

HT-CT780

SA-CT780

SERVICE MANUAL

Ver. 1.1 2015.04

- All of the units included in the HT-CT780 (SA-CT780/SA-WCT780/Remote control) are required to confirm operation of SA-CT780. Check in advance that you have all of the units.

Note:

Be sure to keep your PC used for service and checking of this unit always updated with the latest version of your anti-virus software. In case a virus affected unit was found during service, contact your Service Headquarters.



Photo: SA-CT780

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model
PX Model

COMPONENT MODEL NAME

	HT-CT780
Bar Speaker (Active Speaker System)	SA-CT780
Subwoofer (Active Subwoofer)	SA-WCT780

- Please refer to service manual separately issued for Subwoofer.

SPECIFICATIONS

Amplifier section

U.S. models:

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
(FTC)

Front L + Front R:

With 4 ohms loads, both channels driven, from 200 Hz - 20,000 Hz; rated 35 Watts per channel minimum RMS power, with no more than 1% total harmonic distortion from 250 milliwatts to rated output.

POWER OUTPUT (reference)

Front L/Front R: 105 Watts (per channel at 4 ohms, 1 kHz)

Chinese model:

POWER OUTPUT (rated)

Front L + Front R:

35 W + 35 W (at 4 ohms, 1 kHz, 1% THD)

Brazilian model:

The following values were measured at 127 V AC 60 Hz

RMS POWER OUTPUT:

Front L + Front R:

70 W (35 W per channel × 2, at 4 ohms, 1 kHz, 10% THD*)

* Total harmonic distortion

Other models:

POWER OUTPUT (rated)

Front L + Front R:

50 W + 50 W (at 4 ohms, 1 kHz, 1% THD)

POWER OUTPUT (reference)

Front L/Front R: 105 Watts (per

channel at 4 ohms, 1 kHz)

Inputs

HDMI IN* 1/2/3

ANALOG IN

DIGITAL IN (TV)

Outputs

HDMI OUT** (ARC)

* The 1 jack supports HDCP 2.2 protocol. HDCP 2.2 is newly enhanced copyright protection technology that is used to protect content such as 4K movies. The 2 and 3 jacks are identical. Using any of them makes no difference.

** The HDMI OUT jack supports HDCP 2.2 protocol. HDCP 2.2 is newly enhanced copyright protection technology that is used to protect content such as 4K movies.

HDMI Section

Connector

Type A (19pin)

BLUETOOTH section

Communication system

BLUETOOTH Specification version 3.0

Output

BLUETOOTH Specification Power Class 2

Maximum communication range

Line of sight approx. 10 m (33 ft)¹⁾

Maximum number of devices to be

registered

9 devices

Frequency band

2.4 GHz band (2.4000 GHz -

2.4835 GHz)

Modulation method

FHSS (Freq Hopping Spread Spectrum)

Compatible BLUETOOTH profiles²⁾

A2DP 1.2 (Advanced Audio Distribution

Profile)

AVRCP 1.3 (Audio Video Remote

Control Profile)

Supported Codecs³⁾

SBC⁴⁾, AAC⁵⁾

Transmission range (A2DP)

20Hz - 20,000 Hz (Sampling frequency

44.1 kHz)

¹⁾ The actual range will vary depending on factors such as obstacles between devices, magnetic fields around a microwave oven, static electricity, cordless phone, reception sensitivity, operating system, software application, etc.

²⁾ BLUETOOTH standard profiles indicate the purpose of BLUETOOTH communication between devices.

³⁾ Codec: Audio signal compression and conversion format

⁴⁾ Subband Codec

⁵⁾ Advanced Audio Coding

Front L/Front R speaker section

Speaker system

2-way speaker system,
Acoustic suspension

Speaker

Woofer: 60 mm (2 ³/₈ in)
cone type

Tweeter: 19 mm (³/₄ in)
soft dome type

General

Power requirements

120 V AC, 60 Hz (US, CND)

120 V AC, 50 Hz/60 Hz (TW)

110 V - 240 V AC, 50 Hz/60 Hz (PX, EA3, BR)

220 V - 240 V AC, 50 Hz/60 Hz (Other models)

Power consumption

On: 40 W

Standby: 0.3 W or less

(at the Power saving mode)

Standby: 0.5 W or less

(When [S. THRU] is [ON]: 6 W or less)

Dimensions (approx.) (w/h/d)

1,030 mm × 55 mm × 117 mm (40 ⁵/₈ in
× 2 ¹/₄ in × 4 ⁵/₈ in) (without wall
mounting brackets)

1,030 mm × 120 mm × 74 mm (40 ⁵/₈ in
× 4 ³/₄ in × 3 in) (with wall mounting
brackets)

Mass (approx.)

2.8 kg (6 lb 2 ³/₄ oz)

Wireless transmitter section

Speaker system

Wireless Sound Specification version
2.0

Frequency band

2.4 GHz (2.4000 GHz - 2.4835 GHz)

Modulation method

Pi / 4 DQPSK

Supplied accessories

Remote control (1)

R03 (size AAA) batteries (2)

Optical digital cable (1)

Wall mounting brackets (2) and screws (2)

Startup Guide (1)

Operating Instructions (1)

Design and specifications are subject to
change without notice.

HT-CT780
SOUND BAR
SA-CT780

ACTIVE SPEAKER SYSTEM

8-996-146-02

2015D33-1

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Sony Corporation

Published by Sony Techno Create Corporation

SONY®

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“Made for iPod,” and “Made for iPhone” mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.

Compatible iPod/iPhone models

The compatible iPod/iPhone models are as follows. Update your iPod/iPhone with the latest software before using with the system.

BLUETOOTH technology works with:
iPhone 6 Plus/iPhone 6/iPhone 5s/
iPhone 5c/iPhone 5/iPhone 4s/
iPhone 4/iPhone 3GS
iPod touch (5th generation)/iPod touch (4th generation)

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NOTES ON CHIP COMPONENT REPLACEMENT

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer: Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

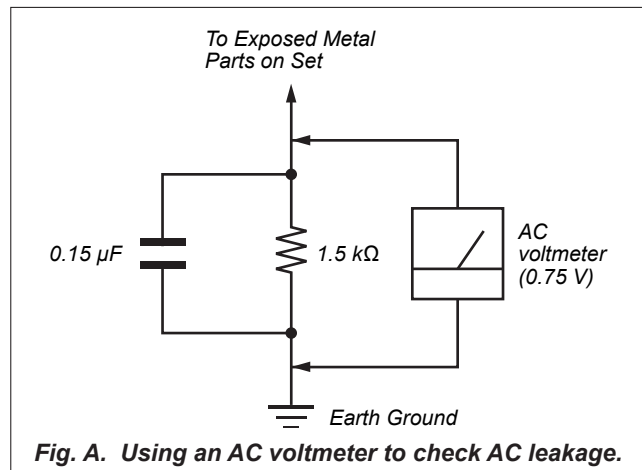


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY MARK △ OR DOTTED LINE WITH MARK △ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE △ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

关于安全相关零部件的警告

原理图和零件清单中标有△记号的零部件，或带有△记号的虚线所表示的零部件，对于安全操作至关重要。更换时，必须依据本手册或索尼公司追加发行的手册中列明的零件号，使用索尼公司的零件进行。

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Accessories are given in the last of the electrical parts list.

SECTION 1 SERVICING NOTES

The **SERVICING NOTES** contains important information for servicing. Be sure to read this section before repairing the unit.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

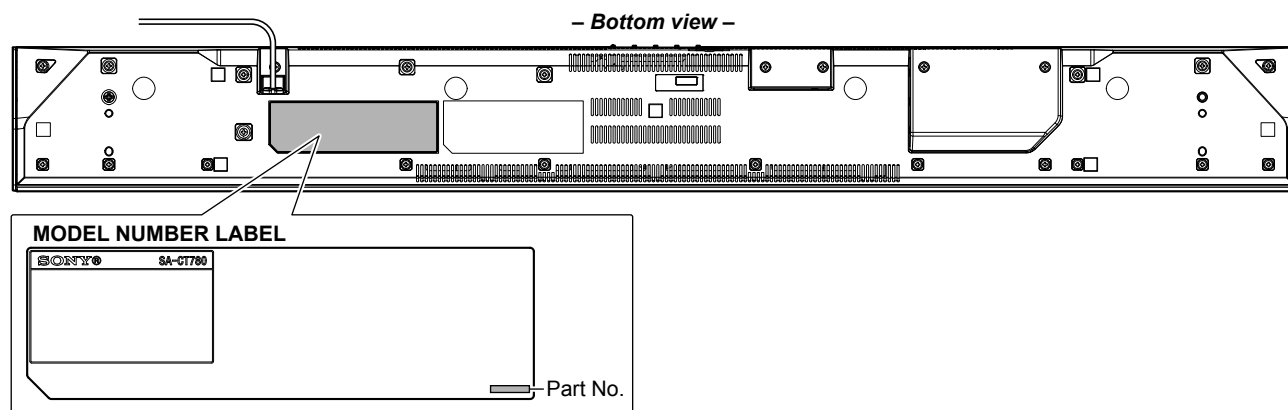
- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time. Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

NOTE OF PERFORMING THE OPERATION CHECK IN THE STATE THAT HEAT SINK WAS REMOVED

When performing the operation check in the state that this unit was disassembled, it is possible to perform the operation check in the state that heat sink was removed. But don't perform the operation check in the long time, and perform the operation check in the volume state as low as possible.

MODEL IDENTIFICATION

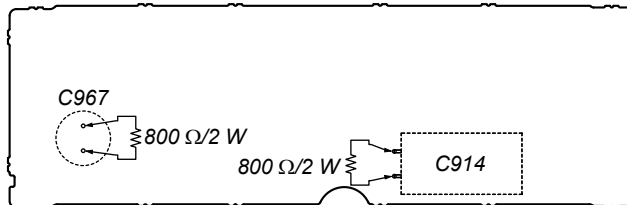
Distinguish by Part No. on the bottom side of the main unit.



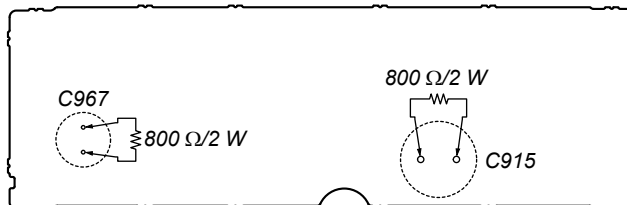
CAPACITOR ELECTRICAL DISCHARGE PROCESSING

When checking the board, for the electric shock prevention, connect the resistors to both ends of respective capacitors to discharge the capacitor.

- POWER Board (Conductor Side) - (US, Canadian and Taiwan models)



- POWER Board (Conductor Side) - (Except US, Canadian and Taiwan models)



Destination	Part No.
US, CND	4-564-208-0□
AEP	4-564-209-0□
UK	4-564-209-1□
EA3	4-564-211-0□
PX	4-567-467-0□
SP	4-567-468-0□
CH	4-567-469-0□
AUS	4-567-470-0□
TW	4-567-471-0□
BR	4-569-640-0□
E3	4-570-359-0□

DESTINATION ABBREVIATIONS

The following abbreviations for model destinations are used in this service manual.

- Abbreviations
 - AUS : Australian model
 - BR : Brazilian model
 - CH : Chinese model
 - CND : Canadian model
 - E3 : African and Iranian models
 - EA3 : Saudi Arabia, UAE, Kuwait, Iraqi, Kenyan, Tanzanian and Nigerian models
 - SP : Singapore model
 - TW : Taiwan model

ADVANCE PREPARATION WHEN CONFIRMING OPERATION

All of the units included in the HT-CT780 (SA-CT780/SA-WCT780/Remote control) are required to confirming operation of SA-CT780. Check in advance that you have all of the units.

NOTE OF REPLACING THE KEY BOARD

When the KEY board is defective, replace the complete mounted board.

NOTE OF REPLACING THE IC102, IC104, IC307, IC308, IC313, IC601 TO IC603, IC605, IC1002, IC1004 AND IC1501 ON THE MAIN BOARD

IC102, IC104, IC307, IC308, IC313, IC601 to IC603, IC605, IC1002, IC1004 and IC1501 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD

When IC503 on the MAIN board and the complete MAIN board are replaced, it is necessary to spread the compound between the MAIN board and the heat sink.

Spread the compound referring to the figure below.

– MAIN Board (Side A) –

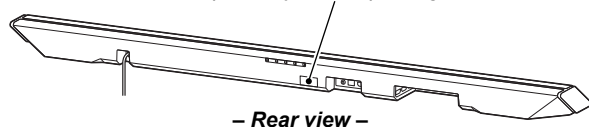


IF “PRTECT (PROTECT)” APPEARS ON THE FRONT PANEL DISPLAY OF THE BAR SPEAKER

→ Press the I/⏻ (on/standby) button on the Bar Speaker to turn off the system. After the display stops flashing, disconnect the AC power cord (mains lead) then check that nothing is blocking the ventilation holes of the Bar Speaker.

NOTES ON UPDATE PORT

UPDATE port
This is update dedicated port of this unit.
Use this port only when updating this unit.



NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE

When the parts below is replaced, the wireless connection (LINK) of the Bar speaker and Subwoofer will be disconnected.

Before returning repaired products to the customer, follow the procedure below to LINK the Bar speaker and Subwoofer.

Also, if only the Bar speaker or Subwoofer is brought in for repair and the parts below are replaced, be sure to inform the customer when returning the repaired products that the customer must LINK the Bar speaker and Subwoofer.

(Indicate that the LINK procedure is described in the operating instructions)

Parts in which the LINK will be disconnected due to replacement:

- Complete MAIN board
- RF modulator (SWA12-4V TX) (Ref. No. RF1)

Linking the system (Link to the Subwoofer)

Set up the wireless subwoofer connection again.

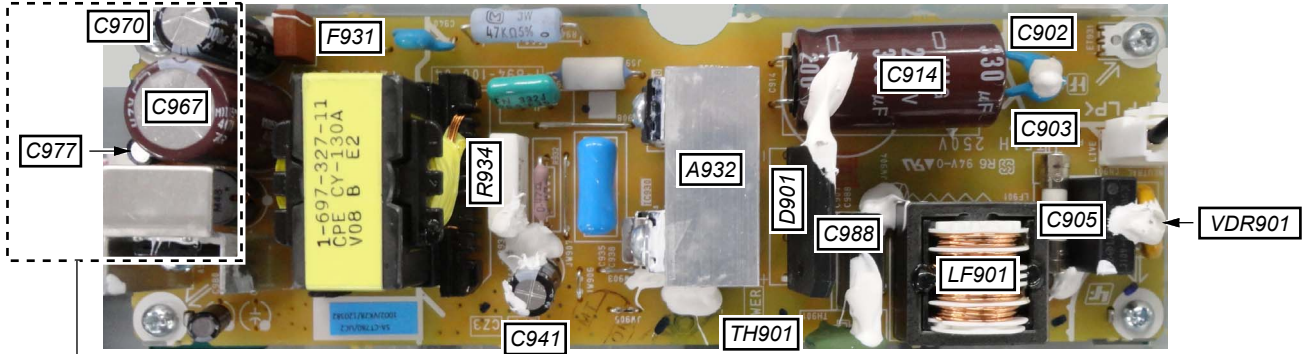
- 1** Press MENU.
- 2** Select [WS] with ↑ ↓ (select), then press ENTER.
- 3** Select [LINK] with ↑ ↓ (select), then press ENTER.
- 4** When [START] appears on the display, press ENTER.
[SEARCH] appears, and the Bar Speaker searches for a device that can be used with Link. Proceed to the next step within 1 minute.
To quit the Link function while searching for a device, press BACK.
- 5** Press LINK on the subwoofer.
The on/standby indicator on the subwoofer lights up in green. [OK] appears on the display of the Bar Speaker.
If [FAILED] appears, check to ensure the subwoofer is turned on and perform the process again from step 1.
- 6** Press MENU.
The menu turns off.

BOND FIXATION OF ELECTRIC PARTS

When complete POWER board or the following parts are replaced, it is necessary to fix the parts by using the bond (SC608Z2) (Refer to the figure below).

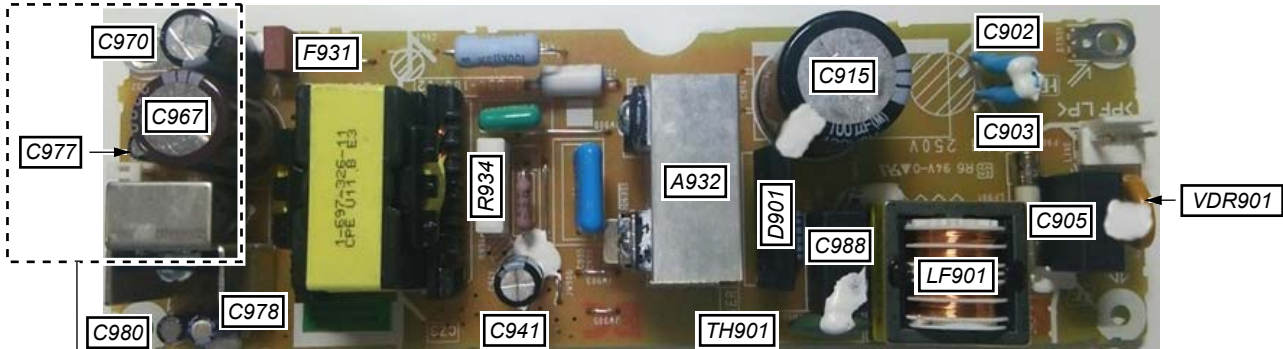
- POWER board:
C902, C903, C905, C914 or C915, C941, C967, C970, C977, C978, C980, C988, D901, F931, LF901, R934, TH901, VDR901
(C978, C980: Except US, Canadian and Taiwan models only)

– POWER Board (Component Side) – (US, Canadian and Taiwan models)



– Side view –

– POWER Board (Component Side) – (Except US, Canadian and Taiwan models)

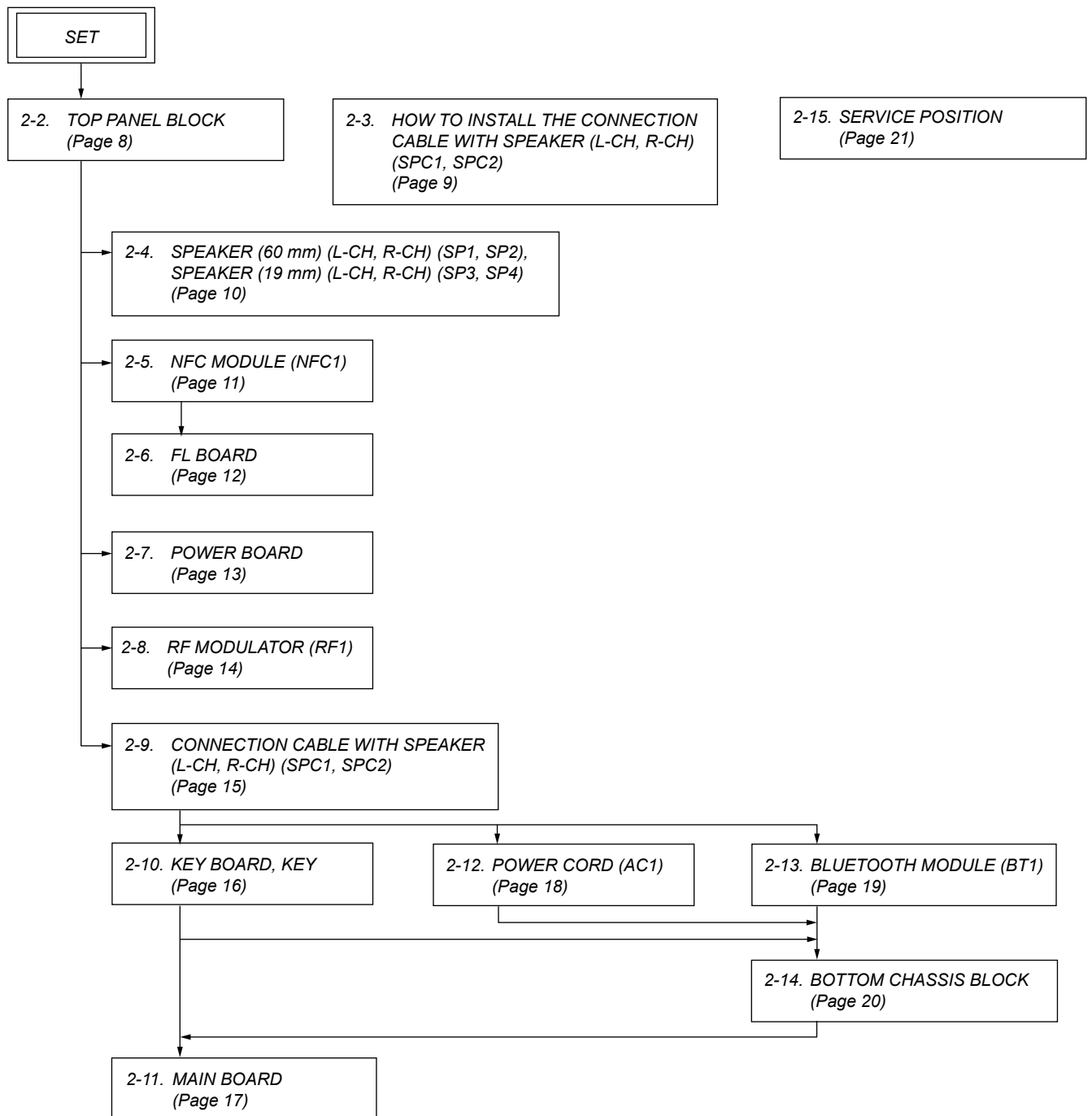


– Side view –

SECTION 2 DISASSEMBLY

- This set can be disassembled in the order shown below.

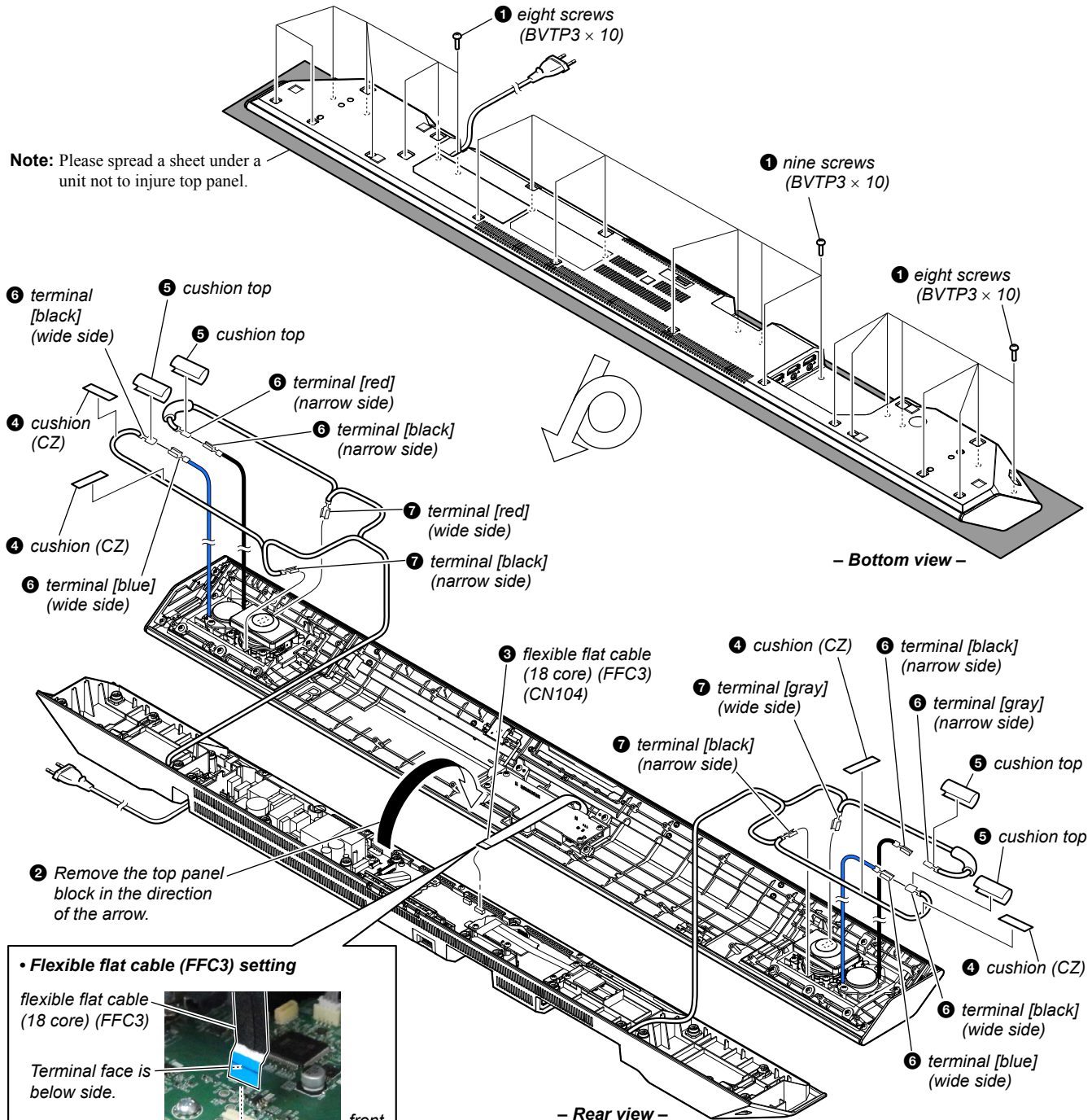
2-1. DISASSEMBLY FLOW



Note: Follow the disassembly procedure in the numerical order given.

2-2. TOP PANEL BLOCK

- For the speaker cable setting, see page 9.

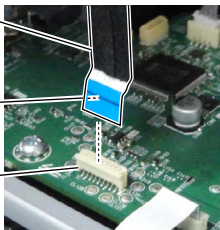


• Flexible flat cable (FFC3) setting

flexible flat cable (18 core) (FFC3)

Terminal face is below side.

connector (CN104)

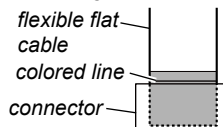


• How to install the flexible flat cable

When installing the flexible flat cable, ensure that the colored line is parallel to the connector after insertion.

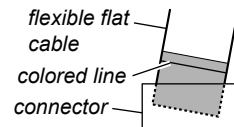
OK

Insert straight into the interior.

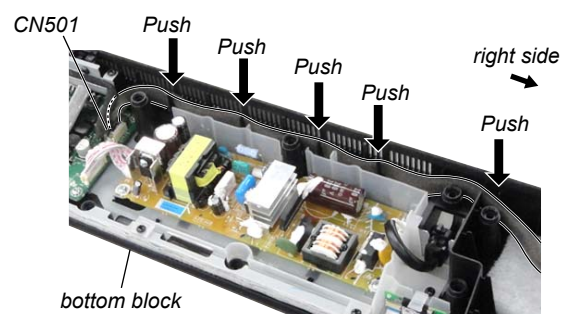
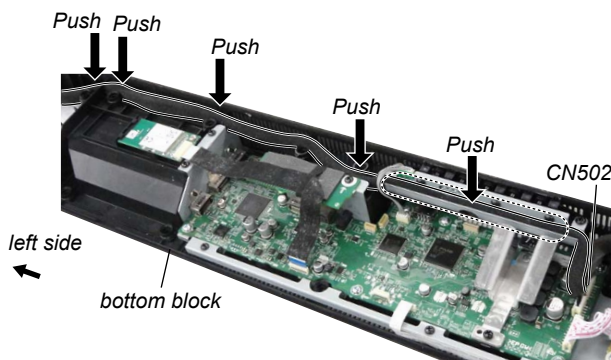
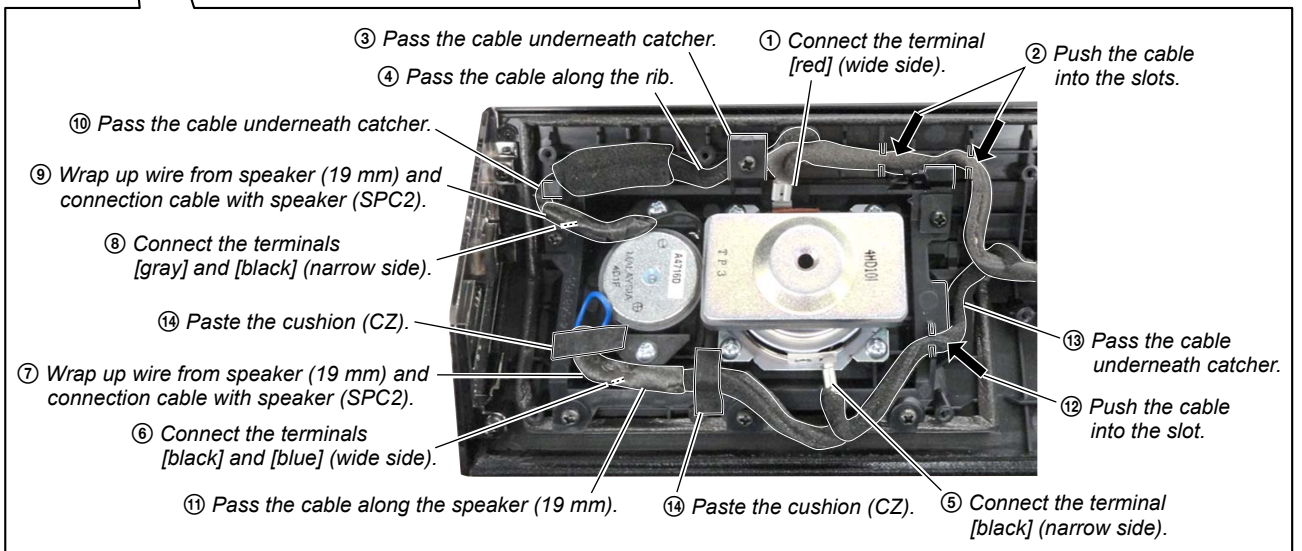
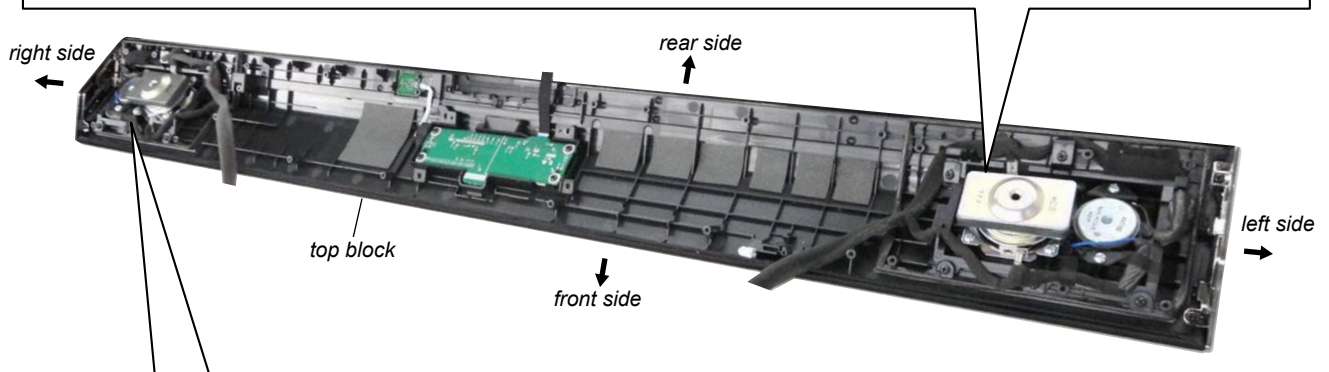
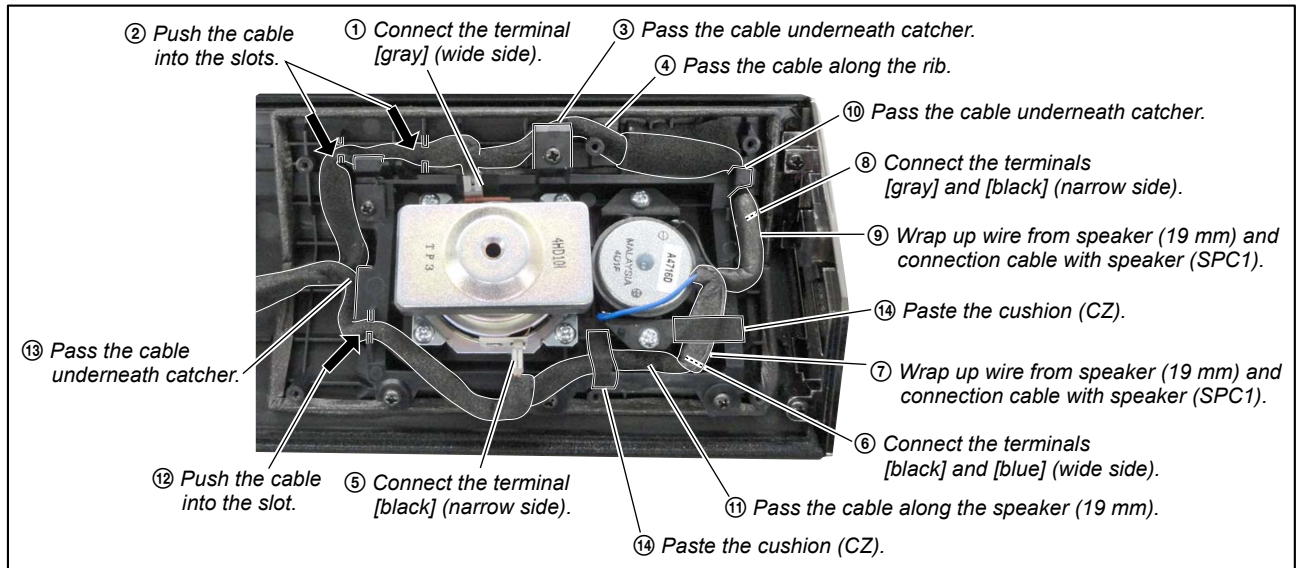


NG

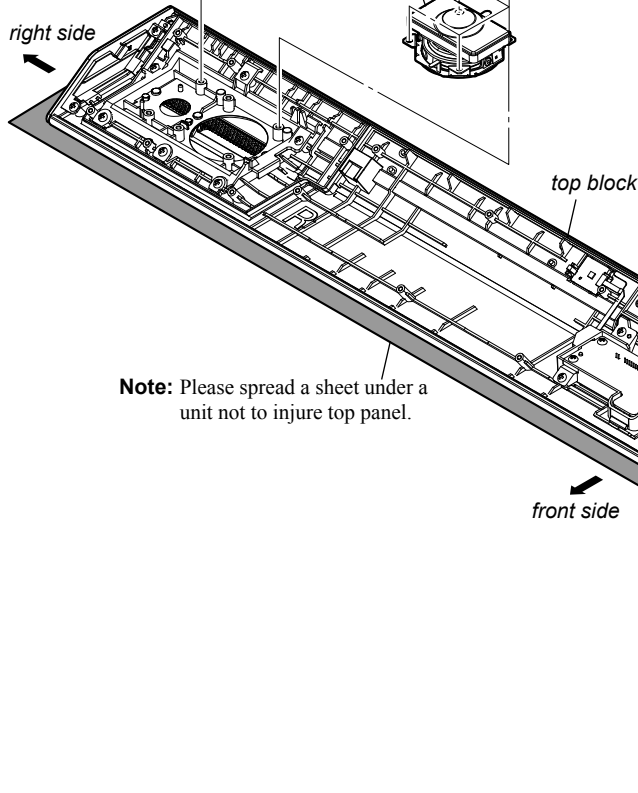
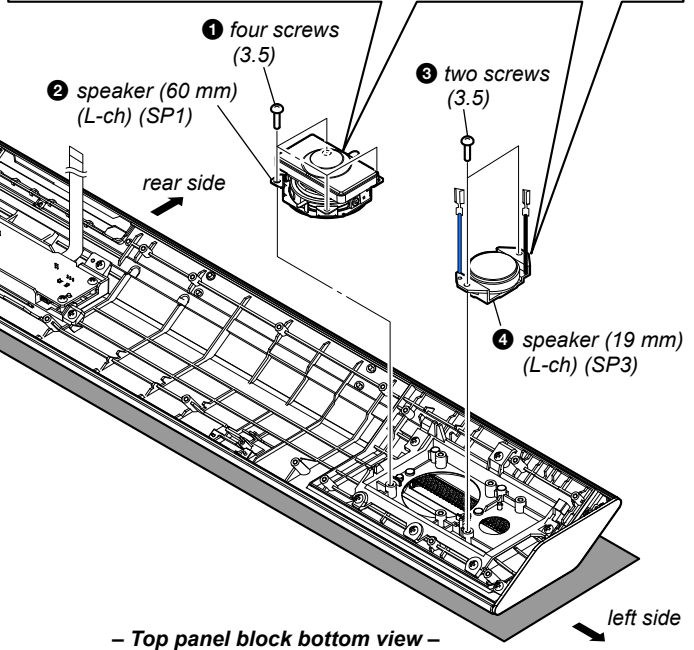
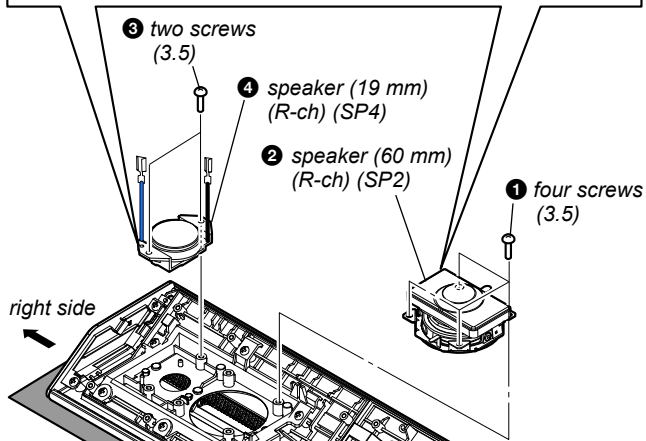
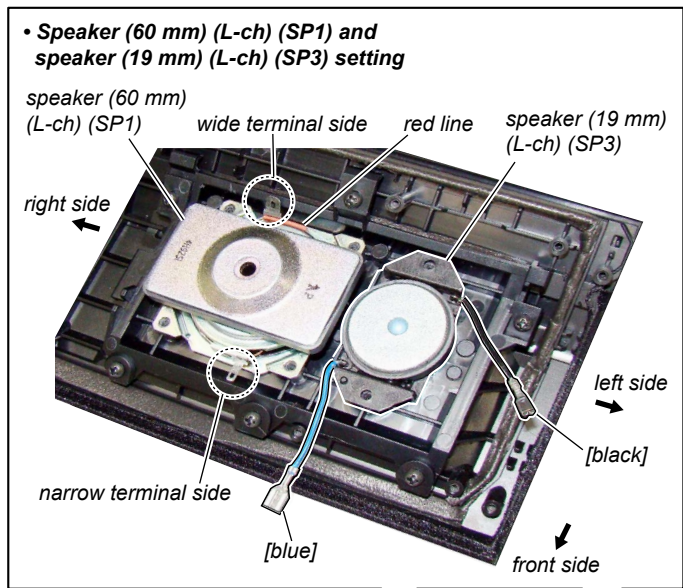
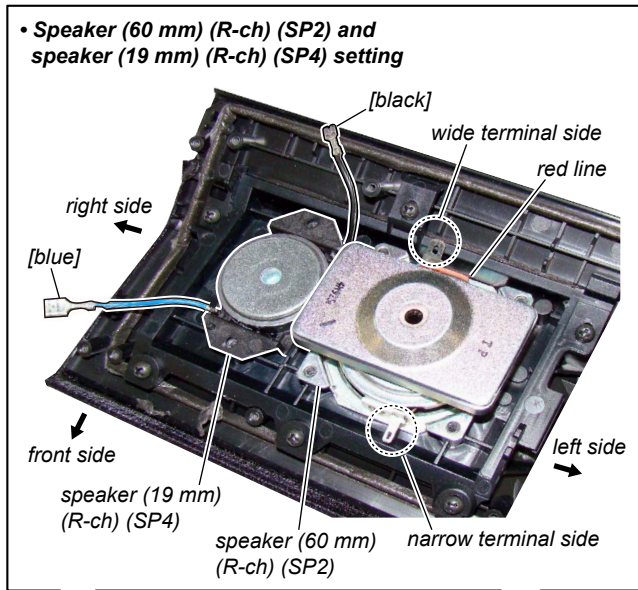
Insert at a slant.



