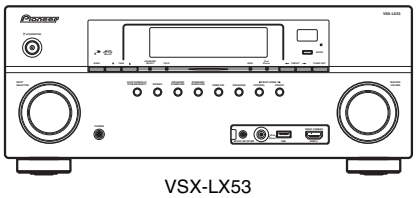
Pioneer

Service Manual



VSX-LX53

ORDER NO.
RRV4133

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-LX53
VSX-2020-K

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

Model	Type	Power Requirement	Remarks
VSX-LX53	SYXJ5	AC 220 V to 230 V	
VSX-2020-K	SYXJ5	AC 220 V to 230 V	

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

Model No.	Order No.	Remarks
VSX-LX53 VSX-2020-K	RRV4134	PCB RETRIEVAL DIAGRAM

For details, refer to "Important Check Points for good servicing".

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[Important Check Points for Good Servicing]

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

1. Product safety

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

① Use specified parts for repair.

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

② Do not perform modifications without proper instructions.

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

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

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

④ Make sure the screws are tightly fastened.

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

⑤ Make sure each connectors are correctly inserted.

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

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

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

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

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

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

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

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

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

⑩ Safe environment should be secured during servicing.

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

2. Adjustments

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

3. Lubricants, Glues, and Replacement parts

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

4. Cleaning

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

5. Shipping mode and Shipping screws

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

CONTENTS

1. 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 in dia.
  GYP1007 0.6 in dia.
  GYP1008 0.3 in dia.

1.2 NOTES ON REPLACING

The part listed below is difficult to replace as a discrete component part.
When the part listed in the table is defective, replace whole Assy.

ASSY NAME	PCB ASSY Part No.	Parts that is Diffcult to Replase			
		Ref No.	FUNCTION	Part No.	Remarks
DIGITAL MAIN ASSY	AWX9719	IC101	MAIN CPU	UPD61283F1-407LU2A	BGA
		IC904	HDMI Receiver	SII9233ACTU	IC with heat-pad
		IC1204	Digital Video Format Converter	88DE2750	BGA
		IC1212	DDR2 SDRAM	EDE5116AJBG-8E-E	BGA
		IC9506	Ethernet IC	LAN9211-ABZJ	IC with heat-pad
		IC9804	Regulator	NJM2846DL3-18	IC with heat-pad
		IC9810	Regulator	MM1701WH	IC with heat-pad
		IC9811	Regulator	NJM2846DL3-33	IC with heat-pad

1.3 CAUTION

- Discharging
  Please refer to page 57, “Preparations Before Perfoming Diagnosis of the POWER AMP Assy”.

- Ground Points
  Please refer to page 58, “Ground Points”.

2. SPECIFICATIONS
2.1 SPECIFICATIONS

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

Audio section

Rated power output (1 kHz, 6 Ω , 1 %)
- Front . . . . . 150 W + 150 W
- Center . . . . . 150 W
- Surround . . . . . 150 W + 150 W
- Surround back (Front height/wide). . . . . 150 W + 150 W

Rated power output (20 Hz to 20 kHz, 8 Ω, 0.08 %)
- Front . . . . . 110 W + 110 W
- Center . . . . . 110 W
- Surround . . . . . 110 W + 110 W
- Surround back (Front height/wide). . . . . 110 W + 110 W

Total Harmonic Distortion . . . . . .0.06 %
(20 Hz to 20 kHz, 8 Ω, 100 W + 100 W)

Guaranteed speaker impedance
. . . . . .16Ω to 8Ω, less than 8 Ω to 6Ω(setting required)

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

Frequency Response . . . . . .5 Hz to 100 000 Hz +0 −3 dB
(Pure Direct Mode)

Input (Sensitivity/Impedance) . . . . . .350 mV/47 kΩ

Output (Level/Impedance)
- REC . . . . . 350 mV/2.2 kΩ

Tuner Section

Frequency Range (FM). . . . . .87.5 MHz to 108 MHz
Antenna Input (FM) . . . . . 75Ω unbalanced
Frequency Range (AM) . . . . . .531 kHz to 1602 kHz
Antenna (AM) . . . . . Loop antenna (balanced)

Video Section

Signal level
- Composite Video . . . .1 Vp-p (75 Ω)
- Component Video. . . . . .Y: 1.0 Vp-p (75 Ω), PB, PR: 0.7 Vp-p (75 Ω)

Corresponding maximum resolution
- Component Video. . . . . .1080p (1125p) (Video convert off)

Digital In/Out Section

HDMI terminal . . . . . 19-pin (Not DVI)
HDMI output type . . . . . .5 V, 100 mA
USB terminal . . . . . USB2.0 Full Speed (Type A)
iPod terminal . . . . . USB, and Video (Composite)
ADAPTER PORT terminal . . . . . .5 V, 100 mA

Integrated control section

Control (SR) terminal . . . . . Ø 3.5 Mini-jack (MONO)
Control (IR) terminal. . . . . Ø 3.5 Mini-jack (MONO)
IR signal . . . . . High Active (High Level: 2.0 V)
12 V Trigger terminal . . . . . Ø 3.5 Mini-jack (MONO)
12 V Trigger output type . . . . . 12 V, Total 150 mA
RS-232C cable type. . . . . 9-pin, cross type, female-female
EXTENSION terminal . . . . . .5 V, 150 mA

Network Section

LAN terminal . . . . . .10 BASE-T/100 BASE-TX

Bluetooth ADAPTER (AS-BT100) (VSX-LX53 only)

Power . . . . . DC 5 V
Version. . . . . Bluetooth Specification Ver. 2.0 + EDR
Output . . . . . .Bluetooth Specification Class 2
Estimated line-of-sight transmission distance*
. . . . . About 10 m
Frequency range . . . . . .2.4 GHz
Modulation
. . . . . .FH-SS (Frequency Hopping Spread Spectrum)
Supported Bluetooth profiles. . . . . A2DP, AVRCP
Supported Codec. . . . . SBC (Subband Codec)
Supported contents protection . . . . . SCMS-T

External dimensions
. . . . . .30.5 mm (W) x 9.0 mm (H) x 50 mm (D)
Weight . . . . . About 11 g

*The line-of-sight transmission distance is an estimate. Actual transmission distances supported may differ depending on surrounding conditions.

Miscellaneous

Power requirements . . . . . AC 220 V to 230 V, 50 Hz/60 Hz
Power consumption . . . . . .410 W
- In standby . . . . . .0.2 W (**HDMI Setup**–**Control**: OFF)
  0.3 W (**HDMI Setup**–**Control** : ON)

Dimensions . . . . . 420 (W) mm x 173 (H) mm x 433 (D) mm
Weight (without package)
- VSX-LX53. . . . . 13.4 kg
- VSX-2020-K . . . . . 13.1 kg

Number of Furnished Parts

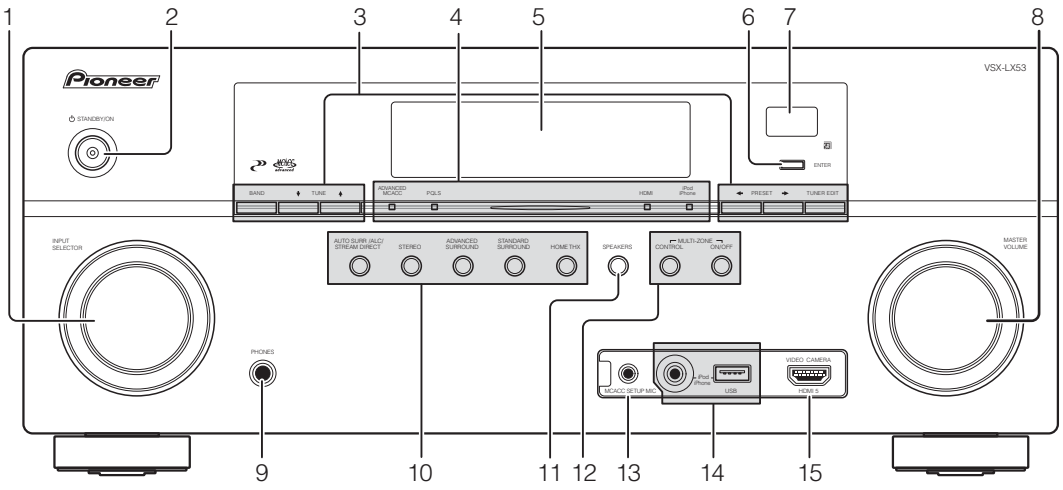
MCACC Setup microphone (APM7009) 1
Remote control unit (AXD7592) 1
AAA size IEC R03 dry cell batteries 2
iPod cable 1
AM loop antenna 1
FM wire antenna 1
Bluetooth ADAPTER (AS-BT100) (VSX-LX53 only) 1
Power cord 1
Warranty card 1
Quick start guide
Operating instructions

Note

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

2.2 PANEL FACILITIES

[1] Front Panel



1 INPUT SELECTOR dial
Use to select an input function.

2 ⏻ STANDBY/ON
Switches the receiver between on and standby.

3 Tuner controls
BAND– Switches between the AM and FM radio bands.

TUNE ⬆/⬇ – Use to find radio frequencies.

PRESET ⬅/➡ – Use to find preset stations.

TUNER EDIT – Use with **TUNE ⬆/⬇**, **PRESET ⬅/➡** and **ENTER** to memorize and name stations for recall.

4 Indicators

ADVANCED MCACC – Lights when **EQ** is set to **ON** in the **AUDIO PARAMETER** menu.

PQLS – Lights when the PQLS feature is active.
HDMI – Blinks when connecting an HDMI-equipped component; lights when the component is connected.
iPod/iPhone – Lights to indicate iPod/iPhone is connected.

5 Character display

6 ENTER

7 Remote sensor
Receives the signals from the remote control.

8 MASTER VOLUME dial

9 PHONES jack
Use to connect headphones. When the headphones are connected, there is no sound output from the speakers.

10 Listening mode buttons

AUTO SURR/ALC/ STREAM DIRECT – Switches between Auto Surround, Auto Level Control mode and Stream Direct mode.

STEREO – Switches between stereo playback and Front Stage Surround Advance modes.

ADVANCED SURROUND – Use to switch between the various surround modes.

STANDARD SURROUND – Press for Standard decoding and to switch various modes (Pro Logic, Neo:6, etc.).

HOME THX – Press to select a Home THX listening mode.

11 SPEAKERS
Use to change the speaker terminal.

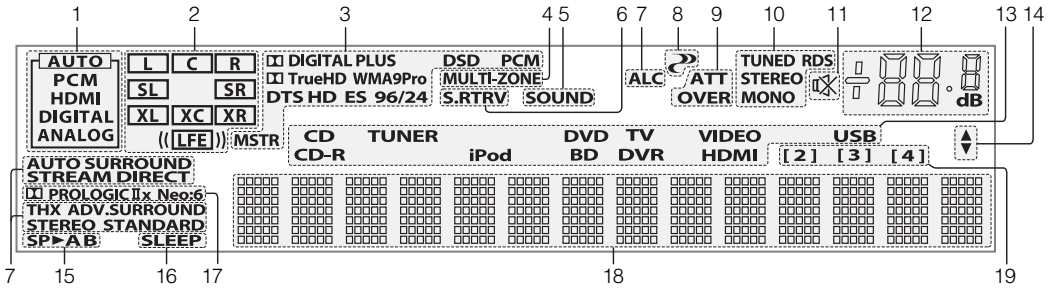
12 MULTI-ZONE controls
If you've made MULTI-ZONE connections use these controls to control the sub zone from the main zone.

13 MCACC SETUP MIC jack
Use to connect the supplied microphone.

14 iPod/iPhone/USB terminals
Use to connect your Apple iPod as an audio and video source, or connect a USB device for audio and photo playback.

15 HDMI input connector
Use for connection to a compatible HDMI device (Video camera, etc.).

[2] Display



1 SIGNALindicators
Light to indicate the currently selected input signal. **AUTO** lights when the receiver is set to select the input signal automatically.

2 Program format indicators
Light to indicate the channelsto which digital signals are being input.

L/R – Left front/Right front channel
C – Center channel
SL/SR– Left surround/Right surround channel
LFE– Low frequency effects channel (the **(( ))** indicators light when an LFE signal is being input)
XL/XR – Two channels other than the ones above
XC – Either one channel other than the ones above, the mono surround channel or matrix encode flag

3 Digital format indicators
Light when a signal encoded in the corresponding format is detected.

DIGITAL– Lights with Dolby Digital decoding.
DIGITAL PLUS – Lights with Dolby Digital Plus decoding.
TrueHD – Lights with Dolby TrueHD decoding.
DTS– Lights with DTS decoding.
DTS HD– Lights with DTS-HD decoding.
96/24 – Lights with DTS 96/24 decoding.
WMA9 Pro – Lights to indicate that a WMA9 Pro signal is being decoded.
DSD PCM– Light during DSD (Direct Stream Digital) to PCM conversion with SACDs.
PCM – Lights during playback of PCM signals.
MSTR– Lights during playback of DTS-HD Master Audio signals.

4 MULTI-ZONE
Lights when the MULTI-ZONE feature is active.

5 SOUND
Lights when any of the Midnight, Loudness or tone controls features is selected.
Lights when Dialog Enhancement is switched on.

6 S.RTRV
Lights when the Sound Retriever function is active.

7 Listening mode indicators
AUTO SURROUND – Lights when the Auto Surround feature is switched on.
ALC – Lights when the ALC (Auto level control) mode is selected.
STREAM DIRECT – Lights when Direct/Pure Direct is selected.
ADV.SURROUND – Lights when one of the Advanced Surround modes has been selected.
STEREO – Lights when stereo listening is switched on.
STANDARD – Lights when one of the Standard Surround modes is switched on.
THX – Lights when one of the Home THX modes is selected.

8 (PHASE CONTROL)
Lights when Phase Control is switched on.

9 Analog signal indicators
Light to indicate reducing the level of an analog signal.

10 Tuner indicators
TUNED – Lights when a broadcast is being received.
STEREO – Lights when a stereo FM broadcast is being received in auto stereo mode.
MONO – Lights when the mono mode is set using **MPX**.
RDS– Lights when an RDS broadcast is received.

11
Lights when the sound is muted.

12 Master volume level
Shows the overall volume level.
"---" indicates the minimum level, and "**+12dB**" indicates the maximum level.

13 Input function indicators
Light to indicate the input function you have selected.

14 Scroll indicators
Light when there are more selectable items when making the various settings.

15 Speaker indicators
Lights to indicate the current speaker system, **A** and/or **B**.

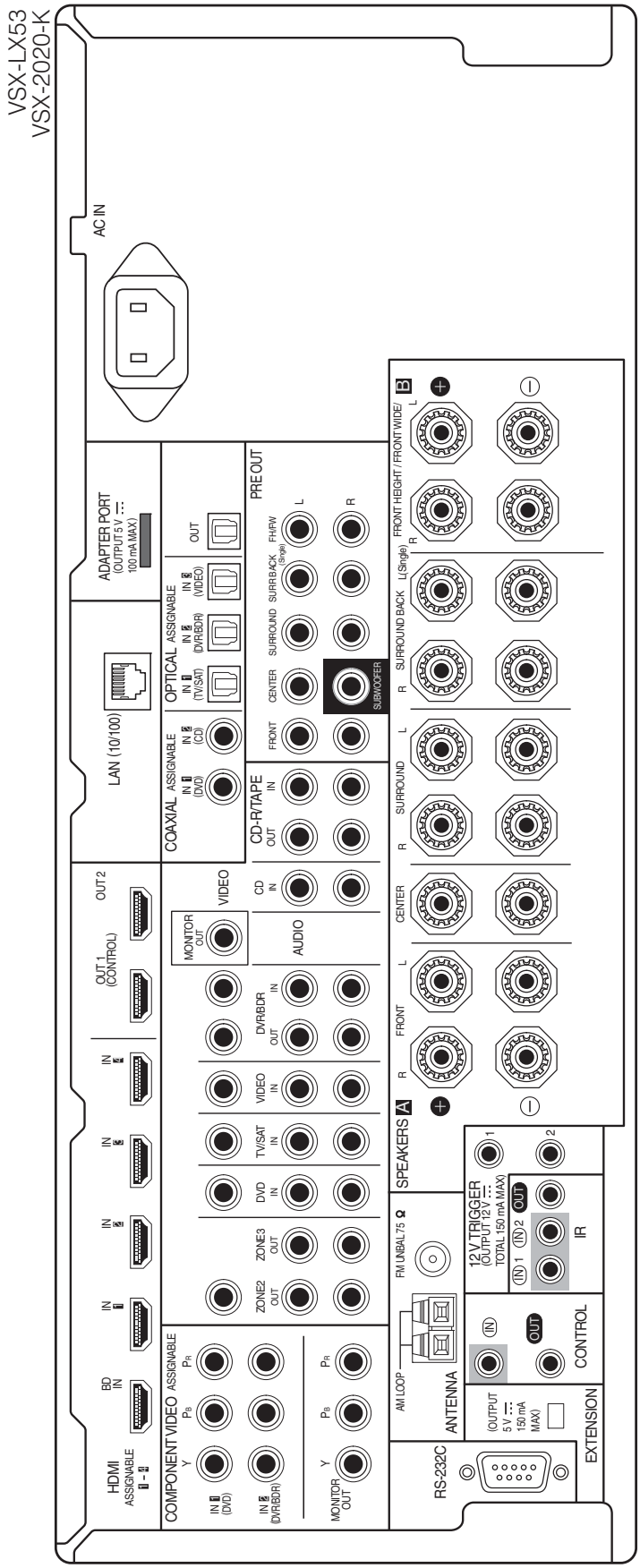
16 SLEEP
Lights when the receiver is in sleep mode.

17 Matrix decoding format indicators
PRO LOGIC IIx – This lights to indicate Pro Logic II / Pro Logic IIx decoding.
Neo:6 – When one of the Neo:6 modes of the receiver is on, this lights to indicate Neo:6 processing.

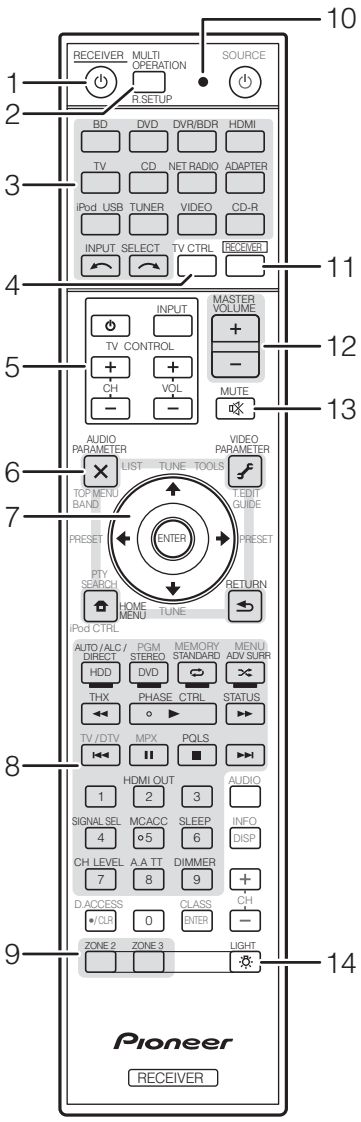
18 Character display
Displays various system information.

19 Remote control mode indicator
Lights to indicate the receiver's remote control mode setting. (Not displayed when set to **1**.)

[3] Rear Panel


VSX-LX53
VSX-2020-K
AC IN
ADAPTER PORT
(OUTPUT 5 V ⎓ 100 mA MAX)
LAN (10/100)
COAXIAL ASSIGNABLE IN 6 (DVD)
OPTICAL IN 1 (TV/SAT)
ASSIGNABLE IN 5 (DVR/BDR)
ASSIGNABLE IN 6 (VIDEO)
OUT
PRE OUT
FRONT
CENTER
SURROUND
SURR BACK (Single)
FH/FW
SUBWOOFER
ASSIGNABLE IN 1 (CD)
CD-R/TAPE
IN
OUT
CD IN
AUDIO
VIDEO
MONITOR OUT
DVR/BDR
VIDEO IN
TV/SAT IN
DVD IN
ZONE3 OUT
ZONE2 OUT
OUT 2
OUT 1 (CONTROL)
IN 4
IN 3
IN 2
IN 1
HDMI ASSIGNABLE
BD IN
COMPONENT VIDEO ASSIGNABLE
IN 1 (DVD)
IN 5 (DVR/BDR)
MONITOR OUT
FM UNBAL 75 Ω
AM LOOP
ANTENNA
SPEAKERS A
FRONT
CENTER
SURROUND
SURROUND BACK
FRONT HEIGHT / FRONT WIDE / FRONT WIDE / SURROUND BACK (Single)
B
12 V TRIGGER
(OUTPUT 12 V ⎓ TOTAL 150 mA MAX)
IR
CONTROL
RS-232C
EXTENSION
(OUTPUT 5 V ⎓ 150 mA MAX)

[4] Remote Control



The remote has been conveniently color-coded according to component control using the following system:

- **White** – Receiver control, TV control
- **Blue** – Other controls

1 ⏻ RECEIVER
This switches between standby and on for this receiver.

2 MULTI OPERATION – Use to perform multi operations.
R.SETUP – Use to input the preset code when making remote control settings andto set the remote control mode.

3 Input function buttons
Press to select control of other components.
Use **INPUT SELECT** to select the input function.

4 TV CTRL
Set the preset code of your TV's manufacturer when controlling the TV.

5 TV CONTROL buttons
These buttons are dedicated tocontrol the TV assigned to the **TV CTRL** button.

6 Receiver setting buttons
Press **RECEIVER** first to access:

AUDIO PARAMETER – Use to access the Audio options.

VIDEO PARAMETER – Use to access the Video options.

HOME MENU – Use to access the Home Menu.

RETURN – Press to confirm and exit the current menu screen.

7 ↑/↓/←/→/ENTER
Use the arrow buttons when setting up your surround sound system and the Audio or Video options.

8 Receiver Control buttons
Press **RECEIVER** first to access:

AUTO/ALC/DIRECT– Switches between Auto Surround, Auto Level Control mode and Stream Direct mode.

STEREO – Switches between stereo playback and Front Stage Surround Advance modes.

STANDARD – Press for Standard decoding and to switch various modes (DD Pro Logic, Neo:6, etc.).

ADV SURR– Use to switch between the various surround modes.

THX – Press to select a Home THX listening mode.

PHASE CTRL – Press to switch on/off Phase Control.

STATUS – Press to check selected receiver settings.

PQLS – Press to select the PQLS setting.

HDMI OUT – Switch the HDMI output terminal.

SIGNAL SEL – Use to select an input signal.

MCACC – Press to switch between MCACC presets.

SLEEP – Use to put the receiver in sleep mode and select the amount of time before sleep.

CH LEVEL– Press repeatedly to select a channel, then use ←/→ to adjust the level.

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

DIMMER – Dims or brightens the display.

9 MULTI-ZONE select buttons
Switch to perform operations in ZONE 2 and ZONE 3.

10 Remote control LED
Lights when a command is sent from the remote control.

11 RECEIVER
Switches the remote to control the receiver (used to select the white commands).

Switch to perform operations in the main zone.

Also use this button to set up surround sound.

12 MASTER VOLUME +/–
Use to set the listening volume.

13 MUTE
Mutes the sound or restoresthe sound if it has been muted (adjusting the volume also restores the sound).

14 ☼
Press to turn on/off the illumination for the buttons. The way the buttons light can be selected from four modes.

3. BASIC ITEMS FOR SERVICE
3.1 CHECK POINTS AFTER SERVICING

Items to be checked after servicing

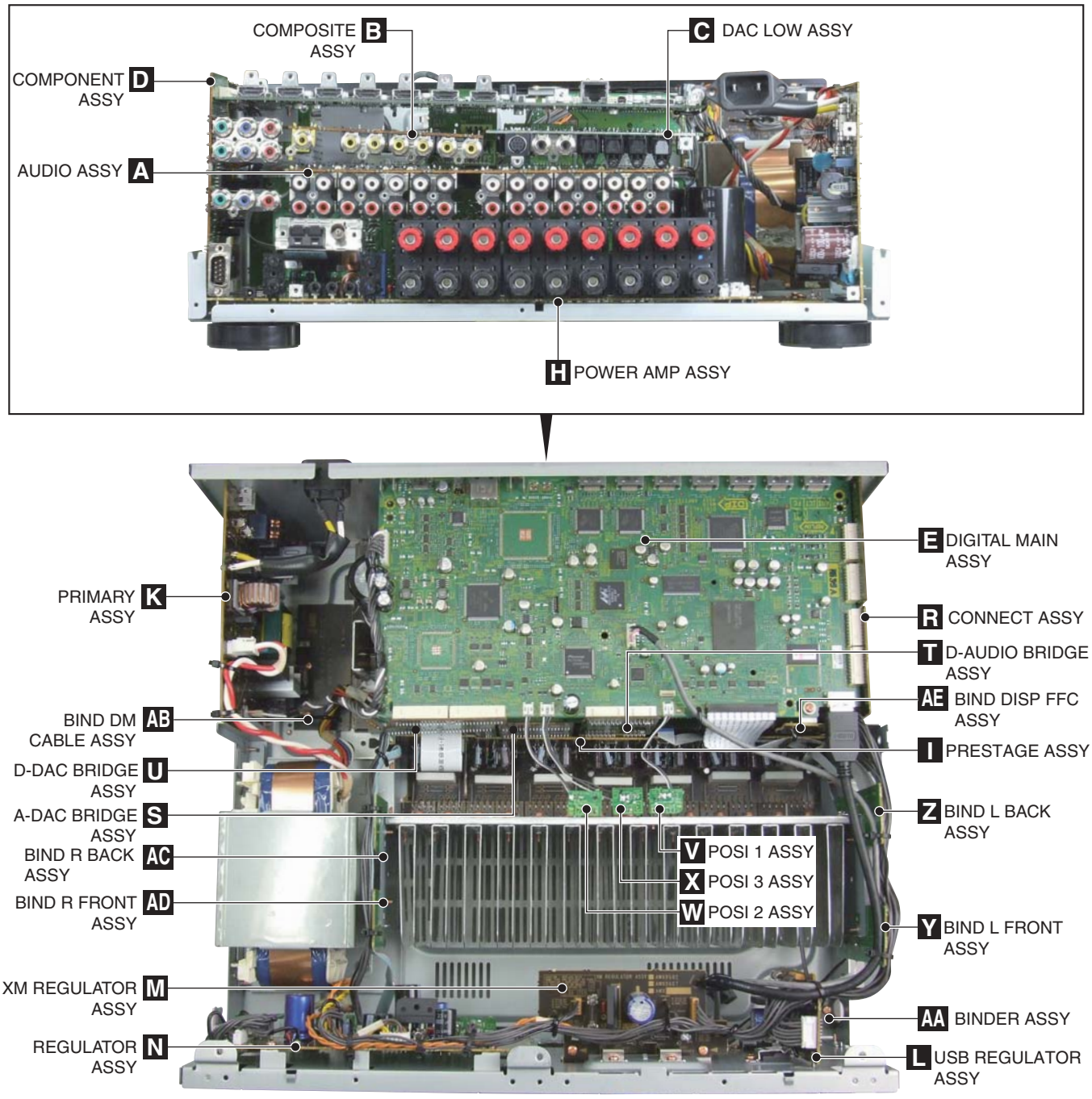
To keep the product quality after servicing, confirm recommended check points shown below.

No.	Procedures	Check points
1	Confirm whether the customer complain has been solved. If the customer complain occurs with the particular source, such as Dolby Digital, DTS, AAC, DVD-A and HDMI, input it for the operation check.	The customer complain must not be reappeared. Video, Audio and operations must be normal.
2	Check the analog audio playback. (Make the analog connections with a DVD player.)	Each channel audio and operations must be normal.
3	Check the digital audio playback. (Make the digital connections with a DVD player.)	Each channel audio and operations must be normal.
4	Check surround playback. (Select Surround mode and check the multichannel operations via the DSP circuit.)	Each channel audio and operations must be normal.
5	Check the video outputs. (Connect with a DVD player.)	Video and operations must be normal.
6	Check the tuner (AM and FM) operations.	Audio and operations must be normal.
7	Check the sound from headphone output.	Sound must be normal, without noise.
8	Check the appearance of the product.	No scratches or dirt on its appearance after receiving it for service.

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

Item to be checked regarding video	Item to be checked regarding audio
Block noise	Distortion
Horizontal noise	Noise
Flicker	Volume too low
Disturbed image (video jumpiness)	Volume too high
Too dark	Volume fluctuating
Too bright	Sound interrupted
Mottled color	

3.2 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.*

LIST OF ASSEMBLIES

Mark	No. Description	Part No.
NSP	1..AMP ASSY	AWM8192
	2..BIND L FRONT ASSY	AWX9574
	2..POSI 1 ASSY	AWX9576
	2..POSI 2 ASSY	AWX9577
	2..POSI 3 ASSY	AWX9578
	2..POWER AMP ASSY	AWX9660
	2..BIND R BACK ASSY	AWX9586
NSP	1..LOCAL POWER ASSY	AWM8195
	2..BIND DM CABLE SSY	AWX9575
	2..REGULAOTR ASSY	AWX9579
	2..PRESTAGE ASSY	AWX9580
	2..USB REGULATOR ASSY	AWX9581
	2..BIND L BACK ASSY	AWX9585
	2..XM REGULATOR ASSY	AWX9667
	2..BIND R FRONT ASSY	AWX9584
	2..BIND DISP FFC ASSY	AWX9668
NSP	1..COMPLEX ASSY(VSX-LX53)	AWM8197
	2..POWER SW ASSY	AWX9588
	2..ENCODER ASSY	AWX9589
	2..HEADPHONE ASSY	AWX9590
	2..CONNECT ASSY	AWX9592
	2..FRONT MIC & VIDEO ASSY	AWX9593
	2..BINDER ASSY	AWX9595
	2..DISPLAY ASSY	AWX9669
	2..PRIMARY ASSY	AWX9676

Mark	No. Description	Part No.
NSP	1..COMPLEX ASSY(VSX-2020-K)	AWM8230
	2..POWER SW ASSY	AWX9588
	2..ENCODER ASSY	AWX9589
	2..HEADPHONE ASSY	AWX9590
	2..CONNECT ASSY	AWX9592
	2..FRONT MIC & VIDEO ASSY	AWX9593
	2..BINDER ASSY	AWX9595
	2..DISPLAY ASSY	AWX9726
	2..PRIMARY ASSY	AWX9676
NSP	1..AUDIO COMPOSITE ASSY	AWR7087
	2..COMPOSITE ASSY	AWX9568
	2..D-AUDIO BRIDGE ASSY	AWX9569
	2..D-DAC BRIDGE ASSY	AWX9570
	2..A-DAC BRIDGE ASSY	AWX9571
	2..AUDIO ASSY	AWX9644
	1..FRONT HDMI USB ASSY	AWX9565
	1..COMPONENT ASSY	AWX9572
	1..DAC LOW ASSY	AWX9657
	1..DIGITAL MAIN ASSY	AWX9719
NSP	1..BLUETOOTH AD ASSY(VSX-LX53)	AXF7022
	2..BLUETOOTH ASSY	AWM8111
	1..FM/AM TUNER UNIT	AXX7265

3.3 JIGS LIST

[1] Jigs list

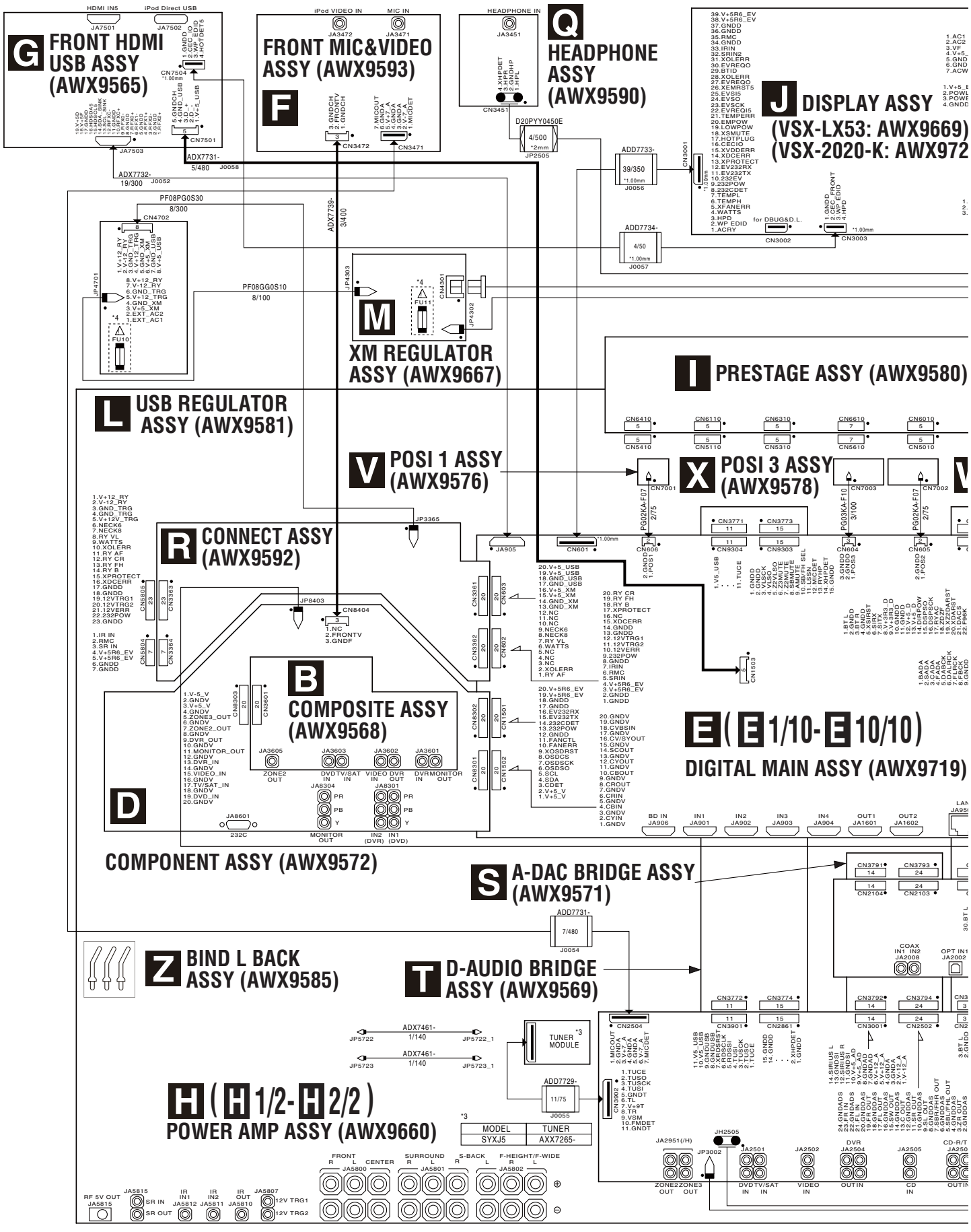
Name	Jig No.	Remarks
30P board to board extension jig cable x 2	GGD1682	Diagnosis for DAC Assy
24P + 14P board to board extension jig cable	GGD1683	Diagnosis for DAC Assy
20P + 20P board to board extension jig cable	GGD1677	Diagnosis for AUDIO Assy
19P FFC	GGD1678	Diagnosis for AUDIO Assy

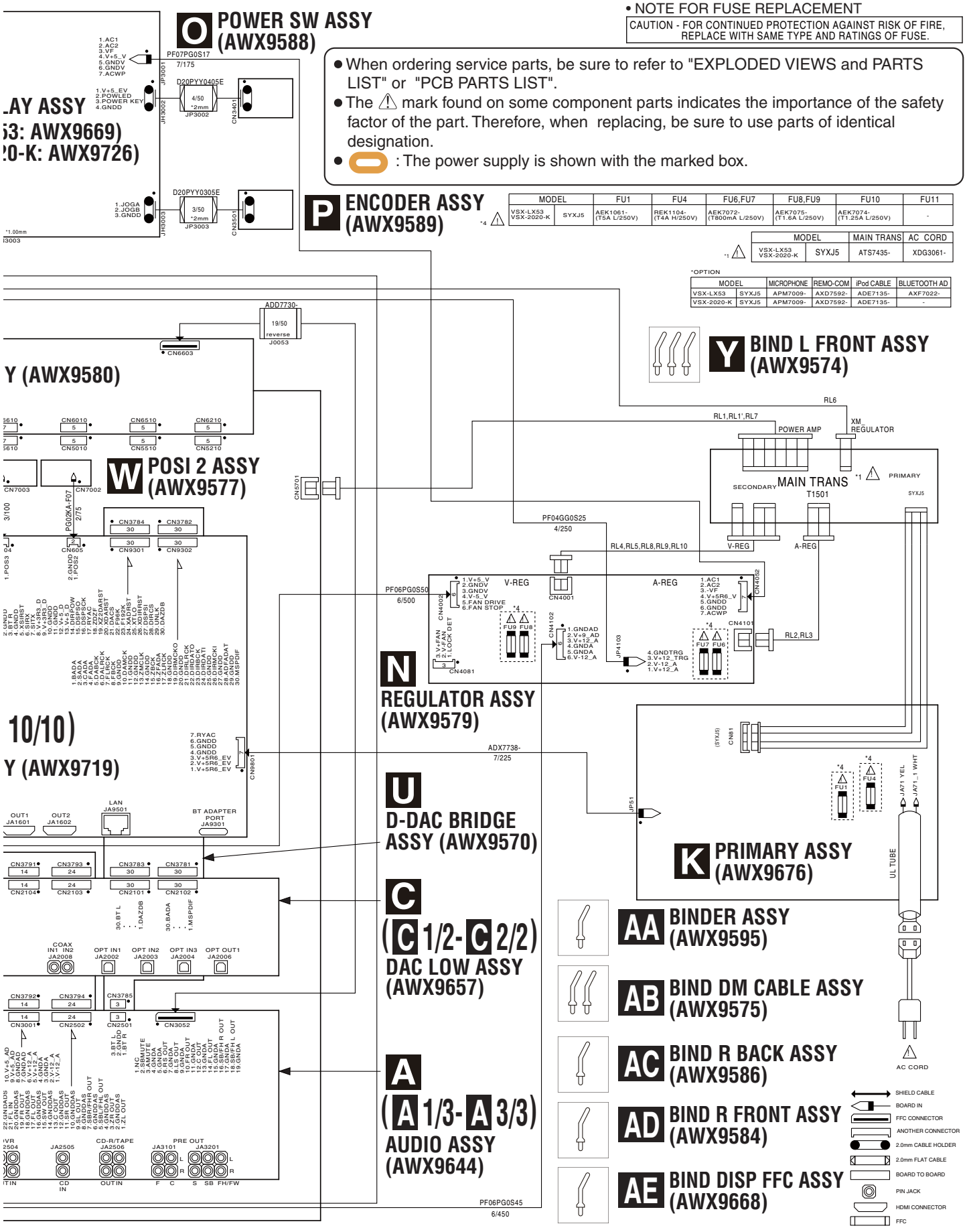
[2] Lubricants and Glues List

Name	Lubricants and Glues No.	Remarks
Silicone Grease	GEM1057	Refer to "9.2 EXTERIOR SECTION"

4. BLOCK DIAGRAM

4.1 OVERALL WIRING DIAGRAM





• NOTE FOR FUSE REPLACEMENT

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

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

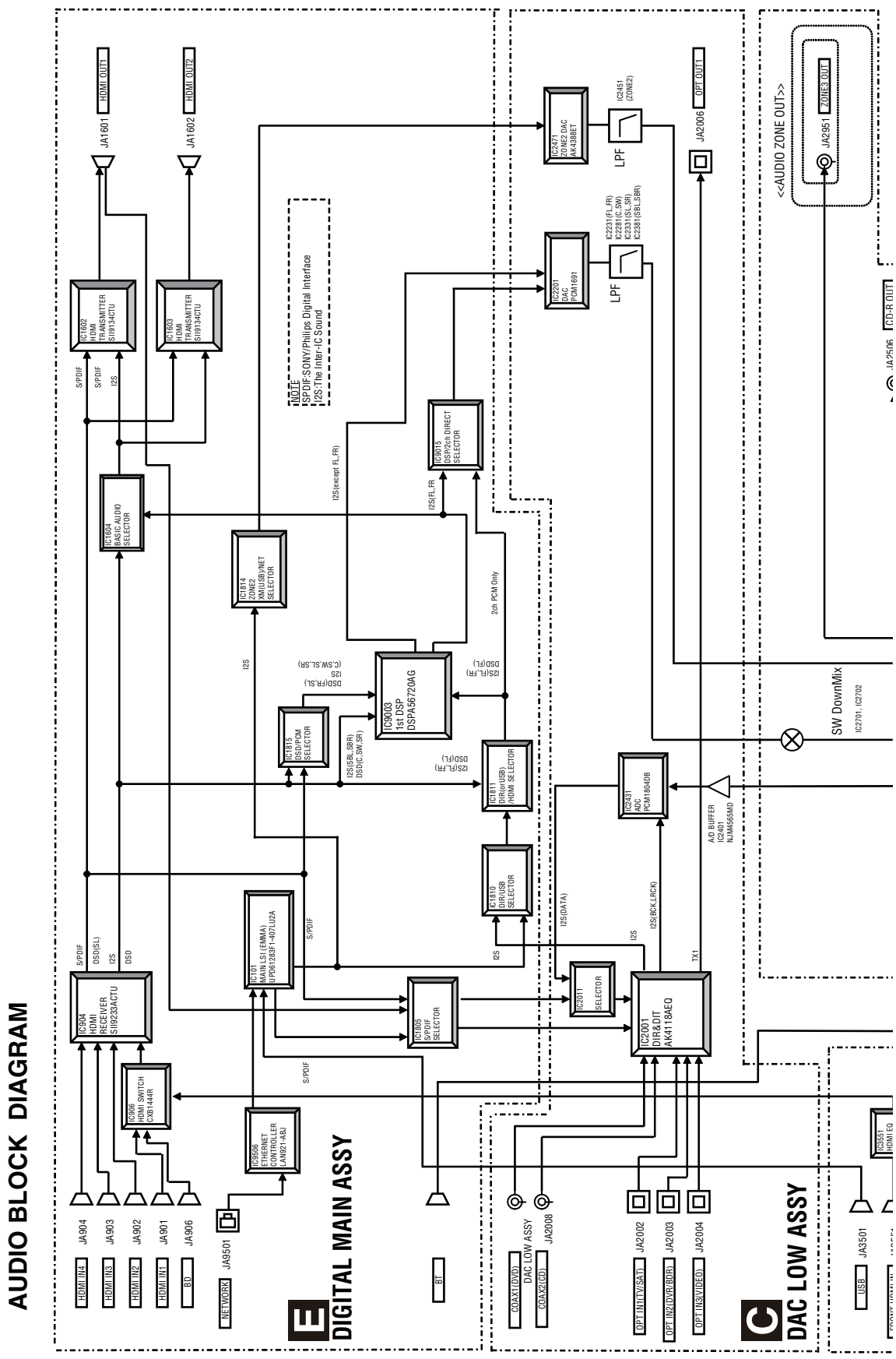
MODEL		FU1	FU4	FU6,FU7	FU8,FU9	FU10	FU11
VSX-LX53 VSX-2020-K	SYXJ5	AEK1061- (T5A L/250V)	REK1104- (T4A H/250V)	AEK7072- (T800mA L/250V)	AEK7075- (T1.6A L/250V)	AEK7074- (T1.25A L/250V)	-

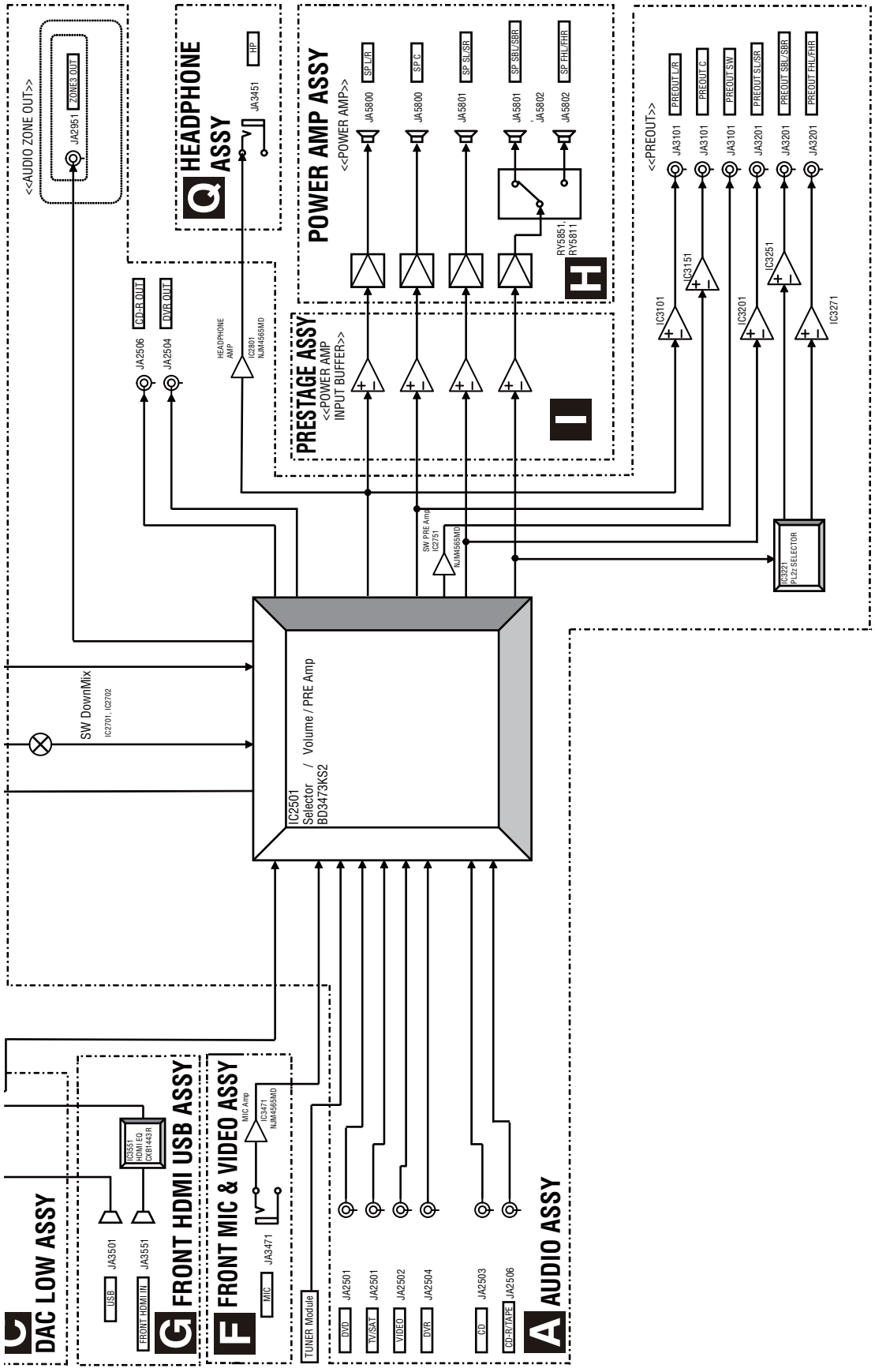
MODEL		MAIN TRANS	AC CORD
VSX-LX53 VSX-2020-K	SYXJ5	ATS7435-	XDG3061-

*OPTION

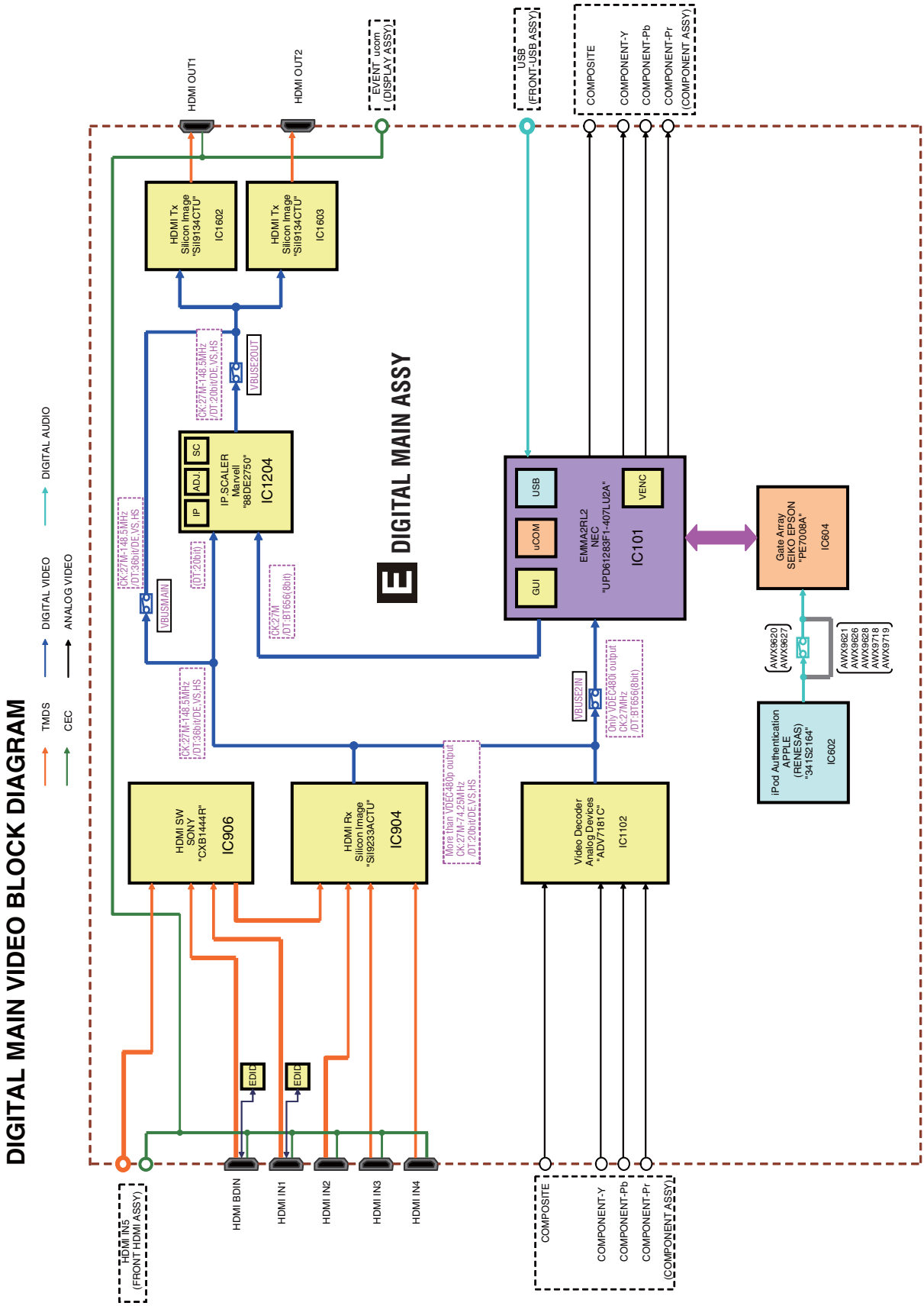
MODEL		MICROPHONE	REMO-COM	iPod CABLE	BLUETOOTH AD
VSX-LX53	SYXJ5	APM7009-	AXD7592-	ADE7135-	AXF7022-
VSX-2020-K	SYXJ5	APM7009-	AXD7592-	ADE7135-	-

4.2 BLOCK DIAGRAM FOR AUDIO BLOCK



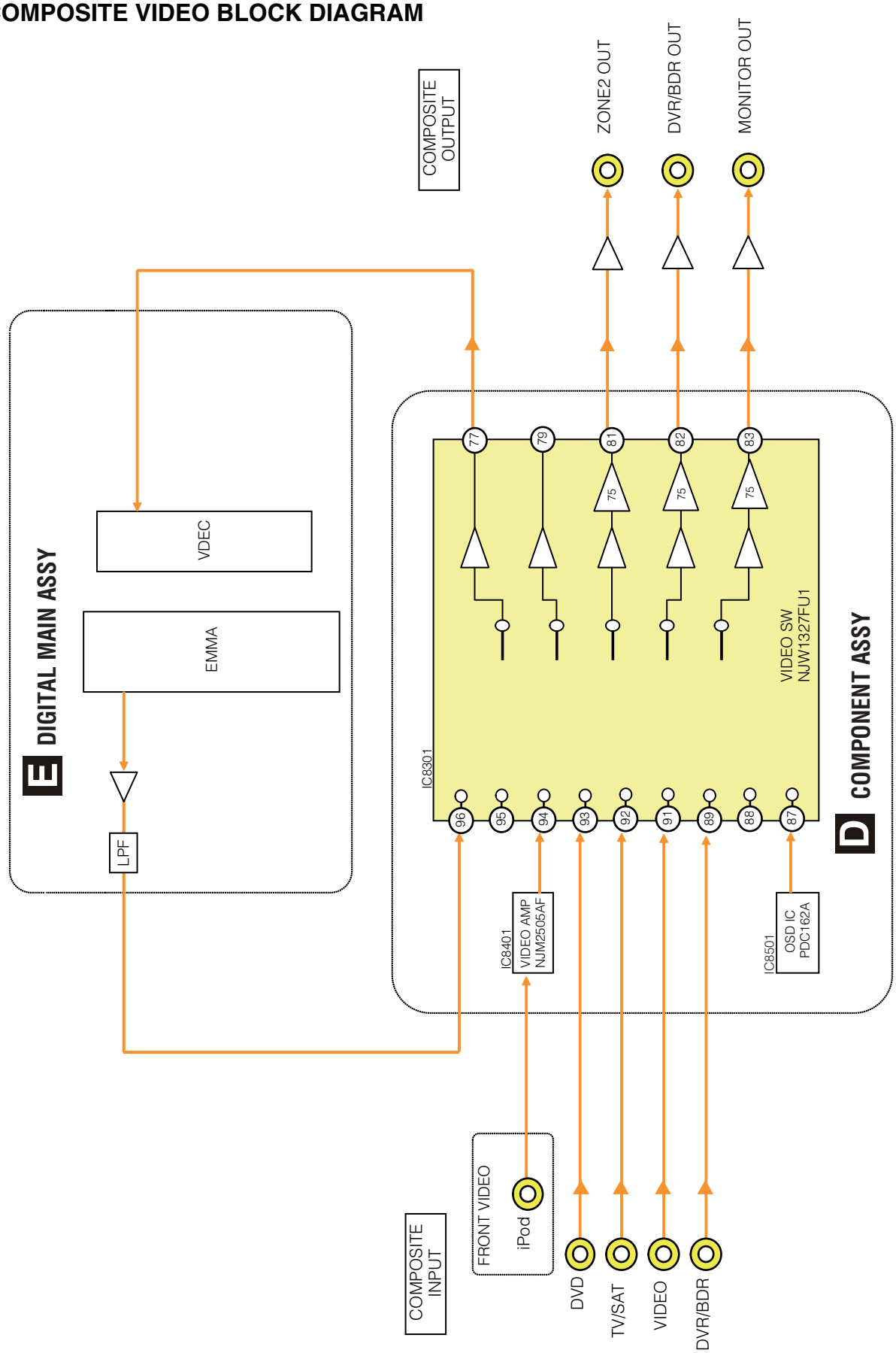

HEADPHONE ASSY
POWER AMP ASSY
<<POWER AMP>>
SP L/R
SP C
SP SL/SR
SP SBL/SBR
SP FHL/FHR
HP
JA3451
JA5800
JA5801
JA5802
RY5851
RY5811
H
<<AUDIO ZONE OUT>>
ZONE3 OUT
JA2951
PRESTAGE ASSY
<<POWER AMP INPUT BUFFER>>
I
<<PREOUT>>
PREOUT L/R
PREOUT C
PREOUT SW
PREOUT SL/SR
PREOUT SBL/SBR
PREOUT FHL/FHR
JA3101
JA3201
IC3101
IC3151
IC3201
IC3251
IC3271
CD-R OUT
DVR OUT
JA2506
JA2504
HEADPHONE AMP
IC2801
NJM4565MD
SW PRE Amp
IC2751
NJM4565MD
IC3221
PL22 SELECTOR
SW DownMix
IC2701, IC2702
IC2501
Selector / Volume / PRE Amp
BD3473KS2
DAC LOW ASSY
FRONT HDMI USB ASSY
FRONT MIC & VIDEO ASSY
AUDIO ASSY
USB
JA3501
FRONT HDMI IN
JA3551
IC3551
HDMI EQ
CXB1443R
MIC
JA3471
IC3471
MIC Amp
NJM4565MD
TUNER Module
DVD
JA2501
TV/SAT
JA2501
VIDEO
JA2502
DVR
JA2504
CD
JA2503
CD-R/TAPE
JA2506

4.3 BLOCK DIAGRAM FOR DIGITAL MAIN VIDEO BLOCK



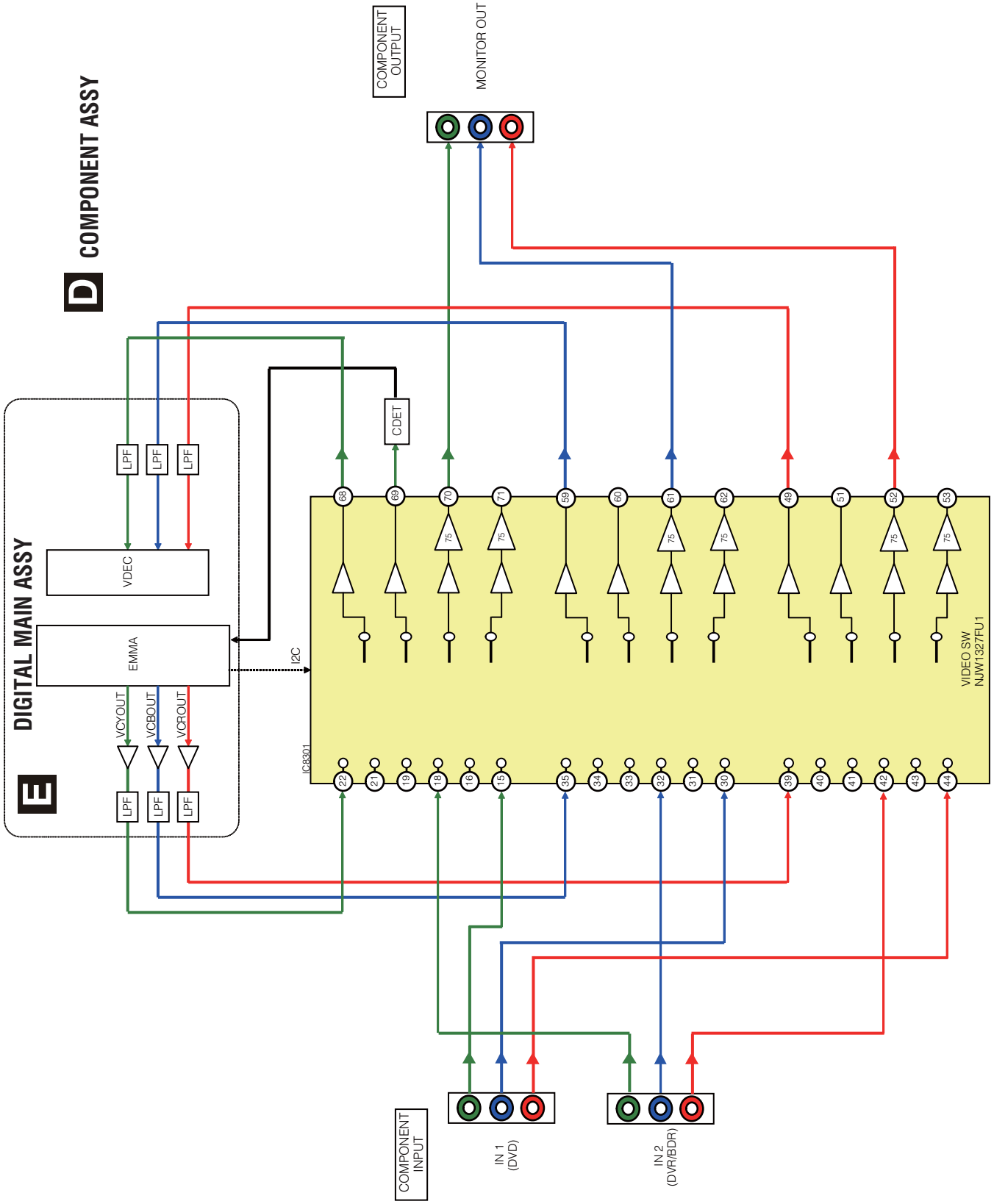
4.4 BLOCK DIAGRAM FOR COMPOSITE VIDEO BLOCK

COMPOSITE VIDEO BLOCK DIAGRAM



4.5 BLOCK DIAGRAM FOR COMPONENT VIDEO BLOCK

COMPONENT VIDEO BLOCK DIAGRAM



A

B

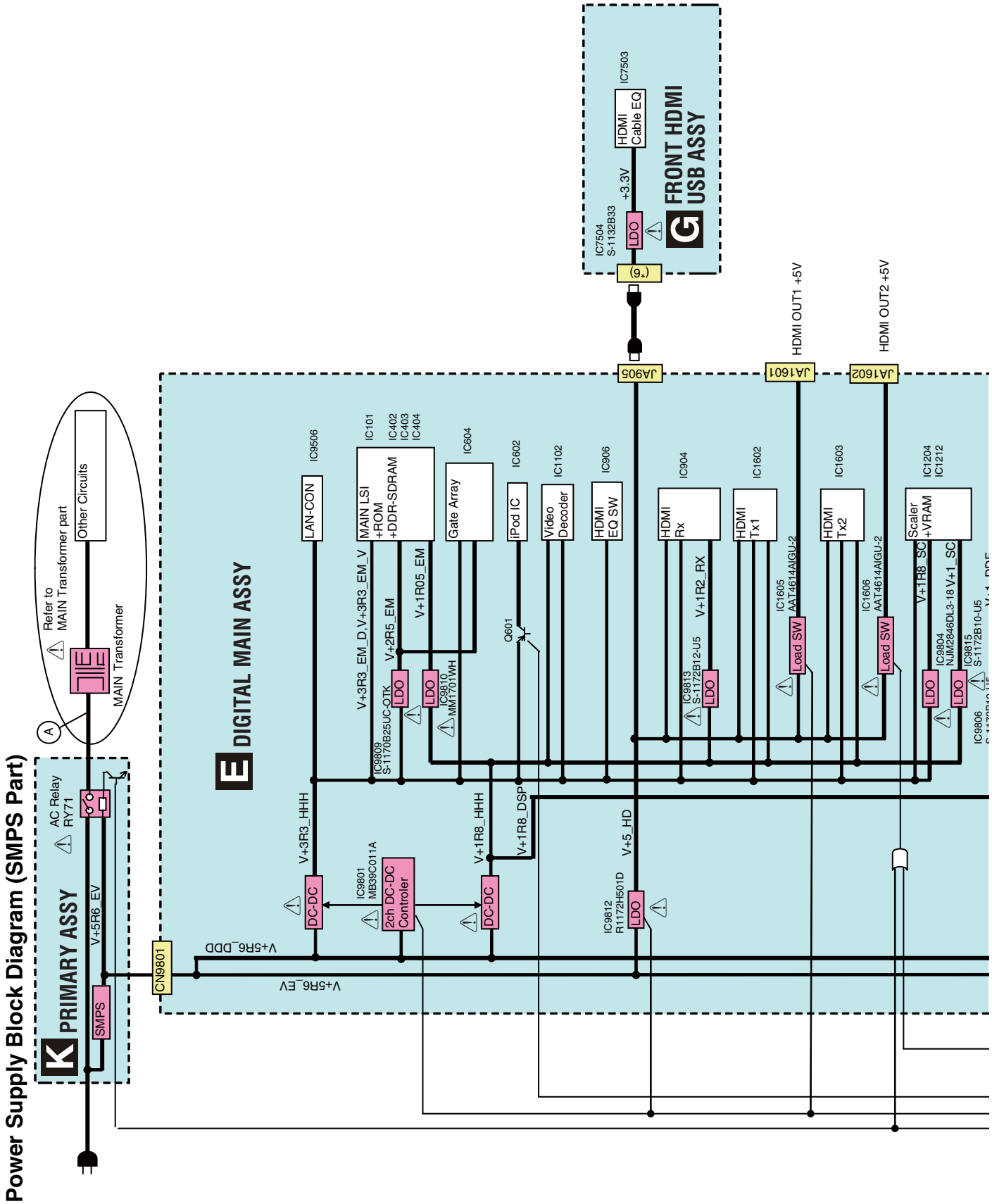
C

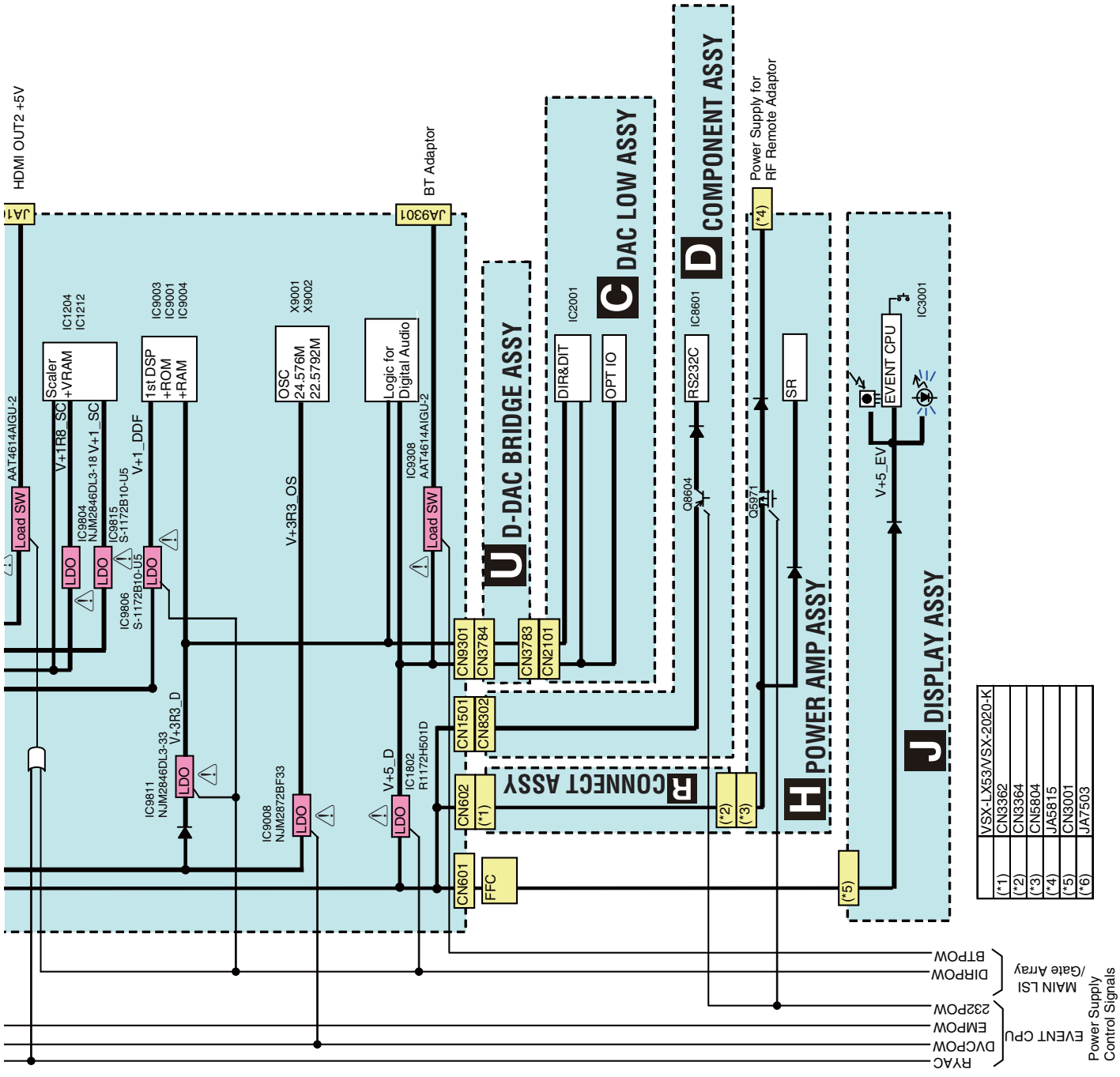
D

E

F

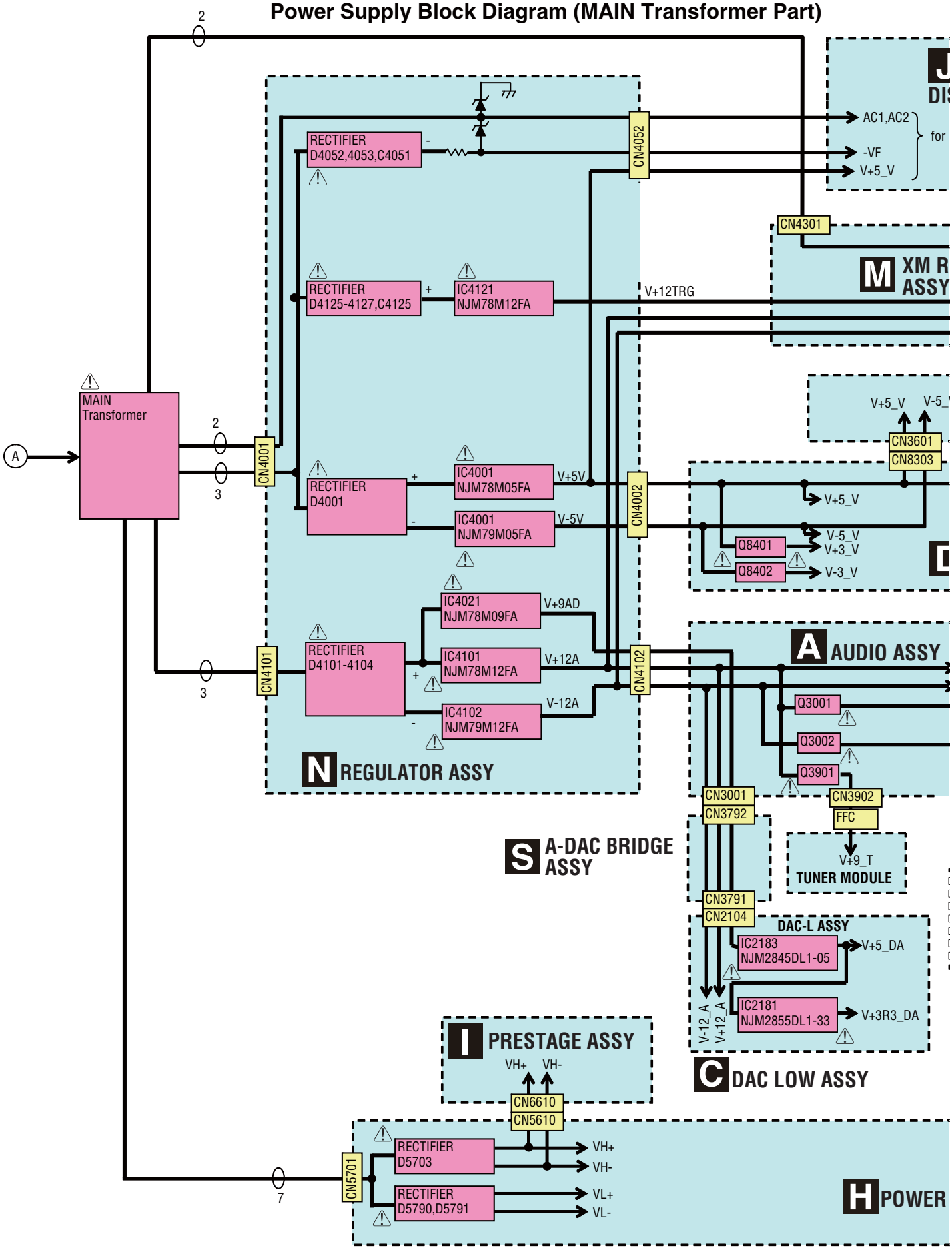
4.6 BLOCK DIAGRAM FOR POWER BLOCK(1)



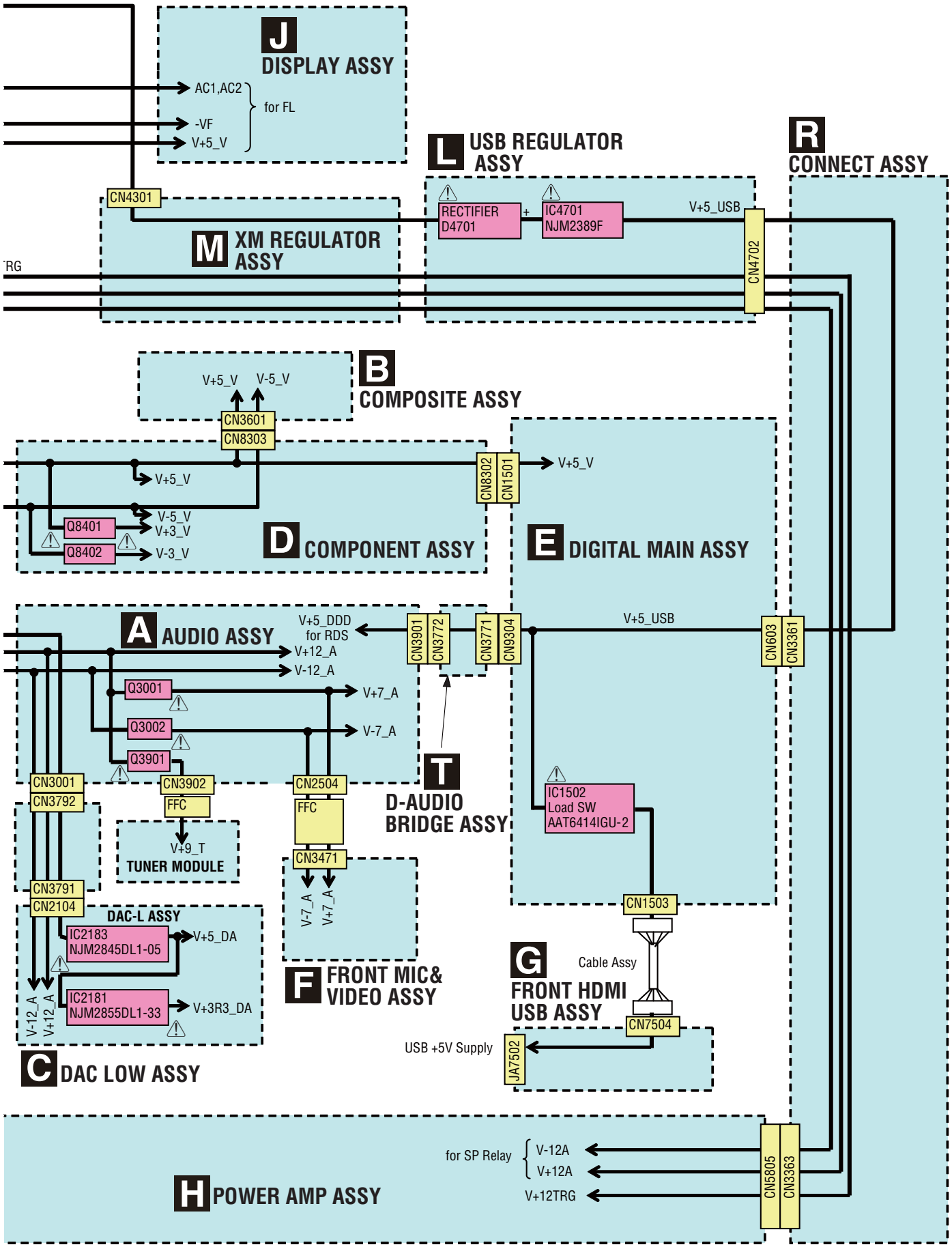

HDMI OUT2 +5V
BT Adaptor
Power Supply for RF Remote Adaptor
D COMPONENT ASSY
C DAC LOW ASSY
U D-DAC BRIDGE ASSY
R CONNECT ASSY
H POWER AMP ASSY
J DISPLAY ASSY
JA9301
Load SW
AAT4614AIGU-2
IC9308
Scaler +VRAM
IC1204 IC1212
V+1R8_SC
V+1_SC
IC9804 NJM2846DL3-18
1st DSP +ROM +RAM
IC9003 IC9001 IC9004
V+1_DDF
IC9815 S-1172B10-U5
IC9806 S-1172B10-U5
OSC 24.576M 22.5792M
X9001 X9002
V+3R3_OS
Logic for Digital Audio
DIR&DIT
IC2001
OPT IO
RS232C
IC8601
Q8604
Q5971
SR
EVENT CPU
IC3001
V+5_EV
LDO
IC9811 NJM2846DL3-33
V+3R3_D
IC9008 NJM2872BF33
V+5_D
IC1802 R1172H501D
CN9301
CN3784
CN3783
CN2101
CN1501
CN8302
CN602
(*1)
(*2)
(*3)
(*4)
(*5)
CN601
FFC
BTPOW
DIRPOW
MAIN LSI /Gate Array
232POW
EMPOW
DVCPOW
RYAC
EVENT CPU
Power Supply Control Signals
VSX-LX53/VSX-2020-K
CN3362
CN3364
CN5804
JA5815
CN3001
JA7503

4.7 BLOCK DIAGRAM FOR POWER BLOCK(2)

Power Supply Block Diagram (MAIN Transformer Part)



nsformer Part)

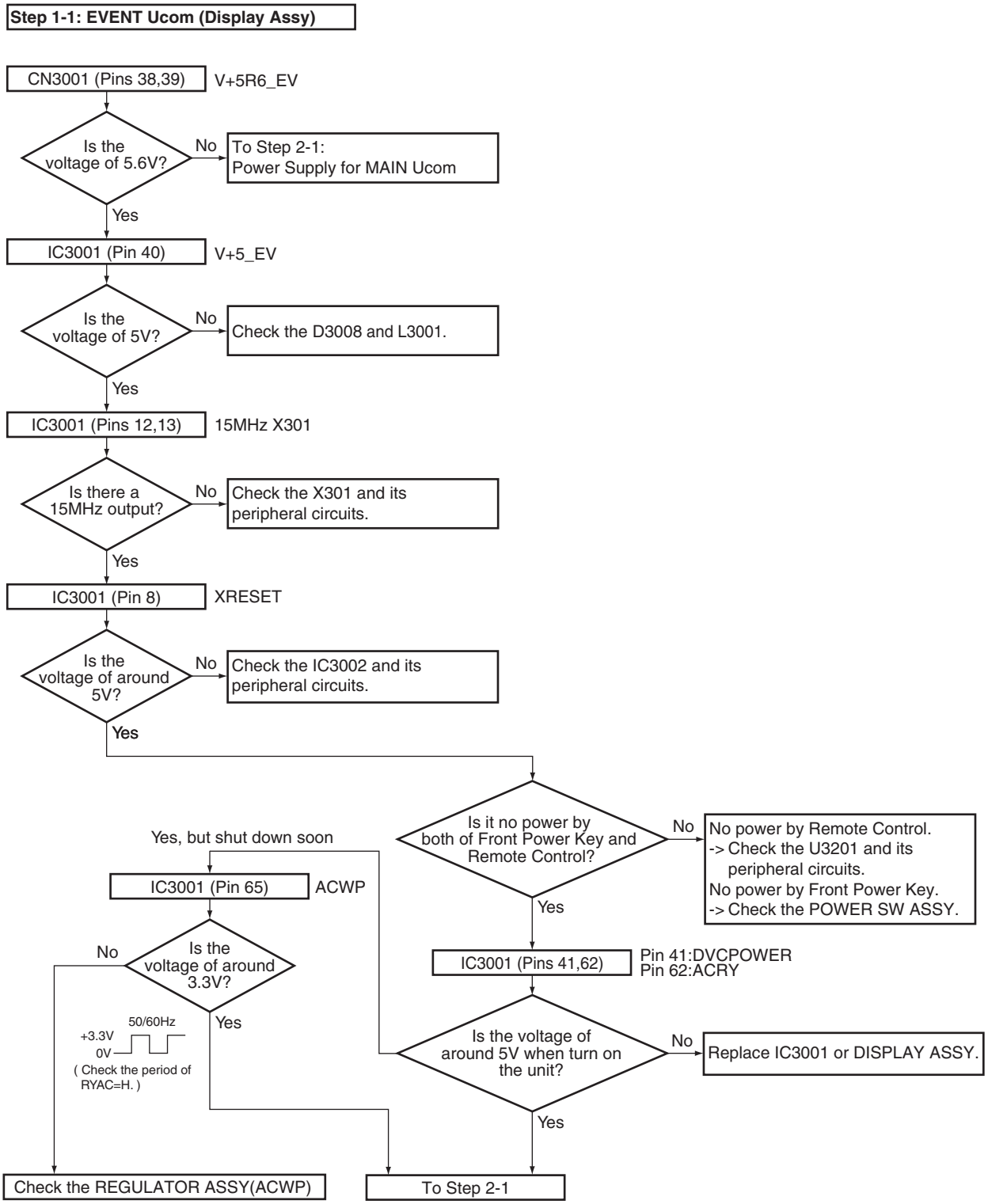


5. DIAGNOSIS
5.1 DIAGNOSIS FLOWCHART

■ COMMON Troubleshooting with "No power problem"

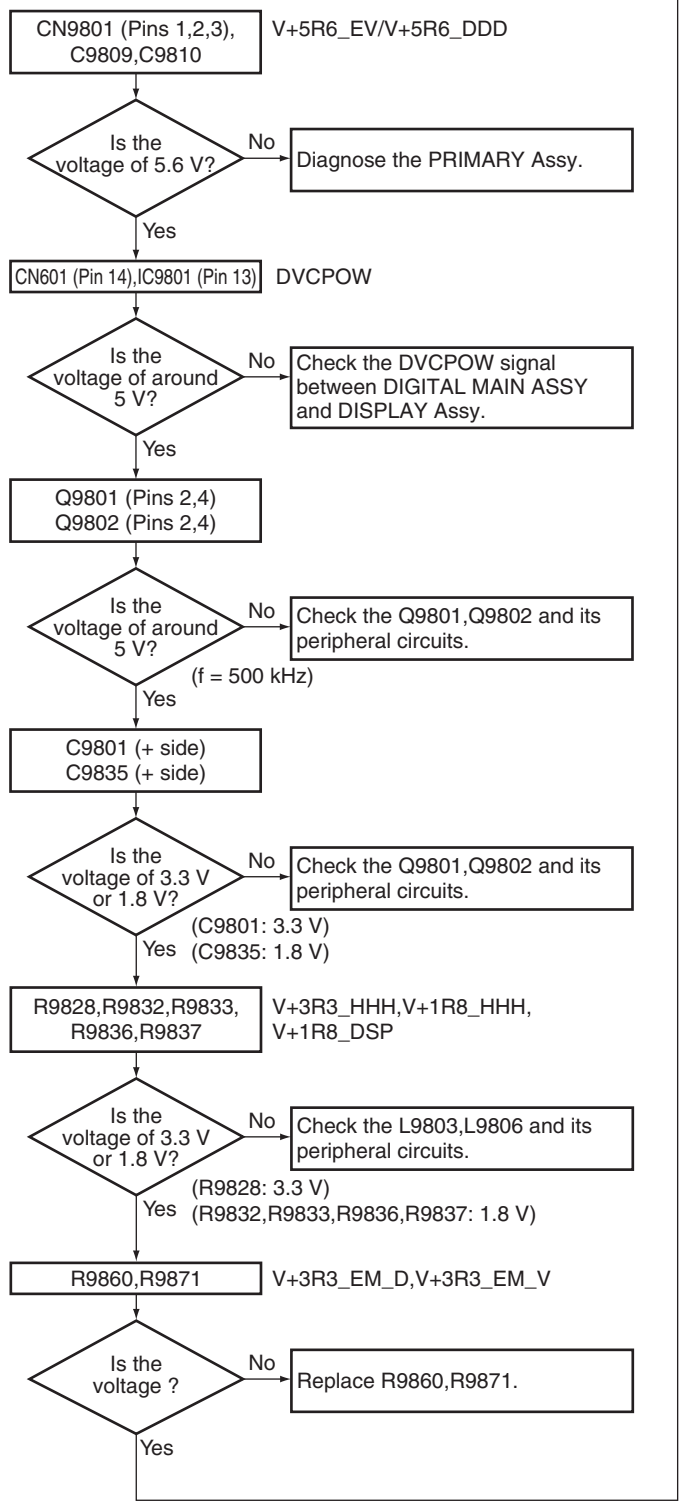
- Please use additional Service Manual (RRV4134) to find out location of component part on any assemblies. The SM is easy to find location of component part to use [Search] function of Acrobat software.

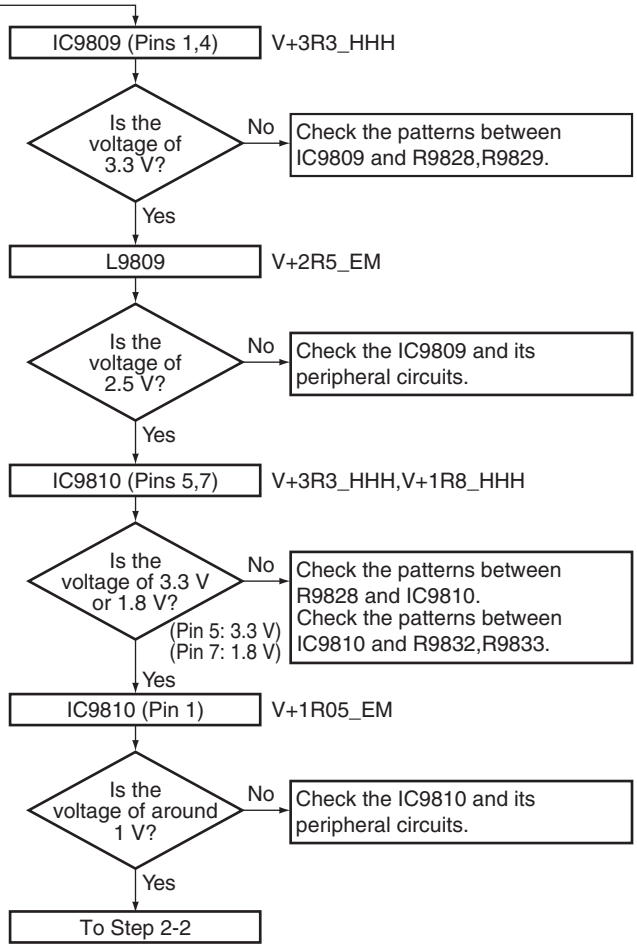
Step 1: EVENT Ucom



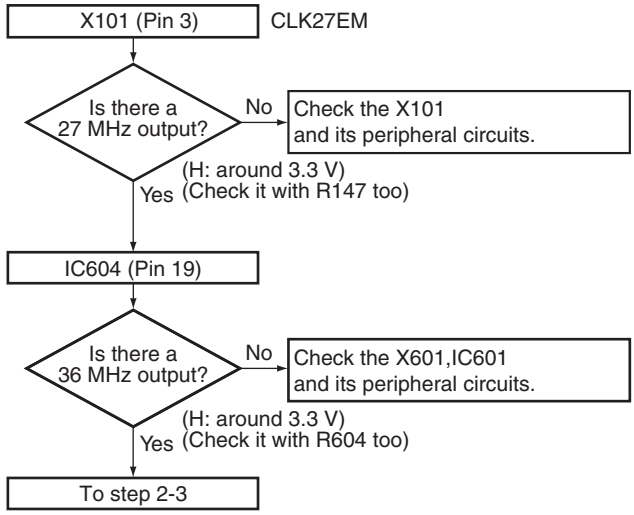
Step 2: MAIN Ucom (EMMA IC)

Step 2-1: POWER SUPPLY for MAIN Ucom

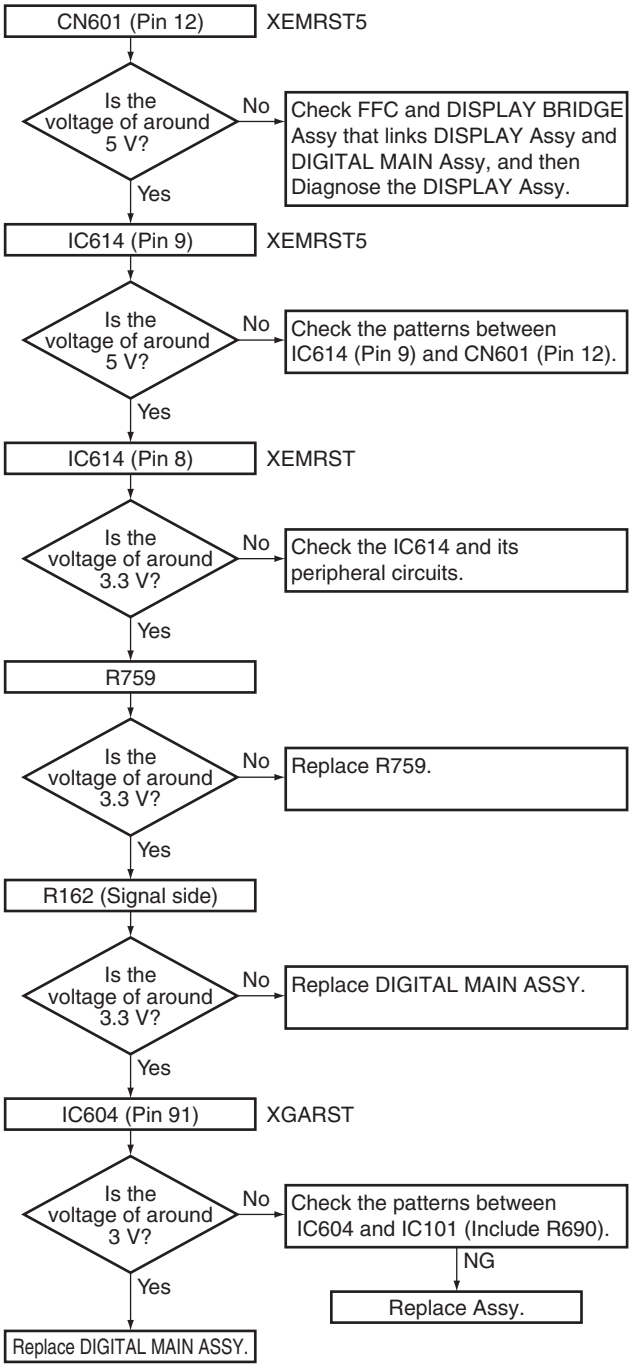




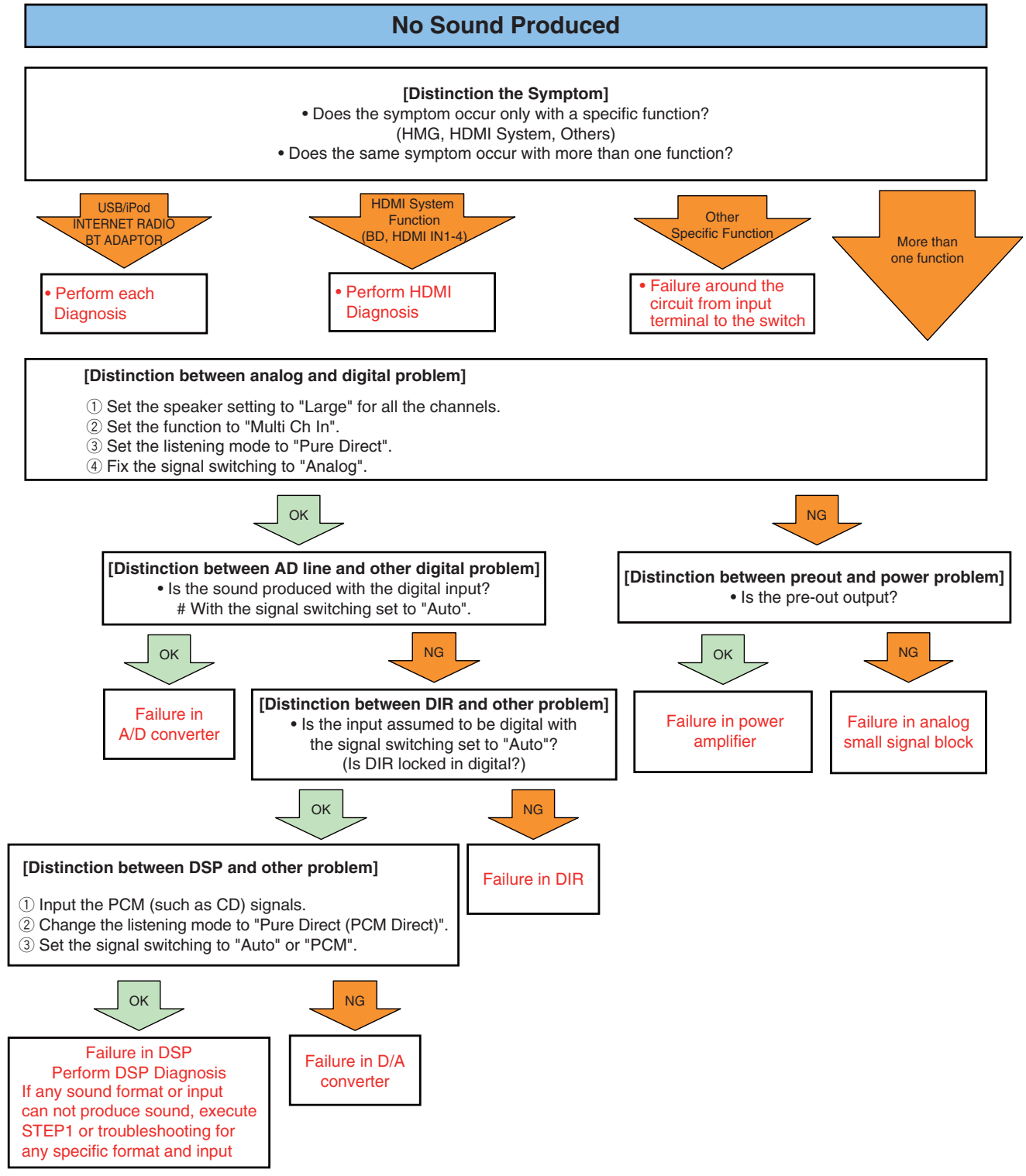
Step 2-2: Xtal for MAIN Ucom



Step 2-3: Reset for MAIN Ucom



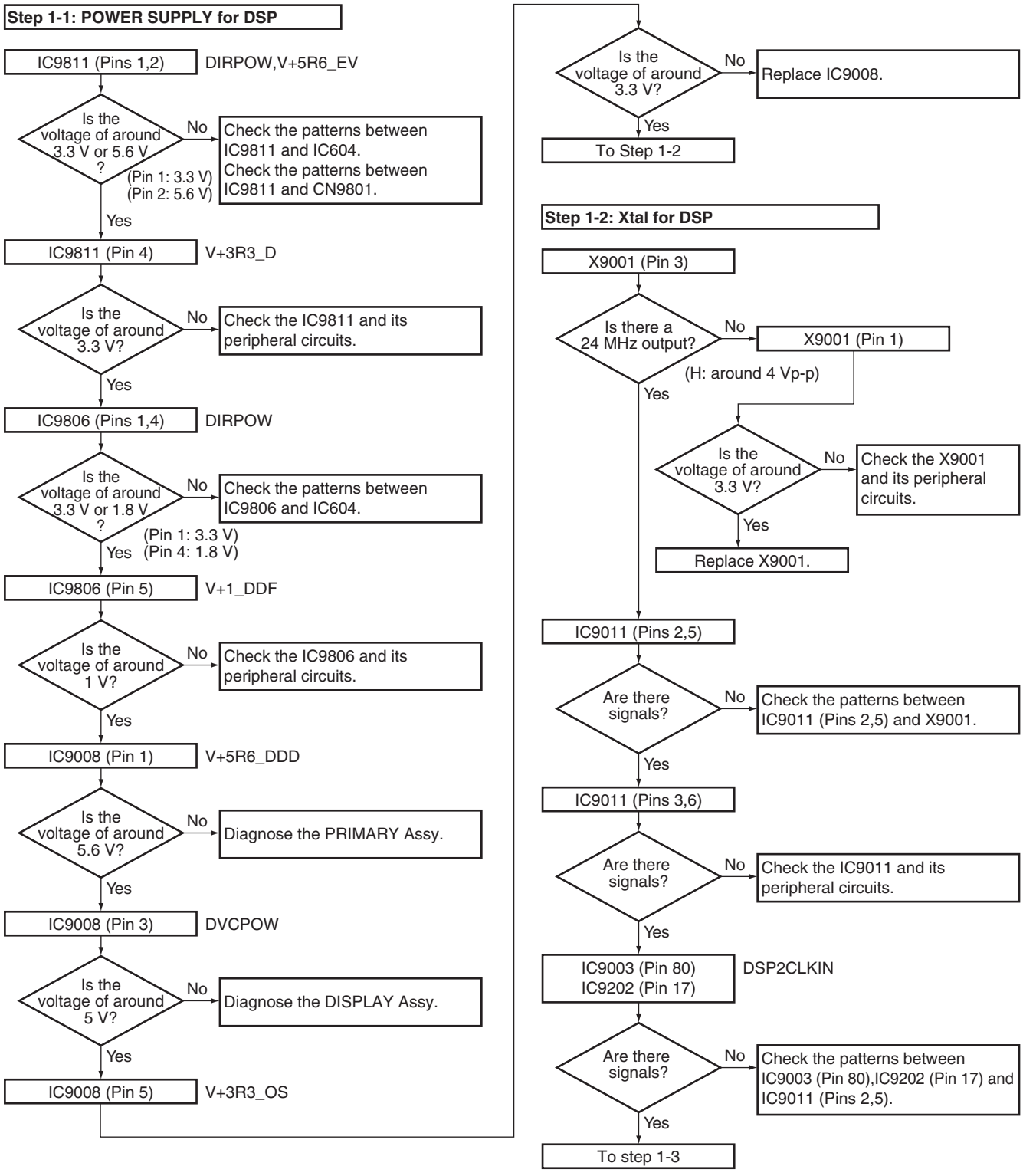
■ Audio Section Troubleshooting



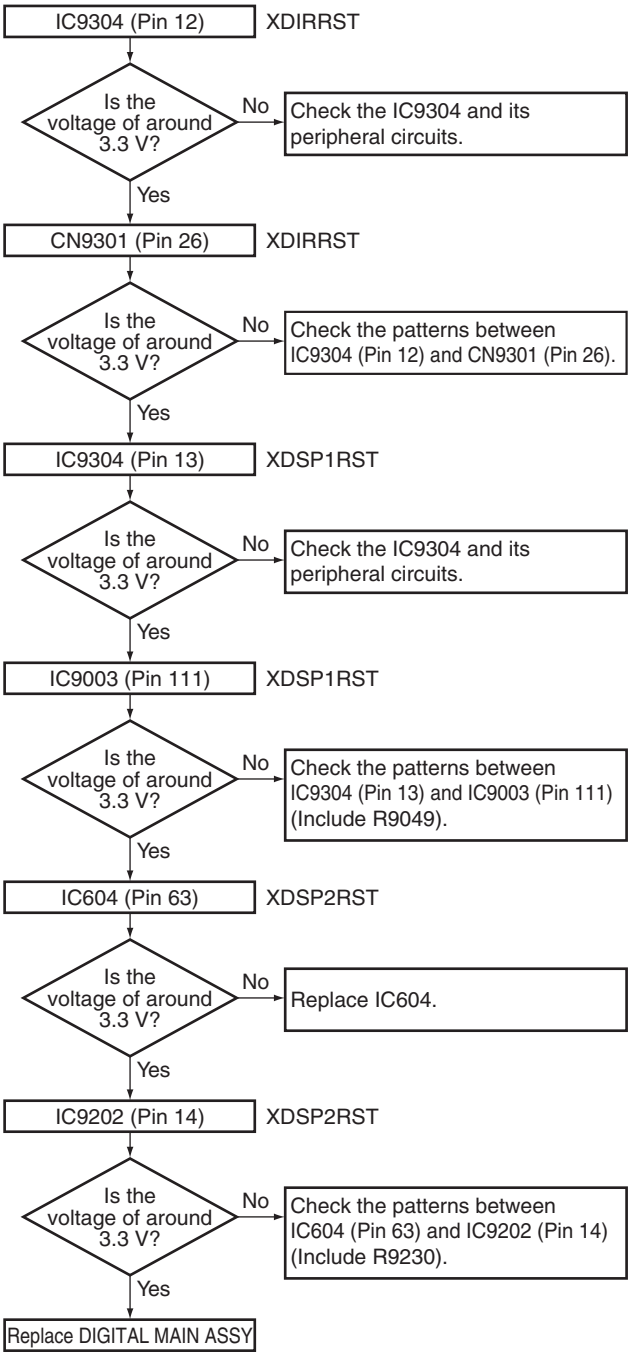
■ DSP&AUDIO Troubleshooting

- Any type of signals have no sound, follow Step 1 to Step 3
- Only spesific type of signal has no sound, follow an appropriate trobleshooting to the symptom.
- The confirmation of peripheral circuits in the flowchart means the checking of the power supply directly at the pin of the IC, the conduction and resistance value check, and the checking of the solder.
- The confirmation of the pattern in the flowchart means the diagnosis including the one for the resistors on the pattern.
- During the diagnosis, pay attention to the switching of output from 2ch to Multi ch by the listening mode of IC9003.

