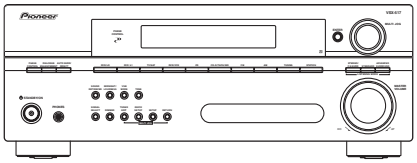
Pioneer *sound.vision.soul*

Service Manual



VSX-517-K

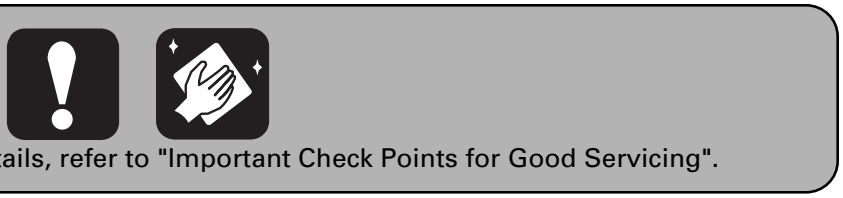
ORDER NO.
RRV3550

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-517-K
VSX-517-S

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

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



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

T-ZZK FEB. 2007 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

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

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

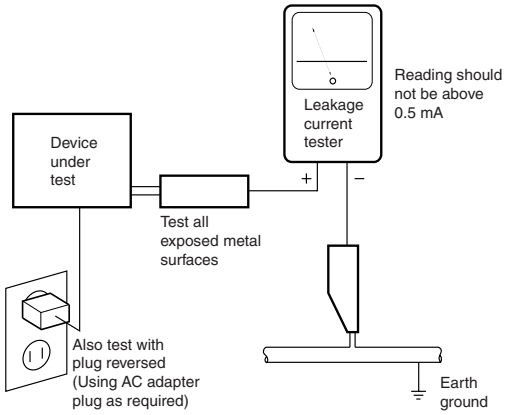
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 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

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 kΩ

- **Frequency response**

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

- **Output (Level/Impedance)**

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

- **Tone control**

Bass . . . . . ± 6 dB (100 Hz)
Treble . . . . . ± 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⇨MONITOR . . . . . 5 Hz to 7 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio. . . . . 55 dB
Crosstalk . . . . . 50 dB

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⇨MONITOR. . . . . 5 Hz to 40 MHz $^{+0}_{-3}$ 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 µV/ 75 Ω)
50 dB Quieting Sensitivity. . . . . Mono: 20.2 dB
Stereo: 38.6 dBf
Signal-to-Noise Ratio . . . . Mono: 73 dB (at 85 dBf)
Stereo: 70 dB (at 85 dBf)
Distortion . . . . . Stereo: 0.5 % (1 kHz)
Alternate Channel Selectivity . . . . 60 dB (400 kHz)
Stereo Separation. . . . . 40 dB (1 kHz)
Frequency Response . . . . . 30 Hz to 15 kHz (±1 dB)
Antenna Input (DIN) . . . . . 75 Ω unbalanced

AM Tuner Section

Frequency Range . . . . . 530 kHz to 1700 kHz
Sensitivity (IHF, Loop antenna). . . . . 350 µV/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
$16^{9}/_{16}$ (W) in. x $6^{1}/_{4}$ (H) in. x $13^{7}/_{8}$ (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

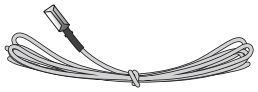
1 Continuous average power output of 110 watts* per channel, min., at 8 ohms, from 20 Hz to 20 000 Hz with no more than 0.2 %** total harmonic distortion (front).
* Measured pursuant to the Federal Trade Commissionís Trade Regulation rule on Power Output Claims for Amplifiers.
** Measured by Audio Spectrum Analyzer.

Note

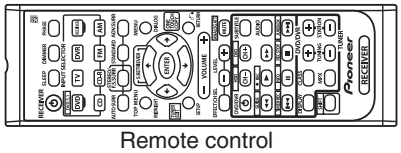
Specifications and the design are subject to possible modifications without notice, due to improvements.

Accessories

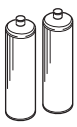
AM loop antenna
(ATB7013)



FM wire antenna
(ADH7030)



Remote control
(XXD3135)

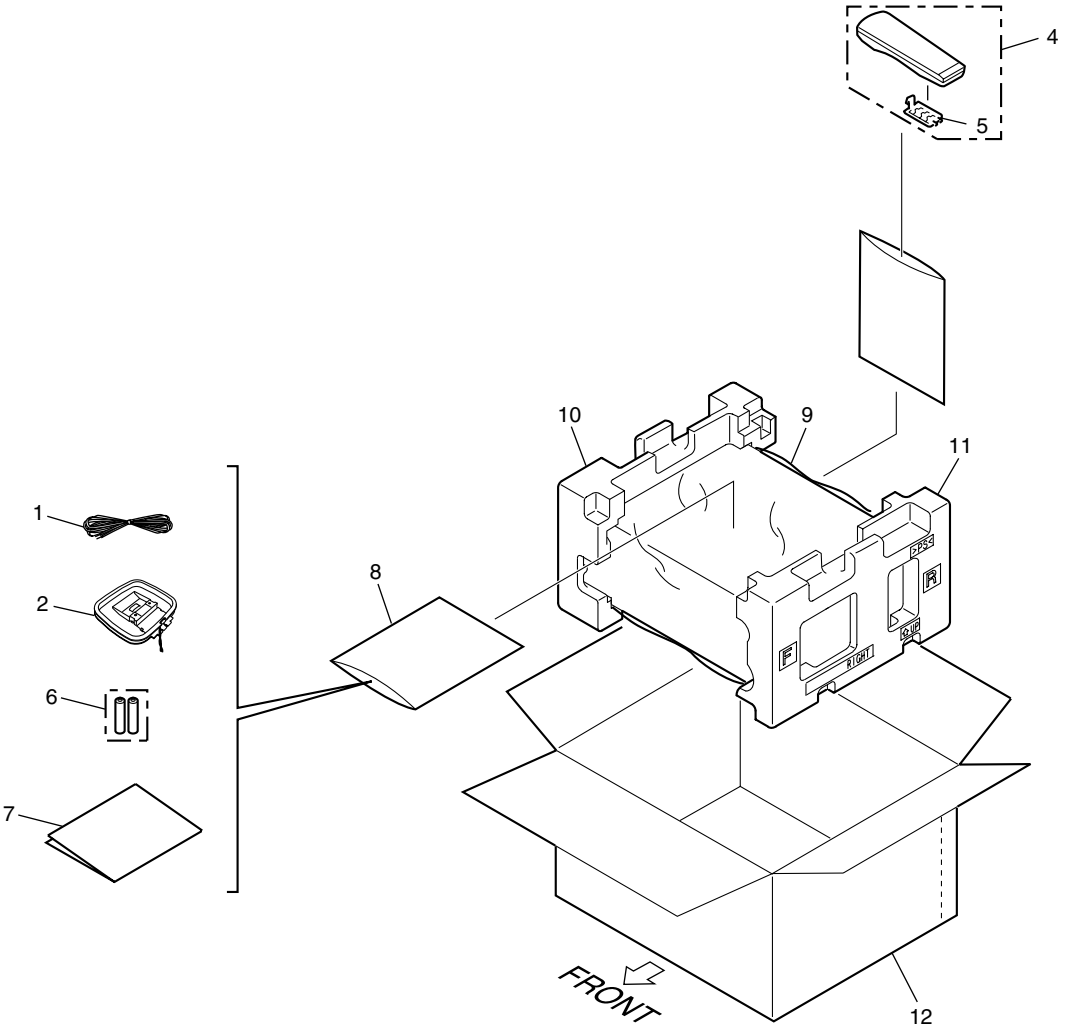


AA size IEC R6
Dry cell batteries (x2)

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

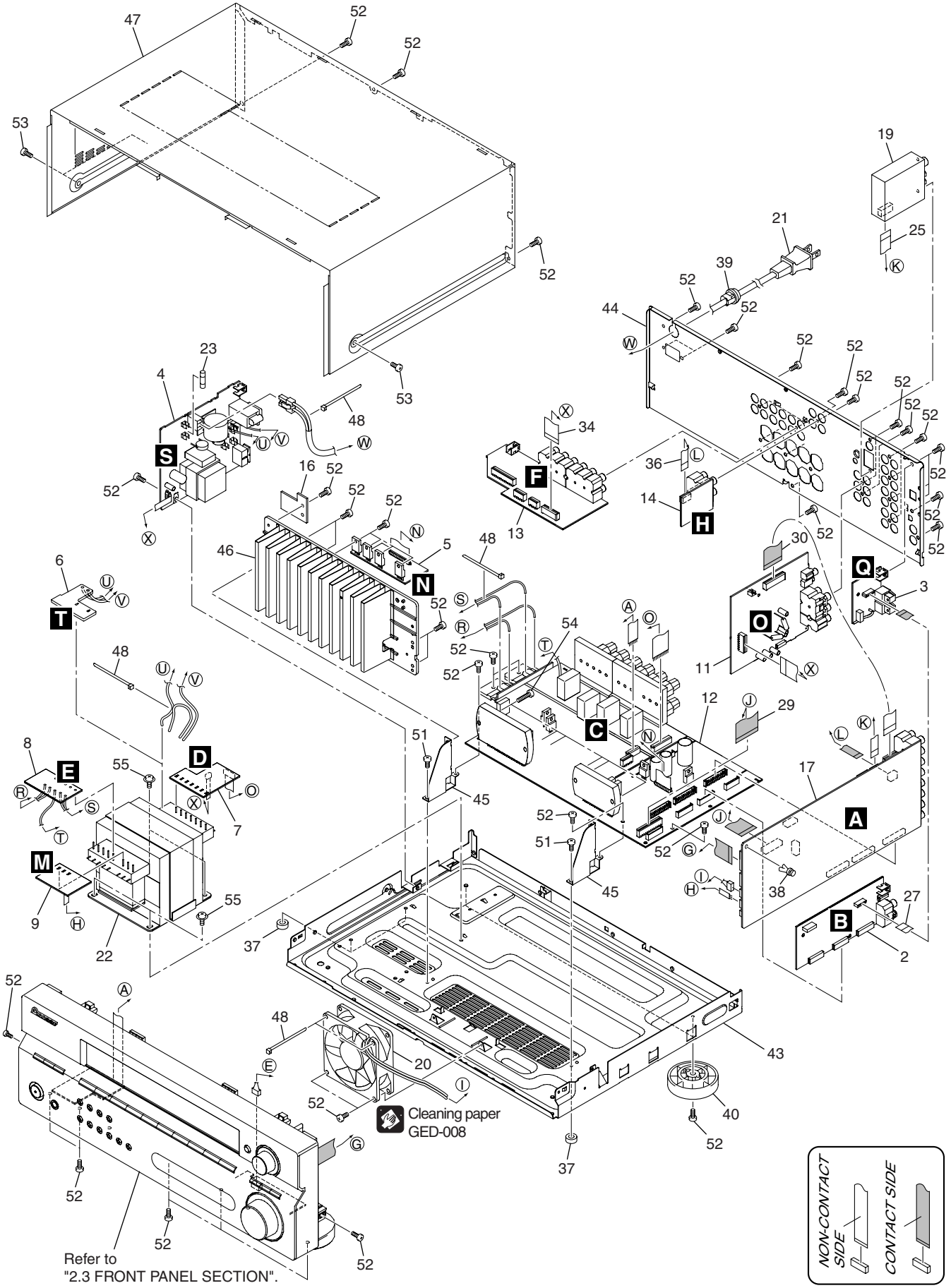
Mark	No.	Description	Part No.
	1	FM Wire Antenna	ADH7030
	2	AM Loop Antenna	ATB7013
	3	•••••	
	4	Remote Control	XXD3135
	5	Battery Cover	XZN3139
NSP	6	Dry Cell Battery (AA, R6)	XEX3002
	7	Operating Instructions (English)	XRE3138
NSP	8	Polyethylene Bag (0.06*230*340)	AHG7117
	9	Packing Sheet	AHG7069
	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.
	1	•••••	
	2	DSP Assy	AWX8812
	3	DIGITAL INPUT Assy	XWZ4211
	4	PRIMARY Assy	XWZ4215
	5	REGULATOR Assy	XWZ4271
	6	TRANS1 Assy	XWZ4224
	7	TRANS2 Assy	XWZ4243
	8	TRANS3 Assy	XWZ4246
	9	TRANS4 Assy	XWZ4225
	10	•••••	
	11	VIDEO Assy	XWZ4207
	12	POWER PACK Assy	XWZ4232
	13	COMPONENT VIDEO Assy	XWZ4247
	14	5.1CH INPUT Assy	XWZ4249
	15	•••••	
	16	BIND Assy	XWZ4252
	17	MAIN Assy	XWK3300
	18	•••••	
	19	FM/AM TUNER Unit	AXX7210
⚠	20	DC Fan Motor	XXM3012
⚠	21	AC Power Cord	ADG7024
⚠	22	Power Transformer (T1501)	XTS3106
⚠	23	Fuse (FU1 : 10 A)	REK1154
	24	•••••	
	25	11P Flexible Cable/30V	XDD3189
	26	•••••	
	27	10P Flexible Cable/30V	XDD3196
	28	•••••	
	29	17P Flexible Cable/30V	XDD3203
	30	13P Flexible Cable/30V	XDD3220

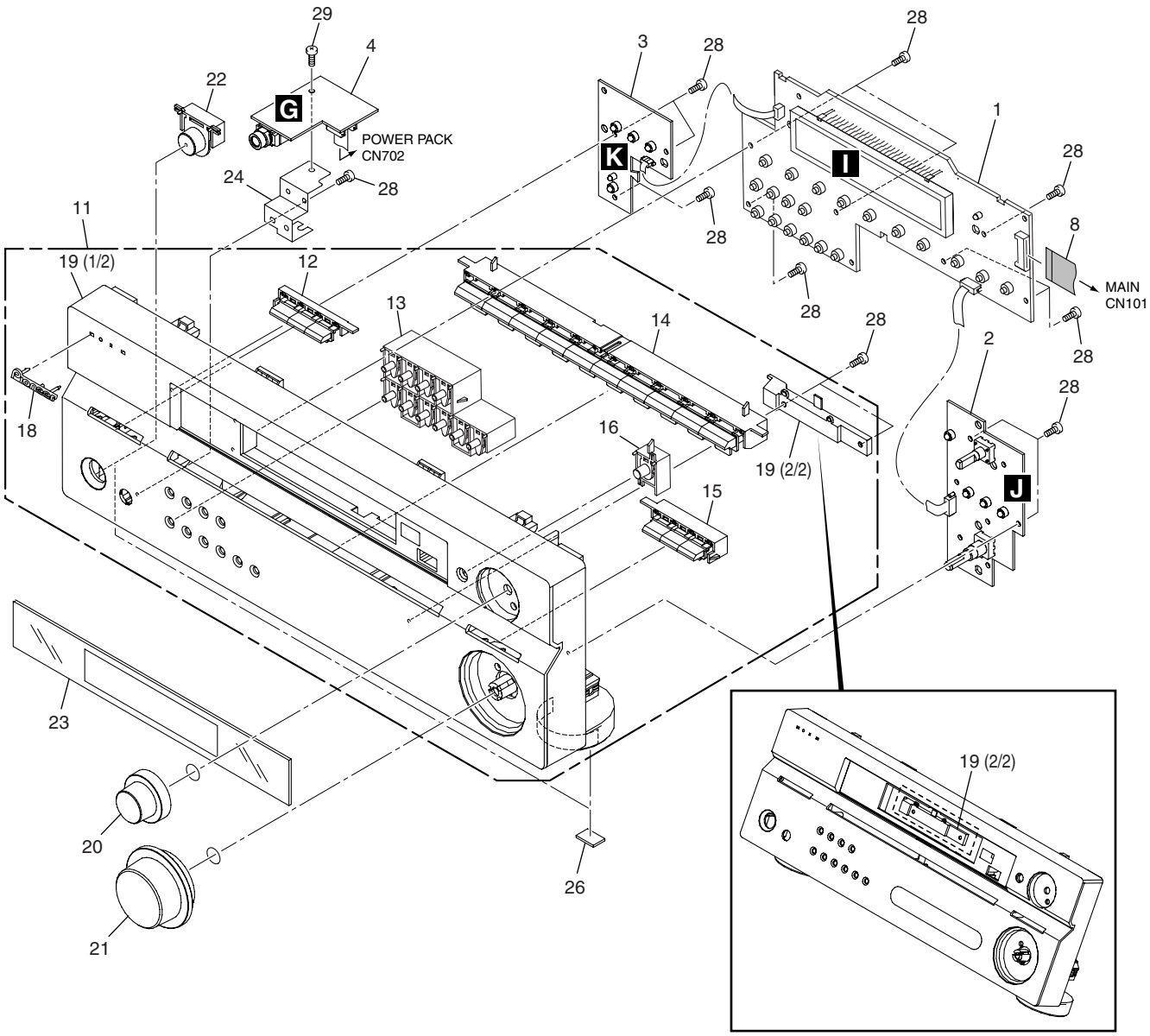
Mark	No.	Description	Part No.
	31	•••••	
	32	•••••	
	33	•••••	
	34	7P Flexible Cable/30V	XDD3235
	35	•••••	
	36	7P Flexible Cable/30V	XDD3235
NSP	37	Spacer	AEB7092
	38	Push Rivet	AEC7205
	39	Cord Stopper	CM-22C
	40	Insulator	AMR7198
	41	•••••	
	42	•••••	
NSP	43	Chassis 816	XNA3026
	44	Rear Panel	See Contrast table (2)
	45	Heatsink Angle V3	XNG3145
NSP	46	Heatsink	XNH3043
	47	Bonnet	See Contrast table (2)
NSP	48	Binder (BK-1)	ZCA-BK1
	49	•••••	
	50	•••••	
	51	Screw	BBZ30P060FCC
	52	Screw	BBZ30P080FNI
	53	Screw	See Contrast table (2)
	54	Screw	BBZ30P140FTC
	55	Screw	BBZ40P080FNI

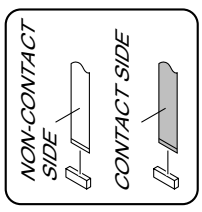
(2) CONTRAST TABLE

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

2.3 FRONT PANEL SECTION





(1) FRONT PANEL SECTION PARTS LIST

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

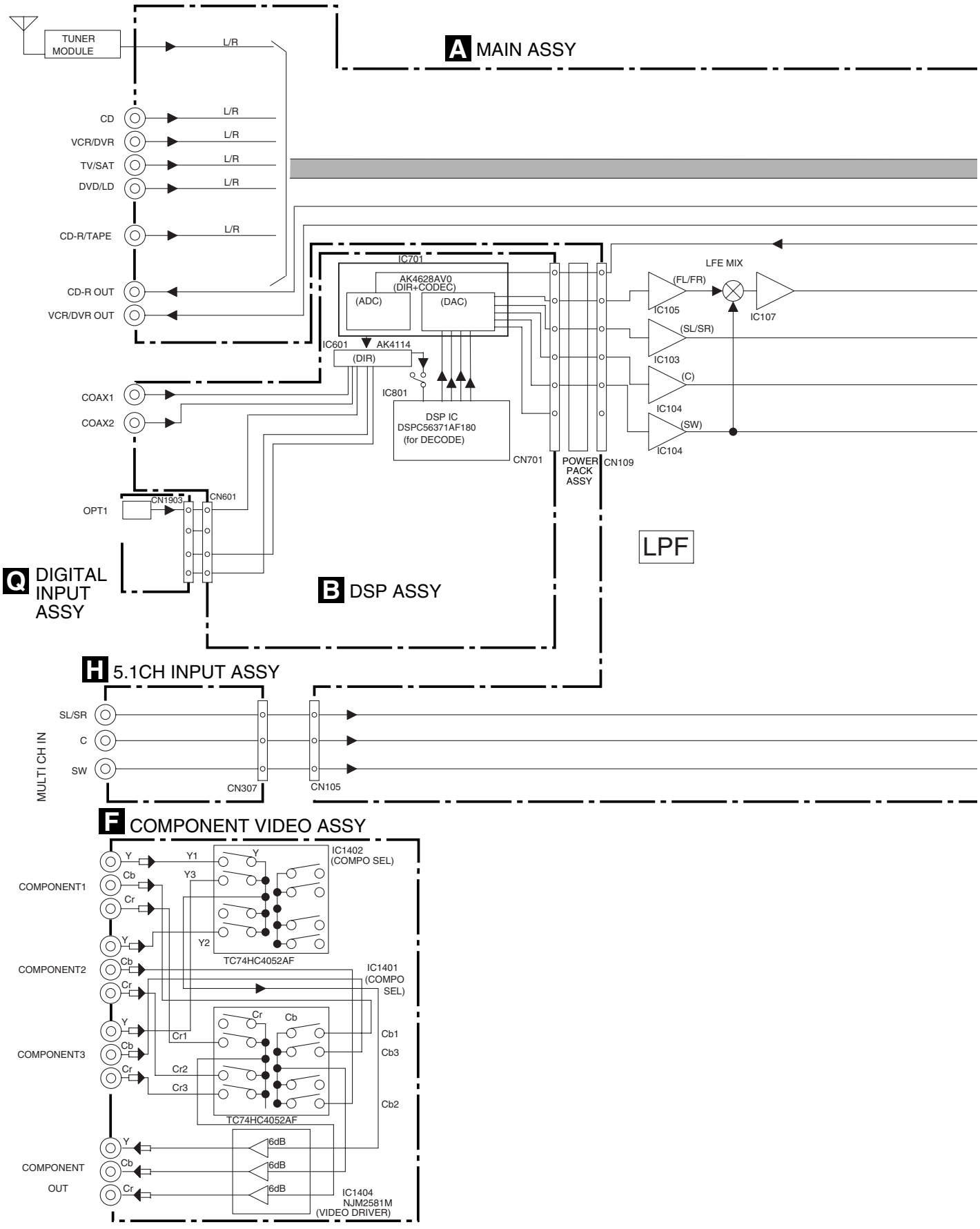
(2) CONTRAST TABLE

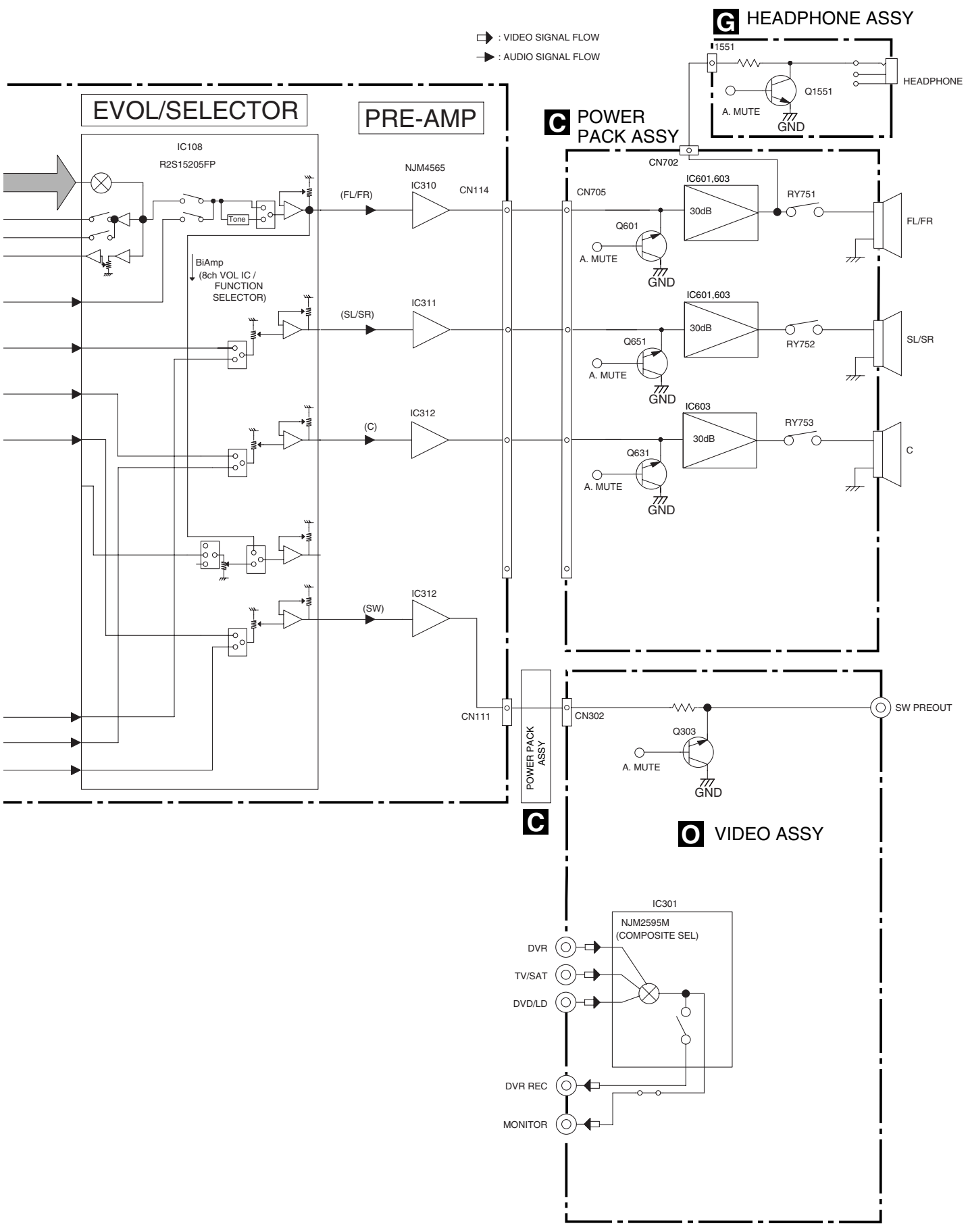
VSX-517-K/KUCXJ and VSX-517-S/KUCXJ are constructed the same except for the following:

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

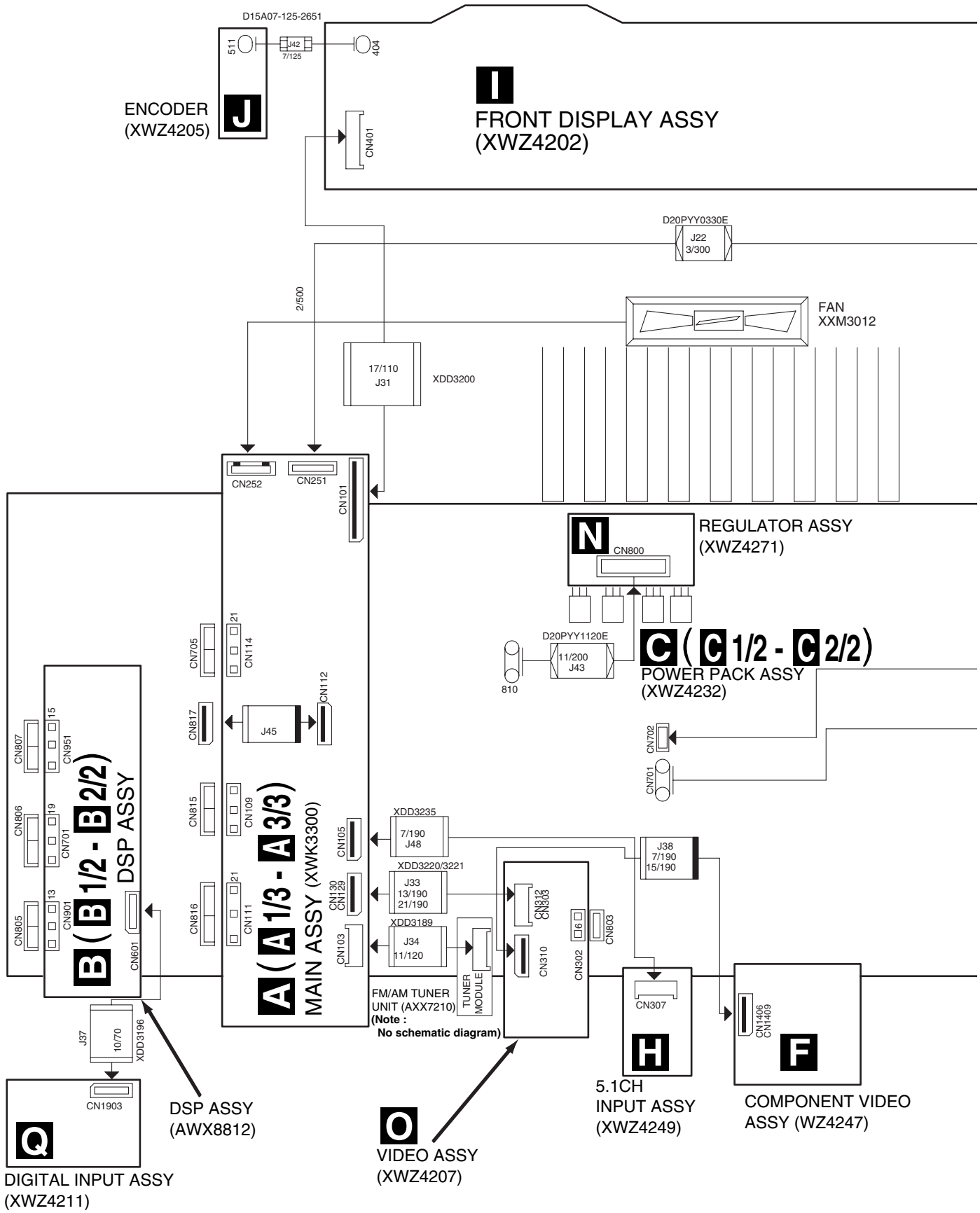
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

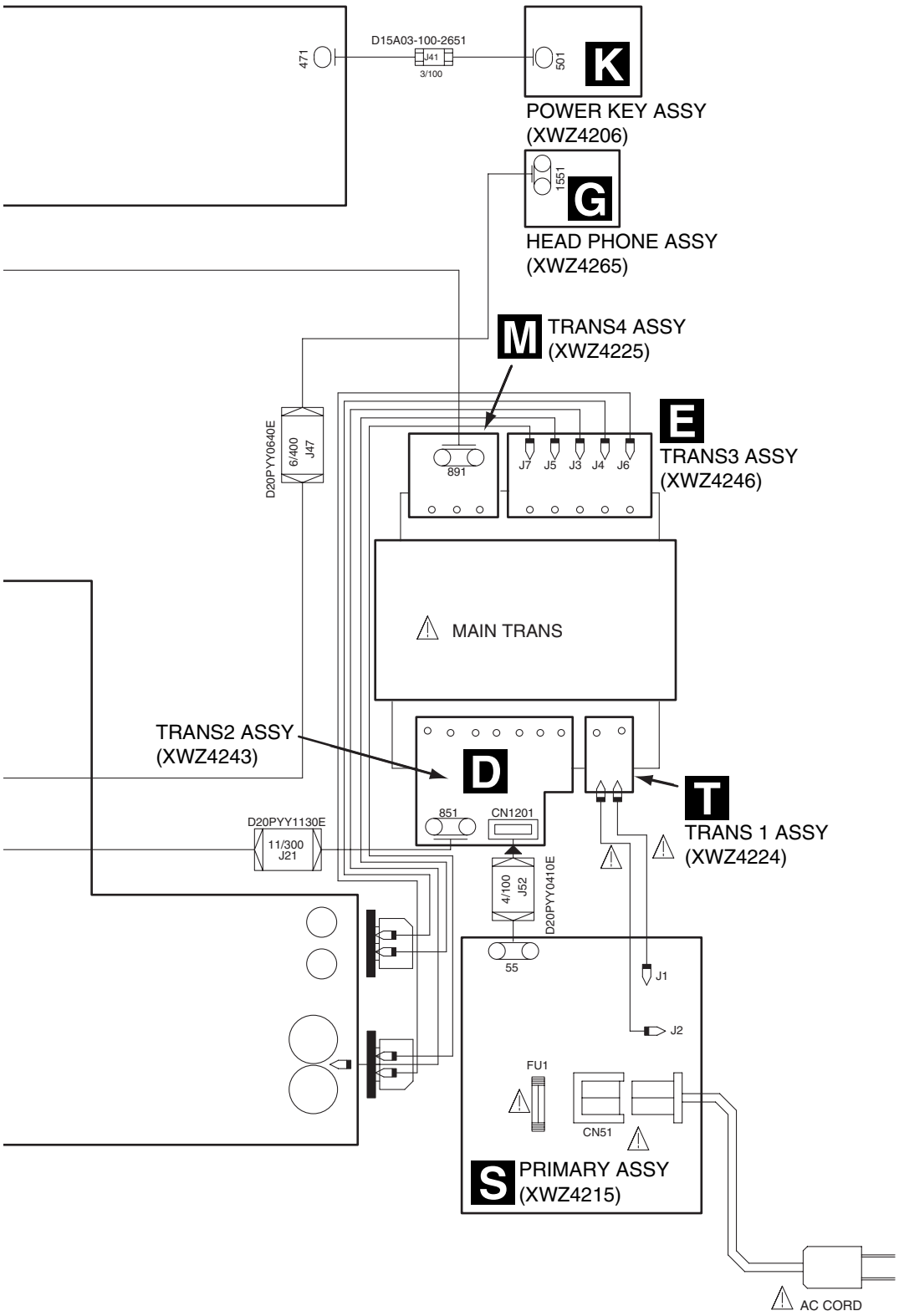
3.1 BLOCK DIAGRAM




: VIDEO SIGNAL FLOW
: AUDIO SIGNAL FLOW
G HEADPHONE ASSY
1551
Q1551
A. MUTE
GND
HEADPHONE
EVOL/SELECTOR
PRE-AMP
C POWER PACK ASSY
IC108
R2S15205FP
Tone
BiAmp
(8ch VOL IC / FUNCTION SELECTOR)
NJM4565
IC310
(FL/FR)
CN114
CN705
CN702
IC601,603
30dB
RY751
Q601
A. MUTE
GND
FL/FR
IC311
(SL/SR)
Q651
RY752
SL/SR
IC312
(C)
IC603
RY753
Q631
C
IC312
(SW)
CN111
POWER PACK ASSY
CN302
SW PREOUT
Q303
C
O VIDEO ASSY
IC301
NJM2595M
(COMPOSITE SEL)
DVR
TV/SAT
DVD/LD
DVR REC
MONITOR

3.2 OVERALL WIRING CONNECTION DIAGRAM





B*B-PH-K-S
PH CONNECTOR
B*B-EH
EH CONNECTOR
1.0mm FFC
1.25mm FFC
1.25mm REVERSE FFC
2.0mm FLAT CABLE
1.5mm FLAT CABLE

BOARD IN
1.0mm FFC CONNECTOR
1.25mm FFC CONNECTOR(L)
1.25mm FFC CONNECTOR
2.0mm CABLE HOLDER
1.5mm CABLE HOLDER
2.0mm CABLE CONNECTOR

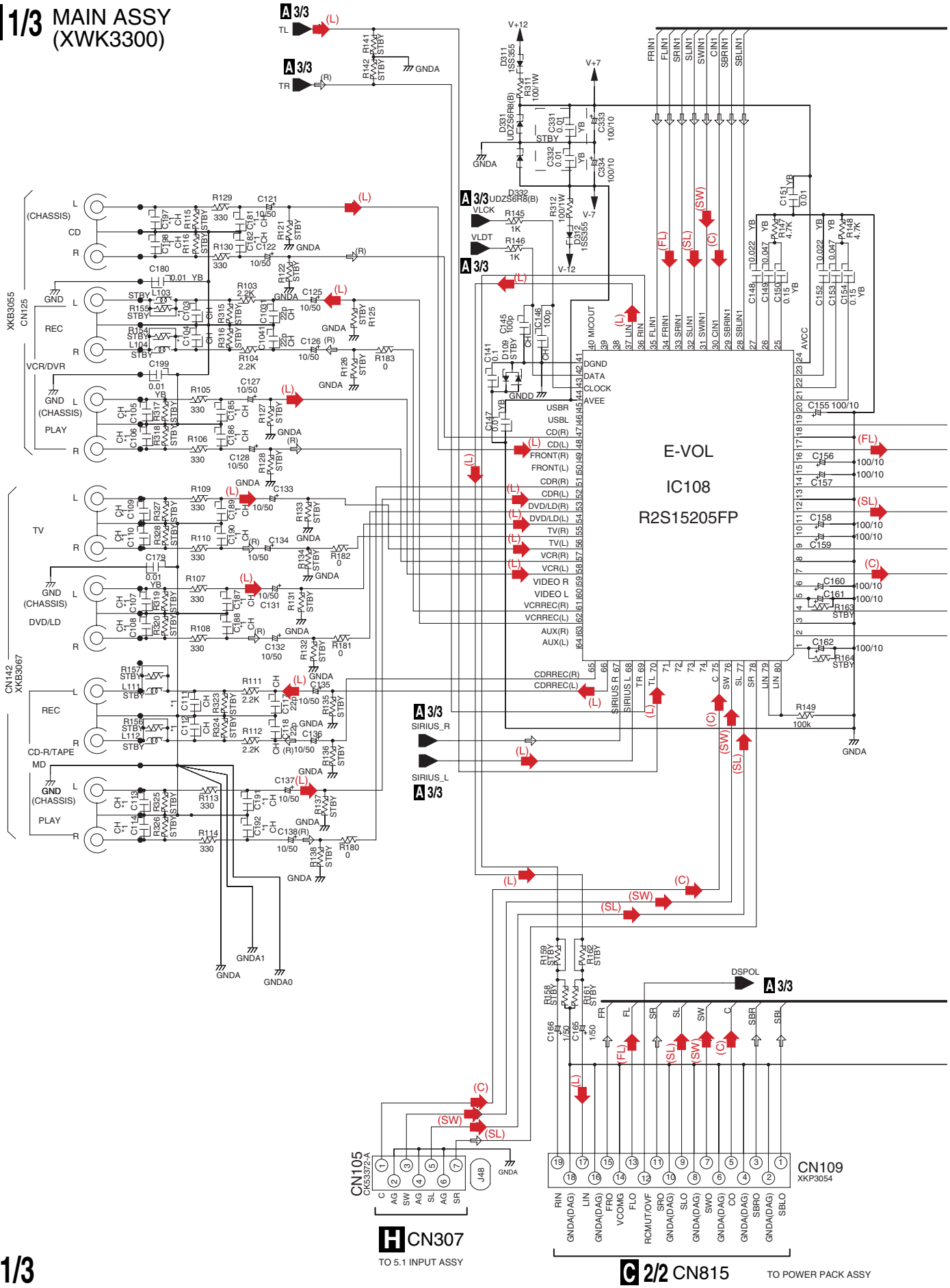
2.0mm BOARD to BOARD SOCKET
2.0mm BOARD to BOARD PLUG
1.25mm BOARD to BOARD SOCKET
1.25mm BOARD to BOARD PLUG
AC CODE SOCKET
AC CODE CONNECTOR

WIRE INDICATION
E.g. 7/140
7: Number of contacts (pin)
140: Insulation length (mm)

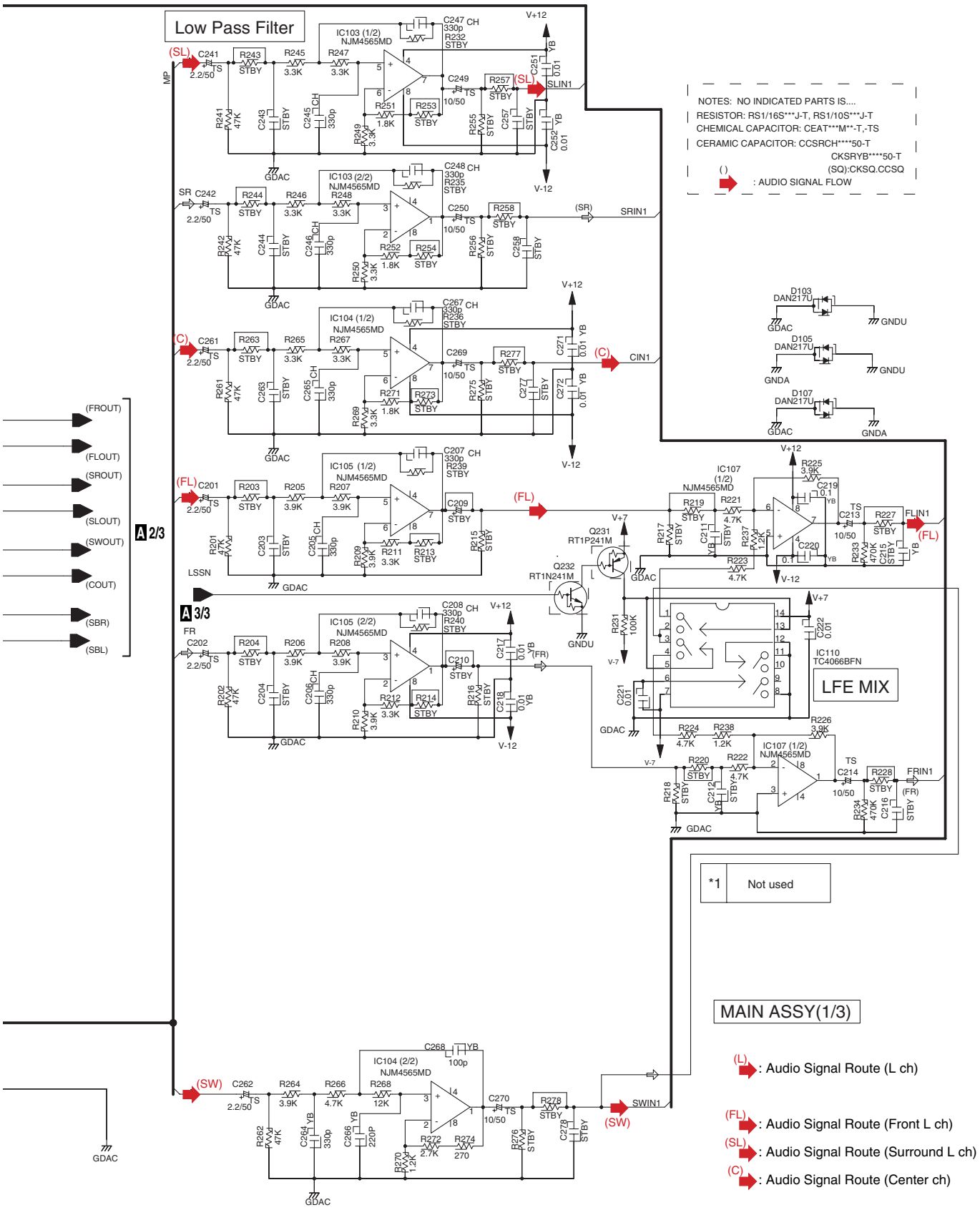
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- : The power supply is shown with the marked box.

