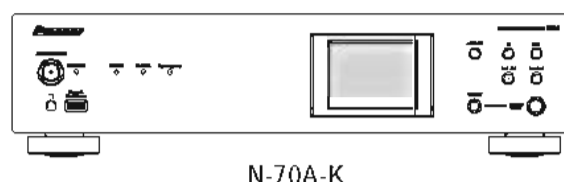


# Pioneer

## Service Manual



ORDER NO.  
RRV4583

NETWORK AUDIO PLAYER

# N-70A-K

## N-70A-S

## N-50A-K

## N-50A-S

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

Model	Type	Power Requirement	Remarks
N-70A-K	SYXEV8	AC 220 V to 240 V	
N-70A-S	SYXEV8	AC 220 V to 240 V	
N-50A-K	SYXEV8	AC 220 V to 240 V	
N-50A-S	SYXEV8	AC 220 V to 240 V	



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PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

# 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.

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# 1. SERVICE PRECAUTIONS

## 1.1 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.  
Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.
- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40 °C.  
Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373 °C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Do NOT use a soldering iron whose tip temperature cannot be controlled.

Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:

- Parts numbers of lead-free solder:  
GYP1006 1.0 mm dia.  
GYP1007 0.6 mm dia.  
GYP1008 0.3 mm dia.

## 1.2 STYLING OF CABLES

- As high-quality sound design is ensured for this product, it is affected by styling of cables.  
Consequently, after the replacement of parts, refer to "Styling of cables" of SECTION 7 DISASSEMBLY [3] and [8] and carry out the styling following the instruction.

# 2. SPECIFICATIONS

## 2.1 SPECIFICATIONS

### Analog audio output

Output level	
RCA jack (L/R) . . . . .	2.2 V rms (1 kHz, 0 dB)
BALANCE jack (N-70A only) (L/R) . . . . .	4.2 V rms (1 kHz, 0 dB)
Frequency response . . . . .	4 Hz to 90 kHz (-3 dB)
Signal-to-Noise Ratio	
RCA jack (N-70A) (L/R) . . . . .	114 dB
BALANCE jack (N-70A) (L/R) . . . . .	117 dB
RCA jack (N-50A) (L/R) . . . . .	112 dB
Dynamic range . . . . .	117 dB (24 bit, 32 bit)
Total harmonic distortion	
RCA jack (N-70A) (L/R) . . . . .	0.0012 %
BALANCE jack (N-70A) (L/R) . . . . .	0.0008 %
THD + N	
RCA jack (N-50A) (L/R) . . . . .	0.0012 %
Channel separation . . . . .	110 dB (1 kHz)

### Headphones output (N-70A only)

Output . . . . .	100 mW + 100 mW (32 Ω)
Compatible impedance . . . . .	16 Ω to 600 Ω
Frequency response . . . . .	4 Hz to 80 kHz (-3 dB)
THD + N . . . . .	0.01 %

### Digital audio output

Coaxial digital output . . . . .	RCA jack
Optical digital output . . . . .	Optical jack

### Digital audio input

Coaxial digital input . . . . .	RCA jack
Optical digital input . . . . .	Optical jack
USB DAC terminal . . . . .	USB2.0 High Speed (Type B)
iPod/iPhone terminal (Front/Rear) . . . . .	USB2.0 High Speed (Type A) 5 V, 1 A

### Network

LAN terminal . . . . .	Ethernet jack (10 BASE-T/100 BASE-TX)
DC output terminal for WIRELESS LAN . . . . .	5 V, 600 mA

### Centrally controlled section

Control output terminal . . . . .	ø3.5 mini-jack (mono)
-----------------------------------	-----------------------

### Generalites

System . . . . .	Network Audio Player
Power requirements . . . . .	AC 220 V to 240 V, 50 Hz/60 Hz
Power consumption	
N-70A . . . . .	45 W
N-50A . . . . .	38 W
Power consumption	
In standby mode . . . . .	0.3 W
In standby mode (Network standby on) . . . . .	2.0 W
Auto Power Down . . . . .	15 min (default), 30 min, 60 min, Off
Weight (without package)	
N-70A . . . . .	11.5 kg
N-50A . . . . .	7.5 kg
Dimensions	
N-70A . . . . .	435 mm (W) x 121 mm (H) x 338 mm (D)
N-50A . . . . .	435 mm (W) x 99 mm (H) x 331 mm (D)
Operating temperature . . . . .	+5 °C to +35 °C
Operating humidity . . . . .	5 % to 85 %

### Note

- The specifications are applicable when the power supply is 230 V.
- Specifications and the design are subject to possible modifications without notice, due to improvements.
- Corporation and product names mentioned herein are trademarks or registered trademarks of the respective corporations.
- This product is not designed for use in Japan.
- *This product includes FontAvenue® fonts licensed by NEC Corporation. FontAvenue® is a registered trademark of NEC Corporation.*
- *iOS is a trademark on which Cisco holds the trademark right in the US and certain other countries.*
- *Android and Google Play are trademarks of Google Inc.*

To keep the product quality after servicing, confirm recommended check points shown below.

No.	Procedures	Check points
1	Confirm a firmware version at test mode.	Should be the latest firmware version. If not, update the version.
2	Confirm whether the customer complain has been solved. If the indicated complain is caused by a specific file format, replay a music file for test of the same format as target file.	The customer complain must not be reappeared. No abnormalities should exist in screen displayed contents, audio and actions.
3	Confirm replay of a music file for test with the same format as corresponding file format at the front USB terminal. (Confirm music files with all file formats should be replayed.)	No abnormalities should exist in actions such as audio, screen display, etc.
4	Check the external package	No scratches or dirt on its appearance after receiving it for service.

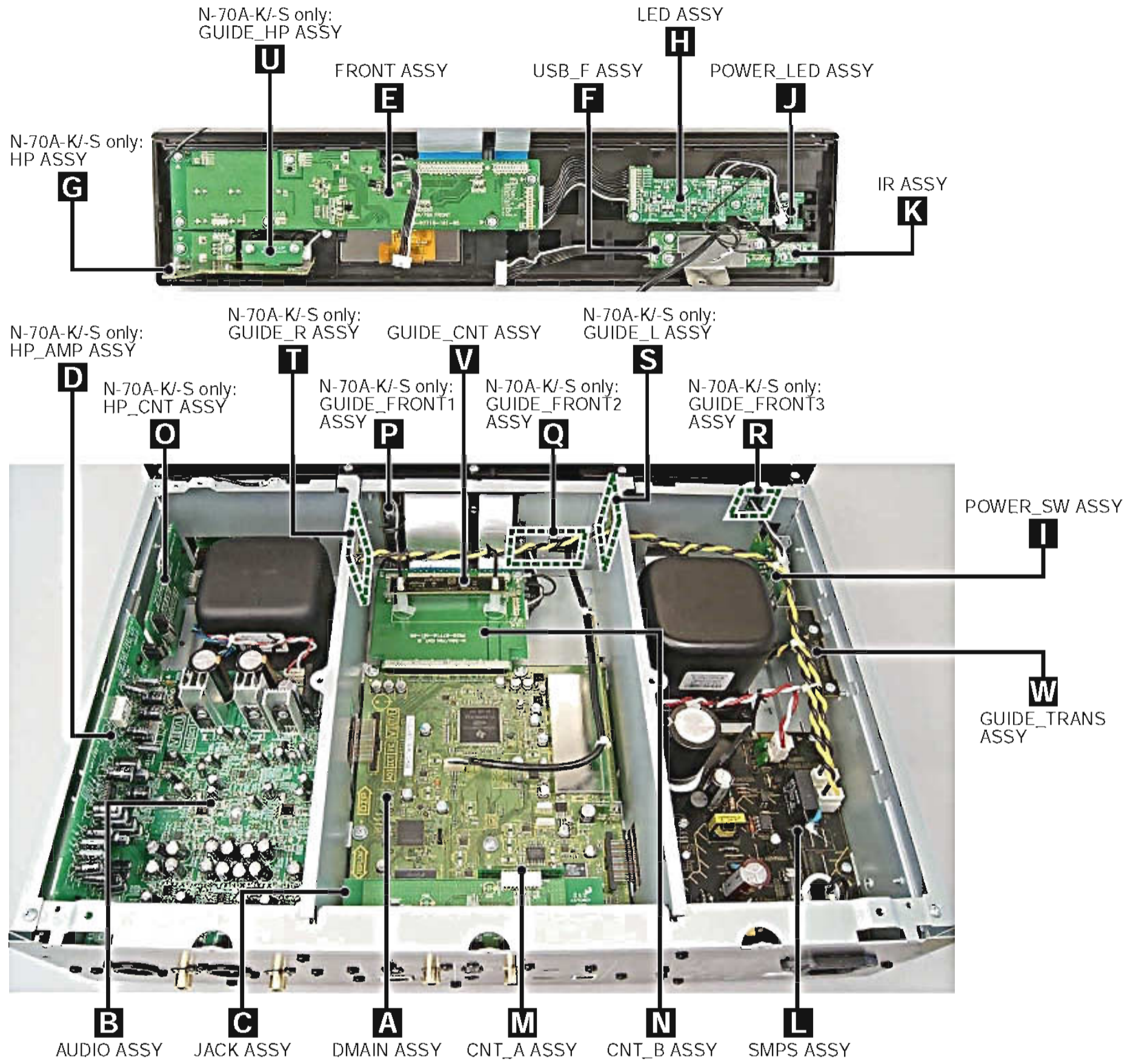
A music file for test with corresponding file format should be used after downloading from the service dedicated Web Site onto an USB memory, etc.

See the table below for the items to be checked regarding audio.

Item to be checked regarding audio
Distortion
Noise
Volume too low
Volume too high
Volume fluctuating
Sound interrupted

Name	Jig No.	Remarks
Service Remote Control Unit	GGF1381	Service Mode, Firmwar Update
19P board to board extension jig cable	GGD1887	SMPS ASSY CN2205 ⇔ CN, FPC 1.25mm
23P board to board extension jig cable	GGD1888	AUDIO ASSY CN1501 ⇔ CN, FPC 1.25mm

### 3.3 PCB LOCATIONS



- 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.

**N-70A-K, N-70A-S**

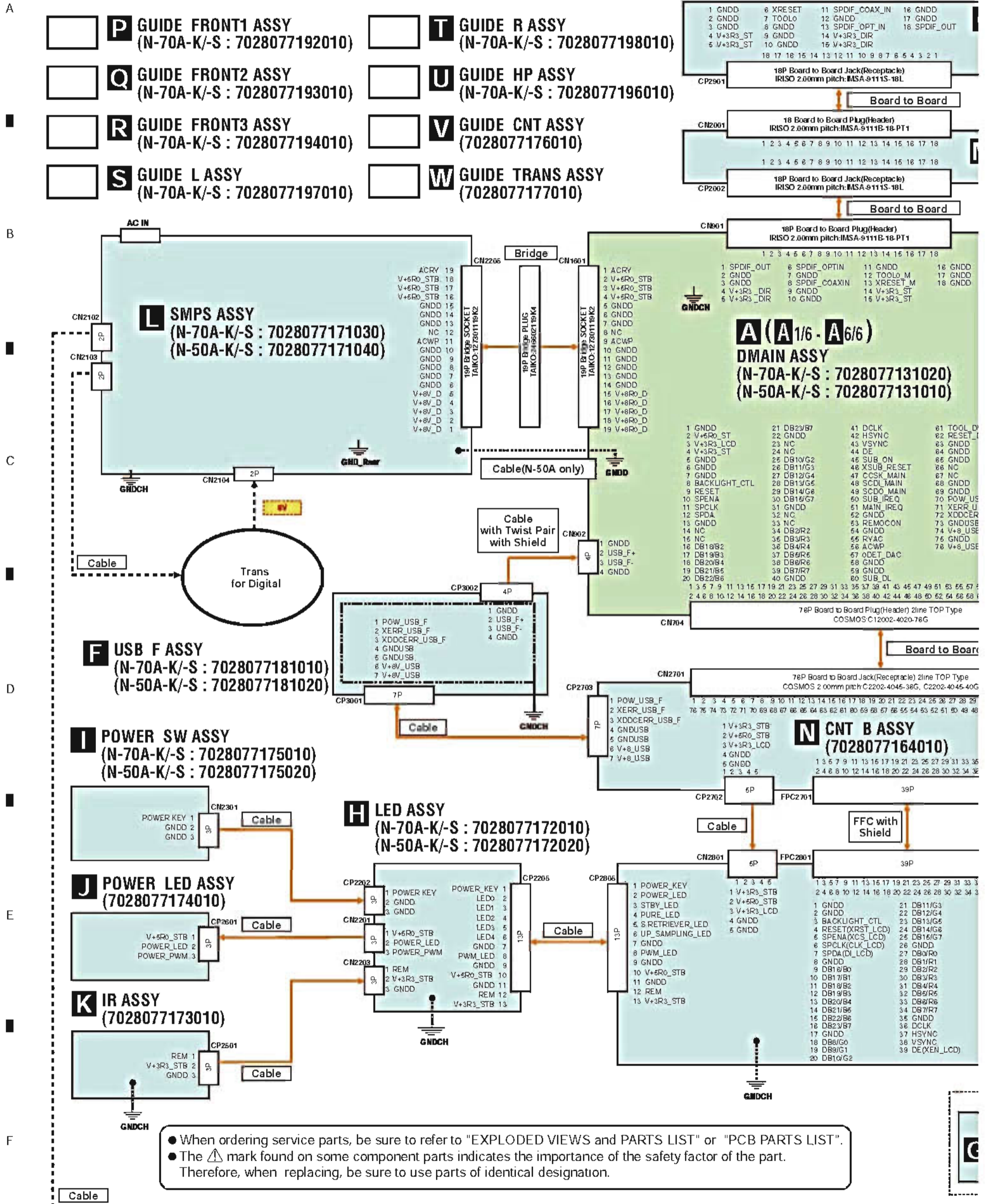
Mark	Symbol & Discription	N-70A-K	N-70A-S
NSP	1...HP_AMP ASSY	7025HU1402022	7025HU1402032
	2..HP_AMP ASSY	7028077151010	7028077151010
	2..HP_CNT ASSY	7028077152010	7028077152010
NSP	1...FRONT ASSY	7025HU1402023	7025HU1402033
	2..FRONT ASSY	7028077161030	7028077161030
	2..JACK ASSY	7028077162010	7028077162010
	2..CNT_A ASSY	7028077163010	7028077163010
	2..CNT_B ASSY	7028077164010	7028077164010
NSP	1...SMPS ASSY	7025HU1402024	7025HU1402034
⚠	2..SMPS ASSY	7028077171030	7028077171030
	2..LED ASSY	7028077172010	7028077172010
	2..IR ASSY	7028077173010	7028077173010
	2..POWER_LED ASSY	7028077174010	7028077174010
	2..POWER_SW ASSY	7028077175010	7028077175010
	2..GUIDE_CNT ASSY	7028077176010	7028077176010
	2..GUIDE_TRANS ASSY	7028077177010	7028077177010
NSP	1...GUIDE ASSY	7025HU1402026	7025HU1402036
	2..HP ASSY	7028077191010	7028077191010
	2..GUIDE_FRONT1 ASSY	7028077192010	7028077192010
	2..GUIDE_FRONT2 ASSY	7028077193010	7028077193010
	2..GUIDE_FRONT3 ASSY	7028077194010	7028077194010
	2..GUIDE_HP ASSY	7028077196010	7028077196010
	2..GUIDE_L ASSY	7028077197010	7028077197010
	2..GUIDE_R ASSY	7028077198010	7028077198010
NSP	1...DMAIN ASSY	7025HU1402020	7025HU1402030
	2..DMAIN ASSY	7028077131020	7028077131020
NSP	1...AUDIO ASSY	7025HU1402021	7025HU1402031
	2..AUDIO ASSY	7028077141010	7028077141010
NSP	1...USB_F ASSY	7025HU1402025	7025HU1402035
	2..USB_F ASSY	7028077181010	7028077181010

**N-50A-K, N-50A-S**

Mark	Symbol & Discription	N-50A-K	N-50A-S
NSP	1...FRONT ASSY	7025HU1403023	7025HU1403033
	2..FRONT ASSY	7028077161040	7028077161040
	2..JACK ASSY	7028077162010	7028077162010
	2..CNT_A ASSY	7028077163010	7028077163010
	2..CNT_B ASSY	7028077164010	7028077164010
NSP	1...SMPS ASSY	7025HU1403024	7025HU1403034
⚠	2..SMPS ASSY	7028077171040	7028077171040
	2..LED ASSY	7028077172020	7028077172020
	2..IR ASSY	7028077173010	7028077173010
	2..POWER_LED ASSY	7028077174010	7028077174010
	2..POWER_SW ASSY	7028077175020	7028077175020
	2..GUIDE_CNT ASSY	7028077176010	7028077176010
	2..GUIDE_TRANS ASSY	7028077177010	7028077177010
NSP	1...DMAIN ASSY	7025HU1403020	7025HU1403030
	2..DMAIN ASSY	7028077131010	7028077131010
NSP	1...AUDIO ASSY	7025HU1403021	7025HU1403031
	2..AUDIO ASSY	7028077141020	7028077141020
NSP	1...USB_F ASSY	7025HU1403025	7025HU1403035
	2..USB_F ASSY	7028077181020	7028077181020

# 4. BLOCK DIAGRAM

## 4.1 OVERALL CONNECTION DIAGRAM





**C JACK ASSY**  
(7028077162010)

16 GNDD  
17 GNDD  
18 SPDIF\_OUT

Receptacle) 1-9111S-18L

Board to Board

Header) 1111B-18-PT1

2 13 14 15 16 17 18

2 13 14 15 16 17 18

Receptacle) 1-9111S-18L

Board to Board

Header) 1111B-18-PT1

2 13 14 15 16 17 18

**M CNT A ASSY**  
(7028077163010)

Receptacle) 1-9111S-18L

Board to Board

Header) 1111B-18-PT1

2 13 14 15 16 17 18

2 13 14 15 16 17 18

Receptacle) 1-9111S-18L

Board to Board

Header) 1111B-18-PT1

2 13 14 15 16 17 18

**3077131020)**  
**3077131010)**

11 GNDD 18 GNDD  
12 TOOL\_M 17 GNDD  
13 XRESET\_M 18 GNDD  
14 V+3R3\_ST  
15 V+3R3\_ST

23 LINEMUTE  
22 XRYLINE(NC)  
21 XHPRY  
20 ODET\_DAC  
19 V+5R0\_STB  
18 XDAC\_RESET  
17 XPCM\_DSD  
16 GNDD  
15 SCL\_DACR  
14 SCL\_DACL  
13 SDA\_DACR  
12 SDA\_DACL  
11 GNDD  
10 VOL\_CLK  
9 VOL\_SDA  
8 VOL\_CS  
7 GNDD  
6 DACBCK  
5 GNDD  
4 SDATA/DSDR  
3 GNDD  
2 LRCK/DSDL  
1 GNDD

81 TOOL\_DW  
82 RESET\_DW  
83 GNDD  
84 GNDD  
85 GNDD  
86 NC  
87 NC  
88 GNDD  
89 GNDD  
90 POW\_USB\_F  
91 XERR\_USB\_F  
92 XDDCERR\_USB\_F  
93 GNDD  
94 V+8\_USB  
95 GNDD  
96 V+8\_USB

DCLK  
HSYNC  
VSYNC  
DE  
SUB\_ON  
XSUB\_RESET  
CCLK\_MAIN  
SCDI\_MAIN  
SCDO\_MAIN  
SUB\_IRQ  
MAIN\_IRQ  
GNDD  
REMOCON  
GNDD  
RYAC  
ACWP  
ODET\_DAC  
GNDD  
GNDD  
SUB\_DL

37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73 75  
38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76

Plug(Header) 2line TOP Type  
1-12002-4020-78G

Board to Board

Jack(Receptacle) 2line TOP Type  
C2202-4045-36G, C2202-4045-40G

1 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38  
9 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39

**B ASSY**  
**077164010)**

3 15 17 19 21 23 25 27 29 31 33 35 37 39  
14 16 18 20 22 24 26 28 30 32 34 36 38

39P

FPC2702

20P

FFC with Shield

FFC with Shield

39P

FPC2802

20P

13 15 17 19 21 23 25 27 29 31 33 35 37 39  
14 16 18 20 22 24 26 28 30 32 34 36 38

**E FRONT ASSY**  
(N-70A-K/-S : 7028077161030)  
(N-50A-K/-S : 7028077161040)

1 SUB\_ON  
2 XSUB\_RST  
3 CCLK\_MAIN  
4 SCDI\_MAIN  
5 SCDO\_MAIN  
6 SUB\_IRQ  
7 MAIN\_IRQ  
8 GNDD  
9 REMOCON\_TC(SROUT)  
10 GNDD  
11 RYAC  
12 ACWP  
13 ODET\_DAC  
14 GNDD  
15 GNDD  
16 SUB\_DL  
17 TOOL\_DW  
18 RESET\_DW  
19 GNDD  
20 GNDD

1 HP\_DET  
2 GNDD  
3 GNDD

1 2 3

CP2804  
Cable

CP2402  
3P

1 HP\_DET  
2 GNDD  
3 GNDD

1 2 3

CP2401

HP\_R 1  
GND\_R 2  
GND\_L 3  
HP\_L 4  
GND\_A 5

1 VOL+  
2 VOL-  
3 GNDD  
4 V+3R3\_STB

1 2 3 4

1 VOL+  
2 VOL-  
3 GNDD  
4 V+3R3\_STB

**G HP ASSY**  
(N-70A-K/-S : 7028077191010)

1 HP\_DET  
2 GNDD  
3 GNDD

1 2 3

HP\_R 1  
GND\_R 2  
GND\_L 3  
HP\_L 4  
GND\_A 5

1 VOL+  
2 VOL-  
3 GNDD  
4 V+3R3\_STB

1 2 3 4

Board to Board

**B (B1/2 - B2/2)**  
**AUDIO ASSY**  
(N-70A-K/-S : 7028077141010)  
(N-50A-K/-S : 7028077141020)

23 LINEMUTE  
22 XRYLINE  
21 XHPRY  
20 ODET\_DAC  
19 V+5R0\_STB  
18 XDAC\_RESET  
17 XPCM\_DSD  
16 GNDD  
15 SCL\_DACR  
14 SCL\_DACL  
13 SDA\_DACR  
12 SDA\_DACL  
11 GNDD  
10 VOL\_CLK  
9 VOL\_SDA  
8 VOL\_CS  
7 GNDD  
6 DACBCK  
5 GNDD  
4 SDATA/DSDR  
3 GNDD  
2 LRCK/DSDL  
1 GNDD

1 DAC+  
2 NC  
3 NC  
4 DAC-  
1 2 3 4

1 AUDIO+  
2 GND  
3 AUDIO-  
1 2

CN1810 4P  
CN1809 3P

23V  
15V

Trans for Analog

**N-70A only**

**D HP AMP ASSY**  
(N-70A-K/-S : 7028077151010)

1 GNDCH  
2 L-HOT  
3 L-COLD  
4 GNDCH  
5 R-HOT  
6 R-COLD  
7 GNDCH

Board to Board (N-70A only)  
CN1504 7P  
CN4501 7P

Board to Board (N-70A only)  
CN1503 8P  
CN4502 9P

Board to Board (N-70A only)  
CN1502 7P  
CN4506 7P

1 V+22UN  
2 GNDAP\_22UN  
3 V-22UN  
4 GNDAP\_RY  
5 GNDAP\_7  
6 V+15A  
7 GNDAP\_15  
8 V-15A  
9 GNDAP\_15

1 GNDCH  
2 XRYHP  
3 GNDD  
4 VOLCLK  
5 VOLDT  
6 VOLCS  
7 GNDD

1 GND\_com  
2 HP\_L  
3 GND\_com  
4 GND\_L  
5 GND\_com  
6 GND\_R  
7 HP\_R  
1 2 3 4 5 6 7

Board to Board (N-70A only)  
CN4503 7P

Bridge

Board to Board (N-70A only)  
CN5001 7P

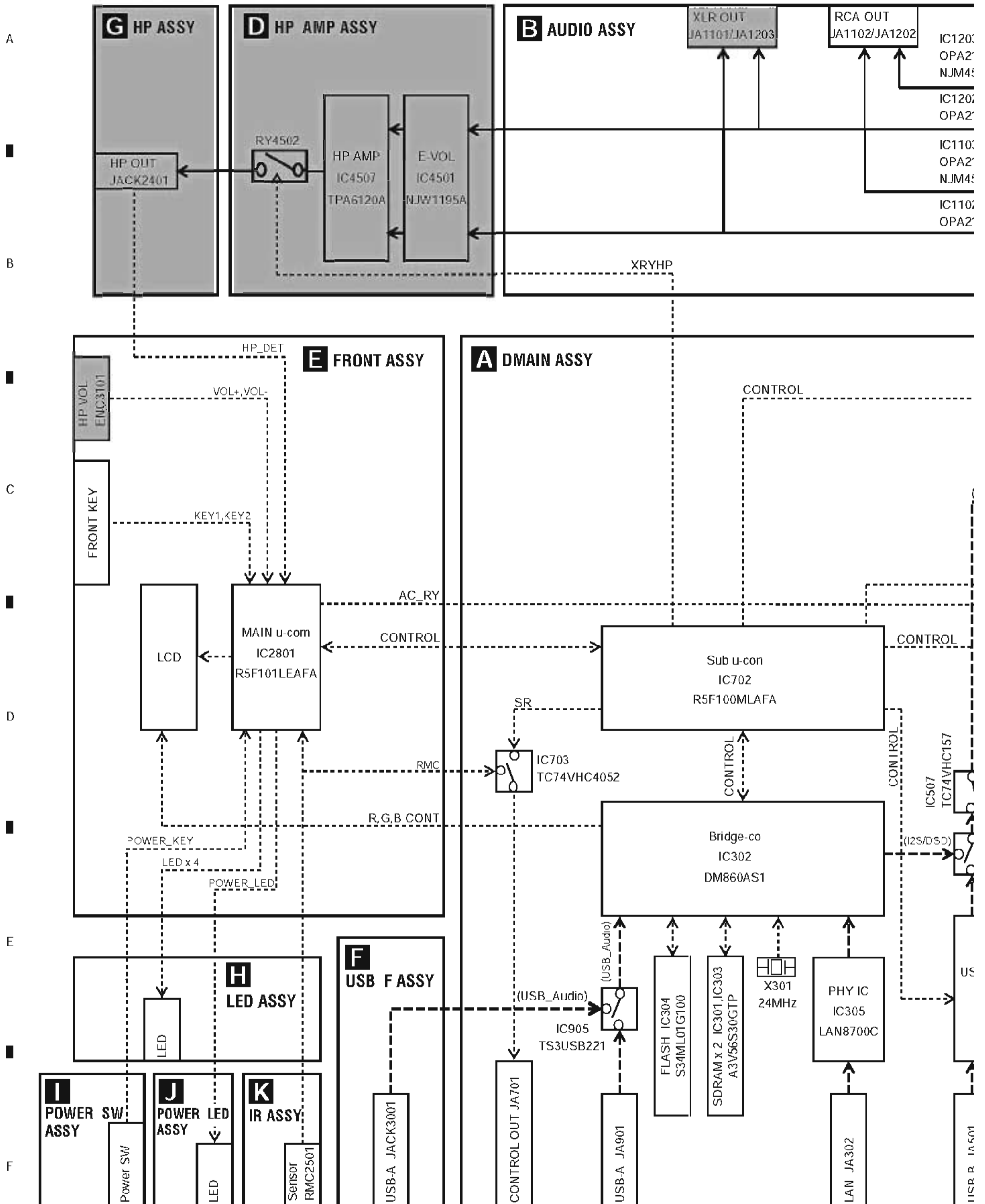
1 2 3 4 5 6 7  
1 GND\_com  
2 HP\_L  
3 GND\_com  
4 GND\_L  
5 GND\_com  
6 GND\_R  
7 HP\_R

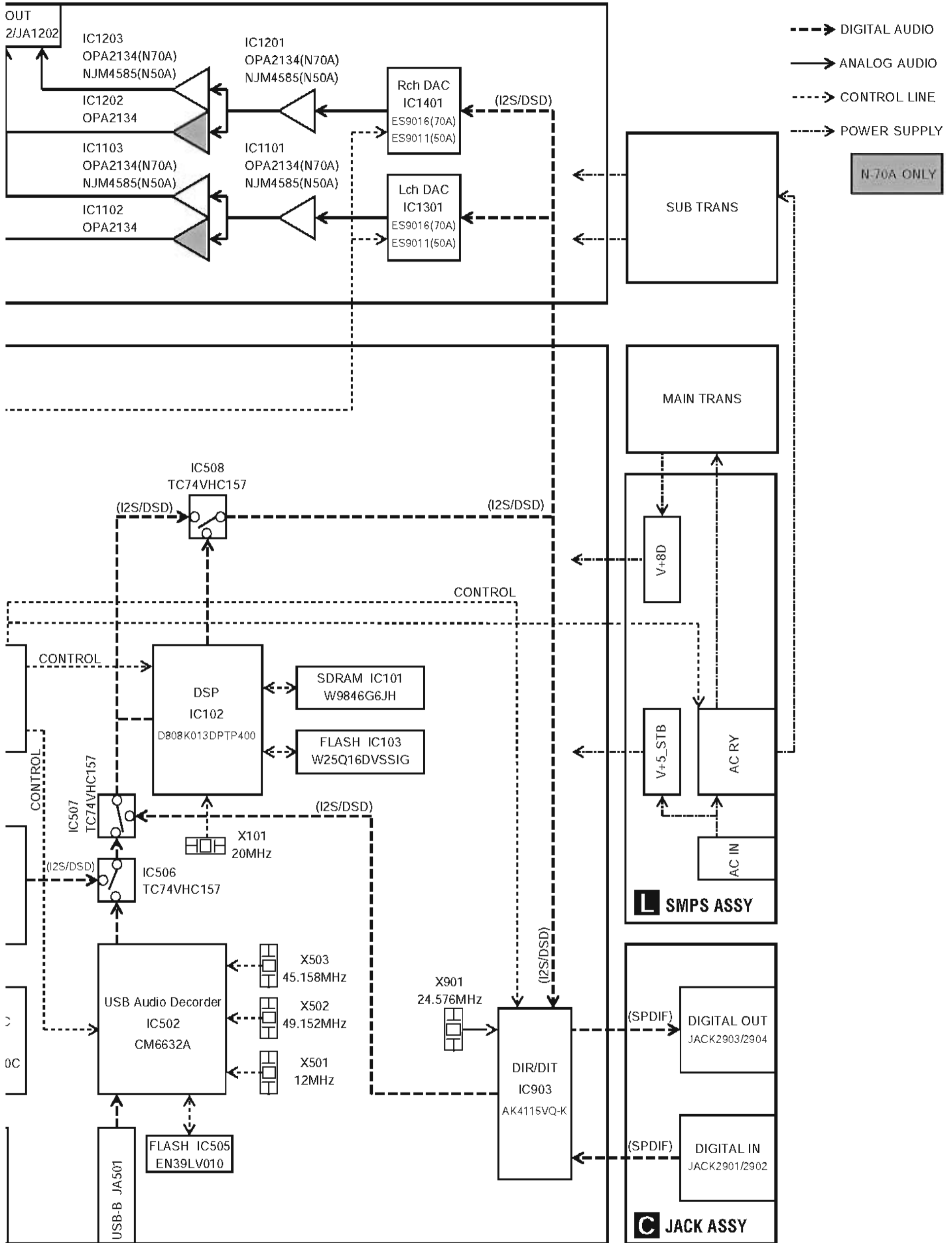
Board to Board (N-70A only)  
CN5002 6P

**HP CNT ASSY**  
(N-70A-K/-S : 7028077152010)

1 HP\_R  
2 GND\_R  
3 GND\_L  
4 HP\_L  
5 GND\_A  
1 2 3 4 5

## 4.2 BLOCK DIAGRAM



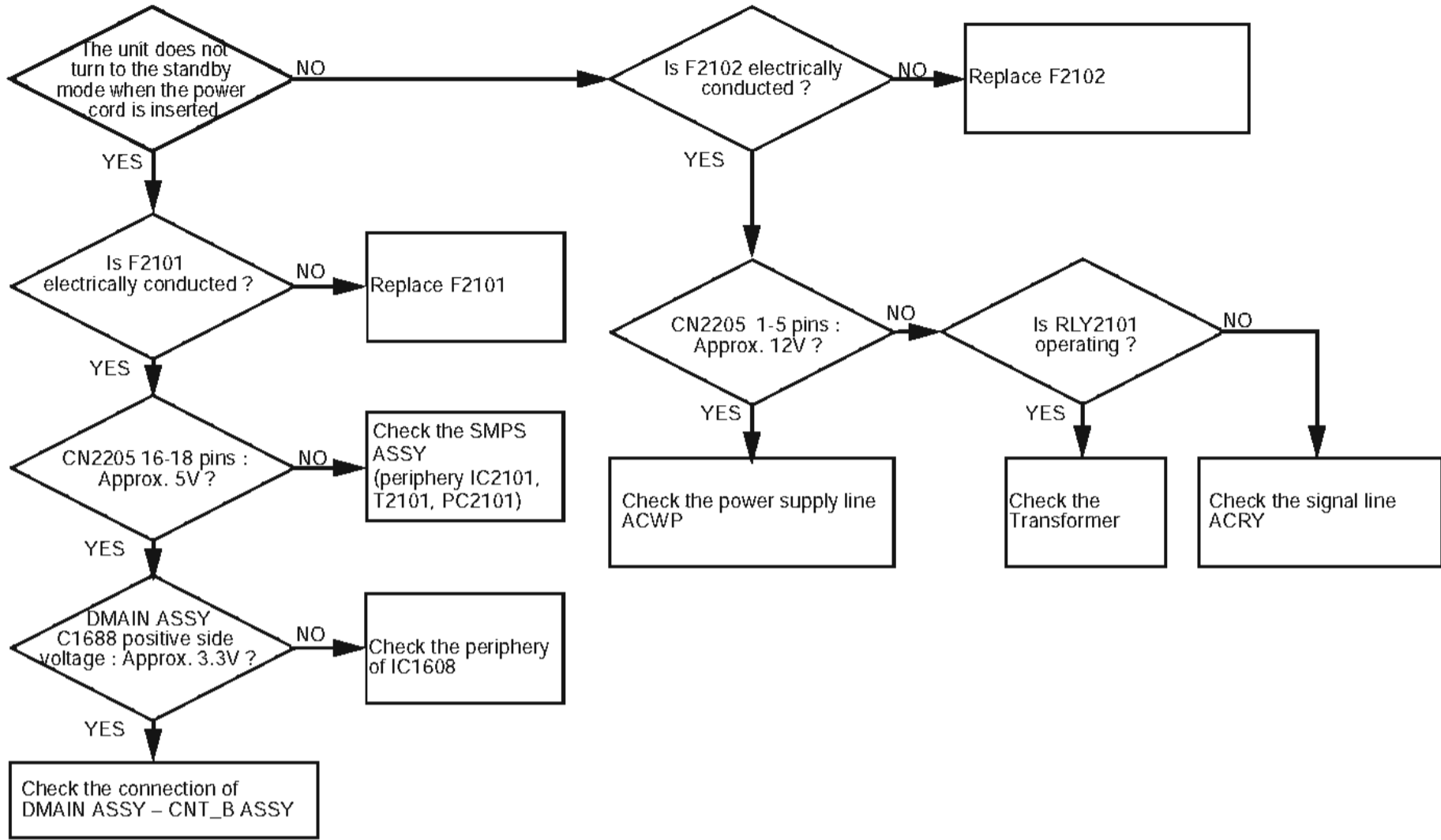


A  
B  
C  
D  
E  
F

# 5. DIAGNOSIS

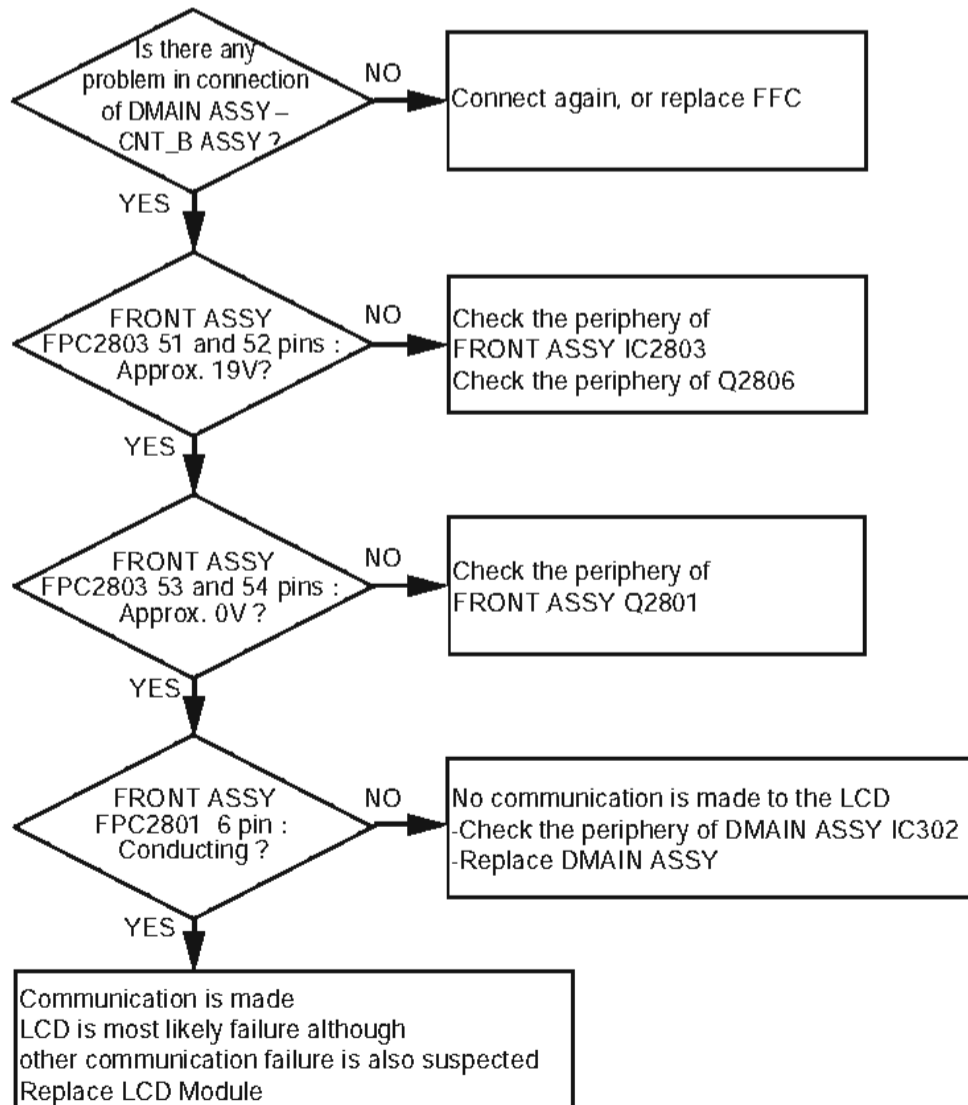
## 5.1 DIAGNOSIS FLOWCHART

### • Power supply is not turned ON



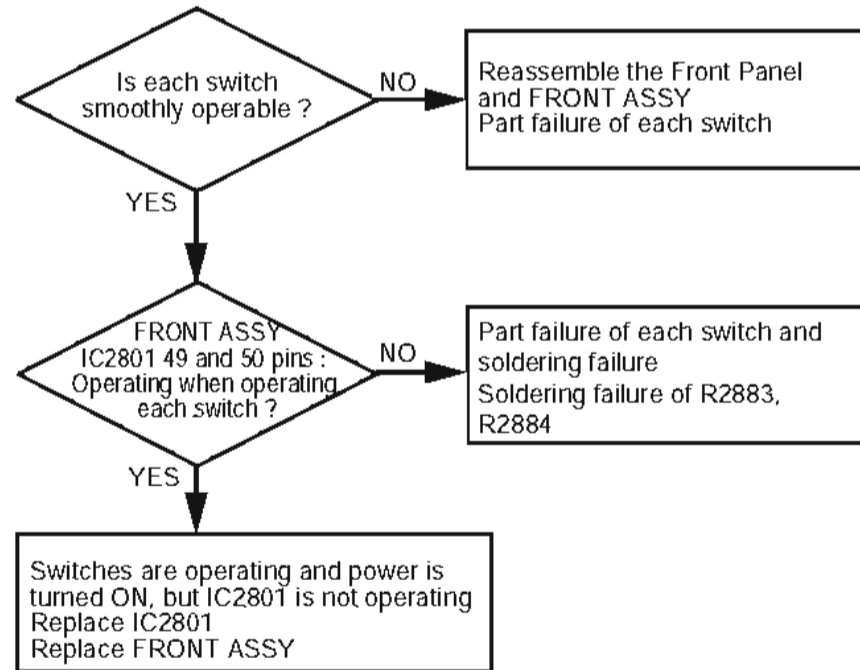
### • LCD is not lit

This diagnostic flow is used when LEDs, etc are lit but only the LCD is not lit following power is turned ON. LEDs lit mean the STBY power supply is operating. Main microcomputer is also operating.



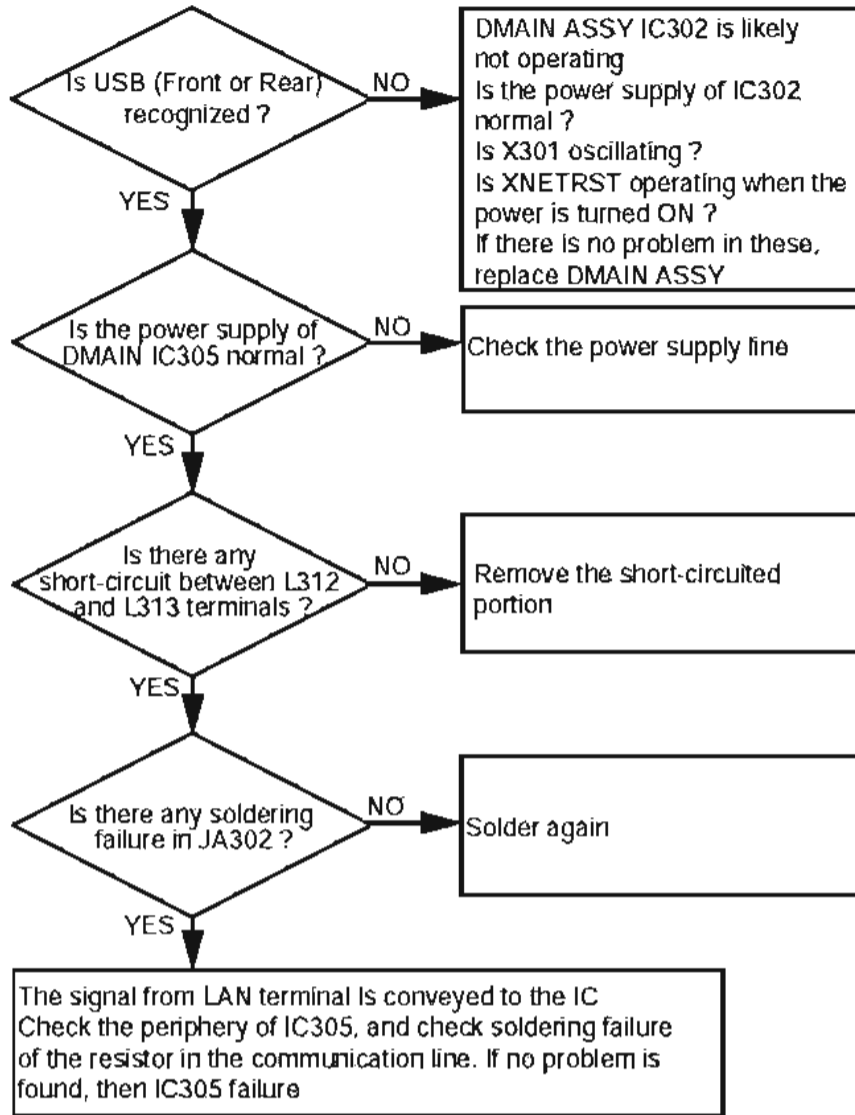
### • Front key is not operable

This diagnostic flow is used when the main unit key is not operable although the LCD is lit and the unit is operable through the remote control following power is turned ON.



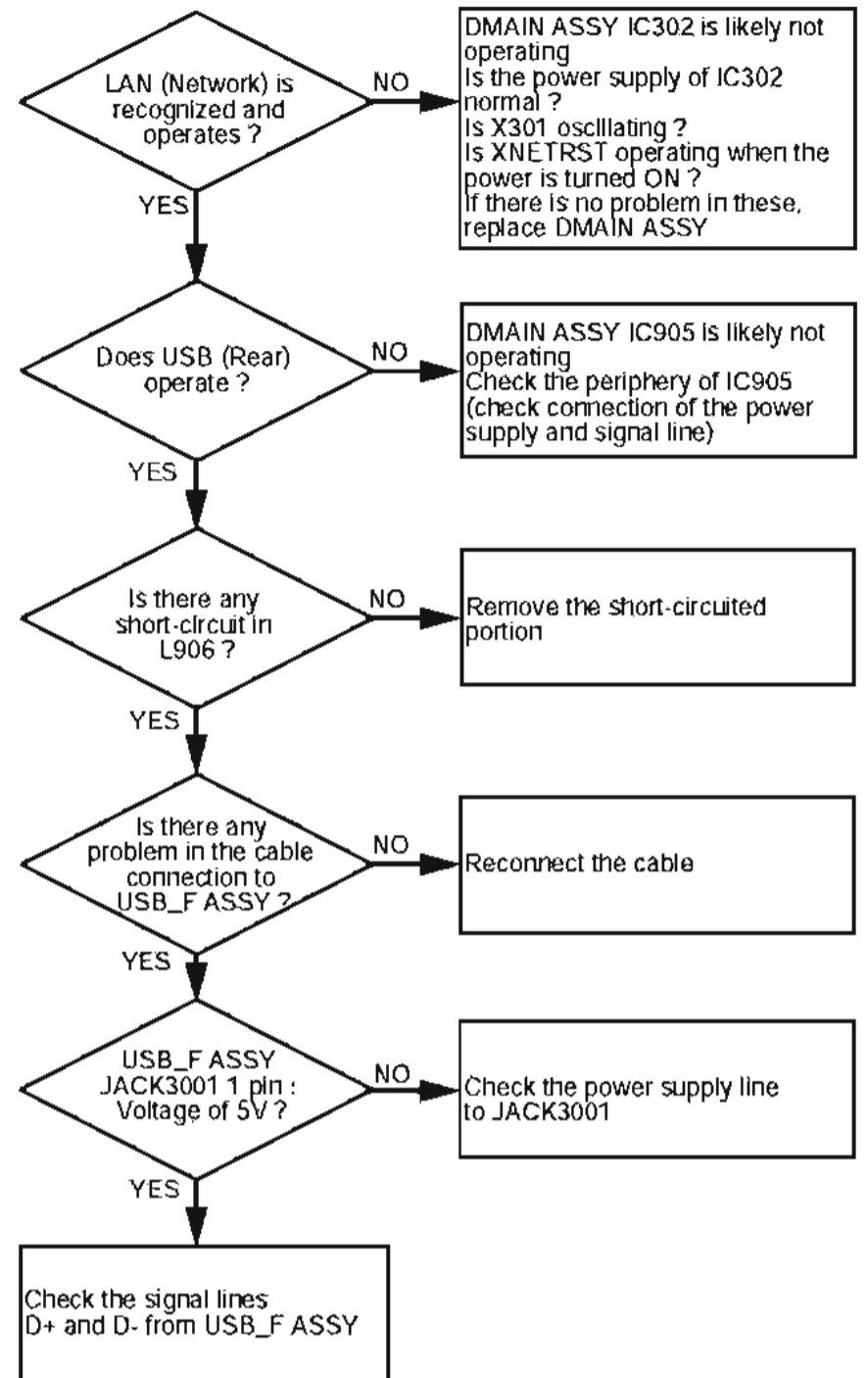
• ETHERNET is not recognized

This diagnostic flow is used when the network device connected to the LAN terminal is not recognized.



• USB (Front) does not operate

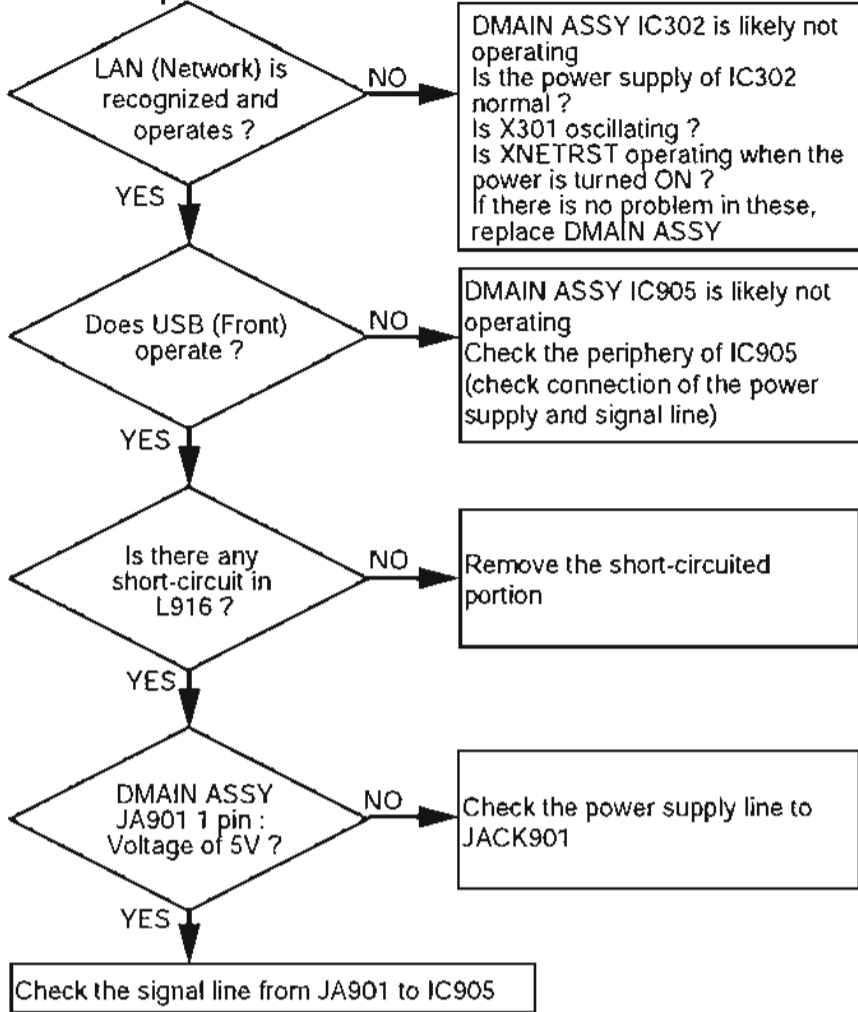
This diagnostic flow is used when USB (Front) does not operate.



A  
B  
C  
D  
E  
F

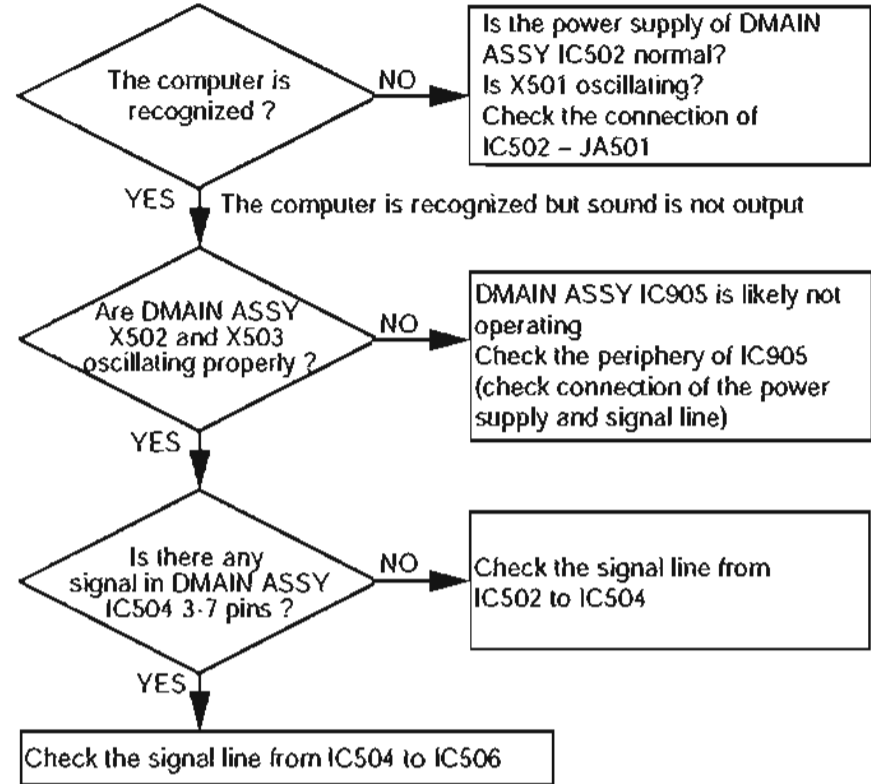
• USB (Rear) does not operate

This diagnostic flow is used when USB (Rear) does not operate.

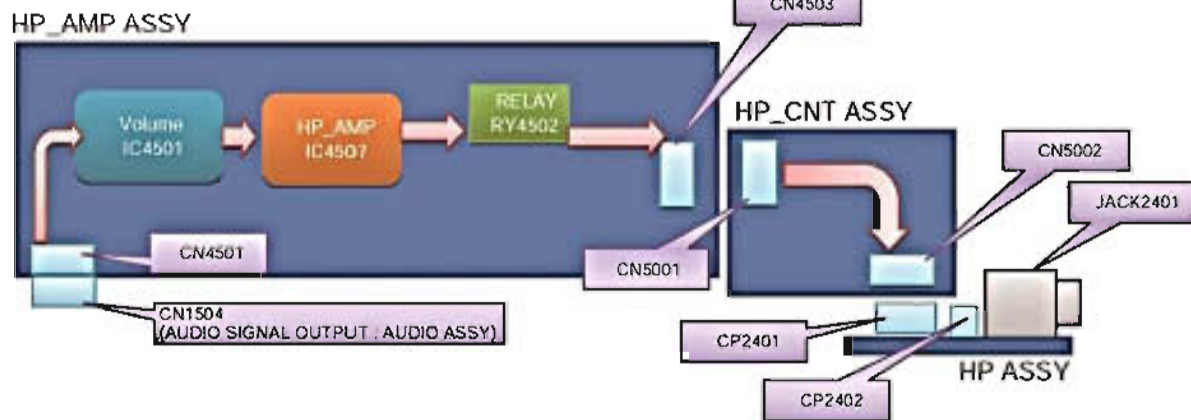
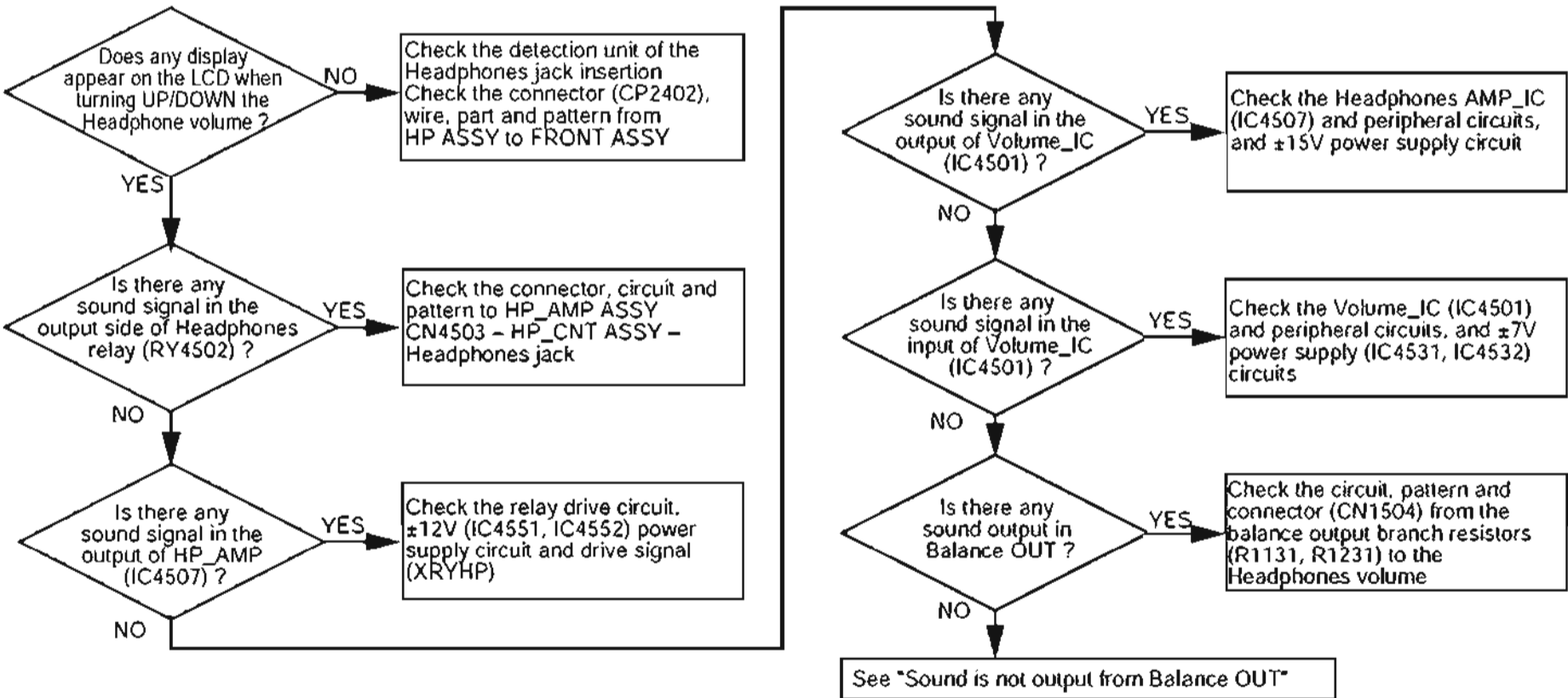


• USB (DAC) does not operate

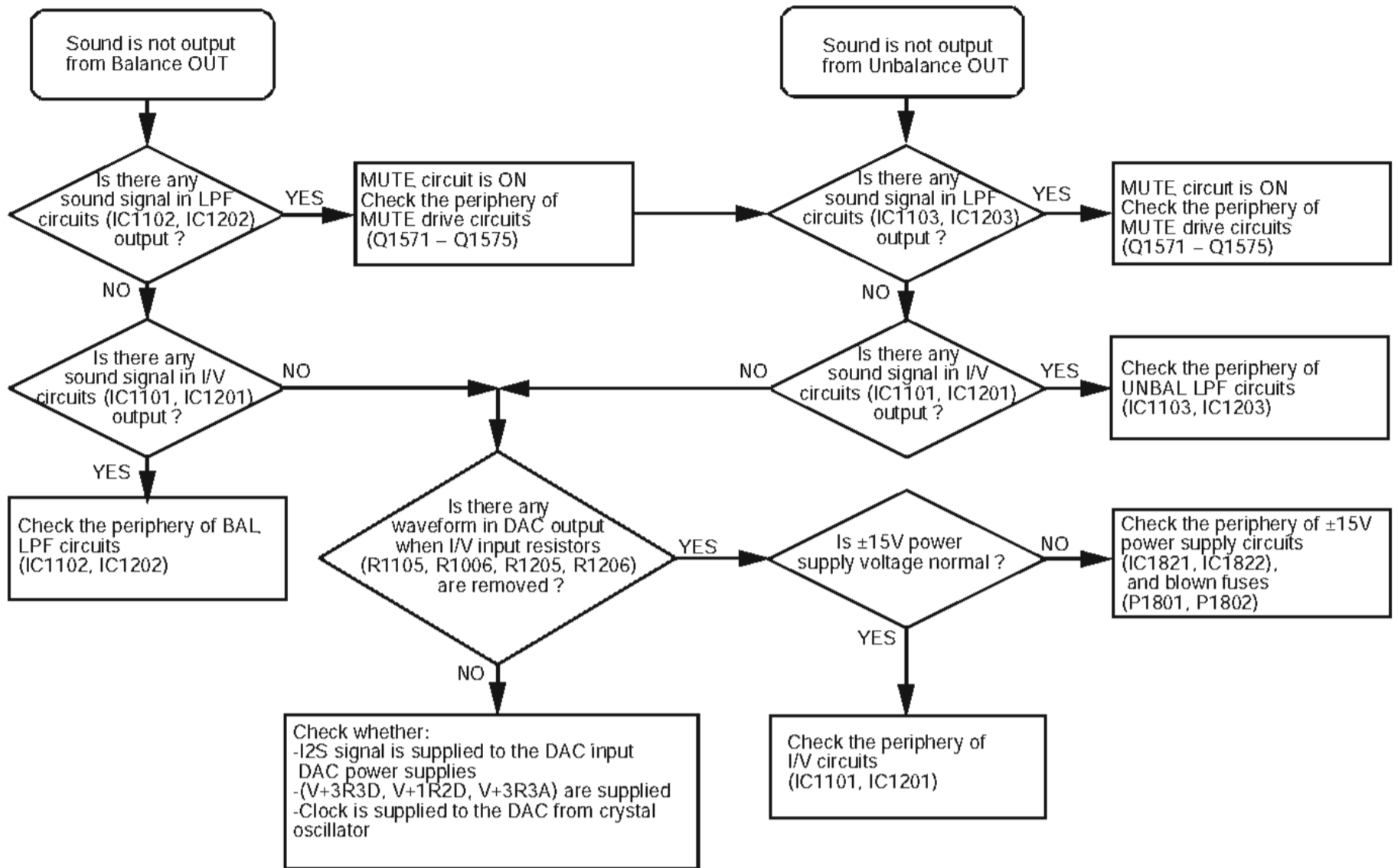
This diagnostic flow is used when USB (DAC) does not operate. A Windows computer needs a driver to recognize this unit. Mac also requires a driver to play the DSD. This diagnostic flow is used when only USB (DAC) does not operate.



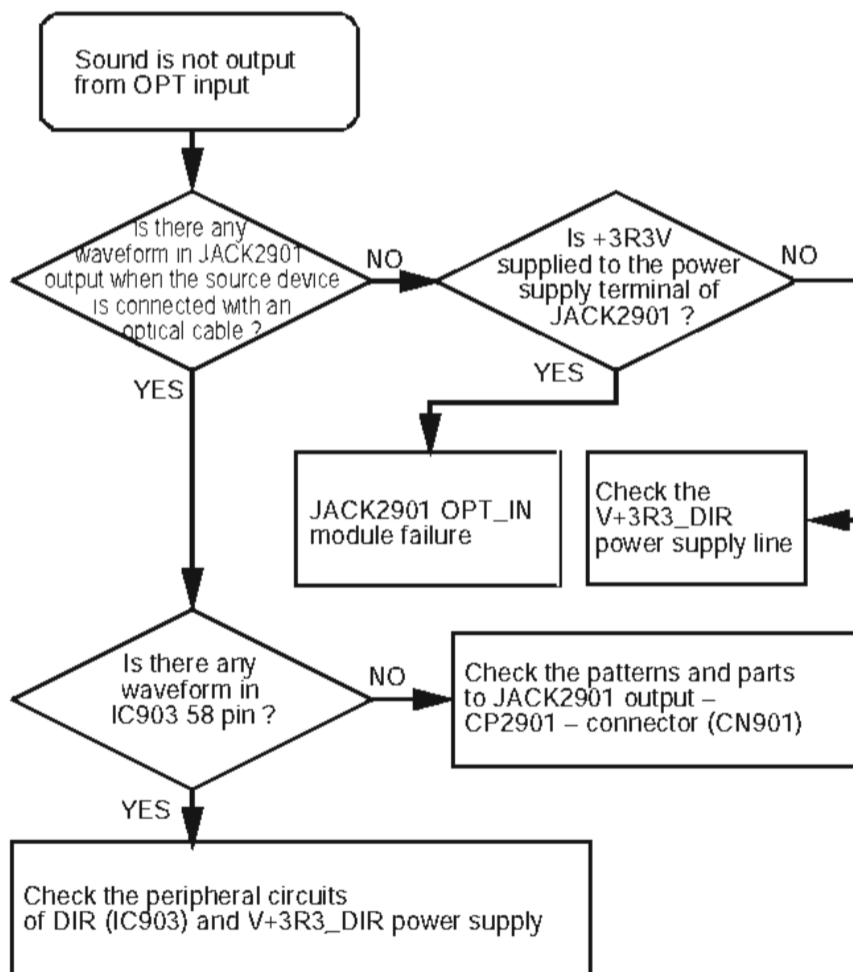
• Sound is not output from Headphones



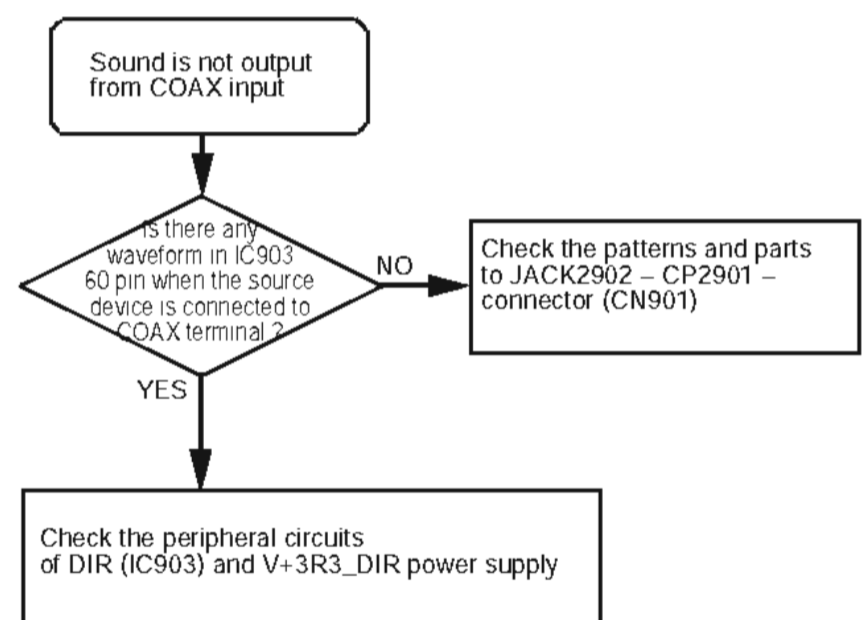
• Sound is not output from analog output



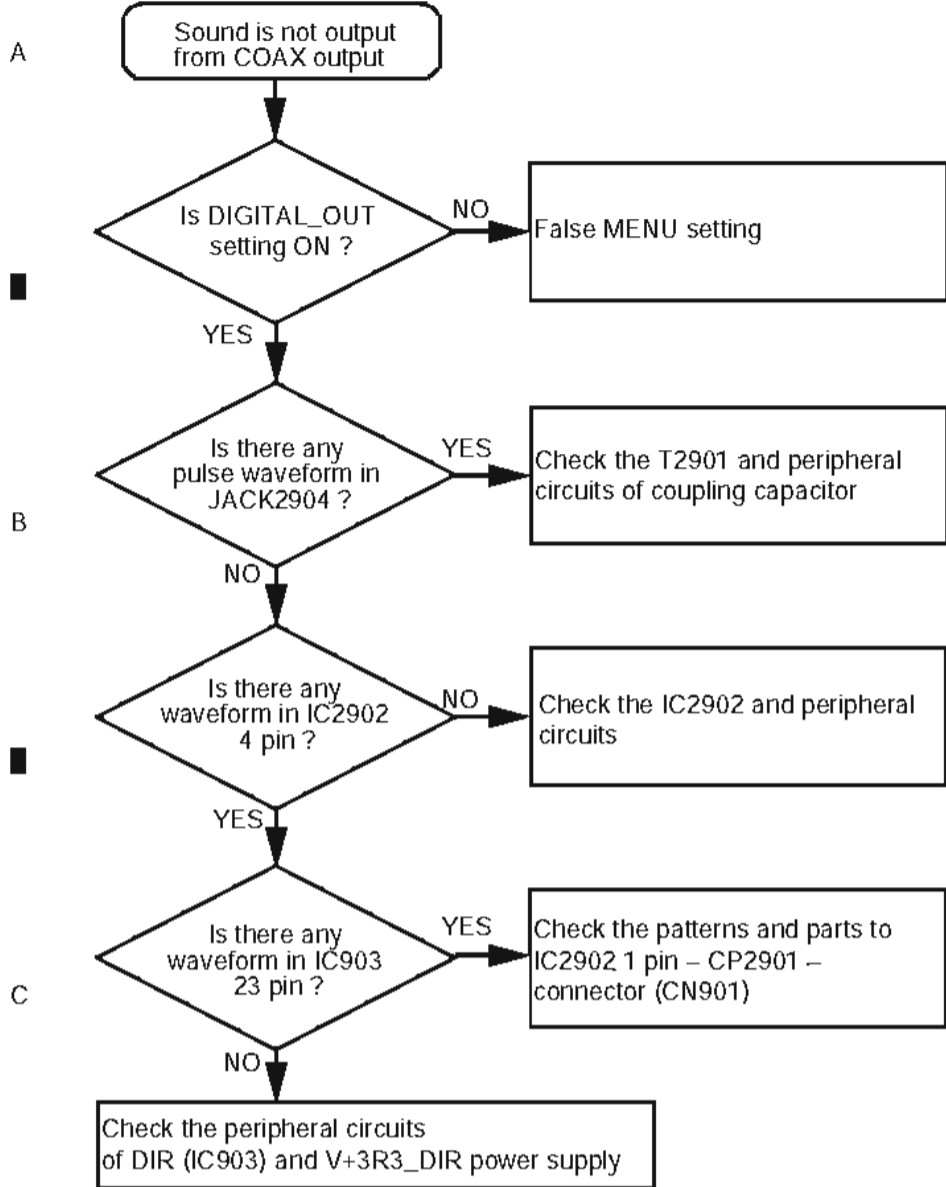
• Sound is not output from OPT input



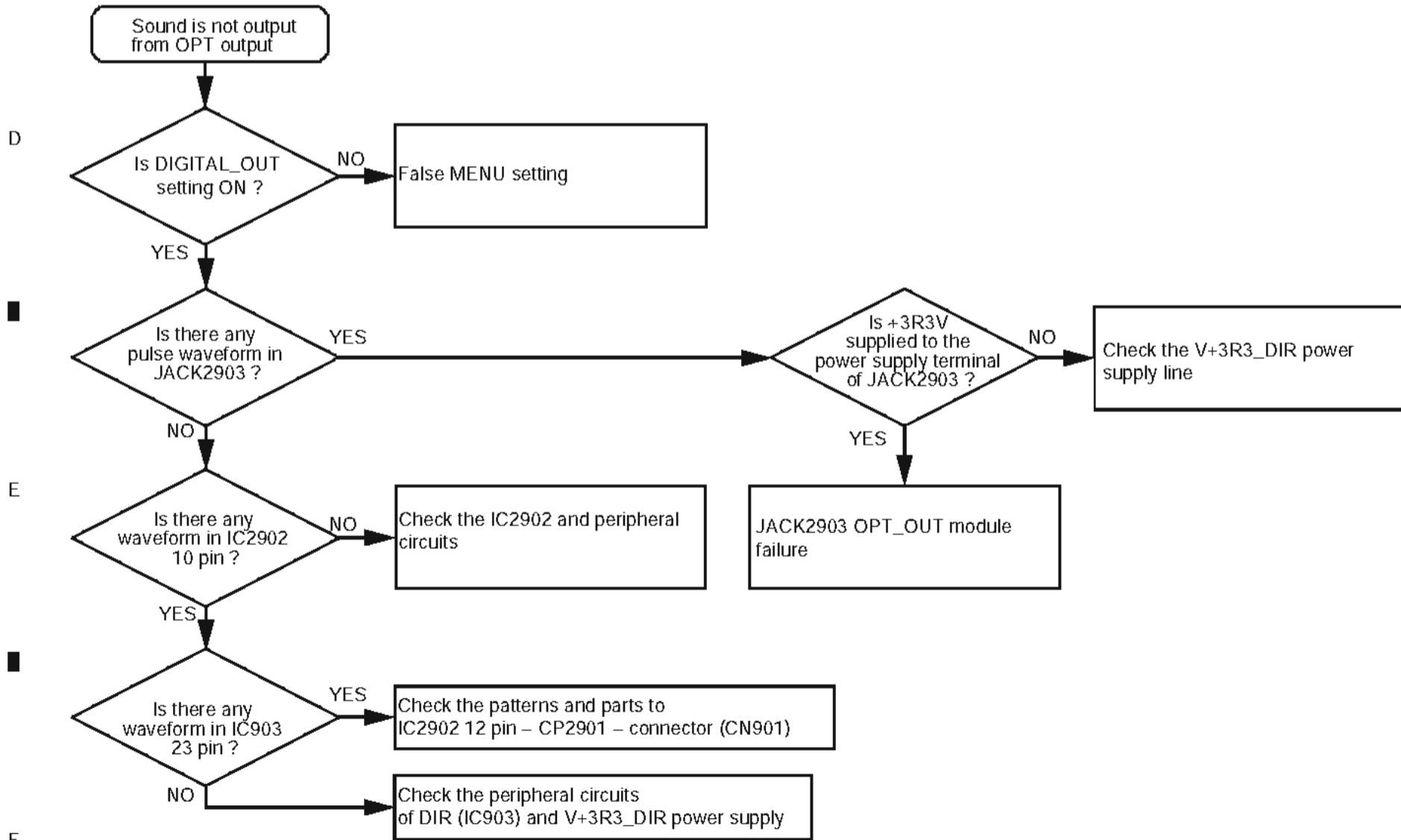
• Sound is not output from COAX input



• Sound is not output from COAX output



• Sound is not output from OPT output





## 5.2 PROTECTION CIRCUIT ERROR DETECTION

Item	GUI display	LED display	Number of NGs	Detection method	Processing after detection	Return processing	Remark
AC Detection	-	-	-	The presence or absence of power supply is detected. At the same time, occurrence of AC instantaneous interruption is also detected. AC_DET (Sub/IC1001-B1 pin) "H" detection	After detection, execute AC_OFF processing, and the power is turned OFF.		
WiFi Module Over Current Detection	W-LAN Error	-	USB W ERR (0 to 255 displayed)	Overcurrent in the power supply to WiFi Module (Wireless LAN Converter) is detected. The assumption is a failure in Module. XERR_USB_W (Sub/IC702-12 pin) "L" detection	1) Transit POW_USB_W (IC1702-64 pin) to Low. 2) Error is displayed at GUI (not confirmed during a high-speed startup Standby), and the keys other than the Standby/On key become invalid.	Power OFF → Power ON effects a return.	Since POW_USB_W remains in High to turn ON the power by ControlApp, the detection continues even after the transition to the high-speed startup Standby. When the detection is confirmed during the high-speed startup Standby, transit POW_USB_W to Low. After that, when the power is turned ON, POW_USB_W is set to High and after a lapse of 10 ms, the detection starts again.
Front USB Over Current Detection	Over Current	-	USB (0 to 255 displayed)	Overcurrent in the power supply to Front USB (iPod/iPhone/iPad/USB memory) is detected. The assumption is a failure in Module. XERR_USB_F (Main/IC1504-D2 pin) "L" detection	1) Transit POW_USB_F to Low.	Power OFF → Power ON effects a return.	
Front USB Over Voltage Detection	-	Standby LED	-	Overcurrent in the power supply to Front USB (iPod/iPhone/iPad/USB memory) is detected. The assumption is a failure in DCDC Converter. XDDCERR_USB_F (Sub/IC1001-40 pin) "L" detection	Immediately shut down.	Not returnable Only releasing method described below	This protection operation is intended for protection of the external connection equipment against a failure within the body. The device is put in the unreturnable state in the event of an error.

### [Releasing method for the power ON disabled state]

Input "ESC(A85F)" → "TEST(A85E)" on the service remote controller (GGF1381).

## 5.3 PROTECTION CIRCUIT OPERATION UNDER EXCESS POWER SUPPLY VOLTAGE

### A [Why a protection circuit is mounted]

The unit is designed to turn OFF the primary AC relay of the transformer when overvoltage is detected for the purpose of protecting those parts connected to the power supply output in case of I/O short-circuit in the power supply regulator and DC/DC converter.

### [Power supplies to be protected]

The following power supply circuits:

- V+3R3\_DIR
- V+2R3\_DSP
- V+3R3\_DSP
- V+3R3\_USB

### B [Description of circuit operation]

In case the output voltage of target power supplies above exceeds approx. 7V, the circuit forcibly turns the ACWP port to Low.

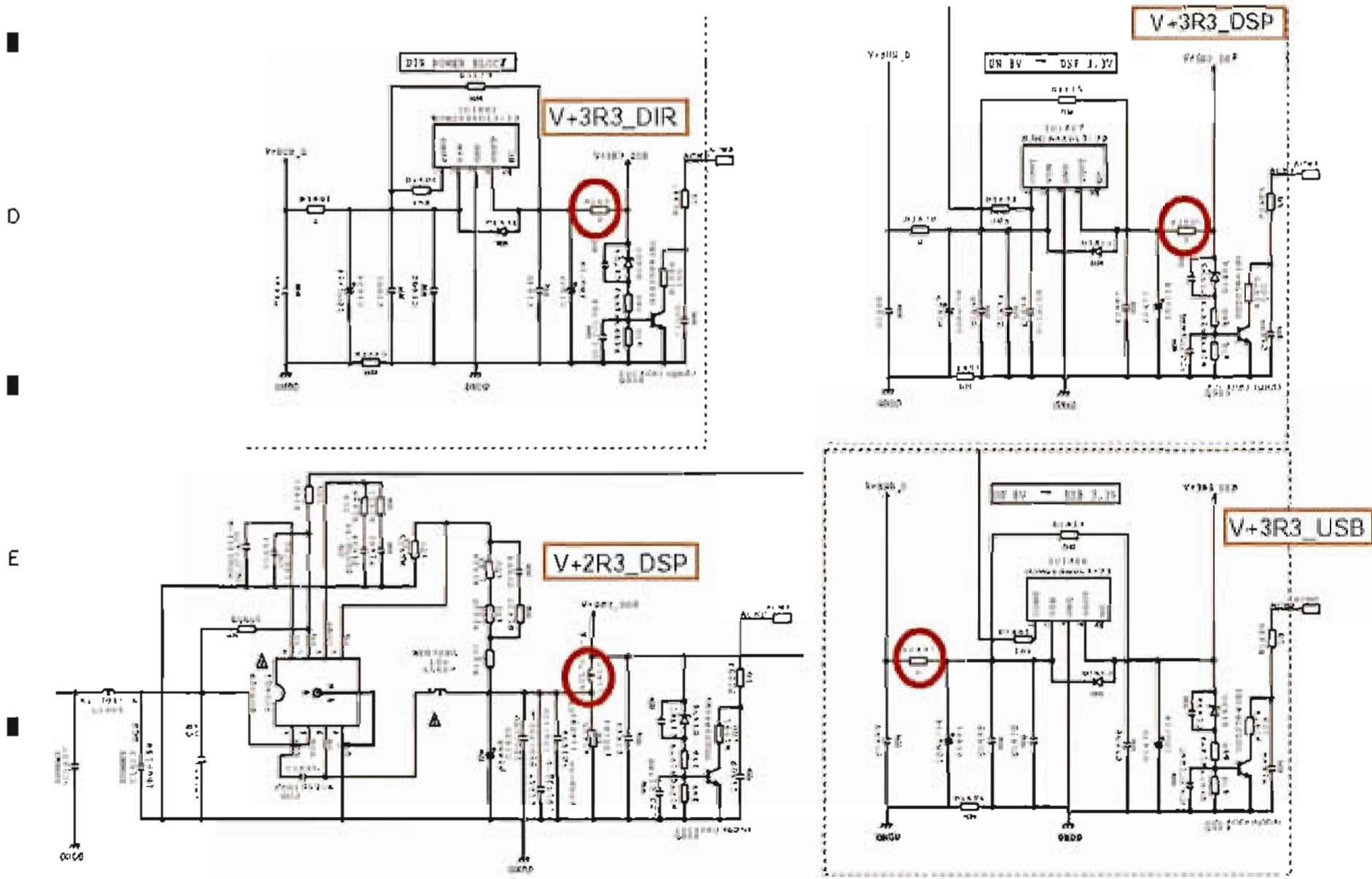
The main microcomputer identifies the loss of AC power and shuts down the unit. => Standby OFF

### [Failure part diagnosis]

The faulty circuit in the target power supplies can be identified if AC\_ON is ready in case the chip jumper (resistor) or inductor of the power supply output line is removed.

- V+3R3\_DIR R1693
- V+2R3\_DSP L1610
- V+3R3\_DSP R1695
- V+3R3\_USB R1637

Check V+3R3\_USB : Input side jumper (R1637) is removed.



## 6. SERVICE MODE

N-70A/N-50A provide two types of service modes.

- System Information Display Mode
- Test Mode

### 6.1 SYSTEM INFORMATION DISPLAY MODE

System Information Display Mode provides a dedicated menu.

Following items are executed from the menu list.

- Version confirmation of MainCPU / SubCPU / BcoCPU / DSP
- Confirmation of model information (N-70A or N-50A)
- Confirmation of region information (Japan or Europe)
- Confirmation of network information

#### How to Enter System Information Display Mode.

System information menu is activated by inputting "ESC(A85F)" -> "DISP(A843)" on the Service Remote Control Unit GGF1381 while the power of the Main Unit is ON.

- \* When inputting other Remote Control Unit input between "ESC" and "DISP", the menu will not be activated.
- Also, the input state of the "ESC" key is erased when the power is turned OFF.

#### How to Exit System Information Display Mode.

Exit the menu by function switching, power is turned OFF, input of the [RETURN] key on the Service Remote Control Unit, or the [■] button on the Main Unit.

#### Menu

Operation of the menu is performed by cursor keys on the Remote Control Unit of the product.