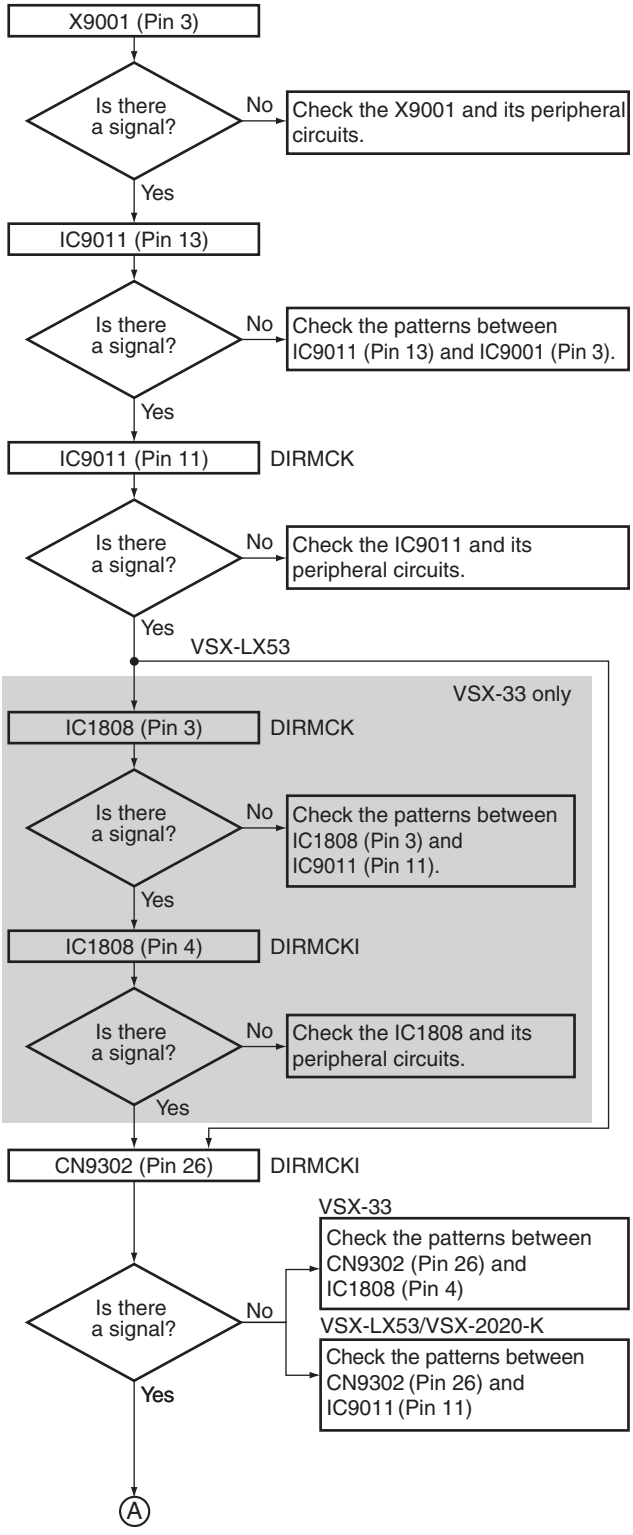
Step 1: DSP/AUDIO

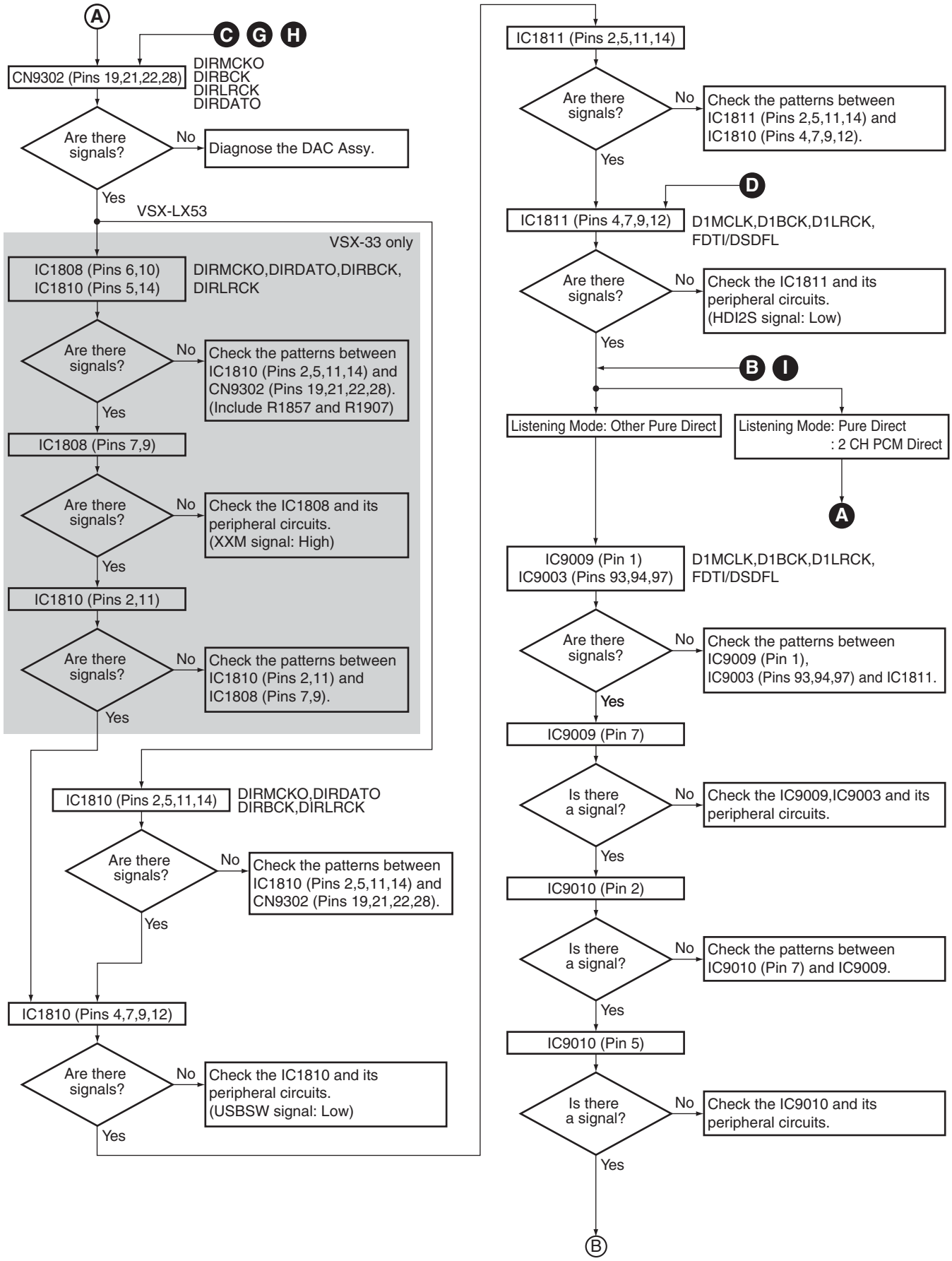


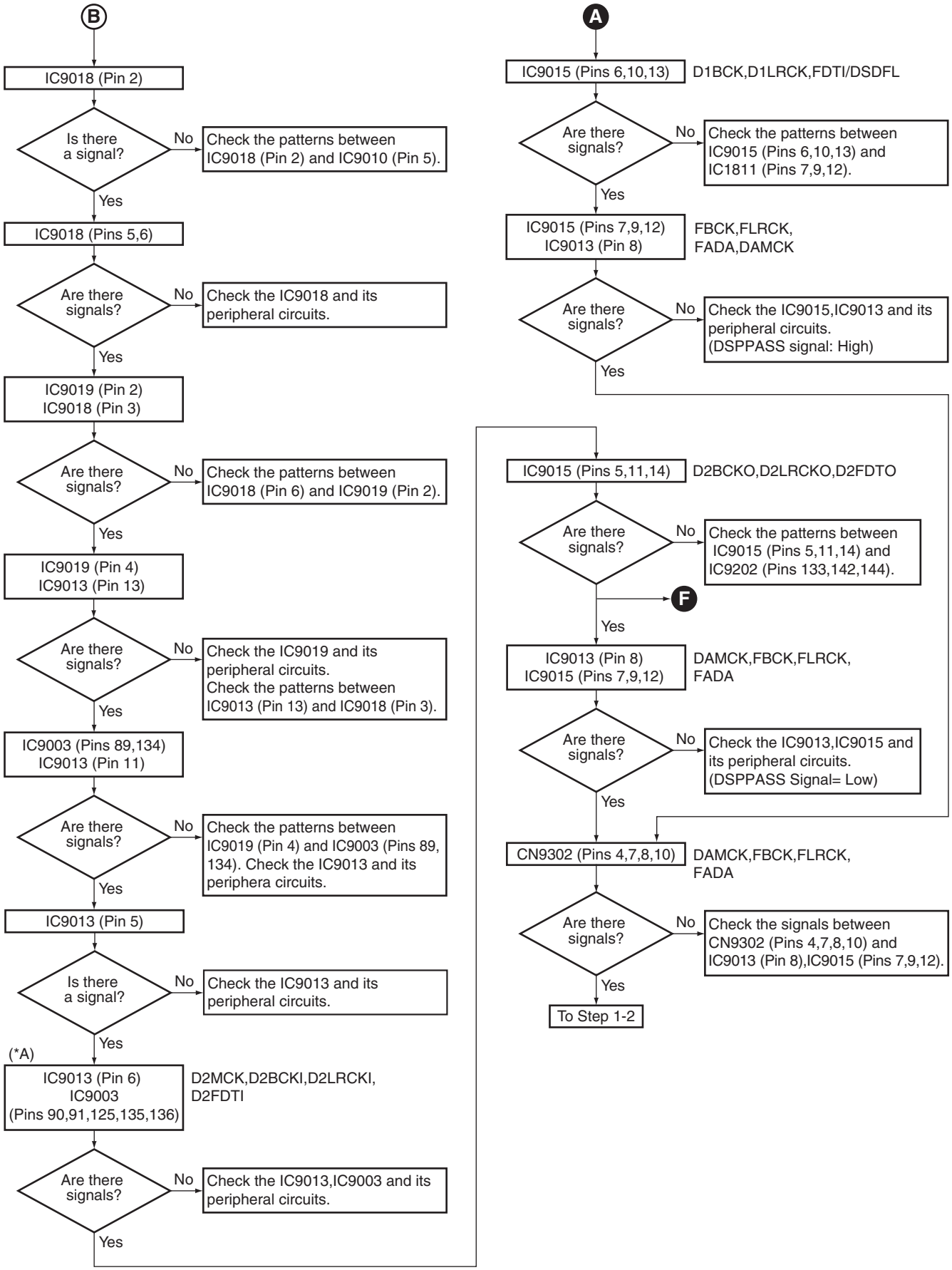
Step 1-3: Reset for DSP



Step 1-4: Coaxial/Optical/AD IN (STEREO)

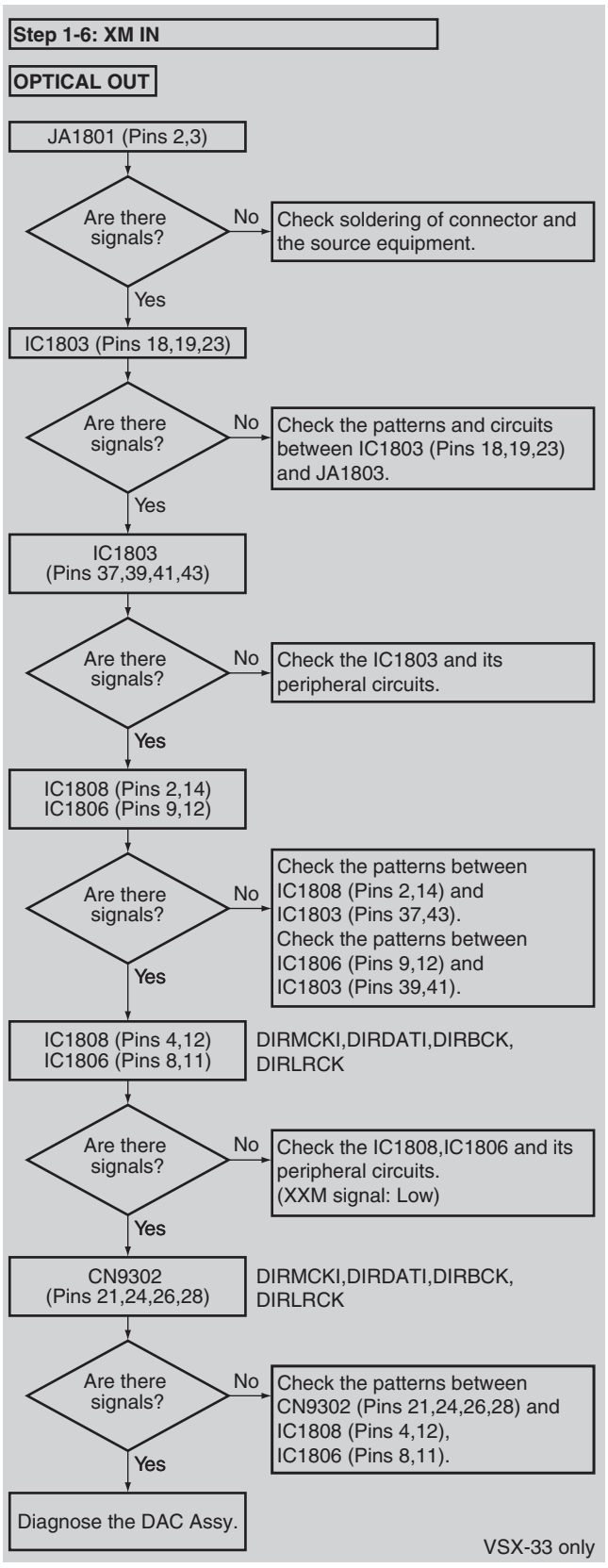


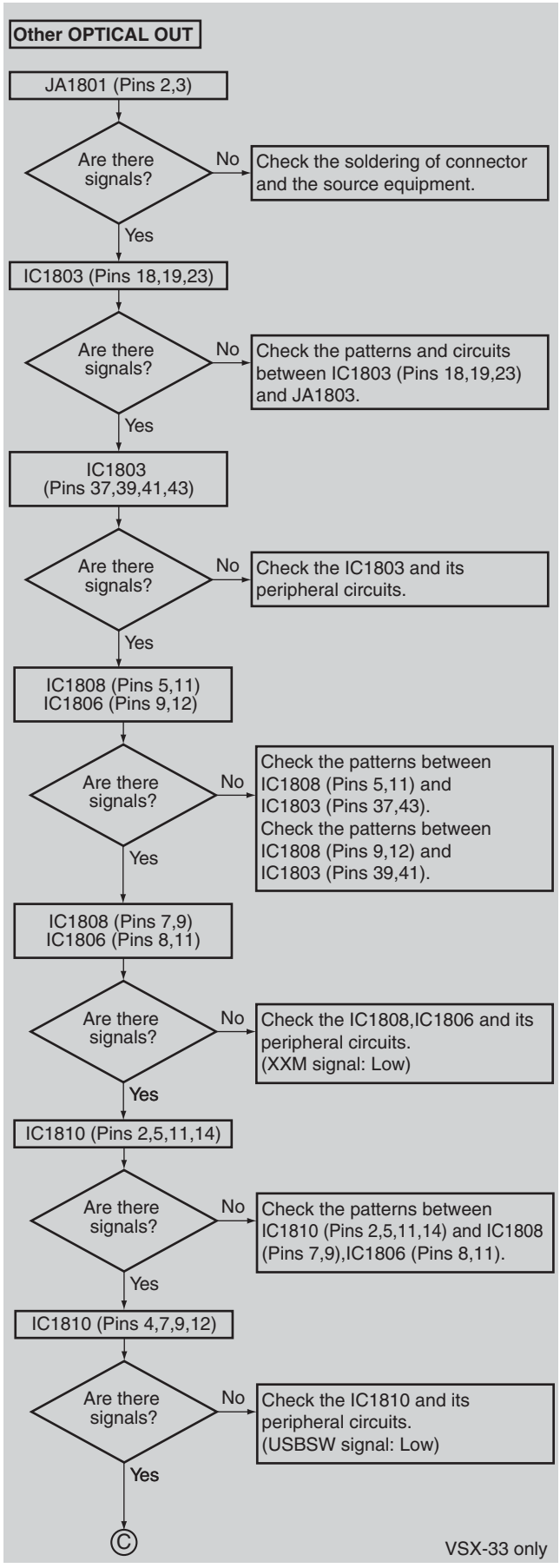

A
C G H
CN9302 (Pins 19,21,22,28)
DIRMCKO
DIRBCK
DIRLRCK
DIRDATO
Are there signals?
No
Diagnose the DAC Assy.
Yes
VSX-LX53
VSX-33 only
IC1808 (Pins 6,10)
IC1810 (Pins 5,14)
DIRMCKO,DIRDATO,DIRBCK,
DIRLRCK
Are there signals?
No
Check the patterns between IC1810 (Pins 2,5,11,14) and CN9302 (Pins 19,21,22,28). (Include R1857 and R1907)
Yes
IC1808 (Pins 7,9)
Are there signals?
No
Check the IC1808 and its peripheral circuits. (XXM signal: High)
Yes
IC1810 (Pins 2,11)
Are there signals?
No
Check the patterns between IC1810 (Pins 2,11) and IC1808 (Pins 7,9).
Yes
IC1810 (Pins 2,5,11,14)
DIRMCKO,DIRDATO
DIRBCK,DIRLRCK
Are there signals?
No
Check the patterns between IC1810 (Pins 2,5,11,14) and CN9302 (Pins 19,21,22,28).
Yes
IC1810 (Pins 4,7,9,12)
Are there signals?
No
Check the IC1810 and its peripheral circuits. (USBSW signal: Low)
Yes
IC1811 (Pins 2,5,11,14)
Are there signals?
No
Check the patterns between IC1811 (Pins 2,5,11,14) and IC1810 (Pins 4,7,9,12).
Yes
D
IC1811 (Pins 4,7,9,12)
D1MCLK,D1BCK,D1LRCK,
FDTI/DSDFL
Are there signals?
No
Check the IC1811 and its peripheral circuits. (HDI2S signal: Low)
Yes
B I
Listening Mode: Other Pure Direct
Listening Mode: Pure Direct : 2 CH PCM Direct
A
IC9009 (Pin 1)
IC9003 (Pins 93,94,97)
D1MCLK,D1BCK,D1LRCK,
FDTI/DSDFL
Are there signals?
No
Check the patterns between IC9009 (Pin 1), IC9003 (Pins 93,94,97) and IC1811.
Yes
IC9009 (Pin 7)
Is there a signal?
No
Check the IC9009,IC9003 and its peripheral circuits.
Yes
IC9010 (Pin 2)
Is there a signal?
No
Check the patterns between IC9010 (Pin 7) and IC9009.
Yes
IC9010 (Pin 5)
Is there a signal?
No
Check the IC9010 and its peripheral circuits.
Yes
B

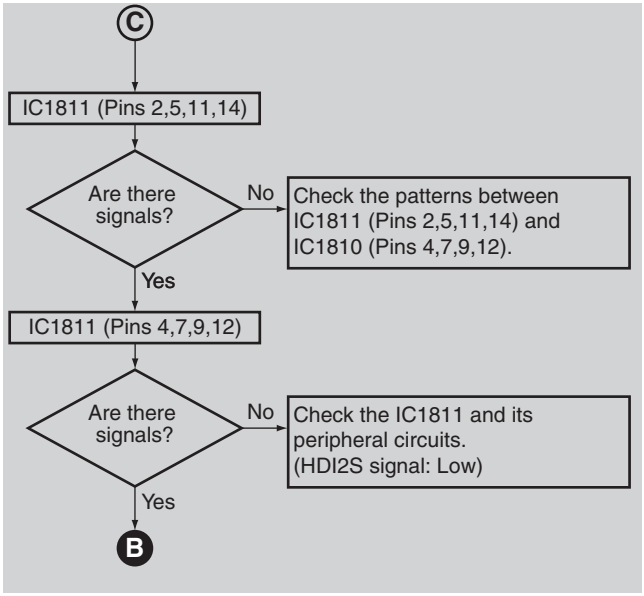

B
IC9018 (Pin 2)
Is there a signal?
No
Check the patterns between IC9018 (Pin 2) and IC9010 (Pin 5).
Yes
IC9018 (Pins 5,6)
Are there signals?
No
Check the IC9018 and its peripheral circuits.
Yes
IC9019 (Pin 2)
IC9018 (Pin 3)
Are there signals?
No
Check the patterns between IC9018 (Pin 6) and IC9019 (Pin 2).
Yes
IC9019 (Pin 4)
IC9013 (Pin 13)
Are there signals?
No
Check the IC9019 and its peripheral circuits.
Check the patterns between IC9013 (Pin 13) and IC9018 (Pin 3).
Yes
IC9003 (Pins 89,134)
IC9013 (Pin 11)
Are there signals?
No
Check the patterns between IC9019 (Pin 4) and IC9003 (Pins 89, 134). Check the IC9013 and its peripheral circuits.
Yes
IC9013 (Pin 5)
Is there a signal?
No
Check the IC9013 and its peripheral circuits.
Yes
(*A)
IC9013 (Pin 6)
IC9003
(Pins 90,91,125,135,136)
D2MCK,D2BCKI,D2LRCKI,
D2FDTI
Are there signals?
No
Check the IC9013,IC9003 and its peripheral circuits.
Yes
A
IC9015 (Pins 6,10,13)
D1BCK,D1LRCK,FDTI/DSDFL
Are there signals?
No
Check the patterns between IC9015 (Pins 6,10,13) and IC1811 (Pins 7,9,12).
Yes
IC9015 (Pins 7,9,12)
IC9013 (Pin 8)
FBCK,FLRCK,
FADA,DAMCK
Are there signals?
No
Check the IC9015,IC9013 and its peripheral circuits.
(DSPPASS signal: High)
Yes
IC9015 (Pins 5,11,14)
D2BCKO,D2LRCKO,D2FDTO
Are there signals?
No
Check the patterns between IC9015 (Pins 5,11,14) and IC9202 (Pins 133,142,144).
F
Yes
IC9013 (Pin 8)
IC9015 (Pins 7,9,12)
DAMCK,FBCK,FLRCK,
FADA
Are there signals?
No
Check the IC9013,IC9015 and its peripheral circuits.
(DSPPASS Signal= Low)
Yes
CN9302 (Pins 4,7,8,10)
DAMCK,FBCK,FLRCK,
FADA
Are there signals?
No
Check the signals between CN9302 (Pins 4,7,8,10) and IC9013 (Pin 8),IC9015 (Pins 7,9,12).
Yes
To Step 1-2

Step 1-5: Multi CH SOURCE INPUT (compression system such as DTS and Dolby)

Diagnose D2CDTI, D2SDTI, and D2BDTI additionally in the step 1-4*A. For the following steps, diagnose the center, surround and surround back ch additionally in a same way.



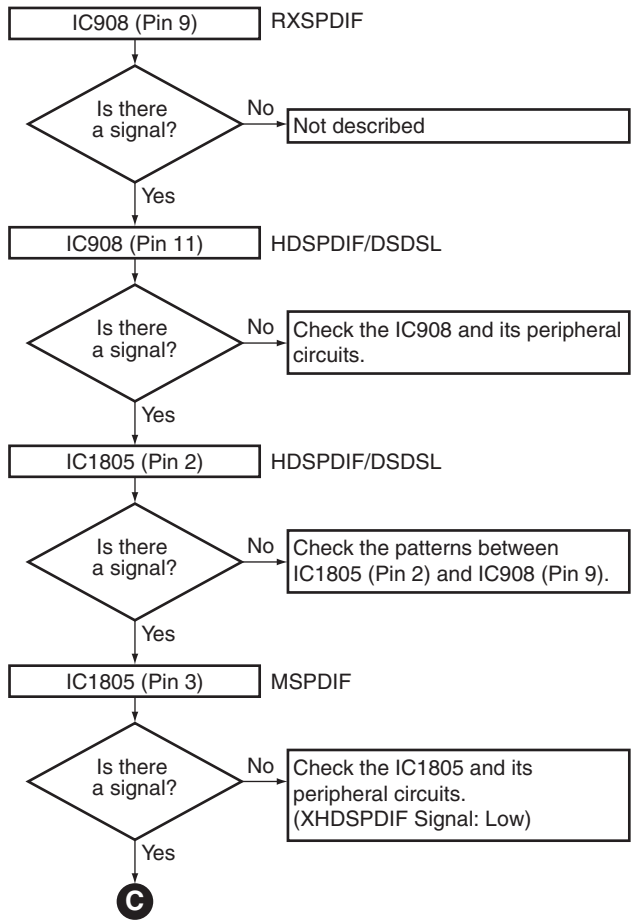




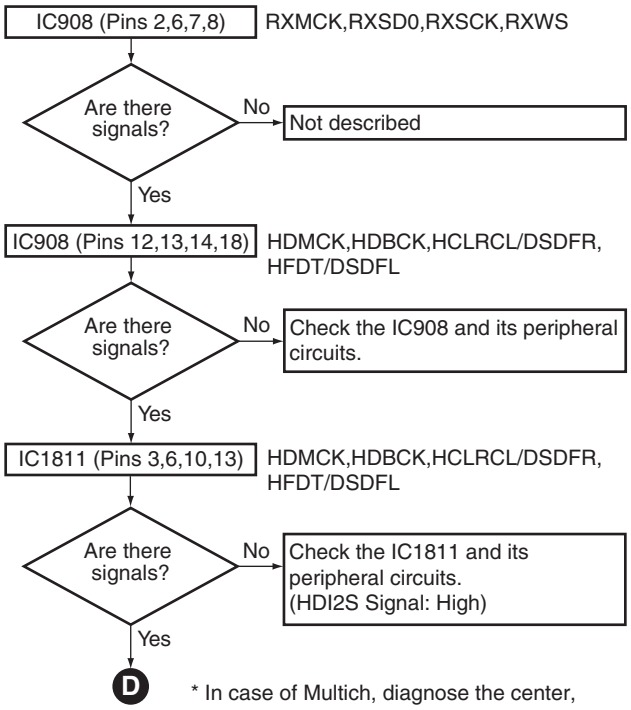
Step 1-7: HDMI

Refer to additional document "Condition of SPDIF or I2S Output Selection " which shows what type of format has SPDIF or I2S signals.

SPDIF

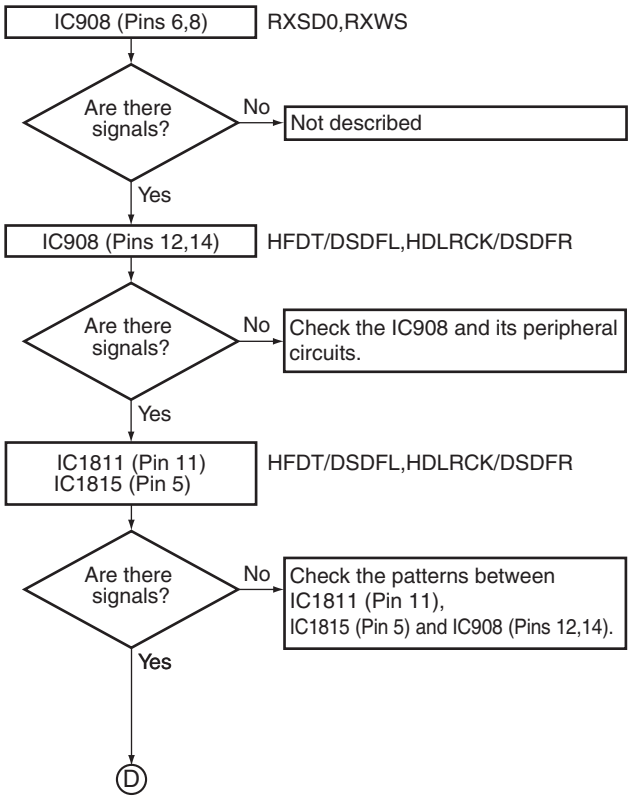


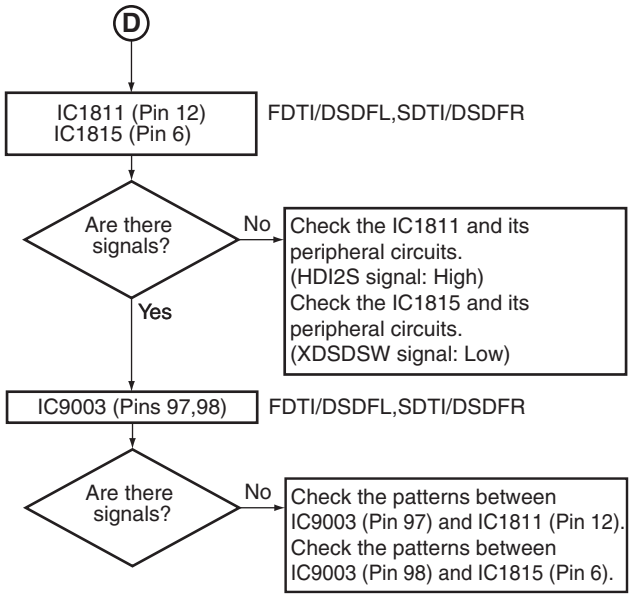
2ch I2S



* In case of Multich, diagnose the center, surround and surround back in addition to front.

2ch DSD

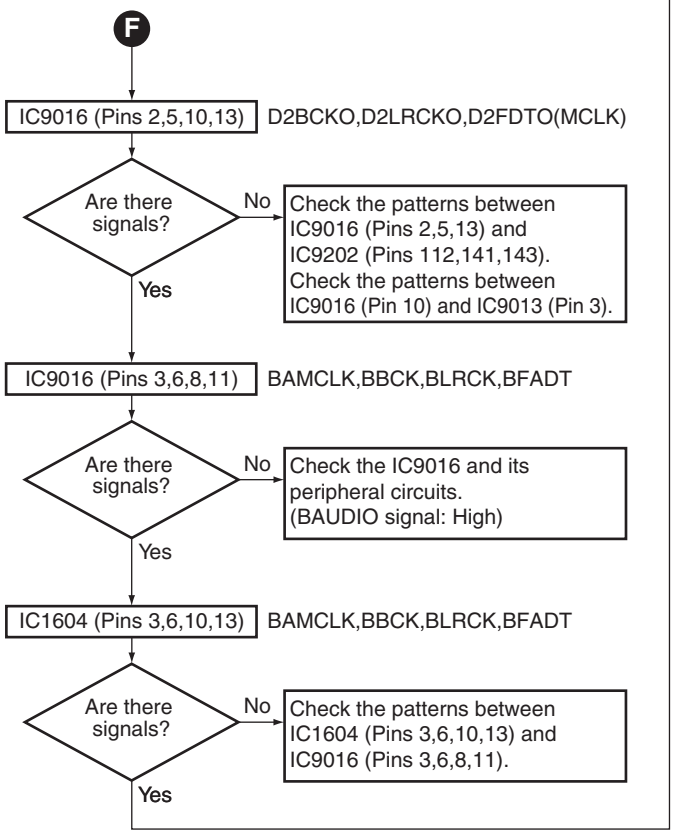


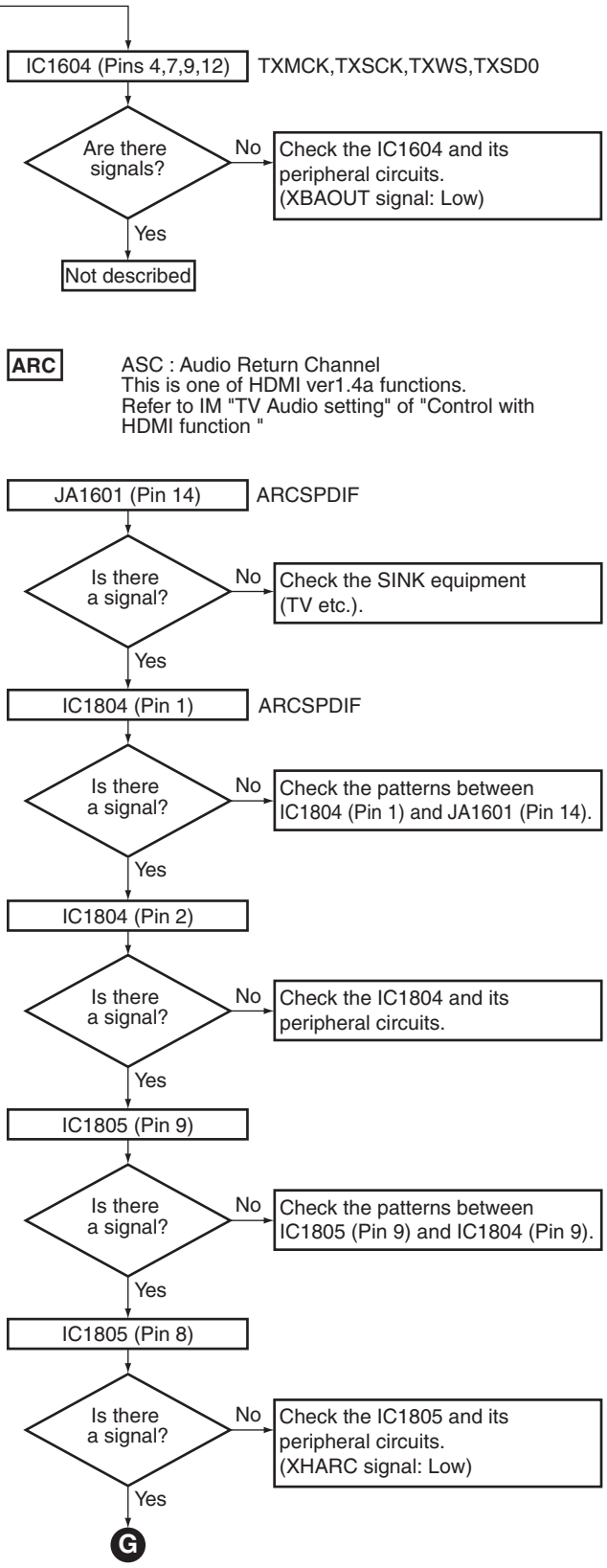


* In case of Multich, diagnose the center, surround and surround back in addition to front.

BASIC AUDIO (2ch LPCM fs = 44.1 kHz,48 kHz)

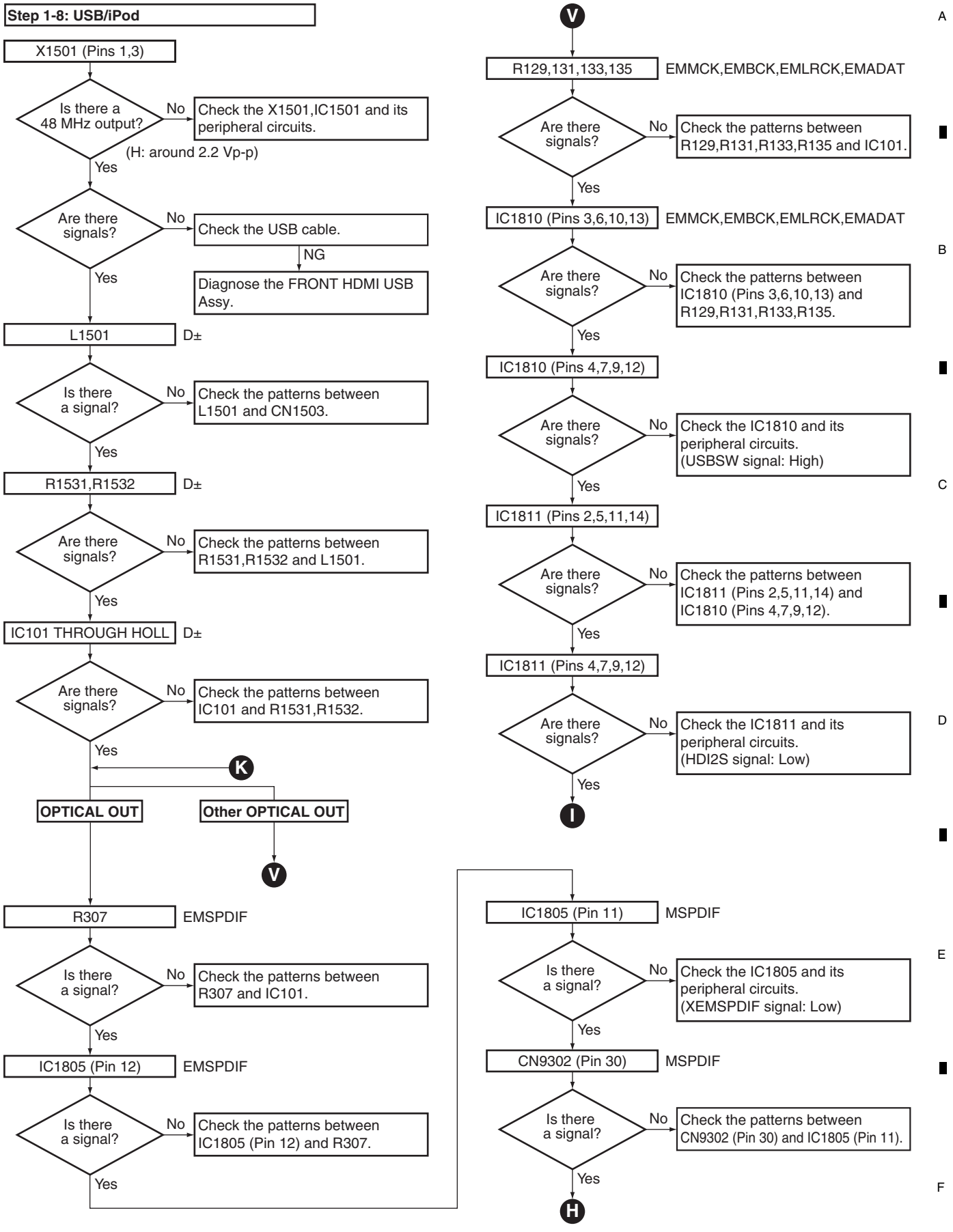
Diagnose SPDIF or 2ch I2S and make following diagnoses after the Step1-4Ⓕ or later.



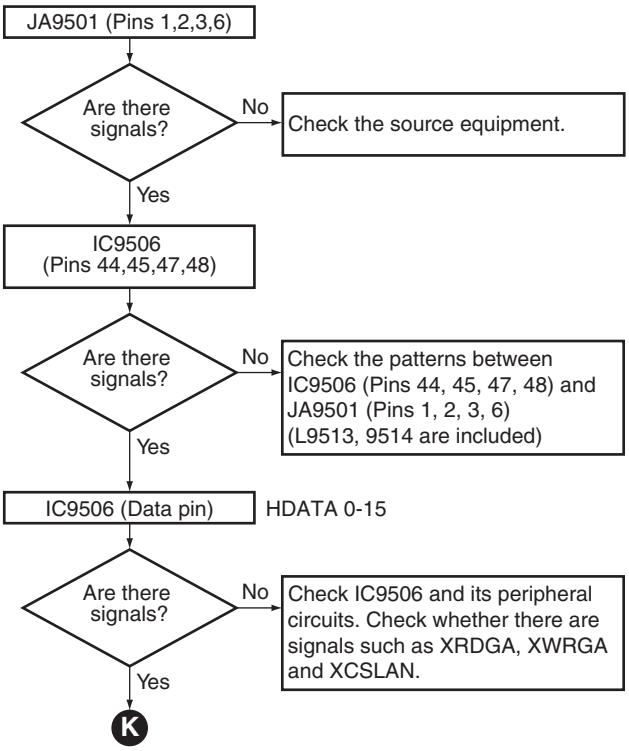


ARC

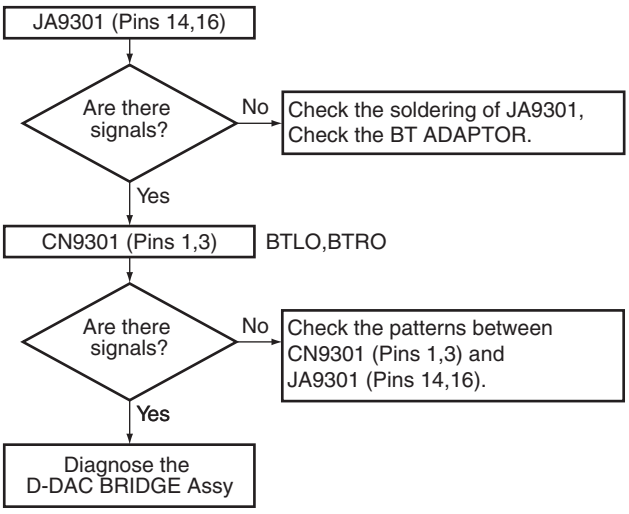
ASC : Audio Return Channel
This is one of HDMI ver1.4a functions.
Refer to IM "TV Audio setting" of "Control with HDMI function "


Step 1-8: USB/iPod
X1501 (Pins 1,3)
Is there a 48 MHz output?
No
Check the X1501,IC1501 and its peripheral circuits.
(H: around 2.2 Vp-p)
Yes
Are there signals?
No
Check the USB cable.
NG
Diagnose the FRONT HDMI USB Assy.
Yes
L1501
D±
Is there a signal?
No
Check the patterns between L1501 and CN1503.
Yes
R1531,R1532
D±
Are there signals?
No
Check the patterns between R1531,R1532 and L1501.
Yes
IC101 THROUGH HOLL
D±
Are there signals?
No
Check the patterns between IC101 and R1531,R1532.
Yes
K
OPTICAL OUT
Other OPTICAL OUT
V
R307
EMSPDIF
Is there a signal?
No
Check the patterns between R307 and IC101.
Yes
IC1805 (Pin 12)
EMSPDIF
Is there a signal?
No
Check the patterns between IC1805 (Pin 12) and R307.
Yes
V
R129,131,133,135
EMMCK,EMBCK,EMLRCK,EMADAT
Are there signals?
No
Check the patterns between R129,R131,R133,R135 and IC101.
Yes
IC1810 (Pins 3,6,10,13)
EMMCK,EMBCK,EMLRCK,EMADAT
Are there signals?
No
Check the patterns between IC1810 (Pins 3,6,10,13) and R129,R131,R133,R135.
Yes
IC1810 (Pins 4,7,9,12)
Are there signals?
No
Check the IC1810 and its peripheral circuits.
(USBSW signal: High)
Yes
IC1811 (Pins 2,5,11,14)
Are there signals?
No
Check the patterns between IC1811 (Pins 2,5,11,14) and IC1810 (Pins 4,7,9,12).
Yes
IC1811 (Pins 4,7,9,12)
Are there signals?
No
Check the IC1811 and its peripheral circuits.
(HDI2S signal: Low)
Yes
I
IC1805 (Pin 11)
MSPDIF
Is there a signal?
No
Check the IC1805 and its peripheral circuits.
(XEMSPDIF signal: Low)
Yes
CN9302 (Pin 30)
MSPDIF
Is there a signal?
No
Check the patterns between CN9302 (Pin 30) and IC1805 (Pin 11).
Yes
H

Step 1-9: INTERNET RADIO

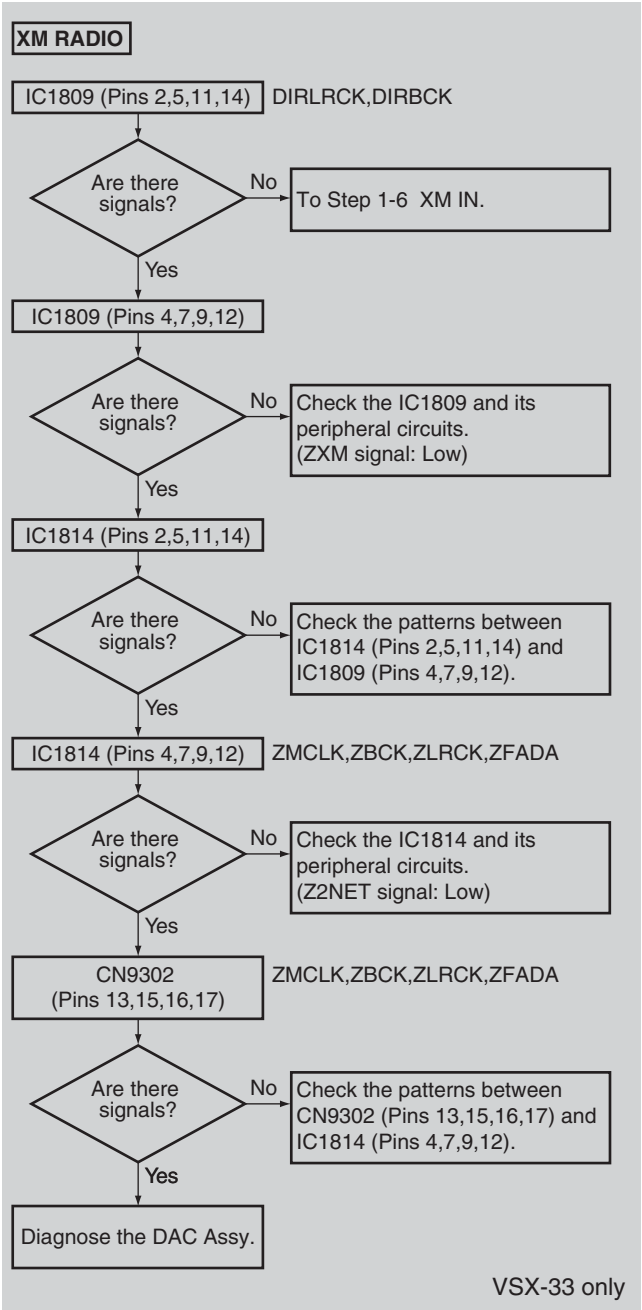


Step 1-10: ADAPTOR PORT (BLUETOOTH)

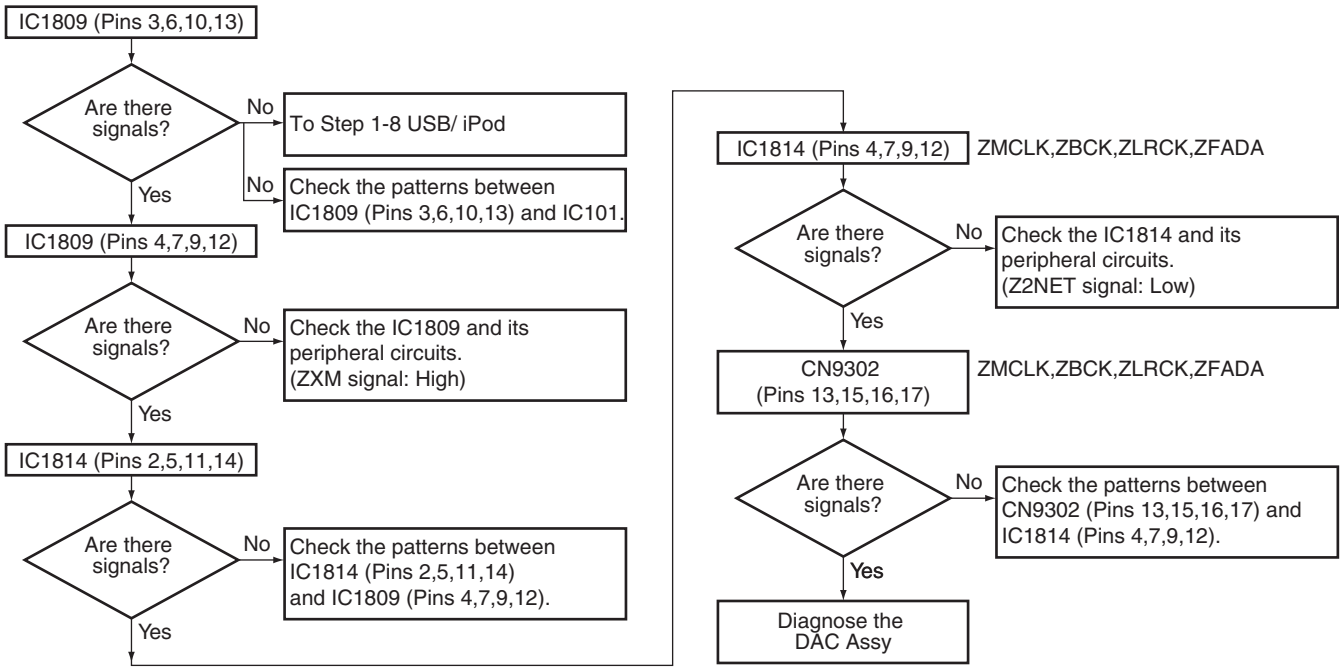


Step 1-11: ZONE (XM RADIO(VSX-33 only),USB/iPod)

* The sound should be properly output in MAIN room.



USB/iPod



Condition of SPDIF or I2S output selection (HDMI transmission)

Cannot be distinguished

PCM	fs(kHz)	Layout	SPDIF	I2S(3Line)
Compression. DVD-V	48	2ch	o	×
Compression.*.WAV	44	2ch	o	×
	48	2ch	o	×
dts-CD	44	2ch	o	×
PCM	44	2ch	o	×
	48	2ch	o	×
DVD-V	96	2ch	×	o
LPCM	44	2ch	o	o
		Multi	×	o
	48	2ch	o	o
		Multi	×	o
	88	2ch	×	o
		Multi	×	o
DVD-A	96	2ch	×	o
		Multi	×	o
	176	2ch	×	o
		Multi	-	-
	192	2ch	×	o
		Multi	-	-

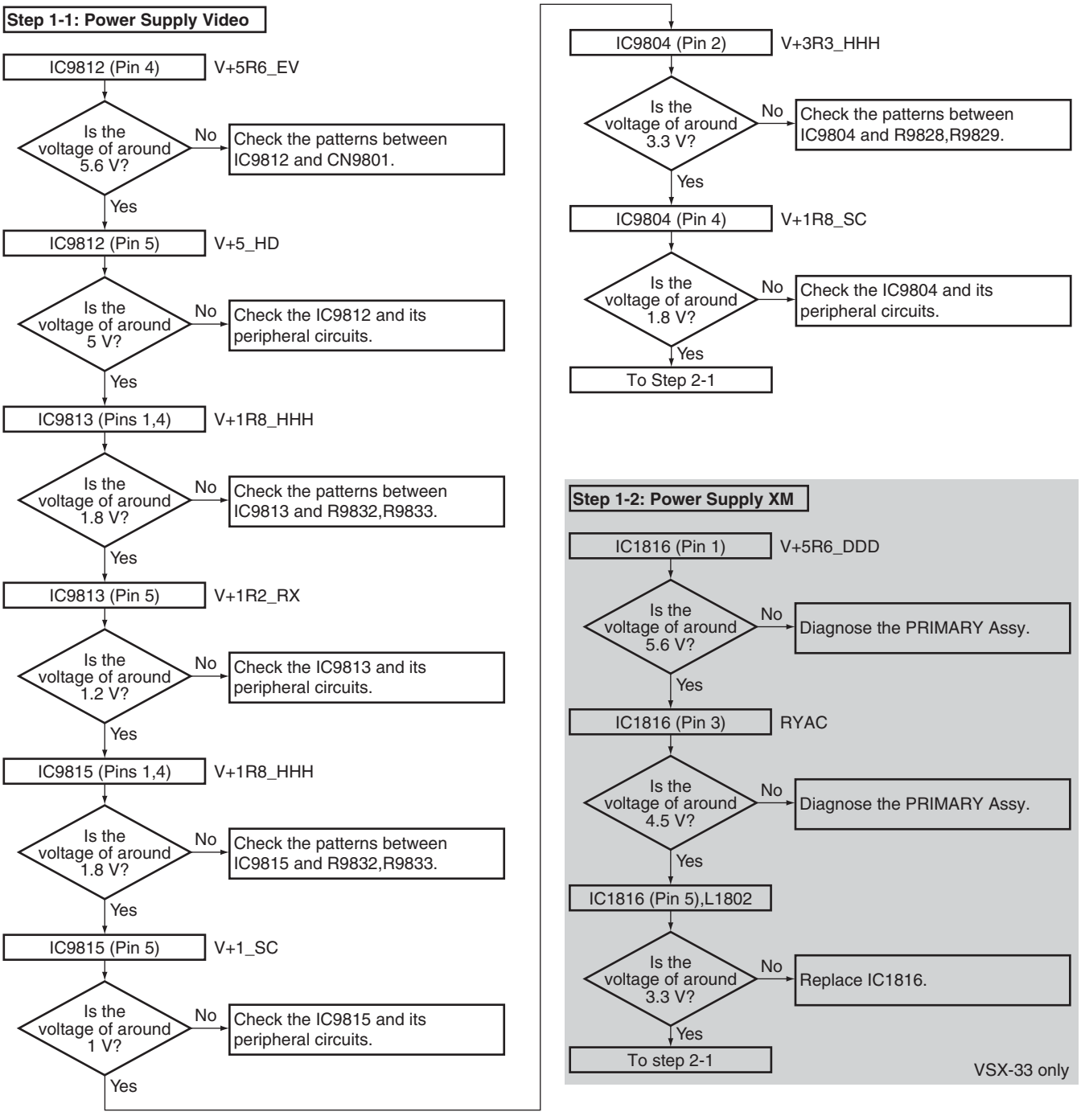
SACD	2ch	×	o	(DSD)
	Multi	×	o	(DSD)

dts HD Master Audio	×	o
dts HD High Resolution Audio	o	×
dts HD LBR	o	×
Dolby TrueHD	×	o
Dolby Digital Plus	o	×

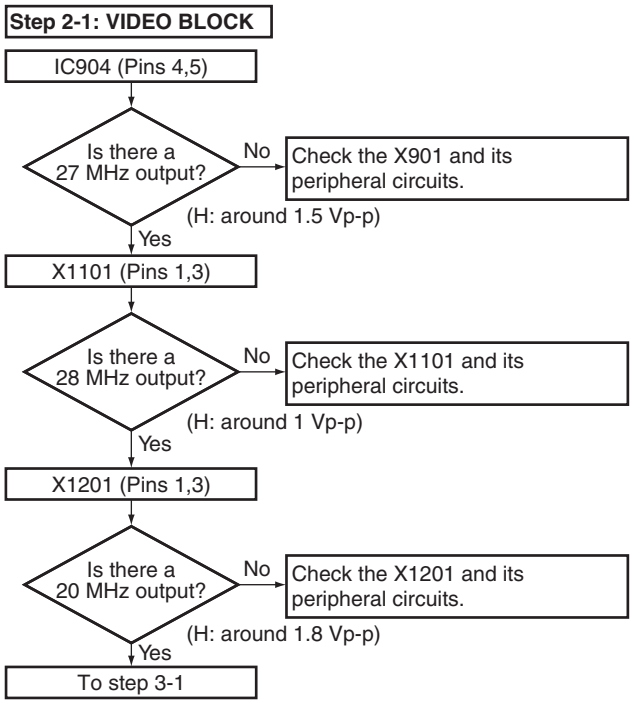
■ VIDEO Troubleshooting

- If HDMI video signal does not output from HDMI OUT 1 or 2, but HOME MENU OSD can be displayed, go to Step 4-1 or 4-2.
- If an analog video signal does not output from analog video output even though Video Convertor function is turnning off, do not follow this trobleshooting, check analog input and output lines on COMPONENT ASSY or COMPOSITE ASSY. (In this case, type of input video signal and output video signal should be same. eg: IN:Composite OUT: Composite)
- The confirmation of peripheral circuits in the flowchart means the checking of the power supply directly at the pin of the IC, the conduction and resistance value check, and the checking of the solder.
- The confirmation of the pattern in the flowchart means the diagnosis including the one for the resistors on the pattern.

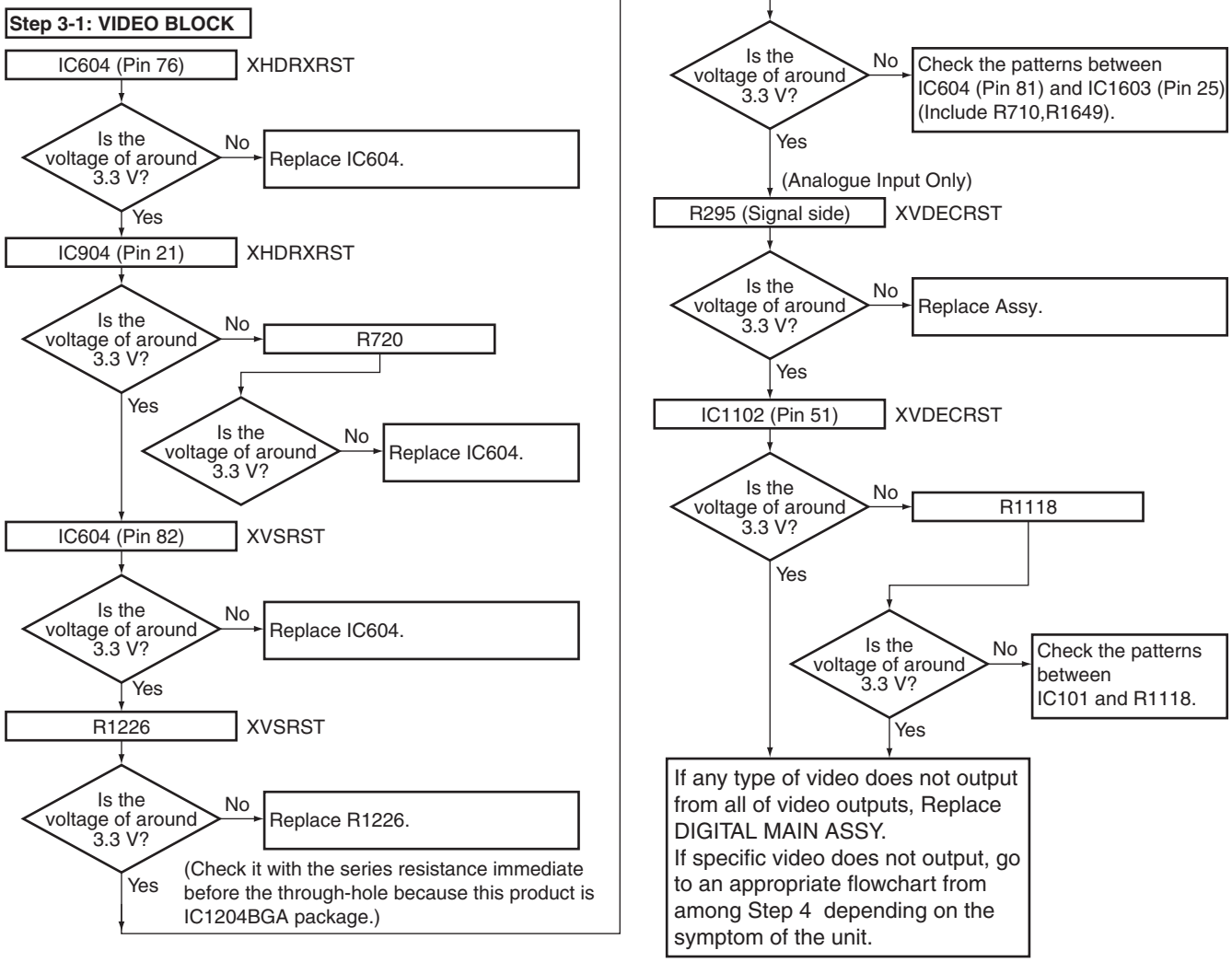
Step 1: POWER SUPPLY



Step 2: Xtal



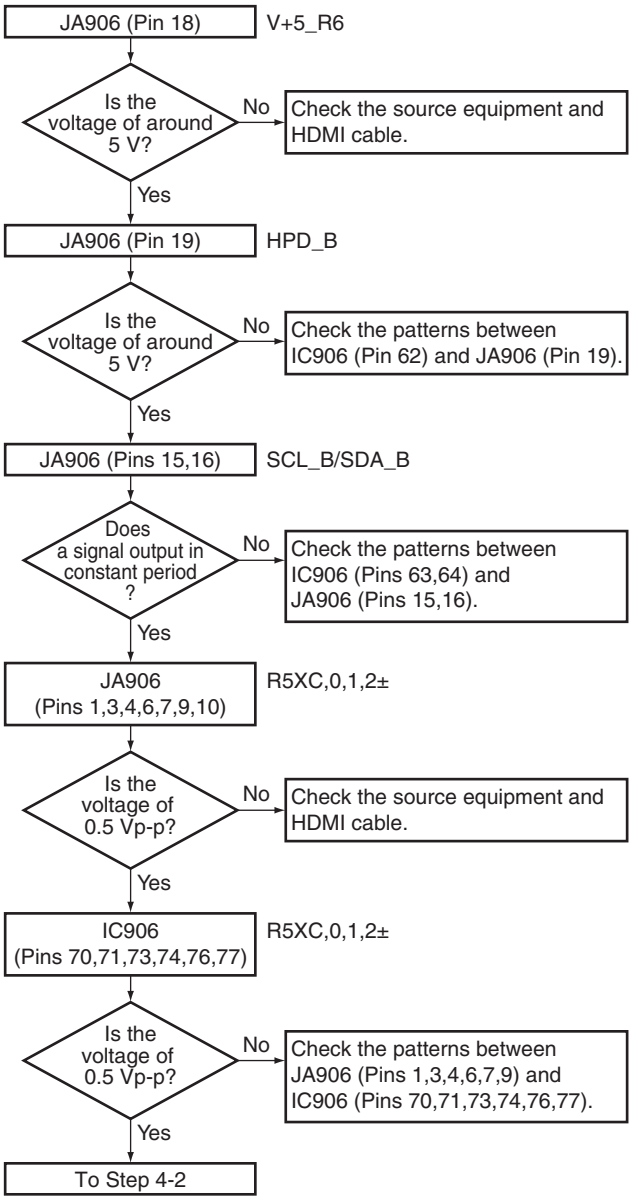
Step 3: Reset



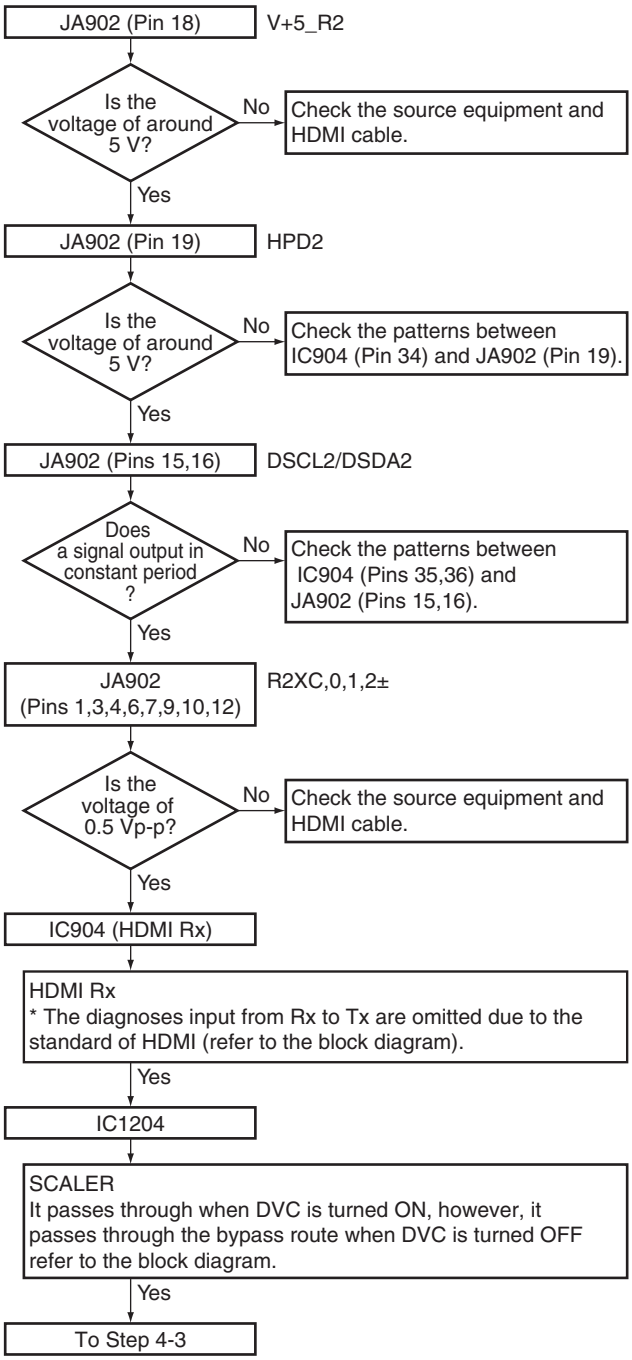
Step 4: VIDEO

* The indicator (LED) of HDMI on the front panel should light up.

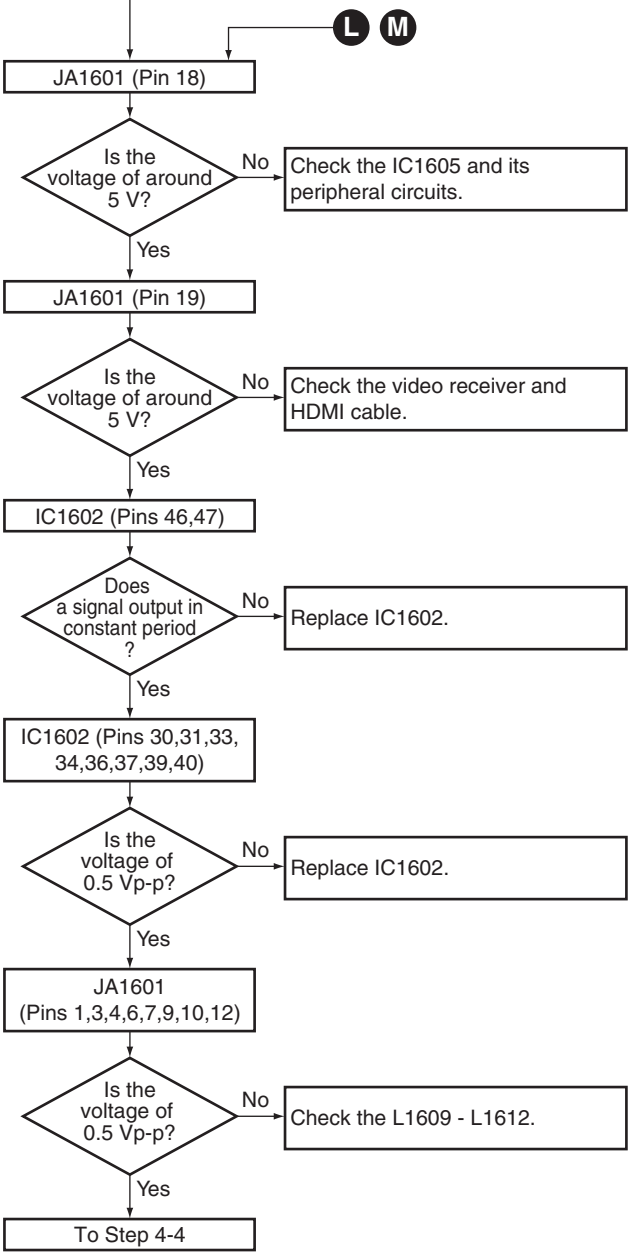
Step 4-1: HDMI IN (IN BD,IN 1,5) * Connection No is IN BD

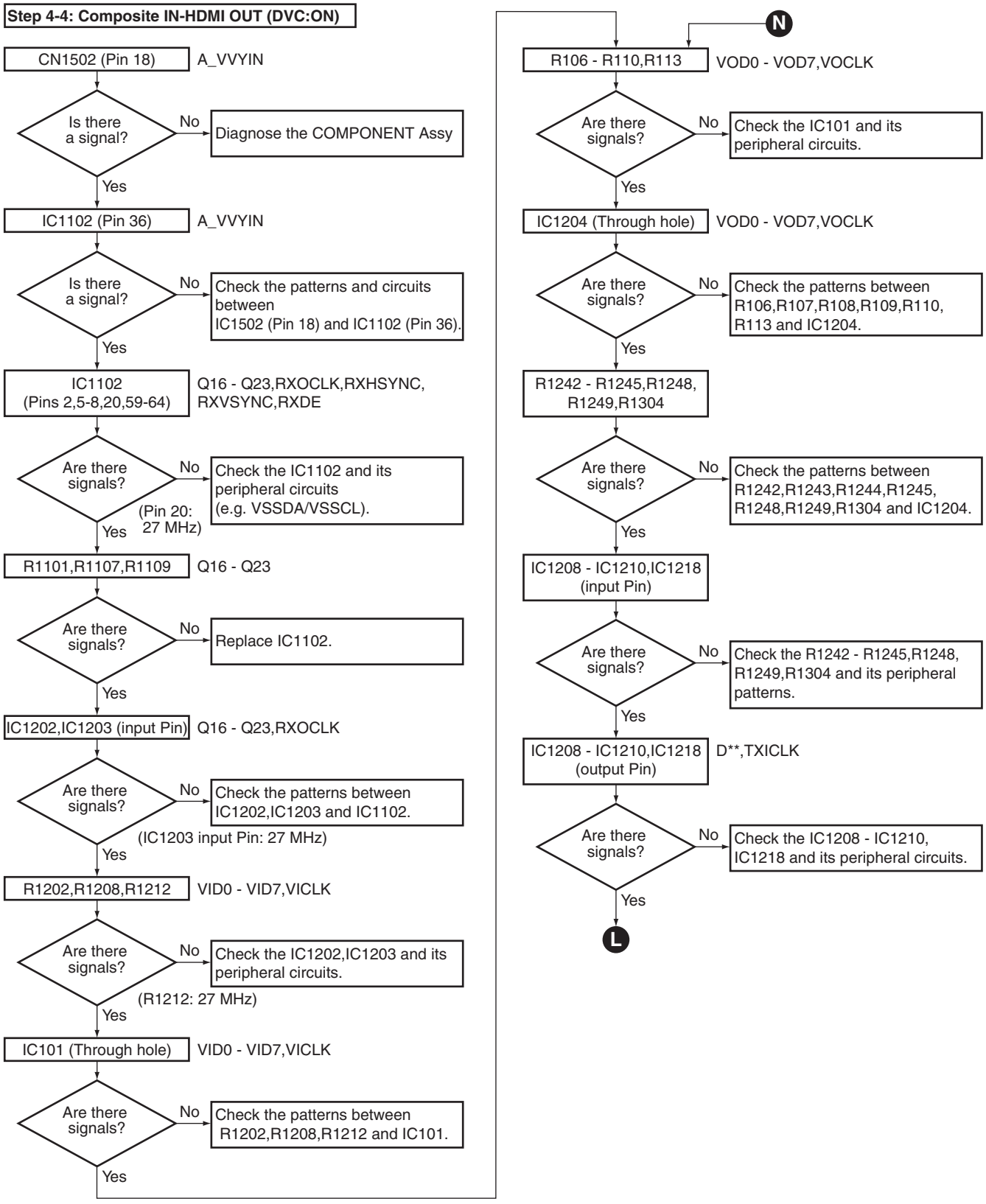


Step 4-2: HDMI IN (IN 2,3,4) * Connection No is IN2

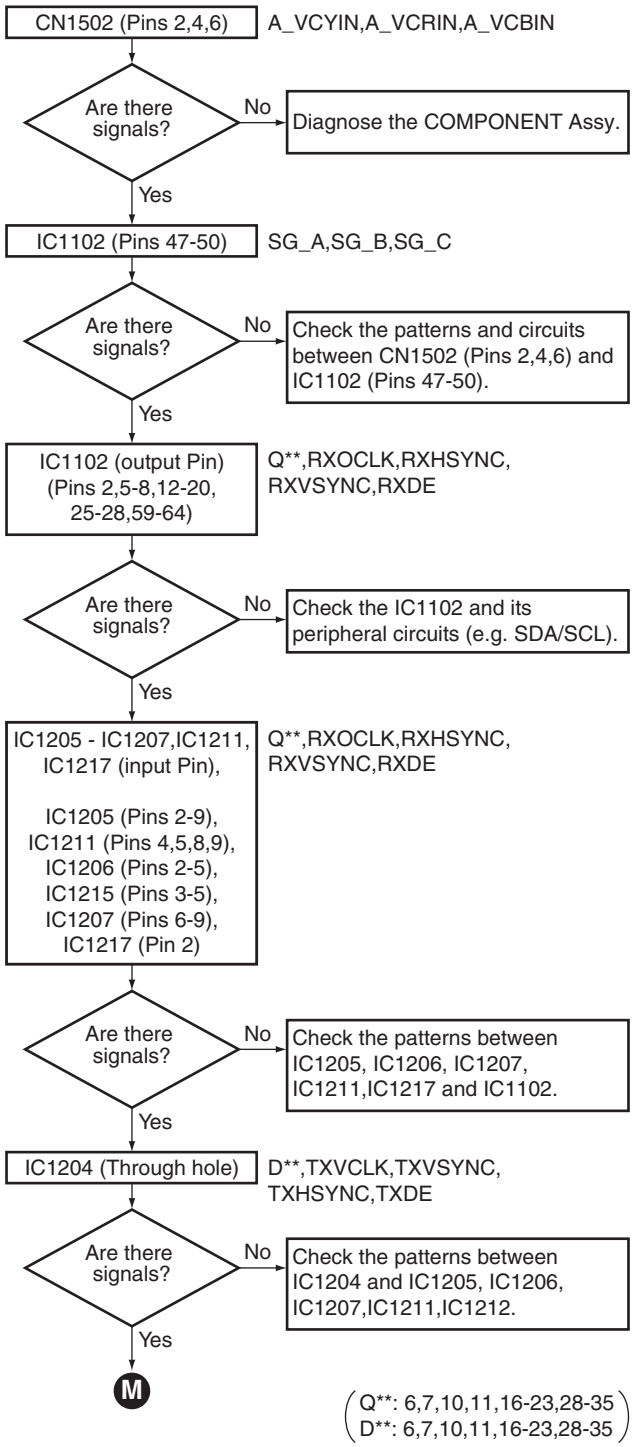


Step 4-3: HDMI OUT * Connection No is HDMI OUT1

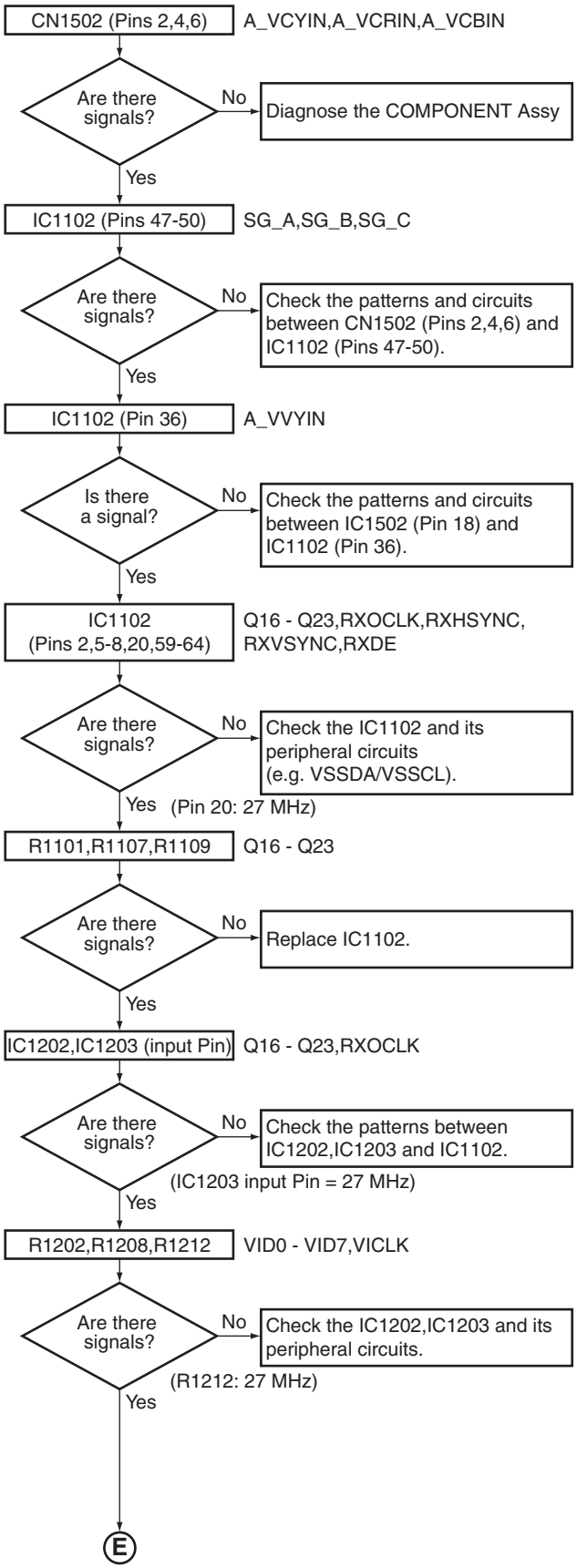


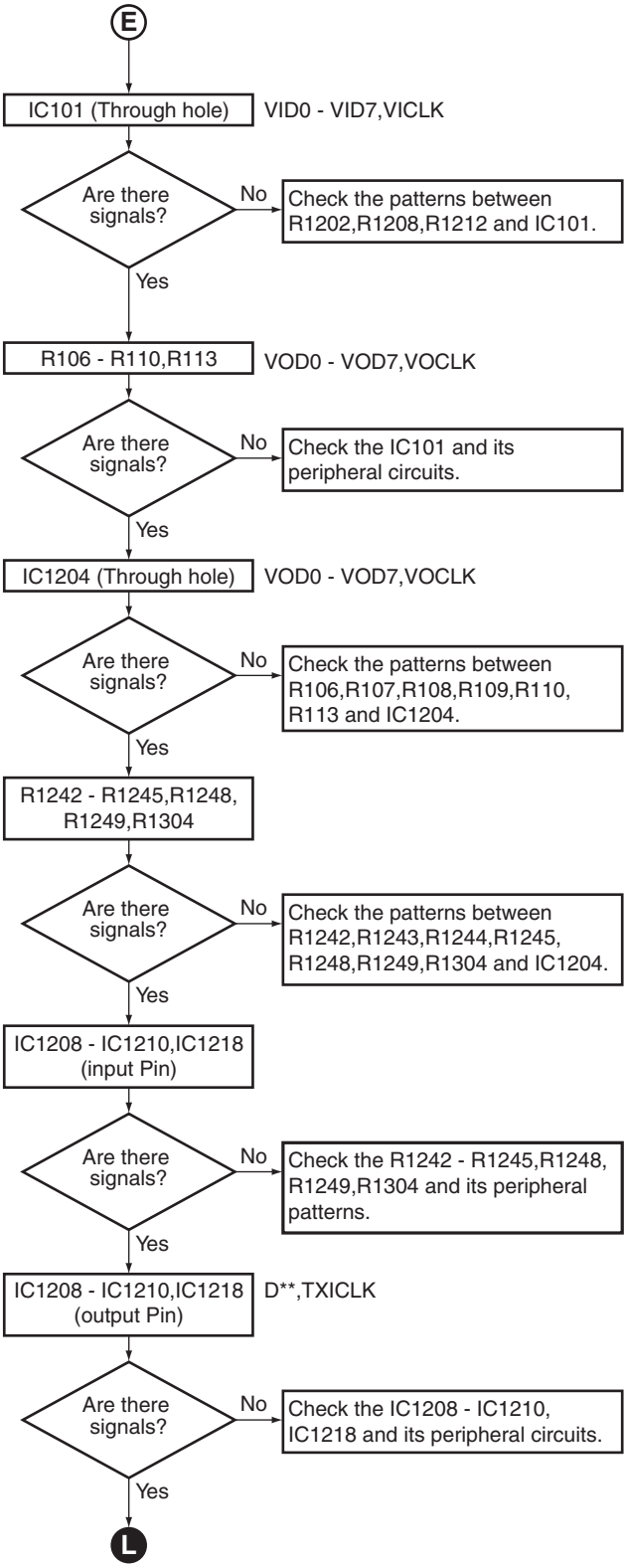

Step 4-4: Composite IN-HDMI OUT (DVC:ON)
CN1502 (Pin 18)
A_VVYIN
Is there a signal?
No
Diagnose the COMPONENT Assy
Yes
IC1102 (Pin 36)
A_VVYIN
Is there a signal?
No
Check the patterns and circuits between IC1502 (Pin 18) and IC1102 (Pin 36).
Yes
IC1102 (Pins 2,5-8,20,59-64)
Q16 - Q23,RXOCLK,RXHSYNC, RXVSYNC,RXDE
Are there signals?
No
Check the IC1102 and its peripheral circuits (e.g. VSSDA/VSSCL).
(Pin 20: 27 MHz)
Yes
R1101,R1107,R1109
Q16 - Q23
Are there signals?
No
Replace IC1102.
Yes
IC1202,IC1203 (input Pin)
Q16 - Q23,RXOCLK
Are there signals?
No
Check the patterns between IC1202,IC1203 and IC1102.
(IC1203 input Pin: 27 MHz)
Yes
R1202,R1208,R1212
VID0 - VID7,VICLK
Are there signals?
No
Check the IC1202,IC1203 and its peripheral circuits.
(R1212: 27 MHz)
Yes
IC101 (Through hole)
VID0 - VID7,VICLK
Are there signals?
No
Check the patterns between R1202,R1208,R1212 and IC101.
Yes
N
R106 - R110,R113
VOD0 - VOD7,VOCLK
Are there signals?
No
Check the IC101 and its peripheral circuits.
Yes
IC1204 (Through hole)
VOD0 - VOD7,VOCLK
Are there signals?
No
Check the patterns between R106,R107,R108,R109,R110, R113 and IC1204.
Yes
R1242 - R1245,R1248, R1249,R1304
Are there signals?
No
Check the patterns between R1242,R1243,R1244,R1245, R1248,R1249,R1304 and IC1204.
Yes
IC1208 - IC1210,IC1218 (input Pin)
Are there signals?
No
Check the R1242 - R1245,R1248, R1249,R1304 and its peripheral patterns.
Yes
IC1208 - IC1210,IC1218 (output Pin)
D**,TXICLK
Are there signals?
No
Check the IC1208 - IC1210, IC1218 and its peripheral circuits.
Yes
L

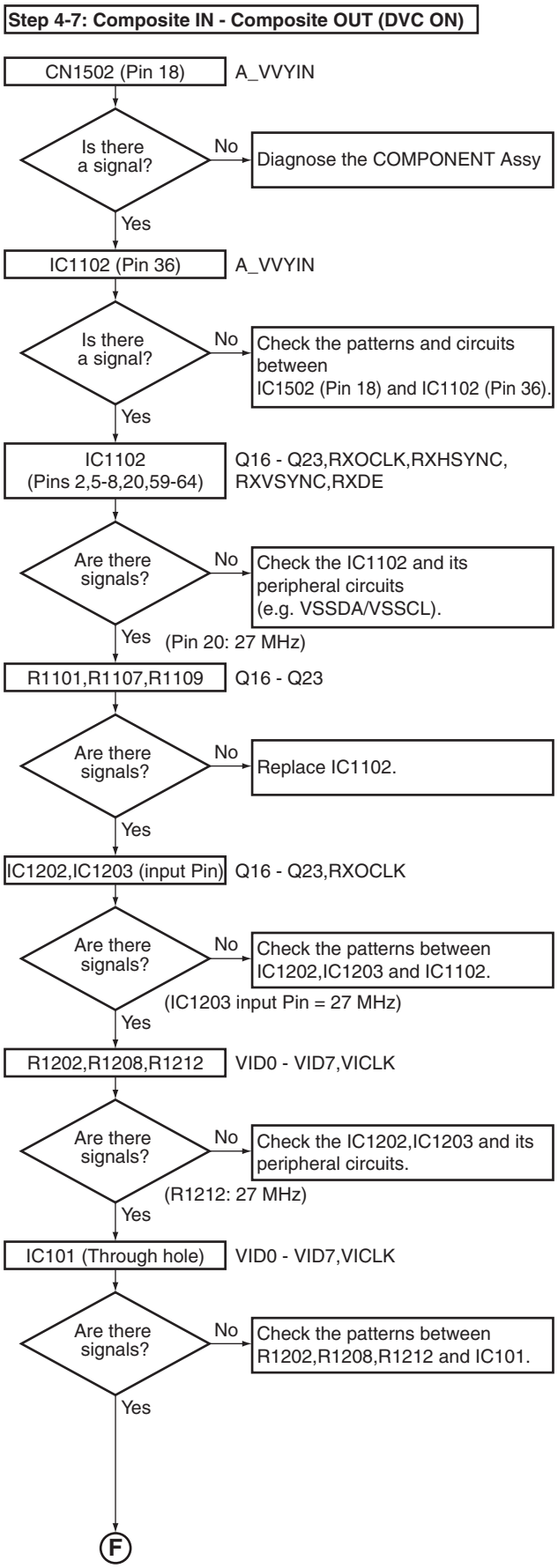
Step 4-5: Component IN (more than 480p) - HDMI OUT (DVC ON)

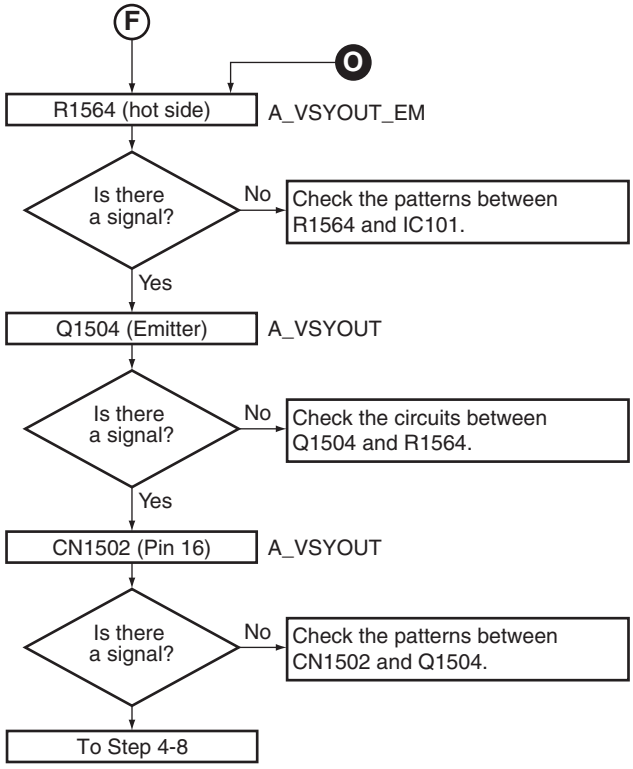


Step 4-6: Component IN (at 480i) - HDMI OUT (DVC ON)

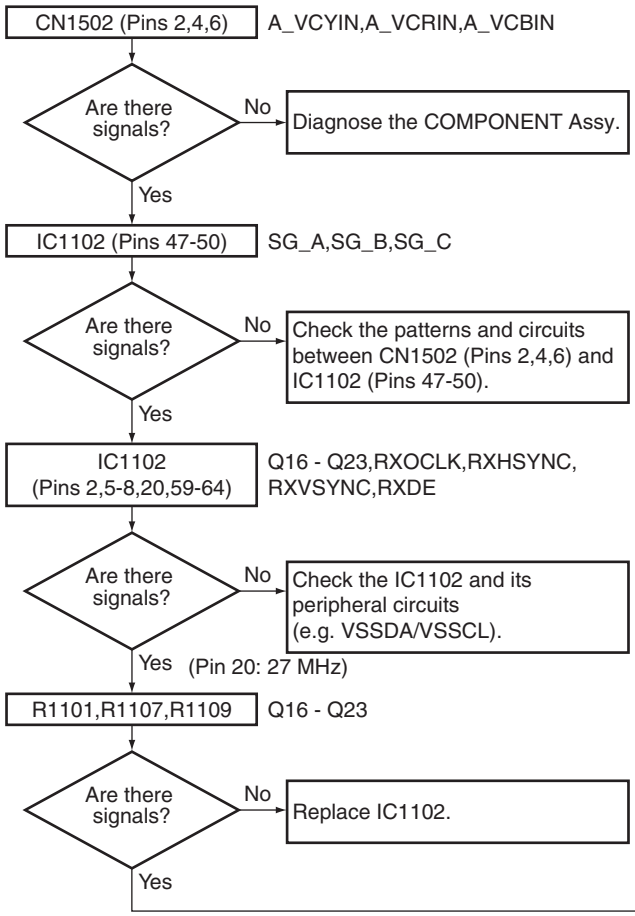


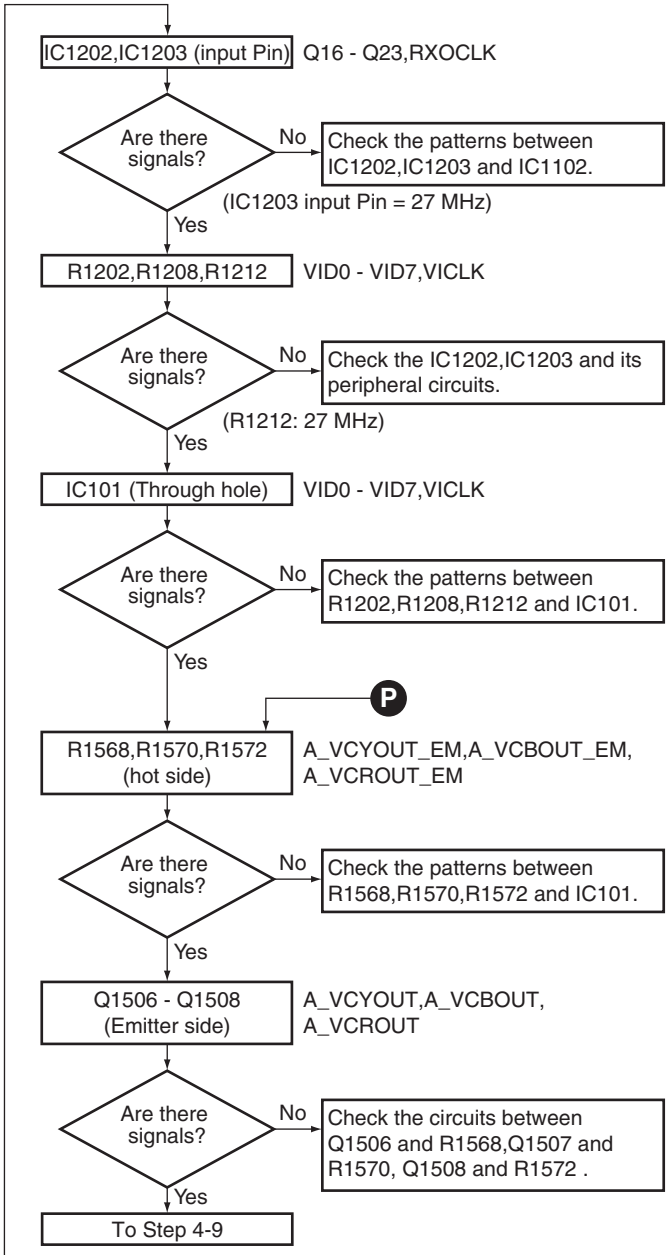

E
IC101 (Through hole)
VID0 - VID7,VICLK
Are there signals?
No
Check the patterns between R1202,R1208,R1212 and IC101.
Yes
R106 - R110,R113
VOD0 - VOD7,VOCLK
Are there signals?
No
Check the IC101 and its peripheral circuits.
Yes
IC1204 (Through hole)
VOD0 - VOD7,VOCLK
Are there signals?
No
Check the patterns between R106,R107,R108,R109,R110, R113 and IC1204.
Yes
R1242 - R1245,R1248, R1249,R1304
Are there signals?
No
Check the patterns between R1242,R1243,R1244,R1245, R1248,R1249,R1304 and IC1204.
Yes
IC1208 - IC1210,IC1218 (input Pin)
Are there signals?
No
Check the R1242 - R1245,R1248, R1249,R1304 and its peripheral patterns.
Yes
IC1208 - IC1210,IC1218 (output Pin)
D**,TXICLK
Are there signals?
No
Check the IC1208 - IC1210, IC1218 and its peripheral circuits.
Yes
L


Step 4-7: Composite IN - Composite OUT (DVC ON)
CN1502 (Pin 18)
A_VVYIN
Is there a signal?
No
Diagnose the COMPONENT Assy
Yes
IC1102 (Pin 36)
A_VVYIN
Is there a signal?
No
Check the patterns and circuits between IC1502 (Pin 18) and IC1102 (Pin 36).
Yes
IC1102 (Pins 2,5-8,20,59-64)
Q16 - Q23,RXOCLK,RXHSYNC, RXVSYNC,RXDE
Are there signals?
No
Check the IC1102 and its peripheral circuits (e.g. VSSDA/VSSCL).
Yes
(Pin 20: 27 MHz)
R1101,R1107,R1109
Q16 - Q23
Are there signals?
No
Replace IC1102.
Yes
IC1202,IC1203 (input Pin)
Q16 - Q23,RXOCLK
Are there signals?
No
Check the patterns between IC1202,IC1203 and IC1102.
(IC1203 input Pin = 27 MHz)
Yes
R1202,R1208,R1212
VID0 - VID7,VICLK
Are there signals?
No
Check the IC1202,IC1203 and its peripheral circuits.
(R1212: 27 MHz)
Yes
IC101 (Through hole)
VID0 - VID7,VICLK
Are there signals?
No
Check the patterns between R1202,R1208,R1212 and IC101.
Yes
F

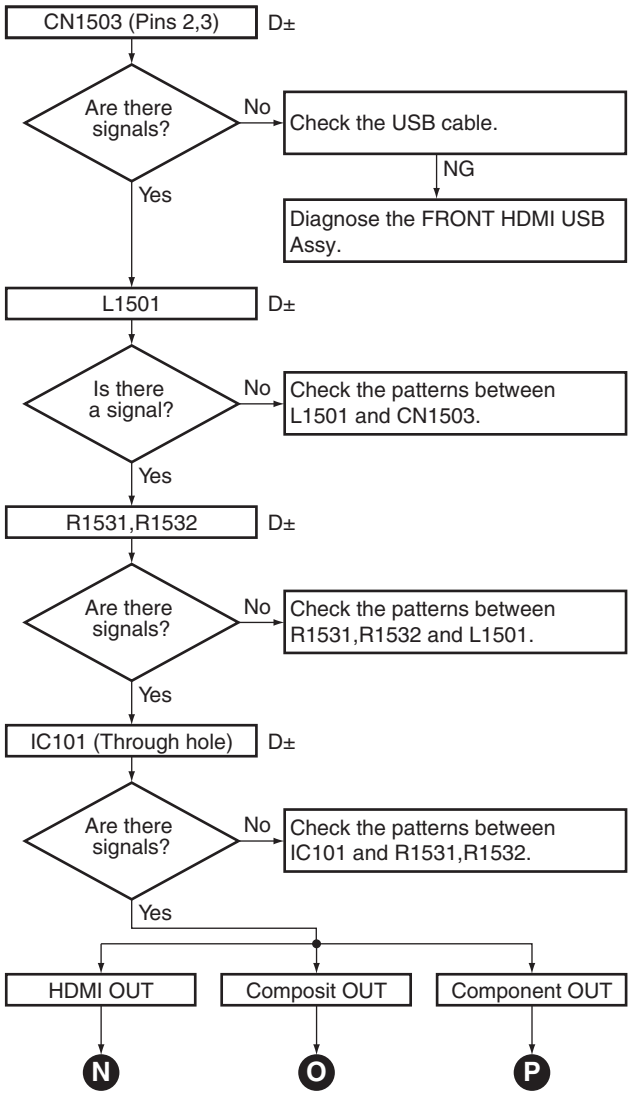


Step 4-8: Component IN (at 480i) - Component OUT (DVC ON)





Step 4-9: USB/iPod



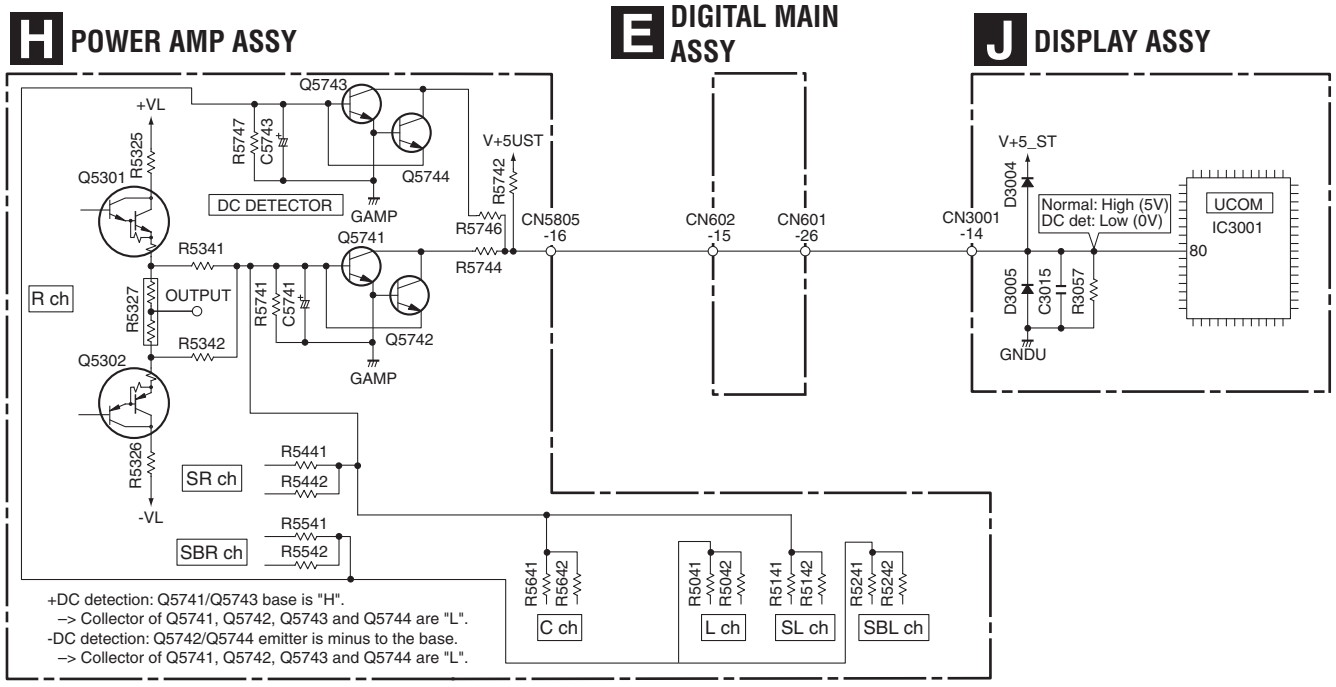
5.2 CIRCUIT DESCRIPTION

[1] Protection Circuit Process List

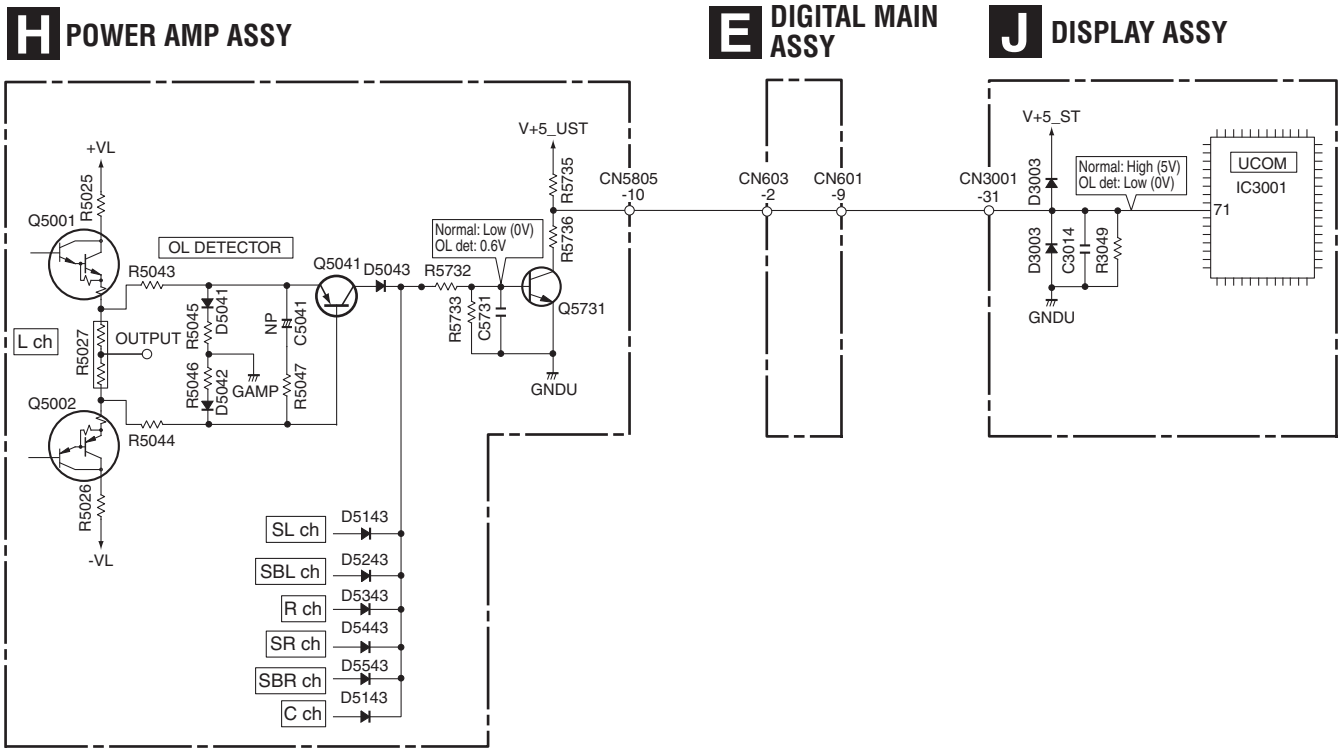
Item	Purpose	Detection Method	Process	Warning Indication	Remarks
DC detection	To detect amplifier damage (defect status) A process to protect speakers (for protection of connected external devices)	Detects when the XDCERR port becomes "L". (Pin 80 of IC3001)	Turns muting on and speaker relay off, then turns off the power after 3 seconds. Then flashes MCACC indicator.	Flashing "AMP ERR" for 3 seconds.	Once detected and turned the power off, the power cannot be turned on again (*). If the XDCERR port becomes "L" within 3 seconds, the unit returns to normal condition automatically.
AMP overload	To detect overloading (abnormal status) With low-load driving or a short circuit of the speaker terminals (for protection of the amplifier)	Detects when the XOLERR port becomes "L" (checks by interrupt). (Pin 71 of IC3001)	Turns muting on and speaker relay off, and immediately turns off the power. Then flashes iPod/iPhone indicator.	None	

(*) To restore the previous staus, follow the procedure described in “How to Enter Release Mode” (P.54) then turn the unit back on.

