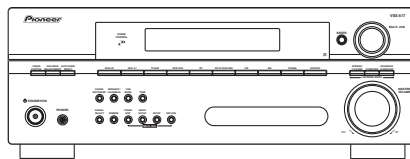


Service Manual



VSX-517-K

ORDER NO.
RRV3550

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-517-K VSX-517-S

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

Model	Type	Power Requirement	Remarks
VSX-517-K	KUCXJ	AC 120 V	
VSX-517-S	KUCXJ	AC 120 V	



For details, refer to "Important Check Points for Good Servicing".

1234

SAFETY INFORMATION

A



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.

B

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

C

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.

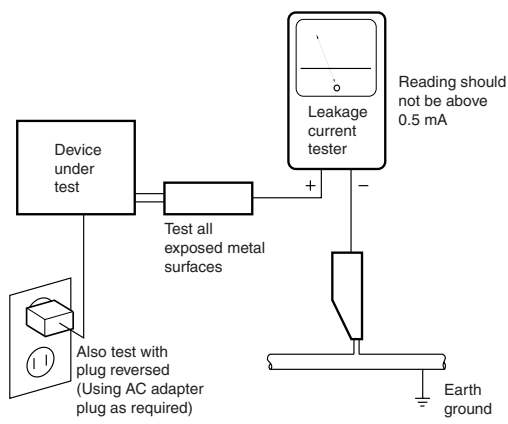
(FOR USA MODEL ONLY)

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 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



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 ⚠ 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.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

CONTENTS

	SAFETY INFORMATION	2
	1. SPECIFICATIONS	5
A	2. EXPLODED VIEWS AND PARTS LIST	6
	2.1 PACKING SECTION	6
	2.2 EXTERIOR SECTION	8
	2.3 FRONT PANEL SECTION	10
	3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM	12
	3.1 BLOCK DIAGRAM	12
	3.2 OVERALL WIRING CONNECTION DIAGRAM	14
	3.3 MAIN ASSY (1/3)	16
	3.4 MAIN ASSY (2/3)	18
	3.5 MAIN ASSY (3/3)	20
	3.6 DSP ASSY (1/2)	22
	3.7 DSP ASSY (2/2)	24
B	3.8 POWER PACK ASSY (1/2) , TRANS2 and TRANS3 ASSYS	26
	3.9 POWER PACK ASSY (2/2)	28
	3.10 COMPONENT VIDEO, HEAD PHONE and 5.1CH INPUT ASSYS	30
	3.11 ROTARY ENCODER, FRONT DISPLAY and POWER KEY ASSYS	32
	3.12 TRANS4, REGULATOR, VIDEO, DIGITAL INPUT, PRIMARY and TRANS1 ASSY	34
	4. PCB CONNECTION DIAGRAM	36
	4.1 DIGITAL INPUT ASSY	37
	4.2 MAIN ASSY	38
	4.3 DSP ASSY	42
	4.4 TRANS2 and TRANS3 ASSYS	43
	4.5 POWER PACK ASSY	44
	4.6 COMPONENT VIDEO ASSY	48
C	4.7 HEADPHONE and 5.1CH INPUT ASSYS	49
	4.8 FRONT DISPLAY ASSY	50
	4.9 ROTARY ENCODER and POWER KEY ASSYS	54
	4.10 TRANS4 and REGULATOR ASSYS	56
	4.11 VIDEO ASSY	57
	4.12 PRIMARY and TRANS1 ASSYS	58
	5. PCB PARTS LIST	60
	6. ADJUSTMENT	70
	7. GENERAL INFORMATION	71
	7.1 DIAGNOSIS	71
	7.1.1 DSP TROUBLESHOOTING	71
	7.1.2 DISASSEMBLY	76
D	7.2 PARTS	80
	7.2.1 IC	80
	7.3 EXPLANATION	83
	7.3.1 DETECTION CIRCUIT	83
	7.3.2 AMPLIFIER SYSTEM PROTECTION OPERATION SPECIFICATION	85
	7.3.3 AMPLIFIER FAILURE DIAGNOSIS FLOW CHART	87
	8. PANEL FACILITIES	88

E

F

1. SPECIFICATIONS

Amplifier section

- **Continuous power output (stereo)**

Front . . 110 W (20Hz to 20kHz, THD 0.2 %, 8 Ω)¹

- **Rated power output**

(surround / 20 Hz to 20 kHz, THD 0.07 %, 8 Ω)

Front 90 W per channel

Center 90 W

Surround 90 W per channel

- **Rated power output**

(surround / 1 kHz, THD 1 %, 8 Ω)

Front 120 W per channel

Center 120 W

Surround 120 W per channel

Audio section

- **Input (Sensitivity/Impedance)**

CD, DVR/VCR, CD-R/TAPE/MD,

DVD/LD, TV/SAT 200 mV/47 k Ω

- **Frequency response**

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

TV/SAT. 5 Hz to 100 000 Hz $\pm\frac{0}{3}$ dB

- **Output (Level/Impedance)**

DVR/VCR REC, CD-R/TAPE/

MD REC 200 mV/2.2 k Ω

- **Tone control**

Bass $\pm$ 6 dB (100 Hz)

Treble $\pm$ 6 dB (10 kHz)

Loudness. +10 dB/+5 dB (100 Hz/10 kHz)

(at volume level -50 dB)

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

CD, DVR/VCR, CD-R/TAPE/MD,

DVD/LD, TV/SAT 96 dB

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

CD, DVR/VCR, CD-R/TAPE/MD,

DVD/LD, TV/SAT 79 dB

Video Section

- **Input (Sensitivity/Impedance)**

DVR/VCR, DVD/LD, TV/SAT 1 Vp-p/75 Ω

- **Output (Level/Impedance)**

DVR/VCR, MONITOR OUT 1 Vp-p/75 Ω

- **Frequency response**

DVR/VCR, DVD/LD,

TV/SAT $\Rightarrow$ MONITOR 5 Hz to 7 MHz $\pm\frac{0}{3}$ dB

Signal-to-Noise Ratio. 55 dB

Crosstalk 50 dB

Note

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

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" is a registered trademark of DTS, Inc. and "DTS 96/24" is a trademark of DTS, Inc.

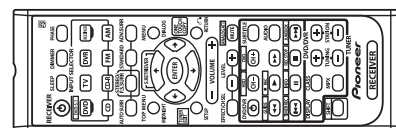
Accessories



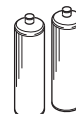
AM loop antenna
(ATB7013)



FM wire antenna
(ADH7030)



Remote control
(XXD3135)



AA size IEC R6
Dry cell batteries (x2)

Component video section

- **Input (Sensitivity)**

DVD/LD, TV/SAT. 1 Vp-p/75 Ω

- **Output (Level/Impedance)**

MONITOR OUT. 1 Vp-p/75 Ω

- **Frequency response**

DVD/LD,

TV/SAT $\Rightarrow$ MONITOR. 5 Hz to 40 MHz $\pm\frac{0}{3}$ dB

Signal-to-Noise Ratio 60 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

($\pm$ 1 dB)

Antenna Input (DIN) 75 Ω unbalanced

AM Tuner Section

Frequency Range 530 kHz to 1700 kHz

Sensitivity (IHF, Loop antenna). 350 μ V/m

Signal-to-Noise Ratio 50 dB

Antenna Loop antenna

Miscellaneous

Power requirements. AC 120 V / 60 Hz

Power consumption. 320 W / 430 VA

In standby 0.5 W

Dimensions

. 420 (W) mm x 158 (H) mm x 352.5 (D) mm

16⁹/₁₆ (W) in. x 6¹/₄ (H) in. x 13⁷/₈ (D) in.

Weight (without package) 8.6 kg (19 lb)

Furnished Parts

AM loop antenna. 1

FM wire antenna 1

Dry cell batteries (AA size IEC R6). 2

Remote control 1

Operating instructions

Note

¹ Continuous average power output of 110 watts* per channel, min., at 8 ohms, from 20 Hz to 20 000 Hz with no more than 0.2 %** total harmonic distortion (front).

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

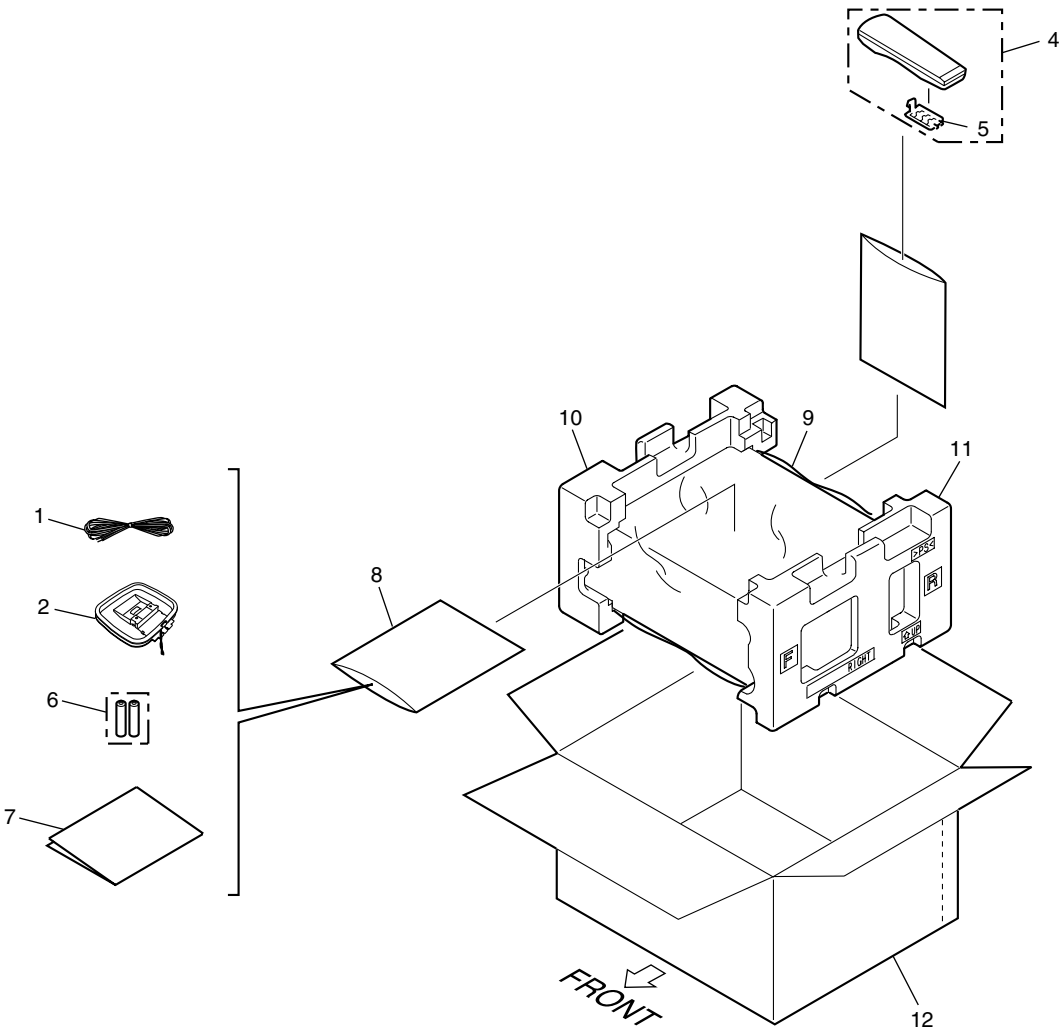
** Measured by Audio Spectrum Analyzer.

1234

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  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 product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

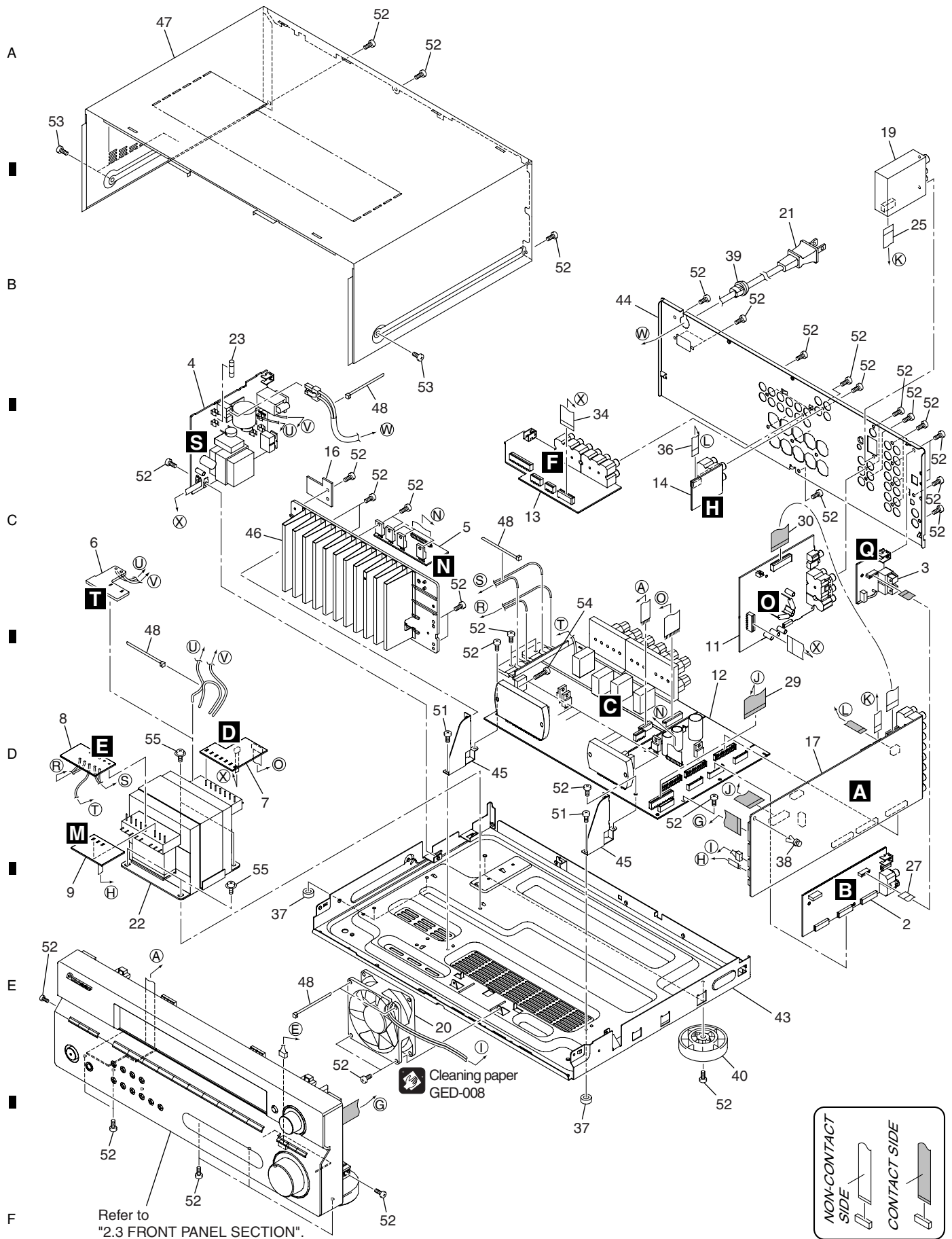
Mark	No.	Description	Part No.
	1	FM Wire Antenna	ADH7030
	2	AM Loop Antenna	ATB7013
	3	•••••	
	4	Remote Control	XXD3135
	5	Battery Cover	XZN3139
NSP	6	Dry Cell Battery (AA, R6)	XEX3002
	7	Operating Instructions (English)	XRE3138
NSP	8	Polyethylene Bag (0.06*230*340)	AHG7117
	9	Packing Sheet	AHG7069
	10	Left Pad V3	XHA3158
	11	Right Pad V3	XHA3159
	12	Packing Case	See Contrast table (2)

(2) CONTRAST TABLE

VSX-517-K/KUCXJ and VSX-517-S/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-517-K /KUCXJ	VSX-517-S /KUCXJ
	12	Packing Case	XHD3679	XHD3680

2.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	•••••		31	•••••		
2	DSP Assy	AWX8812	32	•••••		A
3	DIGITAL INPUT Assy	XWZ4211	33	•••••		
4	PRIMARY Assy	XWZ4215	34	7P Flexible Cable/30V	XDD3235	
5	REGULATOR Assy	XWZ4271	35	•••••		
6	TRANS1 Assy	XWZ4224	36	7P Flexible Cable/30V	XDD3235	
7	TRANS2 Assy	XWZ4243	NSP 37	Spacer	AEB7092	
8	TRANS3 Assy	XWZ4246	38	Push Rivet	AEC7205	
9	TRANS4 Assy	XWZ4225	39	Cord Stopper	CM-22C	
10	•••••		40	Insulator	AMR7198	
11	VIDEO Assy	XWZ4207	41	•••••		B
12	POWER PACK Assy	XWZ4232	42	•••••		
13	COMPONENT VIDEO Assy	XWZ4247	NSP 43	Chassis 816	XNA3026	
14	5.1CH INPUT Assy	XWZ4249	44	Rear Panel	See Contrast table (2)	
15	•••••		45	Heatsink Angle V3	XNG3145	
16	BIND Assy	XWZ4252	NSP 46	Heatsink	XNH3043	
17	MAIN Assy	XWK3300	47	Bonnet	See Contrast table (2)	
18	•••••		NSP 48	Binder (BK-1)	ZCA-BK1	
19	FM/AM TUNER Unit	AXX7210	49	•••••		
⚠ 20	DC Fan Motor	XXM3012	50	•••••		C
⚠ 21	AC Power Cord	ADG7024	51	Screw	BBZ30P060FCC	
⚠ 22	Power Transformer (T1501)	XTS3106	52	Screw	BBZ30P080FNI	
⚠ 23	Fuse (FU1 : 10 A)	REK1154	53	Screw	See Contrast table (2)	
24	•••••		54	Screw	BBZ30P140FTC	
25	11P Flexible Cable/30V	XDD3189	55	Screw	BBZ40P080FNI	
26	•••••					
27	10P Flexible Cable/30V	XDD3196				
28	•••••					
29	17P Flexible Cable/30V	XDD3203				D
30	13P Flexible Cable/30V	XDD3220				

(2) CONTRAST TABLE

VSX-517-K/KUCXJ and VSX-517-S/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-517-K /KUCXJ	VSX-517-S /KUCXJ
	44	Rear Panel	XNC3484	XNC3485
	47	Bonnet	XZN3183	XZN3184
	53	Screw	BBZ30P080FTB	BBZ30P080FNI

1 2 3 4

2.3 FRONT PANEL SECTION

A

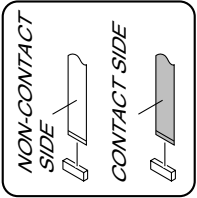
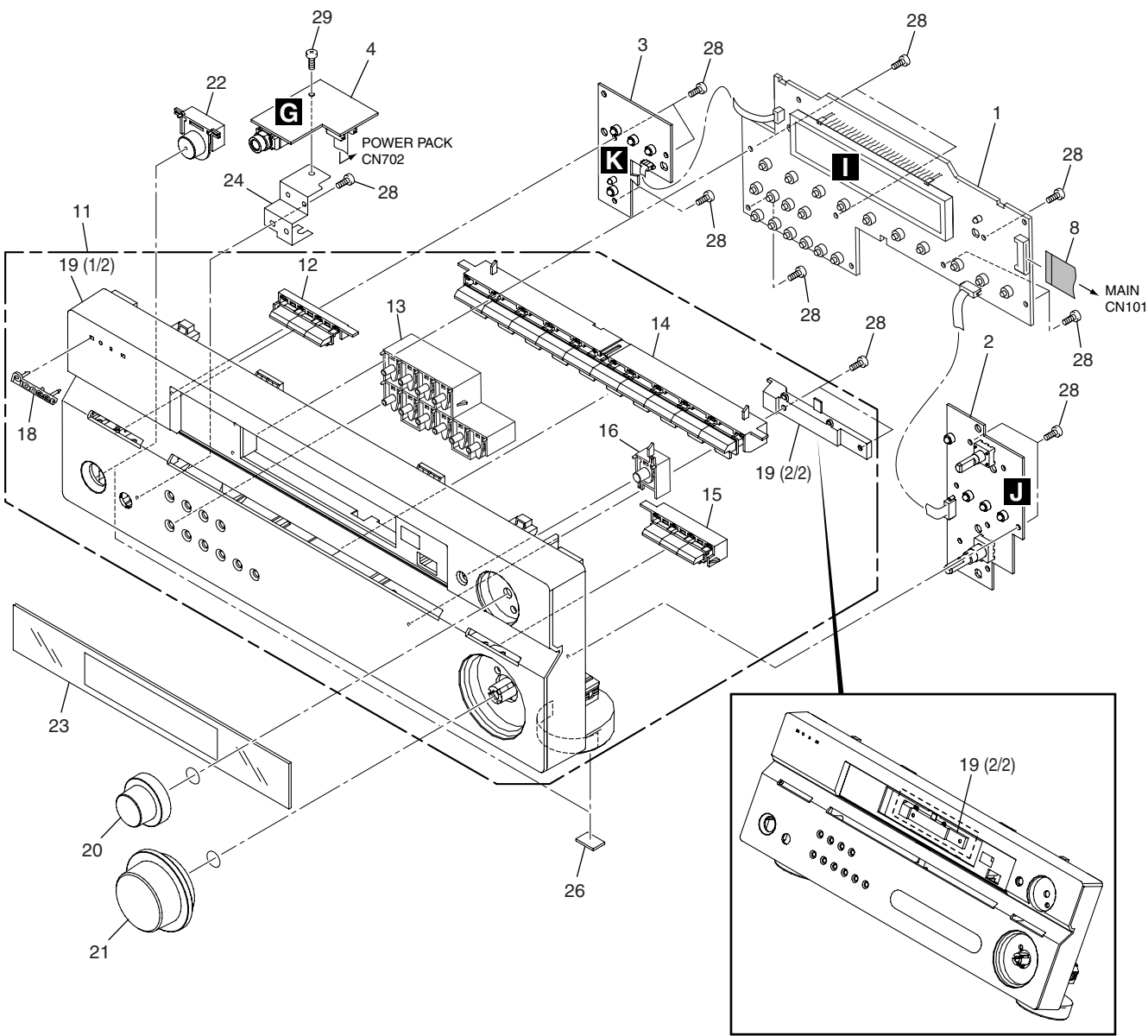
B

C

D

E

F



(1) FRONT PANEL SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	FRONT DISPLAY Assy	XWZ4202	16	JOG Button	See Contrast table (2)
2	ROTARY ENCODER Assy	XWZ4205	17	•••••	
3	POWER KEY Assy	XWZ4206	18	Pioneer Name Plate	See Contrast table (2)
4	HEADPHONE Assy	XWZ4265	19	Front Panel	See Contrast table (2)
5	•••••		20	JOG Knob	See Contrast table (2)
6	•••••		21	VOL Knob	See Contrast table (2)
7	•••••		22	STANDBY Button	See Contrast table (2)
8	17P Flexible Cable/30V	XDD3200	23	D Panel PC	XAK3569
9	•••••		24	Earth Plate HP V2 (M)	XNG3131
10	•••••		25	•••••	
NSP 11	Front Panel Assy	See Contrast table (2)	26	Rubber Sheet	AEB1111
12	TUNER Button	See Contrast table (2)	27	•••••	
13	SUB Button	See Contrast table (2)	28	Screw	BPZ30P080FTC
14	FUNCTION Button	See Contrast table (2)	29	Screw	BBZ30P080FNI
15	LISTEN Button	See Contrast table (2)			

(2) CONTRAST TABLE

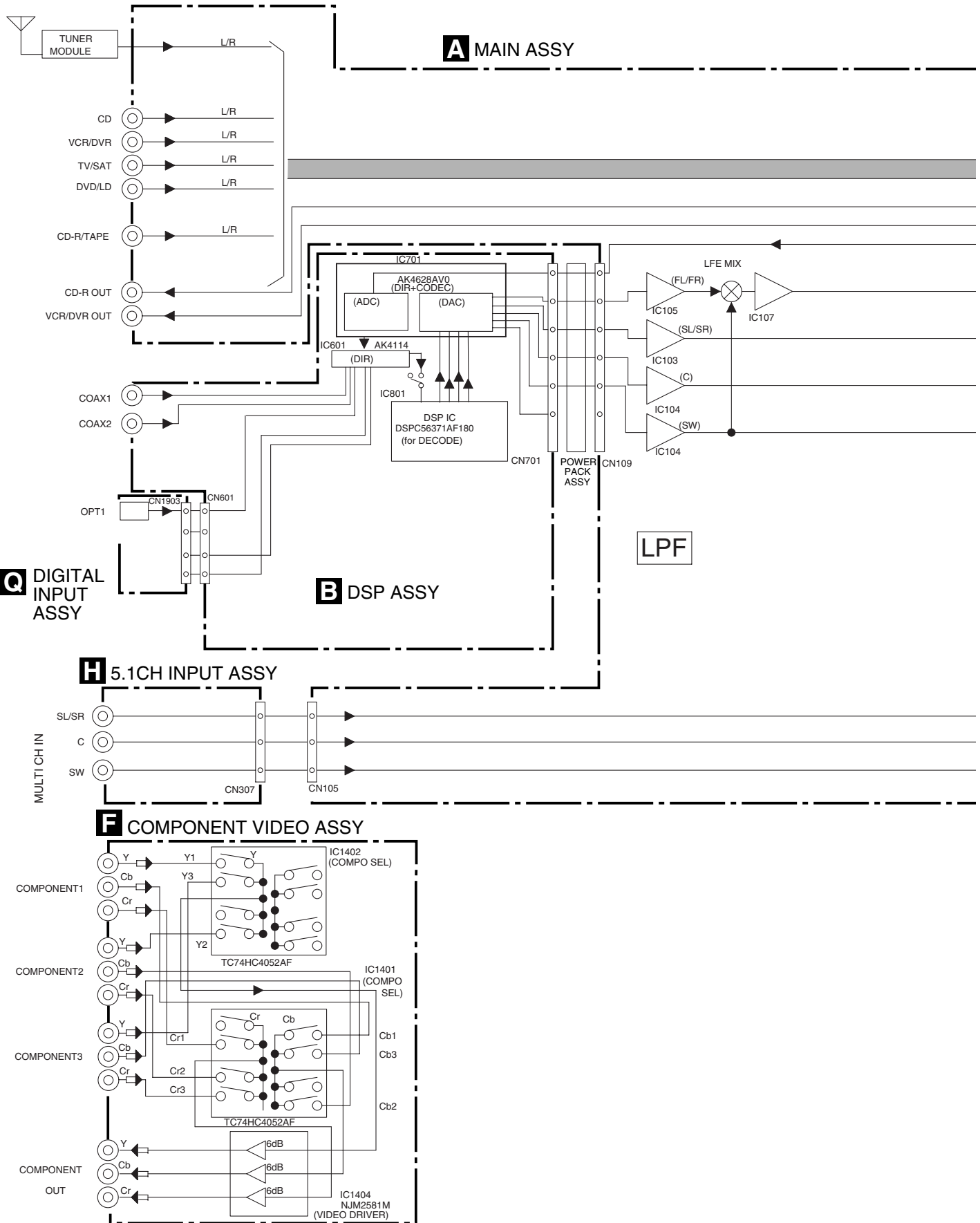
VSX-517-K/KUCXJ and VSX-517-S/KUCXJ are constructed the same except for the following:

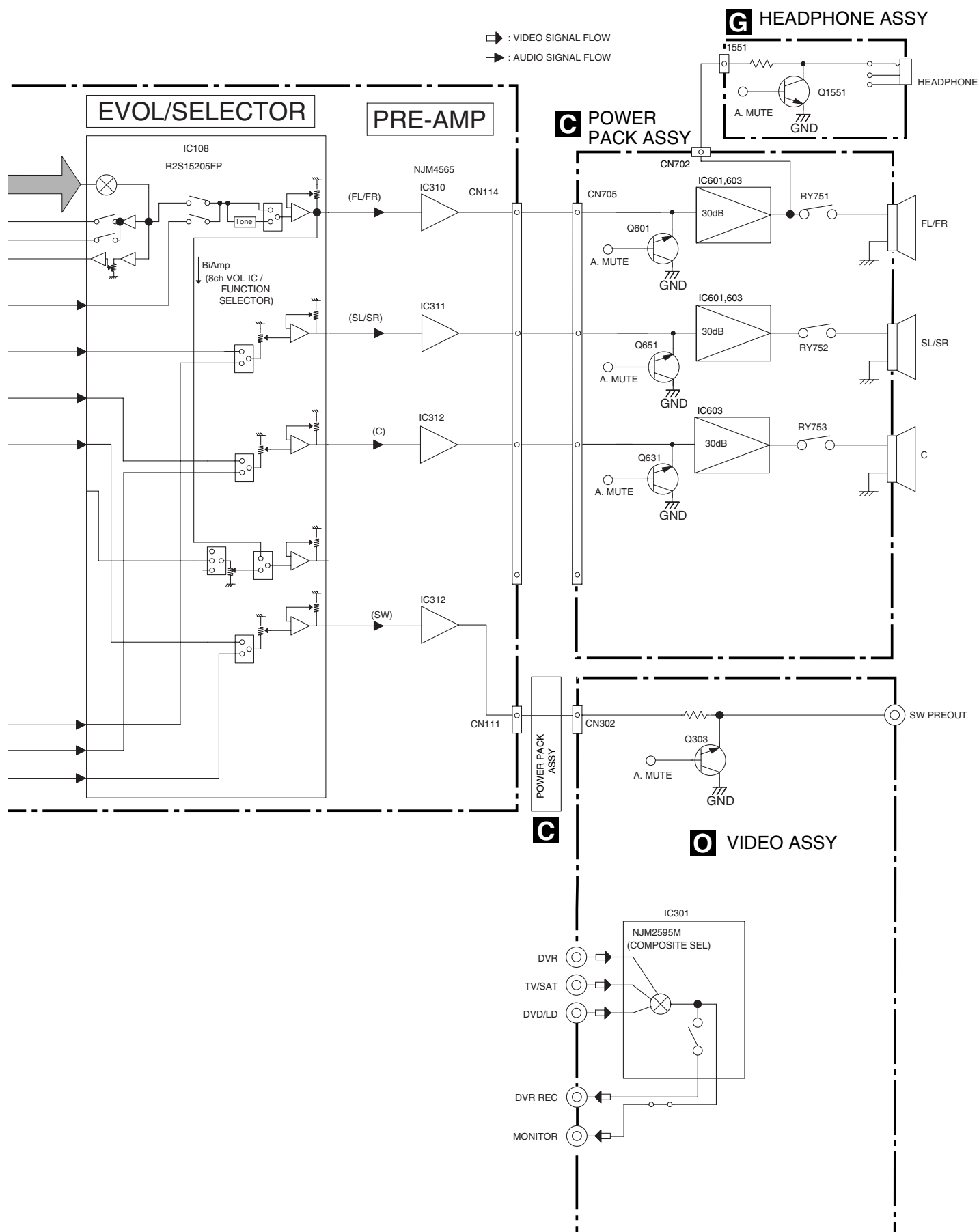
Mark	No.	Symbol and Description	VSX-517-K /KUCXJ	VSX-517-S /KUCXJ
NSP	11	Front Panel Assy	XXG3292	XXG3293
	12	TUNER Button	XAD3230	XAD3248
	13	SUB Button	XAD3231	XAD3249
	14	FUNCTION Button	XAD3232	XAD3250
	15	LISTEN Button	XAD3233	XAD3251
	16	JOG Button	XAD3240	XAD3252
	18	Pioneer Name Plate	XAM3006	VAM1129
	19	Front Panel	XMB3262	XMB3263
	20	JOG Knob	XAB3052	XAB3055
	21	VOL Knob	XAB3053	XAB3057
	22	STANDBY Button	XAD3202	XAD3203

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

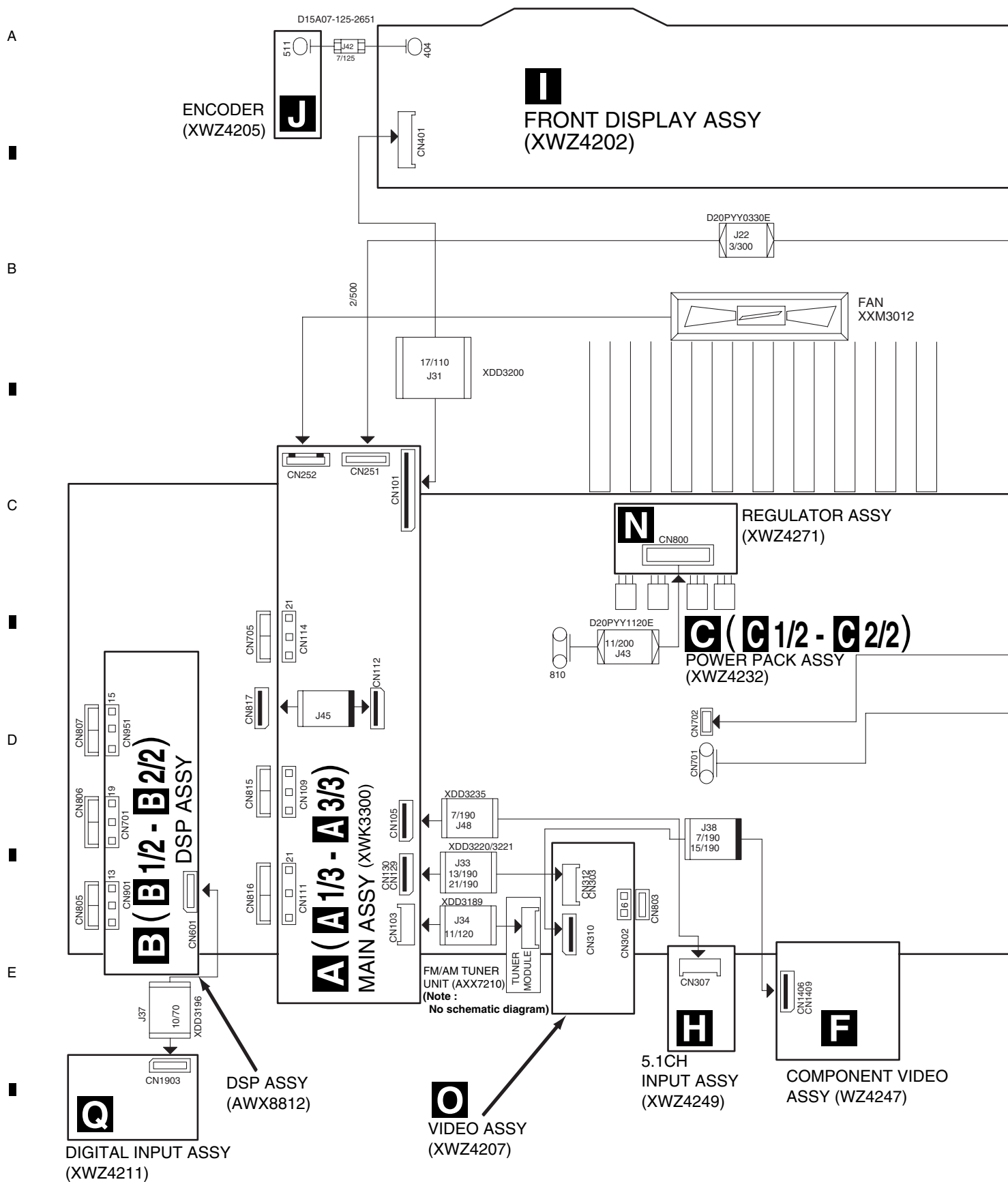
3.1 BLOCK DIAGRAM

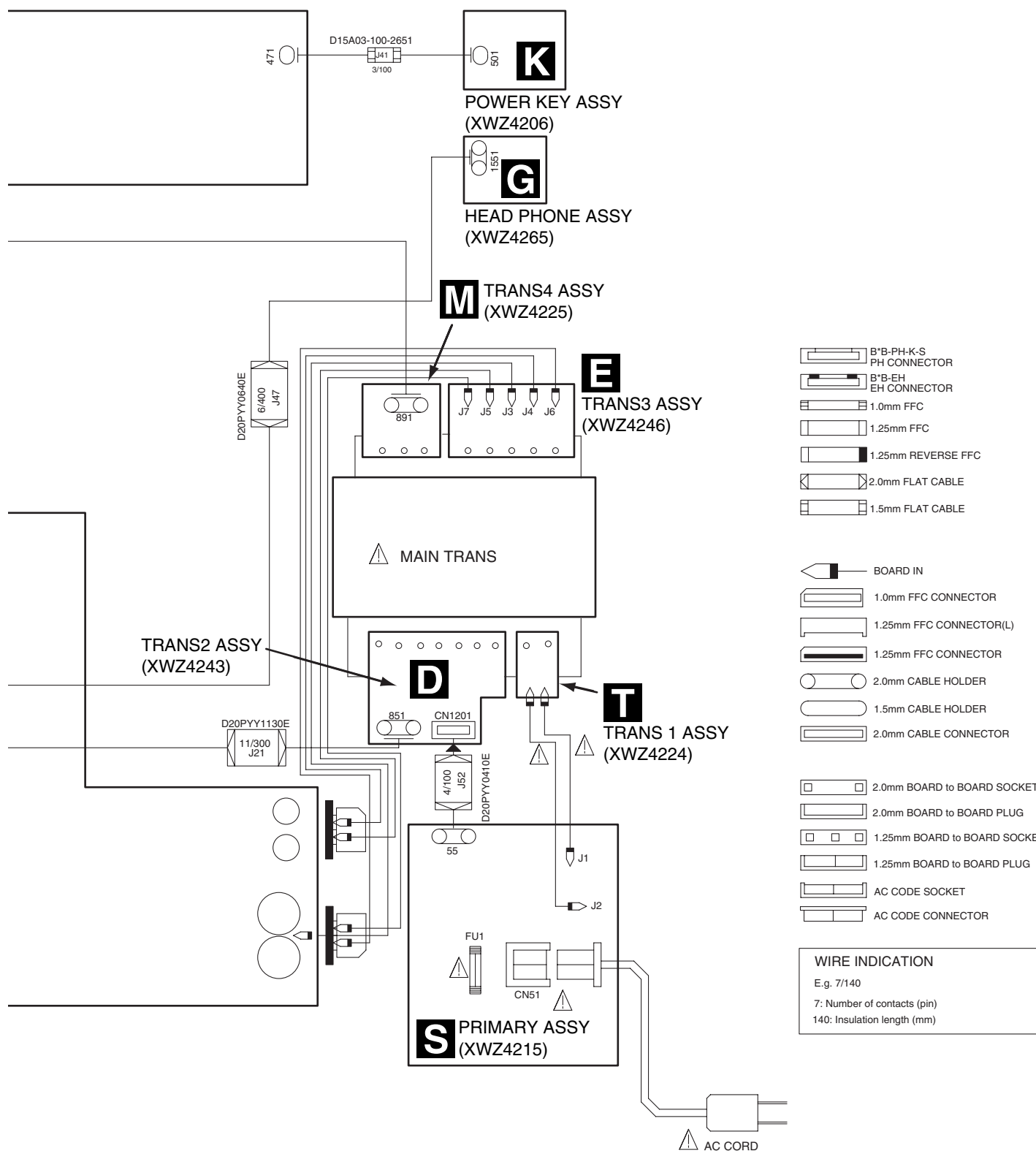
A





3.2 OVERALL WIRING CONNECTION DIAGRAM





- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ 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.
-  : The power supply is shown with the marked box.

