

HBD-E370/E470/ E570/E870/T57

SERVICE MANUAL

Ver. 1.0 2010.02

US Model
HBD-E370/E570/T57

Canadian Model
HBD-E370/E470/E870

AEP Model

UK Model
HBD-E370/E870



Photo: HBD-E370

- HBD-E370 is the amplifier, video, BD/DVD/Super Audio CD/CD system, USB, LAN and tuner section in BDV-E370.
- HBD-E470 is the amplifier, video, BD/DVD/Super Audio CD/CD system, USB, LAN and tuner section in BDV-E470.
- HBD-E570 is the amplifier, video, BD/DVD/Super Audio CD/CD system, USB, LAN and tuner section in BDV-E570.
- HBD-E870 is the amplifier, video, BD/DVD/Super Audio CD/CD system, USB, LAN and tuner section in BDV-E870.
- HBD-T57 is the amplifier, video, BD/DVD/Super Audio CD/CD system, USB, LAN and tuner section in BDV-T57.

Model Name Using Similar Mechanism	BDP-S370
Mechanism Type	BPX-5
Optical Pick-up Block Name	KEM-460AAA

SPECIFICATIONS

Amplifier Section

U.S. models:

POWER OUTPUT AND TOTAL HARMONIC

DISTORTION:

(FTC)

Front L + Front R:

With 3 ohms loads, both channels driven, from 180 - 20,000 Hz; rated 60 watts per channel minimum RMS power, with no more than 1% total harmonic distortion from 250 milli watts to rated output.

Other models:

POWER OUTPUT (rated)

Front L/Front R: 108 W + 108 W (at 3 ohms, 1 kHz, 1% THD)

HBD-E370:

POWER OUTPUT (reference)

Front L/Front R/Center/Surround L/Surround R: 142 W (per channel at 3 ohms, 1 kHz)

Subwoofer:

140 W (at 3 ohms, 80 Hz)

HBD-E870/HBD-E570/HBD-E470/HBD-T57:

POWER OUTPUT (reference)

Front L/Front R/Center/Surround L/Surround R: 167 W (per channel at 3 ohms, 1 kHz)

Subwoofer:

165 W (at 3 ohms, 80 Hz)

Inputs (Analog)

AUDIO (AUDIO IN)

Sensitivity: 450/250 mV

Inputs (Digital)

SAT/CABLE (COAXIAL), TV (OPTICAL)

Supported formats: LPCM 2CH (up to 48 kHz), Dolby Digital, DTS

Video Section

Outputs

VIDEO: 1 V_{p-p} 75 ohms

COMPONENT:

Y: 1 V_{p-p} 75 ohms

P_b/C_b, P_r/C_r: 0.7 V_{p-p} 75 ohms

HDMI OUT: Type A (19 pin)

BD/DVD/Super Audio CD/CD System

Signal format system

NTSC (US and Canadian models)
PAL/NTSC (AEP and UK models)

USB Section

↔ (USB) port:

Type A (For connecting USB memory, memory card reader, digital still camera, and digital video camera)

Maximum current:

500 mA

LAN Section

LAN (100) terminal

100BASE-TX Terminal

Tuner Section

System

PLL quartz-locked digital synthesizer

FM tuner section

Tuning range

North American models: 87.5 MHz - 108.0 MHz (100 kHz step)

Other models: 87.5 MHz - 108.0 MHz (50 kHz step)

Antenna (aerial)

Antenna (aerial) terminals FM wire antenna (aerial)

Intermediate frequency 75 ohms, unbalanced 10.7 MHz

General

Power requirements

North American model: 120 V AC, 60 Hz

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

Power consumption

On: 170 W

Standby: 0.3 W (at the Power Saving mode)

Dimensions (approx.)

430 mm × 85 mm × 335 mm (17 in × 3 3/8 in × 13 1/4 in) (w/h/d) incl. projecting parts

Mass (approx.)

4.8 kg (10 lb 10 oz)

Design and specifications are subject to change without notice.

BLU-RAY DISC/DVD RECEIVER

9-889-770-01

2010B05-1

© 2010.02

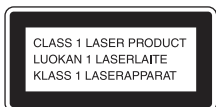
Sony Corporation

Audio&Video Business Group

Published by Sony Techno Create Corporation

SONY®

- This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.
- This system incorporates with Dolby* Digital and Dolby Pro Logic (II) adaptive matrix surround decoder and the DTS** Digital Surround System.
 - * Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.
 - **Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535; 7,212,872; 7,333,929; 7,392,195; 7,272,567 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark and the DTS logos, Symbol, DTS-HD and DTS-HD Master Audio are trademarks of DTS, Inc. © 1996-2008 DTS, Inc. All Rights Reserved.
- This system incorporates High-Definition Multimedia Interface (HDMI™) technology. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc.
- “BD-LIVE” and “BONUSVIEW” are trademarks of Blu-ray Disc Association.
- “Blu-ray Disc” is a trademark.
- “Blu-ray Disc,” “DVD+RW,” “DVD-RW,” “DVD+R,” “DVD-R,” “DVD VIDEO,” and “CD” logos are trademarks.
- “BRAVIA” is a trademark of Sony Corporation.
- “AVCHD” and the “AVCHD” logo are trademarks of Matsushita Electric Industrial Co., Ltd. and Sony Corporation.
- “S-AIR” and its logo are trademarks of Sony Corporation.
- Ⓜ, “XMB,” and “xross media bar” are trademarks of Sony Corporation and Sony Computer Entertainment Inc.
- “PLAYSTATION” is a trademark of Sony Computer Entertainment Inc.
- DivX®, DivX Certified® and associated logos are registered trademarks of DivX, Inc. and are used under license. (Except for U.S. models.)
- Music and video recognition technology and related data are provided by Gracenote®. Gracenote is the industry standard in music recognition technology and related content delivery. For more information, please visit www.gracenote.com. CD, DVD, Blu-ray Disc, and music and video-related data from Gracenote, Inc., copyright © 2000-present Gracenote. Gracenote Software, copyright © 2000-present Gracenote. One or more patents owned by Gracenote apply to this product and service. See the Gracenote website for a nonexhaustive list of applicable Gracenote patents. Gracenote, CDDB, MusicID, MediaVOCS, the Gracenote logo and logotype, and the “Powered by Gracenote” logo are either registered trademarks or trademarks of Gracenote in the United States and/or other countries.



This appliance is classified as a CLASS 1 LASER product. This marking is located on the rear exterior.

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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

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 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.

CAUTION

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

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.

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

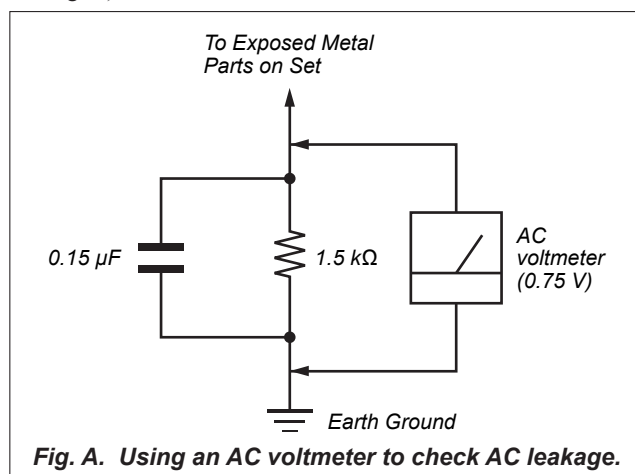


Fig. A. Using an AC voltmeter to check AC leakage.

