

HCD-GT3D

SERVICE MANUAL

Ver. 1.2 2015.08

*Russian Model
E Model
Australian Model*



CD/DVD Section	Model Name Using Similar Mechanism	HCD-GPX555
	CD Mechanism Type	CDM90-DVB204//M
	Optical Pick-up Name	CMS-S76RFS7G

SPECIFICATIONS

Amplifier section

The following are measured at
AC 120 V – 240 V, 50/60 Hz

Power output (rated)

Left/Right Channel: 120 W + 120 W
(at 2 ohms, 1 kHz, 1% THD)

RMS output power (reference)

Left/Right Channel: 180 W + 180 W
(per channel at 2 ohms, 1 kHz)
Subwoofer: 360 W (at 4 ohms, 100 Hz)

Speaker section

Speaker system
Subwoofer, Sound Pressure Horn

Speaker unit
200 mm, cone type

Rated impedance
4 ohms

Inputs

AUDIO IN/PARTY CHAIN IN L/R
Voltage 2 V, impedance 47 kilohms

OPTICAL IN

Supported audio signal:
2-channel Linear PCM

MIC 1, MIC 2

Sensitivity 1 mV, impedance 10 kilohms

ψ (USB) port
Type A

Outputs

AUDIO OUT/PARTY CHAIN OUT L/R
Voltage 2 V, impedance 1 kilohm

VIDEO OUT

Max. output level 1 Vp-p, unbalanced,
Sync. negative load impedance 75 ohms

USB section

Supported bit rate

WMA:
48 kbps – 192 kbps, VBR, CBR

AAC:
48 kbps – 320 kbps, VBR, CBR

Sampling frequencies

WMA: 44.1 kHz

AAC: 44.1 kHz

Supported USB device

Mass Storage Class

Maximum current
1 A

Disc/USB section

Supported bit rate

MPEG1 Layer-3:
32 kbps – 320 kbps, VBR

Sampling frequencies

MPEG1 Layer-3:
32 kHz/44.1 kHz/48 kHz

Xvid

Video codec: Xvid
Bit rate: 4.854 Mbps (MAX)
Resolution/Frame rate:
720 × 480, 30 fps
720 × 576, 25 fps
Audio codec: MP3

MPEG4

File format: MP4 File Format
Video codec:
MPEG4 Simple Profile
(AVC is not compatible.)
Bit rate: 4 Mbps
Resolution/Frame rate:
720 × 576, 30 fps
Audio codec: AAC-LC
(HE-AAC is not compatible.)
DRM: Not compatible

Disc player section

System

Compact disc and digital audio and
video system

Laser Diode Properties

Emission Duration: Continuous
Laser Output*: Less than 44.6 μW

* This output is the value
measurement at a distance of
200 mm from the objective lens
surface on the Optical Pick-up
Block with 7 mm aperture.

Frequency response

20 Hz – 20 kHz

Video color system format

NTSC and PAL

FM tuner section

System

PLL quartz-locked digital synthesizer

Antenna

FM lead antenna

Tuning range

87.5 MHz – 108.0 MHz (50 kHz step)

BLUETOOTH section

Communication system

BLUETOOTH Standard version 3.0

Output

BLUETOOTH Standard Power
Class 2

Maximum communication range

Line of sight approx. 10 m¹⁾

Frequency band

2.4 GHz band (2.4000 GHz –
2.4835 GHz)

Modulation method

FHSS (Freq Hopping Spread Spectrum)

Compatible BLUETOOTH profiles²⁾

A2DP (Advanced Audio Distribution
Profile)

AVRCP (Audio Video Remote

Control Profile)

SPP (Serial Port Profile)

Supported codecs

SBC (Sub Band Codec)

AAC (Advanced Audio Coding)

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

²⁾ BLUETOOTH standard profiles indicate
the purpose of BLUETOOTH communica-
tion between devices.

General

Power requirements

AC 120 V – 240 V, 50/60 Hz

Power consumption

120 W

Power consumption (at the Power Saving
mode)

0.5 W

(When "BT STBY" is set to "OFF")

6 W

(When "BT STBY" is set to "ON")

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

DVD Receiver (subwoofer unit):

305 mm × 636 mm × 355 mm

Mass (Approx.)

DVD Receiver (subwoofer unit):

14.5 kg

Design and specifications are subject to
change without notice.

– Continued on next page –

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DVD RECEIVER

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Abbreviation

- AR : Argentina model
- AUS : Australian model
- E4 : African model
- EA : Saudi Arabia model
- LA9 : Latin-American model
- MY : Malaysia model
- RU : Russian model
- TH : Thai model

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 2V AC range are suitable. (See Fig. A)

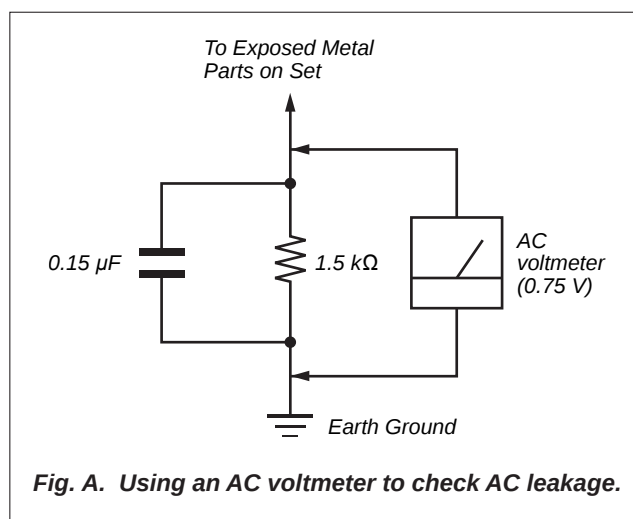


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ 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.

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SECTION 1 SERVICING NOTES

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.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the leadfree 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)

LF : 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.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

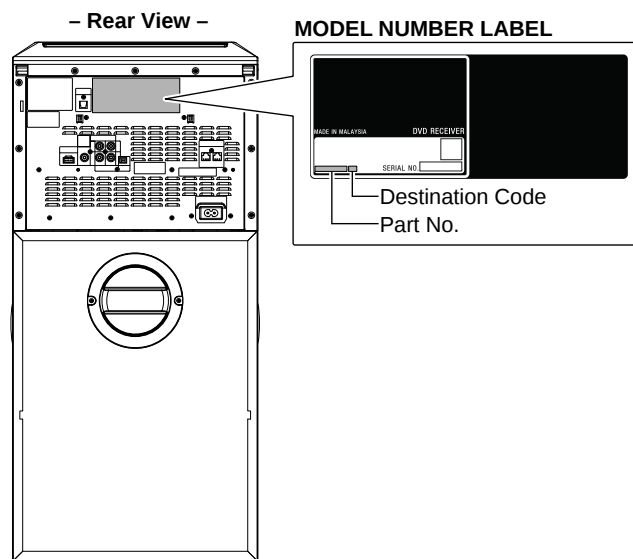
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pickup block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

CLASS 1 LASER PRODUCT
LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product under IEC 60825-1:2007. This marking is located on the rear exterior.

MODEL IDENTIFICATION



Model	Part No.
AR	4-566-431-0□
LA9	4-567-343-0□
TH	4-567-344-0□
E4	4-567-347-0□
EA	4-567-349-0□
MY	4-567-350-0□
RU	4-567-352-0□
AUS	4-567-353-0□

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- JIG
When disassembling the set, use the following jig (for front panel removal).
Part No.: J-2501-238-A JIG FOR SPEAKER REMOVAL



PLAYABLE DISCS

- DVD+R/DVD+RW
- AUDIO CD
- CD-R/CD-RW/DVD-R/DVD-RW
 - audio data
 - MP3 files that conforms to ISO9660 Level 1/Level 2, or Joliet (expansion format).

Notes

- MP3 (MPEG 1 Audio Layer-3) is a standard format defined by ISO (International Organization for Standardization) which compresses audio data. MP3 files must be in MPEG 1 Audio Layer-3 format.
- The system can only play back MP3 files that have a file extension of “.mp3”.

NOTE OF REPLACING THE IC001, IC002, IC101, IC105, IC106, IC301, IC302 AND IC303 ON THE MOTHERBOARD BOARD

IC001, IC002, IC101, IC105, IC106, IC301, IC302 and IC303 on the MOTHERBOARD board cannot exchange with single. When these parts on the MOTHERBOARD board are damaged, exchange the entire mounted board.

NOTE OF REPLACEMENT OF THE MS-476 BOARD

When the MS-476 board is defective, exchange the entire LOADING COMPLETE ASSY (T).

RELEASING THE DISC TRAY LOCK

The disc tray lock function for the antitheft of an demonstration disc in the store is equipped.

Releasing Procedure:

1. Press [I/⏻] button to turn the power on.
2. Press [FUNCTION] button and turn the [MULTI CONTROL] knob to select "DVD/CD" function, then press [ENTER] button.
3. Press the [ENTER] button and [VOCAL FADER] button simultaneously and hold down for around 3 seconds.
4. The message "UNLOCKED" is displayed and the disc tray is unlocked.

Note: When "LOCKED" is displayed, the slot lock is not released by turning power on/off with the [I/⏻] button.

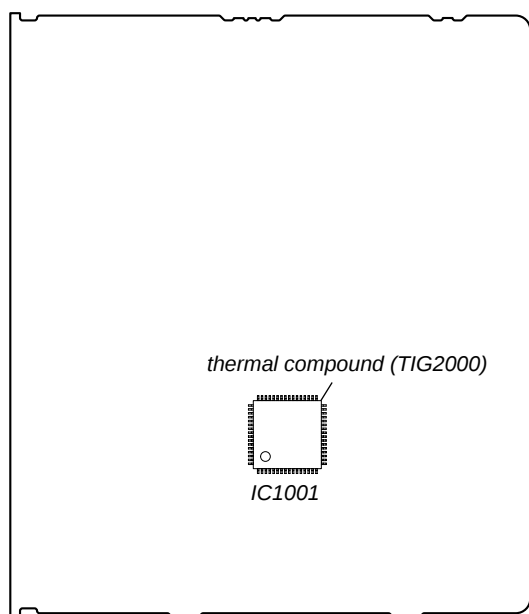
NOTE OF REPLACING THE IC1001 ON THE DAMP BOARD AND THE COMPLETE DAMP BOARD

When IC1001 on the DAMP board and the complete DAMP board are replaced, it is necessary to spread the compound between parts and heat sink.

Part No.	Description
7-300-009-67	THERMAL COMPOUND (TIG2000)

Spread the compound referring to the figure below.

- DAMP Board (Component Side) -



NOTE OF REPLACING MOTHERBOARD BOARD OR BLUETOOTH MODULE OR RC-S730 (WW) BOARD

When the MOTHERBOARD board or BLUETOOTH module or RC-S730 (WW) board are replaced, please execute the below service mode.

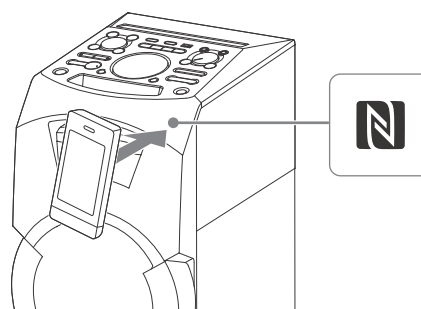
Pairing this system with a Bluetooth device

1. Press the [I/⏻] button to turn the power on.
2. Place the *Bluetooth* device within 1 meter (3 feet) from the system.
3. Press BLUETOOTH on the unit to select *Bluetooth* function. "BT AUDIO" appears in the display panel.
4. Hold down BLUETOOTH on the unit for 2 seconds or more. "PAIRING" flashes in the display panel.
5. Perform the pairing procedure on the *Bluetooth* device.
6. Select the model number of the unit on the display of the *Bluetooth* device.
For example, select "SONY : MHC-GT3D". If passkey is required on the *Bluetooth* device, enter "0000".
7. Perform the *Bluetooth* connection on the *Bluetooth* device.
8. When pairing is completed and the *Bluetooth* connection is established, the *Bluetooth* device name appears in the display panel.
9. To cancel pairing operation, hold down BLUETOOTH on the unit for 2 seconds or more until "BT AUDIO" appears in the display panel.

Connecting with a smartphone by one touch (NFC)

Note: The operation in this mode must use a NFC-compatible smartphone (Smartphones with a built-in NFC function [OS: Android 2.3.3 or later, excluding Android 3.x])

1. Press the [I/⏻] button to turn the power on.
2. Download and install the app "NFC Easy Connect".
Download the free Android app from Google Play by searching for "NFC Easy Connect".
3. Start the app "NFC Easy Connect" on the smartphone.
Make sure that the application screen is displayed.
4. Touch the smartphone to the N-Mark on the system until the smartphone vibrates.



Complete the connection by following the instructions displayed on the smartphone.

5. When pairing is completed and the *Bluetooth* connection is established, the *Bluetooth* device name appears in the display panel.

Playing music from a *Bluetooth* device

For a *Bluetooth* device

1. Press the [I/⏻] button to turn the power on.
2. Press BLUETOOTH on the unit to select *Bluetooth* function.
“BT AUDIO” appears in the display panel.
3. Establish connection with the *Bluetooth* device.
Press BLUETOOTH on the unit to connect to the last connected *Bluetooth* device.
Perform the *Bluetooth* connection from the *Bluetooth* device if the device is not connected.
Once the connection is established, the *Bluetooth* device name appears in the display panel.
4. Press ►.
Depending on the *Bluetooth* device,
– you may have to press ► twice.
– you may need to start playback of an audio source on the *Bluetooth* device.

For an *NFC-compatible* smartphone

1. Press the [I/⏻] button to turn the power on.
Touch the smartphone to the N-Mark on the system to establish the *Bluetooth* connection.
Start playback of an audio source on the smartphone. For details on playback, refer to the operating instructions of your smartphone.

To disconnect the *Bluetooth* device

For a *Bluetooth* device

Press BLUETOOTH on the unit.
“BT AUDIO” appears in the display panel.

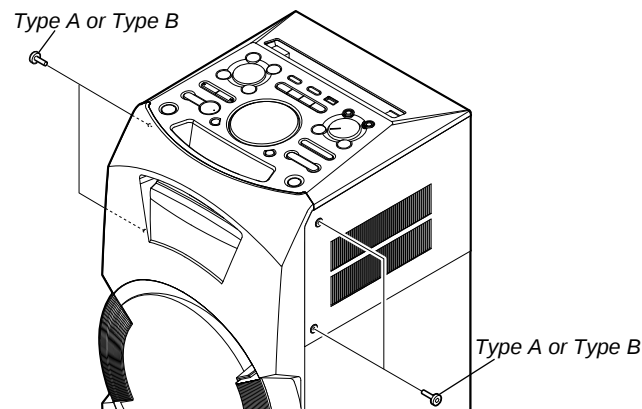
For an *NFC-compatible* smartphone

Touch the smartphone to the N-Mark on the system again.

To erase all the pairing registration information perform **COLD RESET** test mode (Refer to page 21).

SCREW TYPE DISCRIMINATION BEFORE DISASSEMBLE THE PANEL, SIDE

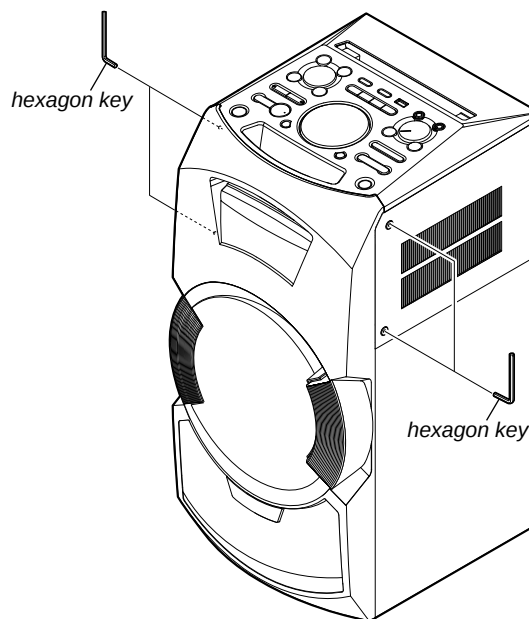
In this set, the screw type which screw between “PANEL, SIDE and PANEL, TOP” and “PANEL, SIDE and CHASSIS” have been changed in the midway of production.
Repair after distinguishing the screw type referring to the following.



Type	Screw P/N	Screw Shape
A	4-546-397-01	
B	4-162-271-01	

NOTE OF DISASSEMBLE THE PANEL, SIDE

To disassemble the PANEL, SIDE, hexagon key is required to unscrew the SCREW, TAPPING (HEX) (Type A).



BOND FIXATION OF ELECTRIC PARTS

When DAMP board is replaced or the following object parts are replaced, it is necessary to fix parts to the boards by using a specified bond without fail.

• Object boards

Complete DAMP board

• Object parts

Board	Ref. No.
DAMP	C1126, C1127, C1128, C1129, C1142, L1010, RY001

• Use bond

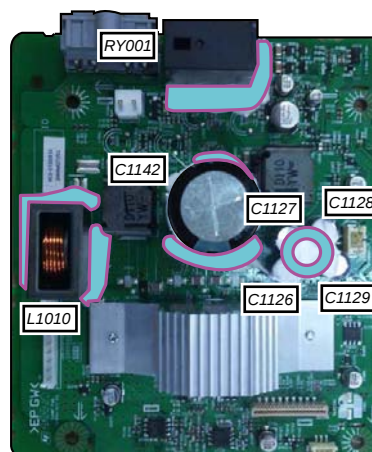
Part No.	Description
7-600-020-70	ADHESIVE (SC608Z2) 180ML

• Parts position

Complete DAMP board (page 6)

DAMP board

– DAMP Board (Component Side) –



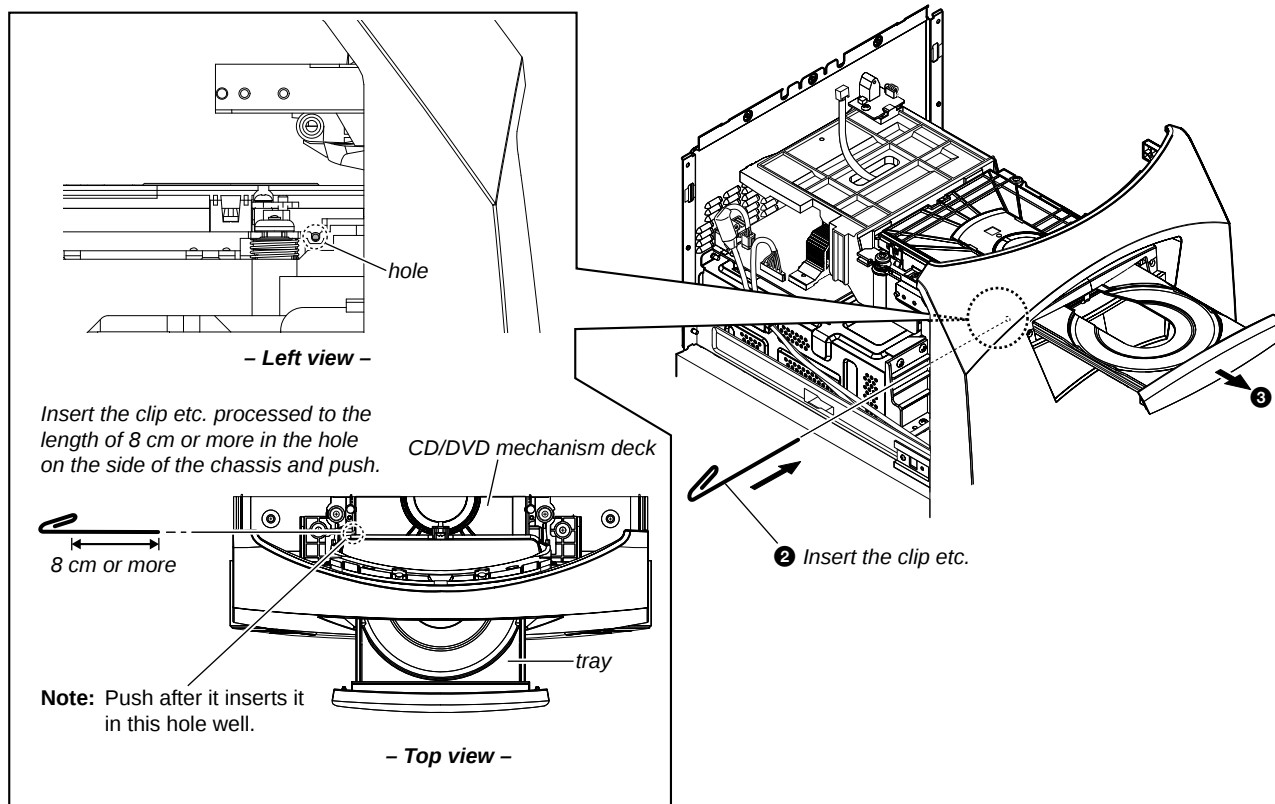
*The portion which applies bond:

HOW TO OPEN THE TRAY WHEN POWER SWITCH TURN OFF

Note 1: After the side panel and top panel are removed, this work is done.

Note 2: Please prepare the thin wire (clip etc. processed to the length of 8 cm or more).

- ❶ Remove the side (L) panel, side (R) panel, top panel section.
(Illustration of disassembly is omitted.)



NOTE OF REPLACING THE VOLUME KNOB ASSY OR MIC KNOB

When VOLUME knob assy or MIC knob is replaced, it is necessary to apply lubricant on the knob.

Part No.	Description
7-651-000-63	Lubricant (SFL-7A)1KG

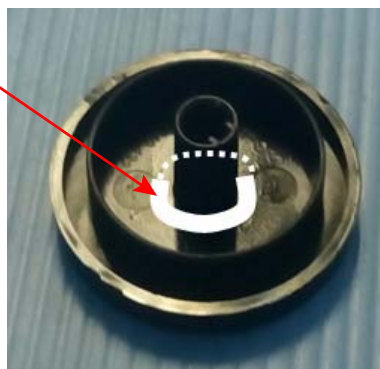
Apply the lubricant referring to the figure below.

– VOLUME KNOB ASSY –



Lubricant (SFL-7A)1KG

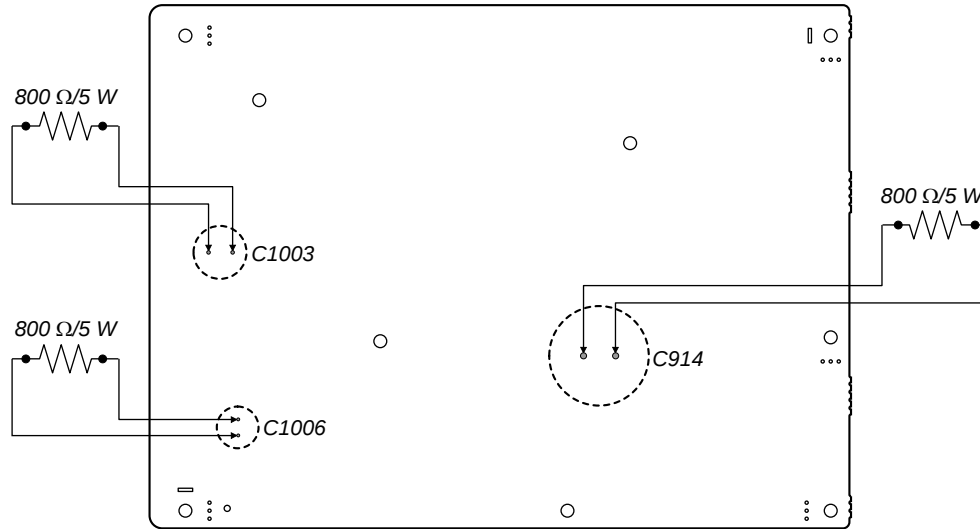
– MIC KNOB ASSY –



CAPACITOR DISCHARGE FOR ELECTRIC SHOCK PREVENTION

SMPS Board (Conductor side view)

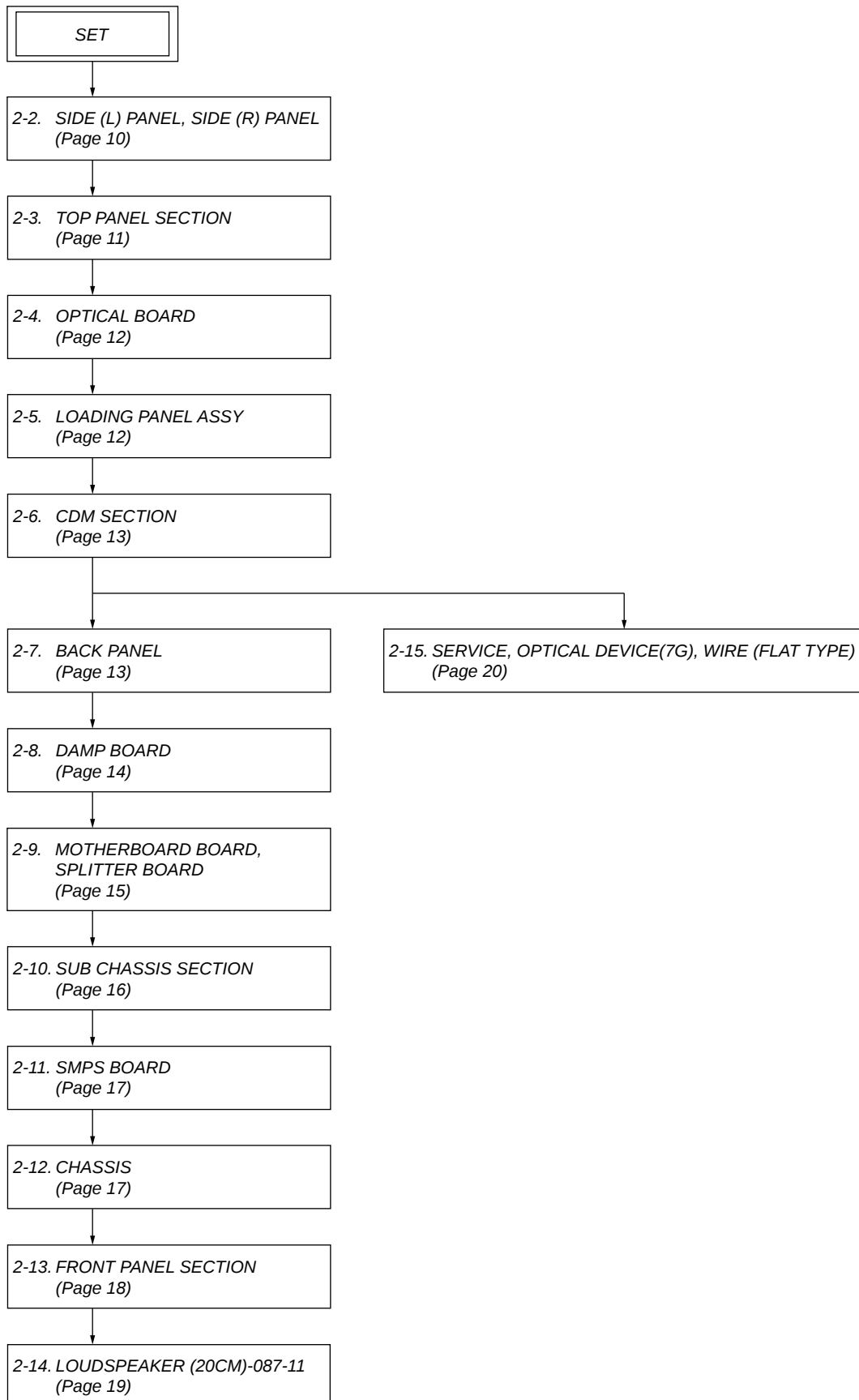
In checking the SMPS board, make 3 capacitors discharge of C914, C1003 and C1006 for eletrical shock prevention.



SECTION 2 DISASSEMBLY

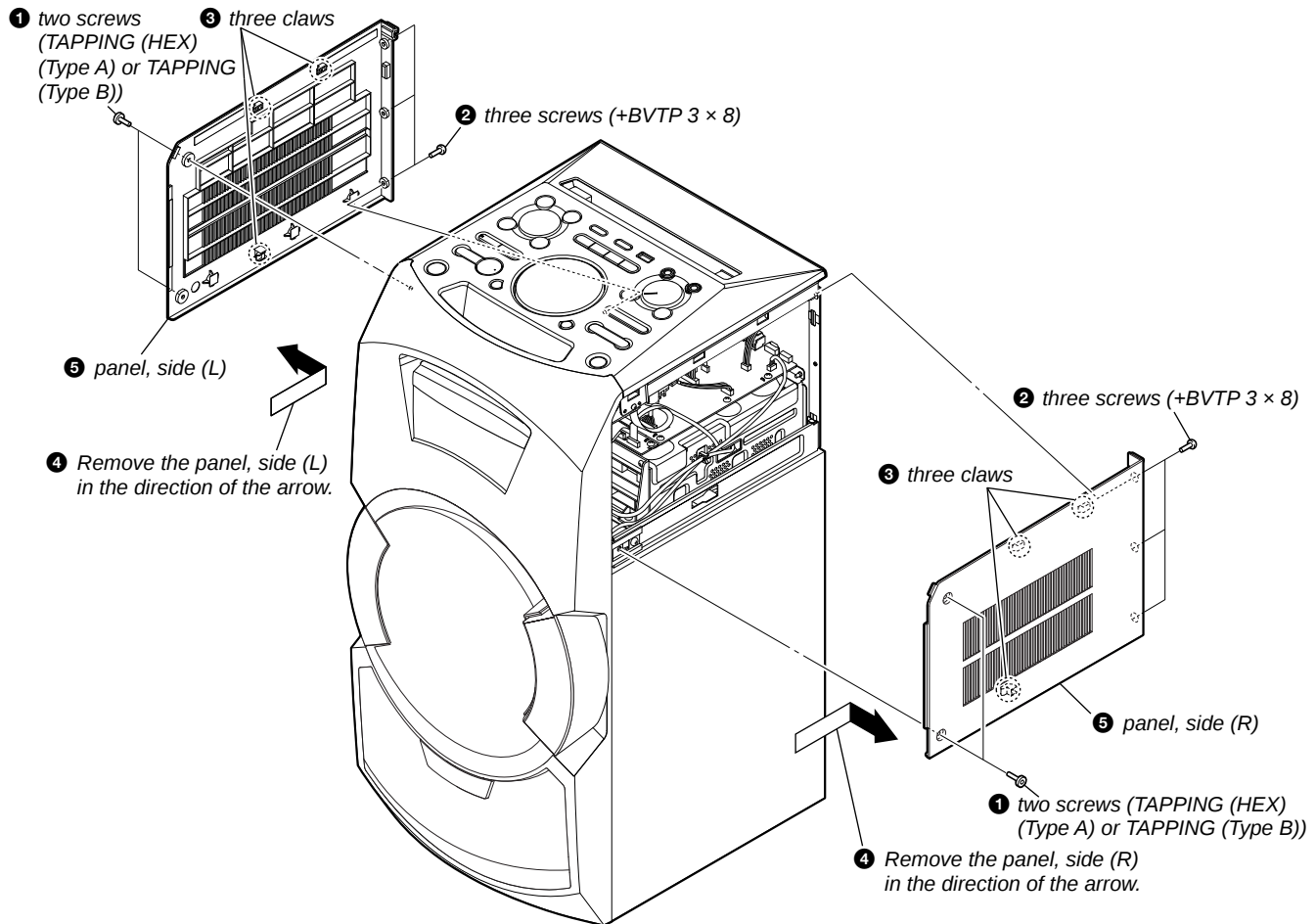
Note: Disassemble the unit in the order as shown below.

2-1. DISASSEMBLY FLOW



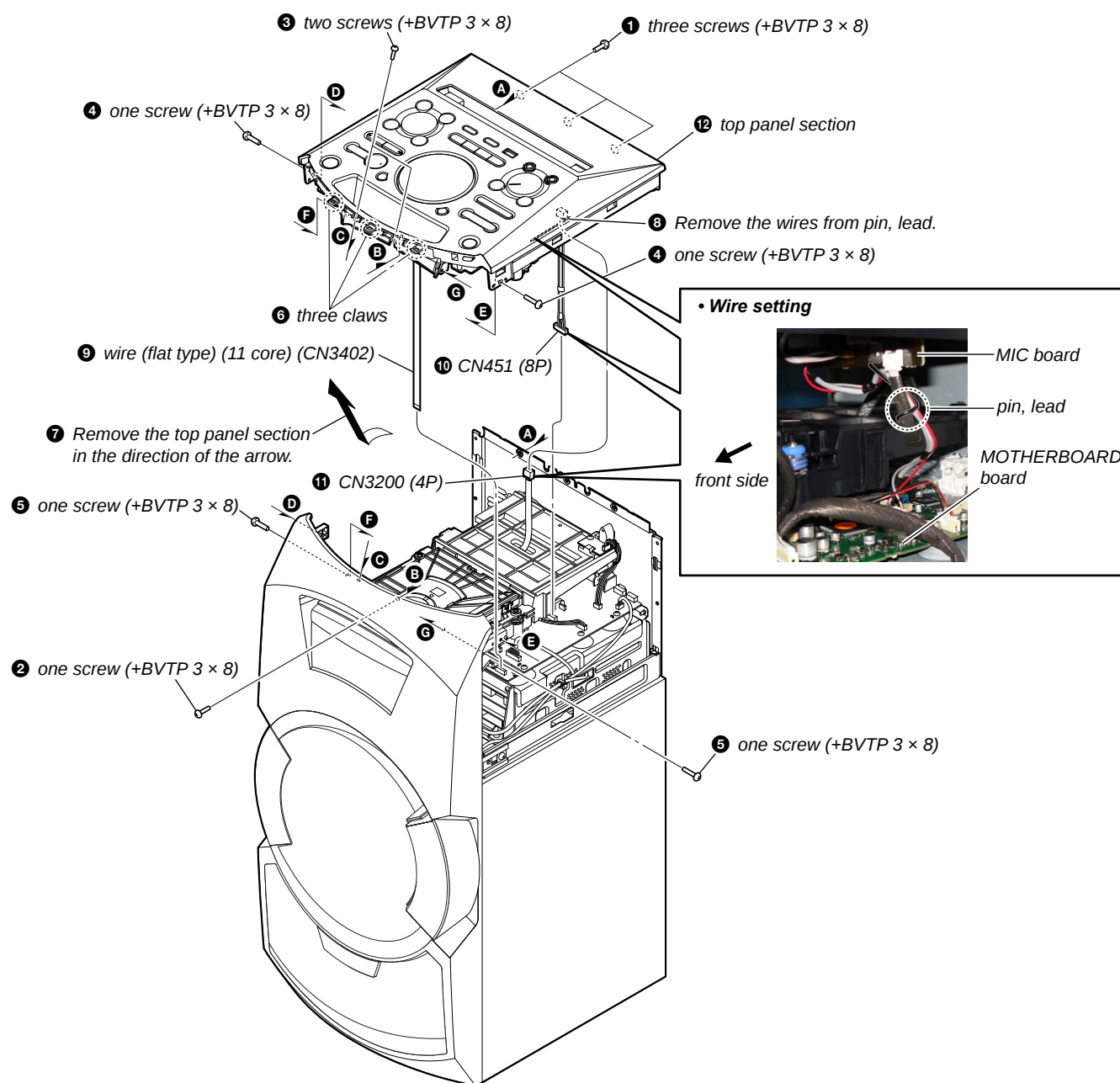
Note: Follow the disassembly procedure in the numerical order given.

2-2. SIDE (L) PANEL, SIDE (R) PANEL

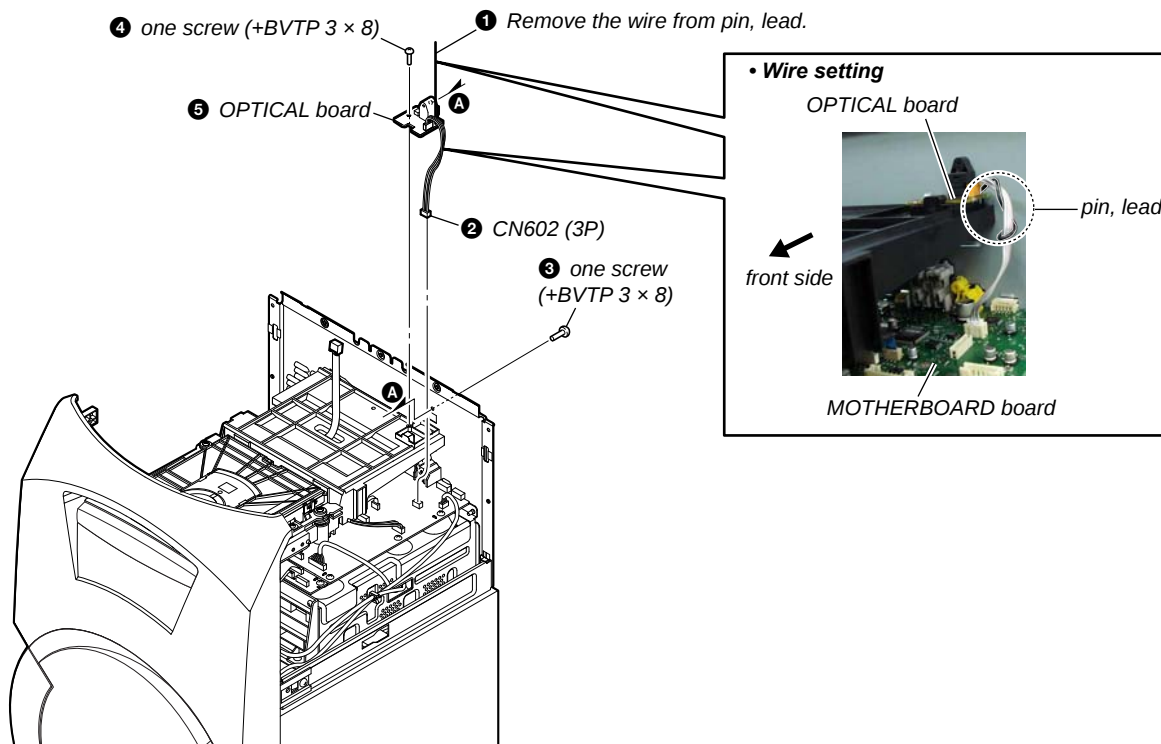


Note 1: The screw type which screw between "PANEL, SIDE and PANEL, TOP" and "PANEL, SIDE and CHASSIS" for this unit have been changed in the midway of production. About the screw type discrimination, refer to "SCREW TYPE DISCRIMINATION BEFORE DISASSEMBLE THE PANEL, SIDE" on servicing notes (page 6).