3.3 MAIN ASSY (1/3)

A 1/3 MAIN ASSY
(XWK3300)

A

B

C

D

E

F

A 3/3

A 3/3

A 3/3

A 3/3

A 3/3

A 3/3

A 3/3

CN105

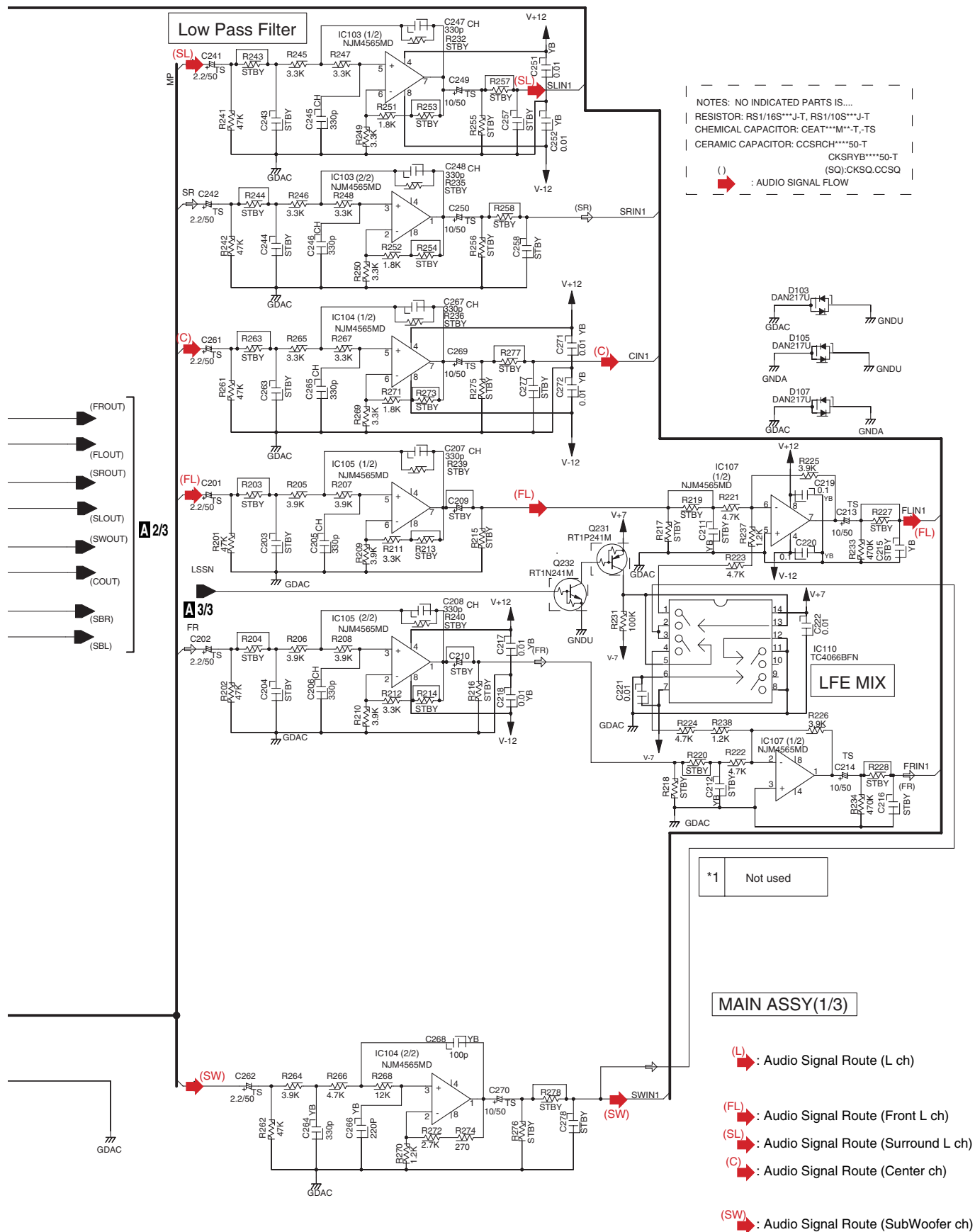
H CN307
TO 5.1 INPUT ASSY

G 2/2 CN815

TO POWER PACK ASSY

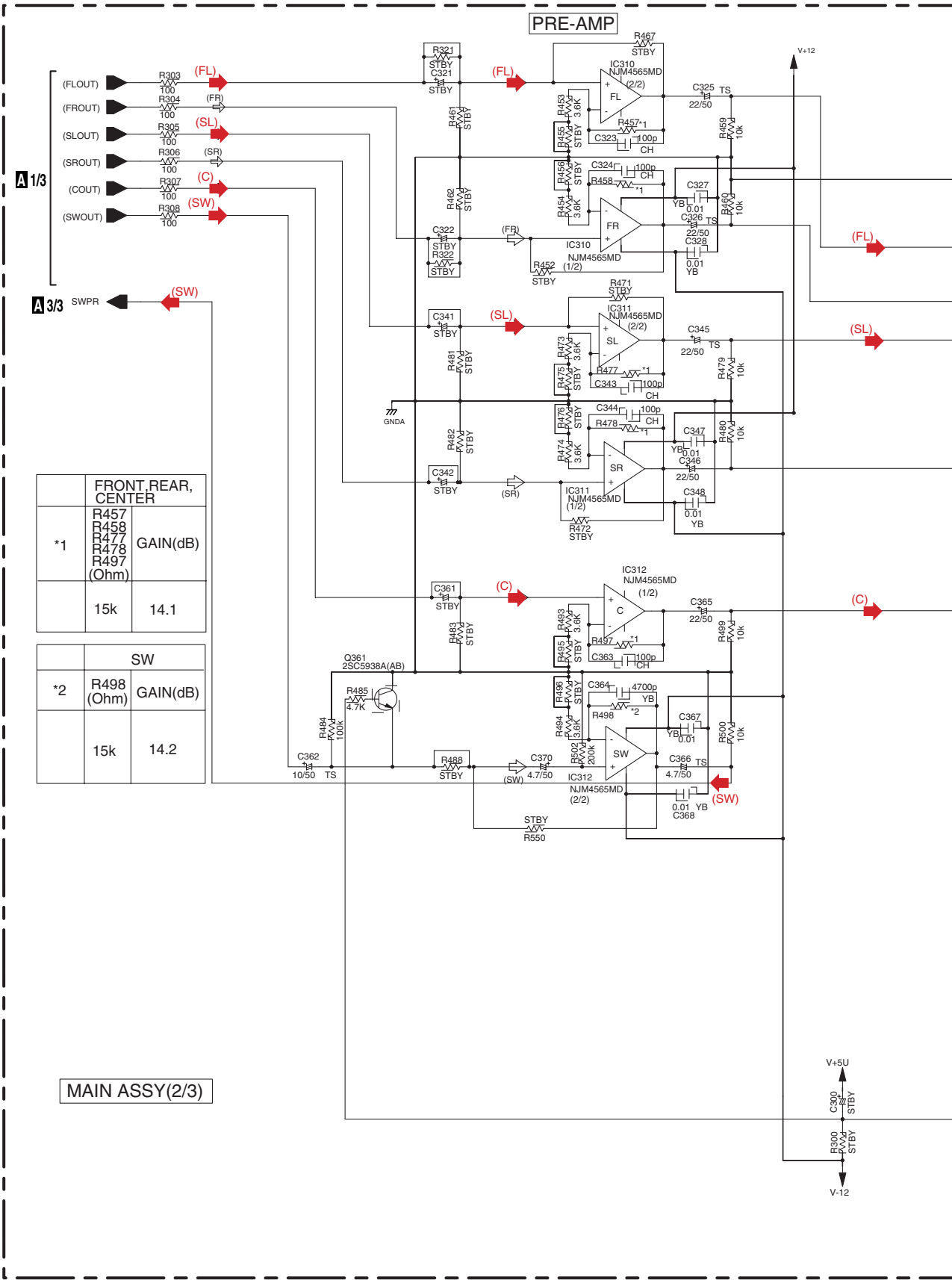
VSX-517-K

A 1/3



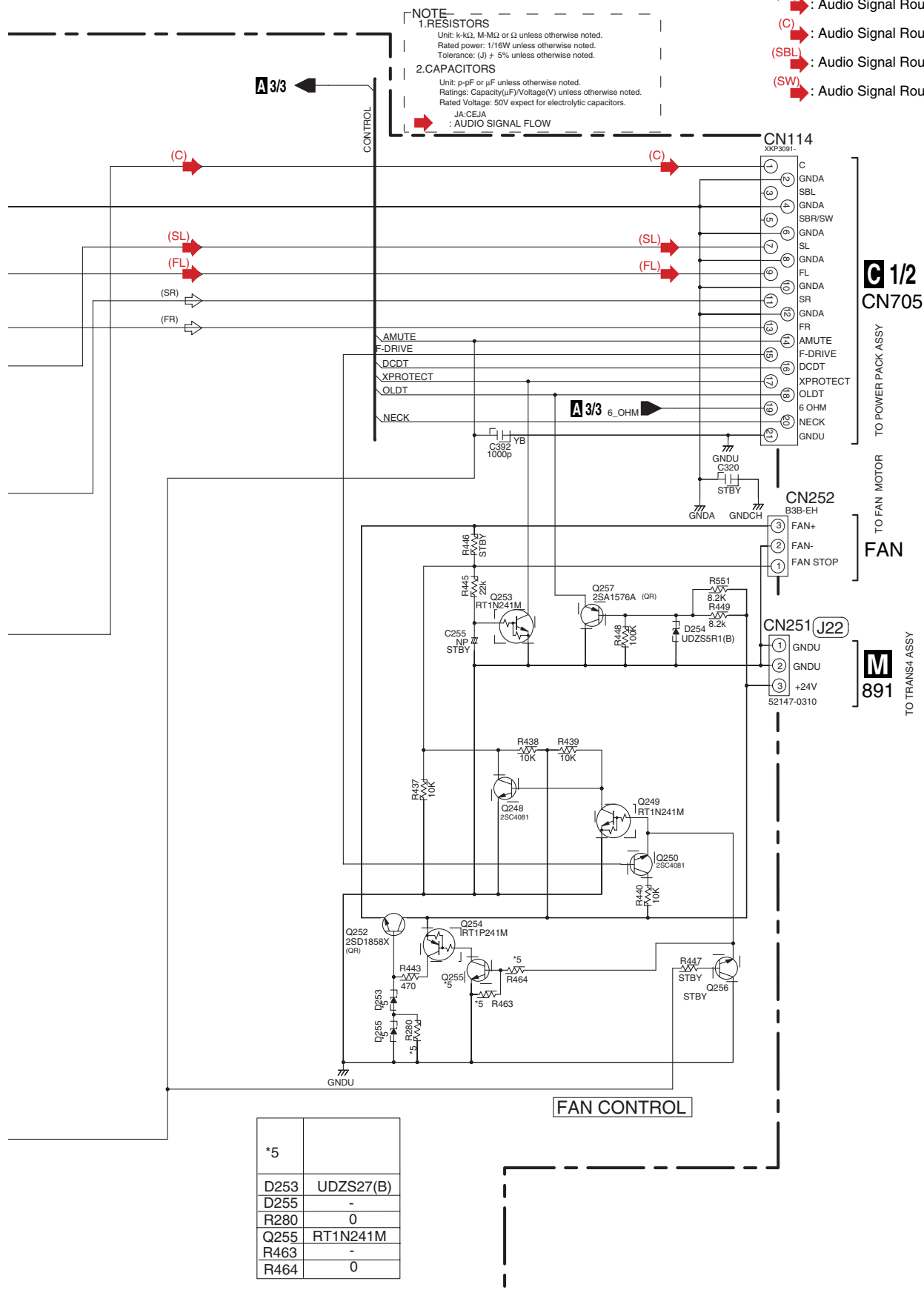
3.4 MAIN ASSY (2/3)

A 2/3 MAIN ASSY (XWK3300)



A 2/3

- (FL) : Audio Signal Route (Front L ch)
 (SL) : Audio Signal Route (Surround L ch)
 (C) : Audio Signal Route (Center ch)
 (SBL) : Audio Signal Route (Surround Back L ch)
 (SW) : Audio Signal Route (SubWoofer ch)



△

A



A 3/3

F



△

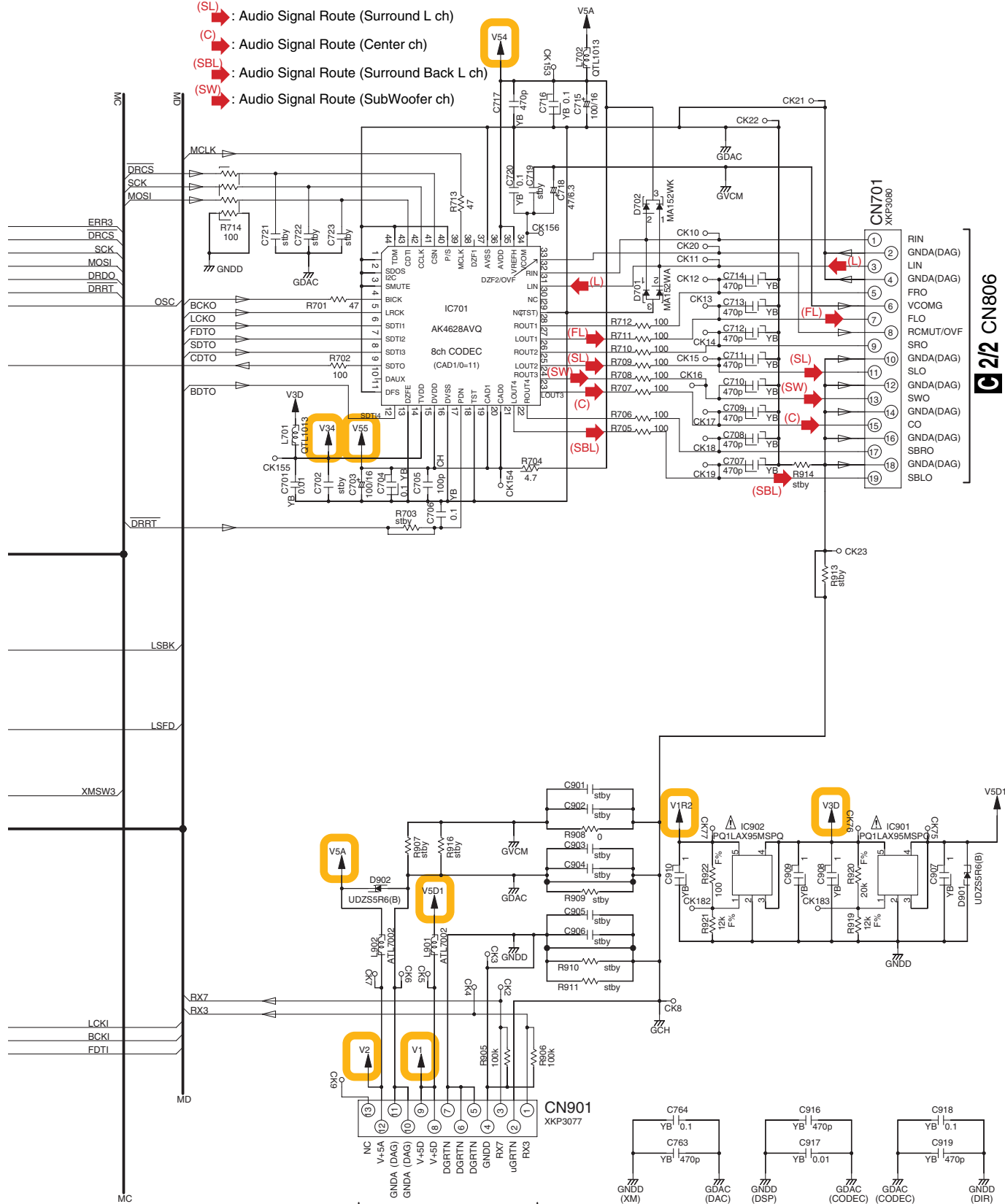
A



1

4

- (L) : Audio Signal Route (L ch)
 (FL) : Audio Signal Route (Front L ch)
 (SL) : Audio Signal Route (Surround L ch)
 (C) : Audio Signal Route (Center ch)
 (SBL) : Audio Signal Route (Surround Back L ch)
 (SW) : Audio Signal Route (SubWoofer ch)



C 2/2 CN805

B 1/2

4

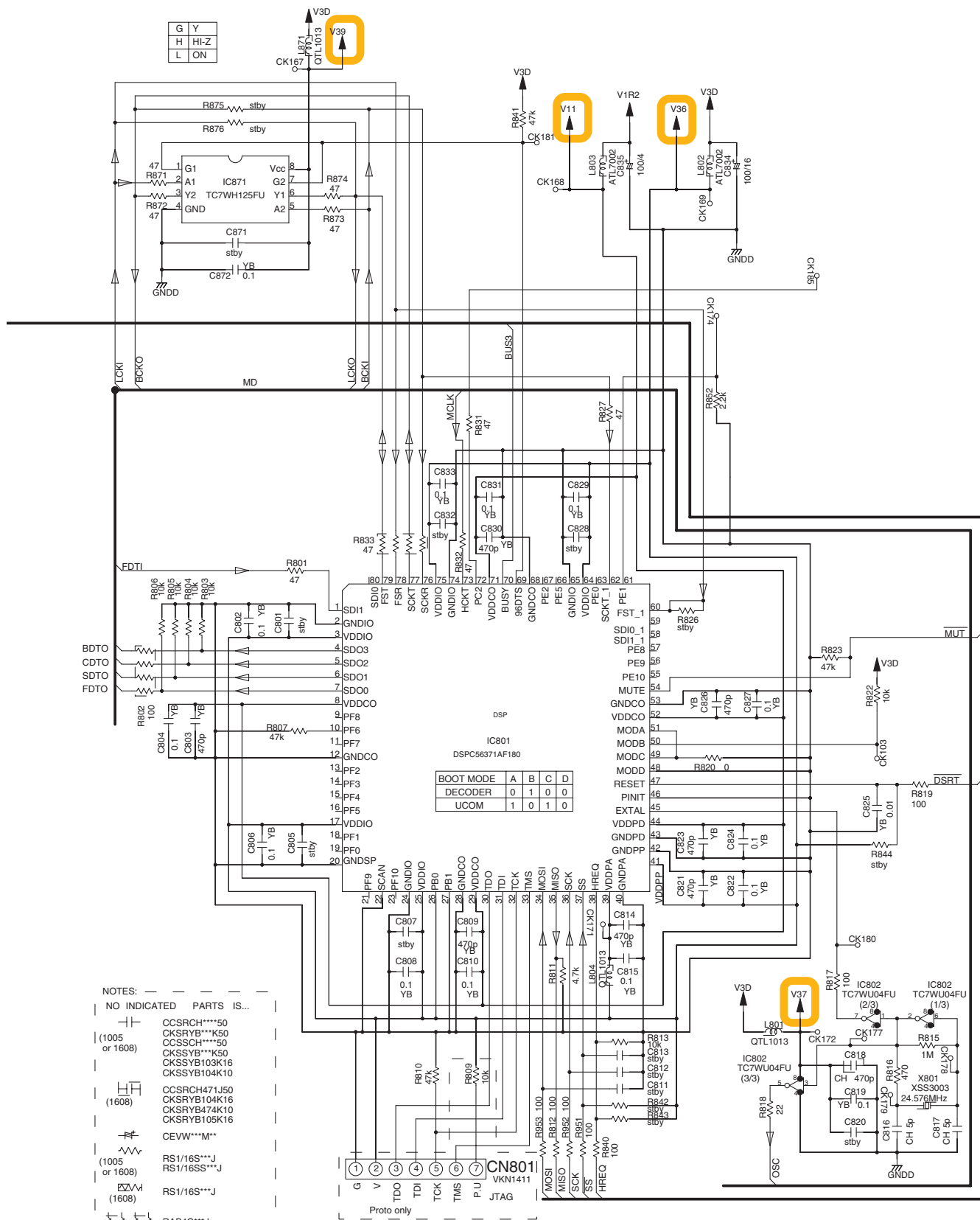
A



F

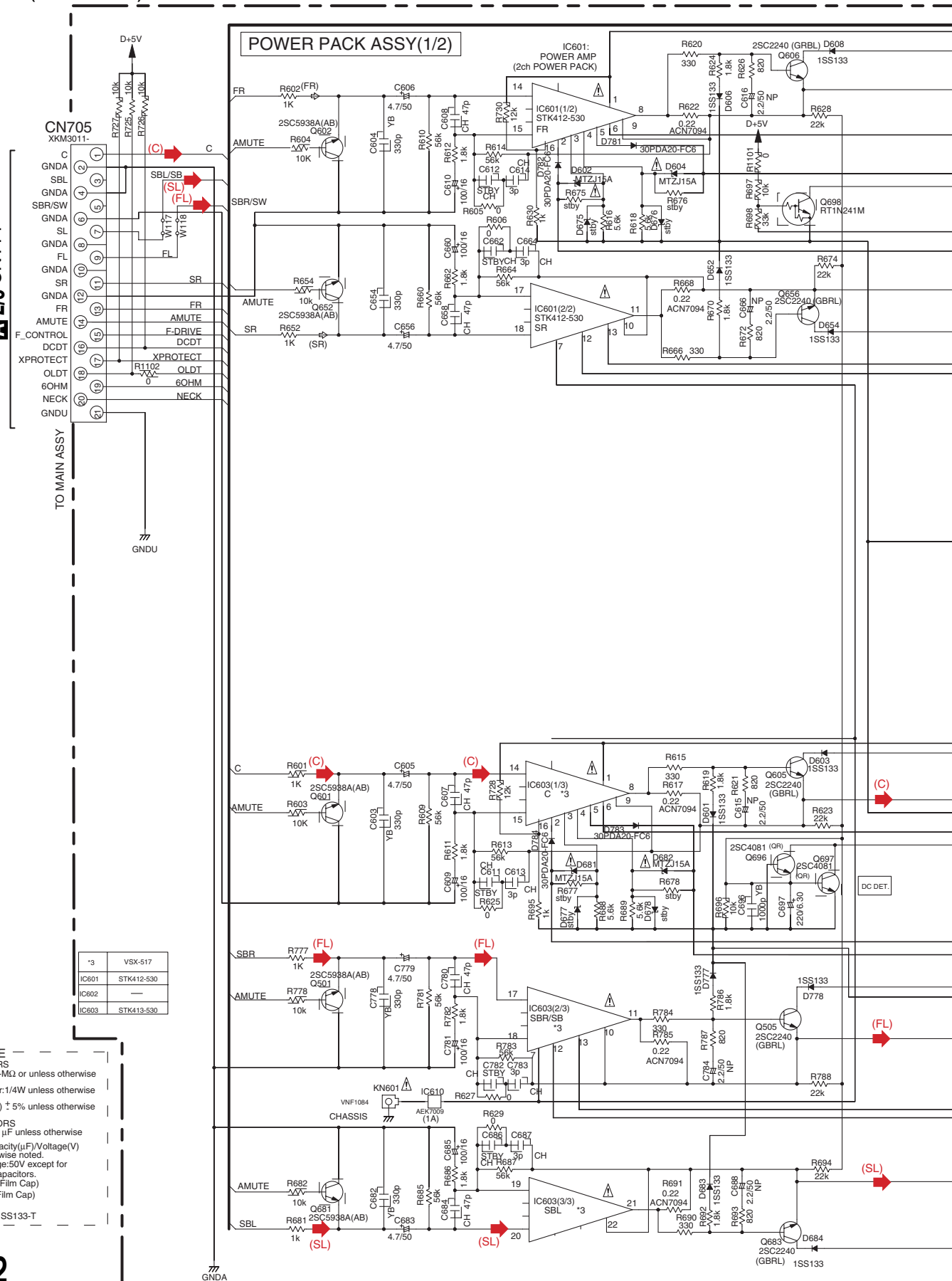
24

4



3.8 POWER PACK ASSY (1/2) , TRANS2 and TRANS3 ASSYS

C 1/2 POWER PACK ASSY (XWZ4232)



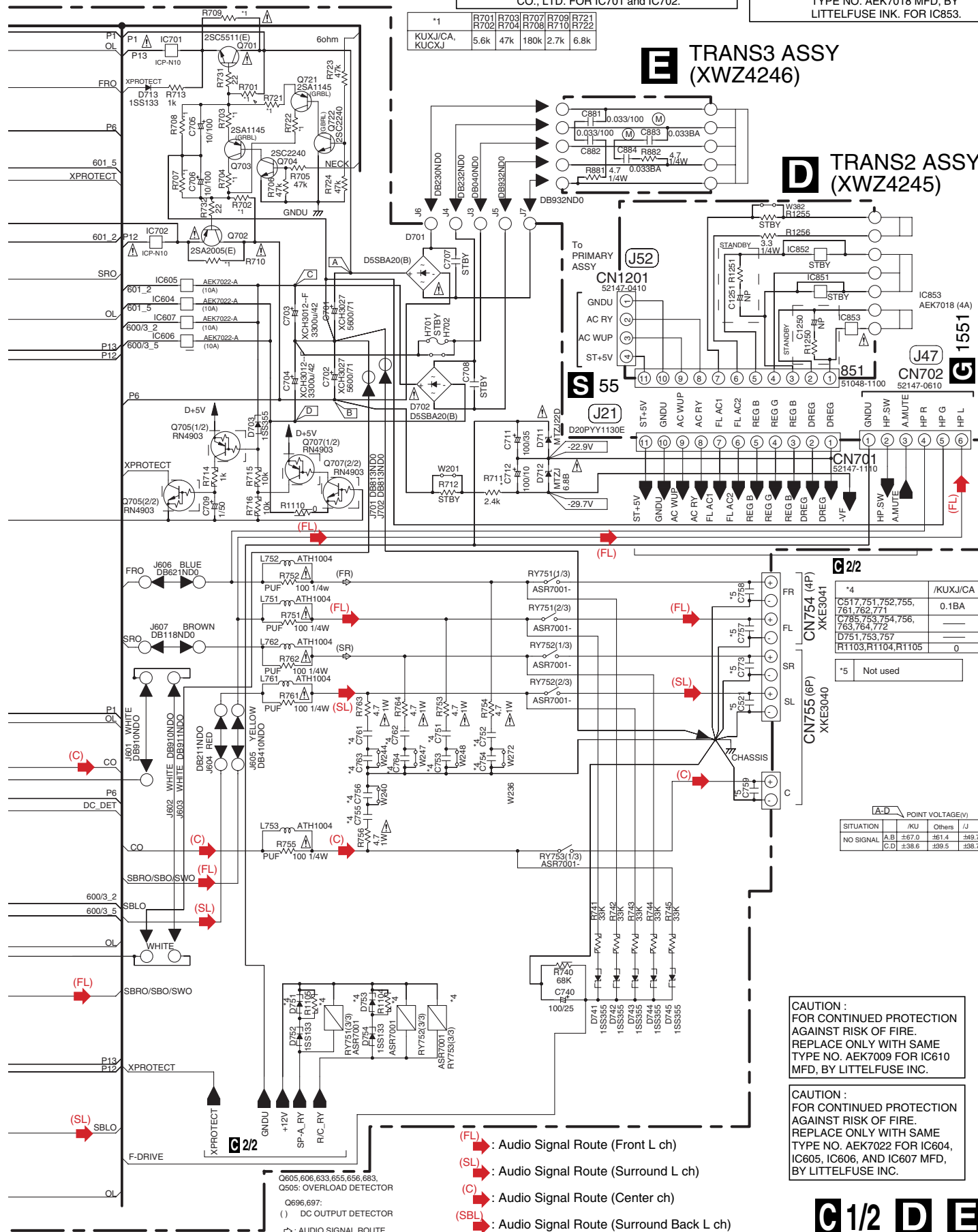
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO., LTD. FOR IC701 and IC702.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. AEK7018 MFD, BY LITTELFUSE INC. FOR IC853.

*1	R701 KUXJ/CA, KUCXJ	R703 5.6k	R704 47k	R707 180k	R709 2.7k	R721 6.8k	R722
----	---------------------------	--------------	-------------	--------------	--------------	--------------	------

E TRANS3 ASSY (XWZ4246)

D TRANS2 ASSY (XWZ4245)



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. AEK7009 FOR IC610 MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. AEK7022 FOR IC604, IC605, IC606, AND IC607 MFD, BY LITTELFUSE INC.