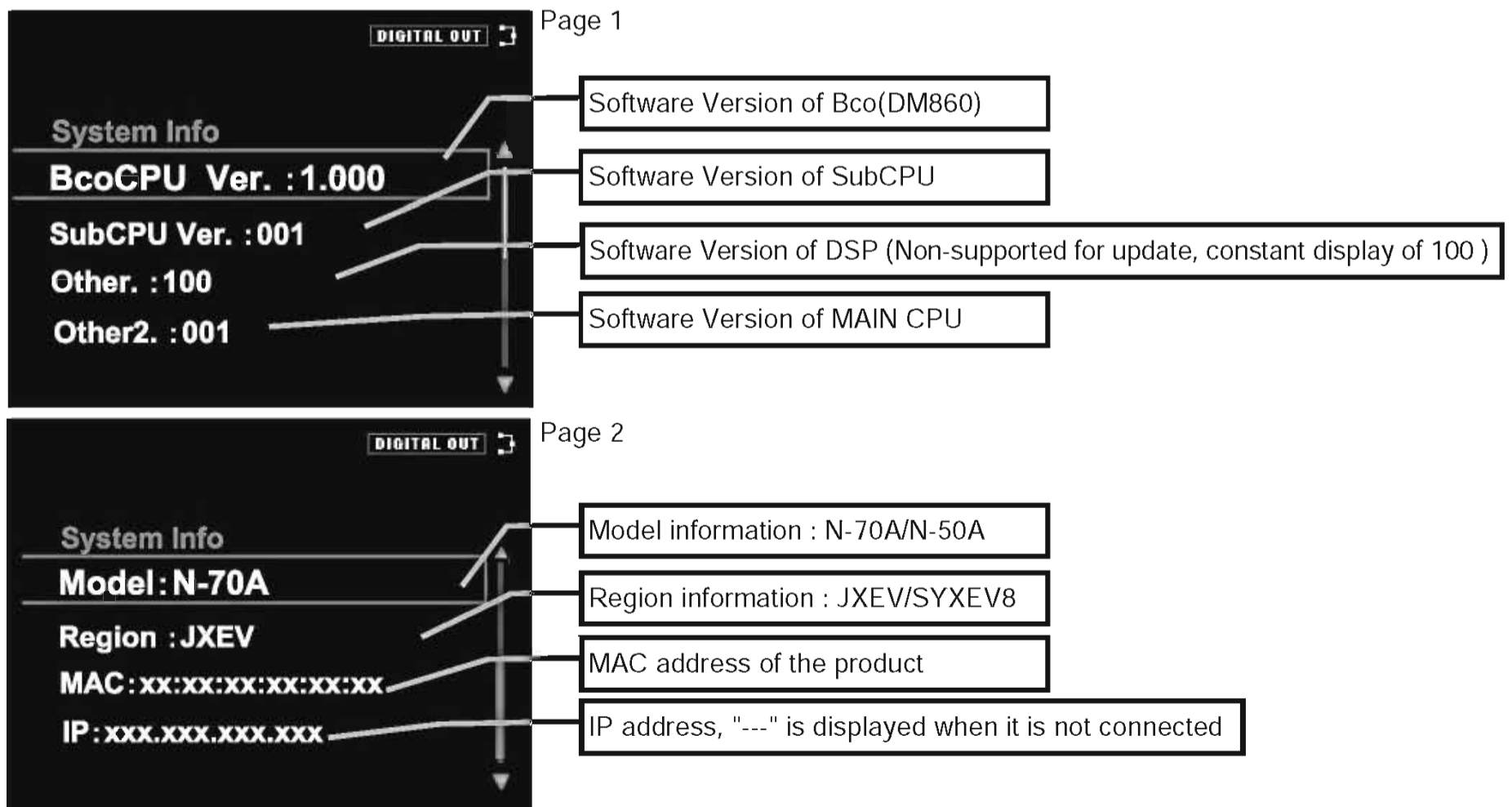
In addition, the menu operation can be done with buttons on the Main Unit when the Remote Control Unit is not included. In that case, they work as follows;



■ : Exit System Information Display Menu

In the System Information Display Mode, following screens are displayed.

[Samples of display screens] (When the language setting is English.)



## 6.2 TEST MODE

In the Test Mode, the LED lighting and LCD display (dead pixels) on the Main Unit are confirmed. Also the Factory Default Settings can be implemented.

### How to Enter System Information Display Mode

Press "ESC(A85F)" -> "FRM/TIM(A841)" on the Service Remote Control Unit GGF1381 while the power of the Main Unit is ON.

- \* When inputting other Remote Control Unit input between "ESC" and "FRM/TIM", the mode will not be activated.
- Also, the input state of the "ESC" key is erased when the power is turned OFF.

### How to Exit System Information Display Mode

Exit the Test Mode by function switching or power is turned OFF.

### How to operate

Test Mode displays the following screen. In this mode, the LEDs does light up (STANDBY/ON, STANDBY, DIRECT, Hi-Bit32, Up Sampling) on the Main Unit. The LEDs stay lighting during the Test Mode.

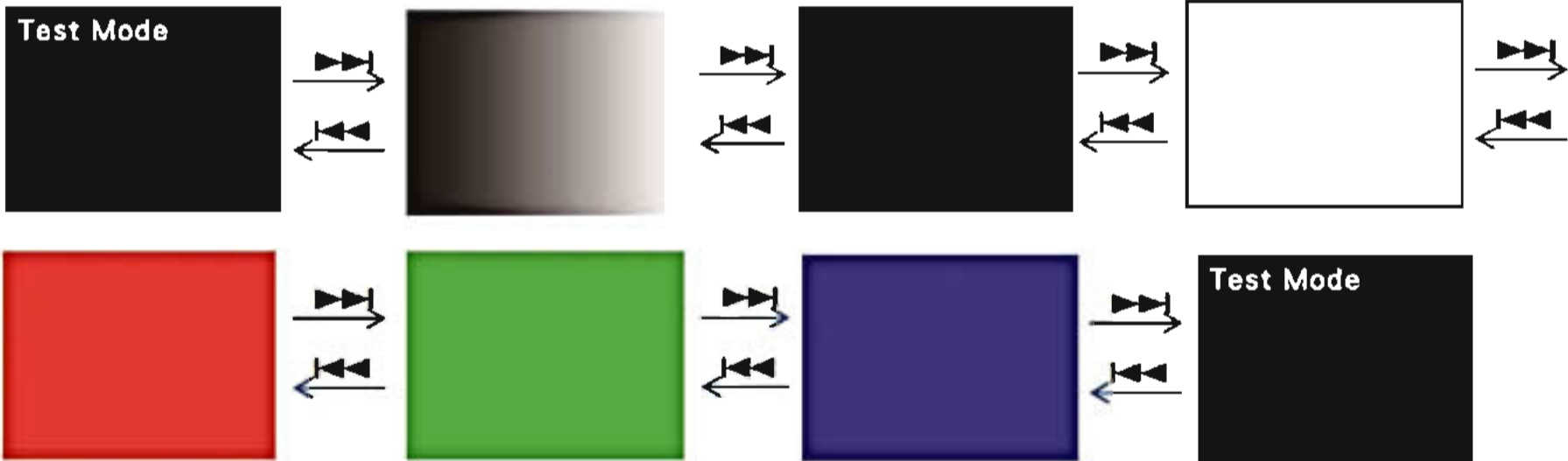
- \* The brightness of the LEDs other than STANDBY LED (RED) varies depending on the DIMMER settings.



### Confirmation of LCD and LED displays

On the Test Mode screen, move to the previous screen or the next screen using the Remote Control Unit or Main Unit by ◀▶ keys.

[Transition of display screens]



### Factory Default Settings

Factory Default Settings are implemented on any screen in the Test Mode using the Remote Control Unit or Main Unit by ▶/|| key.

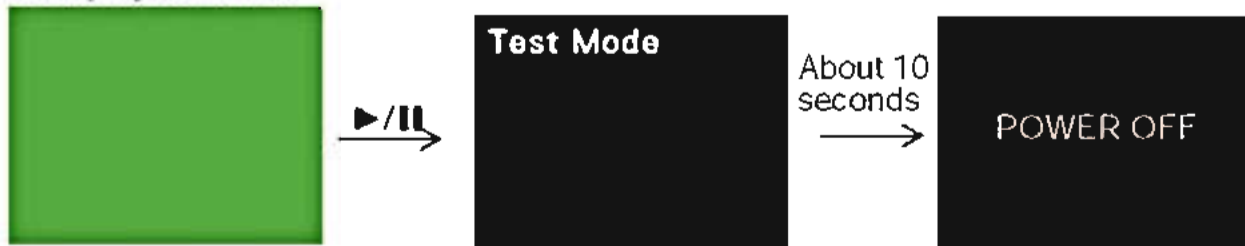
The screen is returned to the Test Mode screen while conducting the Factory Default Settings.

Then, after the completion of the processes (about 10 seconds later), the power will be automatically turned OFF.

- \* Do not turn the power OFF during processing the Factory Default Settings.

\* When the mode is not the Test Mode, the Factory Default Settings can be conducted from [Initial Setup] - [Factory Reset]. With either method, the Factory Default Settings are proceeded in the same way.

[Display screens]



## 6.3 DEFAULT SETTING VALUE

	Items	N-70A		N-50A		Variable Range
		SYXEV8	JXEV	SYXEV8	JXEV	
Basic Functions	Headphone VOLUME	MIN (0)		iPod/USB Front		MIN(0) - MAX(50)
	SOURCE SELECT	Available / Not Available		Available / Not Available		All Functions
SOUND Systems	Availability of SPO TIFY Function	LEVEL3		LEVEL3		Available / Not Available
	DIMMER	*1		OFF		LEVEL3 / LEVEL2 / LEVEL1
	NETWORK STANDBY	15min		15min		ON / OFF
	Auto Power Down(APD)	OFF		OFF		OFF / 15min / 30min / 60min
	DIRECT	ON		ON		ON / OFF
	A.S.R	OFF		OFF		ON / OFF
	A.L.C	OFF		OFF		ON / OFF
	Hi-Bit32	*2		ON		ON / OFF
	UP SAMPLING	*3		ON		ON / OFF
	BALANCE Polarity Setting	2-HOT/3-COLD		2-HOT/3-COLD		2-HOT/3-COLD, 2-COLD/3-HOT
Setting Systems	DIGITAL OUT	ON		ON		ON / OFF
	Lock Range Adjust	7		7		7 - 1
	iPod/USB Front	7		7		7 - 1
	iPod/USB Rear	7		7		7 - 1
	USB DAC In	7		7		7 - 1
	Music Server	7		7		7 - 1
	Internet Radio	7		7		7 - 1
	Spotify	7		7		7 - 1
	Favorites	7		7		7 - 1
	Digital In 1	7		7		7 - 1
	Digital In 2	7		7		7 - 1
	AirPlay	7		7		7 - 1
	DMR	7		7		7 - 1
NETWORK Systems	Digital Filter DSD	Mode1		Mode1 / Mode2 / Mode3		Mode1 / Mode2 / Mode3
	Digital Filter PCM	SHARP		SHARP		SLOW / SHARP / SHORT
Display Systems	DHCP	ON		ON		ON / OFF
	IP Address	(null)		(null)		0.0.0.0 - 255.255.255.255
	Sub Netmask	(null)		(null)		0.0.0.0 - 255.255.255.255
	Gateway	(null)		(null)		0.0.0.0 - 255.255.255.255
	DNS1	(null)		(null)		0.0.0.0 - 255.255.255.255
	DNS2	(null)		(null)		0.0.0.0 - 255.255.255.255
	Proxy Setup	Don't Use		Don't Use		Don't Use / Use
	Proxy Server	(null)		(null)		128 Characters
	Proxy Port	(null)		(null)		128 Characters
	Friendly Name	N-70A		N-50A		
Favorites List	0 Station		0 Station		Max 64 Stations	
FONT SET	Eng.-Europe7L	Japanese-Eng. 2L	Eng.-Europe7L	Japanese-Eng. 2L	Eng.-Europe 7L / Japanese-Eng. 2L	
	English *5	Japanese *6	English *5	Japanese *6	*5:English/German/French/Italian/Spanish/Dutch/Russian *6:Japanese/English	
Language	English *5	Japanese *6	English *5	Japanese *6		

No Functions

\* 1 Setting menu for DIMMER is not available and it is set by using the Remote Control Unit only. LEVEL 3 is the brightest mode.

\* 2 Hi-Bit32 LED does not light up because DIRECT ON takes priority. The ON setting of Hi-Bit32 LED will become available after DIRECT is turned OFF.

\* 3 Up Sampling LED does not light up because DIRECT ON takes priority. The ON setting of Up Sampling will become available after DIRECT is turned OFF.

\* 4 Lock Range Adjust can be set by each function.

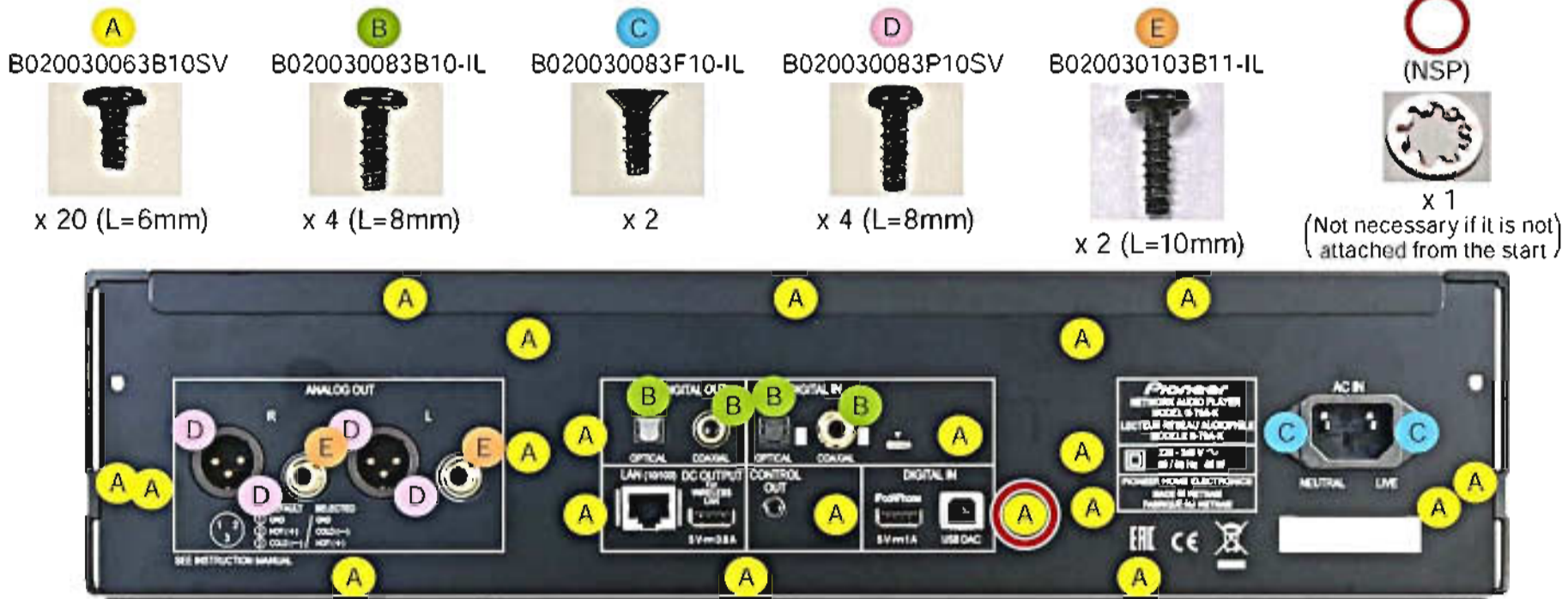
\* 5 English is selected from the Eng.-Europe 7L font set

\* 6 Japanese is selected from the Japanese-Eng. 2L font set

# 7. DISASSEMBLY

**Note :** (1) Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.  
 (2) As for the assembling, please perform assembling following to the opposite procedures of How to Disassemble.  
 (3) For performing the diagnosis shown below, the following jigs for service is required.  
 • 19P board to board extension jig cable (GGD1887)      • 23P board to board extension jig cable (GGD1888)

## [1] Screws for Rear Panel (N-70A-K, N-70A-S)

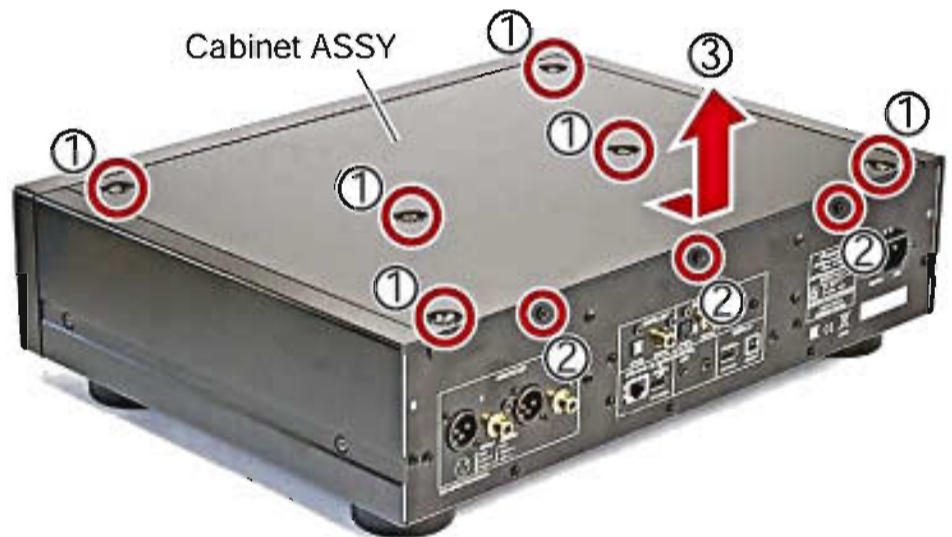


## [2] Disassembly (N-70A-K, N-70A-S)

### [2-1] Exterior

#### [2-1-1] Cabinet ASSY

- Remove the six screws, using the hexagon wrench (2.5mm).  
 (N-70A-K : 1500210736000S)  
 (N-70A-S : 1500210746000S)
- Remove the three screws.  
 (B020030063B10SV)
- Slide the Cabinet ASSY to backward and then take out it upward.



#### Note on assembling:

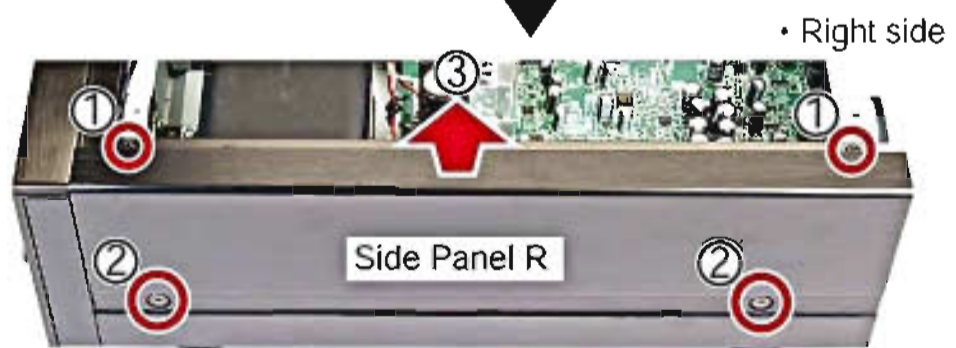
If only Cabinet is replaced, it is required to attach new Cushion, CR Rubber 4 x 40 x 40, Himelon 7 x 80 (2 sheets) and Himelon 7 x 35 (2 sheets), so replace the whole Cabinet ASSY. (Refer to the "[4-1] Cabinet")

#### [2-1-2] Side Panel R, Side Panel L

- Remove the four screws. (B020030061B10SV)
- Remove the four screws, using the hexagon wrench (2.5mm).  
 (N-70A-K : 1500210736000S)  
 (N-70A-S : 1500210746000S)
- Remove the Side Panel R and Side Panel L.

#### Note on assembling:

When replacing the Side Panel R or Side Panel L, attach the new Neoprene Sponge 2 x 35 x 15. (Refer to the "[4-2] Side Panel L, Side Panel R")



## [2-2] Diagnosis to the Side-B of DMAIN ASSY

Remove the exterior.

(Refer to the "[2-1] Exterior")

- (1) Release the cables from the three PCB binders.
- (2) Cut the two binders.
- (3) Remove the two screws. (B020030061B10SV)

### Note on assembling:

\*1: Don't forget the attach of Lug Wire.

- (4) Disconnect the connector.

**Note:** When disconnect the connector, lift up the CNT\_B ASSY horizontally without tilt.

### Note on assembling:

Refer to the (8) to (11) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of each cables.

- (5) Release the 3P Connector ASSY from the PCB binder.
- (6) Disconnect the connector.
- (7) Remove the screw. (B020030061B10SV)

### Note on assembling:

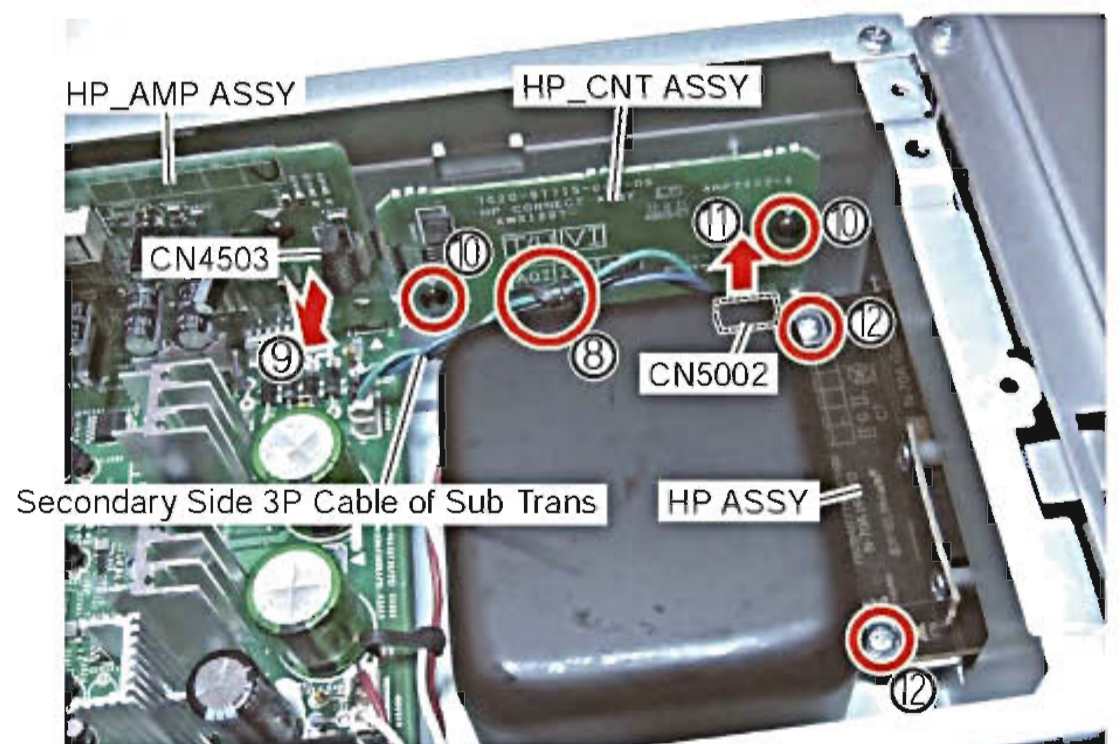
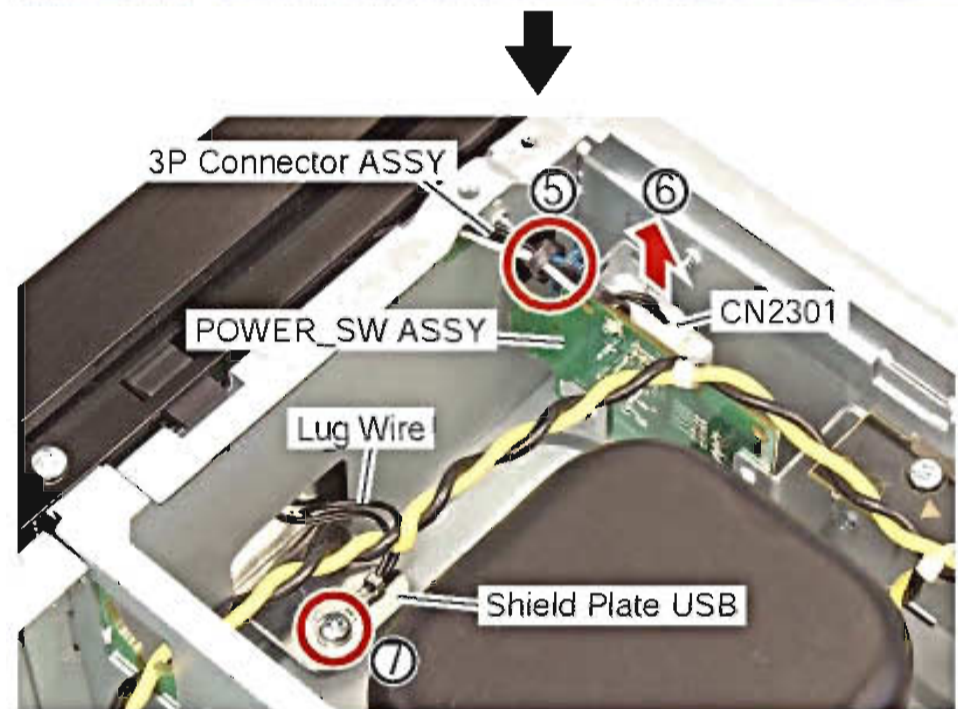
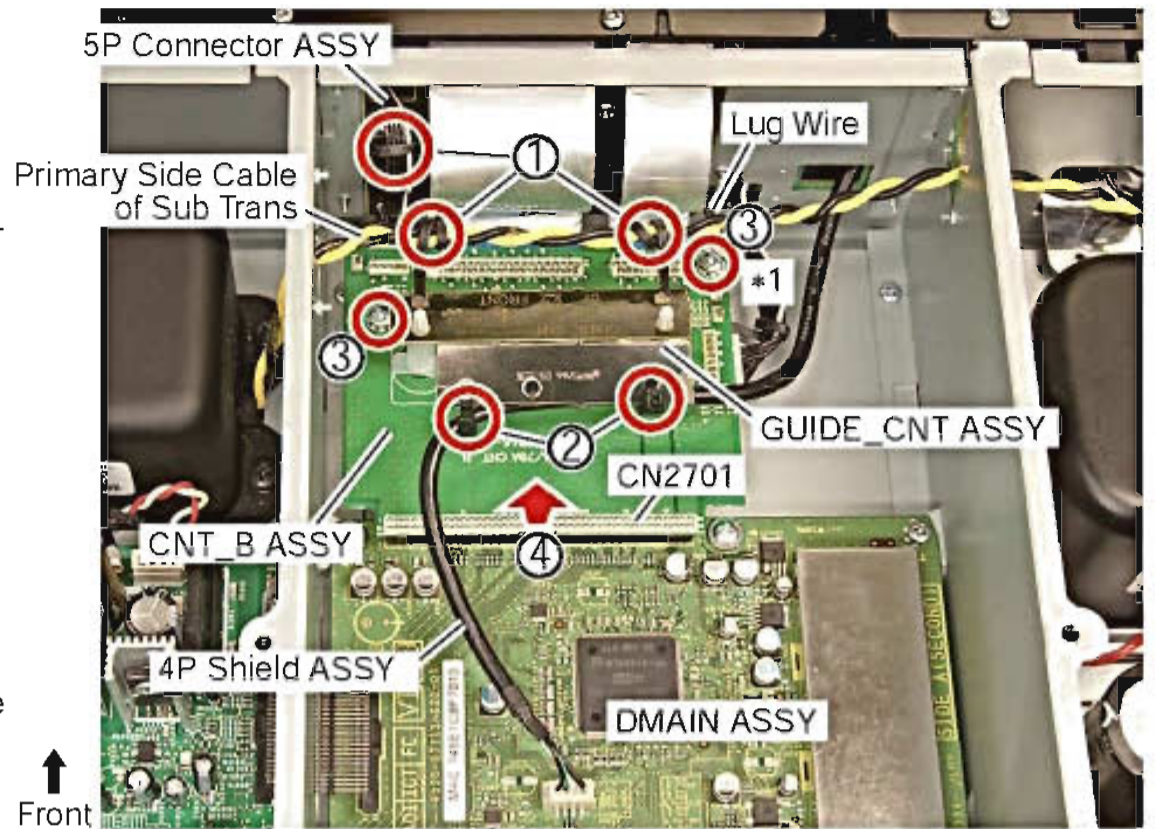
Refer to the (1) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of cable.

- (8) Release the Secondary Side 3P Cable of Sub Trans from the PCB binder.

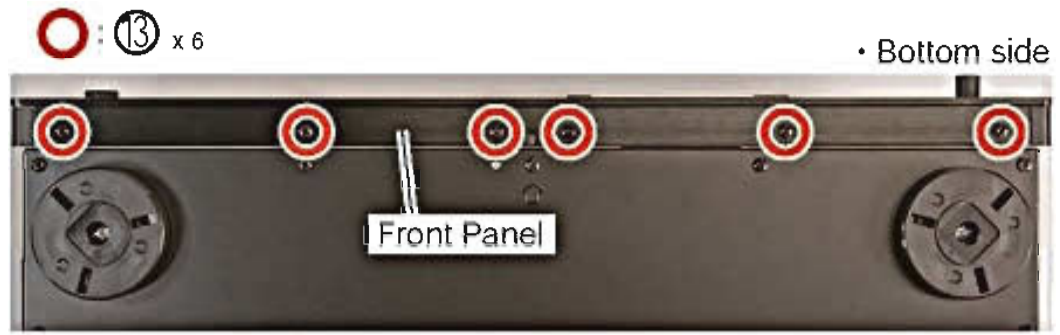
### Note on assembling:

Refer to the (5) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of cable.

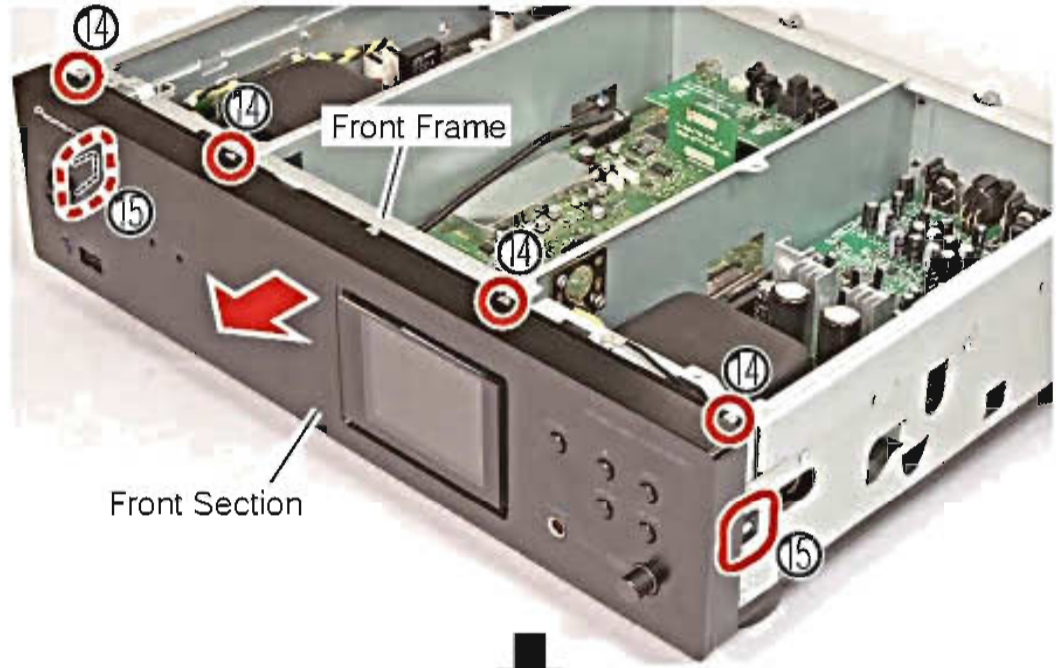
- (9) Disconnect the connector.
- (10) Remove the two rivets.
- (11) Disconnect the connector and then remove the HP\_CNT ASSY.
- (12) Remove the two screws. (B020030061B10SV)



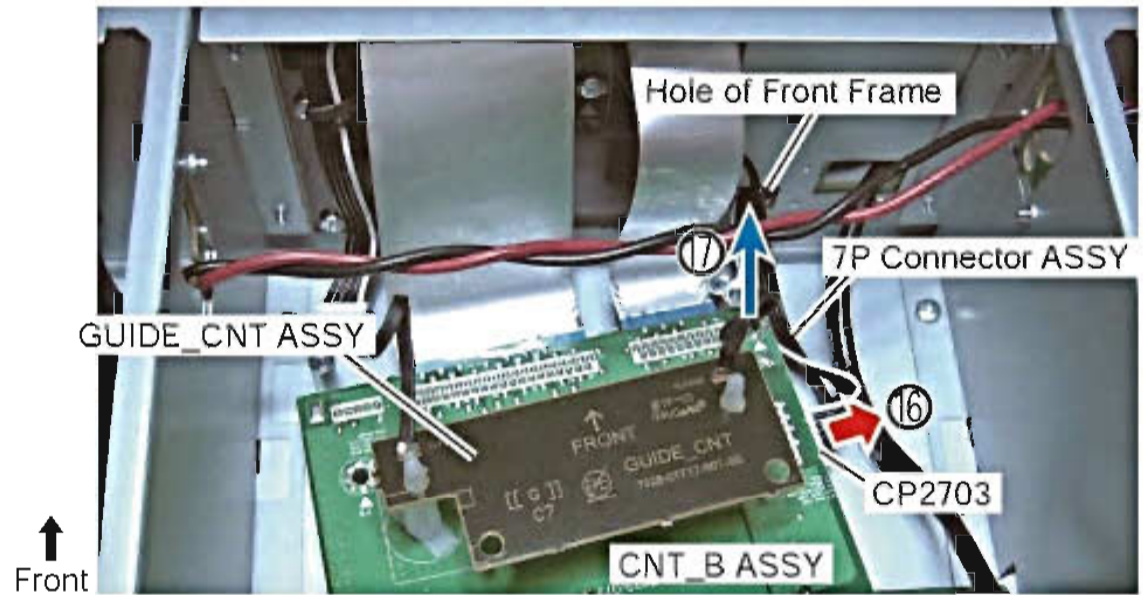
- (13) Remove the six screws.  
 ( N-70A-K : B020030083B10-IL )  
 ( N-70A-S : B020030081B10-IL )



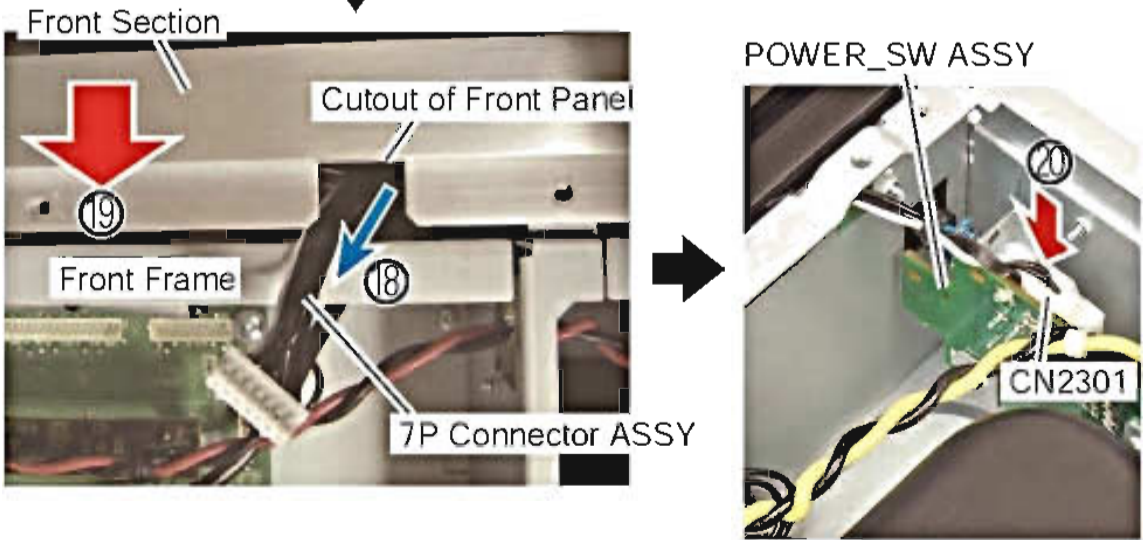
- (14) Remove the four screws.  
 (B020030081B10-IL)
- (15) Unhook the two hooks, pull out the Front Section toward front direction and then provide the gap between Front Frame. Complete removal of Front Section is not necessary.



- (16) Disconnect the connector.
- (17) Pull out the 7P Connector ASSY from the hole of Front Frame.



- (18) Pass the 7P Connector ASSY through the cutout of Front Panel.
- (19) Fix the two hooks which were removed at Step (15) and mount the Front Section. Attach of screws is not necessary.



- (20) Connect the connector.



- (21) Disconnect the two connectors.
- (22) Remove the four screws. (1500001206010-IL)
- (23) Remove the two screws. (1500001206020-IL)

**Note on assembling:**

When attach the DMAIN ASSY, be sure to secure the screws at Rear Panel side first.

- (24) Remove the five screws. (B020030063B10SV)

**Note on assembling:**

- \*2: Attach the Tooth Washer (NSP) to the screw of red frame part. (Not necessary if it is not attached from the start)

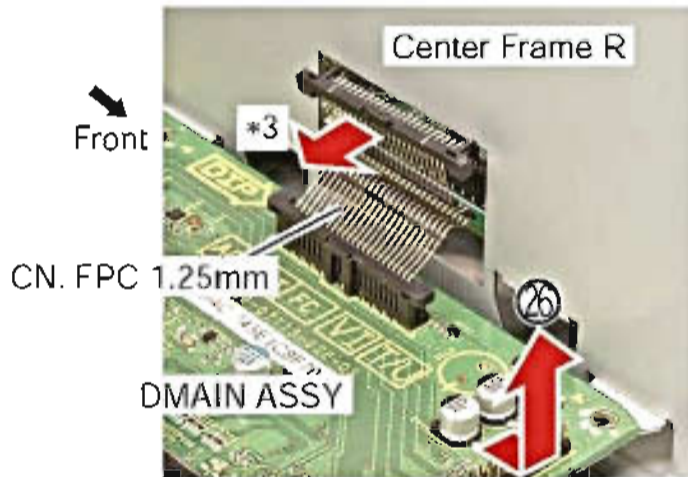


- (25) Remove the four screws. (B020030083B10-IL)

- (26) Remove the DMAIN ASSY (with other parts).

**Note:**

- \*3: Tilt the two CN. FPC 1.25mms toward center side and pull out them from the holes of Center Frame R and Center Frame L.



- (27) Remove the CNT\_A ASSY and JACK ASSY from the DMAIN ASSY.

**Note on assembling:**

When replacing the DMAIN ASSY, peel off the Acetate Tape 25 x 40 from the original DMAIN ASSY and attach it to the new DMAIN ASSY. If the tape cannot be recycled, attach the new Acetate Tape 25 x 40. (Refer to the "[4-3] DMAIN ASSY")

- (28) Reverse the CNT\_B ASSY and then arrange it as shown in the photo.

- (29) Connect the connector.

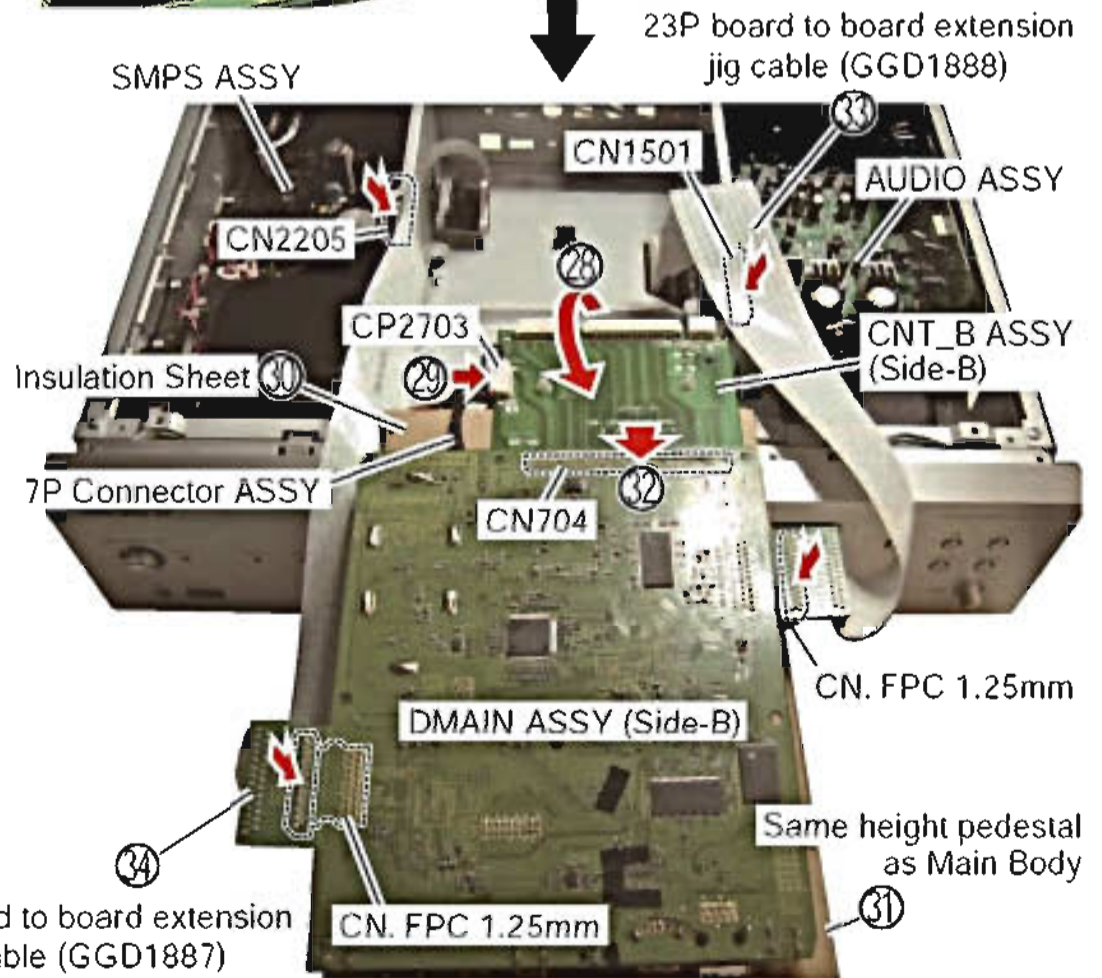
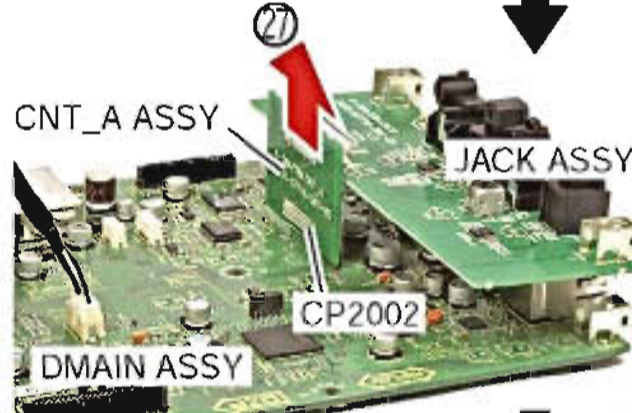
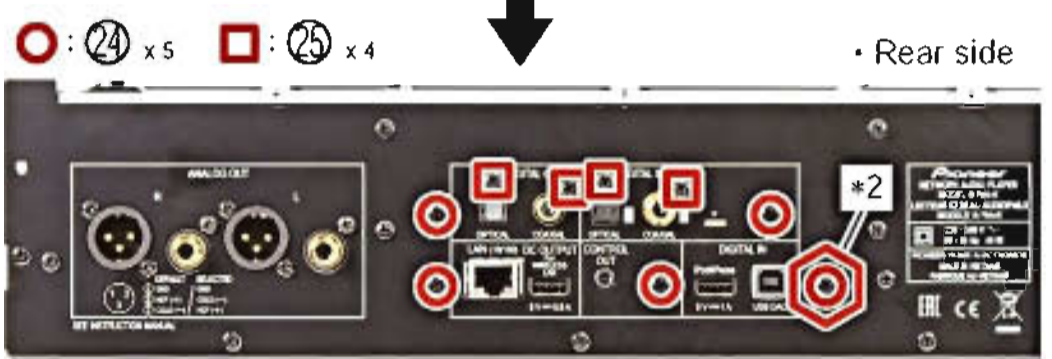
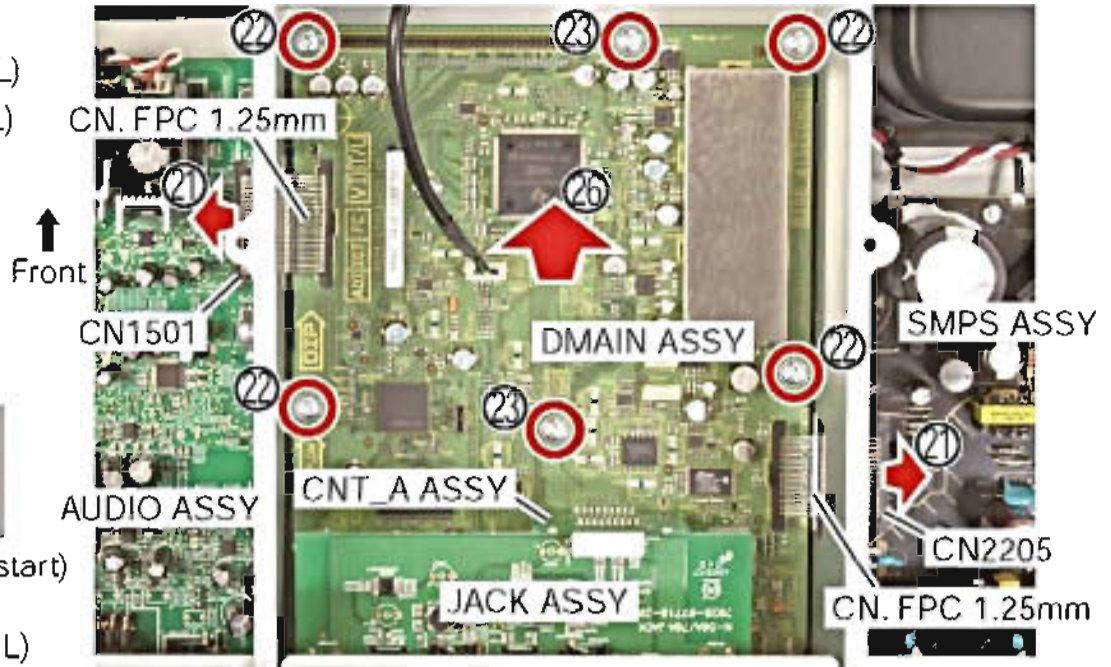
- (30) Insert the Insulation Sheet.

- (31) Set up the same height pedestal as Main Body as shown in the photo.

- (32) Arrange the DMAIN ASSY as shown in the photo and then connect the connector.

- (33) Connect the 23P board to board extension jig cable. (GGD1888) (AUDIO CN1501 <-> CN. FPC 1.25mm)

- (34) Connect the 19P board to board extension jig cable. (GGD1887) (SMPS CN2205 <-> CN. FPC 1.25mm)



### [2-3] Diagnosis to the Side-A of FRONT ASSY

A Remove the exterior.  
(Refer to the "[2-1] Exterior")

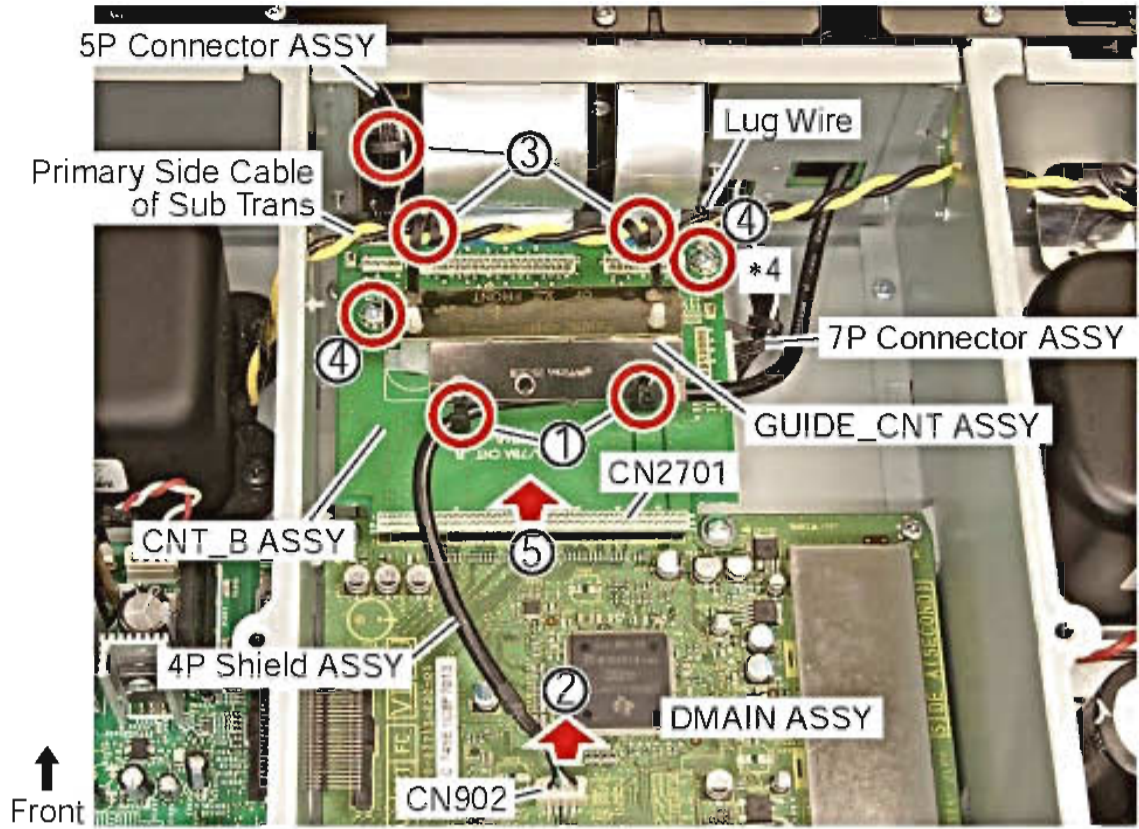
- (1) Cut the two binders.
- (2) Disconnect the connector.
- (3) Release the cables from the three PCB binders.
- (4) Remove the two screws. (B020030061B10SV)

**Note on assembling:**

B \*4: Don't forget the attach of Lug Wire.

- (5) Disconnect the connector.

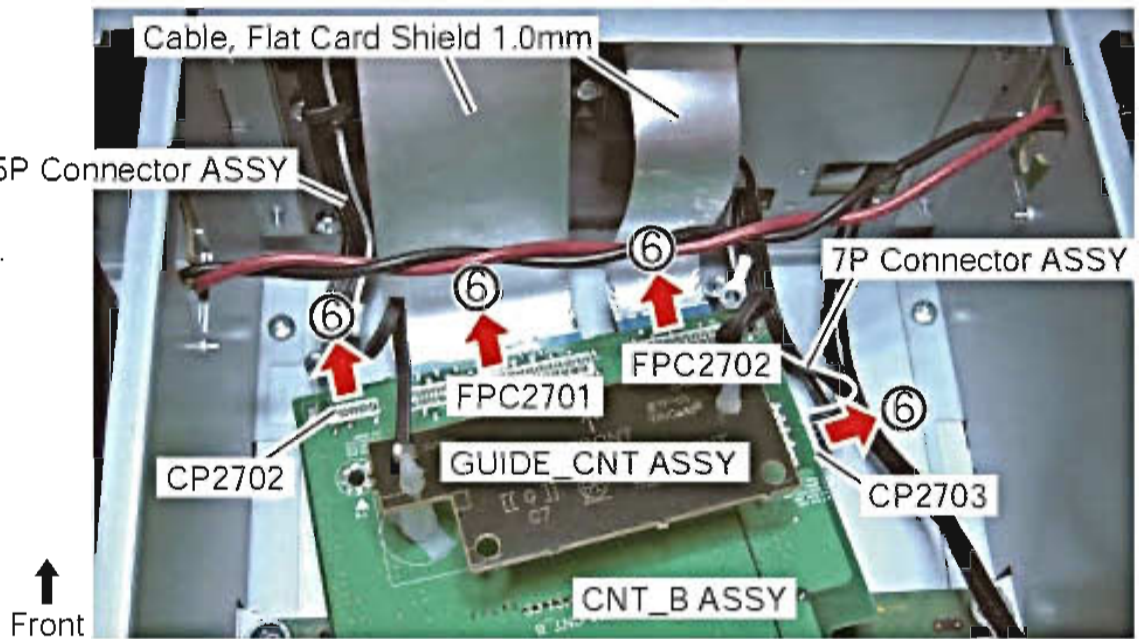
**Note:** When disconnect the connector, lift up the CNT\_B ASSY horizontally without tilt.



**Note on assembling:**

Refer to the (8) to (11) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of each cables.

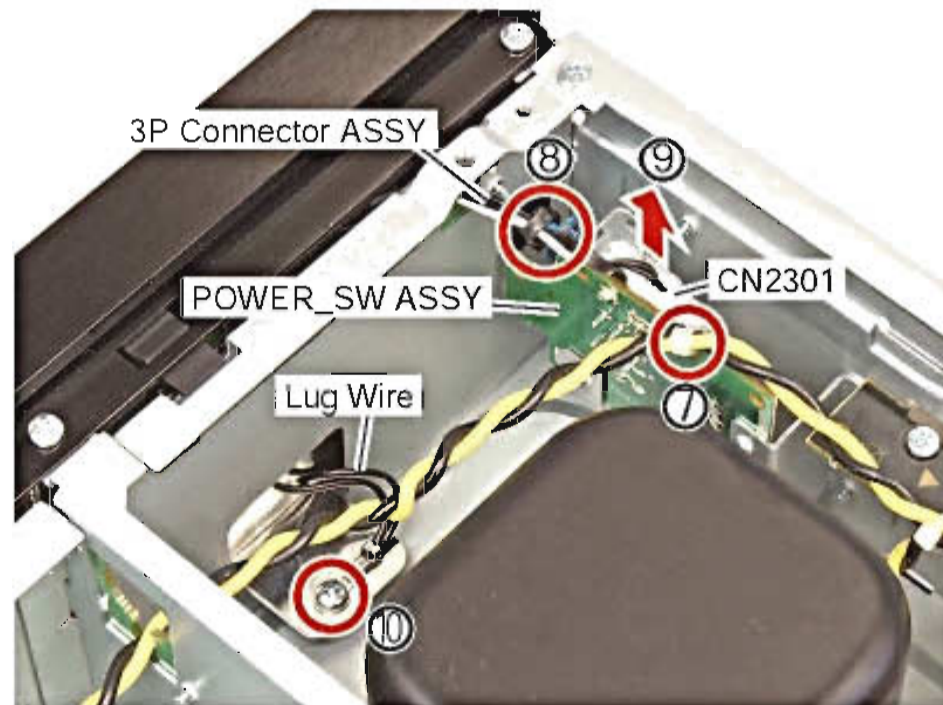
- (6) Disconnect the four connectors and then remove the CNT\_B ASSY (with other parts).



- (7) Cut the binder.
- (8) Release the 3P Connector ASSY from the PCB binder.
- (9) Disconnect the connector.
- (10) Remove the screw. (B020030061B10SV)

**Note on assembling:**

Refer to the (1) and (3) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of each cables.

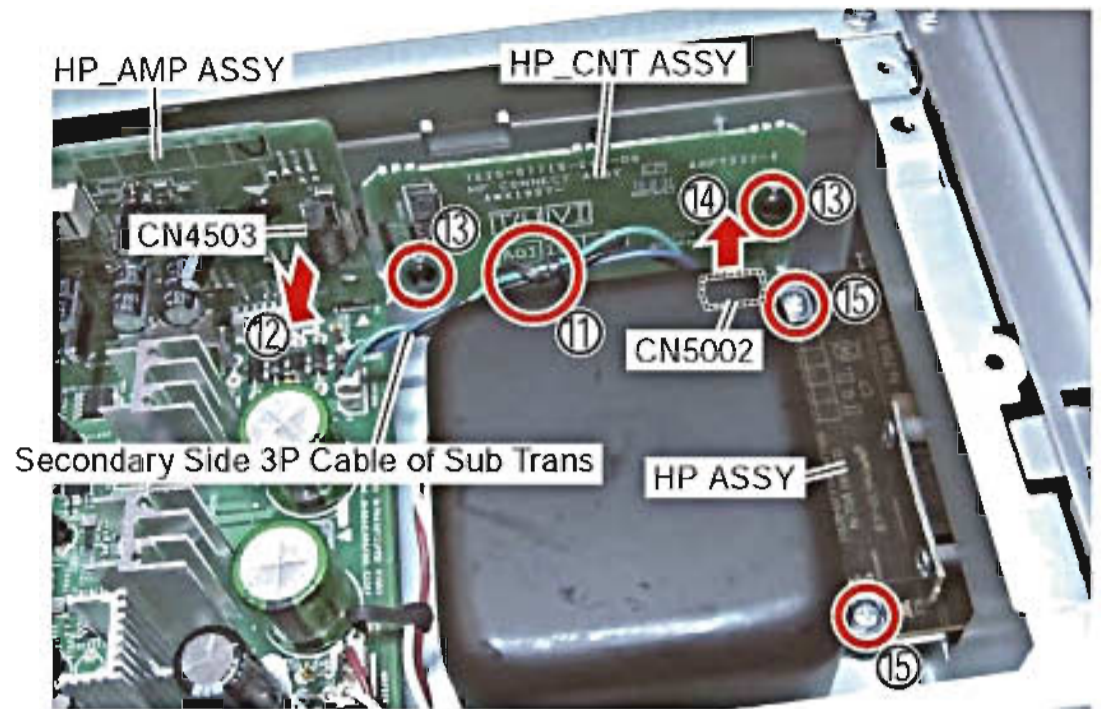


- (11) Release the Secondary Side 3P Cable of Sub Trans from the PCB binder.

**Note on assembling:**

Refer to the (5) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of cable.

- (12) Disconnect the connector.  
 (13) Remove the two rivets.  
 (14) Disconnect the connector and then remove the HP\_CNT ASSY.  
 (15) Remove the two screws.  
 (B020030061B10SV)



- (16) Remove the six screws.  
 (N-70A-K : B020030083B10-IL)  
 (N-70A-S : B020030081B10-IL)

- (17) Remove the four screws.  
 (B020030081B10-IL)

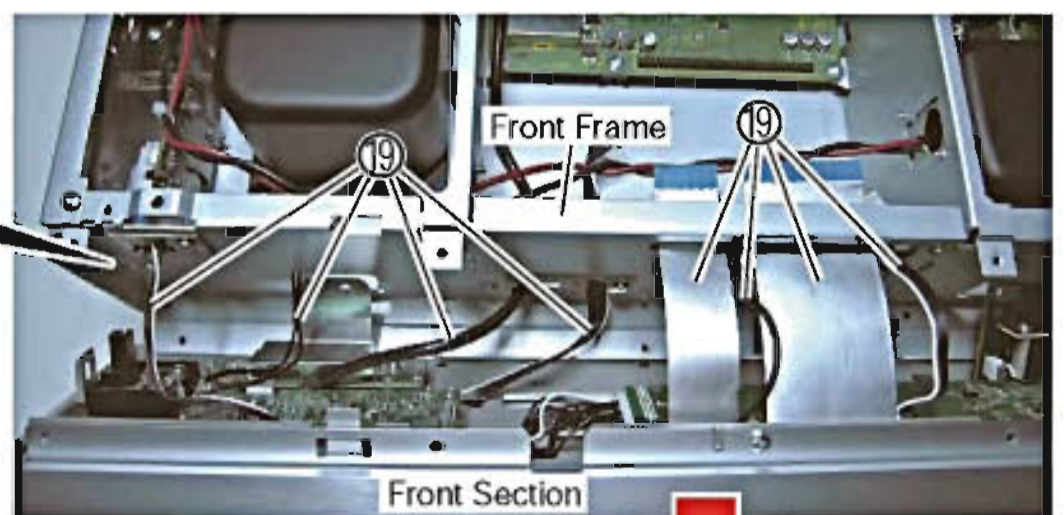
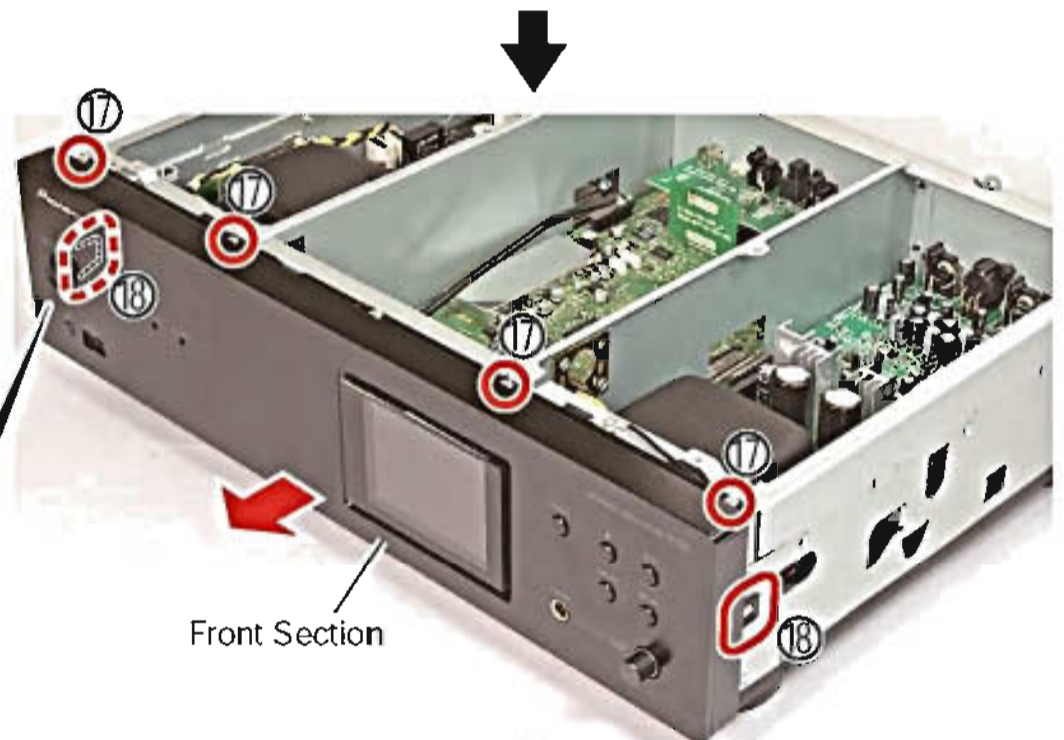
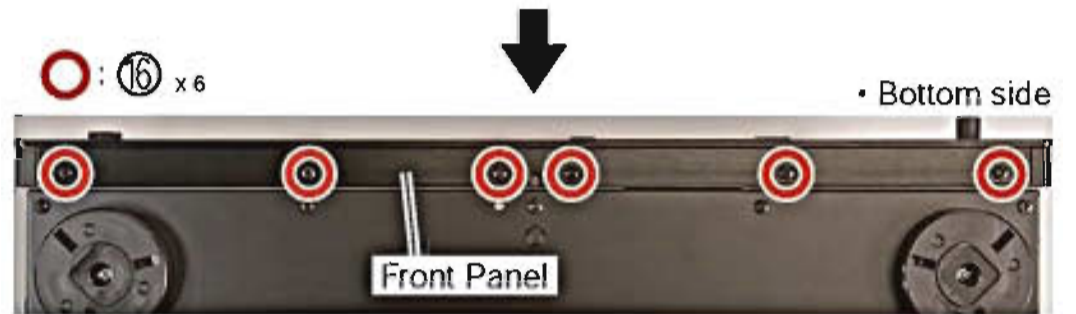
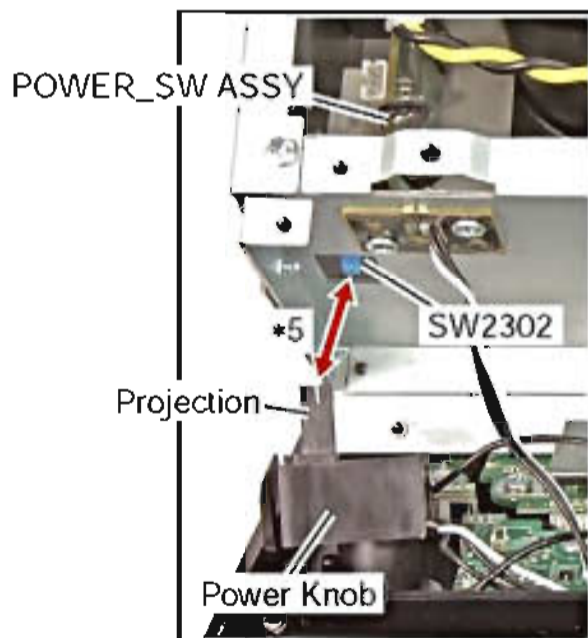
- (18) Unhook the two hooks, pull out the Front Section toward front direction.

**Note:**

- \*5: Remove the Power Knob (with other parts) from the POWER\_SW ASSY.

**Notes on assembling:**

- \*5: Be sure to make the blue section of SW2302 inserting into the projection of Power Knob. Confirm the O/I STANDBY/ON Button operation before fixing the screws which have been removed at Step (17).



- (19) Pull out the eight cables from the holes of Front Frame and then remove the Front Section.

- (20) Disconnect the two connectors.
- (21) Remove the four screws.  
(1500001206010-IL)

A

- (22) Remove the two screws.  
(1500001206020-IL)

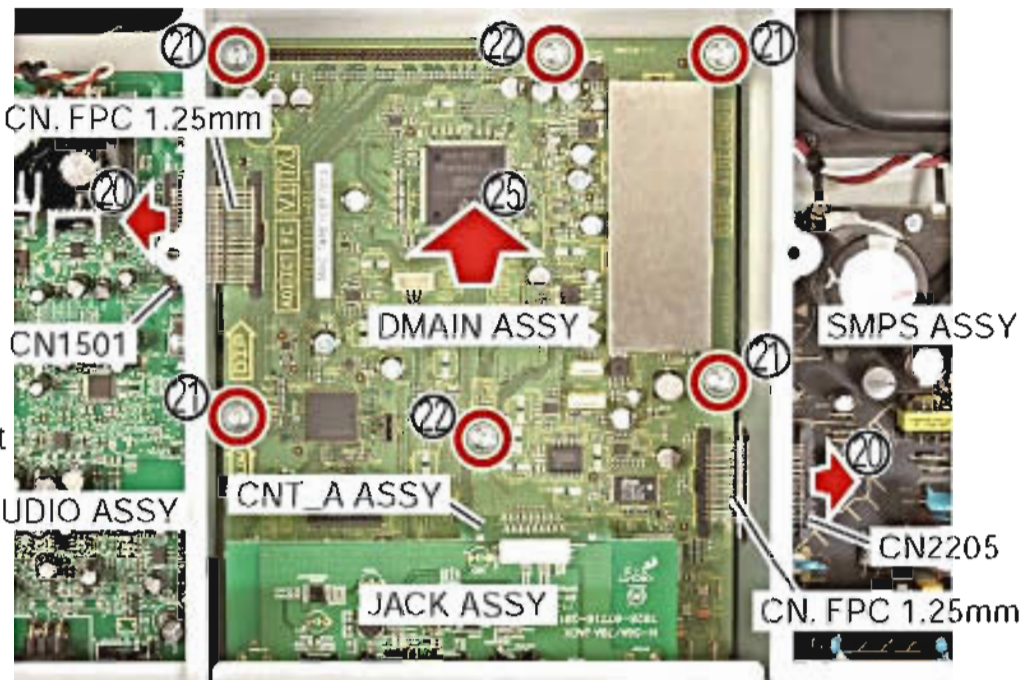
**Note on assembling:**

When attach the DMAIN ASSY, be sure to secure the screws at Rear Panel side first.

- (23) Remove the five screws.  
(B020030063B10SV)

**Note on assembling:**

- \*6: Attach the Tooth Washer (NSP) to the screw of red frame part.  
(Not necessary if it is not attached from the start)



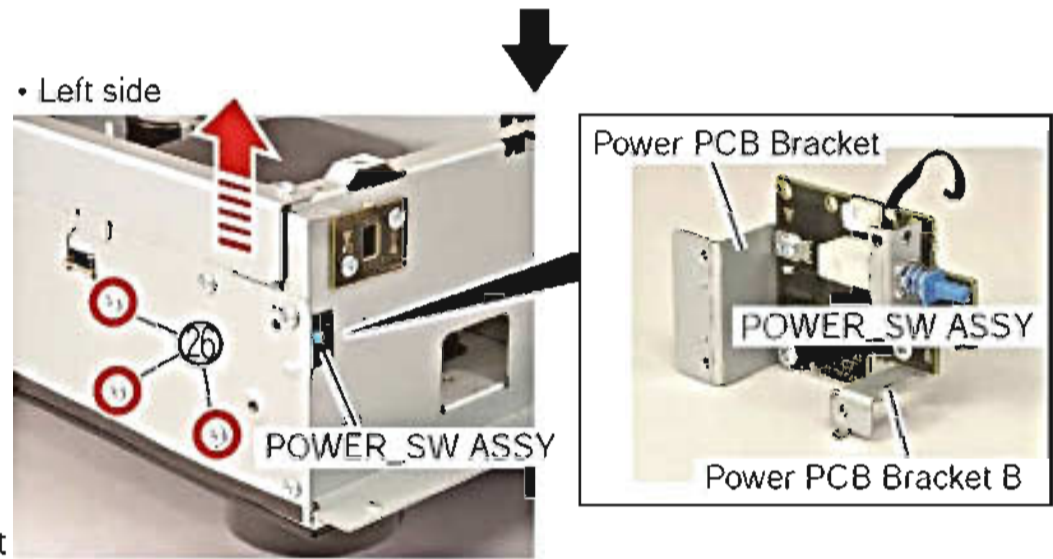
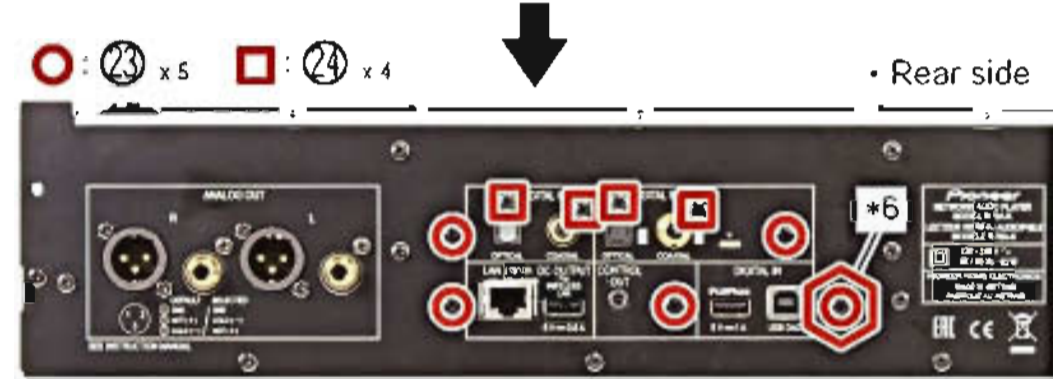
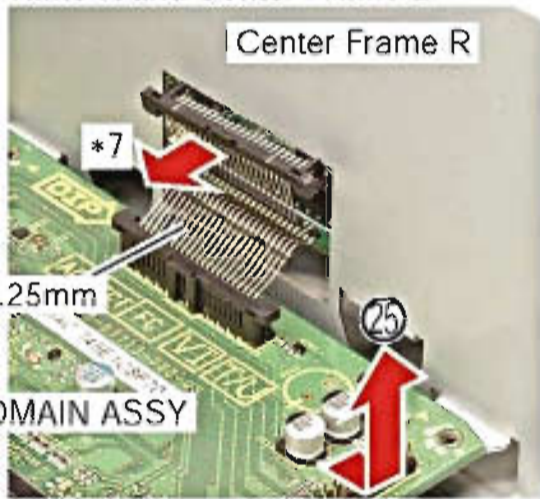
- (24) Remove the four screws.  
(B020030083B10-IL)

- (25) Remove the DMAIN ASSY (with other parts).

**Note:**

- \*7: Tilt the two CN. FPC 1.25mms toward center side and pull out them from the holes of Center Frame R and Center Frame L.

C



**Note on assembling:**

When replacing the DMAIN ASSY, peel off the Acetate Tape 25 x 40 from the original DMAIN ASSY and attach it to the new DMAIN ASSY.

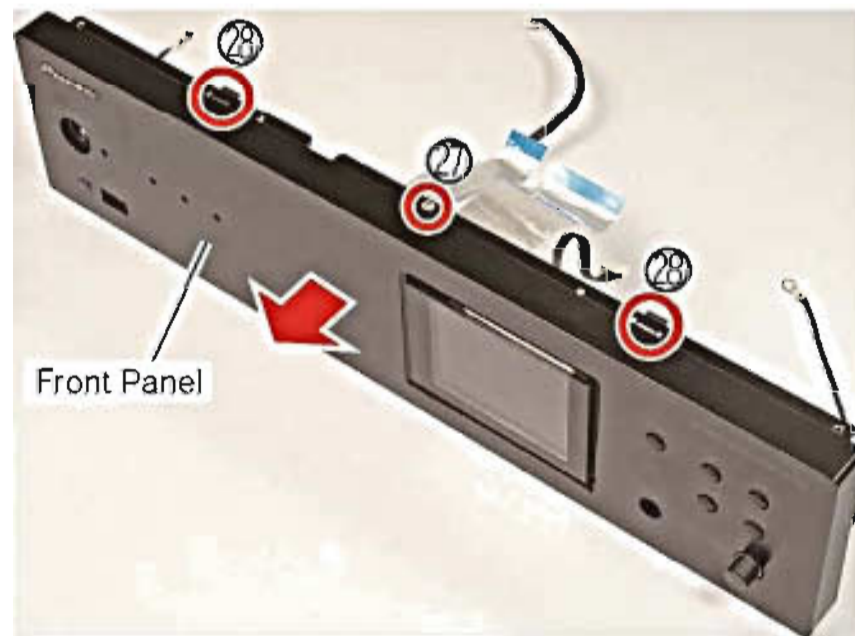
If the tape cannot be recycled, attach the new Acetate Tape 25 x 40.  
(Refer to the "[4-3] DMAIN ASSY")

- (26) Remove the three screws  
(B020030061B10SV) and then remove the POWER\_SW ASSY (with other parts).

E

- (27) Remove the screw of Front Panel.  
(B020030081B10-IL)

- (28) Unhook the two hooks and then remove the Front Panel.



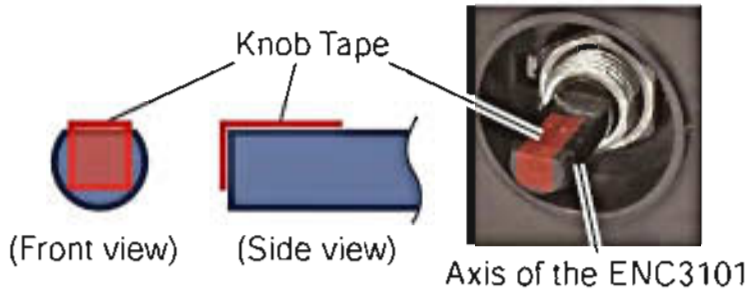
F

(29) Remove the HP Vol. Knob ASSY.

(30) Remove the nut, using the socket wrench (11mm or 12mm).

**Note on assembling:**

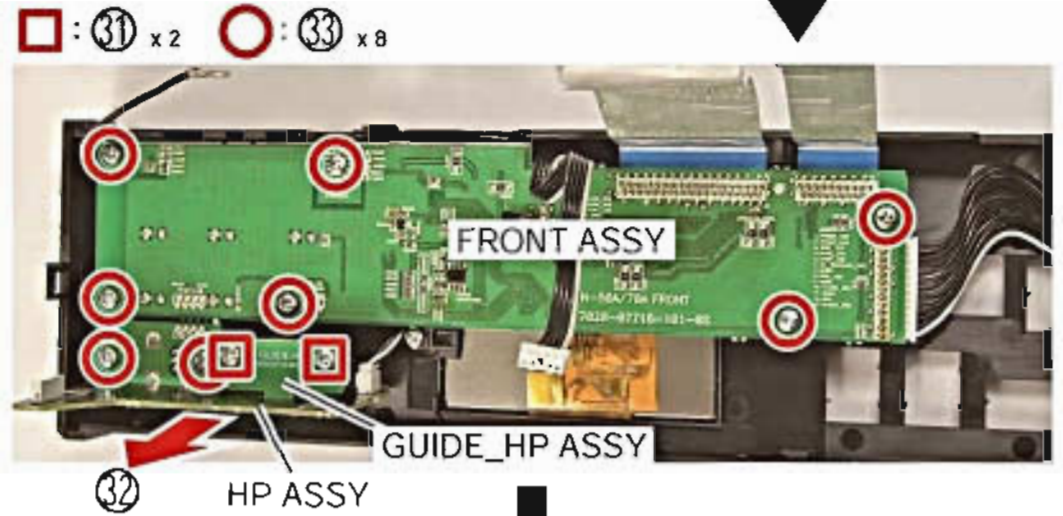
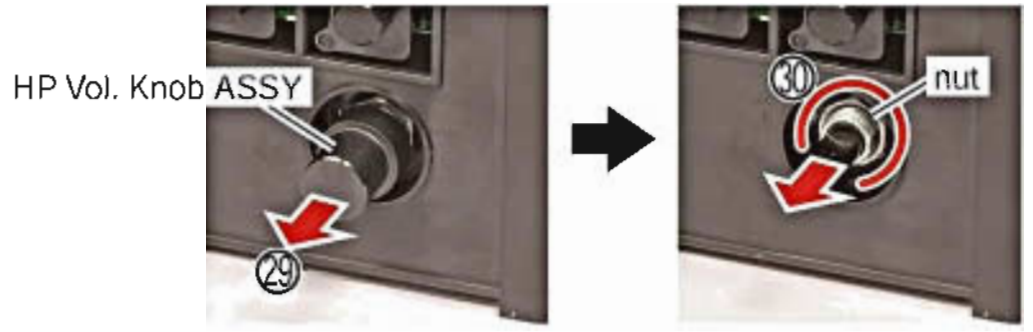
Check the Knob Tape is attach to the position shown in the figure.



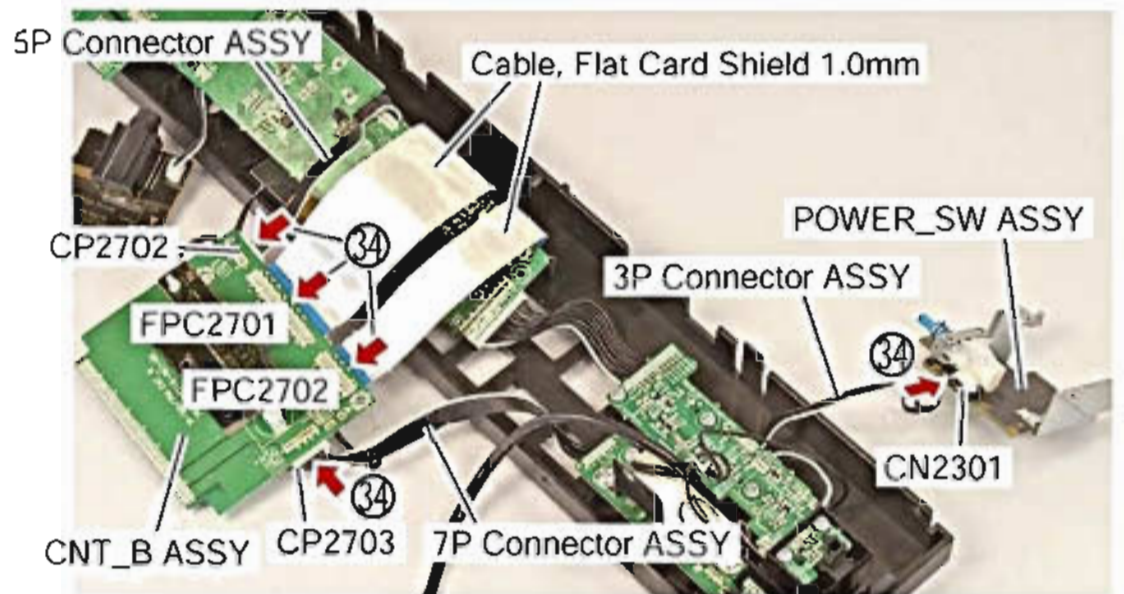
(31) Remove the two screws.  
(B020030081B10-IL)

(32) Remove the GUIDE\_HP ASSY and HP ASSY.  
(Don't disconnect the connector of HP ASSY)

(33) Remove the eight screws.  
(B020030081B10-IL)



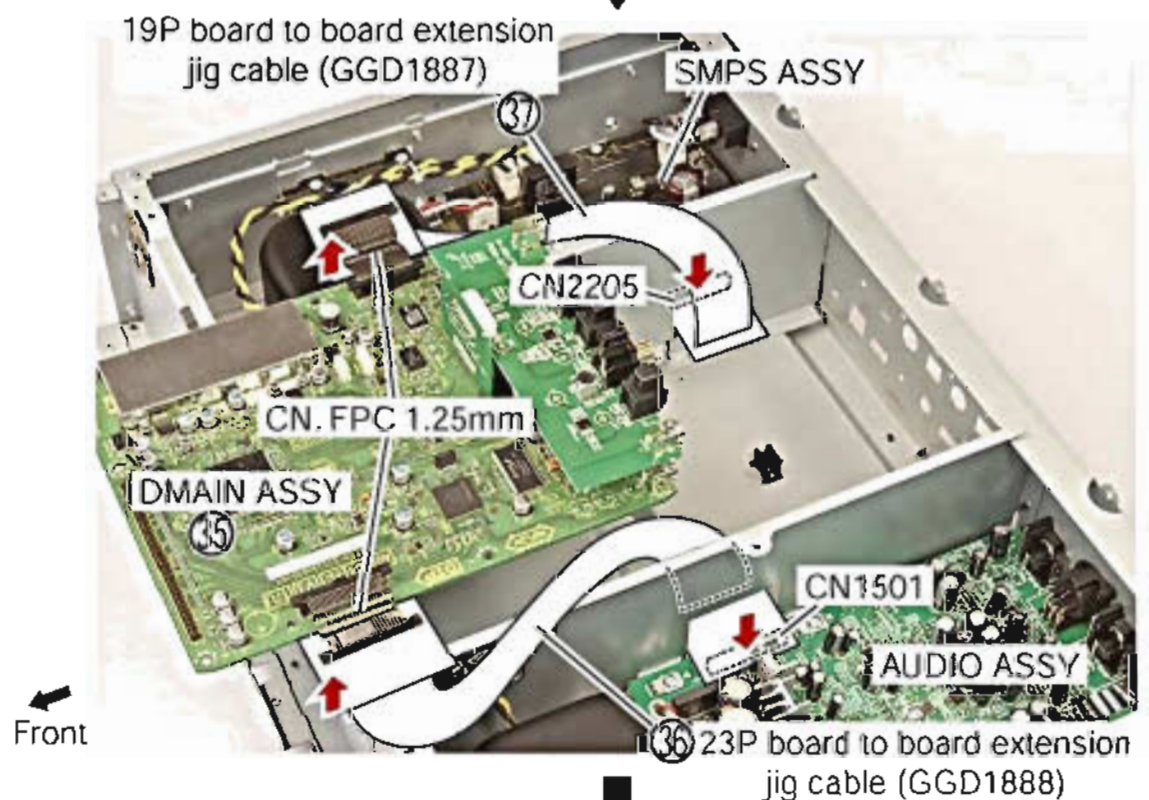
(34) Connect the five connectors.



