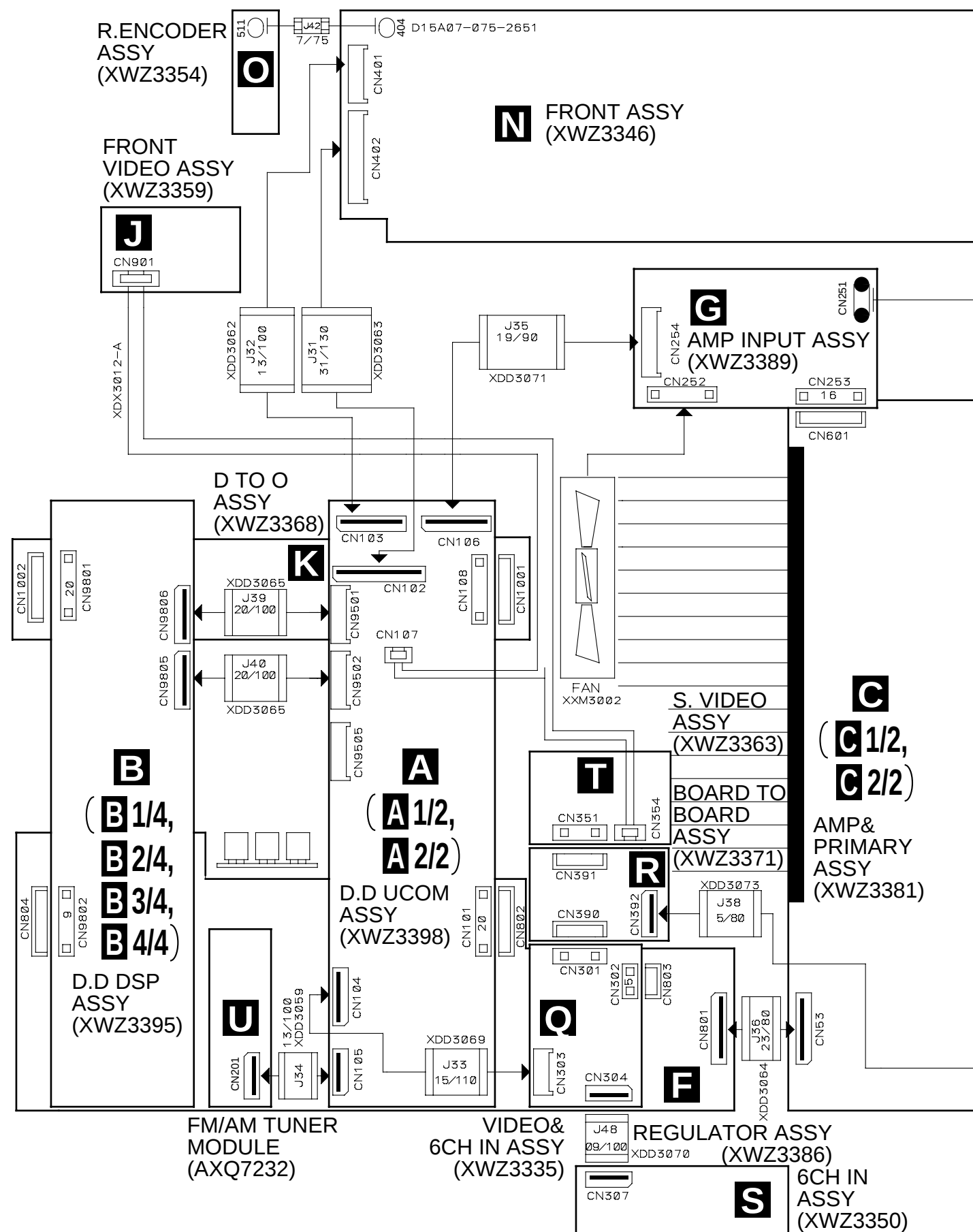
● FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	FRONT Assy	XWZ3346		16	Door Button R4B	XAD3070
	2	POWER SW Assy	XWZ3352		17	RDS Button R4B	XAD3072
	3	R. ENCODER Assy	XWZ3354		18	Display Panel W/MY	XAK3171
	4	H.P. Assy	XWZ3357		19	Button Cover R4B2	XAK3224
	5	MECHA SW Assy	XWZ3358		20	Cushion R4B	XED3001
	6	FRONT VIDEO Assy	XWZ3359		21	Front Panel 810/MY	XMB3037
	7	8P Shield Cable	XDX3012		22	Magnet 35	AMF7007
	8	Damper Assy	AXA7052		23	Holder L R4	XMR3016
	9	Name Plate	PAM1776		24	Earth Plate A R4	XNG3044
	10	LED Lens	PNW2019		25	Earth Plate B R4	XNG3045
	11	Select Knob R4B	XAB3008	NSP	26	Door Assy R4B	XXG3068
	12	Volume Knob R4B	XAB3011		27	Door R4B	XAK3173
	13	Power Button R4B	XAD3062		28	Door Cover R4B	XAK3175
	14	Power Button M	AAD7442		29	Screw	XBA3001
	15	Jog Button R4B	XAD3065		30	Screw	PPZ30P080FMC
				31	Screw	BBZ30P080FMC	
				32	Cord Clamper	RNH-184	

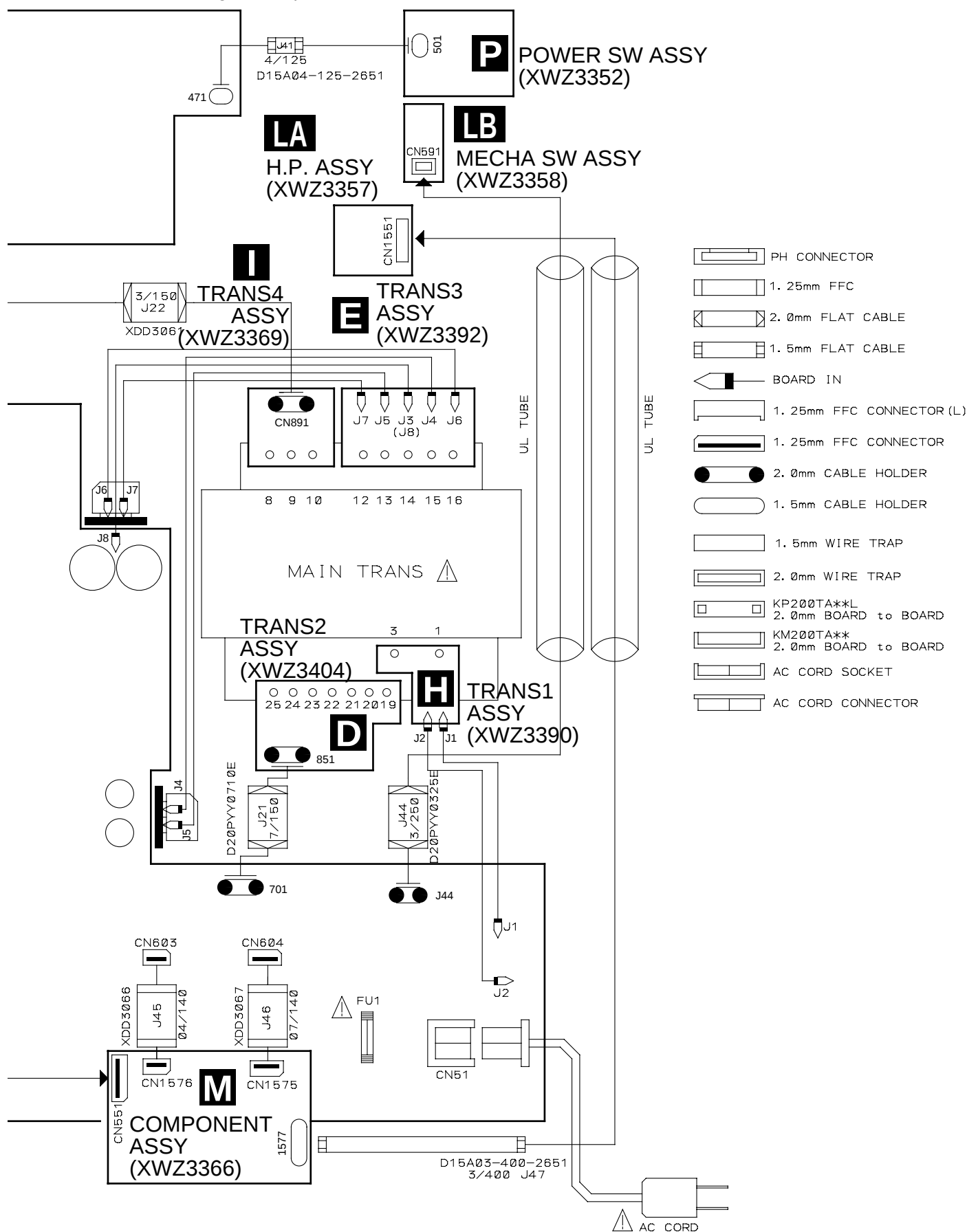
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3.2 OVERALL WIRING CONNECTION DIAGRAM



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



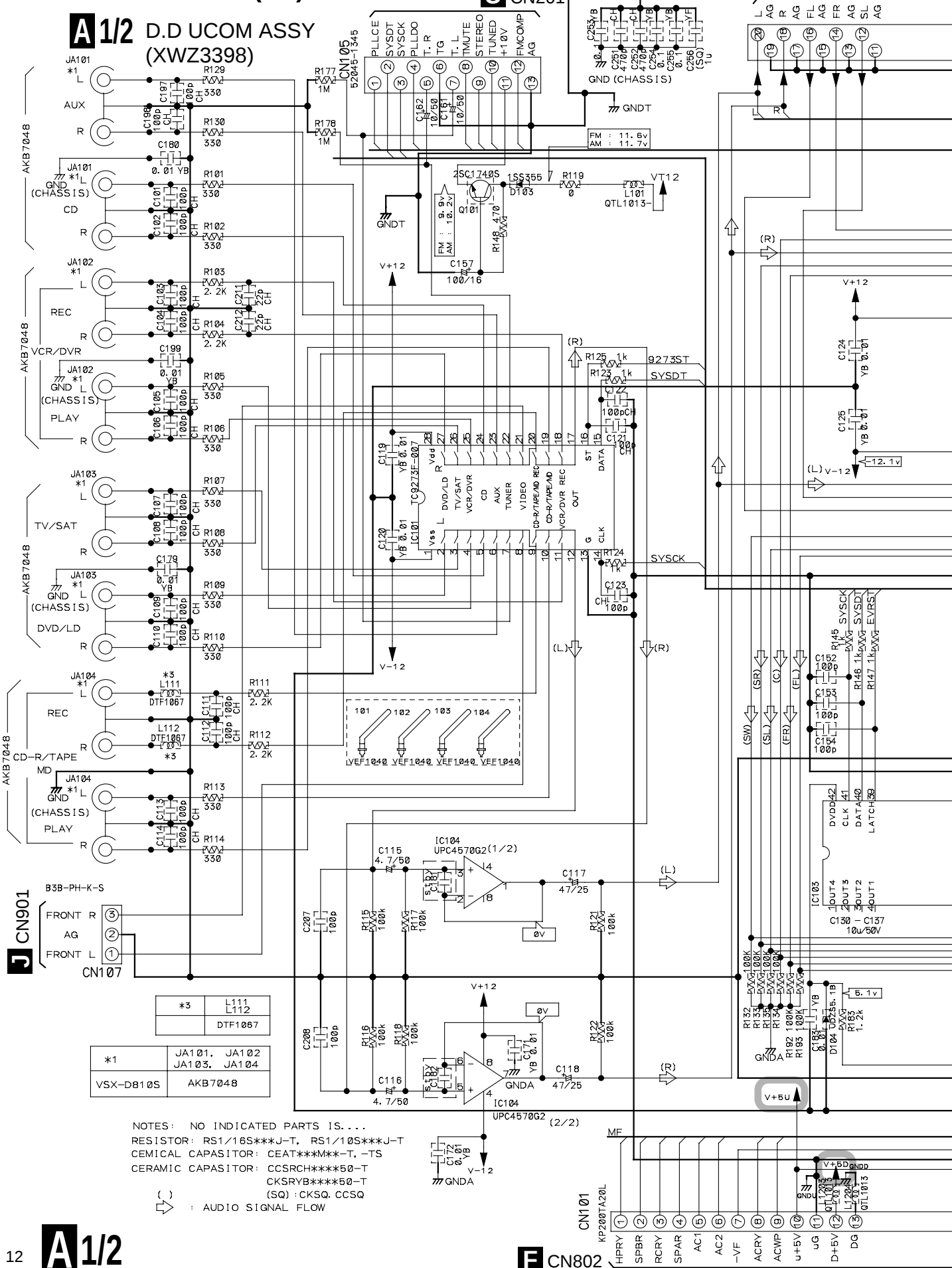
A

B

C

D

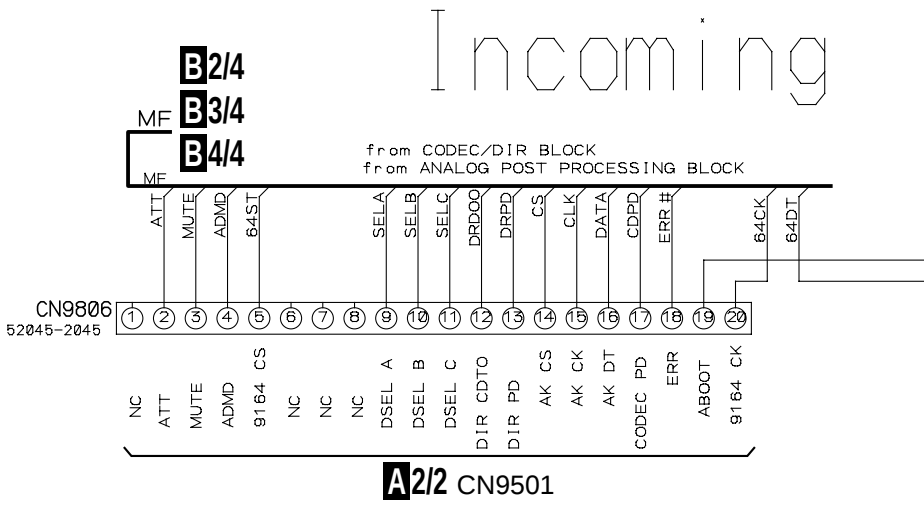
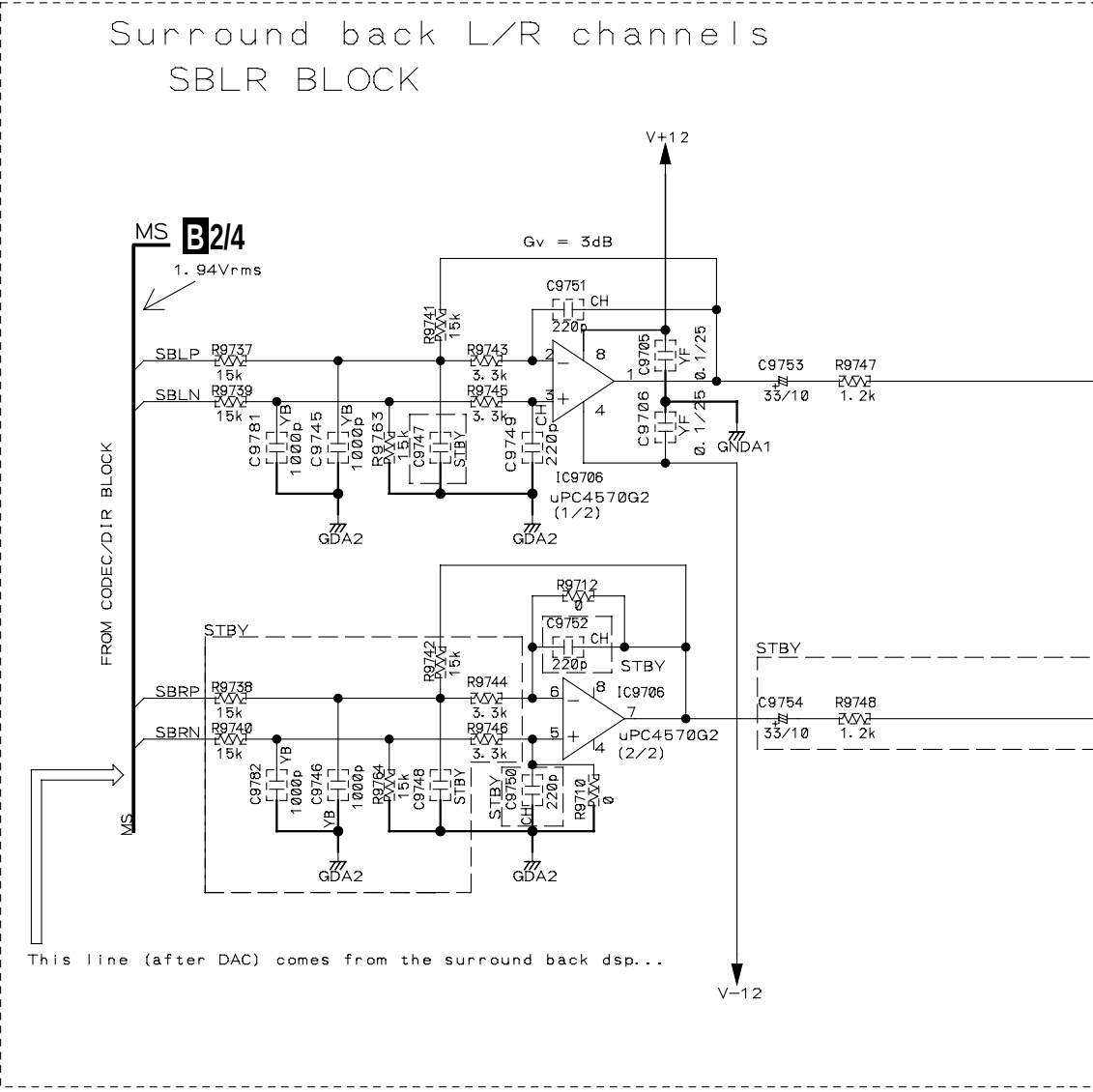
3.3 D.D UCOM ASSY (1/2)

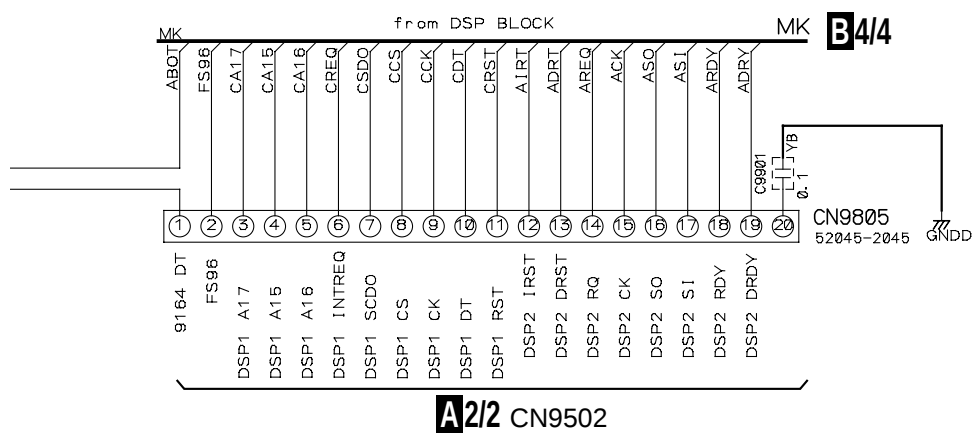
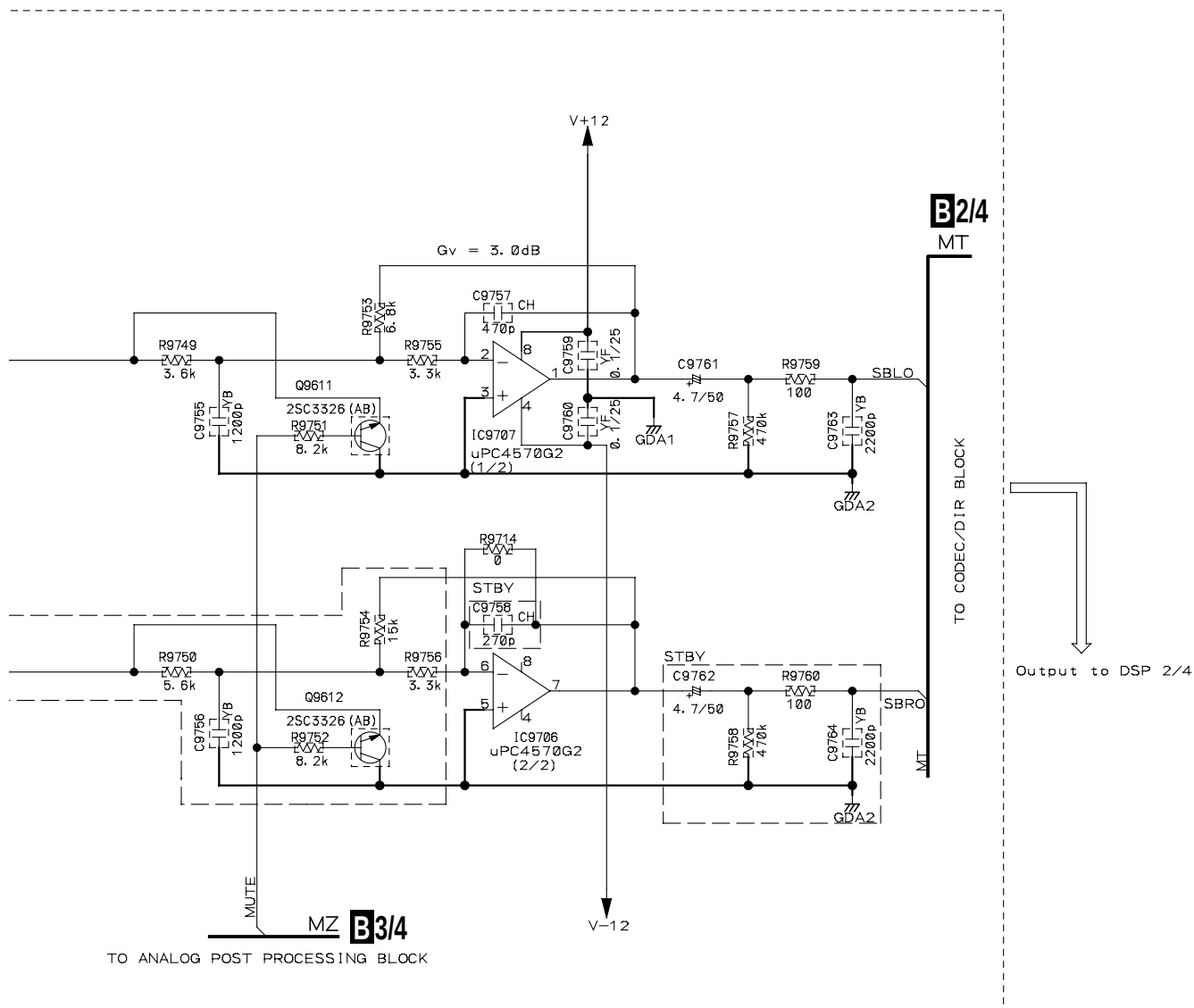




3.5 D.D DSP ASSY (1/4)

B1/4
D.D DSP ASSY
(XWZ3395)





3.6 D.D DSP ASSY (2/4)

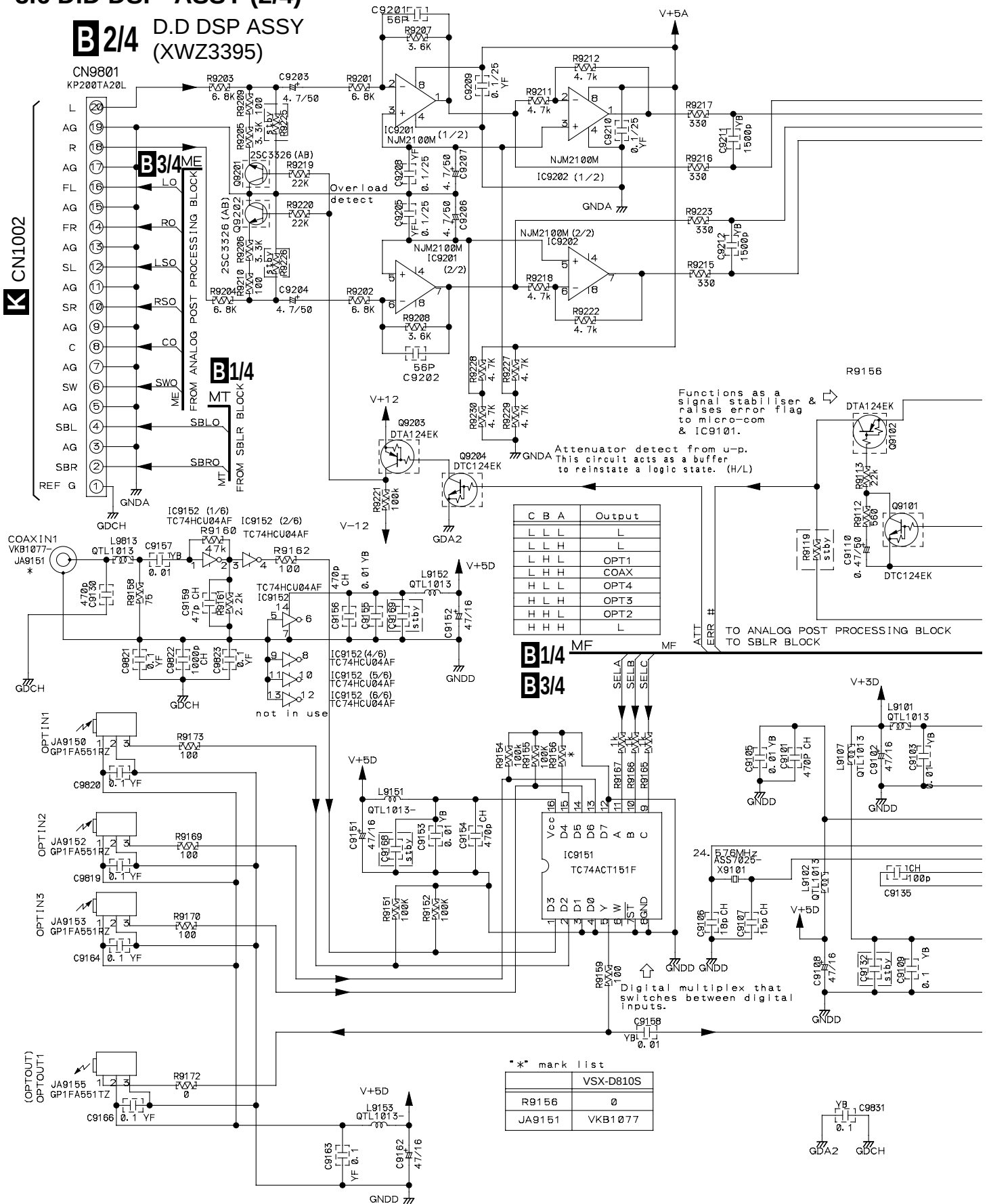
D.D DSP ASSY (XWZ3395)