POINT VOLTAGE(V)			
SITUATION	AB	JKU	Others
NO SIGNAL	±17.0	±14.4	±19.7
C/D	±38.6	±39.5	±38.7

C 1/2 D E

3.9 POWER PACK ASSY (2/2)

C 2/2 POWER PACK ASSY (XWZ4232)

A

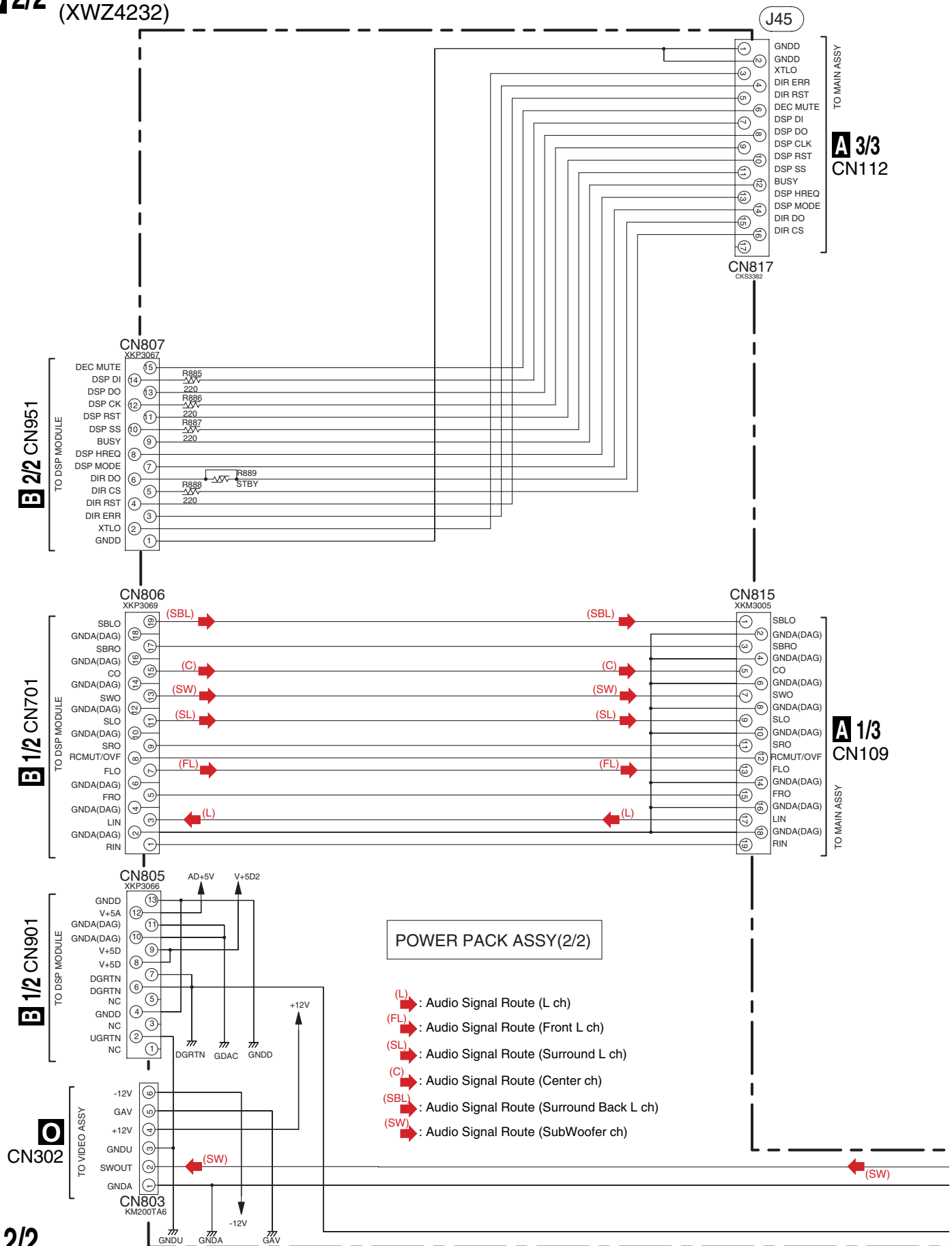
B

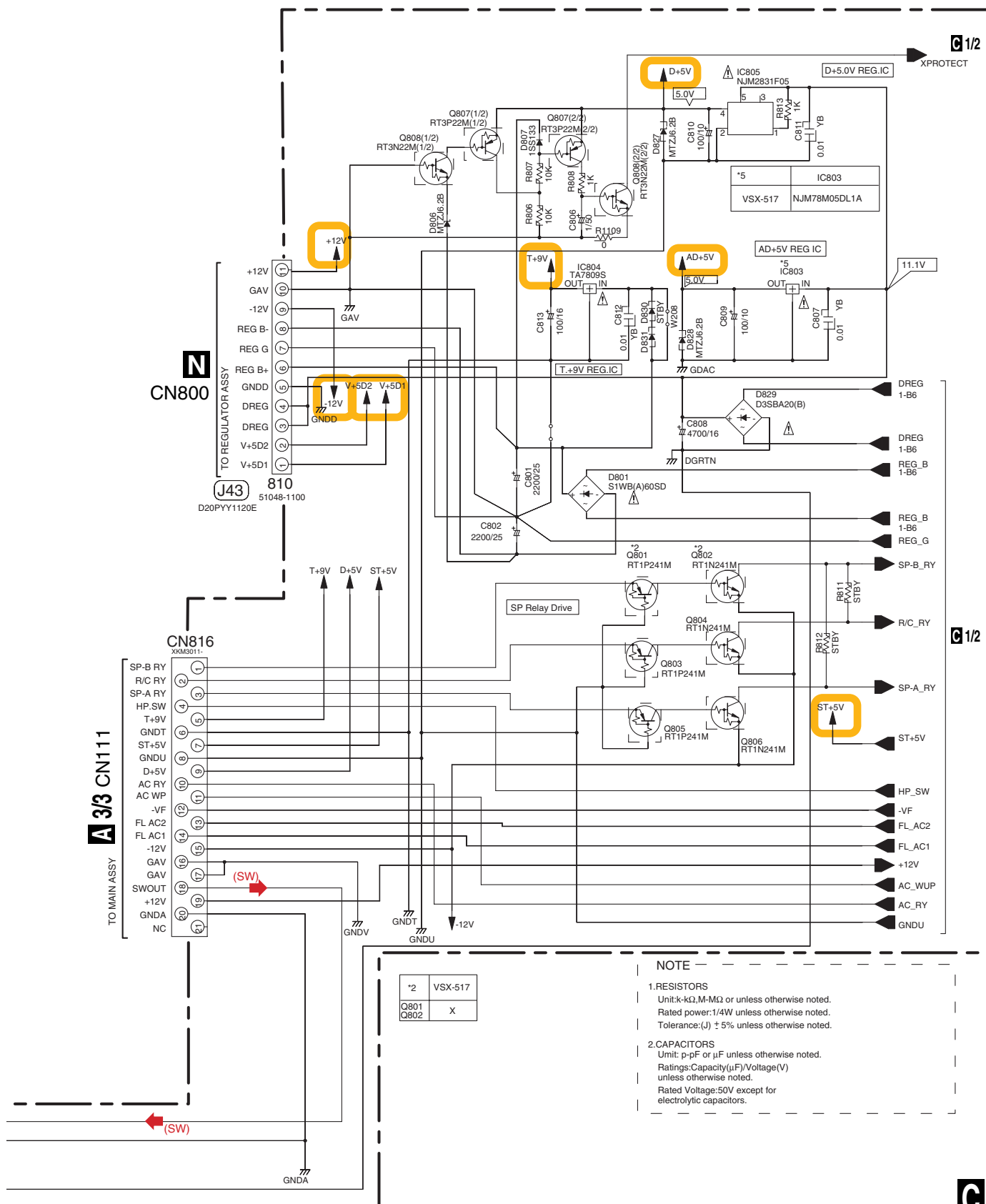
C

D

E

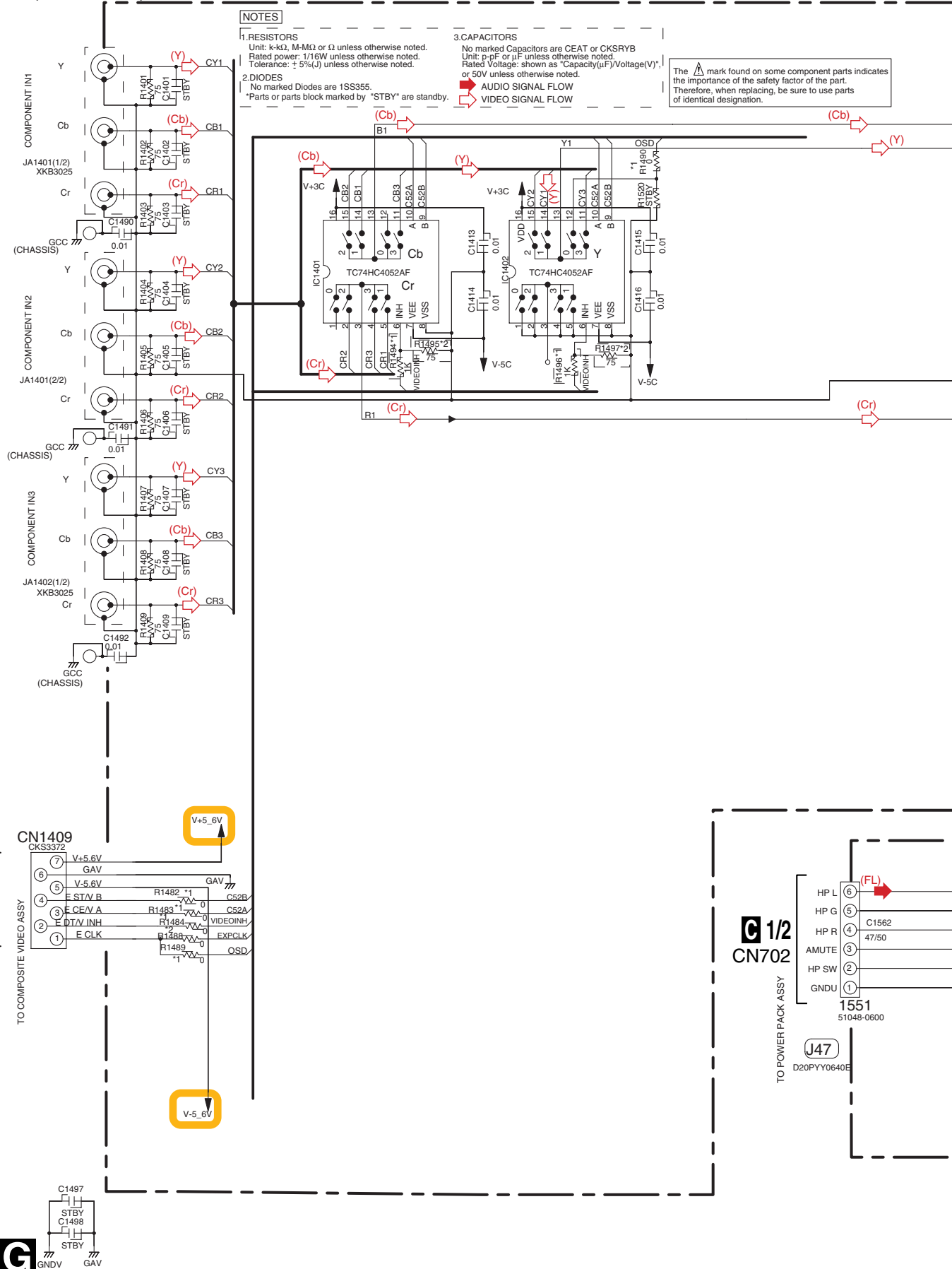
F

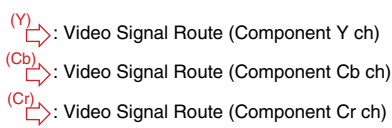




3.10 COMPONENT VIDEO, HEAD PHONE and 5.1CH INPUT ASSYS

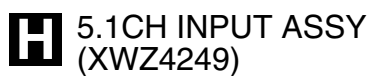
COMPONENT VIDEO ASSY (XWZ4247)





	VSX-517
*1	○
*2	X

F



G HEAD PHONE ASSY
(XWZ4265) (FL) 

(FL) : Audio Signal Route (Front L ch)
(SL) : Audio Signal Route (Surround L ch)
(C) : Audio Signal Route (Center ch)
(SW) : Audio Signal Route (SubWoofer ch)

F G H

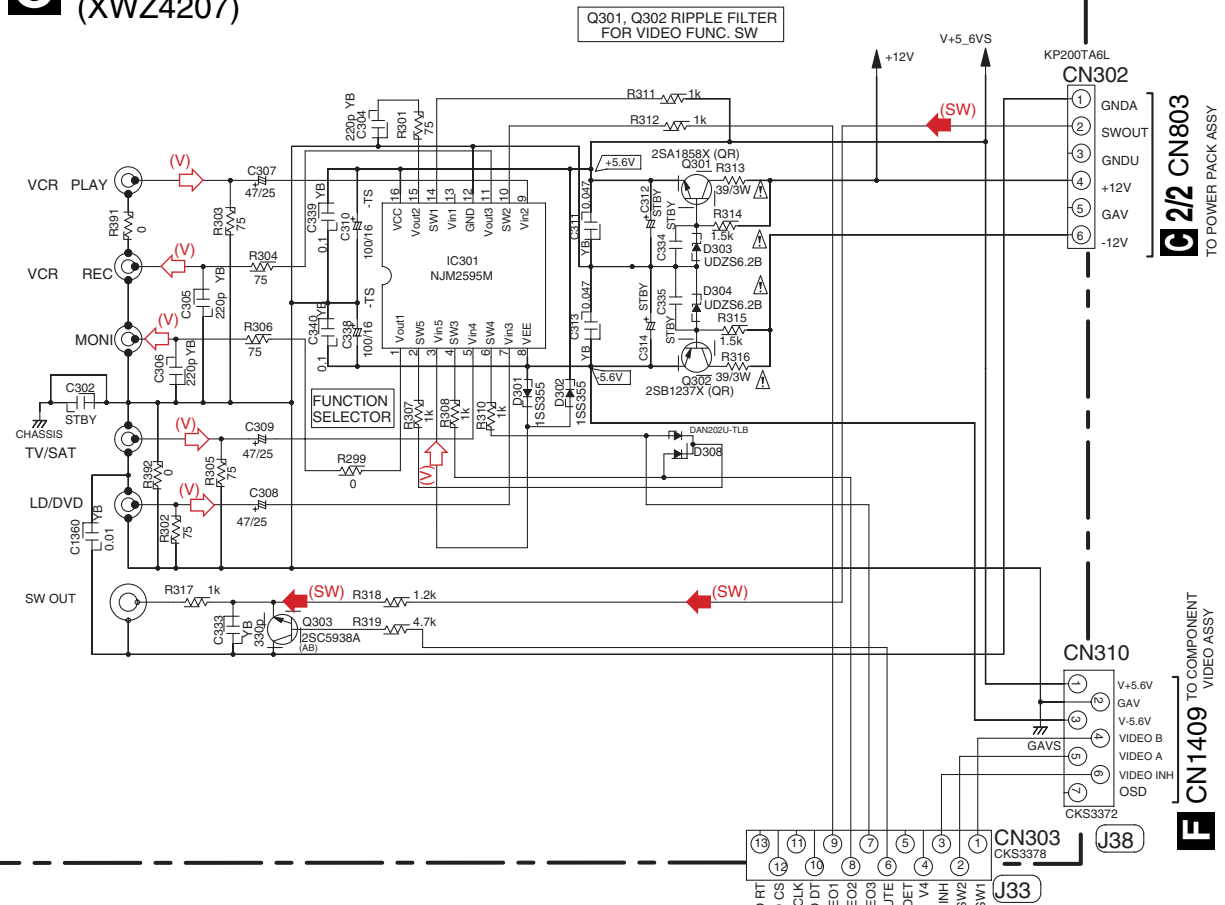
4





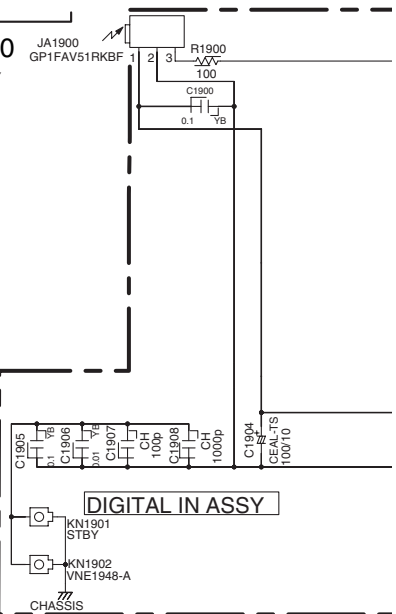
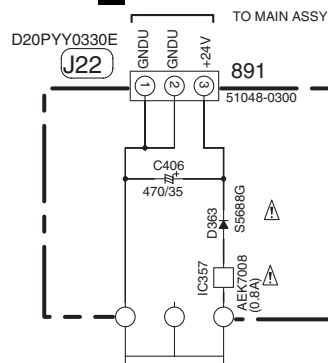
3.12 TRANS4, REGULATOR, VIDEO, DIGITAL INPUT, PRIMARY and TRANS1 ASSY

VIDEO ASSY (XWZ4207)



TRANS4 ASSY (XWZ4225)

A 2/3 CN251



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. AEK7008 MFD, BY LITTELFUSE INK. FOR IC357.

(V) : Video Signal Route
(L) : Audio Signal Route (L ch)
(SW) : Audio Signal Route (SubWoofer ch)

- NOTE**
- 1.RESISTORS**
Unit: k- Ω , M-M Ω or Ω unless otherwise noted.
Rated power: 1/16W 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 expect for electrolytic capacitors.

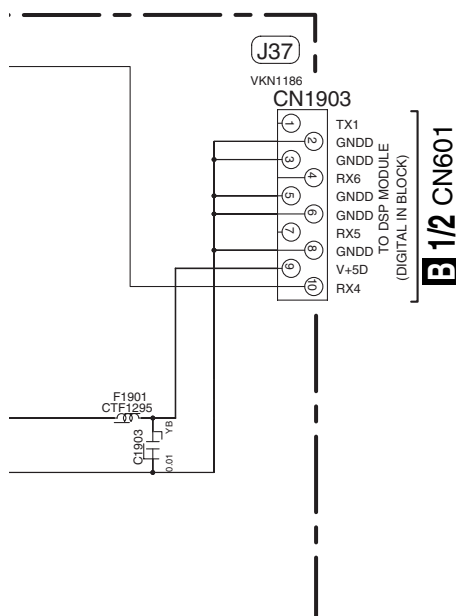
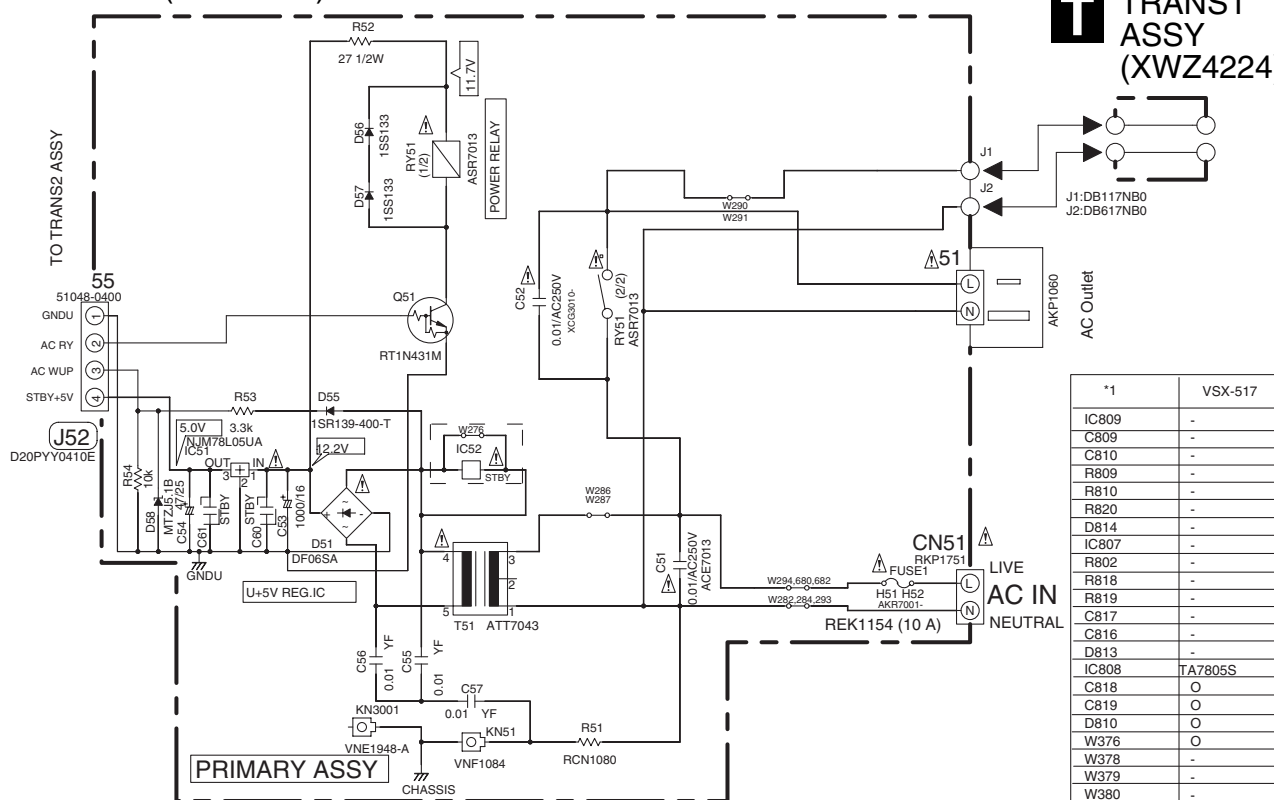
• NOTE FOR FUSE REPLACEMENT

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

S PRIMARY ASSY
(XWZ4215)

T TRANS1
ASSY
(XWZ4224)

D CN1201



Q DIGITAL INPUT ASSY
(XWZ4211)

N REGULATOR ASSY
(XWZ4271)

N Q S T

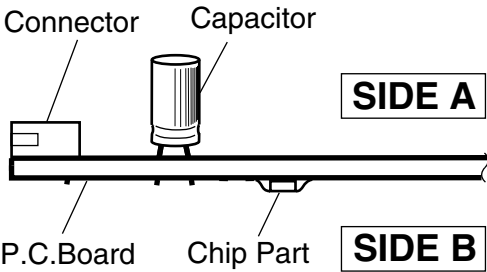
4. PCB CONNECTION DIAGRAM

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.



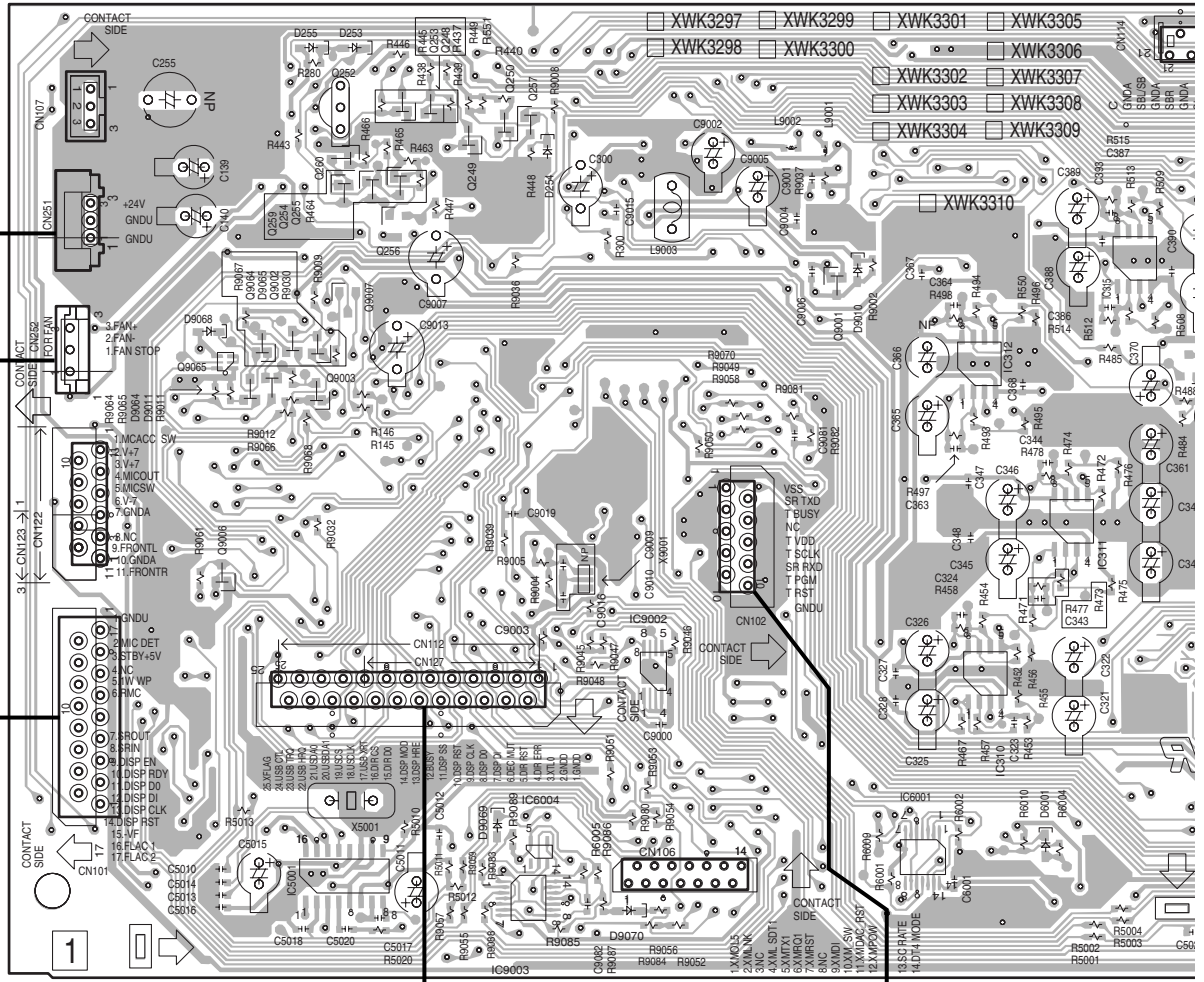
4.2 MAIN ASSY

SIDE A

A MAIN ASSY

DC Fan Motor

I CN401



(XNP3116-B)

