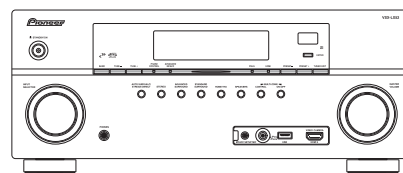


Pioneer

Service Manual



VSX-LX52

ORDER NO.
RRV3933

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-LX52

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

Model	Type	Power Requirement	Remarks
VSX-LX52	SYXJ5	AC 220 V to 230 V	



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

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



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

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

WARNING

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

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

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

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

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

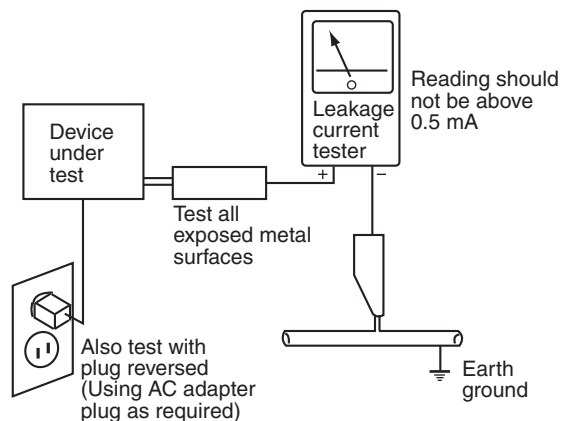
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

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

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

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

1. Product safety



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

- ① Use specified parts for repair.

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

- ② Do not perform modifications without proper instructions.

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

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

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

- ④ Make sure the screws are tightly fastened.

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

- ⑤ Make sure each connectors are correctly inserted.

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

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

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

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

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

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

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

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

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

- ⑩ Safe environment should be secured during servicing.

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

2. Adjustments



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

3. Lubricants, Glues, and Replacement parts



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

4. Cleaning



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

5. Shipping mode and Shipping screws



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

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1. SERVICE PRECAUTIONS

1.1 NOTES ON SOLDERING

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

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

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

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

- Parts numbers of lead-free solder:
GYP1006 1.0 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 Replace			
		Ref No.	FUNCTION	Part No.	Remarks
DIGITAL MAIN ASSY	AWX9420	IC800	EMMA2RL2	UPD61283F1-407LU2A	BGA
		IC1501	HDMI Receiver	SII9233ACTU	IC with heat-pad

1.3 CAUTION

- Discharging**
Please refer to page 52, "Preparations Before Performing Diagnosis of the POWER AMP Assy".
- Ground Points**
Please refer to page 53, "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	150 W + 150 W

Rated power output (20 Hz to 20 kHz, 8 Ω, 0.09 %)

Front	110 W + 110 W
Center	110 W
Surround	110 W + 110 W
Surround back	110 W + 110 W

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

Guaranteed speaker impedance

. 16 Ω to 8 Ω, less than 8 Ω (setting required)

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

. 103 dB

Frequency Response. 5 Hz to 100 000 Hz ± 3 dB
(Pure Direct Mode)

Input (Sensitivity/Impedance) 300 mV/47 kΩ

Output (Level/Impedance)

REC 300 mV/2.2 kΩ

Tuner Section

Frequency Range (FM) 87.5 MHz to 108 MHz

Antenna Input (FM) 75 Ω unbalanced

Frequency Range (AM) 531 kHz to 1602 kHz

Antenna (AM) Loop antenna (balanced)

Video Section

Signal level

Composite/S-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)

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 50 mA

RS-232C cable type. 9-pin, cross type, female-female

Miscellaneous

Power requirements AC 220 V to 230 V, 50 Hz/60 Hz

Power consumption 410 W

In standby. 0.5 W (KURO LINK OFF)
0.8 W (KURO LINK ON)

Dimensions 420 (W) mm x 173 (H) mm x 433 (D) mm

Weight (without package). 13.5 kg

Furnished Parts Number

MCACC Setup microphone (APM7009)	1
Remote control unit (AXD7547)	1
AA/IEC R6 dry cell batteries	2
iPod cable (ADE7129)	1
AM loop antenna	1
FM wire antenna.	1
Power cord	1
Warranty card.	1
Operating instructions	



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

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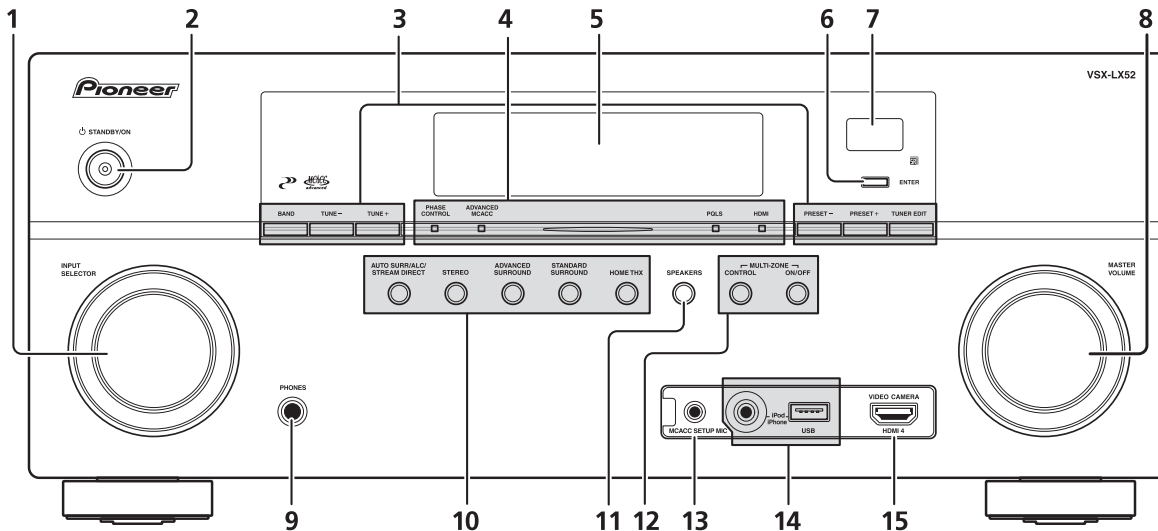
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2.2 PANEL FACILITIES

[1] Front panel



1 INPUT SELECTOR dial

Use to select an input function.

2 STANDBY/ON

Switches the receiver between on and standby. Power indicator lights when the receiver is on. When the **KURO LINK** function is set to **ON**, the power indicator lights when the power is in standby.

3 Tuner controls

- BAND** – Switches between 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 PHASE CONTROL indicator – Lights to indicate Phase Control is selected.

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

PQLS indicator – Lights when the PQLS feature is active.

HDMI indicator – Blinks when connecting an HDMI-equipped component; lights when the component 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 between the various Pro Logic IIx and Neo:6 options.

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

11 SPEAKERS

Use to change speaker system.

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.

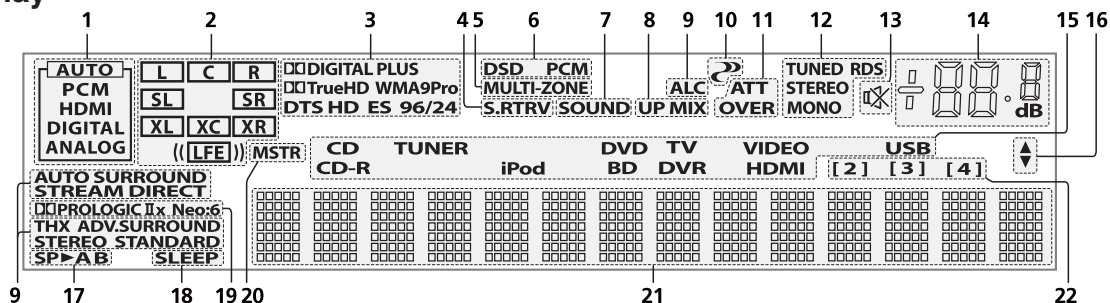
14 iPod/iPhone/USB terminals

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 compatible HDMI device (Video camera, etc.).

[2] Display



1 SIGNAL indicators

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 channels being input when PCM signals are being input. They do not indicate the audio signals being output from the receiver.

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.

4 S.RTRV

Lights when the Sound Retriever function is active.

5 MULTI-ZONE

Lights when the MULTI-ZONE feature is active.

6 DSD PCM – Light during DSD (Direct Stream Digital) to PCM conversion with SACDs.

PCM – Lights during playback of PCM signals.

7 SOUND

Lights when any of the Midnight, Loudness or tone controls feature is selected.

Lights when Dialog Enhancement is switched on.

8 UP MIX

Lights when the Up Mix is switched on.

9 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.

10 PHASE CONTROL

Lights when the Phase Control is switched on.

11 Analog signal indicators

Light to indicate reducing the level of an analog signal.

12 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.

13 MUTE

Lights when the sound is muted.

14 Master volume level

Shows the overall volume level.

“---” indicates the minimum level, and “+12dB” indicates the maximum level.

15 Input function indicators

Light to indicate the input function you have selected.

16 Scroll indicators

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

17 Speaker indicators

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

18 SLEEP

Lights when the receiver is in sleep mode.

19 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.

20 MSTR

Lights during playback of DTS-HD Master Audio signal.

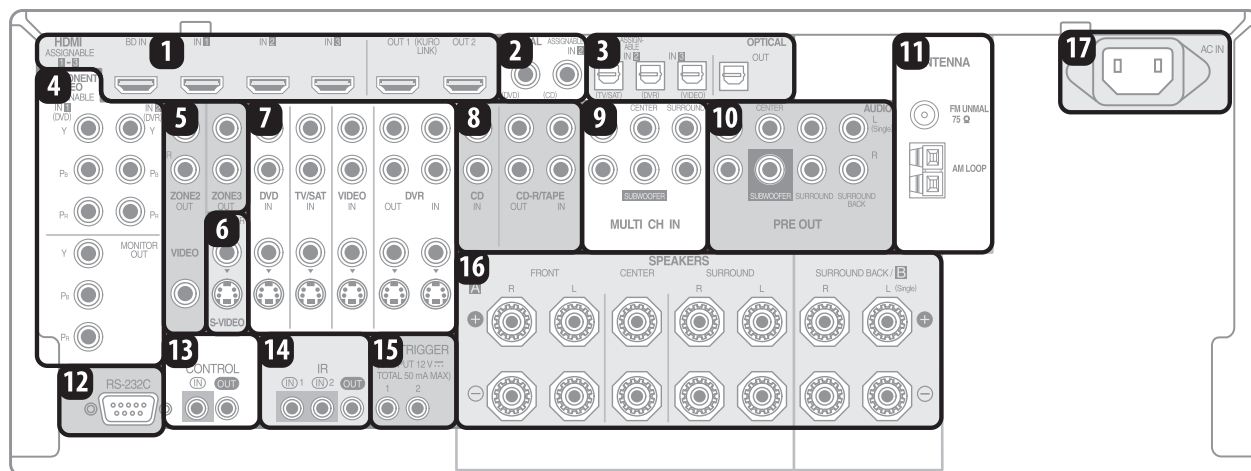
21 Character display

Displays various system information.

22 Remote control mode indicator

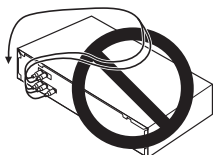
Lights to indicate the receiver's remote control mode setting. (Not displayed when set to 1.)

[3] Rear panel



CAUTION

- Before making or changing the connections, switch off the power and disconnect the power cord from the power outlet. Plugging in should be the final step.
- To avoid hum, do not lay connected cables over the top of the receiver.



1 HDMI connectors (x6)

Multiple inputs and two outputs for high-quality audio/video connection to compatible HDMI devices.

2 Coaxial digital audio inputs (x2)

Use for digital audio sources, including DVD players/recorders, digital satellite receivers, CD players, etc.

3 Optical digital audio output/input(s) (x4)

Use the **OUT** jack for recording to a CD or MiniDisc recorder.

Use the **IN** jacks for digital audio sources, including DVD players/recorders, digital satellite receivers, CD players, etc.

4 Component video connectors input(s)/output (x3)

Use the inputs to connect any video source that has component video output, such as a DVD player.

Use the output to connect monitor or TV.

5 MULTI-ZONE audio/video outputs

Use to connect a second or third amplifier and monitors or TVs in a separate room.

6 Composite and S-Video monitor outputs

Use to connect monitors and TVs.

7 Audio/video source inputs/(outputs) (x5)

Use for connection to audio/visual sources, such as DVD players/recorders, VCRs, etc. Each set of inputs has jacks for composite video, S-Video and stereo analog audio.

8 Stereo analog audio source inputs/(outputs) (x3)

Use for connection to audio sources such as CD players, tape decks, turntables, etc.

9 Multichannel analog audio inputs

5.1 channel inputs for connection to a DVD player with multichannel analog outputs.

10 Multichannel pre-amplifier outputs

Use to connect separate amplifiers for front, center, surround, surround back and subwoofer channels.

11 AM and FM antenna terminals

Use to connect indoor or outdoor antennas for radio broadcasts.

12 RS-232C connector

Use for connection to a PC for graphical output when using Advanced MCACC.

13 Control input/output

Use to connect other Pioneer components so that you can control all your equipment from a single IR remote sensor.

14 Remote inputs/output

Use for connection to an external remote control sensor for use in a MULTI-ZONE setup, for example.

15 12 V trigger jacks (total 50 mA max.) (x2)

Use to switch components in your system on and off according to the input function of the receiver.

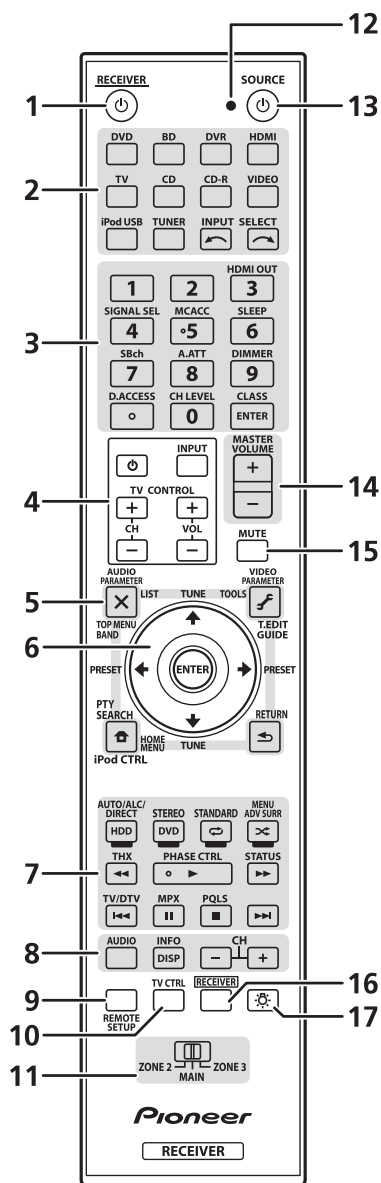
16 Speaker terminals

Use for connection to the main front, center, surround and surround back speakers.

17 AC power inlet

Connect the supplied power cord here.

[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 Input function buttons

Press to select control of other components.

Use **INPUT SELECT** to select the input function.

3 Number buttons and other receiver/component controls

Use the number buttons to directly select a radio frequency or the tracks on a CD, DVD, etc.

ENTER can be used to enter commands for TV or DTV.

Press **RECEIVER** first to access:

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.

SBch – Use to select the surround back/virtual surround back channel mode.

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

DIMMER – Dims or brightens the display.

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

Press **TUNER** first to access:

D.ACCESS – After pressing, you can access a radio station directly using the number buttons.

CLASS – Switches between the seven banks (classes) of radio station presets.

4 TV CONTROL buttons

These buttons are dedicated to control the TV assigned to **TV** operation selector switch. Thus if you only have one TV to hook up to this system assign it to the **TV** operation selector switch.

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

INPUT – Use to select the TV input signal.

CH +/- – Use to select channels.

VOL +/- – Use to adjust the volume on your TV.

5 Tuner/component control buttons/HOME MENU

These button controls can be accessed after you have selected the corresponding input function button (**DVD**, **DVR**, **TV**, etc.).

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 (also use to return to the previous menu with DVDs or to select closed captioning with DTV).

6 (TUNE/PRESET) /ENTER

Use the arrow buttons when setting up your surround sound system and the Audio or Video options. Also used to control DVD menus/options and for deck 1 of a double cassette deck player. Use **TUNE** to find radio frequencies and use **PRESET** to find preset stations.

7 Component/Receiver control buttons

The main buttons (▶, ■, etc.) are used to control a component after you have selected it using the input function buttons.

The controls above these buttons can be accessed after you have selected the corresponding input function button (for example **DVD**, **DVR** or **TV**). These buttons also function as described below.

Press **TUNER** first to access:

MPX – Switches between stereo and mono reception of FM broadcasts. If the signal is weak, then switching to mono will improve the sound quality.

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 between the various  Pro Logic IIx and Neo:6 options.

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 PQLS setting.

8 AUDIO – Changes the audio or channel on DVD or BD discs.

DISP – Switches between named station presets and radio frequencies.

CH +/- – Use to select channels for DVD/DVR units.

9 REMOTE SETUP

Use to input the preset code when making remote control settings and to set the remote control mode.

10 TV CTRL

Use this button to set preset code of your TV's manufacturer when controlling TV.

11 MULTI-ZONE operation selector switch

Switch to perform operations in the main zone, ZONE 2 and ZONE 3.

12 Remote control LED

Lights when a command is sent from the remote control.

13 SOURCE

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

14 MASTER VOLUME +/-

Use to set the listening volume.

15 MUTE

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

16 RECEIVER

Switches the remote to control the receiver (used to select the white commands above the number buttons (**A.ATT**, etc.)). Also use this button to set up surround sound.

17

Press to turn on/off the illumination of some of the buttons.

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

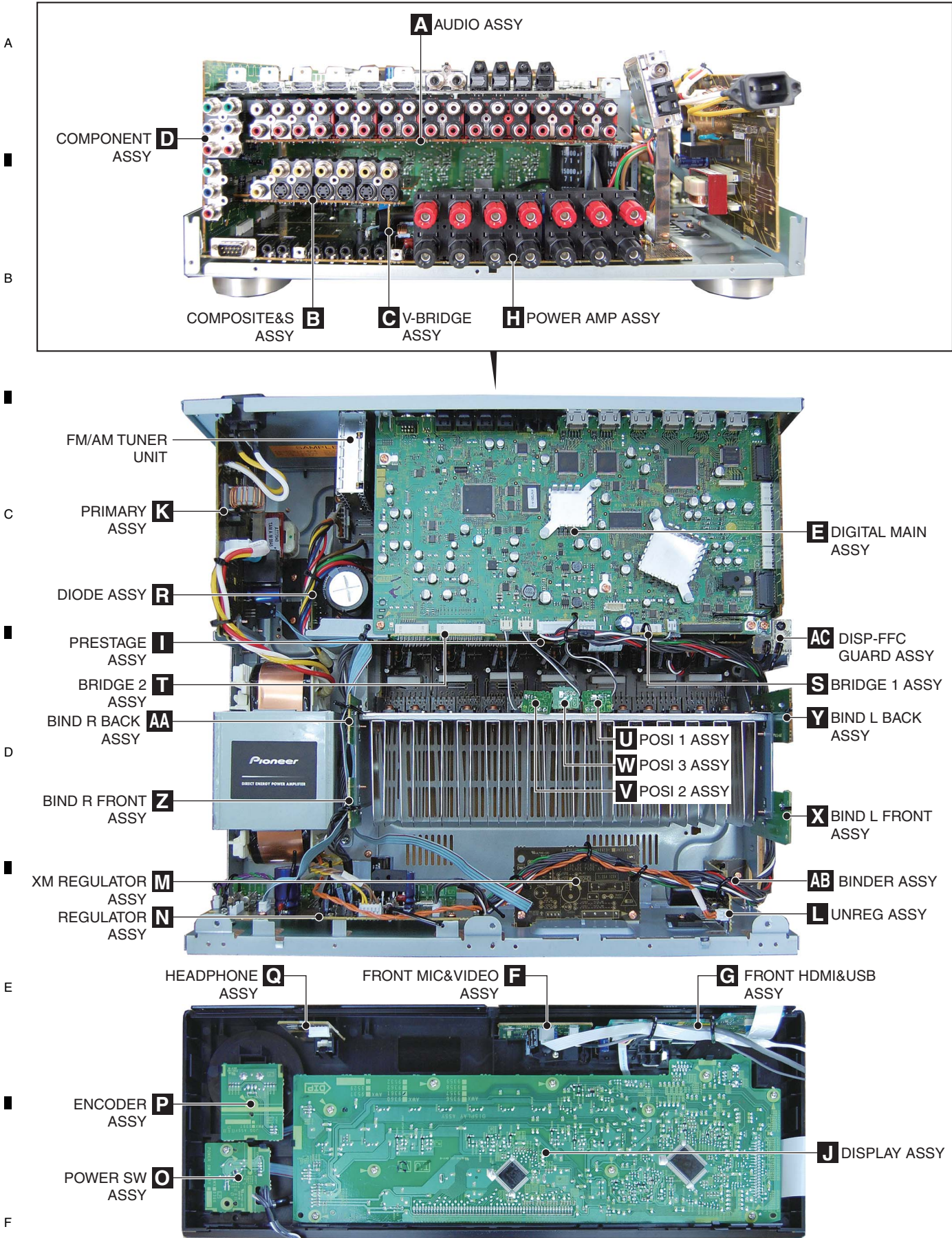
Items to be checked after servicing

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	



NOTES: ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.
 ● The $\triangle$ mark found on some component parts indicates the importance of the safety factor of the part.
 Therefore, when replacing, be sure to use parts of identical designation.

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
LIST OF ASSEMBLIES							
NSP	1..	COMPLEX ASSY	AWK8086	NSP	1..	AUDIO ASSY	AWK8097
	2..	DISPLAY ASSY	AWX9359		2..	AUDIO ASSY	AWX9394
	2..	POWER SW ASSY	AWX9366				
	2..	ENCODER ASSY	AWX9367	NSP	1..	LOCAL POWER ASSY	AWK8101
	2..	PRIMARY ASSY	AWX9369		2..	BIND R FRONT ASSY	AWX9381
					2..	BIND R BACK ASSY	AWX9382
	2..	HEADPHONE ASSY	AWX9372		2..	UNREG ASSY	AWX9397
	2..	BINDER ASSY	AWX9373		2..	REGULATOR ASSY	AWX9401
NSP	1..	AMP ASSY	AWK8091		2..	PRESTAGE ASSY	AWX9405
	2..	POWER AMP ASSY	AWX9376		2..	DIODE ASSY	AWX9406
	2..	BIND L FRONT ASSY	AWX9379		2..	BRIDGE 2 ASSY	AWX9408
	2..	POSI 1 ASSY	AWX9383		2..	BRIDGE 1 ASSY	AWX9409
	2..	POSI 2 ASSY	AWX9385		2..	V-BRIDGE ASSY	AWX9495
					2..	XM REGULATOR ASSY	AWX9543
	2..	POSI 3 ASSY	AWX9388		1..	FRONT HDMI&USB ASSY	AWX9411
	2..	DISP-FFC GUARD ASSY	AWX9539		1..	DIGITAL MAIN ASSY	AWX9420
NSP	1..	VIDEO ASSY	AWK8094		1..	FM/AM TUNER UNIT	AXX7248
	2..	FRONT MIC&VIDEO ASSY	AWX9365				
	2..	BIND L BACK ASSY	AWX9380				
	2..	COMPONENT ASSY	AWX9390				
	2..	COMPOSITE&S ASSY	AWX9392				

3.3 JIGS LIST

[1] Jigs list

Name	Jig No.	Remarks
15P board to board extension jig cable	GGD1484	Diagnosis
17P board to board extension jig cable	GGD1648	Diagnosis

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.

X BIND L FRONT ASSY (AWX9379) **Y** BIND L BACK ASSY (AWX9380) **Z** BII (AI)

U POSI 1 ASSY (AWX9383)

W POSI 3 ASSY (AWX9388)

V POSI 2 ASSY (AWX9385)

T BRIDGE 2 ASSY (AWX9408)

O POWER SW ASSY (AWX9366)

P ENCODER ASSY (AWX9367)

J DISPLAY ASSY (AWX9359)

G FRONT HDMI & USB ASSY (AWX9411)

S BRIDGE 1 ASSY (AWX9409)

F FRONT MIC & VIDEO ASSY (AWX9365)

E (E1/11-E11/11) DIGITAL MAIN ASSY (AWX9420)

C V-BRIDGE ASSY (AWX9495)

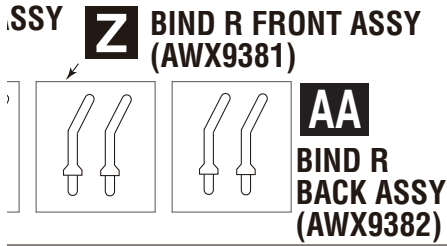
B (B1/2-B2/2) COMPOSITE & S ASSY (AWX9392)

AB BINDER ASSY (AWX9373)

AC DISP-FFC GUARD ASSY (AWX9539)

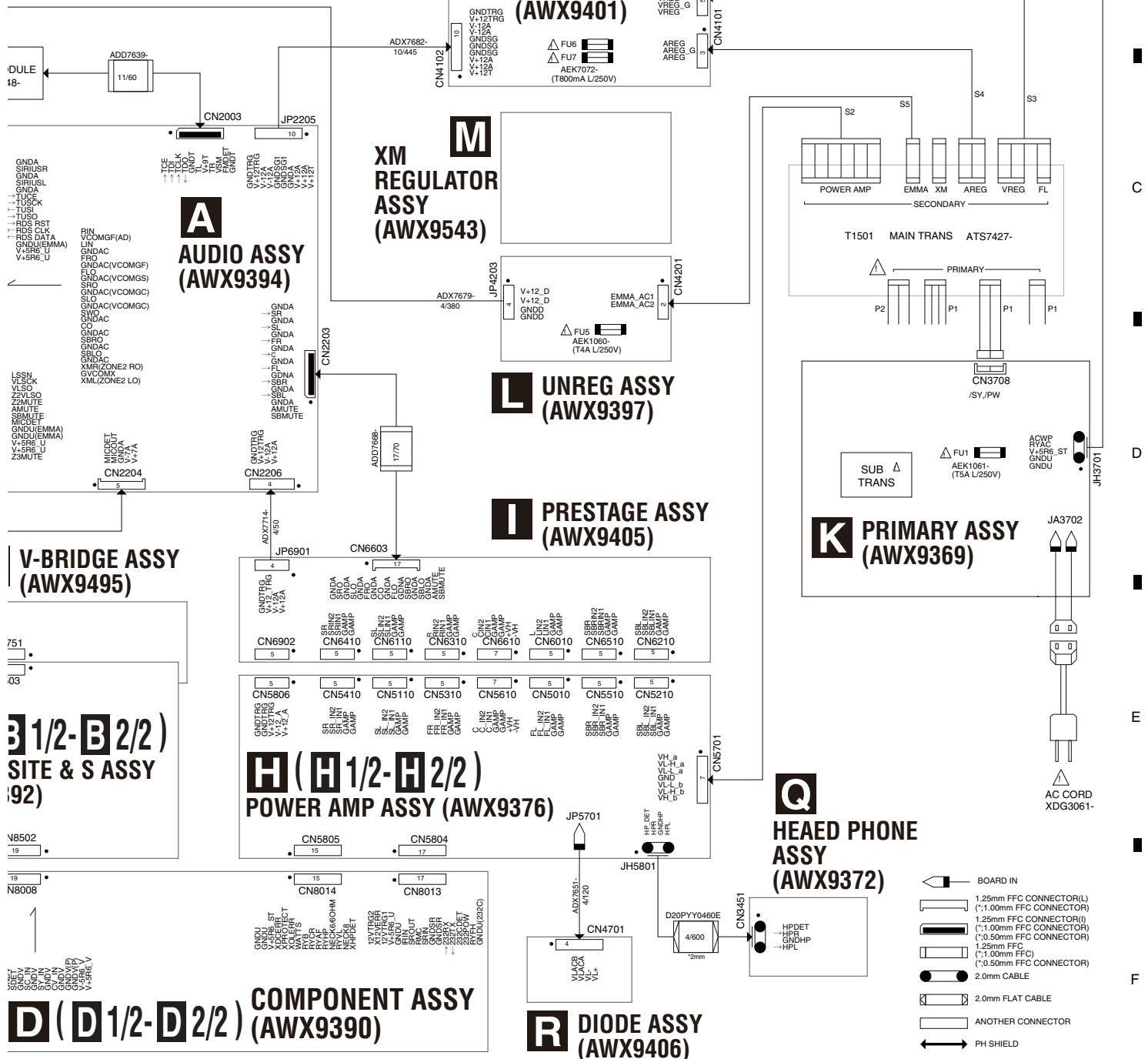
D (D1/2)

VSX-LX52



- 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.

IMAGE 2 ASSY
(K9408)



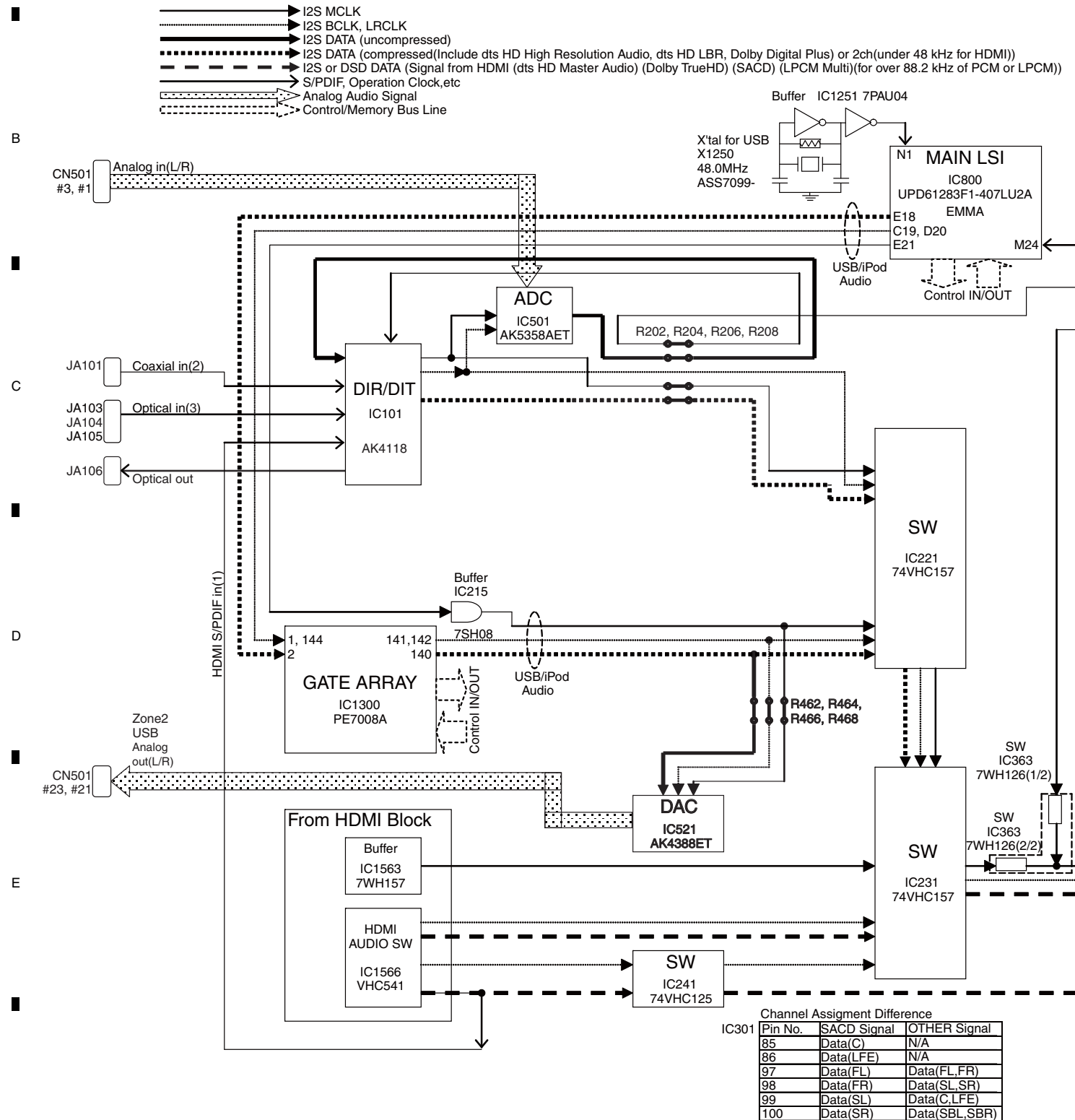
VSX-LX52

1 2 3 4

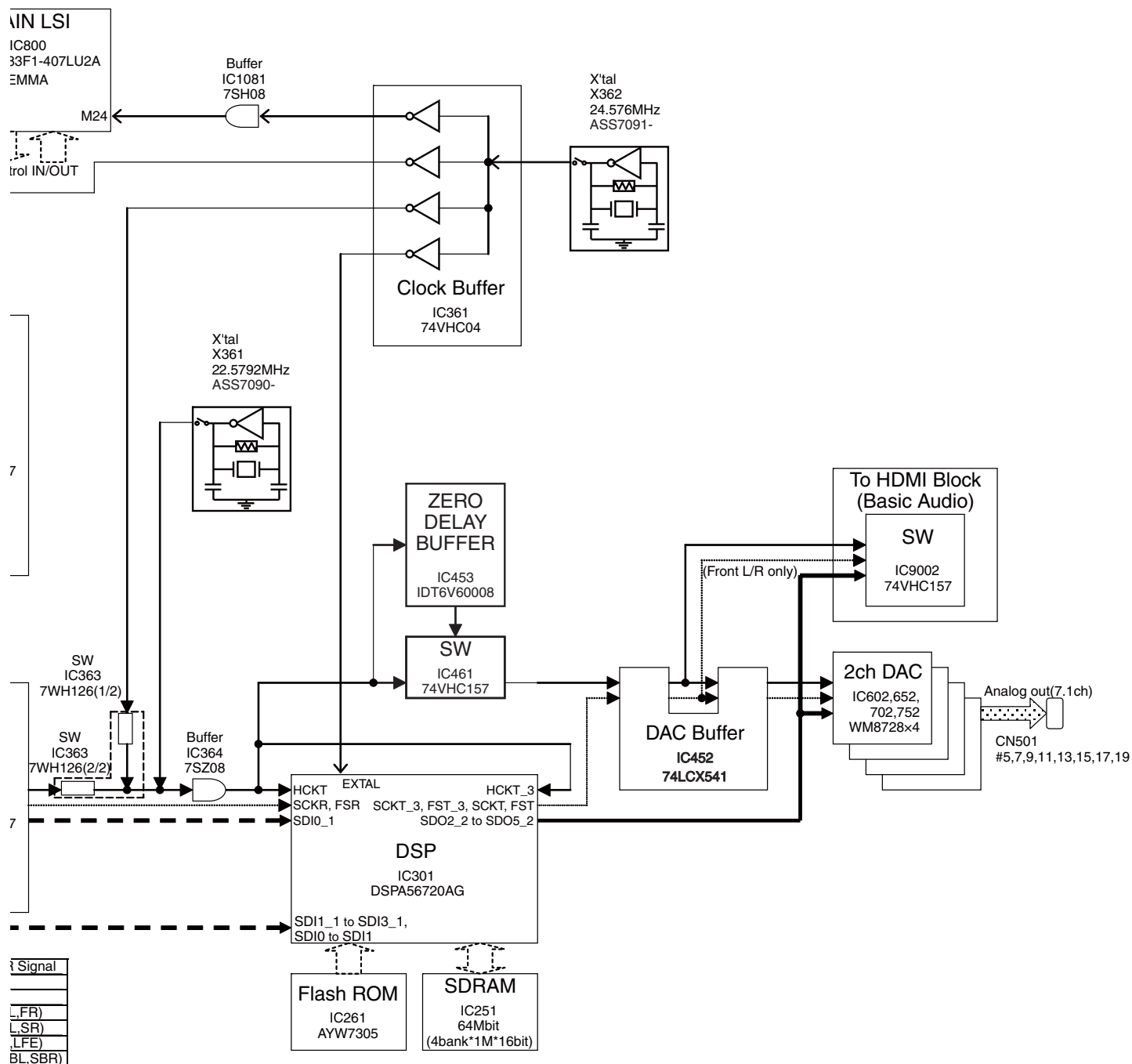
4.2 BLOCK DIAGRAM FOR DIGITAL AUDIO BLOCK

A

Block Diagram (Digital Audio part)

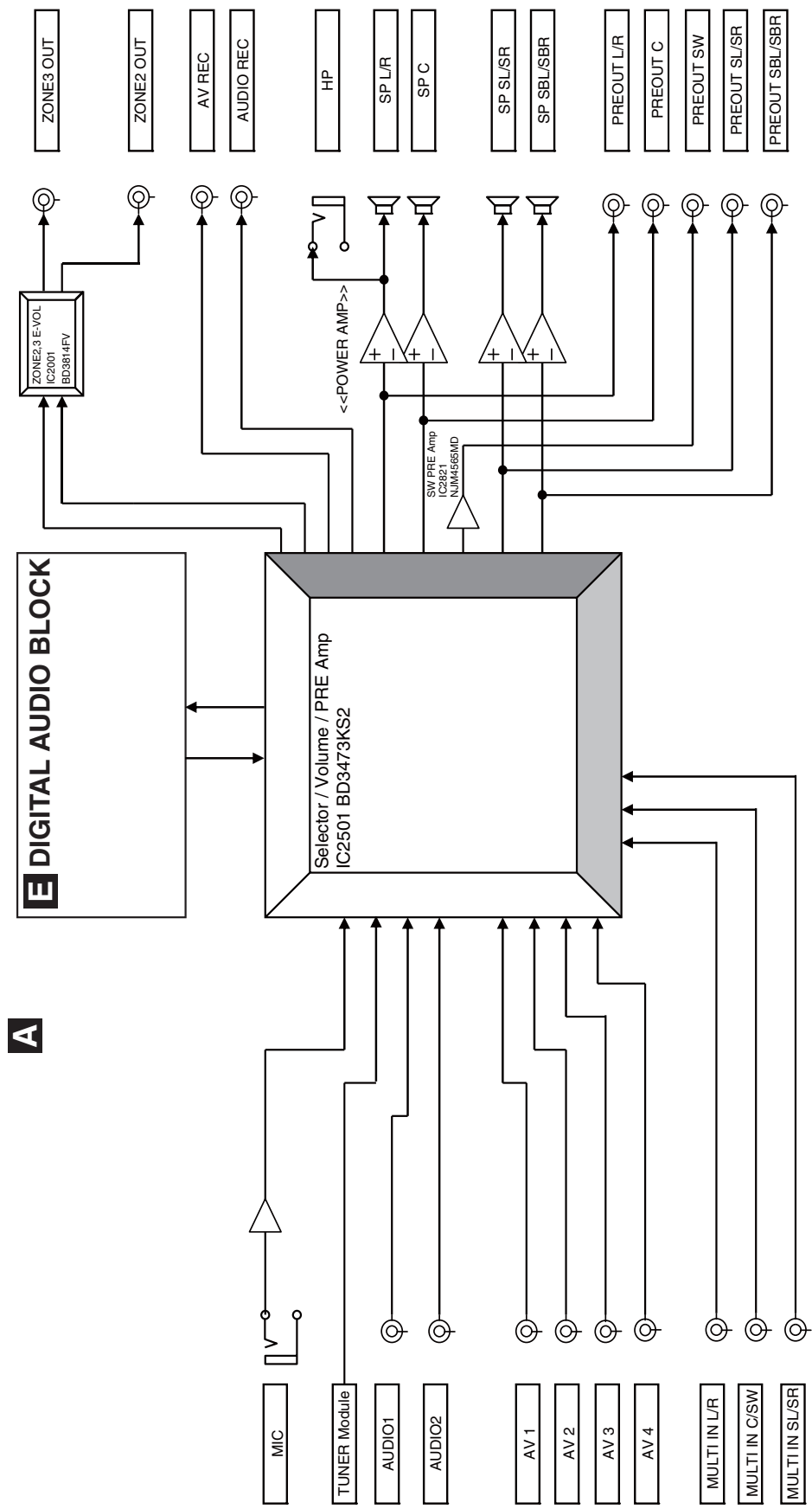


z for HDMI))
z of PCM or LPCM))

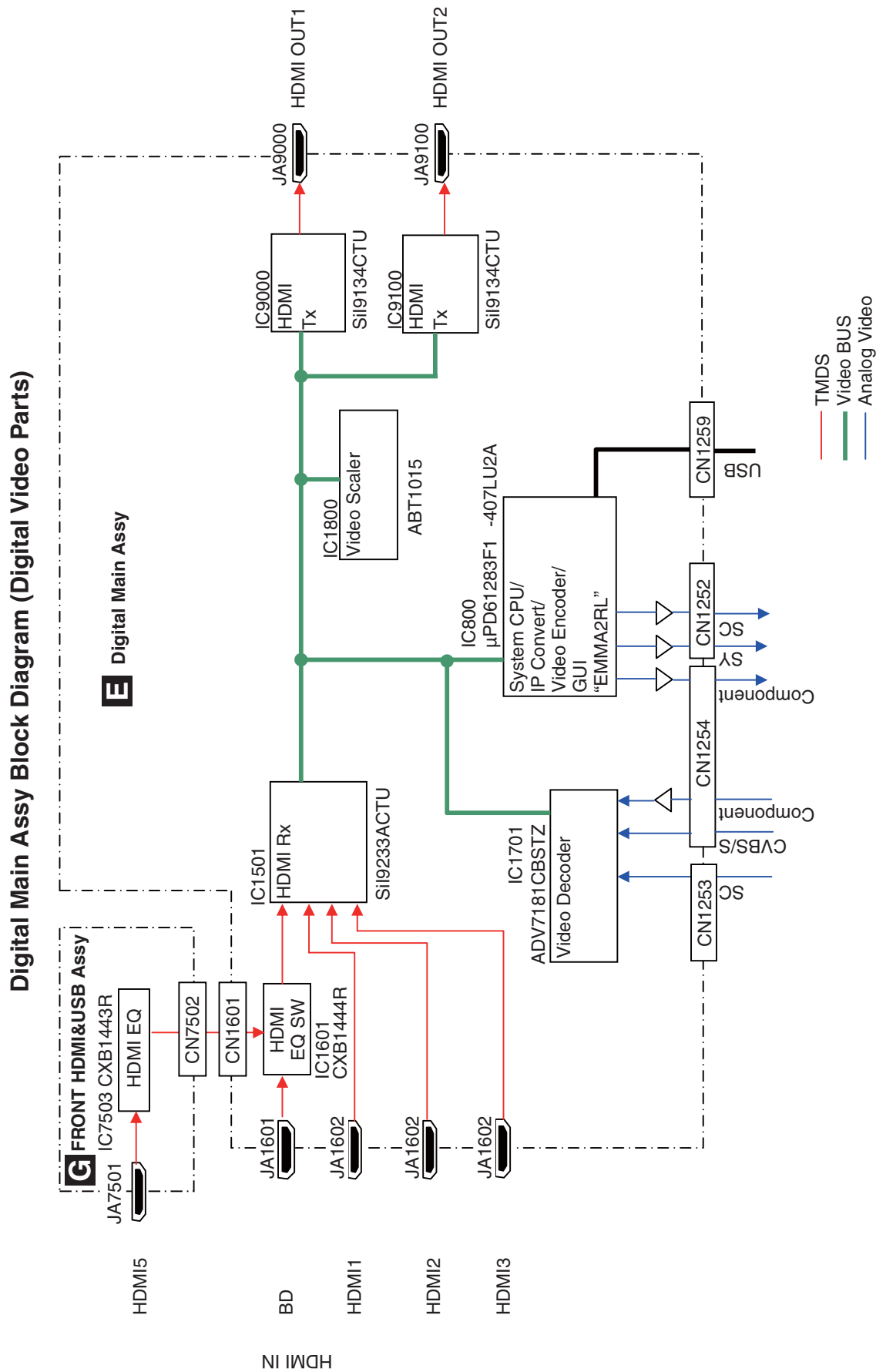


4.3 BLOCK DIAGRAM FOR ANALOG AUDIO BLOCK

Audio Block Diagram

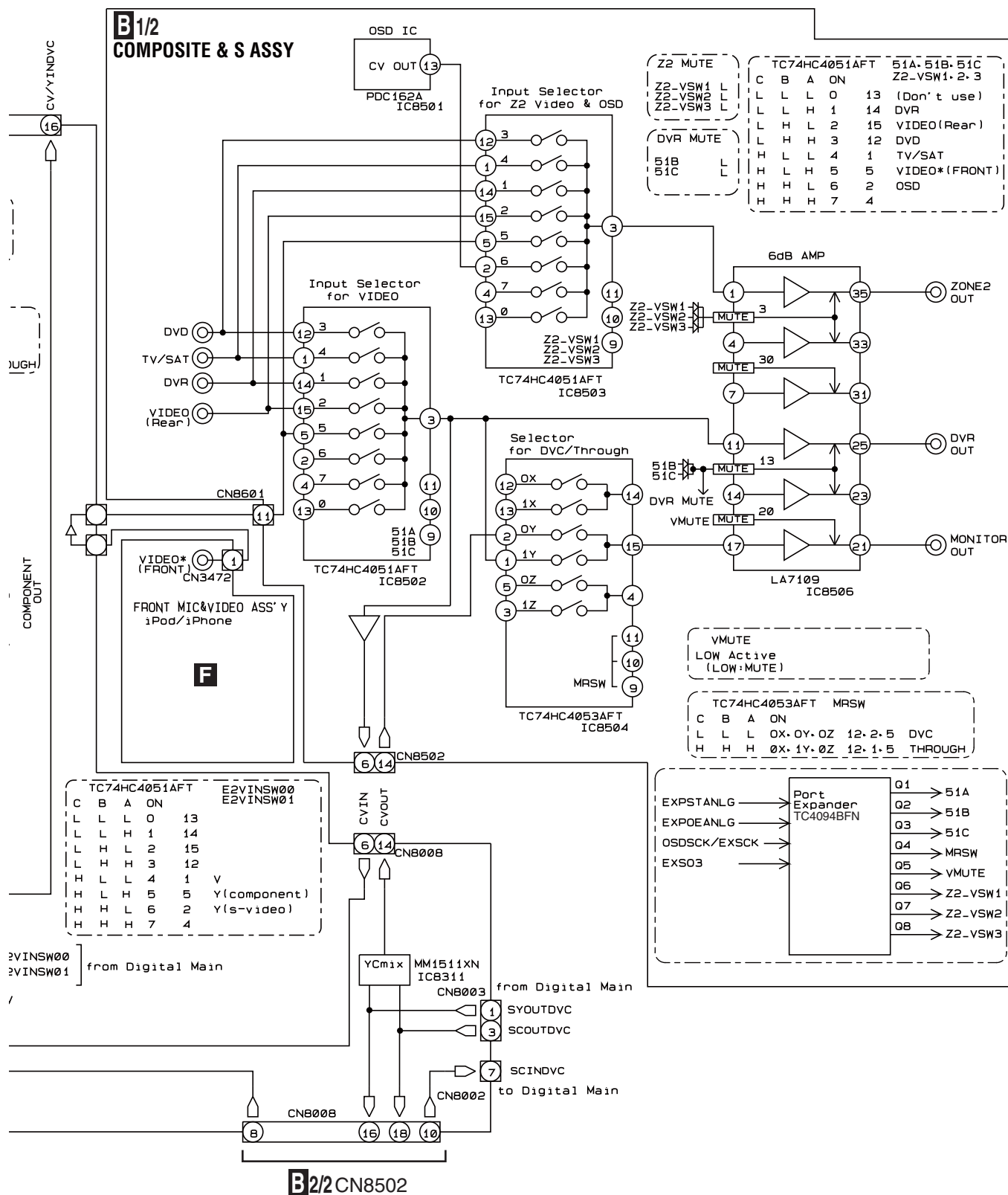


4.4 BLOCK DIAGRAM FOR DIGITAL VIDEO BLOCK



△

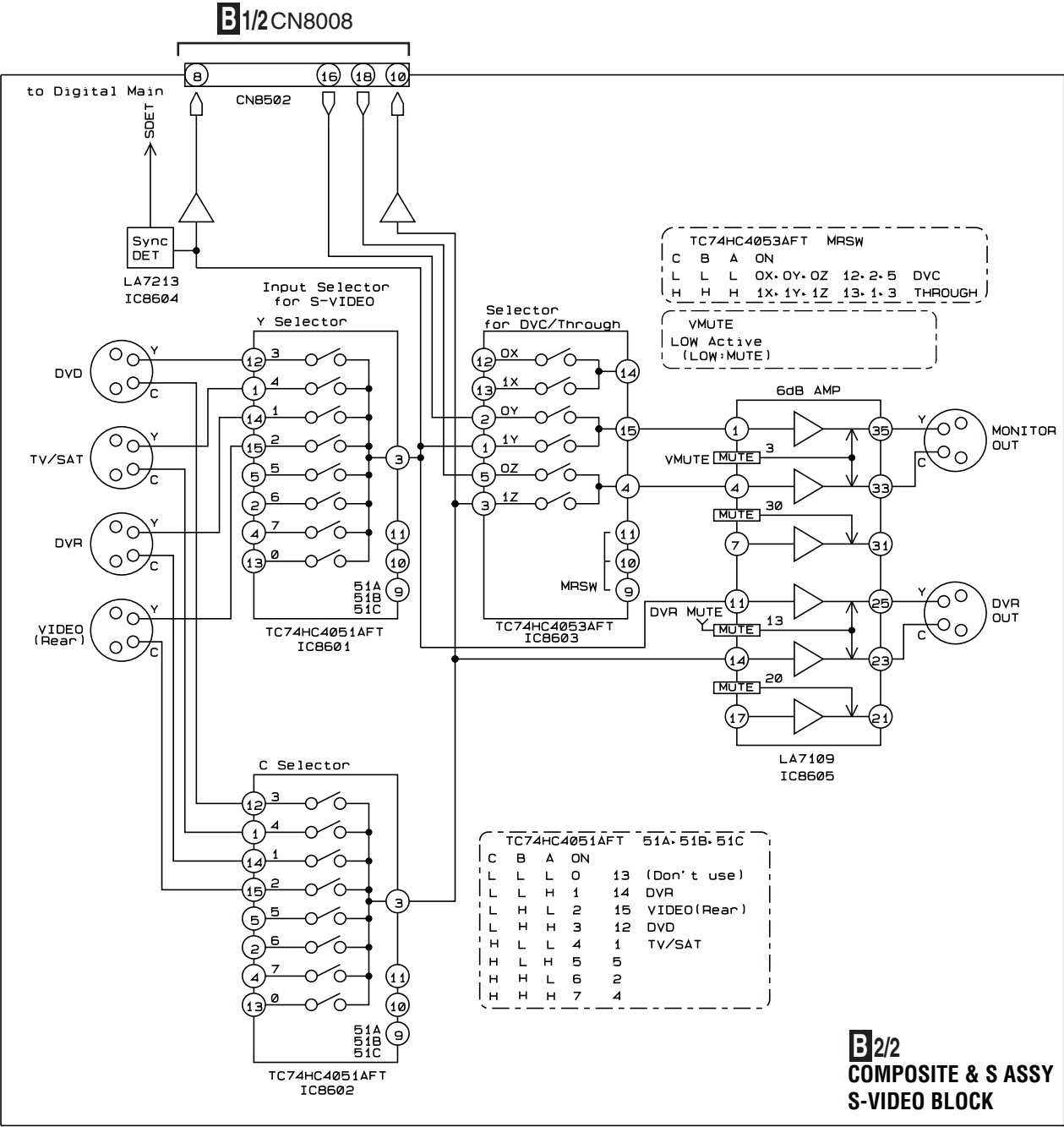




1 2 3 4

4.6 BLOCK DIAGRAM FOR ANALOG VIDEO BLOCK (2/2)

* Refer to 4.5 BLOCK DIAGRAM FOR ANALOG VIDEO BLOCK (1/2)



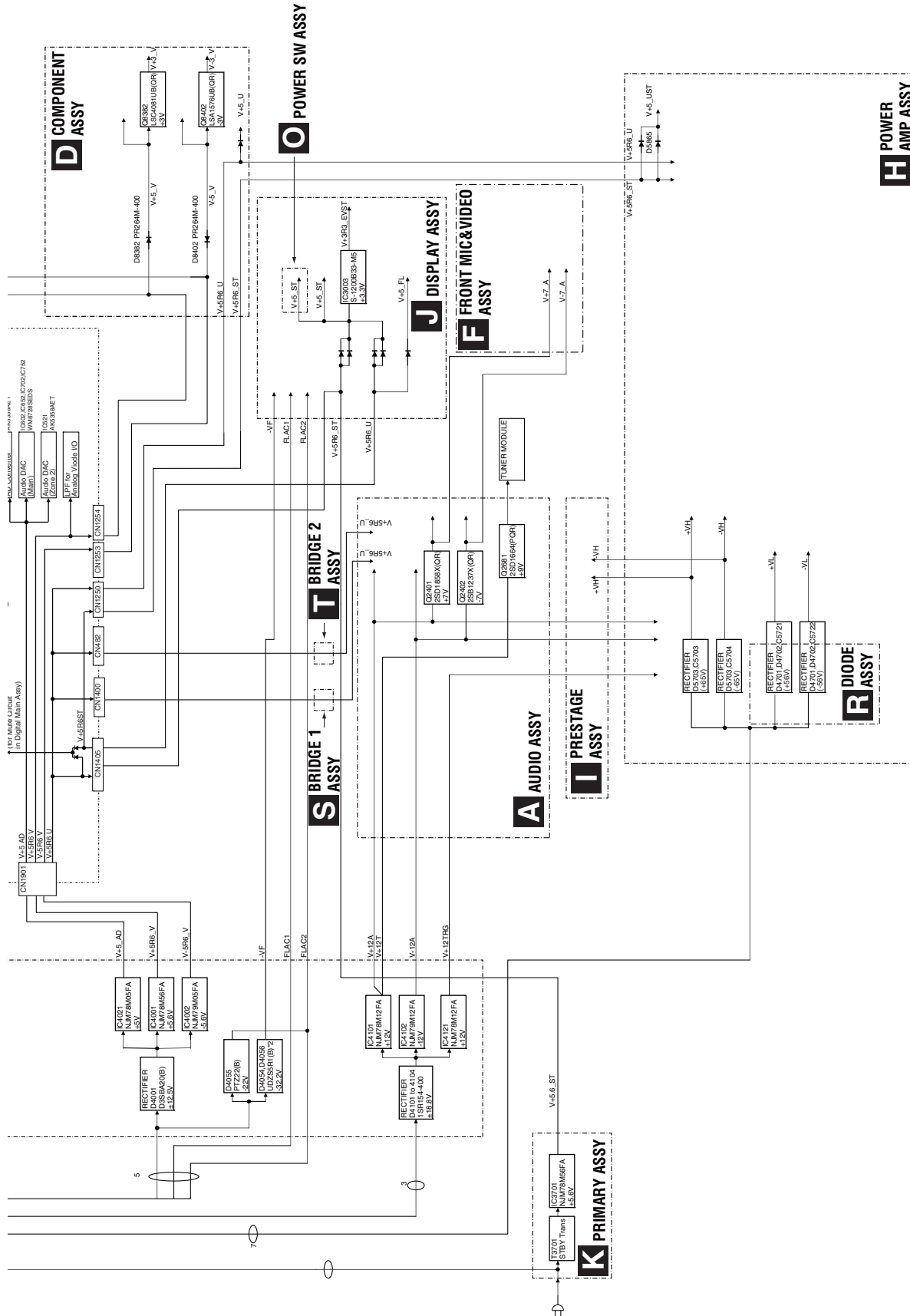
■ 5 ■ 6 ■ 7 ■ 8



F

△





5. DIAGNOSIS

5.1 DIAGNOSIS FLOWCHART

■ Simplified diagnosis

Errors in the Audio Block of the DIGITAL MAIN Assy (those simply and roughly predictable by machine operation only)

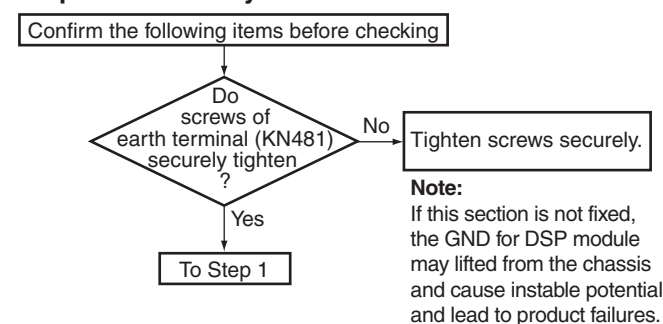
- Sound abnormality in Delay
If sound abnormality does not occur in the Delay OFF state but occurs in the Delay ON state, it is most likely that a failure has occurred in SDRAM (IC251) or LATCH (IC281, IC291) in the DSP Block.
- No sound at analog signal input
If sound abnormality does not occur with digital signal input (COAX, OPT, etc.) but occurs only with analog signal input, it is most likely that a failure has occurred in the AD converter (IC501).
- No sound with the PQLS ON (normal sound with the PQLS OFF)
If no sound is output during CD playback with the PQLS ON, it is most likely that a failure has occurred in the crystal oscillator (X361). (Diagnosis point A)

■ DSP Troubleshooting

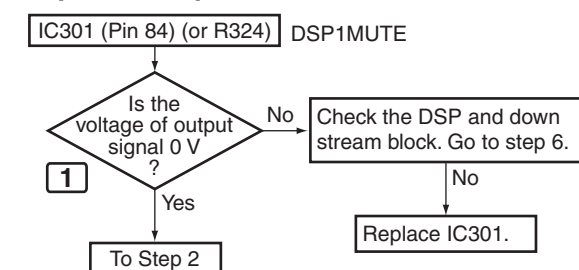
<If no sound is output in Multi-Channel-Signal Playback or Surround mode with the COAX, OPT, USB, and HDMI inputs>

- Assume that the LCRs are neither in poor connection nor damaged.
- Assume that diagnosis is performed from Side A.
- This shows failure analysis for the DSP Block of the DIGITAL MAIN Assy.
- The parts marked like **1** in the following chart are located in "Check Points of the DIGITAL MAIN Assy."