A

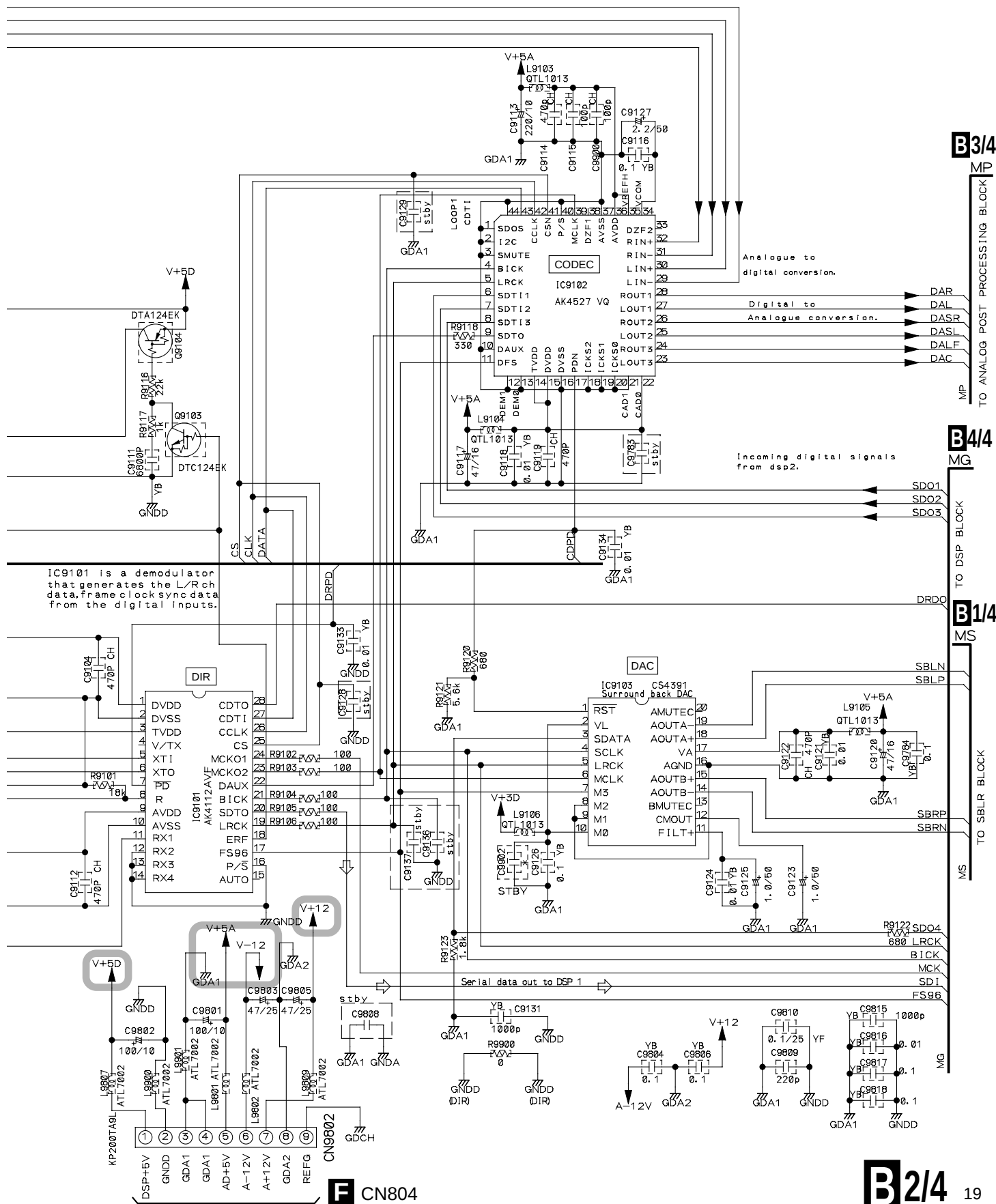
B

C

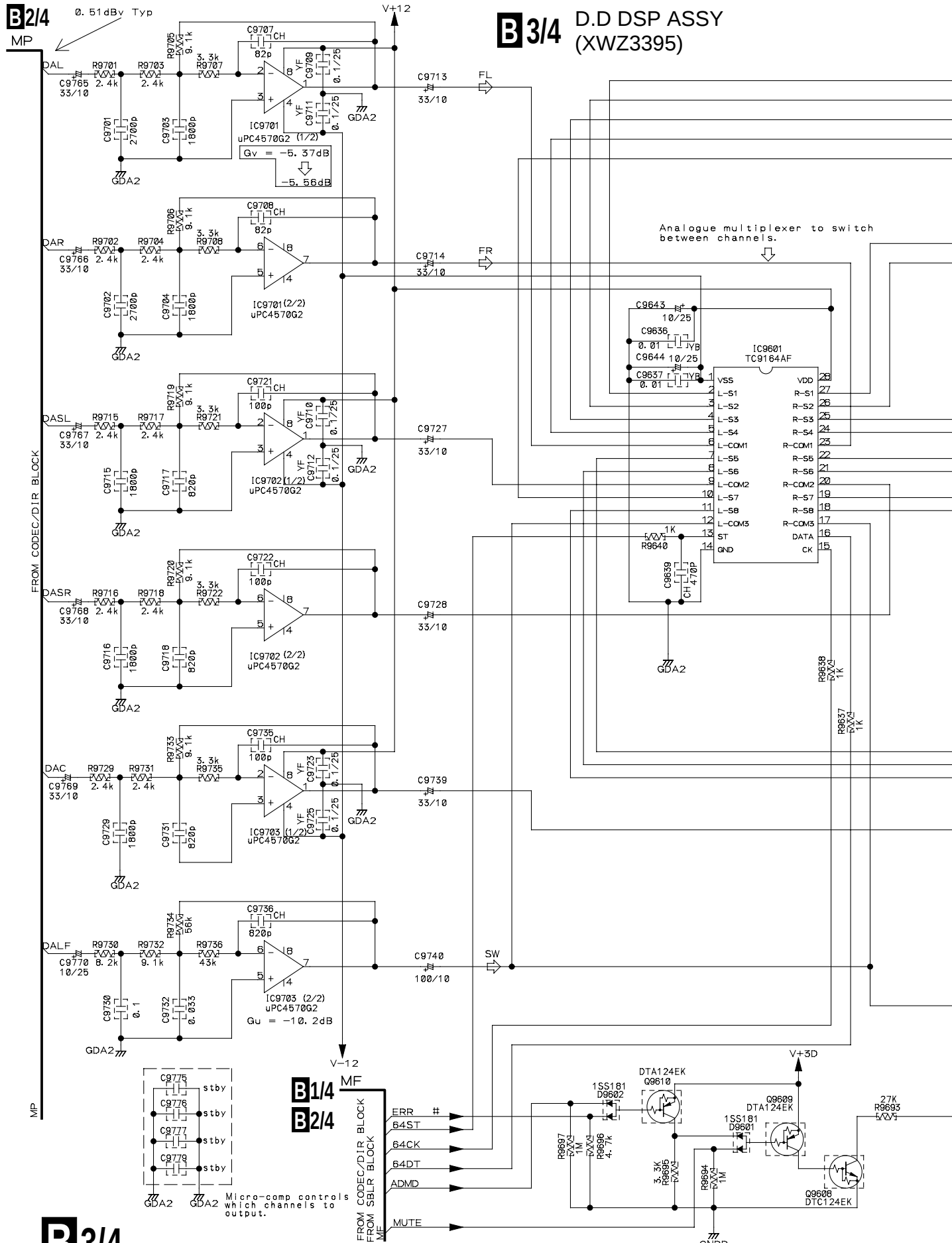
D

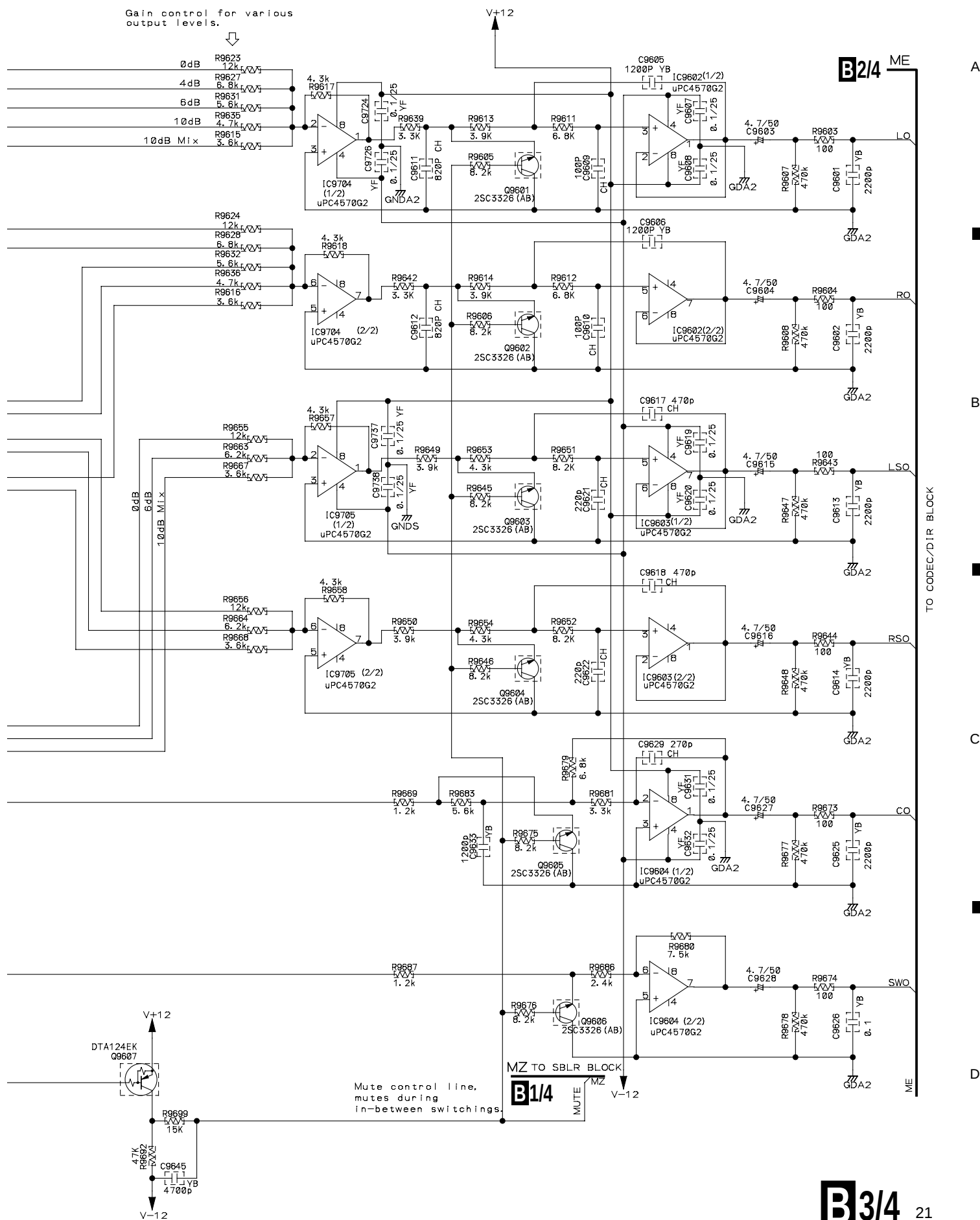


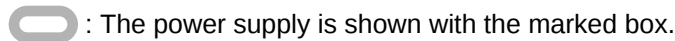
: The power supply is shown with the marked box.



3.7 D.D DSP ASSY (3/4)







DSP 2 creates soundscapes and has D. D EX and DTS ES capability.

RAM for audio delay

3.9 AMP&PRIMARY (1/2), TRANS2 and TRANS3 ASSYS

C1/2 AMP&PRIMARY ASSY (XWZ3381)

A

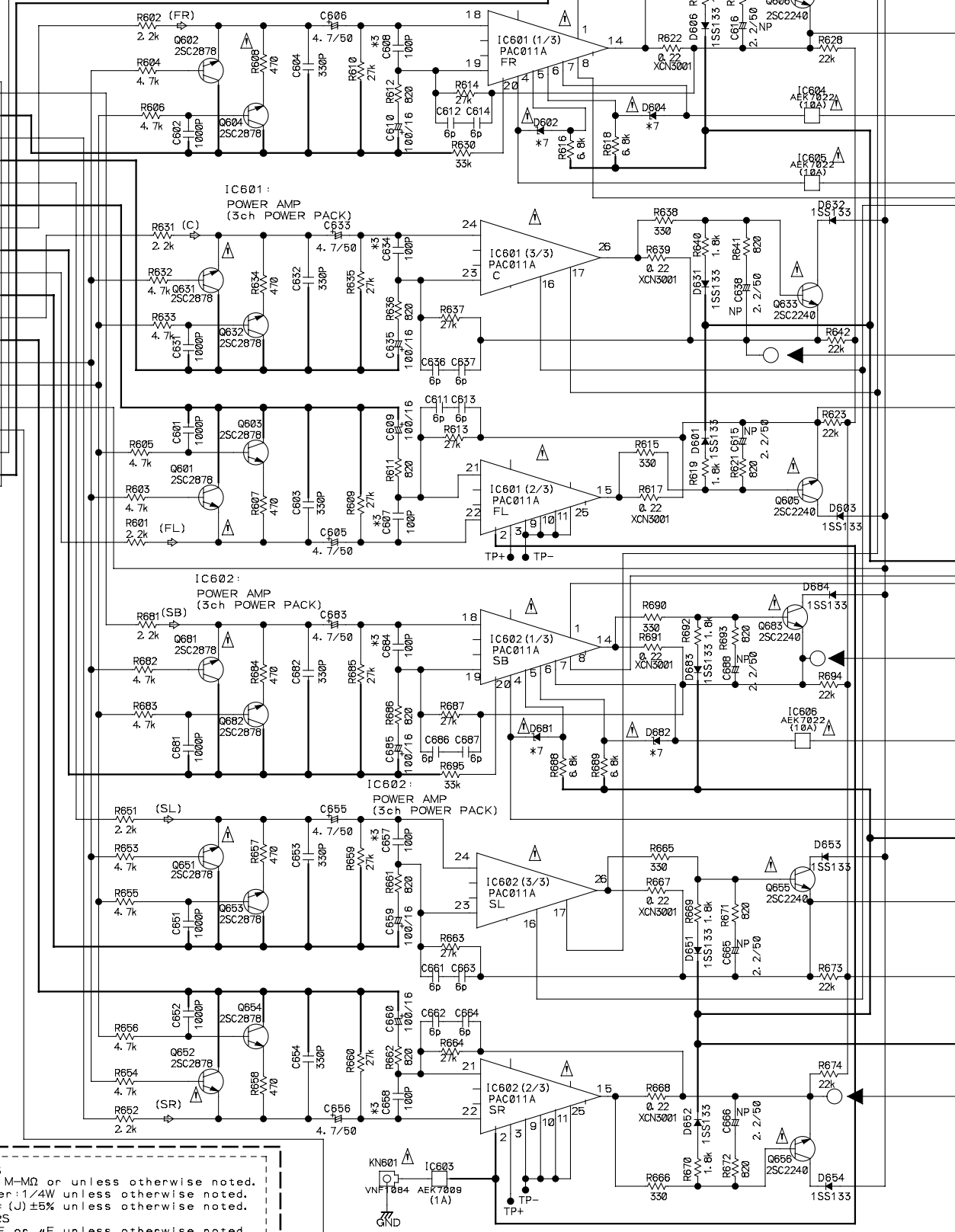
B

C

D

GN253

- CN601 KM200TA18
- SB ①
 - AG ②
 - SR ③
 - AG ④
 - SL ⑤
 - AG ⑥
 - FR ⑦
 - AG ⑧
 - FL ⑨
 - AG ⑩
 - C ⑪
 - AG ⑫
 - A. MUTE ⑬
 - ATT. ⑭
 - OL ⑮
 - DC DET. ⑯
 - NECK ⑰
 - UG ⑱



- NOTE
- 1. RESISTORS
Unit: k- Ω , M-M Ω or unless otherwise noted.
Rated power: 1/4W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.
 - 2. CAPACITORS
Unit: p-pF or μ F unless otherwise noted.
Ratings: Capacity (μ F) / Voltage (V) unless otherwise noted.
Rated Voltage: 50V except for electrolytic capacitors.
 - 3. DIODES
Indicated in 1SS133-T

*3 C607, 608, 634, C657, 658, 684	MYXJIEW, MYXJIGR, MVXJI	*5 MYXJI, MVXJI	CQMB4 4.72J50-T	Q605, 606, 633, 655, 656, 683: OVERLOAD DETECTOR
*4 C751, 752, 755, 761, 762, 771 C753, 754, 756, 763, 764, 772 D751, 753, 757	MYXJI, MVXJI 0.22 Y4 0.22 Y4 1SS133-T	*6 MYXJI, MVXJI	CKPUB102K	Q696, 697: () DC OUTPUT DETECTOR
		*7 MYXJI, MVXJI	MTZJ8. 2A	◇: AUDIO SIGNAL ROUTE

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491003 FOR IC853 MFD, BY
LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491.125 FOR IC701 AND IC702
MFD, BY LITTELFUSE INC.

E TRANS3 ASSY (XWZ3392)

POWER TRANSFORMER

D TRANS2
ASSY
(XWZ3404)

POINT VOLTAGE (V)	
SITUATION	MYXJI, MVXJI
NO SIGNAL	A, B ±60.0
	C, D ±37.5

POINT VOLTAGE (V)	
SITUATION	MYXJI, MVXJI
NO SIGNAL	A, B ±60.0
	C, D ±37.5

CN751 & CN752	
MYXJI, MVXJI	AKE 7059

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491004 FOR IC851 AND IC852
MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491001 FOR IC603 MFD, BY
LITTELFUSE INC.

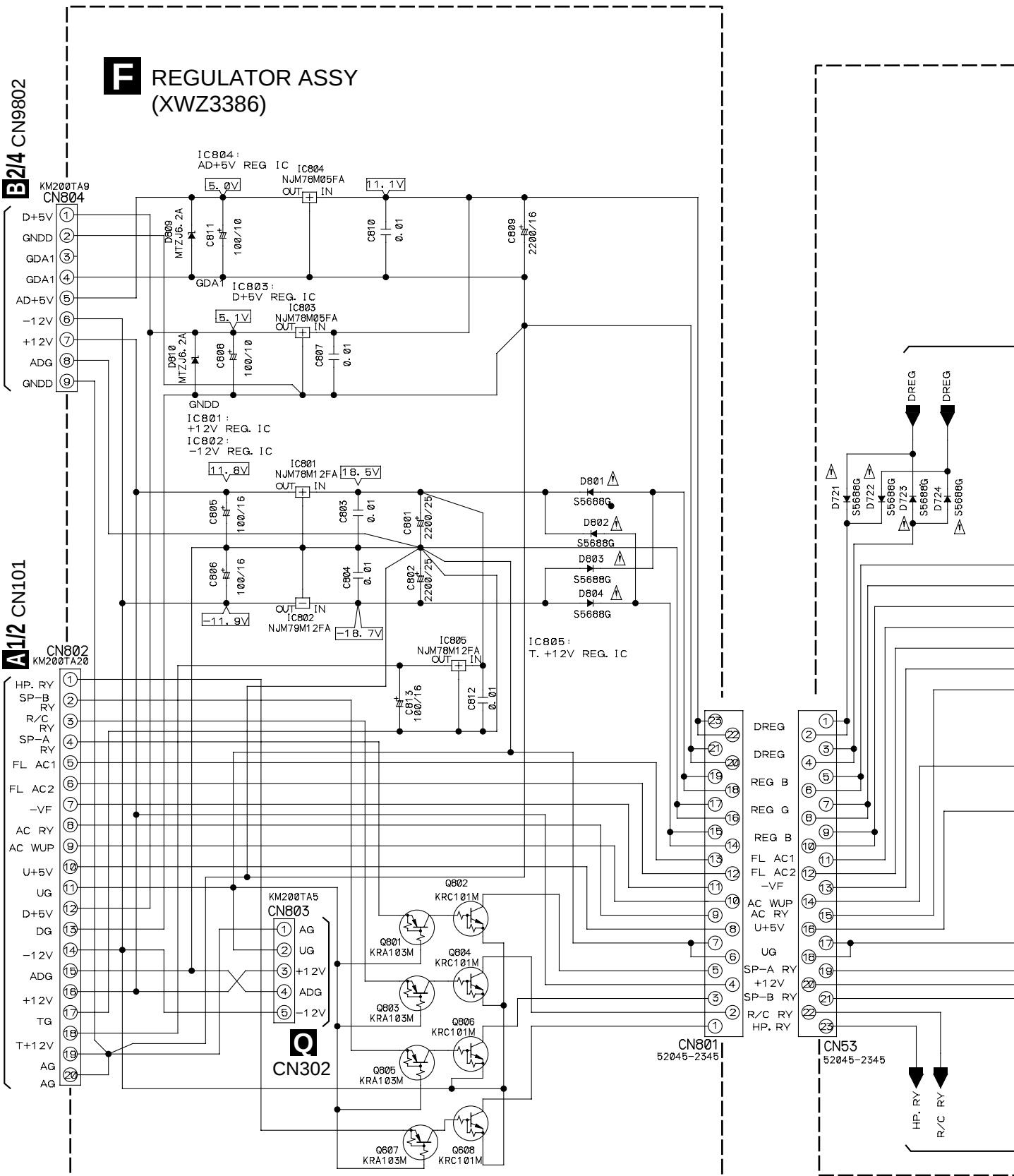
CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE
NO. 491010 FOR IC604, IC605, IC606,
AND IC607 MFD, BY LITTELFUSE INC.

NOTE FOR FUSE REPLACEMENT

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.

C1/2 **D** **E**

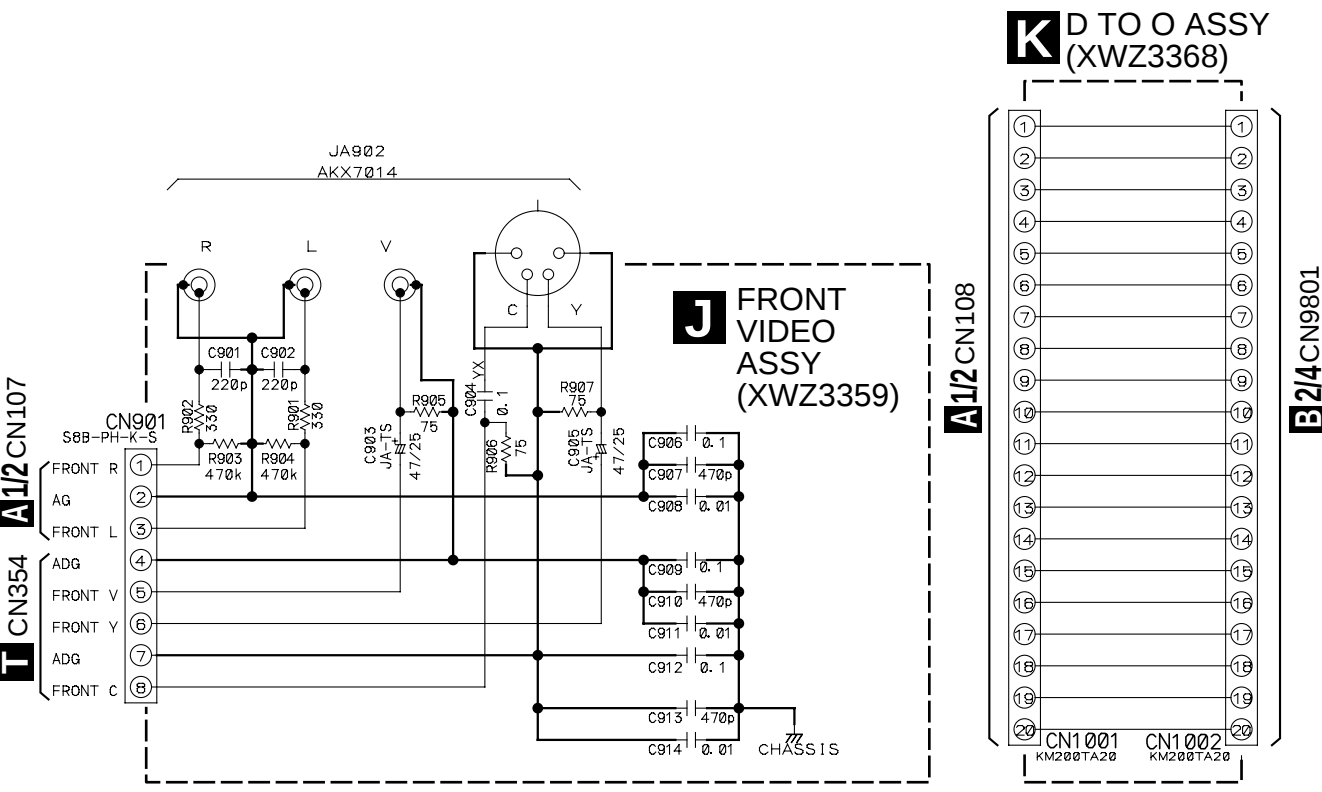
3.10 AMP&PRIMARY (2/2), REGULATOR, AMP INPUT, TRANS1 and TRANS4 ASSYS





3.11 FRONT VIDEO, D TO O, H. P., MECHA SW and COMPONENT ASSYS

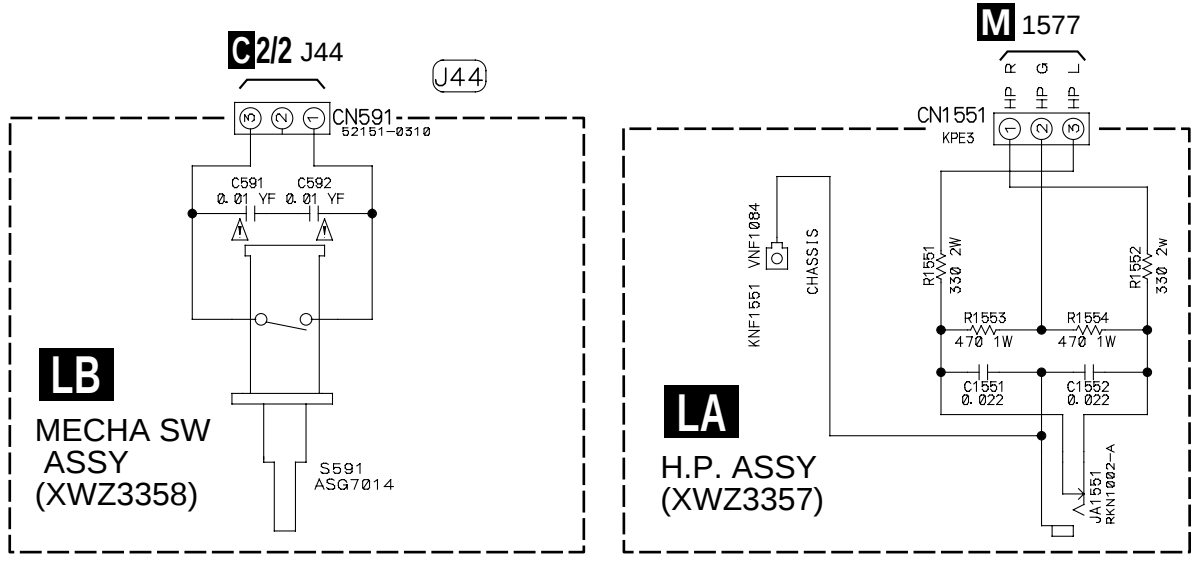
A



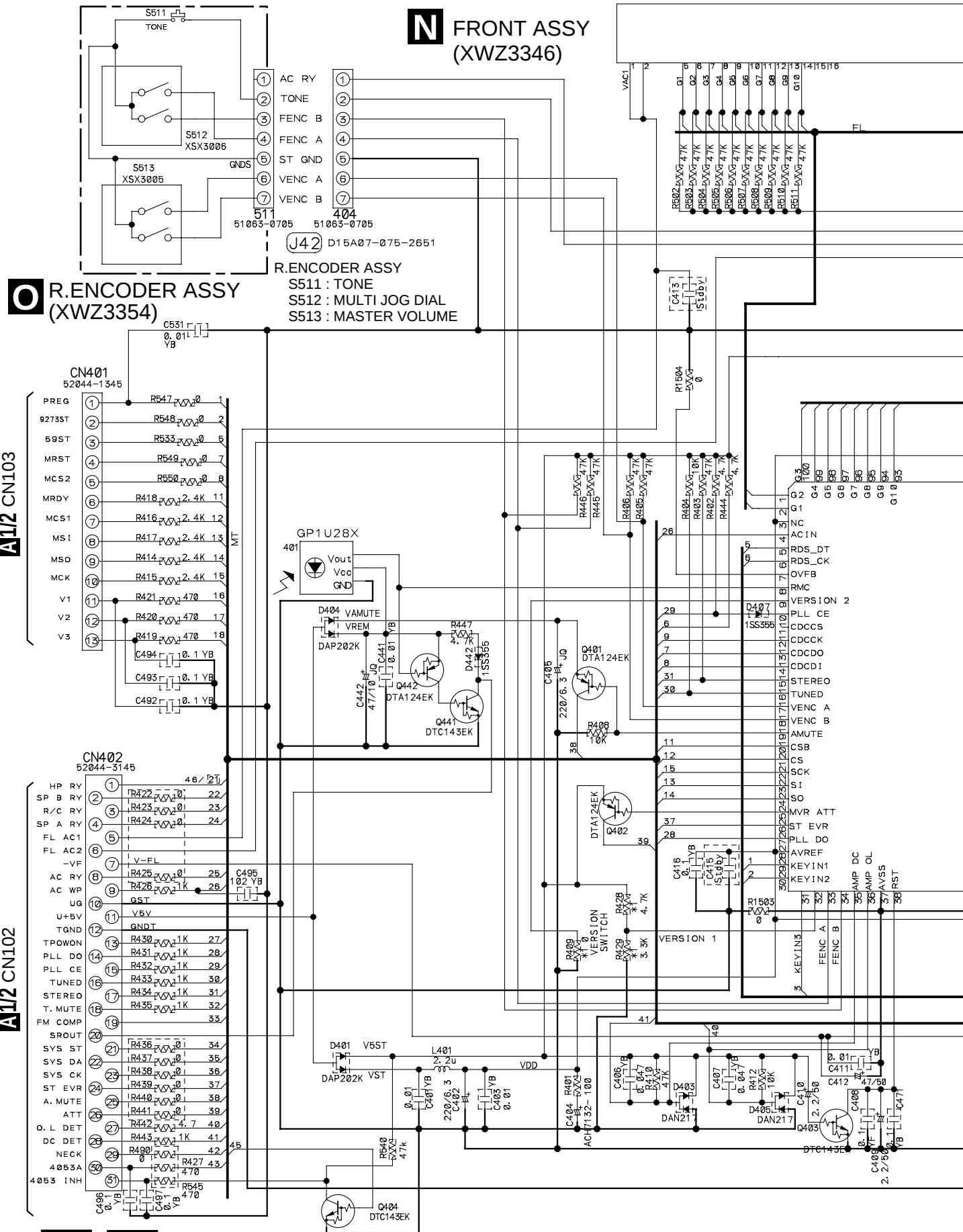
B

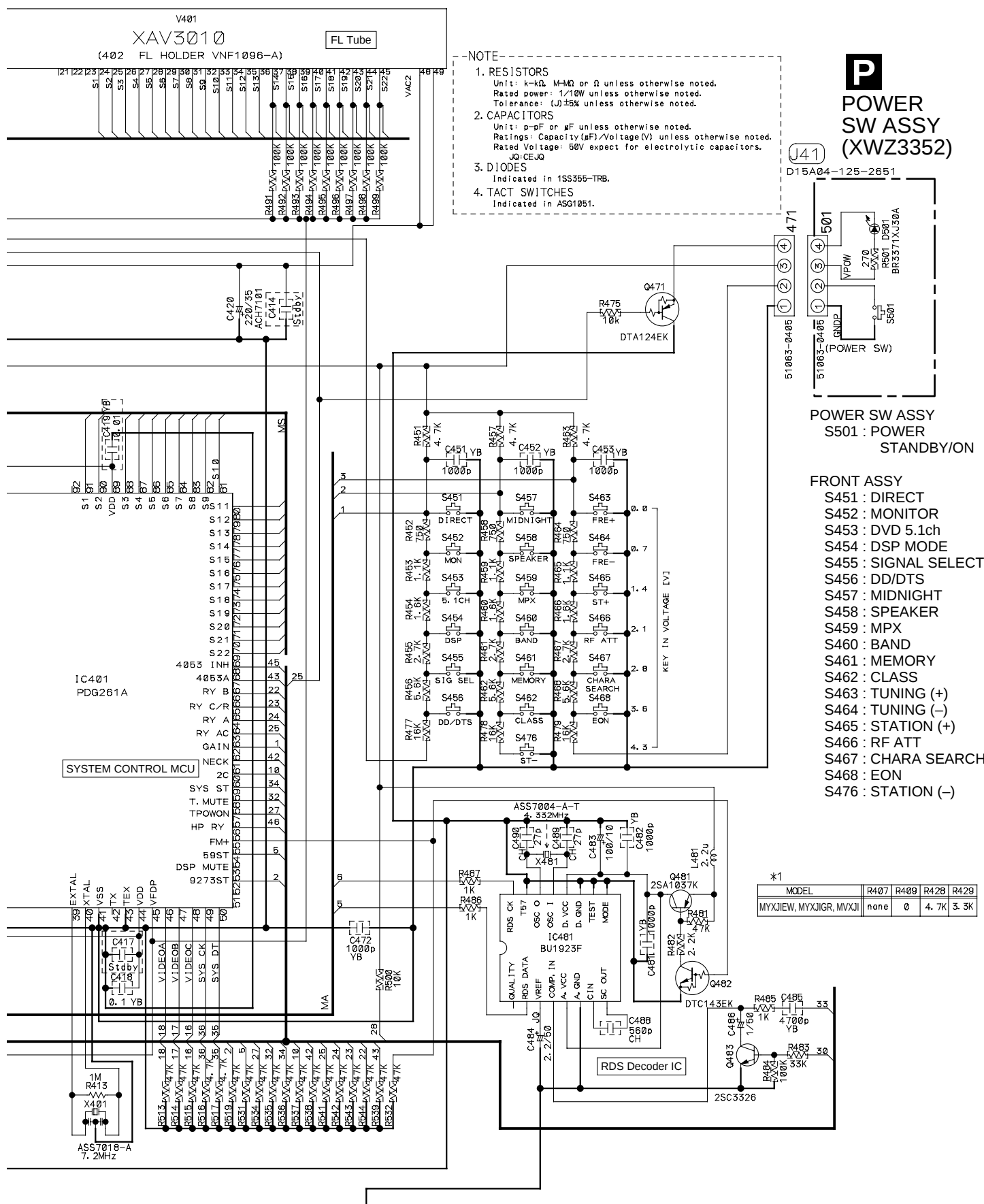
C

D



3.12 FRONT, R. ENCODER and POWER SW ASSYS





A

B

C

D

NJM2296D control port status

SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
1	0	(1)	0	1	Vin2	Vin2	mute
1	1	(1)	0	1	Vin3	Vin3	Vin3
1	1	0	1	1	Vin4	Vin4	Vin4
1	1	1	1	1	Vin5	Vin5	Vin5
0	0	(0)	(0)	0	mute	mute	mute

VIN 2. VCR

VIN 3. DVD/LD

VIN 4. TV/SAT

VIN 5. FRONT

Vout1. MON out

Vout2. MR out

Vout3. VCR out

-NOTE-

1. RESISTORS

Unit: k- Ω , M-M Ω or Ω unless otherwise noted.
 Rated power: 1/10W unless otherwise noted.
 Tolerance: ($\pm$ 5% unless otherwise noted).