(35) Set up the DMAIN ASSY (with other parts) on the Main Body as shown in the photo.

(36) Connect the 23P board to board extension jig cable. (GGD1888)  
(AUDIO CN1501 <-> CN. FPC 1.25mm)

(37) Connect the 19P board to board extension jig cable. (GGD1887)  
(SMPS CP2205 <-> CN. FPC 1.25mm)



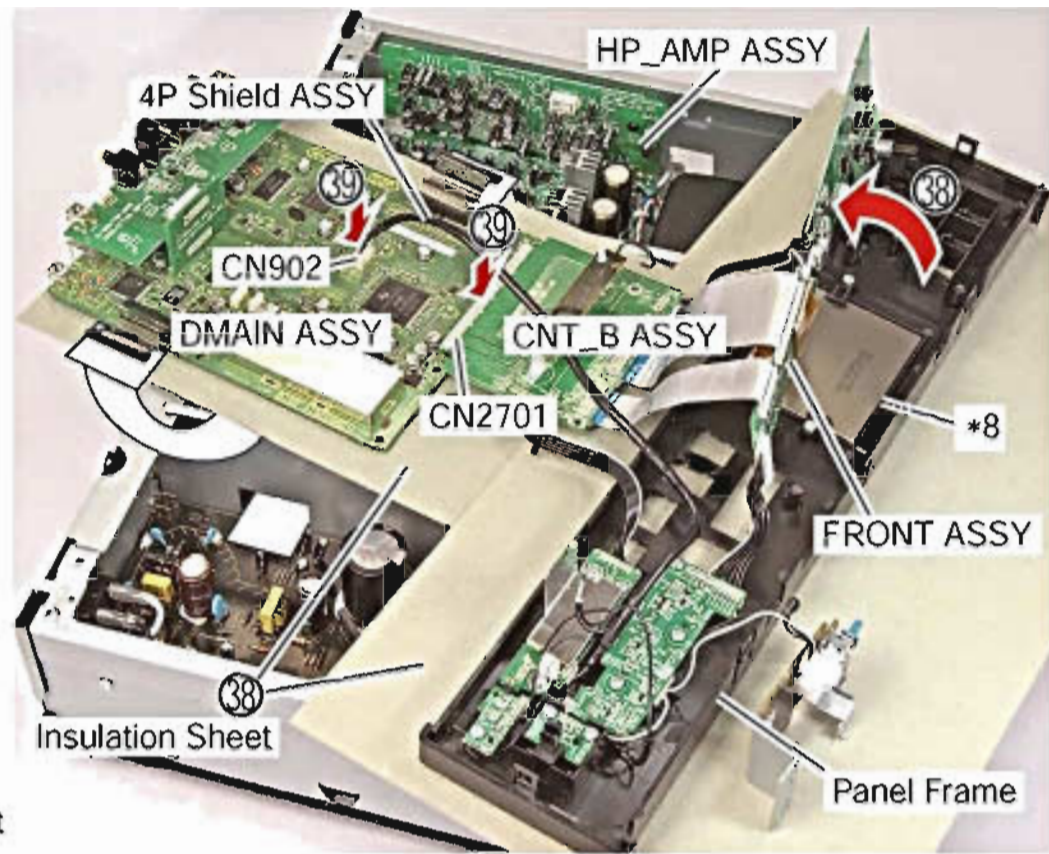
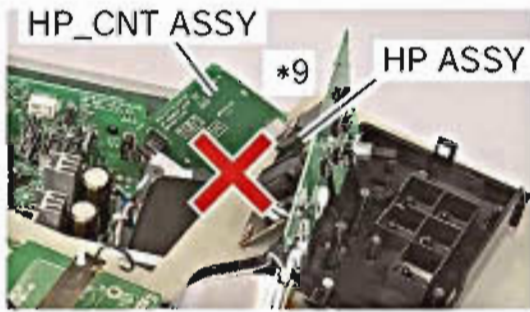
Front

(38) Insert the Insulation Sheets and then Arrange the units as shown in the photo. Raise the top side of FRONT ASSY.

A (39) Connect the two connectors.

**Notes:**

- \*8: Don't damage the Display Window located at the front surface of Panel Frame.
- \*9: For the diagnosis of Side-A of FRONT ASSY, carry out the diagnosis without connecting the HP\_CNT ASSY and HP ASSY.



**Note on assembling:**

When replacing the FRONT ASSY, peel off the Acetate Tape 20 x 40 from the original FRONT ASSY and attach it to the new FRONT ASSY.

If the tape cannot be recycled, attach the new Acetate Tape 20 x 40. (Refer to the "[4-5] FRONT ASSY")

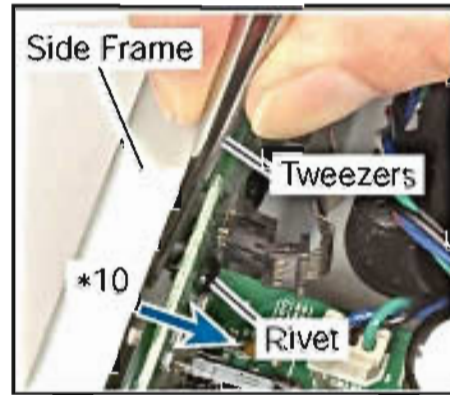
**[2-4] HP\_AMP ASSY, AUDIO ASSY**

Remove the Cabinet ASSY and Side Panel R. (Refer to the "[2-1] Exterior")

- (1) Disconnect the connector.
- (2) Remove the two Rivets.

**Note:**

\*10: The Rivets is able to be removed by inserting the shank part of Tweezers, etc., from a gap without removing the Side Frame.

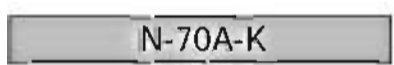
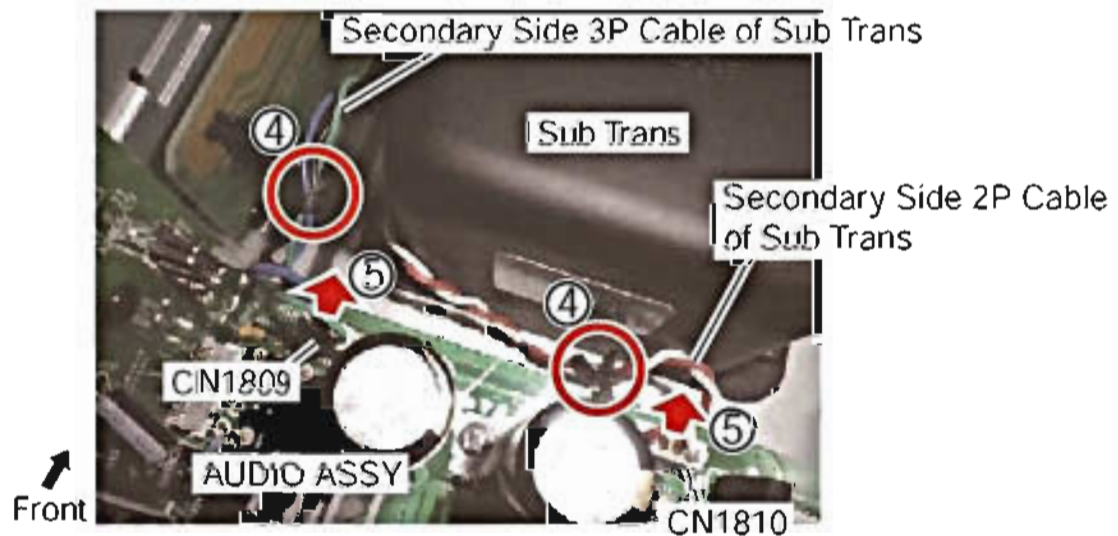


- (3) Disconnect the three connectors and then remove the HP\_AMP ASSY.

- (4) Release the cables from the two PCB binders.
- (5) Disconnect the two connectors.

**Note on assembling:**

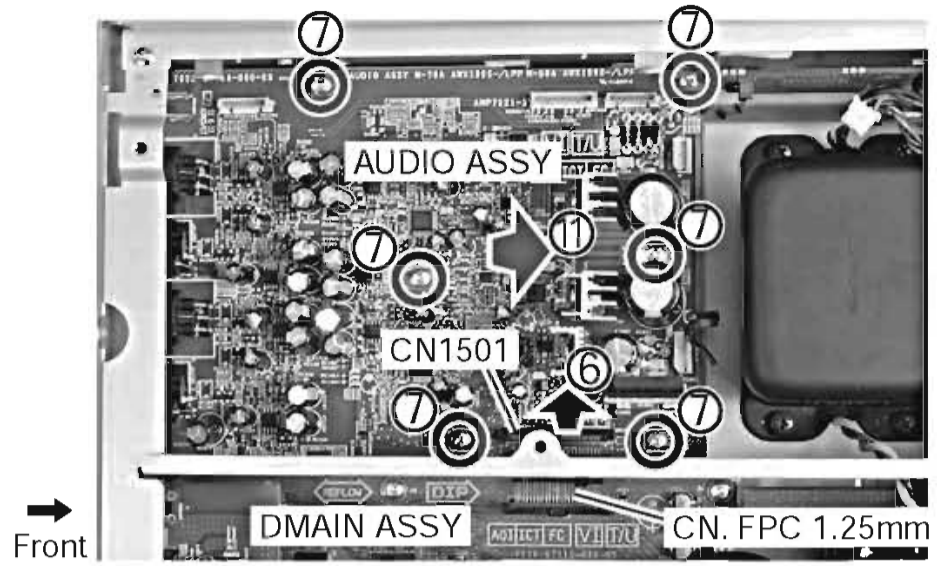
Refer to the (5) and (6) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of each cables.



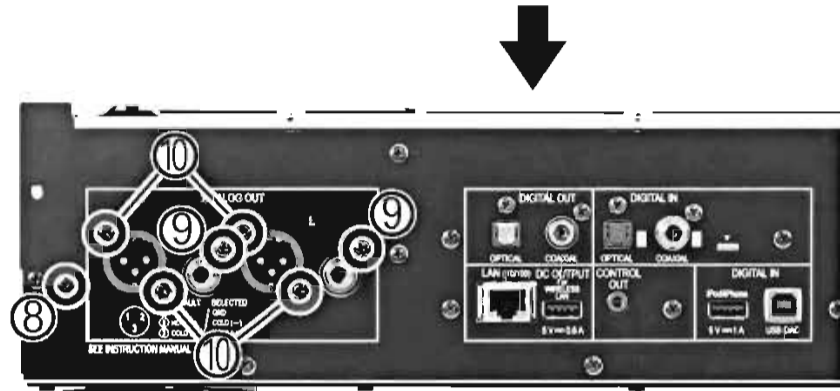
- (6) Disconnect the connector.
- (7) Remove the six screws.  
(B020030061B10SV)

**Note on assembling:**

When attach the AUDIO ASSY, be sure to secure the screws at Rear Panel side first.



- (8) Remove the screw. (B020030063B10SV)
- (9) Remove the two screws.  
(B020030103B11-IL)
- (10) Remove the four screws.  
(B020030083P10SV)
- (11) Remove the AUDIO ASSY.



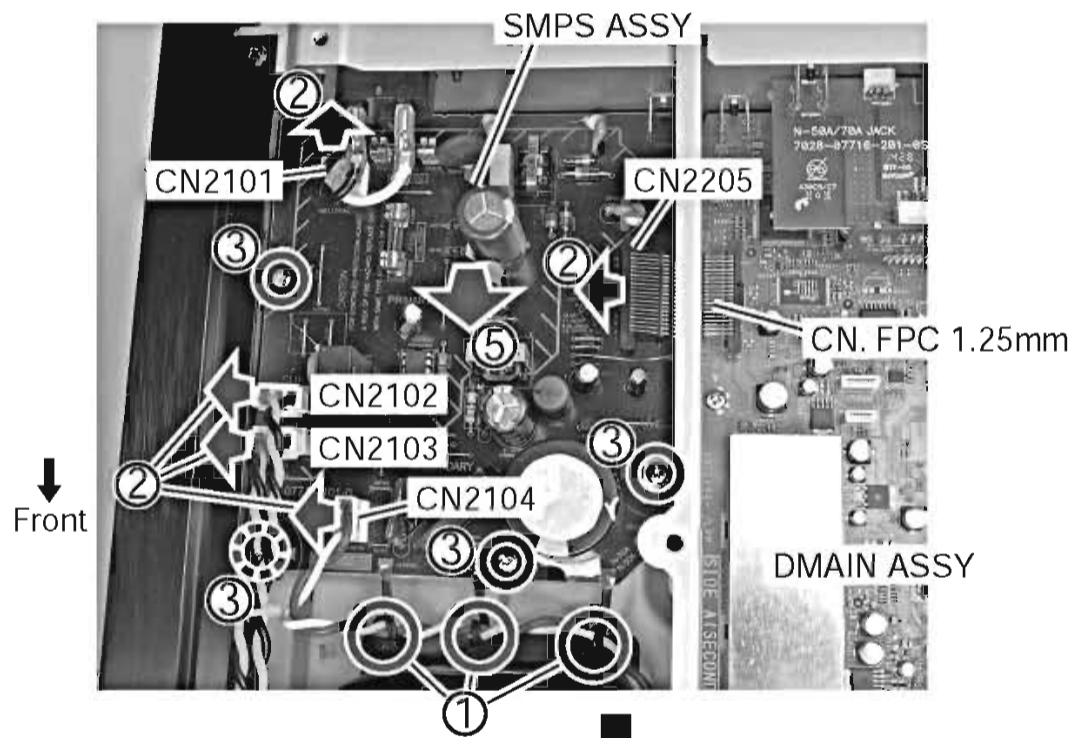
**[2-5] SMPS ASSY**

Remove the Cabinet ASSY.  
(Refer to the "[2-1-1] Cabinet ASSY")

- (1) Release the cable from the three PCB binders.
- (2) Disconnect the five connectors.
- (3) Remove the four screws.  
(B020030061B10SV)

**Note on assembling:**

When attach the SMPS ASSY, be sure to secure the screws at Rear Panel side first. Refer to the (2), (4) of "[3] Styling of cables (N-70A-K, N-70A-S)" for the styling of each cables.



- (4) Remove the two screws.  
(B020030063B10SV)
- (5) Remove the SMPS ASSY.



**Note on assembling:**

When replacing the SMPS ASSY, peel off the Acetate Tape 6 x 6 from the original SMPS ASSY and attach it to the new SMPS ASSY. If the tape cannot be recycled, attach the new Acetate Tape 6 x 6. (Refer to the "[4-4] SMPS ASSY")

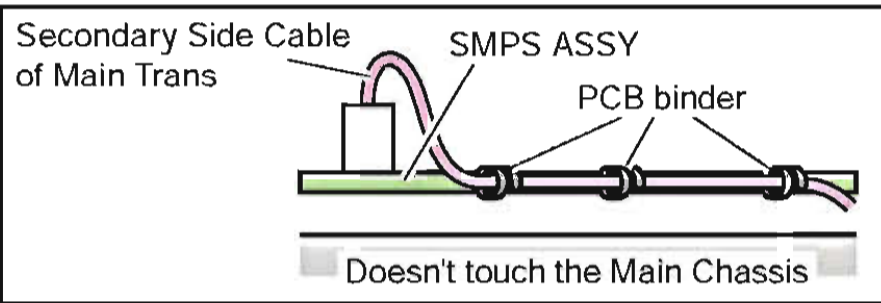
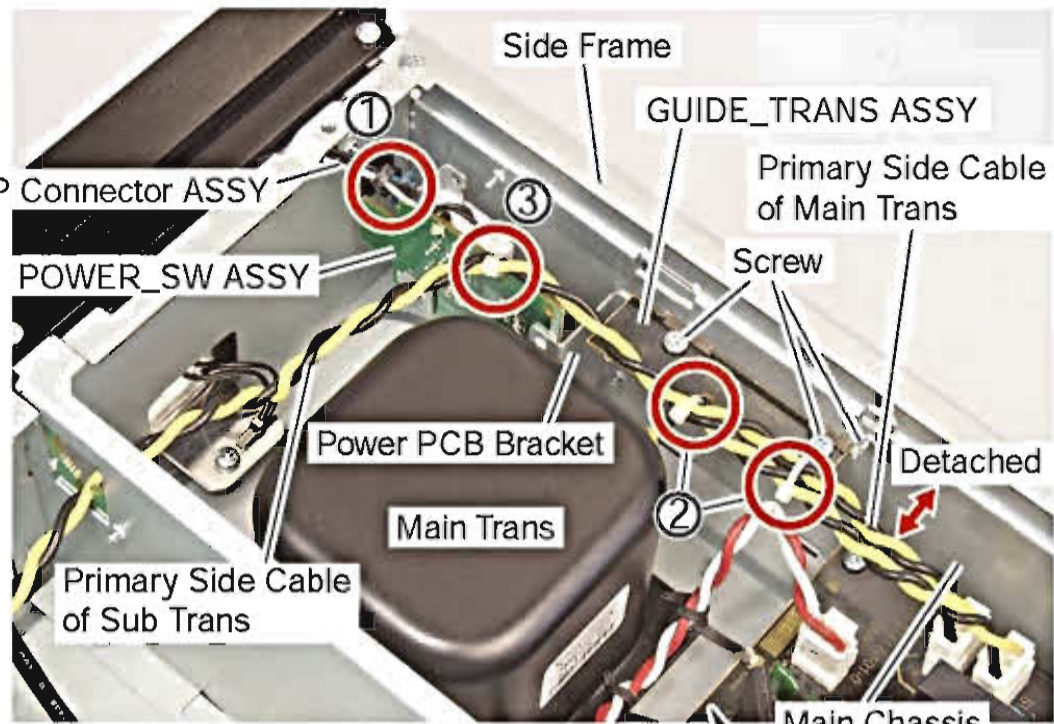
### [3] Styling of cables (N-70A-K, N-70A-S)

A (1) 3P Connector ASSY from the LED ASSY:  
Fix the PCB binder of POWER\_SW ASSY by lowering the 3P Connector ASSY not to touch with the Cabinet.

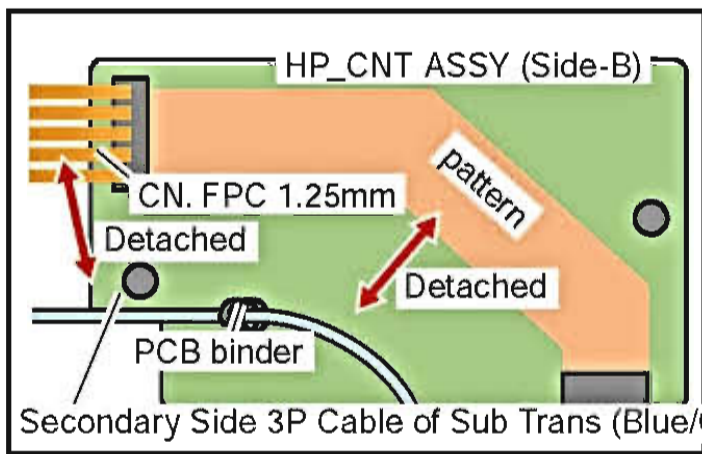
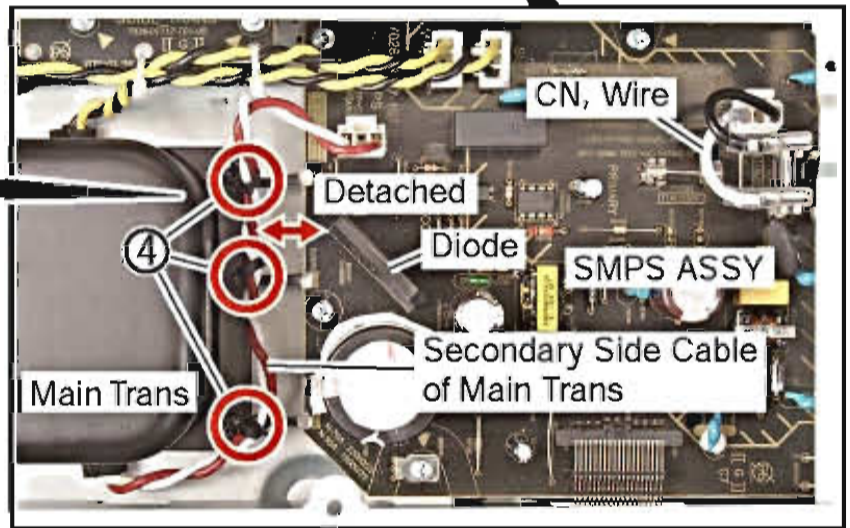
(2) Primary Side Cable of Main Trans:  
Primary Side Cable of Sub Trans:  
Fix the cables on GUIDE\_TRANS ASSY with the two binders not to touch with the Main Chassis, Side Frame and screws.

B (3) Primary Side Cable of Sub Trans:  
Fix the cable on POWER\_SW ASSY with the binder not to touch with the edge of Power PCB Bracket and Main Trans.

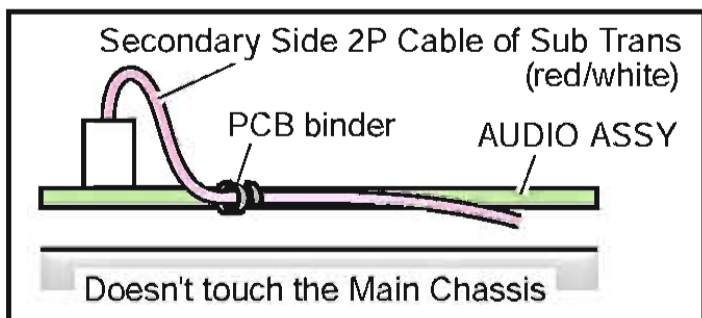
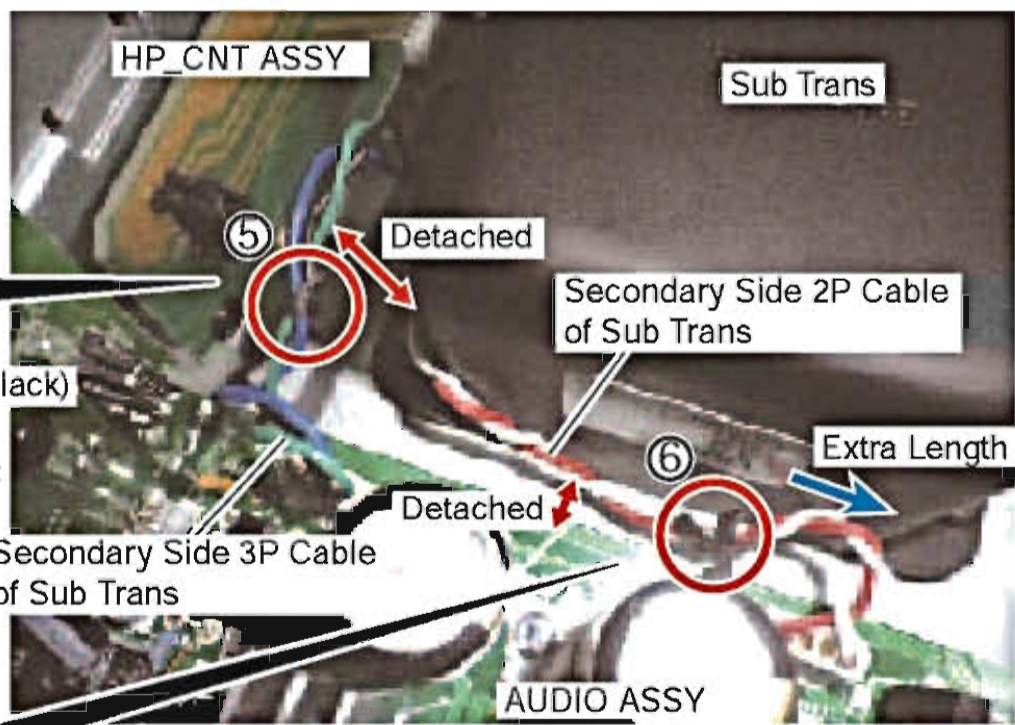
(4) Secondary Side Cable of Main Trans:  
Fix the cable with three PCB binders of SMPS ASSY at the height of SMPS ASSY not to touch with the diode.



C (5) Secondary Side 3P Cable of Sub Trans (Blue/Green/Black):  
Fix the cable with PCB binder of HP\_CNT ASSY not to touch with the Side-B pattern of HP\_CNT ASSY, CN. FPC 1.25mm and Secondary Side 2P Cable of Sub Trans (Red/White).



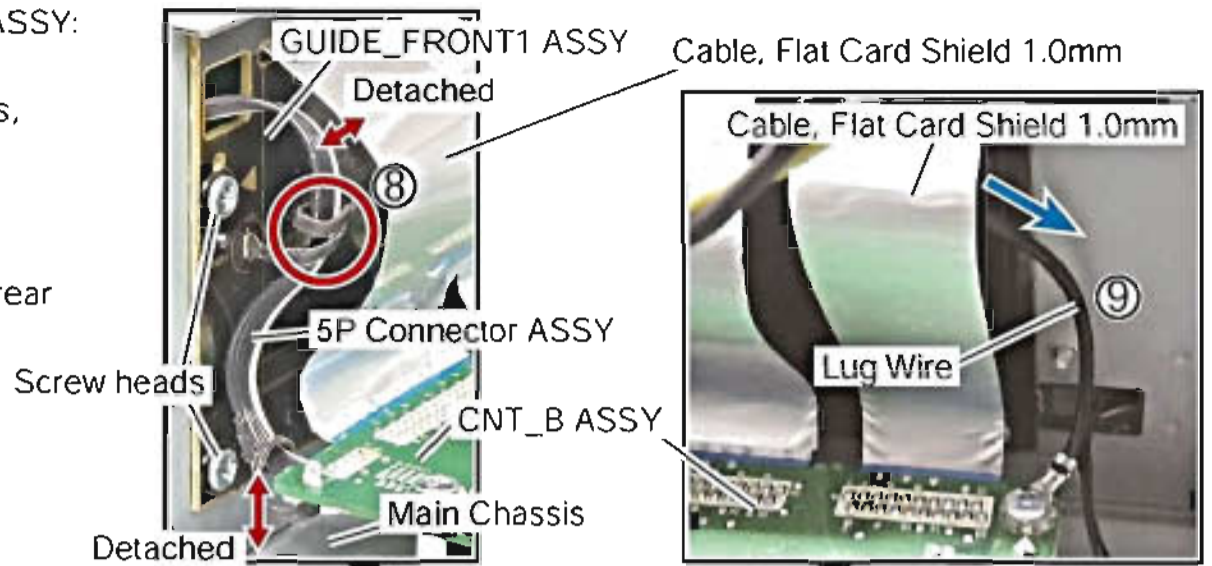
D (6) Secondary Side 2P Cable of Sub Trans (Red/White):  
Fix the cable with PCB binder of AUDIO ASSY at the height of AUDIO ASSY not to touch with the Secondary Side 3P Cable of Sub Trans (Blue/Green/Black) and AUDIO ASSY. Extra length should be escaped to the blue arrow direction.



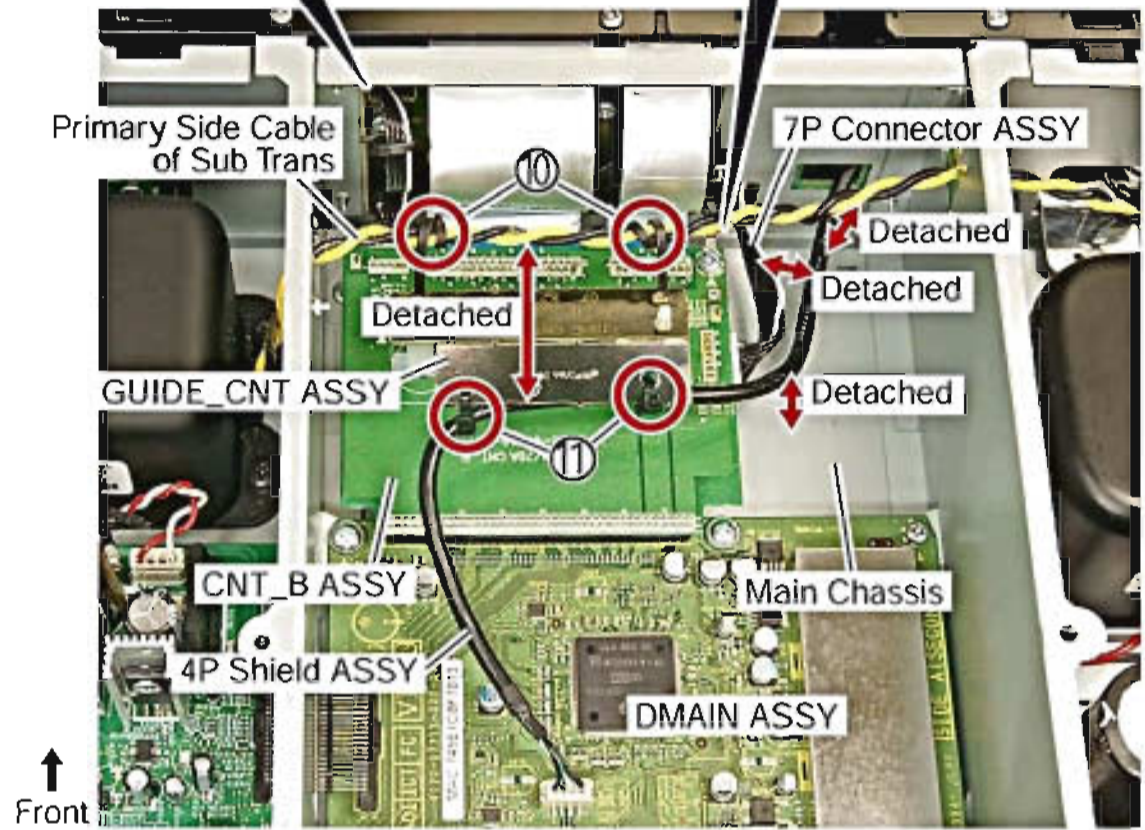
- (7) Winding Numbers of Power Cables :
- CN, Wire 1 turn
  - Primary Side Cable of Main Trans 1.5 turns
  - Primary Side Cable of Sub Tran 8 turns
  - Secondary Side Cable of Main Trans 3 turns
  - Secondary Side 2P Cable of Sub Trans (Red/White) 3.5 turns
  - Secondary Side 3P Cable of Sub Trans (Blue/Green/Black) 1.5 turns



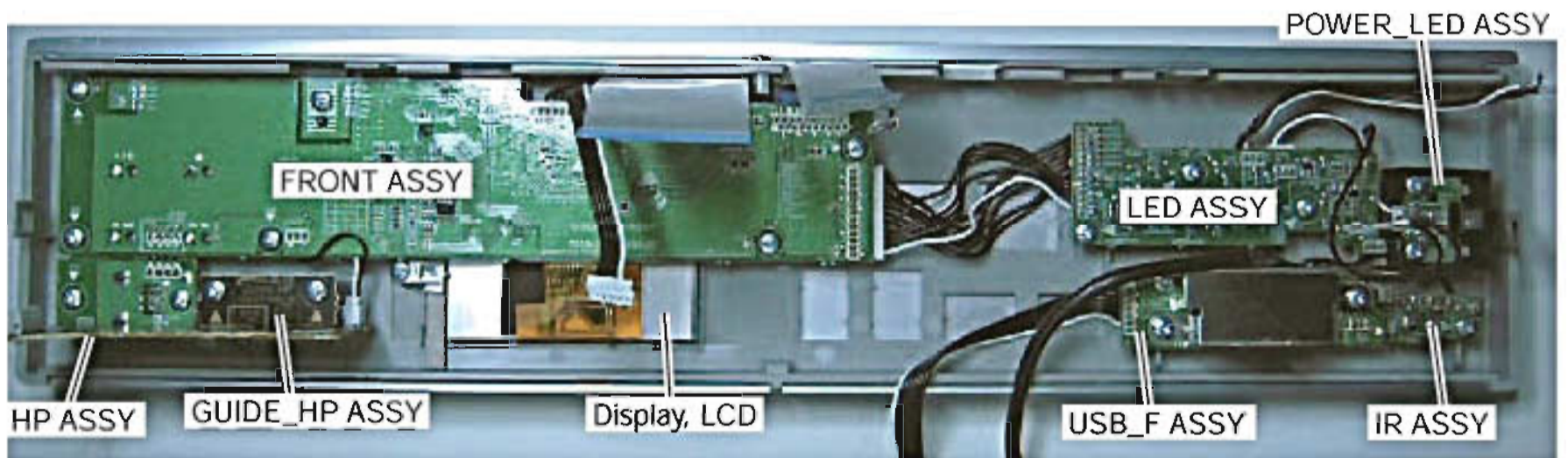
- (8) 5P Connector ASSY from the FRONT ASSY:  
Fix the PCB binder of GUIDE\_FRONT1 ASSY not to touch with the screw heads, Cable, Flat Card Shield 1.0mm (N713391122480S) and Main Chassis.
- (9) Lug Wire from the FRONT ASSY:  
Be sure to through the Lug Wire at the rear side of Cable, Flat Card Shield 1.0mm (N713201122480S).



- (10) Primary Side Cable of Sub Trans:  
Fix the cable with two PCB binders of GUIDE\_CNT ASSY, separate from 4P Shield ASSY as much as possible.
- (11) 4P Shield ASSY from the USB\_F ASSY:  
Fix the 4P Shield ASSY on GUIDE\_CNT ASSY with the two binders, separate from the 7P Connector ASSY and Primary Side Cable of Sub Trans as much as possible and not to touch with the Main Chassis.



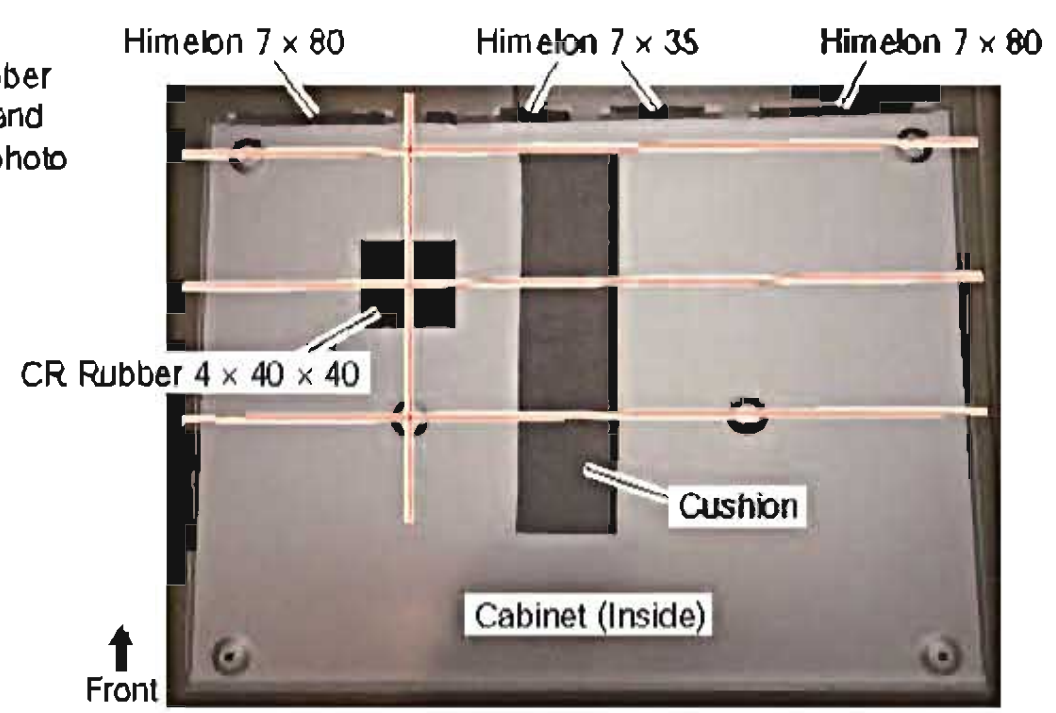
- (12) Cables of the Front Section:  
Make styling the cables by referring to the photo below.



[4] Attach the cushions and tapes (N-70A-K, N-70A-S)

A [4-1] Cabinet

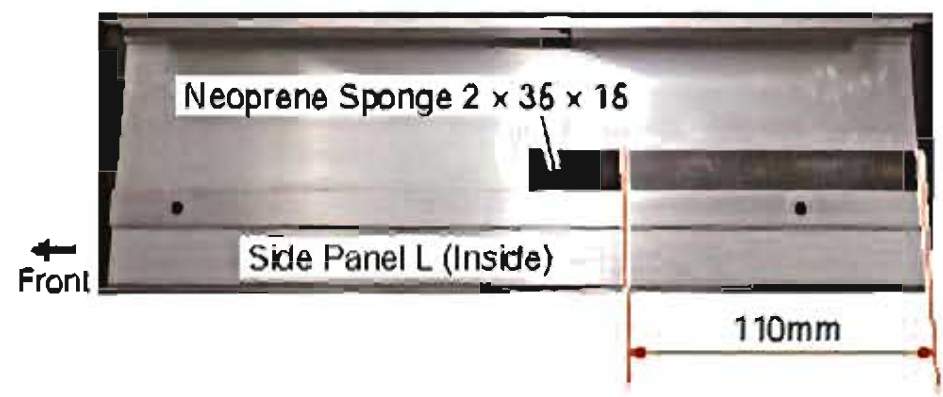
When attach the new Cushion, CR Rubber 4 x 40 x 40, Himelton 7 x 80 (2 sheets) and Himelton 7 x 35 (2 sheets), refer to the photo on the right side.



B

[4-2] Side Panel L, Side Panel R

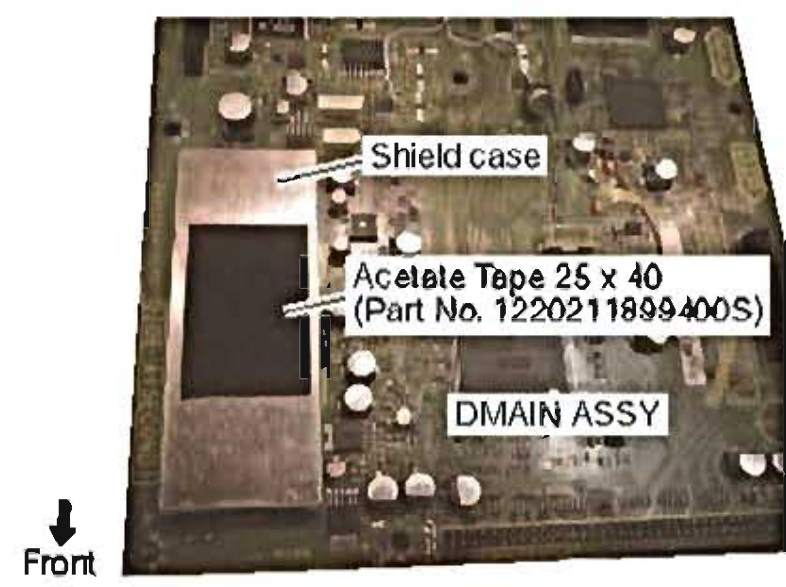
When replacing the Side Panel L or Side Panel R, attach the new Neoprene Sponge 2 x 35 x 15.



C

[4-3] DMAIN ASSY

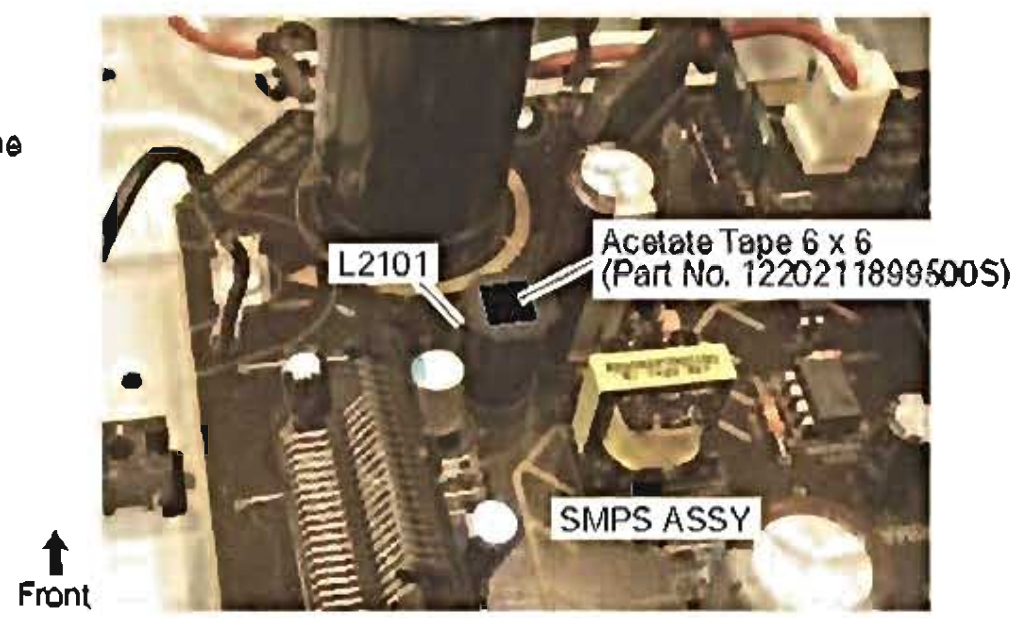
(It is the same in N-50A-K, N-50A-S)  
When replacing the DMAIN ASSY, peel off the Acetate Tape 25 x 40 from the original DMAIN ASSY and attach it to the new DMAIN ASSY.  
If the tape cannot be recycled, attach the new Acetate Tape 25 x 40.



D

[4-4] SMPS ASSY

(It is the same in N-50A-K, N-50A-S)  
When replacing the SMPS ASSY, peel off the Acetate Tape 6 x 6 from the original SMPS ASSY and attach it to the new SMPS ASSY.  
If the tape cannot be recycled, attach the new Acetate Tape 6 x 6.



E

F

**[4-5] FRONT ASSY**

(It is the same in N-50A-K, N-50A-S)

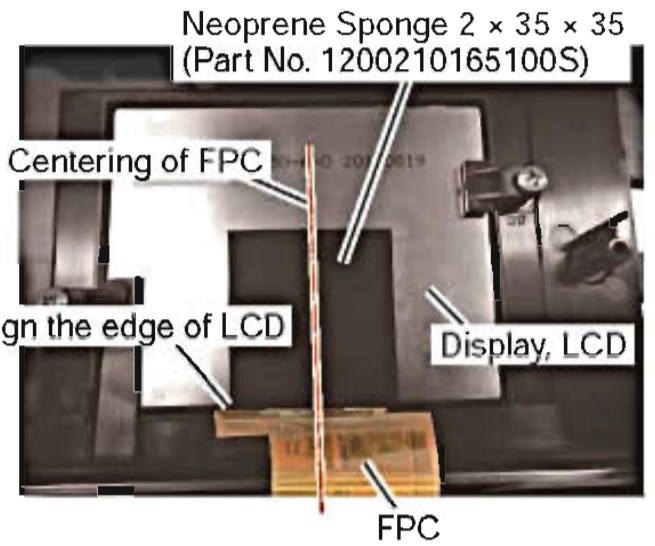
When replacing the FRONT ASSY, peel off the Acetate Tape 20 x 40 from the original FRONT ASSY and attach it to the new FRONT ASSY. If the tape cannot be recycled, attach the new Acetate Tape 20 x 40.



**[4-6] Display, LCD**

(It is the same in N-50A-K, N-50A-S)

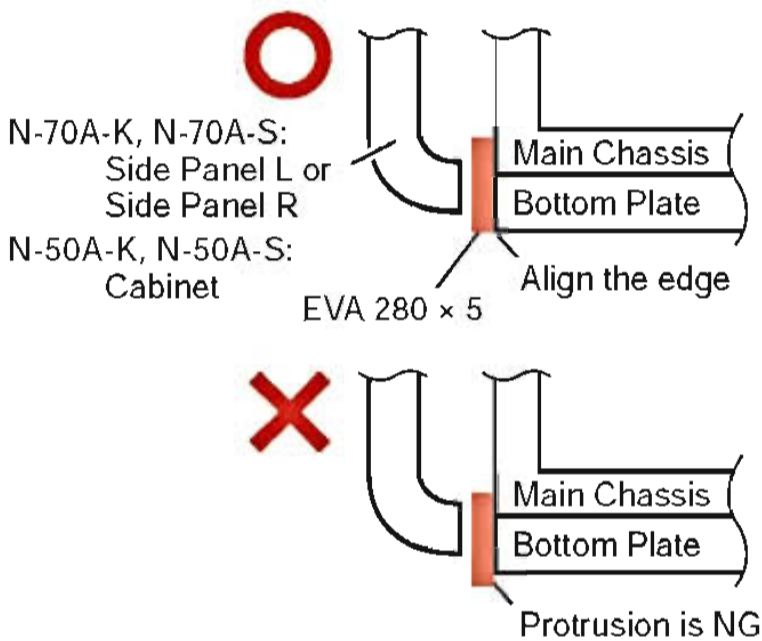
When replacing the Display, LCD, peel off the Neoprene Sponge 2 x 35 x 35 from the original Display, LCD and attach it to the new Display, LCD. If the sponge cannot be recycled, attach the new Neoprene Sponge 2 x 35 x 35.



**[4-7] Bottom Plate**

(It is the same in N-50A-K, N-50A-S)

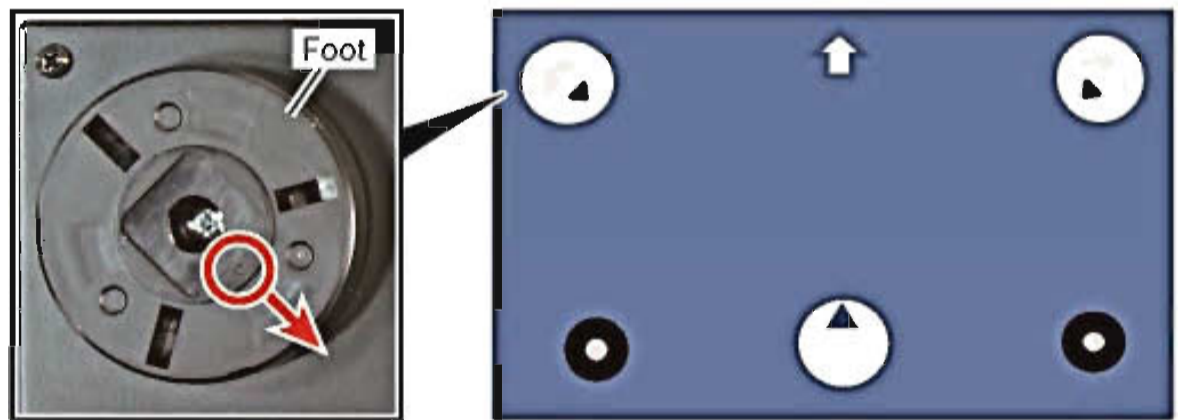
When replacing the Bottom Plate, attach the new EVA 280 x 5 (2 sheets). Attach the EVA 280 x 5 to the side surface of Bottom Plate without protrusion to bottom surface side.



**[5] Attach the Foot (N-70A-K, N-70A-S, N-50A-K, N-50A-S)**

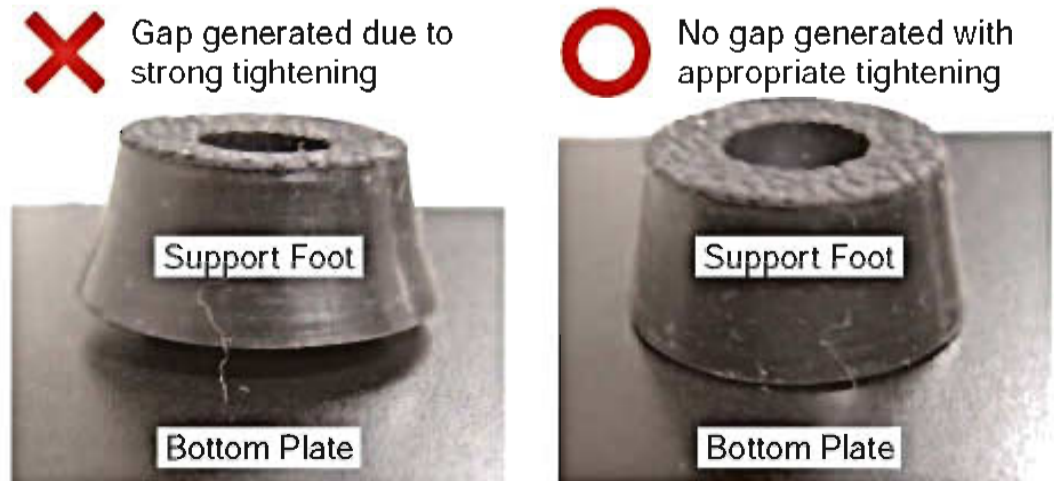
**[5-1] Foot**

Align the mark at under surface of Foot with the direction of figure. When replacing the Foot, attach the new Cushion (4050215675000S) (each one sheet).

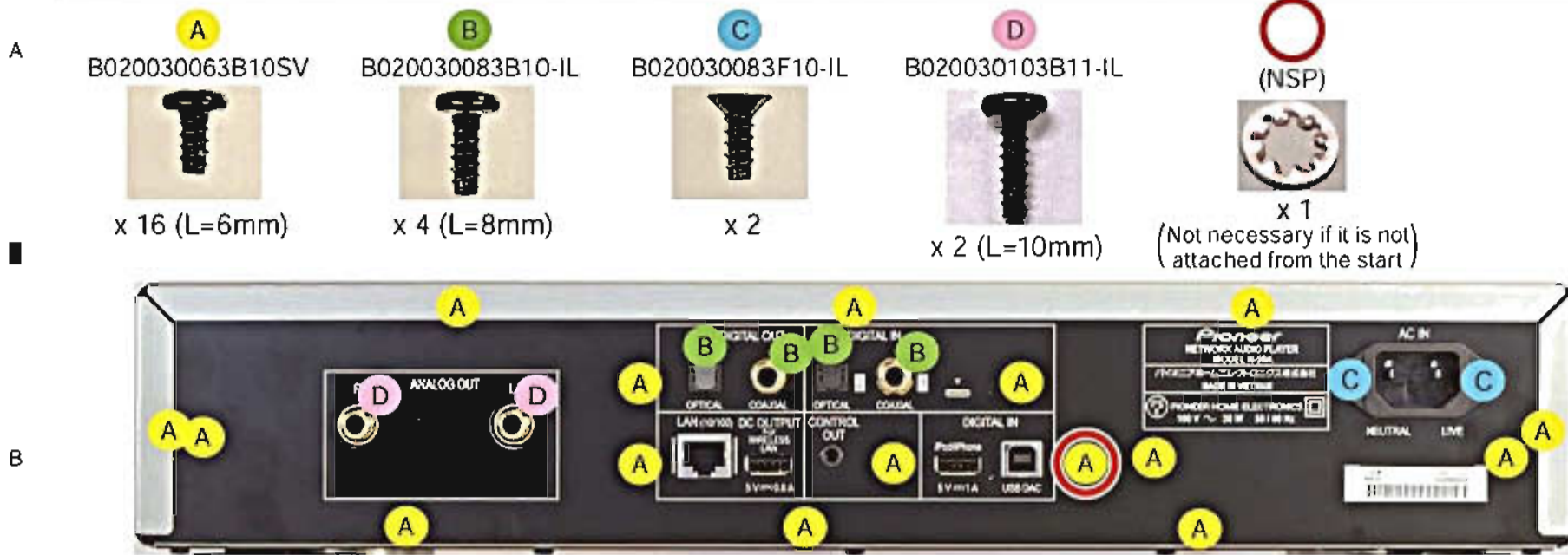


**[5-2] Support Foot**

Gap is generated between the Support Foot and Bottom Plate when tightening the screw too tight. Be sure to mount without causing a gap.



## [6] Screws for Rear Panel (N-50A-K, N-50A-S)



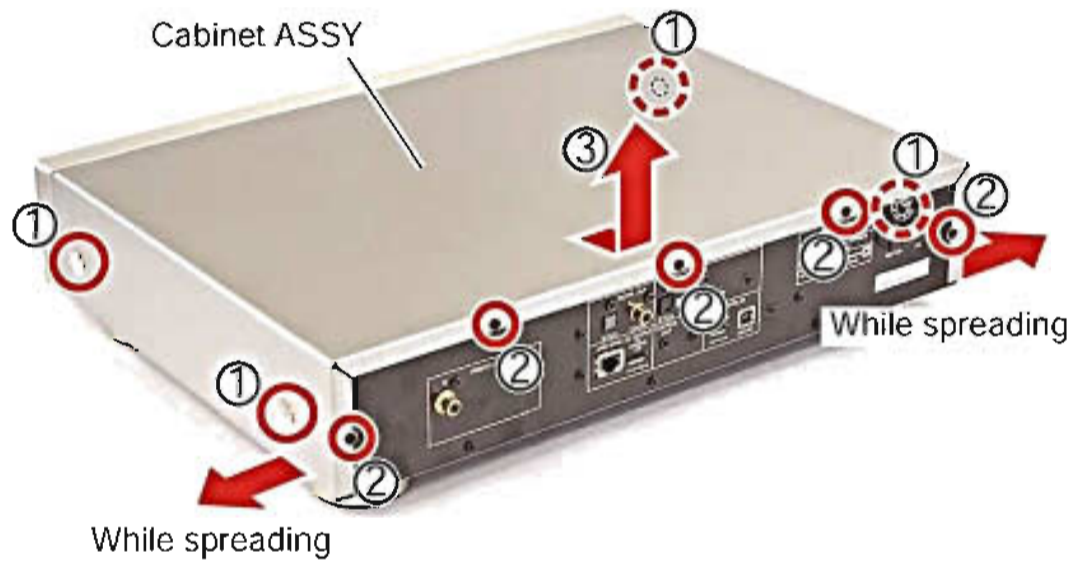
## [7] Disassembly (N-50A-K, N-50A-S)

### [7-1] Cabinet ASSY

- (1) Remove the four screws.  
(N-50A-K : 1500040083B10-IL)  
(N-50A-S : 1500040084B10-IL)
- (2) Remove the five screws.  
(B020030063B10SV)
- (3) Slide the Cabinet ASSY to backward and then take out it upward while spreading Rear Side Piece.

#### Note on assembling:

If only Cabinet is replaced, it is required to attach new Cushion, Himelon 30 x 15 (2 sheets), Himelon 7 x 120 (2 sheets), Acetate Tape 10 x 70 (4 sheets) and Acetate Tape 10 x 20 (2 sheets), so replace the whole Cabinet ASSY.  
(Refer to the "[9-1] Cabinet")



### [7-2] Diagnosis to the Side-B of DMAIN ASSY

Remove the Cabinet ASSY.  
(Refer to the "[7-1] Cabinet ASSY")

- (1) Release the cables from the three PCB binders.
- (2) Cut the binder.
- (3) Remove the two screws.  
(B020030061B10SV)

#### Note on assembling:

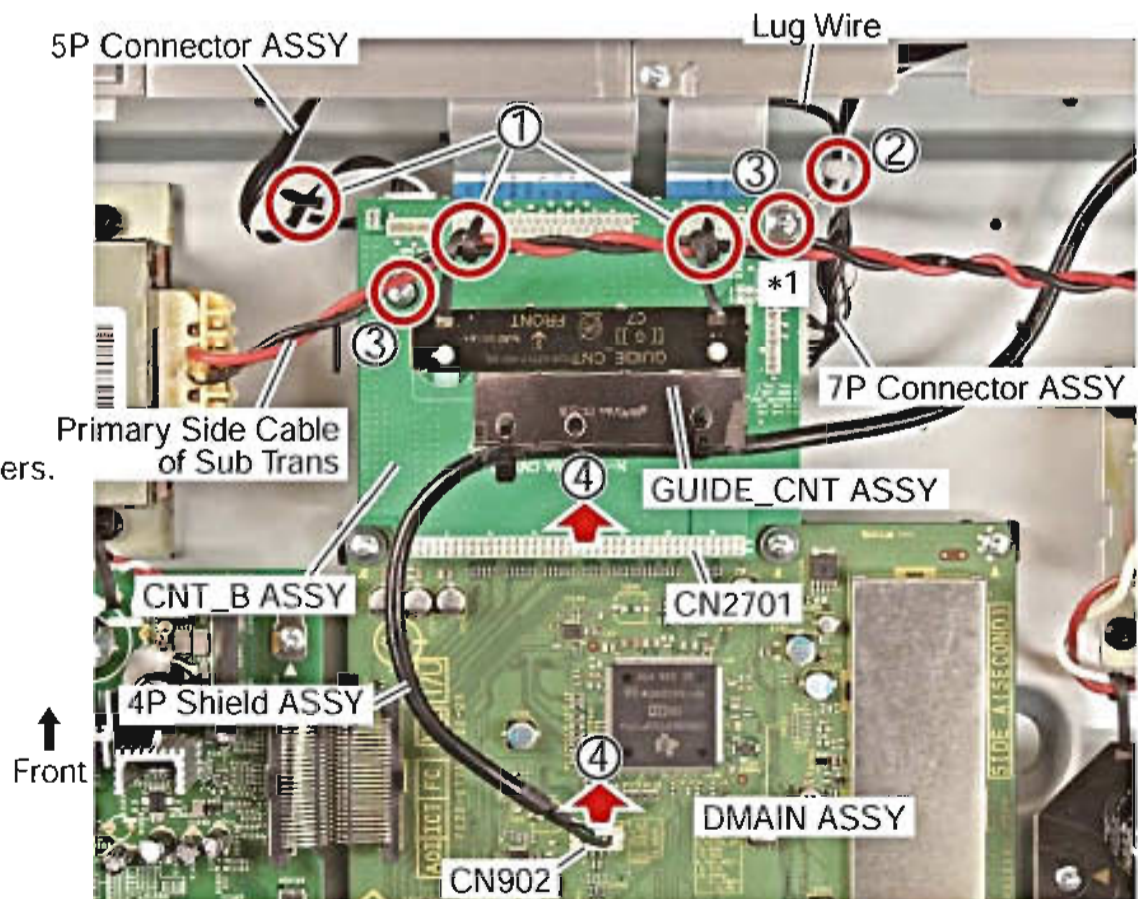
\*1: Don't forget the attach of Lug Wire.

- (4) Disconnect the two connectors.

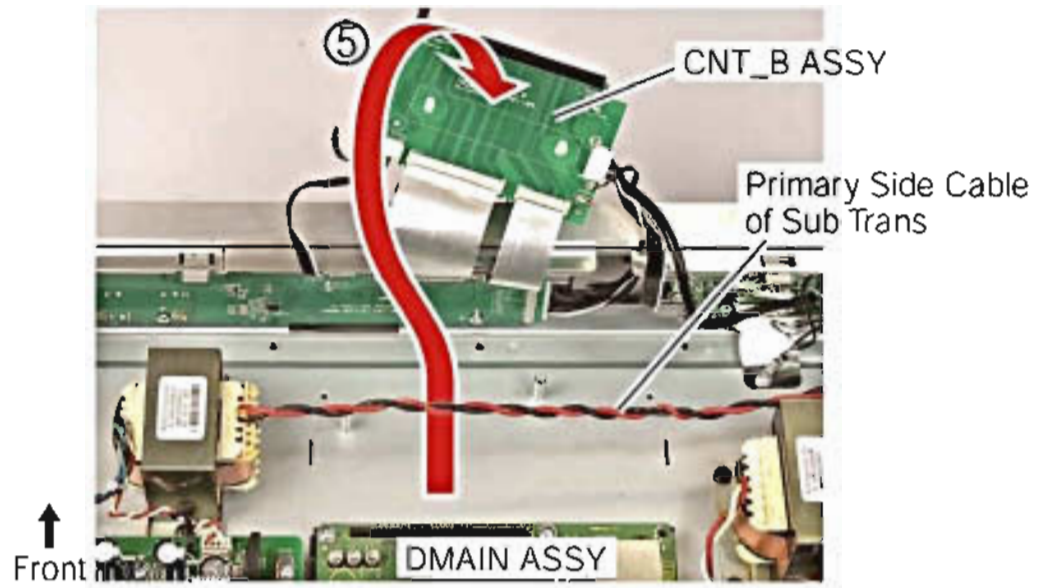
**Note:** When disconnect the connector, lift up the CNT\_B ASSY horizontally without tilt.

#### Note on assembling:

Refer to the (8) to (11) of "[8] Styling of cables (N-50A-K, N-50A-S)" for the styling of each cables.



- (5) Reverse the CNT\_B ASSY (with other parts) after slipping under the Primary Side Cable of Sub Trans in front direction.

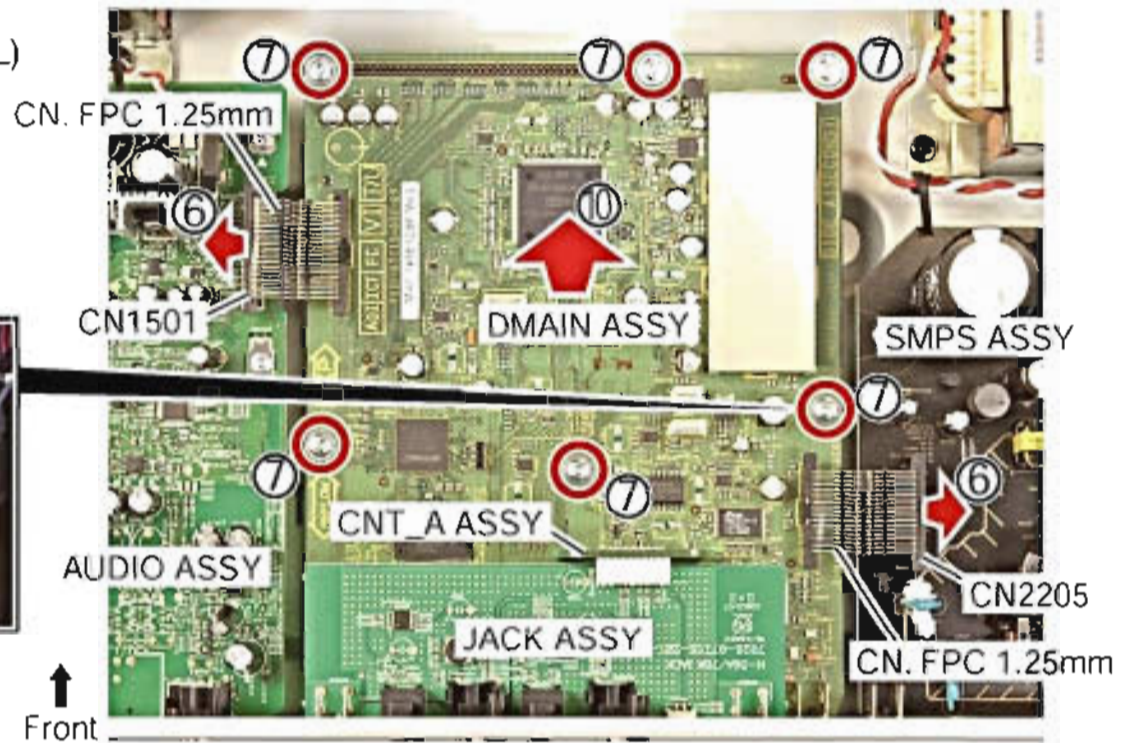


- (6) Disconnect the two connectors.
- (7) Remove the six screws. (1500001206020-IL)

**Notes on assembling:**

When attach the DMAIN ASSY, be sure to secure the screws at Rear Panel side first.

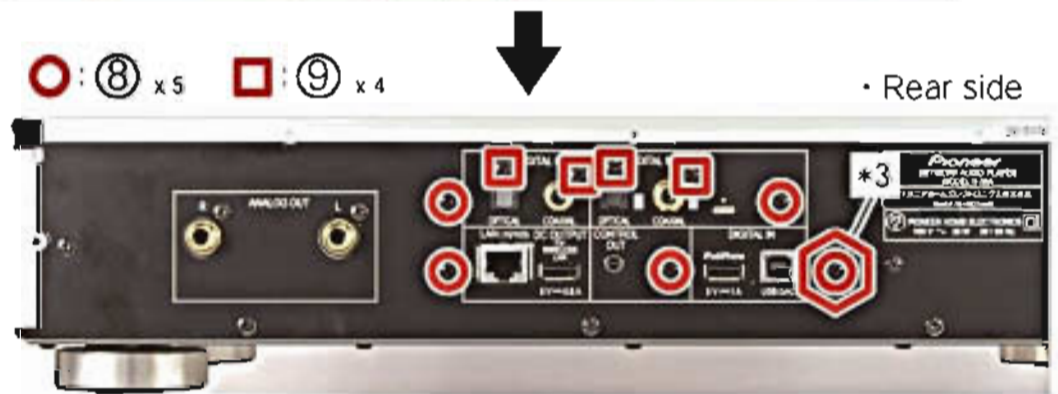
- \*2: Don't forget the attach of Lug Wire.



- (8) Remove the five screws. (B020030063B10SV)

**Note on assembling:**

- \*3: Attach the Tooth Washer (NSP) to the screw of red frame part. (Not necessary if it is not attached from the start)



- (9) Remove the four screws. (B020030083B10-IL)

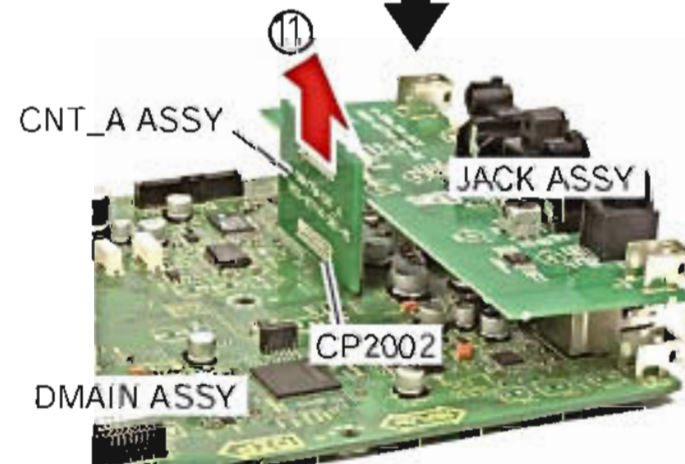
- (10) Remove the DMAIN ASSY (with other parts).

- (11) Remove the CNT\_A ASSY and JACK ASSY from the DMAIN ASSY.

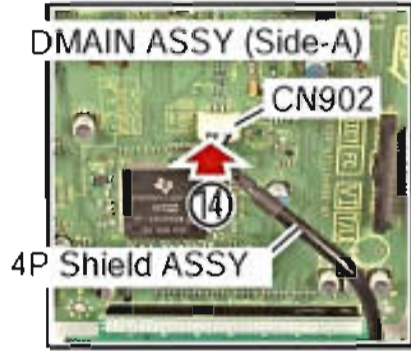
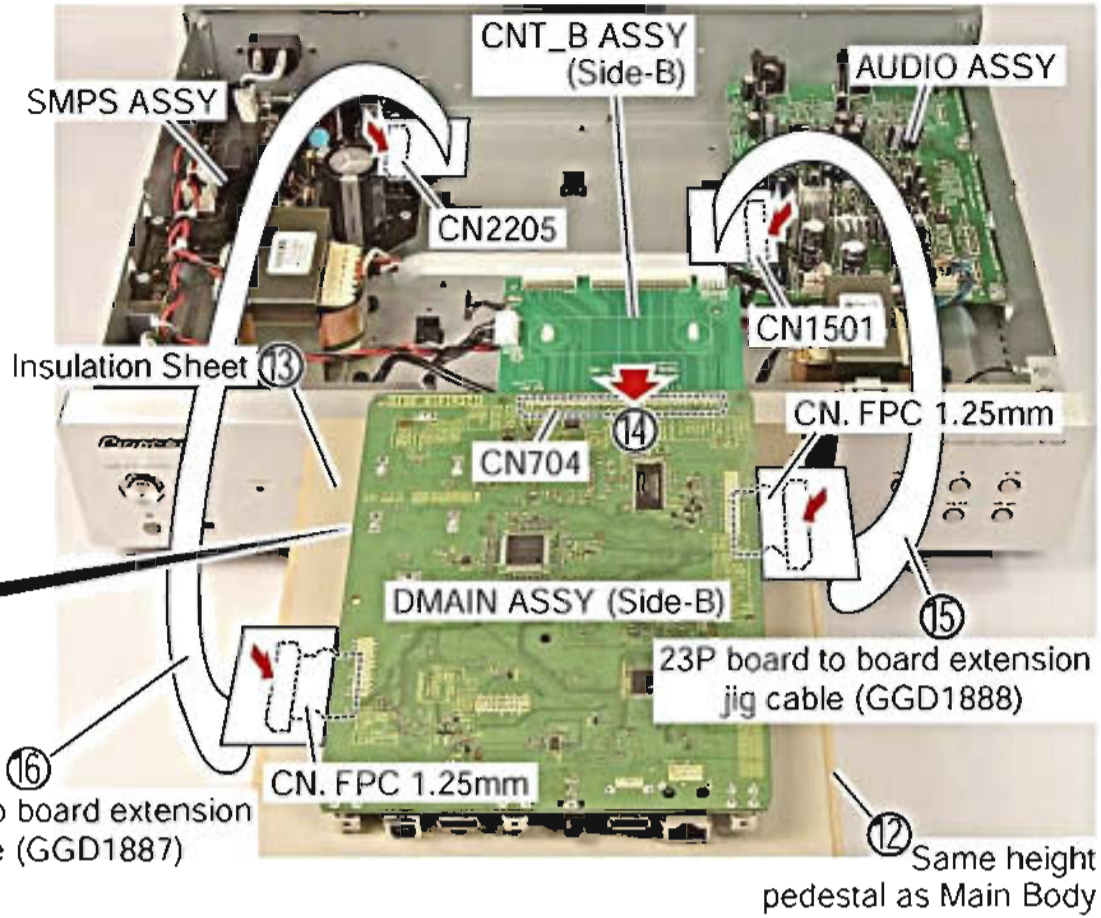
**Note on assembling:**

When replacing the DMAIN ASSY, peel off the Acetate Tape 25 x 40 from the original DMAIN ASSY and attach it to the new DMAIN ASSY.

If the tape cannot be recycled, attach the new Acetate Tape 25 x 40. (Refer to the "[4-3] DMAIN ASSY")



- (12) Set up the same height pedestal as Main Body as shown in the photo.
- (13) Insert the Insulation Sheet.
- (14) Connect the two connectors and then arrange the DMAIN ASSY as shown in the photo
- (15) Connect the 23P board to board extension jig cable. (GGD1888)  
(AUDIO CN1501 <-> CN. FPC 1.25mm)
- (16) Connect the 19P board to board extension jig cable. (GGD1887)  
(SMPS CP2205 <-> CN. FPC 1.25mm)



**[7-3] Diagnosis to the Side-A of FRONT ASSY**

Remove the Cabinet ASSY.  
(Refer to the "[7-1] Cabinet ASSY")

- (1) Release the cables from the three PCB binders.
- (2) Cut the three binders.
- (3) Disconnect the two connectors.
- (4) Remove the screw. (B020030061B10SV)

**Notes on assembling:**

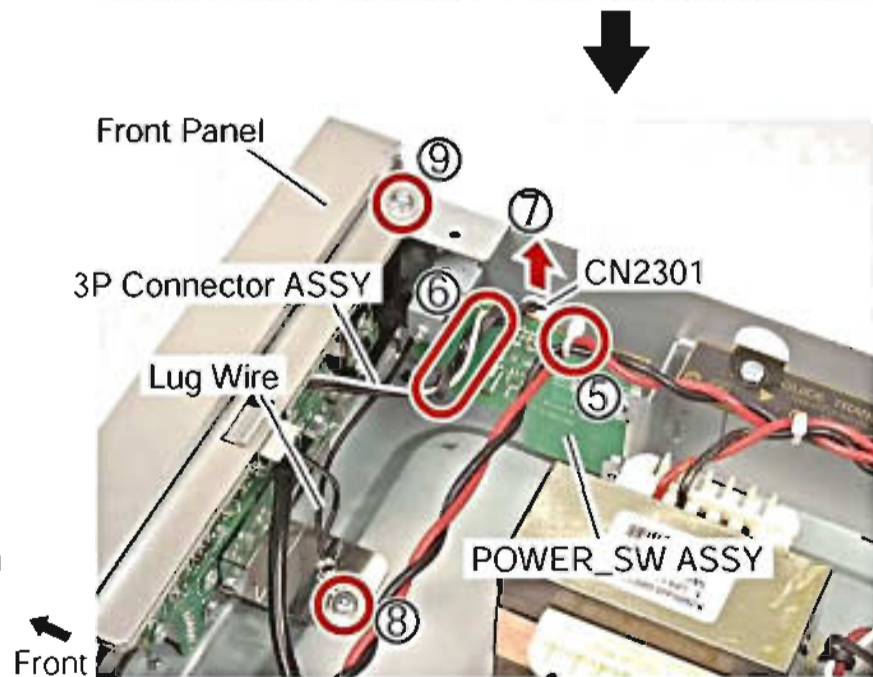
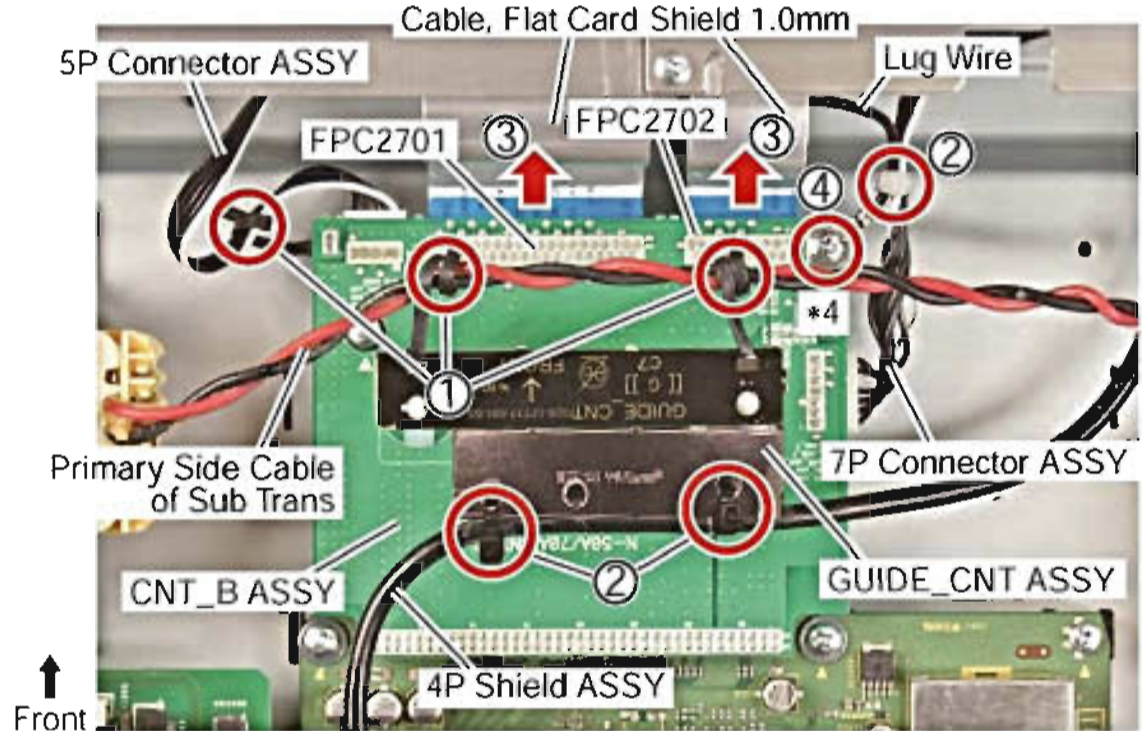
Refer to the (8) to (11) of "[8] Styling of cables (N-50A-K, N-50A-S)" for the styling of each cables.

\*4: Don't forget the attach of Lug Wire.

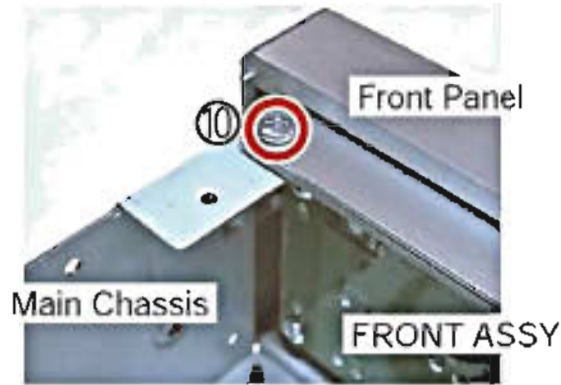
- (5) Cut the binder.
- (6) Release the 3P Connector ASSY from the PCB binder.
- (7) Disconnect the connector.
- (8) Remove the screw. (B020030061B10SV)
- (9) Remove the screw. (B020030081B10-IL)

**Note on assembling:**

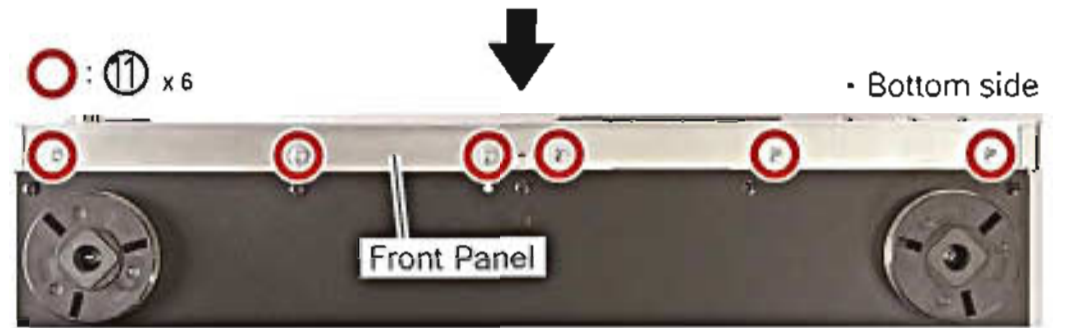
Refer to the (1), (3) of "[8] Styling of cables (N-50A-K, N-50A-S)" for the styling of each cables.



(10) Remove the screw.  
(B020030081B10-IL)



(11) Remove the six screws.  
(N-50A-K : B020030083B10-IL)  
(N-50A-S : B020030081B10-IL)



(12) Unhook the two hooks, pull out the Front Section toward front direction.

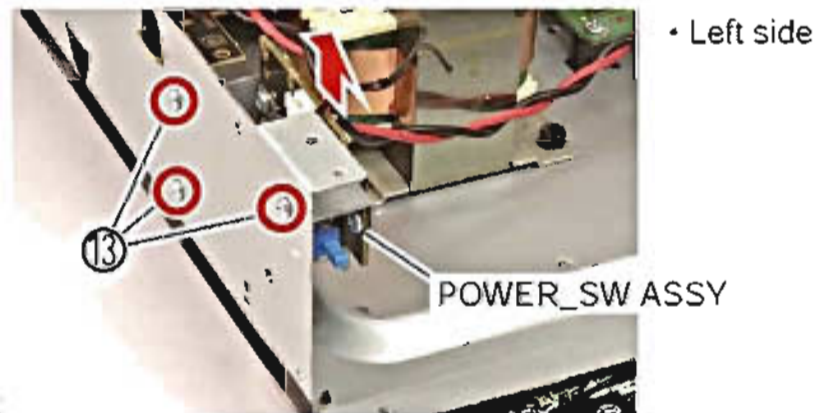
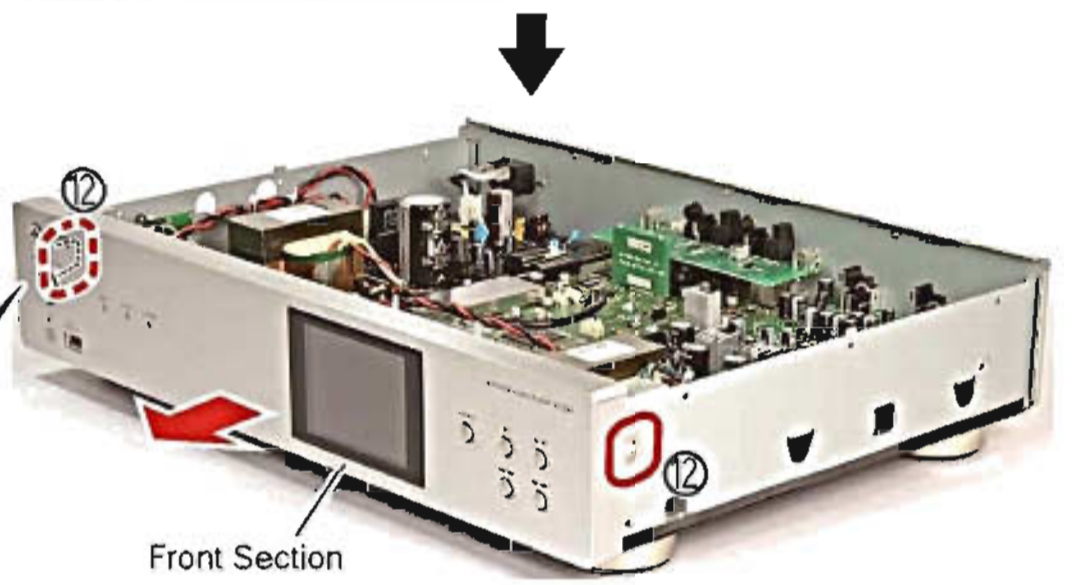
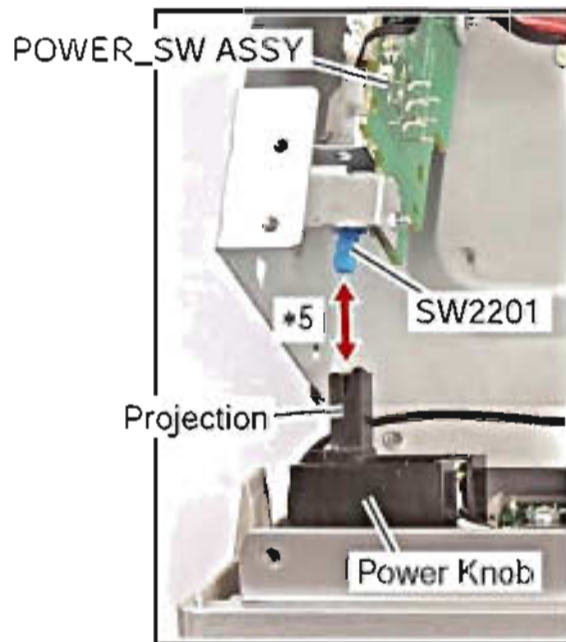
**Notes:**

Be careful of cable which is associated.