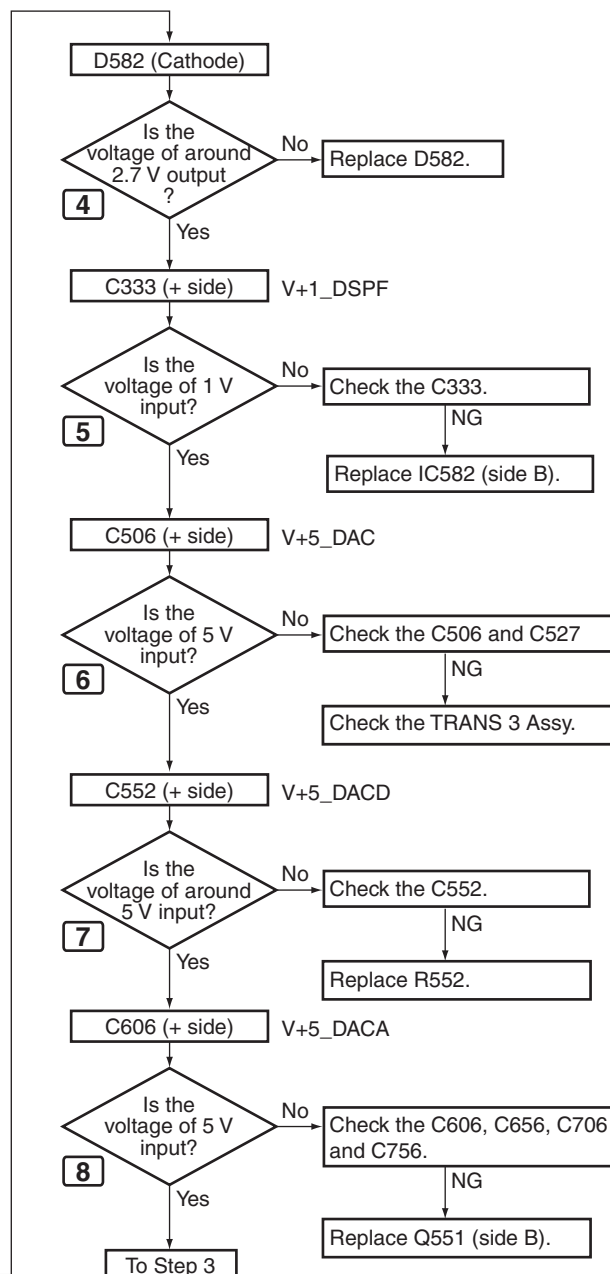
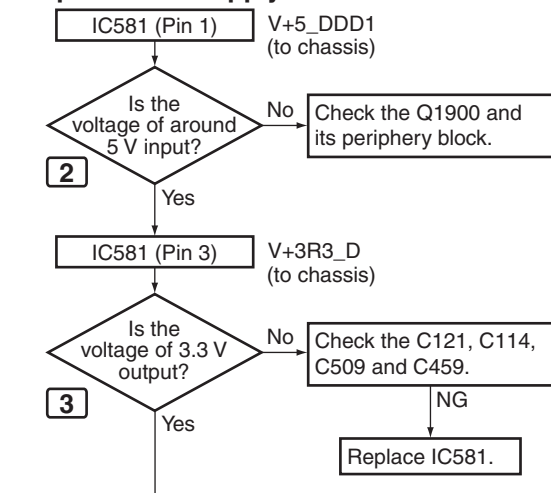
Step 0: Preliminary confirmation



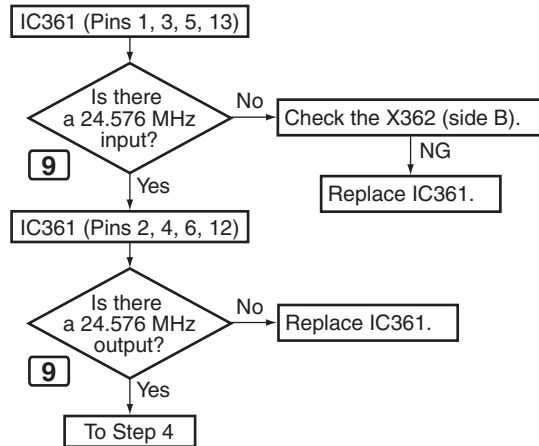
Step 1: MUTE pin



Step 2: Power supply



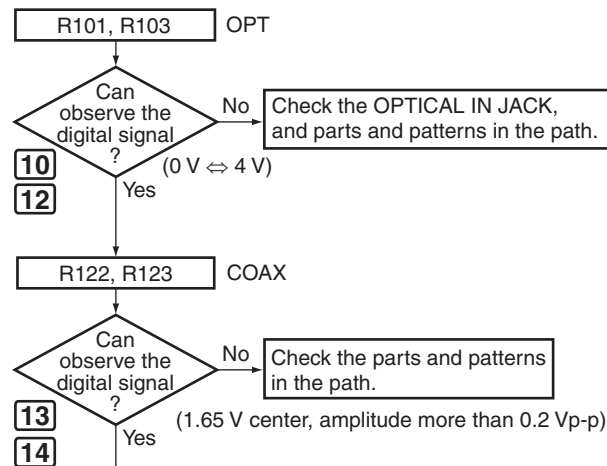
Step 3: X'tal



- When the COAX or OPT is input, go to Step 4.
- When the HDMI (SPDIF path) is input, go to Step 4-1.
Used Source:
[dts HD High Resolution Audio], [dts HD LBR],
[Dolby Digital Plus], [2ch of 48kHz sampling rate or less],
[Other compression stream]
- When the HDMI (SACD) is input, go to Step 5-1.
Used Source: [SACD]
- When the HDMI (I2S path) is input, go to Step 5-2.
Used Source:
[dts HD Master Audio], [Dolby True HD],
[PCM or LPCM of 88.2kHz sampling rate or more],
[LPCM Multi ch]
- When the USB is input, go to Step 5-3.

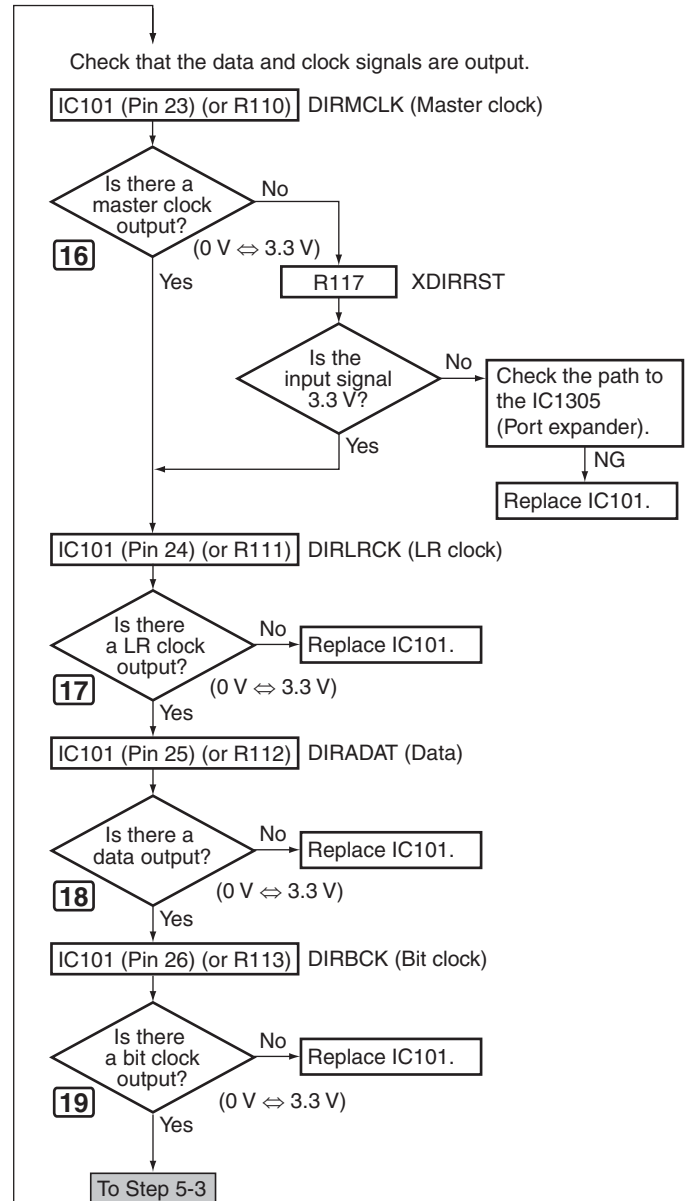
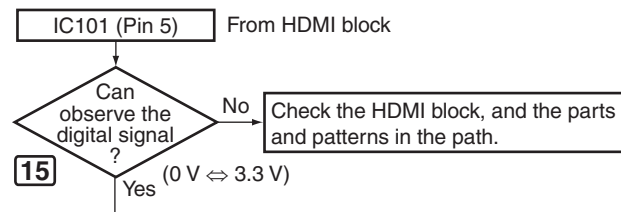
Step 4: DIR

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



Step 4-1

Check that it changes in the Playback and Pause modes of the HDMI.



A Step 5: DSP input (digital)

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

Step 5-1

IC301 (Pin 86) (or R326) LFE data (SACD)

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

IC301 (Pin 85) (or R325) Center data (SACD)

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

Step 5-2

IC301 (Pin 98) (or R332) Surround L/R data (Front R data (SACD))

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

IC301 (Pin 99) (or R332) Center/LFE data (Surround L data (SACD))

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

IC301 (Pin 100) (or R332) Surround Back L/R data (Surround R data (SACD))

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

Step 5-3

IC301 (Pin 89) (or R327) DSP0MCLK

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

IC301 (Pin 134) DSP1MCLK

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

IC301 (Pin 93) (or R330) S3BCK

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

IC301 (Pin 97) (or R332) Front L/R data (Front L data (SACD))

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

When the source is SACD, go to Step 6.
When the source is others, go to Step 5-4.

Step 5-4

IC301 (Pin 94) (or R331) S3LRCK

Is there a data input?
(0 V ⇔ 3.3 V)
No
Yes

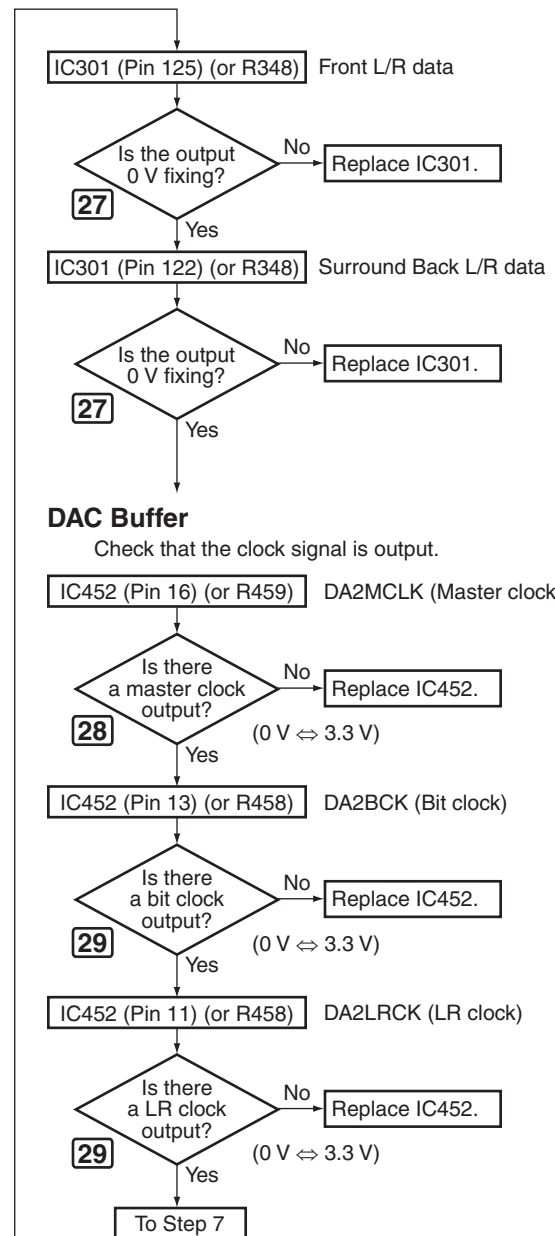
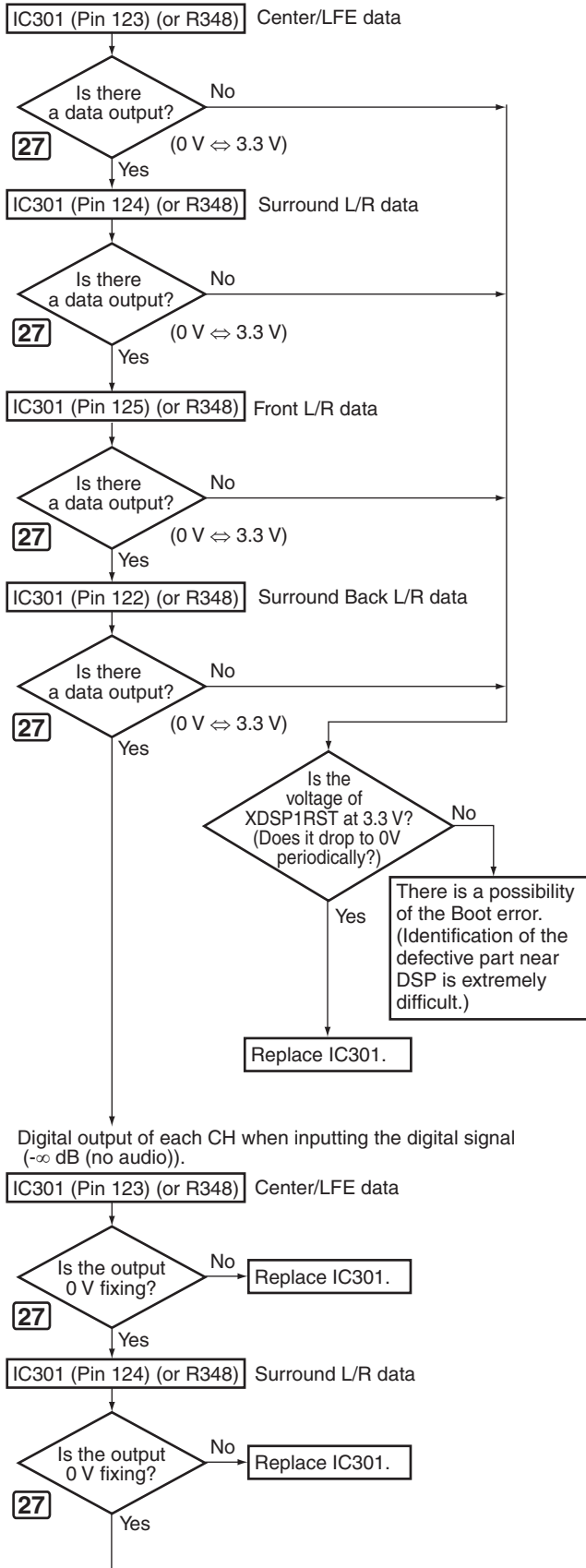
- When the USB is input, check the IC1300 and IC800, and the parts and patterns in the path.
- When the HDMI I2S or HDMI SACD is input, check the HDMI block, and the parts and patterns in the path.
- When the COAX, OPT or HDMI SPDIF is input, check the parts and patterns in the path.

To Step 6

Check the HDMI block, and the parts and patterns in the path.

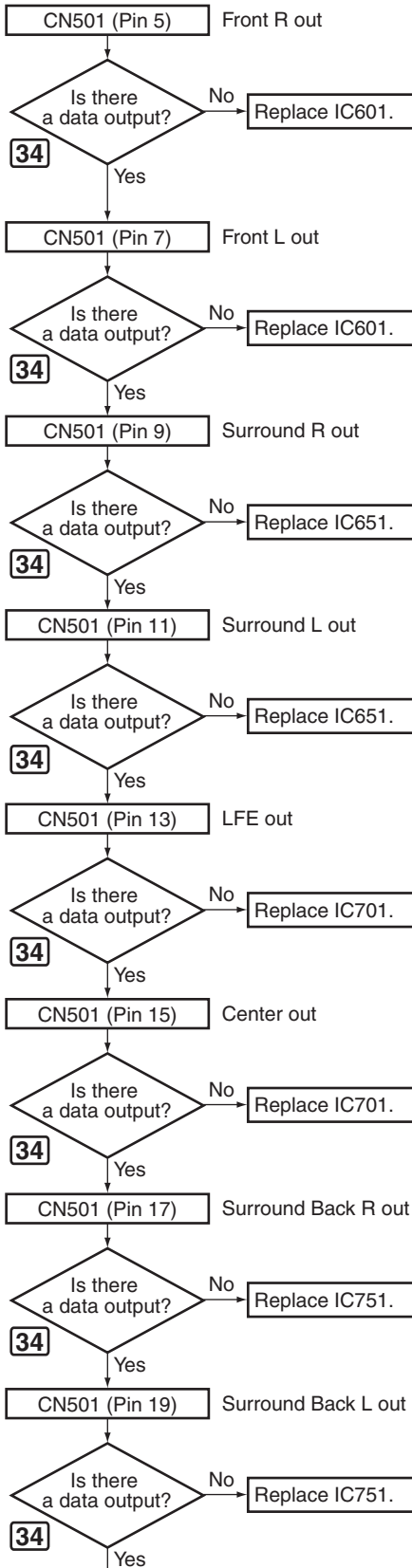
Step 6: DSP output (digital)

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

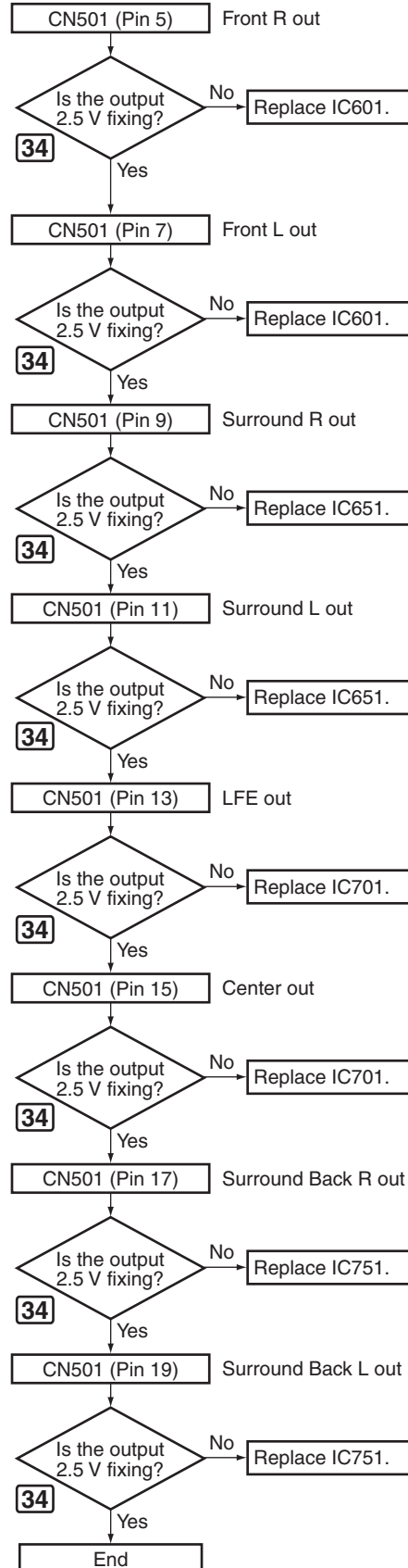


A Step 7: DAC output (analog)

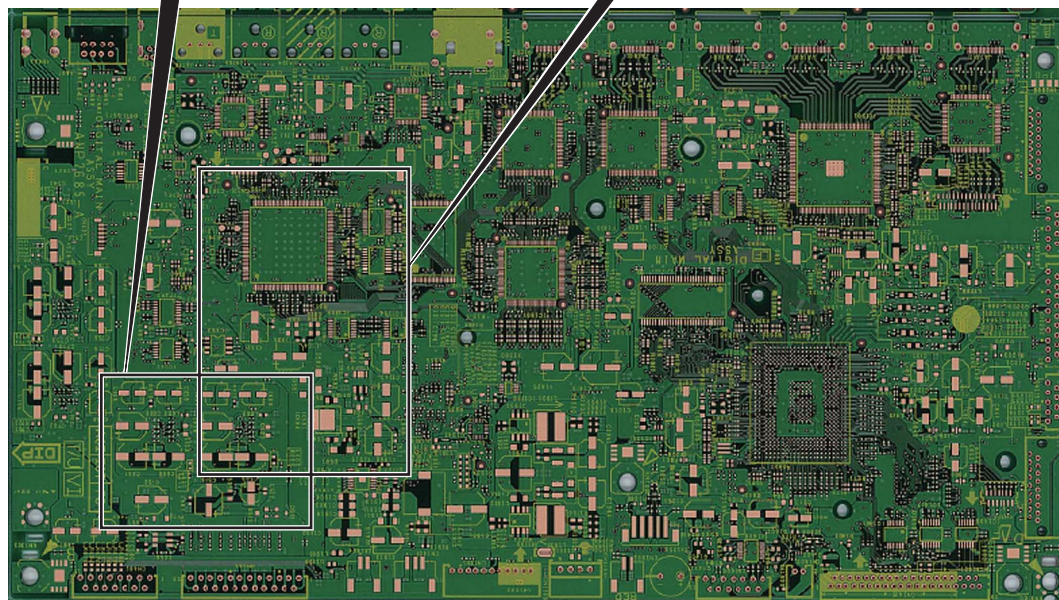
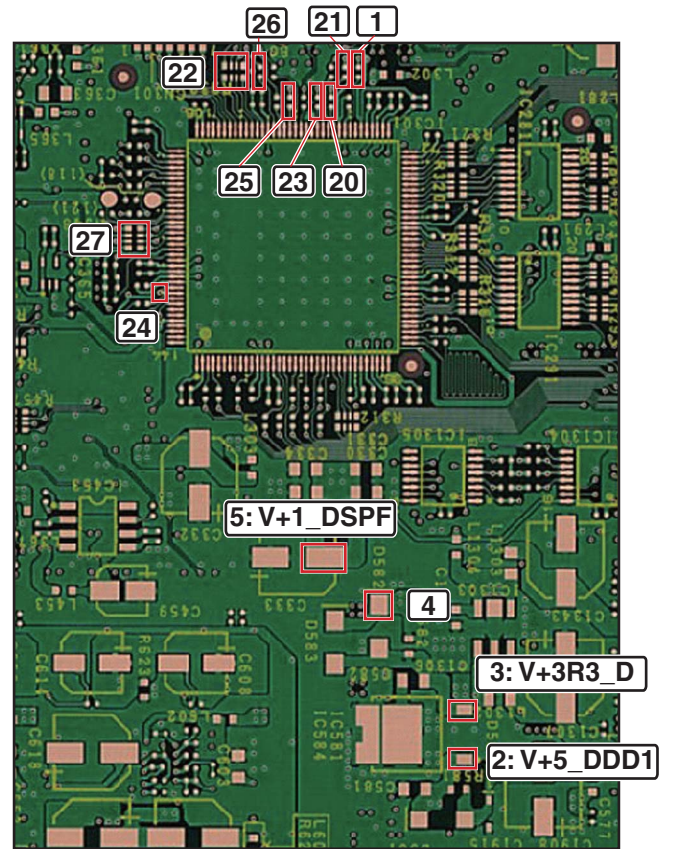
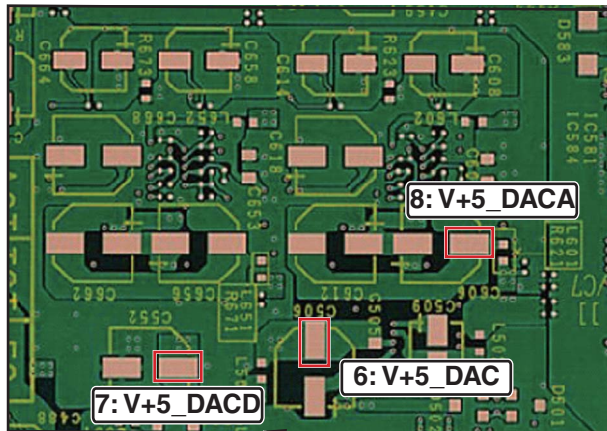
Analog output of each CH when inputting the digital signal with audio.



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



Check Points of the DIGITAL MAIN Assy



D DIGITAL MAIN ASSY

SIDE A

A

B

C

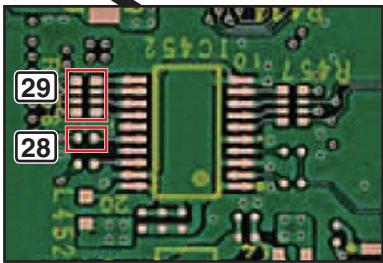
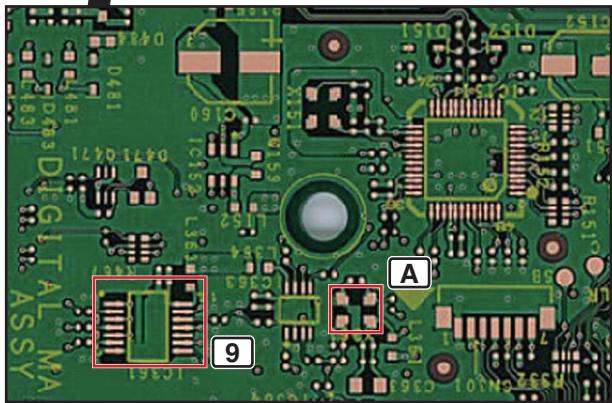
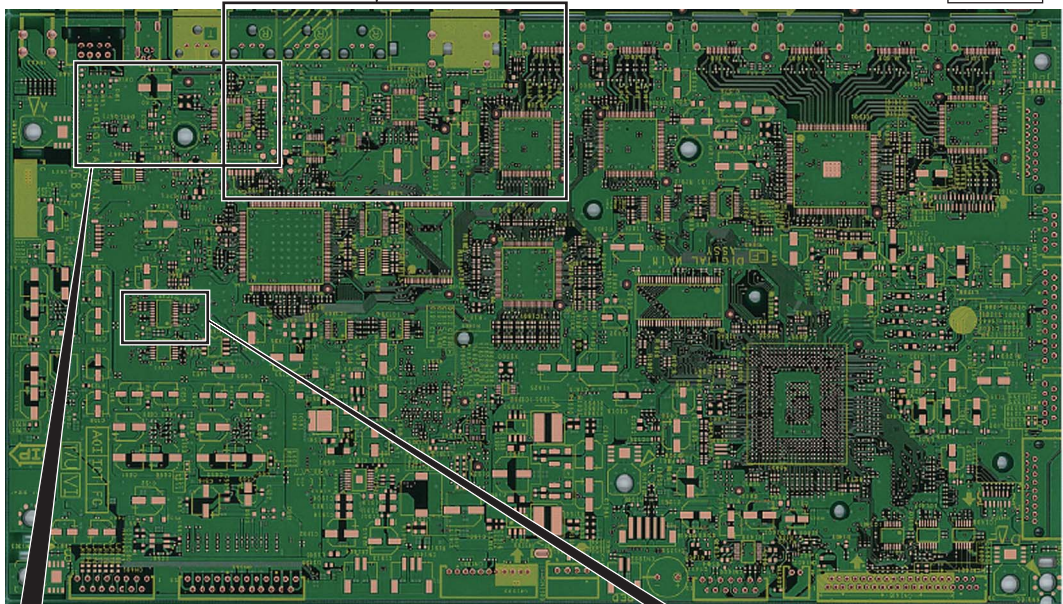
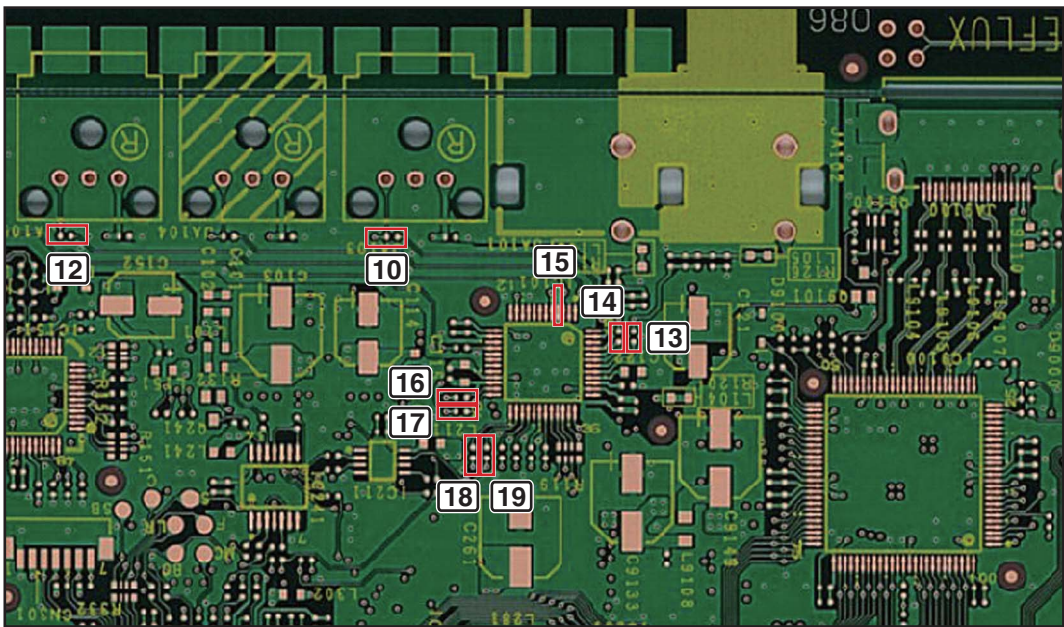
D DIGITAL MAIN ASSY

SIDE A

D

E

F



■ Conditions for selecting SPDIF or I2S output (HDMI transmission)

	pcm	fs (kHz)	Layout	SPDIF	I2S (3 lines)
Indistinguishable	Compression DVD-V	48	2ch	Yes	No
	Compression *.WAV	44	2ch	Yes	No
		48	2ch	Yes	No
	dts-CD	44	2ch	Yes	No
	PCM	44	2ch	Yes	No
		48	2ch	Yes	No
	DVD-V	96	2ch	No	Yes
	LPCM	44	2ch	Yes	Yes
			Multi	No	Yes
		48	2ch	Yes	Yes
			Multi	No	Yes
		88	2ch	No	Yes
			Multi	No	Yes
		96	2ch	No	Yes
			Multi	No	Yes
	DVD-A	176	2ch	No	Yes
			Multi	NA	NA
		192	2ch	No	Yes
			Multi	NA	NA

SACD	2ch	No	Yes	(DSD)
	Multi	No	Yes	(DSD)

dts HD Master Audio	No	Yes
dts HD High Resolution Audio	Yes	No
dts HD LBR	Yes	No
Dolby TrueHD	No	Yes
Dolby Digital Plus	Yes	No

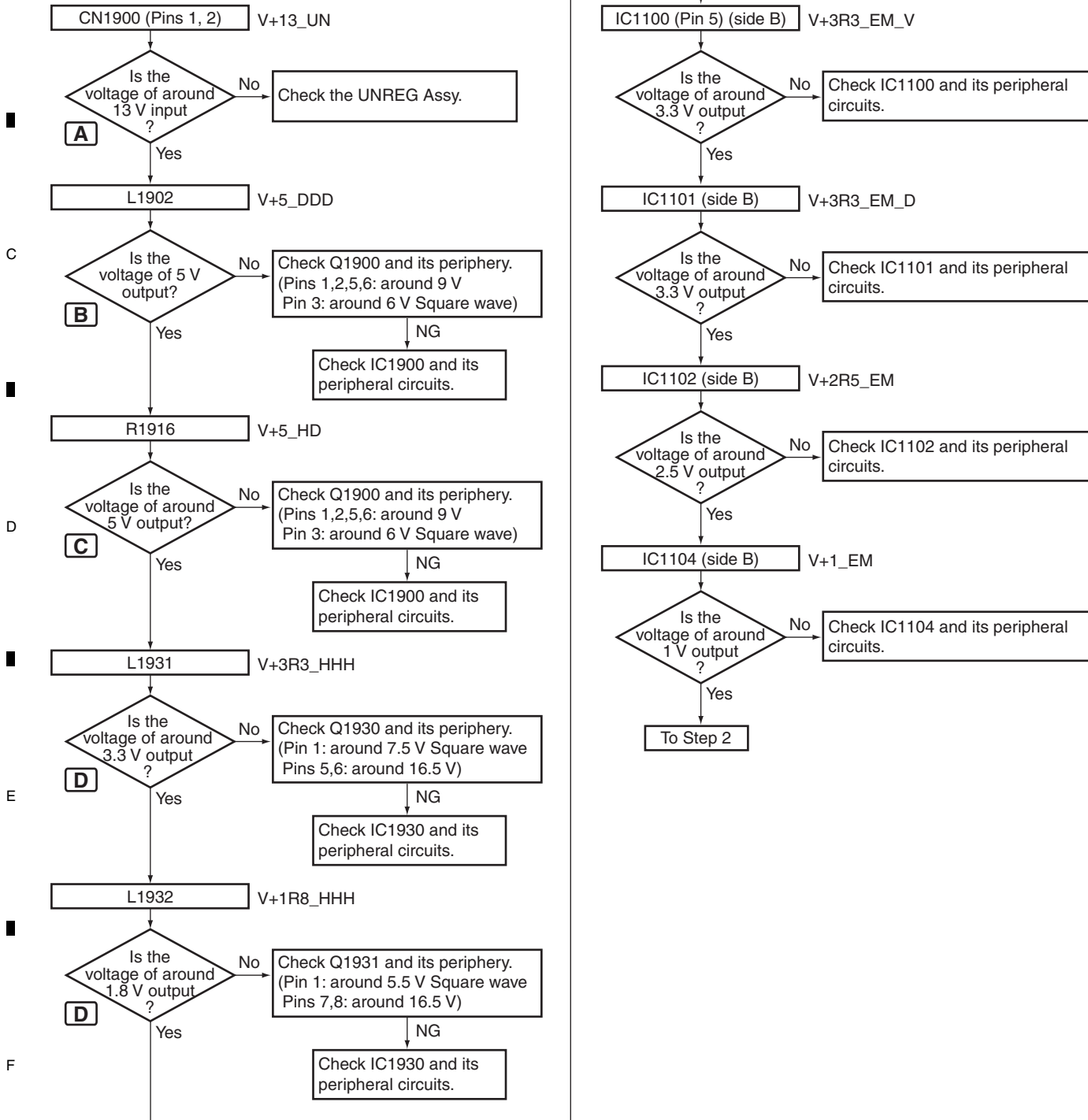
A ■ HDMI & DVC Block Troubleshooting

<When no image is displayed after the unit is turned on, the HDMI LED on the front panel lights, and the HDMI or analog signal is input.>

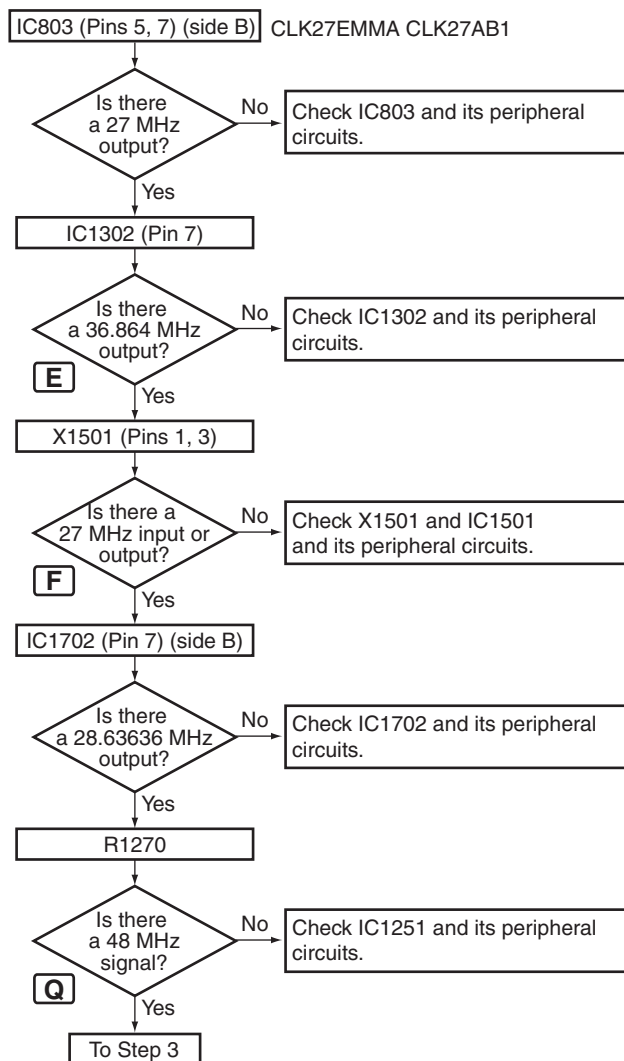
- If conversion between 480i and 480p is not possible, it is most likely that IC800 is in failure. Check its peripheral circuits.
- Assume that the LCRs are neither in poor connection nor damaged.
- Analog video Convert (Ex.: S → COMPONENT) is satisfied by diagnosing the input and output.
- Although diagnosis is assumed to be performed from Side A, the wiring numbers on Side B are also described in the flowchart.
- This shows failure analysis for the HDMI & DVC Block of the DIGITAL MAIN Assy.
- The confirmation of peripheral circuits means mainly a power supply of IC, a sync signal, a existence of the input/output signal, a conduction check and the appearance check of the bridges.

• The parts marked like **A** in the following chart are located in "Check Points of the DIGITAL MAIN Assy."

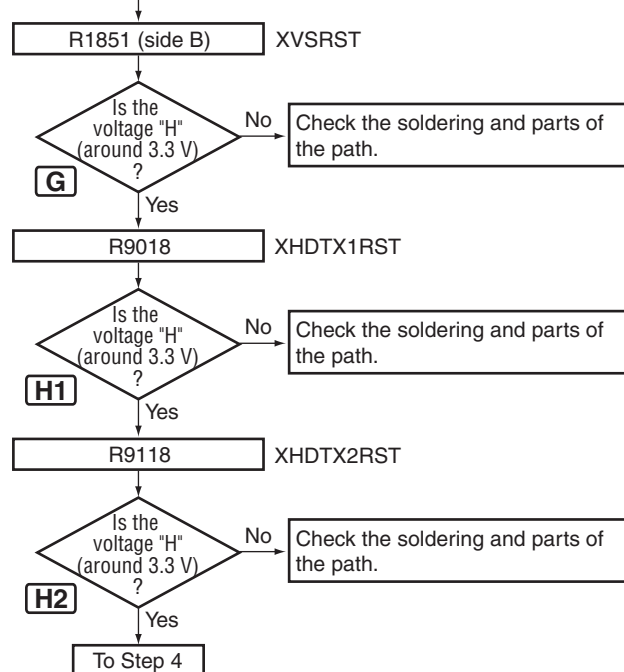
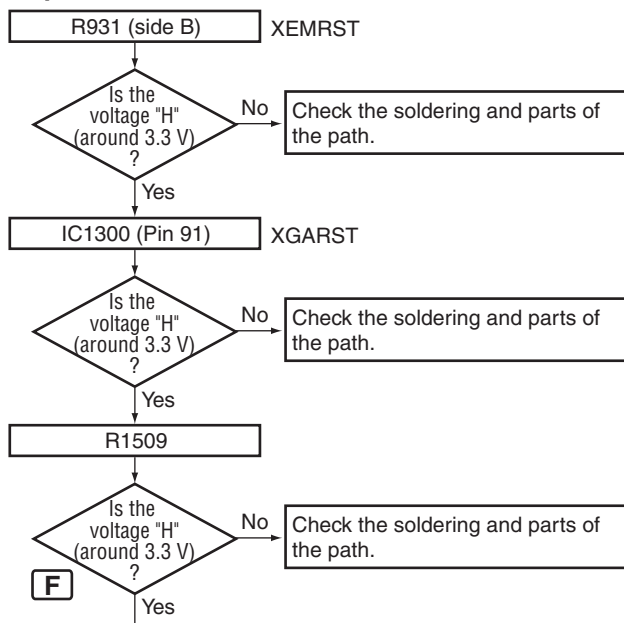
B Step 1: Power supply



Step 2: X'tal

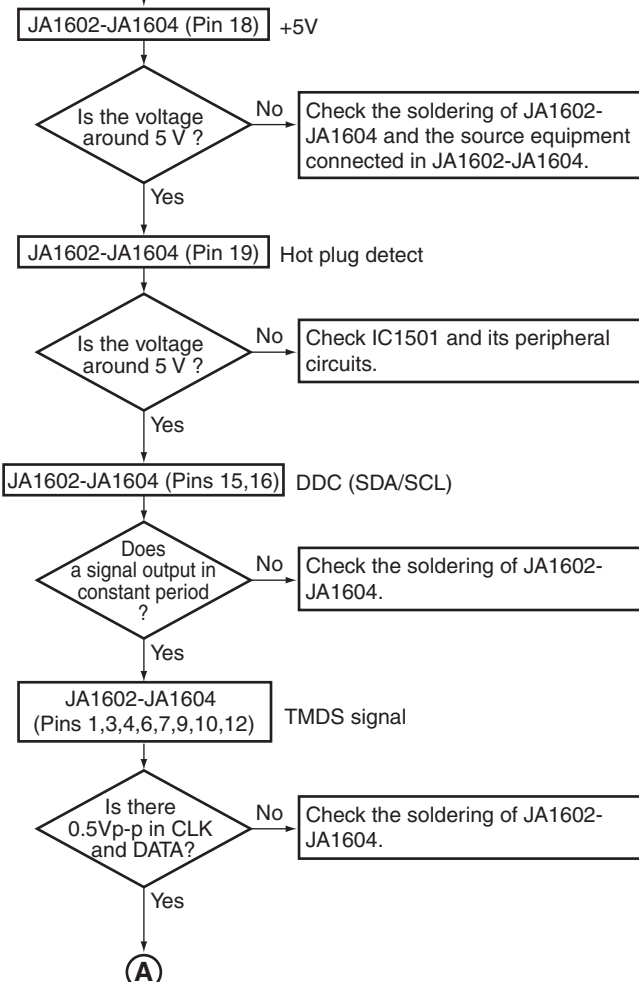


Step 3: RESET



Step 4: HDMI IN, HDMI OUT

Step 4-1: IN 1,2,3/INBD 1,2



A

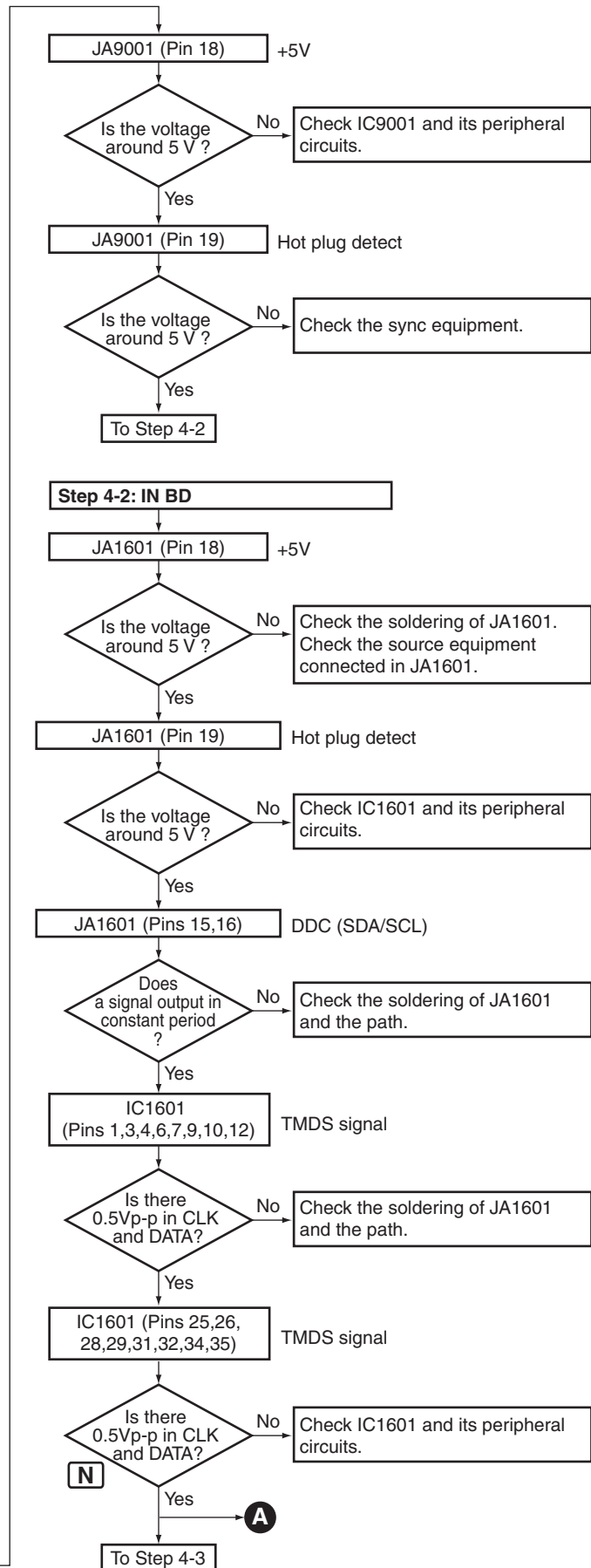
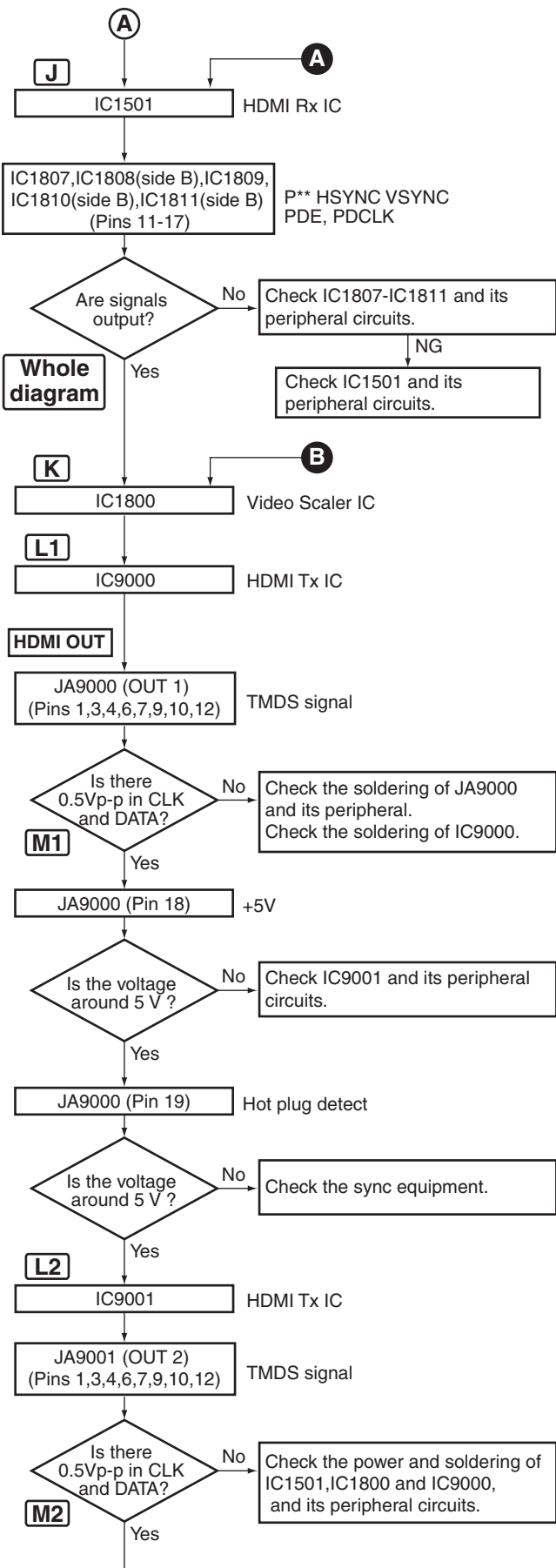
B

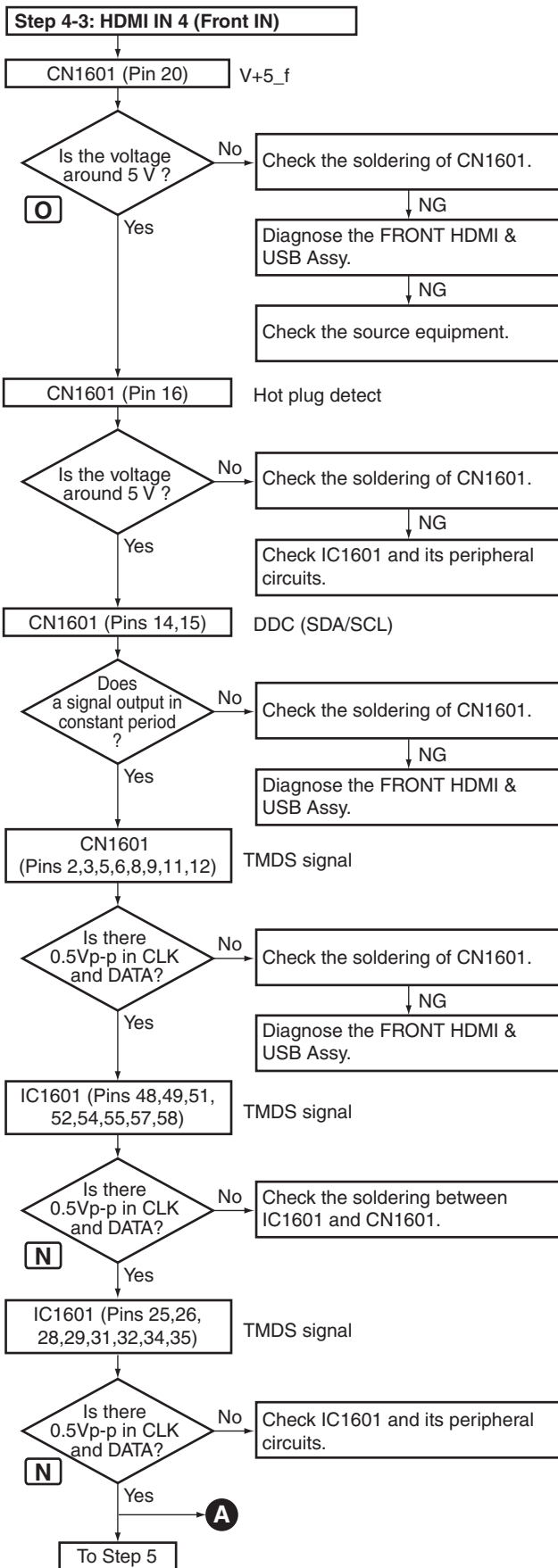
C

D

E

F

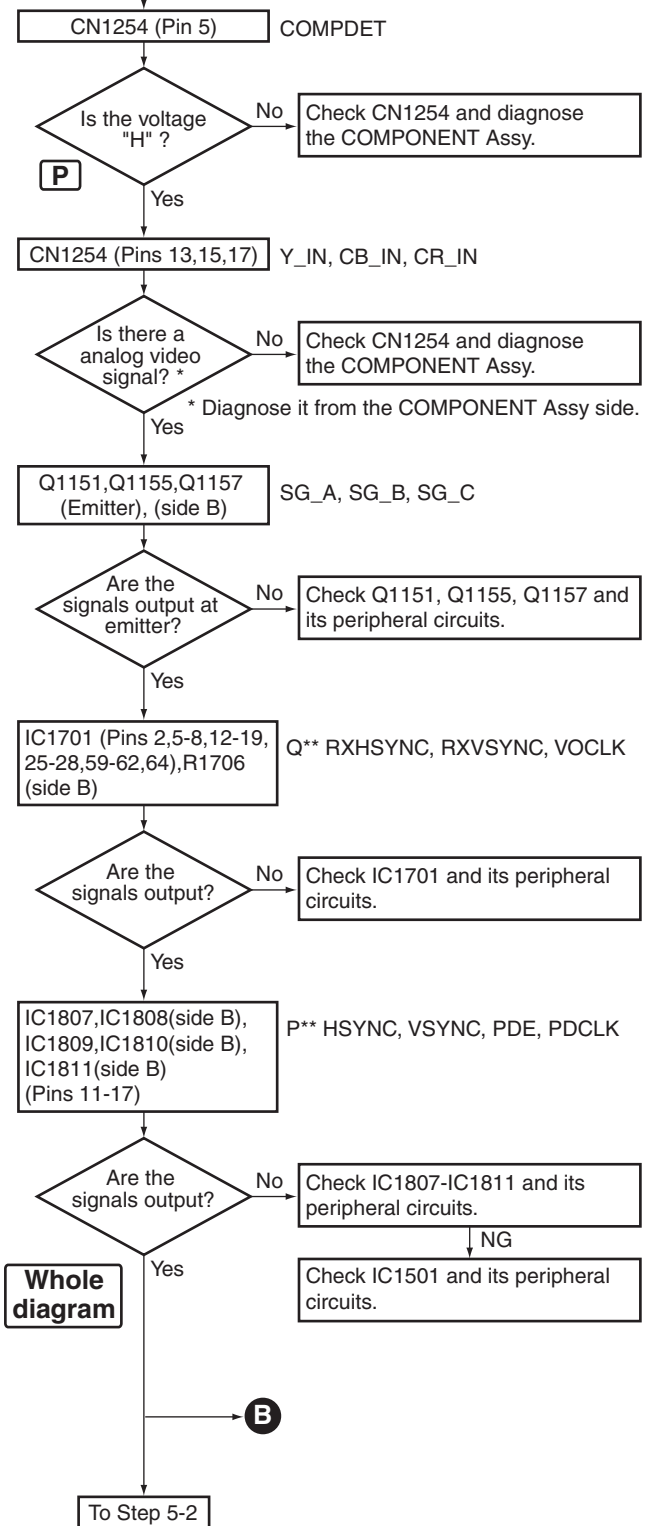




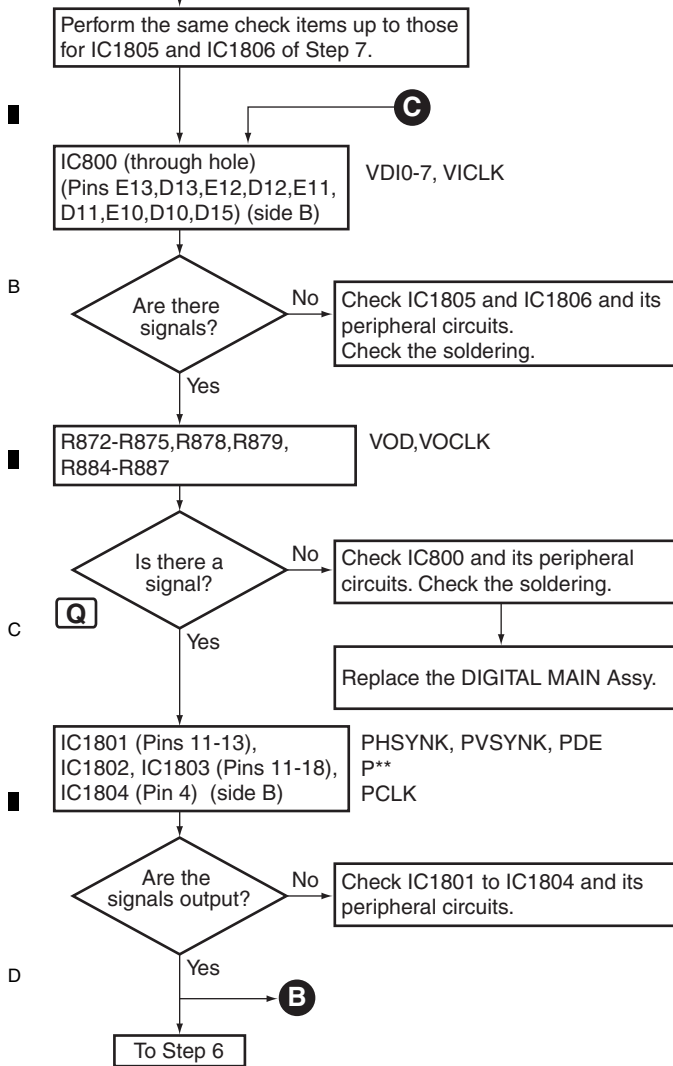
Analog IN, HDMI OUT

Step 5: COMPONENT IN

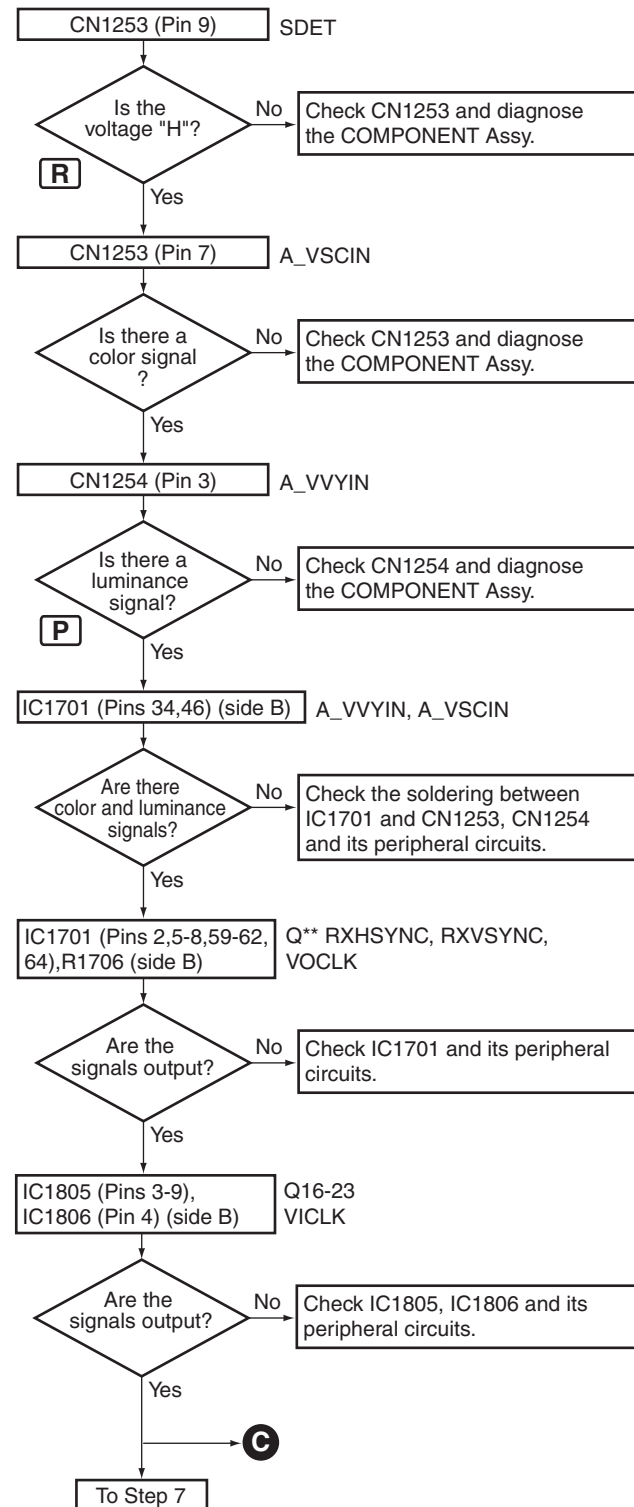
Step 5-1: HDMI OUT (more than 480p)