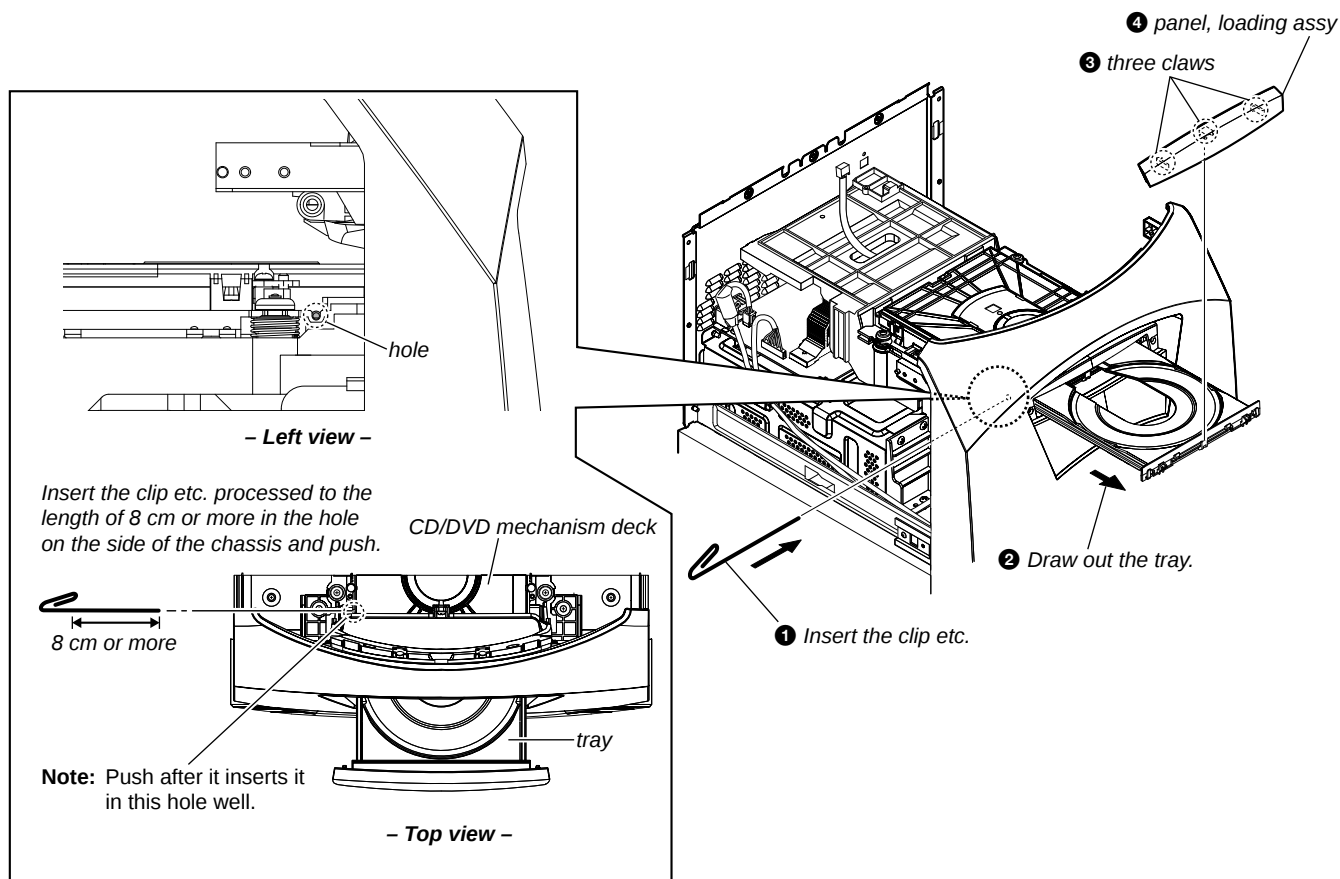
2-3. TOP PANEL SECTION



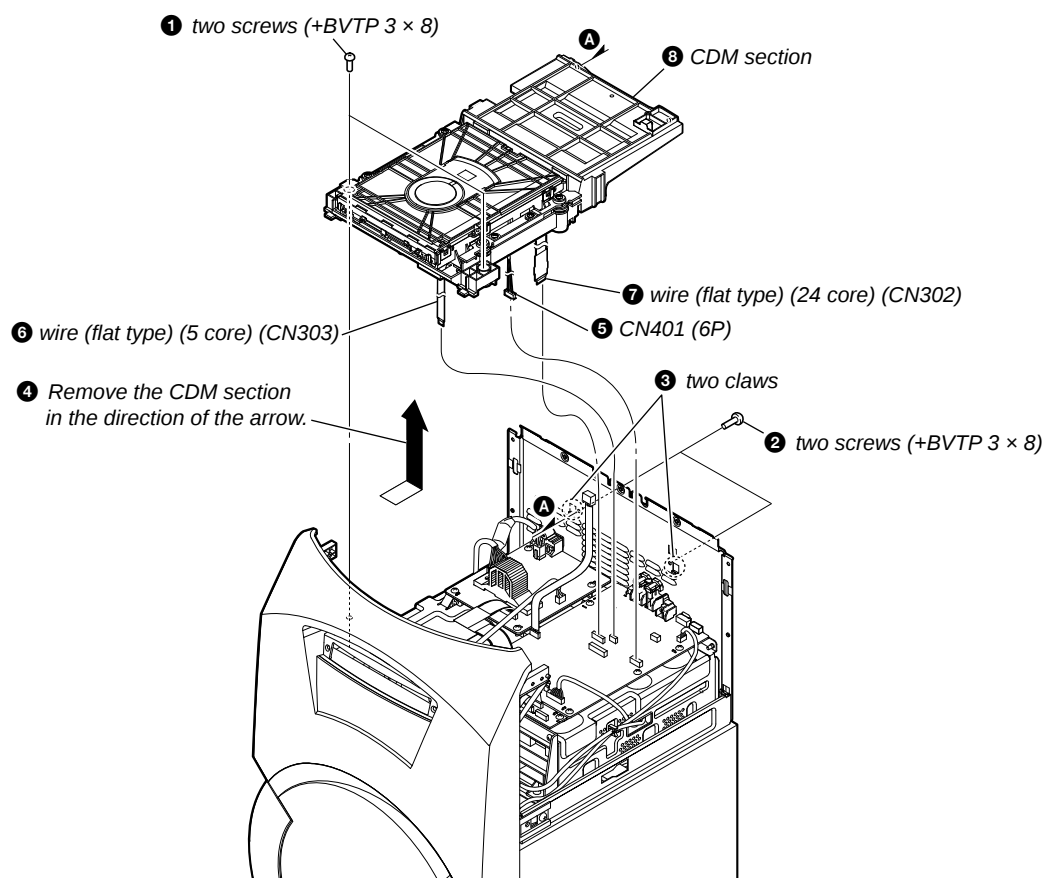
2-4. OPTICAL BOARD



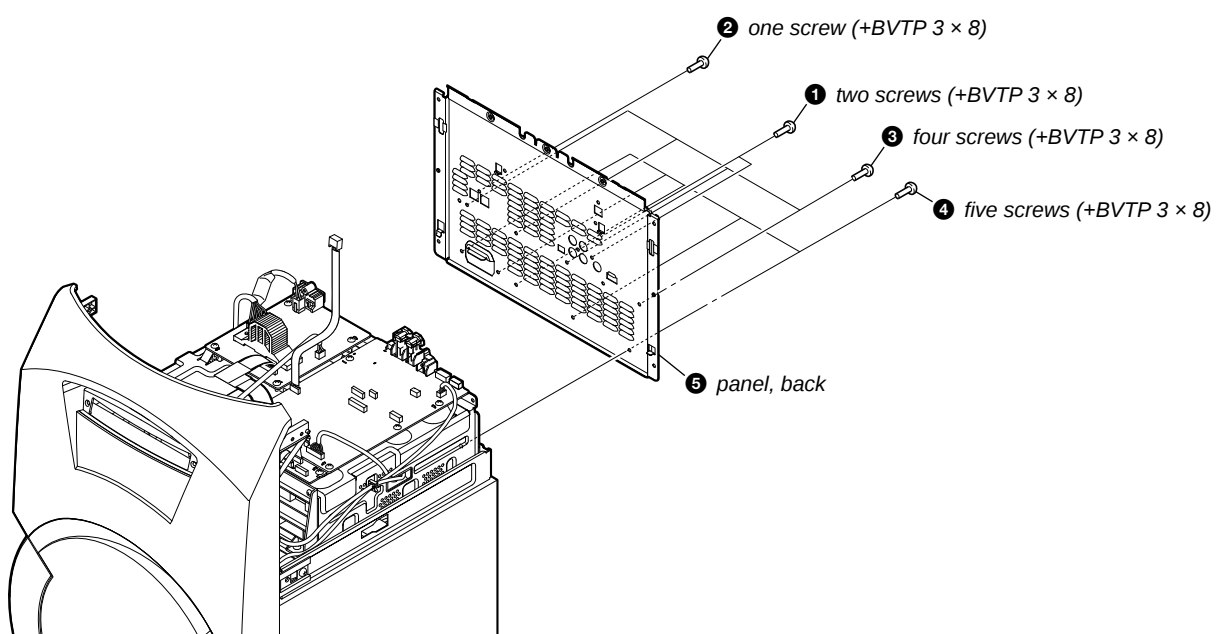
2-5. LOADING PANEL ASSY



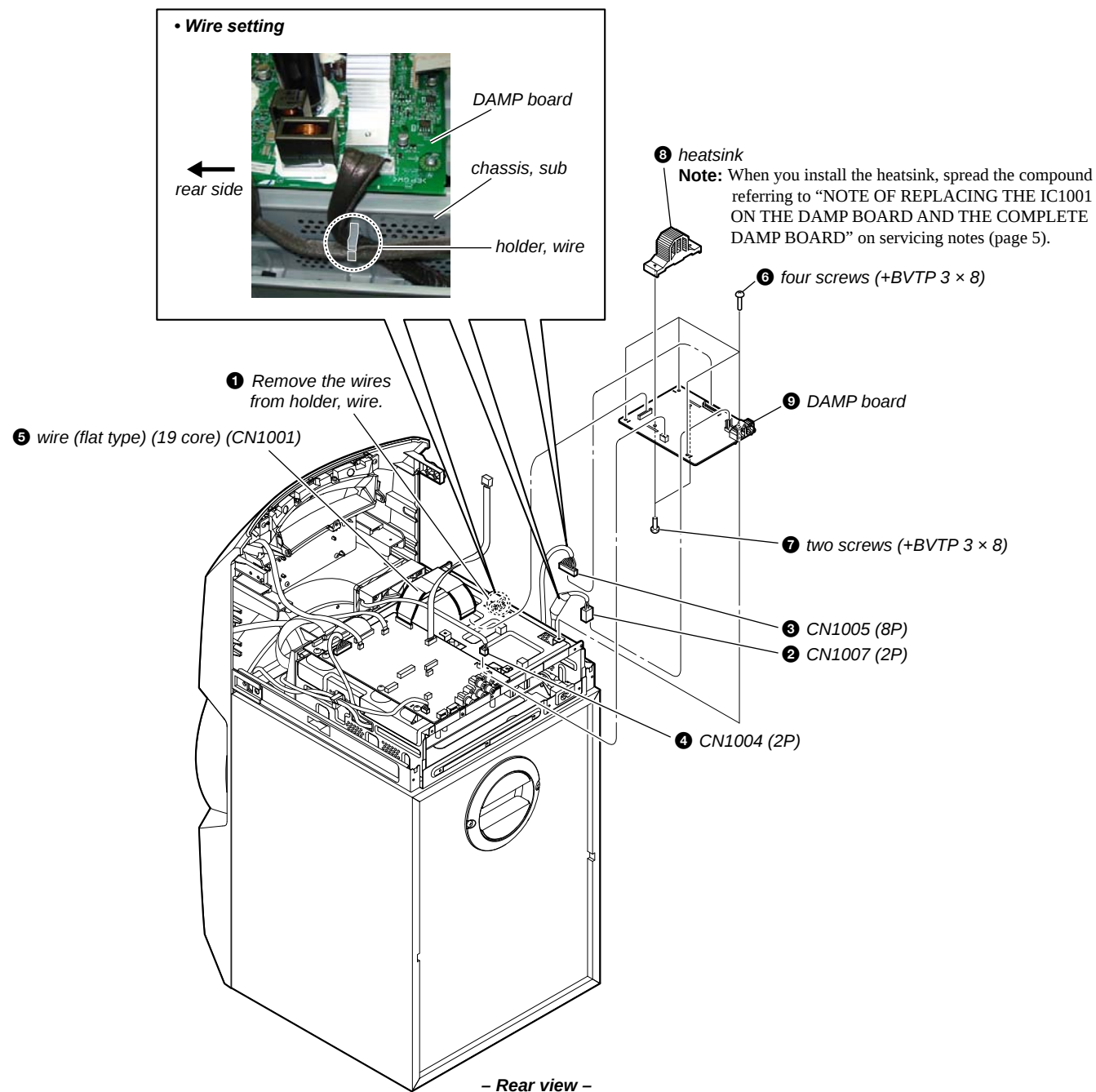
2-6. CDM SECTION



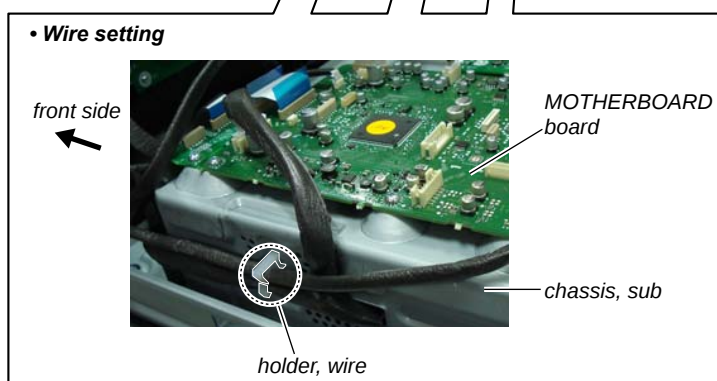
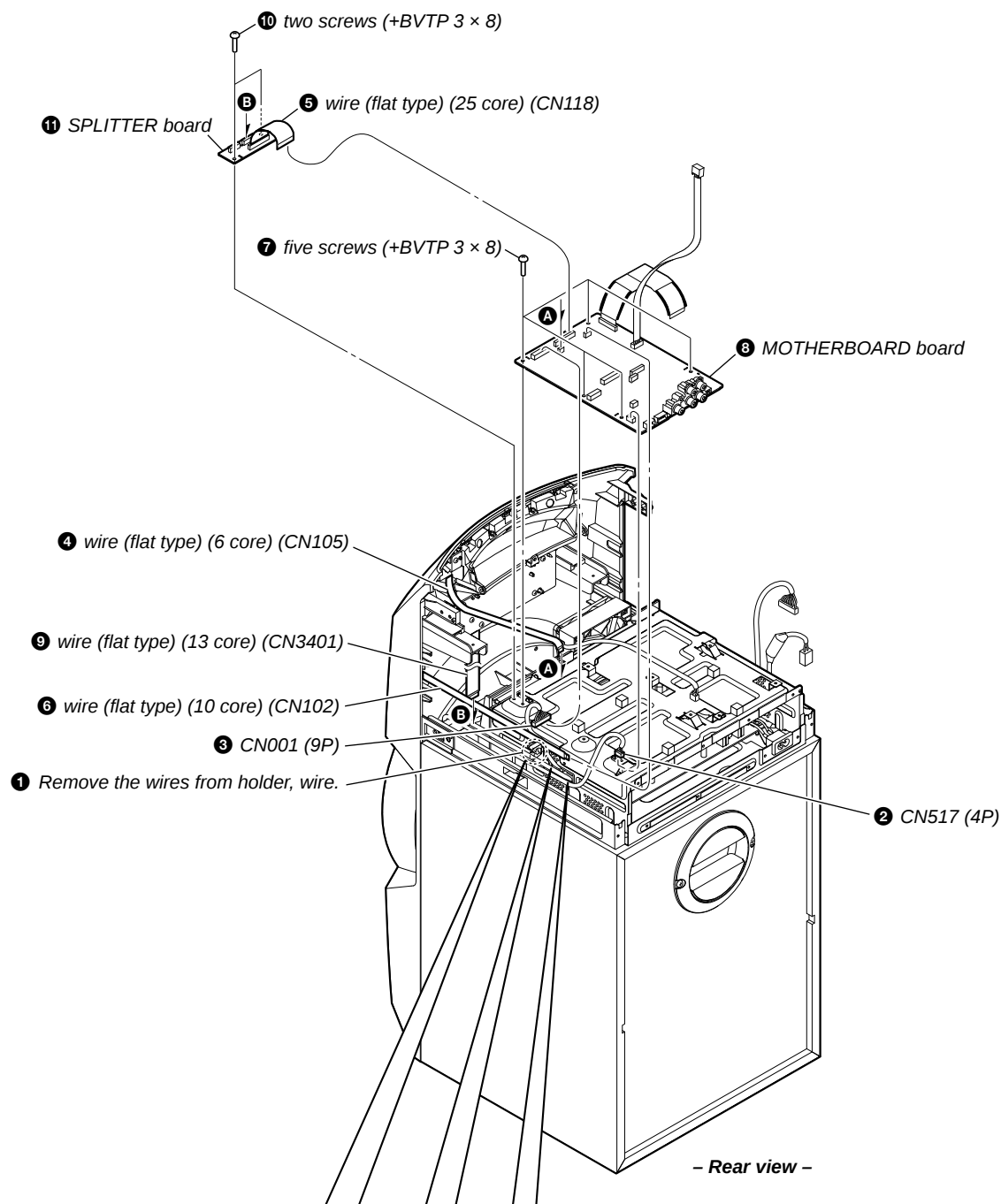
2-7. BACK PANEL



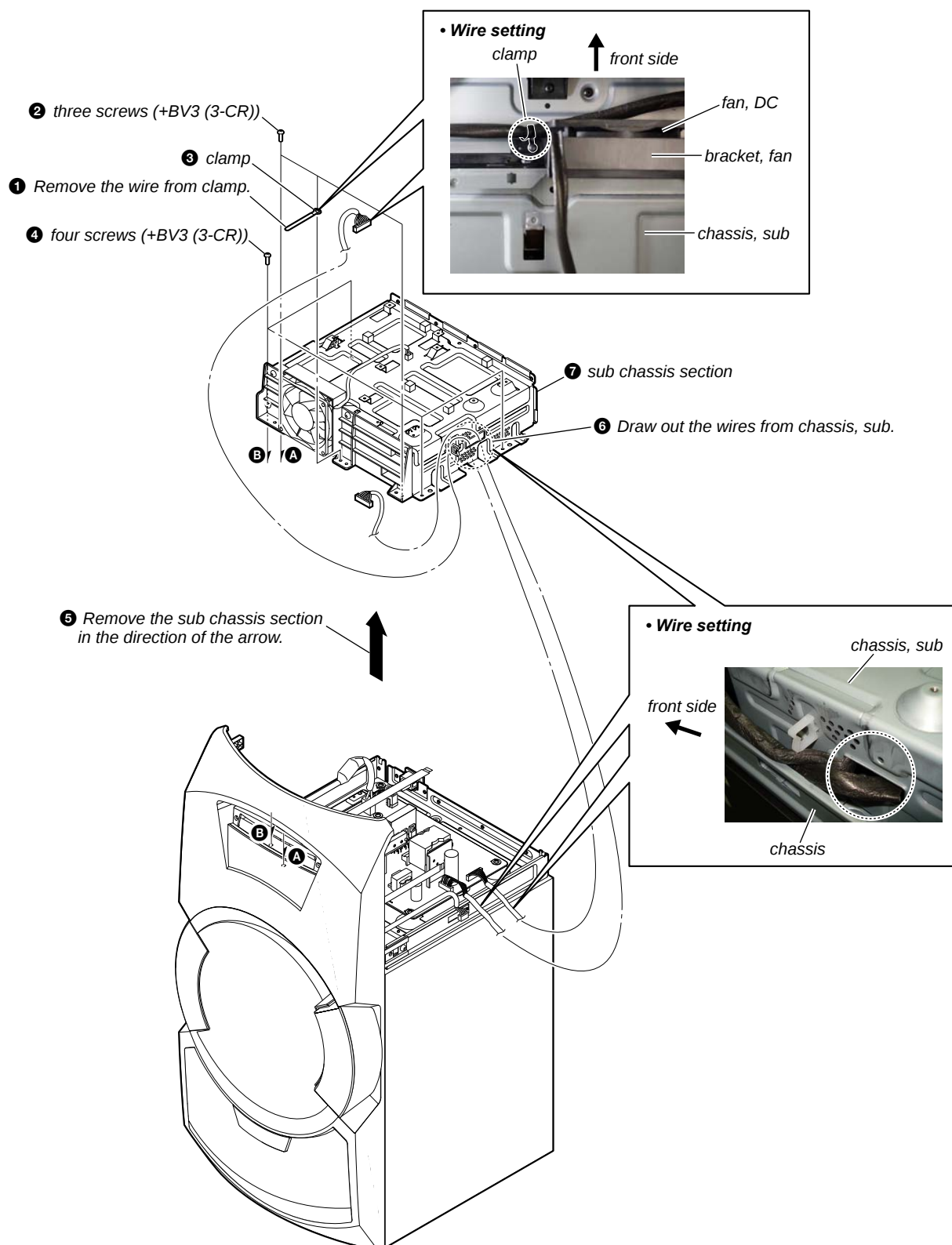
2-8. DAMP BOARD



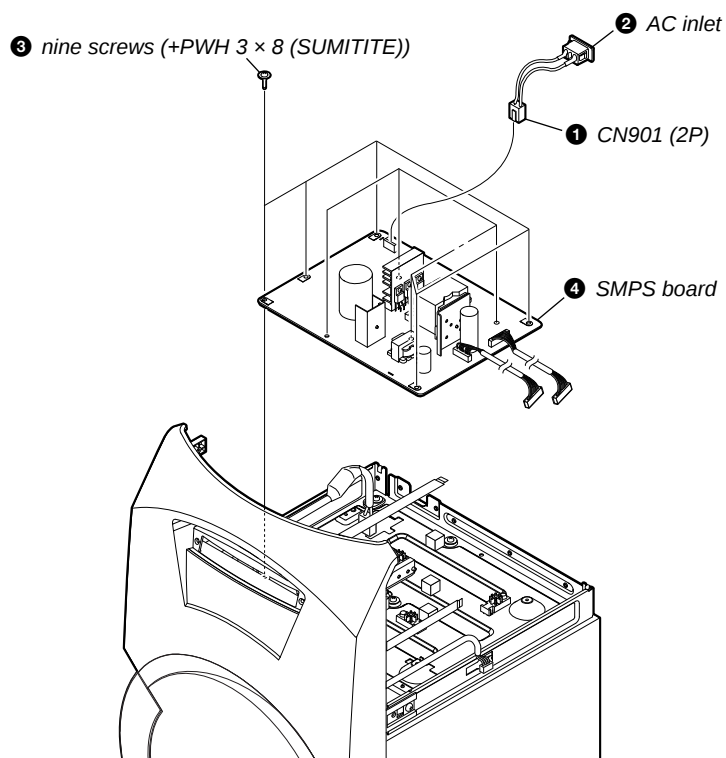
2-9. MOTHERBOARD BOARD, SPLITTER BOARD



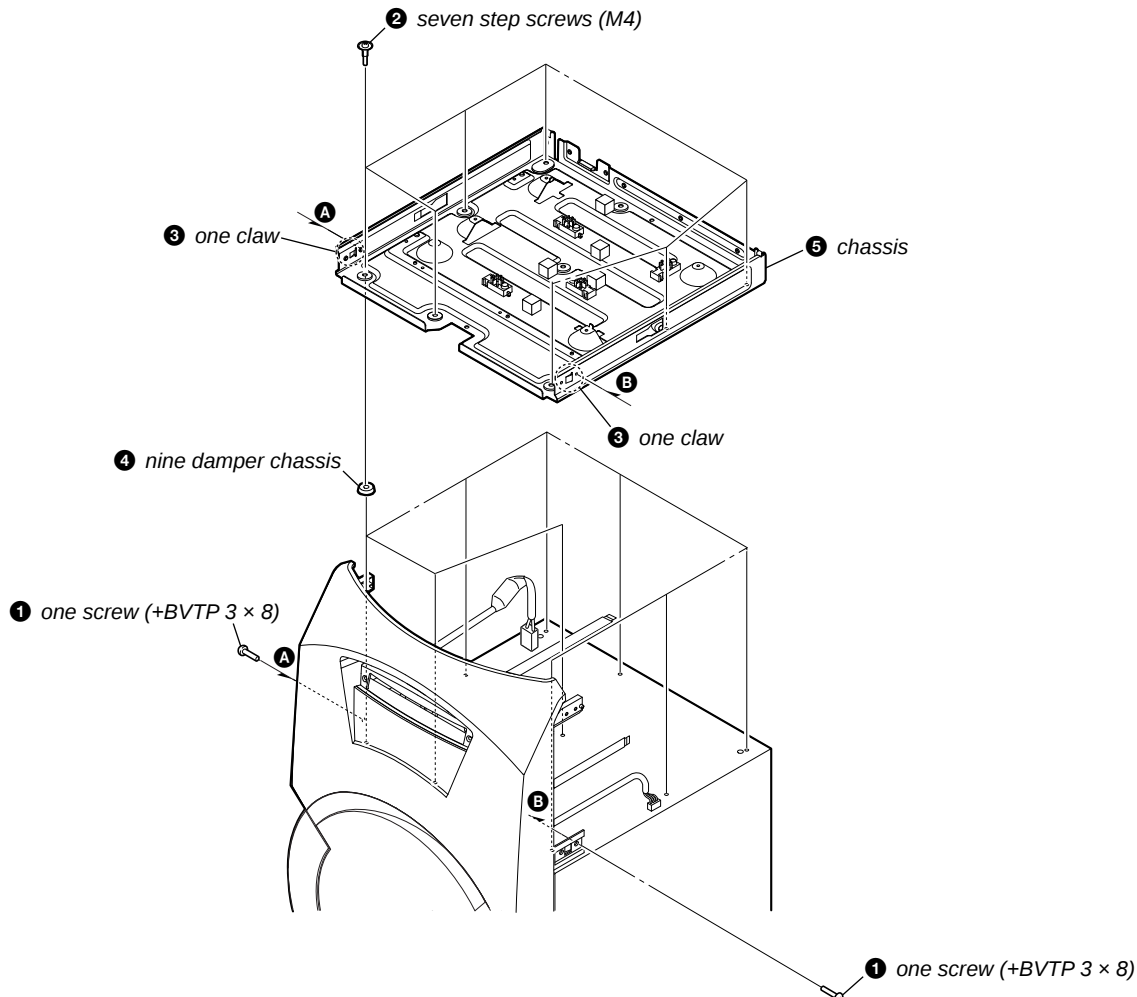
2-10. SUB CHASSIS SECTION



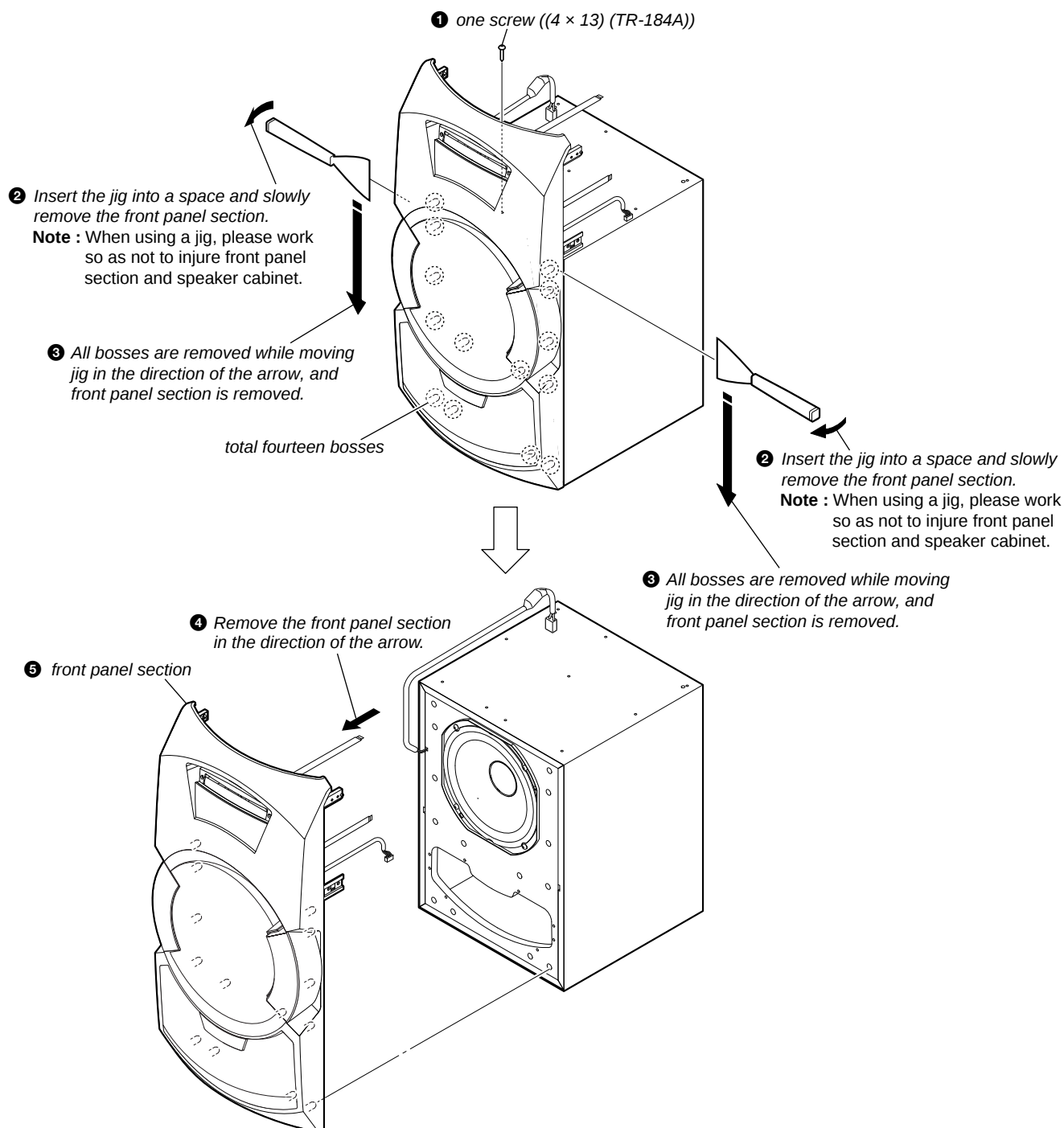
2-11. SMPS BOARD



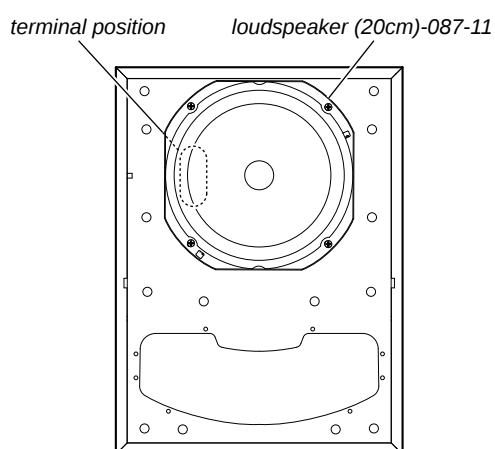
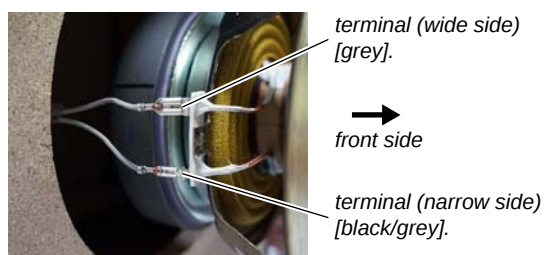
2-12. CHASSIS



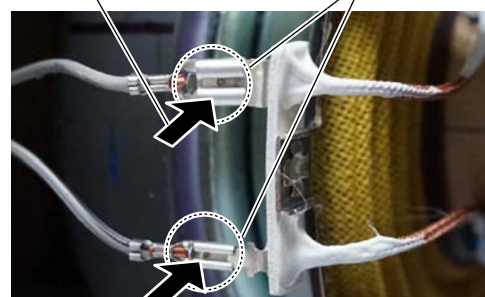
2-13. FRONT PANEL SECTION



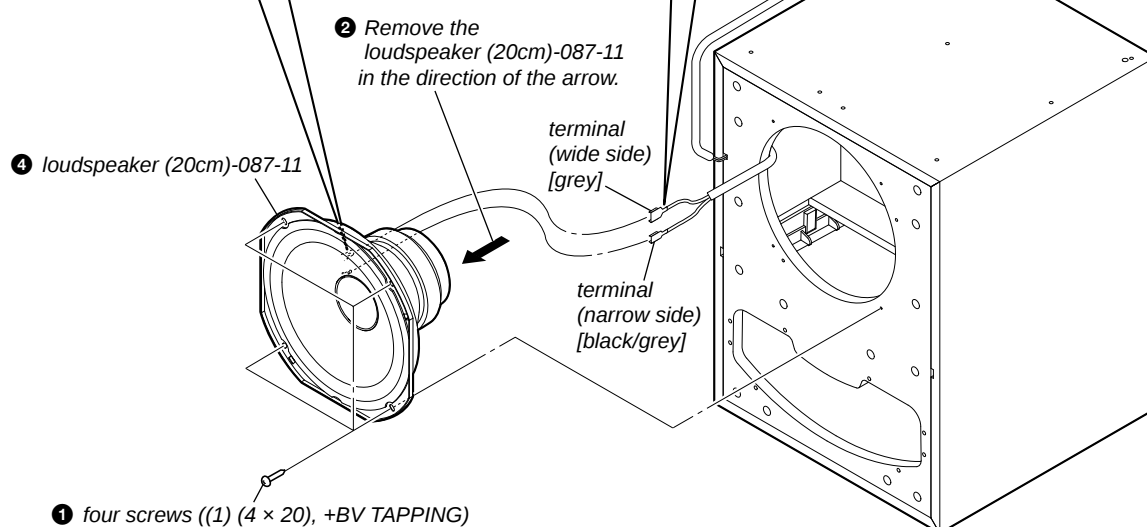
2-14. LOUDSPEAKER (20CM)-087-11

• **Installation direction for the loudspeaker (20cm)-087-11**• **Wire setting**

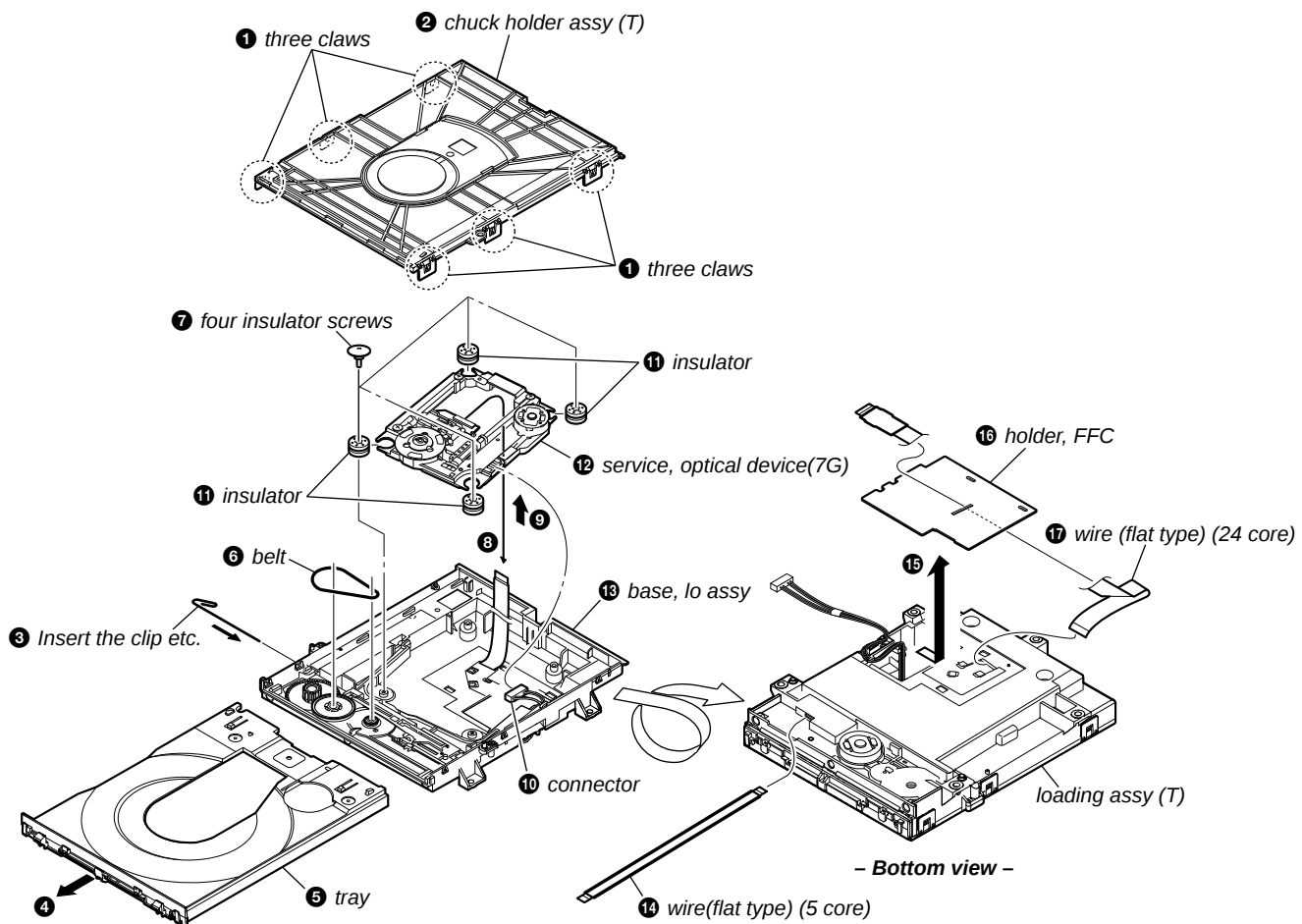
3 Push the protrusion, and remove the terminal (wide side) [grey].



3 Push the protrusion, and remove the terminal (narrow side) [black/grey].

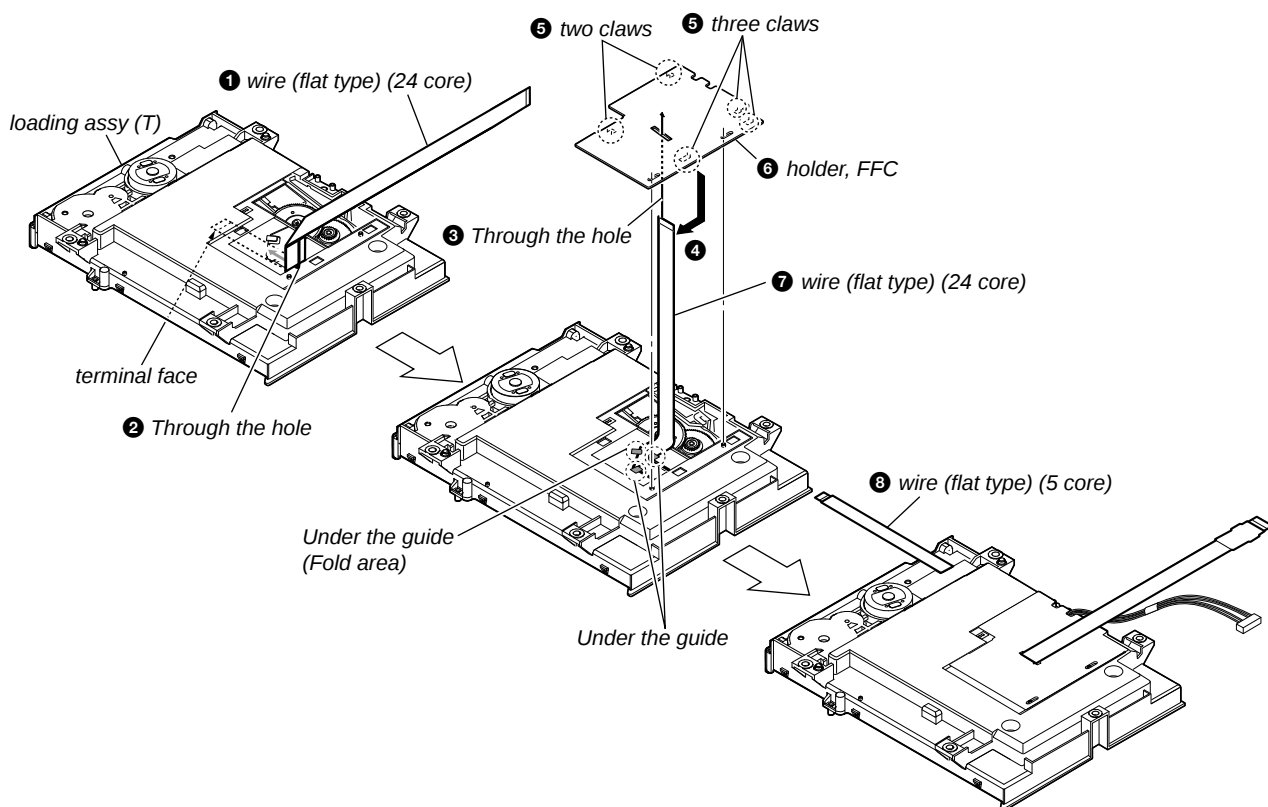


2-15. SERVICE, OPTICAL DEVICE(7G), WIRE (FLAT TYPE)



• Installation of wire (flat type) (24 core) and wire (flat type) (5 core)

Note: This illustration sees the loading assy (T) from bottom side.



SECTION 3

TEST MODE

[PANEL TEST MODE]

This mode is used to check the fluorescent indicator tube, LEDs, keys, [VOLUME/DJ CONTROL] jog, model, destination and software version.

Procedure:

1. Press [■] button and [S3 TUNING – ◀◀] button simultaneously and hold 3 seconds.
2. All LEDs and segments in fluorescent indicator tube are lighted up.
3. When you want to enter to the software version display mode, press [S2 □+] button.

The model information appears on the fluorescent indicator tube.

Press [S2 □+] button again to view the destination information.

4. During the destination information display, press [S2 □+] button. Each time [S2 □+] button is pressed, the fluorescent indicator tube shows the version of each category software in the following sequence: SC, MTK, OPU, UI, PF, SUB, SYS, CD, CMA, CMB, ST, TA, TM and return back to model information display.
5. When [■] button is pressed while the version numbers are being displayed except model and destination, the date of the software creation appears. When [■] button is pressed again, the display returns to the software version display.
6. When [ENTER] button is pressed after all LEDs and segments in fluorescent indicator tube light up, alternate segments in fluorescent indicator tube and LEDs would light up, all Party Light LEDs would light up in red color. If you press [ENTER] button again, another half of alternate segments in fluorescent indicator tube and LEDs would light up, all Party Light LEDs would light up in green color. Pressing [ENTER] button again would cause all segments in fluorescent indicator tube and LEDs light up, all Party Light LEDs would light up in blue color. Pressing [ENTER] button again would turn off all segments in fluorescent indicator tube and all LEDs including Party Light LEDs.
7. Press [S1 □–] button, the key check mode is activated.
8. In the key check mode, the fluorescent indicator tube displays “K0 V0E0”.
Each time a button is pressed, “K” value increases. However, once a button has been pressed, it is no longer taken into account. After all the buttons have been pressed, “K” value will toggle between “OK” and “K24”.
“V” value increases in the manner of 0, 1, 2, 3 ... if [VOLUME/DJ CONTROL] knob is turned clockwise, or it decreases in the manner of 0, 9, 8, 7 ... if [VOLUME/DJ CONTROL] knob is turned counterclockwise.
“E” value increases in the manner of 0, 1, 2, 3 ... if [MULTI CONTROL] knob is turned clockwise, or it decreases in the manner of 0, 9, 8, 7 ... if [MULTI CONTROL] knob is turned counterclockwise.
9. To release from this mode, press the buttons in the same manner as step 1, or disconnect the power cord.

[USER RESET]

The user reset clears all data including preset data stored in the data flash to initial conditions exclude history mode data.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [ENTER] button and [S4 TUNING + ▶▶] button simultaneously for 3 seconds.
3. “RESET” appears on the fluorescent indicator tube. After that, the fluorescent indicator tube becomes blank for a while, and the system goes to demo mode.

[COLD RESET]

The cold reset clears all data including preset data stored in the data flash to initial conditions included history mode data. Execute this mode when returning the set to the customer.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [■] button and [S4 TUNING + ▶▶] button simultaneously for 3 seconds.
3. “COLD RST” appears on the fluorescent indicator tube. After that, the fluorescent indicator tube will display “SONY DEMO”. The set will automatically Power ON and Power OFF again, and the system is reset.

[DISC TRAY LOCK MODE]

This mode let you lock the disc tray. When this mode is activated, the disc tray will not open when [▲] button is pressed. The message “LOCKED” will be displayed on the fluorescent indicator tube. This mode only applied when there is disc on the tray.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [FUNCTION] button and turn the [MULTI CONTROL] knob to select “DVD/CD” function, then press [ENTER] button.
3. Press [ENTER] button and [VOCAL FADER] button simultaneously and hold down until “LOCKED” or “UNLOCKED” displayed on the fluorescent indicator tube (around 3 seconds).

Bluetooth PAIRING HISTORY CLEAR

It can clear the Bluetooth pairing history.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [-PAIRING BLUETOOTH] button to turn the Bluetooth function.
3. Press two buttons of [ENTER] and [S1 □–] simultaneously for 3 seconds.
4. The message “BT HIST” → “CLEAR” is displayed on the fluorescent indicator tube, and the pairing history of Bluetooth is cleared.

[HISTORY MODE]

This mode is used to check important data stored in the system when PROTECTOR happened.

Procedure:

1. During demo mode, press [■] button and [S2 □+] button for 5 seconds to mode into history mode.
2. Press the [S4 TUNING + ►►I] button or [S3 TUNING – I◄◄] button to check history data stored.

Display on fluorescent indicator tube								Description
P	C	O	U	N	T	※	※	No. of time protector happened (0 ~ 99)
P	T			※	※	※	※	Refer to protect type description
1	*h	*h	*h	*h	*h	*m	*m	Single Power On Time until protector happened (0~99999 hours, 0~99 minutes)
2	*h	*h	*h	*h	*h	*m	*m	Total Power On Time [no consider protector happened] (0~99999 hours, 0~99 minutes)
F		※	※	※	※	※	※	Input Function during protector happened
V	O	L			※	※	※	Volume setting (MIN / 1 - 50 / MAX)
S	W						※	Subwoofer setting (0 ~ 4)
B	A	S	S		※	※	※	MEGA BASS setting (OFF / ON)

To release from History Mode.

To release from this mode, press [I/⏻] button.

Protect Type Description:

Error Code	Description
01	The over current condition to MOSFET occurs by defect of MOSFET or defect of PS output line. or Unusual heat up of MOSFET by improper assembly of heat sink, destruction of MOSFET etc.
02	Defect of thermistor IC or charging circuit used by SPM (Sound Pressure Management) system.
03	Defect of power supply circuit to AMP. There is possibility of unusual power supply of any of the AMP IC or Pre-amplifier.
04	DC appears in SP terminal by defect of AMP IC and MOSFET.
06	Defect of DC FAN and DC FAN driver circuit.

If speaker does not have output even if the set status is not in PROTECT mode, the following defect might be possible:

Defects	Possible cause
RESET defect	Reset signal status from micom is not 'H'.

[DVD COLOR SYSTEM MODE]

This mode let you change the color system of the video output from PAL to NTSC or vice-versa.

Procedure:

1. Press [I/⏻] button to turn on the system.
2. Press [FUNCTION] button and turn the [MULTI CONTROL] knob to select "DVD/CD" function, then press [ENTER] button.
3. Press [ENTER] button and [MIC ECHO] button simultaneously and hold for 3 seconds.
4. The message "PAL" or "NTSC" appears on the fluorescent indicator tube.

• To release from DVD Color System Mode

1. Once the color system has been selected, the mode is fixed there after. If you wish to change the mode again, perform the above item 2 again.

[DVD SERVICE MODE]

This mode let you make diagnosis and adjustment easily by using the remote commander and the TV. The instructions, diagnostic results, etc. are given on the on-screen display.

• TEST DISC LIST

Be sure to use the DVD disc that matches the signal standards of your region.

- CD

YEDS-18	(Part No.: 3-702-101-01)
PATD-012	(Part No.: 4-225-203-01)
HLX-A1	(Part No.: J-2501-307-A)
- DVD SL (Single Layer)

NTSC : HLX-503	(Part No.: J-6090-069-A)
HLX-504	(Part No.: J-6090-088-A)
HLX-513	(Part No.: J-2501-305-A)
PAL : HLX-506	(Part No.: J-6090-077-A)
- DVD DL (Double Layer)

NTSC : HLX-501	(Part No.: J-6090-071-A)
HLX-505	(Part No.: J-6090-089-A)
HLX-514	(Part No.: J-2501-306-A)
PAL : HLX-507	(Part No.: J-6090-078-A)

• Procedure to enter to DVD Service Mode:

1. Press [I/⏻] button to turn on the system.
2. Press [FUNCTION] button and turn the [MULTI CONTROL] knob to select "DVD/CD" function, then press [ENTER] button.
3. Press [SOUND FIELD] button and [VOCAL FADER] button simultaneously and hold 3 seconds.
4. The message "SERVICE IN" appears on the fluorescent indicator tube.

The display of the "Model Name" of the "Remocon Diagnosis Menu" change with the model and the destination appears on screen display. Refer to below on the model name.

MHC-GT3D: GV2

Remocon Diagnosis Menu	
0. External Chip Check	
1. Servo Parameter Check	
2. Drive Manual Operation	
3. Emergency History	
4. Version Information	
Model Name	: MHC-GT3D_XX ^{*1}
IF-con	: Ver. XX.XX (XXXX)
Syscon	: Ver. X.XXX

*1: Changes depending on destination

5. To execute each function, press its number by using numeric button on the remote commander.

6. To release from this mode, press [I/⏻] button to turn off the system.

• Execute IOP Measurement

In order to execute IOP measurement, the following standard procedures must be followed.

1. From the Top Menu of Remocon Diagnosis Menu, select "2. Drive Manual Operation" by pressing the [2] button on the remote commander. The following screen appears on the onscreen display.

Drive Manual Operation	
1. Servo Control	
2. Track/Layer Jump	
3. Manual Adjustment	
4. Tray Aging Mode	
5. MIRR time Adjust	
0. Return to Top Menu	

2. Select "3. Manual Adjustment" by pressing the [3] button on the remote commander. The following screen appears on the on-screen display.

Manual Adjust	
1. Track Balance Adjust:	
2. Track Gain Adjust:	
3. Focus Balance Adjust:	
4. Focus Gain Adjust:	
5. Eq Boost Adjust:	
6. Iop:	
7. TRV. Level:	
8. S curve (FE) Level:	
9. RFL (PI) Level:	
0. MIRR Time:	
↑↓ Change Value	
RETURN Return to previous menu	

3. Select "6. Iop:" by pressing the [6] button on the remote commander.
4. Wait until a hexadecimal number appears in the on-screen display as below:

Manual Adjust	
1. Track Balance Adjust:	
2. Track Gain Adjust:	
3. Focus Balance Adjust:	
4. Focus Gain Adjust:	
5. Eq Boost Adjust:	
6. Iop. ED	
7. TRV. Level:	
8. S curve (FE) Level:	
9. RFL (PI) Level:	
0. MIRR Time:	
↑↓ Change Value	
RETURN Return to previous menu	

5. Convert data from hexadecimal to decimal by using conversion table.
6. Please find the label on the rear of the BU (Base Unit). The default IOP value is written in the label.
7. Subtract between these two values.
8. If the remainder is smaller than 93 (decimal), then it is OK. However if the value is higher than 93, then the BU is defective and need to be change.
9. Press [RETURN] button on the remote commander to return to previous menu.

10. Press the [0] button on the remote commander to return to the Top Menu of Remocon Diagnosis Menu.
11. Press [I/⏻] button to turn off the system.

• Check Emergency History

To check the emergency history, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select “3. Emergency History” by pressing the [3] button on the remote commander. The following screen appears on the on-screen display.

Emg. History Check			
Laser Hours	CD DVD	999h 999h	59min 59min
1. 01 05 04 04		00 92 46 00	
00 00 00 00		00 00 23 45	
2. 02 02 01 01		00 A9 4B 00	
00 00 00 00		00 00 23 45	
Next Next Page Prev Prev Page Return to Top Menu			

(Displayed values in the above figure are example)

2. You can check the total time when the laser is turned on during playback of DVD and CD from the above menu. The maximum time, which can be displayed are 999h 59min.
3. You can check the error code of latest 10 emergency history from the above menu. To view the previous or next page of emergency history, press the [◀◀] button or [▶▶] button on the remote commander. The error code consists of “Error Code”, “Parameter of error code” and “Time of error code”.

• Error Code

Example of Error code			
1. 01 05 04 04		00 92 46 00	
00 00 00 00		00 00 23 45	

The meaning of error code is as below:

01: Communication error (No reply from syscon)

02: Syscon hung up

03: Power OFF request when syscon hung up

19: Thermal shutdown

24: MoveSledHome error

25: Mechanical move error (5 Changer)

26: Mechanical move stack error

30: DC motor adjustment error

31: DPD offset adjustment error

32: TE balance adjustment error

33: TE sensor adjustment error

34: TE loop gain adjustment error

35: FE loop gain adjustment error

36: Bad jitter after adjustment

40: Focus NG

42: Focus layer jump NG

51: Spindle stop error

52: Open kick spindle error

60: Focus on error

61: Seek fail error

62: Read Q data/ID error

70: Lead in data read fail

71: TOC read time out (CD)

80: Can't buffering

81: Unknown media type

• Parameter of error code

This is the detail of error code.

Example of Error code			
1. 01 05 04 04		00 92 46 00	
00 00 00 00		00 00 23 45	

• Time of error code

This is the laser time when an error occurred.

Example of Error code			
1. 01 05 04 04		00 92 46 00	
00 00 00 00		00 00 23 45	

To clear the Laser Hours

Press the [⏻ DISPLAY] button and then press the [CLEAR] button. The data for both CD and DVD data are reset.

Emg. History Check			
Laser Hours	CD DVD	0h 0h	0min 0min
1. 01 05 04 04		00 92 46 00	
00 00 00 00		00 00 23 45	
2. 02 02 01 01		00 A9 4B 00	
00 00 00 00		00 00 23 45	
Next Next Page Prev Prev Page Return to Top Menu			

To clear the Emergency History

Press the [DVD TOP MENU] button and then press the [CLEAR] button.

The error code for all emergency history would be reset.

Emg. History Check			
Laser Hours	CD DVD	999h 999h	59min 59min
1. 00 00 00 00		00 00 00 00	
00 00 00 00		00 00 00 00	
2. 00 00 00 00		00 00 00 00	
00 00 00 00		00 00 00 00	
Next Next Page Prev Prev Page Return to Top Menu			

To clear the Initialize Setup Data

Press the [DVD/TUNER MENU] button and then press the [CLEAR] button on the remote commander.

Emg. History Check			
Laser Hours	CD DVD	999h 999h	59min 59min
Initialize setup data...			
Next Next Page Prev Prev Page Return to Top Menu			

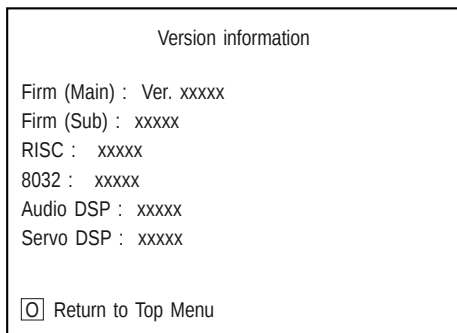
To return to the Top Menu of Remocon Diagnosis Menu

Press the [0] button on the remote commander.

- **Check Version Information**

To check the version information, please follow the following procedure.

1. From the Top Menu of Remocon Diagnosis Menu, select “4. Version information” by pressing the [4] button on the remote commander. The following screen appears on the on-screen display.



To return to the Top Menu of Remocon Diagnosis Menu, press the [0] button on the remote commander.

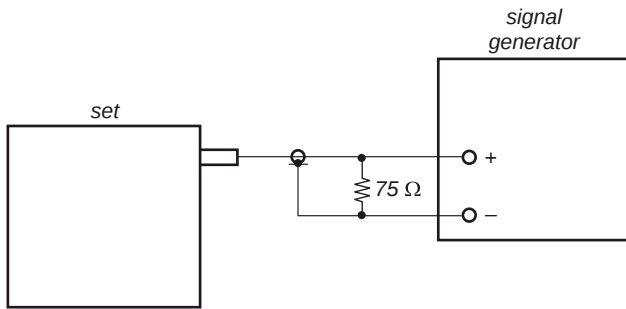
SECTION 4

ELECTRICAL CHECK

TUNER SECTION

$$0 \text{ dB} = 1 \mu\text{V}$$

FM AUTO STOP CHECK



Procedure:

1. Turn the power on.
2. Input the following signal from Signal Generator to FM antenna input directly.

Carrier frequency : A = 87.5 MHz, B = 98 MHz, C = 108 MHz
Deviation : 75 kHz
Modulation : 1 kHz
ANT input : 35 dBu (EMF)

Note: Please use 75 ohm “coaxial cable” to connect SG and the set. You cannot use video cable for checking.
Please use SG whose output impedance is 75 ohm.

3. Set to FM tuner function and scan the input FM signal with automatic scanning.
4. Confirm that input Frequency of A, B and C detected and automatic scanning stops.

The stop of automatic scanning means “The station signal is received in good condition”.

CD/DVD SECTION

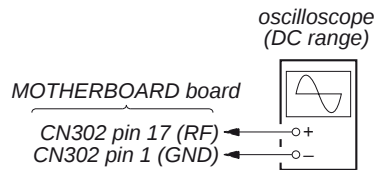
[TEST DISC LIST]

Use the following test disc on test mode.

- | | |
|--------------------|---|
| • CD: | YEDS-18 (PART No. 3-702-101-01)
or
PATD-012 (PART No. 4-225-203-01)
or
HLX-A1 (PART No. J-2501-307-A) |
| • DVD (SL)
NTSC | HLX-503 (PART No. J-6090-069-A)
or
HLX-504 (PART No. J-6090-088-A)
or
HLX-513 (PART No. J-2501-305-A) |
| PAL | HLX-506 (PART No. J-6090-077-A) |
| • DVD (DL)
NTSC | HLX-501 (PART No. J-6090-071-A)
or
HLX-505 (PART No. J-6090-089-A)
or
HLX-514 (PART No. J-2501-306-A) |
| PAL | HLX-507 (PART No. J-6090-078-A) |

Note: When the BASE UNIT is replaced, perform the Execute IOP measurement (Refer to page 24).