\*5: Remove the Power Knob (with other parts) from the POWER\_SW ASSY.

**Note on assembling:**

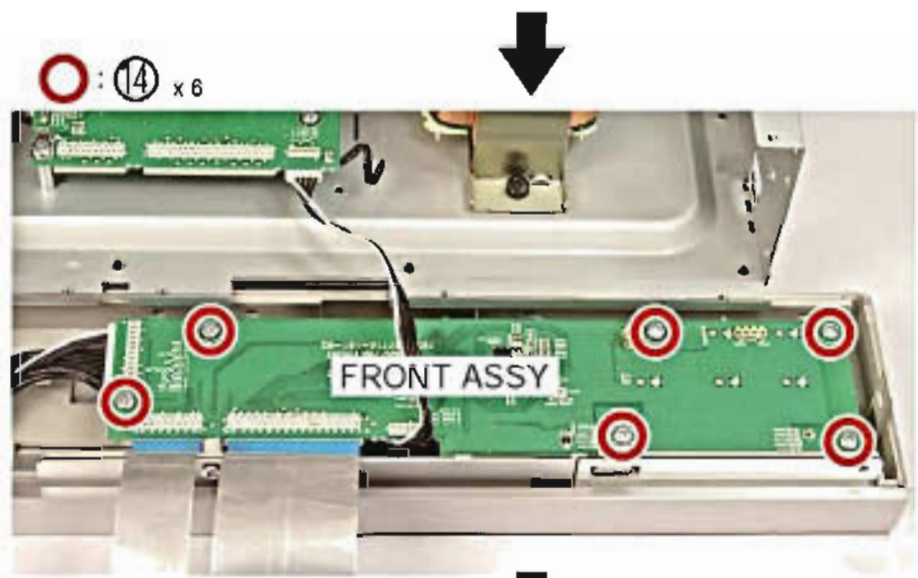
\*5: Be sure to make the blue section of SW2201 inserting into the projection of Power Knob.



(13) Remove the three screws  
(B020030061B10SV) and then remove the POWER\_SW ASSY (with other parts).

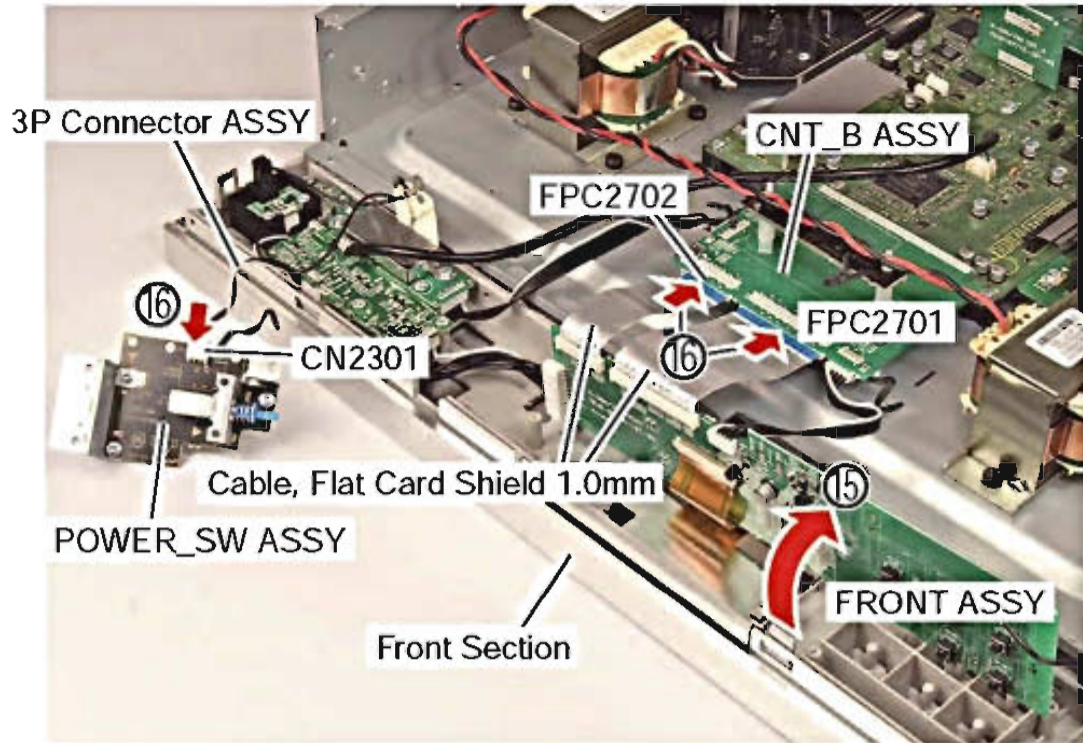
Front

(14) Remove the six screws.  
(B020030081B10-IL)



- (15) Raise the top side of FRONT ASSY.
- (16) Connect the three connectors.

**A Note on assembling:**  
 When replacing the FRONT ASSY, peel off the Acetate Tape 20 x 40 from the original FRONT ASSY and attach it to the new FRONT ASSY.  
 If the tape cannot be recycled, attach the new Acetate Tape 20 x 40.  
 (Refer to the "[4-5] FRONT ASSY")



**B**

**[7-4] AUDIO ASSY**

Remove the Cabinet ASSY.  
 (Refer to the "[7-1] Cabinet ASSY")

- (1) Release the cable from the PCB binder.
- (2) Disconnect the three connectors.

**C Note on assembling:**  
 Refer to the (5) and (6) of "[8] Styling of cables (N-50A-K, N-50A-S)" for the styling of each cables.

- (3) Remove the six screws.  
 (B020030061B10SV)

**D Notes on assembling:**  
 When attach the AUDIO ASSY, be sure to secure the screws at Rear Panel side first.  
 Attach the Tooth Washer (NSP) to the screw of arrow part.  
 (Not necessary if it is not attached from the start)

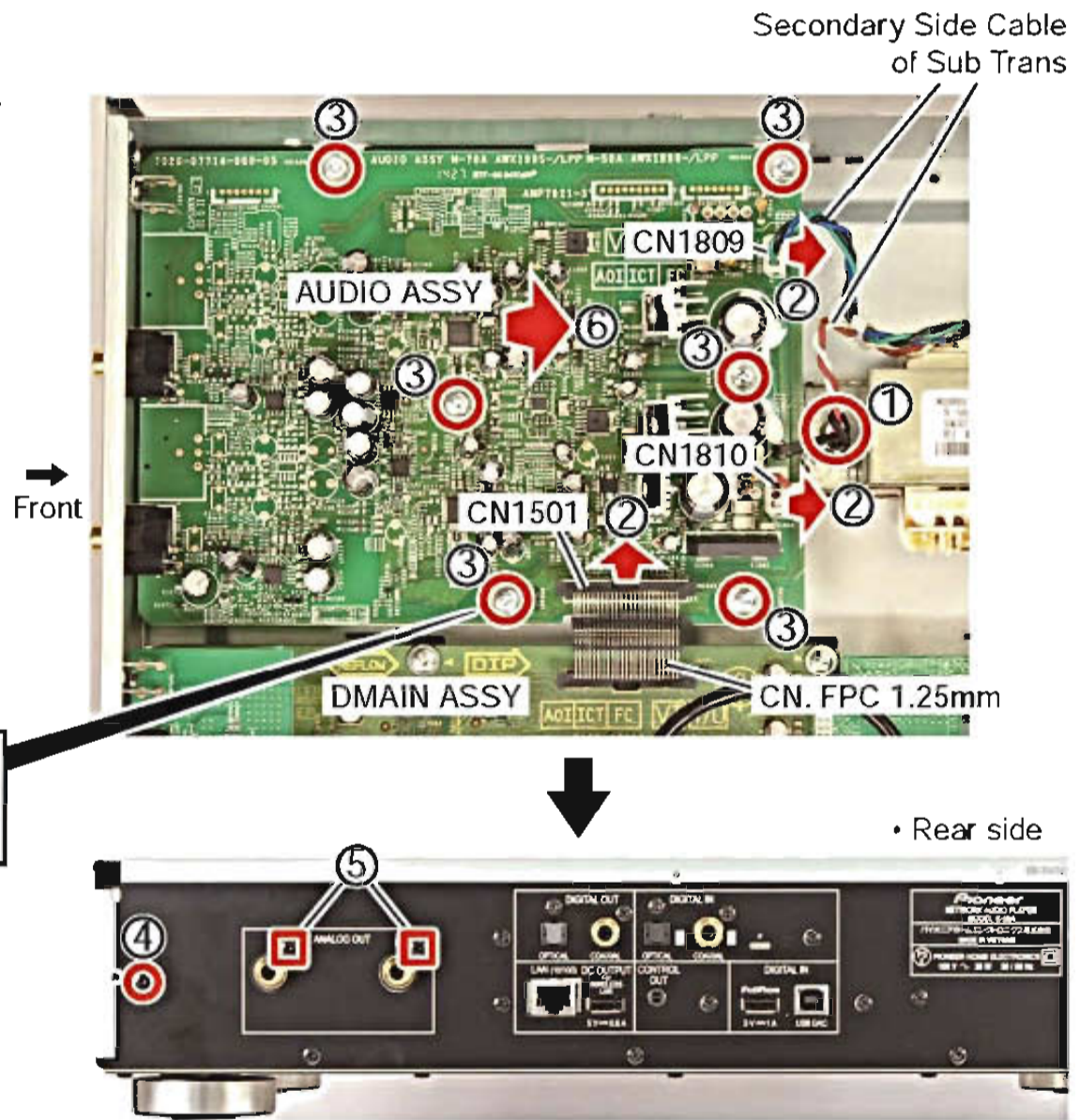


- (4) Remove the screw. (B020030063B10SV)
- (5) Remove the two screws.  
 (B020030103B11-IL)

**E**  
 (6) Remove the AUDIO ASSY.

**Note on assembling:**  
 When replacing the AUDIO ASSY, peel off the Fiber Washer (2 pieces) from the Side-B of original AUDIO ASSY and attach it to the Side-B of new AUDIO ASSY.  
 If the Fiber Washer cannot be recycled, attach the new Fiber Washer.  
 (Not necessary if it is not attached from the start)  
 (Refer to the "[9-2] AUDIO ASSY")

**F**





**[7-5] SMPS ASSY**

Remove the Cabinet ASSY.  
(Refer to the "[7-1] Cabinet ASSY")

- (1) Release the cable from the three PCB binders.
- (2) Disconnect the five connectors.
- (3) Remove the four screws. (B020030061B10SV)
- (4) Remove the screw (1500001206020-IL) and then remove the Lug Wire.

**Notes on assembling:**

When attach the SMPS ASSY, be sure to secure the screws at Rear Panel side first.

Refer to the (2), (4) of "[8] Styling of cables (N-50A-K, N-50A-S)" for the styling of each cables.

\*6: Don't forget the attach of Lug Wire.

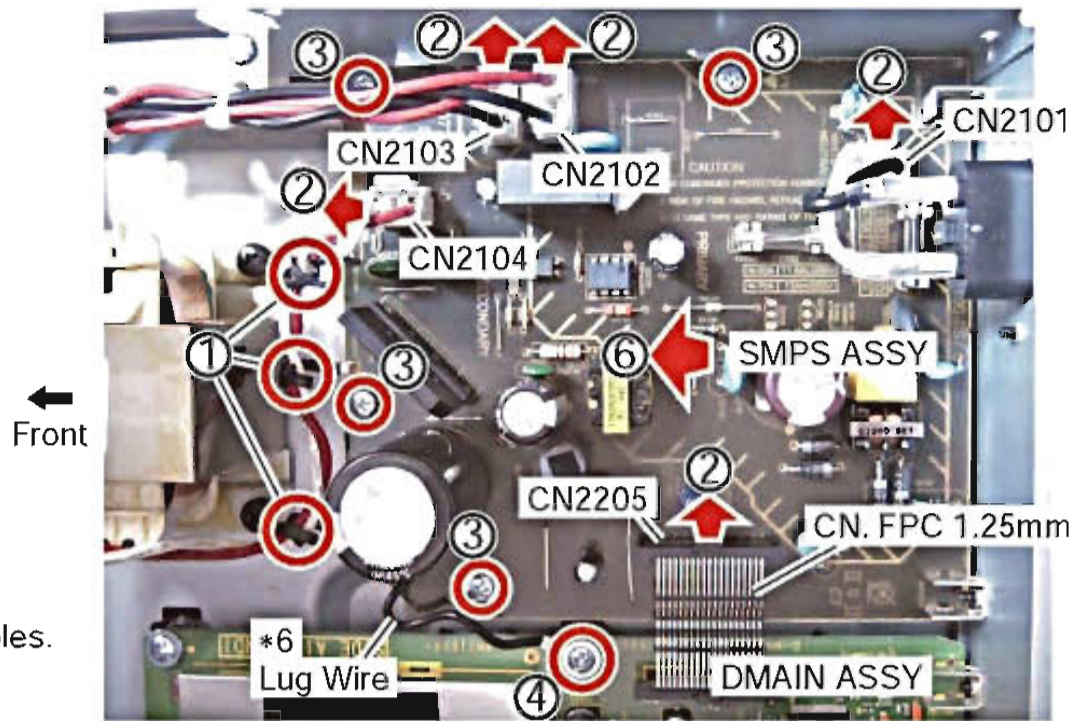
- (5) Remove the two screws. (B020030063B10SV)

- (6) Remove the SMPS ASSY.

**Note on assembling:**

When replacing the SMPS ASSY, peel off the Acetate Tape 6 x 6 from the original SMPS ASSY and attach it to the new SMPS ASSY.

If the tape cannot be recycled, attach the new Acetate Tape 6 x 6.  
(Refer to the "[4-4] SMPS ASSY")



Front

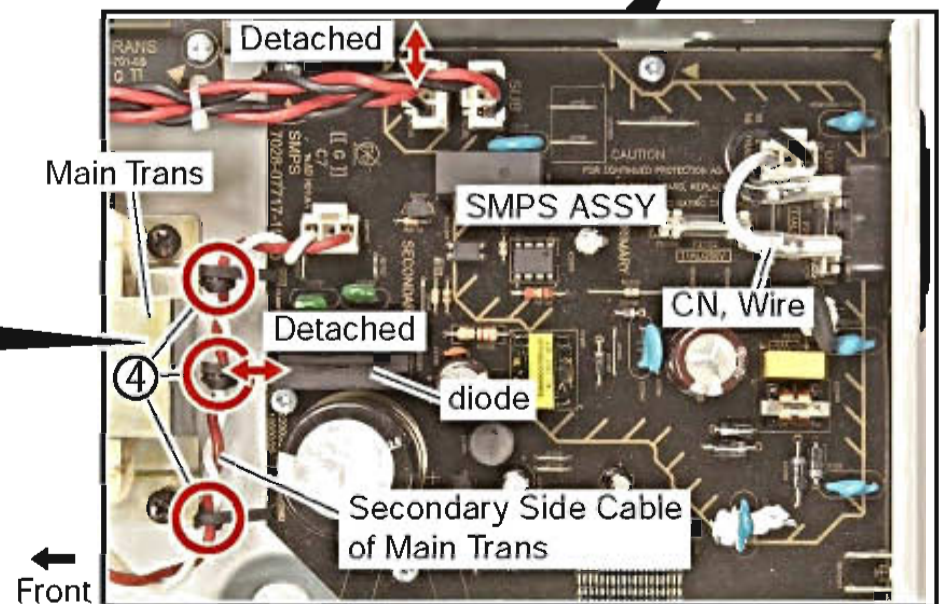
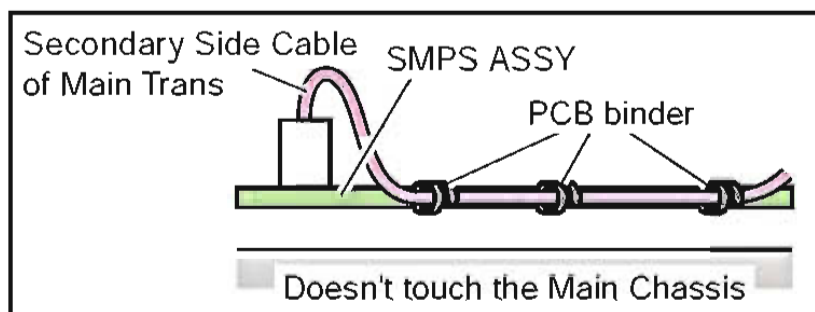
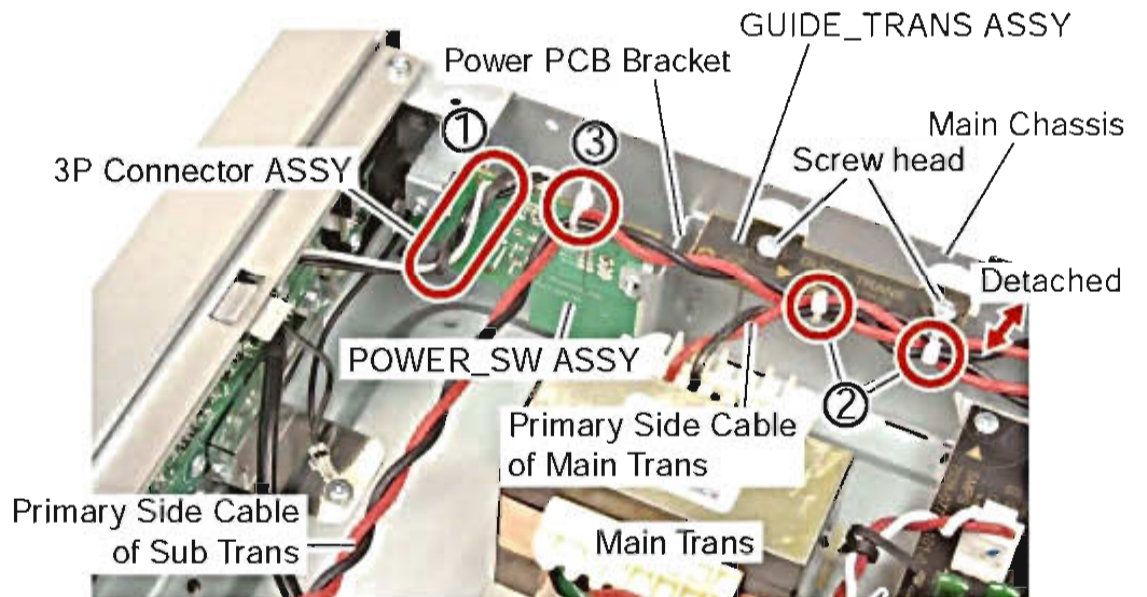


• Rear side



**[8] Styling of cables (N-50A-K, N-50A-S)**

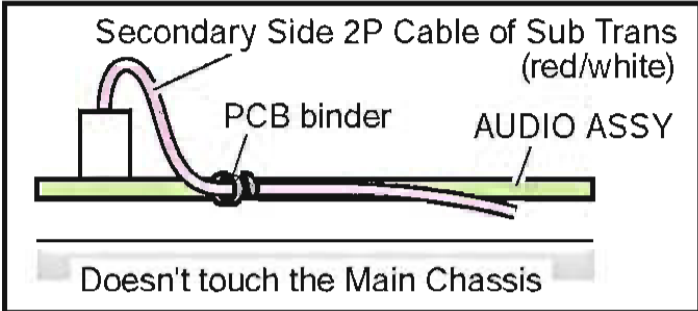
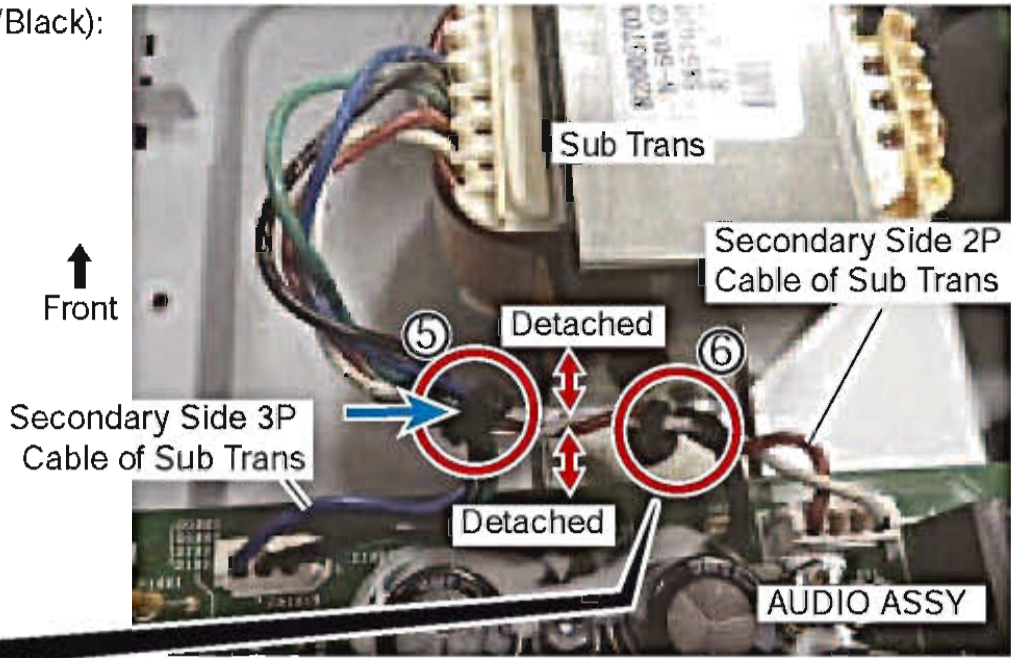
- (1) 3P Connector ASSY from the LED ASSY:  
Fix the PCB binder of POWER\_SW ASSY by lowering the 3P Connector ASSY not to touch with the Cabinet.
- (2) Primary Side Cable of Main Trans:  
Primary Side Cable of Sub Trans:  
Fix the cables on GUIDE\_TRANS ASSY with the two binders not to touch with the Main Chassis and screw heads.
- (3) Primary Side Cable of Sub Trans:  
Fix the cable on POWER\_SW ASSY with the binder not to touch with the edge of Power PCB Bracket and Main Trans.
- (4) Secondary Side Cable of Main Trans:  
Fix the cable with three PCB binders of SMPS ASSY at the height of SMPS ASSY not to touch with the diode.



Front

(5) Secondary Side 3P Cable of Sub Trans (Blue/Green/Black):  
 Secondary Side 3P Cable of Sub Trans (Red/White):  
 Bind the cable with binder at right side (in blue arrow direction) not to allow cables laxation as shown in the photo.

(6) Secondary Side 2P Cable of Sub Trans (Red/White):  
 Fix the cable with PCB binder of AUDIO ASSY at the height of AUDIO ASSY not to touch with the AUDIO ASSY and Sub Trans.



(7) Winding Numbers of Power Cables :

CN, Wire	1 turn
Primary Side Cable of Main Trans	1.5 turns
Primary Side Cable of Sub Tran	8 turns
Secondary Side Cable of Main Trans	3 turns
Secondary Side 2P Cable of Sub Trans (Red/White)	3.5 turns
Secondary Side 3P Cable of Sub Trans (Blue/Green/Black)	1.5 turns

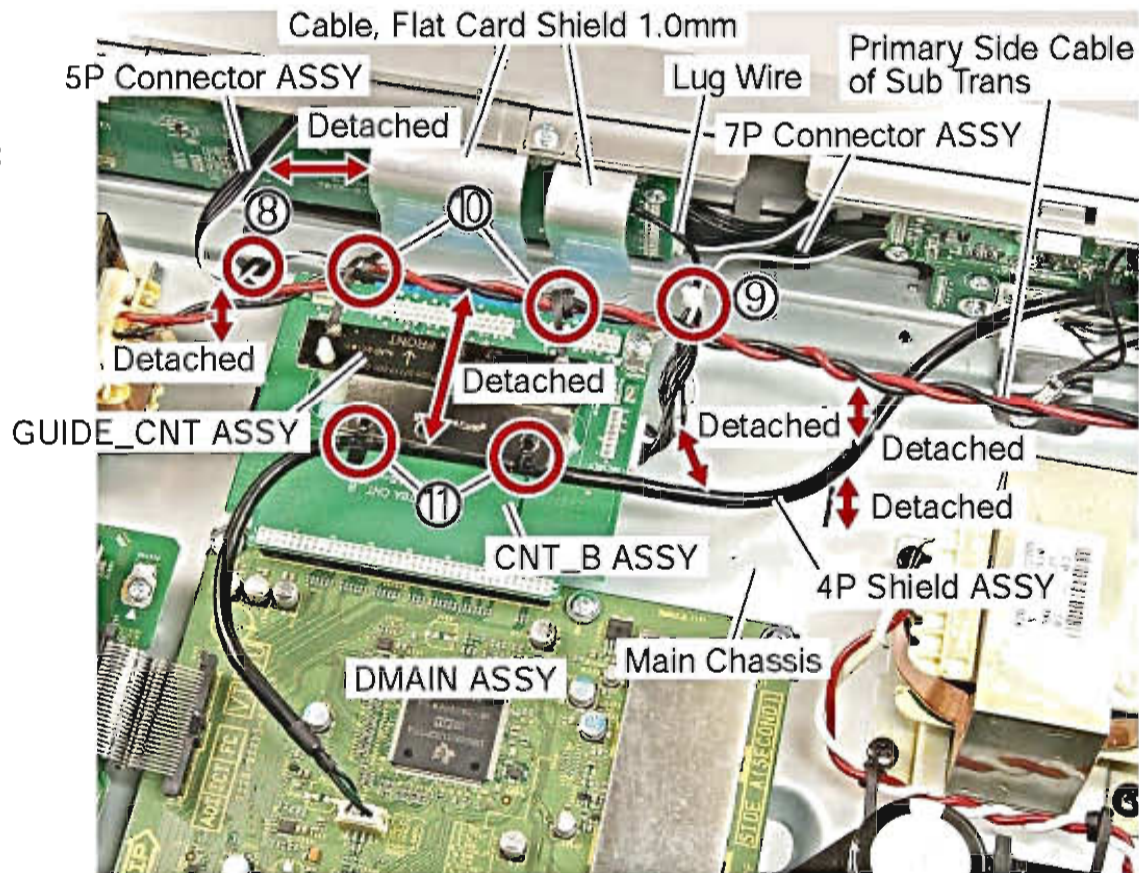
(8) 5P Connector ASSY from the FRONT ASSY:  
 Fix the PCB binder of CNT\_B ASSY not to touch with the Cable, Flat Card Shield 1.0mm (N713390922480S) and Main Chassis.

(9) Lug Wire from the FRONT ASSY:  
 Be sure to through the Lug Wire at the rear side of Cable, Flat Card Shield 1.0mm (N713200922480S), and bind the 7P Connector ASSY with binder.

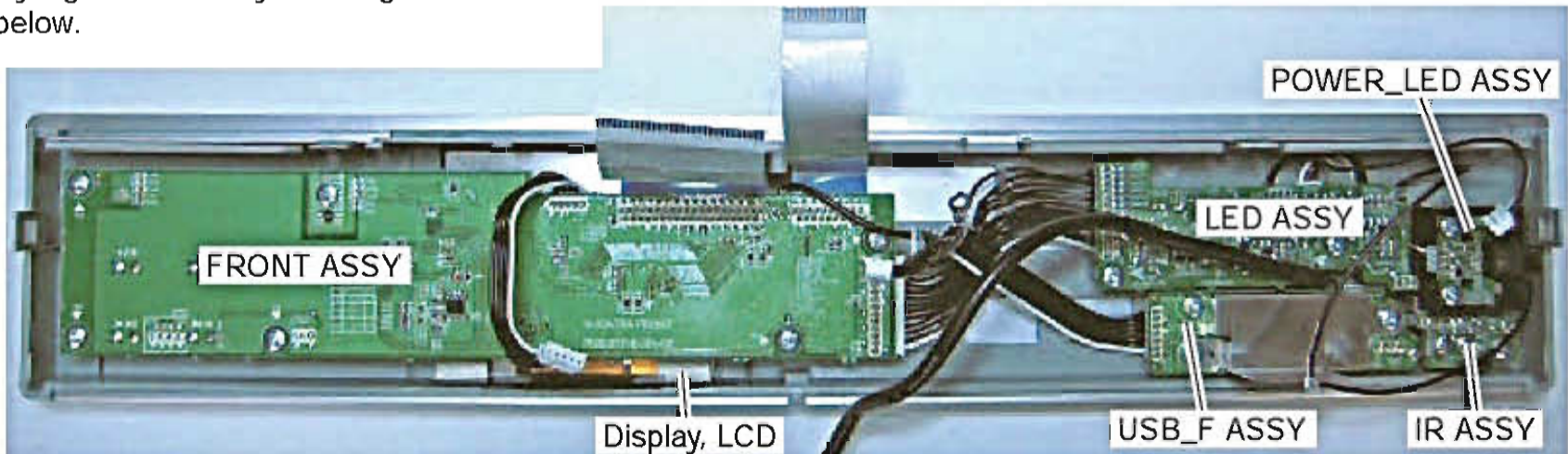
7P Connector ASSY from the USB\_F ASSY:  
 Bind the 7P Connector ASSY with binder to Lug Wire, separate from the 4P Shield ASSY as much as possible and not to touch with the Main Chassis.

(10) Primary Side Cable of Sub Trans:  
 Fix the cable with two PCB binders of GUIDE\_CNT ASSY, separate from the 4P Shield ASSY as much as possible.

(11) 4P Shield ASSY from the USB\_F ASSY:  
 Fix the 4P Shield ASSY on GUIDE\_CNT ASSY with the two binders, separate from the 7P Connector ASSY and Primary Side Cable of Sub Trans as much as possible and not to touch with the Main Chassis and Cabinet.



(12) Cables of the Front Section:  
 Make styling the cables by referring to the photo below.



## [9] Attach the cushions and tapes, etc. (N-50A-K, N-50A-S)

### [9-1] Cabinet

When attach the new Cushion, Himelon 30 x 15 (2 sheets), Himelon 7 x 120 (2 sheets), Acetate Tape 10 x 70 (4 sheets) and Acetate Tape 10 x 20 (2 sheets), refer to the photo on the right side.

### [9-2] AUDIO ASSY

When replacing the AUDIO ASSY, peel off the Fiber Washer (2 pieces) from the Side-B of original AUDIO ASSY and attach it to the Side-B of new AUDIO ASSY. If the Fiber Washer cannot be recycled, attach the new Fiber Washer.

(Not necessary if it is not attached from the start)

### [9-3] DMAIN ASSY

(It is the same in N-70A-K, N-70A-S)

When replacing the DMAIN ASSY, peel off the Acetate Tape 25 x 40 from the original DMAIN ASSY and attach it to the new DMAIN ASSY.

If the tape cannot be recycled, attach the new Acetate Tape 25 x 40.

Refer to the "[4-3] DMAIN ASSY" of N-70A-K, N-70A-S for the reference photo.

### [9-4] SMPS ASSY

(It is the same in N-70A-K, N-70A-S)

When replacing the SMPS ASSY, peel off the Acetate Tape 6 x 6 from the original SMPS ASSY and attach it to the new SMPS ASSY.

If the tape cannot be recycled, attach the new Acetate Tape 6 x 6.

Refer to the "[4-4] SMPS ASSY" of N-70A-K, N-70A-S for the reference photo.

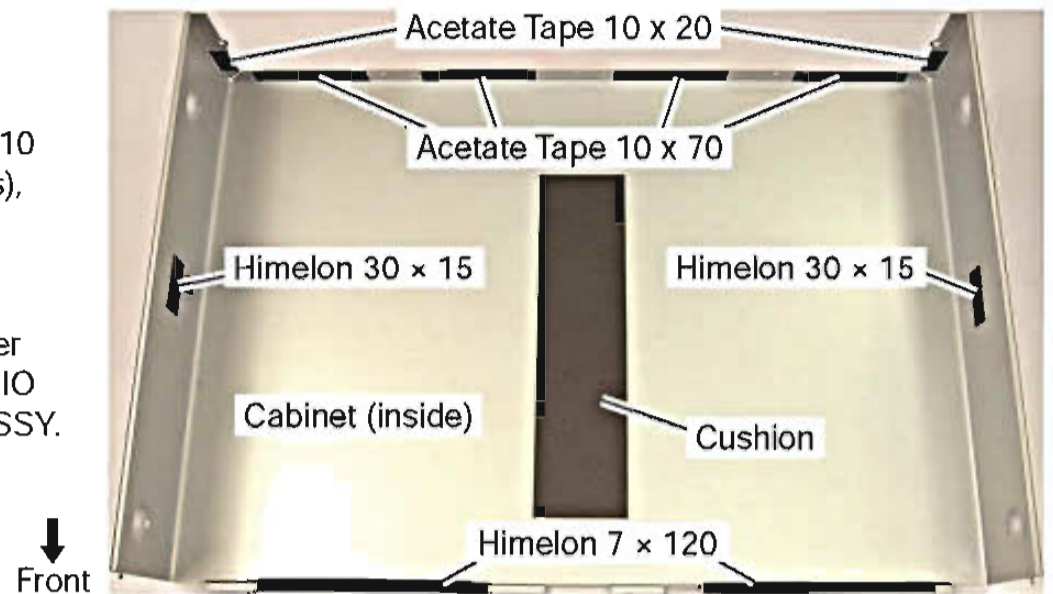
### [9-5] FRONT ASSY

(It is the same in N-70A-K, N-70A-S)

When replacing the FRONT ASSY, peel off the Acetate Tape 20 x 40 from the original FRONT ASSY and attach it to the new FRONT ASSY.

If the tape cannot be recycled, attach the new Acetate Tape 20 x 40.

Refer to the "[4-5] FRONT ASSY" of N-70A-K, N-70A-S for the reference photo.



### [9-6] Display, LCD

(It is the same in N-70A-K, N-70A-S)

When replacing the Display, LCD, peel off the Neoprene Sponge 2 x 35 x 35 from the original Display, LCD and attach it to the new Display, LCD.

If the sponge cannot be recycled, attach the new Neoprene Sponge 2 x 35 x 35.

Refer to the "[4-6] Display, LCD" of N-70A-K, N-70A-S for the reference photo.

### [9-7] Bottom Plate

(It is the same in N-70A-K, N-70A-S)

When replacing the Bottom Plate, attach the new EVA 280 x 5 (2 sheets).

Attach the EVA 280 x 5 to the side surface of Bottom Plate without protrusion to bottom surface side.

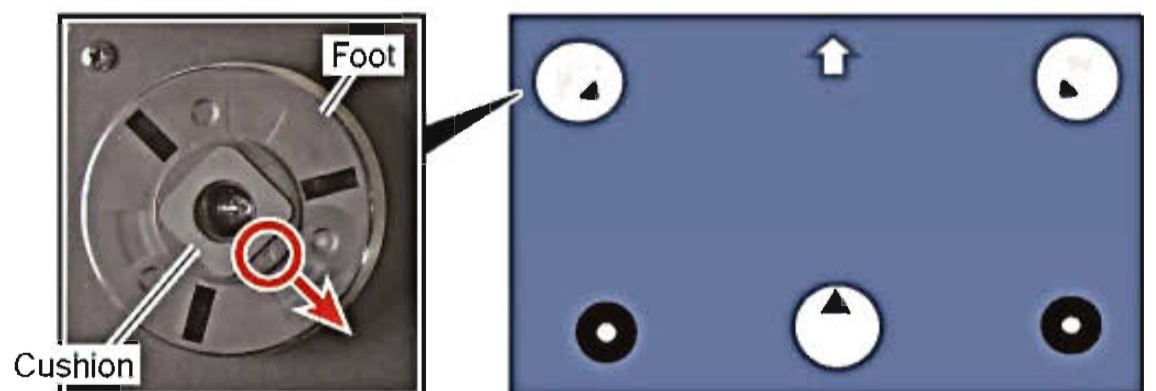
Refer to the "[4-7] Bottom Plate" of N-70A-K, N-70A-S for the reference photo and figure.

## [10] Attach the Foot (It is the same in N-70A-K, N-70A-S)

### [10-1] Foot

Align the mark at under surface of Foot with the direction of figure.

When replacing the Foot, attach the new Cushion (4050215675000S) (each one sheet).



### [10-2] Support Foot

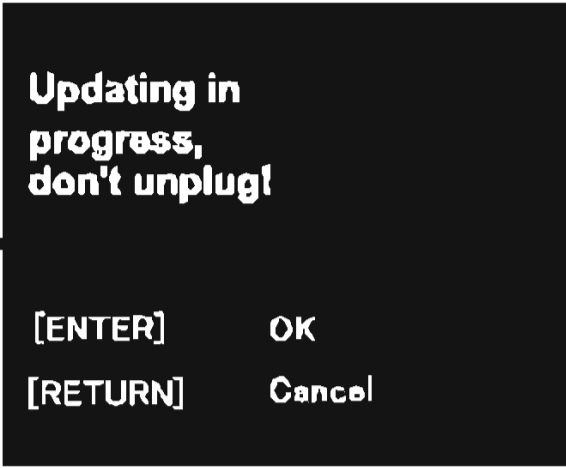
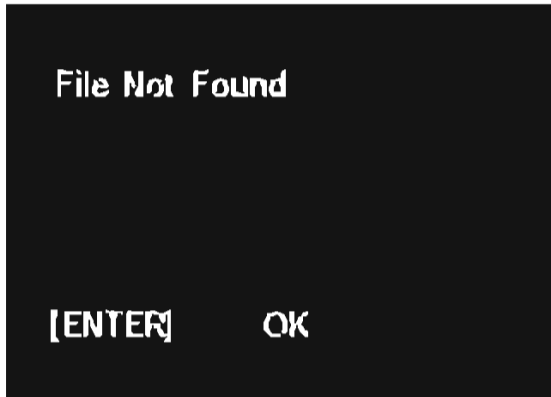

Gap is generated between the Support Foot and Bottom Plate when tightening the screw too tight. Be sure to mount without causing a gap.

Refer to the "[5-2] Support Foot" of N-70A-K, N-70A-S for the reference photo.

# 8. EACH SETTING AND ADJUSTMENT

## 8.1 HOW TO UPDATING OF THE FIRMWARE







- A
1. Store an update file in the root folder in a USB memory.  
\* Do not place plural update files in the root folder.  
Only one update file founded first is recognized.  
  
\* For update files  
Update file compiles the Firmware of Main CPU, Sub CPU and DM860. It provides three types as below;  
**MAIN, SUB and DM860 integrated version**  
ex. NAP2015APPM034S034N1003.fw      It indicates that Main : v034, Sub : 034, and DM860 : 1.003.  
**SUB and DM860 integrated version**  
ex. NAP2015APPMxxxS034N1003.fw      It indicates that Sub : 034, and DM860 : 1.003. Also, Mxxx means that there is no Main.
- B
- DM860 only**  
ex. NAP2015APP1003.fw      It indicates that DM860 : 1.003.
2. Plug the power cord into the outlet and power is turned ON.
  3. Connect the USB memory storing the update file to the Front USB terminal.  
\* Front USB terminal is selected when Firmware updating. USB memory will not be recognized when connected to the Rear USB terminal.
  4. Press "ESC" -> "+10" of the Service Remote Control Unit GGF1381 to enter the service mode.  
Exit the service mode by function switching or power is turned OFF.
- C
5. Select "CX870/Subcom Update Via USB" on the menu screen.  
The cursor movement and ENTER can work by using the ◀▶ and ▶/|| key of and on the Main Unit, respectively.  
\* "Subcom Update Via USB" on the menu is not used.
  6. On the update screen, press "Enter" or ▶/|| key on the Main Unit to start update.
  7. During the update, DM860 will automatically restart and the writing processing of software will automatically start.  
When the update succeeds, a progress bar will become green and the restart will be automatically executed.
- D
- \* For the Fail-safe Mode  
If the power is turned OFF during the update (during the writing) of MAIN or SUB, the Fail-safe Mode will start when the power is turned ON the next time.  
In this mode, any operation other than update is disabled until an update file is found from the USB memory inserted to the Front USB terminal as Fail-safe Mode.
- \* Fail-safe Mode is provided, however, power is not turned OFF during the update.
- \* When power is turned OFF during the writing of DM860, the start will be executed by using the previous Firmware before the writing, instead of entering the Fail-safe Mode.  
Perform the writing again as necessary after confirming the version.
- E
- F

Explanation	Key operation	LCD display	Time
<p>Update will start when [ENTER] is pressed on this screen.</p> <p>Go back to the previous screen, press [RETURN].</p> <p>Error will be displayed after [ENTER] key is pressed. Refer to *1 of detailed explanations for Error displays.</p>	<p>Remote Control Unit [ENTER] [RETURN]</p> <p>Main Unit ▶/  </p> <p>With the update file</p>	 <p style="text-align: center;">Without the update file</p>	
<p>*1 Alert will be displayed when the update file is not found in the USB memory. Press [ENTER] and return to MENU to try again.</p> <p>* This applies when a USB memory is not inserted.</p>			
<p>DM860 automatically restarts.</p> <p>DM860 restart is completed. Progress bar is displayed.</p>	<p>Not available</p> <p>Not available</p> <p>Not available</p>		<p>About 20 seconds after the restart</p>

D

E

F

<p>Updating in process (Writing in process)</p> <p>When the update succeeds, progress bar will become green and power will be automatically turned OFF.</p> <p>Power OFF</p> <p>Confirm the version when starting the next time.</p>	<p>Not available</p> <p>Not available</p> <p>Not available</p> <p>Not available</p>	  <p>Updating... Please wait for about 6 minutes.</p>   	<p>After 15 seconds</p> <p>MAIN/SUB/ DM860 About 6 minutes</p> <p>SUB/DM860 4 - 5 minutes</p> <p>DM860 only About 1 minutes</p>
<p>Progress bar will become red when the update fails. This state will keep during the failure. Reset by plugging in and out the power code. The start will executed by the previous version. Abnormal data falls under this.</p>			<p>Limitless</p>

■ Firmware update from the Fail-safe

Explanation	Key operation	LCD display	Time
<p>Power OFF</p> <p>Power ON</p> <p>MAIN or SUB is damaged, and a USB memory is not inserted. * This screen does not provide language development. English only.</p> <p>USB memory has been inserted.</p> <p>Firmware update will automatically start when the update file is recognized.</p>	<p>[POWER]</p>	<p>Update failed. Please check the update file.</p> <p>USB memory insertion</p> <p>Please wait...</p> <p>Without the update file</p> <p>After this, the process flow is the same as the regular update.</p>	<p>It will be displayed until the update file is recognized.</p>

## 8.2 HOW TO CONFORM EACH TERMINAL

### 1. Confirmation of LAN terminals

Directly connect a PC to the Main Unit via a LAN cable.

After the connection, power is turned ON of the Main Unit. (Network Standby should be turned OFF.)

In 1 - 2 minutes after the start of the product, IP address (169.254.1.1) will be automatically allocated.

Run a Web browser and enter the URL, "http://169.254.1.1/index.html" It is in normal operation when the screen display as below is confirmed.



### 2. USB-B (Rear)

Power is turned ON of the Main Unit and connect to a PC via a USB-B cable.

Set the function to "USB DAC In."

Install a driver downloaded from the homepage of Pioneer, and it is in normal operation when

"Pioneer N-70A N-50A USB Audio" is displayed in the list of "Sound" of the device manager in the PC.

\*1 : For Windows7

### 3. USB-A (Rear)

With the USB memory storing music files connected, select "iPod/USB Rear."

It is in normal operation when the folder and file information of the USB memory is displayed on the LCD screen.

\* For the Front USB, it is in normal operation when the Firmware update can be executed.



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N-70A-K

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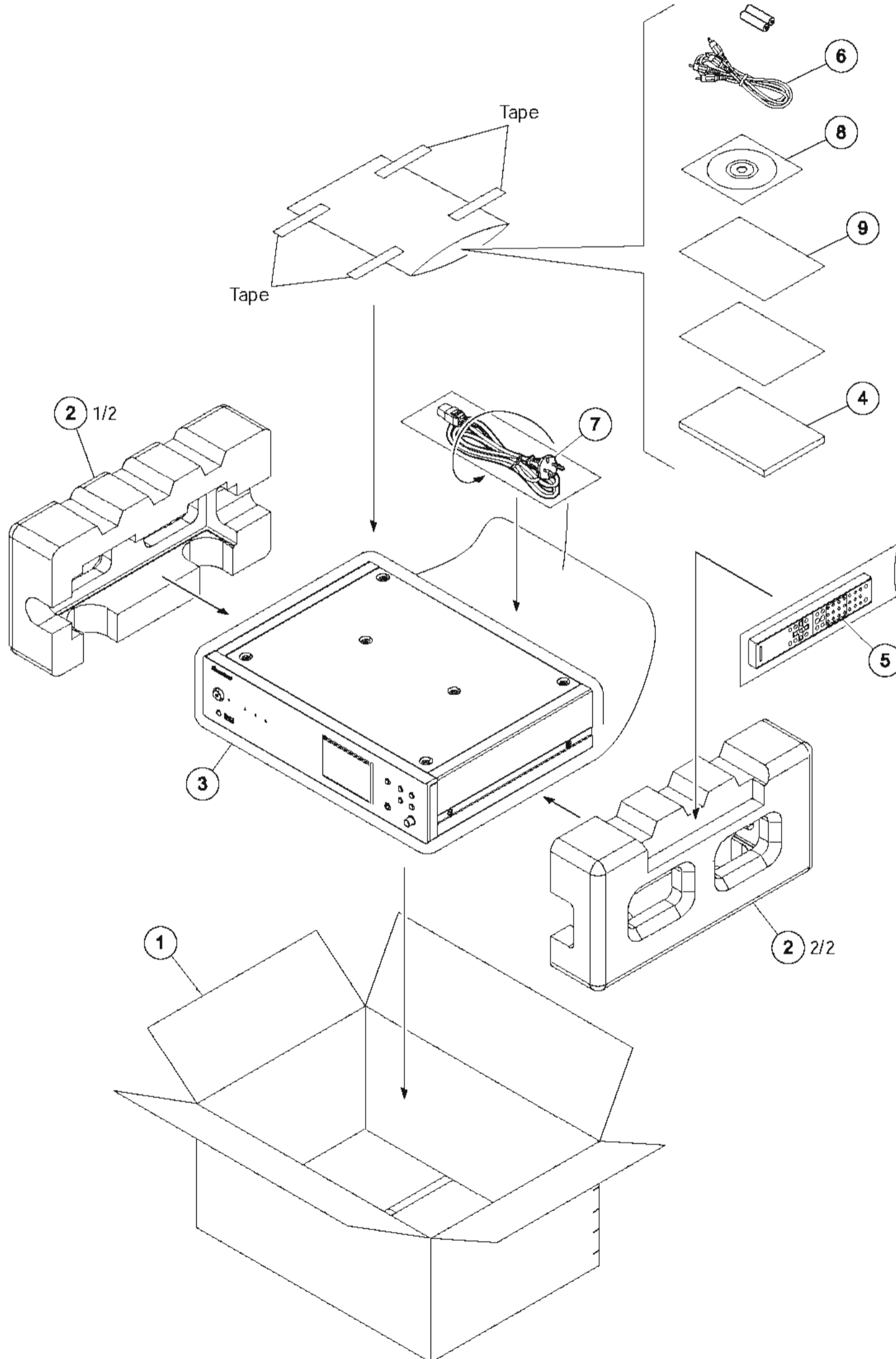
49

■

# 9. EXPLODED VIEWS AND PARTS LIST

- NOTES:**
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
  - The  $\triangle$  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  $\nabla$  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.)

## 9.1 PACKING SECTION



**(1) PACKING SECTION PARTS LIST**

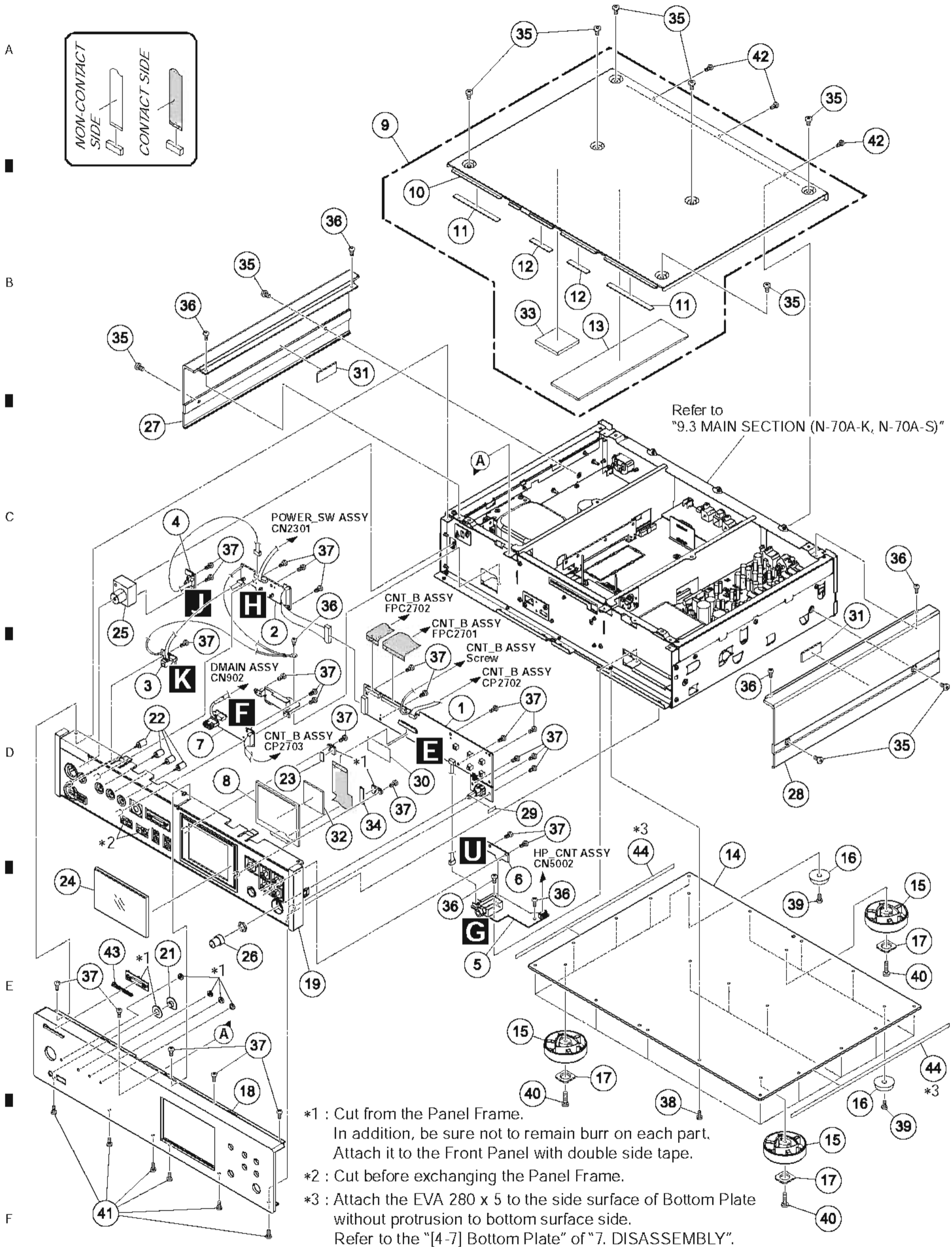
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Box, Gift	See Contrast table (2)
2	Cushion, Snow	See Contrast table (2)
3	PE, Sheet	6327040059000-IL
4	Quick Start Guide	5707000009640S
5	Remote Control Unit	8300773500010S
6	RCA Audio Cable	L063102020050-IL
⚠ 7	Power Cord	L068250160020-IL
8	Operating Instructions (CD-ROM)	6517000002031S
9	Safety Brochure	5227000008590S

**(2) CONTRAST TABLE**

N-70A-K, N-70A-S, N-50A-K and N-50A-S are constructed the same except for the following:

Mark	No.	Symbol and Description	N-70A-K	N-70A-S	N-50A-K	N-50A-S
	1	Box, Gift	6007213020010S	6007213020020S	6007213010010S	6007213010020S
	2	Cushion, Snow	6230213924000S	6230213924000S	6230213084100S	6230213084100S

## 9.2 EXTERIOR SECTION (N-70A-K, N-70A-S)



**(1) EXTERIOR SECTION PARTS LIST (N-70A-K, N-70A-S)**

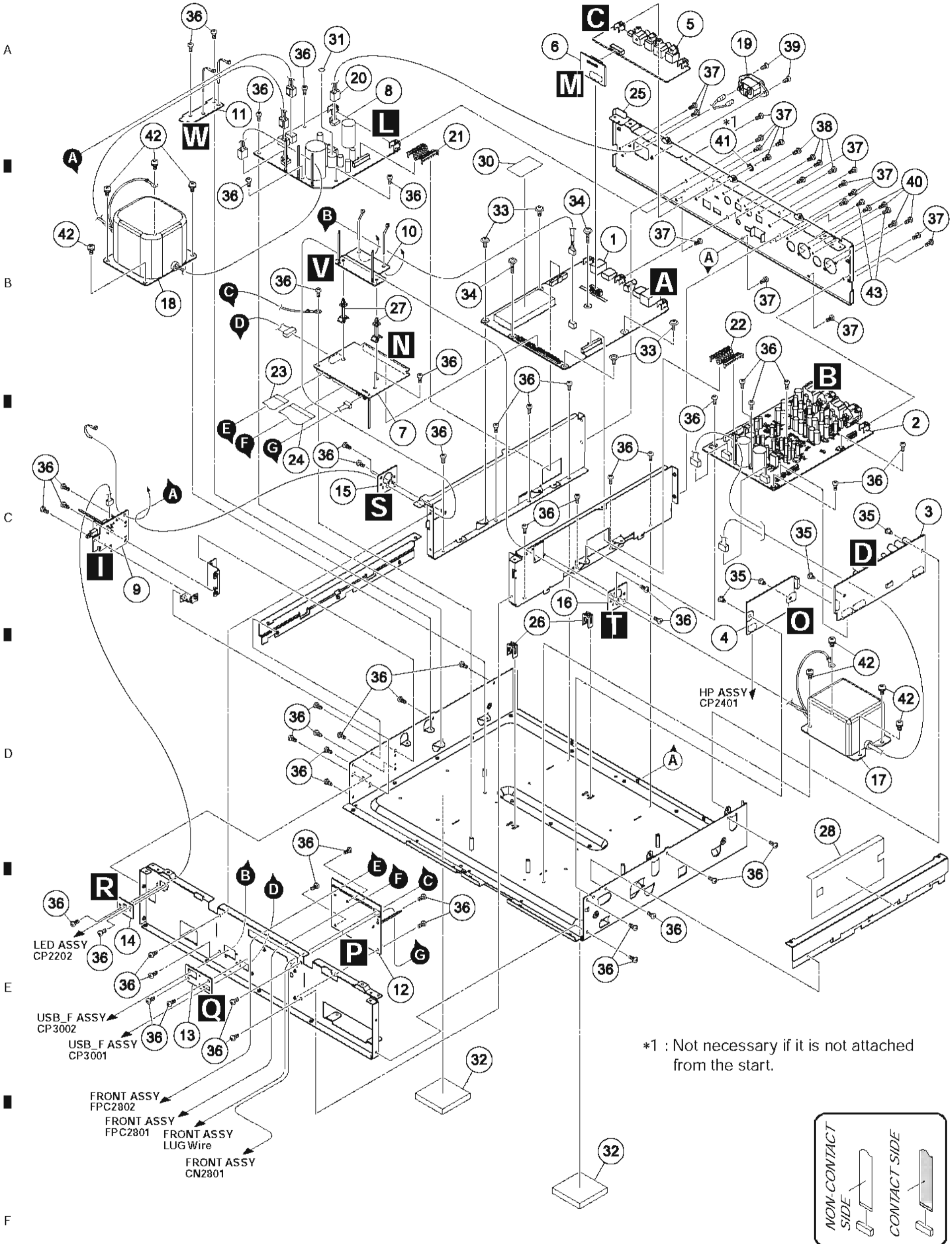
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	FRONT ASSY	7028077161030	26	HP Vol. Knob ASSY	See Contrast table (2)
2	LED ASSY	7028077172010	27	Side Panel L	See Contrast table (2)
3	IR ASSY	7028077173010	28	Side Panel R	See Contrast table (2)
4	POWER_LED ASSY	7028077174010	29	Knob Tape	1220211832000S
5	HP ASSY	7028077191010	30	Acetate Tape 20 x 40	1220211899300S
6	GUIDE_HP ASSY	7028077196010	31	Neoprene Sponge 2 x 35 x 15	1200210165000S
7	USB_F ASSY	7028077181010	32	Neoprene Sponge 2 x 35 x 35	1200210165100S
8	Display, LCD	K550350600010S	33	CR Rubber 4 x 40 x 40	4050215825000S
9	Cabinet ASSY	See Contrast table (2)	34	Soft Gasket	4400210959100S
10	Cabinet	See Contrast table (2)	35	Screw, 4 x 6	See Contrast table (2)
11	Himelon 7 x 80	1210211749100SV	36	Screw, Tap Tite 3 x 6 Silver	B020030061B10SV
12	Himelon 7 x 35	1210211749200SV	37	Screw, Tap Tite 3 x 8 Silver	B020030081B10-IL
13	Cushion	4050213795000-IL	38	Screw, Tap Tite 3 x 8 Black	B020030083B10-IL
14	Bottom Plate	3207215116100S	39	Screw, Tap Tite 4 x 8 Silver	B020940081W10SV
15	Foot	See Contrast table (2)	40	Screw, Tap Tite 4 x 8 Silver	B020040081B10SV
16	Support Foot	4000210935000S	41	Screw, Tap Tite 3 x 8	See Contrast table (2)
17	Cushion	4050215675000S	42	Screw, Tap Tite 3 x 6 Black	B020030063B10SV
18	Front Panel	See Contrast table (2)	43	Pioneer Badge	See Contrast table (2)
19	Panel Frame	See Contrast table (2)	44	EVA 280 x 5	4050215645000S
20	.....				
21	IR Lens	See Contrast table (2)			
22	LED Lens	3710210693000-IL			
23	Cushion LCD	4050213805000-IL			
24	Display Window	5077213713100S			
25	Knob Assy	See Contrast table (2)			

**(2) CONTRAST TABLE**

N-70A-K and N-70A-S are constructed the same except for the following:

Mark	No.	Symbol and Description	N-70A-K	N-70A-S
	9	Cabinet ASSY	3008212116010	3008212116000
	10	Cabinet	3007212116010S	3007212116000S
	15	Foot	4000210891000S	4007210891000S
	18	Front Panel	3067216358010S	3067216358000S
	19	Panel Frame	3217212321000S	3217212321100S
	21	IR Lens	3710210683000-IL	3710210683100-IL
	25	Knob Assy	5088211391400-IL	5088211391300-IL
	26	HP Vol. Knob ASSY	5088212918010S	5088212918000S
	27	Side Panel L	4317216148010S	4317216148000S
	28	Side Panel R	4317216158010S	4317216158000S
	35	Screw, 4 x 6	1500210736000S	1500210746000S
	41	Screw, Tap Tite 3 x 8	B020030083B10-IL	B020030081B10-IL
	43	Pioneer Badge	BAM1004	VAM1124

# 9.3 MAIN SECTION (N-70A-K, N-70A-S)



**(1) MAIN SECTION PARTS LIST (N-70A-K, N-70A-S)**

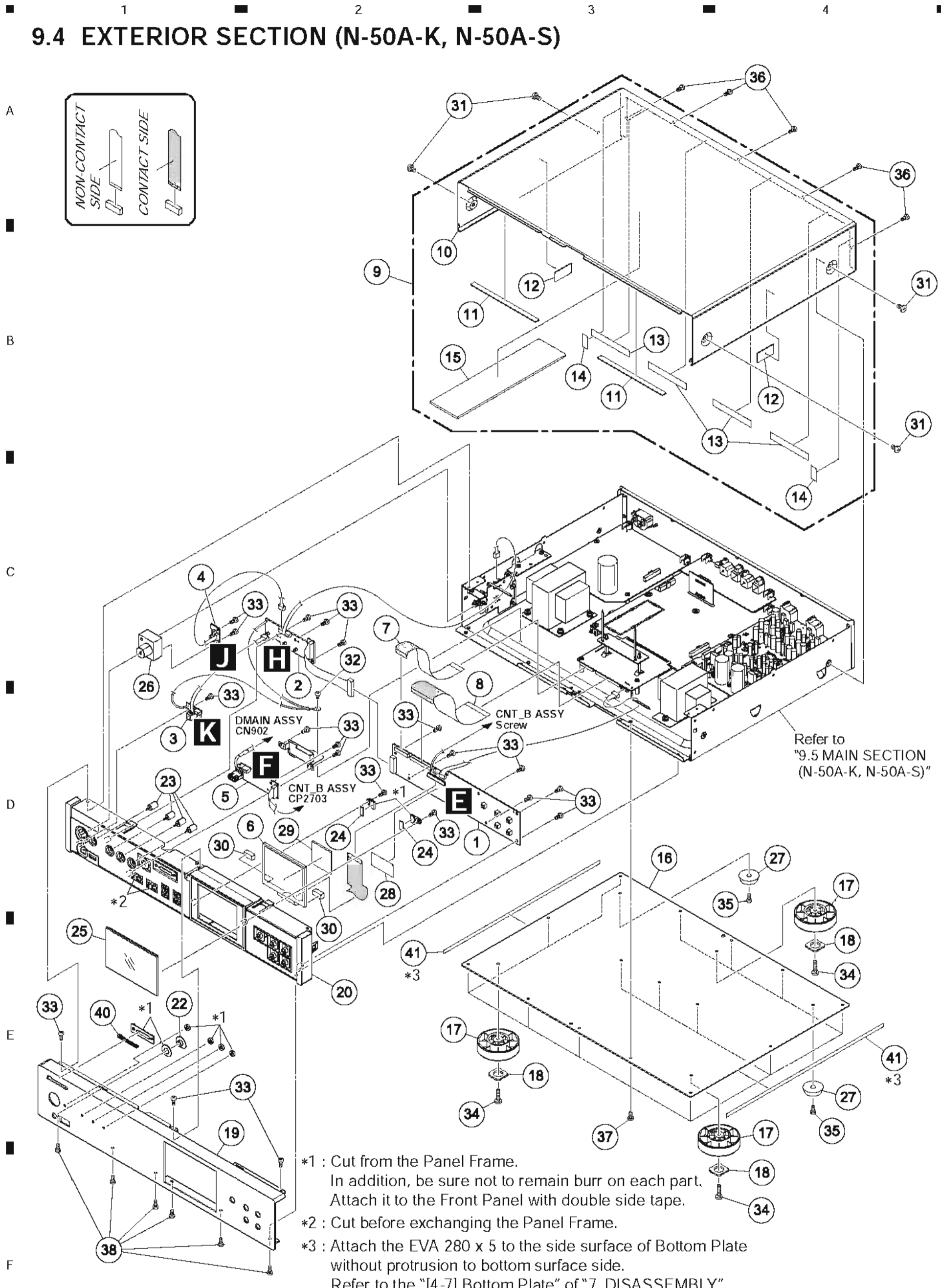
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	DMAIN ASSY	7028077131020	26	Supporter	4070001601020S
2	AUDIO ASSY	7028077141010	27	Supporter	4070211583000-IL
3	HP_AMP ASSY	7028077151010	28	Insulation	1240210192000S
4	HP_CNT ASSY	7028077152010	29	.....	
5	JACK ASSY	7028077162010	30	Acetate Tape 25 x 40	1220211899400S
6	CNT_A ASSY	7028077163010	31	Acetate Tape 6 x 6	1220211899500S
7	CNT_B ASSY	7028077164010	NSP 32	Neoprene Sponge 8 x 50 x 50	.....
⚠ 8	SMPS ASSY	7028077171030	33	Screw, 3 x 8	1500001206010-IL
9	POWER_SW ASSY	7028077175010	34	Screw, 3 x 17	1500001206020-IL
10	GUIDE_CNT ASSY	7028077176010	35	Rivet	1560210071000S
11	GUIDE_TRANS ASSY	7028077177010	36	Screw, Tap Tite 3 x 6	B020030061B10SV
12	GUIDE_FRONT1 ASSY	7028077192010	37	Screw, Tap Tite 3 x 6	B020030063B10SV
13	GUIDE_FRONT2 ASSY	7028077193010	38	Screw, Tap Tite 3 x 8	B020030083B10-IL
14	GUIDE_FRONT3 ASSY	7028077194010	39	Screw, Tap Tite 3 x 8	B020030083F10-IL
15	GUIDE_L ASSY	7028077197010	40	Screw, Tap Tite 3 x 8	B020030083P10SV
16	GUIDE_R ASSY	7028077198010	NSP 41	Tooth Washer	.....
⚠ 17	Sub Trans	8200570300220S	42	Screw, Tap Tite ASSY 4 x 10	B028940101B11-IL
⚠ 18	Main Trans	8200660300220S	43	Screw, Tap Tite 3x10	B020030103B11-IL
⚠ 19	AC Inlet	G430040807010S			
⚠ 20	CN, Wire	L000400020050-IL			
21	CN. FPC 1.25mm	L131019100040S			
22	CN. FPC 1.25mm	L131023100040S			
23	Cable, Flat Card Shield 1.0mm	N713201122480S			
24	Cable, Flat Card Shield 1.0mm	N713391122480S			
25	Rear Panel	See Contrast table (2)			

**(2) CONTRAST TABLE**

N-70A-K and N-70A-S are constructed the same except for the following:

Mark	No.	Symbol and Description	N-70A-K	N-70A-S
	25	Rear Panel	3207215106010S	3207215106020S

# 9.4 EXTERIOR SECTION (N-50A-K, N-50A-S)





**(1) EXTERIOR SECTION PARTS LIST (N-50A-K, N-50A-S)**

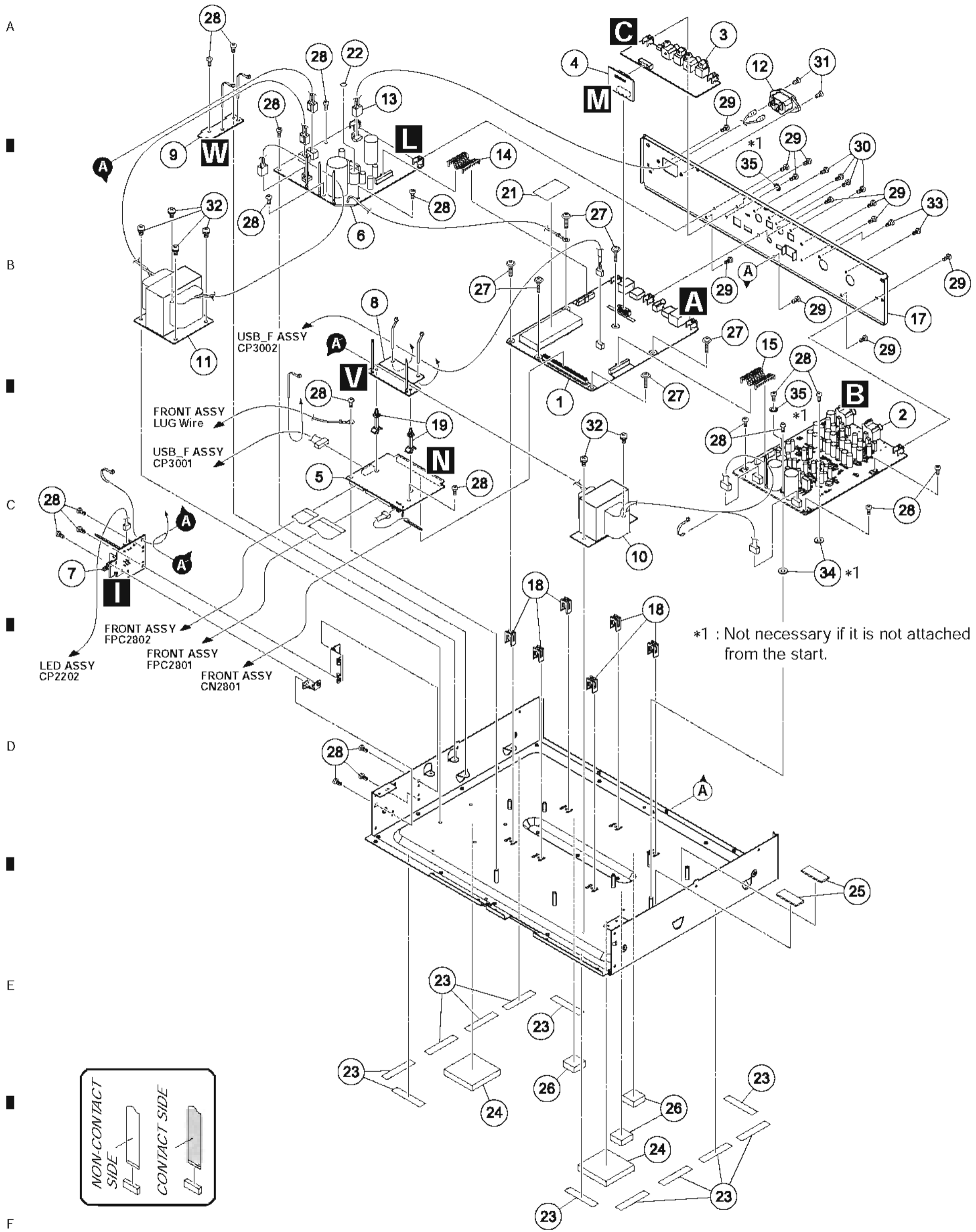
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	FRONT ASSY	7028077161040	21	.....	
2	LED ASSY	7028077172020	22	IR Lens	See Contrast table (2)
3	IR ASSY	7028077173010	23	LED Lens	3710210693000-IL
4	POWER_LED ASSY	7028077174010	24	Cushion LCD	4050213805000-IL
5	USB_F ASSY	7028077181020	25	Display Window	5077213713000S
6	Display, LCD	K550350600010S	26	Knob Assy	See Contrast table (2)
7	Cable, Flat Card Shield 1.0mm	N713200922480S	27	Support Foot	4000210935000S
8	Cable, Flat Card Shield 1.0mm	N713390922480S	28	Acetate Tape 20 x 40	1220211899300S
9	Cabinet ASSY	See Contrast table (2)	29	Neoprene Sponge 2 x 35 x 35	1200210165100S
10	Cabinet	See Contrast table (2)	30	Gasket	4400210959000S
11	Himelon 7 x 120	1210211749000-IL	31	Screw, 4 x 8	See Contrast table (2)
12	Himelon 30 x 15	1210212839000S	32	Screw, Tap Tite 3 x 6 Silver	B020030061B10SV
13	Acetate Tape 10 x 70	1220211899000S	33	Screw, Tap Tite 3 x 8 Silver	B020030081B10-IL
14	Acetate Tape 10 x 20	1220211899200S	34	Screw, Tap Tite 4 x 8 Silver	B020040081B10SV
15	Cushion	4050213795000-IL	35	Screw, Tap Tite 4 x 8	B020940081W10SV
16	Bottom Plate	3207214086200S	36	Screw, Tap Tite 3 x 6 Black	B020030063B10SV
17	Foot	See Contrast table (2)	37	Screw, Tap Tite 3 x 8 Black	B020030083B10-IL
18	Cushion	4050215675000S	38	Screw, Tap Tite 3 x 8	See Contrast table (2)
19	Front Panel	See Contrast table (2)	40	Pioneer Badge	See Contrast table (2)
20	Panel Frame	See Contrast table (2)	41	EVA 280 x 5	4050215645000S

**(2) CONTRAST TABLE**

N-50A-K and N-50A-S are constructed the same except for the following:

<u>Mark</u>	<u>No.</u>	<u>Symbol and Description</u>	<u>N-50A-K</u>	<u>N-50A-S</u>
	9	Cabinet ASSY	3008211956010	3008211956000
	10	Cabinet	3007211956010-IL	3007211956000-IL
	17	Foot	4000210891000S	4007210891000S
	19	Front Panel	3067216368010S	3067216368000S
	20	Panel Frame	3217212331000S	3217212331100S
	22	IR Lens	3710210683000-IL	3710210683100-IL
	26	Knob Assy	5088211391400-IL	5088211391300-IL
	31	Screw, 4 x 8	1500040083B10-IL	1500040084B10-IL
	38	Screw, Tap Tite 3 x 8	B020030083B10-IL	B020030081B10-IL
	40	Pioneer Badge	BAM1004	VAM1124

# 9.5 MAIN SECTION (N-50A-K, N-50A-S)



■                    5                    ■                    6                    ■                    7                    ■                    8                    ■

**(1) MAIN SECTION PARTS LIST (N-50A-K, N-50A-S)**

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	DMAIN ASSY	7028077131010	21	Acetate Tape 25 x 40	1220211899400S
2	AUDIO ASSY	7028077141020	22	Acetate Tape 6 x 6	1220211899500S
3	JACK ASSY	7028077162010	NSP 23	Acetate Tape 10 x 50	.....
4	CNT_A ASSY	7028077163010	NSP 24	Neoprene Sponge 8 x 50 x 50	.....
5	CNT_B ASSY	7028077164010	25	Neoprene Sponge 2 x 35 x 15	1200210165000S
△ 6	SMPS ASSY	7028077171040	NSP 26	CR Rubber 8 x 20 x 20	.....
7	POWER_SW ASSY	7028077175020	27	Screw, 3 x 17	1500001206020-IL
8	GUIDE_CNT ASSY	7028077176010	28	Screw, Tap Tite 3 x 6 Silver	B020030061B10SV
9	GUIDE_TRANS ASSY	7028077177010	29	Screw, Tap Tite 3 x 6 Black	B020030063B10SV
△ 10	Sub Trans	8200570300150S	30	Screw, Tap Tite 3 x 8 Black	B020030083B10-IL
△ 11	Main Trans	8200660300240S	31	Screw, Tap Tite 3 x 8	B020030083F10-IL
△ 12	AC Inlet	G430040807010S	32	Screw, Tap Tite ASSY 4 x 10	B028940101B11-IL
△ 13	CN, Wire	L000400020050-IL	33	Screw, Tap Tite 3 x 10	B020030103B11-IL
14	CN. FPC 1.25mm	L131019100040S	34	Fiber Washer	1530210542000S
15	CN. FPC 1.25mm	L131023100040S	NSP 35	Tooth Washer	.....
16	.....				
17	Rear Panel	See Contrast table (2)			
18	Supporter	4070001601020S			
19	Supporter	4070211583000-IL			
20	.....				