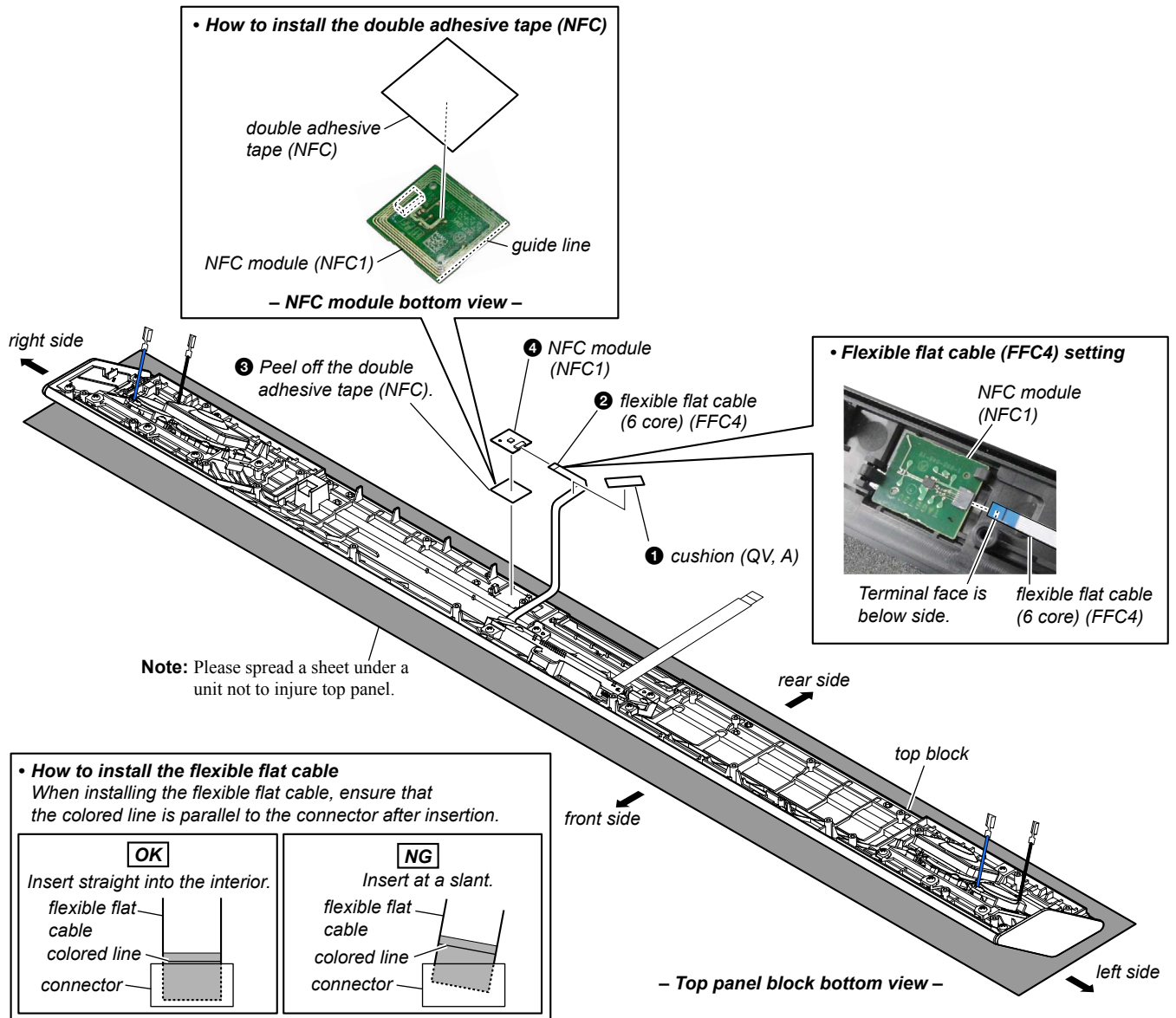
2-3. HOW TO INSTALL THE CONNECTION CABLE WITH SPEAKER (L-CH, R-CH) (SPC1, SPC2)



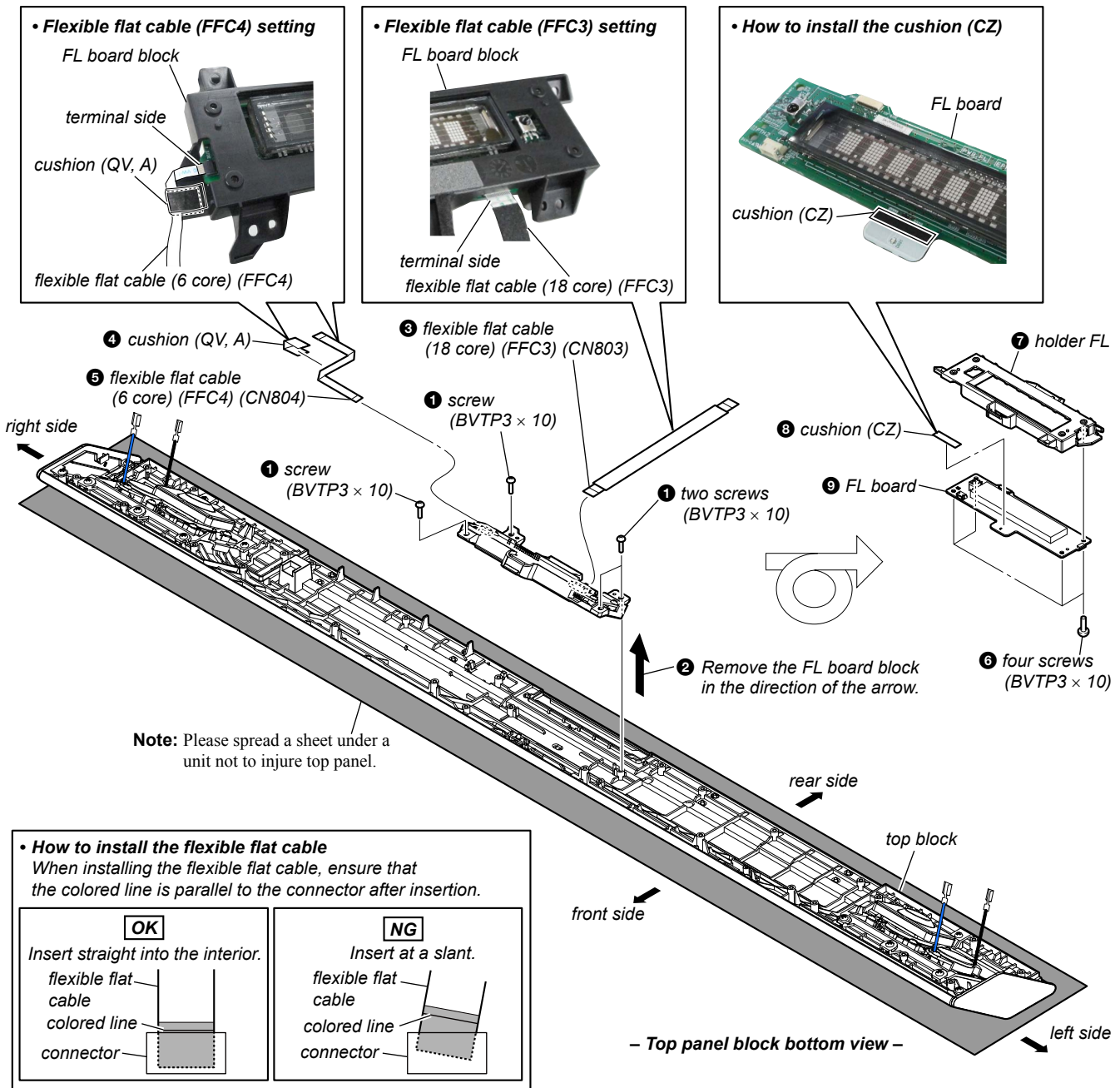
2-4. SPEAKER (60 mm) (L-CH, R-CH) (SP1, SP2), SPEAKER (19 mm) (L-CH, R-CH) (SP3, SP4)



2-5. NFC MODULE (NFC1)

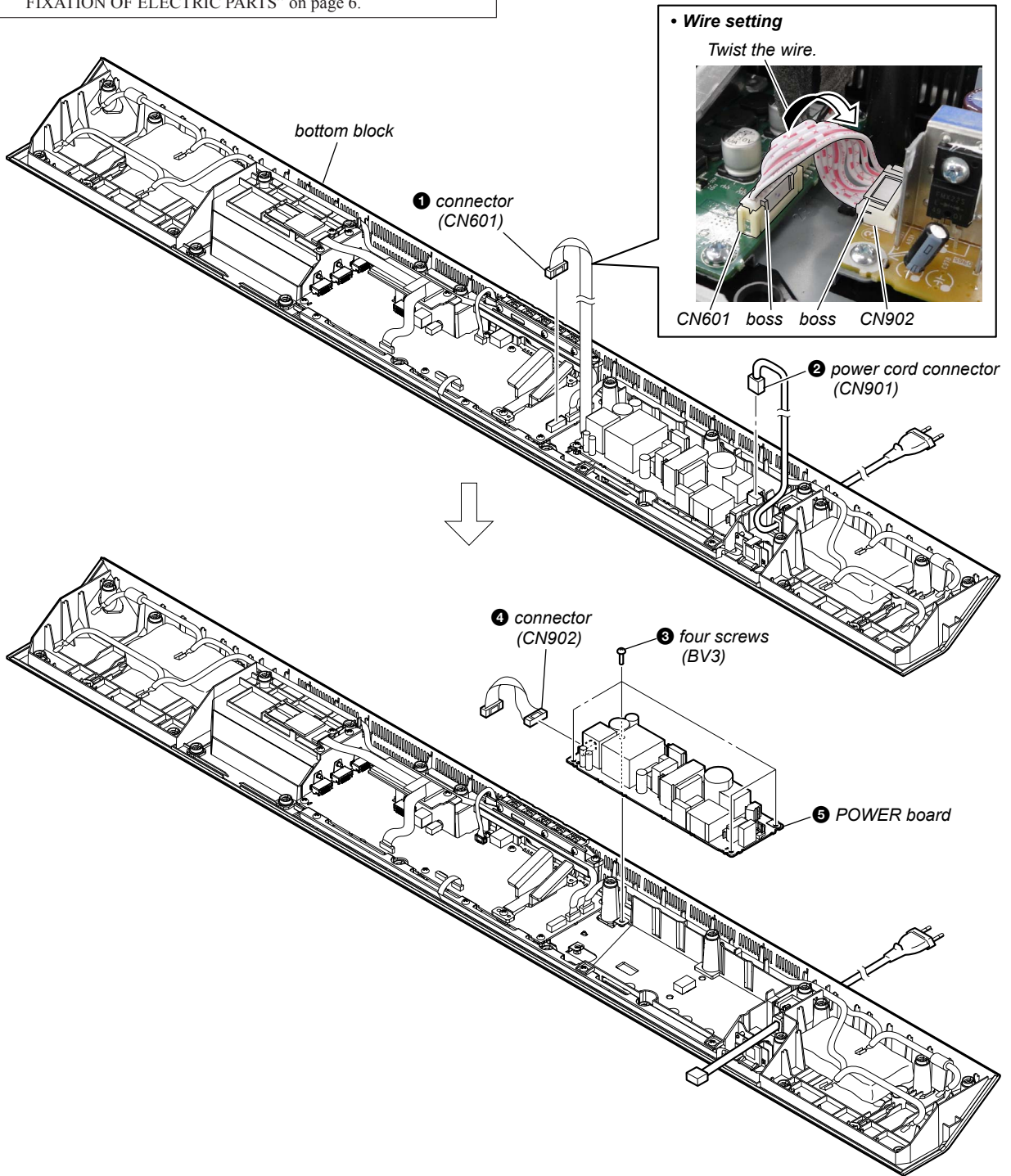


2-6. FL BOARD

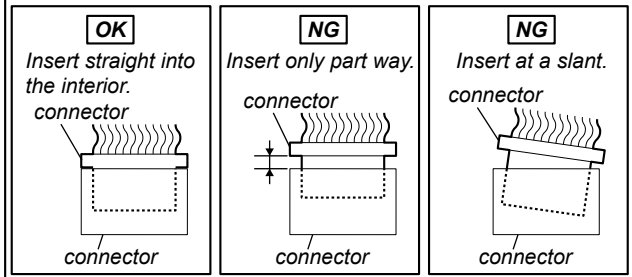


2-7. POWER BOARD

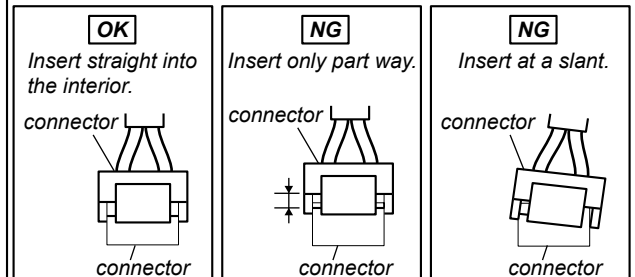
Note: When the complete POWER board is replaced, refer to “BOND FIXATION OF ELECTRIC PARTS” on page 6.



• How to install the connector
 Insert the connector straight into the interior.
 There is a possibility that using this unit without the connector correctly installed will damage it.



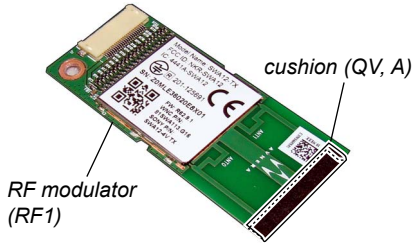
• How to install the power cord connector
 Insert the connector straight into the interior.
 There is a possibility that using this unit without the connector correctly installed will damage it.



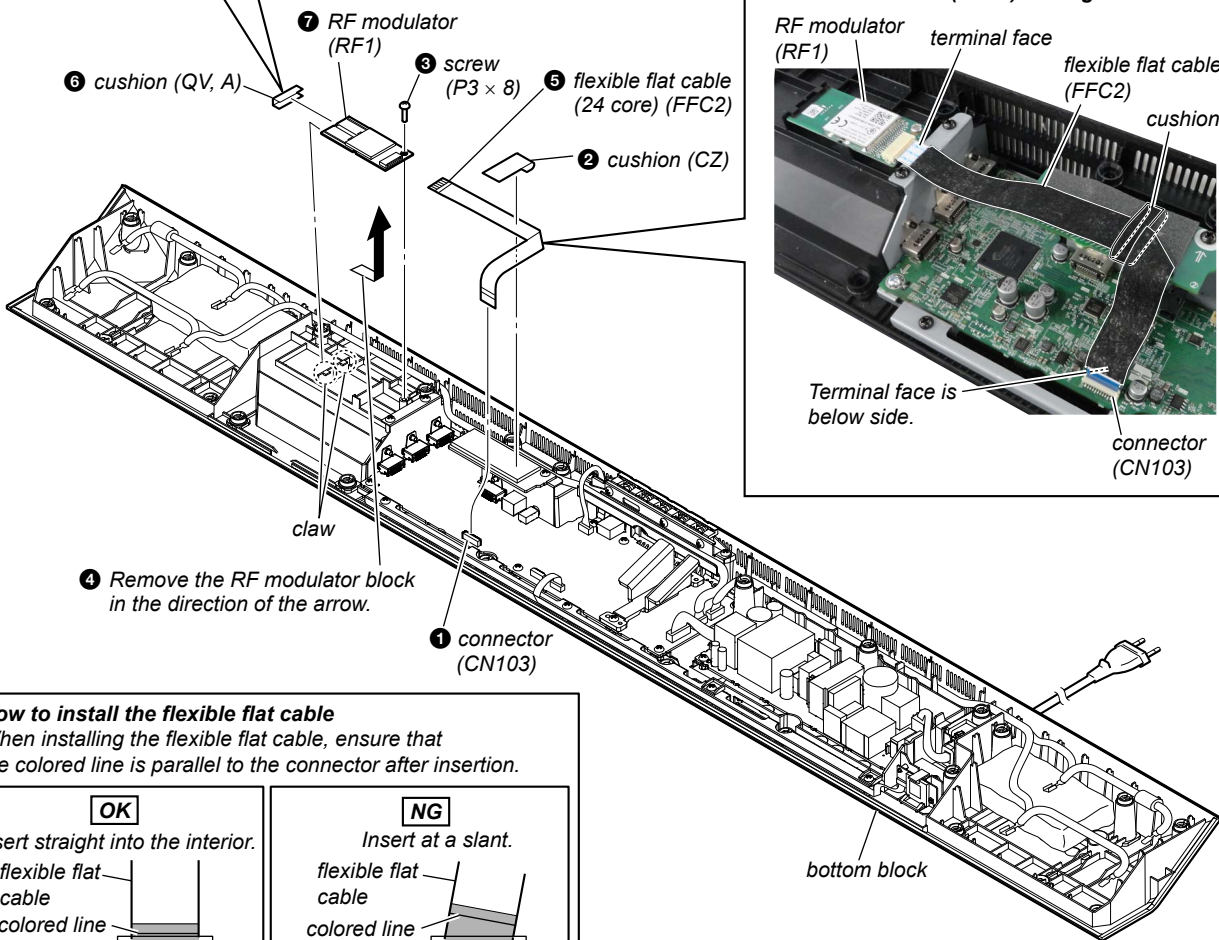
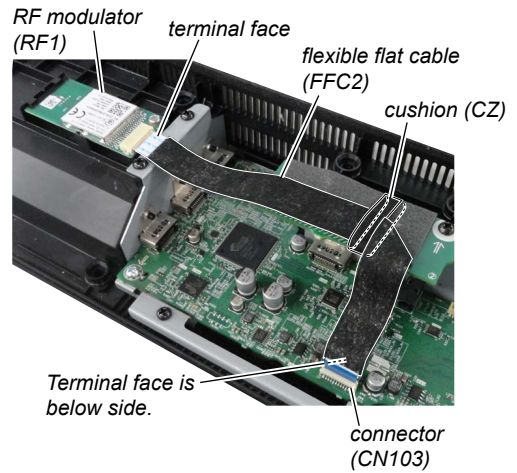
2-8. RF MODULATOR (RF1)

Note: When the RF modulator (Ref. No. RF1) is replaced, refer to “NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE” on page 5.

• How to install the cushion (QV, A)

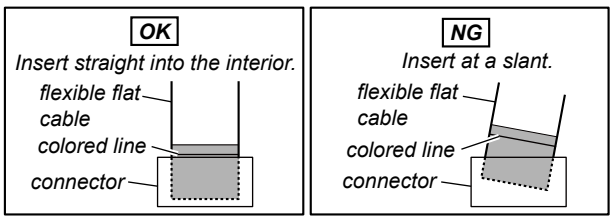


• Flexible flat cable (FFC2) setting

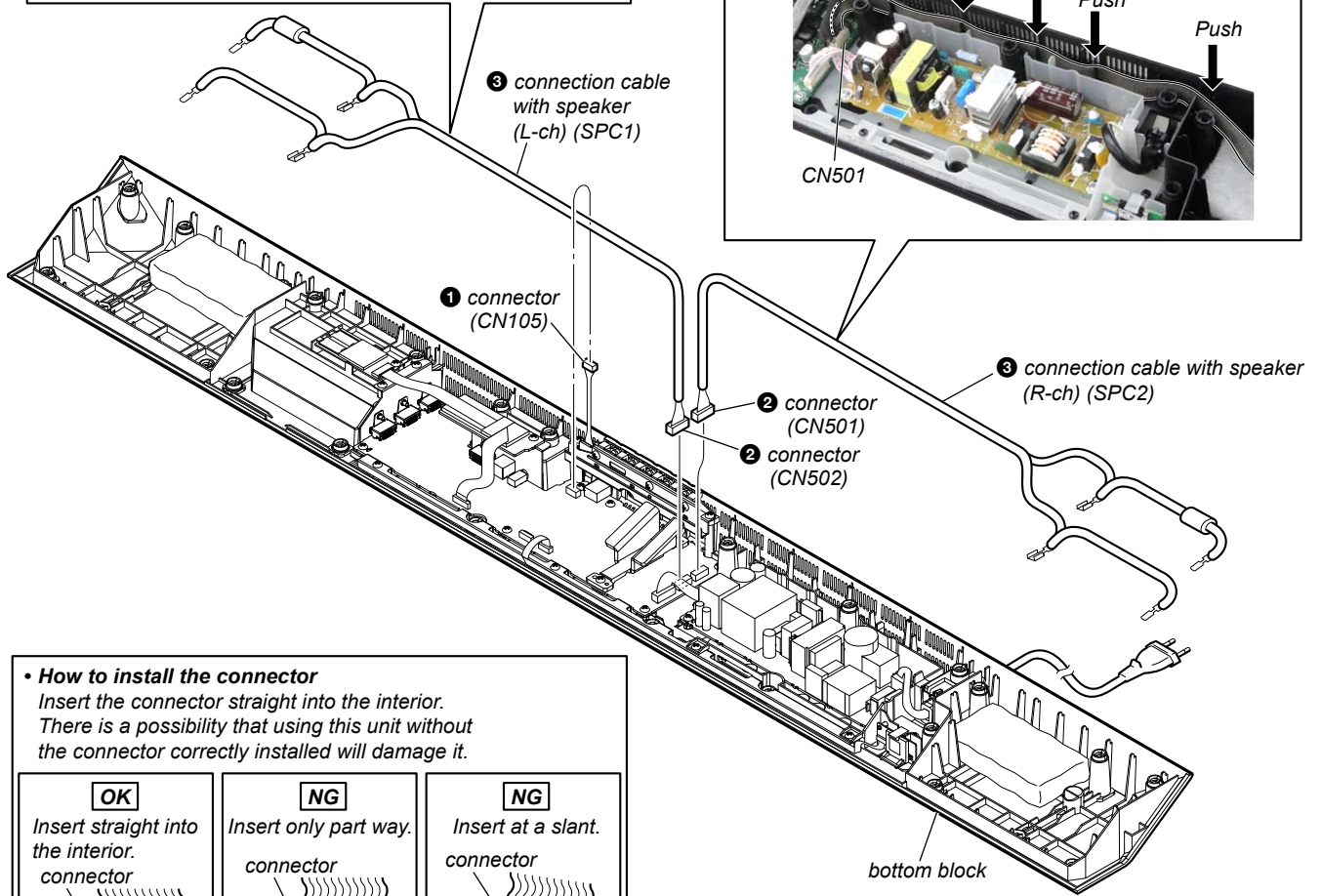
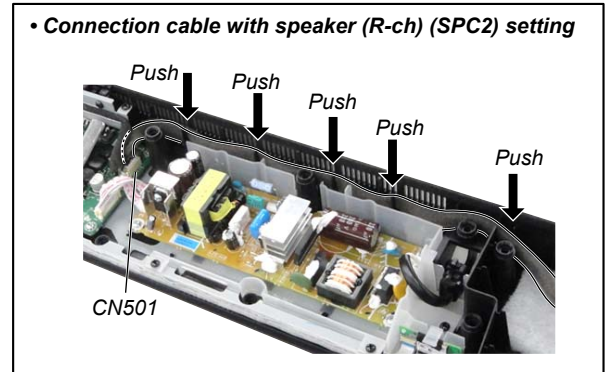
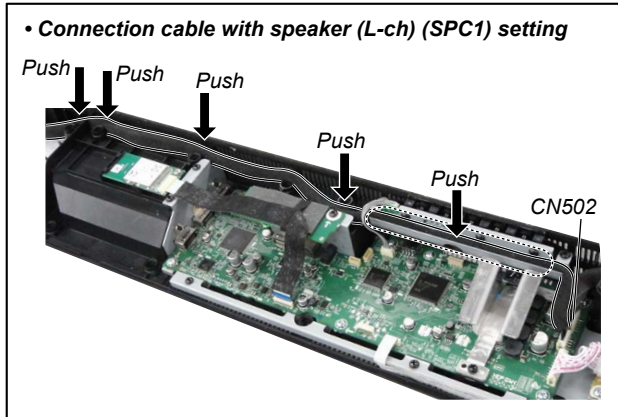


• How to install the flexible flat cable

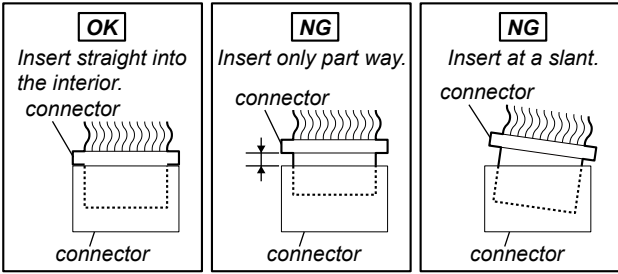
When installing the flexible flat cable, ensure that the colored line is parallel to the connector after insertion.



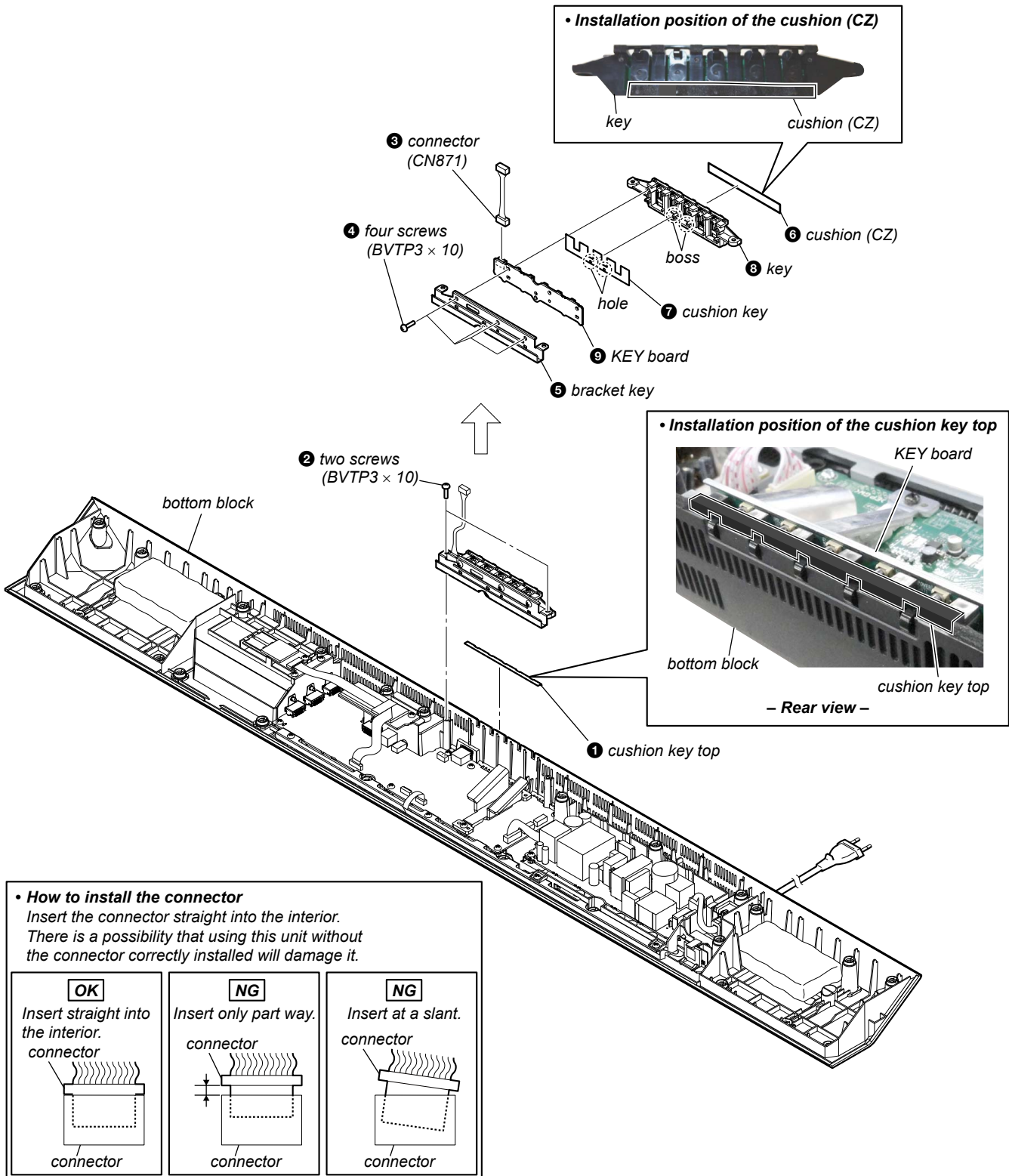
2-9. CONNECTION CABLE WITH SPEAKER (L-CH, R-CH) (SPC1, SPC2)



• How to install the connector
 Insert the connector straight into the interior.
 There is a possibility that using this unit without the connector correctly installed will damage it.



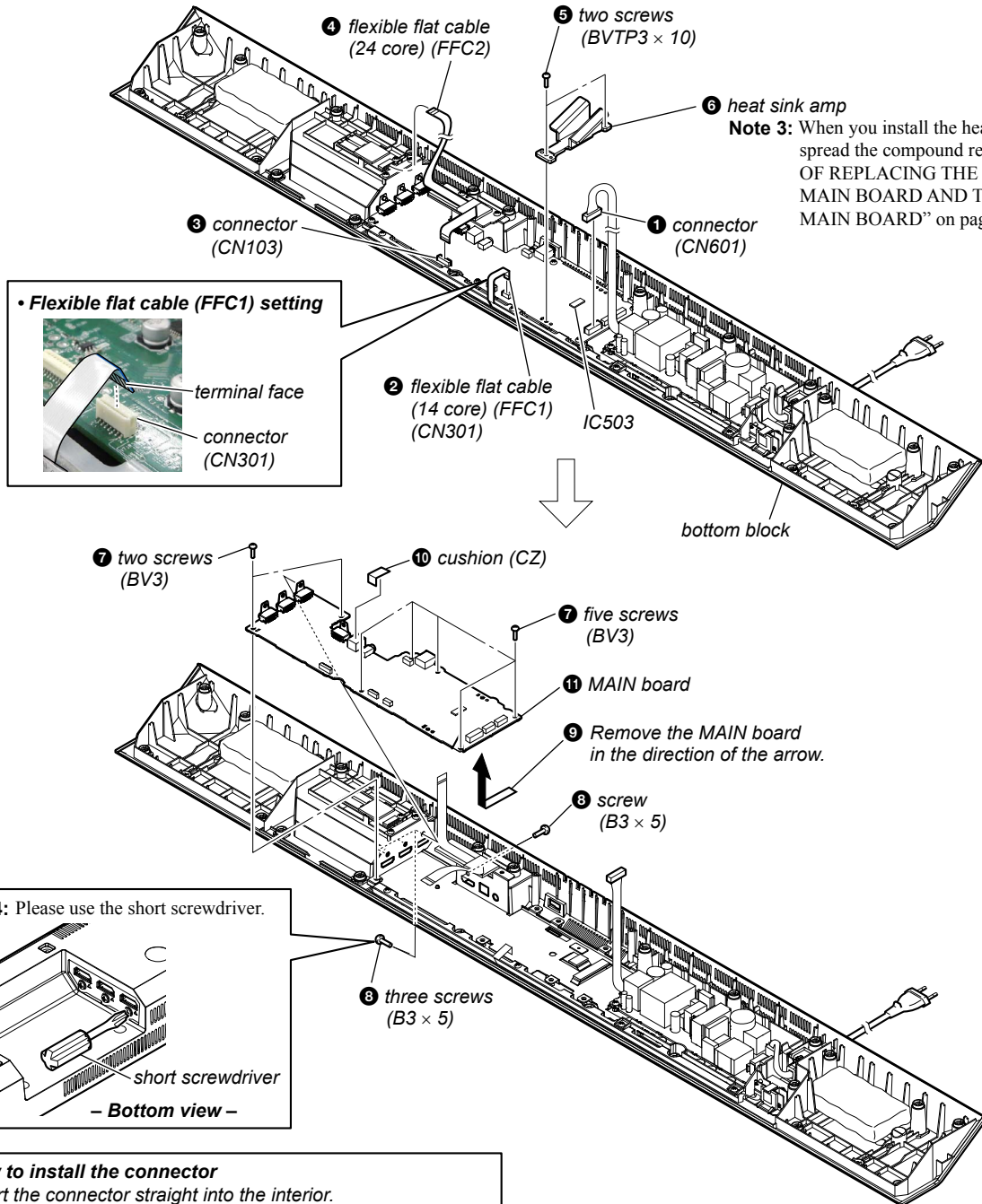
2-10. KEY BOARD, KEY



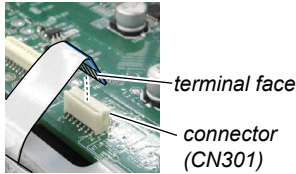
2-11. MAIN BOARD

Note 1: When removing the MAIN board, you need the full length is short screwdriver.
If that has not been available a short screwdriver, remove the MAIN board after removing the bottom chassis block, refer to "2-14. BOTTOM CHASSIS BLOCK" on page 20.

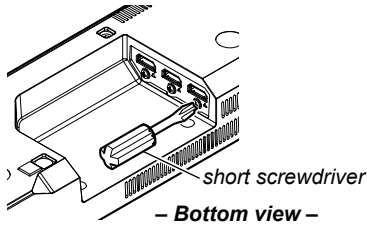
Note 2: When the complete MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" and "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.



• Flexible flat cable (FFC1) setting

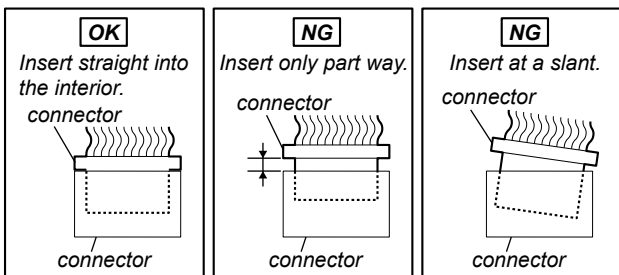


Note 4: Please use the short screwdriver.



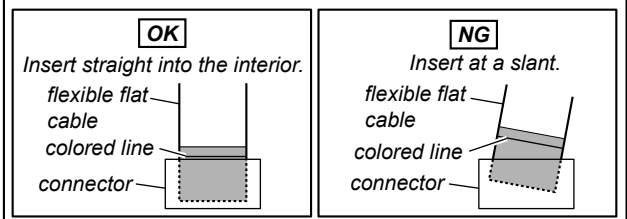
• How to install the connector

Insert the connector straight into the interior.
There is a possibility that using this unit without the connector correctly installed will damage it.



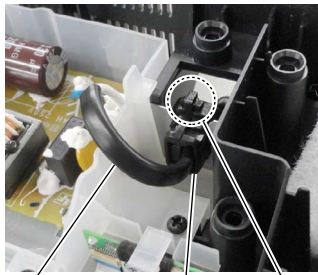
• How to install the flexible flat cable

When installing the flexible flat cable, ensure that the colored line is parallel to the connector after insertion.



2-12. POWER CORD (AC1)

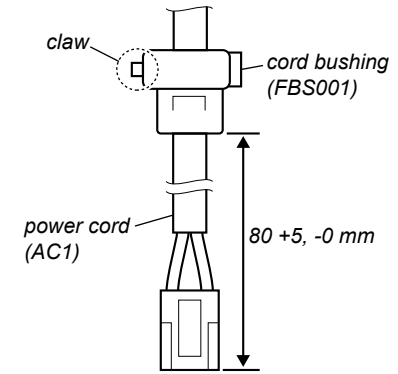
• Cord bushing (FBS001) setting



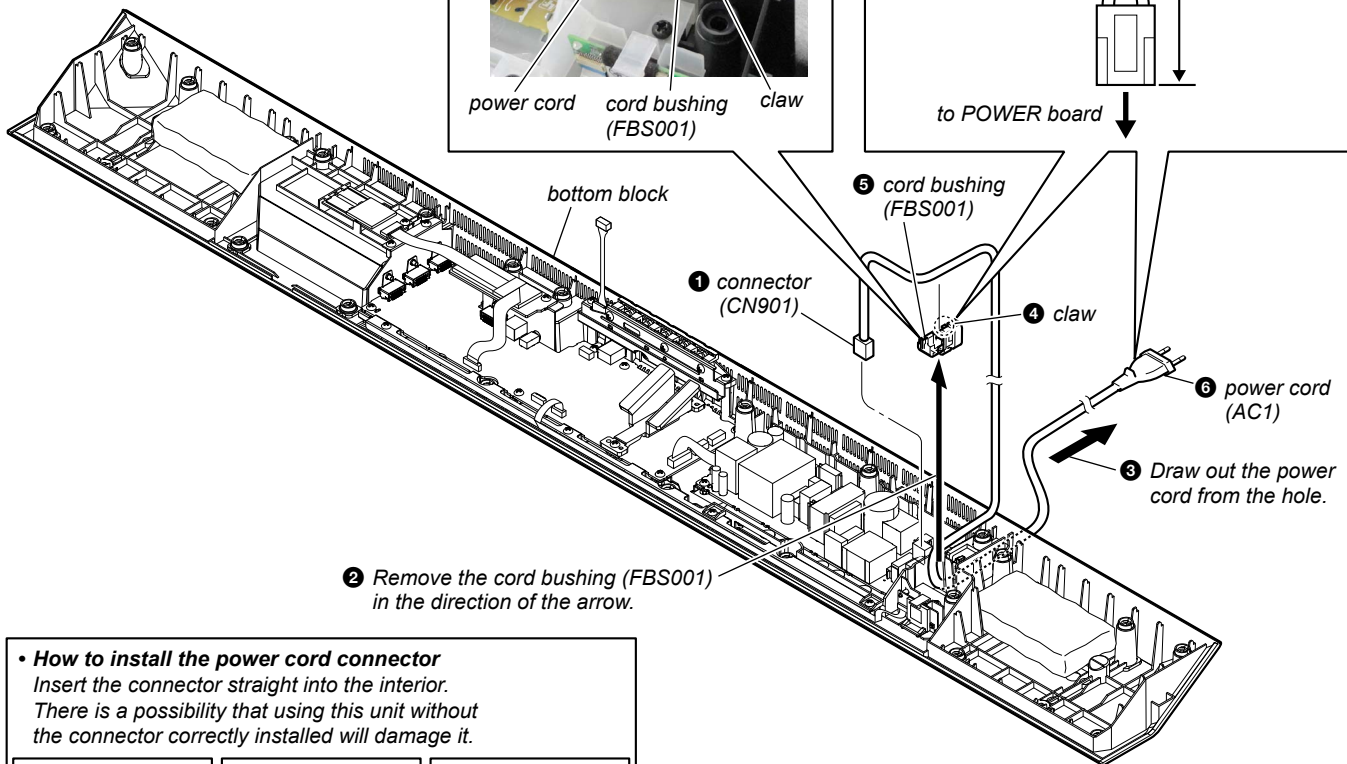
power cord cord bushing (FBS001) claw

• Power cord setting

Note: When installing the power cord (AC1), check the direction of claw of cord bushing (FBS001) and install correctly.