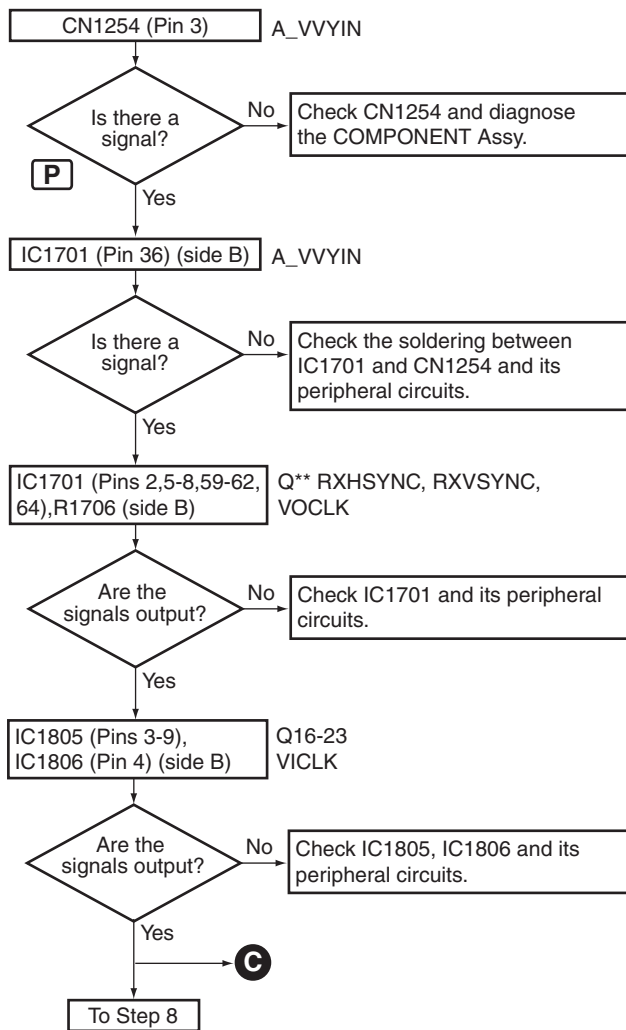
A Step 5-2: Component IN, HDMI OUT (at 480i)



Step 6: S IN, HDMI OUT



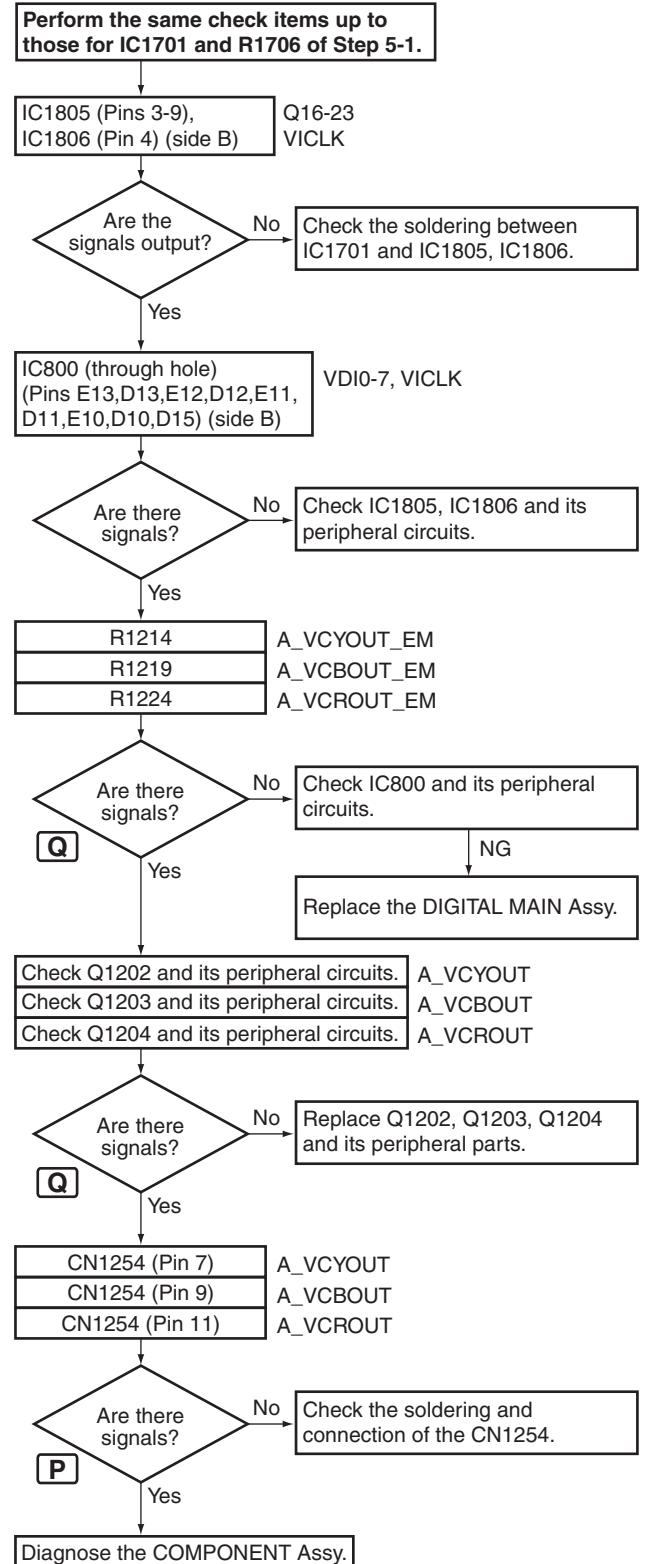
Step 7: COMPOSITE IN, HDMI OUT



DVC ON, Analog IN, OUT

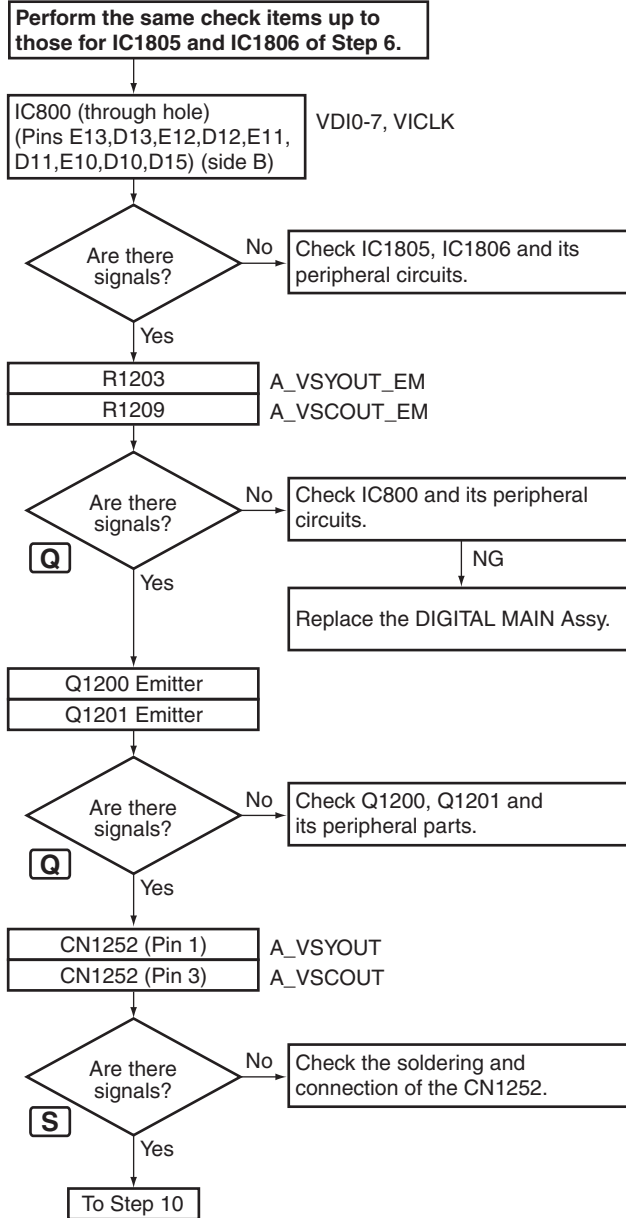
Step 8: COMPONENT IN COMPONENT OUT

Note: When the connection is Composite S OUT, refer to the diagnose of IC800 and later in steps 9 and 10.



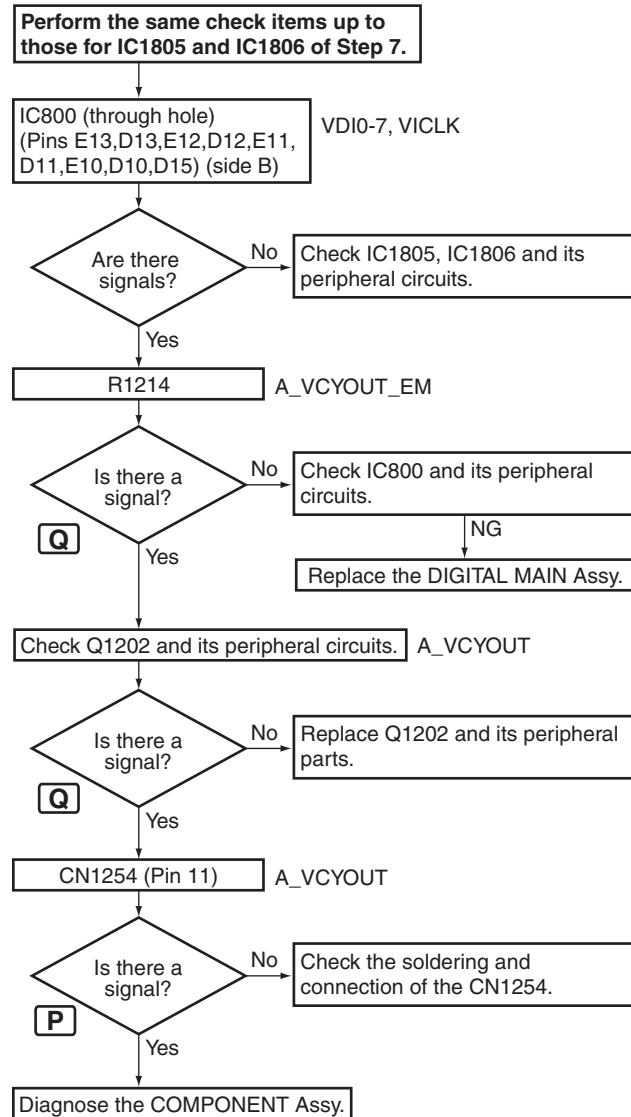
Step 9: S IN, S OUT

Note: When the connection is Composite OUT and Component OUT, refer to the diagnose of IC800 and later in steps 8 and 10.



Step 10: COMPOSITE IN, COMPOSITE OUT (at DVC ON)

Note: When the connection is S Component OUT, refer to the diagnose of IC800 and later in steps 8 and 9.



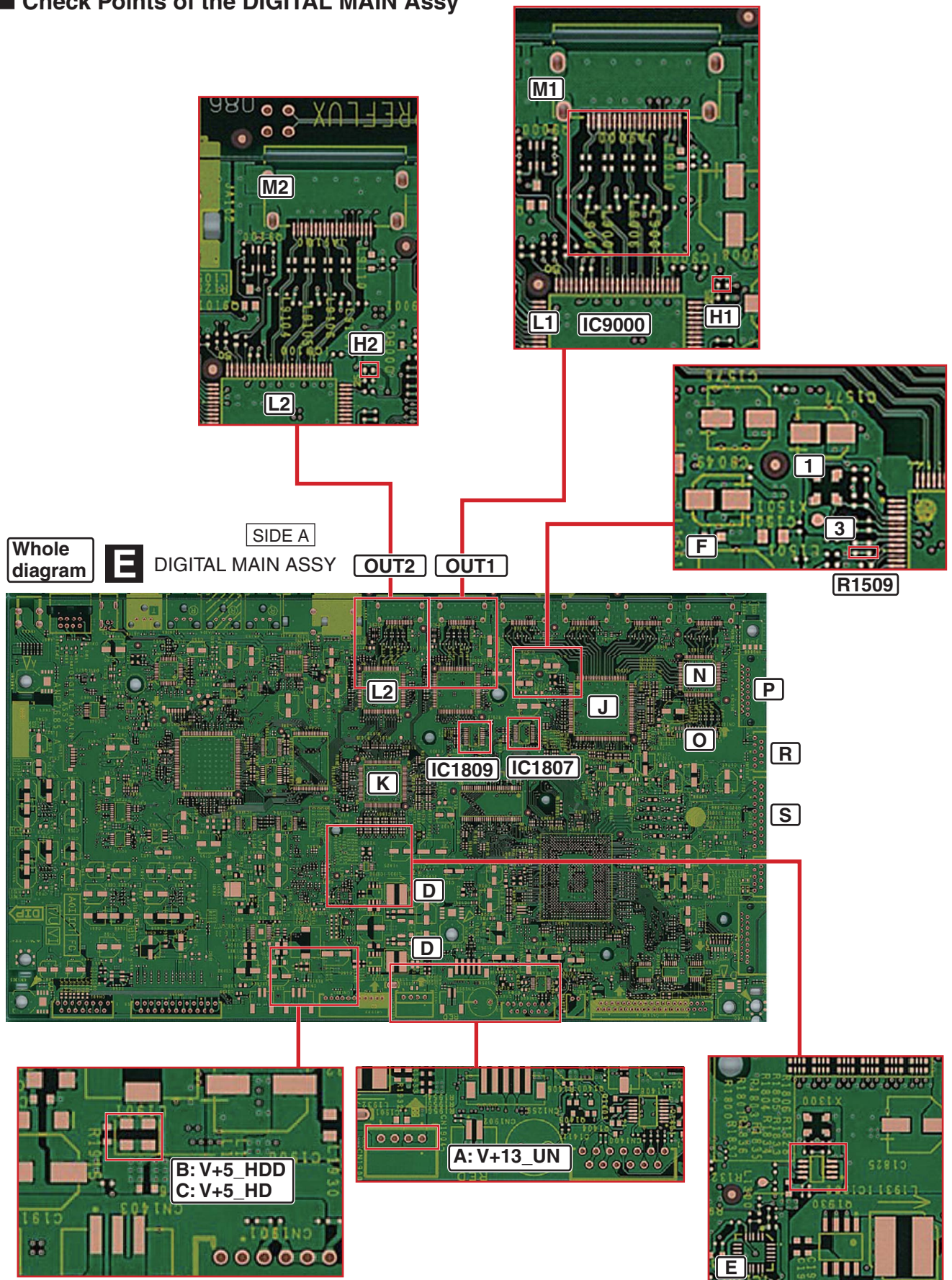
Step 11: GUI/JPEG (USB) Composite/S/Component OUT

Diagnose the IC800 (through hole) of Composite/S/Component OUT and later.

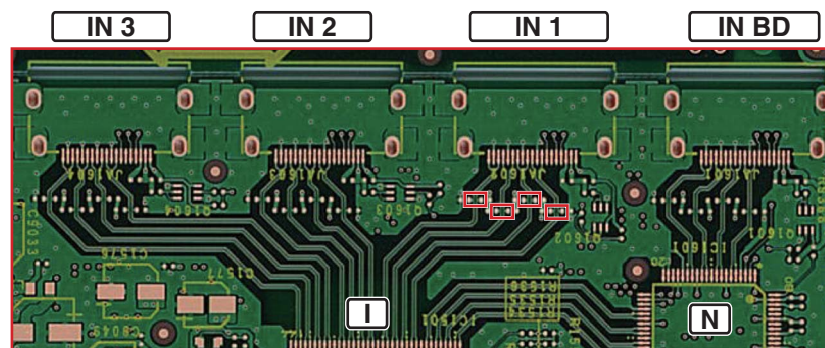
Step 12: GUI/JPEG (USB) HDMI OUT

Go to **C**.

Check Points of the DIGITAL MAIN Assy

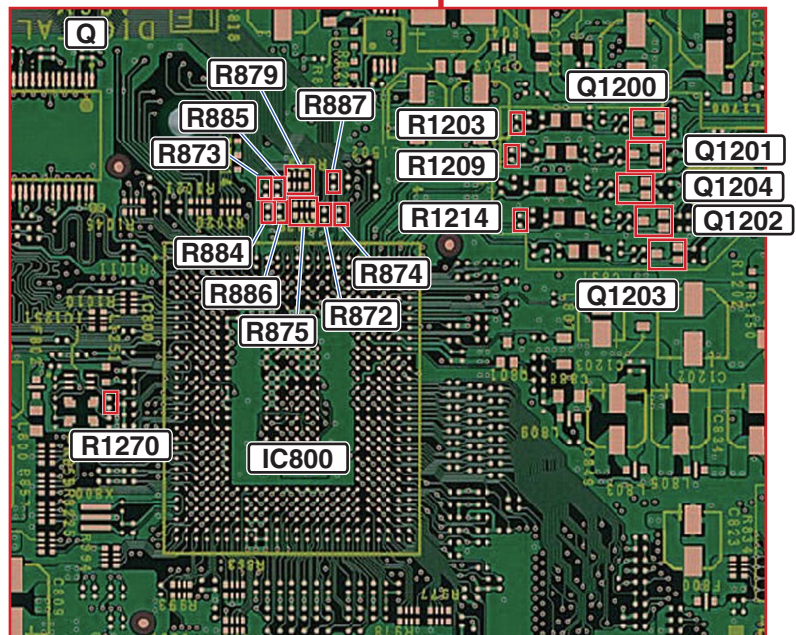
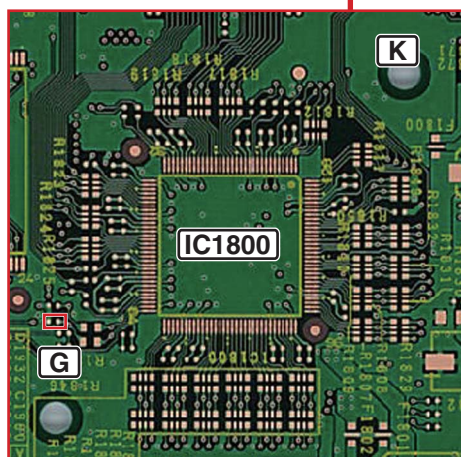
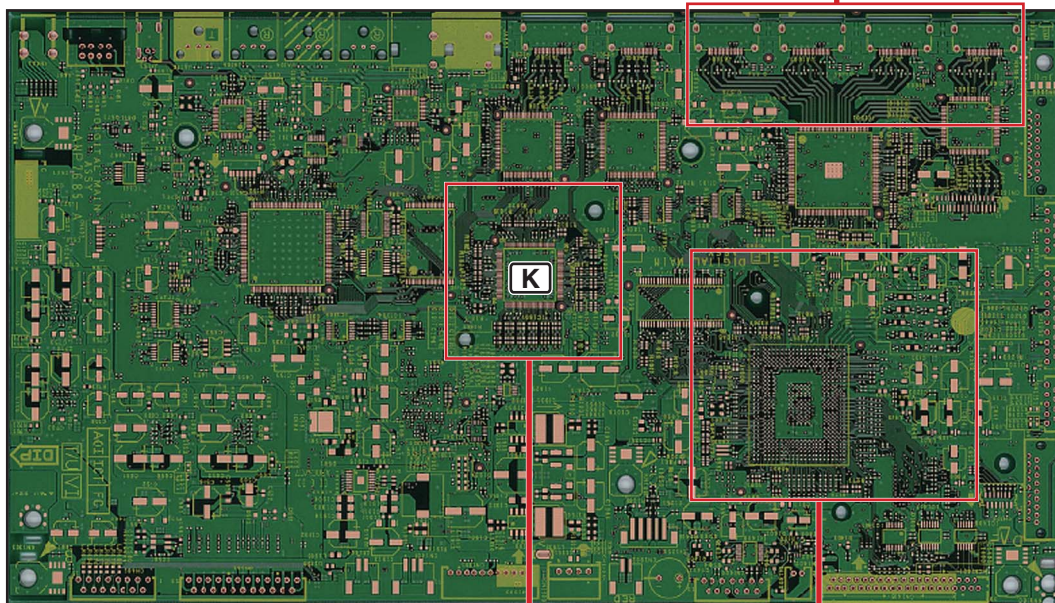


Note: In the figure of the points to be checked, those when signals are input to the IN 1 connector are indicated. The points to be checked for other connectors are the same.



SIDE A

E DIGITAL MAIN ASSY



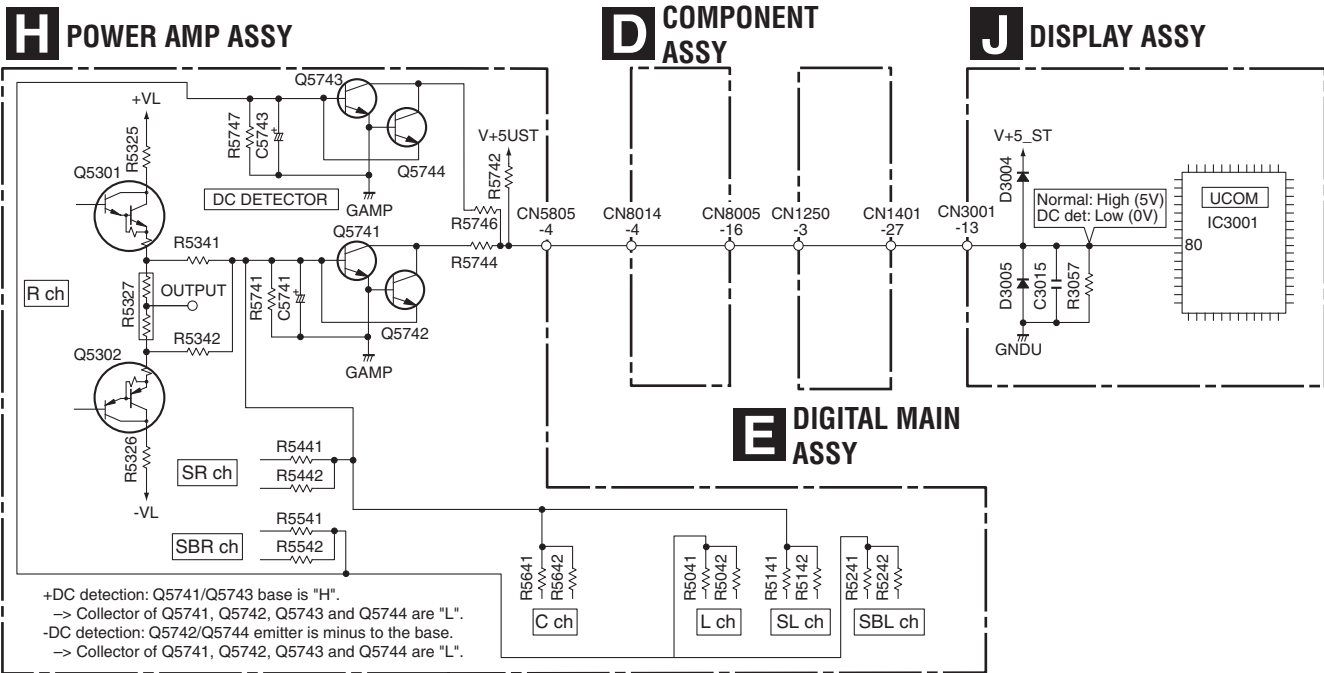
5.2 CIRCUIT DESCRIPTION

[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 PHASE CONTROL indicator.	None	

(*) To restore the previous staus, follow the procedure described in "How to Enter Release Mode" (P.49) then turn the unit back on.

■ DC Detection Circuit

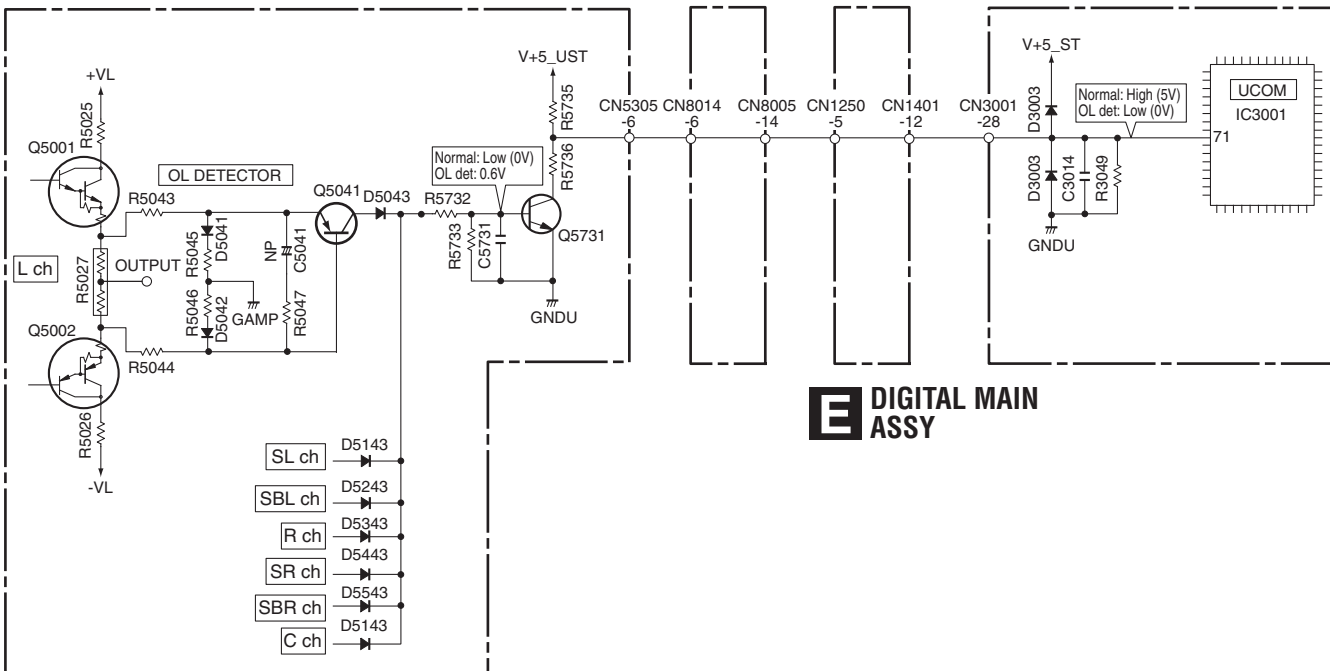


OL (Over Load) Detection Circuit

H POWER AMP ASSY

D COMPONENT ASSY

J DISPLAY ASSY



E DIGITAL MAIN ASSY

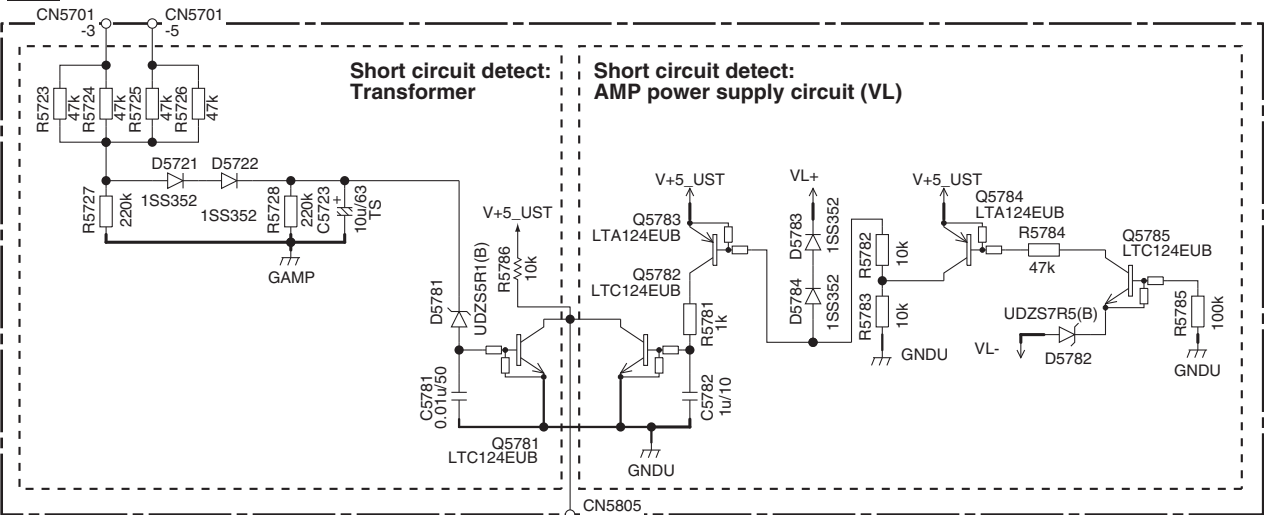
[2] Protection Circuit Process List (XPROTECT)

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.49) then turn the unit back on.

XPROTECT Circuit

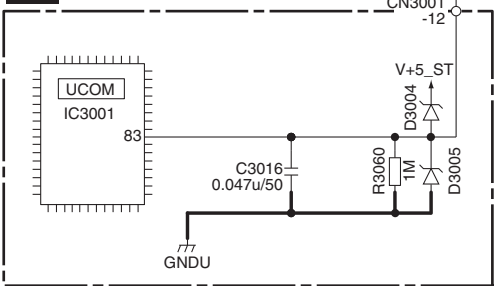
H POWER AMP ASSY



D COMPONENT ASSY

E DIGITAL MAIN ASSY

J DISPLAY ASSY



[3] 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.	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	PHASE CONTROL	"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 PHASE CONTROL 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	CENTER BLUE 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 CENTER BLUE 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 minute 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.	

	FL Display	LED flashes	Status	Timing (sec.)	Description	Remarks
(7)	HDCP ERROR	NA	When an HDCP ERROR is detected.	Flashes 5 seconds		Warning indication for HDMI Simplay
(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

[How to Enter Release Mode]

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

1 2 3 4

6. SERVICE MODE

6.1 TEST MODE

A

[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]

B

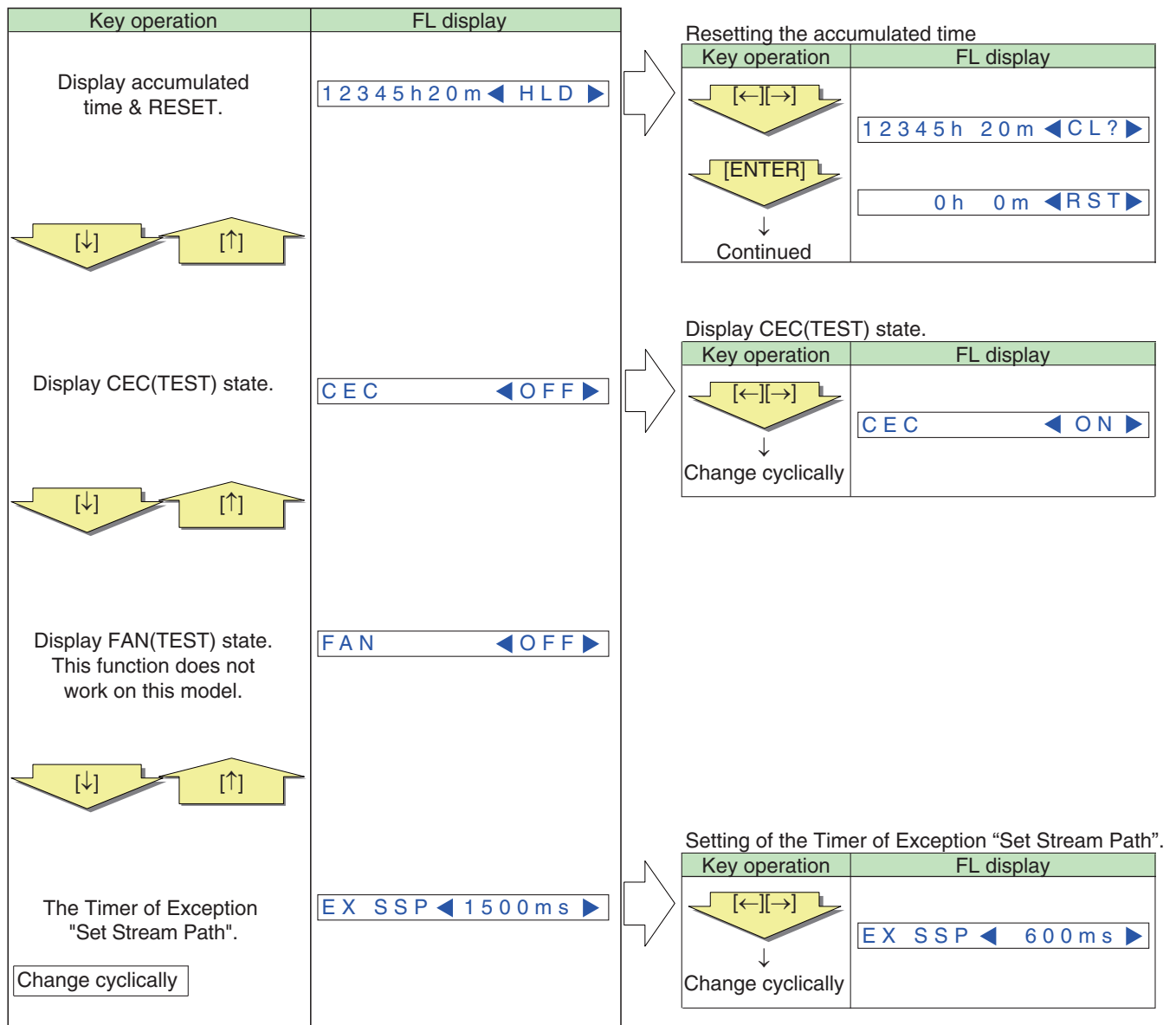
Key operation	FL display
Display number of times DC is detected.	DC : ***
[↓] [↑]	
Display number of times OVERLOAD is detected.	OL : ***
[↓] [↑]	
Display number of times COMBINATION is detected. (Detects DC and OVERLOAD simultaneously)	COM : ***
[↓] [↑]	
Display number of times Power abnormality is detected.	XPRT : ***
[↓] [↑]	
Display number of times AMP overheat is detected.	STMP : ***
[↓] [↑]	
Display number of times Digital Power abnormality is detected.	DERR : ***
[↓] [↑]	
Resetting the number of times error is detected.	RESET ◀HOLD▶
[↓] [↑]	

Front Panel Key

[↓] : TUNE-
[↑] : TUNE+
[←] : PRESET-
[→] : PRESET+

Resetting the number of times error is detected

Key operation	FL display
[←][→]	RESET ◀CLEAR?▶
[ENTER]	RESET ◀RESET▶
Continued	



[Description]

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

7. 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.)

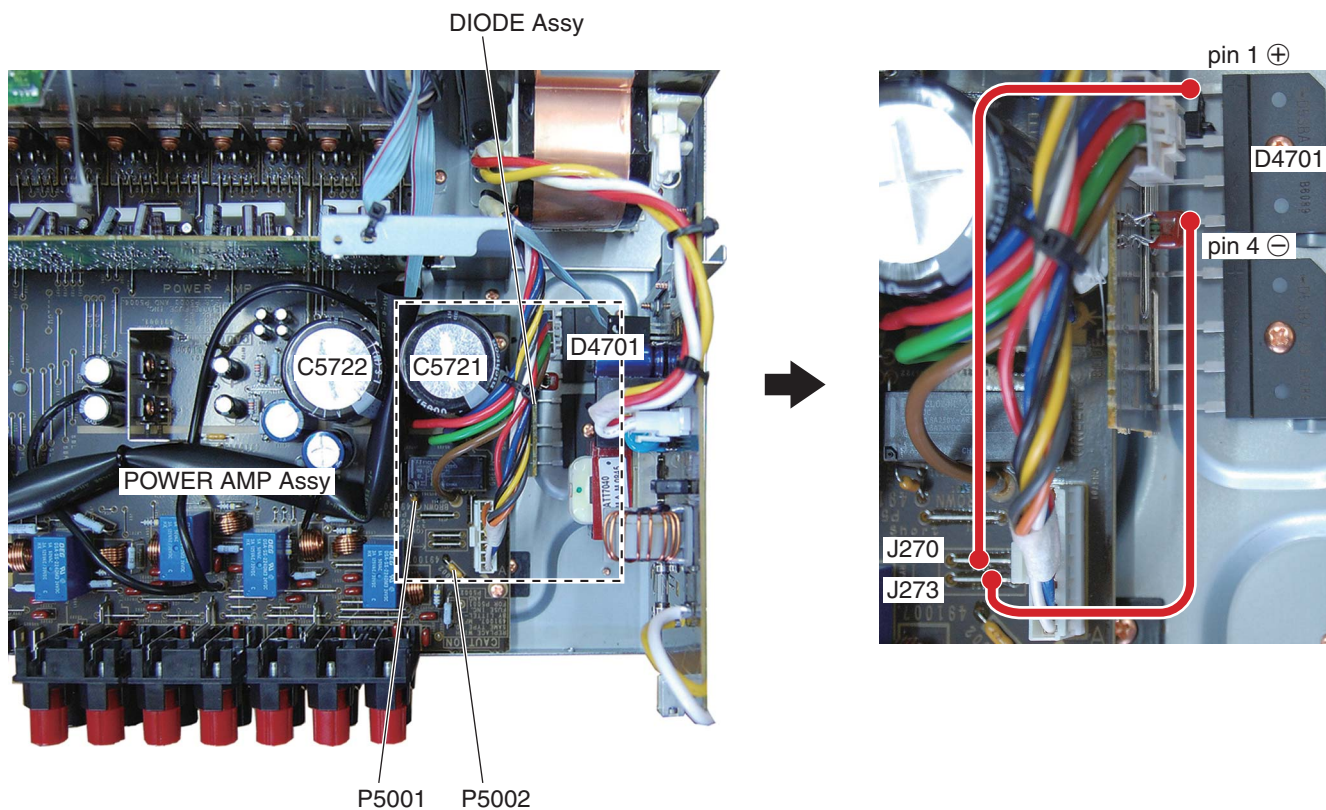
If you don't, the protectors (P5001 and P5002) on the board may be open, and DC voltage may be generated at the power amplifier output, which will result in "AMP ERR."

[Procedures]

- (1) Unplug the power cord.
- (2) Discharge C5721 and C5722 by connecting J270 and pin 1 of D4701, as well as J273 and pin 4 of D4701.

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.

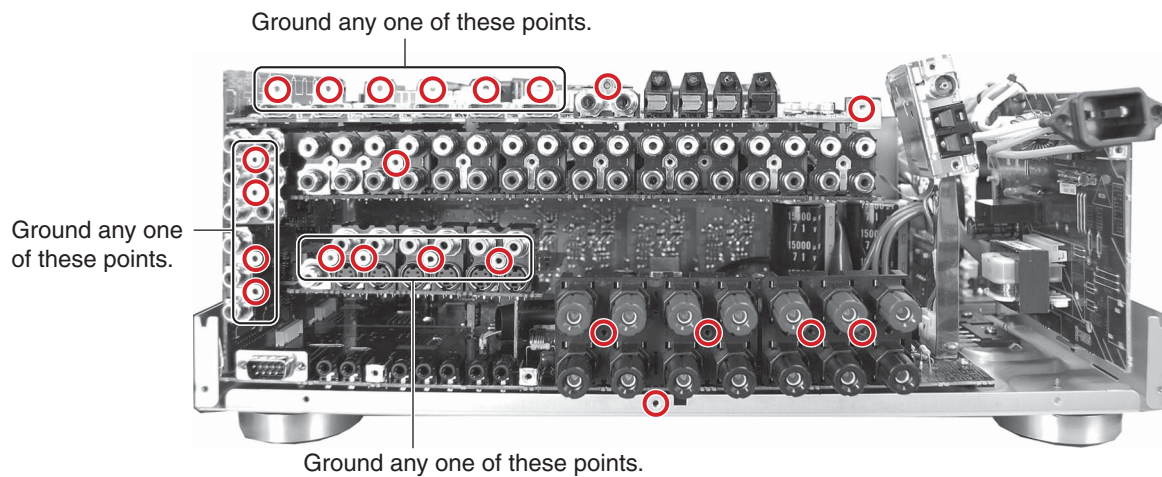


Ground Points

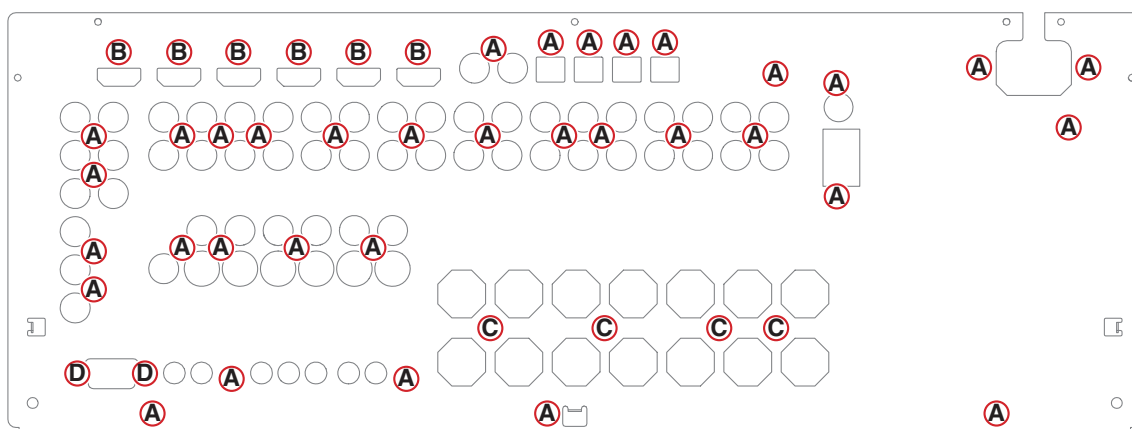
Note:

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



A 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.
- (2) For performing the diagnosis shown below, the following jigs for service is required.
- 15P board to board cable (GGD1484)
 - 17P board to board cable (GGD1648)

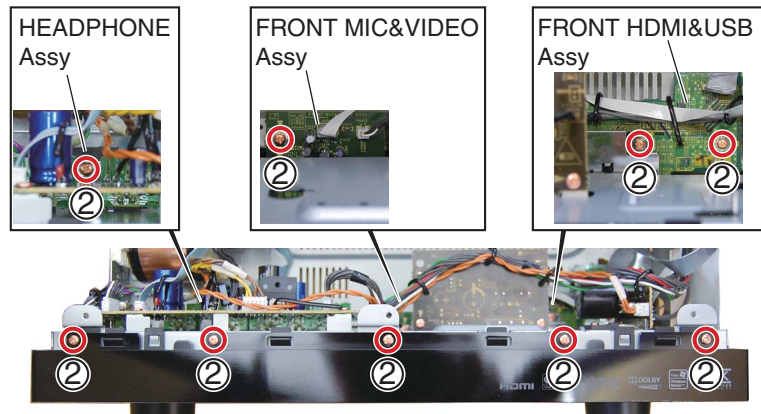
[1] Front Panel Section

- B Remove the bonnet by removing the 17 screws.

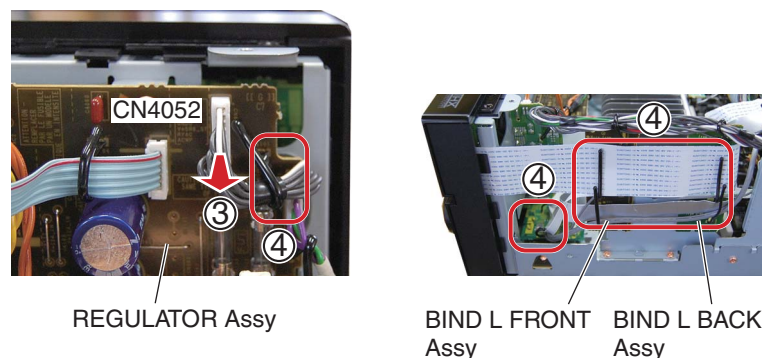
- (1) Remove the five screws. (ABA1193)



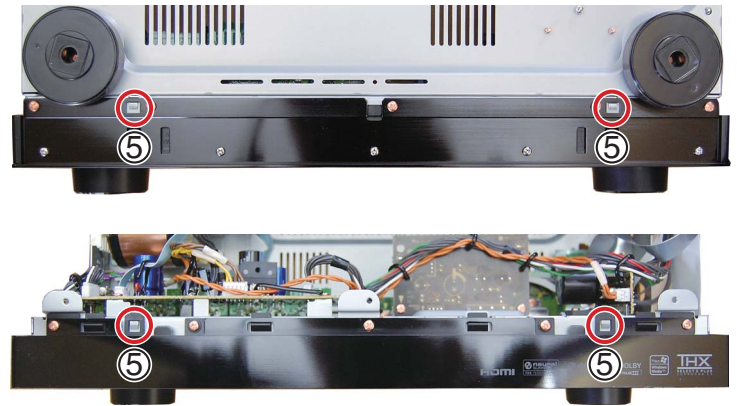
- C (2) Remove the nine screws. (BBZ30P080FCC)



- E (3) Disconnect the one connector.
(4) Release the jumper wires, as required.



(5) Unhook the four hooks.

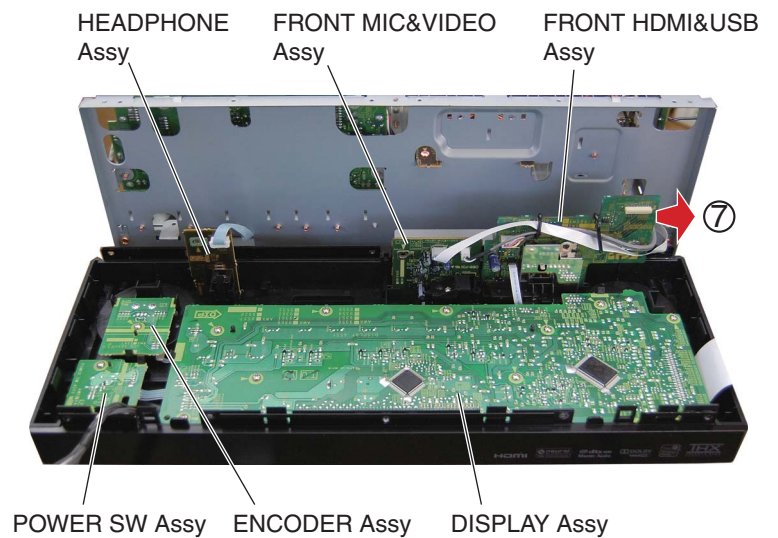


(6) Remove the front panel section.



Front panel section

(7) Remove only the right part hook of AEC7626 at this state, and then remove the FFC.



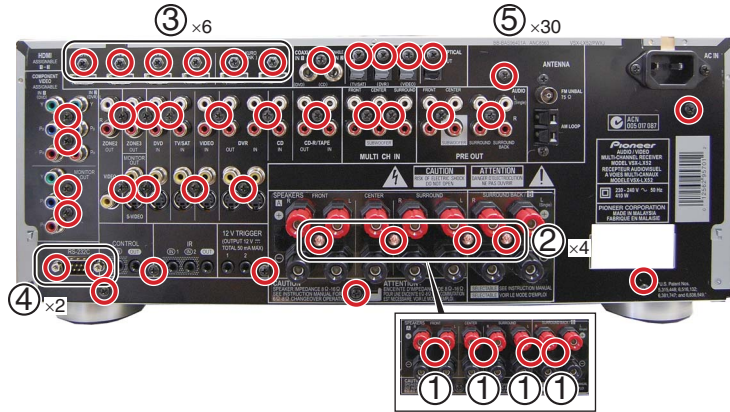
A [2] POWER AMP Assy

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

- (1) Remove the bonnet by removing the 17 screws.
- (2) Discharge C5721 and C5722.
(See the “discharge procedures.”)

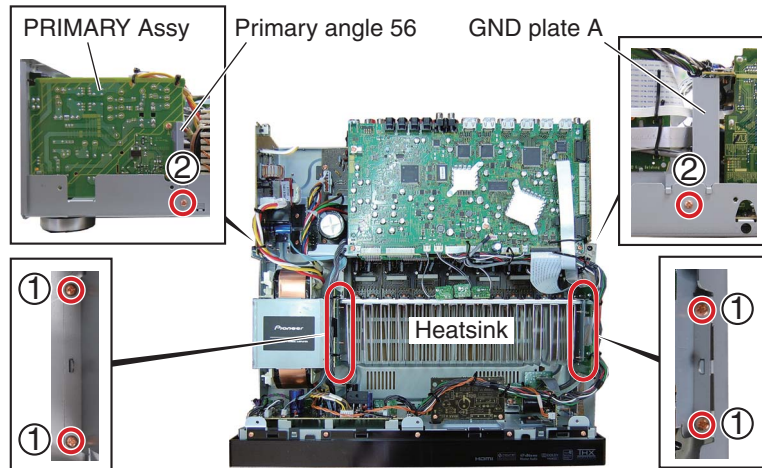
[2-1] Rear panel

- (1) Remove the four cushion circle 14B.
- (2) Remove the four screws. (BBT30P100FCC)
- (3) Remove the six screws. (BMZ30P040FTB)
- (4) Remove the two hex head screws. (ABA7078)
- (5) Remove the 30 screws. (BBZ30P080FTB)



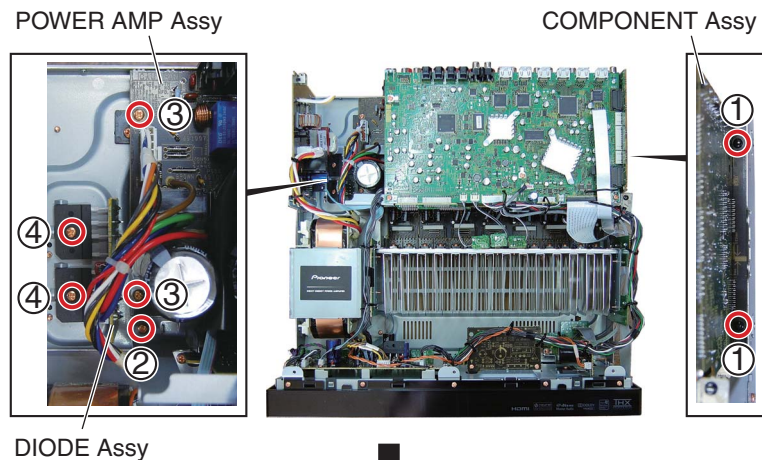
[2-2] Exterior

- (1) Remove the four screws. (BBZ30P080FCC)
- (2) Remove the two screws. (BBZ30P080FCC)

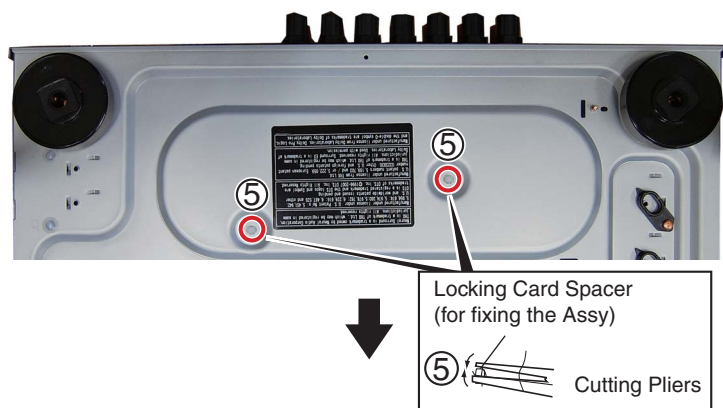


[2-3] POWER AMP and DIODE Assemblies

- (1) Remove the two rivets.
- (2) Remove the one screw. (BBZ30P080FCC)
- (3) Remove the two screws. (BBZ30P080FCC)
- (4) Remove the two screws. (BBZ30P080FCC)

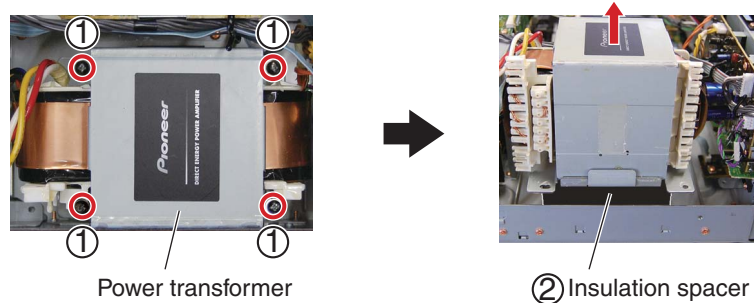


- (5) Remove the two locking card spacers from the chassis using cutting pliers.



[2-4] Power transformer

- (1) Remove the four screws. (ABA7109)
(2) Insert an insulation spacer with the height below.



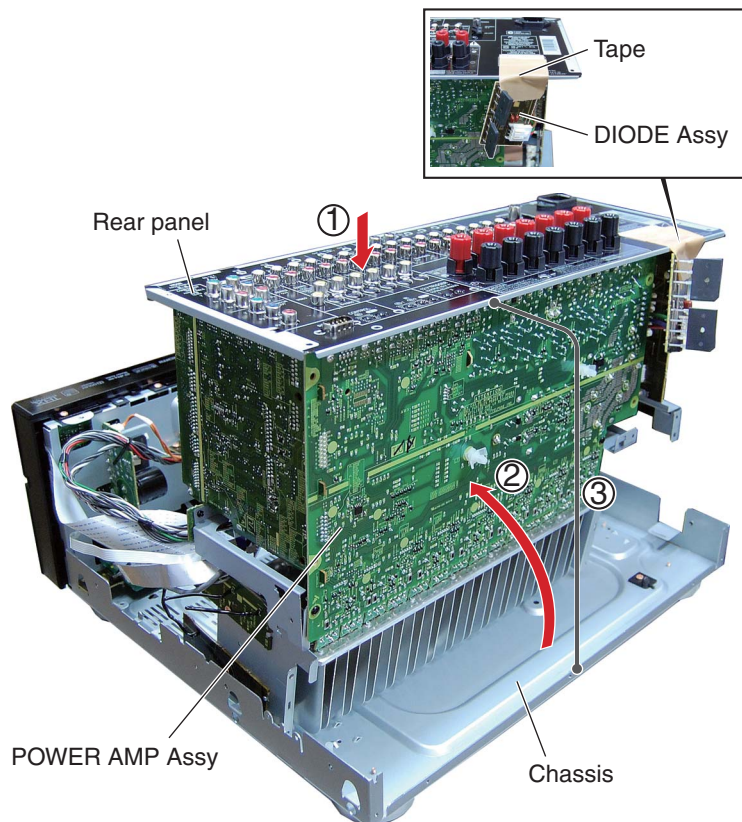
[2-5] Diagnosis

- (1) Reassembling the rear panel.
(See "Ground points.")
(2) Arrange the unit as shown in the photo below.

Caution:

Fix the DIODE Assy to rear panel with tape not to touch other part.

- (3) Connect the rear panel to the chassis ground.

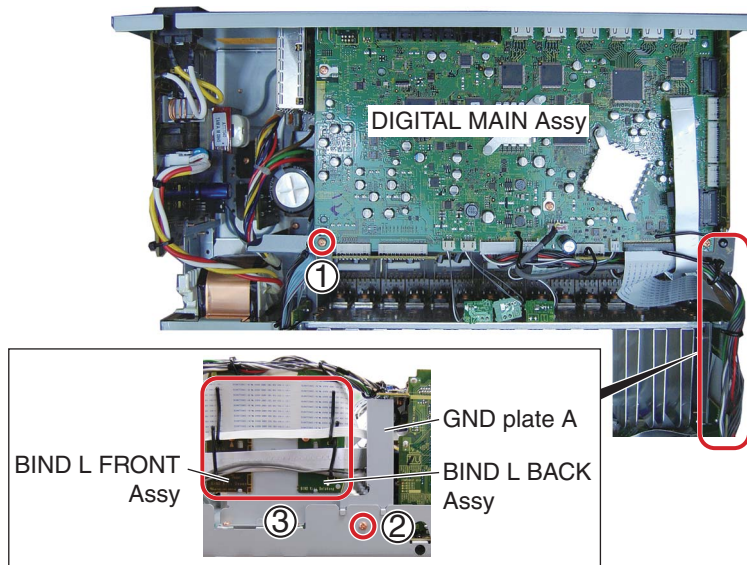


A [3] COMPOSITE and AUDIO Assemblies

Remove the bonnet by removing the 17 screws.