TABLE OF CONTENTS

1. SERVICING NOTES	4	5-17. Schematic Diagram - MB-134 Board (11/13) -	45
2. DISASSEMBLY		5-18. Schematic Diagram - MB-134 Board (12/13) -	46
2-1. Disassembly Flow.....	11	5-19. Schematic Diagram - MB-134 Board (13/13) -	47
2-2. Case (EZ)	11	5-20. Printed Wiring Board	
2-3. MB-134 Board	12	- MB-134 Board (Component Side) -	48
2-4. Bracket (MB) Block.....	13	5-21. Printed Wiring Board	
2-5. Fuse (F901), POWER Board	13	- MB-134 Board (Conductor Side) -	49
2-6. Front Panel Block	14	5-22. Printed Wiring Board - AUDIO Board -	50
2-7. CONNECT Board.....	14	5-23. Schematic Diagram - AUDIO Board -	51
2-8. BD Drive (BPX-5).....	15	5-24. Printed Wiring Board	
2-9. Back Panel Block.....	15	- MAIN Board (Component Side) -	52
2-10. MAIN Board.....	16	5-25. Printed Wiring Board	
2-11. AUDIO Board.....	16	- MAIN Board (Conductor Side) -	53
2-12. Optical Device (KEM-460AAA), Wire (Flat Type)	17	5-26. Schematic Diagram - MAIN Board (1/5) -	54
3. TEST MODE	18	5-27. Schematic Diagram - MAIN Board (2/5) -	55
4. ELECTRICAL CHECK	27	5-28. Schematic Diagram - MAIN Board (3/5) -	56
5. DIAGRAMS		5-29. Schematic Diagram - MAIN Board (4/5) -	57
5-1. Block Diagram - SERVO Section -	28	5-30. Schematic Diagram - MAIN Board (5/5) -	58
5-2. Block Diagram - MEMORY Section -	29	5-31. Printed Wiring Board - CONNECT Board -	59
5-3. Block Diagram - TUNER, S-AIR Section -	30	5-32. Schematic Diagram - CONNECT Board -	59
5-4. Block Diagram - AUDIO Section -	31	5-33. Printed Wiring Board - REG Board -	60
5-5. Block Diagram - REGULATOR Section -	32	5-34. Schematic Diagram - REG Board -	61
5-6. Block Diagram		5-35. Printed Wiring Board - FL Board -	62
- PANEL, POWER SUPPLY Section -	33	5-36. Schematic Diagram - FL Board -	63
5-7. Schematic Diagram - MB-134 Board (1/13) -	35	5-37. Printed Wiring Board - POWER Board -	64
5-8. Schematic Diagram - MB-134 Board (2/13) -	36	5-38. Schematic Diagram - POWER Board -	65
5-9. Schematic Diagram - MB-134 Board (3/13) -	37	5-39. Printed Wiring Boards - KEY Section -	66
5-10. Schematic Diagram - MB-134 Board (4/13) -	38	5-40. Schematic Diagram - KEY Section -	66
5-11. Schematic Diagram - MB-134 Board (5/13) -	39	6. EXPLODED VIEWS	
5-12. Schematic Diagram - MB-134 Board (6/13) -	40	6-1. Case, Front Panel Section	91
5-13. Schematic Diagram - MB-134 Board (7/13) -	41	6-2. MB-134 Board Section	92
5-14. Schematic Diagram - MB-134 Board (8/13) -	42	6-3. Back Panel Section	93
5-15. Schematic Diagram - MB-134 Board (9/13) -	43	6-4. MAIN Board Section.....	94
5-16. Schematic Diagram - MB-134 Board (10/13) -	44	6-5. BD Drive Section (BPX-5).....	95
		7. ELECTRICAL PARTS LIST	96

SECTION 1 SERVICING NOTES

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.

UNLEADED SOLDER

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

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

: LEAD FREE MARK

Unleaded solder has the following characteristics.

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

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 the [I/⏻] button to turn on the system.
2. Press the [FUNCTION] button to select "BD/DVD".
3. Press the [■] and [▲] buttons simultaneously and hold down unit "DEMO OFF" displayed on the fluorescent indicator tube (around 5 seconds).

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

ABOUT THE LENS CLEANING

Do not do the lens cleaning with the cotton bud etc. It causes the trouble.

NOTE THE IC101, IC104, IC105, IC204, IC205, IC307, IC311, IC501 AND IC502 ON THE MB-134 BOARD REPLACING

IC101, IC104, IC105, IC204, IC205, IC307, IC311, IC501 and IC502 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

TEST DISC

Part No.	Description	Layer
J-6090-199-A	BLX-104	Single Layer
J-6090-200-A	BLX-204	Dual Layer
J-2501-307-A	CD (HLX-A1)	
J-2501-305-A	HLX-513	Single Layer (NTSC)
J-2501-306-A	HLX-514	Dual Layer (NTSC)
J-6090-077-A	HLX-506	Single Layer (PAL)
J-6090-078-A	HLX-507	Dual Layer (PAL)

Note: Refer to the service manual of BDP-BX1/S350 (Part No. 9-883-989-1□) (page 1-3 to 1-14E) for the use of BLX-104/204.

Operation and Display:

1. BLX-104

Procedure:

1. Select 23.976Hz/1080p.
 2. Play "4.Motion picture".
 3. Check whether player can play back or not.
 4. Check each outputs.
Video:
Composite/S Video/component/HDMI.
Audio:
Speaker out.
- * When 1080/24p monitor is nothing, 1080i (59.94Hz or 50Hz) can use instead of 1080/24p.
However this is temporary correspondence.

2. BLX-204

Procedure:

1. Select 1080i (59.94Hz or 50Hz).
2. Play "4.Motion picture".
3. Check whether player can play back or not (Check the picture and sound output).

3. CD (HLX-A1)

Procedure:

Check whether player can play back or not (Check the sound output).

4. HLX-513/514 (NTSC), HLX-506/507 (PAL)

Procedure:

1. After displayed Main Menu, select "1.Video Signal".
2. Play "1.Color bar 100%" (Check the picture and sound output).
3. Return to Menu.
4. Play "Demonstration 4:3" or "Demonstration 16:9" (Check the picture and sound output).

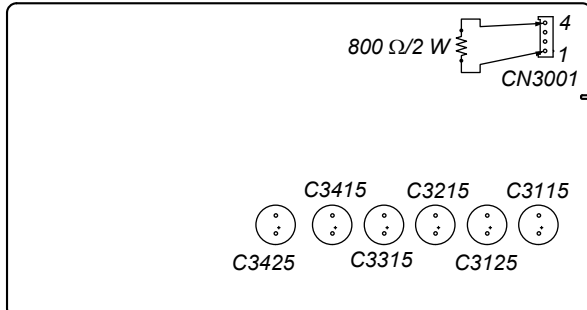
CAPACITOR ELECTRICAL DISCHARGE PROCESSING

When checking the board, the electrical discharge is necessary for the electric shock prevention.

Connect the resistors referring to the figure below.

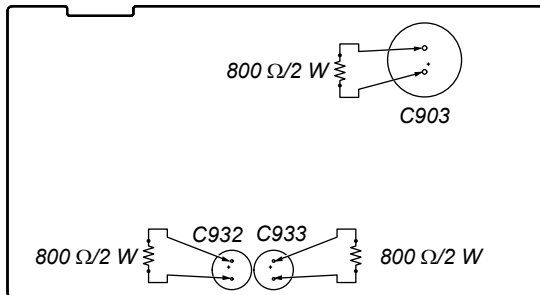
- MAIN board (C3115, C3125, C3215, C3315, C3415, C3425)
Both ends of CN3001.

– MAIN Board (Conductor Side) –



- POWER board (C903, C932, C933)
Both ends of respective capacitors.

– POWER Board (Conductor Side) –



NOTE OF REPLACING THE OPTICAL DEVICE (KEM-460AAA) OR MB-134 BOARD

Optical device (KEM-460AAA) for BD requires precise read out functions and secure contents protection system for more than past DVD/CD.