■ DC Detection Circuit



■ OL (Over Load) Detection Circuit

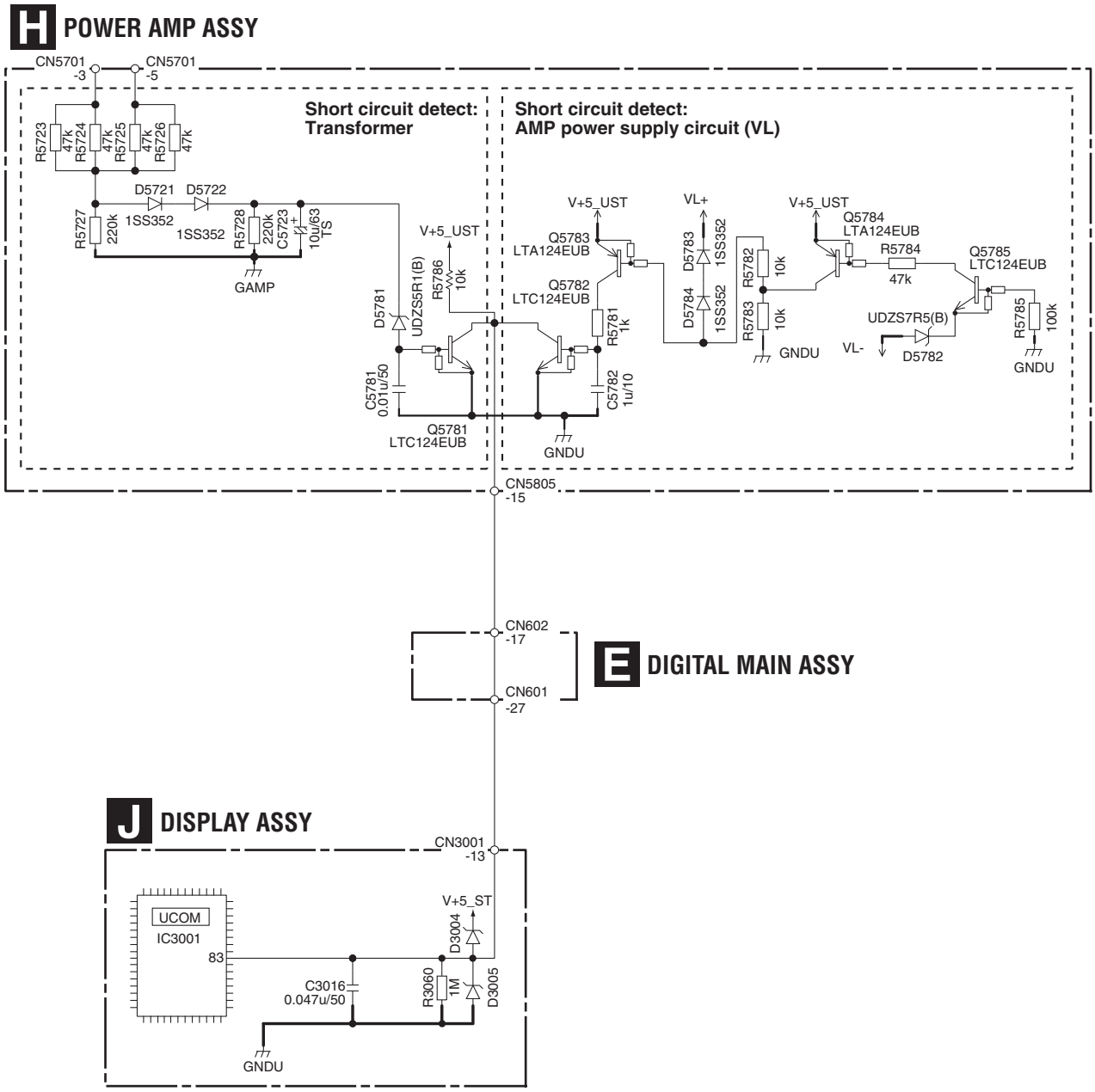


[2] Protection Circuit Process List (XPROTECT)

Item	Purpose	Detection Method	Process	Warning Indication	Remarks
XPROTECT	AMP power supply circuit and Transformer short circuit detect. (defect status) Observe CN5701 pin3 or pin5 voltage, VL+ and VL-.	Detects when the XPROTECT port becomes "L". (Pin 83 of IC3001)	Turns muting on and speaker relay off, and immediately turns off the power. Then flashes MCACC indicator.	None	Once detected and turned the power off, the power cannot be turned on again. (*)

(*) To restore the previous status, follow the procedure described in “How to Enter Release Mode” (P.54) then turn the unit back on.

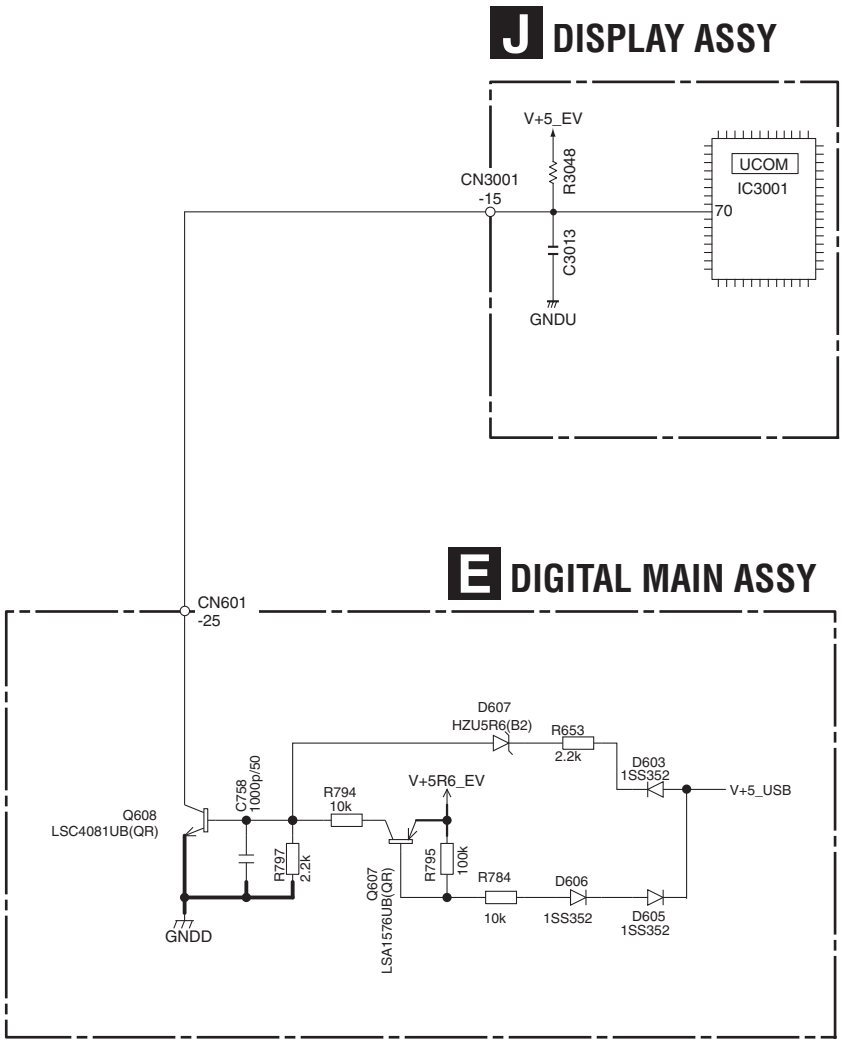
■ XPROTECT Circuit



[3] Protection Circuit Process List (XVDDERR)

Item	Purpose	Detection Method	Status of Equipment	Warning Indication	Remarks
USB power failure detection	Detection of failure in regulator circuit for external supply	Detected when USB voltage reaches 7V or higher, or 4.1V or lower and XVDDERR port is set to "L"	Shuts down	Blinks PQLS	Restoration possible with Power ON

■ XVDDERR Circuit



[4] Error Indications When an Abnormality in The Amplifier System Is Detected

[Purpose]

Errors upon detection of abnormalities in the amp system are indicated.

[Error Indications]

	FL Display	LED flashes	Status	Timing (sec.)	Description	Remarks
(1)	AMP ERR	ADVANCED MCACC LED	When the AMP DC is detected.	FL flashes 3 times. LED flashes after the power off.	When the unit recovers the normal state within 3 seconds, FL stops flashing and all zone off, and then the unit restarts automatically. When the DC detect continues for more than 3 seconds, after a failure in the amplifier block or high DC output is detected, the shutdown process starts, then the power will be shut off. Then the ADVANCED MCACC LED will flash. The power cannot be turned on again. If you wish to turn on the unit after a shutdown activated by DC detection, enter DC detection cancellation mode, by proceeding with the steps described in "How to enter release mode" next page.	
(2)	NA	iPod iPhone LED	"AMP overload" detection.	LED flashes after the power off.	Upon detection of overcurrent at the amp output stage, the unit power off immediately, and the iPod iPhone LED starts flashing. The previous stage will be restored when the unit is turned back on.	
(3)	NA	ADVANCED MCACC LED	When an abnormality is detected in the output voltage of the power supply circuit.	LED flashes after the power off.	If abnormality voltage is detected in the power supply VL circuit, the unit power off immediately, and the ADVANCED MCACC LED starts flashing. The power cannot be turned on again. If you wish to turn on the unit after the shutdown activated by XPROTECT, enter DC detection cancellation mode by proceeding with the steps described in "How to enter release mode" next page.	Abnormality detection in the power supply VL circuit.
(4)	NA	PQLS LED	When an abnormality is detected in the output voltage of the Digital power supply circuit.	LED flashes after the power off.	If abnormality voltage is detected in the Digital power supply circuit, the unit power off immediately, and the PQLS LED starts flashing. To restore the previous status, turn the unit back on.	
(5)	AMP OVERHEAT	STANDBY/ ON	When an abnormality of temperature is detected at the Amp output stage.	FL flashes 3 seconds. LED flashes after the power off.	When the unit recovers the normal state within 3 seconds, FL stops flashing. When the overheat state continues for more than 3 seconds, the power is shut off and STANDBY/ON LED starts flashing. To restore the previous status 1 minuite or more after a shutdown, just turn the unit back on.	Overheat detection over 120 °C
(6)	Over Current	NA	When the overload USB device (over 500 mA) is connected.		The connected USB device is overload.	
(7)	HDCP ERROR	NA	When an HDCP ERROR is detected.	Flashes 5 seconds		Warning indication for HDMI Simplay

	FL Display	LED flashes	Status	Timing (sec.)	Description	Remarks
(8)	12V TRG ERR	NA	When the 12V trigger circuit is short-circuited.	Flashes	The 12V trigger circuit is short-circuited, and a overcurrent is generated.	
(9)	NA	NA	When the ANALOG INPUT OVER is detected.	Icon lights 1 second	While the Icon lights 1 second, when the ANALOG INPUT OVER is detected again, the Icon continues to light 1 second more from that time. While the Icon lights 1 second, when there is no ANALOG INPUT OVER detection , the Icon stops lighting and returns to normal display.	The Icon “OVER” lights
(10)	NO ADAPTER	NA	When BT Adapter is not connected.	Lights	While the ADAPTER PORT function is selected, the BT Adapter is not connected.	
(11)	NOT AVAILABLE	NA	Non-BT Adapter is connected.	Lights	While the ADAPTER PORT function is selected, the non-BT Adapter is connected.	
(12)	WAITING DEVICE	NA	No wireless connection between BT source and AVR	Lights	While the ADAPTER PORT function is selected, there is no wireless connection between BT source equipment and AVR.	
(12)	ADP OVERLOAD	NA	When overcurrent is detected in the Adapter port.	Lights	While the ADAPTER PORT function is selected, overcurrent is detected in the Adapter port, and Bluetooth function is not available.	

[How to Enter Release Mode]

During Standby mode, simultaneously press and hold the "TUNE [↓]" and "MULTI-ZONE ON/OFF" keys for 5 seconds.

6. SERVICE MODE
6.1 TEST MODE

[1] Detected protection history

[Purpose]

The numbers of detections for various protection processes are displayed.

[How to enter/exit]

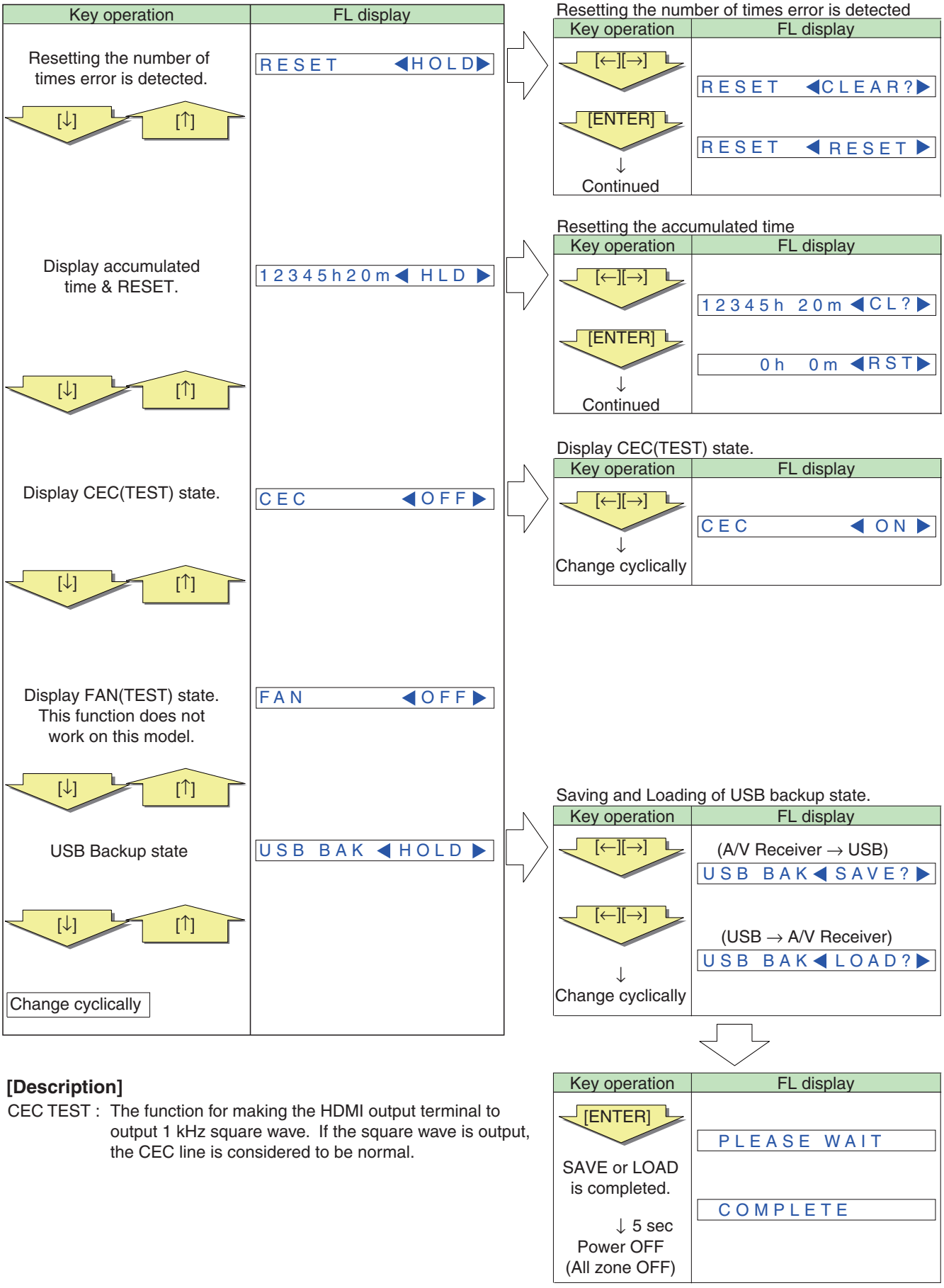
Turn off the power to this unit by setting the main volume level to “---dB” and Multi-zone to “OFF”.
During Standby mode, simultaneously press and hold “MULTI-ZONE ON/OFF” and “ENTER” keys for 5 seconds to enter this mode.

[Basic operations]

Key operation	FL display
Display number of times DC is detected.	DC : ＊＊＊
[↓] [↑]	
Display number of times OVERLOAD is detected.	OL : ＊＊＊
[↓] [↑]	
Display number of times COMBINATION is detected. (Detects DC and OVERLOAD simultaneously)	COM : ＊＊＊
[↓] [↑]	
Display number of times Power abnormality is detected.	XPRT : ＊＊＊
[↓] [↑]	
Display number of times FAN STOP is detected. This function does not work on this model.	FAN : ＊＊＊
[↓] [↑]	
Display number of times AMP overheat is detected.	STMP : ＊＊＊
[↓] [↑]	
Display number of times Digital Power abnormality is detected.	DERR : ＊＊＊
[↓] [↑]	

Front Panel Key

[↓] : TUNE Key
[↑] : TUNE Key
[←] : PRESET Key
[→] : PRESET Key



[Description]

CEC TEST : The function for making the HDMI output terminal to output 1 kHz square wave. If the square wave is output, the CEC line is considered to be normal.

7. DISASSEMBLY
7.1 DISASSEMBLY

Preparations Before Performing Diagnosis of the POWER AMP ASSY

Before performing diagnosis of the POWER AMP ASSY, it is necessary to discharge C5721 and C5722 on the board. (See the photo below.)
If you don't, the protectors (P5001 and P5002) on the board may be open, and DC voltage may be generated at the power amplifier output, which will result in "AMP ERR."

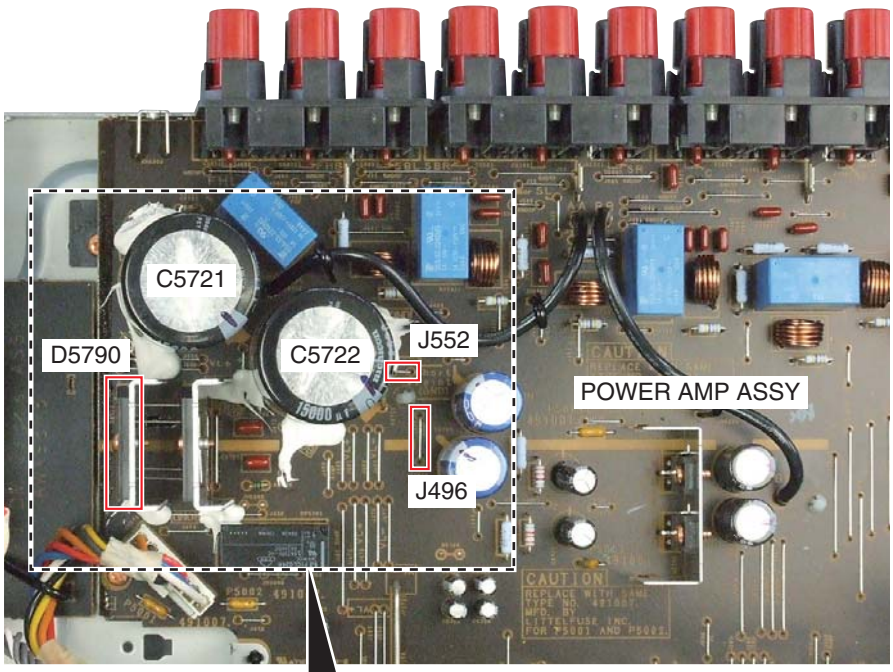
[Procedures]

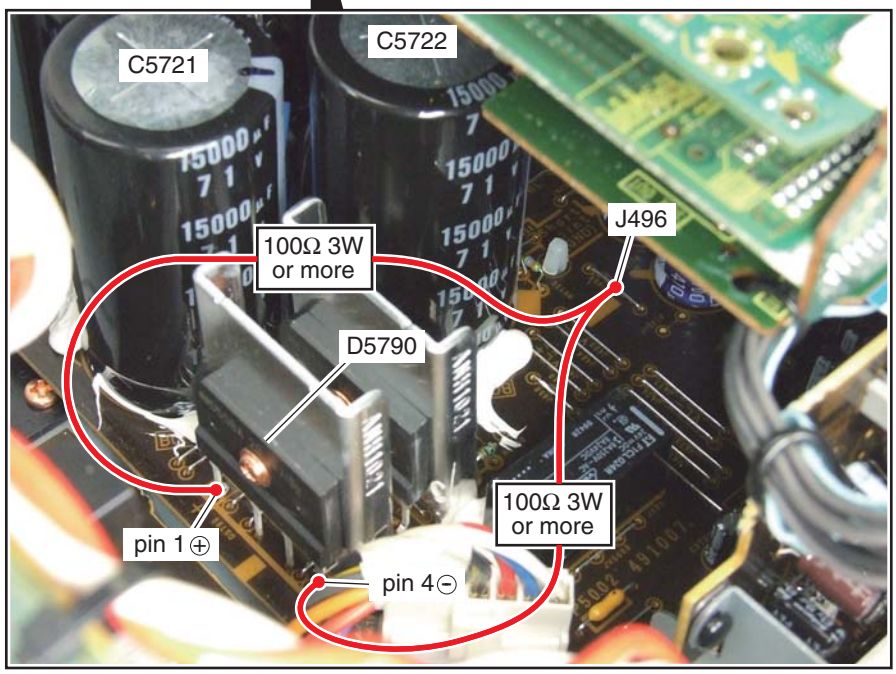
(1) Unplug the power cord.

(2) Discharge C5721 and C5722 by connecting either J496 or J552 to pin 1 and 4 of D5790.

Note: For discharging, use a load of 100 Ω , 3 W or more, to protect the IC protectors. Do NOT discharge instantly by short-circuiting.

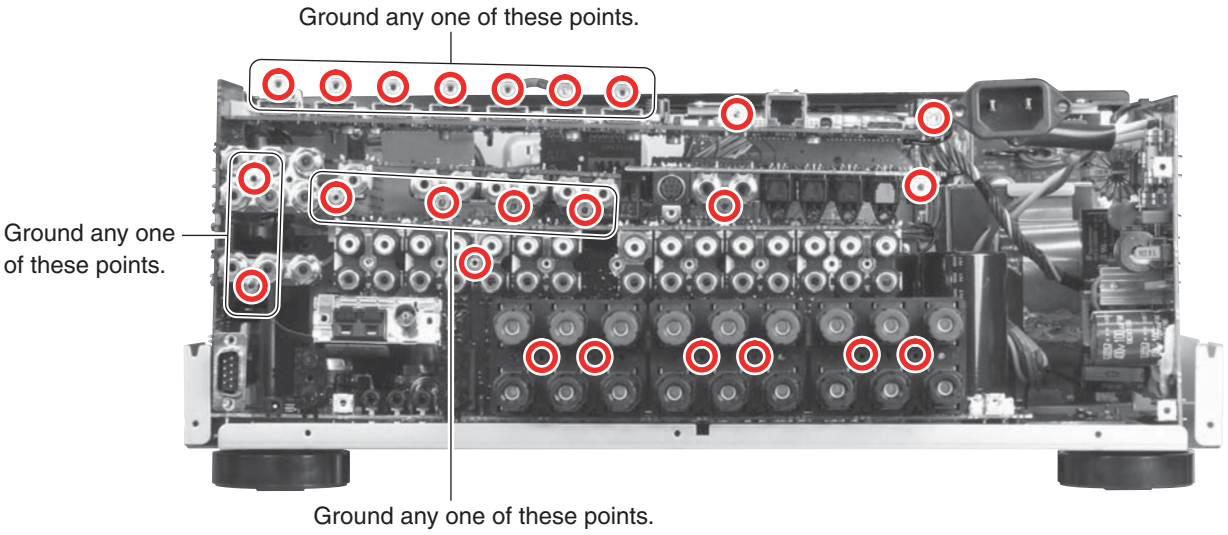
(3) Check that the voltage between the electrodes of each C5721 and C5722 is 1 V or less.





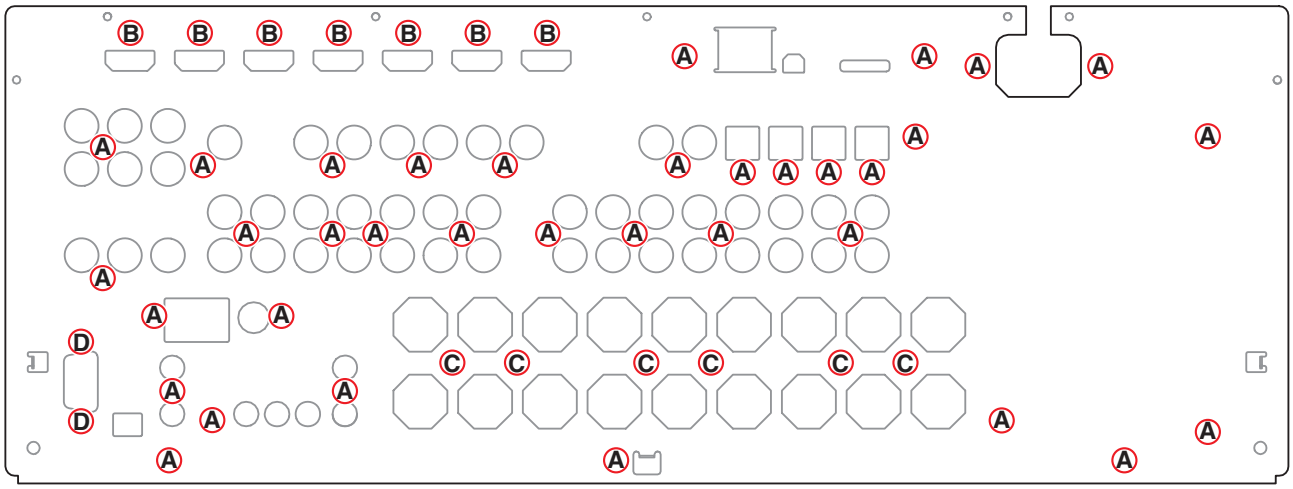
Ground Points

Note:
The points marked below must be grounded when the rear panel is removed.
Before turning the unit ON, be sure to ground the marked points with the chassis. Or, you may short-circuit the ground points on the solder surface, using pieces of wire.



Screws for Rear Panel

Ⓐ BBZ30P080FTB	Ⓑ BMZ30P040FTB	Ⓒ BBT30P100FCC	Ⓓ ABA7078
			



Diagnosis

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.

Note 2 : For performing the diagnosis shown below, the following jigs for service is required.

- 30P board to board extension jig cable (GGD1682) x 2
- 24P + 14P board to board extension jig cable (GGD1683)
- 20P + 20P board to board extension jig cable (GGD1677)
- 19P FFC (GGD1678)

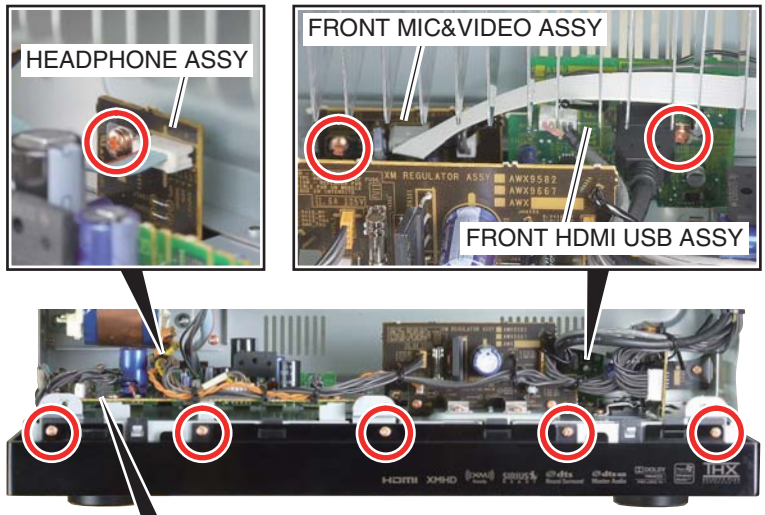
[1] Front Section

Remove the Bonnet by removing the 18 screws.

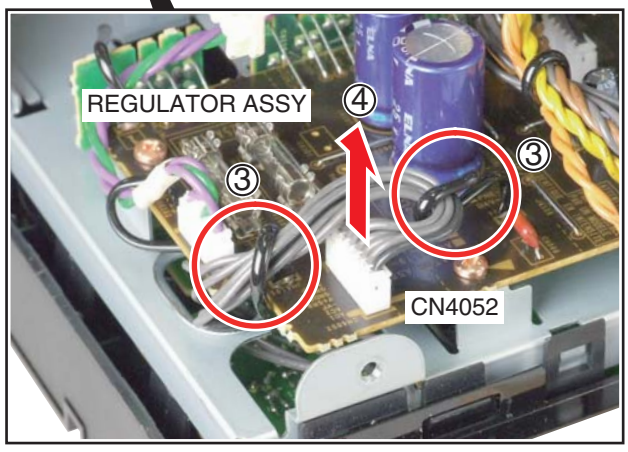
[1-1] Exterior

(1) Remove the five screws.
(VSX-LX53: ABA1193)
(VSX-2020-K: BBZ30P080FCC)

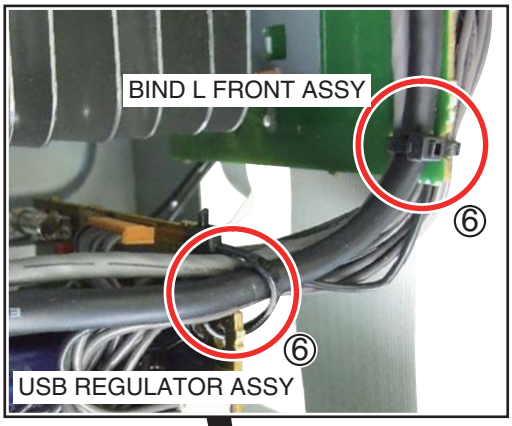
(2) Remove the eight screws. (BBZ30P080FCC)

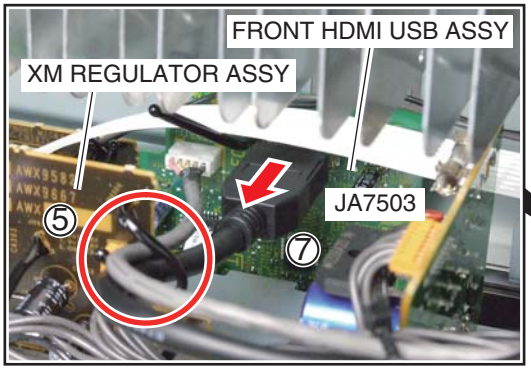


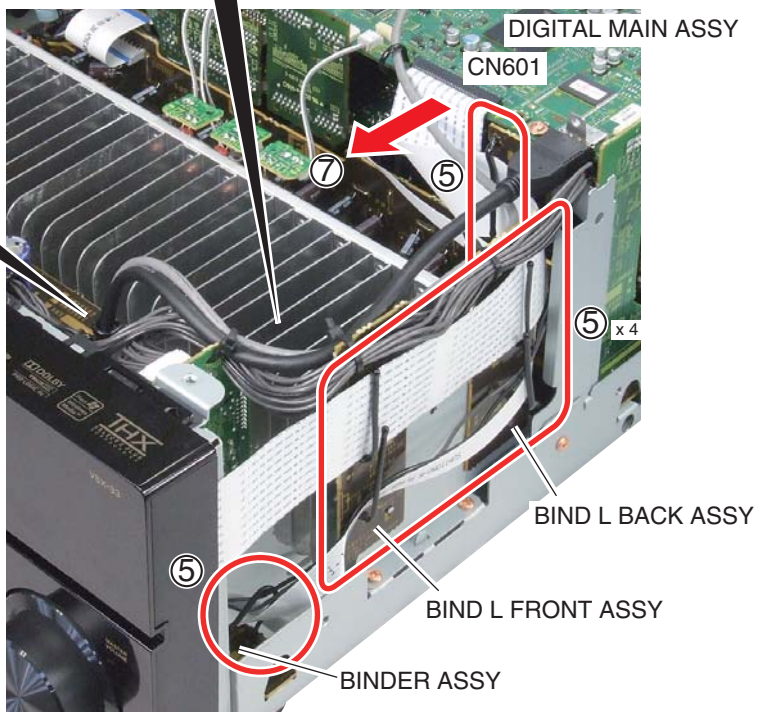
(3) Release the jumper wire from two binders.
(4) Disconnect the one connector.



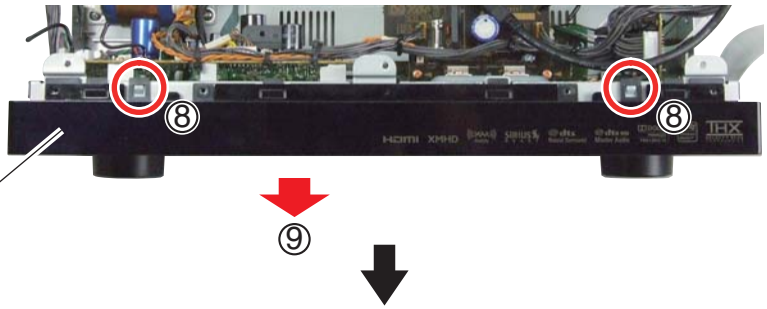
(5) Release the cables, as required.
(6) Cut the two binders.
(7) Disconnect the tow connectors.



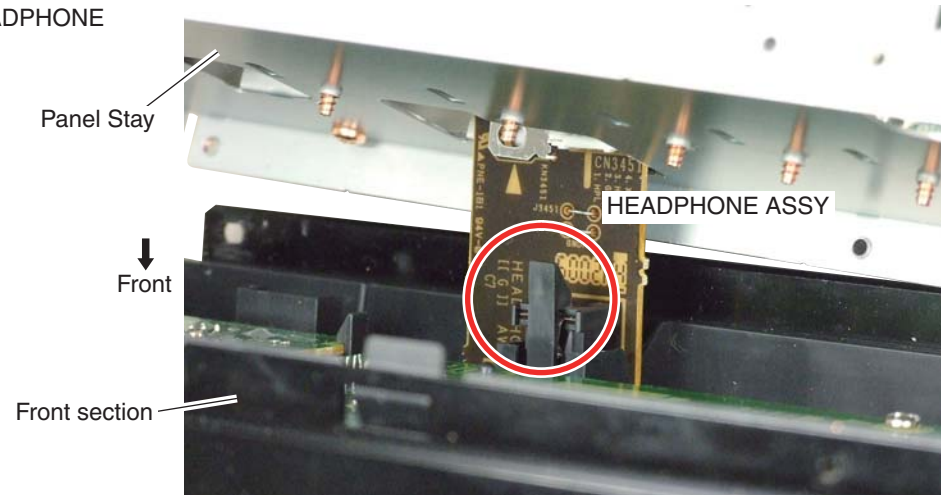




(8) Unhook the four hooks.
(9) Remove the Front section.

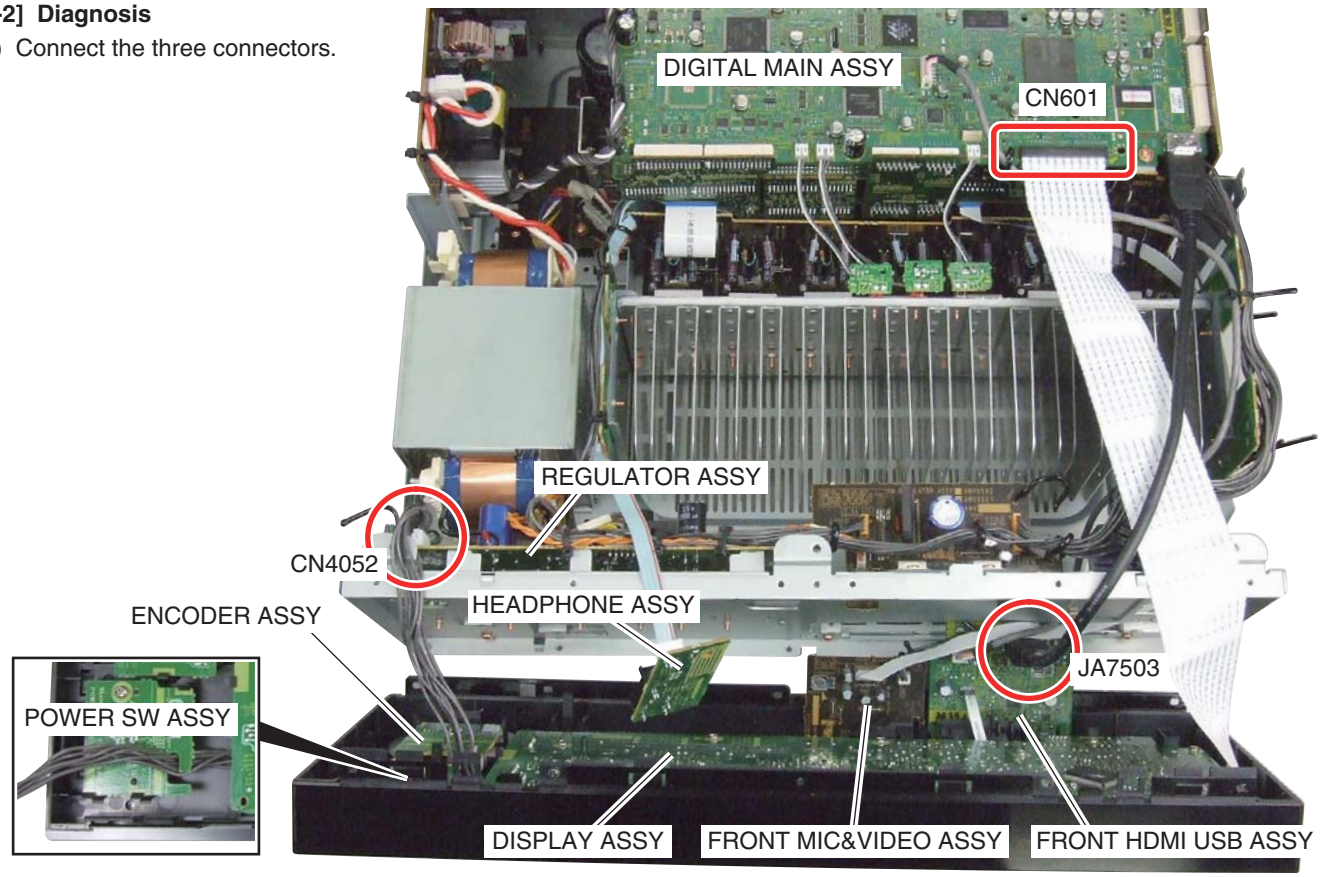


(10) Unhook the one hook of the HEADPHONE ASSY.



[1-2] Diagnosis

(1) Connect the three connectors.

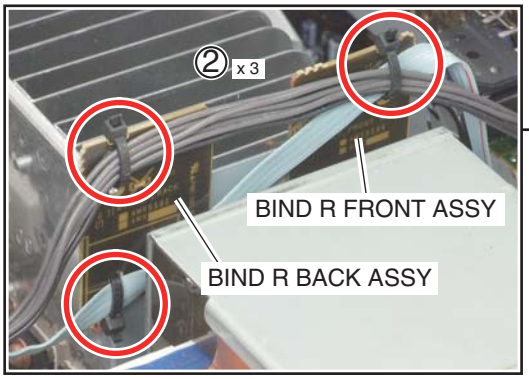


[2] POWER AMP ASSY

(1) Remove the Bonnet by removing the 18 screws.
(2) Discharge C5721 and C5722.
(Refer to the "discharge procedures.")

[2-1] Exterior

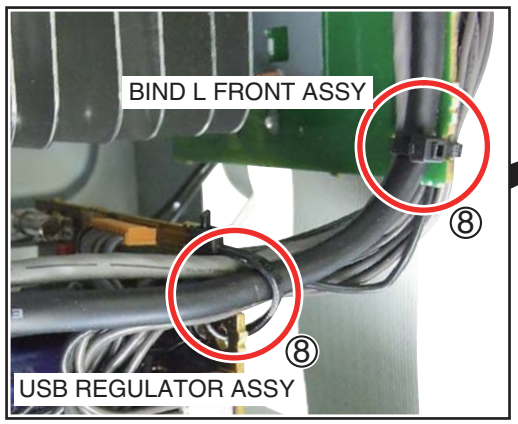
(1) Remove the three screws. (BBZ30P080FCC)
(2) Cut the four binders.
(3) Release the jumper wires, as required.

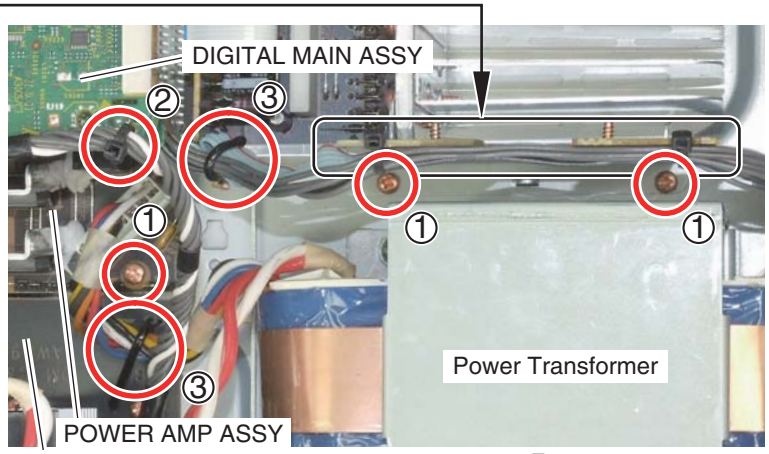


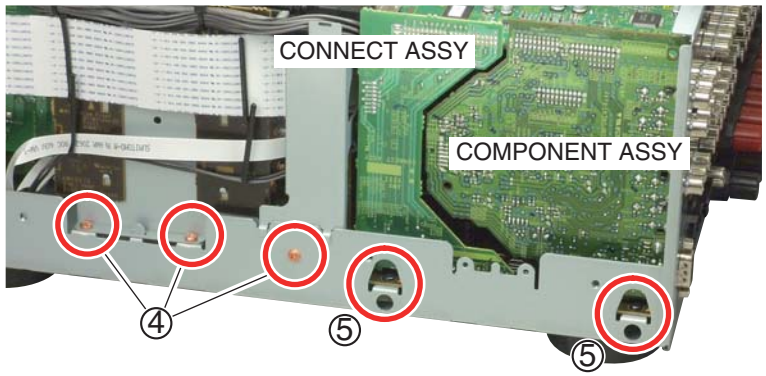
Note: Styling for the wires differs between the photograph above and the actual product. Please check the wires styling of the actual product before working on this procedure.

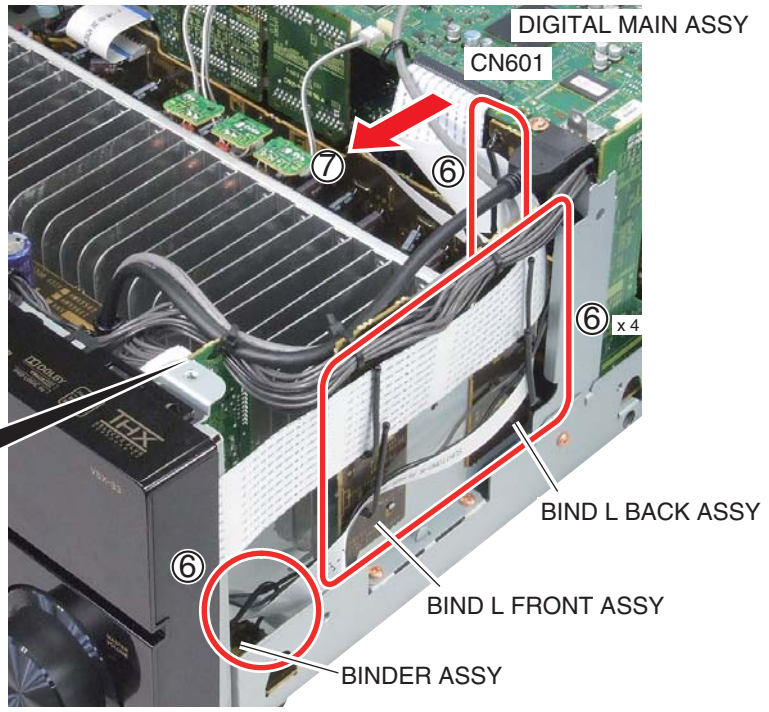
(4) Remove the three screws. (BBZ30P080FCC)
(5) Remove the two Nylon Rivet.

(6) Release the cables, as required.
(7) Disconnect the FFC (ADD7733) from the DIGITAL MAIN ASSY.
(8) Cut the two binders.

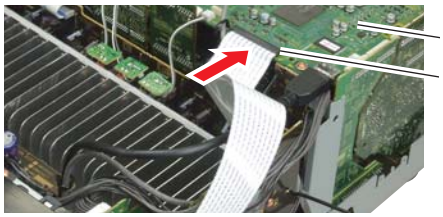




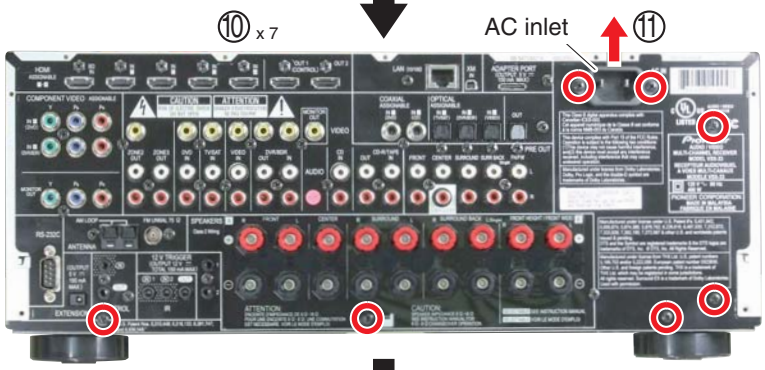




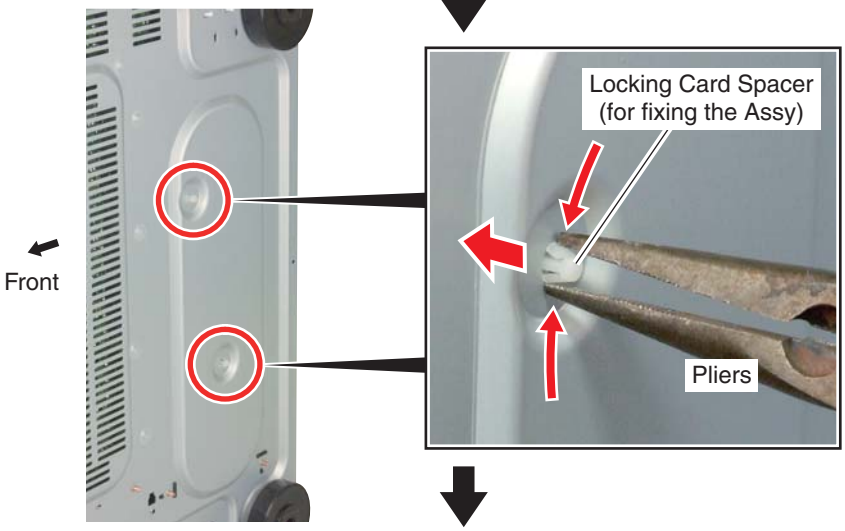
(9) Connect the FFC (ADD7733) over cables to the DIGITAL MAIN ASSY.



(10) Remove the seven screws from the Rear Panel. (BBZ30P080FTB)
(11) Remove the AC inlet.

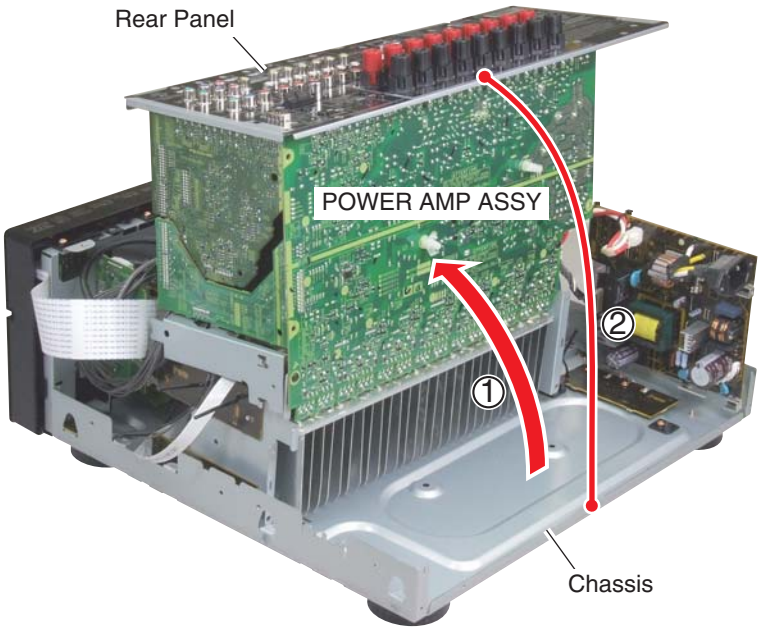


(12) Remove the two Locking Card Spacers from the Chassis using Pliers.



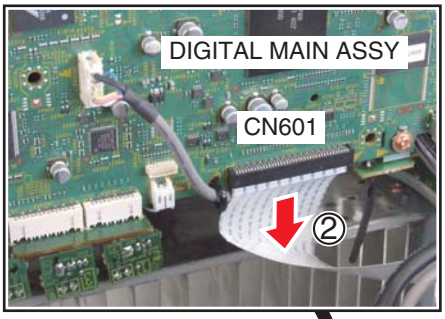
[2-2] Diagnosis

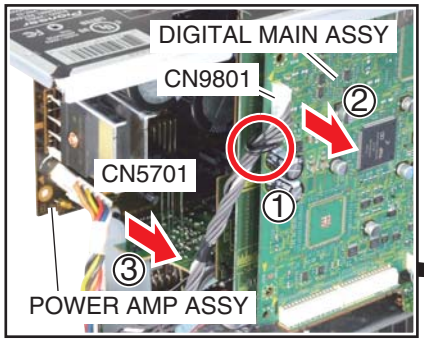
(1) Arrange the unit as shown in the photo below.
(2) Connect the Rear Panel to the Chassis Ground.

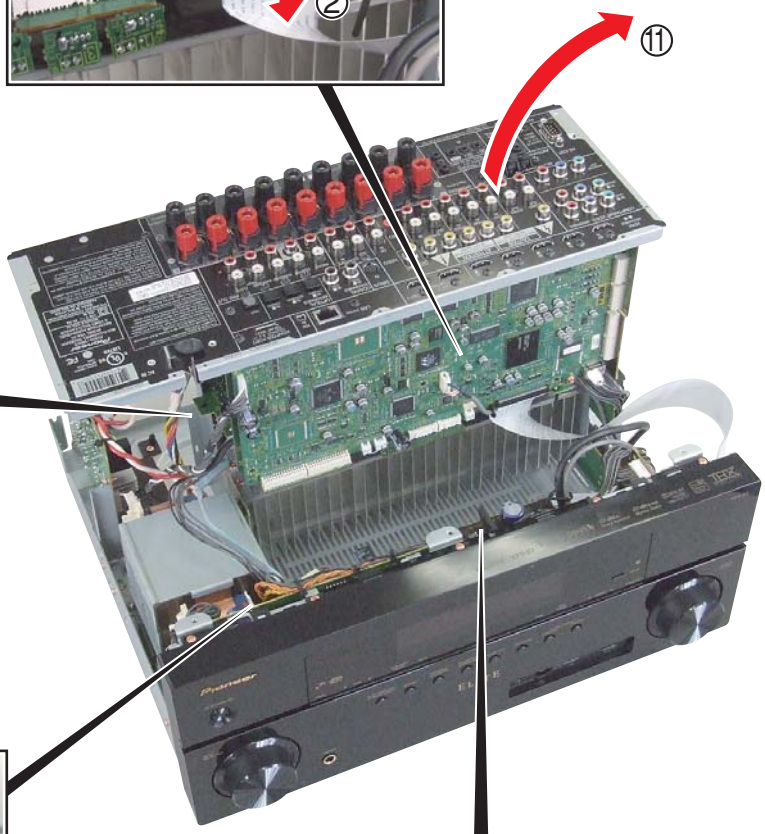


[2-3] Remove the POWER AMP ASSY

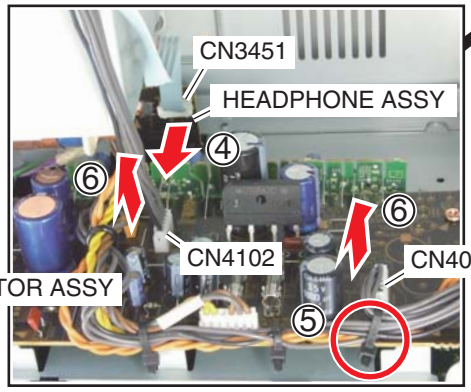
(1) Release the cable, as required.
(2) Disconnect the two connectors from the DIGITAL MAIN ASSY.
(3) Disconnect the one connector from the POWER AMP ASSY.

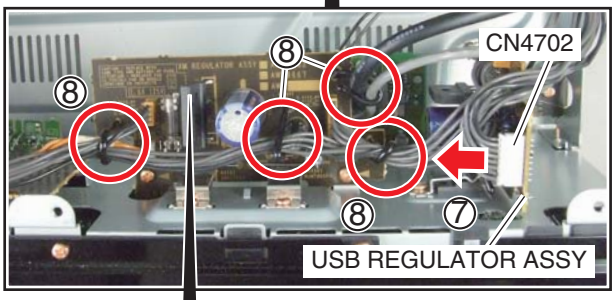




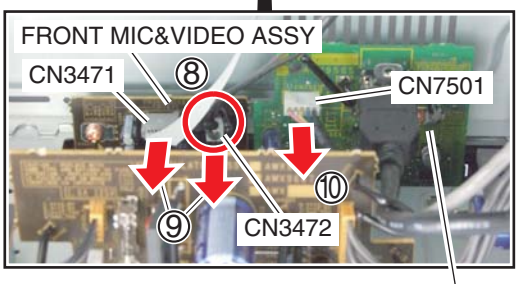


(4) Remove the one cable of the HEADPHONE ASSY.
(5) Cut the binder.
(6) Disconnect the two connectors from the REGULATOR ASSY.

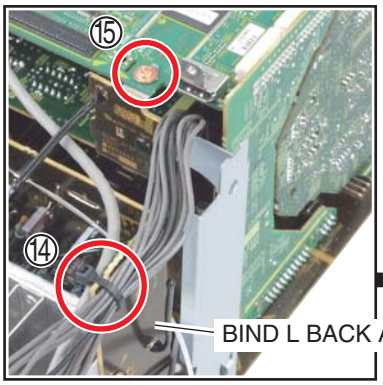


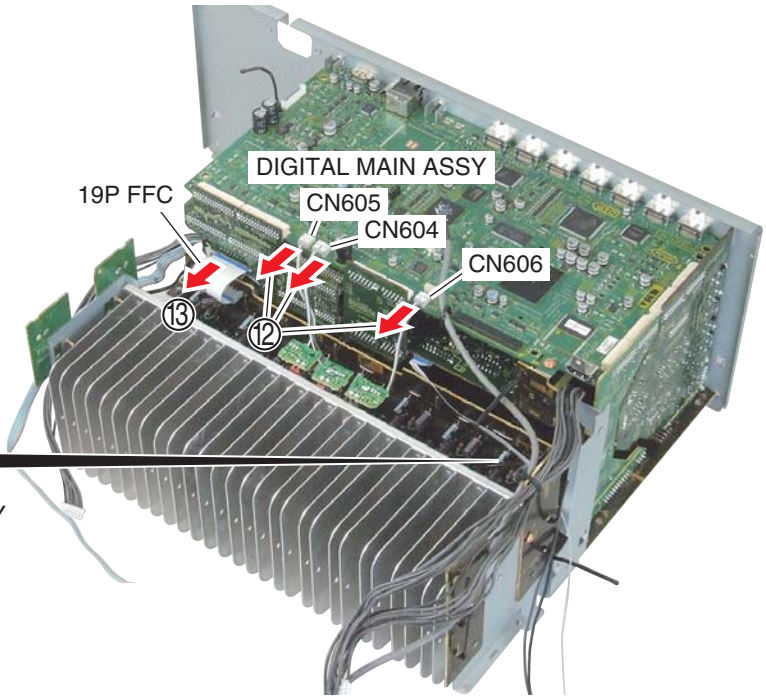


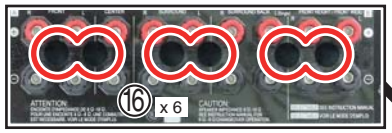
(7) Disconnect the one connector from the USB REGULATOR ASSY.
(8) Release the cables, as required.
(9) Disconnect the two connectors from the FRONT MIC&VIDEO ASSY.
(10) Disconnect the one connector from the FRONT HDMI USB ASSY.
(11) Remove the POWER AMP Unit.



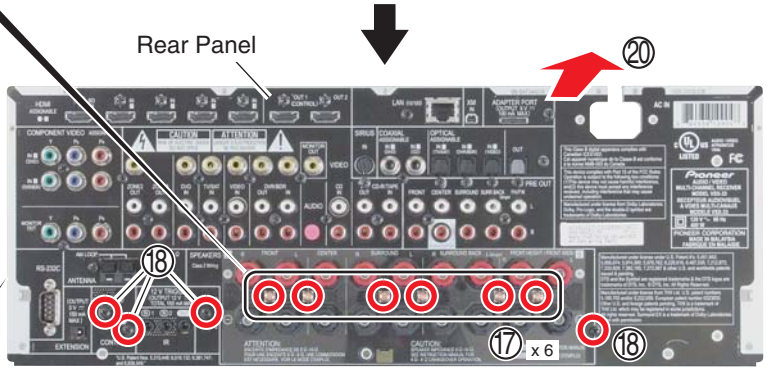
(12) Disconnect the three connectors from the DIGITAL MAIN ASSY.
(13) Remove the 19P FFC. (ADD7730)
(14) Cut the binder.
(15) Remove the one screw. (BBZ30P080FCC)

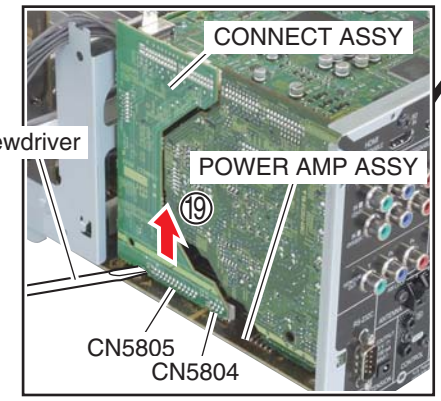




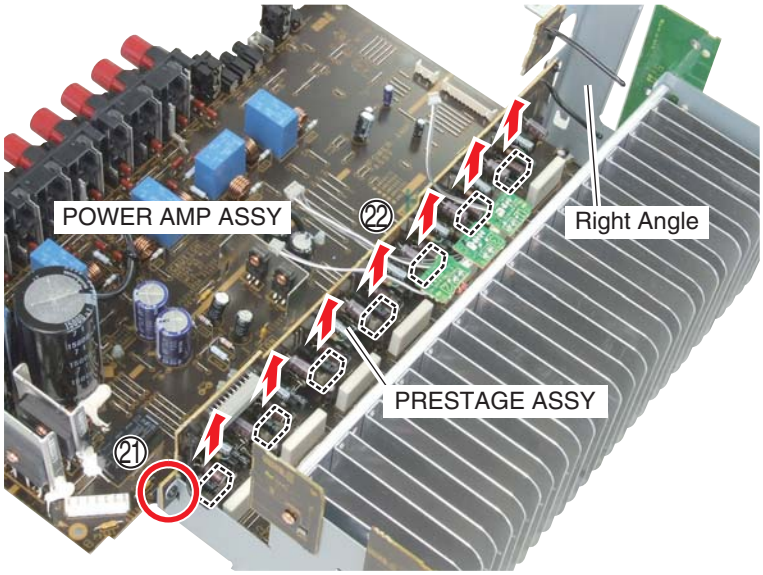


(16) Remove the six Cushion Circle 14B.
(17) Remove the six screws. (BBT30P100FCC)
(18) Remove the four screws. (BBZ30P080FTB)
(19) Insert a screwdriver under the low end of the CONNECT ASSY, and turn the driver to disconnect the two connectors from the POWER AMP ASSY.
(20) Remove the Rear Panel (with other assy).

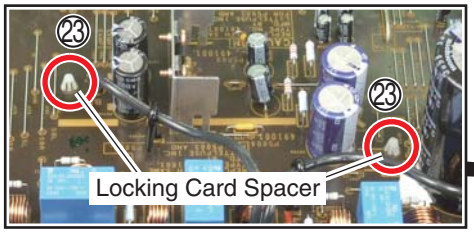


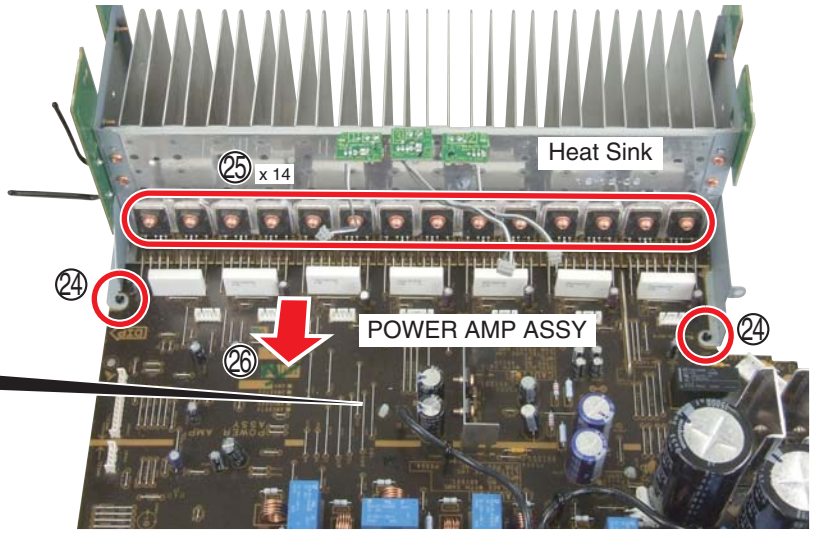


(21) Remove the Nylon Rivet.
(22) Disconnect the seven connectors and then remove the PRESTAGE ASSY (with the Right Angle).



(23) Remove the two Locking Card Spacers, using Pliers.
(24) Remove the two Nylon Rivets.
(25) Remove the 14 screws. (ABA7085)
(26) Remove the POWER AMP ASSY.





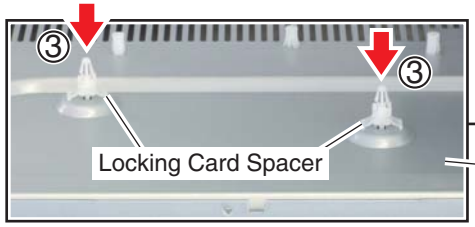
[2-4] Assembling of the POWER AMP ASSY

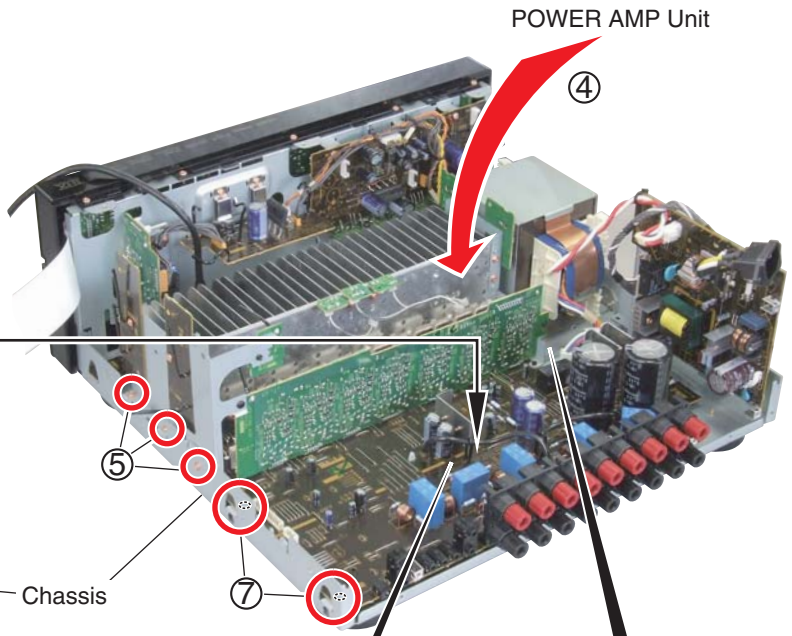
(1) Attach the POWER AMP ASSY to the Heat Sink, using the 14 screws (ABA7085) and two Nylon Rivets.
(Refer to the steps (23) and (24) of "[2-3] Remove the POWER AMP ASSY")

Note: Apply even coatings of silicon grease (GEM1057) on the Heat Sink side of the transistors.

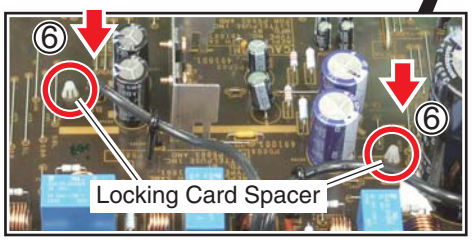
(2) Attach the PRESTAGE ASSY (with the Right Angle), using the seven connectors and the Nylon Rivet.
(Refer to the steps (21) and (22) of "[2-3] Remove the POWER AMP ASSY")

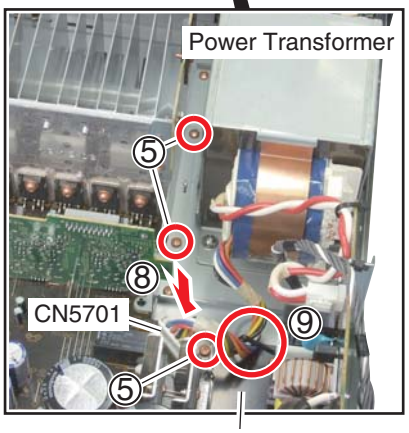
(3) Attach the two Locking Card Spacers to the Chassis.





(4) Allocate the POWER AMP Unit.
(5) Attach the six screws. (BBZ30P080FCC)
(6) Fix the POWER AMP ASSY on the head of the two Locking Card Spacers.

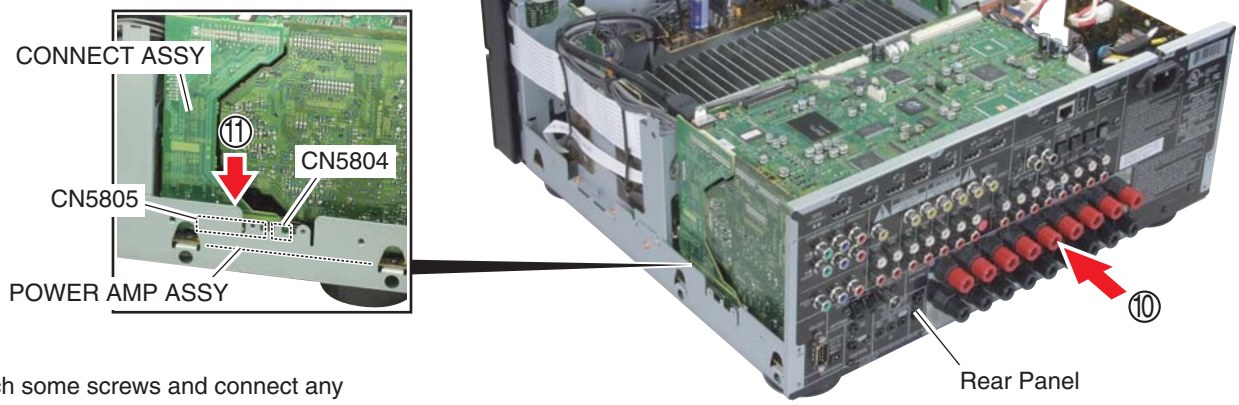




(7) Attach the two Nylon Rivets.
(8) Connect the one connector.
(9) Fix the jumper wire to the BIND DM CABLE ASSY.

BIND DM CABLE ASSY

(10) Attach the Rear Panel (with other assy).
(11) Connect the two connectors.



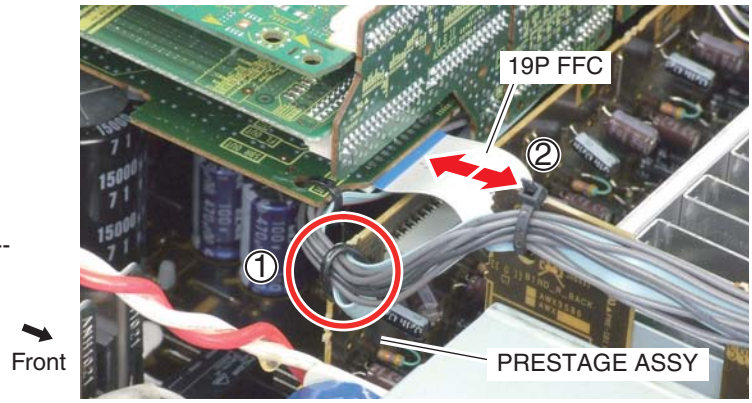
(12) Attach some screws and connect any cables as required.
(Refer to " [2-1] Exterior")

[3] AUDIO ASSY

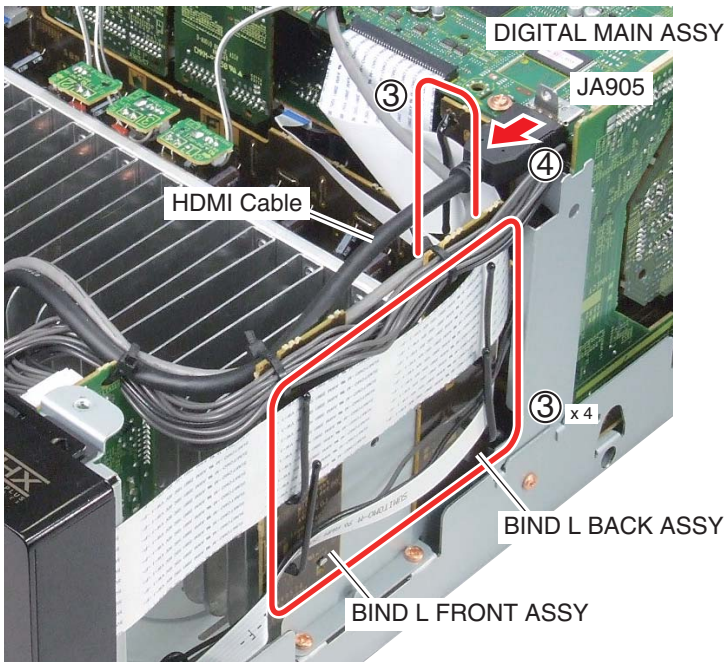
(1) Remove the Bonnet by removing the 18 screws.
(2) Discharge C5721 and C5722.
(Refer to the "discharge procedures.")

[3-1] Exterior

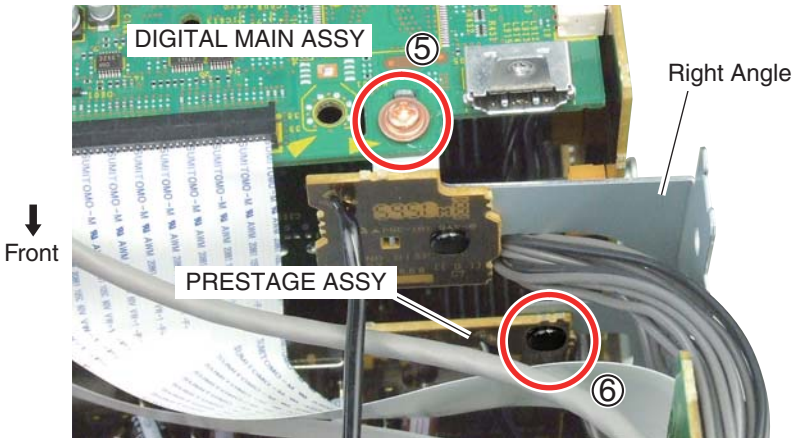
(1) Release the jumper wires form the PRESTAGE ASSY.
(2) 19P FFC (ADD7730) to 19P FFC (GGD1678) to replace.



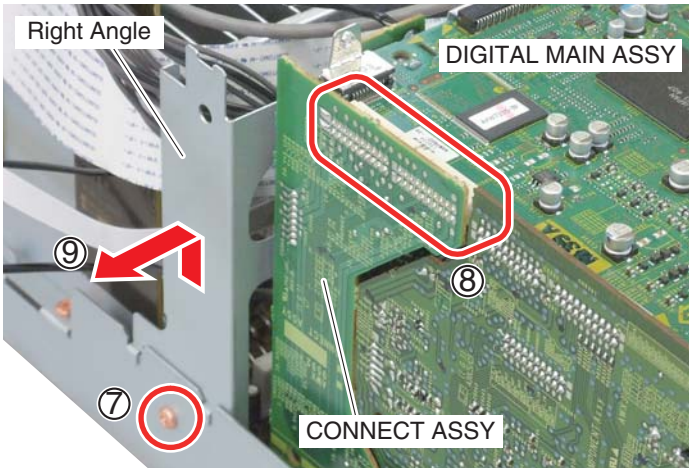
(3) Release the jumper wires, as required.
(4) Remove the HDMI Cable of the DIGITAL MAIN ASSY.



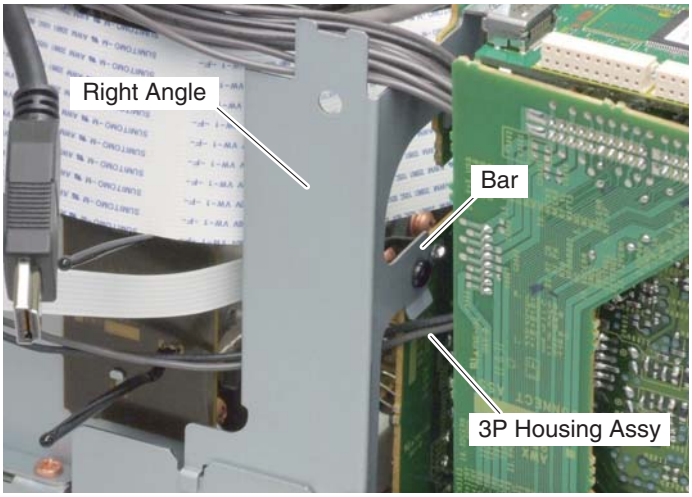
(5) Remove the one screw. (BBZ30P080FCC)
(6) Remove the Nylon Rivet.



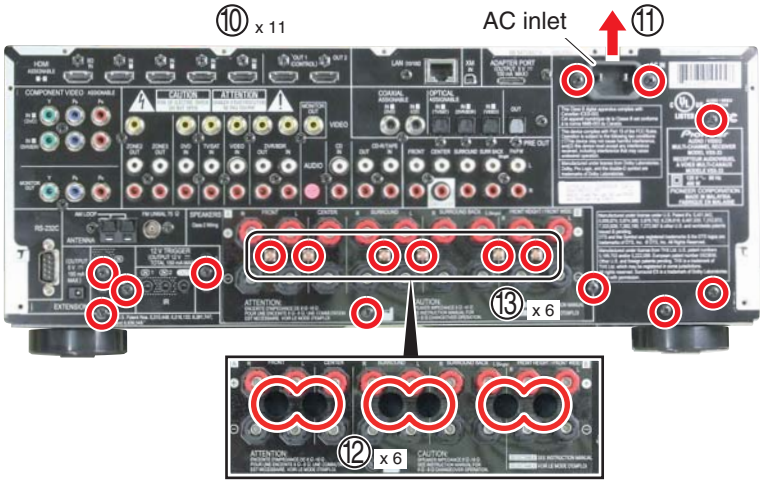
(7) Remove the one screws. (BBZ30P080FCC)
(8) Disconnect the two connectors.
(9) Remove the Right Angle.



Note: To reassemble, pass the 3P Housing Assy (ADX7739) under the bar of the Right Angle.

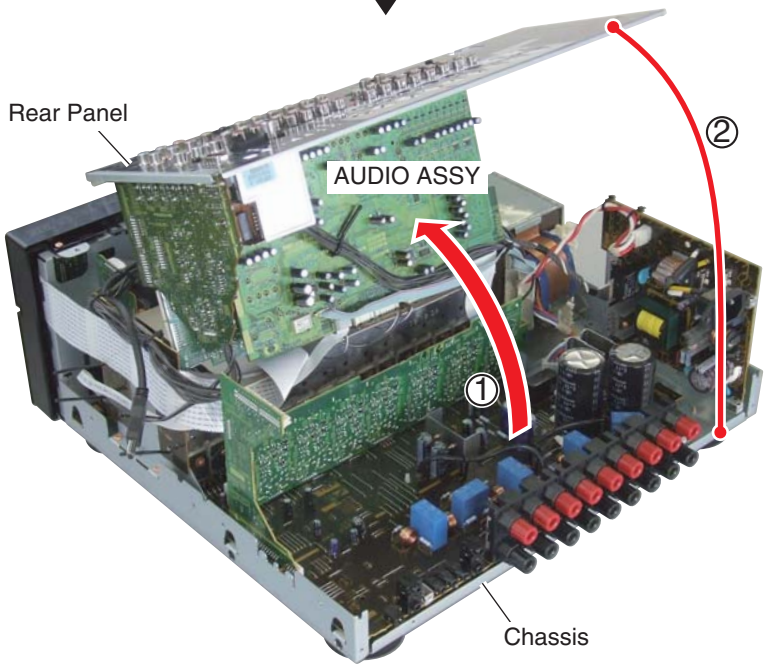


(10) Remove the 11 screws from the Rear Panel. (BBZ30P080FTB)
(11) Remove the AC inlet.
(12) Remove the six Cushion Circle 14B.
(13) Remove the six screws. (BBT30P100FCC)



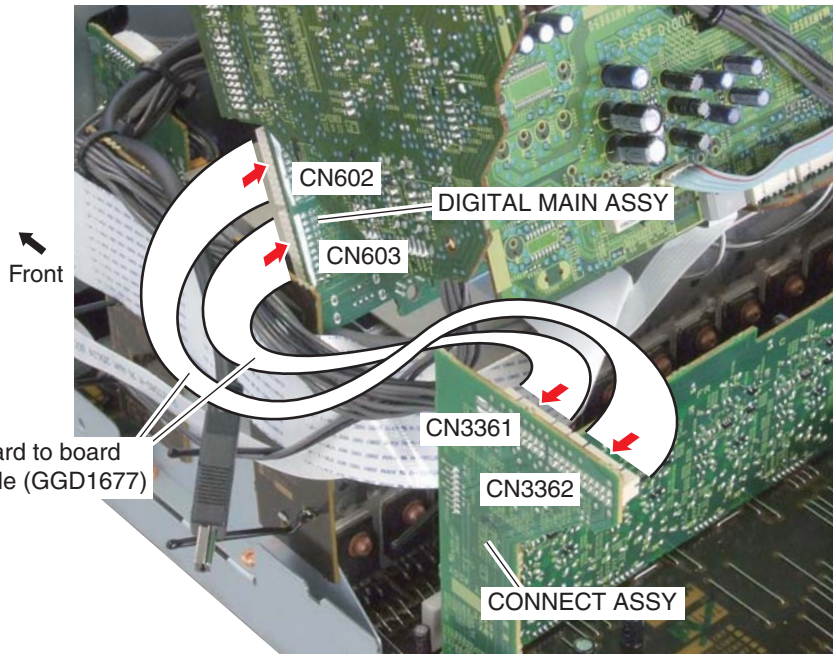
[3-2] Diagnosis

(1) Arrange the unit as shown in the photo below.
(2) Connect the Rear Panel to the Chassis Ground.



(3) Insert the insulation sheet.

(4) Connect the two board to board extension jig cables.
(DIGITAL MAIN CN602 <-> CONNECT CN3362)
(DIGITAL MAIN CN603 <-> CONNECT CN3361)

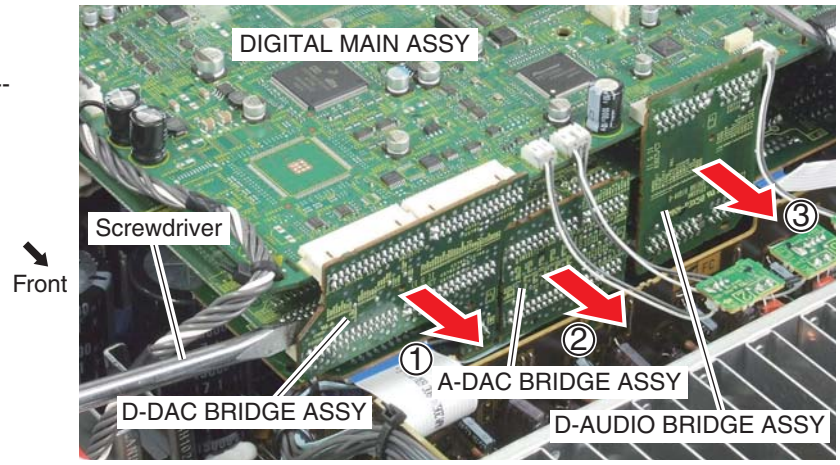


[4] DAC LOW ASSY

(1) Remove the Bonnet by removing the 18 screws.
(2) Discharge C5721 and C5722.
(Refer to the "discharge procedures.")

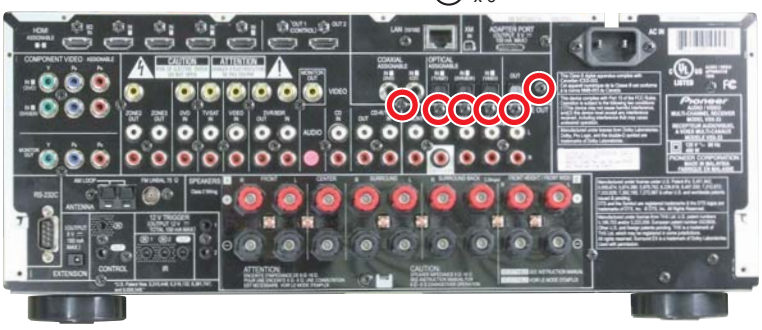
[4-1] Exterior

(1) Remove the D-DAC BRIDGE ASSY.
(2) Remove the A-DAC BRIDGE ASSY.
(3) Remove the D-AUDIO BRIDGE ASSY.

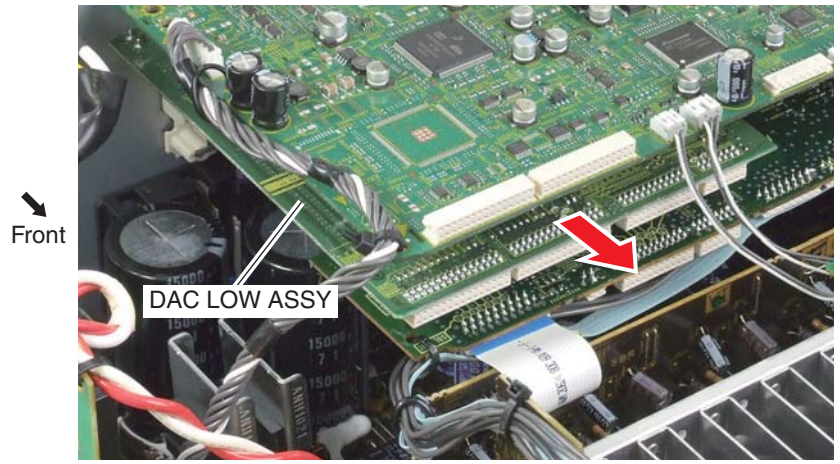


④ x 6

(4) Remove the six screws. (BBZ30P080FTB)



(5) Remove the DAC LOW ASSY.

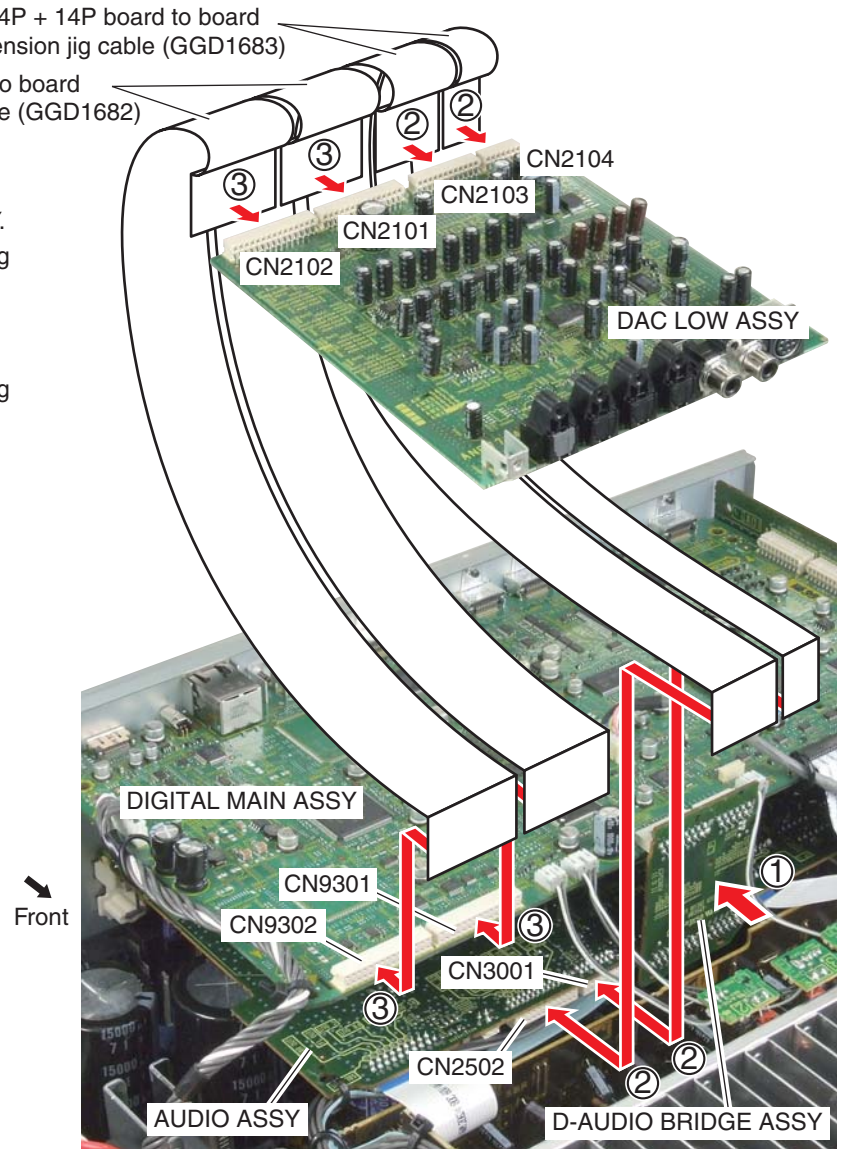


[4-2] Diagnosis

(1) Reassembling the D-AUDIO BRIDGE ASSY.

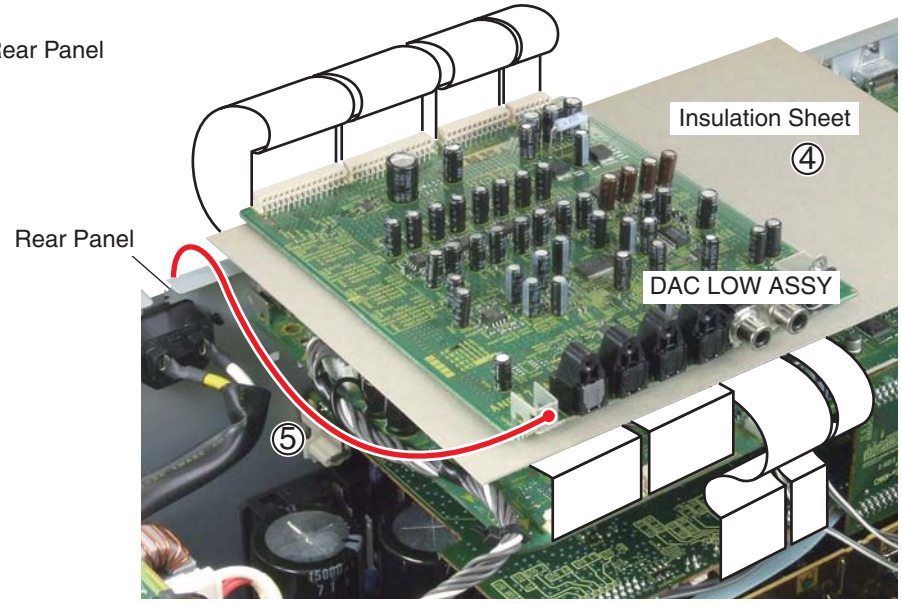
(2) Connect the two board to board extension jig cables.
(AUDIO CN2502 <-> DAC LOW CN2103)
(AUDIO CN3001 <-> DAC LOW CN2104)

(3) Connect the two board to board extension jig cables.
(DIGITAL MAIN CN9302 <-> DAC LOW CN2102)
(DIGITAL MAIN CN9301 <-> DAC LOW CN2101)



(4) Insert the insulation sheet.

(5) Connect the DAC LOW ASSY to the Rear Panel ground.
(Refer to the “Ground points.”)



8. EACH SETTING AND ADJUSTMENT

8.1 HOW TO SAVE AND LOAD THE SETTINGS USING BACKUP FUNCTION WITH USB MEMORY

[Introduction]

This model is capable of saving the set values stored in the MAIN Ucom of DIGITAL MAIN ASSY in the USB and loading them in a new DIGITAL MAIN ASSY.
(Note that MAIN Ucom should normally operate to enable this function.)

When replacing DIGITAL MAIN ASSY, execute the above mentioned processes.

[Data that can be saved/cannot be saved]

The following **data can not be saved**. Data other than these can be saved.

Contents to save	Destination to save
Last memory for turning ON/OFF the Main power and power supply for ZONE2 and ZONE3 Last memory for inputting the Main power, ZONE2 and ZONE3 Setting for controlling HDMI Remote control ID Setting for RF remote control (EXPANSION Setup) Setting for Network Standby Data to be save upon the operation of protection circuit	EVENT Ucom
Settings for HMG (Only for SC-37, SC-LX83 system: Because BridgeCo is used.) Preset Memory, Favorite, Recently played, etc.	BridgeCo IC

(As the data saved by EVENT Ucom is on the DI SPLAY ASSY,
the data cannot be deleted unless Assy is replaced at the same time.)

[Requirements for USB memory]

USB memory to be used should meet the following requirements.

- Compatible with USB Mass storage Class
- With a file system of FAT(FAT32)

[File saving format]

Files are to be saved in the following format: Model number_backup version.extension(avr)
Example: VSX-LX53_BK01.avr

[How to save in the USB memory from AV amplifier]

1. Insert the usable USB memory into the USB terminal when the main device is off.
2. Enter the SERVICE MODE and select [USB BAK ◄ HOLD ►] with ↑↓ keys.
   (See [6.1 TEST MODE] for how to enter the SERVICE MODE.)
3. Select [USB BAK ◄ SAVE ►] with ⇄ keys and press [ENTER].
4. Saving in the USB starts and the main device automatically goes off after the normal completion ([COMPLETE] is displayed.).
5. Remove the USB and saving is finished.

*1. If the following errors occur after "SAVE" is executed, error message will be displayed and "SAVE" will be stopped and the power will be turned off.
- Ejecting of USB device
- Short capacity of USB device
- Error during writing in the USB device (Read Only or defective Sector, etc.)

*2. If the same file name exists in the USB, overwriting will be automatically executed.

[How to write into AV amplifier from the USB memory]

1. Insert the USB with the saved file into the USB terminal when the main device is off.
2. Enter the TEST MODE and select [USB BAK ◄ HOLD ►] with ↑↓ keys.
   (See [6.1 TEST MODE] for how to enter the TEST MODE.)
3. Select [USB BAK ◄ LOAD ►] with ⇄ keys and press [ENTER].
4. Saving in the main device starts and it automatically goes off after the normal completion ([COMPLETE] is displayed.).
5. Remove the USB and loading is finished.

* If the following errors occur after "LOAD" is executed, error message will be displayed and "LOAD" will be stopped and the power will be turned off.
- No setting file
- Mismatching between the setting file and the specification of the A/V RECEIVER type to be loaded back
- Error due to Checksum, Signature Check, and Size Check
- Ejecting of USB device (during reading of the setting file)

Precautions

- Files are stored in Root of USB memory.
- Files are read from Root of USB memory.
  ⇨ To make operations such as moving files, be sure to assign the saved file in Root of the USB memory.
  Also please be careful not to assign *.avr in multiple numbers.

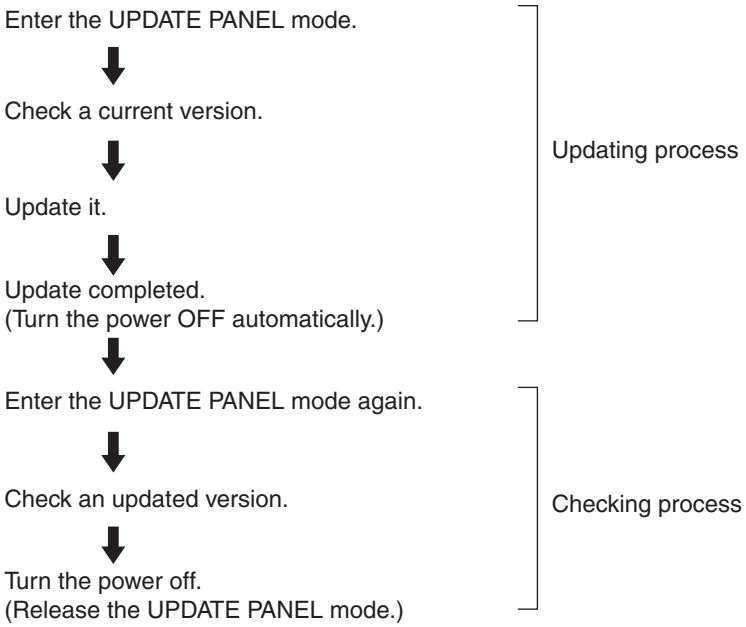
- The time and date of updating for saved file is fixed to "2010/01/01 0:00."
- In principle, please implement Load without making of factory default settings.
  To Load from factory default settings status, please take caution on the following points;

Please be sure to check the HDMI control setting for the user before performing of factory default settings.
Since the HDMI control setting of default settings is ON, turn OFF the HDMI control setting and Load after performing of factory default settings if the checked user setting is OFF.
(If Load is executed with the setting ON, the assignment information for each HDMI input will be cleared.)

Procedures for turning OFF the HDMI control setting
⇨ HOME MENU ⇨ 4.System Setup ⇨ 4e.Other Setup ⇨ 4e1.HDMI Setup ⇨ Control OFF

8.2 HOW TO UPDATE FIRMWARE

■ Workflow



■ MAIN com (EMMA), SUB com (EVENT) and DSP Flash ROM Update by USB Memory and the Confirmation of the Version

● **UPDATE PANEL Mode (Version update)**

[Preparations]

1. Copy the UPDATE FILE to the root directory of the USB Memory.
   Note: NEVER copy several UPDATE FILES to the root directory of the USB Memory. Copy only the corresponding UPDATE FILE.
2. Turn off the power to this unit by setting Multi-Zone to "OFF".
3. Connect the USB Memory to the USB terminal (A type) of the front panel.

[Procedure]

1. While holding down **"TUNE?"** key on the front panel, press **"STANDBY ON/OFF"** key and moves to the **UPDATE PANEL mode**.
2. The updating process is as follows.

Key operation	FL display
[TUNE↑] + [STANDBY ON/OFF]	
↓	POWER ON
Booting is completed	
↓	MAIN com (EMMA) version is displayed.
[TUNE↓] or [TUNE↑]	MAIN 1.000
[↓] [↑]	SUB com (EVENT) version is displayed.
[TUNE↓] or [TUNE↑]	SUB 1.000
[↓] [↑]	DSP version is displayed.
[TUNE↓] or [TUNE↑]	DSP 1.000
[↓] [↑]	Update Menu
	UPDATE

Front Panel Key

[↓] : TUNE key
[↑] : TUNE key
[←] : PRESET key
[→] : PRESET key

If no key is pressed within 10 seconds while booting UPDATE PANEL, the UPDATE PANEL is finished and returns to the normal display. But the process does not become timeout and continues while "FILE searching" or "Updating process".

Key operation	FL display
	Update Menu
	UPDATE
[ENTER]	
[PRESET→] or [PRESET←]	Update Confirmation
	UPDATE ? ◀NO▶
[←] [→]	Update Confirmation
	UPDATE ? ◀YES▶
[ENTER]	
	File searching
	PLEASE WAIT
UPDATE FILE searching completed	

Key operation	FL display
UPDATE FILE searching completed	
⇩	Updating process U P D A T E ■
DSP UPDATE completed	
⇩	Updating process U P D A T E ■■
MAIN com (EMMA) UPDATE completed	
⇩	Updating process U P D A T E ■■■■
SUB com (EVENT) UPDATE completed	
⇩	Update completion display C O M P L E T E ■■■■■■
5 Second	
⇩	
Power turns off automatically. (All ZONE OFF) Disconnect the USB MEMORY.	

Update time is fluctuated by contents of the update. It will take about 15 minutes at the maximum.
(Actual time is from 2 minutes to 12 minutes.)
Time required for updating varies, because only the programs that require updating will be updated.

[Confirmation]

Enter UPDATE PANEL mode and check that the programs have been updated.