3.3 MAIN ASSY (1/3)

A 1/3 MAIN ASSY (XWK3300)

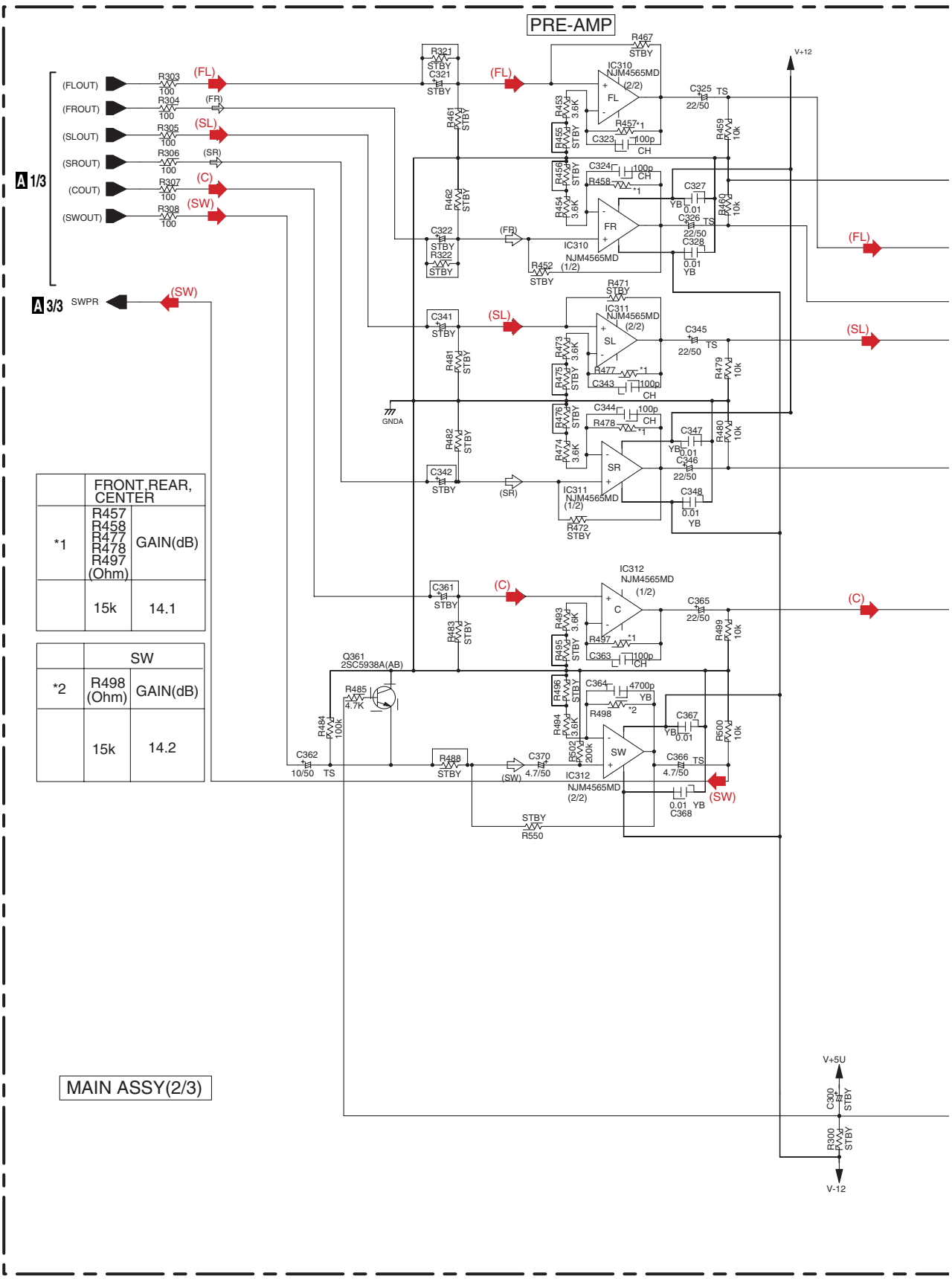


A 1/3


Low Pass Filter
NOTES: NO INDICATED PARTS IS....
RESISTOR: RS1/16S***J-T, RS1/10S***J-T
CHEMICAL CAPACITOR: CEAT***M**-T,-TS
CERAMIC CAPACITOR: CCSRCH****50-T
CKSRYB****50-T
(SQ):CKSQ.CCSQ
( ) : AUDIO SIGNAL FLOW
(FROUT)
(FLOUT)
(SROUT)
(SLOUT)
(SWOUT)
(COUT)
(SBR)
(SBL)
A 2/3
A 3/3
LSSN
FR
MP
IC103 (1/2) NJM4565MD
IC103 (2/2) NJM4565MD
IC104 (1/2) NJM4565MD
IC104 (2/2) NJM4565MD
IC105 (1/2) NJM4565MD
IC105 (2/2) NJM4565MD
IC107 (1/2) NJM4565MD
IC107 (1/2) NJM4565MD
IC110 TC4066BFN
LFE MIX
Q231 RT1P241M
Q232 RT1N241M
D103 DAN217U
D105 DAN217U
D107 DAN217U
GDAC
GNDU
GNDA
V+12
V-12
V+7
V-7
SLIN1
SRIN1
CIN1
FLIN1
FRIN1
SWIN1
*1 Not used
MAIN ASSY(1/3)
(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)
(SW) : Audio Signal Route (SubWoofer ch)
A 1/3

3.4 MAIN ASSY (2/3)

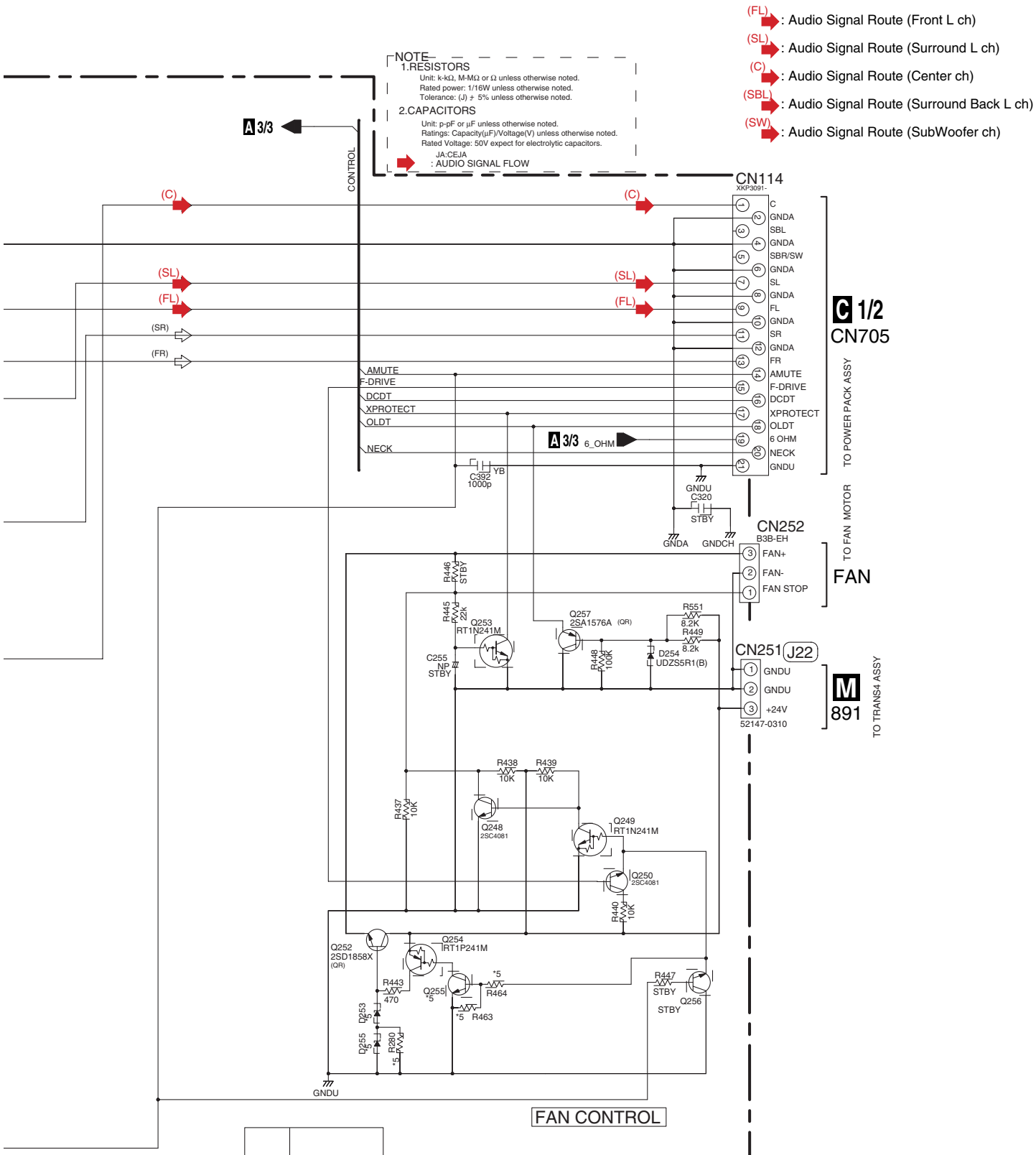
A 2/3 MAIN ASSY (XWK3300)



	FRONT,REAR, CENTER	
*1	R457 R458 R477 R478 R497 (Ohm)	GAIN(dB)
	15k	14.1

	SW	
*2	R498 (Ohm)	GAIN(dB)
	15k	14.2

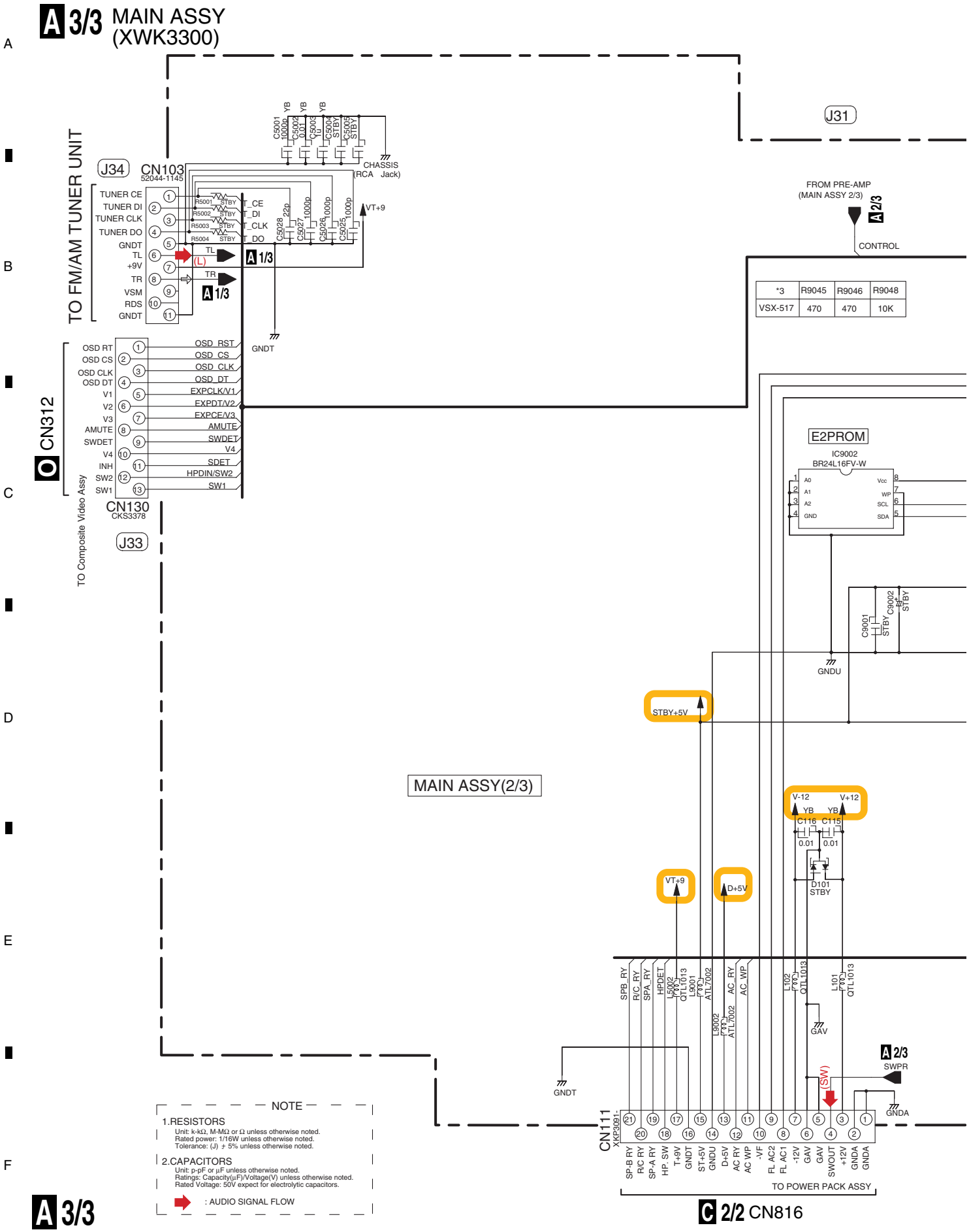
A 2/3

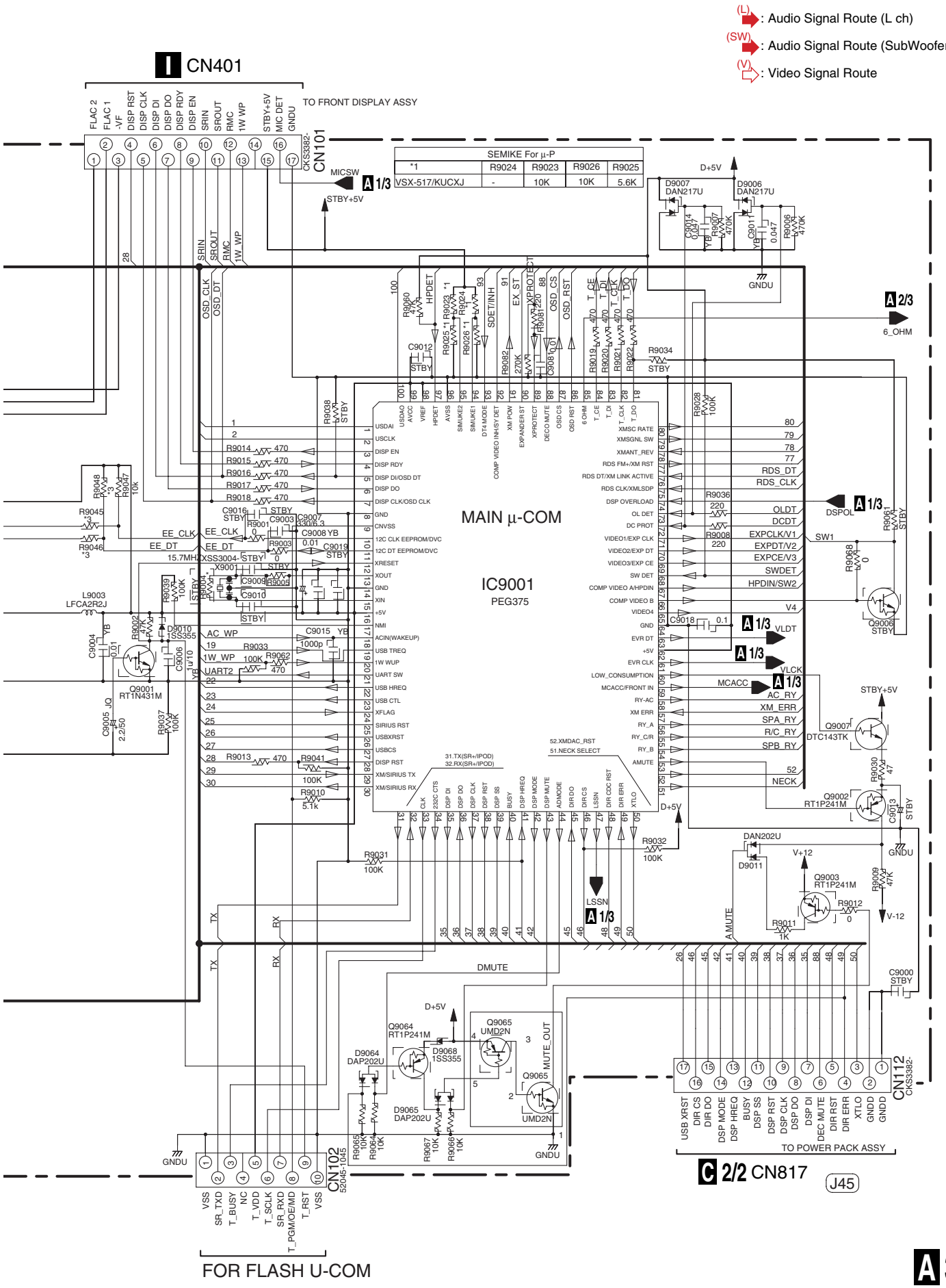


*5	
D253	UDZS27(B)
D255	-
R280	0
Q255	RT1N241M
R463	-
R464	0

A 2/3

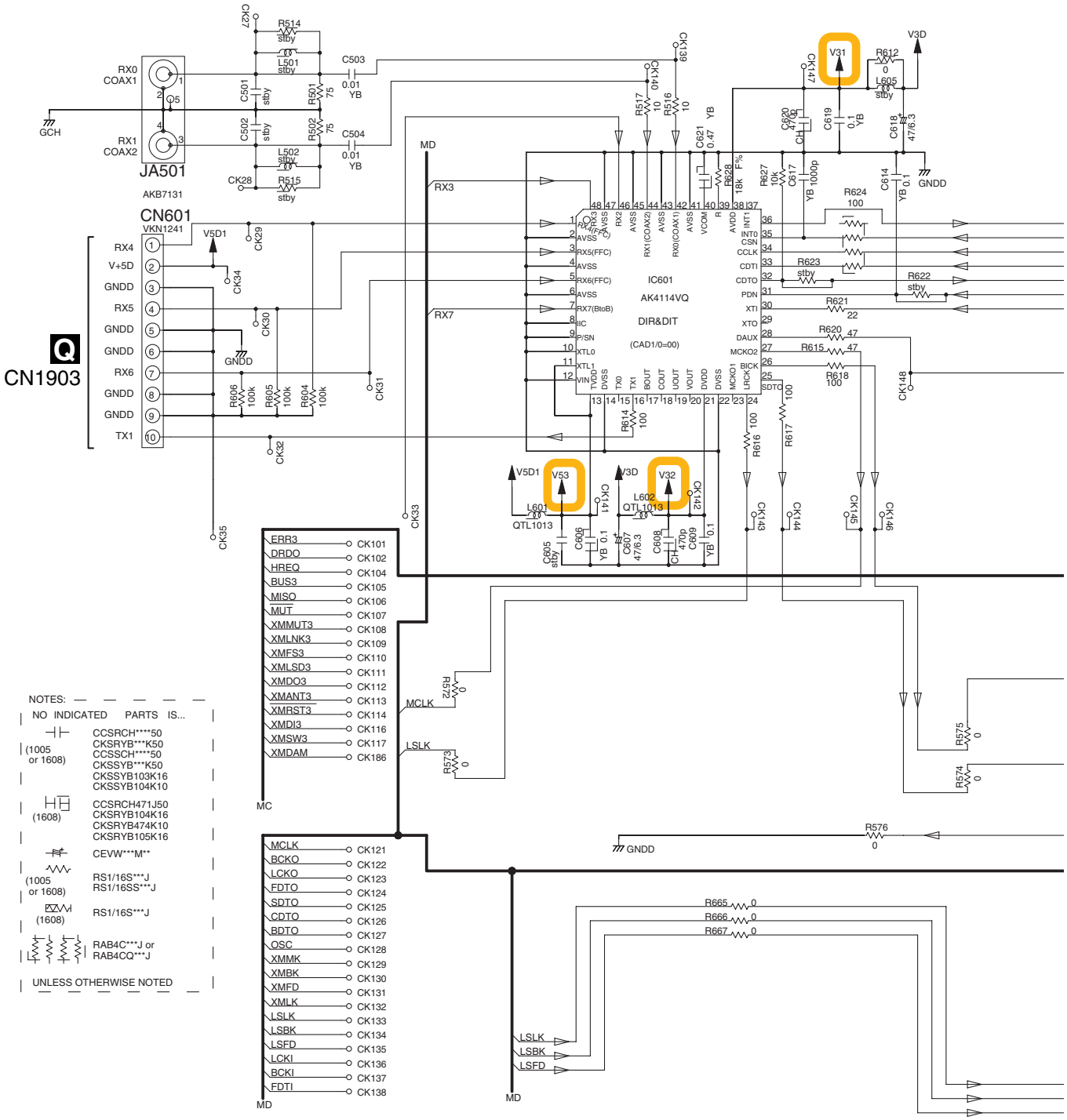
3.5 MAIN ASSY (3/3)




(L): Audio Signal Route (L ch)
(SW): Audio Signal Route (SubWoofer ch)
(V): Video Signal Route
I CN401
TO FRONT DISPLAY ASSY
CN101
SEMIKE For µ-P
*1 | R9024 | R9023 | R9026 | R9025
VSX-517/KUCXJ | - | 10K | 10K | 5.6K
MAIN µ-COM
IC9001
PEG375
FOR FLASH U-COM
CN102
TO POWER PACK ASSY
C 2/2 CN817
J45
A 3/3
VSX-517-K
21

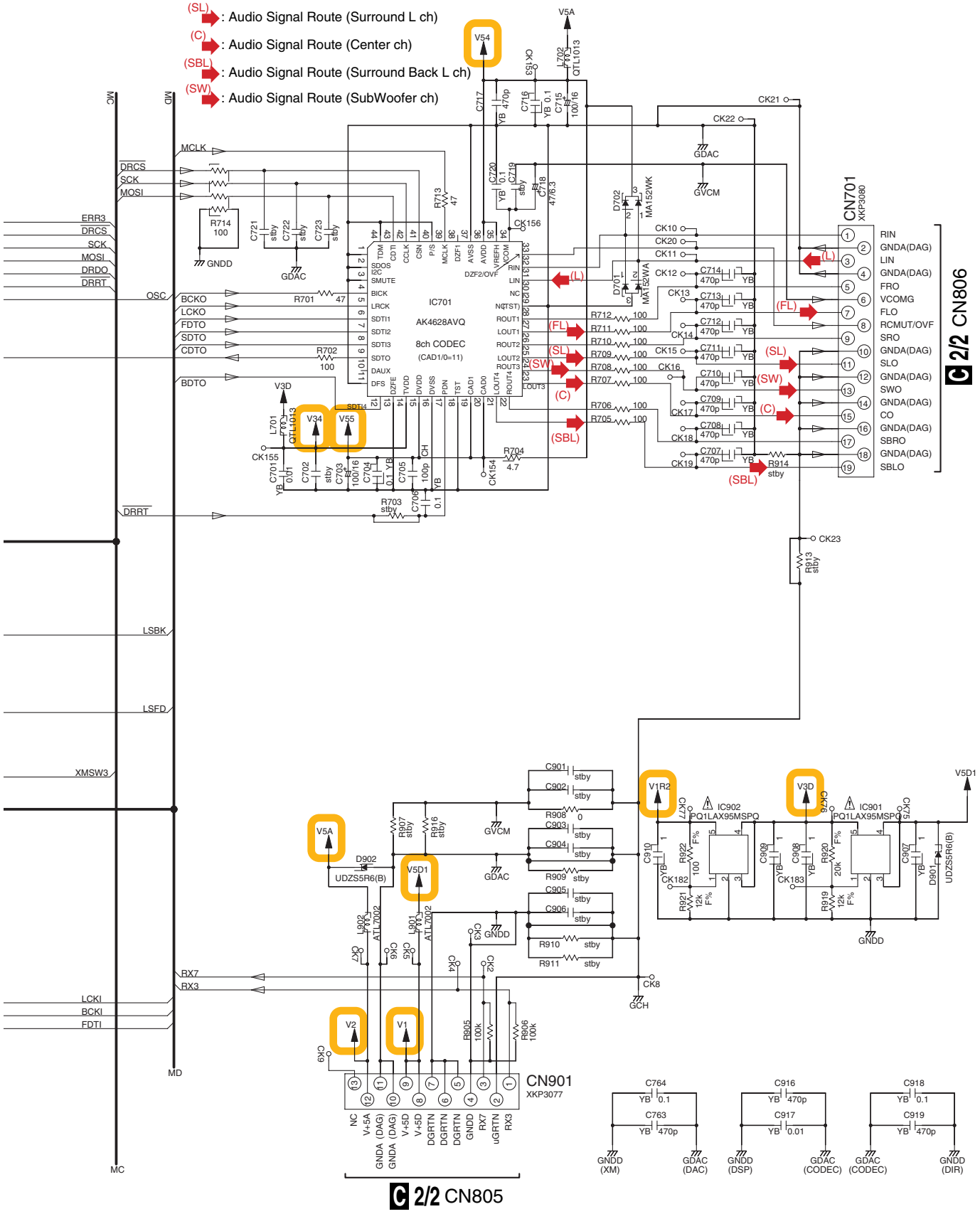
3.6 DSP ASSY (1/2)

B 1/2 DSP ASSY (AWX8812)



B 1/2

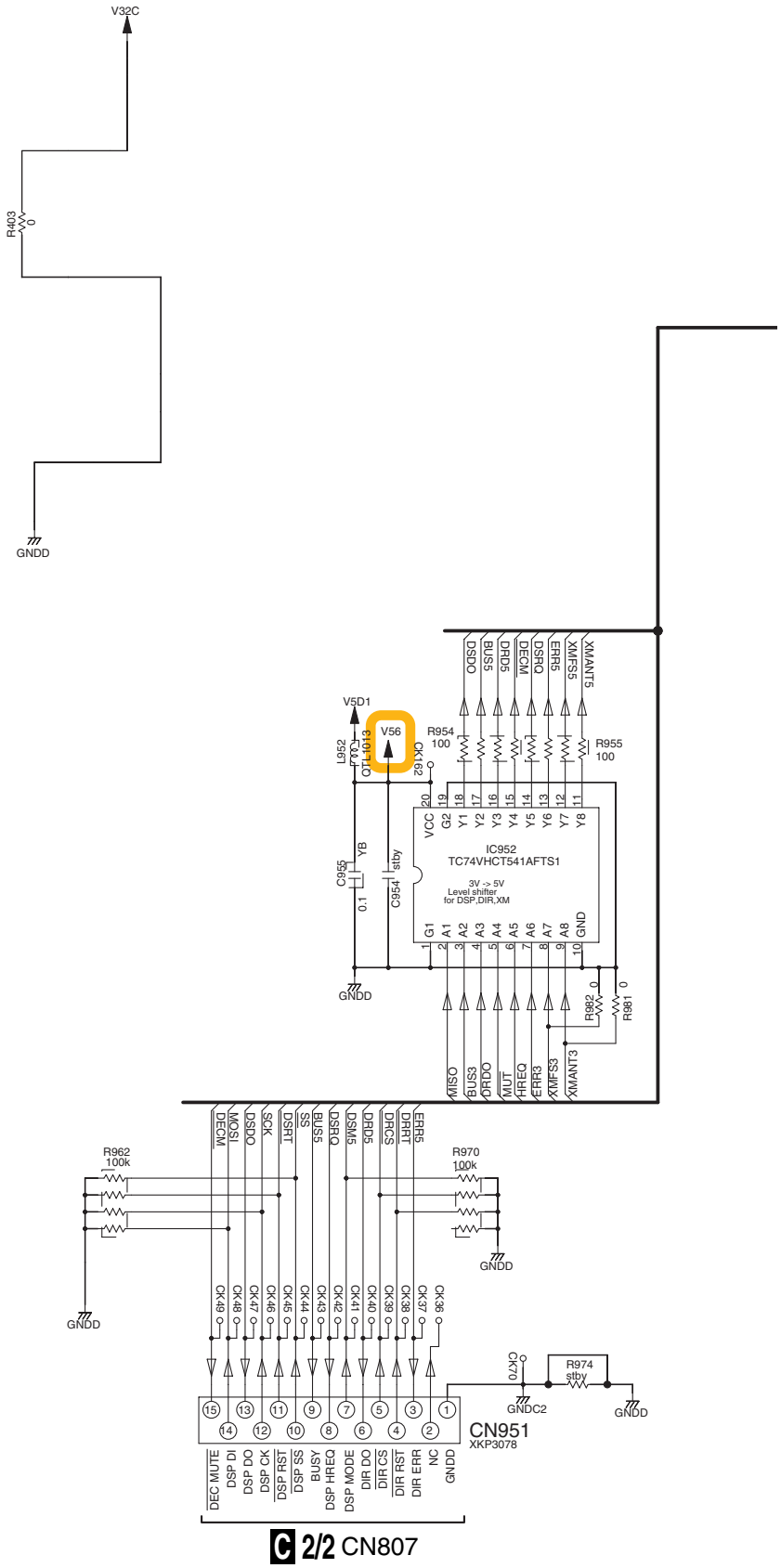
(L): Audio Signal Route (L ch)
(FL): Audio Signal Route (Front L ch)
(SL): Audio Signal Route (Surround L ch)
(C): Audio Signal Route (Center ch)
(SBL): Audio Signal Route (Surround Back L ch)
(SW): Audio Signal Route (SubWoofer ch)



B 1/2

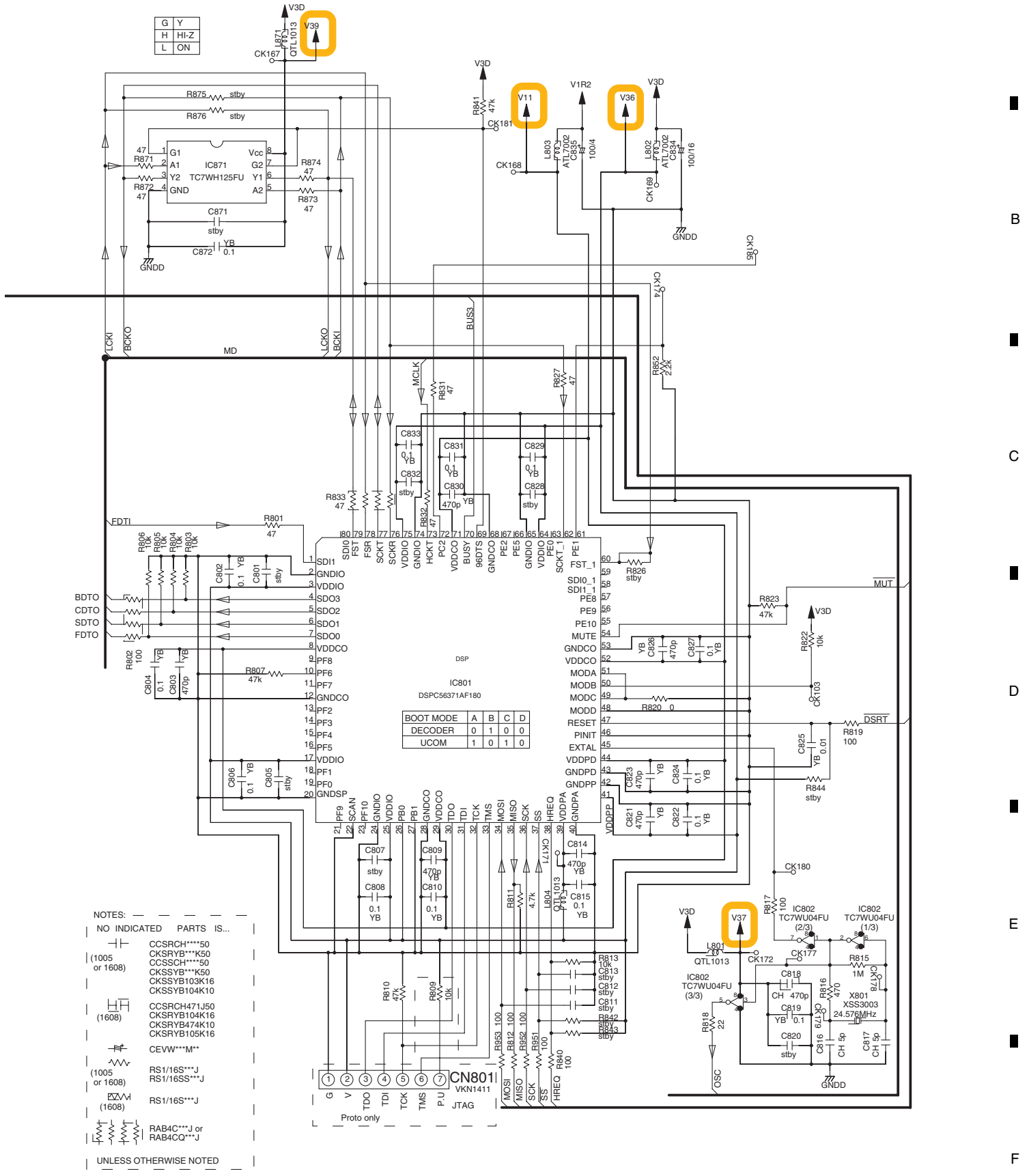
3.7 DSP ASSY (2/2)

B 2/2 DSP ASSY (AWX8812)



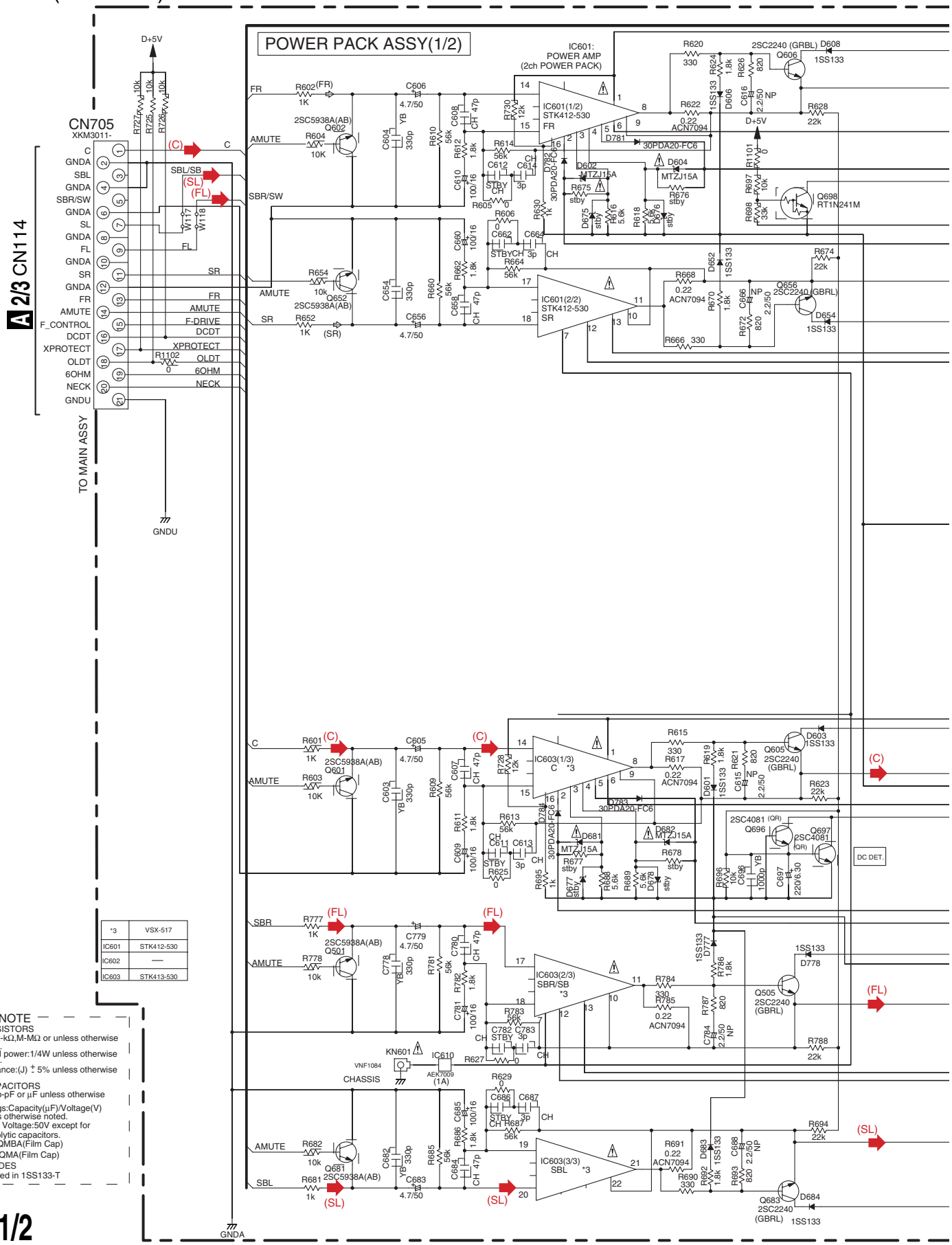
C 2/2 CN807

B 2/2


IC801
DSPC56371AF180
DSP
IC871
TC7WH125FU
IC802
TC7WU04FU
CN801
VKN1411
JTAG
Proto only
V3D
GNDD
MD
LCKI
BCKO
LCKO
BCKI
BUS3
MCLK
FDTI
BDTO
CDTO
SDTO
FDTO
MUT
DSRT
OSC
X801
XSS3003
24.576MHz
QTL1013
ATL7002
BOOT MODE A B C D
DECODER 0 1 0 0
UCOM 1 0 1 0
G Y
H HI-Z
L ON
NOTES:
NO INDICATED PARTS IS...
CCSRCH****50
CKSRYB***K50
CCSSCH****50
CKSSYB***K50
CKSSYB103K16
CKSSYB104K10
CCSRCH471J50
CKSRYB104K16
CKSRYB474K10
CKSRYB105K16
CEVW***M**
RS1/16S***J
RS1/16SS***J
RAB4C***J or
RAB4CQ***J
UNLESS OTHERWISE NOTED

B 2/2

C 1/2 POWER PACK ASSY (XWZ4232)



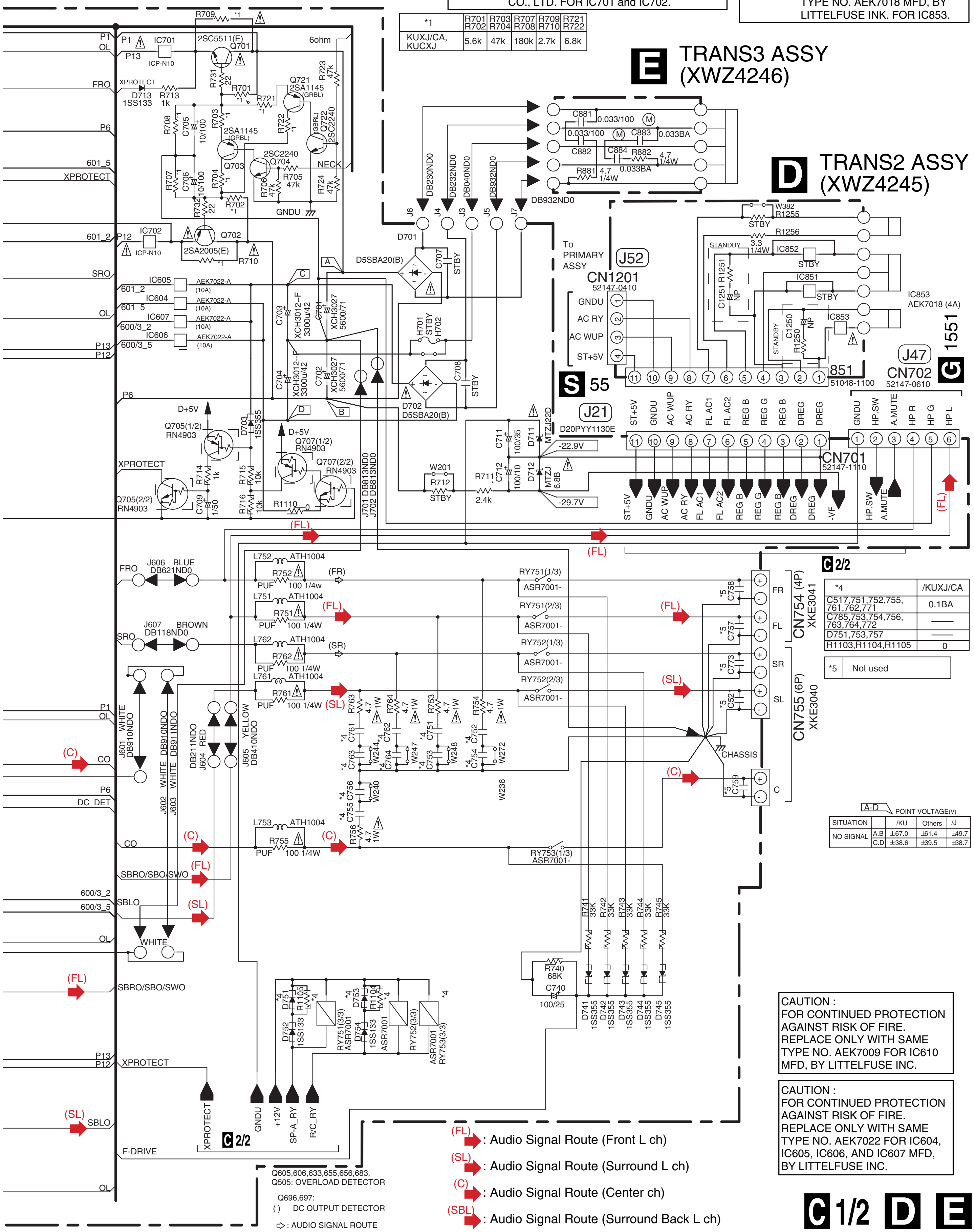
*3	VSX-517
IC601	STK412-530
IC602	—
IC603	STK413-530

C 1/2

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 INK. FOR IC853.