Therefore, in the case repaired as follows, the writing work of the OP data is necessary.

- When the optical device (KEM-460AAA) is replaced (The MB-134 board doesn't replace).
- When both the optical device (KEM-460AAA) and MB-134 board are replaced.
- When the MB-134 board is replaced (The optical device (KEM-460AAA) doesn't replace) (In this case, do the work of "3. Optical device (KEM-460AAA) replacement" other than the replacement of new optical device).

Note: The servo adjustment is done while writing the OP data. The manual adjustment is unnecessary.

LD ON TIME history doesn't carry over.

Do not touch any optical block parts, turn table and during replacing. BD laser diode is very sensitive.

1. Preparation

1-1. ESD Countermeasure

It is necessary to confirm the state of static electricity in the work space before the repair is started.

The static electricity resistance of the BD laser is weaker than that of the DVD/CD laser.

Do work space and worker's ESD countermeasures to prevent destruction by ESD.

1-2. Jig

- Digital camera (Recommend with macro mode)
- USB memory
- PC
- Barcode decoder (Refer to "1-3. Barcode decoder (BDBUDEC)")

1-3. Barcode decoder (BDBUDEC)

Part No. : J-6090-212-A

Jig name : BDBUDec.exe

Release : 2009.02.19

Version : 1.0.0.0

Software contents :

- BDBUDec.exe : Barcode decoder software
- SavePath.ini : Decoded file destination setting file (Initial destination is "C:\BuData.txt")
- TasmanBars.dll : Decode dll
- Uninst.exe : Uninstall the "BDBUDec.exe" from PC

Install procedure:

1. Unzip the barcode decoder files to any PC folder.
2. Check the taken barcode photo click & drop onto "BDBUDec.exe".

When the barcode decoder is used for the first time, the password is necessary. It is unnecessary since the second times.

Note 1: The password will be supplied to only service headquarters, and service center name/q'ty/all of software registered information should be maintained by service headquarters.

Note 2: Do not change the decoded file name "BuData.txt".

3. When ".NET frame work requirements" is displayed, download following applications from Microsoft download site.

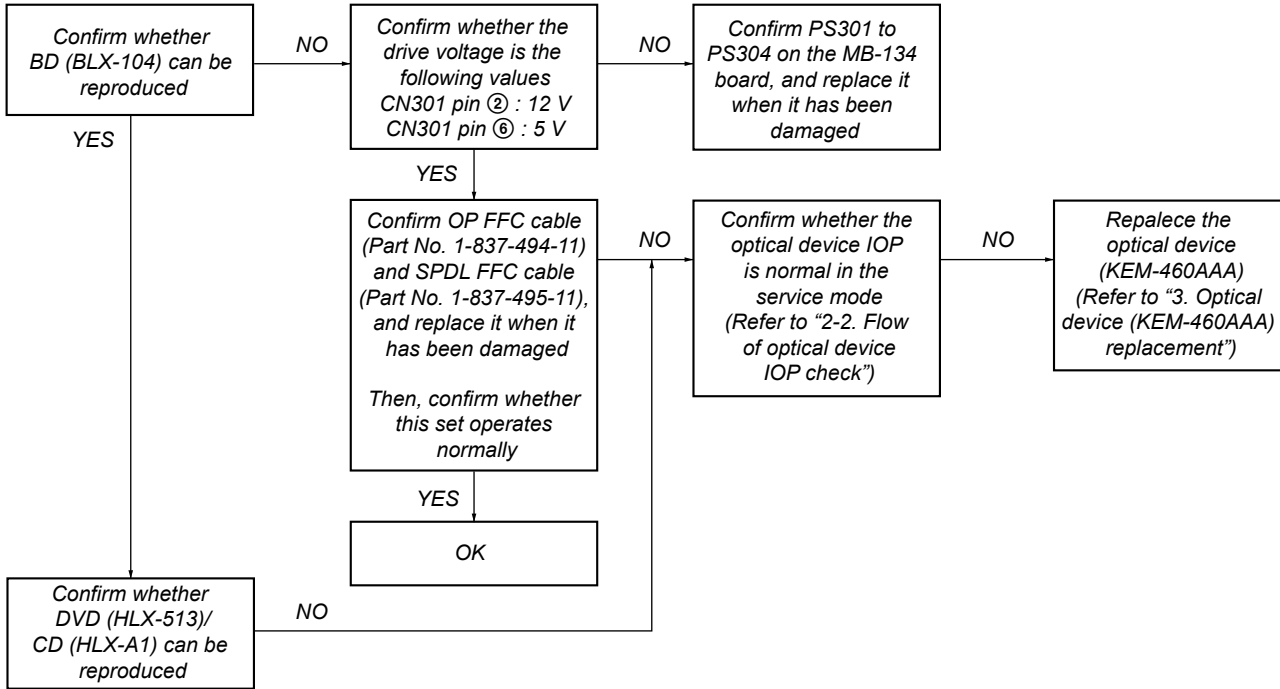
- Microsoft .NET Framework Version 2.0 Redistributable Package (x86)
<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=0856eacb-4362-4b0d-8edd-aab15c5e04f5>

- Microsoft .NET Framework 2.0 Service Pack 1 (x86)
<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=79bc3b77-e02c-4ad3-aacf-a7633f706ba5>

2. Pass-fail judgment of the optical device (KEM-460AAA)

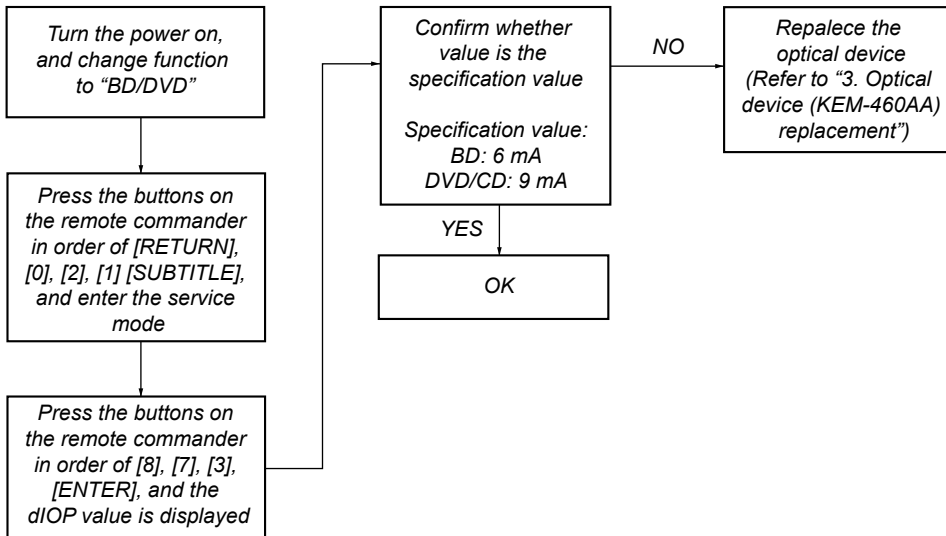
Perform pass-fail judgment to judge whether the repair of the optical device (KEM-460AAA) is necessary.

2-1. Flow of drive section check



Note: Refer to “2-12. OPTICAL DEVICE (KEM-460AAA), WIRE (FLAT TYPE)” (page 17) about how to remove the FFC HOLDER (REAR).