A

B

C

D

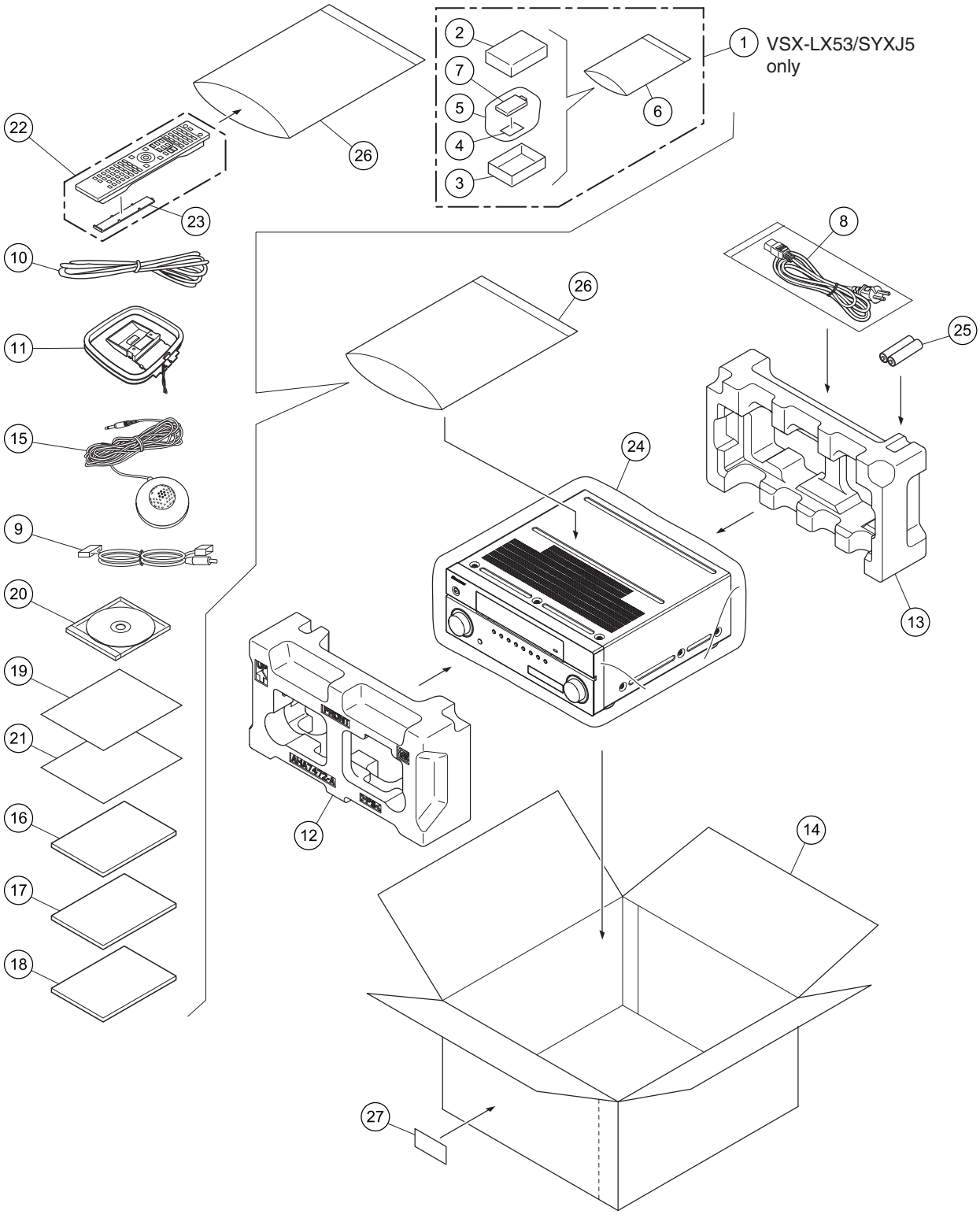
E

F

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 ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

9.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

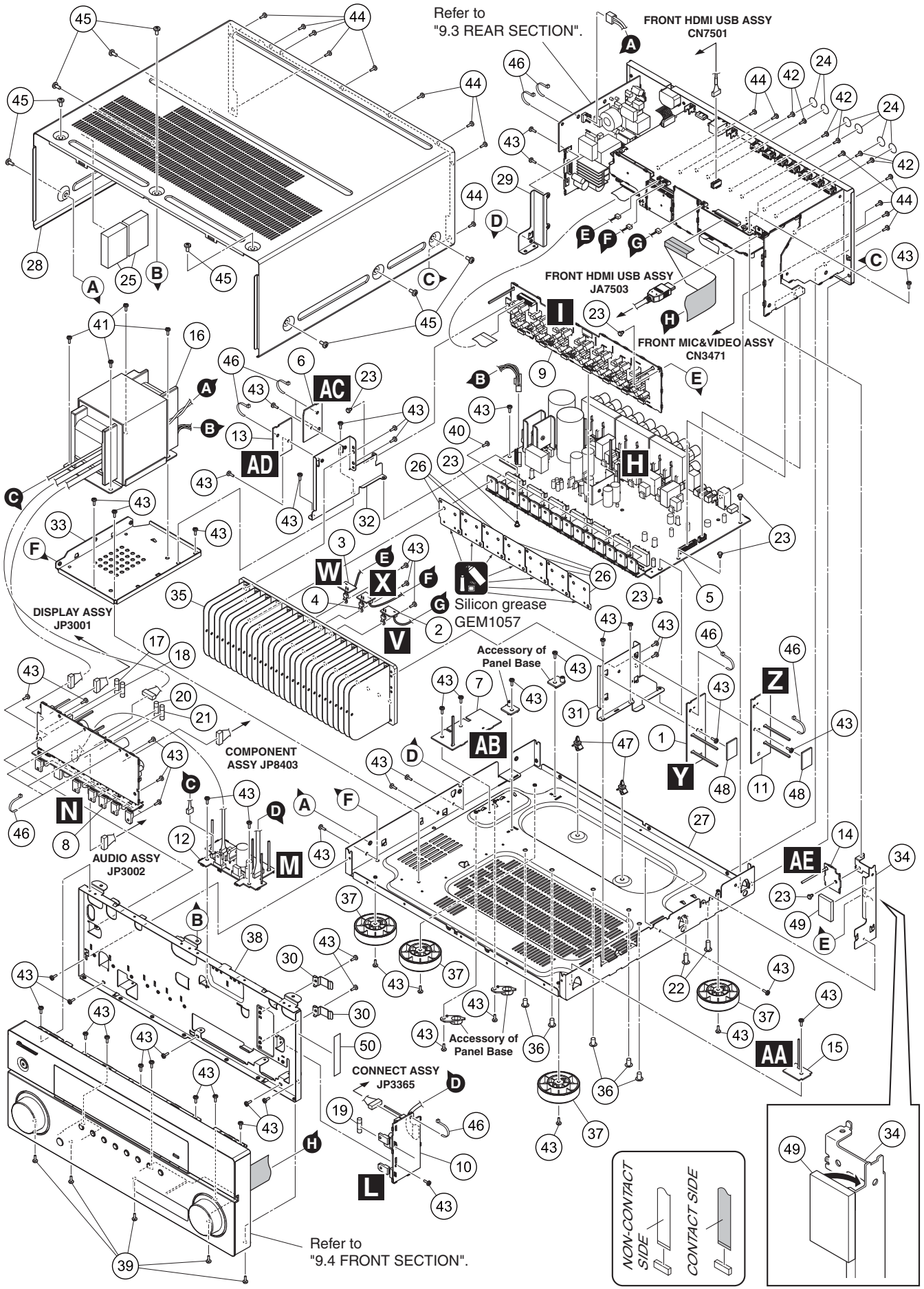
Mark	No.	Description	Part No.
NSP	1	Bluetooth AD ASSY	See Contrast table (2)
NSP	2	Top Case BTA	See Contrast table (2)
NSP	3	Bottom Case BTA	See Contrast table (2)
NSP	4	BT Label (6L)	See Contrast table (2)
	5	Nonwoven Sheet BTA	See Contrast table (2)
NSP	6	Polyethylene Bag 55 x 80	See Contrast table (2)
	7	Bluetooth ASSY	See Contrast table (2)
⚠	8	Power Cord EU Inlet	XDG3061
	9	iPod Cable (USB+V)	ADE7135
	10	FM Wire Antenna	ADH7030
	11	AM Loop Antenna	XTB3004
	12	Front Pad V5SEL	AHA7472
	13	Rear Pad V5SEL	AHA7473
	14	Packing Case	See Contrast table (2)
	15	MCACC Setup Microphone (5 m)	APM7009
	16	Quick Start Guide (En, Fr, Gr)	ARH7098
	17	Quick Start Guide (It, Sp)	ARH7099
	18	Quick Start Guide (Du, Ru)	ARH7100
	19	Caution Sheet SP, E	ARM7083
	20	Operating Instrutions (CD-ROM)	ARU7002
NSP	21	Warranty Card EU	ARY7128
	22	Remote Control Unit	AXD7592
	23	Battery Cover	AZN8047
	24	Packing Sheet	RHC1023
NSP	25	Battery (R3)2P(JE)	VEM1049
NSP	26	Polyethylene Bag 230 x 340	AHG7117
NSP	27	Serial Label S	VRW2017

(2) CONTRAST TABLE

VSX-LX53/SYXJ5 and VSX-2020-K/SYXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-LX53	VSX-2020-K
NSP	1	Bluetooth AD ASSY	AXF7022	Not used
NSP	2	Top Case BTA	AAK8468	Not used
NSP	3	Bottom Case BTA	AAK8469	Not used
NSP	4	BT Label (6L)	AAL7444	Not used
	5	Nonwoven Sheet BTA	AHG7142	Not used
NSP	6	Polyethylene Bag 55 x 80	AHG7153	Not used
	7	Bluetooth ASSY	AWM8111	Not used
	14	Packing Case	AHD8672	AHD8708

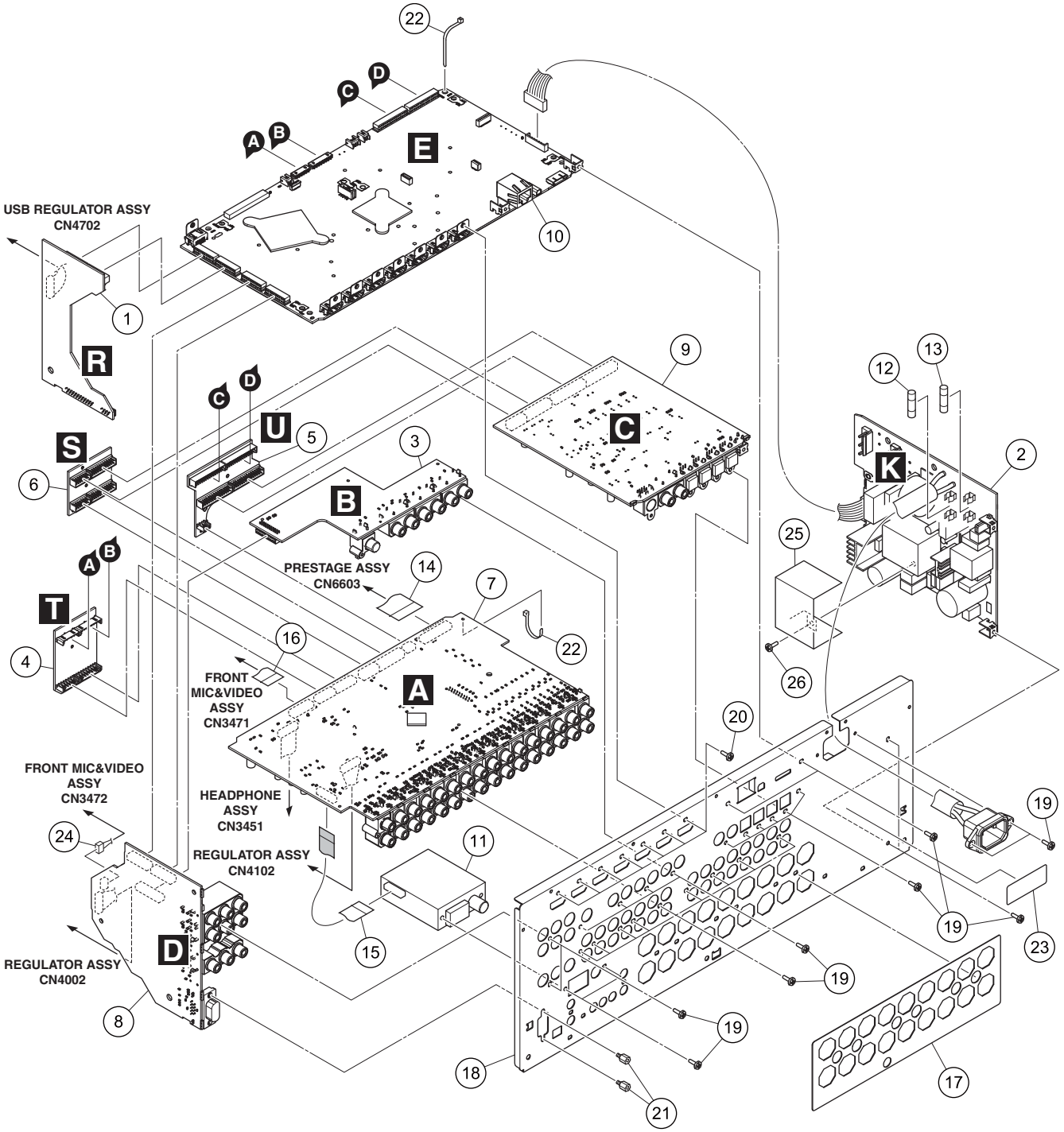
9.2 EXTERIOR SECTION



EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	BIND L FRONT ASSY	AWX9574
	2	POSI 1 ASSY	AWX9576
	3	POSI 2 ASSY	AWX9577
	4	POSI 3 ASSY	AWX9578
	5	POWER AMP ASSY	AWX9660
	6	BIND R BACK ASSY	AWX9586
	7	BIND DM CABLE ASSY	AWX9575
	8	REGULATOR ASSY	AWX9579
	9	PRESTAGE ASSY	AWX9580
	10	USB REGULATOR ASSY	AWX9581
	11	BIND L BACK ASSY	AWX9585
	12	XM REGULATOR ASSY	AWX9667
	13	BIND R FRONT ASSY	AWX9584
	14	BIND DISP FFC ASSY	AWX9668
	15	BINDER ASSY	AWX9595
⚠	16	Power Transformer	ATS7435
⚠	17	Fuse (FU6 : T800MA)	AEK7072
⚠	18	Fuse (FU7 : T800MA)	AEK7072
⚠	19	Fuse (FU10 : T1.25A)	AEK7074
⚠	20	Fuse (FU8 : T1.6A)	AEK7075
⚠	21	Fuse (FU9 : T1.6A)	AEK7075
	22	PCB Holder	AEC7057
	23	Nylon Rivet	AEC7406
	24	Cushion Circle 14B	AED7081
	25	Top Cushion	AED7121
	26	Mica Sheet V5SEL	AEE7068
NSP	27	Chassis V7S	ANA7227
	28	Bonnet B V7S	AZN8044
	29	Primary Angle	ANG7526
NSP	30	Transistor Holder	ANG7543
	31	H.S. Angle V5S L	ANG7611
	32	H.S. Angle V5S R	ANG7612
NSP	33	Trans Frame V5S	ANG7629
	34	Right Angle V7S	ANG7671
NSP	35	Heat Sink V5S	ANH7199
	36	Card Spacer	DNK2769
	37	Insulator ASSY	DXA1904
NSP	38	Panel Stay V7S	ANG7673
	39	Screw 3 x 10 (FE)(VSX-LX53)	ABA1193
		Screw(VSX-2020-K)	BBZ30P080FCC
	40	Screw 3 x 19 (FE)	ABA7085
	41	Screw 4 x 12 (FE)	ABA7109
	42	Screw	BBT30P100FCC
	43	Screw	BBZ30P080FCC
	44	Screw	BBZ30P080FTB
	45	Screw	BCZ40P060FTB
NSP	46	Binder (BK-1)	ZCA-BK1
	47	Locking Card Spacer	PNW2917
	48	FCC Cushion	AEB7404
	49	Cushion T3 20 x 35	AEB7406
	50	Acetate Tape 10 x 60	AEH7029

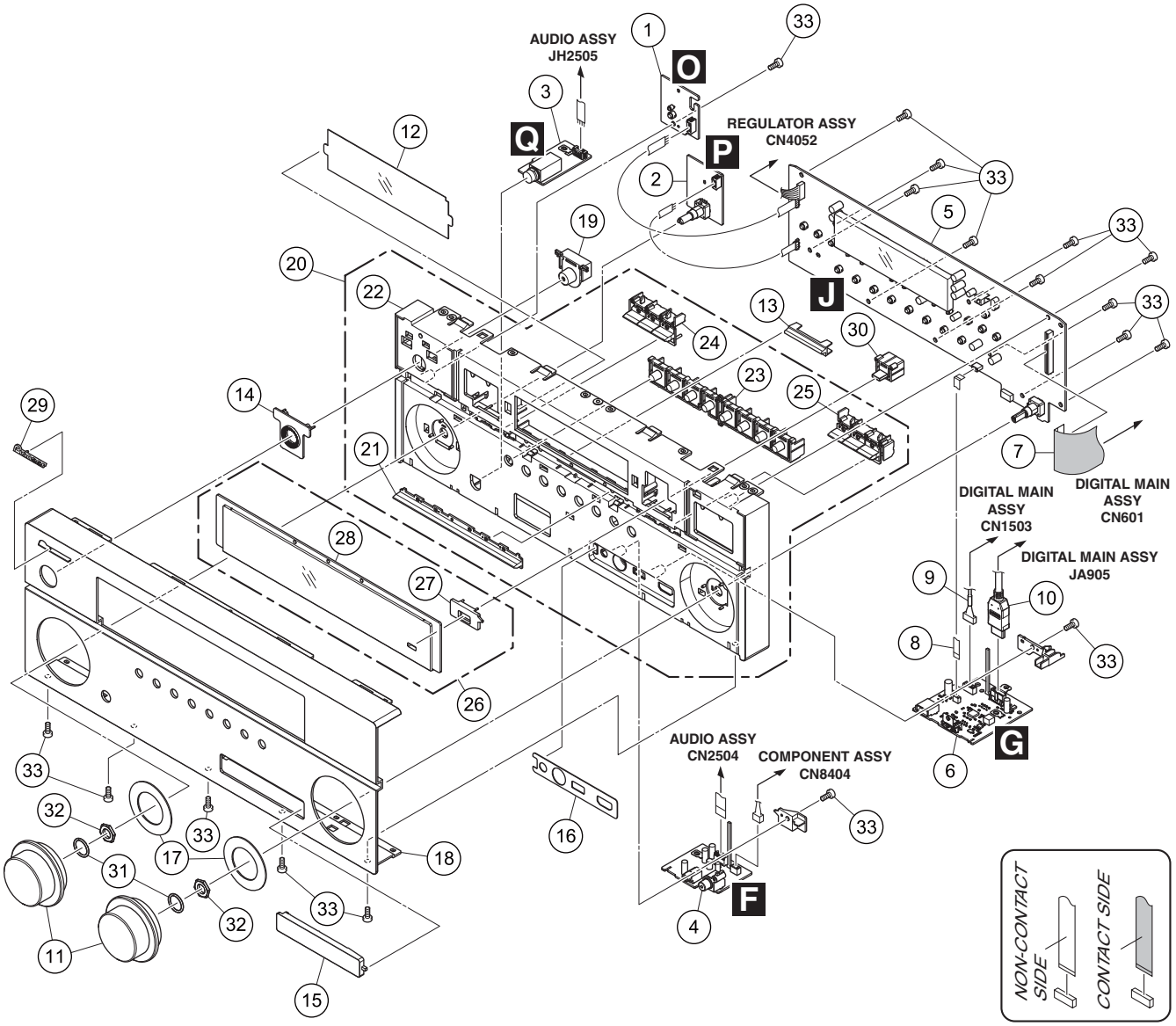
9.3 REAR SECTION



REAR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	CONNECT ASSY	AWX9592
	2	PRIMARY ASSY	AWX9676
	3	COMPOSITE ASSY	AWX9568
	4	D-AUDIO BRIDGE ASSY	AWX9569
	5	D-DAC BRIDGE ASSY	AWX9570
	6	A-DAC BRIDGE ASSY	AWX9571
	7	AUDIO ASSY	AWX9644
	8	COMPONENT ASSY	AWX9572
	9	DAC LOW ASSY	AWX9657
	10	DIGITAL MAIN ASSY	AWX9719
	11	FM/AM TUNER Unit	AXX7265
⚠	12	Fuse (FU1 : T5A)	AEK1061
⚠	13	Fuse (FU4 : 4A)	REK1104
	14	19P FFC/60V (J53)	ADD7730
	15	11P FFC/60V (J55)	ADD7729
	16	7P FFC/60V (J54)	ADD7731
	17	SP Sheet V7S	AEC7641
	18	Rear Panel(VSX-LX53)	ANC8586
		Rear Panel(VSX-2020-K)	ANC8595
	19	Screw	BBZ30P080FTB
	20	Screw	BMZ30P040FTB
	21	Hex head Screw 2.85 X 7 (BS)	ABA7078
NSP	22	Binder (BK-1)	ZCA-BK1
NSP	23	Serial Label S	VRW2017
	24	3P Housing Assy(J59)	ADX7739
	25	Shield Case	AMR7557
	26	Screw	BBZ30P080FCC

9.4 FRONT SECTION



(1) FRONT SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	POWER SW ASSY	AWX9588
	2	ENCODER ASSY	AWX9589
	3	HEADPHONE ASSY	AWX9590
	4	FRONT MIC & VIDEO ASSY	AWX9593
	5	DISPLAY ASSY	See Contrast table (2)
	6	FRONT HDMI USB ASSY	AWX9565
	7	39P FFC/60V (J56)	ADD7733
	8	4P FFC/60V (J57)	ADD7734
	9	5P Housing ASSY (J58)	ADX7731
	10	HDMI Cable (J52)	ADX7732
	11	VOL. Knob	AAA7059
	12	Filter 60HY	AAK8413
	13	IB Lens V5SEL	AAK8430
	14	Power Ring	AAK8471
	15	Input Cover	AAK8528
	16	Input Sheet	AAK8531
	17	VOL Stabilizer 82	AEC7629
	18	Front Panel	See Contrast table (2)
	19	Standby BTN ASSY	AXG7400
	20	P Base ASSY	See Contrast table (2)
	21	Center Lens V6S H	AAK8505
	22	Panel Base	AMB8010
	23	Circle Button V6S H	XAD3278
	24	CTR BTN Right ASSY	XXG3415
	25	CTR BTN Left ASSY	XXG3416
	26	Window ASSY	AXG7424
	27	Enter BTN Spacer V6	AAK8479
NSP	28	Window	AAK8525
	29	Pioneer Badge	VAM1158
	30	Enter Button V6S	XAD3271
NSP	31	C Ring DIM 8.1	XBH3016
	32	Nut	NK90FTC
	33	Screw	PPZ30P080FNI

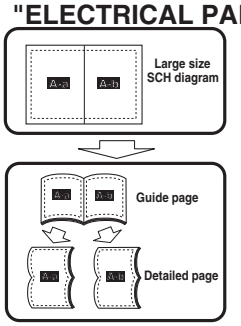
(2) CONTRAST TABLE

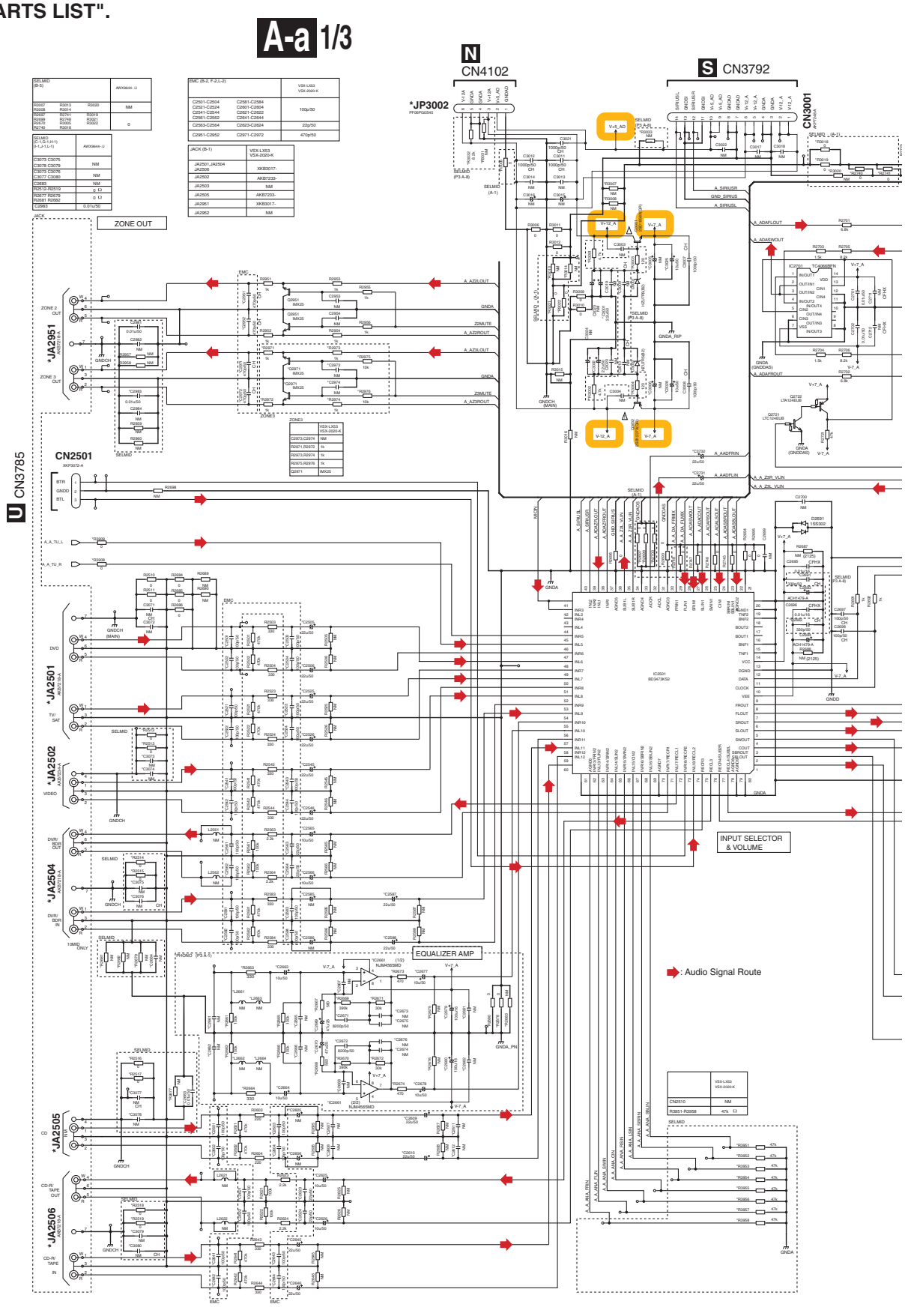
VSX-LX53/SYXJ5 and VSX-2020-K/SYXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-LX53	VSX-2020-K
	5	DISPLAY ASSY	AWX9669	AWX9726
	18	Front Panel	ANB7544	AMB8031
	20	P Base ASSY	AXG7403	AXG7432

10. SCHEMATIC DIAGRAM
10.1 AUDIO ASSY(1/3)(GUIDE PAGE)

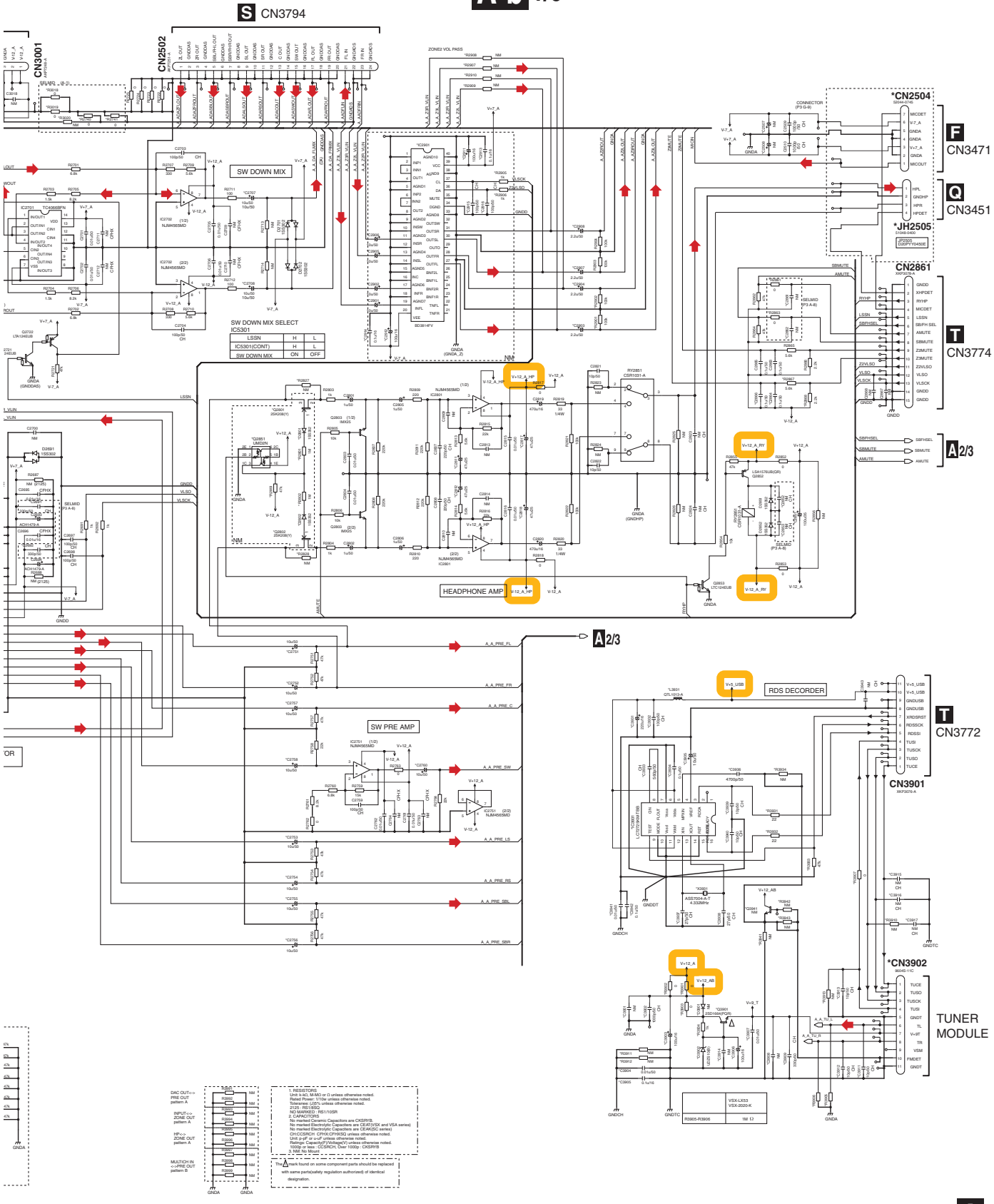
Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



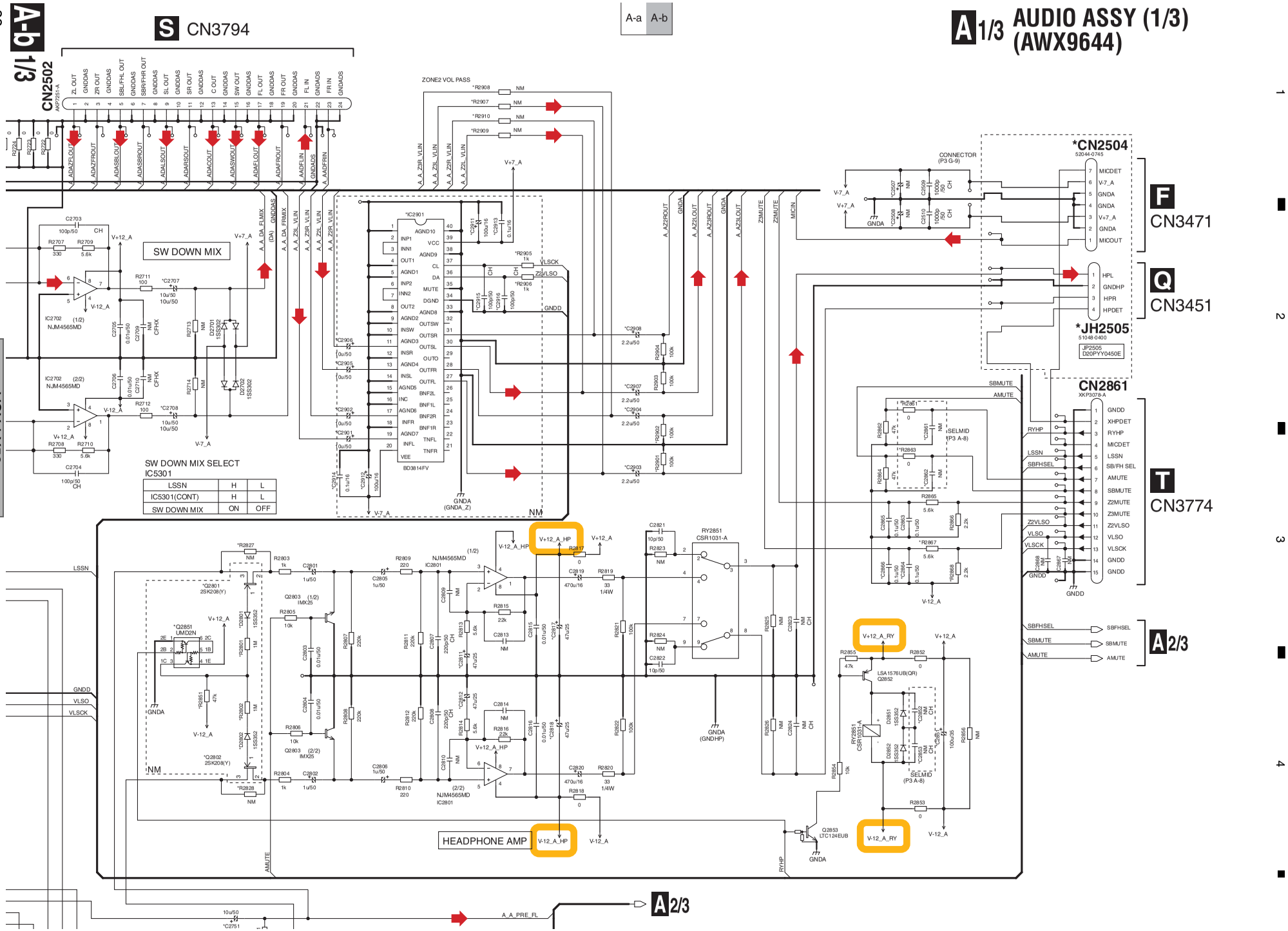


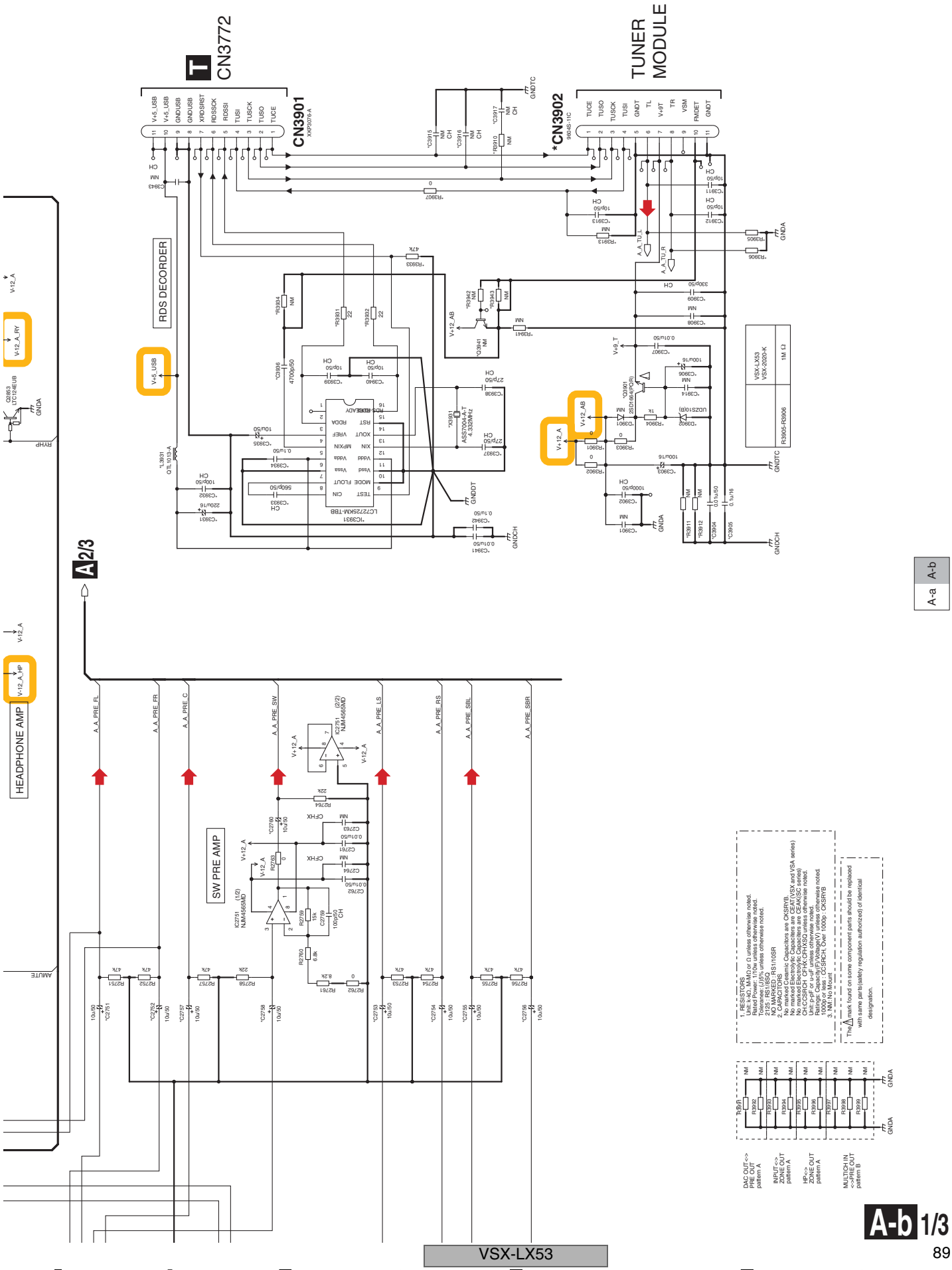
A 1/3 AUDIO ASSY (1/3) (AWX9644)

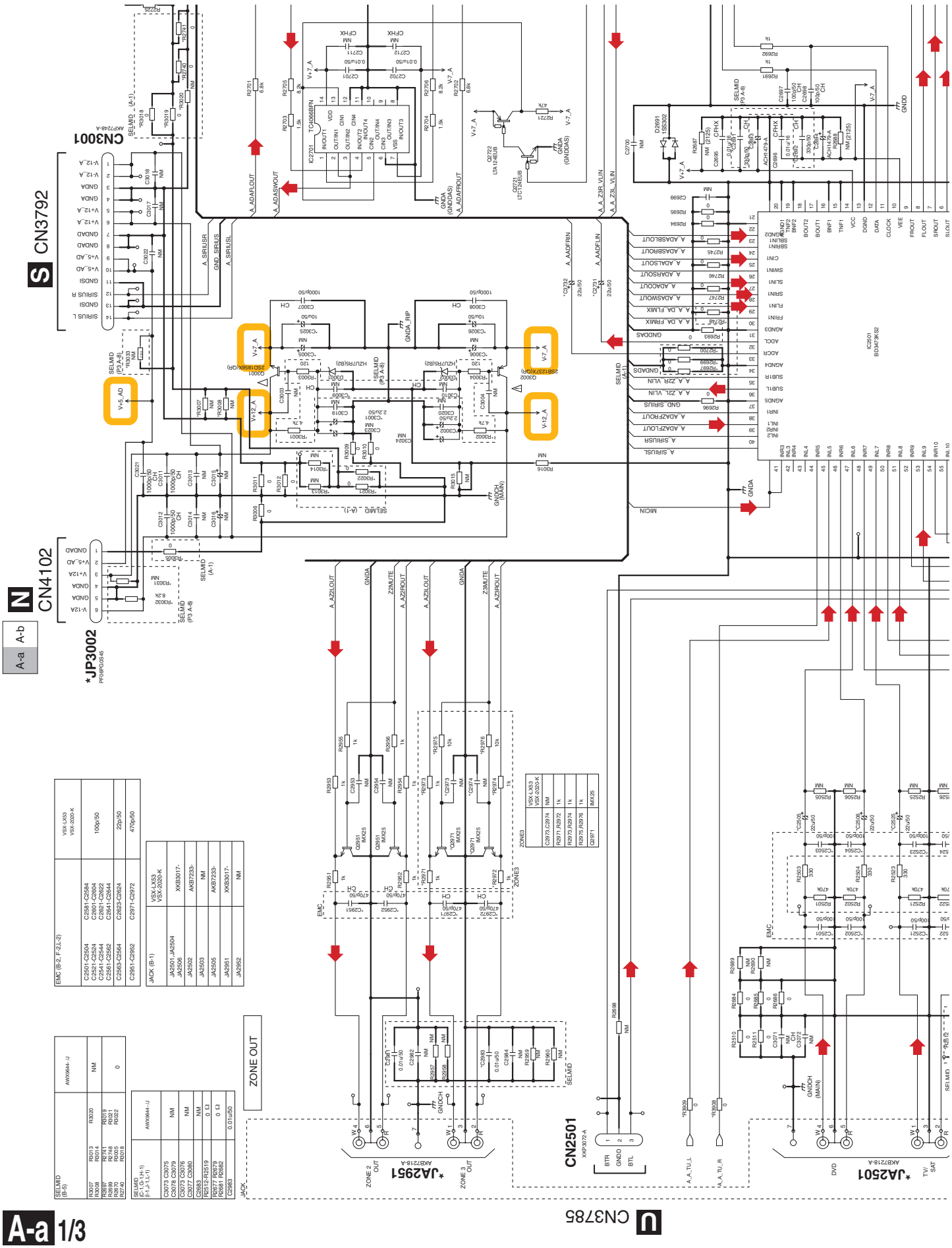
A-b 1/3



A 1/3 AUDIO ASSY (1/3) (AWX9644)




CN3772
CN3901
*CN3902
TUNER MODULE
RDS DECORDER
HEADPHONE AMP
SW PRE AMP
A2/3
A-b 1/3
VSX-LX53


CN3001
CN3792
CN4102
*JP3002
CN3785
CN2501
*JA2951
*JA2501
ZONE OUT
A-a 1/3
90
VSX-LX53

A

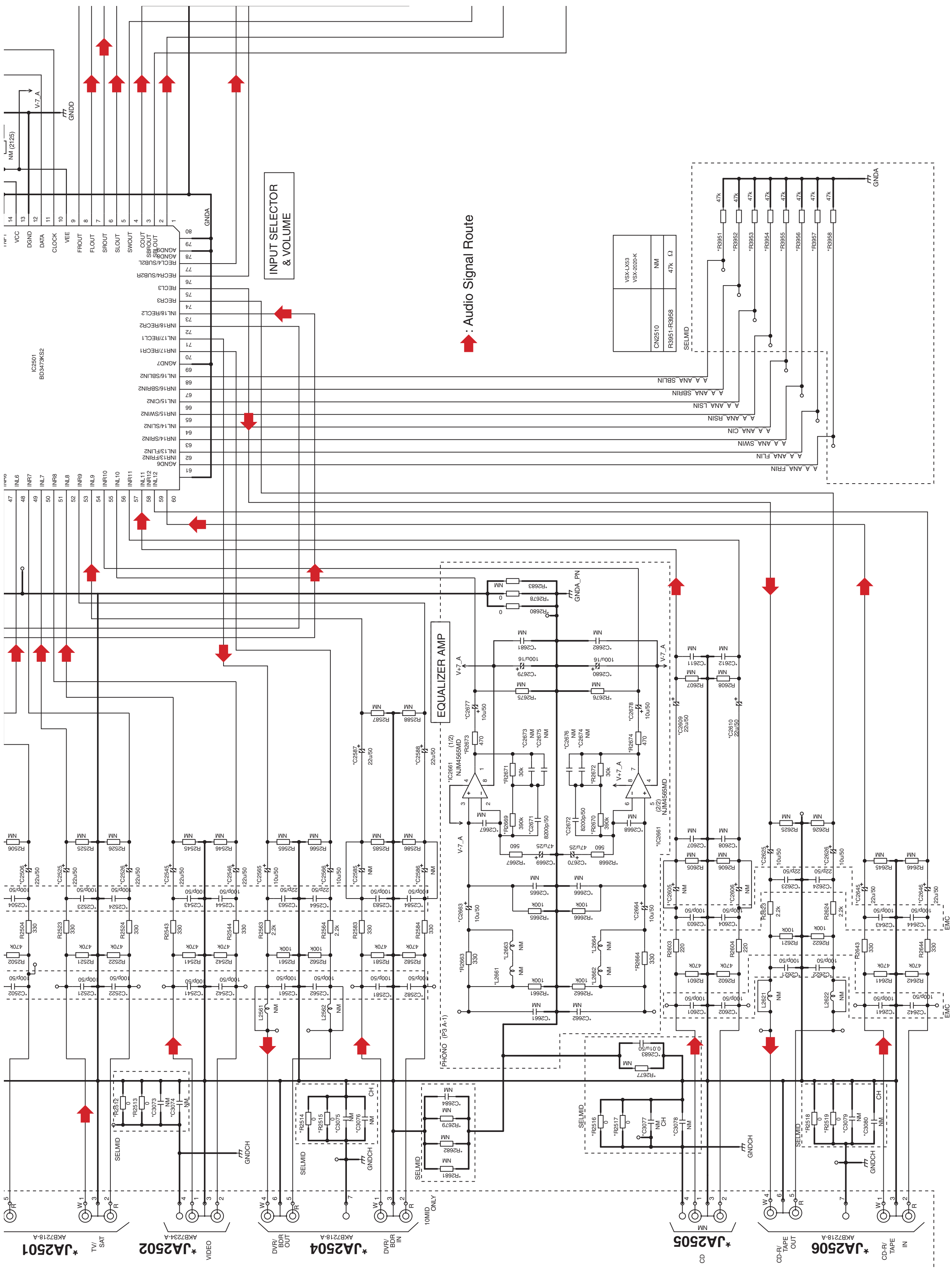
B

C

D

E

F


INPUT SELECTOR & VOLUME
: Audio Signal Route
EQUALIZER AMP
IC2501
BD3473KS2
JA2501
JA2502
JA2504
JA2505
JA2506
CN2510
R3951-R3958
VSX-LX53
VSX-2020-K
NM
47k Ω

A-b
A-a

10.2 AUDIO ASSY(2/3)

SELMID	VSX-LX53/VSX-2020-K
C3053	NM
C3054	NM
C3055	NM
C3056	NM
C3057	NM
C3058	NM
R3051	NM
R3052	NM
R3053	10
R3054	10
CN3051	NM
CN3052	9607S-19F

NOTE
1. RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated Power: 1/10w unless otherwise noted.
Tolerance: (J)5% unless otherwise noted.
2125 : RS1/8SQ
NO MARKED : RS1/10SR
2. CAPACITORS
No marked Ceramic Capacitors are CKSRYB.
No marked Electrolytic Capacitors are CEAT(VSX and VSA series)
No marked Electrolytic Capacitors are CEAK(SC series)
CH:CCSRCH CFH:CFHXSQ unless otherwise noted.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
1000p or less : CCSRCH, Over 1000p : CKSRYB
3. NM: No Mount

PRE BUFFER

PREBUFFER (P3 D-5)

A 1/3

A_A_PRE_SBL
A_A_PRE_SBR
A_A_PRE_RL
A_A_PRE_C
A_A_PRE_FR
A_A_PRE_LS
A_A_PRE_RS

V+7_A
V-7_A
V+12_A
V-12_A
SELMID (P3 A-8)
SELMID (P3 G-11)
GNDA

*CN3052 9607S-19F

19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
GNDA	SB/FH L OUT	GNDA	SB/FH R OUT	GNDA	FL OUT	GNDA	C OUT	GNDA	FR OUT	GNDA	LS OUT	GNDA	RS OUT	GNDA	GNDA	AMUTE	SBMUTE	NON

I CN6603

A_A_PRE_FL
A_A_PRE_FR
A_A_PRE_C
A_A_PRE_SW
A_A_PRE_LS
A_A_PRE_RS
A_A_PRE_SBL
A_A_PRE_SBR

PL2z SELECTOR

IC3221 TC4053BFN

PL2z	Surr Back	Front Hight
SB/FH SEL	H	L

AMUTE
SBMUTE
SBFHSEL
Q3221 LTC124EUB
Q3222 LTC124EUB

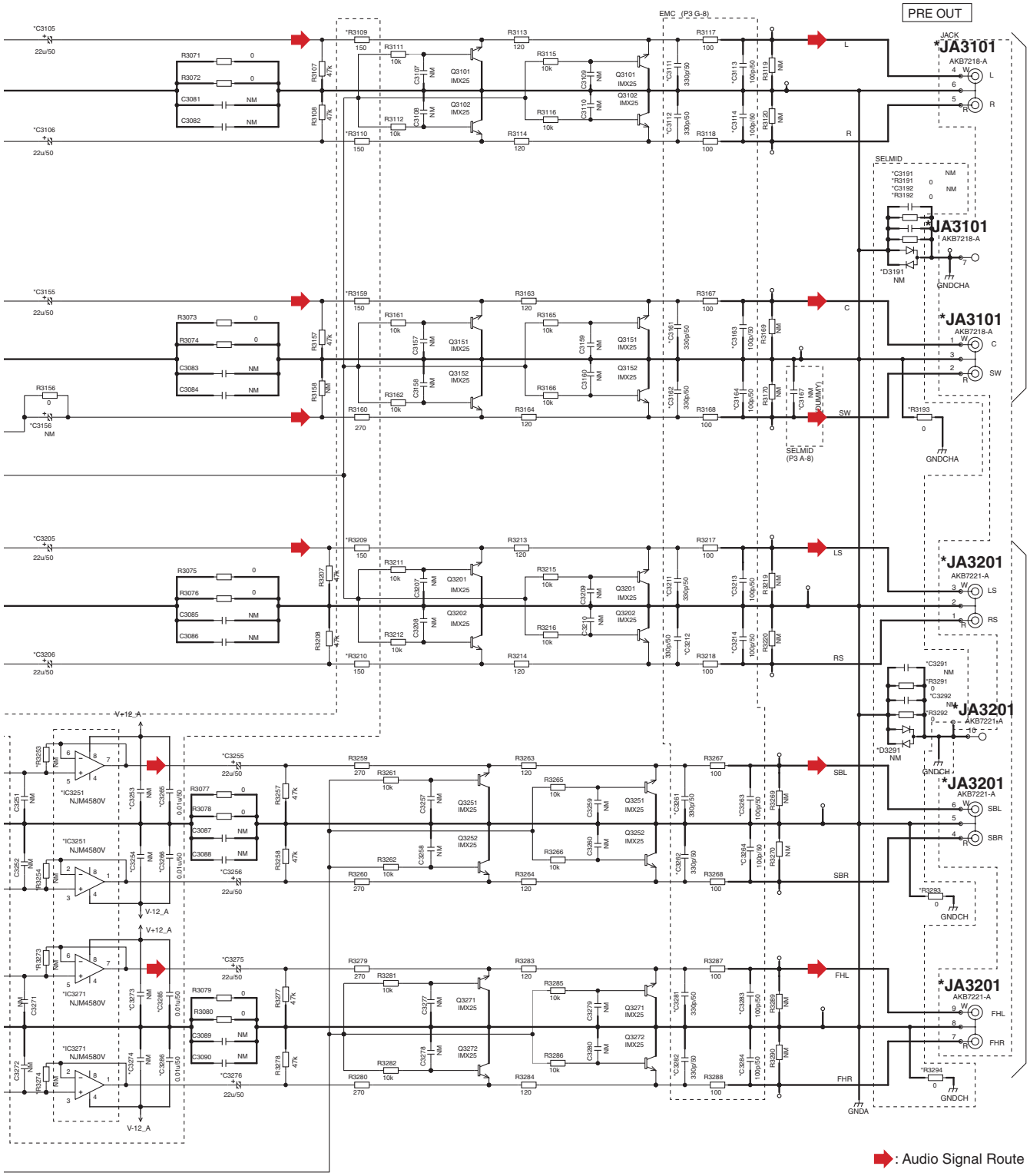
MULTICH IN <->PRE OUT pattern B
MULTICH IN <->PRE OUT pattern A
INPUT<-> ZONE3 OUT pattern A
ZONE2<-> ZONE3 OUT pattern A
ZONE2<-> ZONE3 OUT pattern A
PRE<->PRE pattern B
CD-R <->PRE OUT pattern A
CD-R <->PRE OUT pattern B

A 2/3

A2/3 AUDIO ASSY (2/3) (AWX9644)

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

	VSX-LX53 VSX-2020-K
JA3101	XKB3017-
JA3201	XKB3037-



10.3 AUDIO ASSY(3/3)

NOTE
1. RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated Power: 1/10w unless otherwise noted.
Tolerance: (J)5% unless otherwise noted.
2125 : RS1/8SQ
NO MARKED : RS1/10SR
2. CAPACITORS
No marked Ceramic Capacitors are CKSRYB.
No marked Electrolytic Capaciters are CEAT(VSX and VSA series)
No marked Electrolytic Capaciters are CEAK(SC series)
CH:CCSRCH CFHX:CFHXSQ unless otherwise noted.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
1000p or less : CCSRCH, Over 1000p : CKSRYB
3. NM: No Mount

PHONO (P1 I-2)

	VSX-LX53 VSX-2020-K
C2661	NM
C2662	NM
C2663	NM
C2664	NM
C2665	NM
C2666	NM
C2667	NM
C2668	NM
C2669	NM
C2670	NM
C2671	NM
C2672	NM
C2673	NM
C2674	NM
C2675	NM
C2676	NM
C2677	NM
C2678	NM
C2679	NM
C2680	NM
C2681	NM
C2682	NM
R2661	NM
R2662	NM
R2663	NM
R2664	NM
R2665	NM
R2666	NM
R2667	NM
R2668	NM
R2669	NM
R2670	NM
R2671	NM
R2672	NM
R2673	NM
R2674	NM
R2675	NM
R2676	NM
R2678	0
R2680	0
R2683	NM
L2661	NM
L2662	NM
L2663	NM
L2664	NM
IC2661	NM

TUNER (P1 J-13)

	VSX-LX53 VSX-2020-K
C3901	NM
C3902	1000p/50
C3903	100u/16
C3904	0.01u/50
C3905	0.1u/16
C3906	100u/16
C3907	0.01u/50
C3908	NM
C3909	330p/50
C3911	10p/50
C3912	10p/50
C3913	10p/50
C3914	NM
C3915	NM
C3916	NM
C3917	NM
R3901	0
R3902	0
R3903	0
R3904	1k
R3905	1M
R3906	1M
R3907	0
R3910	NM
R3911	NM
R3912	NM
R3913	NM
CN3902	9604S-11C
D3901	NM
D3902	UDZS10(B)
Q3901	2SD1664(PQR)

RDS (P1 G-13)

	VSX-LX53 VSX-2020-K
C3931	220u/16
C3932	100p/50
C3933	560p/50
C3934	0.1u/50
C3935	10u/50
C3936	4700p/50
C3937	27p/50
C3938	27p/50
C3939	NM
C3940	NM
C3941	0.01u/50
C3942	0.1u/16
R3931	22
R3932	22
R3933	47k
R3934	NM
R3941	NM
R3942	NM
R3943	NM
L3931	QTL1013-A
IC3931	LC72725KM
Q3941	NM
X3931	ASS7004-A

PREBUFFER (P2 B-5)

	VSX-LX53 VSX-2020-K
C3103	NM
C3104	NM
C3115	NM
C3116	NM
C3153	NM
C3154	NM
C3165	NM
C3166	NM
C3203	NM
C3204	NM
C3215	NM
C3216	NM
C3253	NM
C3254	NM
C3265	0.01u/50
C3266	0.01u/50
C3273	NM
C3274	NM
C3285	0.01u/50
C3286	0.01u/50
R3101	0
R3102	0
R3103	0
R3104	0
R3109	150
R3110	150
R3151	0
R3153	0
R3154	NM
R3159	150
R3201	0
R3202	0
R3203	0
R3204	0
R3209	150
R3210	150
R3253	NM
R3254	NM
R3273	NM
R3274	NM
IC3101	NM
IC3151	NM
IC3201	NM
IC3251	NJM4565V
IC3271	NJM4565V

A3/3 AUDIO ASSY (3/3) (AWX9644)

ɔd.

3.
(VSX and VSA series)
(SC series)
wise noted.

wise noted.
RYB

SELMID (P1, P2)

	VSX-LX53 VSX-2020 /SYXJ5 AWX9644- /J
C2852	NM
C2853	NM
C2861	NM
C2862	NM
R2861	0
R2863	0
R3031	4.7M
R3032	5.6k
R3033	NM
R3001	4.7k
R3002	4.7k
R3003	100
R3004	100
C3009	NM
C3010	NM
C3051	NM
C3052	NM
C2707	ACH7196-A
C2708	ACH7196-A
C2691	330p/50
C2692	330p/50
C3167	NM

LX53
020-K

EMC (P2 B-10)

	VSX-LX53 VSX-2020-K
C3111	330p/50
C3112	330p/50
C3113	100p/50
C3114	100p/50
C3161	330p/50
C3162	330p/50
C3163	100p/50
C3164	100p/50
C3211	330p/50
C3212	330p/50
C3213	100p/50
C3214	100p/50
C3261	330p/50
C3262	330p/50
C3263	100p/50
C3264	100p/50
C3281	330p/50
C3282	330p/50
C3283	100p/50
C3284	100p/50

CONNECTOR (P1 A-4, A-15)

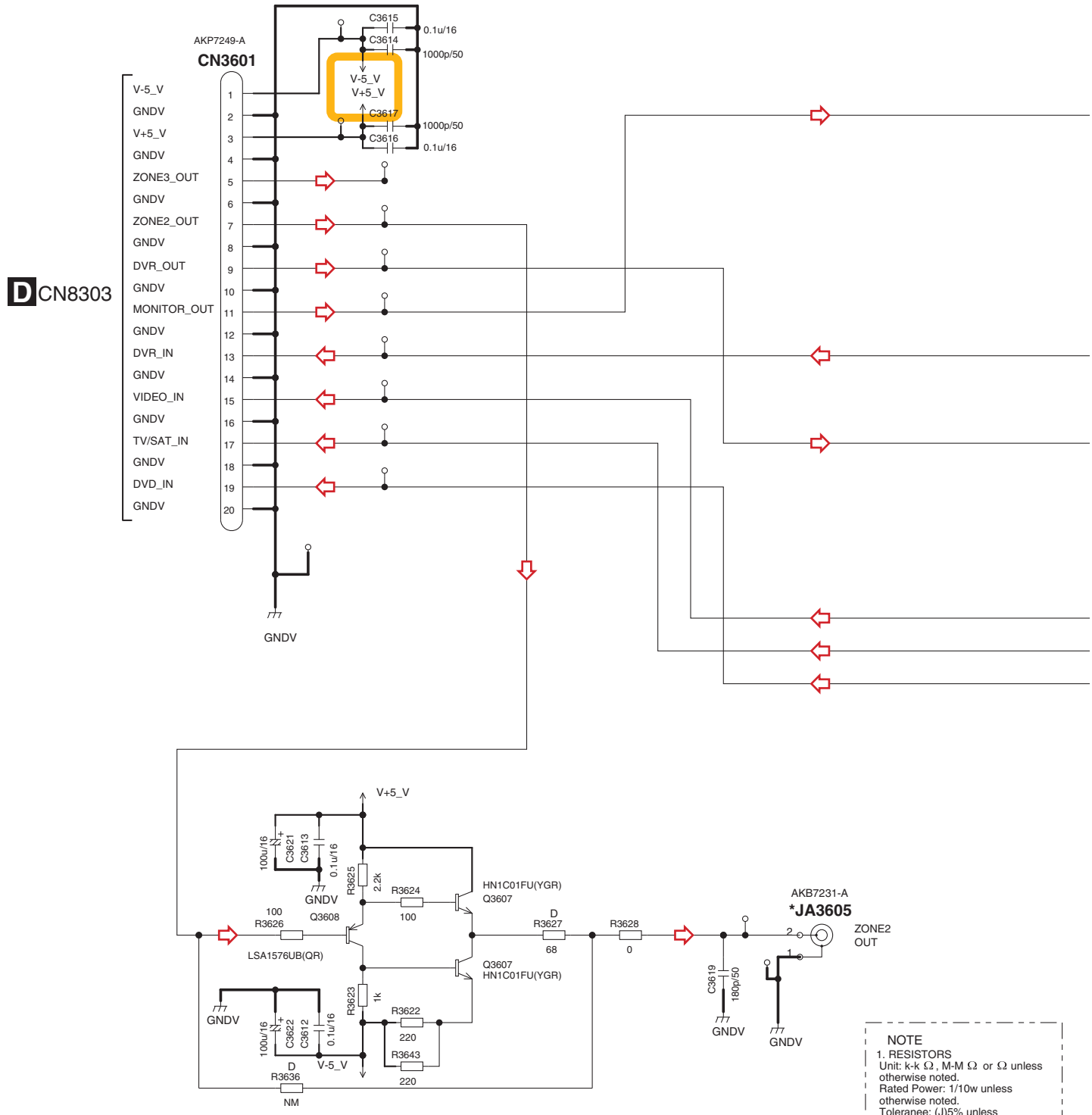
	VSX-LX53 VSX-2020-K
CN2503	NM
JP3001	NM
JP3002	PF06PG0S45
CN2504	52044-0745
JH2505	51048-0400
JP2505	D20PYY0450E

SELMID (P2 C-11)

	VSX-LX53 VSX-2020-K
C3191	NM
C3192	NM
C3291	NM
C3292	NM
R3191	0
R3192	0
R3193	0
R3291	0
R3292	0
R3293	0
R3294	0
D3191	NM
D3291	NM

10.4 COMPOSITE ASSY

	VSX-LX53, VSX-2020K
	AWX9568-
JA3601-3	AKB7229-A
JA3604	-
JA3605	AKB7231-A

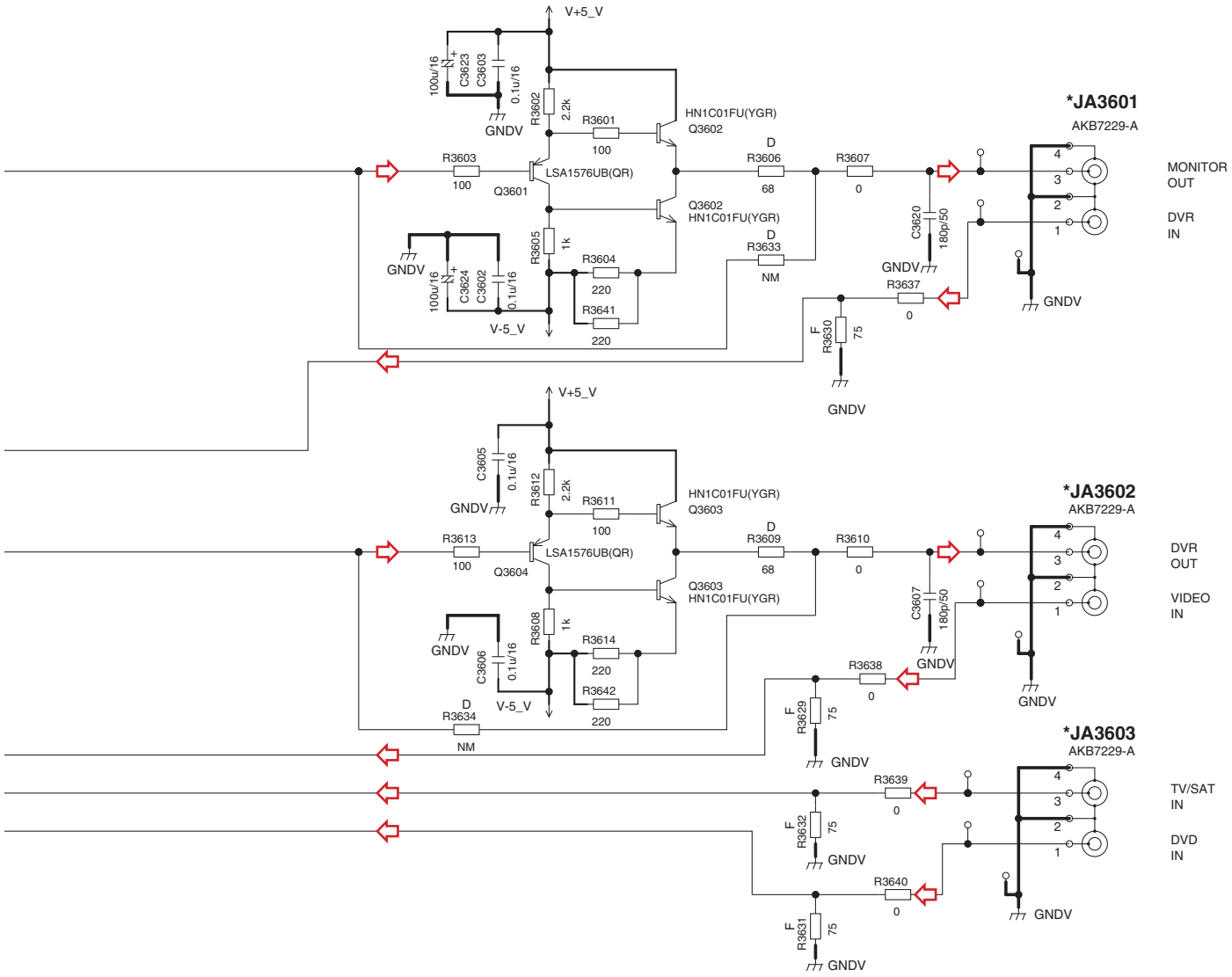


NOTE
1. RESISTORS
Unit: k-k Ω, M-M Ω or Ω unless otherwise noted.
Rated Power: 1/10w unless otherwise noted.
Toleranee: (J)5% unless otherwise noted.

2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
CH : CCSRCH
NO MARKED : CKSRYB
3. NM: No Mount

: Video Signal Route

B COMPOSITE ASSY (AWX9568)



M Ω or Ω unless
ł.
/10w unless
ł.
% unless
ł.

S
uF unless
ł.
ity(F)/Voltage(V)
e noted.

CKSRYB
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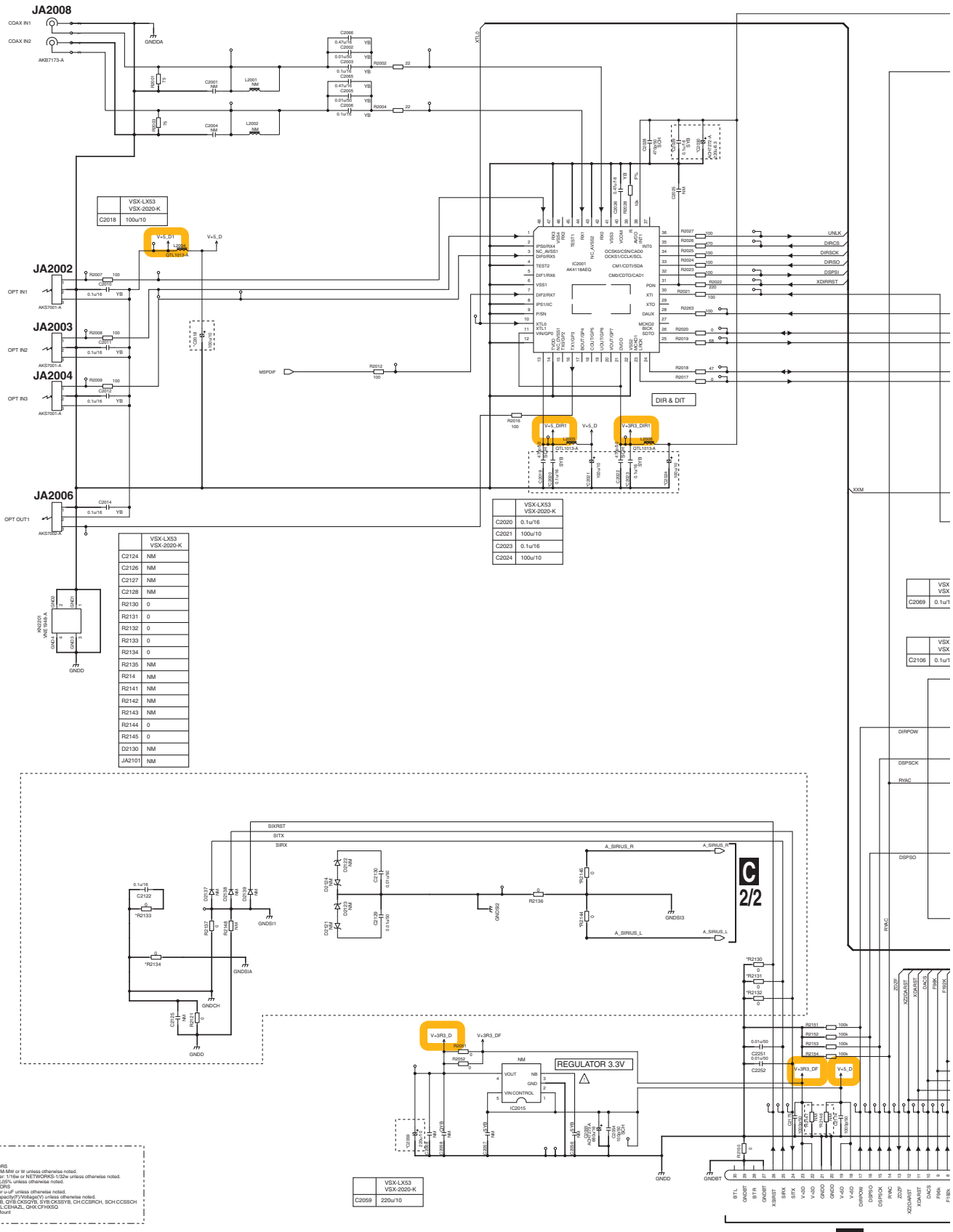
10.5 DAC LOW ASSY(1/2)



	VSX-LX53 VSX-2020-K
C2029	0.1u/16
C2030	ACH7272-A

	VSX-LX53 VSX-2020-K
C2018	100u/10

	VSX-LX53 VSX-2020-K
C2020	0.1u/16
C2021	100u/10
C2023	0.1u/16
C2024	100u/10

	VSX-LX53 VSX-2020-K
C2124	NM
C2126	NM
C2127	NM
C2128	NM
R2130	0
R2131	0
R2132	0
R2133	0
R2134	0
R2135	NM
R214	NM
R2141	NM
R2142	NM
R2143	NM
R2144	0
R2145	0
D2130	NM
JA2101	NM

	VSX-LX53 VSX-2020-K
C2059	220u/10

	VSX-LX53 VSX-2020-K
R2146	NM
R2147	NM

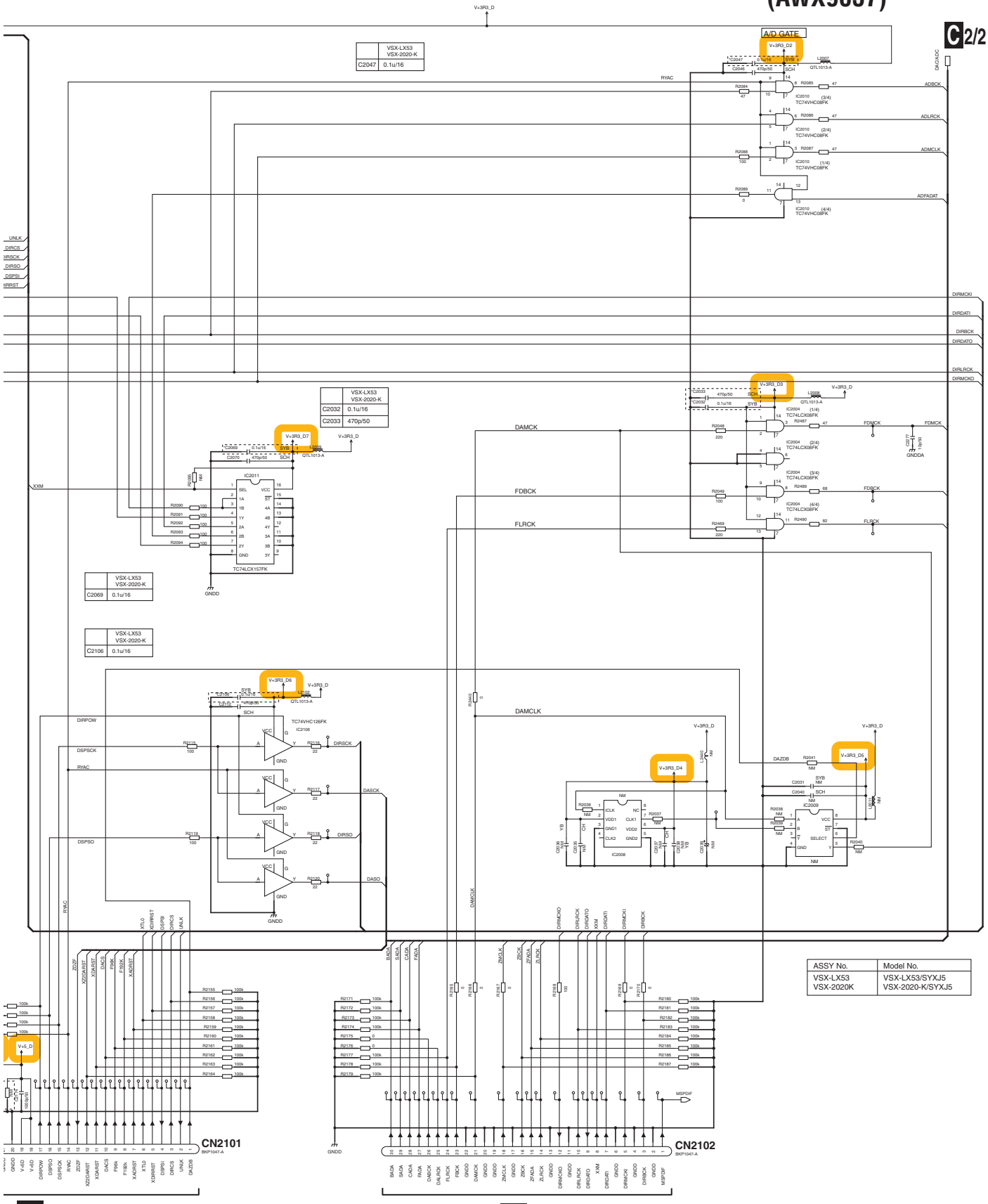
NOTE
1. RESISTORS
Unit: k-kW, M-MW or W unless otherwise noted.
Rated Power: 1/16w or NETWORKS-1/32w unless otherwise noted.
Tolerance: J:5% unless otherwise noted.
2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F):Voltage(V) unless otherwise noted.
YB:CKSRYB, QYB:CKSQYB, SYB:CKSSYB, CH:CCSRCH, SCH:CCSSCH
AT:CEAT, ZL:CEHAZL, QHX:CFHXSQ
3. NM: No Mount

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

UCN3783

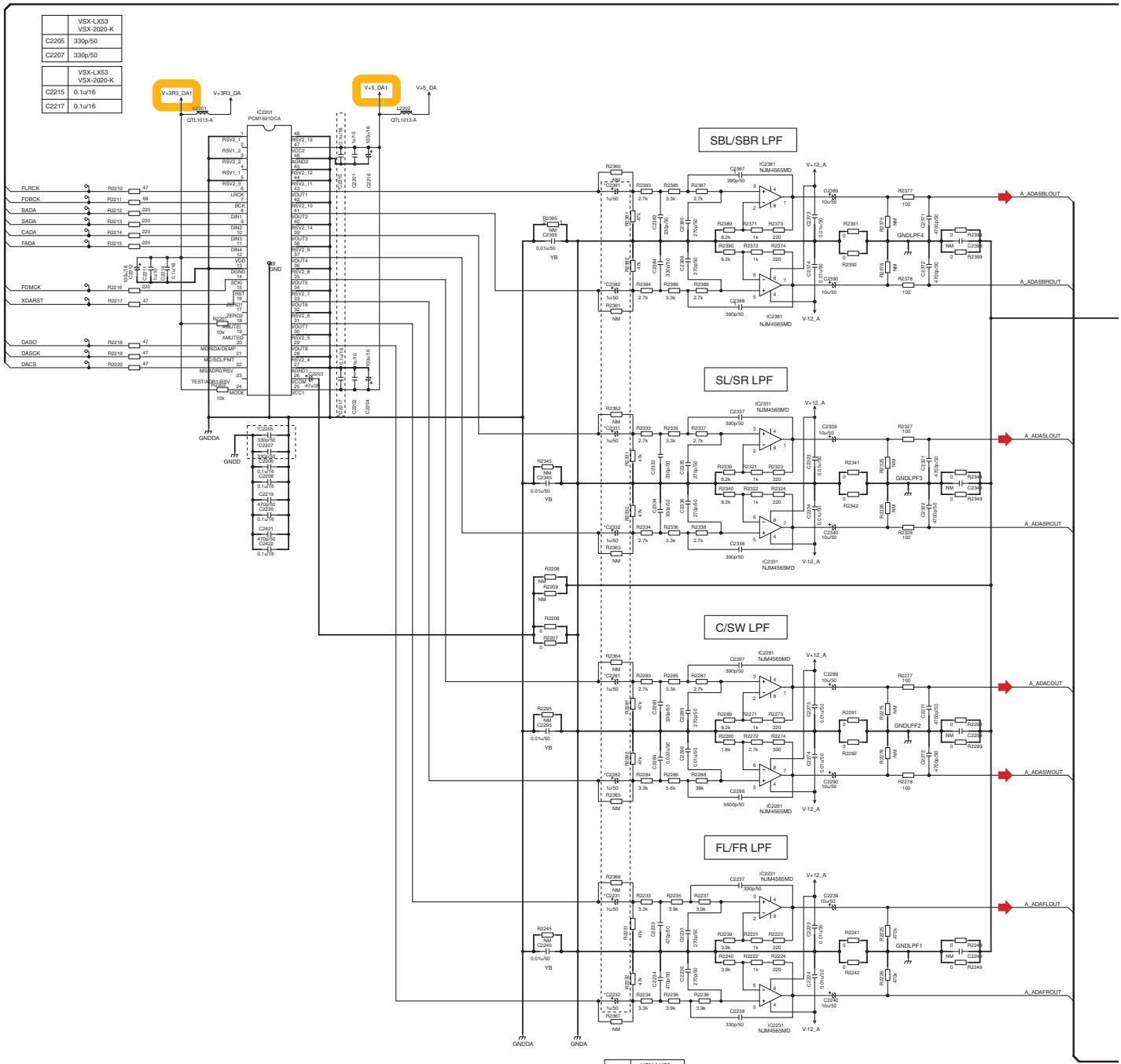
C 1/2

C1/2 DAC LOW ASSY (1/2) (AWX9657)



ASSY No.	Model No.
VSX-LX53	VSX-LX53/SYXJ5
VSX-2020K	VSX-2020-K/SYXJ5

10.6 DAC LOW ASSY(2/2)



	VSX-LX53 VSX-2020-K
C2205	330p/50
C2207	330p/50

	VSX-LX53 VSX-2020-K
C2215	0.1u/16
C2217	0.1u/16

	VSX-LX53 VSX-2020-K
C2231	1u/50
C2232	1u/50
C2281	1u/50
C2282	1u/50
C2331	1u/50
C2332	1u/50
C2381	1u/50
C2382	1u/50

	VSX-LX53 VSX-2020-K
C2181	100u/10
C2195	100u/10
R2138	NM
R2200	NM

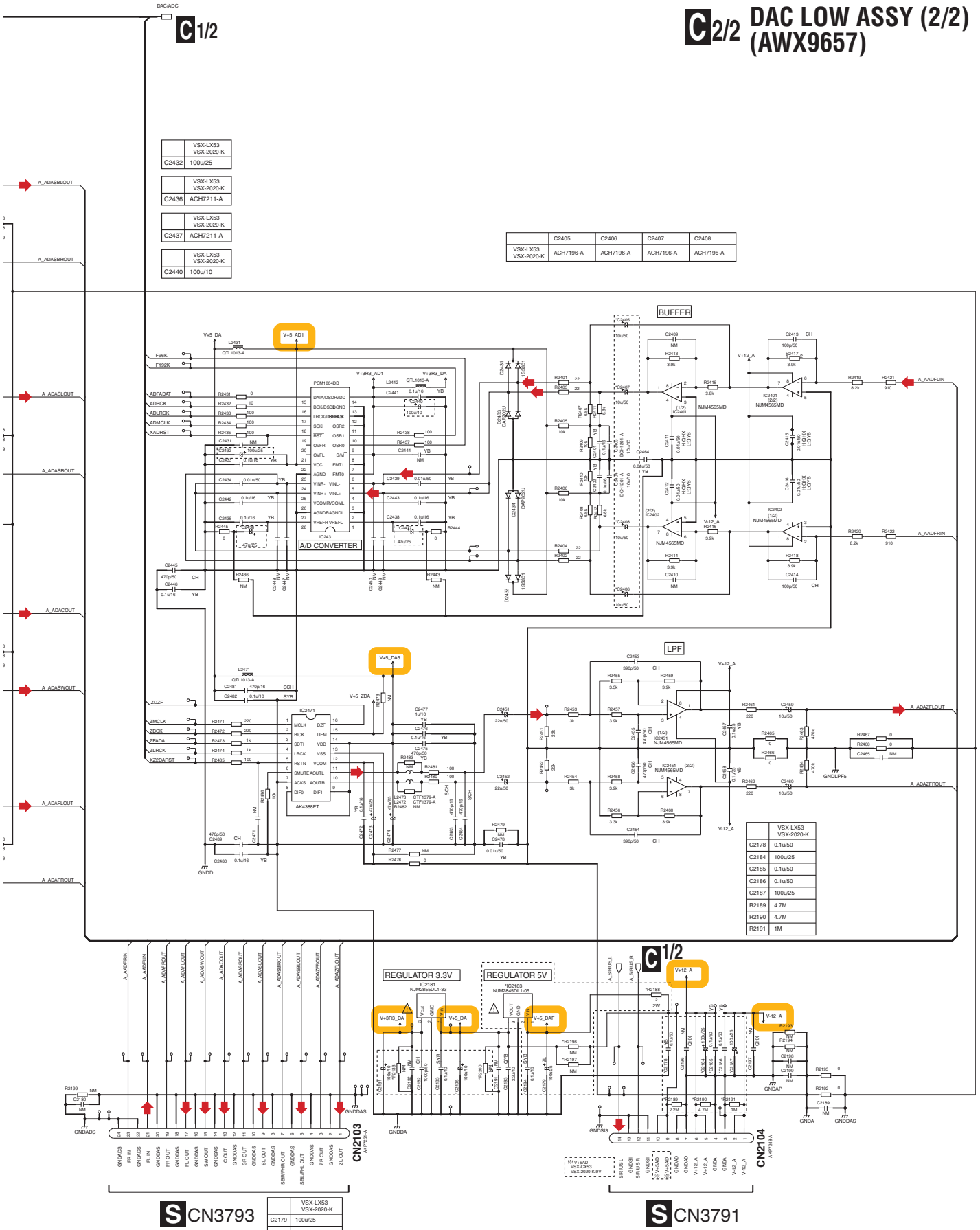
: Audio Signal Route

NOTE

1. RESISTORS
Unit: k-k/W, M-M/W or W 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:CKSRYB, QYB:CKSQYB, SYB:CKSSYB, CH:CCSRCH, SCH:CCSSCH
AT:CEAT, ZL:CEHAZL, QH:CFHXSQ
3. NM: No Mount

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

C2/2 DAC LOW ASSY (2/2) (AWX9657)



	VSX-LX53 VSX-2020-K
C2432	100u/25

	VSX-LX53 VSX-2020-K
C2436	ACH7211-A

	VSX-LX53 VSX-2020-K
C2437	ACH7211-A

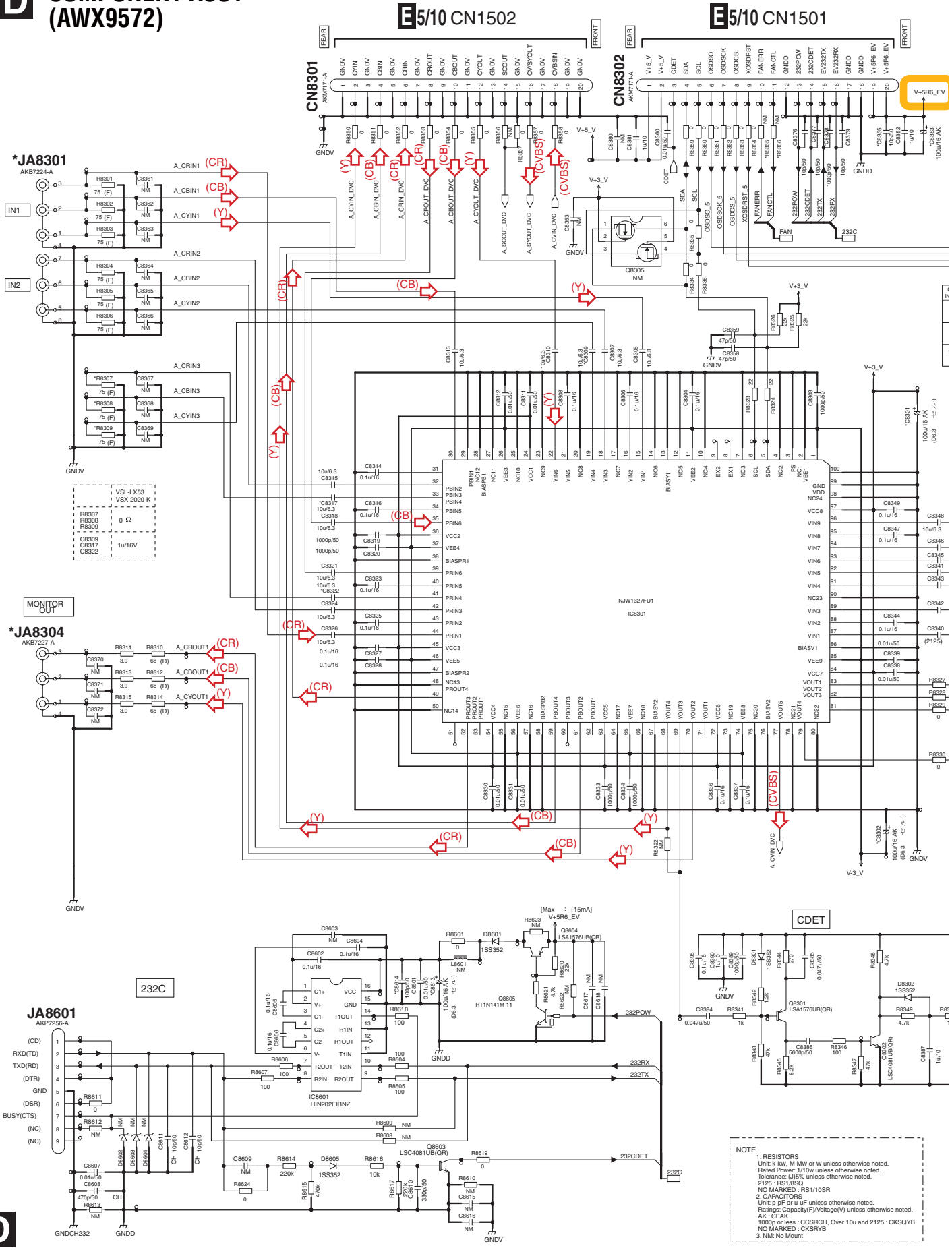
	VSX-LX53 VSX-2020-K
C2440	100u/10

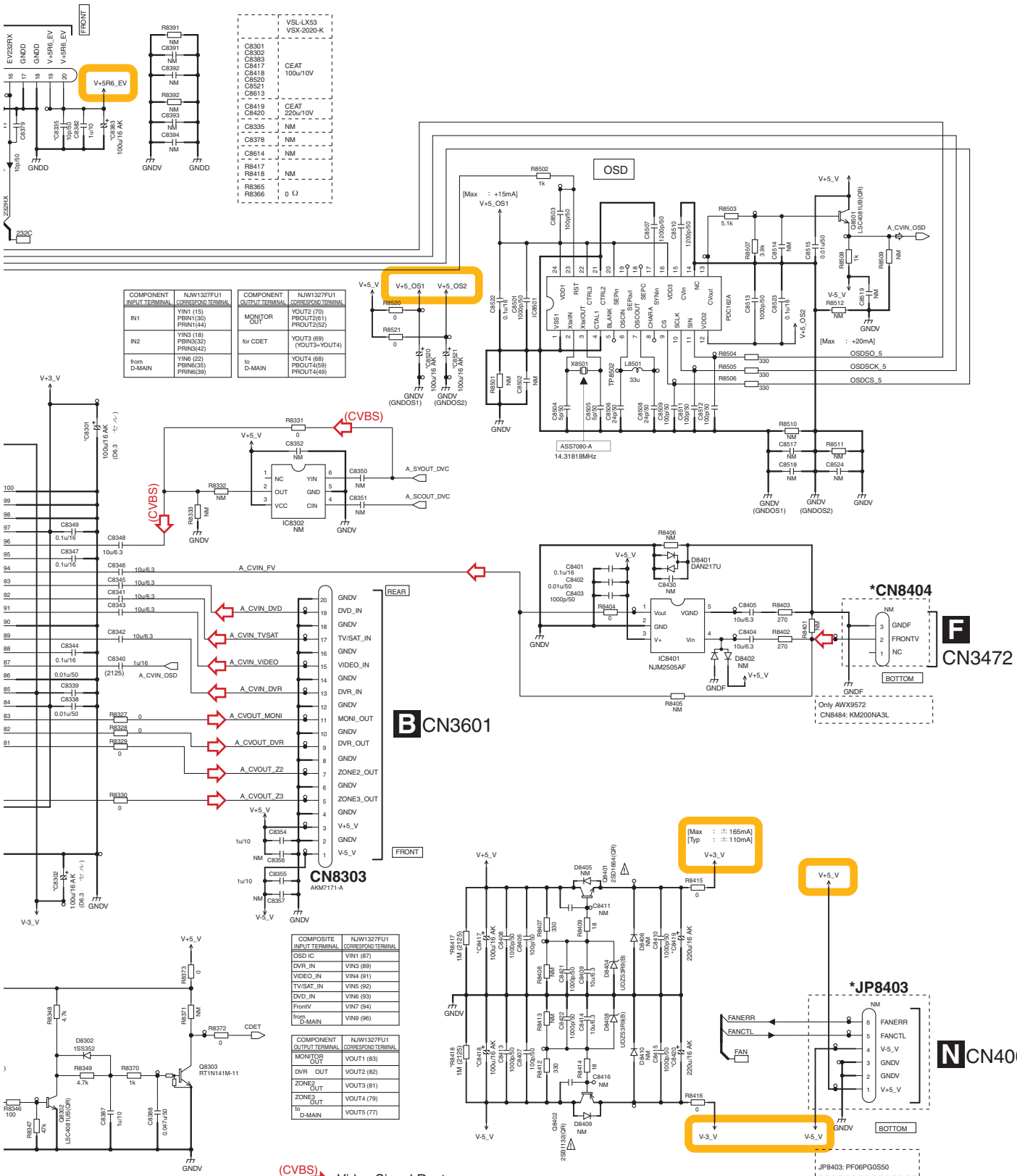
	C2405	C2406	C2407	C2408
VSX-LX53 VSX-2020-K	ACH7196-A	ACH7196-A	ACH7196-A	ACH7196-A

	VSX-LX53 VSX-2020-K
C2178	0.1u/50
C2184	100u/25
C2185	0.1u/50
C2186	0.1u/50
C2187	100u/25
R2189	4.7M
R2190	4.7M
R2191	1M

	VSX-LX53 VSX-2020-K
C2179	100u/25
C2194	0.1u/16
R2188	12
R2196	NM
R2197	NM
IC2183	NJM2845DL1-05

D COMPONENT ASSY (AWX9572)





COMPONENT INPUT TERMINAL	NJW1327FU1 CORRESPOND TERMINAL
IN1	YIN1 (15) PBIN1(30) PRIN1(44)
IN2	YIN3 (18) PBIN3(32) PRIN3(42)
from D-MAIN	YIN6 (22) PBIN6(35) PRIN6(39)

COMPONENT OUTPUT TERMINAL	NJW1327FU1 CORRESPOND TERMINAL
MONITOR OUT	YOUT2 (70) PROUT2(61) PROUT2(52)
for CDET	YOUT3 (69) (YOUT3=YOUT4)
to D-MAIN	YOUT4 (68) PBOUT4(59) PROUT4(49)

COMPOSITE INPUT TERMINAL	NJW1327FU1 CORRESPOND TERMINAL
OSD IC	VIN1 (87)
DVR_IN	VIN3 (89)
VIDEO_IN	VIN4 (91)
TV/SAT_IN	VIN5 (92)
DVD_IN	VIN6 (93)
FrontV	VIN7 (94)
from D-MAIN	VIN9 (96)

COMPONENT OUTPUT TERMINAL	NJW1327FU1 CORRESPOND TERMINAL
MONITOR OUT	VOUT1 (83)
DVR OUT	VOUT2 (82)
ZONE2 OUT	VOUT3 (81)
ZONE3 OUT	VOUT4 (79)
to D-MAIN	VOUT5 (77)

(CVBS): Video Signal Route
(CB): Video Signal Route
(CR): Video Signal Route
(Y): Video Signal Route
: Video Signal Route

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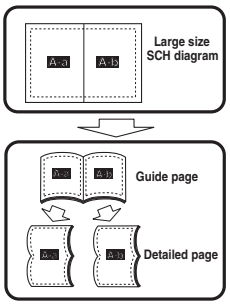
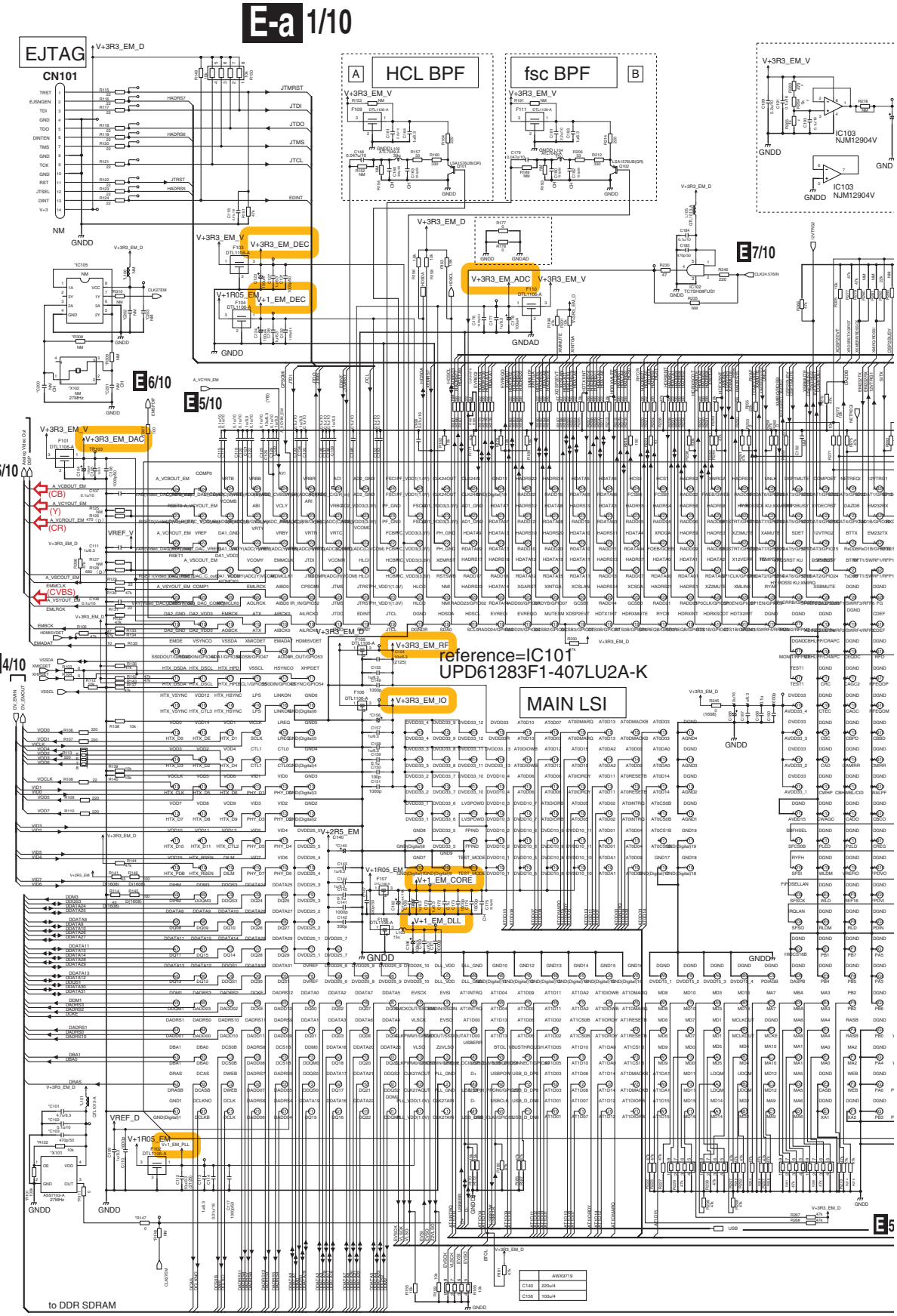
ge(V) unless otherwise noted.