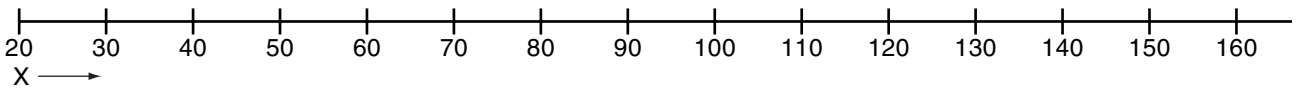
CN127

CN106

CN102

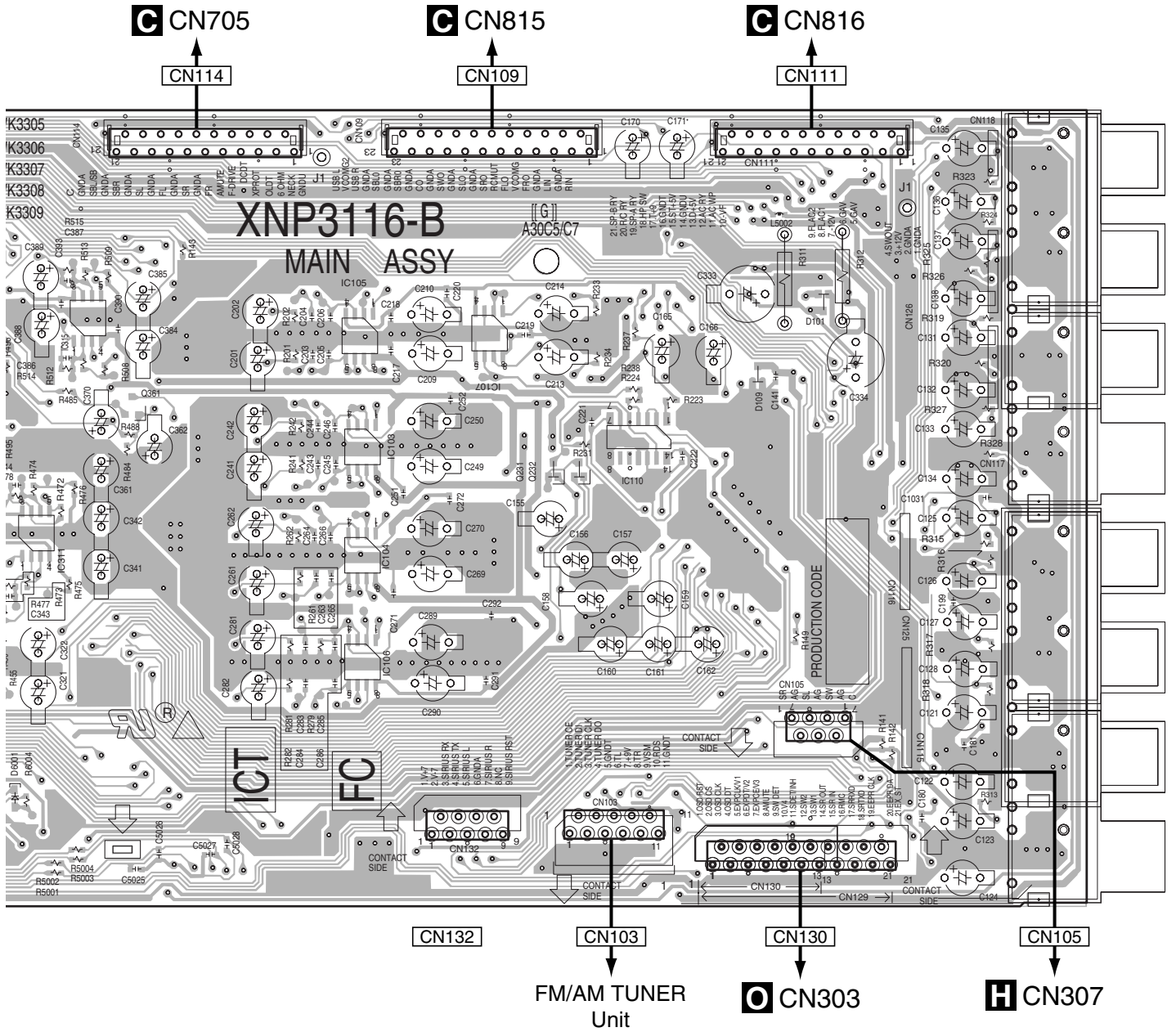
C CN817

for FLASH



VSX-517-K

A



150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

SIDE B

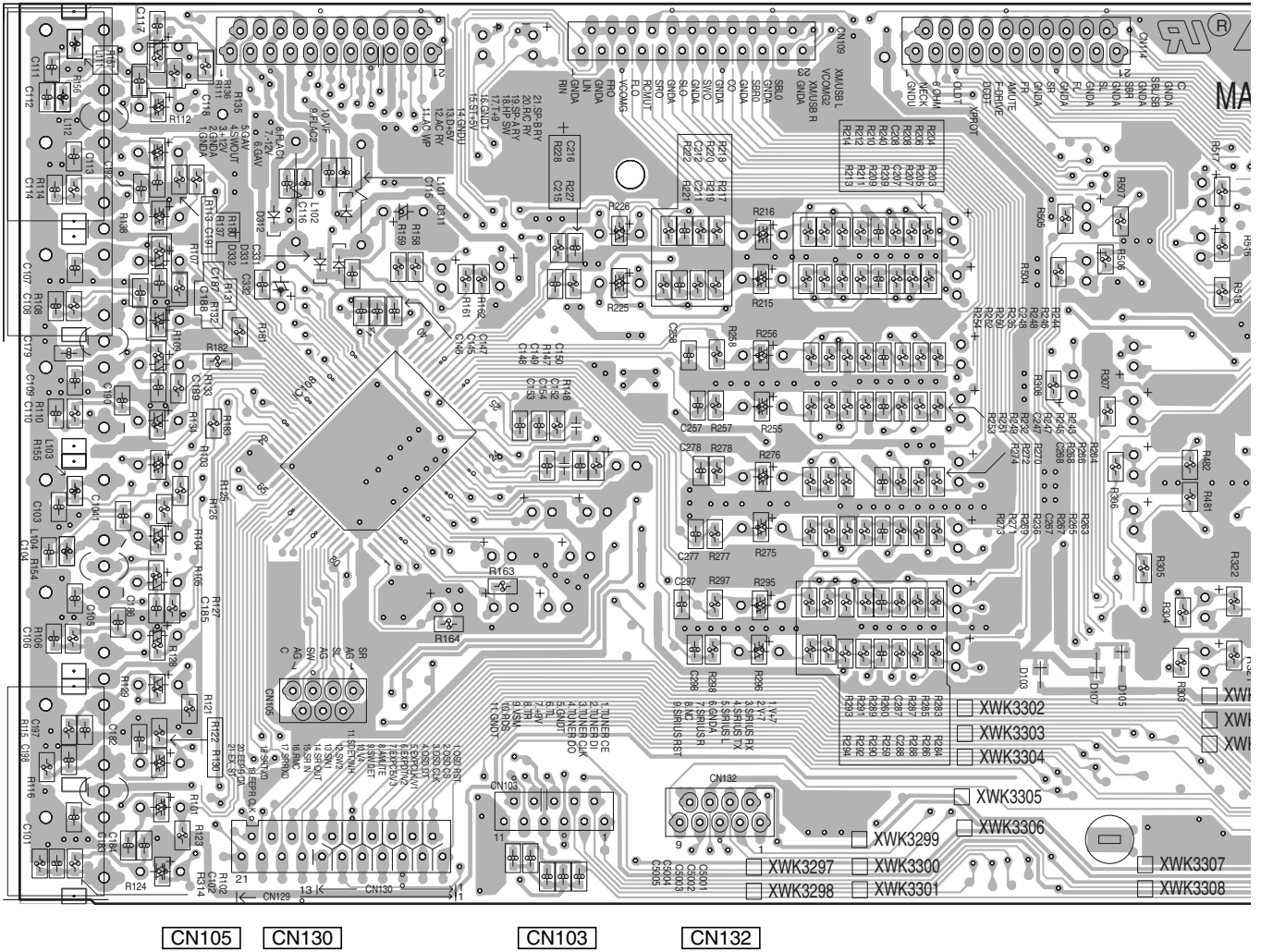
2

4

A MAIN ASSY CN111

CN109

CN114



CN105

CN130

CN103

CN132

A

40

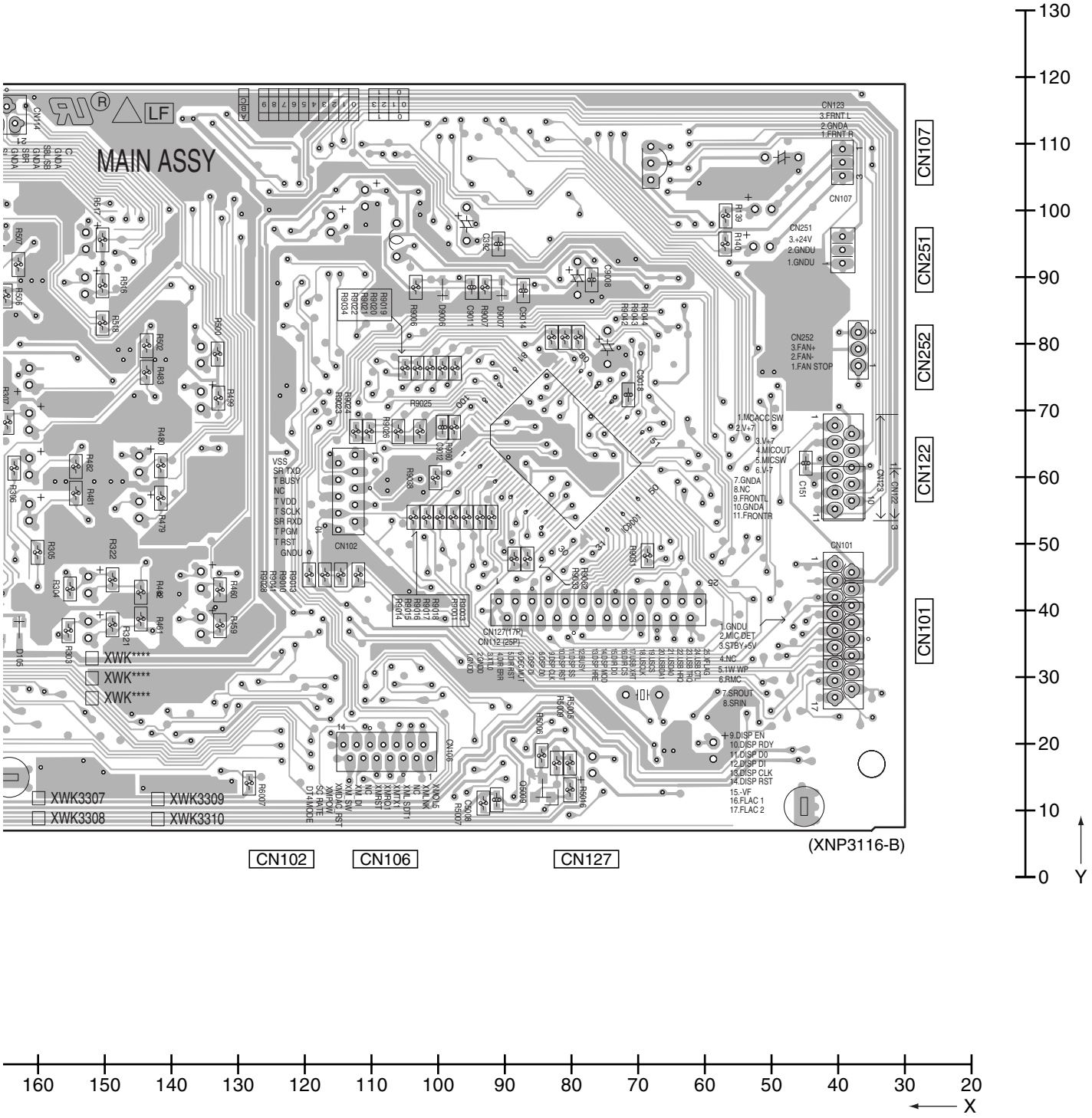
2

4

VSX-517-K

2

4



△

A

D



F

1

2

3

C POWER PACK ASSY



C

1

2

3

4

VSX-517-K

A



C

E

F

SIDE B

POWER PACK ASSY

CN803

CN701

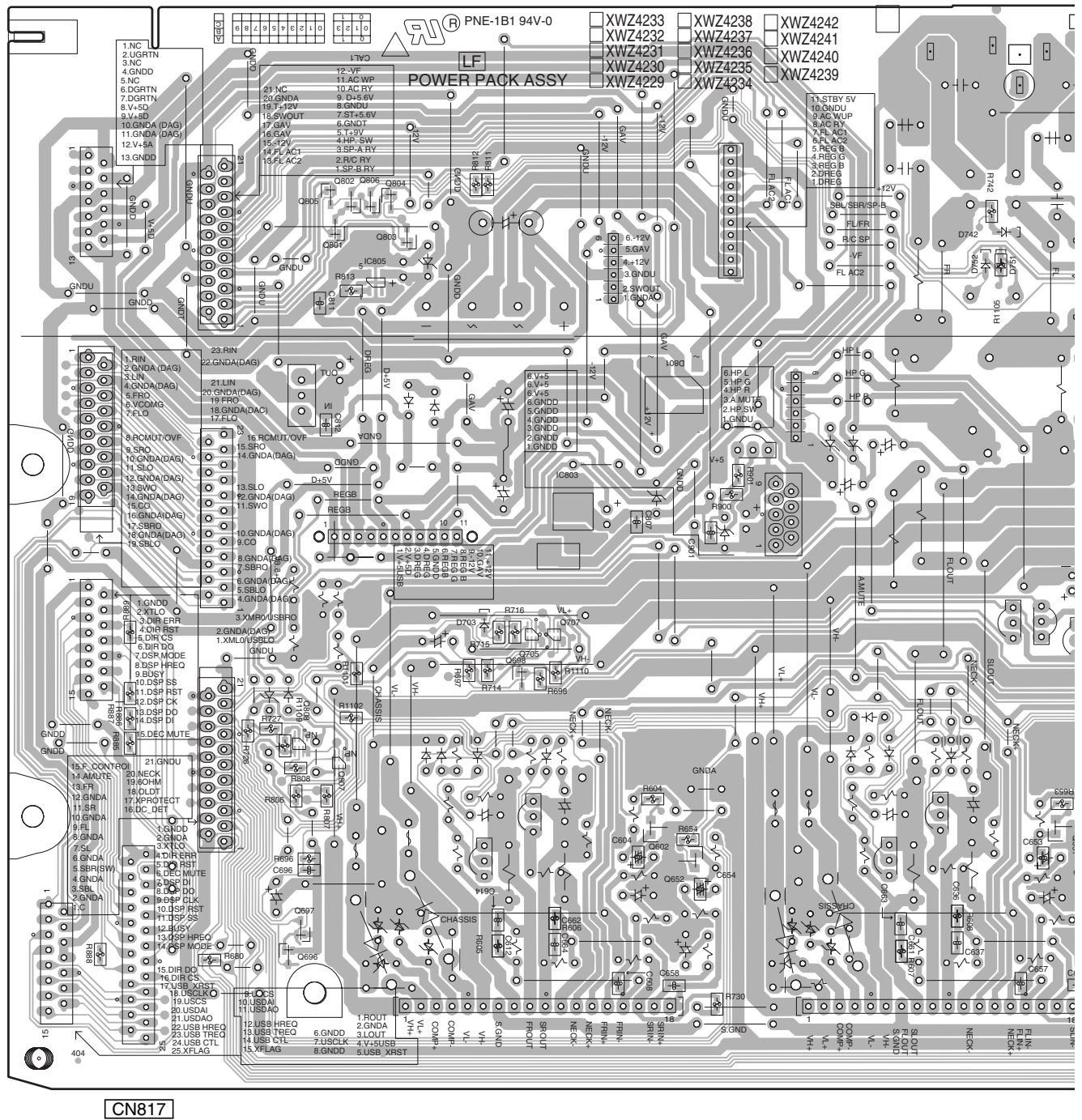
CN702

CN805

CN816

810

CN808



320 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160

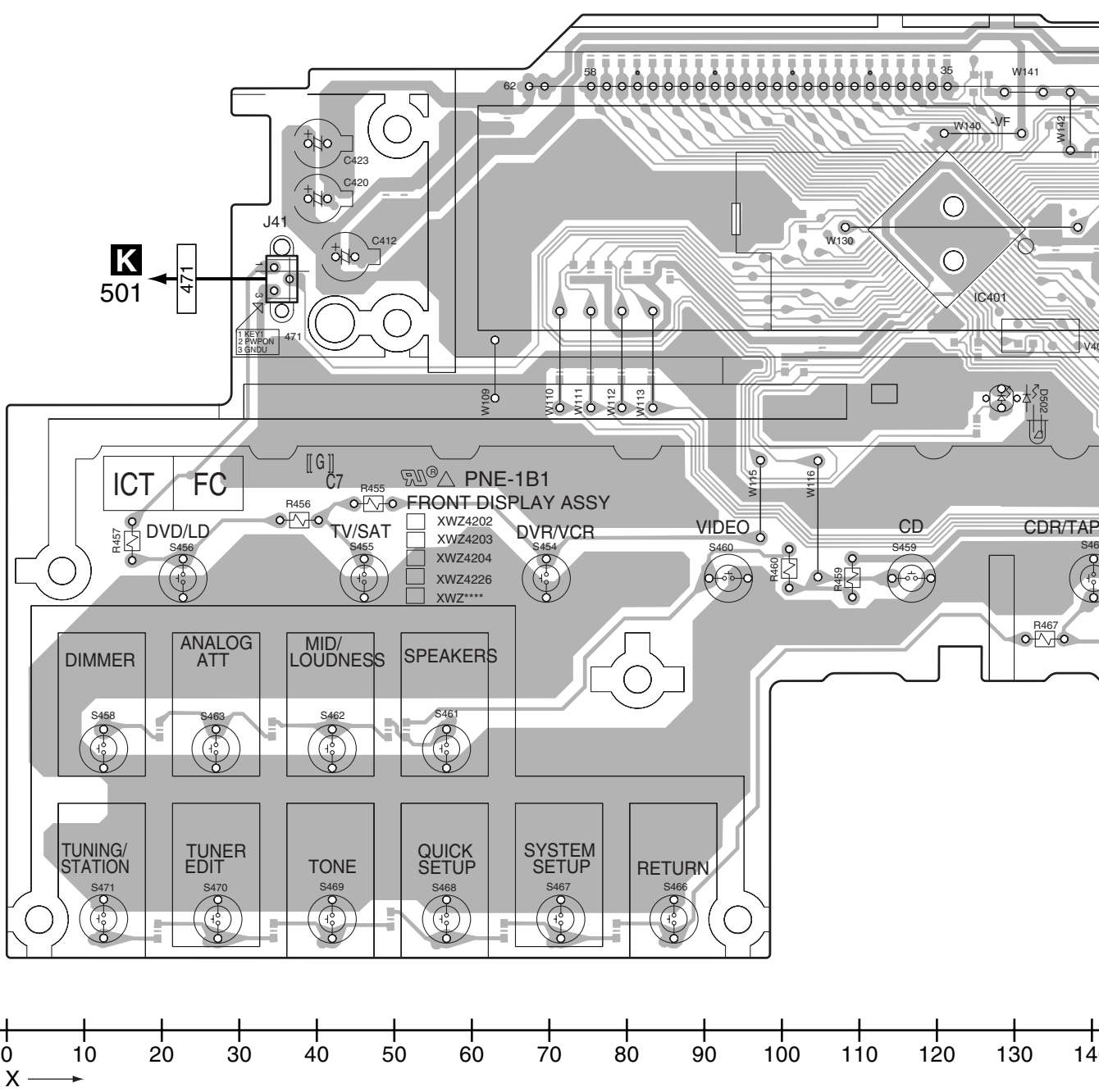
4

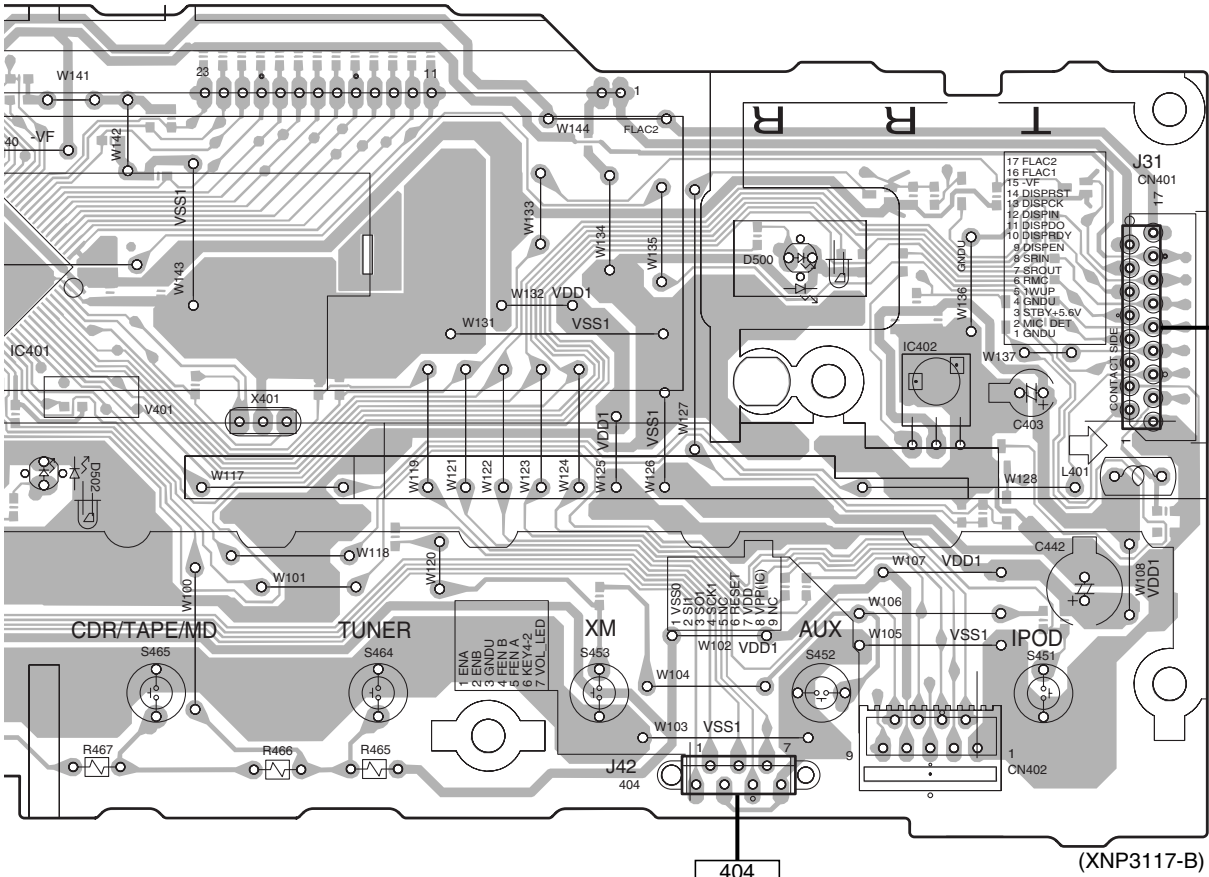
1 2 3 4

4.8 FRONT DISPLAY ASSY

SIDE A

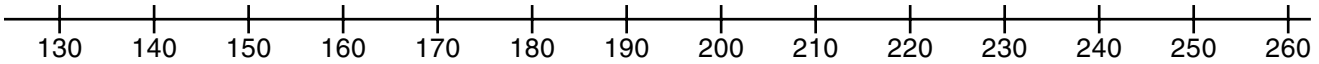
I FRONT DISPLAY ASSY





A CN101

J 511



1

2

3

4

SIDE B

A

B

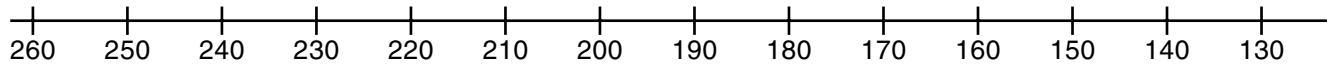
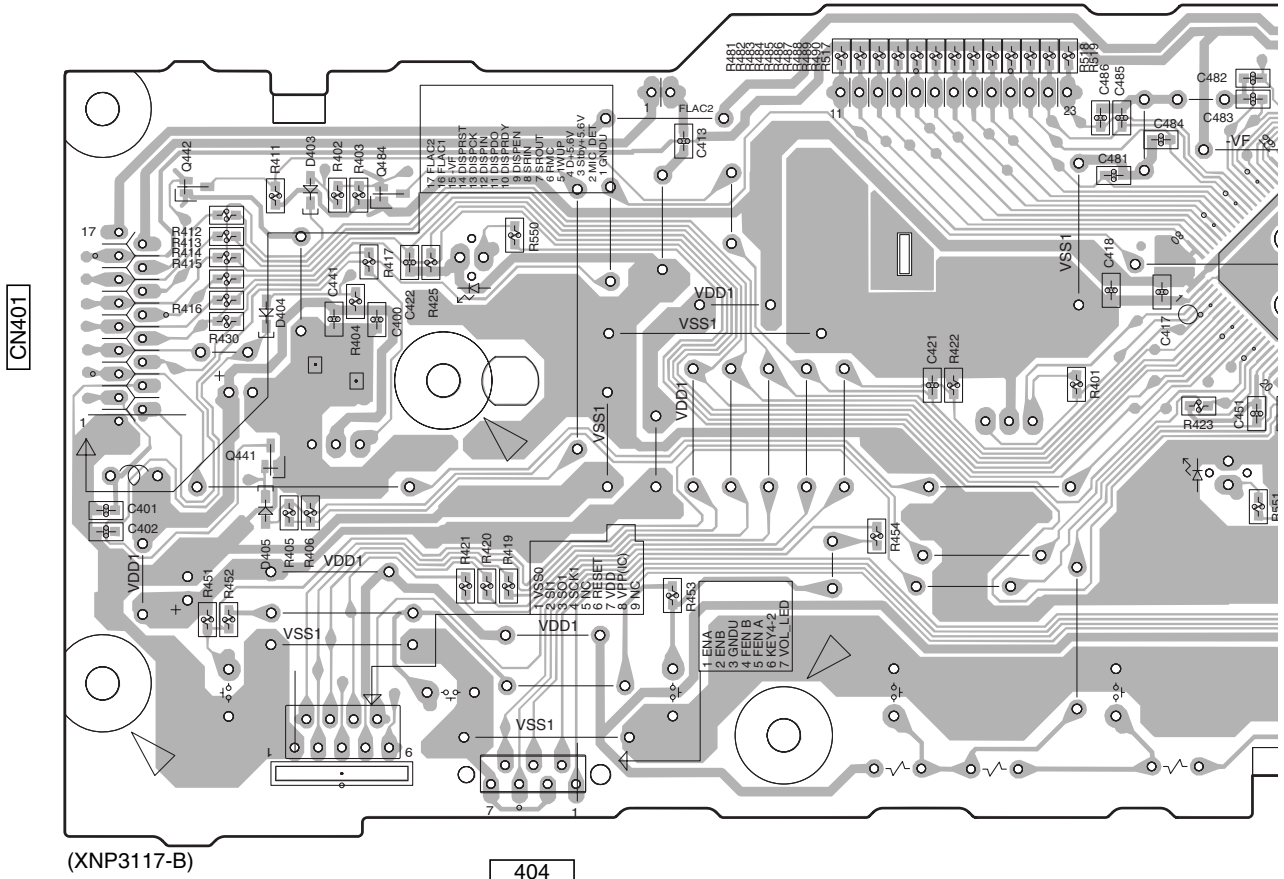
C

D

E

F

FRONT DISPLAY ASSY

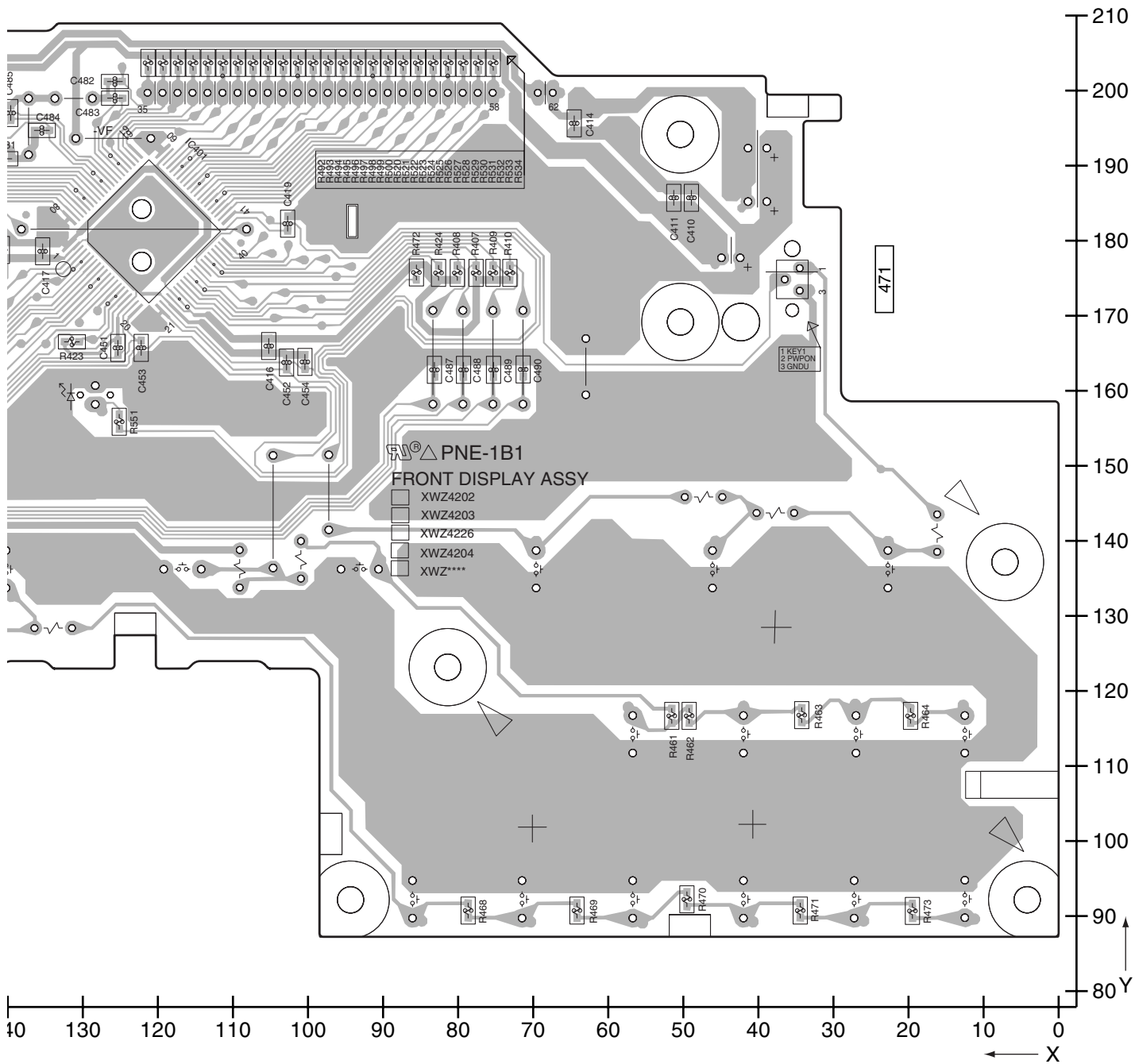


1

2

3

4



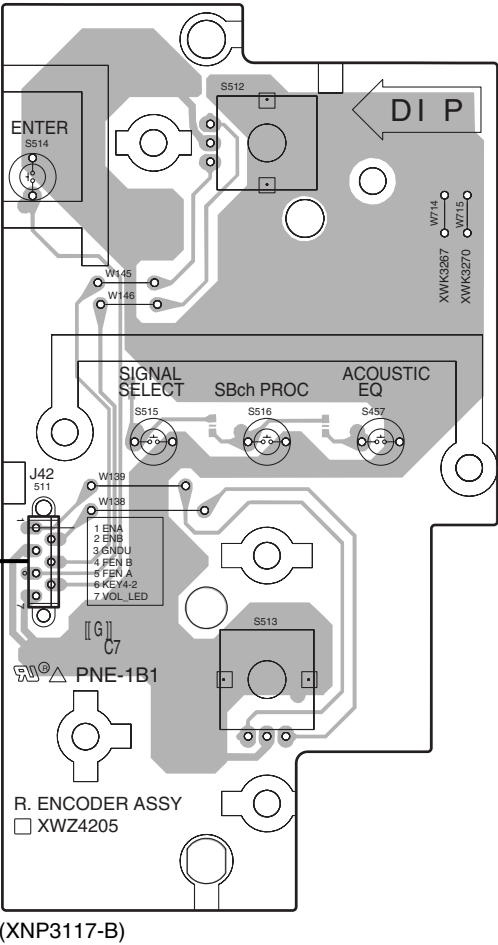
1 2 3 4

4.9 ROTARY ENCODER and POWER KEY ASSYS

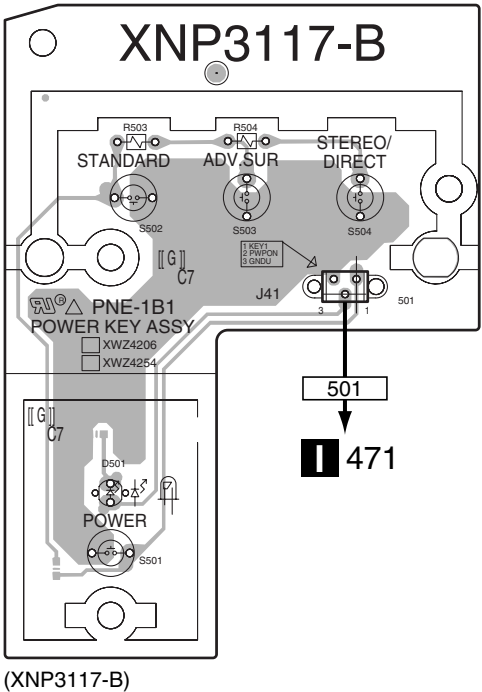
SIDE A

SIDE A

J ROTARY ENCODER ASSY



K POWER KEY ASSY

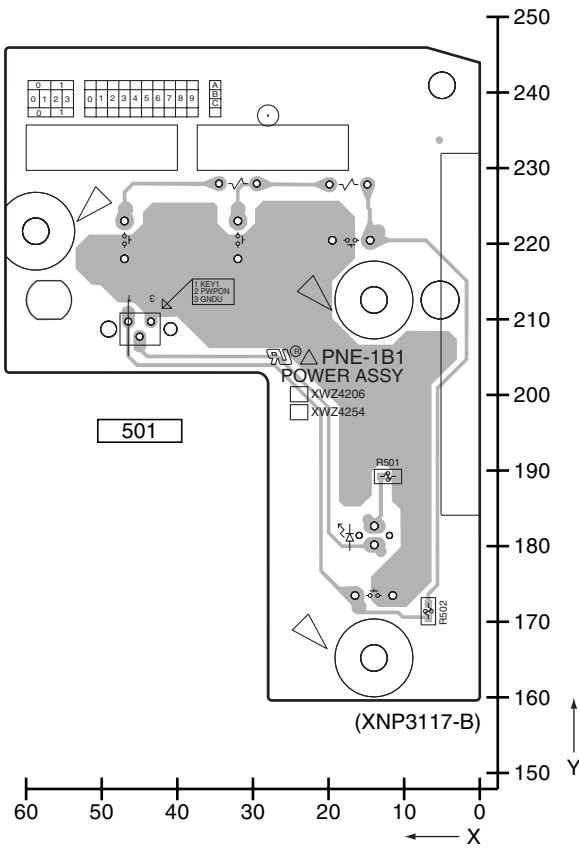


J K

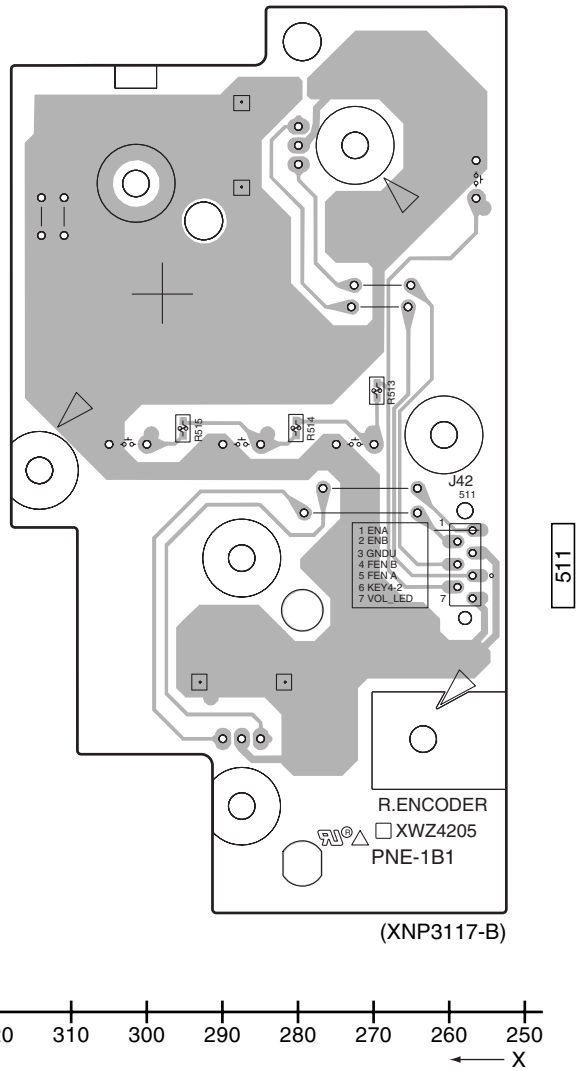
SIDE B

SIDE B

K POWER KEY ASSY



J ROTARY ENCODER ASSY



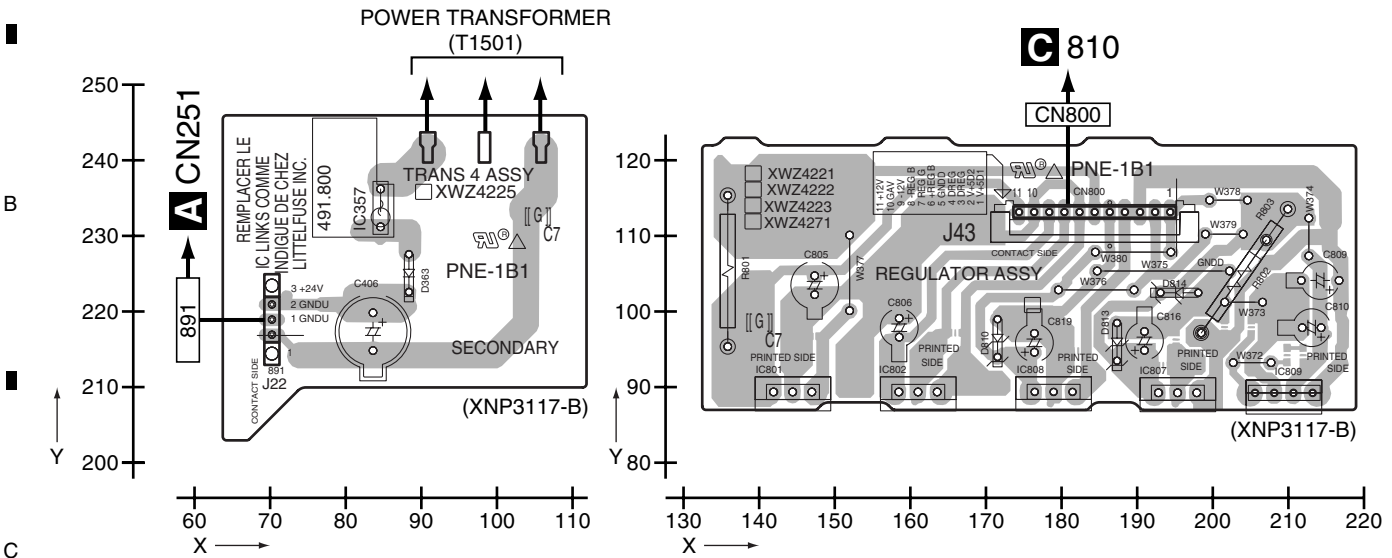
J K

1 2 3 4

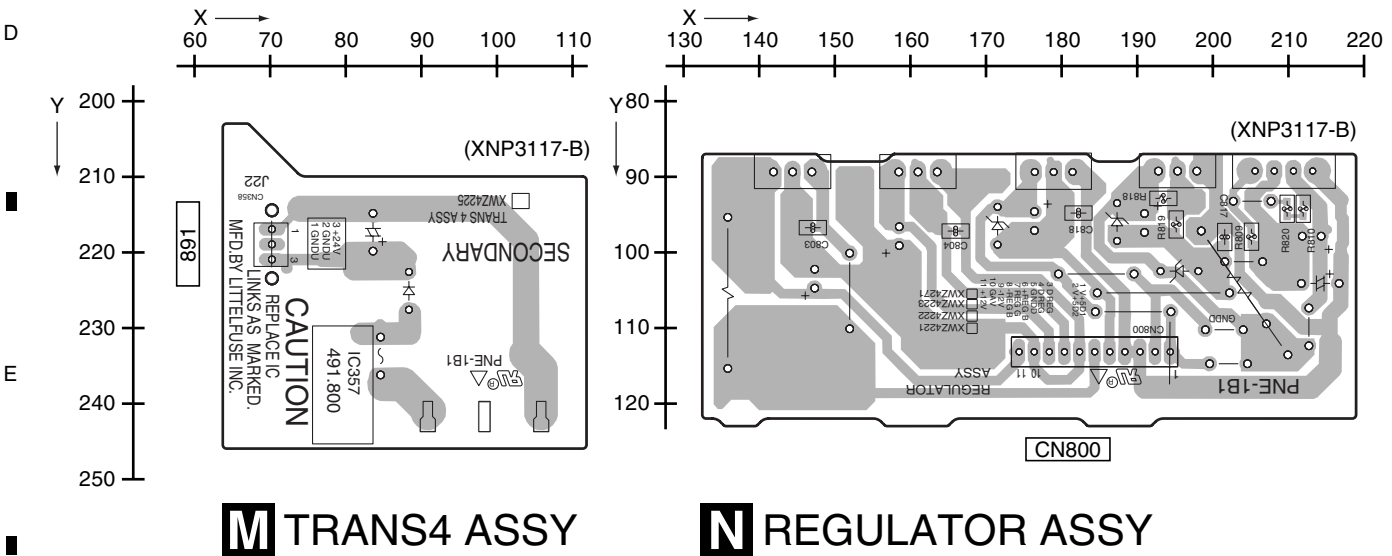
4.10 TRANS4 and REGULATOR ASSYS

A **SIDE A** **SIDE A**

M TRANS4 ASSY **N** REGULATOR ASSY



SIDE B **SIDE B**



F **M** **N**

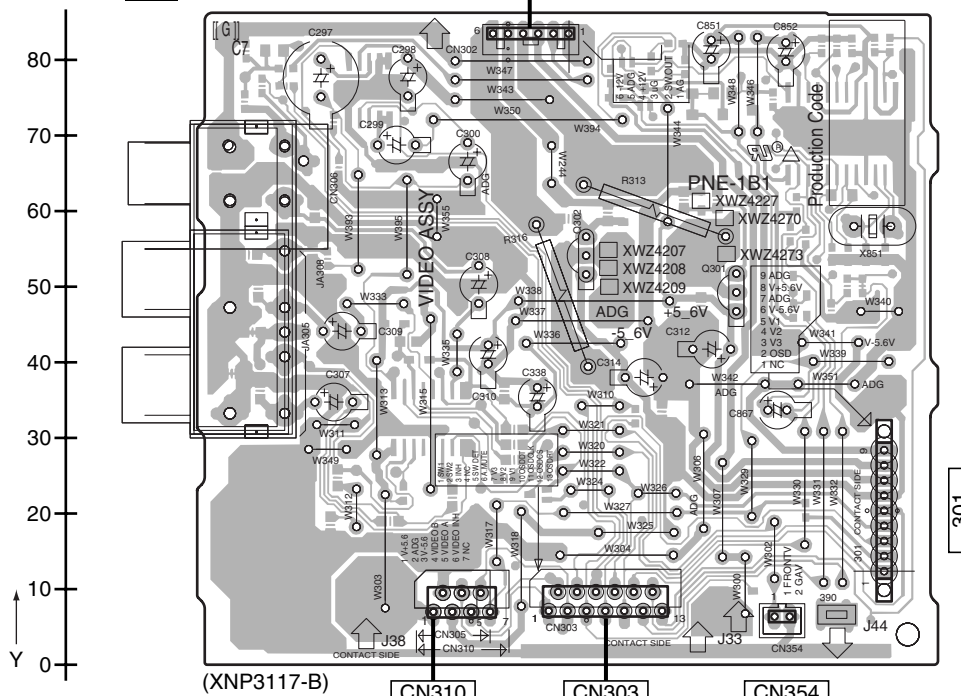
4.11 VIDEO ASSY

SIDE A

VIDEO ASSY

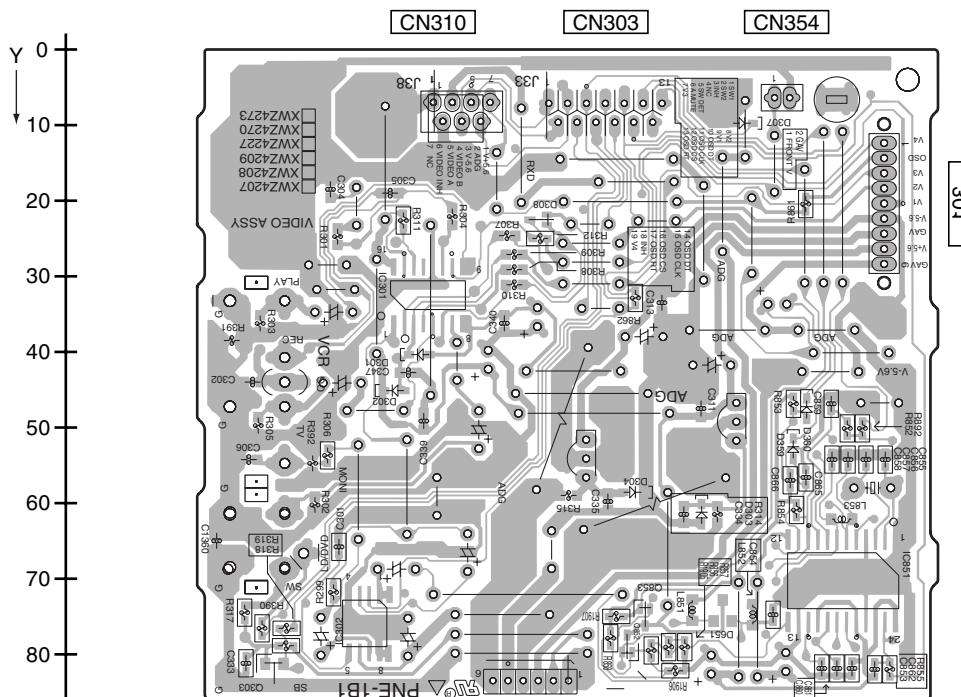
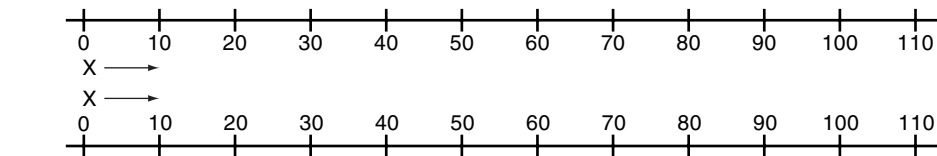
CN803

SIDE A



SIDE B

SIDE B



VIDEO ASSY

CN302

(XNP3117-B)