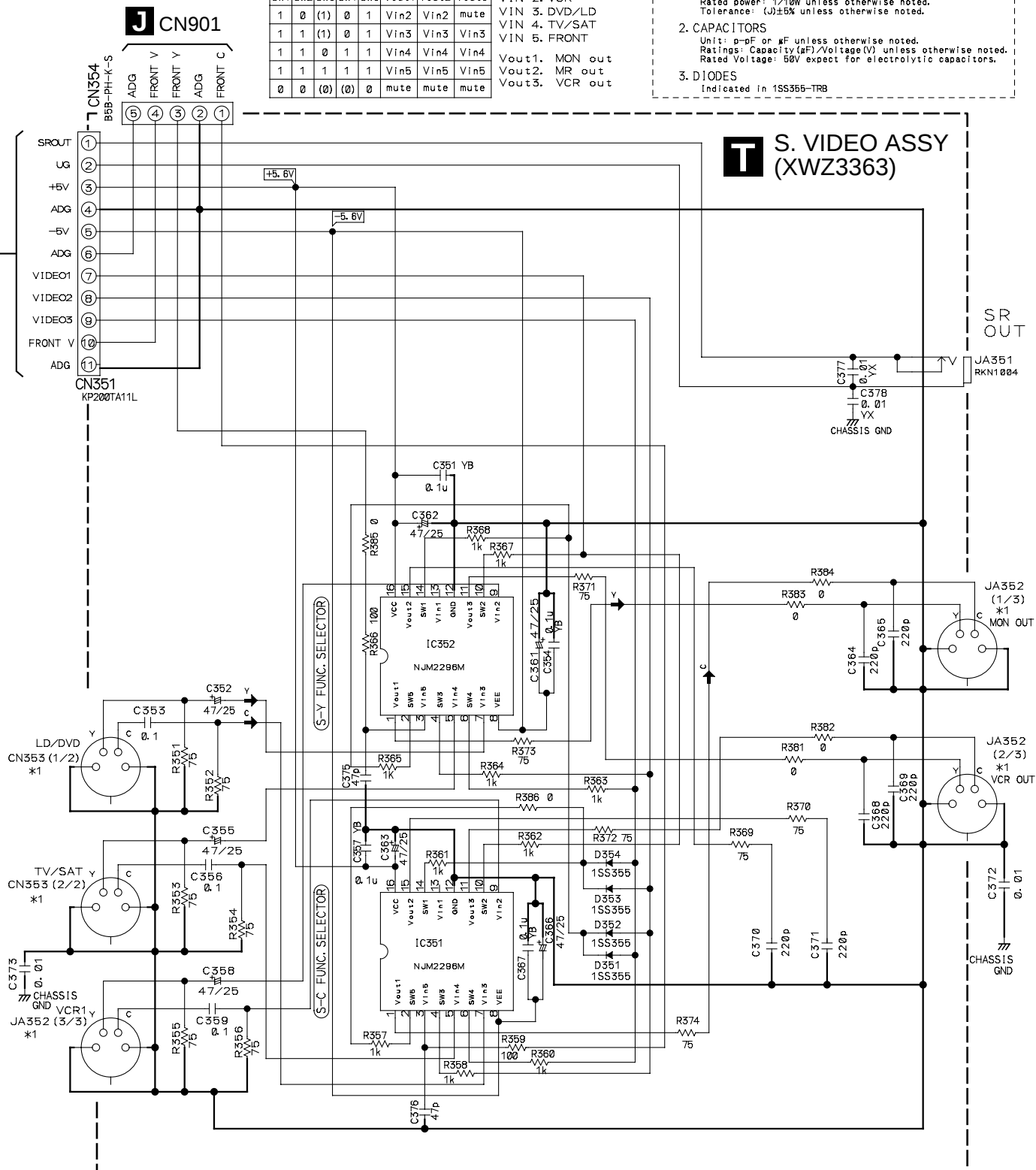
2. CAPACITORS

Unit: p-pF or μ F unless otherwise noted.
 Ratings: Capacity(μ F)/Voltage(V) unless otherwise noted.
 Rated Voltage: 50V expect for electrolytic capacitors.

3. DIODES

Indicated in 1SS355-TRB

S. VIDEO ASSY (XWZ3363)

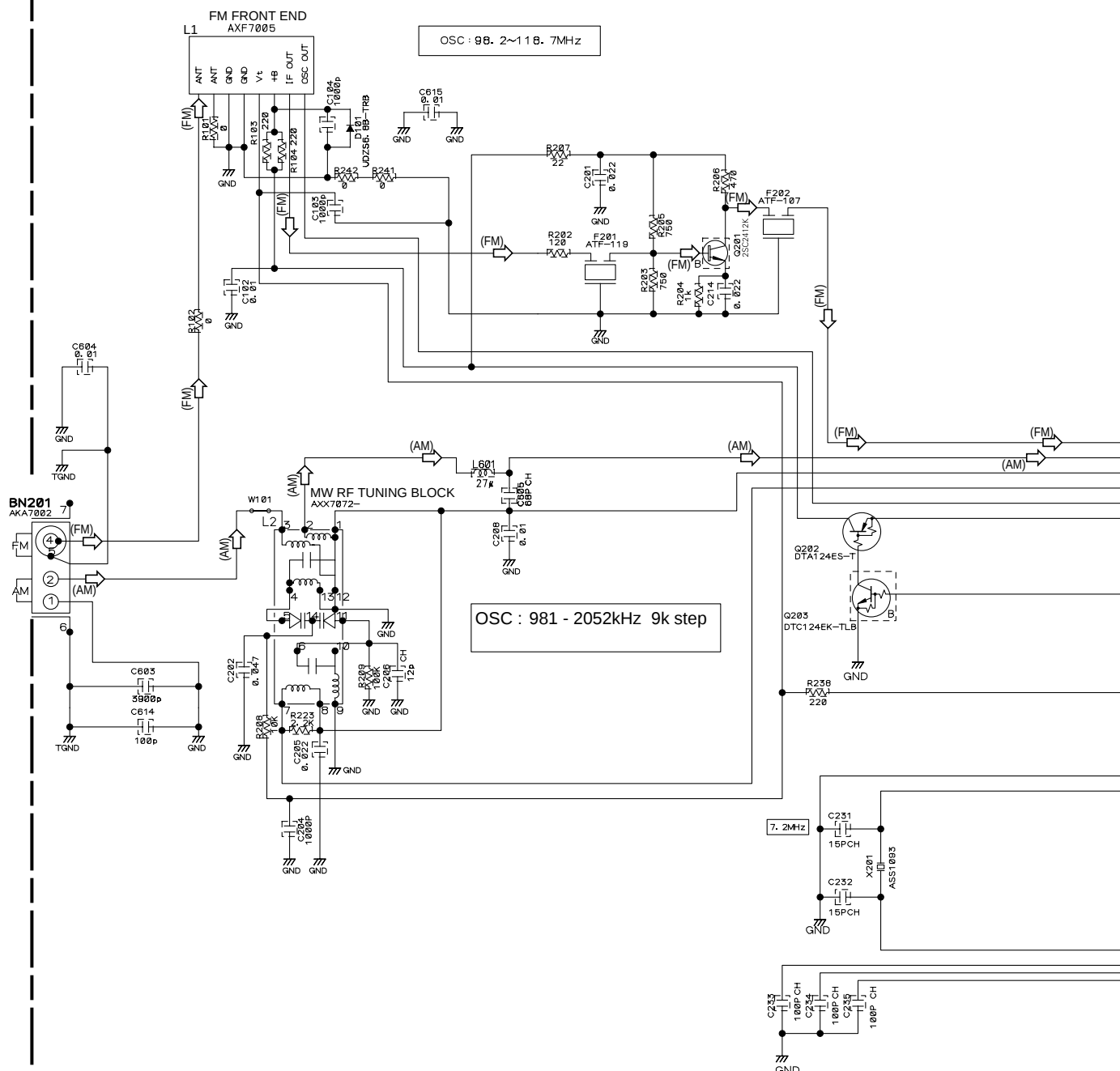


*1	CN305	308	JA352	CN353
VSX-D810S	AKB7123	AKB7089	XKP3045	XKP3044

→ VIDEO SIGNAL FLOW
 ⇄ AUDIO SIGNAL FLOW

3.14 FM/AM TUNER MODULE

U FM/AM TUNER MODULE (AXQ7232)



Notes

1. RESISTORS

Indicated in Ω , $1/16W \pm 5\%$ Tolerance unless otherwise noted K:K Ω , M:M Ω .

2. CAPACITORS

Indicated in Capacity (μF)/VOLTAGE (V) unless otherwise noted P:PF.

3. DIODES

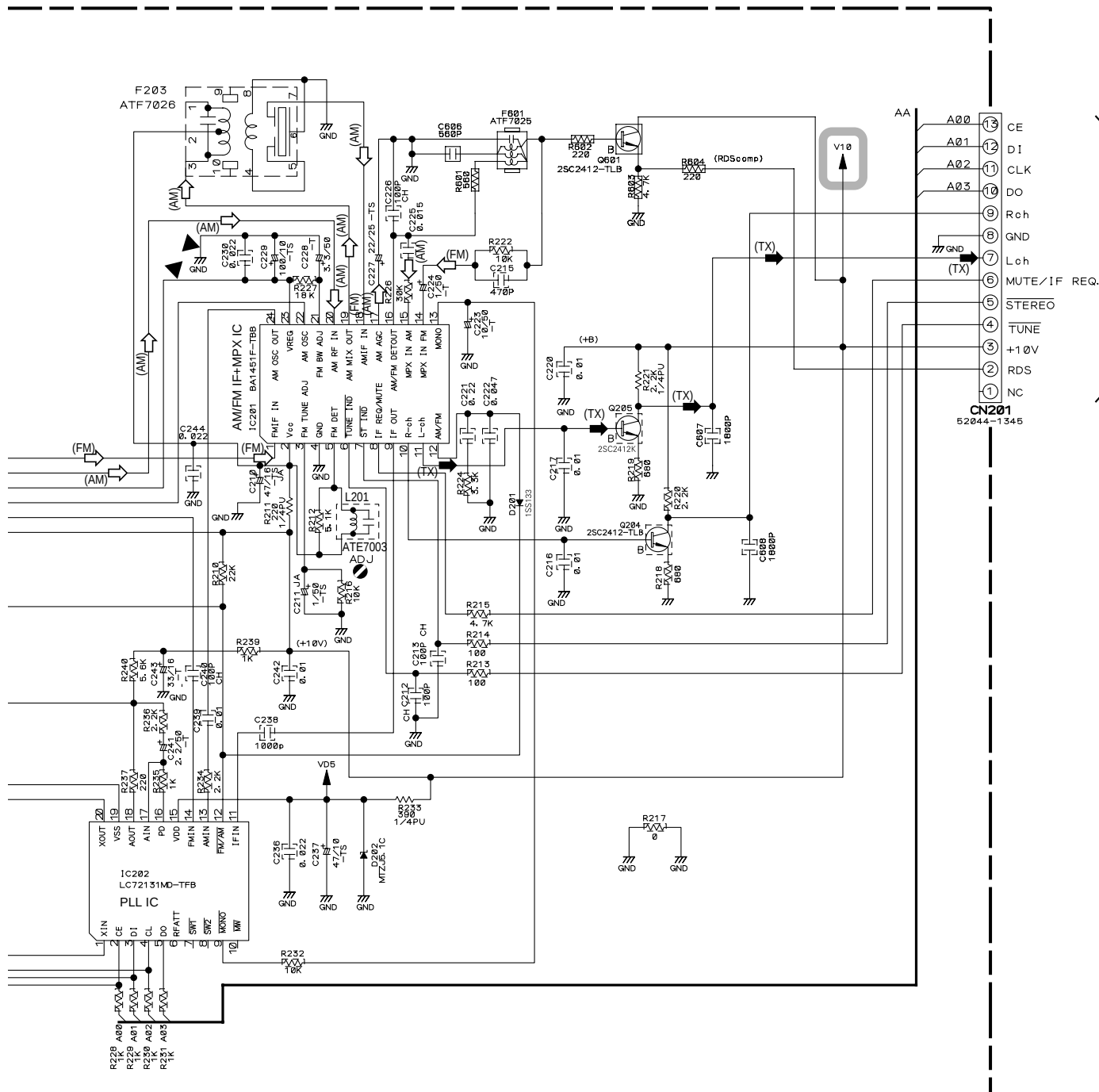
No mark diode is 1SS133.

 : The power supply is shown with the marked box.

(TX)  : AUDIO SIGNAL ROUTE (TUNER)

(AM)  : AM SIGNAL ROUTE

(FM)  : FM SIGNAL ROUTE



A1/2 CN105

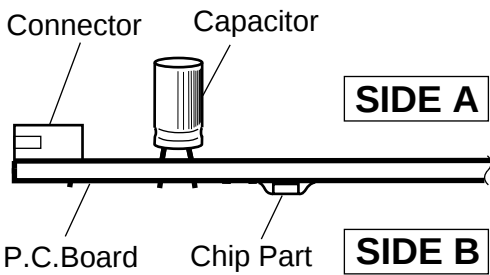
4. PCB CONNECTION DIAGRAM

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.

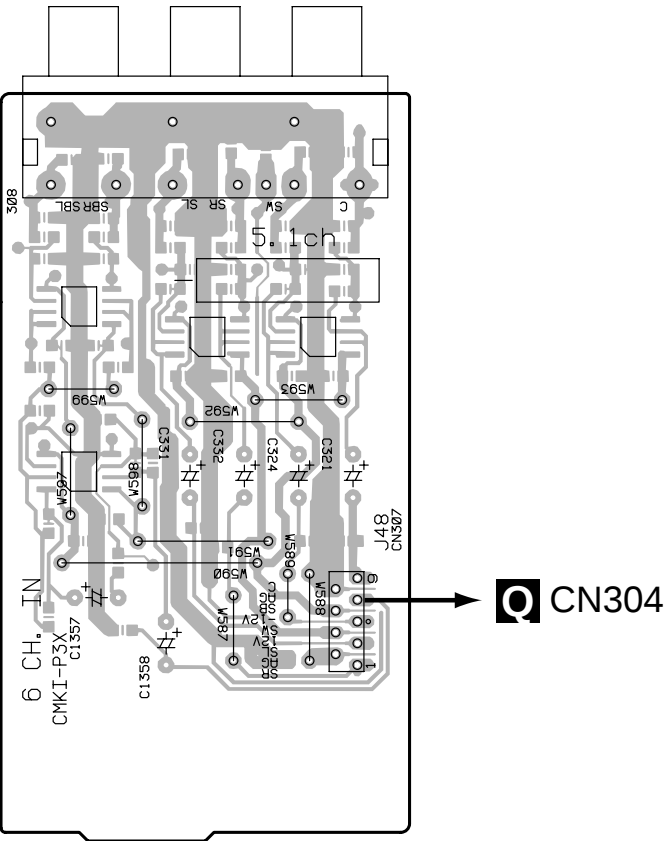
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

- 3. The parts mounted on this PCB include all necessary parts for several destinations.
- For further information for respective destinations, be sure to check with the schematic diagram.
- 4. View point of PCB diagrams.



4.1 6CH IN ASSY

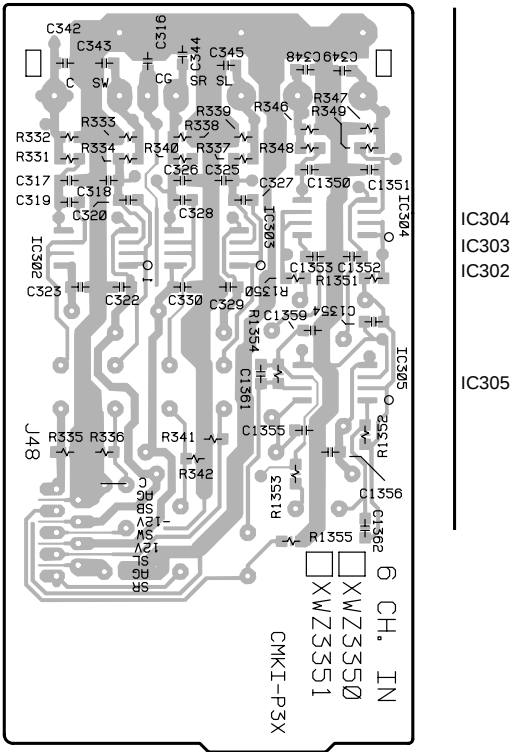
S 6CH IN ASSY



(XNP3032-B)

SIDE A

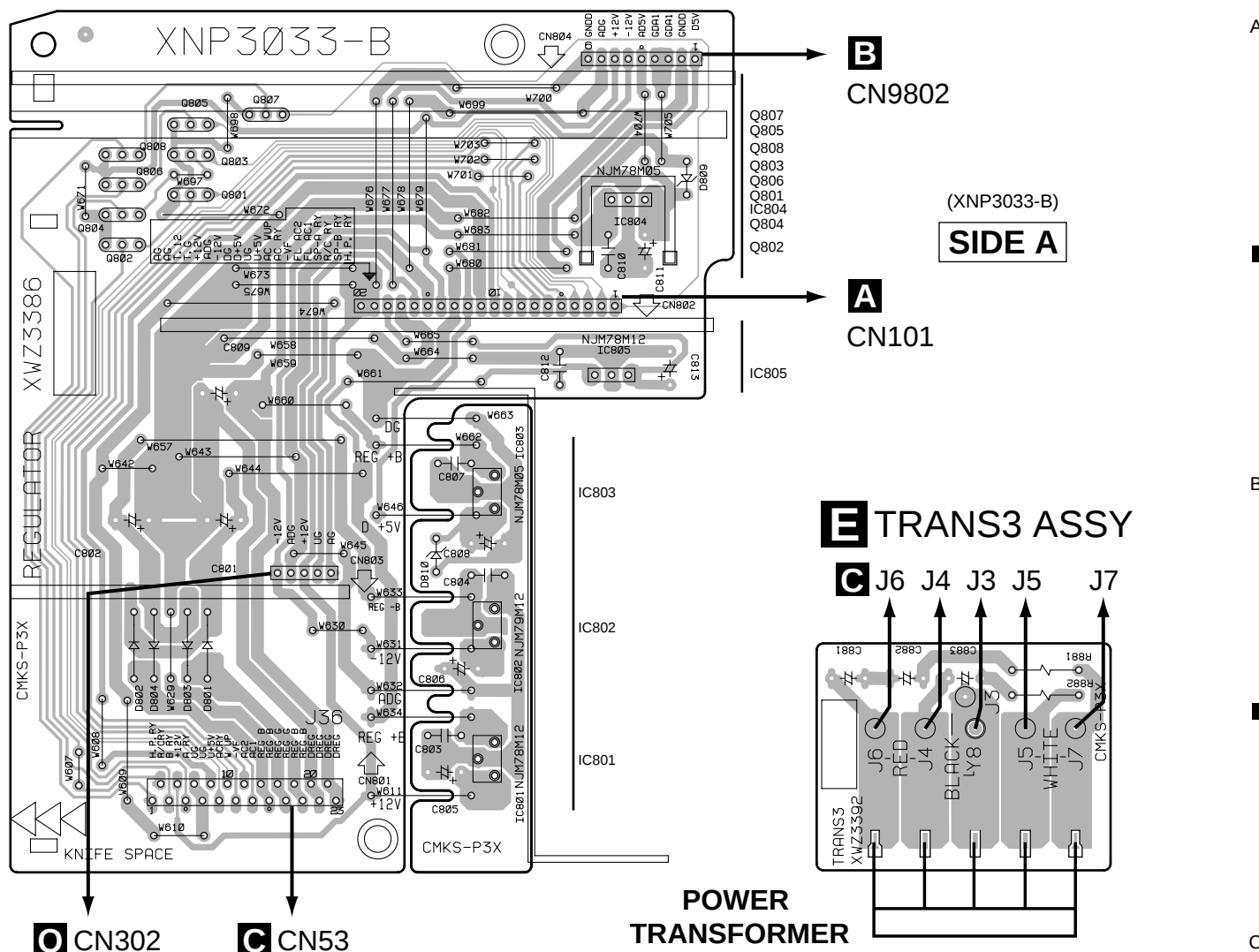
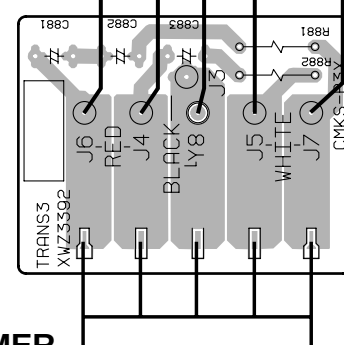
S 6CH IN ASSY



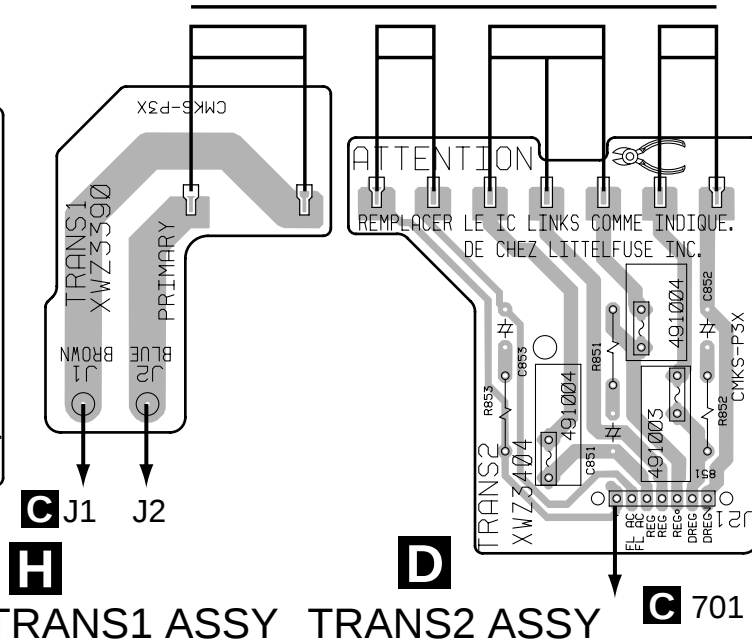
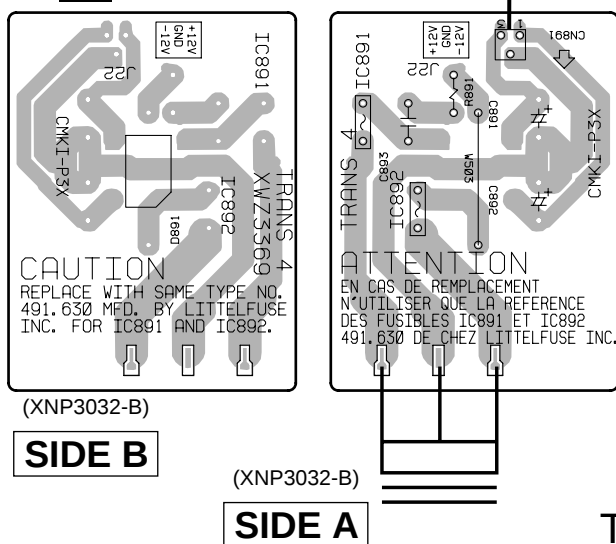
(XNP3032-B)