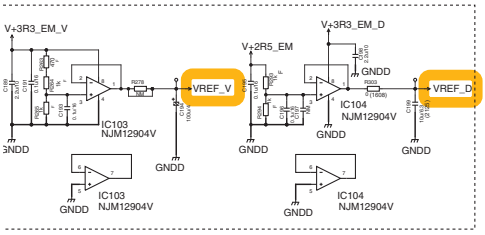
Over 10u and 2125 : CKSQYB

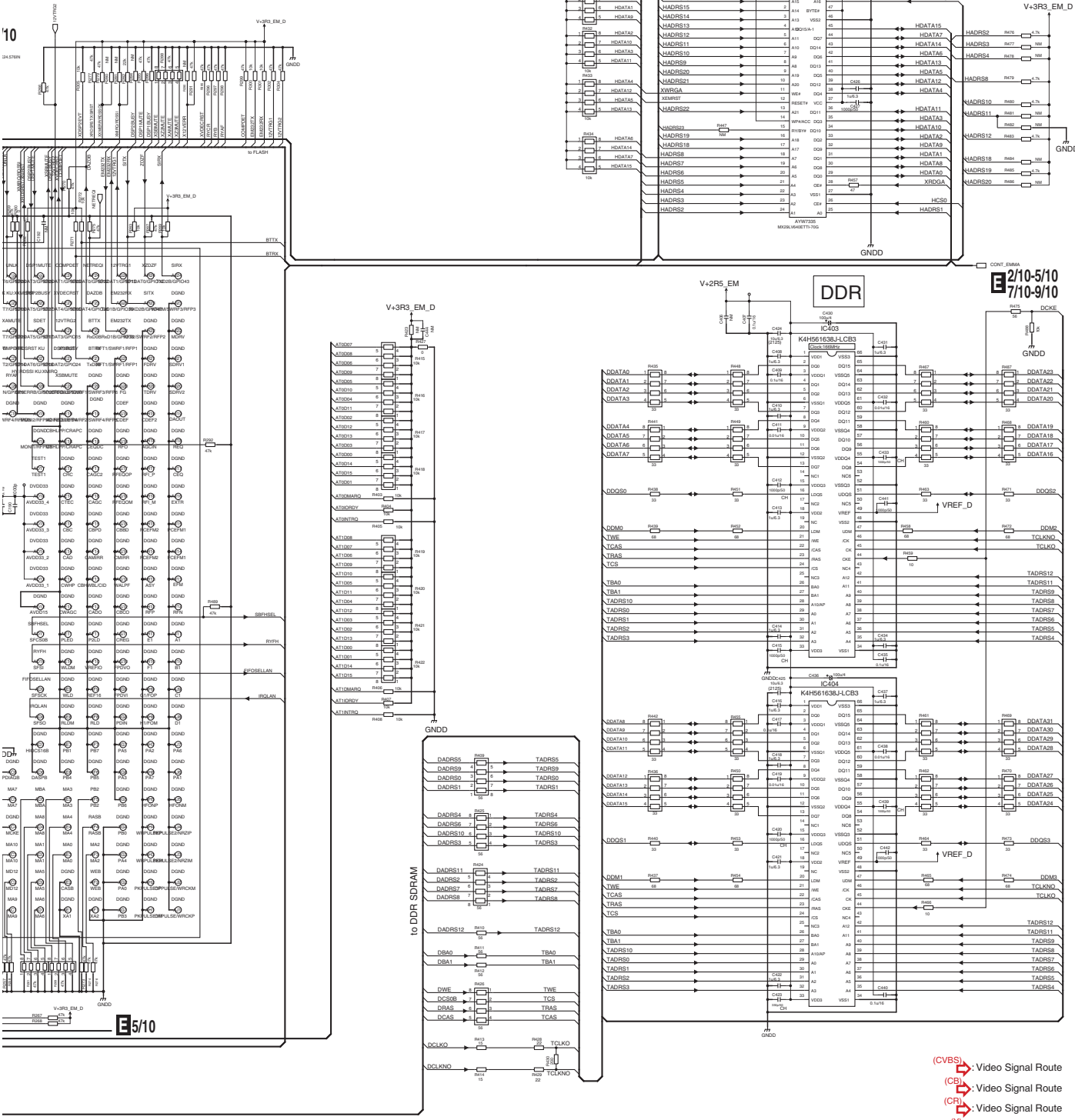
10.8 DIGITAL MAIN ASSY(1/10)(GUIDE PAGE)



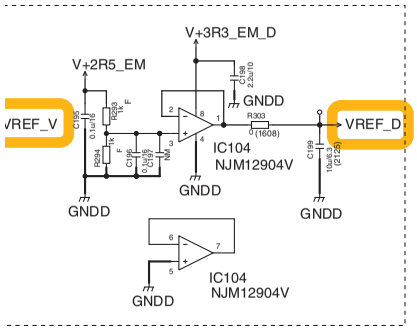


E 1/10 DIGITAL MAIN ASSY (1/10) (AWX9719)

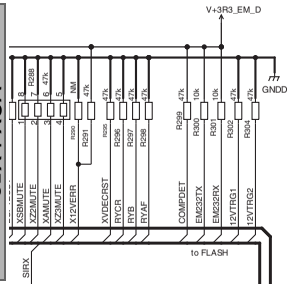


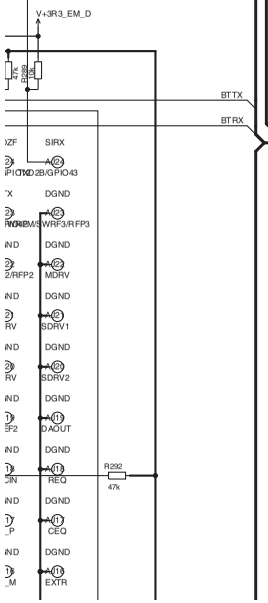


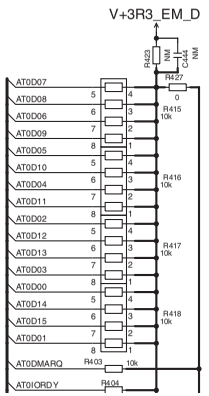
(CVBS) : Video Signal Route
(CB) : Video Signal Route
(CR) : Video Signal Route
(Y) : Video Signal Route



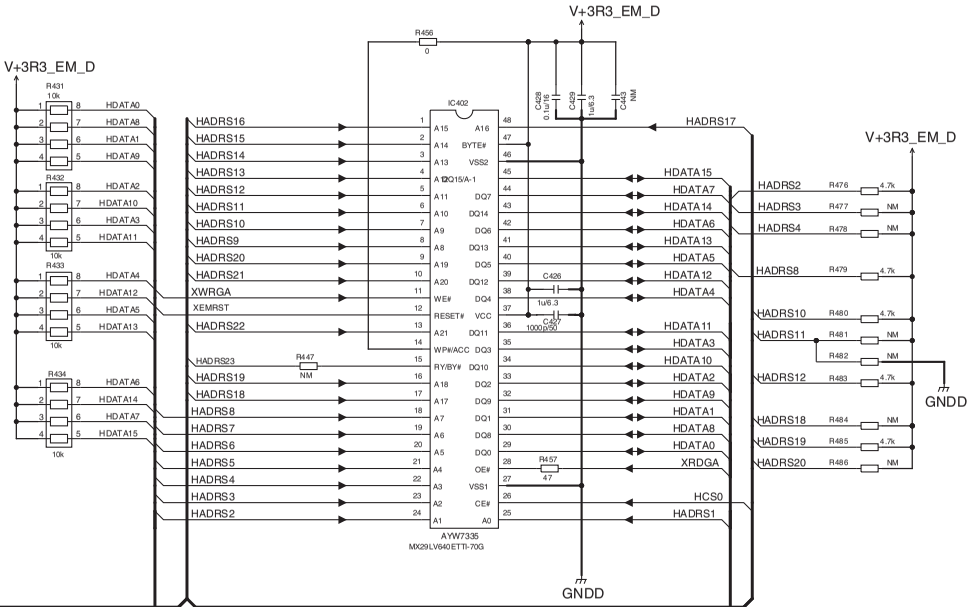
VSX-LX53



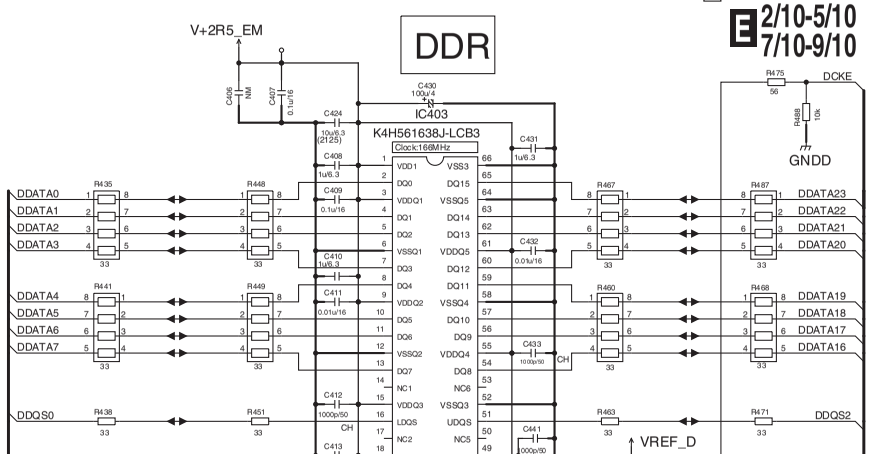




Flash ROM

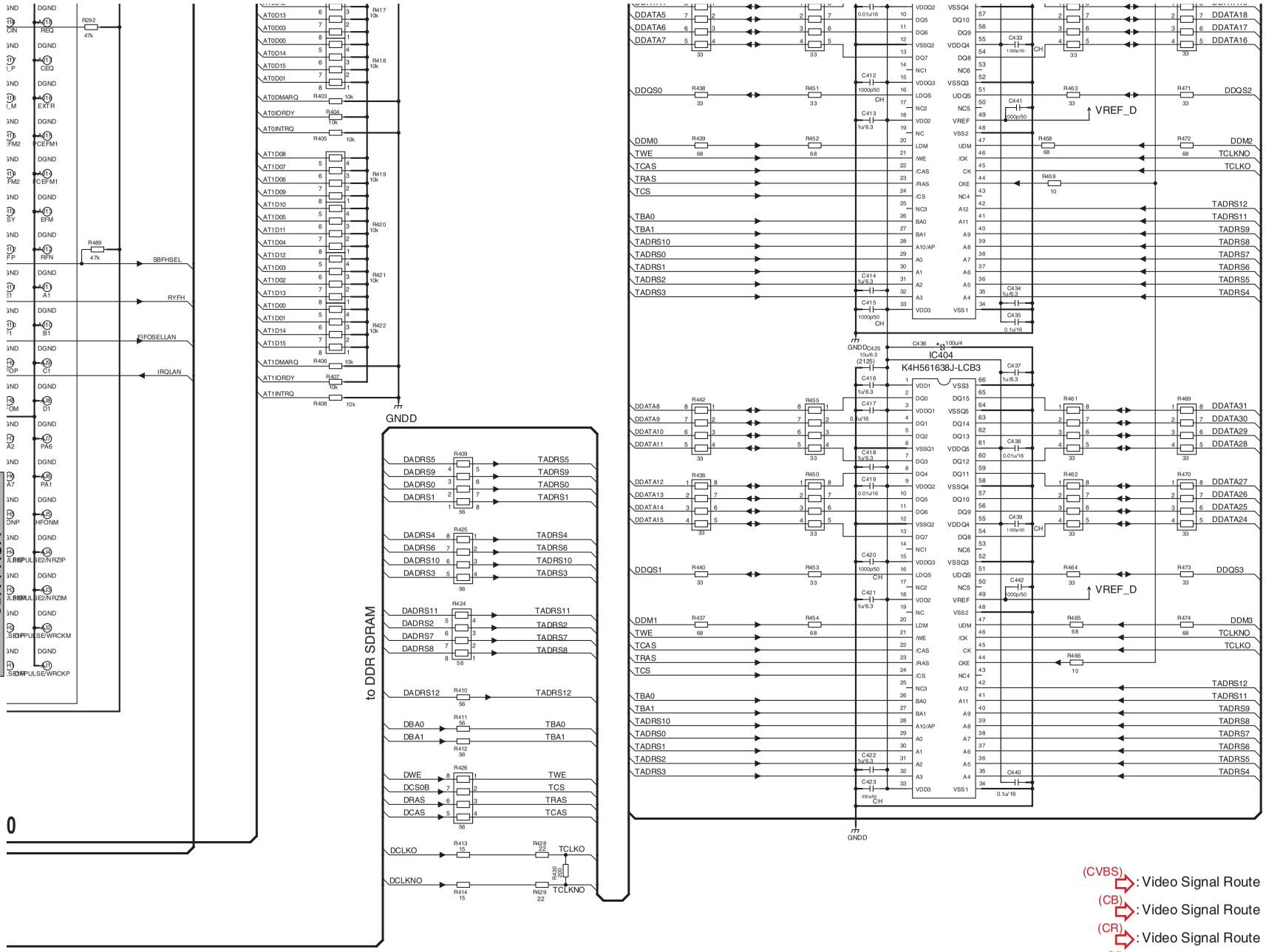


DDR



E 2/10-5/10 7/10-9/10

CONT_EMMA

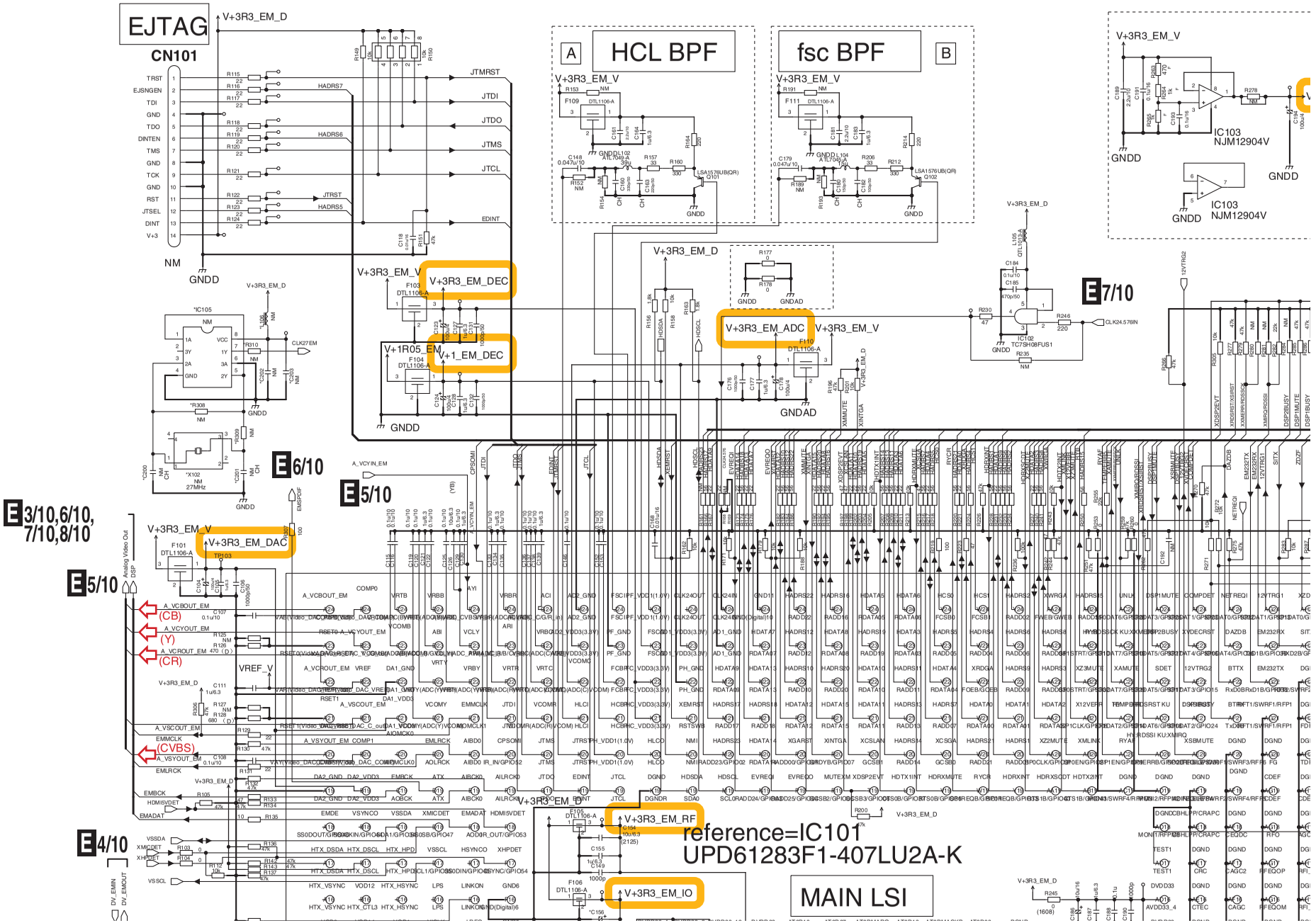


VSX-LX53

E-b 1/10

107

A-a A-b


EJTAG
CN101
V+3R3_EM_D
JTMRST
JTDI
JTDO
JTMS
JTCL
EDINT
HADRS7
HADRS6
HADRS5
NM
GNDD
HCL BPF
fsc BPF
A
B
V+3R3_EM_V
V+3R3_EM_DEC
V+1R05_EM
V+1_EM_DEC
V+3R3_EM_ADC
GNDAD
IC103
NJM12904V
IC102
TC7SH08FUS1
CLK24.576IN
E7/10
E6/10
E5/10
E3/10,6/10,
7/10,8/10
E4/10
V+3R3_EM_DAC
A_VCOUT_EM
(CB)
A_VCROUT_EM
(Y)
A_VCROUT_EM
(CR)
VREF_V
A_VSCOUT_EM
EMMCLK
(CVBS)
A_VSYOUT_EM
EMLRCK
EMBCK
EMADAT
V+3R3_EM_RF
V+3R3_EM_IO
reference=IC101
UPD61283F1-407LU2A-K
MAIN LSI

5 6 7 8

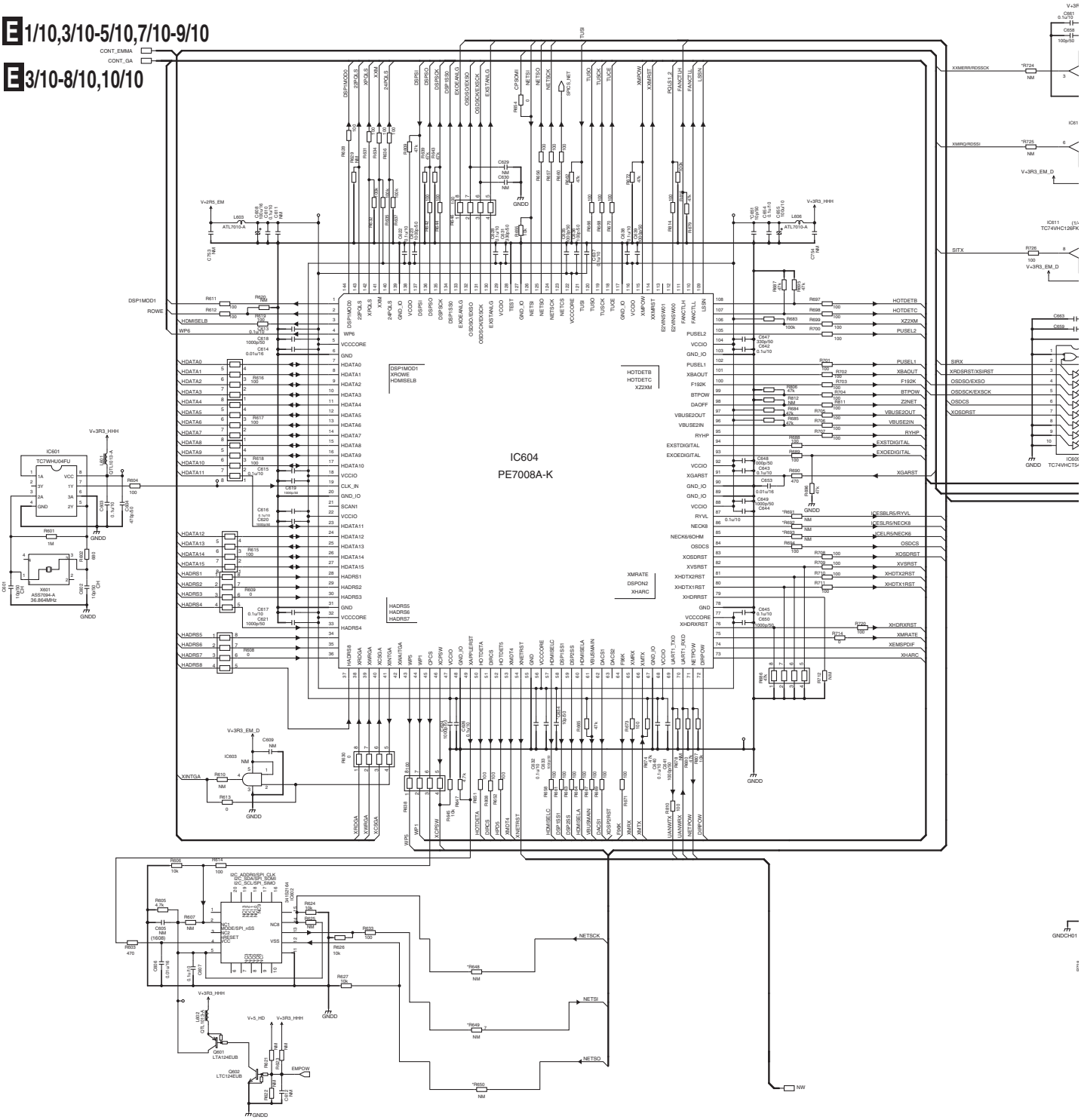
A B C D E F


reference=IC101
UPD61283F1-407LU2A-K
MAIN LSI
V+3R3_EM_IO
V+1_EM_CORE
V+1_EM_DLL
V+1R05_EM
V+2R5_EM
VREF_D
GNDD
to DDR SDRAM
E 4/10
E 5/10
A-a A-b

10.9 DIGITAL MAIN ASSY(2/10)

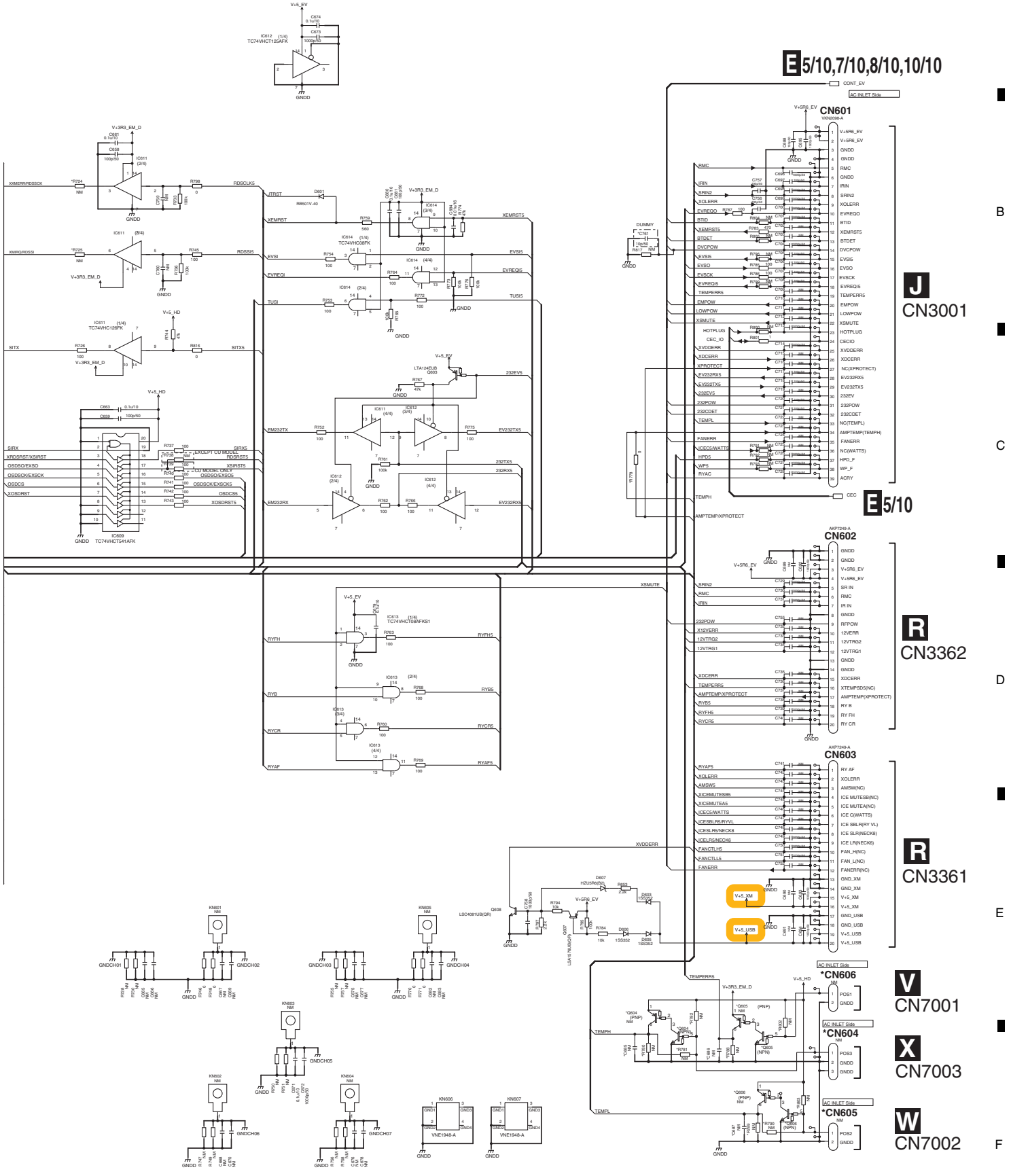
E 1/10,3/10-5/10,7/10-9/10

E 3/10-8/10,10/10

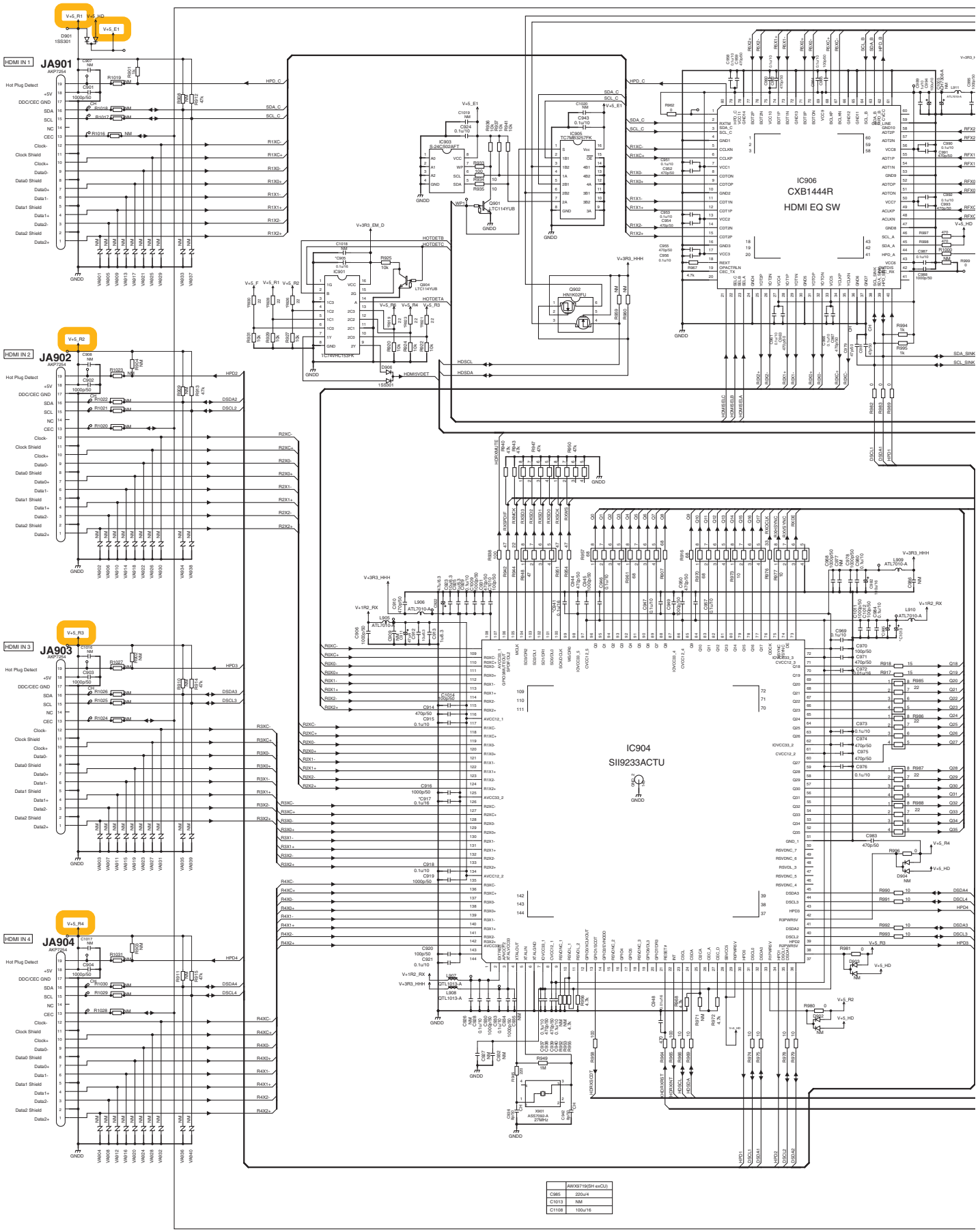


E 2/10

E2/10 DIGITAL MAIN ASSY (2/10) (AWX9719)

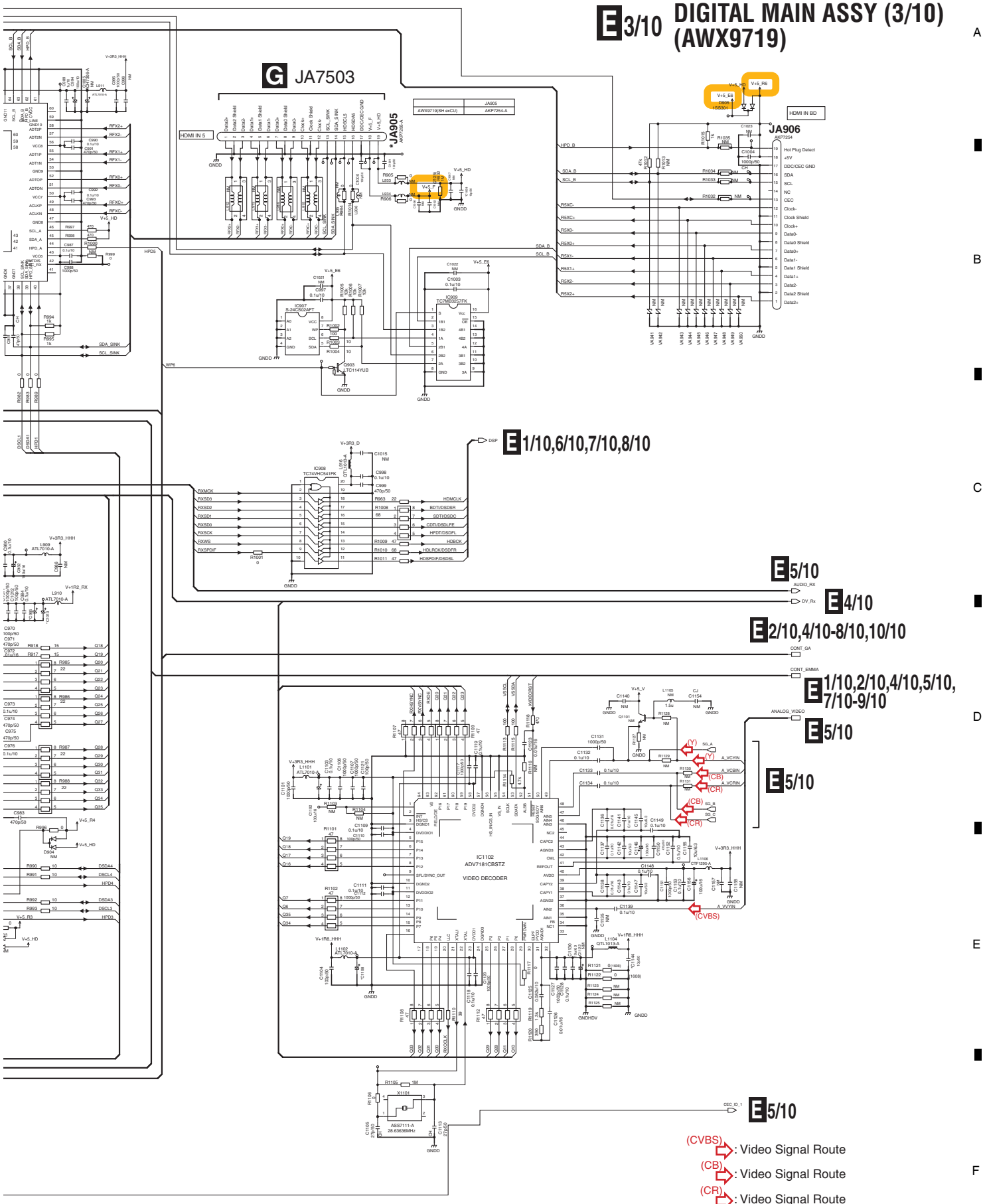


10.10 DIGITAL MAIN ASSY(3/10)

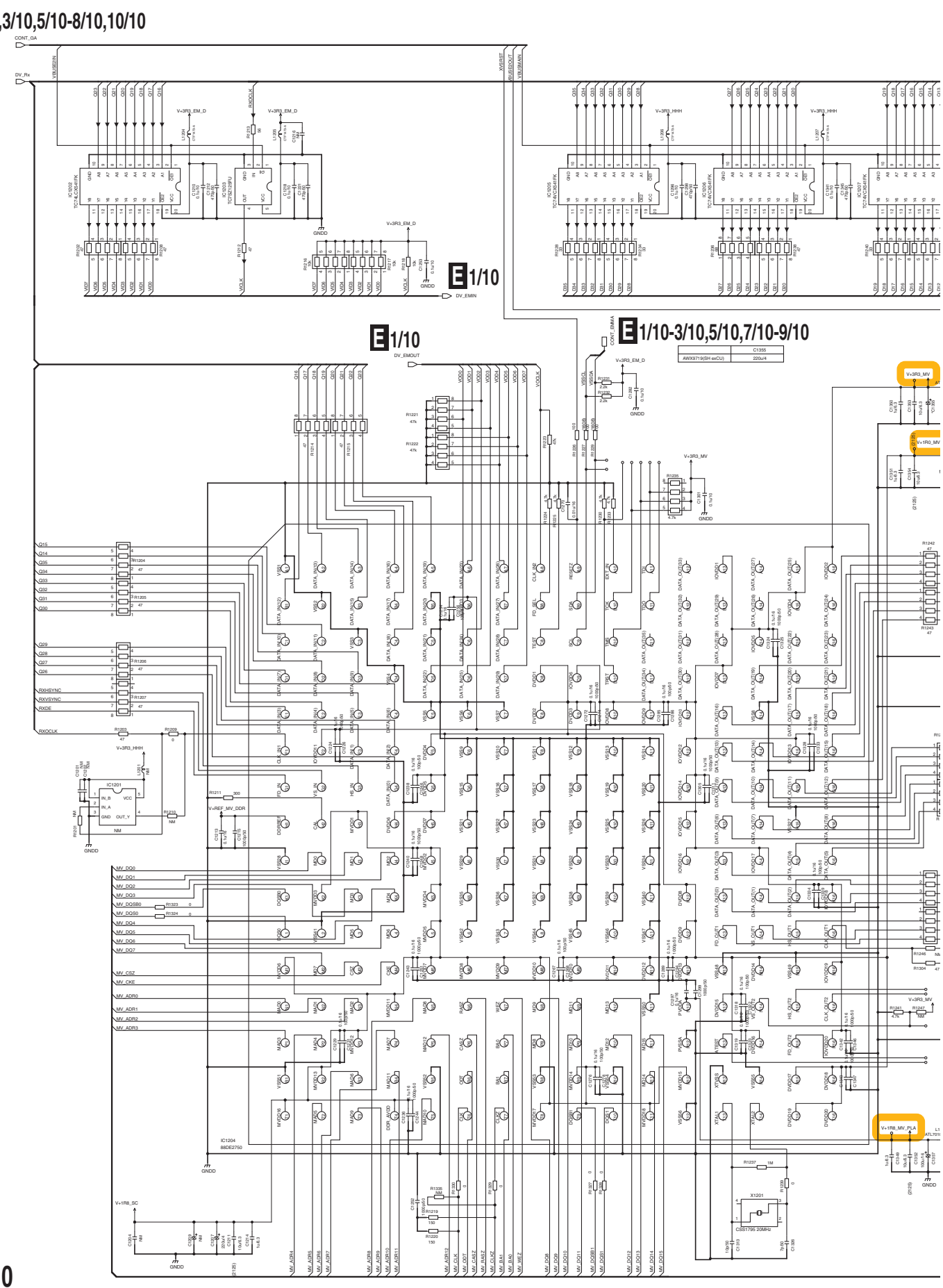


	AWX9719(SH exCU)
C985	220u/4
C1013	NM
C1108	100u/16

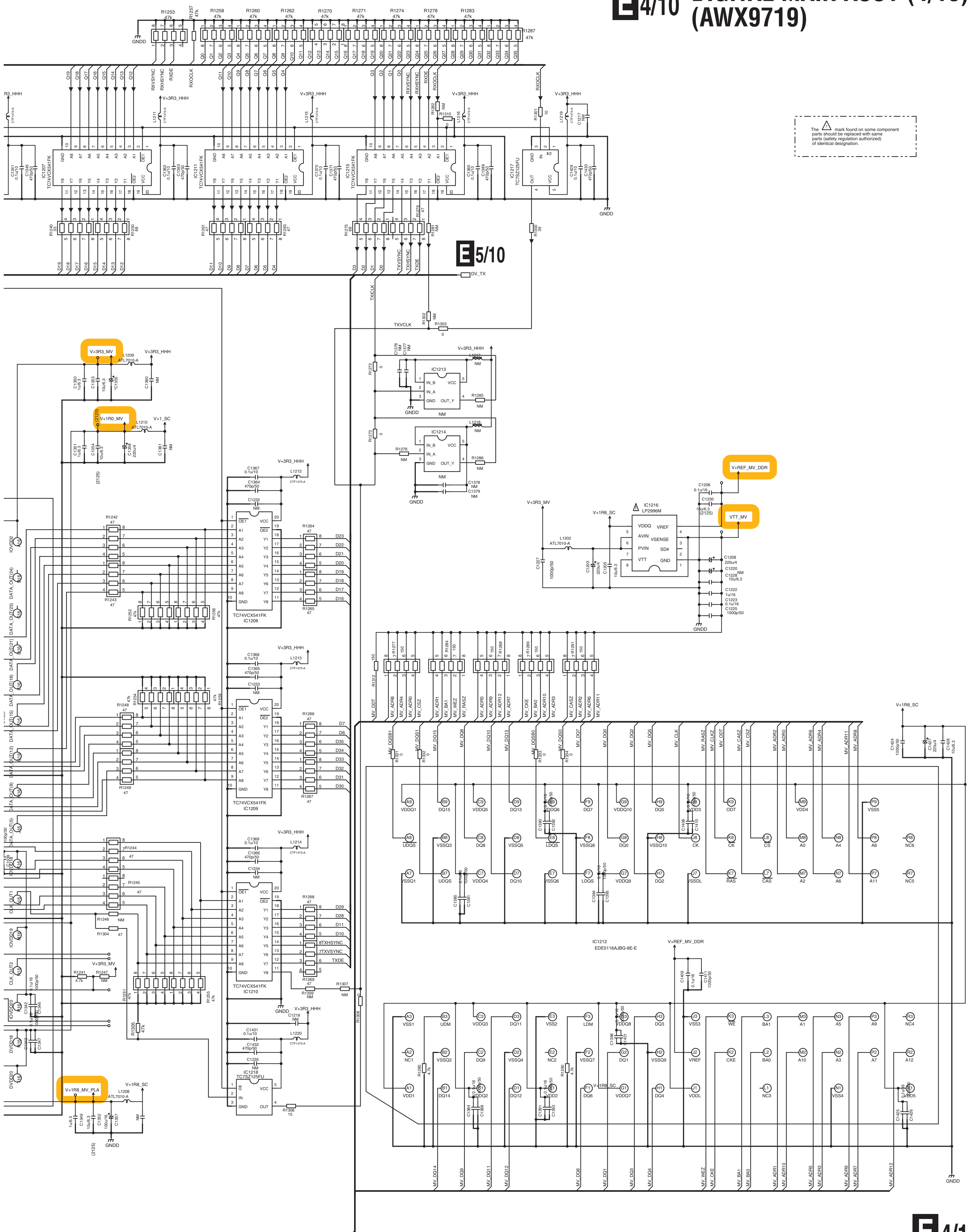
E 3/10 DIGITAL MAIN ASSY (3/10) (AWX9719)



10.11 DIGITAL MAIN ASSY(4/10)

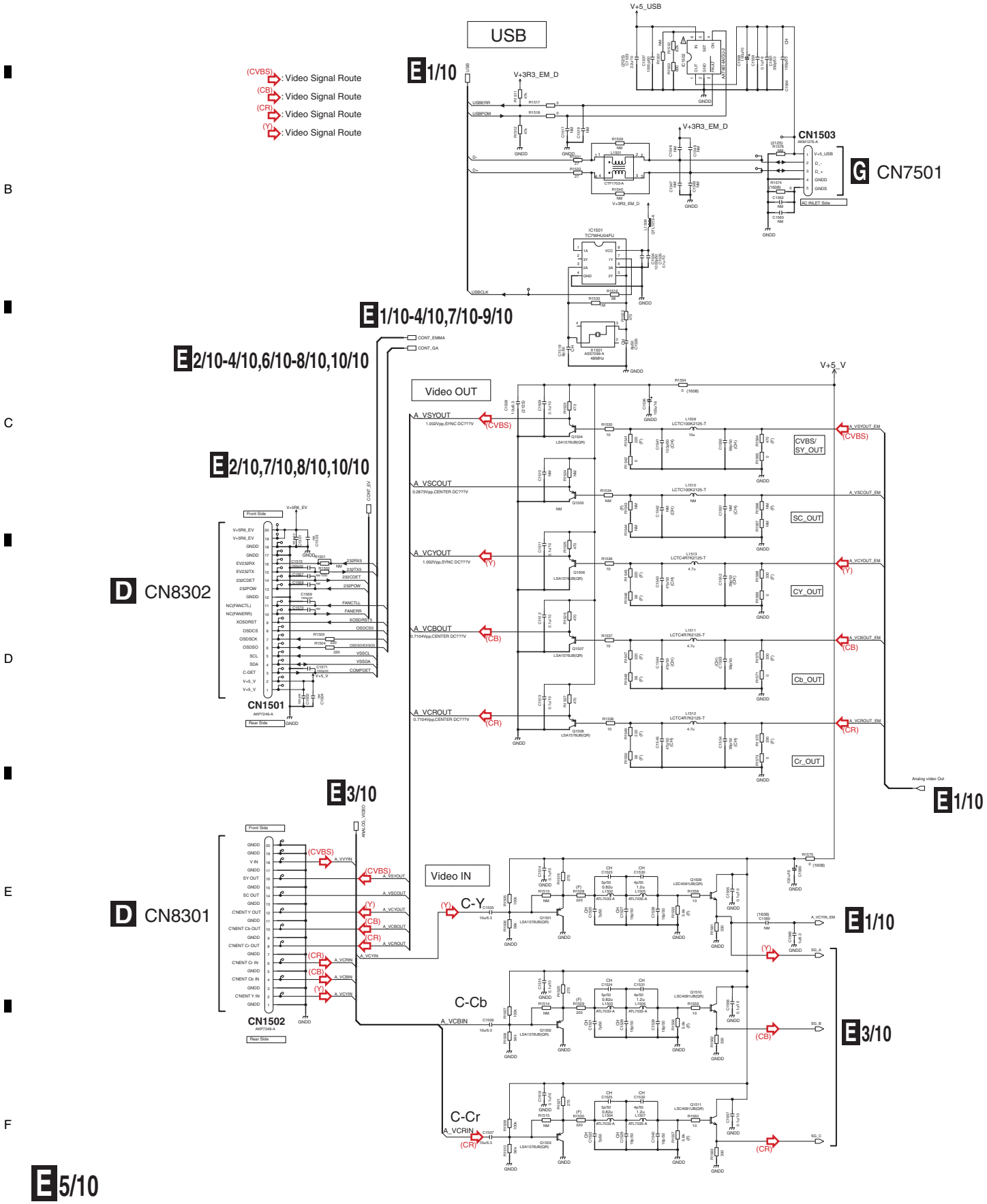


E 4/10 DIGITAL MAIN ASSY (4/10) (AWX9719)

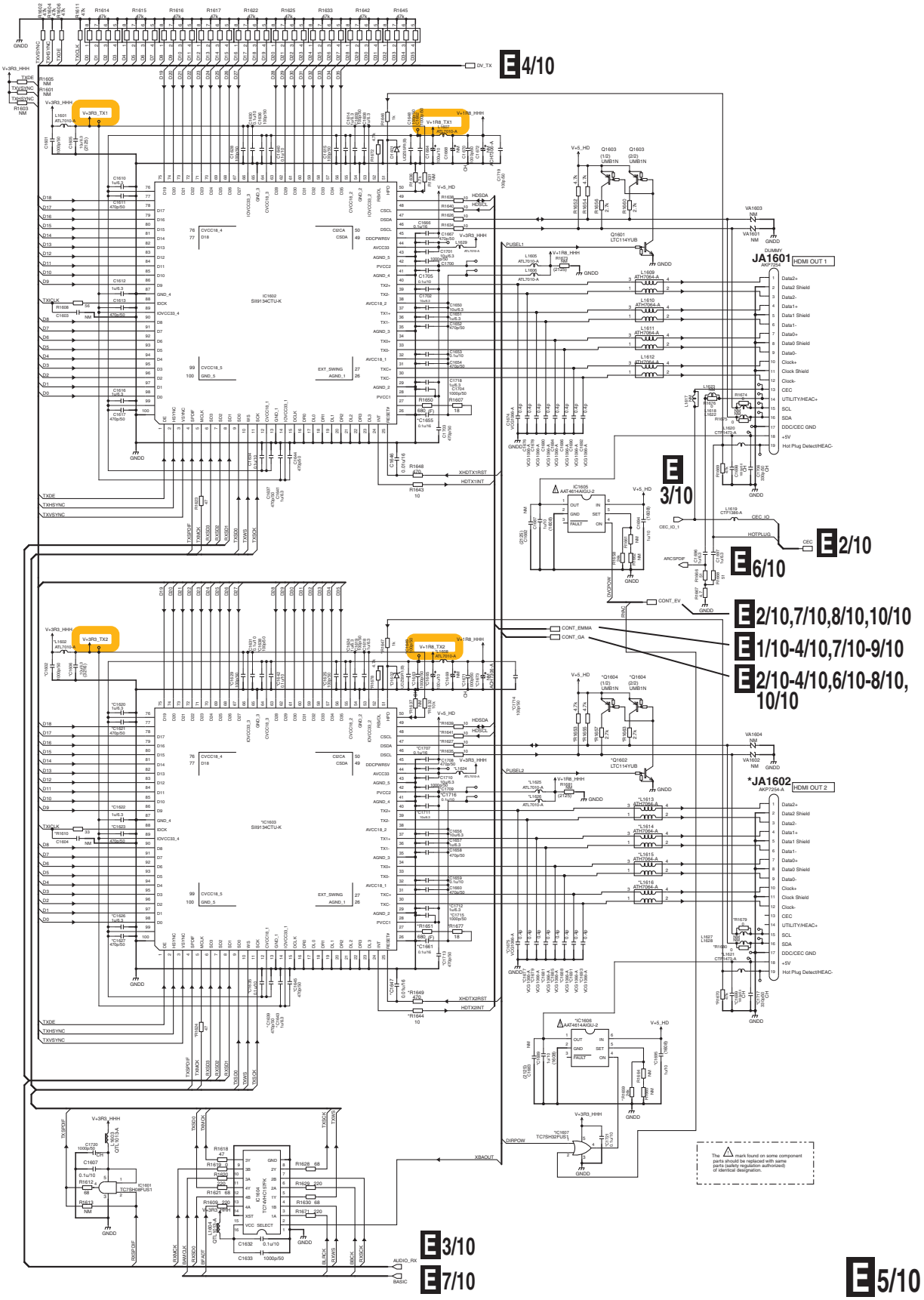


E 4/10

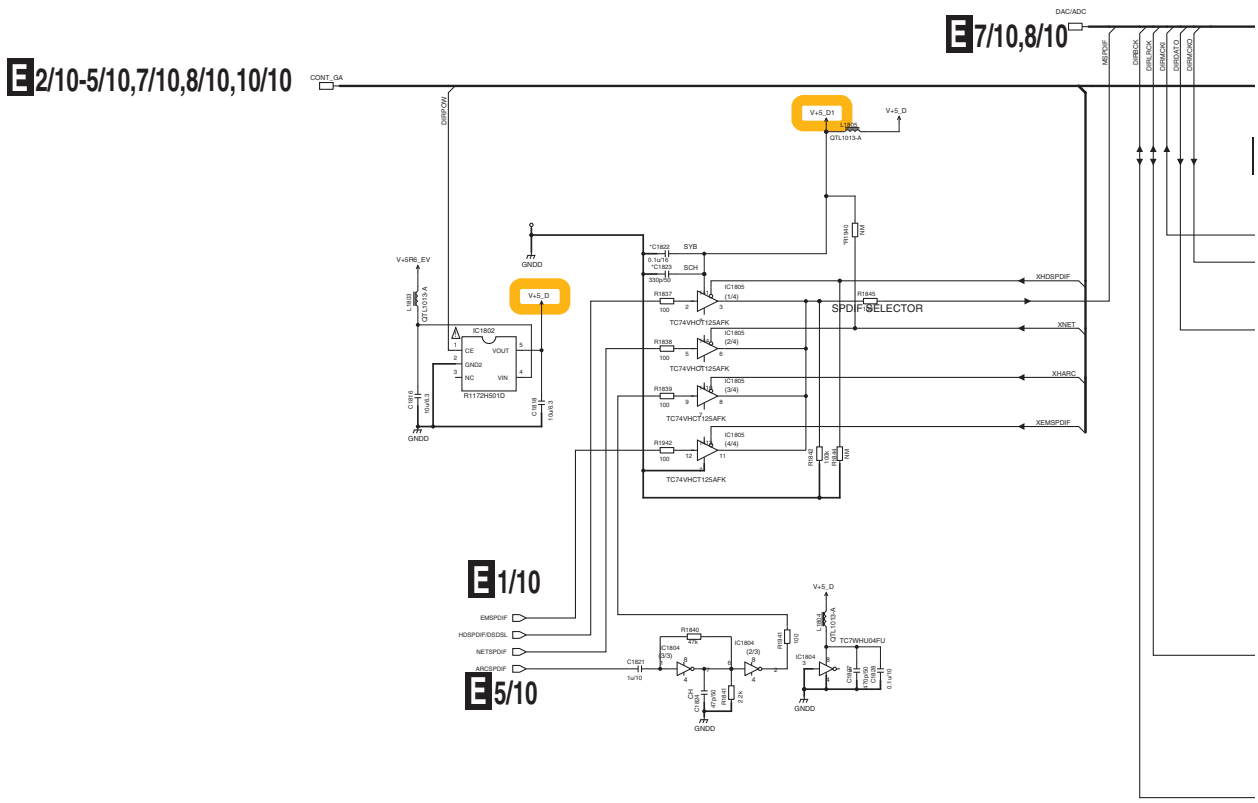
10.12 DIGITAL MAIN ASSY(5/10)



E 5/10 DIGITAL MAIN ASSY (5/10) (AWX9719)

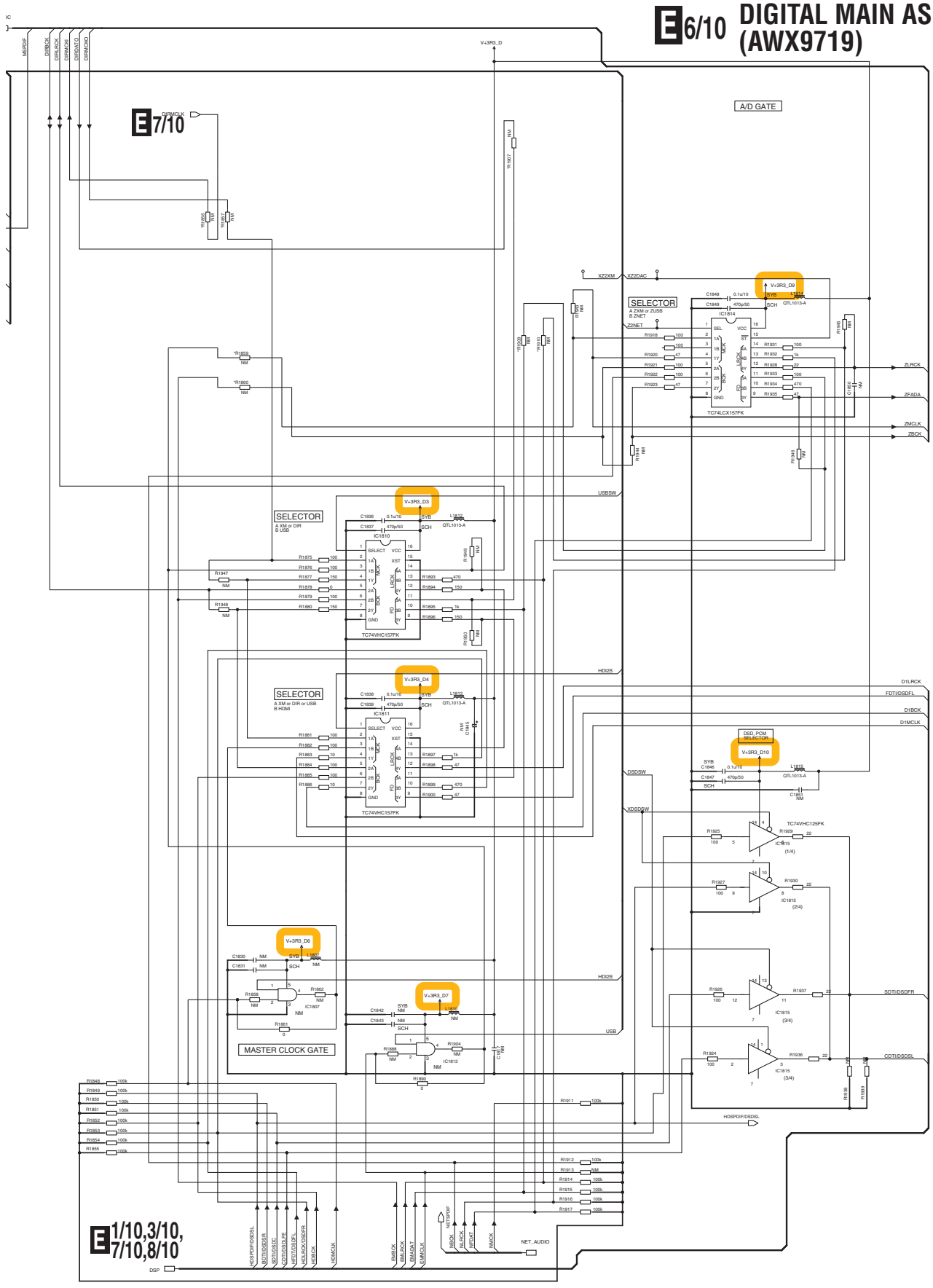


10.13 DIGITAL MAIN ASSY(6/10)



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

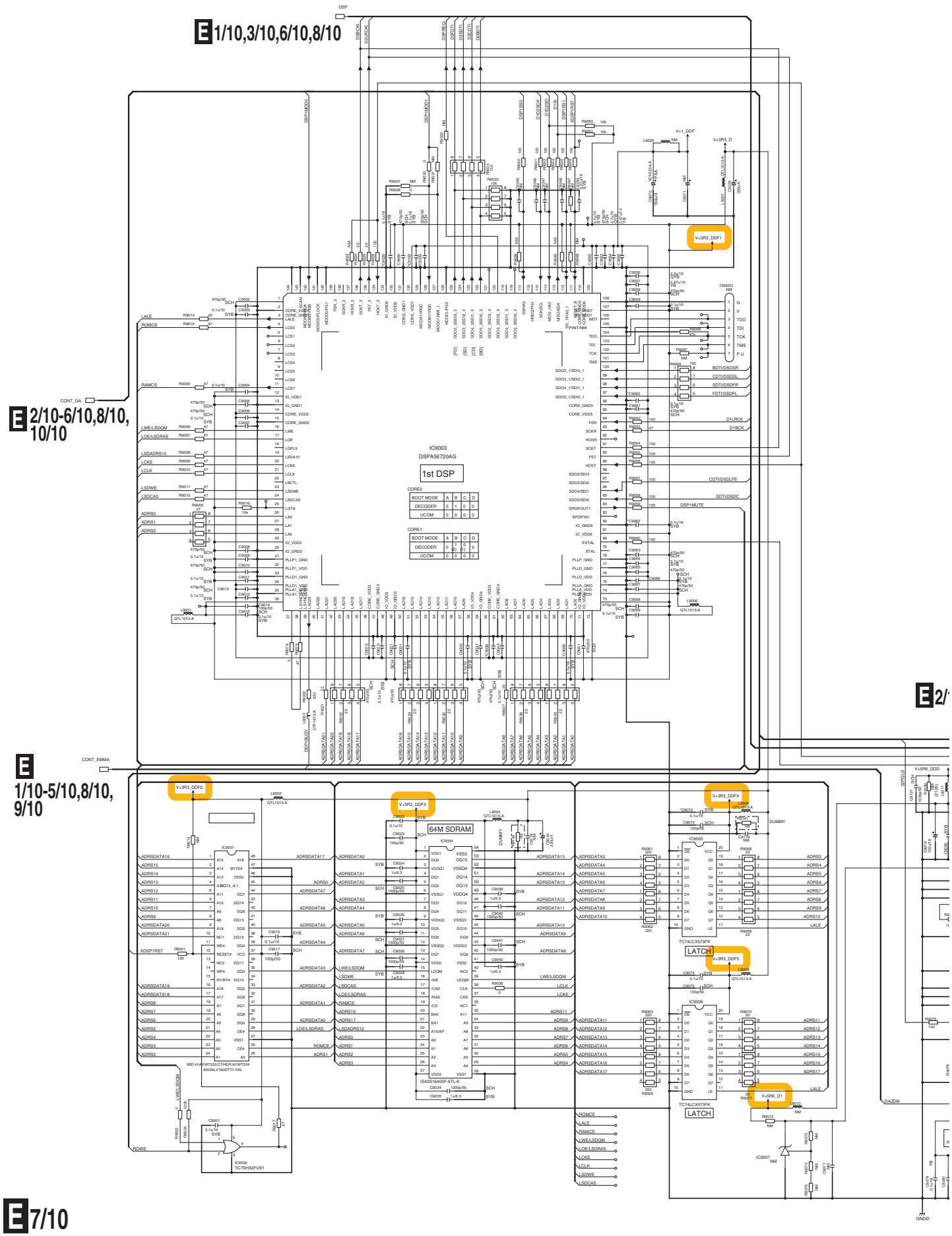
E6/10 DIGITAL MAIN ASSY (6/10) (AWX9719)



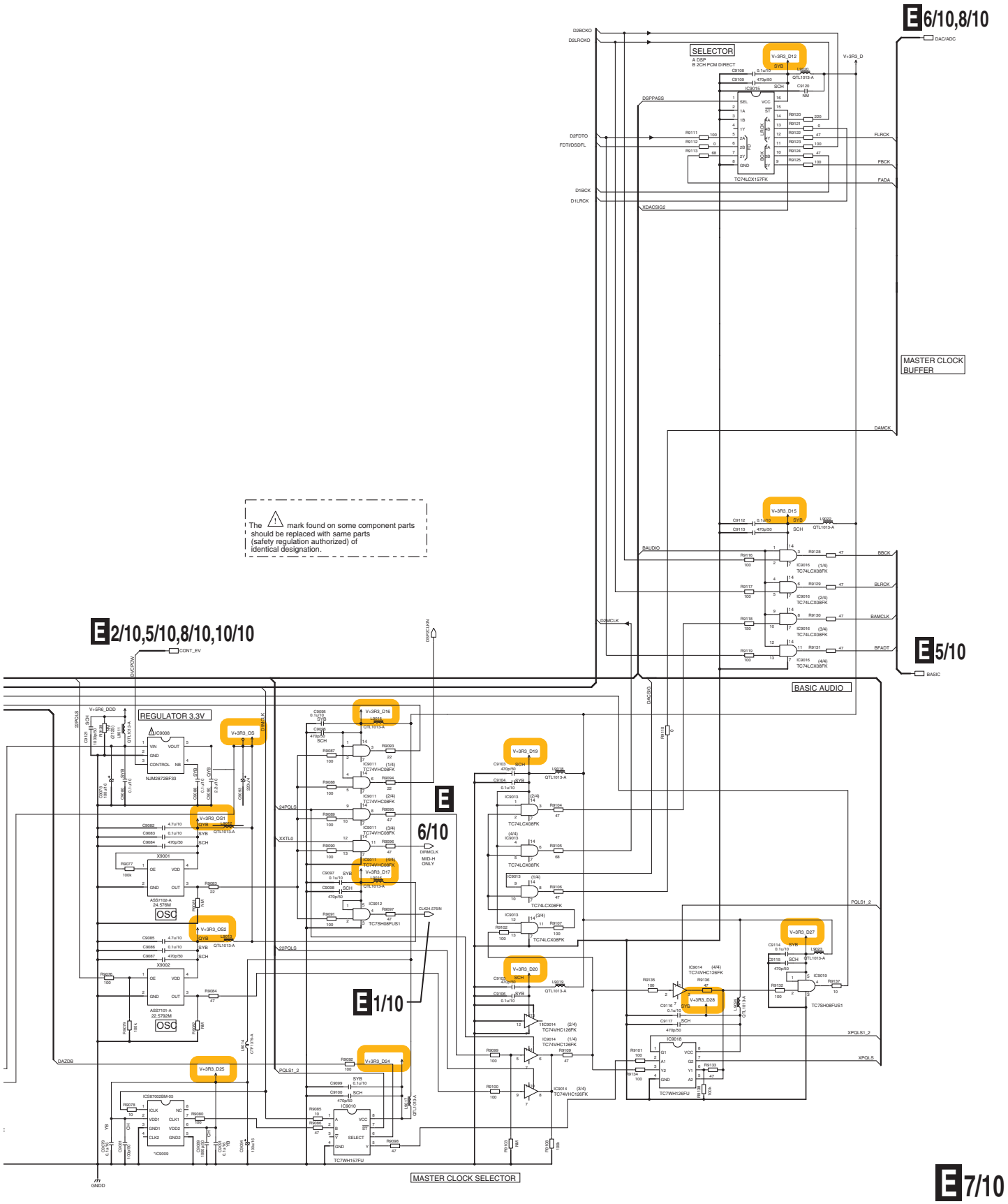
HDMI PCM DATA	
HFDT	FL/FR
CDTI	C/SW
SDTI	SL/SR
SDTI	SBL/SBR

HDMI DSD DATA	
HFDT	FL
HDLRCK	FR
SDTI	C
SDTI	SW
SDTI	SL
SDTI	SR

10.14 DIGITAL MAIN ASSY(7/10)



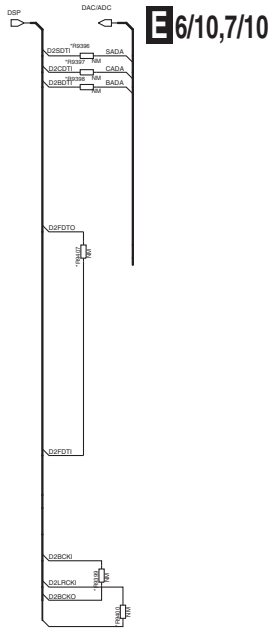
E 7/10 DIGITAL MAIN ASSY (7/10) (AWX9719)

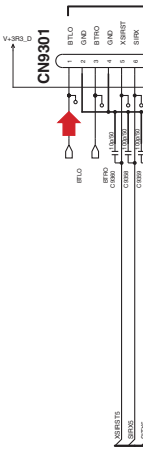


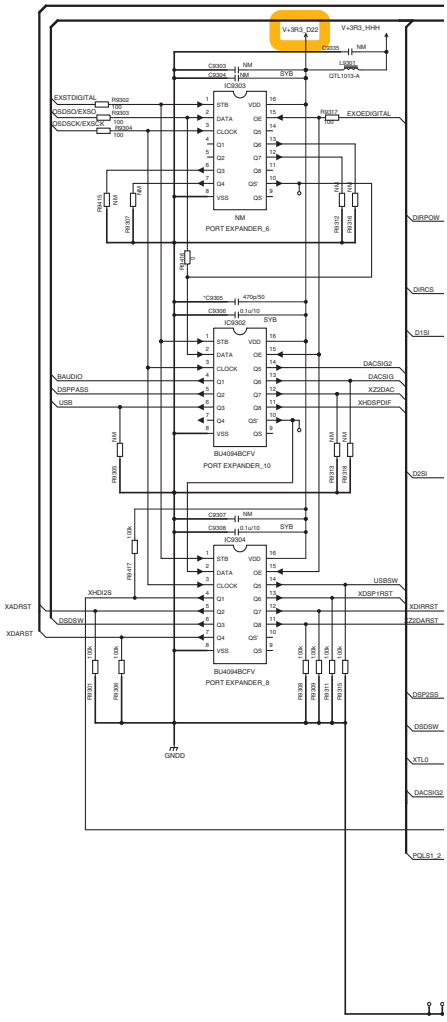
10.15 DIGITAL MAIN ASSY(8/10)

E 1/10,3/10,6/10,7/10

E 6/10,7/10







	AWX9719
C9331	1000u/10
R9422	0
R9426	0
R9427	0
R9428	0
R9435	0

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

E 8/10

E 8/10 DIGITAL MAIN ASSY (8/10) (AWX9719)

U CN3784

E 2/10,5/10,7/10,10/10

E 1/10-5/10, 7/10,9/10

E 2/10-7/10,10/10

T CN3773

T CN3771

E 6/10,7/10

CN9303

CN9304

CN9302

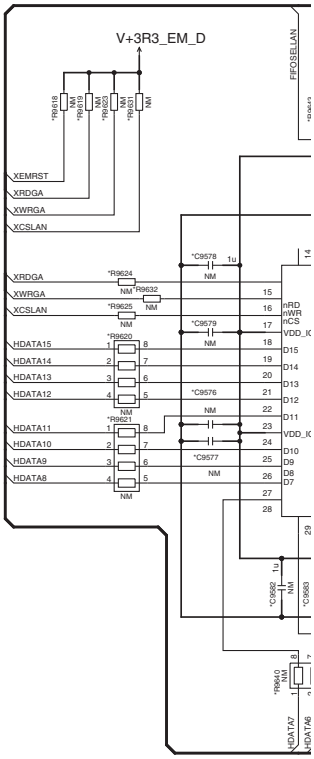
U CN3782

E 2/10-7/10, 10/10

JA9301

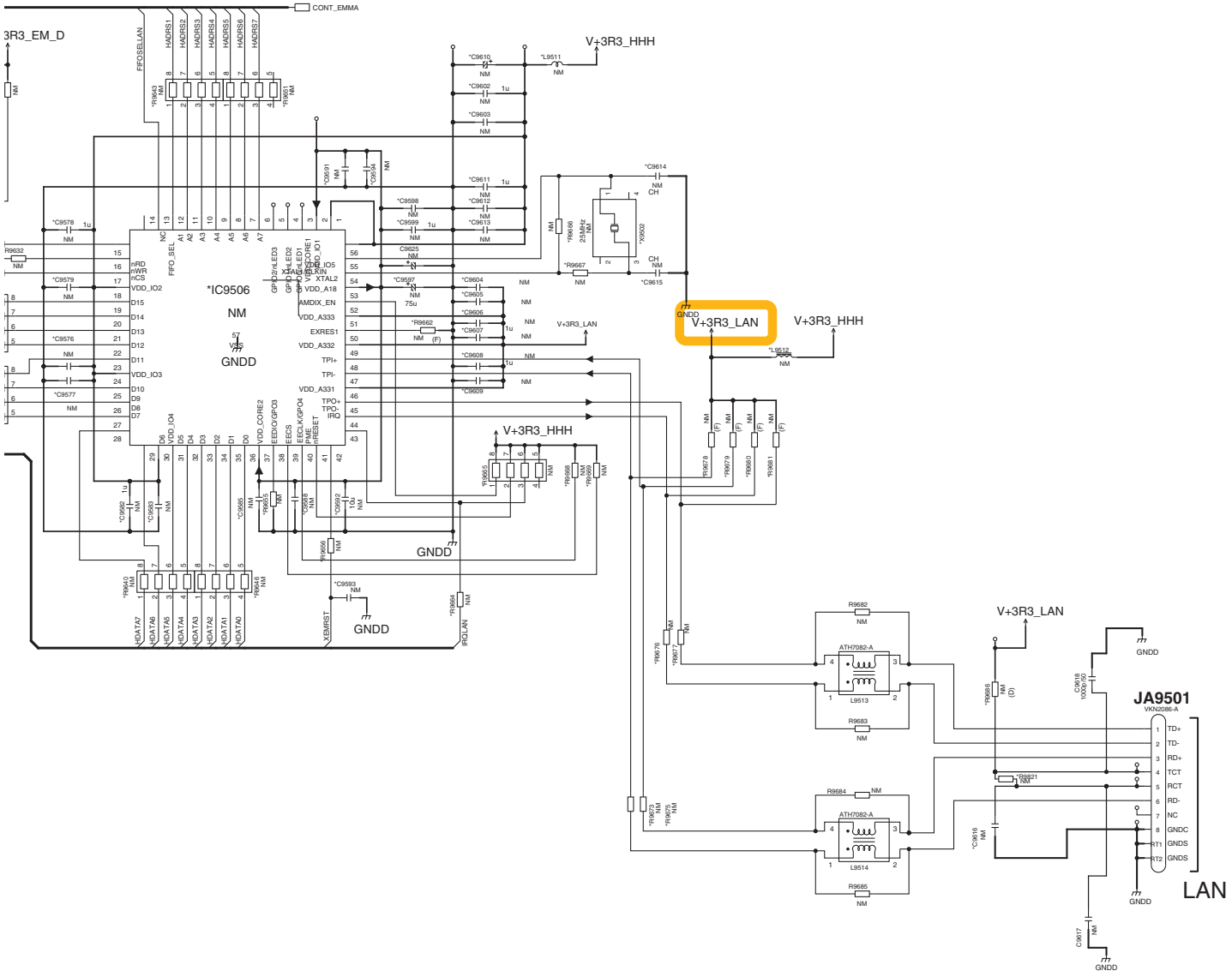
: Audio Signal Route

10.16 DIGITAL MAIN ASSY(9/10)

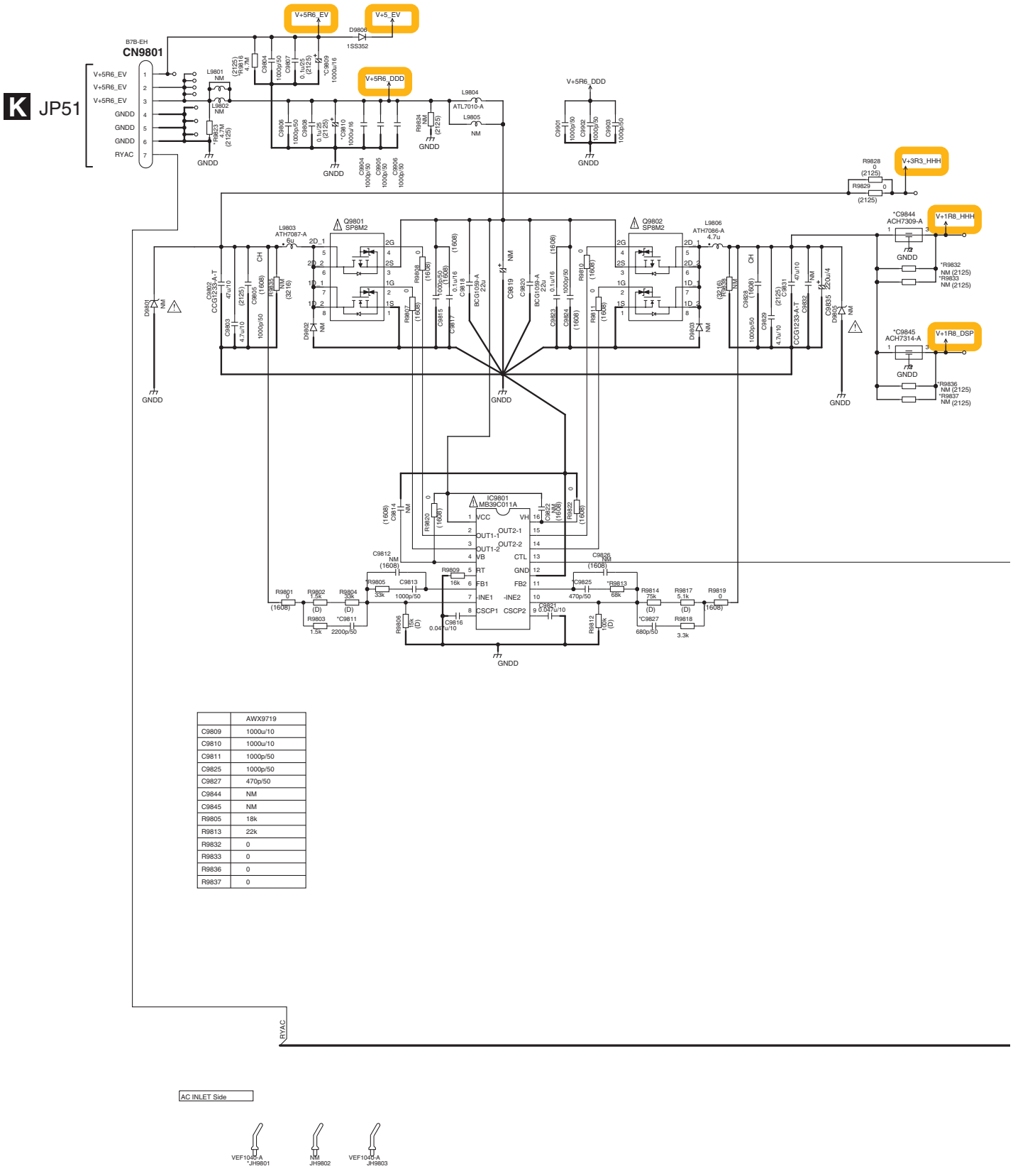


E 9/10 DIGITAL MAIN ASSY (9/10) (AWX9719)

E 1/10-5/10,7/10,8/10



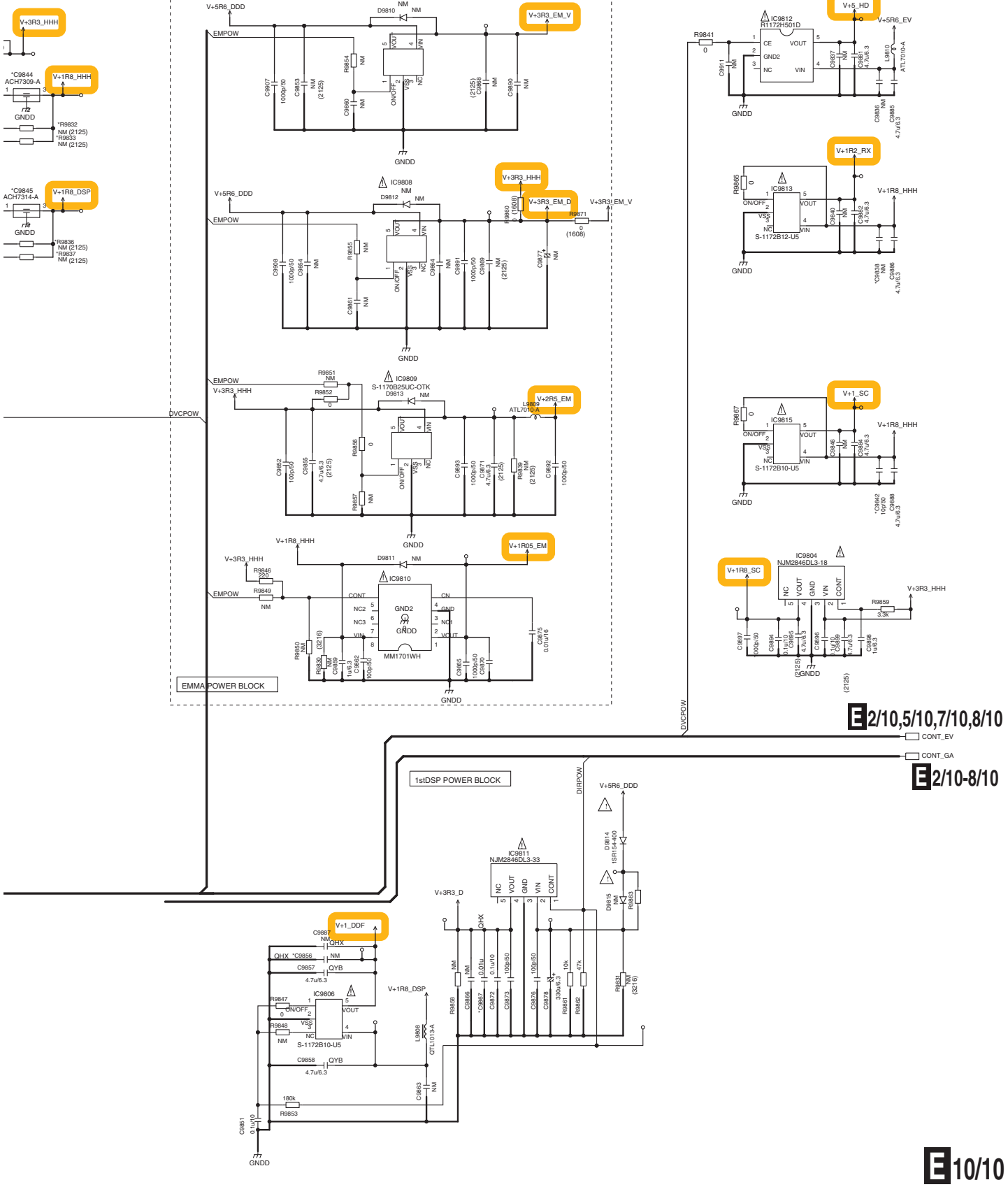
10.17 DIGITAL MAIN ASSY(10/10)



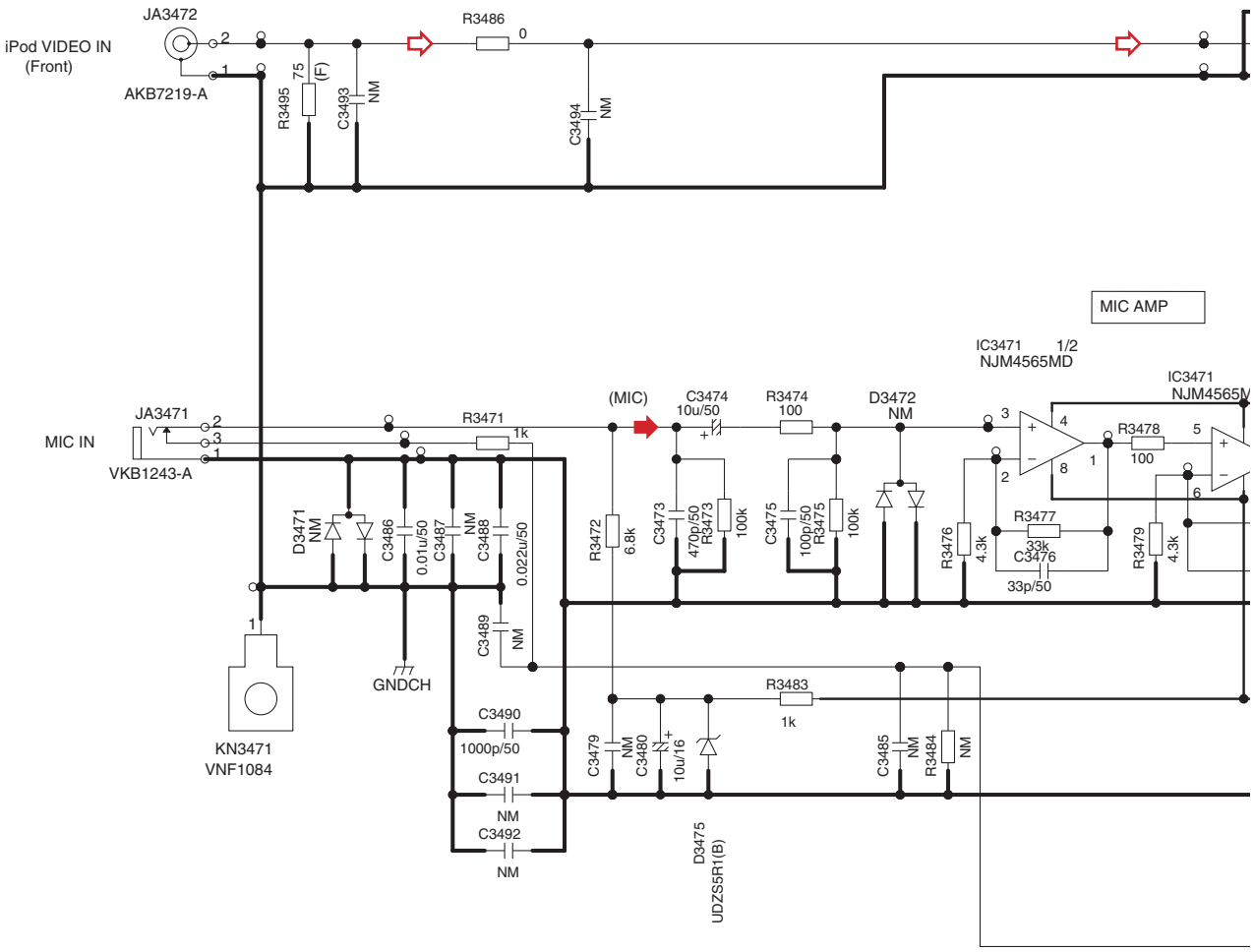
	AWX9719
C9809	1000u/10
C9810	1000u/10
C9811	1000p/50
C9825	1000p/50
C9827	470p/50
C9844	NM
C9845	NM
R9805	18k
R9813	22k
R9832	0
R9833	0
R9836	0
R9837	0

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

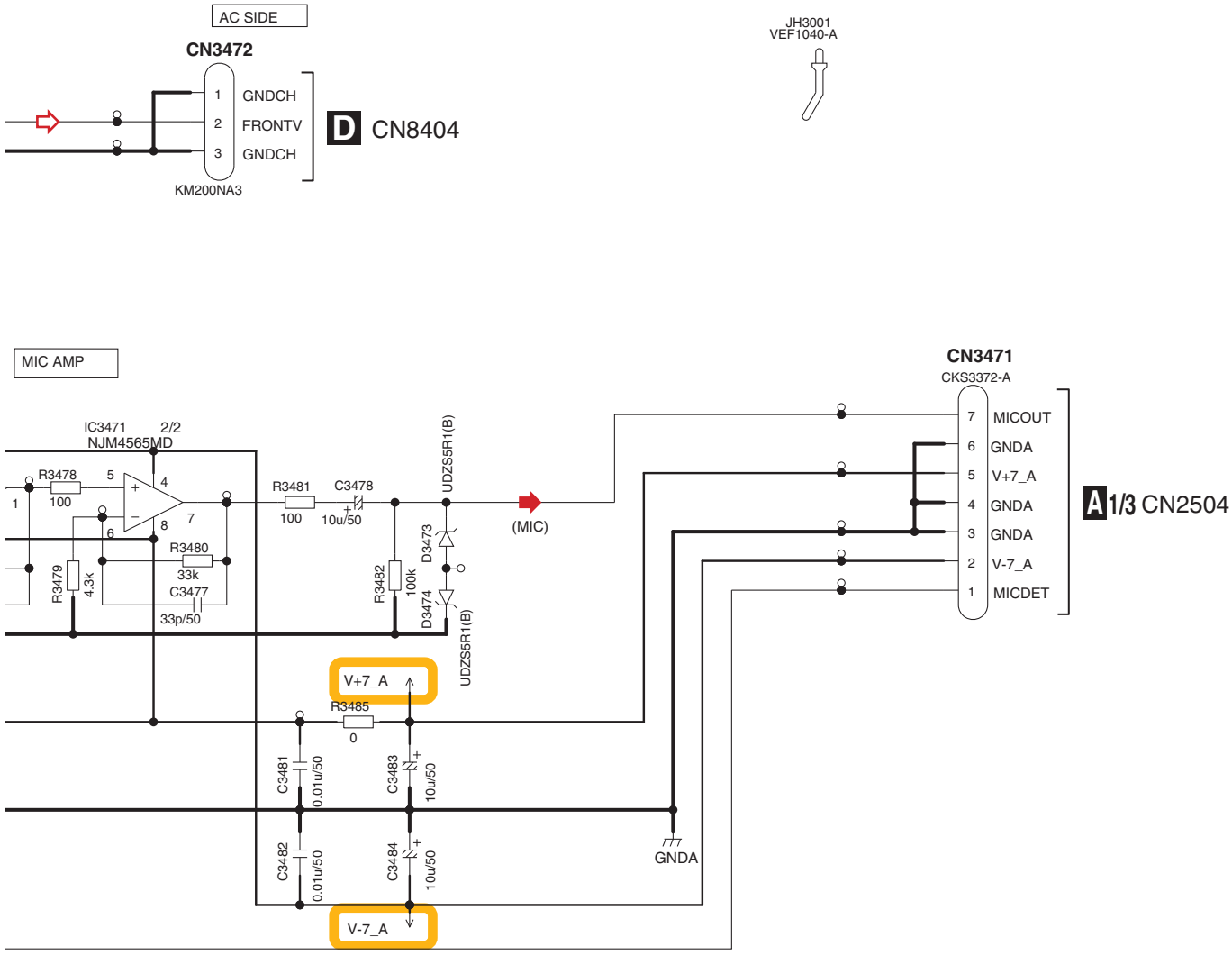
E 10/10 DIGITAL MAIN ASSY (10/10) (AWX9719)



10.18 FRONT MIC&VIDEO ASSY



F FRONT MIC & VIDEO ASSY (AWX9593)



: Audio Signal Route

: Video Signal Route

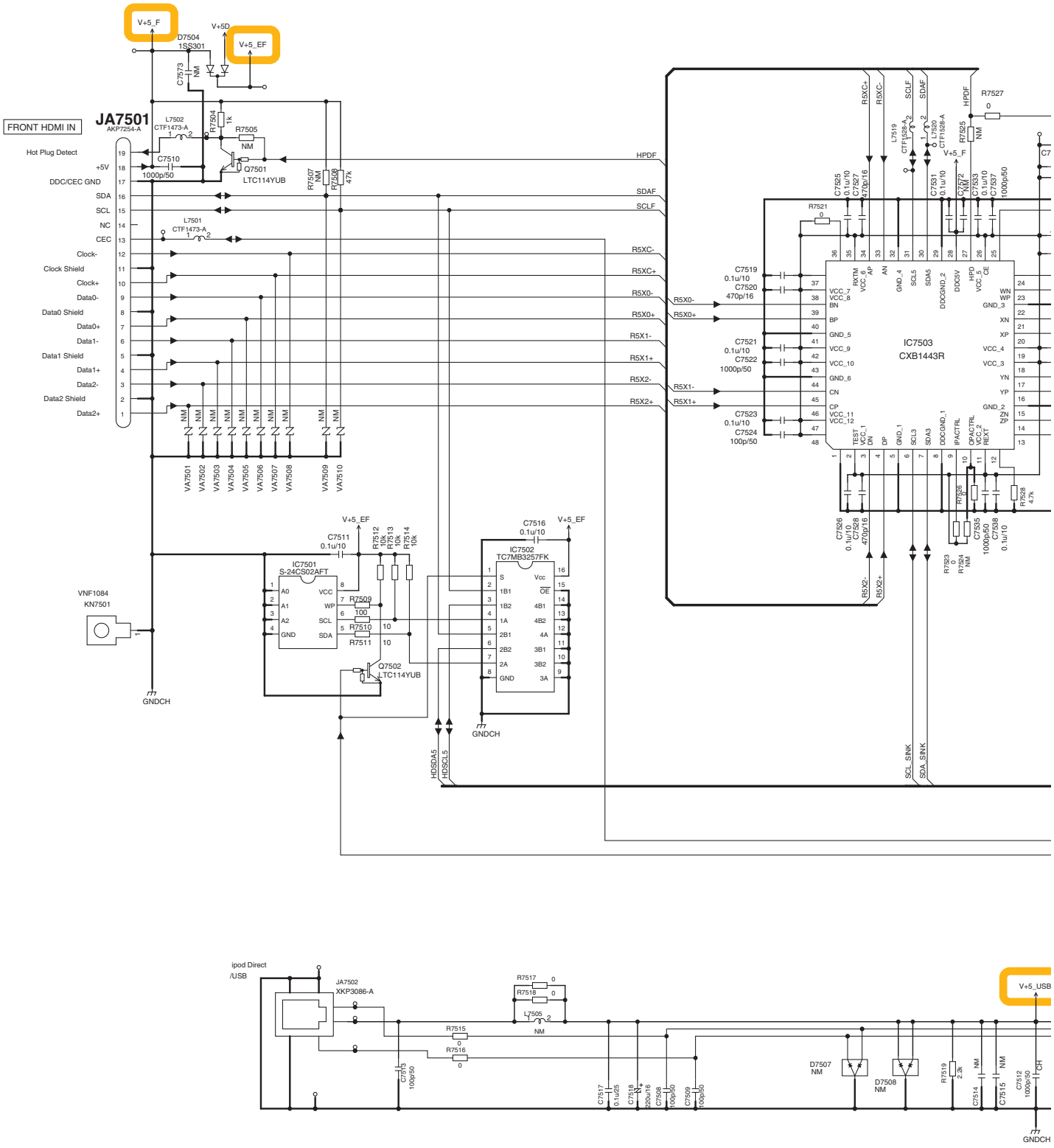
NOTE

1.RESISTORS
Unit: k-k Ω, M-M Ω or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ±5% unless otherwise noted.

2.CAPACITORS
Unit: p-pF, or μ F unless otherwise noted.
Ratings: Capacity(μ F)/Voltage(V) unless otherwise noted.

10.19 FRONT HDMI USB ASSY

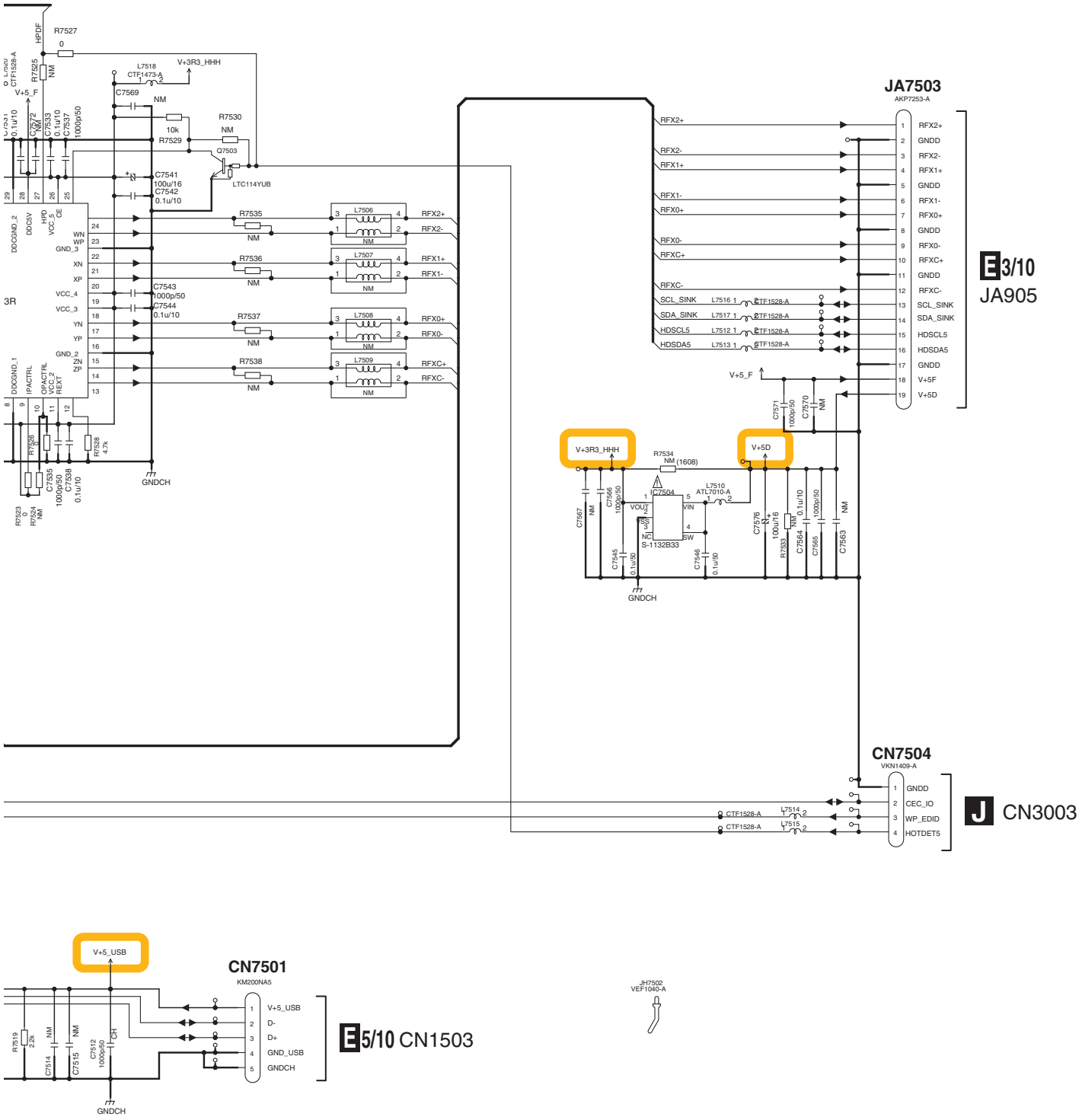
G FRONT HDMI USB ASSY (AWX9565)



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

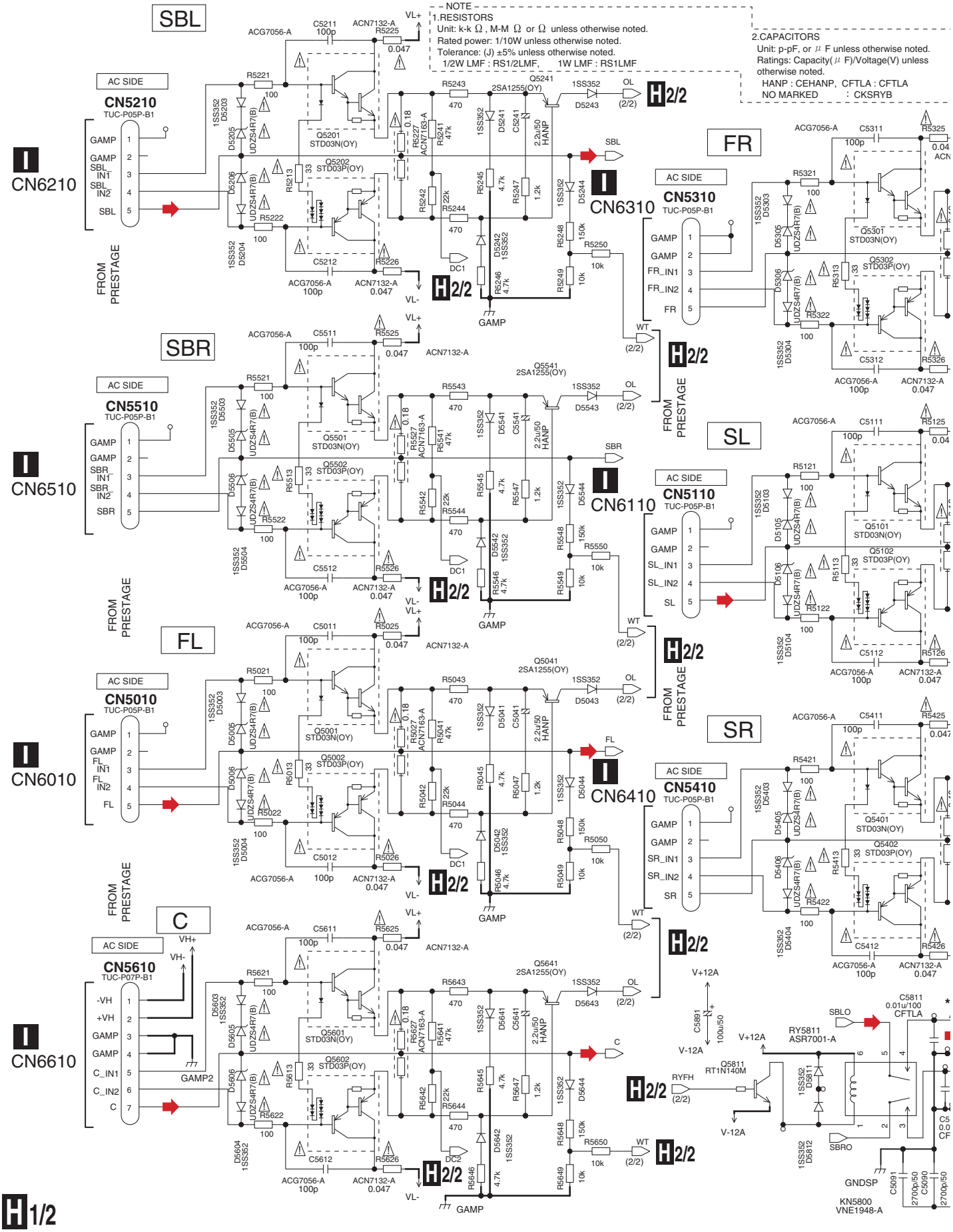
NOTE

1. RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise not
Rated Power: 1/16w unless otherwise noted.
Tolerance: (J)5% unless otherwise noted.
2. CAPACITORS
No marked Capacitors are CEAT or CKSRYB or CH: CCSRCH or CCSSCH
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwis
3. NM: No Mount



)RS
, M-M Ω or Ω unless otherwise noted.
er: 1/16w unless otherwise noted.
(J)5% unless otherwise noted.
'ORS
Capacitors are CEAT or CKSRYB or CKSSYB.
CH or CCSSCH
r u-uF unless otherwise noted.
apacity(F)/Voltage(V) unless otherwise noted.
flount

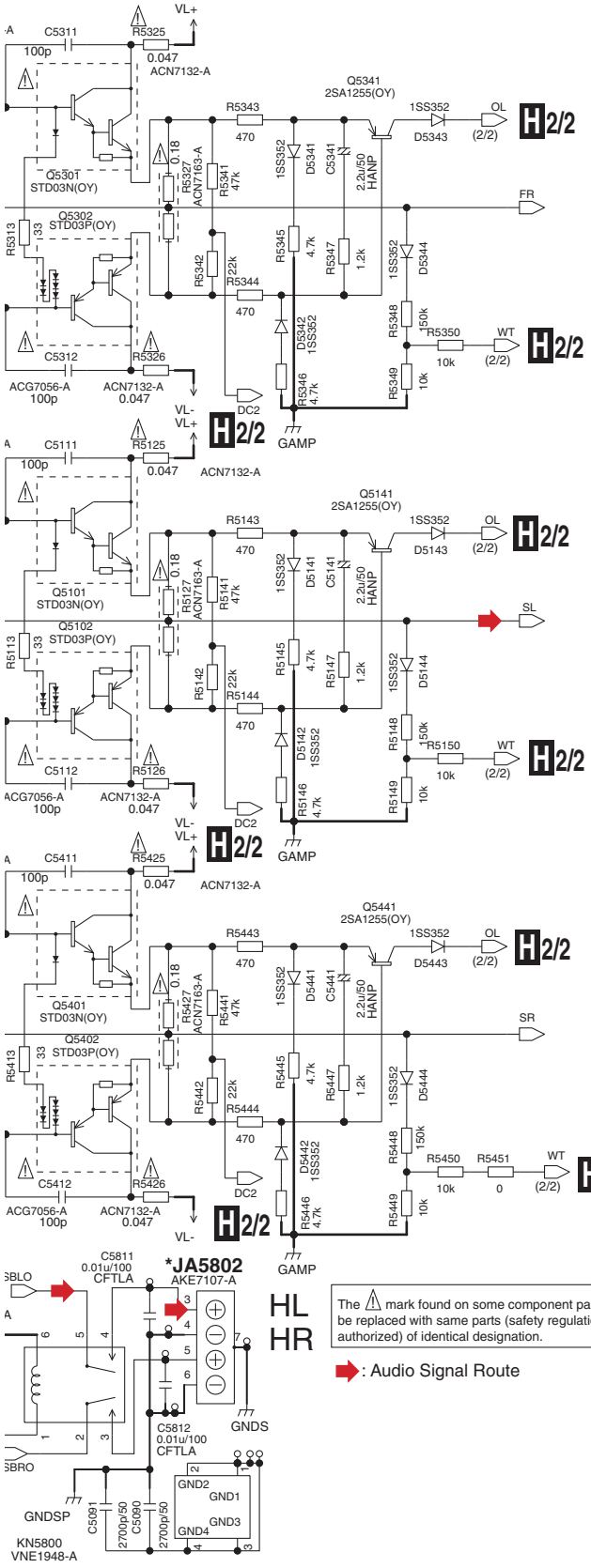
10.20 POWER AMP ASSY(1/2)



H1/2 POWER AMP ASSY (1/2) (AWX9660)

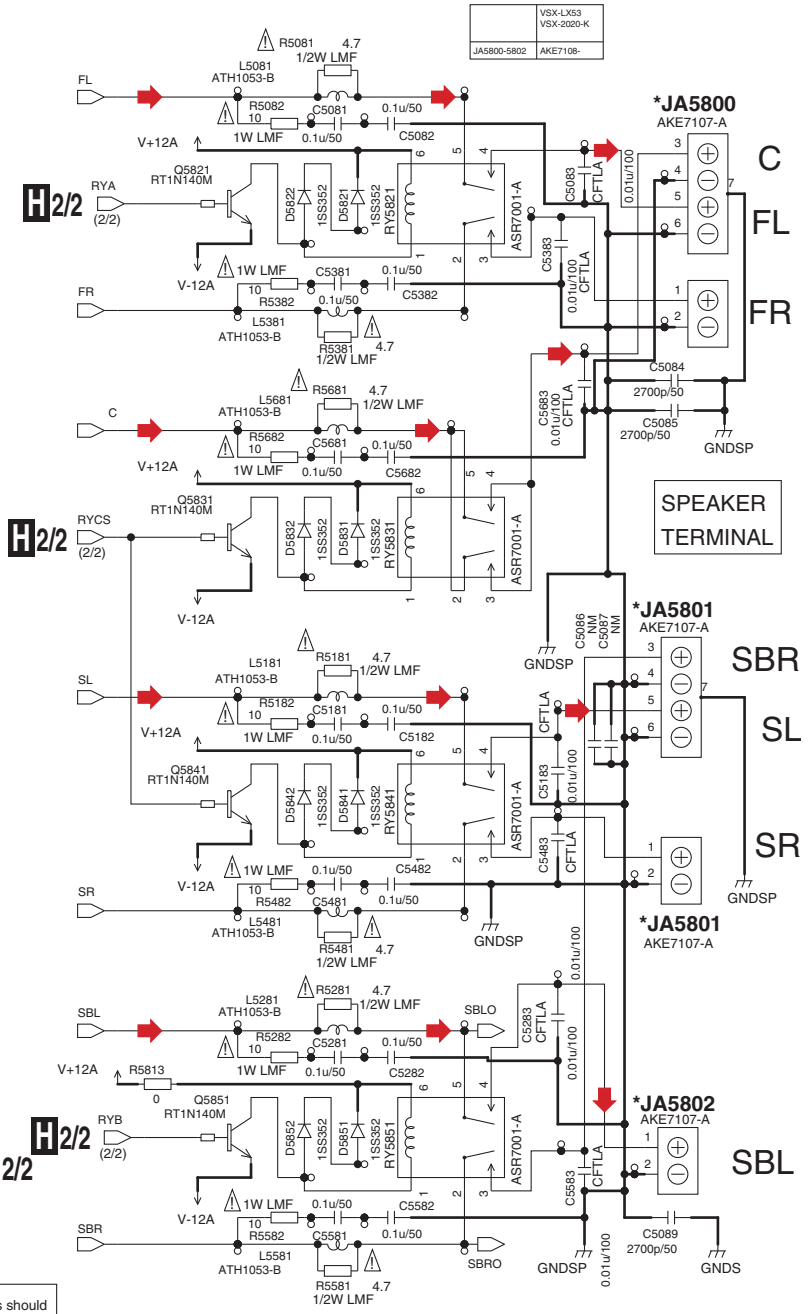
unless otherwise noted.
(μ F)/Voltage(V) unless

, CFTLA : CFTLA
: CKSRYB



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

➡: Audio Signal Route



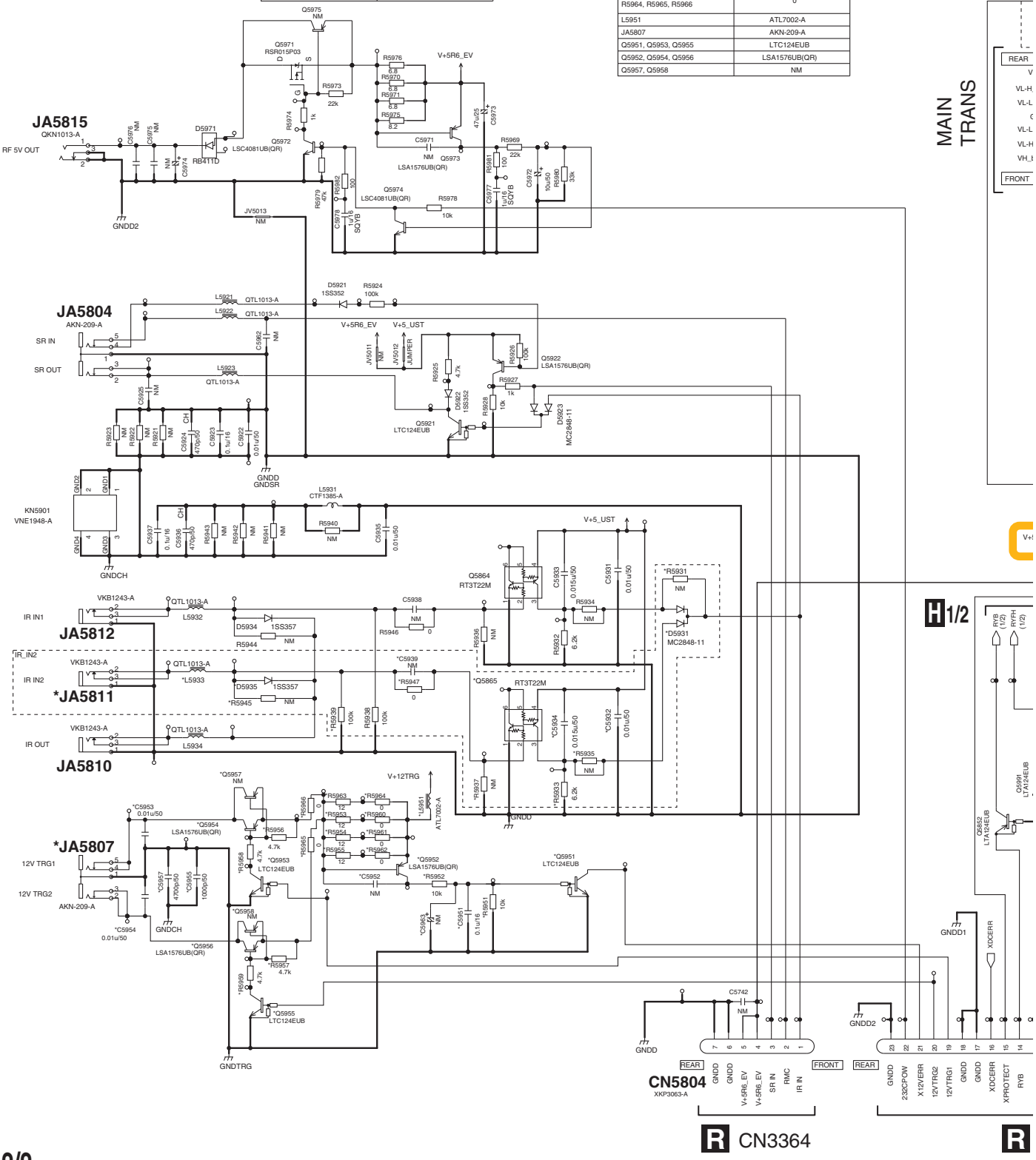
10.21 POWER AMP ASSY(2/2)