VSX-517-K



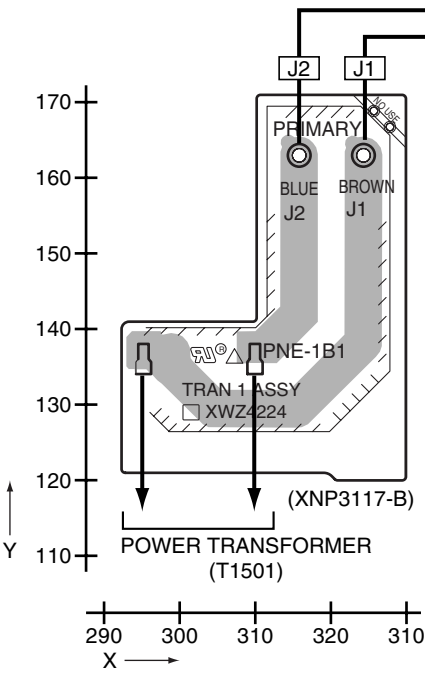
1 2 3 4

4.12 PRIMARY and TRANS1 ASSYS

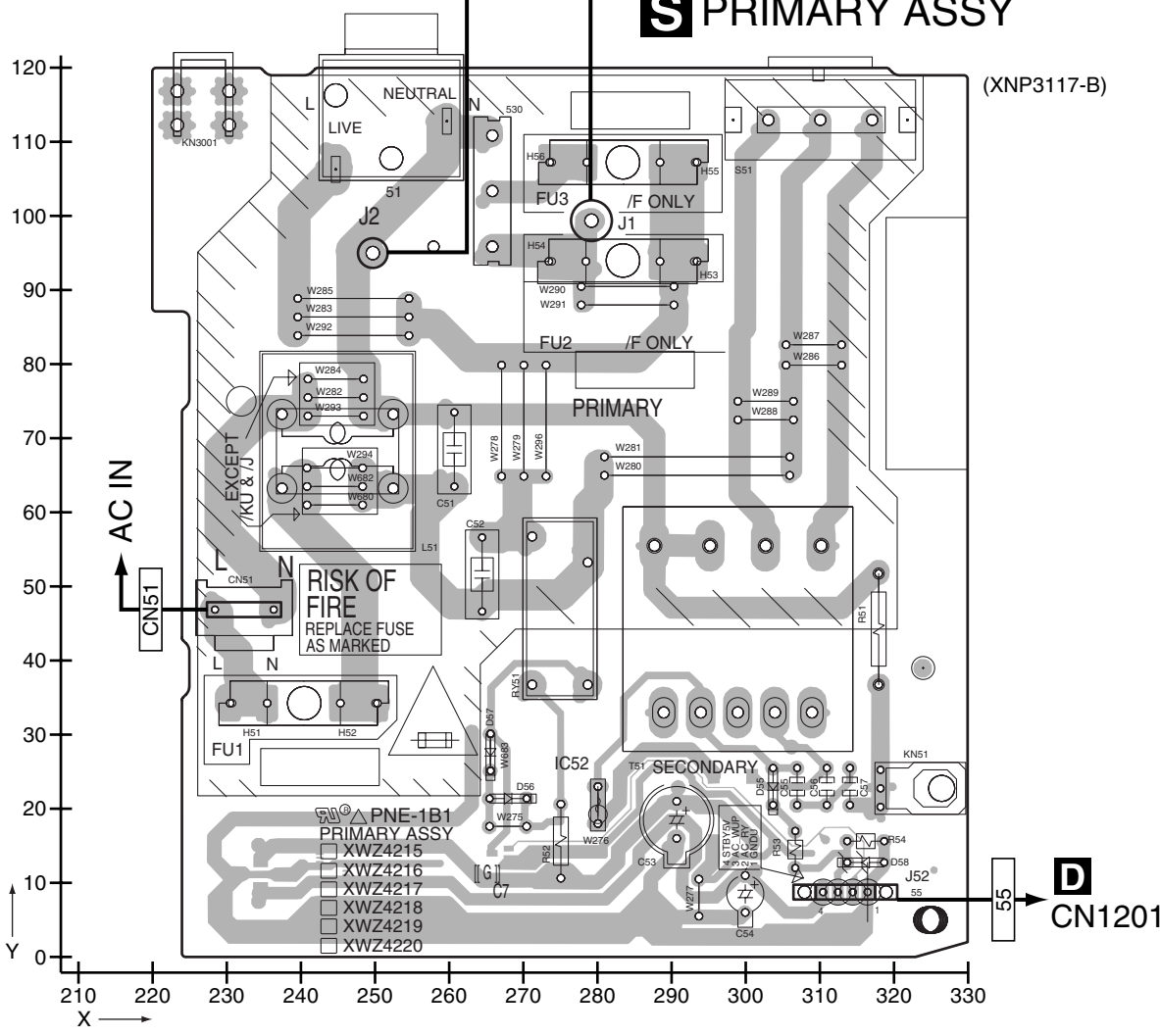
SIDE A

SIDE A

T TRANS1 ASSY



S PRIMARY ASSY

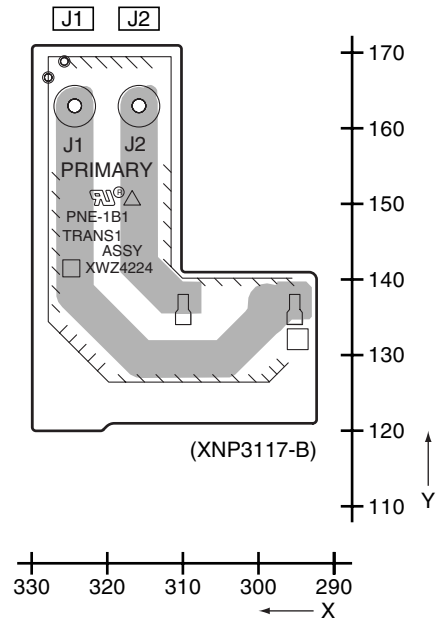


S T

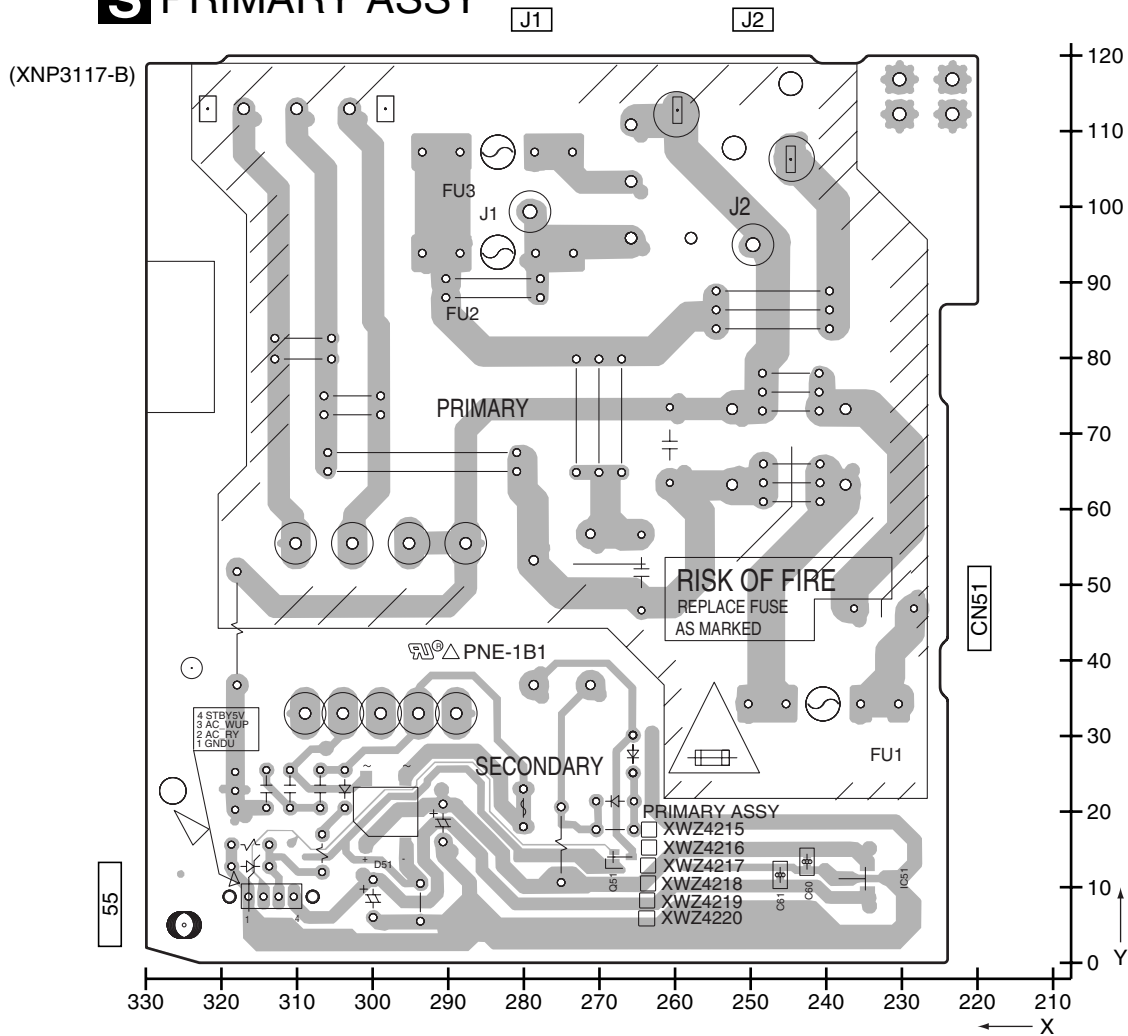
SIDE B

SIDE B

T TRANS1 ASSY



S PRIMARY ASSY



S T

5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

●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 x 10¹ $\rightarrow$ 561 RD1/4PU 561 J

47k Ω $\rightarrow$ 47 x 10³ $\rightarrow$ 473 RD1/4PU 473 J

0.5 Ω $\rightarrow$ R50 RN2H R50 K

1 Ω $\rightarrow$ 1R0 RS1P 1R0 K

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

5.62k Ω $\rightarrow$ 562 x 10¹ $\rightarrow$ 5621 RN1/4PC 5621 F

●Meaning of the figures and others in the parentheses in the parts list.

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

IC 301 (A, 91, 111) IC NJM2068V

Mark No. Description Part No.

LIST OF ASSEMBLIES

	1..MAIN ASSY	XWK3300
	1..DSP ASSY	AWX8812
NSP	1..AMP ASSY	XWK3286
	2..POWER PACK ASSY	XWZ4232
	2..TRANS2 ASSY	XWZ4243
	2..TRANS3 ASSY	XWZ4246
	2..COMPONENT VIDEO ASSY	XWZ4247
	2..5.1CH INPUT ASSY	XWZ4249
	2..BIND ASSY	XWZ4252
	2..HEAD PHONE ASSY	XWZ4265
NSP	1..COMPLEX ASSY	XWK3270
	2..FRONT DISPLAY ASSY	XWZ4202
	2..ROTARY ENCODER ASSY	XWZ4205
	2..POWER KEY ASSY	XWZ4206
	2..VIDEO ASSY	XWZ4207
	2..DIGITAL INPUT ASSY	XWZ4211
	2..PRIMARY ASSY	XWZ4215
	2..TRANS1 ASSY	XWZ4224
	2..TRANS4 ASSY	XWZ4225
	2..REGULATOR ASSY	XWZ4271
	1..FM/AM TUNER UNIT	AXX7210

Mark No. Description Part No.

AMP ASSY

MISCELLANEOUS

J 6	BOARD IN WIRE	DB230ND0
J 604	BOARD IN WIRE	DB211ND0
J 605	BOARD IN WIRE	DB410ND0
J 606	BOARD IN WIRE	DB621ND0
J 607	BOARD IN WIRE	DB118ND0

COMPLEX ASSY

MISCELLANEOUS

J 41	JUMPER WIRE	D15A03-100-2651
J 42	JUMPER WIRE	D15A07-125-2651

Mark No. Description Part No.

A MAIN ASSY MISCELLANEOUS

IC 103 (A,198,72)	DUAL OP-AMP	NJM4565MD
IC 104 (A,198,56)	DUAL OP-AMP	NJM4565MD
IC 105 (A,198,87)	DUAL OP-AMP	NJM4565MD
IC 107 (A,216,88)	DUAL OP-AMP	NJM4565MD
IC 108 (B,255,64)	8CH E-VOL	R2S15205FP(P)
IC 110 (A,237,73)	IC	TC4066BFN
IC 310 (A,142,42)	DUAL OP-AMP	NJM4565MD
IC 311 (A,152,60)	DUAL OP-AMP	NJM4565MD
IC 312 (A,142,78)	DUAL OP-AMP	NJM4565MD
IC 9001(B,82,64)	CPU	PEG377A
IC 9002(A,104,42)	EEPROM	BR24L16FV-W
Q 231 (A,225,69)	DIGITAL TR(SC-70)	RT1P241M
Q 232 (A,229,69)	TRANSISTOR	RT1N241M
Q 248 (A,79,108)	TRANSISTOR	2SC4081
Q 249 (A,83,104)	TRANSISTOR	RT1N241M
Q 250 (A,87,105)	TRANSISTOR	2SC4081
Q 252 (A,68,105)	TRANSISTOR	2SD1858X
Q 253 (A,75,108)	TRANSISTOR	RT1N241M
Q 254 (A,72,98)	DIGITAL TR(SC-70)	RT1P241M
Q 255 (A,75,98)	TRANSISTOR	RT1N241M
Q 257 (A,90,105)	TRANSISTOR	2SA1576A
Q 361 (A,166,78)	TRANSISTOR	2SC5938A
Q 9001(A,125,87)	DIGITAL TR(SC-70)	RT1N431M
Q 9002(A,66,80)	DIGITAL TR(SC-70)	RT1P241M
Q 9003(A,65,75)	DIGITAL TR(SC-70)	RT1P241M
Q 9007(A,69,85)	TRANSISTOR	DTC143TK
Q 9064(A,59,80)	DIGITAL TR(SC-70)	RT1P241M
Q 9065(A,55,78)	TRANSISTOR	UMD2N
D 103 (B,173,35)	DIODE	DAN217U
D 105 (B,163,37)	DIODE	DAN217U
D 107 (B,166,37)	DIODE	DAN217U
D 253 (A,70,114)	DIODE	UDZS27(B)
D 254 (A,92,102)	DIODE	UDZS5R1(B)
D 311 (B,259,93)	DIODE	1SS355
D 312 (B,268,93)	DIODE	1SS355
D 331 (B,260,87)	DIODE	UDZS6R8(B)
D 332 (B,263,87)	DIODE	UDZS6R8(B)
D 9006(B,99,89)	DIODE	DAN217U
D 9007(B,91,89)	DIODE	DAN217U
D 9010(A,128,88)	DIODE	1SS355

5		6	7		8	
Mark No.	Description	Part No.	Mark No.	Description	Part No.	
D 9011(A,60,75)	DIODE	DAN202U	R 221 (B,220,84)		RS1/16S472J	
D 9064(A,58,75)	DIODE	DAP202U	R 222 (B,219,91)		RS1/16S472J	
D 9065(A,63,80)	DIODE	DAP202U	R 223 (A,242,78)		RS1/16S472J	A
D 9068(A,53,81)	DIODE	1SS355	R 224 (A,236,78)		RS1/16S472J	
L 101 (B,260,98)	CHIP SOLID INDUCTOR	QTL1013	R 225 (B,225,84)		RS1/16S392J	
L 102 (B,265,97)	CHIP SOLID INDUCTOR	QTL1013	R 226 (B,225,91)		RS1/16S392J	
L 5002(A,257,104)	CHIP SOLID INDUCTOR	QTL1013	R 231 (A,229,72)		RS1/16S104J	
L 9001(A,124,102)	CHIP SOLID INDUCTOR	ATL7002	R 233 (A,231,91)		RS1/16S474J	
L 9002(A,120,103)	CHIP SOLID INDUCTOR	ATL7002	R 234 (A,231,84)		RS1/16S474J	
L 9003(A,106,98)	RADIAL INDUCTOR	LFCA2R2J	R 237 (A,237,88)		RS1/16S122J	
X 9001(A,96,53)	CERAMIC RESONATOR (15.7 MHz)	XSS3004	R 238 (A,236,80)		RS1/16S122J	
CN101 (A,41,27)	CONNECTOR	CKS3382	R 241 (A,190,69)		RS1/16S473J	
CN102 (A,113,63)	CONNECTOR	52045-1045	R 242 (A,190,74)		RS1/16S473J	
CN103 (A,227,17)	11P CONNECTOR	52044-1145	R 245 (B,188,69)		RS1/16S332J	B
CN105 (A,266,34)	CONNECTOR	CKS3372	R 246 (B,188,75)		RS1/16S332J	
CN109 (A,230,113)	19P SOCKET	XKP3054	R 247 (B,190,69)		RS1/16S332J	
CN111 (A,274,113)	21P SOCKET	XKP3091	R 248 (B,190,75)		RS1/16S332J	
CN112 (A,91,41)	CONNECTOR	CKS3382	R 249 (B,197,69)		RS1/16S332J	
CN114 (A,189,113)	21P SOCKET	XKP3091	R 250 (B,197,75)		RS1/16S332J	
CN125 (A,302,42)	6P PIN JACK	XKB3055	R 251 (B,199,69)		RS1/16S182J	
CN130 (A,247,13)	CONNECTOR	CKS3378	R 252 (B,199,75)		RS1/16S182J	
CN142	8P PIN JACK	XKB3067	R 261 (A,189,53)		RS1/16S473J	
CN251 (A,39,92)	3P JUMPER CONNECTOR	52147-0310	R 262 (A,189,59)		RS1/16S473J	
CN252 (A,37,77)	3P TOP POST	B3B-EH	R 264 (B,186,60)		RS1/16S392J	
RESISTORS			R 265 (B,188,53)		RS1/16S332J	C
R 103 (B,283,62)		RS1/16S222J	R 266 (B,188,60)		RS1/16S472J	
R 104 (B,283,52)		RS1/16S222J	R 267 (B,190,53)		RS1/16S332J	
R 105 (B,283,48)		RS1/16S331J	R 268 (B,190,60)		RS1/16S123J	
R 106 (B,293,40)		RS1/16S331J	R 269 (B,197,53)		RS1/16S332J	
R 107 (B,283,88)		RS1/16S331J	R 270 (B,197,60)		RS1/16S122J	
R 108 (B,293,81)		RS1/16S331J	R 271 (B,199,53)		RS1/16S182J	
R 109 (B,283,75)		RS1/16S331J	R 272 (B,199,60)		RS1/16S272J	
R 110 (B,293,68)		RS1/16S331J	R 274 (B,202,60)		RS1/16S271J	
R 111 (B,283,112)		RS1/16S222J	R 280 (A,65,112)		RS1/16S0R0J	
R 112 (B,283,106)		RS1/16S222J	R 303 (B,156,37)		RS1/16S101J	
R 113 (B,283,101)		RS1/16S331J	R 304 (B,155,43)		RS1/16S101J	D
R 114 (B,293,96)		RS1/16S331J	R 305 (B,160,49)		RS1/16S101J	
R 129 (B,283,34)		RS1/16S331J	R 306 (B,164,61)		RS1/16S101J	
R 130 (B,283,25)		RS1/16S331J	R 307 (B,165,68)		RS1/16S101J	
R 145 (A,71,73)		RS1/16S102J	R 308 (B,171,72)		RS1/16S101J	
R 146 (A,71,74)		RS1/16S102J	R 311 (A,258,102)	METAL OXIDE RESISTOR	RS1LMF101J	
R 147 (B,233,67)		RS1/16S472J	R 312 (A,266,102)	METAL OXIDE RESISTOR	RS1LMF101J	
R 148 (B,228,62)		RS1/16S472J	R 437 (A,81,108)		RS1/16S103J	
R 149 (A,259,45)		RS1/16S104J	R 438 (A,79,112)		RS1/16S103J	
R 180 (B,278,97)		RS1/16S0R0J	R 439 (A,80,112)		RS1/16S103J	
R 181 (B,273,78)		RS1/16S0R0J	R 440 (A,87,108)		RS1/16S103J	
R 182 (B,275,75)		RS1/16S0R0J	R 443 (A,63,104)		RS1/16S471J	E
R 183 (B,276,67)		RS1/16S0R0J	R 445 (A,73,107)		RS1/16S223J	
R 201 (A,189,85)		RS1/16S473J	R 448 (A,90,102)		RS1/16S104J	
R 202 (A,189,90)		RS1/16S473J	R 449 (A,83,108)		RS1/16S822J	
R 205 (B,189,85)		RS1/16S392J	R 453 (A,147,36)		RS1/16S362J	
R 206 (B,189,91)		RS1/16S392J	R 454 (A,142,48)		RS1/16S362J	
R 207 (B,191,85)		RS1/16S392J	R 457 (A,141,36)		RS1/16S153J	
R 208 (B,191,91)		RS1/16S392J	R 458 (A,140,47)		RS1/16S153J	
R 209 (B,198,85)		RS1/16S392J	R 459 (B,133,38)		RS1/16S103J	
R 210 (B,198,91)		RS1/16S392J	R 460 (B,133,43)		RS1/16S103J	
R 211 (B,200,85)		RS1/16S332J	R 464 (A,77,99)		RS1/16S0R0J	
R 212 (B,200,91)		RS1/16S332J	R 473 (A,151,53)		RS1/16S362J	F
			R 474 (A,152,66)		RS1/16S362J	
			R 477 (A,149,52)		RS1/16S153J	

	Mark No.	Description	Part No.	Mark No.	Description	Part No.
A	R 478	(A,150,65)	RS1/16S153J	CAPACITORS		
	R 479	(B,142,57)	RS1/16S103J	C 115	(B,262,98)	CKSRYB103K50
	R 480	(B,142,62)	RS1/16S103J	C 116	(B,267,97)	CKSRYB103K50
	R 484	(A,165,71)	RS1/16S104J	C 117	(B,283,116)	CCSRCH220J50
	R 485	(A,157,80)	RS1/16S472J	C 118	(B,285,109)	CCSRCH220J50
	R 493	(A,141,71)	RS1/16S362J	C 121	(A,280,34)	CEAT100M50
B	R 494	(A,141,84)	RS1/16S362J	C 122	(A,280,25)	CEAT100M50
	R 497	(A,139,69)	RS1/16S153J	C 125	(A,280,62)	CEAT100M50
	R 498	(A,139,83)	RS1/16S153J	C 126	(A,280,53)	CEAT100M50
	R 499	(B,133,72)	RS1/16S103J	C 127	(A,280,47)	CEAT100M50
	R 500	(B,133,79)	RS1/16S103J	C 128	(A,280,40)	CEAT100M50
	R 502	(B,144,80)	RS1/16S204J	C 131	(A,280,87)	CEAT100M50
C	R 551	(A,85,108)	RS1/16S822J	C 132	(A,280,80)	CEAT100M50
	R 9001	(B,94,54)	RS1/16S0R0J	C 133	(A,280,74)	CEAT100M50
	R 9002	(A,129,89)	RS1/16S473J	C 134	(A,280,67)	CEAT100M50
	R 9003	(B,92,54)	RS1/16S0R0J	C 135	(A,280,114)	CEAT100M50
	R 9006	(B,103,89)	RS1/16S474J	C 136	(A,280,106)	CEAT100M50
	R 9007	(B,93,89)	RS1/16S474J	C 137	(A,280,101)	CEAT100M50
D	R 9008	(A,93,107)	RS1/16S221J	C 138	(A,280,93)	CEAT100M50
	R 9009	(A,65,85)	RS1/16S473J	C 141	(A,256,82)	CKSRYB104K50
	R 9010	(B,115,45)	RS1/16S512J	C 145	(B,256,81)	CCSRCH101J50
	R 9011	(A,63,76)	RS1/16S102J	C 146	(B,258,81)	CCSRCH101J50
	R 9012	(A,63,73)	RS1/16S0R0J	C 147	(B,253,81)	CKSRYB103K50
	R 9013	(B,112,45)	RS1/16S471J	C 148	(B,238,67)	CKSRYB223K25
E	R 9014	(B,104,54)	RS1/16S471J	C 149	(B,235,67)	CKSRYB473K25
	R 9015	(B,102,54)	RS1/16S471J	C 150	(B,231,67)	CKSQYB154K16
	R 9016	(B,100,54)	RS1/16S471J	C 151	(B,45,62)	CKSRYB103K50
	R 9017	(B,98,54)	RS1/16S471J	C 152	(B,230,62)	CKSRYB223K25
	R 9018	(B,96,54)	RS1/16S471J	C 153	(B,234,62)	CKSRYB473K25
	R 9019	(B,98,76)	RS1/16S471J	C 154	(B,232,62)	CKSQYB154K16
F	R 9020	(B,99,76)	RS1/16S471J	C 155	(A,226,62)	CEAT101M10
	R 9021	(B,101,76)	RS1/16S471J	C 156	(A,229,56)	CEAT101M10
	R 9022	(B,103,76)	RS1/16S471J	C 157	(A,236,56)	CEAT101M10
	R 9023	(B,112,67)	RS1/16S103J	C 158	(A,232,50)	CEAT101M10
	R 9025	(B,103,67)	RS1/16S562J	C 159	(A,241,50)	CEAT101M10
	R 9026	(B,106,67)	RS1/16S103J	C 160	(A,234,44)	CEAT101M10
G	R 9028	(B,119,45)	RS1/16S104J	C 161	(A,241,44)	CEAT101M10
	R 9030	(A,68,79)	RS1/16S470J	C 162	(A,248,44)	CEAT101M10
	R 9031	(B,69,48)	RS1/16S104J	C 165	(A,240,86)	CEAT1R0M50
	R 9032	(A,66,59)	RS1/16S104J	C 166	(A,248,86)	CEAT1R0M50
	R 9033	(B,89,48)	RS1/16S104J	C 179	(B,294,76)	CKSRYB103K50
	R 9036	(A,88,89)	RS1/16S221J	C 180	(A,277,19)	CKSRYB103K50
H	R 9037	(A,124,99)	RS1/16S104J	C 199	(A,281,50)	CKSRYB103K50
	R 9039	(A,87,57)	RS1/16S104J	C 201	(A,183,85)	CEAT2R2M50
	R 9041	(B,117,45)	RS1/16S104J	C 202	(A,184,92)	CEAT2R2M50
	R 9045	(A,97,46)	RS1/16S471J	C 205	(A,193,85)	CCSRCH331J50
	R 9046	(A,107,46)	RS1/16S471J	C 206	(A,194,90)	CCSRCH331J50
	R 9047	(A,98,46)	RS1/16S103J	C 207	(B,193,85)	CCSRCH331J50
I	R 9048	(A,98,43)	RS1/16S103J	C 208	(B,193,91)	CCSRCH331J50
	R 9060	(B,98,68)	RS1/16S473J	C 213	(A,223,84)	CEAT100M50
	R 9062	(B,87,48)	RS1/16S471J	C 214	(A,223,90)	CEAT100M50
	R 9064	(A,54,74)	RS1/16S103J	C 217	(A,202,85)	CKSRYB103K50
	R 9065	(A,56,74)	RS1/16S103J	C 218	(A,202,90)	CKSRYB103K50
	R 9066	(A,62,72)	RS1/16S103J	C 219	(A,221,87)	CKSRYB104K16
J	R 9067	(A,57,83)	RS1/16S103J	C 220	(A,210,93)	CKSRYB104K16
	R 9068	(A,64,71)	RS1/16S0R0J	C 221	(A,230,75)	CKSRYB103K50
	R 9081	(A,120,72)	RS1/16S221J	C 222	(A,243,70)	CKSRYB103K50
	R 9082	(A,122,69)	RS1/16S274J	C 241	(A,183,70)	CEAT2R2M50
				C 242	(A,183,77)	CEAT2R2M50
				C 245	(A,194,69)	CCSRCH331J50

[illegible]

	1		2		3		4
	Mark No.	Description	Part No.		Mark No.	Description	Part No.
A	R 665	(A,99,58)	RS1/16SS0R0J		R 981	(A,14,38)	RS1/16SS0R0J
	R 666	(A,98,58)	RS1/16SS0R0J		R 982	(A,15,38)	RS1/16SS0R0J
	R 667	(A,97,58)	RS1/16SS0R0J				
	R 701	(B,78,35)	RS1/16S470J				
	R 702	(B,75,35)	RS1/16S101J				
■	R 704	(B,70,27)	RS1/16S4R7J				
	R 705	(A,60,18)	RS1/16SS101J				
	R 706	(A,63,18)	RS1/16SS101J				
	R 707	(A,65,18)	RS1/16SS101J				
■	R 708	(A,68,18)	RS1/16SS101J				
	R 709	(A,70,18)	RS1/16SS101J				
	R 710	(A,73,18)	RS1/16SS101J				
	R 711	(A,75,18)	RS1/16SS101J				
B	R 712	(A,78,18)	RS1/16SS101J				
	R 713	(A,86,30)	RS1/16S470J				
	R 714	(A,85,36) RESISTOR ARRAY	RAB4CQ101J				
	R 801	(A,48,48)	RS1/16SS470J				
■	R 802	(A,40,50) RESISTOR ARRAY	RAB4CQ101J				
	R 803	(B,44,48)	RS1/16S103J				
	R 804	(B,42,48)	RS1/16S103J				
	R 805	(B,39,42)	RS1/16S103J				
C	R 806	(B,37,42)	RS1/16S103J				
	R 807	(B,35,42)	RS1/16S473J				
	R 810	(A,26,39)	RS1/16SS473J				
	R 811	(A,24,37)	RS1/16SS472J				
	R 812	(B,27,43)	RS1/16S101J				
■	R 813	(A,24,34)	RS1/16SS103J				
	R 815	(A,25,26)	RS1/16SS105J				
	R 816	(A,23,26)	RS1/16SS471J				
	R 817	(A,34,28)	RS1/16SS101J				
	R 818	(B,35,23)	RS1/16S220J				
D	R 819	(B,26,29)	RS1/16S101J				
	R 820	(B,28,29)	RS1/16S0R0J				
	R 822	(B,36,30)	RS1/16S103J				
	R 823	(B,36,36)	RS1/16S473J				
	R 827	(B,48,38)	RS1/16S470J				
■	R 831	(B,42,31)	RS1/16S470J				
	R 832	(A,47,41)	RS1/16SS470J				
	R 833	(A,48,45) RESISTOR ARRAY	RAB4CQ470J				
	R 840	(A,24,33)	RS1/16SS101J				
	R 841	(A,67,38)	RS1/16S473J				
E	R 852	(B,43,27)	RS1/16S222J				
	R 871	(B,59,36)	RS1/16S470J				
	R 872	(B,61,36)	RS1/16S470J				
	R 873	(B,61,44)	RS1/16S470J				
	R 874	(B,59,44)	RS1/16S470J				
■	R 905	(B,118,17)	RS1/16S104J				
	R 906	(B,120,15)	RS1/16S104J				
	R 908	(A,123,13)	RS1/16SS0R0J				
	R 919	(A,113,20)	RS1/16S1202F				
	R 920	(A,115,20)	RS1/16S2002F				
F	R 921	(A,101,20)	RS1/16S1202F				
	R 922	(A,98,20) CHIP RESISTOR	RS1/16S1000F				
	R 951	(B,25,33)	RS1/16S101J				
	R 952	(B,23,33)	RS1/16S101J				
	R 953	(B,21,33)	RS1/16S101J				
■	R 954	(A,17,26) RESISTOR ARRAY	RAB4CQ101J				
	R 955	(A,14,26) RESISTOR ARRAY	RAB4CQ101J				
	R 962	(A,32,18) RESISTOR ARRAY	RAB4CQ104J				
	R 970	(A,37,18) RESISTOR ARRAY	RAB4CQ104J				

5			7			8		
Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.
C 833 (A,48,43)		CKSSYB104K10	D 606 (A,259,57)	DIODE	1SS133			
C 834 (A,41,23)		CEVW101M16	D 608 (A,253,52)	DIODE	1SS133			
C 835 (A,57,42)	CHIP ELECT.CAPACITOR	CEVW101M4						
C 872 (B,70,41)		CKSRYB104K16	D 652 (A,262,57)	DIODE	1SS133			
C 907 (B,110,23)		CKSRYB105K16	D 654 (A,242,52)	DIODE	1SS133			
			D 681 (A,139,21)	ZENER DIODE	MTZJ15A			
C 908 (A,115,22)		CKSRYB105K16	D 682 (A,128,21)	ZENER DIODE	MTZJ15A			
C 909 (B,97,26)		CKSRYB105K16	D 683 (A,135,58)	DIODE	1SS133			
C 910 (B,97,22)		CKSRYB105K16						
C 916 (B,69,34)		CKSRYB471K50	D 684 (A,65,72)	DIODE	1SS133			
C 917 (B,71,34)		CKSRYB103K50	 D 701 (A,9,88)	DIODE	D5SBA20(B)			
			 D 702 (A,9,126)	DIODE	D5SBA20(B)			
C 918 (B,81,36)		CKSRYB104K16	D 703 (B,252,76)	DIODE	1SS355			
C 919 (B,82,36)		CKSRYB471K50	D 711 (A,196,103)	ZENER DIODE	MTZJ22D			
C 955 (A,22,31)		CKSRYB104K16						

C POWER PACK ASSY
MISCELLANEOUS

△ IC 601	(A,265,14)	POWER PACK 2CH	STK412-530
△ IC 603	(A,132,14)	POWER PACK 3CH	STK413-530
△ IC 604	(A,265,43)	PROTECTOR(10A)	AEK7022
△ IC 605	(A,273,41)	PROTECTOR(10A)	AEK7022
△ IC 606	(A,133,48)	PROTECTOR(10A)	AEK7022
△ IC 607	(A,138,47)	PROTECTOR(10A)	AEK7022
△ IC 610	(A,59,28)	PROTECTOR(1A)	AEK7009
△ IC 701	(A,100,80)	IC PROTECTOR	ICP-N10
△ IC 702	(A,84,81)	IC PROTECTOR	ICP-N10
△ IC 803	(B,238,94)	REGULATOR IC	NJM78M05DL1A
△ IC 804	(A,282,111)	REGULATOR IC	TA7809S
△ IC 805	(B,270,132)	LDO REGULATOR(5V)	NJM2831F05
Q 501	(B,86,38)	TRANSISTOR	2SC5938A
Q 505	(A,111,47)	TRANSISTOR	2SC2240
Q 601	(B,89,44)	TRANSISTOR	2SC5938A
Q 602	(B,224,43)	TRANSISTOR	2SC5938A
Q 605	(A,118,40)	TRANSISTOR	2SC2240
Q 606	(A,252,40)	TRANSISTOR	2SC2240
Q 652	(B,219,37)	TRANSISTOR	2SC5938A
Q 656	(A,244,47)	TRANSISTOR	2SC2240
Q 681	(B,77,48)	TRANSISTOR	2SC5938A
Q 683	(A,59,65)	TRANSISTOR	2SC2240
Q 696	(B,284,22)	TRANSISTOR	2SC4081
Q 697	(B,282,26)	TRANSISTOR	2SC4081
Q 698	(B,246,67)	TRANSISTOR	RT1N241M
△ Q 701	(A,110,72)	TRANSISTOR	2SC5511
△ Q 702	(A,96,86)	TRANSISTOR	2SA2005
Q 703	(A,155,76)	TRANSISTOR	2SA1145
Q 704	(A,166,79)	TRANSISTOR	2SC2240
Q 705	(B,245,74)	CHIP TRANSISTOR	RN4903
Q 707	(B,241,74)	CHIP TRANSISTOR	RN4903
Q 721	(A,142,71)	TRANSISTOR	2SA1145
Q 722	(A,161,74)	TRANSISTOR	2SC2240
Q 803	(B,265,140)	DIGITAL TR(SC-70)	RT1P241M
Q 804	(B,268,145)	TRANSISTOR	RT1N241M
Q 805	(B,277,146)	DIGITAL TR(SC-70)	RT1P241M
Q 806	(B,271,145)	TRANSISTOR	RT1N241M
Q 807	(B,276,53)	TRANSISTOR	RT3P22M
Q 808	(B,283,56)	TRANSISTOR	RT3N22M
D 601	(A,125,57)	DIODE	1SS133
D 602	(A,272,21)	ZENER DIODE	MTZJ15A
D 603	(A,119,57)	DIODE	1SS133
D 604	(A,261,21)	ZENER DIODE	MTZJ15A