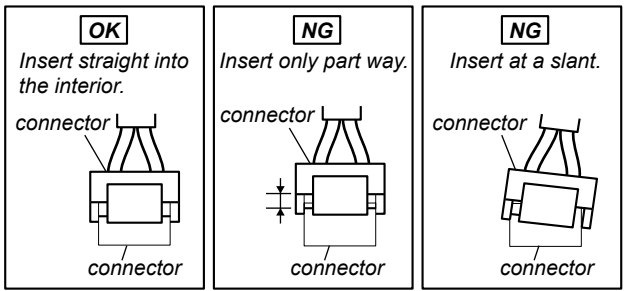


to POWER board ↓



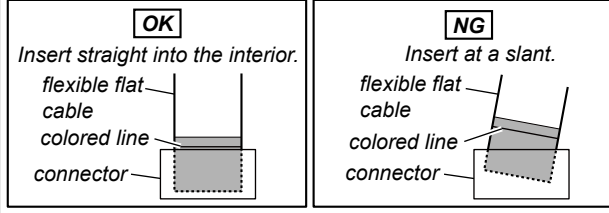
2 Remove the cord bushing (FBS001) in the direction of the arrow.

• How to install the power cord connector
 Insert the connector straight into the interior.
 There is a possibility that using this unit without the connector correctly installed will damage it.

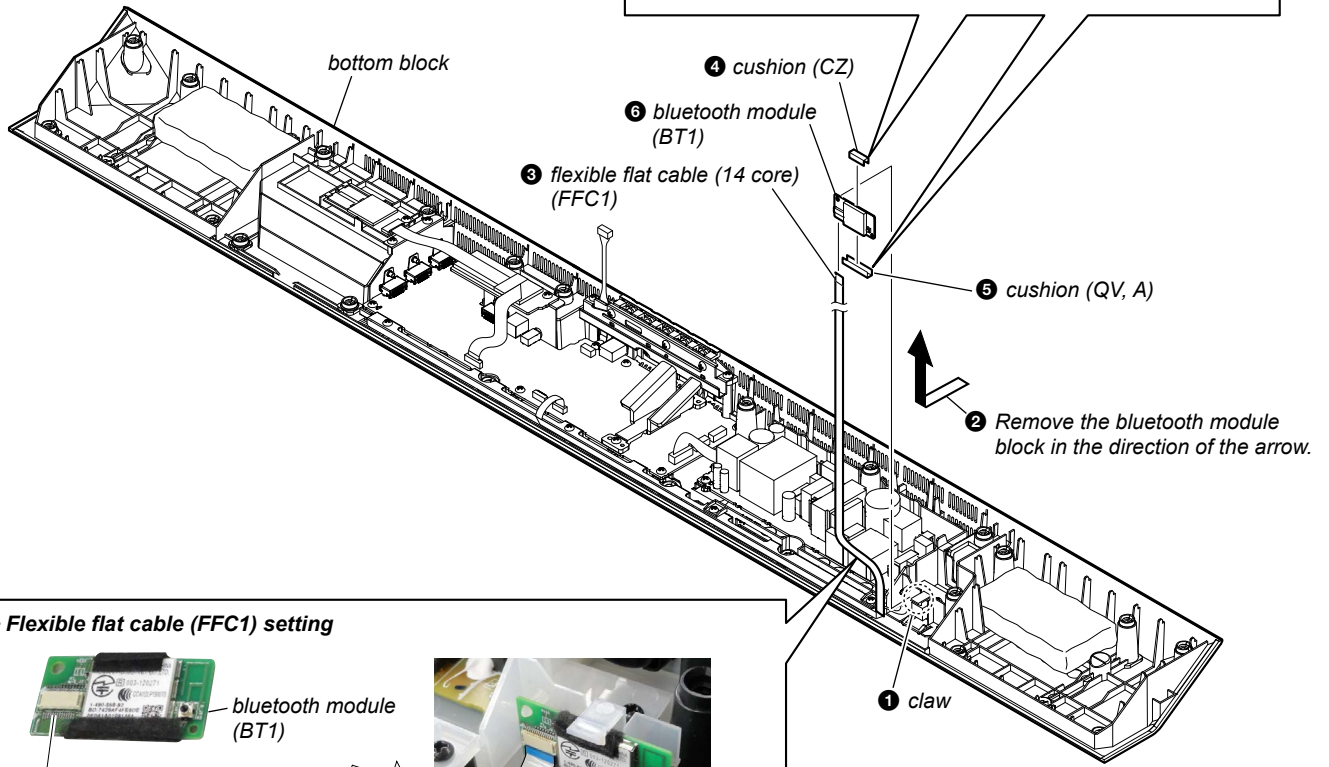
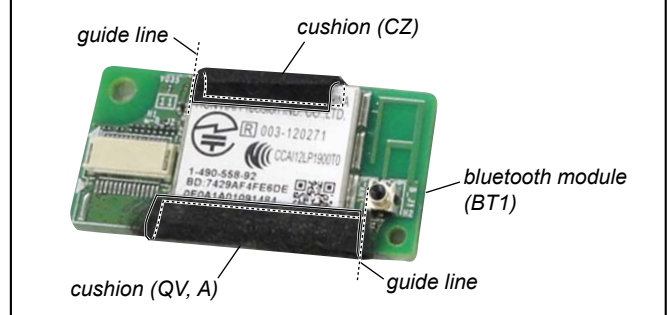


2-13. BLUETOOTH MODULE (BT1)

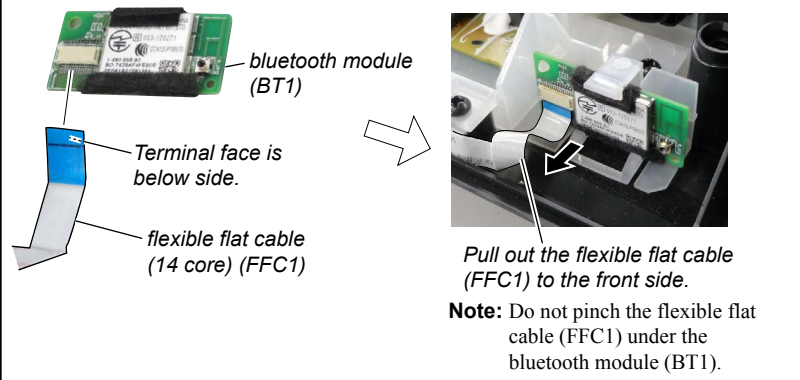
• **How to install the flexible flat cable**
 When installing the flexible flat cable, ensure that the colored line is parallel to the connector after insertion.



• **Installation position of the cushion (CZ) and cushion (QV, A)**



• **Flexible flat cable (FFC1) setting**



2-14. BOTTOM CHASSIS BLOCK

• **How to install the flexible flat cable**
 When installing the flexible flat cable, ensure that the colored line is parallel to the connector after insertion.

OK

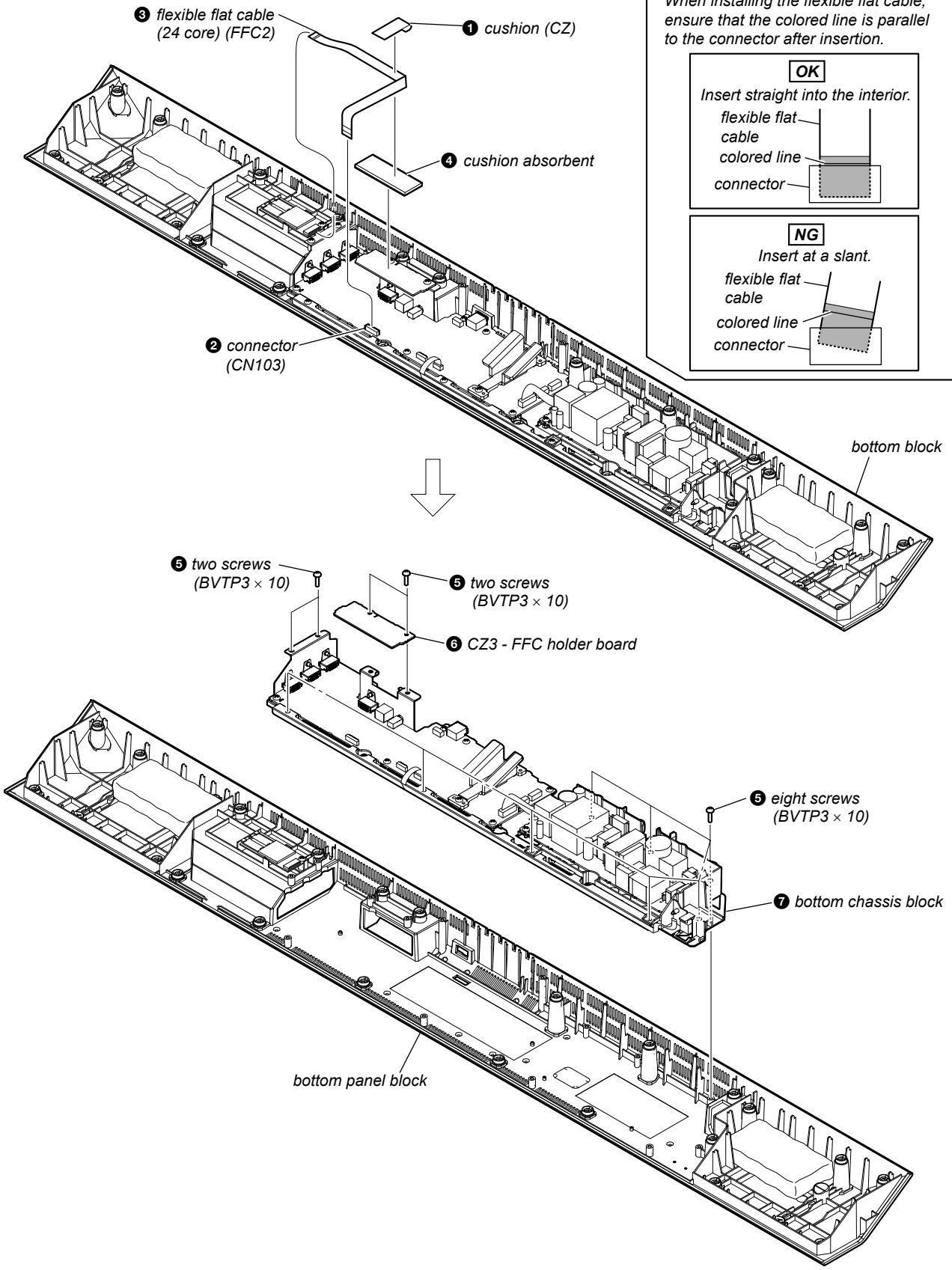
Insert straight into the interior.

flexible flat cable
colored line
connector

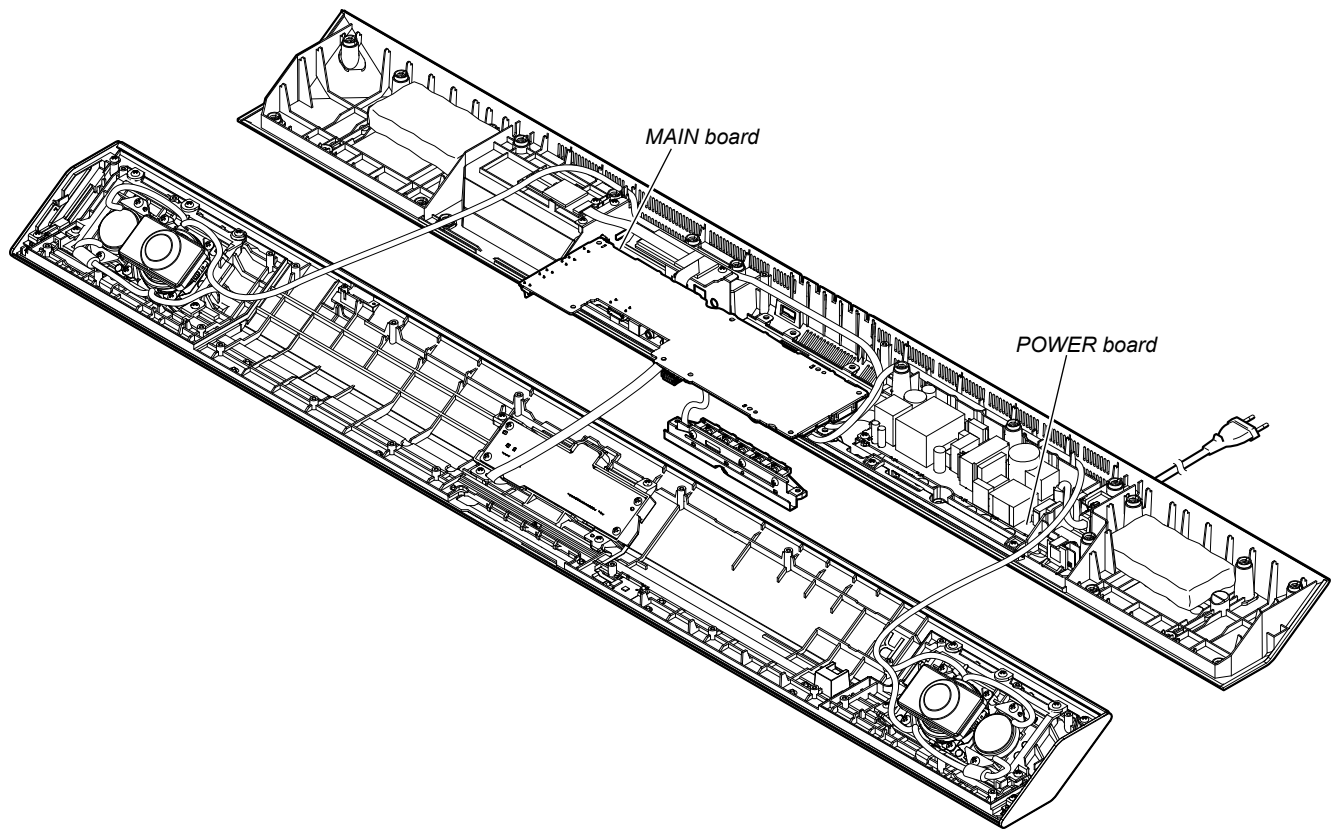
NG

Insert at a slant.

flexible flat cable
colored line
connector



2-15. SERVICE POSITION



SECTION 3 TEST MODE

1. TEST MODES OTHER THAN THE TEST MODE MENU

These are executable test mode even if not entering the test mode menu.

1-1. Cold Reset

It can initialize various backup information.

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [I/⏻] button for ten seconds.
3. The message “RESET” is displayed on the fluorescent indicator tube, then turn the power off.



2. TEST MODES IN THE TEST MODE MENU

These are the test modes done in the test mode menu.

Setting method of the test mode menu:

1. Press the [I/⏻] button to turn the power on.
2. Press the two buttons of the [INPUT] and [VOLUME +] simultaneously for five seconds.
3. The message “PANEL” blinks on the fluorescent indicator tube and enter the test mode menu.



Releasing method of the test mode menu:

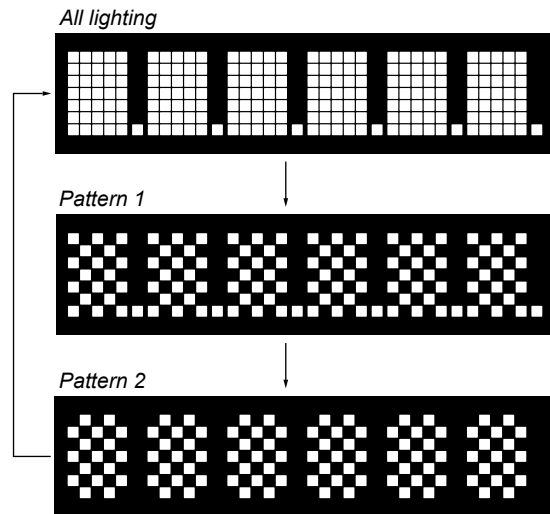
Press the [I/⏻] button to release the test mode menu.

2-1. Panel Test Mode

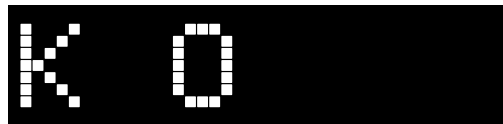
It can check the lighting of fluorescent indicator tube and LED, operation of buttons, display of model name, destination and software version.

Procedure:

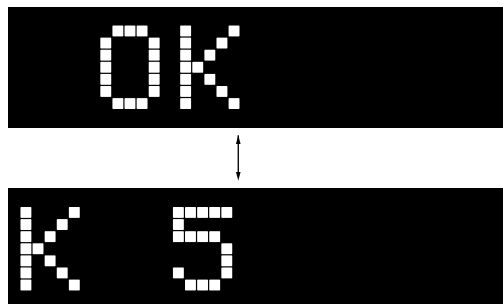
1. Enter the test mode menu.
(Refer to “Setting method of the test mode menu”)
2. In the state of blinking the “PANEL” on the fluorescent indicator tube, press the [INPUT] button.
3. All segments in the fluorescent indicator tube and LED (Bluetooth indicator) are lighted up.
4. When pressing the [VOLUME +] button, the display on the fluorescent indicator tube repeatedly changes in order from all lighting → pattern 1 (Bluetooth indicator lights off) → pattern 2 (Bluetooth indicator lights up).



5. In the state of step 4, press the [VOLUME -] button and “K 0” is displayed on the fluorescent indicator tube.

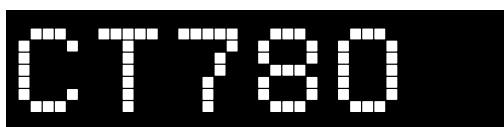


Each time a button is pressed, “K 0” value increases. However, once a button is pressed, it is no longer taken into account. When pressing the all buttons, “OK” and “K 5” are alternately displayed on the fluorescent indicator tube.



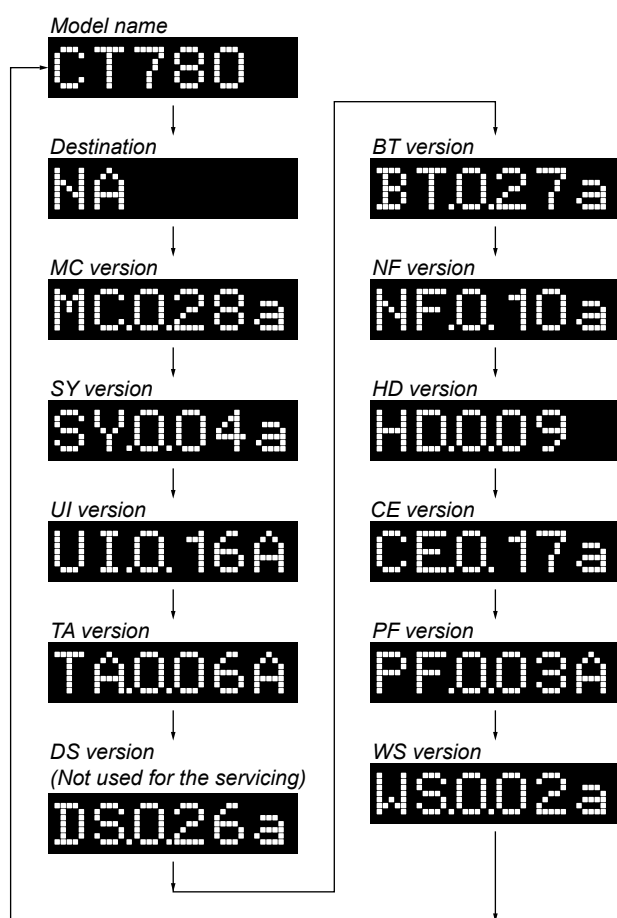
– Continued on next page –

6. In the state of step 4, press the [INPUT] button and model name “CT780” is displayed on the fluorescent indicator tube.



Each time the [VOLUME +] button is pressed, the display changes from destination → MC (μ-com) version → SY (system) version → UI version → TA (AMP) version → DS (DSP) version (Not used for the servicing) → BT (Bluetooth) version → NF (NFC) version → HD (HDMI) version, → CE (CEC) version → PF (platform) version → WS (wireless sound) version in this order, and returns to the model name display.

Note: Refer to the “2-5. Serial Flash Version Display Mode” and “2-6. DSP Sound Number Display Mode” for the DS (DSP) version on page 24.



(Displayed characters/values in the above figure are example)

Destination	Display
Except AEP and UK models	NA
AEP and UK models	CE2

7. When [INPUT] button is pressed while the each version is displayed on the fluorescent indicator tube, year, month and day of the software creation is displayed on the fluorescent indicator tube.



(Displayed values in the above figure are example)

When [INPUT] button is pressed again, the display returns to the each version display.

Releasing method:

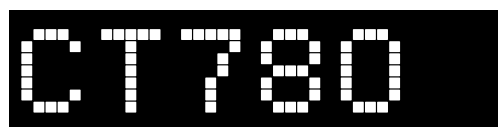
Press the [I/⏻] button to release the test mode menu. (When the “K 0” to “K 4” is displayed on the fluorescent indicator tube, press the [I/⏻] button on the remote commander to release the test mode menu)

2-2. Model Name Display Mode

It can display the model name.

Procedure:

1. Enter the test mode menu. (Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the model name “CT780”.



2-3. Destination Display Mode

It can display the destination.

Procedure:

1. Enter the test mode menu. (Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the destination.



(Displayed characters in the above figure are example)

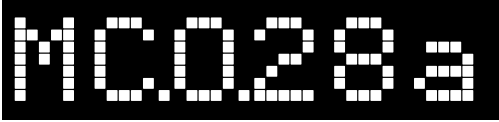
Destination	Display
Except AEP and UK models	NA
AEP and UK models	CE2

2-4. MC Version Display Mode

It can display the MC (μ -com) version.

Procedure:

1. Enter the test menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “MC.X.XXX” (X.XXX: MC (μ -com) version).



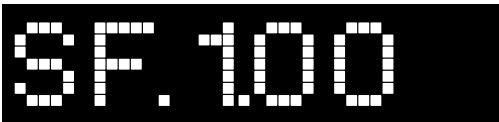
(Displayed values in the above figure are example)

2-5. Serial Flash Version Display Mode

It can display the SF (serial flash) version.

Procedure:

1. Enter the test menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “SF.X.XX” (X.XX: SF (serial flash) version).



(Displayed values in the above figure are example)

2-6. DSP Sound Number Display Mode

It can display the SN (DSP sound number).

Procedure:

1. Enter the test menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “SN XXX” (XXX: DSP sound number (000 to 998)).



(Displayed values in the above figure are example)

Note: “SN ---” is displayed when the information of serial flash is not able to be acquired.

2-7. BT Module F/W Version Display Mode

It can display the BT (Bluetooth) module firmware version.

Procedure:

1. Enter the test menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “BTM.X.XX” (X.XX: BT (Bluetooth) module firmware version).



(Displayed values in the above figure are example)

2-8. AMP Test Mode

(It is displayed “AMP” on the fluorescent indicator tube)

Not used for the servicing.

Press the [I/⏻] button if having entered this mode.

2-9. Tone Test Mode

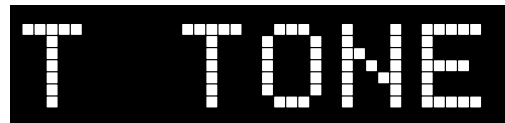
It can check the test tone output from each speaker.

Preparation:

Connect the Bar Speaker (SA-CT780) and the Subwoofer (SA-WCT780) by wireless.

Procedure:

1. Enter the test mode menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “T TONE”, press the [INPUT] button.



3. The message “TONE.ON” is displayed on the fluorescent indicator tube momentarily and enter the tone test mode.



4. The output speaker is displayed on the fluorescent indicator tube. At the same time, test tone is output from speaker. (The output speaker repeatedly changes automatically in following order)

Output speaker	Display
Front L-ch	FL
Front R-ch	FR
Subwoofer	SW

Releasing method:

Press the [I/⏻] button to release the test mode menu.

2-10. Speaker Test Mode

(It is displayed “SPK.TST” on the fluorescent indicator tube)

Not used for the servicing.

Press the [I/⏻] button if having entered this mode.

2-11. VACS Display Mode

(It is displayed “V. DISP” on the fluorescent indicator tube)

Not used for the servicing.

Press the [I/⏻] button if having entered this mode.

2-12. VACS ON/OFF Mode

(It is displayed “V.ONOFF” on the fluorescent indicator tube)

Not used for the servicing.

Press the [I/⏻] button if having entered this mode.

2-13. DSP Halt Mode

(It is displayed “DSP.HLT” on the fluorescent indicator tube)

Not used for the servicing.

Press the [I/⏻] button if having entered this mode.

2-14. SW Distance Test Mode

(It is displayed “SW.DIST” on the fluorescent indicator tube)
Not used for the servicing.
Press the [1/⏻] button if having entered this mode.

2-15. HDCP Key Read Mode

(It is displayed “HDCP” on the fluorescent indicator tube)
Not used for the servicing.
Press the [1/⏻] button if having entered this mode.

2-16. NFC Test Mode

(It is displayed “NFC.TST” on the fluorescent indicator tube)
Not used for the servicing.
Press the [1/⏻] button if having entered this mode.

2-17. USB Test Mode

It can check the communication line for the between μ -com and USB.

Procedure:

1. Enter the test mode menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “USB.TST”, press the [INPUT] button.

3. A few seconds later, the check result of the communication line for the between μ -com and USB (“USB OK” or “USB NG”) is displayed on the fluorescent indicator tube.

or

Releasing method:

Press the [1/⏻] button to release the test mode menu.

2-18. Auto Standby Test Mode

(It is displayed “T. STBY” on the fluorescent indicator tube)
Not used for the servicing.
Press the [1/⏻] button if having entered this mode.

2-19. Wireless Sound Test Mode

It can display the μ -com version of Subwoofer (SA-WCT780).

Note :More than one item may be displayed on the fluorescent indicator tube, but it is not used for the servicing other than “VER.CHE”.

Preparation:

- Prepare the remote commander (RMT-AH101U) attached to this unit.
- Connect the Bar Speaker (SA-CT780) and the Subwoofer (SA-WCT780) by wireless.

Procedure:

1. Enter the test mode menu.
(Refer to “Setting method of the test mode menu” on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the “WS TST”, press the [INPUT] button.

3. The message “FACTRY” is displayed on the fluorescent indicator tube and enter the wireless sound test mode.

4. Press the [▲]/[▼] buttons on the remote commander, select the “VER.CHE”, and press the [ENTER] button on the remote commander.

5. The μ -com version of Subwoofer (SA-WCT780) is displayed on the fluorescent indicator tube.

(Displayed values in the above figure are example)

6. When [▲]/[▼] buttons on the remote commander is pressed while the μ -com version of Subwoofer (SA-WCT780) is displayed on the fluorescent indicator tube, year, month and day of the creation is displayed on the fluorescent indicator tube.

(Displayed values in the above figure are example)

When [▲]/[▼] buttons on the remote commander is pressed again, the display returns to the μ -com version of Subwoofer (SA-WCT780) display.

Releasing method:

Press the [1/⏻] button to release the test mode menu.

2-20. Wireless Sound Cold Reset

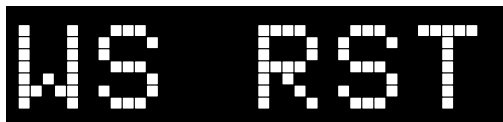
It can initialize various backup information of Subwoofer (SA-WCT780).

Preparation:

Connect the Bar Speaker (SA-CT780) and the Subwoofer (SA-WCT780) by wireless.

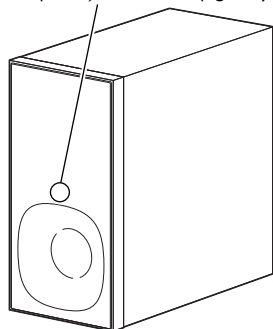
Procedure:

1. Enter the test mode menu.
(Refer to "Setting method of the test mode menu" on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the "WS RST", press the [INPUT] button.



3. The on/standby indicator on the Subwoofer (SA-WCT780) turns red and flashes, then turns on yellow.

*on/standby indicator
Red (flash) → Yellow (light up)*



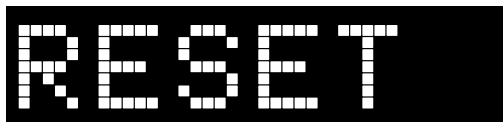
4. Pull out the power cord on the Subwoofer (SA-WCT780) from an outlet and insert the power cord again.

2-21. Cold Reset

It can initialize various backup information.

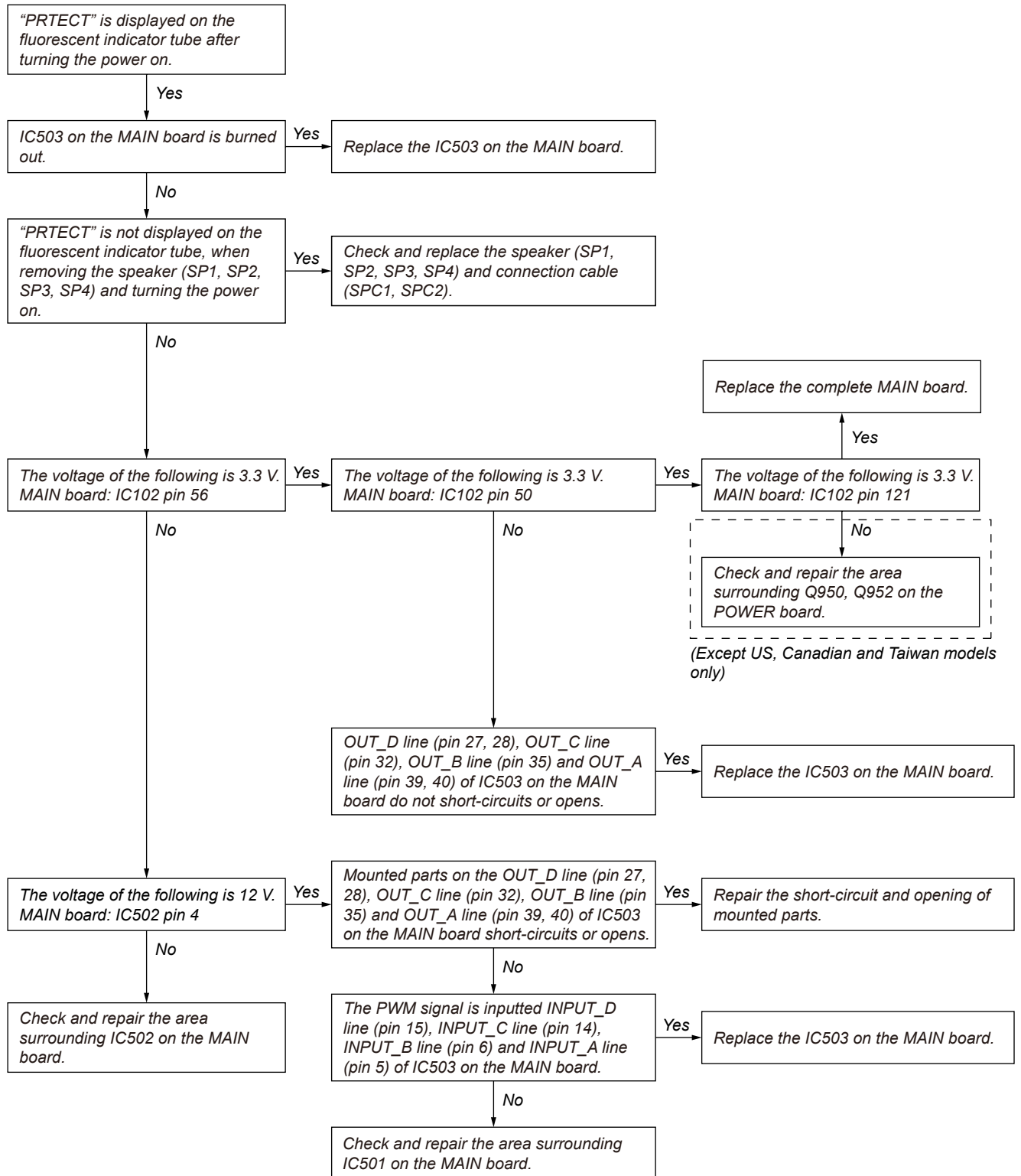
Procedure:

1. Enter the test mode menu.
(Refer to "Setting method of the test mode menu" on page 22)
2. Press the [VOLUME +]/[VOLUME -] buttons to select the "RESET", press the [INPUT] button.
3. The message "RESET" is displayed on the fluorescent indicator tube, then turn the power off.