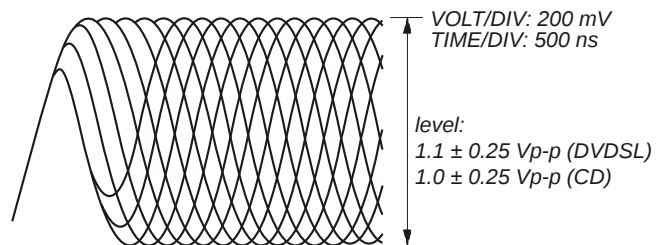
FOCUS BIAS CHECK



Procedure:

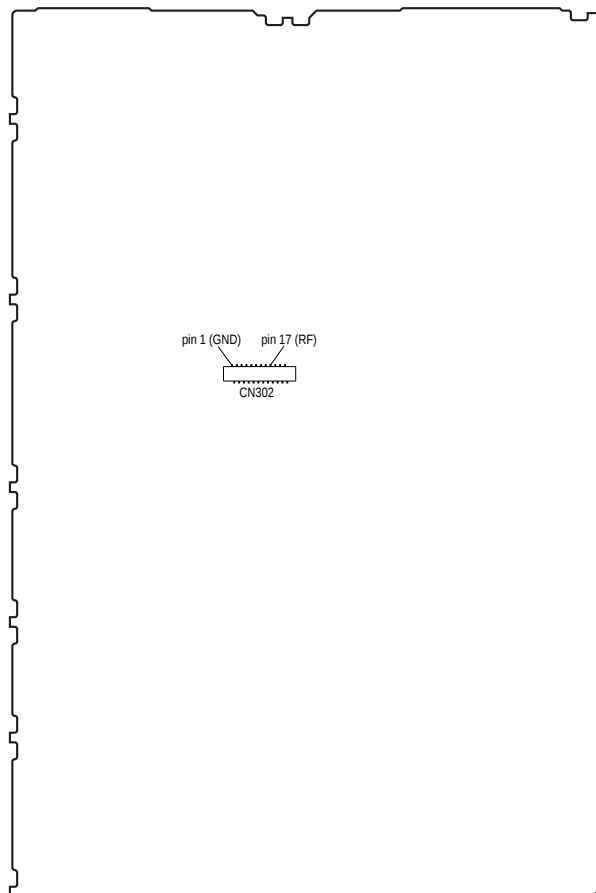
1. Connect the oscilloscope to CN302 pin 17 (RF) and CN302 pin 1 (GND) on the MOTHERBOARD board.
2. Press the [I/O] button to turn the power on, and press the [FUNCTION] button to select CD function.
3. Set the test disc (CD: YEDS-18) on the tray and press [▶] button to playback.
4. Confirm that oscilloscope waveform is as shown in the figure below (eye pattern).

A good eye pattern means that the diamond shape ($\diamond$) in the center of the waveform can be clearly distinguished.



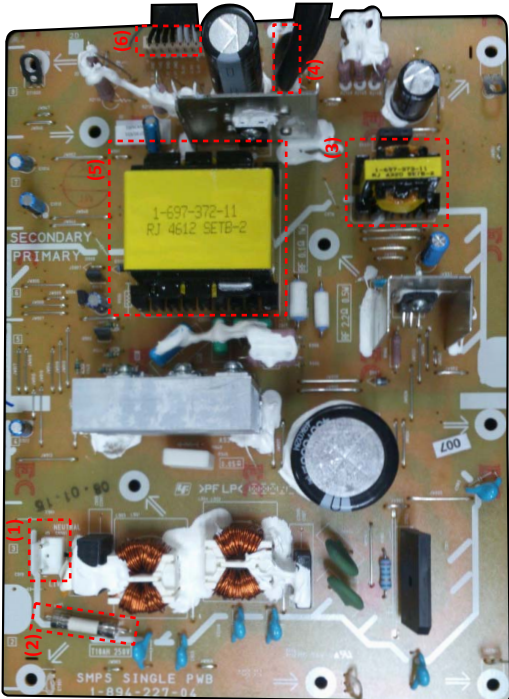
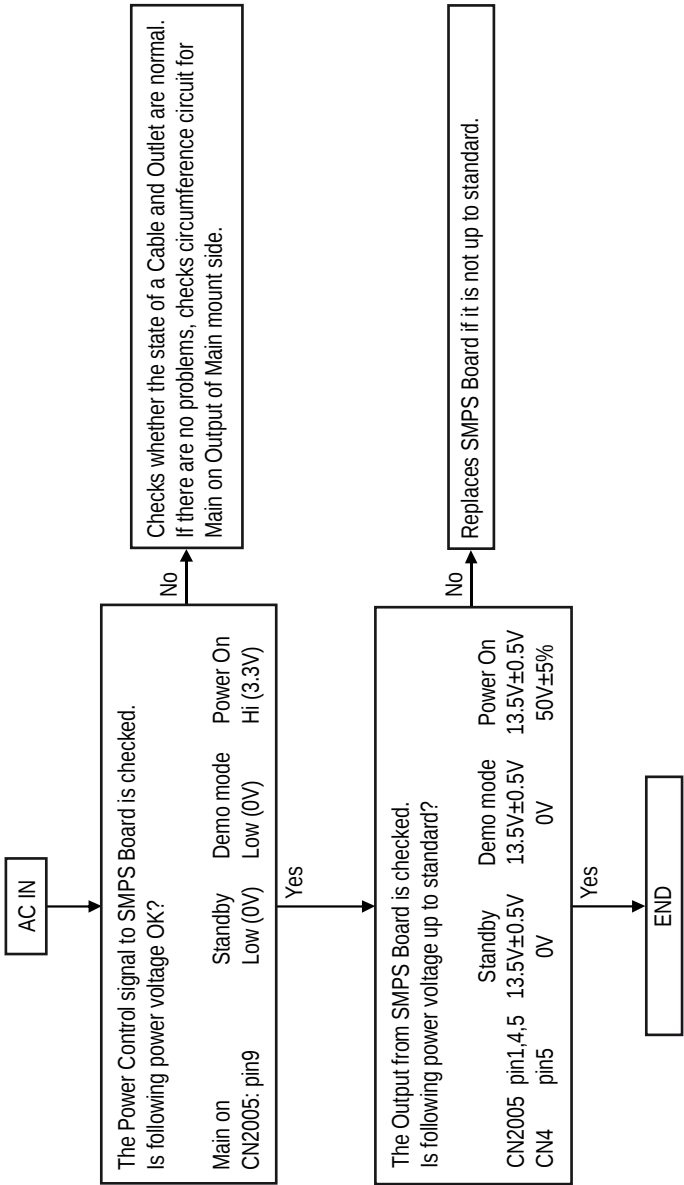
Checking Location:

– MOTHERBOARD Board (Component Side) –

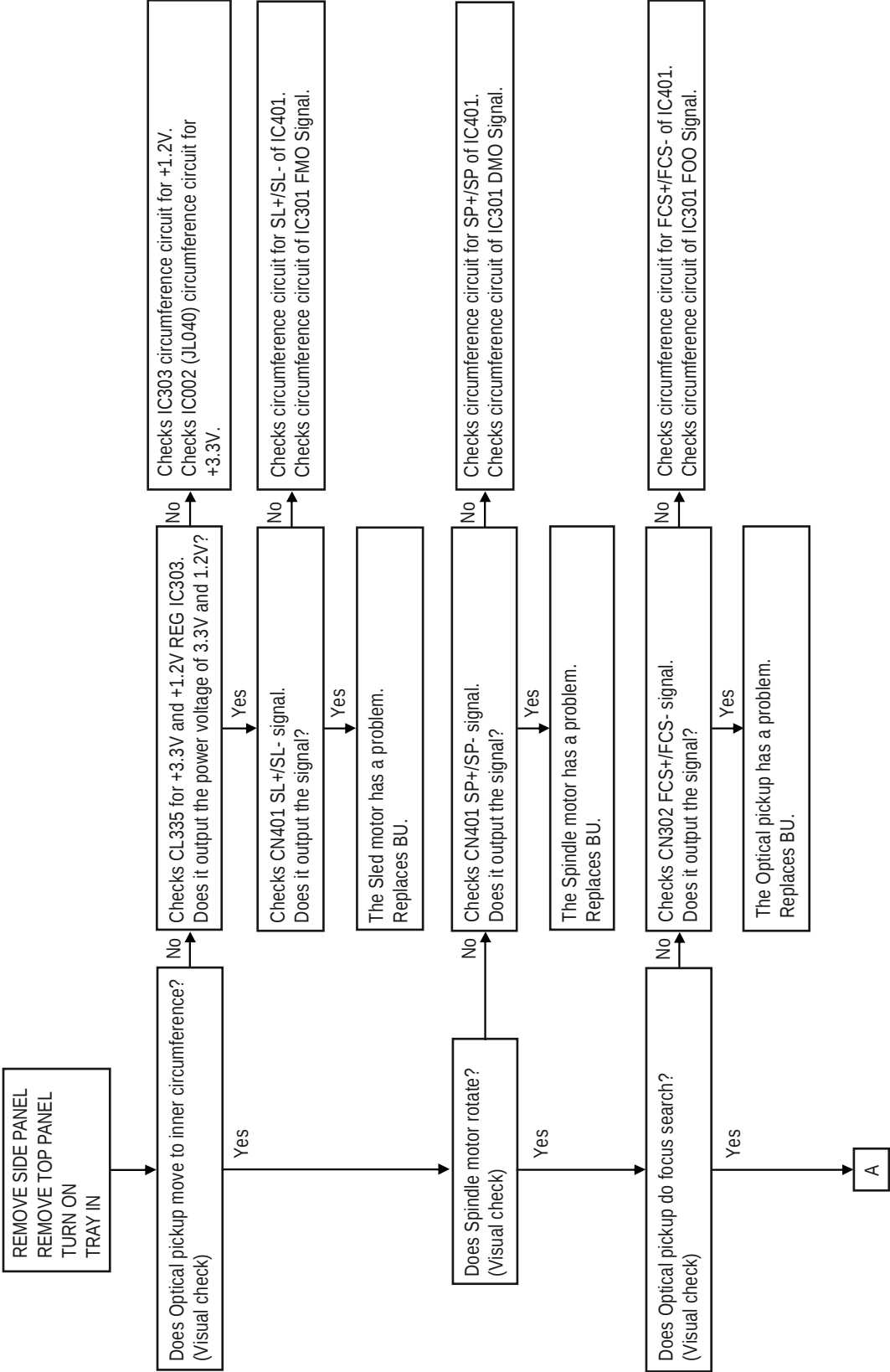


SECTION 5
TROUBLESHOOTING

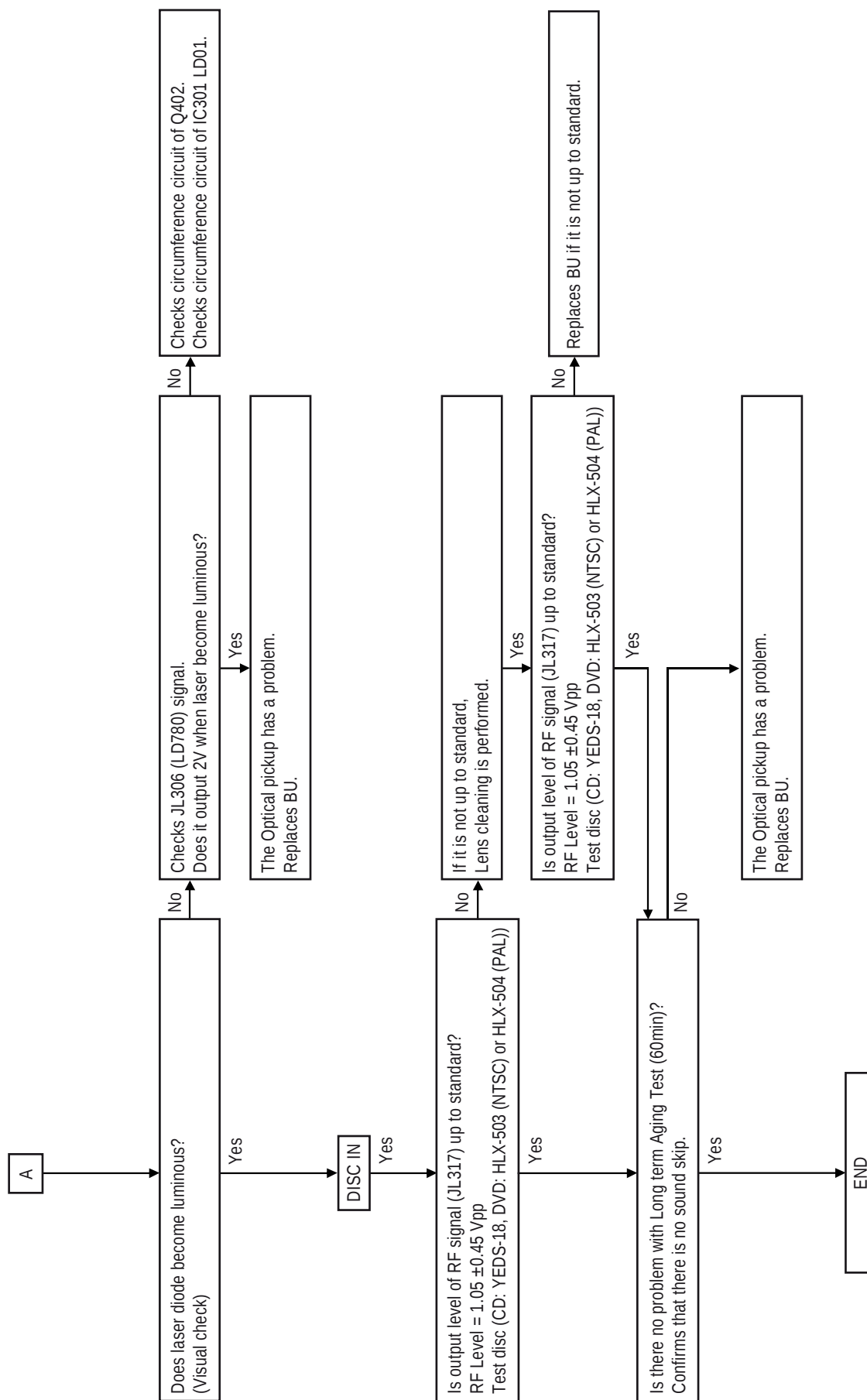
SMPS Board Diagnosis Flow

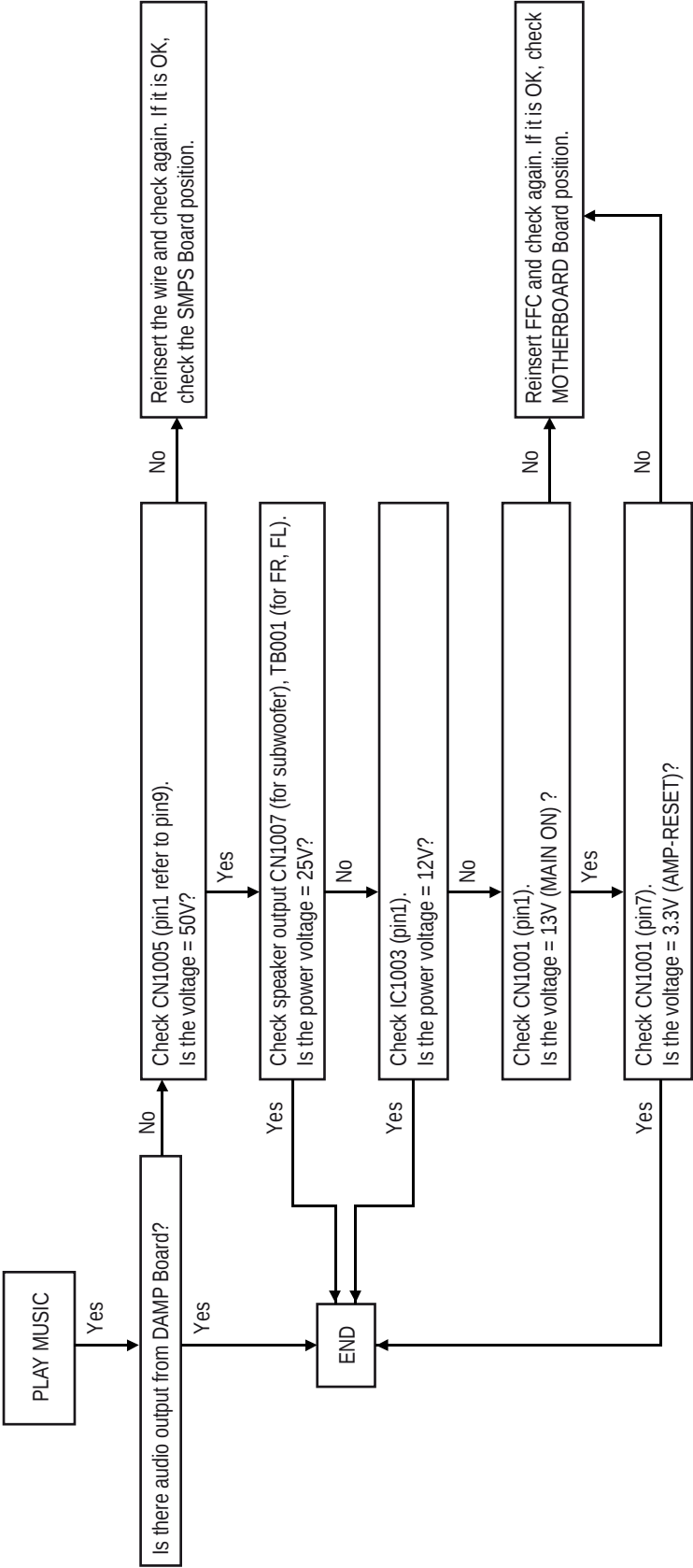


- (1) AC input
- (2) Fuse
- (3) Sub Power transformer
- (4) CN2005 Connector
 - pin1: 13.5V
 - pin3: AGND
 - pin4-5: 13.5V
 - pin6-7: M/DGND
 - pin8: AC-DET
 - pin9: MAIN-ON
- (5) MAIN Power transformer
- (6) CN4 Connector
 - pin1-5: V1 (50V)
 - pin6-9: V1_GND

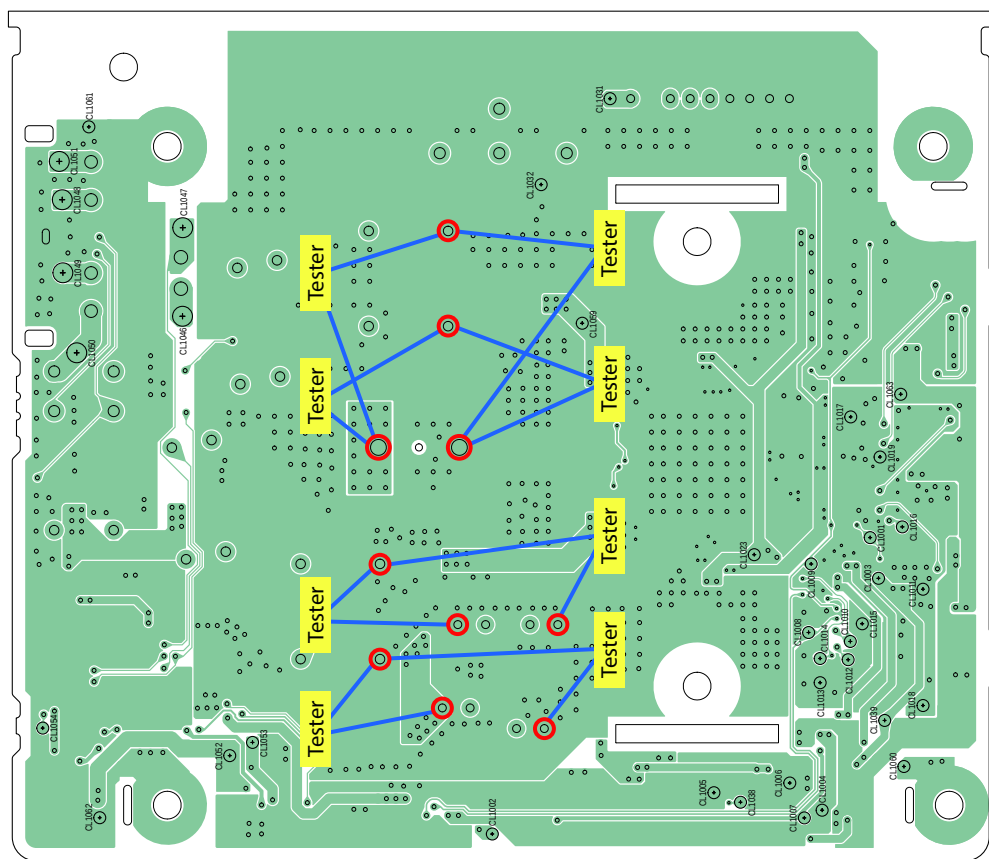


Optical Block Diagnosis Flow (2/2)





MOSFET Confirmation for DAMP Mount

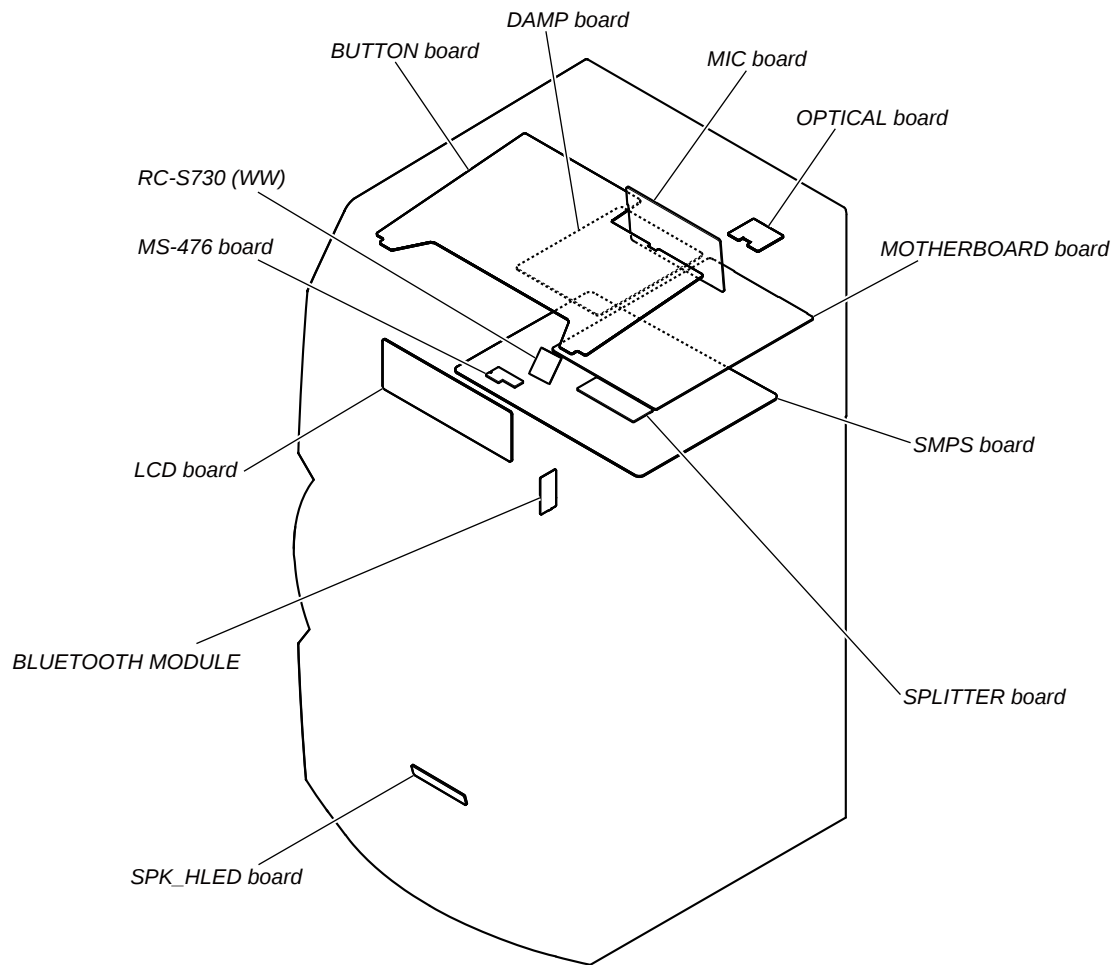


<Note>

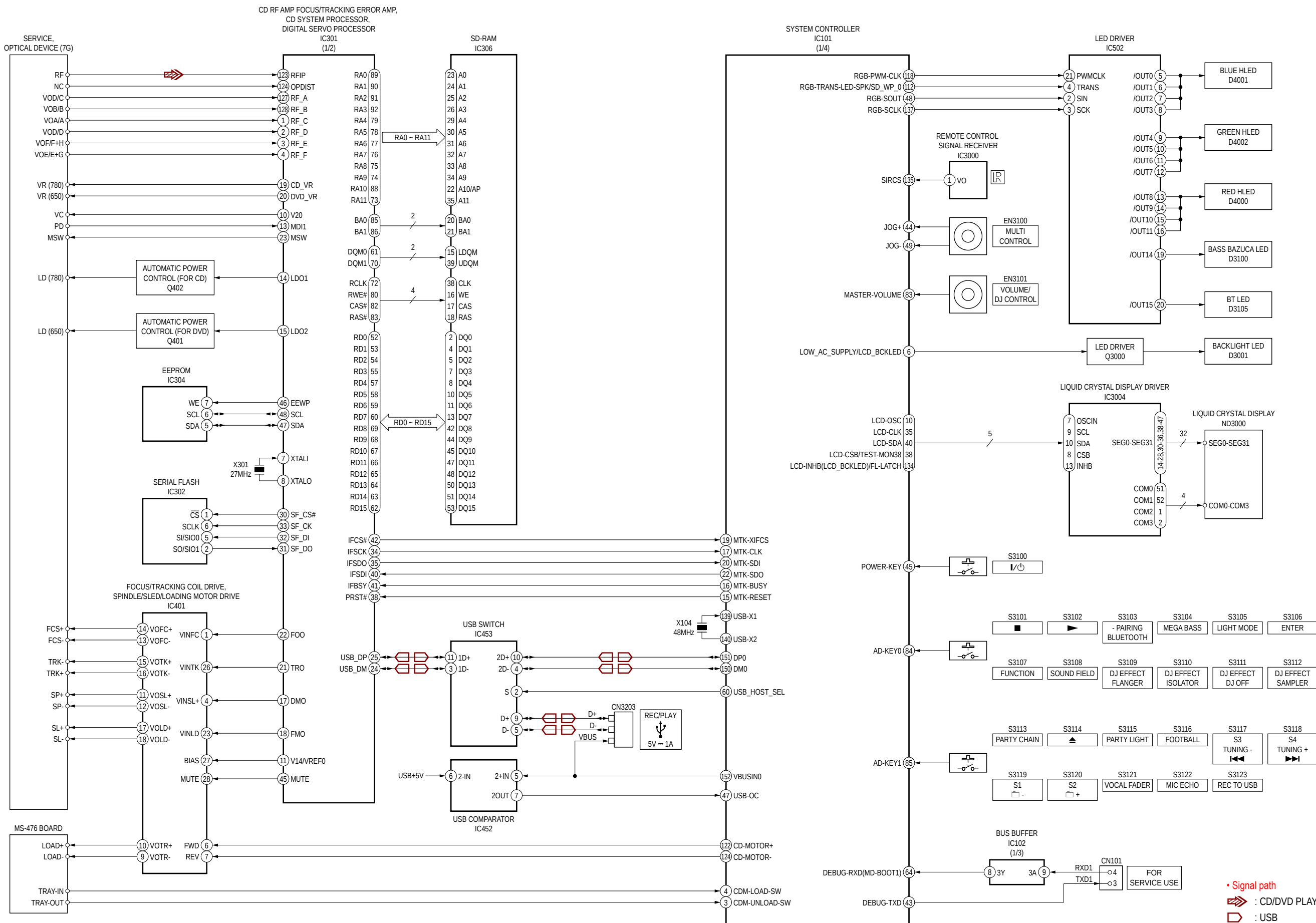
Please check each channel's resistance value for the Coil's terminal and Capacitor's + and - terminal.
These terminal is equal to resistance value for POWER AUDIO DRIVER terminal.

SECTION 6 DIAGRAMS

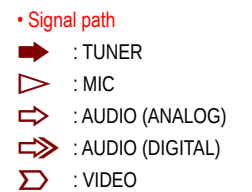
• Circuit Boards Location



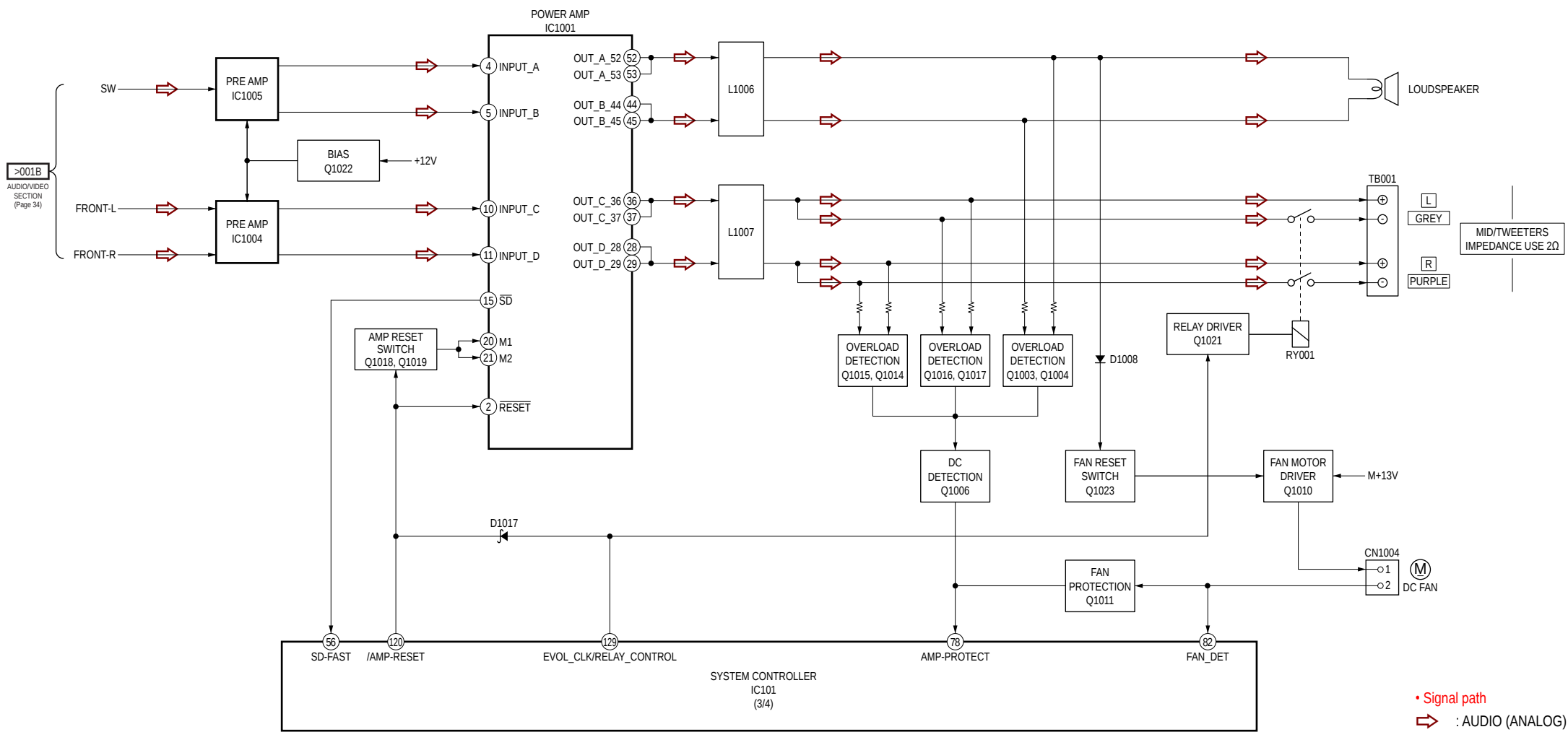
6-1. BLOCK DIAGRAM - SERVO/USB/DISPLAY Section -



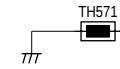
34 34



6-3. BLOCK DIAGRAM - AMP Section -



36



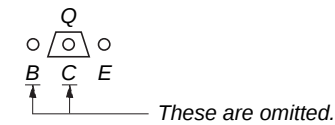
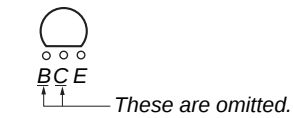
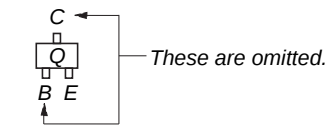
• Note for Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

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

Caution:
Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: Parts on the parts face side seen from the parts face are indicated.

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



- Abbreviation
- AR : Argentina model
- AUS : Australian model
- E4 : African model
- EA : Saudi Arabia model
- LA9 : Latin-American model
- MY : Malaysia model
- RU : Russian model
- TH : Thai model

Note 1: When the MS-476 board is defective, exchange the entire LOADING COMPLETE ASSY (T).

Note 2: When the complete DAMP board is replaced, refer to "NOTE OF REPLACING THE IC1001 ON THE DAMP BOARD AND THE COMPLETE DAMP BOARD" on servicing notes (page 5).

Note 3: When the C1126, C1127, C1128, C1129, C1142, L1010 and RY001 on the DAMP board are replaced, spread the bond referring to "BOND FIXATION OF ELECTRIC PARTS" on servicing notes (page 6).

Note on Schematic Diagram:

- 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 $\frac{1}{4}$ W or less unless otherwise specified.
- Components for right channel have same values as for left channel. Reference numbers are coded from
- : panel designation.

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

- : B+ Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : TUNER
- Voltages are taken with a 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.
- ⇒ : CD/DVD PLAY
- ⇒ : TUNER
- ▷ : MIC
- ⇒ : AUDIO (ANALOG)
- ⇒ : AUDIO (DIGITAL)
- ▷ : VIDEO
- ▷ : USB
- Abbreviation
- AR : Argentina model
- AUS : Australian model
- E4 : African model
- EA : Saudi Arabia model
- LA9 : Latin-American model
- MY : Malaysia model
- RU : Russian model
- TH : Thai model

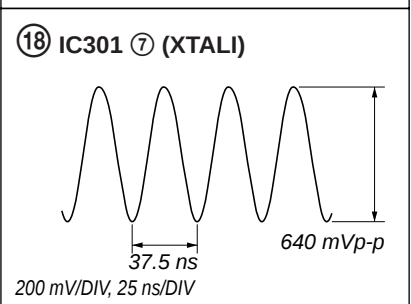
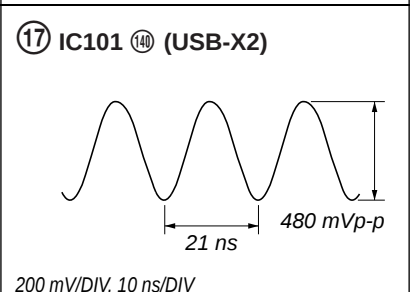
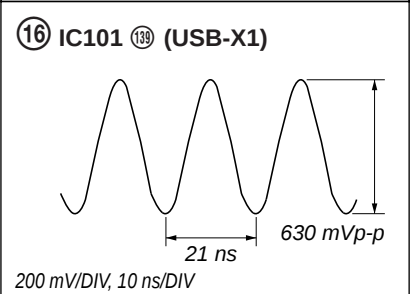
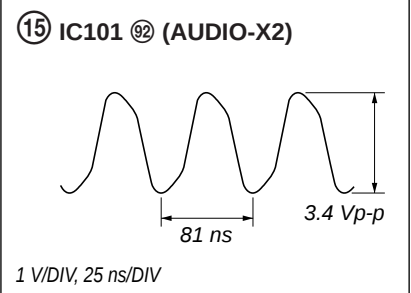
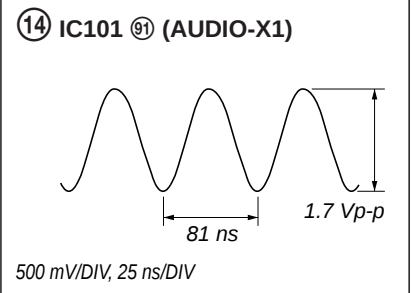
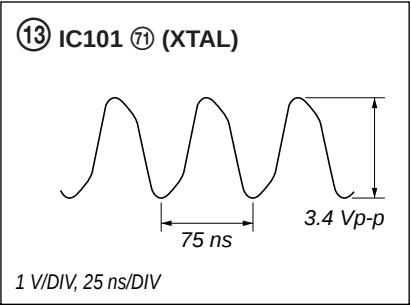
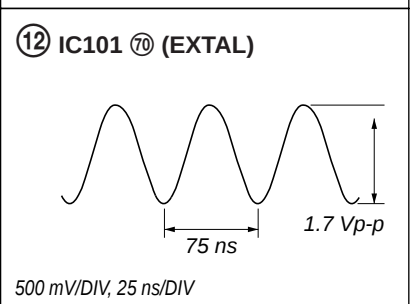
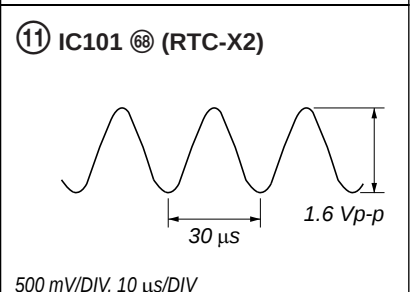
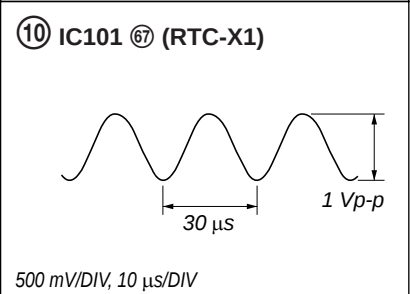
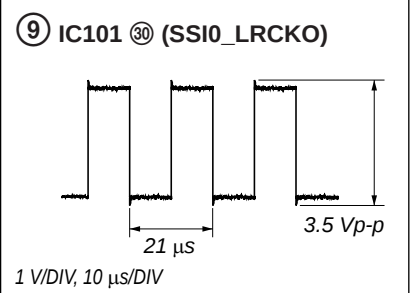
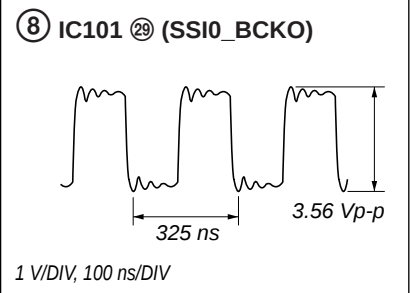
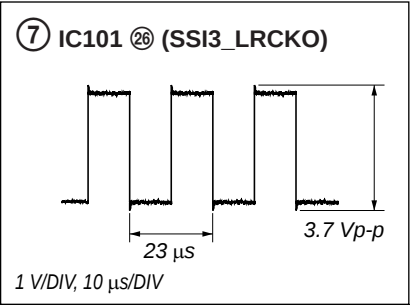
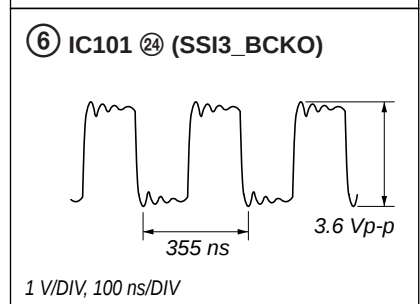
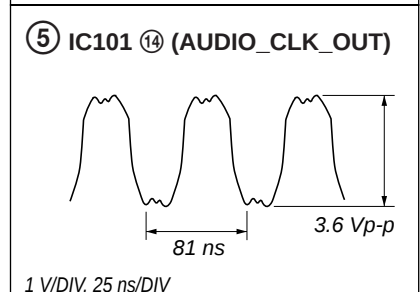
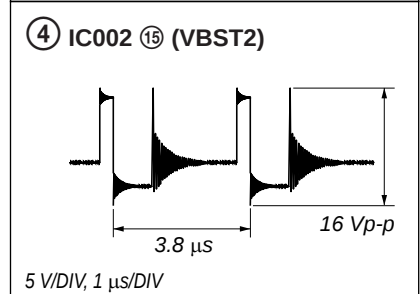
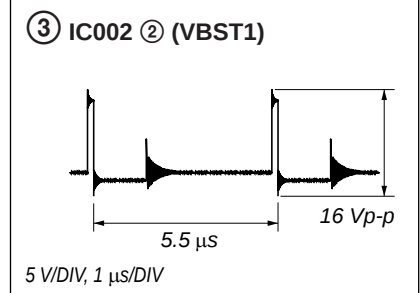
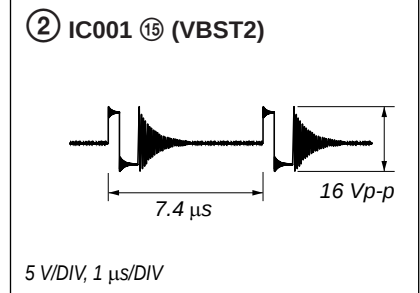
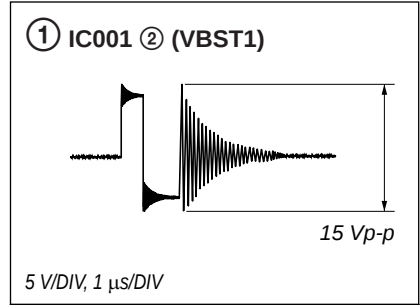
Note 1: When the MS-476 board is defective, exchange the entire LOADING COMPLETE ASSY (T).

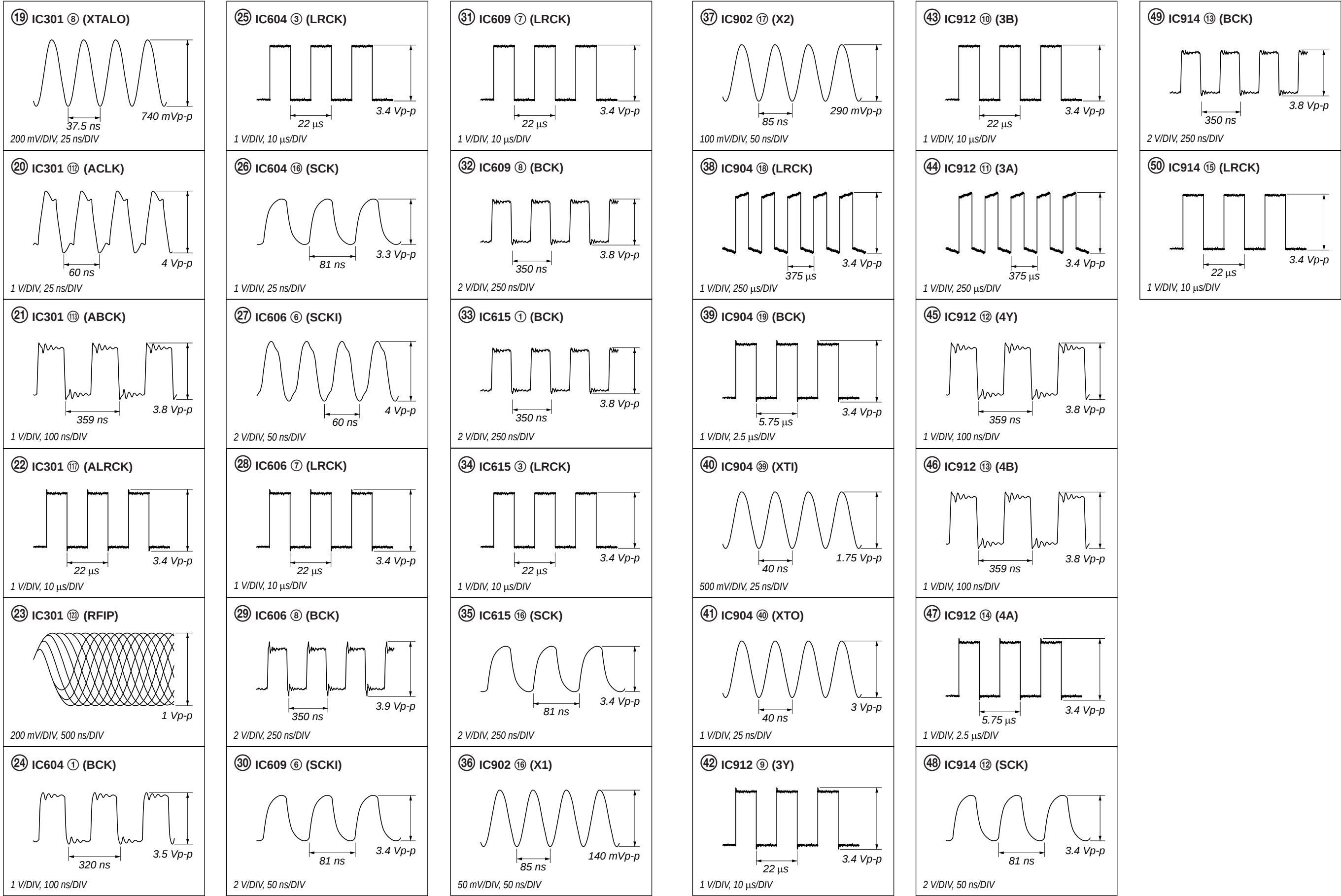
Note 2: When the complete DAMP board is replaced, refer to "NOTE OF REPLACING THE IC1001 ON THE DAMP BOARD AND THE COMPLETE DAMP BOARD" on servicing notes (page 5).

Note 3: When the C1126, C1127, C1128, C1129, C1142, L1010 and RY001 on the DAMP board are replaced, spread the bond referring to "BOND FIXATION OF ELECTRIC PARTS" on servicing notes (page 6).