Mark No.	Description	Part No.
D 606 (A,259,57)	DIODE	1SS133
D 608 (A,253,52)	DIODE	1SS133
D 652 (A,262,57)	DIODE	1SS133
D 654 (A,242,52)	DIODE	1SS133
D 681 (A,139,21)	ZENER DIODE	MTZJ15A
D 682 (A,128,21)	ZENER DIODE	MTZJ15A
D 683 (A,135,58)	DIODE	1SS133
D 684 (A,65,72)	DIODE	1SS133
⚠ D 701 (A,9,88)	DIODE	D5SBA20(B)
⚠ D 702 (A,9,126)	DIODE	D5SBA20(B)
D 703 (B,252,76)	DIODE	1SS355
D 711 (A,196,103)	ZENER DIODE	MTZJ22D
D 712 (A,192,103)	DIODE	MTZJ6R8(B)
D 713 (A,118,78)	DIODE	1SS133
D 741 (B,152,136)	DIODE	1SS355
D 742 (B,167,140)	DIODE	1SS355
D 743 (B,121,129)	DIODE	1SS355
D 744 (B,138,139)	DIODE	1SS355
D 745 (B,115,129)	DIODE	1SS355
D 752 (B,170,135)	DIODE	1SS355
D 754 (B,141,132)	DIODE	1SS355
D 777 (A,127,57)	DIODE	1SS133
D 778 (A,108,57)	DIODE	1SS133
D 781 (A,264,35)	DIODE	30PDA20-FC6
D 782 (A,135,17)	DIODE	30PDA20-FC6
D 783 (A,129,37)	DIODE	30PDA20-FC6
D 784 (A,267,17)	DIODE	30PDA20-FC6
⚠ D 801 (B,221,113)	BRIDGE DIODE	S1WB(A)60SD
D 806 (A,287,62)	DIODE	MTZJ6R2(B)
D 807 (A,284,67)	DIODE	1SS133
D 827 (A,262,133)	DIODE	MTZJ6R2(B)
D 828 (A,224,99)	DIODE	MTZJ6R2(B)
⚠ D 829 (A,239,128)	DIODE	D3SBA20(B)
L 751 (A,160,108)	COIL	ATH1004
L 752 (A,173,108)	COIL	ATH1004
L 753 (A,120,107)	COIL	ATH1004
L 761 (A,130,108)	COIL	ATH1004
L 762 (A,142,108)	COIL	ATH1004
J 43	JUMPER WIRE 11P	D20PYY1120E
KN601 (A,65,23)	WRAPPING TERMINAL	VNF1084
RY751 (A,173,130)	RELAY	ASR7001
RY752 (A,141,126)	RELAY	ASR7001
RY753 (A,117,120)	RELAY	ASR7001
CN701 (A,212,134)	11PJUMPER CONNECTOR	52147-1110
CN702 (A,201,106)	6PJUMPER CONNECTOR	52147-0610
CN705 (A,295,40)	21P PLUG	XKM3011
CN754	SP TERMINAL 4-P(V0)	XKE3041
CN755	SP TERMINAL 6-P(V0)	XKE3040
CN803 (A,231,129)	6P PLUG	KM200TA6
CN805 (A,317,153)	13P PLUG	XKP3066
CN806 (A,317,120)	19P PLUG	XKP3069
CN807 (A,317,82)	15P PLUG	XKP3067
CN815 (A,295,79)	19P PLUG	XKM3005
CN816 (A,295,126)	21P PLUG	XKM3011
CN817	CONNECTOR	CKS3382
810 (A,277,90)	11P CABLE HOLDER	51048-1100

RESISTORS

R 601 (A,95,48)	RD1/4PU102J
R 602 (A,228,42)	RD1/4PU102J

Mark No. Description**Part No.****Mark No. Description****Part No.**

R 603 (B,91,47)
R 604 (B,225,47)
R 605 (B,250,23)

RS1/16S103J
RS1/16S103J
RS1/16S0R0J

⚠ R 709 (A,104,72) METAL OXIDE RESISTOR RS1LMF272J
⚠ R 710 (A,89,93) METAL OXIDE RESISTOR RS1LMF272J
⚠ R 711 (A,181,86) METAL OXIDE RESISTOR RS2LMF242J

A

R 606 (B,241,28)
R 609 (A,91,35)
R 610 (A,225,35)
R 611 (A,90,28)
R 612 (A,223,28)

RS1/16S0R0J
RD1/4PU563J
RD1/4PU563J
RD1/4PU182J
RD1/4PU182J

R 713 (A,118,86) RD1/4PU102J
R 714 (B,252,68) RS1/16S102J
R 715 (B,250,75) RS1/16S103J
R 716 (B,247,75) RS1/16S103J
R 721 (A,145,77) RD1/4PU682J

R 613 (A,114,21)
R 614 (A,247,21)
R 615 (A,123,36)
R 616 (A,270,29)

RD1/4PU563J
RD1/4PU563J
RD1/4PU331J
RD1/4PU562J

R 722 (A,124,78) RD1/4PU682J
R 723 (A,276,78) RD1/4PU473J
R 724 (A,279,83) RD1/4PU473J
R 725 (A,276,74) RD1/4PU103J
R 726 (B,291,59) RS1/16S103J

⚠ R 617 (A,114,31) RESISTOR (0.22, 5W)

ACN7094

B

R 618 (A,266,29)
R 619 (A,122,52)
R 620 (A,257,36)
R 621 (A,124,49)

RD1/4PU562J
RD1/4PU182J
RD1/4PU331J
RD1/4PU821J

R 727 (B,287,59) RS1/16S103J
R 728 (B,106,9) RS1/16S123J
R 730 (B,214,14) RS1/16S123J
R 731 (A,121,73) RD1/4PU220J
R 732 (A,101,89) RD1/4PU220J

⚠ R 622 (A,248,31) RESISTOR (0.22, 5W)

ACN7094

R 623 (A,116,48)
R 624 (A,257,52)
R 625 (B,116,22)
R 626 (A,258,49)
R 627 (B,107,28)

RD1/4PU223J
RD1/4PU182J
RS1/16S0R0J
RD1/4PU821J
RS1/16S0R0J

R 740 (B,87,141) RS1/16S683J
R 741 (B,152,140) RS1/16S333J
R 742 (B,169,143) RS1/16S333J
R 743 (B,121,134) RS1/16S333J
R 744 (B,137,143) RS1/16S333J

C

R 628 (A,250,48)
R 629 (B,92,9)
R 630 (A,230,21)
R 652 (A,215,36)
R 654 (B,219,41)

RD1/4PU223J
RS1/16S0R0J
RD1/4PU102J
RD1/4PU102J
RS1/16S103J

R 745 (B,110,131) RS1/16S333J
⚠ R 751 (A,158,119) CARBON FILM RESISTOR RD1/4PUF101J
⚠ R 752 (A,185,120) CARBON FILM RESISTOR RD1/4PUF101J
⚠ R 753 (A,156,126) METAL OXIDE RESISTOR RS1LMF4R7J
⚠ R 754 (A,181,126) METAL OXIDE RESISTOR RS1LMF4R7J

R 660 (A,220,29)
R 662 (A,216,20)
R 664 (A,238,21)
R 666 (A,240,35)

RD1/4PU563J
RD1/4PU182J
RD1/4PU563J
RD1/4PU331J

⚠ R 755 (A,103,117) CARBON FILM RESISTOR RD1/4PUF101J
⚠ R 756 (A,101,120) METAL OXIDE RESISTOR RS1LMF4R7J
⚠ R 761 (A,125,117) CARBON FILM RESISTOR RD1/4PUF101J
⚠ R 762 (A,155,119) CARBON FILM RESISTOR RD1/4PUF101J
⚠ R 763 (A,124,132) METAL OXIDE RESISTOR RS1LMF4R7J

⚠ R 668 (A,239,31) RESISTOR (0.22, 5W)

ACN7094

D

R 670 (A,245,52)
R 672 (A,240,57)
R 674 (A,236,38)
R 681 (A,72,51)
R 682 (B,70,49)

RD1/4PU182J
RD1/4PU821J
RD1/4PU223J
RD1/4PU102J
RS1/16S103J

⚠ R 764 (A,149,139) METAL OXIDE RESISTOR RS1LMF4R7J
R 777 (A,81,37) RD1/4PU102J
R 778 (B,85,42) RS1/16S103J
R 781 (A,87,30) RD1/4PU563J
R 782 (A,84,22) RD1/4PU182J

R 685 (B,75,37)
R 686 (B,80,21)
R 687 (A,83,10)
R 688 (A,135,30)
R 689 (A,132,30)

RS1/16S563J
RS1/16S182J
RD1/4PU563J
RD1/4PU562J
RD1/4PU562J

R 783 (A,104,21) RD1/4PU563J
R 784 (A,111,35) RD1/4PU331J
⚠ R 785 (A,105,31) RESISTOR (0.22, 5W) ACN7094
R 786 (A,111,57) RD1/4PU182J
R 787 (A,106,57) RD1/4PU821J

E

⚠ R 690 (A,60,52)
⚠ R 691 (A,55,55) RESISTOR (0.22, 5W)
R 692 (A,70,72)
R 693 (A,67,77)
R 694 (A,62,72)

RD1/4PU331J
ACN7094
RD1/4PU182J
RD1/4PU821J
RD1/4PU223J

R 788 (A,102,38) RD1/4PU223J
R 806 (B,283,48) RS1/16S103J
R 807 (B,278,48) RS1/16S103J
R 808 (B,283,52) RS1/16S102J
R 813 (B,274,130) RS1/16S102J

R 695 (A,97,22)
R 696 (B,281,38)
R 697 (B,255,68)
R 698 (B,243,67)
R 701 (A,121,86)

RD1/4PU102J
RS1/16S103J
RS1/16S103J
RS1/16S333J
RD1/4PU562J

R 885 (B,310,57) RS1/16S221J
R 886 (B,310,61) RS1/16S221J
R 887 (B,310,65) RS1/16S221J
R 888 (B,315,22) RS1/16S221J
R 1101(B,273,68) RS1/16S0R0J

F

R 702 (A,110,87)
R 703 (A,151,72)
R 704 (A,148,77)
R 705 (A,283,85)
R 706 (A,283,75)

RD1/4PU562J
RD1/4PU473J
RD1/4PU473J
RD1/4PU473J
RD1/4PU473J

R 1102(B,274,61) RS1/16S0R0J
R 1103(B,70,136) RS1/16S0R0J
R 1104(B,138,132) RS1/16S0R0J
R 1105(B,168,135) RS1/16S0R0J
R 1109(B,285,56) RS1/16S0R0J

R 707 (A,135,77)
R 708 (A,147,81)

RD1/4PU184J
RD1/4PU184J

R 1110(B,241,68) RS1/16S0R0J

5

Mark No. Description

CAPACITORS

C 603 (B,94,39)
C 604 (B,227,38)
C 605 (A,96,38)
C 606 (A,230,38)
C 607 (B,95,20)

C 608 (B,230,17)
C 609 (A,91,32)
C 610 (A,225,32)
C 613 (B,116,27)
C 614 (B,250,28)

C 615 (A,116,45)
C 616 (A,250,45)
C 654 (B,217,33)
C 656 (A,215,33)
C 658 (B,221,17)

C 660 (A,219,25)
C 664 (B,241,24)
C 666 (A,239,49)
C 682 (B,75,43)
C 683 (A,78,43)

C 684 (B,82,18)
C 685 (A,78,37)
C 687 (B,87,8)
C 688 (A,75,78)
C 696 (B,281,36)

C 697 (A,286,34)
C 701 (A,49,80) E-CAP 5600/71
C 702 (A,49,107) E-CAP 5600/71
C 703 (A,43,130) ELECT.CAPACITOR
C 704 (A,38,150) ELECT.CAPACITOR

C 705 (A,156,81) ELECT. CAPACITOR
C 706 (A,142,84) ELECT. CAPACITOR
C 709 (A,257,73)
C 711 (A,195,99) ELECT. CAPACITOR
C 712 (A,189,105)

C 740 (A,90,136)
C 751 (A,159,143) FILM CAPACITOR
C 752 (A,181,150) FILM CAPACITOR
C 755 (A,103,147) FILM CAPACITOR
C 761 (A,122,139) FILM CAPACITOR

C 762 (A,152,145) FILM CAPACITOR
C 778 (B,84,34)
C 779 (A,81,33)
C 780 (B,88,18)
C 781 (A,87,27)

C 783 (B,107,24)
C 784 (A,105,49)
C 801 (A,248,114) ELECT. CAPACITOR
C 802 (A,249,100) ELECT. CAPACITOR
C 806 (A,288,55)

C 807 (B,227,93)
C 808 (A,245,142) ELECT. CAPACITOR
C 809 (A,232,95)
C 810 (A,266,133)
C 811 (B,279,128)

C 812 (B,278,109)
C 813 (A,276,118)

6

Part No.

CKSRYB331K50
CKSRYB331K50
CEAT4R7M50
CEAT4R7M50
CCSRCH470J50

CCSRCH470J50
CEAT101M16
CEAT101M16
CCSRCJ3R0C50
CCSRCJ3R0C50

CEANP2R2M50
CEANP2R2M50
CKSRYB331K50
CEAT4R7M50
CCSRCH470J50

CEAT101M16
CCSRCJ3R0C50
CEANP2R2M50
CKSRYB331K50
CEAT4R7M50

CCSRCH470J50
CEAT101M16
CCSRCJ3R0C50
CEANP2R2M50
CKSRYB102K50

CEAT221M6R3
XCH3027
XCH3027
XCH3012
XCH3012

CEAT100M2A
CEAT100M2A
CEAT1R0M50
CEAT101M35
CEAT101M10

CEAT101M25
CQMBA104J50
CQMBA104J50
CQMBA104J50
CQMBA104J50

CQMBA104J50
CKSRYB331K50
CEAT4R7M50
CCSRCH470J50
CEAT101M16

CCSRCJ3R0C50
CEANP2R2M50
CEAT222M25
CEAT222M25
CEAT1R0M50

CKSRYB103K25
CEAT472M16
CEAT101M10
CEAT101M10
CKSRYB103K25

CKSRYB103K25
CEAT101M16

7

Mark No. Description

D TRANS2 ASSY
MISCELLANEOUS

△ IC 853 (A,32,204) PROTECTOR(4A) AEK7018
J 21 JUMPER WIRE 11P D20PYY1130E
CN1201(A,35,183) 4P JUMPER CONNECTOR 52147-0410
△ 851 (A,49,207) 11P CABLE HOLDER 51048-1100

E TRANS3 ASSY
RESISTORS

R 881 (A,40,239) RD1/4PU4R7J
R 882 (A,40,236) RD1/4PU4R7J

CAPACITORS

C 881 (A,13,234) MYLAR FILM CAPACITOR CQMA333K2E
C 882 (A,16,239) MYLAR FILM CAPACITOR CQMA333K2E
C 883 (A,27,238) FILM CAPACITOR CQMBA333J50
C 884 (A,36,239) FILM CAPACITOR CQMBA333J50

F COMPONENT VIDEO ASSY
MISCELLANEOUS

IC 1401(B,262,201) LOGIC IC TC74HC4052AF
IC 1402(B,286,189) LOGIC IC TC74HC4052AF
IC 1404(B,223,198) VIDEO IC NJM2581M
D 1401(B,210,230) DIODE 1SS355
D 1402(B,207,230) DIODE 1SS355

JA 1401(A,250,175) 6P RCA PINJACK XKB3025
JA 1402(A,208,175) 6P RCA PINJACK XKB3025
CN1409(A,204,235) CONNECTOR CKS3372

RESISTORS

R 1401(B,236,184) RS1/16S750J
R 1402(B,251,200) RS1/16S750J
R 1403(B,263,184) RS1/16S750J
R 1404(B,234,184) RS1/16S750J
R 1405(B,248,183) RS1/16S750J

R 1406(B,260,183) RS1/16S750J
R 1407(B,199,184) RS1/16S750J
R 1408(B,209,183) RS1/16S750J
R 1409(B,221,182) RS1/16S750J
R 1410(B,181,191) RS1/16S750J

R 1411(B,216,192) RS1/16S750J
R 1412(B,214,192) RS1/16S750J
R 1482(B,184,225) RS1/16S0R0J
R 1483(B,180,210) RS1/16S0R0J
R 1484(B,183,236) RS1/16S0R0J

R 1489(B,192,223) RS1/16S0R0J
R 1490(B,192,219) RS1/16S0R0J
R 1491(B,279,204) RS1/16S0R0J
R 1492(B,251,215) RS1/16S0R0J
R 1493(B,248,210) RS1/16S0R0J

R 1494(B,267,226) RS1/16S102J
R 1496(B,288,216) RS1/16S102J
R 1498(B,183,202) RS1/16S0R0J

CAPACITORS

C 1413(B,256,198) CKSRYB103K50
C 1414(B,269,209) CKSRYB103K50
C 1415(B,277,188) CKSRYB103K50
C 1416(B,280,184) CKSRYB103K50
C 1419(A,231,216) CEAT101M10

Mark No. Description**Part No.****Mark No. Description****Part No.**

C 1420(A,231,210)
C 1421(A,231,204)
C 1425(A,215,202)
C 1426(A,201,197)
C 1427(B,210,194)

CEAT101M10
CEAT101M10
CEAT101M10
CEAT101M10
CKSRYB104K50

C 1428(B,230,194)
C 1490(B,256,183)
C 1491(B,244,183)
C 1492(B,205,183)
C 1493(B,203,183)

CKSRYB104K50
CKSRYB103K50
CKSRYB103K50
CKSRYB103K50
CKSRYB103K50

C 1004(B,147,230)
C 1009(A,146,236)

CKSRYB221K50
CEAT4R7M50

C 1010(A,146,228)
C 1012(B,159,226)
C 1013(B,151,219)
C 1014(B,151,216)
C 1015(B,147,224)

CEAT4R7M50
CKSRYB103K50
CCSRCH101J50
CCSRCH101J50
CKSRYB221K50

C 1016(B,147,216)
C 1021(A,146,214)
C 1022(A,146,221)

CKSRYB221K50
CEAT4R7M50
CEAT4R7M50

G HEAD PHONE ASSY**MISCELLANEOUS**

Q 1551(B,78,211) TRANSISTOR
Q 1552(B,102,219) TRANSISTOR
J 47 JUMPER WIRE
JA 1551(A,117,233) HEADPHONE JACK
KN1551(A,69,231) WRAPPING TERMINAL

2SC5938A
2SC5938A
D20PYY0640E
XKB3066
VNF1084

1551(A,59,220) 6P CABLE HOLDER 51048-0600

RESISTORS

⚠ R 1551(A,84,202) METAL OXIDE RESISTOR RS2LMF331J
⚠ R 1552(A,78,203) METAL OXIDE RESISTOR RS2LMF331J
⚠ R 1553(A,108,221) METAL OXIDE RESISTOR RS1LMF151J
⚠ R 1554(A,93,216) METAL OXIDE RESISTOR RS1LMF151J
R 1555(B,100,216) RS1/16S472J

R 1556(B,81,210) RS1/16S472J
R 1557(B,87,228) RS1/16S102J

CAPACITORS

C 1551(B,94,226) CKSRYB223K50
C 1552(B,83,210) CKSRYB223K50
C 1553(B,110,224) CKSRYB103K50
C 1554(B,110,226) CCSRCH471J50
C 1555(B,110,229) CKSRYB104K16

C 1556(B,112,239) CKSRYB103K50
C 1557(B,109,239) CCSRCH471J50
C 1558(B,107,239) CKSRYB104K16
C 1561(A,69,205) ELECT. CAPACITOR CEANP470M50
C 1562(A,71,223) ELECT. CAPACITOR CEANP470M50

H 5.1CH INPUT ASSY**MISCELLANEOUS**

CN307 (A,125,219) 7P CONNECTOR 52044-0745
CN309 (A,167,225) PIN JACK(4P) XKB3035

RESISTORS

R 1001(B,147,233) RS1/16S474J
R 1002(B,150,226) RS1/16S474J
R 1003(B,149,236) RS1/16S331J
R 1004(B,150,228) RS1/16S331J
R 1009(B,150,224) RS1/16S474J

R 1010(B,151,212) RS1/16S474J
R 1011(B,150,222) RS1/16S331J
R 1012(B,150,214) RS1/16S331J

CAPACITORS

C 1001(B,151,233) CCSRCH101J50
C 1002(B,151,230) CCSRCH101J50
C 1003(B,143,233) CKSRYB221K50

I FRONT DISPLAY**MISCELLANEOUS**

IC 401 (B,121,181) DISPLAY U-COM PE5550A
IC 402 (A,223,169) REMOTE RECEIVER UNIT GP1UM27XK0VF
Q 442 (B,238,190) TRANSISTOR RT1N241M
Q 484 (B,217,189) TRANSISTOR 2SA1576A
D 403 (B,226,189) DIODE 1SS355

L 401 (A,242,159) RADIAL INDUCTOR LFCA2R2J
V 401 (A,189,200) FL TUBE XAV3033
S 451 (A,234,139) SWITCH VSG1024
S 452 (A,213,136) SWITCH VSG1024
S 453 (A,187,134) SWITCH VSG1024

S 454 (A,70,134) SWITCH VSG1024
S 455 (A,46,134) SWITCH VSG1024
S 456 (A,23,134) SWITCH VSG1024
S 458 (A,13,112) SWITCH VSG1024
S 459 (A,114,136) SWITCH VSG1024

S 460 (A,91,136) SWITCH VSG1024
S 461 (A,57,112) SWITCH VSG1024
S 462 (A,42,112) SWITCH VSG1024
S 463 (A,27,112) SWITCH VSG1024
S 464 (A,164,134) SWITCH VSG1024

S 465 (A,140,134) SWITCH VSG1024
S 466 (A,86,90) SWITCH VSG1024
S 467 (A,72,90) SWITCH VSG1024
S 468 (A,57,90) SWITCH VSG1024
S 469 (A,42,90) SWITCH VSG1024

S 470 (A,27,90) SWITCH VSG1024
S 471 (A,13,90) SWITCH VSG1024
X 401 (A,149,165) CERAMIC RESONATOR VSS1142
(5.00 MHz)

CN401 (A,246,165) 17P CONNECTOR 52044-1745
471 (A,35,176) CABLE HOLDER(3P) 51063-0305

404 (A,197,127) CABLE HOLDER(7P) 51063-0705
402 FL HOLDER(FE) VNF1096

RESISTORS

R 401 (B,144,169) RS1/16S105J
R 402 (B,223,189) RS1/16S104J
R 403 (B,220,189) RS1/16S104J
R 405 (B,228,155) RS1/16S102J
R 406 (B,226,155) RS1/16S103J

R 407 (B,78,176) RS1/16S473J
R 408 (B,80,176) RS1/16S473J
R 409 (B,75,176) RS1/16S473J
R 410 (B,73,176) RS1/16S473J
R 411 (B,229,189) RS1/16S473J

R 412 (B,234,187) RS1/16S221J

Mark No. Description

R 413 (B,234,184)
R 414 (B,234,182)
R 415 (B,234,180)
R 416 (B,234,178)

R 417 (B,219,182)
R 422 (B,157,169)
R 423 (B,131,167)
R 424 (B,83,176)
R 425 (B,213,182)

R 430 (B,234,175)
R 451 (B,236,144)
R 452 (B,234,144)
R 453 (B,187,147)
R 454 (B,166,153)

R 455 (A,45,146)
R 456 (A,35,144)
R 457 (A,16,139)
R 459 (A,109,134)
R 460 (A,101,135)

R 461 (B,52,117)
R 462 (B,49,117)
R 463 (B,34,117)
R 464 (B,20,117)
R 465 (A,161,128)

R 466 (A,151,128)
R 467 (A,131,128)
R 468 (B,79,91)
R 469 (B,64,91)
R 470 (B,50,92)

R 471 (B,34,91)
R 472 (B,86,176)
R 473 (B,19,91)

CAPACITORS

C 401 (B,247,155)
C 402 (B,247,153)
C 403 (A,234,168)
C 410 (B,49,186)
C 411 (B,51,186)

C 412 (A,42,178)
C 418 (B,141,179)
C 419 (B,103,182)
C 420 (A,39,185) ELECT. CAPACITOR
C 421 (B,160,169)

C 441 (B,223,176)
C 442 (A,239,146)
C 451 (B,125,166)
C 452 (B,103,164)
C 453 (B,122,166)

C 454 (B,100,164)
C 481 (B,140,191)
C 482 (B,126,201)
C 483 (B,126,199)
C 487 (B,83,163)

C 488 (B,79,163)
C 489 (B,75,163)
C 490 (A,22,149)

J ROTARY ENCODER ASSY

Part No.

RS1/16S221J
RS1/16S221J
RS1/16S221J
RS1/16S221J

RS1/16S101J
RS1/16S104J
RS1/16S104J
RS1/16S104J
RS1/16S104J

RS1/16S0R0J
RS1/16S472J
RS1/16S681J
RS1/16S821J
RS1/16S122J

RD1/4PU681J
RD1/4PU821J
RD1/4PU122J
RD1/4PU472J
RD1/4PU681J

RS1/16S821J
RS1/16S122J
RS1/16S162J
RS1/16S272J
RD1/4PU472J

RD1/4PU681J
RD1/4PU821J
RS1/16S122J
RS1/16S162J
RS1/16S272J

RS1/16S512J
RS1/16S472J
RS1/16S133J

CKSRYB103K50
CKSRYB103K50
CEAT221M6R3
CKSRYB103K50
CKSRYB103K50

CEAT470M50
CKSRYB104K16
CKSRYB103K50
CEAT101M35
CKSRYB104K16

CKSRYB103K50
CEAL470M10
CKSRYB102K50
CKSRYB102K50
CKSRYB102K50

CKSRYB102K50
CCSRCH471J50
CCSRCH221J50
CCSRCH221J50
CKSRYB102K50

CKSRYB102K50
CKSRYB102K50
CKSRYB102K50

Mark No. Description

MISCELLANEOUS

S 457 (A,300,183) SWITCH
S 512 (A,288,223) ROTARY ENCODER (JOG)
S 513 (A,288,152) ROTARY ENCODER
S 514 (A,257,216) SWITCH
S 515 (A,270,183) SWITCH

S 516 (A,285,183) SWITCH
511 (A,257,172) CABLE HOLDER(7P)

RESISTORS

R 513 (B,270,190)
R 514 (B,280,185)
R 515 (B,295,185)

K POWER KEY ASSY MISCELLANEOUS

S 501 (A,12,174) SWITCH
S 502 (A,20,221) SWITCH
S 503 (A,32,218) SWITCH
S 504 (A,47,218) SWITCH
501 (A,47,210) CABLE HOLDER(3P)

RESISTORS

R 502 (B,7,171)
R 503 (A,15,228)
R 504 (A,30,228)

M TRANS4 ASSY MISCELLANEOUS

⚠ IC 357 (A,85,236) PROTECTOR(800MA)
D 363 (A,88,223) DIODE
J 22 JUMPER WIRE
891 (A,70,221) 3P CABLE HOLDER

CAPACITORS

C 406 (A,84,220) ELECT. CAPACITOR

N REGULATOR ASSY MISCELLANEOUS

⚠ IC 801 (A,147,89) REGULATOR IC
⚠ IC 802 (A,164,89) REGULATOR IC
⚠ IC 808 (A,181,89) IC
D 810 (A,172,94) DIODE
CN800 (A,194,113) 11PJUMPER CONNECTOR

RESISTORS

⚠ R 801 (A,136,95) METAL OXIDE RESISTOR

CAPACITORS

C 803 (B,147,97)
C 804 (B,166,97)
C 805 (A,147,105)
C 806 (A,159,99)
C 818 (B,182,95)

C 819 (A,176,95)

O VIDEO ASSY MISCELLANEOUS

IC 301 (B,46,32) VIDEO SW IC

Part No.

VSG1024
XSX3008
XSX3005
VSG1024
VSG1024

VSG1024
51063-0705

RS1/16S162J
RS1/16S272J
RS1/16S512J

VSG1024
VSG1024
VSG1024
VSG1024
51063-0305

RS1/16S162J
RD1/4PU272J
RD1/4PU512J

AEK7008
S5688G
D20PY0330E
51048-0300

CEAT471M35

TA7812S
TA79012S
TA7805S
MTZJ6R2(B)
52147-1110

RS3LMF331J

CKSRYB103K25
CKSRYB103K25
CEJQ101M16
CEAT101M16
CKSRYB103K25

CEAT101M10

NJM2595M

Mark No. Description

⚠ Q 301 (A,86,47) TRANSISTOR
 ⚠ Q 302 (A,66,52) TRANSISTOR
 Q 303 (B,25,83) TRANSISTOR
 D 301 (B,44,40) DIODE

Part No.

2SD1858X
 2SB1237X
 2SC5938A
 1SS355

 1SS355
 UDZS6R2(B)
 UDZS6R2(B)
 DAN202U
 XKB3049

Mark No. Description

R 1900(B,211,215)

Part No.

RS1/16S101J

CAPACITORS

C 1900(B,205,215)
 C 1903(B,211,230)
 C 1904(A,208,228)
 C 1905(B,233,232)
 C 1906(B,235,232)

CKSRYB104K25
 CKSRYB103K50
 CEAL101M10
 CKSRYB104K25
 CKSRYB103K50

C 1907(B,237,232)
 C 1908(B,239,232)

CCSRCH101J50
 CKSRYB102K50

S PRIMARY ASSY**MISCELLANEOUS**

⚠ IC 51 (B,236,11) IC
 Q 51 (B,267,14) DIGITAL TR(SC-70)
 ⚠ D 51 (B,298,20) BRIDGE DIODE
 D 55 (A,304,21) DIODE
 D 56 (A,271,21) DIODE

NJM78L05UA
 RT1N431M
 DF06SA
 1SR139-400
 1SS133

D 57 (A,266,25) DIODE
 D 58 (A,314,13) DIODE
 H 51 (A,231,34) FUSE CLIP
 H 52 (A,250,34) FUSE CLIP
 J 52 JUMPER WIRE

1SS133
 MTZJ5R1(B)
 AKR7001
 AKR7001
 D20PY0410E

KN51 (A,318,25) WRAPPING TERMINAL
 KN3001(A,223,117) SCREW PLATE
 ⚠ RY51 (A,271,57) JOE LOWPOWER RELAY
 ⚠ T 51 (A,288,56) STANDBY TRANSFORMER
 ⚠ CN51 (A,236,47) AC CODE SOCKET

VNF1084
 VNE1948
 ASR7013
 ATT7043
 RKP1751

55 (A,317,9) 4P CABLE HOLDER

51048-0400

RESISTORS

⚠ R 51 (A,318,37) RESISTOR(2.2M, 1/2W)
 R 52 (A,275,11)
 R 53 (A,307,12)
 R 54 (A,319,16)

RCN1080
 RD1/2PM270J
 RD1/4PU332J
 RD1/4PU103J

CAPACITORS

⚠ C 51 (A,261,64) FILM CAPACITOR
 ⚠ C 52 (A,265,57) SAFETY CAPACITOR
 C 53 (A,291,21) ELECT. CAPACITOR
 C 54 (A,300,11)
 C 55 (A,307,21)

ACE7013
 XCG3010
 CEAT102M16
 CEAT470M25
 CKPUYF103Z25

C 56 (A,311,21)
 C 57 (A,314,21)

CKPUYF103Z25
 CKPUYF103Z25

T TRANS1 ASSY

TRANS1 ASSY has no service part.

6. ADJUSTMENT

There is no information to be shown in this chapter.

Q DIGITAL INPUT ASSY**MISCELLANEOUS**

F 1901(B,214,228) INDUCTOR
 JA1900(A,206,201) OPT. LINK IN
 KN1902(A,249,206) SCREW PLATE
 CN1903(A,229,230) CONNECTOR

CTF1295
 GP1FAV51RKBF
 VNE1948
 VKN1186

RESISTORS

7. GENERAL INFORMATION

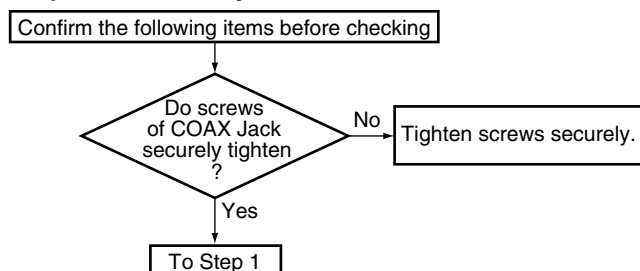
7.1 DIAGNOSIS

7.1.1 DSP TROUBLESHOOTING

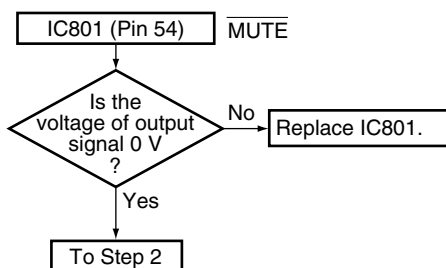
■ Troubleshooting for all destination

- When a sound is not out in the multi-CH signal playback mode or surround mode with the digital signal input.
(SurroundBack is not output by setting.)
- Suppose CR to be poor contact and that is not damaged.
- This shows failure analysis of DSP Assy.