*1	R701 R702	R703 R704	R707 R708	R709 R710	R721 R722
KUXJ/CA, KUCXJ	5.6k	47k	180k	2.7k	6.8k



*4	/KUXJ/CA
C517,751,752,755, 761,762,771	0.1BA
C785,753,754,756, 763,764,772	——
D751,753,757	——
R1103,R1104,R1105	0

*5	Not used

A-D POINT VOLTAGE(V)

SITUATION		/KU	Others	/J
NO SIGNAL	A.B	±67.0	±61.4	±49.7
	C.D	±38.6	±39.5	±38.7

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.

Q605,606,633,655,656,683,
Q505: OVERLOAD DETECTOR

Q696,697:
( ) DC OUTPUT DETECTOR

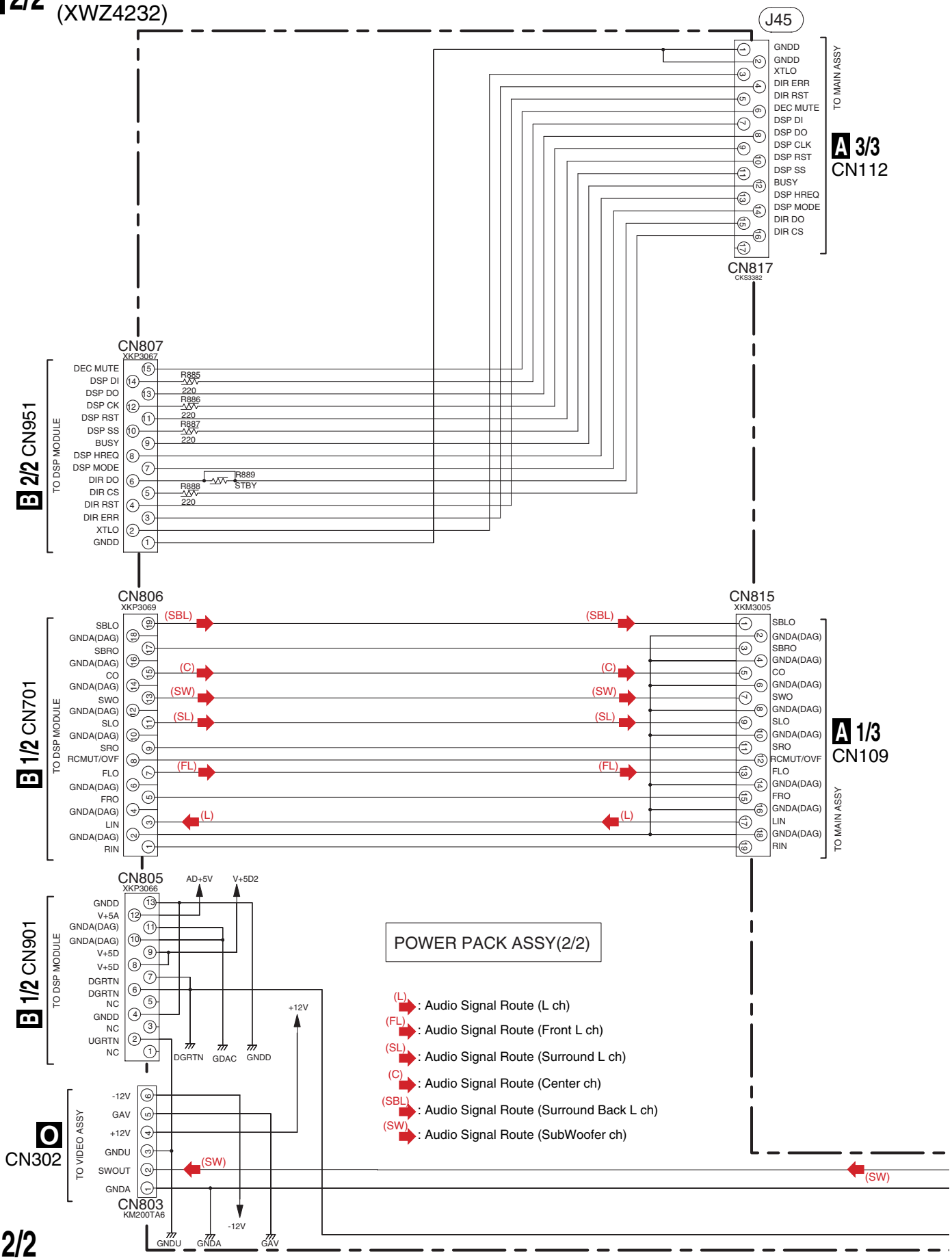
⇨: AUDIO SIGNAL ROUTE

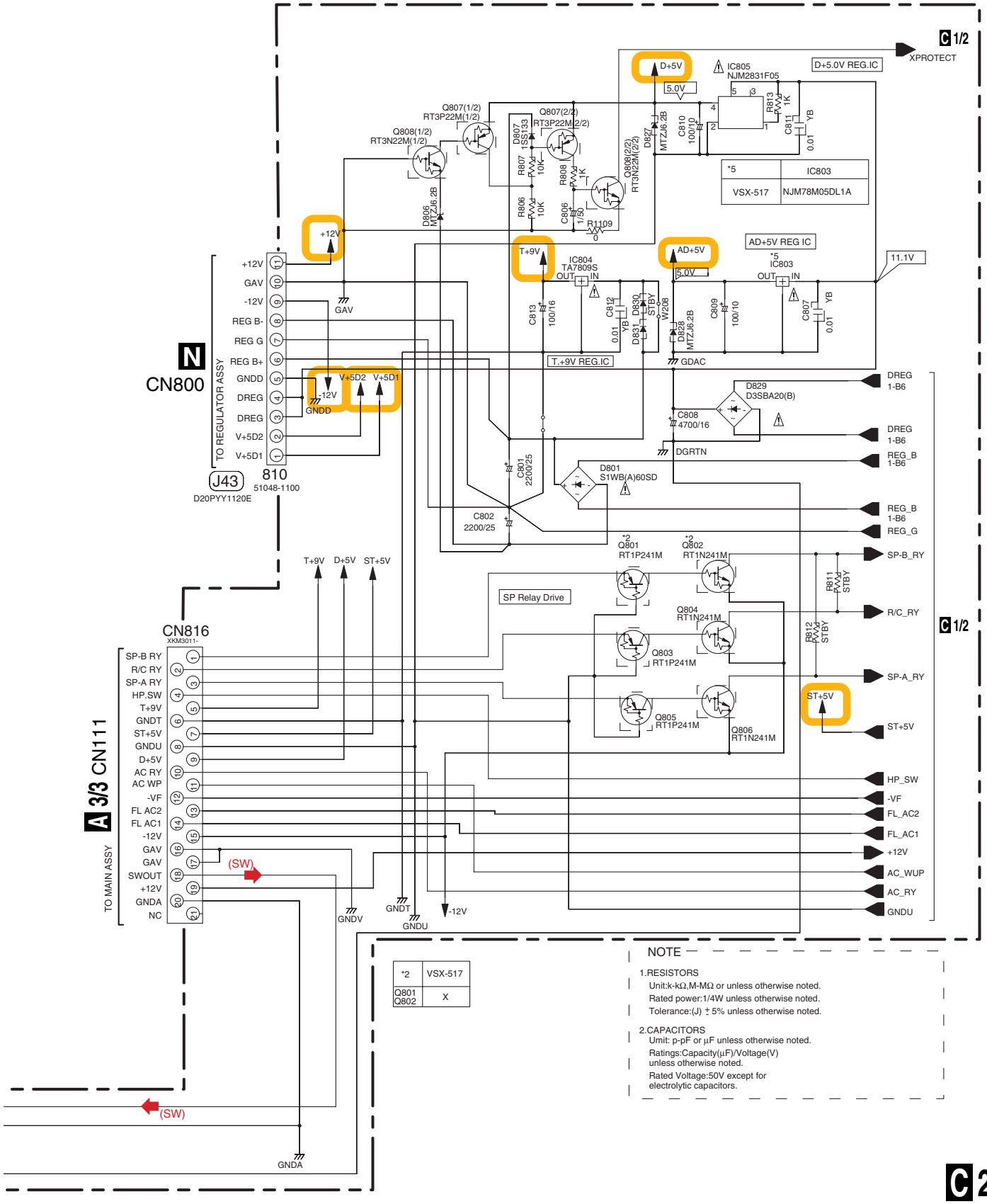
(FL) ➡ : Audio Signal Route (Front L ch)
(SL) ➡ : Audio Signal Route (Surround L ch)
(C) ➡ : Audio Signal Route (Center ch)
(SBL) ➡ : Audio Signal Route (Surround Back L ch)

C 1/2 D E

3.9 POWER PACK ASSY (2/2)

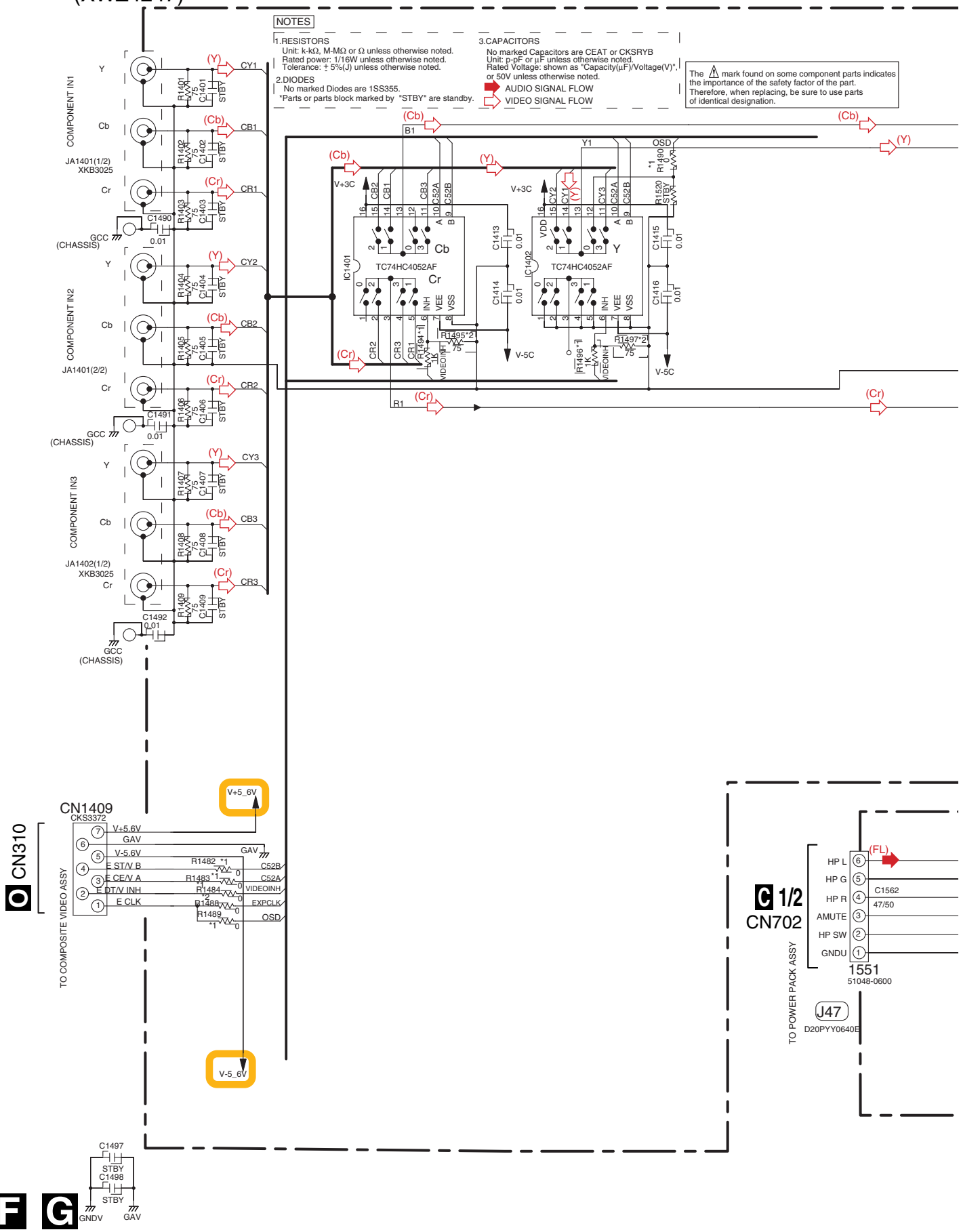
C 2/2 POWER PACK ASSY (XWZ4232)

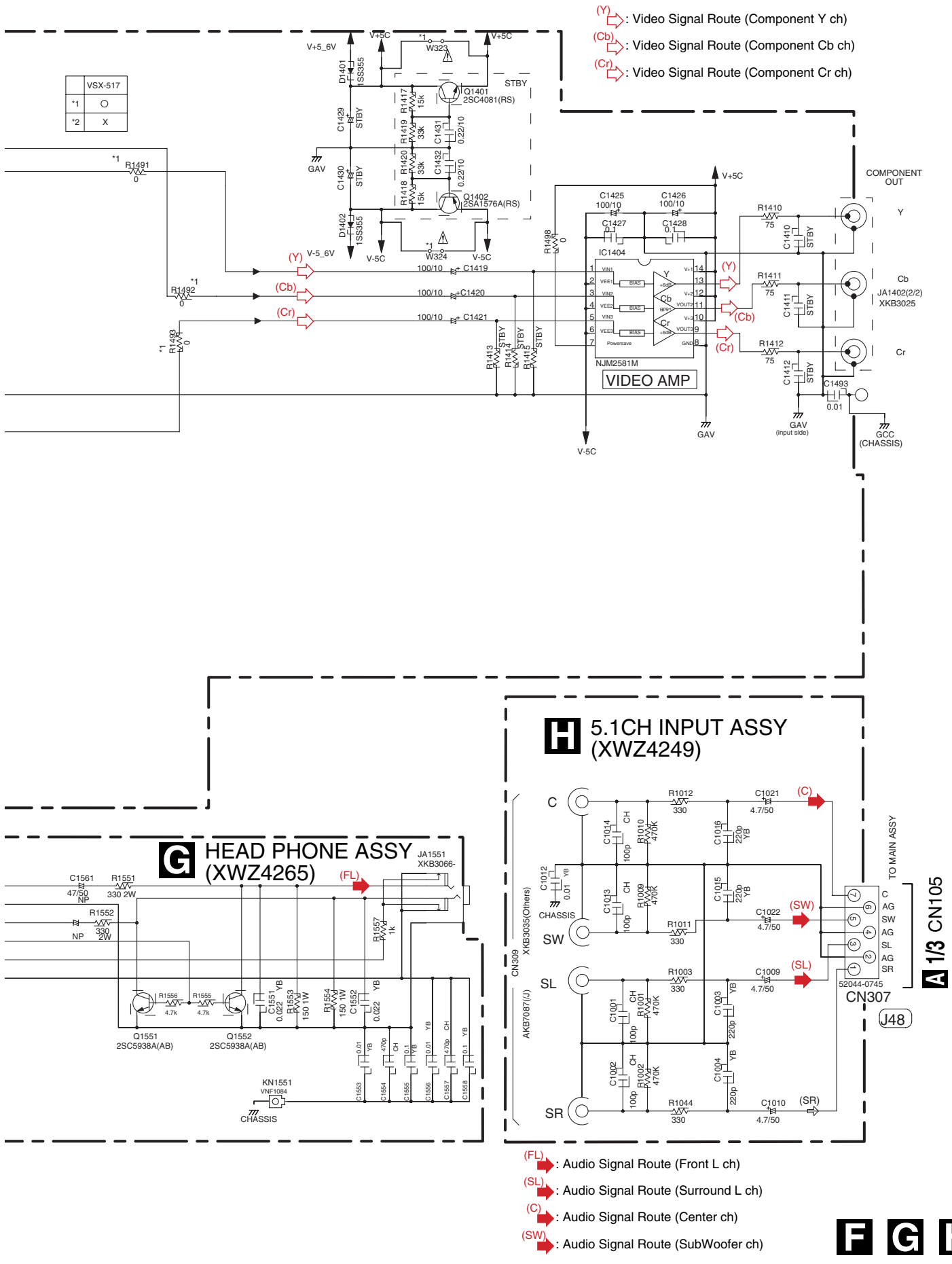



C 1/2
XPROTECT
D+5V
5.0V
IC805
NJM2831F05
D+5.0V REG.IC
Q807(1/2)
RT3P22M(1/2)
Q808(1/2)
RT3N22M(1/2)
Q807(2/2)
RT3P22M(2/2)
Q809(2/2)
RT3N22M(2/2)
D807
1SS133
D806
MTZJ6.2B
D827
MTZJ6.2B
R807
10K
R808
1K
R806
10K
C806
1/50
R1109
0
C810
100/10
R813
1K
C811
0.01
YB
*5
IC803
VSX-517
NJM78M05DL1A
+12V
T+9V
IC804
TA7809S
OUT
IN
AD+5V
AD+5V REG IC
*5
IC803
11.1V
C813
100/16
C812
0.01
YB
D830
STBY
W208
D831
D828
MTZJ6.2B
C809
100/10
C807
0.01
YB
T.+9V REG.IC
GDAC
N
CN800
TO REGULATOR ASSY
+12V
GAV
-12V
REG B-
REG G
REG B+
GNDD
DREG
DREG
V+5D2
V+5D1
J43
810
51048-1100
D20PYY1120E
V+5D2
V+5D1
-12V
GNDD
D829
D3SBA20(B)
C808
4700/16
DGRTN
DREG
1-B6
DREG
1-B6
REG_B
1-B6
C801
2200/25
D801
S1WB(A)60SD
C802
2200/25
REG_B
1-B6
REG_G
T+9V
D+5V
ST+5V
*2
Q801
RT1P241M
*2
Q802
RT1N241M
SP Relay Drive
SP-B_RY
R811
STBY
Q804
RT1N241M
R/C_RY
R812
STBY
Q803
RT1P241M
SP-A_RY
ST+5V
Q805
RT1P241M
Q806
RT1N241M
ST+5V
C 1/2
CN816
XKM3011-
A 3/3 CN111
TO MAIN ASSY
SP-B RY
R/C RY
SP-A RY
HP.SW
T+9V
GNDT
ST+5V
GNDU
D+5V
AC RY
AC WP
-VF
FL AC2
FL AC1
-12V
GAV
GAV
SWOUT
+12V
GNDA
NC
HP_SW
-VF
FL_AC2
FL_AC1
+12V
AC_WUP
AC_RY
GNDU
(SW)
GNDV
GNDT
GNDU
-12V
(SW)
GNDA
*2
VSX-517
Q801
Q802
X
NOTE
1.RESISTORS
Unit:k-kΩ,M-MΩ or unless otherwise noted.
Rated power:1/4W unless otherwise noted.
Tolerance:(J) ± 5% unless otherwise noted.
2.CAPACITORS
Umit: p-pF or µF unless otherwise noted.
Ratings:Capacity(µF)/Voltage(V)
unless otherwise noted.
Rated Voltage:50V except for
electrolytic capacitors.
C 2/2

3.10 COMPONENT VIDEO, HEAD PHONE and 5.1CH INPUT ASSYS

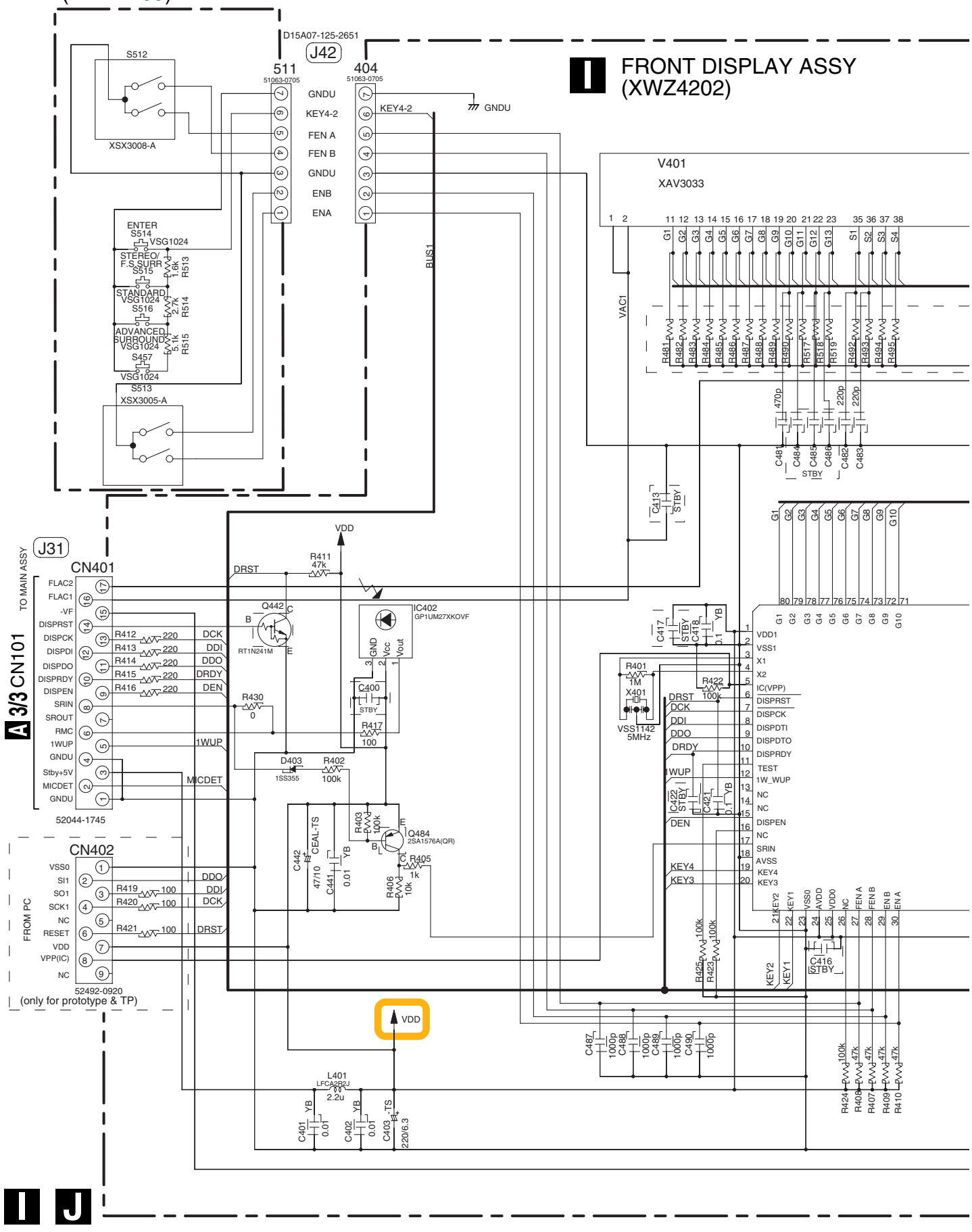
F COMPONENT VIDEO ASSY (XWZ4247)

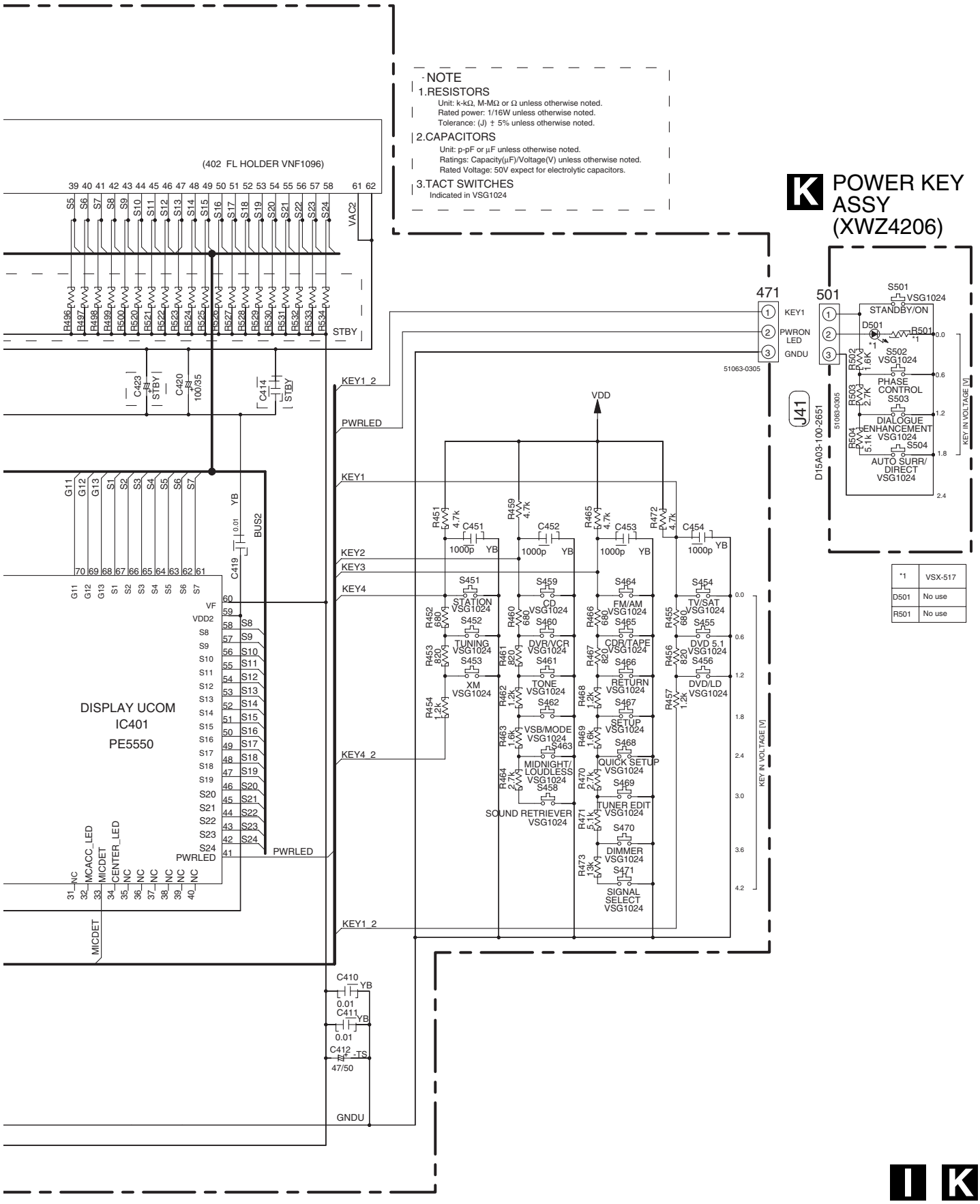



(Y): Video Signal Route (Component Y ch)
(Cb): Video Signal Route (Component Cb ch)
(Cr): Video Signal Route (Component Cr ch)
VSX-517
*1 ○
*2 X
V+5_6V
V+5C
V-5_6V
V-5C
GAV
STBY
Q1401 2SC4081(RS)
Q1402 2SA1576A(RS)
W323
W324
IC1404
NJM2581M
VIDEO AMP
COMPONENT OUT
Y
Cb
Cr
JA1402(2/2) XKB3025
GAV (input side)
GCC (CHASSIS)
H 5.1CH INPUT ASSY (XWZ4249)
TO MAIN ASSY
A 1/3 CN105
CN307
J48
52044-0745
CN309
XKB3035(Others)
AKB7087(J)
CHASSIS
G HEAD PHONE ASSY (XWZ4265)
JA1551 XKB3066-
Q1551 2SC5938A(AB)
Q1552 2SC5938A(AB)
KN1551 VNF1084
(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)

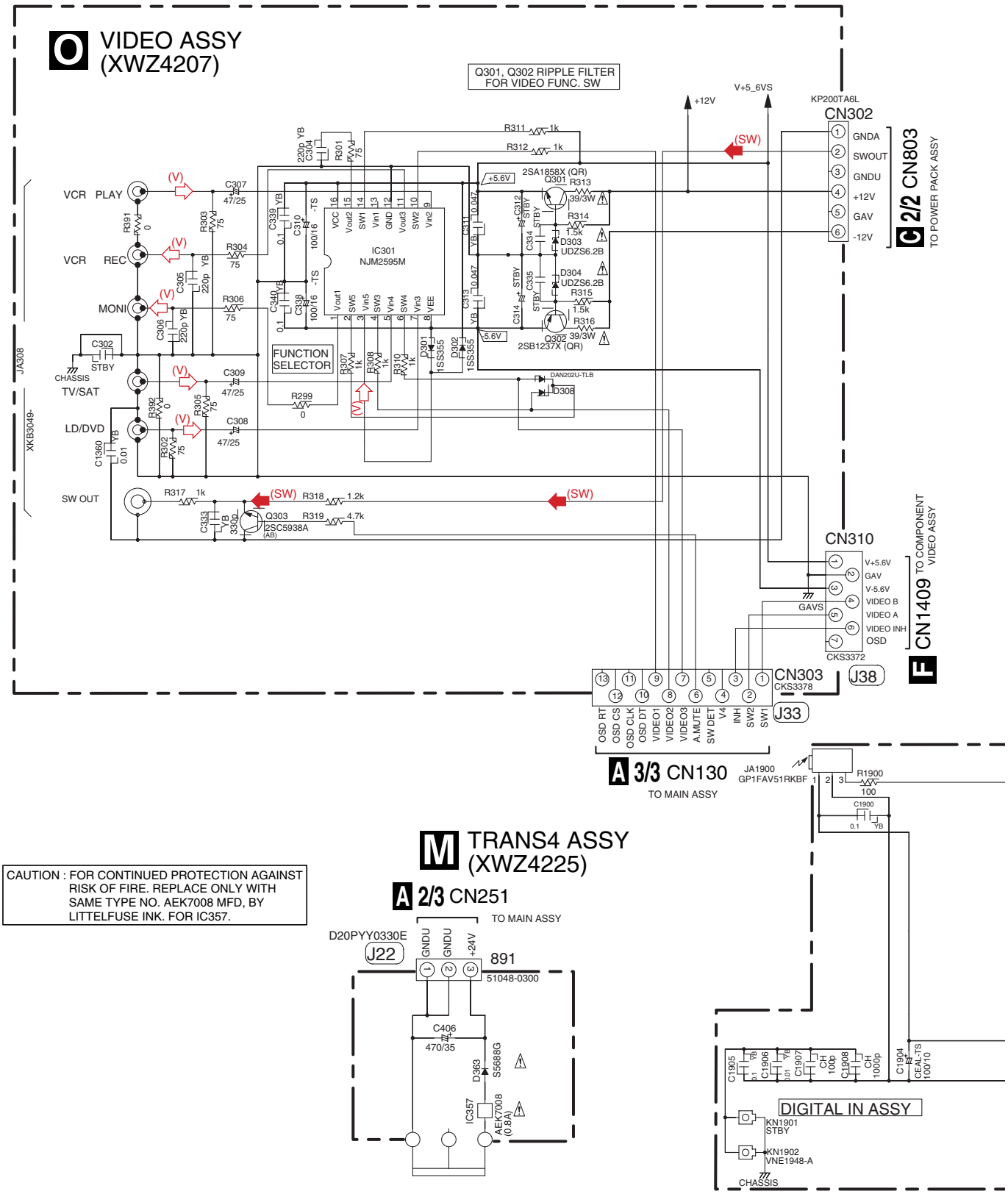
3.11 ROTARY ENCODER, FRONT DISPLAY and POWER KEY ASSYS

J ROTARY ENCODER ASSY (XWZ4205)




NOTE
1.RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/16W unless otherwise noted.
Tolerance: (J) ± 5% unless otherwise noted.
2.CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.
3.TACT SWITCHES
Indicated in VSG1024
(402 FL HOLDER VNF1096)
POWER KEY ASSY (XWZ4206)
471
501
51063-0305
D15A03-100-2651
J41
KEY1
PWRON LED
GNDU
STANDBY/ON
PHASE CONTROL
DIALOGUE ENHANCEMENT
AUTO SURR/ DIRECT
KEY IN VOLTAGE [V]
VAC2
STBY
KEY1_2
PWRLED
KEY2
KEY3
KEY4
KEY4_2
VDD
DISPLAY UCOM
IC401
PE5550
STATION
TUNING
XM
CD
DVR/VCR
TONE
VSB/MODE
MIDNIGHT/ LOUDLESS
SOUND RETRIEVER
FM/AM
CDR/TAPE
RETURN
SETUP
QUICK SETUP
TUNER EDIT
DIMMER
SIGNAL SELECT
TV/SAT
DVD 5.1
DVD/LD
MCACC_LED
MICDET
CENTER_LED
GNDU
*1 VSX-517
D501 No use
R501 No use

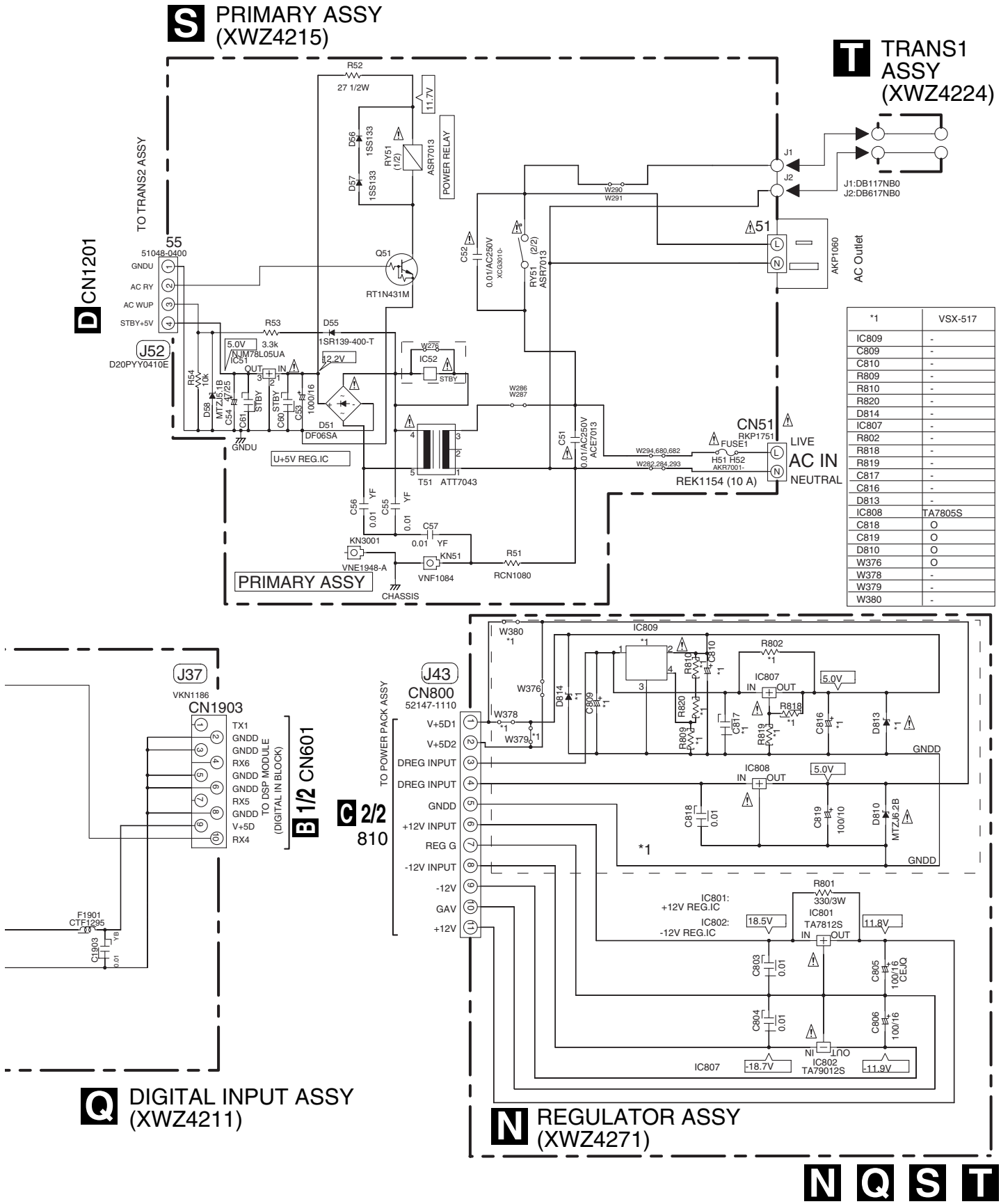
3.12 TRANS4, REGULATOR, VIDEO, DIGITAL INPUT, PRIMARY and TRANS1 ASSY



M O Q

• NOTE FOR FUSE REPLACEMENT

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



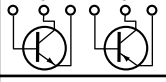
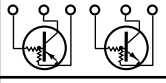
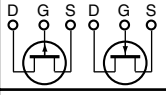
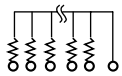
*1	VSX-517
IC809	-
C809	-
C810	-
R809	-
R810	-
R820	-
D814	-
IC807	-
R802	-
R818	-
R819	-
C817	-
C816	-
D813	-
IC808	TA7805S
C818	O
C819	O
D810	O
W376	O
W378	-
W379	-
W380	-

N Q S T

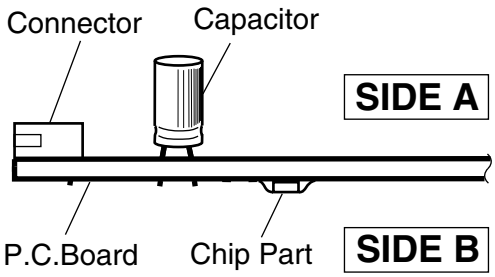
4. PCB CONNECTION DIAGRAM

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.