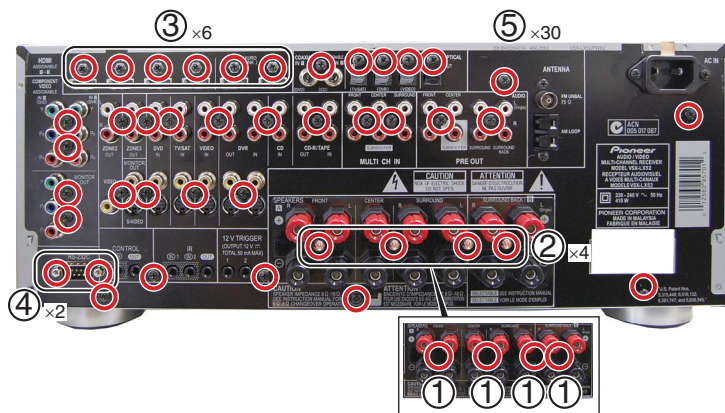
[3-1] Around DIGITAL MAIN Assy

- (1) Remove the one screw. (BBZ30P080FCC)
- (2) Remove the one screw. (BBZ30P080FCC)
- (3) Release the jumper wires, as required.



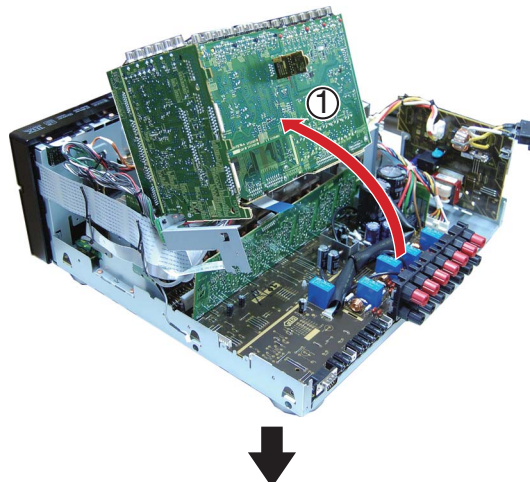
[3-2] Rear panel

- (1) Remove the four cushion circle 14B.
- (2) Remove the four screws. (BBT30P100FCC)
- (3) Remove the six screws. (BMZ30P040FTB)
- (4) Remove the two hex head screws. (ABA7078)
- (5) Remove the 30 screws. (BBZ30P080FTB)

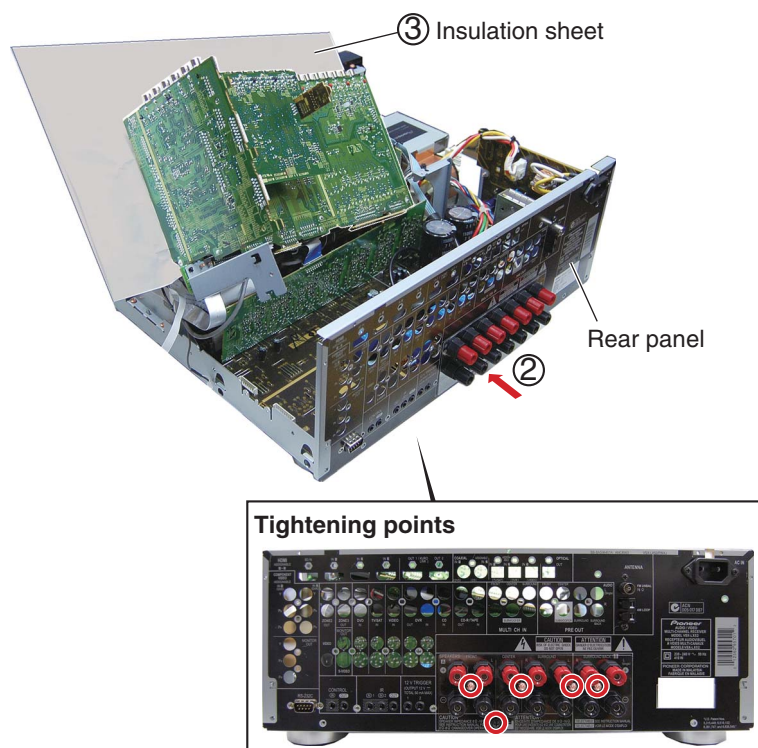


[3-3] Diagnosis

- (1) Arrange the unit as shown in the photo below.

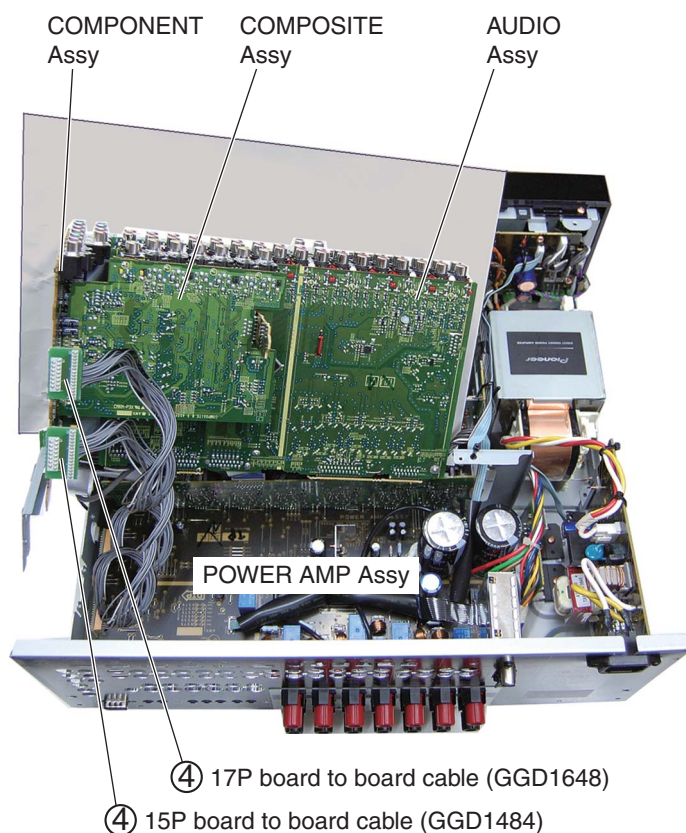


- (2) Reassembling the rear panel.
- (3) Insert the insulation sheet.



- (4) Connect the two board to board cables.
(COMPONENT CN8013 <-> POWER AMP CN5805)
(COMPONENT CN8014 <-> POWER AMP CN5804)
- (5) Connect the ground points to the chassis ground. (See “Ground points.”)

Notes: When diagnosing the AUDIO Assy, the set is able to operate even if removing the COMPOSITE Assy.



8. EACH SETTING AND ADJUSTMENT

8.1 HOW TO UPDATE FIRMWARE

Version Indication

[Purpose]

The versions for Syscon EMMA, EVENT con and DSP firmware are displayed.

[Preparations]

1. Power on only the Main zone.
2. Set the main volume level to -79.5 dB.

[How to enter]

1. Press "HOME MENU" key of the remote control unit and displays HOME MENU screen.
2. On that above conditions, simultaneously press and hold "ENTER" and " MULTI-zone CONTROL" keys for more than 10 seconds.

[How to exit]

Simultaneously press and hold "ENTER" and " MULTI-ZONE CONTROL" keys for short seconds. (The volume level is free.) Or turn off the power.

[Check GUI Display sample]

```
VSX-1019AH/KU      VERSION : SAMPLE
SYSCON  : RELEASE_36
          Rev.1.6205
EVENTCON : Rev.1.92      OK
DSP FIRM : Ver.0.104     OK

DEVICE : E2R-L2 1.1  FLASH : 64M
```

The display design is subject to possible modifications.

Syscon (EMMA), EVENT con and DSP Flash ROM Update by USB Memory

● UPDATE PANEL Mode (Version update)

[Preparations]

1. Copy the UPDATE FILE to the root directory of the USB Memory.
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.

● UPDATE PANEL2 Mode (Version down and same version install)

[Preparations]

1. Copy the UPDATE FILE to the root directory of the USB Memory.
2. Turn off the power to the unit by **setting the main volume to "---db"** and Multi-zone to OFF.
3. Connect the USB Memory to the USB terminal (A type) of the front panel.

[Procedure]

1. Simultaneously press and hold "TUNE+" and "MULTI-ZONE ON/OFF" keys for **about 5 seconds** and moves to the **UPDATE PANEL2 mode**.
2. The updating process is as follows.

The FL display and procedure of the updating process is same for both mode.

For UPDATE PANEL 2 Mode, after completing the update, it is necessary to disconnect then reconnect the AC cord of the unit.

Key operation	FL display
[TUNE+] + [STANDBY ON/OFF] 	POWER ON
Booting is completed. 	Whole version is displayed. VERSION 1.000
[TUNE-] or [TUNE+] 	Update Menu UPDATE

Front Panel Key

[↓] : TUNE-

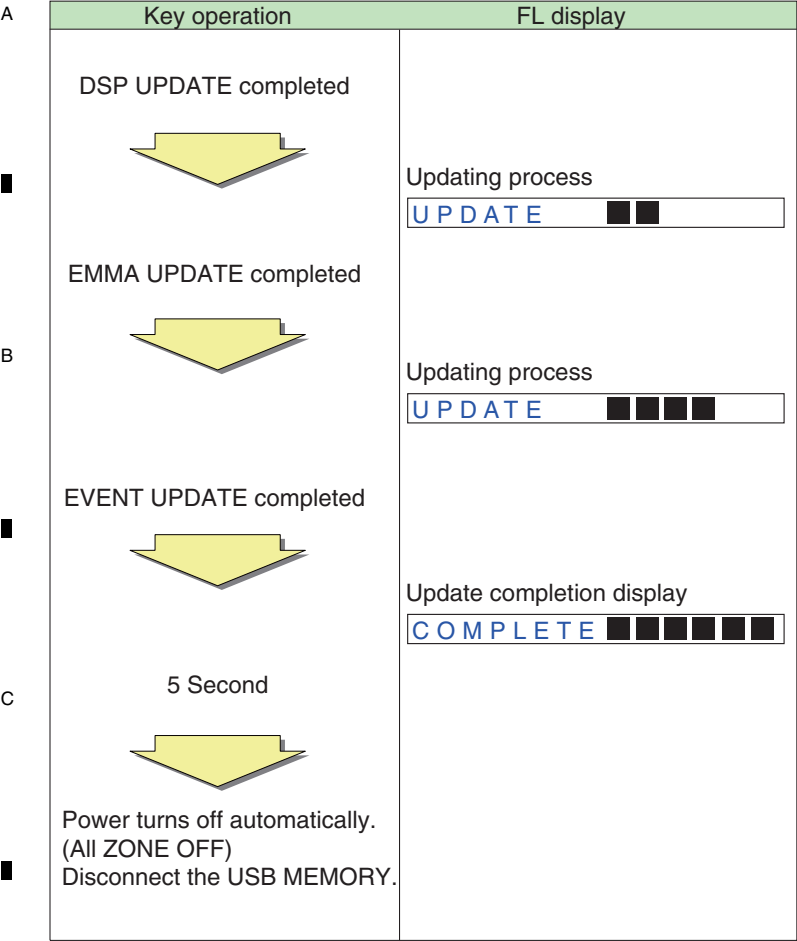
[↑] : TUNE+

[←] : PRESET-

[→] : PRESET+

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
[PRESET+] or [PRESET-] 	Update Confirmation UPDATE ? ◀NO▶
	Update Confirmation UPDATE ? ◀YES▶
UPDATE FILE searching completed 	File searching PLEASE WAIT
DSP UPDATE completed	Updating process UPDATE



The updating time is about 10 minutes.

[Confirmation]

1. Check the updated version.
Following the procedures described in "Version Indication" in this section, check that the version has been changed to a new one.

[Procedure for UPDATE PANEL 2 Mode]

After completing the UPDATE PANEL 2 Mode update and confirming the version, it is necessary to **disconnect then reconnect the AC cord** of the unit.

■

5

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A

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B

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C

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D

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E

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F

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6

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7

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8

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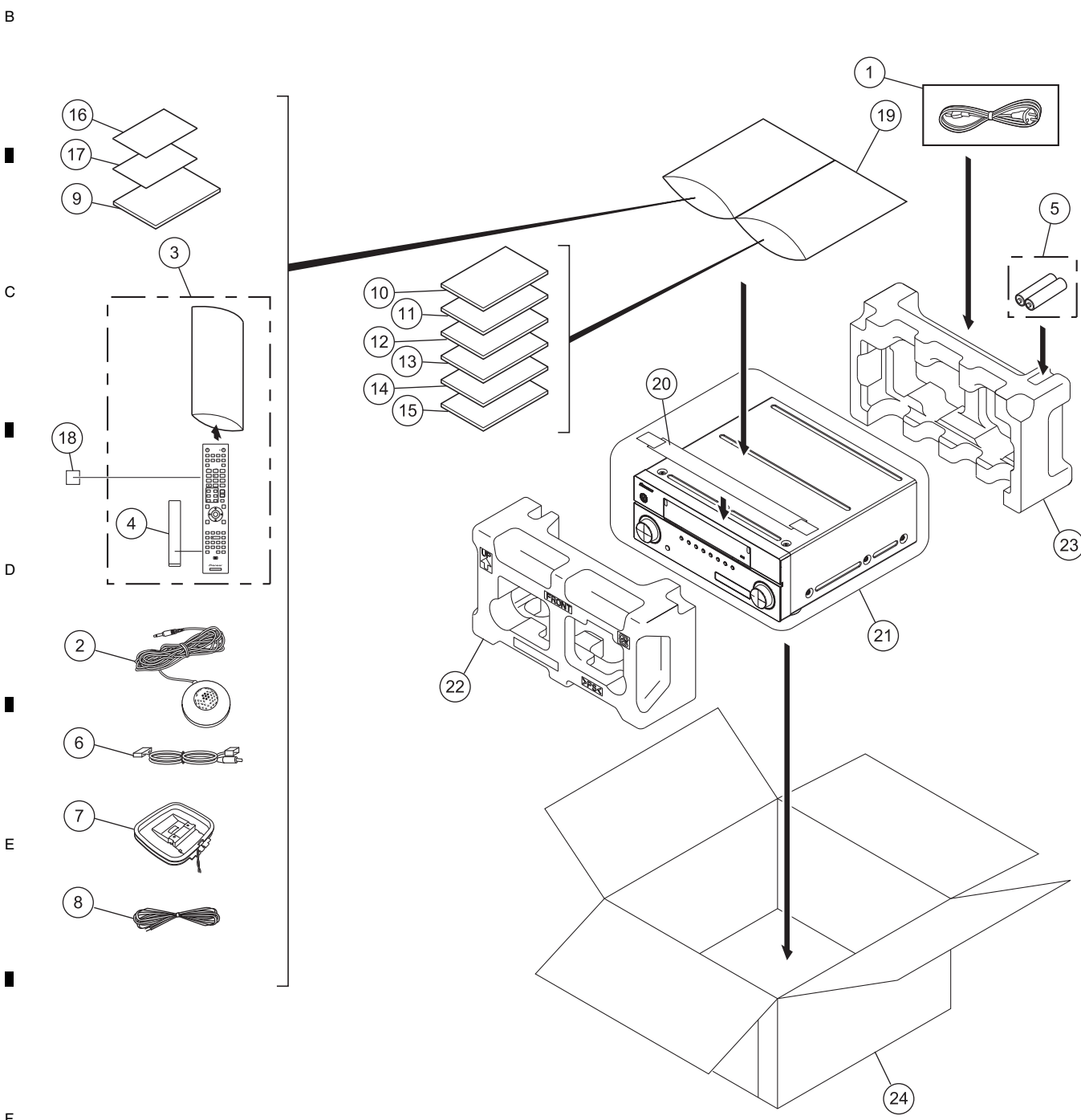
1234

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



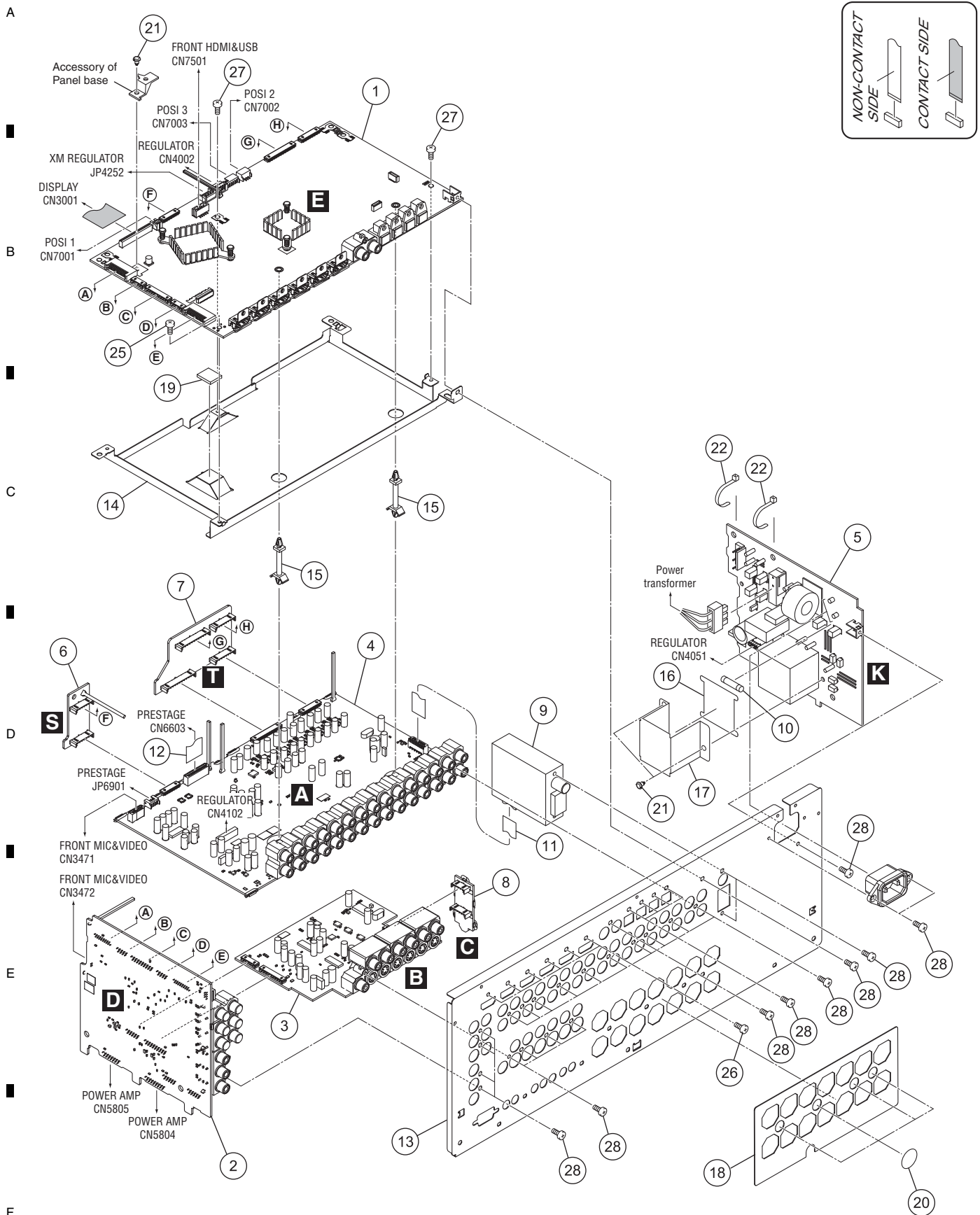
△



EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
	1 POWER AMP Assy	AWX9376	46	Screw 3 x 19 (FE)	ABA7085	
	2 BIND L FRONT Assy	AWX9379	47	Screw 4 x 12 (FE)	ABA7109	A
	3 POSI 1 Assy	AWX9383	48	Screw	BBT30P100FCC	
	4 POSI 2 Assy	AWX9385	49	Screw	BCZ40P060FTB	
	5 POSI 3 Assy	AWX9388				
			50	Screw	BBZ30P080FCC	
	6 DISP-FFC GUARD Assy	AWX9539	51	Screw	BBZ30P080FTB	
	7 BINDER Assy	AWX9373				
	8 BIND L BACK Assy	AWX9380				
	9 BIND R FRONT Assy	AWX9381				
	10 BIND R BACK Assy	AWX9382				
	11 UNREG Assy	AWX9397				B
	12 REGULATOR Assy	AWX9401				
	13 PRESTAGE Assy	AWX9405				
	14 DIODE Assy	AWX9406				
	15 XM REGULATOR Assy	AWX9543				
⚠	16 Power Transformer (T1501)	ATS7427				
⚠	17 Fuse (FU5 : T4A)	AEK1060				
⚠	18 Fuse (FU6 : T800MA)	AEK7072				
⚠	19 Fuse (FU7 : T800MA)	AEK7072				
⚠	20 Fuse (FU8 : T1.6A)	AEK7075				C
⚠	21 Fuse (FU9 : T1.6A)	AEK7075				
	22 11P Housing Assy (J60)	ADX7711				
NSP	23 Chassis V6S H	ANA7218				
	24 Insulator Assy	DXA1904				
NSP	25 Trans Frame V5S	ANG7629				
	26 PCB Holder	AEC7057				
	27 Card Spacer	DNK2769				
	28 Locking Card Spacer	PNW2917				
NSP	29 Panel Stay V6S H	AND7087				D
	30 Primary Angle 56	ANG7526				
	31 H.S. Angle V5S L	ANG7611				
	32 H.S. Angle V5S R	ANG7612				
	33 GND Plate A	ANG7646				
	34 GND Plate B	ANG7647				
NSP	35 Heatsink V5S	ANH7199				
	36 Top Cushion	AED7121				
	37 Nylon Rivet	AEC7406				
	38 Mica Sheet V5SEL	AEE7068				E
NSP	39 Binder (BK-1)	ZCA-BK1				
	40 Bonnet B V5SEL (BOX)	AZN8034				
	41 License Label V6S H	ARW7388				
	42 ●●●●●					
	43 ●●●●●					
	44 Screw 3 x 10 (FE)	ABA1193				
	45 Hex head Screw 2.85 X 7 (BS)	ABA7078				

9.3 REAR SECTION



REAR SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
	1 DIGITAL MAIN Assy	AWX9420	
	2 COMPONENT Assy	AWX9390	A
	3 COMPOSITE Assy	AWX9392	
	4 AUDIO Assy	AWX9394	
	5 PRIMARY Assy	AWX9369	
	6 BRIDGE 1 Assy	AWX9409	
	7 BRIDGE 2 Assy	AWX9408	■
	8 V-BRIDGE Assy	AWX9495	
	9 FM/AM TUNER Unit	AXX7248	
⚠	10 Fuse (FU1 : T5A)	AEK1061	
	11 11P FFC/30V (J57)	ADD7639	B
	12 17P FFC/60V (J56)	ADD7668	
NSP	13 Rear Panel 52HY	ANC8549	
	14 EMMA Shield V6S	XNG3196	
	15 PCB Support	AEC7513	
	16 Primary Barrier	AEC7569	■
	17 Shield Case	AMR7526	
	18 SP Sheet V5S	AEC7605	
	19 Radiation Sheet	PEB1306	
	20 Cushion Circle 14B	AED7081	C
	21 Nylon Rivet	AEC7406	
NSP	22 Binder (BK-1)	ZCA-BK1	
	23 ●●●●●		
	24 ●●●●●		
	25 Screw	AMZ26P040FTC	■
	26 Screw	BMZ30P040FTB	
	27 Screw	BBZ30P080FCC	
	28 Screw	BBZ30P080FTB	

D

E

F

1 2 3 4

9.4 FRONT SECTION

A

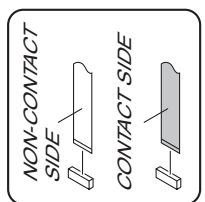
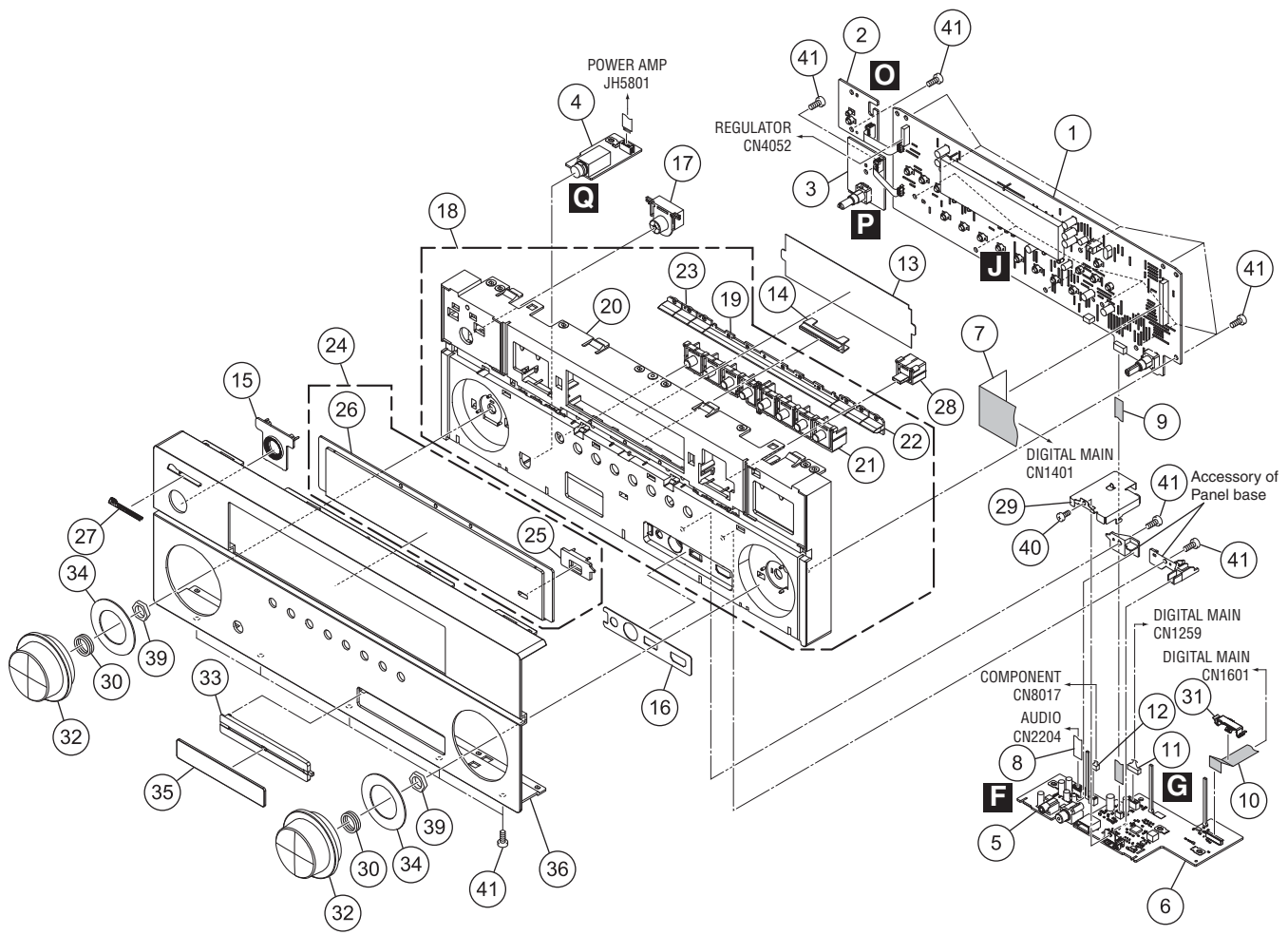
B

C

D

E

F

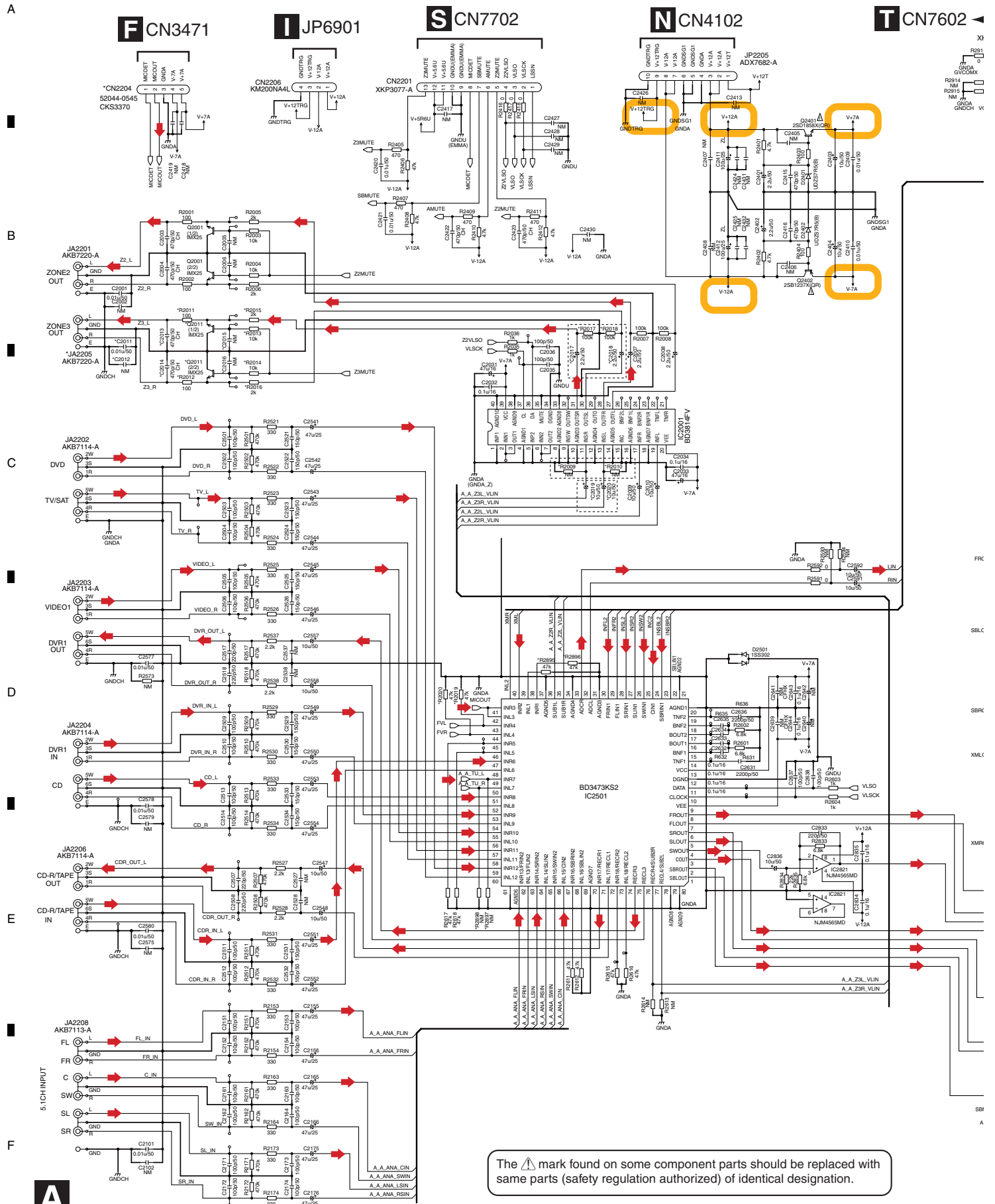


FRONT SECTION PARTS LIST

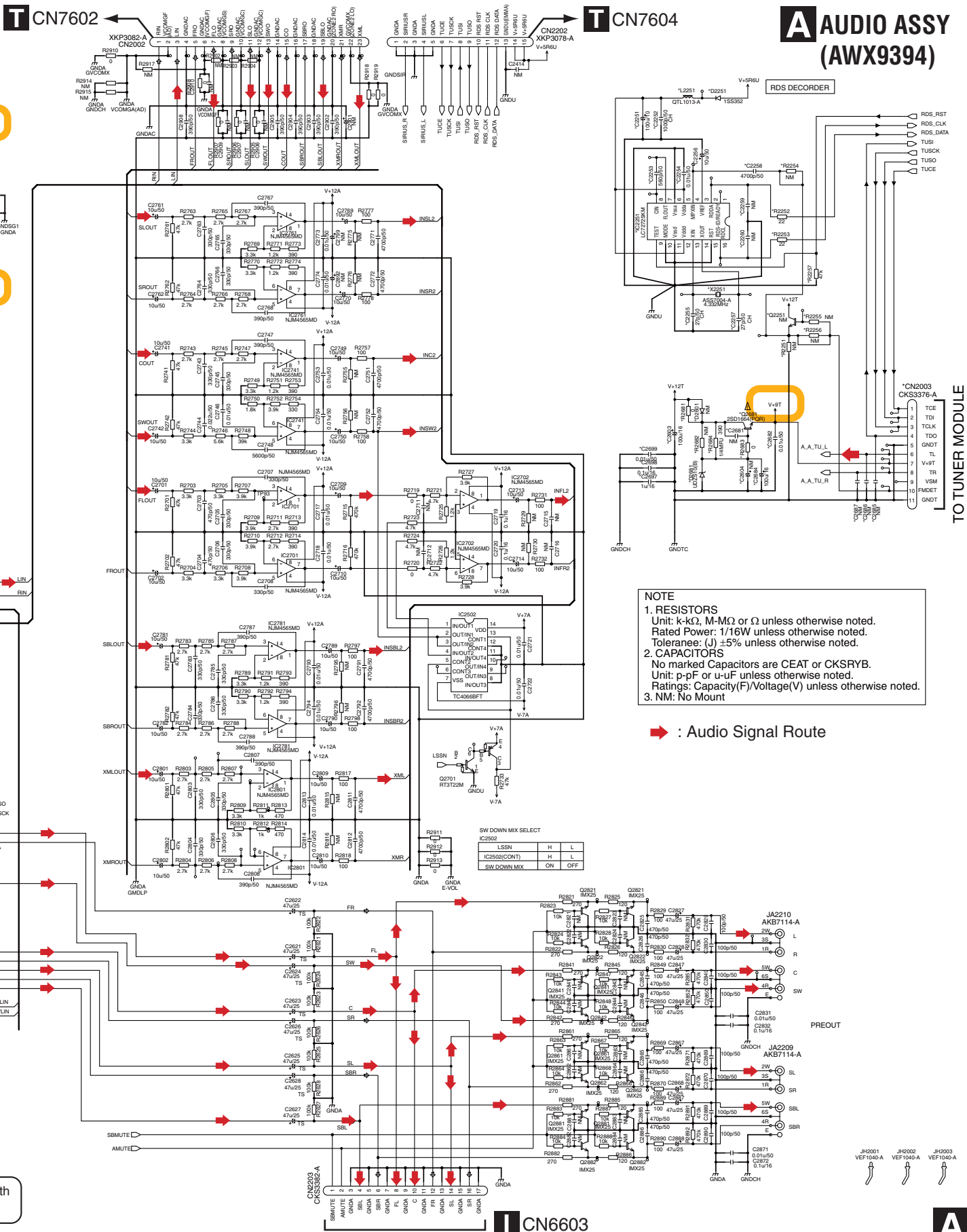
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1	DISPLAY Assy	AWX9359	
2	POWER SW Assy	AWX9366	A
3	ENCODER Assy	AWX9367	
4	HEADPHONE Assy	AWX9372	
5	FRONT MIC&VIDEO Assy	AWX9365	
6	FRONT HDMI&USB Assy	AWX9411	
7	39P FFC/60V (J51)	ADD7667	
8	5P FFC/60V (J55)	ADD7669	
9	4P FFC/60V (J52)	ADD7677	
10	30P Shield FFC (J54)	ADD7712	
11	5P Housing Assy (J58)	ADX7687	B
12	2P Housing Assy (J59)	ADX7688	
13	Filter 60HY	AAK8413	
14	IB Lens V5SEL	AAK8430	
15	Power Ring LX	AAK8471	
16	Input Sheet LX52	AAK8484	
17	STANDBY BTN Assy LX5	AXG7400	
18	P Base LX52 Assy	AXG7403	
19	Center Lens V6S H	AAK8505	
20	Panel Base LX52	AMB8010	C
21	Circle Button V6S H	XAD3278	
22	CTR BTN Right Assy	XXG3415	
23	CTR BTN Left Assy	XXG3416	
24	Window LX52 Assy	AXG7413	
25	ENTER BTN Spacer V6	AAK8479	
26	Window LX52	AAK8483	
27	Pioneer Badge	VAM1158	
28	ENTER Button V6S	XAD3271	
29	F. HDMI Shield	ANK7147	D
30	VOL Ring 60	ABH7249	
31	Reuse Wire Clamp	AEC7626	
32	VOL. Knob LX52	AAA7059	
33	Input Cover Base	AAK8472	
34	VOL Stabilizer 82	AEC7629	
35	Input Cover Top LX	ANB7521	
36	F. Panel LX52SVY	ANB7519	
37	•••••		
38	•••••		E
39	Nut	NK90FCU	
40	Screw (FE)	VBA1117	
41	Screw	PPZ30P080FNI	

10. SCHEMATIC DIAGRAM

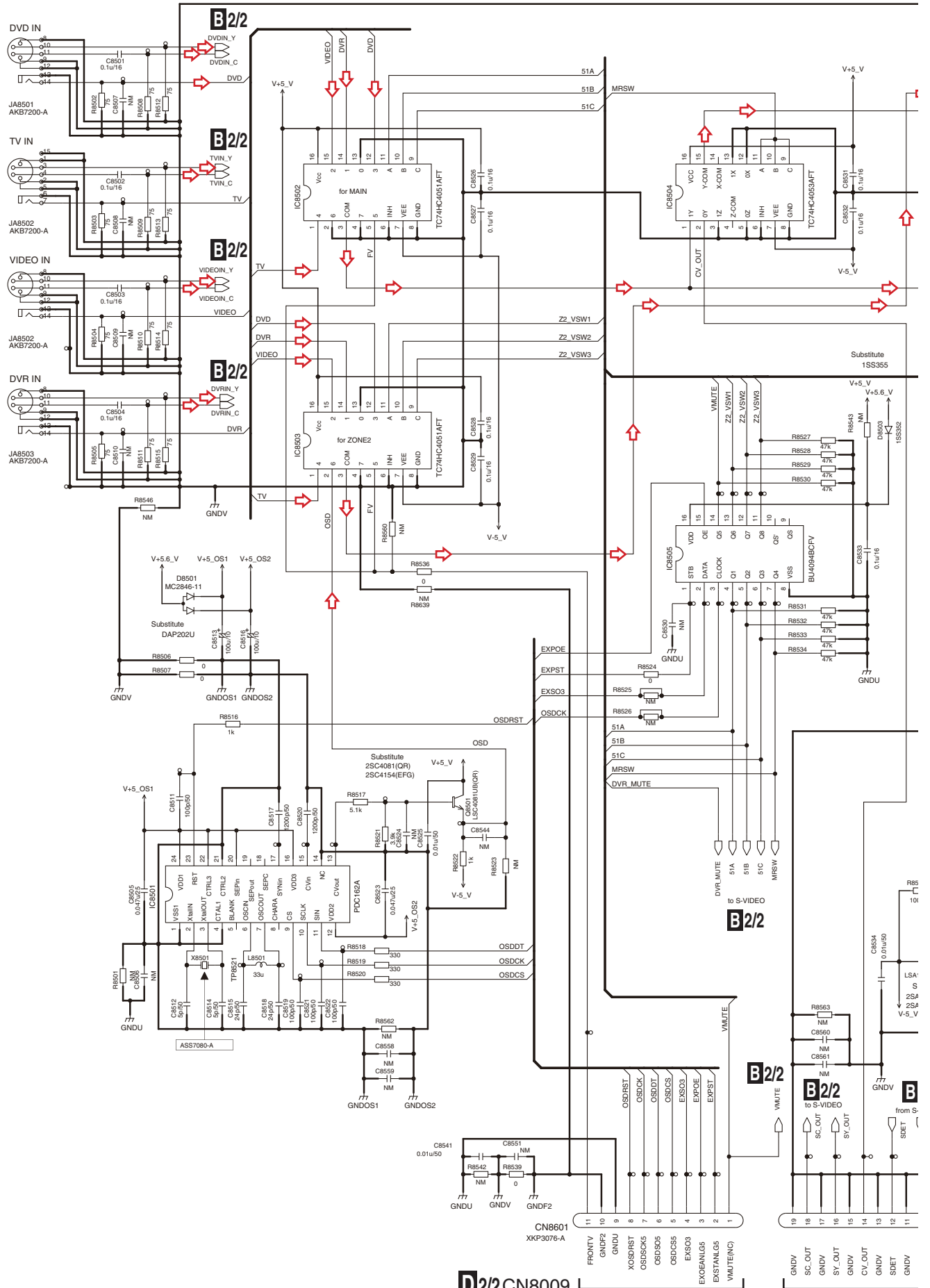
10.1 AUDIO ASSY



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



10.2 COMPOSITE (1/2) and V-BRIDGE ASSYS



B1/2

D2/2 CN8009

VSX-LX52

A

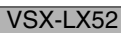


C

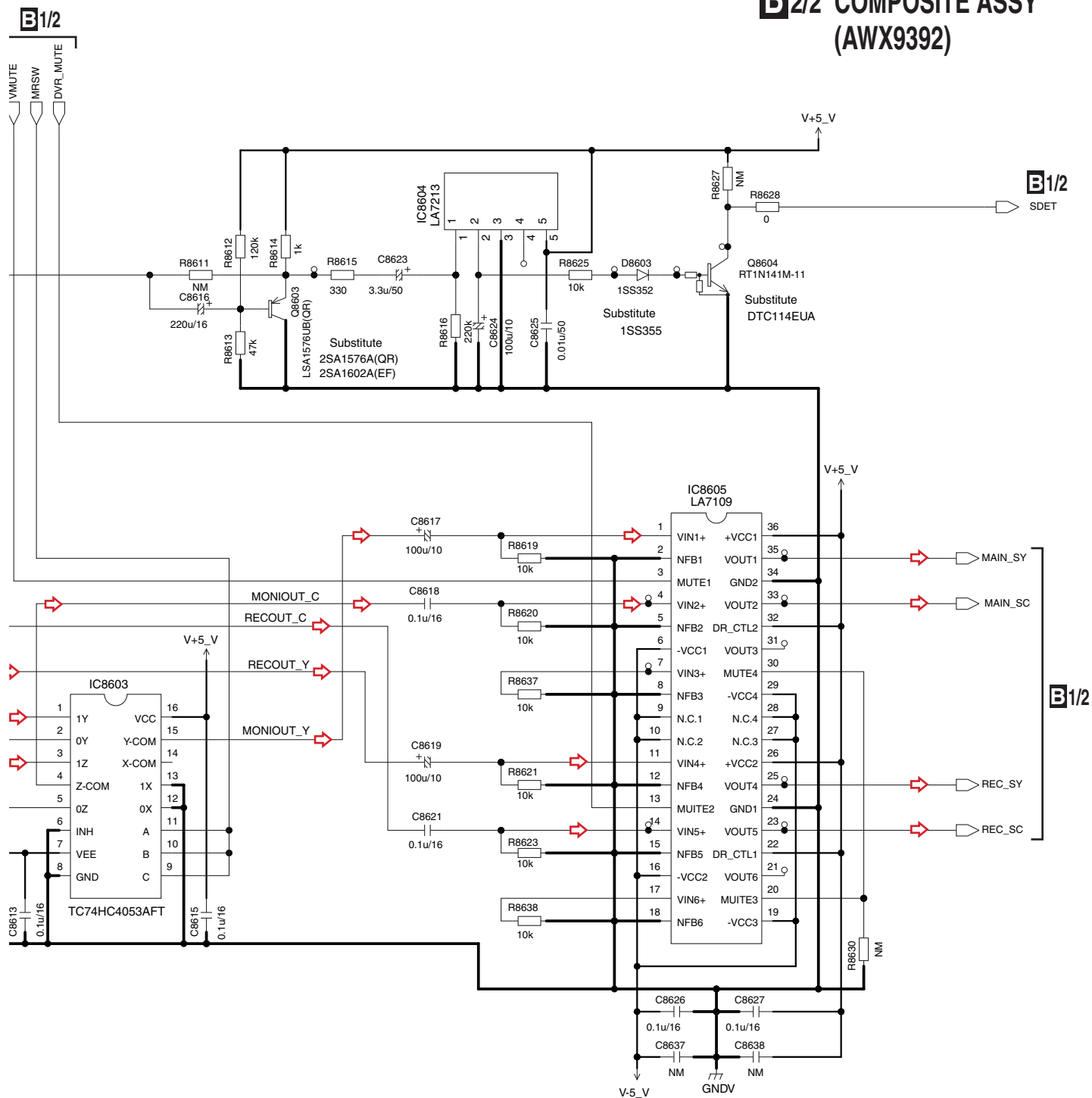
D



F

B_{2/2}

B2/2 COMPOSITE ASSY (AWX9392)



NOTE

1. RESISTORS

Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/16W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.

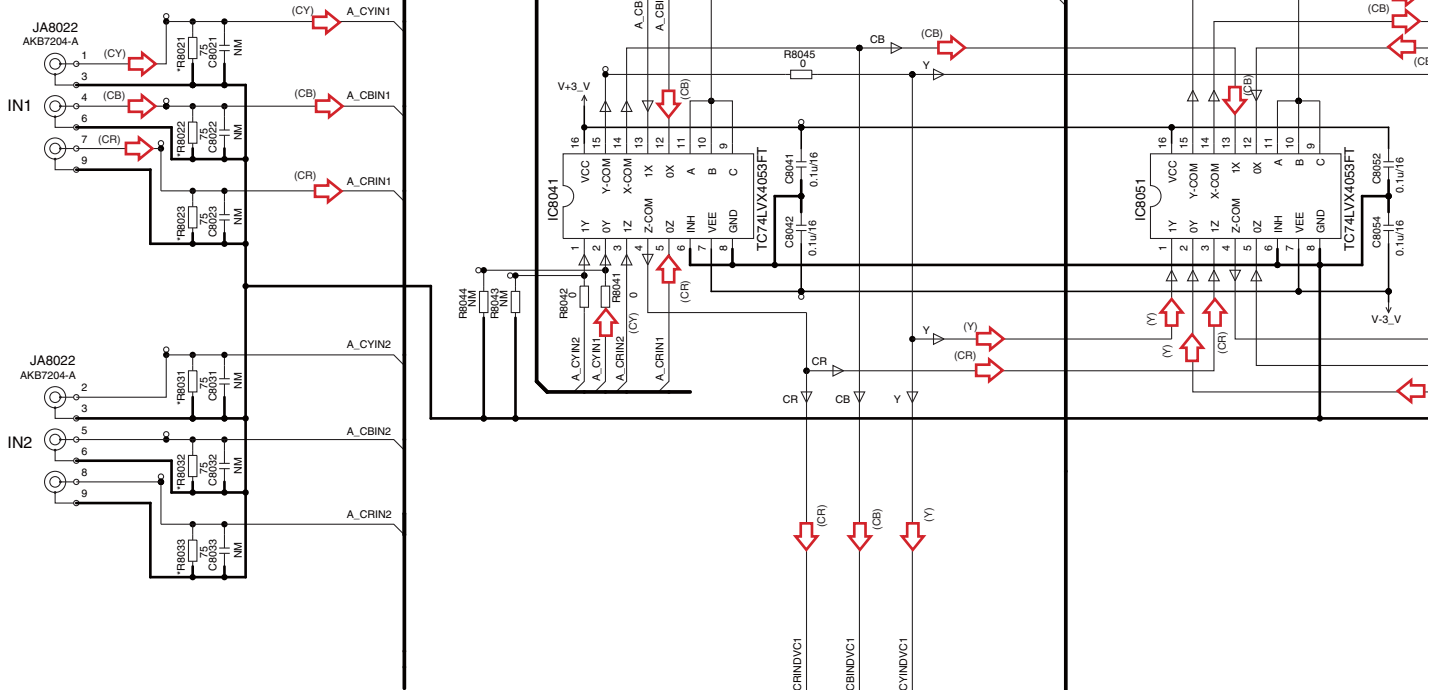
2. CAPACITORS

No marked Capacitors are CEAT or CKSRYB.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
3. NM: No Mount

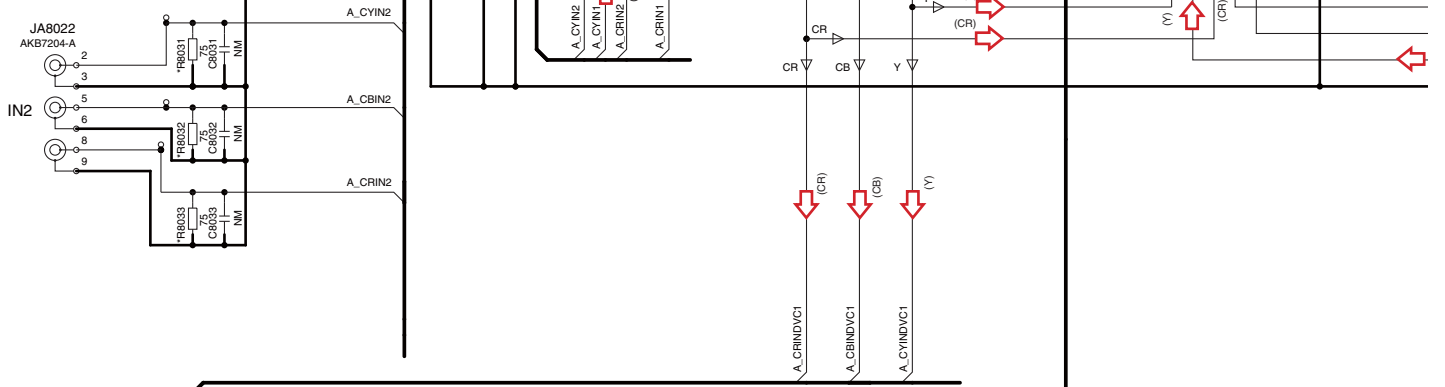
➡ : Video Signal Route

10.4 COMPONENT ASSY (1/2)

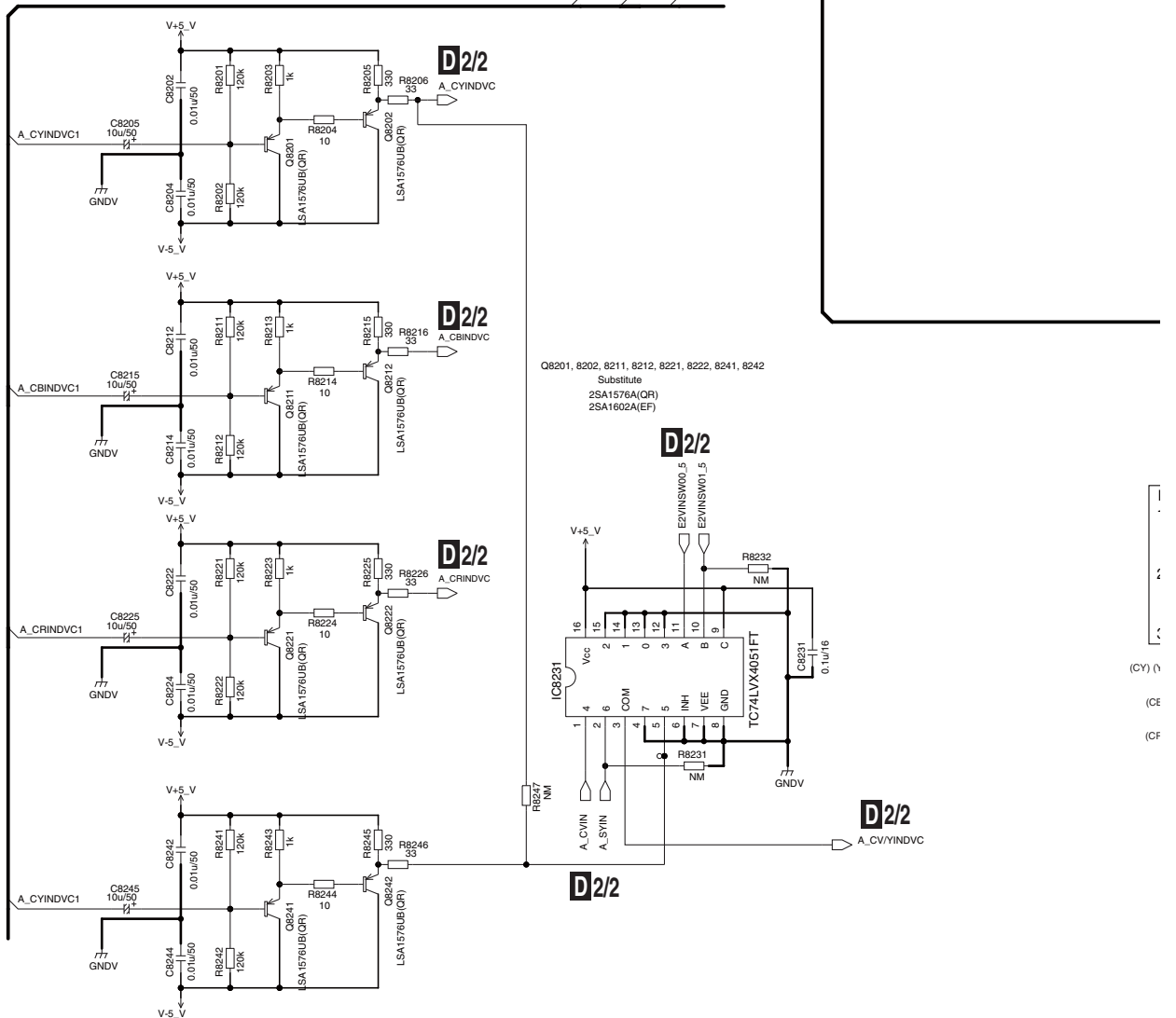
A



B



C



D

E

F

D1/2

A



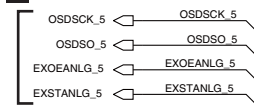
D

E

F

4

D

**D**^{1/2}

-  : Video Signal Route
- ^(Y)
 : Video Signal Route (Y)
- ^(CB)
 : Video Signal Route (CB)
- ^(CR)
 : Video Signal Route (CR)



A



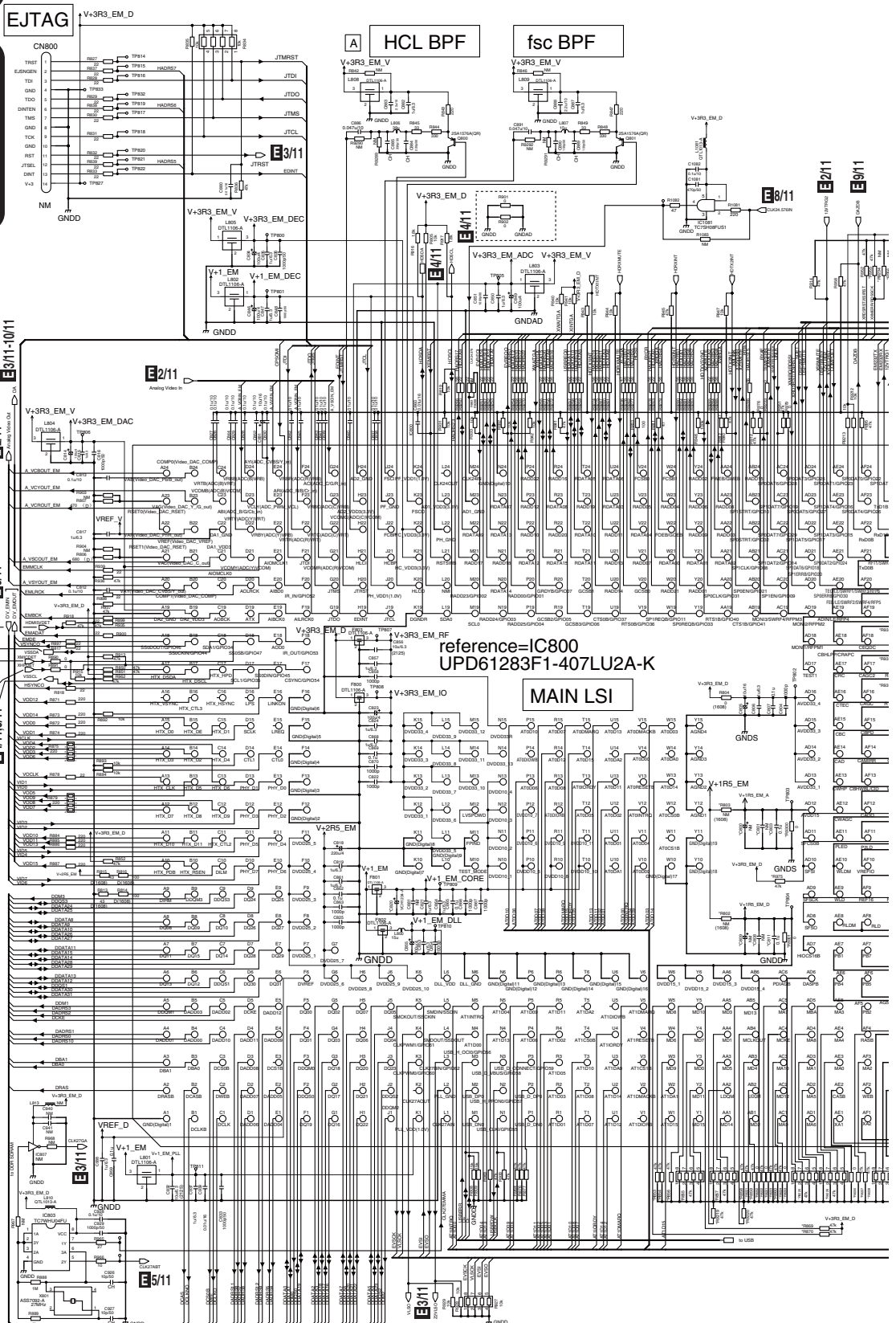
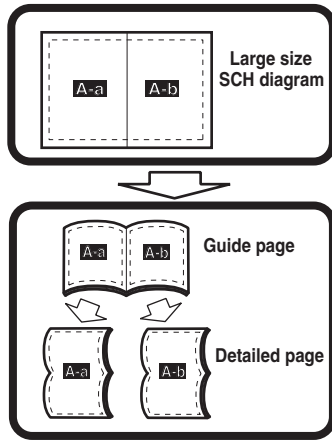
C