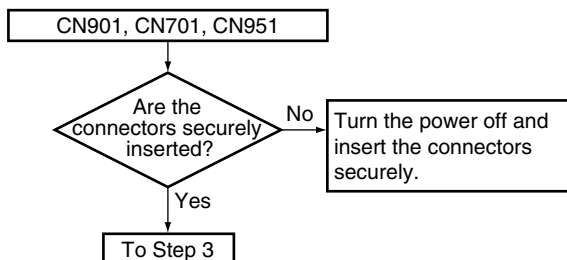
Step 0: Preliminary confirmation



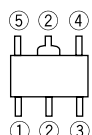
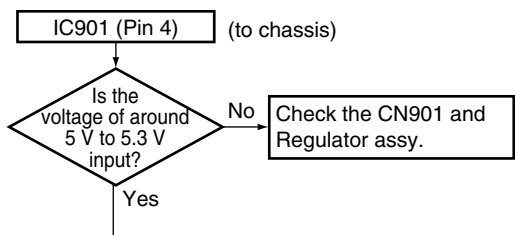
Step 1: MUTE pin



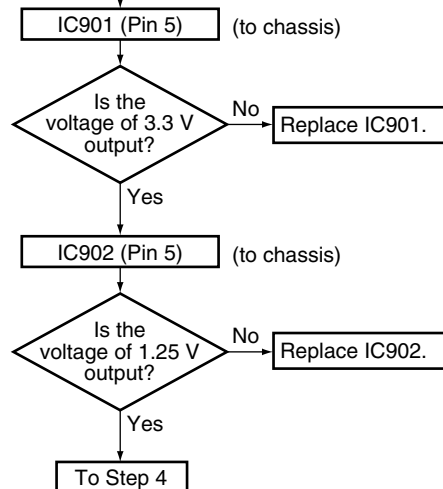
Step 2: BtoB connector



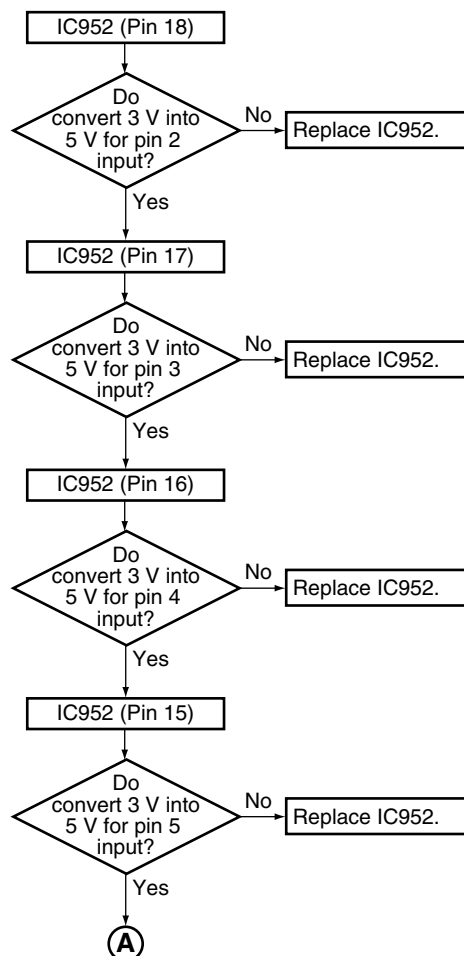
Step 3: Regulator IC



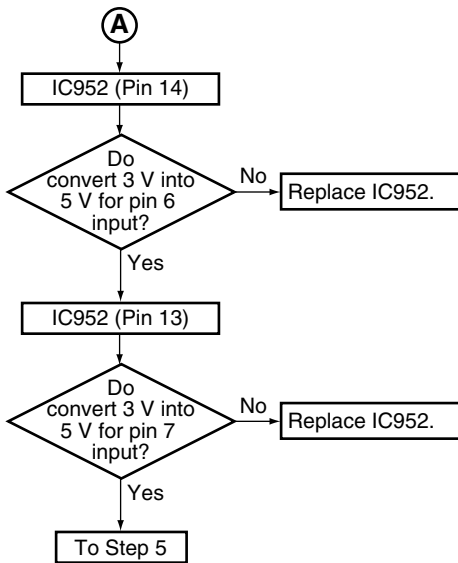
Part shape and Pin arrangement of IC901 and IC902



Step 4: 3 V to 5 V conversion

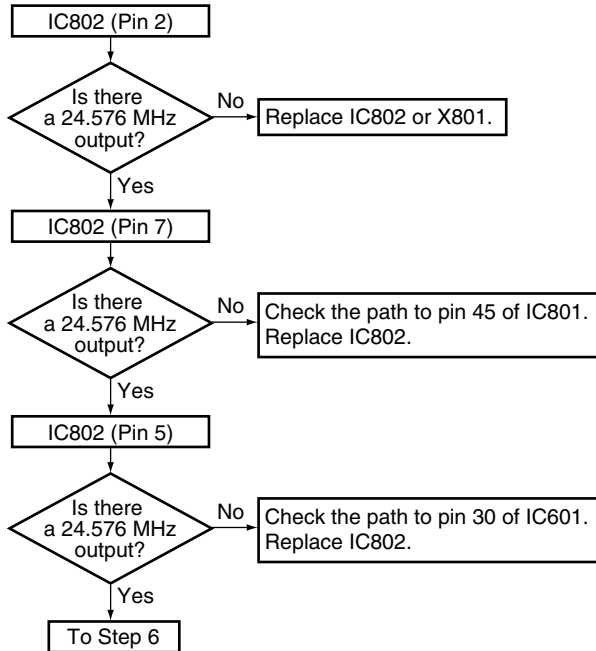


A



B

Step 5: X'tal



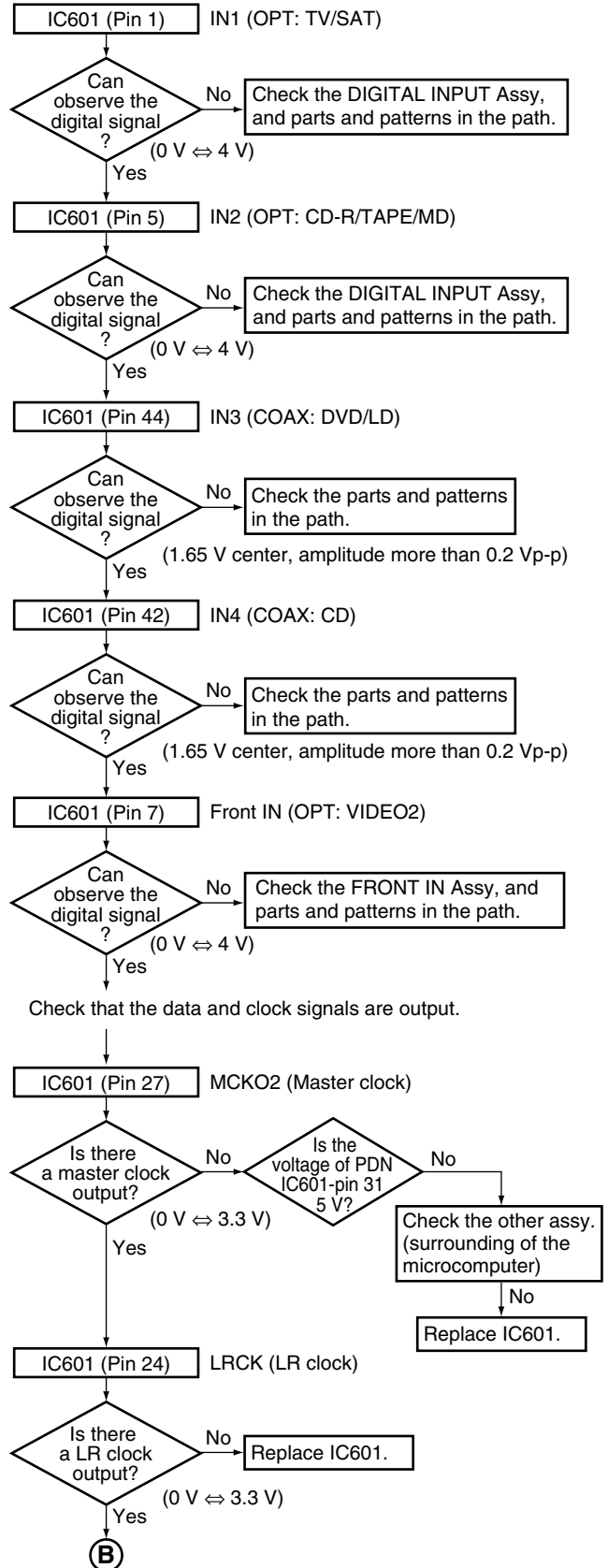
D

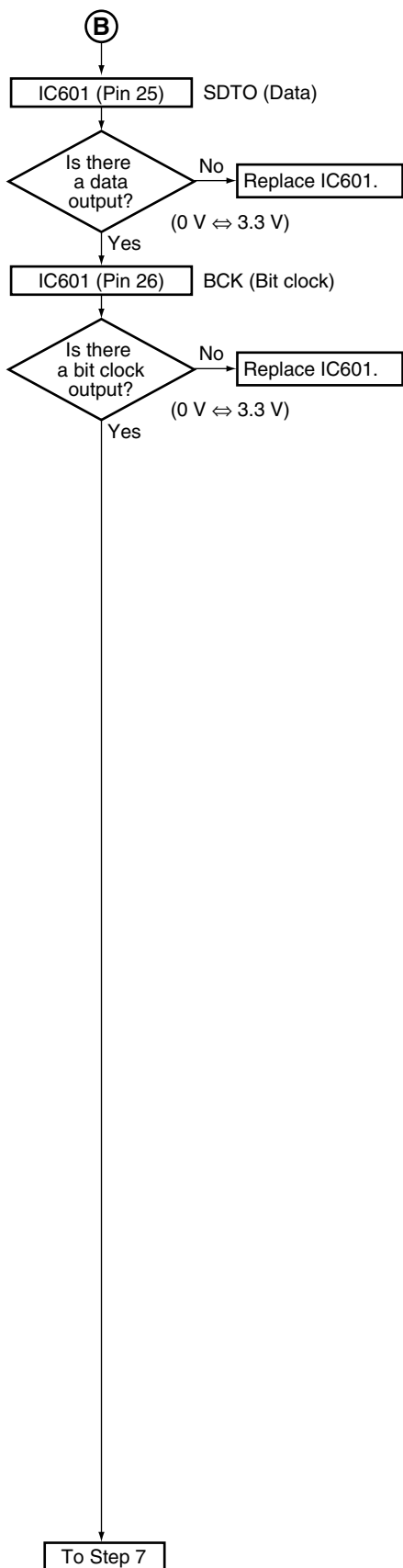
E

F

Step 6: DIR

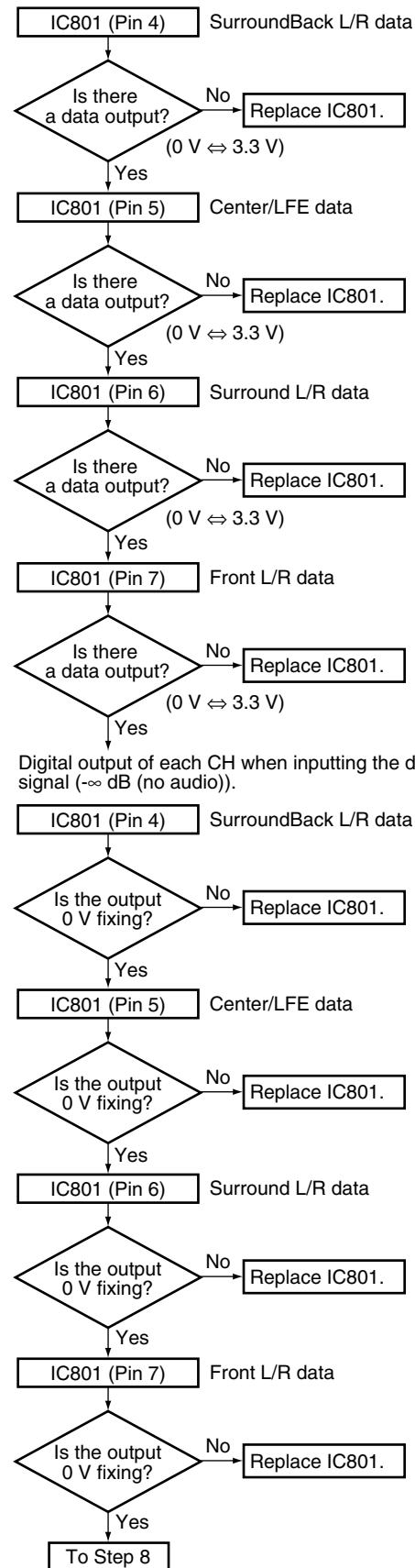
Check that the SPDIF signal is output.
Check that changes by pulling out and inserting the digital input lines.





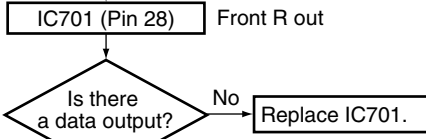
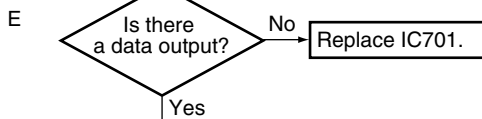
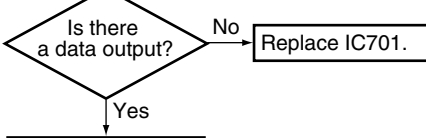
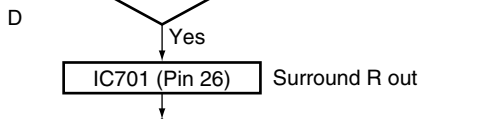
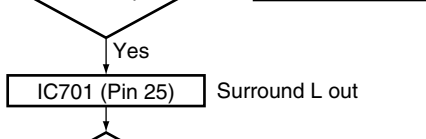
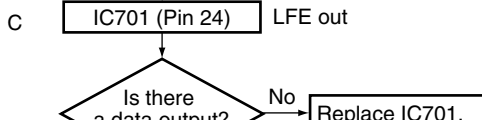
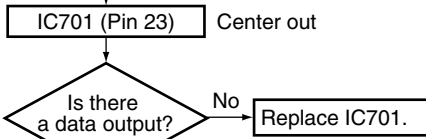
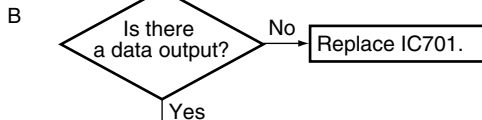
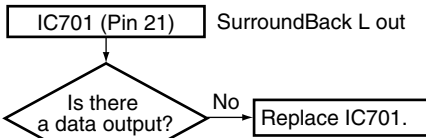
Step 7: DSP output (digital)

Digital output of each CH when inputting the digital signal with audio.



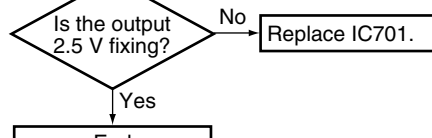
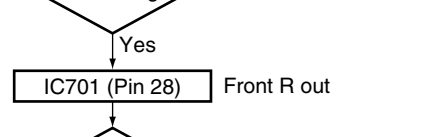
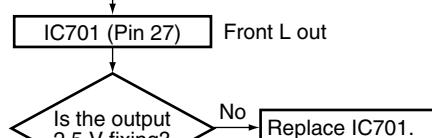
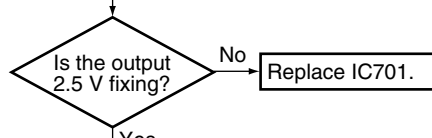
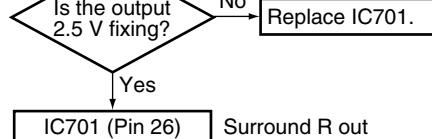
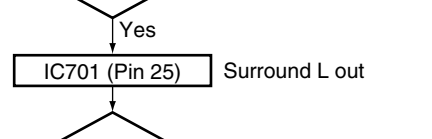
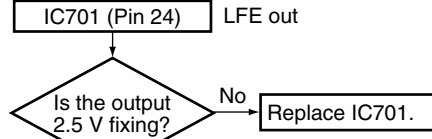
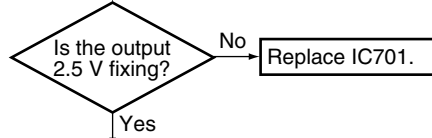
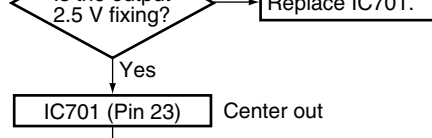
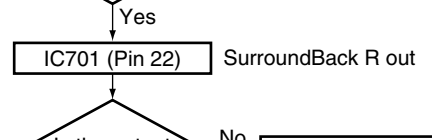
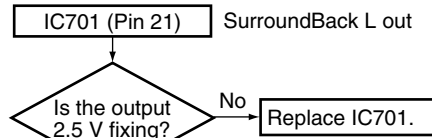
Step 8: Codec output (analog)

A Analog output of each CH when inputting the digital signal with audio.



F

Analog output of each CH when inputting the digital signal (-∞ dB (no audio)).



End

A



7.1.2 DISASSEMBLY

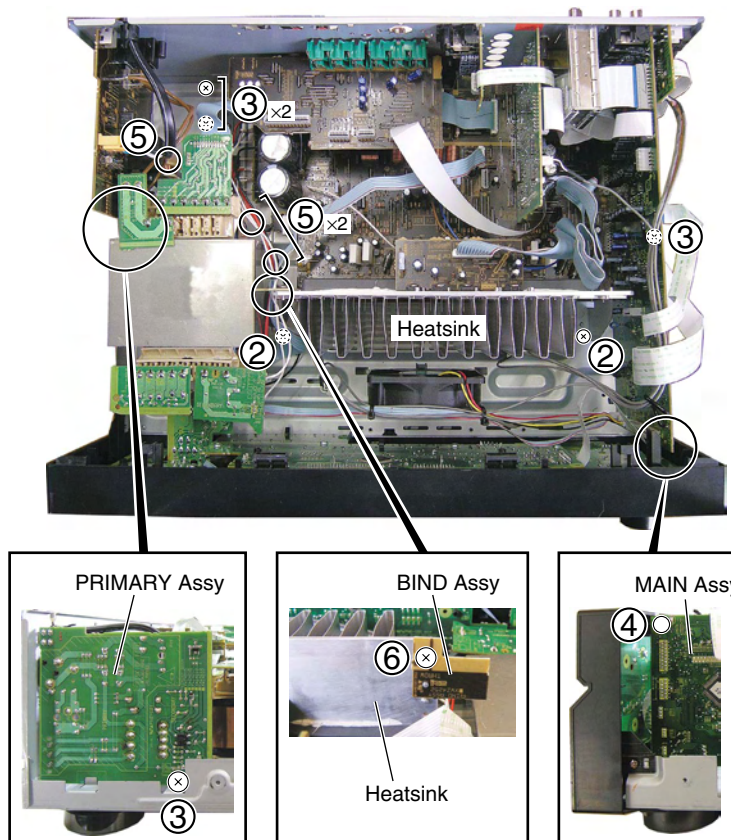
Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Diagnosis of the Unit

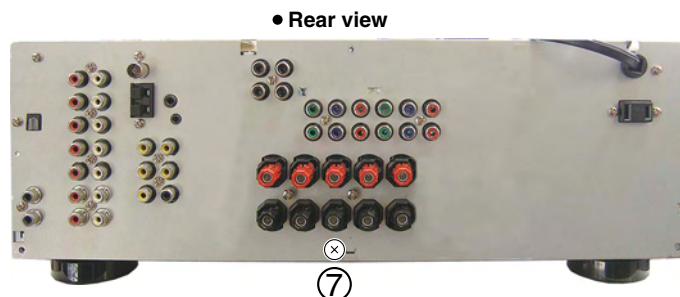
Caution:

Heatsink section in work becomes hot, and be careful with it.

- ① Remove the bonnet by removing the six screws.
- ② Remove the two screws.
- ③ Remove the four screws.
- ④ Remove the push rivet.
- ⑤ Release the three binders.
- ⑥ Remove the BIND Assy by removing the one screw.



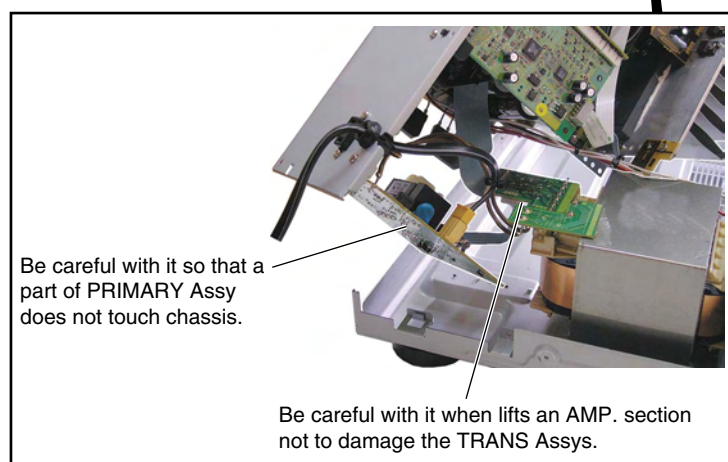
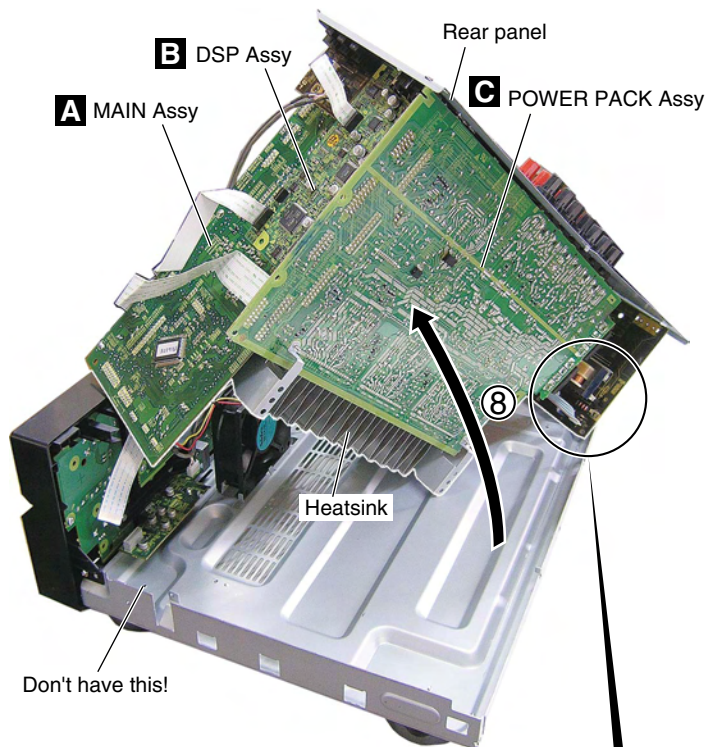
- ⑦ Remove the one screw.



⑧ Arrange the unit as shown in the photo below.

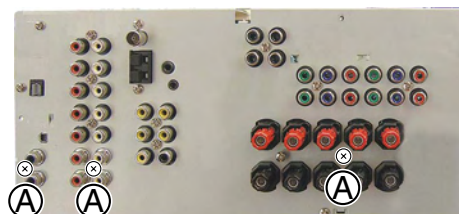


Diagnosis



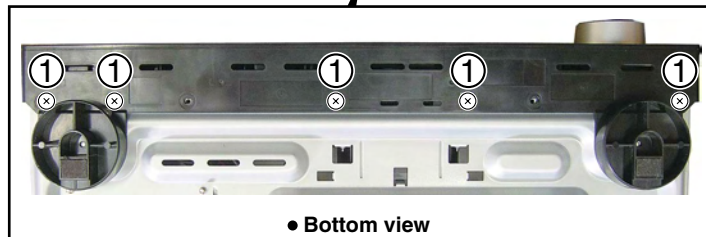
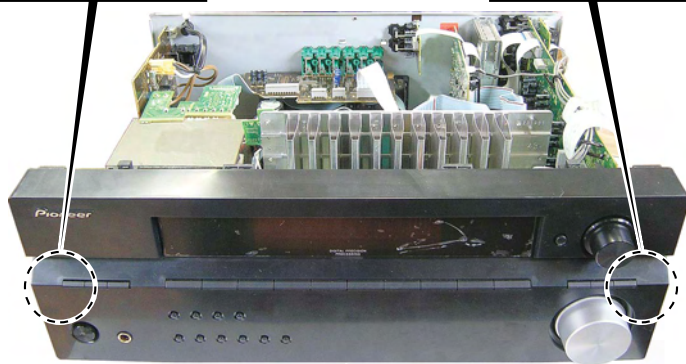
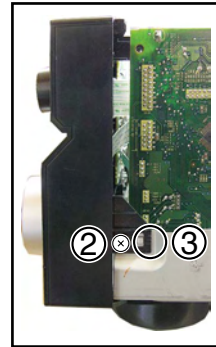
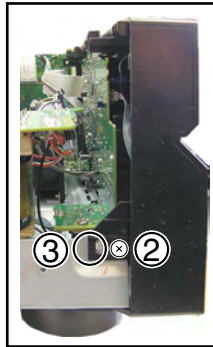
Caution:

During diagnosis, be sure NOT to remove the three screws marked (A) in the above photo. There is the case that a product does not work normally when removes these screws.

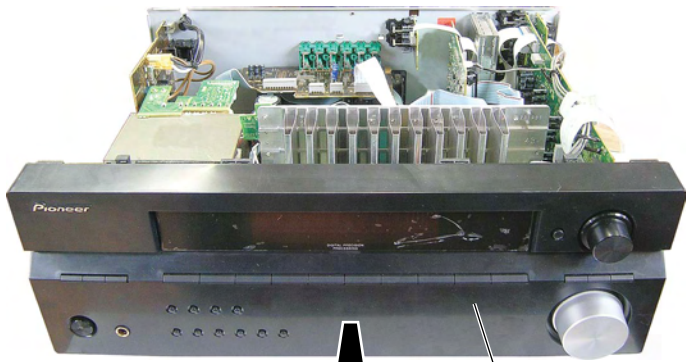


Front Panel Section

- ① Remove the five screws.
- ② Remove the two screws.
- ③ Unhook the two hooks.



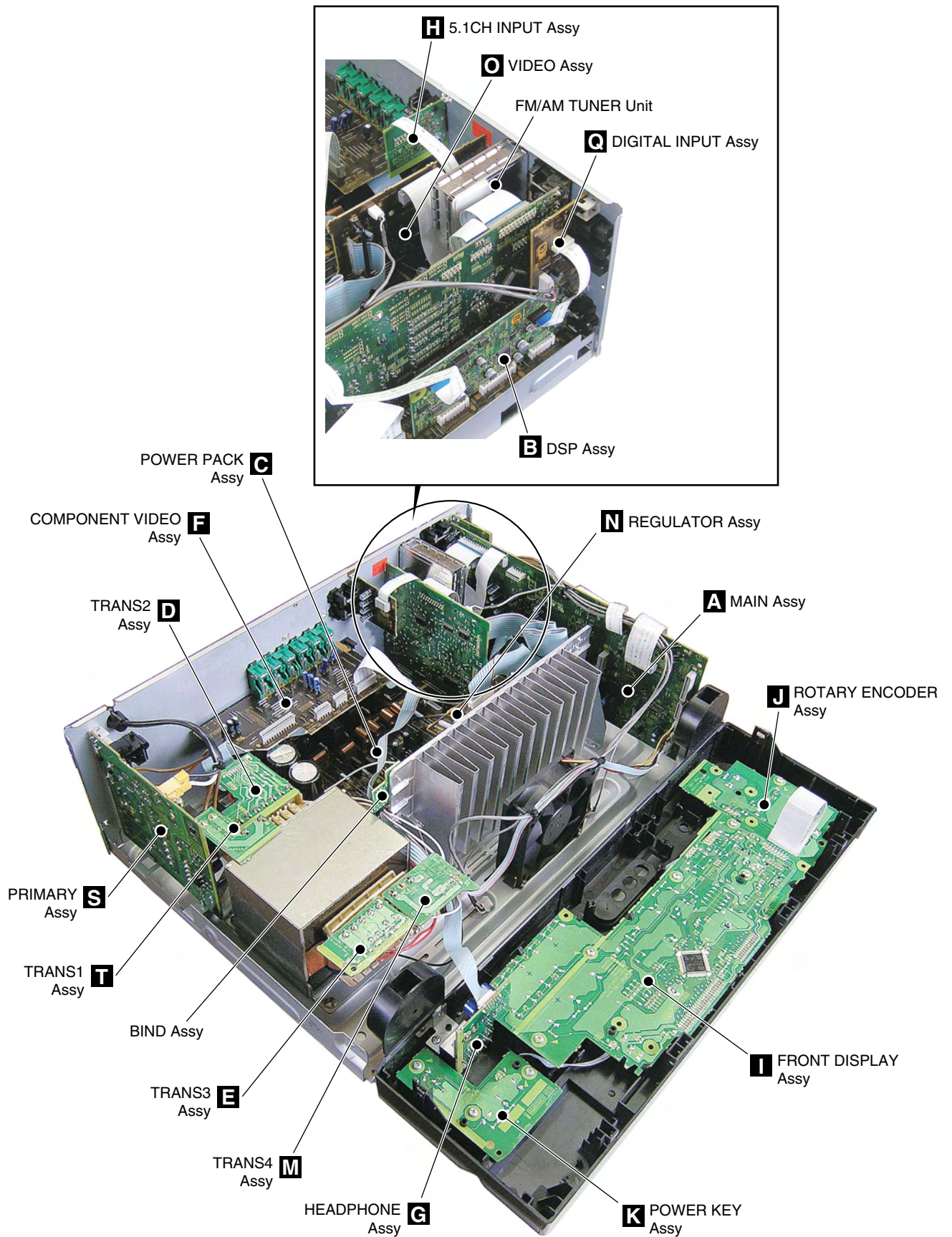
- ④ Remove the front panel section.



④

Front panel section

PCB Location



7.2 PARTS
7.2.1 IC

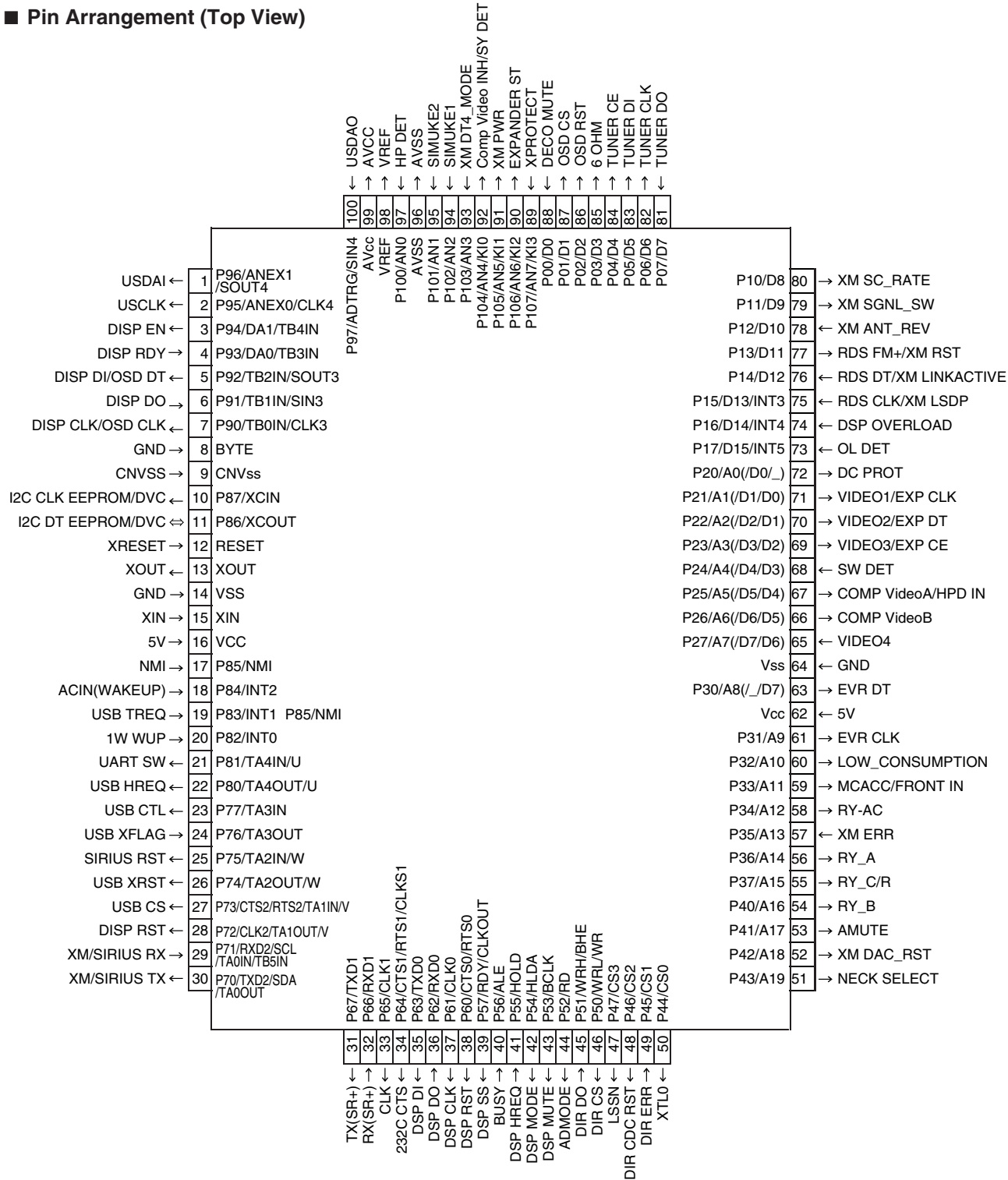
The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

List of IC
PEG377A

PEG377A (MAIN ASSY : IC9001)

System Control MCU

Pin Arrangement (Top View)



• Pin Function

No.	Port	Pin Name	I/O	Pin Function
1	P96/ANEX1/SOUT4	USDAI	O	Data out to USB
2	P95/ANEX0/CLK4	USCLK	O	Clock signal from USB
3	P94/DA1/TB4IN	DISP EN	O	Enable signal to display u-com
4	P93/DA0/TB3IN	DISP RDY	I	Ready signal from display u-com
5	P92/TB2IN/SOUT3	DISP DI/OSD DT	O	Data out to display u-com
6	P91/TB1IN/SIN3	DISP DO	I	Data in from display u-com
7	P90/TB0IN/CLK3	DISP CLK/OSD CLK	O	Clock signal to display u-com
8	BYTE	GND	I	Ground
9	CNVss	CNVSS	I	Terminate to GND with resistor
10	P87/XCIN	I2C CK EEPROM/DVC	O	I2C bus for EEPROM, DVC
11	P86/XCOUT	I2C DT EEPROM/DVC	I/O	I2C bus for EEPROM, DVC
12	RESET	XRESET	I	Reset signal input
13	XOUT	XOUT	O	X'tal output
14	VSS	GND	I	Ground
15	XIN	XIN	I	X'tal input
16	VCC	5V	I	Power supply
17	P85/NMI	NMI	I	Pull-up to +5 V with resistor
18	P84/INT2	ACIN(WAKEUP)	I	AC pulse in
19	P83/INT1 P85/NMI	USB TREQ	I	Request from TCC760 to main u-com
20	P82/INT0	1W WUP	I	Wake up signal from display u-com (pull-down)
21	P81/TA4IN/U	UART SW	O	XM/SIRIUS UART BUS SWITCH control
22	P80/TA4OUT/U	USB HREQ	O	Request from main u-com to TCC760
23	P77/TA3IN	USB CTL	O	From main u-com to USB power switch IC
24	P76/TA3OUT	USB XFLAG	I	From USB power switch IC to main u-com
25	P75/TA2IN/W	SIRIUS RST	O	Reset signal to SIRIUS
26	P74/TA2OUT/W	USB XRST	O	Reset signal to USB (pull-down)
27	P73/CTS2/RTS2/TA1IN/V	USB CS	O	From main u-com to TCC760
28	P72/CLK2/TA1OUT/V	DISP RST	O	Reset signal to display u-com
29	P71/RXD2/SCL/TA0IN/TB5IN	XM/SIRIUS RX	I	
30	P70/TXD2/SDA/TA0OUT	XM SIRIUS TX	O	Pull-up
31	P67/TXD1	TX (SR+)	O	SR+ communication
32	P66/RxD1	RX (SR+)	I	SR+ communication
33	P65/CLK1	CLK	O	It is necessary when writing for JIG
34	P64/CTS1/RTS1/CLKS1	232C CTS	O	For rewriting 232C (Admit communication)
35	P63/TXD0	DSP DI	O	Data output signal for communication with DSP and DIR
36	P62/RxD0	DSP DO	I	Data input signal for communication with DSP
37	P61/CLK0	DSP CLK	O	Clock signal for communication with DSP and DIR
38	P60/CTS0/RTS0	DSP RST	O	Reset signal for DSP
39	P57/RDY/CLKOUT	DSP SS	O	Strobe select signal to DSP
40	P56/ALE	BUSY	I	Use it in MCACC
41	P55/HOLD	DSP HREQ	I	DSP error detect signal
42	P54/HLDA	DSP MODE	O	Mode select of DSP (ROM/RAM)
43	P53/BCLK	DSP MUTE	O	DSP ASSY mute
44	P52/RD	ADMODE	O	DSP ASSY
45	P51/WRH/BHE	DIR DO	I	Data input signal for communication with DIR/DAC
46	P50/WRL/WR	DIR CS	O	Chip select signal for communication with DIR/DAC
47	P47/CS3	LSSN	O	DSP ASSY
48	P46/CS2	DIR CDC RST	O	Reset signal for DIR CODEC
49	P45/CS1	DIR ERR	I	lock/unlock signal
50	P44/CS0	XTL0	O	DIR X'tal change