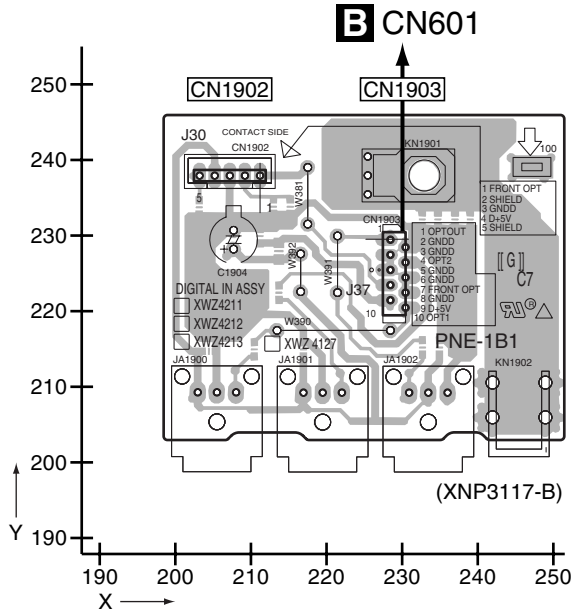


4.1 DIGITAL INPUT ASSY

SIDE A

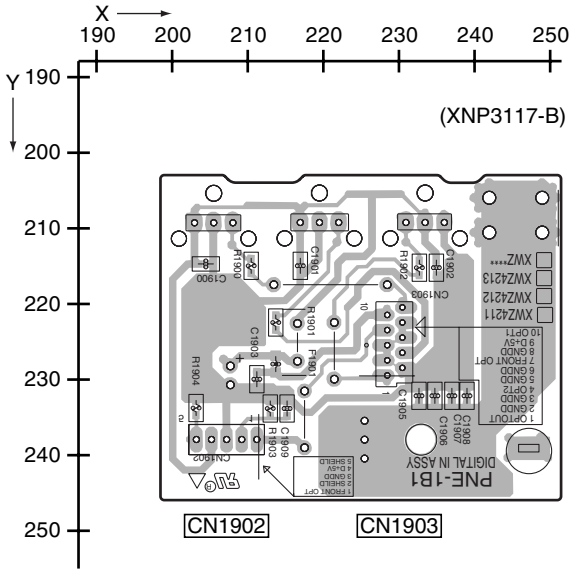
SIDE A

Q DIGITAL INPUT ASSY



SIDE B

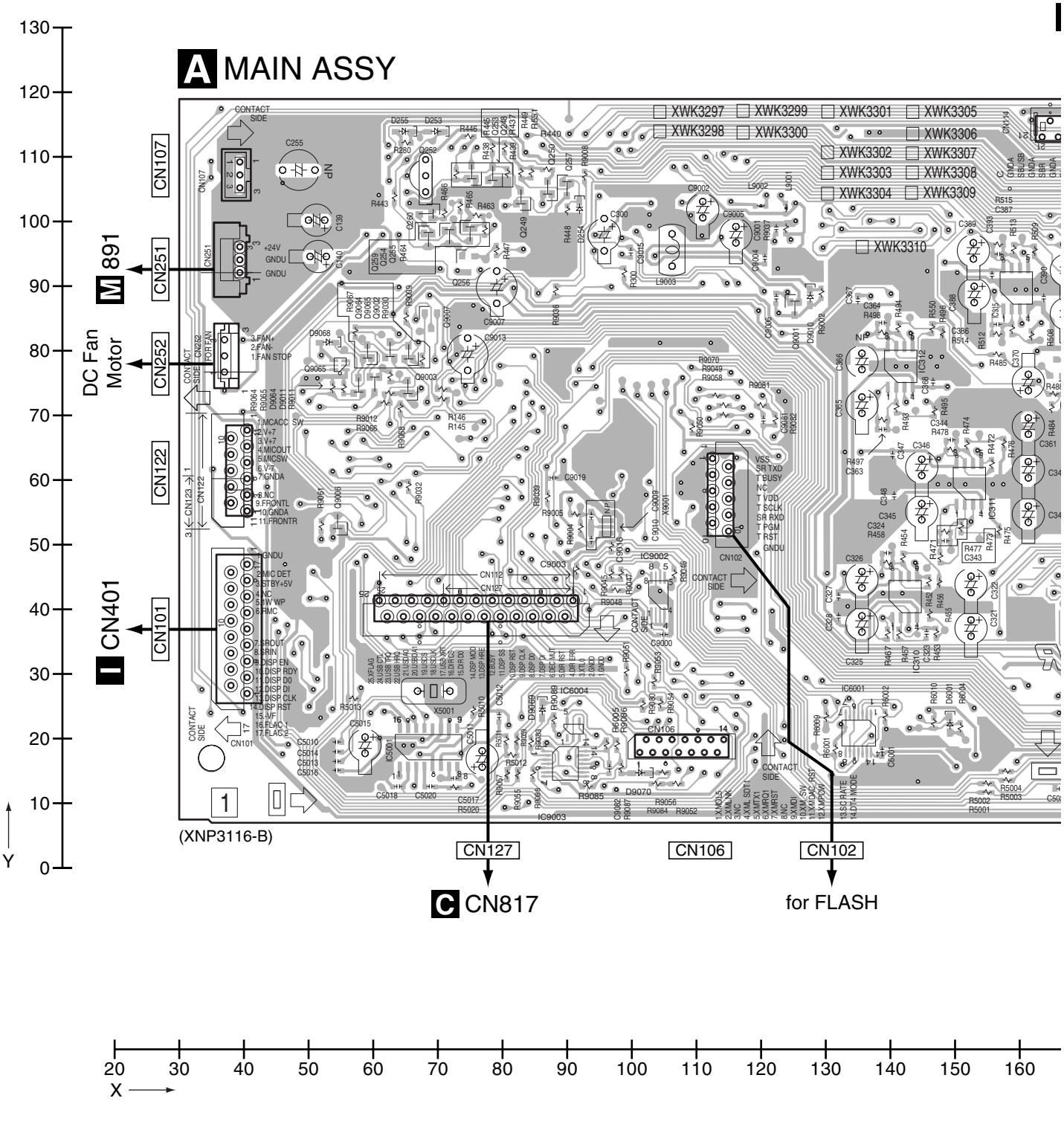
SIDE B



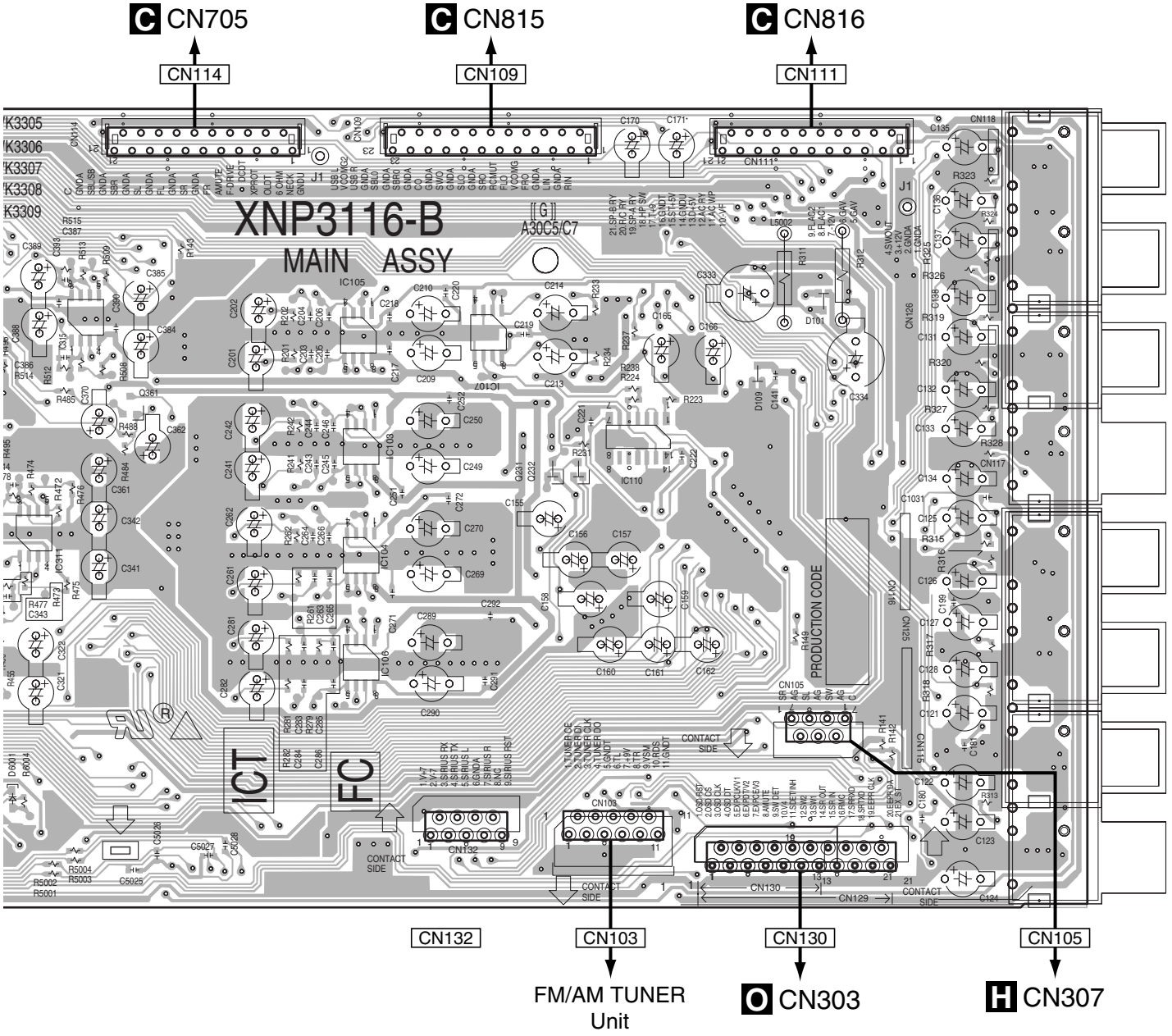
Q DIGITAL INPUT ASSY

4.2 MAIN ASSY

SIDE A

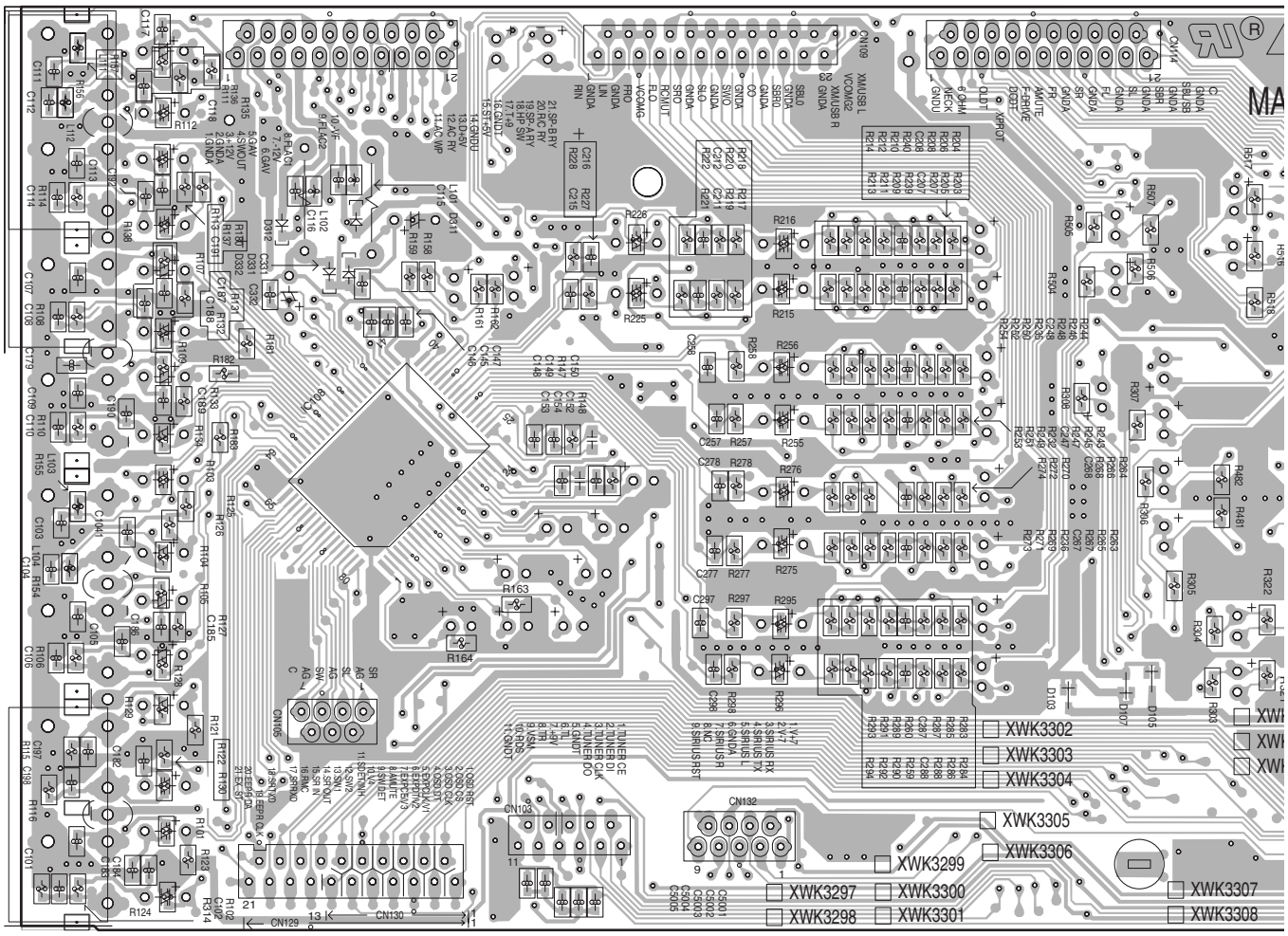


SIDE A

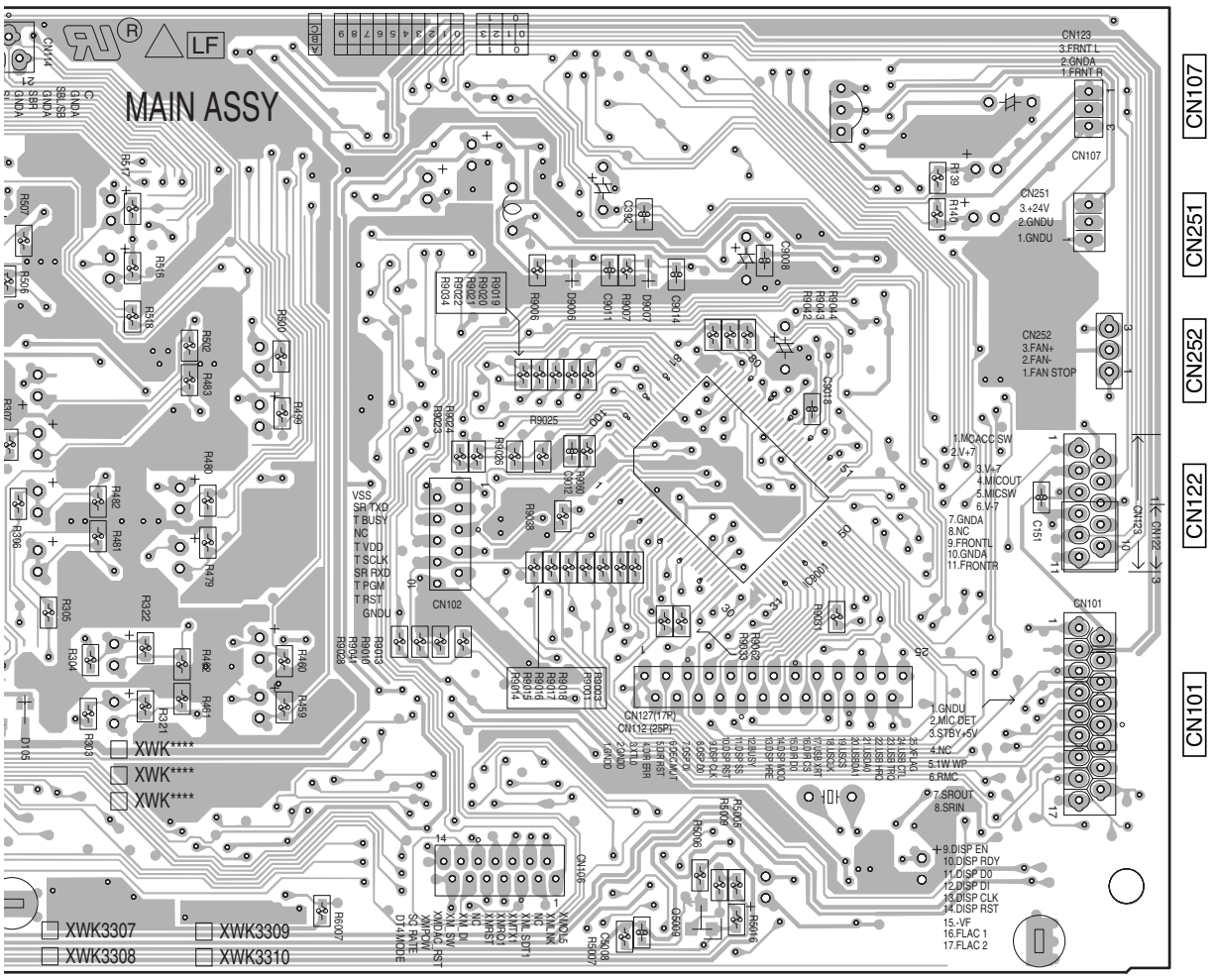

C CN705
C CN815
C CN816
CN114
CN109
CN111
XNP3116-B
MAIN ASSY
A30C5/C7
PRODUCTION CODE
ICT
FC
CONTACT SIDE
CN132
CN103
CN130
CN105
FM/AM TUNER Unit
O CN303
H CN307

SIDE B

A MAIN ASSY



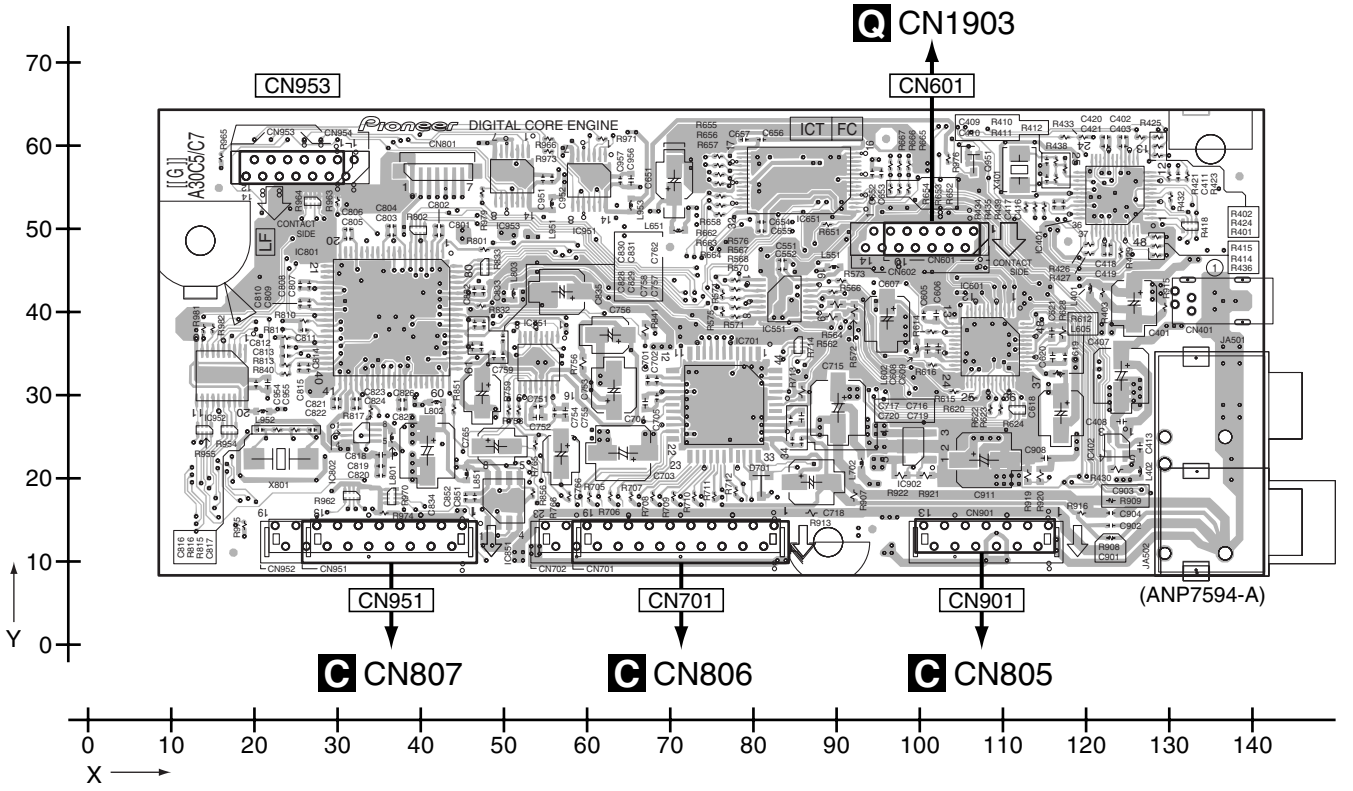
SIDE B


MAIN ASSY
LF
CN107
CN251
CN252
CN122
CN101
CN102
CN106
CN127
XWK****
XWK****
XWK****
XWK3307
XWK3308
XWK3309
XWK3310
(XNP3116-B)

4.3 DSP ASSY

SIDE A

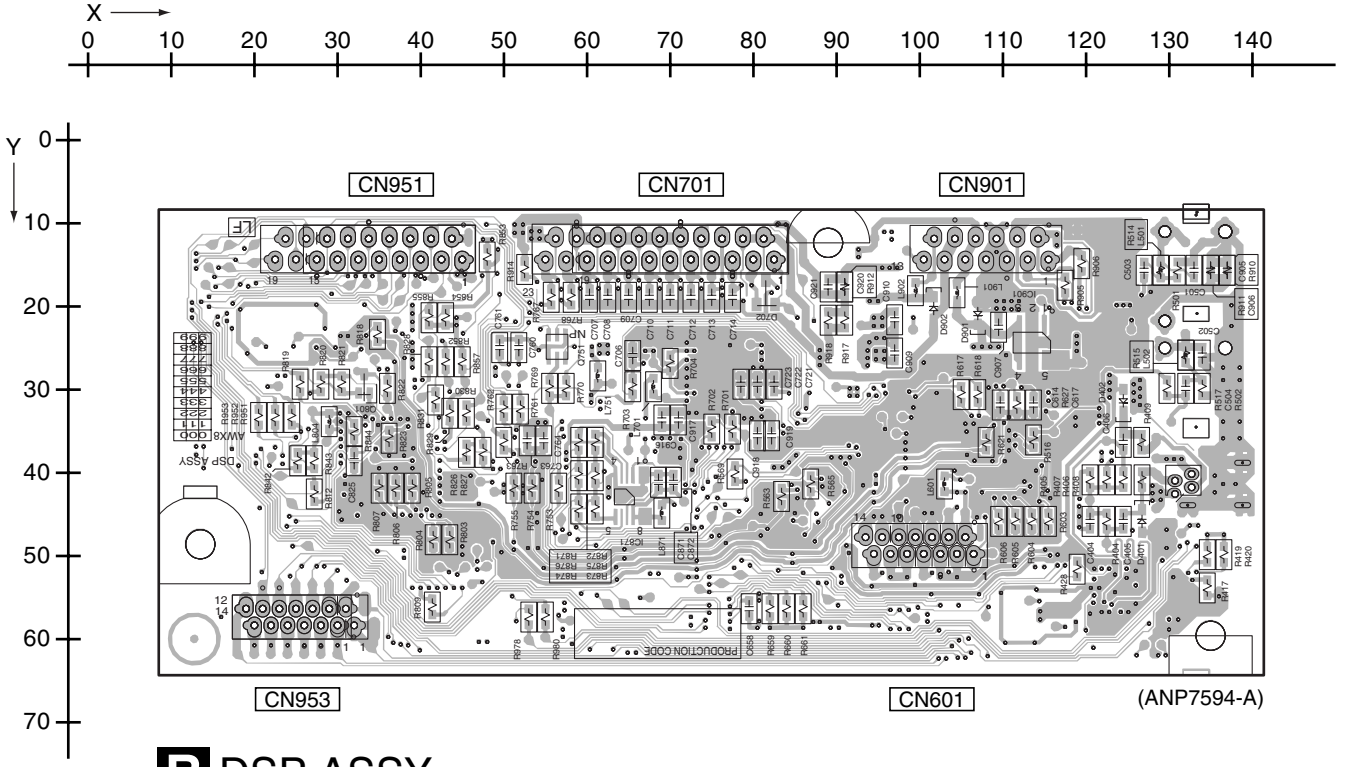
B DSP ASSY



SIDE A

SIDE B

SIDE B



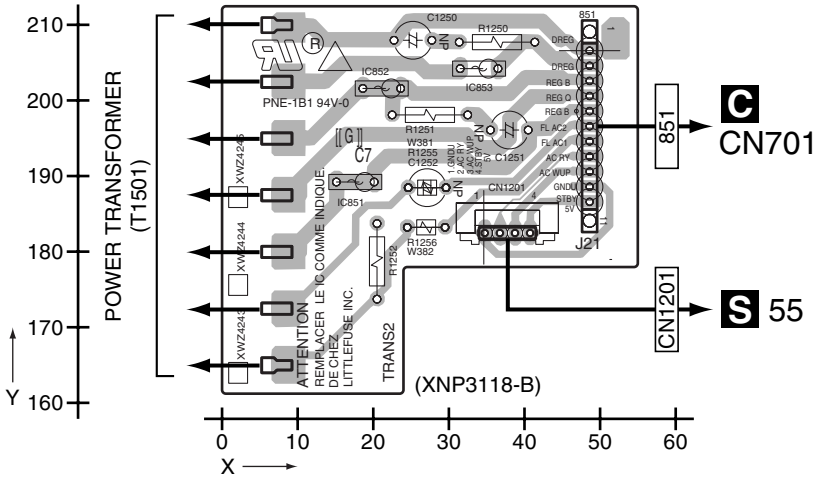
B DSP ASSY

B

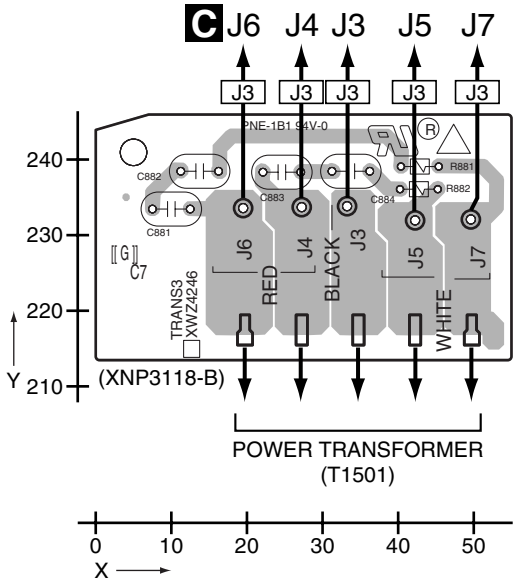
4.4 TRANS2 and TRANS3 ASSYS

SIDE A

D TRANS2 ASSY

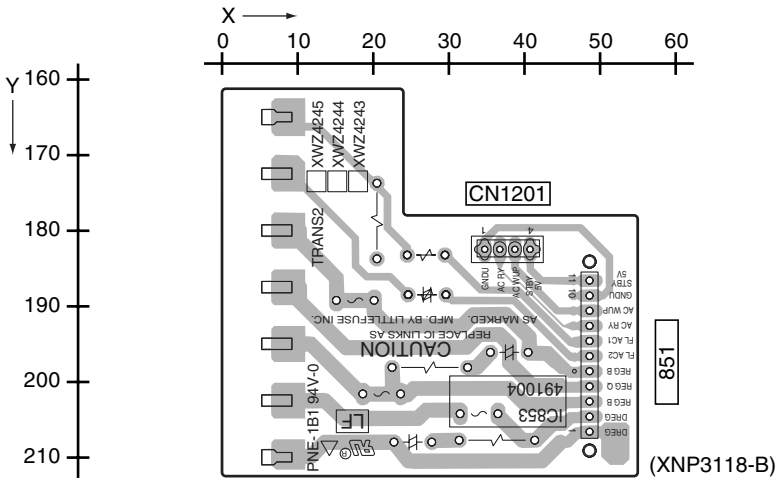


E TRANS3 ASSY

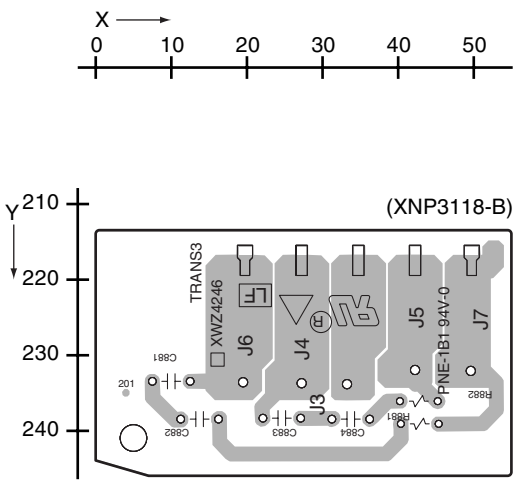


SIDE B

D TRANS2 ASSY



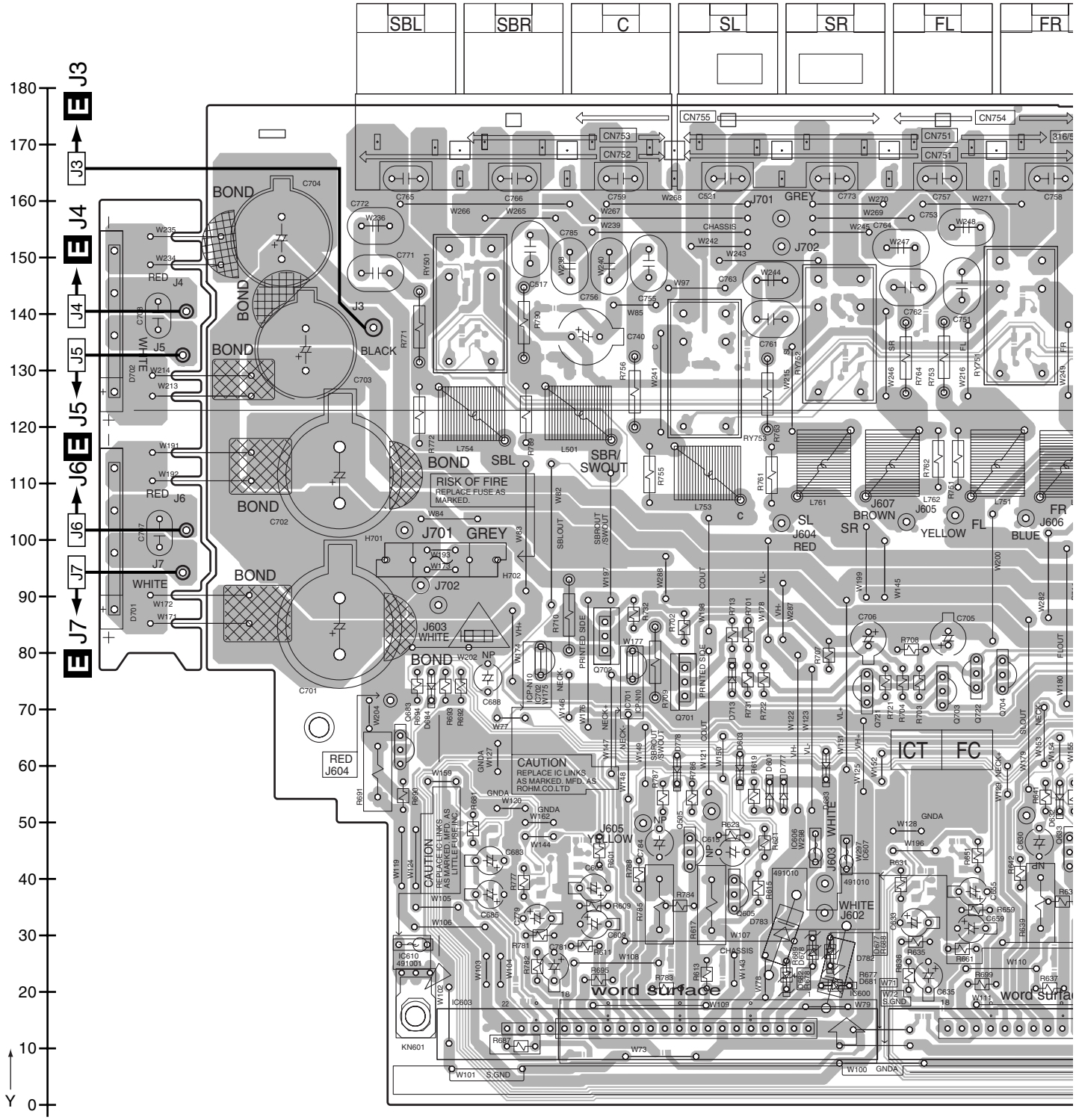
E TRANS3 ASSY



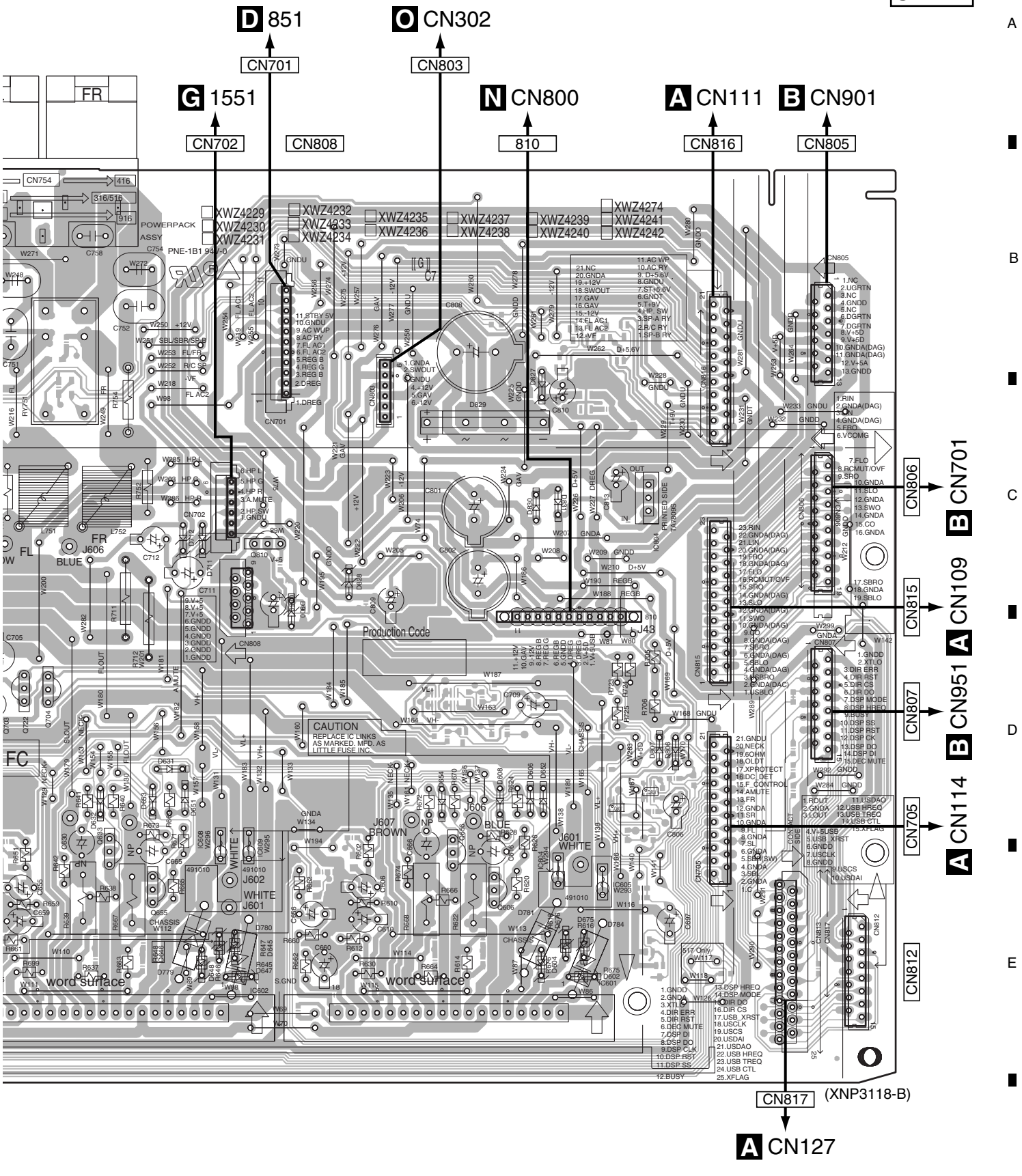
4.5 POWER PACK ASSY

SIDE A

C POWER PACK ASSY

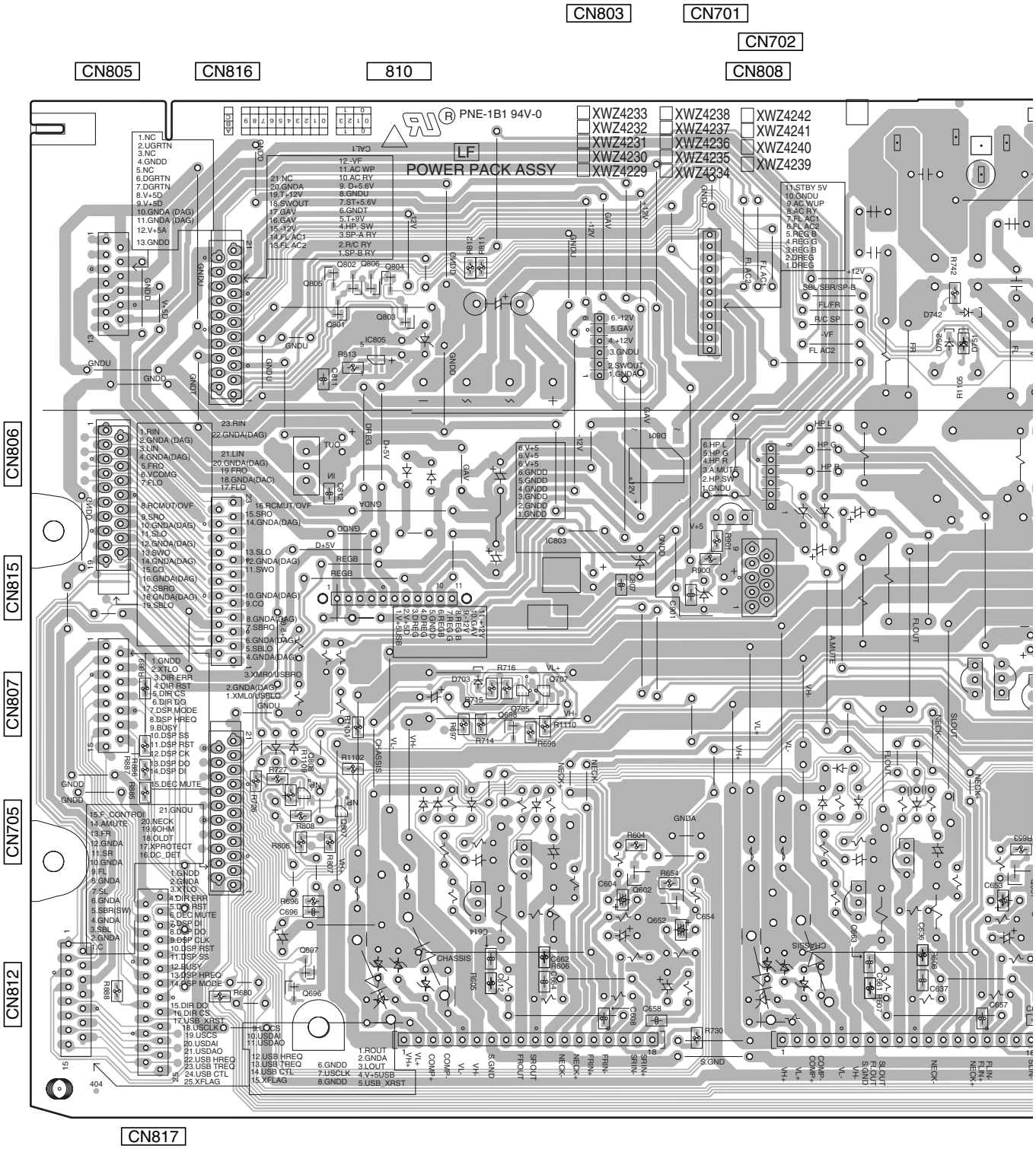


SIDE A

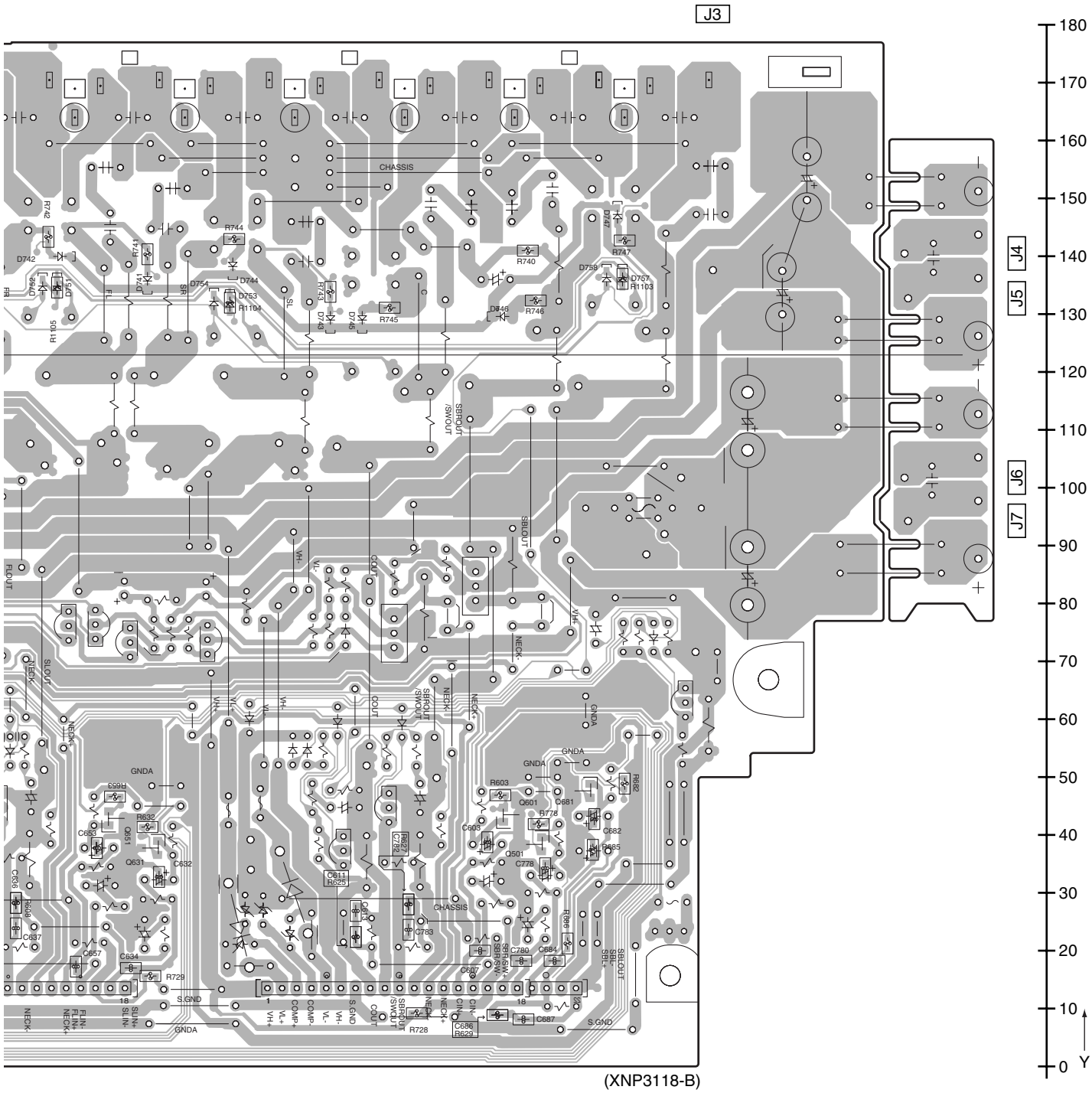

D 851
CN701
O CN302
CN803
G 1551
CN702
CN808
N CN800
810
A CN111
CN816
B CN901
CN805
CN754
316/516
916
POWERPACK ASSY
PNE-1B1 94/-0
XWZ4229
XWZ4230
XWZ4231
XWZ4232
XWZ4233
XWZ4234
XWZ4235
XWZ4236
XWZ4237
XWZ4238
XWZ4239
XWZ4240
XWZ4274
XWZ4241
XWZ4242
Production Code
J43
J606
BLUE
J607
BROWN
J602
WHITE
J601
WHITE
CAUTION
REPLACE IC LINKS AS MARKED. MFD. AS LITTLE FUSE INC.
word surface
CHASSIS
CN806
CN815
CN807
CN705
CN812
CN817
(XNP3118-B)
A CN127
B CN701
B CN109
A CN951
B CN114
A