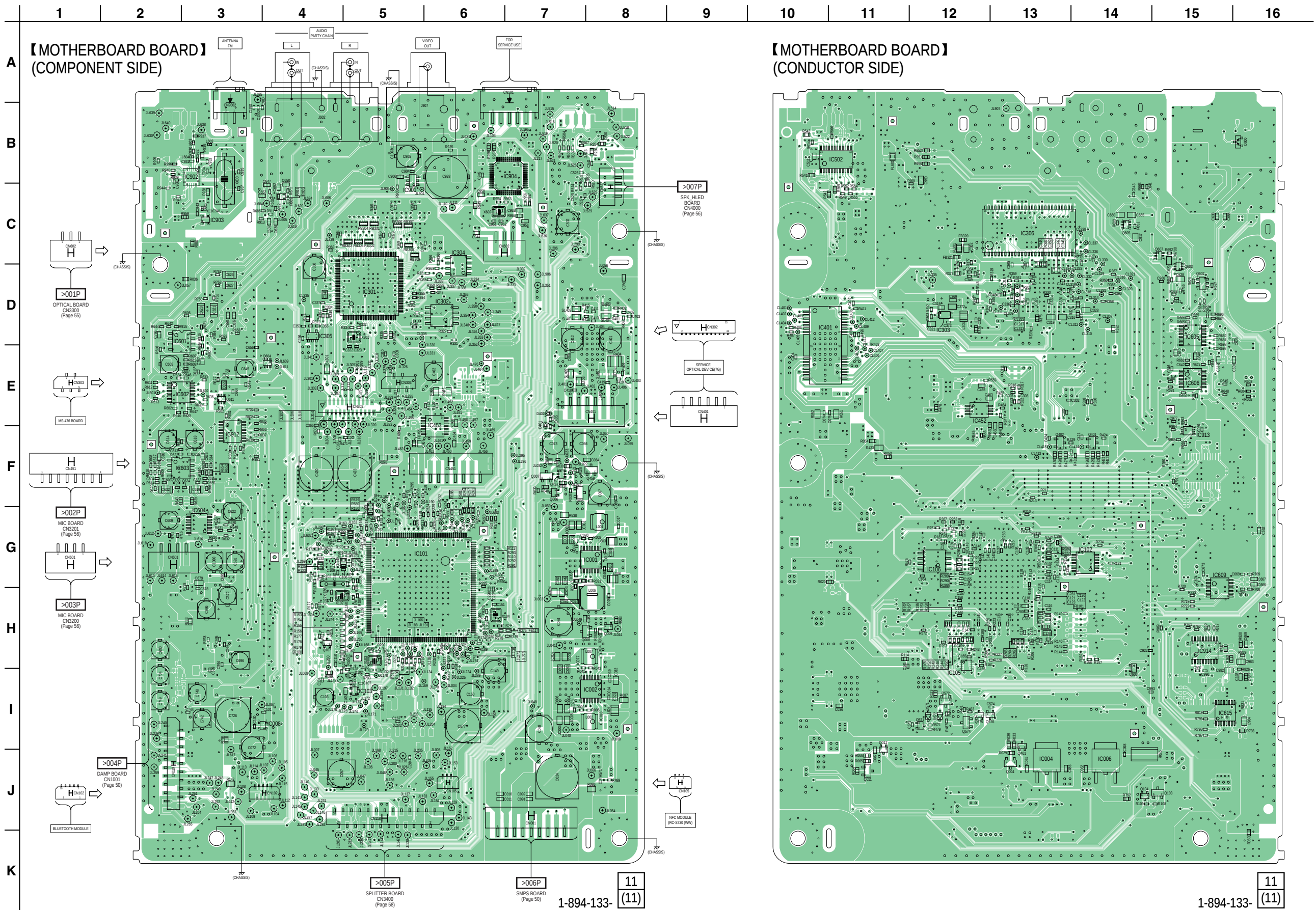
• Waveforms

- MOTHERBOARD Board -





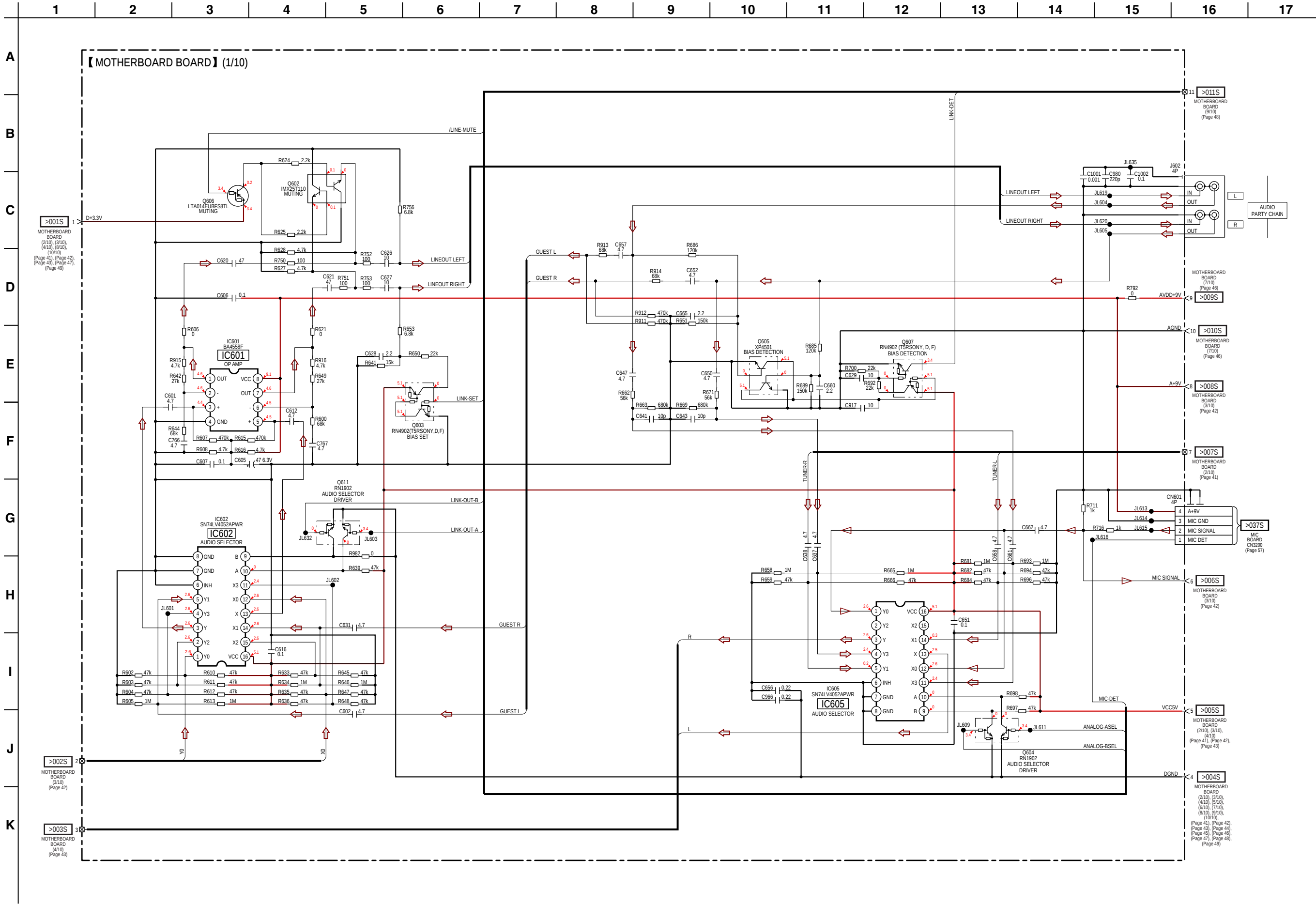
6-5. PRINTED WIRING BOARD - MOTHERBOARD Board - • See page 32 for Circuit Boards Location. • : Uses unleaded solder.



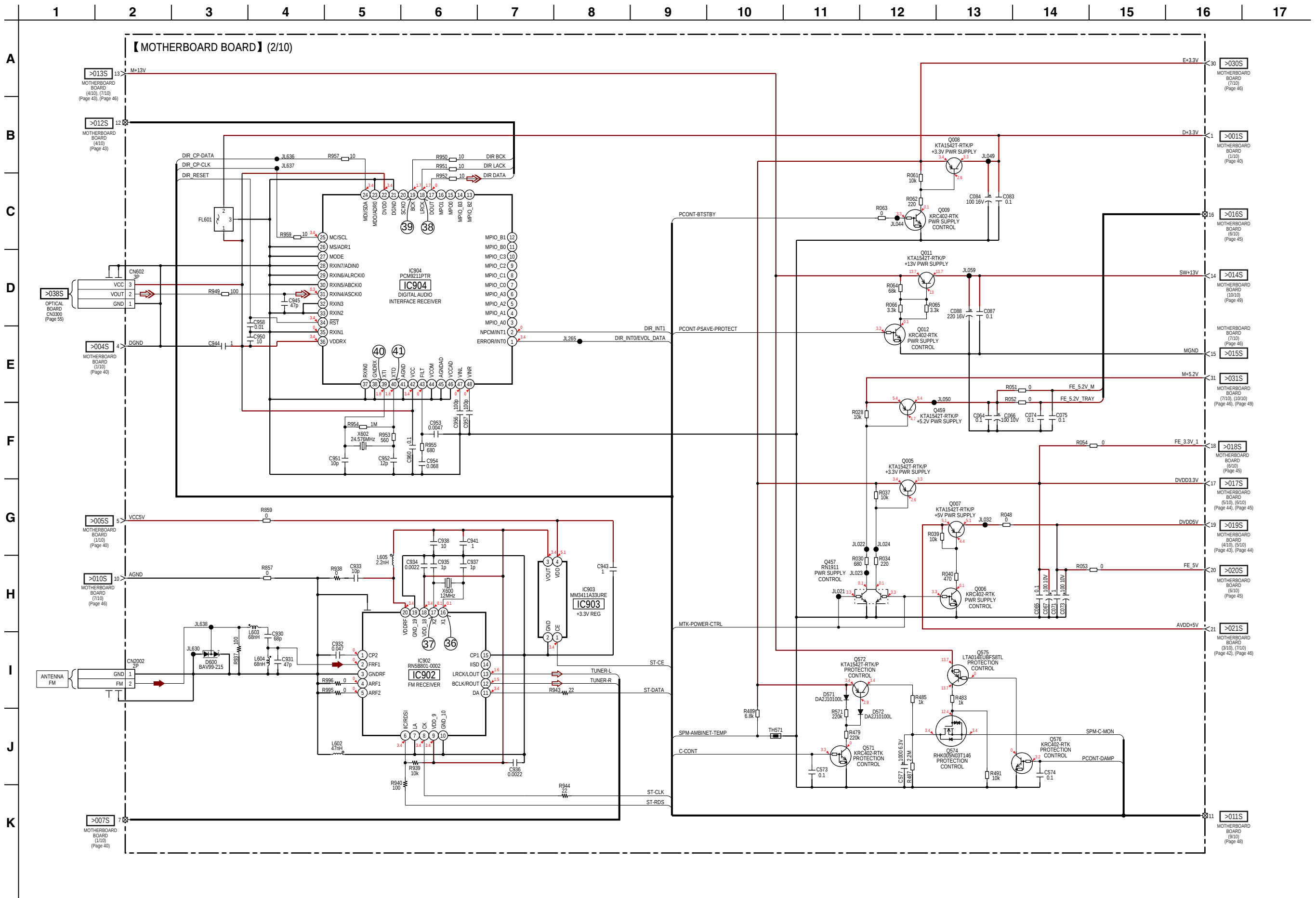
Note 1: IC001, IC002, IC101, IC105, IC106, IC301, IC302 and IC303 on the MOTHERBOARD board cannot exchange with single. When these parts on the MOTHERBOARD board are damaged, exchange the entire mounted board.

Note 2: When the MS-476 board is defective, exchange the entire LOADING COMPLETE ASSY (T).

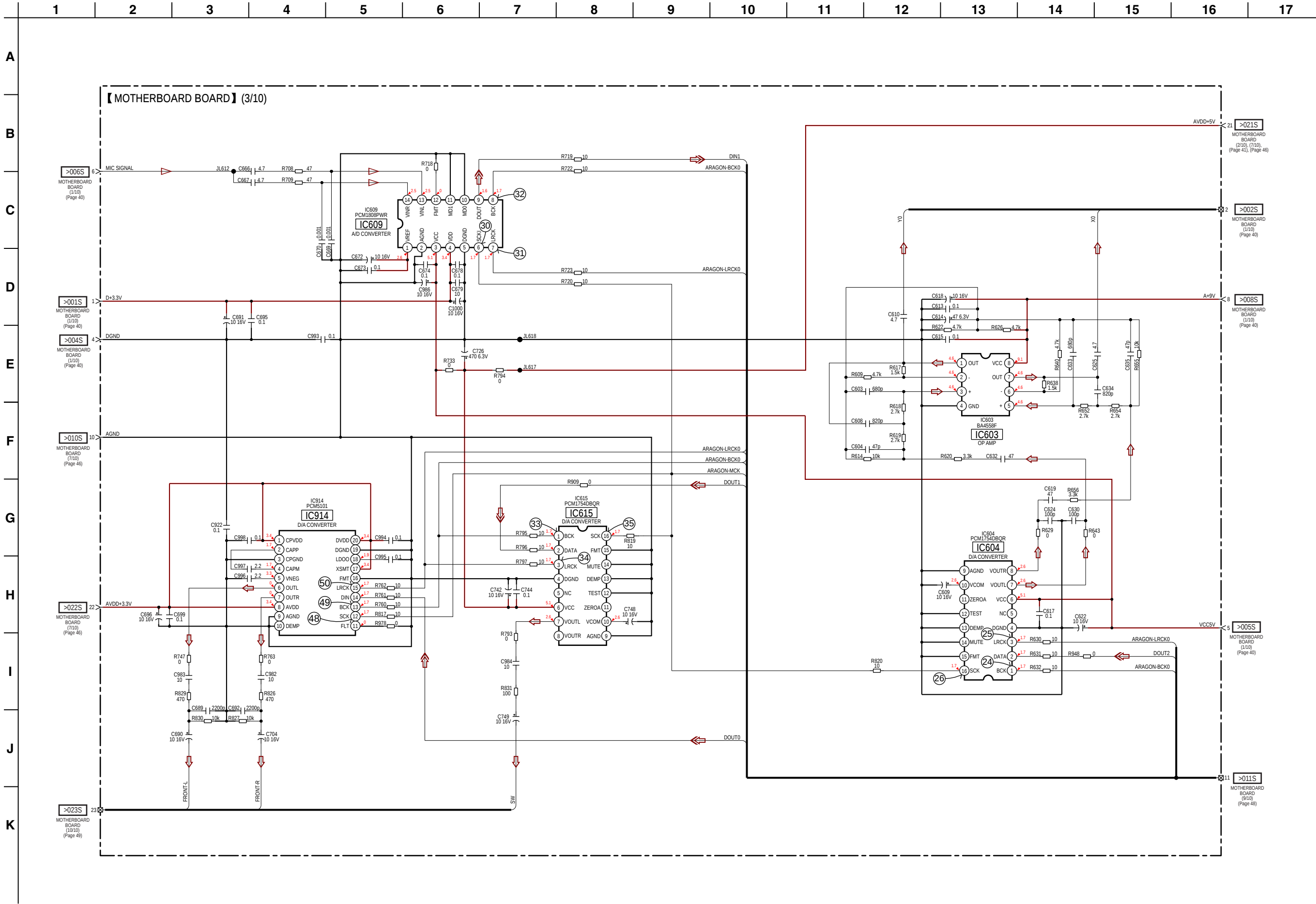
6-6. SCHEMATIC DIAGRAM - MOTHERBOARD Board (1/10) - • See page 59 for IC Block Diagrams.



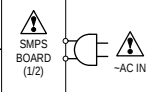
6-7. SCHEMATIC DIAGRAM - MOTHERBOARD Board (2/10) - • See page 37 for Waveforms. • See page 59 for IC Block Diagrams.



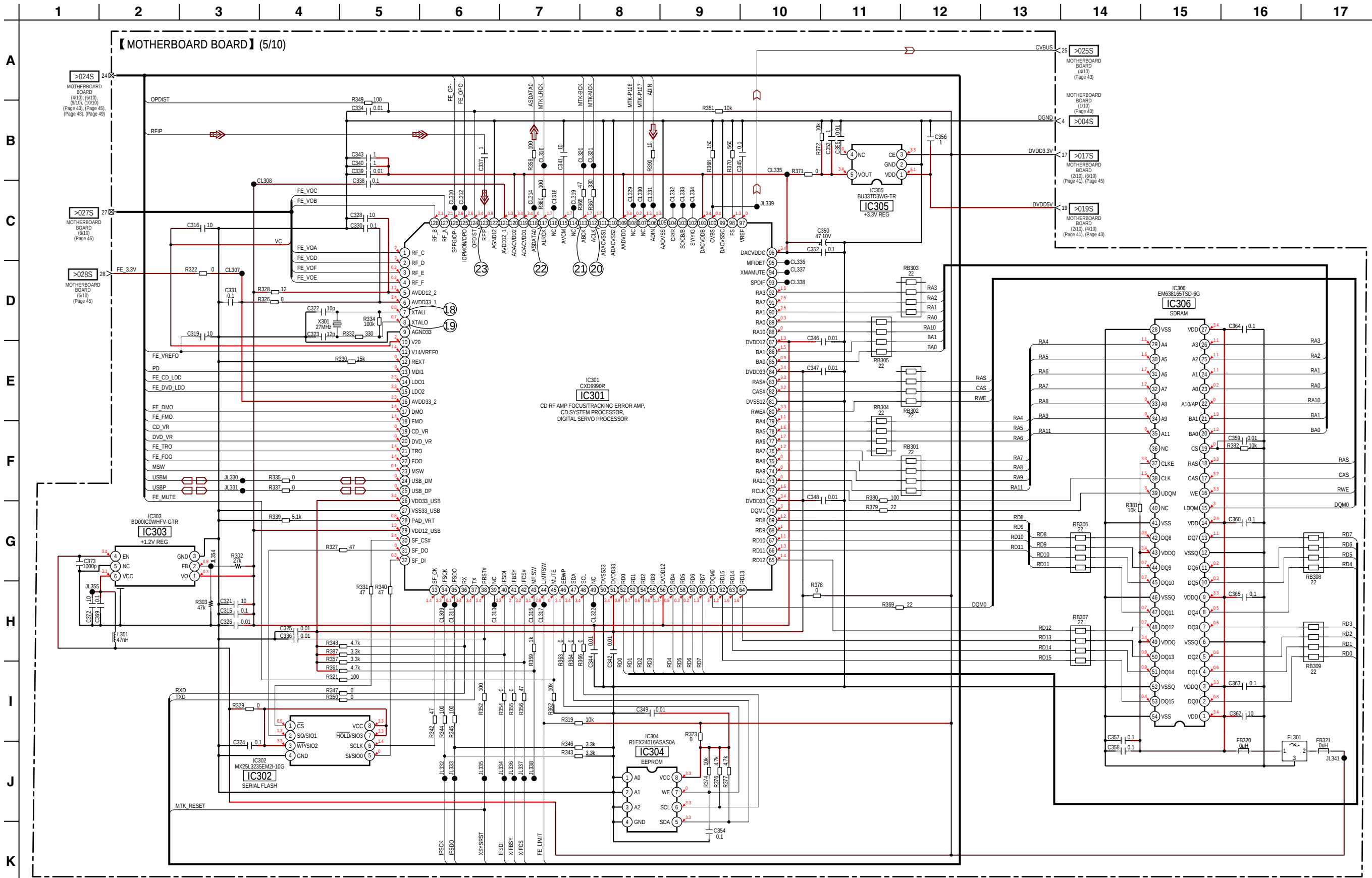
6-8. SCHEMATIC DIAGRAM - MOTHERBOARD Board (3/10) - • See page 37 for Waveforms. • See page 59 for IC Block Diagrams.



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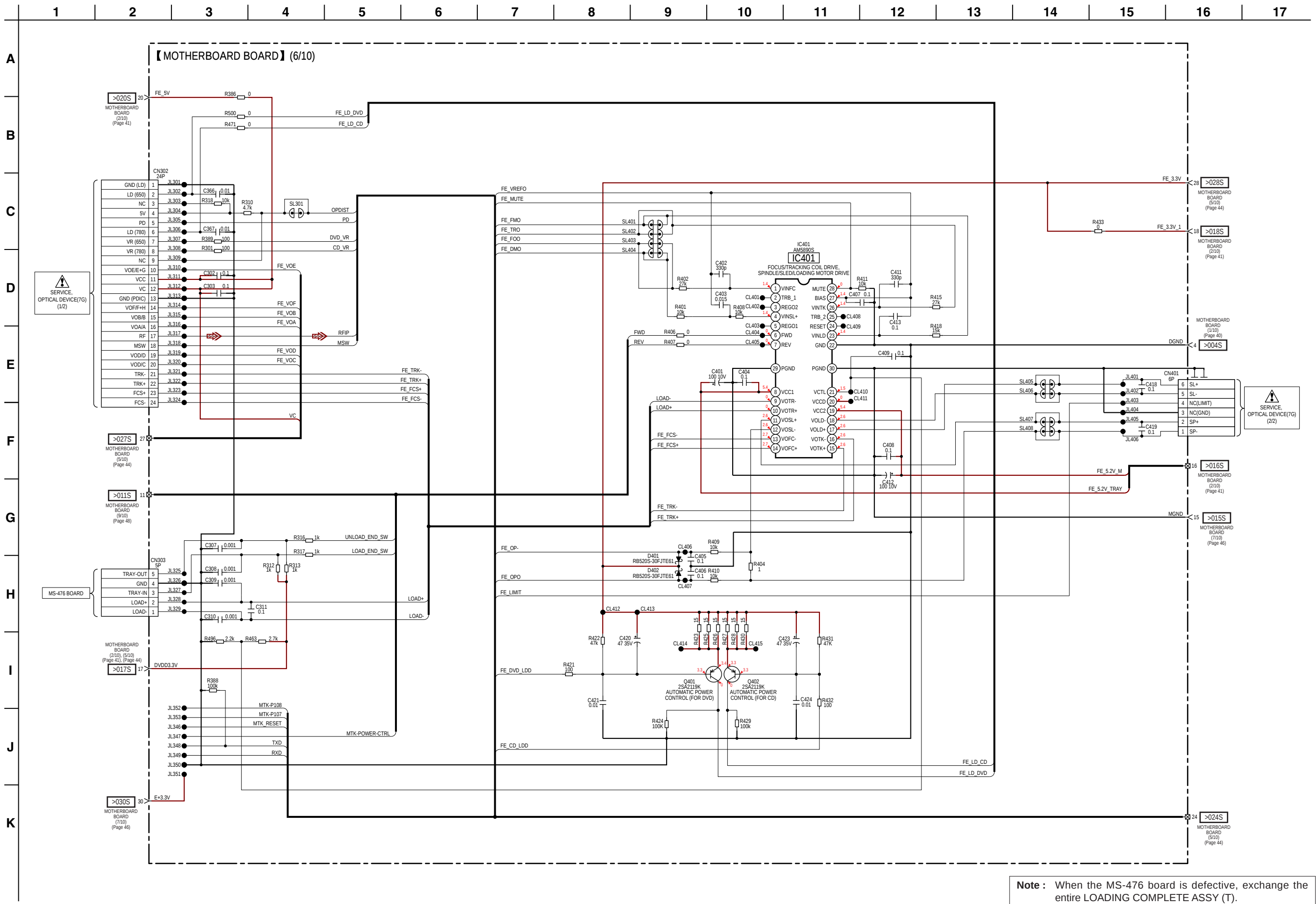


6-10. SCHEMATIC DIAGRAM - MOTHERBOARD Board (5/10) - • See page 37 for Waveforms. • See page 59 for IC Block Diagrams. • See page 66 for IC Pin Function Descriptions.

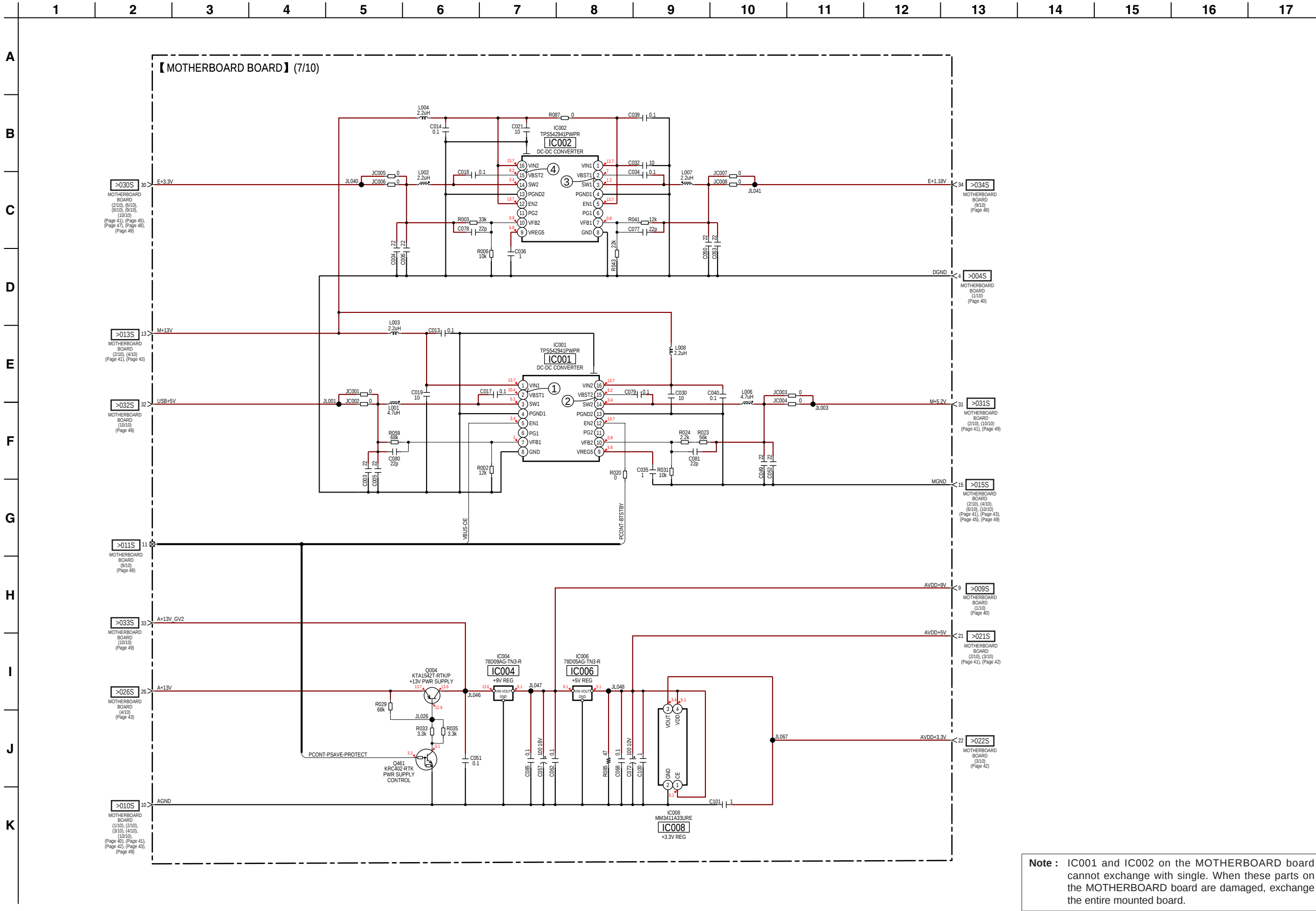


Note : IC301, IC302 and IC303 on the MOTHERBOARD board cannot exchange with single. When these parts on the MOTHERBOARD board are damaged, exchange the entire mounted board.

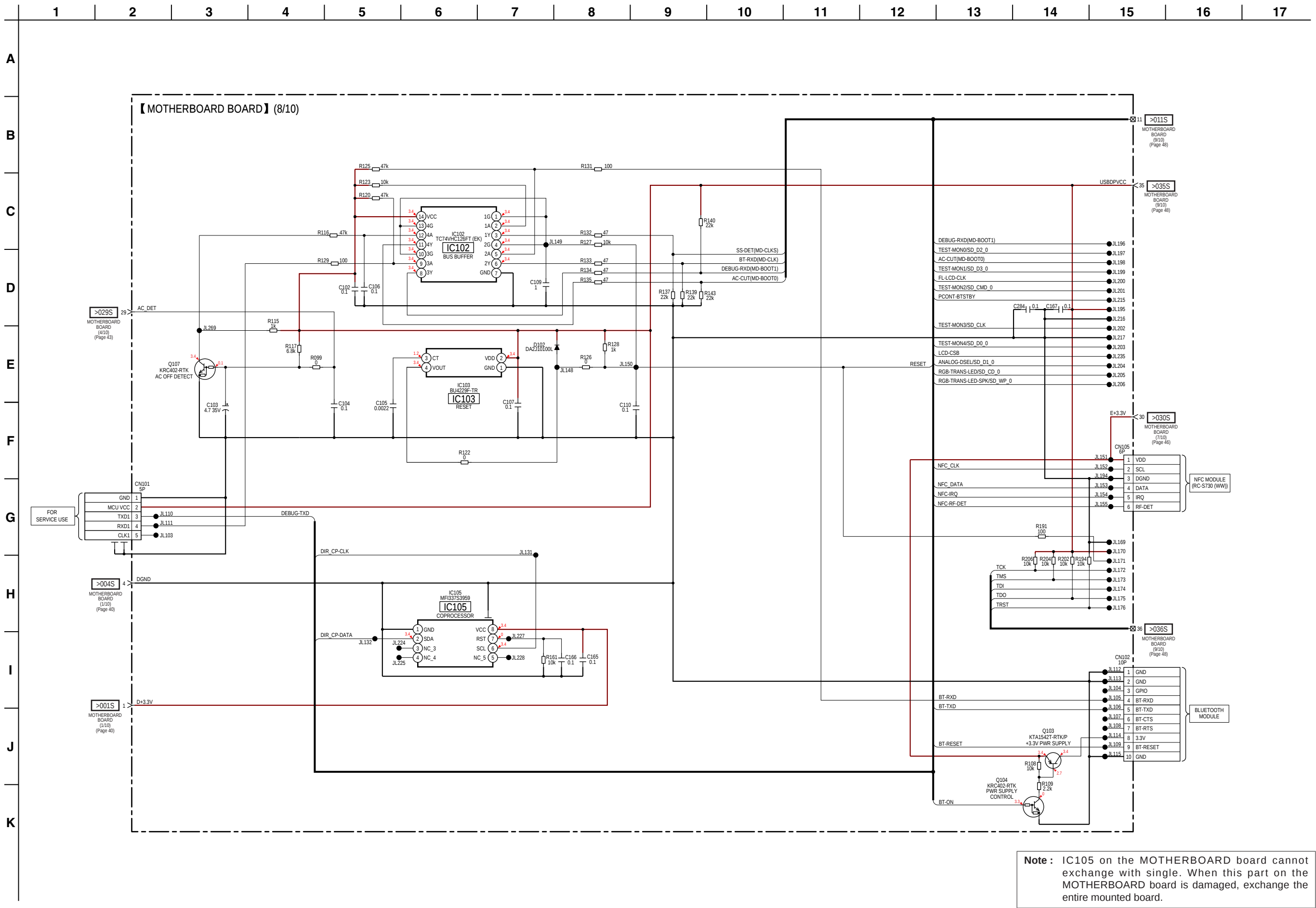
6-11. SCHEMATIC DIAGRAM - MOTHERBOARD Board (6/10) - • See page 59 for IC Block Diagrams.



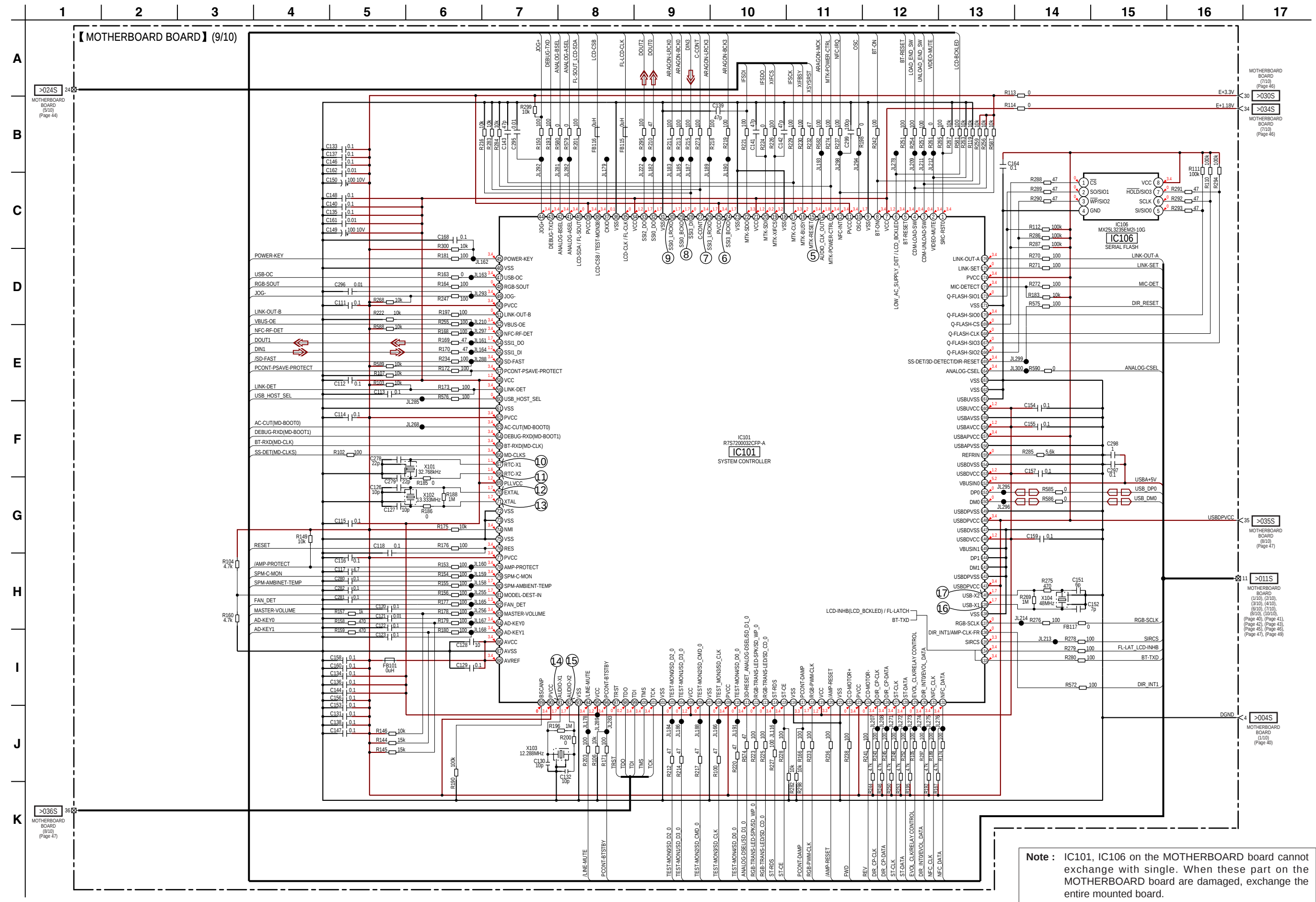
6-12. SCHEMATIC DIAGRAM - MOTHERBOARD Board (7/10) - • See page 37 for Waveforms.



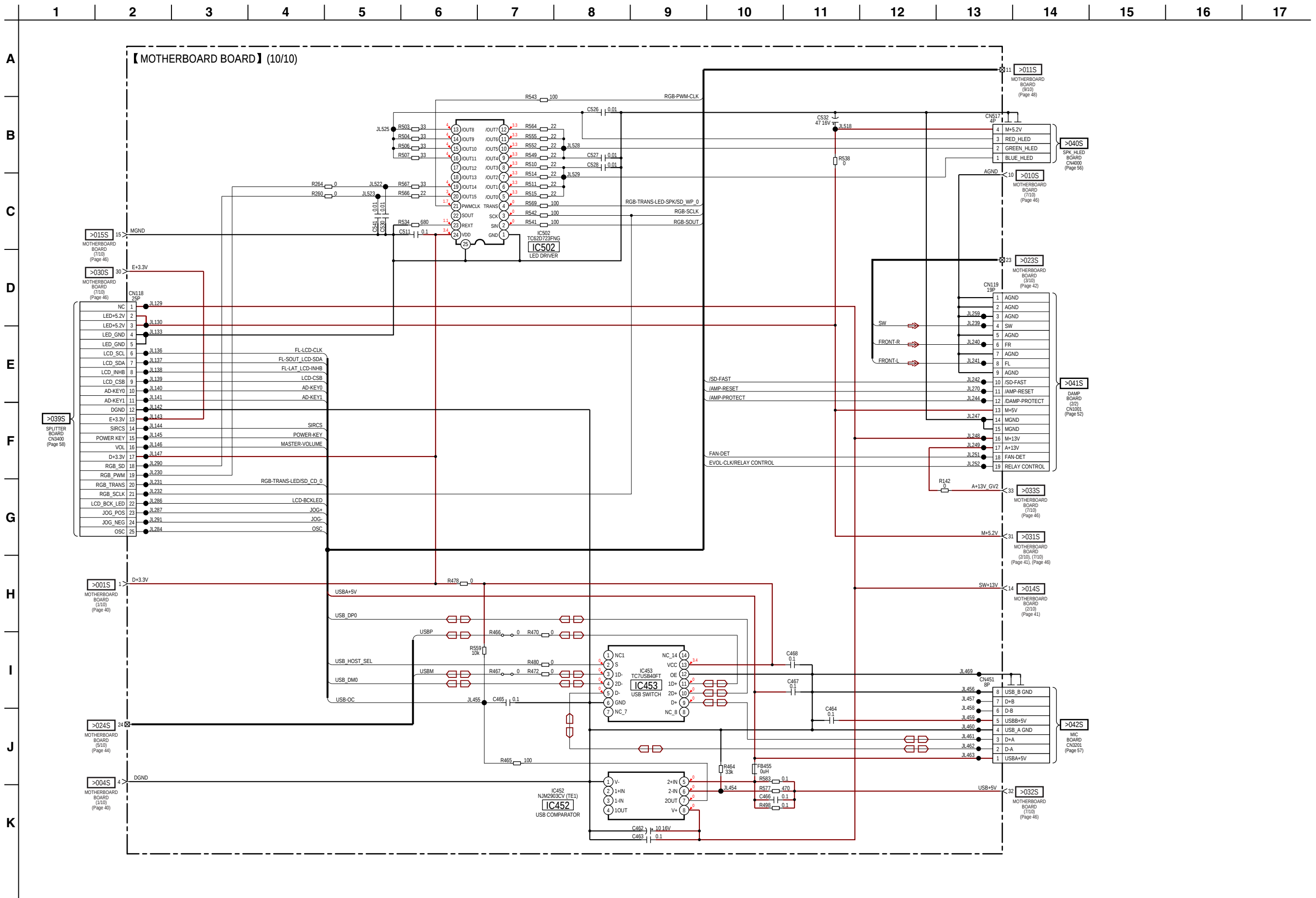
6-13. SCHEMATIC DIAGRAM - MOTHERBOARD Board (8/10) - • See page 59 for IC Block Diagrams.



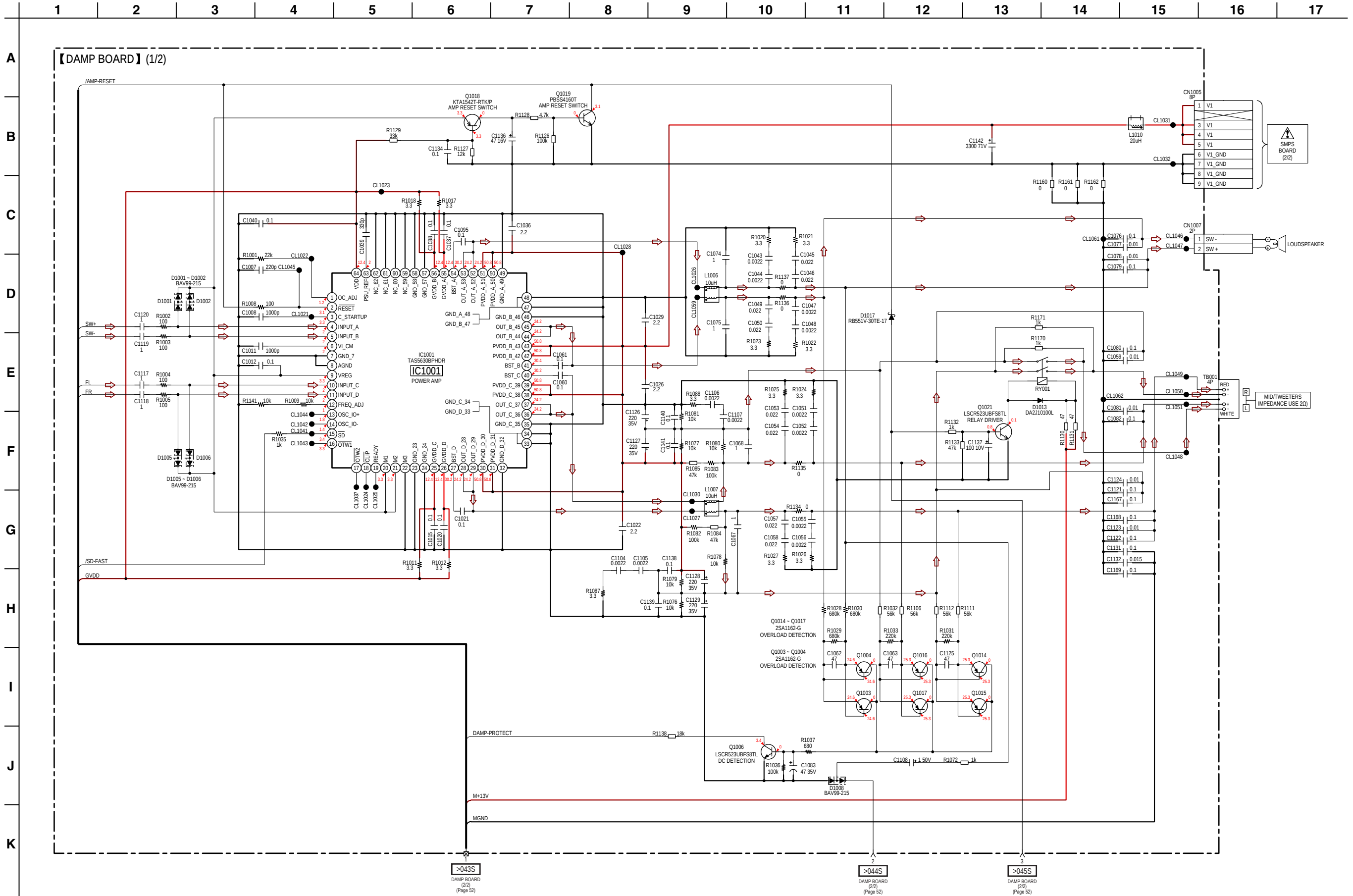
6-14. SCHEMATIC DIAGRAM - MOTHERBOARD Board (9/10) - • See page 37 for Waveforms. • See page 59 for IC Block Diagrams. • See page 66 for IC Pin Function Descriptions.



6-15. SCHEMATIC DIAGRAM - MOTHERBOARD Board (10/10) - • See page 59 for IC Block Diagrams.



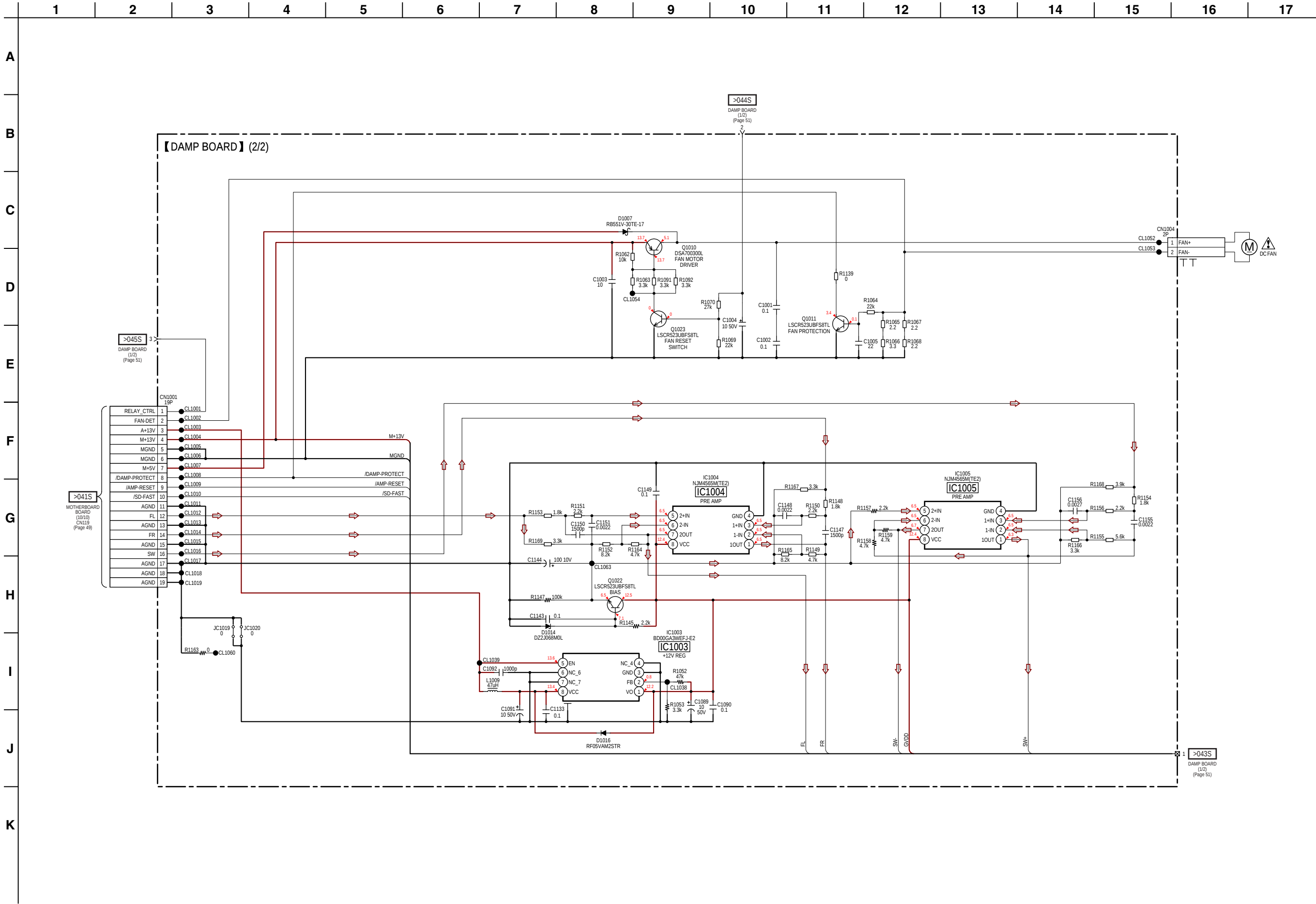
6-17. SCHEMATIC DIAGRAM - DAMP Board (1/2) - • See page 59 for IC Block Diagrams.



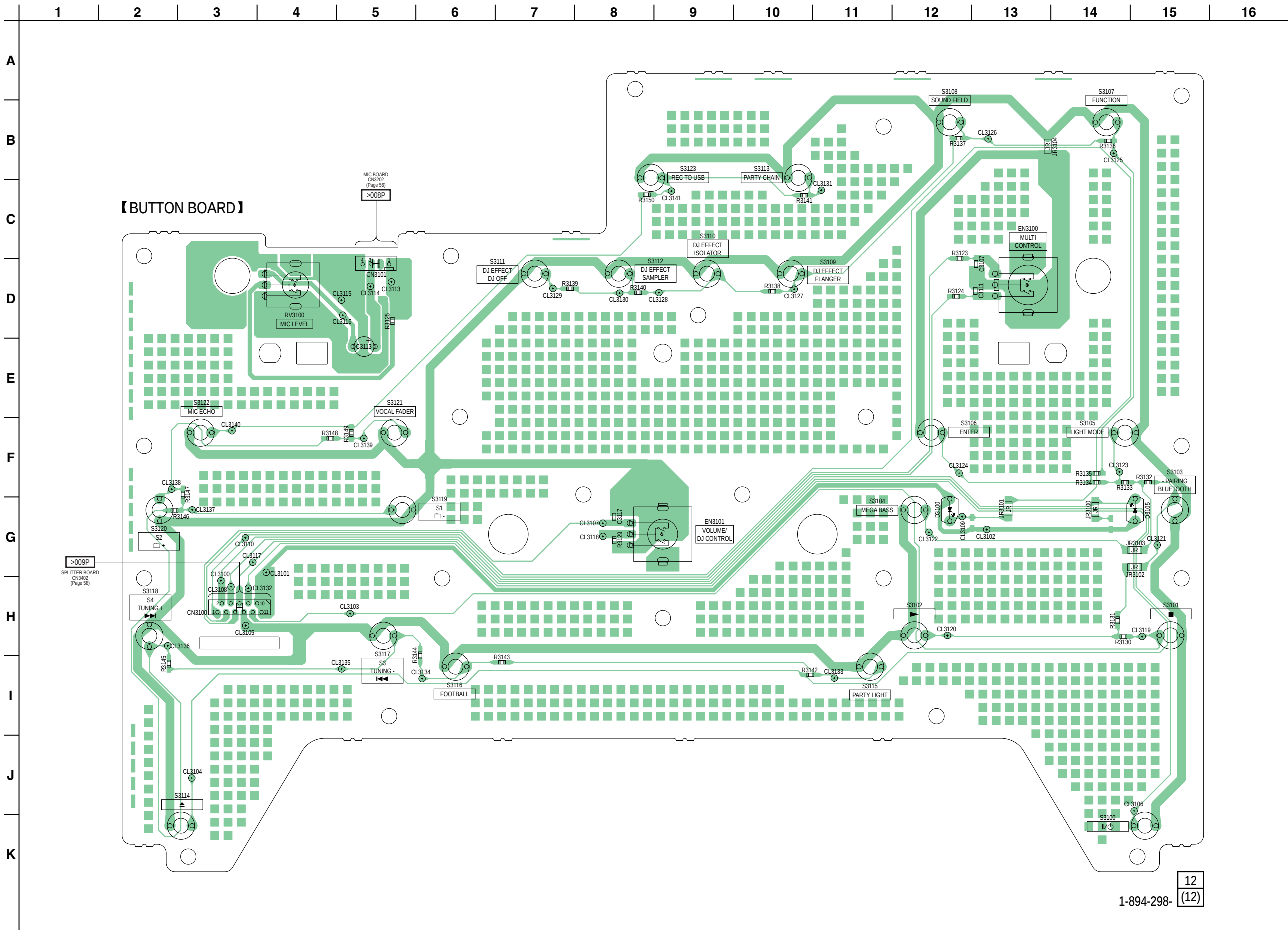
Note 1: When the complete DAMP board is replaced, refer to "NOTE OF REPLACING THE IC1001 ON THE DAMP BOARD AND THE COMPLETE DAMP BOARD" on servicing notes (page 5).