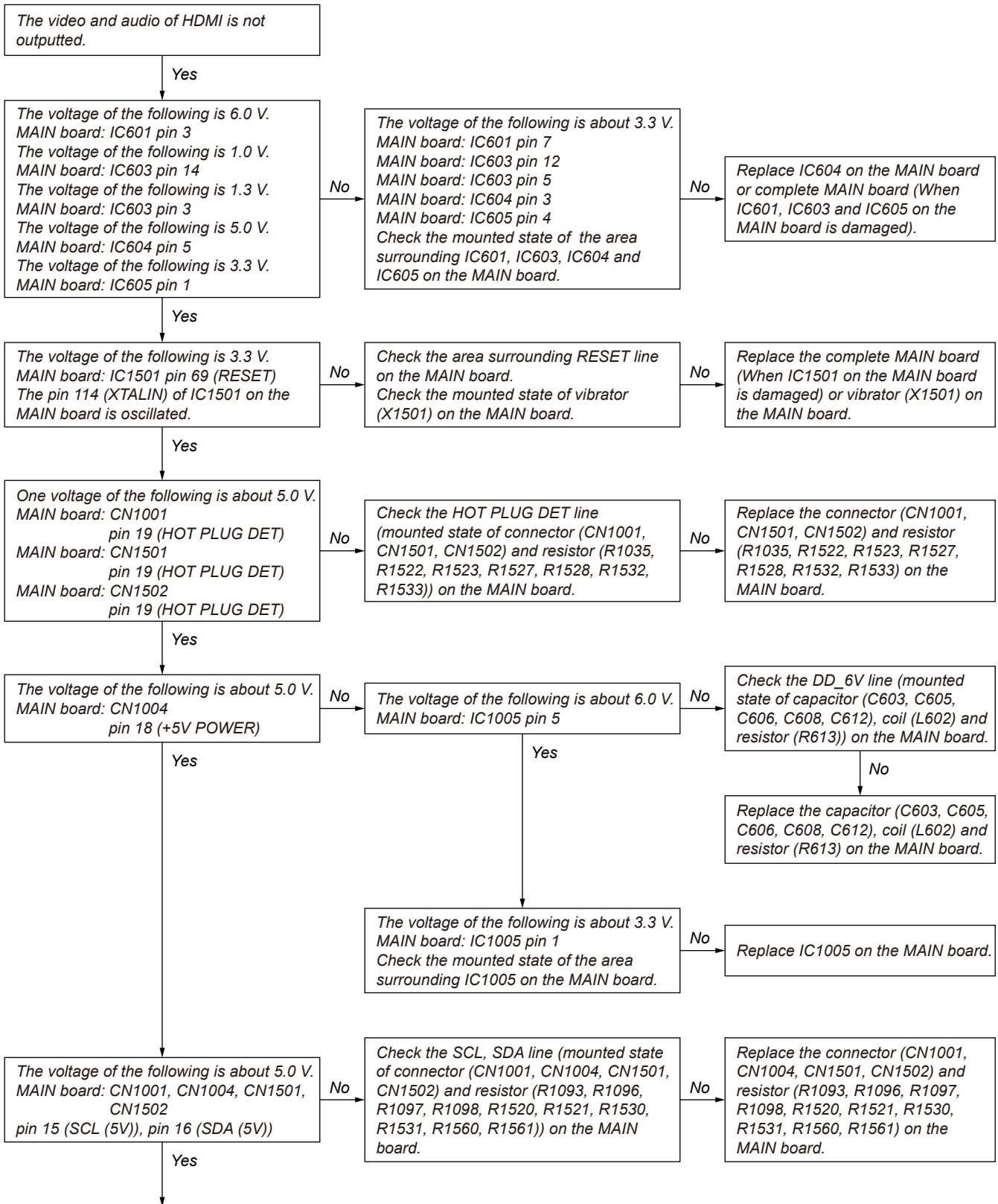


SECTION 4 TROUBLESHOOTING

1. "PRTECT" is displayed on the fluorescent indicator tube after turning the power on

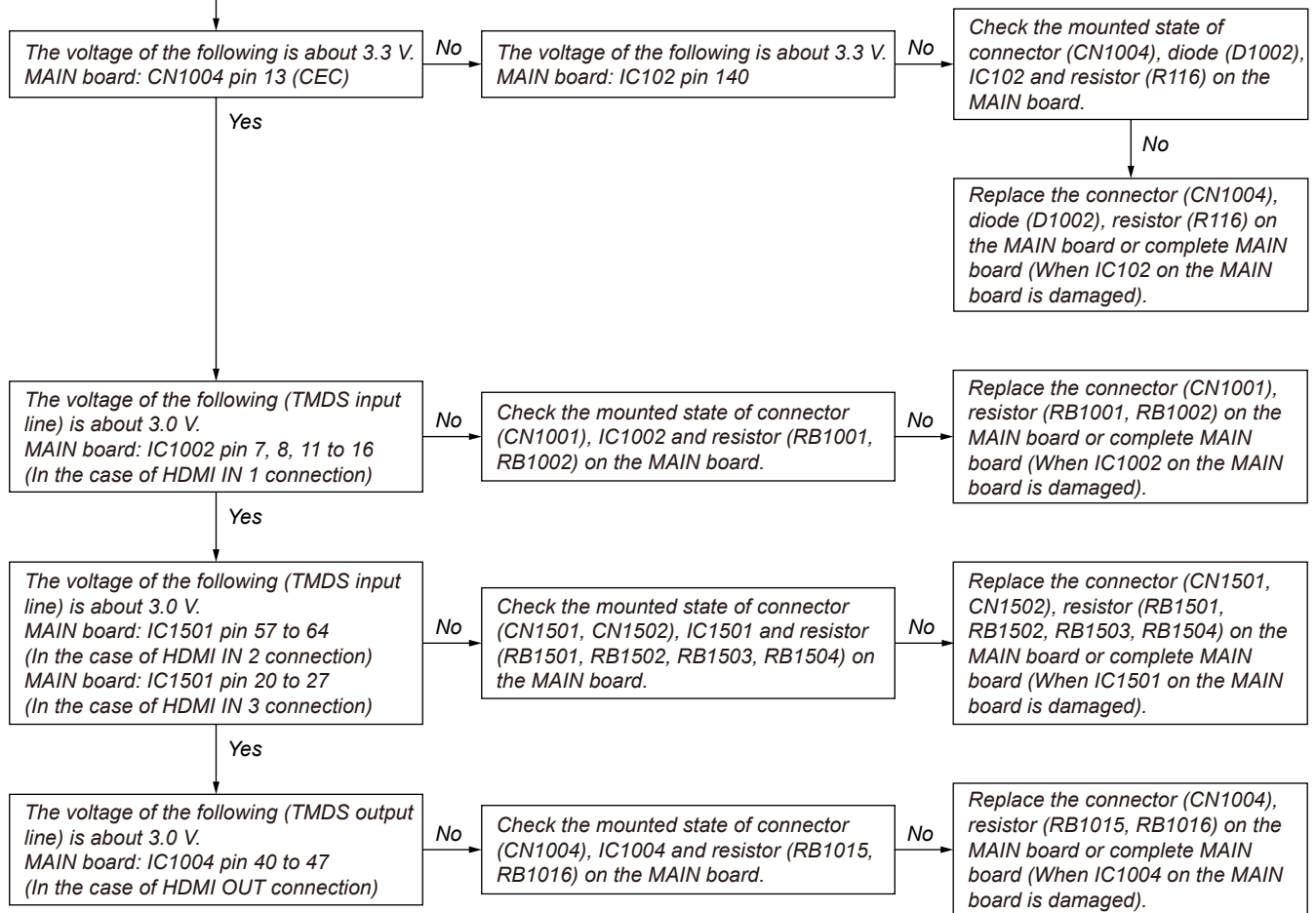


2. The video and audio of HDMI is not outputted

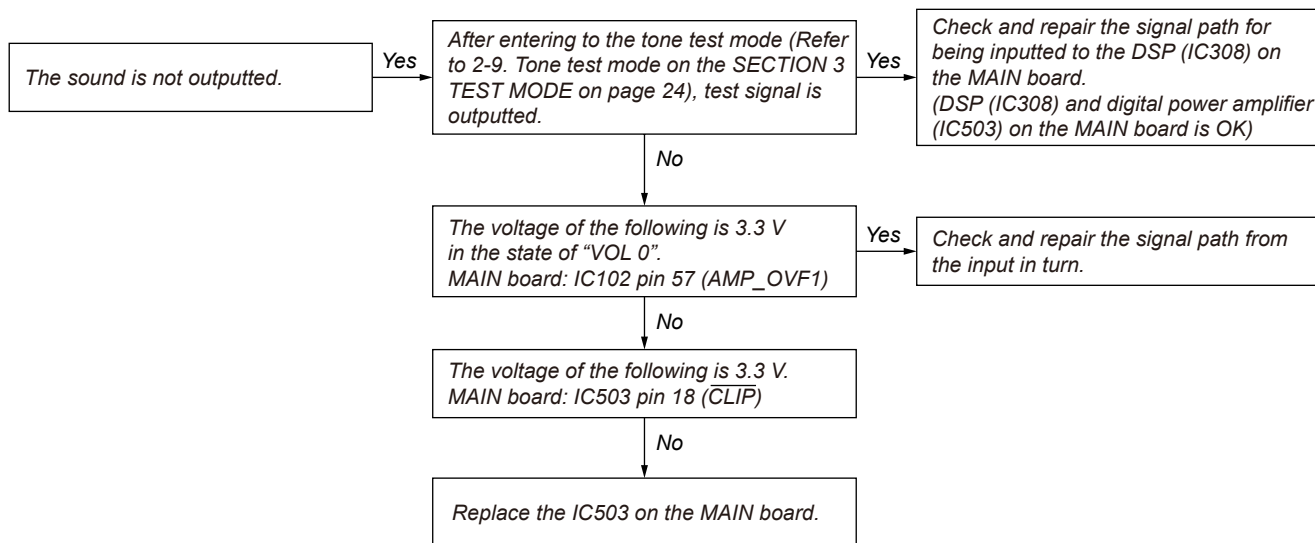


- Continued on page 29 -

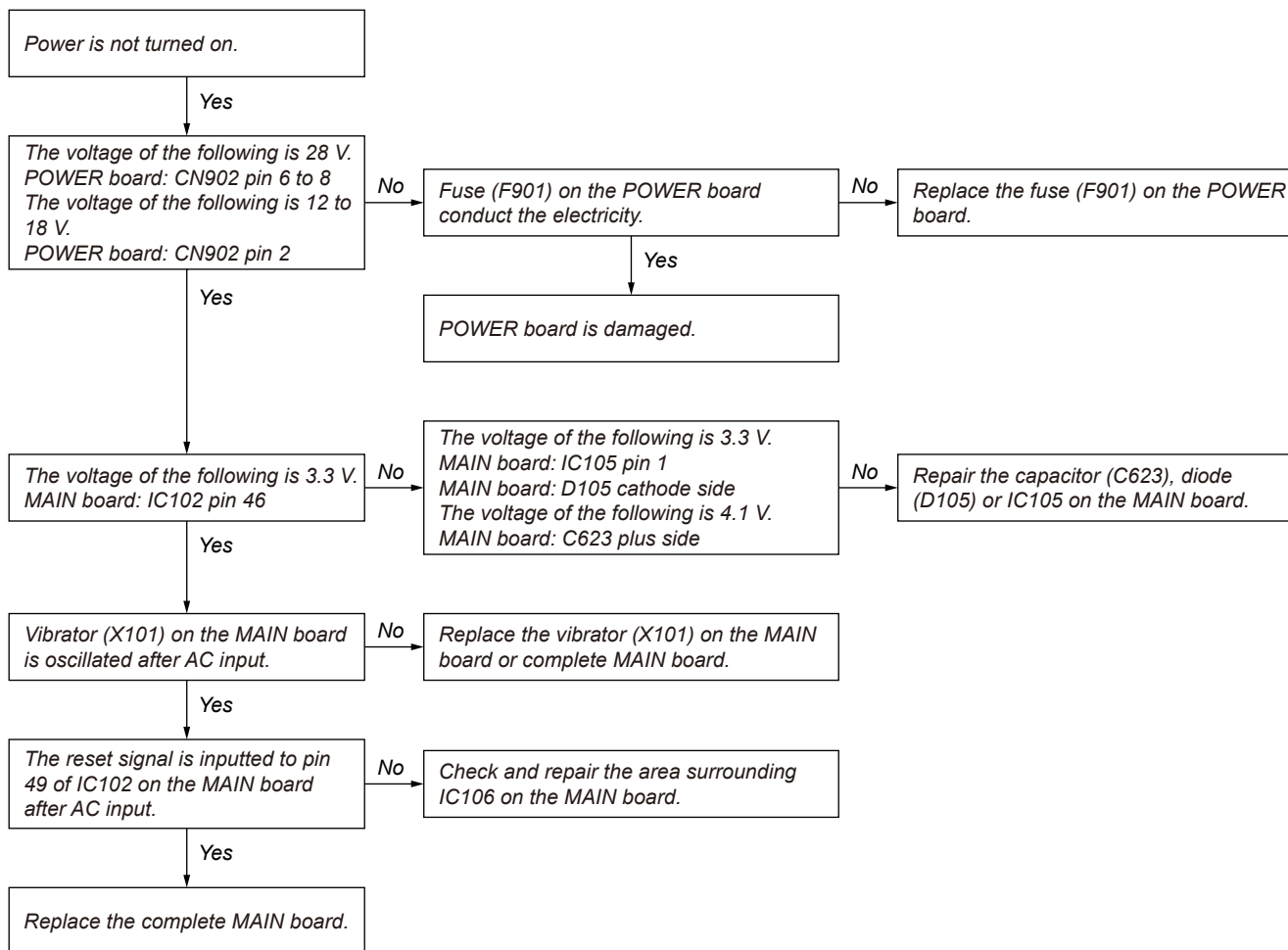
– From page 28 –



3. The sound is not outputted

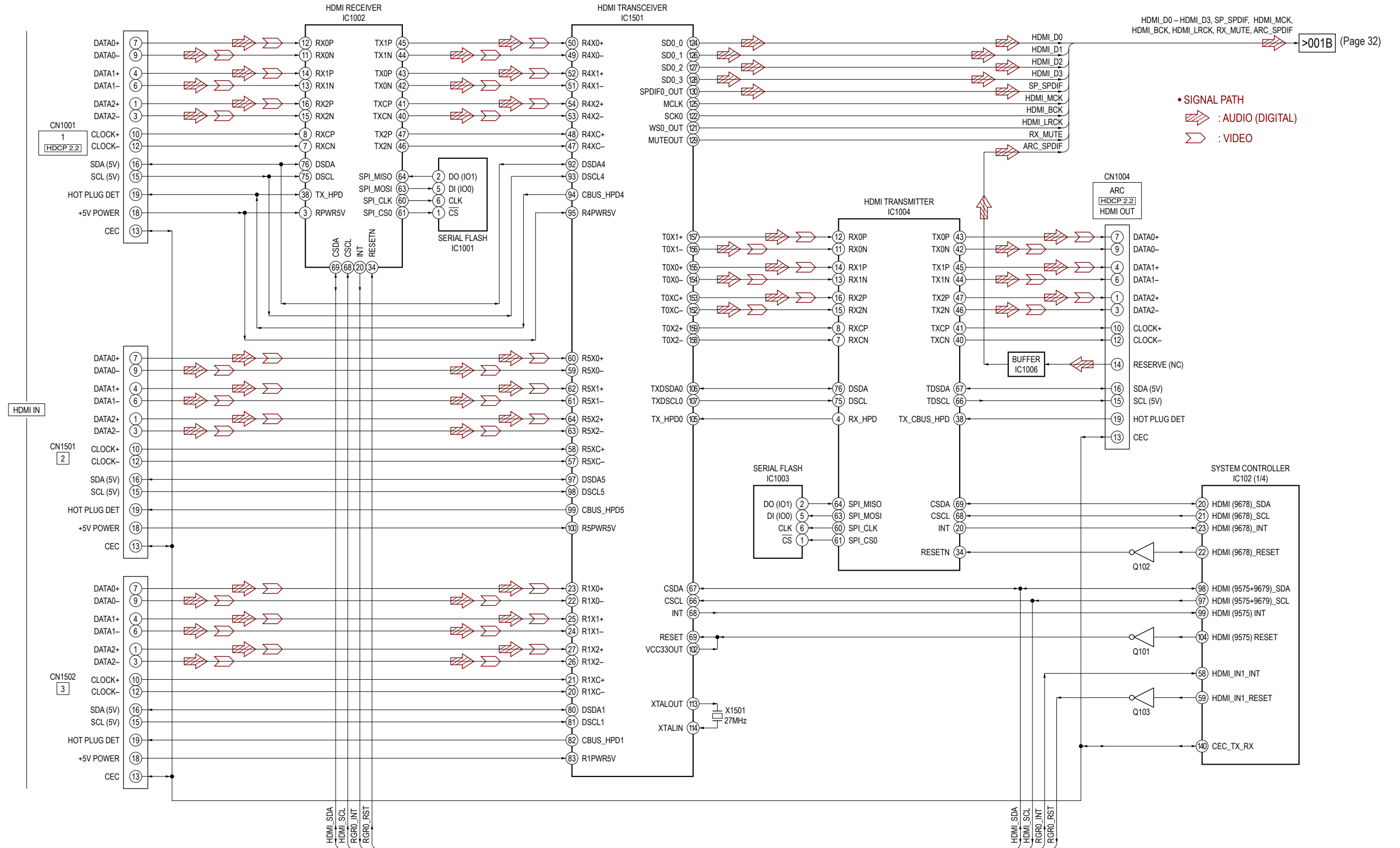


4. Power is not turned on

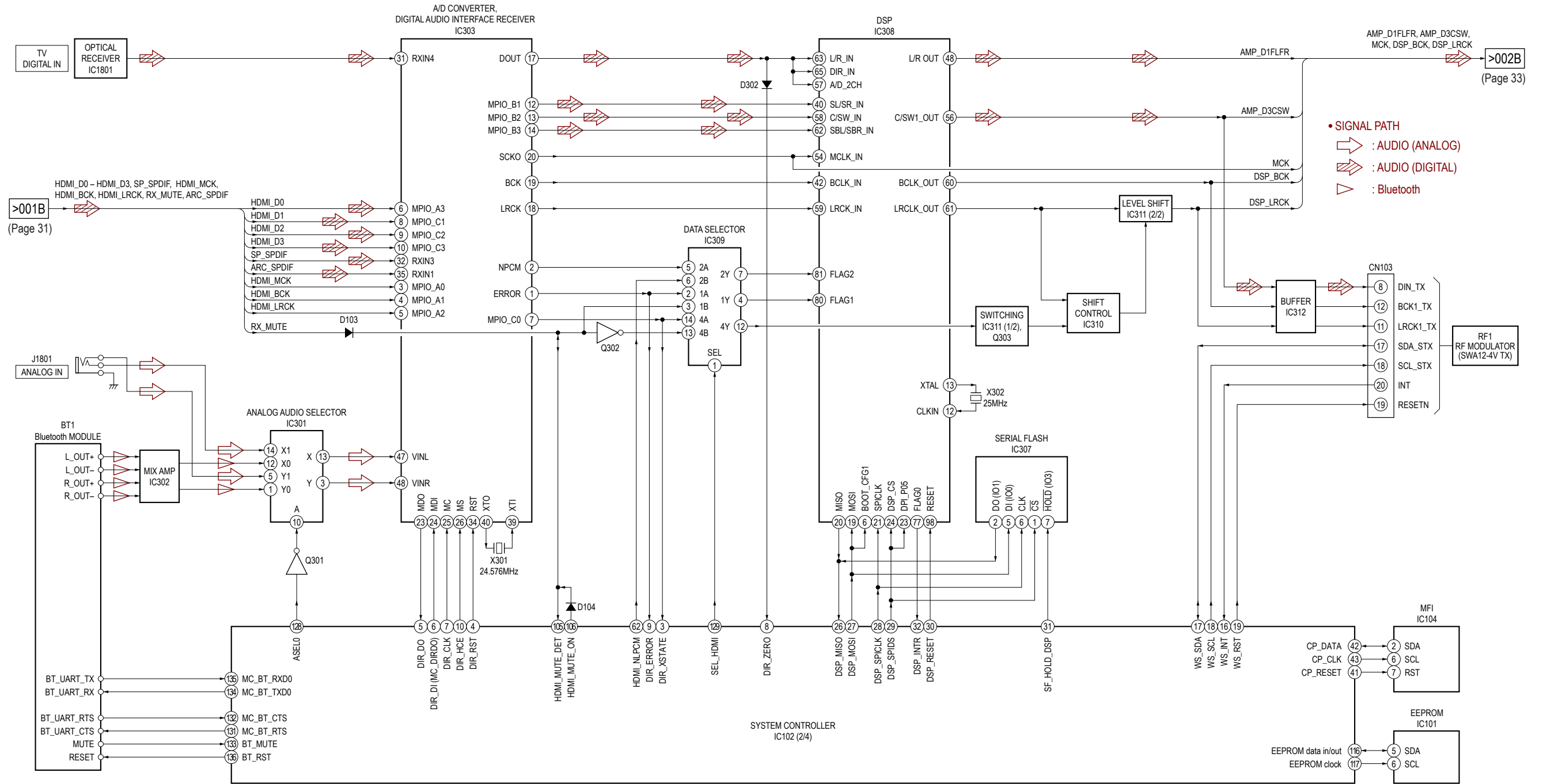


SECTION 5
DIAGRAMS

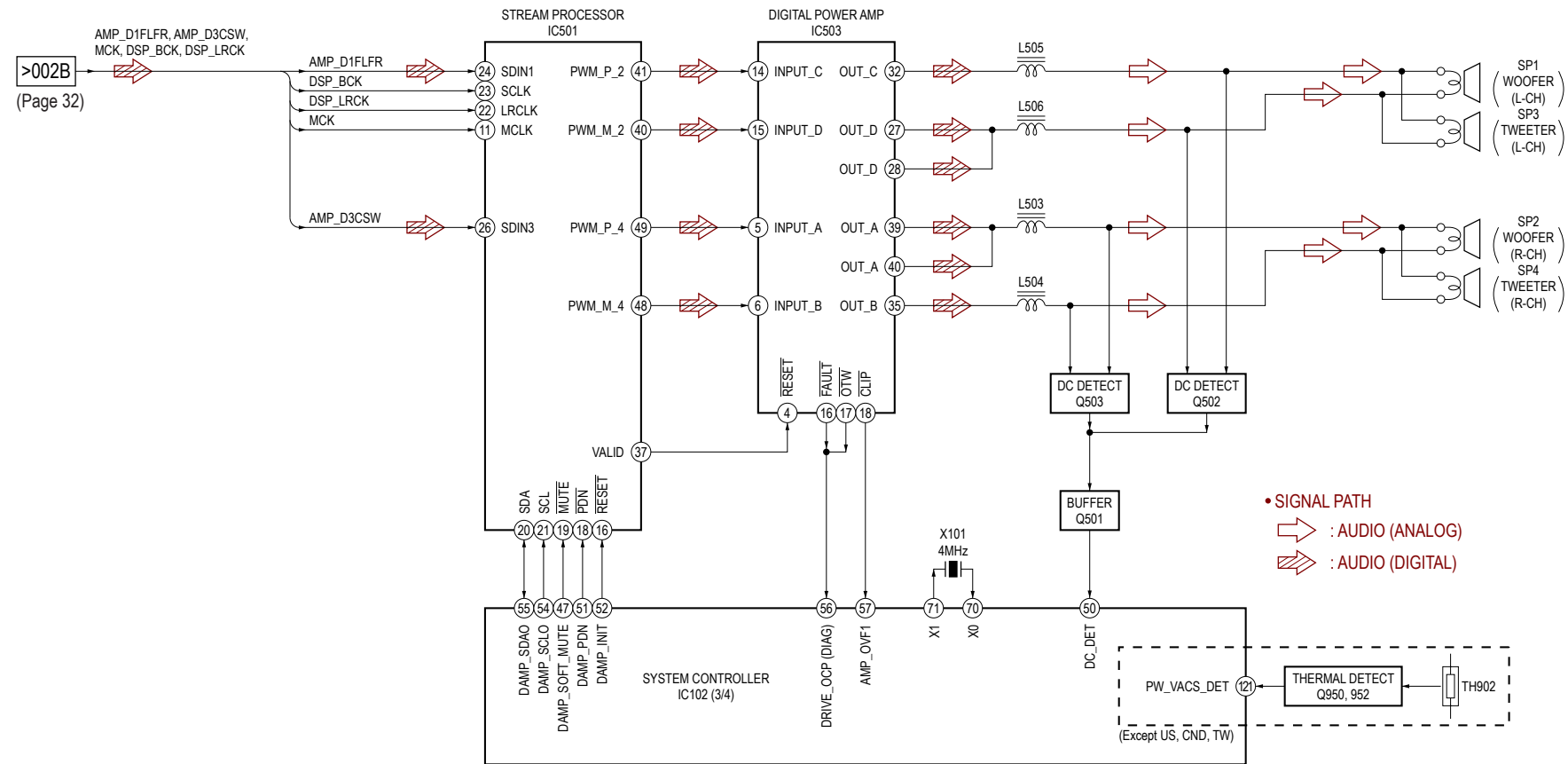
5-1. BLOCK DIAGRAM - HDMI Section -



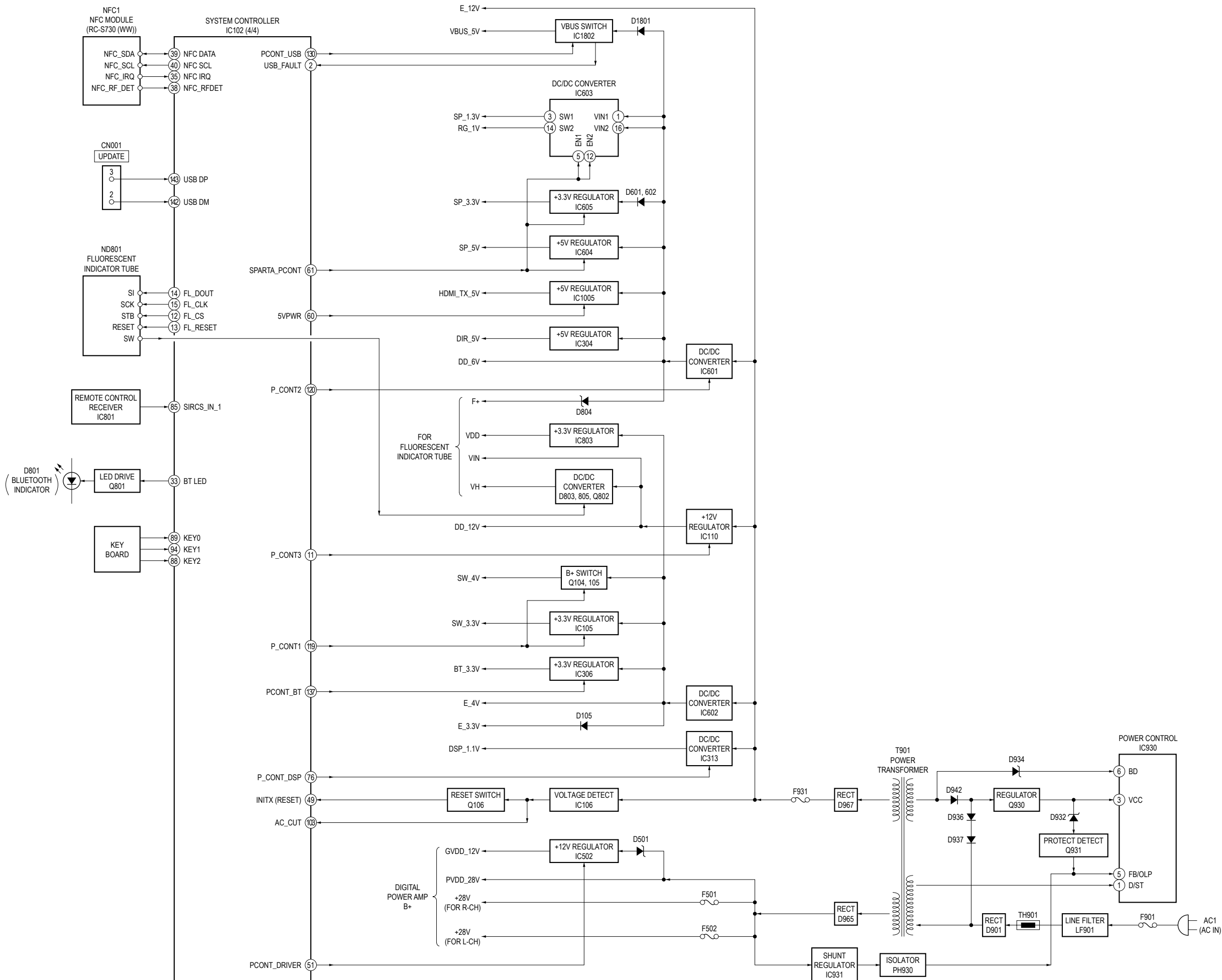
5-2. BLOCK DIAGRAM - MAIN Section -



5-3. BLOCK DIAGRAM - AMP Section -



5-4. BLOCK DIAGRAM - PANEL/POWER SUPPLY Section -



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Printed Wiring Boards.

Note:

- — : Parts extracted from the component side.
- : Parts extracted from the conductor side.
- △ : Internal component.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

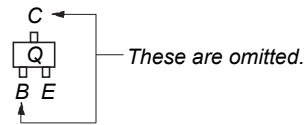
Caution:

Pattern face side: Parts on the pattern face side seen
(Conductor Side) from the pattern face are indicated.
Parts face side: Parts on the parts face side seen from
(Component Side) the parts face are indicated.

Caution:

Pattern face side: Parts on the pattern face side seen
(SIDE B) from the pattern face are indicated.
Parts face side: Parts on the parts face side seen from
(SIDE A) the parts face are indicated.

- MAIN board is multi-layer printed board. However, the patterns of intermediate layers have not been included in diagrams.
- Indication of transistor.



Note 1: When the complete MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" and "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.

Note 2: When the complete POWER board is replaced, refer to "BOND FIXATION OF ELECTRIC PARTS" on page 6.

For Schematic Diagrams.

Note:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : Internal component.
- : Nonflammable resistor.
- : Fusible resistor.
- : Panel designation.

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

注意: 原理图和零件清单中标有△记号的零部件, 或带有△记号的虚线所圈示的零部件, 对于维系安全至关重要。因此只能以指定号码的零部件来更换。

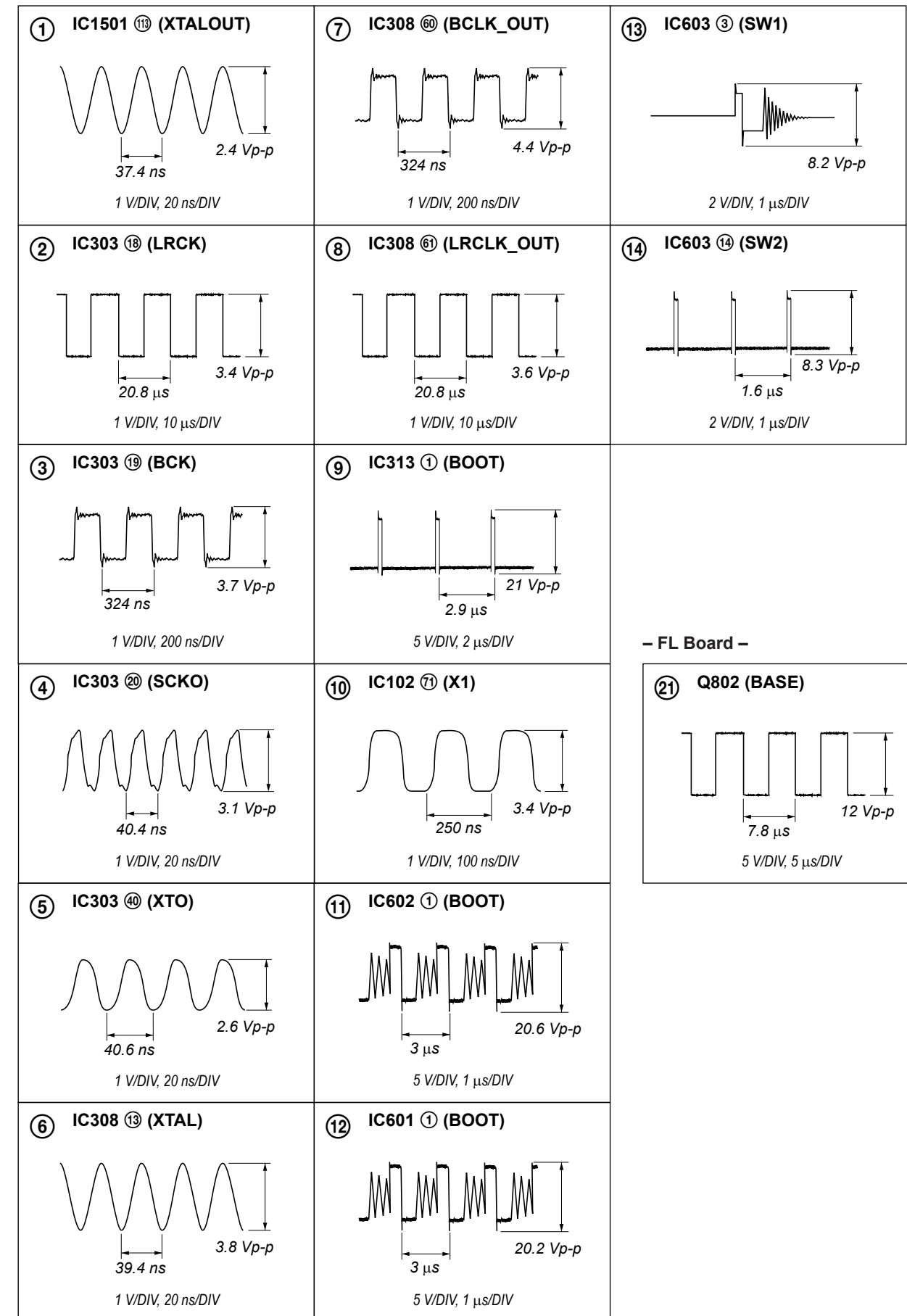
- : B+ Line.
- Voltagés and waveforms are dc with respect to ground under no-signal conditions.
no mark: POWER ON
* : Impossible to measure
- Voltagés are taken with VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
⇒ : AUDIO (ANALOG)
⇒ : AUDIO (DIGITAL)
⇒ : VIDEO
⇒ : Bluetooth

Note 1: When the complete MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" and "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.

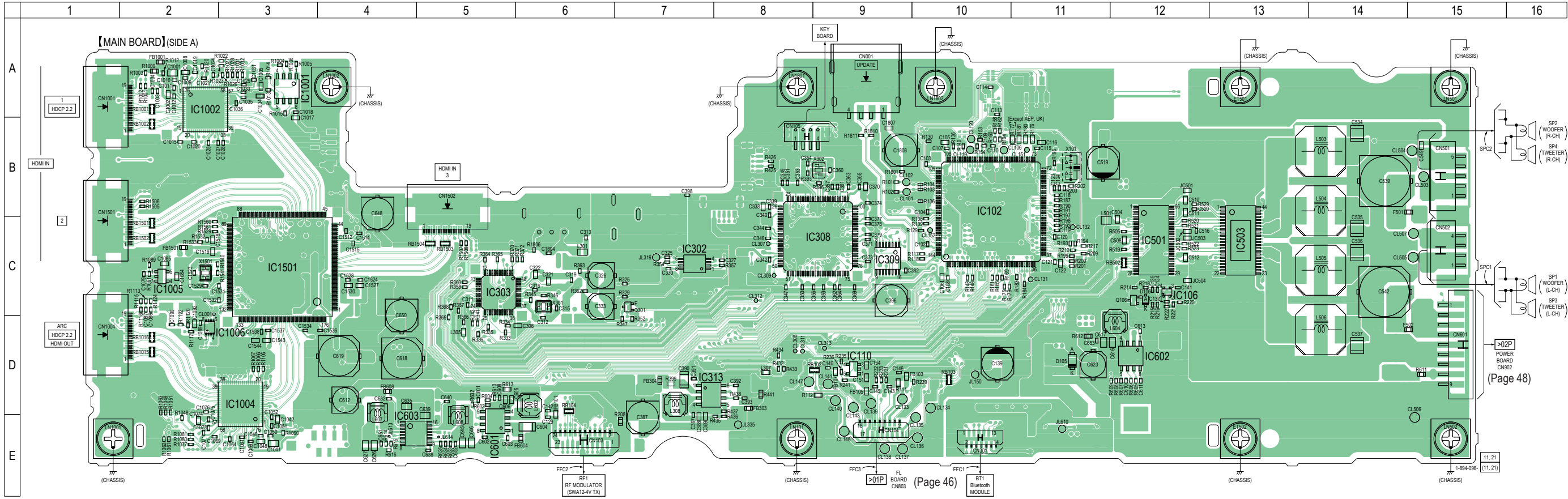
Note 2: When the complete POWER board is replaced, refer to "BOND FIXATION OF ELECTRIC PARTS" on page 6.

• Waveforms

— MAIN Board —



5-5. PRINTED WIRING BOARDS - MAIN Section (1/2) -  : Uses unleaded solder.



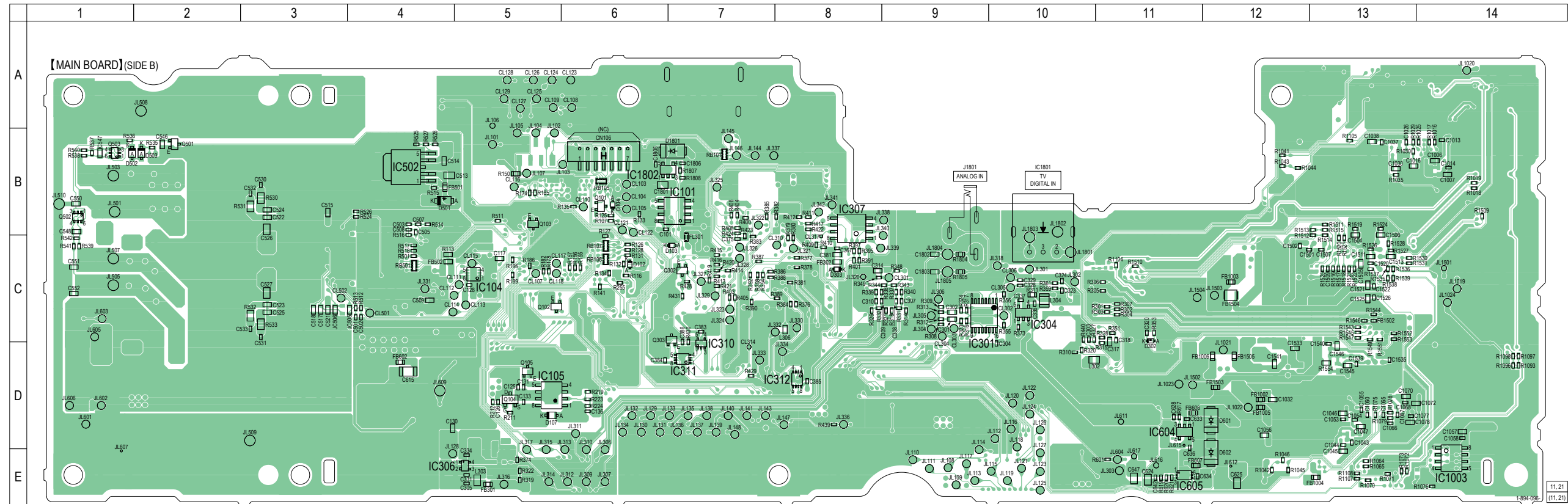
Note 1: When the KEY board is defective, replace the complete mounted board.

Note 2: When the RF modulator (Ref. No. RF1) is replaced, refer to "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.

Note 3: IC102, IC308, IC313, IC601 to IC603, IC1002, IC1004 and IC1501 on the MAIN board cannot be replaced with single components. When these parts are damaged, replace the complete mounted board.

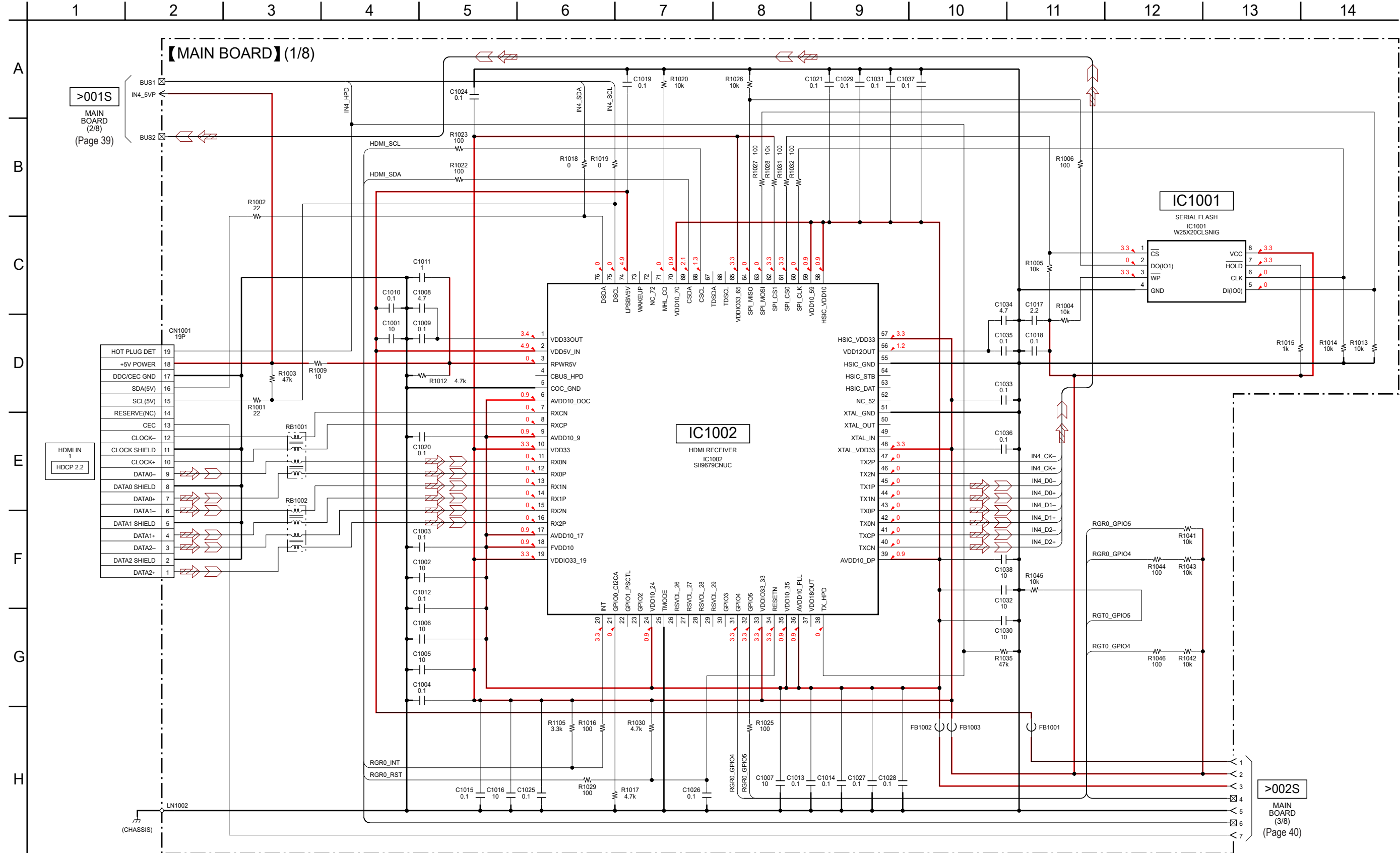
Note 4: When the IC503 on the MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on page 5.

5-6. PRINTED WIRING BOARD - MAIN Section (2/2) -  : Uses unleaded solder.