SIDE B

C POWER PACK ASSY



SIDE B

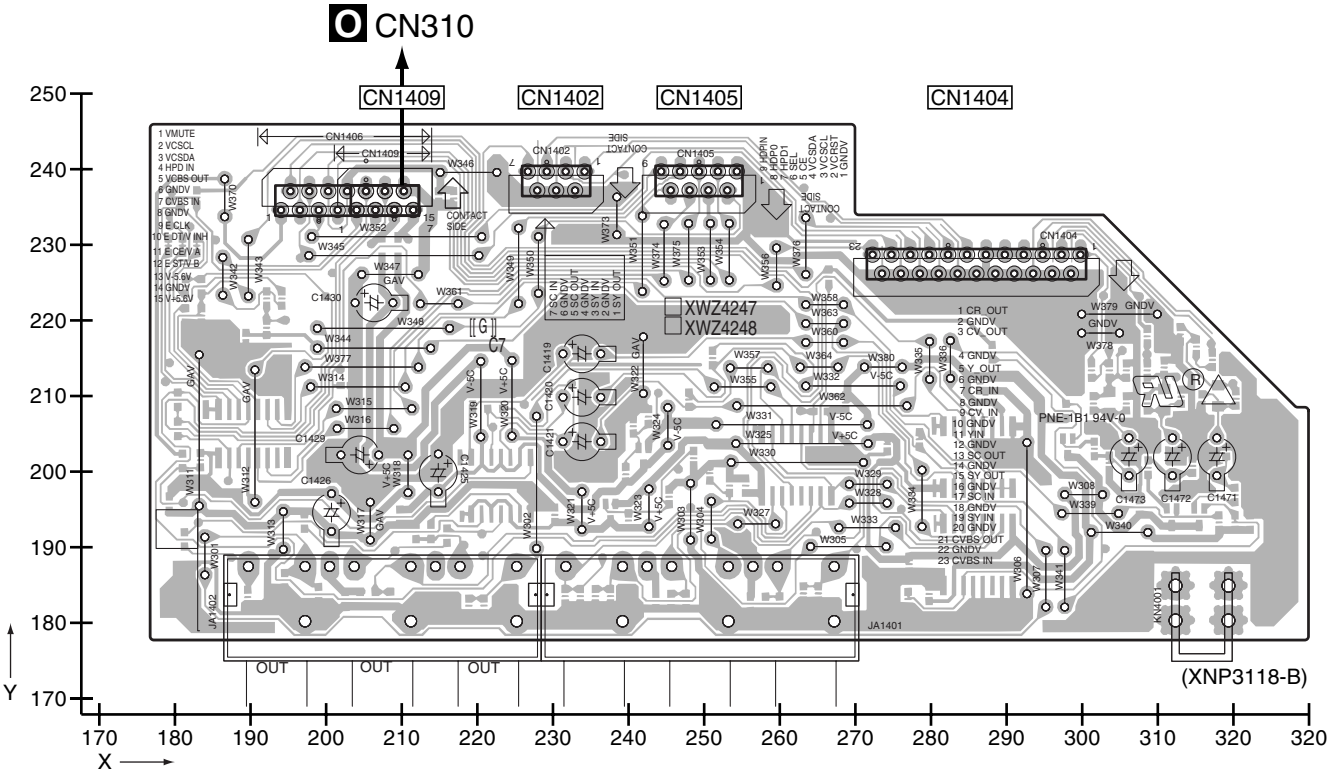


4.6 COMPONENT VIDEO ASSY

SIDE A

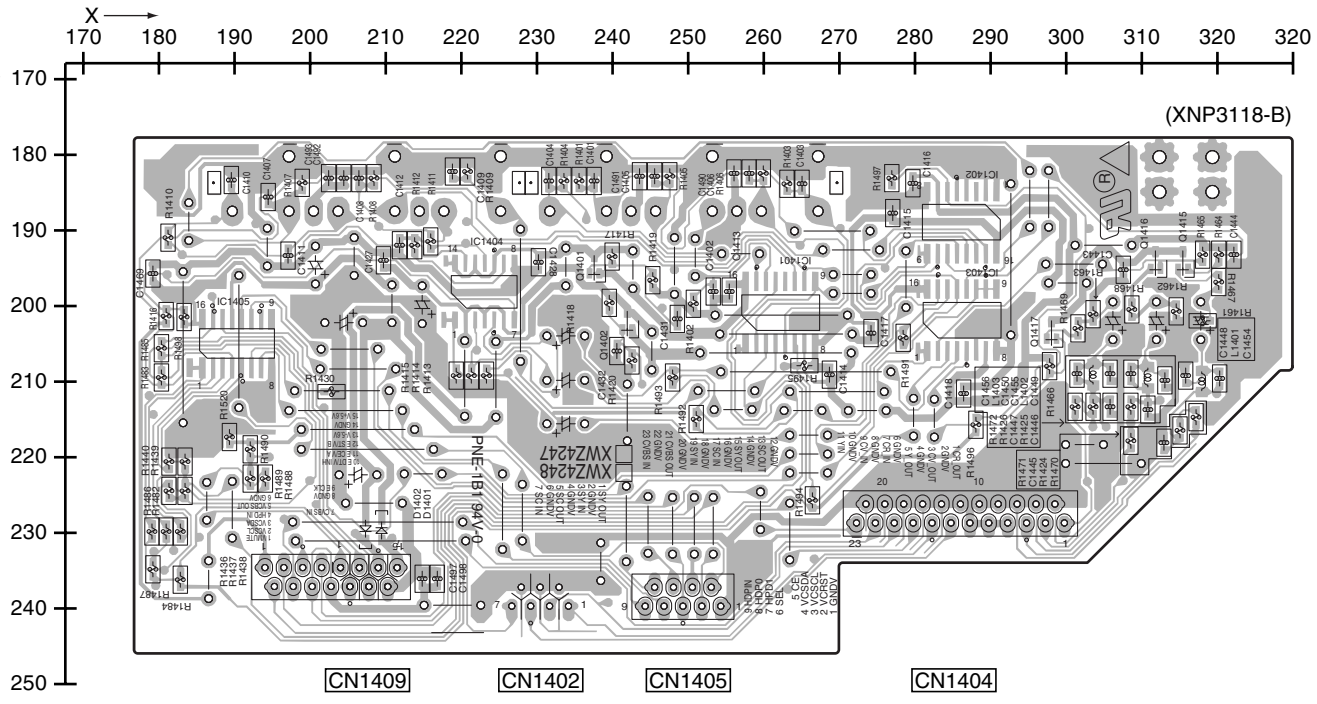
SIDE A

F COMPONENT VIDEO ASSY



SIDE B

SIDE B

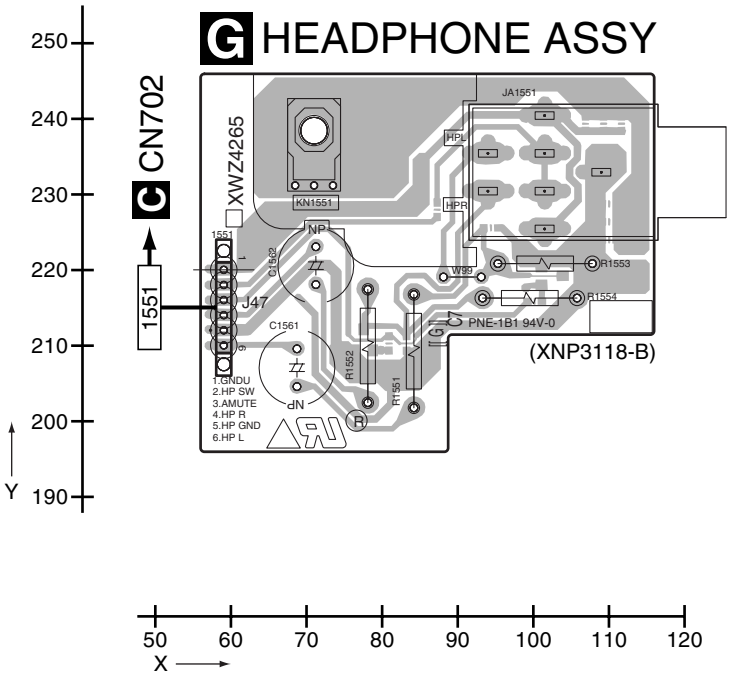


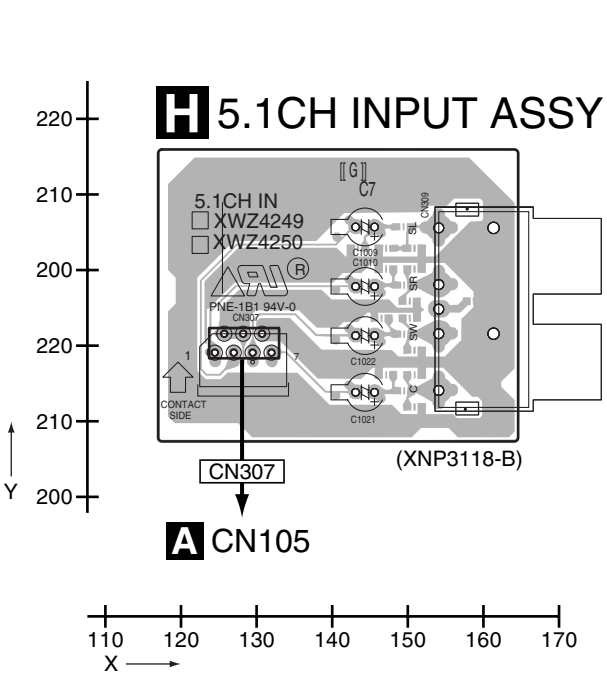
F COMPONENT VIDEO ASSY

F

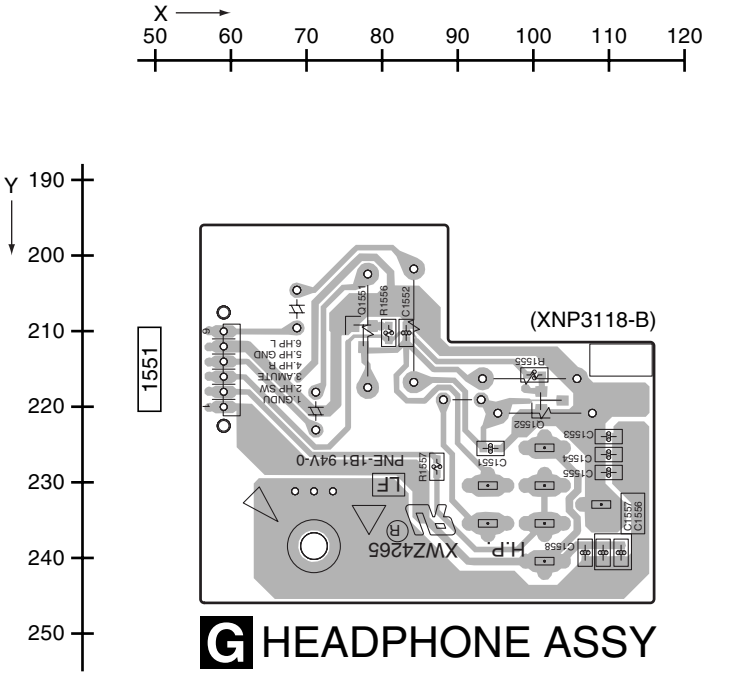
4.7 HEADPHONE and 5.1CH INPUT ASSYS

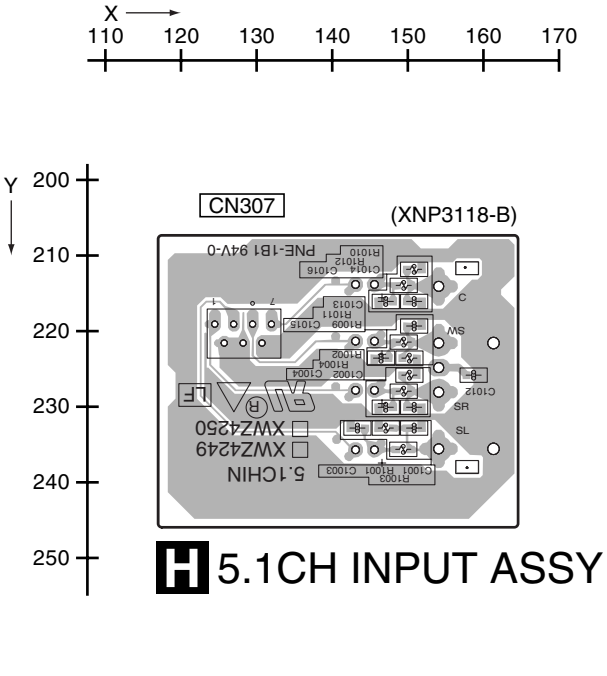
SIDE A





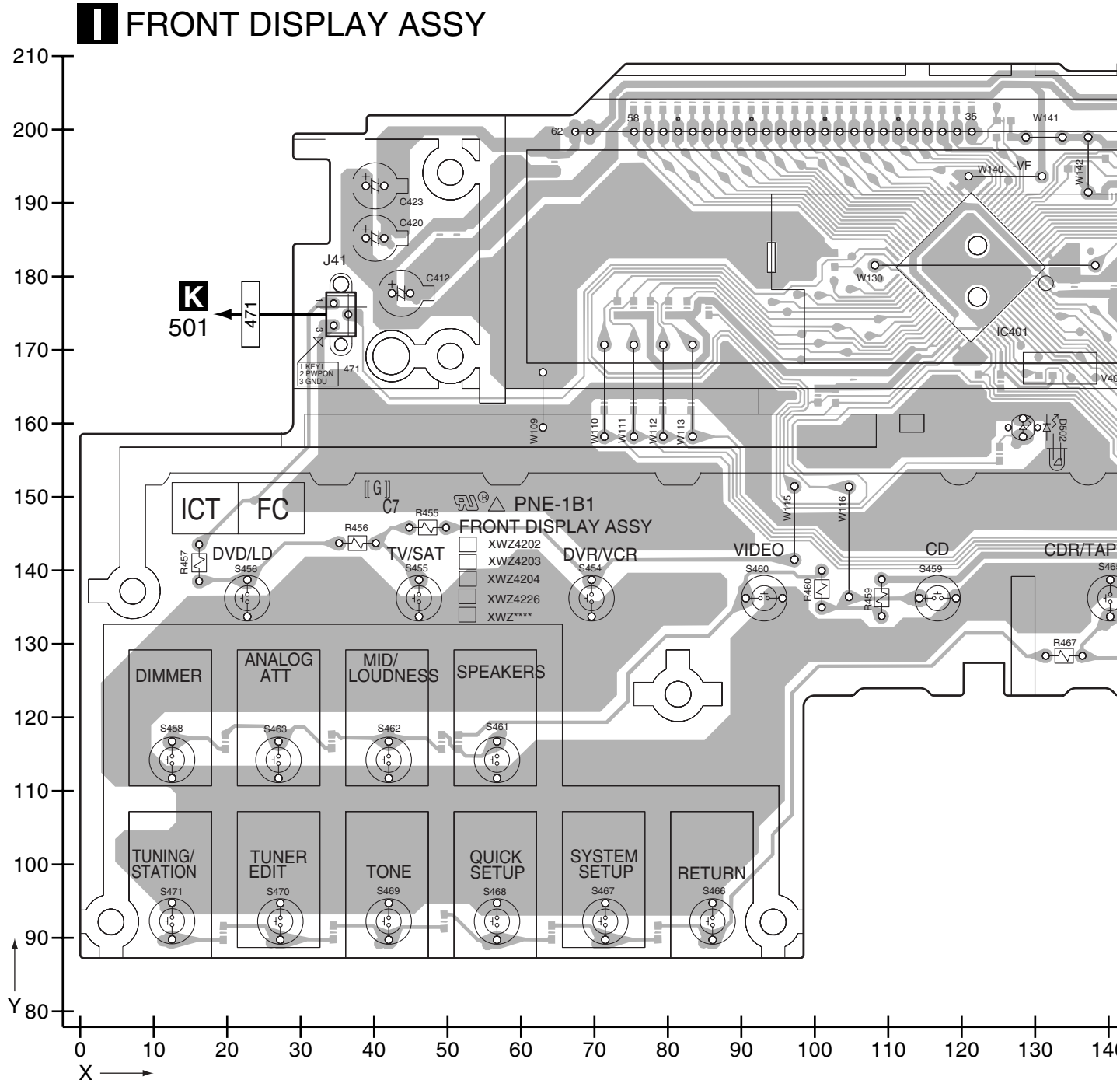
SIDE B



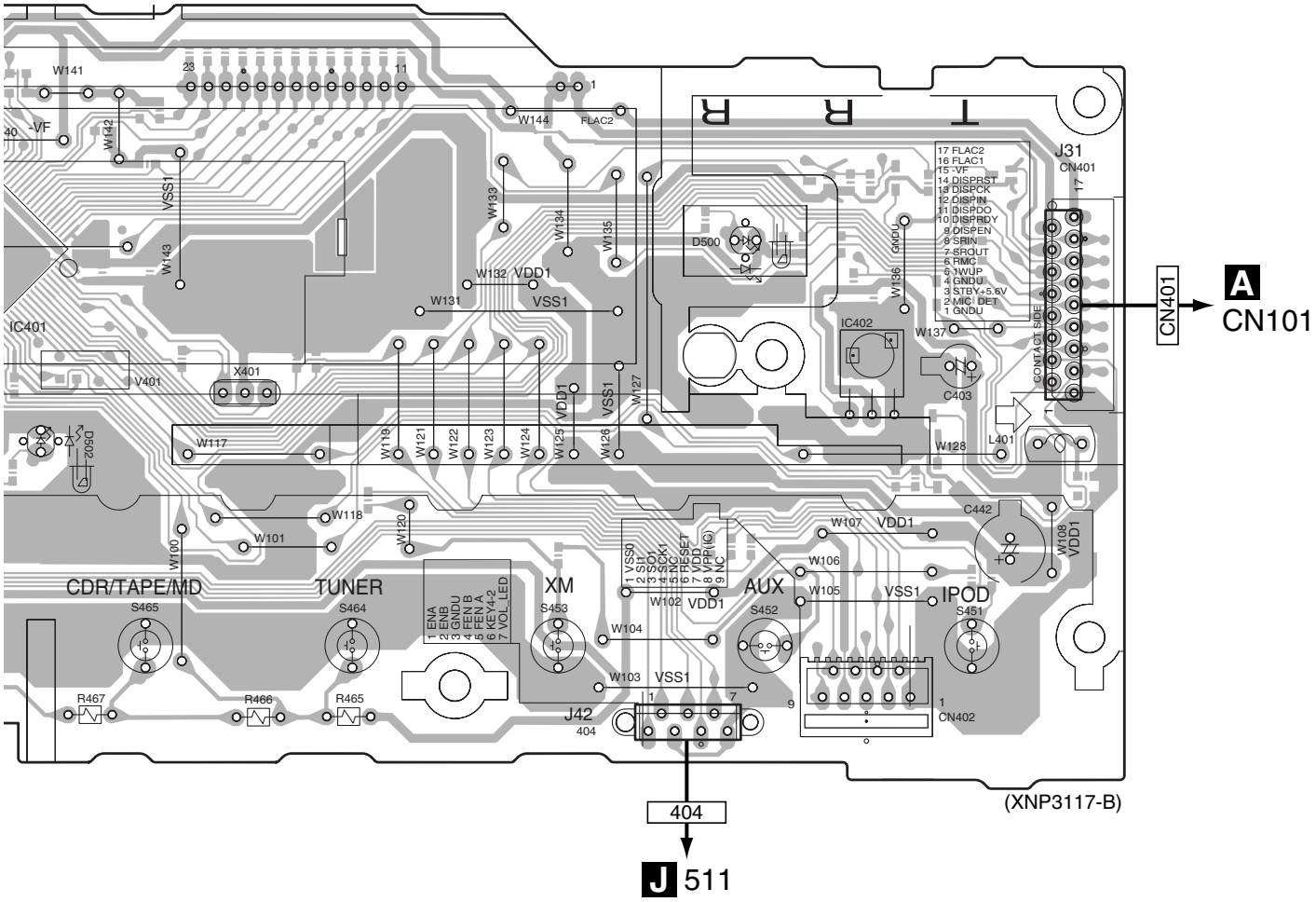


4.8 FRONT DISPLAY ASSY

SIDE A

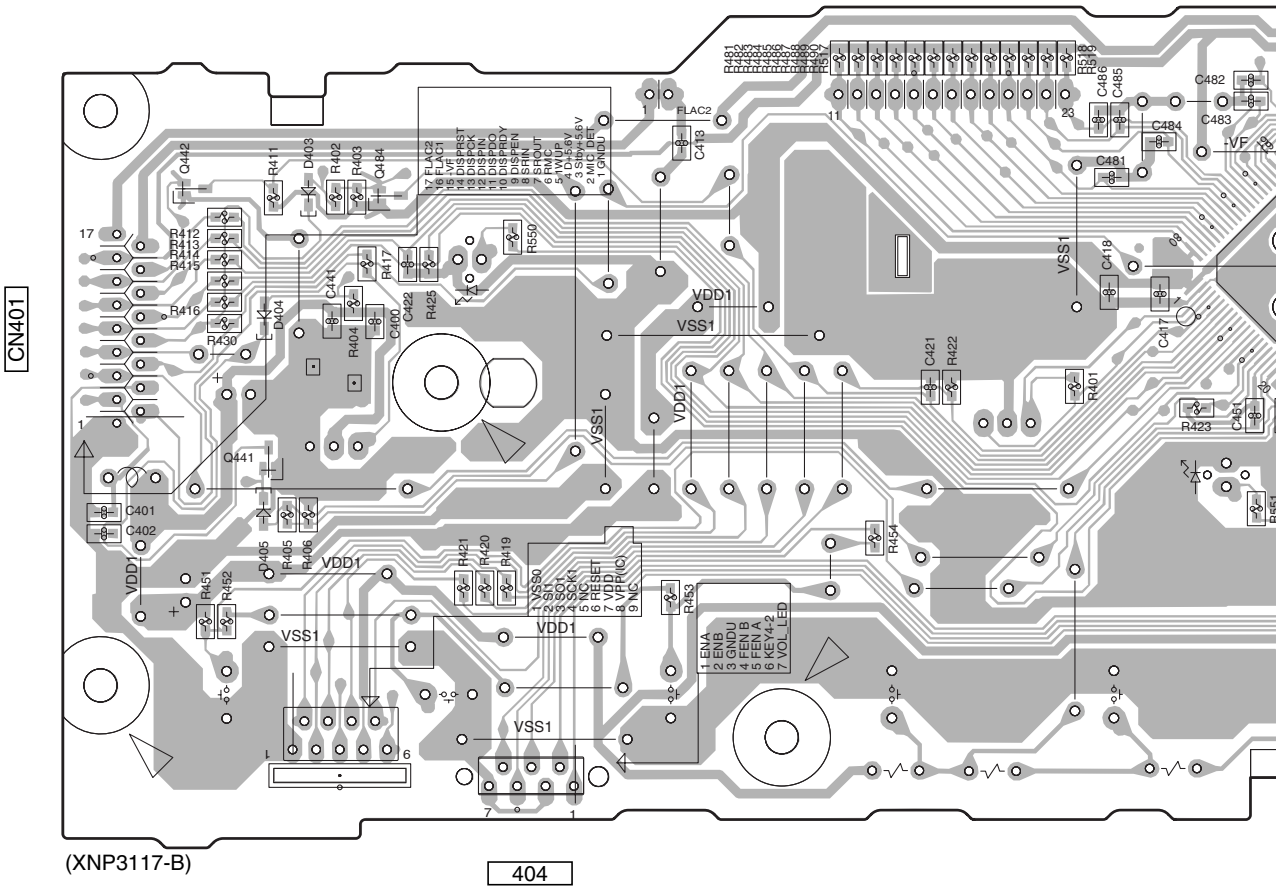


SIDE A


W141
-VF
W142
VSS1
W143
IC401
V401
X401
W117
W118
W101
W100
W120
W144
FLAC2
W133
W134
W135
W132
VDD1
W131
VSS1
W119
W121
W122
W123
W124
W125
W126
W127
D500
W136
GNDU
IC402
W137
C403
L401
W128
C442
W107
W106
W105
W104
W103
W102
J31
CN401
17 FLAC2
16 FLAC1
15 -VF
14 DISPRST
13 DISPCK
12 DISPIN
11 DISPDO
10 DISPRDY
9 DISPEN
8 SRIN
7 SROUT
6 RMC
5 1WUP
4 GNDU
3 STBY+5.6V
2 MIC DET
1 GNDU
CONTACT SIDE
CN401
A
CN101
CDR/TAPE/MD
TUNER
XM
AUX
IPOD
S465
S464
S453
S452
S451
R467
R466
R465
1 ENA
2 ENB
3 GNDU
4 FEN B
5 FEN A
6 KEY4-2
7 VOL_LED
1 VSS
2 SDA
3 SCL
4 SCK
5 NC
6 RESET
7 VDD
8 VPP(C)
9 NC
J42
404
CN402
404
J 511
(XNP3117-B)

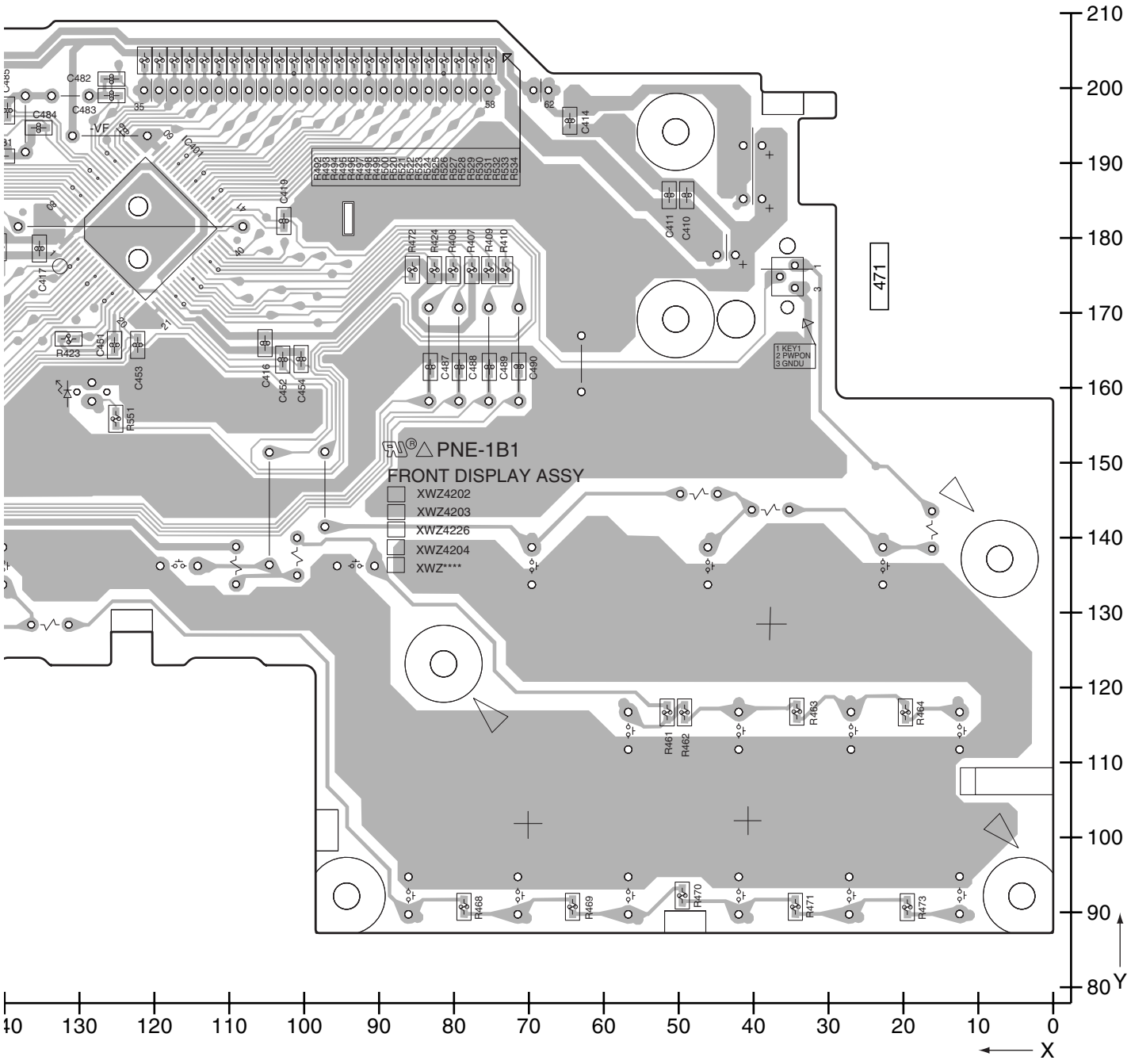
SIDE B

FRONT DISPLAY ASSY



260 250 240 230 220 210 200 190 180 170 160 150 140 130

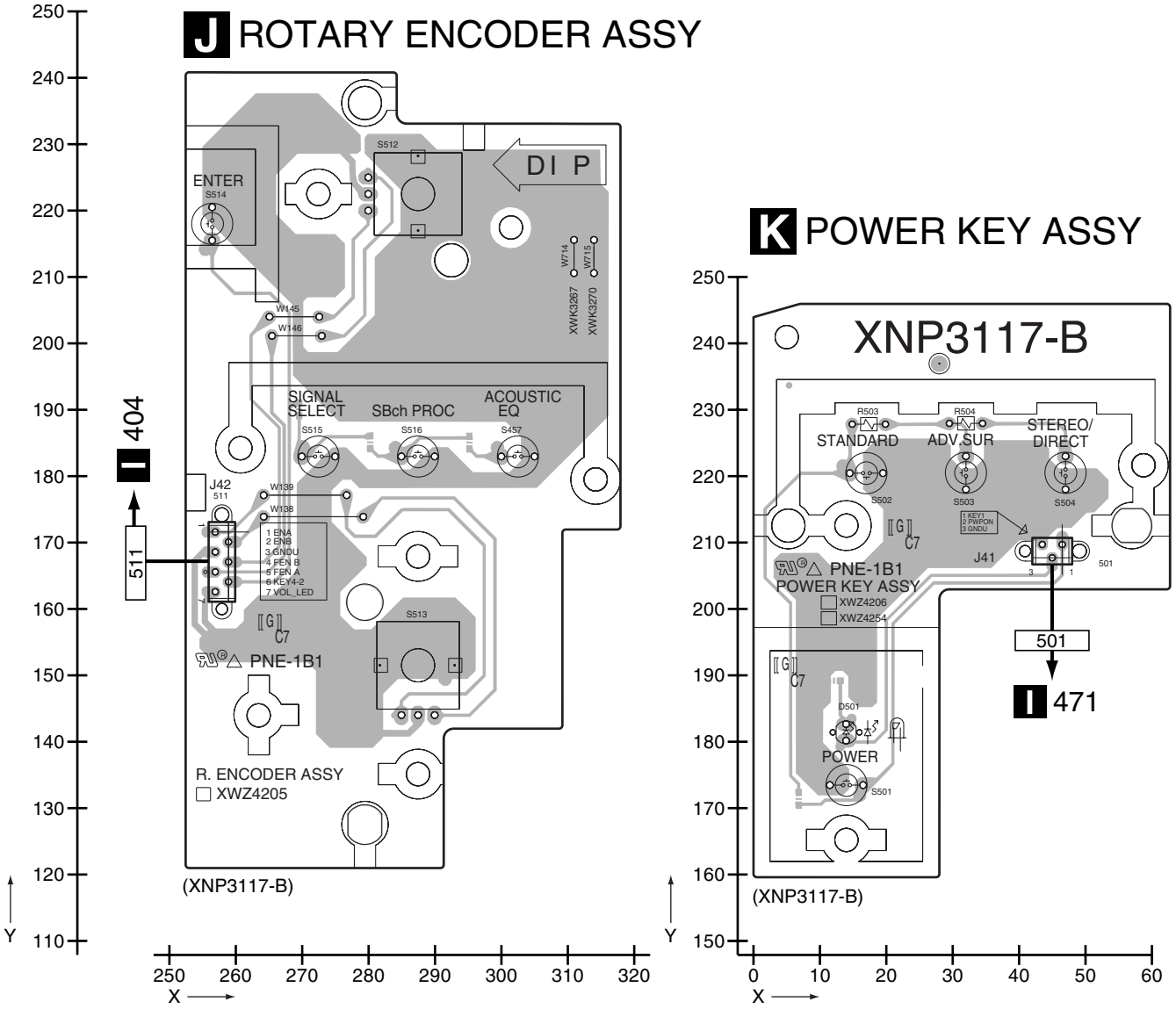
SIDE B


PNE-1B1
FRONT DISPLAY ASSY
XWZ4202
XWZ4203
XWZ4226
XWZ4204
XWZ****
471
1 KEY1
2 PWPON
3 GNDU
210
200
190
180
170
160
150
140
130
120
110
100
90
80
Y
40 130 120 110 100 90 80 70 60 50 40 30 20 10 0
X