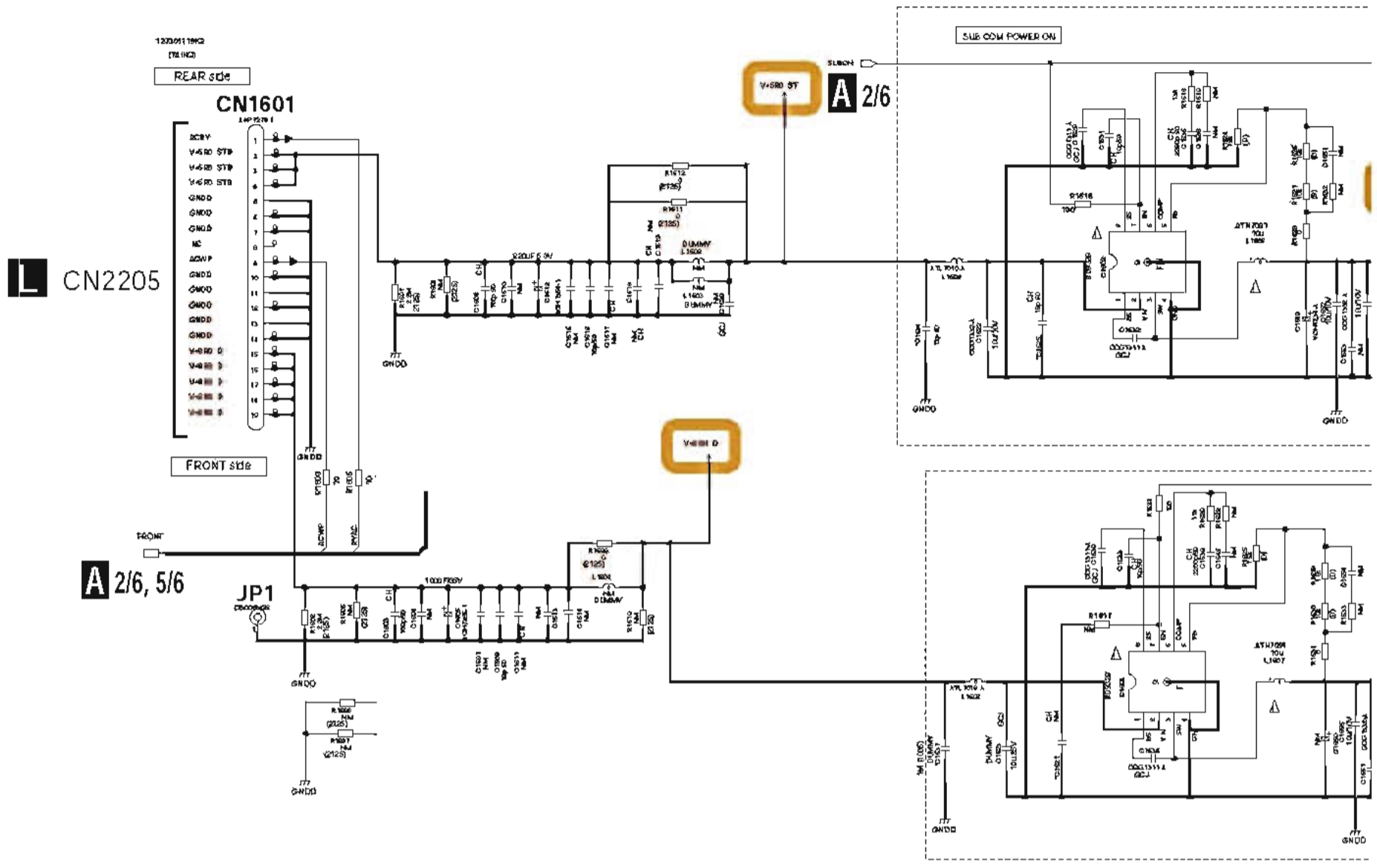
**(2) CONTRAST TABLE**

N-50A-K and N-50A-S are constructed the same except for the following:

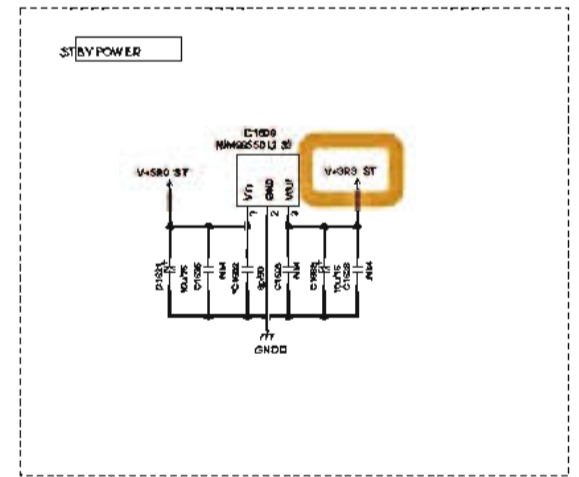
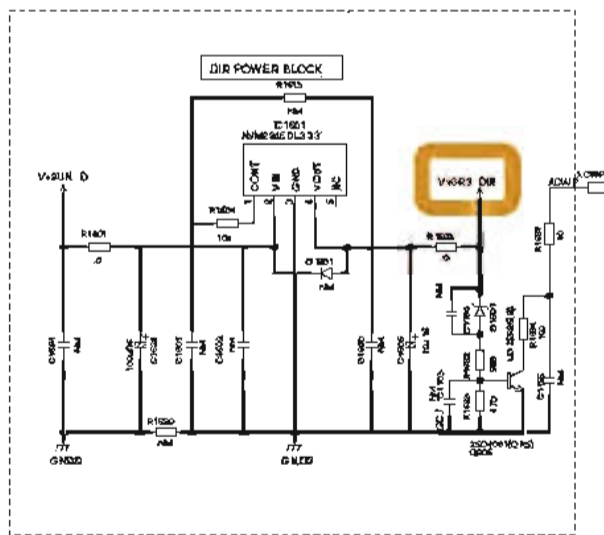
Mark	No.	Symbol and Description	N-50A-K	N-50A-S
	17	Rear Panel	3207215096010S	3207215096020S

# 10. SCHEMATIC DIAGRAM

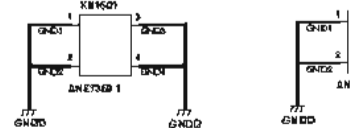
## 10.1 DMAIN ASSY (1/6)(N-70A-K/-S)



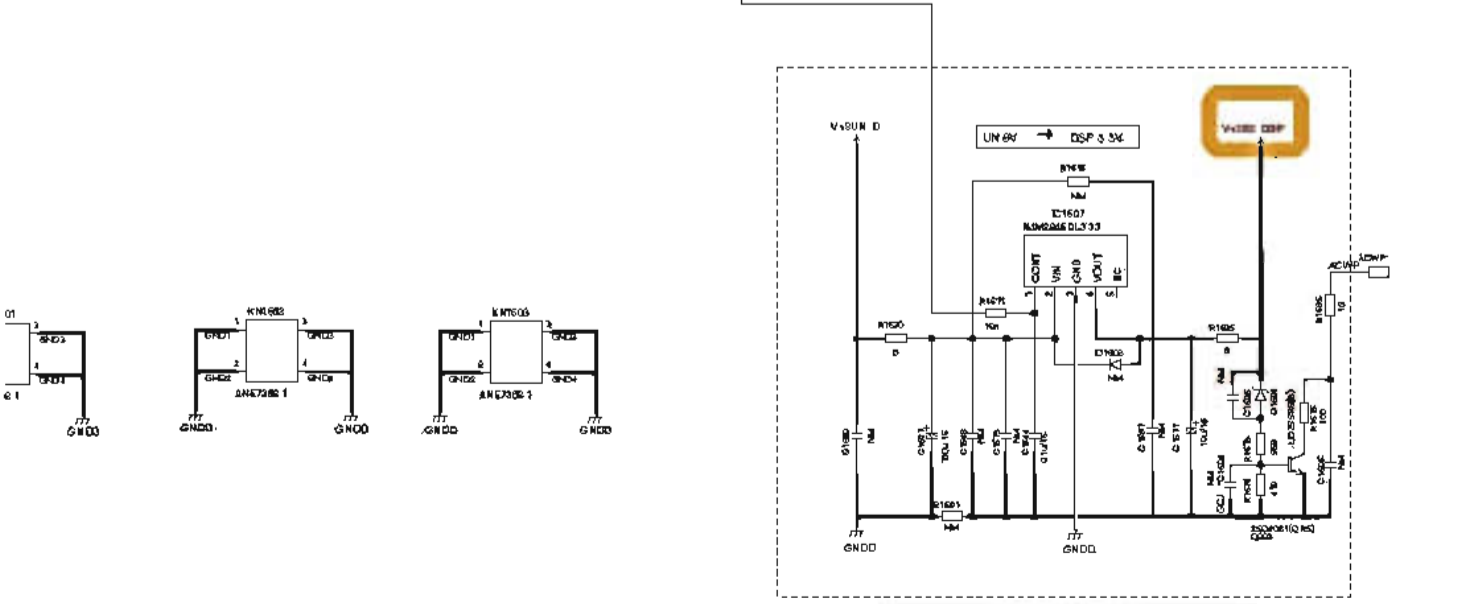
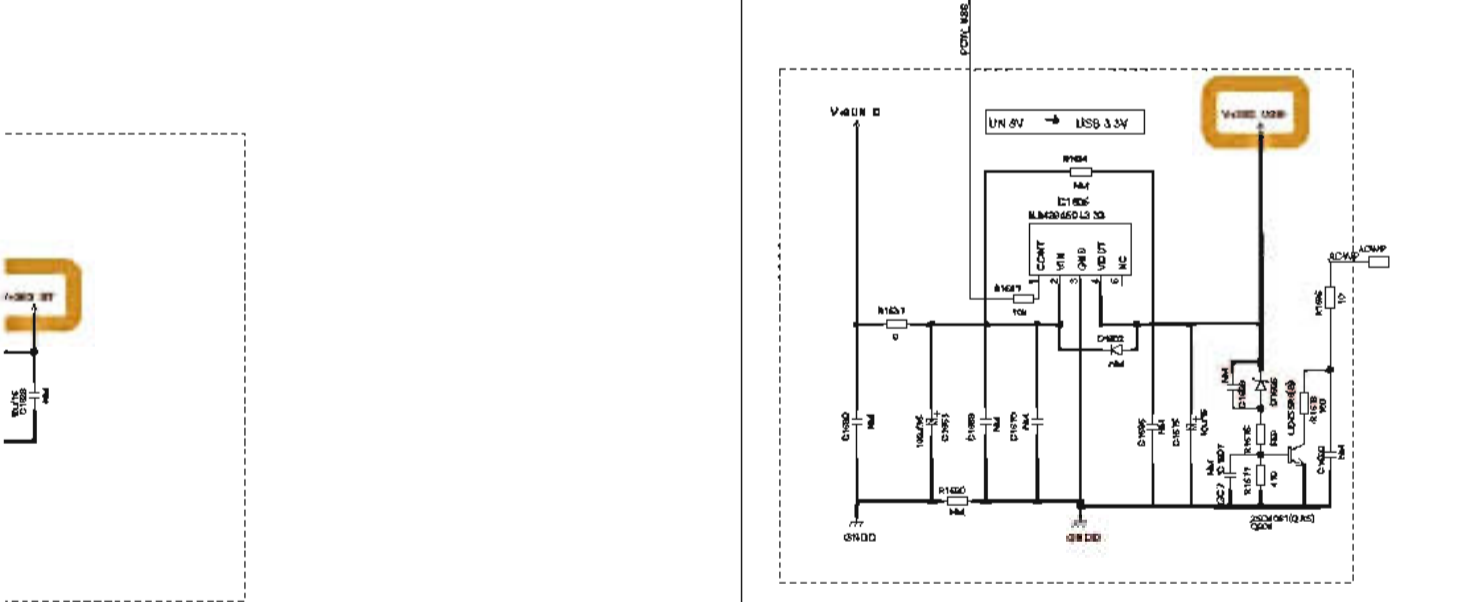
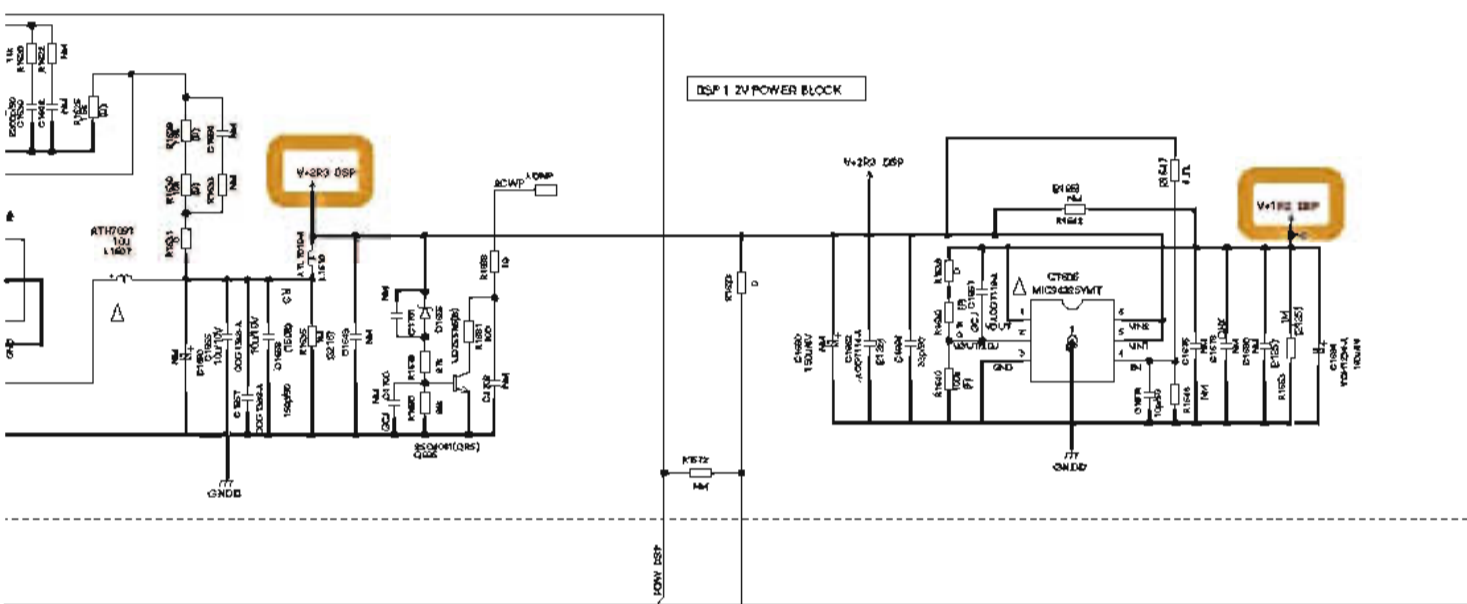
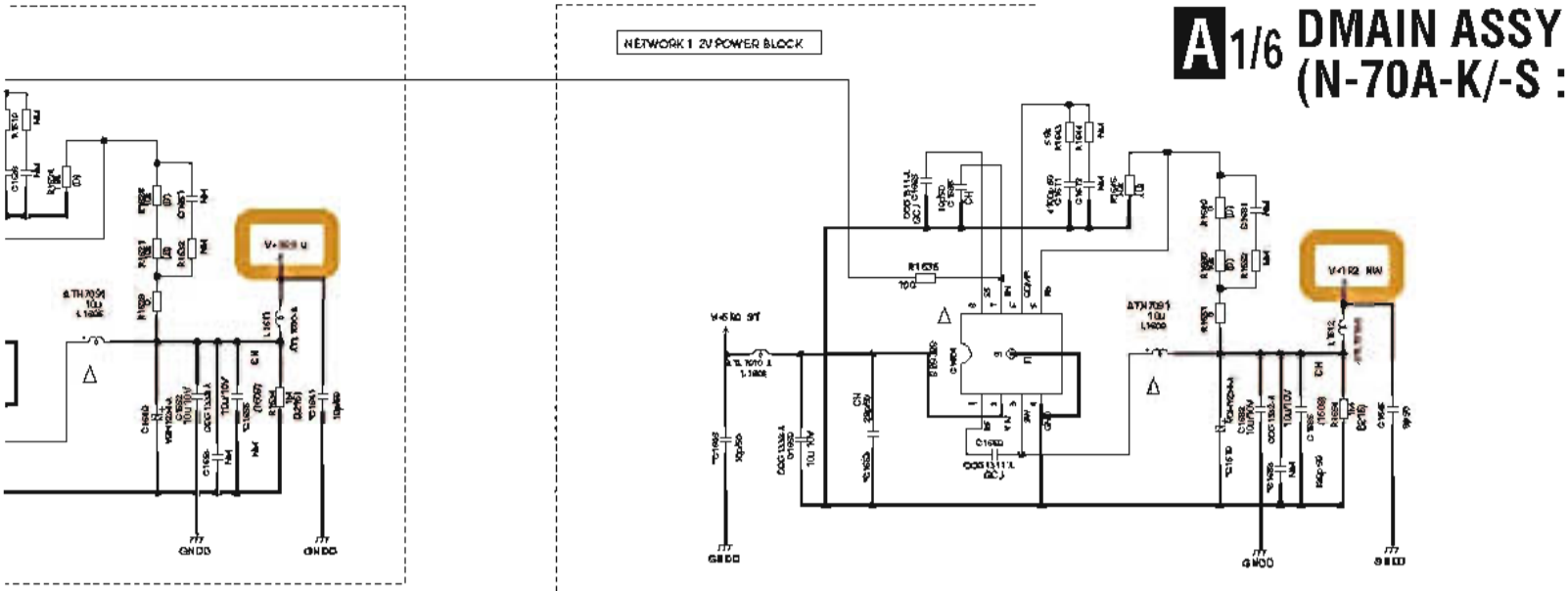
**A** 2/6 - 6/6



- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The  $\triangle$  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.



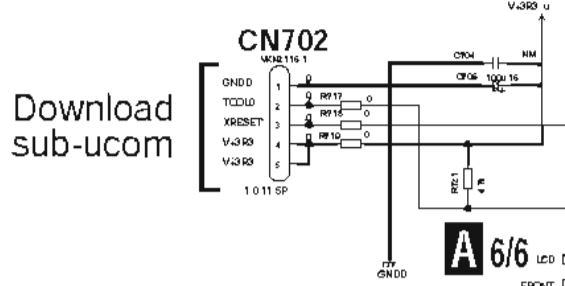
# A1/6 DMAIN ASSY (1/6) (N-70A-K/-S : 7028077131020)



N-70A-K

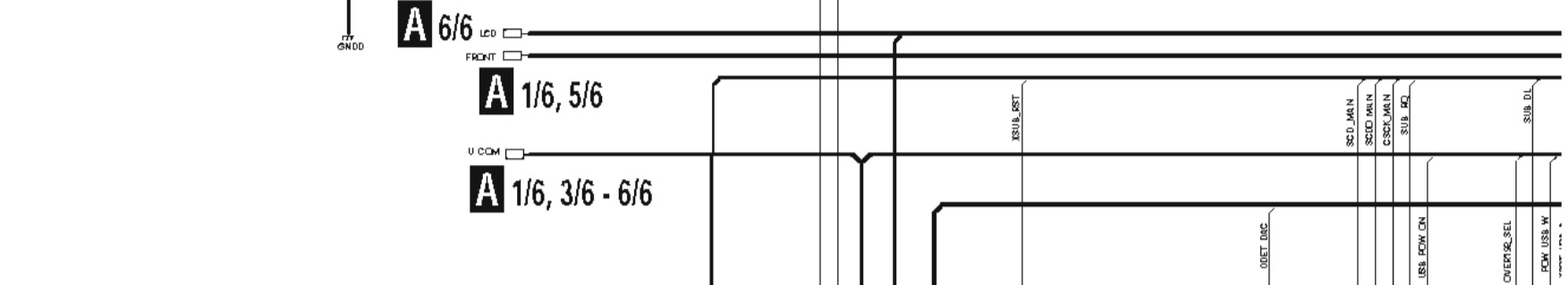
# 10.2 DMAIN ASSY (2/6)(N-70A-K/-S)

A

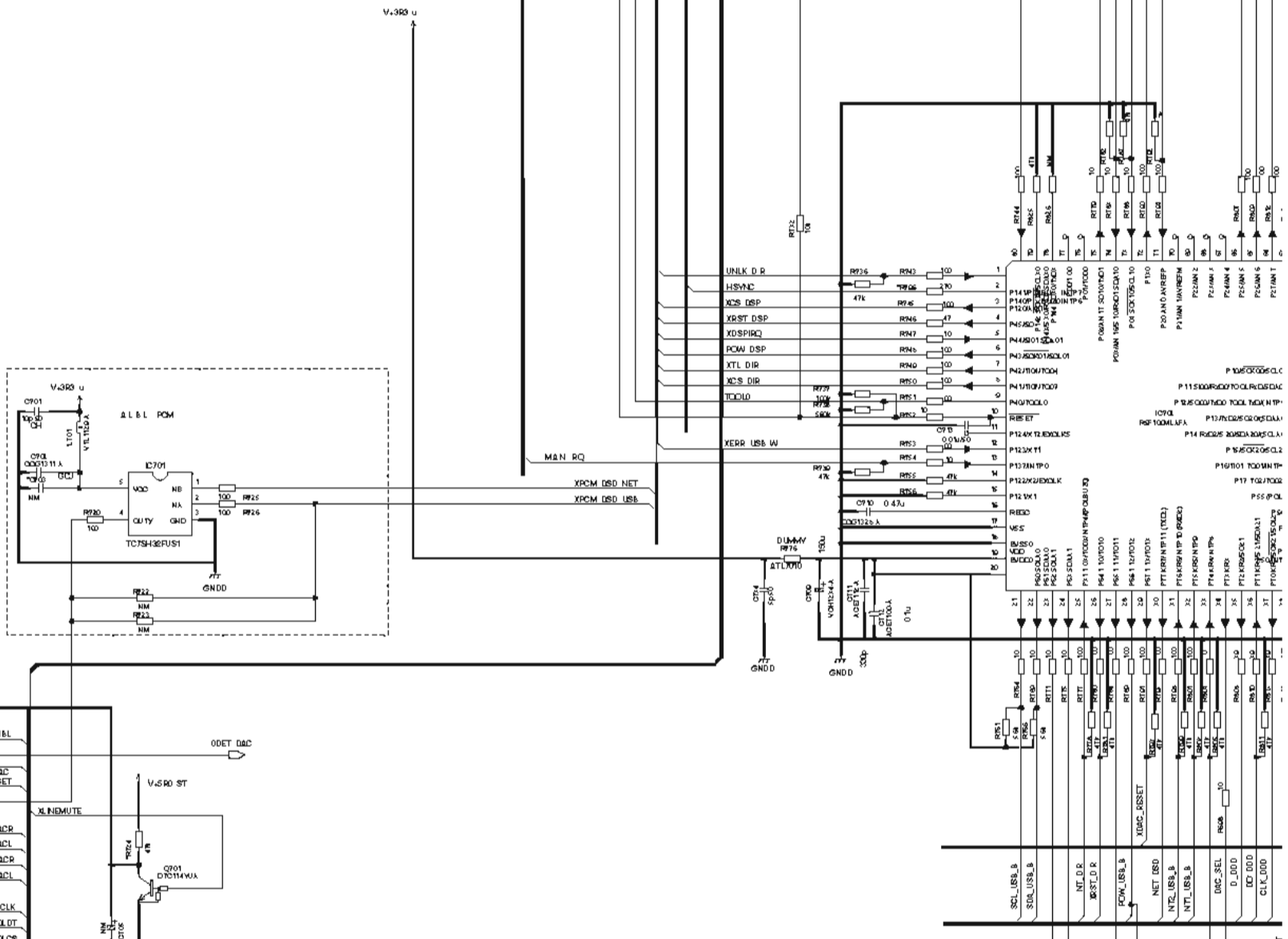


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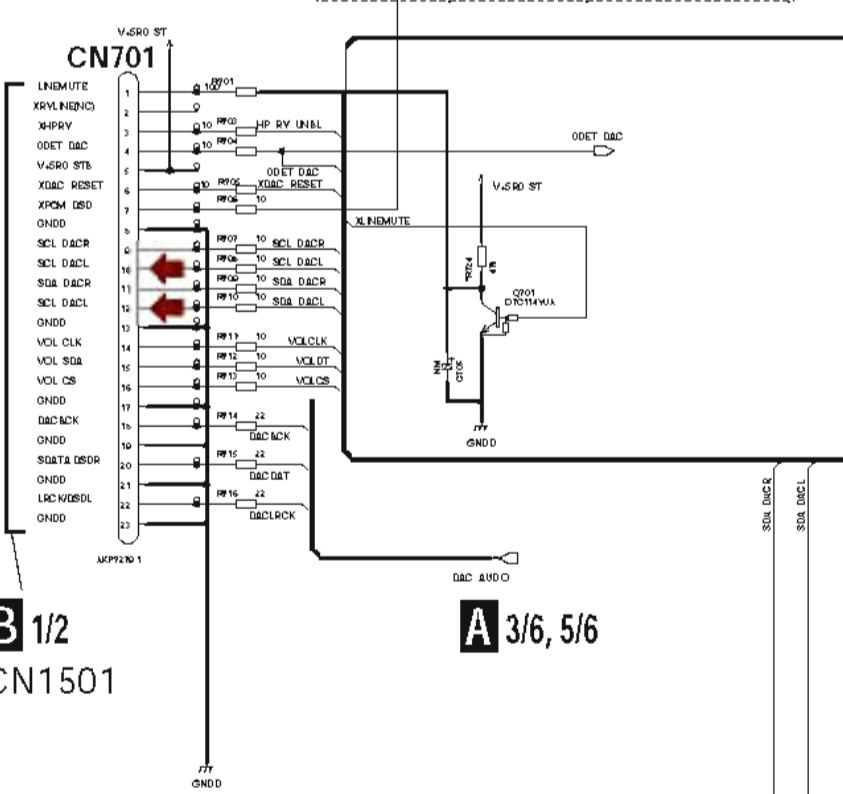
B



C



D



**B** 1/2  
CN1501

**A** 3/6, 5/6

E

F

➡ = Audio Signal Route

**A** 2/6

# A<sub>2/6</sub> DMAIN ASSY (2/6) (N-70A-K/-S : 7028077131020)

A

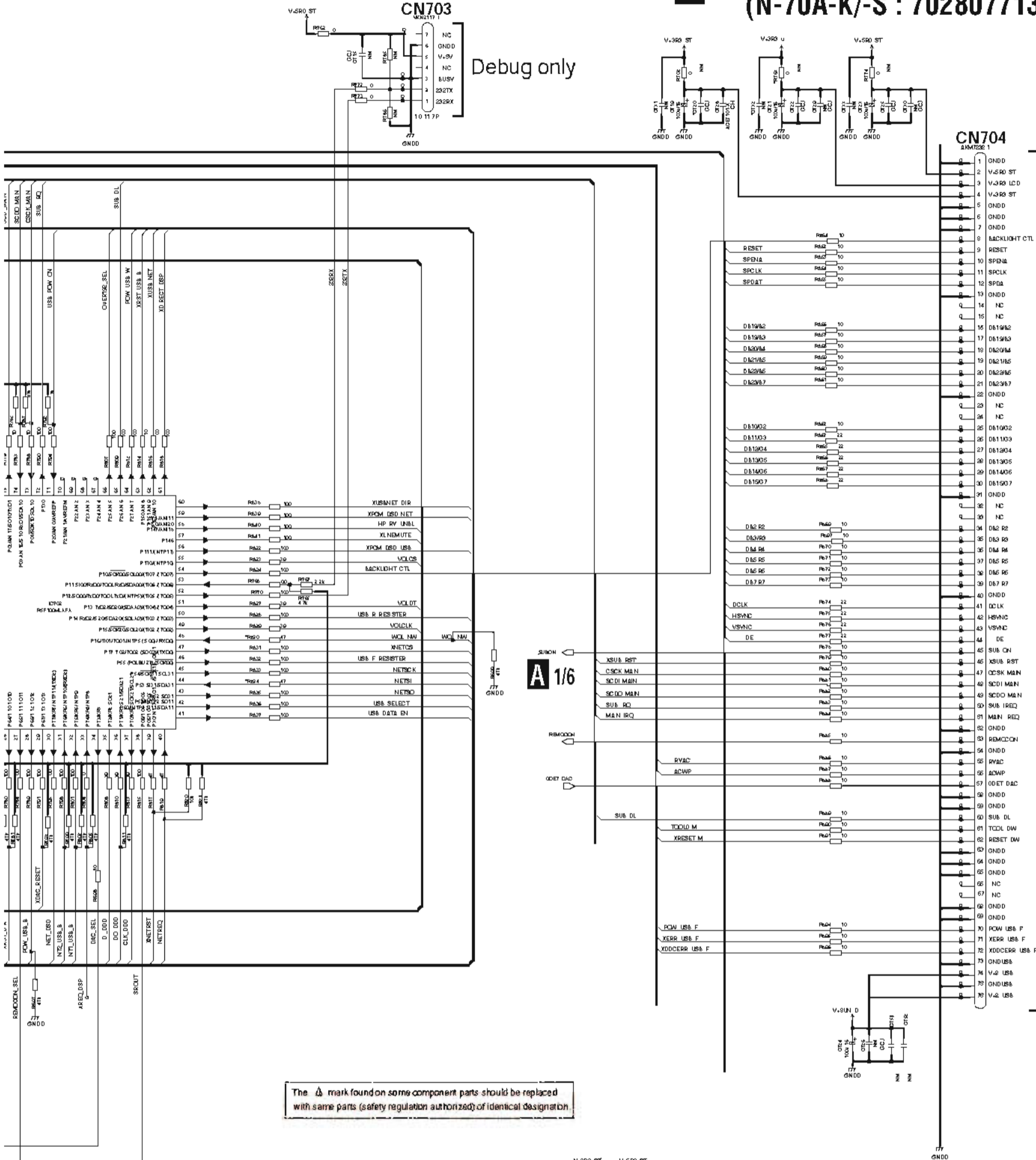
B

C

D

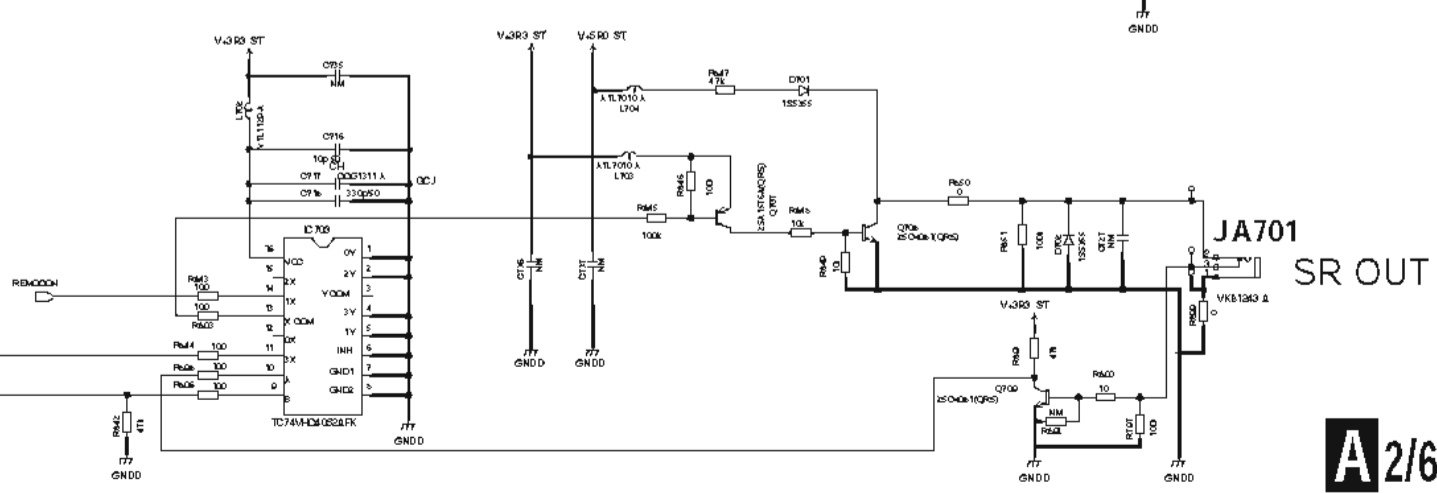
E

F



**N**  
CN2701

The  $\Delta$  mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.



**N-70A-K**

**A<sub>2/6</sub>**

# 10.3 DMAIN ASSY (3/6)(N-70A-K/-S)

A

B

C

D

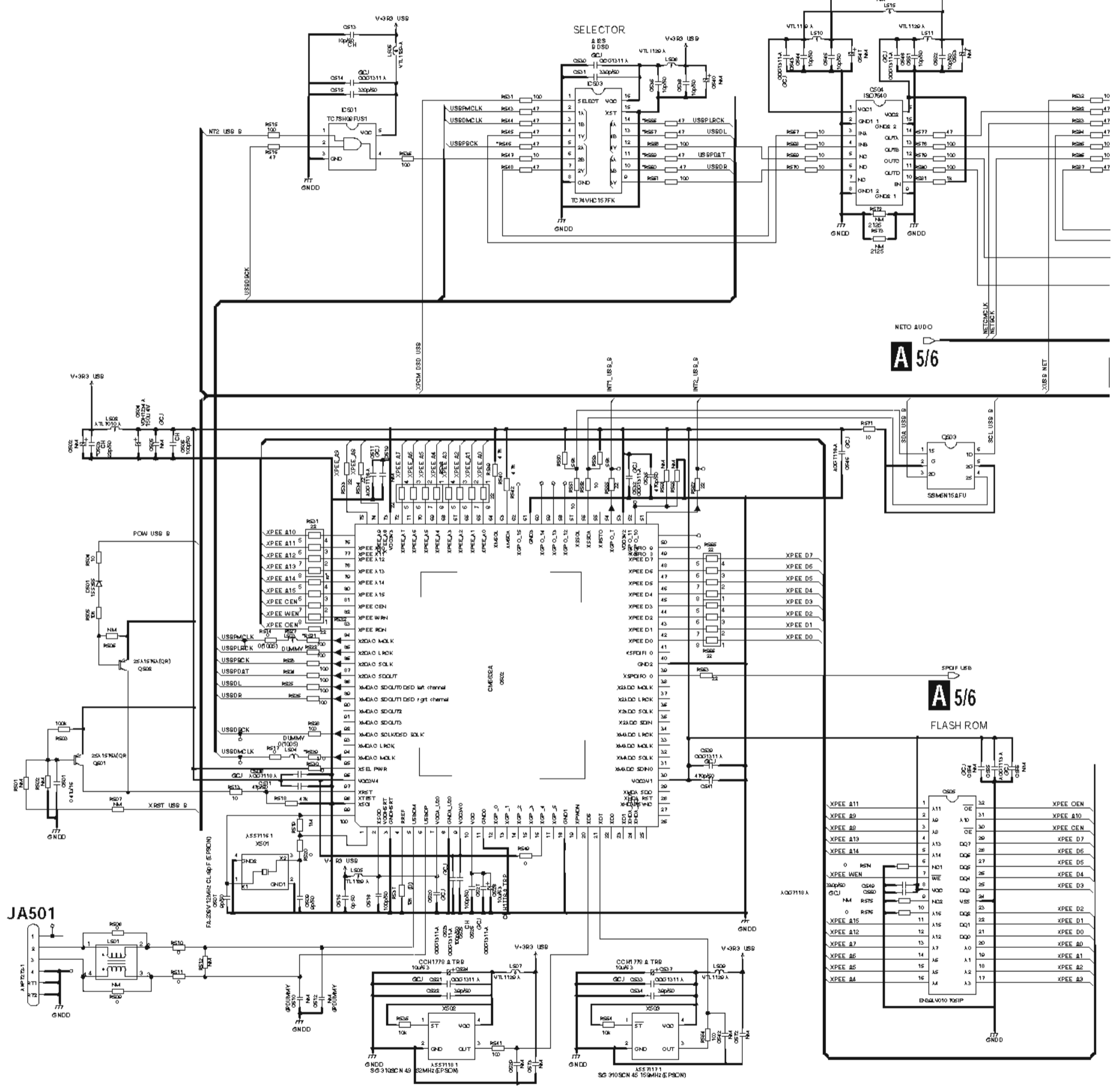
E

F

DIRC AUDIO  
**A 5/6**

**A 5/6**

**A 5/6**  
FLASH ROM



N-70A-K

1

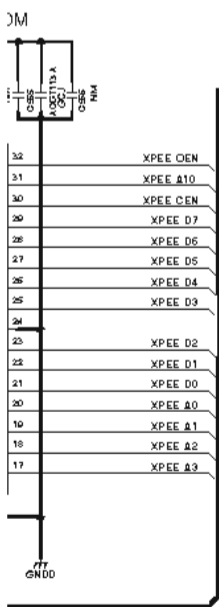
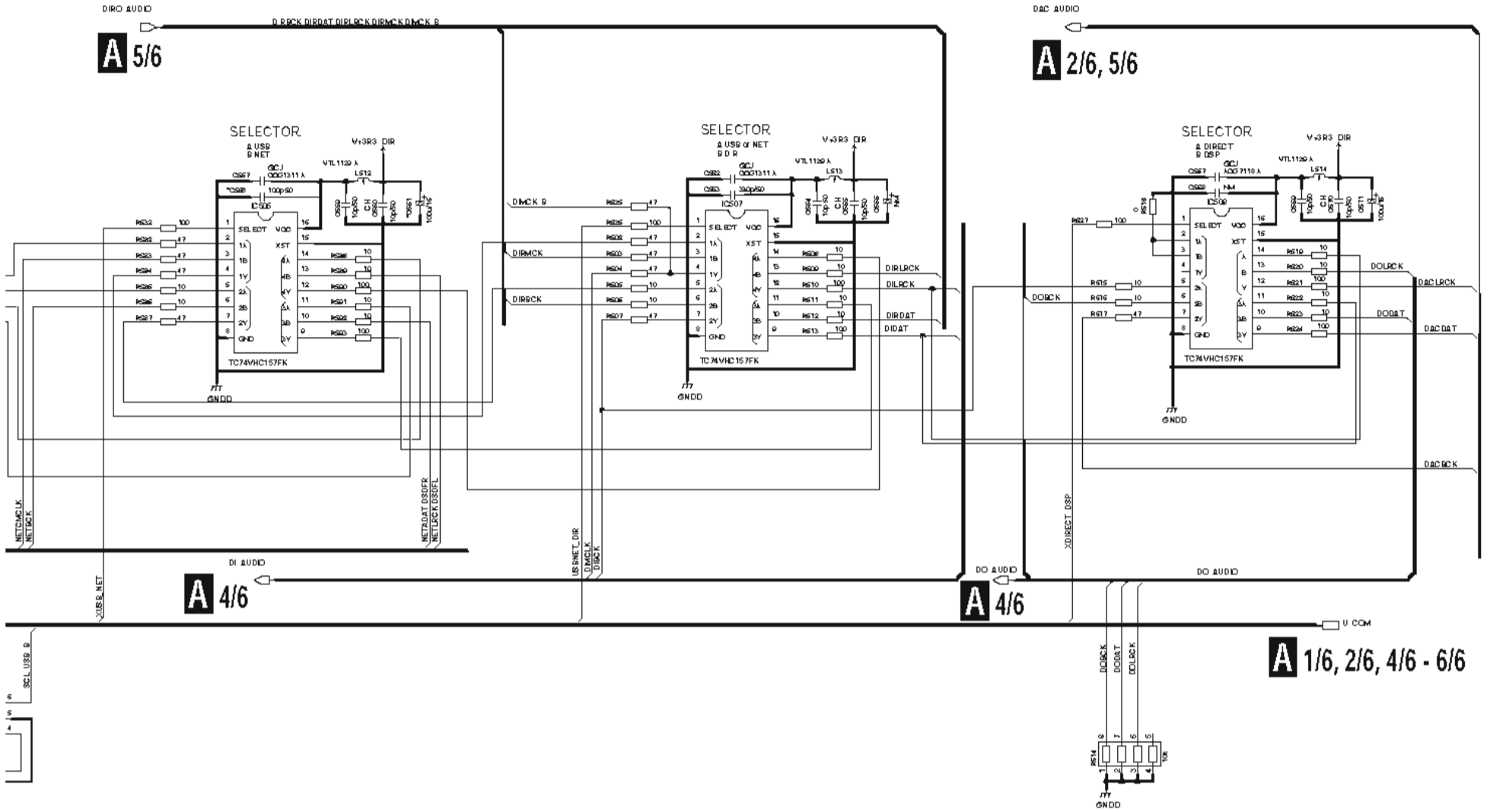
2

3

4



# A<sup>3/6</sup> DMAIN ASSY (3/6) (N-70A-K/-S : 7028077131020)



# 10.4 DMAIN ASSY (4/6)(N-70A-K/-S)

1

2

3

4

A

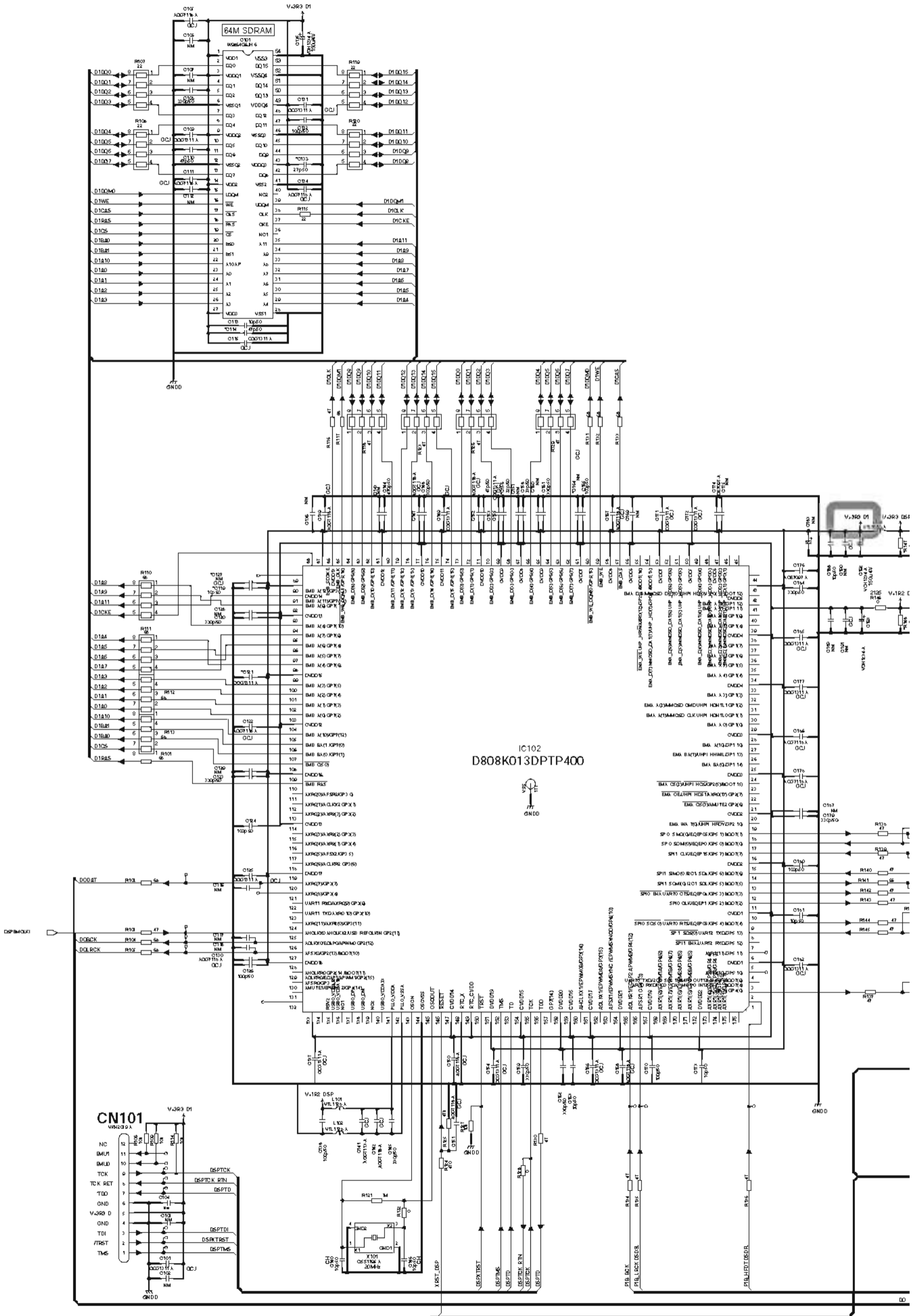
B

C

D

E

F



1

2

3

4



# 10.5 DMAIN ASSY (5/6)(N-70A-K/-S)

1

2

3

4

A

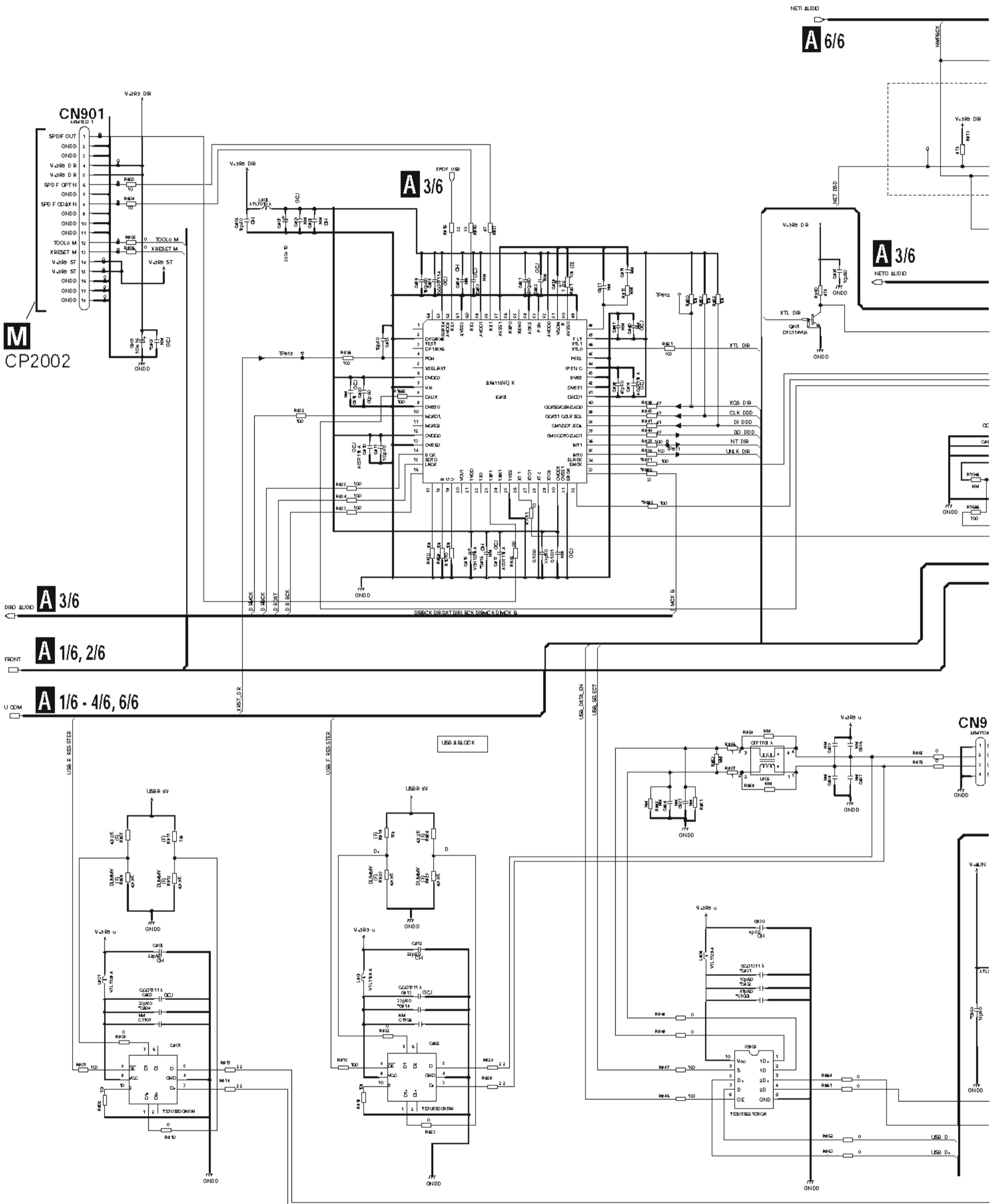
B

C

D

E

F



**A 5/6**

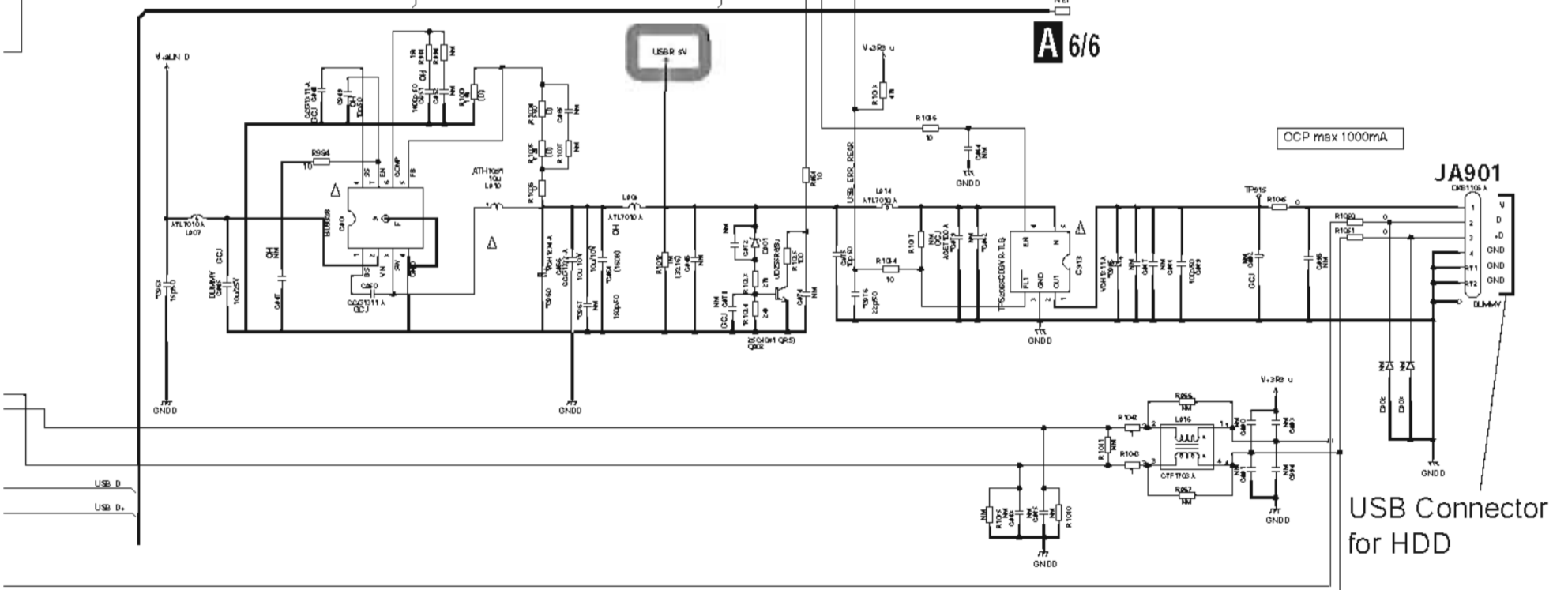
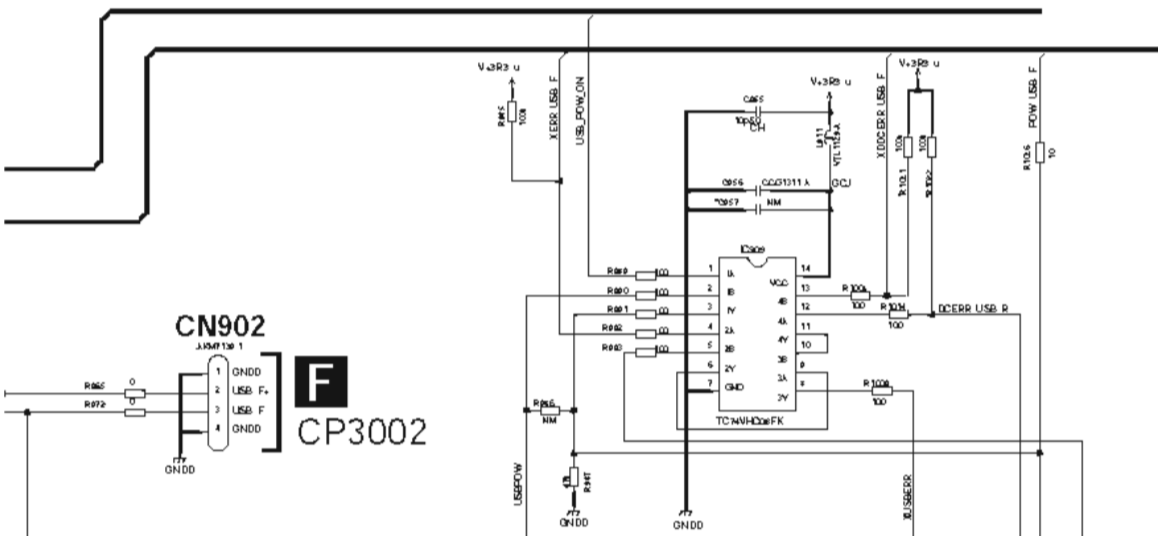
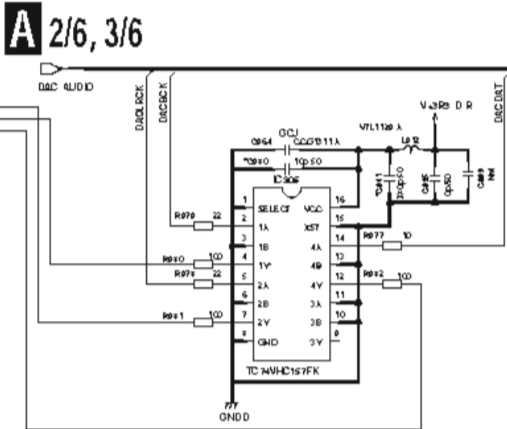
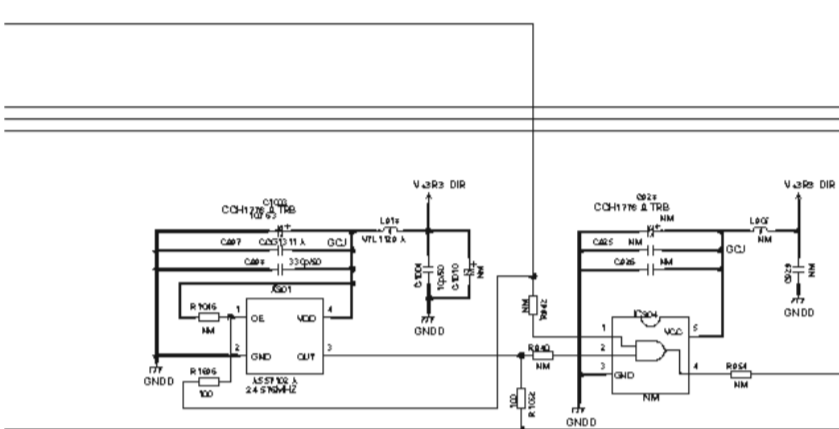
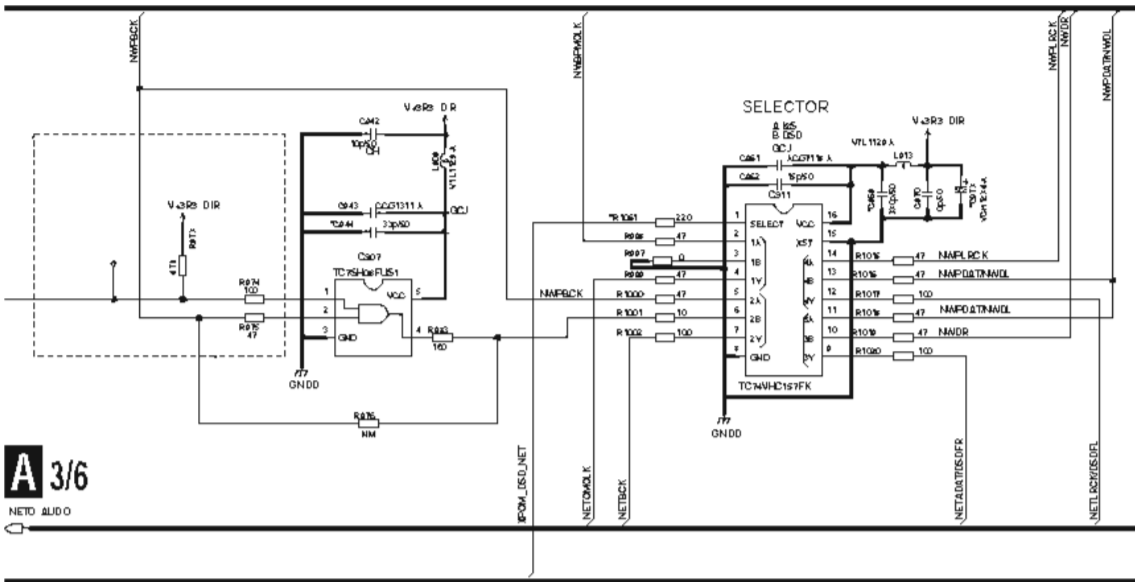
1

2

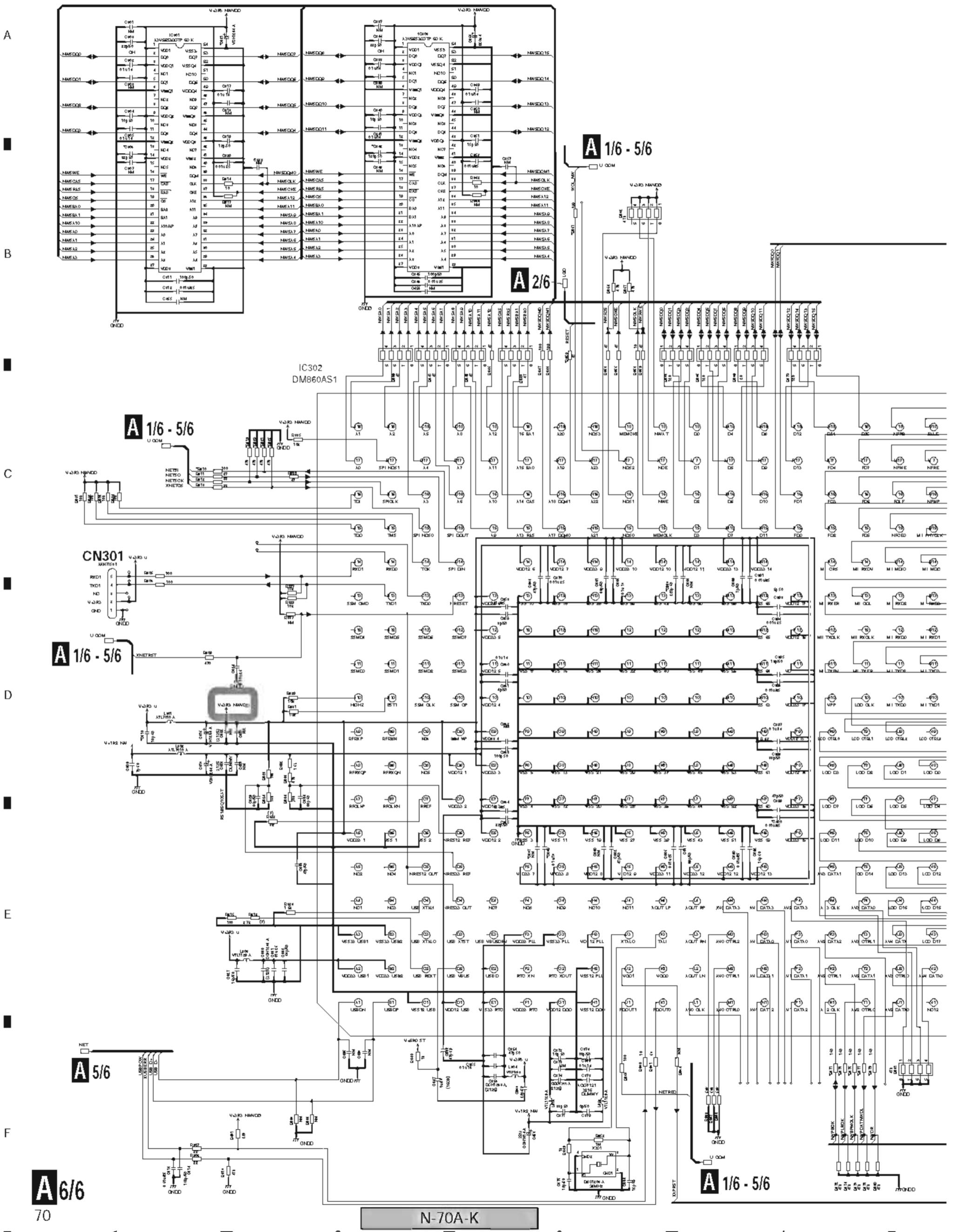
3

4

**A 5/6 DMAIN ASSY (5/6)**  
**(N-70A-K/-S : 7028077131020)**

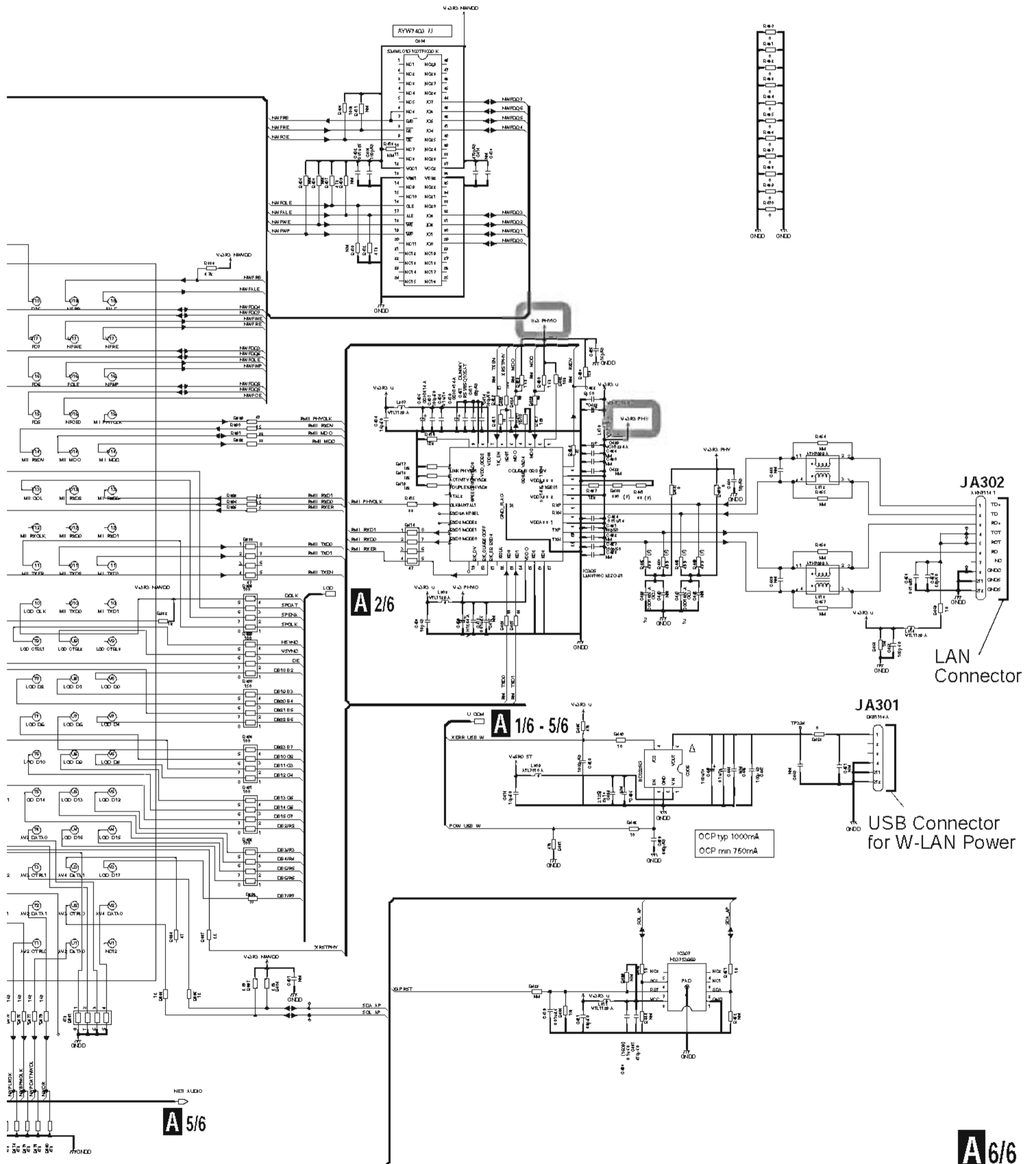


# 10.6 DMAIN ASSY (6/6)(N-70A-K/-S)



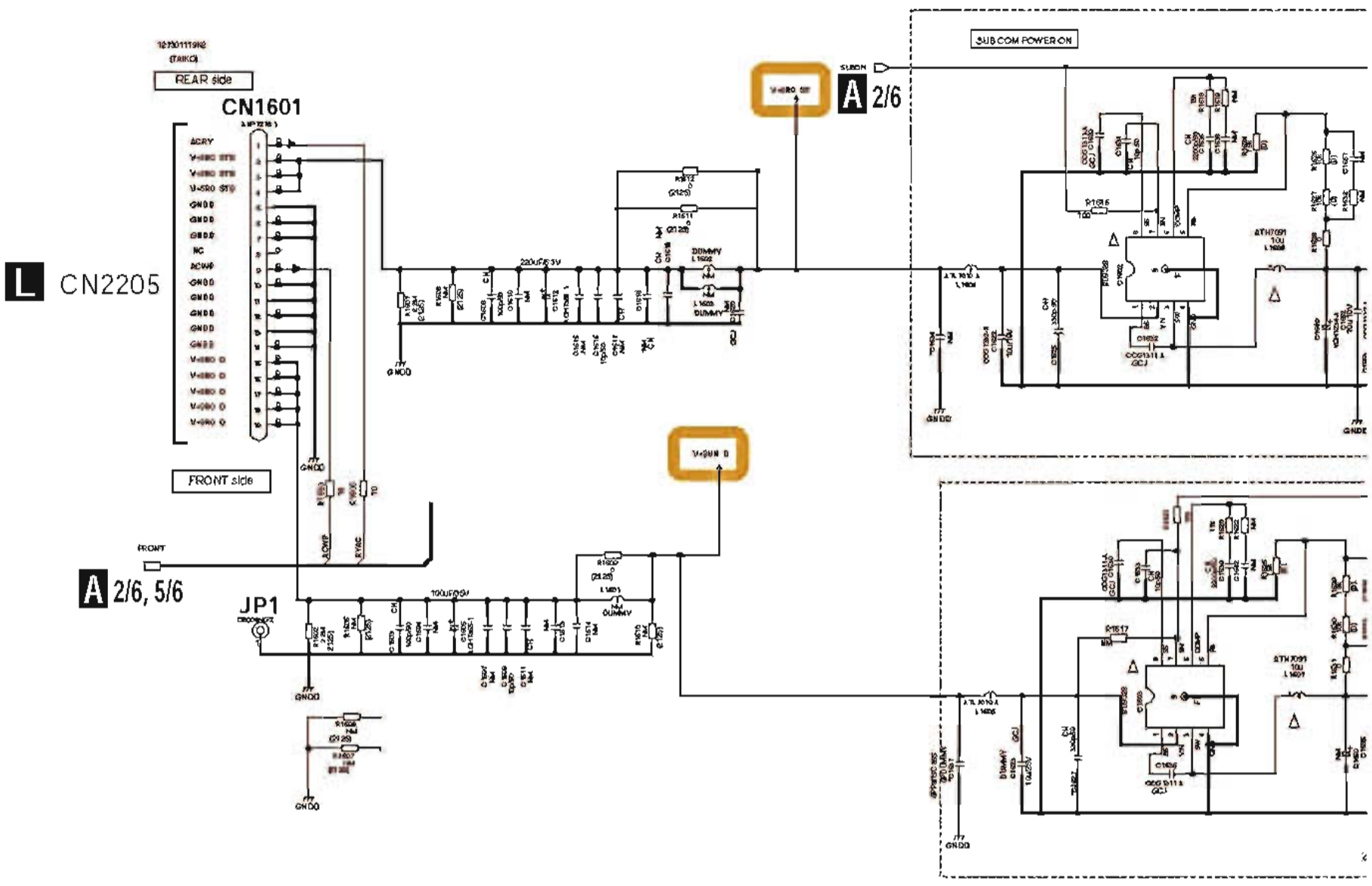
# A 6/6 DMAIN ASSY (6/6) (N-70A-K/S : 7028077131020)

The  $\Delta$  mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.



# 10.7 DMAIN ASSY (1/6)(N-50A-K/-S)

A



B

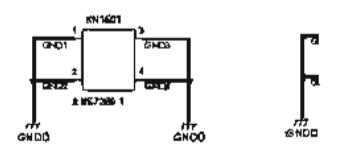
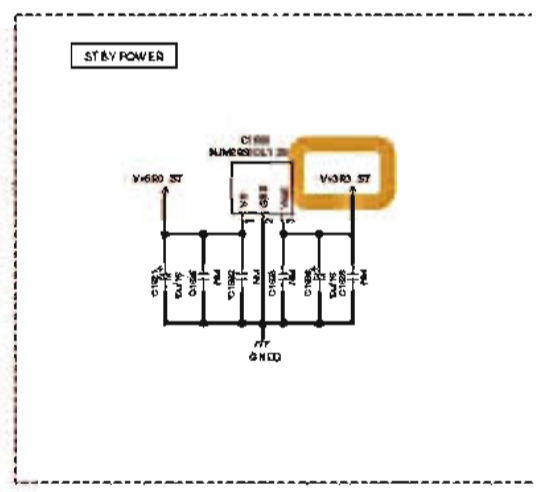
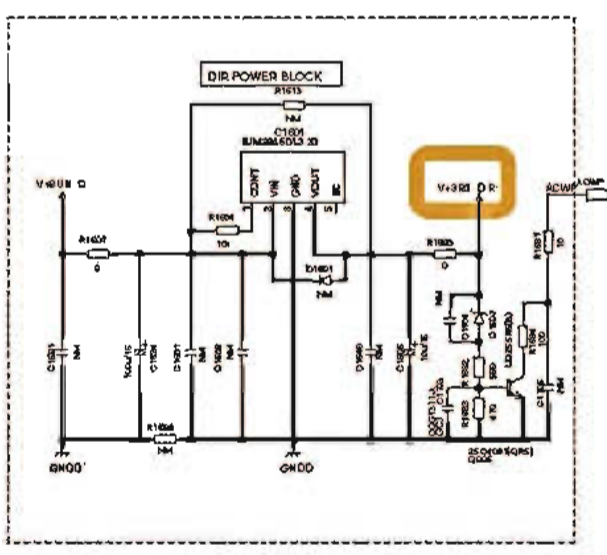
C

D

E

F

V DCM  
A 2/6 - 6/6



A 1/6

72

N-70A-K

1

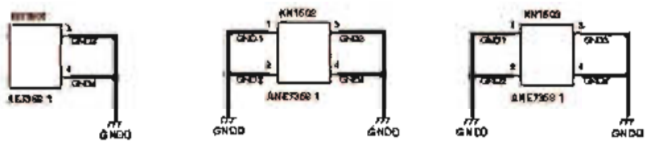
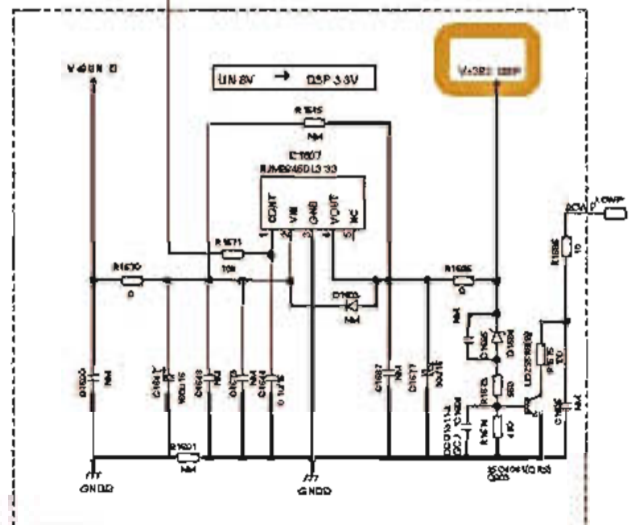
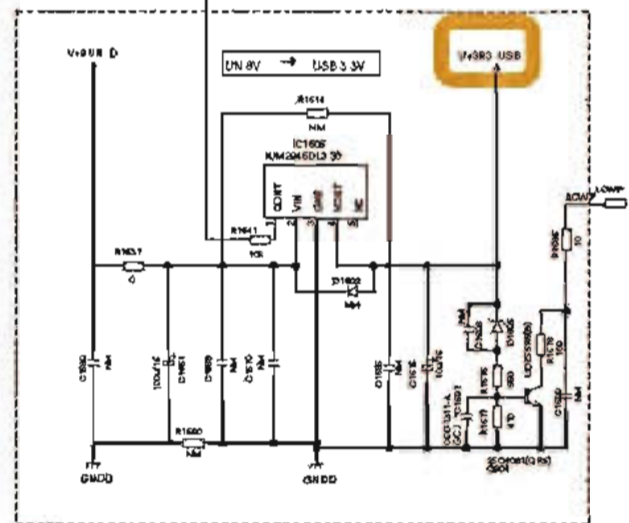
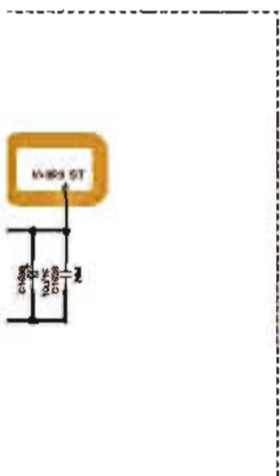
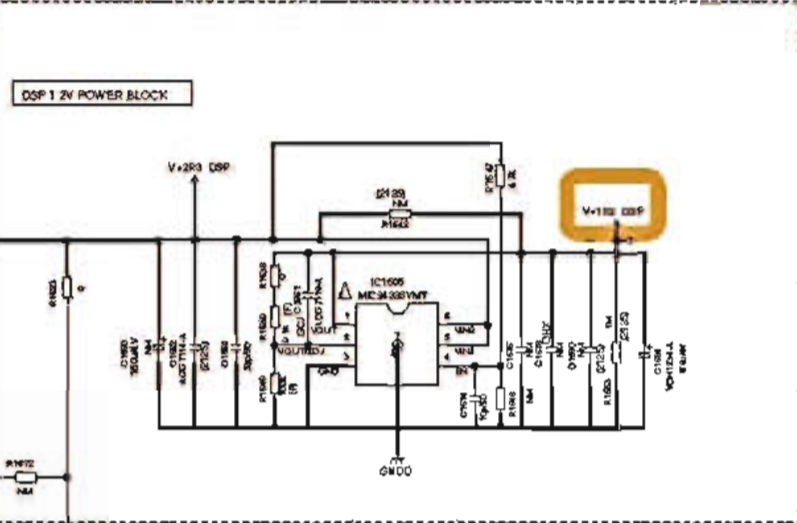
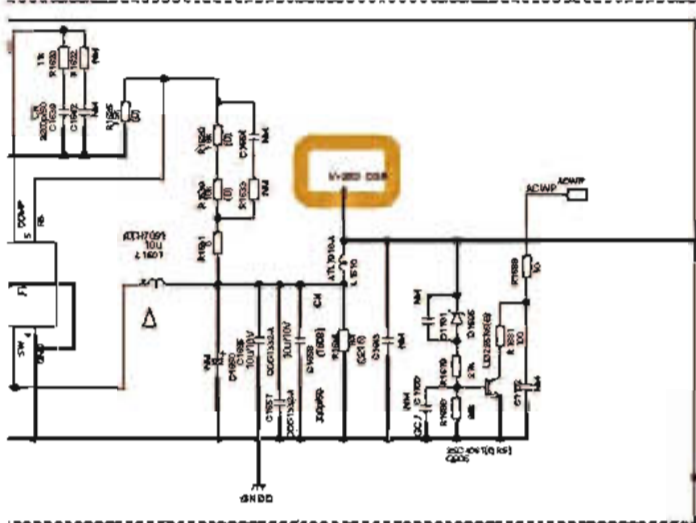
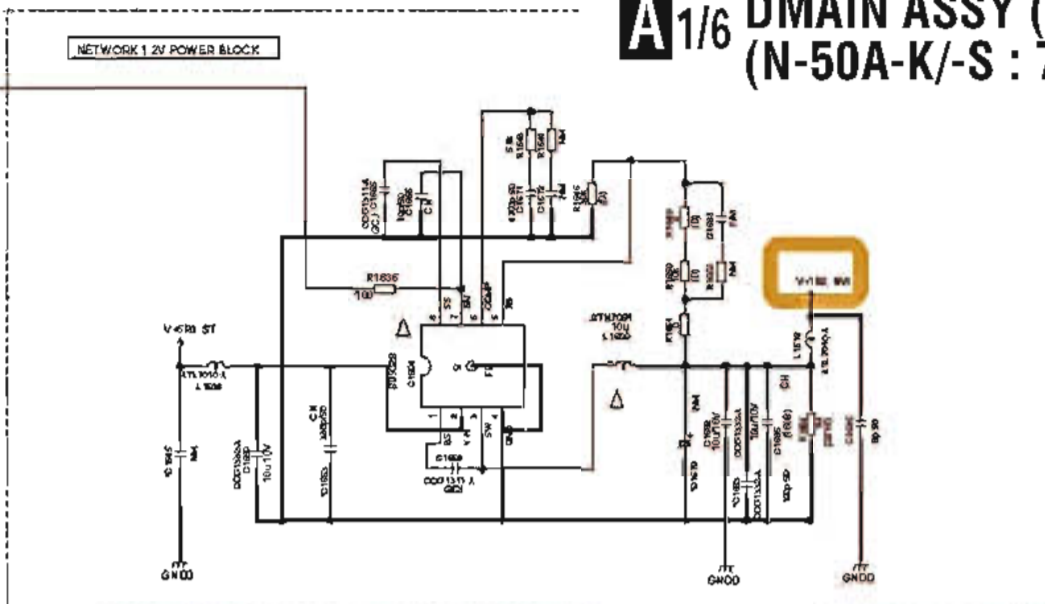
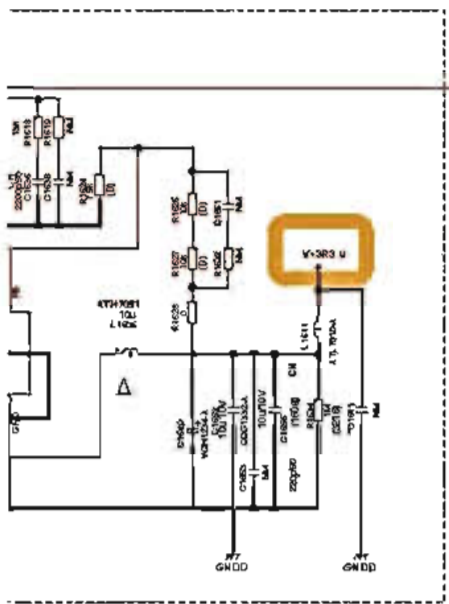
2

3

4



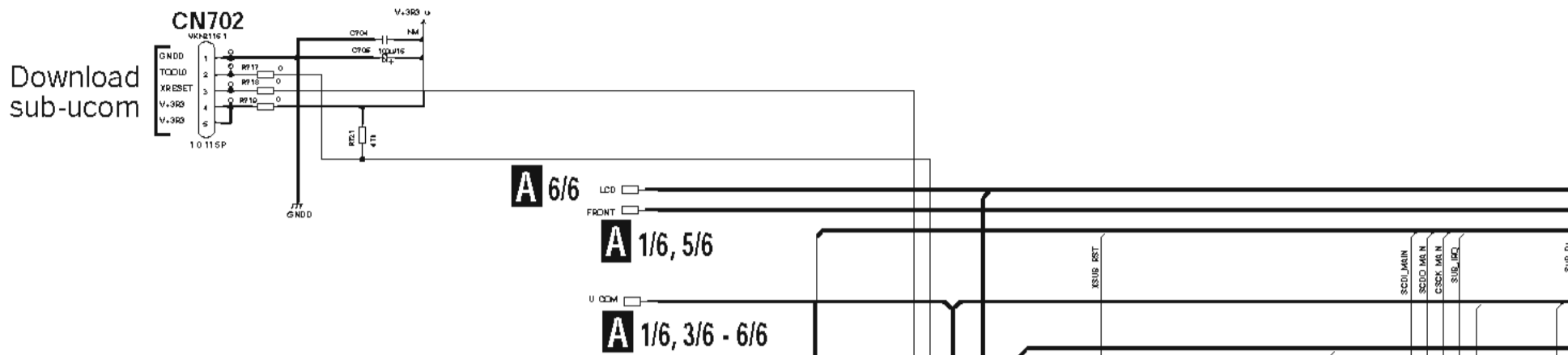
# A1/6 DMAIN ASSY (1/6) (N-50A-K/-S : 7028077131010)



# 10.8 DMAIN ASSY (2/6)(N-50A-K/-S)

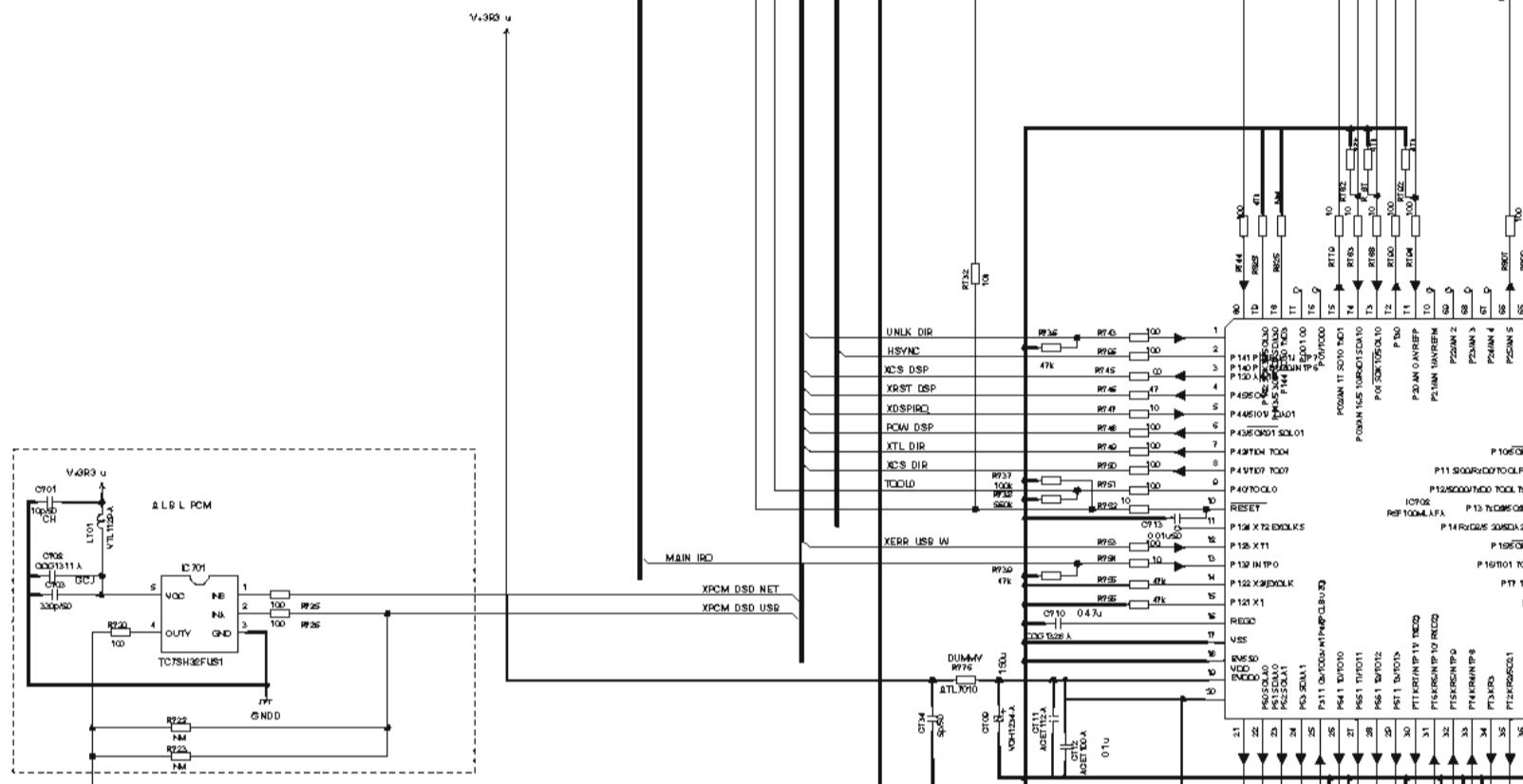
1 2 3 4

A

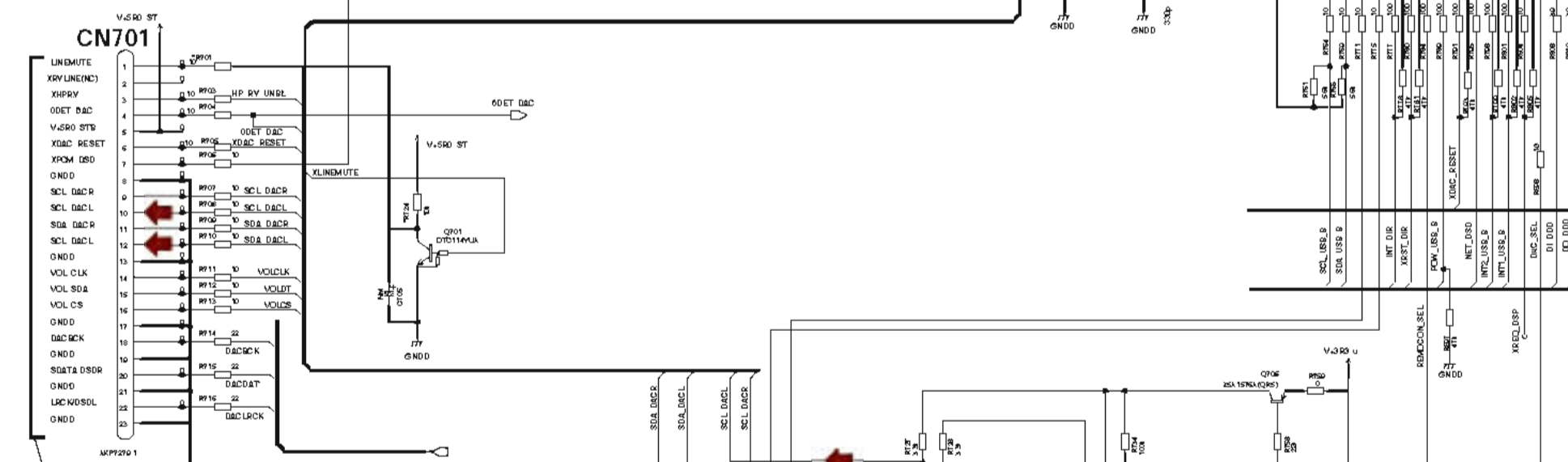


B

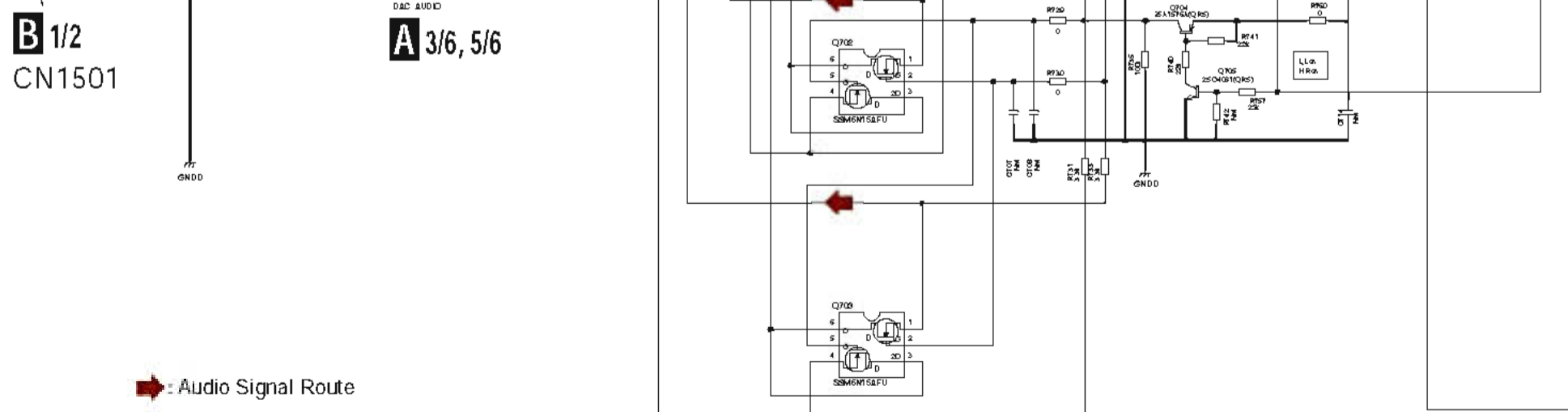
C



D



E

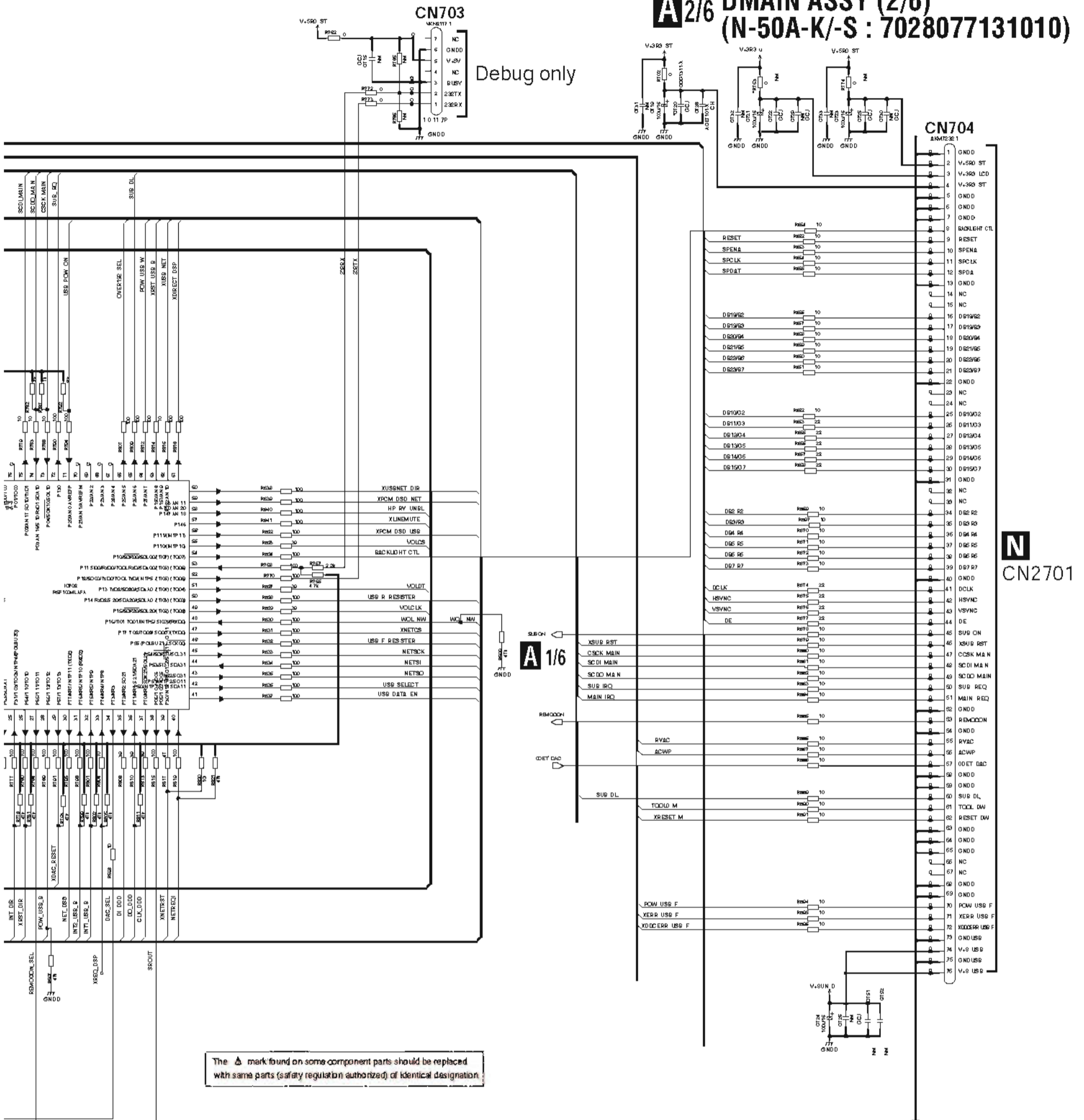


F

1 2 3 4

# A<sup>2/6</sup> DMAIN ASSY (2/6) (N-50A-K/S : 7028077131010)

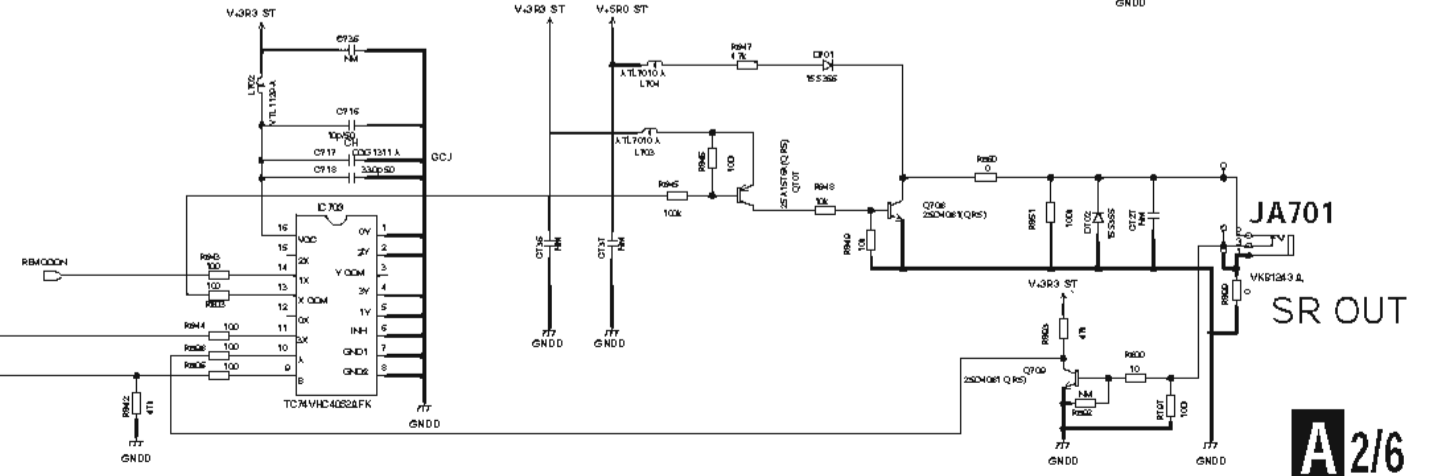
Debug only



A<sup>1/6</sup>

N  
CN2701

The  $\Delta$  mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.