IR_IN2

	VSX-LX53, VSX-2020-K
C5932	0.01u/50
C5934	0.015u/50
C5939	NM
R5931	NM
R5933	6.2k
R5935, R5937, R5945	NM
R5939	100k
R5947	0
L5933	QTL1013-A
D5935	MC2848-11
JA5811	4.7k
Q5865	RT3T22M

12V_TRG

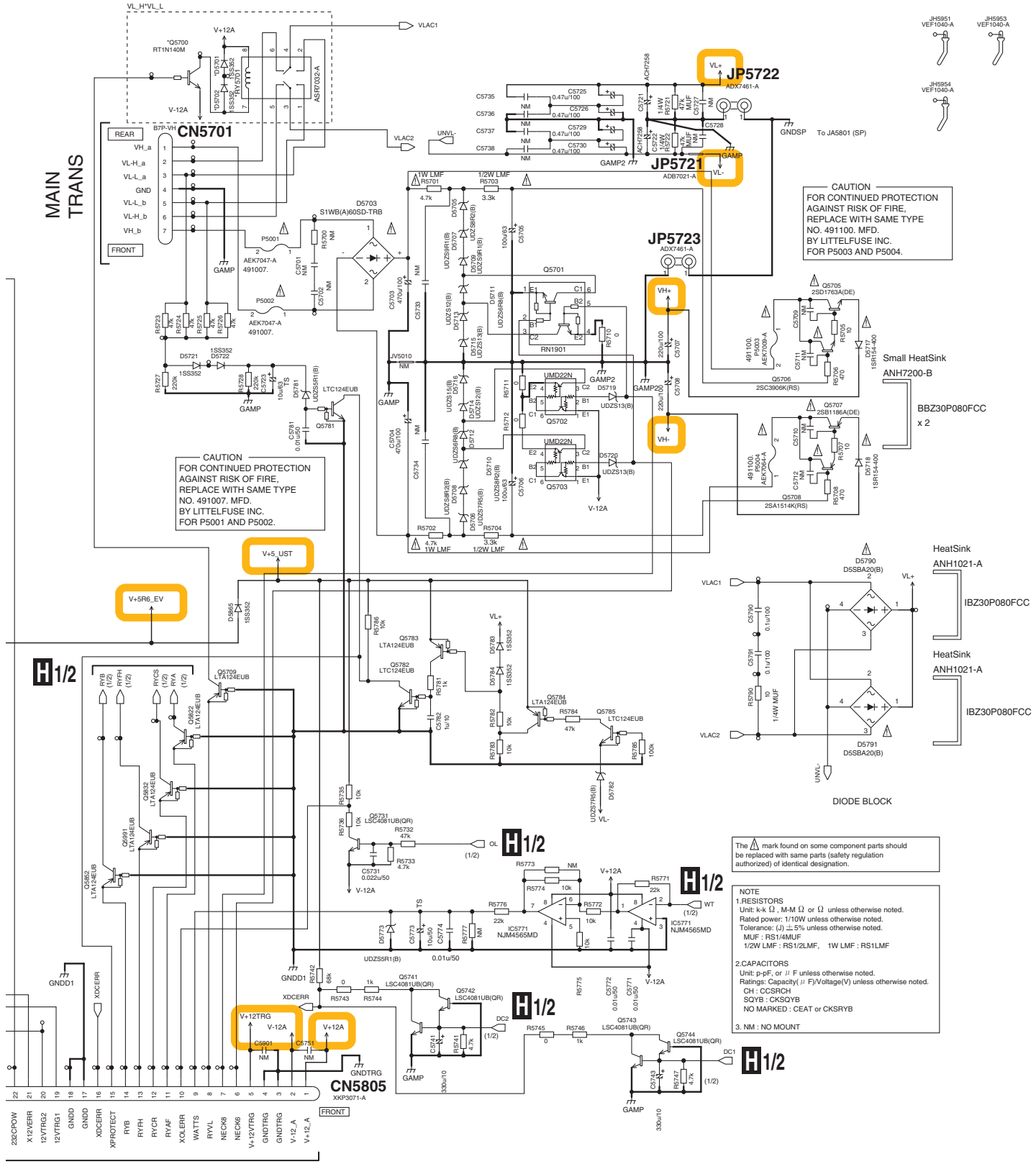
	VSX-LX53, VSX-2020-K
C5951	0.1u/16
C5952	NM
C5953, C5954	0.01u/50
C5955	1000p/50
C5957	4700p/50
C5963	NM
R5951, R5952	10k
R5953, R5954, R5955, R5963	12
R5956, R5957, R5958, R5959	4.7k
R5960, R5961, R5962, R5964, R5965, R5966	0
L5951	ATL7002-A
JA5807	AKN-209-A
Q5951, Q5953, Q5955	LTC124EUB
Q5952, Q5954, Q5956	LSA1576UB(QR)
Q5957, Q5958	NM



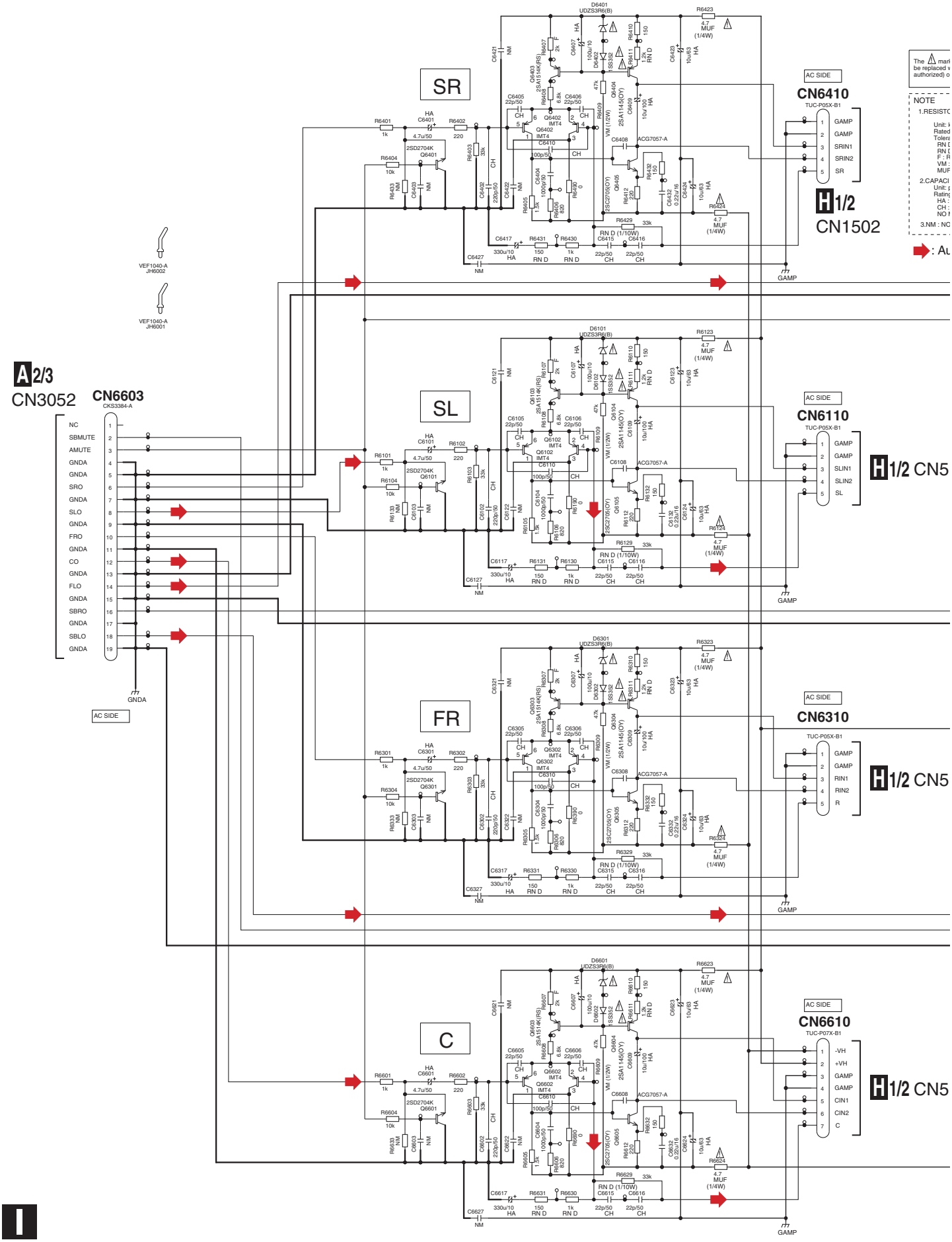
H2/2 POWER AMP ASSY (2/2) (AWX9660)

VL_H*VL_L

	VSX-LX53, VSX-2020-K
D5701, D5702	1SS352
Q5700	RT1N140M
RY5701	ASR7032-A



10.22 PRESTAGE ASSY



PRESTAGE ASSY (AWX9580)

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

NOTE

1.RESISTORS

Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ±5% unless otherwise noted.
RN D (1/10W) : RN1/10SE****D
RN D : RN1/16SE****D
F : RS1/10SR****F
VM : RD1/2VM
MUF : RD1/4MUF

2.CAPACITORS

Unit: p-pF, or μ F unless otherwise noted.
Ratings: Capacity(μ F)/Voltage(V) unless otherwise noted.
HA : CEHAT
CH : CCSRCH
NO MARKED : CKSRYB

3.NM : NO MOUNT

: Audio Signal Route

FL

SBR/FRH

SBL/FLH

H1/2 CN5010

H1/2 CN5110

H1/2 CN5510

H1/2 CN5310

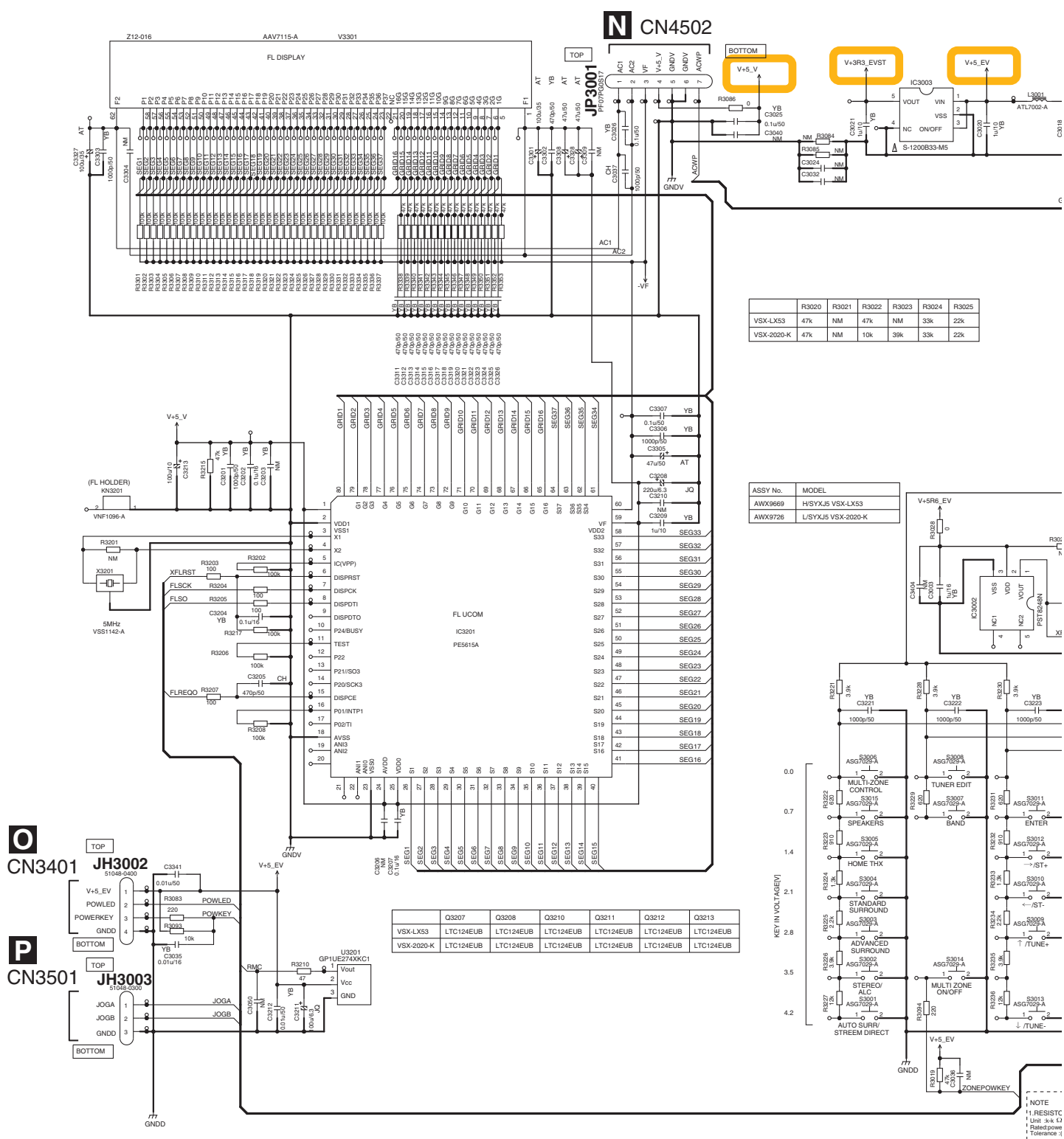
H1/2 CN5210

H1/2 CN5610

CN6010 CN6510 CN6210

10.23 DISPLAY ASSY

	C3218	C3219	C3343	R3079	R3211	R3212	R3213	R3214	R3241	R3242	R3243	R3244	R3245	R3246	R3247	R3356	D3204	D3206	D3208	D3210	D3212	D3214	D3216
VSX-LX53	47p/50	47p/50	10p/50	NM	NM	NM	NM	NM	150	150	150	150	150	150	560	100	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343WBCT(MNPQ)
VSX-2020-K	47p/50	47p/50	10p/50	NM	NM	NM	NM	NM	150	150	150	150	150	150	560	100	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343BC4T(JKLM)	SLR343WBCT(MNPQ)



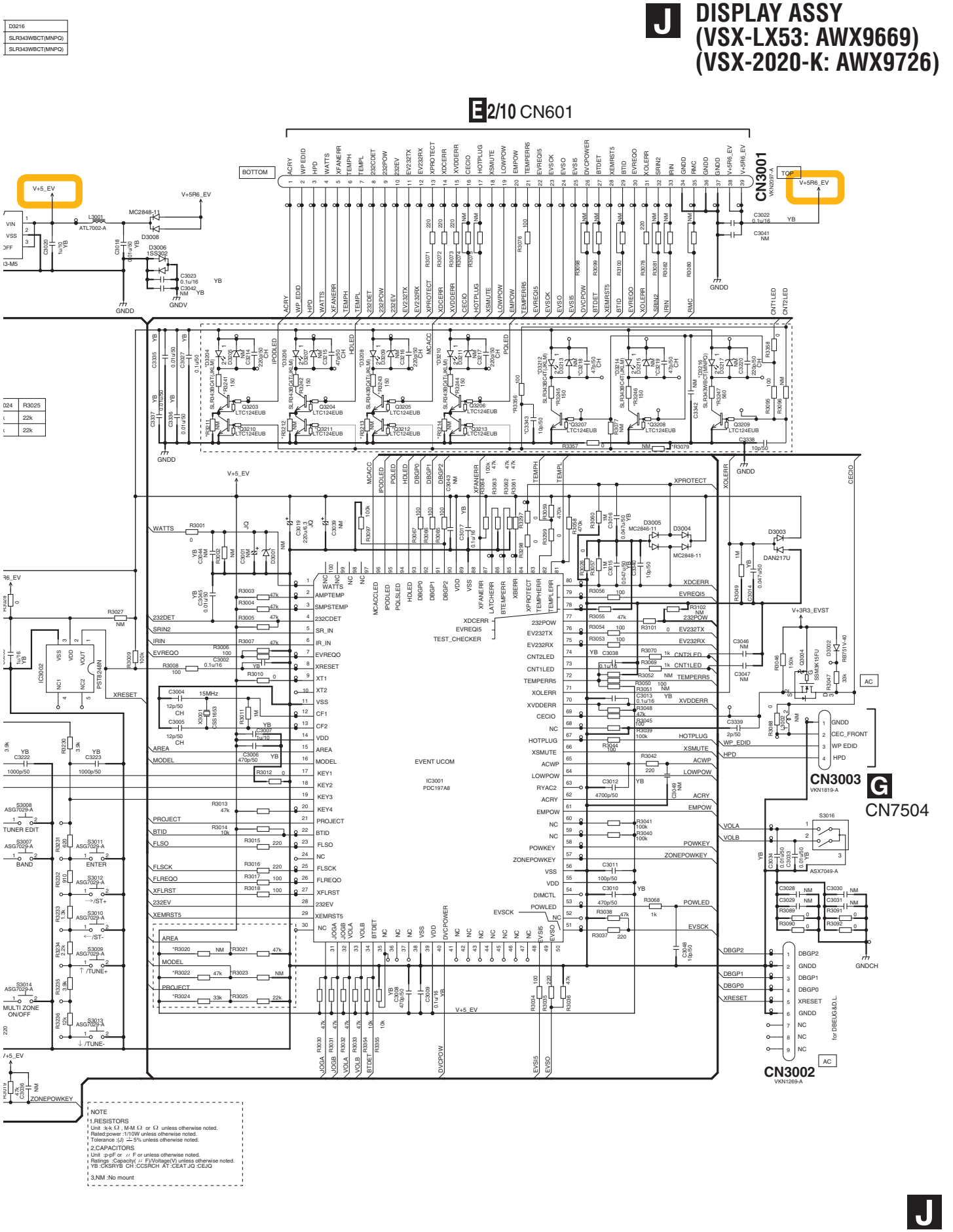
	R3020	R3021	R3022	R3023	R3024	R3025
VSX-LX53	47k	NM	47k	NM	33k	22k
VSX-2020-K	47k	NM	10k	39k	33k	22k

ASSY No.	MODEL
AWX9669	H/SYXJ5 VSX-LX53
AWX9726	L/SYXJ5 VSX-2020-K

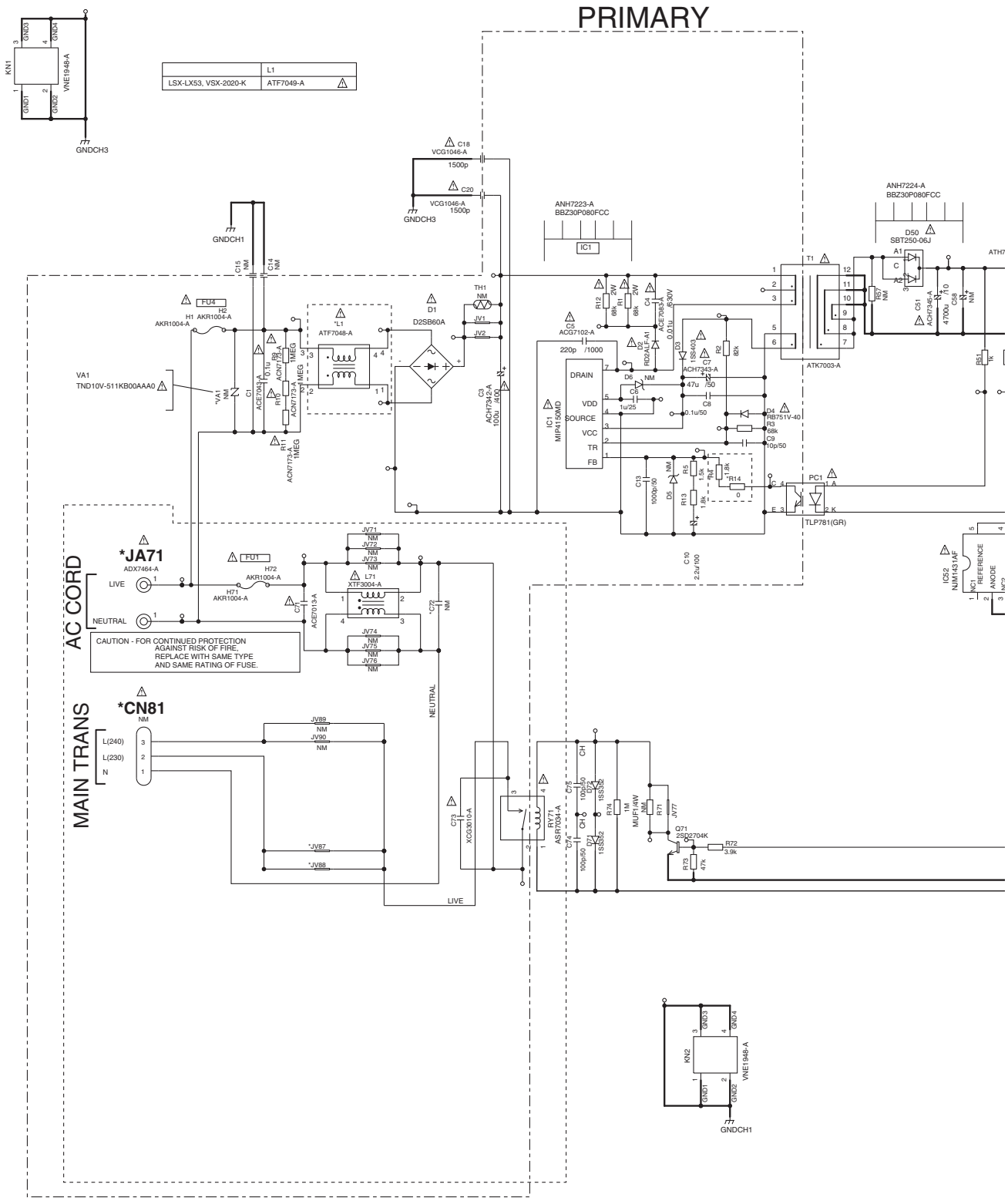
	Q3207	Q3208	Q3210	Q3211	Q3212	Q3213
VSX-LX53	LTC124EUB	LTC124EUB	LTC124EUB	LTC124EUB	LTC124EUB	LTC124EUB
VSX-2020-K	LTC124EUB	LTC124EUB	LTC124EUB	LTC124EUB	LTC124EUB	LTC124EUB

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

J DISPLAY ASSY (VSX-LX53: AWX9669) (VSX-2020-K: AWX9726)



10.24 PRIMARY ASSY



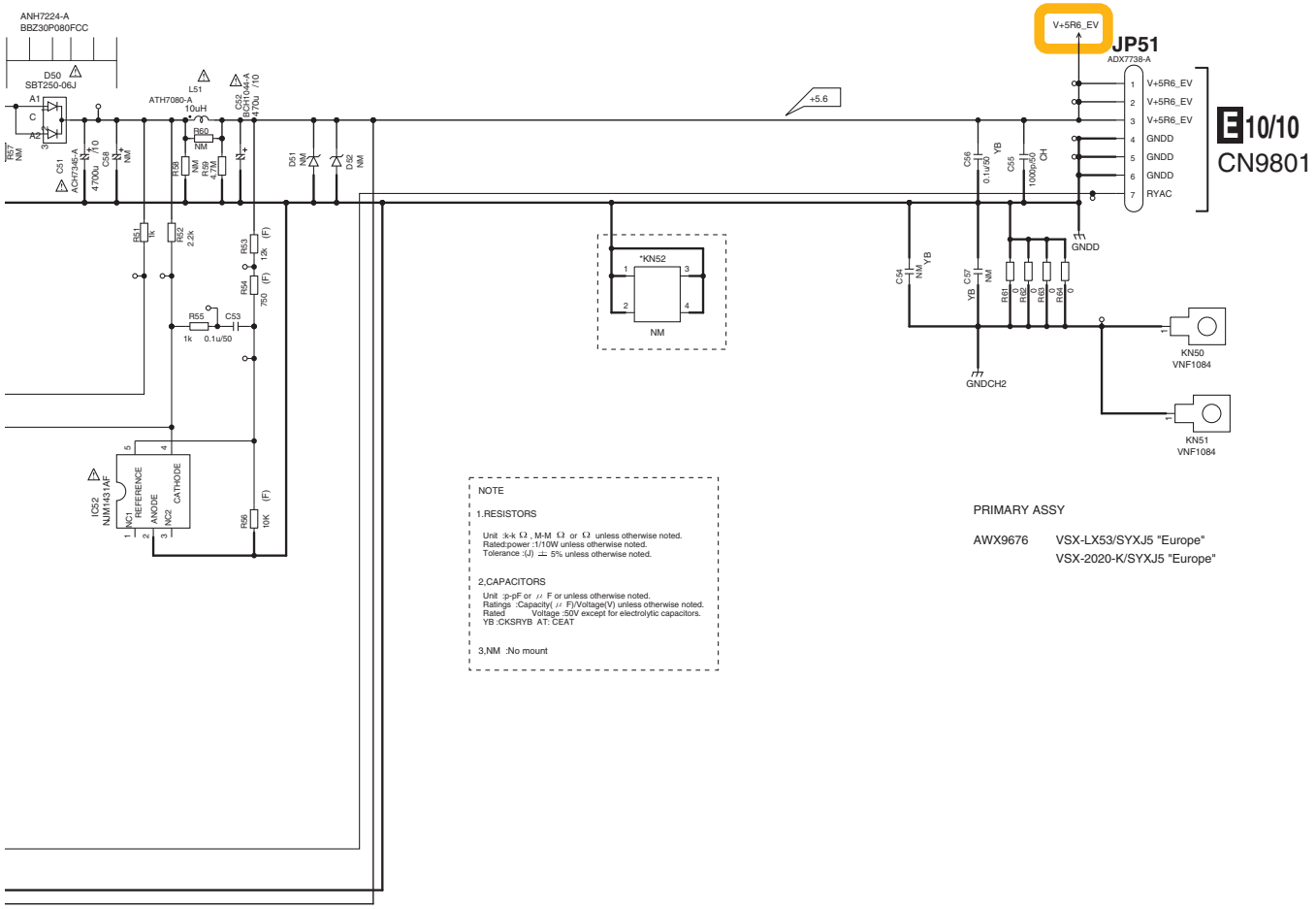
	L1
LSX-LX53, VSX-2020-K	ATF7049-A ⚠

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

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

K PRIMARY ASSY (AWX9676)

	KN52
LSX-LX53, VSX-2020-K	ANG7591-A



NOTE

1.RESISTORS

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

2,CAPACITORS

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

3,NM :No mount

PRIMARY ASSY

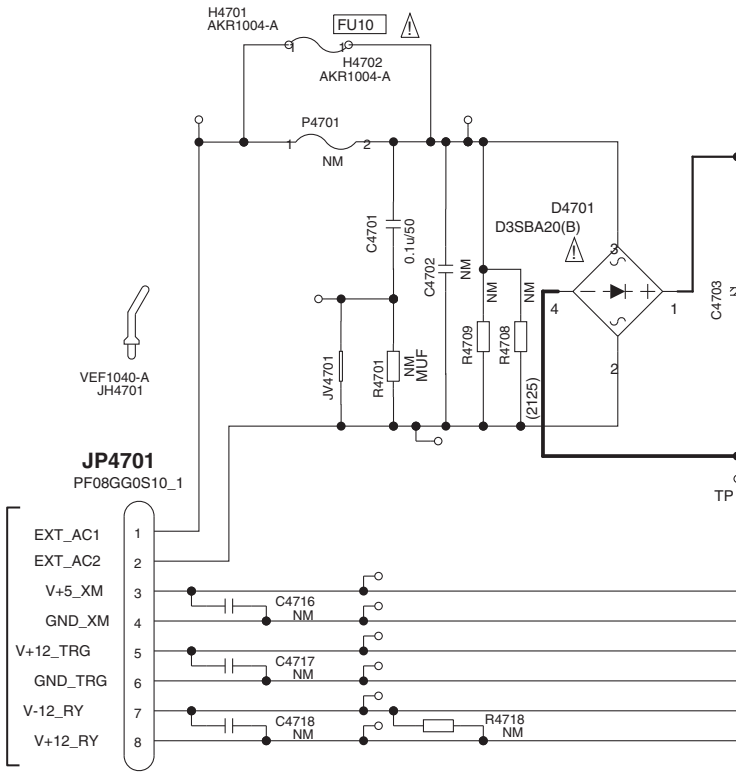
AWX9676 VSX-LX53/SYXJ5 "Europe"
VSX-2020-K/SYXJ5 "Europe"

	VSX-LX53, VSX-2020K
R4	820
R14	1k

	AWX9676 SY
C72	ACE7013-A ⚠
CN81	B3P5-VH ⚠
CN82	NM
CN83	NM
CN84	NM
JA71	ADX7464-A ⚠
JA71_1	ADX7464-A_1 ⚠
JP81	NM
JP81_1	NM
JP81_2	NM
JP81_3	NM
JV87	JUMPER
JV88	JUMPER

10.25 USB REGULATOR ASSY

L USB REGULATOR ASSY (AWX9581)



M JP4303

NOTE

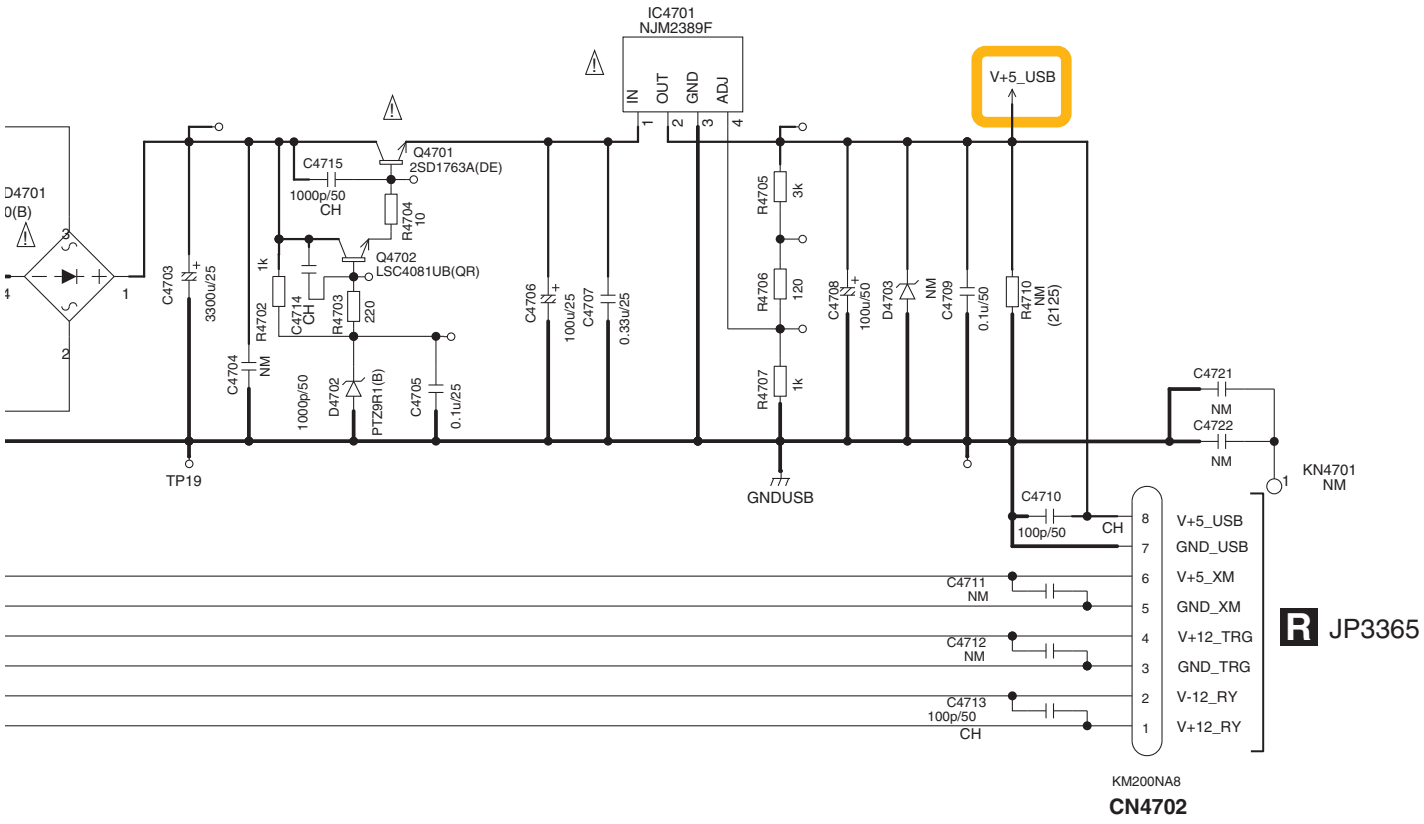
1. RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/10W unless otherwise noted.
Toleranee: (J)5% unless otherwise noted.
MUF : RD1/4MUF
2125 : RS1/8SQ

2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
CH : CCSRCH
NO MARKED : CEAT or CKSRYB

3. NM : NO MOUNT

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

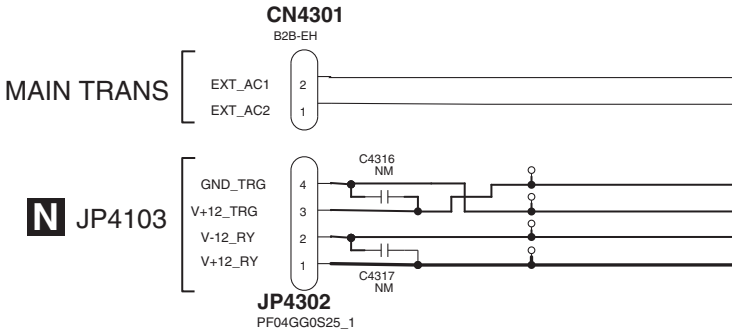
The ⚠ mark found on some component parts should be replaced with same parts(safety regulation authorized) of identical designation.


IC4701
NJM2389F
IN
OUT
GND
ADJ
V+5_USB
Q4701
2SD1763A(DE)
C4715
1000p/50
CH
R4704
10
Q4702
LSC4081UB(QR)
C4703
3300u/25
R4702
1k
C4714
CH
R4703
220
C4704
NM
1000p/50
D4702
PTZ9R1(B)
C4705
0.1u/25
C4706
100u/25
C4707
0.33u/25
R4705
3k
R4706
120
R4707
1k
C4708
100u/50
D4703
NM
C4709
0.1u/50
R4710
NM
(2125)
C4721
NM
C4722
NM
KN4701
NM
TP19
GNDUSB
C4710
100p/50
CH
C4711
NM
C4712
NM
C4713
100p/50
CH
8 V+5_USB
7 GND_USB
6 V+5_XM
5 GND_XM
4 V+12_TRG
3 GND_TRG
2 V-12_RY
1 V+12_RY
KM200NA8
CN4702
R JP3365

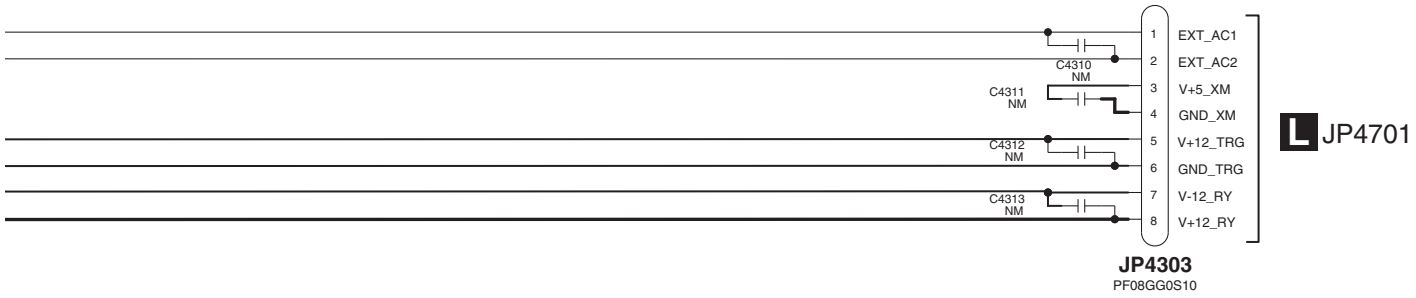
10.26 XM REGULATOR ASSY

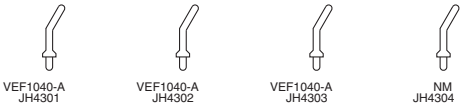
M XM REGULATOR ASSY (AWX9667)

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



NOTE
1. RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/10W unless otherwise noted.
Toleranee: (J)5% unless otherwise noted.
MUF : RD1/4MUF
2125 : RS1/8SQ
2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
CH : CCSRCH
NO MARKED : CEAT or CKSRYB
3. NM : NO MOUNT


1 EXT_AC1
2 EXT_AC2
3 V+5_XM
4 GND_XM
5 V+12_TRG
6 GND_TRG
7 V-12_RY
8 V+12_RY
C4310 NM
C4311 NM
C4312 NM
C4313 NM
JP4303
PF08GG0S10
L JP4701


VEF1040-A JH4301
VEF1040-A JH4302
VEF1040-A JH4303
NM JH4304

10.27 REGULATOR ASSY

	VSX-LX53, VSX-2020-K
C4081	NM
C4082	NM
C4083	NM
C4084	NM
C4085	NM
C4086	NM
C4087	NM
R4081	NM
R4082	NM
R4083	NM
R4084	NM
R4085	NM
R4086	NM
CN4081	NM
D4081	NM
D4082	NM
D4083	NM
D4084	NM
P4081	NM
P4082	NM
Q4081	NM
Q4082	NM
Q4083	NM

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

NO MOUNT JUMPER

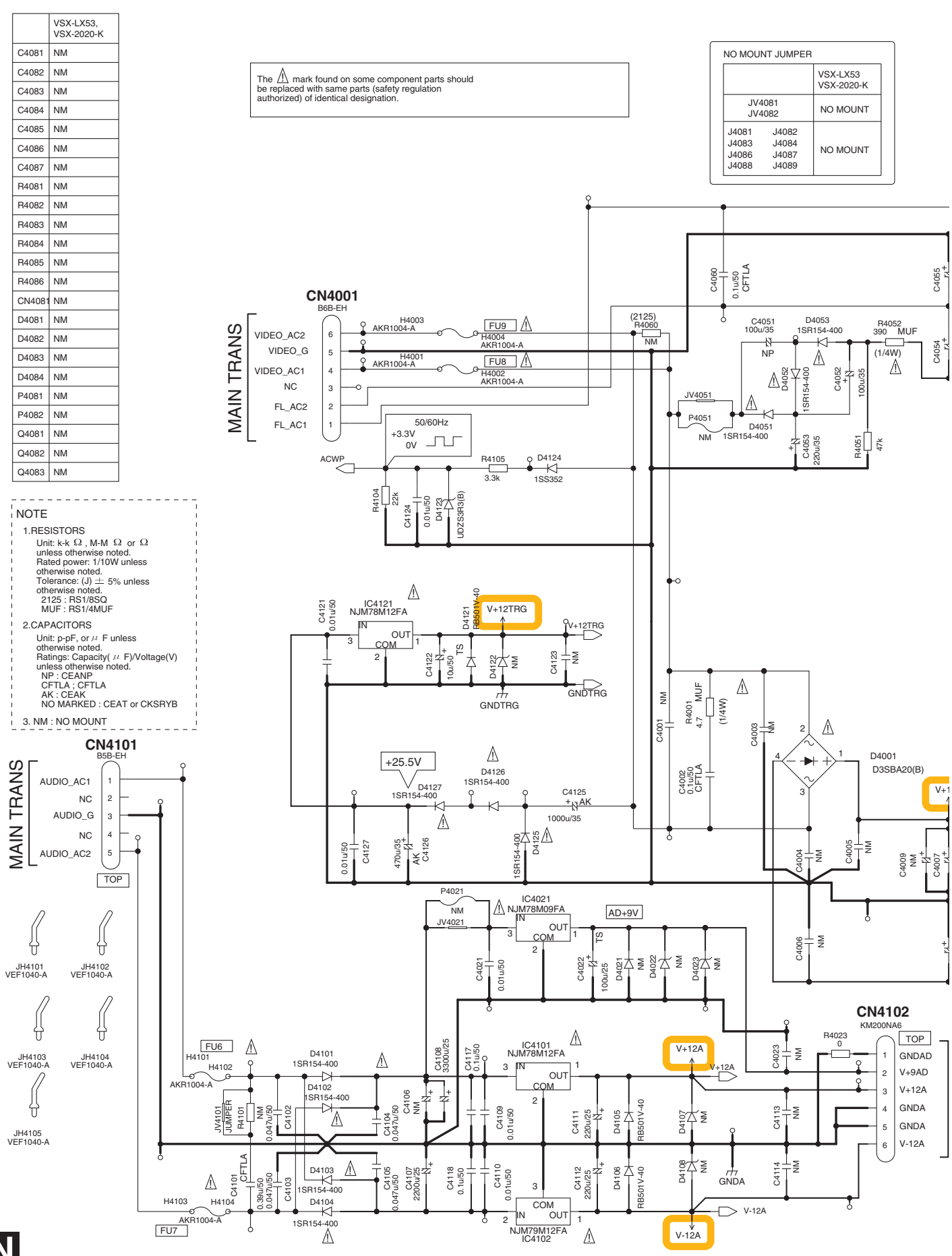
	VSX-LX53 VSX-2020-K
JV4081 JV4082	NO MOUNT
J4081 J4082 J4083 J4084 J4086 J4087 J4088 J4089	NO MOUNT

NOTE

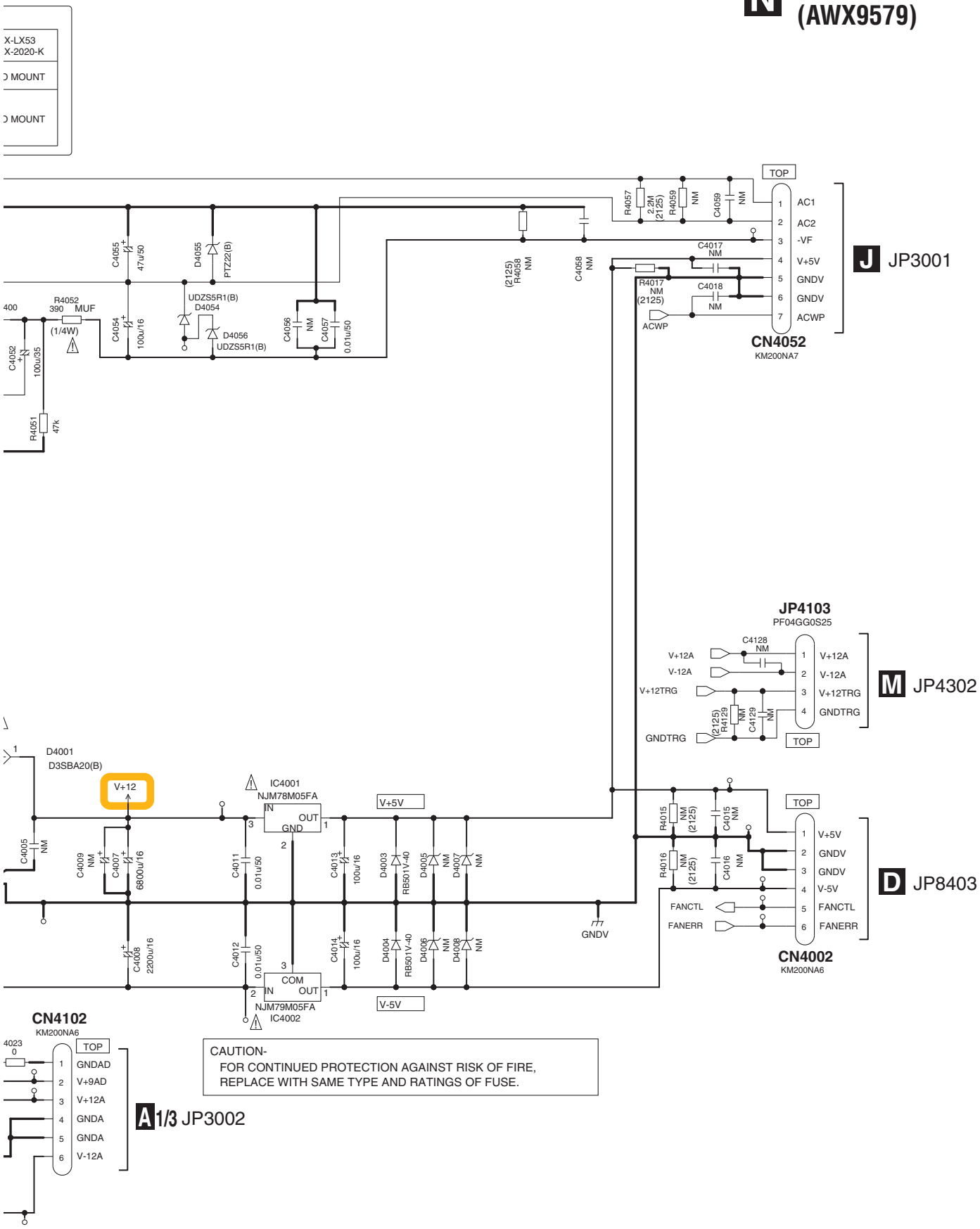
1.RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) ± 5% unless otherwise noted.
2125 : RS1/8SQ
MUF : RS1/4MUF

2.CAPACITORS
Unit: p-pF, or μ F unless otherwise noted.
Ratings: Capacity(μ F)/Voltage(V) unless otherwise noted.
NP : CEANP
CFTLA ; CFTLA
AK : CEAK
NO MARKED : CEAT or CKSRYB

3. NM : NO MOUNT

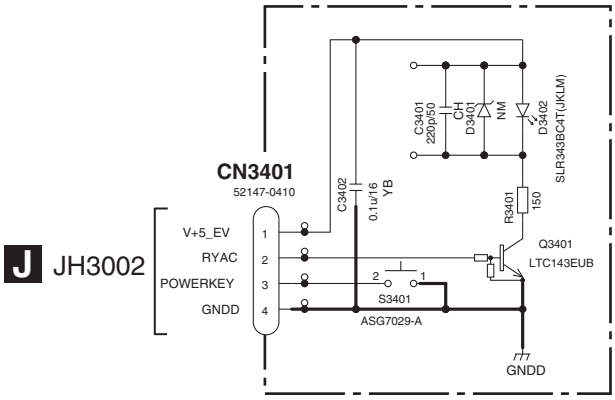


N REGULATOR ASSY (AWX9579)

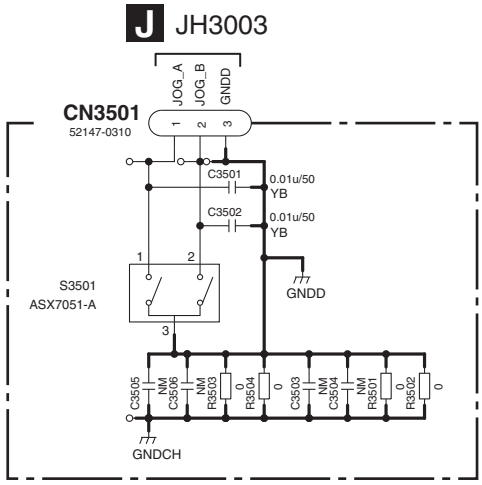


10.28 POWER SW, ENCODER and HEADPHONE ASSYS

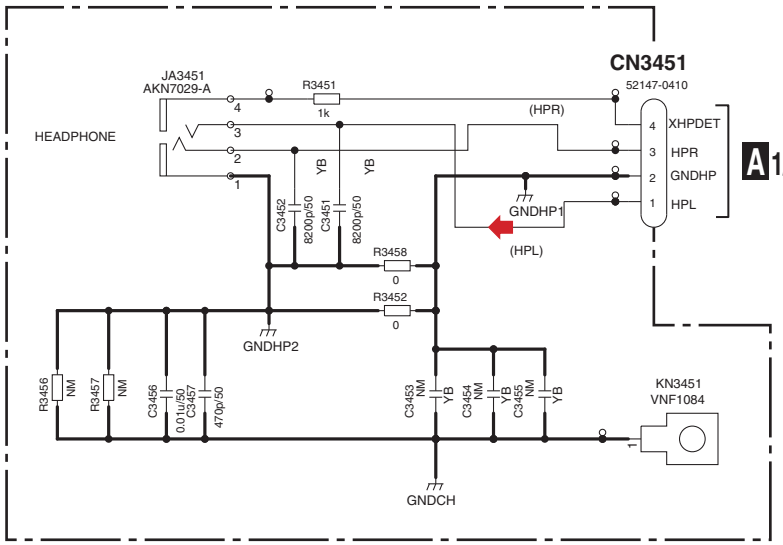
Q POWER SW ASSY (AWX9588)



P ENCODER ASSY (AWX9589)



Q HEADPHONE ASSY (AWX9590)



: Audio Signal Route

NOTE

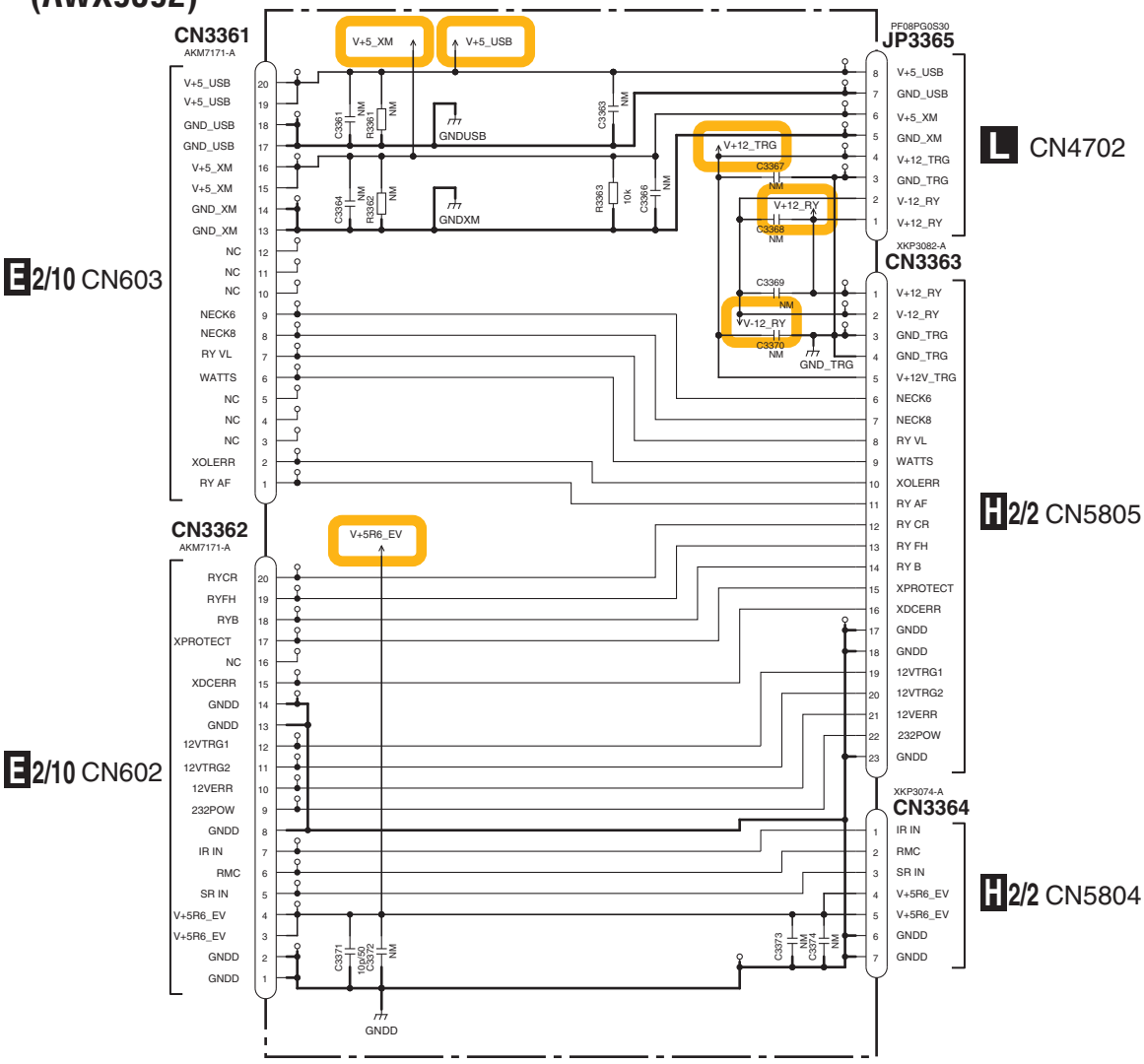
1.RESISTORS
Unit :k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated:power :1/10W unless otherwise noted.
Tolerance :(J) ±5% unless otherwise noted.

2,CAPACITORS
Unit :p-pF or μ F or unless otherwise noted.
Ratings :Capacity(F)/Voltage(V) unless otherwise noted.
YB :CKSRYB CH :CCSRCH

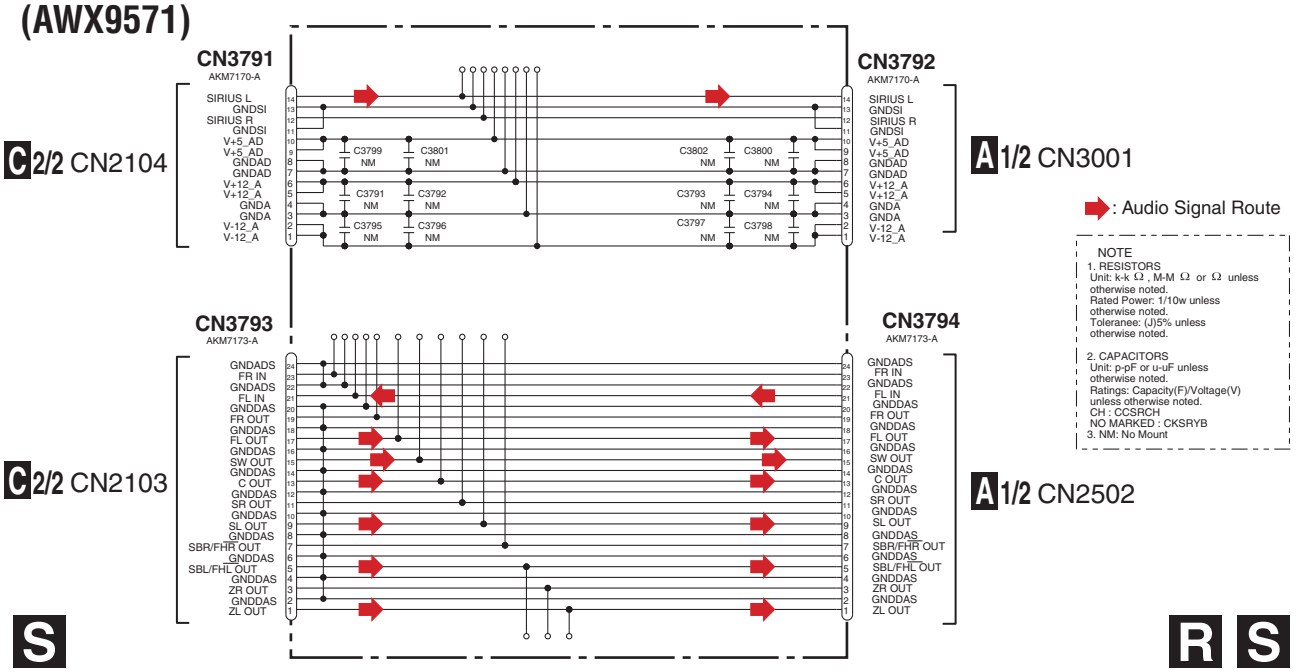
3, NM :No mount

10.29 CONNECT and A-DAC BRIDGE ASSYS

R CONNECT ASSY (AWX9592)



S A-DAC BRIDGE ASSY (AWX9571)



: Audio Signal Route

NOTE
1. RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/10w unless otherwise noted.
Tolerance: {J}5% unless otherwise noted.

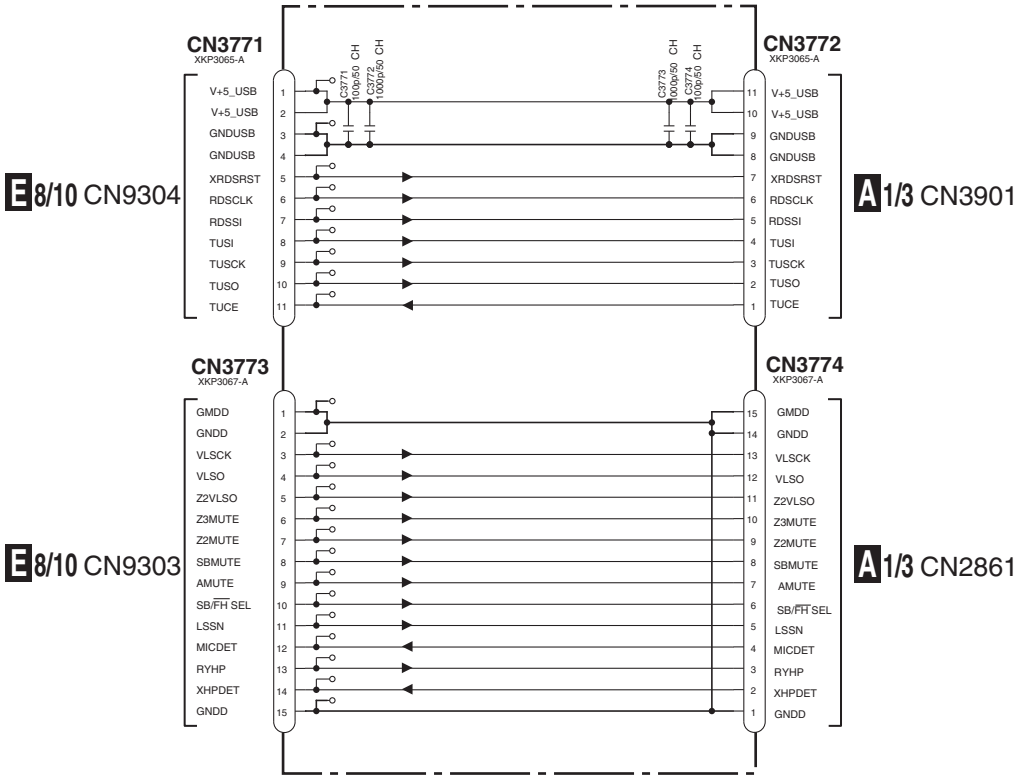
2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
CH : CCSRCH
NO MARKED : CKSRYB
3. NM: No Mount

R S

R S

10.30 D-AUDIO BRIDGE ASSY

T D-AUDIO BRIDGE ASSY (AWX9569)

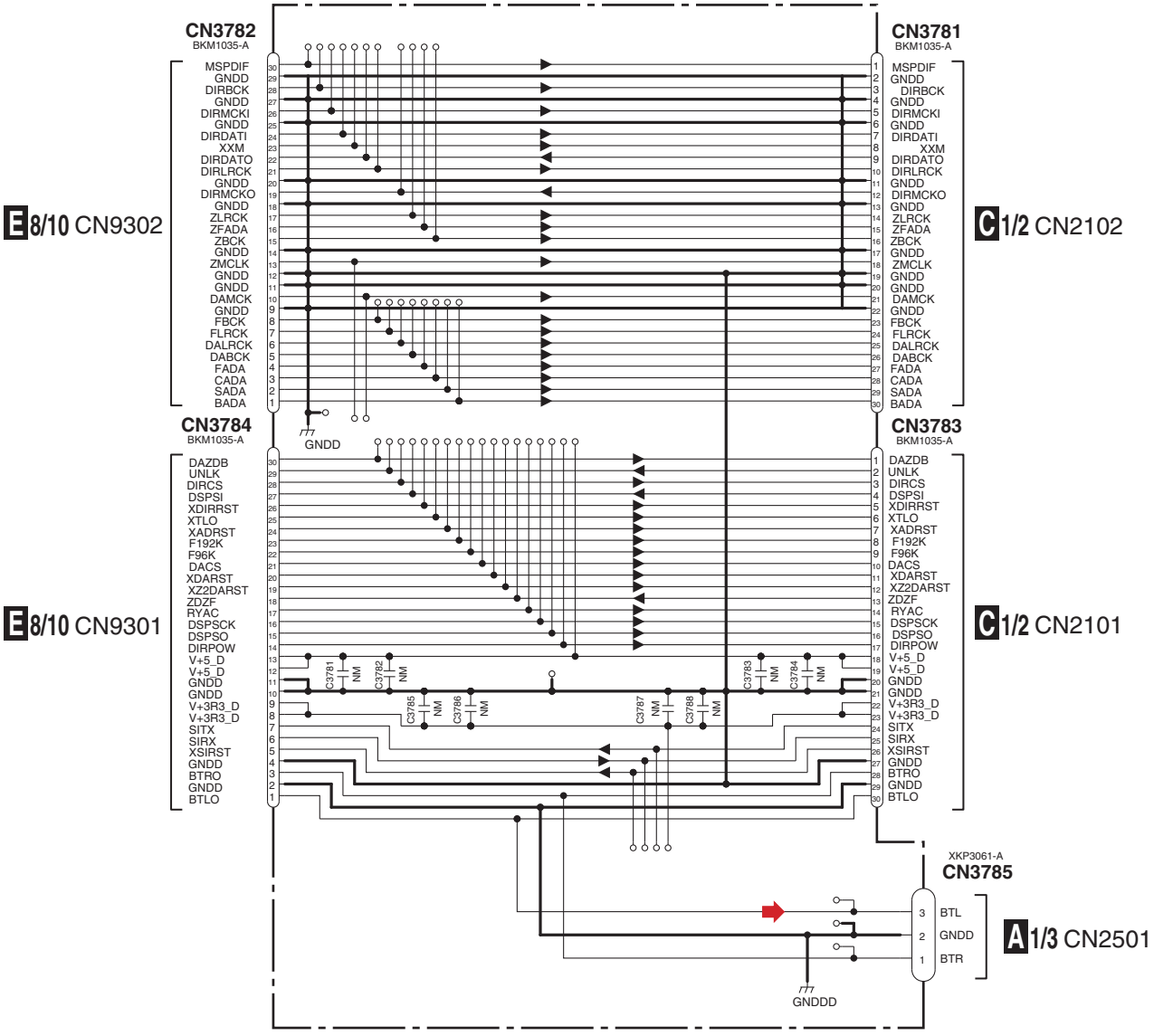


NOTE
1. RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/10w unless otherwise noted.
Toleranee: (J)5% unless otherwise noted.

2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
CH : CCSRCH
NO MARKED : CKSRYB
3. NM: No Mount

10.31 D-DAC BRIDGE ASSY

U D-DAC BRIDGE ASSY (AWX9570)



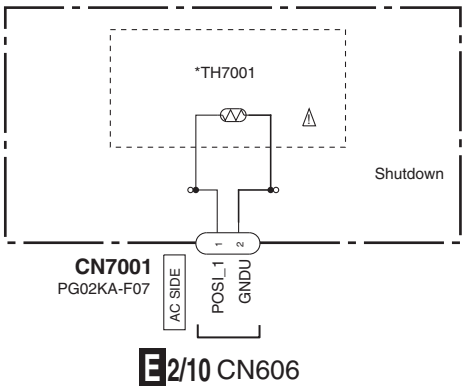
NOTE
1. RESISTORS
Unit: k-k Ω, M-M Ω or Ω unless otherwise noted.
Rated Power: 1/10w unless otherwise noted.
Toleranee: (J)5% unless otherwise noted.

2. CAPACITORS
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
CH : CCSRCH
NO MARKED : CKSRYB
3. NM: No Mount

: Audio Signal Route

10.32 POS 1-3 ASSYS

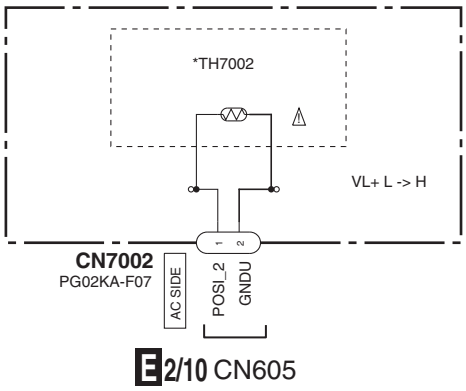
V POSI 1 ASSY (AWX9576)



E 2/10 CN606

	VSX-LX53, VSX-2020-K
TH7001	PTFM04BB222Q2N34BS

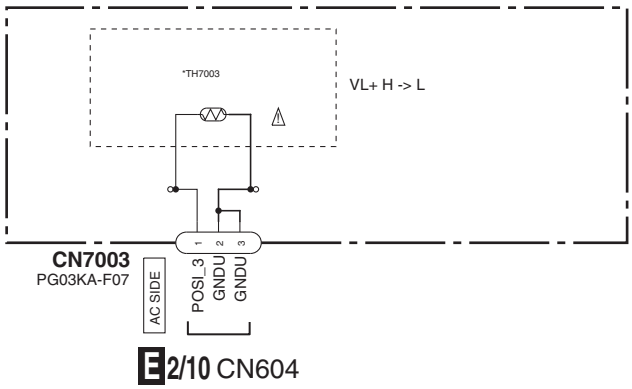
W POSI 2 ASSY (AWX9577)



E 2/10 CN605

	VSX-LX53, VSX-2020-K
TH7002	PTFM04BE222Q2N34BS

X POSI 3 ASSY (AWX9578)



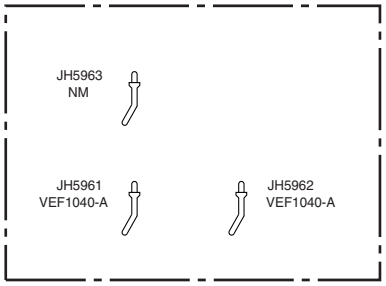
E 2/10 CN604

	VSX-LX53, VSX-2020-K
TH7003	PTFM04BG222Q2N34BS

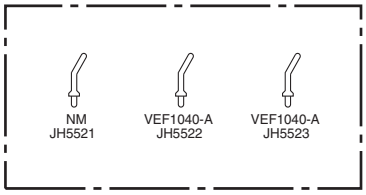
The ⚠ mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.

10.33 BIND L FRONT and BACK, BINDER, BIND DM CABLE, BIND R BACK and FRONT, BIND DISP FFC ASSYS

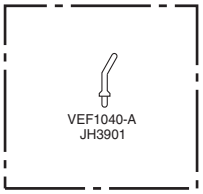
Y BIND L FRONT ASSY (AWX9574)



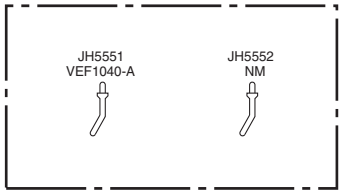
Z BIND L BACK ASSY (AWX9585)



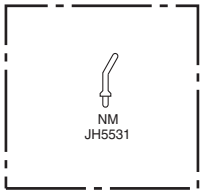
AA BINDER ASSY (AWX9595)



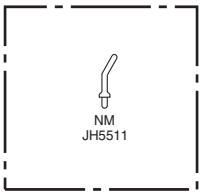
AB BIND DM CABLE ASSY (AWX9575)



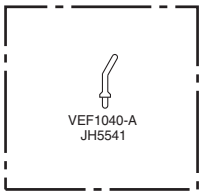
AC BIND R BACK ASSY (AWX9586)



AD BIND R FRONT ASSY (AWX9584)



AE BIND DISP FFC ASSY (AWX9668)

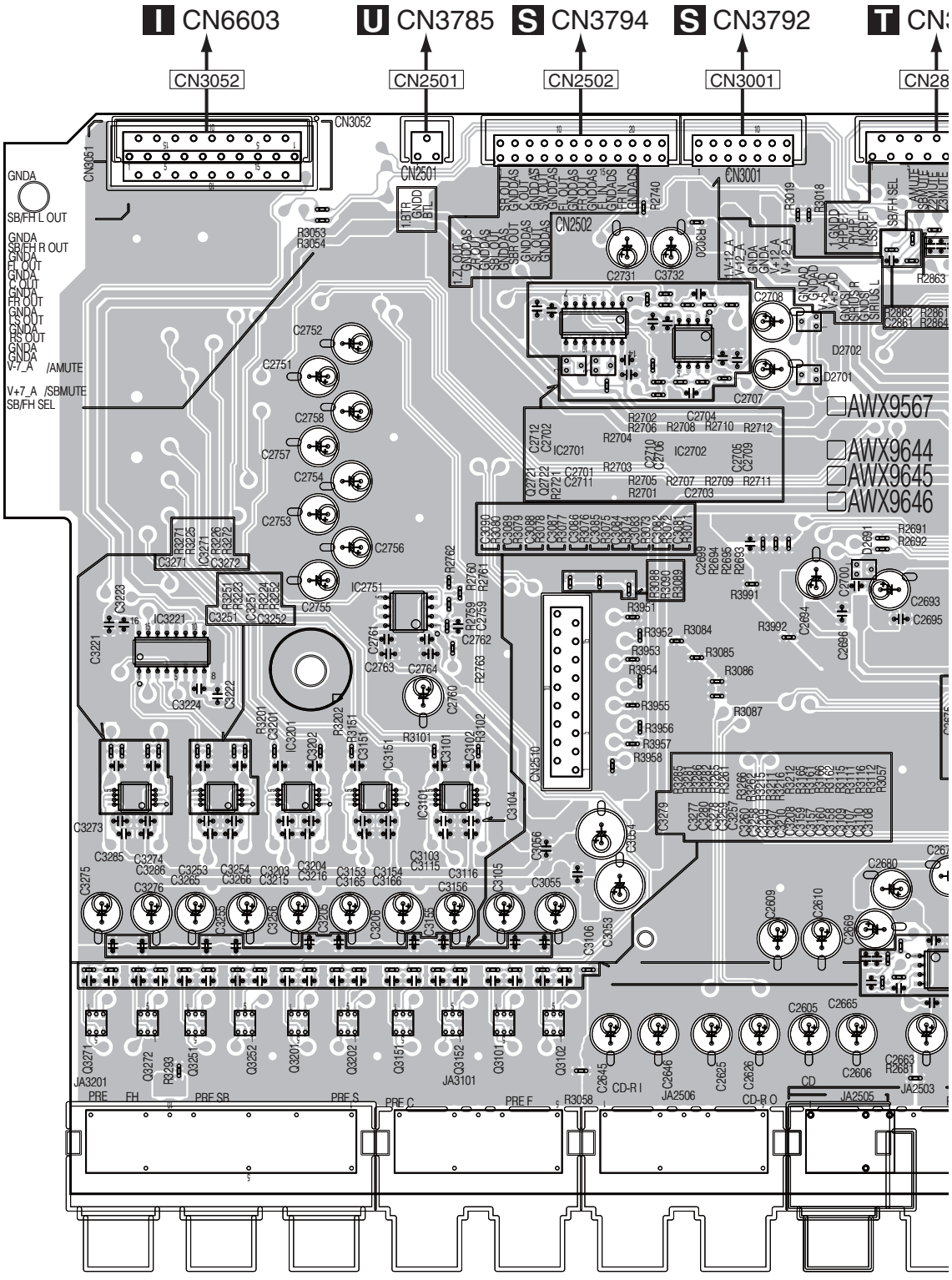


NOTE
1. NM : NO MOUNT

11. PCB CONNECTION DIAGRAM
11.1 AUDIO ASSY

SIDE A

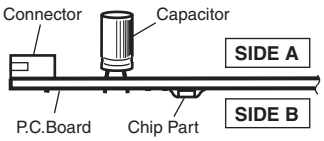
A AUDIO ASSY

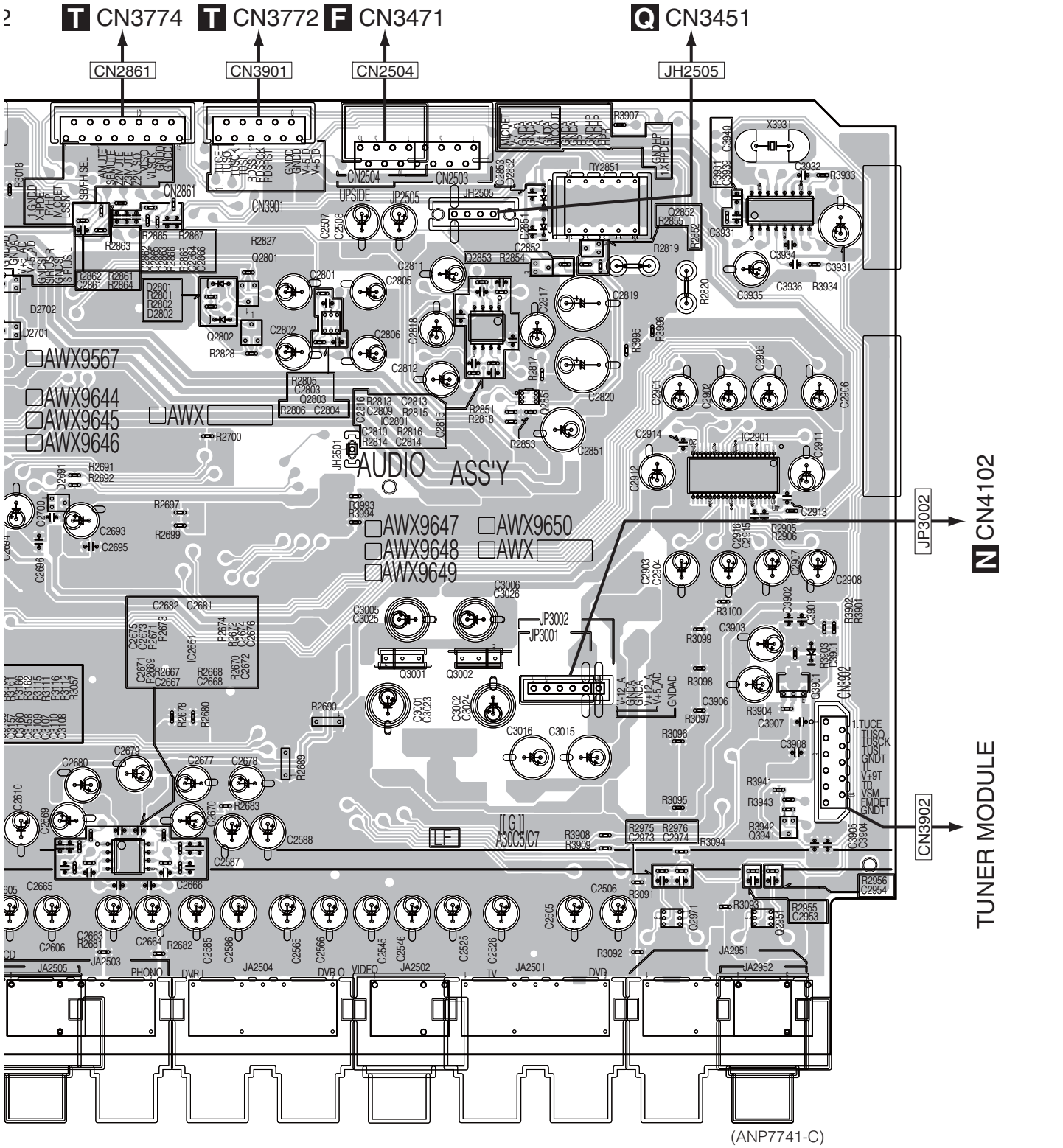


NOTE FOR PCB DIAGRAMS :

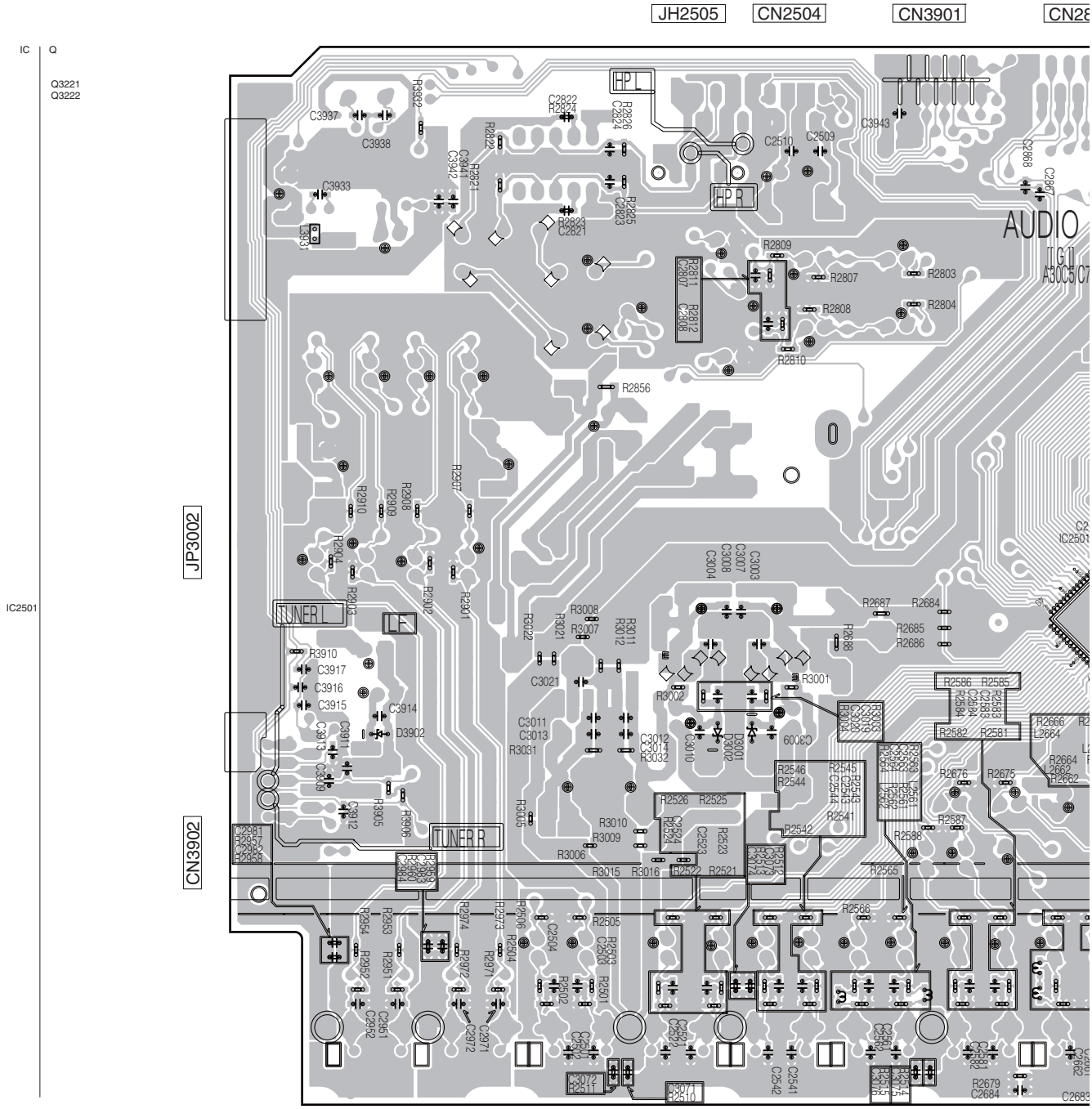
1. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

2. View point of PCB diagrams.




T CN3774
T CN3772
F CN3471
Q CN3451
CN2861
CN3901
CN2504
JH2505
AWX9567
AWX9644
AWX9645
AWX9646
AWX
AUDIO ASS'Y
AWX9647
AWX9650
AWX9648
AWX
AWX9649
JP3002
JP3001
JP3002
N CN4102
CN3902
TUNER MODULE
PHONO
DVR I
DVR O
VIDEO
TV
DVD
(ANP7741-C)

A AUDIO ASSY


JH2505
CN2504
CN3901
IC
Q
Q3221
Q3222
JP3002
IC2501
CN3902
HP L
HP R
AUDIO
TUNER L
TUNER R
LF
C3937
C3938
C3933
C3943
C2510
C2509
C2868
R2809
R2807
R2803
R2808
R2804
R2810
R2856
R2907
R2910
R2909
R2908
R2904
R2905
R2902
R2901
R3910
C3917
C3916
C3915
C3914
D3902
C3913
C3911
C3909
C3912
R3905
R3906
R3008
R3021
R3007
R3022
R3011
R3012
C3021
R3001
R3002
C3011
C3013
R3031
C3012
C3014
R3032
C3010
D3001
D3002
6008D
R2687
R2684
R2685
R2686
R2688
R2586
R2585
R2582
R2581
R2666
L2664
R2664
L2662
R2662
R2676
R2675
R2546
R2544
R2545
R2543
C2544
R2541
R2542
R2526
R2525
R3010
R3009
R3006
R3015
R3016
R2522
R2521
R2523
R2587
R2588
R2565
R2566
R2505
R2506
R2504
C2504
R2503
C2503
R2502
C2502
R2501
C2501
R2954
R2953
R2952
R2951
C2951
C2952
R2974
R2973
R2972
R2971
C2971
C2972
C3072
R2511
C2511
R2510
C2541
C2542
R2679
C2684
C2683

SIDE B

A

B

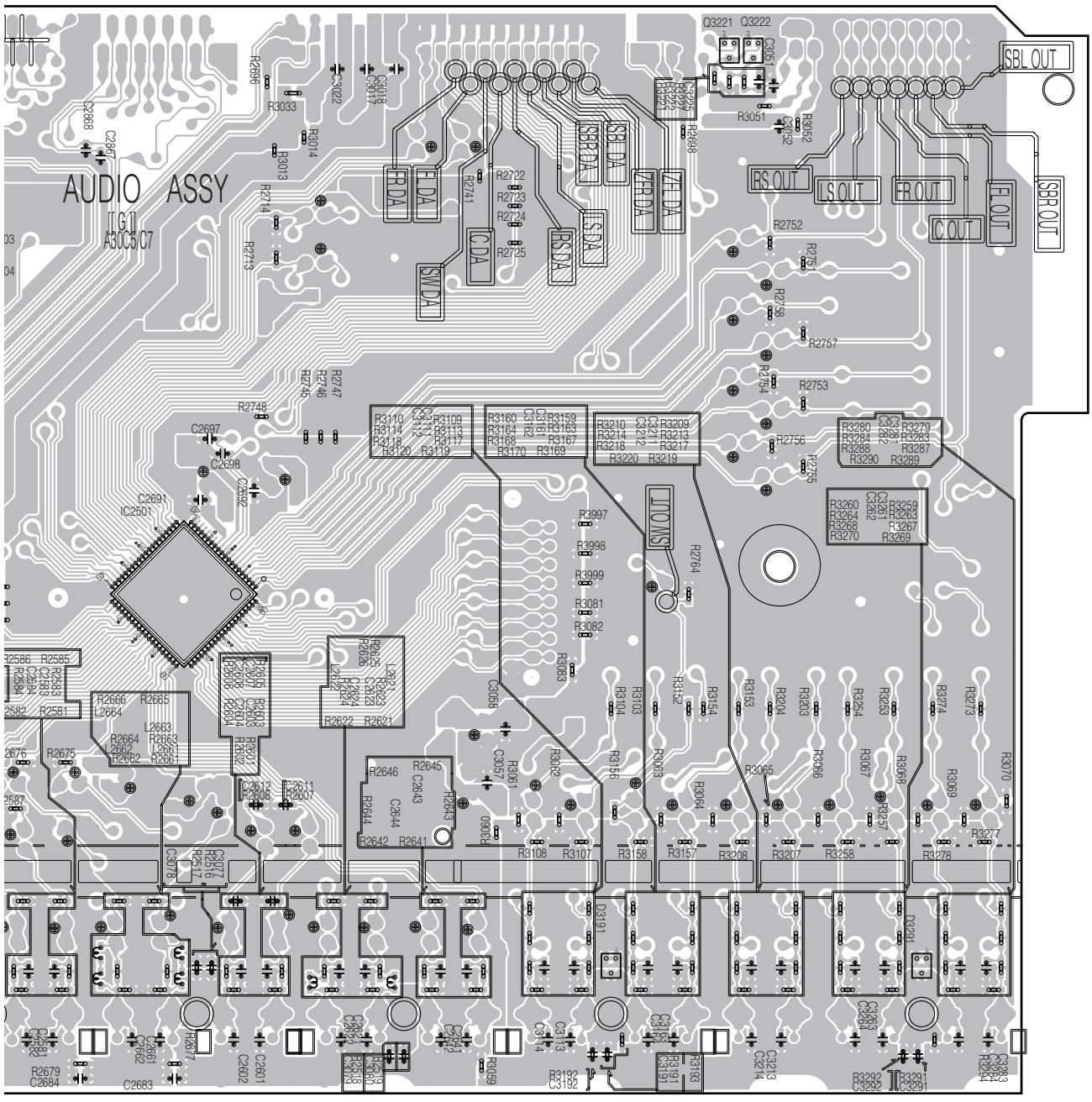
C

D

E

F

CN2861 CN3001 CN2502 CN2501 CN3052



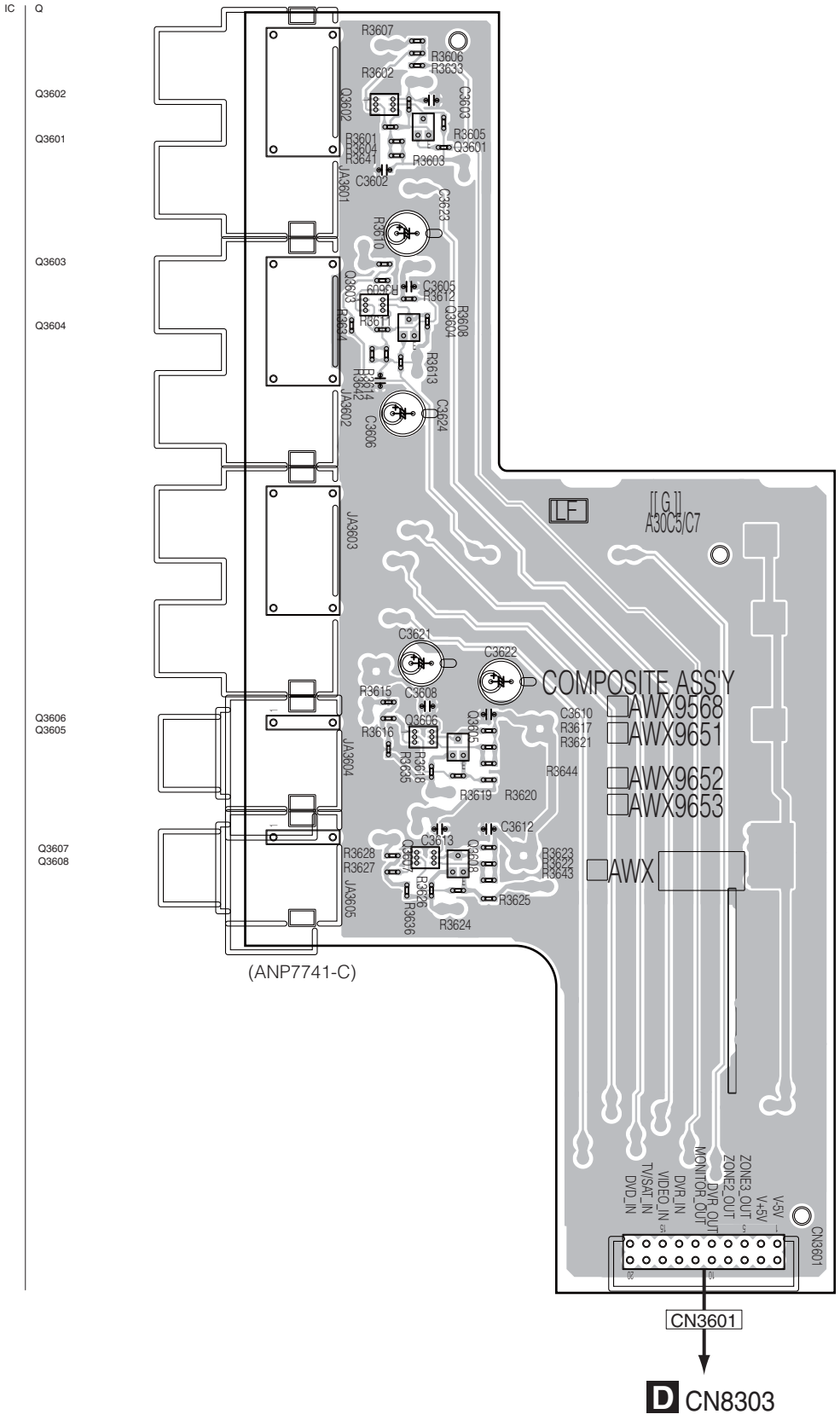
(ANP7741-C)

11.2 COMPOSITE ASSY

SIDE A

SIDE A

B COMPOSITE ASSY



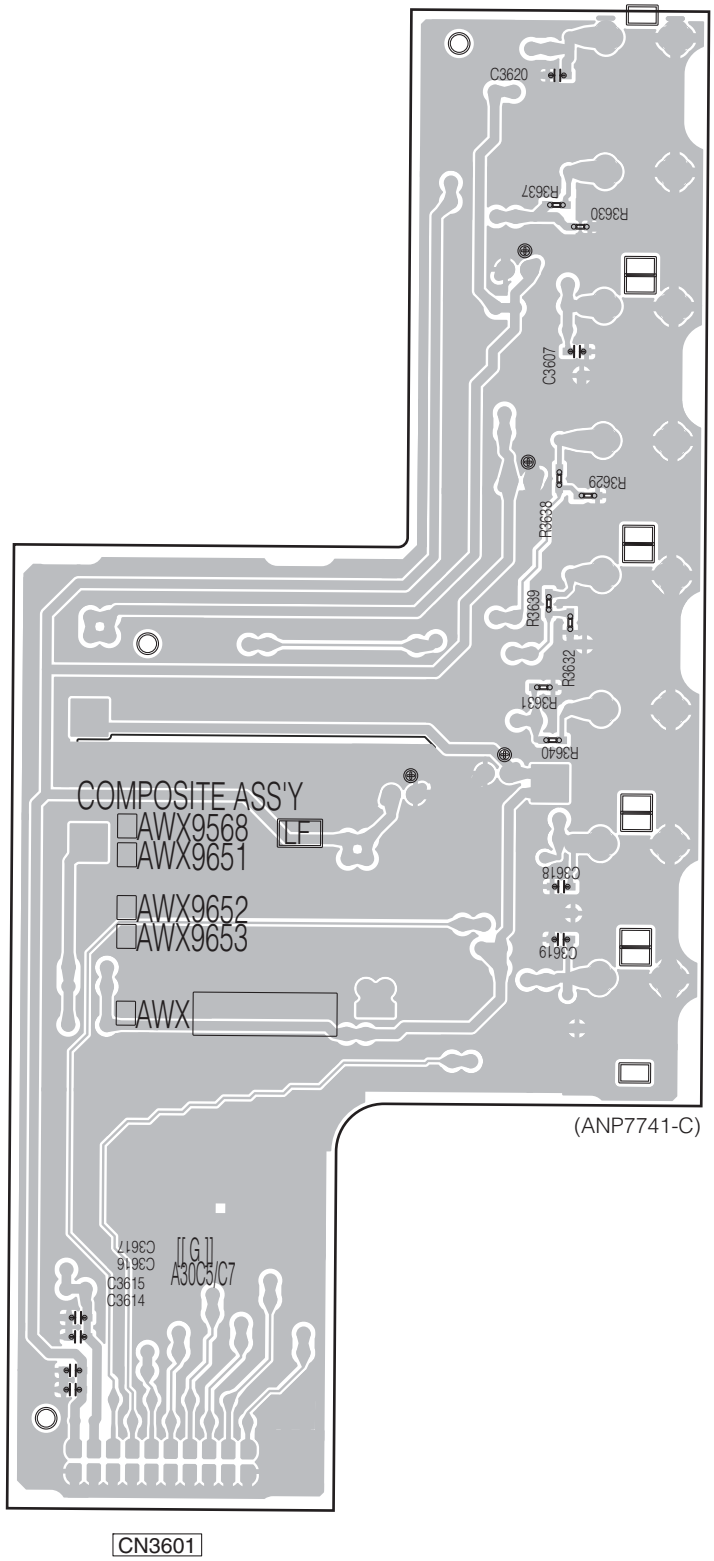
B

B

SIDE B

SIDE B

B COMPOSITE ASSY



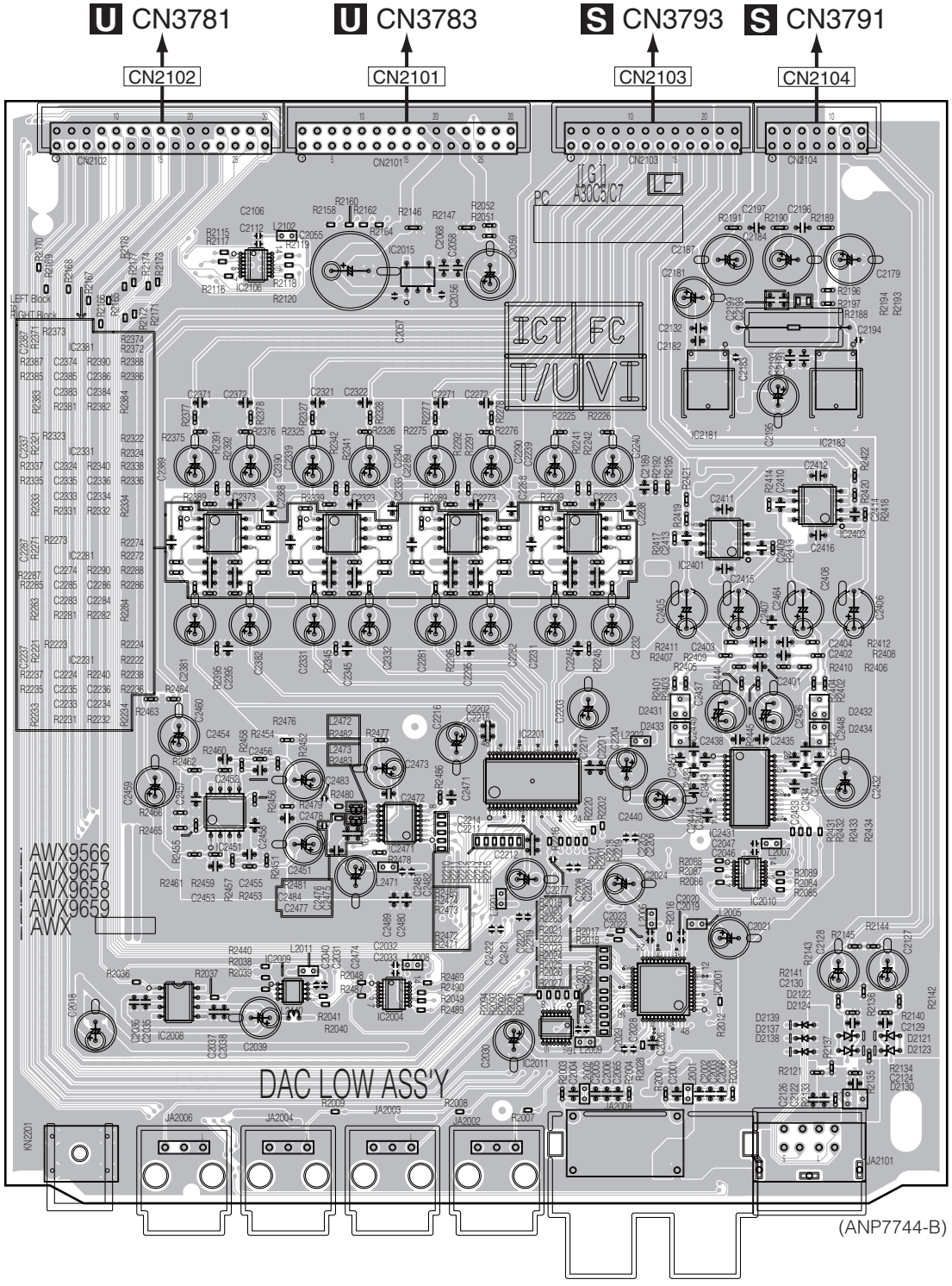
(ANP7741-C)

11.3 DAC LOW ASSY

SIDE A

SIDE A

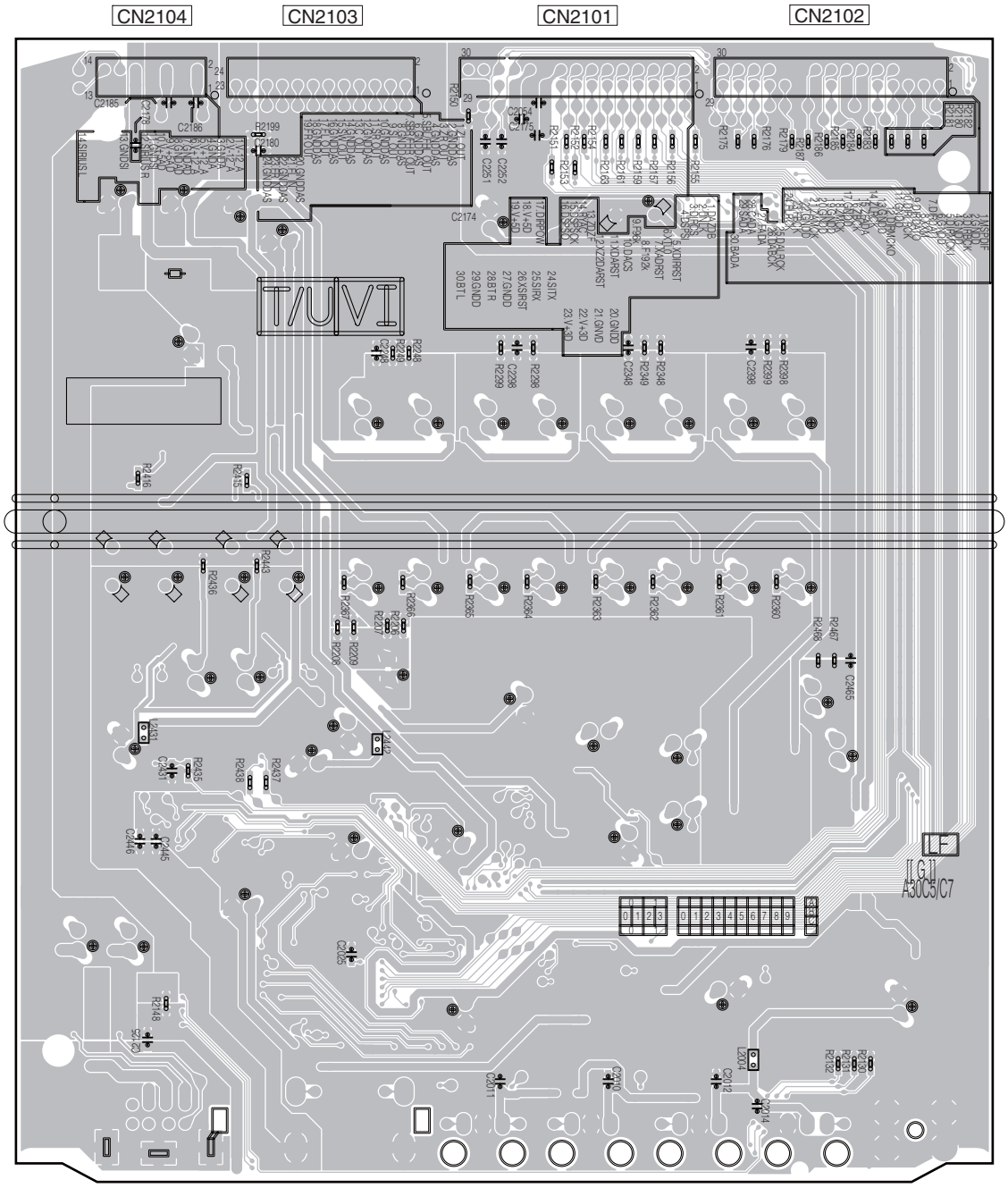
C DAC LOW ASSY



SIDE B

SIDE B

C DAC LOW ASSY



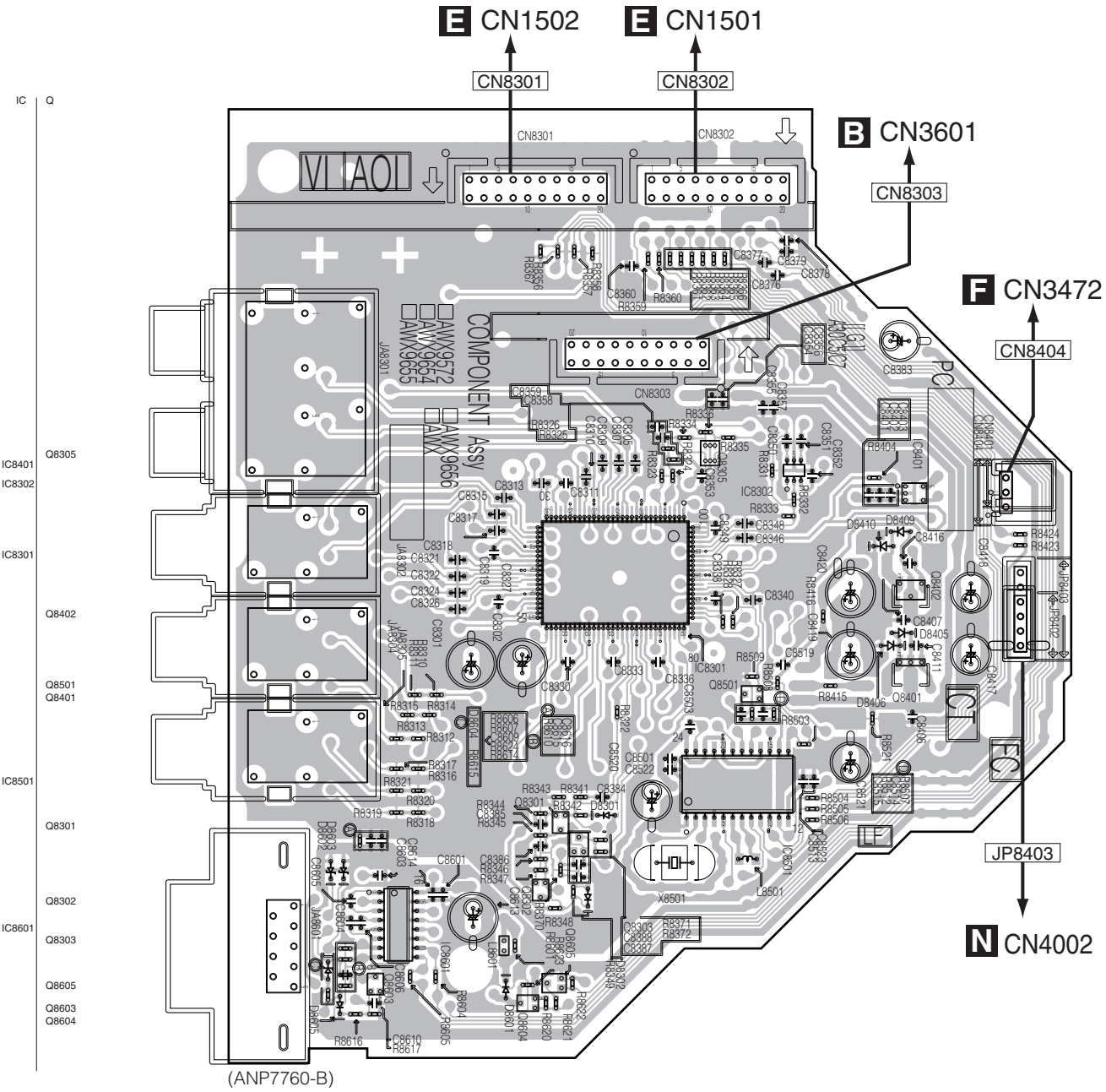
(ANP7744-B)