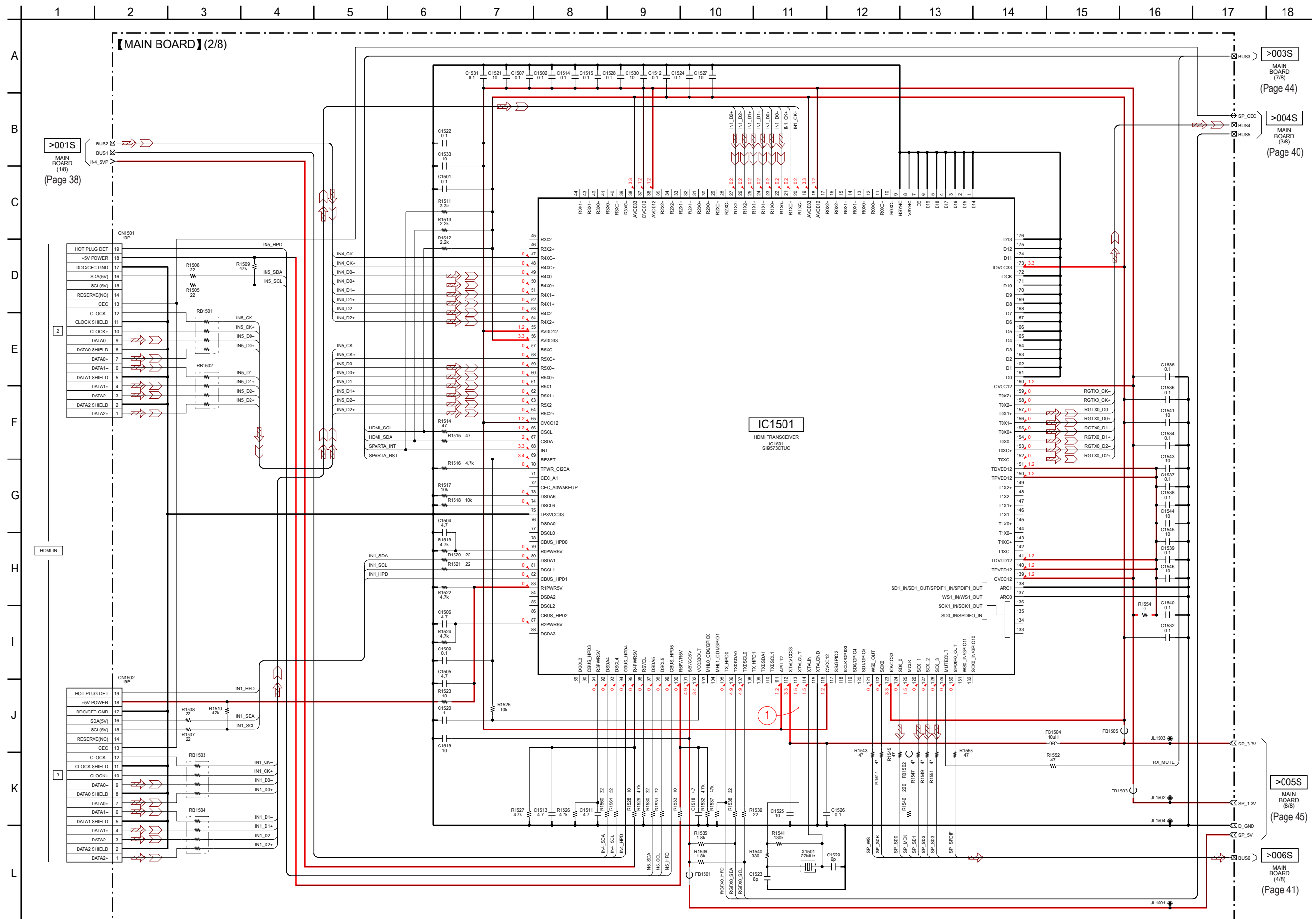
Note: IC104, IC307 and IC605 on the MAIN board cannot replace with single.
When these parts are damaged, replace the complete mounted board.

5-7. SCHEMATIC DIAGRAM - MAIN Section (1/8) -



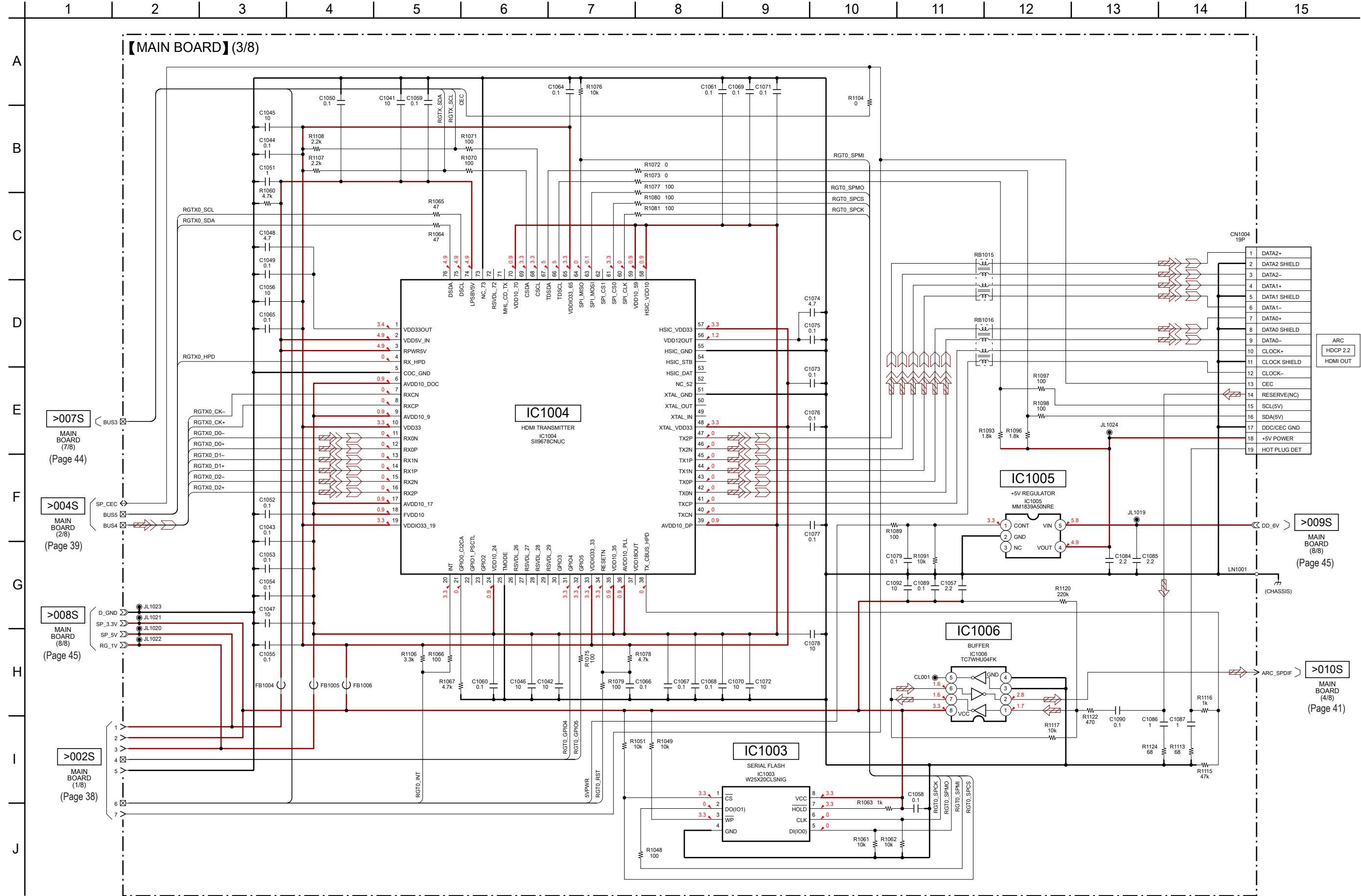
Note: IC1002 on the MAIN board cannot replace with single. When this part is damaged, replace the complete mounted board.

5-8. SCHEMATIC DIAGRAM - MAIN Section (2/8) - See page 35 for Waveforms. See page 54 for IC Pin Function Description.



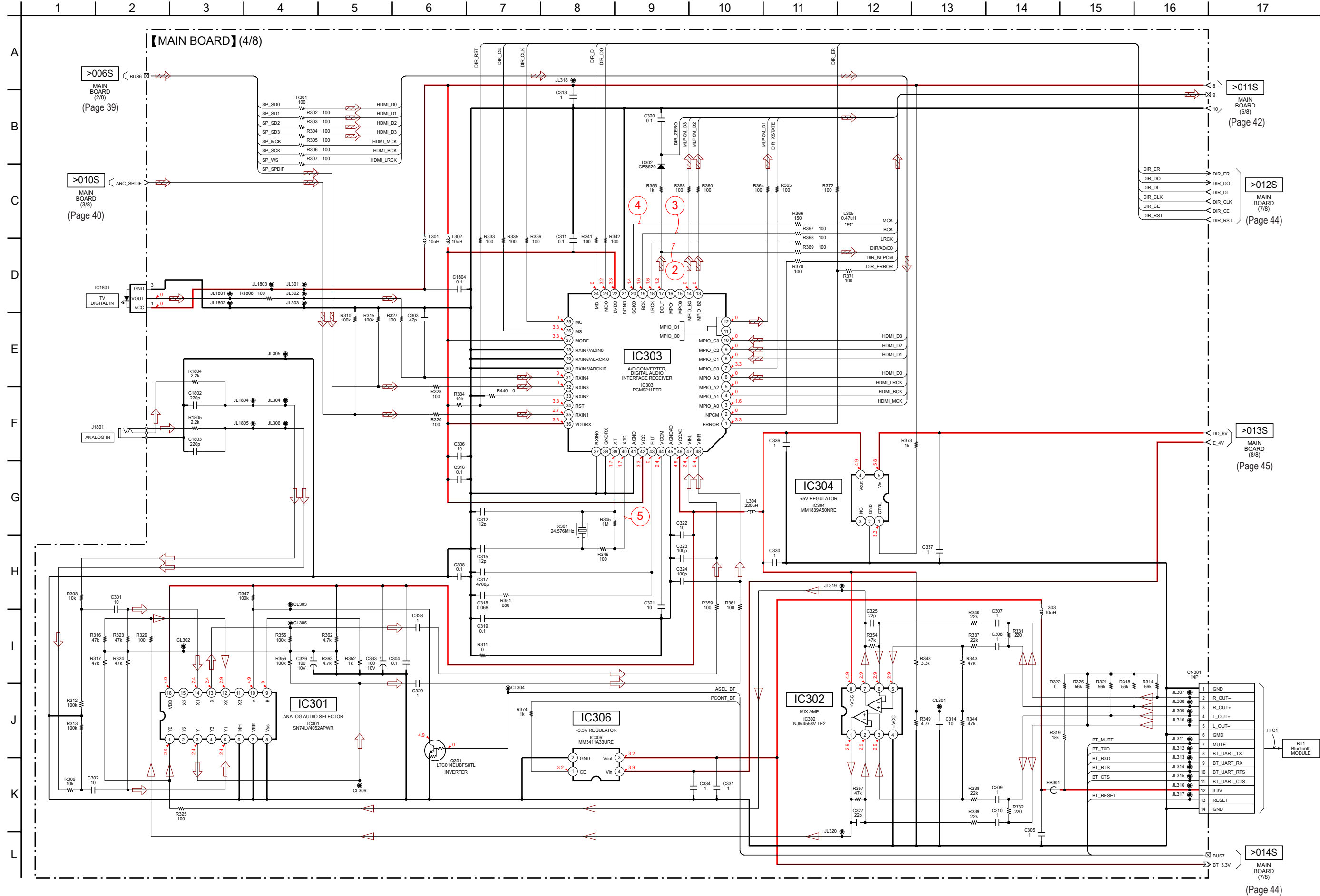
Note: IC1501 on the MAIN board cannot replace with single. When this part is damaged, replace the complete mounted board.

5-9. SCHEMATIC DIAGRAM - MAIN Section (3/8) - • See page 50 for IC Block Diagrams.

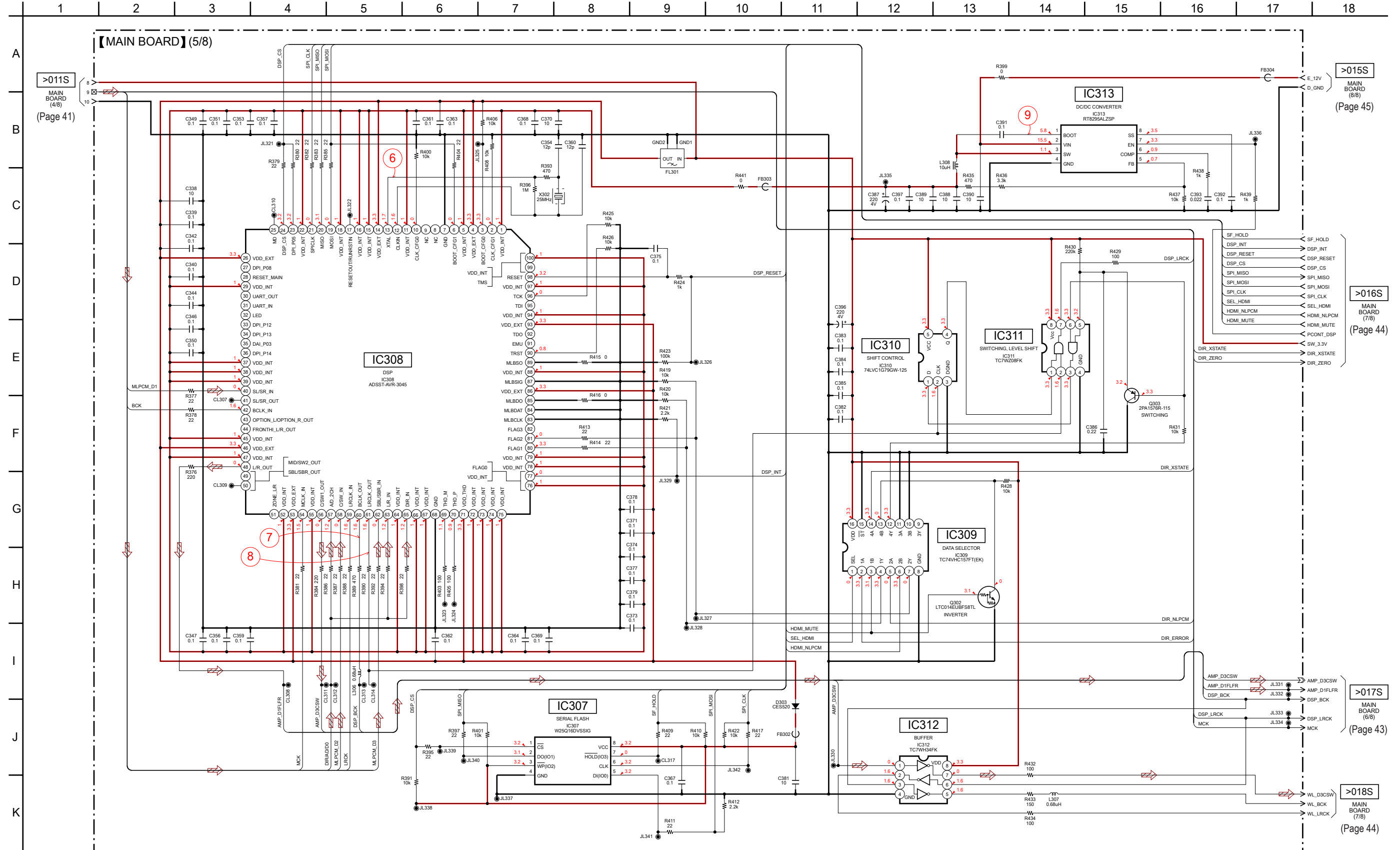


Note: IC1004 on the MAIN board cannot replace with single. When this part is damaged, replace the complete mounted board.

5-10. SCHEMATIC DIAGRAM - MAIN Section (4/8) - • See page 35 for Waveforms. • See page 50 for IC Block Diagrams.

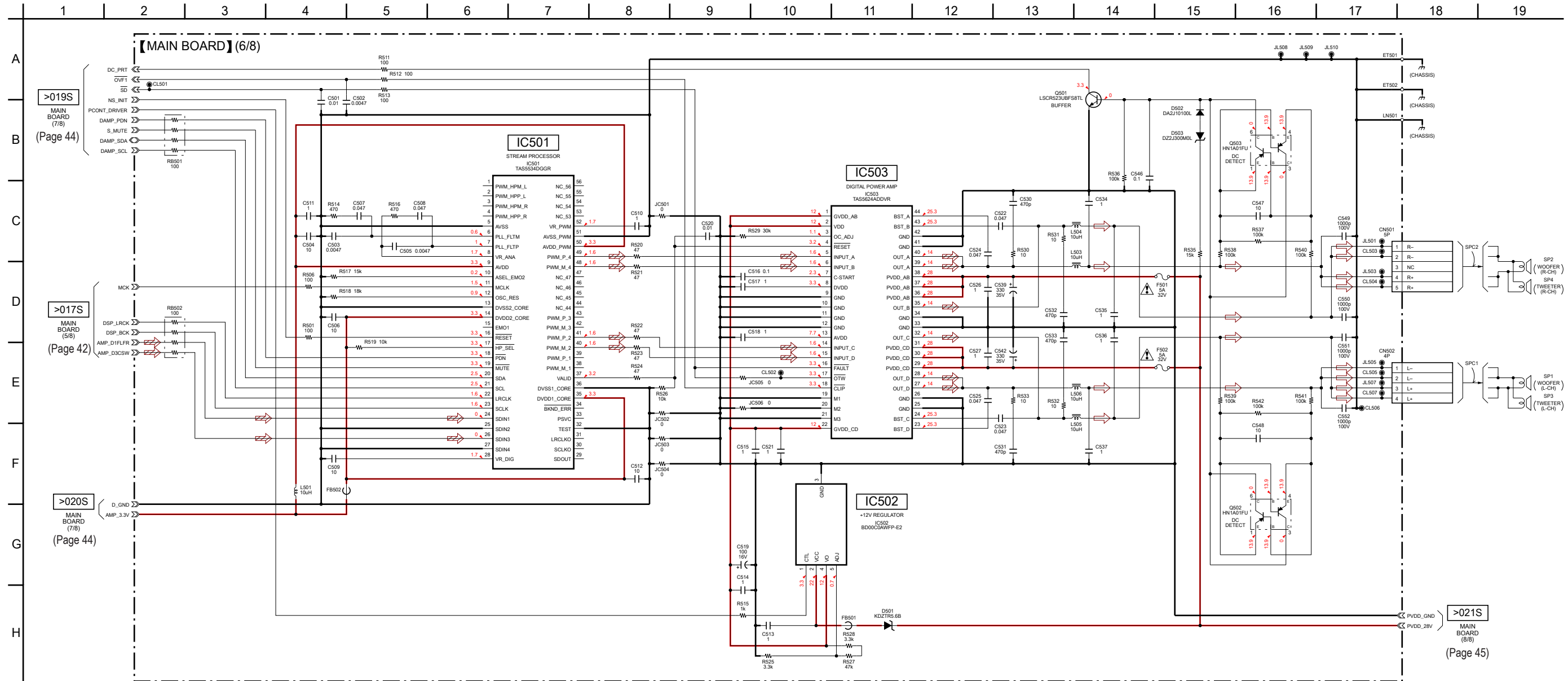


5-11. SCHEMATIC DIAGRAM - MAIN Section (5/8) - • See page 35 for Waveforms. • See page 50 for IC Block Diagrams. • See page 54 for IC Pin Function Description.



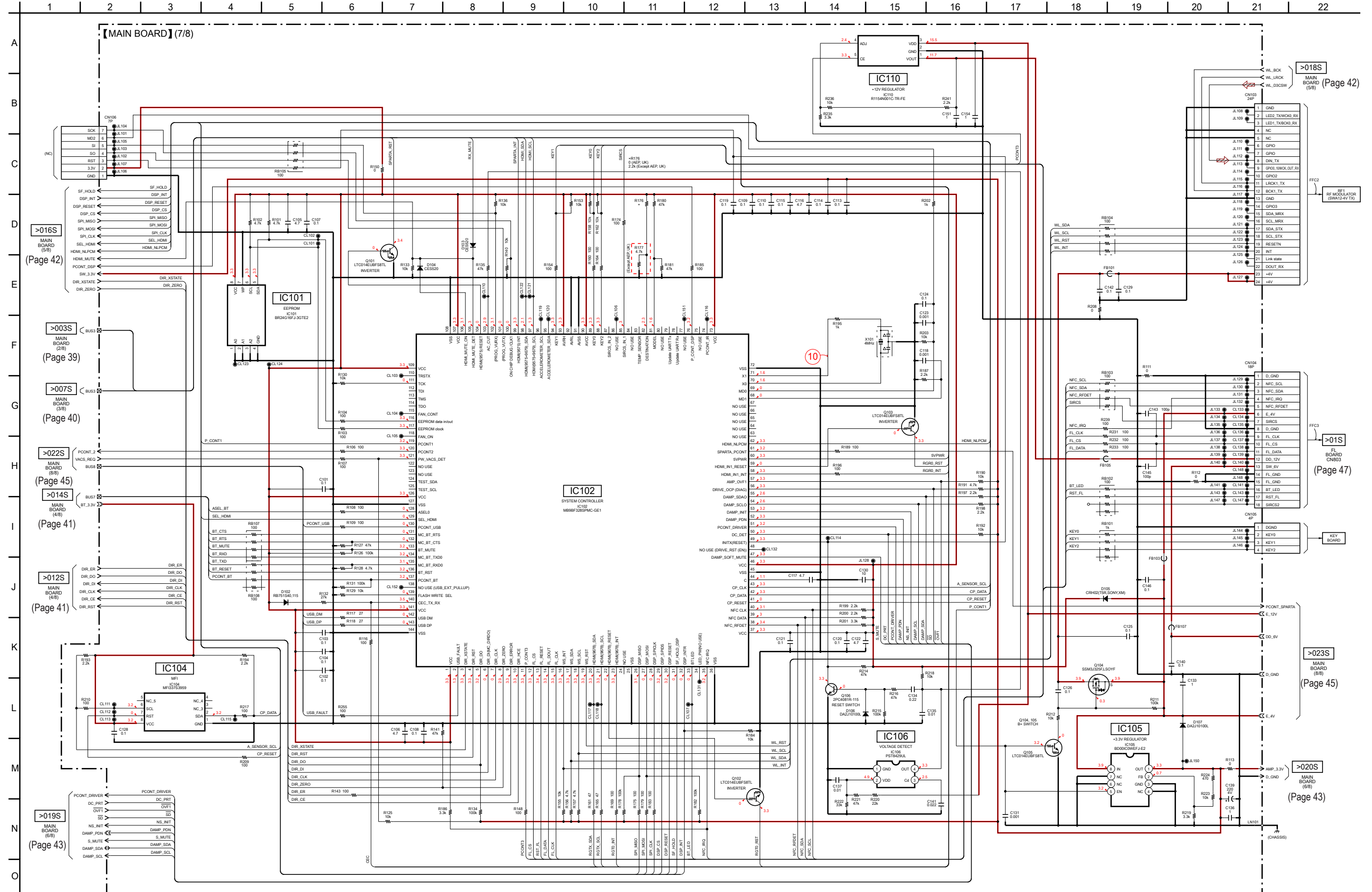
Note: IC307, IC308 and IC313 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

5-12. SCHEMATIC DIAGRAM - MAIN Section (6/8) - • See page 50 for IC Block Diagrams.



Note: When the IC503 on the MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on page 5.

5-13. SCHEMATIC DIAGRAM - MAIN Section (7/8) - • See page 35 for Waveforms. • See page 50 for IC Block Diagrams. • See page 54 for IC Pin Function Description.

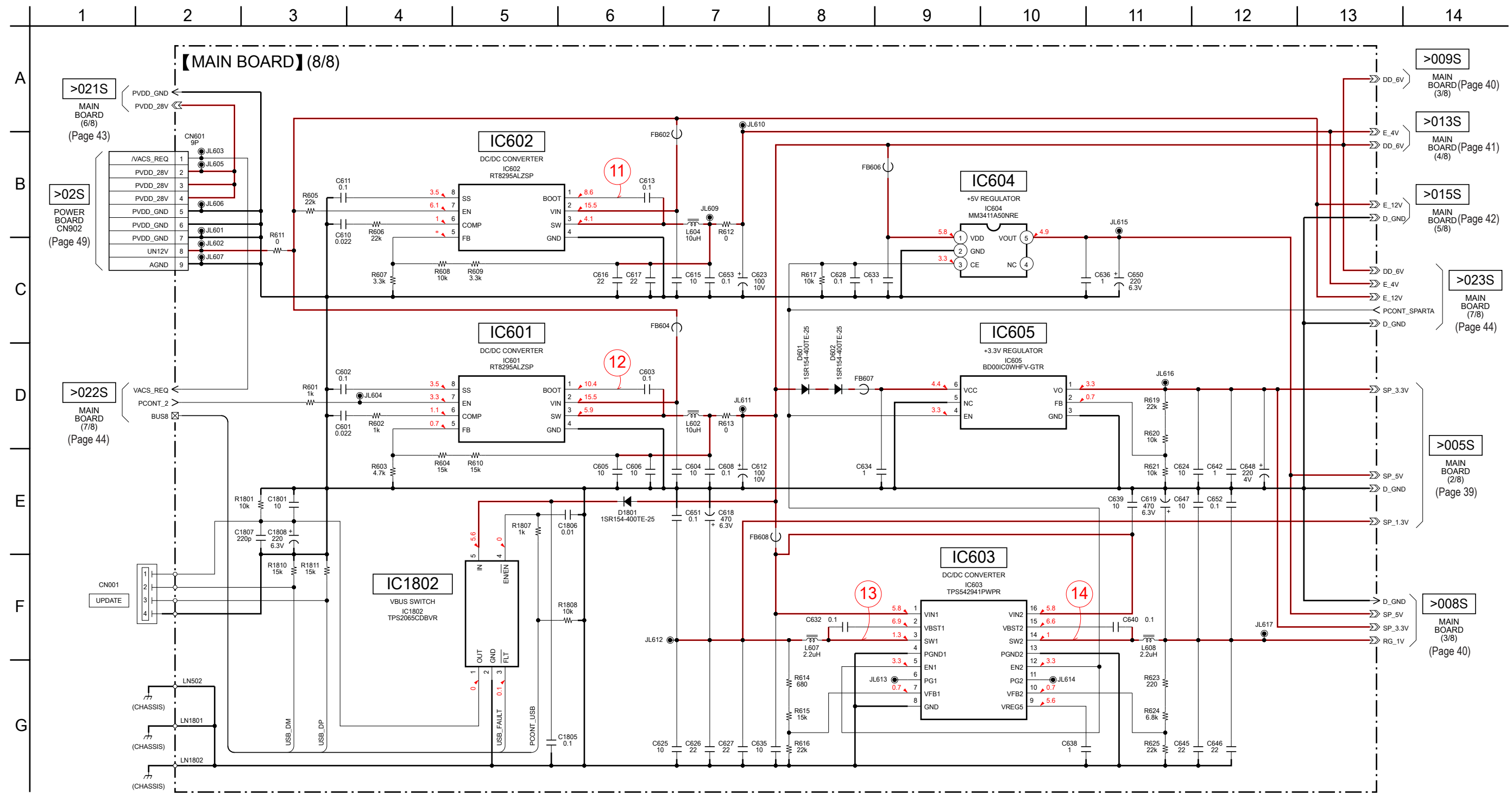


Note 1: When the KEY board is defective, replace the complete mounted board.

Note 2: When the RF modulator (Ref.No. RF1) is replaced, refer to "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.

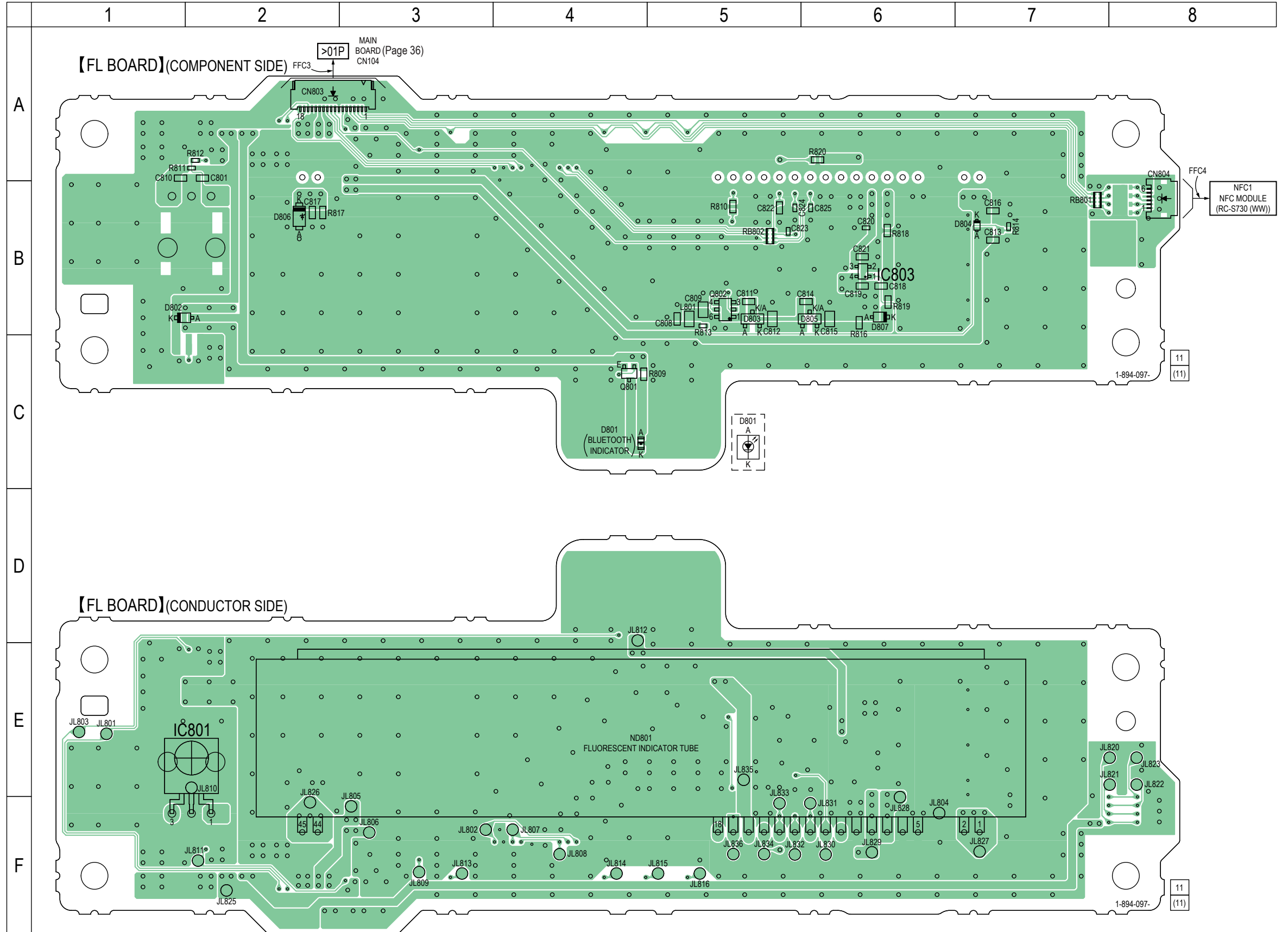
Note 3: IC102 and IC104 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

5-14. SCHEMATIC DIAGRAM - MAIN Section (8/8) - • See page 35 for Waveforms. • See page 50 for IC Block Diagrams.

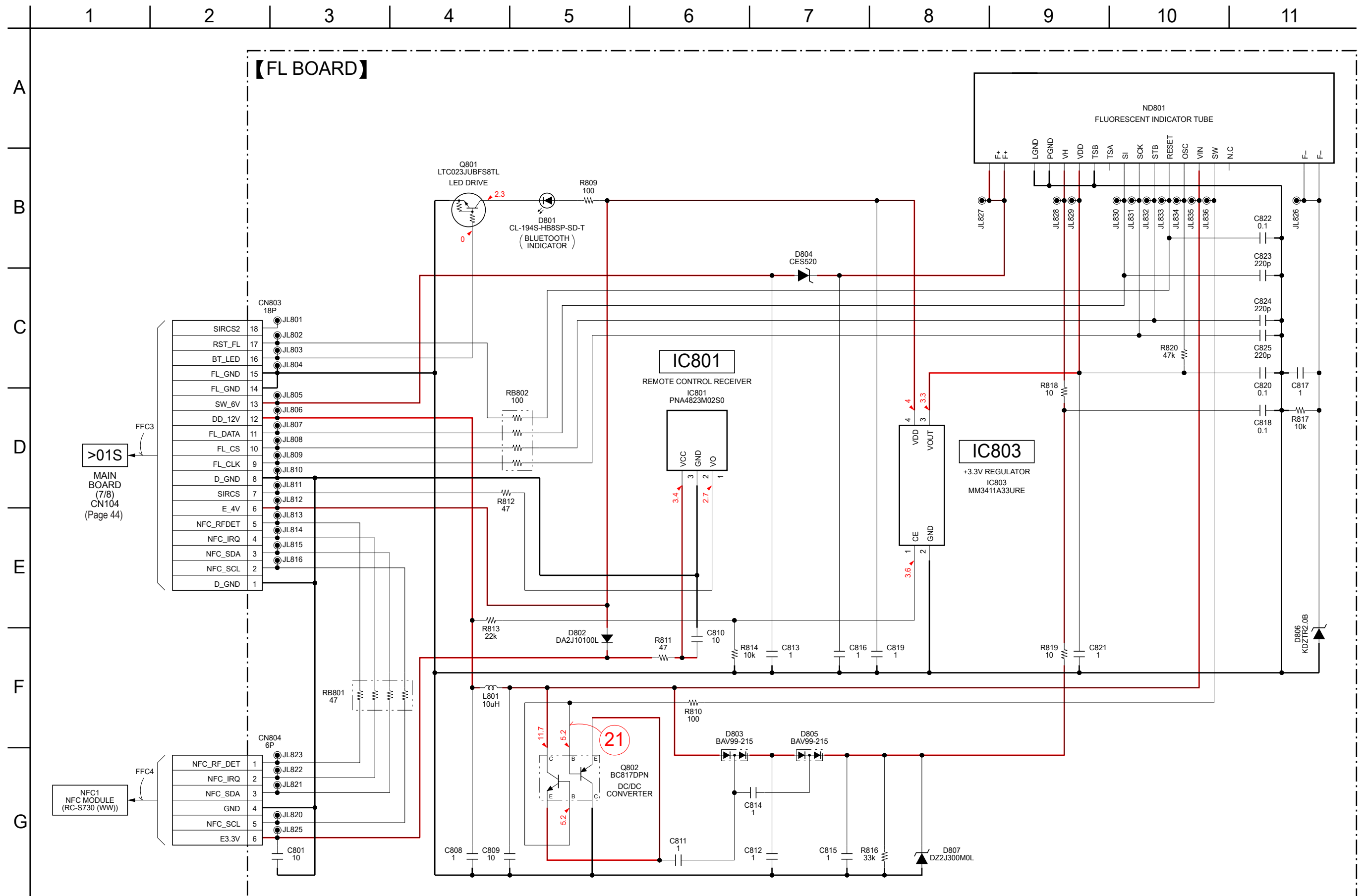


Note: IC601 to IC603 and IC605 on the MAIN board cannot replace with single. When these parts are damaged, replace the complete mounted board.

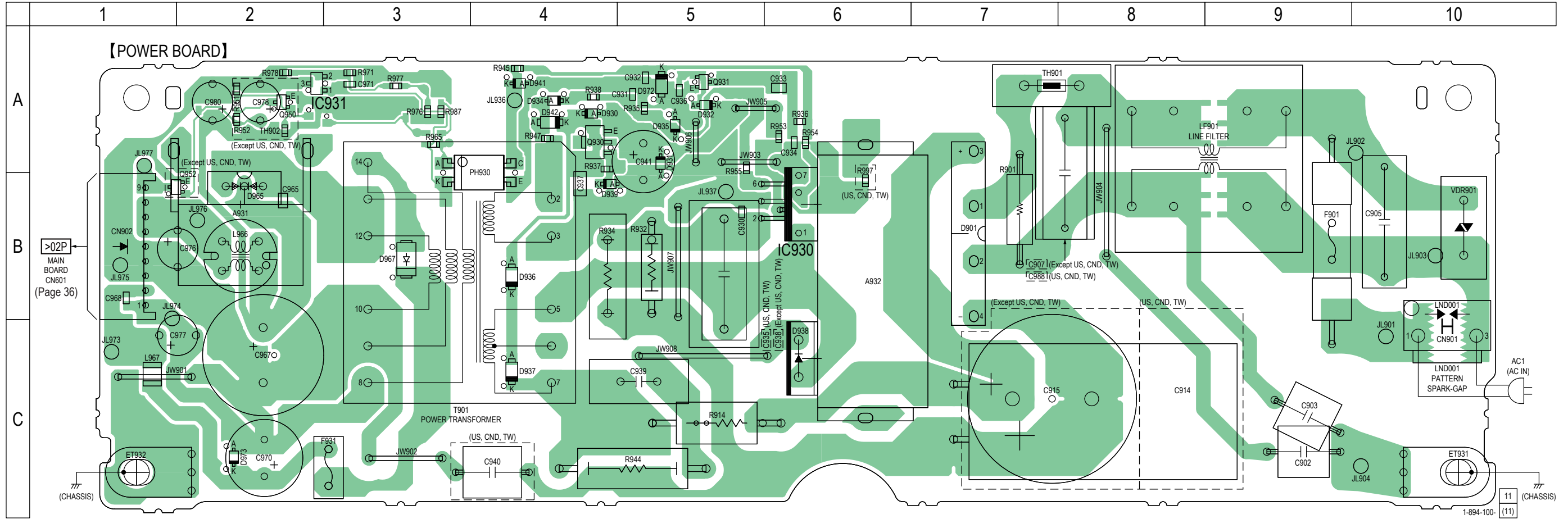
5-15. PRINTED WIRING BOARD - FL Board -  : Uses unleaded solder.



5-16. SCHEMATIC DIAGRAM - FL Board - • See page 35 for Waveforms. • See page 50 for IC Block Diagrams.