N-70A-K

A<sup>2/6</sup>

10.9 DMAIN ASSY (3/6)(N-50A-K/-S)

A

B

C

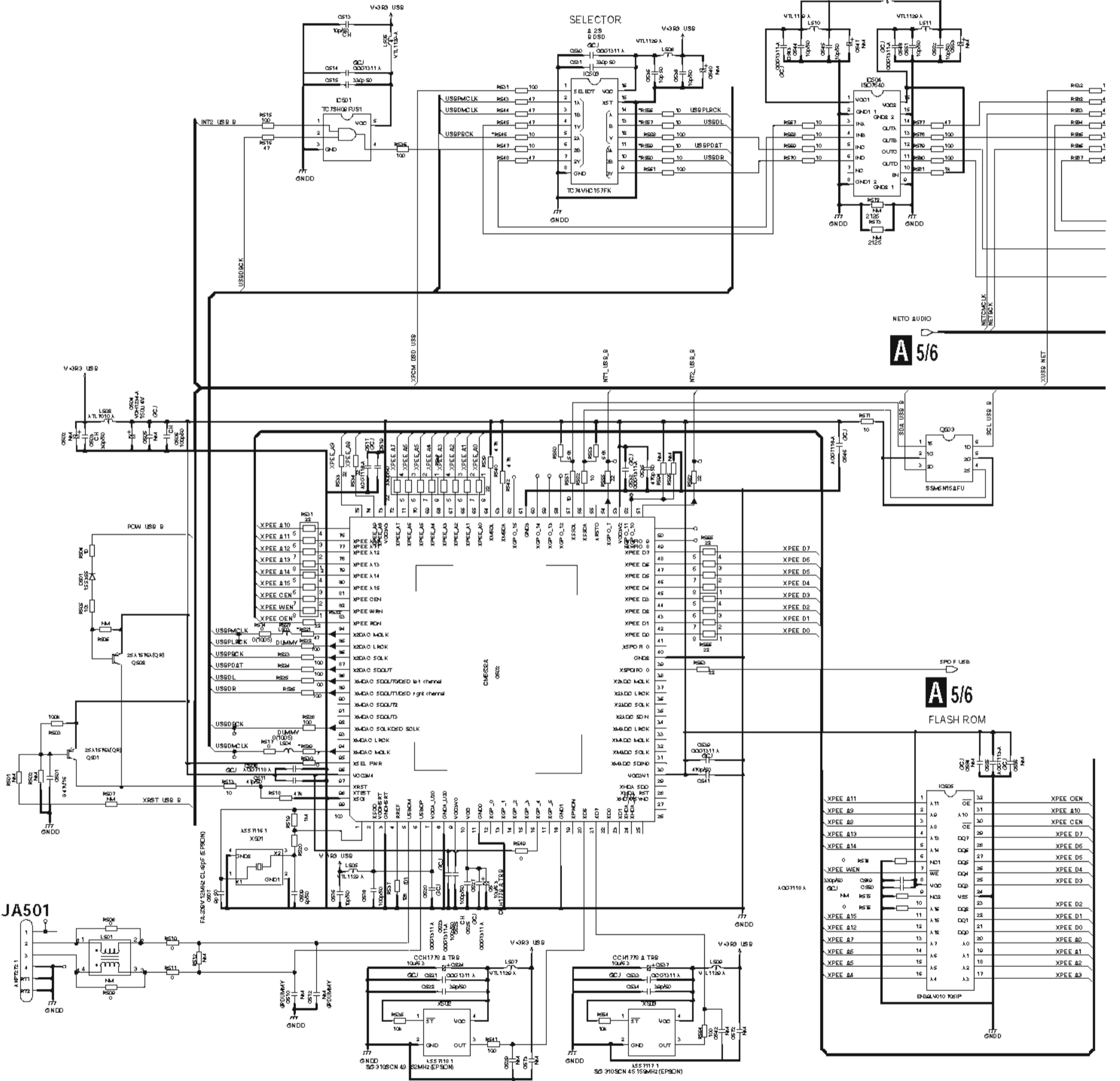
D

E

F

DIR0 AUDIO

A 5/6



A 5/6

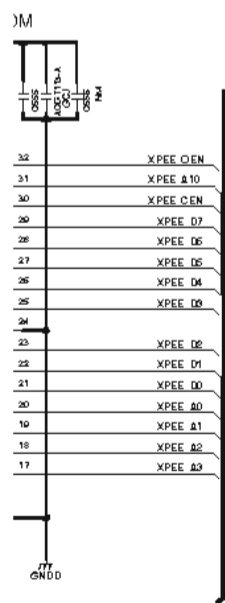
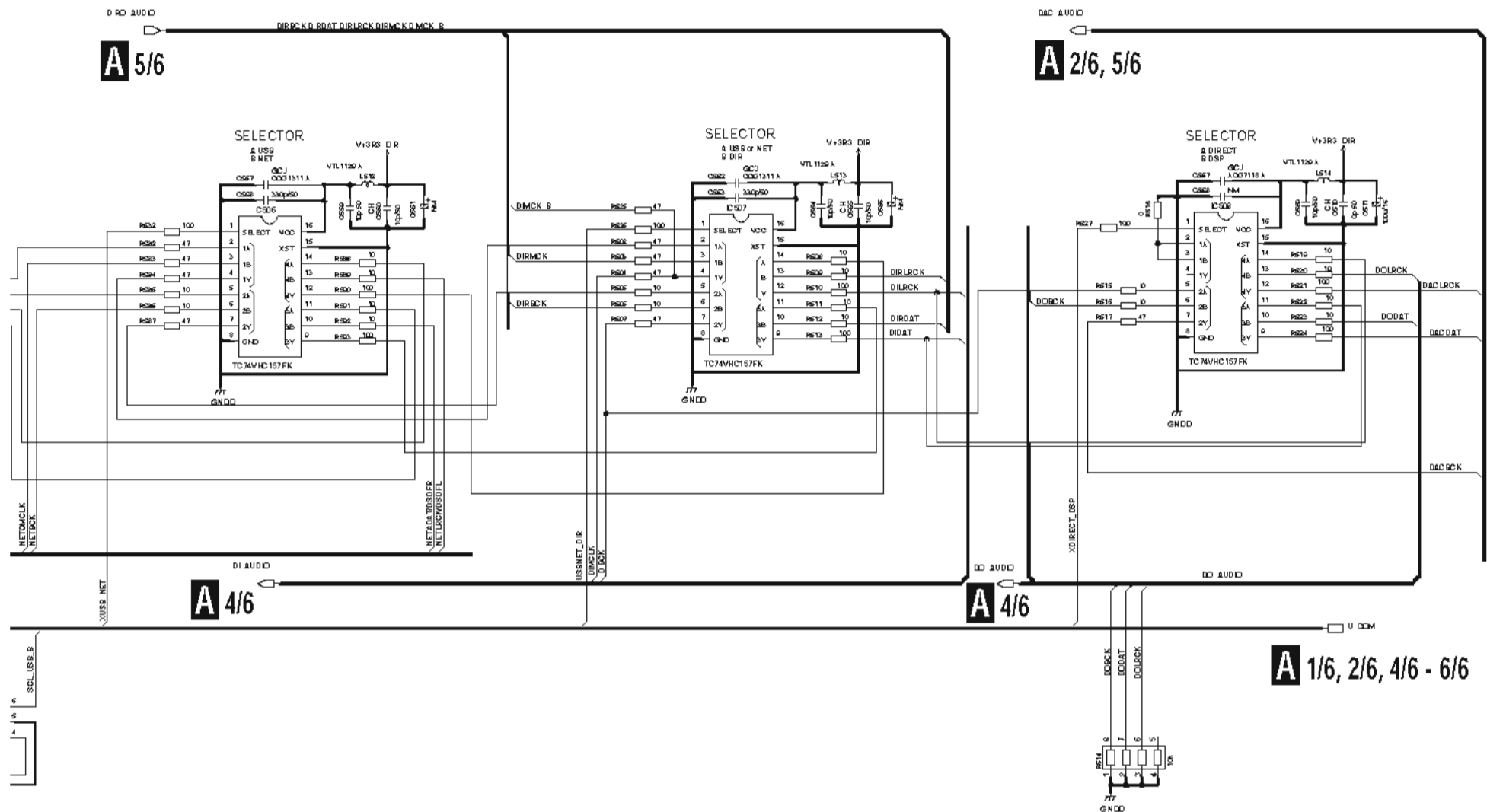
A 5/6

FLASH ROM

A 3/6  
76

N-70A-K

A 3/6 D MAIN ASSY (3/6)  
(N-50A-K/S : 7028077131010)



A 3/6

# 10.10 DMAIN ASSY (4/6)(N-50A-K/-S)

1

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A

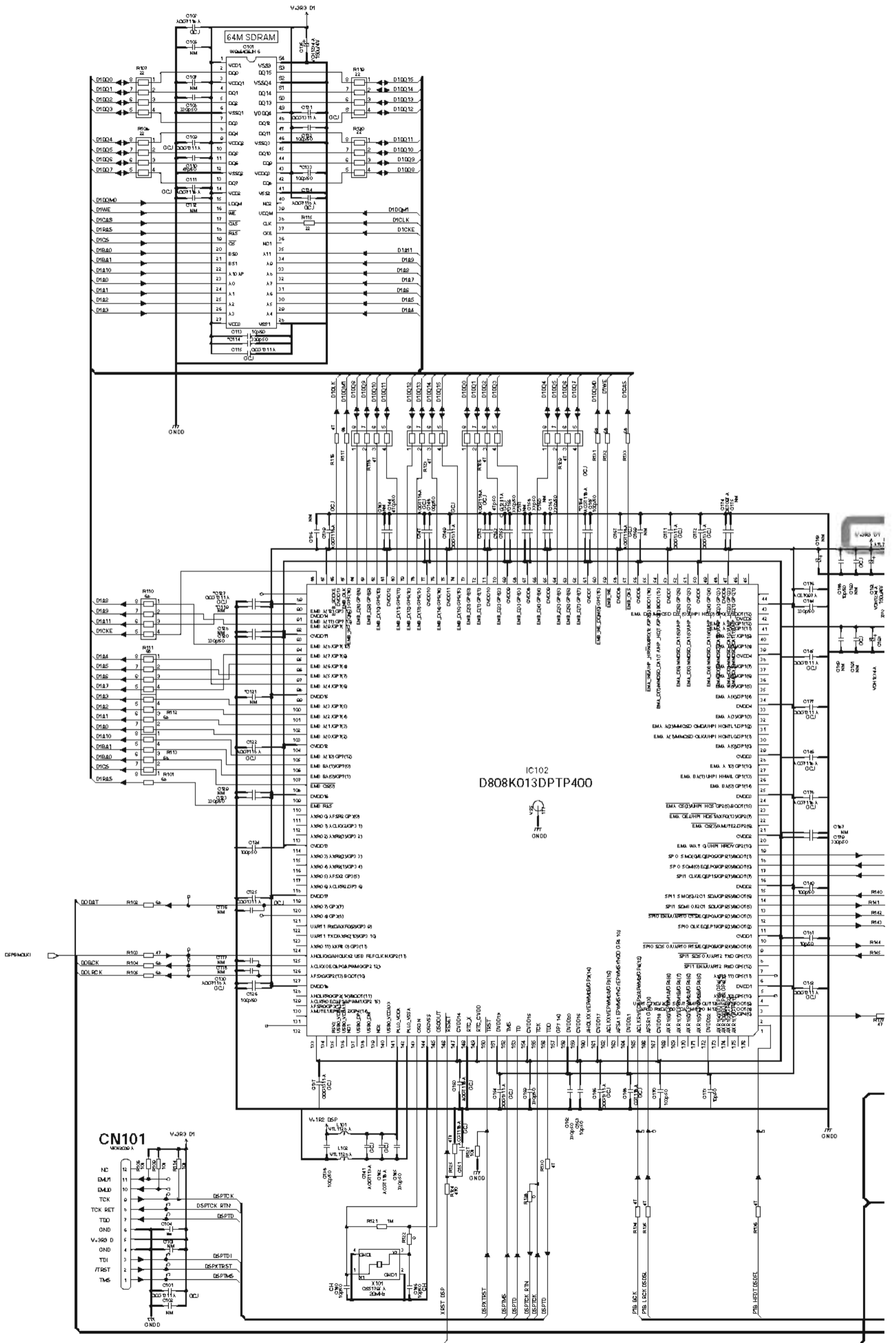
B

C

D

E

F



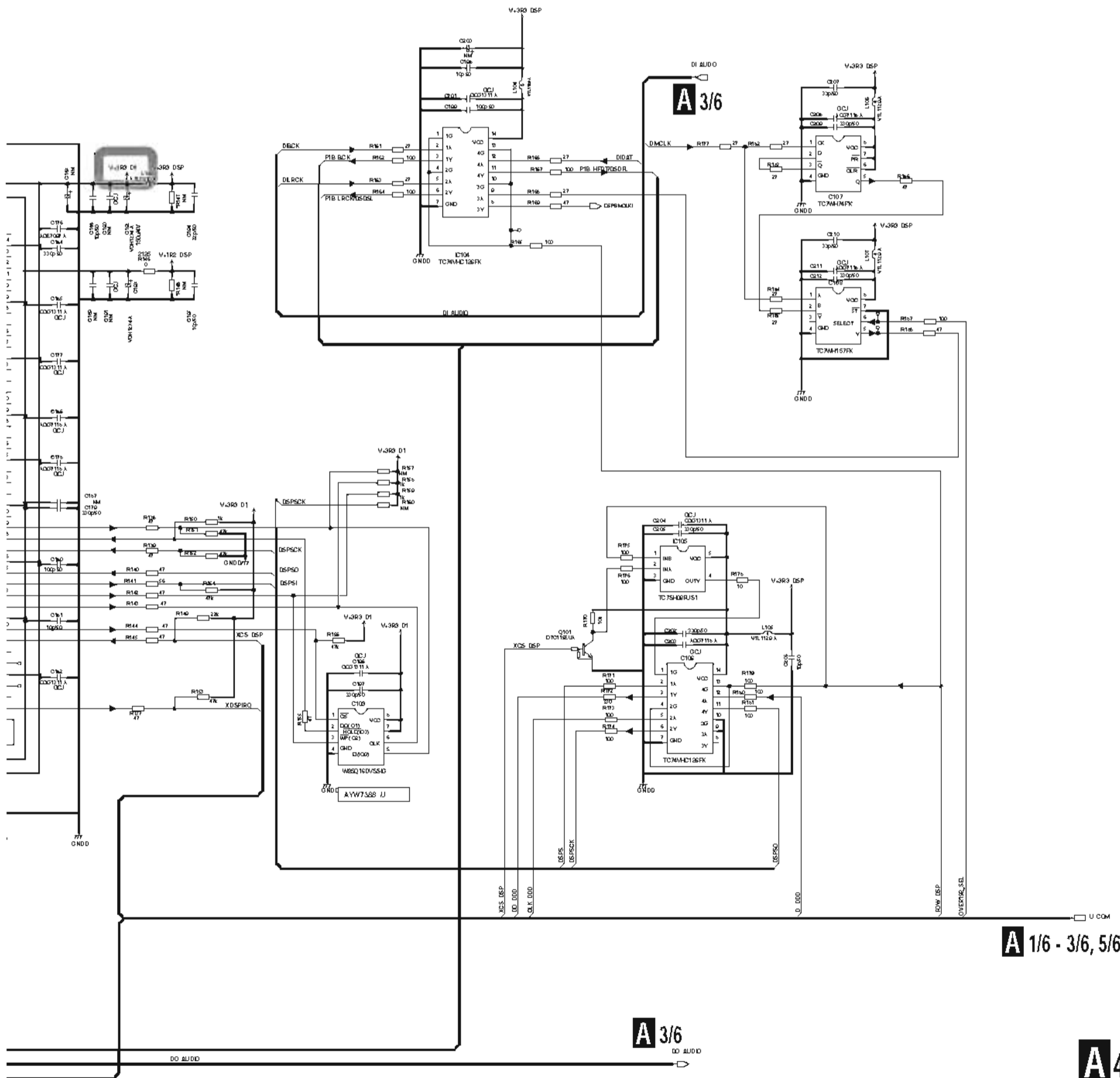
1

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4

**A** 4/6 DMAIN ASSY (4/6)  
 (N-50A-K/-S : 7028077131010)



**A** 1/6 - 3/6, 5/6, 6/6

**A** 3/6  
 DD AUDIO

**A** 4/6

N-70A-K

# 10.11 DMAIN ASSY (5/6)(N-50A-K/-S)

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4

A

B

C

D

E

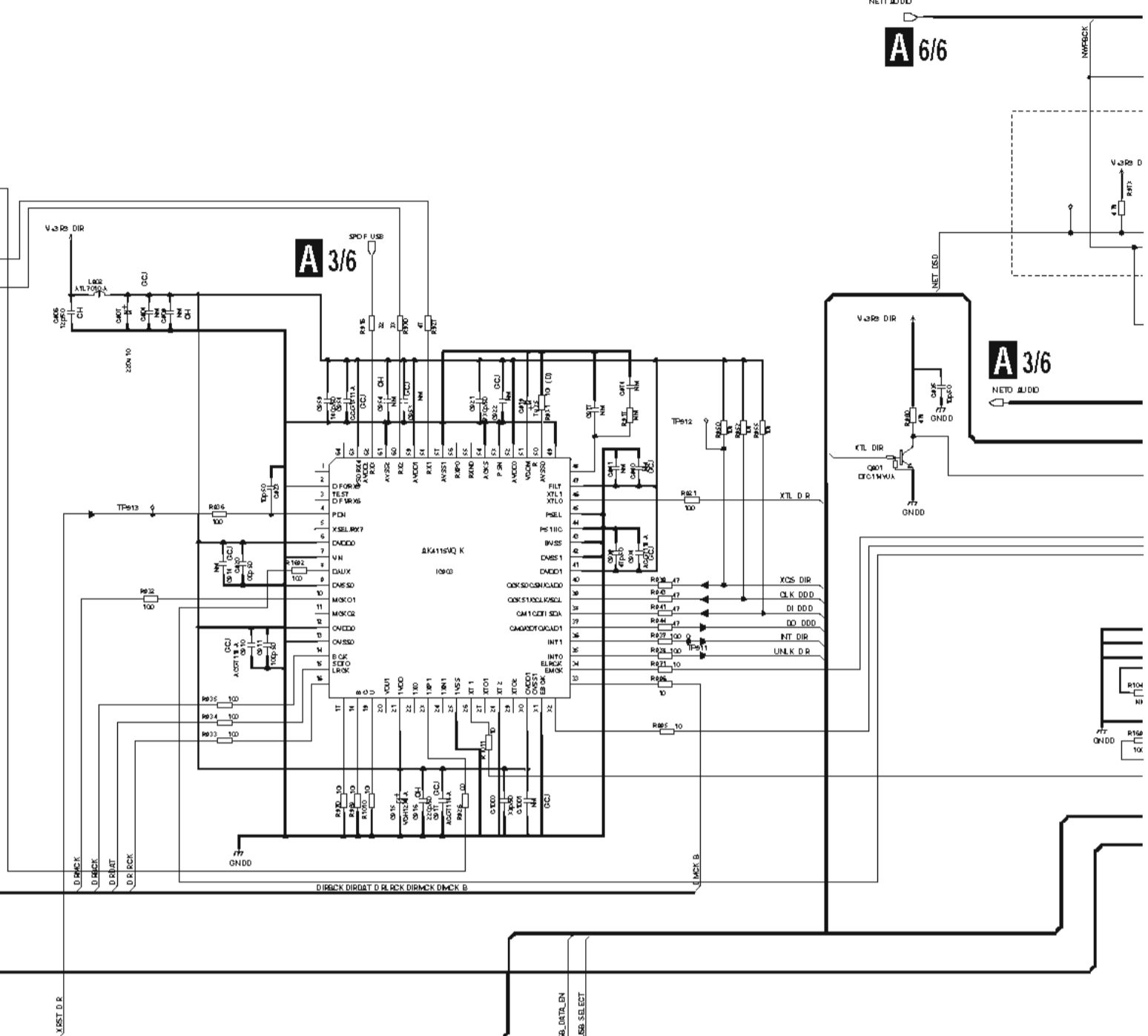
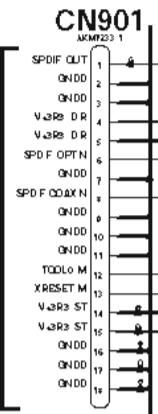
F

**M**  
CP2002

**A** 6/6

**A** 3/6

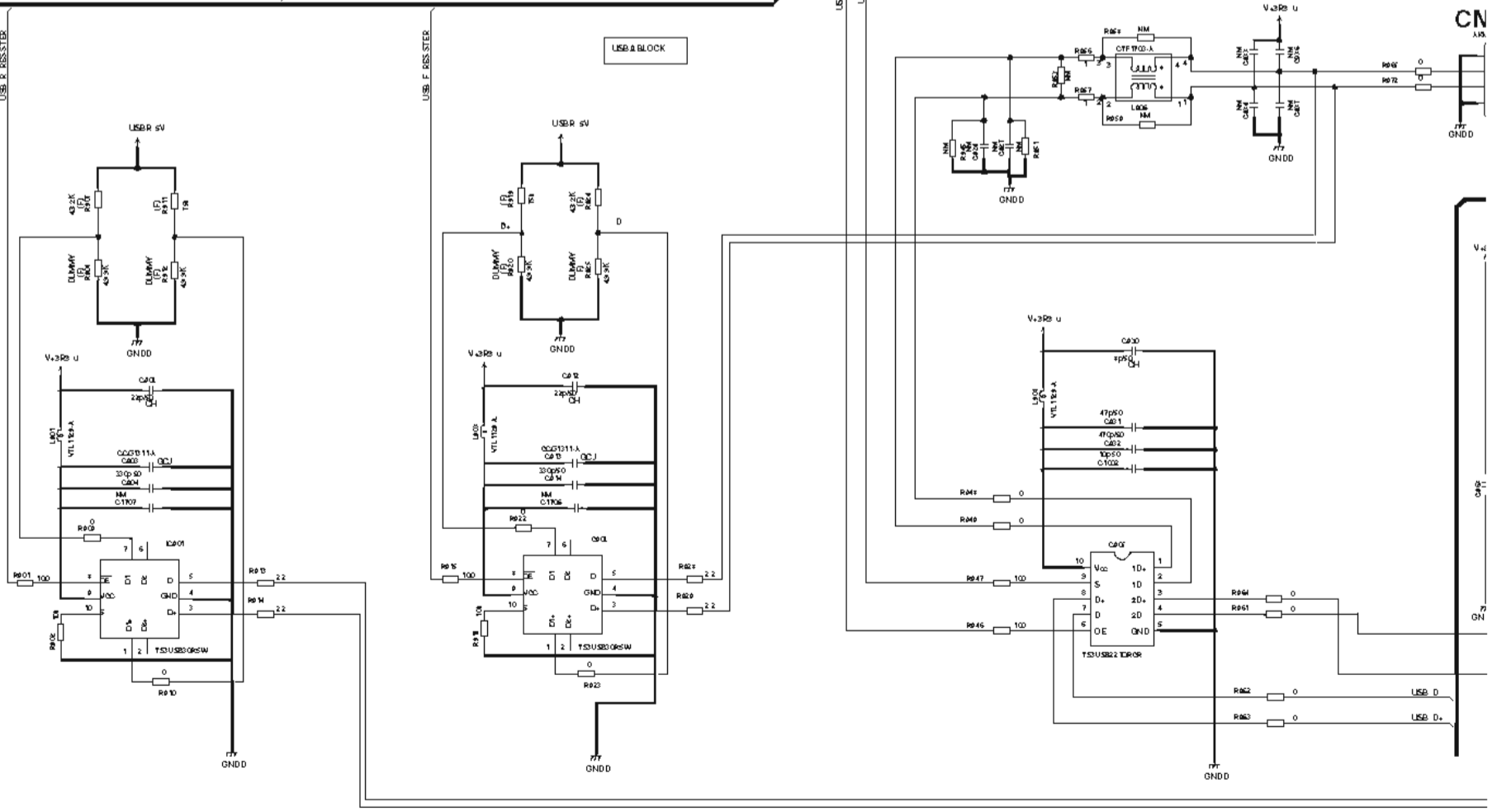
**A** 3/6



**A** 3/6

**A** 1/6, 2/6

**A** 1/6 - 4/6, 6/6



**A** 5/6

1

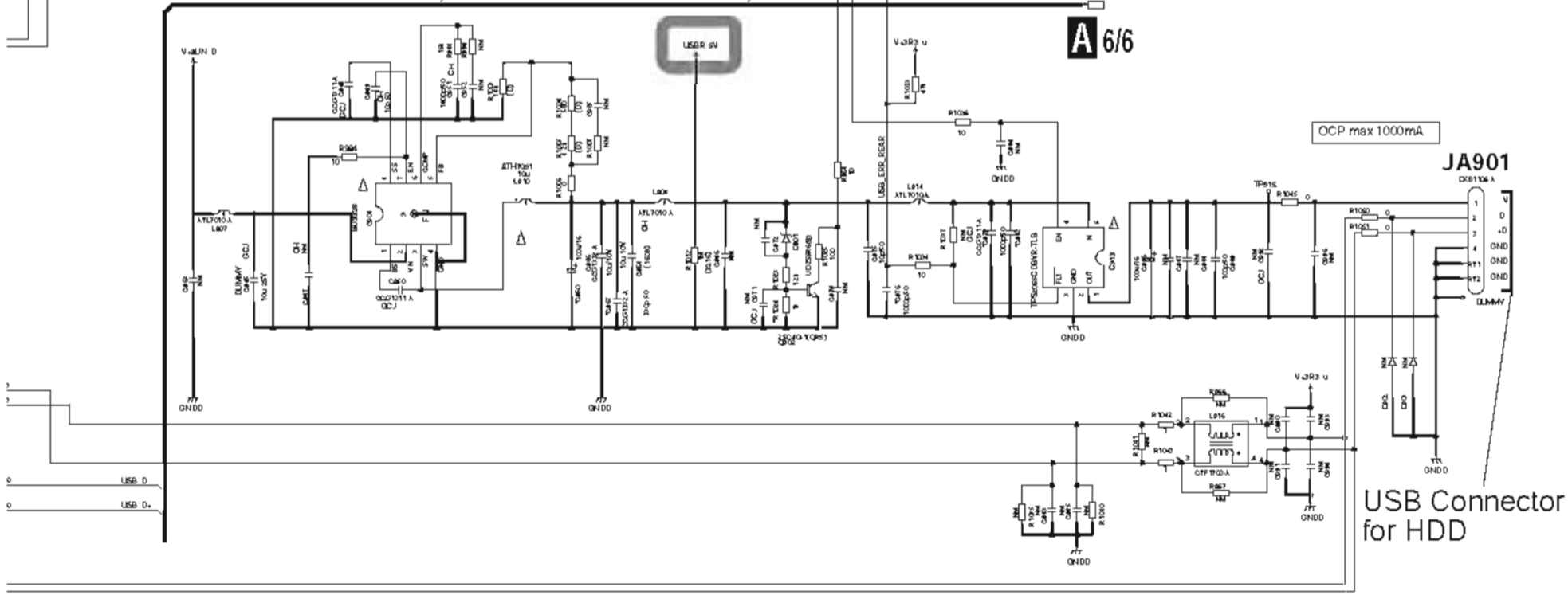
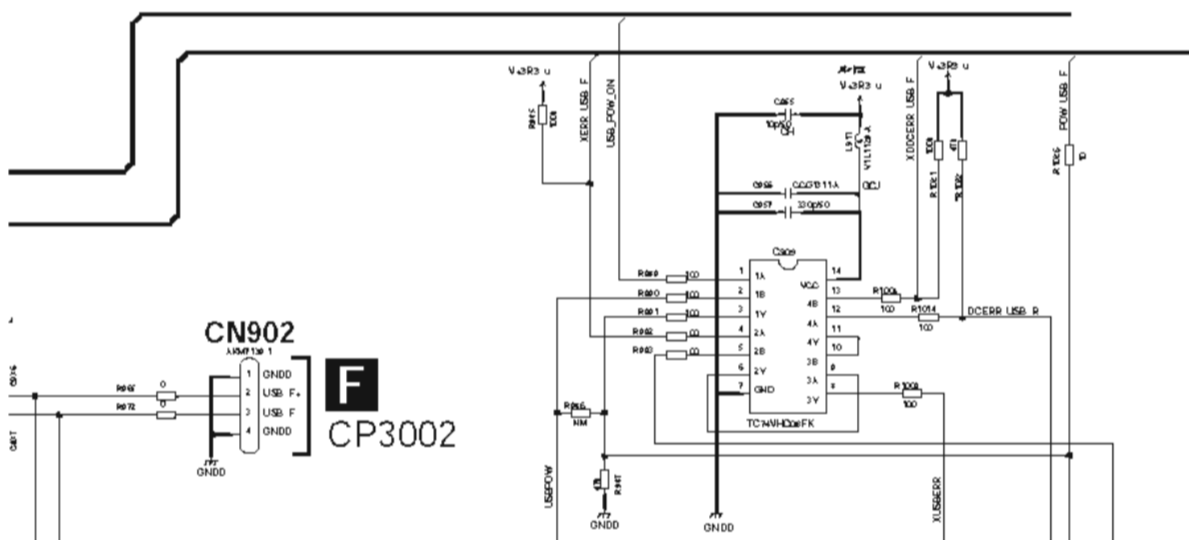
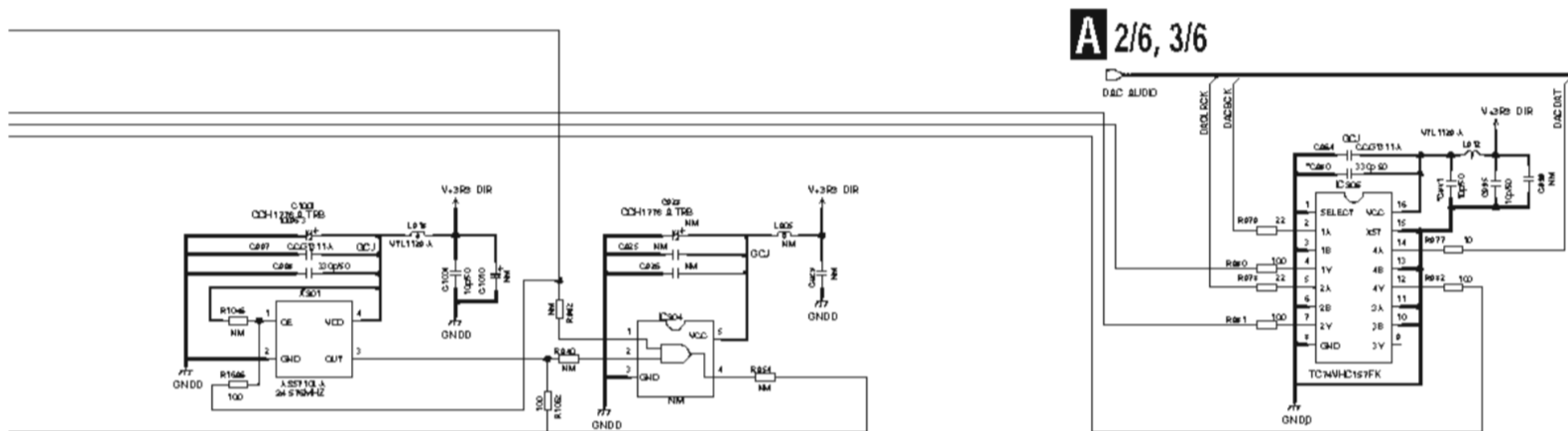
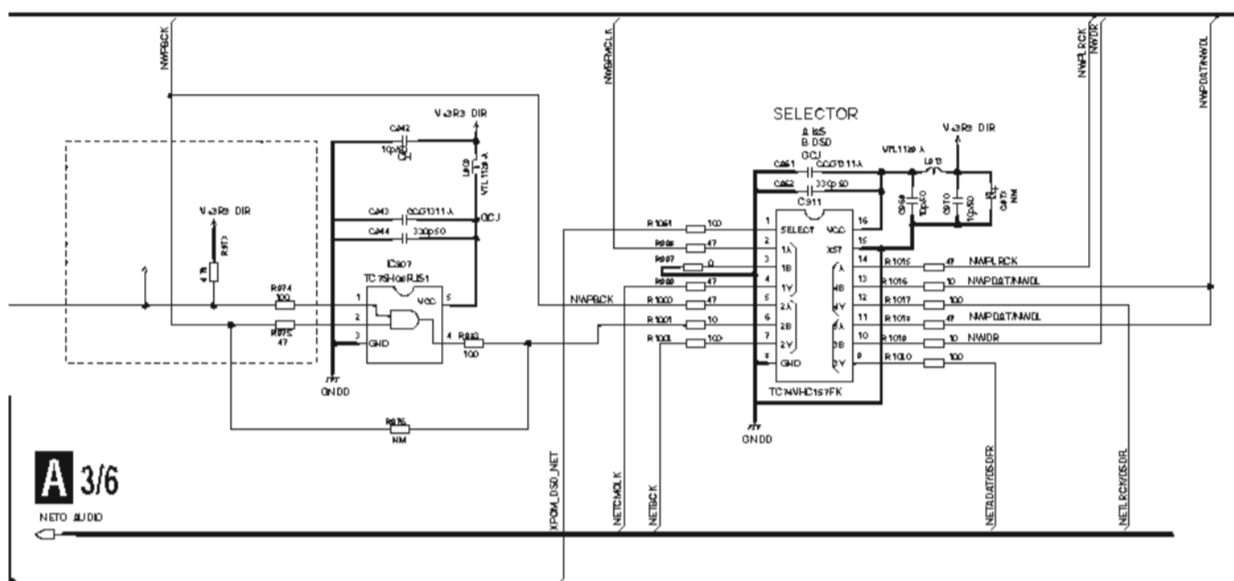
2

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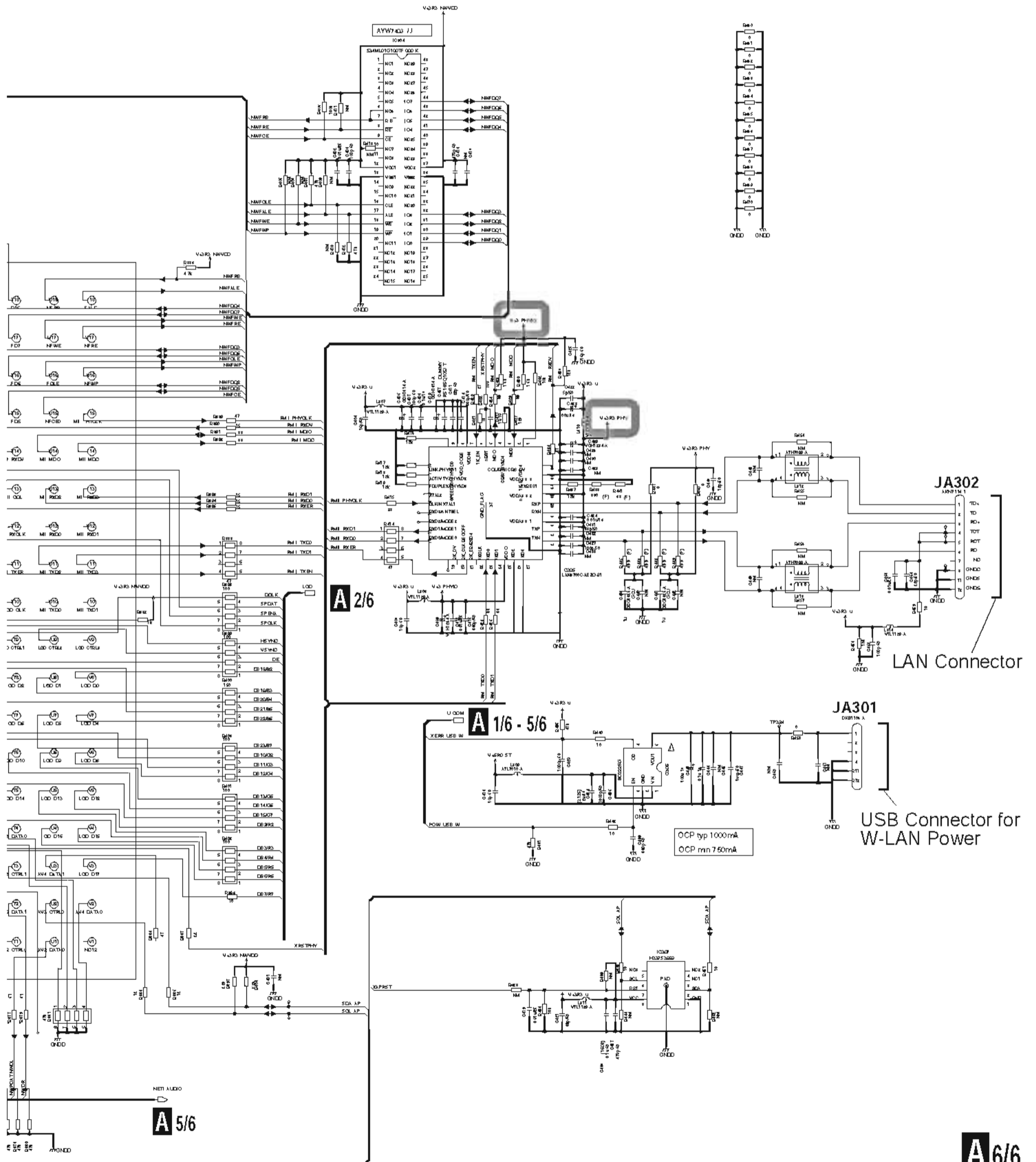
# A 5/6 DMAIN ASSY (5/6) (N-50A-K/-S : 7028077131010)





# A 6/6 DMAIN ASSY (6/6) (N-50A-K/-S : 7028077131010)

The  $\Delta$  mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation



# 10.13 AUDIO ASSY (1/2)(N-70A-K/-S)

A

B

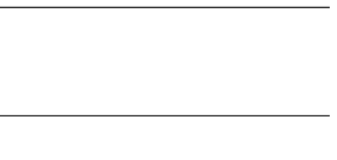
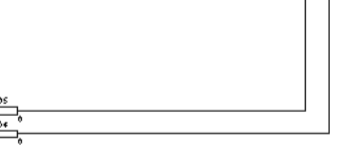
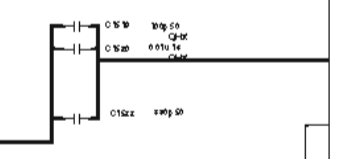
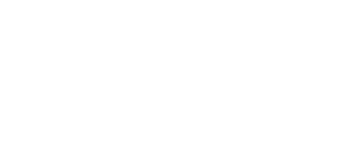
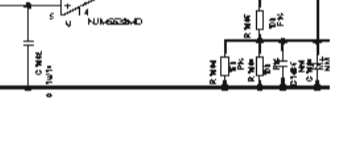
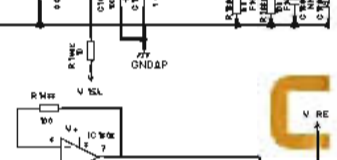
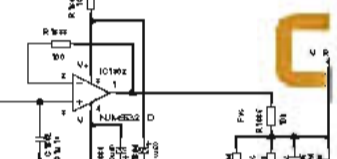
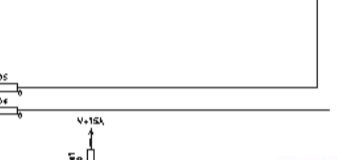
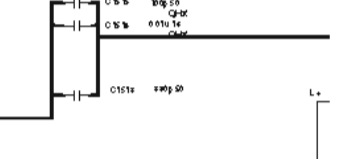
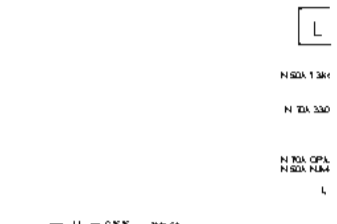
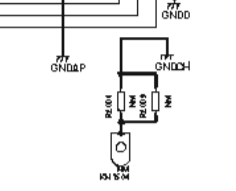
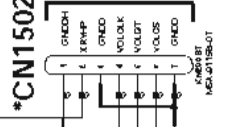
C

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E

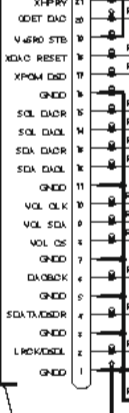
F

**D** CN4506

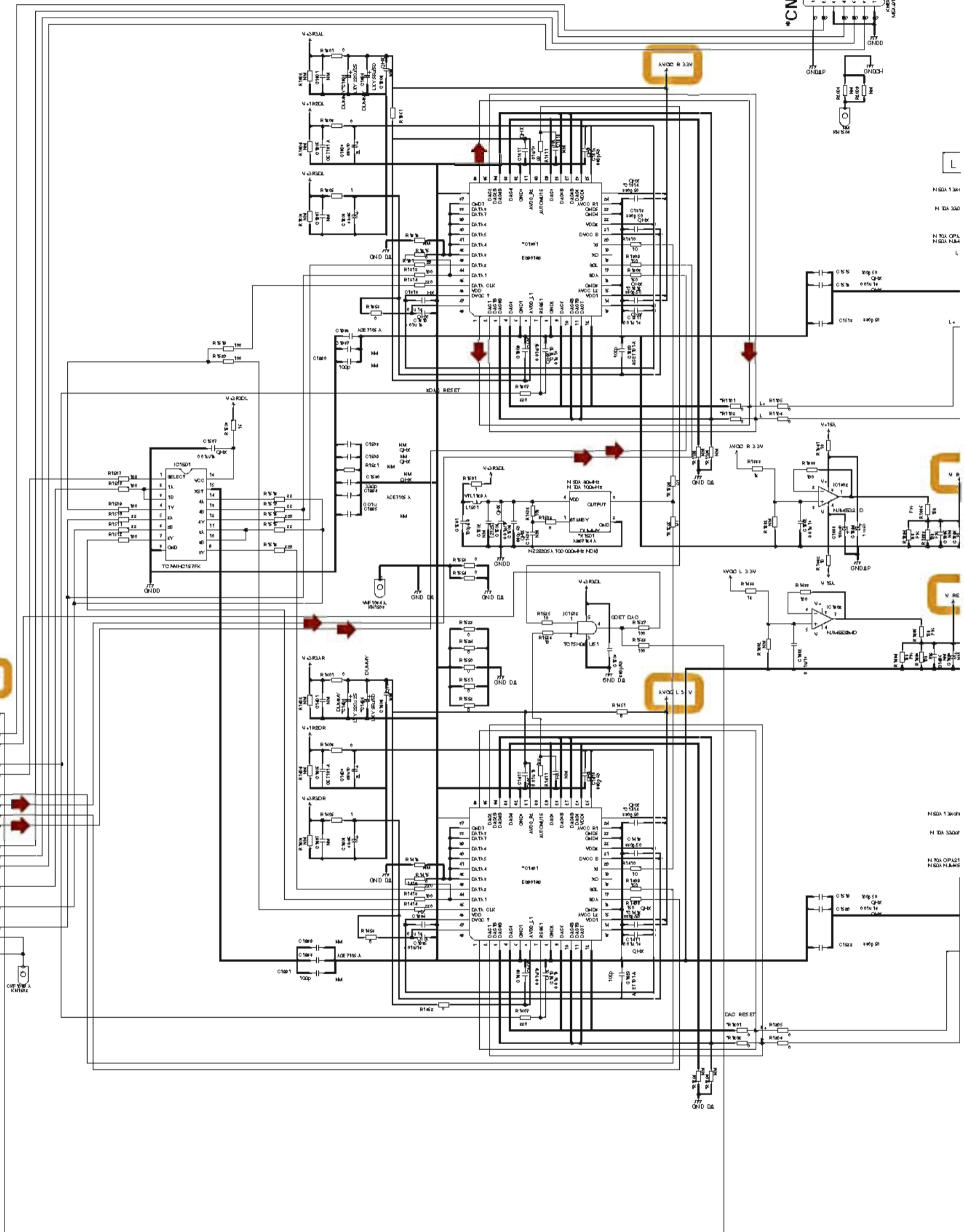
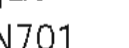


**A** 2/6

CN1501



CN701



Audio Signal Route

**B** 1/2

1

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3

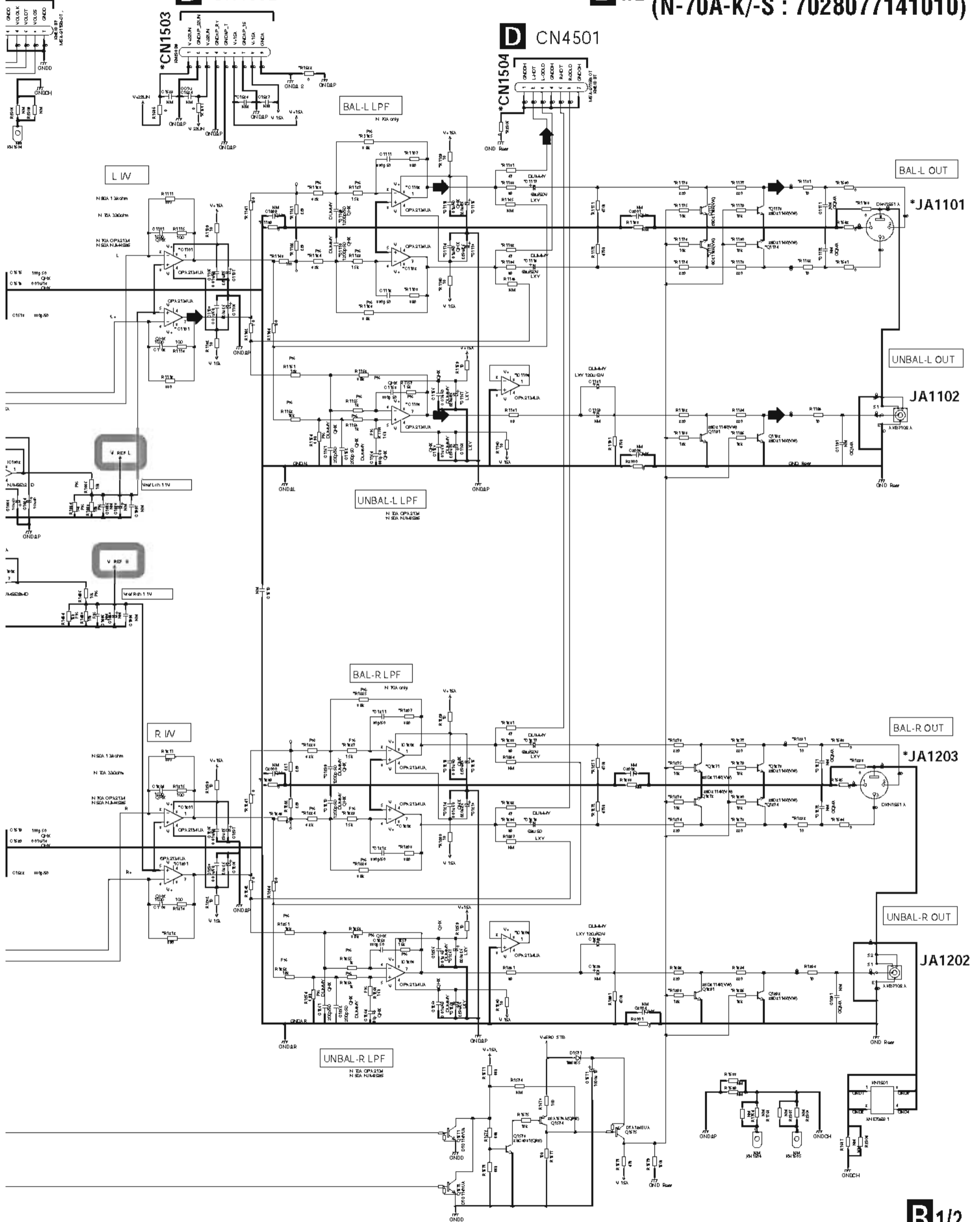
4

CN4506

D CN4502

# B<sup>1/2</sup> AUDIO ASSY (1/2) (N-70A-K/-S : 7028077141010)

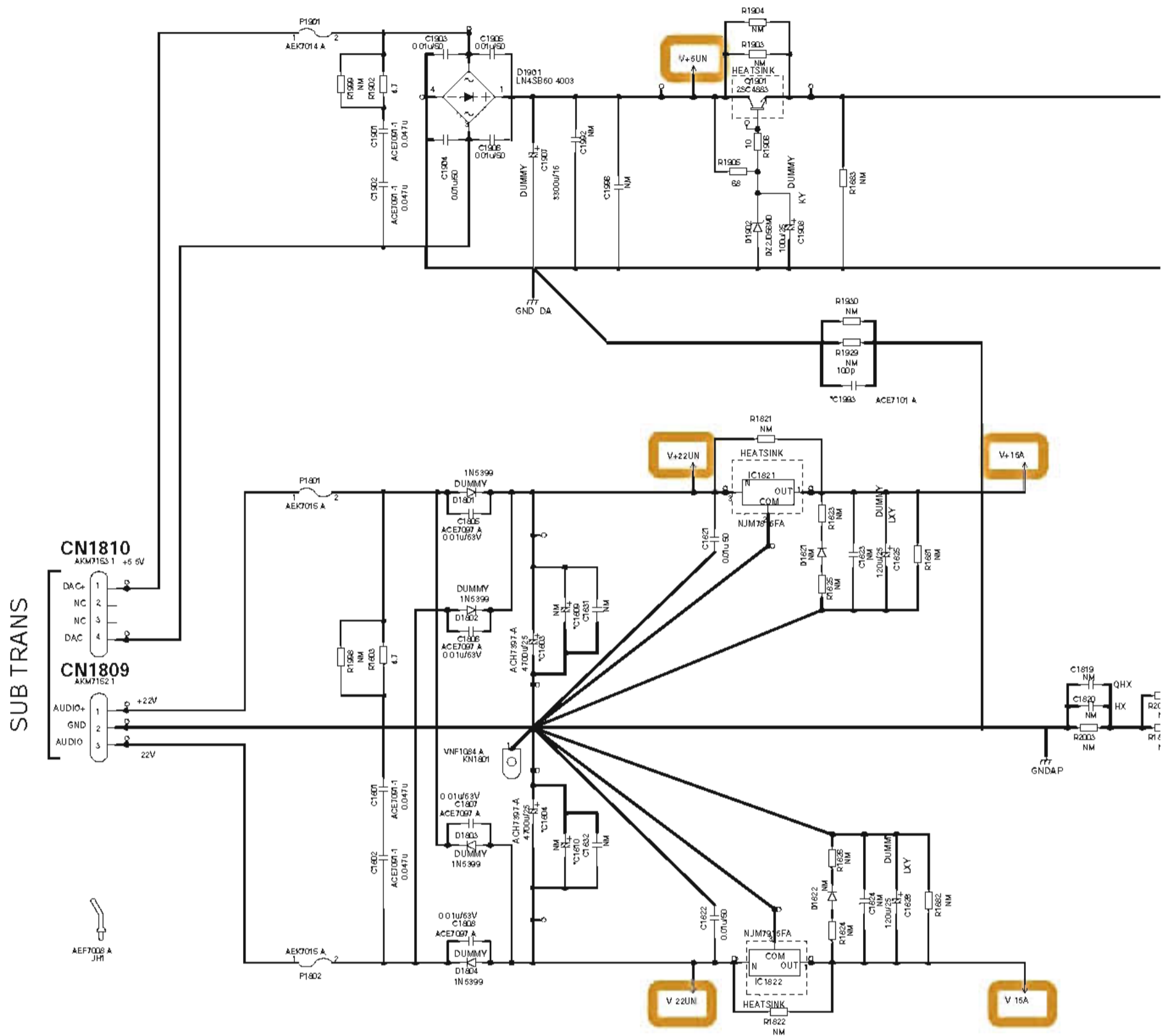
D CN4501



N-70A-K

B<sup>1/2</sup>

# 10.14 AUDIO ASSY (2/2)(N-70A-K/-S)



**NOTE**

1. RESISTORS  
 Unit: k, M, or  $\Omega$  unless otherwise noted  
 Rated Power: 1/16w or NETWORKS 1/32w unless otherwise noted  
 Tolerance: (J)5% unless otherwise noted

2. CAPACITORS  
 Unit: p, nF or  $\mu$ F unless otherwise noted  
 Ratings: Capacity/FV/Voltage(V) unless otherwise noted  
 YB CKSR/YB QYB CKSQYB SYB CKSSYB CH CCSSCH  
 AT CEAT ZL CEHAZL QHX CFHXSQ

3. NM: No Mount

The  $\Delta$  mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.

# B2/2 AUDIO ASSY (2/2) (N-70A-K/-S : 7028077141010)

A

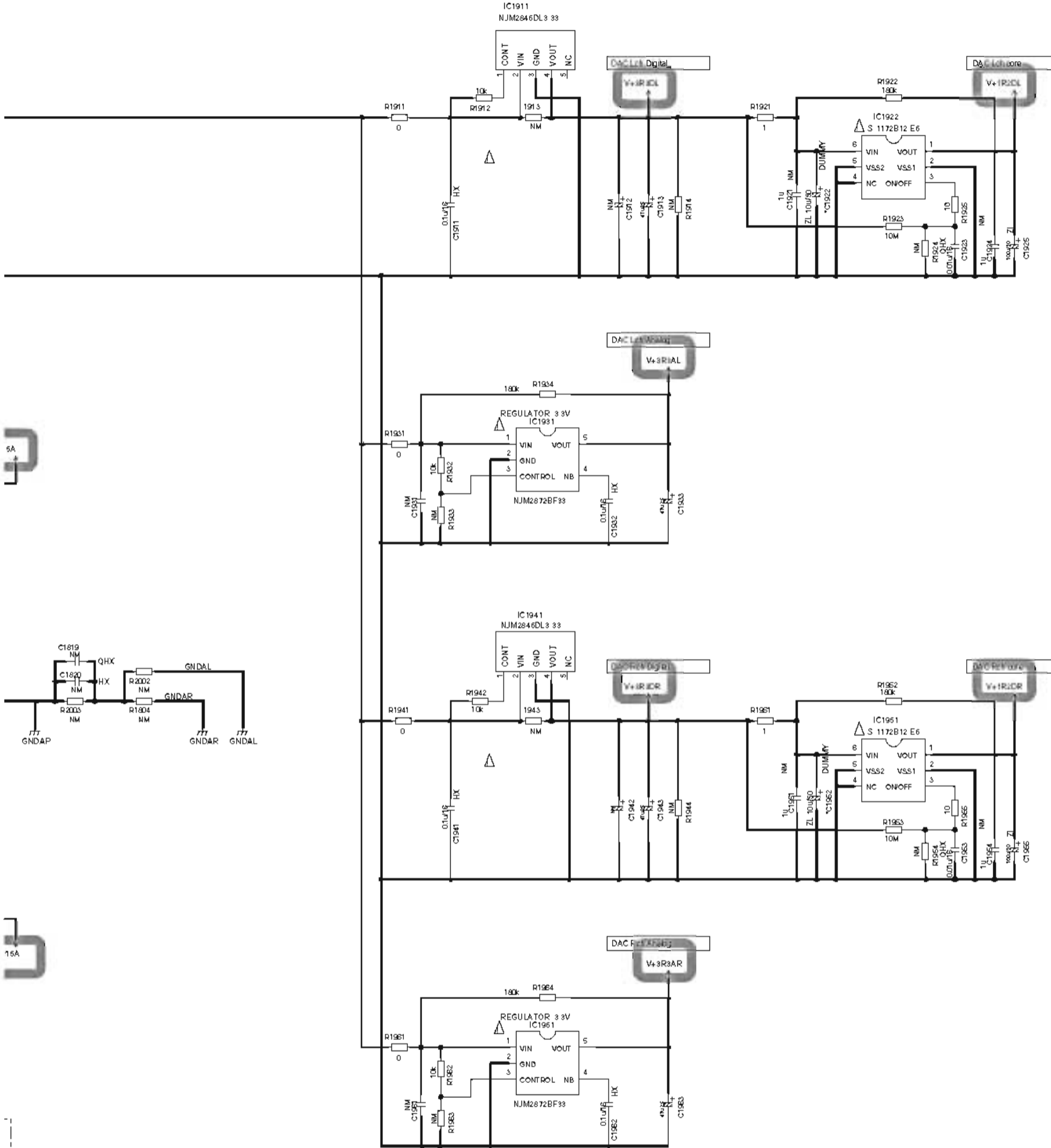
B

C

D

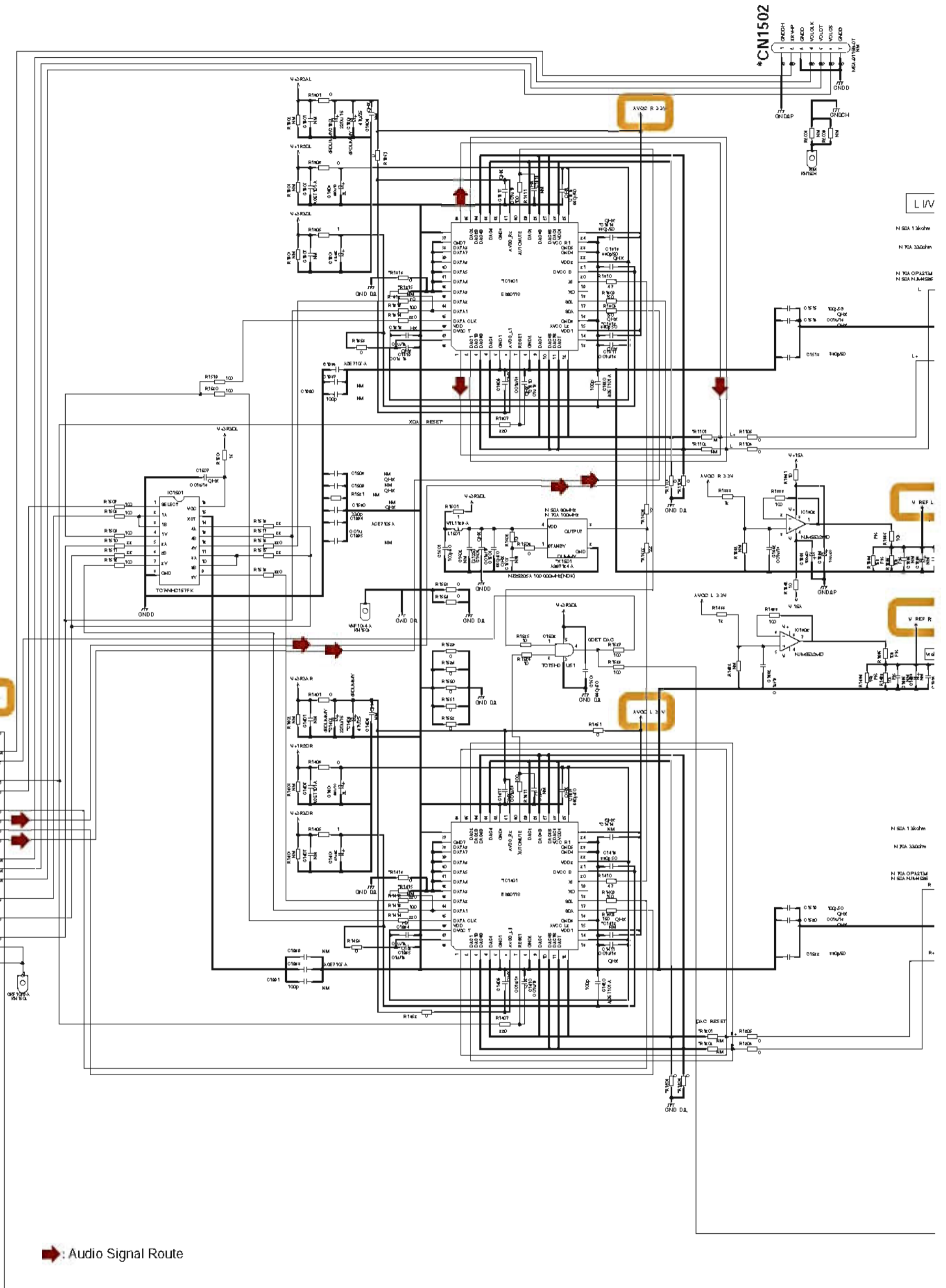
E

F



10.15 AUDIO ASSY (1/2)(N-50A-K/-S)

A  
B  
C  
D  
E  
F



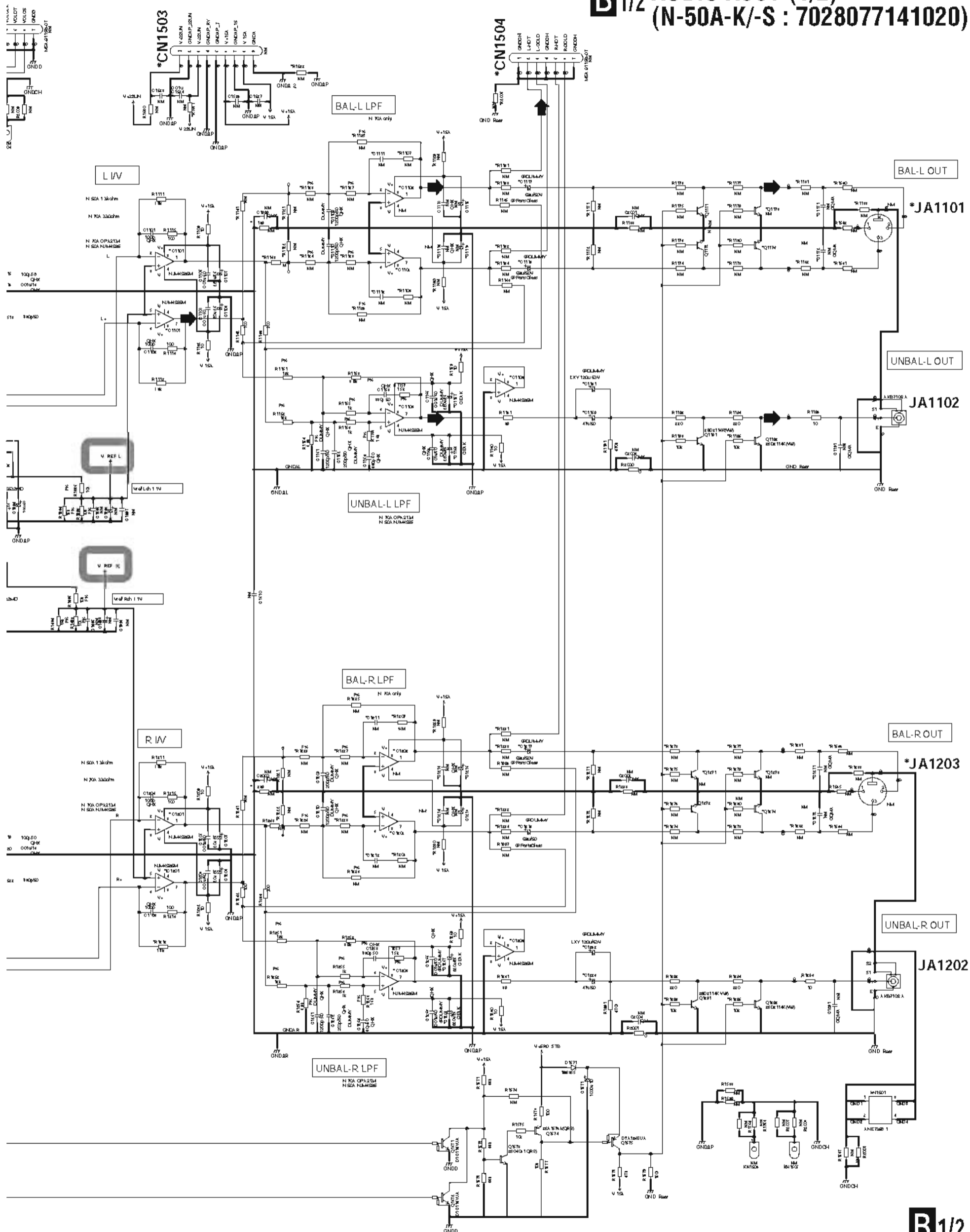
A 2/6  
CN701

B 1/2  
88

1 2 3 4



# B<sup>1/2</sup> AUDIO ASSY (1/2) (N-50A-K/-S : 7028077141020)



N-70A-K

B<sup>1/2</sup>

10.16 AUDIO ASSY (2/2)(N-50A-K/-S)

A

B

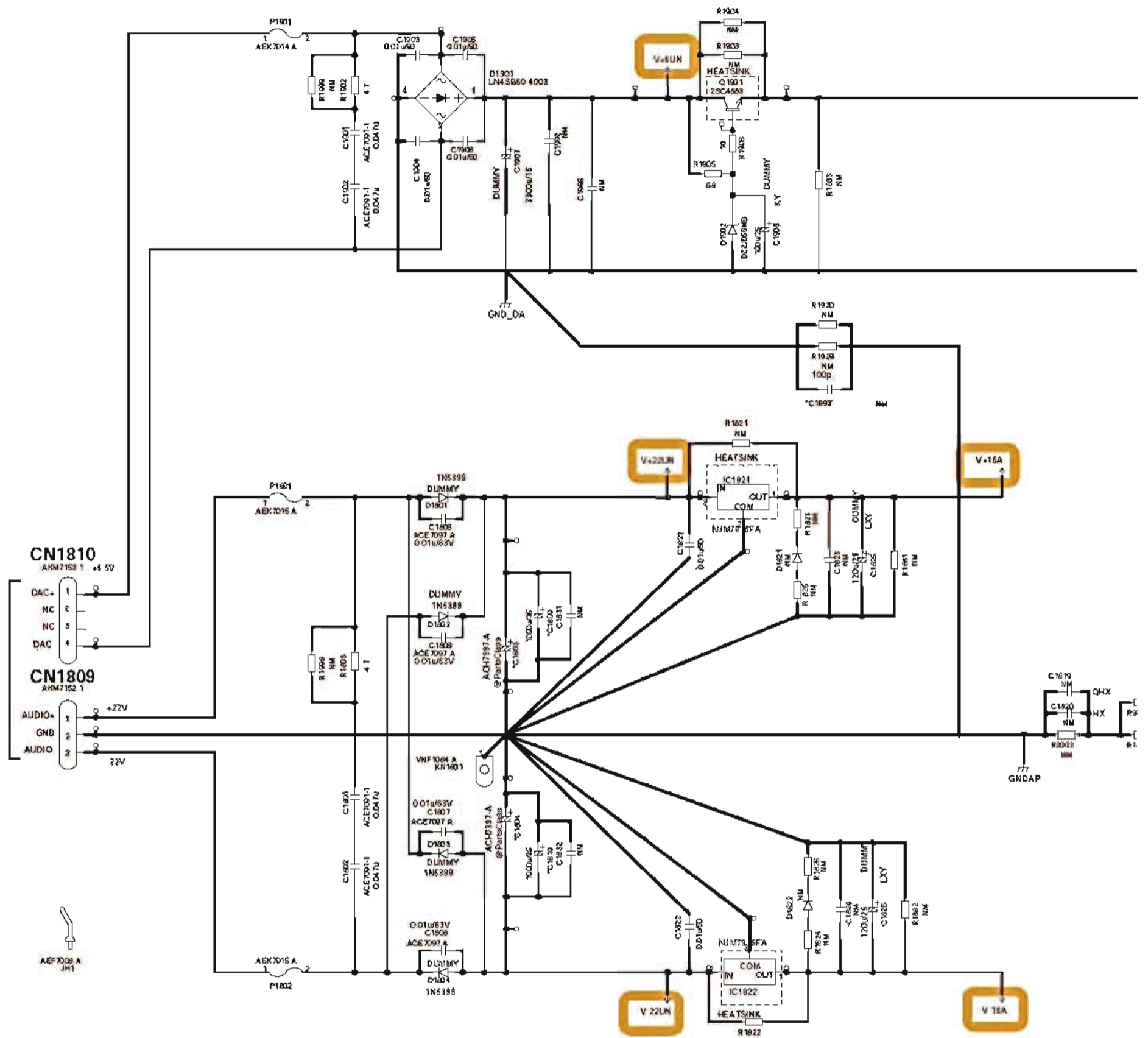
C

D

E

F

SUB TRANS



**NOTE**  
 1 RESISTORS  
 Unit: k  $\square$  M  $\square$  or  $\square$  unless otherwise noted  
 Rated Power: 1/16w or NETWORKS 1/32w unless otherwise noted  
 Tolerance: (J)5% unless otherwise noted  
 2 CAPACITORS  
 Unit: p pF or u uF unless otherwise noted  
 Ratings: Capacity (F)/Voltage(V) unless otherwise noted  
 YB:CKSRVB QYB:CKSQYB SYB:CKSSYB DH:CCSRCH SCH:CCSSCH  
 AT:CEAT ZL:CEHAZL QHX:CFHXSQ  
 3 NM: No Mount

The  $\Delta$  mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.