□

E

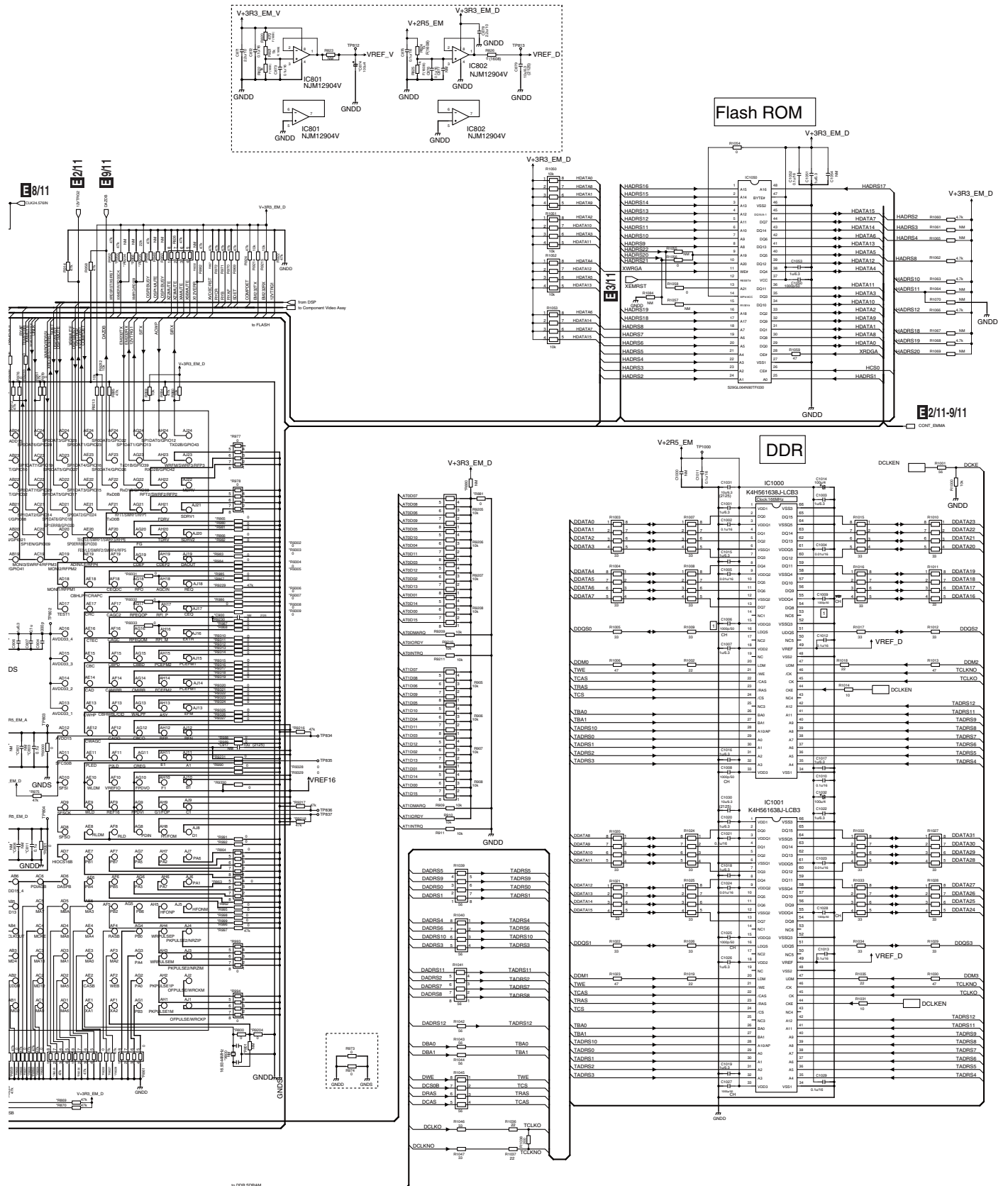
F

E-a 1/11



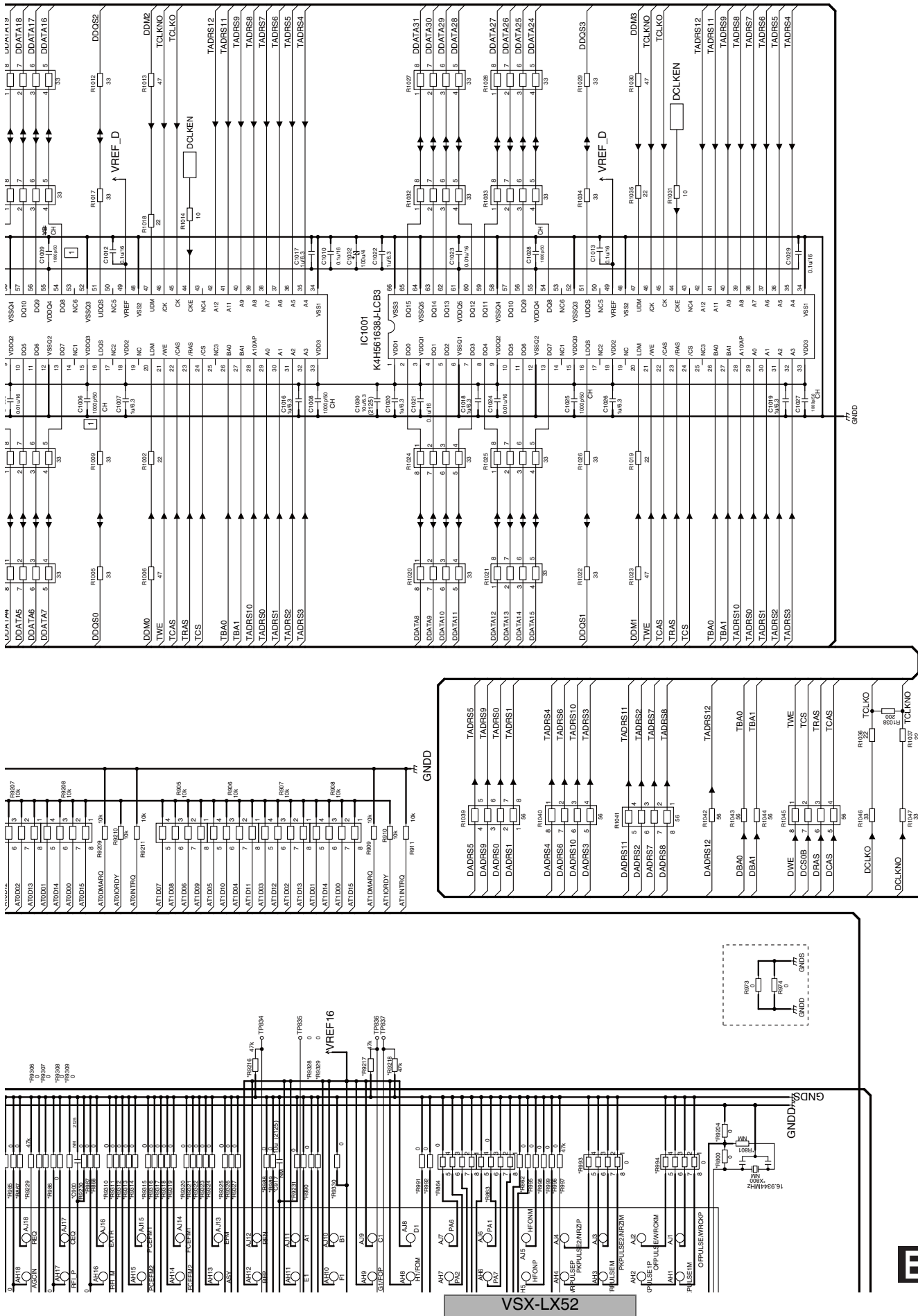
E-b 1/11

E1/11 DIGITAL MAIN ASSY (AWX9420) • EMMA BLOCK (1/2)



VSX-LX52

E1/11



A

B

C

D

E

F

A-a
A-b

E-b 1/11

4



NM: No Mount

88

4

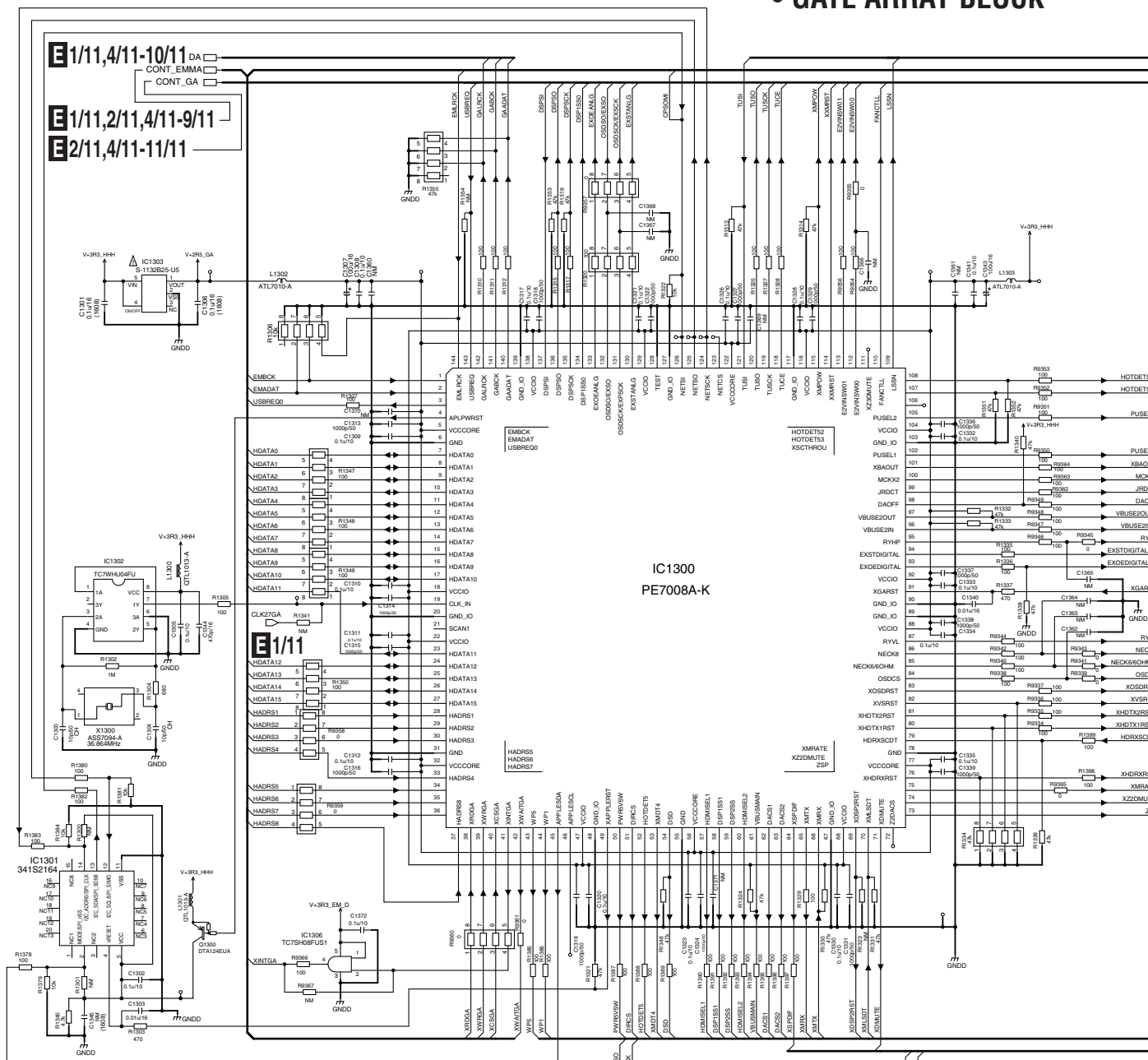


Video OUT

89

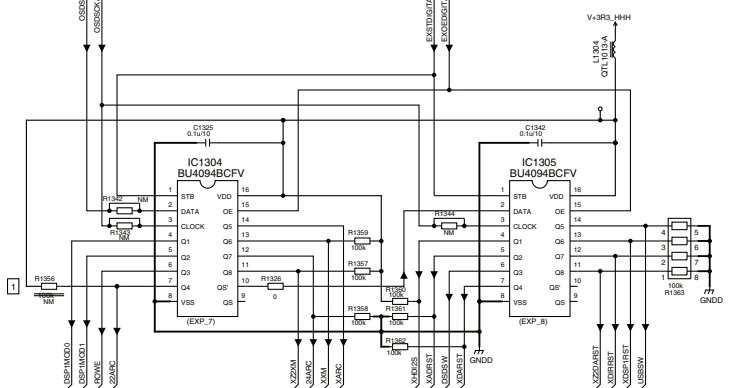
10.8 DIGITAL MAIN ASSY (3/11)

E3/11 **DIGITAL MAIN ASSY**
(AWX9420)
• GATE ARRAY BLOCK



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

NM: No Mount



DC



10.9 DIGITAL MAIN ASSY (4/11)

A

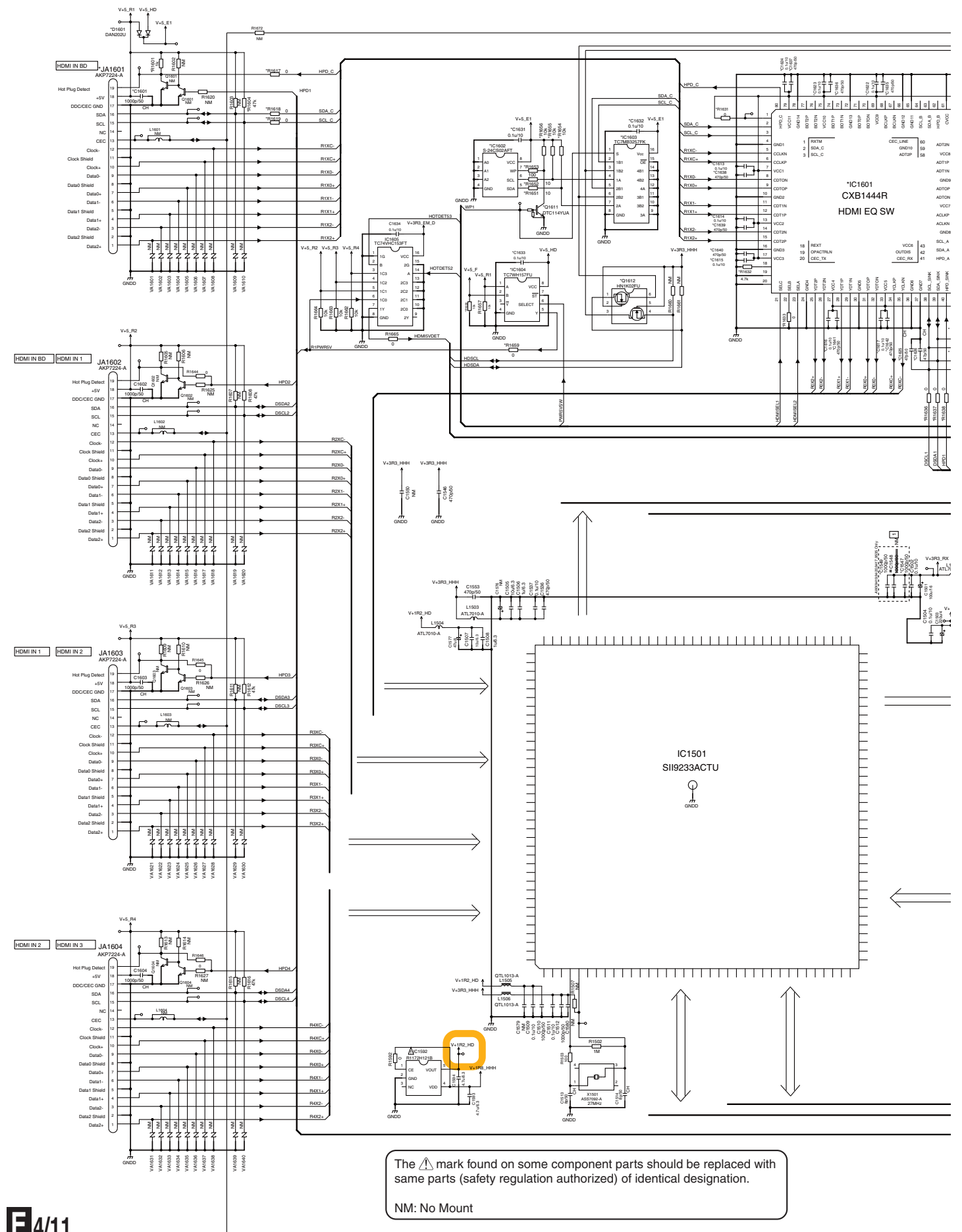
B

C

D

E

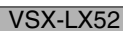
F



93





E6/11

10.12 DIGITAL MAIN ASSY (7/11)

A

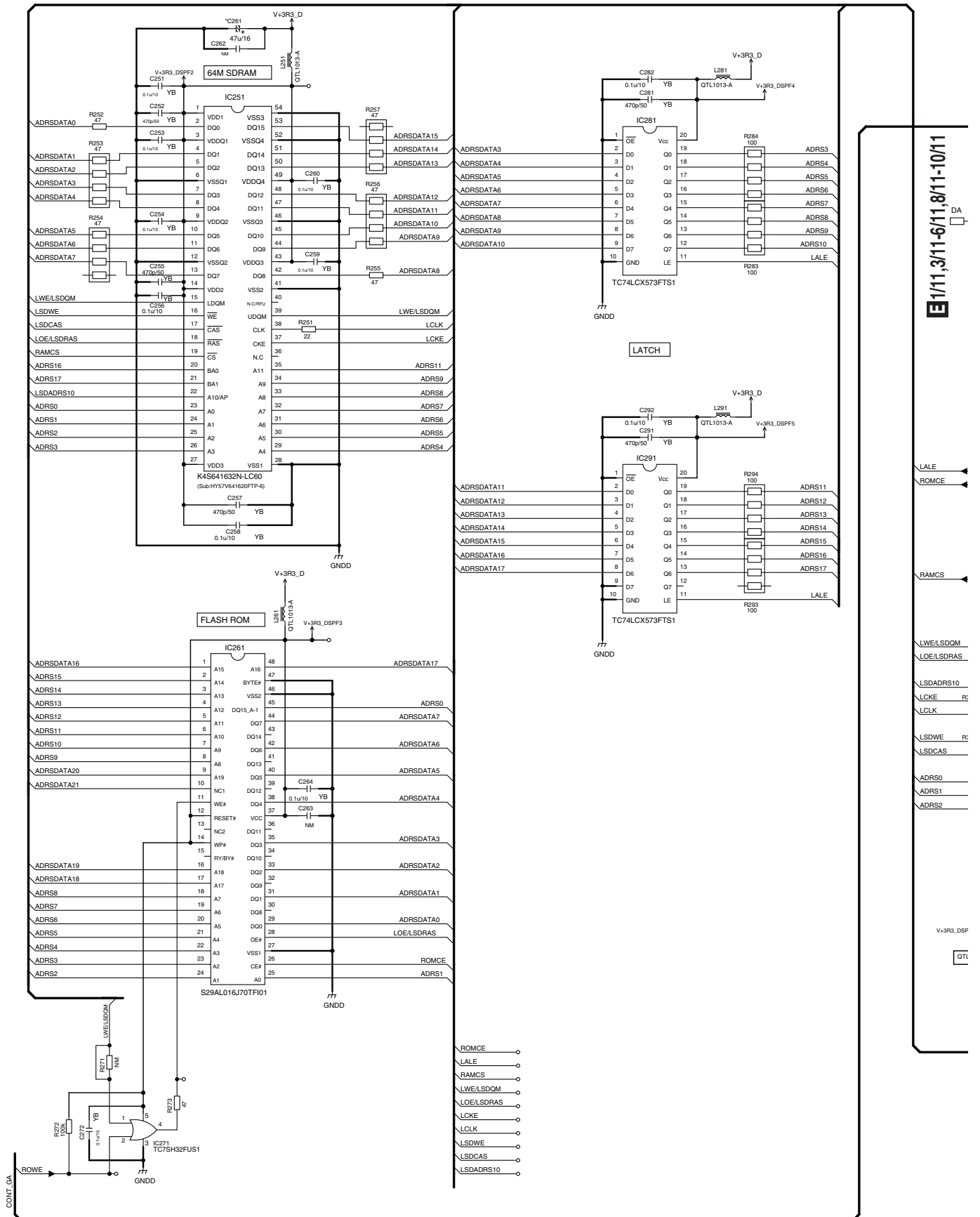
B

C

D

E

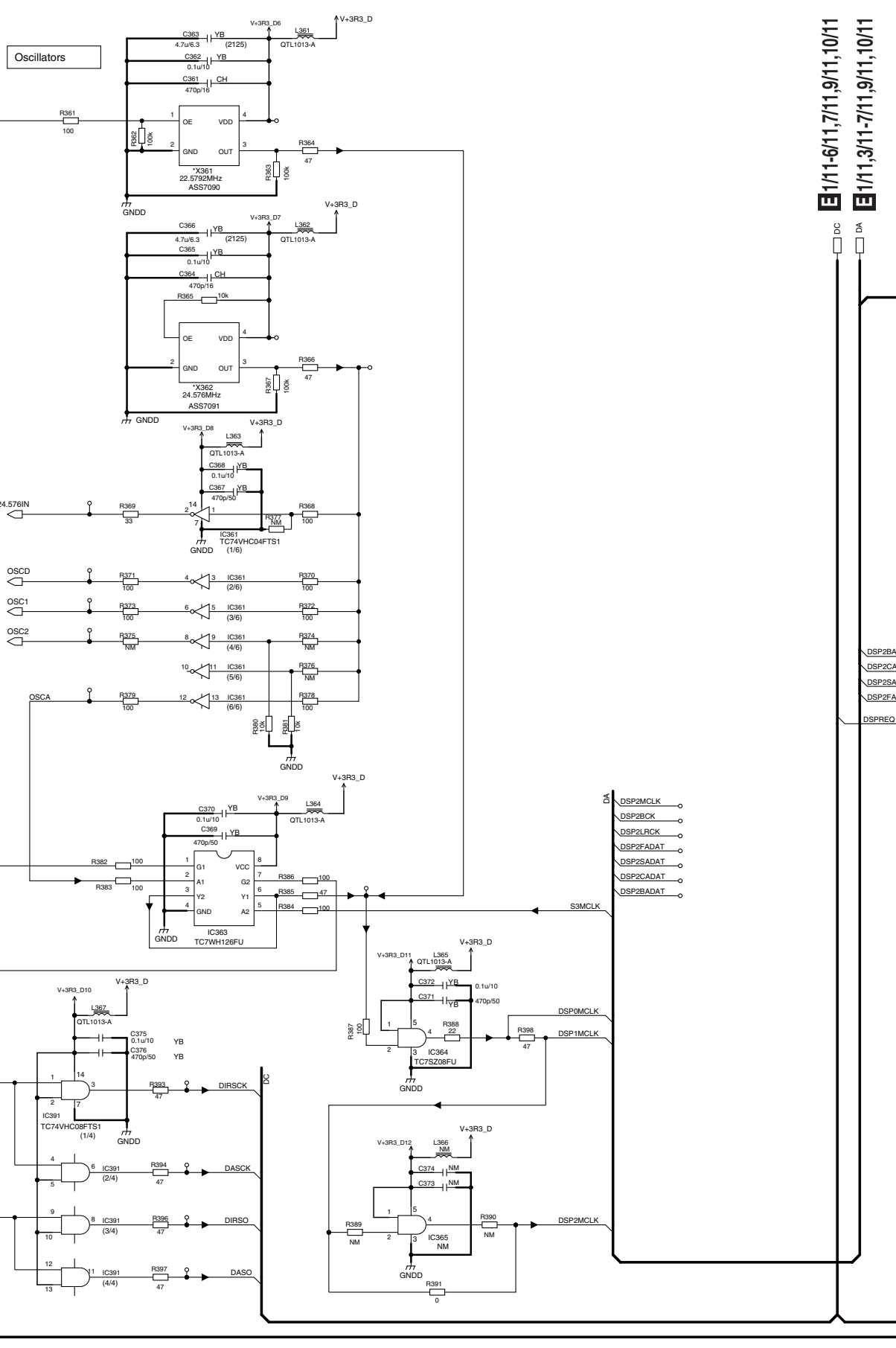
F



F

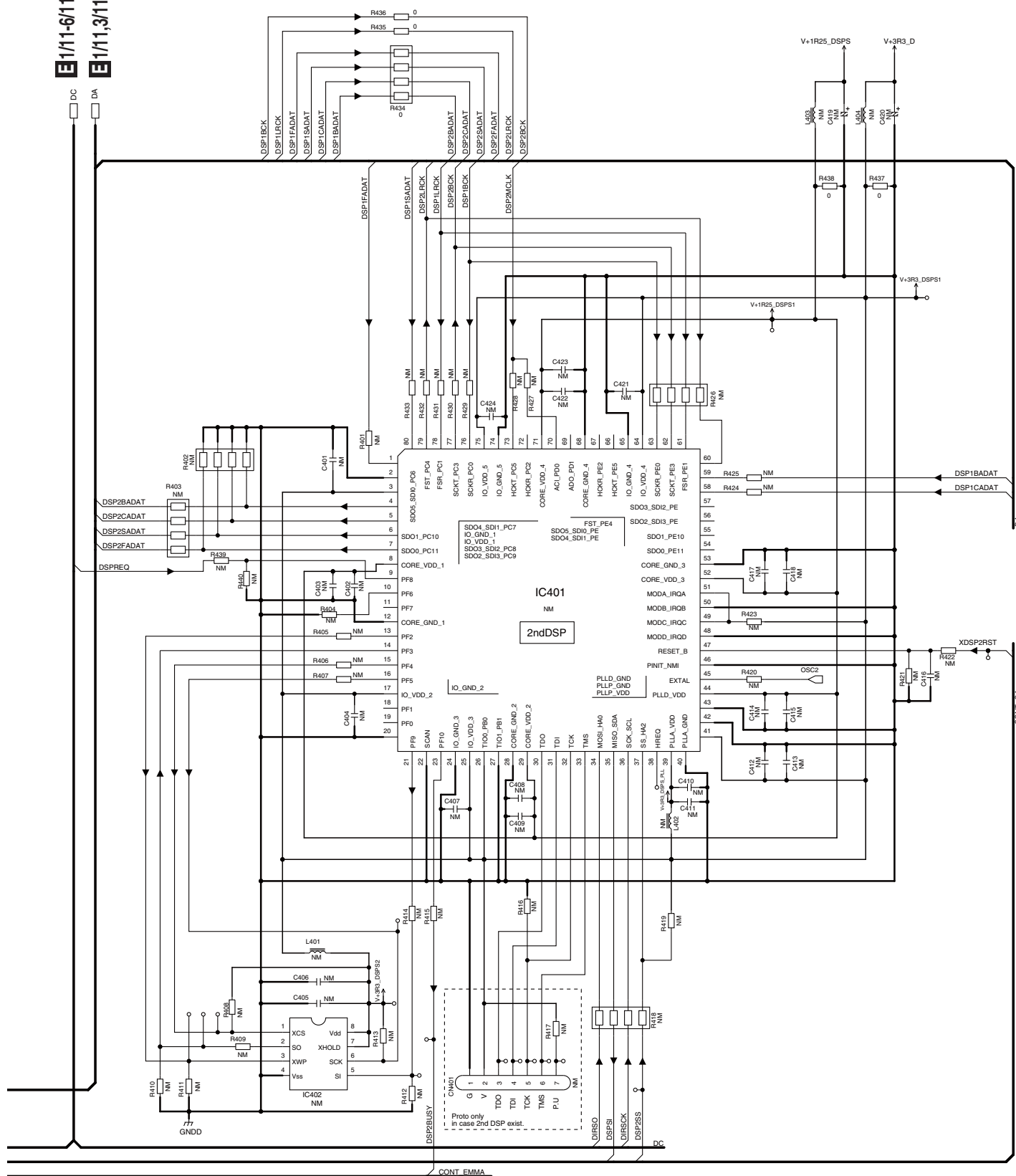


☒ 11/11-7/11, 9/11
☐ CONT_EMMA
☐ CONT_GA
☒ 11/11-7/11, 9/11
☐ CONT_EMMA
☐ CONT_GA
 22ARC

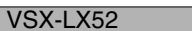


NM: No Mount

**E8/11 DIGITAL MAIN ASSY
(AWX9420)**



E9/11



F

(C)



NM: No Mount

E9/11

10.15 DIGITAL MAIN ASSY (10/11)

A

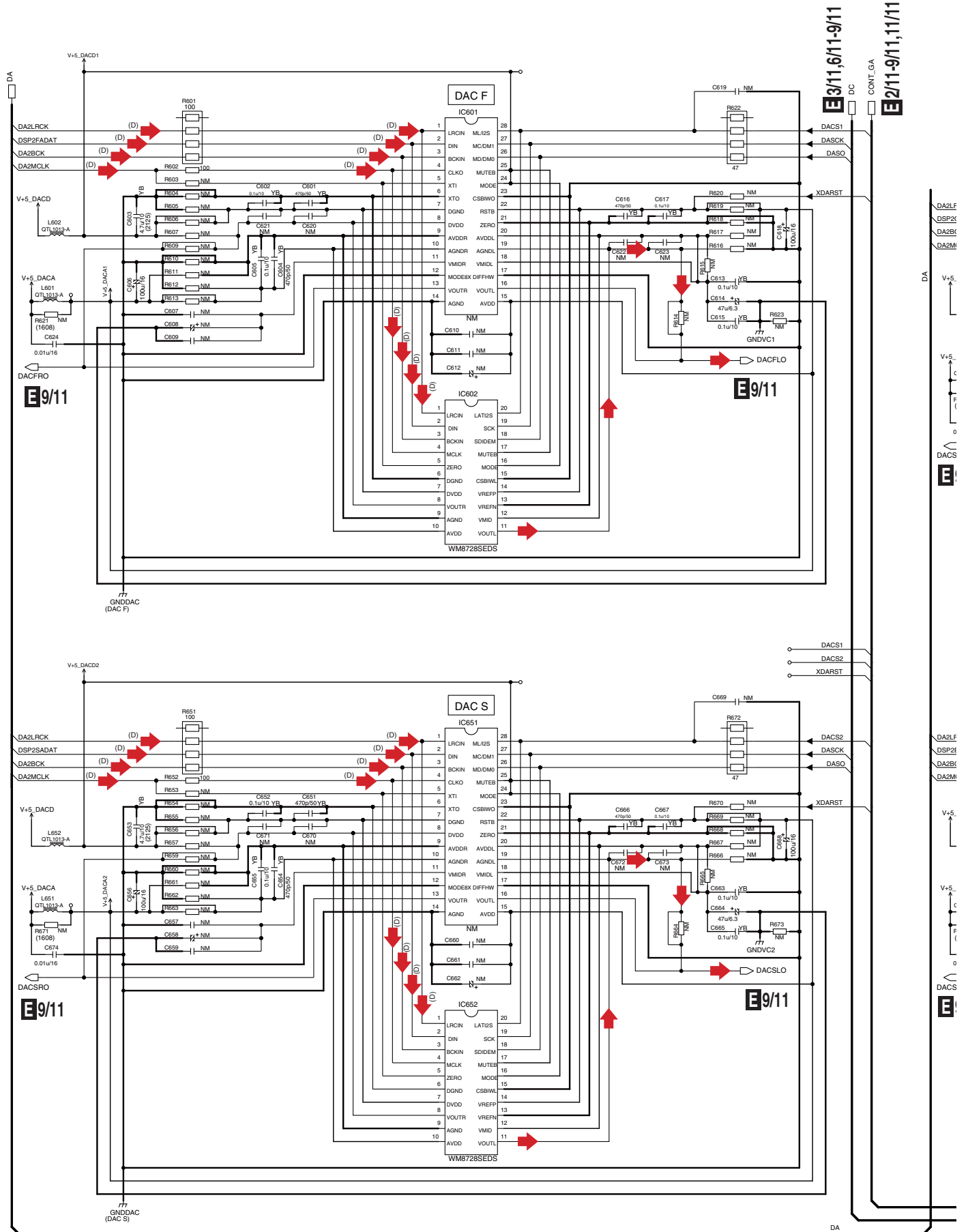
B

C

D

E

F



10/11

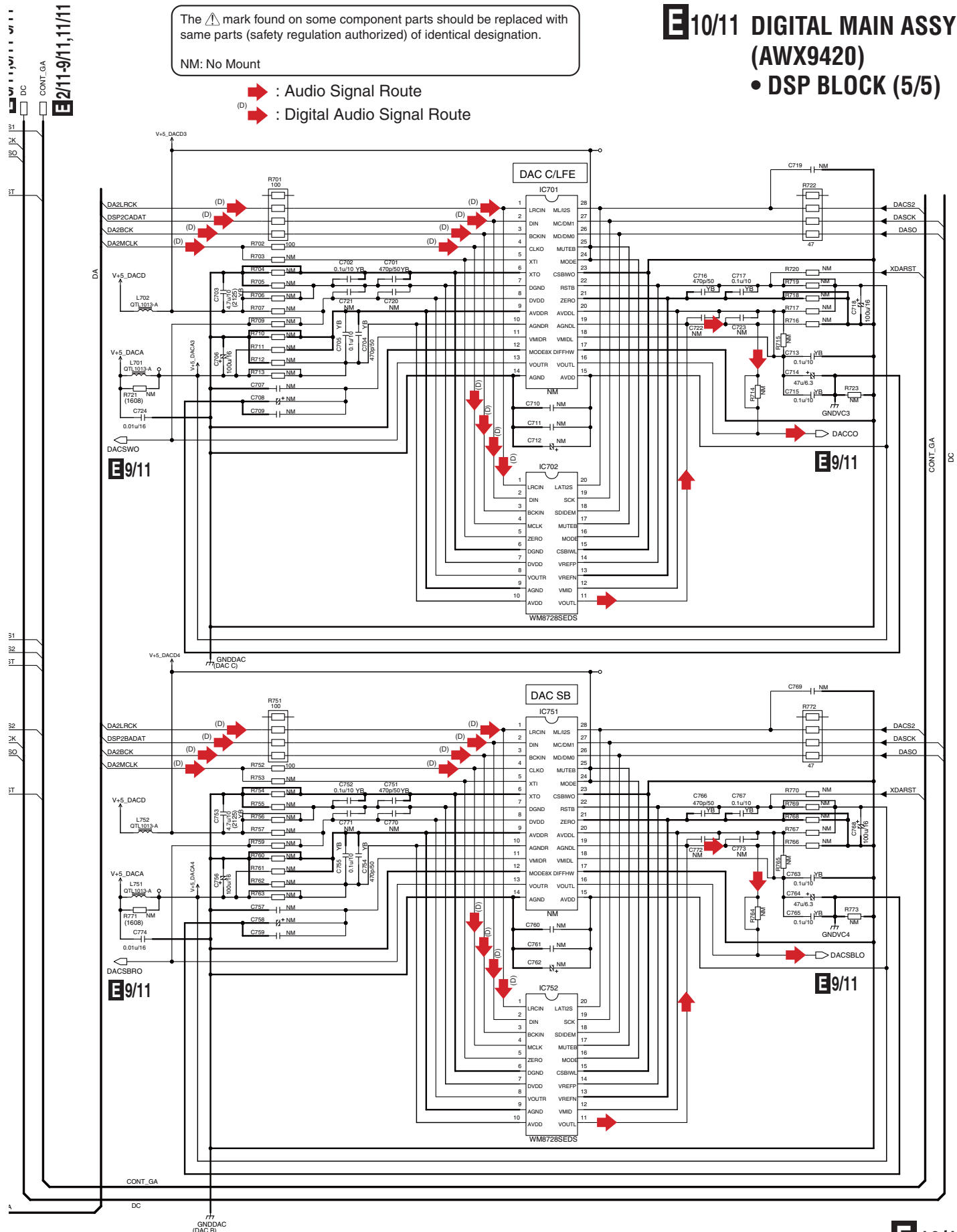
The $\triangle$ mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.

NM: No Mount

$\Rightarrow$: Audio Signal Route

(D) $\Rightarrow$: Digital Audio Signal Route

E10/11 DIGITAL MAIN ASSY (AWX9420) • DSP BLOCK (5/5)



10.16 DIGITAL MAIN ASSY (11/11)

A

JP4203

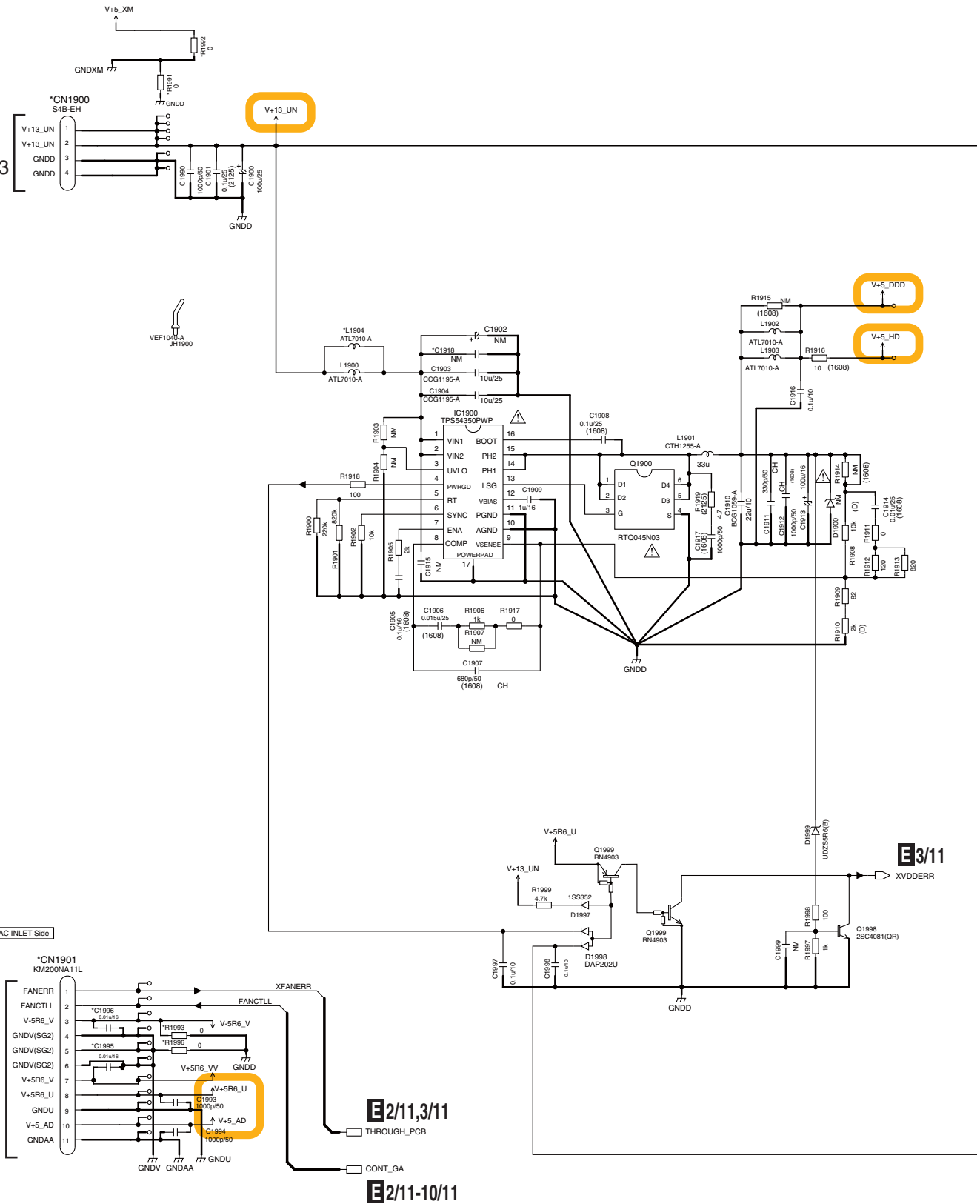
B

C

D

E

F



E11/11

F

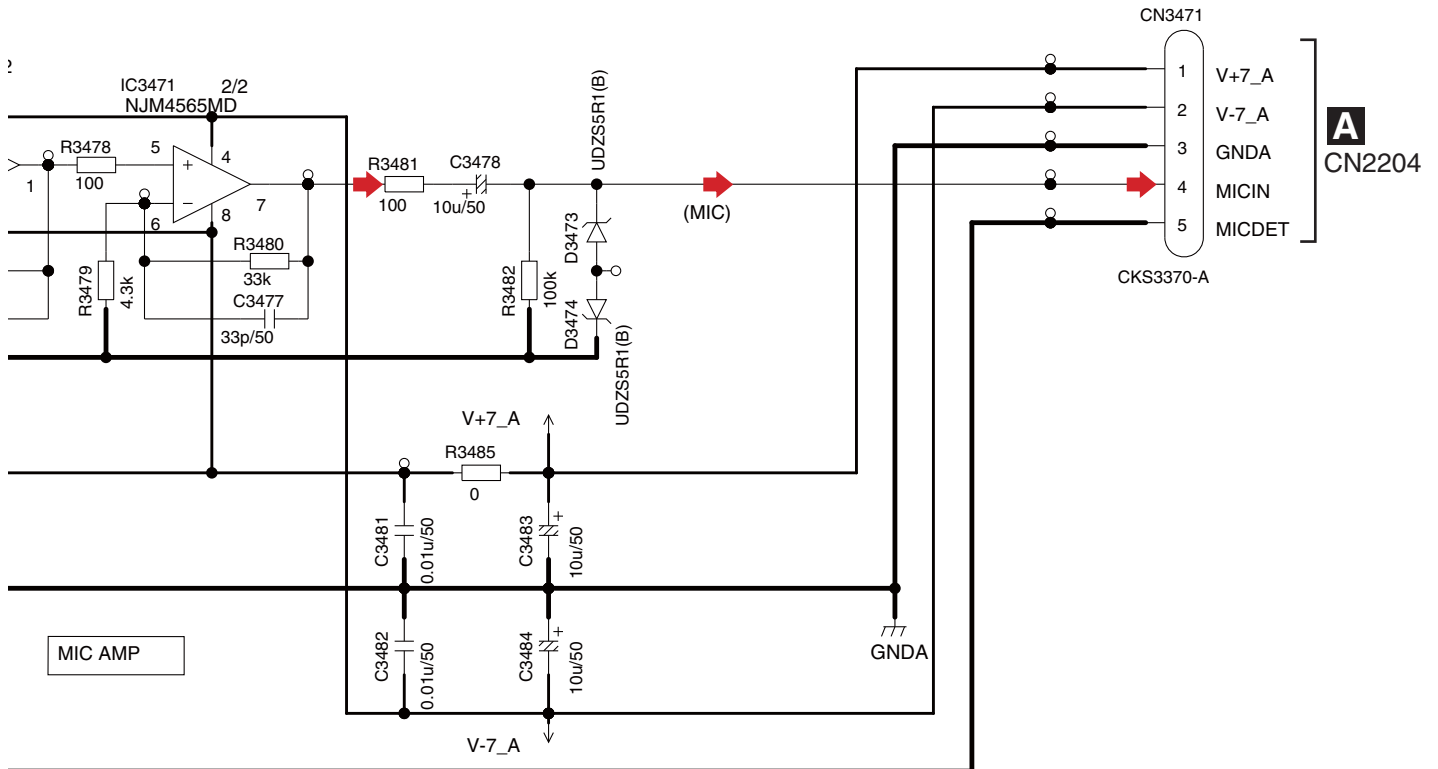
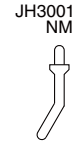
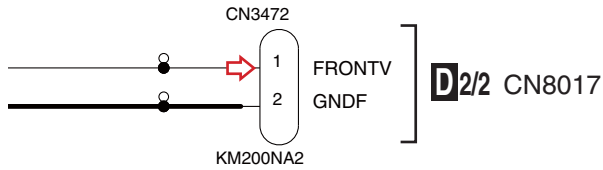


△

F



F FRONT MIC & VIDEO ASSY (AWX9365)



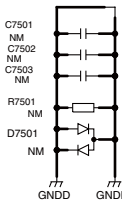
NOTE

1. RESISTORS
Unit: k-k Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/16W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.
2. CAPACITORS
No marked Capacitors are CEAT or CKSRYB.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
3. NM: No Mount

➡ : Audio Signal Route
➡ : Video Signal Route

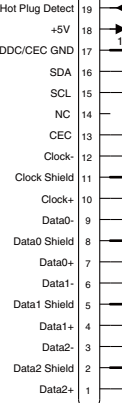
10.18 FRONT HDMI & USB ASSY

A

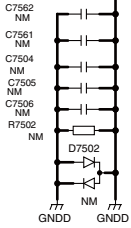


B

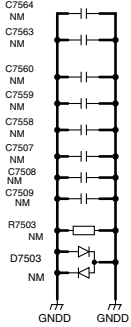
FRONT HDMI IN



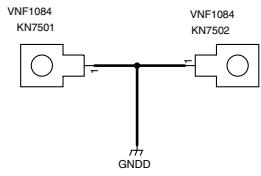
C



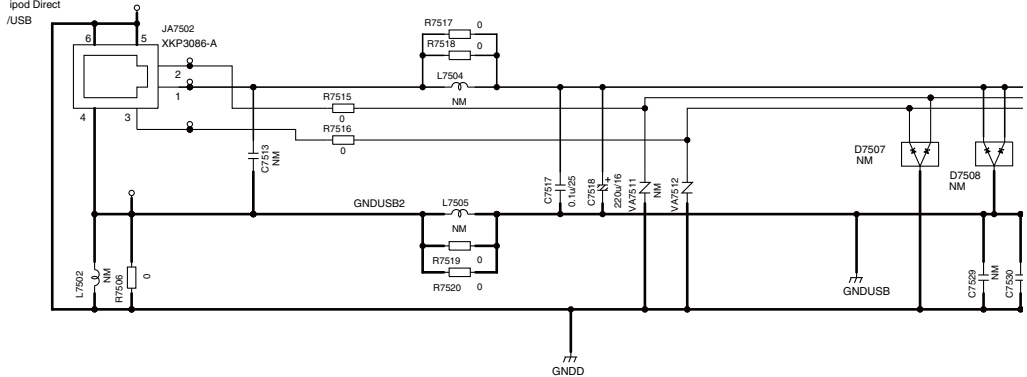
D



E



F



A



C



0. N/A: No means

E2/11 CN1259

JH7502
VEE1040-A

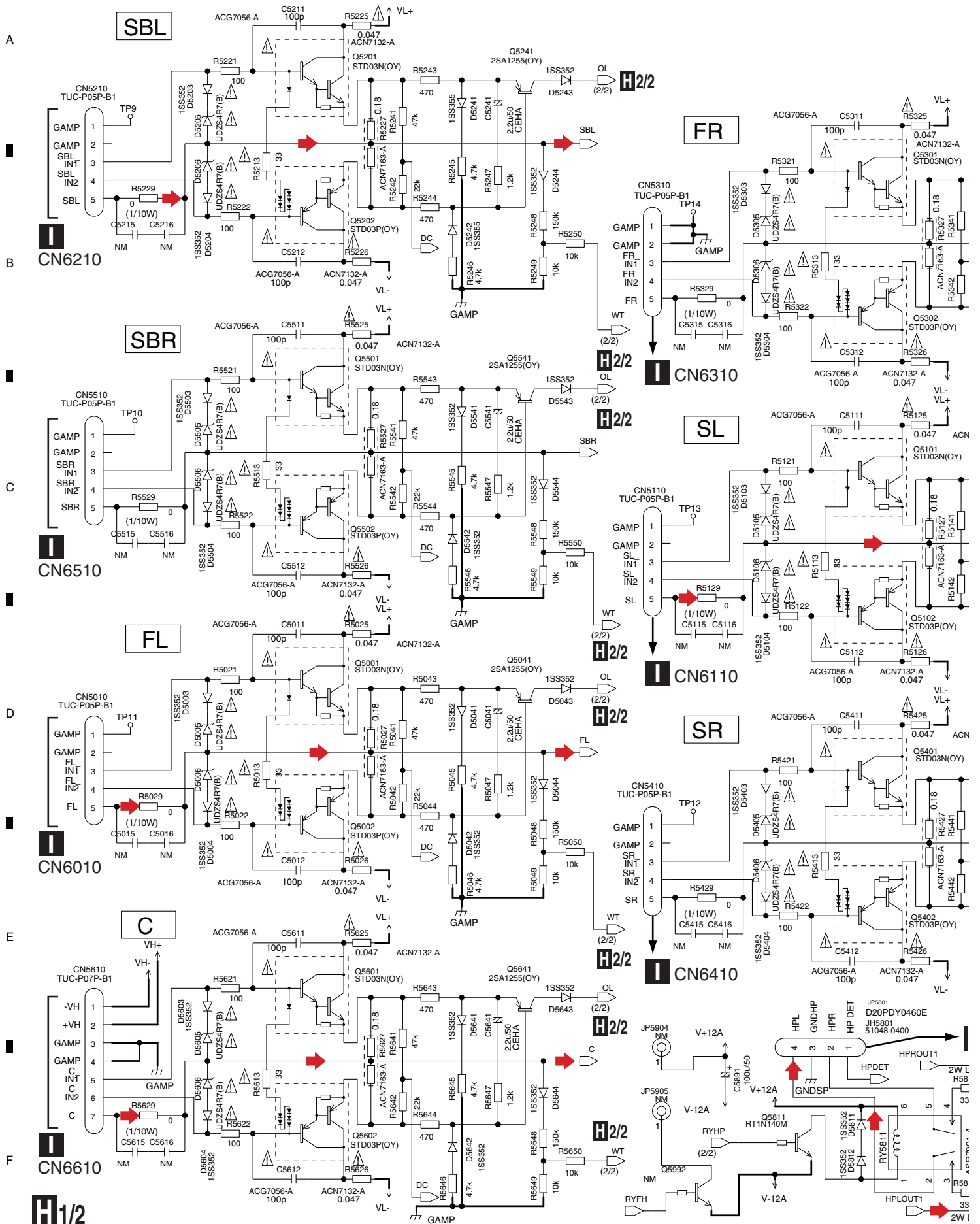
VEF1040-A

J
CN3003

□

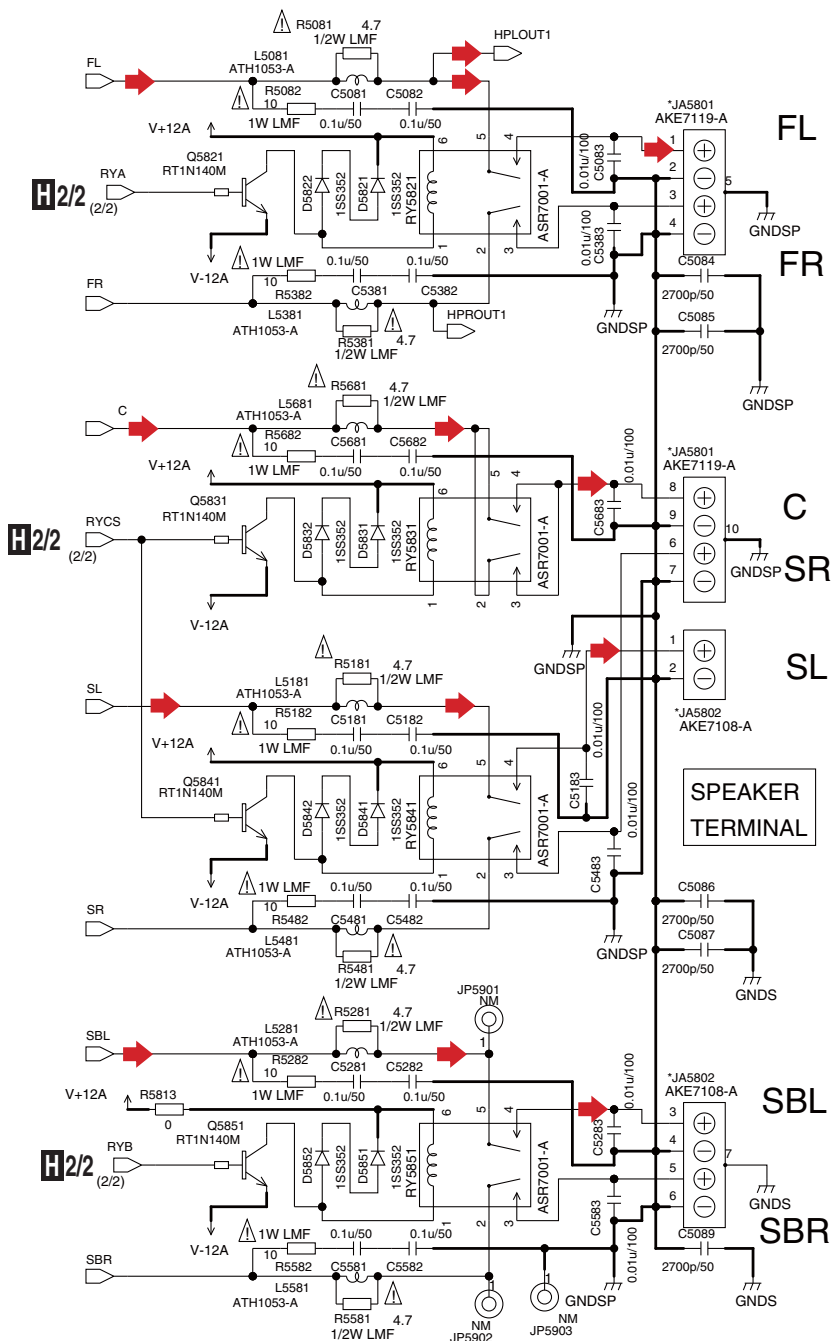
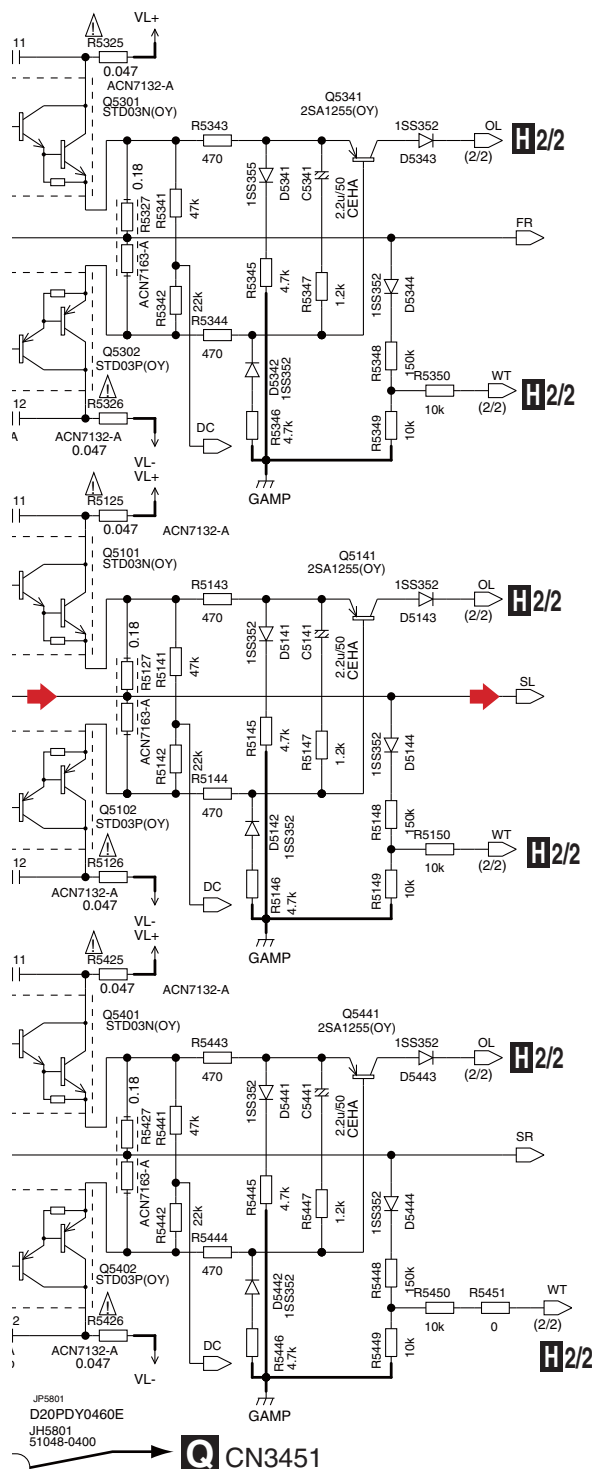
F

10.19 POWER AMP ASSY (1/2)



H1/2 POWER AMP ASSY (AWX9376)

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



NOTE

1. RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated Power: 1/16W unless otherwise noted.
Tolerance: (J) ±5% unless otherwise noted.
2. CAPACITORS
No marked Capacitors are CEAT or CKSRYB.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
3. NM: No Mount