Note 2: When the C1126, C1127, C1128, C1129, C1142, L1010 and RY001 on the DAMP board are replaced, spread the bond referring to "BOND FIXATION OF ELECTRIC PARTS" on servicing notes (page 6).

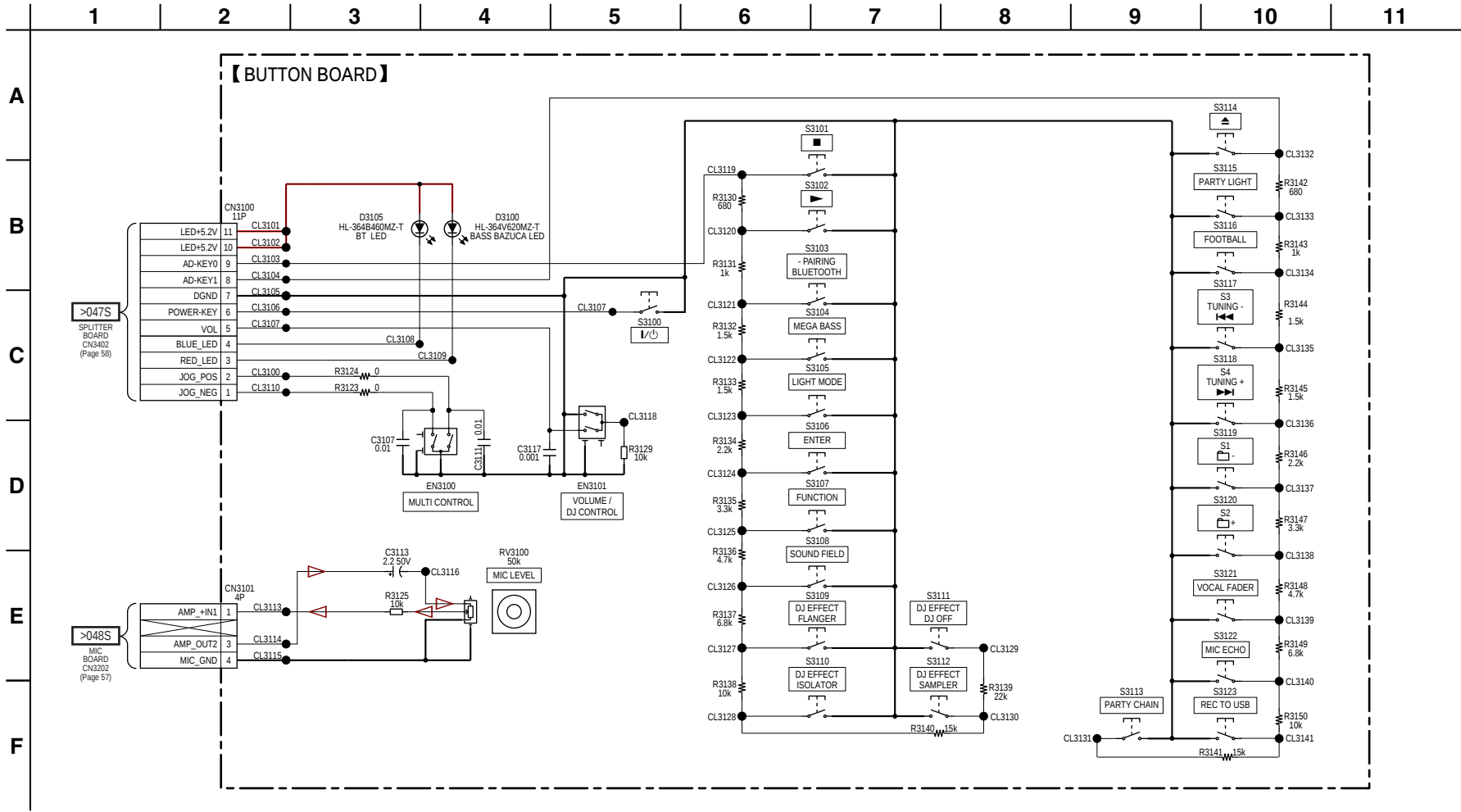
6-18. SCHEMATIC DIAGRAM - DAMP Board (2/2) -



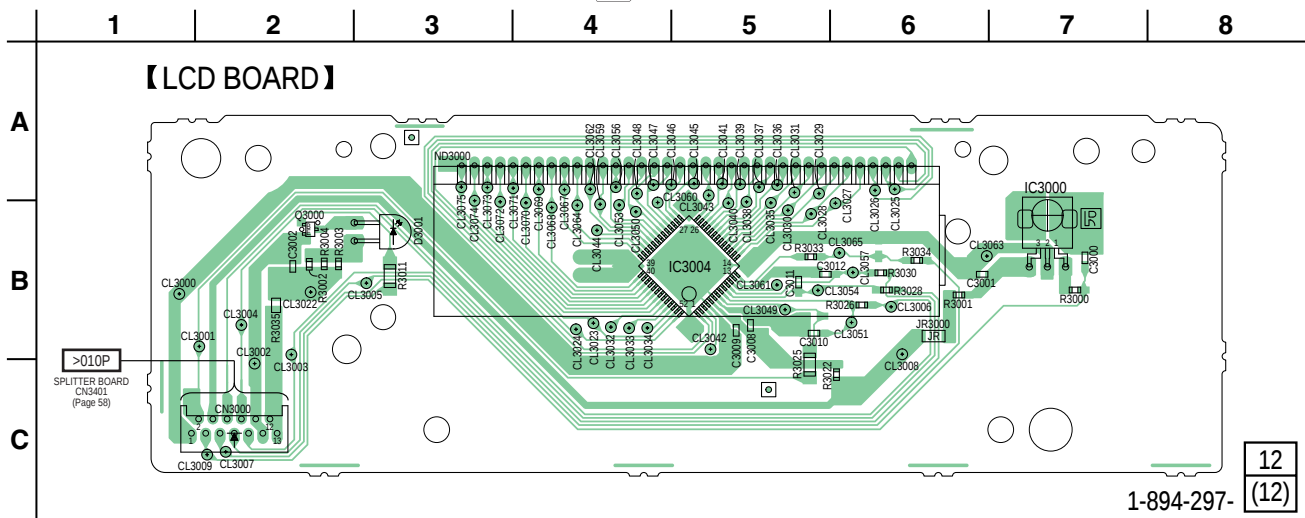
6-19. PRINTED WIRING BOARD - BUTTON Board - • See page 32 for Circuit Boards Location. • : Uses unleaded solder.



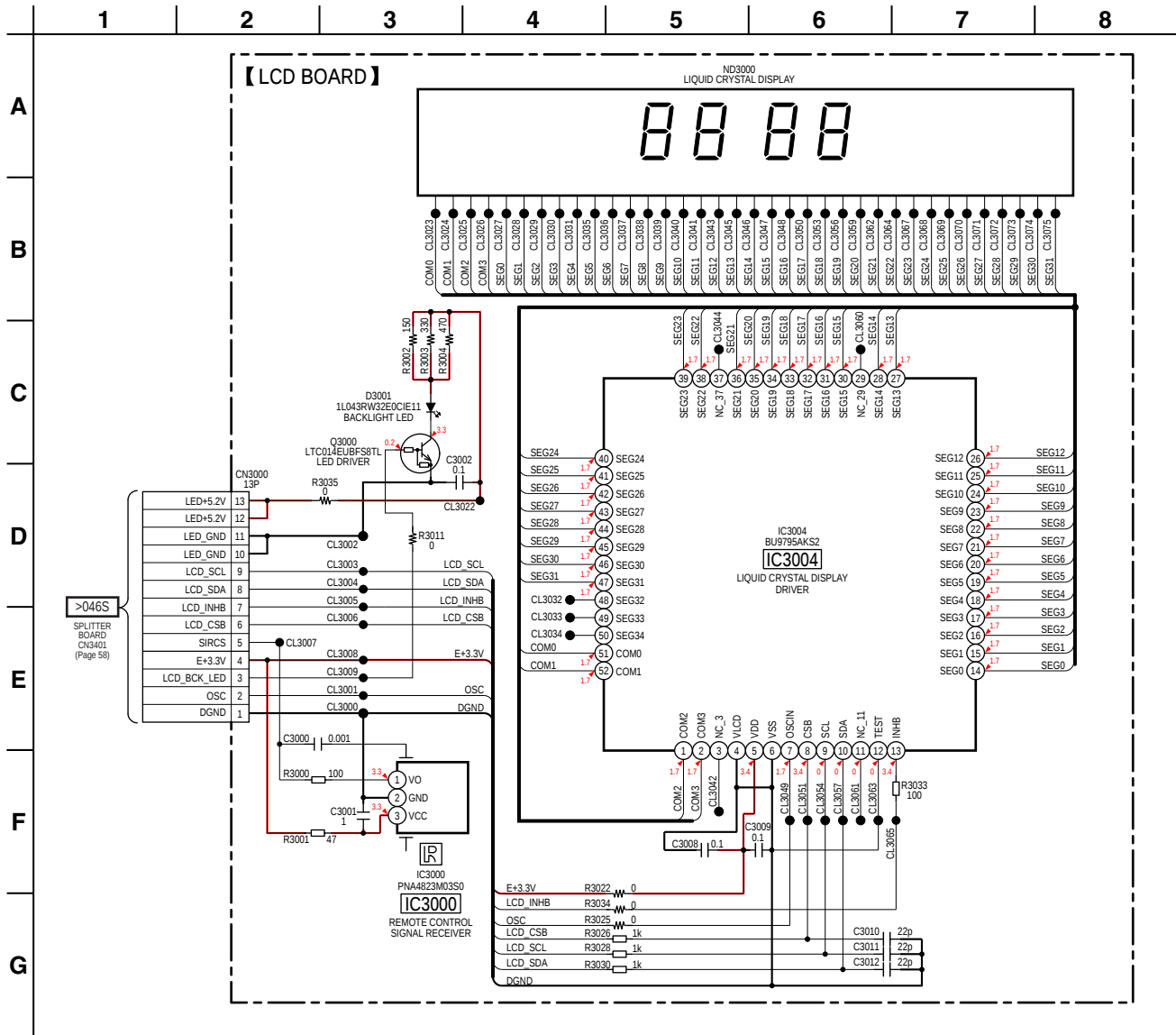
6-20. SCHEMATIC DIAGRAM - BUTTON Board -



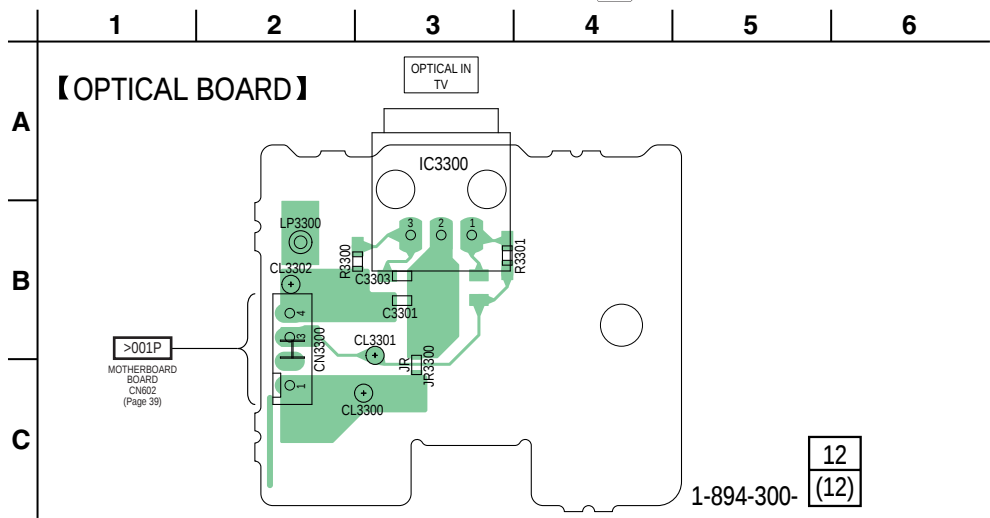
6-21. PRINTED WIRING BOARD - LCD Board -
• See page 32 for Circuit Boards Location. • : Uses unleaded solder.



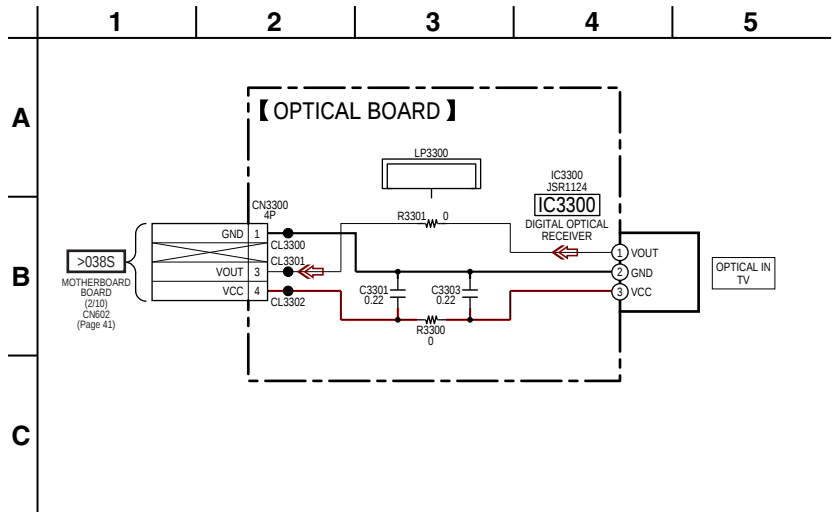
6-22. SCHEMATIC DIAGRAM - LCD Board - • See page 59 for IC Block Diagrams.



6-23. PRINTED WIRING BOARD - OPTICAL Board -
• See page 32 for Circuit Boards Location. • : Uses unleaded solder.

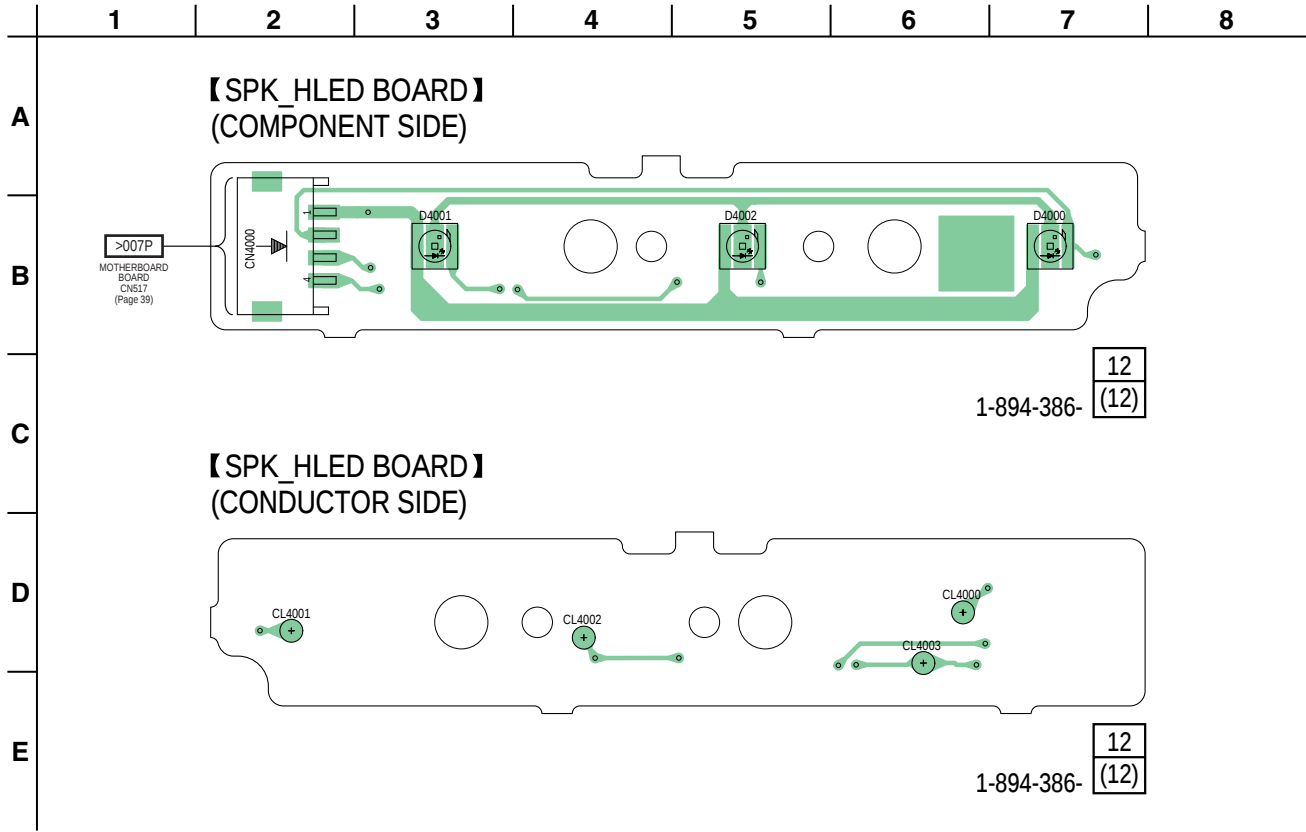


6-24. SCHEMATIC DIAGRAM - OPTICAL Board -

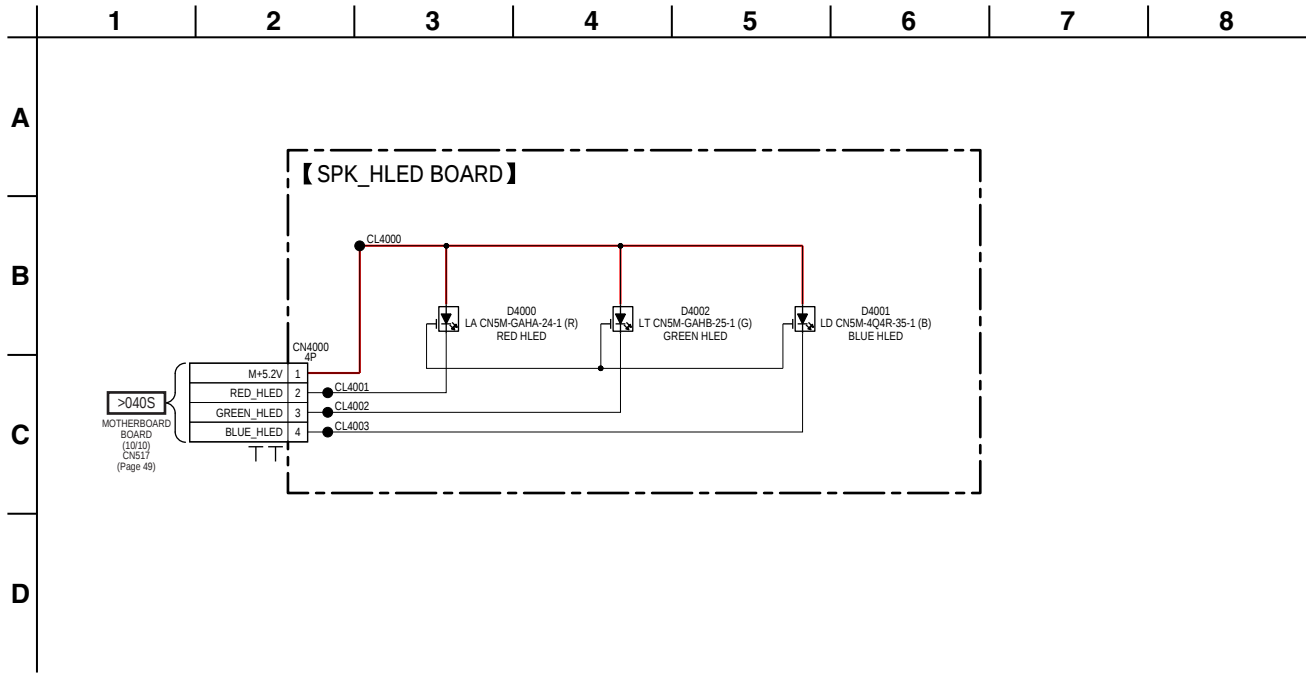


6-25. PRINTED WIRING BOARD - SPK_HLED Board -

• See page 32 for Circuit Boards Location. • : Uses unleaded solder.

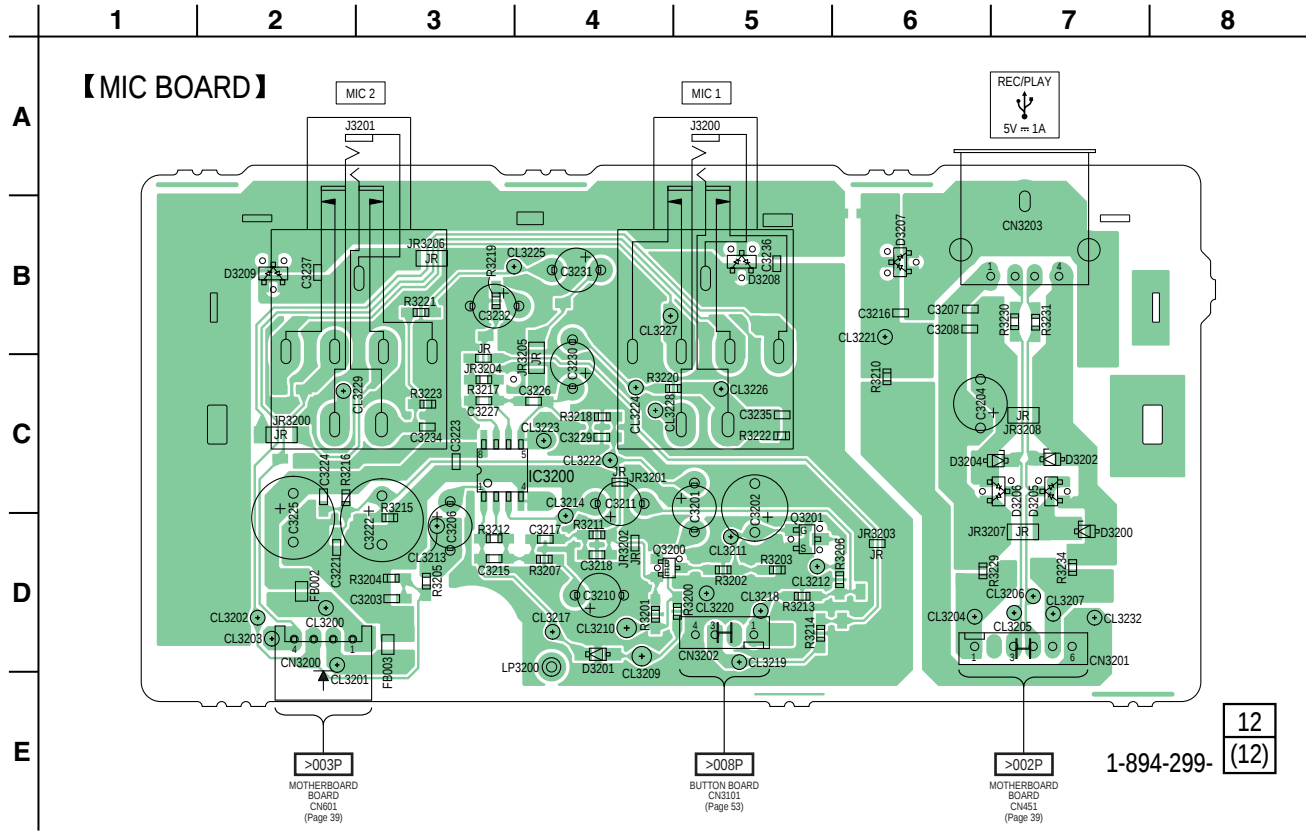


6-26. SCHEMATIC DIAGRAM - SPK_HLED Board -

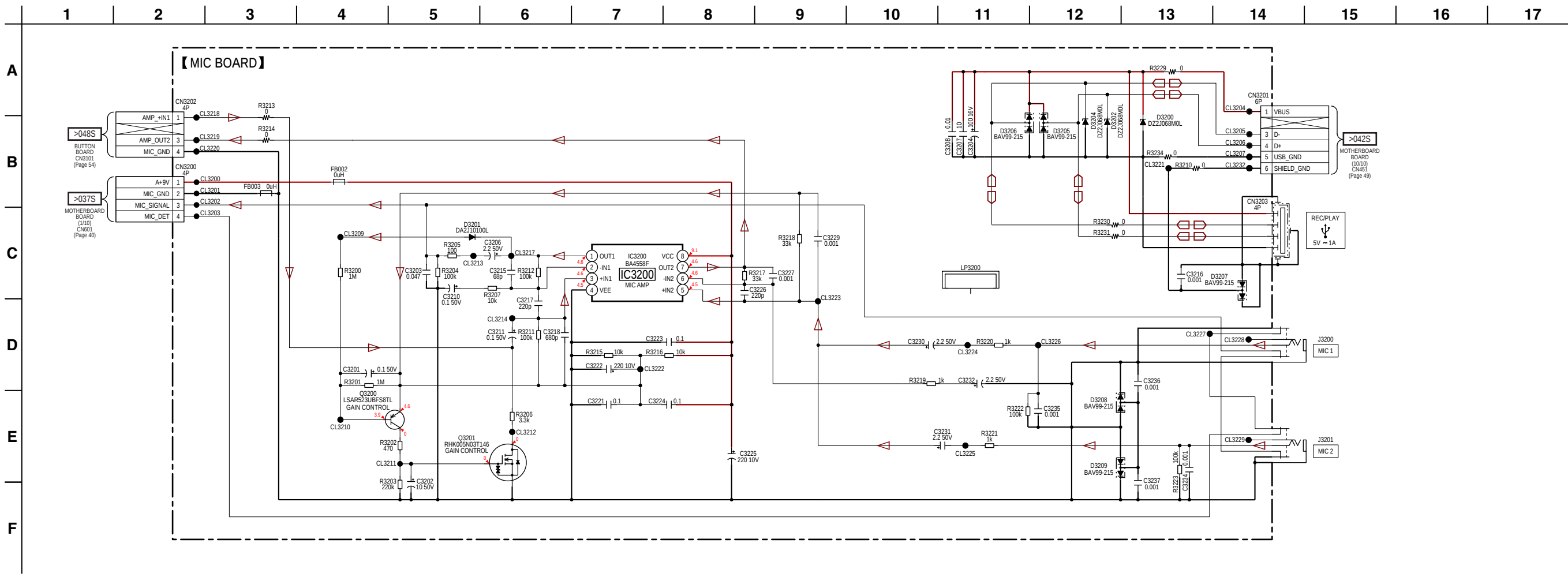


6-27. PRINTED WIRING BOARD - MIC Board -

• See page 32 for Circuit Boards Location. • : Uses unleaded solder.

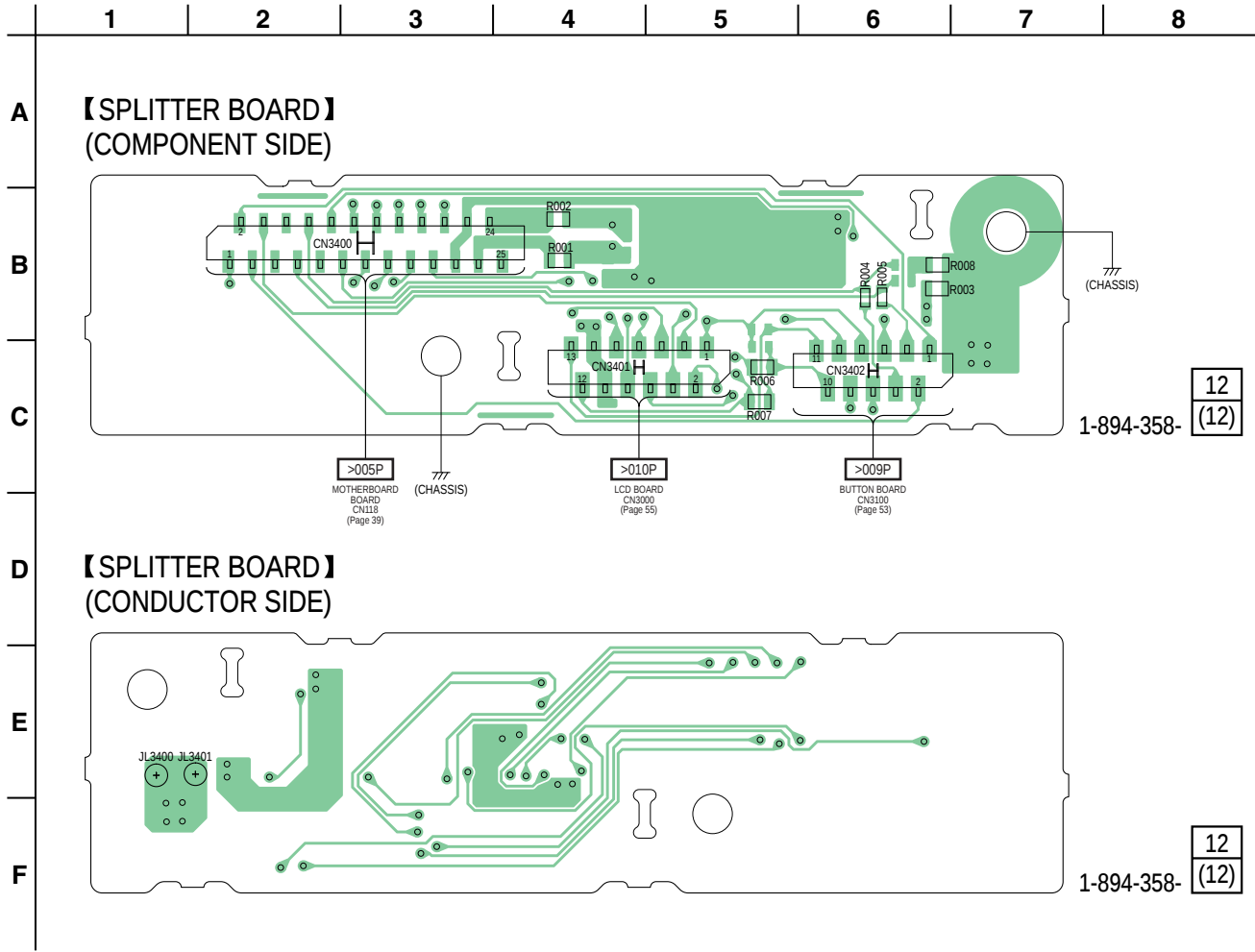


6-28. SCHEMATIC DIAGRAM - MIC Board -

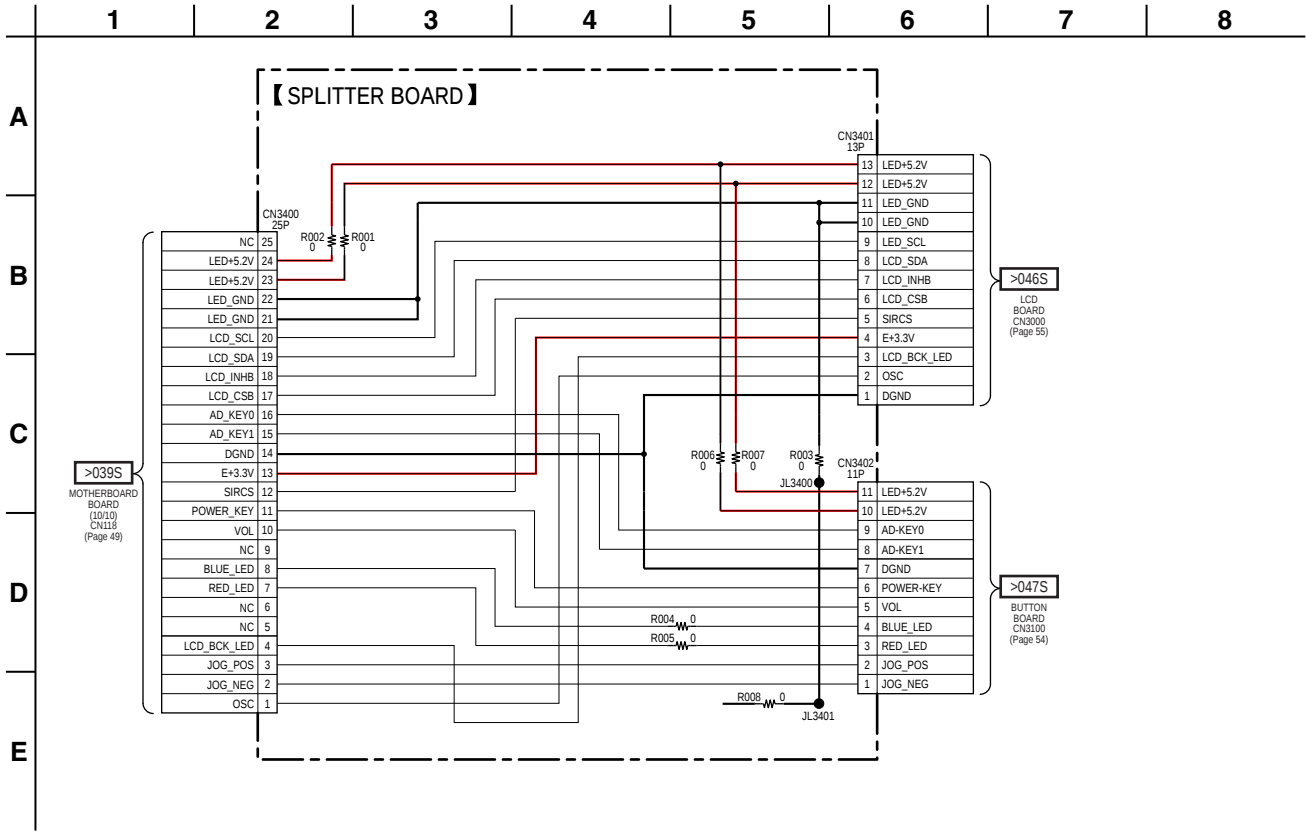


6-29. PRINTED WIRING BOARD - SPLITTER Board -

• See page 32 for Circuit Boards Location. • : Uses unleaded solder.

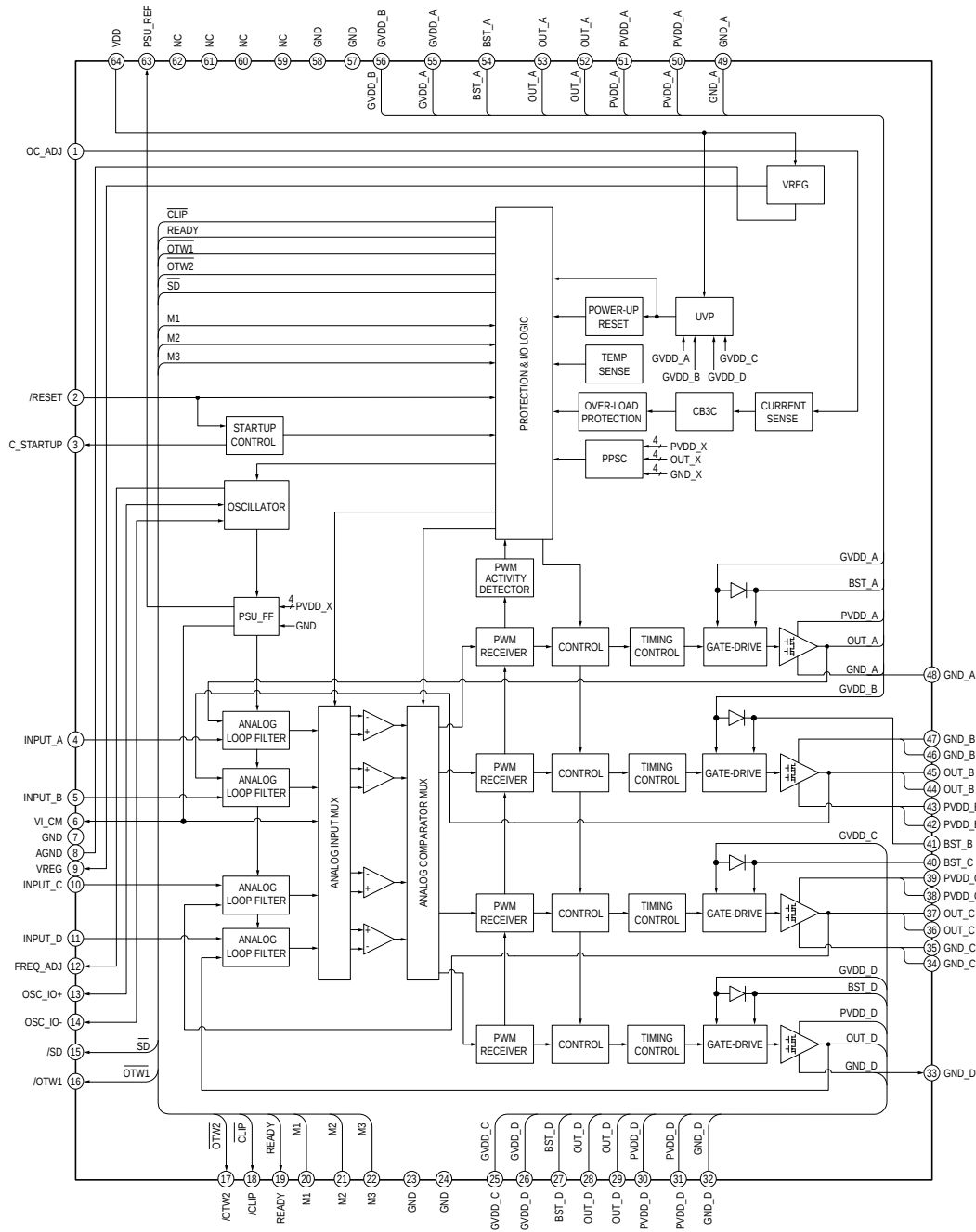


6-30. SCHEMATIC DIAGRAM - SPLITTER Board -



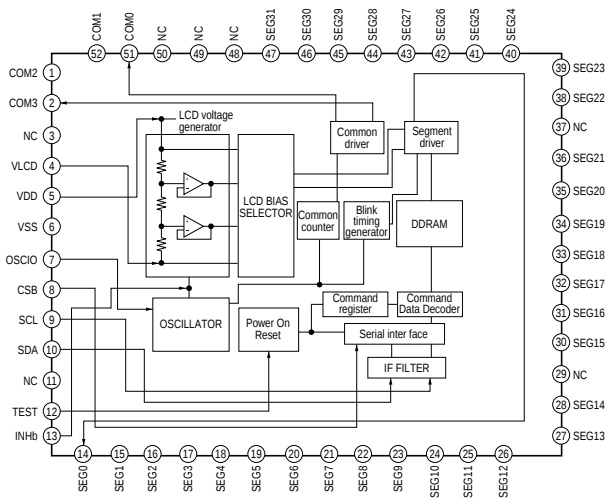
- IC Block Diagrams

IC1001 TAS5630BPHDR (DAMP BOARD (1/2))

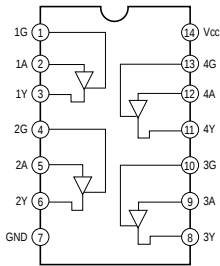


HCD-GT3D

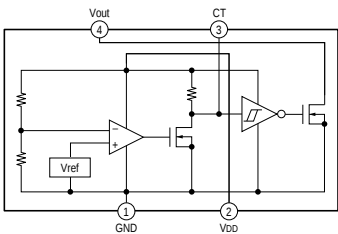
IC3004 BU9795AKS2 (LCD BOARD)



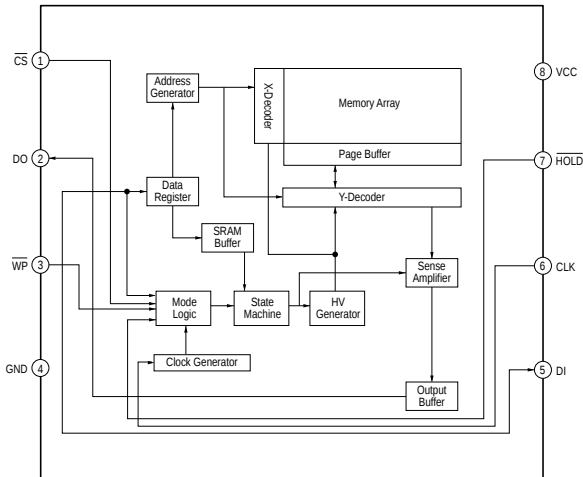
IC102 TC74VHC126FT (EK) (MOTHERBOARD BOARD (8/10))



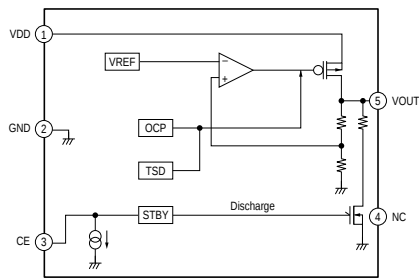
IC103 BU4229F-TR (MOTHERBOARD BOARD (8/10))



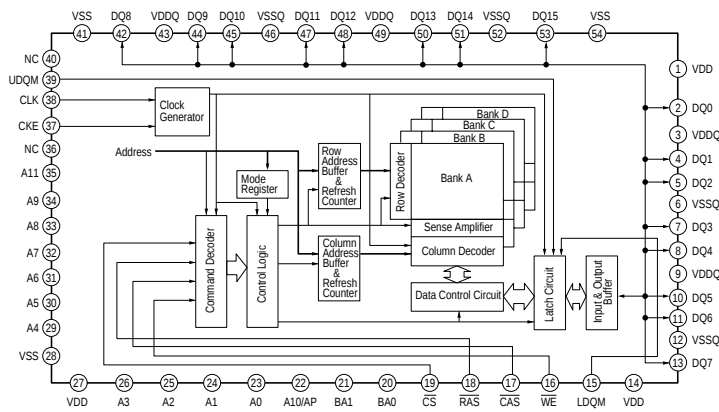
IC106 MX25L3235EM2I-10G (MOTHERBOARD BOARD (9/10))
IC302 MX25L3235EM2I-10G (MOTHERBOARD BOARD (5/10))



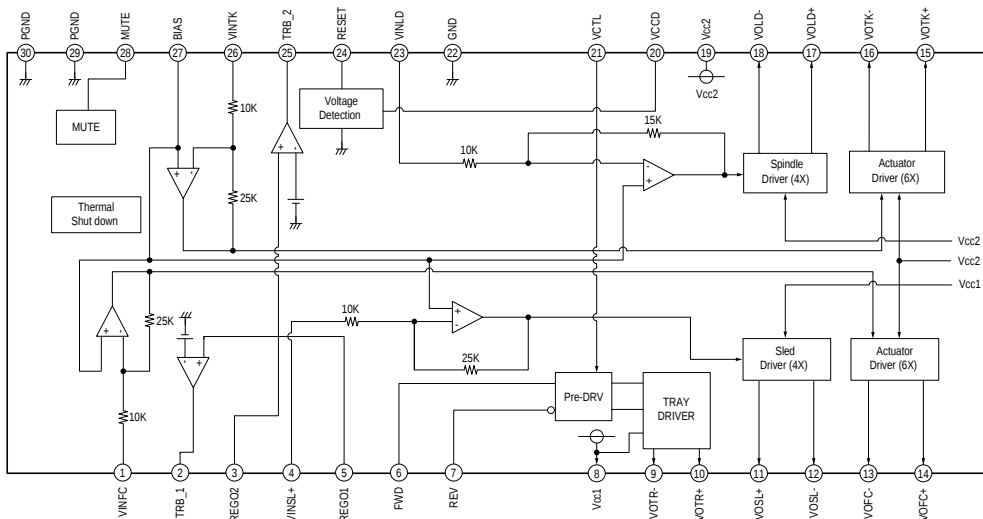
IC305 BU33TD3WG-TR (MOTHERBOARD BOARD (5/10))



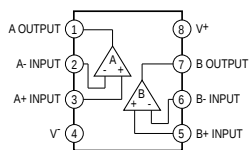
IC306 EM638165TSD-6G (MOTHERBOARD BOARD (5/10))



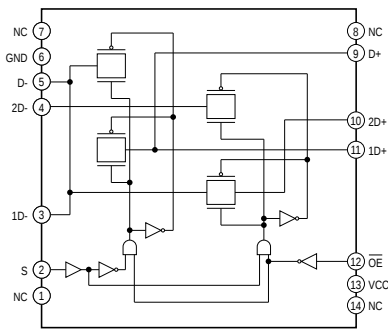
IC401 AM5890S (MOTHERBOARD BOARD (6/10))



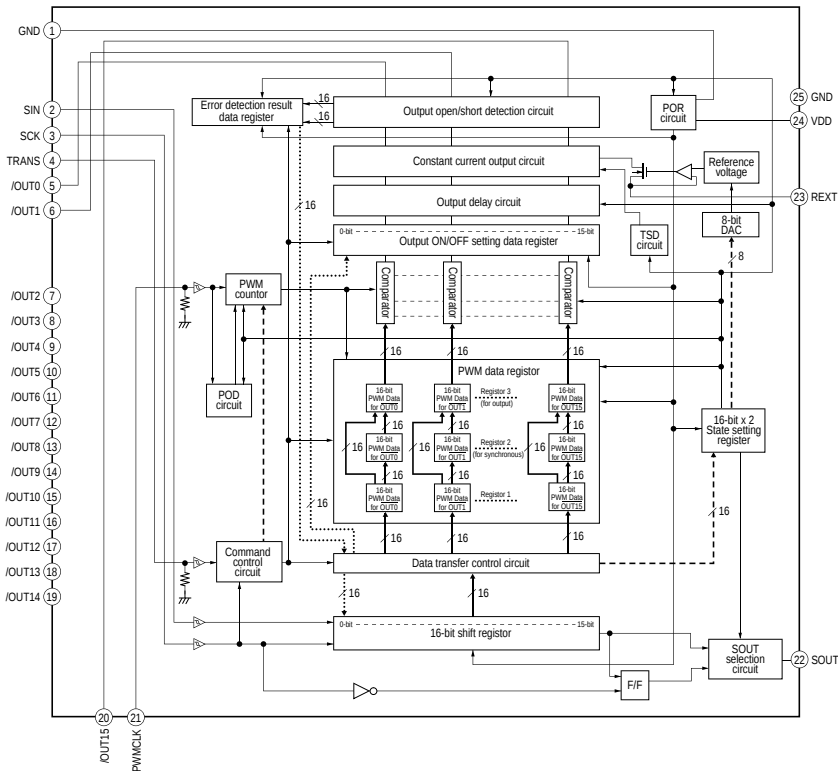
IC452 NJM2903CV (TE1) (MOTHERBOARD BOARD (10/10))



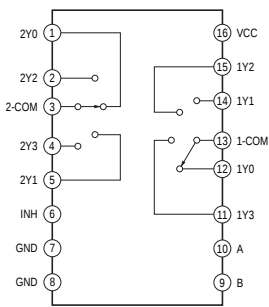
IC453 TC7USB40FT (MOTHERBOARD BOARD (10/10))

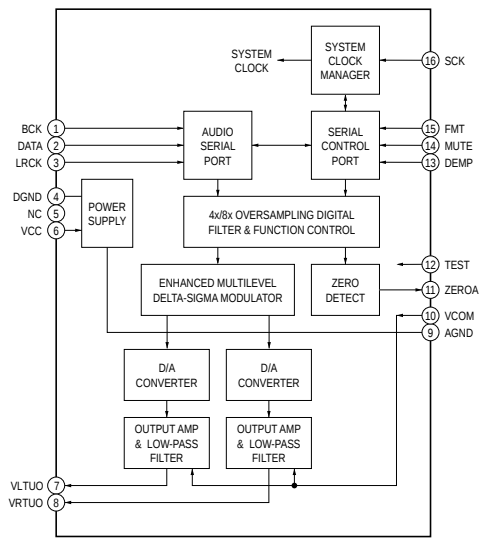
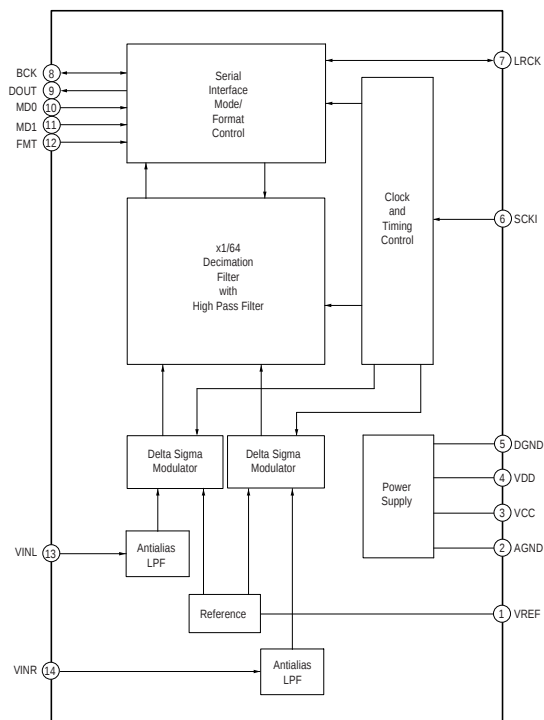
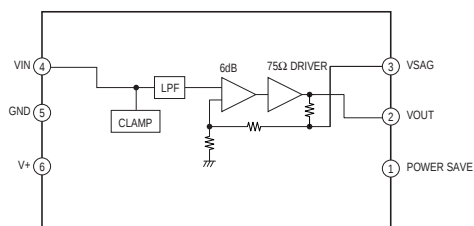