4.9 ROTARY ENCODER and POWER KEY ASSYS

SIDE A

SIDE A

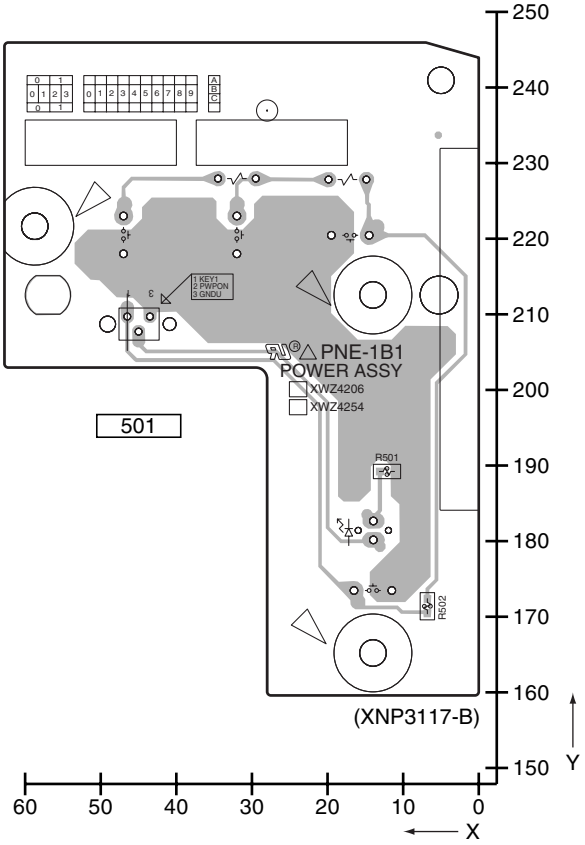


J **K**

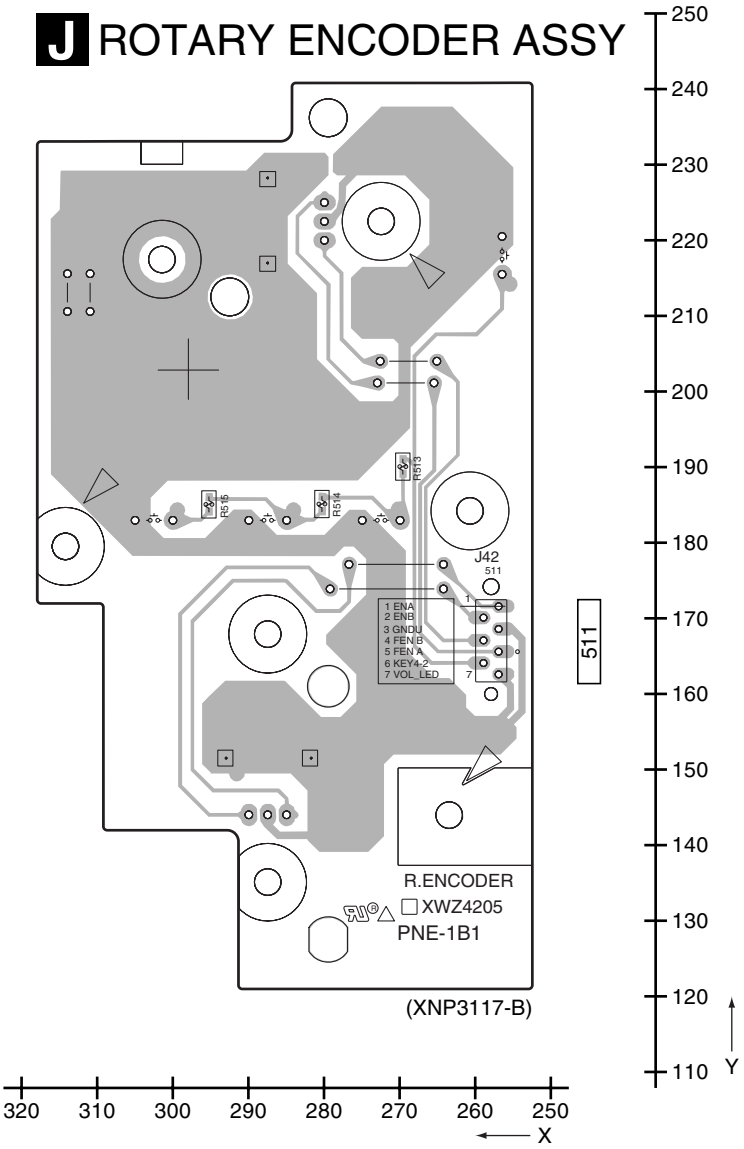
SIDE B

SIDE B

K POWER KEY ASSY



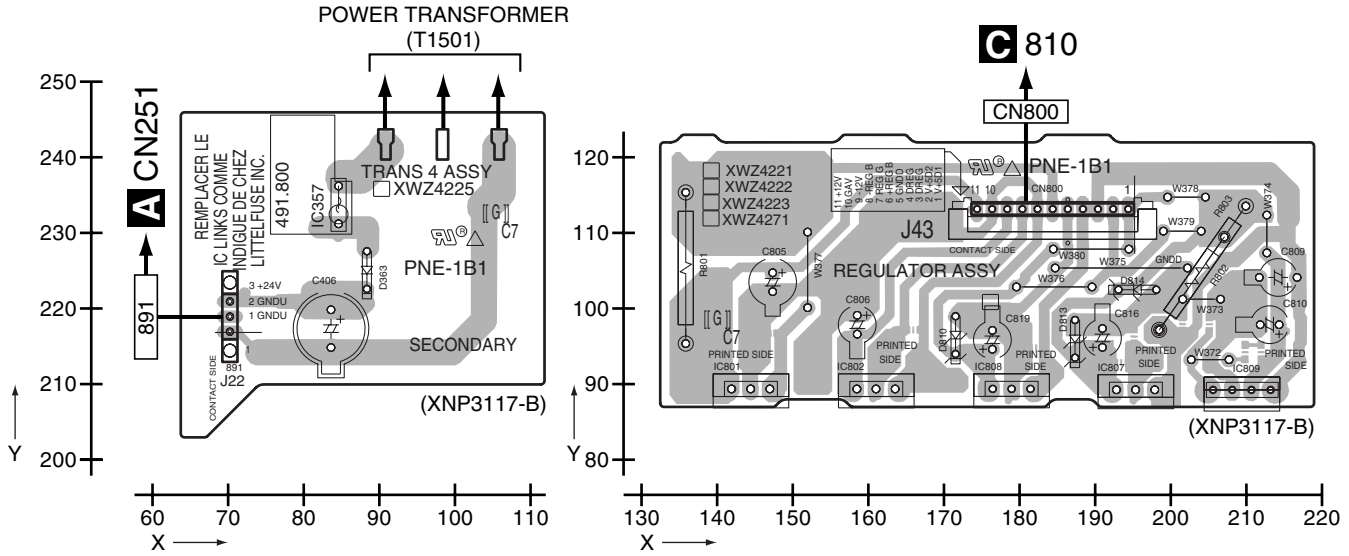
J ROTARY ENCODER ASSY



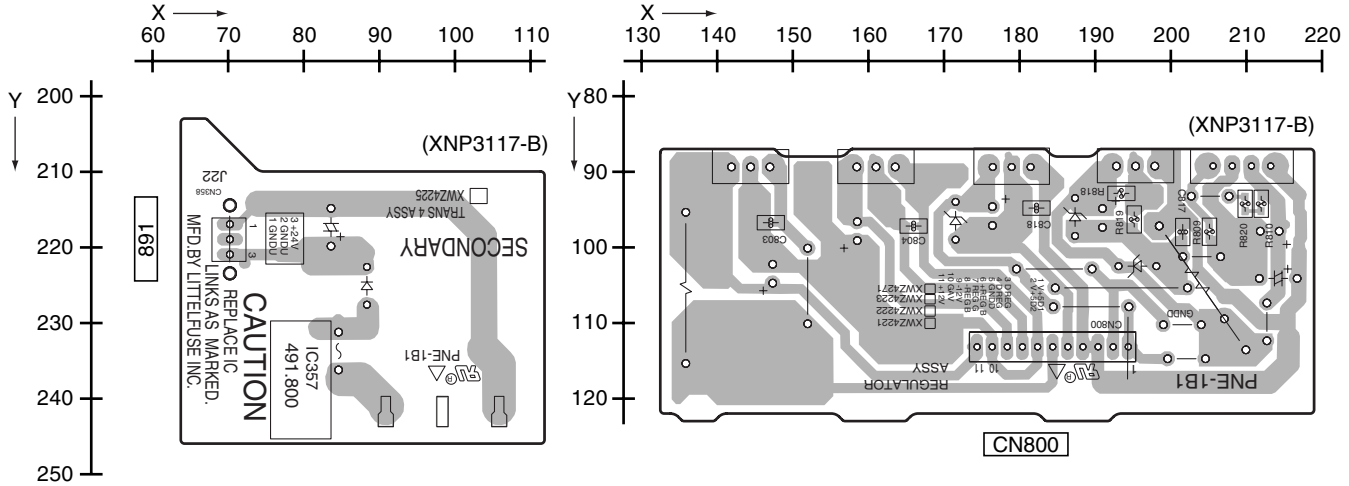
4.10 TRANS4 and REGULATOR ASSYS

SIDE A **SIDE A**

M TRANS4 ASSY **N** REGULATOR ASSY



SIDE B **SIDE B**



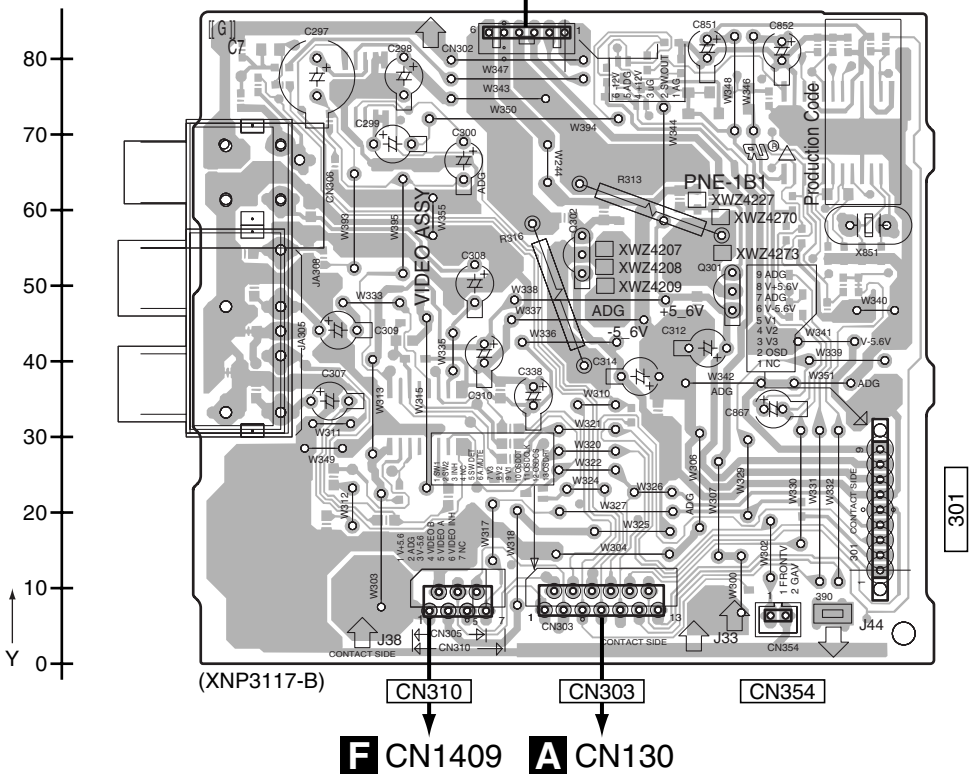
M TRANS4 ASSY **N** REGULATOR ASSY

M **N**

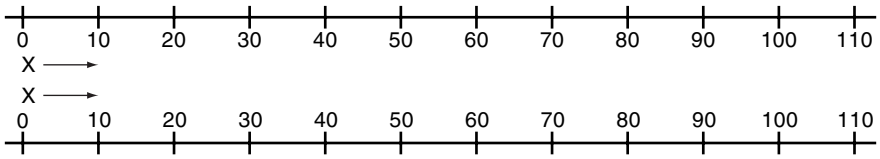
4.11 VIDEO ASSY

SIDE A

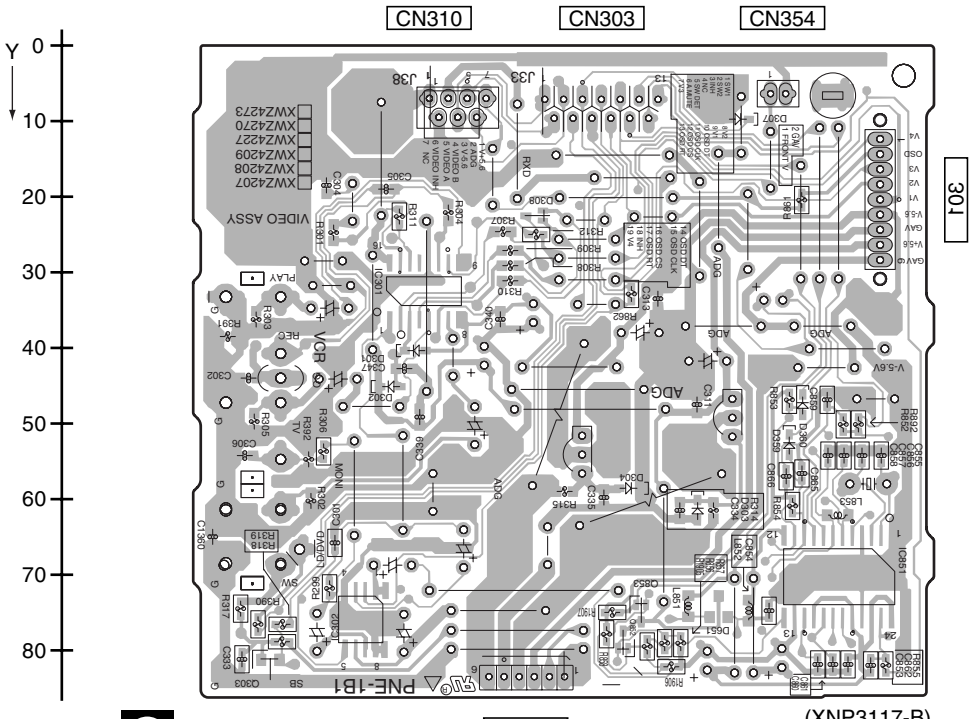
O VIDEO ASSY CN302 → **C** CN803



F CN1409 **A** CN130



SIDE B

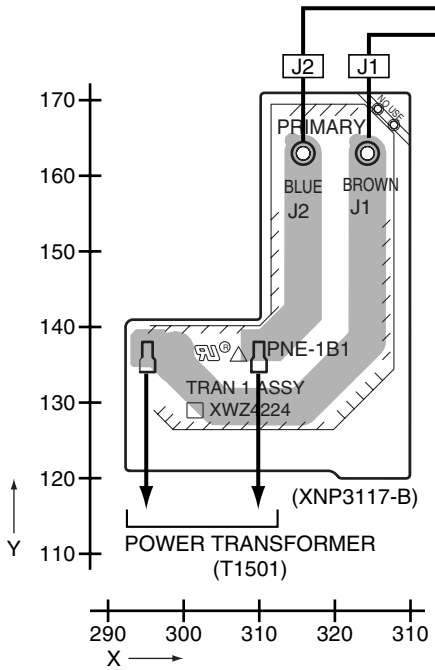


O VIDEO ASSY CN302

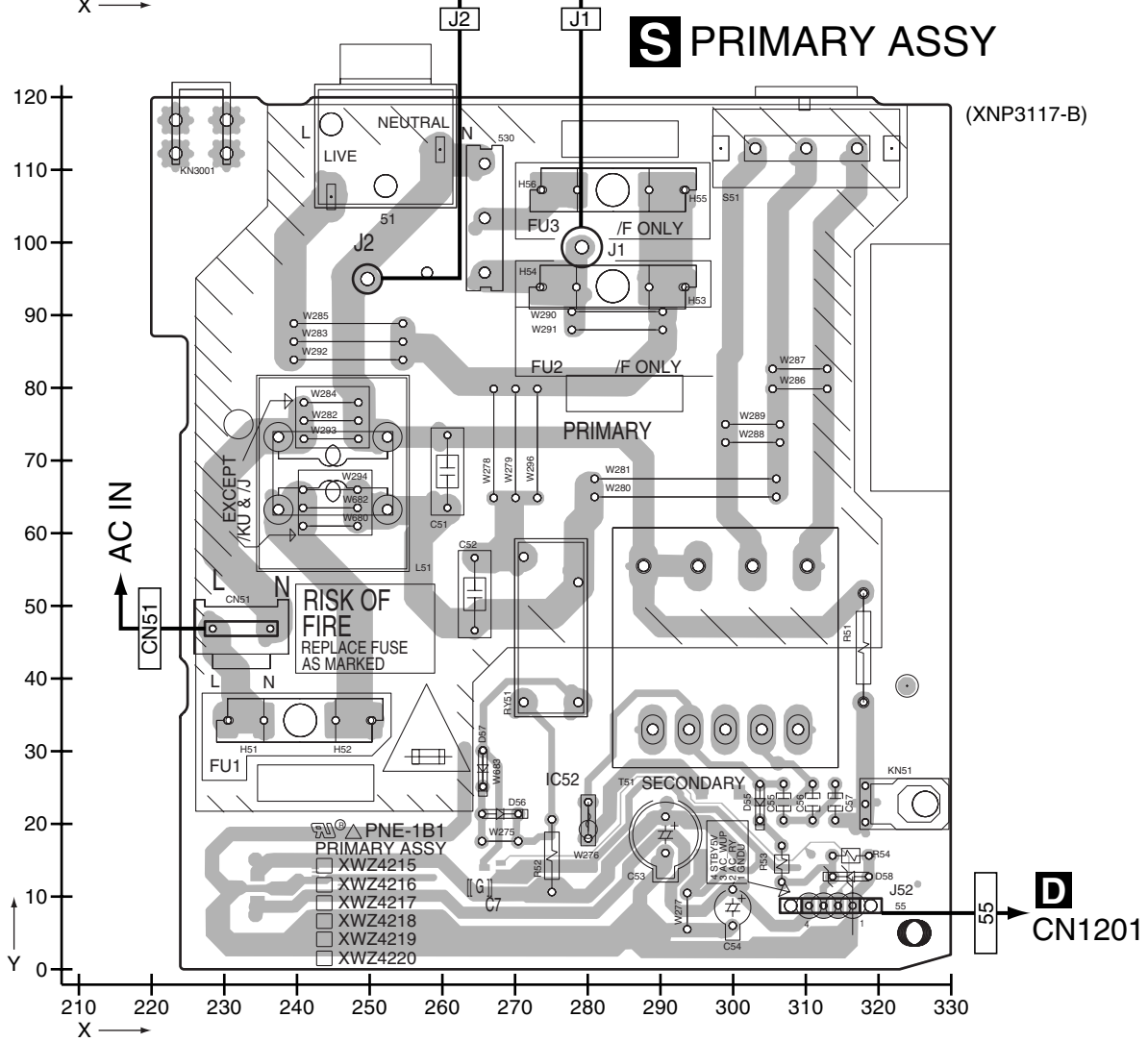
4.12 PRIMARY and TRANS1 ASSYS

SIDE A **SIDE A**

T TRANS1 ASSY



S PRIMARY ASSY

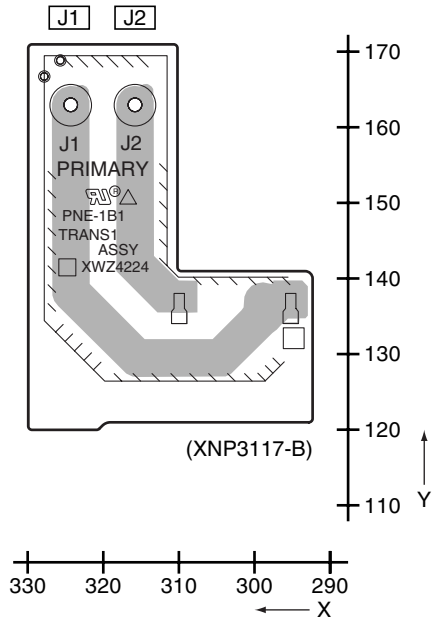


S **T**

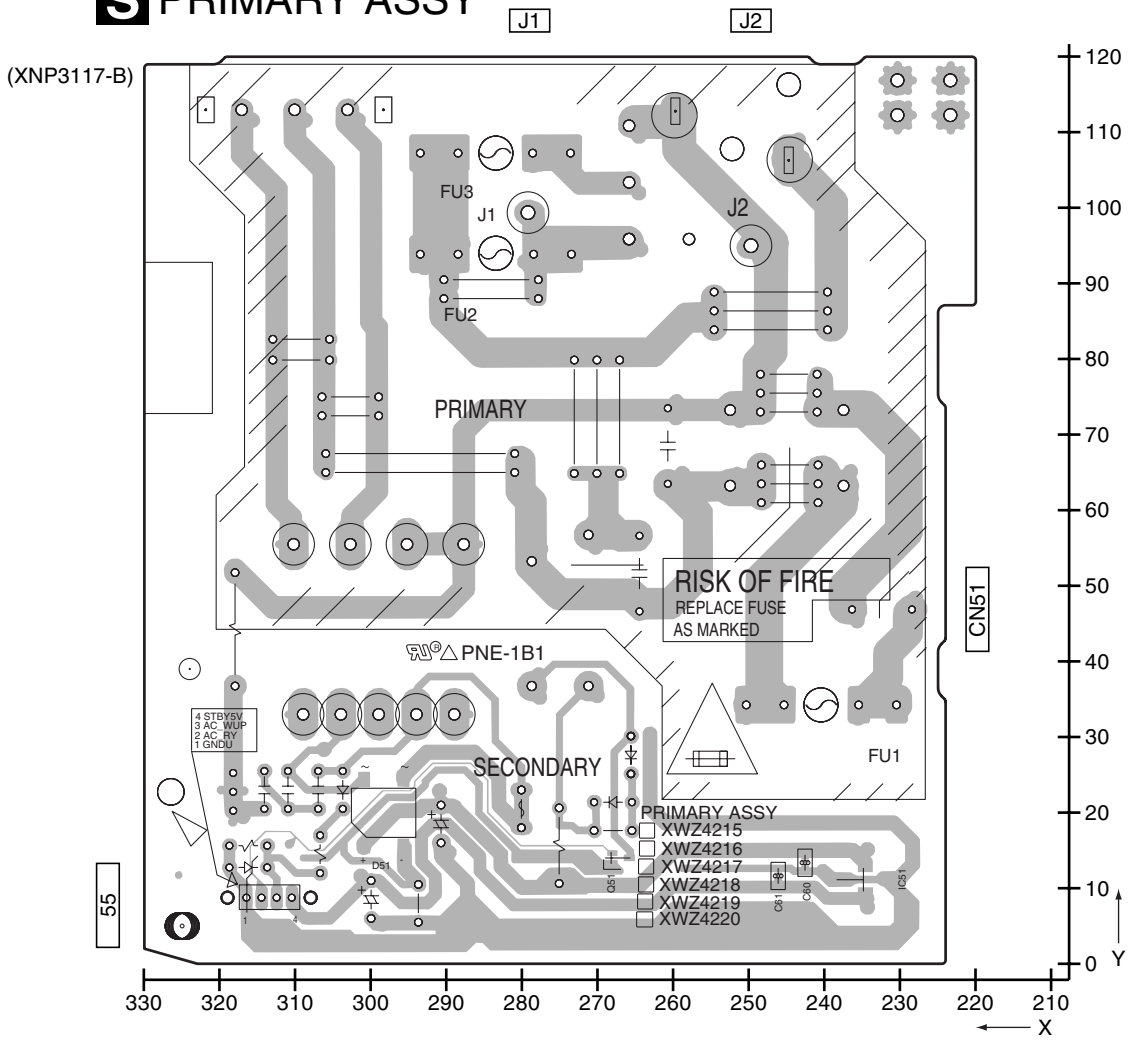
SIDE B

SIDE B

T TRANS1 ASSY



S PRIMARY ASSY



5 6 7 8

5. PCB 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.*
- *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	→ *56 x 10¹* →	*561*	*RD1/4PU 5 6 1 J*
47k Ω	→ *47 x 10³* →	*473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→	*R50*	*RN2H R 5 0 K*
1 Ω	→	*1R0*	*RS1P 1 R 0 K*

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

5.62k Ω	→ *562 x 10¹* →	*5621*	*RN1/4PC 5 6 2 1 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

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
	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

AMP ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
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

Mark	No.	Description	Part No.
J	41	JUMPER WIRE	D15A03-100-2651
J	42	JUMPER WIRE	D15A07-125-2651

A MAIN ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
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

Mark No.	Description	Part No.
D 9011	(A,60,75) DIODE	DAN202U
D 9064	(A,58,75) DIODE	DAP202U
D 9065	(A,63,80) DIODE	DAP202U
D 9068	(A,53,81) DIODE	1SS355
L 101	(B,260,98) CHIP SOLID INDUCTOR	QTL1013
L 102	(B,265,97) CHIP SOLID INDUCTOR	QTL1013
L 5002	(A,257,104) CHIP SOLID INDUCTOR	QTL1013
L 9001	(A,124,102) CHIP SOLID INDUCTOR	ATL7002
L 9002	(A,120,103) CHIP SOLID INDUCTOR	ATL7002
L 9003	(A,106,98) RADIAL INDUCTOR	LFCA2R2J
X 9001	(A,96,53) CERAMIC RESONATOR (15.7 MHz)	XSS3004
CN101	(A,41,27) CONNECTOR	CKS3382
CN102	(A,113,63) CONNECTOR	52045-1045
CN103	(A,227,17) 11P CONNECTOR	52044-1145
CN105	(A,266,34) CONNECTOR	CKS3372
CN109	(A,230,113) 19P SOCKET	XKP3054
CN111	(A,274,113) 21P SOCKET	XKP3091
CN112	(A,91,41) CONNECTOR	CKS3382
CN114	(A,189,113) 21P SOCKET	XKP3091
CN125	(A,302,42) 6P PIN JACK	XKB3055
CN130	(A,247,13) CONNECTOR	CKS3378
CN142	8P PIN JACK	XKB3067
CN251	(A,39,92) 3P JUMPER CONNECTOR	52147-0310
CN252	(A,37,77) 3P TOP POST	B3B-EH

RESISTORS

R 103	(B,283,62)	RS1/16S222J
R 104	(B,283,52)	RS1/16S222J
R 105	(B,283,48)	RS1/16S331J
R 106	(B,293,40)	RS1/16S331J
R 107	(B,283,88)	RS1/16S331J
R 108	(B,293,81)	RS1/16S331J
R 109	(B,283,75)	RS1/16S331J
R 110	(B,293,68)	RS1/16S331J
R 111	(B,283,112)	RS1/16S222J
R 112	(B,283,106)	RS1/16S222J
R 113	(B,283,101)	RS1/16S331J
R 114	(B,293,96)	RS1/16S331J
R 129	(B,283,34)	RS1/16S331J
R 130	(B,283,25)	RS1/16S331J
R 145	(A,71,73)	RS1/16S102J
R 146	(A,71,74)	RS1/16S102J
R 147	(B,233,67)	RS1/16S472J
R 148	(B,228,62)	RS1/16S472J
R 149	(A,259,45)	RS1/16S104J
R 180	(B,278,97)	RS1/16S0R0J
R 181	(B,273,78)	RS1/16S0R0J
R 182	(B,275,75)	RS1/16S0R0J
R 183	(B,276,67)	RS1/16S0R0J
R 201	(A,189,85)	RS1/16S473J
R 202	(A,189,90)	RS1/16S473J
R 205	(B,189,85)	RS1/16S392J
R 206	(B,189,91)	RS1/16S392J
R 207	(B,191,85)	RS1/16S392J
R 208	(B,191,91)	RS1/16S392J
R 209	(B,198,85)	RS1/16S392J
R 210	(B,198,91)	RS1/16S392J
R 211	(B,200,85)	RS1/16S332J
R 212	(B,200,91)	RS1/16S332J

Mark No.	Description	Part No.
R 221	(B,220,84)	RS1/16S472J
R 222	(B,219,91)	RS1/16S472J
R 223	(A,242,78)	RS1/16S472J
R 224	(A,236,78)	RS1/16S472J
R 225	(B,225,84)	RS1/16S392J
R 226	(B,225,91)	RS1/16S392J
R 231	(A,229,72)	RS1/16S104J
R 233	(A,231,91)	RS1/16S474J
R 234	(A,231,84)	RS1/16S474J
R 237	(A,237,88)	RS1/16S122J
R 238	(A,236,80)	RS1/16S122J
R 241	(A,190,69)	RS1/16S473J
R 242	(A,190,74)	RS1/16S473J
R 245	(B,188,69)	RS1/16S332J
R 246	(B,188,75)	RS1/16S332J
R 247	(B,190,69)	RS1/16S332J
R 248	(B,190,75)	RS1/16S332J
R 249	(B,197,69)	RS1/16S332J
R 250	(B,197,75)	RS1/16S332J
R 251	(B,199,69)	RS1/16S182J
R 252	(B,199,75)	RS1/16S182J
R 261	(A,189,53)	RS1/16S473J
R 262	(A,189,59)	RS1/16S473J
R 264	(B,186,60)	RS1/16S392J
R 265	(B,188,53)	RS1/16S332J
R 266	(B,188,60)	RS1/16S472J
R 267	(B,190,53)	RS1/16S332J
R 268	(B,190,60)	RS1/16S123J
R 269	(B,197,53)	RS1/16S332J
R 270	(B,197,60)	RS1/16S122J
R 271	(B,199,53)	RS1/16S182J
R 272	(B,199,60)	RS1/16S272J
R 274	(B,202,60)	RS1/16S271J
R 280	(A,65,112)	RS1/16S0R0J
R 303	(B,156,37)	RS1/16S101J
R 304	(B,155,43)	RS1/16S101J
R 305	(B,160,49)	RS1/16S101J
R 306	(B,164,61)	RS1/16S101J
R 307	(B,165,68)	RS1/16S101J
R 308	(B,171,72)	RS1/16S101J
R 311	(A,258,102) METAL OXIDE RESISTOR	RS1LMF101J
R 312	(A,266,102) METAL OXIDE RESISTOR	RS1LMF101J
R 437	(A,81,108)	RS1/16S103J
R 438	(A,79,112)	RS1/16S103J
R 439	(A,80,112)	RS1/16S103J
R 440	(A,87,108)	RS1/16S103J
R 443	(A,63,104)	RS1/16S471J
R 445	(A,73,107)	RS1/16S223J
R 448	(A,90,102)	RS1/16S104J
R 449	(A,83,108)	RS1/16S822J
R 453	(A,147,36)	RS1/16S362J
R 454	(A,142,48)	RS1/16S362J
R 457	(A,141,36)	RS1/16S153J
R 458	(A,140,47)	RS1/16S153J
R 459	(B,133,38)	RS1/16S103J
R 460	(B,133,43)	RS1/16S103J
R 464	(A,77,99)	RS1/16S0R0J
R 473	(A,151,53)	RS1/16S362J
R 474	(A,152,66)	RS1/16S362J
R 477	(A,149,52)	RS1/16S153J

Mark	No.	Description	Part No.
	R 478	(A,150,65)	RS1/16S153J
	R 479	(B,142,57)	RS1/16S103J
A	R 480	(B,142,62)	RS1/16S103J
	R 484	(A,165,71)	RS1/16S104J
	R 485	(A,157,80)	RS1/16S472J
	R 493	(A,141,71)	RS1/16S362J
	R 494	(A,141,84)	RS1/16S362J
	R 497	(A,139,69)	RS1/16S153J
	R 498	(A,139,83)	RS1/16S153J
	R 499	(B,133,72)	RS1/16S103J
	R 500	(B,133,79)	RS1/16S103J
	R 502	(B,144,80)	RS1/16S204J
	R 551	(A,85,108)	RS1/16S822J
B	R 9001	(B,94,54)	RS1/16S0R0J
	R 9002	(A,129,89)	RS1/16S473J
	R 9003	(B,92,54)	RS1/16S0R0J
	R 9006	(B,103,89)	RS1/16S474J
	R 9007	(B,93,89)	RS1/16S474J
	R 9008	(A,93,107)	RS1/16S221J
	R 9009	(A,65,85)	RS1/16S473J
	R 9010	(B,115,45)	RS1/16S512J
	R 9011	(A,63,76)	RS1/16S102J
	R 9012	(A,63,73)	RS1/16S0R0J
	R 9013	(B,112,45)	RS1/16S471J
C	R 9014	(B,104,54)	RS1/16S471J
	R 9015	(B,102,54)	RS1/16S471J
	R 9016	(B,100,54)	RS1/16S471J
	R 9017	(B,98,54)	RS1/16S471J
	R 9018	(B,96,54)	RS1/16S471J
	R 9019	(B,98,76)	RS1/16S471J
	R 9020	(B,99,76)	RS1/16S471J
	R 9021	(B,101,76)	RS1/16S471J
	R 9022	(B,103,76)	RS1/16S471J
	R 9023	(B,112,67)	RS1/16S103J
	R 9025	(B,103,67)	RS1/16S562J
D	R 9026	(B,106,67)	RS1/16S103J
	R 9028	(B,119,45)	RS1/16S104J
	R 9030	(A,68,79)	RS1/16S470J
	R 9031	(B,69,48)	RS1/16S104J
	R 9032	(A,66,59)	RS1/16S104J
	R 9033	(B,89,48)	RS1/16S104J
	R 9036	(A,88,89)	RS1/16S221J
	R 9037	(A,124,99)	RS1/16S104J
	R 9039	(A,87,57)	RS1/16S104J
	R 9041	(B,117,45)	RS1/16S104J
	R 9045	(A,97,46)	RS1/16S471J
E	R 9046	(A,107,46)	RS1/16S471J
	R 9047	(A,98,46)	RS1/16S103J
	R 9048	(A,98,43)	RS1/16S103J
	R 9060	(B,98,68)	RS1/16S473J
	R 9062	(B,87,48)	RS1/16S471J
	R 9064	(A,54,74)	RS1/16S103J
	R 9065	(A,56,74)	RS1/16S103J
	R 9066	(A,62,72)	RS1/16S103J
	R 9067	(A,57,83)	RS1/16S103J
	R 9068	(A,64,71)	RS1/16S0R0J
	R 9081	(A,120,72)	RS1/16S221J
F	R 9082	(A,122,69)	RS1/16S274J

Mark	No.	Description	Part No.
CAPACITORS			
	C 115	(B,262,98)	CKSRYB103K50
	C 116	(B,267,97)	CKSRYB103K50
	C 117	(B,283,116)	CCSRCH220J50
	C 118	(B,285,109)	CCSRCH220J50
	C 121	(A,280,34)	CEAT100M50
	C 122	(A,280,25)	CEAT100M50
	C 125	(A,280,62)	CEAT100M50
	C 126	(A,280,53)	CEAT100M50
	C 127	(A,280,47)	CEAT100M50
	C 128	(A,280,40)	CEAT100M50
	C 131	(A,280,87)	CEAT100M50
	C 132	(A,280,80)	CEAT100M50
	C 133	(A,280,74)	CEAT100M50
	C 134	(A,280,67)	CEAT100M50
	C 135	(A,280,114)	CEAT100M50
	C 136	(A,280,106)	CEAT100M50
	C 137	(A,280,101)	CEAT100M50
	C 138	(A,280,93)	CEAT100M50
	C 141	(A,256,82)	CKSRYB104K50
	C 145	(B,256,81)	CCSRCH101J50
	C 146	(B,258,81)	CCSRCH101J50
	C 147	(B,253,81)	CKSRYB103K50
	C 148	(B,238,67)	CKSRYB223K25
	C 149	(B,235,67)	CKSRYB473K25
	C 150	(B,231,67)	CKSQYB154K16
	C 151	(B,45,62)	CKSRYB103K50
	C 152	(B,230,62)	CKSRYB223K25
	C 153	(B,234,62)	CKSRYB473K25
	C 154	(B,232,62)	CKSQYB154K16
	C 155	(A,226,62)	CEAT101M10
	C 156	(A,229,56)	CEAT101M10
	C 157	(A,236,56)	CEAT101M10
	C 158	(A,232,50)	CEAT101M10
	C 159	(A,241,50)	CEAT101M10
	C 160	(A,234,44)	CEAT101M10
	C 161	(A,241,44)	CEAT101M10
	C 162	(A,248,44)	CEAT101M10
	C 165	(A,240,86)	CEAT1R0M50
	C 166	(A,248,86)	CEAT1R0M50
	C 179	(B,294,76)	CKSRYB103K50
	C 180	(A,277,19)	CKSRYB103K50
	C 199	(A,281,50)	CKSRYB103K50
	C 201	(A,183,85)	CEAT2R2M50
	C 202	(A,184,92)	CEAT2R2M50
	C 205	(A,193,85)	CCSRCH331J50
	C 206	(A,194,90)	CCSRCH331J50
	C 207	(B,193,85)	CCSRCH331J50
	C 208	(B,193,91)	CCSRCH331J50
	C 213	(A,223,84)	CEAT100M50
	C 214	(A,223,90)	CEAT100M50
	C 217	(A,202,85)	CKSRYB103K50
	C 218	(A,202,90)	CKSRYB103K50
	C 219	(A,221,87)	CKSRYB104K16
	C 220	(A,210,93)	CKSRYB104K16
	C 221	(A,230,75)	CKSRYB103K50
	C 222	(A,243,70)	CKSRYB103K50
	C 241	(A,183,70)	CEAT2R2M50
	C 242	(A,183,77)	CEAT2R2M50
	C 245	(A,194,69)	CCSRCH331J50

Mark	No.	Description	Part No.
	C 246	(A,194,74)	CCSRCH331J50
	C 247	(B,193,69)	CCSRCH331J50
	C 248	(B,193,75)	CCSRCH331J50
	C 249	(A,205,69)	CEAT100M50
	C 250	(A,205,75)	CEAT100M50
	C 251	(A,204,65)	CKSRYB103K50
	C 252	(A,211,78)	CKSRYB103K50
	C 261	(A,183,54)	CEAT2R2M50
	C 262	(A,183,62)	CEAT2R2M50
	C 264	(A,191,59)	CCSRCH331J50
	C 265	(A,194,53)	CCSRCH331J50
	C 266	(A,194,59)	CCSRCH221J50
	C 267	(B,193,53)	CCSRCH331J50
	C 268	(B,193,60)	CCSRCH101J50
	C 269	(A,205,54)	CEAT100M50
	C 270	(A,205,60)	CEAT100M50
	C 271	(A,203,51)	CKSRYB103K50
	C 272	(A,210,64)	CKSRYB103K50
	C 323	(A,146,36)	CCSRCH101J50
	C 324	(A,140,49)	CCSRCH101J50
	C 325	(A,136,39) ELECT. CAPACITOR	CEAT220M50
	C 326	(A,136,46) ELECT. CAPACITOR	CEAT220M50
	C 327	(A,132,42)	CKSRYB103K50
	C 328	(A,132,39)	CKSRYB103K50
	C 333	(A,255,93)	CEAT101M10
	C 334	(A,268,81)	CEAT101M10
	C 343	(A,149,51)	CCSRCH101J50
	C 344	(A,150,66)	CCSRCH101J50
	C 345	(A,145,56) ELECT. CAPACITOR	CEAT220M50
	C 346	(A,145,63) ELECT. CAPACITOR	CEAT220M50
	C 347	(A,140,64)	CKSRYB103K50
	C 348	(A,141,58)	CKSRYB103K50
	C 362	(A,169,70)	CEAT100M50
	C 363	(A,139,68)	CCSRCH101J50
	C 364	(A,139,84)	CKSRYB472K50
	C 365	(A,136,73) ELECT. CAPACITOR	CEAT220M50
	C 366	(A,136,80) ELECT. CAPACITOR	CEANP4R7M50
	C 367	(A,135,88)	CKSRYB103K50
	C 368	(A,147,75)	CKSRYB103K50
	C 370	(A,161,74)	CEAT4R7M50
	C 392	(B,91,95)	CKSRYB102K50
	C 1031	(A,286,65)	CCSRCH220J50
	C 1041	(B,287,55)	CCSRCH220J50
	C 5001	(B,230,10)	CKSRYB102K50
	C 5002	(B,232,10)	CKSRYB103K50
	C 5003	(B,234,10)	CKSRYB105K10
	C 5025	(A,166,12)	CKSRYB102K50
	C 5026	(A,170,14)	CKSRYB102K50
	C 5027	(A,177,14)	CKSRYB102K50
	C 5028	(A,179,16)	CCSRCH220J50
	C 9004	(A,121,94)	CKSRYB103K50
	C 9005	(A,116,99)	CEJQ2R2M50
	C 9006	(A,122,88)	CKSRYB105K10
	C 9007	(A,79,92) ELECT. CAPACITOR	CEAT331M6R3
	C 9008	(B,77,90)	CKSRYB103K50
	C 9011	(B,95,89)	CKSRYB473K16
	C 9014	(B,87,88)	CKSRYB473K16
	C 9015	(A,100,95)	CKSRYB102K50
	C 9018	(B,72,72)	CKSRYB104K50
	C 9081	(A,120,69)	CKSRYB103K50

B DSP ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
	IC 601	(A,109,36) DA I/F TRANSCEIVER	AK4114VQ
	IC 701	(A,77,29) CODEC IC	AK4628AVQ
	IC 801	(A,37,39) DSP IC	DSPC56371AF180
	IC 802	(A,33,26) IC	TC7WU04FU
	IC 871	(B,65,43) IC	TC7WH125FU
⚠	IC 901	(B,114,24) REGURATOR IC	PQ1LAX95MSPQ
⚠	IC 902	(A,99,24) REGURATOR IC	PQ1LAX95MSPQ
	IC 952	(A,16,32) IC	TC74VHCT541AFTS1
	D 701	(A,81,19) DIODE	MA152WA
	D 702	(B,82,18) DIODE	MA152WK
	D 901	(B,107,21) DIODE	UDZS5R6(B)
	D 902	(B,102,20) DIODE	UDZS5R6(B)
	L 601	(B,103,41) CHIP SOLID INDUCTOR	QTL1013
	L 602	(A,100,36) CHIP SOLID INDUCTOR	QTL1013
	L 701	(B,68,30) CHIP SOLID INDUCTOR	QTL1013
	L 702	(A,93,22) CHIP SOLID INDUCTOR	QTL1013
	L 801	(A,37,25) CHIP SOLID INDUCTOR	QTL1013
	L 802	(A,42,29) CHIP SOLID INDUCTOR	ATL7002
	L 803	(A,51,42) CHIP SOLID INDUCTOR	ATL7002
	L 804	(B,29,34) CHIP SOLID INDUCTOR	QTL1013
	L 871	(B,69,45) CHIP SOLID INDUCTOR	QTL1013
	L 901	(B,105,18) CHIP SOLID INDUCTOR	ATL7002
	L 902	(B,100,18) CHIP SOLID INDUCTOR	ATL7002
	L 952	(A,21,28) CHIP SOLID INDUCTOR	QTL1013
	JA501	(A,142,22) JACK	AKB7131
	X 801	(A,23,22) CRYSTAL RESONATOR (24.576MHz)	XSS3003
	CN601	(A,107,50) 10P CONNECTOR	VKN1241
	CN701	(A,83,14) 19P SOCKET	XKP3080
	CN901	(A,116,14) 13P SOCKET	XKP3077
	CN951	(A,45,14) 15P SOCKET	XKP3078

RESISTORS

Mark	No.	Description	Part No.
	R 403	(A,122,42)	RS1/16SS0R0J
	R 501	(B,131,16)	RS1/16S750J
	R 502	(B,134,30)	RS1/16S750J
	R 516	(B,114,36)	RS1/16S100J
	R 517	(B,130,30)	RS1/16S100J
	R 572	(A,92,40)	RS1/16S0R0J
	R 573	(A,91,44)	RS1/16SS0R0J
	R 574	(A,76,42)	RS1/16SS0R0J
	R 575	(A,76,40)	RS1/16SS0R0J
	R 576	(A,78,44)	RS1/16SS0R0J
	R 604	(B,114,46)	RS1/16S104J
	R 605	(B,112,46)	RS1/16S104J
	R 606	(B,110,46)	RS1/16S104J
	R 612	(A,117,33)	RS1/16S0R0J
	R 614	(A,102,38)	RS1/16SS101J
	R 615	(A,104,30)	RS1/16SS470J
	R 616	(A,102,34)	RS1/16SS101J
	R 617	(B,105,31)	RS1/16S101J
	R 618	(B,107,31)	RS1/16S101J
	R 620	(A,106,30)	RS1/16SS470J
	R 621	(B,108,36)	RS1/16S220J
	R 624	(A,112,28) RESISTOR ARRAY	RAB4CQ101J
	R 627	(B,112,32)	RS1/16S103J
	R 628	(A,117,38)	RS1/16S1802F

Mark	No.		Description	Part No.
	R	665	(A,99,58)	RS1/16SS0R0J
	R	666	(A,98,58)	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
	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
	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
	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
	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
	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
	R	981	(A,14,38)	RS1/16SS0R0J
	R	982	(A,15,38)	RS1/16SS0R0J

CAPACITORS

	C	503	(B,127,16)	CKSRYB103K50
	C	504	(B,132,30)	CKSRYB103K50
	C	606	(A,102,40)	CKSRYB104K16
	C	607	(A,96,39)	CEVW470M6R3
	C	608	(A,101,36)	CCSRCH471J50
	C	609	(A,102,36)	CKSRYB104K16
	C	614	(B,110,32)	CKSRYB104K16
	C	617	(B,114,32)	CKSRYB102K50
	C	618	(A,117,28)	CEVW470M6R3
	C	619	(A,118,35)	CKSSYB104K10
	C	620	(A,116,35)	CCSRCH471J50
	C	621	(A,116,38)	CKSRYB474K10
	C	701	(A,67,32)	CKSSYB103K16
	C	703	(A,64,23)	CEVW101M16
	C	704	(A,67,29)	CKSRYB104K16
	C	705	(A,68,30)	CCSSCH101J50
	C	706	(B,66,26)	CKSRYB104K16
	C	707	(B,60,19)	CKSRYB471K50
	C	708	(B,63,19)	CKSRYB471K50
	C	709	(B,65,19)	CKSRYB471K50
	C	710	(B,68,19)	CKSRYB471K50
	C	711	(B,70,19)	CKSRYB471K50
	C	712	(B,73,19)	CKSRYB471K50
	C	713	(B,75,19)	CKSRYB471K50
	C	714	(B,78,19)	CKSRYB471K50
	C	715	(A,90,29)	CEVW101M16
	C	716	(A,86,27)	CKSRYB104K16
	C	717	(A,85,27)	CKSSYB471K50
	C	718	(A,87,20)	CEVW470M6R3
	C	720	(A,85,24)	CKSSYB104K10
	C	763	(B,53,36)	CKSRYB471K50
	C	764	(B,55,36)	CKSRYB104K16
	C	802	(A,42,50)	CKSSYB104K10
	C	803	(A,37,49)	CKSSYB471K50
	C	804	(A,37,50)	CKSSYB104K10
	C	806	(A,31,50)	CKSSYB104K10
	C	808	(A,26,43)	CKSSYB104K10
	C	809	(A,27,41)	CKSSYB471K50
	C	810	(A,26,41)	CKSSYB104K10
	C	814	(A,27,33)	CKSSYB471K50
	C	815	(A,25,33)	CKSSYB104K10
	C	816	(A,21,26)	CCSSCH5R0C50
	C	817	(A,27,26)	CCSSCH5R0C50
	C	818	(A,35,23)	CCSRCH471J50
	C	819	(A,35,22)	CKSSYB104K10
	C	821	(A,30,30)	CKSSYB471K50
	C	822	(A,30,29)	CKSSYB104K10
	C	823	(A,32,30)	CKSSYB471K50
	C	824	(A,32,28)	CKSSYB104K10
	C	825	(B,32,39)	CKSRYB103K50
	C	826	(A,38,29)	CKSSYB471K50
	C	827	(A,38,28)	CKSSYB104K10
	C	829	(A,47,36)	CKSSYB104K10
	C	830	(A,47,39)	CKSSYB471K50
	C	831	(A,48,39)	CKSSYB104K10