➡ : Audio Signal Route

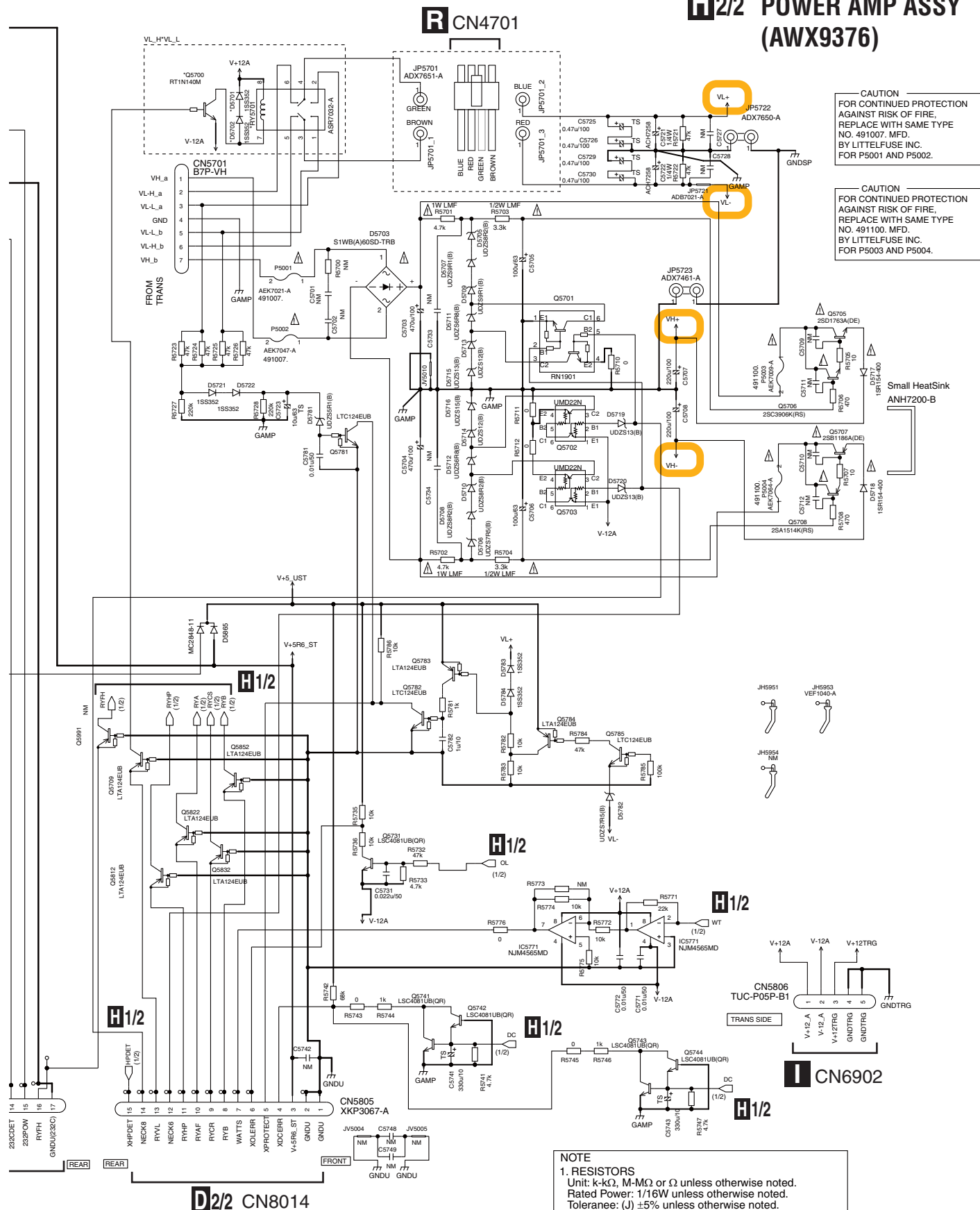
VSX-LX52

H^{1/2}

△



H_{2/2} POWER AMP ASSY (AWX9376)



10.21 PRESTAGE ASSY

A

B

C

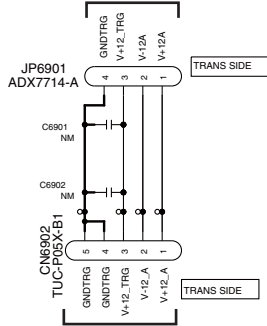
D

E

F

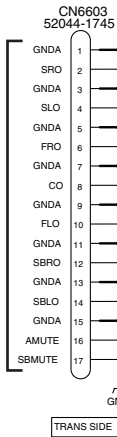


A CN2206



H2/2 CN5806

A CN2203



SR

SL

FR

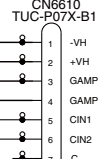
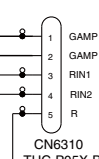
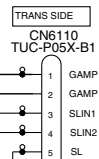
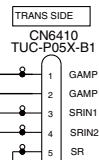
C

H1/2 CN5410

H1/2 CN5110

H1/2 CN5310

H1/2 CN5610



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

➔ : Audio Signal Route

PRESTAGE ASSY (AWX9405)

SIDE
6410
P05X-B1

H1/2
CN5410

SIDE
6110
P05X-B1

H1/2
CN5110

SIDE
6310
P05X-B1

H1/2
CN5310

SIDE
6610
P07X-B1

H1/2
CN5610

NOTE
1. RESISTORS
Unit: k- Ω , M-M Ω or Ω unless otherwise noted.
Rated Power: 1/16W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.
2. CAPACITORS
No marked Capacitors are CEAT or CKSRYB.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
3. NM: No Mount

H1/2 CN5010

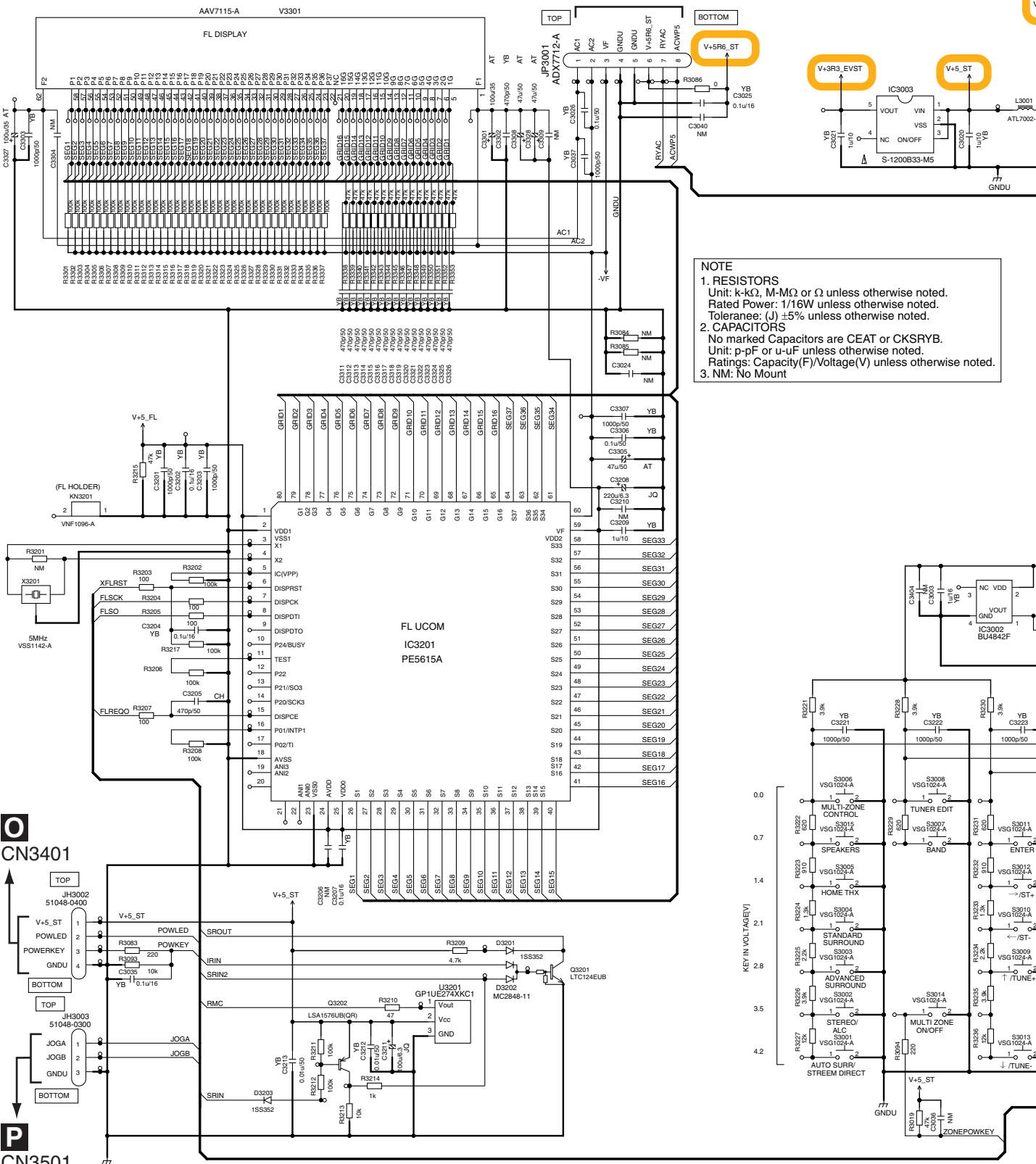
H1/2 CN5510

H1/2 CN5210

10.22 DISPLAY ASSY

DISPLAY ASSY (AWX9359)

N CN4052



NOTE
 1. RESISTORS
 Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
 Rated Power: 1/16W unless otherwise noted.
 Tolerance: (J) ±5% unless otherwise noted.
 2. CAPACITORS
 No marked Capacitors are CEAT or CKSRYB.
 Unit: p-pF or u-uF unless otherwise noted.
 Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
 3. NM: No Mount

O CN3401

P CN3501



C

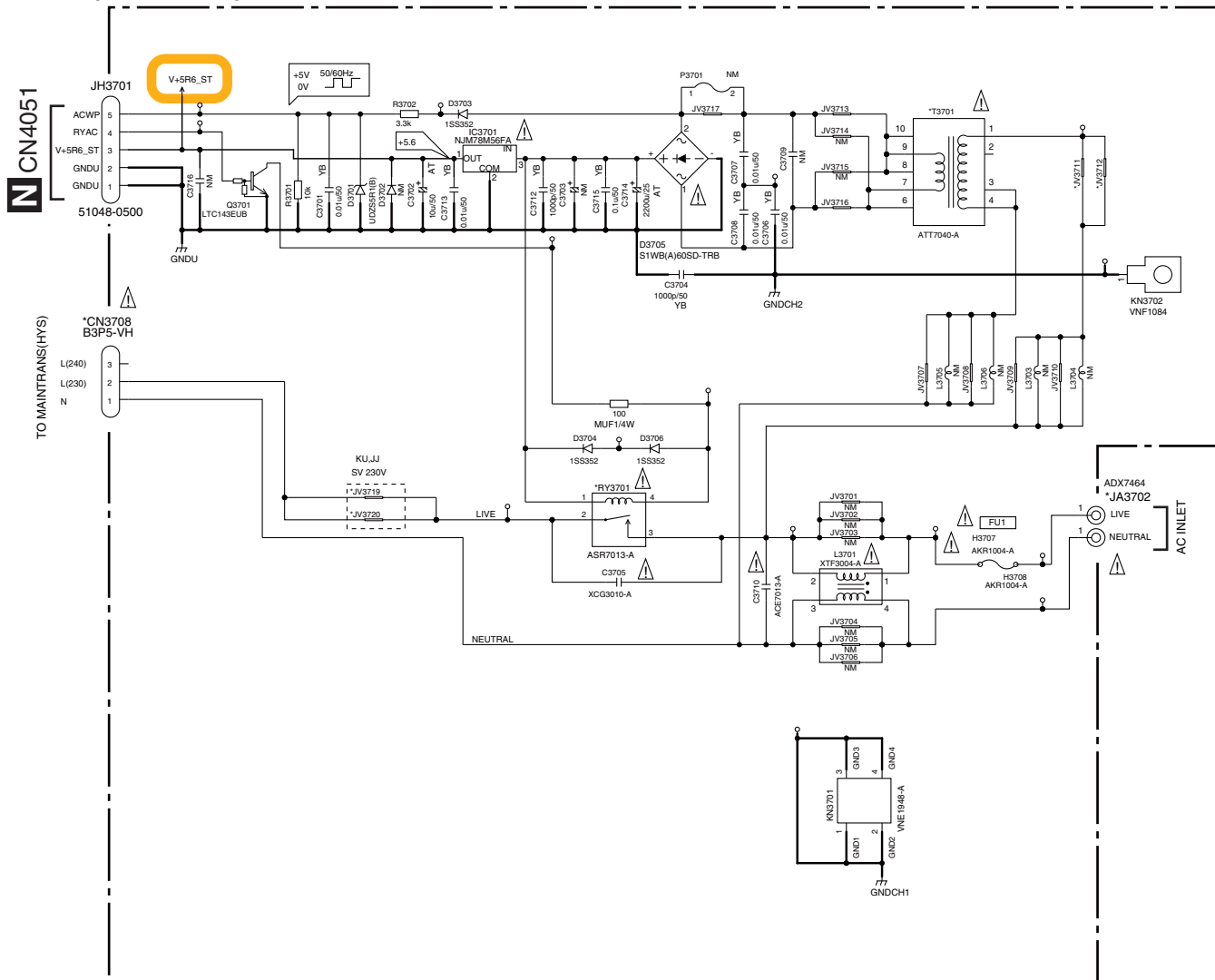
D

F

F

10.23 PRIMARY, UNREG and XM REGULATOR ASSYS

PRIMARY ASSY (AWX9369)



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.

NOTE

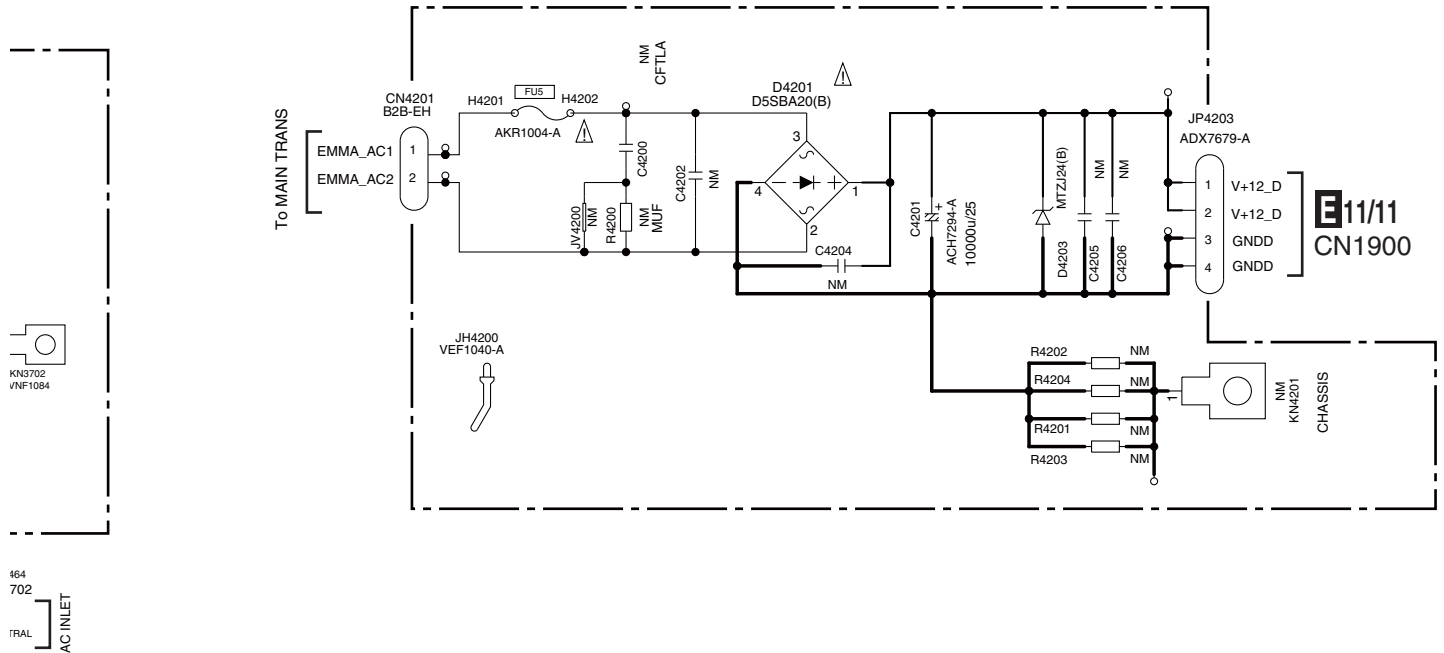
1. RESISTORS

Unit: k- Ω , M- Ω or Ω unless otherwise noted.
Rated Power: 1/16W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.

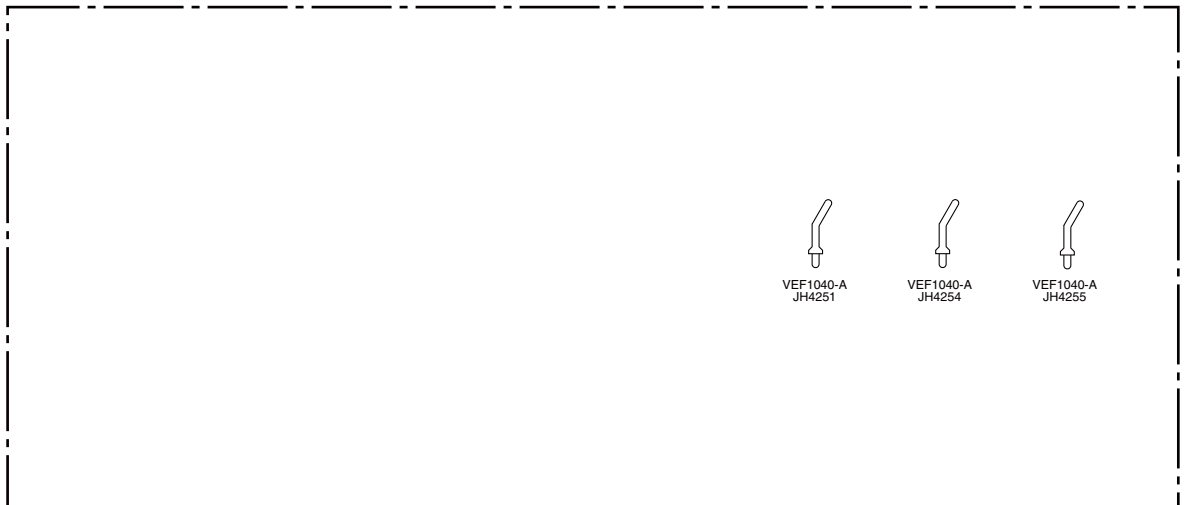
2. CAPACITORS

No marked Capacitors are CEAT or CKSRYB.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.
3. NM: No Mount

L UNREG ASSY (AWX9397)

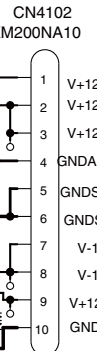


M XM REGULATOR ASSY (AWX9543)

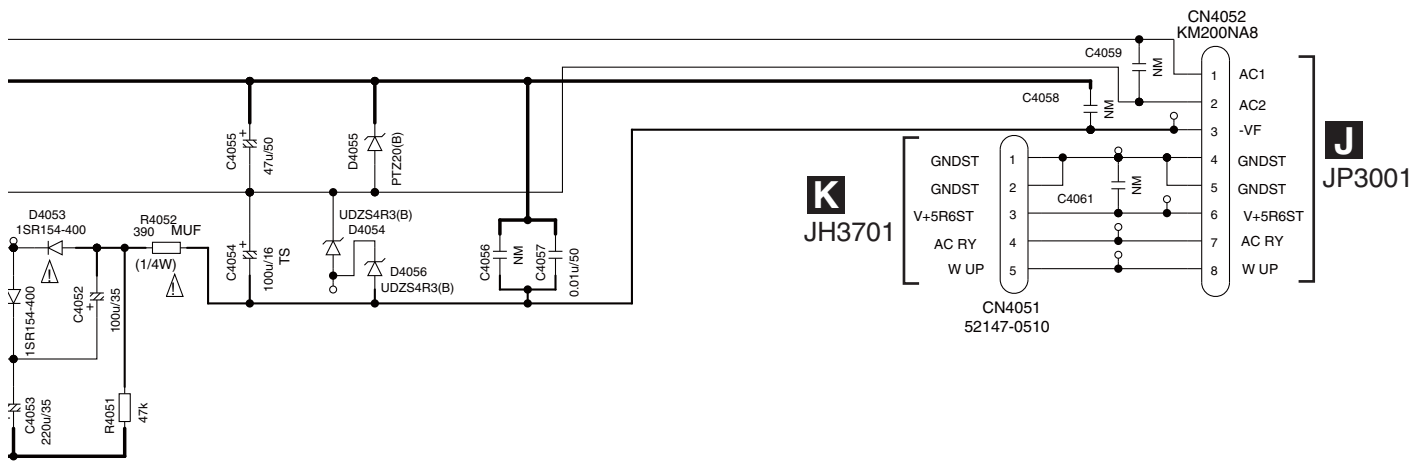


△

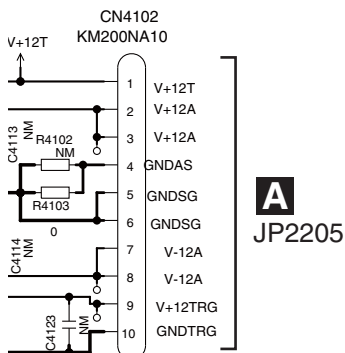
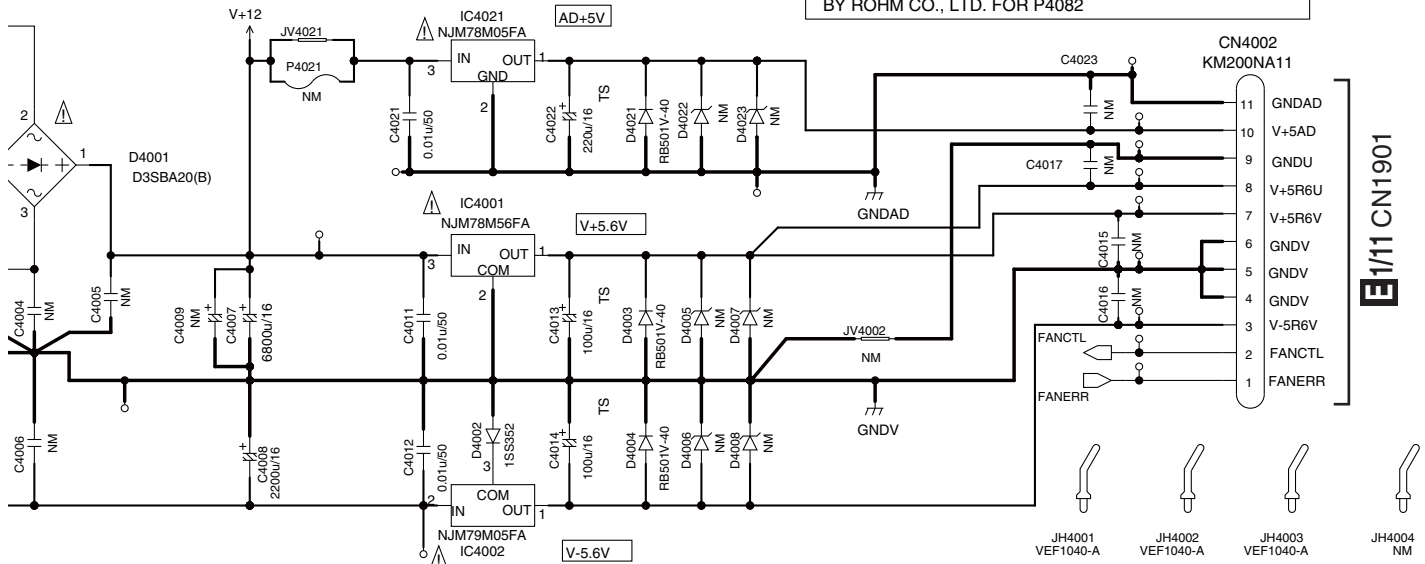
F



REGULATOR ASSY (AWX9401)



CAUTION-
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,
REPLACE WITH SAME TYPE NO. ICP-N10 MFD.
BY ROHM CO., LTD. FOR P4082

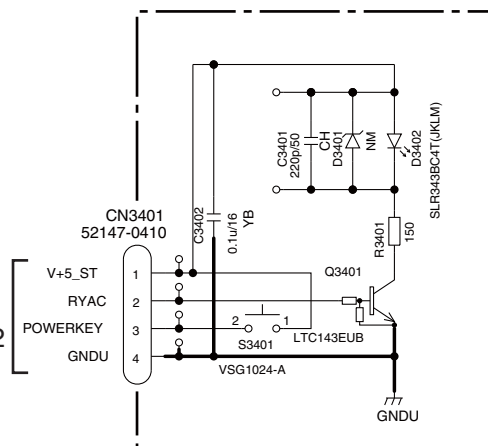


The mark found on some component parts should be replaced with same parts (safety regulation authorized) of identical designation.

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

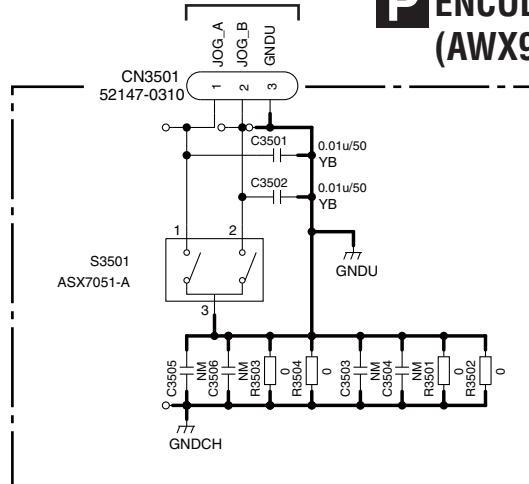
△

**O POWER SW ASSY
(AWX9366)**

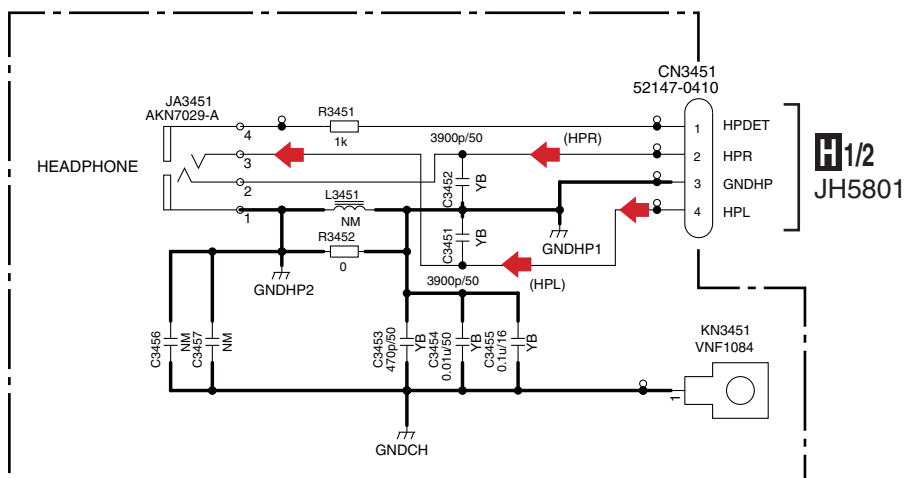


J JH3003

P ENCODER ASSY
(AWX9367)

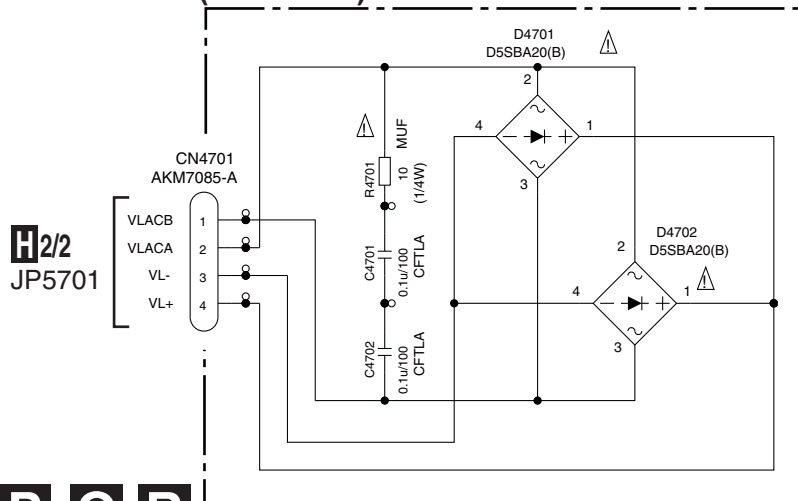


Q HEADPHONE ASSY (AWX9372)



**R DIODE ASSY
(AWX9406)**

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



➡ : Audio Signal Route

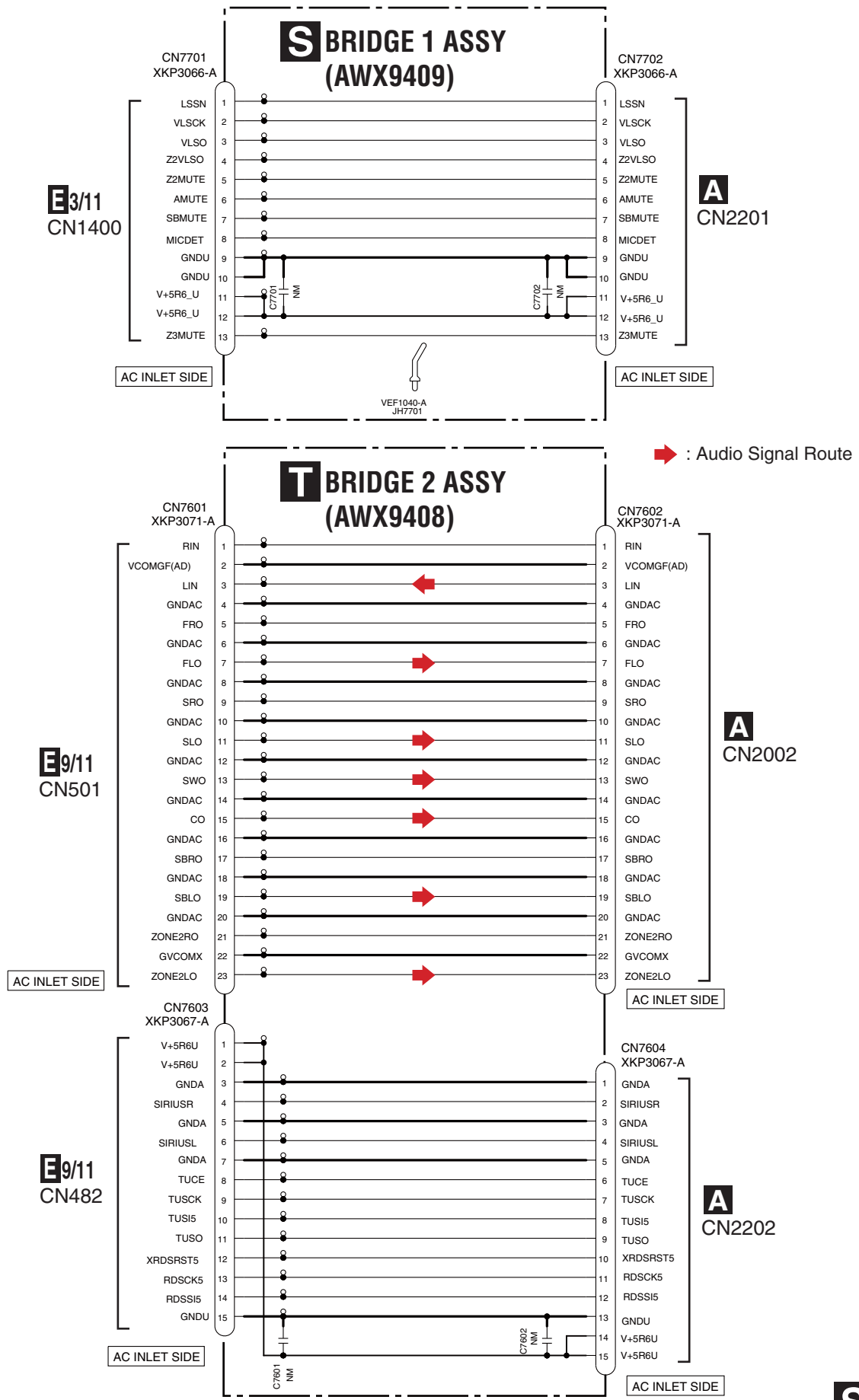
NOTE

1. RESISTORS
Unit: k- Ω , M- Ω or Ω unless otherwise noted.
Rated Power: 1/16W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.

2. CAPACITORS
No marked Capacitors are CEAT or CKSRYB.
Unit: p-pF or u-uF unless otherwise noted.
Ratings: Capacity(F)/Voltage(V) unless otherwise noted.

3. NM: No Mount

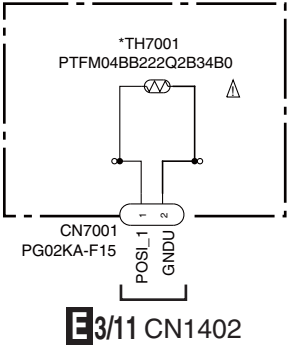
O P Q R



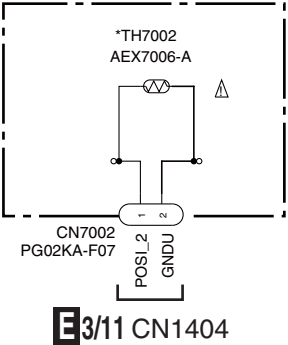
10.27 POSI 1-3, BIND L FRONT and BACK, BIND R FRONT and BACK ASSYS

A

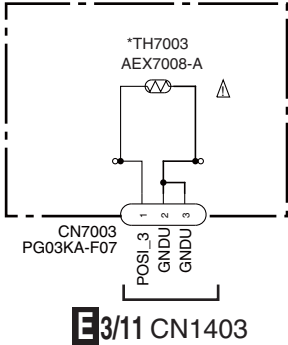
U POSI 1 ASSY
(AWX9383)



V POSI 2 ASSY
(AWX9385)



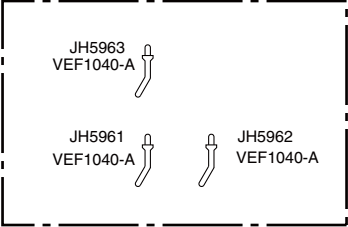
W POSI 3 ASSY
(AWX9388)



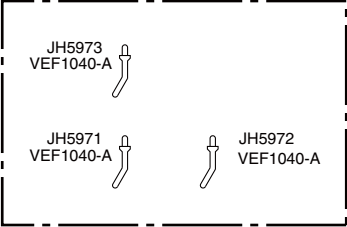
B

C

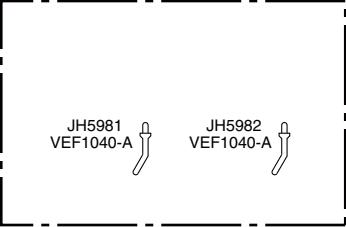
X BIND L FRONT ASSY
(AWX9379)



Y BIND L BACK ASSY
(AWX9380)

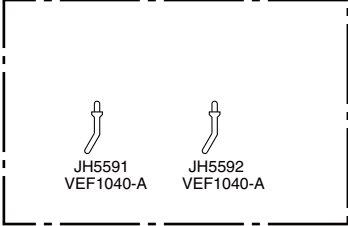


Z BIND R FRONT ASSY
(AWX9381)



D

AA BIND R BACK ASSY
(AWX9382)



E

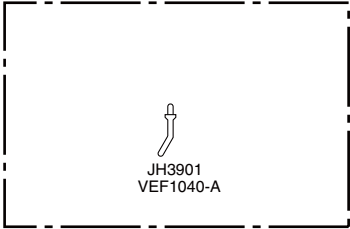
F

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

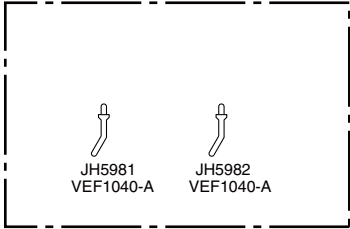
5 6 7 8

10.28 BINDER and DISP-FFC GUARD ASSYS

AB BINDER ASSY
(AWX9373)



AC DISP-FFC GUARD ASSY
(AWX9539)

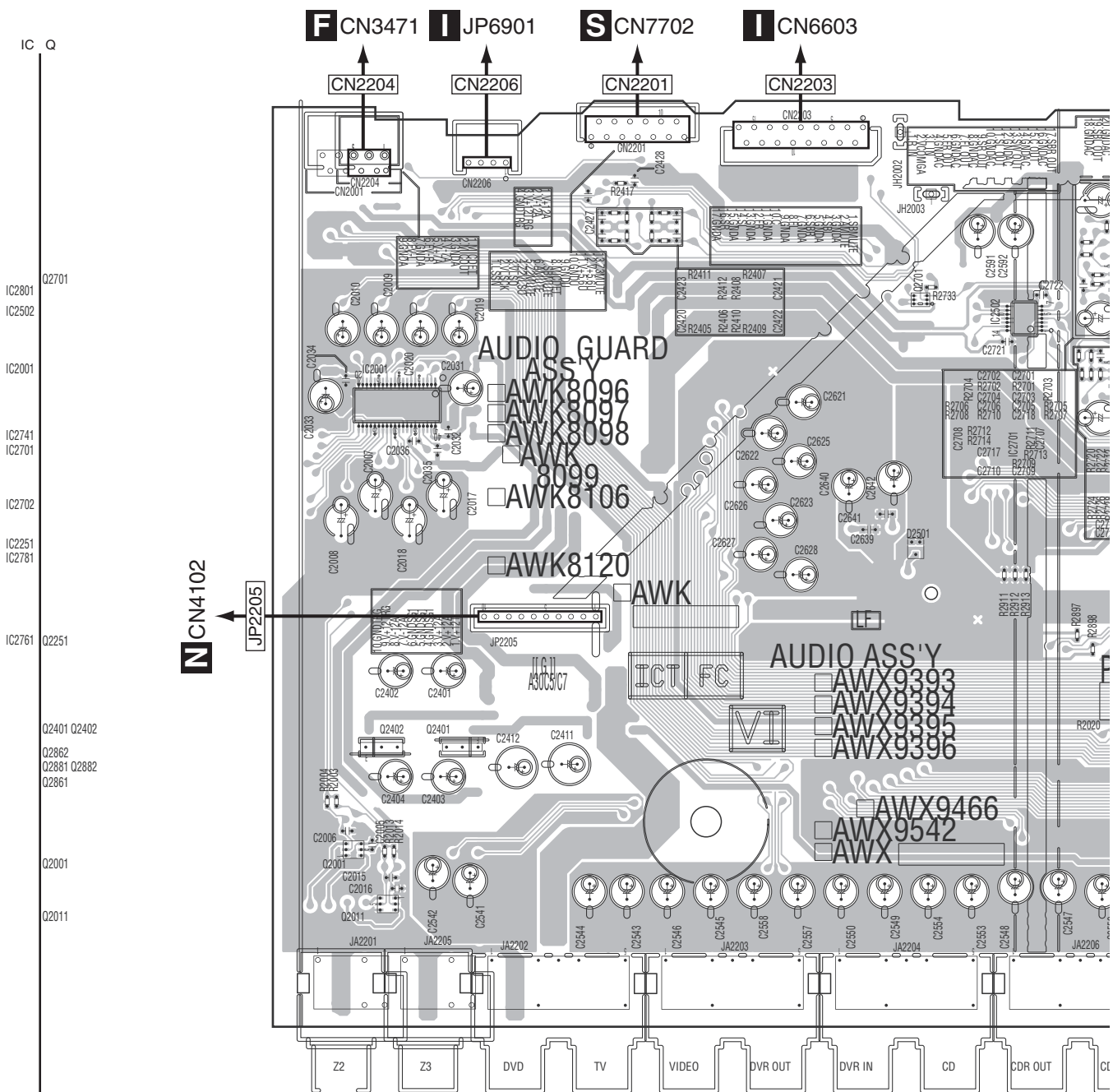


11. PCB CONNECTION DIAGRAM

11.1 AUDIO ASSY

SIDE A

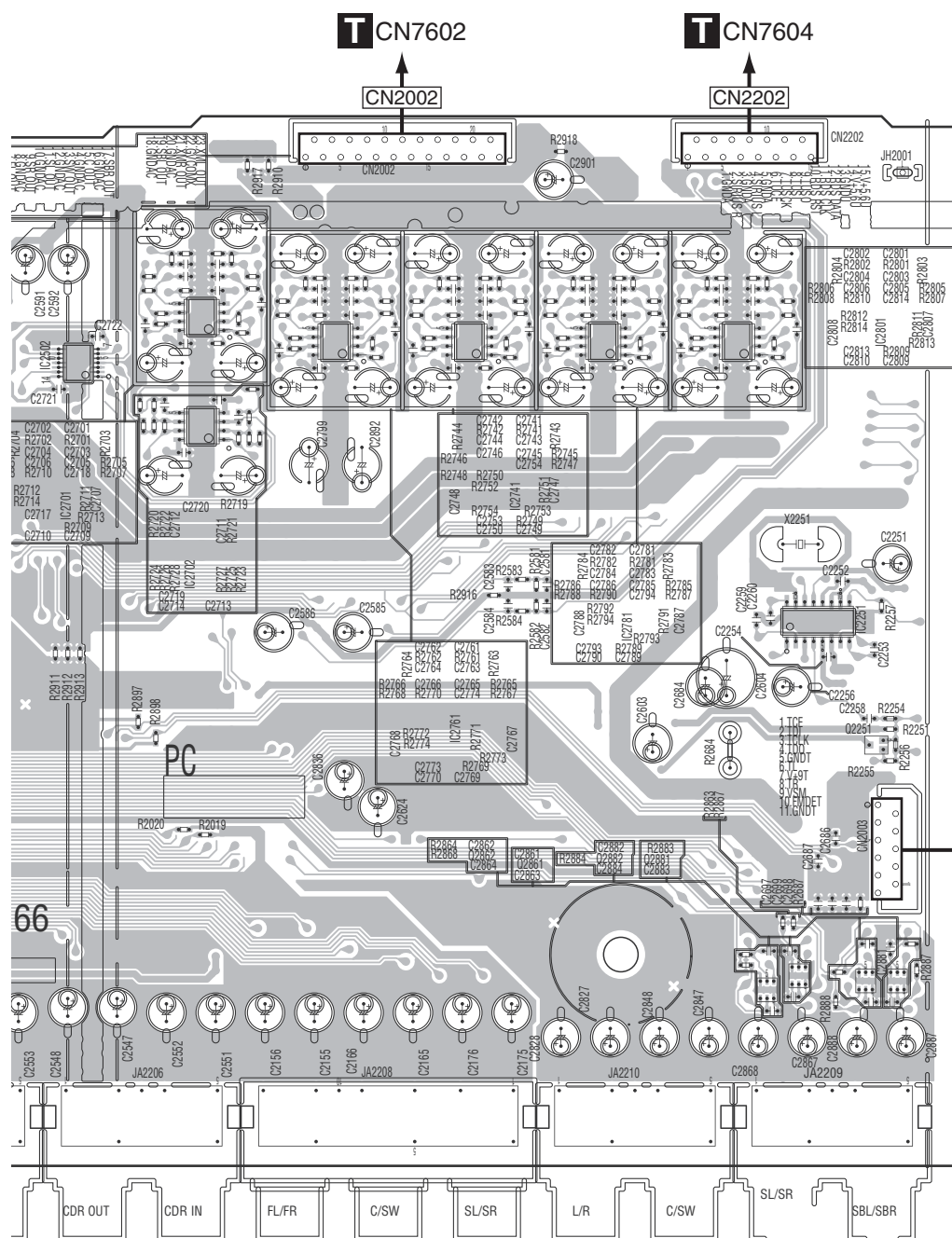
A AUDIO ASSY



A

SIDE A

A

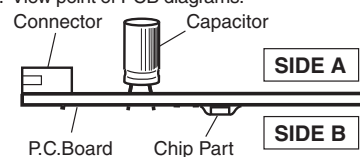


(ANP7695-B)

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.



TUNER MODULE

B

C

D

E

F

SIDE B

A

A AUDIO ASSY

IC Q

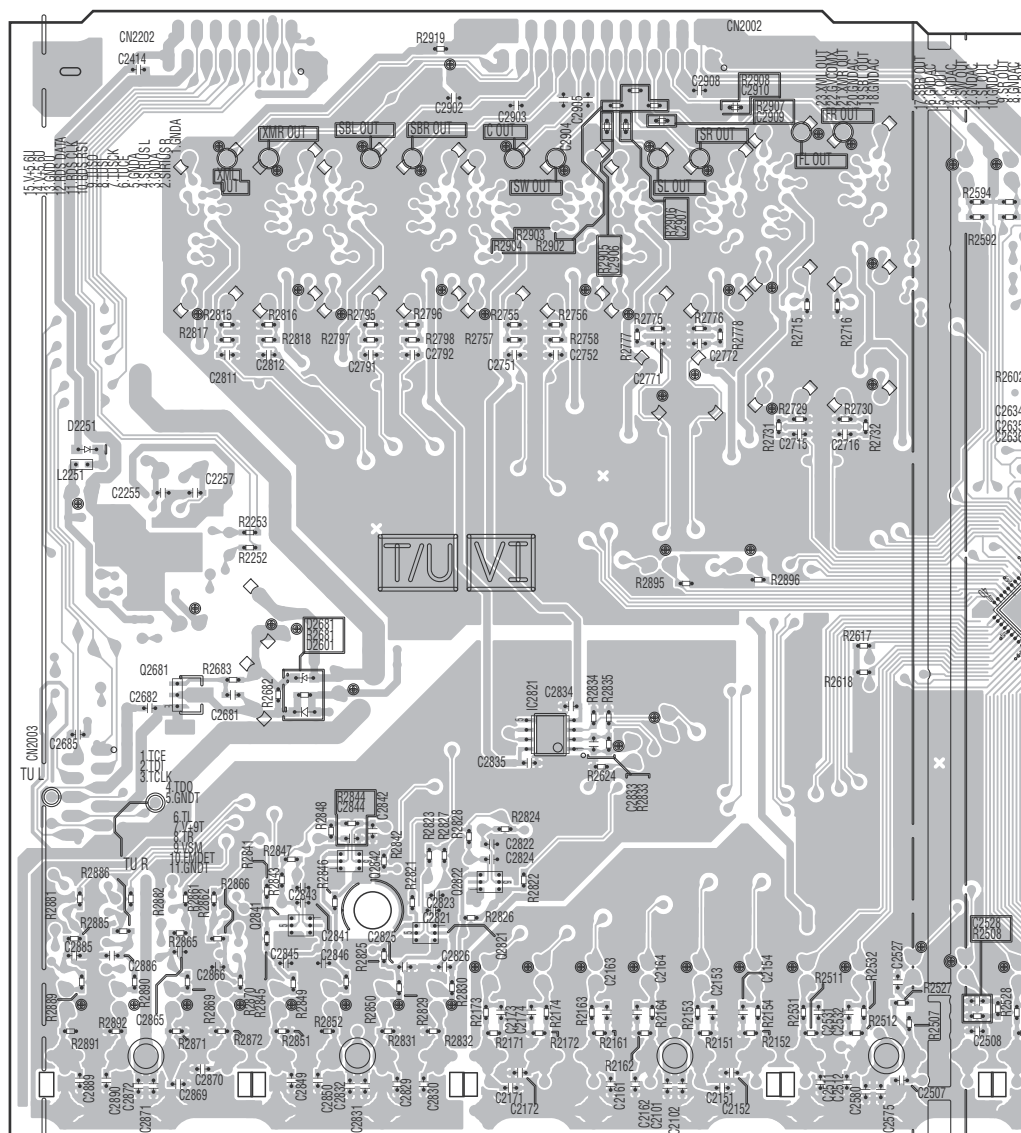
B

C

D

E

F



SIDE B

A

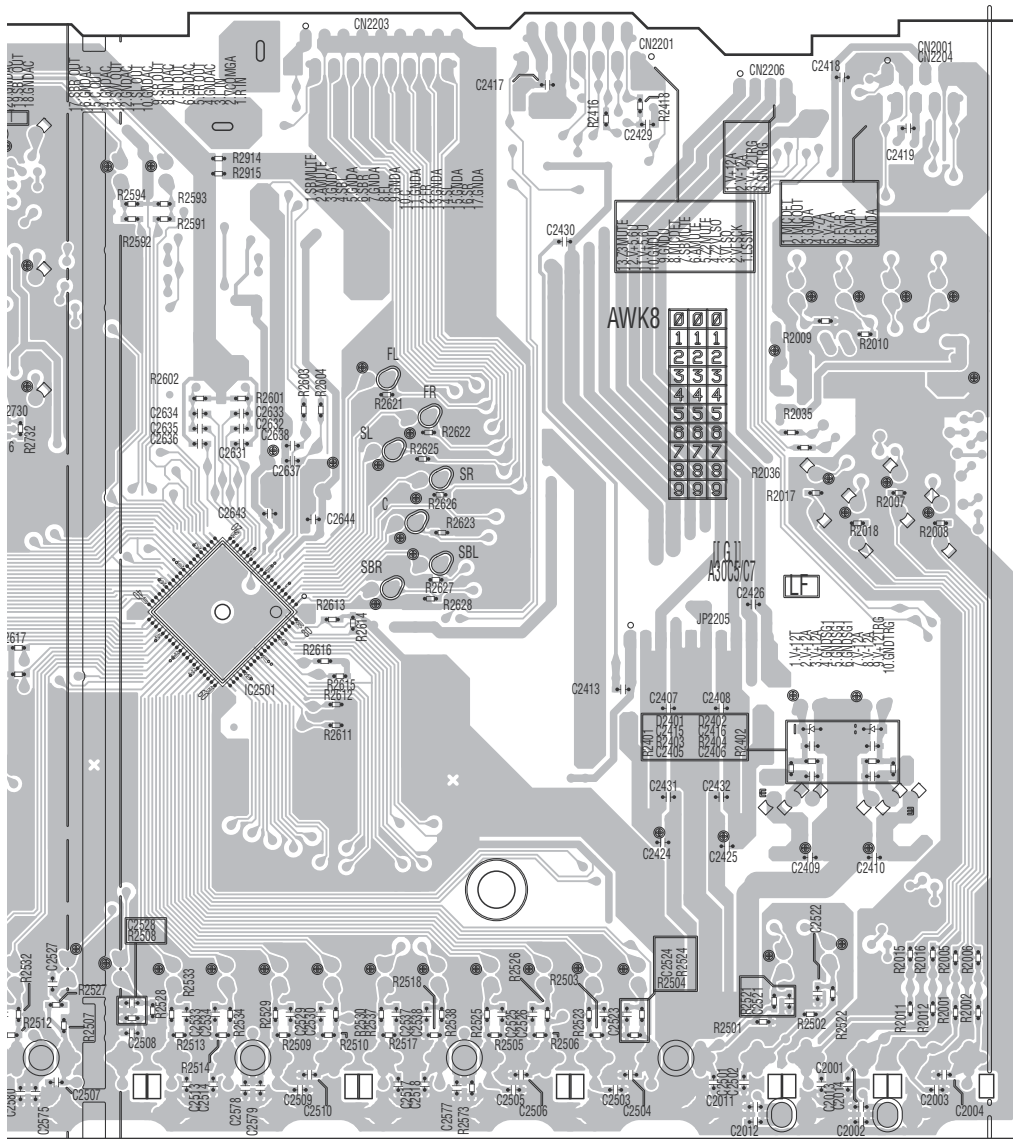
B

C

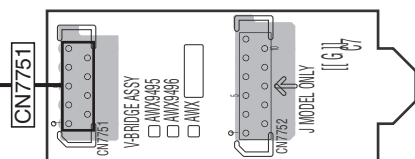
D

E

F



(ANP7695-B)