IC502 TC62D723FNG (MOTHERBOARD BOARD (10/10))

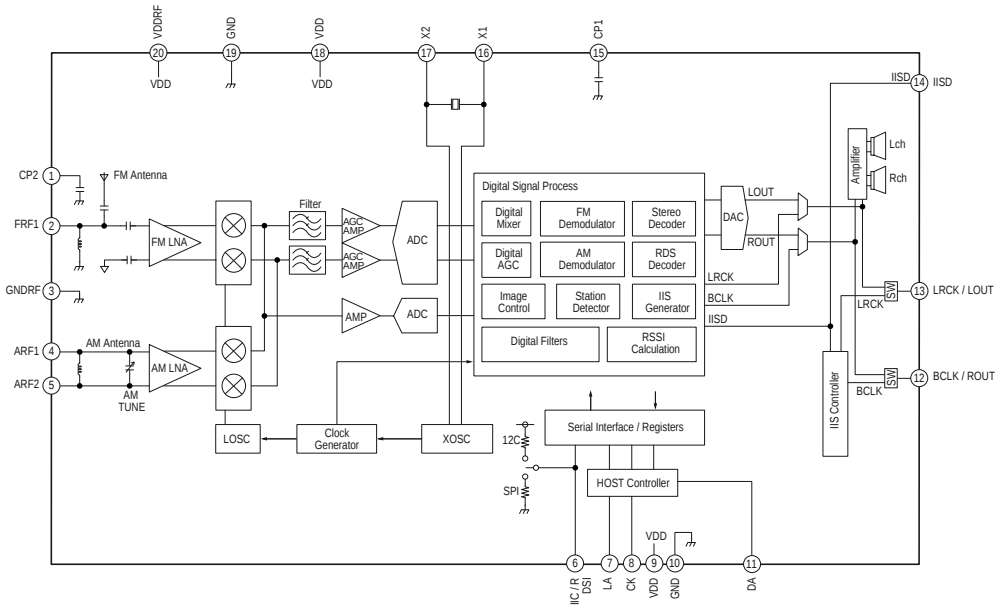


IC602, IC605 SN74LV4052APWR (MOTHERBOARD BOARD (1/10))

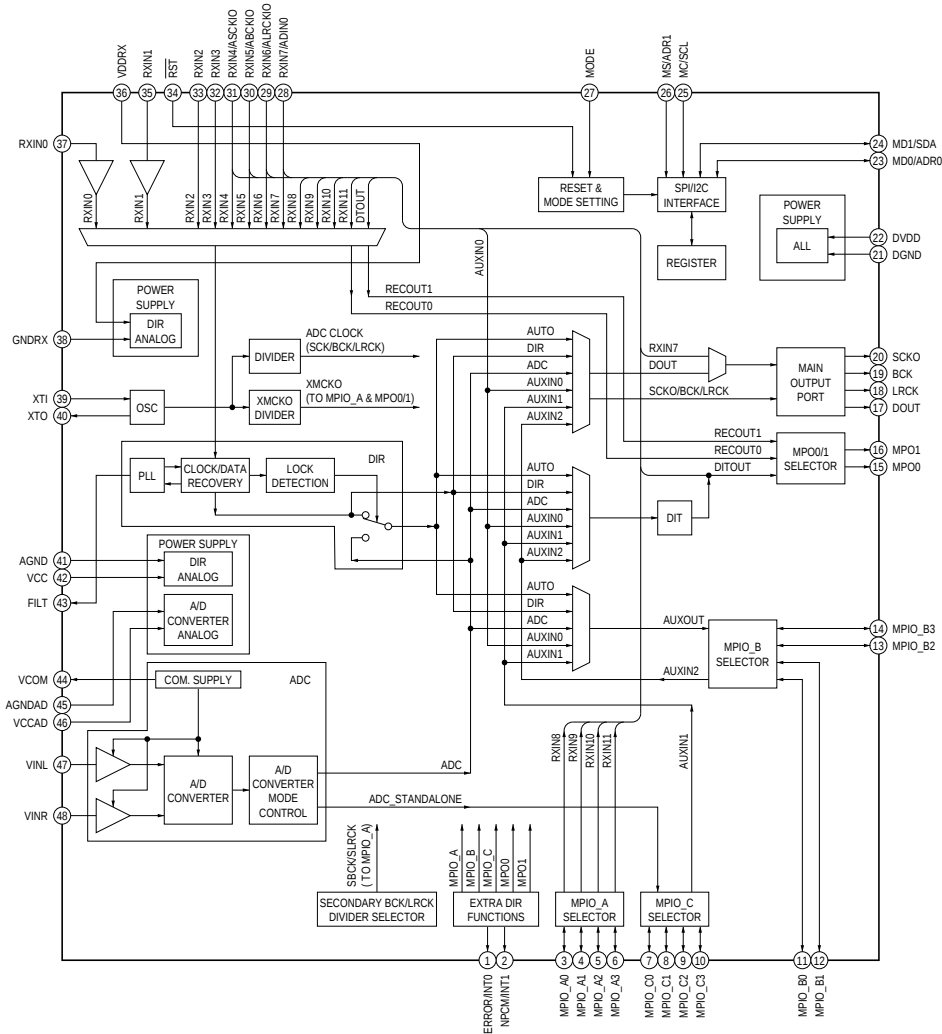


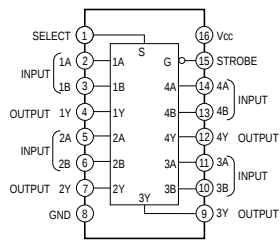
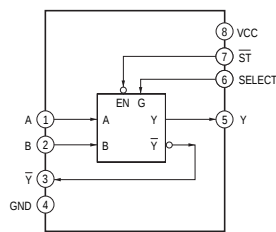
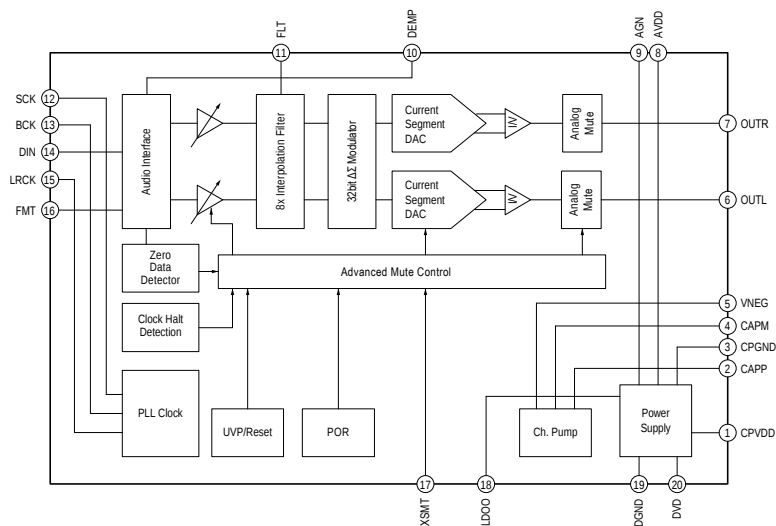
IC604, IC615 PCM1754DBQR (MOTHERBOARD BOARD (3/10))**IC606 PCM1808PWR (MOTHERBOARD BOARD (4/10))****IC609 PCM1808PWR (MOTHERBOARD BOARD (3/10))****IC901 NJM41031F1 (TE2) (MOTHERBOARD BOARD (4/10))**

IC902 RN5B801-0002 (MOTHERBOARD BOARD (2/10))



IC904 PCM9211PTR (MOTHERBOARD BOARD (2/10))



IC912 TC74VHC157FT (EK) (MOTHERBOARD BOARD (4/10))**IC913 TC7WH157FK (MOTHERBOARD BOARD (4/10))****IC914 PCM5101 (MOTHERBOARD BOARD (3/10))**

• IC Pin Function Descriptions

MOTHERBOARD BOARD (9/10) IC101 R7S7200032CFP-A (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	SRC-RST0	-	Not used
2	VIDEO-MUTE	O	Muting Control for Video
3	CDM-UNLOAD-SW	I	CDM UNLOAD SW
4	CDM-LOAD-SW	I	CDM LOAD SW
5	BT-RESET	O	Reset signal output to Bluetooth section
6	LCD_BCKLED	O	FL Backlight
7	Vcc	-	Power supply terminal (+3.3V)
8	BT-ON	O	Bluetooth on/off control signal output terminal for bluetooth section
9	Vss	-	Ground terminal
10	LCD-OSC	O	FL Frame Rate EXT CLOCK
11	PVcc	-	Power supply terminal (+3.3V)
12	NFC-INT	I	NFC Interrupt
13	MTK-POWER-CTRL	O	Power Control pin for MTK
14	AUDIO_CLK_OUT	O	Clock Signal from Aragon to MTK master clock
15	MTK-RESET	O	MTK Reset pin
16	MTK-BUSY	O	BUSY Signal communication between MTK
17	MTK-CLK	I	Clock Signal from MTK
18	Vss	-	Ground terminal
19	MTK-XIFCS	I	MTK CHIP SELECT
20	MTK-SDI	I	Data In Signal from MTK
21	Vcc	-	Power supply terminal (+3.3V)
22	MTK-SDO	O	Data Out Signal to MTK
23	Vss	-	Ground terminal
24	SSI3_BCK0	I	Bit clock signal from MTK or DIR to Aragon
25	PVcc	-	Power supply terminal (+3.3V)
26	SSI3_LRCKO	I	LR clock signal from MTK or DIR to Aragon
27	C-CONT	O	Trigger port to start charging of SPM
28	SSI3_DI	I	Data signal from MTK or DIR to Aragon
29	SSI0_BCKO	O	Clock signal from Aragon to Wf DAC BCK
30	SSI0_LRCKO	O	Clock signal from Aragon to Wf DAC LRCK
31	Vss	-	Ground terminal
32	SSI0_DO	O	Data Out from Aragon to Wf DAC
33	SSI2_DO	O	Data Out from Aragon to AUX OUT DAC
34	Vcc	-	Power supply terminal (+3.3V)
35	LCD-CLK	O	FL CIG serial data clock output
36	Vss	-	Ground terminal
37	CKIO	-	Not used
38	LCD-CSB	O	FL CHIP SELECT
39	PVcc	-	Power supply terminal (+3.3V)
40	LCD-SDA	O	FL CIG serial data output
41	ANALOG-ASEL	O	Multiplexer selector A for Analog input
42	ANALOG-BSEL	O	Multiplexer selector B for Analog input
43	DEBUG-TxD	O	TxD (for Debug)
44	JOG+	O	FILE SEARCH JOG POS
45	POWER-KEY	I	Power Key input terminal
46	Vss	-	Ground terminal
47	USB-OC	I	USB Overcurrent Detection input port
48	RGB-SOUT	O	Serial data output to RGB driver
49	JOG-	O	FILE SEARCH JOG NEG
50	PVcc	-	Power supply terminal (+3.3V)
51	LINK-OUT-B	O	Selector B for Party Chain Signal
52	VBUS-OE	O	MTK Vbus Output enable control pin
53	NFC-RF-DET	I	NFC RF signal detection signal input from the NFC section
54	SSI1_DO	O	Data Out signal from Aragon to SWF DAC

Pin No.	Pin Name	I/O	Description
55	SSI1_DI	I	Data In Signal from ADC to Aragon
56	SD_FAST	I	SD FAST DETECT
57	PCONT-PSAVE-PROTECT	O	Main power on/off control signal output "H":power on
58	Vcc	-	Power supply terminal (+3.3V)
59	LINK-DET	I	Party Chain input bias detection pin
60	USB_HOST_SEL	O	USB UPDATE SELECTOR
61	Vss	-	Ground terminal
62	PVcc	-	Power supply terminal (+3.3V)
63	AC-CUT	I	AC off detection signal input from the reset signal IC "L": AC Cut detected
64	DEBUG-RxD	I	RxD (for Debug)
65	BT-RxD	I	RX input signal from Bluetooth section
66	MD-CLKS	O	For ARAGON Internal SRC
67	RTC_X1	I	RTC clock input terminal
68	RTC_X2	O	RTC clock output terminal
69	PLLvcc	-	Power supply terminal (+3.3V)
70	EXTAL	I	System clock input terminal
71	XTAL	O	System clock output terminal
72	Vss	-	Ground terminal
73	Vss	-	Ground terminal
74	NMI	-	Non-maskable interrupt input terminal
75	Vss	-	Ground terminal
76	RES	I	Reset signal
77	PVcc	-	Power supply terminal (+3.3V)
78	AMP PROTECT	I	Combination of TEMP, PS, SD & DC PROTECT
79	SPM-C-MON	I	Voice coil temperature monitor pin
80	SPM-AMBIENT-TEMP	I	Ambient temperature monitor pin
81	MODEL-DEST-IN	I	Model and Destination setting terminal (A/D input)
82	FAN-DET	I	Fan speed detect
83	MASTER-VOLUME	I	Jog dial pulse input from the MASTER VOLUME encoder (A/D input)
84	AD-KEY0	I	Key input terminal (A/D input)
85	AD-KEY1	I	Key input terminal (A/D input)
86	AVcc	-	Power supply terminal (+3.3V)
87	AVss	-	Ground terminal
88	AVref	-	A/D Converter reference voltage input terminal (+3.3V)
89	BSCANP	-	Boundary scan setting pin
90	PVcc	-	Power supply terminal (+3.3V)
91	AUDIO_X1	I	Audio clock input terminal
92	AUDIO_X2	O	Audio clock output terminal
93	Vss	-	Ground terminal
94	/LINE-MUTE	O	Muting Control Switch for Party Chain. "L": mute On
95	Vcc	-	Power supply terminal (+3.3V)
96	PCONT-BTSTBY	O	BT Standby Power Control Pin. "H": ON
97	TRST	I	Debugging interface: Initialization-signal input pin
98	TDO	O	Debugging interface: Serial output pin for instructions and data
99	TDI	I	Debugging interface: Serial input pin for instructions and data
100	TMS	I	Debugging interface: Test-mode select signal input pin
101	TCK	I	Debugging interface: Test-clock input pin
102	Vss	-	Ground terminal
103	TEST-MON103/ SD_D2_0	O	Test port for software checking
104	TEST-MON104/ SD_D3_0	O	Test port for software checking
105	Vcc	-	Power supply terminal (+3.3V)
106	TEST-MON106/ SD_CMD_0	O	Test port for software checking

Pin No.	Pin Name	I/O	Description
107	Vss	-	Ground terminal
108	TEST-MON108/ SD_CLK	O	Test port for software checking
109	PVcc	-	Power supply terminal (+3.3V)
110	TEST-MON110/ SD_D0_0	O	Test port for software checking
111	ANALOG-DSEL/ SD_D1_0	O	ANALOG INPUT SELECTOR D
112	RGB-TRANS-LED- SPK/SD_WP_0	O	Transfer signal to RGB driver (driver for Speaker LED)
113	RGB-TRANS-LED/ SD_CD_0	O	Transfer signal to RGB driver
114	ST-RDS	I	Input for RDS Text Detect Signal (L: RDS Detect)
115	ST-CE	O	Tuner IC: Tuner enable input pin
116	Vss	-	Ground terminal
117	PCONT-DAMP	O	Digital Amp Module Power Control Pin. "H": ON
118	RGB-PWM-CLK	O	PWM clock signal to RGB driver
119	Vcc	-	Power supply terminal (+3.3V)
120	/AMP-RESET	O	Digital Amp Reset Pin
121	Vss	-	Ground terminal
122	CD-MOTOR+	O	CDM turning motor control signal output
123	PVcc	-	Power supply terminal (+3.3V)
124	CD-MOTOR-	O	CDM turning motor control signal output
125	DIR_CP-CLK	O	DIR & CP share clock
126	DIR_CP-DATA	I/O	DIR & CP share data
127	ST-CLK	O	Tuner IC: Clock signal for IIC communication
128	ST-DATA	I/O	Tuner IC: Data signal for IIC communication
129	RELAY CONTROL	O	Relay control
130	DIR INT0	I	DIR INTERRUPT 0
131	NFC_CLK	O	NFC CLOCK
132	NFC_DATA	I/O	Two-way data bus with the NFC
133	BT-TxD	O	TX signal output terminal for Bluetooth section
134	LCD_INHB	O	FL inhibit pin
135	SIRCS	I	Remote control signal input
136	DIR INT1	I	DIR INTERRUPT 1
137	RGB-SCLK	O	Serial clock output to RGB driver
138	Vss	-	Ground terminal
139	USB_X1	I	USB clock input terminal
140	USB_X2	O	USB clock output terminal
141	USBDPVcc	-	Power supply terminal (+3.3V)
142	USBDPVss	-	Ground terminal
143	DM1	-	Not used
144	DP1	-	Not used
145	VBUSIN1	-	Not used
146	USBDVcc	-	Power supply terminal (+3.3V)
147	USBDVss	-	Ground terminal
148	USBDPVcc	-	Power supply terminal (+3.3V)
149	USBDPVss	-	Ground terminal
150	USB_DM0	I/O	D- PIN FOR USB 2.0
151	USB_DP0	I/O	D+ PIN FOR USB 2.0
152	VBUSIN0	O	VBUS +5.0V supply monitoring pin
153	USBDVcc	-	Power supply terminal (+3.3V)
154	USBDVss	-	Ground terminal
155	REFRIN	I	Reference input
156	USBAPVss	-	Ground terminal
157	USBAPVcc	-	Power supply terminal (+3.3V)
158	USBAVcc	-	Power supply terminal (+3.3V)

Pin No.	Pin Name	I/O	Description
159	USBAVss	-	Ground terminal
160	USBVcc	-	Power supply terminal (+3.3V)
161	USBVss	-	Ground terminal
162	Vss	-	Ground terminal
163	Vss	-	Ground terminal
164	ANALOG-CSEL	O	ANALOG INPUT SELECTOR C
165	DIR-RESET	O	DIR RESET
166	Q-FLASH-SIO2	I/O	QSPI: Data I/O pins for channel 0
167	Q-FLASH-SIO3	I/O	QSPI: Data I/O pins for channel 0
168	Q-FLASH-CLK	O	Clock signal to QSPI
169	Q-FLASH-CS	O	Slave select pin to QSPI
170	Q-FLASH-SIO0	I/O	QSPI: Data I/O pins for channel 0
171	Vss	-	Ground terminal
172	Q-FLASH-SIO1	I/O	QSPI: Data I/O pins for channel 0
173	MIC-DETECT	I	Mic Input Detection pin. "H": Mic detected
174	PVcc	-	Power supply terminal (+3.3V)
175	LINK-SET	O	Party Chain output bias pin
176	LINK-OUT-A	O	Selector A for Party Chain Signal

MOTHERBOARD BOARD (5/10) IC301 CXD9990R (CD RF AMP FOCUS/TRACKING ERROR AMP, CD SYSTEM PROCESSOR, DIGITAL SERVO PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	RF_C	I	RF main beam C input from the optical pick-up block
2	RF_D	I	RF main beam D input from the optical pick-up block
3	RF_E	I	RF sub beam E input from the optical pick-up block
4	RF_F	I	RF sub beam F input from the optical pick-up block
5	AVDD12_2	-	Power supply terminal (+1.2V) (for analog system)
6	AVDD33_1	-	Power supply terminal (+3.3V) (for analog system)
7	XTALI	I	System clock input terminal (27 MHz)
8	XTALO	O	System clock output terminal (27 MHz)
9	AGND33	-	Ground terminal (for analog system)
10	V20	O	Reference voltage (+2V) output to the optical pick-up block
11	V14/VREF0	O	Reference voltage (+1.4V) output to the coil / motor driver
12	REXT	I	Current reference input terminal
13	MDI1	I	Laser power monitor input from the optical pick-up block
14	LDO1	O	Laser diode drive signal output to the optical pick-up block (for CD)
15	LDO2	O	Laser diode drive signal output to the optical pick-up block (for DVD)
16	AVDD33_2	-	Power supply terminal (+3.3V) (for analog system)
17	DMO	O	Spindle motor control signal output to the motor driver
18	FMO	O	Sled motor control signal output to the motor driver
19	CD_VR	O	Variable resistor control signal output to the optical pick-up block (for CD)
20	DVD_VR	O	Variable resistor control signal output to the optical pick-up block (for DVD)
21	TRO	O	Tracking coil control signal output to the coil / motor driver
22	FOO	O	Focus coil control signal output to the coil / motor driver
23	MSW	O	CD/DVD selection signal output terminal "L": DVD, "H": CD
24	USB_DM	I/O	Two-way USB data (-) bus terminal
25	USB_DP	I/O	Two-way USB data (+) bus terminal
26	VDD33_USB	-	Power supply terminal (+3.3V) (for USB)
27	VSS33_USB	-	Ground terminal (for USB)
28	PAD_VRT	I/O	USB generating reference current terminal
29	VDD12_USB	-	Power supply terminal (+1.2V) (for USB)
30	SF_CS#	O	Chip select signal output to the serial flash
31	SF_DO	O	Serial data output to the serial flash
32	SF_DI	I	Serial data input from the serial flash
33	SF_CK	O	Serial clock signal output to the serial flash
34	IFSCK	O	Serial data transfer clock signal output to the system controller
35	IFSDO	O	Serial data output to the system controller
36	RX	I	Serial data input terminal for flash writing
37	TX	O	Serial data output terminal for flash writing
38	PRST#	I	Reset signal input from the system controller "L": reset
39	NC	-	Not used
40	IFSDI	I	Serial data input from the system controller
41	IFBSY	I	Communication initialization request signal input from the system controller
42	IFCS#	O	Communication initialization request acknowledge signal output to the system controller
43	MFISW	-	Not used
44	LIMITSW	-	Not used
45	MUTE	O	Muting signal output to the coil/motor driver (for focus/tracking coil and sled motor)
46	EEWP	O	Write protect signal output with the EEPROM
47	SDA	I/O	Two-way I2C data signal with EEPROM
48	SCL	I/O	Two-way I2C clock signal with EEPROM
49	NC	-	Not used
50	DVSS33	-	Ground terminal (for digital system)
51	DVDD33	-	Power supply terminal (+3.3V) (for digital system)
52 to 55	RD0 to RD3	I/O	Two-way data bus with the SD-RAM
56	DVDD12	-	Power supply terminal (+1.2V) (for digital system)
57 to 60	RD4 to RD7	I/O	Two-way data bus with the SD-RAM

Pin No.	Pin Name	I/O	Description
61	DQM0	O	Data mask signal output to the SD-RAM
62 to 69	RD15 to RD8	I/O	Two-way data bus with the SD-RAM
70	DQM1	O	Data mask signal output to the SD-RAM
71	DVDD33	-	Power supply terminal (+3.3V) (for digital system)
72	RCLK	O	Clock signal output to the SD-RAM
73 to 79	RA11, RA9 to RA4	O	Address signal output to the SD-RAM
80	RWE#	O	Write enable signal output to the SD-RAM
81	DVSS12	-	Ground terminal (for digital system)
82	CAS#	O	Column address strobe signal output to the SD-RAM
83	RAS#	O	Row address strobe signal output to the SD-RAM
84	DVDD33	-	Power supply terminal (+3.3V) (for digital system)
85	BA0	O	Bank address signal output to the SD-RAM
86	BA1	O	Bank address signal output to the SD-RAM
87	DVDD12	-	Power supply terminal (+1.2V) (for digital system)
88 to 92	RA10, RA0 to RA3	O	Address signal output to the SD-RAM
93	SPDIF	-	Not used
94	XMAMUTE	-	Not used
95	NC	-	Not used
96	DACVDDC	-	Power supply terminal (+3.3V) (for D/A converter)
97	VREF	I	Band gap reference voltage terminal
98	FS	I	Full scale adjustment terminal
99	DACVSSC	-	Ground terminal (for D/A converter)
100	CVBS	O	Composite video signal output terminal
101	DACVddb	-	Power supply terminal (+3.3V) (for D/A converter)
102	SY/Y/G	-	Not used
103	SC/CB/B	-	Not used
104	CR/R	-	Not used
105	AADVSS	-	Ground terminal (for D/A converter)
106	ADIN	I	Audio data input from the A/D converter
107	NC	-	Not used
108	NC	-	Not used
109	AADVDD	-	Power supply terminal (+3.3V) (for D/A converter)
110	ADACVSS2	-	Ground terminal (for D/A converter)
111	ADACVSS1	-	Ground terminal (for D/A converter)
112	ACLK	O	Master clock signal output
113	ABCK	O	Bit clock signal output
114	NC	-	Not used
115	AVCM	I	Audio D/A converter reference voltage terminal
116	NC	-	Not used
117	ALRCK	O	L/R sampling clock signal output
118	ASDATA0	O	Audio data output
119	ADACVDD1	-	Power supply terminal (+3.3V) (for D/A converter)
120	ADACVDD2	-	Power supply terminal (+3.3V) (for D/A converter)
121	AVDD12_1	-	Power supply terminal (+1.2V) (for analog system)
122	AGND12	-	Ground terminal (for analog system)
123	RFIP	I	AC coupled RF signal input from the optical pick-up block
124	OPDIST	I	Optical pick-up block type selection
125	IOPMON/OPO	I	Power monitor terminal
126	SPFG/OP	I	Spindle motor hall sensor input from the motor driver
127	RF_A	I	RF main beam A input from the optical pick-up block
128	RF_B	I	RF main beam B input from the optical pick-up block

SECTION 7
EXPLODED VIEWS

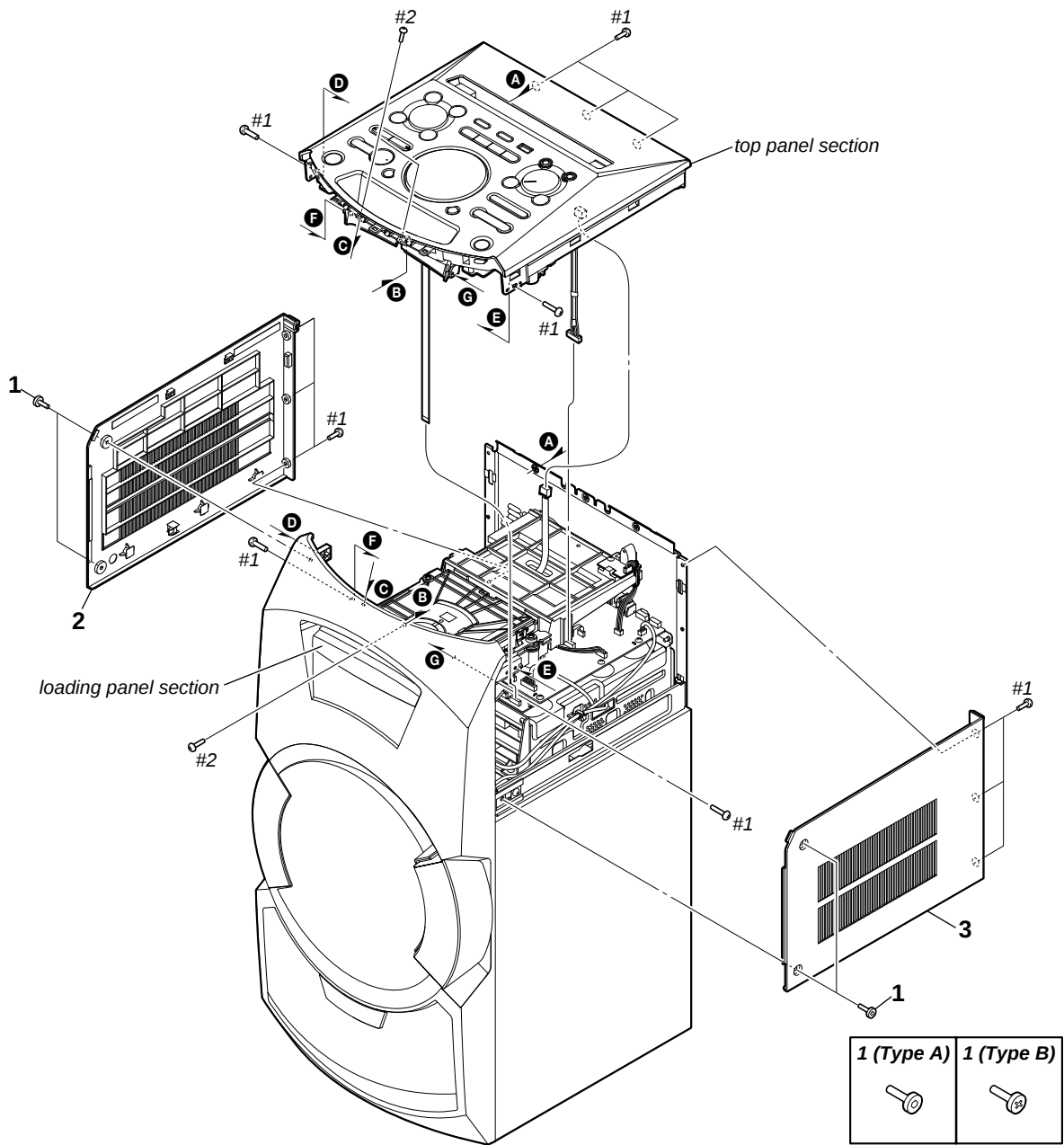
Note:

- The mechanical parts with no reference number in the exploded views are not supplied.
 - Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - -XX and -X mean standardized parts, so they may have some difference from the original one.
- Abbreviation
AR : Argentina model
AUS : Australian model
E4 : African model
EA : Saudi Arabia model
LA9 : Latin-American model
MY : Malaysia model
RU : Russian model
TH : Thai model

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

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

7-1. SIDE PANEL SECTION

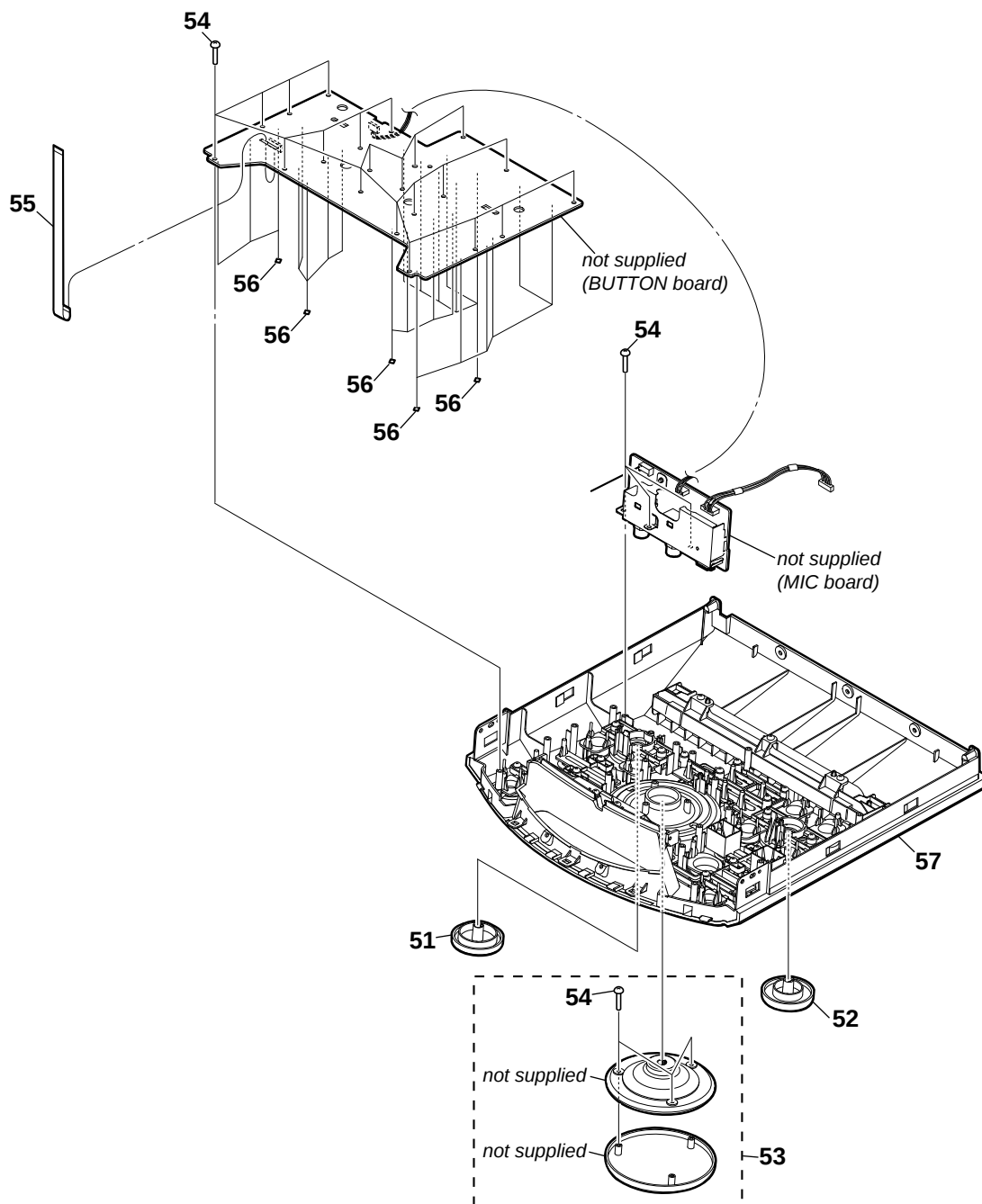


Note 1: The screw type which screw between “PANEL, SIDE and PANEL, TOP” and “PANEL, SIDE and CHASSIS” for this unit have been changed in the midway of production. About the screw type discrimination, refer to “SCREW TYPE DISCRIMINATION BEFORE DISASSEMBLE THE PANEL, SIDE” on servicing notes (page 6).

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-546-397-01	SCREW, TAPPING (HEX) (Type A)		#1	7-685-646-71	SCREW +BVTP 3X8 TYPE2 IT-3	
1	4-162-271-01	SCREW, TAPPING (Type B)					
2	X-2590-652-2	PANEL, SIDE (L) ASSY		#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
3	X-2590-653-2	PANEL, SIDE (R) ASSY					

7-2. TOP PANEL SECTION

- Bottom view



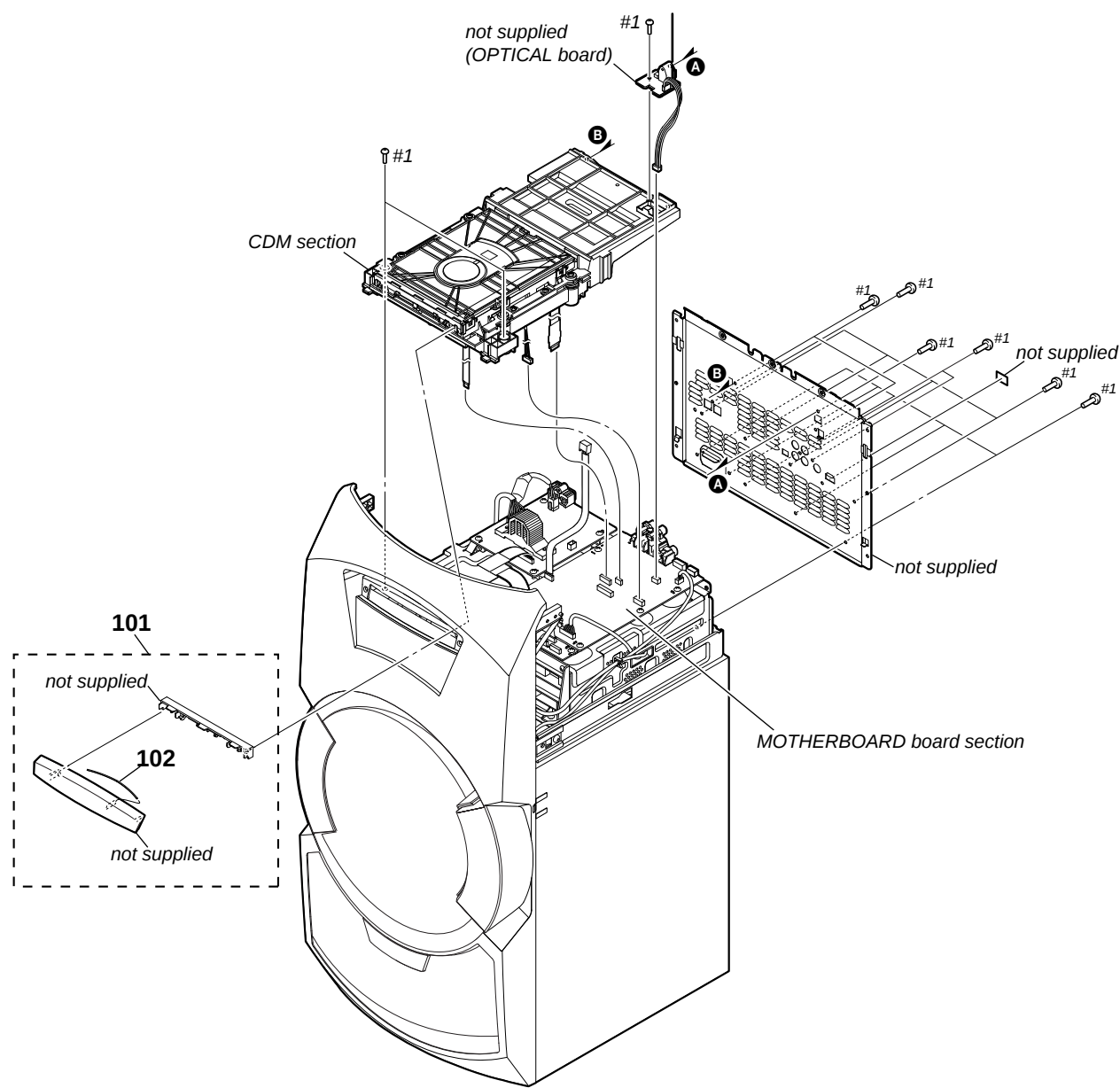
Note 1: When the VOLUME knob assy or MIC knob is replaced, refer to "NOTE OF REPLACING THE VOLUME KNOB ASSY OR MIC KNOB" on servicing notes (page 7).

Note 2: If wire (flat type) is replaced, install it after bending it in the same form as that before replacement.

Ref. No.	Part No.	Description	Remark
51	4-549-432-01	KNOB, MIC	
52	4-549-431-01	KNOB, FUNCTION	
53	X-2590-651-1	KNOB, VOLUME ASSY	
54	3-087-053-01	+BVTP2.6 (3CR)	

Ref. No.	Part No.	Description	Remark
55	1-849-009-11	WIRE (FLAT TYPE) (11 CORE)	
56	4-543-517-02	HEMILON, 5X5X0.4	
57	X-2590-580-5	PANEL, TOP ASSY	

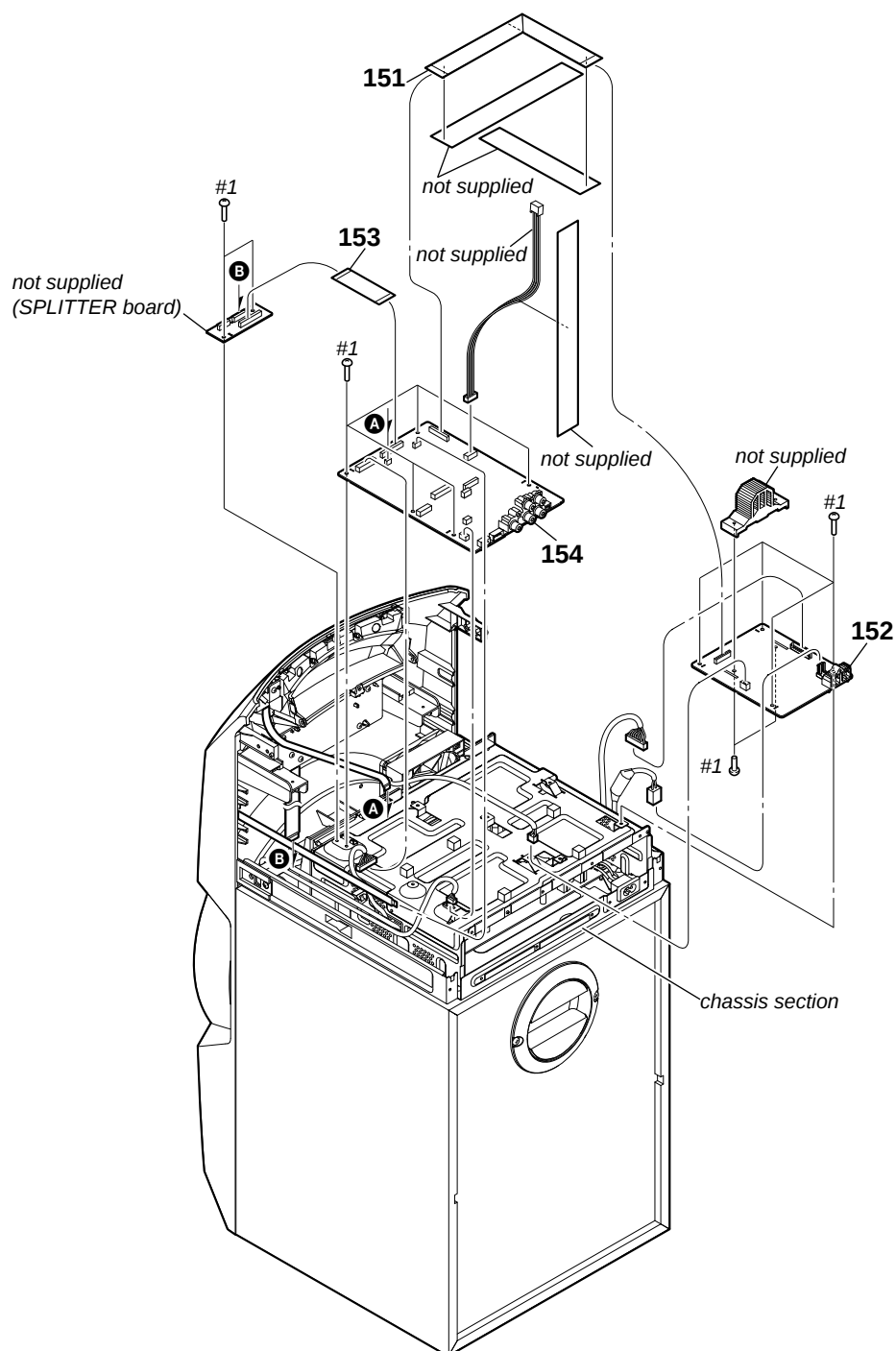
7-3. LOADING PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	X-2590-650-4	PANEL, LOADING ASSY	
102	4-295-431-01	SPRING, LOADING	
#1	7-685-646-71	SCREW +BVTP 3X8 TYPE2 IT-3	

7-4. MOTHERBOARD BOARD SECTION

- Rear view



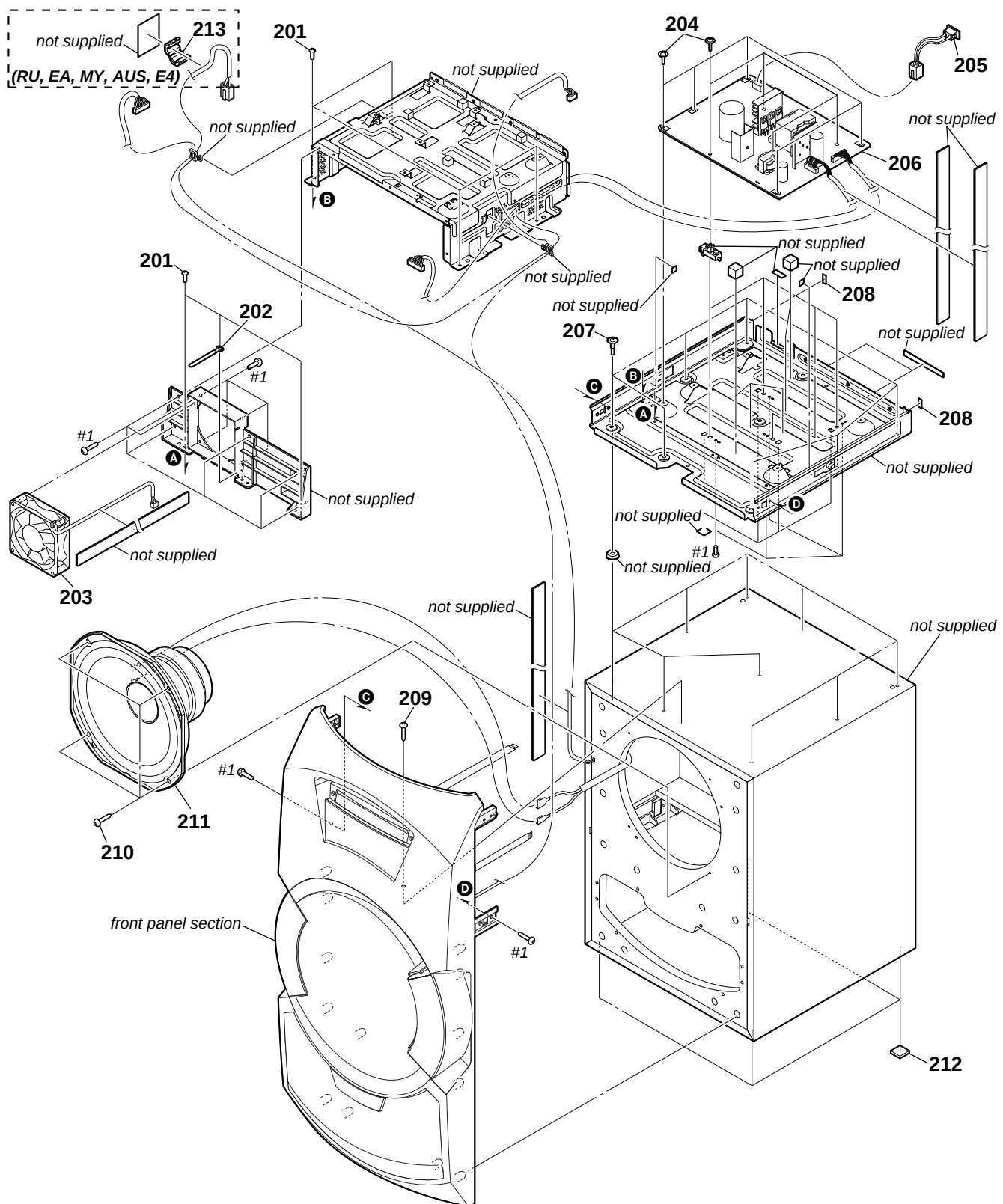
Note 1: When the complete DAMP board is replaced, refer to "NOTE OF REPLACING THE IC1001 ON THE DAMP BOARD AND THE COMPLETE DAMP BOARD" on servicing notes (page 5).

Note 2: If wire (flat type) is replaced, install it after bending it in the same form as that before replacement.