SIDE B

4.2 TRANS2, TRANS3, REGULATOR, TRANS1 and TRANS4 ASSYS

F REGULATOR ASSY**E** TRANS3 ASSY**C** J6 J4 J3 J5 J7

POWER TRANSFORMER

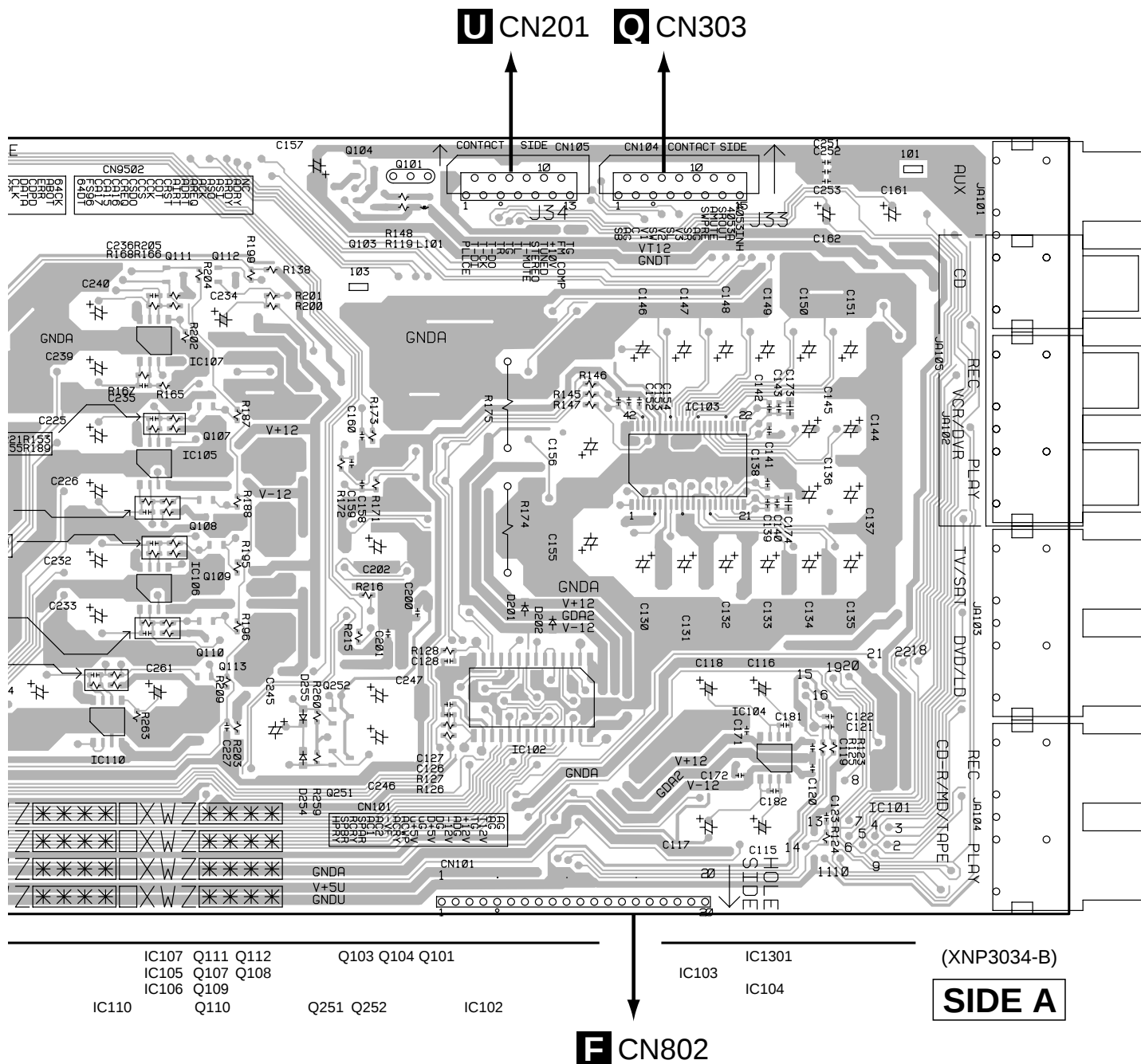
I TRANS4 ASSY

A

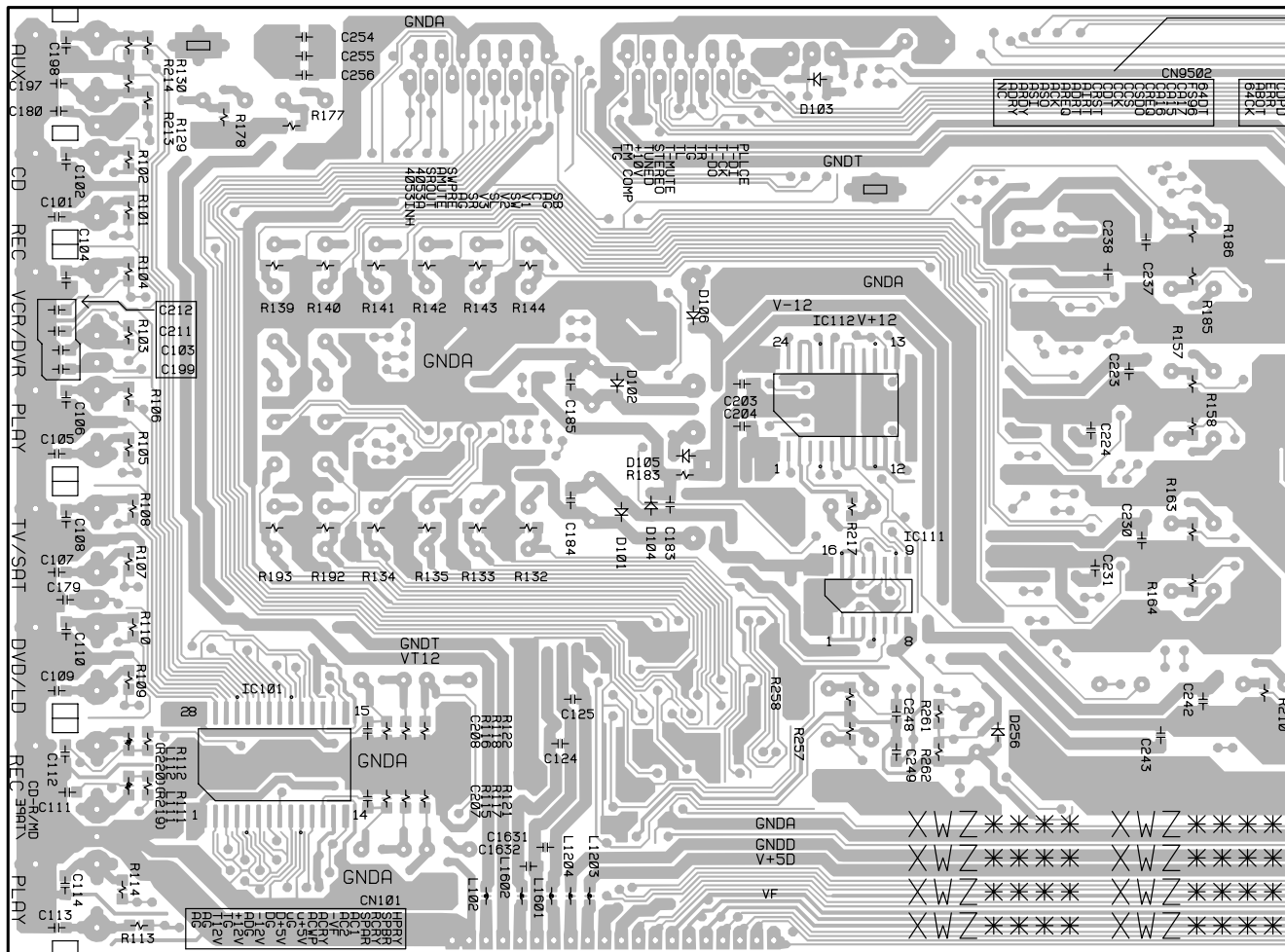


C

D



A D.D UCOM ASSY



IC101

IC112 IC111



4.4 D.D DSP and D TO O ASSYS

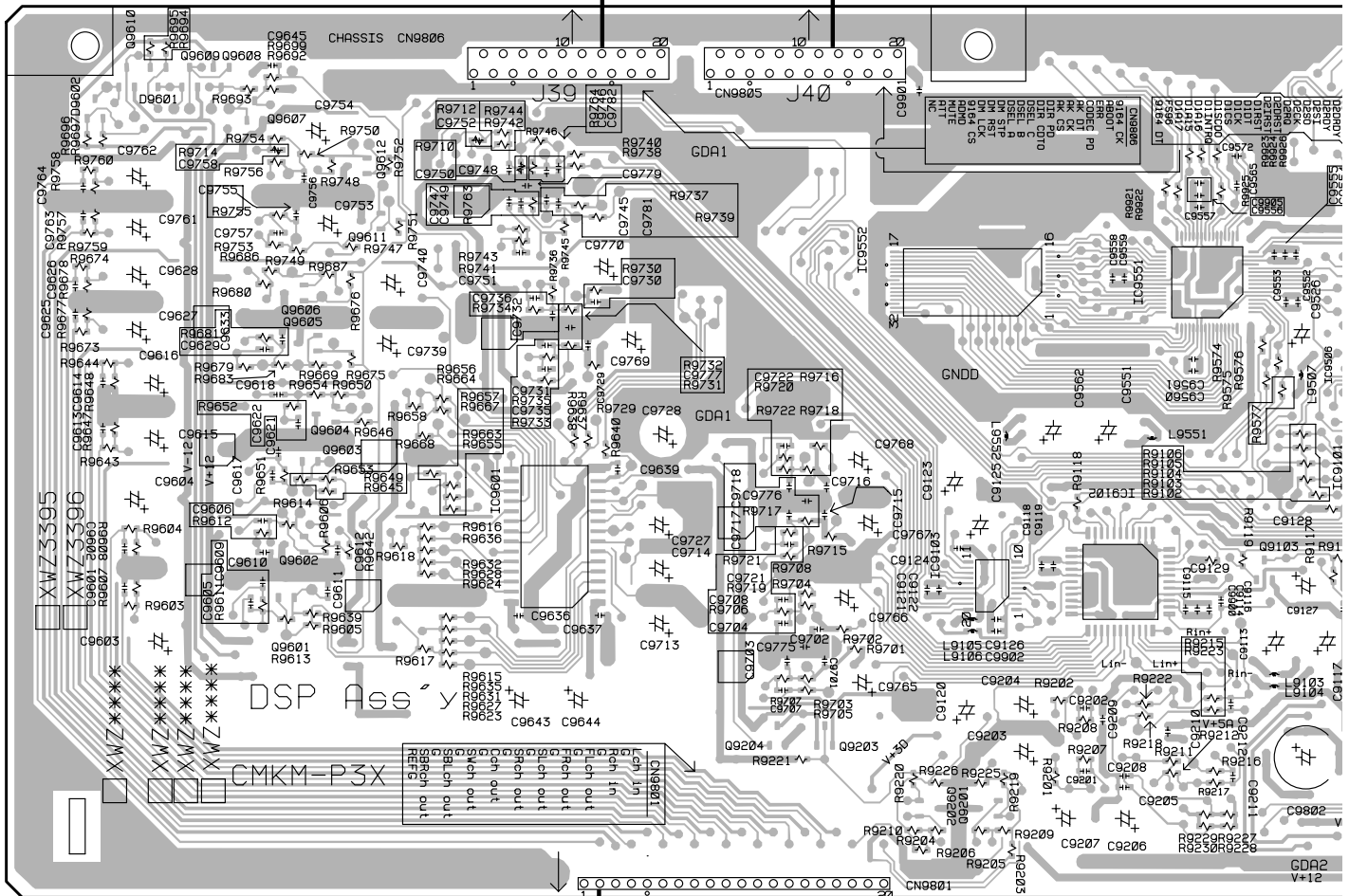
A

A CN9501 **A** CN9502

B D.D DSP ASSY

B

C

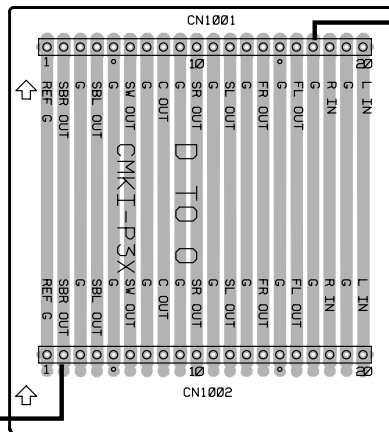


D

K D TO O ASSY

(XNP3032-B)

SIDE A



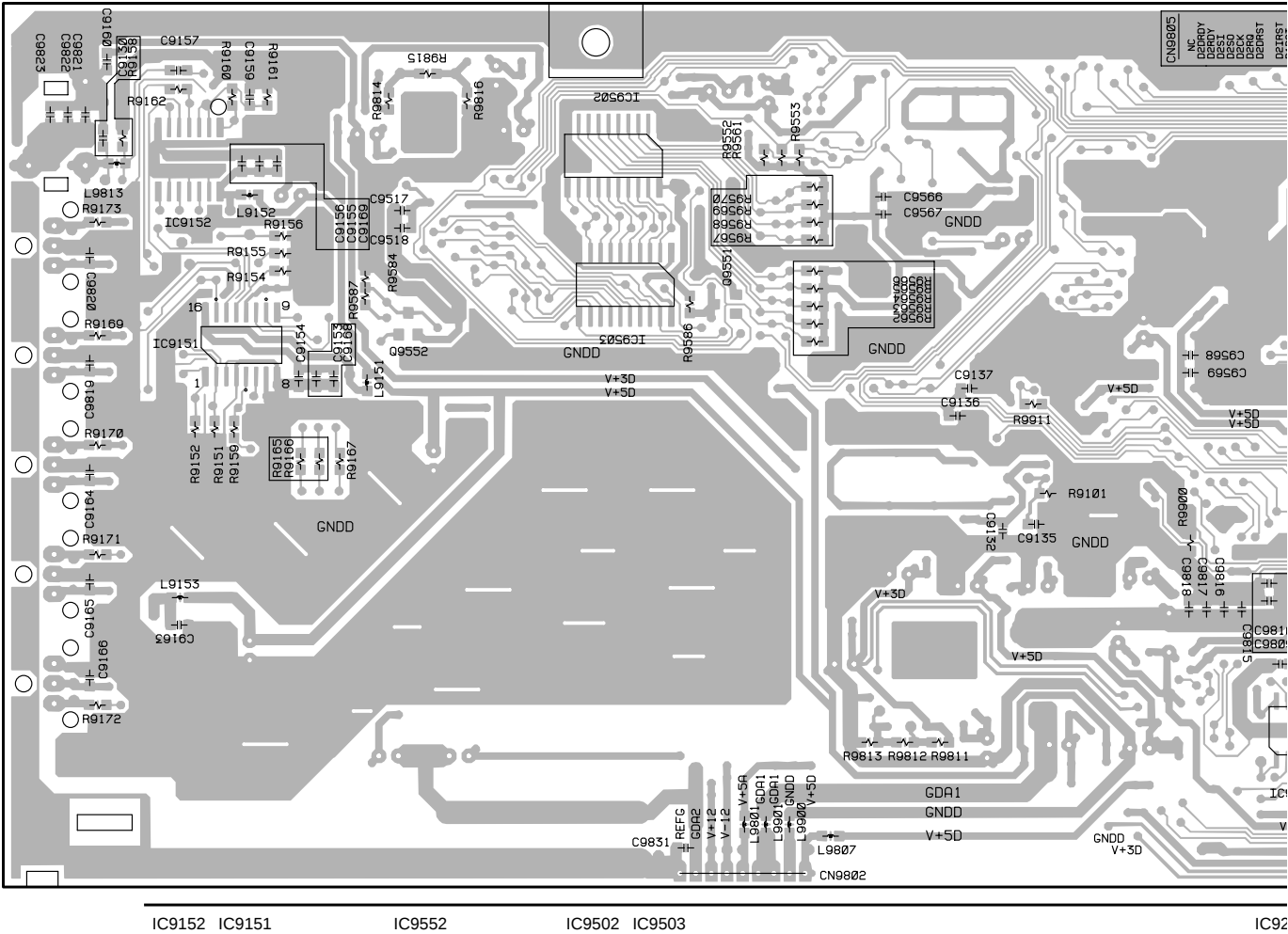
A CN108

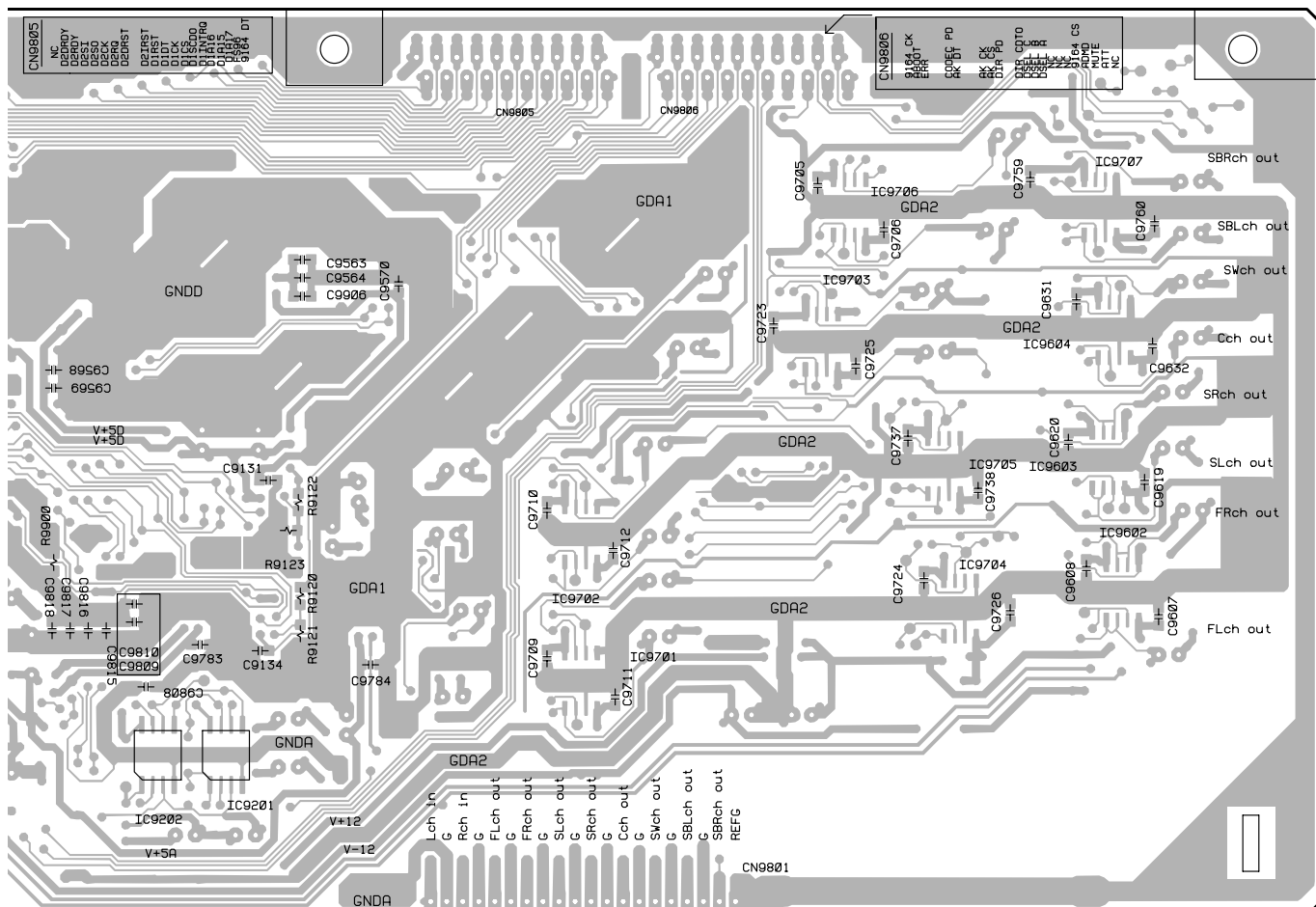


8

SIDE A

B D.D DSP ASSY





IC9202 IC9201

IC9701 IC9702

IC9703 IC9706 IC9704 IC9705 IC9707 IC9604 IC9603 IC9602

(XNP3034-B)

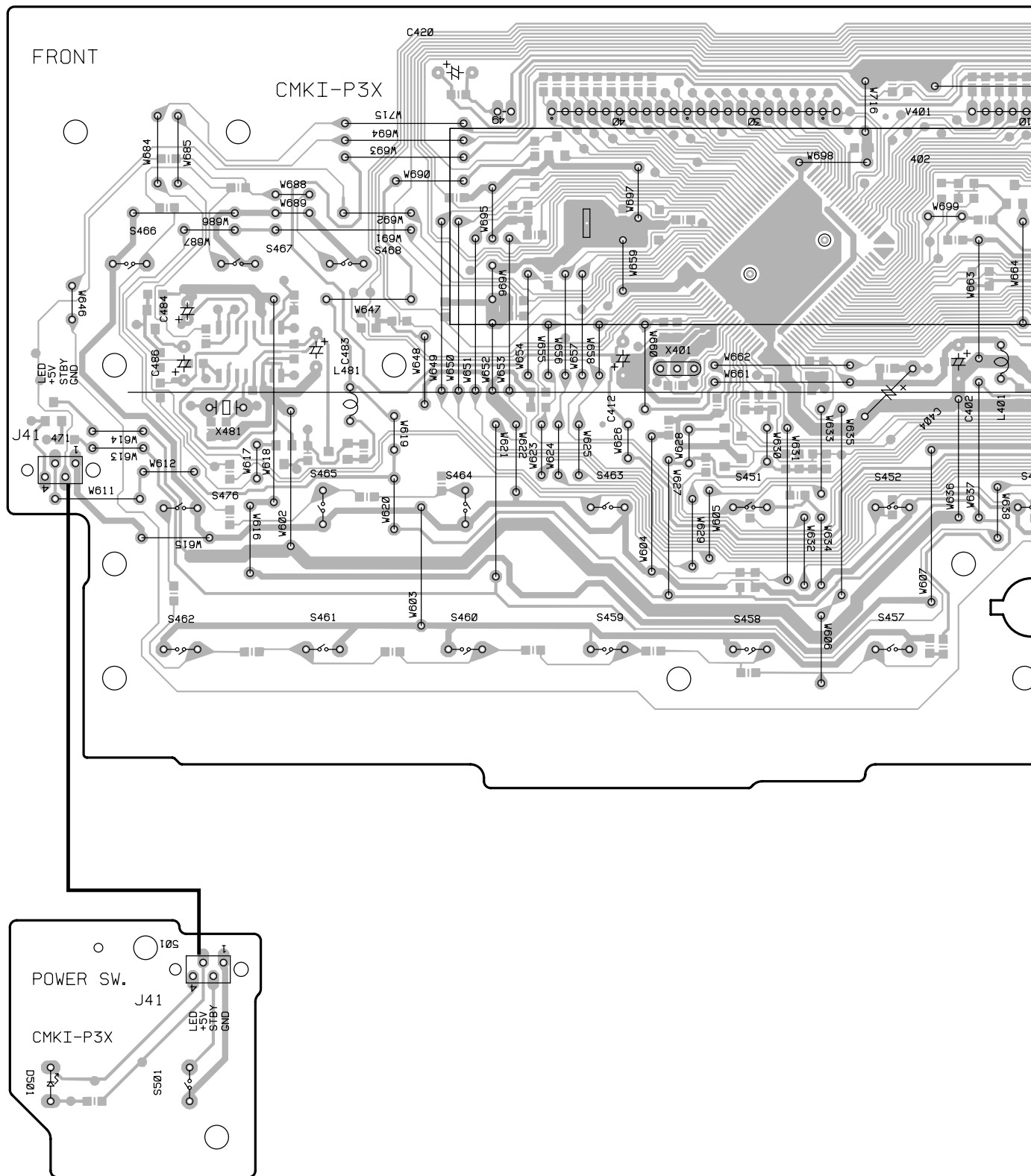
SIDE B

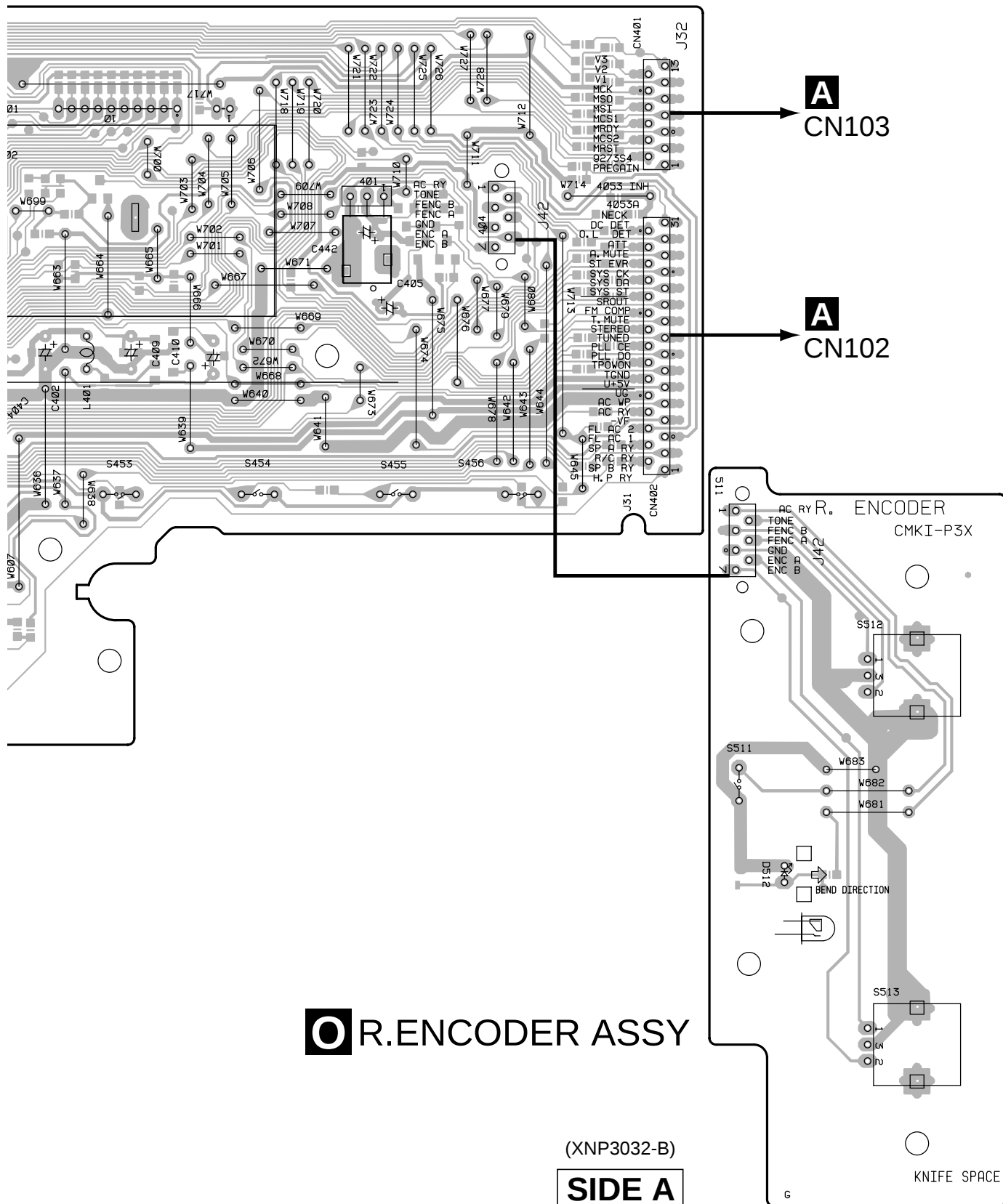
A

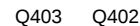




4.6 FRONT, R.ENCODER and POWER SW ASSYS

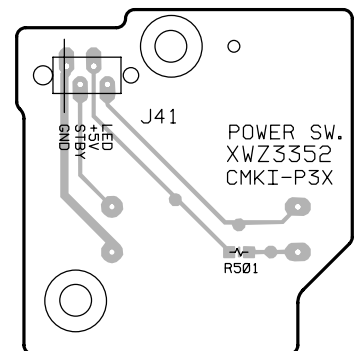
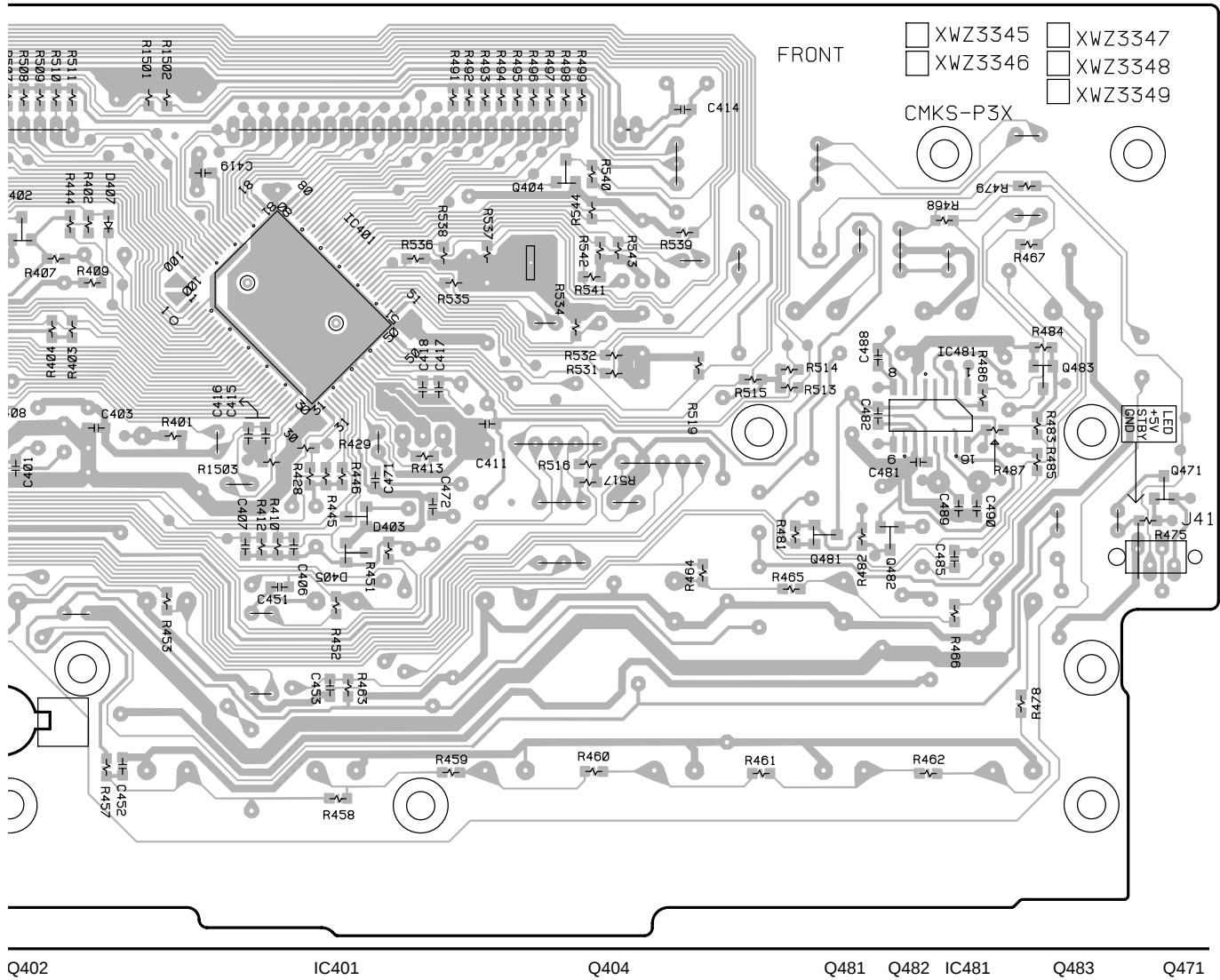
N FRONT ASSY**P** POWER SW ASSY