C V-BRIDGE ASSY

SIDE A

SIDE A

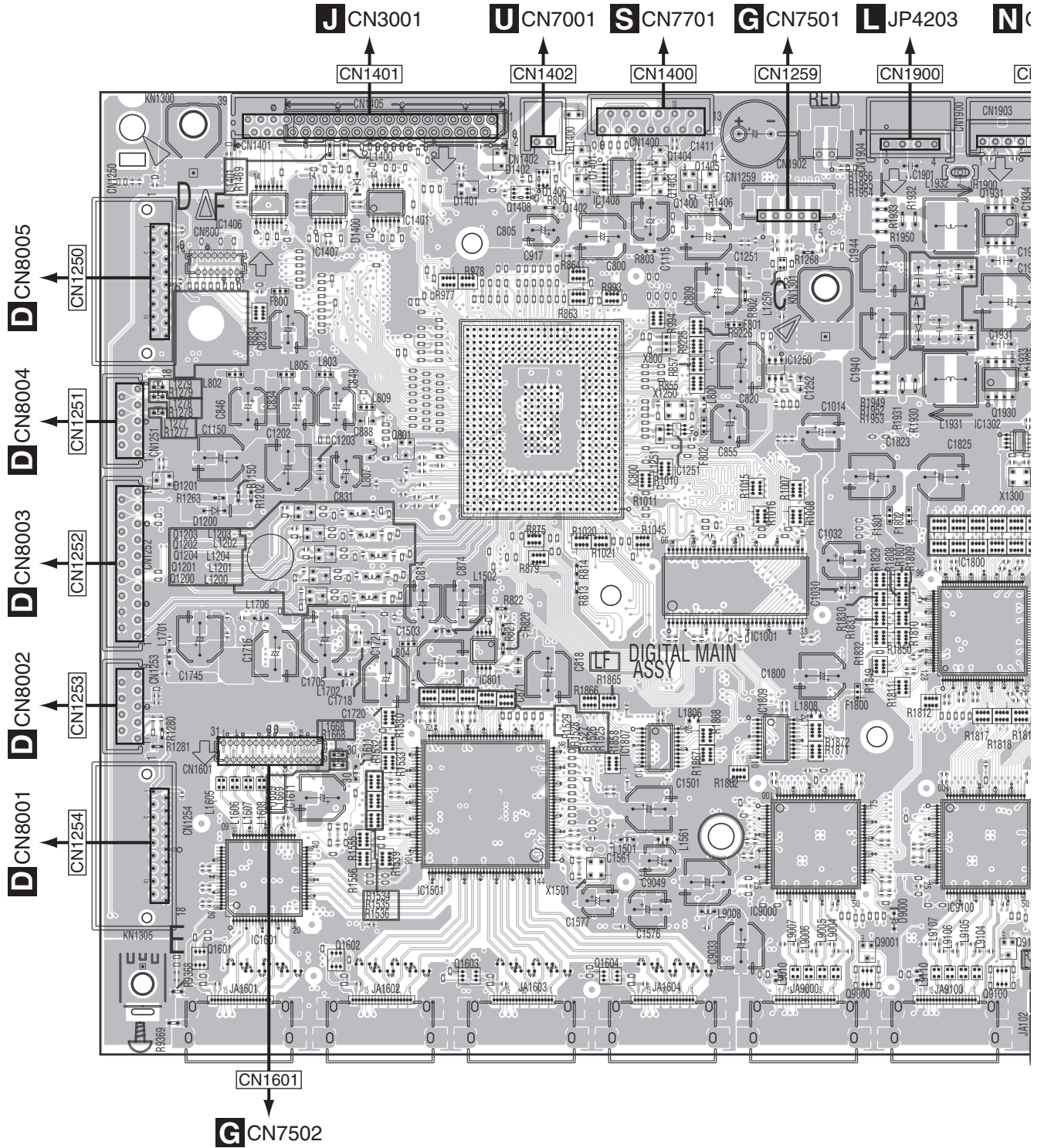
D



11.4 DIGITAL MAIN ASSY

SIDE A

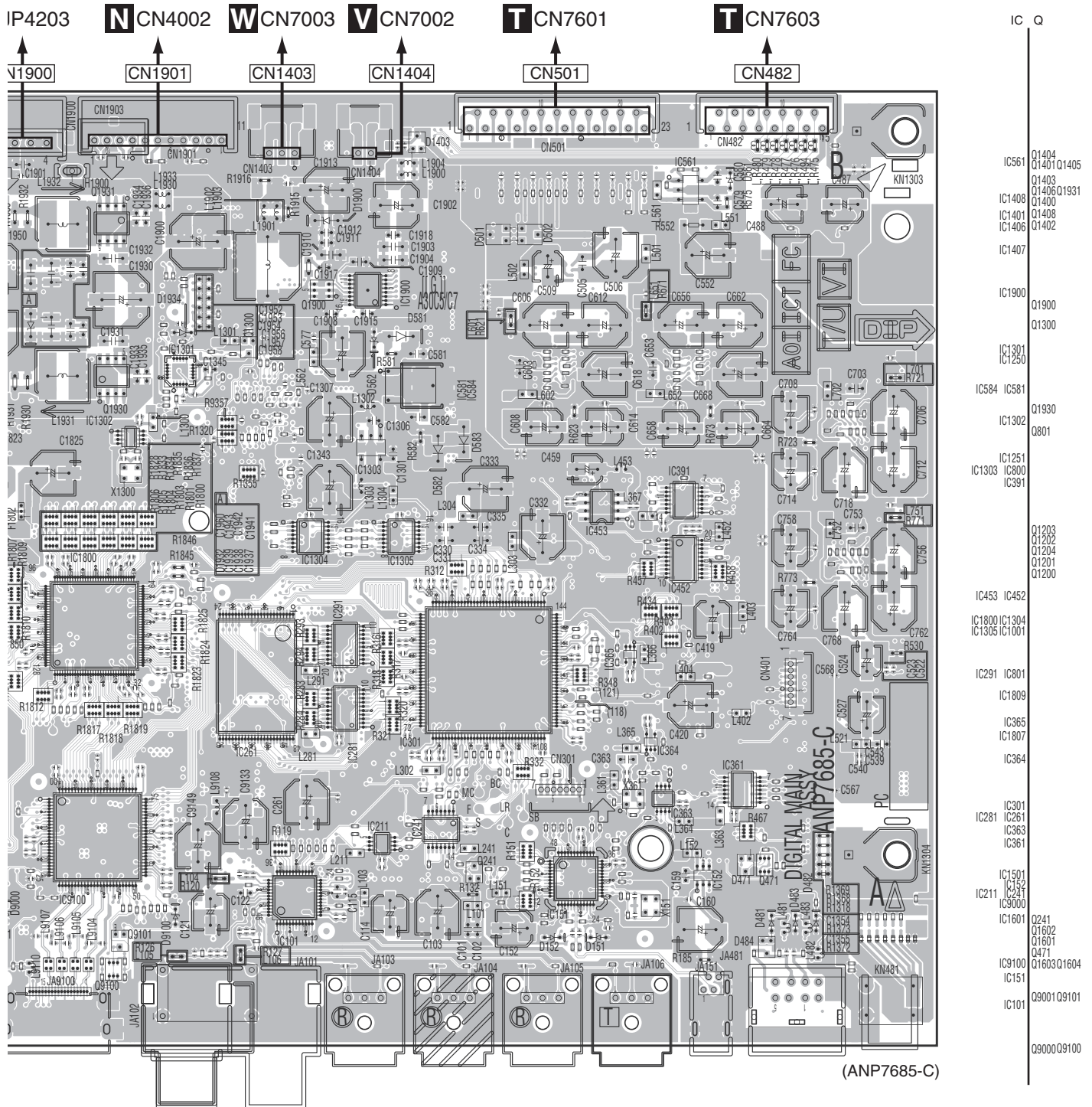
DIGITAL MAIN ASSY



E

SIDE A

A



B

C

D

E

F

1

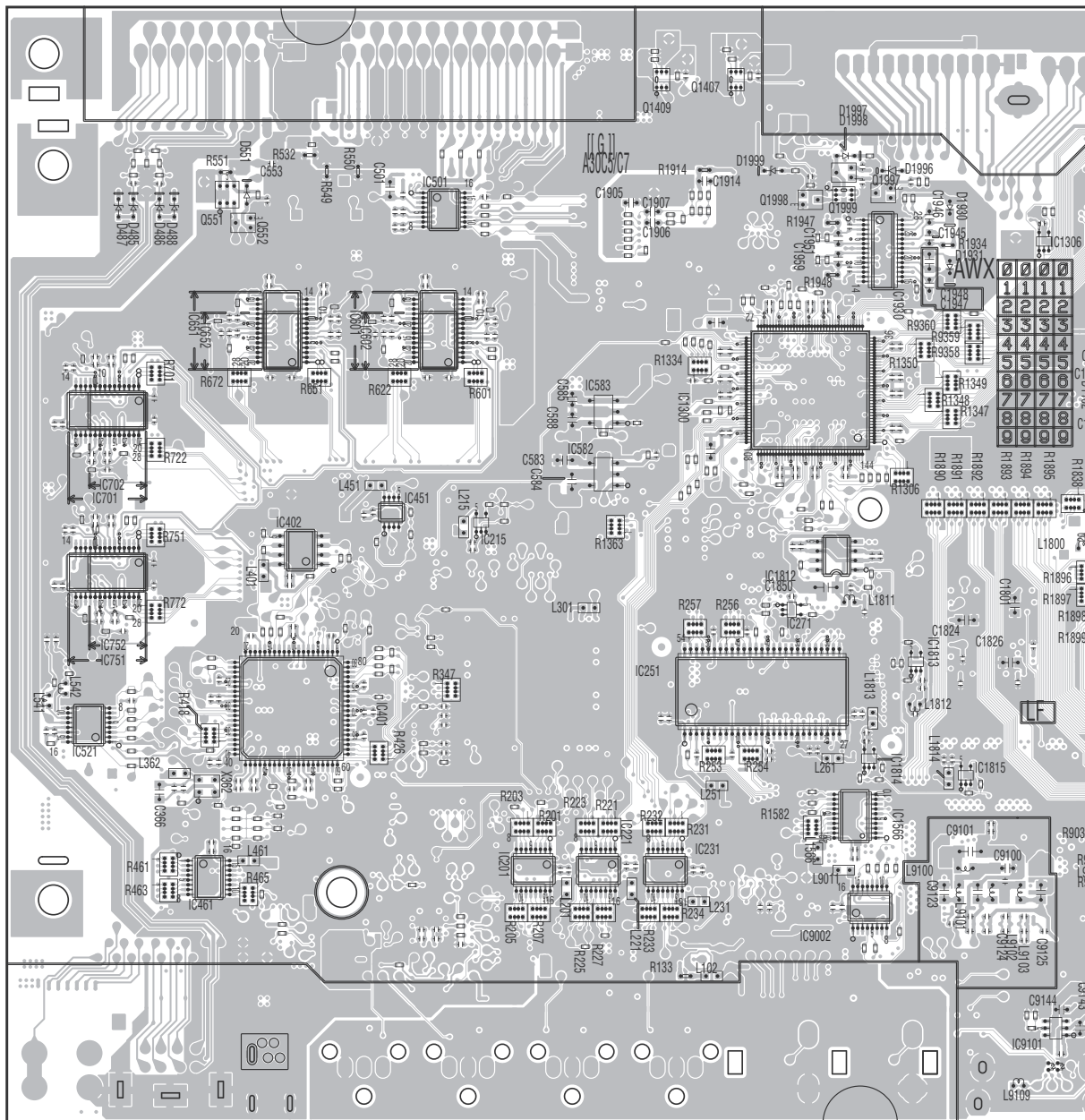
2

3

4

SIDE B

DIGITAL MAIN ASSY



1

2

3

4

SIDE B

A

IC Q

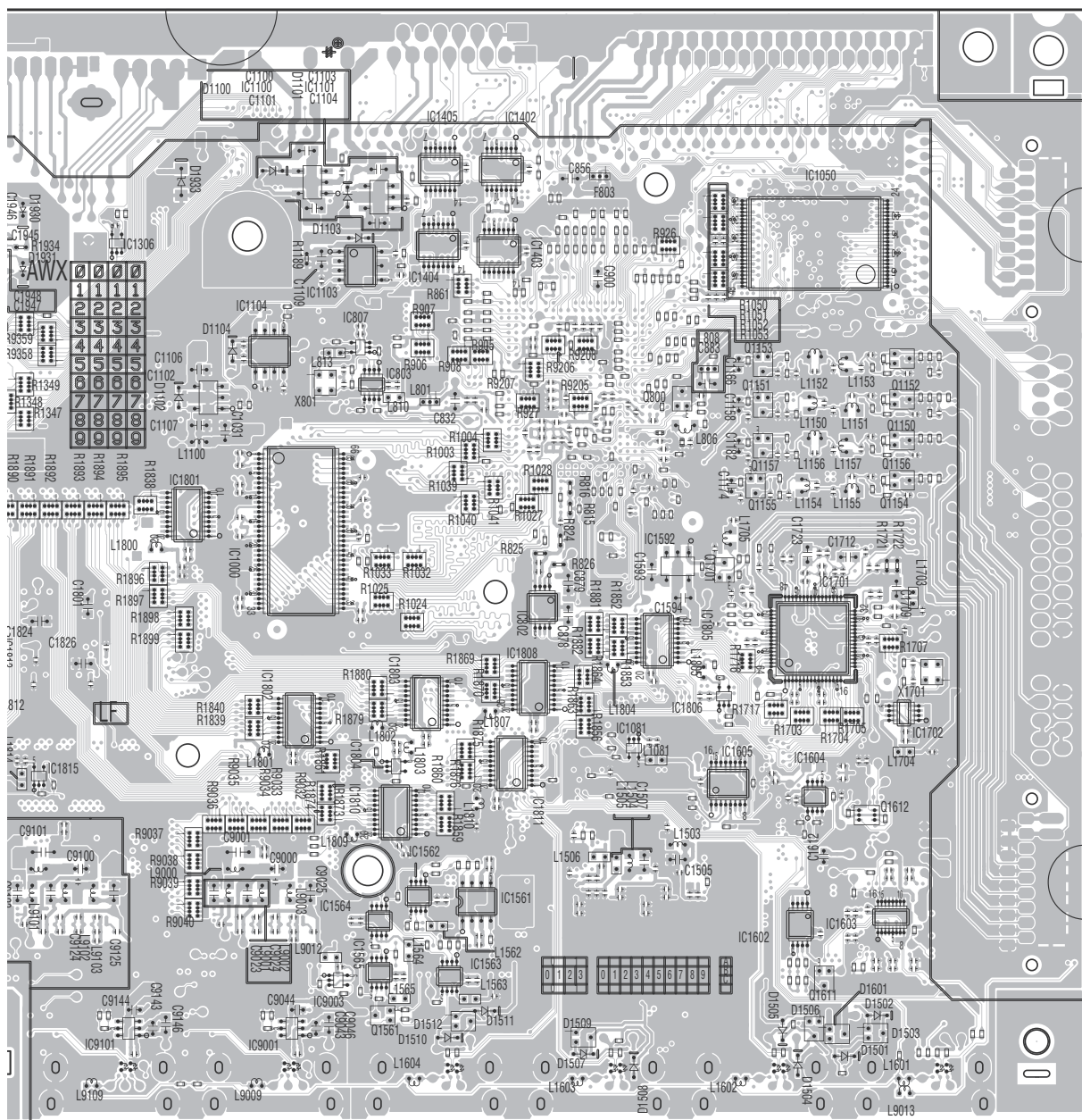
B

C

D

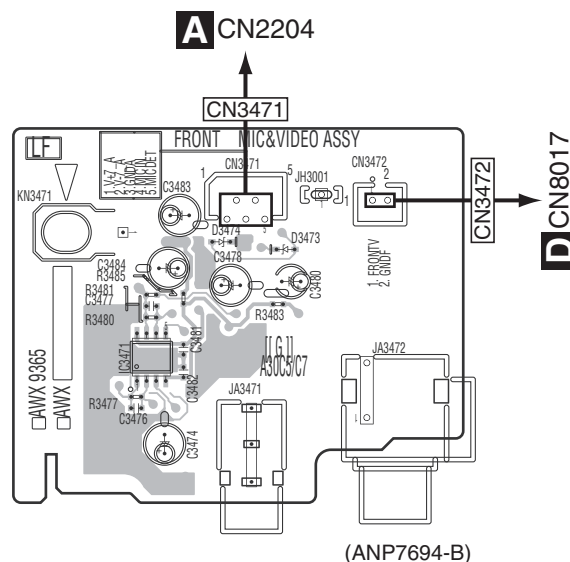
F

F



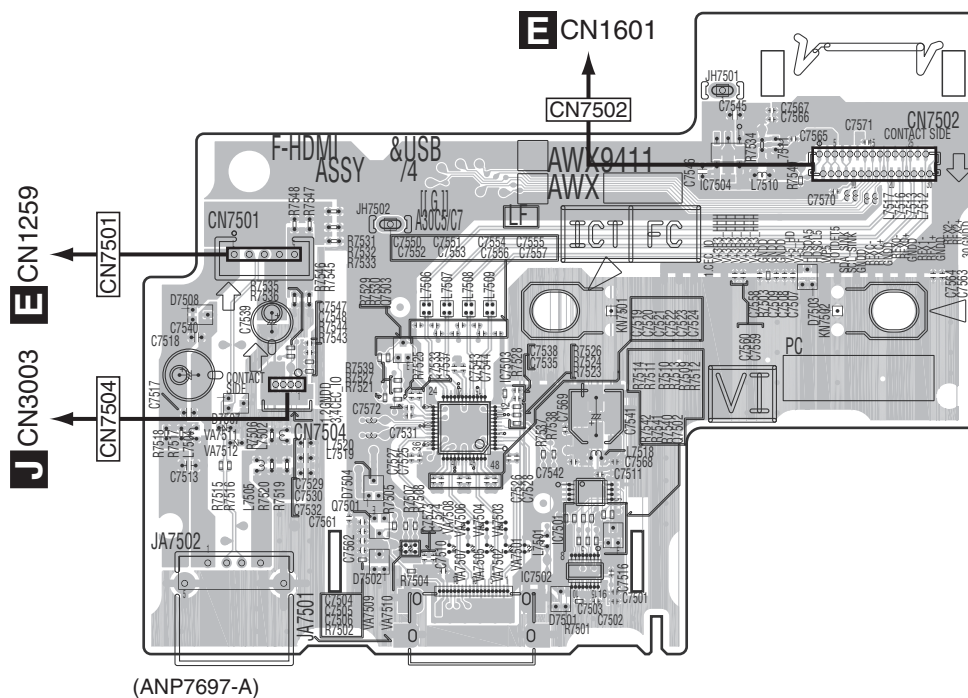
(ANP7685-C)

VSX-LX52

F FRONT MIC&VIDEO ASSY

IC Q

G FRONT HDMI&USB ASSY



IC	Q
IC7504	Q7503
IC7503	Q7502
IC7501	Q7501
IC7502	

4

A

B

C

D

F

F



CM

IC

VSX-LX52

SIDE A

A

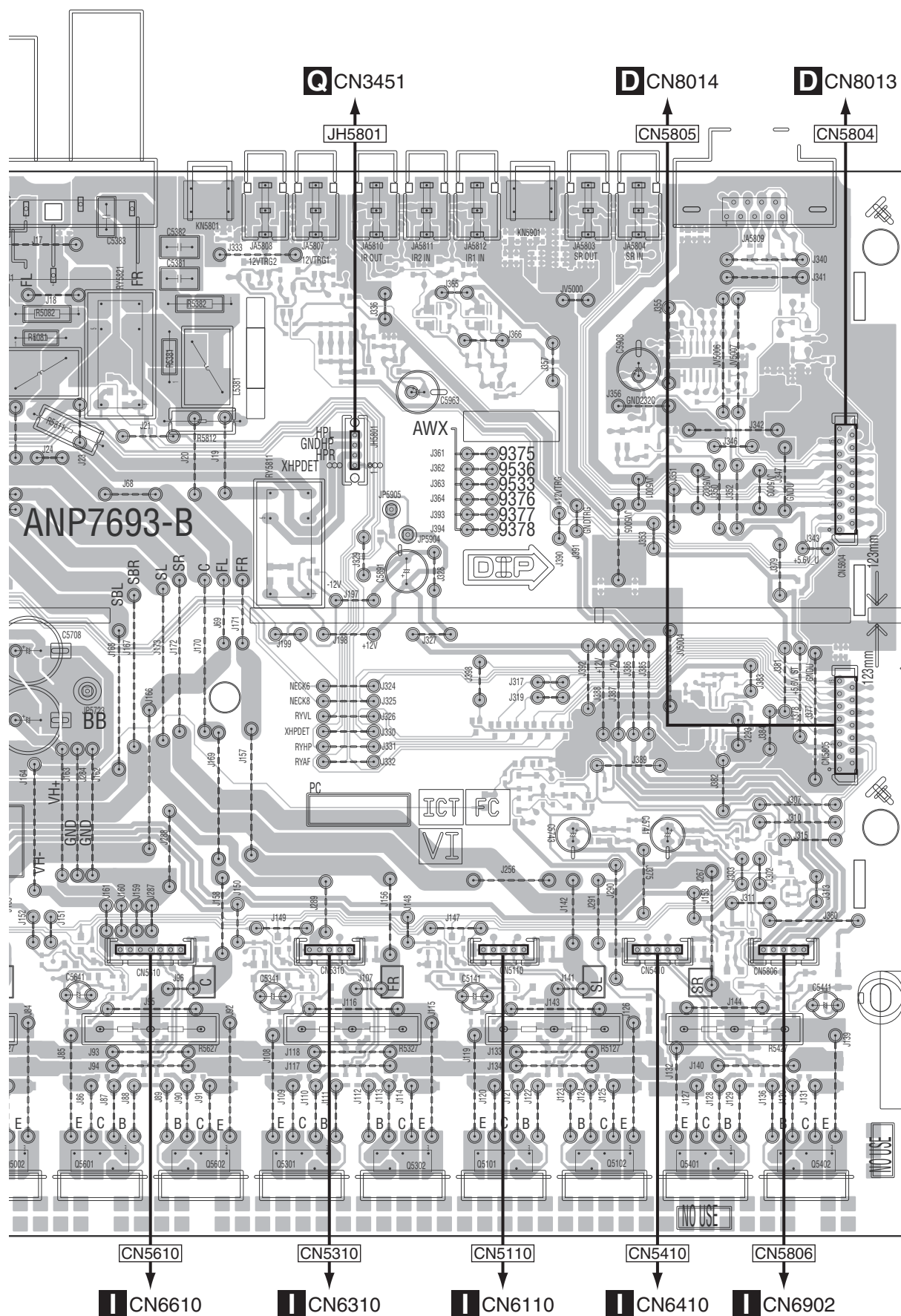
B

C

D

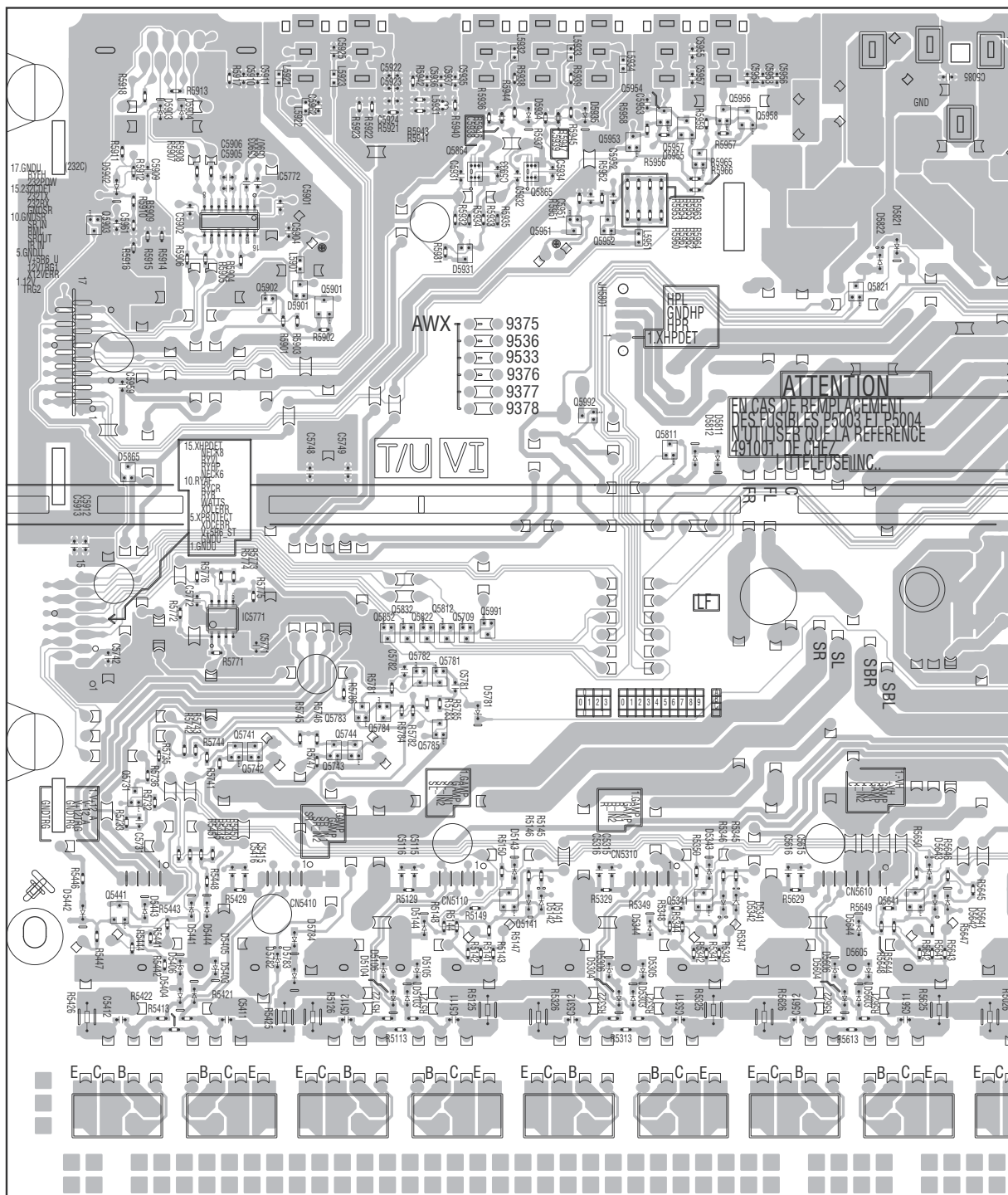
F

F

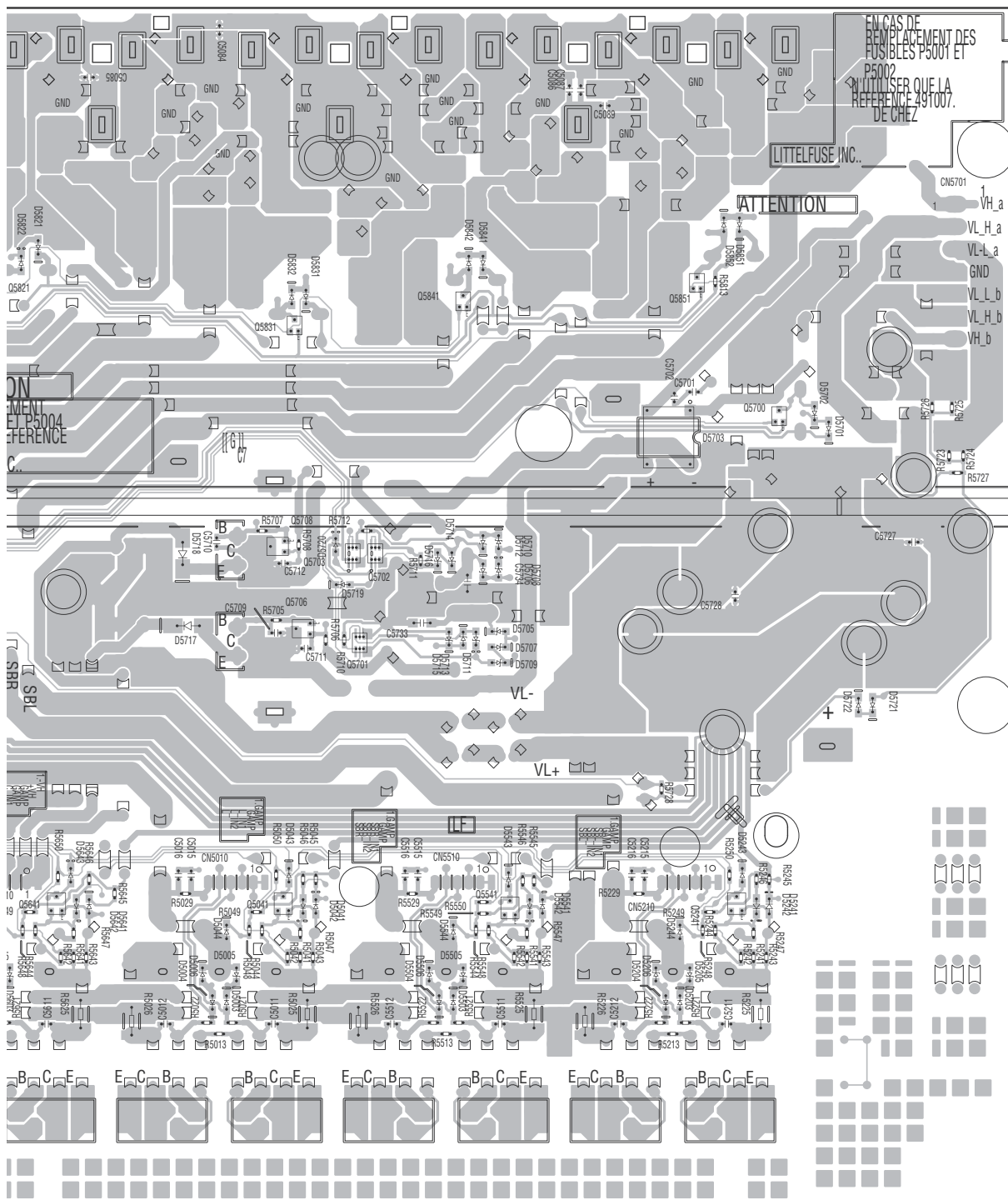


SIDE B

H POWER AMP ASSY



IC Q

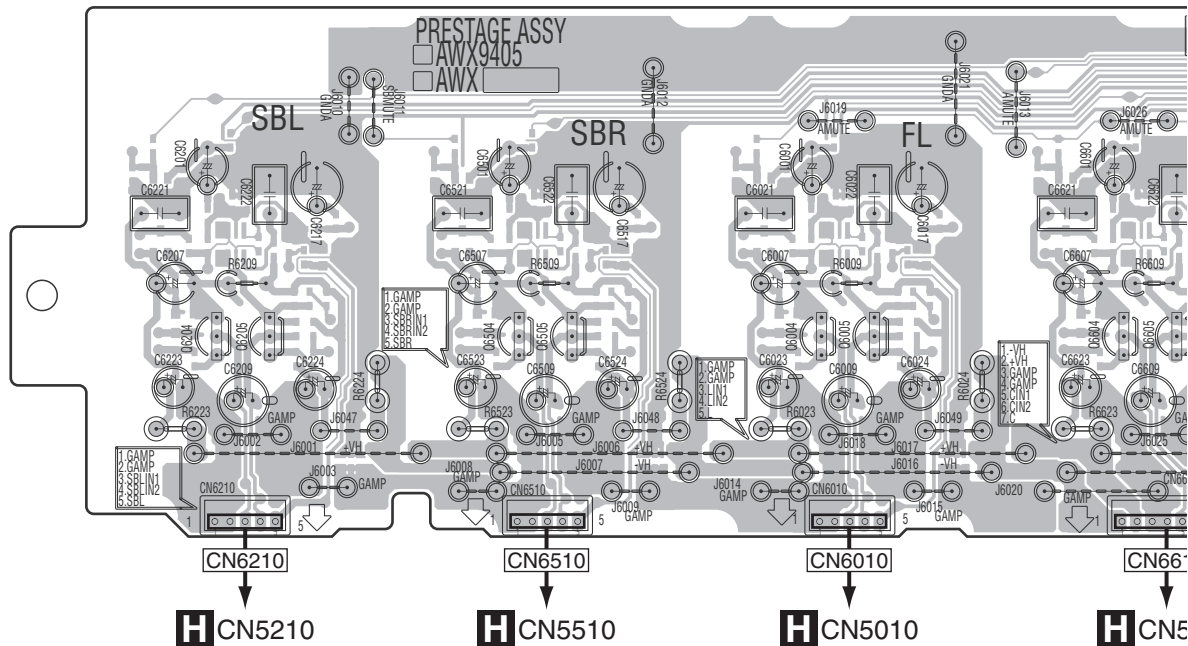


(ANP7693-B)

11.7 PRESTAGE ASSY

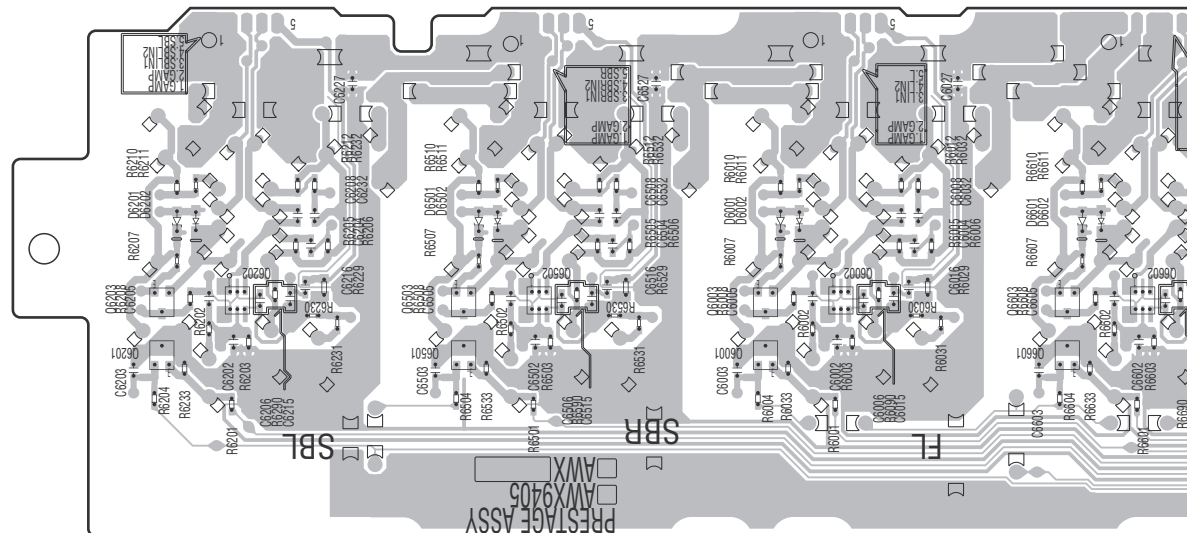
SIDE A

PRESTAGE ASSY



SIDE B

PRESTAGE ASSY



SIDE A

A

B

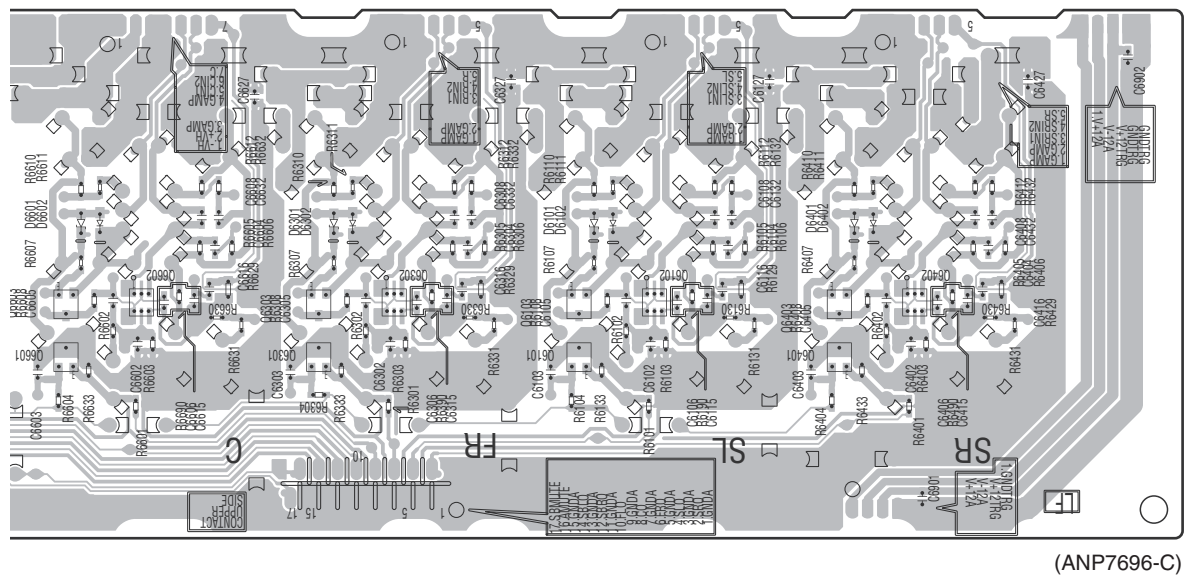
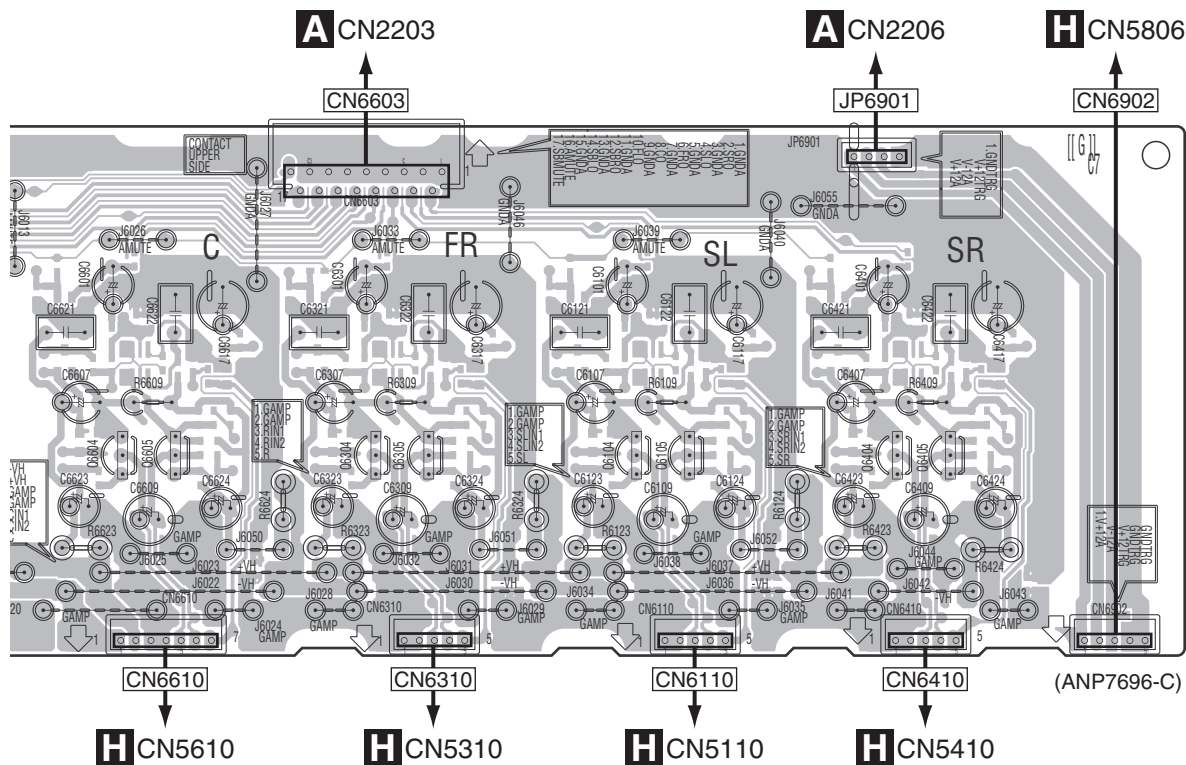
C

SIDE B

D

F

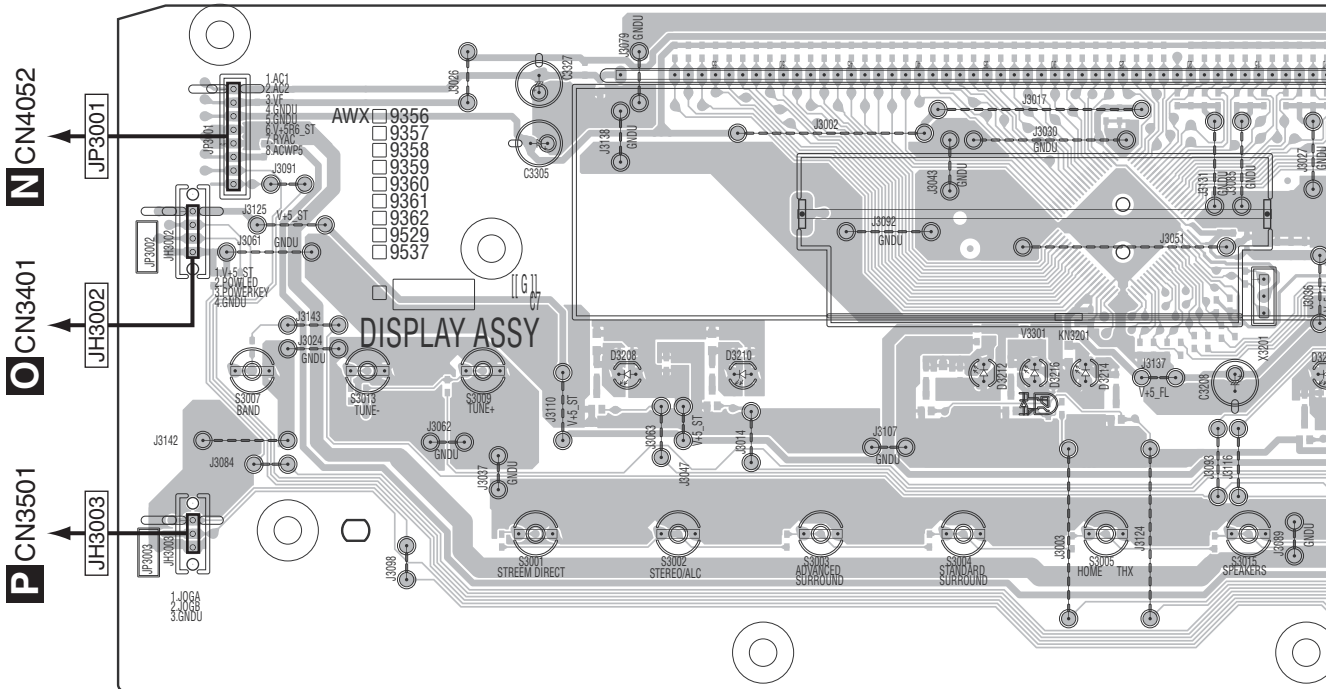
F



11.8 DISPLAY ASSY

SIDE A

J DISPLAY ASSY



(ANP7692-B)

SIDE B

A

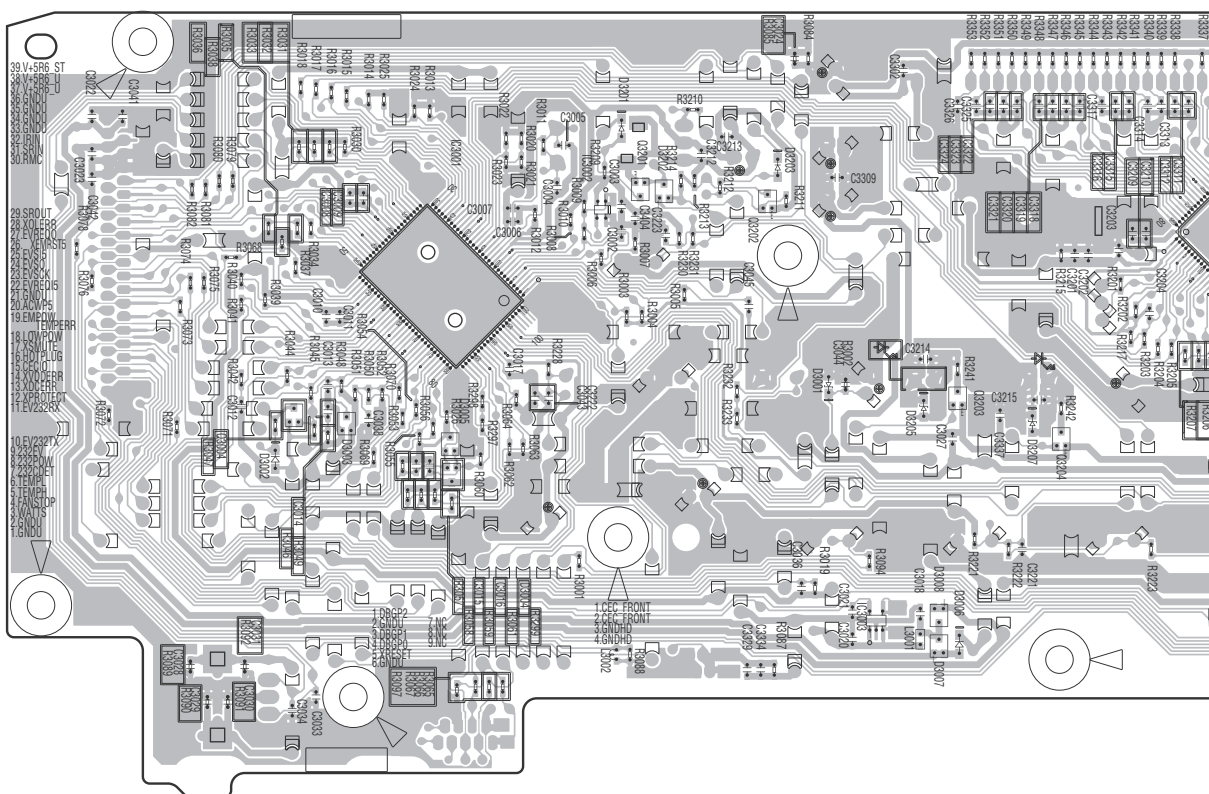
B

C

D

E

F

J DISPLAY ASSY

SIDE B

A

B

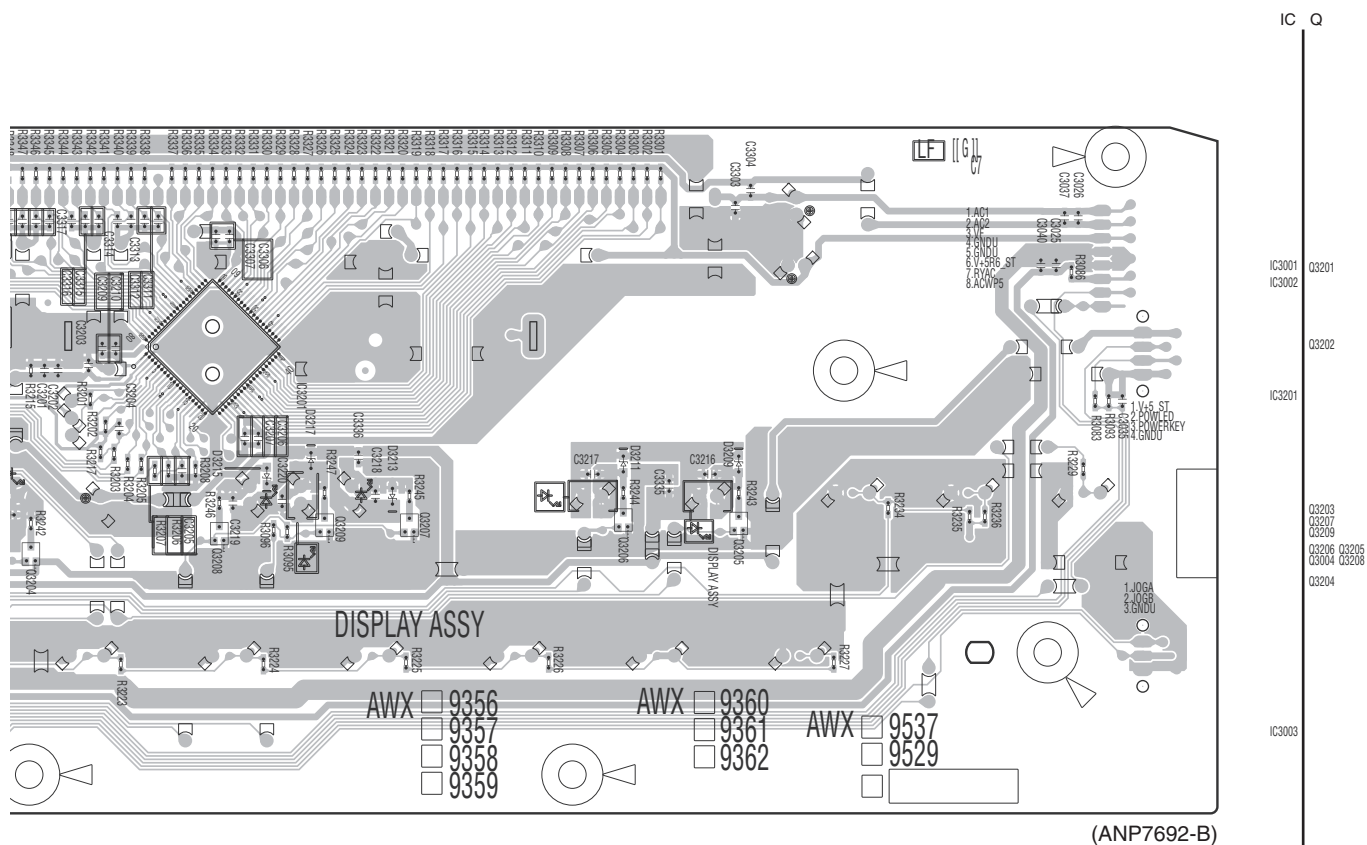
C

D

E

F

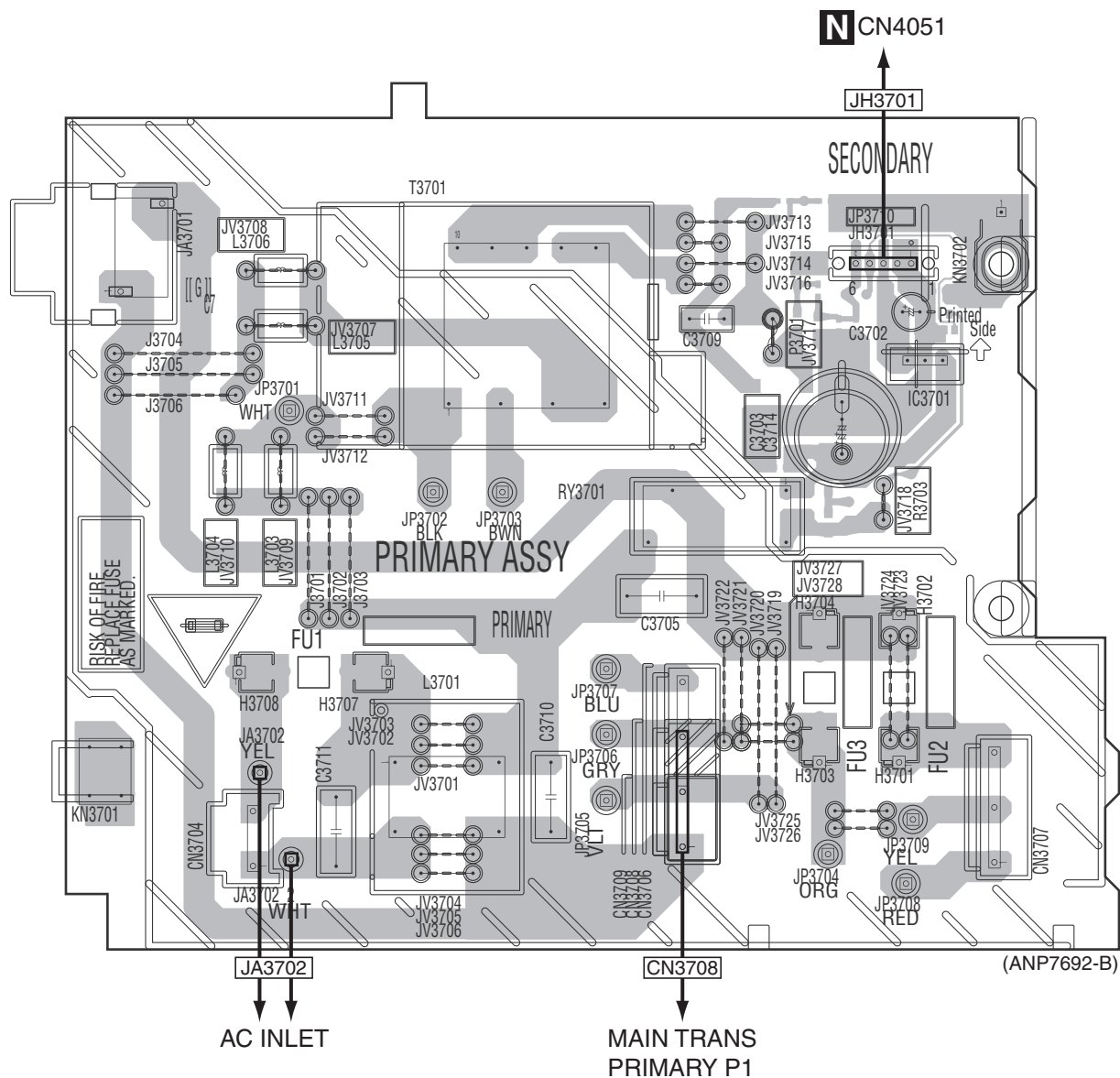
J



SIDE A

SIDE A

K PRIMARY ASSY



SIDE B

SIDE B

A

K PRIMARY ASSY

B

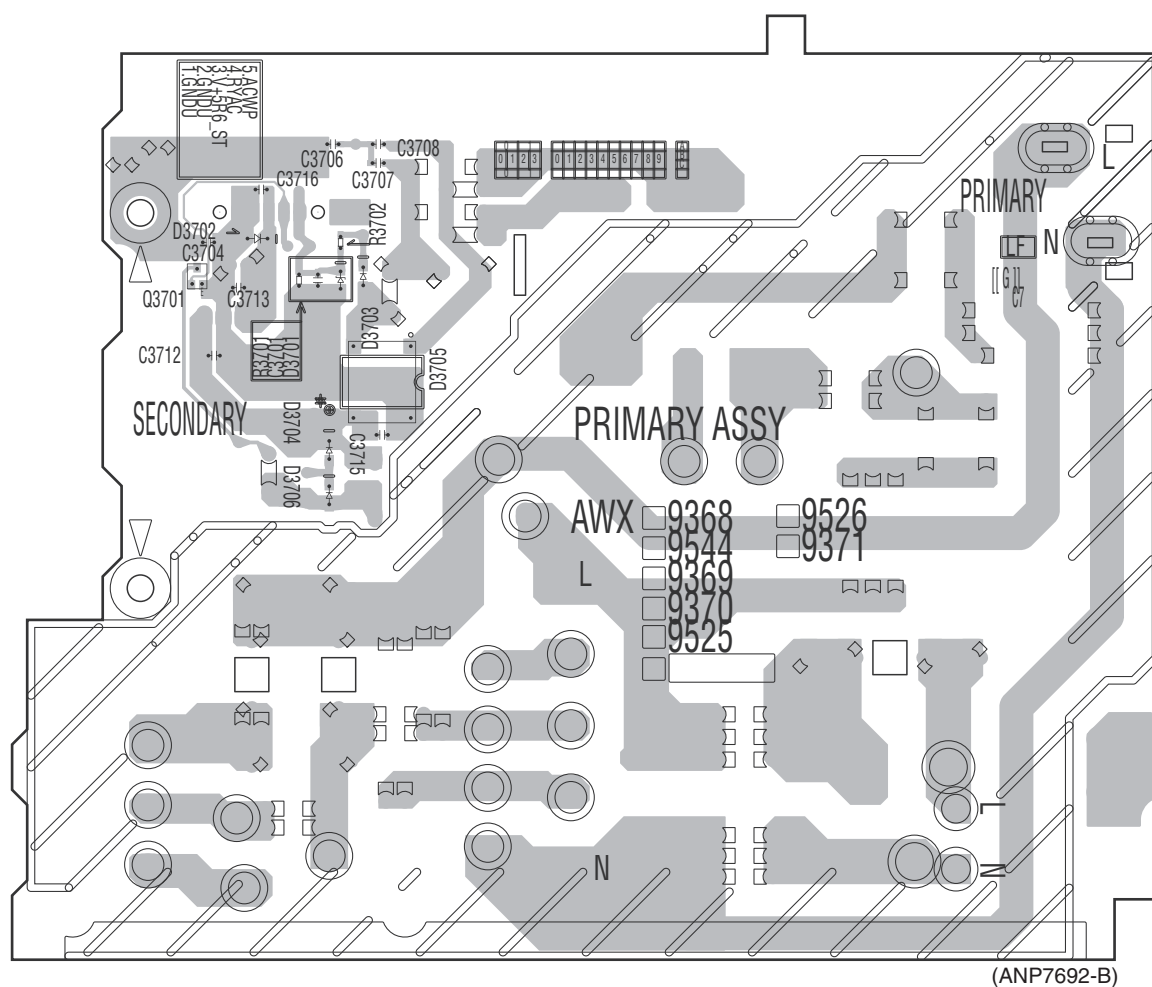
IC Q

C

D

F

F



K

5

6

7

8

VSX-LX52

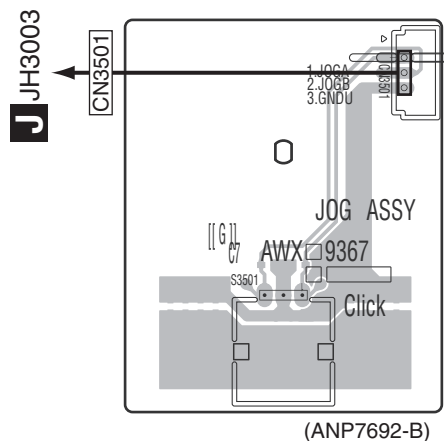
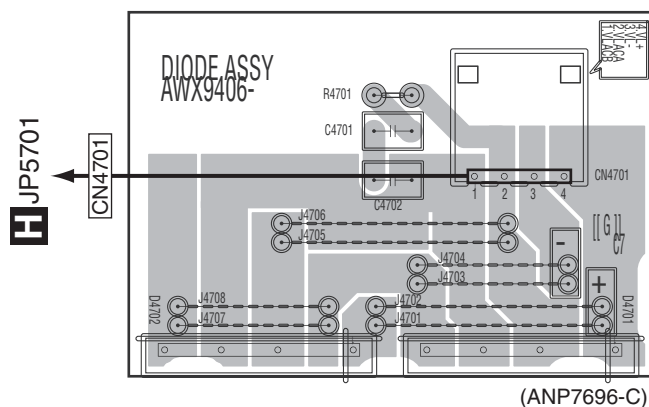
K

153

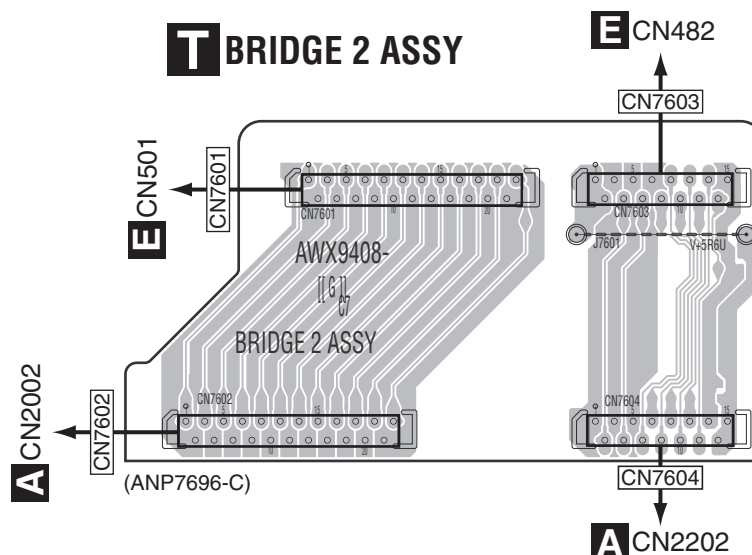
1

SIDE A

P ENCODER ASSY

**R** DIODE ASSY

T BRIDGE 2 ASSY



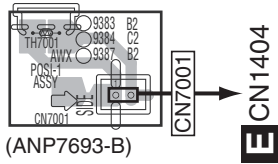
O P Q R S T

11.12 POSI 1-3, BIND L FRONT and BACK and BIND R FRONT ASSYS

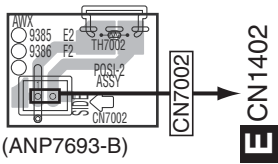
SIDE A

SIDE A

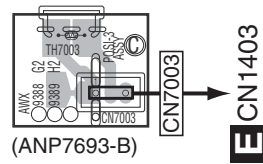
U POSI 1 ASSY



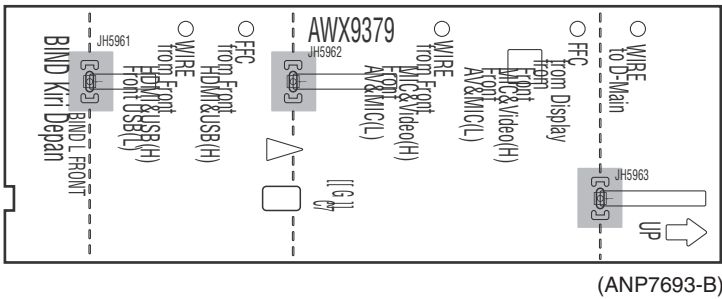
V POSI 2 ASSY



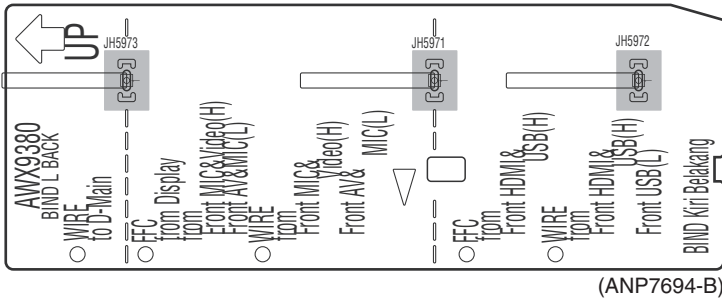
W POSI 3 ASSY



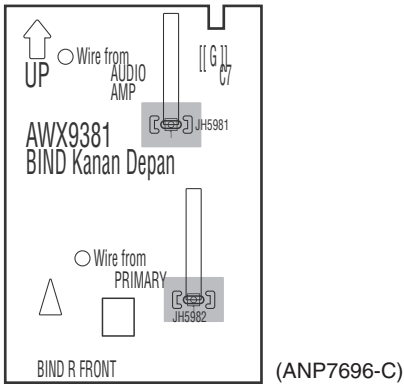
X BIND L FRONT ASSY



Y BIND L BACK ASSY



Z BIND R FRONT ASSY



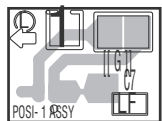
U V W X Y Z

U V W X Y Z

SIDE B

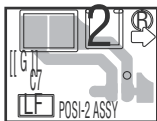
SIDE B

U POSI 1 ASSY



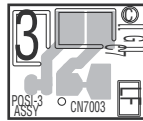
(ANP7693-B)

V POSI 2 ASSY



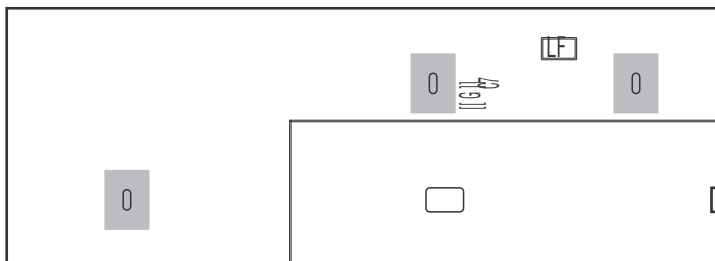
(ANP7693-B)

W POSI 3 ASSY



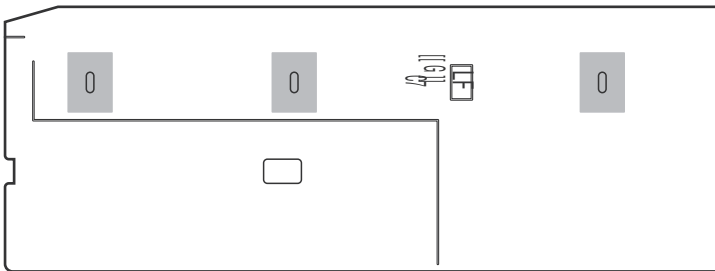
(ANP7693-B)

X BIND L FRONT ASSY



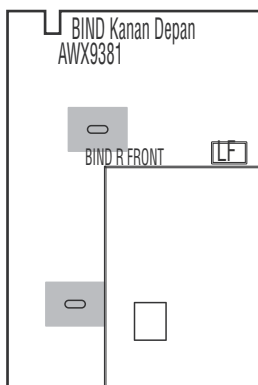
(ANP7693-B)

Y BIND L BACK ASSY



(ANP7694-B)

Z BIND R FRONT ASSY



(ANP7696-C)

U V W X Y Z

U V W X Y Z

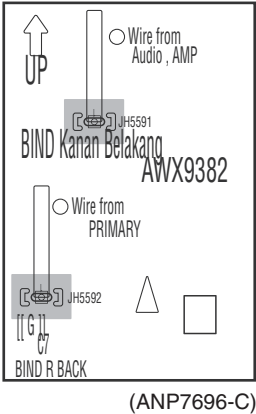
VSX-LX52

11.13 BIND R BACK, BINDER and DISP-FFC GUARD ASSYS

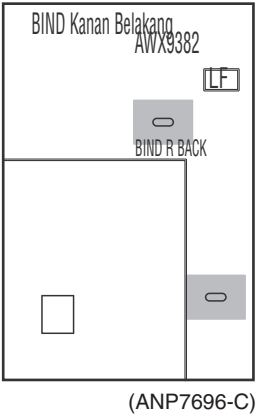
SIDE A

SIDE B

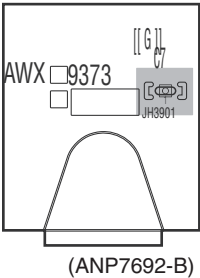
AA BIND R BACK ASSY



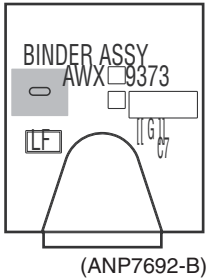
AA BIND R BACK ASSY



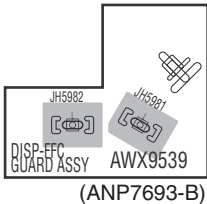
AB BINDER ASSY



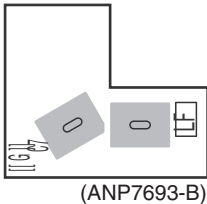
AB BINDER ASSY



AC DISP-FFC GUARD ASSY



AC DISP-FFC GUARD ASSY



AA AB AC

AA AB AC

12. PCB PARTS LIST

- NOTES: ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.
● The $\triangle$ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.