11.4 COMPONENT ASSY

SIDE A

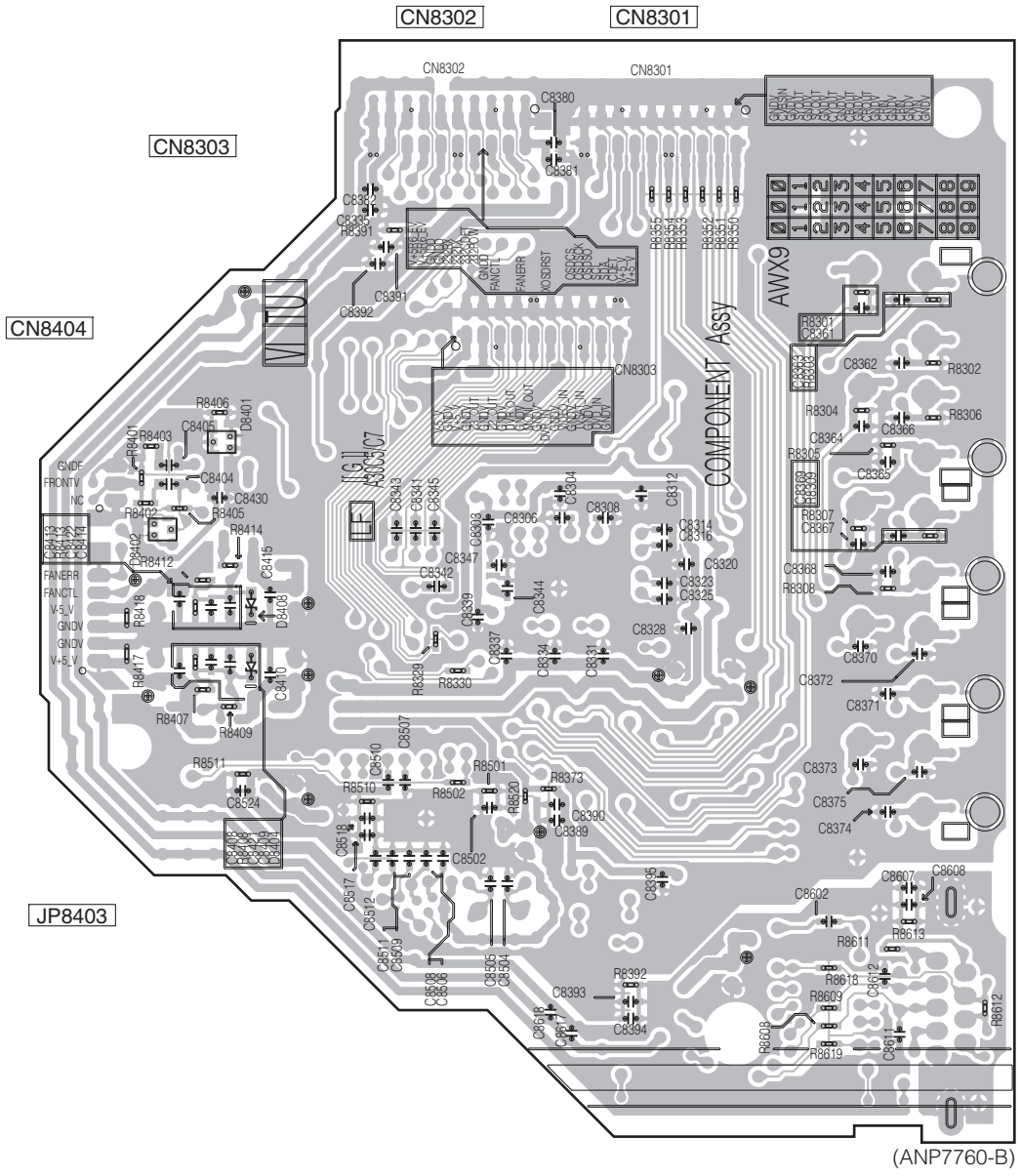
SIDE A

D COMPONENT ASSY



SIDE B

D COMPONENT ASSY

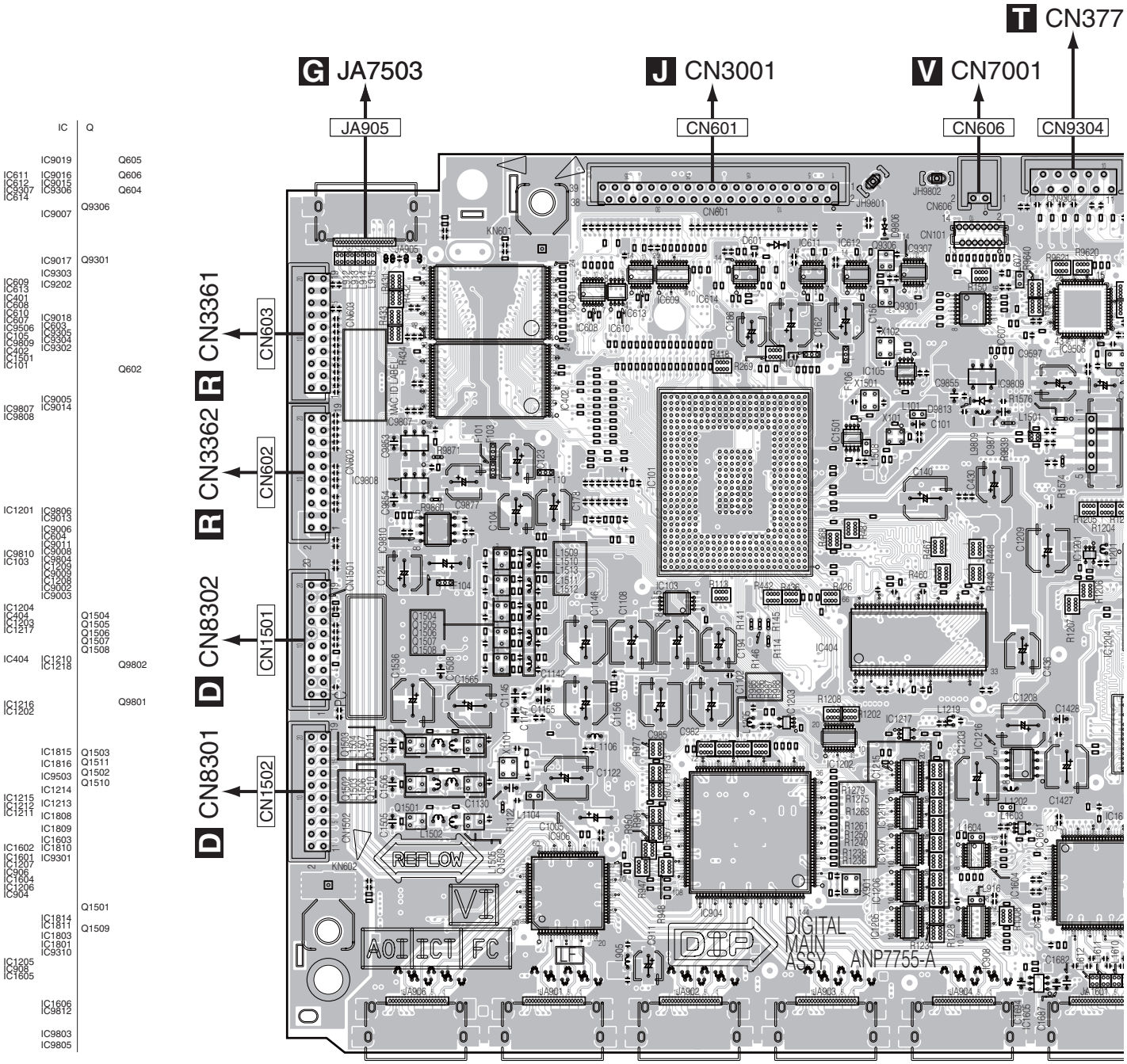


(ANP7760-B)

11.5 DIGITAL MAIN ASSY

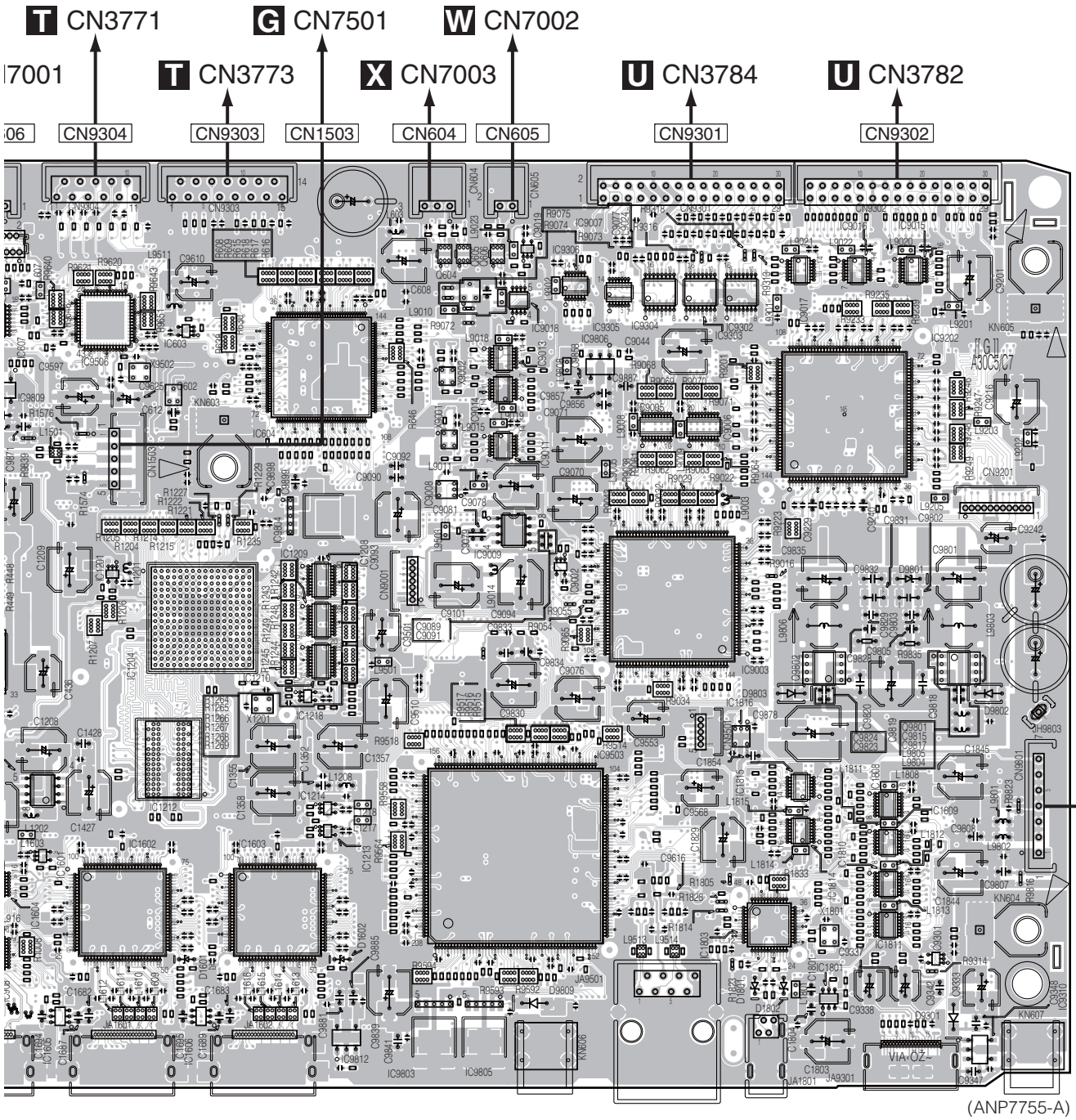
SIDE A

E DIGITAL MAIN ASSY



IC	Q
IC9019	Q605
IC611 IC9016	Q606
IC612 IC9015	
IC9307 IC9306	Q604
IC614	
	Q9306
IC9007	
IC9017	Q9301
IC9303	
IC609 IC9202	
IC613	
IC401	
IC608	
IC610	
IC607 IC9018	
IC9506 IC603	
IC105 IC9305	
IC9809 IC9304	
IC402 IC9302	
IC1501	
IC101	Q602
IC9005	
IC9807 IC9014	
IC9808	
IC1201 IC9806	
IC9013	
IC9006	
IC604	
IC9011	
IC9810 IC9008	
IC103 IC9804	
IC1503	
IC9809	
IC1208	
IC9002	
IC9003	
IC1204	
IC404	Q1504
IC1203	Q1505
IC1217	Q1506
	Q1507
	Q1508
IC404 IC1210	
IC1218	Q9802
IC1216	Q9801
IC1202	
IC1815	Q1503
IC1816	Q1511
IC9503	Q1502
IC1214	Q1510
IC1215	
IC1212 IC1213	
IC1211 IC1808	
IC1809	
IC1603	
IC1602 IC1810	
IC1601 IC9301	
IC1207	
IC906	
IC1604	
IC1206	
IC904	
	Q1501
IC1814	
IC1811	Q1509
IC1803	
IC1801	
IC9310	
IC1205	
IC908	
IC1605	
IC1606	
IC9812	
IC9803	
IC9805	

SIDE A



(ANP7755-A)

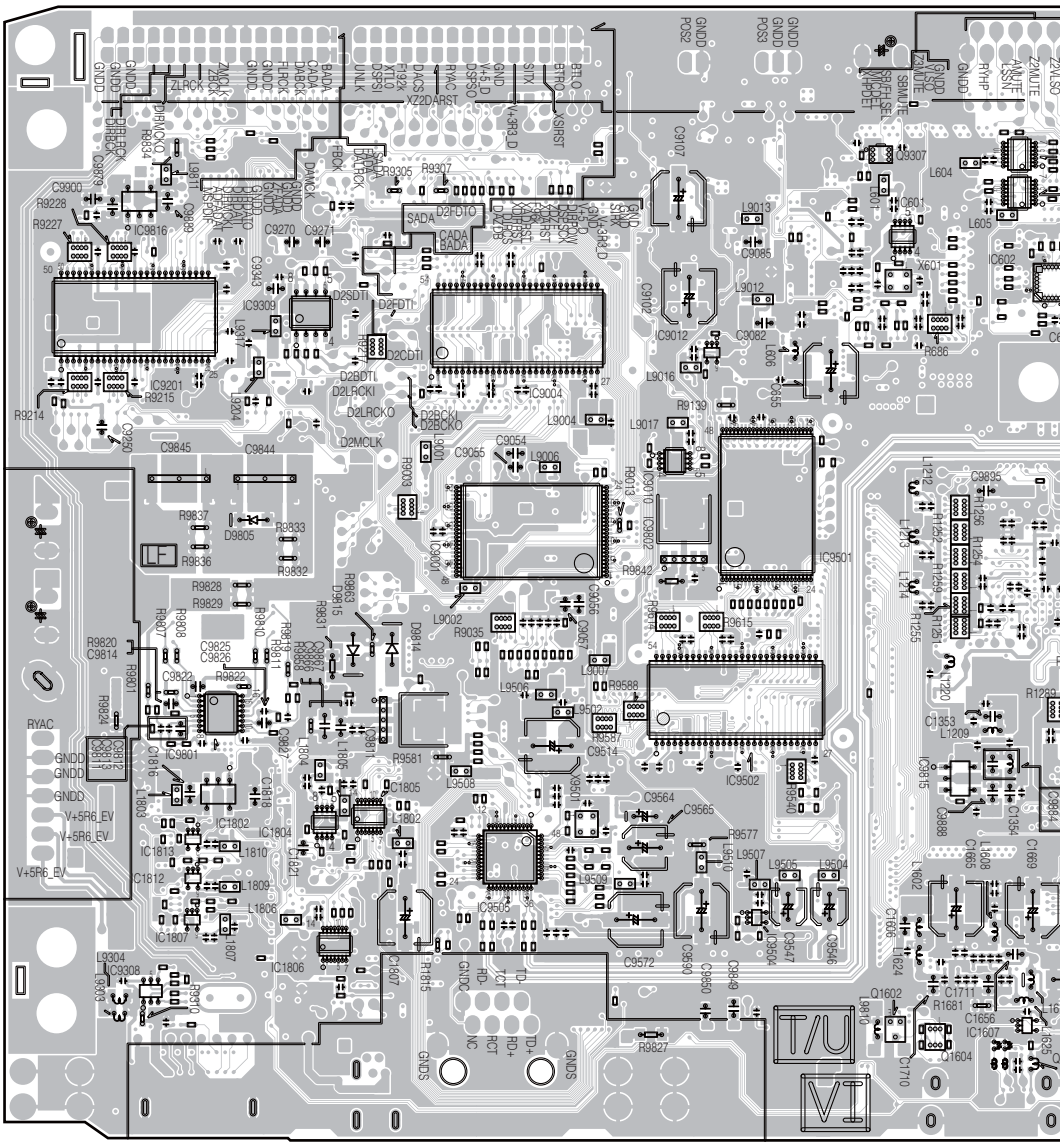
SIDE B

E DIGITAL MAIN ASSY

IC	Q
	Q9304
	Q9305
IC605	Q9307
	Q603
	Q608
IC606	Q9303
IC601	Q9302
IC9816	
	Q607
IC602	
	Q601
IC9309	
IC9012	
IC9201	
IC9004	IC1502
	IC102
	Q102
IC9010	
	Q101
IC9802	
IC9501	IC403
IC9001	
	Q1101
	IC104
IC9811	
IC9801	
IC9502	IC1102
IC1805	
IC9815	
	Q904
IC1802	Q902
IC1804	
IC1813	
IC1812	IC901
IC9505	IC905
	IC909
IC9504	
IC1806	Q901
IC1807	Q903
	Q1602
	Q1603
IC1607	
IC9308	Q1604
IC9813	Q1601
IC903	
IC907	

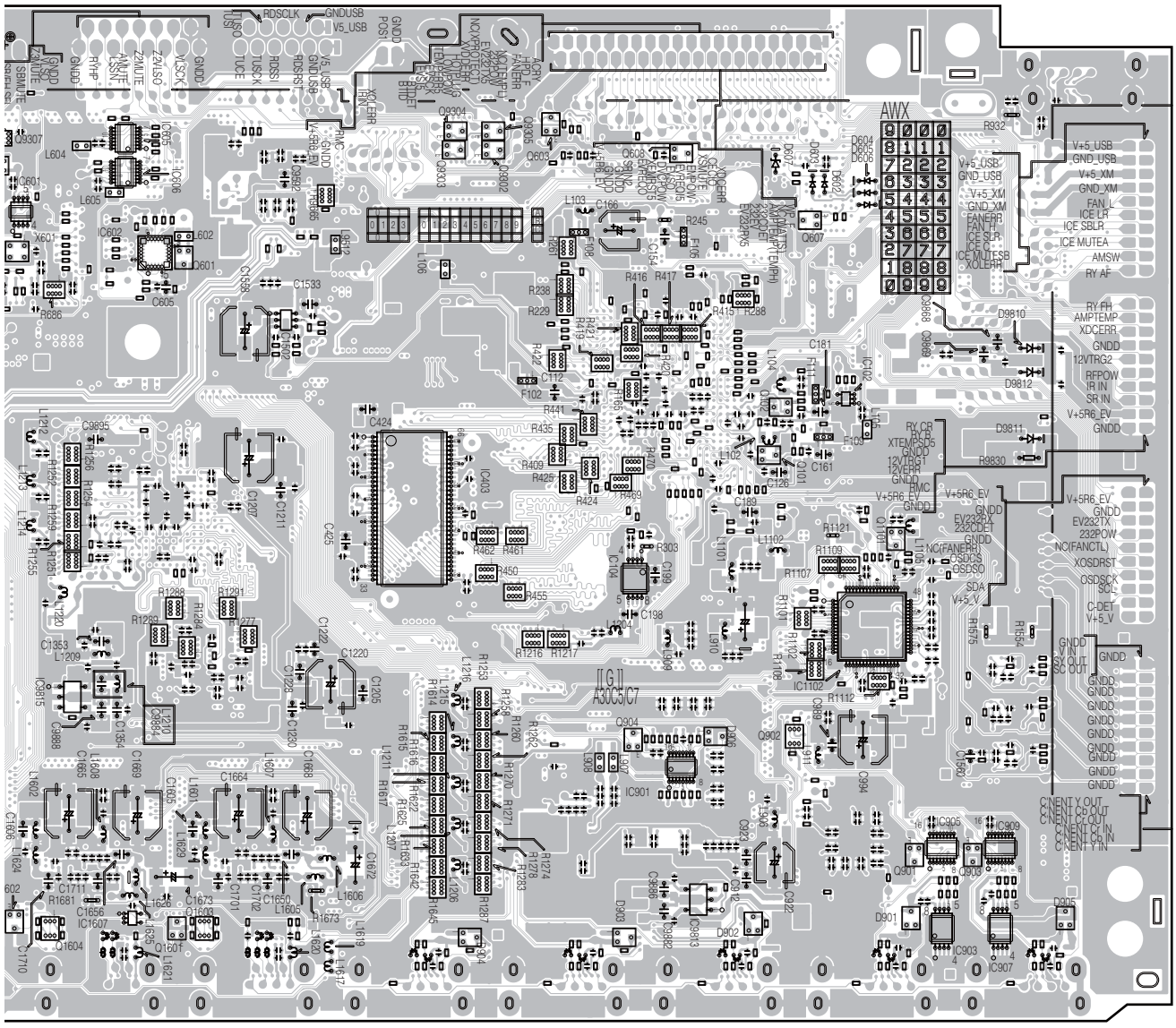
CN9302 CN9301 CN605 CN604 CN1503 CN930

CN9801



SIDE B

CN1503 CN9303 CN9304 CN606 CN601 JA905



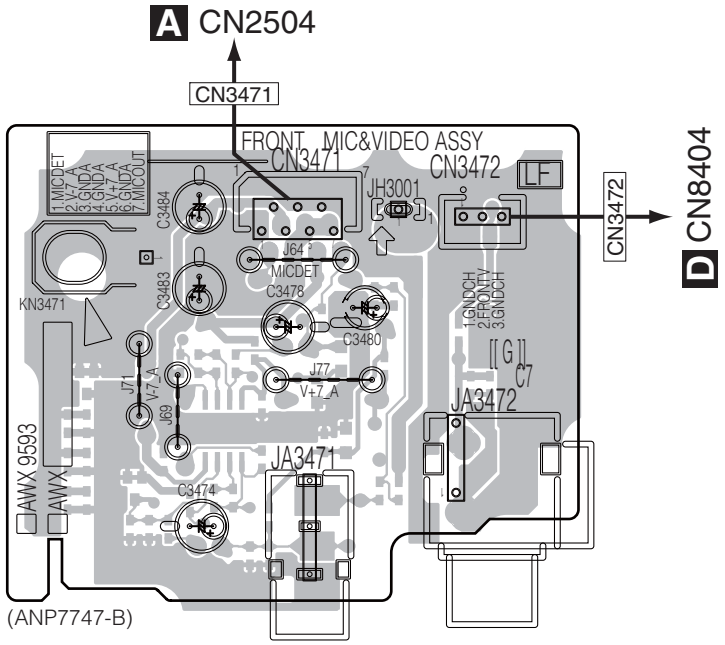
(ANP7755-A)

11.6 FRONT MIC&VIDEO and FRONT HDMI USB ASSYS

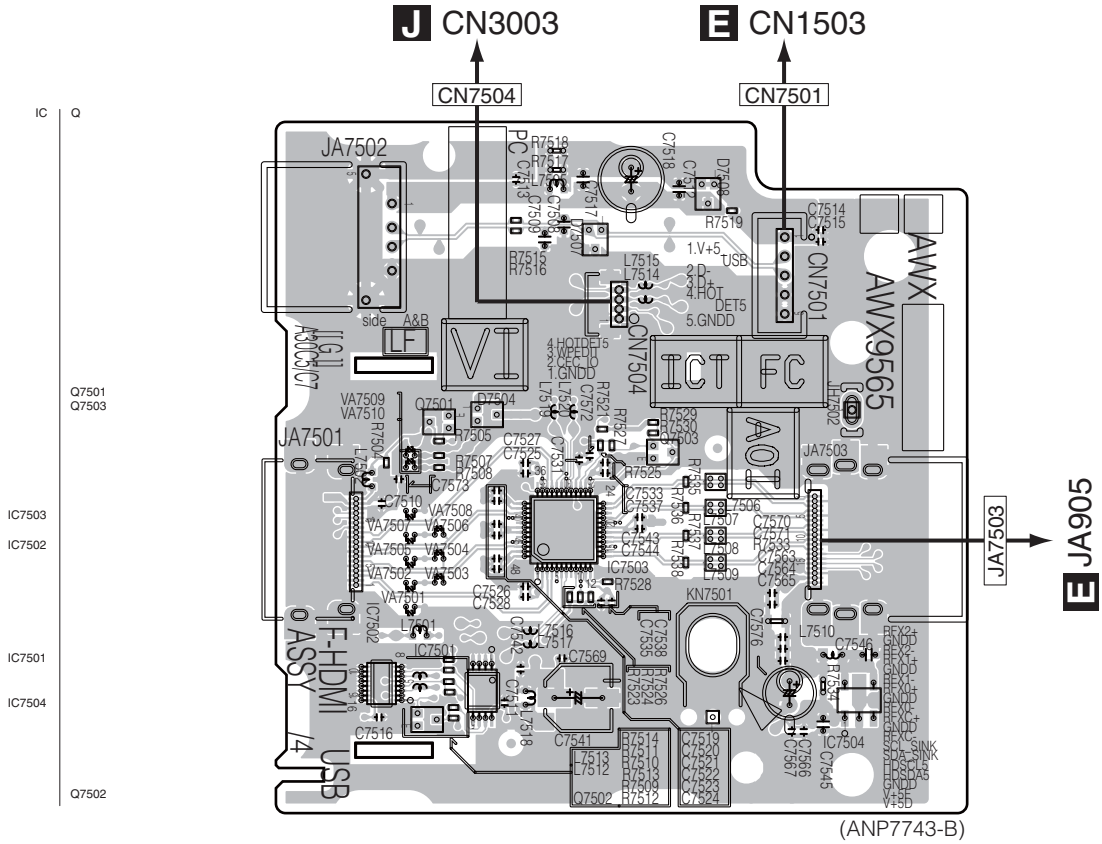
SIDE A

SIDE A

F FRONT MIC&VIDEO ASSY



G FRONT HDMI USB ASSY



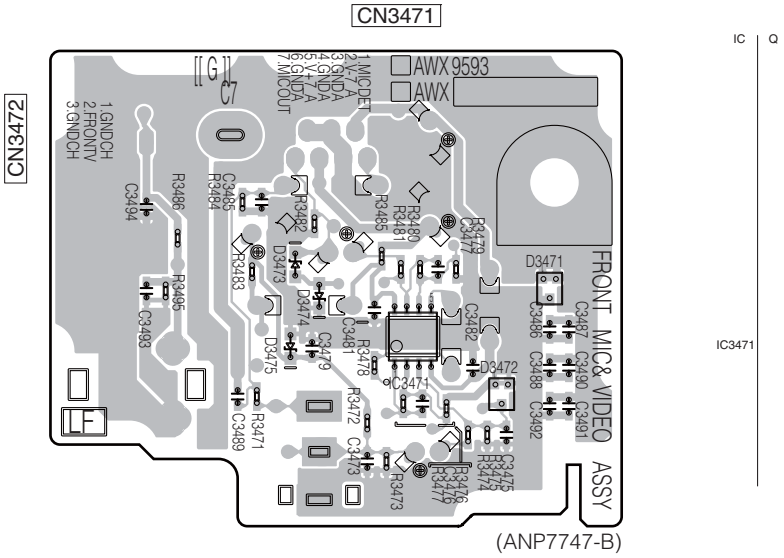
F G

F G

SIDE B

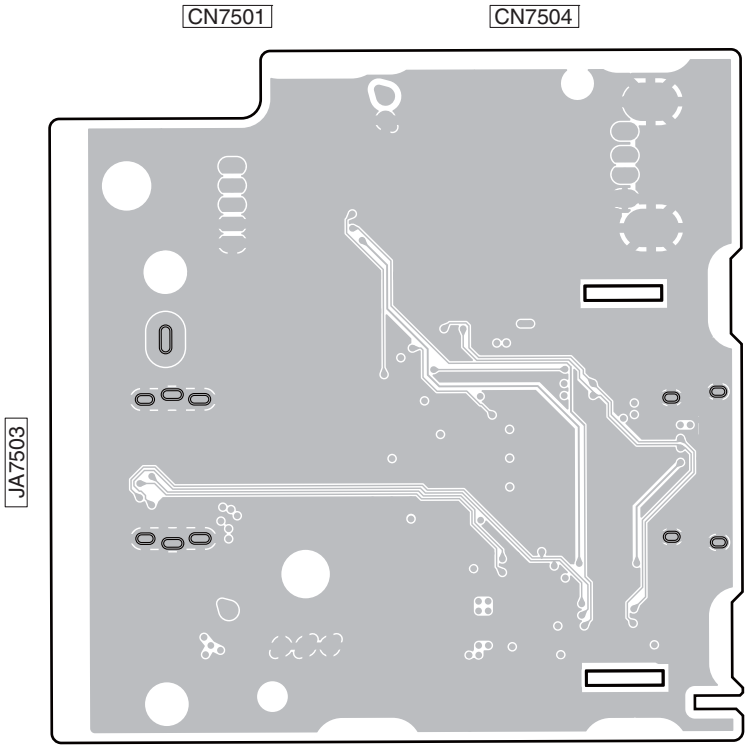
SIDE B

F FRONT MIC&VIDEO ASSY



(ANP7747-B)

G FRONT HDMI USB ASSY



(ANP7743-B)

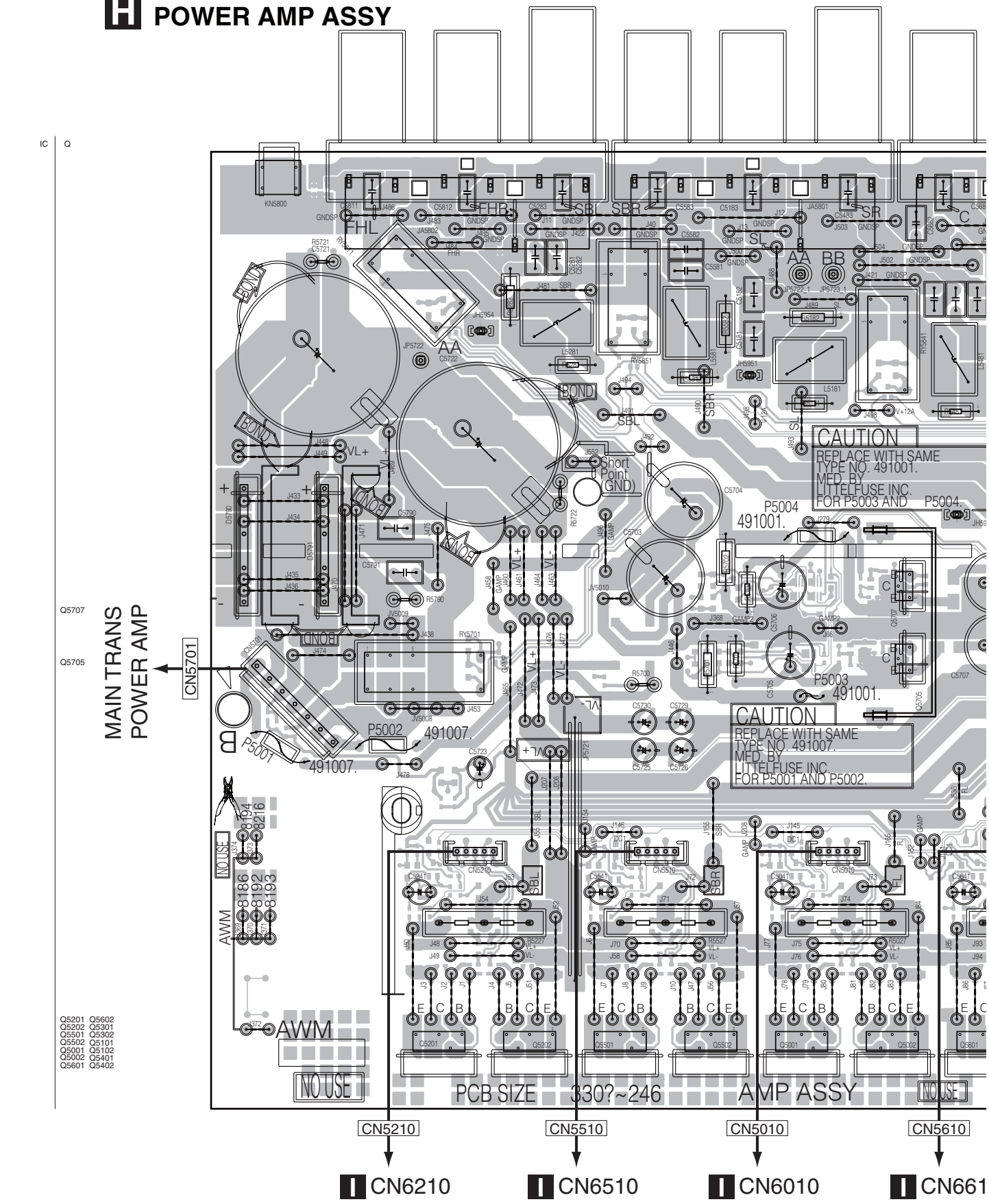
F G

F G

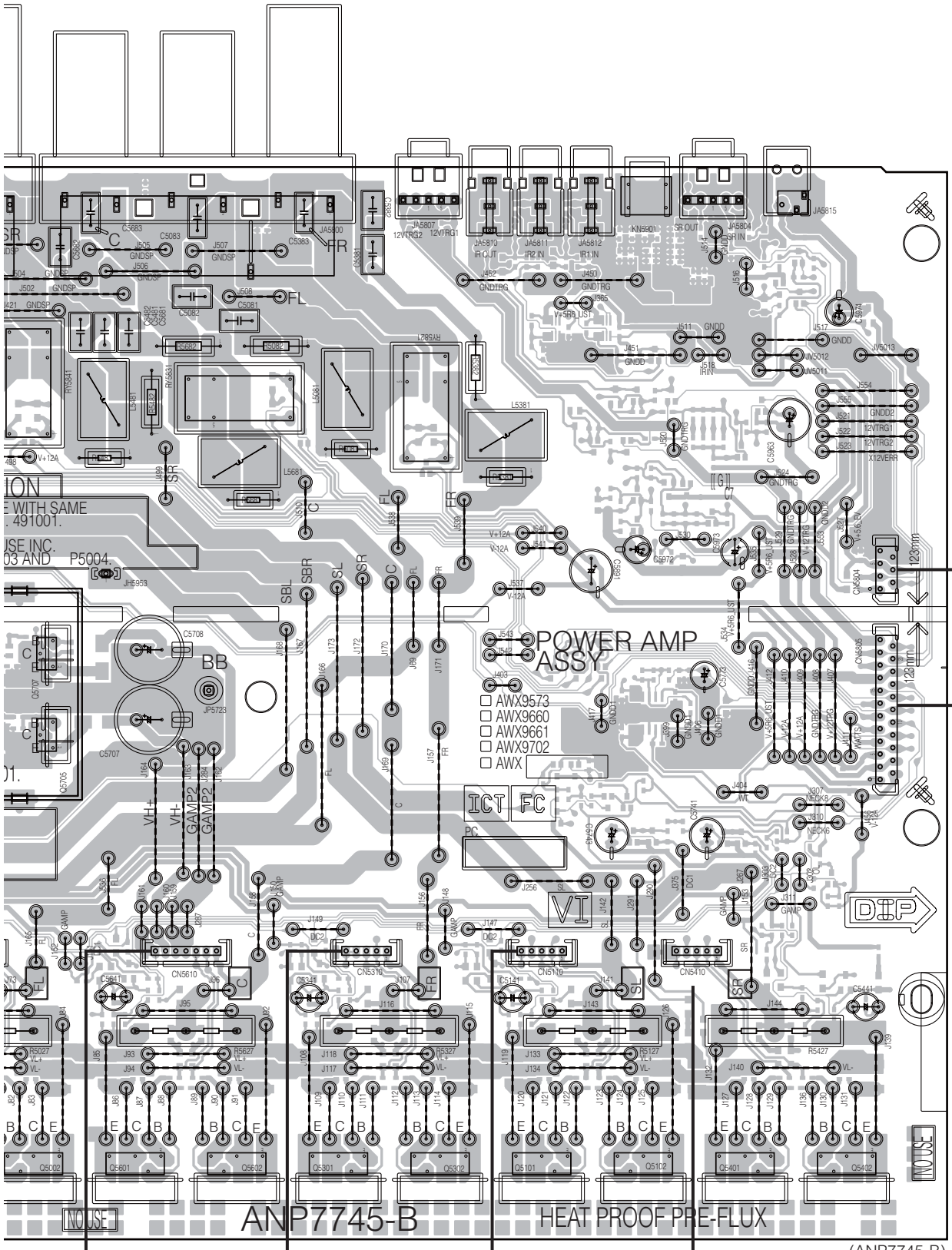
11.7 POWER AMP ASSY

SIDE A

H POWER AMP ASSY



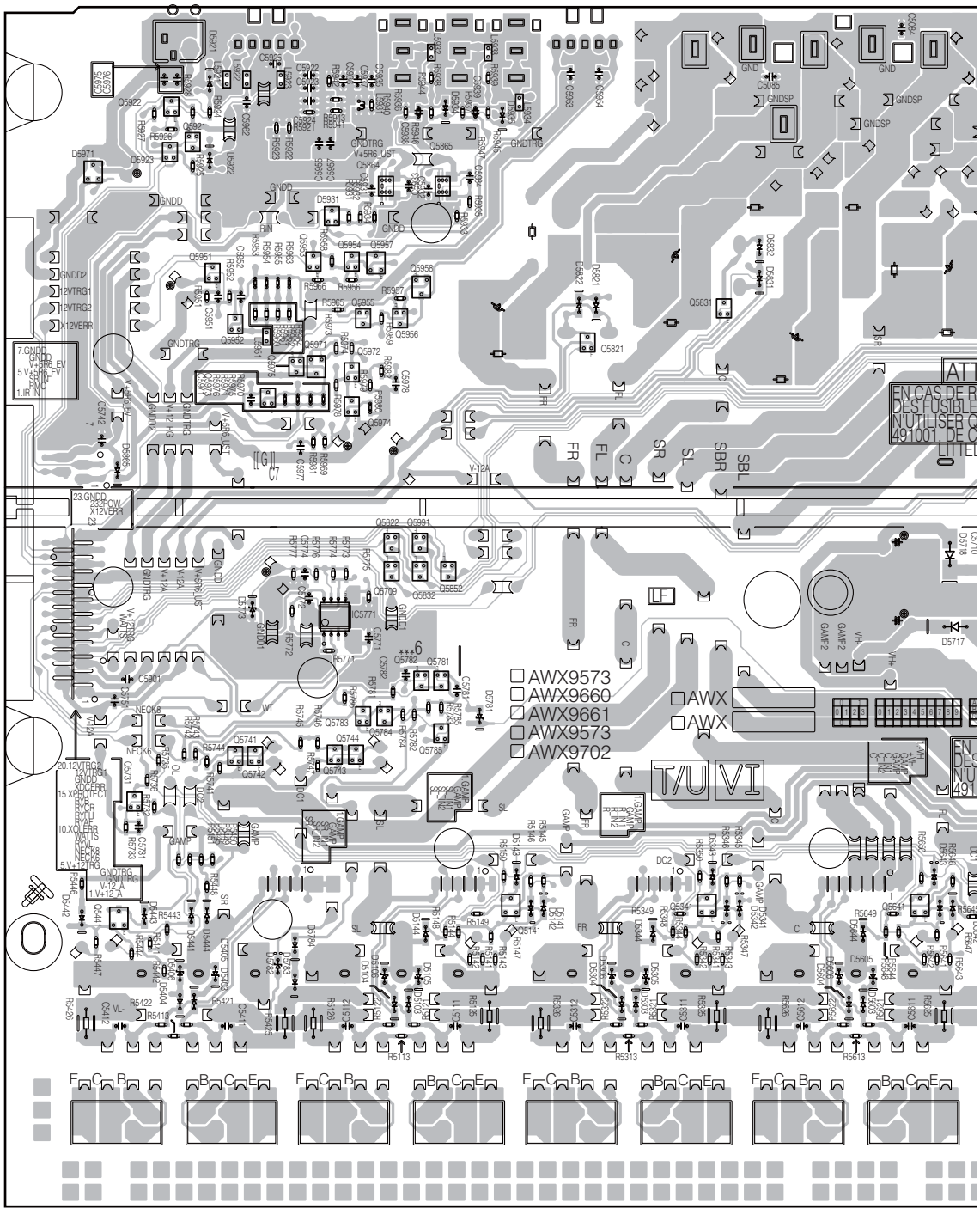
SIDE A


POWER AMP ASSY
AWX9573
AWX9660
AWX9661
AWX9702
AWX
ANP7745-B
HEAT PROOF PRE-FLUX
(ANP7745-B)
NO USE
CN5804
CN3364
CN5805
CN3363
CN5610
CN5310
CN5110
CN5410
CN6610
CN6310
CN6110
CN6410

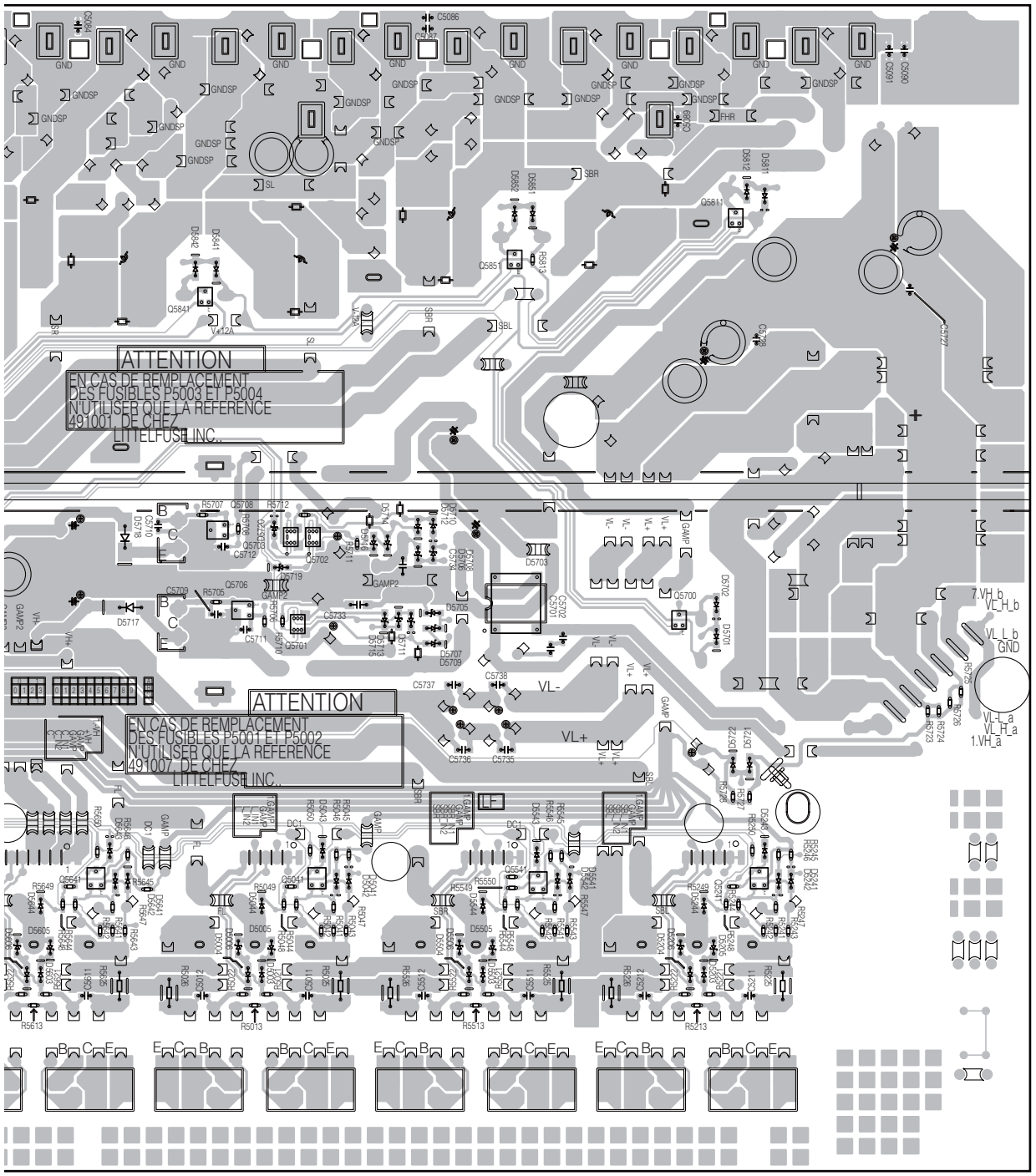
SIDE B

H POWER AMP ASSY

IC	Q
	Q5922
	Q5921
	Q5865
	Q5864
	Q5811
	Q5953
	Q5954
	Q5957
	Q5951
	Q5851
	Q5955
	Q5831
	Q5956
	Q5952 Q5841
	Q5958
	Q5821
	Q5971
	Q5975
	Q5972
	Q5973
	Q5974
	Q5822 Q5708
	Q5991 Q5703
IC5771	Q5852 Q5702
	Q5832 Q5706
	Q5709 Q5701
	Q5782 Q5700
	Q5781
	Q5783
	Q5784
	Q5785
	Q5741
	Q5744
	Q5742
	Q5743
	Q5731
	Q5441
	Q5341 Q5041
	Q5641 Q5541
	Q5141 Q5241



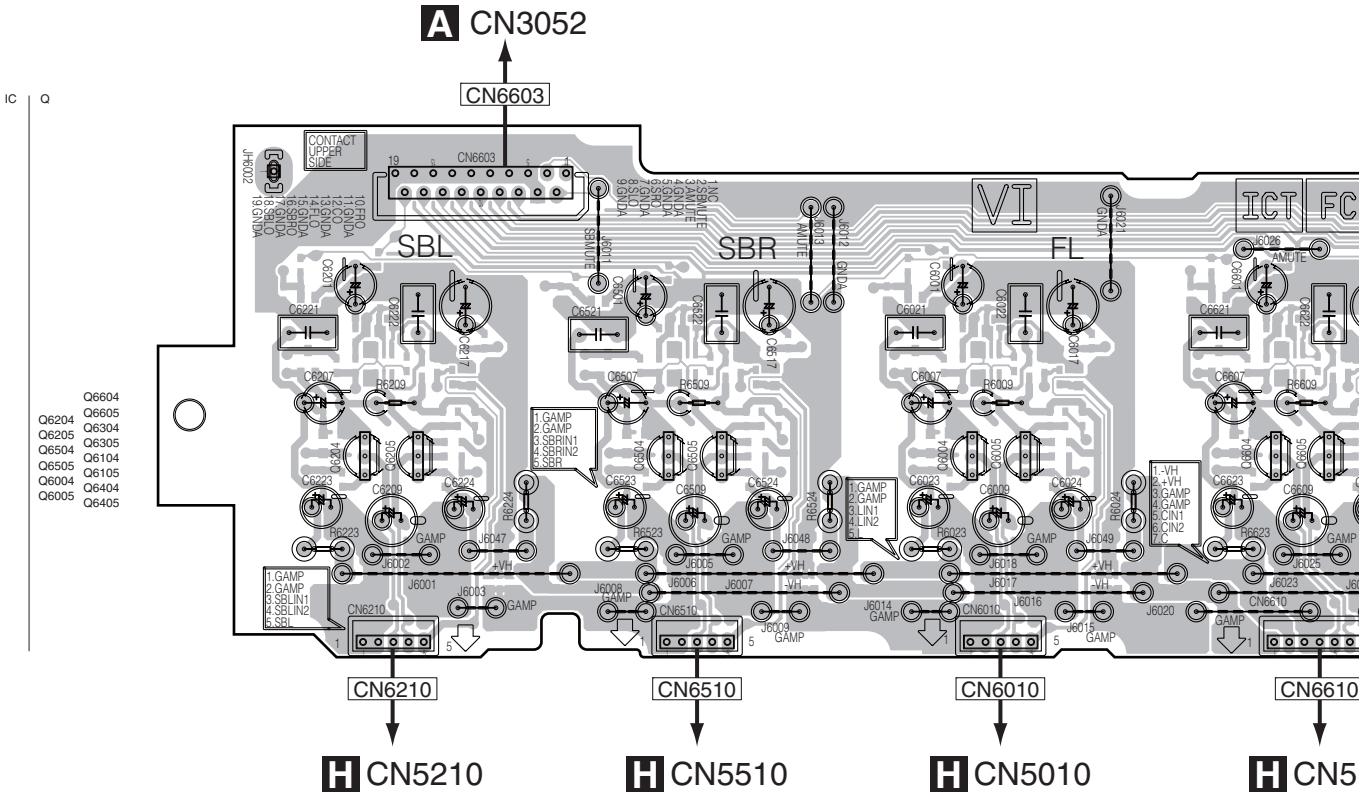
SIDE B


ATTENTION
EN CAS DE REMPLACEMENT
DES FUSIBLES P5003 ET P5004
N'UTILISER QUE LA REFERENCE
491001 DE CHEZ
LITTELFUSE INC..
ATTENTION
EN CAS DE REMPLACEMENT
DES FUSIBLES P5001 ET P5002
N'UTILISER QUE LA REFERENCE
491007 DE CHEZ
LITTELFUSE INC..
CN5701
CN5610
CN5010
CN5510
CN5210
(ANP7745-B)

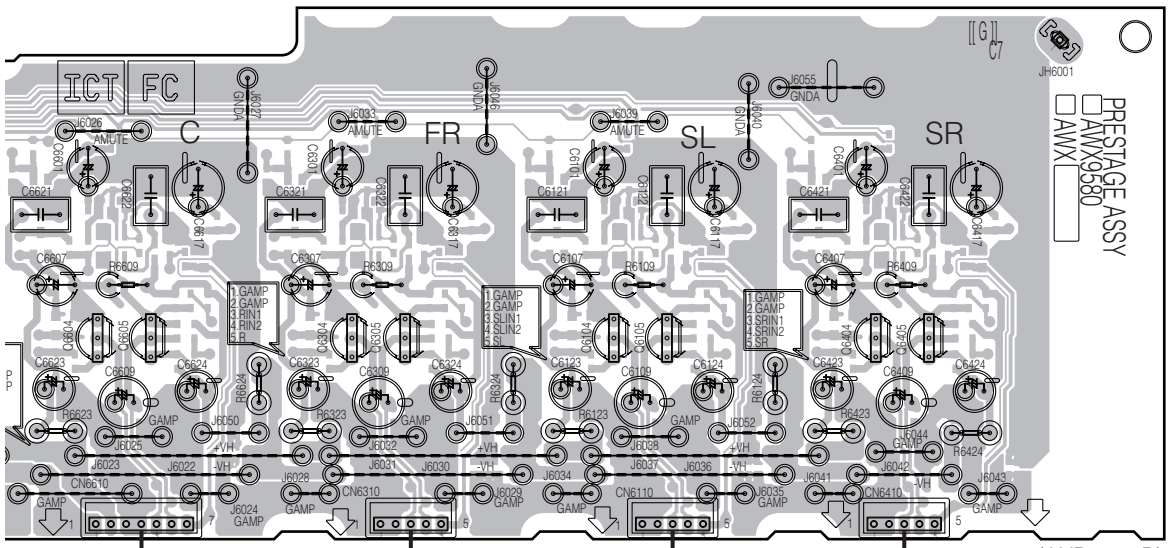
11.8 PRESTAGE ASSY

SIDE A

I PRESTAGE ASSY



SIDE A



CN6610 → H CN5610

CN6310 → H CN5310

CN6110 → H CN5110

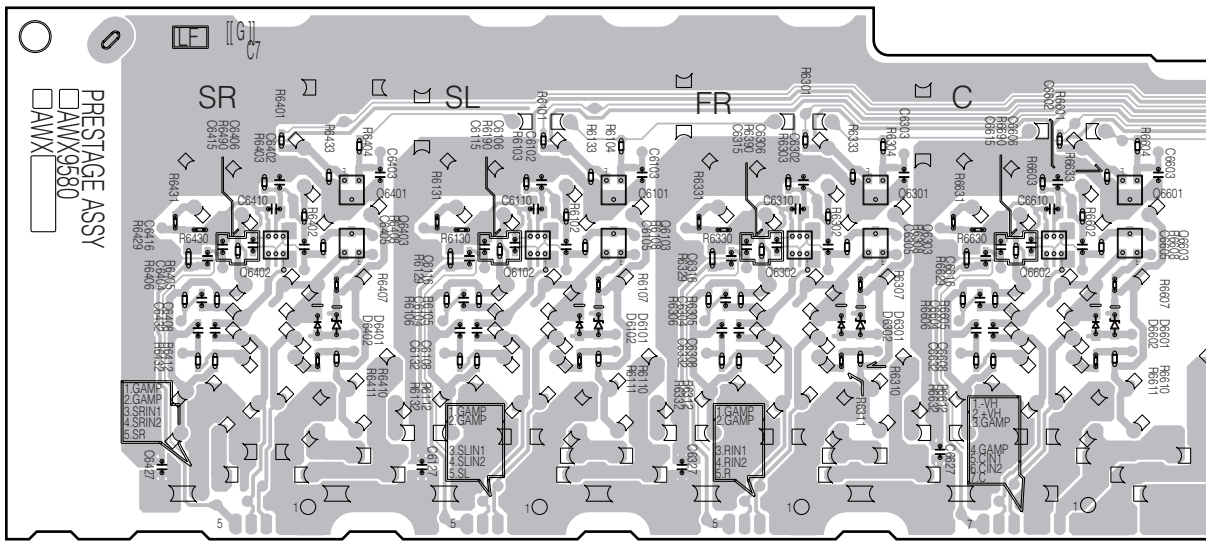
CN6410 → H CN5410

SIDE B

I PRESTAGE ASSY

IC | Q

Q6001
Q6601 Q6201
Q6101 Q6301 Q6501
Q6401 Q6003 Q6203
Q6103 Q6603 Q6503
Q6403 Q6303 Q6202
Q6102 Q6002 Q6502
Q6402 Q6602
Q6302



SIDE B

A

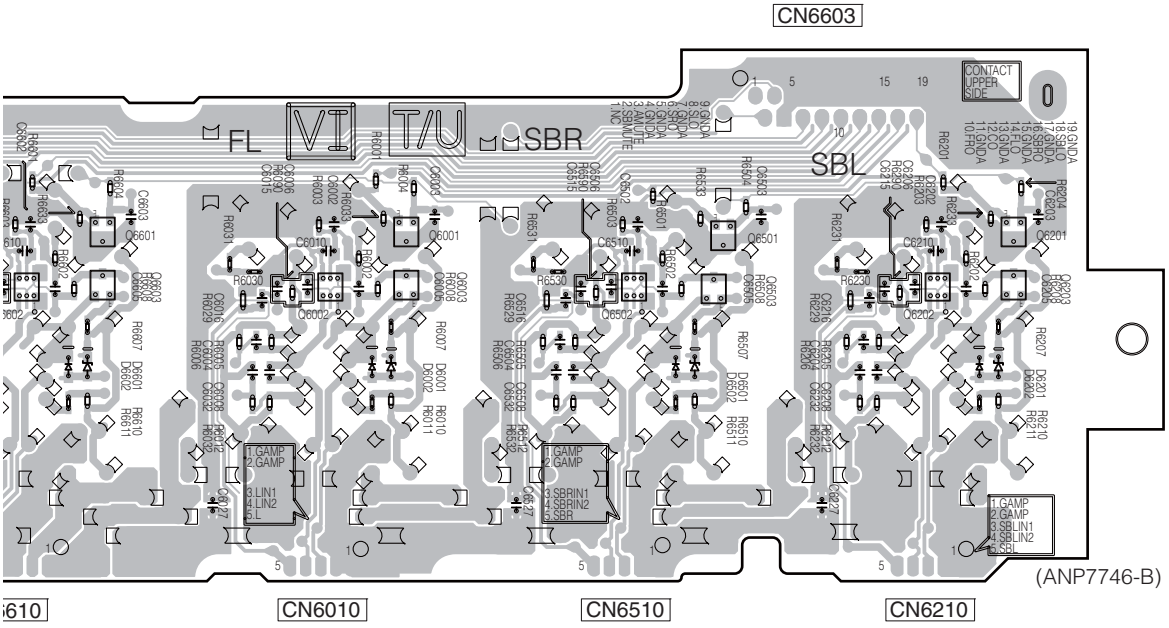
B

C

D

E

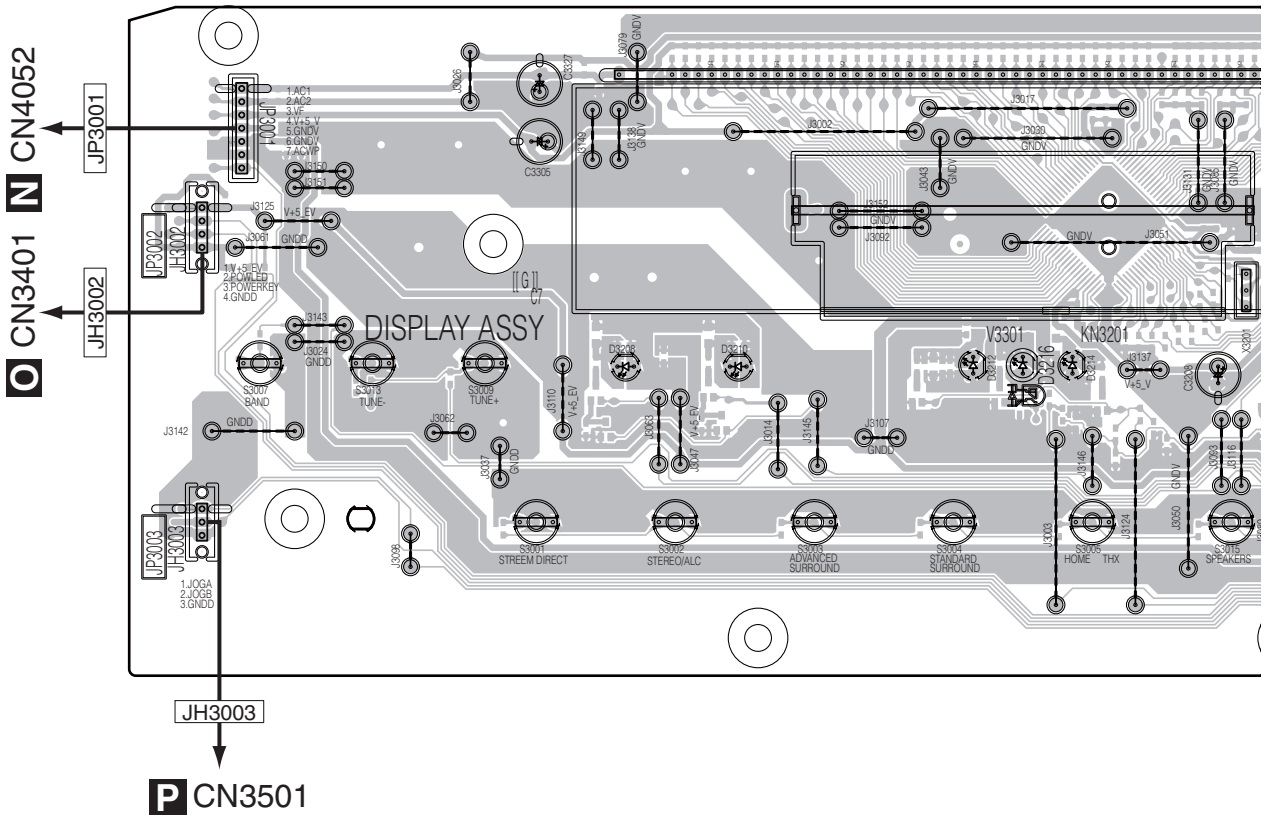
F



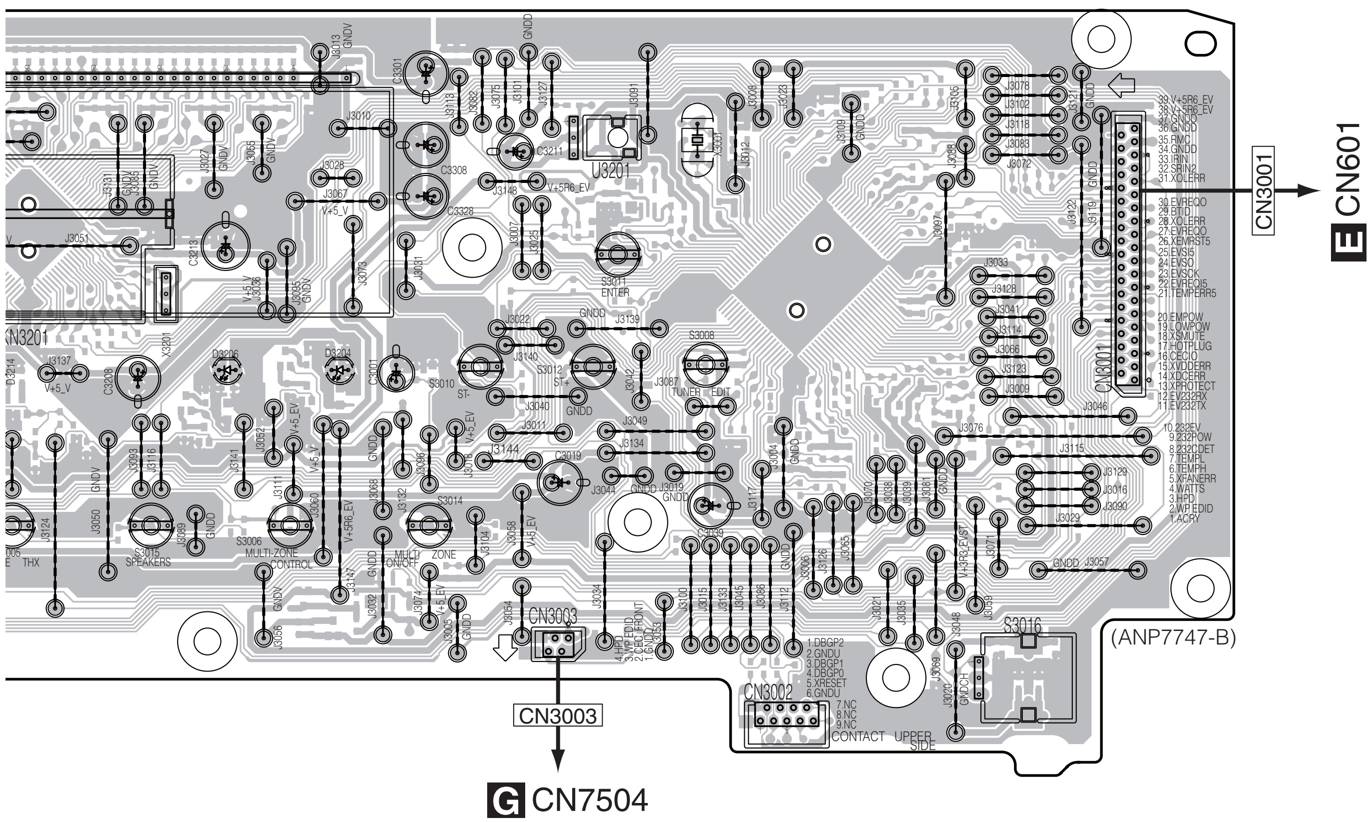
11.9 DISPLAY ASSY

SIDE A

J DISPLAY ASSY



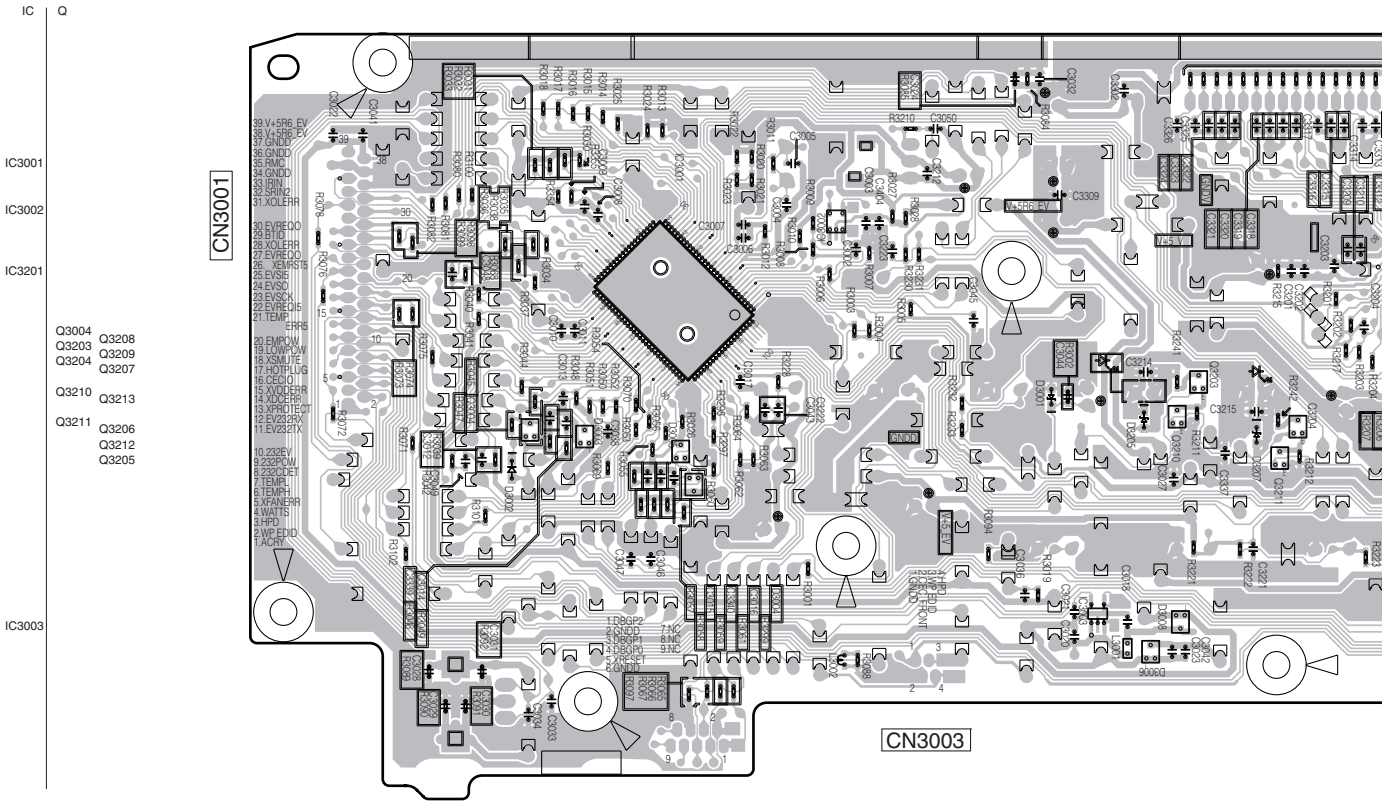
SIDE A



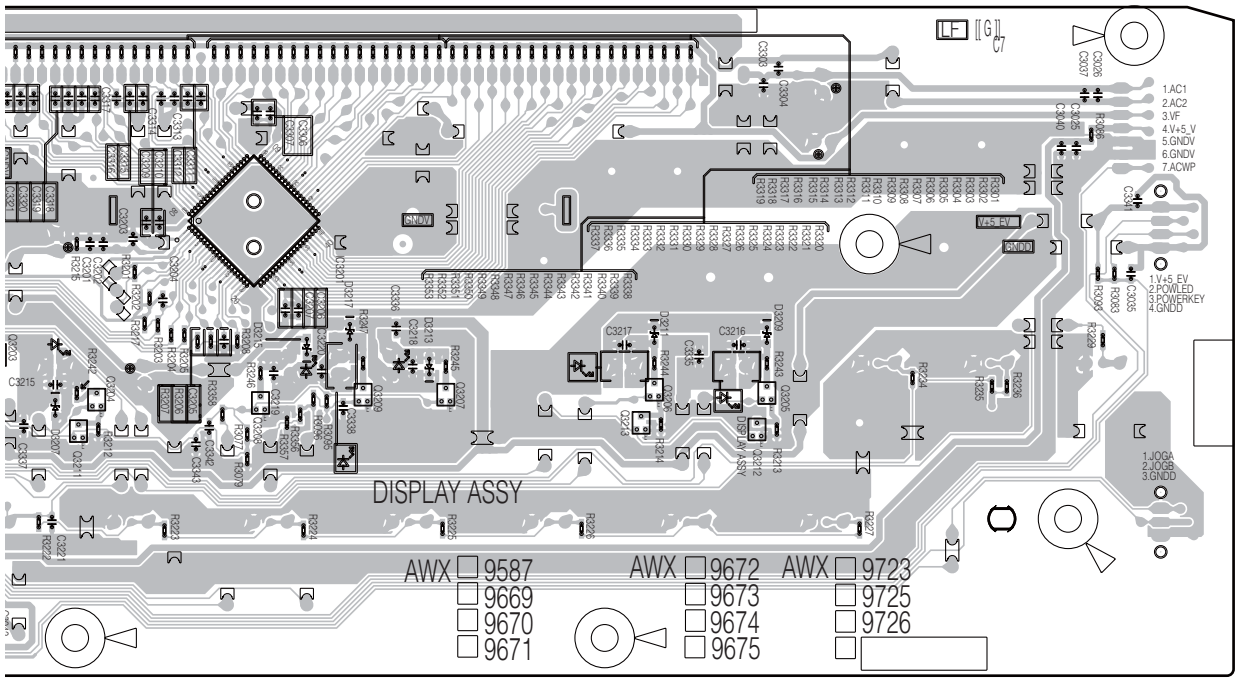
CN3001
E CN601
39.V+5R6_EV
38.V+5R6_EV
37.GNDD
36.GNDD
35.RMC
34.GNDD
33.IRIN
32.SRIN2
31.XOLERR
30.EVREQO
29.BTID
28.XOLERR
27.EVREQO
26.XEMRST5
25.EVSI5
24.EVSO
23.EVSCK
22.EVREQI5
21.TEMPERR5
20.EMPOW
19.LOWPOW
18.XSMUTE
17.HOTPLUG
16.CECIO
15.XVDDERR
14.XDCERR
13.XPROTECT
12.EV232RX
11.EV232TX
10.232EV
9.232POW
8.232CDET
7.TEMPL
6.TEMPH
5.XFANERR
4.WATTS
3.HPD
2.WP EDID
1.ACRY
U3201
S3011 ENTER
S3008
TUNER
EDIT
S3010
S3012
S3014
S3006 MULTI-ZONE CONTROL
S3015 SPEAKERS
THX
MULTI ON/OFF
ZONE
CN3201
CN3003
4.HPD
3.WP EDID
2.CEC FRONT
1.GNDD
CN3002
1.DBGP2
2.GNDU
3.DBGP1
4.DBGP0
5.XRESET
6.GNDU
7.NC
8.NC
9.NC
CONTACT UPPER SIDE
S3016
(ANP7747-B)
CN3003
G CN7504

SIDE B

J DISPLAY ASSY



SIDE B

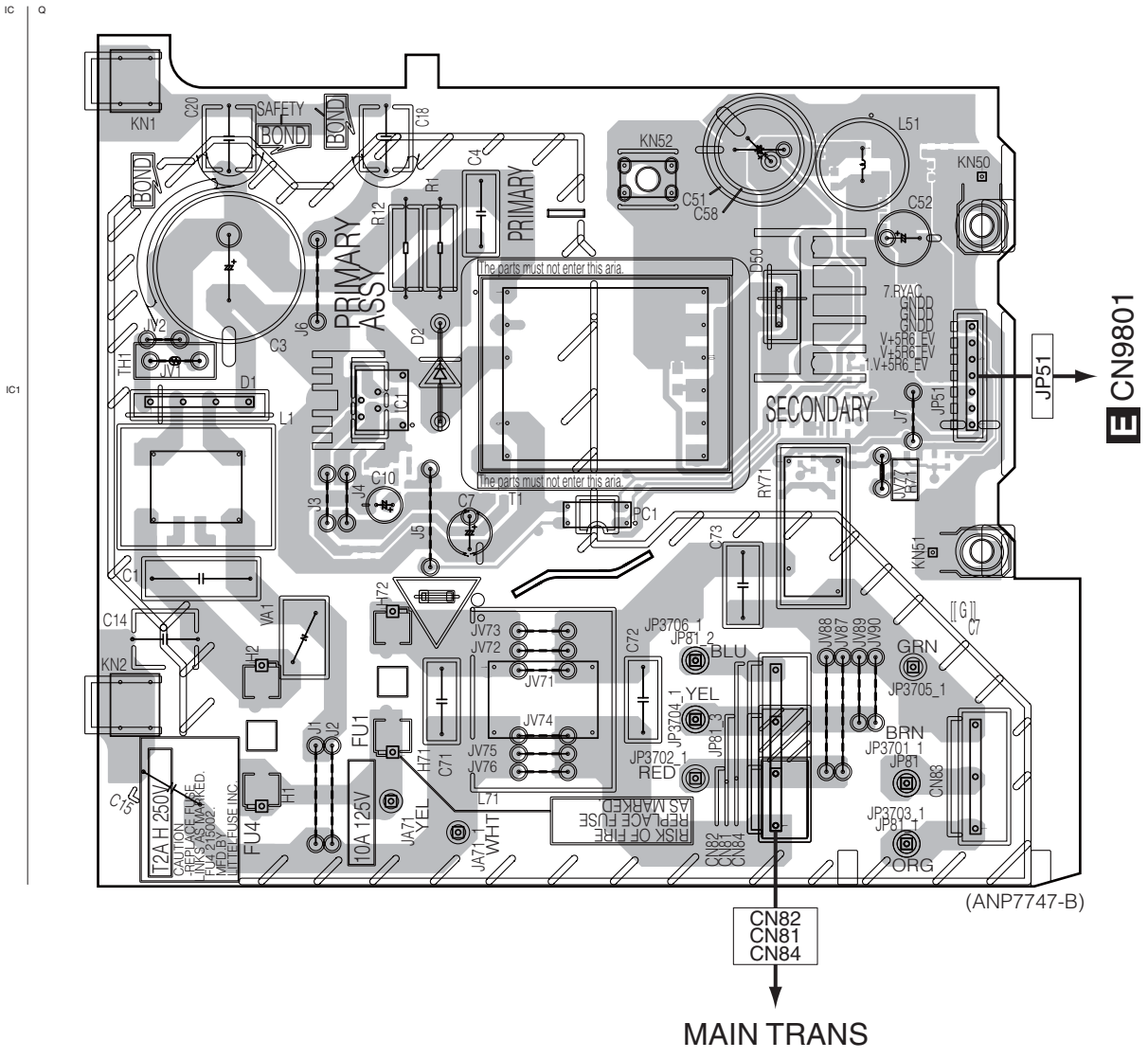


(ANP7747-B)

11.10 PRIMARY ASSY

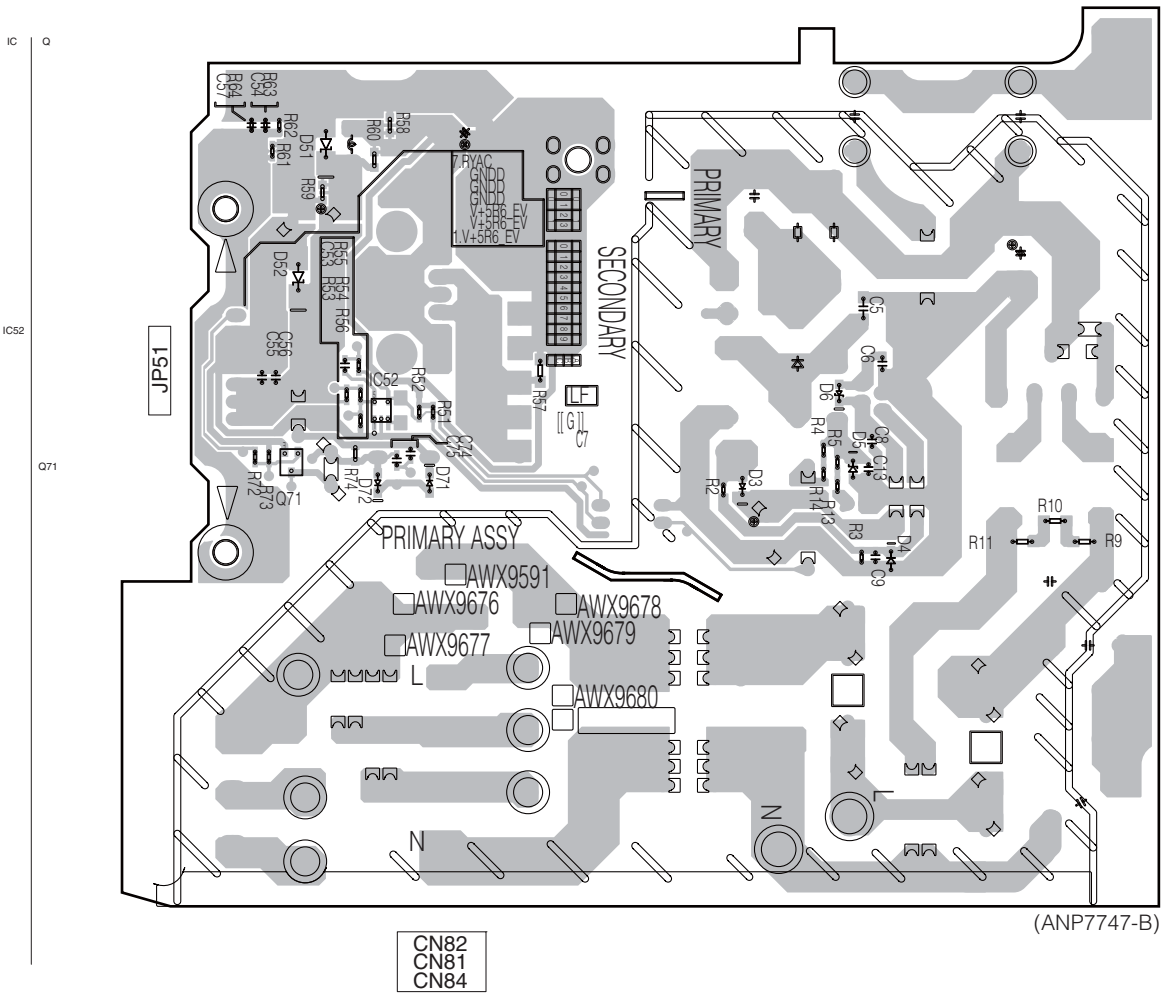
SIDE A **SIDE A**

K PRIMARY ASSY



SIDE B

K PRIMARY ASSY



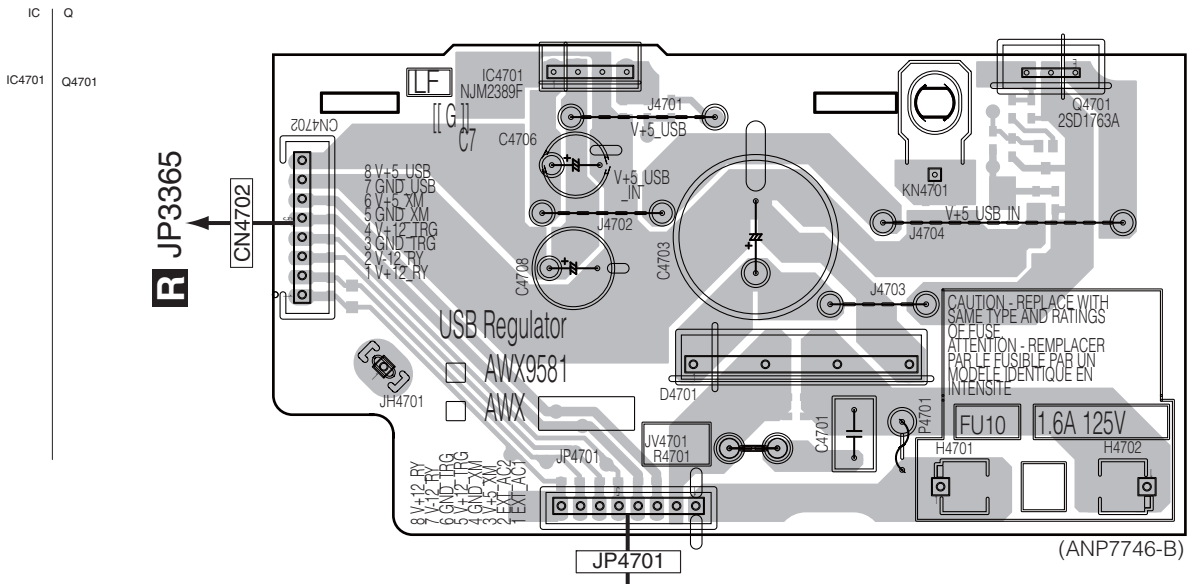
(ANP7747-B)

11.11 USB REGULATOR and XM REGULATOR ASSYS

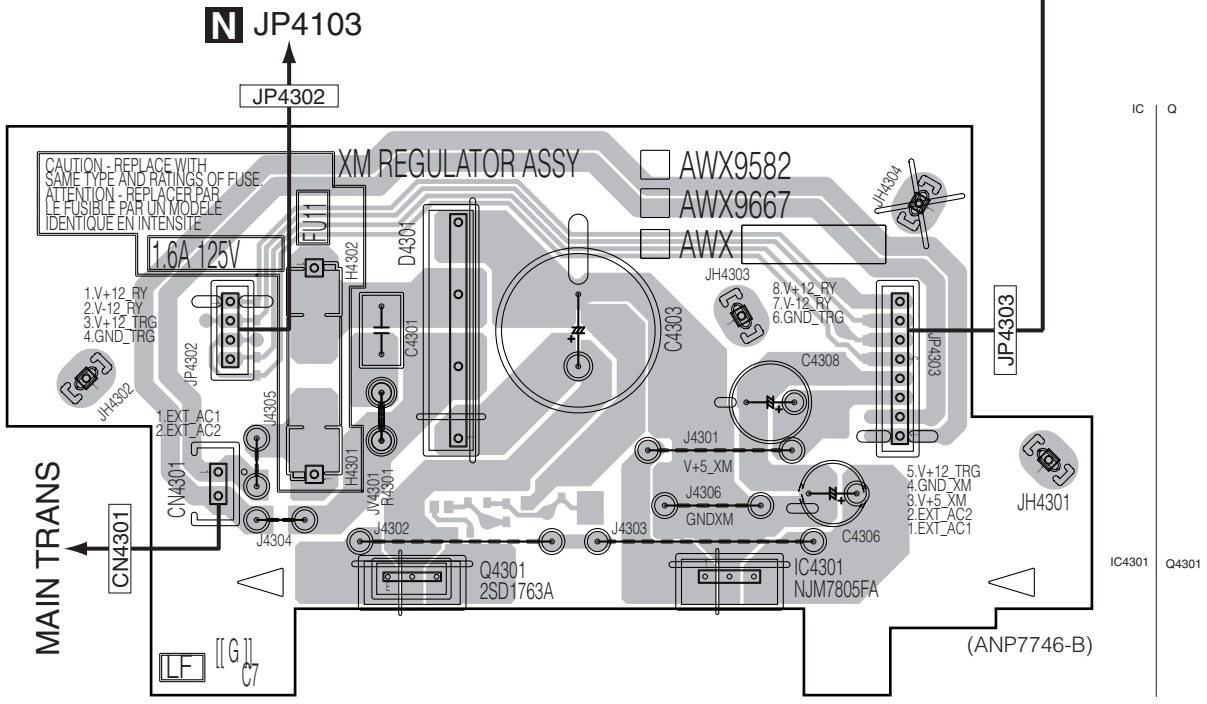
SIDE A

SIDE A

L USB REGULATOR ASSY



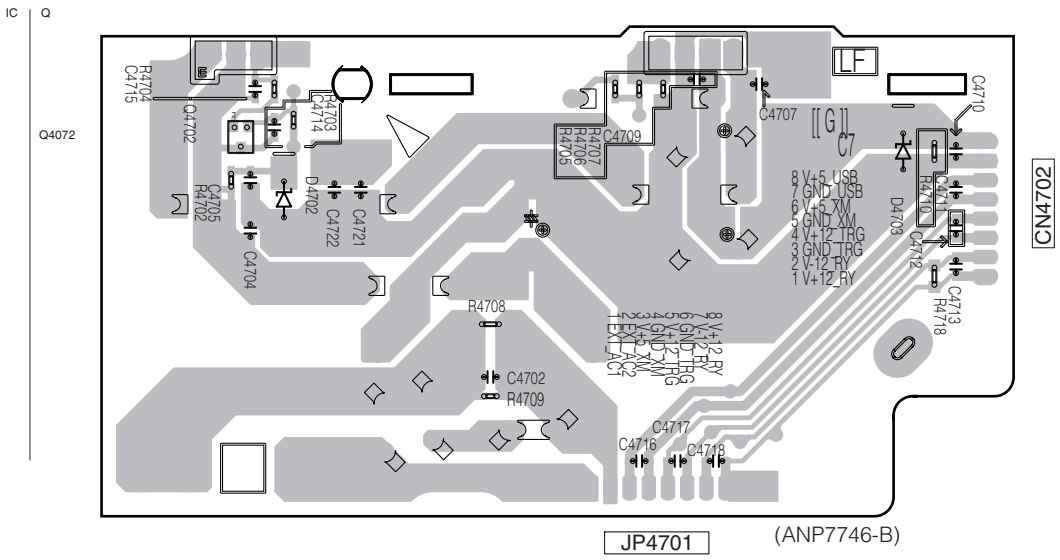
M XM REGULATOR ASSY



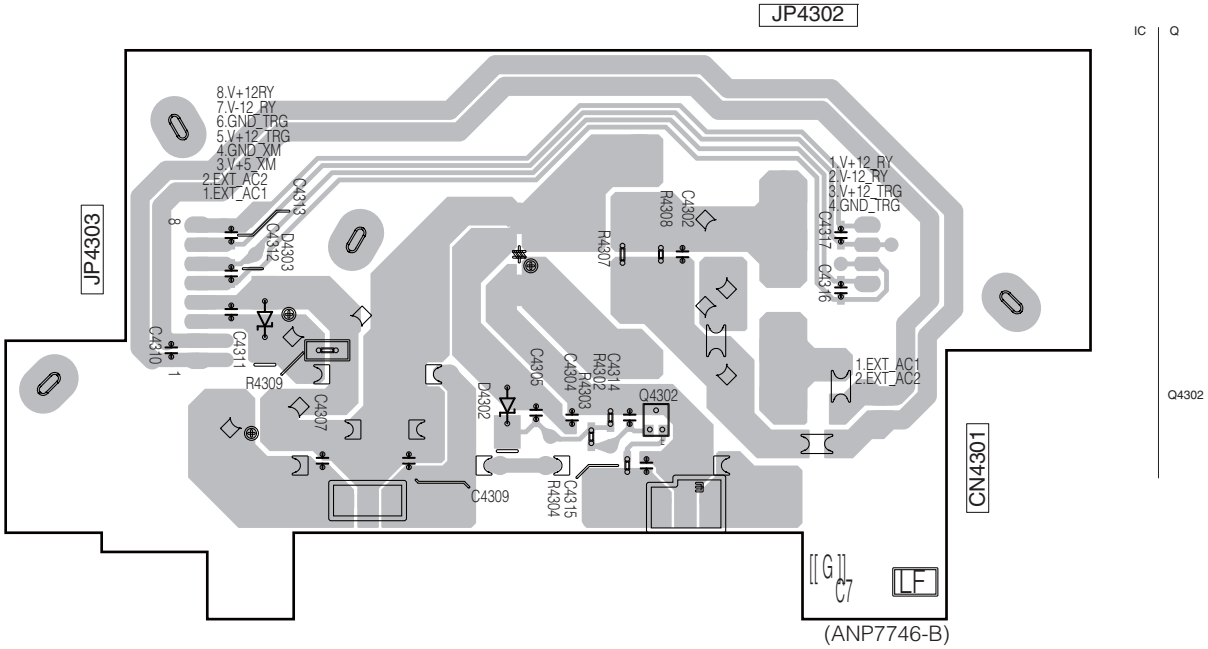
SIDE B

SIDE B

L USB REGULATOR ASSY



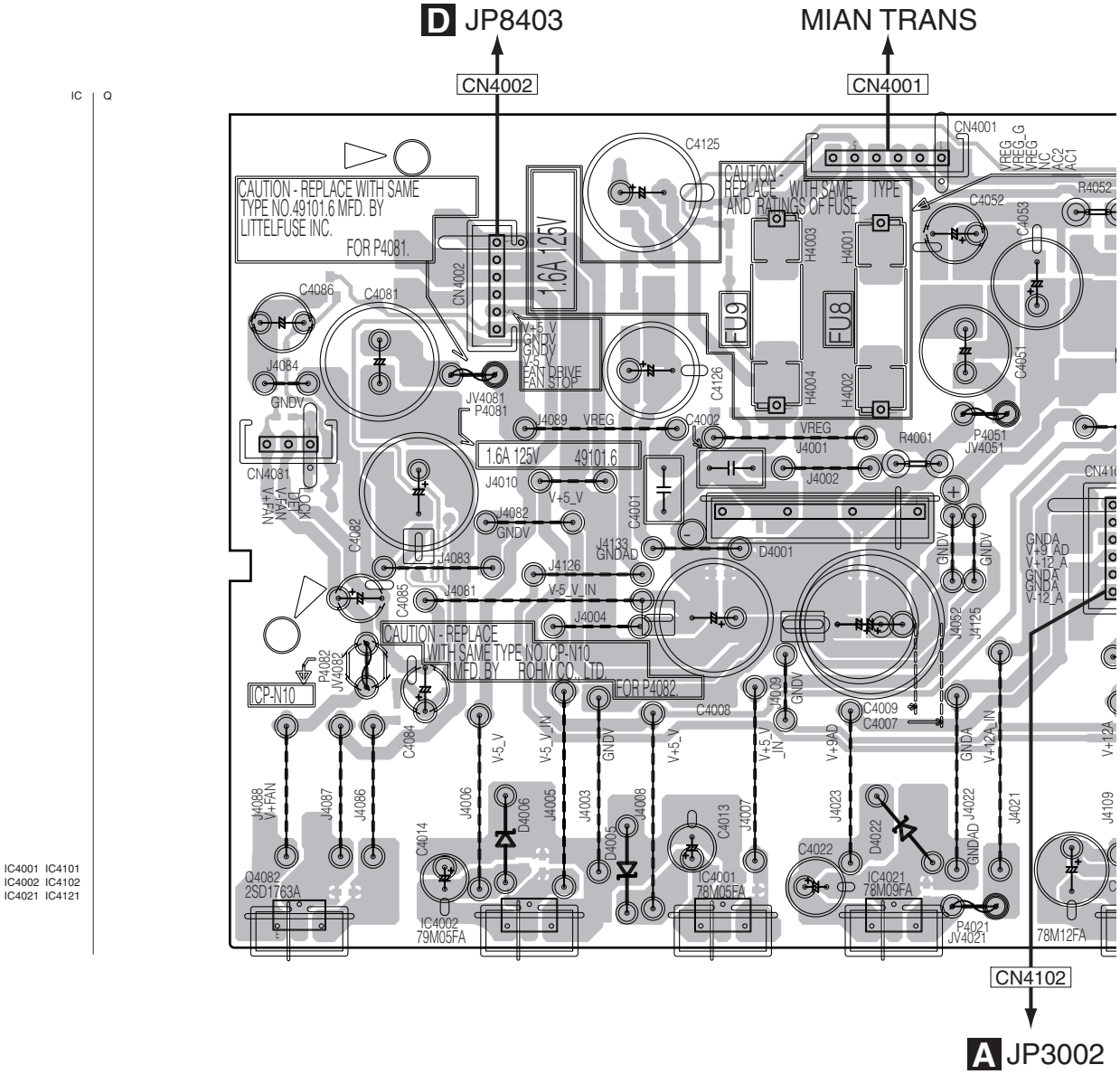
M XM REGULATOR ASSY



11.12 REGULATOR ASSY

SIDE A

N REGULATOR ASSY



IC4001 IC4101
IC4002 IC4102
IC4021 IC4121

SIDE A

A

B

C

D

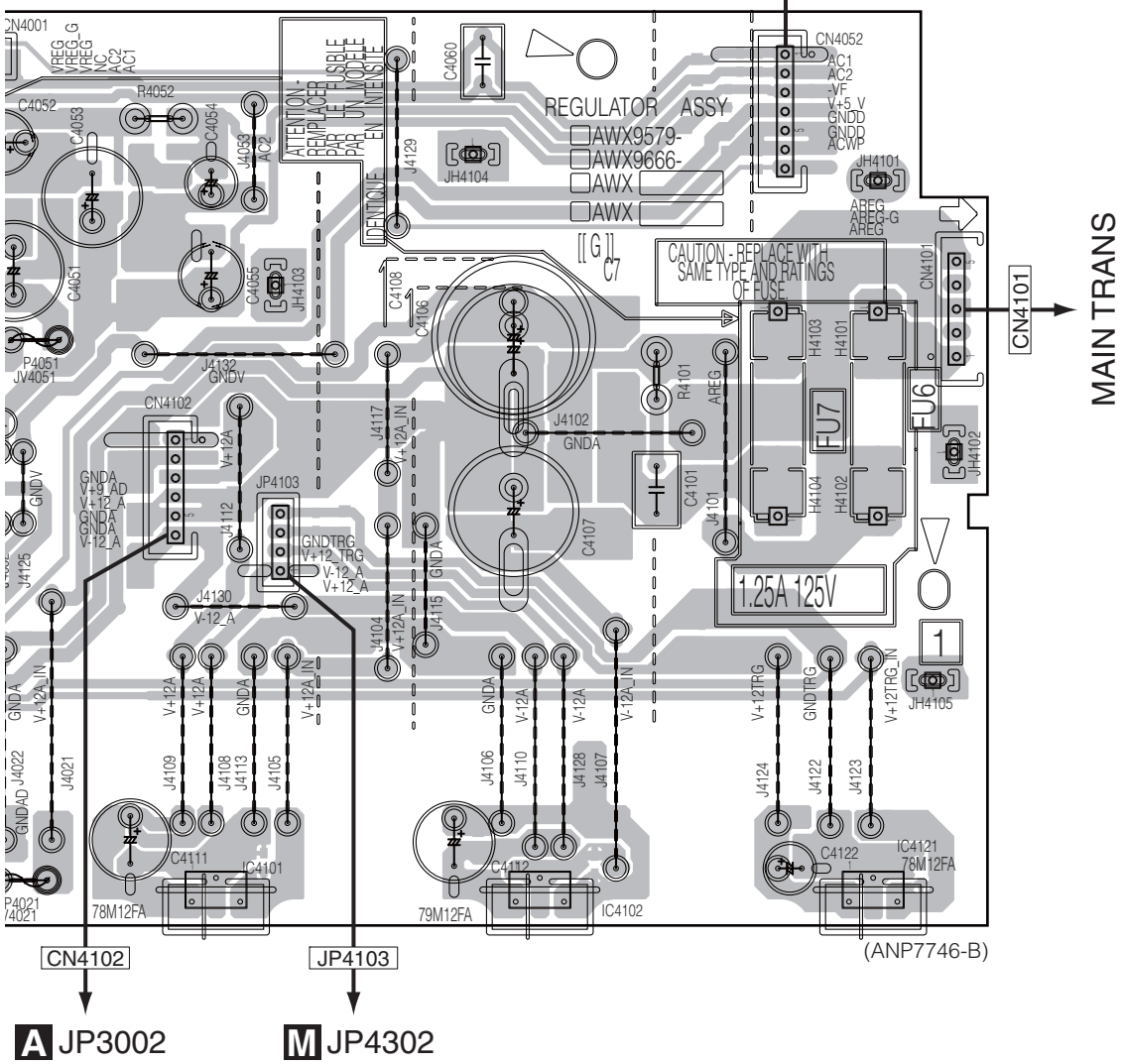
E

F

S

J JP3001

CN4052



MAIN TRANS

CN4101

CN4102

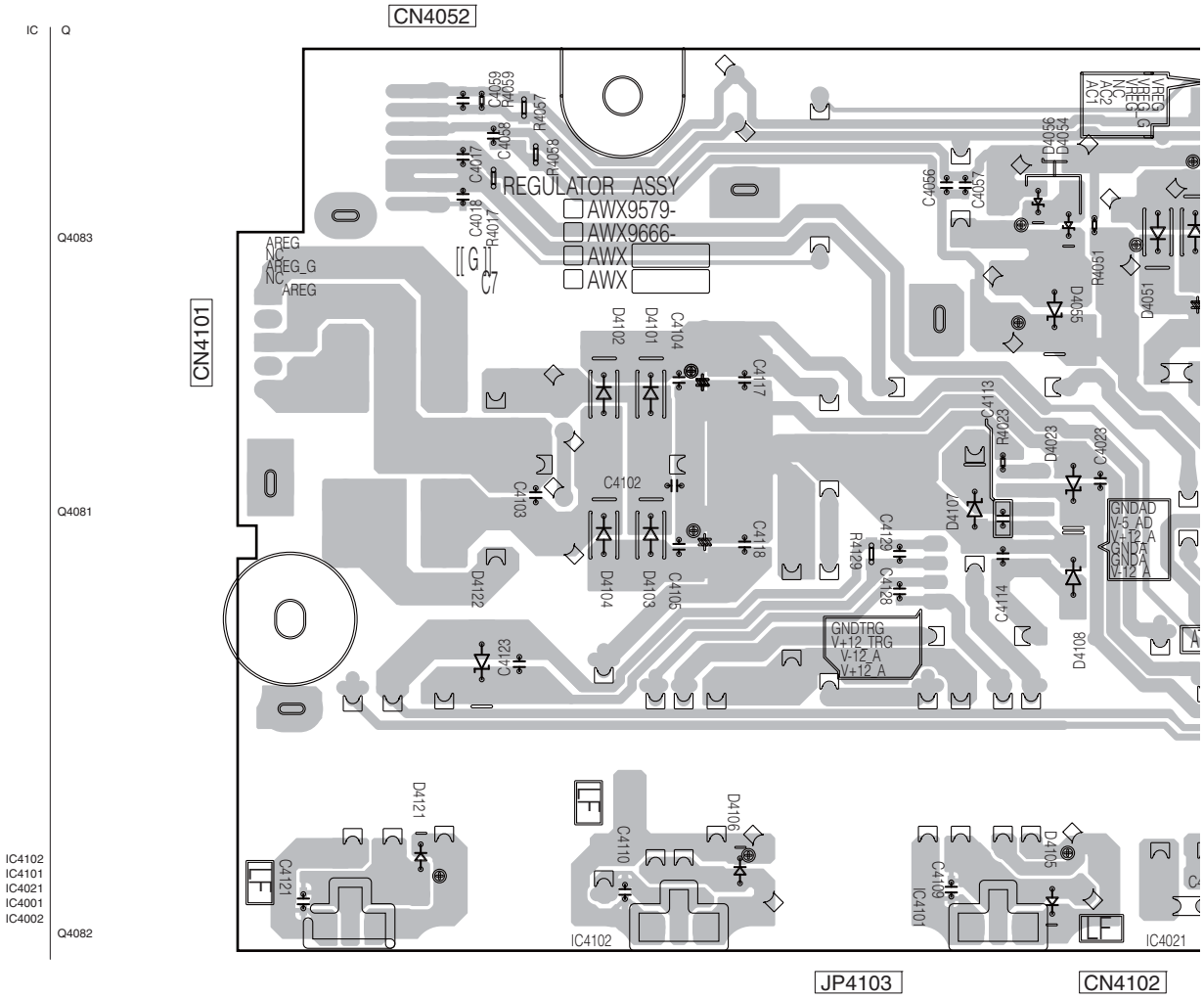
JP4103

A JP3002

M JP4302

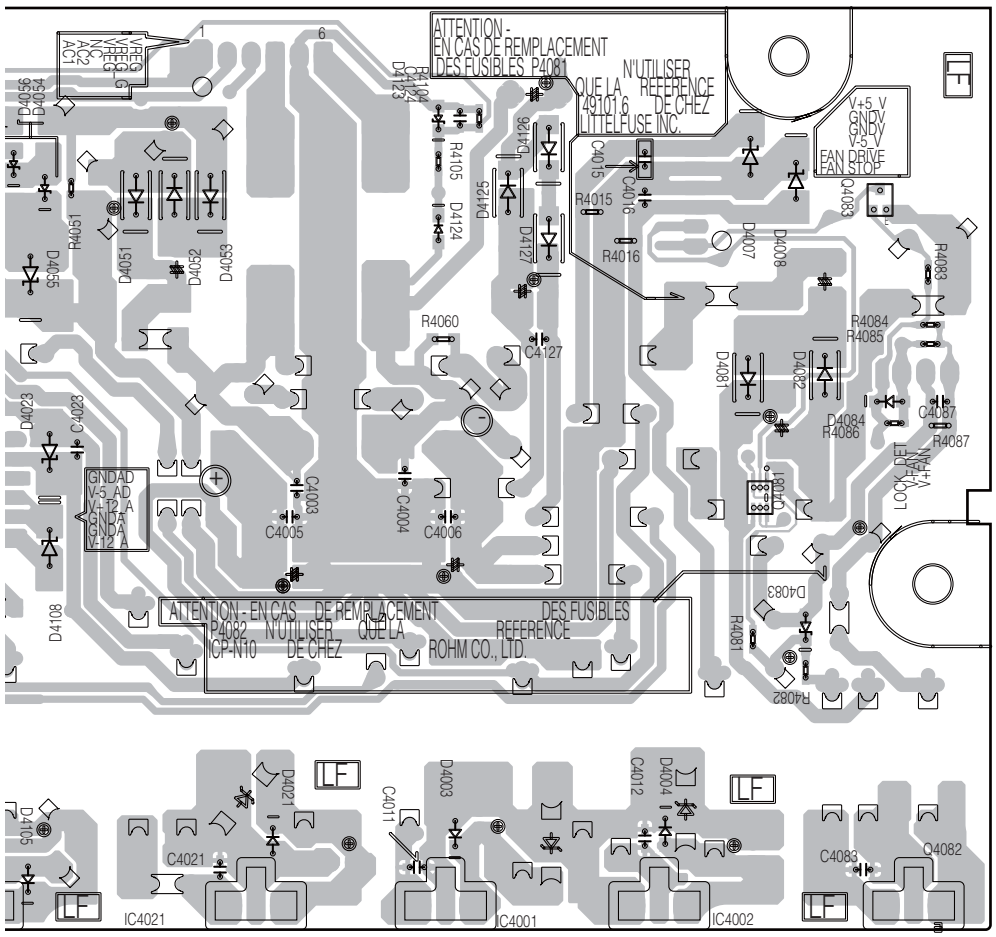
SIDE B

N REGULATOR ASSY



SIDE B

CN4001 CN4002



(ANP7746-B)