- ☐ XWZ3354
- ☐ XWZ3355

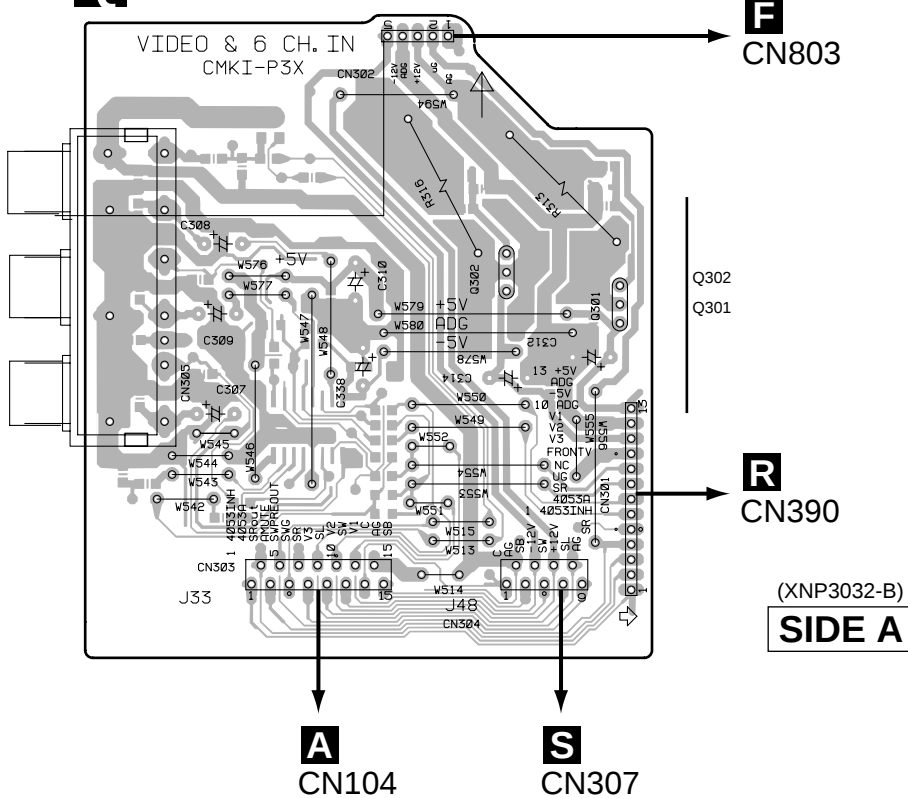
SIDE B



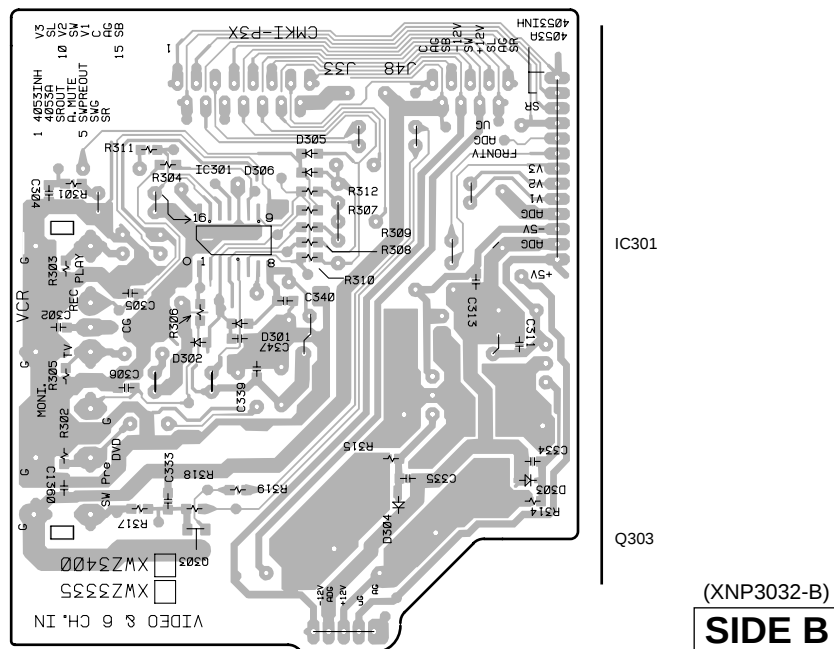
P POWER SW ASSY

4.7 VIDEO&6CH IN ASSY

Q VIDEO&6CH IN ASSY



Q VIDEO&6CH IN ASSY



J FRONT VIDEO ASSY



4.9 H.P. and COMPONENT ASSYS

A

LA H.P. ASSY

M COMPONENT ASSY

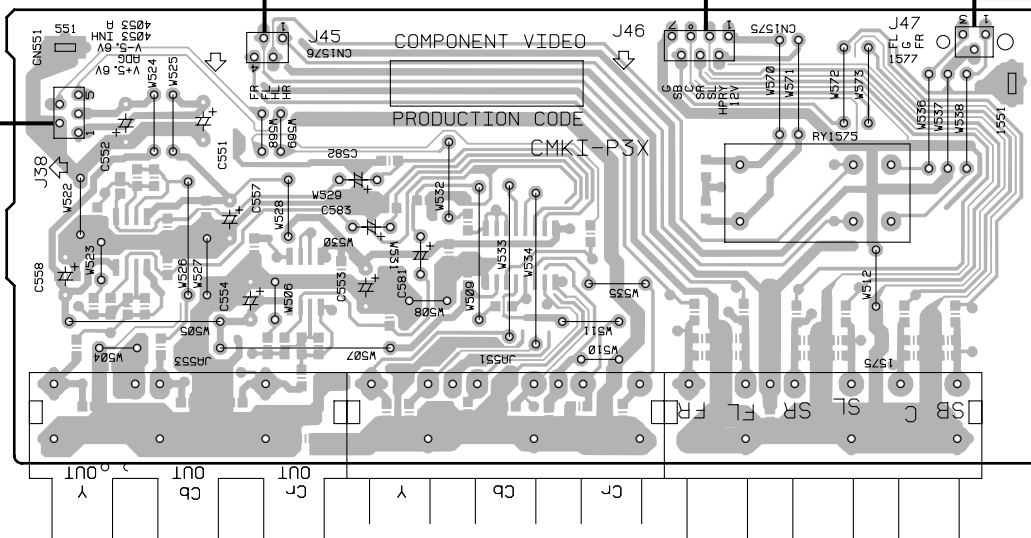
C CN603

C CN604

R

CN392

B

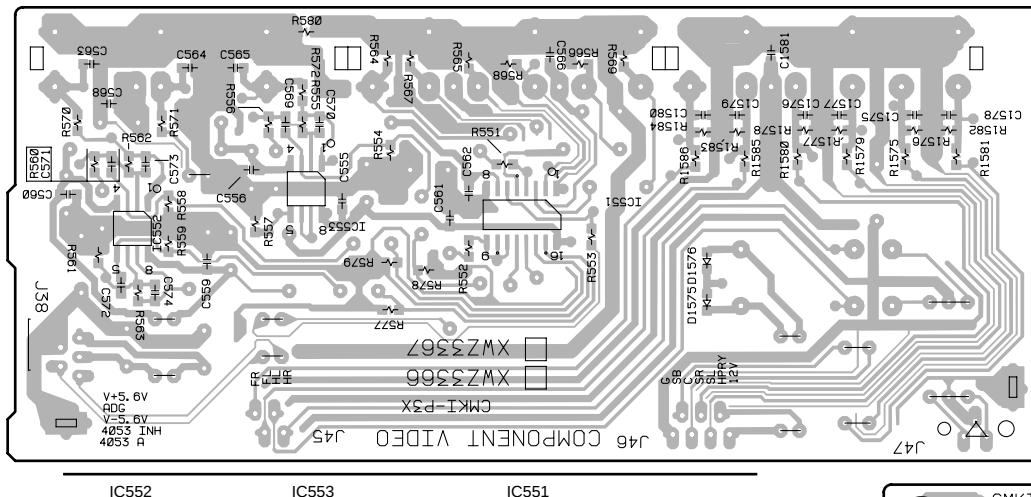


(XNP3032-B)

SIDE A

C

M COMPONENT ASSY

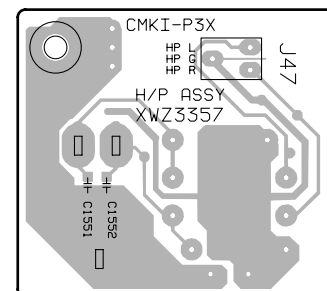


(XNP3032-B)

SIDE B

D

LA H.P. ASSY



5. PCB PARTS LIST

NOTES: ● 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.

● 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 $\rightarrow$ 56×10^1 $\rightarrow$ 561 RD1/4PU 5 6 1 J
 47k Ω $\rightarrow$ 47×10^3 $\rightarrow$ 473 RD1/4PU 4 7 3 J
 0.5 Ω $\rightarrow$ R50 RN2H R 5 0 K
 1 Ω $\rightarrow$ 1R0 RS1P 1 R 0 K

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

5.62k Ω $\rightarrow$ 562×10^1 $\rightarrow$ 5621 RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
		FM/AM TUNER MODULE	AXQ7232			IC112	TC9459F
NSP		COMPLEX ASSY	XWK3011			IC104-IC107, IC110	UPC4570G2-TFB
		— VIDEO&6CH IN ASSY	XWZ3335			Q101	2SC1740S
		— FRONT ASSY	XWZ3346			Q251, Q252	2SC2412K
		— 6CH IN ASSY	XWZ3350			Q107-Q112	2SC3326
		— POWER SW ASSY	XWZ3352			D103, D105, D106, D254, D255	1SS355
		— R.ENCODER ASSY	XWZ3354			D201, D202	RB501V-40
		— H.P. ASSY	XWZ3357			D104, D256	UDZS5.1B
		— MECHA SW ASSY	XWZ3358			D101, D102	UDZS6.8B
		— FRONT VIDEO ASSY	XWZ3359				
		— S.VIDEO ASSY	XWZ3363				
		— COMPONENT ASSY	XWZ3366				
		— D TO O ASSY	XWZ3368				
		— TRANS4 ASSY	XWZ3369				
		— BOARD TO BOARD ASSY	XWZ3371				
NSP		AMP&PS ASSY	XWK3024				
		— AMP&PRIMARY ASSY	XWZ3381				
		— REGULATOR ASSY	XWZ3386				
		— AMP INPUT ASSY	XWZ3389				
		— TRANS2 ASSY	XWZ3404				
NSP		— TRANS1 ASSY	XWZ3390				
NSP		— TRANS3 ASSY	XWZ3392				
NSP		D.D & INPUT ASSY	XWK3028				
		— D.D DSP ASSY	XWZ3395				
		— D.D UCOM ASSY	XWZ3398				

COMPLEX ASSY

OTHERS

J 47	JUMPER WIRED	D15A03-400-2651
J 41	JUMPER WIRED	D15A04-125-2651
J 42	JUMPER WIRED	D15A07-075-2651

AMP&PS ASSY

OTHERS

Y 8	AWG14 BOARD IN	ADX7284
J 44	JUMPER WIRED	D20PYY0325E
J 21	JUMPER WIRED	D20PYY0715E

D.D UCOM ASSY

SEMICONDUCTORS

IC103	M62446FP
IC5901	PD5634A
IC102	TC9163AF
IC111	TC9215AF
IC101	TC9273F-007

COILS AND FILTERS

L5901	CHIP SOLID INDUCTOR	ATL7002
L101, L102, L111, L112		QTL1013
L1203, L1204, L1601, L1602, L5902		QTL1013
	CHIP SOLID INDUCTOR	

CAPACITORS

C101-C114, C121-C123	CCSRCH101J50
C126-C128, C152-C154	CCSRCH101J50
C158-C160, C197, C198	CCSRCH101J50
C207, C208, C221, C222	CCSRCH101J50
C228, C229	CCSRCH101J50

C211, C212	CCSRCH220J50
C235, C241	CCSRCH221J50
C5906	CCSRCH271J50
C251, C252, C5902	CCSRCH471J50
C130-C137, C146-C151	CEAT100M50

C161, C162, C202, C245-C247	CEAT100M50
C261	CEAT100M50
C5904	CEAT101M10
C157	CEAT101M16
C144, C145, C250	CEAT3R3M50

C117, C118	CEAT470M25
C225, C226, C232, C233, C239	CEAT470M50
C244	CEAT470M50
C155, C156	CEAT471M10
C115, C116, C234, C240	CEAT4R7M50

C173, C174	CKSQYB224K16
C256	CKSQYF105Z16
C271, C5912	CKSRYB102K50
C119, C120, C124, C125	CKSRYB103K50
C171, C172, C179, C180, C183	CKSRYB103K50

C199-C201, C203, C204	CKSRYB103K50
C223, C224, C230, C231	CKSRYB103K50
C237, C238, C242, C243	CKSRYB103K50
C248, C249	CKSRYB103K50
C140, C143, C253-C255, C5907	CKSRYB104K16

Mark	No.	Description	Part No.
	C236		CKSRYB152K50
	C139, C142		CKSRYB153K50
	C138, C141		CKSRYB822K50
	C227		CKSRYF104Z16
	C1631, C1632		CKSRYF104Z25
	C184, C185		CKSRYF473Z50

RESISTORS

△	R171–R173	RS1/16S102J
△	R174, R175	RS1LMF101J
	Other Resistors	RS1/16S□□□J

OTHERS

CN9501, CN9502	20P CONNECTOR	52044-2045
CN9505	10P CONNECTOR	52045-1045
CN103, CN105	13P CONNECTOR	52045-1345
CN104	15P CONNECTOR	52045-1545
CN106	19P CONNECTOR	52045-1945
CN102	31P CONNECTOR	52045-3145
JA101–JA104	PIN JACK (4P)	AKB7048
CN107	CONNECTOR POST	B3B-PH-K
CN101, CN108	19P SOCKET	KP200TA20L
101–104	PCB BINDER	VEF1040
X5901	CERAMIC RESONATOR (15.7MHz)	ASS7032

B D.D DSP ASSY**SEMICONDUCTORS**

IC9101	AK4112AVF
IC9102	AK4527VQ
IC9551	AK7706VT
IC9103	CS4391
IC9501	CS493292
IC9201, IC9202	NJM2100M
IC9504	PDN031C
IC9811	PQ20WZ51
IC9812	PQ7VZ5
IC9552	TC551001CFT-70L
IC9151	TC74ACT151F
IC9152	TC74HCU04AF
IC9505	TC74LVX244FT
IC9502, IC9503	TC74VHC574F
IC9506	TC74VHCT244AFT
IC9507	TC7WU04FU
IC9601	TC9164AF
IC9602–IC9604, IC9701–IC9707	UPC4570G2-TFB
Q9201, Q9202, Q9601–Q9606, Q9611	2SC3326
Q9102, Q9104, Q9203, Q9607	DTA124EK
Q9609, Q9610	DTA124EK
Q9101, Q9103, Q9204, Q9608	DTC124EK
D9601, D9602	1SS181

COILS AND FILTERS

L9501, L9551, L9801, L9802, L9807	ATL7002
L9809, L9811, L9812, L9900, L9901	ATL7002
CHIP SOLID INDUCTOR	
L9101–L9107, L9151–L9153	QTL1013
L9502, L9503, L9506, L9507, L9552	QTL1013
L9813	CHIP SOLID INDUCTOR
	QTL1013

Mark	No.	Description	Part No.
CAPACITORS			
	C9510, C9511		CCSRCH100D50
	C9115, C9135, C9160, C9609, C9610		CCSRCH101J50
	C9721, C9722, C9735, C9900		CCSRCH101J50
	C9822		CCSRCH102J50
	C9107		CCSRCH150J50
	C9106		CCSRCH180J50
	C9621, C9622, C9749, C9751, C9809		CCSRCH221J50
	C9509, C9629		CCSRCH271J50
	C9159		CCSRCH470J50
	C9101, C9104, C9112, C9114, C9119		CCSRCH471J50
	C9122, C9130, C9154, C9156, C9503		CCSRCH471J50
	C9505, C9507, C9513, C9515, C9518		CCSRCH471J50
	C9520, C9522, C9525, C9528, C9553		CCSRCH471J50
	C9555, C9557, C9559, C9561, C9564		CCSRCH471J50
	C9617, C9618, C9639, C9757		CCSRCH471J50
	C9201, C9202		CCSRCH560J50
	C9707, C9708		CCSRCH820J50
	C9611, C9612, C9736		CCSRCH821J25
	C9113		CEAT221M10
	C9523, C9526, C9643, C9644, C9770		CEJQ100M25
	C9501, C9516, C9551, C9740		CEJQ101M10
	C9801, C9802, C9812, C9814		CEJQ101M10
	C9123, C9125		CEJQ1R0M50
	C9127, C9529		CEJQ2R2M50
	C9713, C9714, C9727, C9728, C9739		CEJQ330M10
	C9753, C9765–C9769		CEJQ330M10
	C9102, C9108, C9117, C9120		CEJQ470M16
	C9151, C9152, C9162, C9562		CEJQ470M16
	C9803, C9805		CEJQ470M25
	C9203, C9204, C9206, C9207		CEJQ4R7M50
	C9603, C9604, C9615, C9616		CEJQ4R7M50
	C9627, C9628, C9761, C9811, C9813		CEJQ4R7M50
	C9110		CEJQR47M50
	C9131, C9745, C9781, C9815		CKSRYB102K50
	C9103, C9105, C9118, C9121, C9124		CKSRYB103K50
	C9133, C9134, C9153, C9155		CKSRYB103K50
	C9157, C9158, C9502, C9504, C9506		CKSRYB103K50
	C9508, C9512, C9514, C9517, C9519		CKSRYB103K50
	C9521, C9524, C9527, C9531, C9552		CKSRYB103K50
	C9554, C9556, C9558, C9560, C9563		CKSRYB103K50
	C9572, C9636, C9637, C9816		CKSRYB103K50
	C9109, C9116, C9126, C9626, C9784		CKSRYB104K16
	C9804, C9806, C9817, C9818, C9831		CKSRYB104K16
	C9841, C9901, C9904, C9905		CKSRYB104K16
	C9605, C9606, C9633, C9755		CKSRYB122K50
	C9211, C9212		CKSRYB152K50
	C9703, C9704, C9715, C9716, C9729		CKSRYB182K50
	C9601, C9602, C9613, C9614, C9625		CKSRYB222K50
	C9763		CKSRYB222K50
	C9701, C9702		CKSRYB272K50
	C9732		CKSRYB333K16
	C9645		CKSRYB472K50
	C9111		CKSRYB682K50
	C9717, C9718, C9731		CKSRYB821K50
	C9163, C9164, C9166, C9205		CKSRYF104Z25
	C9208–C9210, C9607, C9608		CKSRYF104Z25
	C9619, C9620, C9631, C9632		CKSRYF104Z25
	C9705, C9706, C9709–C9712		CKSRYF104Z25
	C9723–C9726, C9730, C9737, C9738		CKSRYF104Z25
	C9759, C9760, C9810, C9819–C9821		CKSRYF104Z25
	C9823		CKSRYF104Z25

VSX-D810S

Mark	No.	Description	Part No.
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RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

CN9805, CN9806 20P CONNECTOR	52045-2045
JA9150, JA9152, JA9153 OPTICAL LINK IN	GP1FA551RZ
JA9155 OPTICAL LINK OUT	GP1FA551TZ
CN9801 20P SOCKET	KP200TA20L
CN9802 9P SOCKET	KP200TA9L
JA9151 1P PIN JACK	VKB1077
X9101 CRYSTAL RESONATOR (24MHz)	ASS7025
X9501 CRYSTAL RESONATOR (27.0MHz)	VSS1086

C AMP&PRIMARY ASSY

SEMICONDUCTORS

△ IC52 PROTECTOR (315mA)	AEK7003
△ IC603 PROTECTOR (1A)	AEK7009
△ IC701, IC702 PROTECTOR (125mA)	AEK7020
△ IC604-IC607 PROTECTOR (10A)	AEK7022
IC51	NJM78M56FA
△ IC601, IC602	PAC011A
Q703	2SA1145
Q702	2SB1238X
Q696, Q697	2SC1740S
Q704	2SC1845
Q605, Q606, Q633, Q655, Q656	2SC2240
Q683	2SC2240
Q601-Q604, Q631, Q632	2SC2878
Q651-Q654, Q681, Q682	2SC2878
Q701	2SD1859X
Q51	KRC101M
D56, D57, D601, D603, D606	1SS133
D608, D631, D632, D651-D654	1SS133
D683, D684, D751-D754	1SS133
D757, D758	1SS133
△ D701, D702	D5SBA20(B)
D711	MTZJ22D
D58	MTZJ5.1A
D712	MTZJ5.1B
D602, D604, D681, D682	MTZJ8.2A
△ D51-D55, D721-D724	S5688G

COILS AND FILTERS

△ L51 LINE FILTER	ATF7018
L751-L754, L761, L762 COIL	ATH1004

SWITCHES AND RELAYS

RY751-RY754 RELAY	XSR3002
△ RY51 JOE LOWPOWER RELAY	XSR3003

CAPACITORS

△ C707, C708 (0.01μF/AC250V)	ACG1005
C51, C52 (10000pF/AC250V)	ACG7020
C703, C704 (3300μF/42V)	ACH7135
C701, C702 (4700μF/71V)	ACH7137
C607, C608, C634, C657, C658	CCCSL101J50

Mark	No.	Description	Part No.
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C684	CCCSL101J50
C611-C614, C636, C637	CCCSL6R0D50
C661-C664, C686, C687	CCCSL6R0D50
C615, C616, C638, C665, C666	CEANP2R2M50
C688	CEANP2R2M50

C705, C706	CEAT100M2A
C712	CEAT101M10
C609, C610, C635, C659, C660	CEAT101M16
C685	CEAT101M16
C711	CEAT101M35

C53	CEAT102M16
C697	CEAT221M10
C54	CEAT470M25
C605, C606, C633, C655, C656	CEAT4R7M50
C683	CEAT4R7M50

C751-C756, C761-C764	CFTYA224J50
C771, C772	CFTYA224J50
C55-C57	CGCYX103M25
C601, C602, C652, C681, C696	CKCYB102K50
C603, C604, C632, C653, C654	CKCYB331K50

C682	CKCYB331K50
C631, C651, C769, C770	CKPUYB102K50
C757-C759, C765-C768, C773	CQMBA472J50

RESISTORS

△ R52	RD1/2PM270J
△ R615	RD1/4PU331J
△ R751, R752, R755, R761, R762	RD1/4PUF101J
△ R772	RD1/4PUF101J
△ R753, R754, R756, R763, R764	RS1LMF4R7J
△ R771	RS1LMF4R7J
△ R711	RS2LMF332J
△ R617, R622, R639, R667, R668	XCN3001
△ R691 (0.22Ω/5W)	XCN3001
Other Resistors	RD1/4PU□□□J

OTHERS

52 3P CABLE HOLDER	51048-0300
CN603 4P CONNECTOR	52045-0445
CN604 7P CONNECTOR	52045-0745
CN53 23P CONNECTOR	52045-2345
CN751, CN752	AKE7059
SPEAKER TERMINAL 8-P	
H 51, H 52 FUSE CLIP	AKR7001
△ T 51 STANDBY TRANSFORMER	ATT7037
CN601 18P PLUG	KM200TA18
CN51 AC CODE SOCKET	RKP1751
KN51, KN601EARTH METAL FITTING	VNF1084

△ 701 7P CABLE HOLDER	XKP3047
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D TRANS2 ASSY

SEMICONDUCTORS

△ IC853 PROTECTOR (3A)	AEK7015
△ IC851, IC852 PROTECTOR (4A)	AEK7018

OTHERS

851 7P CABLE HOLDER	XKP3047
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E TRANS3 ASSY

TRANS3 ASSY has no service part.

Mark	No.	Description	Part No.
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**REGULATOR ASSY****SEMICONDUCTORS**

IC803, IC804
IC801, IC805
IC802
Q801, Q803, Q805, Q807
Q802, Q804, Q806, Q808

NJM78M05FA
NJM78M12FA
NJM79M12FA
KRA103M
KRC101M



D809, D810
D801-D804

MTZJ6.2A
S5688G

CAPACITORS

C808, C811
C805, C806, C813
C801, C802
C809
C803, C804, C807, C810, C812

CEAT101M10
CEAT101M16
CEAT222M25
CEAT332M16
CGCYX103M25

OTHERS

CN801 23P CONNECTOR
CN802 20P PLUG
CN803 5P PLUG
CN804 9P PLUG

52045-2345
KM200TA20
KM200TA5
KM200TA9

**AMP INPUT ASSY****SEMICONDUCTORS**

IC251
Q257
Q251, Q256
Q252
Q254

NJM4558D-D
2SA933S
2SC2878
2SD1858X
KRA103M

Q253, Q255
D251, D252
D253
D254

KRC103M
1SS133
MTZJ27D
MTZJ5.1B

CAPACITORS

C251
C254
C252, C253

CEANP470M25
CEAT101M25
CKPUYF103Z25

RESISTORS

All Resistors

RD1/4PU□□□J

OTHERS

CN251 3P CONNECTOR
CN254 19P CONNECTOR
CN252 3P PLUG
CN253 18P SOCKET

52044-0345
52044-1945
KM250MA3L
KP200TA18L

**TRANS1 ASSY**

TRANS1 ASSY has no service part.

**TRANS4 ASSY****SEMICONDUCTORS**

IC891, IC892 PROTECTOR (630mA)
D891

AEK7006
S1WB(A)60SD

CAPACITORS

C891, C892

CEAT471M35

Mark	No.	Description	Part No.
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OTHERS

CN891 3P CONNECTOR 52045-0345

**FRONT VIDEO ASSY****CAPACITORS**

C903, C905
C908, C911, C914
C904, C906, C909, C912
C901, C902
C907, C910, C913

CEJQ470M25
CKSRYB103K50
CKSRYB104K25
CKSRYB221K50
CKSRYB471K50

RESISTORS

All Resistors

RS1/16S□□□J

OTHERS

JA902 PIN JACK (4P)
CN901 CONNECTOR

AKX7014
S8B-PH-K-S

**D TO O ASSY****OTHERS**

CN1001,CN1002 20P PLUG KM200TA20

**H.P. ASSY****CAPACITORS**

C1551, C1552

CKSRYB223K50

RESISTORS

R1553, R1554

RS1LMF471J



R1551, R1552

RS2LMF331J

OTHERS

CN1551 CONNECTOR(3P)
JA1551 JACK
KN1551 EARTH METAL FITTING

KPE3
RKN1002
VNF1084

**MECHA SW ASSY****SWITCHES AND RELAYS**

S591

ASG7014

CAPACITORS

C591, C592

CKSQYF103Z50

OTHERS

CN591 3PJUMPER CONNECTOR 52151-0310

**COMPONENT ASSY****SEMICONDUCTORS**

IC551
IC552, IC553
D1575,D1576

TC74HC4053AF
TK15420M
1SS355

SWITCHES AND RELAYS

RY1575 RELAY

XSR3002

CAPACITORS

C551-C554, C557, C558
C1581, C555, C556, C559-C562
C566, C568

CEAT101M10
CKSRYB103K50
CKSRYB103K50

VSX-D810S

Mark	No.	Description	Part No.
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RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

1577	CABLE HOLDER(3P)	51063-0305
CN1576	4P CONNECTOR	52045-0445
CN551	5P CONNECTOR	52045-0545
CN1575	7P CONNECTOR	52045-0745
1575	PIN JACK(6P)	AKB7089
JA553	3P RCA PINJACK	AKB7124
JA551	6P RCA PINJACK	AKB7128

N FRONT ASSY

SEMICONDUCTORS

IC481	BU1923F
IC401	PDG261A
Q481	2SA1037K
Q483	2SC3326
Q401, Q402, Q442, Q471	DTA124EK
Q403, Q404, Q441, Q482	DTC143EK
D407, D442	1SS355
D403, D405	DAN217
D401, D404	DAP202K

COILS AND FILTERS

L401, L481	LFEA2R2J
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SWITCHES AND RELAYS

S451-S468, S476	ASG1051
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CAPACITORS

C420 (220μF/35V)	ACH7101
C404 (0.047F/5.5V)	ACH7132
C489, C490	CCSRCH270J50
C488	CCSRCH561J50
C483	CEAT101M10
C486	CEAT1R0M50
C402	CEAT221M6R3
C409, C410, C484	CEAT2R2M50
C412	CEAT470M50
C405	CEJQ221M6R3
C442	CEJQ470M10
C451-C453, C472, C481, C482	CKSRYB102K50
C495	CKSRYB102K50
C401, C403, C411, C419, C441	CKSRYB103K50
C531	CKSRYB103K50
C408, C416, C418, C471	CKSRYB104K16
C492-C494, C496, C497	CKSRYB104K16
C485	CKSRYB472K50
C406, C407	CKSRYB473K16

RESISTORS

All Resistors	RS1/16S□□□J
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OTHERS

471	CABLE HOLDER (4P)	51063-0405
404	CABLE HOLDER (7P)	51063-0705
CN401	13P CONNECTOR	52044-1345
CN402	31P CONNECTOR	52044-3145
V401	FL TUBE	XAV3010

Mark	No.	Description	Part No.
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X481	CERAMIC RESONATOR (4.332MHz)	ASS7004
X401	CERAMIC RESONATOR (7.2MHz)	ASS7018
401	REMOTE RECEIVER UNIT	GP1U28X

O R.ENCODER ASSY

SWITCHES AND RELAYS

S511		ASG1051
S513	ROTARY ENCODER	XSX3005
S512	ROTARY ENCODER	XSX3006

OTHERS

511	CABLE HOLDER (7P)	51063-0705
-----	-------------------	------------

P POWER SW ASSY

SEMICONDUCTORS

D501	BR3371XJ30A
------	-------------

SWITCHES AND RELAYS

S501	ASG1051
------	---------

RESISTORS

All Resistors	RS1/16S□□□J
---------------	-------------

OTHERS

501	CABLE HOLDER (4P)	51063-0405
-----	-------------------	------------

Q VIDEO&6CH IN ASSY

SEMICONDUCTORS

IC301	NJM2296M
Q302	2SA1515
Q303	2SC3326
Q301	2SC3377
D301, D302, D305, D306	1SS355
D303, D304	UDZS6.2B

CAPACITORS

C347	CCSRCH470J50
C307-C310, C312, C314, C338	CEAT470M25
C1360, C302	CKSRYB103K50
C339, C340	CKSRYB104K25
C304-C306	CKSRYB221K50
C333	CKSRYB331K50
C311, C313	CKSRYB473K25

RESISTORS

△	R313, R316	RS3LMF390J
	Other Resistors	RS1/16S□□□J

OTHERS

CN304	9P CONNECTOR	52044-0945
CN303	15P CONNECTOR	52044-1545
CN305	6P PIN JACK	AKB7123
CN301	13P SOCKET	KP200TA13L
CN302	5P SOCKET	KP200TA5L

Mark	No.	Description	Part No.
------	-----	-------------	----------

**BOARD TO BOARD ASSY****OTHERS**

CN392	5P CONNECTOR	52045-0545
CN391	11P PLUG	KM200TA11
CN390	3P PLUG	KM200TA13

**6CH IN ASSY****SEMICONDUCTORS**

IC302-IC305	NJM4558MD
-------------	-----------

CAPACITORS

C1354, C1359, C319, C320	CCSRCH101J50
C327, C328, C342-C345	CCSRCH101J50
C348, C349	CCSRCH101J50
C1362	CCSRCH121J50
C1361	CCSRCH680J50

C1357	CEAT220M25
C1358, C321, C324, C331, C332	CEAT4R7M50
C1352, C1353, C1355, C1356, C316	CKSRYB103K50
C322, C323, C329, C330	CKSRYB103K50
C1350, C1351, C317, C318	CKSRYB221K50

C325, C326	CKSRYB221K50
------------	--------------

RESISTORS

All Resistors	RS1/16S□□□J
---------------	-------------

OTHERS

CN307	9P CONNECTOR	52044-0945
308	PIN JACK(6P)	AKB7089

**S. VIDEO ASSY****SEMICONDUCTORS**

IC351, IC352	NJM2296M
D351-D354	1SS355

CAPACITORS

C375, C376	CCSRCH470J50
C352, C355, C358, C361-C363	CEAT470M25
C366	CEAT470M25
C372, C373, C377, C378	CKSRYB103K50
C351, C353, C354, C356, C357	CKSRYB104K25

C359, C367	CKSRYB104K25
C364, C365, C368-C371	CKSRYB221K50

RESISTORS

All Resistors	RS1/16S□□□J
---------------	-------------

OTHERS

CN354	CONNECTOR POST	B5B-PH-K
CN351	11P SOCKET	KP200TA11L
JA351	JACK	RKN1004
CN353	2-4P MINI DIN SOCKET	XKP3044
CN352	3-4P MINI DIN SOCKET	XKP3045

**FM/AM TUNER MODULE****SEMICONDUCTORS**

IC201	BA1451F
-------	---------

Mark	No.	Description	Part No.
------	-----	-------------	----------

IC202	LC72131MD-TFB
Q201, Q204, Q205, Q601	2SC2412K
Q202	DTA124ES
Q203, Q602	DTC124EK

D201	1SS133
D601	HVU187
D202	MTZJ5.1C
D101	UDZS6.8B

COILS AND FILTERS

L201	FM DETECTOR COIL	ATE7003
F202	CERAMIC FILTER	ATF-107
F201	CERAMIC FILTER	ATF-119
F601	ANTIBIRDY FILTER	ATF7025
F203	AM CERAMIC FILTER	ATF7026

L602	LAU2R2J
L601	LCTA270J2520

CAPACITORS

C605	CCSQCH680J50
C212, C213, C226, C233-C235	CCSRCH101J50
C240, C614	CCSRCH101J50
C206	CCSRCH120J50
C231, C232	CCSRCH150J50

C223	CEAT100M50
C229	CEAT101M10
C224	CEAT1R0M50
C227	CEAT220M25
C241	CEAT2R2M50

C243	CEAT330M16
C228	CEAT3R3M50
C237	CEAT470M10
C211	CEJQ1R0M50
C210	CEJQ470M16

C103, C104, C204, C238, C609	CKSRYB102K50
C102, C208, C216, C217, C220	CKSRYB103K50
C239, C242, C604, C610, C615	CKSRYB103K50
C225	CKSRYB153K50
C607, C608	CKSRYB182K50

C201, C205, C214, C230, C236	CKSRYB223K50
C244, C611	CKSRYB223K50
C221	CKSRYB224K10
C603	CKSRYB392K50
C215	CKSRYB471K50

C202, C222	CKSRYB473K16
C606	CKSRYB561K50

RESISTORS

R211	RD1/4PU221J
R221	RD1/4PU222J
R233	RD1/4PU391J
R103, R104	RS1/10S221J
Other Resistors	RS1/16S□□□J

OTHERS

CN201	13P CONNECTOR	52044-1345
BN201	2P TERMINAL WITH PAL SHIELD CASE T	AKA7002
	SHIELD CASE B	ANK7072
X201	CRYSTAL RESONATOR (7.2MHz)	ASS1093

FM FRONT END	AXF7005
AM RF TUNING BLOCK	AXX7072

6. ADJUSTMENT

6.1 TUNER SECTION

■ AM Tuner Section

- There is no adjustment in the AM tuner.