Mark	No.	Description	Part No.
	C 833	(A,48,43)	CKSSYB104K10
	C 834	(A,41,23)	CEVW101M16
	C 835	(A,57,42) CHIP ELECT.CAPACITOR	CEVW101M4
	C 872	(B,70,41)	CKSRYB104K16
	C 907	(B,110,23)	CKSRYB105K16
	C 908	(A,115,22)	CKSRYB105K16
	C 909	(B,97,26)	CKSRYB105K16
	C 910	(B,97,22)	CKSRYB105K16
	C 916	(B,69,34)	CKSRYB471K50
	C 917	(B,71,34)	CKSRYB103K50
	C 918	(B,81,36)	CKSRYB104K16
	C 919	(B,82,36)	CKSRYB471K50
	C 955	(A,22,31)	CKSRYB104K16

C POWER PACK ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
⚠	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
	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) 6P JUMPER 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.
	R 603	(B,91,47)	RS1/16S103J
	R 604	(B,225,47)	RS1/16S103J
	R 605	(B,250,23)	RS1/16S0R0J
	R 606	(B,241,28)	RS1/16S0R0J
	R 609	(A,91,35)	RD1/4PU563J
	R 610	(A,225,35)	RD1/4PU563J
	R 611	(A,90,28)	RD1/4PU182J
	R 612	(A,223,28)	RD1/4PU182J
	R 613	(A,114,21)	RD1/4PU563J
	R 614	(A,247,21)	RD1/4PU563J
	R 615	(A,123,36)	RD1/4PU331J
	R 616	(A,270,29)	RD1/4PU562J
⚠	R 617	(A,114,31) RESISTOR (0.22, 5W)	ACN7094
	R 618	(A,266,29)	RD1/4PU562J
	R 619	(A,122,52)	RD1/4PU182J
	R 620	(A,257,36)	RD1/4PU331J
	R 621	(A,124,49)	RD1/4PU821J
⚠	R 622	(A,248,31) RESISTOR (0.22, 5W)	ACN7094
	R 623	(A,116,48)	RD1/4PU223J
	R 624	(A,257,52)	RD1/4PU182J
	R 625	(B,116,22)	RS1/16S0R0J
	R 626	(A,258,49)	RD1/4PU821J
	R 627	(B,107,28)	RS1/16S0R0J
	R 628	(A,250,48)	RD1/4PU223J
	R 629	(B,92,9)	RS1/16S0R0J
	R 630	(A,230,21)	RD1/4PU102J
	R 652	(A,215,36)	RD1/4PU102J
	R 654	(B,219,41)	RS1/16S103J
	R 660	(A,220,29)	RD1/4PU563J
	R 662	(A,216,20)	RD1/4PU182J
	R 664	(A,238,21)	RD1/4PU563J
	R 666	(A,240,35)	RD1/4PU331J
⚠	R 668	(A,239,31) RESISTOR (0.22, 5W)	ACN7094
	R 670	(A,245,52)	RD1/4PU182J
	R 672	(A,240,57)	RD1/4PU821J
	R 674	(A,236,38)	RD1/4PU223J
	R 681	(A,72,51)	RD1/4PU102J
	R 682	(B,70,49)	RS1/16S103J
	R 685	(B,75,37)	RS1/16S563J
	R 686	(B,80,21)	RS1/16S182J
	R 687	(A,83,10)	RD1/4PU563J
	R 688	(A,135,30)	RD1/4PU562J
	R 689	(A,132,30)	RD1/4PU562J
	R 690	(A,60,52)	RD1/4PU331J
⚠	R 691	(A,55,55) RESISTOR (0.22, 5W)	ACN7094
	R 692	(A,70,72)	RD1/4PU182J
	R 693	(A,67,77)	RD1/4PU821J
	R 694	(A,62,72)	RD1/4PU223J
	R 695	(A,97,22)	RD1/4PU102J
	R 696	(B,281,38)	RS1/16S103J
	R 697	(B,255,68)	RS1/16S103J
	R 698	(B,243,67)	RS1/16S333J
	R 701	(A,121,86)	RD1/4PU562J
	R 702	(A,110,87)	RD1/4PU562J
	R 703	(A,151,72)	RD1/4PU473J
	R 704	(A,148,77)	RD1/4PU473J
	R 705	(A,283,85)	RD1/4PU473J
	R 706	(A,283,75)	RD1/4PU473J
	R 707	(A,135,77)	RD1/4PU184J
	R 708	(A,147,81)	RD1/4PU184J
⚠	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
	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 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 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 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
	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 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 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 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
	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 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
	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 1110	(B,241,68)	RS1/16S0R0J

Mark	No.	Description	Part No.
CAPACITORS			
	C 603	(B,94,39)	CKSRYB331K50
	C 604	(B,227,38)	CKSRYB331K50
	C 605	(A,96,38)	CEAT4R7M50
	C 606	(A,230,38)	CEAT4R7M50
	C 607	(B,95,20)	CCSRCH470J50
	C 608	(B,230,17)	CCSRCH470J50
	C 609	(A,91,32)	CEAT101M16
	C 610	(A,225,32)	CEAT101M16
	C 613	(B,116,27)	CCSRCJ3R0C50
	C 614	(B,250,28)	CCSRCJ3R0C50
	C 615	(A,116,45)	CEANP2R2M50
	C 616	(A,250,45)	CEANP2R2M50
	C 654	(B,217,33)	CKSRYB331K50
	C 656	(A,215,33)	CEAT4R7M50
	C 658	(B,221,17)	CCSRCH470J50
	C 660	(A,219,25)	CEAT101M16
	C 664	(B,241,24)	CCSRCJ3R0C50
	C 666	(A,239,49)	CEANP2R2M50
	C 682	(B,75,43)	CKSRYB331K50
	C 683	(A,78,43)	CEAT4R7M50
	C 684	(B,82,18)	CCSRCH470J50
	C 685	(A,78,37)	CEAT101M16
	C 687	(B,87,8)	CCSRCJ3R0C50
	C 688	(A,75,78)	CEANP2R2M50
	C 696	(B,281,36)	CKSRYB102K50
	C 697	(A,286,34)	CEAT221M6R3
	C 701	(A,49,80) E-CAP 5600/71	XCH3027
	C 702	(A,49,107) E-CAP 5600/71	XCH3027
	C 703	(A,43,130) ELECT.CAPACITOR	XCH3012
	C 704	(A,38,150) ELECT.CAPACITOR	XCH3012
	C 705	(A,156,81) ELECT. CAPACITOR	CEAT100M2A
	C 706	(A,142,84) ELECT. CAPACITOR	CEAT100M2A
	C 709	(A,257,73)	CEAT1R0M50
	C 711	(A,195,99) ELECT. CAPACITOR	CEAT101M35
	C 712	(A,189,105)	CEAT101M10
	C 740	(A,90,136)	CEAT101M25
	C 751	(A,159,143) FILM CAPACITOR	CQMBA104J50
	C 752	(A,181,150) FILM CAPACITOR	CQMBA104J50
	C 755	(A,103,147) FILM CAPACITOR	CQMBA104J50
	C 761	(A,122,139) FILM CAPACITOR	CQMBA104J50
	C 762	(A,152,145) FILM CAPACITOR	CQMBA104J50
	C 778	(B,84,34)	CKSRYB331K50
	C 779	(A,81,33)	CEAT4R7M50
	C 780	(B,88,18)	CCSRCH470J50
	C 781	(A,87,27)	CEAT101M16
	C 783	(B,107,24)	CCSRCJ3R0C50
	C 784	(A,105,49)	CEANP2R2M50
	C 801	(A,248,114) ELECT. CAPACITOR	CEAT222M25
	C 802	(A,249,100) ELECT. CAPACITOR	CEAT222M25
	C 806	(A,288,55)	CEAT1R0M50
	C 807	(B,227,93)	CKSRYB103K25
	C 808	(A,245,142) ELECT. CAPACITOR	CEAT472M16
	C 809	(A,232,95)	CEAT101M10
	C 810	(A,266,133)	CEAT101M10
	C 811	(B,279,128)	CKSRYB103K25
	C 812	(B,278,109)	CKSRYB103K25
	C 813	(A,276,118)	CEAT101M16

Mark	No.	Description	Part No.
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.
	C 1420	(A,231,210)	CEAT101M10
	C 1421	(A,231,204)	CEAT101M10
	C 1425	(A,215,202)	CEAT101M10
	C 1426	(A,201,197)	CEAT101M10
	C 1427	(B,210,194)	CKSRYB104K50
	C 1428	(B,230,194)	CKSRYB104K50
	C 1490	(B,256,183)	CKSRYB103K50
	C 1491	(B,244,183)	CKSRYB103K50
	C 1492	(B,205,183)	CKSRYB103K50
	C 1493	(B,203,183)	CKSRYB103K50

G HEAD PHONE ASSY

MISCELLANEOUS

	Q 1551	(B,78,211) TRANSISTOR	2SC5938A
	Q 1552	(B,102,219) TRANSISTOR	2SC5938A
	J 47	JUMPER WIRE	D20PYY0640E
	JA 1551	(A,117,233) HEADPHONE JACK	XKB3066
	KN 1551	(A,69,231) WRAPPING TERMINAL	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
	C 1004	(B,147,230)	CKSRYB221K50
	C 1009	(A,146,236)	CEAT4R7M50
	C 1010	(A,146,228)	CEAT4R7M50
	C 1012	(B,159,226)	CKSRYB103K50
	C 1013	(B,151,219)	CCSRCH101J50
	C 1014	(B,151,216)	CCSRCH101J50
	C 1015	(B,147,224)	CKSRYB221K50
	C 1016	(B,147,216)	CKSRYB221K50
	C 1021	(A,146,214)	CEAT4R7M50
	C 1022	(A,146,221)	CEAT4R7M50

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 (5.00 MHz)	VSS1142
	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	Part No.
	R 413	(B,234,184)	RS1/16S221J
	R 414	(B,234,182)	RS1/16S221J
	R 415	(B,234,180)	RS1/16S221J
	R 416	(B,234,178)	RS1/16S221J
	R 417	(B,219,182)	RS1/16S101J
	R 422	(B,157,169)	RS1/16S104J
	R 423	(B,131,167)	RS1/16S104J
	R 424	(B,83,176)	RS1/16S104J
	R 425	(B,213,182)	RS1/16S104J
	R 430	(B,234,175)	RS1/16S0R0J
	R 451	(B,236,144)	RS1/16S472J
	R 452	(B,234,144)	RS1/16S681J
	R 453	(B,187,147)	RS1/16S821J
	R 454	(B,166,153)	RS1/16S122J
	R 455	(A,45,146)	RD1/4PU681J
	R 456	(A,35,144)	RD1/4PU821J
	R 457	(A,16,139)	RD1/4PU122J
	R 459	(A,109,134)	RD1/4PU472J
	R 460	(A,101,135)	RD1/4PU681J
	R 461	(B,52,117)	RS1/16S821J
	R 462	(B,49,117)	RS1/16S122J
	R 463	(B,34,117)	RS1/16S162J
	R 464	(B,20,117)	RS1/16S272J
	R 465	(A,161,128)	RD1/4PU472J
	R 466	(A,151,128)	RD1/4PU681J
	R 467	(A,131,128)	RD1/4PU821J
	R 468	(B,79,91)	RS1/16S122J
	R 469	(B,64,91)	RS1/16S162J
	R 470	(B,50,92)	RS1/16S272J
	R 471	(B,34,91)	RS1/16S512J
	R 472	(B,86,176)	RS1/16S472J
	R 473	(B,19,91)	RS1/16S133J

CAPACITORS

	C 401	(B,247,155)	CKSRYB103K50
	C 402	(B,247,153)	CKSRYB103K50
	C 403	(A,234,168)	CEAT221M6R3
	C 410	(B,49,186)	CKSRYB103K50
	C 411	(B,51,186)	CKSRYB103K50
	C 412	(A,42,178)	CEAT470M50
	C 418	(B,141,179)	CKSRYB104K16
	C 419	(B,103,182)	CKSRYB103K50
	C 420	(A,39,185) ELECT. CAPACITOR	CEAT101M35
	C 421	(B,160,169)	CKSRYB104K16
	C 441	(B,223,176)	CKSRYB103K50
	C 442	(A,239,146)	CEAL470M10
	C 451	(B,125,166)	CKSRYB102K50
	C 452	(B,103,164)	CKSRYB102K50
	C 453	(B,122,166)	CKSRYB102K50
	C 454	(B,100,164)	CKSRYB102K50
	C 481	(B,140,191)	CCSRCH471J50
	C 482	(B,126,201)	CCSRCH221J50
	C 483	(B,126,199)	CCSRCH221J50
	C 487	(B,83,163)	CKSRYB102K50
	C 488	(B,79,163)	CKSRYB102K50
	C 489	(B,75,163)	CKSRYB102K50
	C 490	(A,22,149)	CKSRYB102K50

J ROTARY ENCODER ASSY

Mark	No.	Description	Part No.
MISCELLANEOUS			
	S 457	(A,300,183) SWITCH	VSG1024
	S 512	(A,288,223) ROTARY ENCODER (JOG)	XSX3008
	S 513	(A,288,152) ROTARY ENCODER	XSX3005
	S 514	(A,257,216) SWITCH	VSG1024
	S 515	(A,270,183) SWITCH	VSG1024
	S 516	(A,285,183) SWITCH	VSG1024
	511	(A,257,172) CABLE HOLDER(7P)	51063-0705
RESISTORS			
	R 513	(B,270,190)	RS1/16S162J
	R 514	(B,280,185)	RS1/16S272J
	R 515	(B,295,185)	RS1/16S512J

K POWER KEY ASSY

MISCELLANEOUS

	S 501	(A,12,174) SWITCH	VSG1024
	S 502	(A,20,221) SWITCH	VSG1024
	S 503	(A,32,218) SWITCH	VSG1024
	S 504	(A,47,218) SWITCH	VSG1024
	501	(A,47,210) CABLE HOLDER(3P)	51063-0305

RESISTORS

	R 502	(B,7,171)	RS1/16S162J
	R 503	(A,15,228)	RD1/4PU272J
	R 504	(A,30,228)	RD1/4PU512J

M TRANS4 ASSY

MISCELLANEOUS

⚠	IC 357	(A,85,236) PROTECTOR(800MA)	AEK7008
	D 363	(A,88,223) DIODE	S5688G
	J 22	JUMPER WIRE	D20PYY0330E
	891	(A,70,221) 3P CABLE HOLDER	51048-0300

CAPACITORS

	C 406	(A,84,220) ELECT. CAPACITOR	CEAT471M35

N REGULATOR ASSY

MISCELLANEOUS

⚠	IC 801	(A,147,89) REGULATOR IC	TA7812S
⚠	IC 802	(A,164,89) REGULATOR IC	TA79012S
⚠	IC 808	(A,181,89) IC	TA7805S
	D 810	(A,172,94) DIODE	MTZJ6R2(B)
	CN800	(A,194,113) 11PJUMPER CONNECTOR	52147-1110

RESISTORS

⚠	R 801	(A,136,95) METAL OXIDE RESISTOR	RS3LMF331J

CAPACITORS

	C 803	(B,147,97)	CKSRYB103K25
	C 804	(B,166,97)	CKSRYB103K25
	C 805	(A,147,105)	CEJQ101M16
	C 806	(A,159,99)	CEAT101M16
	C 818	(B,182,95)	CKSRYB103K25
	C 819	(A,176,95)	CEAT101M10

O VIDEO ASSY

MISCELLANEOUS

	IC 301	(B,46,32) VIDEO SW IC	NJM2595M

Mark	No.		Description	Part No.
⚠	Q	301 (A,86,47)	TRANSISTOR	2SD1858X
⚠	Q	302 (A,66,52)	TRANSISTOR	2SB1237X
	Q	303 (B,25,83)	TRANSISTOR	2SC5938A
	D	301 (B,44,40)	DIODE	1SS355
	D	302 (B,41,45)	DIODE	1SS355
	D	303 (B,82,61)	DIODE	UDZS6R2(B)
	D	304 (B,73,59)	DIODE	UDZS6R2(B)
	D	308 (B,60,23)	DIODE	DAN202U
	JA	308 (A,14,51)	6P PIN JACK	XKB3049
	CN	302 (A,64,84)	6P SOCKET	KP200TA6L
	CN	303 (A,62,7)	CONNECTOR	CKS3378
	CN	310 (A,46,7)	CONNECTOR	CKS3372

RESISTORS

	R	299 (B,33,72)		RS1/16S0R0J
	R	301 (B,34,25)		RS1/16S750J
	R	302 (B,31,60)		RS1/16S750J
	R	303 (B,23,36)		RS1/16S750J
	R	304 (B,49,22)		RS1/16S750J
	R	305 (B,23,50)		RS1/16S750J
	R	306 (B,32,54)		RS1/16S750J
	R	307 (B,56,25)		RS1/16S102J
	R	308 (B,57,29)		RS1/16S102J
	R	310 (B,57,31)		RS1/16S102J
	R	311 (B,42,23)		RS1/16S102J
	R	312 (B,60,25)		RS1/16S102J
⚠	R	313 (A,85,57)	METAL OXIDE RESISTOR	RS3LMF390J
	R	314 (B,84,61)		RS1/16S152J
	R	315 (B,64,59)		RS1/16S152J
⚠	R	316 (A,67,39)	METAL OXIDE RESISTOR	RS3LMF390J
	R	317 (B,21,75)		RS1/16S102J
	R	318 (B,27,79)		RS1/16S122J
	R	319 (B,27,77)		RS1/16S472J
	R	391 (B,20,38)		RS1/16S0R0J
	R	392 (B,30,55)		RS1/16S0R0J

CAPACITORS

	C	304 (B,33,19)		CKSRYB221K50
	C	305 (B,41,19)		CKSRYB221K50
	C	306 (B,22,54)		CKSRYB221K50
	C	307 (A,31,35)		CEAT470M25
	C	308 (A,52,53)		CEAT470M25
	C	309 (A,32,44)		CEAT470M25
	C	310 (A,54,42)		CEAT101M16
	C	311 (B,82,48)		CKSRYB473K25
	C	313 (B,76,34)		CKSRYB473K25
	C	333 (B,21,81)		CKSRYB331K50
	C	338 (A,60,37)		CEAT101M16
	C	339 (B,45,49)		CKSRYB104K25
	C	340 (B,56,36)		CKSRYB104K25
	C	1360(B,18,65)		CKSRYB103K50

Q DIGITAL INPUT ASSY

MISCELLANEOUS

	F	1901(B,214,228)	INDUCTOR	CTF1295
	JA	1900(A,206,201)	OPT. LINK IN	GP1FAV51RKBF
	KN	1902(A,249,206)	SCREW PLATE	VNE1948
	CN	1903(A,229,230)	CONNECTOR	VKN1186

RESISTORS

Mark	No.		Description	Part No.
	R	1900(B,211,215)		RS1/16S101J

CAPACITORS

	C	1900(B,205,215)		CKSRYB104K25
	C	1903(B,211,230)		CKSRYB103K50
	C	1904(A,208,228)		CEAL101M10
	C	1905(B,233,232)		CKSRYB104K25
	C	1906(B,235,232)		CKSRYB103K50
	C	1907(B,237,232)		CCSRCH101J50
	C	1908(B,239,232)		CKSRYB102K50

S PRIMARY ASSY

MISCELLANEOUS

⚠	IC	51 (B,236,11)	IC	NJM78L05UA
	Q	51 (B,267,14)	DIGITAL TR(SC-70)	RT1N431M
⚠	D	51 (B,298,20)	BRIDGE DIODE	DF06SA
	D	55 (A,304,21)	DIODE	1SR139-400
	D	56 (A,271,21)	DIODE	1SS133
	D	57 (A,266,25)	DIODE	1SS133
	D	58 (A,314,13)	DIODE	MTZJ5R1(B)
	H	51 (A,231,34)	FUSE CLIP	AKR7001
	H	52 (A,250,34)	FUSE CLIP	AKR7001
	J	52	JUMPER WIRE	D20PYY0410E
	KN	51 (A,318,25)	WRAPPING TERMINAL	VNF1084
	KN	3001(A,223,117)	SCREW PLATE	VNE1948
⚠	RY	51 (A,271,57)	JOE LOWPOWER RELAY	ASR7013
⚠	T	51 (A,288,56)	STANDBY TRANSFORMER	ATT7043
⚠	CN	51 (A,236,47)	AC CODE SOCKET	RKP1751
		55 (A,317,9)	4P CABLE HOLDER	51048-0400

RESISTORS

⚠	R	51 (A,318,37)	RESISTOR(2.2M, 1/2W)	RCN1080
	R	52 (A,275,11)		RD1/2PM270J
	R	53 (A,307,12)		RD1/4PU332J
	R	54 (A,319,16)		RD1/4PU103J

CAPACITORS

⚠	C	51 (A,261,64)	FILM CAPACITOR	ACE7013
⚠	C	52 (A,265,57)	SAFETY CAPACITOR	XCG3010
	C	53 (A,291,21)	ELECT. CAPACITOR	CEAT102M16
	C	54 (A,300,11)		CEAT470M25
	C	55 (A,307,21)		CKPUYF103Z25
	C	56 (A,311,21)		CKPUYF103Z25
	C	57 (A,314,21)		CKPUYF103Z25

T TRANS1 ASSY

TRANS1 ASSY has no service part.

6. ADJUSTMENT

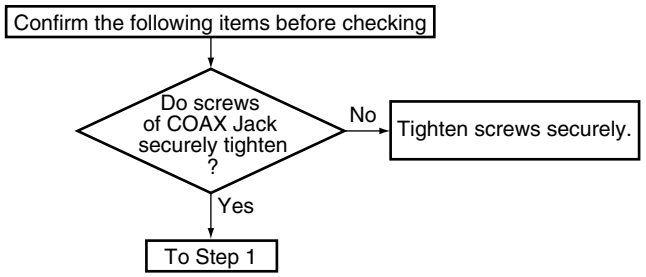
There is no information to be shown in this chapter.

7. GENERAL INFORMATION
7.1 DIAGNOSIS
7.1.1 DSP TROUBLESHOOTING

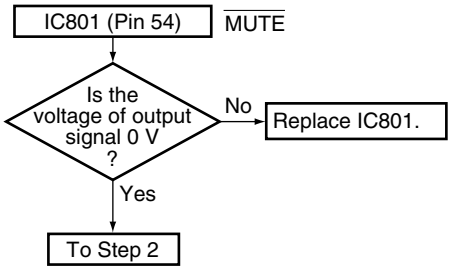
■ Troubleshooting for all destination

- 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.

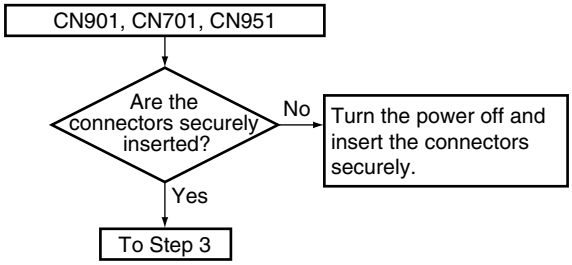
Step 0: Preliminary confirmation



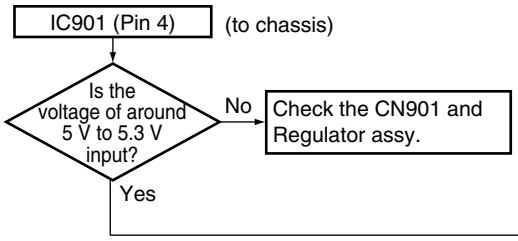
Step 1: MUTE pin

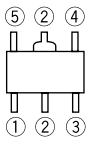


Step 2: BtoB connector

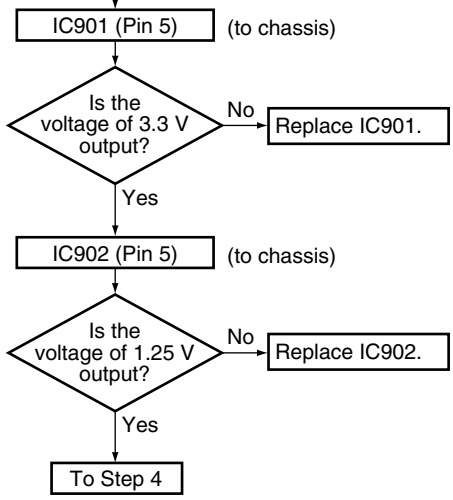


Step 3: Regulator IC

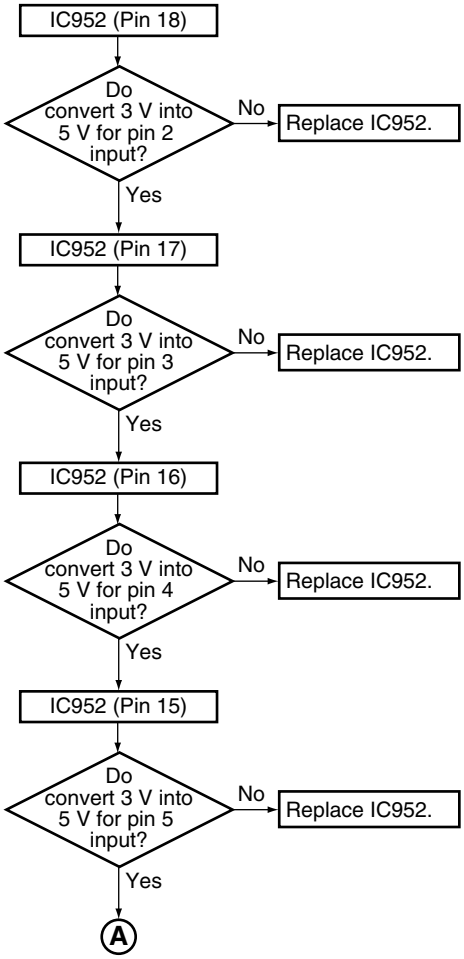


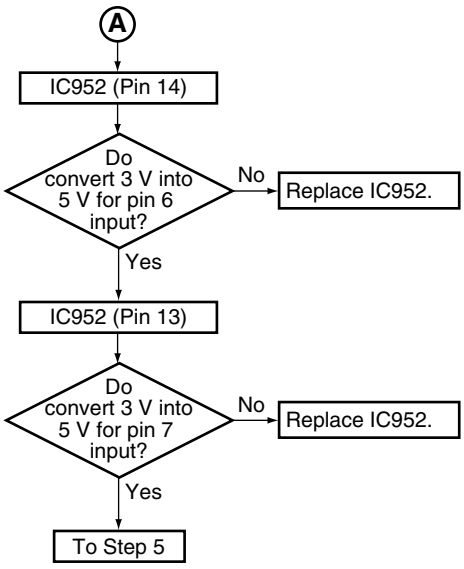


Part shape and Pin arrangement of IC901 and IC902

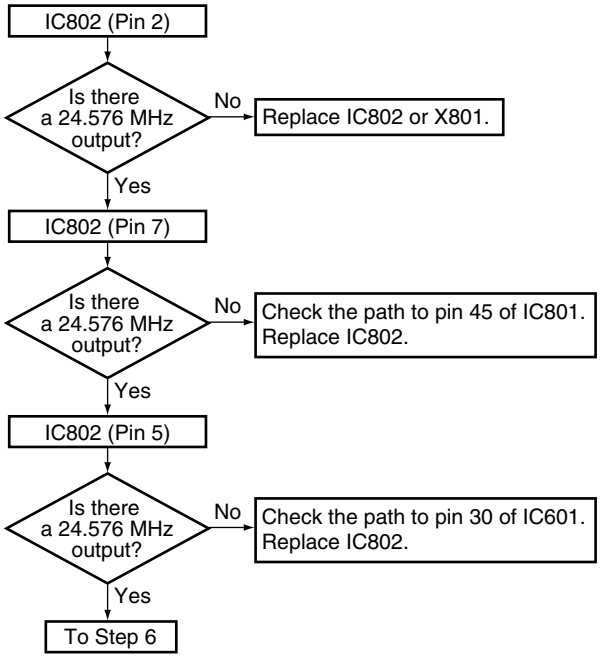


Step 4: 3 V to 5 V conversion

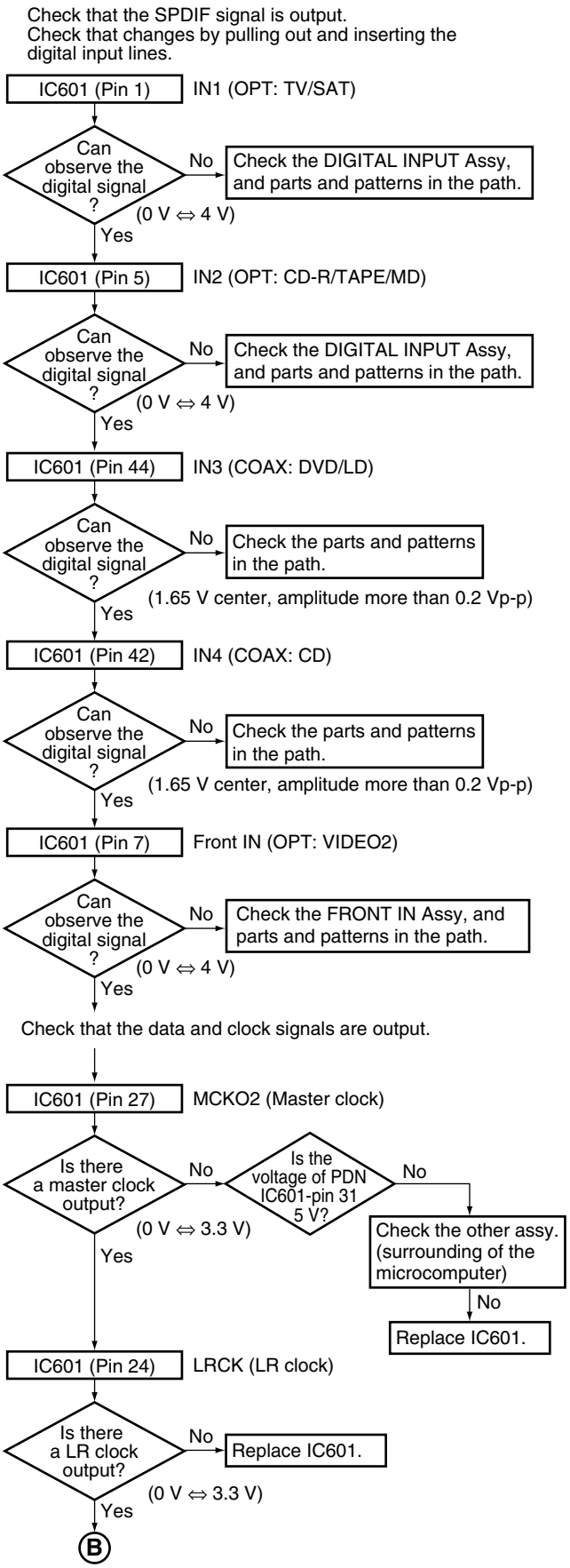


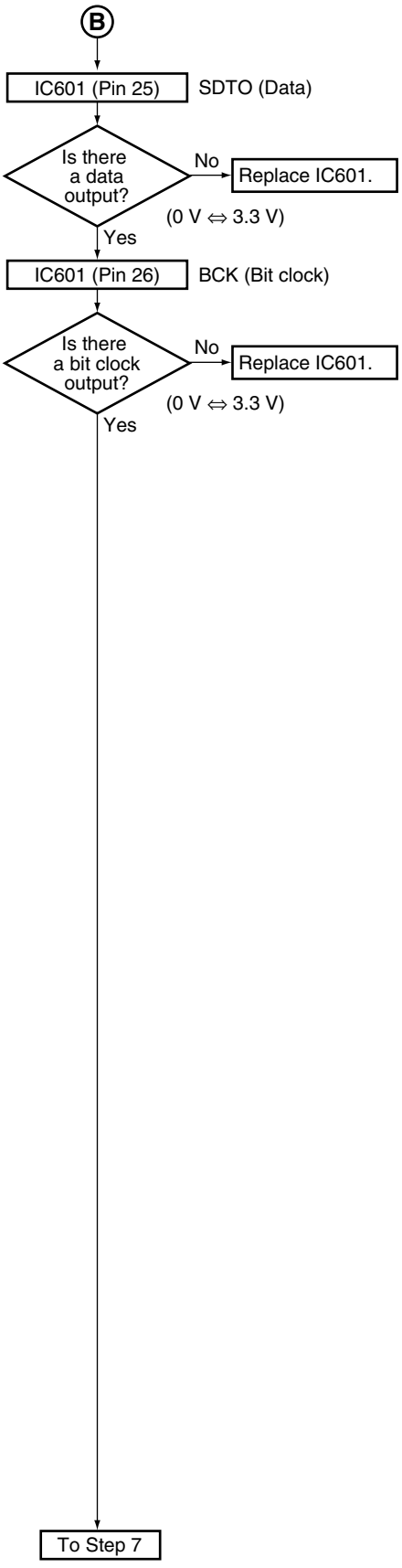


Step 5: X'tal



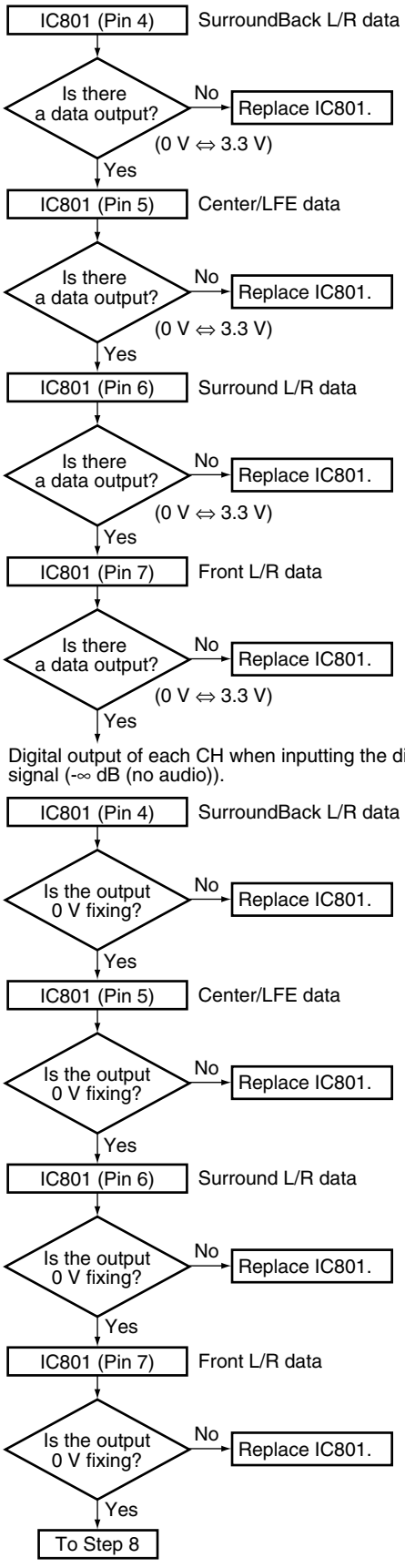
Step 6: DIR





Step 7: DSP output (digital)

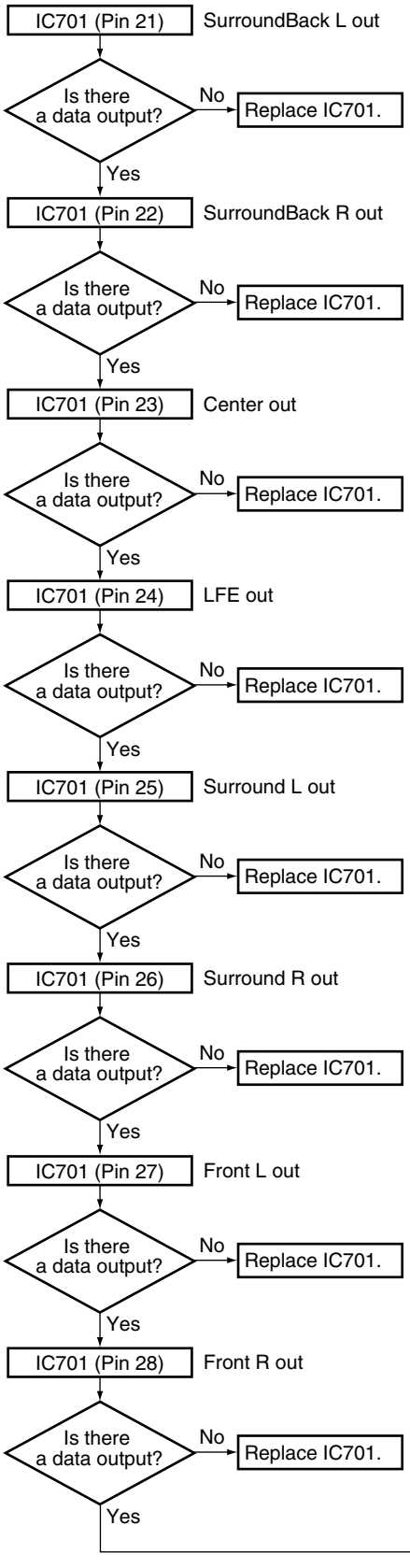
Digital output of each CH when inputting the digital signal with audio.



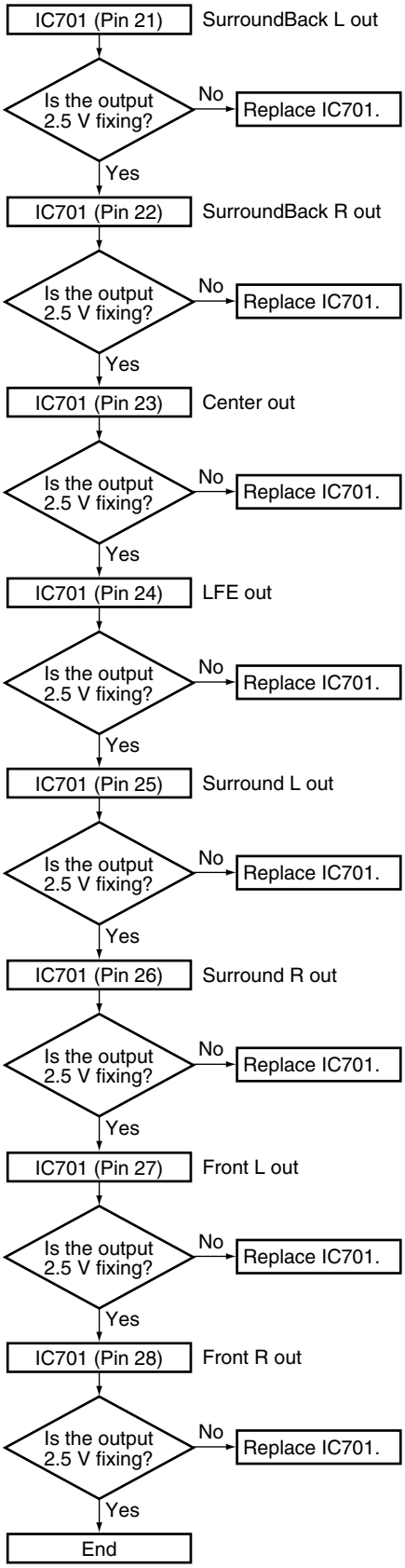
Digital output of each CH when inputting the digital signal (-∞ dB (no audio)).