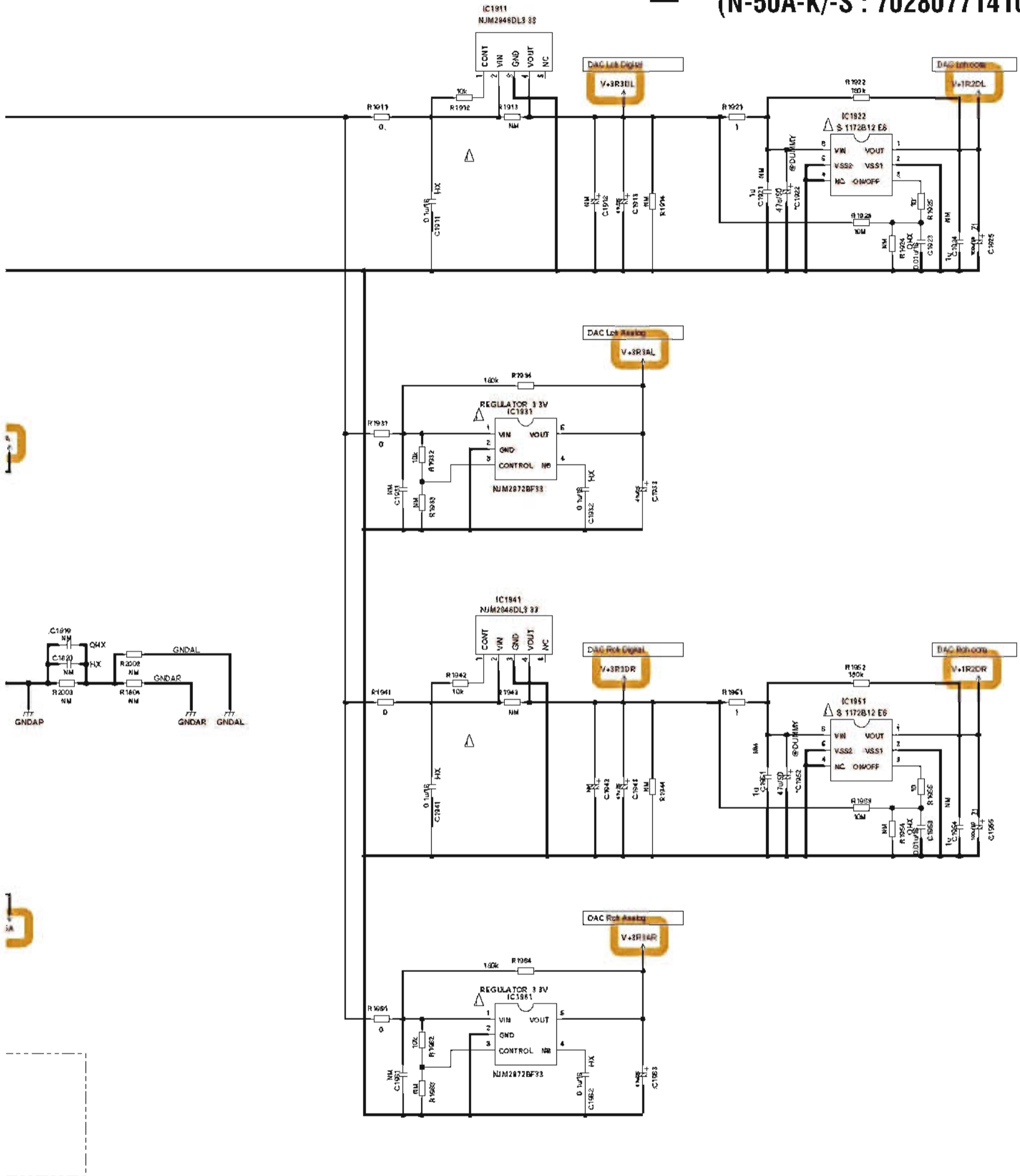
1

2

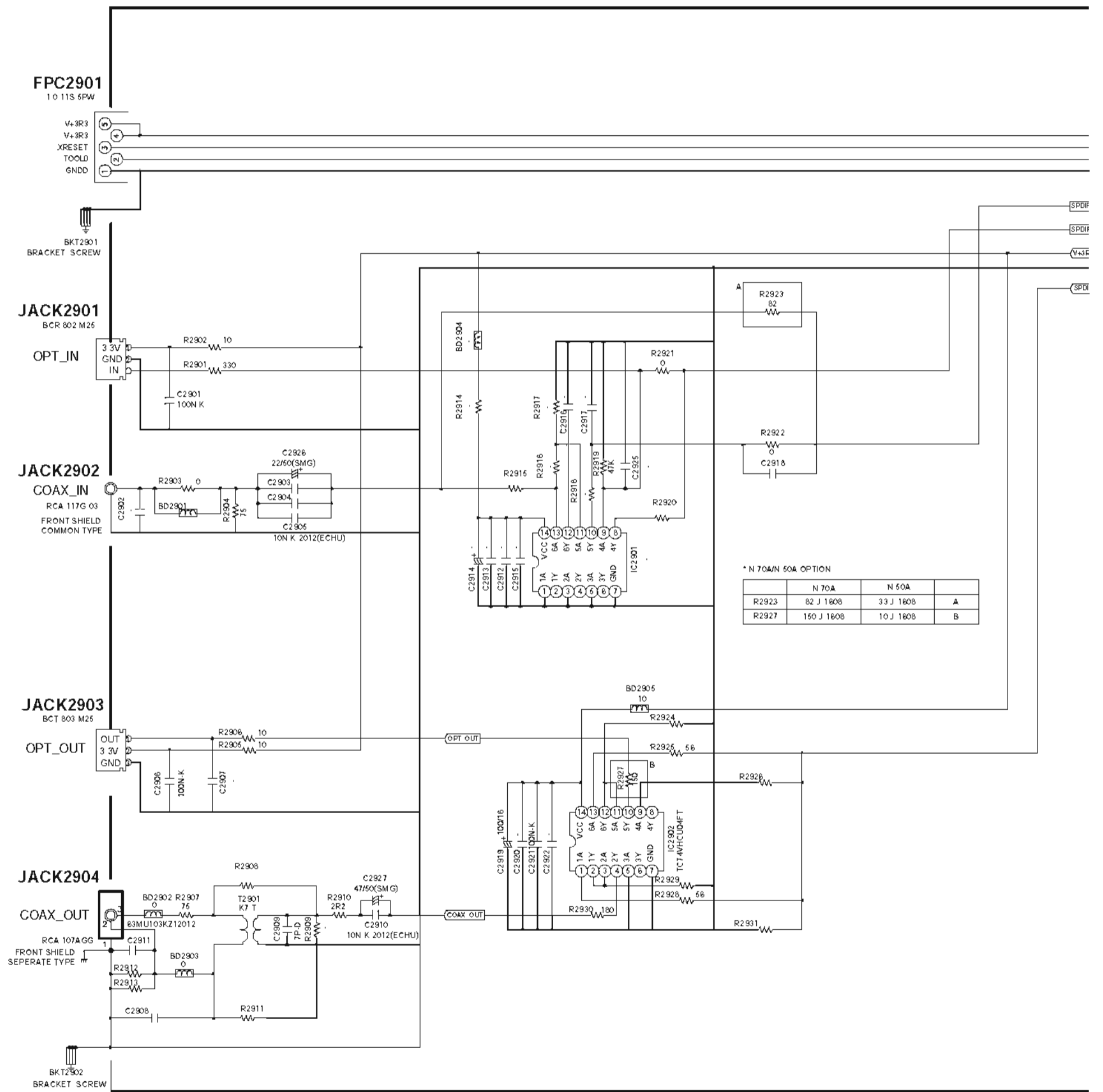
3

4

# B<sup>2/2</sup> AUDIO ASSY (2/2) (N-50A-K/-S : 7028077141020)

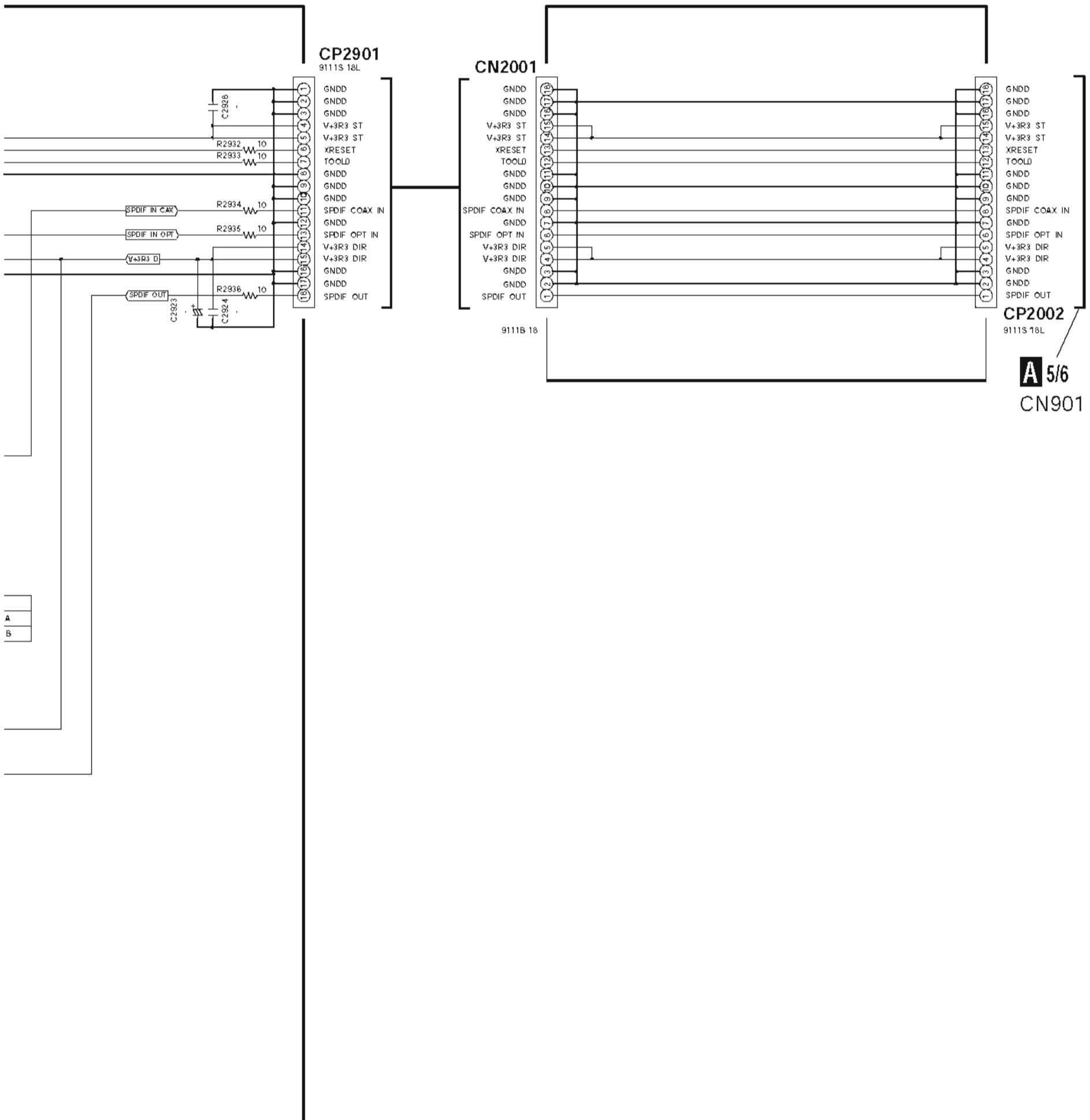


# 10.17 JACK ASSY and CNT\_A ASSY



**C** JACK ASSY  
(7028077162010)

**M** CNT\_A ASSY  
(7028077163010)



**A** 5/6  
CN901

# 10.18 HP\_AMP ASSY (N-70A-K/S)

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A

B

C

D

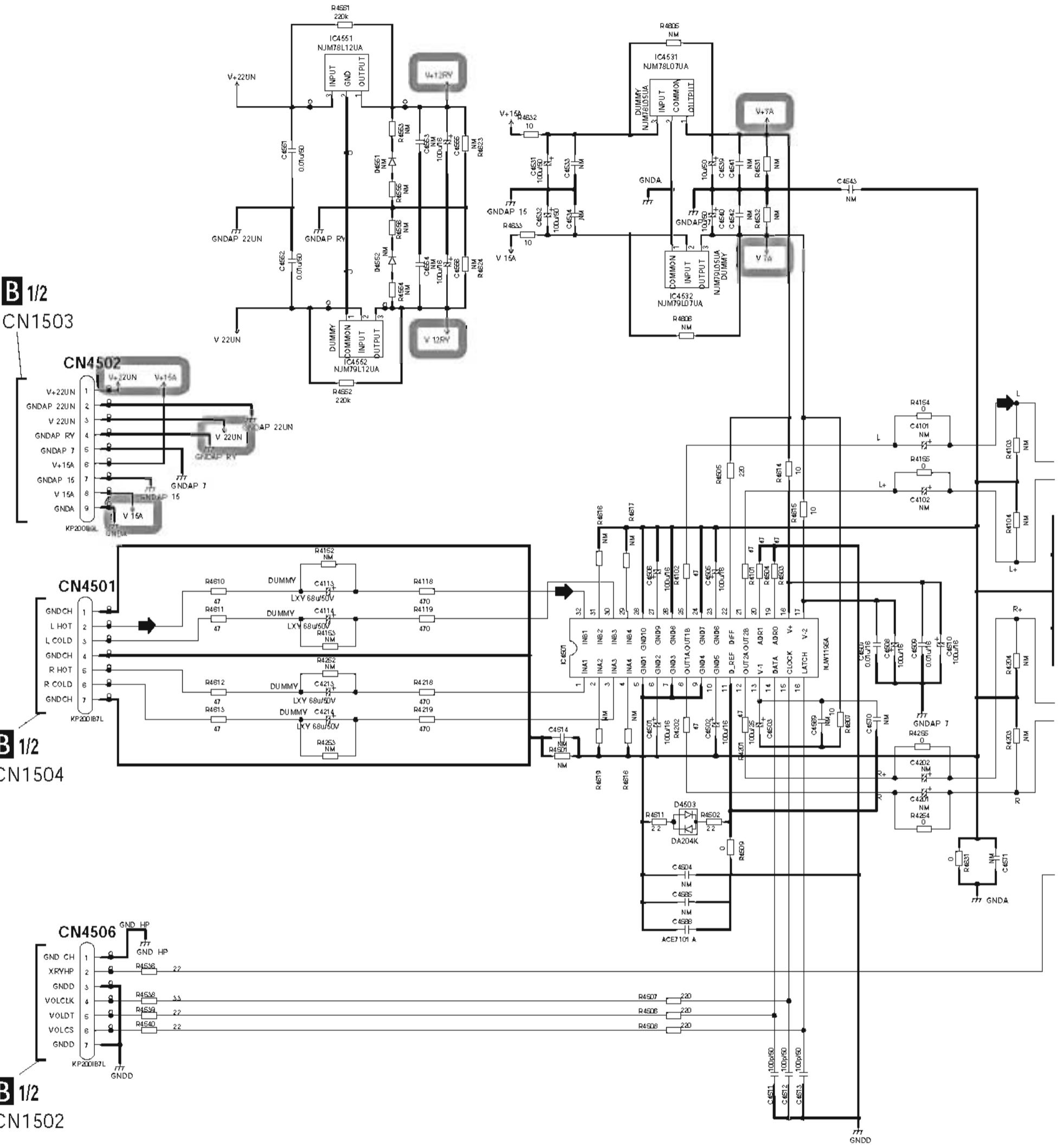
E

F

**B 1/2**  
CN1503

**B 1/2**  
CN1504

**B 1/2**  
CN1502



**D**

1

2

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4

# D HP\_AMP ASSY (N-70A-K/-S : 7028077151010)

A

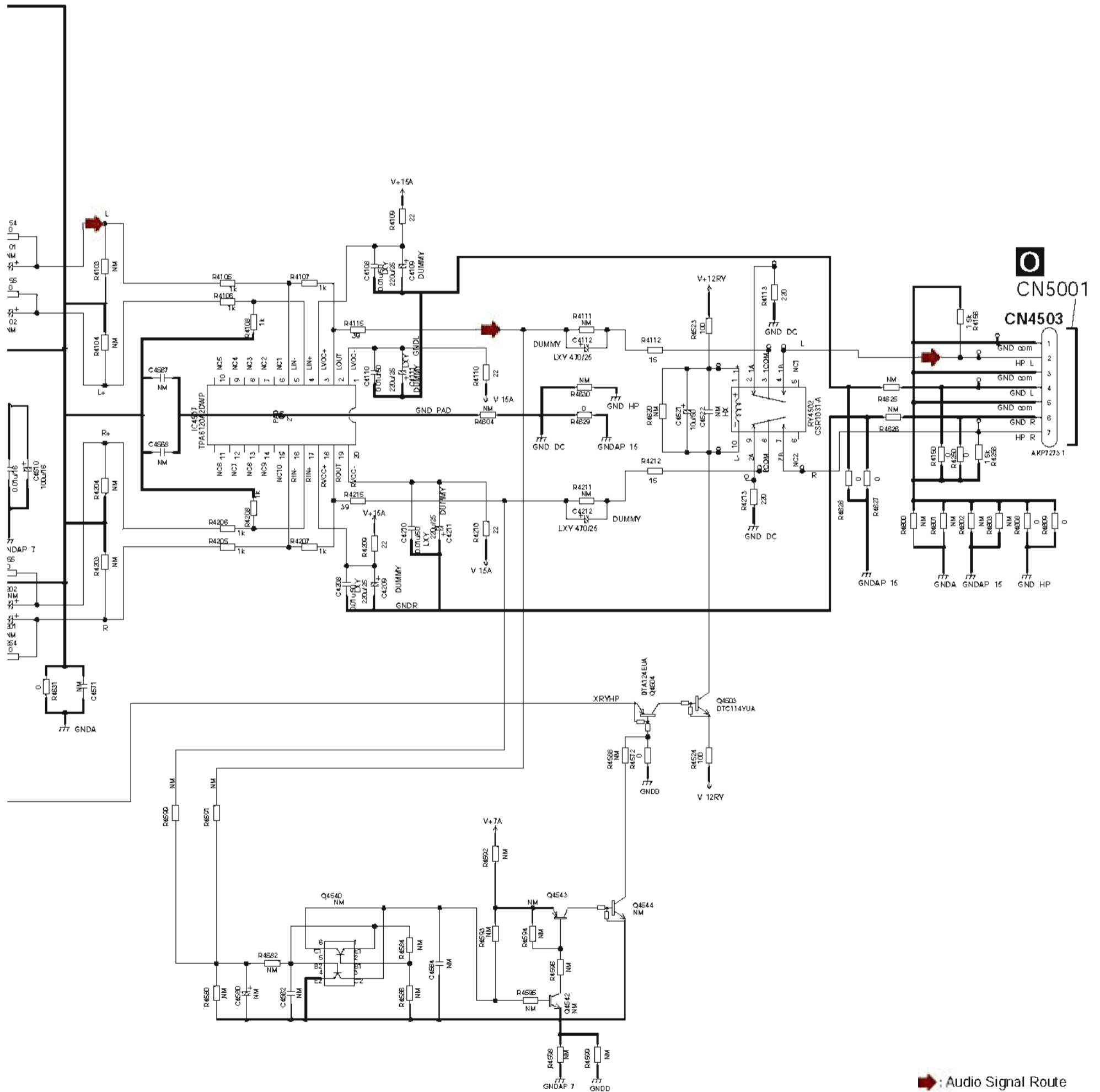
B

C

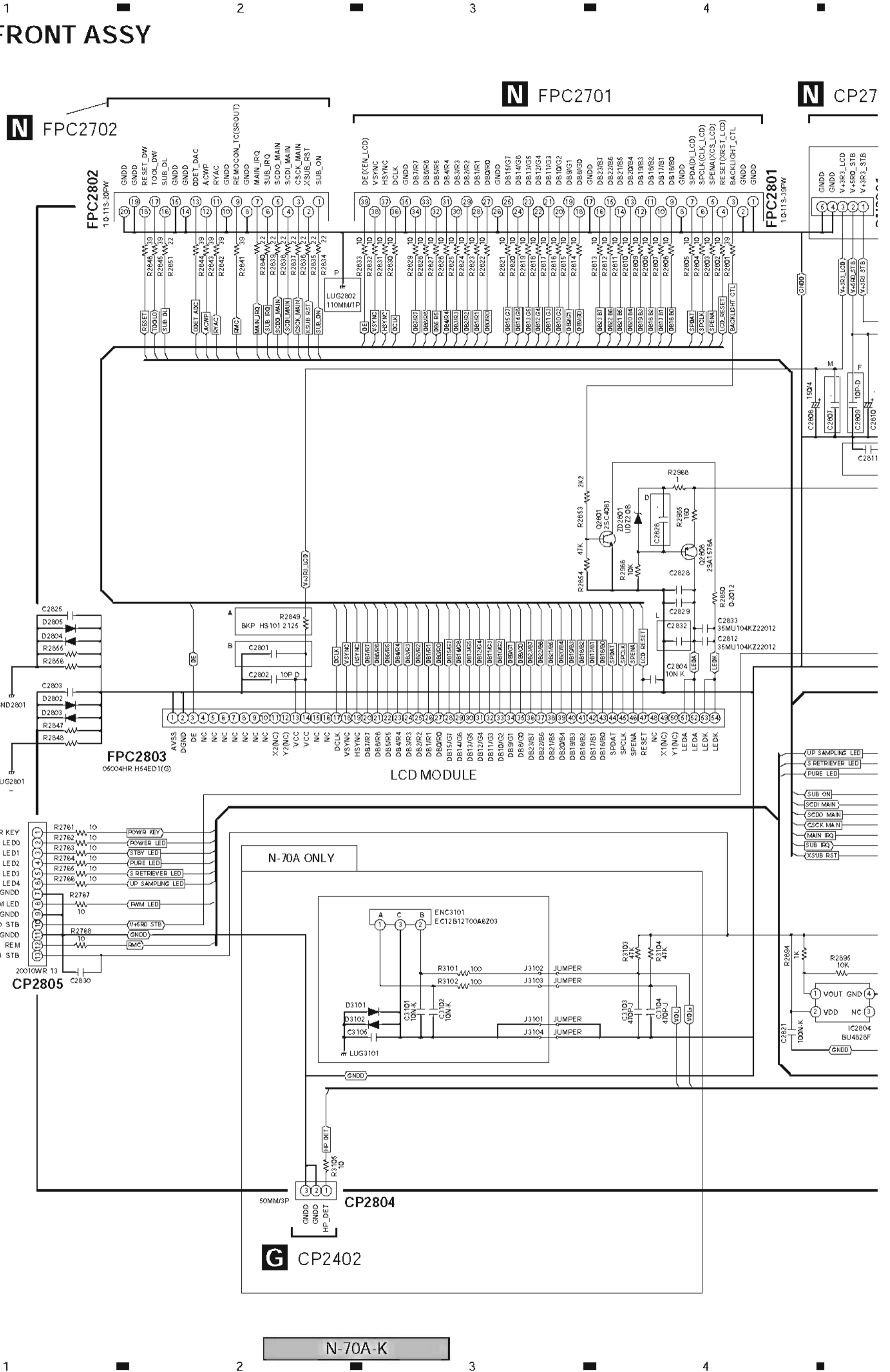
D

E

F



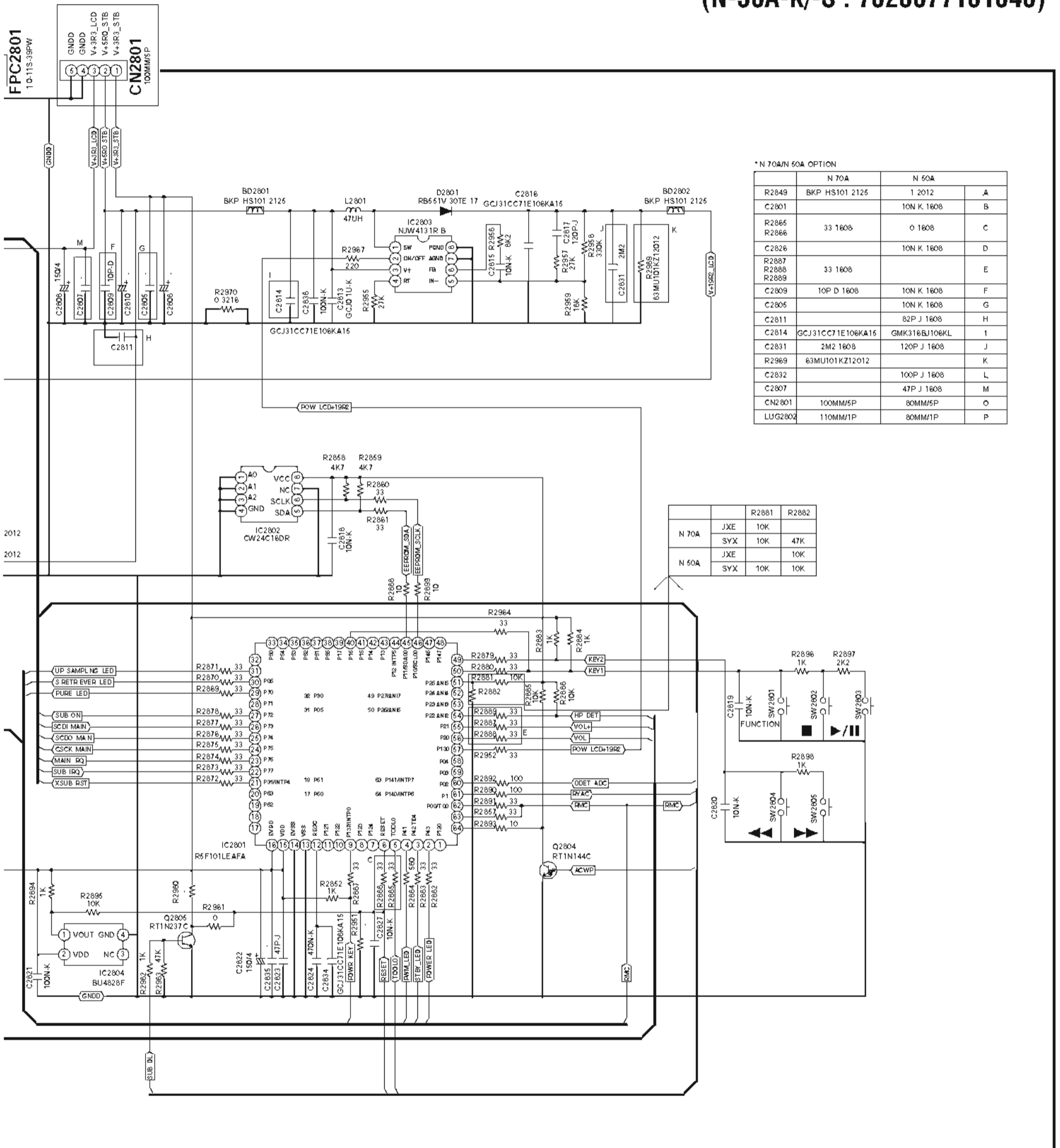
# 10.19 FRONT ASSY





CP2702

**FRONT ASSY**  
**(N-70A-K/-S : 7028077161030)**  
**(N-50A-K/-S : 7028077161040)**

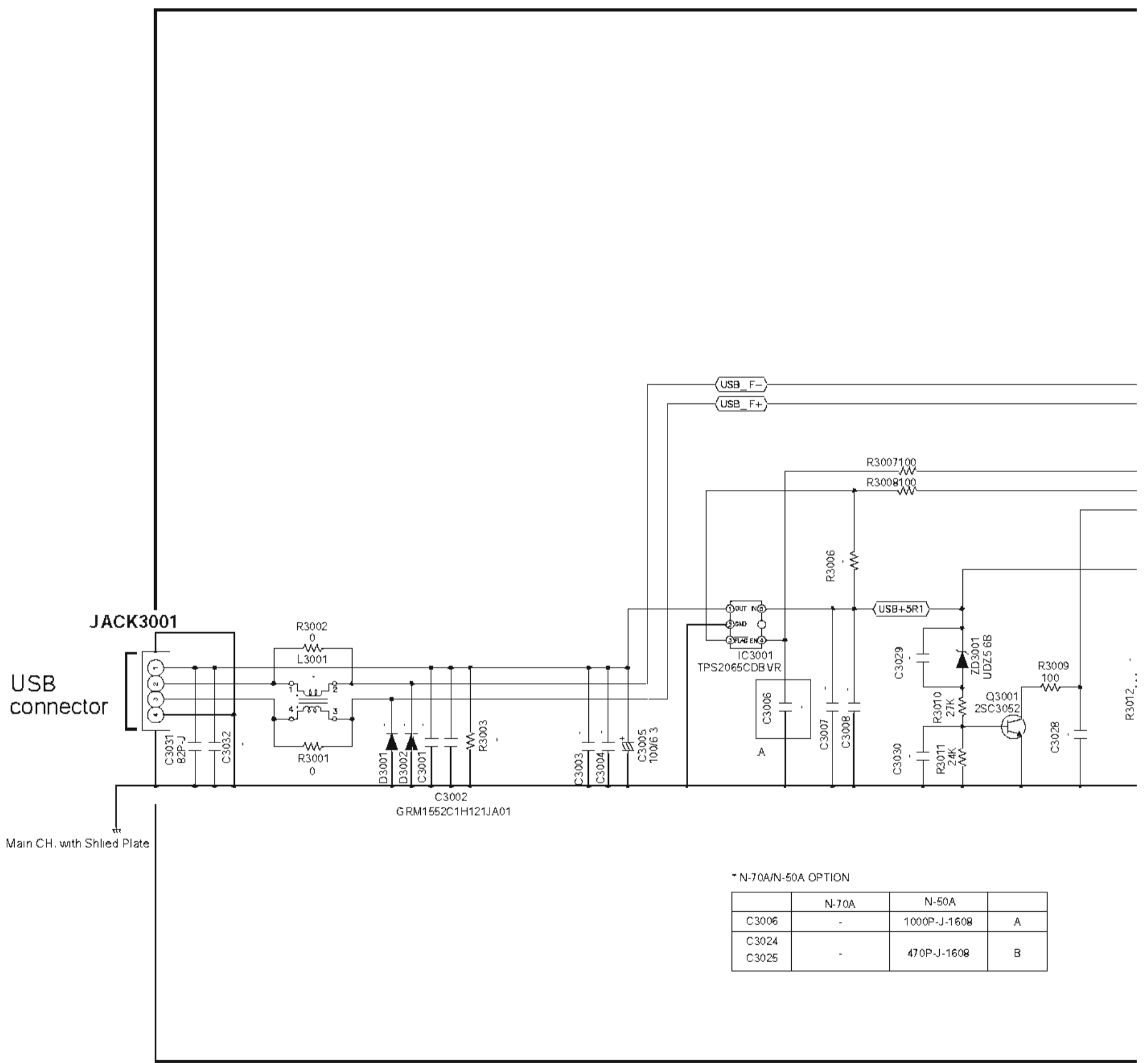


\* N 70A/N 50A OPTION

	N 70A	N 50A	
R2849	BKP HS101 2125	1 2012	A
C2801		10N K 1808	B
R2885	33 1808	0 1808	C
R2886			
C2826		10N K 1808	D
R2887	33 1808		E
R2888			
R2889			
C2809	10P D 1808	10N K 1808	F
C2805		10N K 1808	G
C2811		82P J 1808	H
C2814	GCJ31CC71E106KA15	GMK318BJ106KL	I
C2831	2M2 1808	120P J 1808	J
R2989	63MU101KZ12012		K
C2832		100P J 1808	L
C2807		47P J 1808	M
CN2801	100MM/5P	80MM/5P	O
LUG2802	110MM/1P	80MM/1P	P

	R2881	R2882
N 70A	JXE 10K	
	SYX 10K	47K
N 50A	JXE 10K	10K
	SYX 10K	10K

10.20 USB\_F ASSY



\* N-70A/N-50A OPTION

	N-70A	N-50A	
C3006	-	1000P-J-1608	A
C3024	-	470P-J-1608	B
C3025	-		

**F** USB\_F ASSY  
 (N-70A-K/-S : 7028077181010)  
 (N-50A-K/-S : 7028077181020)

\* CP3001 MODEL OPTION

N-50A	150MM
N-70A	130MM

**CP3001**  
7P\_WIRE

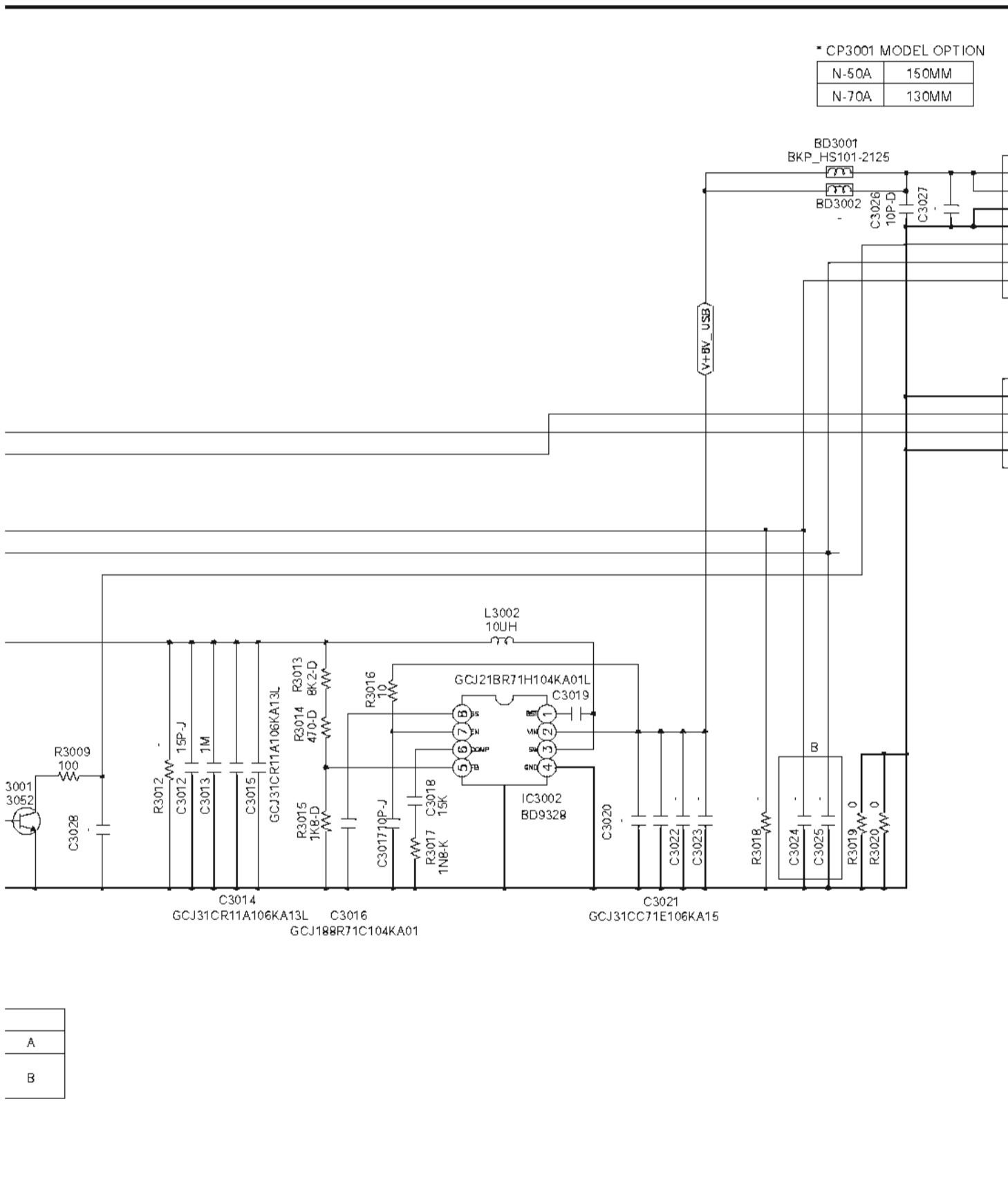
- V+8V\_USB
- V+8V\_USB
- GNDUSB
- GNDUSB
- XDDCERR\_USB\_F
- XERR\_USB\_F
- POW\_USB\_F

**N** CP2703

**CP3002**  
4P\_WIRE\_WITH\_SHIELD

- GND
- USB\_F+
- USB\_F-
- GND

**A** 5/6  
CN902

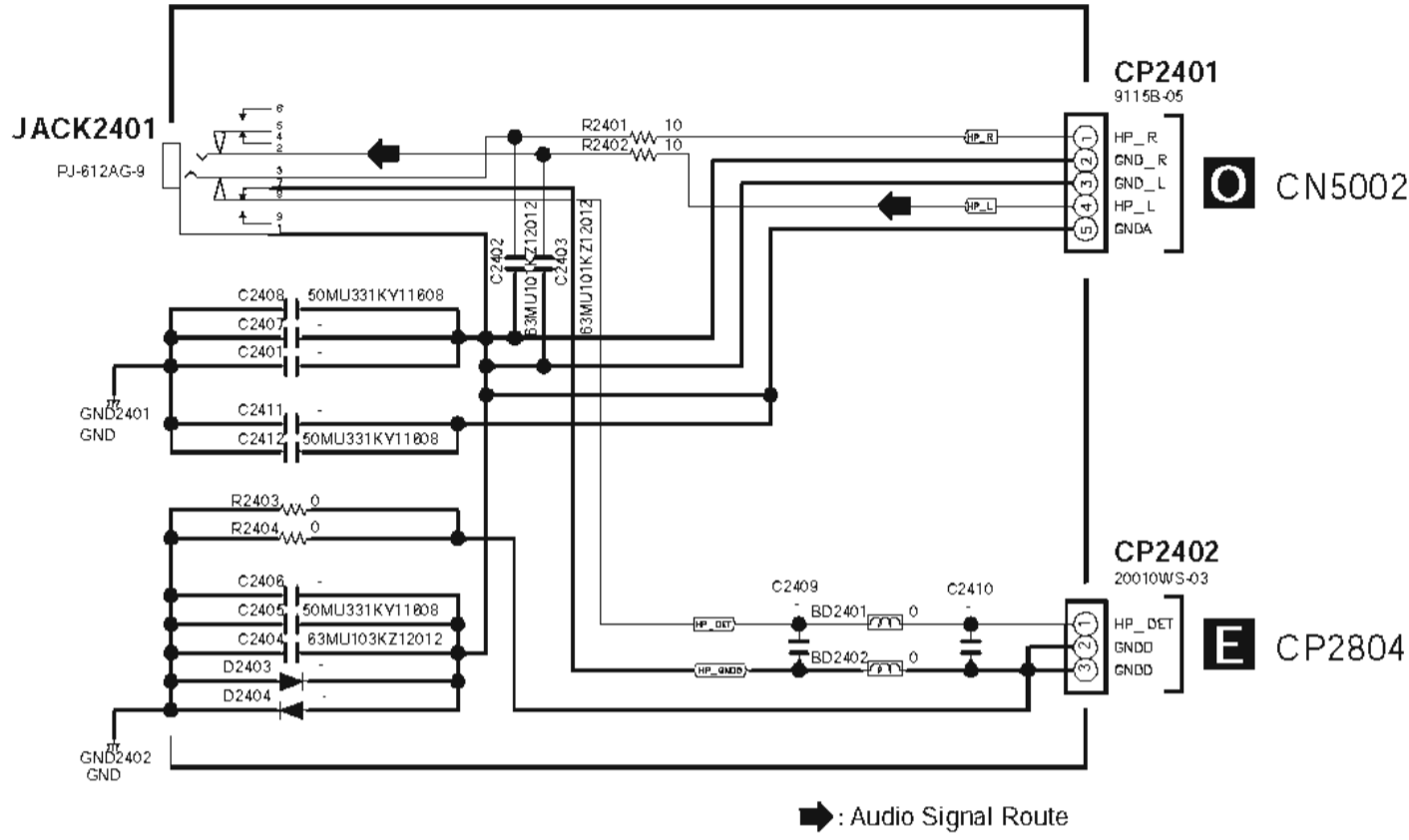


A
B

# 10.21 HP (N-70A-K/-S), LED, POWER\_SW, POWER\_LED and IR ASSYS

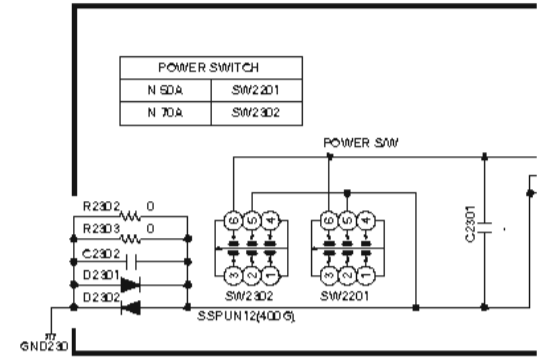
A

## G HP ASSY (N-70A-K/-S : 7028077191010)



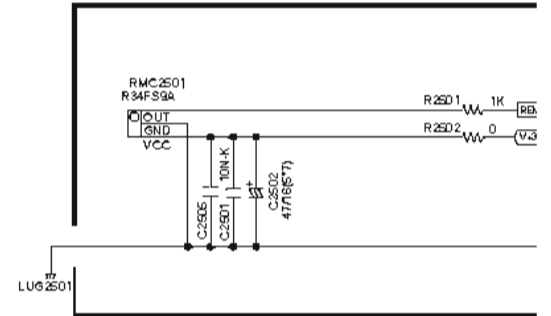
B

## I POWER\_SW ASSY (N-70A-K/-S : 7028077173010) (N-50A-K/-S : 7028077173010)



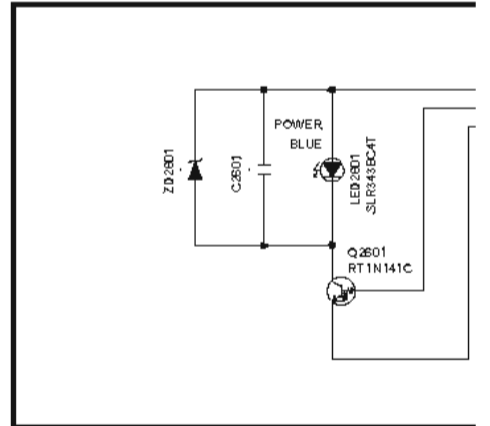
C

## K IR ASSY (7028077173010)



D

## J POWER\_LED ASSY (7028077174010)



E

F

**G I J K**

100

1

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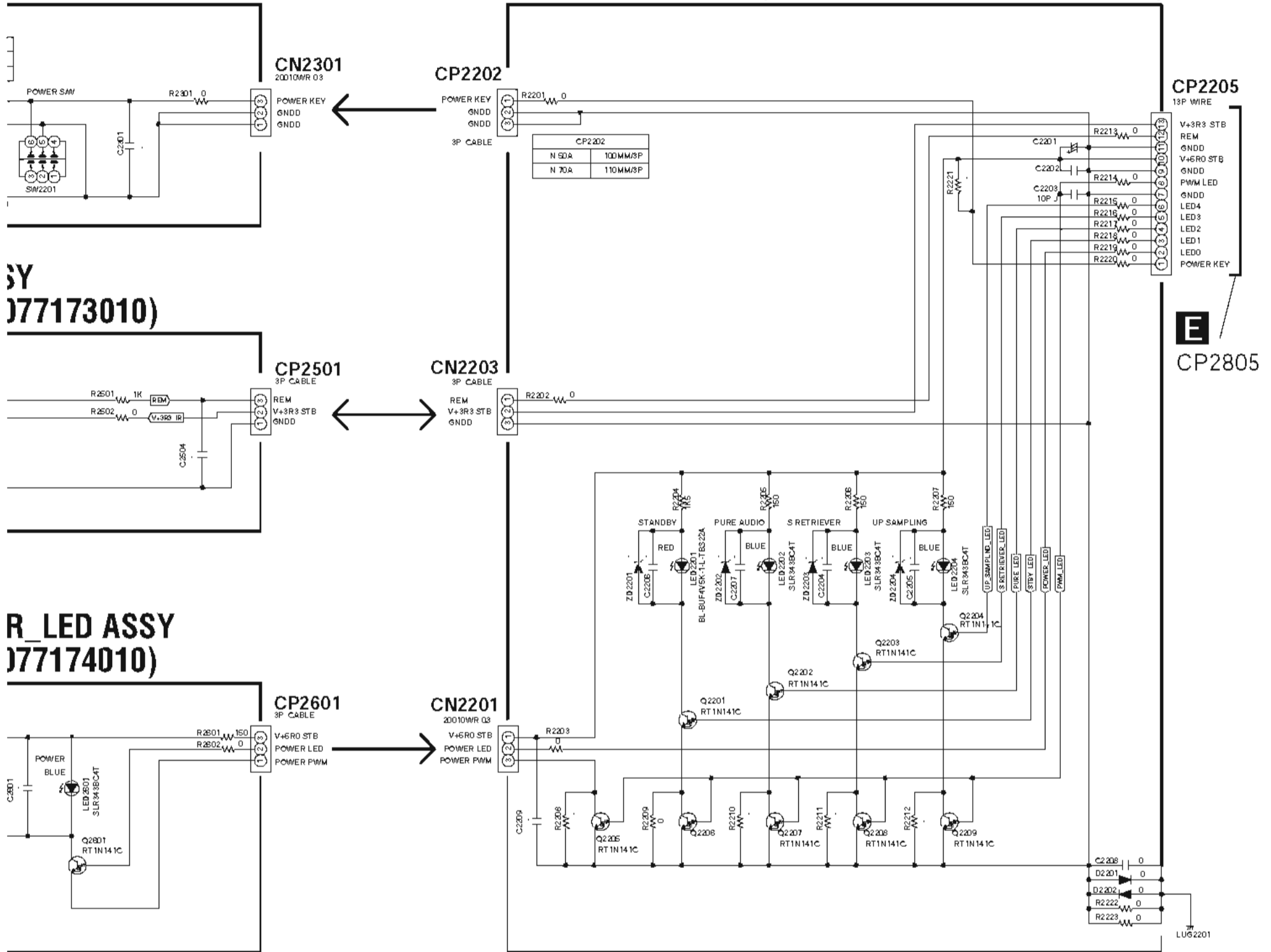
N-70A-K

3

4

**R\_SW ASSY**  
**A-K/-S : 7028077175010)**  
**A-K/-S : 7028077175020)**

**H LED ASSY**  
**(N-70A-K/-S : 7028077172010)**  
**(N-50A-K/-S : 7028077172020)**



**R\_LED ASSY**  
**(N-70A-K/-S : 7028077173010)**

**R\_LED ASSY**  
**(N-70A-K/-S : 7028077174010)**

**E CP2805**

# 10.22 SMPS ASSY

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A

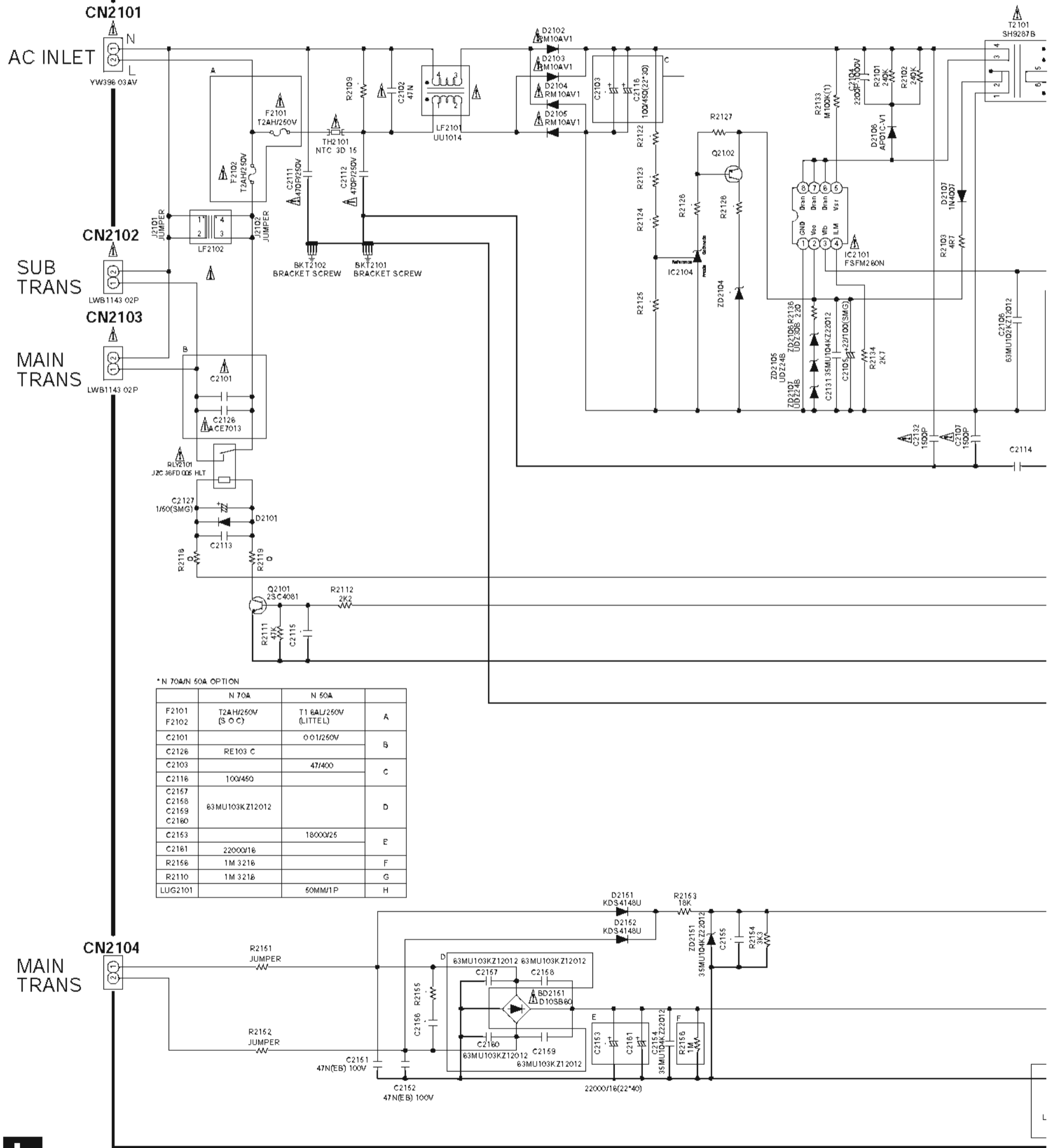
B

C

D

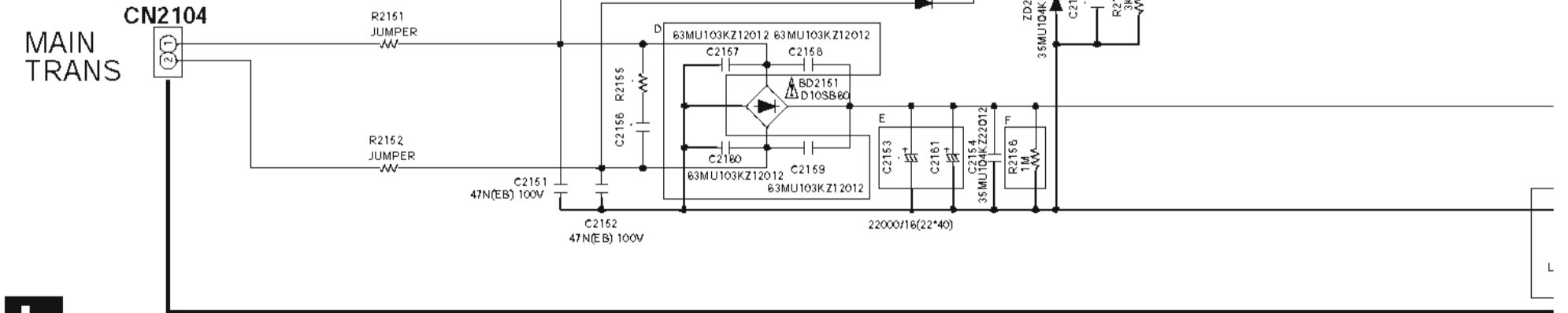
E

F



\* N 70A/N 50A OPTION

	N 70A	N 50A	
F2101	T2AH/250V	T1 8AL/250V	A
F2102	(S O C)	(LITTEL)	
C2101	RE103 C	0.01/250V	B
C2103		47/400	C
C2116		100/450	
C2157			D
C2158	63MU103KZ12012		
C2159			
C2160			
C2153		18000/25	E
C2161	22000/16		F
R2156	1M 3216		
R2110	1M 3216		G
LUG2101		50MM/1P	H



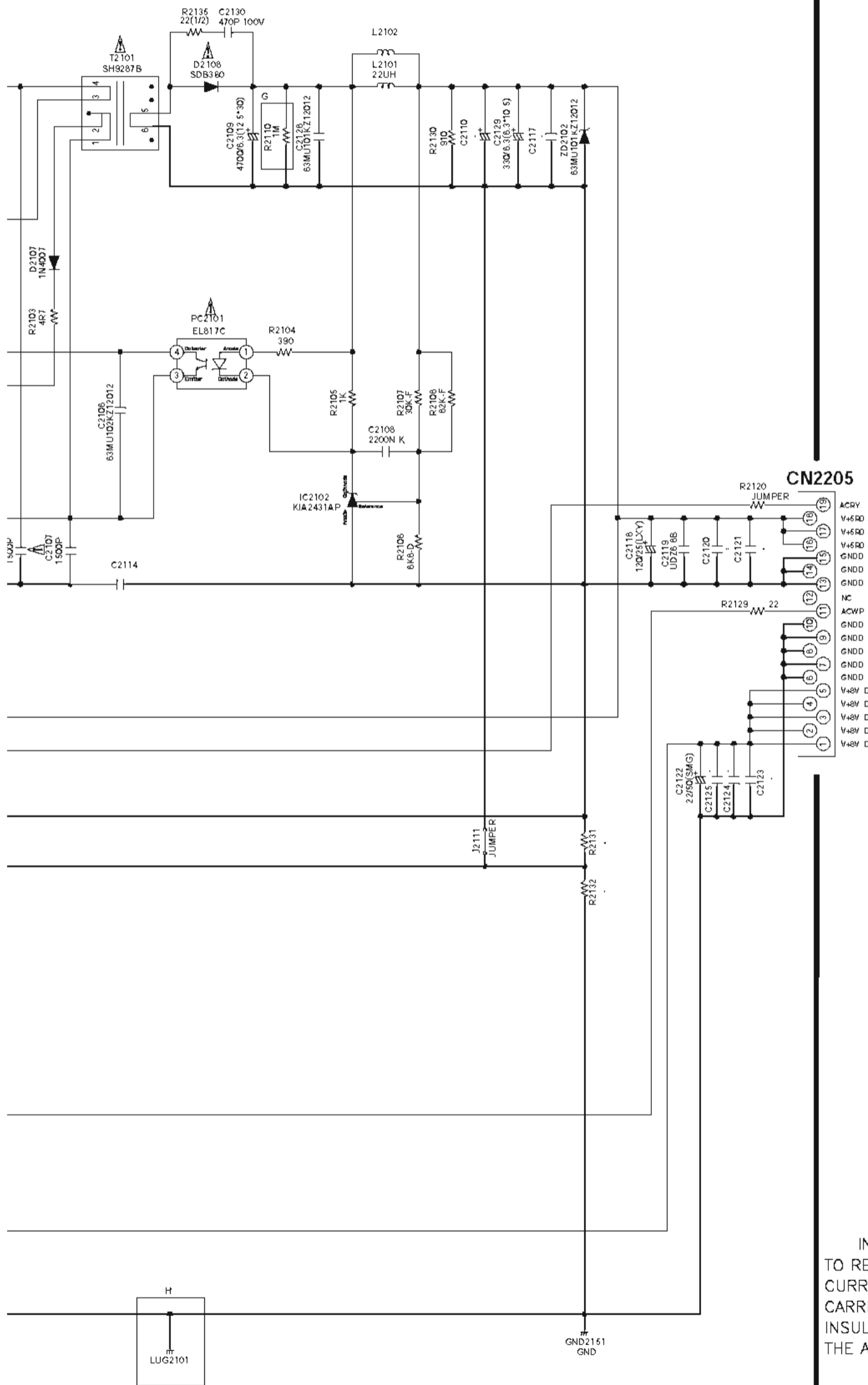
1

2

3

4

**SMPS ASSY**  
**(N-70A-K/-S : 7028077171030)**  
**(N-50A-K/-S : 7028077171040)**



**A 1/6**  
**CN1601**

**NOTES**

1. Resistor values are indicated in ohms unless otherwise specified  
 [ k = 1.000 m = 1.000.000 ]
2. Capacitor values are indicated in microfarads unless otherwise specified.  
 [ p = micro-microfarades ]
3. : These resistor are to be segregated from printed wiring board or other accessible parts.

**CAUTION**  
 Safety precaution to be followed during servicing

- 1] Since those parts marked with are critical parts for safety, use only the one described in the parts list
- 2] Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

INDICATES SAFETY CRITICAL COMPONENTS.  
 TO REDUCE THE RISK OF ELECTIC SHOCK, LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS SHALL BE CARRIED OUT ( EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT ) BEFORE THE APPLIANCE RETURNED TO THE CUSTOMER.

# 10.23 CNT\_B, HP\_CNT\*, GUIDE\_(FRONT1/2/3\*, L/R\*, HP\*, CNT and TRANS) ASSYS (\* : N-70A-K/-S)

A

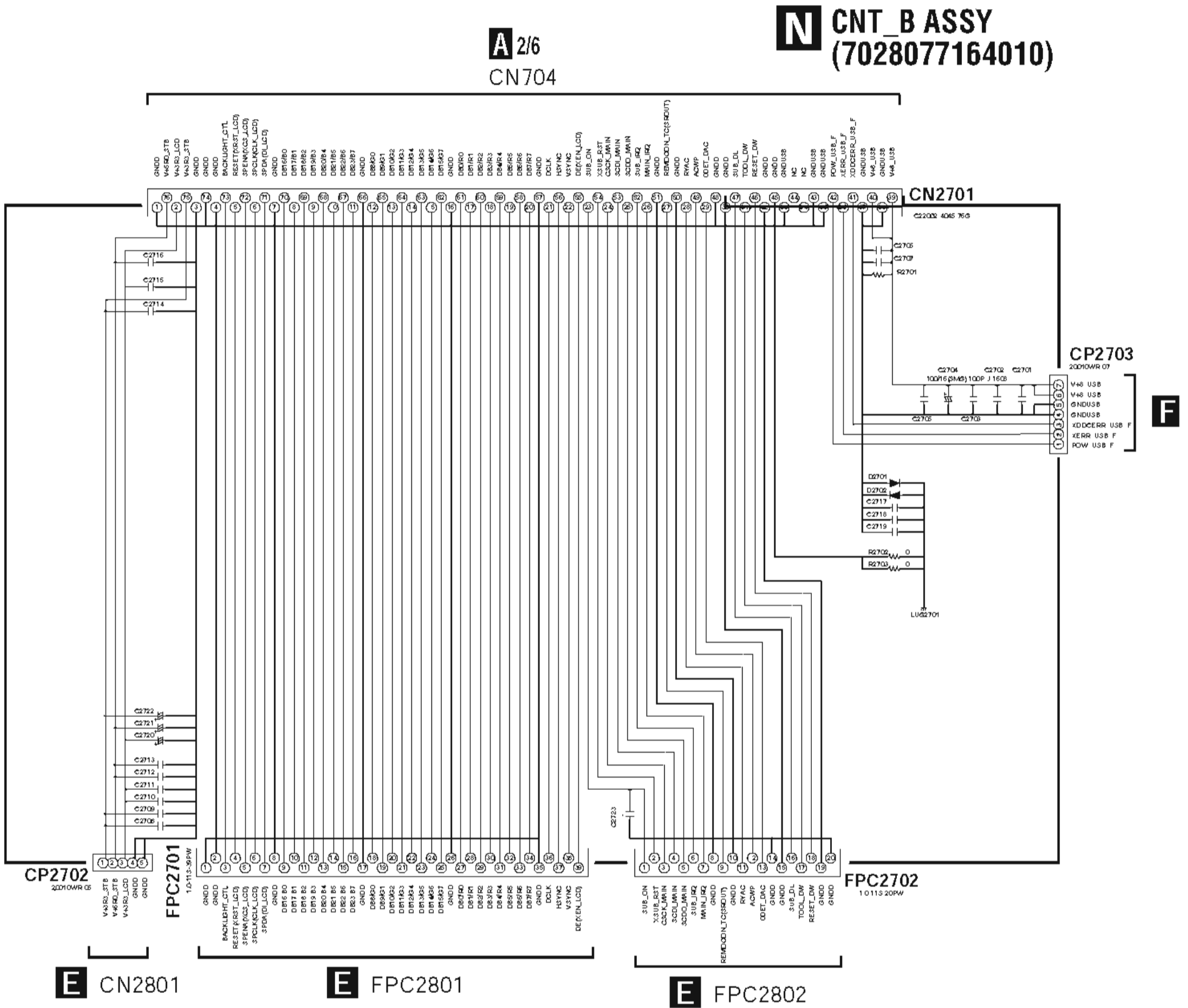
B

C

D

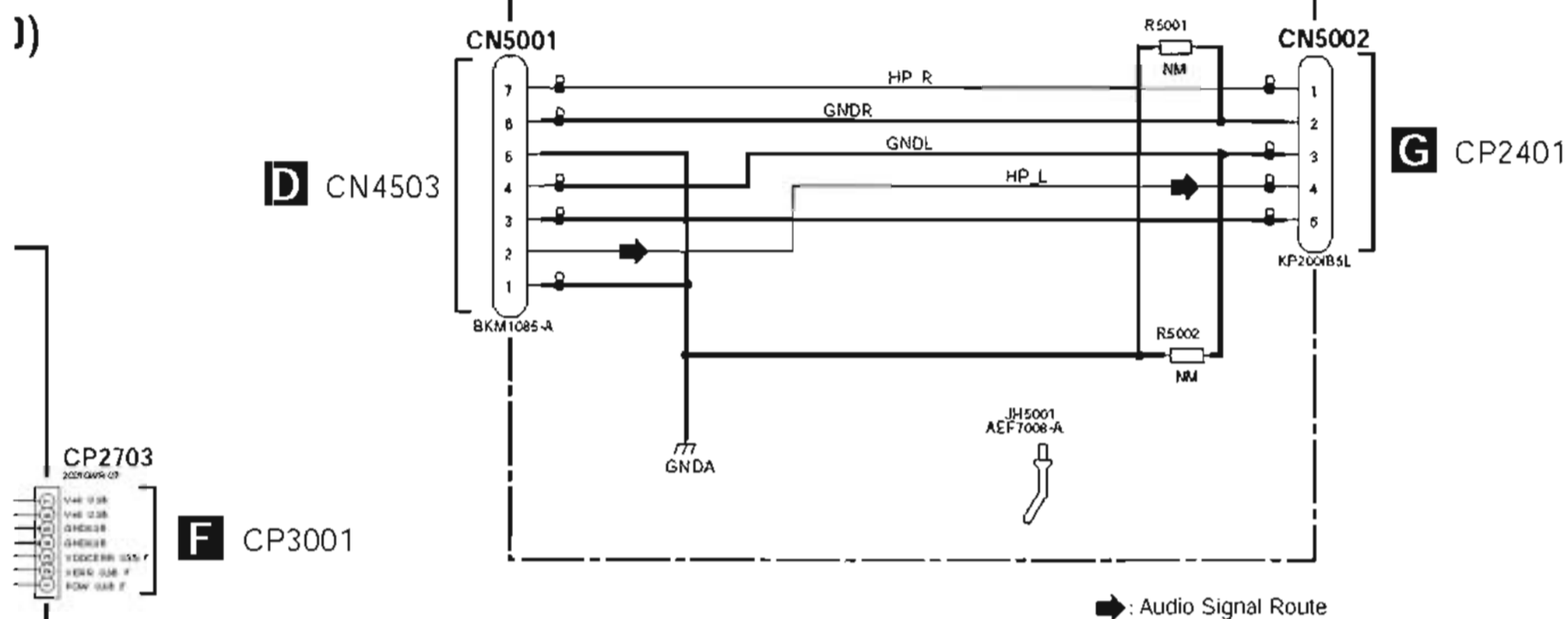
E

F





### O HP\_CNT ASSY (N-70A-K/-S : 7028077152010)



**P** GUIDE\_FRONT1 ASSY  
(N-70A-K/-S : 7028077192010)

**Q** GUIDE\_FRONT2 ASSY  
(N-70A-K/-S : 7028077193010)

**R** GUIDE\_FRONT3 ASSY  
(N-70A-K/-S : 7028077194010)

**S** GUIDE\_L ASSY  
(N-70A-K/-S : 7028077197010)

**T** GUIDE\_R ASSY  
(N-70A-K/-S : 7028077198010)

**U** GUIDE\_HP ASSY  
(N-70A-K/-S : 7028077196010)

**V** GUIDE\_CNT ASSY  
(7028077176010)

**W** GUIDE\_TRANS ASSY  
(7028077177010)

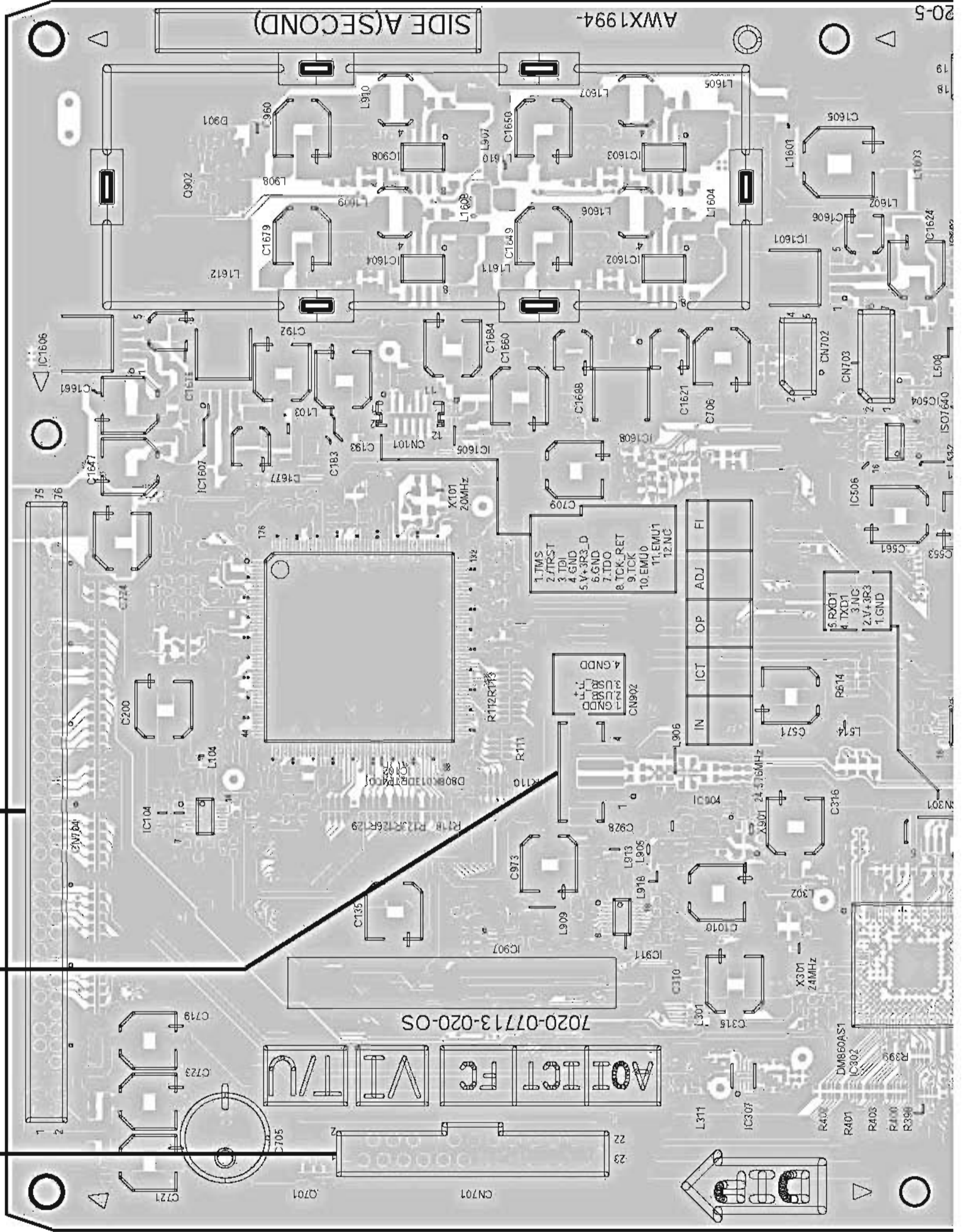
**O P Q R S T U V W**

# 11. PCB CONNECTION DIAGRAM

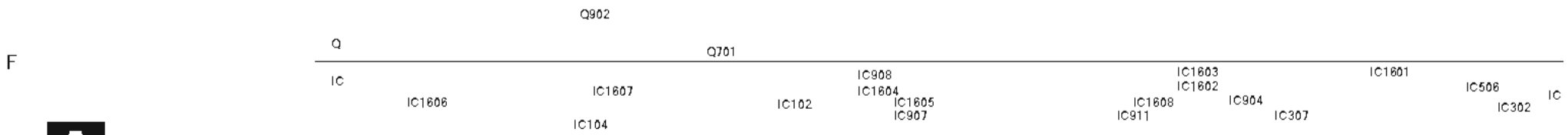
## 11.1 DMAIN ASSY

**SIDE A**

**A DMAIN ASSY**



**B** CN1501  
**F** CP3002  
**N** CN2701



**SIDE A**

A

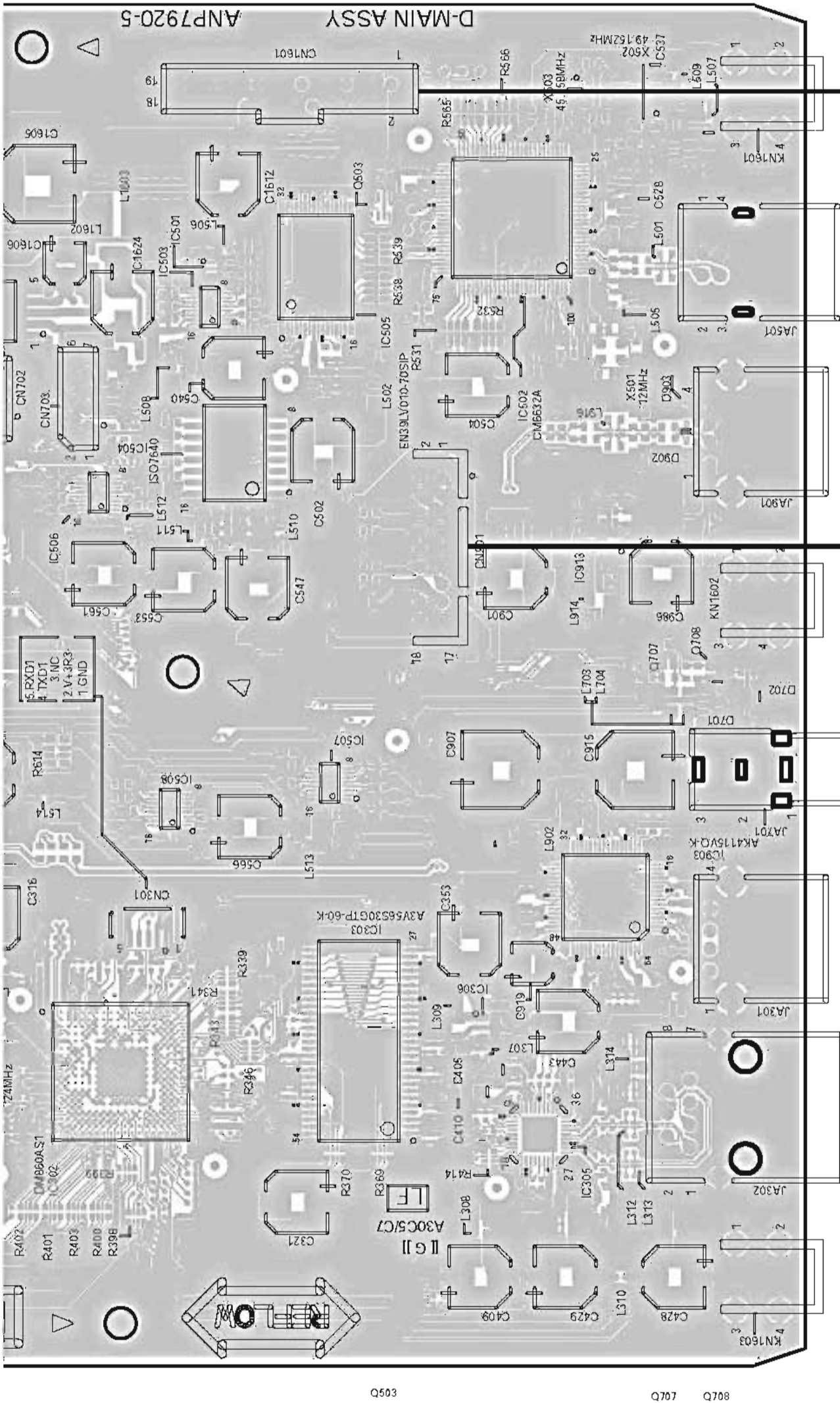
B

C

D

E

F



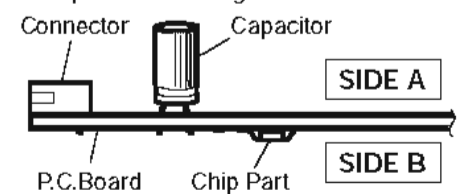
**L** CN2205

**M** CP2002

**NOTE FOR PCB DIAGRAMS :**

1. 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.

2. View point of PCB diagrams.



C1601  
 IC506  
 IC302  
 IC508  
 IC501  
 IC503  
 IC504  
 IC505  
 IC507  
 IC303  
 IC502  
 IC306  
 IC305  
 IC913  
 IC903

**N-70A-K**

1

2

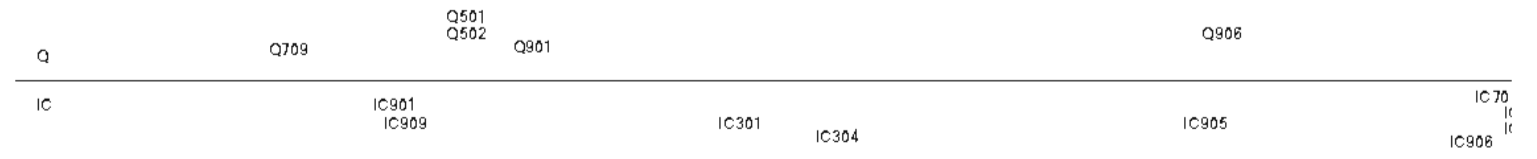
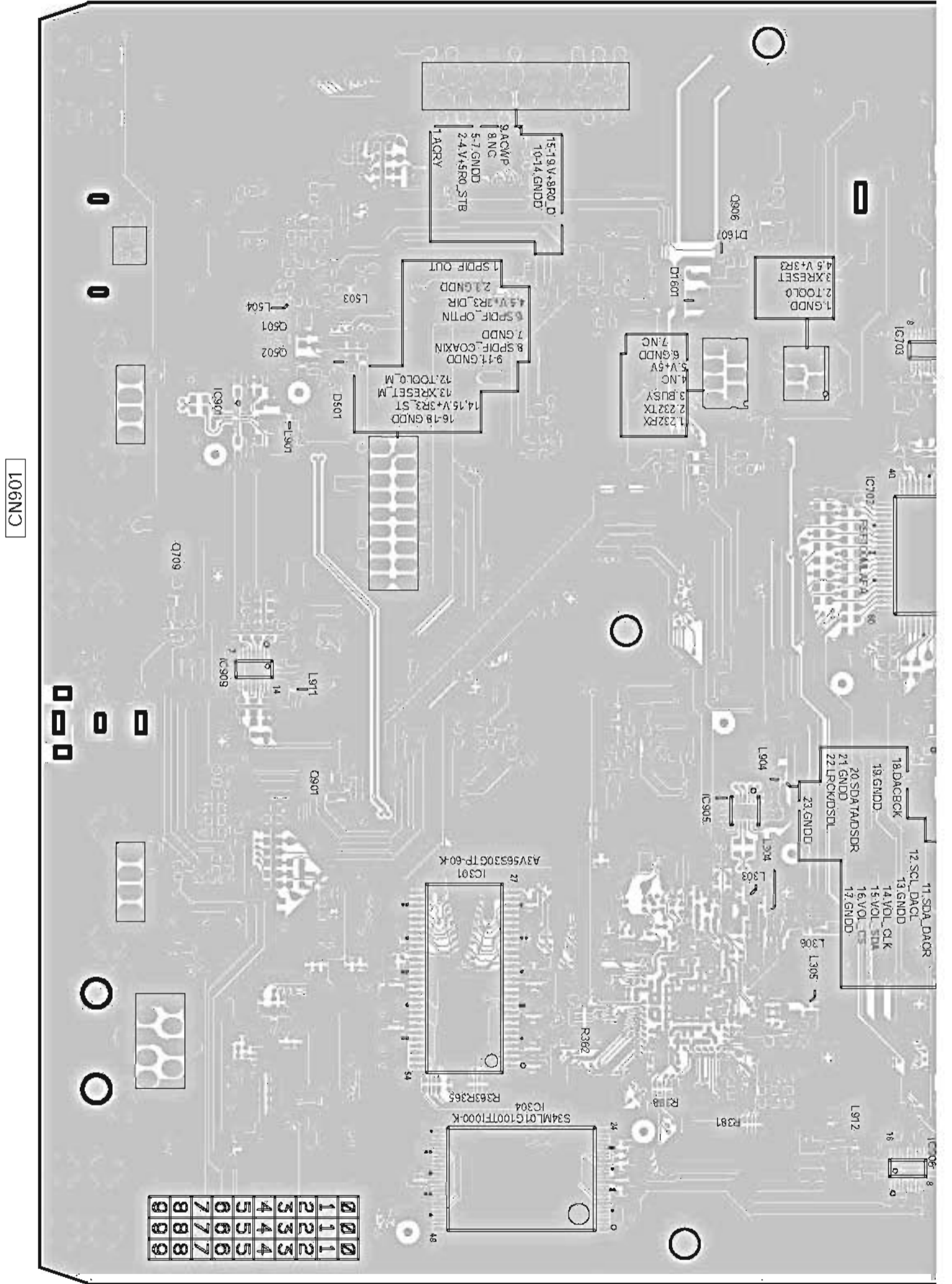
3

4

SIDE B

# A DMAIN ASSY

CN1601



N-70A-K

A

108

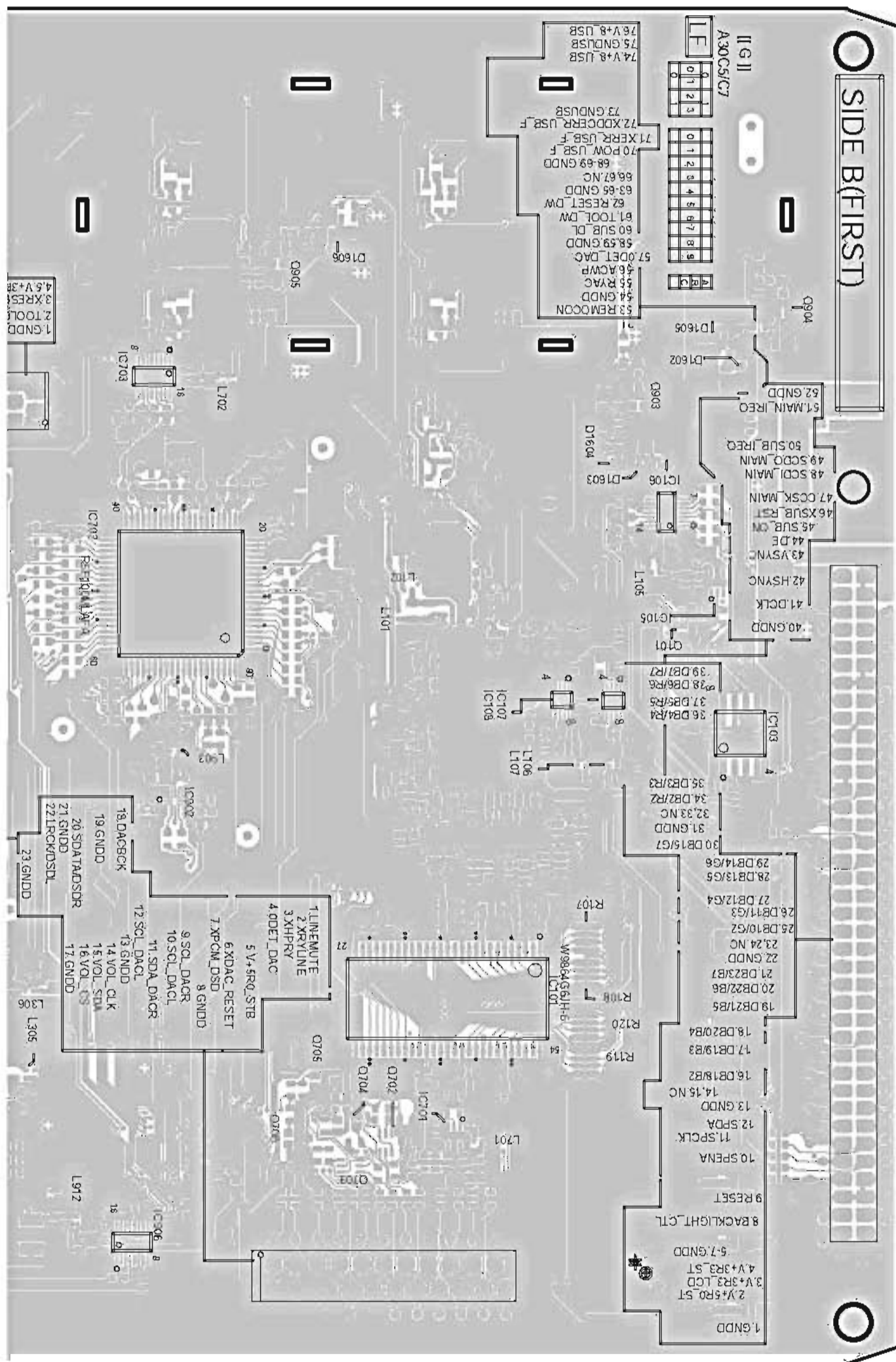
1

2

3

4

A  
B  
C  
D  
E  
F



CN902 CN701

Q905 Q705 Q704 Q903 Q101 Q706 Q703 Q702

IC703 IC702 IC902 IC906 IC101 IC701 IC108 IC107 IC106 IC105 IC103

N-70A-K

5

6

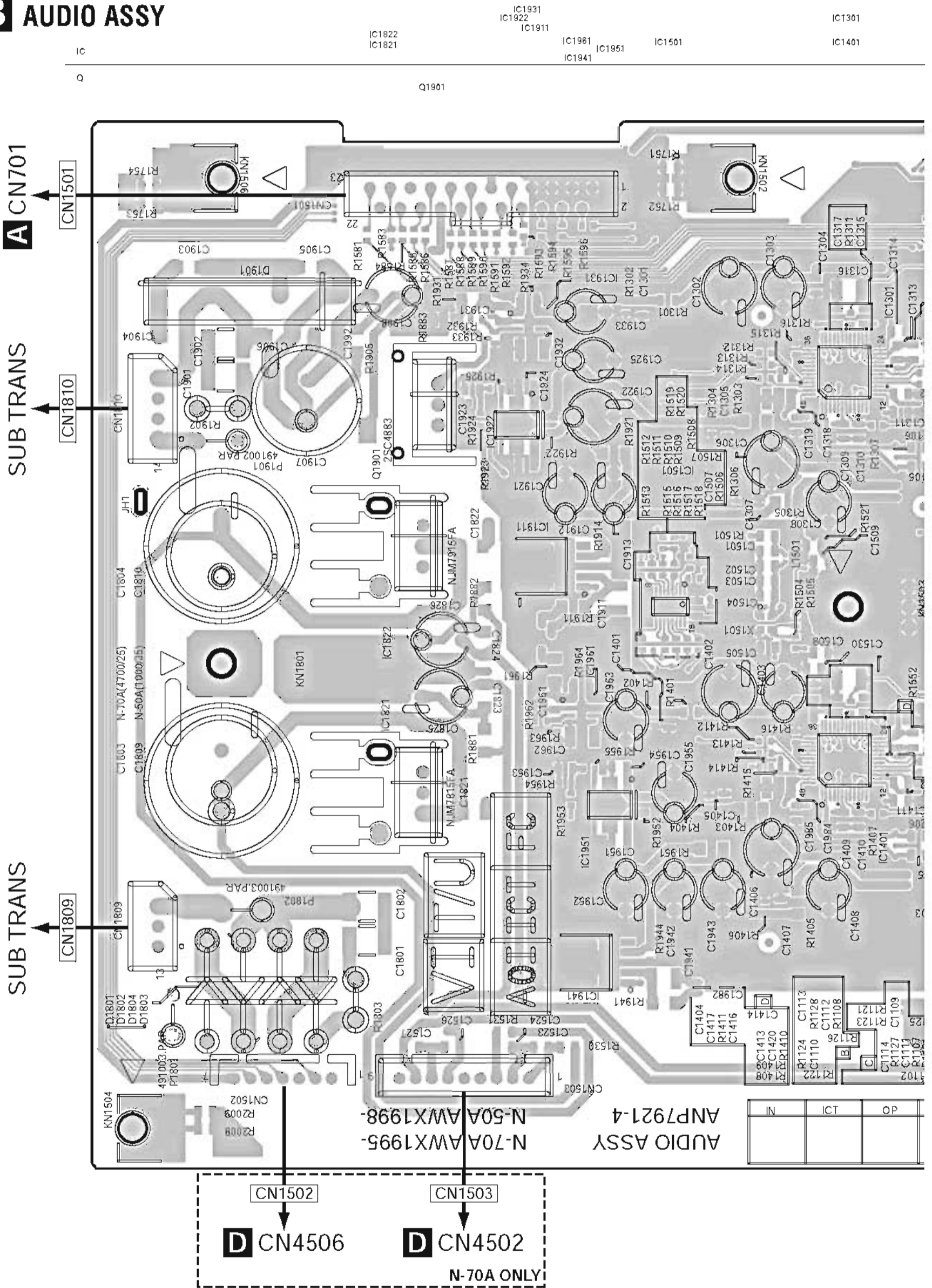
7

8

# 11.2 AUDIO ASSY

**SIDE A**

## **B** AUDIO ASSY



SIDE A

A

B

C

D

E

F

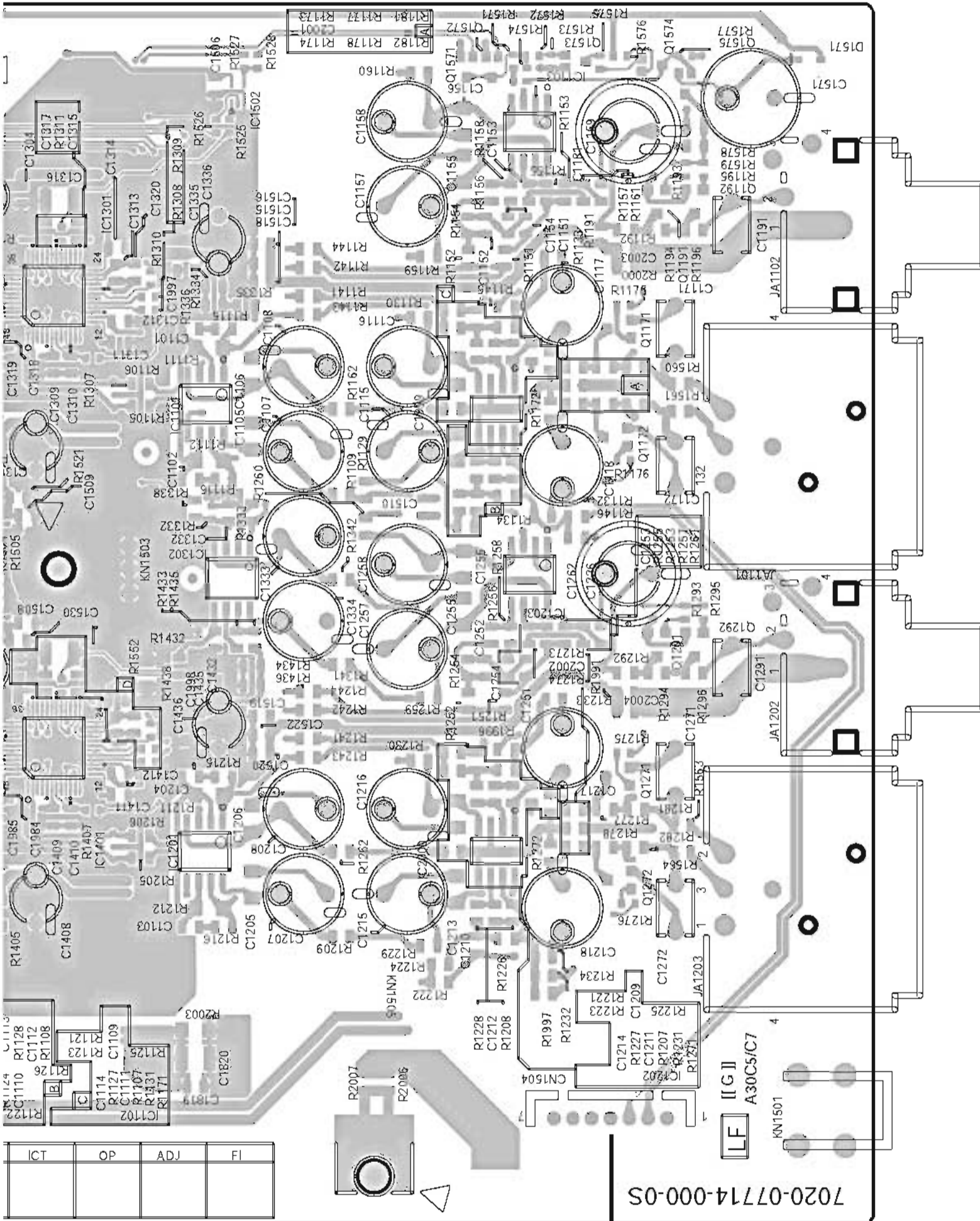
B

IC1301  
IC1401

IC1502  
IC1101  
IC1302  
IC1201

IC1103  
IC1102  
IC1203  
IC1202

Q1571 Q1572 Q1573 Q1574 Q1575  
Q1171 Q1172 Q1173 Q1174 Q1175  
Q1191 Q1192 Q1193 Q1194 Q1195  
Q1291 Q1292 Q1293 Q1294 Q1295  
Q1271 Q1272 Q1273 Q1274 Q1275