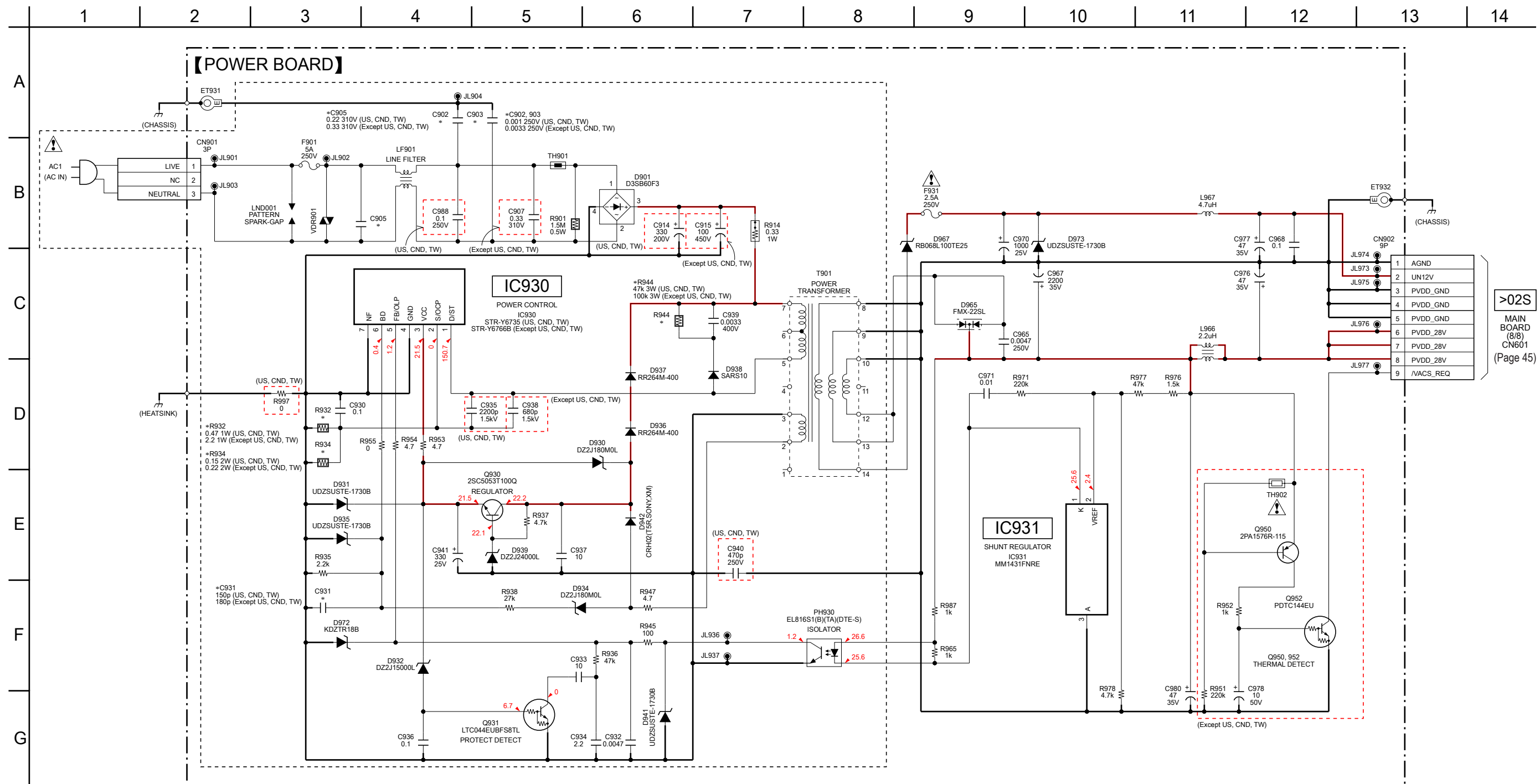


5-17. PRINTED WIRING BOARD - POWER Board -  : Uses unleaded solder.



Note: When C902, C903, C905, C914, C915, C941, C967, C970, C977, C978, C980, C988, D901, F931, LF901, R934, TH901 and VDR901 on the POWER board are replaced, refer to "BOND FIXATION OF ELECTRIC PARTS" on page 6.

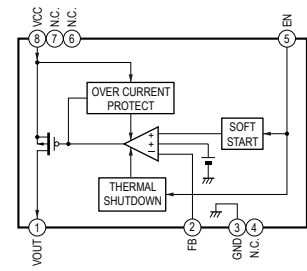
5-18. SCHEMATIC DIAGRAM - POWER Board - • See page 50 for IC Block Diagrams.



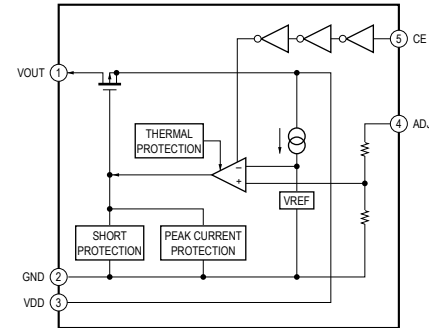
Note: When C902, C903, C905, C914, C915, C941, C967, C970, C977, C978, C980, C988, D901, F931, LF901, R934, TH901 and VDR901 on the POWER board are replaced, refer to "BOND FIXATION OF ELECTRIC PARTS" on page 6.

• IC Block Diagrams

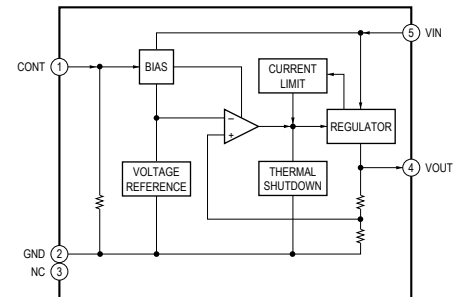
– MAIN Board –
IC105 BD00IC0WEFJ-E2



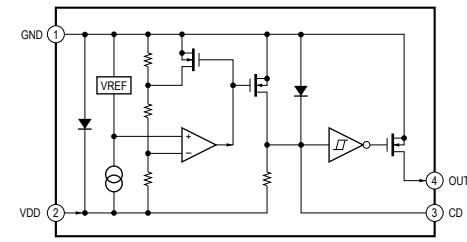
IC110 R1154N001C-TR-FE



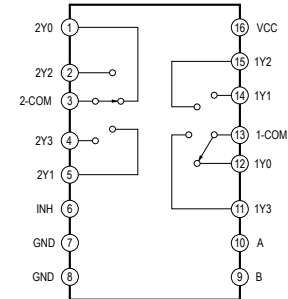
IC304, 1005 MM1839A50NRE



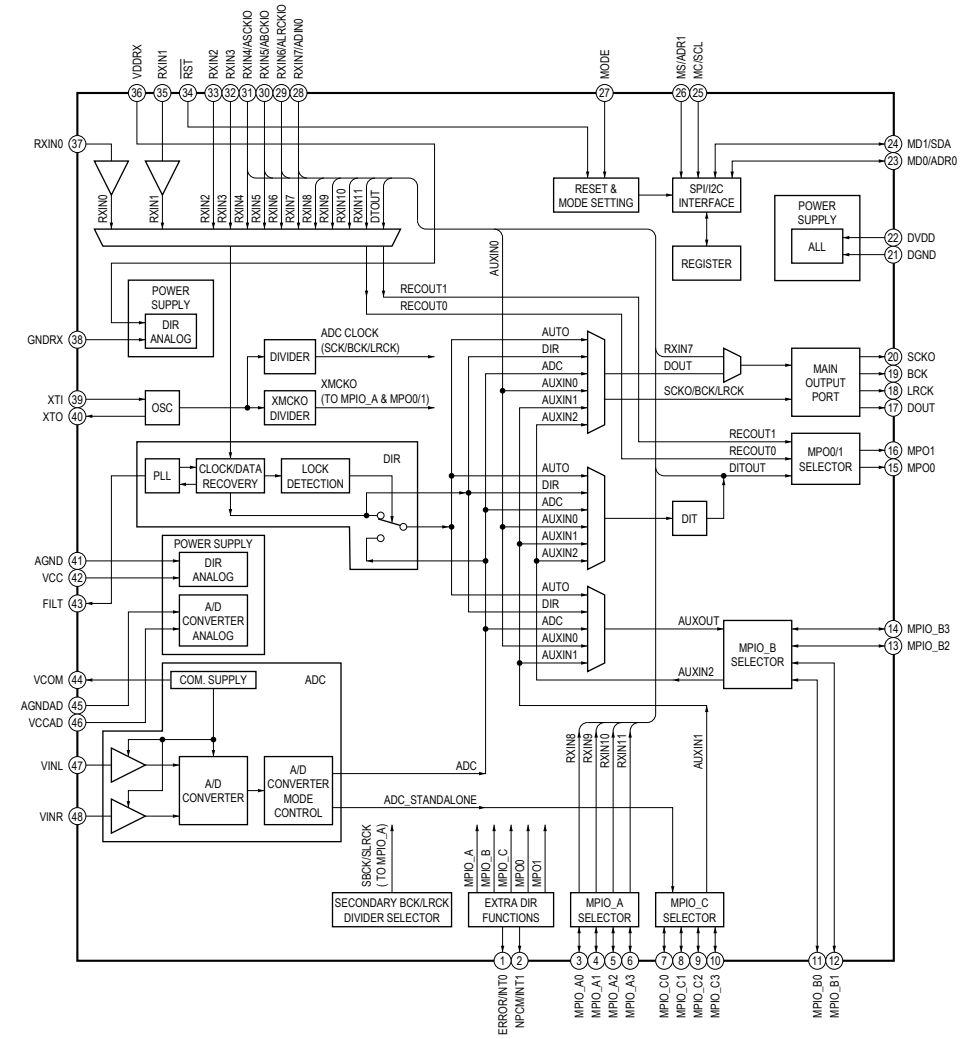
IC106 PST8429UL



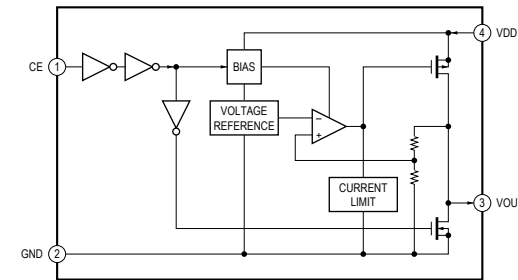
IC301 SN74LV4052APWR



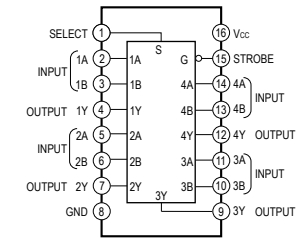
IC303 PCM9211PTR



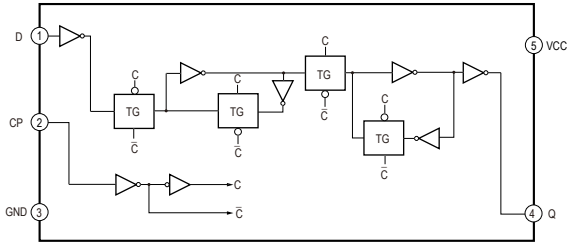
IC306 MM3411A33URE



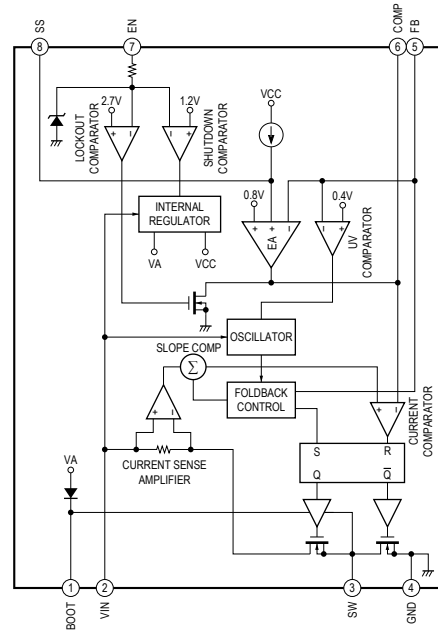
IC309 TC74VHC157FT (EK)



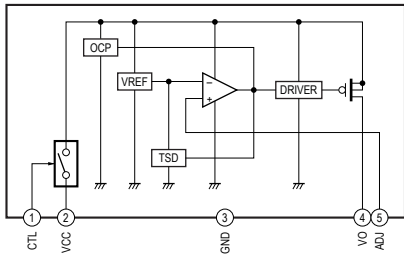
IC310 74LVC1G79GW-125



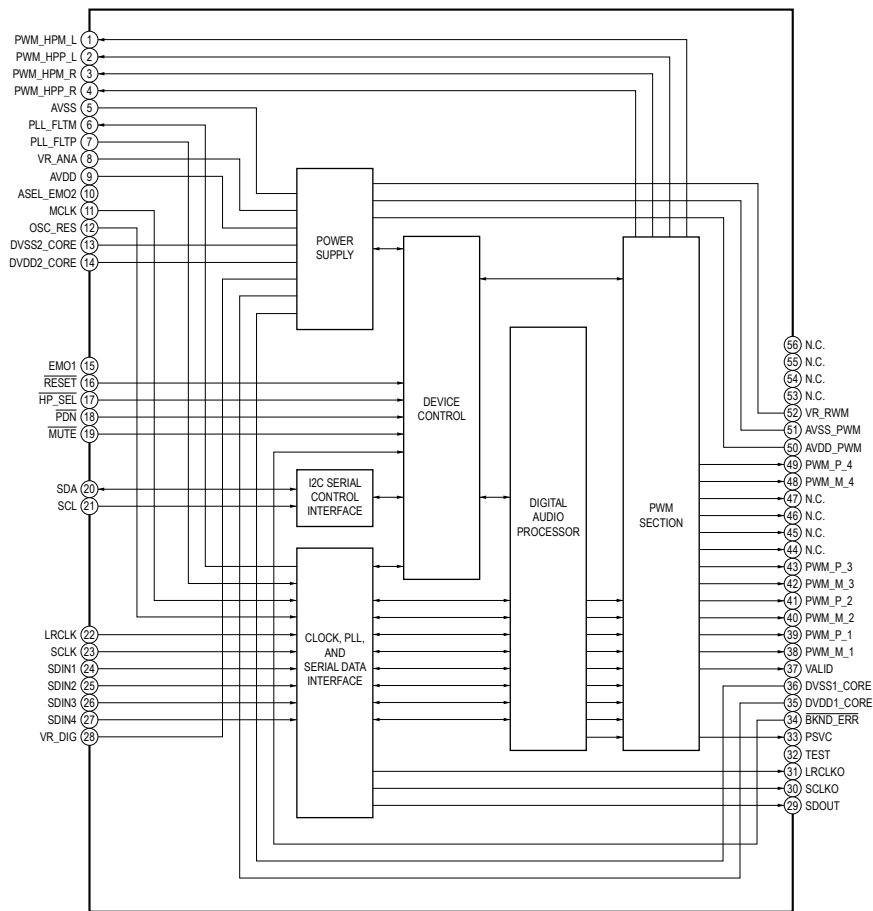
IC313, 601, 602 RT8295ALZSP



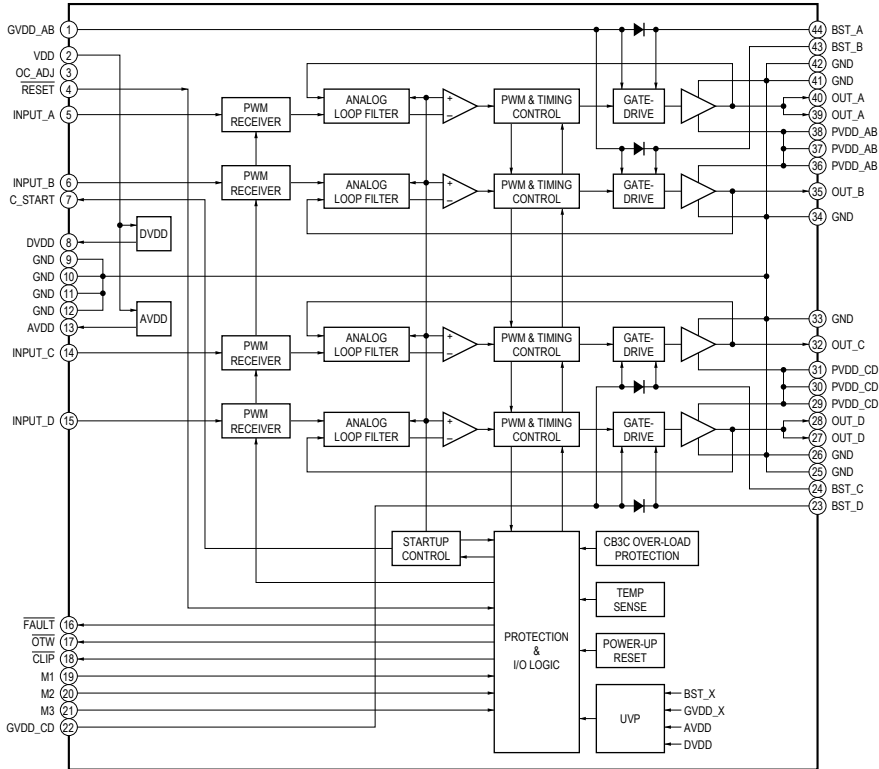
IC502 BD00C0AWFP-E2



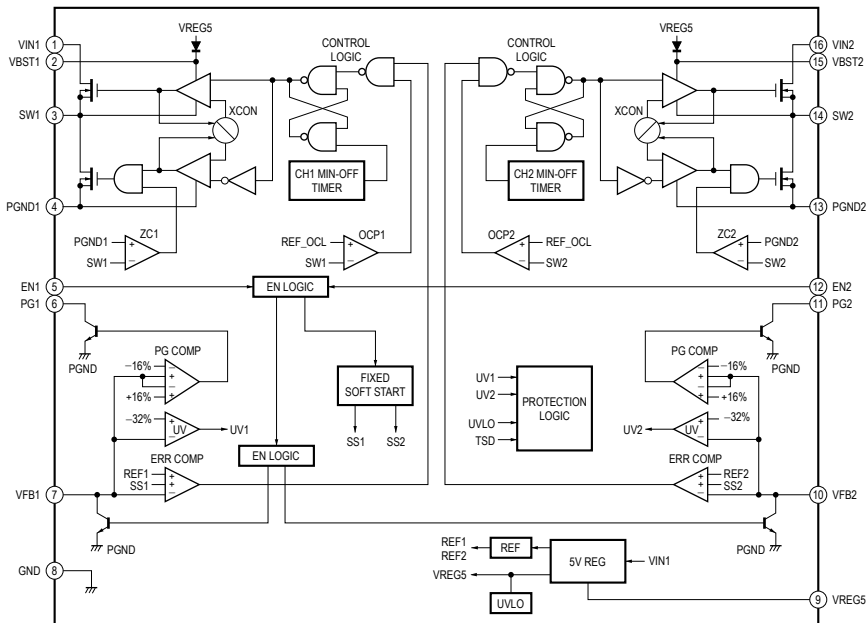
IC501 TAS5534DGGR



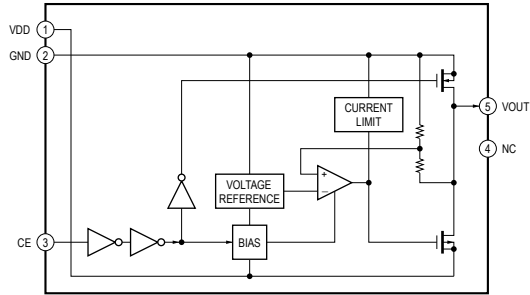
IC503 TAS5624ADDVR



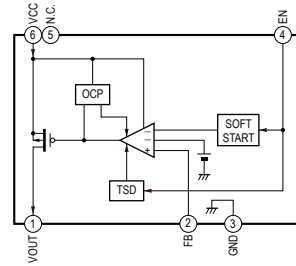
IC603 TPS542941PWPR



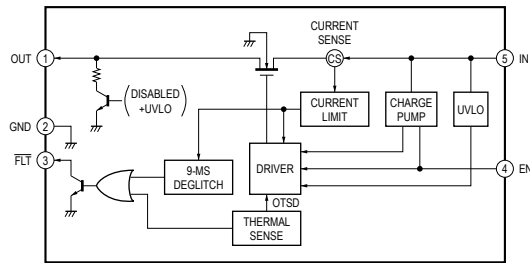
IC604 MM3411A50NRE



IC605 BD00IC0WHFV-GTR

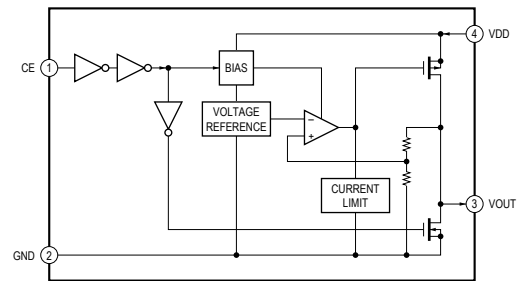


IC1802 TPS2065CDBVR



- FL Board -

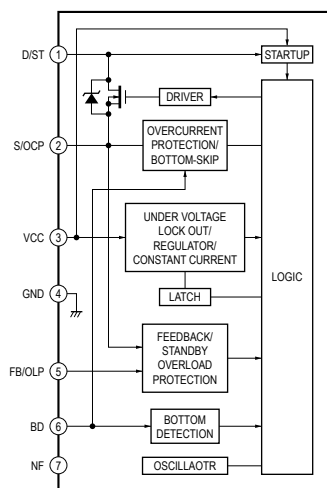
IC803 MM3411A33URE



- POWER Board -

IC930 STR-Y6735 (US, Canadian and Taiwan models)

IC930 STR-Y6766B (Except US, Canadian and Taiwan models)



• IC Pin Function Description

MAIN BOARD IC102 MB9BF328SPMC-GE1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VCC	-	Power supply terminal (+3.3V)
2	USB_FAULT	I	USB VBUS power over current detection signal input terminal
3	DIR_XSTATE	I	Source clock selection monitor input from the digital audio interface receiver
4	DIR_RST	O	Reset signal output to the digital audio interface receiver "L": reset
5	DIR_DO	I	Serial data input from the digital audio interface receiver
6	DIR_DI (MC_DIRDO)	O	Serial data output to the digital audio interface receiver
7	DIR_CLK	O	Serial data transfer clock signal output to the digital audio interface receiver
8	DIR_ZERO	I	Zero data detection signal input from the digital audio interface receiver
9	DIR_ERROR	I	Error detection signal input from the digital audio interface receiver "L": error
10	DIR_HCE	O	Chip enable signal output to the digital audio interface receiver
11	P_CONT3	O	Power on/off control signal output terminal "H": power on
12	FL_CS	O	Chip select signal output to the fluorescent indicator tube
13	FL_RESET	O	Reset signal output to the fluorescent indicator tube "L": reset
14	FL_DOUT	O	Serial data output to the fluorescent indicator tube
15	FL_CLK	O	Serial data transfer clock signal output to the fluorescent indicator tube
16	WS_INT	I	Interrupt signal input from the RF modulator
17	WS_SDA	I/O	Two-way data bus with the RF modulator
18	WS_SCL	O	Serial data transfer clock signal output to the RF modulator
19	WS_RST	O	Reset signal output to the RF modulator "L": reset
20	HDMI (9678)_SDA	I/O	Two-way data bus with the HDMI transmitter
21	HDMI (9678)_SCL	O	Serial data transfer clock signal output to the HDMI transmitter
22	HDMI (9678)_RESET	O	Reset signal output to the HDMI transmitter "H": reset
23	HDMI (9678)_INT	I	Interrupt signal input from the HDMI transmitter
24	NO USE	O	Not used
25	VSS	-	Ground terminal
26	DSP_MISO	I	Serial data input from the serial flash and DSP
27	DSP_MOSI	O	Serial data output to the serial flash and DSP
28	DSP_SPICLK	O	Serial data transfer clock signal output to the serial flash and DSP
29	DSP_SPIDS	O	Chip select signal output to the serial flash and DSP
30	DSP_RESET	O	Reset signal output to the DSP "L": reset
31	SF_HOLD_DSP	O	Hold signal output to the serial flash "L": hold
32	DSP_INTR	I	Interrupt request signal input from the DSP
33	BT LED	O	LED drive signal output terminal for the Bluetooth indicator "H": LED on
34	LED_PW (NO USE)	O	Not used
35	NFC IRQ	I	Radio data reception signal input from the NFC module
36	VSS	-	Ground terminal
37	VCC	-	Power supply terminal (+3.3V)
38	NFC_RFDET	I	Magnetic field detection signal input from the NFC module "L": magnetic field is detected
39	NFC DATA	I/O	Two-way data bus with the NFC module
40	NFC CLK	O	Serial data transfer clock signal output to the NFC module
41	CP_RESET	O	Reset signal output to the MFI "L": reset
42	CP_DATA	I/O	Two-way data bus with the MFI
43	CP_CLK	O	Serial data transfer clock signal output to the MFI
44	C	I	External capacitor connection terminal
45	VSS	-	Ground terminal
46	VCC	-	Power supply terminal (+3.3V)
47	DAMP_SOFT_MUTE	O	Soft muting on/off control signal output to stream processor "L": muting on
48	NO USE (DRIVE_RST (EN))	O	Not used
49	INITX (RESET)	I	System reset signal input terminal "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it change to "H"
50	DC_DET	I	Speaker DC detection signal input terminal "L": speaker DC is detected
51	PCONT_DRIVER	O	Power on/off control signal output terminal for the digital power amplifier "H": power on
52	DAMP_PDN	O	Power down signal output to the stream processor "L": power down
53	DAMP_INIT	O	Reset signal output to the stream processor "L": reset
54	DAMP_SCLO	O	Serial data transfer clock signal output to the stream processor

Pin No.	Pin Name	I/O	Description
55	DAMP_SDAO	I/O	Two-way data bus with the stream processor
56	DRIVE_OCP (DIAG)	I	Shut down signal input from the digital power amplifier "L": shut down
57	AMP_OVF1	I	Overflow detection signal input from the digital power amplifier
58	HDMI_IN1_INT	I	Interrupt signal input from the HDMI receiver
59	HDMI_IN1_RESET	O	Reset signal output to the HDMI receiver "H": reset
60	5VPWR	O	+5V power on/off control signal output terminal for the ARC HDCP 2.2 HDMI OUT connector "H": power on
61	SPARTA_PCONT	O	Power on/off control signal output terminal for the HDMI section "H": power on
62	HDMI_NLPCM	O	Audio setting signal output terminal "L": LPCM audio, "H": HBR audio
63 to 67	NO USE	O	Not used
68	MD1	I	Mode selection signal input terminal "L": flash memory writing mode
69	MD0	I	Mode selection signal input terminal "H": flash memory writing mode
70	X0	I	System clock input terminal (4 MHz)
71	X1	O	System clock output terminal (4 MHz)
72	VSS	-	Ground terminal
73	VCC	-	Power supply terminal (+3.3V)
74	PCONT_IR	O	Not used
75	NO USE	O	Not used
76	P_CONT_DSP	O	Power on/off control signal output terminal for the DSP "H": power on
77	NO USE	O	Not used
78	Update UART Rx	I	Update data input terminal Not used
79	Update UART Tx	O	Update data output terminal Not used
80	NO USE	O	Not used
81	MODEL	I	Model setting terminal
82	DESTINATION	I	Destination setting terminal
83	TEMP_SENSOR	I	Temperature sensor input terminal Not used
84	NO USE	O	Not used
85	SIRCS_IN_1	I	SIRCS signal input from the remote control receiver
86	NO USE	O	Not used
87	SIRCS_IN_2	I	SIRCS signal input terminal Not used
88	KEY2	I	Top panel key input terminal
89	KEY0	I	Power key input terminal
90	AVCC	-	Power supply terminal (+3.3V)
91	AVSS	-	Ground terminal
92	AVRL	I	Reference voltage (0V) input terminal
93	AVRH	I	Reference voltage (+3.3V) input terminal
94	KEY1	I	Top panel key input terminal
95	ACCELEROMETER_SDA	I/O	Two-way data bus terminal Not used
96	ACCELEROMETER_SCL	O	Serial data transfer clock signal output terminal Not used
97	HDMI (9575+9679)_SCL	O	Serial data transfer clock signal output to the HDMI receiver and HDMI transceiver
98	HDMI(9575+9679)_SDA	I/O	Two-way data bus with the HDMI receiver and HDMI transceiver
99	HDMI (9575) INT	I	Interrupt signal input from the HDMI receiver
100	ON CHIP DEBUG/CLK1	I	Serial data transfer clock signal input terminal for flash memory writing
101	(PROG_VUTX)	O	Serial data output terminal for flash memory writing
102	(PROG_VURX)	I	Serial data input terminal for flash memory writing
103	AC_CUT	I	AC cut detection signal input terminal "L": AC cut is detected
104	HDMI (9575) RESET	O	Reset signal output to the HDMI transceiver "H": reset
105	HDMI_MUTE_DET	I	HDMI muting on/off control signal input from the HDMI transceiver "H": muting on
106	HDMI_MUTE_ON	O	HDMI muting on/off control signal output terminal "H": muting on
107	VCC	-	Power supply terminal (+3.3V)
108	VSS	-	Ground terminal
109	VCC	-	Power supply terminal (+3.3V)
110	TRSTX	I	Test reset signal input terminal (for JTAG) Not used
111	TCK	I	Test clock signal input terminal (for JTAG) Not used
112	TDI	I	Test data input terminal (for JTAG) Not used
113	TMS	I	Test mode selection signal input terminal (for JTAG) Not used

Pin No.	Pin Name	I/O	Description
114	TDO	O	Test data output terminal (for JTAG) Not used
115	FAN_CONT	O	Fan motor control signal output terminal Not used
116	EEPROM data in/out	I/O	Two-way data bus with the EEPROM
117	EEPROM clock	O	Serial data transfer clock signal output to the EEPROM
118	FAN_ON	O	Fan motor on/off control signal output terminal Not used
119, 120	P_CONT1, P_CONT2	O	Power on/off control signal output terminal "H": power on
121	PW_VACS_DET	I	Thermal detection signal input terminal (Except US, Canadian and Taiwan models only)
122, 123	NO USE	O	Not used
124	TEST_SDA	I/O	Two-way data bus terminal Not used
125	TEST_SCL	O	Serial data transfer clock signal output terminal Not used
126	VCC	-	Power supply terminal (+3.3V)
127	VSS	-	Ground terminal
128	ASEL0	O	Analog audio selection signal output terminal "L": external analog input, "H": Bluetooth
129	SEL_HDMI	O	HDMI selection signal output terminal "H": HDMI
130	PCONT_USB	O	USB VBUS power on/off control signal output terminal "H": power on
131	MC_BT_RTS	O	Return to send signal output to the Bluetooth module
132	MC_BT_CTS	I	Clear to send signal input from the Bluetooth module
133	BT_MUTE	I	Muting on/off control signal input from the Bluetooth module "L": muting on
134	MC_BT_TXD0	O	Serial data output to the Bluetooth module
135	MC_BT_RXD0	I	Serial data input from the Bluetooth module
136	BT_RST	O	Reset signal output to the Bluetooth module "L": reset
137	PCONT_BT	O	Power on/off control signal output terminal for the Bluetooth section "H": power on
138	NO USE (USB_EXT_PULLUP)	O	Not used
139	FLASH WRITE SEL	I	Flash memory writing mode selection signal input terminal "L": serial, "H": USB Fixed at "L" in this unit
140	CEC_TX_RX	I/O	Two-way CEC serial data with the HDMI connector
141	VCC	-	Power supply terminal (+3.3V)
142	USB DM	I	USB data (-) input from the UPDATE connector
143	USB DP	I	USB data (+) input from the UPDATE connector
144	VSS	-	Ground terminal

MAIN BOARD IC308 ADSST-AVR-3045 (DSP)

Pin No.	Pin Name	I/O	Description
1	VDD_INT	-	Power supply terminal (+1.1V) (for core)
2	CLK_CFG1	I	Core instruction rate to CLKIN (pin 12) ratio selection signal input terminal Fixed at "L" in this unit
3	BOOT_CFG0	I	Boot mode selection signal input terminal Fixed at "H" in this unit
4	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
5	VDD_INT	-	Power supply terminal (+1.1V) (for core)
6	BOOT_CFG1	I	Serial data input from the system controller
7	GND	-	Ground terminal
8, 9	NC	-	Not used
10	CLK_CFG0	I	Core instruction rate to CLKIN (pin 12) ratio selection signal input terminal Fixed at "L" in this unit
11	VDD_INT	-	Power supply terminal (+1.1V) (for core)
12	CLKIN	I	System clock input terminal (25 MHz)
13	XTAL	O	System clock output terminal (25 MHz)
14	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
15, 16	VDD_INT	-	Power supply terminal (+1.1V) (for core)
17	RESETOUT/ RUNRSTIN	I/O	Reset signal output and running reset signal input terminal Not used
18	VDD_INT	-	Power supply terminal (+1.1V) (for core)
19	MOSI	I	Serial data input from the system controller
20	MISO	O	Serial data output to the system controller
21	SPICLK	I	Serial data transfer clock signal input from the system controller
22	VDD_INT	-	Power supply terminal (+1.1V) (for core)
23	DPI_P05	I	Chip select signal input from the system controller
24	DSP_CS	I	Chip select signal input from the system controller
25	MD	-	Not used
26	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
27	DPI_P08	-	Not used
28	RESET_MAIN	-	Not used
29	VDD_INT	-	Power supply terminal (+1.1V) (for core)
30	UART_OUT	O	Serial data output terminal Not used
31	UART_IN	I	Serial data input terminal Not used
32	LED	-	Not used
33, 34	DPI_P12, DPI_P13	-	Not used
35	DAI_P03	-	Not used
36	DPI_P14	-	Not used
37 to 39	VDD_INT	-	Power supply terminal (+1.1V) (for core)
40	SL/SR_IN	I	Audio signal (for surround L-ch/R-ch) input from the digital audio interface receiver
41	SL/SR_OUT	O	Audio signal output terminal Not used
42	BCLK_IN	I	Bit clock signal input from the digital audio interface receiver
43	OPTION_L/ OPTION_R_OUT	O	Audio signal output terminal Not used
44	FRONTHI_L/R_OUT	O	Audio signal output terminal Not used
45	VDD_INT	-	Power supply terminal (+1.1V) (for core)
46	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
47	VDD_INT	-	Power supply terminal (+1.1V) (for core)
48	L/R_OUT	O	Audio signal (for front L-ch/R-ch) output to the stream processor
49	MID/SW2_OUT	O	Audio signal output terminal Not used
50	SBL/SBR_OUT	O	Audio signal output terminal Not used
51	ZONE_L/R	I/O	Not used
52	VDD_INT	-	Power supply terminal (+1.1V) (for core)
53	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
54	MCLK_IN	I	Master clock signal input from the digital audio interface receiver
55	VDD_INT	-	Power supply terminal (+1.1V) (for core)
56	C/SW1_OUT	O	Audio signal (for subwoofer) output to the stream processor and RF modulator
57	A/D_2CH	I	Audio signal input from the digital audio interface receiver
58	C/SW_IN	I	Audio signal (for center and subwoofer) input from the digital audio interface receiver
59	LRCLK_IN	I	L/R sampling clock signal input from the digital audio interface receiver
60	BCLK_OUT	O	Bit clock signal output to the stream processor and RF modulator

Pin No.	Pin Name	I/O	Description
61	LRCLK_OUT	O	L/R sampling clock signal output to the stream processor and RF modulator
62	SBL/SBR_IN	I	Audio signal (for surround back L-ch/R-ch) input from the digital audio interface receiver
63	L/R_IN	I	Audio signal (for front L-ch/R-ch) input from the digital audio interface receiver
64	VDD_INT	-	Power supply terminal (+1.1V) (for core)
65	DIR_IN	I	Audio signal input from the digital audio interface receiver
66, 67	VDD_INT	-	Power supply terminal (+1.1V) (for core)
68	GND	-	Ground terminal
69	THD_M	O	Thermal detection signal output terminal Not used
70	THD_P	I	Thermal detection signal input terminal Not used
71	VDD_THD	-	Power supply terminal (+3.3V)
72 to 76	VDD_INT	-	Power supply terminal (+1.1V) (for core)
77	FLAG0	O	Interrupt request signal output to the system controller
78, 79	VDD_INT	-	Power supply terminal (+1.1V) (for core)
80	FLAG1	I	Error detection signal input terminal "L": error
81	FLAG2	I	Audio setting signal input terminal "L": LPCM audio, "H": HBR audio
82	FLAG3	-	Not used
83	MLBCLK	-	Not used
84	MLBDAT	-	Not used
85	MLBDO	-	Not used
86	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
87	MLBSIG	-	Not used
88	VDD_INT	-	Power supply terminal (+1.1V) (for core)
89	MLBSO	-	Not used
90	TRST	I	Test reset signal input terminal (for JTAG) Not used
91	EMU	O	Emulation status signal output terminal Not used
92	TDO	O	Test data output terminal (for JTAG) Not used
93	VDD_EXT	-	Power supply terminal (+3.3V) (for I/O)
94	VDD_INT	-	Power supply terminal (+1.1V) (for core)
95	TDI	I	Test data input terminal (for JTAG) Not used
96	TCK	I	Test clock signal input terminal (for JTAG) Not used
97	VDD_INT	-	Power supply terminal (+1.1V) (for core)
98	RESET	I	Reset signal input from the system controller "L": reset
99	TMS	I	Test mode selection signal input terminal (for JTAG) Not used
100	VDD_INT	-	Power supply terminal (+1.1V) (for core)

MAIN BOARD IC1501 SII9573CTUC (HDMI TRANSCEIVER)

Pin No.	Pin Name	I/O	Description
1 to 6	D14 to D19	I	Digital video signal input terminal Not used
7	DE	I	Data enable signal input terminal Not used
8	VSYNC	I	Vertical sync signal input terminal Not used
9	HSYNC	I	Horizontal sync signal input terminal Not used
10	R0XC-	I	TMDS clock (negative) signal input terminal Not used
11	R0XC+	I	TMDS clock (positive) signal input terminal Not used
12	R0X0-	I	TMDS data (negative) input terminal Not used
13	R0X0+	I	TMDS data (positive) input terminal Not used
14	R0X1-	I	TMDS data (negative) input terminal Not used
15	R0X1+	I	TMDS data (positive) input terminal Not used
16	R0X2-	I	TMDS data (negative) input terminal Not used
17	R0X2+	I	TMDS data (positive) input terminal Not used
18	AVDD12	-	Power supply terminal (+1.3V)
19	AVDD33	-	Power supply terminal (+3.3V)
20	R1XC-	I	TMDS clock (negative) signal input from the HDMI IN 3 connector
21	R1XC+	I	TMDS clock (positive) signal input from the HDMI IN 3 connector
22	R1X0-	I	TMDS data (negative) input from the HDMI IN 3 connector
23	R1X0+	I	TMDS data (positive) input from the HDMI IN 3 connector
24	R1X1-	I	TMDS data (negative) input from the HDMI IN 3 connector
25	R1X1+	I	TMDS data (positive) input from the HDMI IN 3 connector
26	R1X2-	I	TMDS data (negative) input from the HDMI IN 3 connector
27	R1X2+	I	TMDS data (positive) input from the HDMI IN 3 connector
28	R2XC-	I	TMDS clock (negative) signal input terminal Not used
29	R2XC+	I	TMDS clock (positive) signal input terminal Not used
30	R2X0-	I	TMDS data (negative) input terminal Not used
31	R2X0+	I	TMDS data (positive) input terminal Not used
32	R2X1-	I	TMDS data (negative) input terminal Not used
33	R2X1+	I	TMDS data (positive) input terminal Not used
34	R2X2-	I	TMDS data (negative) input terminal Not used
35	R2X2+	I	TMDS data (positive) input terminal Not used
36	AVDD12	-	Power supply terminal (+1.3V)
37	CVCC12	-	Power supply terminal (+1.3V)
38	AVDD33	-	Power supply terminal (+3.3V)
39	R3XC-	I	TMDS clock (negative) signal input terminal Not used
40	R3XC+	I	TMDS clock (positive) signal input terminal Not used
41	R3X0-	I	TMDS data (negative) input terminal Not used
42	R3X0+	I	TMDS data (positive) input terminal Not used
43	R3X1-	I	TMDS data (negative) input terminal Not used
44	R3X1+	I	TMDS data (positive) input terminal Not used
45	R3X2-	I	TMDS data (negative) input terminal Not used
46	R3X2+	I	TMDS data (positive) input terminal Not used
47	R4XC-	I	TMDS clock (negative) signal input from the HDMI receiver
48	R4XC+	I	TMDS clock (positive) signal input from the HDMI receiver
49	R4X0-	I	TMDS data (negative) input from the HDMI receiver
50	R4X0+	I	TMDS data (positive) input from the HDMI receiver
51	R4X1-	I	TMDS data (negative) input from the HDMI receiver
52	R4X1+	I	TMDS data (positive) input from the HDMI receiver
53	R4X2-	I	TMDS data (negative) input from the HDMI receiver
54	R4X2+	I	TMDS data (positive) input from the HDMI receiver
55	AVDD12	-	Power supply terminal (+1.3V)
56	AVDD33	-	Power supply terminal (+3.3V)
57	R5XC-	I	TMDS clock (negative) signal input from the HDMI IN 2 connector
58	R5XC+	I	TMDS clock (positive) signal input from the HDMI IN 2 connector
59	R5X0-	I	TMDS data (negative) input from the HDMI IN 2 connector
60	R5X0+	I	TMDS data (positive) input from the HDMI IN 2 connector
61	R5X1-	I	TMDS data (negative) input from the HDMI IN 2 connector
62	R5X1+	I	TMDS data (positive) input from the HDMI IN 2 connector
63	R5X2-	I	TMDS data (negative) input from the HDMI IN 2 connector