Ref. No.	Part No.	Description	Remark
151	1-849-011-11	WIRE (FLAT TYPE) (19 CORE)	
152	A-2061-348-A	DAMP BOARD, COMPLETE	
153	1-849-010-11	WIRE (FLAT TYPE) (25 CORE)	
154	A-2071-965-A	MOTHERBOARD BOARD, COMPLETE	
		(for SERVICE) (AR, LA9)	
154	A-2071-984-A	MOTHERBOARD BOARD, COMPLETE	
		(for SERVICE) (EA, E4)	

Ref. No.	Part No.	Description	Remark
154	A-2071-986-A	MOTHERBOARD BOARD, COMPLETE	
		(for SERVICE) (AUS)	
154	A-2071-987-A	MOTHERBOARD BOARD, COMPLETE	
		(for SERVICE) (MY, TH)	
154	A-2071-988-A	MOTHERBOARD BOARD, COMPLETE	
		(for SERVICE) (RU)	
#1	7-685-646-71	SCREW +BVTP 3X8 TYPE2 IT-3	

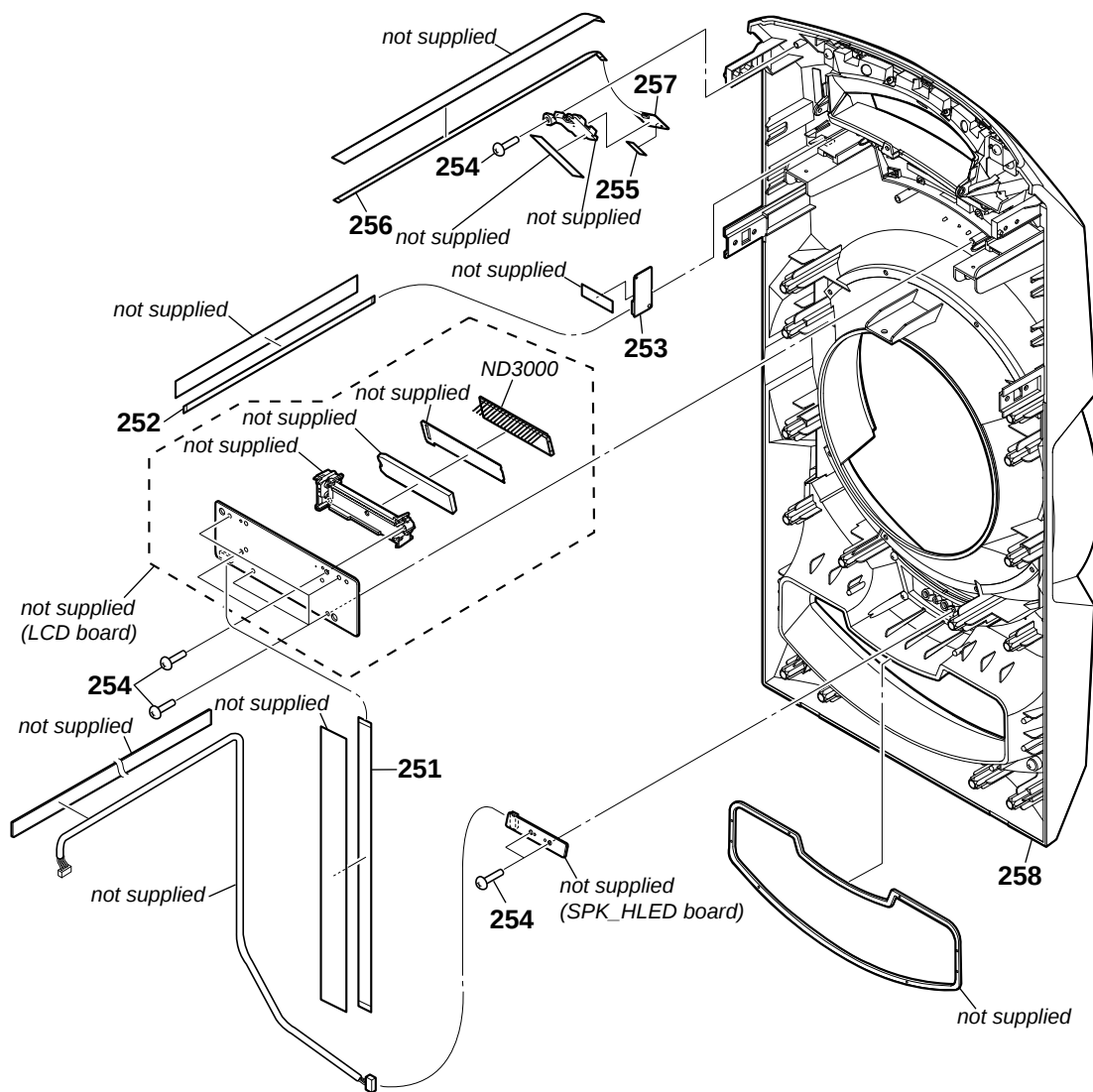
7-5. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-077-331-21	+BV3 (3-CR)		208	3-559-407-21	CUSHION, STOPPER	
* 202	3-703-150-11	CLAMP		209	4-532-593-01	SCREW (4X13) (TR-184A)	
△ 203	1-855-006-41	FAN, DC		210	4-238-407-12	SCREW (1) (4X20), +BV TAPPING	
204	2-677-839-01	+PWH 3X8 (SUMITITE)		211	1-859-087-11	LOUDSPEAKER (20CM)-087-11	
△ 205	1-844-234-21	AC INLET		212	4-546-027-01	FOOT, RUBBER	
△ 206	A-2061-350-A	SMPS BOARD, COMPLETE		* 213	1-500-082-11	CLAMP, SLEEVE FERRITE (RU, EA, MY, AUS, E4)	
207	4-558-595-01	STEP SCREW M4		#1	7-685-646-71	SCREW +BVTP 3X8 TYPE2 IT-3	

7-6. FRONT PANEL SECTION

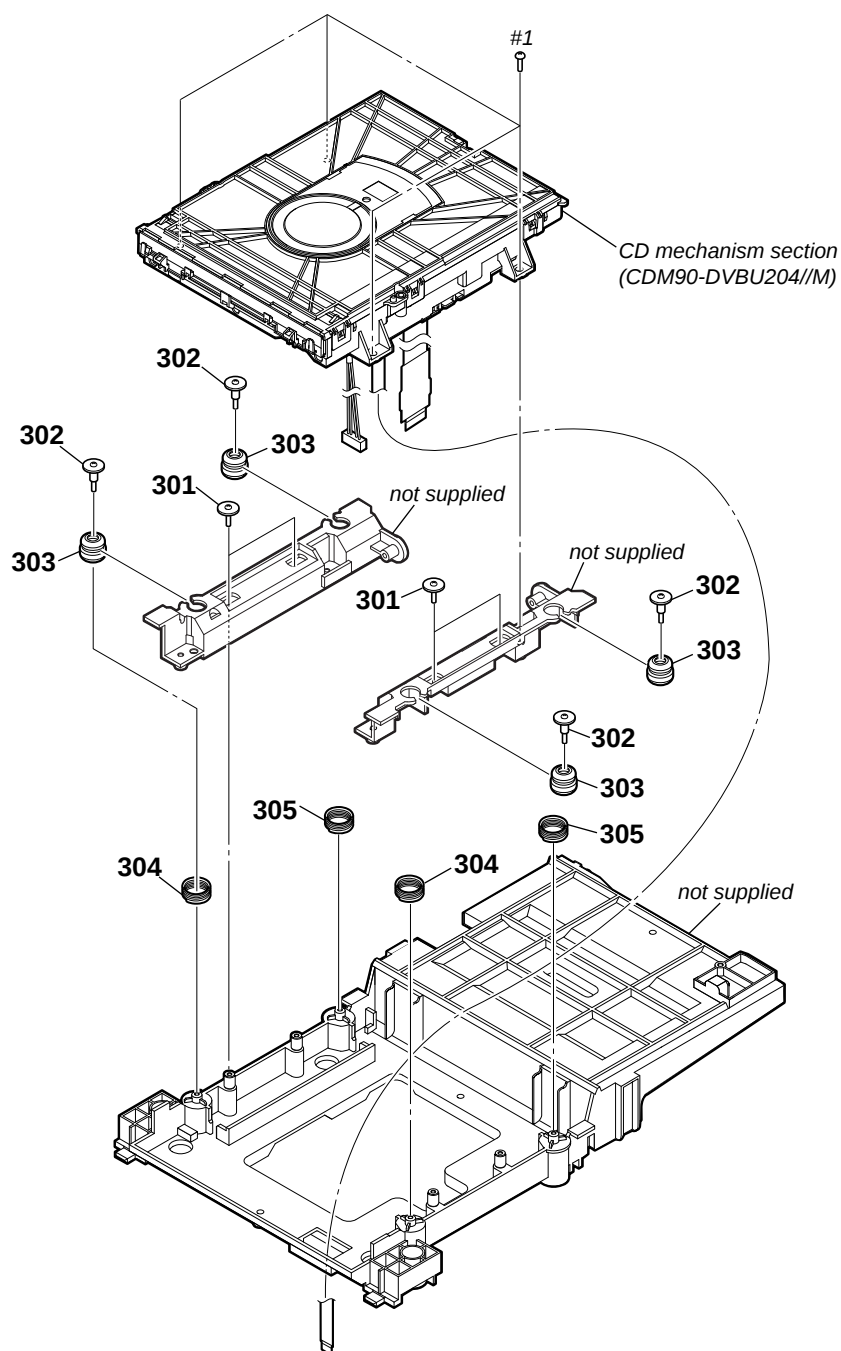
- Rear view



Note: If wire (flat type) is replaced, install it after bending it in the same form as that before replacement.

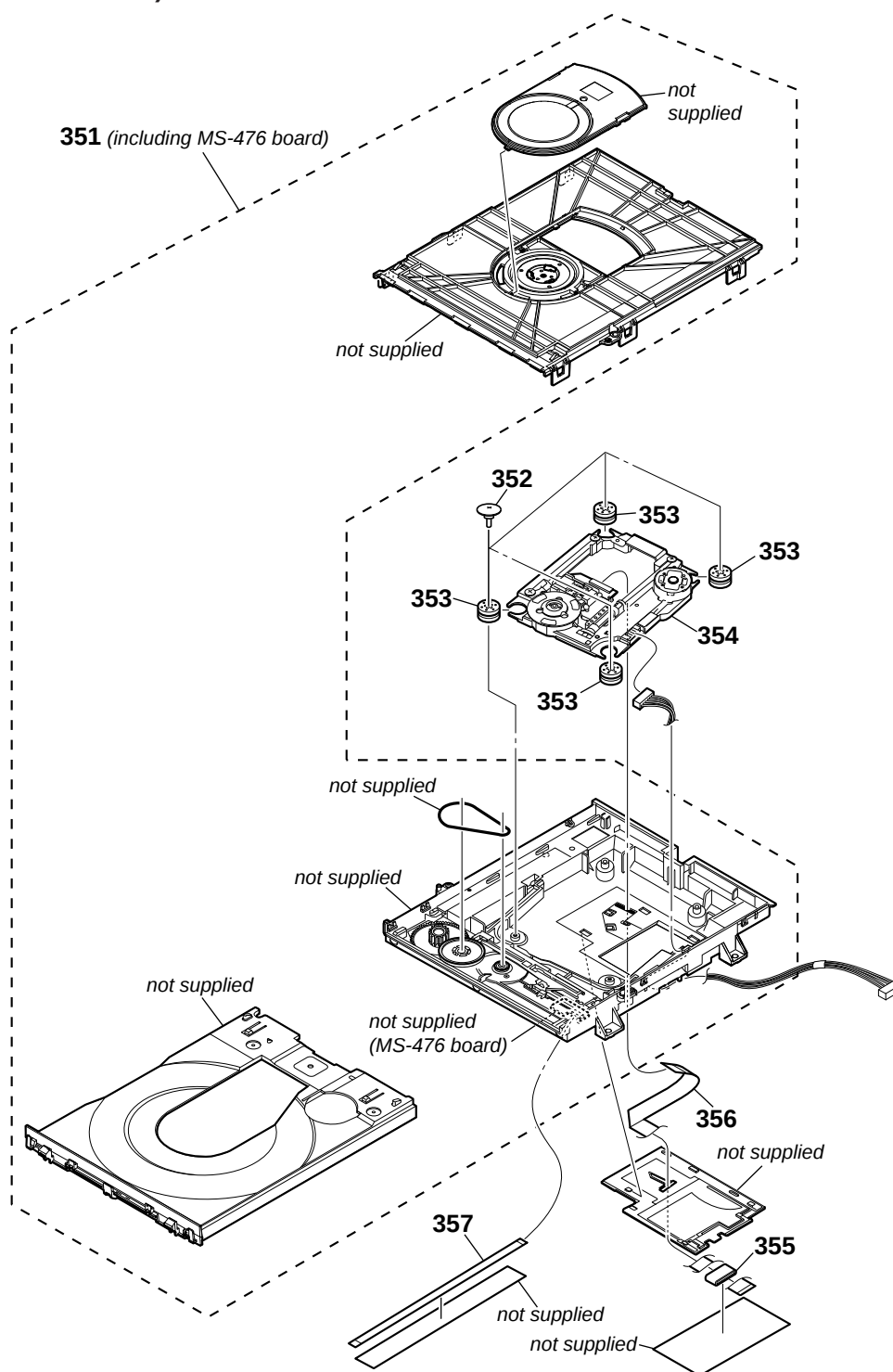
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	1-849-013-11	WIRE (FLAT TYPE) (13 CORE)		256	1-849-015-11	WIRE (FLAT TYPE) (6 CORE)	
252	1-849-014-11	WIRE (FLAT TYPE) (10 CORE)		257	8-989-602-00	RC-S730 (WW)	
253	1-492-699-11	BLUETOOTH MODULE		258	X-2590-649-3	PANEL, FRONT (SW) ASSY	
254	3-087-053-01	+BVTP2.6 (3CR)		ND3000	1-812-078-11	LIQUID CRYSTAL DISPLAY	
255	4-449-063-01	CUSHION (NFC)					

7-7. CDM SECTION



Ref. No.	Part No.	Description	Remark
301	2-345-115-01	SCREW (S), FLOAT	
302	4-535-577-01	STEP SCREW M2.6	
303	4-533-382-01	INSULATOR	
304	4-533-939-01	SPRING, INSULATOR (F)	
305	4-533-940-01	SPRING, INSULATOR (R)	
#1	7-685-646-71	SCREW +BVTP 3X8 TYPE2 IT-3	

7-8. CD MECHANISM SECTION
(CDM90-DVBU204//M)



Note : If cable, flexible flat and wire (flat type) is replaced, install it after bending it in the same form as that before replacement.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	A-1896-391-B	LOADING COMPLETE ASSY (T) (including MS-476 board)		355	1-469-829-11	CORE, FERRITE	
352	3-087-599-01	INSULATOR SCREW		356	1-849-012-11	WIRE (FLAT TYPE) (24 CORE)	
353	2-634-618-21	INSULATOR		357	1-849-016-11	WIRE (FLAT TYPE) (5 CORE)	
△ 354	A-2046-956-A	SERVICE, OPTICAL DEVICE(7G)					

SECTION 8

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.
- RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable.
- Items marked “*” are not stocked since they are seldom required for routine service.
Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS**
In each case, u: μ , for example:
uA. . . : μ A. . . , uPA. . . , μ PA. . . ,
uPB. . . : μ PB. . . , uPC. . . , μ PC. . . ,
uPD. . . : μ PD. . .
- CAPACITORS**
uF: μ F
- COILS**
uH: μ H
- Abbreviation**
AR : Argentina model
AUS : Australian model
E4 : African model
EA : Saudi Arabia model
LA9 : Latin-American model
MY : Malaysia model
RU : Russian model
TH : Thai model

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

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

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

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
		BUTTON BOARD *****					R3141	1-216-835-11	METAL CHIP	15K	5%	1/10W	
		< CAPACITOR >					R3142	1-216-819-11	METAL CHIP	680	5%	1/10W	
							R3143	1-216-821-11	METAL CHIP	1K	5%	1/10W	
							R3144	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
							R3145	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
C3107	1-118-695-91	CERAMIC CHIP	0.01uF	5%	50V		R3146	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
C3111	1-118-695-91	CERAMIC CHIP	0.01uF	5%	50V		R3147	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
C3113	1-115-872-11	ELECT	2.2uF	20%	50V		R3148	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
C3117	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V		R3149	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W	
		< CONNECTOR >					R3150	1-216-833-11	METAL CHIP	10K	5%	1/10W	
CN3100	1-779-279-11	CONNECTOR, FFC (LIF (NON-ZIF)) 11P							< VARISTOR >				
		< DIODE >					RV3100	1-227-918-11	RES, VAR, CARBON 50K (MIC LEVEL)				
									< SWITCH >				
D3100	6-504-215-01	DI HL-364V620MZ-T					S3100	1-762-875-21	SWITCH, TACTILE (I/⏏)				
D3105	6-504-213-01	DI HL-364B460MZ-T					S3101	1-762-875-21	SWITCH, TACTILE (■)				
		< ROTARY ENCODER >					S3102	1-762-875-21	SWITCH, TACTILE (▶)				
EN3100	1-493-009-11	ENCODER, ROTARY (MULTI CONTROL)					S3103	1-762-875-21	SWITCH, TACTILE (-PAIRING BLUETOOTH)				
EN3101	1-493-007-11	ENCODER, ROTARY (VOLUME/DJ CONTROL)					S3104	1-762-875-21	SWITCH, TACTILE (MEGA BASS)				
		< JUMPER RESISTOR >					S3105	1-762-875-21	SWITCH, TACTILE (LIGHT MODE)				
JR3100	1-216-296-11	SHORT CHIP	0				S3106	1-762-875-21	SWITCH, TACTILE (ENTER)				
JR3101	1-216-296-11	SHORT CHIP	0				S3107	1-762-875-21	SWITCH, TACTILE (FUNCTION)				
JR3102	1-216-296-11	SHORT CHIP	0				S3108	1-762-875-21	SWITCH, TACTILE (SOUND FIELD)				
JR3103	1-216-296-11	SHORT CHIP	0				S3109	1-762-875-21	SWITCH, TACTILE (DJ EFFECT FLANGER)				
JR3104	1-216-296-11	SHORT CHIP	0										
		< RESISTOR >					S3110	1-762-875-21	SWITCH, TACTILE (DJ EFFECT ISOLATOR)				
R3123	1-216-864-11	SHORT CHIP	0				S3111	1-762-875-21	SWITCH, TACTILE (DJ EFFECT DJ OFF)				
R3124	1-216-864-11	SHORT CHIP	0				S3112	1-762-875-21	SWITCH, TACTILE (DJ EFFECT SAMPLER)				
R3125	1-216-833-11	METAL CHIP	10K	5%	1/10W		S3113	1-762-875-21	SWITCH, TACTILE (PARTY CHAIN)				
R3129	1-216-833-11	METAL CHIP	10K	5%	1/10W		S3114	1-762-875-21	SWITCH, TACTILE (▲)				
R3130	1-216-819-11	METAL CHIP	680	5%	1/10W								
R3131	1-216-821-11	METAL CHIP	1K	5%	1/10W		S3115	1-762-875-21	SWITCH, TACTILE (PARTY LIGHT)				
R3132	1-216-823-11	METAL CHIP	1.5K	5%	1/10W		S3116	1-762-875-21	SWITCH, TACTILE (FOOTBALL)				
R3133	1-216-823-11	METAL CHIP	1.5K	5%	1/10W		S3117	1-762-875-21	SWITCH, TACTILE (S3 TUNING - ◀◀)				
R3134	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		S3118	1-762-875-21	SWITCH, TACTILE (S4 TUNING + ▶▶)				
R3135	1-216-827-11	METAL CHIP	3.3K	5%	1/10W		S3119	1-762-875-21	SWITCH, TACTILE (S1 □ -)				
R3136	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R3137	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W		S3120	1-762-875-21	SWITCH, TACTILE (S2 □ +)				
R3138	1-216-833-11	METAL CHIP	10K	5%	1/10W		S3121	1-762-875-21	SWITCH, TACTILE (VOCAL FADER)				
R3139	1-216-837-11	METAL CHIP	22K	5%	1/10W		S3122	1-762-875-21	SWITCH, TACTILE (MIC ECHO)				
R3140	1-216-835-11	METAL CHIP	15K	5%	1/10W		S3123	1-762-875-21	SWITCH, TACTILE (REC TO USB)				

Note 2: When the C1126, C1127, C1128, C1129 and C1142 on the DAMP board are replaced, spread the bond referring to “BOND FIXATION OF ELECTRIC PARTS” on servicing notes (page 6).

HCD-GT3D

Ver. 1.1

DAMP

Ref. No.	Part No.	Description		Remark		Ref. No.	Part No.	Description		Remark	
< IC >						R1037	1-216-819-11	METAL CHIP	680	5%	1/10W
IC1001	6-716-817-01	IC	TAS5630BPHDR			R1052	1-250-535-11	METAL CHIP	47K	1%	1/16W
	6-716-462-01	IC	BD00GA3WEFJ-E2			* R1053	1-250-507-11	METAL CHIP	3.3K	1%	1/16W
	8-759-274-71	IC	NJM4565M (TE2)			R1062	1-216-833-11	METAL CHIP	10K	5%	1/10W
	8-759-274-71	IC	NJM4565M (TE2)			R1063	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
< JUMPER >						R1064	1-216-837-11	METAL CHIP	22K	5%	1/10W
JC1019	1-216-295-91	SHORT CHIP	0			R1065	1-216-789-11	METAL CHIP	2.2	5%	1/10W
	1-216-295-91	SHORT CHIP	0			R1066	1-216-791-11	METAL CHIP	3.3	5%	1/10W
< COIL >						R1067	1-216-789-11	METAL CHIP	2.2	5%	1/10W
L1006	1-482-158-11	INDUCTOR	10uH			R1068	1-216-789-11	METAL CHIP	2.2	5%	1/10W
	1-482-158-11	INDUCTOR	10uH			R1069	1-216-837-11	METAL CHIP	22K	5%	1/10W
	1-400-793-21	INDUCTOR	47uH			R1070	1-216-838-11	METAL CHIP	27K	5%	1/10W
	1-482-160-21	INDUCTOR	20uH			R1072	1-216-821-11	METAL CHIP	1K	5%	1/10W
< TRANSISTOR >						R1076	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1003	8-729-216-22	TRANSISTOR	2SA1162-G			R1077	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1004	8-729-216-22	TRANSISTOR	2SA1162-G			R1078	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1006	6-552-892-01	TR	LSCR523UBFS8TL			R1079	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1010	6-552-746-01	TR	DSA700300L			R1080	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1011	6-552-892-01	TR	LSCR523UBFS8TL			R1081	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q1014	8-729-216-22	TRANSISTOR	2SA1162-G			R1082	1-216-845-11	METAL CHIP	100K	5%	1/10W
	8-729-216-22	TRANSISTOR	2SA1162-G			R1083	1-216-845-11	METAL CHIP	100K	5%	1/10W
	8-729-216-22	TRANSISTOR	2SA1162-G			R1084	1-216-841-11	METAL CHIP	47K	5%	1/10W
	8-729-216-22	TRANSISTOR	2SA1162-G			R1085	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q1018	6-553-509-01	TR	KTA1542T-RTK/P			R1087	1-216-791-11	METAL CHIP	3.3	5%	1/10W
Q1019	6-553-083-01	TR	PBSS4160T			R1088	1-216-791-11	METAL CHIP	3.3	5%	1/10W
	6-552-892-01	TR	LSCR523UBFS8TL			R1091	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
	6-552-892-01	TR	LSCR523UBFS8TL			R1092	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
	6-552-892-01	TR	LSCR523UBFS8TL			R1106	1-216-842-11	METAL CHIP	56K	5%	1/10W
< RESISTOR >						R1111	1-216-842-11	METAL CHIP	56K	5%	1/10W
R1001	1-208-715-11	METAL CHIP	22K	0.50%	1/16W	R1112	1-216-842-11	METAL CHIP	56K	5%	1/10W
R1002	1-218-941-81	METAL CHIP	100	5%	1/16W	R1126	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1003	1-218-941-81	METAL CHIP	100	5%	1/16W	R1127	1-216-834-11	METAL CHIP	12K	5%	1/10W
R1004	1-218-941-81	METAL CHIP	100	5%	1/16W	R1128	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1005	1-218-941-81	METAL CHIP	100	5%	1/16W	R1129	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1008	1-218-941-81	METAL CHIP	100	5%	1/16W	R1130	1-216-805-11	METAL CHIP	47	5%	1/10W
	1-208-911-11	METAL CHIP	10K	0.50%	1/16W	R1131	1-216-805-11	METAL CHIP	47	5%	1/10W
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1132	1-216-821-11	METAL CHIP	1K	5%	1/10W
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1133	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1017	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1134	1-216-295-91	SHORT CHIP	0		
R1018	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1135	1-216-295-91	SHORT CHIP	0		
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1136	1-216-295-91	SHORT CHIP	0		
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1137	1-216-295-91	SHORT CHIP	0		
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1138	1-216-836-11	METAL CHIP	18K	5%	1/10W
R1020	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1139	1-216-864-11	SHORT CHIP	0		
R1021	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1141	1-208-911-11	METAL CHIP	10K	0.50%	1/16W
R1022	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1145	1-218-855-11	METAL CHIP	2.2K	0.50%	1/10W
R1023	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1147	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1024	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1148	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1149	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1150	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	1-216-791-11	METAL CHIP	3.3	5%	1/10W	R1151	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
* R1028	1-250-684-11	METAL CHIP	680K	1%	1/10W	R1152	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
* R1029	1-250-684-11	METAL CHIP	680K	1%	1/10W	R1153	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
	1-250-684-11	METAL CHIP	680K	1%	1/10W	R1154	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
	1-216-849-11	METAL CHIP	220K	5%	1/10W	R1155	1-250-634-11	METAL CHIP	5.6K	1%	1/10W
	1-216-842-11	METAL CHIP	56K	5%	1/10W	R1156	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1033	1-216-849-11	METAL CHIP	220K	5%	1/10W	R1157	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1035	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1158	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
	1-216-845-11	METAL CHIP	100K	5%	1/10W	R1159	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1036						R1160	1-216-864-11	SHORT CHIP	0		

Note : When the L1010 on the DAMP board is replaced, spread the bond referring to "BOND FIXATION OF ELECTRIC PARTS" on servicing notes (page 6).

DAMP

LCD

MIC

Ref. No.	Part No.	Description	Remark			
R1161	1-216-864-11	SHORT CHIP	0			
R1162	1-216-864-11	SHORT CHIP	0			
R1163	1-216-864-11	SHORT CHIP	0			
R1164	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R1165	1-216-832-11	METAL CHIP	8.2K	5%	1/10W	
R1166	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1167	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1168	1-250-630-11	METAL CHIP	3.9K	1%	1/10W	
R1169	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R1170	1-216-198-91	METAL CHIP	1K	5%	1/8W	
R1171	1-216-198-91	METAL CHIP	1K	5%	1/8W	
< RELAY >						
RY001	1-755-307-21	RELAY				
< TERMINAL >						
TB001	1-780-932-11	TERMINAL BOARD				
(MID/TWEETERS L/R IMPEDANCE USE 2Ω)						

LCD BOARD						

< CAPACITOR >						
C3000	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V	
C3001	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C3002	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C3008	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C3009	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C3010	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C3011	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C3012	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
< CONNECTOR >						
CN3000	1-779-550-21	CONNECTOR, FFC (LIF (NON-ZIF)) 13P				
< DIODE >						
D3001	6-503-770-11	DI 1L043RW32E0CIE11 (WHITE)				
< IC >						
IC3000	6-600-768-01	IC PNA4823M03S0 (R)				
IC3004	6-720-239-01	IC BU9795AKS2				
< JUMPER RESISTOR >						
JR3000	1-216-296-11	SHORT CHIP	0			
< LIQUID CRYSTAL DISPLAY >						
ND3000	1-812-078-11	LIQUID CRYSTAL DISPLAY				
< TRANSISTOR >						
Q3000	6-552-936-01	TR LTC014EUBFS8TL				
< RESISTOR >						
R3000	1-216-809-11	METAL CHIP	100	5%	1/10W	
R3001	1-216-805-11	METAL CHIP	47	5%	1/10W	
R3002	1-216-811-11	METAL CHIP	150	5%	1/10W	
R3003	1-216-815-11	METAL CHIP	330	5%	1/10W	
R3004	1-216-817-11	METAL CHIP	470	5%	1/10W	
R3011	1-216-296-11	SHORT CHIP	0			

Note : When the RY001 on the DAMP board is replaced, spread the bond referring to "BOND FIXATION OF ELECTRIC PARTS" on servicing notes (page 6).

Ref. No.	Part No.	Description	Remark			
R3022	1-216-864-11	SHORT CHIP	0			
R3025	1-216-296-11	SHORT CHIP	0			
R3026	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R3028	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R3030	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R3033	1-216-809-11	METAL CHIP	100	5%	1/10W	
R3034	1-216-864-11	SHORT CHIP	0			
R3035	1-216-295-91	SHORT CHIP	0			

MIC BOARD						

< CAPACITOR >						
C3201	1-124-463-00	ELECT	0.1uF	20%	50V	
C3202	1-124-261-00	ELECT	10uF	20%	50V	
C3203	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V	
C3204	1-126-382-11	ELECT	100uF	20%	16V	
C3206	1-115-872-11	ELECT	2.2uF	20%	50V	
* C3207	1-116-720-11	CERAMIC CHIP	10uF	20%	6.3V	
C3208	1-118-345-11	CERAMIC CHIP	0.01uF	10%	25V	
C3210	1-124-463-00	ELECT	0.1uF	20%	50V	
C3211	1-124-463-00	ELECT	0.1uF	20%	50V	
C3215	1-162-925-11	CERAMIC CHIP	68PF	5%	50V	
C3216	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C3217	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C3218	1-162-963-11	CERAMIC CHIP	680PF	10%	50V	
C3221	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C3222	1-126-176-11	ELECT	220uF	20%	10V	
C3223	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C3224	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C3225	1-126-176-11	ELECT	220uF	20%	10V	
C3226	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C3227	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C3229	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C3230	1-115-872-11	ELECT	2.2uF	20%	50V	
C3231	1-124-257-00	ELECT	2.2uF	20%	50V	
C3232	1-115-872-11	ELECT	2.2uF	20%	50V	
C3234	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C3235	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C3236	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
C3237	1-118-290-11	CERAMIC CHIP	0.001uF	10%	50V	
< CONNECTOR >						
CN3200	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P				
CN3203	1-822-423-11	CONNECTOR, USB (A) (REC/PLAY) 5P ≡ 1A)				
< DIODE >						
D3200	6-502-970-01	DI DZ2J068M0L				
D3201	6-502-961-01	DI DA2J10100L				
D3202	6-502-970-01	DI DZ2J068M0L				
D3204	6-502-970-01	DI DZ2J068M0L				
D3205	6-500-400-01	DIODE BAV99-215				
D3206	6-500-400-01	DIODE BAV99-215				
D3207	6-500-400-01	DIODE BAV99-215				
D3208	6-500-400-01	DIODE BAV99-215				
D3209	6-500-400-01	DIODE BAV99-215				
< FERRITE BEAD >						
FB002	1-469-670-21	FERRITE, EMI (SMD) (2012)				
FB003	1-469-670-21	FERRITE, EMI (SMD) (2012)				

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Ref. No.	Part No.	Description	Remark		
< IC >					
IC3200	8-759-909-71	IC BA4558F			
< JACK >					
J3200	1-822-967-12	JACK (MIC 1)			
J3201	1-822-967-12	JACK (MIC 2)			
< JUMPER RESISTOR >					
JR3200	1-216-296-11	SHORT CHIP	0		
JR3201	1-216-864-11	SHORT CHIP	0		
JR3202	1-216-864-11	SHORT CHIP	0		
JR3203	1-216-864-11	SHORT CHIP	0		
JR3204	1-216-864-11	SHORT CHIP	0		
JR3205	1-216-296-11	SHORT CHIP	0		
JR3206	1-216-296-11	SHORT CHIP	0		
JR3207	1-216-296-11	SHORT CHIP	0		
JR3208	1-216-296-11	SHORT CHIP	0		
< TRANSISTOR >					
Q3200	6-552-891-01	TR	LSAR523UBFS8TL		
Q3201	6-552-967-01	TR	RHK005N03T146		
< RESISTOR >					
R3200	1-216-857-11	METAL CHIP	1M	5%	1/10W
R3201	1-216-857-11	METAL CHIP	1M	5%	1/10W
R3202	1-216-817-11	METAL CHIP	470	5%	1/10W
R3203	1-216-849-11	METAL CHIP	220K	5%	1/10W
R3204	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3205	1-216-809-11	METAL CHIP	100	5%	1/10W
R3206	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3207	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3210	1-216-864-11	SHORT CHIP	0		
R3211	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3212	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3213	1-216-864-11	SHORT CHIP	0		
R3214	1-216-864-11	SHORT CHIP	0		
R3215	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3216	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3217	1-216-839-11	METAL CHIP	33K	5%	1/10W
R3218	1-216-839-11	METAL CHIP	33K	5%	1/10W
R3219	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3220	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3221	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3222	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3223	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3229	1-216-864-11	SHORT CHIP	0		
R3230	1-216-864-11	SHORT CHIP	0		
R3231	1-216-864-11	SHORT CHIP	0		
R3234	1-216-864-11	SHORT CHIP	0		

A-2071-965-A	MOTHERBOARD BOARD, COMPLETE (for SERVICE) (AR, LA9)				
A-2071-984-A	MOTHERBOARD BOARD, COMPLETE (for SERVICE) (EA, E4)				
A-2071-986-A	MOTHERBOARD BOARD, COMPLETE (for SERVICE) (AUS)				
A-2071-987-A	MOTHERBOARD BOARD, COMPLETE (for SERVICE) (MY, TH)				

Ref. No.	Part No.	Description				Remark
A-2071-988-A		MOTHERBOARD BOARD, COMPLETE (for SERVICE) (RU)				

< CAPACITOR >						
* C003	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
* C004	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
* C005	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
* C006	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
C010	1-118-358-11	CERAMIC CHIP	100PF	1%	50V	
C011	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C013	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C014	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C017	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C018	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C019	1-116-716-11	CERAMIC CHIP	10uF	10%	16V	
C021	1-116-716-11	CERAMIC CHIP	10uF	10%	16V	
C024	1-112-797-11	ELECT CHIP	470uF	20%	25V	
C030	1-116-716-11	CERAMIC CHIP	10uF	10%	16V	
C032	1-116-716-11	CERAMIC CHIP	10uF	10%	16V	
C034	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C035	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C036	1-116-734-11	CERAMIC CHIP	1uF	20%	16V	
C039	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C040	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
* C049	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
* C050	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
C051	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V	
* C052	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
* C053	1-116-714-11	CERAMIC CHIP	22uF	20%	6.3V	
C057	1-117-681-11	ELECT CHIP	100uF	20%	16V	
C062	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V	
C064	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
* C065	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V	
C066	1-165-492-21	ELECT CHIP	100uF	20%	10V	
C067	1-165-492-21	ELECT CHIP	100uF	20%	10V	
* C068	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V	
C071	1-116-737-11	CERAMIC CHIP	1uF	20%	10V	
C072	1-165-492-21	ELECT CHIP	100uF	20%	10V	
C073	1-165-492-21	ELECT CHIP	100uF	20%	10V	
C074	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C075	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C076	1-118-373-11	CERAMIC CHIP	0.01uF	10%	50V	
C077	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	
C078	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	
C079	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	
C080	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	
C081	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	
C083	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C084	1-117-681-11	ELECT CHIP	100uF	20%	16V	
C085	1-118-361-11	CERAMIC CHIP	0.1uF	10%	50V	
C087	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
C088	1-114-188-11	ELECT CHIP	220uF	20%	16V	
C091	1-118-358-11	CERAMIC CHIP	100PF	1%	50V	
C092	1-118-347-11	CERAMIC CHIP	0.1uF	10%	25V	
* C100	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V	
* C101	1-116-738-11	CERAMIC CHIP	1uF	10%	6.3V	
* C102	1-118-035-11	CERAMIC CHIP	0.1uF	10%	25V	
C103	1-126-603-11	ELECT CHIP	4.7uF	20%	35V	
C104	1-118-386-11	CERAMIC CHIP	0.1uF	10%	16V	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C105	1-162-966-91	CERAMIC CHIP	0.0022uF 10% 50V	* C280	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V
* C106	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	* C281	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V
* C107	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	* C282	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V
C109	1-116-737-11	CERAMIC CHIP	1uF 20% 10V	C284	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C110	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C295	1-118-391-11	CERAMIC CHIP	0.01uF 10% 50V
* C111	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C296	1-118-391-11	CERAMIC CHIP	0.01uF 10% 50V
* C112	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	* C297	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V
* C113	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C298	1-116-737-11	CERAMIC CHIP	1uF 20% 10V
* C114	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C299	1-164-874-11	CERAMIC CHIP	100PF 5% 50V
* C115	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C302	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C116	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C303	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
C117	1-118-041-11	CERAMIC CHIP	4.7uF 10% 10V	C307	1-118-403-11	CERAMIC CHIP	0.001uF 10% 50V
* C118	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C308	1-118-403-11	CERAMIC CHIP	0.001uF 10% 50V
* C120	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C309	1-118-403-11	CERAMIC CHIP	0.001uF 10% 50V
C121	1-118-391-11	CERAMIC CHIP	0.01uF 10% 50V	C310	1-118-403-11	CERAMIC CHIP	0.001uF 10% 50V
* C122	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C311	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C123	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	* C315	1-118-360-11	CERAMIC CHIP	0.1uF 10% 25V
C126	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V	C316	1-116-717-11	CERAMIC CHIP	10uF 20% 10V
C127	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V	C319	1-116-717-11	CERAMIC CHIP	10uF 20% 10V
C128	1-116-717-11	CERAMIC CHIP	10uF 20% 10V	C321	1-116-717-11	CERAMIC CHIP	10uF 20% 10V
* C129	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C322	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V
C130	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V	C323	1-164-852-11	CERAMIC CHIP	12PF 5% 50V
* C131	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C324	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
C132	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V	C325	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C133	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C326	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C134	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C328	1-116-717-11	CERAMIC CHIP	10uF 20% 10V
* C135	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C330	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C136	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C331	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C137	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C334	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C138	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C336	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C139	1-164-866-11	CERAMIC CHIP	47PF 5% 50V	C337	1-116-737-11	CERAMIC CHIP	1uF 20% 10V
* C140	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C338	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
C141	1-164-866-11	CERAMIC CHIP	47PF 5% 50V	C339	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C142	1-164-866-11	CERAMIC CHIP	47PF 5% 50V	C340	1-116-737-11	CERAMIC CHIP	1uF 20% 10V
C143	1-164-866-11	CERAMIC CHIP	47PF 5% 50V	C341	1-116-717-11	CERAMIC CHIP	10uF 20% 10V
* C144	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C342	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C146	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C343	1-116-737-11	CERAMIC CHIP	1uF 20% 10V
* C147	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C344	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C148	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C345	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
C149	1-165-492-21	ELECT CHIP	100uF 20% 10V	C346	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C150	1-165-492-21	ELECT CHIP	100uF 20% 10V	C347	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C151	1-164-846-11	CERAMIC CHIP	6PF 0.5PF 50V	C348	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C152	1-164-847-11	CERAMIC CHIP	7PF 0.5PF 50V	C349	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C153	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C350	1-128-994-21	ELECT CHIP	47uF 20% 10V
* C154	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C352	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C155	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C353	1-116-737-11	CERAMIC CHIP	1uF 20% 10V
* C156	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C354	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C157	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C355	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
* C158	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C356	1-116-737-11	CERAMIC CHIP	1uF 20% 10V
* C159	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C357	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C160	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C358	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
C161	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V	C359	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C162	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V	C360	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C164	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C362	1-116-717-11	CERAMIC CHIP	10uF 20% 10V
* C165	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C363	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C166	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C364	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C167	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C365	1-118-386-11	CERAMIC CHIP	0.1uF 10% 16V
* C168	1-118-035-11	CERAMIC CHIP	0.1uF 10% 25V	C366	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C278	1-164-858-11	CERAMIC CHIP	22PF 5% 50V	C367	1-118-459-11	CERAMIC CHIP	0.01uF 10% 25V
C279	1-164-858-11	CERAMIC CHIP	22PF 5% 50V	* C369	1-118-360-11	CERAMIC CHIP	0.1uF 10% 25V

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C372	1-116-717-11	CERAMIC CHIP 10uF 20%	10V	C626	1-116-865-11	CERAMIC CHIP 10uF 10%	25V
C373	1-112-692-11	CERAMIC CHIP 1000PF 5%	50V	C627	1-116-865-11	CERAMIC CHIP 10uF 10%	25V
C401	1-165-492-21	ELECT CHIP 100uF 20%	10V	* C628	1-116-727-11	CERAMIC CHIP 2.2uF 10%	16V
C402	1-100-904-11	CERAMIC CHIP 330PF 10%	50V	C629	1-116-716-11	CERAMIC CHIP 10uF 10%	16V
C403	1-114-807-11	CERAMIC CHIP 0.015uF 10%	25V	C630	1-164-874-11	CERAMIC CHIP 100PF 5%	50V
* C404	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C631	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
* C405	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C632	1-116-707-11	CERAMIC CHIP 47uF 20%	10V
* C406	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C633	1-164-936-11	CERAMIC CHIP 680PF 10%	50V
* C407	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C634	1-117-949-81	CERAMIC CHIP 820PF 10%	50V
* C408	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C635	1-164-866-11	CERAMIC CHIP 47PF 5%	50V
* C409	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C637	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C411	1-100-904-11	CERAMIC CHIP 330PF 10%	50V	C638	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C412	1-165-492-21	ELECT CHIP 100uF 20%	10V	C640	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
* C413	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C641	1-164-850-11	CERAMIC CHIP 10PF 0.5PF	50V
* C418	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C642	1-164-850-11	CERAMIC CHIP 10PF 0.5PF	50V
* C419	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C643	1-164-850-11	CERAMIC CHIP 10PF 0.5PF	50V
C420	1-128-403-11	ELECT CHIP 47uF 20%	35V	C644	1-164-850-11	CERAMIC CHIP 10PF 0.5PF	50V
C421	1-118-391-11	CERAMIC CHIP 0.01uF 10%	50V	C645	1-124-779-00	ELECT CHIP 10uF 20%	16V
C423	1-128-403-11	ELECT CHIP 47uF 20%	35V	C646	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
C424	1-118-391-11	CERAMIC CHIP 0.01uF 10%	50V	C647	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C462	1-124-779-00	ELECT CHIP 10uF 20%	16V	C648	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C463	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	C649	1-112-692-11	CERAMIC CHIP 1000PF 5%	50V
C464	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	C650	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C465	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	* C651	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V
C466	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	C652	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C467	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	C653	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
C468	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	C655	1-116-717-11	CERAMIC CHIP 10uF 20%	10V
C511	1-118-347-11	CERAMIC CHIP 0.1uF 10%	25V	C656	1-116-744-11	CERAMIC CHIP 0.22uF 10%	10V
C526	1-118-459-11	CERAMIC CHIP 0.01uF 10%	25V	C657	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C527	1-118-459-11	CERAMIC CHIP 0.01uF 10%	25V	C658	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C528	1-118-459-11	CERAMIC CHIP 0.01uF 10%	25V	* C660	1-116-727-11	CERAMIC CHIP 2.2uF 10%	16V
C530	1-118-459-11	CERAMIC CHIP 0.01uF 10%	25V	C661	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C532	1-137-765-21	ELECT CHIP 47uF 20%	16V	C662	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C541	1-118-459-11	CERAMIC CHIP 0.01uF 10%	25V	C664	1-116-744-11	CERAMIC CHIP 0.22uF 10%	10V
* C573	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	* C665	1-116-727-11	CERAMIC CHIP 2.2uF 10%	16V
* C574	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C666	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C577	1-100-588-21	ELECT CHIP 1000uF 20%	6.3V	C667	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C601	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V	C669	1-118-403-11	CERAMIC CHIP 0.001uF 10%	50V
C602	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V	C670	1-118-403-11	CERAMIC CHIP 0.001uF 10%	50V
C603	1-164-936-11	CERAMIC CHIP 680PF 10%	50V	C672	1-124-779-00	ELECT CHIP 10uF 20%	16V
C604	1-164-866-11	CERAMIC CHIP 47PF 5%	50V	C673	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
C605	1-165-708-11	ELECT CHIP 47uF 20%	6.3V	C674	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
* C606	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C678	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
* C607	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C679	1-116-717-11	CERAMIC CHIP 10uF 20%	10V
C608	1-117-949-81	CERAMIC CHIP 820PF 10%	50V	C689	1-164-676-11	CERAMIC CHIP 2200PF 5%	16V
C609	1-124-779-00	ELECT CHIP 10uF 20%	16V	C690	1-124-779-00	ELECT CHIP 10uF 20%	16V
C610	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V	C691	1-124-779-00	ELECT CHIP 10uF 20%	16V
C612	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V	C692	1-164-676-11	CERAMIC CHIP 2200PF 5%	16V
* C613	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C695	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
C614	1-165-708-11	ELECT CHIP 47uF 20%	6.3V	C696	1-124-779-00	ELECT CHIP 10uF 20%	16V
* C615	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C699	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
* C616	1-118-035-11	CERAMIC CHIP 0.1uF 10%	25V	C704	1-124-779-00	ELECT CHIP 10uF 20%	16V
C617	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V	C726	1-128-392-11	ELECT CHIP 470uF 20%	6.3V
C618	1-124-779-00	ELECT CHIP 10uF 20%	16V	C742	1-124-779-00	ELECT CHIP 10uF 20%	16V
C619	1-116-707-11	CERAMIC CHIP 47uF 20%	10V	C744	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V
C620	1-116-707-11	CERAMIC CHIP 47uF 20%	10V	C748	1-124-779-00	ELECT CHIP 10uF 20%	16V
C621	1-116-707-11	CERAMIC CHIP 47uF 20%	10V	C749	1-124-779-00	ELECT CHIP 10uF 20%	16V
C622	1-124-779-00	ELECT CHIP 10uF 20%	16V	C766	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C624	1-164-874-11	CERAMIC CHIP 100PF 5%	50V	C767	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V
C625	1-118-041-11	CERAMIC CHIP 4.7uF 10%	10V	C904	1-118-386-11	CERAMIC CHIP 0.1uF 10%	16V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C905	1-165-492-21	ELECT CHIP 100uF 20% 10V				< DIODE >	
C906	1-165-908-11	CERAMIC CHIP 1uF 10% 10V		D102	6-502-961-01	DI DA2J10100L	
C917	1-116-716-11	CERAMIC CHIP 10uF 10% 16V		D401	8-719-069-29	DIODE RB520S-30FJTE61	
C922	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		D402	8-719-069-29	DIODE RB520S-30FJTE61	
C928	1-110-530-11	ELECT CHIP 1000uF 20% 6.3V		D571	6-502-961-01	DI DA2J10100L	
				D572	6-502-961-01	DI DA2J10100L	
C930	1-164-870-11	CERAMIC CHIP 68PF 5% 50V					
C931	1-164-866-11	CERAMIC CHIP 47PF 5% 50V		D600	6-500-400-01	DIODE BAV99-215	
C932	1-118-388-11	CERAMIC CHIP 0.047uF 10% 25V				< FERRITE BEAD >	
C933	1-164-850-11	CERAMIC CHIP 10PF 0.5PF 50V					
C934	1-118-399-11	CERAMIC CHIP 0.0022uF 10% 50V		FB101	1-481-515-11	BEAD, FERRITE (1608)	
C935	1-164-840-11	CERAMIC CHIP 1PF 0.25PF 50V		FB115	1-400-851-11	EMI, FERRITE (SMD) (1005)	
C936	1-118-399-11	CERAMIC CHIP 0.0022uF 10% 50V		FB116	1-400-851-11	EMI, FERRITE (SMD) (1005)	
C937	1-164-840-11	CERAMIC CHIP 1PF 0.25PF 50V		FB117	1-400-851-11	EMI, FERRITE (SMD) (1005)	
* C938	1-116-720-11	CERAMIC CHIP 10uF 20% 6.3V		FB320	1-481-348-21	EMI FERRITE (SMD) (1608)	
* C941	1-116-738-11	CERAMIC CHIP 1uF 10% 6.3V					
* C943	1-116-738-11	CERAMIC CHIP 1uF 10% 6.3V		FB321	1-481-348-21	EMI FERRITE (SMD) (1608)	
C944	1-116-734-11	CERAMIC CHIP 1uF 20% 16V		FB455	1-481-348-21	EMI FERRITE (SMD) (1608)	
C945	1-164-866-11	CERAMIC CHIP 47PF 5% 50V				< FILTER >	
C950	1-165-989-91	CERAMIC CHIP 10uF 10% 6.3V		FL301	1-234-494-21	FILTER, EMI REMOVAL (SMD)	
C951	1-164-850-11	CERAMIC CHIP 10PF 0.5PF 50V		FL601	1-234-494-21	FILTER, EMI REMOVAL (SMD)	
						< IC >	
C952	1-164-852-11	CERAMIC CHIP 12PF 5% 50V		IC001	(Not supplied)	IC TPS542941PWPR	
C953	1-162-968-91	CERAMIC CHIP 0.0047uF 10% 50V		IC002	(Not supplied)	IC TPS542941PWPR	
C954	1-110-563-11	CERAMIC CHIP 0.068uF 10% 16V		IC004	6-721-872-01	IC 78D09AG-TN3-R	
C956	1-164-874-11	CERAMIC CHIP 100PF 5% 50V		IC006	6-721-766-01	IC 78D05AG-TN3-R	
C957	1-164-874-11	CERAMIC CHIP 100PF 5% 50V		IC008	6-719-198-01	IC MM3411A33URE	
C958	1-118-373-11	CERAMIC CHIP 0.01uF 10% 50V		IC101	(Not supplied)	IC R7S7200032CFP-A	
C960	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC102	6-707-866-01	IC TC74VHC126FT (EK)	
C966	1-116-744-11	CERAMIC CHIP 0.22uF 10% 10V		IC103	6-719-856-01	IC BU4229F-TR	
C977	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC105	(Not supplied)	IC MFI337S3959	
C980	1-164-933-11	CERAMIC CHIP 220PF 10% 50V		IC106	(Not supplied)	IC MX25L3235EM2I-10G	
C982	1-118-047-11	CERAMIC CHIP 10uF 10% 16V		IC301	(Not supplied)	IC CXD9990R	
C983	1-118-047-11	CERAMIC CHIP 10uF 10% 16V		IC302	(Not supplied)	IC MX25L3235EM2I-10G	
C984	1-118-047-11	CERAMIC CHIP 10uF 10% 16V		IC303	(Not supplied)	IC BD001C0WHFV-GTR	
C986	1-124-779-00	ELECT CHIP 10uF 20% 16V		IC304	6-714-351-01	IC R1EX24016ASAS0A	
C989	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC305	6-717-694-01	IC BU33TD3WG-TR	
C993	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC306	6-720-801-01	IC EM638165TSD-6G	
C994	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC401	6-720-195-01	IC AM5890S	
C995	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC452	6-721-822-01	IC NJM2903CV (TE1)	
C996	1-116-732-11	CERAMIC CHIP 2.2uF 20% 6.3V		IC453	6-721-811-01	IC TC7USB40FT	
C997	1-116-732-11	CERAMIC CHIP 2.2uF 20% 6.3V		IC502	6-719-142-01	IC TC62D723FNG	
C998	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC601	8-759-909-71	IC BA4558F	
C1000	1-124-779-00	ELECT CHIP 10uF 20% 16V		IC602	8-759-596-39	IC SN74LV4052APWR	
C1001	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V		IC603	8-759-909-71	IC BA4558F	
C1002	1-118-386-11	CERAMIC CHIP 0.1uF 10% 16V		IC604	6-705-973-01	IC PCM1754DBQR	
C1003	1-118-403-11	CERAMIC CHIP 0.001uF 10% 50V		IC605	8-759-596-39	IC SN74LV4052APWR	
		< CONNECTOR >		IC606	6-710-554-01	IC PCM1808PWR	
CN001	1-816-296-21	PIN, CONNECTOR (PC BOARD) 9P		IC609	6-710-554-01	IC PCM1808PWR	
CN101	1-844-158-11	PIN, CONNECTOR 5P	(FOR SERVICE USE)	IC615	6-705-973-01	IC PCM1754DBQR	
CN102	1-844-280-11	FFC ST CONNECTOR (NON-ZIF) 10P		IC901	6-720-187-01	IC NJM41031F1 (TE2)	
CN118	1-820-123-51	CONNECTOR, FFC/FPC 25P		IC902	6-720-234-01	IC RN5B801-0002	
CN119	1-820-117-51	CONNECTOR, FFC/FPC 19P					
CN302	1-844-191-11	FFC ST CONNECTOR (NON-ZIF) 24P		IC903	6-719-198-01	IC MM3411A33URE	
CN303	1-794-362-51	CONNECTOR, FFC/FPC 5P		IC904	6-716-745-01	IC PCM9211PTR	
CN401	1-770-470-21	PIN, CONNECTOR (PC BOARD) 6P		IC912	6-707-870-01	IC TC74VHC157FT (EK)	
CN517	1-573-290-21	PIN, CONNECTOR (1.5MM) (SMD) 4P		IC913	8-759-680-48	IC TC7WH157FK	
CN601	1-843-888-11	PIN, CONNECTOR (PC BOARD) 4P		IC914	6-721-848-01	IC PCM5101	
CN602	1-794-509-11	PIN, CONNECTOR (PC BOARD) (3P)					
CN2002	1-770-160-21	PIN, CONNECTOR (PC BOARD) 2P	(ANTENNA FM)				

Note : IC001, IC002, IC101, IC105, IC106, IC301, IC302 and IC303 on the MOTHERBOARD board cannot exchange with single. When these parts on the MOTHERBOARD board are damaged, exchange the entire mounted board.