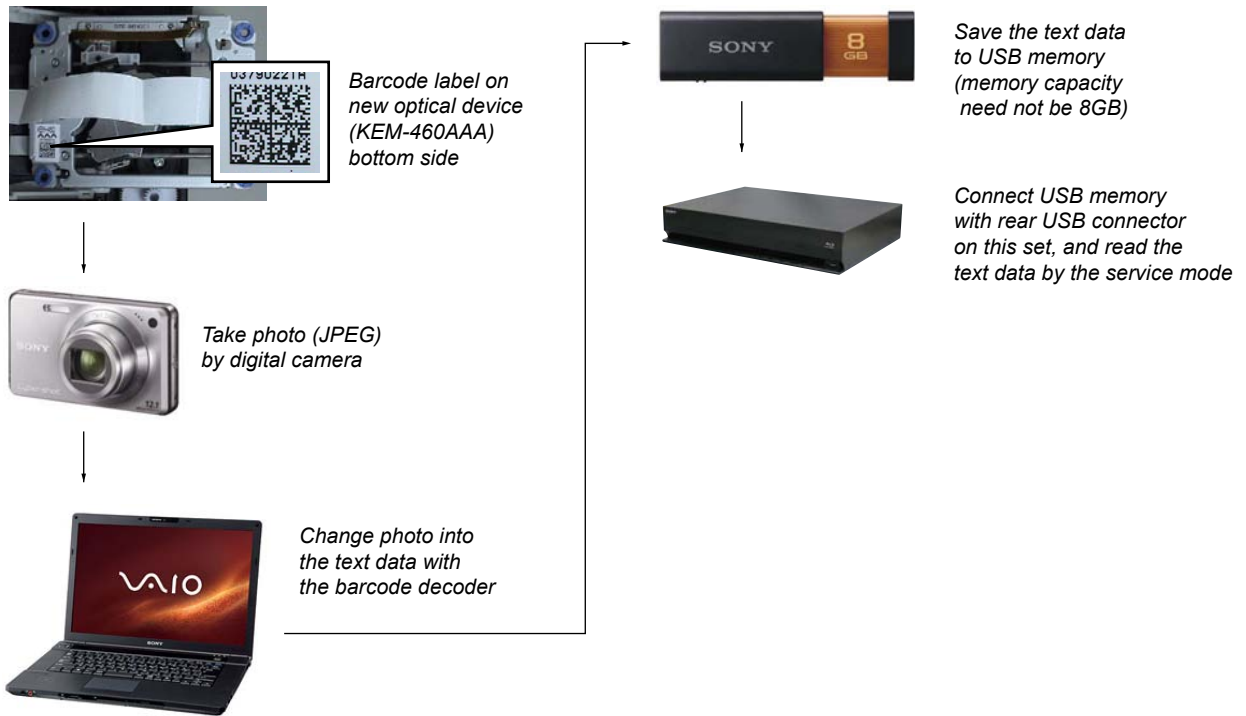
2-2. Flow of optical device IOP check



3. Optical device (KEM-460AAA) replacement

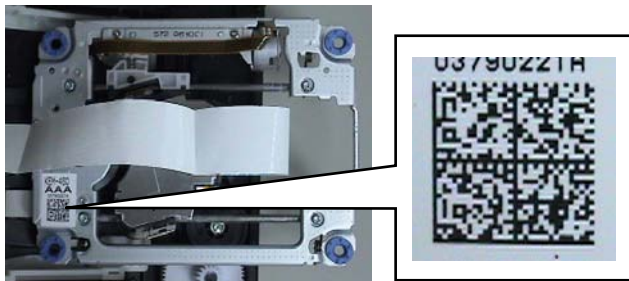
Flow of replacement:

Note: The photo in flow is an image.



Procedure:

1. Remove the INSULATOR (4 pieces) and broken optical device (KEM-460AAA) from LOADING ASSY.
2. Take photo of the barcode on new optical device (KEM-460AAA) bottom side by digital camera.



3. Assemble the INSULATOR (4 pieces) to new optical device (KEM-460AAA), fix (Torque value: 2 kgf) it to LOADING ASSY with screw, and assemble this set.
4. Drag & drop the taken photo by step 2 to "BDBUDec.exe", and make the text data (File name: BuData.txt).
5. Save the text data to USB memory.
6. Connect USB memory with rear USB connector on this set, and turn the power on.



Rear USB connector

7. Press the [FUNCTION] button to select "BD/DVD".
8. Press the buttons on the remote commander in order of [RETURN], [0], [2], [1], [SUBTITLE], and enter the service mode.
9. Press the buttons on the remote commander in order of [8], [1], [ENTER], and execute "[1] Drive OP data Write".
10. Turn the power off after writing the OP data.
11. Turn the power on, and enter the service mode again.
12. Press the buttons on the remote commander in order of [8], [7], [3], [ENTER], and the dIOP value is displayed.
13. Confirm value is the following specification value, and turn the power off.

Specification value:

BD : 6 mA
 DVD/CD : 9 mA

14. Turn the power on, confirm playback performance of the BD (BLX-104)/DVD (HLX-513)/CD (HLX-A1).
15. Completely assemble this set, and complete the repair.

HBD-E370/E470/E570/E870/T57

NOTE THE BD DRIVE (BPX-5) PARTS REPLACING

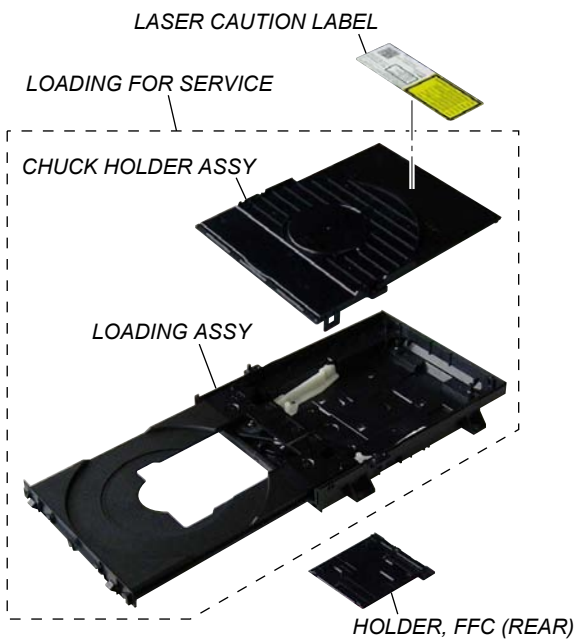
The mechanism blocks except optical device of BD drive (BPX-5) are chiefly composed of the following parts.

- CHUCK HOLDER ASSY
- LOADING ASSY
- HOLDER, FFC (REAR)

These parts are produced by two vendors, it is not compatible. Therefore, CHUCK HOLDER ASSY and LOADING ASSY are supplied by one pair as repair parts. Please exchange both CHUCK HOLDER ASSY and LOADING ASSY at the same time.

HOLDER FFC (REAR) need not be exchanged at the same time.

Note: The laser caution label is not pasted to LOADING FOR SERVICE (Part No. A-1750-926-A). Please peel off an original laser caution label, and paste it to LOADING FOR SERVICE when you use LOADING FOR SERVICE.

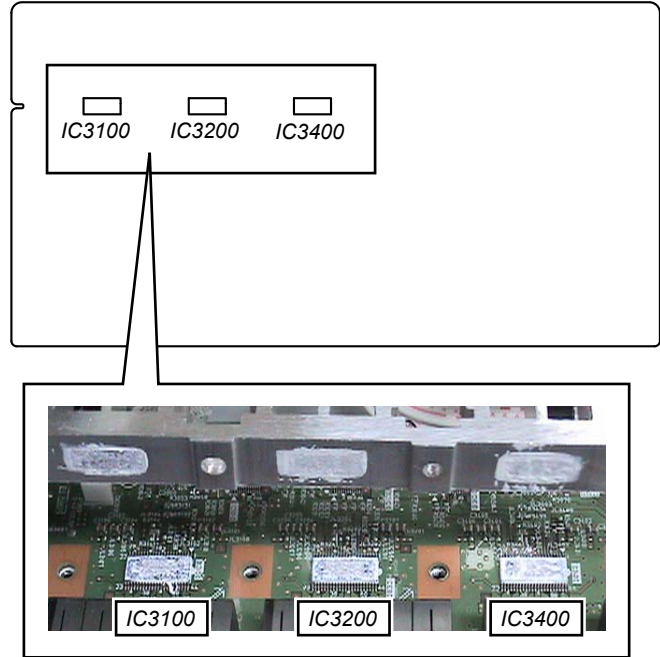


NOTE OF REPLACING THE THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD

When IC3100, IC3200 and IC3400 on the MAIN board are replaced, it is necessary to spread the compound (THERMAL COMPOUND (G747)) (Part No. J-2501-221-A) between parts and heat sink.