Pin No.	Pin Name	I/O	Description
64	R5X2+	I	TMDs data (positive) input from the HDMI IN 2 connector
65	CVCC12	-	Power supply terminal (+1.3V)
66	C_SCL	I	Serial data transfer clock signal input from the system controller
67	C_SDA	I/O	Two-way data bus with the system controller and HDMI receiver
68	INT	O	Interrupt signal output to the system controller
69	RESET	I	Reset signal input from the system controller "L": reset
70	TPWR_C12CA	I	Not used
71	CEC_A1	O	Not used
72	CEC_A0WAKEUP	O	Not used
73	DSDA6	I/O	Two-way I2C serial data bus terminal Not used
74	D_SCL6	I	I2C serial data transfer clock signal input terminal Not used
75	LPSVCC33	I	Not used
76	DSDA0	I/O	Two-way I2C serial data bus terminal Not used
77	D_SCL0	I	I2C serial data transfer clock signal input terminal Not used
78	CBUS_HPD0	O	Hot plug detection control signal output terminal Not used
79	R0PWR5V	I	Power supply voltage (+5V) input terminal Not used
80	DSDA1	I/O	Two-way I2C serial data bus with the HDMI IN 3 connector
81	D_SCL1	I	I2C serial data transfer clock signal input from the HDMI IN 3 connector
82	CBUS_HPD1	O	Hot plug detection control signal output to the HDMI IN 3 connector
83	R1PWR5V	I	Power supply voltage (+5V) input from the HDMI IN 3 connector
84	DSDA2	I/O	Two-way I2C serial data bus terminal Not used
85	D_SCL2	I	I2C serial data transfer clock signal input terminal Not used
86	CBUS_HPD2	O	Hot plug detection control signal output terminal Not used
87	R2PWR5V	I	Power supply voltage (+5V) input terminal Not used
88	DSDA3	I/O	Two-way I2C serial data bus terminal Not used
89	D_SCL3	I	I2C serial data transfer clock signal input terminal Not used
90	CBUS_HPD3	O	Hot plug detection control signal output terminal Not used
91	R3PWR5V	I	Power supply voltage (+5V) input terminal Not used
92	DSDA4	I/O	Two-way I2C serial data bus with the HDMI IN 1 HDCP 2.2 connector
93	D_SCL4	I	I2C serial data transfer clock signal input from the HDMI IN 1 HDCP 2.2 connector
94	CBUS_HPD4	O	Hot plug detection control signal output to the HDMI IN 1 HDCP 2.2 connector
95	R4PWR5V	I	Power supply voltage (+5V) input from the HDMI IN 1 HDCP 2.2 connector
96	RSVDL	I	Not used
97	DSDA5	I/O	Two-way I2C serial data bus with the HDMI IN 2 connector
98	D_SCL5	I	I2C serial data transfer clock signal input from the HDMI IN 2 connector
99	CBUS_HPD5	O	Hot plug detection control signal output to the HDMI IN 2 connector
100	R5PWR5V	I	Power supply voltage (+5V) input from the HDMI IN 2 connector
101	SBVCC5V	-	Power supply terminal (+5V)
102	VCC33OUT	O	Power supply (+3.3V) output terminal
103, 104	MHL0_CD0/GPIO0, MHL1_CD1/GPIO1	I/O	Not used
105	TX_HPD0	I	Hot plug detection signal input from the HDMI transmitter
106	TXDSDA0	I/O	Two-way I2C serial data bus with the HDMI transmitter
107	TXD_SCL0	O	I2C serial data transfer clock signal output to the HDMI transmitter
108	TX_HPD1	I	Hot plug detection signal input terminal Not used
109	TXDSDA1	I/O	Two-way I2C serial data bus terminal Not used
110	TXD_SCL1	O	I2C serial data transfer clock signal output terminal Not used
111	APLL12	-	Power supply terminal (+1.3V)
112	XTALVCC33	-	Power supply terminal (+3.3V)
113	XTALOUT	O	System clock signal output terminal (27 MHz)
114	XTALIN	I	System clock signal input terminal (27 MHz)
115	XTALGND	-	Ground terminal
116	CVCC12	-	Power supply terminal (+1.3V)
117	SS/GPIO2	I/O	Not used
118	SCLK/GPIO3	I/O	Not used
119	SD0/GPIO4	I/O	Not used
120	SD1/GPIO5	I/O	Not used
121	WS0_OUT	O	L/R sampling clock signal output to the digital audio interface receiver
122	SCK0	O	Bit clock signal output to the digital audio interface receiver
123	IOVCC33	-	Power supply terminal (+3.3V)

Pin No.	Pin Name	I/O	Description
124	SD0_0	O	Digital audio signal output to the digital audio interface receiver
125	MCLK	O	Master clock signal output to the digital audio interface receiver
126 to 128	SD0_1 to SD0_3	O	Digital audio signal output to the digital audio interface receiver
129	MUTEOUT	O	HDMI muting on/off control signal output terminal "H": muting on
130	SPDIF0_OUT	O	S/PDIF audio signal output to the digital audio interface receiver
131	WS0_IN/GPIO11	I/O	Not used
132	SCK0_IN/GPIO10	I/O	Not used
133	SD0_IN/SPDIFO_IN	I	S/PDIF audio signal input terminal Not used
134	SCK1_IN/SCK1_OUT	O	Serial data transfer clock signal output terminal Not used
135	WS1_IN/WS1_OUT	O	Word select signal output terminal Not used
136	SD1_IN/SD1_OUT/ SPDIF1_IN/ SPDIF1_OUT	O	S/PDIF audio signal output terminal Not used
137, 138	ARC0, ARC1	I	Digital audio signal input terminal Not used
139	CVCC12	-	Power supply terminal (+1.3V)
140	TPVDD12	-	Power supply terminal (+1.3V)
141	TDVDD12	-	Power supply terminal (+1.3V)
142	T1XC-	O	TMDS clock (negative) output terminal Not used
143	T1XC+	O	TMDS clock (positive) output terminal Not used
144	T1X0-	O	TMDS data (negative) output terminal Not used
145	T1X0+	O	TMDS data (positive) output terminal Not used
146	T1X1-	O	TMDS data (negative) output terminal Not used
147	T1X1+	O	TMDS data (positive) output terminal Not used
148	T1X2-	O	TMDS data (negative) output terminal Not used
149	T1X2+	O	TMDS data (positive) output terminal Not used
150	TPVDD12	-	Power supply terminal (+1.3V)
151	TDVDD12	-	Power supply terminal (+1.3V)
152	T0XC-	O	TMDS clock (negative) output to the HDMI transmitter
153	T0XC+	O	TMDS clock (positive) output to the HDMI transmitter
154	T0X0-	O	TMDS data (negative) output to the HDMI transmitter
155	T0X0+	O	TMDS data (positive) output to the HDMI transmitter
156	T0X1-	O	TMDS data (negative) output to the HDMI transmitter
157	T0X1+	O	TMDS data (positive) output to the HDMI transmitter
158	T0X2-	O	TMDS data (negative) output to the HDMI transmitter
159	T0X2+	O	TMDS data (positive) output to the HDMI transmitter
160	CVCC12	-	Power supply terminal (+1.3V)
161 to 171	D0 to D10	I	Digital video signal input terminal Not used
172	IDCK	I	Output data clock signal input terminal Not used
173	IOVCC33	-	Power supply terminal (+3.3V)
174 to 176	D11 to D13	I	Digital video signal input terminal Not used

SECTION 6 EXPLODED VIEWS

Note:

- XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑ ↑
Parts Color Cabinet's Color

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

原理图和零件清单中标有 \triangle 记号的零部件，或带有 \triangle 记号的虚线所圈示的零部件，对于维系安全至关重要。因此只能以指定号码的零部件来更换。

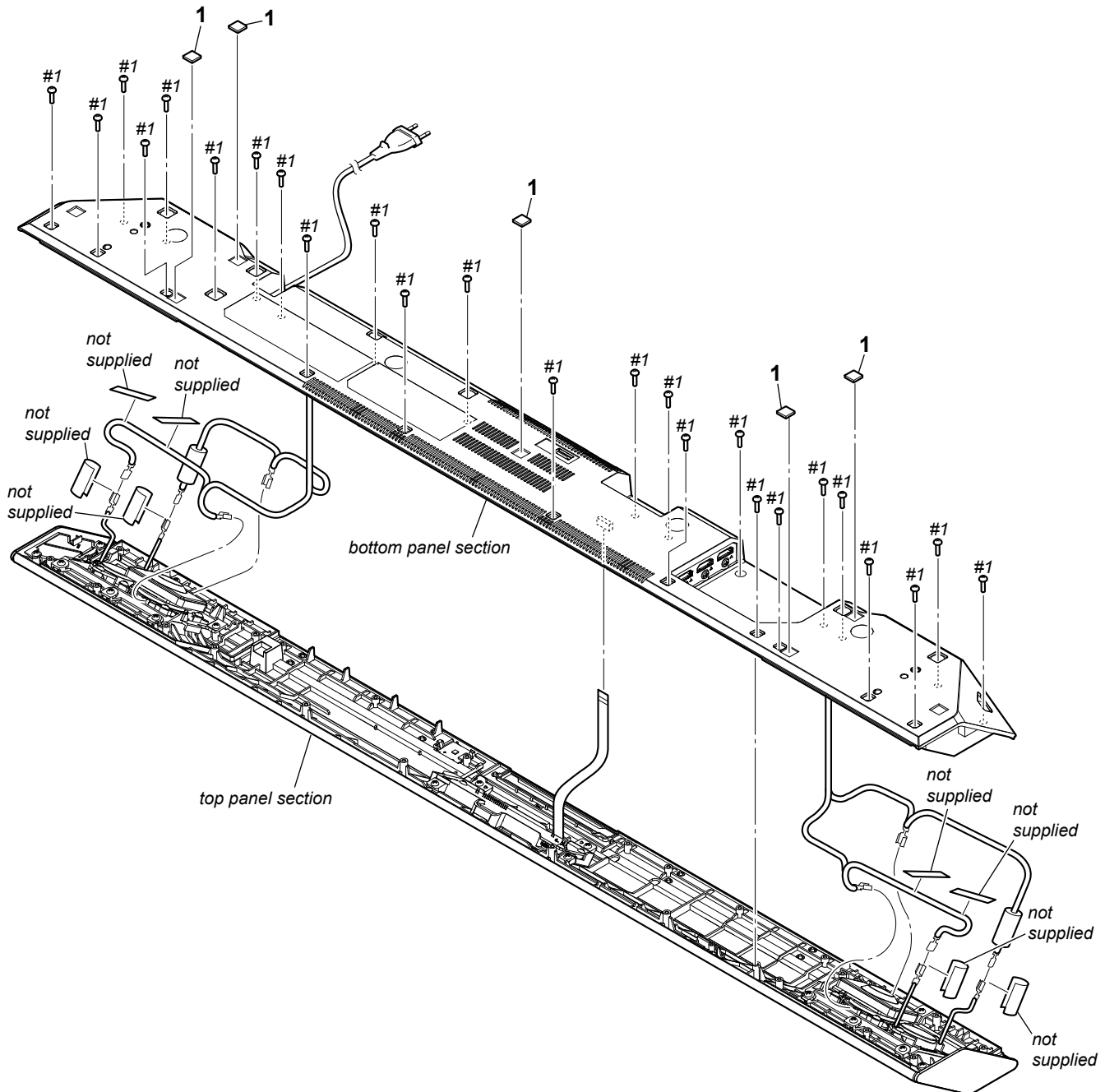
The components identified by mark \triangle contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

Les composants identifiés par la marque \triangle contiennent des informations confidentielles.
Suivre scrupuleusement les instructions chaque fois qu'un composant est remplacé et / ou réparé.

标识有 \triangle 的元件包含机密信息。
更换或维修元件时请严格遵守指示。

6-1. OVERALL SECTION

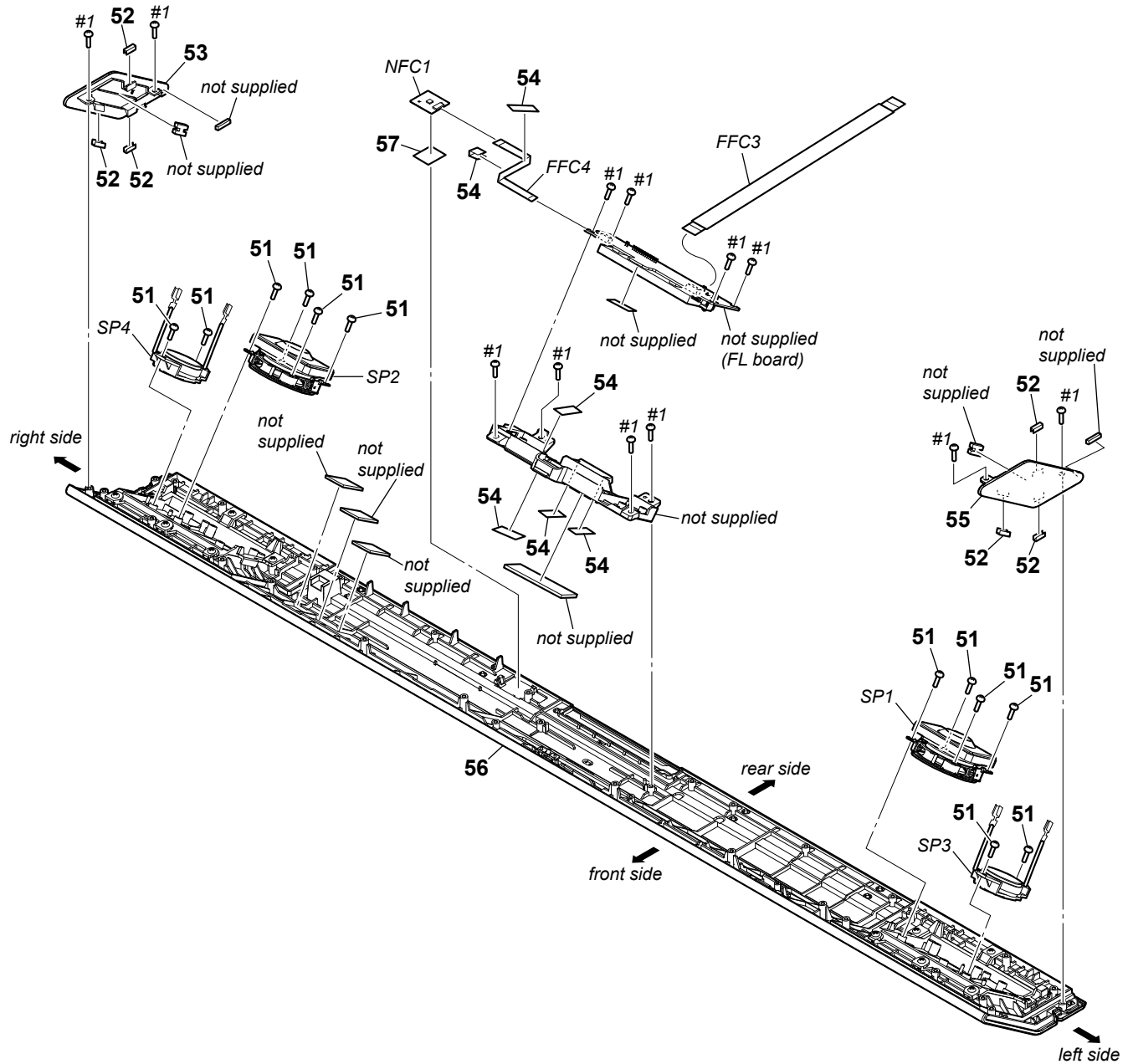
- Bottom view



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-247-752-01	FOOT, RUBBER		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	

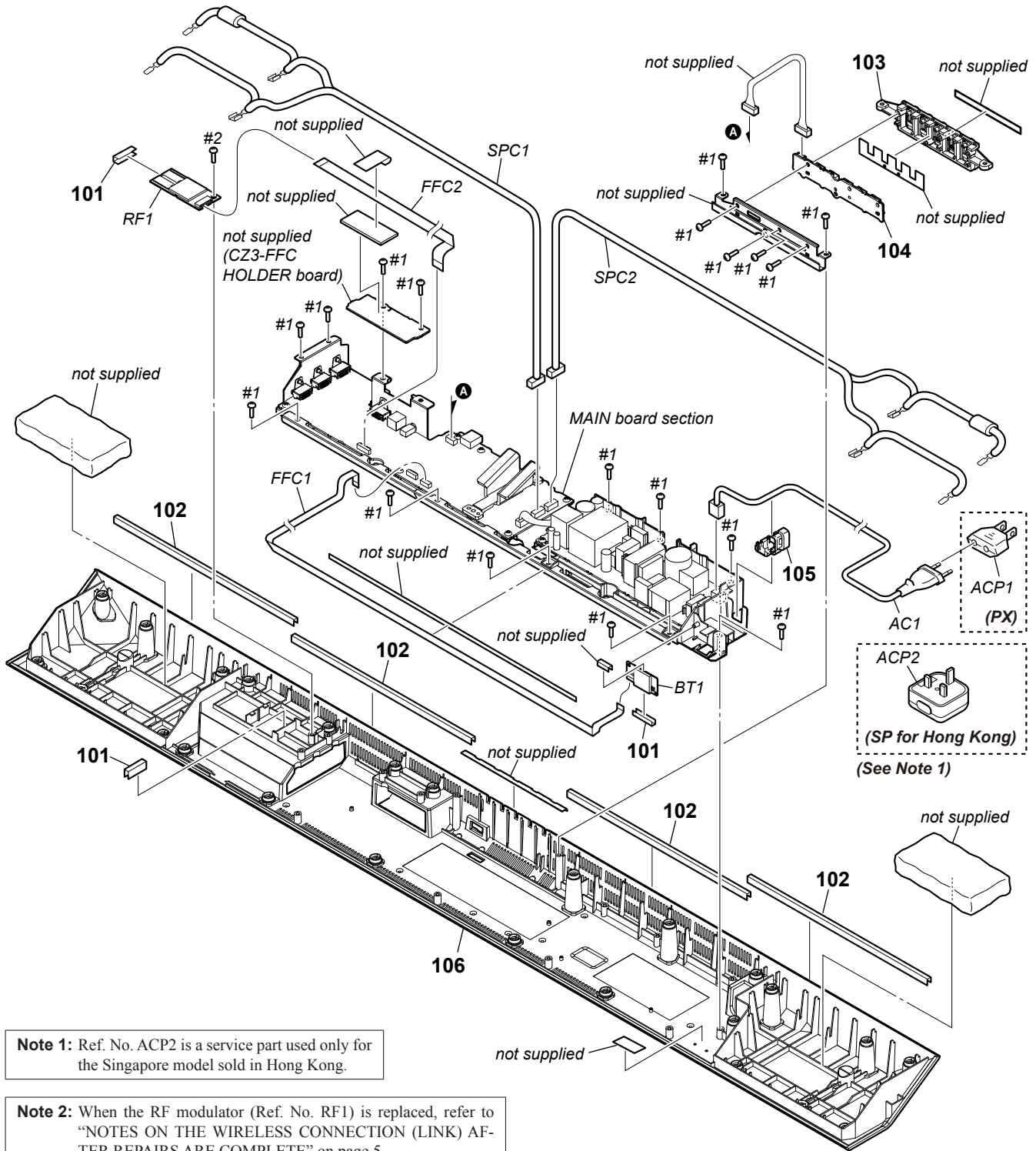
6-2. TOP PANEL SECTION

- Bottom view



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-986-971-12	SCREW (3.5)		FFC4	9-833-606-97	FFC 6P	
52	4-549-339-01	CUSHION SIDE		NFC1	8-989-602-00	RC-S730 (WW) (NFC module)	
53	4-548-760-01	PANEL SIDE R (Right side)		SP1	1-859-097-11	SPEAKER (60 mm) (Woofer) (L-ch)	
54	4-538-318-41	CUSHION (QV, A)		SP2	1-859-097-11	SPEAKER (60 mm) (Woofer) (R-ch)	
55	4-548-759-01	PANEL SIDE L (Left side)		SP3	1-859-096-11	SPEAKER (19 mm) (Tweeter) (L-ch)	
56	X-2590-960-3	TOP PANEL ASSY (US, CND)		SP4	1-859-096-11	SPEAKER (19 mm) (Tweeter) (R-ch)	
56	X-2590-961-3	TOP PANEL ASSY (Except US, CND)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
57	4-569-646-01	DOUBLE SIDE TAPE (NFC)					
FFC3	9-833-606-94	FFC 18P					

6-3. BOTTOM PANEL SECTION

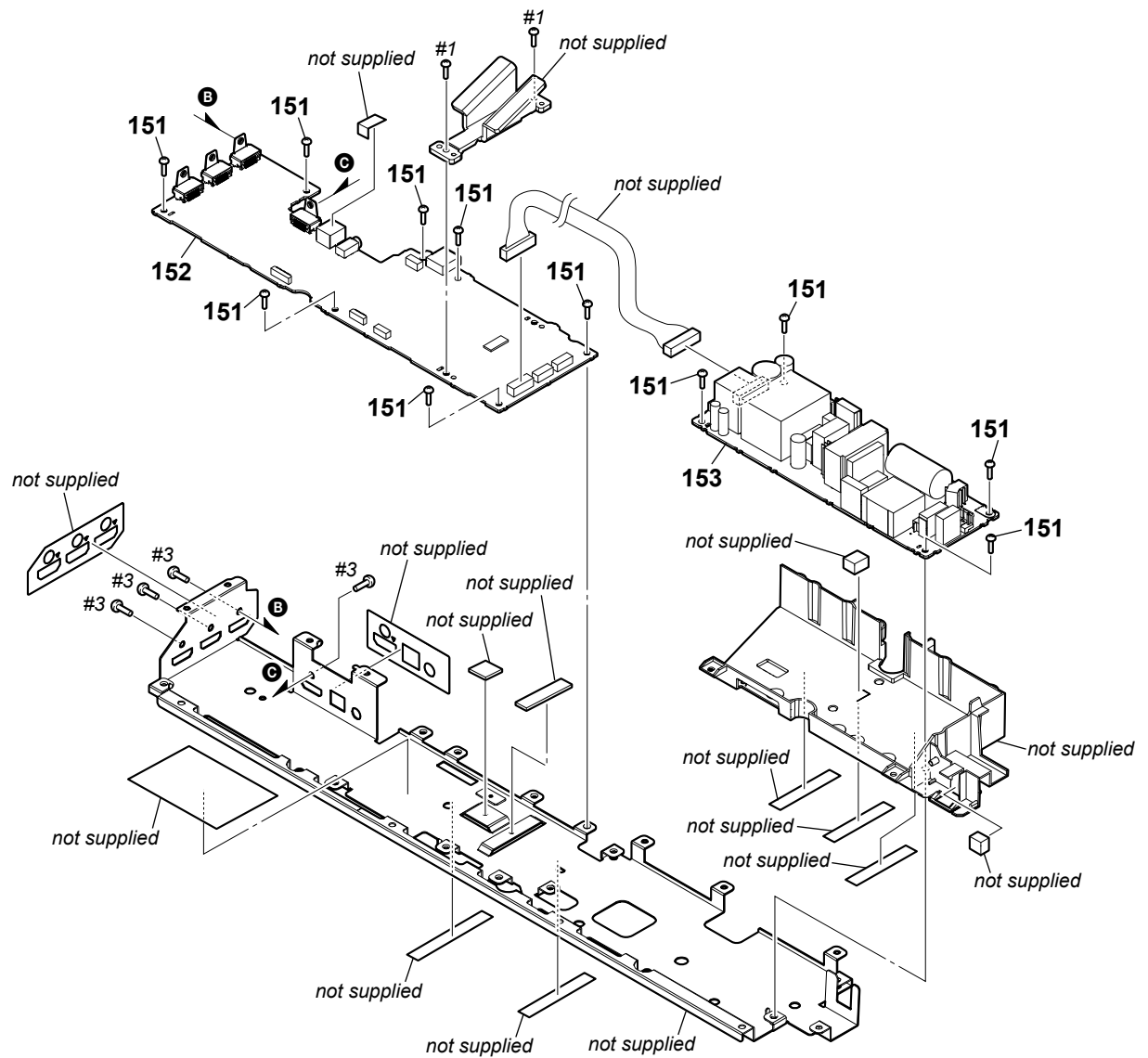


Note 1: Ref. No. ACP2 is a service part used only for the Singapore model sold in Hong Kong.

Note 2: When the RF modulator (Ref. No. RF1) is replaced, refer to "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-538-318-41	CUSHION (QV, A)		△ AC1	1-839-999-21	POWER-SUPPLY CORD (UK, EA3)	
102	4-564-649-02	SEALED PACKING CABI		△ ACP1	1-785-504-21	ADAPTOR, CONVERSION (PX)	
103	4-548-762-01	KEY		△ ACP2	1-770-019-72	ADAPTOR, CONVERSION PLUG 3P (SV) (SP for Hong Kong only) (See Note 1)	
104	A-2066-059-A	KEY BOARD, COMPLETE		BT1	1-490-558-92	BLUETOOTH MODULE	
△ 105	4-966-267-12	BUSHING (FBS001), CORD		FFC1	9-833-606-96	FFC 14P	
106	X-2590-963-2	BOTTOM PANEL ASSY (US, CND)		FFC2	9-833-606-95	FFC 24P	
106	X-2590-964-2	BOTTOM PANEL ASSY (Except US, CND)		RF1	1-492-347-11	RF MODULATOR (SWA12-4V TX) (See Note 2)	
△ AC1	1-834-966-42	POWER-SUPPLY CORD (AEP, E3, SP, PX)		SPC1	1-848-741-11	CONNECTION CABLE W/ SPK (L) (Left side)	
△ AC1	1-835-068-21	CORD, POWER (AUS)		SPC2	1-848-742-11	CONNECTION CABLE W/ SPK (R) (Right side)	
△ AC1	1-835-706-23	CORD, POWER-SUPPLY (BR)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
△ AC1	1-837-308-12	CORD, POWER-SUPPLY (US, CND)		#2	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT	
△ AC1	1-837-345-11	CORD, POWER-SUPPLY (TW)					
△ AC1	1-837-822-21	CORD, POWER-SUPPLY (CH)					

6-4. MAIN BOARD SECTION



Note 1: When the complete MAIN board is replaced, refer to “NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD” and “NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE” on page 5.

Note 2: When the complete POWER board is replaced, refer to “BOND FIXATION OF ELECTRIC PARTS” on page 6.

Ref. No.	Part No.	Description	Remark
151	3-077-331-71	+BV3 (3-CR)	
152	A-2073-958-A	MAIN BOARD, COMPLETE (SV) (US, CND)	(See Note 1)
152	A-2073-960-A	MAIN BOARD, COMPLETE (SV) (PX)	(See Note 1)
152	A-2073-964-A	MAIN BOARD, COMPLETE (SV) (AEP)	(See Note 1)
152	A-2073-966-A	MAIN BOARD, COMPLETE (SV) (UK)	(See Note 1)
152	A-2073-968-A	MAIN BOARD, COMPLETE (SV) (EA3)	(See Note 1)
152	A-2073-970-A	MAIN BOARD, COMPLETE (SV) (E3)	(See Note 1)
152	A-2073-972-A	MAIN BOARD, COMPLETE (SV) (SP)	(See Note 1)
152	A-2073-974-A	MAIN BOARD, COMPLETE (SV) (CH)	(See Note 1)

Ref. No.	Part No.	Description	Remark
152	A-2073-976-A	MAIN BOARD, COMPLETE (SV) (AUS)	(See Note 1)
152	A-2073-978-A	MAIN BOARD, COMPLETE (SV) (TW)	(See Note 1)
152	A-2074-356-A	MAIN BOARD, COMPLETE (SV) (BR)	(See Note 1)
153	A-2066-054-A	POWER BOARD, COMPLETE (US, CND, TW)	(See Note 2)
153	A-2066-056-A	POWER BOARD, COMPLETE (Except US, CND, TW)	(See Note 2)
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
#3	7-682-546-09	SCREW +B 3X5	

SECTION 7
ELECTRICAL PARTS LIST

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- CAPACITORS
uF: μ F

- COILS
uH: μ H
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . . : μ A. . . , uPA. . . , μ PA. . . ,
uPB. . . : μ PB. . . , uPC. . . , μ PC. . . ,
uPD. . . : μ PD. . .

When indicating parts by reference number, please include the board name.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

原理图和零件清单中标有 \triangle 记号的零部件, 或带有 \triangle 记号的虚线所圈示的零部件, 对于维系安全至关重要。因此只能以指定号码的零部件来更换。

The components identified by mark \triangle contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

Les composants identifiés par la marque \triangle contiennent des informations confidentielles.
Suivre scrupuleusement les instructions chaque fois qu'un composant est remplacé et / ou réparé.

标识有 \triangle 的元件包含机密信息。
更换或维修元件时请严格遵守指示。

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		FL BOARD *****				< IC >	
		< CAPACITOR >		IC801	6-600-767-01	IC PNA4823M02S0	
				IC803	6-719-198-01	IC MM3411A33URE	
						< COIL >	
* C801	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	L801	1-481-524-11	INDUCTOR 10uH	
C808	1-118-039-11	CERAMIC CHIP 1uF	10% 25V			< FLUORESCENT INDICATOR TUBE >	
C809	1-118-047-11	CERAMIC CHIP 10uF	10% 16V	ND801	1-483-520-11	VACUUM FLUORESCENT DISPLAY	
* C810	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V			< TRANSISTOR >	
C811	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	Q801	6-552-941-01	TRANSISTOR LTC023JUBFS8TL	
				Q802	6-553-291-01	TRANSISTOR BC817DPN	
C812	1-118-952-11	CERAMIC CHIP 1uF	10% 50V			< RESISTOR >	
C813	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	R809	1-216-809-11	METAL CHIP 100 5% 1/10W	
C814	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	R810	1-216-809-11	METAL CHIP 100 5% 1/10W	
C815	1-118-952-11	CERAMIC CHIP 1uF	10% 50V	R811	1-218-937-11	METAL CHIP 47 5% 1/16W	
C816	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	R812	1-218-937-11	METAL CHIP 47 5% 1/16W	
				R813	1-218-969-11	METAL CHIP 22K 5% 1/16W	
C817	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	R814	1-218-965-11	METAL CHIP 10K 5% 1/16W	
C818	1-118-361-11	CERAMIC CHIP 0.1uF	10% 50V	R816	1-216-839-11	METAL CHIP 33K 5% 1/10W	
C819	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	R817	1-216-833-11	METAL CHIP 10K 5% 1/10W	
C820	1-118-417-11	CERAMIC CHIP 0.1uF	10% 16V	R818	1-216-797-11	METAL CHIP 10 5% 1/10W	
C821	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	R819	1-216-797-11	METAL CHIP 10 5% 1/10W	
				R820	1-250-656-11	METAL CHIP 47K 1% 1/10W	
C822	1-118-289-11	CERAMIC CHIP 0.1uF	10% 16V			< COMPOSITION CIRCUIT BLOCK >	
C823	1-118-412-11	CERAMIC CHIP 220PF	10% 50V	RB801	1-234-371-11	RES, NETWORK 47 (1005X4)	
C824	1-118-412-11	CERAMIC CHIP 220PF	10% 50V	RB802	1-234-372-11	RES, NETWORK 100 (1005X4)	
C825	1-118-412-11	CERAMIC CHIP 220PF	10% 50V	*****			
		< CONNECTOR >		A-2066-059-A	KEY BOARD, COMPLETE		
CN803	1-822-287-41	CONNECTOR, FFC/FPC 18P		*****			
CN804	1-816-654-61	FFC/CONNECTOR, FPC (LIF) 6P		When the KEY board is defective, replace the complete mounted board.			
		< DIODE >		*****			
D801	6-503-196-01	LED CL-194S-HB8SP-SD-T (BLUETOOTH INDICATOR)					
D802	6-502-961-01	DIODE DA2J10100L					
D803	6-500-400-01	DIODE BAV99-215					
D804	6-503-737-01	DIODE CES520					
D805	6-500-400-01	DIODE BAV99-215					
D806	6-502-241-01	DIODE KDZTR2.0B					
D807	6-503-040-01	DIODE DZ2J300M0L					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
☑	A-2073-958-A	MAIN BOARD, COMPLETE (SV) (US, CND) (See Note)		C304	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
☑	A-2073-960-A	MAIN BOARD, COMPLETE (SV) (PX) (See Note)		C305	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
☑	A-2073-964-A	MAIN BOARD, COMPLETE (SV) (AEP) (See Note)		* C306	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
☑	A-2073-966-A	MAIN BOARD, COMPLETE (SV) (UK) (See Note)		C307	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
☑	A-2073-968-A	MAIN BOARD, COMPLETE (SV) (EA3) (See Note)		C308	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
☑	A-2073-970-A	MAIN BOARD, COMPLETE (SV) (E3) (See Note)		C309	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
☑	A-2073-972-A	MAIN BOARD, COMPLETE (SV) (SP) (See Note)		C310	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
☑	A-2073-974-A	MAIN BOARD, COMPLETE (SV) (CH) (See Note)		C311	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
☑	A-2073-976-A	MAIN BOARD, COMPLETE (SV) (AUS) (See Note)		C312	1-164-852-11	CERAMIC CHIP 12PF	5% 50V
☑	A-2073-978-A	MAIN BOARD, COMPLETE (SV) (TW) (See Note)		C313	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
☑	A-2074-356-A	MAIN BOARD, COMPLETE (SV) (BR) (See Note) ***** < CAPACITOR >		* C314	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
				C315	1-164-852-11	CERAMIC CHIP 12PF	5% 50V
				C316	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
				C317	1-162-968-91	CERAMIC CHIP 0.0047uF	10% 50V
				* C318	1-118-387-11	CERAMIC CHIP 0.068uF	10% 16V
C101	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C319	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C102	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C320	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C103	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C321	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C104	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C322	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C105	1-116-724-11	CERAMIC CHIP 4.7uF	20% 6.3V	C323	1-164-874-11	CERAMIC CHIP 100PF	5% 50V
C106	1-116-724-11	CERAMIC CHIP 4.7uF	20% 6.3V	C324	1-164-874-11	CERAMIC CHIP 100PF	5% 50V
C107	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C325	1-164-858-11	CERAMIC CHIP 22PF	5% 50V
C108	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C326	1-165-492-21	ELECT CHIP 100uF	20% 10V
C109	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C327	1-164-858-11	CERAMIC CHIP 22PF	5% 50V
C110	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C328	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C113	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C329	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C114	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C330	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C115	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C331	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C116	1-116-724-11	CERAMIC CHIP 4.7uF	20% 6.3V	C333	1-165-492-21	ELECT CHIP 100uF	20% 10V
C117	1-116-724-11	CERAMIC CHIP 4.7uF	20% 6.3V	C334	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C118	1-118-403-11	CERAMIC CHIP 0.001uF	10% 50V	C336	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C119	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C337	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C120	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C338	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C121	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C339	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C122	1-116-724-11	CERAMIC CHIP 4.7uF	20% 6.3V	C340	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C123	1-118-403-11	CERAMIC CHIP 0.001uF	10% 50V	C342	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
* C124	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V	C344	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C125	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C346	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C126	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C347	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C128	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C349	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C129	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C350	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
* C130	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C351	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C131	1-118-403-11	CERAMIC CHIP 0.001uF	10% 50V	C353	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C133	1-116-737-11	CERAMIC CHIP 1uF	20% 10V	C354	1-164-852-11	CERAMIC CHIP 12PF	5% 50V
C134	1-116-745-11	CERAMIC CHIP 0.22uF	10% 6.3V	C356	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C135	1-118-391-11	CERAMIC CHIP 0.01uF	10% 50V	C357	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C136	1-116-737-11	CERAMIC CHIP 1uF	20% 10V	C359	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C137	1-118-391-11	CERAMIC CHIP 0.01uF	10% 50V	C360	1-164-852-11	CERAMIC CHIP 12PF	5% 50V
C139	1-126-210-21	ELECT CHIP 220uF	20% 4V	C361	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C140	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C362	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C141	1-118-389-11	CERAMIC CHIP 0.022uF	10% 25V	C363	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C142	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C364	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C143	1-164-874-11	CERAMIC CHIP 100PF	5% 50V	C367	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C145	1-164-874-11	CERAMIC CHIP 100PF	5% 50V	C368	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C146	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C369	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C151	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	* C370	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C154	1-118-039-11	CERAMIC CHIP 1uF	10% 25V	C371	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
* C301	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C373	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
* C302	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C374	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C303	1-164-866-11	CERAMIC CHIP 47PF	5% 50V	C375	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V