HCD-GT3D

Ver. 1.1

MOTHERBOARD

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< JACK >				< RESISTOR >			
J602	1-844-218-11	JACK, PIN 4P (AUDIO PARTY CHAIN IN L/R / OUT L/R)		R002	1-208-709-11	METAL CHIP 12K	0.50% 1/16W
J907	1-794-970-11	JACK, PIN 1P (VIDEO OUT)		R003	1-208-923-11	METAL CHIP 33K	0.50% 1/16W
< JUMPER >				R006	1-208-911-11	METAL CHIP 10K	0.50% 1/16W
JC001	1-216-295-91	SHORT CHIP 0		R020	1-216-864-11	SHORT CHIP 0	
JC002	1-216-295-91	SHORT CHIP 0		R023	1-218-974-11	METAL CHIP 56K	5% 1/16W
JC003	1-216-295-91	SHORT CHIP 0		R024	1-208-895-81	METAL CHIP 2.2K	0.50% 1/16W
JC004	1-216-295-91	SHORT CHIP 0		R028	1-218-965-11	METAL CHIP 10K	5% 1/16W
JC005	1-216-295-91	SHORT CHIP 0		R029	1-216-843-11	METAL CHIP 68K	5% 1/10W
JC006	1-216-295-91	SHORT CHIP 0		R030	1-218-843-11	METAL CHIP 680	0.50% 1/10W
JC007	1-216-295-91	SHORT CHIP 0		R031	1-208-911-11	METAL CHIP 10K	0.50% 1/16W
JC008	1-216-295-91	SHORT CHIP 0		R033	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
< COIL >				R034	1-216-813-11	METAL CHIP 220	5% 1/10W
L001	1-460-359-11	INDUCTOR 4.7uH		R035	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
L002	1-460-358-11	INDUCTOR 2.2uH		R036	1-216-864-11	SHORT CHIP 0	
L003	1-400-789-21	INDUCTOR 2.2uH		R037	1-218-965-11	METAL CHIP 10K	5% 1/16W
L004	1-400-789-21	INDUCTOR 2.2uH		R039	1-218-965-11	METAL CHIP 10K	5% 1/16W
L006	1-457-439-11	INDUCTOR 4.7uH		R040	1-216-817-11	METAL CHIP 470	5% 1/10W
L007	1-460-358-11	INDUCTOR 2.2uH		R041	1-208-709-11	METAL CHIP 12K	0.50% 1/16W
L008	1-400-789-21	INDUCTOR 2.2uH		R043	1-208-715-11	METAL CHIP 22K	0.50% 1/16W
L301	1-400-793-21	INDUCTOR 47uH		R048	1-216-864-11	SHORT CHIP 0	
L602	1-414-851-21	INDUCTOR 47nH		R051	1-216-295-91	SHORT CHIP 0	
L603	1-469-187-21	INDUCTOR 68nH		R052	1-216-295-91	SHORT CHIP 0	
L604	1-469-187-21	INDUCTOR 68nH		R053	1-216-864-11	SHORT CHIP 0	
L605	1-414-832-11	INDUCTOR 2.2nH		R054	1-216-864-11	SHORT CHIP 0	
< TRANSISTOR >				R059	1-208-931-11	METAL CHIP 68K	0.50% 1/16W
Q004	6-553-509-01	TR KTA1542T-RTK/P		R061	1-218-965-11	METAL CHIP 10K	5% 1/16W
Q005	6-553-509-01	TR KTA1542T-RTK/P		R062	1-216-813-11	METAL CHIP 220	5% 1/10W
Q006	8-729-054-16	TRANSISTOR KRC402-RTK		R063	1-216-864-11	SHORT CHIP 0	
Q007	6-553-509-01	TR KTA1542T-RTK/P		R064	1-216-843-11	METAL CHIP 68K	5% 1/10W
Q008	6-553-509-01	TR KTA1542T-RTK/P		R065	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q009	8-729-054-16	TRANSISTOR KRC402-RTK		R066	1-216-827-11	METAL CHIP 3.3K	5% 1/10W
Q011	6-553-509-01	TR KTA1542T-RTK/P		R080	1-216-864-11	SHORT CHIP 0	
Q012	8-729-054-16	TRANSISTOR KRC402-RTK		R085	1-257-604-11	RES-CHIP 47	5% 2W
Q103	6-553-509-01	TR KTA1542T-RTK/P		R086	1-216-295-91	SHORT CHIP 0	
Q104	8-729-054-16	TRANSISTOR KRC402-RTK		R087	1-216-295-91	SHORT CHIP 0	
Q107	8-729-054-16	TRANSISTOR KRC402-RTK		R099	1-216-864-11	SHORT CHIP 0	
Q401	6-551-120-01	TRANSISTOR 2SA2119K		R100	1-218-937-11	METAL CHIP 47	5% 1/16W
Q402	6-551-120-01	TRANSISTOR 2SA2119K		R102	1-218-941-81	METAL CHIP 100	5% 1/16W
Q457	6-550-987-01	TR RN1911		R103	1-218-965-11	METAL CHIP 10K	5% 1/16W
Q459	6-553-509-01	TR KTA1542T-RTK/P		R104	1-218-961-11	METAL CHIP 4.7K	5% 1/16W
Q461	8-729-054-16	TRANSISTOR KRC402-RTK		R105	1-218-941-81	METAL CHIP 100	5% 1/16W
Q571	8-729-054-16	TRANSISTOR KRC402-RTK		R106	1-218-965-11	METAL CHIP 10K	5% 1/16W
Q572	6-553-509-01	TR KTA1542T-RTK/P		R107	1-218-965-11	METAL CHIP 10K	5% 1/16W
Q574	6-552-967-01	TR RHK005N03T146		R108	1-218-965-11	METAL CHIP 10K	5% 1/16W
Q575	6-552-922-01	TR LTA014EUBFS8TL		R109	1-218-957-11	METAL CHIP 2.2K	5% 1/16W
Q576	8-729-054-16	TRANSISTOR KRC402-RTK		R110	1-218-977-11	METAL CHIP 100K	5% 1/16W
* Q602	6-551-959-01	TR IMX25T110		R111	1-218-977-11	METAL CHIP 100K	5% 1/16W
Q603	6-551-039-01	TRANSISTOR RN4902 (T5RSONY, D, F)		R112	1-218-977-11	METAL CHIP 100K	5% 1/16W
Q604	6-550-978-01	TR RN1902		R113	1-216-864-11	SHORT CHIP 0	
Q605	8-729-427-72	TRANSISTOR XP4501		R114	1-216-864-11	SHORT CHIP 0	
Q606	6-552-922-01	TR LTA014EUBFS8TL		R115	1-218-953-11	METAL CHIP 1K	5% 1/16W
Q607	6-551-039-01	TRANSISTOR RN4902 (T5RSONY, D, F)		R116	1-218-973-11	METAL CHIP 47K	5% 1/16W
Q611	6-550-978-01	TR RN1902		R117	1-218-963-11	METAL CHIP 6.8K	5% 1/16W
				R119	1-218-965-11	METAL CHIP 10K	5% 1/16W
				R120	1-218-973-11	METAL CHIP 47K	5% 1/16W
				R122	1-218-990-81	SHORT CHIP 0	
				R123	1-218-965-11	METAL CHIP 10K	5% 1/16W
				R125	1-218-973-11	METAL CHIP 47K	5% 1/16W
				R126	1-218-990-81	SHORT CHIP 0	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R127	1-218-965-11	METAL CHIP	10K	5%	1/16W	R201	1-218-941-81	METAL CHIP	100	5%	1/16W
R128	1-218-953-11	METAL CHIP	1K	5%	1/16W	R202	1-218-965-11	METAL CHIP	10K	5%	1/16W
R129	1-218-941-81	METAL CHIP	100	5%	1/16W	R203	1-218-941-81	METAL CHIP	100	5%	1/16W
R131	1-218-941-81	METAL CHIP	100	5%	1/16W	R204	1-218-965-11	METAL CHIP	10K	5%	1/16W
R132	1-218-937-11	METAL CHIP	47	5%	1/16W	R206	1-218-965-11	METAL CHIP	10K	5%	1/16W
R133	1-218-937-11	METAL CHIP	47	5%	1/16W	R210	1-218-937-11	METAL CHIP	47	5%	1/16W
R134	1-218-937-11	METAL CHIP	47	5%	1/16W	R211	1-218-941-81	METAL CHIP	100	5%	1/16W
R135	1-218-937-11	METAL CHIP	47	5%	1/16W	R212	1-218-937-11	METAL CHIP	47	5%	1/16W
R137	1-218-969-11	METAL CHIP	22K	5%	1/16W	R213	1-218-941-81	METAL CHIP	100	5%	1/16W
R139	1-218-969-11	METAL CHIP	22K	5%	1/16W	R214	1-218-937-11	METAL CHIP	47	5%	1/16W
R140	1-218-969-11	METAL CHIP	22K	5%	1/16W	R215	1-218-941-81	METAL CHIP	100	5%	1/16W
R142	1-216-295-91	SHORT CHIP	0			R216	1-218-965-11	METAL CHIP	10K	5%	1/16W
R143	1-218-969-11	METAL CHIP	22K	5%	1/16W	R217	1-218-937-11	METAL CHIP	47	5%	1/16W
R144	1-218-967-11	METAL CHIP	15K	5%	1/16W	R218	1-218-941-81	METAL CHIP	100	5%	1/16W
R145	1-218-967-11	METAL CHIP	15K	5%	1/16W	R219	1-218-941-81	METAL CHIP	100	5%	1/16W
R146	1-218-965-11	METAL CHIP	10K	5%	1/16W	R220	1-218-937-11	METAL CHIP	47	5%	1/16W
R149	1-218-965-11	METAL CHIP	10K	5%	1/16W	R221	1-218-941-81	METAL CHIP	100	5%	1/16W
R150	1-218-941-81	METAL CHIP	100	5%	1/16W	R222	1-218-965-11	METAL CHIP	10K	5%	1/16W
R153	1-218-941-81	METAL CHIP	100	5%	1/16W	R223	1-218-941-81	METAL CHIP	100	5%	1/16W
R154	1-218-941-81	METAL CHIP	100	5%	1/16W	R224	1-218-990-81	SHORT CHIP	0		
R155	1-218-941-81	METAL CHIP	100	5%	1/16W	R225	1-218-941-81	METAL CHIP	100	5%	1/16W
R156	1-218-941-81	METAL CHIP	100	5%	1/16W	R226	1-218-941-81	METAL CHIP	100	5%	1/16W
R157	1-218-953-11	METAL CHIP	1K	5%	1/16W	R227	1-218-941-81	METAL CHIP	100	5%	1/16W
R158	1-218-949-11	METAL CHIP	470	5%	1/16W	R228	1-218-941-81	METAL CHIP	100	5%	1/16W
R159	1-218-949-11	METAL CHIP	470	5%	1/16W	R229	1-218-941-81	METAL CHIP	100	5%	1/16W
R160	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R230	1-218-941-81	METAL CHIP	100	5%	1/16W
R161	1-218-965-11	METAL CHIP	10K	5%	1/16W	R232	1-218-937-11	METAL CHIP	47	5%	1/16W
R163	1-218-990-81	SHORT CHIP	0			R233	1-218-941-81	METAL CHIP	100	5%	1/16W
R164	1-218-941-81	METAL CHIP	100	5%	1/16W	R234	1-218-941-81	METAL CHIP	100	5%	1/16W
R166	1-218-941-81	METAL CHIP	100	5%	1/16W	R236	1-218-941-81	METAL CHIP	100	5%	1/16W
R167	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R237	1-218-941-81	METAL CHIP	100	5%	1/16W
R168	1-218-941-81	METAL CHIP	100	5%	1/16W	R238	1-218-941-81	METAL CHIP	100	5%	1/16W
R169	1-218-937-11	METAL CHIP	47	5%	1/16W	R241	1-218-941-81	METAL CHIP	100	5%	1/16W
R170	1-218-937-11	METAL CHIP	47	5%	1/16W	R242	1-218-941-81	METAL CHIP	100	5%	1/16W
R171	1-218-941-81	METAL CHIP	100	5%	1/16W	R243	1-218-941-81	METAL CHIP	100	5%	1/16W
R172	1-218-941-81	METAL CHIP	100	5%	1/16W	R244	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R173	1-218-941-81	METAL CHIP	100	5%	1/16W	R245	1-218-941-81	METAL CHIP	100	5%	1/16W
R174	1-218-941-81	METAL CHIP	100	5%	1/16W	R246	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R175	1-218-965-11	METAL CHIP	10K	5%	1/16W	R247	1-218-941-81	METAL CHIP	100	5%	1/16W
R176	1-218-941-81	METAL CHIP	100	5%	1/16W	R248	1-218-941-81	METAL CHIP	100	5%	1/16W
R177	1-218-941-81	METAL CHIP	100	5%	1/16W	R250	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R178	1-218-941-81	METAL CHIP	100	5%	1/16W	R251	1-218-941-81	METAL CHIP	100	5%	1/16W
R179	1-218-941-81	METAL CHIP	100	5%	1/16W	R252	1-218-941-81	METAL CHIP	100	5%	1/16W
R180	1-218-941-81	METAL CHIP	100	5%	1/16W	R253	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R181	1-218-941-81	METAL CHIP	100	5%	1/16W	R254	1-218-941-81	METAL CHIP	100	5%	1/16W
R183	1-218-965-11	METAL CHIP	10K	5%	1/16W	R255	1-218-941-81	METAL CHIP	100	5%	1/16W
R185	1-218-990-81	SHORT CHIP	0			R256	1-218-965-11	METAL CHIP	10K	5%	1/16W
R186	1-218-990-81	SHORT CHIP	0			R257	1-218-941-81	METAL CHIP	100	5%	1/16W
R188	1-218-989-11	METAL CHIP	1M	5%	1/16W	R259	1-218-965-11	METAL CHIP	10K	5%	1/16W
R189	1-218-941-81	METAL CHIP	100	5%	1/16W	R260	1-216-864-11	SHORT CHIP	0		
R190	1-218-977-11	METAL CHIP	100K	5%	1/16W	R261	1-218-990-81	SHORT CHIP	0		
R191	1-218-941-81	METAL CHIP	100	5%	1/16W	R263	1-218-965-11	METAL CHIP	10K	5%	1/16W
R192	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R264	1-216-864-11	SHORT CHIP	0		
R193	1-218-941-81	METAL CHIP	100	5%	1/16W	R265	1-250-471-11	METAL CHIP	100	1%	1/16W
R194	1-218-965-11	METAL CHIP	10K	5%	1/16W	R267	1-218-965-11	METAL CHIP	10K	5%	1/16W
R195	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	R268	1-218-965-11	METAL CHIP	10K	5%	1/16W
R196	1-250-567-11	METAL CHIP	1M	1%	1/16W	R269	1-218-989-11	METAL CHIP	1M	5%	1/16W
R197	1-218-941-81	METAL CHIP	100	5%	1/16W	R270	1-218-941-81	METAL CHIP	100	5%	1/16W
R198	1-218-990-81	SHORT CHIP	0			R271	1-218-941-81	METAL CHIP	100	5%	1/16W
R200	1-218-990-81	SHORT CHIP	0			R272	1-218-941-81	METAL CHIP	100	5%	1/16W

HCD-GT3D

Ver. 1.1

MOTHERBOARD

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R273	1-218-941-81	METAL CHIP	100	5%	1/16W		R354	1-218-990-81	SHORT CHIP	0			
R274	1-218-941-81	METAL CHIP	100	5%	1/16W		R355	1-218-990-81	SHORT CHIP	0			
R275	1-218-949-11	METAL CHIP	470	5%	1/16W		R356	1-218-937-11	METAL CHIP	47	5%	1/16W	
R276	1-218-941-81	METAL CHIP	100	5%	1/16W		R357	1-218-959-11	METAL CHIP	3.3K	5%	1/16W	
R278	1-218-941-81	METAL CHIP	100	5%	1/16W		R358	1-218-941-81	METAL CHIP	100	5%	1/16W	
R279	1-218-941-81	METAL CHIP	100	5%	1/16W		R359	1-218-953-11	METAL CHIP	1K	5%	1/16W	
R280	1-218-941-81	METAL CHIP	100	5%	1/16W		R360	1-218-941-81	METAL CHIP	100	5%	1/16W	
R282	1-218-965-11	METAL CHIP	10K	5%	1/16W		R361	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	
R283	1-218-965-11	METAL CHIP	10K	5%	1/16W		R362	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R284	1-218-965-11	METAL CHIP	10K	5%	1/16W		R363	1-218-990-81	SHORT CHIP	0			
R285	1-208-905-11	METAL CHIP	5.6K	0.50%	1/16W		R364	1-218-990-81	SHORT CHIP	0			
R286	1-218-977-11	METAL CHIP	100K	5%	1/16W		R365	1-218-937-11	METAL CHIP	47	5%	1/16W	
R287	1-218-977-11	METAL CHIP	100K	5%	1/16W		R366	1-218-990-81	SHORT CHIP	0			
R288	1-218-937-11	METAL CHIP	47	5%	1/16W		R367	1-218-947-11	METAL CHIP	330	5%	1/16W	
R289	1-218-937-11	METAL CHIP	47	5%	1/16W		R368	1-250-475-11	METAL CHIP	150	1%	1/16W	
R290	1-218-937-11	METAL CHIP	47	5%	1/16W		R369	1-218-933-11	METAL CHIP	22	5%	1/16W	
R291	1-218-937-11	METAL CHIP	47	5%	1/16W		* R370	1-250-489-11	METAL CHIP	560	1%	1/16W	
R292	1-218-937-11	METAL CHIP	47	5%	1/16W		R371	1-216-864-11	SHORT CHIP	0			
R293	1-218-937-11	METAL CHIP	47	5%	1/16W		R372	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R294	1-218-977-11	METAL CHIP	100K	5%	1/16W		R373	1-216-864-11	SHORT CHIP	0			
R295	1-218-941-81	METAL CHIP	100	5%	1/16W		R374	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R297	1-218-941-81	METAL CHIP	100	5%	1/16W		R376	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	
R298	1-218-965-11	METAL CHIP	10K	5%	1/16W		R377	1-218-961-11	METAL CHIP	4.7K	5%	1/16W	
R299	1-218-965-11	METAL CHIP	10K	5%	1/16W		R378	1-216-864-11	SHORT CHIP	0			
R300	1-218-965-11	METAL CHIP	10K	5%	1/16W		R379	1-218-933-11	METAL CHIP	22	5%	1/16W	
R301	1-218-941-81	METAL CHIP	100	5%	1/16W		R380	1-218-941-81	METAL CHIP	100	5%	1/16W	
* R302	1-250-529-11	METAL CHIP	27K	1%	1/16W		R381	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R303	1-250-535-11	METAL CHIP	47K	1%	1/16W		R382	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R310	1-218-961-11	METAL CHIP	4.7K	5%	1/16W		R386	1-216-295-91	SHORT CHIP	0			
R312	1-218-953-11	METAL CHIP	1K	5%	1/16W		R387	1-218-959-11	METAL CHIP	3.3K	5%	1/16W	
R313	1-218-953-11	METAL CHIP	1K	5%	1/16W		R388	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R316	1-218-953-11	METAL CHIP	1K	5%	1/16W		R389	1-218-941-81	METAL CHIP	100	5%	1/16W	
R317	1-218-953-11	METAL CHIP	1K	5%	1/16W		R390	1-218-929-11	METAL CHIP	10	5%	1/16W	
R318	1-218-965-11	METAL CHIP	10K	5%	1/16W		R401	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R319	1-218-965-11	METAL CHIP	10K	5%	1/16W		R402	1-218-970-81	METAL CHIP	27K	5%	1/16W	
R321	1-218-941-81	METAL CHIP	100	5%	1/16W		R404	1-257-362-21	METAL CHIP	1	5%	1/2W	
R322	1-216-864-11	SHORT CHIP	0				R406	1-218-990-81	SHORT CHIP	0			
R326	1-216-864-11	SHORT CHIP	0				R407	1-218-990-81	SHORT CHIP	0			
R327	1-218-937-11	METAL CHIP	47	5%	1/16W		R408	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R328	1-216-798-11	METAL CHIP	12	5%	1/10W		R409	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R329	1-216-864-11	SHORT CHIP	0				R410	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R330	1-218-967-11	METAL CHIP	15K	5%	1/16W		R411	1-218-965-11	METAL CHIP	10K	5%	1/16W	
R331	1-218-937-11	METAL CHIP	47	5%	1/16W		R415	1-218-970-81	METAL CHIP	27K	5%	1/16W	
R332	1-250-483-11	METAL CHIP	330	1%	1/16W		R418	1-218-967-11	METAL CHIP	15K	5%	1/16W	
* R334	1-250-543-11	METAL CHIP	100K	1%	1/16W		R421	1-218-941-81	METAL CHIP	100	5%	1/16W	
R335	1-216-864-11	SHORT CHIP	0				R422	1-218-973-11	METAL CHIP	47K	5%	1/16W	
R337	1-216-864-11	SHORT CHIP	0				* R423	1-250-572-11	METAL CHIP	15	1%	1/10W	
R339	1-250-512-11	METAL CHIP	5.1K	1%	1/16W		R424	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R340	1-218-937-11	METAL CHIP	47	5%	1/16W		* R425	1-250-572-11	METAL CHIP	15	1%	1/10W	
R342	1-218-937-11	METAL CHIP	47	5%	1/16W		* R426	1-250-572-11	METAL CHIP	15	1%	1/10W	
R343	1-218-959-11	METAL CHIP	3.3K	5%	1/16W		* R427	1-250-572-11	METAL CHIP	15	1%	1/10W	
R344	1-218-941-81	METAL CHIP	100	5%	1/16W		* R428	1-250-572-11	METAL CHIP	15	1%	1/10W	
R345	1-218-941-81	METAL CHIP	100	5%	1/16W		R429	1-218-977-11	METAL CHIP	100K	5%	1/16W	
R346	1-218-959-11	METAL CHIP	3.3K	5%	1/16W		* R430	1-250-572-11	METAL CHIP	15	1%	1/10W	
R347	1-218-990-81	SHORT CHIP	0				R431	1-218-973-11	METAL CHIP	47K	5%	1/16W	
R348	1-218-961-11	METAL CHIP	4.7K	5%	1/16W		R432	1-218-941-81	METAL CHIP	100	5%	1/16W	
R349	1-218-941-81	METAL CHIP	100	5%	1/16W		R433	1-216-295-91	SHORT CHIP	0			
R350	1-218-990-81	SHORT CHIP	0				R463	1-218-958-11	METAL CHIP	2.7K	5%	1/16W	
R351	1-218-965-11	METAL CHIP	10K	5%	1/16W		R464	1-218-971-81	METAL CHIP	33K	5%	1/16W	
R352	1-218-941-81	METAL CHIP	100	5%	1/16W		R465	1-218-941-81	METAL CHIP	100	5%	1/16W	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R466	1-216-295-91	SHORT CHIP	0			R607	1-218-985-11	METAL CHIP	470K	5%	1/16W
R467	1-216-295-91	SHORT CHIP	0			R608	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R470	1-218-990-81	SHORT CHIP	0			R609	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R471	1-218-990-81	SHORT CHIP	0			R610	1-218-973-11	METAL CHIP	47K	5%	1/16W
R472	1-218-990-81	SHORT CHIP	0			R611	1-218-973-11	METAL CHIP	47K	5%	1/16W
R478	1-216-864-11	SHORT CHIP	0			R612	1-218-973-11	METAL CHIP	47K	5%	1/16W
R479	1-218-981-81	METAL CHIP	220K	5%	1/16W	R613	1-218-989-11	METAL CHIP	1M	5%	1/16W
R480	1-218-990-81	SHORT CHIP	0			R614	1-218-965-11	METAL CHIP	10K	5%	1/16W
R483	1-218-953-11	METAL CHIP	1K	5%	1/16W	R615	1-218-985-11	METAL CHIP	470K	5%	1/16W
R485	1-218-953-11	METAL CHIP	1K	5%	1/16W	R616	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R487	1-220-804-11	METAL CHIP	2.2M	5%	1/16W	R617	1-218-955-11	METAL CHIP	1.5K	5%	1/16W
R489	1-250-515-11	METAL CHIP	6.8K	1%	1/16W	R618	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R491	1-218-965-11	METAL CHIP	10K	5%	1/16W	R619	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R496	1-218-957-11	METAL CHIP	2.2K	5%	1/16W	R620	1-218-959-11	METAL CHIP	3.3K	5%	1/16W
R498	1-248-311-11	RES-CHIP	0.1	1%	1/4W	R621	1-218-990-81	SHORT CHIP	0		
R500	1-218-990-81	SHORT CHIP	0			R622	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R503	1-218-935-11	METAL CHIP	33	5%	1/16W	R624	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R504	1-218-935-11	METAL CHIP	33	5%	1/16W	R625	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R506	1-218-935-11	METAL CHIP	33	5%	1/16W	R626	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R507	1-218-935-11	METAL CHIP	33	5%	1/16W	R627	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R510	1-218-933-11	METAL CHIP	22	5%	1/16W	R628	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R511	1-218-933-11	METAL CHIP	22	5%	1/16W	R629	1-216-864-11	SHORT CHIP	0		
R514	1-218-933-11	METAL CHIP	22	5%	1/16W	R630	1-218-929-11	METAL CHIP	10	5%	1/16W
R515	1-218-933-11	METAL CHIP	22	5%	1/16W	R631	1-218-929-11	METAL CHIP	10	5%	1/16W
R534	1-218-951-11	METAL CHIP	680	5%	1/16W	R632	1-218-929-11	METAL CHIP	10	5%	1/16W
R538	1-216-295-91	SHORT CHIP	0			R633	1-218-973-11	METAL CHIP	47K	5%	1/16W
R541	1-216-809-11	METAL CHIP	100	5%	1/10W	R634	1-218-989-11	METAL CHIP	1M	5%	1/16W
R542	1-216-809-11	METAL CHIP	100	5%	1/10W	R635	1-218-973-11	METAL CHIP	47K	5%	1/16W
R543	1-216-809-11	METAL CHIP	100	5%	1/10W	R636	1-218-973-11	METAL CHIP	47K	5%	1/16W
R549	1-218-933-11	METAL CHIP	22	5%	1/16W	R638	1-218-955-11	METAL CHIP	1.5K	5%	1/16W
R552	1-218-933-11	METAL CHIP	22	5%	1/16W	R639	1-218-973-11	METAL CHIP	47K	5%	1/16W
R555	1-218-933-11	METAL CHIP	22	5%	1/16W	R640	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R559	1-218-965-11	METAL CHIP	10K	5%	1/16W	R641	1-218-967-11	METAL CHIP	15K	5%	1/16W
R564	1-218-933-11	METAL CHIP	22	5%	1/16W	R642	1-218-970-11	METAL CHIP	27K	5%	1/16W
R566	1-218-933-11	METAL CHIP	22	5%	1/16W	R643	1-216-864-11	SHORT CHIP	0		
R567	1-218-935-11	METAL CHIP	33	5%	1/16W	R644	1-208-931-11	METAL CHIP	68K	0.50%	1/16W
R569	1-216-809-11	METAL CHIP	100	5%	1/10W	R645	1-218-973-11	METAL CHIP	47K	5%	1/16W
R571	1-218-981-81	METAL CHIP	220K	5%	1/16W	R646	1-218-989-11	METAL CHIP	1M	5%	1/16W
R572	1-218-941-81	METAL CHIP	100	5%	1/16W	R647	1-218-973-11	METAL CHIP	47K	5%	1/16W
R574	1-218-937-11	METAL CHIP	47	5%	1/16W	R648	1-218-973-11	METAL CHIP	47K	5%	1/16W
R575	1-218-941-81	METAL CHIP	100	5%	1/16W	R649	1-218-970-11	METAL CHIP	27K	5%	1/16W
R576	1-218-941-81	METAL CHIP	100	5%	1/16W	R650	1-218-969-11	METAL CHIP	22K	5%	1/16W
R577	1-218-949-11	METAL CHIP	470	5%	1/16W	R651	1-218-979-11	METAL CHIP	150K	5%	1/16W
R579	1-218-990-81	SHORT CHIP	0			R652	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R580	1-218-990-81	SHORT CHIP	0			R653	1-250-515-11	METAL CHIP	6.8K	1%	1/16W
R581	1-218-941-81	METAL CHIP	100	5%	1/16W	R654	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R582	1-218-941-81	METAL CHIP	100	5%	1/16W	R655	1-218-965-11	METAL CHIP	10K	5%	1/16W
R583	1-248-311-11	RES-CHIP	0.1	1%	1/4W	R656	1-218-959-11	METAL CHIP	3.3K	5%	1/16W
R585	1-218-990-81	SHORT CHIP	0			R658	1-218-989-11	METAL CHIP	1M	5%	1/16W
R586	1-218-990-81	SHORT CHIP	0			R659	1-218-973-11	METAL CHIP	47K	5%	1/16W
R587	1-218-965-11	METAL CHIP	10K	5%	1/16W	R661	1-218-941-81	METAL CHIP	100	5%	1/16W
R588	1-218-965-11	METAL CHIP	10K	5%	1/16W	R662	1-218-974-11	METAL CHIP	56K	5%	1/16W
R589	1-218-965-11	METAL CHIP	10K	5%	1/16W	R663	1-218-987-11	METAL CHIP	680K	5%	1/16W
R590	1-218-990-81	SHORT CHIP	0			R665	1-218-989-11	METAL CHIP	1M	5%	1/16W
R600	1-208-931-11	METAL CHIP	68K	0.50%	1/16W	R666	1-218-973-11	METAL CHIP	47K	5%	1/16W
R602	1-218-973-11	METAL CHIP	47K	5%	1/16W	R669	1-218-987-11	METAL CHIP	680K	5%	1/16W
R603	1-218-973-11	METAL CHIP	47K	5%	1/16W	R671	1-218-974-11	METAL CHIP	56K	5%	1/16W
R604	1-218-973-11	METAL CHIP	47K	5%	1/16W	R674	1-218-941-81	METAL CHIP	100	5%	1/16W
R605	1-218-989-11	METAL CHIP	1M	5%	1/16W	R677	1-218-990-81	SHORT CHIP	0		
R606	1-218-990-81	SHORT CHIP	0			R681	1-218-989-11	METAL CHIP	1M	5%	1/16W

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MOTHERBOARD

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R682	1-218-973-11	METAL CHIP	47K	5%	1/16W	R840	1-218-933-11	METAL CHIP	22	5%	1/16W
R684	1-218-973-11	METAL CHIP	47K	5%	1/16W	R857	1-216-864-11	SHORT CHIP	0		
R685	1-218-978-11	METAL CHIP	120K	5%	1/16W	R859	1-216-864-11	SHORT CHIP	0		
R686	1-218-978-11	METAL CHIP	120K	5%	1/16W	R905	1-218-990-81	SHORT CHIP	0		
R687	1-218-933-11	METAL CHIP	22	5%	1/16W	R909	1-218-990-81	SHORT CHIP	0		
R688	1-218-929-11	METAL CHIP	10	5%	1/16W	R911	1-218-985-11	METAL CHIP	470K	5%	1/16W
R689	1-218-979-11	METAL CHIP	150K	5%	1/16W	R912	1-218-985-11	METAL CHIP	470K	5%	1/16W
R690	1-218-929-11	METAL CHIP	10	5%	1/16W	R913	1-218-975-11	METAL CHIP	68K	5%	1/16W
R691	1-218-929-11	METAL CHIP	10	5%	1/16W	R914	1-218-975-11	METAL CHIP	68K	5%	1/16W
R692	1-218-969-11	METAL CHIP	22K	5%	1/16W	R915	1-208-699-11	METAL CHIP	4.7K	0.50%	1/16W
R693	1-218-989-11	METAL CHIP	1M	5%	1/16W	R916	1-208-699-11	METAL CHIP	4.7K	0.50%	1/16W
R694	1-218-973-11	METAL CHIP	47K	5%	1/16W	R935	1-250-468-11	METAL CHIP	75	1%	1/16W
R696	1-218-973-11	METAL CHIP	47K	5%	1/16W	R937	1-218-941-81	METAL CHIP	100	5%	1/16W
R697	1-218-973-11	METAL CHIP	47K	5%	1/16W	R938	1-216-864-11	SHORT CHIP	0		
R698	1-218-973-11	METAL CHIP	47K	5%	1/16W	R939	1-218-965-11	METAL CHIP	10K	5%	1/16W
R700	1-218-969-11	METAL CHIP	22K	5%	1/16W	R940	1-218-941-81	METAL CHIP	100	5%	1/16W
R701	1-218-929-11	METAL CHIP	10	5%	1/16W	R943	1-218-933-11	METAL CHIP	22	5%	1/16W
R702	1-218-929-11	METAL CHIP	10	5%	1/16W	R944	1-218-933-11	METAL CHIP	22	5%	1/16W
R708	1-218-937-11	METAL CHIP	47	5%	1/16W	R948	1-218-990-81	SHORT CHIP	0		
R709	1-218-937-11	METAL CHIP	47	5%	1/16W	R949	1-216-809-11	METAL CHIP	100	5%	1/10W
R711	1-218-953-11	METAL CHIP	1K	5%	1/16W	R950	1-216-797-11	METAL CHIP	10	5%	1/10W
R716	1-218-953-11	METAL CHIP	1K	5%	1/16W	R951	1-216-797-11	METAL CHIP	10	5%	1/10W
R718	1-218-990-81	SHORT CHIP	0			R952	1-216-797-11	METAL CHIP	10	5%	1/10W
R719	1-218-929-11	METAL CHIP	10	5%	1/16W	R953	1-218-950-11	METAL CHIP	560	5%	1/16W
R720	1-218-929-11	METAL CHIP	10	5%	1/16W	R954	1-218-989-11	METAL CHIP	1M	5%	1/16W
R722	1-218-929-11	METAL CHIP	10	5%	1/16W	R955	1-216-819-11	METAL CHIP	680	5%	1/10W
R723	1-218-929-11	METAL CHIP	10	5%	1/16W	R957	1-216-797-11	METAL CHIP	10	5%	1/10W
R733	1-216-864-11	SHORT CHIP	0			R959	1-216-797-11	METAL CHIP	10	5%	1/10W
R747	1-216-864-11	SHORT CHIP	0			R963	1-218-929-11	METAL CHIP	10	5%	1/16W
R750	1-218-941-81	METAL CHIP	100	5%	1/16W	R964	1-218-929-11	METAL CHIP	10	5%	1/16W
R751	1-218-941-81	METAL CHIP	100	5%	1/16W	R965	1-218-941-81	METAL CHIP	100	5%	1/16W
R752	1-218-941-81	METAL CHIP	100	5%	1/16W	R966	1-218-929-11	METAL CHIP	10	5%	1/16W
R753	1-218-941-81	METAL CHIP	100	5%	1/16W	R978	1-218-990-81	SHORT CHIP	0		
R756	1-250-515-11	METAL CHIP	6.8K	1%	1/16W	R980	1-218-990-81	SHORT CHIP	0		
R760	1-218-929-11	METAL CHIP	10	5%	1/16W	R981	1-218-990-81	SHORT CHIP	0		
R761	1-218-929-11	METAL CHIP	10	5%	1/16W	R982	1-218-990-81	SHORT CHIP	0		
R762	1-218-929-11	METAL CHIP	10	5%	1/16W	R995	1-218-990-81	SHORT CHIP	0		
R763	1-216-864-11	SHORT CHIP	0			R996	1-218-990-81	SHORT CHIP	0		
R791	1-218-990-81	SHORT CHIP	0			< COMPOSITION CIRCUIT BLOCK >					
R792	1-216-864-11	SHORT CHIP	0			RB301	1-234-370-21	RES, NETWORK 22 (1005X4)			
R793	1-216-864-11	SHORT CHIP	0			RB302	1-234-370-21	RES, NETWORK 22 (1005X4)			
R794	1-216-864-11	SHORT CHIP	0			RB303	1-234-370-21	RES, NETWORK 22 (1005X4)			
R795	1-218-929-11	METAL CHIP	10	5%	1/16W	RB304	1-234-370-21	RES, NETWORK 22 (1005X4)			
R796	1-218-929-11	METAL CHIP	10	5%	1/16W	RB305	1-234-370-21	RES, NETWORK 22 (1005X4)			
R797	1-218-929-11	METAL CHIP	10	5%	1/16W	RB306	1-234-370-21	RES, NETWORK 22 (1005X4)			
R801	1-218-941-81	METAL CHIP	100	5%	1/16W	RB307	1-234-370-21	RES, NETWORK 22 (1005X4)			
R802	1-218-933-11	METAL CHIP	22	5%	1/16W	RB308	1-234-370-21	RES, NETWORK 22 (1005X4)			
R817	1-218-929-11	METAL CHIP	10	5%	1/16W	RB309	1-234-370-21	RES, NETWORK 22 (1005X4)			
R819	1-218-929-11	METAL CHIP	10	5%	1/16W	< THERMISTOR >					
R820	1-218-929-11	METAL CHIP	10	5%	1/16W	TH571	1-804-949-11	THERMISTOR, NTC (SMD)			
R826	1-218-949-11	METAL CHIP	470	5%	1/16W	< VIBRATOR >					
R827	1-216-833-11	METAL CHIP	10K	5%	1/10W	X101	1-814-273-11	QUARTZ CRYSTAL UNIT (32.768kHz)			
R829	1-218-949-11	METAL CHIP	470	5%	1/16W	X102	1-814-767-11	QUARTZ CRYSTAL UNITS (13.333MHz)			
R830	1-216-833-11	METAL CHIP	10K	5%	1/10W	X103	1-814-466-11	QUARTZ CRYSTAL UNITS (12.288MHz)			
R831	1-218-941-81	METAL CHIP	100	5%	1/16W	X104	1-814-356-11	QUARTZ CRYSTAL UNIT (48MHz)			
R835	1-218-929-11	METAL CHIP	10	5%	1/16W	X301	1-814-023-11	QUARTS CRYSTAL UNIT (27MHz)			
R836	1-218-929-11	METAL CHIP	10	5%	1/16W						
R837	1-218-933-11	METAL CHIP	22	5%	1/16W						
R838	1-218-929-11	METAL CHIP	10	5%	1/16W						
R839	1-218-929-11	METAL CHIP	10	5%	1/16W						

MOTHERBOARD

MS-476

OPTICAL

SPK_HLED

SPLITTER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
X600	1-814-365-11	QUARTZ CRYSTAL UNITS (12MHz)		153	1-849-010-11	WIRE (FLAT TYPE) (25 CORE)	
X602	1-814-130-11	QUARTZ CRYSTAL UNIT (24.576MHz)		* 202	3-703-150-11	CLAMP	
*****				△ 203	1-855-006-41	FAN, DC	
MS-476 BOARD				△ 205	1-844-234-21	AC INLET	
*****				△ 206	A-2061-350-A	SMPS BOARD, COMPLETE	
When the MS-476 board is defective, exchange the entire LOADING COMPLETE ASSY (T).				211	1-859-087-11	LOUDSPEAKER (20CM)-087-11	
*****				* 213	1-500-082-11	CLAMP, SLEEVE FERRITE (RU, EA, MY, AUS, E4)	
OPTICAL BOARD				251	1-849-013-11	WIRE (FLAT TYPE) (13 CORE)	
*****				252	1-849-014-11	WIRE (FLAT TYPE) (10 CORE)	
< CAPACITOR >				253	1-492-699-11	BLUETOOTH MODULE	
C3301	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V		256	1-849-015-11	WIRE (FLAT TYPE) (6 CORE)	
C3303	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V		257	8-989-602-00	RC-S730 (WW)	
< IC >				351	A-1896-391-B	LOADING COMPLETE ASSY (T) (including MS-476 board)	
IC3300	6-600-827-01	IC JSR1124 (OPTICAL IN TV)		△ 354	A-2046-956-A	SERVICE, OPTICAL DEVICE(7G)	
< JUMPER RESISTOR >				355	1-469-829-11	CORE, FERRITE	
JR3300	1-216-864-11	SHORT CHIP 0		356	1-849-012-11	WIRE (FLAT TYPE) (24 CORE)	
< RESISTOR >				357	1-849-016-11	WIRE (FLAT TYPE) (5 CORE)	
R3300	1-216-864-11	SHORT CHIP 0					
R3301	1-216-864-11	SHORT CHIP 0					

SPK_HLED BOARD							

< CONNECTOR >							
CN4000	1-580-057-11	PIN, CONNECTOR (SMD) 4P					
< DIODE >							
D4000	6-504-103-01	DI LA CN5M-GAHA-24-1 (R)					
D4001	6-504-102-01	DI LD CN5M-4Q4R-35-1 (B)					
D4002	6-504-104-01	DI LT CN5M-GAHB-25-1 (G)					

SPLITTER BOARD							

< CONNECTOR >							
CN3400	1-820-123-51	CONNECTOR, FFC/FPC 25P					
CN3401	1-785-468-51	CONNECTOR, FFC/FPC 13P					
CN3402	1-820-113-51	CONNECTOR, FFC/FPC 11P					
< RESISTOR >							
R001	1-216-295-91	SHORT CHIP 0					
R002	1-216-295-91	SHORT CHIP 0					
R003	1-216-295-91	SHORT CHIP 0					
R004	1-216-864-11	SHORT CHIP 0					
R005	1-216-864-11	SHORT CHIP 0					
R006	1-216-295-91	SHORT CHIP 0					
R007	1-216-295-91	SHORT CHIP 0					
R008	1-216-295-91	SHORT CHIP 0					

MISCELLANEOUS							

55	1-849-009-11	WIRE (FLAT TYPE) (11 CORE)					
151	1-849-011-11	WIRE (FLAT TYPE) (19 CORE)					

Note : If cable, flexible flat and wire (flat type) is replaced, install it after bending it in the same form as that before replacement.

MEMO

REVISION HISTORY

Ver.	Date	Description of Revision
1.0	2015.02	New
1.1	2015.06	Addition of African, Argentina, Malaysia, Russian, Saudi Arabia and Thai models. Add note for IC101 in page 5, 39, 48 and 87. Change description of IC303, IC601 and IC603 in MOTHERBOARD board. Change description of IC3004 in LCD board. Change description of IC3200 in MIC board. Change description of Ref. No. R3137 and R3149 in BUTTON board. Change description of Ref. No. Q1003, Q1004, Q1014, Q1015, Q1016 and Q1017 in DAMP board. Change description of Ref. No. C3204 in MIC board. Change description of Ref. No. C105, C953, Q605, R023, R642 and R649 in MOTHERBOARD board. Change illustration of CDM in page 13, 20, 74 and 78. Change note for “BOND FIXATION OF ELECTRIC PARTS” in page 37, 50, 51, 81, 82 and 83. Change of DAMP, SPK_HLED and SPLITTER boards (Suffix 12). Change of unit name in SPECIFICATIONS. Change illustration of IC902 in page 64. Change P/N of Ref. No. 57 in page 73. Change P/N of Ref. No. 101 in page 74. Change P/N of Ref. No. 258 in page 77. Delete of “MODEL & DEST WRITE MODE” in page 23. Delete note for “BOND FIXATION OF ELECTRIC PARTS” in page 75.
1.2	2015.08	Add illustration of CORE, FERRITE and CUSHION, SARANET (30X50) on WIRE (FLAT TYPE) (24 CORE) in page 13, 20, 74, 78 and 79. Add note of “SCREW TYPE DISCRIMINATION BEFORE DISASSEMBLE THE PANEL, SIDE” in page 6, 10 and 72. Add P/N and description for CORE, FERRITE in page 79 and 93. Add P/N, description and illustration of Ref. No. 1 in page 72. Change description of disassembly step (1) in page 10. Change P/N and description of CN101 in MOTHERBOARD board. Change P/N and description of CN102 in MOTHERBOARD board. Change P/N and description of CN601 in MOTHERBOARD board. Change P/N and description of IC306 in MOTHERBOARD board. Change P/N and description of D3100 in BUTTON board. Change P/N and description of D3105 in BUTTON board. Change P/N and illustration of Ref. No. 57 in page 73. Change P/N of Ref. No. 2 and 3 in page 72. Change P/N of Ref. No. 258 in page 77. Change illustration of PANEL, SIDE (L) ASSY in page 10 and 72. Change illustration of PANEL, FRONT (SW) ASSY in page 7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 72, 74, 75, 76 and 77. Delete CN105 in MOTHERBOARD board for Electrical Part List section (Service code changed). Delete CN451 in MOTHERBOARD board for Electrical Part List section (Service code changed). Delete CUSHION, WIRE 1.0T on WIRE (FLAT TYPE) (24 CORE) in page 13, 20, 74, 78 and 79.

HCD-GT3D

[illegible]

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.