Spread the compound referring to the figure below.

– MAIN Board (Component Side) –



MODEL IDENTIFICATION

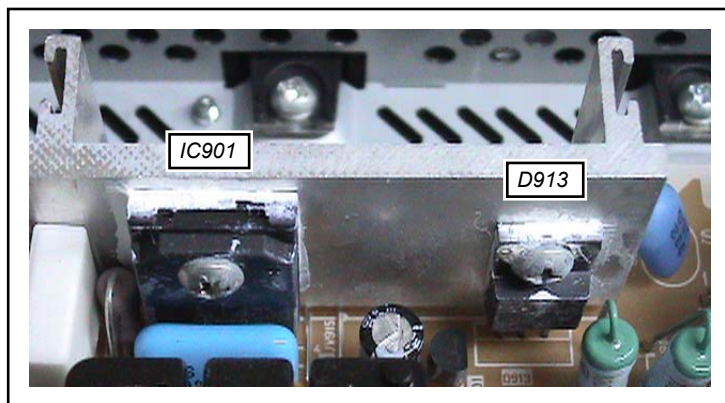
– Rear Chassis –



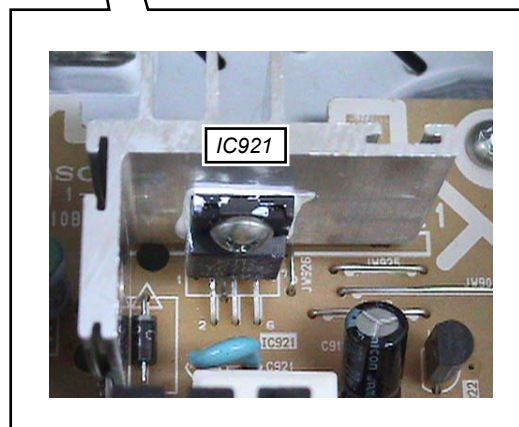
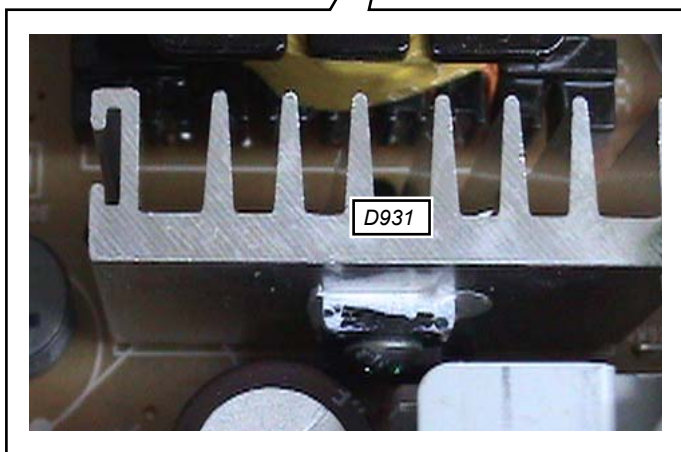
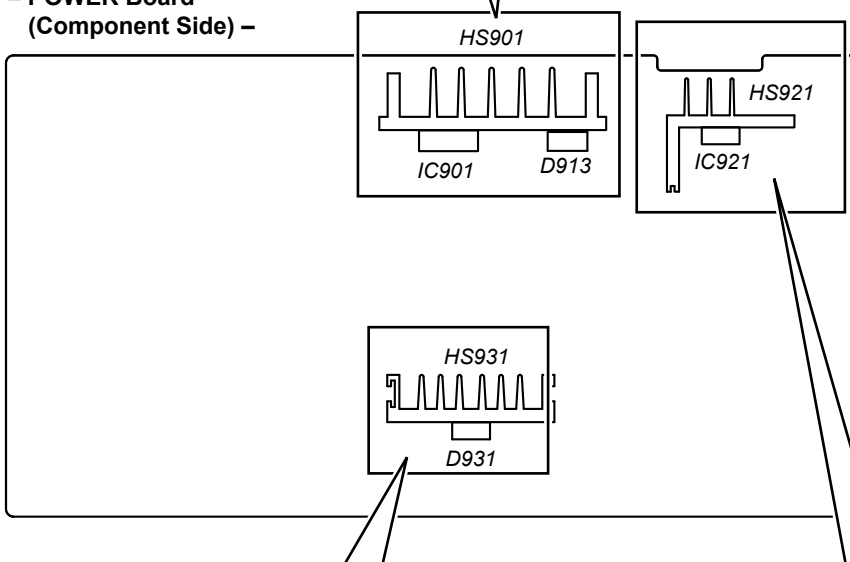
Model	Part No.
E370: AEP and UK models	4-161-684-1□
E370: US model	4-161-685-1□
E370: Canadian model	4-161-685-2□
E470: Canadian model	4-161-686-1□
E570: US model	4-161-684-3□
E870: Canadian model	4-161-684-5□
E870: AEP and UK models	4-161-686-5□
T57: US model (for Costco)	4-161-686-0□

NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD

When D913, D931, IC901 and IC921 on the POWER board and the complete POWER board are replaced, it is necessary to spread the compound (THERMAL COMPOUND (G747)) (Part No. J-2501-221-A) between parts and heat sink. Spread the compound referring to the figure below.



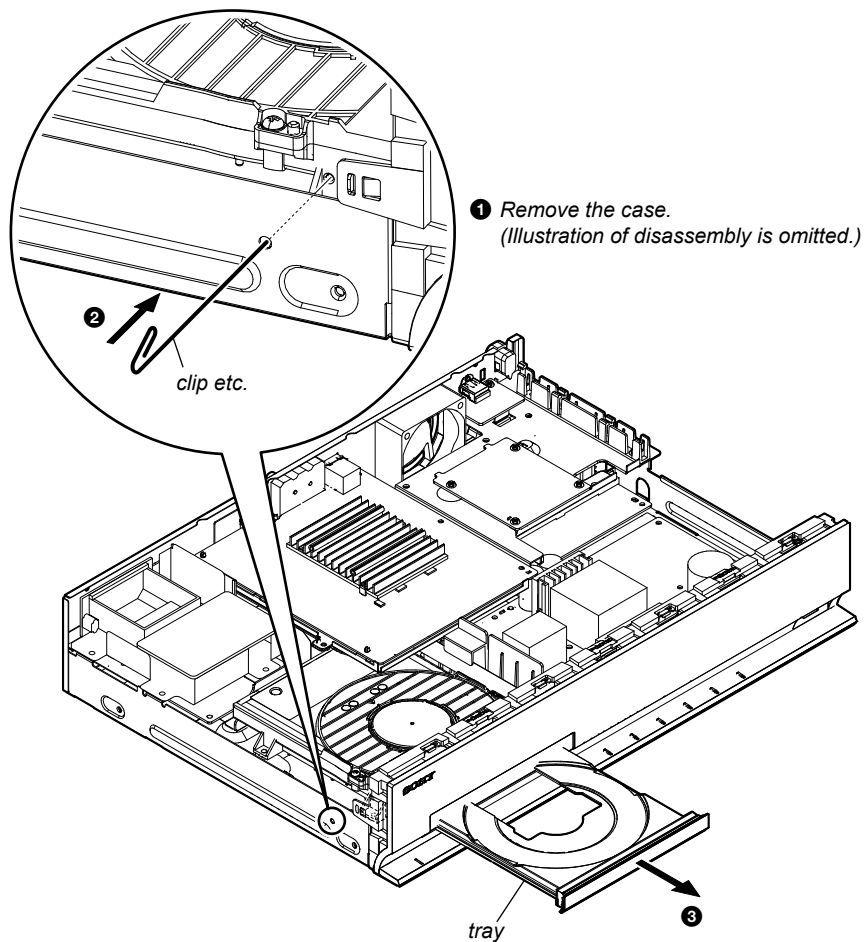
– POWER Board
(Component Side) –



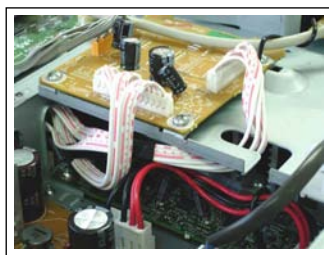
HOW TO OPEN THE TRAY WHEN POWER SWITCH TURN OFF

Note 1: After the case is removed, this mark is done.