Note: When the complete MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" and "NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE" on page 5.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C377	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C550	1-100-158-91	CERAMIC CHIP 1000PF	5% 100V
C378	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C551	1-100-158-91	CERAMIC CHIP 1000PF	5% 100V
C379	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C552	1-100-158-91	CERAMIC CHIP 1000PF	5% 100V
* C381	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C601	1-118-389-11	CERAMIC CHIP 0.022uF	10% 25V
C382	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C602	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C383	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C603	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C384	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C604	1-116-865-11	CERAMIC CHIP 10uF	10% 25V
C385	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C605	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C386	1-116-745-11	CERAMIC CHIP 0.22uF	10% 6.3V	* C606	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C387	1-126-210-21	ELECT CHIP 220uF	20% 4V	* C608	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
* C388	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C610	1-118-389-11	CERAMIC CHIP 0.022uF	10% 25V
* C389	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	* C611	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C390	1-116-865-11	CERAMIC CHIP 10uF	10% 25V	C612	1-165-492-21	ELECT CHIP 100uF	20% 10V
* C391	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V	* C613	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C392	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C615	1-116-865-11	CERAMIC CHIP 10uF	10% 25V
C393	1-118-389-11	CERAMIC CHIP 0.022uF	10% 25V	* C616	1-116-714-11	CERAMIC CHIP 22uF	20% 6.3V
C396	1-126-210-21	ELECT CHIP 220uF	20% 4V	* C617	1-116-714-11	CERAMIC CHIP 22uF	20% 6.3V
C397	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C618	1-128-392-11	ELECT CHIP 470uF	20% 6.3V
C398	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	C619	1-128-392-11	ELECT CHIP 470uF	20% 6.3V
C501	1-118-391-11	CERAMIC CHIP 0.01uF	10% 50V	C623	1-165-492-21	ELECT CHIP 100uF	20% 10V
C502	1-118-395-11	CERAMIC CHIP 0.0047uF	10% 50V	C624	1-116-717-11	CERAMIC CHIP 10uF	20% 10V
C503	1-118-395-11	CERAMIC CHIP 0.0047uF	10% 50V	C625	1-116-717-11	CERAMIC CHIP 10uF	20% 10V
* C504	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	* C626	1-116-714-11	CERAMIC CHIP 22uF	20% 6.3V
C505	1-118-395-11	CERAMIC CHIP 0.0047uF	10% 50V	* C627	1-116-714-11	CERAMIC CHIP 22uF	20% 6.3V
* C506	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	* C628	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C507	1-118-388-11	CERAMIC CHIP 0.047uF	10% 25V	C632	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C508	1-118-388-11	CERAMIC CHIP 0.047uF	10% 25V	C633	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
* C509	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C634	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
* C510	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	C635	1-116-716-11	CERAMIC CHIP 10uF	10% 16V
* C511	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	C636	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
* C512	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C638	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C513	1-118-044-11	CERAMIC CHIP 1uF	10% 50V	C639	1-116-716-11	CERAMIC CHIP 10uF	10% 16V
* C514	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	C640	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
* C515	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	C642	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C516	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V	* C645	1-116-714-11	CERAMIC CHIP 22uF	20% 6.3V
* C517	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	* C646	1-116-714-11	CERAMIC CHIP 22uF	20% 6.3V
* C518	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	* C647	1-116-719-11	CERAMIC CHIP 10uF	10% 6.3V
C519	1-117-681-11	ELECT CHIP 100uF	20% 16V	C648	1-126-210-21	ELECT CHIP 220uF	20% 4V
C520	1-118-391-11	CERAMIC CHIP 0.01uF	10% 50V	C650	1-100-354-21	ELECT CHIP 220uF	20% 6.3V
* C521	1-116-735-11	CERAMIC CHIP 1uF	10% 16V	C651	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C522	1-118-365-11	CERAMIC CHIP 0.047uF	10% 50V	C652	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C523	1-118-365-11	CERAMIC CHIP 0.047uF	10% 50V	C653	1-118-386-11	CERAMIC CHIP 0.1uF	10% 16V
C524	1-100-756-91	CERAMIC CHIP 0.047uF	10% 50V	C1001	1-116-717-11	CERAMIC CHIP 10uF	20% 10V
C525	1-118-365-11	CERAMIC CHIP 0.047uF	10% 50V	* C1002	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
C526	1-118-044-11	CERAMIC CHIP 1uF	10% 50V	* C1003	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C527	1-118-044-11	CERAMIC CHIP 1uF	10% 50V	* C1004	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
* C530	1-118-407-11	CERAMIC CHIP 470PF	10% 50V	* C1005	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
* C531	1-118-407-11	CERAMIC CHIP 470PF	10% 50V	* C1006	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
* C532	1-118-407-11	CERAMIC CHIP 470PF	10% 50V	* C1007	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
* C533	1-118-407-11	CERAMIC CHIP 470PF	10% 50V	C1008	1-116-724-11	CERAMIC CHIP 4.7uF	20% 6.3V
C534	1-118-485-11	FILM CHIP 1uF	20% 35V	* C1009	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C535	1-118-485-11	FILM CHIP 1uF	20% 35V	* C1010	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C536	1-118-485-11	FILM CHIP 1uF	20% 35V	C1011	1-116-737-11	CERAMIC CHIP 1uF	20% 10V
C537	1-118-485-11	FILM CHIP 1uF	20% 35V	* C1012	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C539	1-112-802-11	ELECT CHIP 330uF	20% 35V	* C1013	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
C542	1-112-802-11	ELECT CHIP 330uF	20% 35V	* C1014	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
* C546	1-118-360-11	CERAMIC CHIP 0.1uF	10% 25V	* C1015	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V
* C547	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	* C1016	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V
* C548	1-116-720-11	CERAMIC CHIP 10uF	20% 6.3V	C1017	1-118-478-11	CERAMIC CHIP 2.2uF	10% 10V
C549	1-100-158-91	CERAMIC CHIP 1000PF	5% 100V	* C1018	1-118-035-11	CERAMIC CHIP 0.1uF	10% 25V

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CN1001	1-821-398-41	HDMI CONNECTOR (HDMI IN 1 [HDCP 2.2])				< IC/JACK >	
CN1004	1-821-398-41	HDMI CONNECTOR (ARC [HDCP 2.2] HDMI OUT)		IC101	6-721-894-01	IC BR24G16FJ-3GTE2	
CN1501	1-821-398-41	HDMI CONNECTOR (HDMI IN 2)		IC102	(Not supplied)	IC MB9BF328SPMC-GE1 (See Note 1)	
CN1502	1-821-398-41	HDMI CONNECTOR (HDMI IN 3)		IC104	(Not supplied)	IC MFI337S3959 (See Note 1)	
		< DIODE >		IC105	6-717-680-01	IC BD00IC0WEFJ-E2	
D102	6-503-761-01	DIODE RB751S40, 115		IC106	6-713-333-01	IC PST8429UL	
D103	6-503-737-01	DIODE CES520					
D104	6-503-737-01	DIODE CES520		IC110	6-712-825-01	IC R1154N001C-TR-FE	
D105	6-503-775-01	DIODE CRH02 (T5R, SONY, XM)		IC301	8-759-596-39	IC SN74LV4052APWR	
D106	6-502-961-01	DIODE DA2J10100L		IC302	8-759-278-58	IC NJM4558V-TE2	
				IC303	6-716-745-01	IC PCM9211PTR	
D107	6-502-961-01	DIODE DA2J10100L		IC304	6-718-999-01	IC MM1839A50NRE	
D302	6-503-737-01	DIODE CES520					
D303	6-503-737-01	DIODE CES520		IC306	6-719-198-01	IC MM3411A33URE	
D501	6-502-252-01	DIODE KDZTR5.6B		IC307	(Not supplied)	IC W25Q16DVSSIG (See Note 1)	
D502	6-502-961-01	DIODE DA2J10100L		IC308	(Not supplied)	IC ADSST-AVR-3045 (See Note 1)	
				IC309	6-707-870-01	IC TC74VHC157FT (EK)	
D503	6-503-040-01	DIODE DZ2J300M0L		IC310	6-710-388-01	IC 74LVC1G79GW-125	
D601	8-719-053-18	DIODE 1SR154-400TE-25					
D602	8-719-053-18	DIODE 1SR154-400TE-25		IC311	6-704-099-01	IC TC7WZ08FK	
D1801	8-719-053-18	DIODE 1SR154-400TE-25		IC312	8-759-655-22	IC TC7WH34FK	
		< FUSE >		IC313	(Not supplied)	IC RT8295ALZSP (See Note 1)	
△ F501	1-523-337-11	FUSE (5 A/32 V)		IC501	6-718-105-01	IC TAS5534DGGR	
△ F502	1-523-337-11	FUSE (5 A/32 V)		IC502	6-718-377-01	IC BD00C0AWFP-E2	
		< FERRITE BEAD >					
FB101	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC503	6-721-021-01	IC TAS5624ADDVR (See Note 2)	
FB103	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC601	(Not supplied)	IC RT8295ALZSP (See Note 1)	
FB105	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC602	(Not supplied)	IC RT8295ALZSP (See Note 1)	
FB107	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC603	(Not supplied)	IC TPS542941PWPR (See Note 1)	
FB301	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC604	6-719-139-01	IC MM3411A50NRE	
FB302	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC605	(Not supplied)	IC BD00IC0WHFV-GTR (See Note 1)	
FB303	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1001	6-719-062-01	IC W25X20CLSNIG	
FB304	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1002	(Not supplied)	IC SII9679CNUC (See Note 1)	
FB501	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1003	6-719-062-01	IC W25X20CLSNIG	
FB502	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1004	(Not supplied)	IC SII9678CNUC	
FB602	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1005	6-718-999-01	IC MM1839A50NRE	
FB604	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1006	6-709-888-01	IC TC7WHU04FK	
FB606	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1501	(Not supplied)	IC SII9573CTUC	
FB607	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1801	1-843-541-11	OPTICAL RECEIVER JACK (TV DIGITAL IN)	
FB608	1-400-180-21	INDUCTOR, EMI FERRITE (1608)		IC1802	6-720-030-01	IC TPS2065CDBVR	
						< JACK >	
FB1001	1-481-348-21	EMI FERRITE (SMD) (1608)		* J1801	1-842-576-11	MINI JACK (RA) (ANALOG IN)	
FB1002	1-400-580-21	FERRITE, EMI (SMD)				< JUMPER RESISTOR >	
FB1003	1-481-348-21	EMI FERRITE (SMD) (1608)		JC501	1-216-864-11	SHORT CHIP 0	
FB1004	1-481-348-21	EMI FERRITE (SMD) (1608)		JC502	1-216-864-11	SHORT CHIP 0	
FB1005	1-400-580-21	FERRITE, EMI (SMD)		JC503	1-216-864-11	SHORT CHIP 0	
				JC504	1-216-864-11	SHORT CHIP 0	
FB1006	1-481-348-21	EMI FERRITE (SMD) (1608)		JC505	1-216-864-11	SHORT CHIP 0	
FB1501	1-481-348-21	EMI FERRITE (SMD) (1608)		JC506	1-216-864-11	SHORT CHIP 0	
FB1502	1-400-921-21	FERRITE, EMI (SMD)				< COIL >	
FB1503	1-400-580-21	FERRITE, EMI (SMD)		L301	1-481-524-11	INDUCTOR 10uH	
FB1504	1-469-525-91	INDUCTOR 10uH		L302	1-481-524-11	INDUCTOR 10uH	
				L303	1-481-524-11	INDUCTOR 10uH	
FB1505	1-481-348-21	EMI FERRITE (SMD) (1608)		L304	1-400-922-11	INDUCTOR 220uH	
		< FILTER >		L305	1-412-975-31	INDUCTOR 0.47uH	
FL301	1-234-939-21	FILTER, EMI REMOVAL (SMD)					
				L306	1-412-977-41	INDUCTOR 0.68uH	
				L307	1-412-977-41	INDUCTOR 0.68uH	
				L308	1-460-601-11	COIL, CHOKE 10uH	
				L501	1-469-555-21	INDUCTOR 10uH	
				L503	1-482-182-11	CHOKE COIL (SMD 10uH)	

Note 1: IC102, IC104, IC307, IC308, IC313, IC601 to IC603, IC605, IC1002, IC1004 and IC1501 on the MAIN board cannot be replaced with single. When these parts are damaged, replace the complete mounted board.

Note 2: When the IC503 on the MAIN board is replaced, refer to "NOTE OF REPLACING THE IC503 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on page 5.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L504	1-482-182-11	CHOKE COIL (SMD 10uH)		R160	1-218-941-81	METAL CHIP 100 5%	1/16W
L505	1-482-182-11	CHOKE COIL (SMD 10uH)		R161	1-218-937-11	METAL CHIP 47 5%	1/16W
L506	1-482-182-11	CHOKE COIL (SMD 10uH)		R162	1-218-965-11	METAL CHIP 10K 5%	1/16W
L602	1-460-601-11	COIL, CHOKE 10uH		R164	1-218-941-81	METAL CHIP 100 5%	1/16W
L604	1-460-601-11	COIL, CHOKE 10uH		R165	1-218-937-11	METAL CHIP 47 5%	1/16W
L607	1-460-358-11	COIL, CHOKE 2.2uH (4018)		R169	1-218-941-81	METAL CHIP 100 5%	1/16W
L608	1-460-358-11	COIL, CHOKE 2.2uH (4018)		R174	1-218-941-81	METAL CHIP 100 5%	1/16W
		< TRANSISTOR >		R175	1-218-941-81	METAL CHIP 100 5%	1/16W
Q101	6-552-936-01	TRANSISTOR LTC014EUBFS8TL		R176	1-216-825-11	METAL CHIP 2.2K 5%	1/10W (Except AEP, UK)
Q102	6-552-936-01	TRANSISTOR LTC014EUBFS8TL		R176	1-216-864-11	SHORT CHIP 0 (AEP, UK)	
Q103	6-552-936-01	TRANSISTOR LTC014EUBFS8TL		R177	1-216-829-11	METAL CHIP 4.7K 5%	1/10W (Except AEP, UK)
Q104	6-552-760-01	FET SSM3J325F, LSOYF		R178	1-218-977-11	METAL CHIP 100K 5%	1/16W
Q105	6-552-936-01	TRANSISTOR LTC014EUBFS8TL		R179	1-218-941-81	METAL CHIP 100 5%	1/16W
Q106	6-550-585-01	TRANSISTOR 2PC4081R-115		R180	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q301	6-552-936-01	TRANSISTOR LTC014EUBFS8TL		R181	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q302	6-552-936-01	TRANSISTOR LTC014EUBFS8TL		R182	1-218-977-11	METAL CHIP 100K 5%	1/16W
Q303	6-550-586-01	TRANSISTOR 2PA1576R-115		R183	1-218-941-81	METAL CHIP 100 5%	1/16W
Q501	6-552-892-01	TRANSISTOR LSCR523UBFS8TL		R184	1-218-965-11	METAL CHIP 10K 5%	1/16W
Q502	8-729-013-22	TRANSISTOR HN1A01FU		R185	1-218-941-81	METAL CHIP 100 5%	1/16W
Q503	8-729-013-22	TRANSISTOR HN1A01FU		R186	1-218-959-11	METAL CHIP 3.3K 5%	1/16W
		< RESISTOR >		R187	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R101	1-218-961-11	METAL CHIP 4.7K 5%	1/16W	R189	1-218-941-81	METAL CHIP 100 5%	1/16W
R102	1-218-961-11	METAL CHIP 4.7K 5%	1/16W	R190	1-218-965-11	METAL CHIP 10K 5%	1/16W
R103	1-218-941-81	METAL CHIP 100 5%	1/16W	R191	1-218-961-11	METAL CHIP 4.7K 5%	1/16W
R104	1-218-941-81	METAL CHIP 100 5%	1/16W	R192	1-218-965-11	METAL CHIP 10K 5%	1/16W
R106	1-218-941-81	METAL CHIP 100 5%	1/16W	R193	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R107	1-218-941-81	METAL CHIP 100 5%	1/16W	R194	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R108	1-218-941-81	METAL CHIP 100 5%	1/16W	R195	1-218-953-11	METAL CHIP 1K 5%	1/16W
R109	1-218-941-81	METAL CHIP 100 5%	1/16W	R196	1-218-941-81	METAL CHIP 100 5%	1/16W
R111	1-216-864-11	SHORT CHIP 0		R197	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R112	1-216-864-11	SHORT CHIP 0		R198	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R113	1-216-864-11	SHORT CHIP 0		R199	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R116	1-218-941-81	METAL CHIP 100 5%	1/16W	R200	1-218-957-11	METAL CHIP 2.2K 5%	1/16W
R117	1-218-934-11	METAL CHIP 27 5%	1/16W	R201	1-218-959-11	METAL CHIP 3.3K 5%	1/16W
R118	1-218-934-11	METAL CHIP 27 5%	1/16W	R202	1-218-953-11	METAL CHIP 1K 5%	1/16W
R125	1-218-965-11	METAL CHIP 10K 5%	1/16W	R203	1-218-965-11	METAL CHIP 10K 5%	1/16W
R126	1-218-977-11	METAL CHIP 100K 5%	1/16W	R208	1-216-864-11	SHORT CHIP 0	
R127	1-218-973-11	METAL CHIP 47K 5%	1/16W	R209	1-218-941-81	METAL CHIP 100 5%	1/16W
R128	1-218-961-11	METAL CHIP 4.7K 5%	1/16W	R210	1-218-941-81	METAL CHIP 100 5%	1/16W
R129	1-218-965-11	METAL CHIP 10K 5%	1/16W	R211	1-218-977-11	METAL CHIP 100K 5%	1/16W
R130	1-218-965-11	METAL CHIP 10K 5%	1/16W	R212	1-218-965-11	METAL CHIP 10K 5%	1/16W
R131	1-218-977-11	METAL CHIP 100K 5%	1/16W	R214	1-218-973-11	METAL CHIP 47K 5%	1/16W
R132	1-218-970-81	METAL CHIP 27K 5%	1/16W	R215	1-218-977-11	METAL CHIP 100K 5%	1/16W
R133	1-218-965-11	METAL CHIP 10K 5%	1/16W	R216	1-218-973-11	METAL CHIP 47K 5%	1/16W
R134	1-218-977-11	METAL CHIP 100K 5%	1/16W	R217	1-218-941-81	METAL CHIP 100 5%	1/16W
R135	1-218-973-11	METAL CHIP 47K 5%	1/16W	R218	1-218-965-11	METAL CHIP 10K 5%	1/16W
R136	1-218-965-11	METAL CHIP 10K 5%	1/16W	R219	1-218-959-11	METAL CHIP 3.3K 5%	1/16W
R140	1-218-965-11	METAL CHIP 10K 5%	1/16W	R220	1-218-969-11	METAL CHIP 22K 5%	1/16W
R141	1-218-973-11	METAL CHIP 47K 5%	1/16W	R221	1-218-973-11	METAL CHIP 47K 5%	1/16W
R143	1-218-941-81	METAL CHIP 100 5%	1/16W	R222	1-218-971-81	METAL CHIP 33K 5%	1/16W
R148	1-218-941-81	METAL CHIP 100 5%	1/16W	R223	1-218-965-11	METAL CHIP 10K 5%	1/16W
R150	1-216-864-11	SHORT CHIP 0		R224	1-218-949-11	METAL CHIP 470 5%	1/16W
R153	1-218-965-11	METAL CHIP 10K 5%	1/16W	R231	1-218-941-81	METAL CHIP 100 5%	1/16W
R154	1-218-941-81	METAL CHIP 100 5%	1/16W	R232	1-218-941-81	METAL CHIP 100 5%	1/16W
R155	1-218-965-11	METAL CHIP 10K 5%	1/16W	R233	1-218-941-81	METAL CHIP 100 5%	1/16W
R156	1-218-961-11	METAL CHIP 4.7K 5%	1/16W	R235	1-218-959-11	METAL CHIP 3.3K 5%	1/16W
R157	1-218-961-11	METAL CHIP 4.7K 5%	1/16W	R236	1-218-965-11	METAL CHIP 10K 5%	1/16W
R158	1-218-965-11	METAL CHIP 10K 5%	1/16W	R239	1-218-941-81	METAL CHIP 100 5%	1/16W

HT-CT780

Ver. 1.1

MAIN **POWER**

Ref. No.	Part No.	Description	Quantity	Percentage	Remark
R1075	1-218-941-81	METAL CHIP	100	5%	1/16W
R1076	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1077	1-218-941-81	METAL CHIP	100	5%	1/16W
R1078	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1079	1-218-941-81	METAL CHIP	100	5%	1/16W
R1080	1-218-941-81	METAL CHIP	100	5%	1/16W
R1081	1-218-941-81	METAL CHIP	100	5%	1/16W
R1089	1-218-941-81	METAL CHIP	100	5%	1/16W
R1091	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1093	1-218-956-11	METAL CHIP	1.8K	5%	1/16W
R1096	1-218-956-11	METAL CHIP	1.8K	5%	1/16W
R1097	1-218-941-81	METAL CHIP	100	5%	1/16W
R1098	1-218-941-81	METAL CHIP	100	5%	1/16W
R1104	1-218-990-81	SHORT CHIP	0		
R1105	1-218-959-11	METAL CHIP	3.3K	5%	1/16W
R1106	1-218-959-11	METAL CHIP	3.3K	5%	1/16W
R1107	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R1108	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R1113	1-208-859-81	METAL CHIP	68	0.5%	1/16W
R1115	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1116	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1117	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1120	1-218-981-81	METAL CHIP	220K	5%	1/16W
R1122	1-218-949-11	METAL CHIP	470	5%	1/16W
R1124	1-208-859-81	METAL CHIP	68	0.5%	1/16W
R1505	1-218-933-11	METAL CHIP	22	5%	1/16W
R1506	1-218-933-11	METAL CHIP	22	5%	1/16W
R1507	1-218-933-11	METAL CHIP	22	5%	1/16W
R1508	1-218-933-11	METAL CHIP	22	5%	1/16W
R1509	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1510	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1511	1-218-959-11	METAL CHIP	3.3K	5%	1/16W
R1512	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R1513	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R1514	1-218-937-11	METAL CHIP	47	5%	1/16W
R1515	1-218-937-11	METAL CHIP	47	5%	1/16W
R1516	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1517	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1518	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1519	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1520	1-218-933-11	METAL CHIP	22	5%	1/16W
R1521	1-218-933-11	METAL CHIP	22	5%	1/16W
R1522	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1523	1-218-929-11	METAL CHIP	10	5%	1/16W
R1524	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1525	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1526	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1527	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1528	1-218-929-11	METAL CHIP	10	5%	1/16W
R1529	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1530	1-218-933-11	METAL CHIP	22	5%	1/16W
R1531	1-218-933-11	METAL CHIP	22	5%	1/16W
R1532	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1533	1-218-929-11	METAL CHIP	10	5%	1/16W
R1535	1-218-956-11	METAL CHIP	1.8K	5%	1/16W
R1536	1-218-956-11	METAL CHIP	1.8K	5%	1/16W
R1537	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1538	1-218-933-11	METAL CHIP	22	5%	1/16W
R1539	1-218-933-11	METAL CHIP	22	5%	1/16W
R1540	1-218-947-11	METAL CHIP	330	5%	1/16W

Ref. No.	Part No.	Description	Quantity	Percentage	Remark
R1541	1-220-208-81	METAL CHIP	130K	5%	1/16W
R1543	1-218-937-11	METAL CHIP	47	5%	1/16W
R1544	1-218-937-11	METAL CHIP	47	5%	1/16W
R1545	1-218-937-11	METAL CHIP	47	5%	1/16W
R1546	1-218-945-11	METAL CHIP	220	5%	1/16W
R1547	1-218-937-11	METAL CHIP	47	5%	1/16W
R1549	1-218-937-11	METAL CHIP	47	5%	1/16W
R1551	1-218-937-11	METAL CHIP	47	5%	1/16W
R1552	1-218-937-11	METAL CHIP	47	5%	1/16W
R1553	1-218-937-11	METAL CHIP	47	5%	1/16W
R1554	1-216-864-11	SHORT CHIP	0		
R1560	1-218-933-11	METAL CHIP	22	5%	1/16W
R1561	1-218-933-11	METAL CHIP	22	5%	1/16W
R1801	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1804	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1805	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1806	1-218-941-81	METAL CHIP	100	5%	1/16W
R1807	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1808	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1810	1-218-967-11	METAL CHIP	15K	5%	1/16W
R1811	1-218-967-11	METAL CHIP	15K	5%	1/16W
< COMPOSITION CIRCUIT BLOCK >					
RB101	1-234-375-21	RES, NETWORK 1K (1005X4)			
RB102	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB103	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB104	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB105	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB107	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB108	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB501	1-234-372-11	RES, NETWORK 100 (1005X4)			
RB502	1-234-372-11	RES, NETWORK 100 (1005X4)			
* RB1001	1-460-611-11	COMMON MODE CHOKE COIL			
* RB1002	1-460-611-11	COMMON MODE CHOKE COIL			
* RB1015	1-460-611-11	COMMON MODE CHOKE COIL			
* RB1016	1-460-611-11	COMMON MODE CHOKE COIL			
RB1501	1-234-400-21	CONDUCTOR, NETWORK (1005X4)			
RB1502	1-234-400-21	CONDUCTOR, NETWORK (1005X4)			
RB1503	1-234-400-21	CONDUCTOR, NETWORK (1005X4)			
RB1504	1-234-400-21	CONDUCTOR, NETWORK (1005X4)			
< VIBRATOR >					
X101	1-781-646-21	VIBRATOR, CERAMIC (4 MHz)			
X301	1-814-267-11	QUARTZ CRYSTAL UNIT (24.576 MHz)			
X302	1-814-363-11	QUARTZ CRYSTAL UNIT (25 MHz)			
X1501	1-814-595-11	QUARTS CRYSTAL UNIT (27 MHz)			

A-2066-054-A		POWER BOARD, COMPLETE (US, CND, TW)			(See Note)
A-2066-056-A		POWER BOARD, COMPLETE			(Except US, CND, TW) (See Note)

7-685-646-71		SCREW +BVTP 3X8 TYPE2 IT-3			
< CAPACITOR >					
△ C902	1-112-870-51	CERAMIC	0.001uF	20%	250V (US, CND, TW) (See Note)
△ C902	1-118-332-11	CERAMIC	0.0033uF	20%	250V (Except US, CND, TW) (See Note)

Note: When C902 on the POWER board and the complete POWER board are replaced, refer to "BOND FIXATION OF ELECTRIC PARTS" on page 6.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ C903	1-112-870-51	CERAMIC	0.001uF 20% 250V (US, CND, TW) (See Note)	△ D938	6-503-731-01	DIODE SARS10	
△ C903	1-118-332-11	CERAMIC	0.0033uF 20% 250V (Except US, CND, TW) (See Note)	△ D939	6-503-037-01	DIODE DZZJ24000L	
△ C905	1-114-594-21	FILM	0.22uF 10% 310V (US, CND, TW) (See Note)	△ D941	8-719-083-71	DIODE UDZSUSTE-1730B	
△ C905	1-116-397-21	FILM	0.33uF 10% 310V (Except US, CND, TW) (See Note)	△ D942	6-503-775-01	DIODE CRH02 (T5R, SONY, XM)	
△ C907	1-116-397-21	FILM	0.33uF 10% 310V (Except US, CND, TW)	D965	6-501-849-01	DIODE FMX-22SL	
△ C914	1-100-922-11	ELECT	330uF 20% 200V (US, CND, TW) (See Note)	D967	6-503-978-01	DIODE RB068L100TE25	
△ C915	1-118-715-11	ELECT (BLOCK)	100uF 20% 450V (Except US, CND, TW) (See Note)	△ D972	6-502-264-01	DIODE KDZTR18B	
△ C930	1-118-361-11	CERAMIC CHIP	0.1uF 10% 50V	D973	8-719-083-71	DIODE UDZSUSTE-1730B	
△ C931	1-164-217-91	CERAMIC CHIP	150PF 5% 50V (US, CND, TW)			< FUSE >	
△ C931	1-164-218-91	CERAMIC CHIP	180PF 5% 50V (Except US, CND, TW)	△ F901	1-523-067-51	FUSE (5 A/250 V)	
△ C932	1-162-968-91	CERAMIC CHIP	0.0047uF 10% 50V	△ F931	1-523-085-11	FUSE (2.5 A/250 V) (See Note)	
△ C933	1-116-717-11	CERAMIC CHIP	10uF 20% 10V			< IC >	
△ C934	1-116-729-11	CERAMIC CHIP	2.2uF 20% 10V	△ IC930	6-720-460-01	IC STR-Y6735 (US, CND, TW)	
△ C935	1-117-824-11	FILM	2200PF 3% 1.5KV (US, CND, TW)	△ IC930	6-721-976-01	IC STR-Y6766B (Except US, CND, TW)	
△ C936	1-118-361-11	CERAMIC CHIP	0.1uF 10% 50V	IC931	6-716-865-01	IC MM1431FNRE	
△ C937	1-116-874-11	CERAMIC CHIP	10uF 10% 35V			< COIL >	
△ C938	1-125-893-11	FILM	680PF 3% 1.5KV (Except US, CND, TW)	L966	1-460-612-11	COIL, CHOKE 2.2uH	
△ C939	1-116-034-92	FILM	0.0033uF 5% 400V	L967	1-481-175-21	INDUCTOR 4.7uH	
△ C940	1-112-869-51	CERAMIC	470PF 10% 250V (US, CND, TW)			< LINE FILTER >	
△ C941	1-112-235-21	ELECT	330uF 20% 25V (See Note)	△ LF901	1-445-944-11	TRANSFORMER, LINE FILTER (Except US, CND, TW) (See Note)	
C965	1-112-723-21	CERAMIC CHIP	0.0047uF 10% 250V	△ LF901	1-460-693-11	LINE FILTER TRANSFORMER (US, CND, TW) (See Note)	
C967	1-114-994-11	ELECT	2200uF 20% 35V (See Note)			< PHOTO COUPLER >	
C968	1-118-361-11	CERAMIC CHIP	0.1uF 10% 50V	△ PH930	6-600-883-01	PHOTO COUPLER EL816S1 (B) (TA) (DTE-S)	
C970	1-112-241-11	ELECT	1000uF 20% 25V (See Note)			< TRANSISTOR >	
C971	1-118-345-11	CERAMIC CHIP	0.01uF 10% 25V	△ Q930	8-729-056-46	TRANSISTOR 2SC5053T100Q	
C976	1-112-245-21	ELECT	47uF 20% 35V	△ Q931	6-552-949-01	TRANSISTOR LTC044EUBFS8TL	
C977	1-112-245-21	ELECT	47uF 20% 35V (See Note)	Q950	6-550-586-01	TRANSISTOR 2PA1576R-115 (Except US, CND, TW)	
C978	1-126-964-11	ELECT	10uF 20% 50V (Except US, CND, TW) (See Note)	* Q952	6-553-105-01	TRANSISTOR PDTC144EU (Except US, CND, TW)	
C980	1-112-245-21	ELECT	47uF 20% 35V (See Note)			< RESISTOR >	
△ C988	1-165-528-11	MYLAR	0.1uF 10% 250V (US, CND, TW) (See Note)	△ R901	1-240-938-51	METAL 1.5M 5% 0.5W F	
		< CONNECTOR >		△ R914	1-248-270-15	FUSIBLE 0.33 10% 1W F	
△ *CN901	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P		△ R932	1-216-345-51	METAL OXIDE 0.47 5% 1W F (US, CND, TW)	
* CN902	1-564-725-11	PIN, CONNECTOR (SMALL TYPE) 9P		△ R932	1-216-353-51	METAL OXIDE 2.2 5% 1W F (Except US, CND, TW)	
		< DIODE >		△ R934	1-248-050-11	METAL 0.22 5% 2W F (Except US, CND, TW) (See Note)	
△ D901	8-719-077-77	DIODE D3SB60F3 (See Note)		△ R934	1-248-245-11	METAL 0.15 5% 2W F (US, CND, TW) (See Note)	
△ D930	6-503-032-01	DIODE DZZJ180MOL		△ R935	1-216-825-91	METAL CHIP 2.2K 5% 1/10W	
△ D931	8-719-083-71	DIODE UDZSUSTE-1730B		△ R936	1-216-841-91	METAL CHIP 47K 5% 1/10W	
△ D932	6-502-975-01	DIODE DZZJ15000L		△ R937	1-216-829-91	METAL CHIP 4.7K 5% 1/10W	
△ D934	6-503-032-01	DIODE DZZJ180MOL		△ R938	1-216-838-91	METAL CHIP 27K 5% 1/10W	
△ D935	8-719-083-71	DIODE UDZSUSTE-1730B		△ R944	1-215-927-51	METAL OXIDE 47K 5% 3W F (US, CND, TW)	
△ D936	6-501-119-01	DIODE RR264M-400		△ R944	1-215-929-51	METAL OXIDE 100K 5% 3W F (Except US, CND, TW)	
△ D937	6-501-119-01	DIODE RR264M-400		△ R945	1-216-809-91	METAL CHIP 100 5% 1/10W	
				△ R947	1-216-793-91	METAL CHIP 4.7 5% 1/10W	

Note: When C903, C905, C914, C915, C941, C967, C970, C977, C978, C980, C988, D901, F931, LF901 and R934 are replaced, refer to "BOND FIXATION OF ELECTRIC PARTS" on page 6.

HT-CT780

Ver. 1.1

POWER

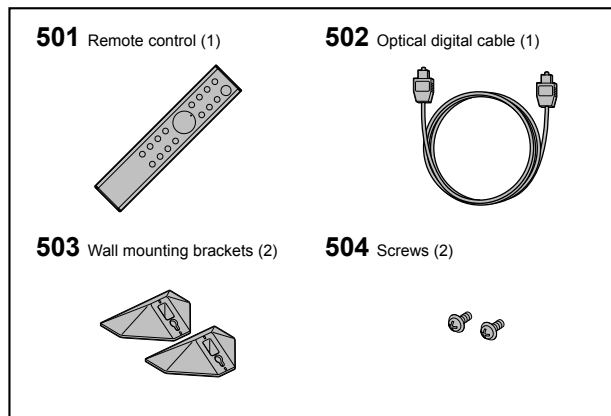
Ref. No.	Part No.	Description	Remark
R951	1-216-849-11	METAL CHIP 220K 5%	1/10W (Except US, CND, TW)
R952	1-216-821-11	METAL CHIP 1K 5%	1/10W (Except US, CND, TW)
△ R953	1-216-793-91	METAL CHIP 4.7 5%	1/10W
△ R954	1-216-793-91	METAL CHIP 4.7 5%	1/10W
△ R955	1-216-864-91	SHORT CHIP 0	
R965	1-216-821-11	METAL CHIP 1K 5%	1/10W
R971	1-216-849-11	METAL CHIP 220K 5%	1/10W
R976	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R977	1-218-887-11	METAL CHIP 47K 0.5%	1/10W
R978	1-218-863-11	METAL CHIP 4.7K 0.5%	1/10W
R987	1-216-821-11	METAL CHIP 1K 5%	1/10W
△ R997	1-216-864-91	SHORT CHIP 0 (US, CND, TW)	
< TRANSFORMER >			
△ T901	1-697-326-11	CONVERTER TRANSFORMER (01C327)	(Except US, CND, TW)
△ T901	1-697-327-11	CONVERTER TRANSFORMER (01C313)	(US, CND, TW)
< THERMISTOR >			
△ TH901	1-811-315-31	POWER THERMISTOR (See Note 1)	
△ TH902	1-812-011-11	THERMISTOR, POSITIVE (Except US, CND, TW)	
< VARISTOR >			
△ VDR901	1-811-165-31	VARISTOR (TVR10471-D) (See Note 1)	

MISCELLANEOUS			

△ AC1	1-834-966-42	POWER-SUPPLY CORD (AEP, E3, SP, PX)	
△ AC1	1-835-068-21	CORD, POWER (AUS)	
△ AC1	1-835-706-23	CORD, POWER-SUPPLY (BR)	
△ AC1	1-837-308-12	CORD, POWER-SUPPLY (US, CND)	
△ AC1	1-837-345-11	CORD, POWER-SUPPLY (TW)	
△ AC1	1-837-822-21	CORD, POWER-SUPPLY (CH)	
△ AC1	1-839-999-21	POWER-SUPPLY CORD (UK, EA3)	
△ ACP1	1-785-504-21	ADAPTOR, CONVERSION (PX)	
△ ACP2	1-770-019-72	ADAPTOR, CONVERSION PLUG 3P (SV)	(SP for Hong Kong only) (See Note 3)
BT1	1-490-558-92	BLUETOOTH MODULE	
FFC1	9-833-606-96	FFC 14P	
FFC2	9-833-606-95	FFC 24P	
FFC3	9-833-606-94	FFC 18P	
FFC4	9-833-606-97	FFC 6P	
NFC1	8-989-602-00	RC-S730 (WW) (NFC module)	
RF1	1-492-347-11	RF MODULATOR (SWA12-4V TX) (See Note 2)	
SP1	1-859-097-11	SPEAKER (60 mm) (Woofer) (L-ch)	
SP2	1-859-097-11	SPEAKER (60 mm) (Woofer) (R-ch)	
SP3	1-859-096-11	SPEAKER (19 mm) (Tweeter) (L-ch)	
SP4	1-859-096-11	SPEAKER (19 mm) (Tweeter) (R-ch)	
SPC1	1-848-741-11	CONNECTION CABLE W/ SPK (L) (Left side)	
SPC2	1-848-742-11	CONNECTION CABLE W/ SPK (R) (Right side)	

Ref. No.	Part No.	Description	Remark
ACCESSORIES			

4-565-123-12		MANUAL, INSTRUCTION (ENGLISH, SPANISH, FRENCH) (US, CND)	
4-565-123-22		MANUAL, INSTRUCTION (ENGLISH) (UK, AUS)	
4-565-123-32		MANUAL, INSTRUCTION (FRENCH, SPANISH, DUTCH) (AEP)	
4-565-123-42		MANUAL, INSTRUCTION (GERMAN, ITALIAN, POLISH) (AEP)	
4-565-123-52		MANUAL, INSTRUCTION (ENGLISH, FRENCH, ARABIC, PERSIAN) (E3)	
4-565-123-62		MANUAL, INSTRUCTION (ENGLISH, TRADITIONAL CHINESE) (SP)	
4-565-123-72		MANUAL, INSTRUCTION (ENGLISH) (PX)	
4-565-126-11		MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (CH)	
4-565-126-21		MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TW)	
4-565-126-51		MANUAL, INSTRUCTION (PORTUGUESE) (BR)	
4-570-575-11		INSTRUCTION MANUAL (ENGLISH, ARABIC) (EA3)	
501	1-492-931-11	REMOTE COMMANDER RMT-AH101U (Remote control)	
502	1-837-197-31	CORD, LIGHT PLUG (Optical digital cable)	
503	4-548-768-01	WALL STAND (1 piece) (Wall mounting bracket)	
504	2-580-607-01	SCREW, +PSW M5X12 (1 piece) (for Wall mounting bracket)	



Note 1: When TH901 and VDR901 on the POWER board are replaced, refer to “BOND FIXATION OF ELECTRIC PARTS” on page 6.

Note 2: When the RF modulator (Ref. No. RF1) is replaced, refer to “NOTES ON THE WIRELESS CONNECTION (LINK) AFTER REPAIRS ARE COMPLETE” on page 5.

Note 3: Ref. No. ACP2 is a service part used only for the Singapore model sold in Hong Kong.

MEMO

REVISION HISTORY

Ver.	Date	Description of Revision
1.0	2015.02	New
1.1	2015.04	Addition of Chinese, PX, African, Iranian, Saudi Arabia, UAE, Kuwait, Iraqi, Kenyan, Tanzanian, Nigerian, Brazilian, Singapore and Taiwan models Change of Part No. for TOP PANEL ASSY (Ref. No. 56) Change of Part No. for INSTRUCTION MANUAL (US, Canadian, AEP, UK and Australian models) (SMR-14050)

How to search for a contact point of signal lines or the like in DIAGRAMS SECTION

If a contact point of a BLOCK DIAGRAM, PRINTED WIRING BOARD or SCHEMATIC DIAGRAM is shown in a different page, use the PDF file search function to find one.

e.g.) If a contact point is shown as >001Z, follow the procedure below.

Procedure:

1. Press the [F] key while pressing the [Ctrl] key.
2. Input ">001Z" in the search box and press the [Enter] key.
3. The relevant part (page), where the contact point is shown, appears.

Note: If you still see the original page, press the [Enter] key again.