- 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 $\rightarrow$ 56 $\times 10^1$ $\rightarrow$ 561 RD1/4PU $\begin{matrix} 5 \\ 6 \end{matrix}$ $\begin{matrix} J \\ 1 \end{matrix}$ J

47 k Ω $\rightarrow$ 47 $\times 10^3$ $\rightarrow$ 473 RD1/4PU $\begin{matrix} 4 \\ 7 \end{matrix}$ $\begin{matrix} 3 \\ 1 \end{matrix}$ J

0.5 Ω $\rightarrow$ R50 RN2H $\begin{matrix} R \\ 5 \end{matrix}$ $\begin{matrix} 0 \\ 0 \end{matrix}$ K

1 Ω $\rightarrow$ 1R0 RSIP $\begin{matrix} 1 \\ 0 \end{matrix}$ $\begin{matrix} 0 \\ 0 \end{matrix}$ K

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

5.62 k Ω $\rightarrow$ 562 $\times 10^1$ $\rightarrow$ 5621 RN1/4PC $\begin{matrix} 5 \\ 6 \end{matrix}$ $\begin{matrix} 2 \\ 1 \end{matrix}$ $\begin{matrix} F \\ 1 \end{matrix}$ F

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

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

IC 301 (A, 91, 111) IC NJM2068V

Mark No. Description Part No.

LIST OF ASSEMBLIES

NSP 1..COMPLEX ASSY AWK8086
2..DISPLAY ASSY AWW9359
2..POWER SW ASSY AWW9366
2..ENCODER ASSY AWW9367
2..PRIMARY ASSY AWW9369
2..HEAD PHONE ASSY AWW9372
2..BINDER ASSY AWW9373

NSP 1..AMP ASSY AWK8091
2..POWER AMP ASSY AWW9376
2..BIND L FRONT ASSY AWW9379
2..POSI 1 ASSY AWW9383
2..POSI 2 ASSY AWW9385
2..POSI 3 ASSY AWW9388
2..DISP-FFC GUARD ASSY AWW9539

NSP 1..VIDEO ASSY AWK8094
2..FRONT MIC&VIDEO ASSY AWW9365
2..BIND L BACK ASSY AWW9380
2..COMPONENT ASSY AWW9390
2..COMPOSITE&S ASSY AWW9392

NSP 1..AUDIO ASSY AWK8097
2..AUDIO ASSY AWW9394

NSP 1..LOCAL POWER ASSY AWK8101
2..BIND R FRONT ASSY AWW9381
2..BIND R BACK ASSY AWW9382
2..UNREG ASSY AWW9397
2..REGULATOR ASSY AWW9401
2..PRESTAGE ASSY AWW9405
2..DIODE ASSY AWW9406
2..BRIDGE 2 ASSY AWW9408
2..BRIDGE 1 ASSY AWW9409
2..V-BRIDGE ASSY AWW9495
2..XM REGULATOR ASSY AWW9543

1..FRONT HDMI&USB ASSY AWW9411

1..DIGITAL MAIN ASSY AWW9420

1..FM/AM TUNER UNIT AXX7248

Mark No. Description Part No.

A AUDIO ASSY

SEMICONDUCTORS

IC 2001 BD3814FV
IC 2251 LC72725KM
IC 2501 BD3473KS2
IC 2502 TC4066BFT
IC 2701,2702,2741,2761 NJM4565MD

IC 2781,2801,2821 NJM4565MD
Q 2001,2011,2821,2822 IMX25
Q 2401 2SD1858X
Q 2402 2SB1237X
Q 2681 2SD1664

Q 2701 RT3T22M
Q 2841,2842,2861,2862 IMX25
Q 2881,2882 IMX25
D 2251 1SS352
D 2401,2402 UDZS7R5(B)

D 2501 1SS302
D 2681 UDZS10(B)

MISCELLANEOUS

L 2251 CHIP SOLID INDUCTOR QTL1013
JA 2201,2205 RCA 2 PIN JACK AKB7220
JA 2202-2204,2206 PIN JACK(4P) AKB7114
JA 2208 PIN JACK(6P) AKB7113
JA 2209,2210 PIN JACK(4P) AKB7114

X 2251 CRYSTAL (4.332 MHz) ASS7004
CN 2002 23P SOCKET XKP3082
CN 2003 CONNECTOR CKS3376
CN 2201 13P SOCKET XKP3077
CN 2202 15P SOCKET XKP3078

CN 2203 CONNECTOR CKS3382
CN 2204 5P CONNECTOR 52044-0545
CN 2206 L-PLUG(4P) KM200NA4L
JH 2001-2003 PCB BINDER VEF1040
JP 2205 10P HOUSING ASSY ADX7682

RESISTORS

R 2684 RD1/4MUF391J
Other Resistors RS1/10SR###J

Mark No. Description Part No.

CAPACITORS

A	C	2001,2011,2101,2254	CKSRYB103K50
	C	2003,2004,2013,2014	CCSRCH471J50
	C	2007,2008,2017,2018	CEAT2R2M50
	C	2009,2010,2019,2020	CEAT100M50
	C	2031,2033	CEAT470M16
B	C	2032,2034,2632-2635	CKSRYB104K16
	C	2035,2036,2151-2154	CCSRCH101J50
	C	2155,2156,2165,2166	CEAT470M25
	C	2161-2164,2171-2174	CCSRCH101J50
	C	2175,2176,2541-2546	CEAT470M25
C	C	2251	CEAT101M10
	C	2252,2424,2425	CCSRCH102J50
	C	2253	CCSRCH561J50
	C	2255,2257	CCSRCH270J50
	C	2256,2403,2404,2547	CEAT100M50
D	C	2258,2420-2423,2751	CKSRYB472K50
	C	2401,2402	CEAT2R2M50
	C	2409,2410,2577,2578	CKSRYB103K50
	C	2411,2412	CEHAZL101M25
	C	2415,2416,2703,2704	CCSRCH471J50
E	C	2418,2419	CKSRYB104K50
	C	2501-2506,2509-2514	CCSRCH101J50
	C	2507,2508,2517,2518	CCSRCH221J50
	C	2521-2526,2529-2534	CCSRCH151J50
	C	2548,2557,2558,2591	CEAT100M50
F	C	2549-2554,2621-2628	CEAT470M25
	C	2580,2682,2699,2717	CKSRYB103K50
	C	2592,2701,2702,2709	CEAT100M50
	C	2603,2684	CEAT101M16
	C	2631,2636	CKSRYB222K50
G	C	2637,2638,2829,2830	CCSRCH101J50
	C	2643,2644,2698,2719	CKSRYB104K16
	C	2697	CKSRYB105K16
	C	2705-2708,2743,2745	CCSRCH331J50
	C	2710,2713,2714,2741	CEAT100M50
H	C	2718,2721,2722,2746	CKSRYB103K50
	C	2720,2832,2834,2835	CKSRYB104K16
	C	2742,2749,2750,2761	CEAT100M50
	C	2744	CKSRYB223K50
	C	2747,2767,2768,2787	CCSRCH391J50
I	C	2748	CKSRYB562K50
	C	2752,2771,2772,2791	CKSRYB472K50
	C	2753,2754,2773,2774	CKSRYB103K50
	C	2762,2769,2770,2781	CEAT100M50
	C	2763-2766,2783-2786	CCSRCH331J50
J	C	2782,2789,2790,2801	CEAT100M50
	C	2788,2807,2808	CCSRCH391J50
	C	2792,2811,2812	CKSRYB472K50
	C	2793,2794,2813,2814	CKSRYB103K50
	C	2802,2809,2810,2836	CEAT100M50
K	C	2803-2806	CCSRCH331J50
	C	2825,2826,2845,2846	CCSRCH471J50
	C	2827,2828,2847,2848	CEAT470M25
	C	2831,2871	CKSRYB103K50
	C	2833	CCSRCH221J50
L	C	2849,2850,2869,2870	CCSRCH101J50
	C	2865,2866,2885,2886	CCSRCH471J50
	C	2867,2868,2887,2888	CEAT470M25
	C	2872	CKSRYB104K16

Mark No. Description Part No.

C	2889,2890	CCSRCH101J50
C	2902-2905,2908	CCSRCH391J50

B COMPOSITE & S ASSY

SEMICONDUCTORS

IC	8501	PDC162A
IC	8502,8503,8601,8602	TC74HC4051AFT
IC	8504,8603	TC74HC4053AFT
IC	8505	BU4094BCFV
IC	8506,8605	LA7109
IC	8604	LA7213
Q	8501	LSC4081UB
Q	8502,8601-8603	LSA1576UB
Q	8604	RT1N141M-11
D	8501	MC2846-11
D	8502,8504	MC2848-11
D	8503,8505,8603	1SS352
D	8508,8509	RR264M-400

MISCELLANEOUS

L	8501 CHIP COIL	LCYA330J2520
JA	8501-8503 COMB.JACK(2S+2P)	AKB7200
JA	8504 PIN JACK(1P)	AKB7175
X	8501 CRYSTAL (14.31818 MHz)	ASS7080
CN	8502 19P SOCKET	XKP3080
CN	8503 9P SOCKET	XKP3075
CN	8601 11P SOCKET	XKP3076

RESISTORS

R	8552,8556,8558,8631	RS1/10SR2200F
R	8553,8557,8559,8632	RS1/10SR1200F
R	8633	RS1/10SR1200F
R	8634	RS1/10SR2200F
Other Resistors		RS1/10SR###J

CAPACITORS

C	8501-8504,8526-8529	CKSRYB104K16
C	8505,8523	CKSRYB473K25
C	8511,8519,8521,8522	CCSRCH101J50
C	8512,8514	CCSRCH5R0C50
C	8513,8516,8535,8540	CEAT101M10
C	8515,8518	CCSRCH240J50
C	8517,8520	CKSRYB122K50
C	8525,8534,8536,8539	CKSRYB103K50
C	8531-8533,8546,8548	CKSRYB104K16
C	8541,8604,8605,8609	CKSRYB103K50
C	8542,8543,8547,8549	CEAT101M10
C	8550,8552,8553,8632	CCSRCH181J50
C	8601,8608,8617,8619	CEAT101M10
C	8602,8603,8606,8607	CKSRYB104K16
C	8610,8625	CKSRYB103K50
C	8613,8615,8618,8621	CKSRYB104K16
C	8616	CEAT221M16
C	8623	CEAT3R3M50
C	8624	CEAT101M10
C	8626,8627,8629,8630	CKSRYB104K16
C	8633,8635,8636	CCSRCH181J50

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Mark	No. Description	Part No.	Mark	No. Description	Part No.		
C	V-BRIDGE ASSY		C	8312,8313	CKSRYB105K10	A	
			C	8314,8316,8322,8451	CKSRYB103K50		
			C	8315	CEAT470M16		
			C	8321	CEAT101M16		
			C	8323,8325-8327,8351	CKSRYB104K16		
MISCELLANEOUS			C	8361,8441,8455	CKSRYB104K16		
CN7751 9P PLUG		XKP3064	C	8387,8407	CKSRYB224K10		
D	COMPONENT ASSY		C	8452,8453	CKSQYB106K6R3		
			C	8456	CCSRCH102J50		
SEMICONDUCTORS			E DIGITAL MAIN ASSY				
			SEMICONDUCTORS				
IC	8041,8051	TC74LVX4053FT	IC	101	AK4118EQ	B	
IC	8061	NJM2581M	IC	215,1081,1306,9003	TC7SH08FUS1		
IC	8081	LA7213	IC	221,231,9002	TC74VHC157FTS1		
IC	8101	BU4094BCFV	IC	241,1403,1405	TC74VHC125FTS1		
IC	8231	TC74LVX4051FT	IC	251	K4S641632N-LC60		
IC	8311	MM1511XN	IC	261	AYW7305		
IC	8321	HIN202EIBNZ	IC	271	TC7SH32FUS1		
IC	8351,8361,8441	TC74VHCT08AFTS1	IC	281,291	TC74LCX573FTS1		
IC	8451	NJM2505AF	IC	301	DSPA56720AG		
Q	8081,8201,8202,8211	LSA1576UB	IC	361	TC74VHC04FTS1		
Q	8082	RT1N141M-11	IC	363	TC7WH126FU	C	
Q	8212,8221,8222,8241	LSA1576UB	IC	364	TC7SZ08FU		
Q	8242,8402	LSA1576UB	IC	391,1407	TC74VHC08FTS1		
Q	8321	2SA1366	IC	451,1563,1604	TC7WH157FU		
Q	8322	LTC124EUB	IC	452,1801-1803,1805	TC74LCX541FTS1		
Q	8382	LSC4081UB	IC	453	IDT6V60008DCG		
D	8081,8351	1SS352	IC	501	AK5358AET		
D	8321	MC2848-11	IC	521	AK4388ET		
D	8382,8402	RR264M-400	IC	581	NJM2885DL1-33		
D	8451	DAN217U	IC	582	RP131H101D		
MISCELLANEOUS			IC	602,652,702,752	WM8728SEDS	D	
L	8321 CHIP SOLID INDUCTOR	QTL1013	IC	800	UPD61283F1-407LU2A		
L	8457,8458 INDUCTOR	CTF1473	IC	801,802	NJM12904V		
JA	8022 PIN JACK(6P)	AKB7204	IC	803,1302,1702	TC7WHU04FU		
JA	8072 PIN JACK(3P)	AKB7203	IC	1000,1001	K4H561638J-LCB3		
CN	8001,8005 18P SOCKET	AKP7232	IC	1050	AYW7307		
CN	8002,8004 9P PLUG	XKP3064	IC	1100,1101	S-1170B33UC-OTS		
CN	8003,8008 19P PLUG	XKP3069	IC	1102	S-1170B25UC-OTK		
CN	8009 11P PLUG	XKP3065	IC	1104	MM1701WH		
CN	8013 17P SOCKET	XKP3079	IC	1250,9001	AAT4614AIGU-2		
CN	8014 15P SOCKET	XKP3078	IC	1251	TC7PAU04FU	E	
CN	8017 CONNECTOR	AKM1273	IC	1300	PE7008A		
JH	8001 PCB BINDER	VEF1040	IC	1301	341S2164		
RESISTORS			IC	1303	S-1132B25-U5		
R	8071,8073,8075	RS1/10SR1200F	IC	1304,1305	BU4094BCFV		
R	8072,8074,8076	RS1/10SR2200F	IC	1401	TC74VHC126FTS1		
Other Resistors		RS1/10SR###J	IC	1402,1408	TC74VHCT08AFTS1		
CAPACITORS			IC	1404	TC74VHC02FTS1		
C	8001,8011,8012,8081	CKSRYB103K50	IC	1406	TC74VHCT125AFTS1		
C	8041,8042,8052,8054	CKSRYB104K16	IC	1501	SII9233ACTU		
C	8061,8062,8067-8069	CEAT101M10	IC	1566	TC74VHC541FTS1	F	
C	8063,8064,8101,8231	CKSRYB104K16	IC	1592	R1172H121B		
C	8082	CEAT221M16	IC	1601	CXB1444R		
C	8083	CEAT3R3M50	IC	1602	S-24CS02AFT		
C	8084	CEAT101M10	IC	1603	TC7MB3257FK		
C	8202,8204,8212,8214	CKSRYB103K50	IC	1605	TC74VHC153FT		
C	8205,8215,8225,8245	CEAT100M50					
C	8222,8224,8242,8244	CKSRYB103K50					

VSX-LX52

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Mark	No.	Description	Part No.	Mark	No.	Description	Part No.	
A	IC	1701	ADV7181CBSTZ	L	1151,1155,1157	INDUCTOR	ATL7033	
	IC	1800	ABT1015		1200,1201	INDUCTOR	LCTC100K2125	
	IC	1804,1806	TC7SZ125FU		1202-1204	INDUCTOR	LCTC4R7K2125	
	IC	1807-1811	TC74VCX541FT		1250	COIL	ATH7079	
⚠	IC	1813	TC7SA08FU	L	1272,1402-1409	FERRITE BEAD	CTF1528	
	IC	1900	TPS54350PWP		L	1277-1279,1669	INDUCTOR	CTF1473
	IC	1930	LTC3850EGN			1300,1301	CHIP SOLID INDUCTOR	QTL1013
	IC	9000,9100	SIH9134CTU			1304,1505	CHIP SOLID INDUCTOR	QTL1013
■	IC	9101	AAT4614AIGU-2	L		1501-1504,1611,1701	CHIP BEADS	ATL7010
	Q	241,552	DTC124EUA		1506,1563	CHIP SOLID INDUCTOR	QTL1013	
	Q	551	RTQ025P02		L	1566,1703	CHIP SOLID INDUCTOR	QTL1013
	Q	800,801,1150,1154	2SA1576A			1702,1900,1902-1904	CHIP BEADS	ATL7010
B	Q	1151,1155,1157,1998	2SC4081	1704,9011		CHIP SOLID INDUCTOR	QTL1013	
	Q	1156,1200-1204,1405	2SA1576A	L		1706	INDUCTOR	CTF1295
	Q	1300,1401-1404	DTA124EUA	L	1800-1810,1812	INDUCTOR	CTF1473	
	Q	1400	DTC114EUA	L	1901	INDUCTOR	CTH1255	
Q	1406-1409,1999	RN4903	1930,1933,9000-9003		CHIP BEADS	ATL7010		
Q	1611,9001,9101	DTC114YUA	1931		INDUCTOR	ATH7074		
Q	1612	HN1K02FU	1932		INDUCTOR	ATH7073		
⚠	Q	1900	RTQ045N03	L	9004-9007,9104-9107	COIL	ATH7064	
	Q	1930,1931	SP8K1	L	9008,9100-9103,9108	CHIP BEADS	ATL7010	
	Q	9000,9100	UMB1N		9010,9013,9110	INDUCTOR	CTF1386	
	D	501	MA152WA		9012	CHIP SOLID INDUCTOR	QTL1013	
C	D	502	MA152WK		F	800-803,1800-1802	EMI FILTER	DTL1106
	D	551,1997	1SS352	JA	101	PIN JACK(2P)	AKB7173	
	D	582	1SR154-400	JA	103-105	OPT. LINK IN	GP1FAV51RKBF	
	D	1200	RR264M-400		106	OPT. LINK IN	GP1FAV51TKOF	
D	1400	RB501V-40	1601-1604,9000		HDMI CONNECTOR	AKP7224		
D	1402,1506,1509,1512	DAN202U	9100		HDMI CONNECTOR	AKP7224		
■	D	1601	DAN202U	KN	481	SCREW PLATE	VNE1948	
	D	1930,1931	RB160VA-40	KN	1300,1301	EARTH METAL FITTING	VNF1109	
	D	1998	DAP202U		1304	EARTH METAL FITTING	VNF1109	
	D	1999	UDZS5R6(B)		1305	WRAPPING TERMINAL	CKF1084	
D	9000,9100	UDZS5R1(B)	X		361	CRYSTAL (22.5792 MHz)	ASS7090	
D	MISCELLANEOUS			X	362	CRYSTAL (24.576 MHz)	ASS7091	
	L	101-103	CHIP SOLID INDUCTOR	QTL1013	X	801,1501	CRYSTAL (27.000 MHz)	ASS7092
	L	215,221	CHIP SOLID INDUCTOR	QTL1013		1250	CRYSTAL (48 MHz)	ASS7099
	L	231,241	CHIP SOLID INDUCTOR	QTL1013		1300	CRYSTAL (26.864 MHz)	ASS7094
L	251,261	CHIP SOLID INDUCTOR	QTL1013	1701		CRYSTAL (28.63636 MHz)	ASS7096	
■	L	281,291	CHIP SOLID INDUCTOR	QTL1013	CN	482	15P SOCKET	XKP3078
	L	301-303	CHIP SOLID INDUCTOR	QTL1013	CN	501	23P SOCKET	XKP3082
	L	361-365	CHIP SOLID INDUCTOR	QTL1013		1250,1254	CONNECTOR	CKS4573
	L	367,451	CHIP SOLID INDUCTOR	QTL1013		1251,1253	9P SOCKET	XKP3075
L	452,501	CHIP SOLID INDUCTOR	QTL1013	1252		19P SOCKET	XKP3080	
E	L	453,541,542	INDUCTOR	CTF1379	CN	1259	CONNECTOR	AKM1276
	L	475-480,494	INDUCTOR	CTF1473	CN	1400	13P SOCKET	XKP3077
	L	502,521	CHIP SOLID INDUCTOR	QTL1013		1401	39P CONNECTOR	VKN2098
	L	551,601	CHIP SOLID INDUCTOR	QTL1013		1402	PLUG(2P)	KM200NA2L
L	561,562	CHIP SOLID INDUCTOR	ATL7002	1403		CONNECTOR	AKM1289	
■	L	602,651	CHIP SOLID INDUCTOR	QTL1013	CN	1404	CONNECTOR	AKM1288
	L	652,701	CHIP SOLID INDUCTOR	QTL1013	CN	1601	CONNECTOR	AKN7051
	L	702,751	CHIP SOLID INDUCTOR	QTL1013		1901	L-PLUG(11P)	KM200NA11L
	L	752,810	CHIP SOLID INDUCTOR	QTL1013		1	EMMA IC HEAT SINK	ANH7217
L	800	INDUCTOR	LCTC150K2125	2		SCALER IC HEAT SINK	ANH7218	
F	L	801-805,808,809	EMI FILTER	DTL1106	JH	1900	PCB BINDER	VEF1040
	L	806	CHIP COIL	LCYA390J2520	RESISTORS	R	119,221,223,225	
	L	807	INDUCTOR	LCYA150J2520		R	121	
	L	1081,1251	CHIP SOLID INDUCTOR	QTL1013		R	126,127,132,133	
L	1100,1302,1303	CHIP BEADS	ATL7010					
■	L	1150,1154,1156	INDUCTOR	ATL7035				
	L	1150,1154,1156	INDUCTOR	ATL7035				
	L	1150,1154,1156	INDUCTOR	ATL7035				
	L	1150,1154,1156	INDUCTOR	ATL7035				

5	6	7	8	
Mark No. Description	Part No.	Mark No. Description	Part No.	
R 227,231,232,234	RAB4CQ101J	R 1919	RS1/8SQ4R7J	
R 233,253,254,256	RAB4CQ470J	R 1930,1933	ACN7169	
		R 1931	RS1/8SQR18J	A
R 257,316-318,320	RAB4CQ470J			
R 283,284,293,294	RAB4CQ101J	R 1932	ACN7168	
R 312,1582,1869	RAB4CQ680J	R 1941	RS1/16SS1502F	
R 321,622,672,722	RAB4CQ470J	R 1942	RS1/16SS1202F	
R 332,457,458,601	RAB4CQ101J	R 1945	RS1/16SS4702D	
		R 1946	RS1/16SS1502D	
R 347,834,905-908	RAB4CQ103J			
R 348	RAB4CQ220J	R 1952-1956,9368,9369	RS1/10SR0R0J	
R 434,861,863,864	RAB4CQ0R0J	R 9004,9104	RS1/16SS6800F	
R 552	RS1/4SA4R7J	R 9032-9040,9225,9226	RAB4CQ473J	
R 575,581,804,826	RS1/10SR0R0J	R 9357-9360	RAB4CQ0R0J	
		Other Resistors	RS1/16SS###J	
R 651,701,751,1320	RAB4CQ101J			B
R 772,1539,1703-1705	RAB4CQ470J	CAPACITORS		
R 806	RS1/16SS6800D	C 101	CKSRYB103K50	
R 807	RS1/16SS4700D	C 102	CKSRYB104K50	
R 813,815	RS1/10SR43R0D	C 103,332,506,552	CEVW101M16	
		C 104-107,113,116	CKSSYB104K10	
R 814,816	RS1/10SR1000D	C 112,889,1201,1206	CCSSCH101J50	
R 820	RS1/10SR4700F			
R 821,822,824,825	RS1/10SR1001F	C 114,121,614,664	CEVW470M6R3	
R 855,857,926,1334	RAB4CQ473J	C 115	CCSRCH471J50	
R 875,879	RAB4CQ221J	C 117,451,510	CKSSYB102K50	
		C 118,120,127,128	CKSSYB104K10	
R 927,1050-1053,1306	RAB4CQ103J	C 119,361,364,541	CCSSCH471J16	
R 977,978,993,994	RAB4CQ0R0J			C
R 1003,1004,1007,1008	RAB4CQ330J	C 122	CKSRYB474K10	
R 1010,1011,1015,1016	RAB4CQ330J	C 123,124,338,511	CKSSYB103K16	
R 1020,1021,1024,1025	RAB4CQ330J	C 131,455,457,1006	CCSSCH102J50	
		C 215,221,231,241	CKSSYB471K50	
R 1027,1028,1032,1033	RAB4CQ330J	C 216,222,232,242	CKSSYB104K10	
R 1039-1041,1045	RAB4CQ560J			
R 1150,1202,1268,1280	RS1/10SR0R0J	C 251,253,254,256	CKSSYB104K10	
R 1152,1170,1179,1200	RS1/16SS2200F	C 252,255,257,281	CKSSYB471K50	
R 1153,1173,1180	RS1/16SS5601F	C 258-260,264,272	CKSSYB104K10	
		C 261,1251	CEVW470M16	
R 1203,1209	RS1/16SS4700F	C 282,292,302,303	CKSSYB104K10	
R 1206,1211,1216,1221	RS1/16SS2200F			
R 1212,1217,1222	RS1/16SS56R0F	C 291,301,304,307	CKSSYB471K50	D
R 1214,1219,1224	RS1/16SS3300F	C 305,306,308,310	CKSSYB104K10	
R 1318,1368,1369,1372	RS1/10SR0R0J	C 309,311,313,317	CKSSYB471K50	
		C 312,314-316	CKSSYB104K10	
R 1347-1350	RAB4CQ101J	C 318-320,322,324	CKSSYB104K10	
R 1355,1555,1556,1856	RAB4CQ473J			
R 1363	RAB4CQ104J	C 321,323,325,328	CKSSYB471K50	
R 1373,1721,1722,1845	RS1/10SR0R0J	C 326,327,329,336	CKSSYB104K10	
R 1406,1916	RS1/10SR100J	C 333,820	VCH1234	
		C 337,344,367,369	CKSSYB471K50	
R 1469	RS1/10SR1R0J	C 343,345,362,365	CKSSYB104K10	
R 1525-1530,1532-1536	RAB4CQ100J			
R 1632	RS1/16SS4701F	C 363,366,1100,1101	CKSQYB475K6R3	
R 1707,1716,1717,1811	RAB4CQ470J	C 368,370,372,375	CKSSYB104K10	E
R 1800,1801,1803-1810	RAB4CQ0R0J	C 371,376,453,503	CKSSYB471K50	
		C 452,454,456,458	CKSSYB104K10	
R 1812,1817-1819	RAB4CQ470J	C 459	CEVW4R7M35	
R 1823-1825,1838-1840	RAB4CQ470J			
R 1846,1934,1949,1950	RS1/10SR0R0J	C 460,806,815,817	CKSSYB105K6R3	
R 1849	RAB4CQ472J	C 501,581-584,871	CKSQYB225K10	
R 1852,1853,1867,1868	RAB4CQ470J	C 502,504,508,521	CKSSYB104K10	
		C 505,1203,1801,1824	DCH1201	
R 1858-1866,1890-1899	RAB4CQ473J	C 507,525,531-538	CKSSYB471K50	
R 1870,1871,1876,1879	RAB4CQ470J			
R 1872-1875	RAB4CQ680J	C 509,805,831	CEVW100M16	
R 1880	RAB4CQ470J	C 512,567,624,674	CKSSYB103K16	
R 1881,1882,9205-9208	RAB4CQ103J	C 522,526,539,551	CKSSYB104K10	F
		C 524	CEVW220M6R3	
R 1908	RS1/16SS1002D	C 527	CEVW220M16	
R 1910	RS1/16SS2001D			

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
A	C	529,530	CKSSYB472K25		C	1177,1178	CCSSCH180J50
	C	540,568,601,604	CKSSYB471K50		C	1181,1204,1207,1210	CKSSYB104K10
	C	542,1344	CCSSCH471J16		C	1200,1205	CCSSCH560J50
	C	543,1166,1612,9043	CKSRYB105K10		C	1208,1212,1215,1625	CCSSCH470J50
	C	553,561-566,578	CKSSYB104K10		C	1209,1211,1214	CCSSCH390J50
	C	577,606,618,656	CEVW101M16		C	1213,1216,1217,1302	CKSSYB104K10
	C	586,602,605,613	CKSSYB104K10		C	1253,1254,1263	CKSSYB102K50
	C	592-596,804,816	CKSSYB102K50		C	1262,1802-1819,1821	CKSSYB104K16
	C	603,653,703,753	CKSQYB475K10		C	1267,1743	CCSSCH120J50
	C	615,617,652,655	CKSSYB104K10		C	1301,1306,1905	CKSRYB104K16
B	C	616,651,654,666	CKSSYB471K50		C	1304,1742	CCSSCH100D50
	C	663,665,667,702	CKSSYB104K10		C	1305,1308-1312,1317	CKSSYB104K10
	C	668,706,718,756	CEVW101M16		C	1313-1316,1318,1319	CKSSYB102K50
	C	701,704,716,751	CKSSYB471K50		C	1320,1321,1323,1325	CKSSYB104K10
	C	705,713,715,717	CKSSYB104K10		C	1322,1324,1327,1329	CKSSYB102K50
	C	714,764,1115	CEVW470M6R3		C	1326,1328,1330	CKSSYB104K10
	C	724,774,860,880	CKSSYB103K16		C	1331,1336-1339,1347	CKSSYB102K50
	C	752,755,763,765	CKSSYB104K10		C	1332-1335,1341,1342	CKSSYB104K10
	C	754,766,1081,1516	CKSSYB471K50		C	1346,1348,1357,1372	CKSSYB104K10
	C	767,812,813	CKSSYB104K10		C	1349,1356,1407,1412	CKSSYB102K50
C	C	768,1202,1307,1343	CEVW101M16		C	1400-1406,1408-1410	CKSSYB104K10
	C	807,859,862,865	CKSSYB104K16		C	1411	CEAT102M16-P35
	C	814,823,834,846	CEVW101M4		C	1413,1414,1418,1502	CKSSYB104K10
	C	818,1503,1944	CEVW221M4		C	1415,1519,1605,1650	CKSSYB103K16
	C	819,821,824,835	CKSSYB105K6R3		C	1417,1419,1510,1512	CKSSYB102K50
	C	822,825,833,836	CKSSYB102K50		C	1501,1611,1705,1716	CEVW101M16
	C	826-830,837-845	CKSSYB104K10		C	1504,1509,1511,1515	CKSSYB104K10
	C	832,856,879,1030	CKSQYB106K6R3		C	1506,1508,9003,9005	CKSSYB105K6R3
	C	847,850,853,857	CKSSYB105K6R3		C	1513,1514	CCSSCH8R0D50
	C	848,851,854,858	CKSSYB102K50		C	1517,1521,1522,1525	CKSSYB471K50
	C	849,855,874,1014	CEVW101M4		C	1518,1520,1523,1524	CKSSYB104K10
	C	852,928,1082,1156	CKSSYB104K10		C	1526,1529,1534,1536	CKSSYB471K50
	C	861,864,868,882	CKSSYB105K6R3		C	1527,1528,1531,1532	CKSSYB104K10
	C	863,866,867,870	CKSSYB102K50		C	1530,1533,1540,1543	CKSSYB102K50
	C	869,872,873,875	CKSSYB104K16		C	1535,1537,1539,1541	CKSSYB104K10
D	C	876,1002,1010-1013	CKSSYB104K16		C	1538,1544,1546,1553	CKSSYB471K50
	C	878,883,888,1252	CKSQYB225K10		C	1542,1545,1570,1574	CKSSYB104K10
	C	884	CCSSCH221J50		C	1547,1549,1569,1619	CKSSYB102K50
	C	885	CCSSCH331J50		C	1575,1591,1596	CKSSYB471K50
	C	886,891	CKSSYB473K10		C	1577	CEVW470M4
	C	887,937,938,1001	CKSSYB105K6R3		C	1593,1594	CKSQYB475K6R3
	C	890	CCSSCH151J50		C	1601-1604,9047,9147	CCSSCH102J50
	C	926,927,1266,1300	CCSSCH100D50		C	1606,1857	CCSSCH101J50
	C	929,1050,1218-1220	CKSSYB102K50		C	1613-1618,1620-1624	CKSSYB104K10
	C	939,1004,1005,1023	CKSSYB103K16		C	1626	CCSSCH470J50
E	C	1003,1007,1015-1020	CKSSYB105K6R3		C	1631-1634,1703,1704	CKSSYB104K10
	C	1008,1009,1025,1027	CCSSCH102J50		C	1635-1644,1649,1652	CKSSYB471K50
	C	1021,1029,1052,1250	CKSSYB104K16		C	1651,1708,1714,1725	CKSSYB103K16
	C	1022,1026,1051,1053	CKSSYB105K6R3		C	1653,1758,1828,1830	CKSSYB471K50
	C	1024,1114,1303,1340	CKSSYB103K16		C	1656,1711,1730	CKSSYB102K50
	C	1028,1261,1424	CCSSCH102J50		C	1706,1710,1713,1715	CKSSYB104K10
	C	1031,1505,1507,1709	CKSQYB106K6R3		C	1707	CKSSYB823K10
	C	1032	CEVW101M4		C	1712,1718,1721,1723	CKSQYB106K6R3
	C	1103,1104,1106,1107	CKSQYB475K6R3		C	1717,1719,1722,1724	CKSSYB104K10
	C	1112,1113,1185-1187	CKSSYB105K6R3		C	1720,1745,1800,1825	CEVW101M16
F	C	1151,1168,1176	CCSSCH5R0C50		C	1726-1729,1732-1734	CKSSYB104K10
	C	1152,1167,1175	CCSSCH4R0C50		C	1731,1835,1856,1995	CKSSYB103K16
	C	1153,1154,1169,1170	CCSSCH180J50		C	1735-1740,1744	CKSSYB102K50
	C	1155,1171,1179	CCSSCH7R0D50		C	1741,1746,1827,1829	CKSSYB104K10
	C	1157,1172,1173,1180	CKSSYB104K10				

Mark	No.	Description	Part No.
	C	1754-1756,1759,1820	CKSSYB102K50
	C	1822,1858-1874,1878	CKSSYB102K50
	C	1823	ACH7276
	C	1826	DCH1201
	C	1831,1833,1836,1838	CKSSYB104K10
	C	1832,1834,1837,1839	CKSSYB471K50
	C	1840,1842,1844,1846	CKSSYB104K10
	C	1841,1843,1845,1847	CKSSYB471K50
	C	1848,1877,1916,1997	CKSSYB104K10
	C	1849,1855,1881,9002	CKSSYB471K50
	C	1882,1887,1888,1949	CKSSYB102K50
	C	1900	CEVW101M25
	C	1901	CKSQYB104K25
	C	1903,1904,1931,1932	CCG1195
	C	1906	CKSRYB153K25
	C	1907	CCSRCH681J50
	C	1908,1933,1934	CKSRYB104K25
	C	1909	CKSQYB105K16
	C	1910	BCG1059
	C	1911	CCSRCH331J50
	C	1912,1937,1941	CCSRCH102J50
	C	1913,9049,9149	CEVW101M16
	C	1914	CKSRYB103K25
	C	1917,9000,9100	CKSRYB102K50
	C	1938,1942,1948	CKSQYB475K10
	C	1939,1943	CCG1233
	C	1945-1947	CKSRYB104K25
	C	1950,1990,1993,1994	CKSSYB102K50
	C	1952,1958	CKSRYB223K16
	C	1953,1957	CCSRCH561J50
	C	1959	CCSRCH101J50
	C	1996,9048,9148	CKSSYB103K16
	C	1998,9009,9013,9015	CKSSYB104K10
	C	9001,9101	DCH1165
	C	9004,9006,9008,9010	CKSSYB471K50
	C	9007,9011,9017,9019	CKSSYB105K6R3
	C	9012,9014,9016,9018	CKSSYB471K50
	C	9020,9120	CKSSYB104K16
	C	9021,9027,9030,9032	CKSSYB471K50
	C	9022,9051,9053,9055	CKSSYB102K50
	C	9023-9025,9123-9125	CKSQYB106K6R3
	C	9026,9031,9050,9052	CKSSYB104K10
	C	9028,9029,9103,9105	CKSSYB105K6R3
	C	9035-9042,9135-9142	VCG1066
	C	9044,9143,9144	CKSRYB105K10
	C	9045,9102,9104,9106	CKSSYB471K50
	C	9054,9109,9113,9115	CKSSYB104K10
	C	9107,9111,9117,9119	CKSSYB105K6R3
	C	9108,9110,9112,9114	CKSSYB471K50
	C	9116,9118,9121,9127	CKSSYB471K50
	C	9122,9153,9155	CKSSYB102K50
	C	9126,9131,9154	CKSSYB104K10
	C	9128,9129	CKSSYB105K6R3
	C	9130,9132,9145	CKSSYB471K50
	C	9133	CEVW220M25

Mark	No.	Description	Part No.
F FRONT MIC&VIDEO ASSY A			
<u>SEMICONDUCTORS</u>			
	IC	3471	NJM4565MD
	D	3473-3475	UDZS5R1(B)
<u>MISCELLANEOUS</u>			
	JA	3471 JACK	VKB1243
	JA	3472 JACK	AKB7219
	KN	3471 WRAPPING TERMINAL	VNF1084
	CN	3471 CONNECTOR	CKS3370
	CN	3472 PLUG(2P)	KM200NA2
	JH	3001 PCB BINDER	VEF1040
<u>RESISTORS</u>			
	R	3495	RS1/10SR75R0F
	Other Resistors		RS1/10SR###J
<u>CAPACITORS</u>			
	C	3473,3499	CKSRYB471K50
	C	3474,3483,3484	CEAT100M50
	C	3475	CCSRCH101J50
	C	3476,3477	CCSRCH330J50
	C	3478	CEJQ100M50
	C	3480	CEJQ100M16
	C	3481,3482,3486,3497	CKSRYB103K50
	C	3488	CKSRYB223K50
	C	3490	CKSRYB102K50
	C	3498	CKSRYB224K16

G FRONT HDMI&USB ASSY D			
SEMICONDUCTORS			
	IC	7501	S-24CS02AFT
	IC	7502	TC7MB3257FK
	IC	7503	CXB1443R
	IC	7504	S-1132B33-U5
	Q	7501-7503	RT1N144M
	D	7504	MC2848-11
MISCELLANEOUS			
	L	7501,7518 INDUCTOR	CTF1473
	L	7506-7509 COIL	ATH7064
	L	7510 CHIP BEADS	ATL7010
	L	7512,7513,7516 FERRITE BEAD	CTF1528
	L	7517,7519,7520 FERRITE BEAD	CTF1528
	JA	7501 HDMI CONNECTOR	AKP7224
	JA	7502 USB CONNECTOR	XKP3086
	KN	7501,7502 WRAPPING TERMINAL	VNF1084
	CN	7501 PLUG(5P)	KM200NA5
	CN	7502 CONNECTOR	AKN7051
	CN	7504 4P CONNECTOR	VKN1409
	JH	7501,7502 PCB BINDER	VEF1040
RESISTORS			
	R	7506,7517-7520,7531	RS1/10SR0R0J
	R	7528	RS1/16SS4701F
	R	7545,7546	RS1/10SR0R0J
	Other Resistors		RS1/16SS###J

Mark	No.	Description	Part No.
CAPACITORS			
A	C	7510	CCSSCH102J50
	C	7511,7516,7519,7521	CKSSYB104K10
	C	7517	CKSRYB104K25
	C	7518	CEAT221M16
	C	7520,7524,7527,7528	CKSSYB471K50
■	C	7522,7535,7537,7543	CKSSYB102K50
	C	7523,7525,7526,7531	CKSSYB104K10
	C	7533,7538,7542,7544	CKSSYB104K10
	C	7540	CCSRCH102J50
	C	7541	CEVW101M16
B	C	7545,7546	CKSRYB104K50
	C	7565,7566,7570,7571	CKSSYB102K50
	C	7568,7569	CKSSYB471K50

Mark	No.	Description	Part No.
⚠	D	5716	UDZS15(B)
	D	5717,5718	1SR154-400
	D	5721,5722,5783,5784	1SS352
	D	5781	UDZS5R1(B)
	D	5811,5812,5821,5822	1SS352
	D	5831,5832,5841,5842	1SS352
	D	5851,5852,5902	1SS352
	D	5865,5931	MC2848-11
	D	5934,5935	1SS357

MISCELLANEOUS

L	5081,5181,5281,5381	COIL	ATH1053
L	5481,5581,5681	COIL	ATH1053
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	5801	SPEAKER TERMINAL 8-P	AKE7119
JA	5802	SPEAKER TERMINAL 6-P	AKE7108
JA	5803,5804,5807,5808	JACK	VKB1243
JA	5809	9P D-SUB SOCKET	AKP1213

JA	5810-5812	JACK	VKB1243
KN	5801,5901	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	17P PLUG	XKP3068

CN	5805	15P PLUG	XKP3067
CN	5806	CONNECTOR(05P)	TUC-P05P-B1
	5000	SMALL HEATSINK V5S(M)	ANH7200
	5001,5002	SCREW	BBZ30P080FCC
JH	5801	4P CABLE HOLDER	51048-0400

JH	5951,5953	PCB BINDER	VEF1040
JP	5701	LEAD WITH HOUSING	ADX7651
JP	5722	AWG14 BOARD IN	ADX7650
JP	5723	AWG14 BOARD IN	ADX7461
JP	5801	JUMPER WIRE	D20PYY0460E

⚠	P	5001	PROTECTOR(7A)	AEK7021
⚠	P	5002	PROTECTOR(7A)	AEK7047
⚠	P	5003	PROTECTOR(1A)	AEK7009
⚠	P	5004	PROTECTOR(1A)	AEK7064

RESISTORS

⚠	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	5811,5812	RS2LMF331J
	Other Resistors		RS1/10SR###J

POWER AMP ASSY

SEMICONDUCTORS

■	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

C	⚠	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	5709,5783,5784,5812	LTA124EUB

D		Q	5731,5741-5744,5903	LSC4081UB
		Q	5781,5782,5785,5951	LTC124EUB
		Q	5822,5832,5852	LTA124EUB
		Q	5841,5851	RT1N140M
		Q	5864,5865	RT3T22M

■		Q	5952,5954,5956	LSA1576UB
		Q	5953,5955	LTC124EUB
	⚠	D	5003,5004,5103,5104	1SS352
	⚠	D	5005,5006,5105,5106	UDZS4R7(B)
		D	5041-5044,5141-5144	1SS352

E	⚠	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

F		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)
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Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
CAPACITORS				RESISTORS			
	C	5011,5012,5111,5112	ACG7056		R	6007,6107,6207,6307	RS1/10SR2001F
	C	5041,5141,5241,5341	CEHANP2R2M50		R	6009,6109,6209,6309	RD1/2VM473J
	C	5081,5082,5181,5182	CFTLA104J50		R	6011,6111,6211,6311	RN1/16SE1201D
	C	5083,5183,5283,5383	CFTLA103J2A	⚠	R	6023,6024,6123,6124	RD1/4MUF4R7J
	C	5084-5087,5089	CKSRYB272K50		R	6029,6129,6229,6329	RN1/10SE3302D
	C	5211,5212,5311,5312	ACG7056		R	6030,6130,6230,6330	RN1/16SE1001D
	C	5281,5282,5381,5382	CFTLA104J50		R	6031,6131,6231,6331	RN1/16SE1500D
	C	5411,5412,5511,5512	ACG7056	⚠	R	6223,6224,6323,6324	RD1/4MUF4R7J
	C	5441,5541,5641	CEHANP2R2M50		R	6407,6507,6607	RS1/10SR2001F
	C	5481,5482,5581,5582	CFTLA104J50		R	6409,6509,6609	RD1/2VM473J
	C	5483,5583,5683	CFTLA103J2A		R	6411,6511,6611	RN1/16SE1201D
	C	5611,5612	ACG7056	⚠	R	6423,6424,6523,6524	RD1/4MUF4R7J
	C	5681,5682	CFTLA104J50		R	6429,6529,6629	RN1/10SE3302D
	C	5703,5704	CEAT471M2A		R	6430,6530,6630	RN1/16SE1001D
	C	5705,5706	CEAT101M63		R	6431,6531,6631	RN1/16SE1500D
	C	5707,5708	CEAT221M2A	⚠	R	6623,6624	RD1/4MUF4R7J
	C	5721,5722	ACH7258			Other Resistors	RS1/10SR###J
	C	5723	CEAT100M63	CAPACITORS			
	C	5725,5726,5729,5730	CEATR47M2A		C	6001,6101,6201,6301	CEHAT4R7M50
	C	5731	CKSRYB223K50		C	6002,6102,6202,6302	CCSRCH221J50
	C	5741,5743	CEAT331M10		C	6004,6104,6204,6304	CKSRYB102K50
	C	5771,5772,5781,5909	CKSRYB103K50		C	6005,6006,6015,6016	CCSRCH220J50
	C	5782	CKSRYB105K10		C	6007,6107,6207,6307	CEHAT101M10
	C	5891	CEAT101M50				
	C	5911,5922,5931,5932	CKSRYB103K50		C	6008,6108,6208,6308	ACG7057
	C	5923,5937,5951	CKSRYB104K16		C	6009,6109,6209,6309	CEHAT100M2A
	C	5924,5936	CCSRCH471J50		C	6017,6117,6217,6317	CEHAT331M10
	C	5933,5934	CKSRYB153K50		C	6023,6024,6123,6124	CEHAT100M63
	C	5935,5953,5954	CKSRYB103K50		C	6032,6132,6232,6332	CKSRYB224K16
	C	5955,5956	CKSRYB102K50				
	C	5957,5958	CKSRYB472K50		C	6105,6106,6115,6116	CCSRCH220J50
	C	5961	CCSRCH331J50		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	6417,6517,6617	CEHAT331M10
					C	6423,6424,6523,6524	CEHAT100M63
					C	6432,6532,6632	CKSRYB224K16
					C	6505,6506,6515,6516	CCSRCH220J50
					C	6527	CCSRCH101J50
					C	6605,6606,6615,6616	CCSRCH220J50
					C	6623,6624	CEHAT100M63
PRESTAGE ASSY				DISPLAY ASSY			
SEMICONDUCTORS				SEMICONDUCTORS			
	Q	6001,6101,6201,6301	2SD2704K		IC	3001	PDC188B8
	Q	6002,6102,6202,6302	IMT4		IC	3002	BU4842F
	Q	6003,6103,6203,6303	2SA1514K		IC	3003	S-1200B33-M5
⚠	Q	6004,6104,6204,6304	2SA1145	⚠	IC	3201	PE5615A
	Q	6005,6105,6205,6305	2SC2705		Q	3004	SSM3K15FU
	Q	6401,6501,6601	2SD2704K				
	Q	6402,6502,6602	IMT4		Q	3201	LTC124EUB
	Q	6403,6503,6603	2SA1514K		Q	3202	LSA1576UB
⚠	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				MISCELLANEOUS			
	CN	6010,6110,6210 CONNECTOR(05P)	TUC-P05X-B1				
	CN	6310,6410,6510 CONNECTOR(05P)	TUC-P05X-B1	⚠			
	CN	6603 17P CONNECTOR	52044-1745				
	CN	6610 CONNECTOR(07P)	TUC-P07X-B1				
	CN	6902 CONNECTOR(05P)	TUC-P05X-B1				
	JP	6901 4P HOUSING ASSY	ADX7714				

Mark	No.	Description	Part No.
A	Q	3203-3209	LTC143EUB
	D	3001	UDZS5R1(B)
	D	3002	RB751V-40
	D	3003	DAN217U
	D	3004,3007,3008,3202	MC2848-11
	D	3005	MC2846-11
	D	3006	RB501V-40
	D	3201,3203	1SS352
	D	3204,3206,3208,3210	SLR-343VC(NPQ)
	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	VSG1024
S	3016	ROTARY ENCODER	ASX7049
X	3001	CRYSTAL (15.0 MHz)	CSS1653
X	3201	CERAMIC RESONATOR (5.00 MHz)	VSS1142
CN	3001	39P CONNECTOR	VKN2097
CN	3003	4P CONNECTOR	VKN1819
JH	3002	4P CABLE HOLDER	51048-0400
JH	3003	3P CABLE HOLDER	51048-0300
JP	3001	8P HOUSING ASSY	ADX7712
JP	3002	JUMPER WIRE	D20PYY0405E
JP	3003	JUMPER WIRE	D20PYY0305E
U	3201	REMOTE RECEIVER UNIT	GP1UE274XKC1

RESISTORS

All Resistors	RS1/10SR###J
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CAPACITORS

C	3001	CEJQ100M50
C	3002,3009,3011,3013	CKSRYB104K16
C	3003	CKSRYB105K16
C	3004,3005	CCSRCH120J50
C	3006,3008,3010,3302	CKSRYB471K50
C	3007,3020,3021,3201	CKSRYB105K10
C	3012	CKSRYB472K50
C	3014-3016	CKSRYB473K50
C	3017,3022,3023,3025	CKSRYB104K16
C	3018,3033,3034,3044	CKSRYB103K50
C	3019,3208	CEJQ221M6R3
C	3026,3027,3213,3306	CKSRYB104K50
C	3035,3038,3202,3204	CKSRYB104K16
C	3037,3203,3221-3223	CKSRYB102K50
C	3045,3212	CKSRYB103K50
C	3205,3214-3220	CCSRCH471J50
C	3207	CKSRYB104K16
C	3209	CKSRYB105K10
C	3211	CEJQ101M6R3
C	3301,3327	CEAT101M35
C	3303,3307	CKSRYB102K50
C	3305,3308,3328	CEAT470M50
C	3311-3326	CKSRYB471K50

K PRIMARY ASSY

SEMICONDUCTORS

⚠	IC	3701	NJM78M56FA
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Mark	No.	Description	Part No.
	Q	3701	LTC143EUB
	D	3701	UDZS5R1(B)
	D	3703,3704,3706	1SS352
⚠	D	3705	S1WB(A)60SD
MISCELLANEOUS			
⚠	L	3701 LINE FILTER	XTF3004
	H	3707,3708 FUSE CLIP	AKR1004
⚠	JA	3702 AC INLET ASSY	ADX7464
	KN	3701 SCREW PLATE	VNE1948
	KN	3702 WRAPPING TERMINAL	VNF1084
⚠	RY	3701 JOE LOWPOWER RELAY	ASR7013
⚠	T	3701 STANDBY TRANSFORMER	ATT7040
⚠	CN	3708 CONNECTOR(VH)	B3P5-VH
	JH	3701 5P CABLE HOLDER	51048-0500
	JP	3710 JUMPER WIRE	ADD7721

RESISTORS

R	3703	RD1/4MUF101J
Other Resistors		RS1/10SR###J

CAPACITORS

	C 3701,3706-3708,3713	CKSRYB103K50
	C 3702	CEAT100M50
	C 3704,3712	CKSRYB102K50
⚠	C 3705	XCG3010
⚠	C 3710	ACE7013
	C 3714	CEAT222M25
	C 3715	CKSRYB104K50

L UNREG ASSY

SEMICONDUCTORS

⚠	D	4201	D5SBA20(B)
	D	4203	MTZJ24(B)

MISCELLANEOUS

H	4201,4202	FUSE CLIP	AKR1004
CN	4201	2P TOP POST	B2B-EH
JH	4200	PCB BINDER	VEF1040
JP	4203	4P HOUSING ASSY	ADX7679

CAPACITORS

C	4201	ACH7294
C	4202,4204	CKSRYB103K50

M XM REGULATOR ASSY

MISCELLANEOUS

JH	4251,4254,4255	PCB BINDER	VEF1040
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N REGULATOR ASSY

SEMICONDUCTORS

⚠	IC	4001	NJM78M56FA
⚠	IC	4002	NJM79M05FA
⚠	IC	4021	NJM78M05FA
⚠	IC	4101,4121	NJM78M12FA
⚠	IC	4102	NJM79M12FA
⚠	D	4001	D3SBA20(B)
	D	4002	1SS352

5	6	7	8
Mark No. Description D 4003,4004,4021,4105 ⚠ D 4051-4053,4101-4104 D 4054,4056 D 4055 D 4106,4121 MISCELLANEOUS H 4001-4004,4101-4104 FUSE CLIP CN4001 5P TOP POST CN4002 PLUG(11P) CN4051 5P JUMPER CONNECTOR CN4052 PLUG(8P) CN4101 3P TOP POST CN4102 PLUG(10P) JH 4001-4003,4101-4105 PCB BINDER RESISTORS ⚠ R 4001 R 4052 Other Resistors CAPACITORS C 4002,4060 C 4007 C 4008 C 4011,4012,4021,4057 C 4013,4014,4054 C 4022 C 4051 C 4052 C 4053 C 4055 C 4102-4105 C 4107 C 4108 C 4109,4110,4121 C 4111,4112 C 4117,4118 C 4122	Part No. RB501V-40 1SR154-400 UDZS5R1(B) PTZ22(B) RB501V-40 AKR1004 B5B-EH KM200NA11 52147-0510 KM200NA8 B3B-EH KM200NA10 VEF1040 RD1/4MUF4R7J RD1/4MUF391J RS1/10SR###J CFTLA104J50 CEAT682M16 CEAT222M16 CKSRYB103K50 CEAT101M16 CEAT221M16 CEANP101M35 CEAT101M35 CEAT221M35 CEAT470M50 CKSRYB473K50 CEAT222M25 CEAT332M25 CKSRYB103K50 CEAT221M25 CKSRYB104K50 CEAT100M50	Mark No. Description CN3501 3P JUMPER CONNECTOR RESISTORS All Resistors CAPACITORS C 3501,3502 Q HEAD PHONE ASSY MISCELLANEOUS JA 3451 PHONE JACK KN3451 WRAPPING TERMINAL CN3451 4P JUMPER CONNECTOR RESISTORS All Resistors CAPACITORS C 3451,3452 C 3453 C 3454 C 3455 R DIODE ASSY SEMICONDUCTORS ⚠ D 4701,4702 MISCELLANEOUS CN4701 CONNECTOR4P RESISTORS ⚠ All Resistors CAPACITORS C 4701,4702 S BRIDGE 1 ASSY MISCELLANEOUS CN7701,7702 13P PLUG JH7701 PCB BINDER T BRIDGE 2 ASSY MISCELLANEOUS CN7601,7602 23P PLUG CN7603,7604 15P PLUG U POSI 1 ASSY SEMICONDUCTORS ⚠ TH7001 MISCELLANEOUS CN7001 CONNECTOR ASS'Y	Part No. 52147-0310 RS1/10SR###J CKSRYB103K50 AKN7029 VNF1084 52147-0410 RS1/10SR###J CKSRYB392K50 CKSRYB471K50 CKSRYB103K50 CKSRYB104K16 C D5SBA20(B) AKM7085 RD1/4MUF###J CFTLA104J2A D XKP3066 VEF1040 E XKP3071 XKP3067 F PTFM04BB222Q2N34B0 PG02KA-F15
O POWER SW ASSY SEMICONDUCTORS Q 3401 D 3402 MISCELLANEOUS S 3401 SWITCH CN3401 4P JUMPER CONNECTOR RESISTORS All Resistors CAPACITORS C 3401 C 3402 P ENCODER ASSY MISCELLANEOUS S 3501 ROTARY ENCODER	LTC143EUB SLR343BC4T(JKLM) VSG1024 52147-0410 RS1/10SR###J CCSRCH471J50 CKSRYB104K16 ASX7051		

Mark No. Description **Part No.**

A **V** POSI 2 ASSY

SEMICONDUCTORS

⚠ TH 7002 AEX7006

MISCELLANEOUS

CN 7002 CONNECTOR ASS'Y PG02KA-F07

W POSI 3 ASSY

SEMICONDUCTORS

⚠ TH 7003 AEX7008

MISCELLANEOUS

CN 7003 CONNECTOR ASS'Y PG03KA-F07

X BIND L FRONT ASSY

MISCELLANEOUS

JH 5961-5963 PCB BINDER VEF1040

C **Y** BIND L BACK ASSY

MISCELLANEOUS

JH 5971-5973 PCB BINDER VEF1040

Z BIND R FRONT ASSY

MISCELLANEOUS

JH 5981,5982 PCB BINDER VEF1040

D **AA** BIND R BACK ASSY

MISCELLANEOUS

JH 5591,5592 PCB BINDER VEF1040

AB BINDER ASSY

MISCELLANEOUS

JH 3901 PCB BINDER VEF1040

AC DISP-FFC GUARD ASSY

MISCELLANEOUS

JH 5981,5982 PCB BINDER VEF1040

FM/AM TUNER UNIT

FM/AM TUNER UNIT has no service part.

F