■ FM Tuner Section

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

Step No.	Adjustment Title	ANT. Input level and signal condition			Adjustment	
		Frequency (MHz)	Modulation	Input Level (dBμV)	Adjust point	Contents
1	T-METER Adjustment	98	OFF	80	L201	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point V _{tm}) gets within 0 ± 50mV.

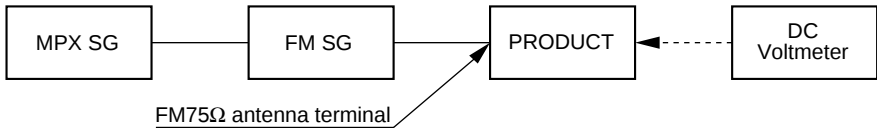


Fig.1 Adjustment Wiring Diagram

U FM/AM TUNER MODULE

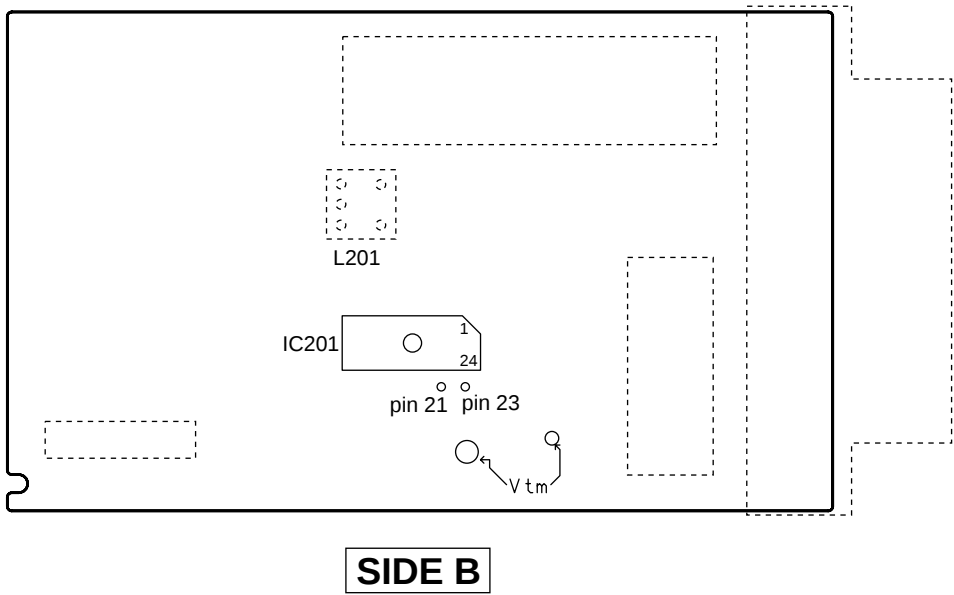


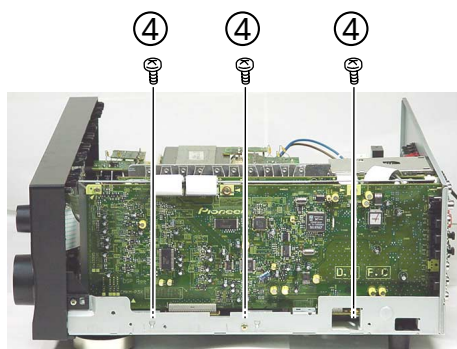
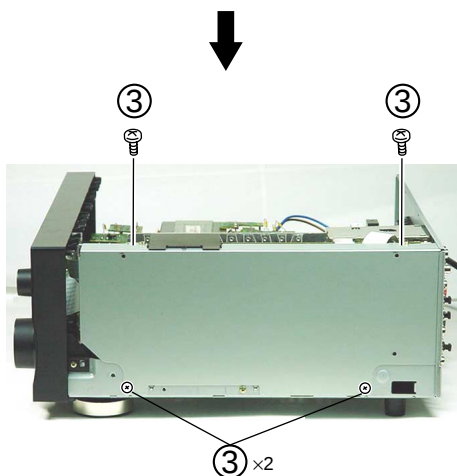
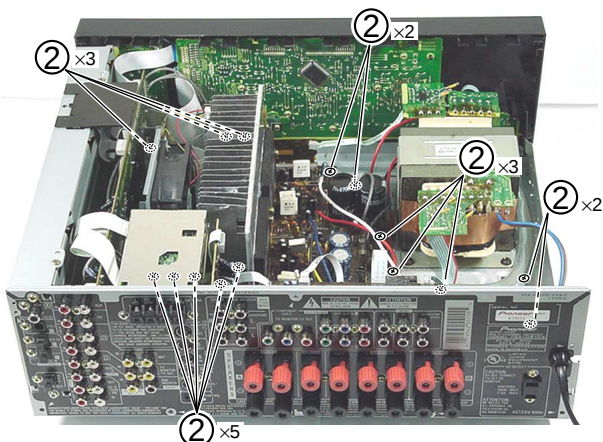
Fig.2 Adjustment Point

7. GENERAL INFORMATION

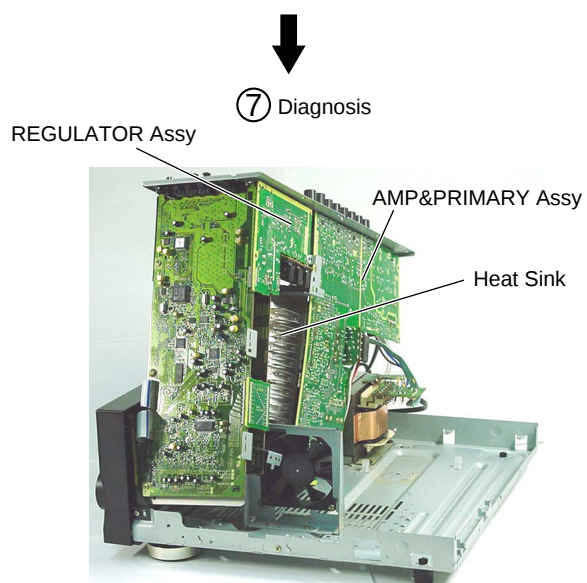
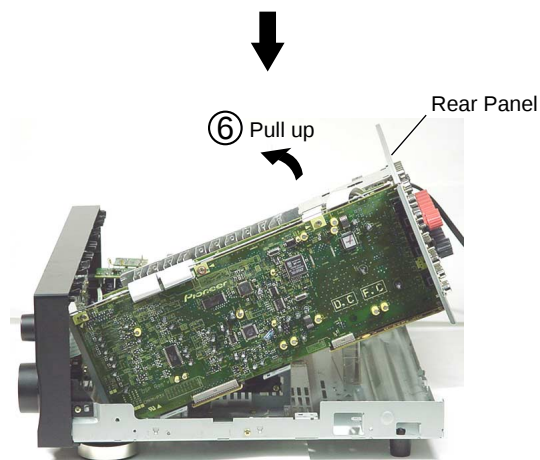
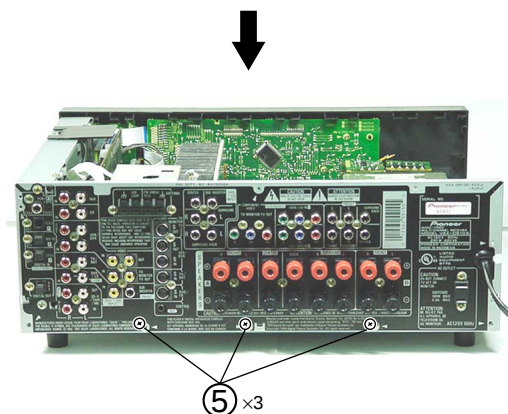
7.1 DISASSEMBLY AND DIAGNOSIS

■ Diagnosis

① Remove the Bonnet (seven screws).

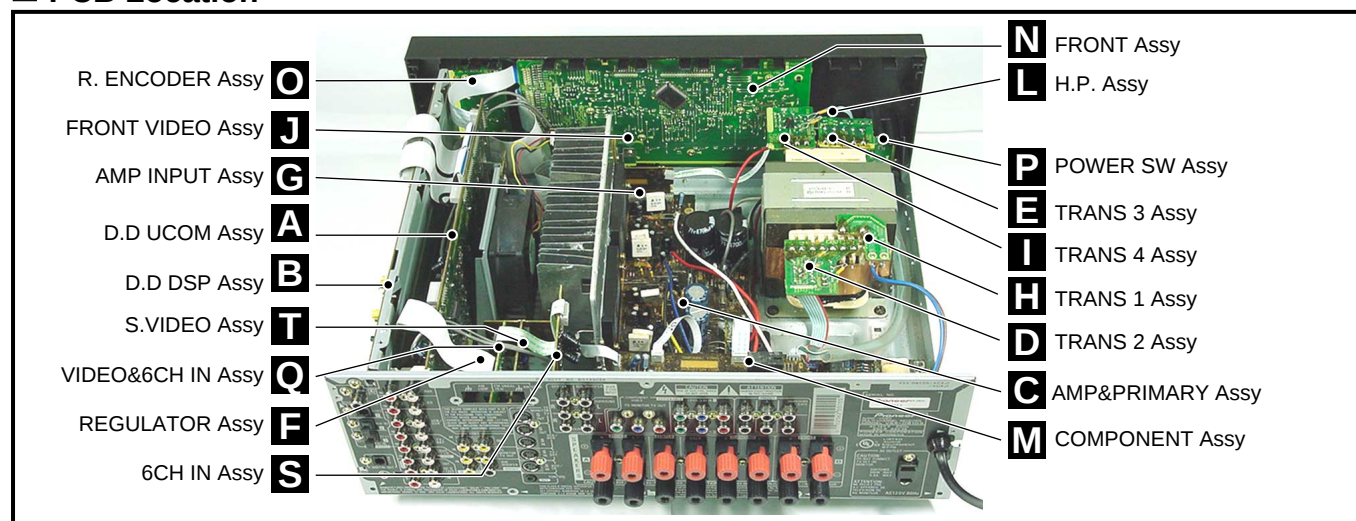


Note : This photograph shows other models.
However, the work method is the same.



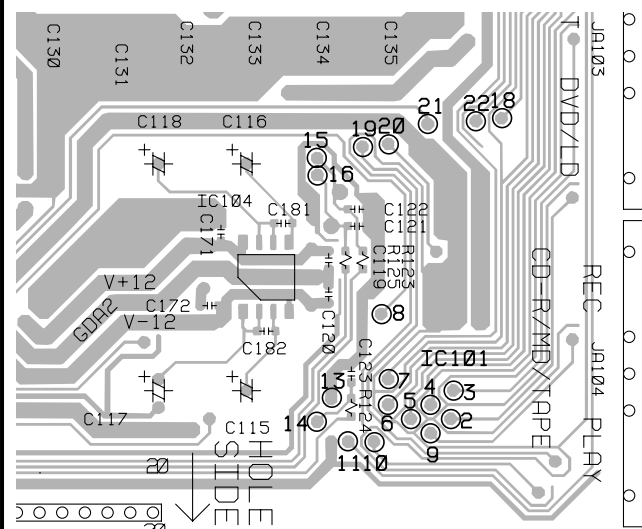
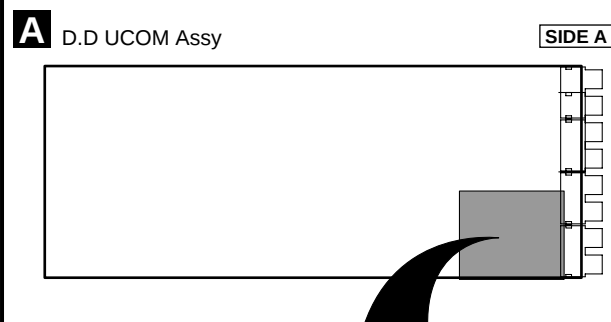
Note : The product does not operate when the screws of Speaker Terminal are taken off from Rear Panel.
When FM/AM TUNER MODULE was removed, the product operates except FM/AM TUNER function.

PCB Location

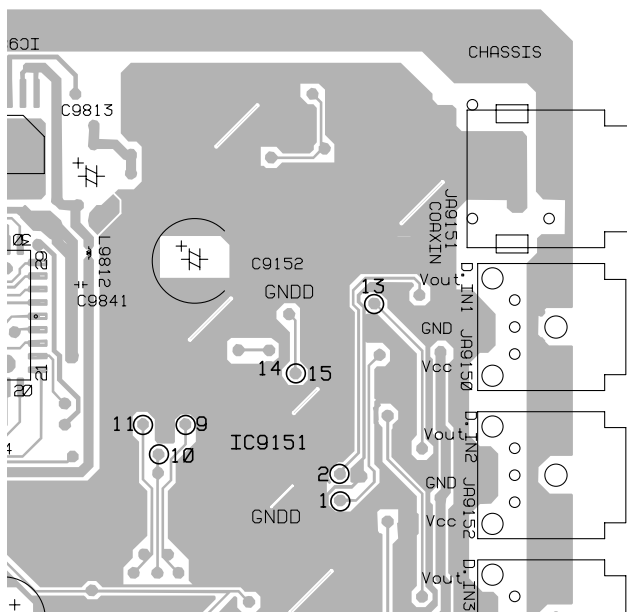
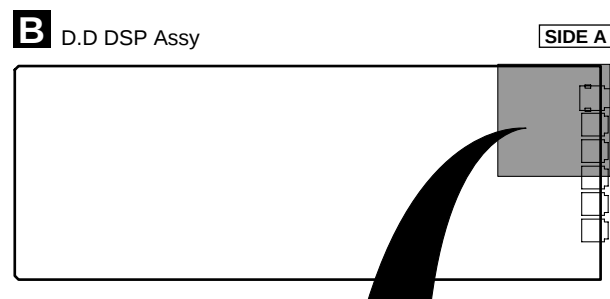


Diagnosis of D.D UCOM Assy and D.D DSP Assy

Please check IC101(Function IC) mounted on SIDE B from SIDE A.
The Pin number points on SIDE A of IC101 are shown as follows.



Please check IC9151(Digital Selector IC) mounted on SIDE B from SIDE A.
The Pin number points on SIDE A of IC9151 are shown as follows.



7.2 PARTS

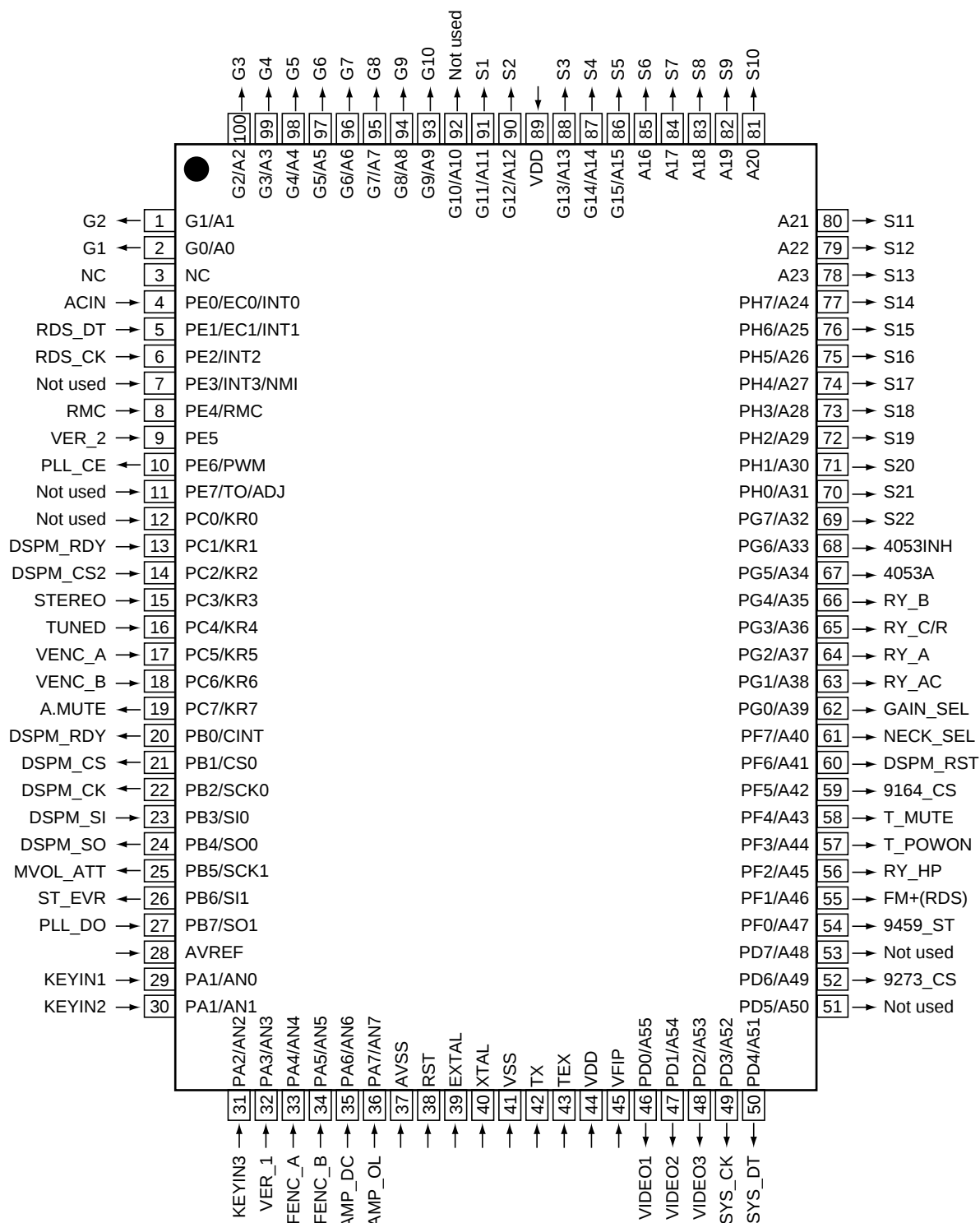
7.2.1 IC

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

■ PDG261A (FRONT ASSY : IC401)

• System Control MCU

• Pin Arrangement (Top View)



● Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	G2	O	Grid output 2	H
2	G1	O	Grid output 1	H
3	NC	–	Connect to VDD	
4	ACIN	I	AC pulse input	
5	RDS_DT	I	Serial control DATA signal of RDS communication	
6	RDS_CK	I	Serial control CLOCK signal of RDS communication	
7	Not used	I	Connect to GND	
8	RMC	I	Remote control signal input (no-carrier signal)	
9	VER_2	I	Destination switch 2	
10	PLL_CE	O	Chip select signal for communication with LC72131 (tuner)	H
11	Not used	O		
12	Not used	O		
13	DSPM_RDY	I	DSP Micro Computer READY input	
14	DSPM_CS2	I	CS input for DSP Micro Computer	
15	STEREO	I	Stereo/Monoral signal judgment signal	
16	TUNED	I	TUNED information	
17	ENC_A	I	EVOL Rotary encoder signal input A	
18	ENC_B	I	EVOL Rotary encoder signal input B	
19	AMUTE	O	Audio mute	L
20	DSPM_RDY	O	RADY of DSP Micro Computer communication	
21	DSPM_CS1	O	Chip select output for control of DSP Micro Computer	L
22	DSPM_CK	O	Clock signal for communication with DSP Micro Computer	H
23	DSPM_SI	I	DATA input signal for communication with DSP Micro Computer	
24	DSPM_SO	O	DATA output signal for communication with DSP Micro Computer	H
25	MVRATT	O	ATT control of master volume (L : Less than -15dB)	H
26	ST_EVR	O	Strobe signal for communication with electric volume IC	H
27	PLL_DO	I	Data input signal for communication with LC72131 (tuner)	
28	AVref	–	Connect to VDD	
29	KEYIN1	I	Key input A/D conversion port 1	
30	KEYIN2	I	Key input A/D conversion port 2	
31	KEYIN3	I	Key input A/D conversion port 3	
32	VER_1	I	Destination switch (A/D input)	
33	FENC_A	I	FUNC Rotary encoder signal input A	
34	FENC_B	I	FUNC Rotary encoder signal input B	
35	AMP_DC	I	DC abnormality detection of protection circuit (L : Abnormality detection) *1	L
36	AMP_OL	I	Over-load detection of protection circuit (L : Abnormality detection) *2	L
37	AVSS	–	Connect to VSS	
38	RST	–	Reset	
39	EXTAL	–	Connect to the oscillator (7.2MHz)	
40	XTAL	–		
41	VSS	–	Connect to VSS	
42	TX	–	Open	
43	TEX	–	Connect to VSS	
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	VIDEO1	O	NJM2296D control	H
47	VIDEO2			
48	VIDEO3			
49	SYS_DT	O	Data signal for communication with M62446, TC9163, TC9164 and PLL	H
50	SYS_CK	O	Clock signal for communication with M62446, TC9163, TC9164 and PLL	H

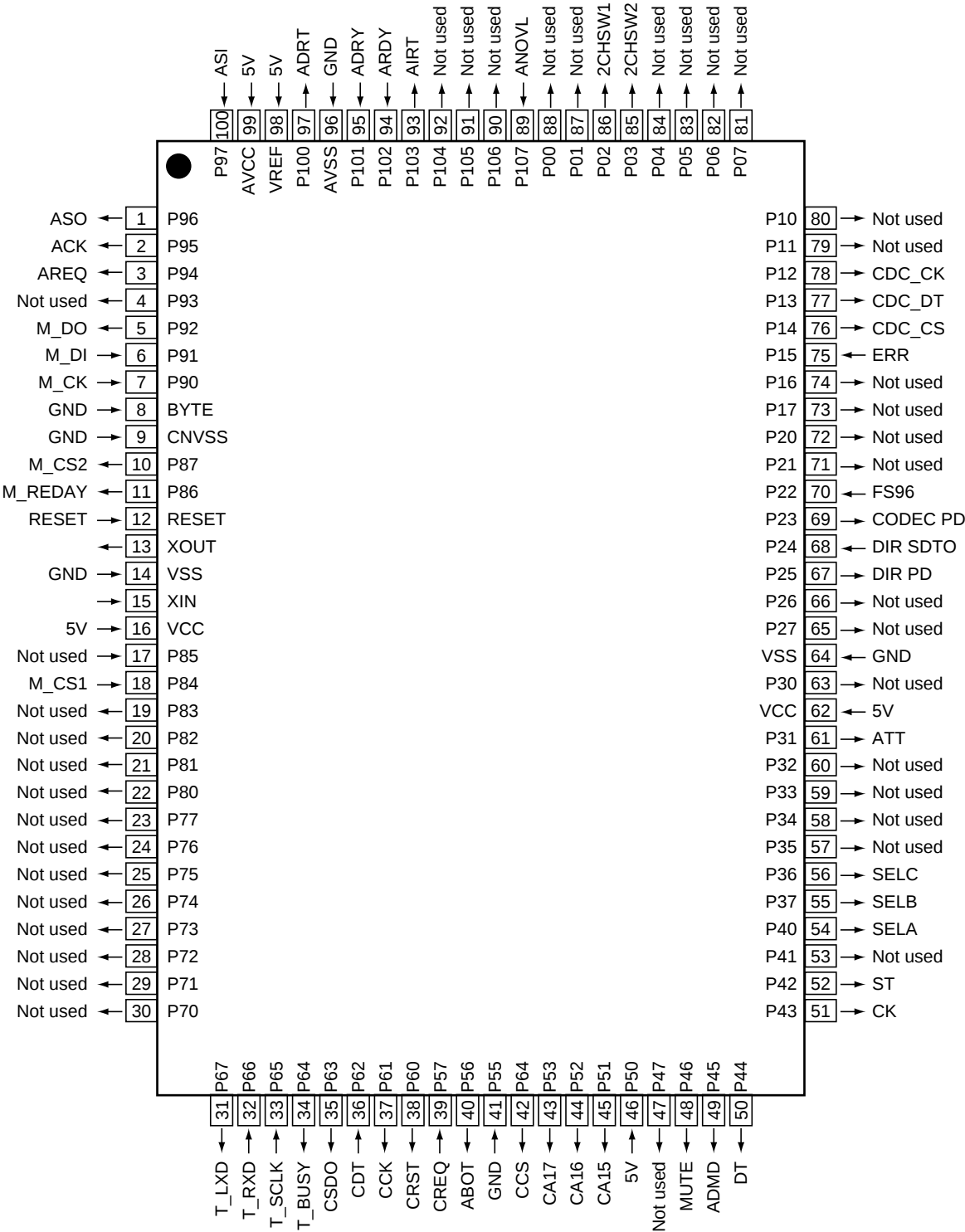
*1 : When DC voltage was output from amplifier, "POWER OFF" is displayed at FL display.

*2 : When the output of amplifier became overload state, "OVER LOAD" is displayed at FL display.