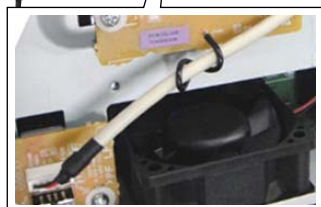
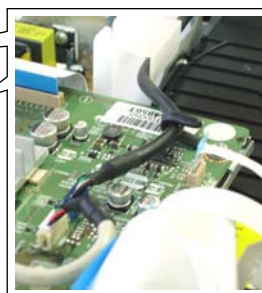
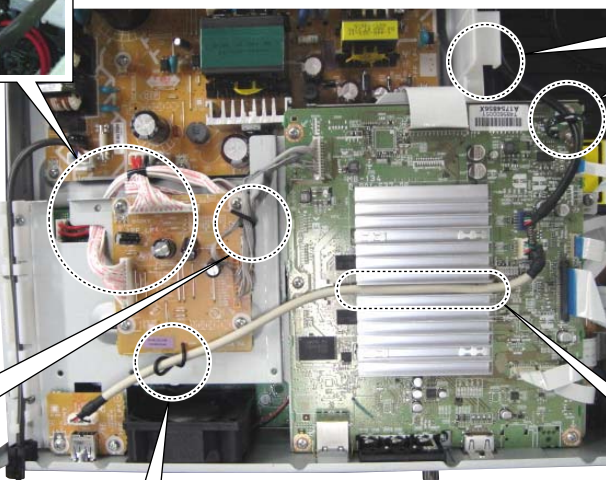
Note 2: Please prepare the thin wire (clip etc.).



PROCESSING OF HARNESS (USB)



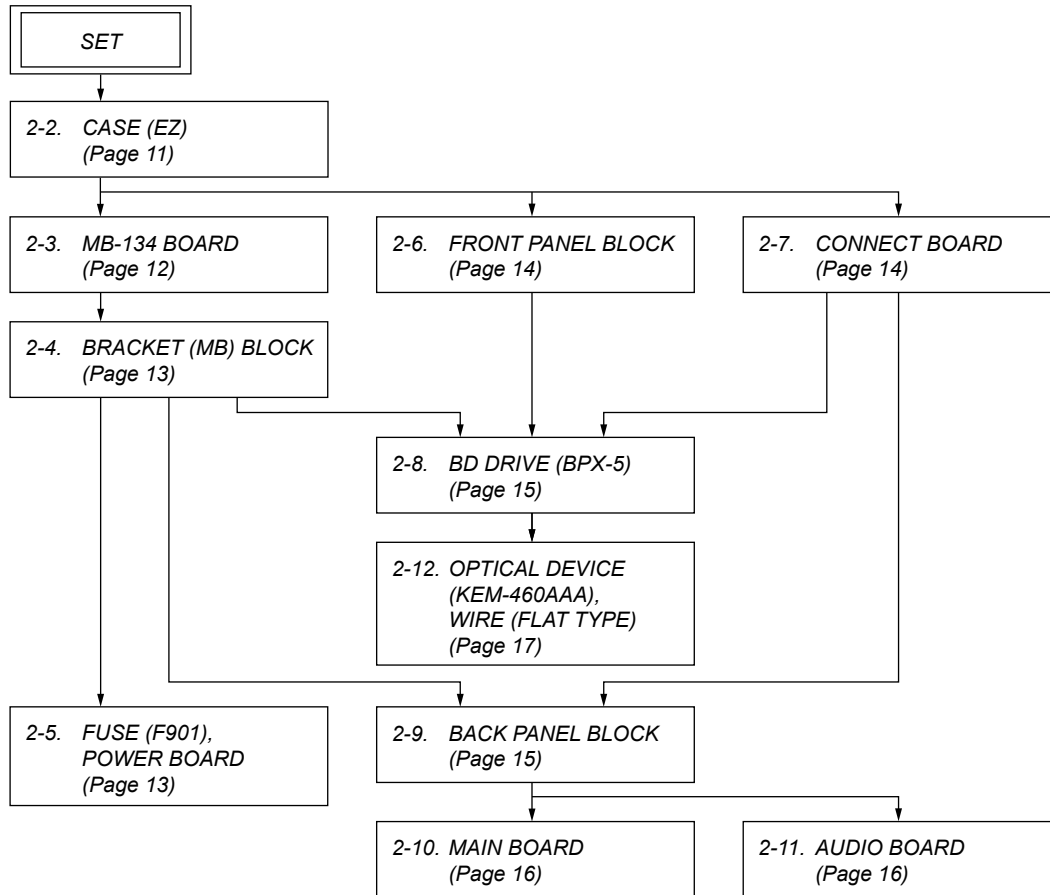
– Top view –



SECTION 2 DISASSEMBLY

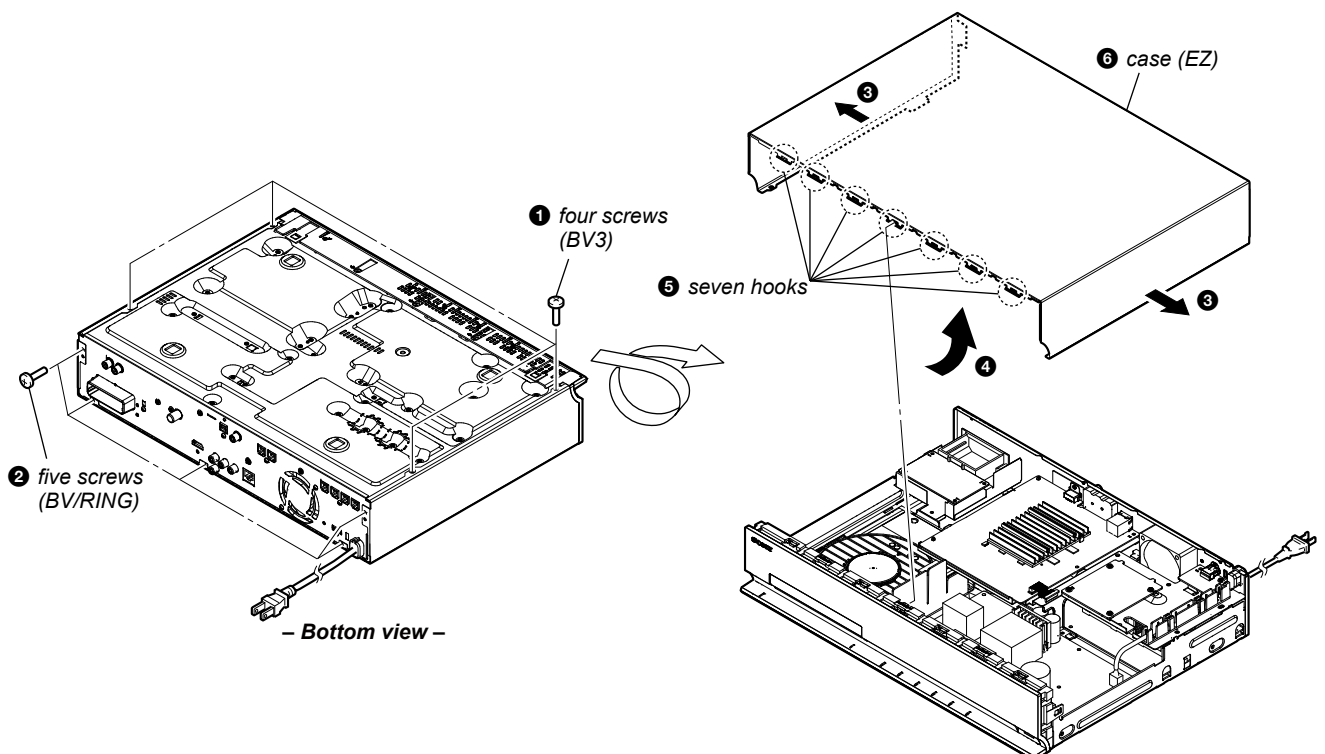
- This set can be disassembled in the order shown below.