• Pin Function

A

B

C

D

E

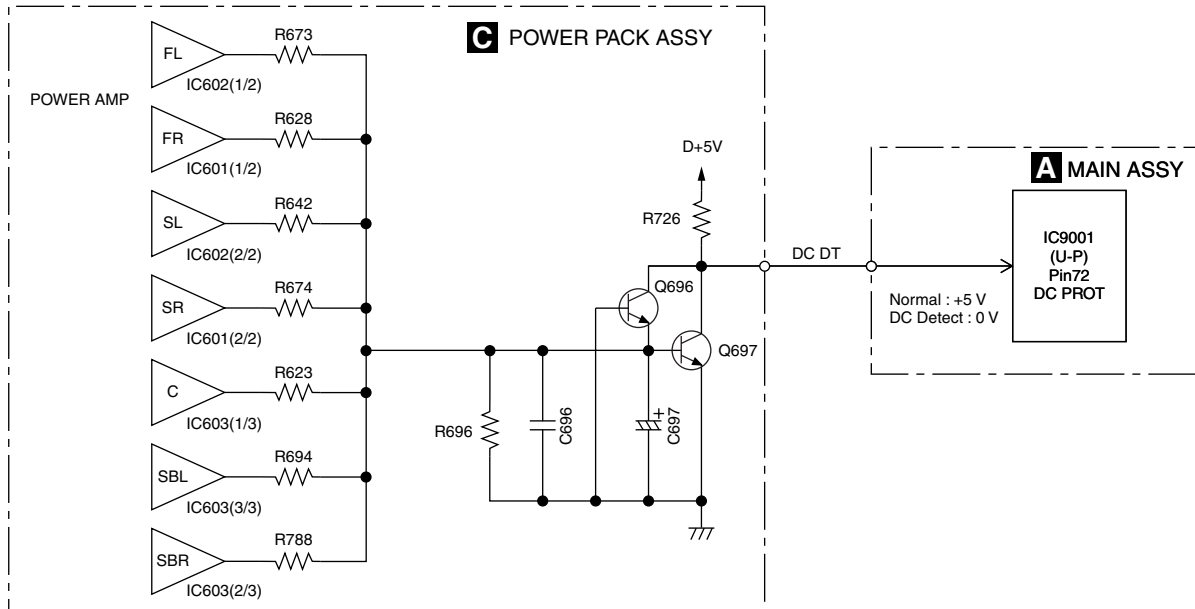
F

No.	Port	Pin Name	I/O	Pin Function
51	P43/A19	NECK SELECT	O	For 8ohm spk impedance: "H at Adv , Sandard, 5.1Multich, speaker A+B (7ch model). For 6 ohm spk impedance: L
52	P42/A18	XM DAC_RST	O	
53	P41/A17	AMUTE	O	System mute
54	P40/A16	RY_B	O	Speaker B relay-on / OFF at 916, 816 and 516. This RY_B is used for SW relay at 316.
55	P37/A15	RY_C/R	O	Rear one / center relay-on / OFF
56	P36/A14	RY_A	O	Speaker A relay-on / OFF
57	P35/A13	XM_ERR	I	
58	P34/A12	RY-AC	O	AC relay on/off
59	P33/A11	MCACC/FRONT IN	O	For analog switching control
60	P32/A10	LOW_CONSUMPTION	O	When 1 minutes passed after power off and then go into stop mode and port L, else H.
61	P31/A9	EVR CLK	O	Clock signal for Function and E-volume
62	Vcc	5V	I	
63	P30/A8/_/D7	EVR DT	O	Data signal for Function and E-volume
64	Vss	GND	I	
65	P27/A7(/D7/D6)	VIDEO4	O	917: SYNC DETECT , others: COMONENT VIDEO INH
66	P26/A6(/D6/D5)	COMP VideoB	O	Component terminal control
67	P25/A5(/D5/D4)	COMP VideoA/HPDIN	O	917: HDMI HOT PLUG DETECT, others: COMPONENT VIDEO A
68	P24/A4(/D4/D3)	SW DET	I	"H": SW YES, "L": SW NO
69	P23/A3(/D3/D2)	VIDEO3/EXP CE	O	917: EXPANDER CE , others: VIDEO3
70	P22/A2(/D2/D1)	VIDEO2/EXP DT	O	917: EXPANDER DATA ,others: VIDEO2
71	P21/A1(/D1/D0)	VIDEO1/EXP CLK	O	917: EXPANDER CLK , others: VIDEO1
72	P20/A0(/D0/_)	DC PROT	I	Amplifier DC detection. H:Normal, L:Abnormal
73	P17/D15/INT5	OL DET	I	Amplifier overload detection. H:Normal, L:Abnormal
74	P16/D14/INT4	DSP OVERLOAD	I	ANALOG OVER LOAD detect (H : detect)
75	P15/D13/INT3	RDS CLK/XM LSDP	I	RDS clock in signal
76	P14/D12	RDS DT/XM LINKACTIVE	I	RDS data in signal
77	P13/D11	RDS FM+/XM RST	O	RDS power supply. FM: Low, AM:High
78	P12/D10	XM ANT_REV	I	
79	P11/D9	XM SGNL_SW	O	
80	P10/D8	XM SC_RATE	O	
81	P07/D7	TUNER DO	I	Data input signal for tuner control
82	P06/D6	TUNER CLK	O	Clock signal for tuner control
83	P05/D5	TUNER DI	O	Data output signal for tuner control
84	P04/D4	TUNER CE	O	Chip select signal for tuner control
85	P03/D3	6 OHM	O	If stop mode, port L, else according to setting (J model No connect)
86	P02/D2	OSD RST	O	
87	P01/D1	OSD CS	O	
88	P00/D0	DECO MUTE	I	1st DSP detect port
89	P107/AN7/KI3	XPROTECT	I	Power supply abnormal condition detection. H: Normal, L: Abnormal.
90	P106/AN6/KI2	EXPANDER ST	O	Master volume ATT control (-15dB or less : L)
91	P105/AN5/KI1	XM PWR	O	
92	P104/AN4/KI0	Comp Video INH/SY DET	I/O	917: SYNC DETECT , others: COMONENT VIDEO INH
93	P103/AN3	XM DT4_MODE	I	
94	P102/AN2	SIMUKE1	I	Input 1 to switch region
95	P101/AN1	SIMUKE2	I	Input 2 to switch region
96	AVSS	AVSS	I	connects with VCC.
97	P100/AN0	HP DET	I	HP detection H:detected.
98	VREF	VREF	I	connects with VCC.
99	AVcc	AVCC	I	connects with VCC.
100	P97/ADTRG/SIN4	USDAO	I	data input from USB

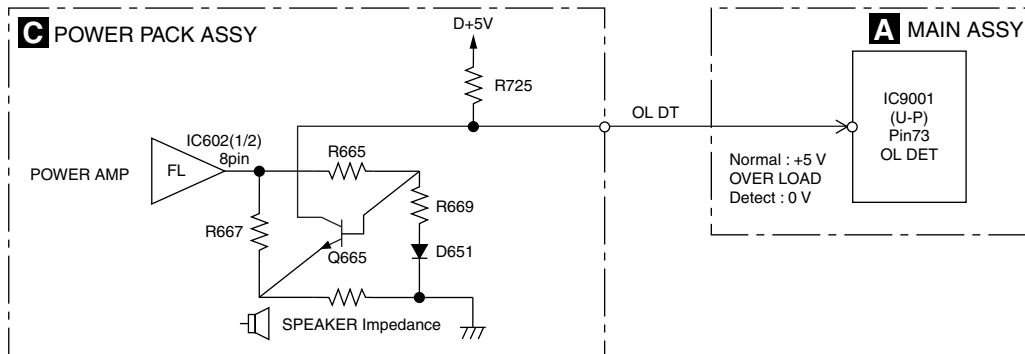
7.3 EXPLANATION

7.3.1 DETECTION CIRCUIT

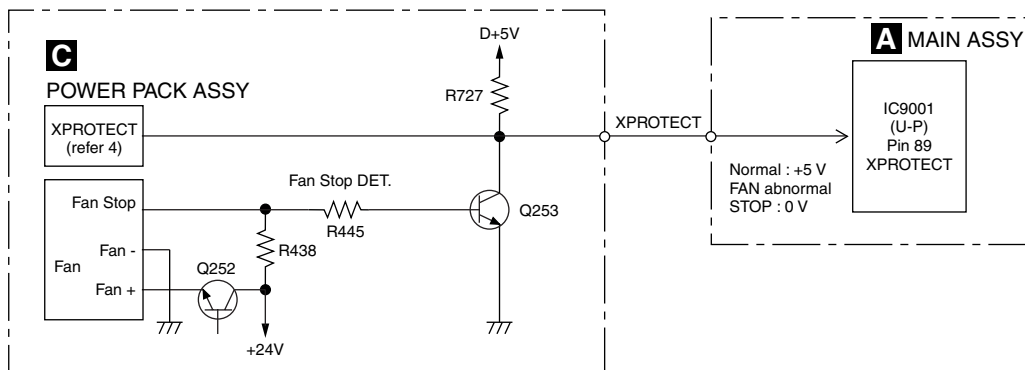
1. DC Derection Circuit Diagram : Example of VSX-917V/KUXJ/CA



2. Overload Detection Circuit Diagram: Example of VSX-917V/KUXJ/CA FRONT Channel



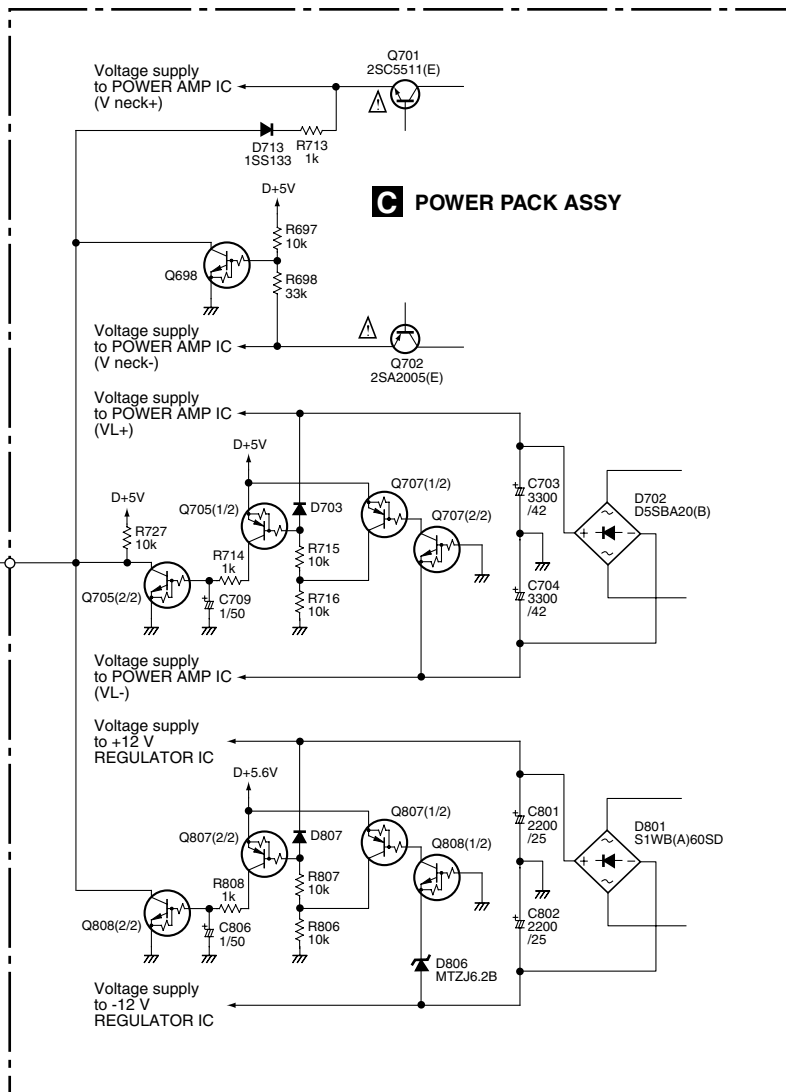
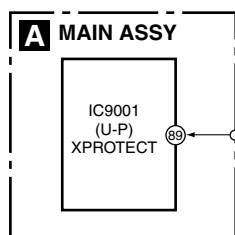
3. Fan Stop Protection Circuit Diagram



4. XPROTECT Detection Circuit Diagram

A When below 6 kind of voltage supply become to be short circuit to GND, XPROTECT circuit work and U-P input port voltage change from +5 V to 0 V. The U-P detect this condition as ERROR.

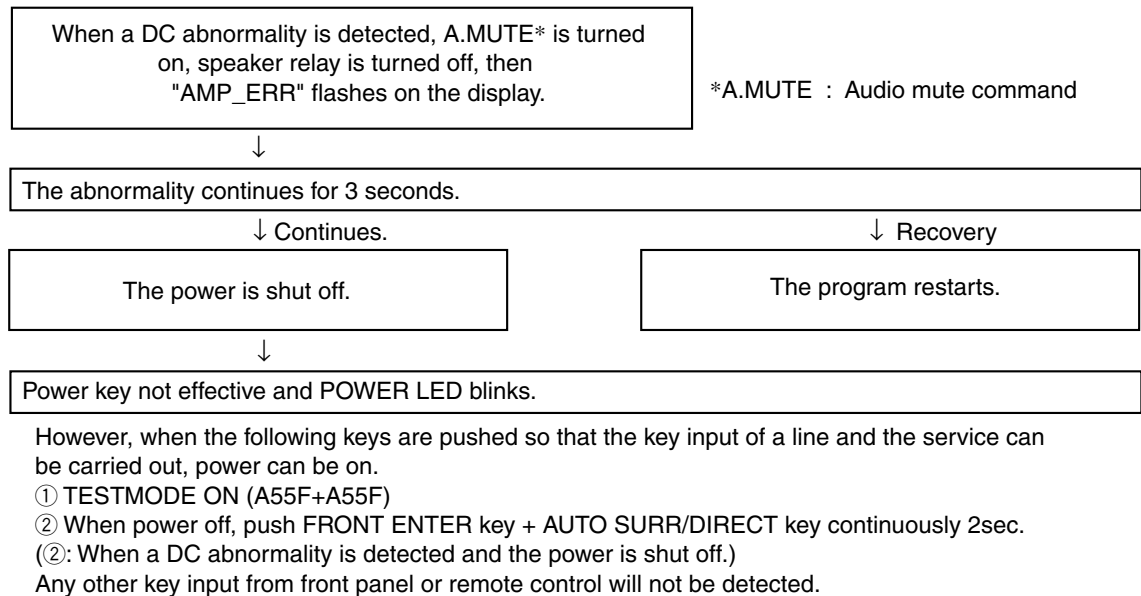
- Voltage supply to POWER AMP IC (V neck+)
- Voltage supply to POWER AMP IC (V neck-)
- Voltage supply to POWER AMP IC (VL+)
- Voltage supply to POWER AMP IC (VL-)
- Voltage supply to +12 V REGULATOR IC
- Voltage supply to -12 V REGULATOR IC



1. DC-abnormality detection

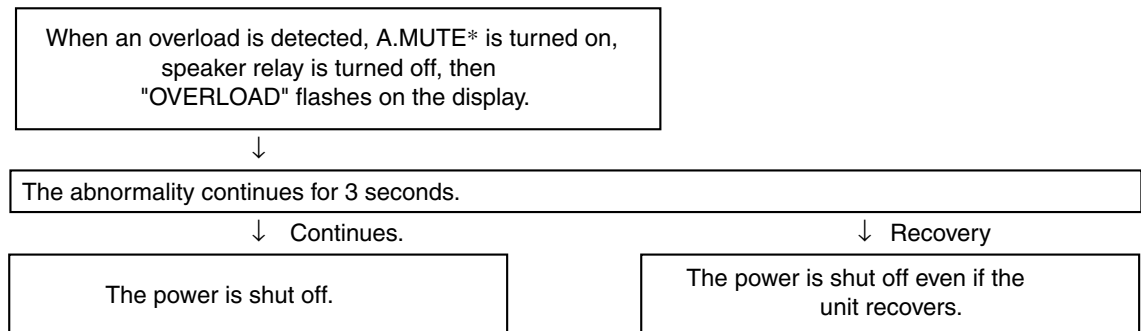
DC detection is only enabled 2 seconds after power-on.
 If there is a fault in the power amplifier or a high-level signal lower than 5 Hz is input, the DC_DET port becomes "L".
 If the "L" is detected, the microprocessor will perform as following flow chart.

In the case of simultaneous detection with the overload protection circuit, DC-abnormality detection is performed preferentially to overload detection.



2. Overload detection

If the speaker terminals are short-circuited or low-load driving is detected, the OL_DET port becomes "L".
 If the "L" is detected, the microprocessor will perform as following flow chart.



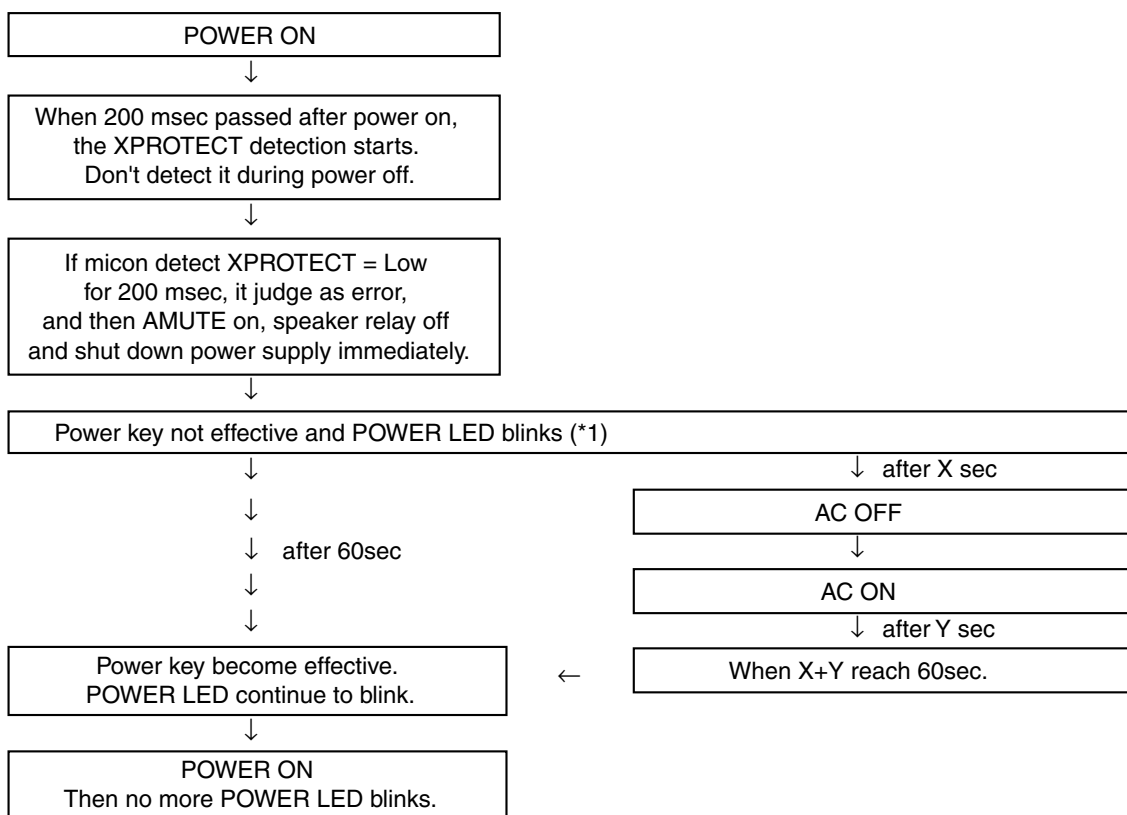
3. XPROTECT detection

XPROTECT is started to be monitored 200msec after power on.

XPROTECT port is checked every 20msec.

If Low level (ERROR) is recognized during consecutive 9 times, micon judge it as XPROTECT ERROR.

It processes more preferentially than DC abnormal detection and overload detection.



(*1) However, when the following keys are pushed so that the key input of a line and the service can be carried out, power can be on.

① TESTMODE ON (A55F+A55F)

② When power off, push FRONT ENTER key + AUTO SURR/DIRECT key continuously 2sec.

(Effective, only when power-off is carried out by DC detection / XPROTECT detection)

Any other key input from front panel or remote control will not be detected.

4. Fan stop detection operation flow in the XPROTECT detection

If the fan is forcibly stopped or become out of order, the 'XPROTECT' port becomes "L". Then an abnormality of fan is detected.

- Detection routine and recovery is same as "3. XPROTECT detection".

7.3.3 AMPLIFIER FAILURE DIAGNOSIS FLOW CHART

■ Amplifier failure diagnosis flow chart

When DC detection is activated ("AMP_ERR" flashes on the display), failure (damage) of the power amplifier section is considered.

Caution:

When releasing the lock state of power key before repair, please be careful because there is the possibility that more damages will occur when turning on the power once again!

- According to a symptom, perform the following confirmation beforehand.

1) Are there any Fuses and IC protectors open?

↓

2) After turn on the power, confirm that the supply voltage of the point that can be measured is appropriate. (Particularly the supply voltage of the power Tr and drive step)

↓

3) Whether the voltage of pin2 and pin5 of IC601, IC602 or IC603 is equal to (VL-0.7V). If not (eg, equal to VH), then change the corresponding power pack IC601, IC602 or IC603.

↓

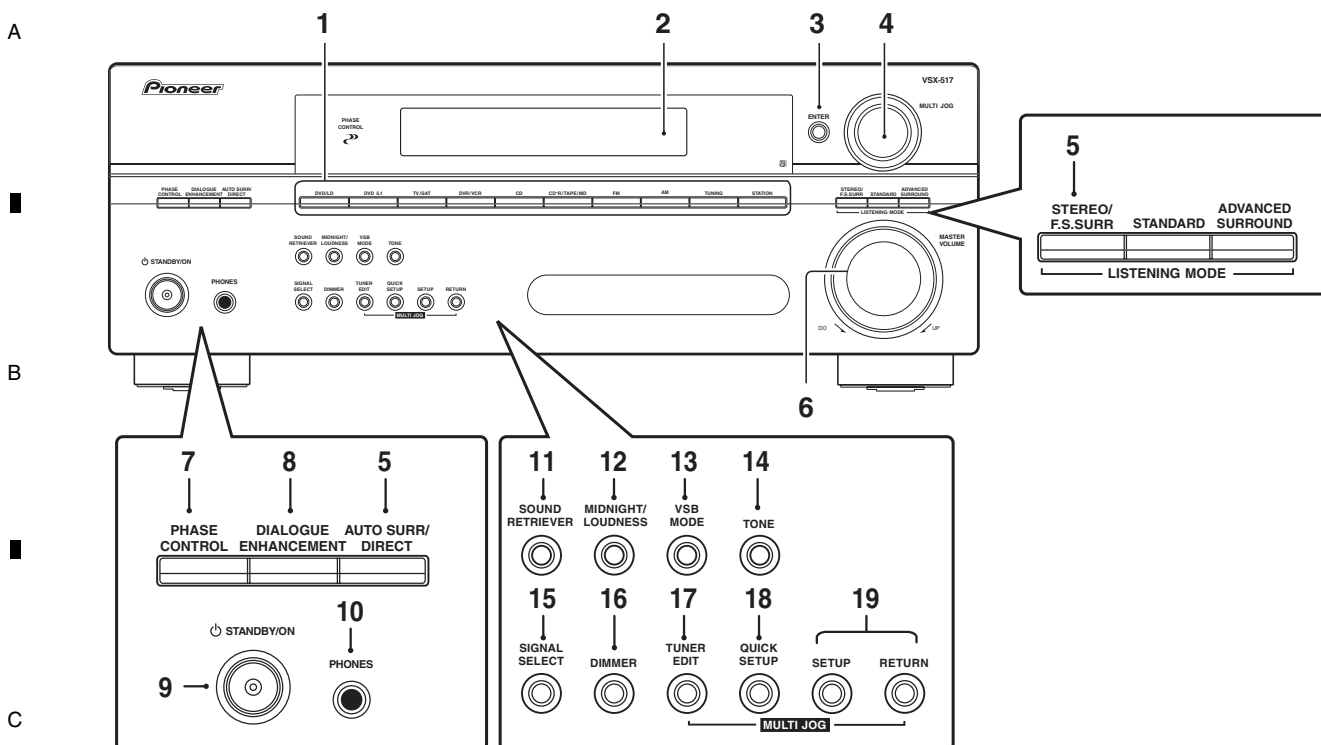
4) Furthermore, check the output DC voltage of each channel of power pack IC601, IC602 and IC603 to limit the failure channel and identify the defect power pack.

↓

- After identify the failure channel, check that each part is not damaged (resistor, diode... etc. value / open / short)

8. PANEL FACILITIES

Front panel



1 Input select buttons

Selects an input source.

2 Character display

See Display.

3 ENTER

4 MULTI JOG dial

The **MULTI JOG** dial performs a number of tasks. Use it to select options after pressing the designated **MULTI JOG** buttons.

5 LISTENING MODE buttons

STEREO/F.S.SURR

Switches between stereo playback and Front Stage Surround Advance modes.

STANDARD

Press for Standard decoding and to switch between the various **Pro Logic II** options.

ADVANCED SURROUND

Switches between the various surround modes.

AUTO SURR/DIRECT

Switches between Auto surround mode (Auto playback) and Stream Direct playback. Stream Direct playback bypasses the tone controls for the most accurate reproduction of a source.

6 MASTER VOLUME

7 PHASE CONTROL

Press to switch on/off Phase Control.

8 DIALOGUE ENHANCEMENT

Use to make dialog stand out when watching TV or a movie.

9 STANDBY/ON

10 PHONES jack

Use to connect headphones (when connected, there is no sound output from the speakers).

11 SOUND RETRIEVER

Press to restore CD quality sound to compressed audio sources.

12 MIDNIGHT/LOUDNESS

Switches to Midnight/Loudness listening.

13 VSB MODE

Press to switch on/off Virtual Surround Back (VSB) mode.

14 TONE

Press this button to access the bass and treble controls, which you can then adjust with the **MULTI JOG** dial.

15 SIGNAL SELECT

Selects an input signal.

16 DIMMER

Dims or brightens the display.

17 TUNER EDIT

Memorizes/names stations for recall.

18 QUICK SETUP

See Using the Quick Setup.

19 System Setup menu controls

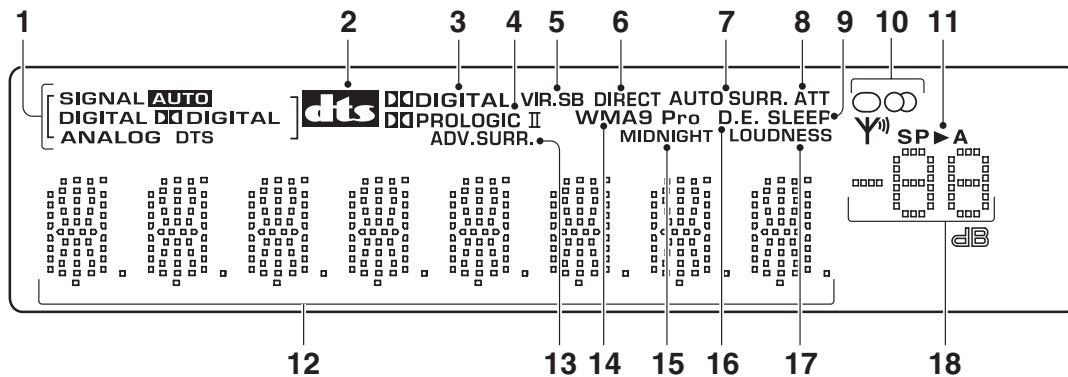
SETUP

Use with the **MULTI JOG** dial to access the System Setup menu.

RETURN

Confirms and exits the current menu.

Display



1 SIGNAL SELECT indicators

Lights to indicate the type of input signal assigned for the current component:

AUTO

Lights when **AUTO** signal select is on.

DIGITAL

Lights when a digital audio signal is detected.

DTS

Lights when a source with DTS encoded audio signals is detected.

DIGITAL

Lights when a Dolby Digital encoded signal is detected.

ANALOG

Lights when an analog signal is detected.

2

Lights to indicate decoding of a DTS multichannel signal.

3 DIGITAL

Lights to indicate decoding of a Dolby Digital multichannel signal.

4 PRO LOGIC II

Lights to indicate Pro Logic II decoding (see Listening in surround sound for more on this).

5 VIR.SB

Lights during Virtual surround back processing.

6 DIRECT

Lights when source Stream Direct playback is in use. Stream Direct playback bypasses the tone controls for the most accurate reproduction of a source.

7 AUTO SURR.

Lights when the Auto Surround feature is switched on (see Auto playback).

8 ATT

Lights when **ANALOG ATT** is used to attenuate (reduce) the level of the analog input signal.

9 SLEEP

Lights when the receiver is in sleep mode.

10 Tuner indicators

○ / MONO

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

⊞ / STEREO

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

Υ / TUNED

Lights when a broadcast is being received.

11 Speaker indicator

Shows if the speaker system is on or not.

SP ► A means the speakers are switched on.

SP ► means the headphones are connected.

12 Character display

13 ADV.SURR (Advanced Surround)

Lights when one of the Advanced Surround modes has been selected.

14 WMA9 Pro

Lights to indicate decoding of a WMA9 Pro signal.

15 MIDNIGHT

Lights during Midnight listening.

16 D.E.

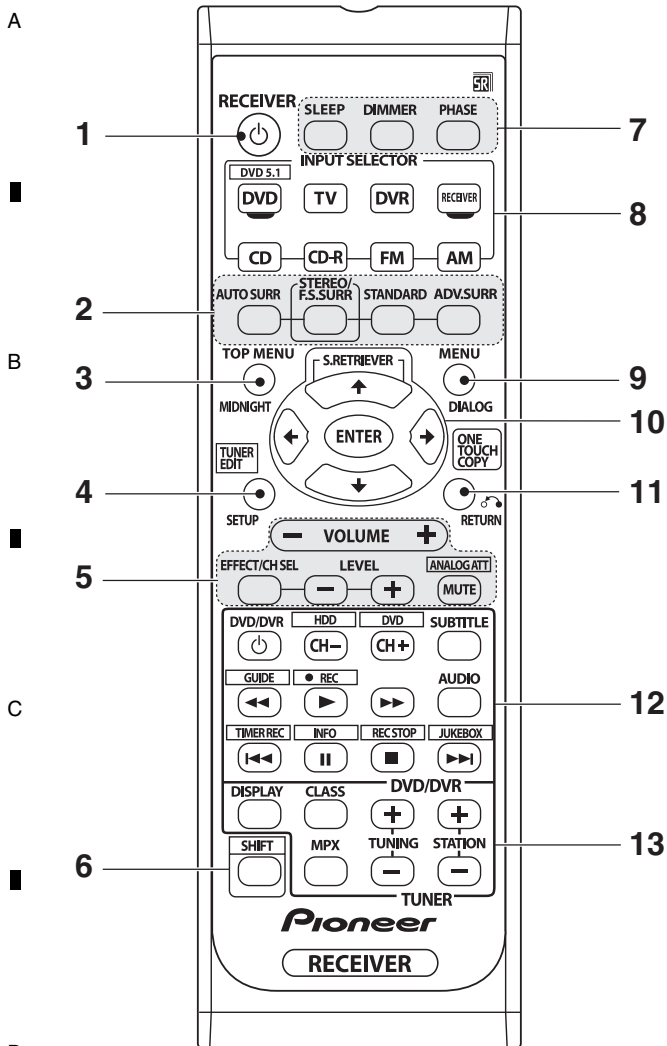
Lights when Dialog Enhancement is switched on.

17 LOUDNESS

Lights during Loudness listening.

18 Master volume level

Remote control



1 RECEIVER

Switches the receiver between standby and on.

2 Listening mode buttons

AUTO SURR

Switches between Auto surround mode (Auto playback) and Stream Direct playback. Stream Direct playback bypasses the tone controls for the most accurate reproduction of a source.

STANDARD

Press for Standard decoding and to switch between Pro Logic II options.

STEREO/F.S. SURR

Switches between stereo playback and Front Stage Surround Advance modes.

ADV. SURR

Switches between the various surround modes.

3 TOP MENU

Displays the disc top menu of a DVD.

MIDNIGHT/LOUDNESS

Switches to Midnight or Loudness listening.

4 TUNER EDIT*

Memorizes/names stations for recall.

SETUP

Press to access the System Setup menu. Also functions as the **SETUP** button for DVD/DVR units.

5 RECEIVER CONTROL buttons

VOLUME +/-

Use to set the listening volume.

EFFECT/CH SEL

Press repeatedly to select a channel, then use **LEVEL +/-** to adjust the level. Also adjusts the level of the Advanced Surround effects as well as Dolby Pro Logic II Music parameters. You can then use the **LEVEL +/-** buttons to make these adjustments.

LEVEL +/-

Use to adjust the effect and channel levels.

MUTE

Mutes/unmutes the sound.

ANALOG ATT*

Attenuates (lowers) the level of an analog input signal to prevent distortion.

6 SHIFT

Press to access the boxed commands (above the buttons) on the remote. These buttons are marked with an asterisk (*) in this section.

7 SLESLEEP

Press to change the amount of time before the receiver switches into standby (30 min - 60 min - 90 min - Off). You can check the remaining sleep time at any time by pressing **SLEEP** once.

DIMMER

Dims or brightens the display.

PHASE

Press to switch on/off Phase Control.

8 INPUT SELECTOR buttons

Press to select an input source.

DVD/DVR

Press to use the remote DVD/DVR controls.

RECEIVER

Use to switch to the receiver controls on the remote control. Use when setting up surround sound for the receiver.

9 MEMENU

Displays the disc menu of DVD-Video discs. It also displays TV menus.

DIALOG

Use to make dialog stand out when watching TV or a movie.

10 /ENTER

Use the arrow buttons when setting up your surround sound system. Also used for DVD menus.

(S.RETRIEVER)*

Press to restore CD quality sound to compressed audio sources.

11 RETURN

Confirm and exit the current menu screen.

ONE TOUCH COPY*

Copies the currently playing title from DVD to HDD or vice-versa.

12 DVD/DVR control buttons

Use these buttons to control a Pioneer DVD player or recorder connected to your system (press **SHIFT** to access the commands bordered by a rectangle).

13 TUNER controls

The **TUNING +/-** buttons can be used to find radio frequencies and the **STATION +/-** buttons can be used to select preset radio stations.

DISPLAY

Switch the display between station preset name and frequency.

CLASS

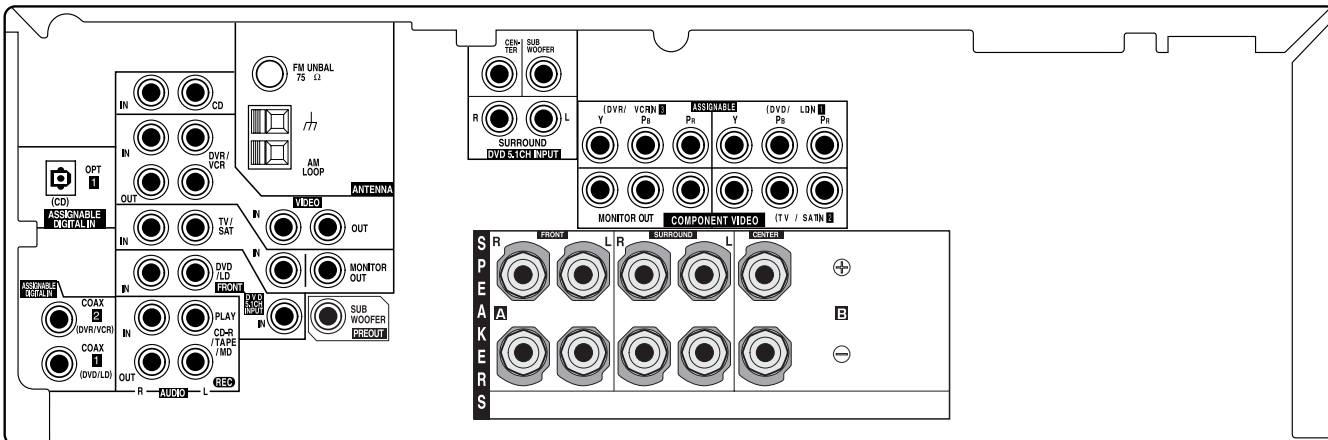
Switches between the three banks (classes) of station presets.

MPX

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.

Button	What it does
DVD/ DVR/ 	Turns DVD power on/off.
CH +/-	Switches channels.
SUBTITLE	Displays/changes the subtitles on multilingual DVD-Video discs.
AUDIO	Changes audio language or channel.
	Starts/resumes normal playback.
	Pauses/unpauses a disc.
	Stops playback.
 	Press to start fast reverse/forward scanning.
	Skips to the start of the current track or chapter, then previous tracks/chapters.
	Skips to the next track or chapter.
HDD/ DVD*	Switch between the hard disk and DVD controls for DVD/HDD recorders.
GUIDE*	Displays the guides on a DVD/DVR.
 REC*	Starts recording.
TIMER REC*	Accesses the timerrecording menu.
INFO*	Displays additional EPG information.
REC STOP *	Stops recording.
JUKEBOX*	Switches to the Jukebox feature.

Rear panel



CLEANING



A

Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

B

C

D

E

F