No.	Pin Name	I/O	Pin Function	Active
51	Not used			
52	9273_CS	O	TC9273 Chip select	H
53	Not used	O		
54	9459_ST	O	Electronic volume TC5496 Strobe for SB	H
55	FM+(RDS)	O	Tr switch ON/OFF for power supply of RDS decoder (L : AM, power OFF , H : Other)	H
56	RY_HP	–	HP relay ON/OFF	H
57	T_POWON	O	Tuner module ON/OFF (North America model only)	H
58	T_MUTE	O	Tuner mute	H
59	9164_CS	O	TC9163, TC9164 Chip select	
60	DSP_RST	O	DSP Micro Computer reset	
61	NECK_SEL	O	5.1ch, surround mode and A+B Stereo : H / Stereo : L	
62	GAIN_SEL	O	Gain select (5.1ch and Stereo of analog input : H)	H
63	RY_AC	O	AC relay ON/OFF	H
64	RY_A	O	Speaker A relay ON/OFF	H
65	RY_C/R	O	Rear/Center Speaker relay ON/OFF	H
66	RY_B	O	Speaker B relay ON/OFF	H
67	4053A	O	Component terminal control	H
68	4053INH	O	Component terminal control	H
69	S22	O	Segment output 22	H
70	S21		Segment output 21	
71	S20		Segment output 20	
72	S19		Segment output 19	
73	S18		Segment output 18	
74	S17		Segment output 17	
75	S16		Segment output 16	
76	S15		Segment output 15	
77	S14		Segment output 14	
78	S13		Segment output 13	
79	S12		Segment output 12	
80	S11		Segment output 11	
81	S10		Segment output 10	
82	S9		Segment output 9	
83	S8		Segment output 8	
84	S7		Segment output 7	
85	S6		Segment output 6	
86	S5		Segment output 5	
87	S4		Segment output 4	
88	S3		Segment output 3	
89	VDD	–	5V	
90	S2	O	Segment output 2	H
91	S1		Segment output 1	
92	Not used	O	Not used (Fixed Vfdp)	
93	G10	O	Grid output 10	H
94	G9		Grid output 9	
95	G8		Grid output 8	
96	G7		Grid output 7	
97	G6		Grid output 6	
98	G5		Grid output 5	
99	G4		Grid output 4	
100	G3		Grid output 3	

■ PD5634A (D.D UCOM ASSY : IC5901)

- Receiver Control microcomputer
- Pin Arrangement (Top View)



● Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	ASO	O	AK7706 DATA output	
2	ACK	O	AK7706 CLOCK output	
3	AREQ	O	AK7706 REQ	
4	Not used	O		
5	M_DO	O	DATA OUT to Main microcomputer	
6	M_DI	I	DATA IN from Main microcomputer	
7	M_CK	I	CLOCK IN for Main microcomputer communication	
8	BYTE	I	GND	
9	T_PGM/OE	I	Pull down to CNVss, GND (For FLASH rewriting)	
10	M_CS2	O	CS output for Main microcomputer communication	
11	M_READY	O	READY output for Main microcomputer communication	
12	RESET	–	Reset (from Main microcomputer)	
13	XOUT	–	Oscillator	
14	VSS	–	GND	
15	XIN	–	Oscillator	
16	VCC	–	5V	
17	MN1	I	5V	
18	M_CS1	I	CS input for Main microcomputer communication	
19	Not used	O		
20	Not used	O		
21	Not used	O		
22	Not used	O		
23	Not used	O		
24	Not used	O		
25	Not used	O		
26	Not used	O		
27	Not used	O		
28	Not used	O		
29	Not used	O		
30	Not used	O		
31	TXD	O	For FLASH rewriting	
32	RXD	I	For FLASH rewriting	
33	T-SCLK	I	For FLASH rewriting	
34	T-BUSY	O	For FLASH rewriting	
35	CSDO	O	DATA OUT for Crystal DSP	
36	CDT	I	DATA IN for Crystal DSP	
37	CCK	O	CLK for Crystal DSP	
38	CRST	O	RESET for Crystal DSP	
39	CREQ	I	REQ for Crystal DSP	
40	ABOT	O	ABOOT for Crystal DSP	
41	VSS	–		
42	CCS	O	CS for Crystal DSP	
43	CA17	O	For Crystal DSP	
44	CA16	O	For Crystal DSP	
45	CA15	O	For Crystal DSP	
46	T-Vdd	I	5V	
47	Not used	O		
48	MUTE	O	For E-SW (TC9164)	
49	ADMD	O	For E-SW (TC9164)	
50	DT	O	For E-SW (TC9164)	

VSX-D810S

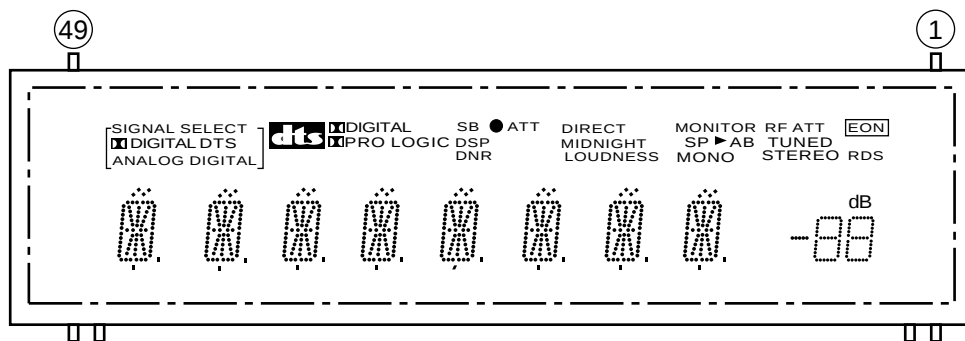
No.	Pin Name	I/O	Pin Function	Active
51	CK	O	For E-SW (TC9164)	
52	ST	O	For E-SW (TC9164)	
53	Not used	O		
54	SELA	O	For LOGIC IC, TC74ACT151F	
55	SELB	O	For LOGIC IC, TC74ACT151F	
56	SELC	O	For LOGIC IC, TC74ACT151F	
57	Not used	O		
58	Not used	O		
59	Not used	O		
60	Not used	O		
61	ATT	O	ATT output	
62	VCC	–	5V	
63	Not used	O		
64	VSS	–	GND	
65	Not used	O		
66	Not used	O		
67	DIR_PD	O	Power down for DIR	
68	DIR_SDTO	I	DIR DATA IN	
69	CDC_PD	O	Power down for CODEC	
70	FS96	I	96K	
71	Not used	O		
72	Not used	O		
73	Not used	O		
74	Not used	O		
75	ERR	I	DIR	
76	CDC_CS	O	CS for CODEC communication	
77	CDC_DT	O	DATA OUT for CODEC communication	
78	CDC_CK	O	Clock for CODEC communication	
79	Not used	O		
80	Not used	O		
81	Not used	O		
82	Not used	O		
83	Not used	O		
84	Not used	O		
85	2CHSW2	O	For TC9215 control (SW H : PASSIV, L : POWERED)	
86	2CHSW1	O	For TC9215 control (SB H : DSP, L : 6CH)	
87	Not used	O		
88	Not used	O		
89	ANOV	I	Analog input overload detection (A/D)	
90	Not used	O		
91	Not used	O		
92	Not used	O		
93	AIRT	O	AK7706DSP INIT reset (control it only in a power start)	
94	ARDY	I	AK7706 writing READY input	
95	ADRY	I	AK7706 output data READY input	
96	AVSS	–	GND	
97	ADRT	O	AK7706 DSP reset	
98	VREF	–	5V	
99	AVCC	–	5V	
100	ASI	I		

7.2.2 DISPLAY

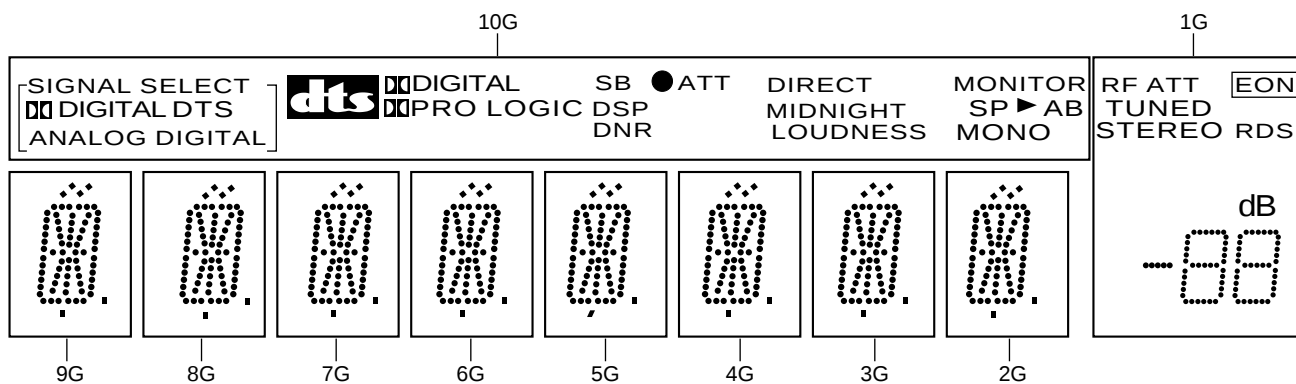
■ XAV3010 (FRONT ASSY : V401)

• FL DISPLAY

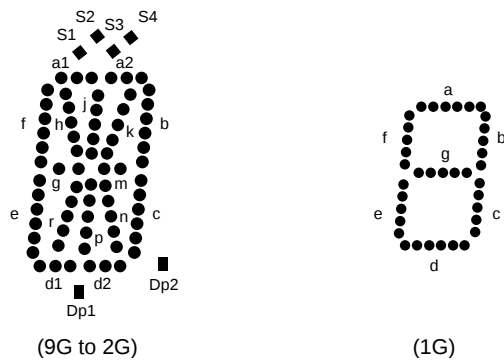
• Pin Assignment



• Grid Assignment



• Segment Designation



• Pin Connection

Pin No.	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Connection	F2	F2	NP	NP	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	

NOTE 1) F1, F2..... Filament
 2) NP..... No pin
 3) NX..... No extend pin
 4) DL..... Datum Line
 5) 1G to 10G..... Grid
 6) Field of vision is a minimum of 29° from the lower side.

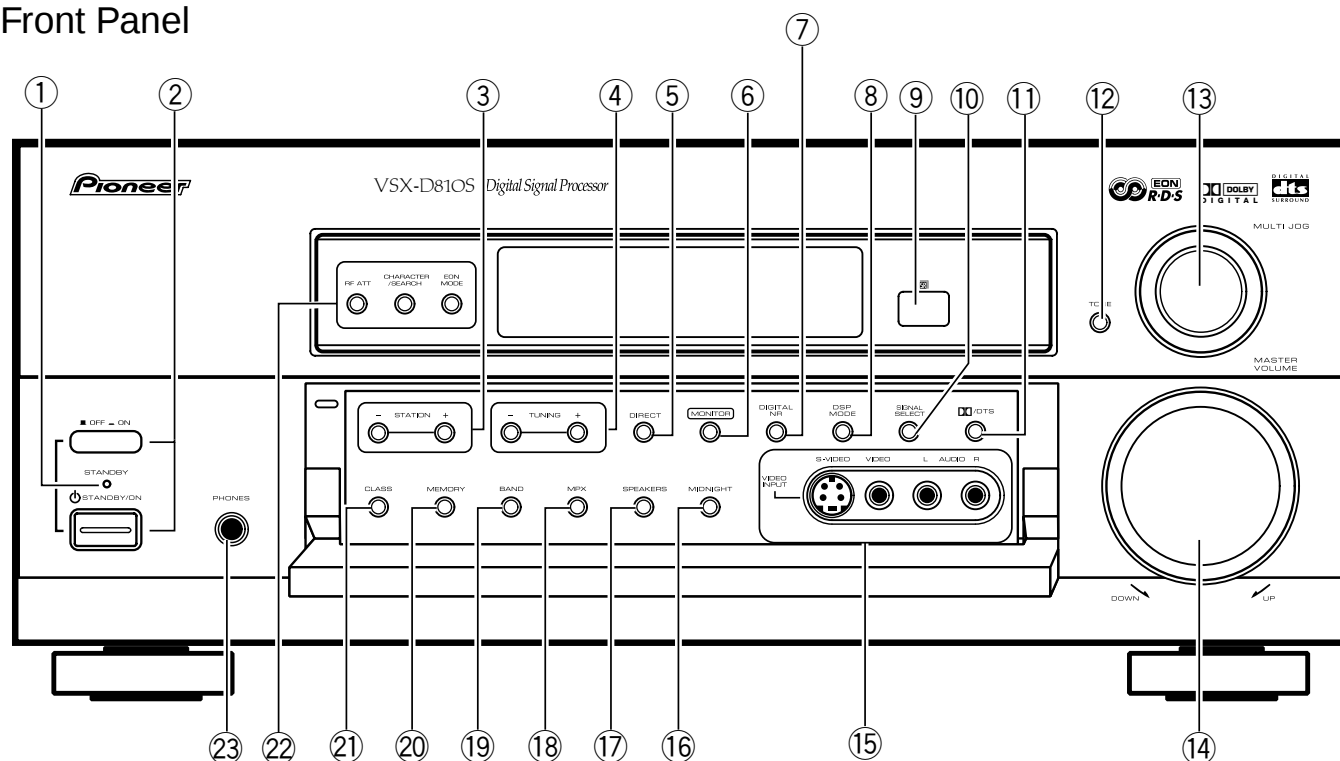
• Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	MONO	a1	a1	a1	a1	a1	a1	a1	a1	dB
P2	B	a2	a2	a2	a2	a2	a2	a2	a2	2a
P3	A	h	h	h	h	h	h	h	h	2b
P4	SP ►	j	j	j	j	j	j	j	j	2f
P5	MONITOR	k	k	k	k	k	k	k	k	2g
P6	LOUDNESS	b	b	b	b	b	b	b	b	2c
P7	MIDNIGHT	f	f	f	f	f	f	f	f	2e
P8	DIRECT	m	m	m	m	m	m	m	m	2d
P9	DNR	g	g	g	g	g	g	g	g	1a
P10	ATT	c	c	c	c	c	c	c	c	1b
P11	●	e	e	e	e	e	e	e	e	1f
P12	DSP	r	r	r	r	r	r	r	r	1g
P13	SB	p	p	p	p	p	p	p	p	1c
P14	PRO LOGIC	n	n	n	n	n	n	n	n	1e
P15	DIGITAL	d1	d1	d1	d1	d1	d1	d1	d1	1d
P16	CS	d2	d2	d2	d2	d2	d2	d2	d2	
P17	ANALOG	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	RDS
P18	DIGITAL	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	RF ATT
P19	[]	S1	S1	S1	S1	S1	S1	S1	S1	EON
P20	DTS	S4	S4	S4	S4	S4	S4	S4	S4	
P21	DIGITAL	S2	S2	S2	S2	S2	S2	S2	S2	TUNED
P22	SIGNAL SELECT	S3	S3	S3	S3	S3	S3	S3	S3	STEREO

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

Front Panel



① **STANDBY indicator**

Lights when the receiver is in standby mode (note that the receiver consumes a small amount of power (1W) in standby mode).

② **■ OFF/ ■ ON (Main power) button**

If the button is OFF (■), the power of the receiver is shut off and the **STANDBY/ON** button on the receiver or the **RECEIVER** button on the remote control do not function. Pressing the button again will turn the receiver ON (■) and the receiver enters the standby mode. In the standby mode, you can turn on the receiver using **STANDBY/ON** button on the receiver or the **RECEIVER** button on the remote control.

○ **STANDBY/ON button**

Switches the receiver between on and standby (note that the receiver consumes a small amount of power (1W) in standby mode).

③ **STATION (+/-) buttons**

Selects station memories when using the tuner.

④ **TUNING (+/-) buttons**

Selects the frequency when using the tuner.

⑤ **DIRECT button**

Use to switch DIRECT playback on or off. This mode bypasses the tone controls, channel levels, DDD/DTS and DSP modes for the most accurate reproduction of a program source.

⑥ **MONITOR button**

Press to switch tape monitoring on/off.

⑦ **DIGITAL NR button**

Switches the DIGITAL NR on or off. To reduce extraneous noise switch on DIGITAL NR.

⑧ **DSP MODE button**

Use to switch between the various DSP modes available (**HALL1, HALL 2, JAZZ, DANCE, THEATER1, THEATER 2, 5/ 6CH STEREO**) and **DSP off**. Use this button to create different surround sound effects from any stereo source.

⑨ **Remote sensor**

Receives the signals from the remote control.

⑩ **SIGNAL SELECT button**

Use to select an analog or digital or AUTO signal.

⑪ **DDD/DTS button**

Use to switch between the various DDD/DTS surround modes.

⑫ **TONE button**

This button allows you to activate the **BASS & TREBLE** controls. To adjust the **BASS** and/or **TREBLE** use the **MULTI JOG** dial. Tone can only be used in 2 channel stereo sound mode. The tone controls have no effect on the B speaker system.

⑬ **MULTI JOG dial**

You can use this dial for two purposes. Firstly, in normal mode turn it to select a source component. Secondly, use it to adjust the **BASS** and/or **TREBLE** levels when the **TONE** button has been activated (as explained above).

⑭ **MASTER VOLUME**

Use to set the overall listening volume.

⑮ **VIDEO INPUT jacks**

Connect a video camera, video game system, etc. to the **VIDEO INPUT** jacks.

⑯ **MIDNIGHT button**

Use when listening to movie soundtracks at low volume. This feature will enable you to hear quiet sounds and not get jolted by loud or sudden sound effects.

17 SPEAKERS button

Use to switch the speaker system **A** → **B** → **A+B** → off.
In **B** and **A+B** speaker modes you hear only 2 channel stereo sound.

18 MPX button

If there is interference or noise during a FM radio broadcast, or the radio reception is weak, press the **MPX** button to switch the receiver into mono reception mode. This should improve the sound quality and allow you to enjoy the broadcast.

19 BAND button

Press to select the AM or FM band.

20 MEMORY button

Press to memorize a station for recall using the **STATION (+/-)** buttons.

21 CLASS button

Switches between the three banks (classes) of station memories.

22 RF ATT button

Use to lower the input level of a radio signal that is too powerful or contains interference thus causing the receiver to distort

CHARACTER/SEARCH button

Use to search for different program types in RDS mode. It is also used to input station names.

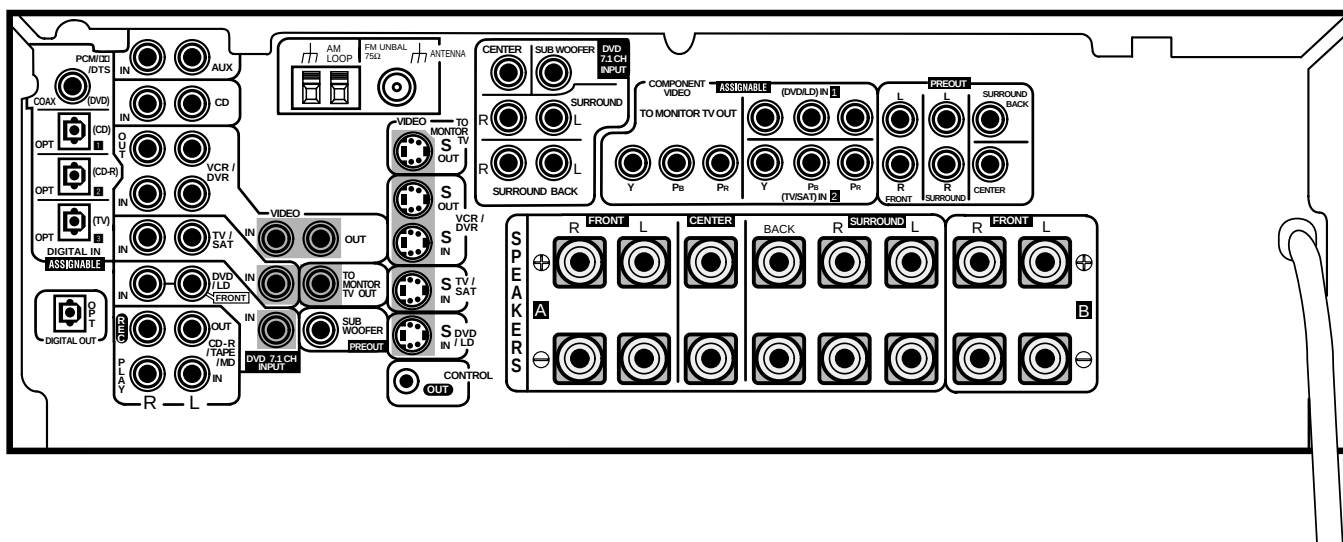
EON MODE button

Use to search for different programs that are transmitting traffic or news information (this search method is called EON).

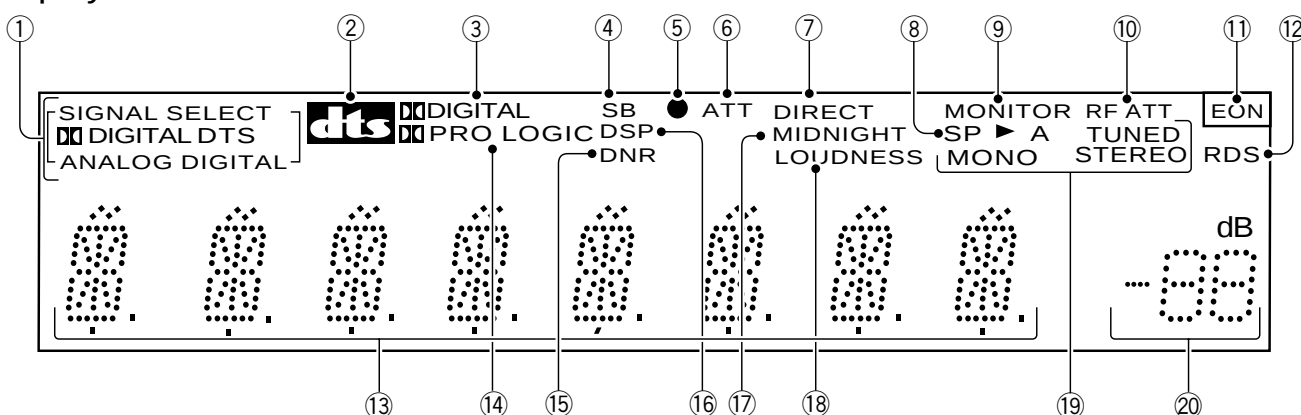
23 PHONES jack

Use to connect headphones but this does not switch the speakers off.

Rear Panel



Display

① **SIGNAL SELECT indicators**

Light to indicate the type of input signal assigned for the current component (see "Front Panel", ⑩ SIGNAL SELECT). When the AUTO setting is being used on the VSX-D810S receiver a set of brackets will appear around the SIGNAL SELECT indicators.

DIGITAL : Lights when a Dolby Digital signal is played.

DTS : Lights when a source with DTS audio signals is played.

ANALOG : Lights when an analog signal is selected.

DIGITAL : Lights when a digital audio signal is selected.

[] : Lights when the AUTO setting is selected.

② **DTS indicator**

Lights when DTS mode is being used.

③ **DIGITAL indicator**

When the **DIGITAL** (DOLBY)/DTS mode of the receiver is on, this lights to indicate playback of a Dolby Digital signal. However, **PRO LOGIC** lights during two channel playback of Dolby Digital.

④ **Surround Back indicator**

Lights when most Surround Back channel flag encoded (6.1channel) software is playing. (With some Surround Back channel software the surround back indicator won't light because there is no flag encoded in the software.) If you play DTS 5.1/6.1 channel software surround sound will be heard whether it is encoded with a surround back channel flag or not.

⑤ **OVERLOAD indicator**

This lights when an analog signal is too high (the **SIGNAL SELECT** would have to be on ANALOG). It indicates the sound is distorting and the input signal should be reduced.

⑥ **ATT indicator**

Lights when ATT is used to attenuate (reduce) the level of the input signal (can only be used in ANALOG mode).

⑦ **DIRECT indicator**

Lights when source DIRECT is in use. This function bypasses all tone, balance, DSP and Dolby Surround effects.

⑧ **SPEAKER indicator**

Shows if the speaker system is on or not. SP ► A means that speakers are switched on. SP ► means that speakers are switched off.

⑨ **MONITOR indicator**

Lights when **MONITOR** is selected. Used to hear a recording as it's being made.

⑩ **RF ATT indicator**

Lights when the RF ATT is on.

⑪ **EON indicator**

The box around **EON** indicator lights to inform you that the currently tuned station carries the EON data service. When the EON mode is set, the **EON** indicator light's, but during actual reception of an EON broadcast the **EON** indicator will flash. An empty box in the **EON** indicator spot means it is possible to pick up an EON broadcast but the receiver has not been set to do so (this will only appear when RDS is switched on).

⑫ **RDS indicator**

Lights when an RDS broadcast is received.

⑬ **CHARACTER display**

Shows the radio frequency or function (DVD/LD, CD, etc.) receiver is using.

⑭ **PRO LOGIC indicator**

When the **DIGITAL**/DTS mode of the receiver is on, this lights to indicate playback of a two channel source.

⑮ **DNR indicator**

Lights when the digital noise reduction is on. Use to reduce extraneous noise. It can be used with any sound mode.

⑯ **DSP indicator**

Lights when any "Advanced Theater" or "DSP" mode is selected.

⑰ **MIDNIGHT indicator**

Lights when MIDNIGHT listening mode is in use.

⑱ **LOUDNESS indicator**

Lights when the LOUDNESS is on. Use to boost the bass and treble at low volume.

⑲ **TUNER indicators**

MONO:

Lights when the mono mode is set using the **MPX** button.

TUNED:

Lights when a broadcast is being received.

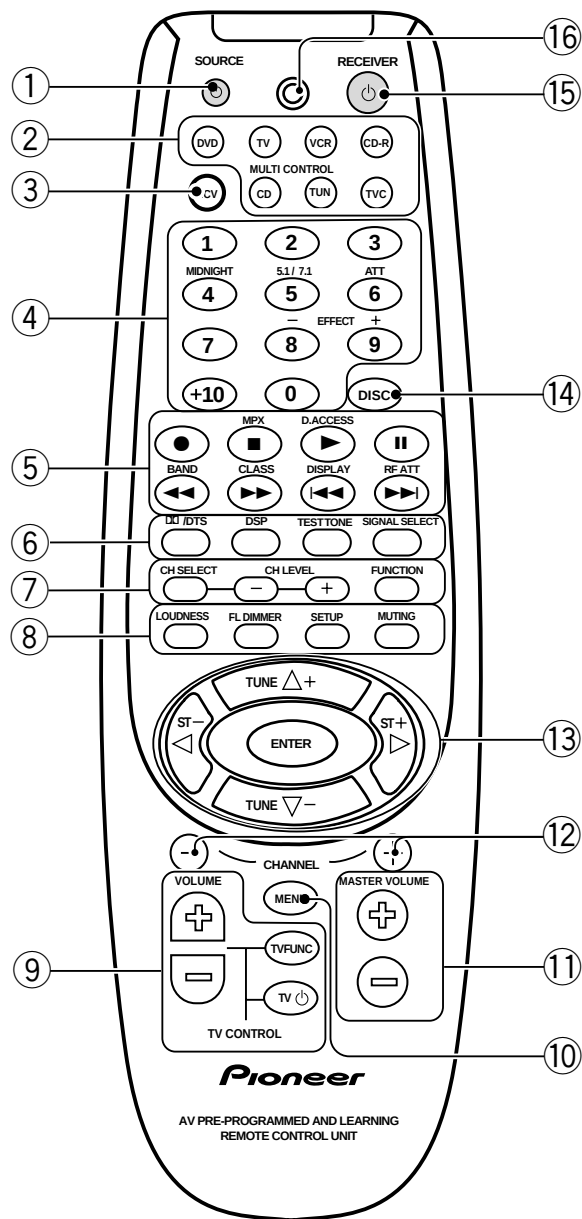
STEREO:

Lights when a stereo FM broadcast is being received in auto stereo mode.

⑳ **MASTER VOLUME LEVEL**

Shows the overall volume level. Volume level is maintained even when the power is off. ---dB indicates the minimum level, and 0dB indicates the maximum level.

Remote Control



① SOURCE button

Use to turn on/off other components connected to the receiver.

② MULTI CONTROL buttons

Use to put the receiver/remote control in the stated mode.

For other equipment controls, see "Controlling the Rest of Your System".

③ RCV button

Use this button when setting up the surround sound for the receiver. Also press it if you want to use special features attached to some of the number buttons, for example MIDNIGHT, 5.1/7.1, EFFECT +/- or ATT.

④ NUMBER/MODE buttons

Use the number buttons to select the radio frequency in tuner DIRECT ACCESS mode or the tracks in CD, DVD mode etc.

Also, buttons marked with the following names have special functions. If you try to use one of these functions but the display flashes it means that function cannot be used in the current mode (for example DSP modes cannot be used when 5.1 Ch (VSX-D710S)/ 7.1 Ch (VSX-D810S) setting is on).

MIDNIGHT button

Use to put receiver in **MIDNIGHT** mode. To use first press the **RCV** button then operate this button.

5.1/7.1 button

(VSX-D810S is 7.1 Ch)

When the DVD/LD or DVD 5.1/7.1 Ch function is selected each press switches the DVD/LD input between DVD/LD and DVD 5.1/7.1 Ch. To use first press the **RCV** button then operate this button.

ATT button

When the overload indicator lights use this button to attenuate (lower) the level of an analog input signal and prevent distortion. To use first press the **RCV** button then operate this button.

EFFECT +/- buttons

Use to add or subtract the amount of effect in different DSP sound modes (except 6 Ch Stereo) or advanced listening modes.

To use first press the **RCV** button then operate these buttons.

⑤ THE FOLLOWING BUTTONS ARE BOTH CONTROLS FOR OTHER COMPONENTS (LIKE A DVD PLAYER) AND DEDICATED TUNER CONTROLS. THE TUNER CONTROLS ARE EXPLAINED HERE. YOU CAN USE THEM AFTER YOU HAVE PUSHED THE TUNER MULTI CONTROL BUTTON.

BAND button

Use to switch between the AM and FM band when in TUNER mode.

CLASS button

Use to switch between the three banks (classes) of station memories.

MPX button

Use to switch between auto stereo and mono reception of FM broadcasts. If the signal is weak then switching to MONO will improve the sound quality.

D. ACCESS button

Use to directly access a radio station by pressing the number of the station you want.

DISPLAY button

Use to display the RDS information.

RF ATT button

Use to lower the input level of a radio signal that is too powerful or contain interference thus causing the receiver to distort.

⑥ **DD /DTS button**

Use to put the receiver in DOLBY DIGITAL, DOLBY SURROUND and DTS modes. To use first press the **RCV** button then operate this button.

DSP button

Use to put receiver in one of the DSP modes. To use first press the **RCV** button then operate this button.

TEST TONE button

Use to sound the TEST TONE when setting up the surround sound of the receiver (the **DD /DTS** mode must be on). To use first press the **RCV** button then operate this button.

SIGNAL SELECT

Use to select the proper signal (analog, digital) for the source you are inputting. On the VSX-D810S receivers there is an AUTO setting. In this setting the receiver will automatically switch between the analog and digital signals according to what is being input. If both signals are input the AUTO setting will choose the digital one. This setting is convenient as the receiver will always choose the best or appropriate signal. To use first press the **RCV** button then operate this button.

⑦ **CH SELECT button**

Use to select a speaker when setting up the surround sound of the receiver.

CH LEVEL +/-

Use to set up the levels of the surround sound of the receiver.

FUNCTION button

Use to select the playback or recording source. This button lets you cycle through the different functions of the receiver in the following order: CD, TUNER, AUX, CDR/TAPE, VCR/DVR, DVD/LD, DVD 7.1 ch, VIDEO, and TV/SAT.

⑧ **LOUDNESS button**

Use to switch on the loudness. This feature is useful for getting good bass and treble sounds listening at low volumes.

FL DIMMER button

Use this button to make the fluorescent display (FL) dimmer or brighter. There are three brightness settings as well as an off setting.

SETUP button

Use this button when setting up the remote control to control other components.

MUTING button

Use to mute the sound or restore the sound if it has been muted.

⑨ **THE FOLLOWING BUTTONS ARE DEDICATED TV CONTROL BUTTONS. THEY ARE ONLY USED FOR CONTROLLING YOUR TV.**

TV FUNC button

Use to select the TV function.

TV button

Use to turn on/off the power of the TV.

TV VOLUME +/- buttons

Use to adjust the volume on your TV.

⑩ **MENU button**

Use to access different menus associated with your DVD player. To use first press the **DVD** button then operate this button.

⑪ **MASTER VOLUME +/- buttons**

Use to set the overall listening volume.

⑫ **CHANNEL +/- buttons**

Use to skip tracks backward or forward on CDs, DVDs, etc and change channels on the VCR, DVR, etc.