2-1. DISASSEMBLY FLOW

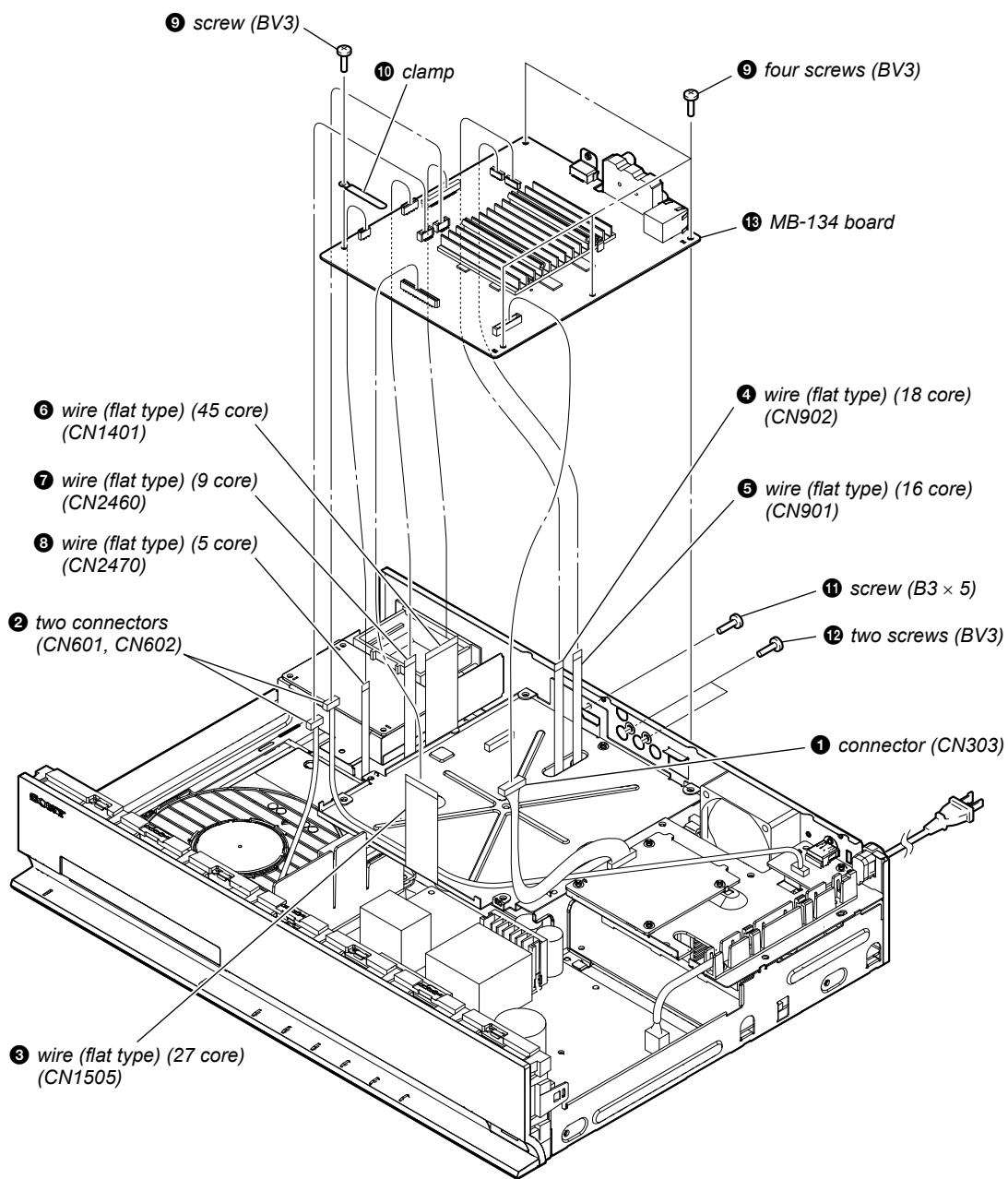


Note: Follow the disassembly procedure in the numerical order given.

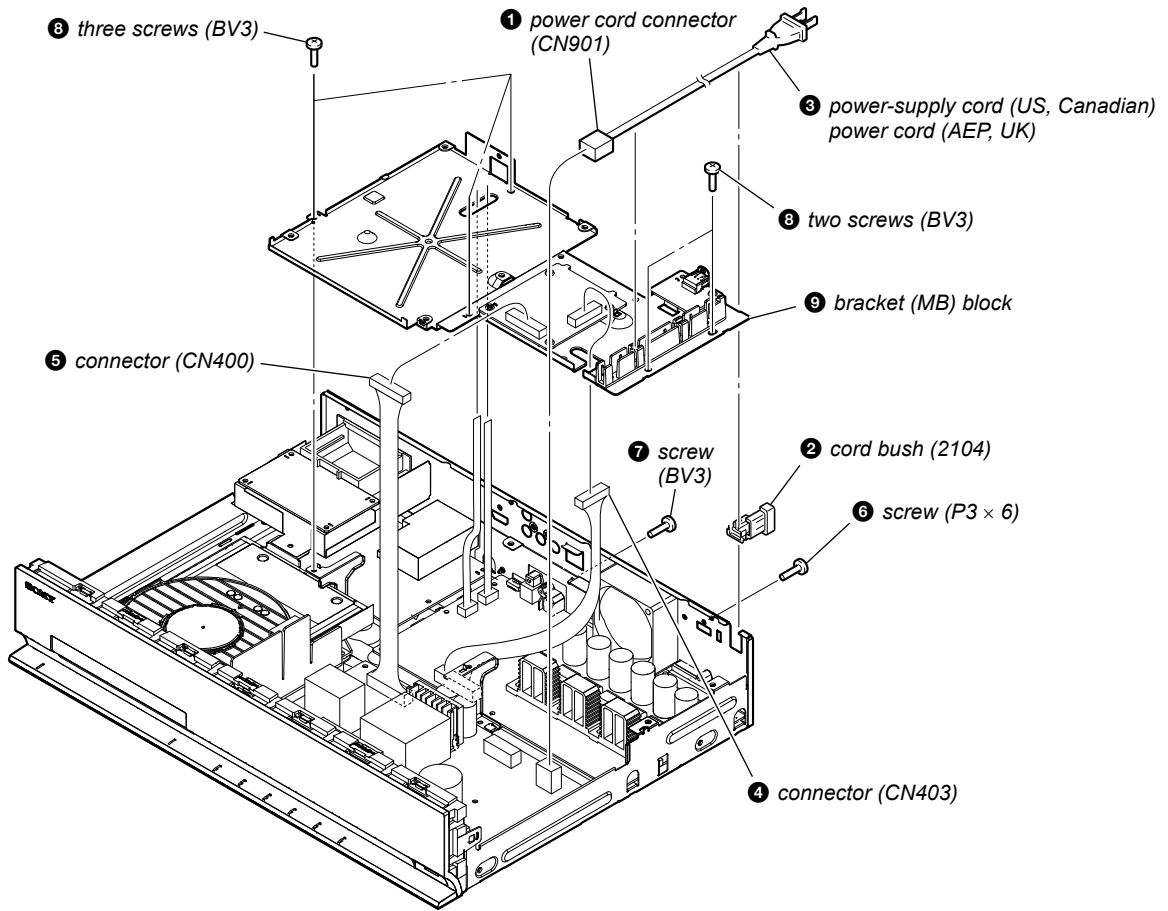
2-2. CASE (EZ)