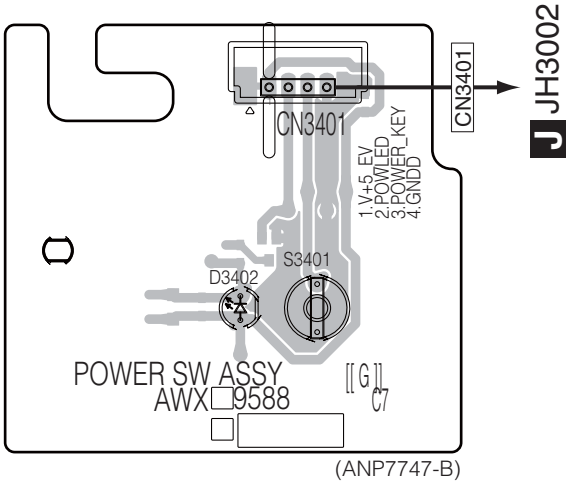
CN4102

11.13 POWER SW, ENCODER and HEADPHONE ASSYS

SIDE A

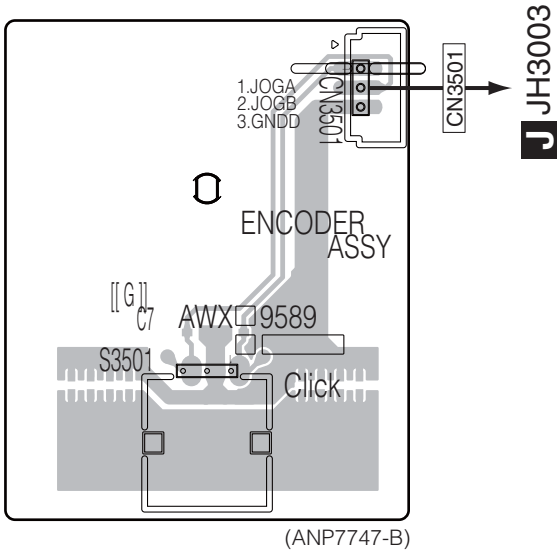
SIDE A

O POWER SW ASSY



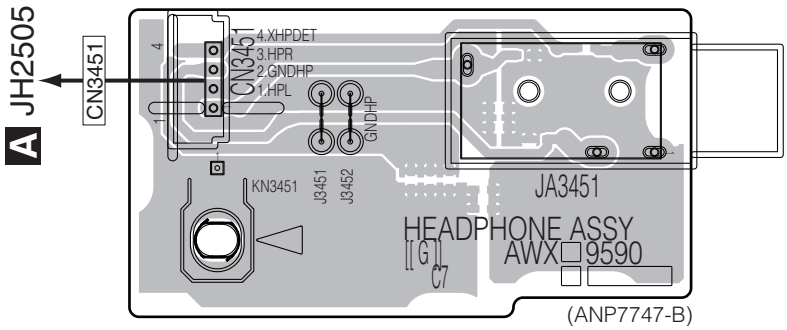
(ANP7747-B)

P ENCODER ASSY



(ANP7747-B)

Q HEADPHONE ASSY



(ANP7747-B)

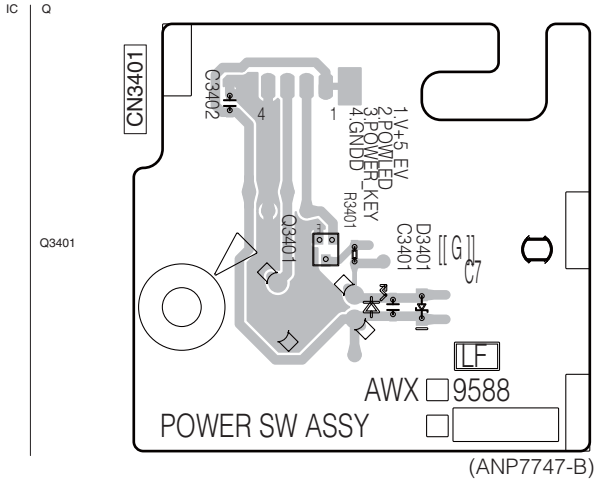
O P Q

O P Q

SIDE B

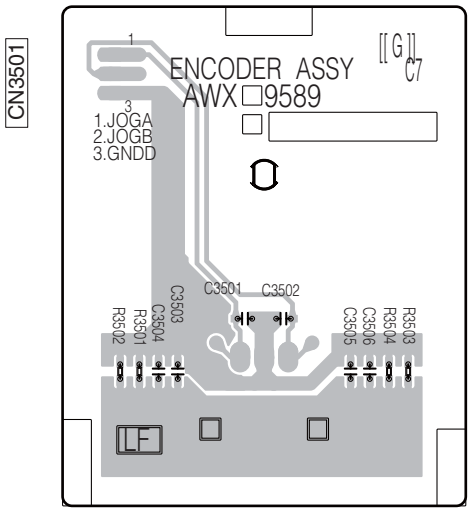
SIDE B

O POWER SW ASSY



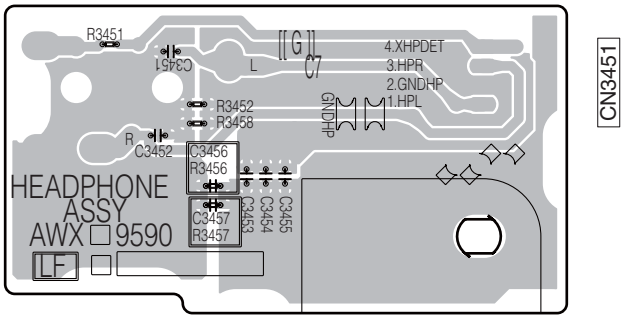
(ANP7747-B)

P ENCODER ASSY



(ANP7747-B)

Q HEADPHONE ASSY



(ANP7747-B)

O P Q

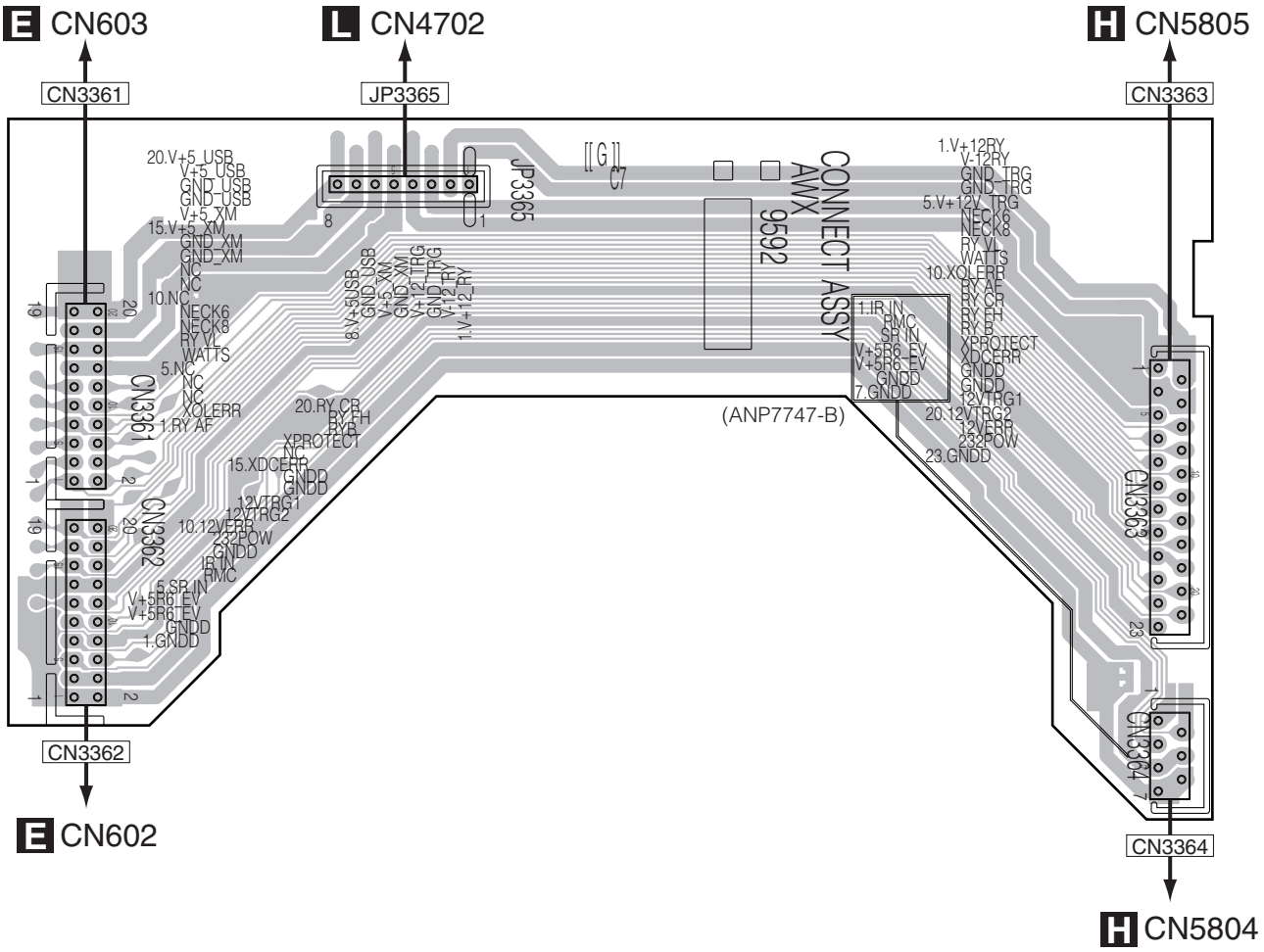
O P Q

11.14 CONNECT and A-DAC BRIDGE ASSYS

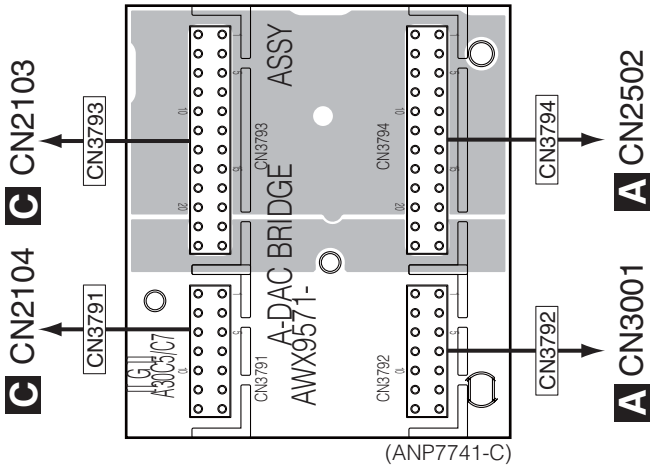
SIDE A

SIDE A

R CONNECT ASSY



S A-DAC BRIDGE ASSY



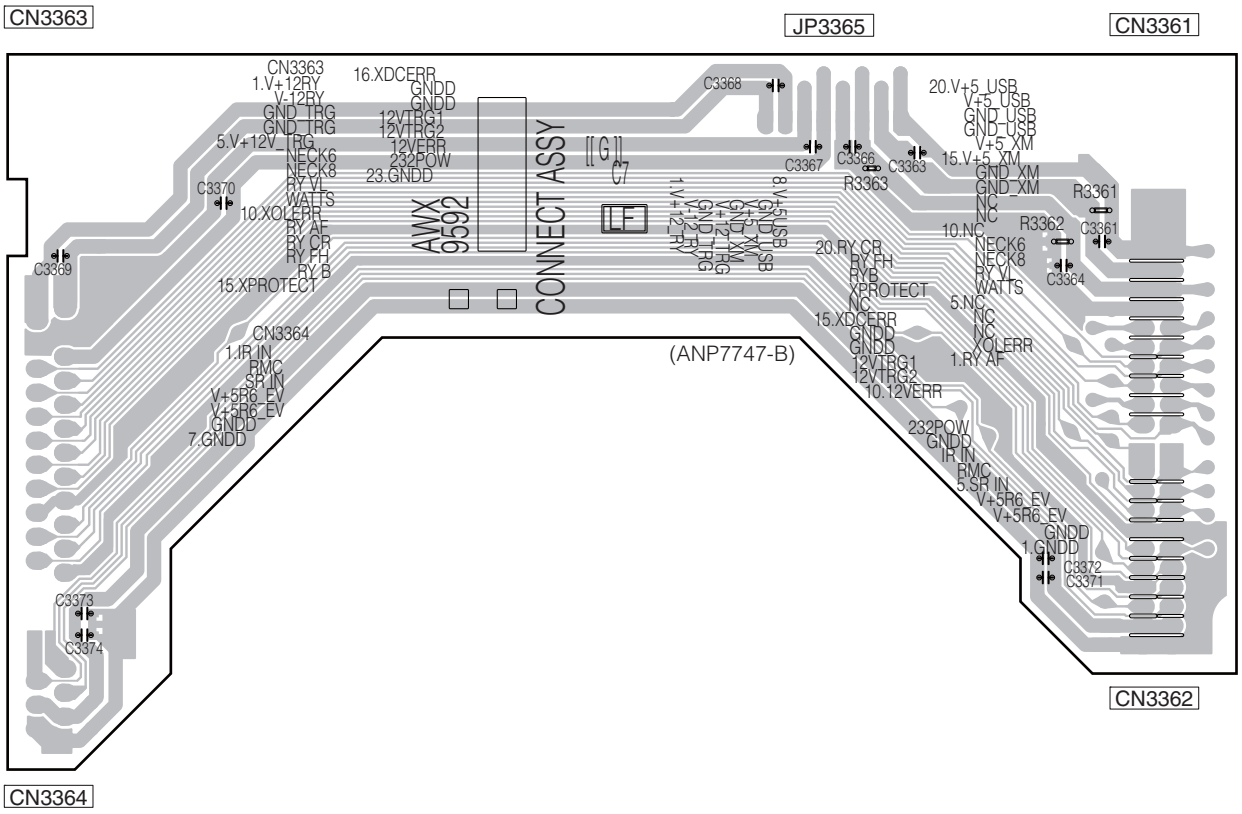
R S

R S

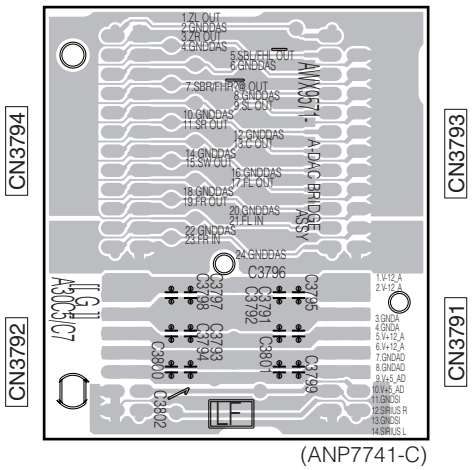
SIDE B

SIDE B

R CONNECT ASSY



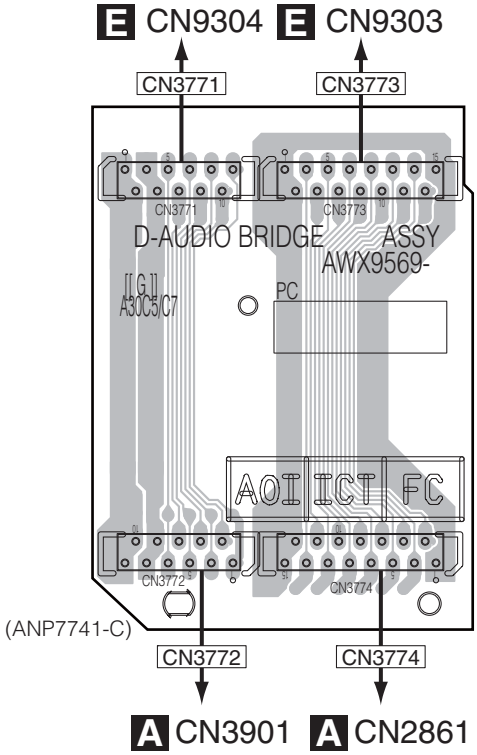
S A-DAC BRIDGE ASSY



11.15 D-AUDIO and D-DAC BRIDGE, POS 1-3 and BIND L FRONT ASSYS

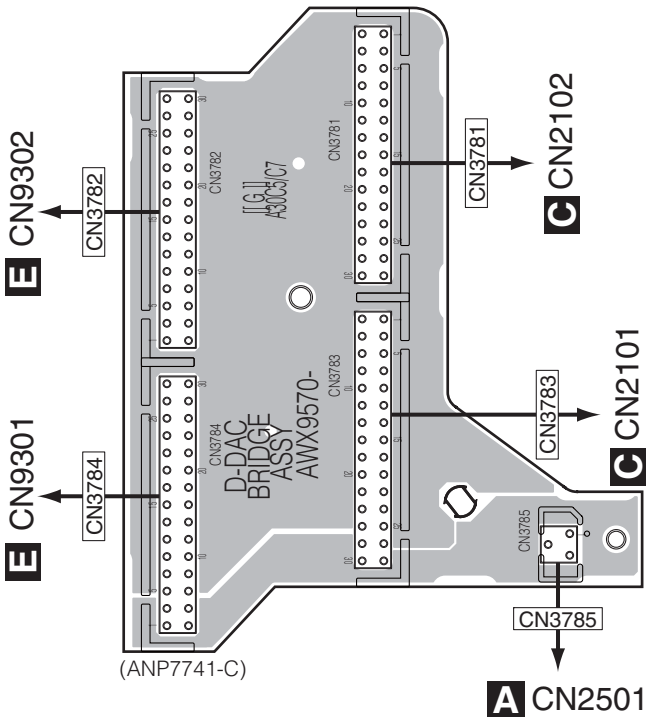
SIDE A

T D-AUDIO BRIDGE ASSY

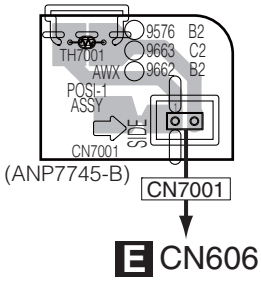


SIDE A

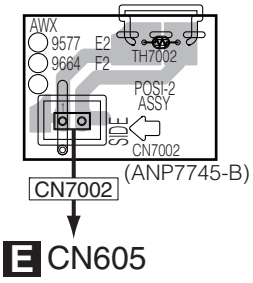
U D-DAC BRIDGE ASSY



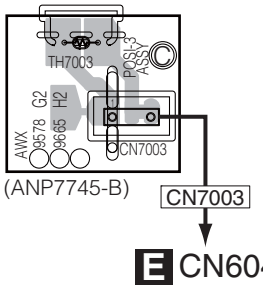
V POSI 1 ASSY



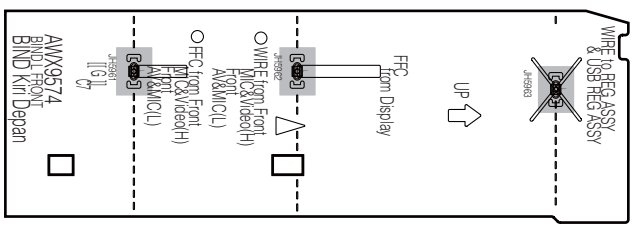
W POSI 2 ASSY



X POSI 3 ASSY



Y BIND L FRONT ASSY



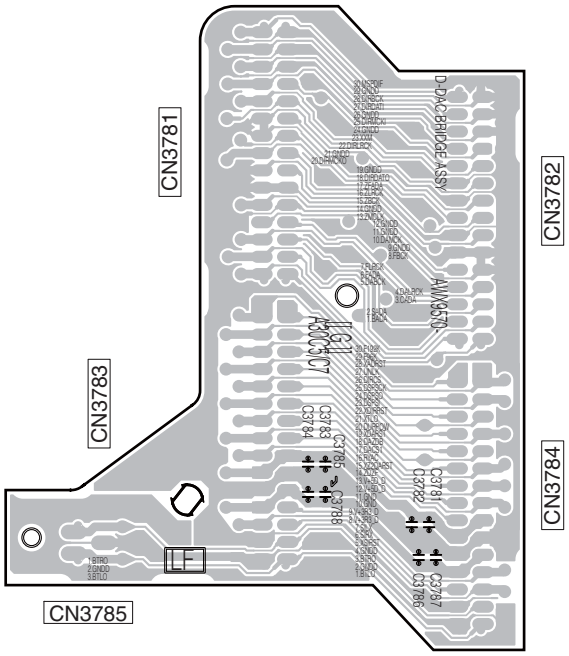
T U V W X Y

T U V W X Y

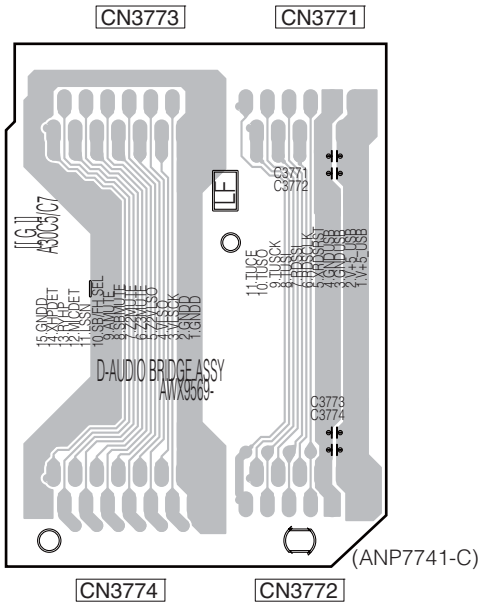
SIDE B

SIDE B

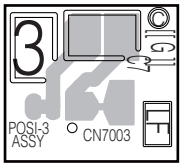
U D-DAC BRIDGE ASSY



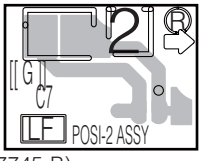
T D-AUDIO BRIDGE ASSY



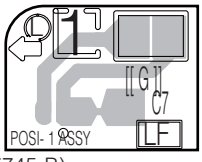
X POSI 3 ASSY



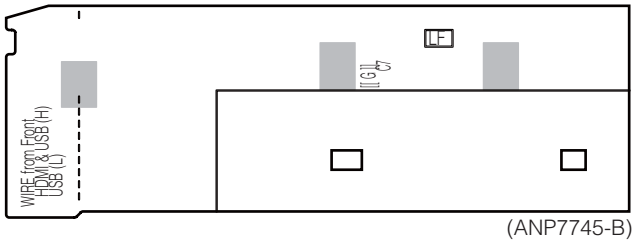
W POSI 2 ASSY



V POSI 1 ASSY



Y BIND L FRONT ASSY



T U V W X Y

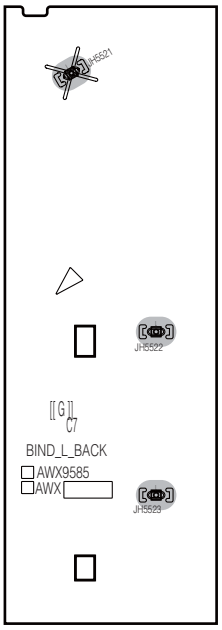
T U V W X Y

11.16 BIND L BACK, BINDER, BIND DM CABLE, BIND R BACK/FRONT, BIND DISP FFC and BLUETOOH ASSYS

SIDE A

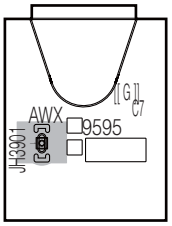
SIDE A

Z BIND L BACK ASSY



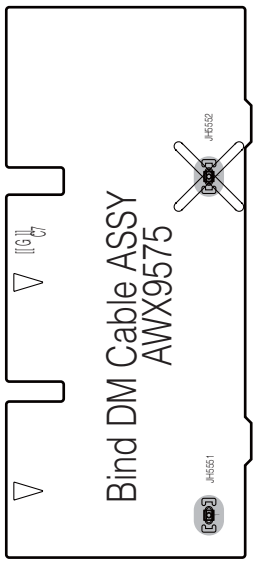
(ANP7746-B)

AA BINDER ASSY



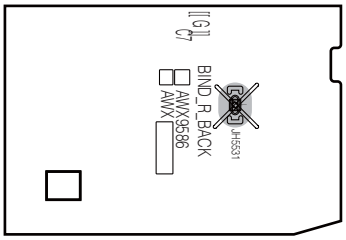
(ANP7747-B)

AB BIND DM CABLE ASSY



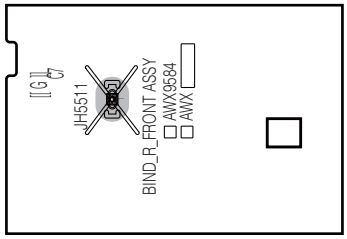
(ANP7746-B)

AC BIND R BACK ASSY



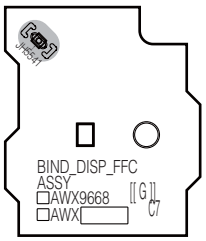
(ANP7745-B)

AD BIND R FRONT ASSY



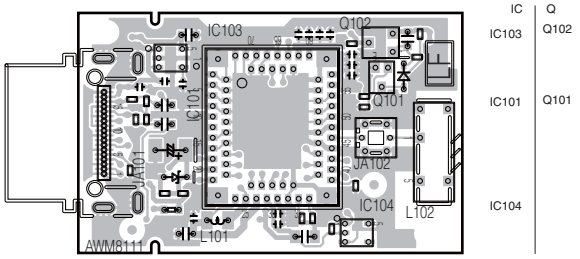
(ANP7746-B)

AE BIND DISP FFC ASSY



(ANP7746-B)

AF BLUETOOTH ASSY



(ANP7661-A)

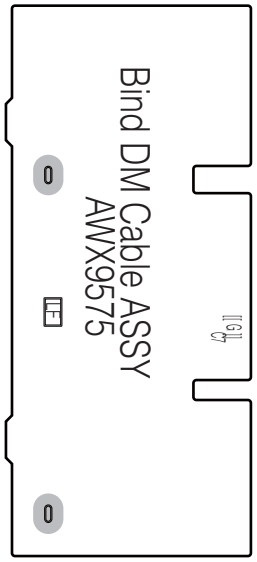
Z AA AB AC AD AE AF

Z AA AB AC AD AE AF

SIDE B

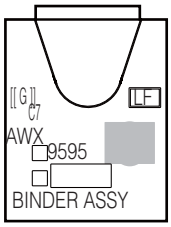
SIDE B

AB BIND DM CABLE ASSY



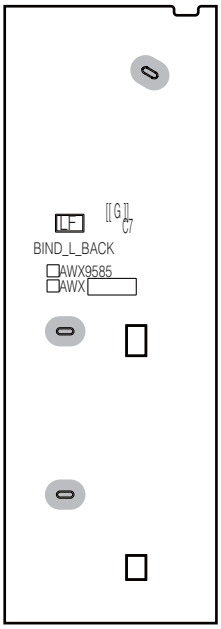
(ANP7746-B)

AA BINDER ASSY



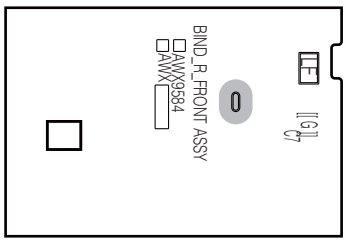
(ANP7747-B)

Z BIND L BACK ASSY



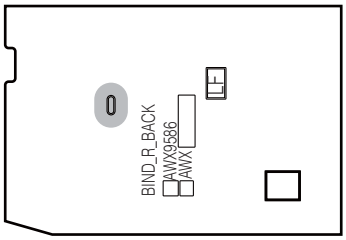
(ANP7746-B)

AD BIND R FRONT ASSY



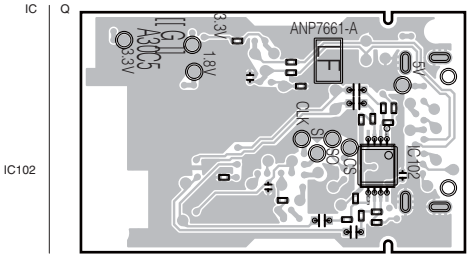
(ANP7746-B)

AC BIND R BACK ASSY



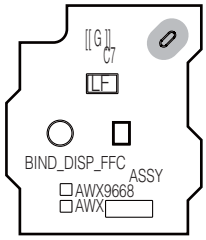
(ANP7745-B)

AF BLUETOOTH ASSY



(ANP7761-A)

AE BIND DISP FFC ASSY



(ANP7746-B)

Z AA AB AC AD AE AF

Z AA AB AC AD AE AF

12. PCB PARTS LIST

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

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

● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47 k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω	→ *56 × 10[1]*	→ *561*	*RD1/4PU 5 6 1 J*
47 kΩ	→ *47 × 10[3]*	→ *473*	*RD1/4PU 4 7 3 J*
0.5 Ω	→ *R50*		*RN2H R 5 0 K*
1 Ω	→ *1R0*		*RS1P 1 R 0 K*

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

5.62 kΩ	→ *562 × 10[1]*	→ *5621*	*RN1/4PC 5 6 2 1 F*

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
NSP	1..	AMP ASSY	AWM8192
	2..	BIND L FRONT ASSY	AWX9574
	2..	POSI 1 ASSY	AWX9576
	2..	POSI 2 ASSY	AWX9577
	2..	POSI 3 ASSY	AWX9578
	2..	POWER AMP ASSY	AWX9660
	2..	BIND R BACK ASSY	AWX9586
NSP	1..	LOCAL POWER ASSY	AWM8195
	2..	BIND DM CABLE SSY	AWX9575
	2..	REGULAOTR ASSY	AWX9579
	2..	PRESTAGE ASSY	AWX9580
	2..	USB REGULATOR ASSY	AWX9581
	2..	BIND L BACK ASSY	AWX9585
	2..	XM REGULATOR ASSY	AWX9667
	2..	BIND R FRONT ASSY	AWX9584
	2..	BIND DISP FFC ASSY	AWX9668
NSP	1..	COMPLEX ASSY(VSX-LX53)	AWM8197
	2..	POWER SW ASSY	AWX9588
	2..	ENCODER ASSY	AWX9589
	2..	HEADPHONE ASSY	AWX9590
	2..	CONNECT ASSY	AWX9592
	2..	FRONT MIC & VIDEO ASSY	AWX9593
	2..	BINDER ASSY	AWX9595
	2..	DISPLAY ASSY	AWX9669
	2..	PRIMARY ASSY	AWX9676

Mark	No.	Description	Part No.
NSP	1..	COMPLEX ASSY(VSX-2020-K)	AWM8230
	2..	POWER SW ASSY	AWX9588
	2..	ENCODER ASSY	AWX9589
	2..	HEADPHONE ASSY	AWX9590
	2..	CONNECT ASSY	AWX9592
	2..	FRONT MIC & VIDEO ASSY	AWX9593
	2..	BINDER ASSY	AWX9595
	2..	DISPLAY ASSY	AWX9726
	2..	PRIMARY ASSY	AWX9676
NSP	1..	AUDIO COMPOSITE ASSY	AWR7087
	2..	COMPOSITE ASSY	AWX9568
	2..	D-AUDIO BRIDGE ASSY	AWX9569
	2..	D-DAC BRIDGE ASSY	AWX9570
	2..	A-DAC BRIDGE ASSY	AWX9571
	2..	AUDIO ASSY	AWX9644
	1..	FRONT HDMI USB ASSY	AWX9565
	1..	COMPONENT ASSY	AWX9572
	1..	DAC LOW ASSY	AWX9657
	1..	DIGITAL MAIN ASSY	AWX9719
NSP	1..	BLUETOOTH AD ASSY(VSX-LX53)	AXF7022
	2..	BLUETOOTH ASSY	AWM8111
	1..	FM/AM TUNER UNIT	AXX7265

J DISPLAY ASSY

AWX9669 and AWX9726 are constructed the same except for the following:

Mark	Symbol and Description	AWX9669	AWX9726
	R3022	RS1/10SR473J	RS1/10SR103J
	R3023	Not used	RS1/10SR393J

A AUDIO ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC	2501	BD3473KS2
	IC	2701	TC4066BFN
	IC	2702,2751,2801	NJM4565MD
	IC	3221	TC4053BFN
	IC	3251,3271	NJM4565V
	IC	3931	LC72725KM
	Q	2721,2853,3221,3222	LTC124EUB
	Q	2722	LTA124EUB
	Q	2803,2951,2971,3101	IMX25
	Q	2852	LSA1576UB
⚠	Q	3001	2SD1858X
⚠	Q	3002	2SB1237X
	Q	3102,3151,3152,3201	IMX25
	Q	3202,3251,3252,3271	IMX25
	Q	3272	IMX25

Mark	No.	Description	Part No.
⚠	Q	3901	2SD1664
	D	2691,2701,2702	1SS302
	D	2851,2852	1SS352
	D	3001,3002	HZU7R5(B2)
	D	3902	UDZS10(B)

MISCELLANEOUS

	L	3931 CHIP SOLID INDUCTOR	QTL1013
	JA	2501,2504,2506 PIN JACK(4P)	XKB3017
	JA	2502,2505 2P PIN JACK	AKB7233
	JA	2951,3101 PIN JACK(4P)	XKB3017
	JA	3201 PIN JACK(6P)	XKB3037
	RY	2851 RELAY	CSR1031
	X	3931 CRYSTAL RESONATOR	ASS7004
	CN	2501 3P SOCKET	XKP3072
	CN	2502 24P SOCKET	AKP7251
	CN	2504 7P CONNECTOR	52044-0745
	CN	2861 15P SOCKET	XKP3078
	CN	3001 14P SOCKET	AKP7248
	CN	3052 CONNECTOR	9607S-19F
	CN	3901 11P SOCKET	XKP3076
	CN	3902 CONNECTOR	9604S-11C
	JH	2505 4P CABLE HOLDER	51048-0400
	JP	2505 JUMPER WIRE	D20PYY0450E
	JP	3002 CONNECTOR A'SSY	PF06PG0S45

RESISTORS

	R	2819,2820	RD1/4MUF330J
	R	3032	RS1/8SQ822J
		Other Resistors	RS1/10SR###J

CAPACITORS

	C	2501-2504,2521-2524	CCSRCH101J50
	C	2505,2506,2525,2526	CEAT220M50
	C	2509,2510,3007,3008	CCSRCH102J50
	C	2541-2544,2561,2562	CCSRCH101J50
	C	2545,2546,2587,2588	CEAT220M50
	C	2563,2564,2623,2624	CCSRCH220J50
	C	2565,2566,2625,2626	CEAT100M50
	C	2581-2584,2601-2604	CCSRCH101J50
	C	2609,2610,2645,2646	CEAT220M50
	C	2621,2622,2641-2644	CCSRCH101J50
	C	2691,2692,3111,3112	CCSRCH331J50
	C	2693,2694	ACH1479
	C	2695,2696	CFHXSQ103J16
	C	2697,2698,2703,2704	CCSRCH101J50
	C	2701,2702,2705,2706	CKSRYB103K50
	C	2707,2708	ACH7196
	C	2731,3105,3106,3155	CEAT220M50
	C	2751-2758,2760,2903	CEAT100M50
	C	2759,3113,3114,3163	CCSRCH101J50
	C	2761,2762,2803,2804	CKSRYB103K50
	C	2801,2802,2805,2806	CEAT1R0M50
	C	2807,2808	CCSRCH221J50
	C	2811,2812	CEAT470M16
	C	2815,2816,2981,2983	CKSRYB103K50
	C	2817,2818	CEAT470M25
	C	2819,2820	CEAT471M16
	C	2821,2822,3911-3913	CCSRCH100D50
	C	2851	CEAT101M35
	C	2863-2866,3934	CKSRYB104K50
	C	2904,2907,2908,3025	CEAT100M50
	C	2951,2952,2971,2972	CCSRCH471J50
	C	3001,3002	CEAT2R2M50
	C	3011,3012,3021,3902	CCSRCH102J50
	C	3026,3935	CEAT100M50
	C	3161,3162,3211,3212	CCSRCH331J50
	C	3164,3213,3214,3263	CCSRCH101J50
	C	3205,3206,3255,3256	CEAT220M50
	C	3223,3224,3265,3266	CKSRYB103K50
	C	3261,3262,3281,3282	CCSRCH331J50
	C	3264,3283,3284,3932	CCSRCH101J50
	C	3275,3276,3732	CEAT220M50
	C	3285,3286,3904,3907	CKSRYB103K50
	C	3903,3906	CEAT101M16
	C	3905,3942	CKSRYB104K16
	C	3909	CCSRCH331J50
	C	3931	CEAT221M16
	C	3933	CCSRCH561J50
	C	3936	CKSRYB472K50
	C	3937,3938	CCSRCH270J50
	C	3941	CKSRYB103K50

B COMPOSITE ASSY

SEMICONDUCTORS

	Q	3601,3604,3608	LSA1576UB
	Q	3602,3603,3607	HN1C01FU

MISCELLANEOUS

	JA	3601-3603 2P PIN JACK	AKB7229
	JA	3605 1P PIN JACK	AKB7231
	CN	3601 20P SOCKET	AKP7249

RESISTORS

	R	3606,3609,3627	RS1/10SR68R0D
	R	3629-3632	RS1/10SR75R0F
		Other Resistors	RS1/10SR###J

CAPACITORS

	C	3602,3603,3605,3606	CKSRYB104K16
	C	3607,3619,3620	CCSRCH181J50
	C	3612,3613,3615,3616	CKSRYB104K16
	C	3614,3617	CCSRCH102J50
	C	3621-3624	CEAK101M16

C DAC LOW ASSY

SEMICONDUCTORS

	IC	2001	AK4118AEQ
	IC	2004	TC74LCX08FK
	IC	2010	TC74VHC08FK
	IC	2011	TC74LCX157FK
	IC	2106	TC74VHC126FK
⚠	IC	2181	NJM2855DL1-33
⚠	IC	2183	NJM2845DL1-05
	IC	2201	PCM1691DCA
	IC	2231,2281,2331,2381	NJM4565MD
	IC	2401,2402,2451	NJM4565MD
	IC	2431	PCM1804DB
	IC	2471	AK4388ET
	D	2431,2432	1SS301
	D	2433,2434	DAP202U

Mark	No.	Description	Part No.
MISCELLANEOUS			
	L	2004-2009 CHIP SOLID INDUCTOR	QTL1013
	L	2102,2201 CHIP SOLID INDUCTOR	QTL1013
	L	2202,2431 CHIP SOLID INDUCTOR	QTL1013
	L	2442,2471 CHIP SOLID INDUCTOR	QTL1013
	L	2472,2473 INDUCTOR	CTF1379
	JA	2002-2004 OPT. LINK IN	AKS7001
	JA	2006 OPT. LINK OUT	AKS7002
	JA	2008 PIN JACK(2P)	AKB7173
	KN	2201 SCREW PLATE	VNE1948
	CN	2101,2102 SOCKET(30PL)	BKP1047
	CN	2103 24P SOCKET	AKP7251
	CN	2104 14P SOCKET	AKP7248
RESISTORS			
	R	2007-2009,2012,2016	RS1/16SS101J
	R	2017,2020,2089	RS1/16SS0R0J
	R	2018,2084-2087,2210	RS1/16SS470J
	R	2019,2211,2489	RS1/16SS680J
	R	2021,2023-2025,2027	RS1/16SS101J
	R	2022,2048,2212-2216	RS1/16SS221J
	R	2026	RS1/16SS471J
	R	2028	RS1/16SS1002F
	R	2049,2088,2090-2094	RS1/16SS101J
	R	2115,2119,2168,2263	RS1/16SS101J
	R	2116-2118,2120	RS1/16SS220J
	R	2158,2160,2162,2164	RS1/16SS104J
	R	2165-2167,2169,2170	RS1/16SS0R0J
	R	2171-2174,2177,2178	RS1/16SS104J
	R	2188	RS2LMF120J
	R	2189	RS1/8SQ475J
	R	2191	RS1/8SQ105J
	R	2201,2202	RS1/16SS103J
	R	2217-2220,2487	RS1/16SS470J
	R	2431,2440	RS1/16SS0R0J
	R	2432	RS1/16SS100J
	R	2433,2434,2480,2481	RS1/16SS101J
	R	2469,2471,2472	RS1/16SS221J
	R	2473,2474	RS1/16SS102J
	R	2485	RS1/16SS101J
	R	2490	RS1/16SS820J
	Other Resistors		RS1/10SR###J
CAPACITORS			
	C	2002,2005,2129,2130	CKSRYB103K50
	C	2003,2006,2010-2012	CKSRYB104K16
	C	2014,2122,2214,2215	CKSRYB104K16
	C	2018,2021,2024,2181	CEHAZL101M10
	C	2019,2022,2028,2033	CCSSCH471J50
	C	2020,2023,2029,2032	CKSSYB104K16
	C	2026,2065,2066	CKSRYB474K16
	C	2030	ACH7272
	C	2046,2070,2112,2219	CCSSCH471J50
	C	2047,2069,2106,2194	CKSSYB104K16
	C	2054,2413,2414	CCSRCH101J50
	C	2055	ACH7273
	C	2059	CEHAZL221M10
	C	2174,2175,2182	CCSRCH102J50
	C	2178,2185,2186	CKSRYB104K50
	C	2179,2184,2187,2432	CEHAZL101M25
	C	2183,2482	CKSSYB104K10
	C	2193	CKSQYB225K10
	C	2195,2440	CEHAZL101M10
	C	2201,2202,2211,2477	CKSRYB105K10
	C	2203,2473,2474	CEAK470M25
	C	2204,2212,2216	CEAK101M16
	C	2205,2207	CCSSCH331J50
	C	2206,2208,2220,2422	CKSSYB104K16
	C	2217,2401,2402,2433	CKSRYB104K16
	C	2223,2224,2245,2251	CKSRYB103K50
	C	2231,2232,2281,2282	CEAT1R0M50
	C	2233,2234,2445,2455	CCSRCH471J50
	C	2235,2236,2285,2335	CCSRCH271J50
	C	2237,2238,2283,2333	CCSRCH331J50
	C	2239,2240,2289,2290	CEAK100M50
	C	2252,2273,2274,2286	CKSRYB103K50
	C	2271,2272,2321,2322	CKSRYB472K50
	C	2277	CCSSCH100D50
	C	2284	CKSRYB223K50
	C	2287,2337,2338,2387	CCSRCH391J50
	C	2288	CKSRYB562K50
	C	2295,2323,2324,2345	CKSRYB103K50
	C	2331,2332,2381,2382	CEAT1R0M50
	C	2334,2383,2384	CCSRCH331J50
	C	2336,2385,2386	CCSRCH271J50
	C	2339,2340,2389,2390	CEAK100M50
	C	2371,2372	CKSRYB472K50
	C	2373,2374,2395,2434	CKSRYB103K50
	C	2388,2453,2454	CCSRCH391J50
	C	2403,2404	DCH1201
	C	2405-2408	ACH7196
	C	2411,2412,2415,2416	CKSQYB103K50
	C	2421	CCSSCH471J50
	C	2435,2438,2441-2443	CKSRYB104K16
	C	2436,2437	ACH7211
	C	2439,2464,2478	CKSRYB103K50
	C	2446,2472,2476,2480	CKSRYB104K16
	C	2451,2452	CEAK220M50
	C	2456,2475,2489	CCSRCH471J50
	C	2457,2458	CKSRYB104K25
	C	2459,2460	CEAK100M50
	C	2481,2483,2484	CCSSCH471J16

D COMPONENT ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC	8301	NJW1327FU1
	IC	8401	NJM2505AF
	IC	8501	PDC162A
	IC	8601	HIN202EIBNZ
	Q	8301,8604	LSA1576UB
	Q	8302,8501,8603	LSC4081UB
	Q	8303,8605	RT1N141M-11
⚠	Q	8401	2SD1664
⚠	Q	8402	2SB1132
	D	8301,8302,8601,8605	1SS352
	D	8401	DAN217U
	D	8404,8408	UDZS3R9(B)

Mark	No.	Description	Part No.
MISCELLANEOUS			
	L 8501	CHIP COIL	LCYA330J2520
	JA 8301	6P PIN JACK NI	AKB7224
	JA 8304	3P PIN JACK NI	AKB7227
	JA 8601	9P D-SUB SOCKET	AKP7256
	X 8501	CRYSTAL RESONATOR (14.31818 MHz)	ASS7080
	CN 8301-8303	20P PLUG	AKM7171
	CN 8404	L-PLUG(3P)	KM200NA3L
	JP 8403	CONNECTOR ASSY	PF06PG0S50
RESISTORS			
	R 8301-8306		RS1/10SR75R0F
	R 8310,8312,8314		RS1/10SR68R0D
	Other Resistors		RS1/10SR###J
CAPACITORS			
	C 8301,8302,8383,8417		CEAT101M10
	C 8303,8319,8320,8333		CCSRCH102J50
	C 8304,8306,8308,8314		CKSRYB104K16
	C 8305,8307,8310,8313		CKSQYB106K6R3
	C 8309,8317,8322,8340		CKSQYB105K16
	C 8311,8312,8330,8331		CKSRYB103K50
	C 8315,8318,8321,8324		CKSQYB106K6R3
	C 8316,8323,8325,8327		CKSRYB104K16
	C 8326,8341-8343,8345		CKSQYB106K6R3
	C 8328,8336,8337,8344		CKSRYB104K16
	C 8334,8389,8403,8408		CCSRCH102J50
	C 8338,8339,8360,8402		CKSRYB103K50
	C 8346,8348,8404,8405		CKSQYB106K6R3
	C 8347,8349,8395,8401		CKSRYB104K16
	C 8354,8355,8381,8382		CKSRYB105K10
	C 8358,8359		CCSRCH470J50
	C 8376,8377,8379,8611		CCSRCH100D50
	C 8384,8385,8388		CKSRYB473K50
	C 8386		CKSRYB562K50
	C 8387,8390		CKSRYB105K10
	C 8406,8407,8503,8509		CCSRCH101J50
	C 8409,8414		CKSQYB106K6R3
	C 8410,8413,8415,8421		CCSRCH102J50
	C 8418,8520,8521,8613		CEAT101M10
	C 8419,8420		CEAT221M10
	C 8422,8501,8513		CCSRCH102J50
	C 8504,8505		CCSRCH5R0C50
	C 8506,8508		CCSRCH240J50
	C 8507,8510		CKSRYB122K50
	C 8511,8512		CCSRCH101J50
	C 8515,8601,8607		CKSRYB103K50
	C 8522,8523,8602		CKSRYB104K16
	C 8604-8606		CKSRYB104K16
	C 8608		CCSRCH471J50
	C 8610		CCSRCH331J50
	C 8612		CCSRCH100D50

Mark	No.	Description	Part No.
E		**DIGITAL MAIN ASSY**	
SEMICONDUCTORS			
	IC 101		UPD61283F1-407LU2A
	IC 102,1601,9012,9019		TC7SH08FUS1
	IC 103,104		NJM12904V
	IC 105,601,1501,1804		TC7WHU04FU
NSP	IC 402		AYW7343
	IC 403,404		K4H561638J-LCB3
	IC 602		341S2164
	IC 604		PE7008A
	IC 609		TC74VHCT541AFK
	IC 611,9014,9306		TC74VHC126FK
	IC 612,1805		TC74VHCT125AFK
	IC 613,9307		TC74VHCT08AFKS1
	IC 614,9011		TC74VHC08FK
	IC 901		TC74VHC153FK
	IC 903,907		S-24CS02AFT
	IC 904		SII9233ACTU
	IC 905,909		TC7MB3257FK
	IC 906		CXB1444R
	IC 908		TC74VHC541FK
	IC 1102		ADV7181CBSTZ
	IC 1202		TC74LCX541FK
	IC 1203,1217,1218		TC7SZ125FU
	IC 1204		88DE2750
	IC 1205-1211,1215		TC74VCX541FK
	IC 1212		EDE5116AJBG-8E-E
⚠	IC 1216		LP2996M
⚠	IC 1502,1605,1606,9308		AAT4614AIGU-2
	IC 1602,1603		SII9134CTU
	IC 1604,1810,1811		TC74VHC157FK
	IC 1607,9002		TC7SH32FUS1
⚠	IC 1802,9812		R1172H501D
	IC 1814,9015		TC74LCX157FK
	IC 1815		TC74VHC125FK
	IC 9001		AYW7334
	IC 9003		DSPA56720AG
	IC 9004		IS42S16400F-6TL
	IC 9005,9006		TC74LCX573FK
⚠	IC 9008		NJM2872BF33
	IC 9009		ICS87002BM-05
	IC 9010		TC7WH157FU
	IC 9013,9016		TC74LCX08FK
	IC 9018		TC7WH126FU
	IC 9301		TC7SH08FUS1
	IC 9302,9304		BU4094BCFV
	IC 9305		TC74VHC04FK
	IC 9506		LAN9211-ABZJ
⚠	IC 9801		MB39C011A
⚠	IC 9804		NJM2846DL3-18
⚠	IC 9806,9815		S-1172B10-U5
⚠	IC 9809		S-1170B25UC-OTK
⚠	IC 9810		MM1701WH
⚠	IC 9811		NJM2846DL3-33
⚠	IC 9813		S-1172B12-U5
	Q 101,102,607		LSA1576UB
	Q 601,603,9302-9305		LTA124EUB

Mark	No.	Description	Part No.
	Q	602	LTC124EUB
	Q	604-606,9307	RN4903
	Q	608,1509-1511	LSC4081UB
	Q	901,903,904,1601	LTC114YUB
	Q	902	HN1K02FU
	Q	1501-1504,1506-1508	LSA1576UB
	Q	1602	LTC114YUB
	Q	1603,1604	UMB1N
	Q	9301	LTC114EUB
	Q	9306	LSA1576UB
⚠	Q	9801,9802	SP8M2
	D	601	RB501V-40
	D	603,605,606,9806	1SS352
	D	607	HZU5R6(B2)
	D	901,905,906	1SS301
	D	1601,1602	UDZS5R1(B)
	D	9814	1SR154-400

MISCELLANEOUS

	L	102 INDUCTOR	ATL7049
	L	103 INDUCTOR	LCTC150K2125
	L	104 INDUCTOR	ATL7045
	L	105,106 CHIP SOLID INDUCTOR	QTL1013
	L	601,602 CHIP SOLID INDUCTOR	QTL1013
	L	603,606,905,906 CHIP BEADS	ATL7010
	L	907,908 CHIP SOLID INDUCTOR	QTL1013
	L	909-911,1101,1102 CHIP BEADS	ATL7010
	L	916,1104 CHIP SOLID INDUCTOR	QTL1013
	L	1106 INDUCTOR	CTF1295
	L	1202,1208-1210,1601 CHIP BEADS	ATL7010
	L	1204-1207,1211-1216 INDUCTOR	CTF1473
	L	1219,1220,1620,1621 INDUCTOR	CTF1473
	L	1501 FILTER	CTF1703
	L	1502-1504 INDUCTOR	ATL7033
	L	1505-1507 INDUCTOR	ATL7035
	L	1508,1603 CHIP SOLID INDUCTOR	QTL1013
	L	1509 INDUCTOR	LCTC100K2125
	L	1511-1513 INDUCTOR	LCTC4R7K2125
	L	1602,1605-1608 CHIP BEADS	ATL7010
	L	1604 CHIP SOLID INDUCTOR	QTL1013
	L	1609-1616 COIL	ATH7064
	L	1619 INDUCTOR	CTF1386
	L	1624-1626,1629,9511 CHIP BEADS	ATL7010
	L	1803-1805 CHIP SOLID INDUCTOR	QTL1013
	L	1812-1815 CHIP SOLID INDUCTOR	QTL1013
	L	9001,9002 CHIP SOLID INDUCTOR	QTL1013
	L	9003,9303 INDUCTOR	CTF1473
	L	9004 CHIP SOLID INDUCTOR	QTL1013
	L	9006-9009 CHIP SOLID INDUCTOR	QTL1013
	L	9011-9013 CHIP SOLID INDUCTOR	QTL1013
	L	9014 INDUCTOR	CTF1379
	L	9015-9020 CHIP SOLID INDUCTOR	QTL1013
	L	9022-9024 CHIP SOLID INDUCTOR	QTL1013
	L	9301,9302 CHIP SOLID INDUCTOR	QTL1013
	L	9512,9808 CHIP SOLID INDUCTOR	QTL1013
	L	9513,9514 COIL	ATH7082
	L	9803 INDUCTOR	ATH7087
	L	9804,9809,9810 CHIP BEADS	ATL7010
	L	9806 INDUCTOR	ATH7086

Mark	No.	Description	Part No.
	F	101-111 EMI FILTER	DTL1106
	JA	901-906,1601 HDMI CONNECTOR	AKP7254
	JA	1602 HDMI CONNECTOR	AKP7254
	JA	9301 CONNECTOR	CKS5712
	JA	9501 RJ45 CONNECTOR	VKN2086
	KN	606,607 SCREW PLATE	VNE1948
	X	102,901 CRYSTAL (27.000 MHz)	ASS7092
	X	601 CRYSTAL (26.864 MHz)	ASS7094
	X	1101 CRYSTAL (28.63636 MHz)	ASS7111
	X	1201 RESONATOR	CSS1795
	X	1501 CRYSTAL (48 MHz)	ASS7099
	X	9001 CRYSTAL OSCILLATOR	ASS7102
	X	9002 CRYSTAL OSCILLATOR	ASS7101
	X	9502 CRYSTAL (25 MHz)	ASS7098
	CN	601 39P CONNECTOR	VKN2098
	CN	602,603,1501,1502 20P SOCKET	AKP7249
	CN	604 L-PLUG(3P)	KM200NA3L
	CN	605,606 PLUG(2P)	KM200NA2L
	CN	1503 CONNECTOR	AKM1276
	CN	9301,9302 SOCKET(30PL)	BKP1047
	CN	9303 15P SOCKET	XKP3078
	CN	9304 11P SOCKET	XKP3076
	CN	9801 CONNECTOR	B7B-EH
	JH	9803 PCB BINDER	VEF1040

RESISTORS

	R	113,9061-9064	RAB4CQ221J
	R	114,141	RS1/10SR43R0D
	R	126	RS1/16SS4700D
	R	128	RS1/16SS6800D
	R	145,146	RS1/10SR1000D
	R	150,165,415-422	RAB4CQ103J
	R	229,238,261,269	RAB4CQ473J
	R	245,303,1121,1122	RS1/10SR0R0J
	R	263,1564	RS1/16SS4700F
	R	264,265,293,294	RS1/16SS1001F
	R	288,686,947,950	RAB4CQ473J
	R	409,424-426	RAB4CQ560J
	R	431-434,1216,1217	RAB4CQ103J
	R	435,436,441,442	RAB4CQ330J
	R	448-450,455	RAB4CQ330J
	R	460-462,467-470	RAB4CQ330J
	R	487,1228,1234,1240	RAB4CQ330J
	R	608,609,630	RAB4CQ0R0J
	R	615-618,638,646	RAB4CQ101J
	R	932	RS1/8SQ105J
	R	948,1101,1102	RAB4CQ470J
	R	957,961,970,1008	RAB4CQ680J
	R	967	RS1/16SS4701F
	R	973,977,9643,9651	RAB4CQ100J
	R	985-988,9022,9029	RAB4CQ220J
	R	1107-1109,1112,1202	RAB4CQ470J
	R	1204-1208,1214,1215	RAB4CQ470J
	R	1221,1222,1251-1256	RAB4CQ473J
	R	1227,1229,9054,9055	RS1/10SR101J
	R	1235	RAB4CQ472J

Mark	No.	Description	Part No.
	R	1236,1250,1275	RAB4CQ680J
	R	1238,1242-1245,1248	RAB4CQ470J
	R	1249,1261,1263-1269	RAB4CQ470J
	R	1258-1260,1262,1270	RAB4CQ473J
	R	1271,1274,1278,1283	RAB4CQ473J
	R	1277,1284,1288,1289	RAB4CQ151J
	R	1279,9003,9034	RAB4CQ470J
	R	1287,1614-1617,1622	RAB4CQ473J
	R	1291	RAB4CQ151J
	R	1528-1530,1541,1545	RS1/16SS2200F
	R	1546,1548,1550	RS1/16SS56R0F
	R	1547,1549	RS1/16SS2200F
	R	1554,1574,1575,1805	RS1/10SR0R0J
	R	1555-1557	RS1/16SS5601F
	R	1568,1570,1572	RS1/16SS3300F
	R	1625,1633,1642,1645	RAB4CQ473J
	R	1650,1651	RS1/16SS6800F
	R	9016	RS1/10SR103J
	R	9032,9038,9043	RAB4CQ220J
	R	9035	RAB4CQ103J
	R	9065	RAB4CQ101J
	R	9068-9071,9620,9621	RAB4CQ220J
	R	9310,9314,9801,9807	RS1/10SR0R0J
	R	9640,9646	RAB4CQ220J
	R	9662	RS1/16SS1202F
	R	9665	RAB4CQ473J
	R	9678-9681	RS1/16SS49R9F
	R	9686	RS1/16SS10R0D
	R	9802	RS1/16SS1501D
	R	9804	RS1/16SS3302D
	R	9806	RS1/16SS1502D
	R	9808,9810,9811,9819	RS1/10SR0R0J
	R	9812	RS1/16SS1003D
	R	9814	RS1/16SS7502D
	R	9817	RS1/16SS5101D
	R	9820,9822,9860,9863	RS1/10SR0R0J
	R	9828,9829,9832,9833	RS1/8SQ0R0J
	R	9836,9837	RS1/8SQ0R0J
	R	9871	RS1/10SR0R0J
	Other Resistors		RS1/16SS###J

CAPACITORS

	C	104,123,124,156	CEVW101M4
	C	105,109,111,113	CKSSYB105K6R3
	C	106,110,117,131	CCSSCH102J50
	C	107,108,115,116	CKSSYB104K10
	C	112,126,154,199	CKSQYB106K6R3
	C	114,118,168,411	CKSSYB103K16
	C	119,120,122,125	CKSSYB104K10
	C	121,127,128,130	CKSSYB105K6R3
	C	129,133,135-138	CKSSYB104K10
	C	132,141,149,151	CCSSCH102J50
	C	134,139,143,144	CKSSYB105K6R3
	C	140,985,1208,1355	CEVW221M4
	C	142,147,160,175	CCSSCH331J50
	C	145,159,172,188	CKSSYB104K16
	C	146,152,153,184	CKSSYB104K10
	C	148,179,9816,9821	CKSSYB473K10
	C	150,182,636,658	CCSSCH101J50
	C	155,157,158,164	CKSSYB105K6R3
	C	161,181,189,198	CKSQYB225K10
	C	162,9070	VCH1234
	C	163,9339,9340	CCSSCH221J50
	C	166,430,436	CEVLW101M4
	C	167,169,170,177	CKSSYB105K6R3
	C	171,173,174,176	CCSSCH102J50
	C	178,194,9610	CEVW101M4
	C	180	CCSSCH151J50
	C	183,187,408,410	CKSSYB105K6R3
	C	185,604,910,914	CCSSCH471J50
	C	186,9337,9338	CEVW100M16
	C	190,203,412,415	CCSSCH102J50
	C	191,193,195,196	CKSSYB104K16
	C	200,9614,9615	CCSSCH120J50
	C	201,601,602,1313	CCSSCH100D50
	C	202,603,607,610	CKSSYB104K10
	C	407,409,417,428	CKSSYB104K16
	C	413,414,416,418	CKSSYB105K6R3
	C	419,432,438,606	CKSSYB103K16
	C	420,427,433,439	CCSSCH102J50
	C	421,422,426,429	CKSSYB105K6R3
	C	423,631,647,1561	CCSSCH331J50
	C	424,425,912,923	CKSQYB106K6R3
	C	431,434,437,913	CKSSYB105K6R3
	C	435,440,1206,1213	CKSSYB104K16
	C	441,442,618-621	CCSSCH102J50
	C	608,982,1102,1108	CEVW101M16
	C	613,615-617,622	CKSSYB104K10
	C	614,653,684,948	CKSSYB103K16
	C	623,624,633,635	CCSSCH102J50
	C	626,628,632,637	CKSSYB104K10
	C	638,640,642-645	CKSSYB104K10
	C	639,641,648-650	CCSSCH102J50
	C	654,661,663,671	CKSSYB104K10
	C	655,994,1558,1664	CEVLW101M10
	C	659,681,688,697	CCSSCH101J50
	C	672,673,692-696	CCSSCH102J50
	C	674,679,680	CKSSYB104K10
	C	685-687,905,915	CKSSYB104K10
	C	698-701,704,713	CCSSCH102J50
	C	705-708,717,718	CCSSCH101J50
	C	714,726-731,739	CCSSCH102J50
	C	720,721,756,757	CCSSCH101J50
	C	749-751,758	CCSSCH102J50
	C	901-904,906,916	CCSSCH102J50
	C	911	CEVW470M4
	C	917,918,921,924	CKSSYB104K10
	C	919,930,934,945	CCSSCH102J50
	C	920,965,970,1000	CCSSCH101J50
	C	922	CEVLW470M6R3
	C	925,1214,1349-1351	CKSSYB105K6R3
	C	928,929,933,937	CKSSYB104K10
	C	931,938,939,944	CCSSCH471J50
	C	936,942,1518,1526	CCSSCH8R0D50
	C	940,941,943,946	CKSSYB104K10
	C	947,951,953	CKSSYB104K10
	C	949,968,978,988	CCSSCH102J50

Mark	No.	Description	Part No.
	C	950,952,954,955	CCSSCH471J50
	C	956-958,960,961	CKSSYB104K10
	C	959,962,963,967	CCSSCH471J50
A	C	964,966,969,973	CKSSYB104K10
	C	971,974,975,983	CCSSCH471J50
	C	972,1123,1126,1136	CKSSYB103K16
	C	976,980,984,987	CKSSYB104K10
	C	979,981,1543-1545	CCSSCH470J50
	C	989,1687,1689,1694	CKSRYB105K10
	C	990,992,997,998	CKSSYB104K10
	C	991,993,999,1150	CCSSCH471J50
	C	995,1004,1009,1011	CCSSCH102J50
	C	1001,1010,1012,1014	CCSSCH101J50
	C	1003,1103,1109,1111	CKSSYB104K10
B	C	1101,1106,1107,1112	CCSSCH102J50
	C	1104,1110,1121,1231	CCSSCH101J50
	C	1105,1113	CCSSCH270J50
	C	1117,1120,1127,1131	CCSSCH102J50
	C	1118,1119,1128	CKSSYB104K10
	C	1125	CKSSYB823K10
	C	1130,1142,1145,1147	CKSQYB106K6R3
	C	1132-1134,1137,1139	CKSSYB104K10
	C	1138,1270,1646,1647	CKSSYB103K16
	C	1141,1143,1148,1149	CKSSYB104K10
C	C	1146,1156,1357,1536	CEVW101M16
	C	1151,1215,1225-1227	CCSSCH102J50
	C	1152,1153,1210,1218	CKSSYB104K10
	C	1155,1205,1211,1228	CKSQYB106K6R3
	C	1203,1207,1427	CEVLW221M4
	C	1212,1221,1298,1345	CCSSCH471J50
	C	1222	CKSRYB105K16
	C	1223,1224,1229,1236	CKSSYB104K16
	C	1230,1352-1354,1428	CKSQYB106K6R3
	C	1238,1240,1243,1254	CKSSYB104K16
	C	1244,1248,1251,1252	CCSSCH102J50
D	C	1246,1256,1268,1278	CCSSCH101J50
	C	1253,1282,1296,1301	CKSSYB104K10
	C	1267,1272,1276,1285	CKSSYB104K16
	C	1274,1294,1299,1311	CCSSCH102J50
	C	1286,1322,1339,1392	CCSSCH101J50
	C	1289,1297,1305,1318	CKSSYB104K16
	C	1319,1324,1328,1334	CKSSYB104K16
	C	1323,1325,1333,1346	CCSSCH102J50
	C	1326	CCSSCH7R0C50
	C	1341,1362,1367-1370	CKSSYB104K10
	C	1342,1343,1380,1384	CKSSYB104K16
E	C	1347,1381,1388,1395	CCSSCH102J50
	C	1358,9044,9076,9093	CEVW221M4
	C	1363-1366,1371,1389	CCSSCH471J50
	C	1385,1429,1431,1509	CKSSYB104K10
	C	1390,1391,1394,1398	CKSSYB104K16
	C	1393,1410,1426,1541	CCSSCH101J50
	C	1401,1411,1424,1501	CCSSCH102J50
	C	1408,1409,1425,1559	CKSSYB104K16
	C	1430,1432,1611,1613	CCSSCH471J50
	C	1502,1534,1537,1569	CCSSCH102J50
F	C	1505-1508,1605,1606	CKSQYB106K6R3
	C	1511-1516,1535	CKSSYB104K10
	C	1520-1522	CCSSCH7R0D50
	C	1523-1525	CCSSCH5R0C50

Mark	No.	Description	Part No.
	C	1527-1529,1538-1540	CCSSCH180J50
	C	1530-1532	CCSSCH4R0C50
	C	1533,9056,9090	CKSQYB225K10
	C	1550	CCSSCH560J50
	C	1552-1554	CCSSCH390J50
	C	1555-1557,1607	CKSSYB104K10
	C	1564,1609,1615,1619	CCSSCH101J50
	C	1565,9078,9094	CEVW101M16
	C	1566,1608,1610,1612	CKSSYB105K6R3
	C	1571,1572,1601,1602	CCSSCH102J50
	C	1614,1616,1618,1620	CKSSYB105K6R3
	C	1617,1621,1623,1627	CCSSCH471J50
	C	1622,1624,1626,1641	CKSSYB105K6R3
	C	1625,1628,1629,1636	CCSSCH101J50
	C	1630-1632,1634,1635	CKSSYB104K10
	C	1633,1662,1663,1670	CCSSCH102J50
	C	1637,1639,1644,1645	CCSSCH471J50
	C	1638,1648,1649,1714	CCSSCH101J50
	C	1640,1642,1653,1655	CKSSYB104K10
	C	1643,1651,1657,1696	CKSSYB105K6R3
	C	1650,1656,1701,1702	CKSQYB106K6R3
	C	1652,1654,1658,1660	CCSSCH471J50
	C	1659,1661,1705,1716	CKSSYB104K10
	C	1665	CEVLW101M10
	C	1666,1707,9334	CKSSYB104K16
	C	1667,1703,1708,1713	CCSSCH471J50
	C	1671,1698-1700,1704	CCSSCH102J50
	C	1674-1681,1684-1686	VCG1066
	C	1688,1690-1693	VCG1066
	C	1695,1821	CKSRYB105K10
	C	1697,1712,1718,9024	CKSSYB105K6R3
	C	1706,1717	CCSSCH331J50
	C	1709,1715,1720,9025	CCSSCH102J50
	C	1710,1711,1816,1818	CKSQYB106K6R3
	C	1719,9014,9017,9023	CCSSCH101J50
	C	1721,1822,1828,1836	CKSSYB104K10
	C	1823,1827,1837,1839	CCSSCH471J50
	C	1824	CCSSCH470J50
	C	1838,1846,1848,9001	CKSSYB104K10
	C	1847,1849,9002,9005	CCSSCH471J50
	C	9003,9004,9007,9009	CKSSYB104K10
	C	9006,9008,9010,9012	CCSSCH471J50
	C	9011,9013,9015,9016	CKSSYB104K10
	C	9018,9021,9030,9033	CCSSCH471J50
	C	9019,9020,9022,9031	CKSSYB104K10
	C	9026,9029,9035,9039	CKSSYB105K6R3
	C	9027,9028,9034,9040	CCSSCH102J50
	C	9032,9036,9043,9049	CKSSYB104K10
	C	9037,9038,9051,9053	CCSSCH471J50
	C	9041,9121,9351-9356	CCSSCH102J50
	C	9042,9578,9582,9599	CKSSYB105K6R3
	C	9050,9875	CKSSYB103K16
	C	9052,9059,9060,9062	CKSSYB104K10
	C	9054,9082,9085,9803	CKSQYB475K10
	C	9055,9057	CKSRYB474K10
	C	9058,9061,9063,9065	CCSSCH471J50
	C	9064,9066,9069,9072	CKSSYB104K10
	C	9067,9068,9084,9087	CCSSCH471J50
	C	9073,9075,9357-9359	CCSSCH101J50
	C	9074,9080,9083,9086	CKSSYB104K10

Mark	No.	Description	Part No.
	C	9079,9091,9817,9823	CKSRYB104K16
	C	9081	CCSRCH101J50
	C	9088,9095,9097,9099	CKSSYB104K10
	C	9089,9805,9815,9824	CCSRCH102J50
	C	9096,9098,9100,9103	CCSSCH471J50
	C	9104,9106,9108,9112	CKSSYB104K10
	C	9105,9109,9113,9115	CCSSCH471J50
	C	9114,9116,9306,9308	CKSSYB104K10
	C	9117,9318,9827	CCSSCH471J50
	C	9317,9319,9329,9330	CKSSYB104K10
	C	9331,9809,9810	CEAT102M10-P35
	C	9333	CEVW470M6R3
	C	9342,9855,9857,9858	CKSQYB475K6R3
	C	9346,9576,9588,9594	CKSSYB104K10
	C	9360,9838,9842,9913	CCSSCH100D50
	C	9577,9579,9583,9585	CCSSCH102J50
	C	9591,9593,9598,9603	CCSSCH102J50
	C	9592	CKSQYB106K6R3
	C	9597	VCH1268
	C	9602,9606,9608,9611	CKSSYB105K6R3
	C	9604,9612,9851,9872	CKSSYB104K10
	C	9605,9607,9609,9613	CCSSCH102J50
	C	9616	CKSSYB223K16
	C	9618,9804,9806,9811	CCSSCH102J50
	C	9802,9831	CCG1233
	C	9807,9808	CKSQYB104K25
	C	9813,9825,9865	CCSSCH102J50
	C	9818,9820	BCG1059
	C	9828	CCSRCH102J50
	C	9829	CKSQYB475K10
	C	9835	CEVW221M4
	C	9852,9862,9873,9876	CCSSCH101J50
	C	9856	CFHXSQ103J16
	C	9859,9870,9898	CKSSYB105K6R3
	C	9871,9881,9882	CKSQYB475K6R3
	C	9878	CEVW331M6R3
	C	9884-9886,9888,9895	CKSQYB475K6R3
	C	9891-9893,9897	CCSSCH102J50
	C	9894,9896	CKSSYB104K10
	C	9899	CKSQYB475K6R3
	C	9901-9910	CCSSCH102J50

F FRONT MIC & VIDEO ASSY

SEMICONDUCTORS

	IC	3471	NJM4565MD
	D	3473-3475	UDZS5R1(B)

MISCELLANEOUS

	JA	3471 JACK	VKB1243
	JA	3472 JACK	AKB7219
	KN	3471 WRAPPING TERMINAL	VNF1084
	CN	3471 CONNECTOR	CKS3372
	CN	3472 PLUG(3P)	KM200NA3
	JH	3001 PCB BINDER	VEF1040

Mark	No.	Description	Part No.

RESISTORS

	R	3495	RS1/10SR75R0F
		Other Resistors	RS1/10SR###J

CAPACITORS

	C	3473	CKSRYB471K50
	C	3474,3483,3484	CEAT100M50
	C	3475	CCSRCH101J50
	C	3476,3477	CCSRCH330J50
	C	3478	CEJQ100M50
	C	3480	CEJQ100M16
	C	3481,3482,3486	CKSRYB103K50
	C	3488	CKSRYB223K50
	C	3490	CKSRYB102K50

G FRONT HDMI USB ASSY

SEMICONDUCTORS

	IC	7501	S-24CS02AFT
	IC	7502	TC7MB3257FK
	IC	7503	CXB1443R
⚠	IC	7504	S-1132B33-U5
	Q	7501-7503	LTC114YUB
	D	7504	1SS301

MISCELLANEOUS

	L	7501,7502,7518 INDUCTOR	CTF1473
	L	7510 CHIP BEADS	ATL7010
	L	7512-7517,7519 FERRITE BEAD	CTF1528
	L	7520 FERRITE BEAD	CTF1528
	JA	7501 HDMI CONNECTOR	AKP7254
	JA	7502 USB CONNECTOR	XKP3086
	JA	7503 HDMI CONNECTOR	AKP7253
	KN	7501 WRAPPING TERMINAL	VNF1084
	CN	7501 PLUG(5P)	KM200NA5
	CN	7504 4P CONNECTOR	VKN1409
	JH	7502 PCB BINDER	VEF1040

RESISTORS

	R	7517,7518	RS1/10SR0R0J
	R	7528	RS1/16SS4701F
		Other Resistors	RS1/16SS###J

CAPACITORS

	C	7508,7509	CCSRCH101J50
	C	7510,7522,7535,7537	CCSSCH102J50
	C	7511,7516,7519,7521	CKSSYB104K10
	C	7512	CCSRCH102J50
	C	7513,7524	CCSSCH101J50
	C	7517	CKSRYB104K25
	C	7518	CEAT221M16
	C	7520,7527,7528	CCSSCH471J16
	C	7523,7525,7526,7531	CKSSYB104K10
	C	7533,7538,7542,7544	CKSSYB104K10
	C	7541	CEVW101M16
	C	7543	CKSSYB102K50
	C	7545,7546	CKSRYB104K50
	C	7564	CKSSYB104K10
	C	7565,7566,7571	CCSSCH102J50
	C	7576	CEAT101M16

H POWER AMP ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC	5771	NJM4565MD
⚠	Q	5001,5101,5201,5301	STD03N
⚠	Q	5002,5102,5202,5302	STD03P
	Q	5041,5141,5241,5341	2SA1255
⚠	Q	5401,5501,5601	STD03N
⚠	Q	5402,5502,5602	STD03P
	Q	5441,5541,5641	2SA1255
	Q	5700,5811,5821,5831	RT1N140M
	Q	5701	RN1901
	Q	5702,5703	UMD22N
⚠	Q	5705	2SD1763A
⚠	Q	5706	2SC3906K
⚠	Q	5707	2SB1186A
⚠	Q	5708	2SA1514K
	Q	5709,5783,5784,5822	LTA124EUB
	Q	5731,5741-5744,5972	LSC4081UB
	Q	5781,5782,5785,5921	LTC124EUB
	Q	5832,5852,5991	LTA124EUB
	Q	5841,5851	RT1N140M
	Q	5864,5865	RT3T22M
	Q	5922,5952,5954,5956	LSA1576UB
	Q	5951,5953,5955	LTC124EUB
	Q	5971	RSR015P03
	Q	5973	LSA1576UB
	Q	5974	LSC4081UB
⚠	D	5003,5004,5103,5104	1SS352
⚠	D	5005,5006,5105,5106	UDZS4R7(B)
	D	5041-5044,5141-5144	1SS352
⚠	D	5203,5204,5303,5304	1SS352
⚠	D	5205,5206,5305,5306	UDZS4R7(B)
	D	5241-5244,5341-5344	1SS352
⚠	D	5403,5404,5503,5504	1SS352
⚠	D	5405,5406,5505,5506	UDZS4R7(B)
	D	5441-5444,5541-5544	1SS352
⚠	D	5603,5604	1SS352
⚠	D	5605,5606	UDZS4R7(B)
	D	5641-5644,5701,5702	1SS352
⚠	D	5703	S1WB(A)60SD
	D	5705,5708,5710	UDZS8R2(B)
	D	5706,5782	UDZS7R5(B)
	D	5707,5709	UDZS9R1(B)
	D	5711,5712	UDZS6R8(B)
	D	5713,5714	UDZS12(B)
	D	5715,5719,5720	UDZS13(B)
	D	5716	UDZS15(B)
⚠	D	5717,5718	1SR154-400
	D	5721,5722,5783,5784	1SS352
	D	5773,5781	UDZS5R1(B)
⚠	D	5790,5791	D5SBA20(B)
	D	5811,5812,5821,5822	1SS352
	D	5831,5832,5841,5842	1SS352
	D	5851,5852,5865,5921	1SS352
	D	5922	1SS352
	D	5923,5931	MC2848-11
	D	5934,5935	1SS357
	D	5971	RB411D

MISCELLANEOUS

Mark	No.	Description	Part No.
NSP	L	5081,5181,5281 COIL(IN HOUSE)	AWX9630
NSP	L	5381,5481,5581 COIL(IN HOUSE)	AWX9630
NSP	L	5681 COIL(IN HOUSE)	AWX9630
	L	5921-5923 CHIP SOLID INDUCTOR	QTL1013
	L	5931 INDUCTOR	CTF1385
	L	5932-5934 CHIP SOLID INDUCTOR	QTL1013
	L	5951 CHIP SOLID INDUCTOR	ATL7002
	JA	5800-5802 SPEAKER TERMINAL 6-P	AKE7108
	JA	5804,5807 JACK	AKN-209
	JA	5810-5812 JACK	VKB1243
	JA	5815 MINI JACK	QKN1013
	KN	5800,5901 SCREW PLATE	VNE1948
	RY	5701 RELAY	ASR7032
	RY	5811,5821,5831,5841 RELAY	ASR7001
	RY	5851 RELAY	ASR7001
	CN	5010,5110,5210 CONNECTOR(05P)	TUC-P05P-B1
	CN	5310,5410,5510 CONNECTOR(05P)	TUC-P05P-B1
	CN	5610 CONNECTOR(07P)	TUC-P07P-B1
	CN	5701 CONNECTOR	B7P-VH
	CN	5804 7P PLUG	XKP3063
	CN	5805 23P PLUG	XKP3071
		5000 SMALL HEATSINK V5S(M	ANH7200
		5001,5002 SCREW	BBZ30P080FCC
		5010,5012 HEAT SINK B	ANH1021
		5011,5013 SCREW	IBZ30P080FCC
	JH	5951,5953,5954 PCB BINDER	VEF1040
	JP	5722,5723 AWG14 BOARD IN	ADX7461
⚠	P	5001,5002 PROTECTOR(7A)	AEK7047
⚠	P	5003 PROTECTOR(1A)	AEK7009
⚠	P	5004 PROTECTOR(1A)	AEK7064

RESISTORS

Mark	No.	Description	Part No.
⚠	R	5025,5026,5125,5126	ACN7132
⚠	R	5027,5127,5227,5327	ACN7163
⚠	R	5081,5181,5281,5381	RS1/2LMF4R7J
⚠	R	5082,5182,5282,5382	RS1LMF100J
⚠	R	5225,5226,5325,5326	ACN7132
⚠	R	5425,5426,5525,5526	ACN7132
⚠	R	5427,5527,5627	ACN7163
⚠	R	5481,5581,5681	RS1/2LMF4R7J
⚠	R	5482,5582,5682	RS1LMF100J
⚠	R	5625,5626	ACN7132
⚠	R	5701,5702	RS1LMF472J
⚠	R	5703,5704	RS1/2LMF332J
	R	5721,5722	RD1/4MUF473J
⚠	R	5790	RD1/4MUF100J
		Other Resistors	RS1/10SR###J

CAPACITORS

Mark	No.	Description	Part No.
	C	5011,5012,5111,5112	ACG7056
	C	5041,5141,5241,5341	CEHANP2R2M50
	C	5081,5082,5181,5182	CFTLA104J50
	C	5083,5183,5283,5383	CFTLA103J2A
	C	5084,5085,5089-5091	CKSRYB272K50
	C	5211,5212,5311,5312	ACG7056
	C	5281,5282,5381,5382	CFTLA104J50
	C	5411,5412,5511,5512	ACG7056
	C	5441,5541,5641	CEHANP2R2M50
	C	5481,5482,5581,5582	CFTLA104J50

Mark	No.	Description	Part No.
	C	5483,5583,5683,5811	CFTLA103J2A
	C	5611,5612	ACG7056
	C	5681,5682	CFTLA104J50
	C	5703,5704	CEAT471M2A
	C	5705,5706	CEAT101M63
	C	5707,5708	CEAT221M2A
	C	5721,5722	ACH7258
	C	5723	CEAT100M63
	C	5725,5726,5729,5730	CEATR47M2A
	C	5731	CKSRYB223K50
	C	5741,5743	CEAT331M10
	C	5771,5772,5774,5781	CKSRYB103K50
	C	5773,5972	CEAT100M50
	C	5782	CKSRYB105K10
	C	5790,5791	CFTLA104J2A
	C	5812	CFTLA103J2A
	C	5891	CEAT101M50
	C	5922,5931,5932,5935	CKSRYB103K50
	C	5923,5937,5951	CKSRYB104K16
	C	5924,5936	CCSRCH471J50
	C	5933,5934	CKSRYB153K50
	C	5953,5954	CKSRYB103K50
	C	5955	CKSRYB102K50
	C	5957	CKSRYB472K50
	C	5973	CEAT470M25
	C	5977,5978	CKSQYB105K16

I PRESTAGE ASSY

SEMICONDUCTORS

	Q	6001,6101,6201,6301	2SD2704K
	Q	6002,6102,6202,6302	IMT4
	Q	6003,6103,6203,6303	2SA1514K
⚠	Q	6004,6104,6204,6304	2SA1145
	Q	6005,6105,6205,6305	2SC2705
	Q	6401,6501,6601	2SD2704K
	Q	6402,6502,6602	IMT4
	Q	6403,6503,6603	2SA1514K
⚠	Q	6404,6504,6604	2SA1145
	Q	6405,6505,6605	2SC2705
⚠	D	6001,6101,6201,6301	UDZS3R6(B)
⚠	D	6002,6102,6202,6302	1SS352
⚠	D	6401,6501,6601	UDZS3R6(B)
⚠	D	6402,6502,6602	1SS352

MISCELLANEOUS

CN 6010,6110,6210	CONNECTOR(05P)	TUC-P05X-B1
CN 6310,6410,6510	CONNECTOR(05P)	TUC-P05X-B1
CN 6603	CONNECTOR	CKS3384
CN 6610	CONNECTOR(07P)	TUC-P07X-B1
JH 6001,6002	PCB BINDER	VEF1040

RESISTORS

	R	6007,6107,6207,6307	RS1/10SR2001F
	R	6009,6109,6209,6309	RD1/2VM473J
	R	6011,6111,6211,6311	RN1/16SE1201D
⚠	R	6023,6024,6123,6124	RD1/4MUF4R7J
	R	6029,6129,6229,6329	RN1/10SE3302D
	R	6030,6130,6230,6330	RN1/16SE1001D
	R	6031,6131,6231,6331	RN1/16SE1500D
⚠	R	6223,6224,6323,6324	RD1/4MUF4R7J
	R	6407,6507,6607	RS1/10SR2001F
	R	6409,6509,6609	RD1/2VM473J
	R	6411,6511,6611	RN1/16SE1201D
⚠	R	6423,6424,6523,6524	RD1/4MUF4R7J
	R	6429,6529,6629	RN1/10SE3302D
	R	6430,6530,6630	RN1/16SE1001D
	R	6431,6531,6631	RN1/16SE1500D
⚠	R	6623,6624	RD1/4MUF4R7J
	Other Resistors		RS1/10SR###J

CAPACITORS

	C	6001,6101,6201,6301	CEHAT4R7M50
	C	6002,6102,6202,6302	CCSRCH221J50
	C	6004,6104,6204,6304	CKSRYB102K50
	C	6005,6006,6015,6016	CCSRCH220J50
	C	6007,6107,6207,6307	CEHAT101M10
	C	6008,6108,6208,6308	ACG7057
	C	6009,6109,6209,6309	CEHAT100M2A
	C	6010,6110,6210,6310	CCSRCH101J50
	C	6017,6117,6217,6317	CEHAT331M10
	C	6023,6024,6123,6124	CEHAT100M63
	C	6032,6132,6232,6332	CKSRYB224K16
	C	6105,6106,6115,6116	CCSRCH220J50
	C	6205,6206,6215,6216	CCSRCH220J50
	C	6223,6224,6323,6324	CEHAT100M63
	C	6305,6306,6315,6316	CCSRCH220J50
	C	6401,6501,6601	CEHAT4R7M50
	C	6402,6502,6602	CCSRCH221J50
	C	6404,6504,6604	CKSRYB102K50
	C	6405,6406,6415,6416	CCSRCH220J50
	C	6407,6507,6607	CEHAT101M10
	C	6408,6508,6608	ACG7057
	C	6409,6509,6609	CEHAT100M2A
	C	6410,6510,6527,6610	CCSRCH101J50
	C	6417,6517,6617	CEHAT331M10
	C	6423,6424,6523,6524	CEHAT100M63
	C	6432,6532,6632	CKSRYB224K16
	C	6505,6506,6515,6516	CCSRCH220J50
	C	6605,6606,6615,6616	CCSRCH220J50
	C	6623,6624	CEHAT100M63

J DISPLAY ASSY

SEMICONDUCTORS

	IC	3001	PDC197A8
	IC	3002	PST8248N
⚠	IC	3003	S-1200B33-M5
	IC	3201	PE5615A
	Q	3004	SSM3K15FU
	Q	3203-3213	LTC124EUB
	D	3002	RB751V-40
	D	3003	DAN217U
	D	3004,3008	MC2848-11
	D	3005	MC2846-11

Mark	No.	Description	Part No.
	D	3006	1SS302
	D	3204,3206,3208,3210	SLR343BC4T(JKLM)
	D	3212,3214	SLR343BC4T(JKLM)
	D	3216	SLR343WBCT(MNPQ)
	MISCELLANEOUS		
	L	3001 CHIP SOLID INDUCTOR	ATL7002
	KN	3201 FL HOLDER(FE)	VNF1096
	V	3301 FL TUBE DISPLAY	AAV7115
	S	3001-3015 SWITCH	ASG7029
	S	3016 ROTARY ENCODER	ASX7049
	X	3001 CRYSTAL OSCILLATOR (15.0 MHz)	CSS1653
	X	3201 CERAMIC RESONATOR (5.00 MHZz	VSS1142
	CN	3001 39P CONNECTOR	VKN2097
	CN	3002 9P CONNECTOR	VKN1269
	CN	3003 4P CONNECTOR	VKN1819
	RESISTORS		
	All Resistors		RS1/10SR###J
	MISCELLANEOUS		
	JH	3002 4P CABLE HOLDER	51048-0400
	JH	3003 3P CABLE HOLDER	51048-0300
	JP	3001 CONNECTOR ASSY	PF07PG0S17
	JP	3002 JUMPER WIRE	D20PYY0405E
	JP	3003 JUMPER WIRE	D20PYY0305E
	U	3201 REMOTE RECEIVER UNIT	GP1UE274XKC1
	CAPACITORS		
	C	3002,3009,3013,3017	CKSRYB104K16
	C	3003	CKSRYB105K16
	C	3004,3005	CCSRCH120J50
	C	3006,3008,3010,3302	CKSRYB471K50
	C	3007,3020,3021,3209	CKSRYB105K10
	C	3011	CCSRCH101J50
	C	3012	CKSRYB472K50
	C	3014-3016	CKSRYB473K50
	C	3018,3033,3034,3045	CKSRYB103K50
	C	3019,3208	CEJQ221M6R3
	C	3022,3023,3038,3202	CKSRYB104K16
	C	3025-3027,3307	CKSRYB104K50
	C	3035	CKSRYB103K16
	C	3037	CCSRCH102J50
	C	3048,3338,3340,3343	CCSRCH100D50
	C	3201,3221-3223,3303	CKSRYB102K50
	C	3204,3207	CKSRYB104K16
	C	3205	CCSRCH471J50
	C	3211	CEJQ101M6R3
	C	3212,3335-3337,3341	CKSRYB103K50
	C	3213	CEAL101M10
	C	3214,3216,3217,3220	CCSRCH221J50
	C	3215,3218,3219	CCSRCH470J50
	C	3301,3327	CEAT101M35
	C	3305,3308,3328	CEAT470M50
	C	3306	CKSRYB102K50
	C	3311-3326	CKSRYB471K50
	C	3339	CCSRCK2R0C50

Mark	No.	Description	Part No.
	K PRIMARY ASSY		
	SEMICONDUCTORS		
⚠	IC	1	MIP4150MD
⚠	IC	52	NJM1431AF
	Q	71	2SD2704K
⚠	D	1	D2SB60A
⚠	D	2	RD2ALF-A1
⚠	D	3	1SS403
⚠	D	4	RB751V-40
⚠	D	50	SBT250-06J
	D	71,72	1SS352
	MISCELLANEOUS		
⚠	L	1 LINE FILTER	ATF7049
⚠	L	51 COIL	ATH7080
⚠	L	71 LINE FILTER	XTF3004
	H	1,2,71,72 FUSE CLIP	AKR1004
⚠	JA	71 AC INLET ASSY	ADX7464
	KN	1,2 SCREW PLATE	VNE1948
	KN	50,51 WRAPPING TERMINAL	VNF1084
	KN	52 SCREW PLATE(MTL)	ANG7591
⚠	RY	71 POWER RELAY	ASR7034
⚠	T	1 POWER TRANSFORMER	ATK7003
⚠	CN	81 CONNECTOR(VH)	B3P5-VH
		0 HEAT SINK(AL)	ANH7223
		0 HEAT SINK(AL)	ANH7224
		0 SCREW	BBZ30P080FCC
	JP	51 7P HOUSING ASSY	ADX7738
⚠	PC	1 PHOTO COUPLER	TLP781(GR)
⚠	VA	1 VARISTOR	TND10V-511KB00AAA0
	RESISTORS		
⚠	R	1,12	RS2LMF683J
⚠	R	9-11	ACN7173
	R	14	RS1/10SR1001F
	R	53	RS1/10SR1202F
	R	54	RS1/10SR7500F
	R	56	RS1/10SR1002F
	R	59	RS1/8SQ475J
	Other Resistors		RS1/10SR###J
	CAPACITORS		
⚠	C	1	ACE7043
⚠	C	3	ACH7342
⚠	C	4	ACE7083
⚠	C	5	ACG7102
	C	6	CKSQYB105K25
⚠	C	7	ACH7343
	C	8,53	CKSRYB104K50
	C	9	CCSRCH100D50
	C	10	CEAT2R2M2A
	C	13	CCSRCH102J50
⚠	C	18,20	VCG1046
⚠	C	51	ACH7345
⚠	C	52	BCH1044
	C	55	CKSRYB102K50
	C	56	CKSRYB104K16
⚠	C	71,72	ACE7013
⚠	C	73	XCG3010
	C	74,75	CCSRCH101J50

Mark	No.	Description	Part No.

L USB REGULATOR ASSY

SEMICONDUCTORS

⚠	IC	4701	NJM2389F
⚠	Q	4701	2SD1763A
	Q	4702	LSC4081UB
⚠	D	4701	D3SBA20(B)
	D	4702	PTZ9R1(B)

MISCELLANEOUS

	H	4701,4702 FUSE CLIP	AKR1004
	CN	4702 PLUG(8P)	KM200NA8
	JH	4701 PCB BINDER	VEF1040

RESISTORS

	R	4705	RS1/10SR3001D
	R	4706	RS1/10SR1200D
	R	4707	RS1/10SR1001D
	Other Resistors		RS1/10SR###J

CAPACITORS

	C	4701	CFTLA104J50
	C	4703	CEAT332M25
	C	4705	CKSRYB104K25
	C	4706	CEAT101M25
	C	4707	CKSRYB334K25
	C	4708	CEAT101M50
	C	4709	CKSRYB104K50
	C	4710,4713	CCSRCH101J50
	C	4714,4715	CCSRCH102J50

M XM REGULATOR ASSY

MISCELLANEOUS

	CN	4301 2P TOP POST	B2B-EH
	JH	4301-4303 PCB BINDER	VEF1040
	JP	4303 CONNECTOR ASSY	PF08GG0S10

N REGULATOR ASSY

SEMICONDUCTORS

⚠	IC	4001	NJM78M05FA
⚠	IC	4002	NJM79M05FA
⚠	IC	4021	NJM78M09FA
⚠	IC	4101,4121	NJM78M12FA
⚠	IC	4102	NJM79M12FA
⚠	D	4001	D3SBA20(B)
	D	4003,4004,4105,4106	RB501V-40
⚠	D	4051-4053,4101-4104	1SR154-400
	D	4054,4056	UDZS5R1(B)
	D	4055	PTZ22(B)
	D	4121	RB501V-40
	D	4123	UDZS3R3(B)
	D	4124	1SS352
⚠	D	4125-4127	1SR154-400

MISCELLANEOUS

	H	4001-4004,4101-4104 FUSE CLIP	AKR1004
	CN	4001 CONNECTOR	B6B-EH
	CN	4002,4102 PLUG(6P)	KM200NA6
	CN	4052 PLUG(7P)	KM200NA7
	CN	4101 5P TOP POST	B5B-EH
	JH	4101-4105 PCB BINDER	VEF1040
	JP	4103 CONNECTOR ASSY	PF04GG0S25

RESISTORS

⚠	R	4001	RD1/4MUF4R7J
	R	4052	RD1/4MUF391J
	R	4057	RS1/8SQ225J
	Other Resistors		RS1/10SR###J

CAPACITORS

	C	4002,4060	CFTLA104J50
	C	4007	CEAT682M16
	C	4008	CEAT222M16
	C	4011,4012,4021,4057	CKSRYB103K50
	C	4013,4014,4054	CEAT101M16
	C	4022	CEAT101M25
	C	4051	CEANP101M35
	C	4052	CEAT101M35
	C	4053	CEAT221M35
	C	4055	CEAT470M50
	C	4101	CFTLA394J50
	C	4102-4105	CKSRYB473K50
	C	4107	CEAT222M25
	C	4108	CEAT332M25
	C	4109,4110,4121,4124	CKSRYB103K50
	C	4111,4112	CEAT221M25
	C	4117,4118	CKSRYB104K50
	C	4122	CEAT100M50
	C	4125	CEAK102M35
	C	4126	CEAK471M35
	C	4127	CKSRYB103K50

O POWER SW ASSY

SEMICONDUCTORS

	Q	3401	LTC143EUB
	D	3402	SLR343BC4T(JKLM)

MISCELLANEOUS

	S	3401 SWITCH	ASG7029
	CN	3401 4P JUMPER CONNECTOR	52147-0410

RESISTORS

All Resistors		RS1/10SR###J

CAPACITORS

	C	3401	CCSRCH221J50
	C	3402	CKSRYB104K16

P ENCODER ASSY

MISCELLANEOUS

	S	3501 ROTARY ENCODER	ASX7051
	CN	3501 3P JUMPER CONNECTOR	52147-0310

RESISTORS

All Resistors		RS1/10SR###J

CAPACITORS

	C	3501,3502	CKSRYB103K50

Mark	No.	Description	Part No.

Q HEADPHONE ASSY

MISCELLANEOUS

	JA 3451	PHONE JACK	AKN7029
	KN 3451	WRAPPING TERMINAL	VNF1084
	CN 3451	4P JUMPER CONNECTOR	52147-0410

RESISTORS

	All Resistors		RS1/10SR###J

CAPACITORS

	C 3451,3452		CKSRYB822K50
	C 3456		CKSRYB103K50
	C 3457		CKSRYB471K50

R CONNECT ASSY

MISCELLANEOUS

	CN 3361,3362	20P PLUG	AKM7171
	CN 3363	23P SOCKET	XKP3082
	CN 3364	7P SOCKET	XKP3074

RESISTORS

	All Resistors		RS1/10SR###J

MISCELLANEOUS

	JP 3365	CONNECTOR ASSY	PF08PG0S30

CAPACITORS

	C 3371		CCSRCH100D50

S A-DAC BRIDGE ASSY

MISCELLANEOUS

	CN 3791,3792	14P PLUG	AKM7170
	CN 3793,3794	24P PLUG	AKM7173

T D-AUDIO BRIDGE ASSY

MISCELLANEOUS

	CN 3771,3772	11P PLUG	XKP3065
	CN 3773,3774	15P PLUG	XKP3067

CAPACITORS

	C 3771,3774		CCSRCH101J50
	C 3772,3773		CCSRCH102J50

U D-DAC BRIDGE ASSY

MISCELLANEOUS

	CN 3781-3784	PLUG (30P)	BKM1035
	CN 3785	3P PLUG	XKP3061

Mark	No.	Description	Part No.

V POSI 1 ASSY

SEMICONDUCTORS

⚠	TH 7001		PTFM04BB222Q2N34BS

MISCELLANEOUS

	CN 7001	CONNECTOR ASS'Y	PG02KA-F07

W POSI 2 ASSY

SEMICONDUCTORS

⚠	TH 7002		PTFM04BE222Q2N34BS

MISCELLANEOUS

	CN 7002	CONNECTOR ASS'Y	PG02KA-F07

X POSI 3 ASSY

SEMICONDUCTORS

⚠	TH 7003		PTFM04BG222Q2N34BS

MISCELLANEOUS

	CN 7003	CONNECTOR ASS'Y	PG03KA-F10

Y BIND L FRONT ASSY

MISCELLANEOUS

	JH 5961,5962	PCB BINDER	VEF1040

Z BIND L BACK ASSY

MISCELLANEOUS

	JH 5522,5523	PCB BINDER	VEF1040

AA BINDER ASSY

MISCELLANEOUS

	JH 3901	PCB BINDER	VEF1040

AB BIND DM CABLE ASSY

MISCELLANEOUS

	JH 5551	PCB BINDER	VEF1040

AC BIND R BACK ASSY

MISCELLANEOUS

	JH 5531	PCB BINDER	VEF1040

AD BIND R FRONT ASSY

MISCELLANEOUS

	JH 5511	PCB BINDER	VEF1040

Mark	No.	Description	Part No.

AE BIND DISP FFC ASSY

MISCELLANEOUS

	JH 5541	PCB BINDER	VEF1040

AF BLUETOOTH ASSY

SEMICONDUCTORS

	IC	101	NJM2872BF33
	IC	102	NJM2100V
	IC	103	AXF7018
	Q	101	2SC4081
	Q	102	RSR015P03
	D	102	1SS352

MISCELLANEOUS

	L	101 CHIP COIL	BTH1104
	L	102 CHIP ANNTENA	ATX7013
	JA	101 18P CONNECTOR	AKP7230
	JA	102 CONNECTOR	CKS5537

RESISTORS

	R	141	RS1/10SR0R0J
	Other Resistors		RS1/16SS###J

CAPACITORS

	C	101	CKSSYB104K16
	C	103,114,115,118	CKSSYB103K16
	C	104-106	CKSRYB105K6R3
	C	107,122	CKSSYB104K10
	C	108	CSZFSR470M6R3
	C	109-112,123	DCH1200
	C	113	CKSRYB563K16
	C	117,127,128	CKSSYB105K6R3
	C	119	CCSSCH330J50
	C	120,121,130	CKSSYB103K16
	C	129	DCH1201

FM/AM TUNER UNIT

FM/AM TUNER UNIT has no service parts.