⑬ **(TUNE/ST +/-) & ENTER buttons**

Use these arrow buttons when setting up your surround sound system. These buttons are also used to control DVD menus/options and for deck 1 of a double cassette deck player. The TUNE/ST +/- buttons can be used to find radio frequencies and preset stations, respectively.

⑭ **DISC button**

Use to select a disc and a multi-CD player. To use first press the **CD** button then operate this button.

⑮ **RECEIVER (POWER) button**

This switches between STANDBY mode and power ON for this receiver.

⑯ **LED DISPLAY**

This display flashes when a command is sent from the remote control to the receiver. It also flashes at other times, for example when teaching the receiver preset codes, with specific meanings.

8.2 SPECIFICATIONS

Amplifier Section

Continuous Power Output (STEREO MODE)

FRONT 100 W + 100 W (DIN 1 kHz, THD 1 %, 8 Ω)

Continuous Power Output (SURROUND MODE)

FRONT 100 W/ch (1 kHz, THD 1 %, 8 Ω)

CENTER 100 W (1 kHz, THD 1 %, 8 Ω)

SURROUND 100 W/ch (1 kHz, THD 1 %, 8 Ω)

SURROUND BACK 100 W/ch (1 kHz, THD 1 %, 8 Ω)

- Above specifications are applicable when the power supply is 230V.

Input (Sensitivity/Impedance)

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,

TV/SAT, VIDEO 200 mV/47 kΩ

Frequency Response

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,

TV/SAT, VIDEO 5 Hz to 100,000 Hz ⁺⁰/₋₃ dB

Output (Level/Impedance)

VCR/DVR OUT, CD-R/TAPE/MD REC 200 mV/2.2 kΩ

Tone Control

BASS ± 6 dB (100 Hz)

TREBLE ± 6 dB (10 kHz)

LOUDNESS +9 dB (100 Hz/10 kHz)

Signal-to-Noise Ratio

[DIN (Continuous rated power output/50 mW)]

CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD,

TV/SAT, VIDEO 88 dB/64 dB

VIDEO Section

Input (Sensitivity/Impedance)

VCR/DVR, DVD/LD, TV/SAT 1 Vp-p/75 Ω

Output (Level/Impedance)

VCR/DVR, TO MONITOR TV OUT 1 Vp-p/75 Ω

Frequency Response

VCR/DVR, DVD/LD, TV/SAT → MONITOR

..... 5 Hz to 7 MHz ⁺⁰/₋₃ dB

Signal-to-Noise Ratio 55 dB

COMPONENT VIDEO Section

Input (Sensitivity/Impedance)

DVD/LD, TV/SAT 1 Vp-p/75 Ω

Output (Level/Impedance)

TO MONITOR TV OUT 1 Vp-p/75 Ω

FM Tuner Section

Frequency Range 87.5 MHz to 108 MHz

Usable Sensitivity Mono:13.2 dBf, IHF (1.3 μV/ 75 Ω)

50 dB Quieting Sensitivity Mono: 20.2 dB

Stereo: 38.6 dBf

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

Stereo: 70 dB (at 85 dBf)

Signal-to-Noise Ratio (DIN) Mono: 62 dB

Stereo: 58 dB

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 (±1dB)

Antenna Input (DIN) 75 Ω unbalanced

AM Tuner Section

Frequency Range 531 kHz to 1,602 kHz

Sensitivity (IHF, Loop antenna) 350 μV/m

Selectivity 30 dB

Signal-to-Noise Ratio 50 dB

Antenna Loop antenna

Miscellaneous

Power Requirements

UK model AC 230 V, 50/60 Hz

European model AC 220 – 230 V, 50/60 Hz

Power Consumption

VSX-D810S 280 W

In Standby 1 W

Dimensions 420 (W) x 158 (H) x 401 (D) mm

Weight (without package)

VSX-D810S 10.5 kg

Furnished Parts

AM loop antenna 1

FM wire antenna 1

Dry cell batteries (AA size IEC R6P) 2

Remote control 1

Operating instructions 1

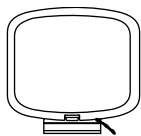
NOTE:

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

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"DTS", "ES" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc. Manufactured under license from Digital Theater Systems, Inc.

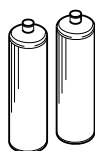
Accessories



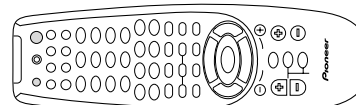
AM loop antenna
(ATB7009)



FM wire antenna
(ADH7005)



AA size IEC R6P
Dry cell batteries (x2)



Remote control unit
(XXD3029)

Service Manual

Pioneer

ORDER NO.
RRV2459

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D810S VSX-D810S-G

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-D810S	VSX-D810S-G		
SDPWXJI	○	—	AC110V/120-127V/220V/240V	With the voltage selector
BXJI	—	○	AC110V/120-127V/220V/240V	With the voltage selector
HLXJI	—	○	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 this Manual.

● This service manual should be used together with the following manual(s):

Model No.	Order No.	Remarks
VSX-D810S/KUXJI	RRV2431	

CONTENTS

1. CONTRAST OF MISCELLANEOUS PARTS 2
2. SCHEMATIC DIAGRAM 6
3. PCB CONNECTION DIAGRAM 10

1. CONTRAST OF MISCELLANEOUS PARTS

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.

● Screws adjacent to $\blacktriangledown$ mark on product are used for disassembly.

● Reference Nos. indicate the pages and Nos. in the service manual for the base model.

● 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 $\rightarrow$ $56 \times 10^1 \rightarrow$ 561 RD1/4PU $\overline{561}$ J

47k $\rightarrow$ $47 \times 10^3 \rightarrow$ 473 RD1/4PU $\overline{473}$ J

0.5 $\rightarrow$ R50 RN2H $\overline{R50}$ K

1 $\rightarrow$ 1R0 RS1P $\overline{1R0}$ K

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

5.62k $\rightarrow$ $562 \times 10^1 \rightarrow$ 5621 RN1/4PC $\overline{5621}$ F

■ CONTRAST TABLE

VSX-D810S/SDPWXJI, VSX-D810S-G/BXJI, HLXJI and VSX-D810S/KUXJI are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.				Remarks	
			VSX-D810S /KUXJI	VSX-D810S /SDPWXJI	VSX-D810S-G /BXJI	VSX-D810S-G /HLXJI		
		PCB ASSEMBLIES						
P5- 2	NSP	AMP&PS ASSY	XWK3023	XWK3025	XWK3025	XWK3024	No. 1	
P5-12	NSP	└ AMP&PRIMARY ASSY	XWZ3380	XWZ3382	XWZ3382	XWZ3381		
		└ TRANS 1 ASSY	XWZ3390	Not used	Not used	XWZ3390		
		└ VOLTAGE SELECT SW ASSY	Not used	XWZ3394	XWZ3394	Not used		
P5-11		FM/AM TUNER MODULE	AXQ7231	AXQ7228	AXQ7228	AXQ7228		
P6- 1	NSP	COMPLEX ASSY	XWK3010	XWK3012	XWK3012	XWK3013	No. 2	
		└ FRONT ASSY	XWZ3345	XWZ3347	XWZ3347	XWZ3348		
		└ MECHA SW ASSY	Not used	XWZ3358	XWZ3358	XWZ3358		
PACKING SECTION								
P3- 2	NSP	Warranty Card	ARY7045	Not used	Not used	Not used	Accessories	
P3- 5		Operating Instructions (English)	XRB3004	Not used	Not used	Not used		
P3- 5		Operating Instructions (English/Chinese/Spanish)	Not used	XRE3038	XRE3038	XRE3038		
P3-13		Packing Case	XHD3147	XHD3159	XHD3161	XHD3160		
	⚠	Caution 220V Label	Not used	ARR1003	ARR1003	Not used		
		AC Plug Adapter	Not used	Not used	AKX7011	Not used		
EXTERIOR SECTION								
P5-15	⚠	Power Transformer (AC120V)	XTS3044	Not used	Not used	Not used		
P5-15	⚠	Power Transformer (AC110V/120-127V/220V/240V)	Not used	XTS3049	XTS3049	Not used		
P5-15	⚠	Power Transformer (AC220-230V)	Not used	Not used	Not used	XTS3047		
P5-16	⚠	Fuse (FU1 : 10A)	REK1087	Not used	Not used	Not used		
P5-16	⚠	Fuse (FU1 : T6.3A)	Not used	REK1030	REK1030	Not used		
P5-16	⚠	Fuse (FU1 : T3.15A)	Not used	Not used	Not used	REK1027		
P5-18	⚠	Fuse (FU701 : 10A)	REK1087	Not used	Not used	Not used		
P5-19		Cord Stopper/Cord Bush	CM-22C	AEC7317	AEC7317	CM-22B		
P5-20	⚠	AC Power Cord	VDG1075	XDG3010	XDG3010	VDG1076		
P5-39		Rear Panel	XNC3077	XNC3088	XNC3088	XNC3089	No. 3	
P5-40		Bonnet Case	XZN3112	XZN3112	XZN3114	XZN3114		
		Screw (Both sides of Bonnet Case)	FBT40P080FZK	FBT40P080FZK	FBT40P080FNI	FBT40P080FNI		
	⚠	Fuse (FU2, FU3 : T3.15A)	Not used	REK1027	REK1027	Not used		
	NSP	Fuse Card	Not used	XAX3218	XAX3218	AAX7493	No. 4	
	⚠	Voltage Selector	Not used	AKX-507	AKX-507	Not used	No. 5	

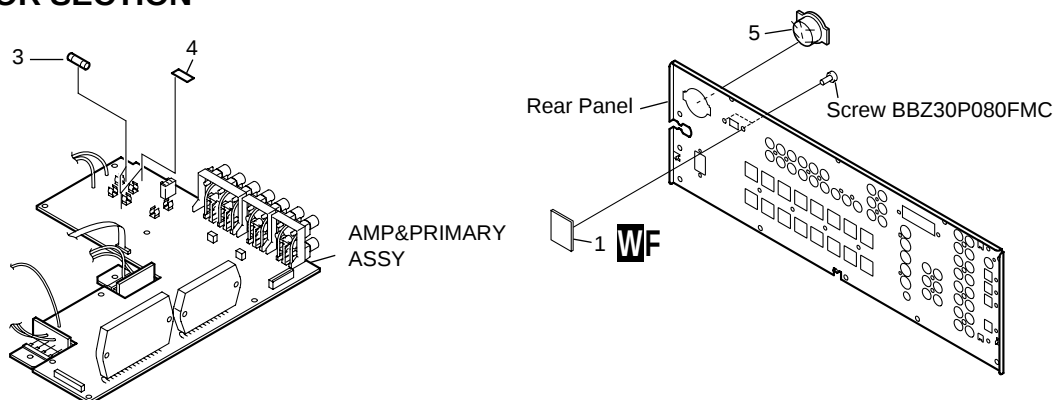
Ref. No.	Mark	Symbol and Description	Part No.				Remarks	
			VSX-D810S /KUXJI	VSX-D810S /SDPWXJI	VSX-D810S-G /BXJI	VSX-D810S-G /HLXJI		
		FRONT PANEL SECTION						
P6-9	NSP	Name Plate	PAM1776	PAM1776	PAM1779	PAM1779		
P6-11		Select Knob	XAB3008	XAB3008	XAB3009	XAB3009		
P6-12		Volume Knob	XAB3011	XAB3011	XAB3012	XAB3012		
P6-13		Power Button	XAD3062	XAD3062	XAD3063	XAD3063		
P6-15		Jog Button	XAD3065	XAD3065	XAD3066	XAD3066		
P6-16		Door Button	XAD3070	XAD3070	XAD3071	XAD3071		
P6-18		Display Panel	XAK3172	XAK3172	XAK3186	XAK3186		
P6-19		Button Cover	XAK3253	XAK3224	XAK3225	XAK3225		
P6-20		Cushion	XED3001	XED3001	XED3002	XED3002		
P6-21		Front Panel	XMB3033	XMB3041	XMB3042	XMB3042		
P6-26		Door Assy	XXG3068	XXG3068	XXG3075	XXG3075		
P6-27		Door	XAK3173	XAK3173	XAK3174	XAK3174		
P6-28		Door Cover	XAK3175	XAK3175	XAK3176	XAK3176		
P6-29		Screw	XBA3001	XBA3001	XBA3002	XBA3002		
		Power Button M	Not used	AAD7442	AAD7491	AAD7491		
								No. 6

Notes : ●The numbers in the remarks column correspond to the numbers on the “EXPLODED VIEWS”.

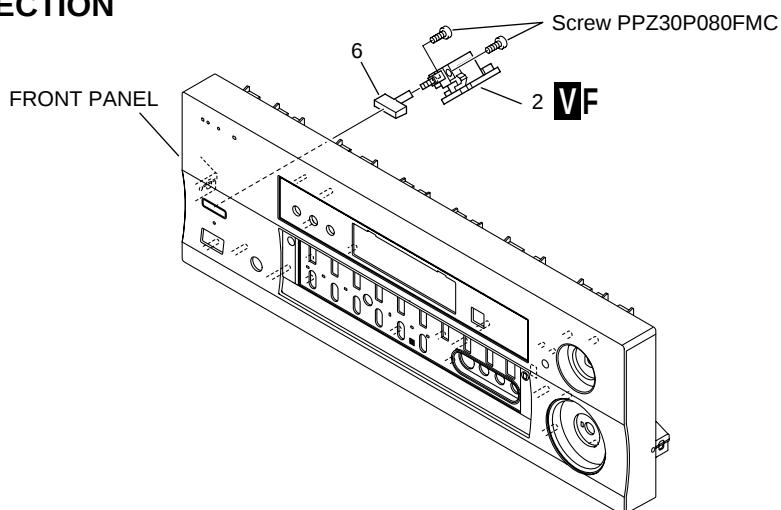
- For PCB ASSEMBLIES, Refer to “CONTRAST OF PCB ASSEMBLIES”, “PCB PARTS LIST”, “2. SCHEMATIC DIAGRAM” and “3. PCB CONNECTION DIAGRAM”.

■ EXPLODED VIEWS

● EXTERIOR SECTION



● FRONT PANEL SECTION



VSX-D810S, VSX-D810S-G

■ CONTRAST OF PCB ASSEMBLIES

CF AMP&PRIMARY ASSY

XWZ3382, XWZ3381 and XWZ3380 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		XWZ3380	XWZ3382	XWZ3381	
△	IC52 PROTECTOR (315mA) Q701 Q702 D57, D751, D753, D757 D602, D604, D681, D682	Not used 2SC4793 2SA1837 Not used MTZJ16A	AEK7003 2SC4793 2SA1837 1SS133 MTZJ8.2A	AEK7003 2SD1859X 2SB1238X 1SS133 MTZJ8.2A	
△	T51 STANDBY TRANSFORMER C607, C608, C634, C657, C658, C684 C705, C706 C751, C752, C755, C761, C762, C771 C753, C754, C756, C763, C764, C772	ATT7057 Not used CEHAT100M2A CFTYA104J50 Not used	ATT7038 Not used CEHAT100M2A CFTYA224J50 CFTYA224J50	ATT7037 CCCSL101J50 CEAT100M2A CFTYA224J50 CFTYA224J50	
△	C757-C759, C765-C768, C773 C769, C770 R51 (2.2MΩ/ 1/2W) R701, R702 R703, R704	Not used Not used RCN1080 RD1/4PU562J RD1/4PU203J	Not used Not used Not used RD1/4PU682J RD1/4PU683J	CQ MBA472J50 CKPUYB102K50 Not used RD1/4PU682J RD1/4PU683J	
△	R707, R708 R711 H53-H56 FUSE CLIP H701, H702 FUSE CLIP 51 AC SOCKET 1-P	RD1/4PU184J RS2LMF392J Not used AKR7001 AKP1060	RD1/4PU104J RS2LMF332J AKR7001 Not used Not used	RD1/4PU124J RS2LMF332J Not used Not used Not used	
	52 3P CABLE HOLDER 701 7P CABLE HOLDER CN751, CN752 SPEAKER TERMINAL 8-P J11 JUMPER WIRED J12 JUMPER WIRED	Not used XKP3047 AKE7058 Not used Not used	51048-0300 51048-0700 AKE7059 DB215NB0 DB815NB0	51048-0300 XKP3047 AKE7059 Not used Not used	
	J13 JUMPER WIRED J44 3P JUMPER WIRED Y8 AWG14 BOARD IN Y701 AWG14 BOARD IN	Not used Not used Not used ADX7286	DB015NB0 D20PYY0325E ADX7284 Not used	Not used D20PYY0325E ADX7284 Not used	

NF FRONT ASSY

XWZ3347, XWZ3348 and XWZ3345 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		XWZ3345	XWZ3347	XWZ3348	
	R428 R429	Not used RS1/16S0R0J	RS1/16S472J RS1/16S751J	RS1/16S472J RS1/16S182J	

UF FM/AM TUNER MODULE

AXQ7228 and AXQ7231 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AXQ7231	AXQ7228	
	F203 AM CERAMIC FILTER C216, C217	ATF7026 CKSRYB153K50	ATF1155 CKSRYB123K50	

■ PCB PARTS LIST

Mark	No.	Description	Part No.
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V
F MECHA SW ASSY

SWITCHES AND RELAYS

S591			ASG7014
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CAPACITORS

C591, C592			CKSQYF103Z50
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OTHERS

CN591	3PJUMPER CONNECTOR	52151-0310	
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W
F VOLTAGE SELECT SW ASSY

SWITCHES

△	S51	VOLTAGE SELECTOR	AKX1033
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Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST"

C1/2F AMP&PRIMARY ASSY

(SDPWXJI, BXJI : XWZ3382)(HLXJI : XWZ3381)

E J4-J7, Y8

D 851

C2/2

POINT VOLTAGE (V)		
SITUATION	HLXJI	SDPWXJI, BXJI
NO SIGNAL	A/B ±60.0	±61.5
	C/D ±37.5	±37.5

CN751 & CN752	SDPWXJI	BXJI	HLXJI
	AKE7059		

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491125 FOR IC701 AND IC702 MFD, BY LITTELFUSE INC.

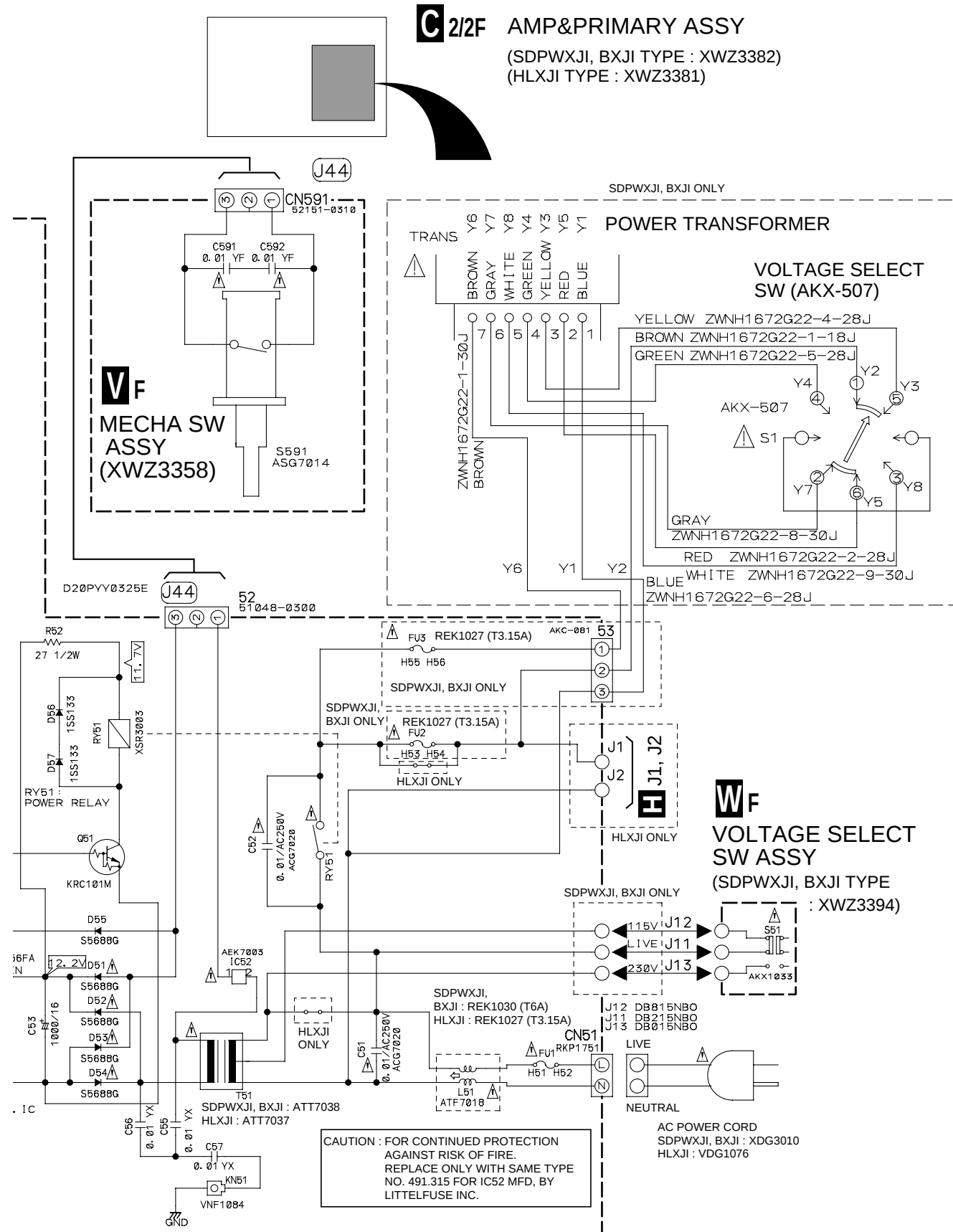
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 FOR IC603 MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010 FOR IC604, IC605, IC606, AND IC607 MFD, BY LITTELFUSE INC.

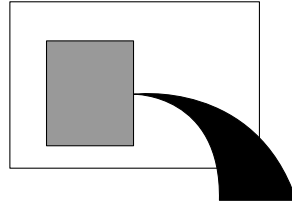
NOTE FOR FUSE REPLACEMENT

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

2.2 AMP&PRIMARY (2/2), MECHA SW and VOLTAGE SELECT SW ASSYS



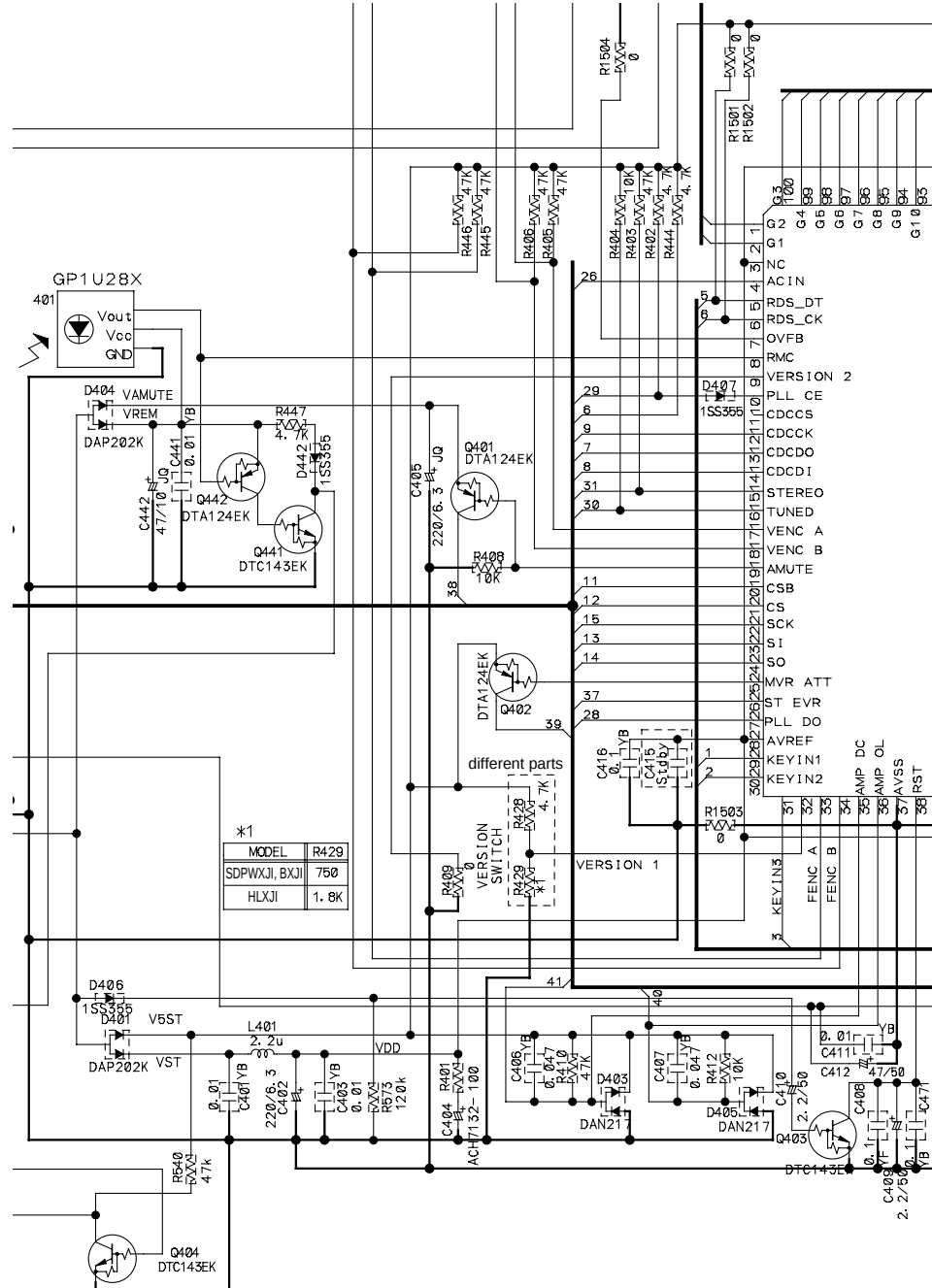
2.3 FRONT ASSY



NF

FRONT ASSY

(SDPWXJI, BXJI : XWZ3347)
(HLXJI : XWZ3348)

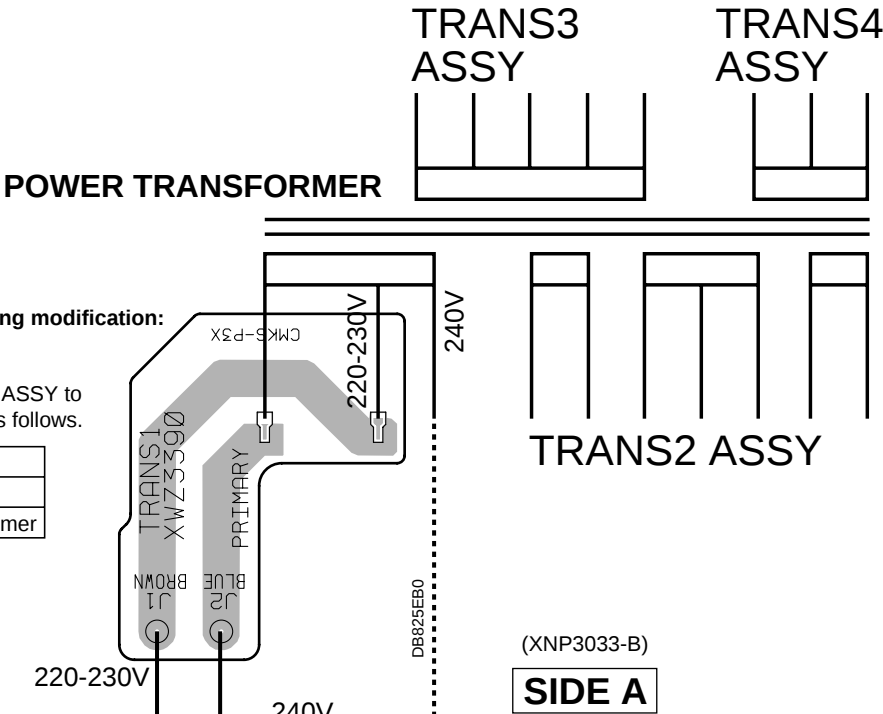
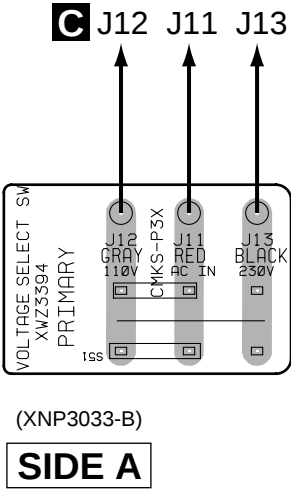
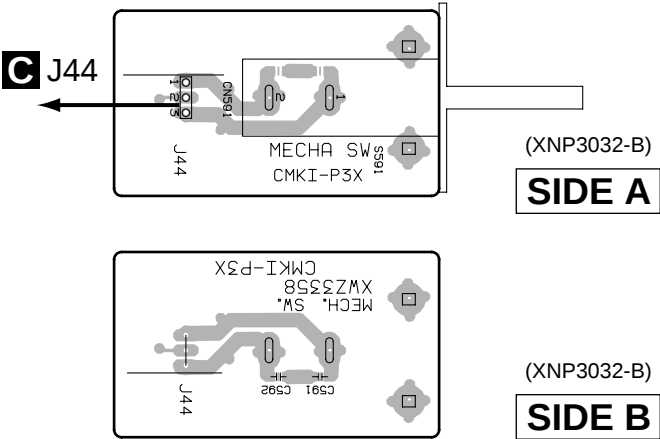


3. PCB CONNECTION DIAGRAM

3.1 MECHA SW, VOLTAGE SELECT SW and TRANS1 ASSYS

WF VOLTAGE SELECT SW ASSY
(SDPWXJI AND BXJI TYPES ONLY)

VF MECHA SW ASSY



● 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 wire from TRANS 1 ASSY to AMP&PRIMARY ASSY (Terminal No. J1) as follows.

Voltage	Terminal No.
220-230V	J1 of TRANS 1 ASSY
240V	240V terminal of power transformer

- 4. Stick a line voltage label on the rear panel.

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

H TRANS1 ASSY
(HLXJI TYPE ONLY)

J1 J2