N-70A-K

1

2

3

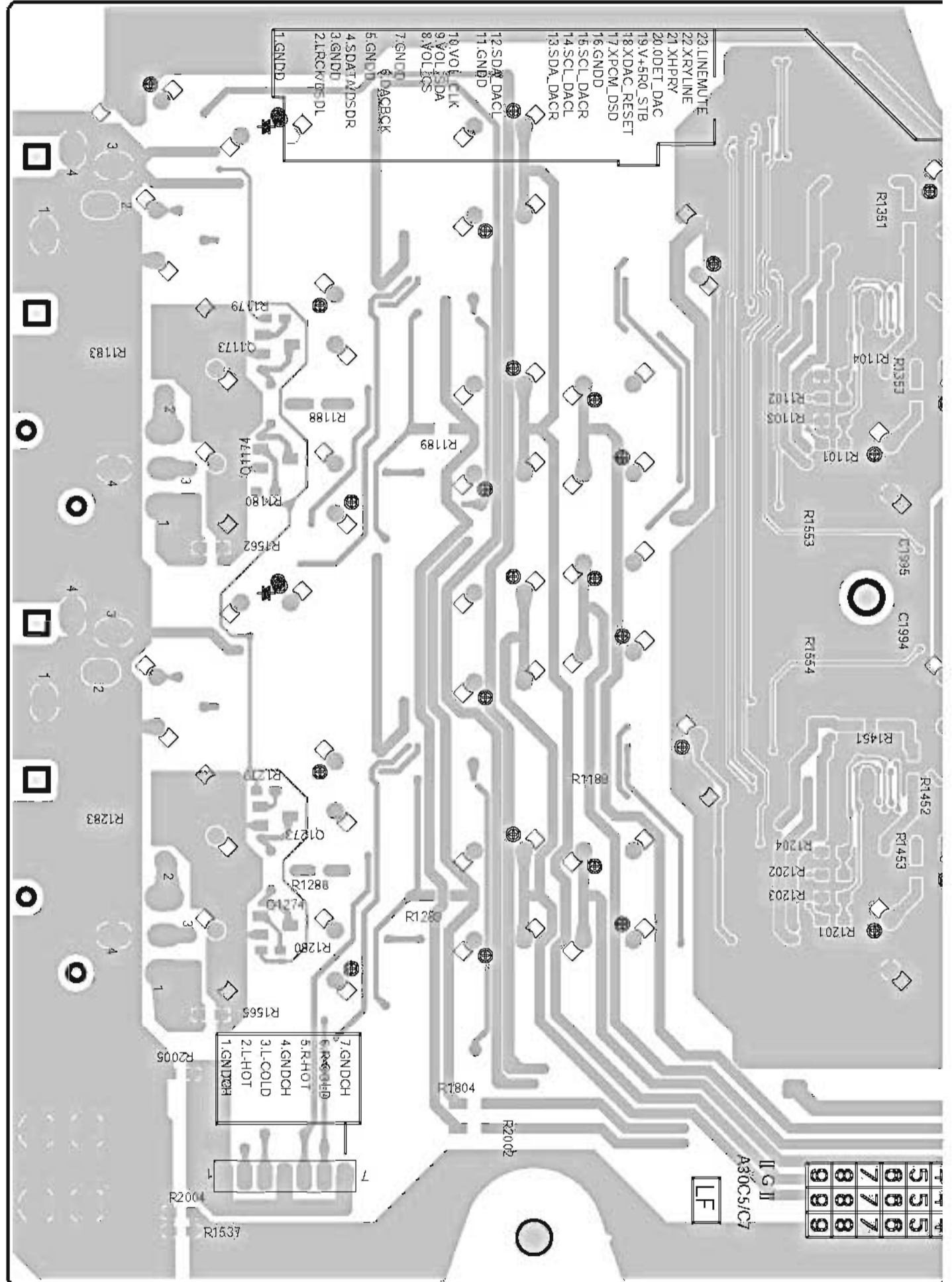
4

**SIDE B**

**B AUDIO ASSY**

IC  
Q

Q1173  
Q1174  
Q1273  
Q1274



CN1504

LF  
II G II  
A30CS/C7

5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

N-70A-K

1

2

3

4

**B**



**SIDE B**

A

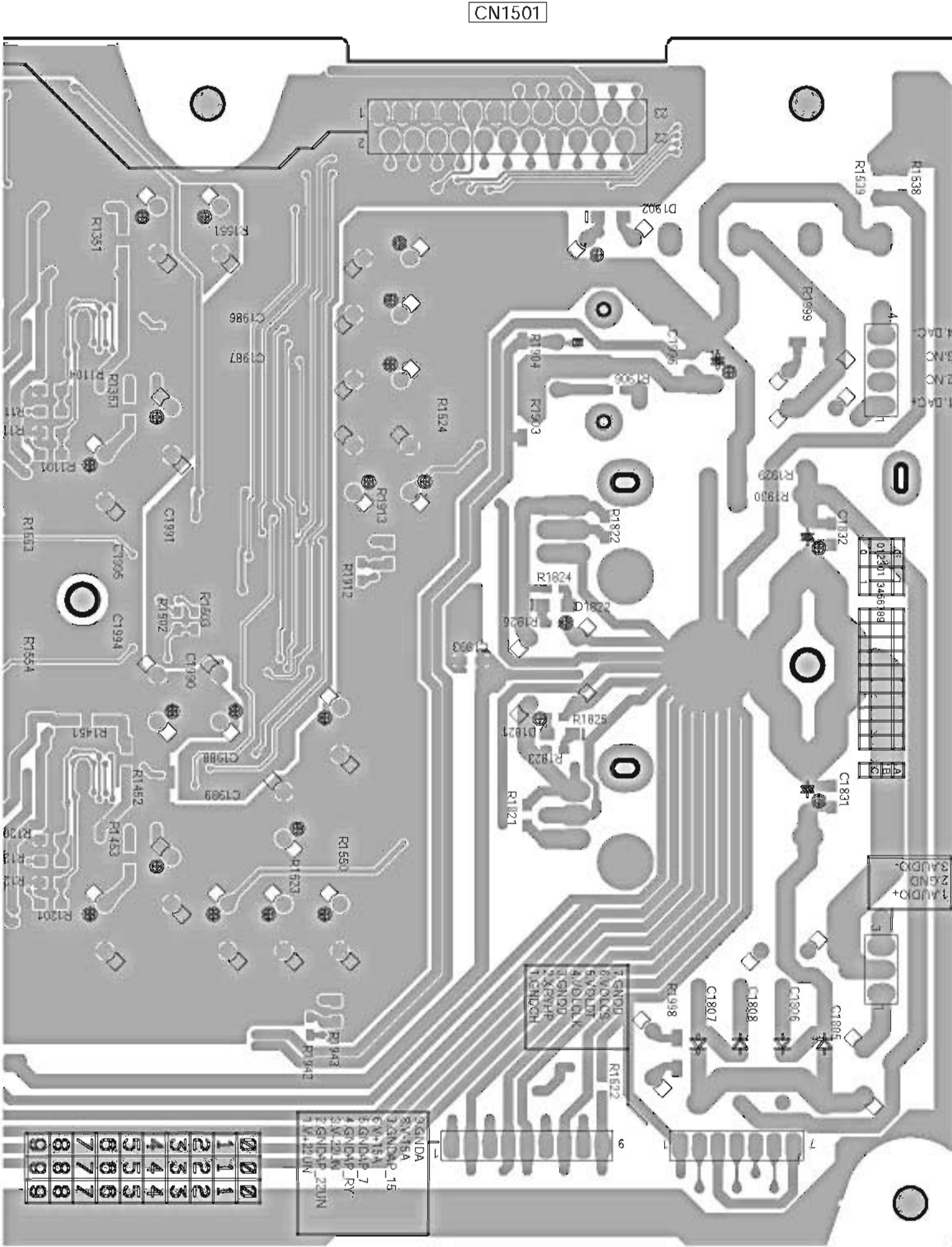
B

C

D

E

F



CN1503

CN1502

N-70A-K

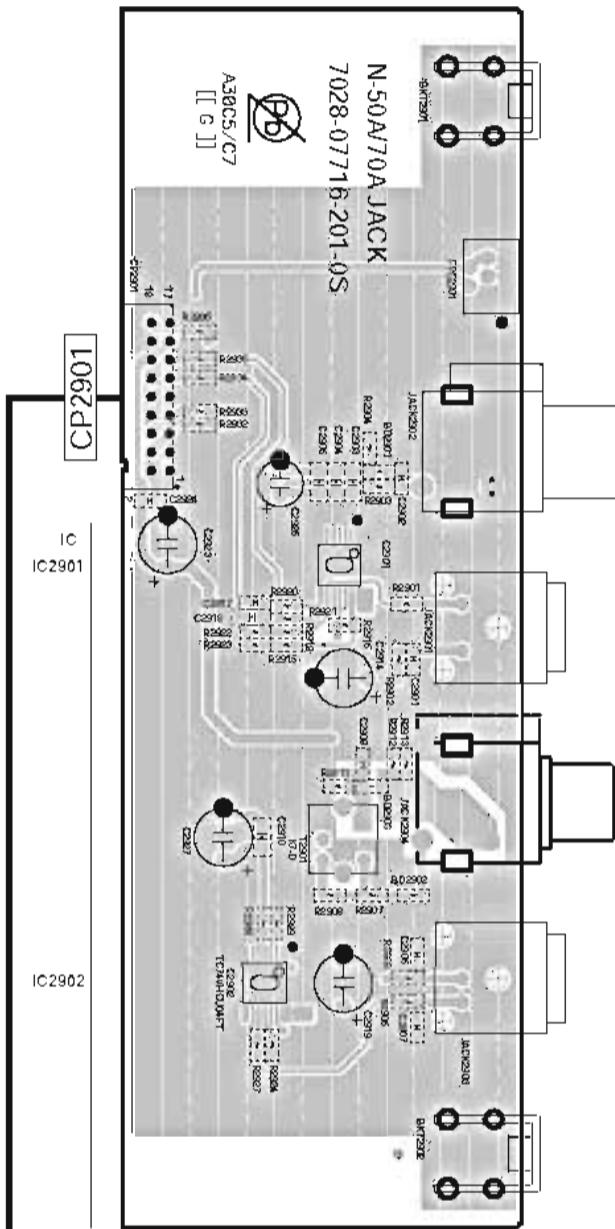
**B**

# 11.3 JACK, HP\_AMP (N-70A-K/-S), FRONT, CNT\_A and CNT\_B ASSYS

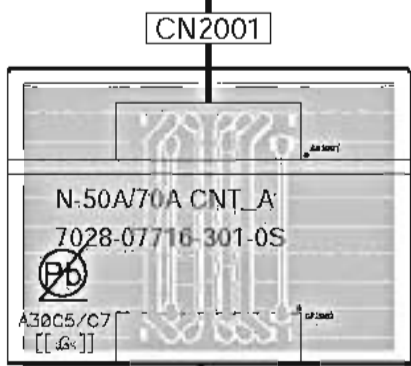
**SIDE A**

**D** HP\_AMP ASSY **○** CN5001

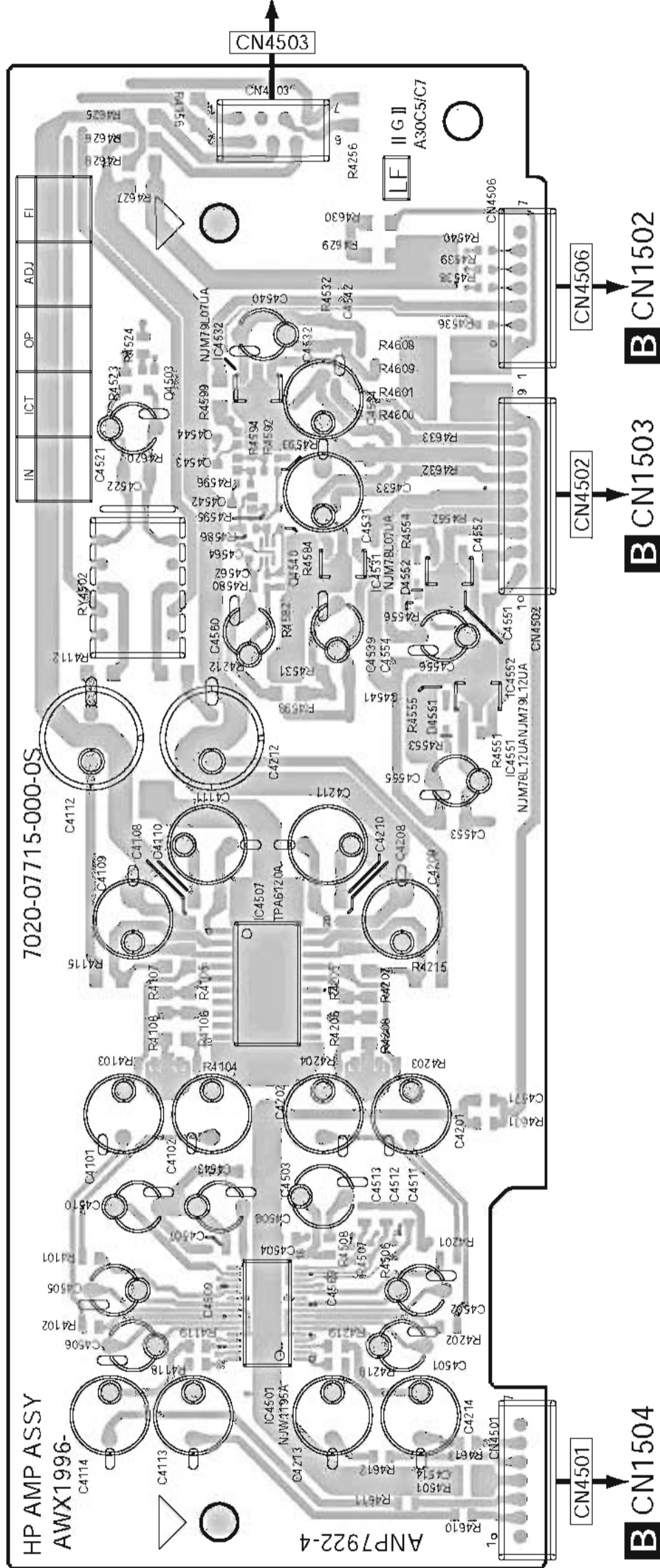
**C** JACK ASSY



**M** CNT\_A ASSY



**A** CN901



**B** CN1502

**B** CN1503

**B** CN1504

**C D M**

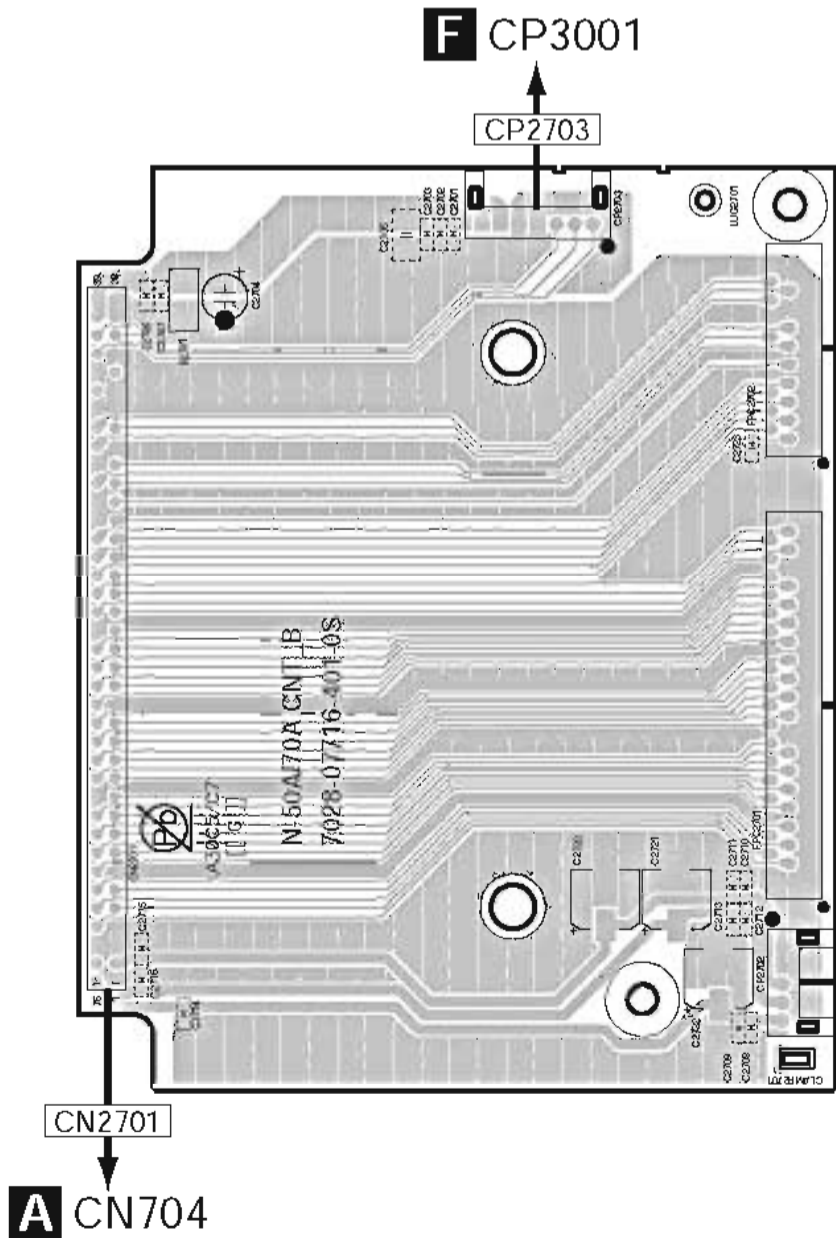
**A**

**SIDE A**

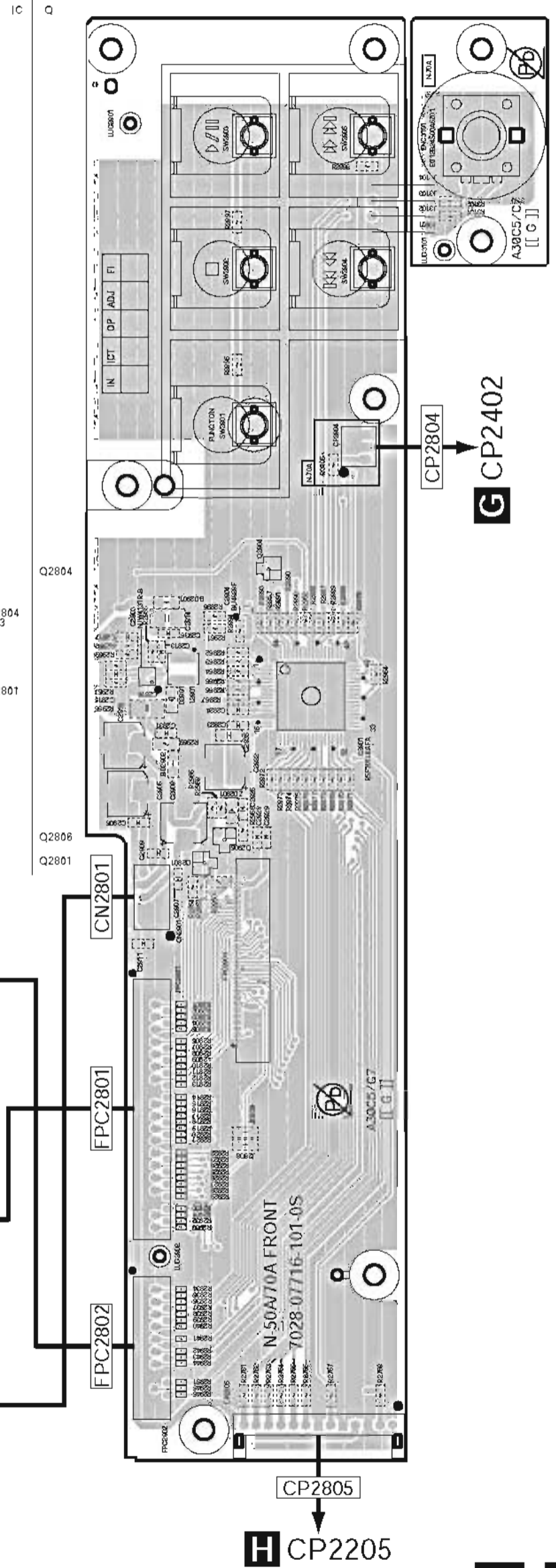
**B** CN1503 **B** CN1502

**B** CN1504

**N** CNT\_B ASSY



**E** FRONT ASSY



N-70A-K

**E** **N**

1

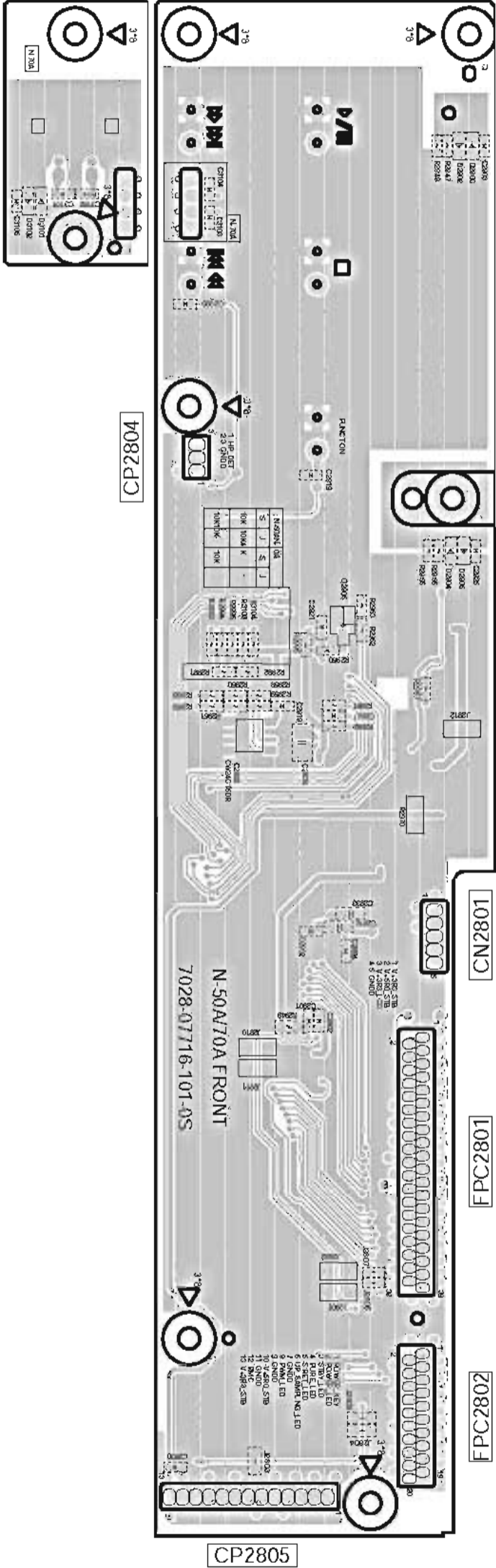
2

3

4

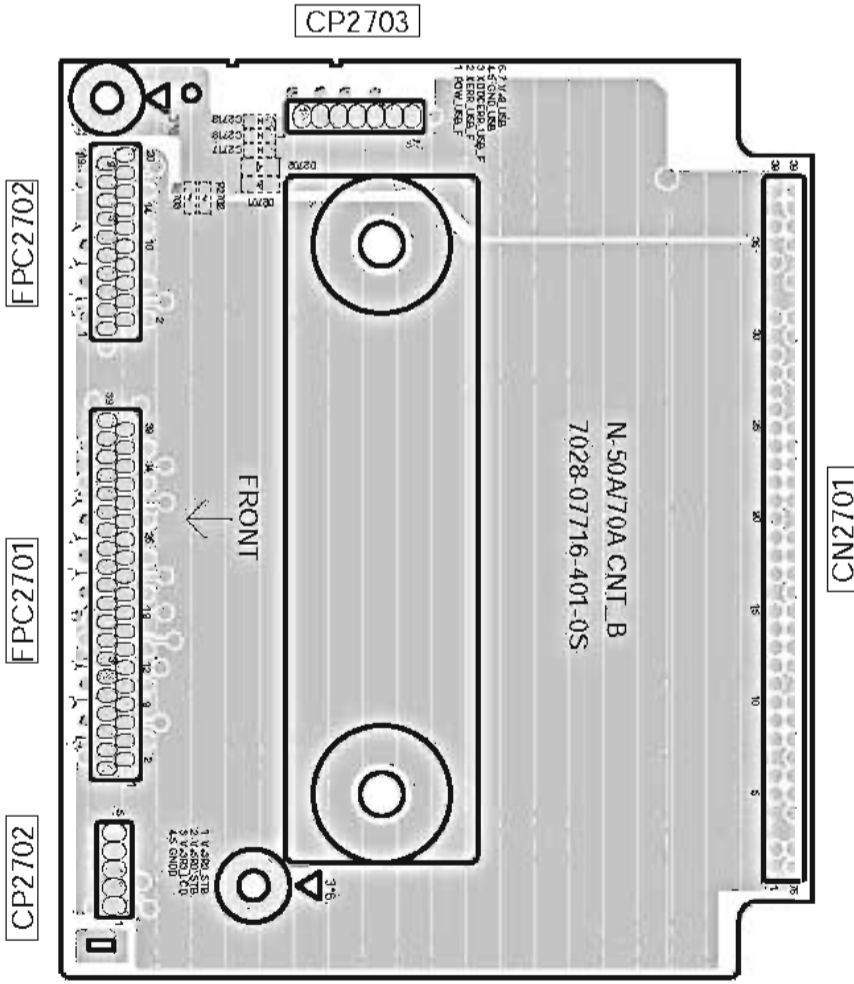
**SIDE B**

**E FRONT ASSY**



Q IC  
IC2802  
Q2805

**N CNT\_B ASSY**



CP2703  
EPC2702  
IC2702  
EPC2701  
CN2701

**E N**

1

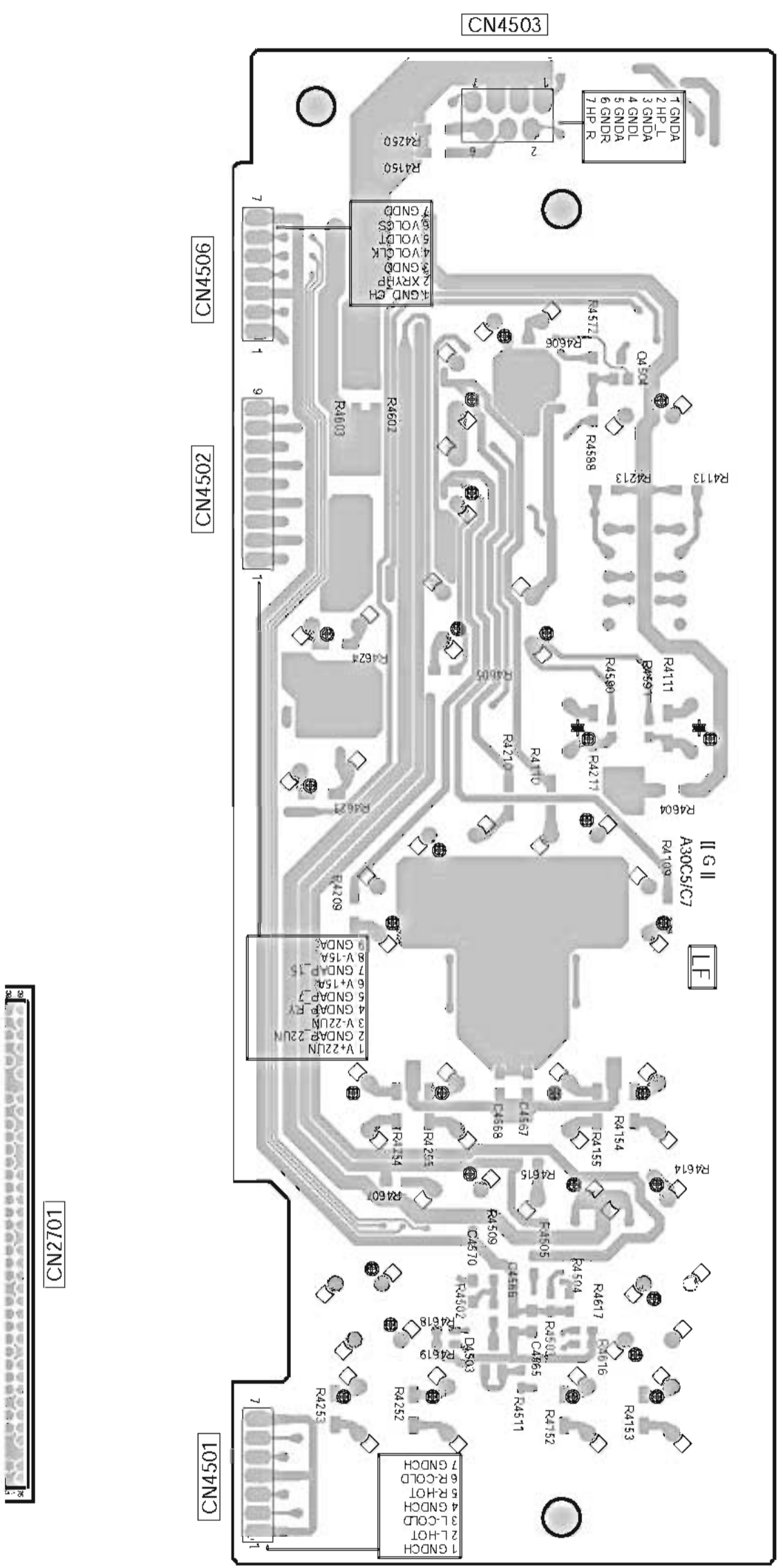
2

3

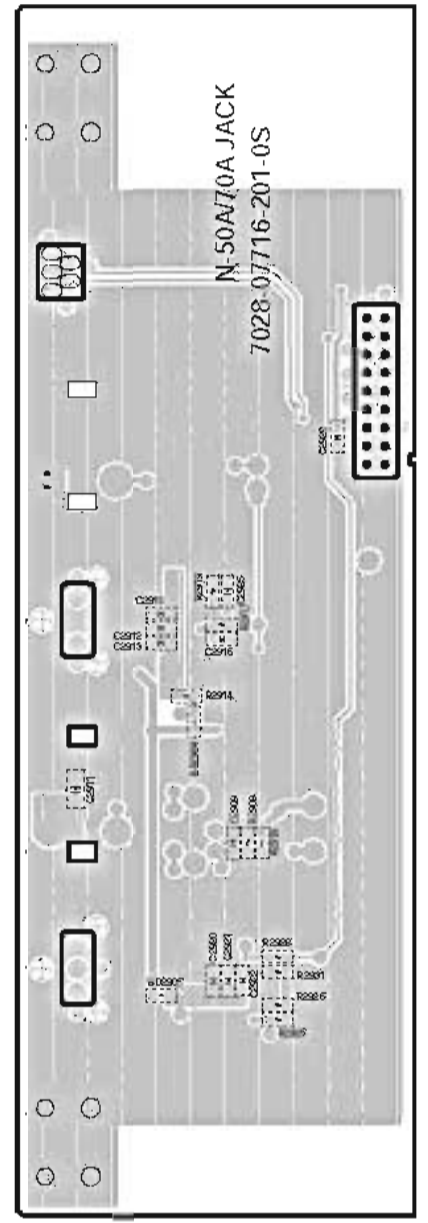
4

**SIDE B**

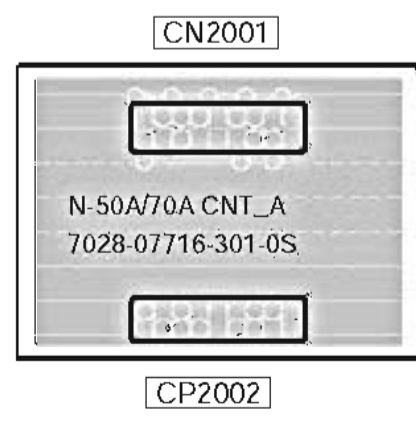
**D HP\_AMP ASSY**



**C JACK ASSY**



**M CNT\_A ASSY**



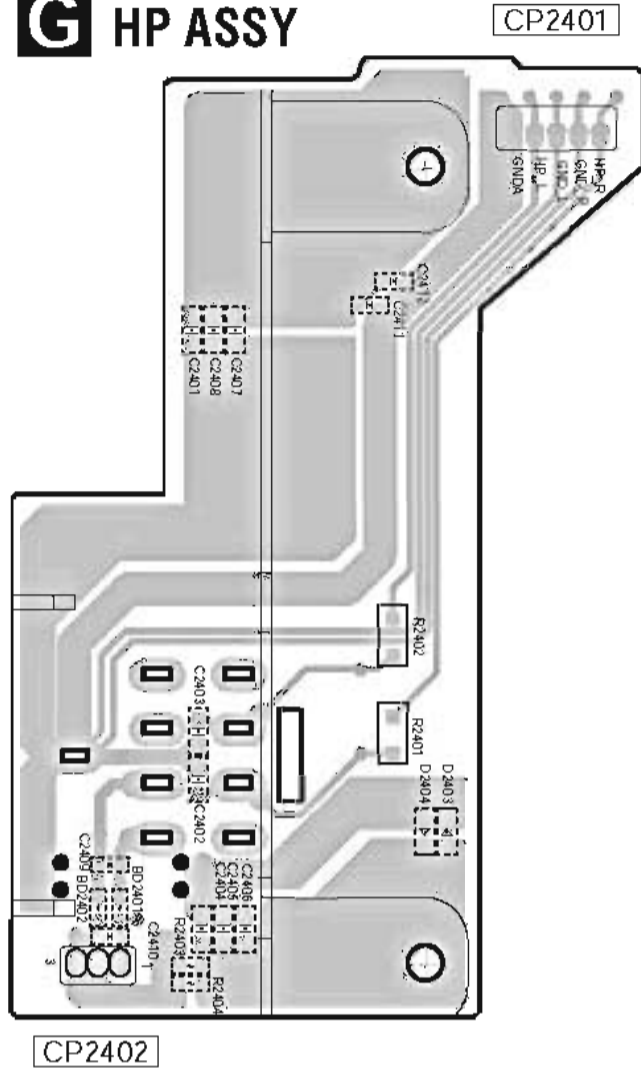
A B C D E F

**C D M**

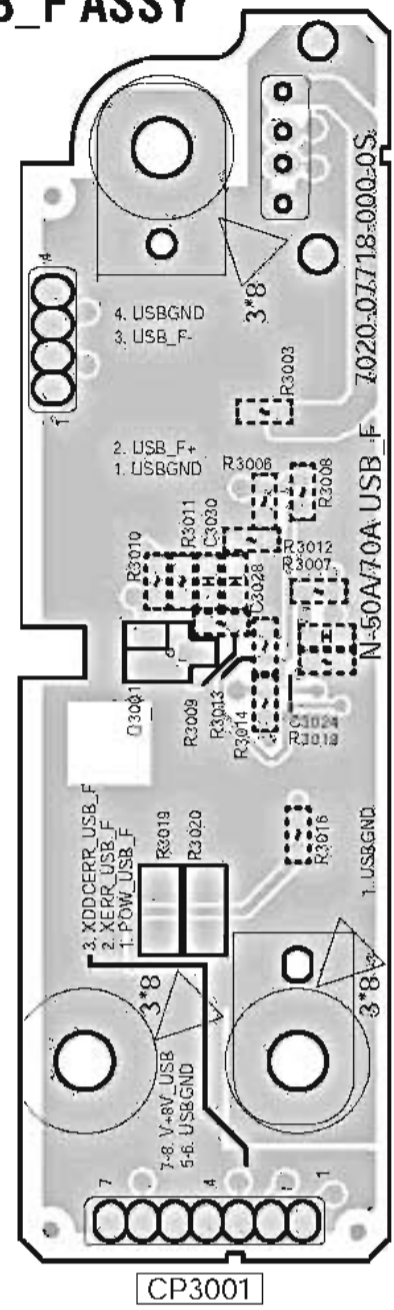


SIDE B

### G HP ASSY

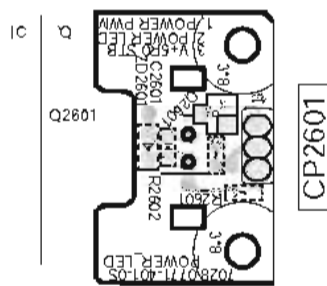


### F USB\_F ASSY

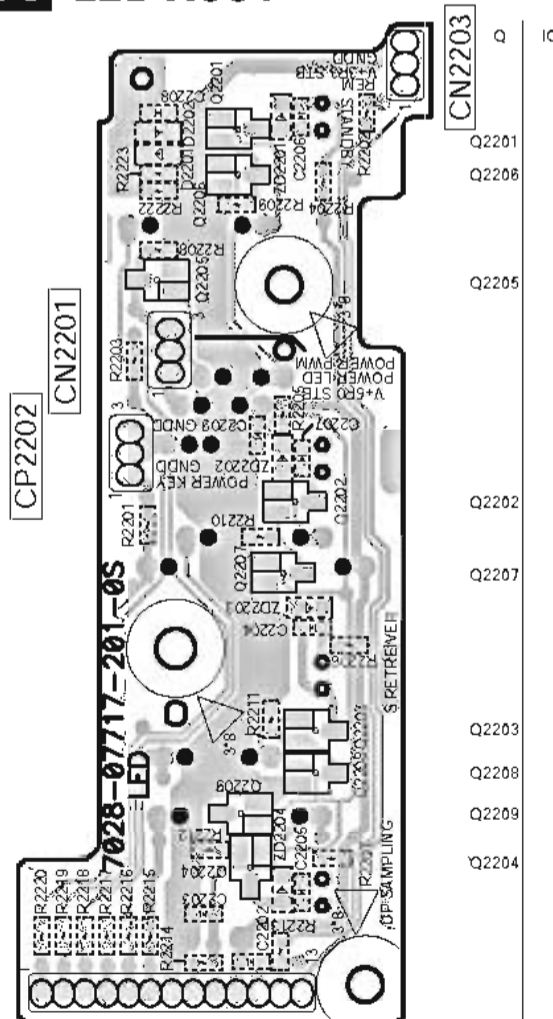


SIDE B

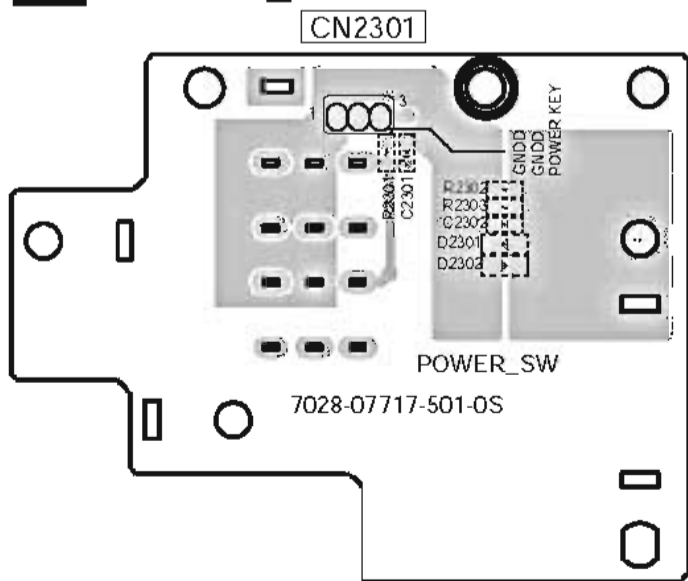
### J POWER\_LED ASSY



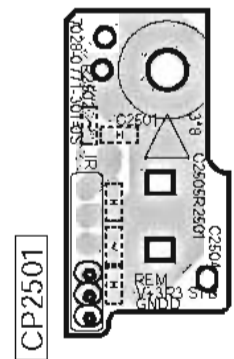
### H LED ASSY



### I POWER\_SW ASSY



### K IR ASSY



F G H I J K

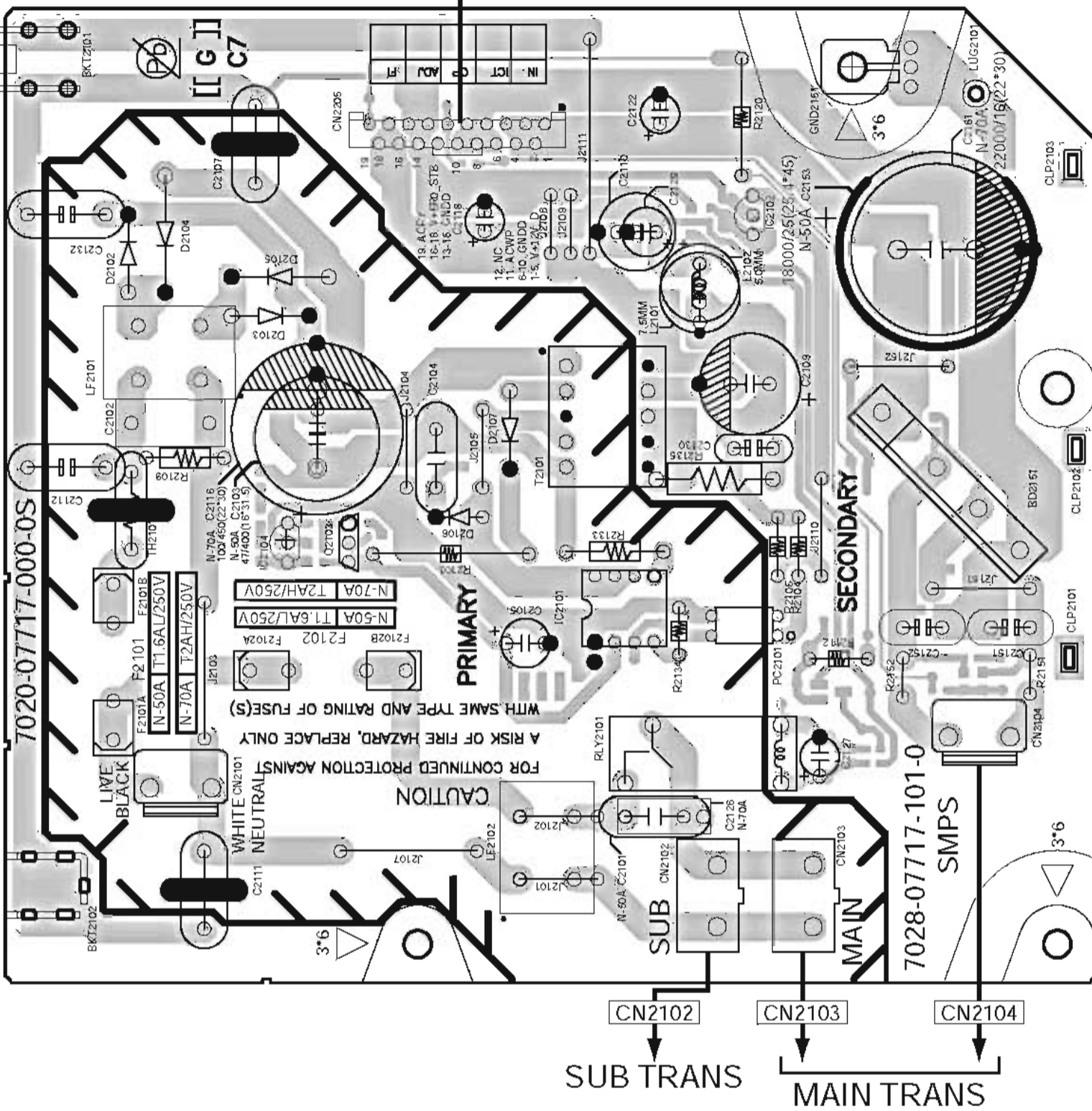
N-70A-K

# 11.5 SMPS ASSY and HP\_CNT ASSY (N-70A-K/S)

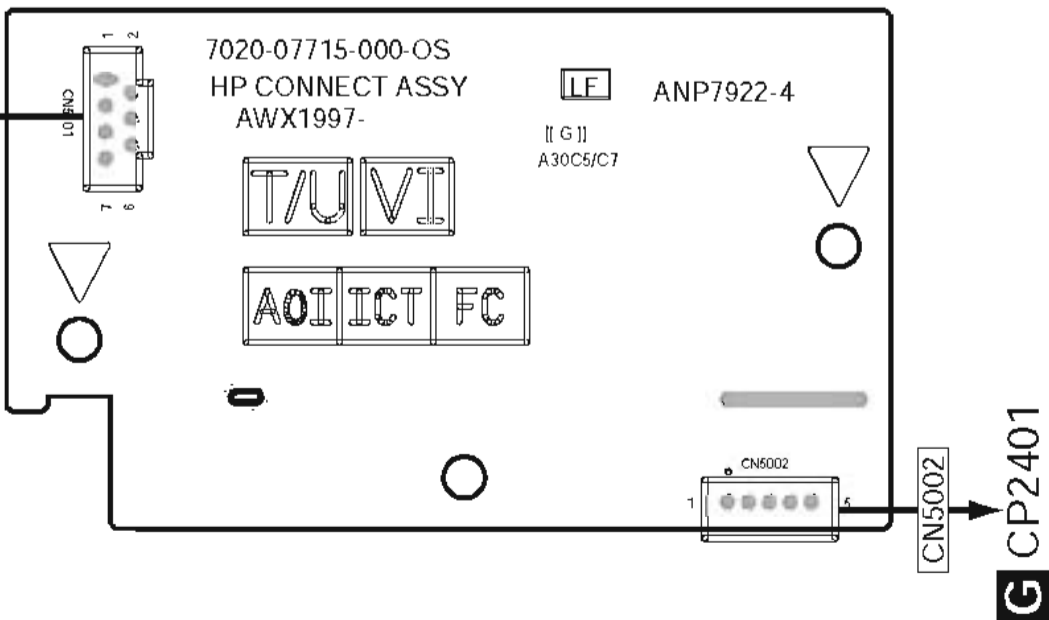
**SIDE A**

**SIDE A**

## L SMPS ASSY



## O HP\_CNT ASSY



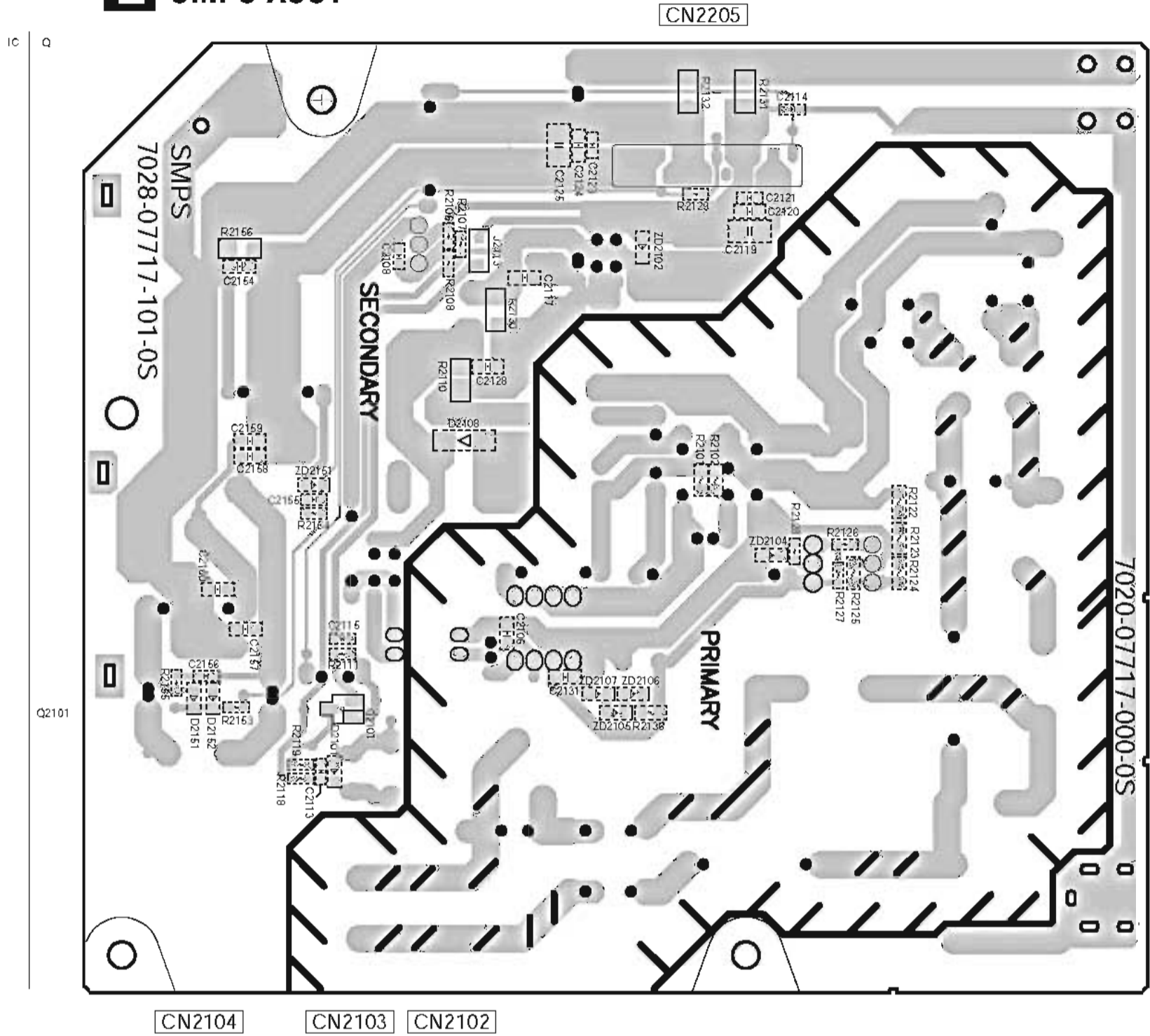
**L O**



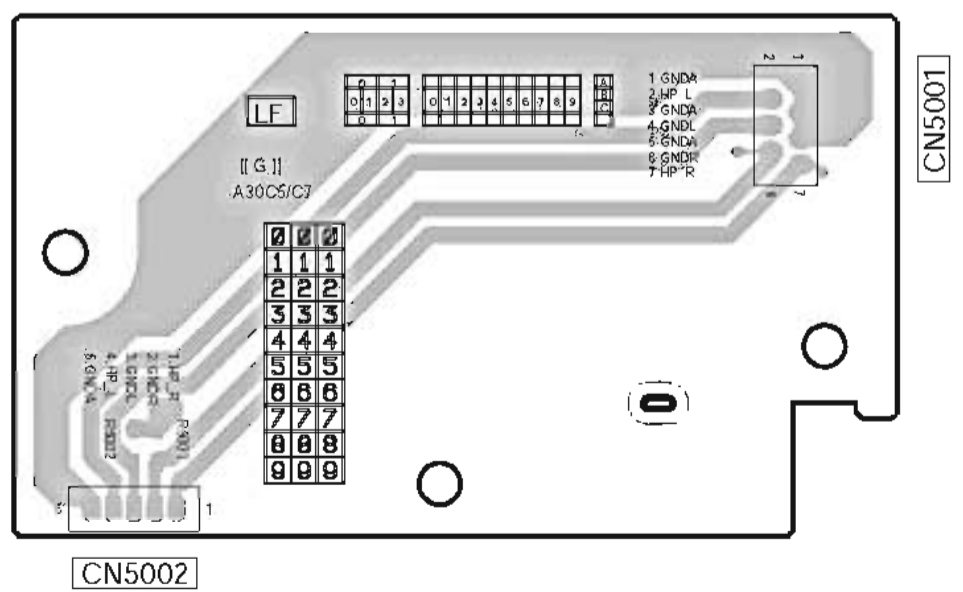
SIDE B

SIDE B

# SMPS ASSY



# HP\_CNT ASSY



N-70A-K

L O

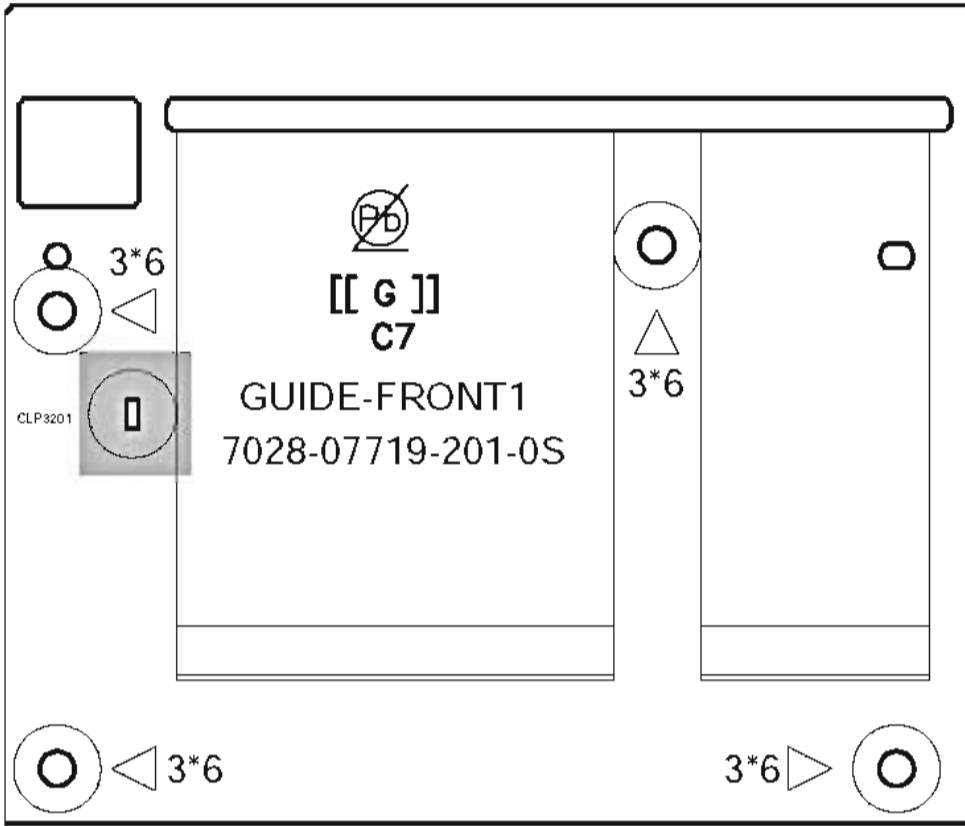
1 2 3 4

# 11.6 GUIDE\_FRONT1/2/3, GUIDE\_L/R and GUIDE\_HP ASSYS (N-70A-K/S)

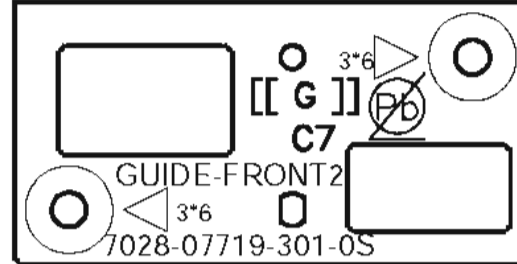
**SIDE A**

**SIDE A**

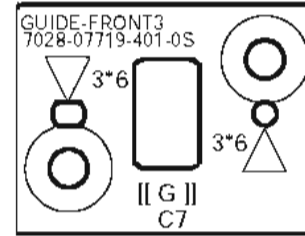
## P GUIDE\_FRONT1 ASSY



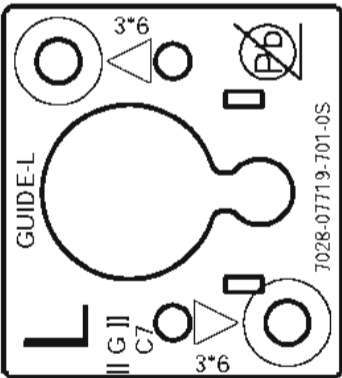
## Q GUIDE\_FRONT2 ASSY



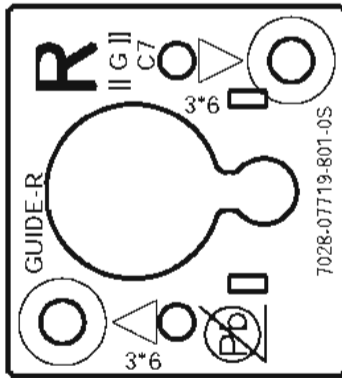
## R GUIDE\_FRONT3 ASSY



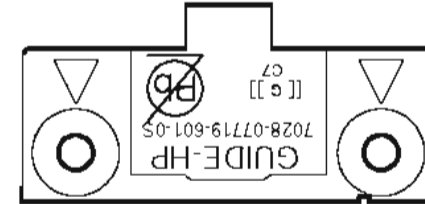
## S GUIDE\_L ASSY



## T GUIDE\_R ASSY



## U GUIDE\_HP ASSY

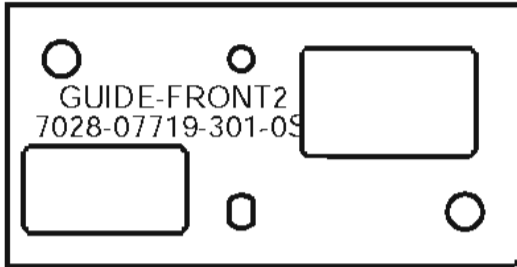


**P Q R S T U**

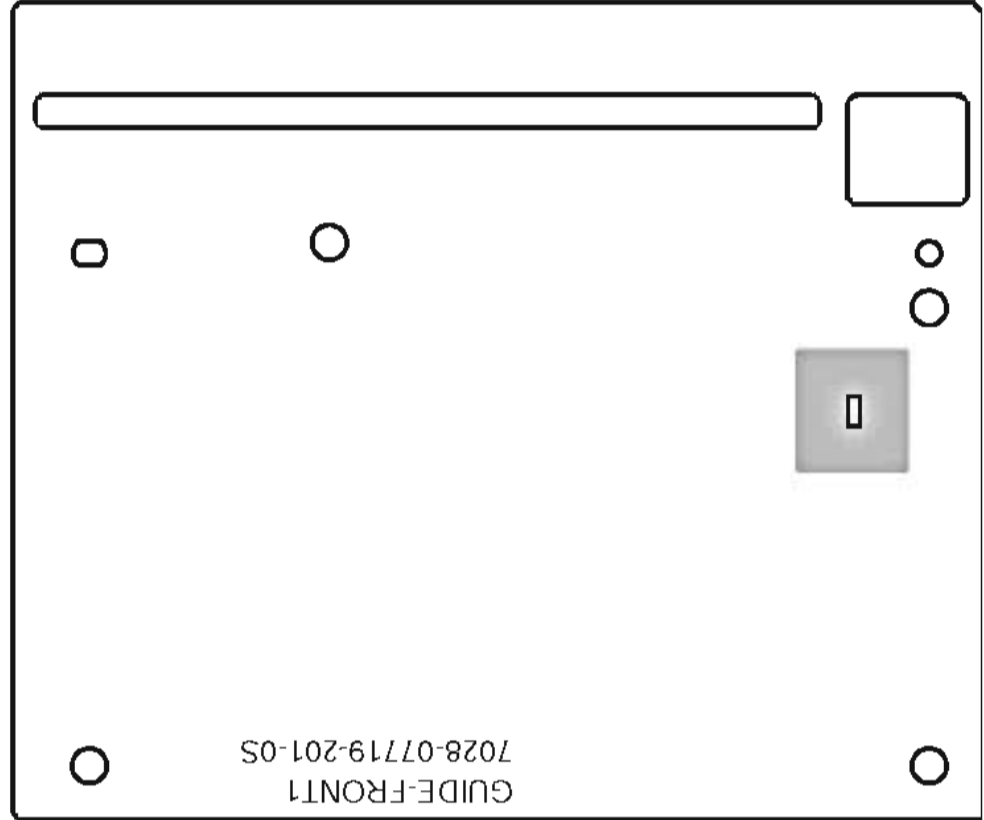
**SIDE B**

**SIDE B**

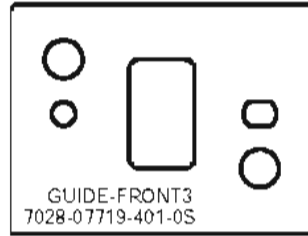
**Q** GUIDE\_FRONT2 ASSY



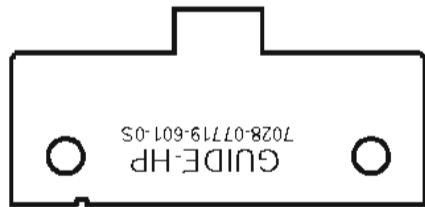
**P** GUIDE\_FRONT1 ASSY



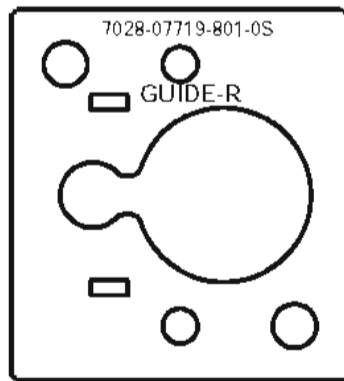
**R** GUIDE\_FRONT3 ASSY



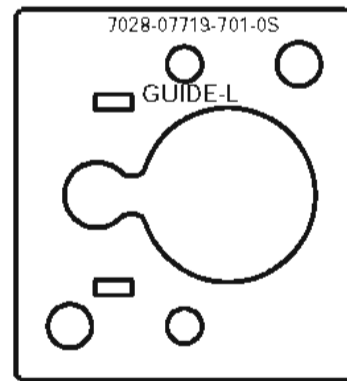
**U** GUIDE\_HP ASSY



**T** GUIDE\_R ASSY



**S** GUIDE\_L ASSY



**P Q R S T U**

N-70A-K

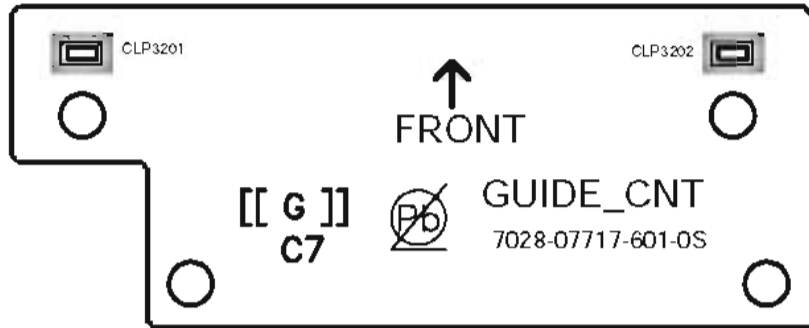
1 2 3 4

# 11.7 GUIDE\_CNT ASSY and GUIDE\_TRANS ASSY

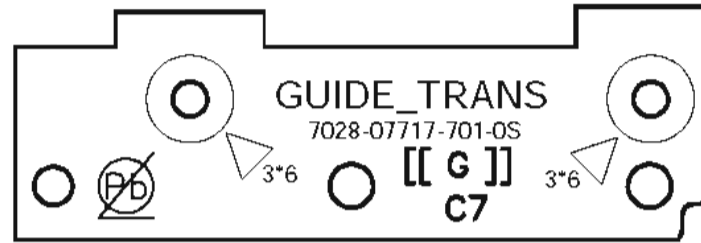
**SIDE A**

**SIDE A**

**V** GUIDE\_CNT ASSY



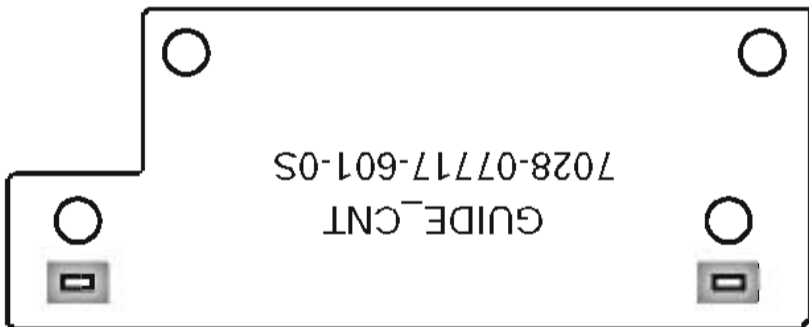
**W** GUIDE\_TRANS ASSY



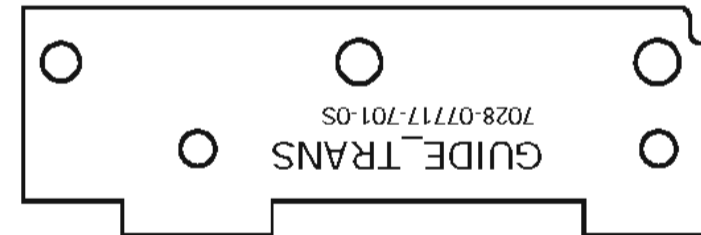
**SIDE B**

**SIDE B**

**V** GUIDE\_CNT ASSY



**W** GUIDE\_TRANS ASSY



# 12. PCB PARTS LIST

- NOTES:**
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
  - The  $\Delta$  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 47 k ohm (tolerance is shown by J = 5%, and K = 10%).

560  $\Omega$   $\rightarrow$   $56 \times 10^1$   $\rightarrow$  561.....RD1/APU $\boxed{5}$  $\boxed{6}$  $\boxed{1}$  J  
 47 k $\Omega$   $\rightarrow$   $47 \times 10^3$   $\rightarrow$  473.....RD1/APU $\boxed{4}$  $\boxed{7}$  $\boxed{3}$  J  
 0.5  $\Omega$   $\rightarrow$  R50.....RN2H $\boxed{R}$  $\boxed{5}$  $\boxed{0}$  K  
 1  $\Omega$   $\rightarrow$  1R0.....RSIP $\boxed{1}$  $\boxed{R}$  $\boxed{0}$  K

*Ex.2* When there are 3 effective digits (such as in high precision metal film resistors).  
 5.62 k $\Omega$   $\rightarrow$   $562 \times 10^1$   $\rightarrow$  5621.....RN1/4PC $\boxed{5}$  $\boxed{6}$  $\boxed{2}$  $\boxed{1}$  F

## LIST OF ASSEMBLIES

### N-70A-K, N-70A-S

Mark	Symbol & Discription	N-70A-K	N-70A-S
NSP	1...HP_AMP ASSY	7025HU1402022	7025HU1402032
	2..HP_AMP ASSY	7028077151010	7028077151010
	2..HP_CNT ASSY	7028077152010	7028077152010
NSP	1...FRONT ASSY	7025HU1402023	7025HU1402033
	2..FRONT ASSY	7028077161030	7028077161030
	2..JACK ASSY	7028077162010	7028077162010
	2..CNT_A ASSY	7028077163010	7028077163010
	2..CNT_B ASSY	7028077164010	7028077164010
NSP	1...SMPS ASSY	7025HU1402024	7025HU1402034
$\Delta$	2..SMPS ASSY	7028077171030	7028077171030
	2..LED ASSY	7028077172010	7028077172010
	2..IR ASSY	7028077173010	7028077173010
	2..POWER_LED ASSY	7028077174010	7028077174010
	2..POWER_SW ASSY	7028077175010	7028077175010
	2..GUIDE_CNT ASSY	7028077176010	7028077176010
	2..GUIDE_TRANS ASSY	7028077177010	7028077177010
NSP	1...GUIDE ASSY	7025HU1402026	7025HU1402036
	2..HP ASSY	7028077191010	7028077191010
	2..GUIDE_FRONT1 ASSY	7028077192010	7028077192010
	2..GUIDE_FRONT2 ASSY	7028077193010	7028077193010
	2..GUIDE_FRONT3 ASSY	7028077194010	7028077194010
	2..GUIDE_HP ASSY	7028077196010	7028077196010
	2..GUIDE_L ASSY	7028077197010	7028077197010
	2..GUIDE_R ASSY	7028077198010	7028077198010
NSP	1...DMAIN ASSY	7025HU1402020	7025HU1402030
	2..DMAIN ASSY	7028077131020	7028077131020
NSP	1...AUDIO ASSY	7025HU1402021	7025HU1402031
	2..AUDIO ASSY	7028077141010	7028077141010
NSP	1...USB_F ASSY	7025HU1402025	7025HU1402035
	2..USB_F ASSY	7028077181010	7028077181010

### N-50A-K, N-50A-S

Mark	Symbol & Discription	N-50A-K	N-50A-S
NSP	1...FRONT ASSY	7025HU1403023	7025HU1403033
	2..FRONT ASSY	7028077161040	7028077161040
	2..JACK ASSY	7028077162010	7028077162010
	2..CNT_A ASSY	7028077163010	7028077163010
	2..CNT_B ASSY	7028077164010	7028077164010
NSP	1...SMPS ASSY	7025HU1403024	7025HU1403034
$\Delta$	2..SMPS ASSY	7028077171040	7028077171040
	2..LED ASSY	7028077172020	7028077172020
	2..IR ASSY	7028077173010	7028077173010
	2..POWER_LED ASSY	7028077174010	7028077174010
	2..POWER_SW ASSY	7028077175020	7028077175020
	2..GUIDE_CNT ASSY	7028077176010	7028077176010
	2..GUIDE_TRANS ASSY	7028077177010	7028077177010
NSP	1...DMAIN ASSY	7025HU1403020	7025HU1403030
	2..DMAIN ASSY	7028077131010	7028077131010
NSP	1...AUDIO ASSY	7025HU1403021	7025HU1403031
	2..AUDIO ASSY	7028077141020	7028077141020
NSP	1...USB_F ASSY	7025HU1403025	7025HU1403035
	2..USB_F ASSY	7028077181020	7028077181020

Mark No. Description Part No.

## A DMAIN ASSY (N-70A-K/-S)

### SEMICONDUCTORS

IC 101 W9864G6KH-6  
 IC 103 J005251601040S  
 IC 104,106 TC74VHC126FK  
 IC 105,501,907 TC7SH08FUS1  
 IC 107 TC7WH74FK

IC 108 TC7WH157FK  
 IC 301,303 J001030563160S  
 IC 304 S34ML01G100TFI000  
 IC 306 BD2226G  
 IC 307 H337S3959

IC 502 CM6632A  
 IC 503,506-508,906 TC74VHC157FK  
 IC 504 J040764000010S  
 NSP IC 505 EN39LV010-70SIP  
 IC 701 TC7SH32FUS1

NSP IC 702 R5F100MLAFA  
 IC 703 TC74VHC4052AFK  
 IC 901,902 TS3USB30RSW  
 IC 903 AK4115VQ  
 IC 905 J040322101020S

IC 908,1602-1604 BD9328EFJ  
 IC 909 TC74VHC08FK  
 IC 911 TC74VHC157FK  
 IC 913 J046206501010S  
 IC 1601,1606,1607 NJM2846DL3-33

IC 1605 MIC94325YMT  
 IC 1608 NJM2855DL1-33

### MISCELLANEOUS

JA 701 JACK VKB1243

## A DMAIN ASSY (N-50A-K/-S)

### SEMICONDUCTORS

IC 101 W9864G6KH-6  
 IC 103 J005251601040S  
 IC 104,106 TC74VHC126FK  
 IC 105,501,907 TC7SH08FUS1  
 IC 107 TC7WH74FK

IC 108 TC7WH157FK  
 IC 301,303 J001030563160S  
 IC 304 S34ML01G100TFI000  
 IC 306 BD2226G  
 IC 307 H337S3959

IC 502 CM6632A  
 IC 503,506-508,906 TC74VHC157FK  
 IC 504 J040764000010S  
 NSP IC 505 EN39LV010-70SIP  
 IC 701 TC7SH32FUS1

NSP IC 702 R5F100MLAFA  
 IC 703 TC74VHC4052AFK  
 IC 901,902 TS3USB30RSW  
 IC 903 AK4115VQ  
 IC 905 J040322101020S

Mark No. Description Part No.

⚠ IC 908,1602-1604 BD9328EFJ  
 IC 909 TC74VHC08FK  
 IC 911 TC74VHC157FK  
 ⚠ IC 913 J046206501010S  
 ⚠ IC 1601,1606,1607 NJM2846DL3-33

⚠ IC 1605 MIC94325YMT  
 ⚠ IC 1608 NJM2855DL1-33

### MISCELLANEOUS

JA 701 JACK VKB1243

## B AUDIO ASSY (N-70A-K/-S)

### SEMICONDUCTORS

NSP IC 1101 OPA2134UA  
 IC 1102,1103,1202,1201 OPA2134UA  
 IC 1203 OPA2134UA  
 IC 1301,1401 ES9016SD1  
 IC 1302 J121553200020S

IC 1501 TC74VHC157FK  
 IC 1502 TC7SH08FUS1  
 ⚠ IC 1821 NJM7815FA  
 ⚠ IC 1822 NJM7915FA  
 ⚠ IC 1911,1941 NJM2846DL3-33

⚠ IC 1922,1951 S-1172B12-E6  
 ⚠ IC 1931,1961 NJM2872BF33  
 ⚠ Q 1901 2SC4883A  
 ⚠ D 1801-1804 K040539900010S  
 ⚠ D 1901 LN4SB60-4003

### MISCELLANEOUS

JA 1101,1203 JACK\_XLR G411030010010S  
 JA 1102,1202 TER\_RCA 1PIN G600699700010S  
 ⚠ P 1801,1802 PROTECTOR(3A) AEK7015  
 ⚠ P 1901 PROTECTOR(2.5A) AEK7014

### CAPACITORS

C 1571 D040102081260S  
 C 1803,1804 ACH7397  
 C 1907 D040332083260S

## B AUDIO ASSY (N-50A-K/-S)

### SEMICONDUCTORS

IC 1101,1103,1201,1203 NJM4585M  
 IC 1301,1401 ES9011S  
 IC 1302 J121553200020S  
 IC 1501 TC74VHC157FK  
 IC 1502 TC7SH08FUS1

⚠ IC 1821 NJM7815FA  
 ⚠ IC 1822 NJM7915FA  
 ⚠ IC 1911,1941 NJM2846DL3-33  
 ⚠ IC 1922,1951 S-1172B12-E6  
 ⚠ IC 1931,1961 NJM2872BF33

⚠ Q 1801 2SC4883A  
 ⚠ D 1801-1804 K040539900010S  
 ⚠ D 1901 LN4SB60-4003

Mark No.	Description	Part No.
<b>MISCELLANEOUS</b>		
	JA 1102,1202 TER_RCA 1PIN	G600699700010S
△	P 1801,1802 PROTECTOR(3A)	AEK7015
△	P 1901 PROTECTOR(2.5A)	AEK7014

**CAPACITORS**

C 1571	D040102081260S
C 1809,1810	D040102085260S
C 1907	D040222083260S

**C JACK ASSY**

**SEMICONDUCTORS**

IC 2902	TC74VHCU04FT
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**MISCELLANEOUS**

JA 2901 OPT IN MODULE	E100802000250S
JA 2902 TER_RCA 1PIN	G600117G03000S
JA 2903 OPT OUT MODULE	E100803010250S
JA 2904 TER_RCA 1PIN	G600107AGF00YS

**D HP\_AMP ASSY (N-70A-K/-S)**

**SEMICONDUCTORS**

IC 4501	J084119500010S
IC 4507	J121612020010S
IC 4531	J126780700110S
IC 4532	J126790700110S
IC 4551	NJM78L12UA
IC 4552	J126079120010S

**MISCELLANEOUS**

RY4502 RELAY	CSR1031
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**E FRONT ASSY (N-70A-K/-S)**

**SEMICONDUCTORS**

IC 2801	J020510102010S
IC 2802	J000241600170-IL
△ IC 2803	J126413100010S
IC 2804	BU4828F
IC 2902	TC74VHCU04FT

**MISCELLANEOUS**

JA 2901 OPT IN MODULE	E100802000250S
JA 2902 TER_RCA 1PIN	G600117G03000S
JA 2903 OPT OUT MODULE	E100803010250S
JA 2904 TER_RCA 1PIN	G600107AGF00YS
S 3101 SW_ENCODER	G121122400611S
SW2801-2805 SWITCH	G180501000010-IL

Mark No.	Description	Part No.
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**E FRONT ASSY (N-50A-K/-S)**

**SEMICONDUCTORS**

IC 2801	J020510102010S
IC 2802	J000241600170-IL
△ IC 2803	J126413100010S
IC 2804	BU4828F
IC 2902	TC74VHCU04FT

**MISCELLANEOUS**

JA 2901 OPT IN MODULE	E100802000250S
JA 2902 TER_RCA 1PIN	G600117G03000S
JA 2903 OPT OUT MODULE	E100803010250S
JA 2904 TER_RCA 1PIN	G600107AGF00YS
SW2801-2805 SWITCH	G180501000010-IL

**F USB\_F ASSY (N-70A-K/-S)**

**SEMICONDUCTORS**

△ IC 3001	J046206501010S
△ IC 3002	BD9328EFJ

**F USB\_F ASSY (N-50A-K/-S)**

**SEMICONDUCTORS**

IC 3001	J046206501010S
IC 3002	BD9328EFJ

**G HP ASSY (N-70A-K/-S)**

**MISCELLANEOUS**

JA 2401 JACK_D6.5	G402PJ612AG1Y-IL
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**H LED ASSY (N-70A-K/-S)**

**SEMICONDUCTORS**

D 2201	K500032001160-IL
D 2202-2204	K500036001450-IL

**H LED ASSY (N-50A-K/-S)**

**SEMICONDUCTORS**

D 2201	K500032001160-IL
D 2202-2204	K500036001450-IL

**I POWER\_SW ASSY (N-70A-K/-S)**

**MISCELLANEOUS**

△ S 2302 SW_PUSH	G000121014110-IL
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Mark No. Description Part No.

Mark No. Description Part No.

## I POWER\_SW ASSY (N-50A-K/-S)

### MISCELLANEOUS

⚠ S 2302 SW\_PUSH G000121014110-IL

### MISCELLANEOUS

⚠ F 2101,2102 FUSE(T1.6A) AEK7075  
 ⚠ PC 2101 PHOTO\_COUPLER K614817005510-IL  
 ⚠ RY2101 RELAY G680060103030-IL  
 ⚠ T 2101 TRANS\_SWITCHING E060928705510-IL  
 ⚠ TH 2101 THERMISTOR F340315005510-IL

## J POWER\_LED ASSY

### SEMICONDUCTORS

D 2601 K500036001450-IL

### CAPACITORS

⚠ C 2101 D008103589010-IL  
 ⚠ C 2102 D02147307H000-IL  
 ⚠ C 2104 D00822207Q010S  
 ⚠ C 2107,2132 D00815248H010-IL  
 C 2109 D041472081000S

⚠ C 2111,2112 D00847127H010-IL  
 C 2153 D040183084300S

## K IR ASSY

### SEMICONDUCTORS

IC 2501 E940349003810-IL

## M CNT\_A ASSY

CNT\_A ASSY has no service parts.

## L SMPS ASSY (N-70A-K/-S)

### SEMICONDUCTORS

⚠ IC 2101 J040226010010-IL  
 ⚠ IC 2102 J126243118010-IL  
 ⚠ D 2102-2105 K040000100010-IL  
 ⚠ D 2106 K050000015000-IL  
 ⚠ D 2107 K000400700010-IL

## N CNT\_B ASSY

CNT\_B ASSY has no service parts.

⚠ D 2108 K125036000010-IL  
 ⚠ D 2151,2152 K005041480030-IL  
 ⚠ D 9151 K047100600220-IL

## O HP\_CNT ASSY (N-70A-K/-S)

HP\_CNT ASSY has no service parts.

### MISCELLANEOUS

⚠ F 2101,2102 GRASS TUBE FUSE AEK7083  
 ⚠ PC 2101 PHOTO\_COUPLER K614817005510-IL  
 ⚠ RY2101 RELAY G680060103030-IL  
 ⚠ T 2101 TRANS\_SWITCHING E060928705510-IL  
 ⚠ TH 2101 THERMISTOR F340315005510-IL

## P GUIDE\_FRONT1 ASSY (N-70A-K/-S)

GUIDE\_FRONT1 ASSY has no service parts.

### CAPACITORS

⚠ C 2102 D02147307H000-IL  
 ⚠ C 2104 D00822207Q010S  
 C 2107,2132 D00815248H010-IL  
 ⚠ C 2109 D041472081000S  
 ⚠ C 2111,2112 D00847127H010-IL

## Q GUIDE\_FRONT2 ASSY (N-70A-K/-S)

GUIDE\_FRONT2 ASSY has no service parts.

⚠ C 2126 ACE7013  
 ⚠ C 2161 D041223083260S

## R GUIDE\_FRONT3 ASSY (N-70A-K/-S)

GUIDE\_FRONT3 ASSY has no service parts.

## L SMPS ASSY (N-50A-K/-S)

### SEMICONDUCTORS

⚠ IC 2101 J040226010010-IL  
 ⚠ IC 2102 J126243118010-IL  
 ⚠ D 2102-2105 K040000100010-IL  
 ⚠ D 2106 K050000015000-IL  
 ⚠ D 2107 K000400700010-IL

## S GUIDE\_L ASSY (N-70A-K/-S)

GUIDE\_L ASSY has no service parts.

⚠ D 2108 K125036000010-IL  
 ⚠ D 2151,2152 K005041480030-IL  
 ⚠ D 9151 K047100600220-IL

## T GUIDE\_R ASSY (N-70A-K/-S)

GUIDE\_R ASSY has no service parts.

## U GUIDE\_HP ASSY (N-70A-K/-S)

GUIDE\_HP ASSY has no service parts.

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No. Description      Part No.