Step 8: Codec output (analog)

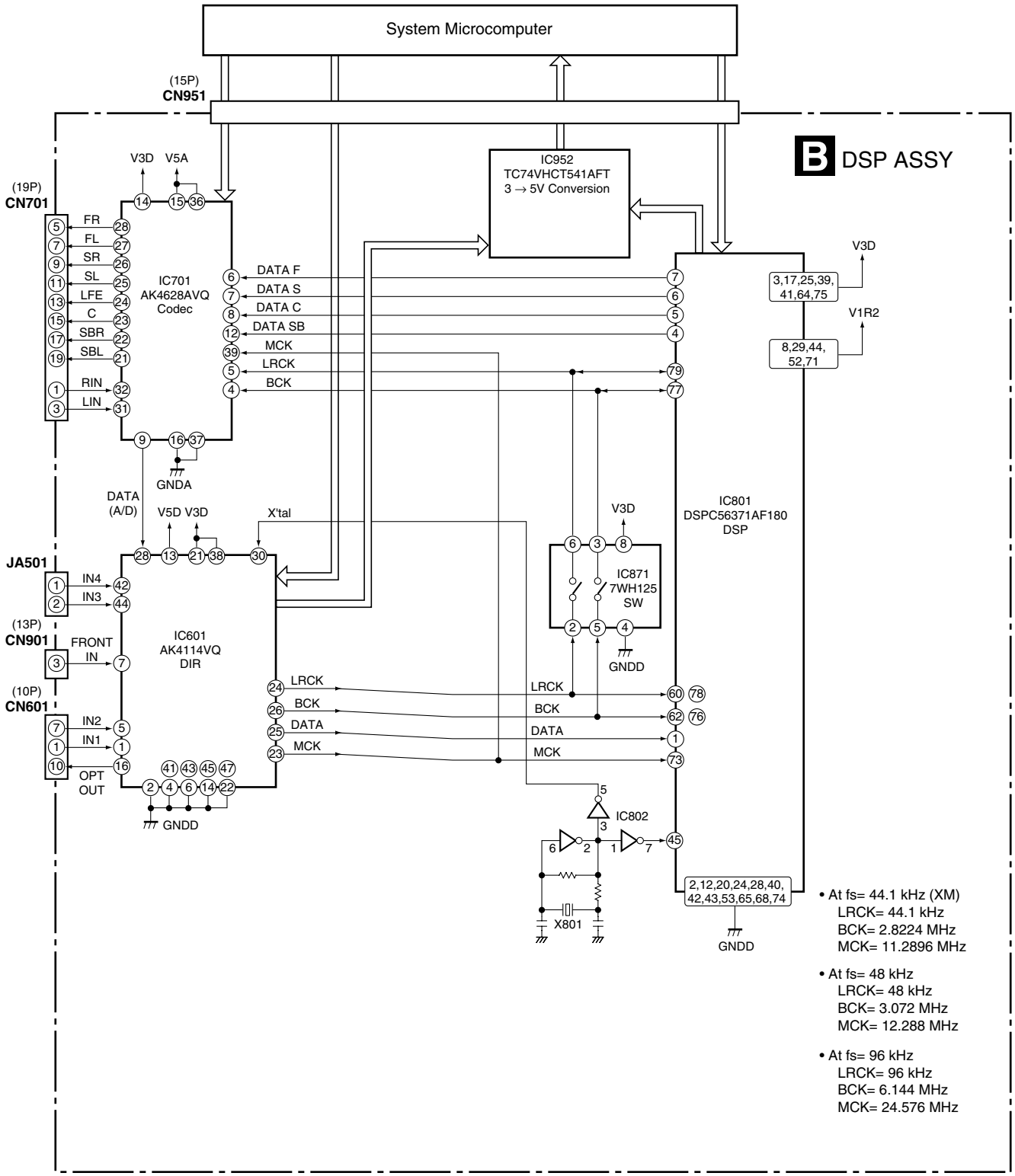
Analog output of each CH when inputting the digital signal with audio.



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



• DSP Block Diagram



7.1.2 DISASSEMBLY

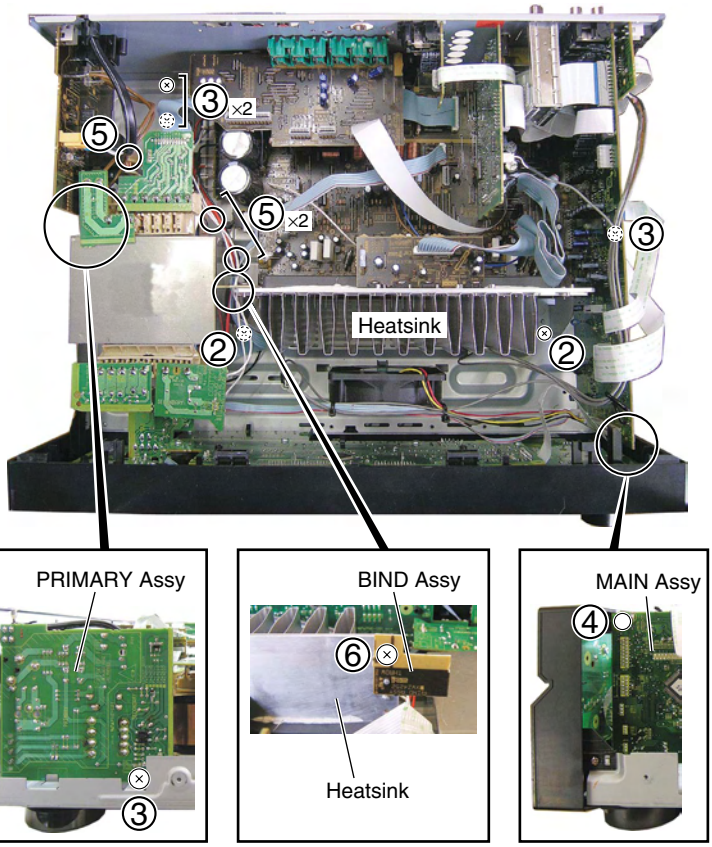
Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Diagnosis of the Unit

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

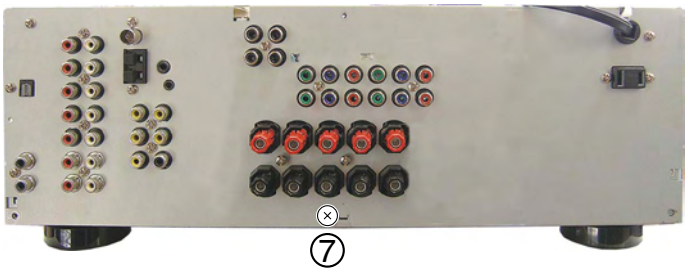
① Remove the bonnet by removing the six screws.

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.



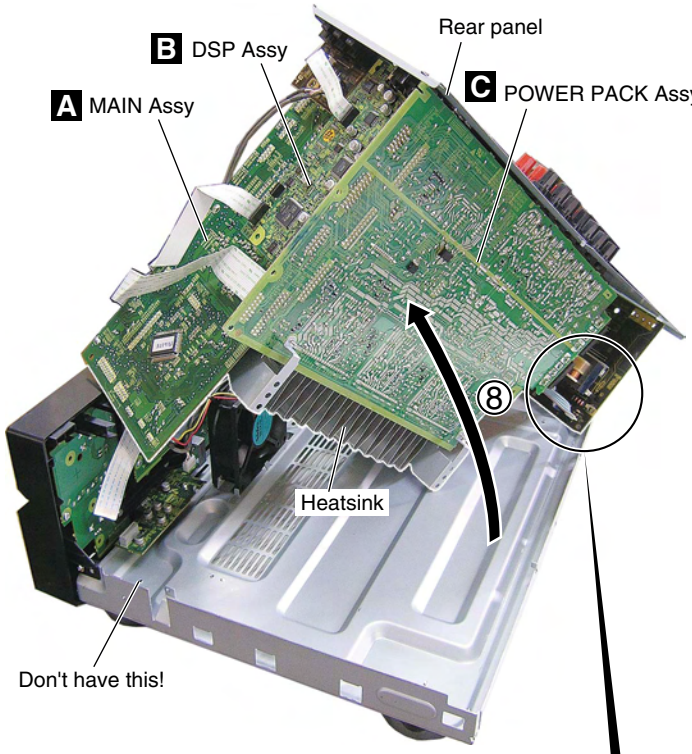
⑦ Remove the one screw.

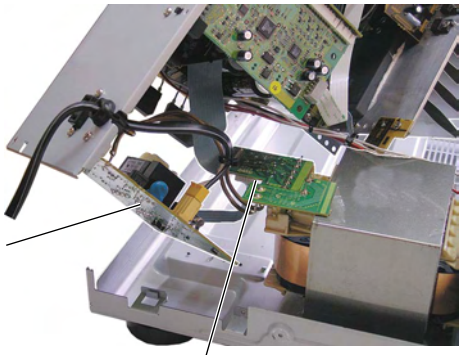
● **Rear view**



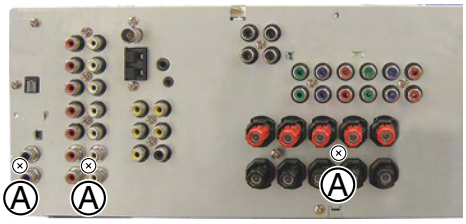
⑧ Arrange the unit as shown in the photo below.

Diagnosis



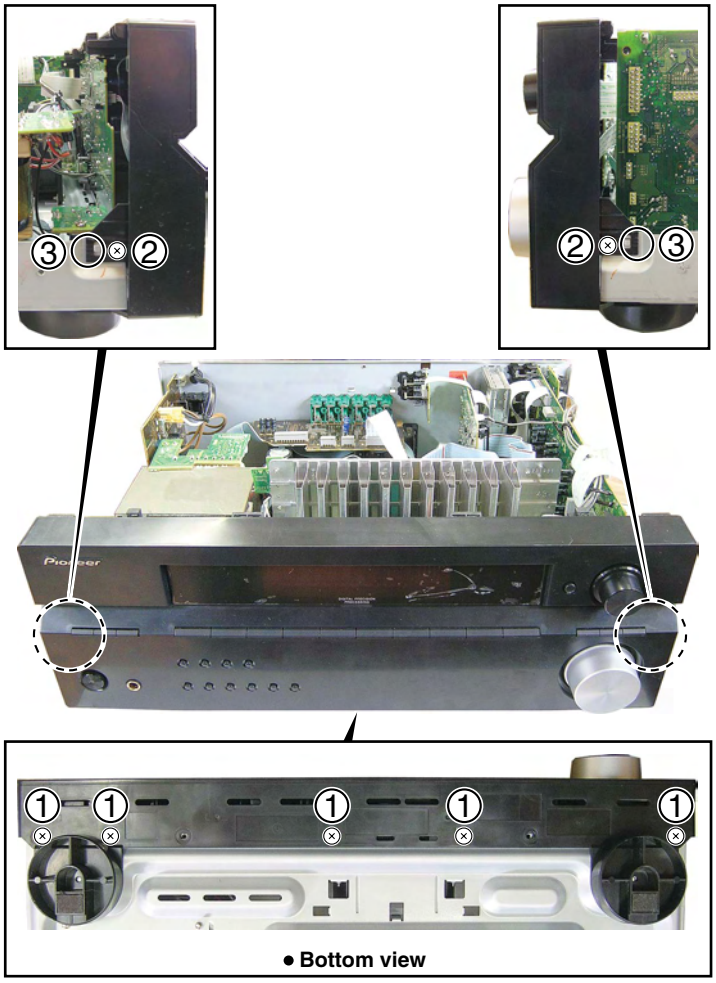


Caution:
During diagnosis, be sure NOT to remove the three screws marked Ⓐ in the above photo.
There is the case that a product does not work normally when removes these screws.

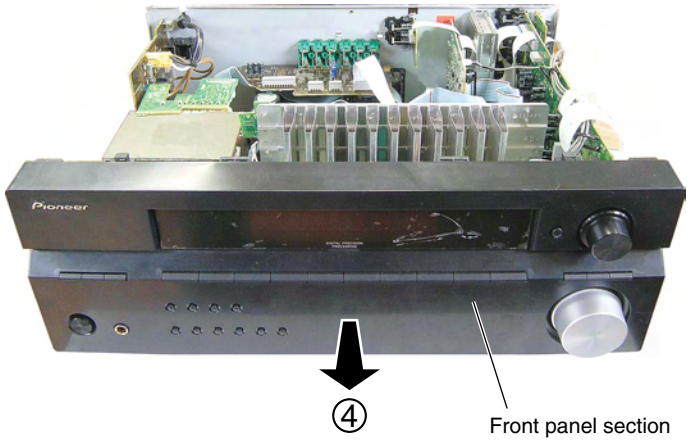


Front Panel Section

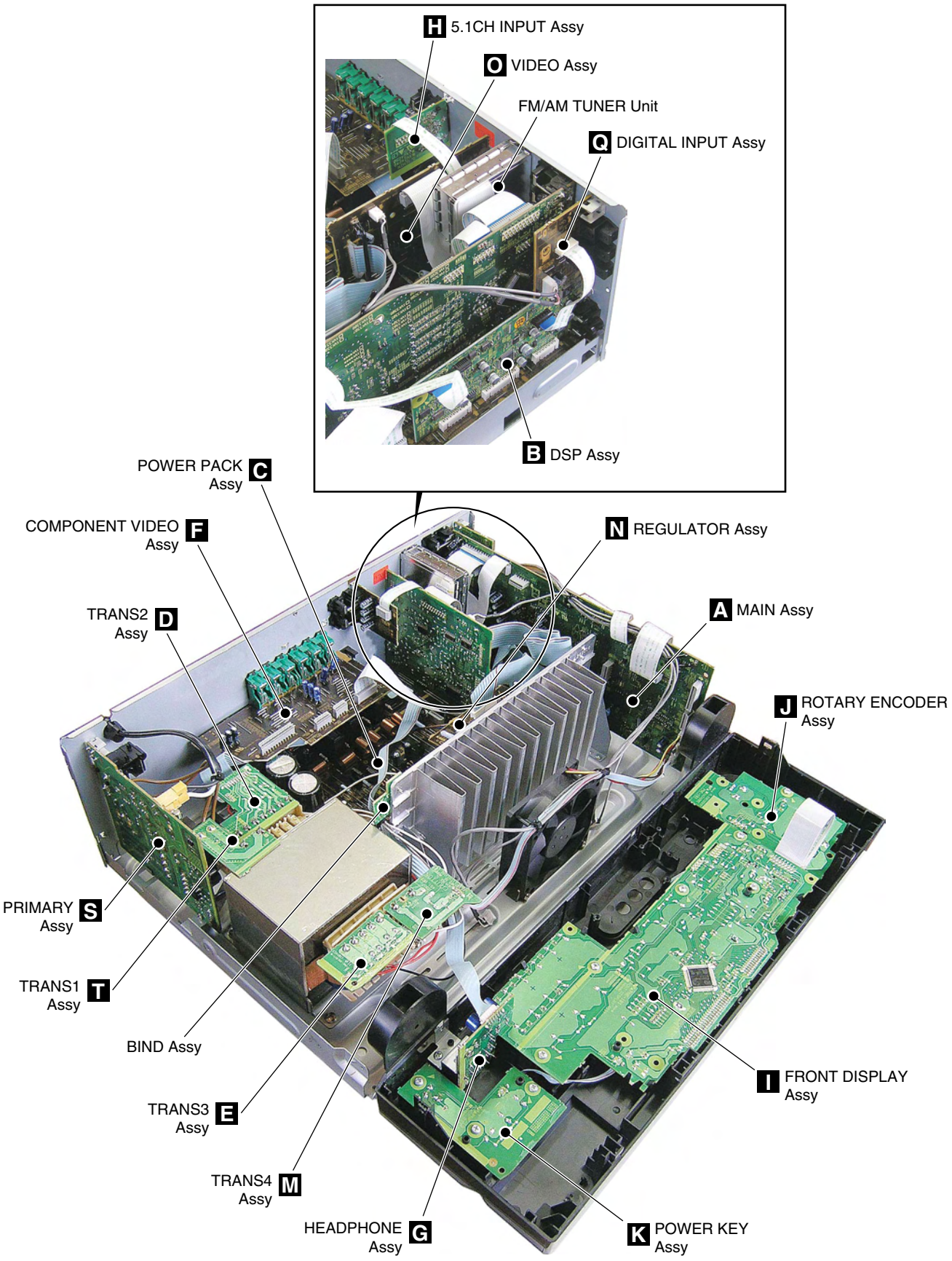
① Remove the five screws.
② Remove the two screws.
③ Unhook the two hooks.



④ Remove the front panel section.



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.

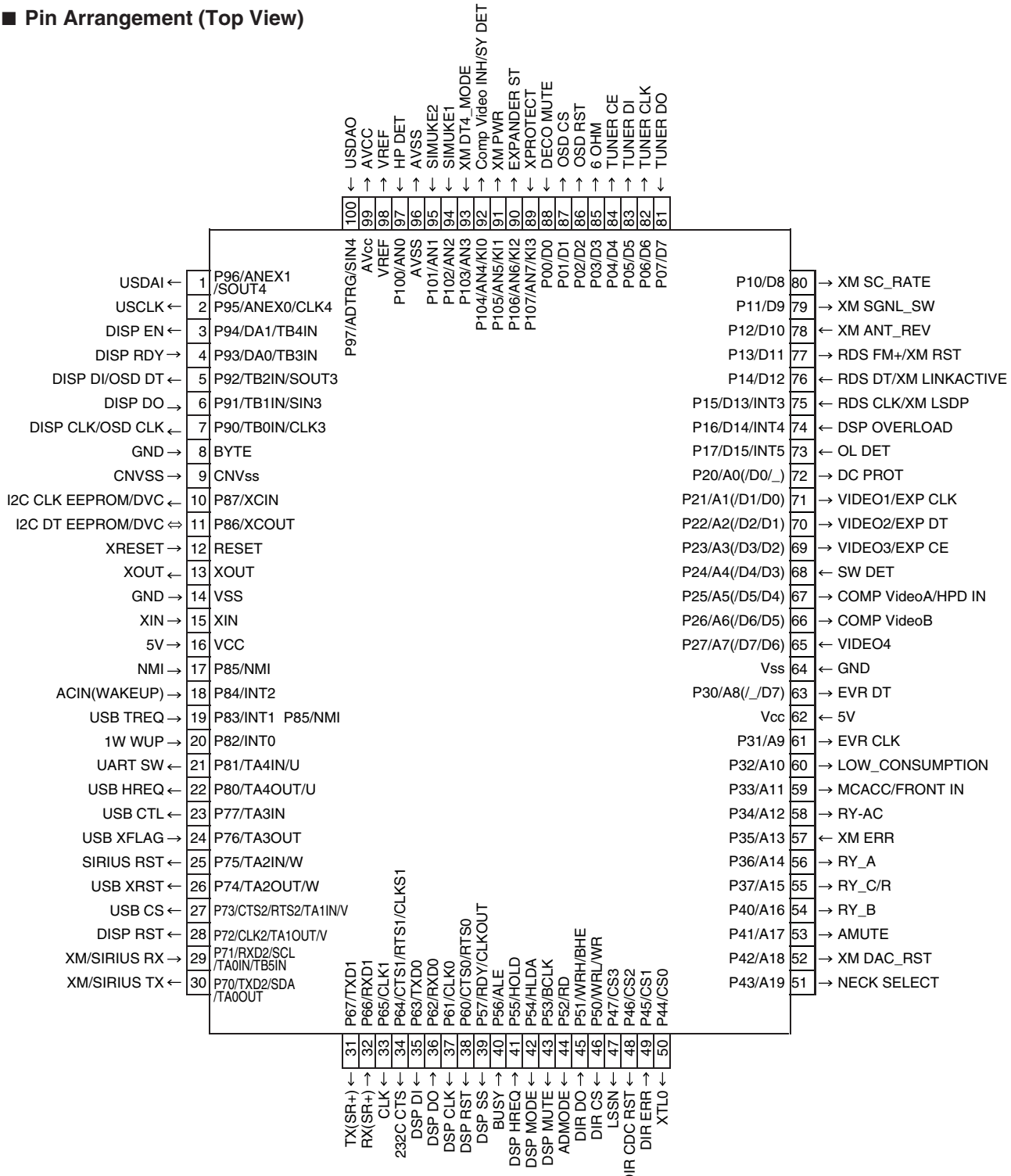
• List of IC

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

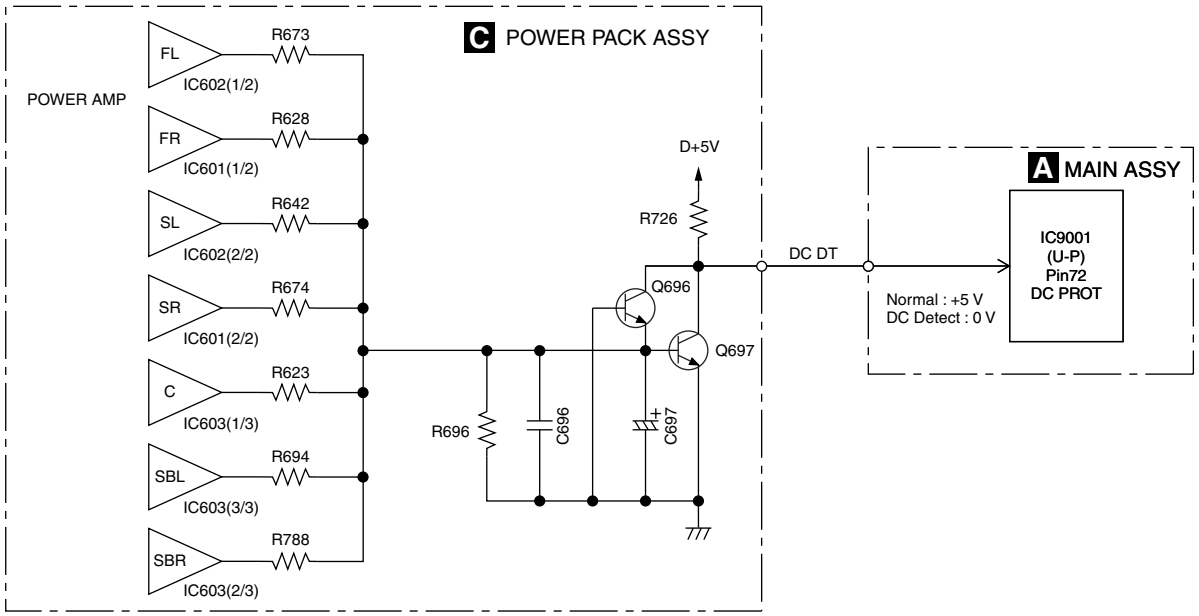
• Pin Function

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 contorol
82	P06/D6	TUNER CLK	O	Clock signal for tuner contorol
83	P05/D5	TUNER DI	O	Data output signal for tuner contorol
84	P04/D4	TUNER CE	O	Chip select signal for tuner contorol
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

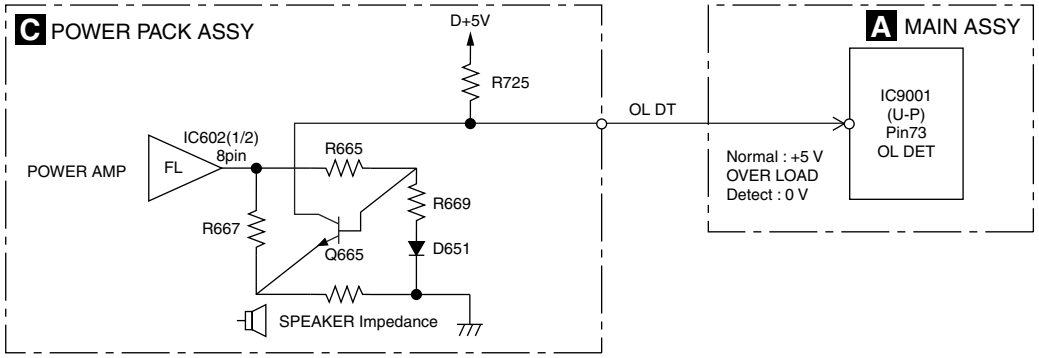
7.3 EXPLANATION

7.3.1 DETECTION CIRCUIT

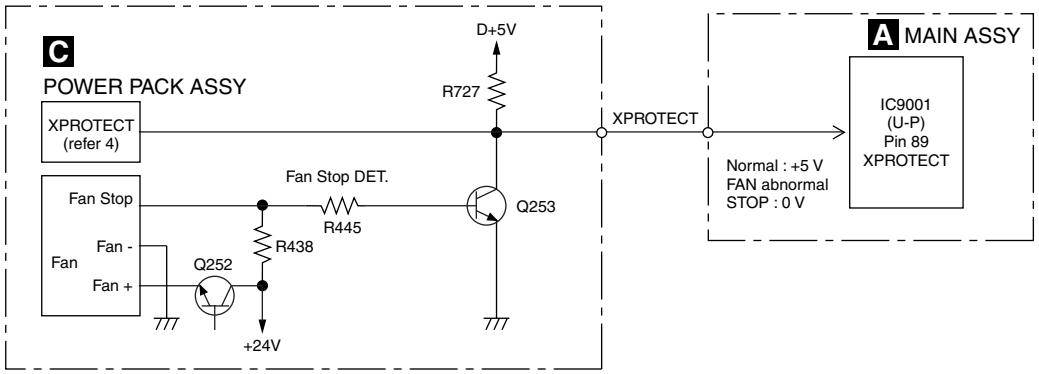
1. DC Derection Circuit Diagram : Example of VSX-917V/KUXJ/CA



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



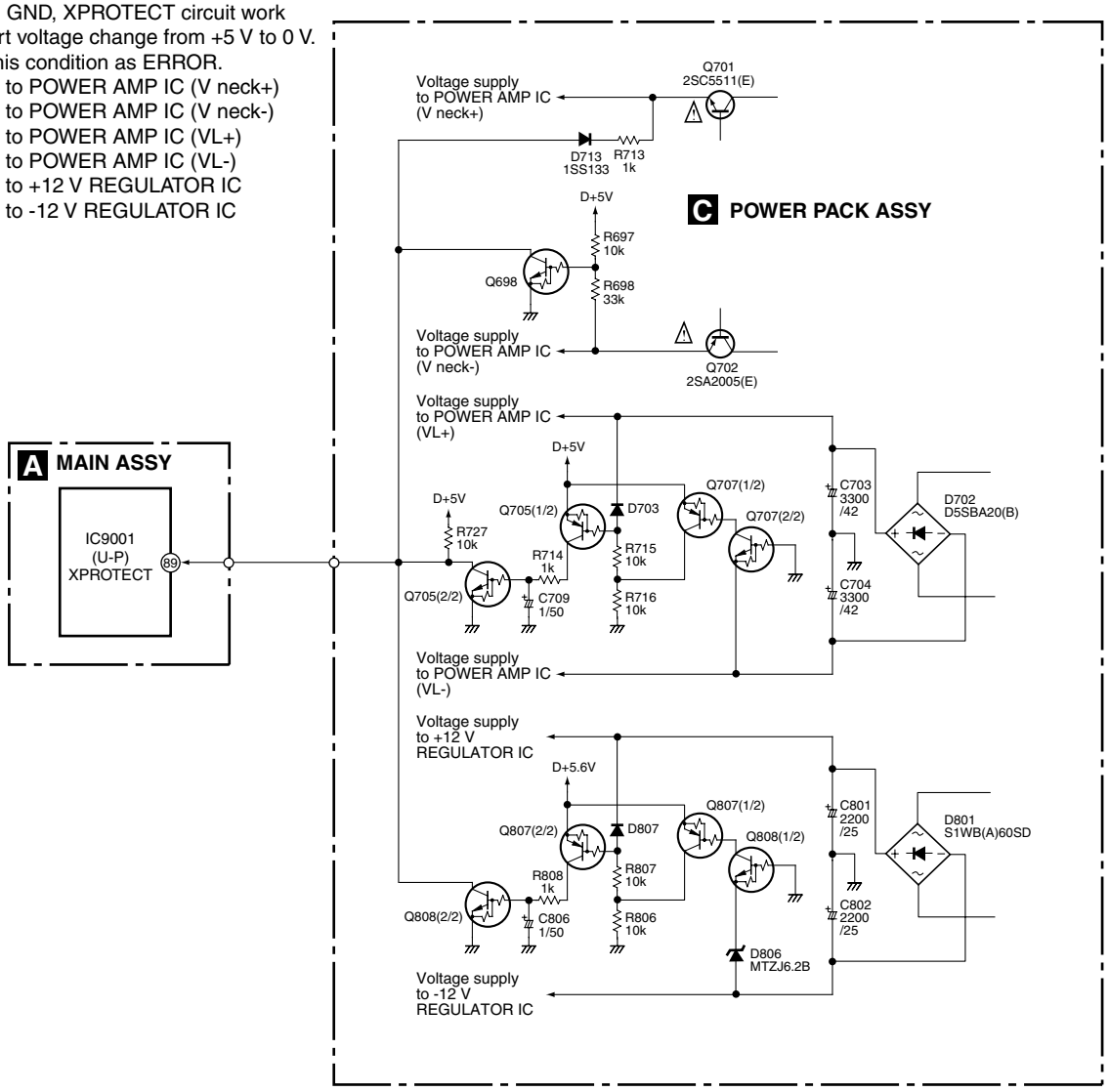
3. Fan Stop Prottection Circuit Diagram



4. XPROTECT Detection Circuit Diagram

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



7.3.2 AMPLIFIER SYSTEM PROTECTION OPERATION SPECIFICATION

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.

When a DC abnormality is detected, A.MUTE* is turned on, speaker relay is turned off, then "AMP_ERR" flashes on the display.

*A.MUTE : Audio mute command

↓

The abnormality continues for 3 seconds.

↓ Continues.

The power is shut off.

↓

Power key not effective and POWER LED blinks.

↓ Recovery

The program restarts.

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.
(②: When a DC abnormality is detected and the power is shut off.)
Any other key input from front panel or remote control will not be detected.

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.

When an overload is detected, A.MUTE* is turned on, speaker relay is turned off, then "OVERLOAD" flashes on the display.

↓

The abnormality continues for 3 seconds.

↓ Continues.

The power is shut off.

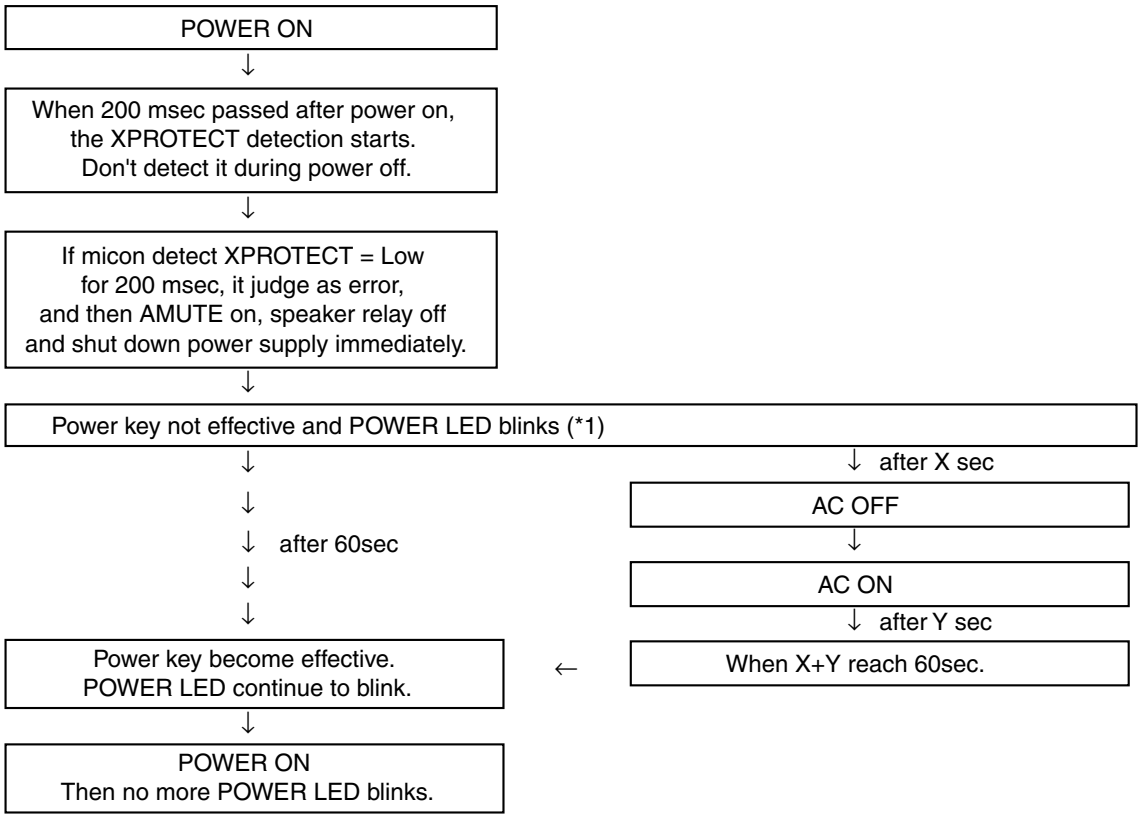
↓ Recovery

The power is shut off even if the unit recovers.

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.

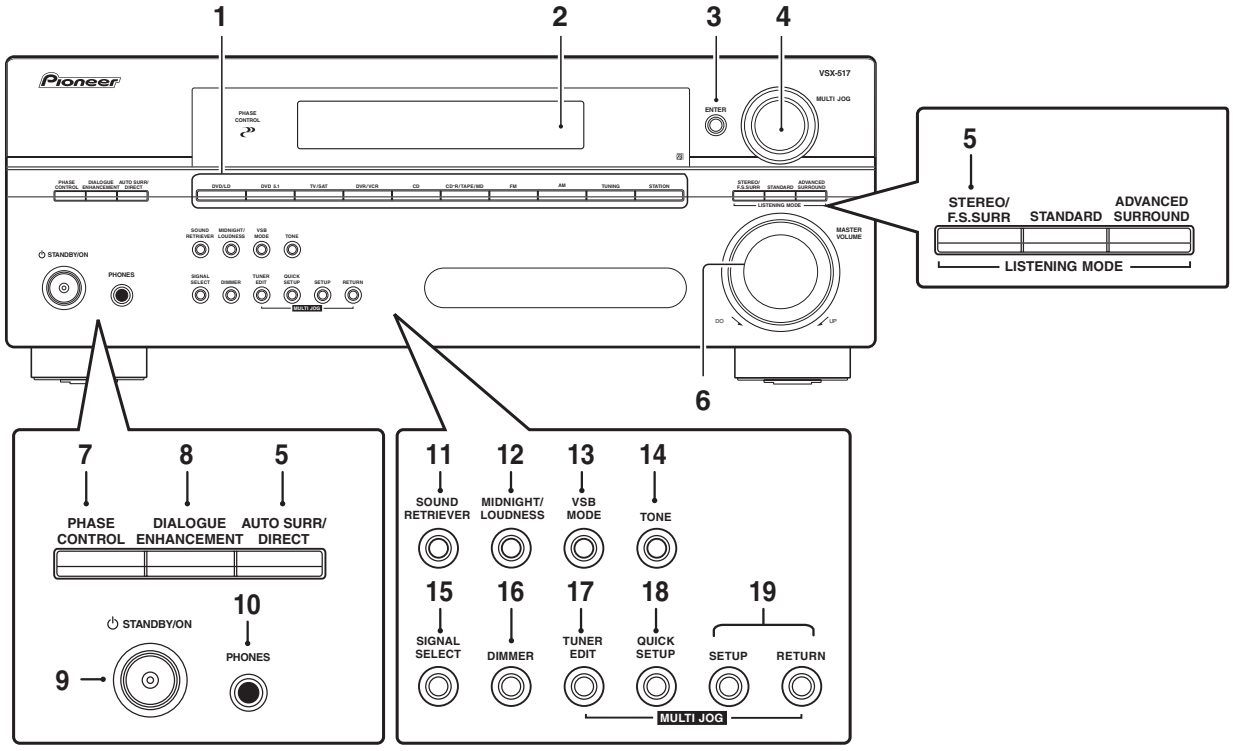
1) Are there any Fuses and IC protectors open?
↓
2) After turn on the power, confirm that the supply voltage of the point that can be measured is appropriate. (Particularly the supply voltage of the power Tr and drive step)
↓
3) Whether the voltage of pin2 and pin5 of IC601, IC602 or IC603 is equal to (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.

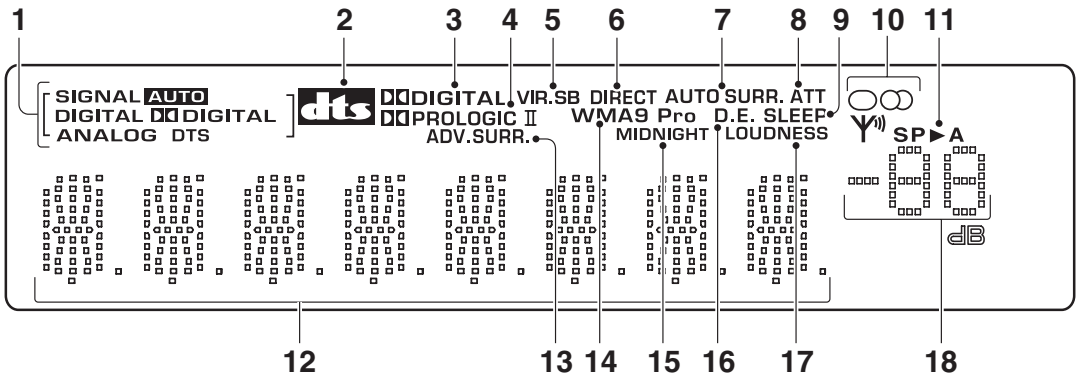
18 QUICK SETUP
See Using the Quick Setup.

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.

/ 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.

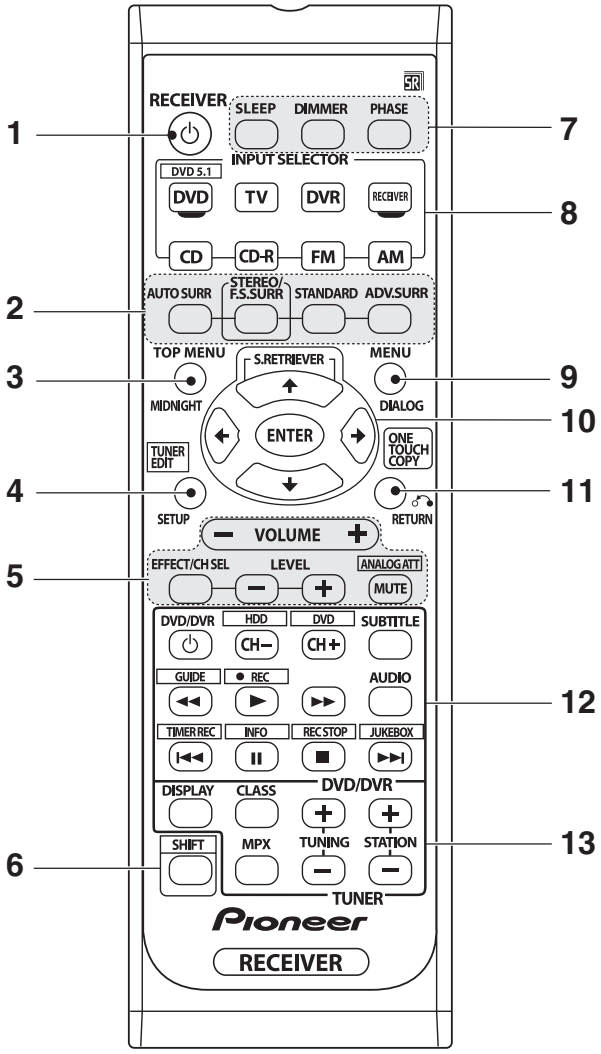
15 MIDNIGHT
Lights during Midnight listening.

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 DD 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 ëtopí 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 analoginput signal to prevent distortion.

6 SHIFT
Press to access the ëboxedí 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 receithe 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.

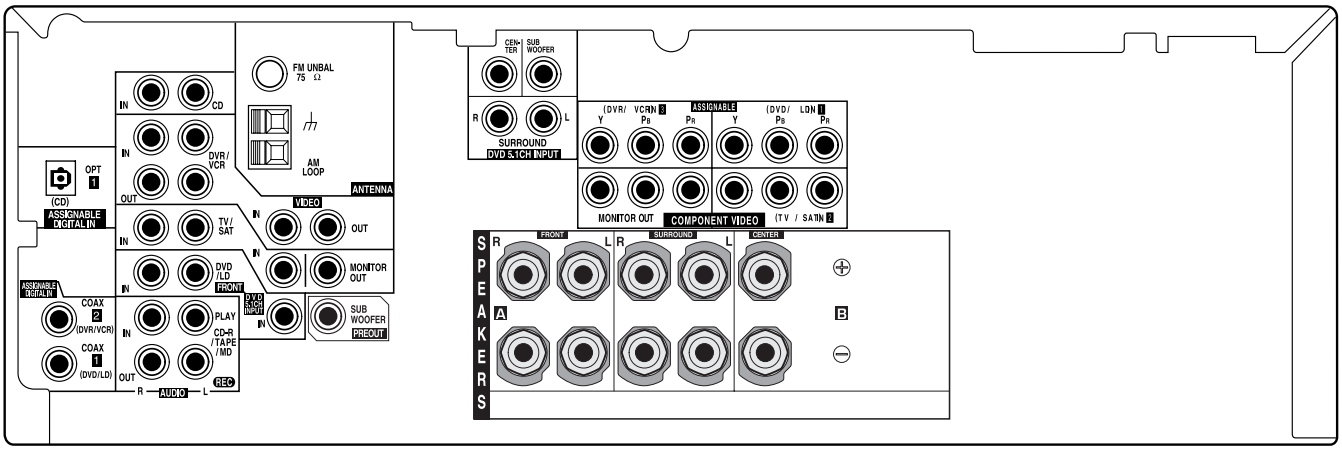
DISPLAY
Switch the display between station preset name and frequency.

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

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