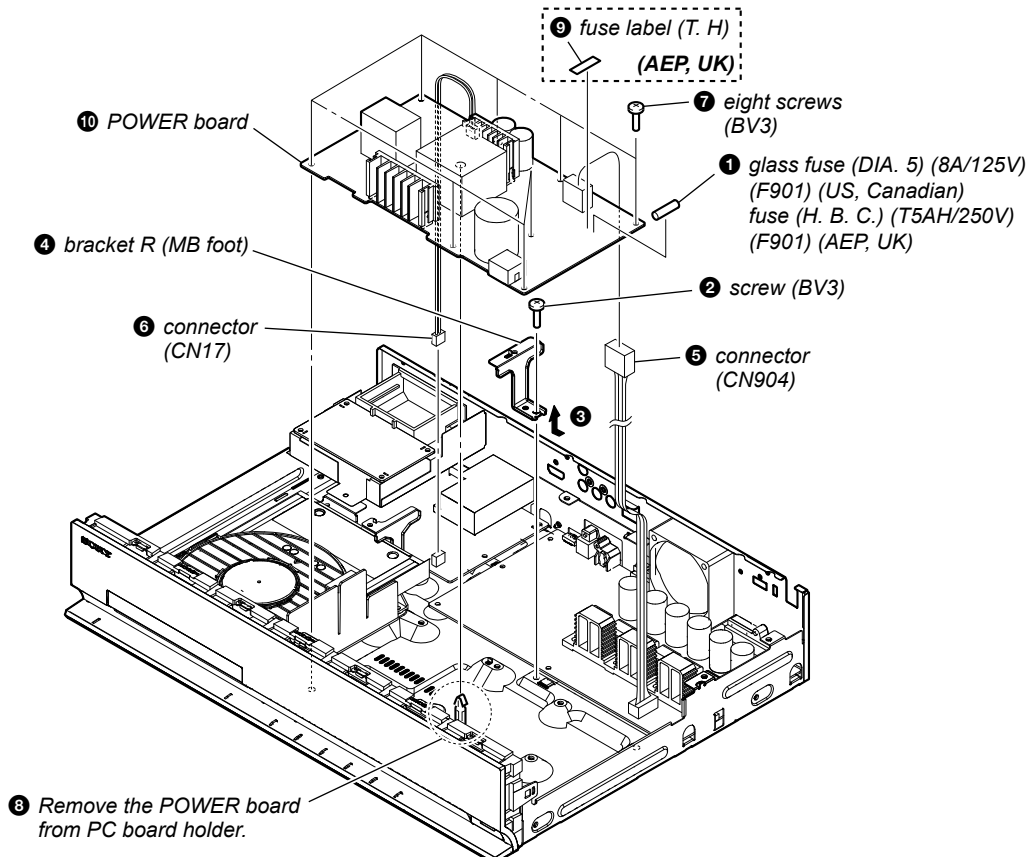
2-3. MB-134 BOARD



2-4. BRACKET (MB) BLOCK

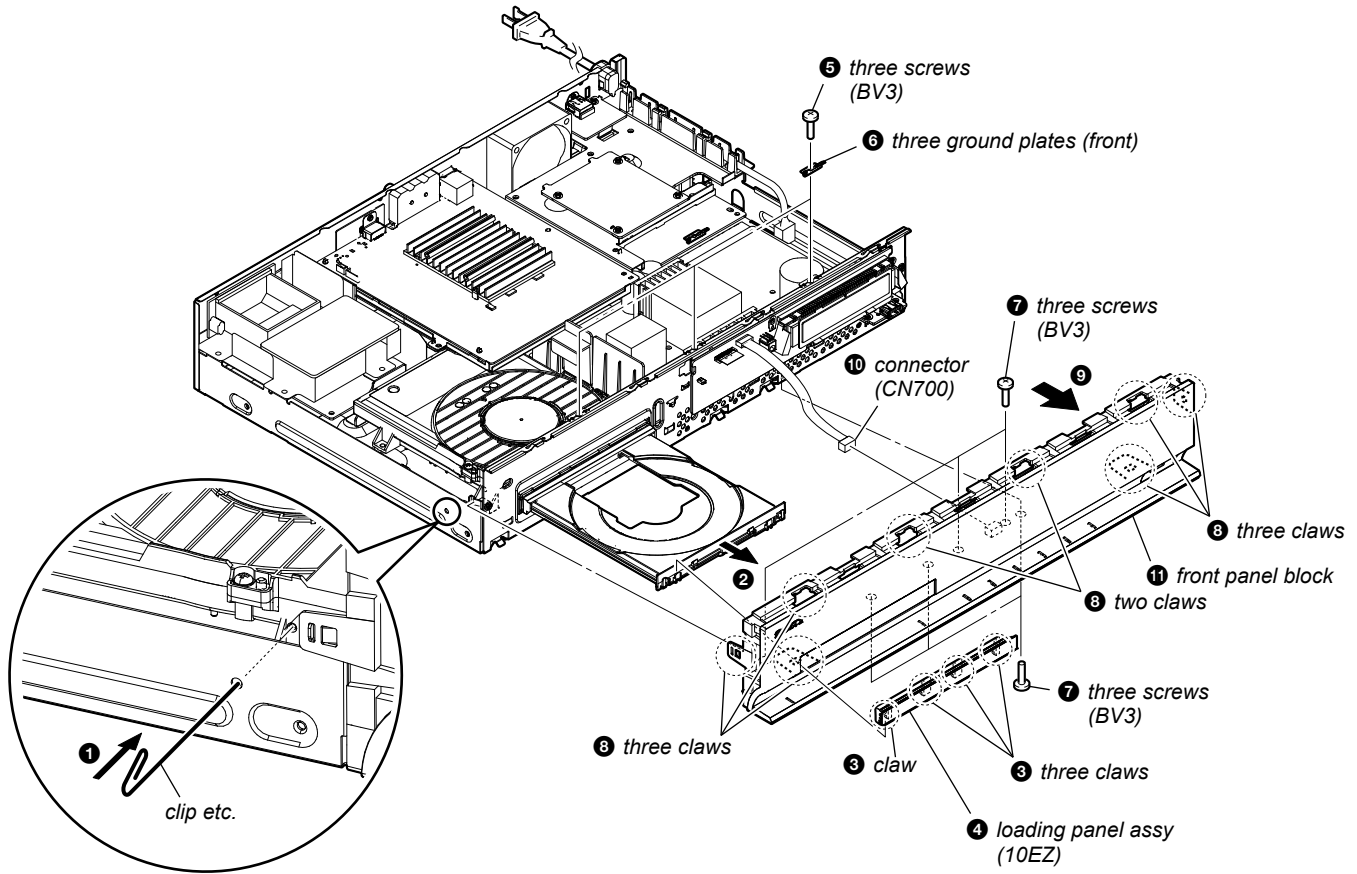


2-5. FUSE (F901), POWER BOARD

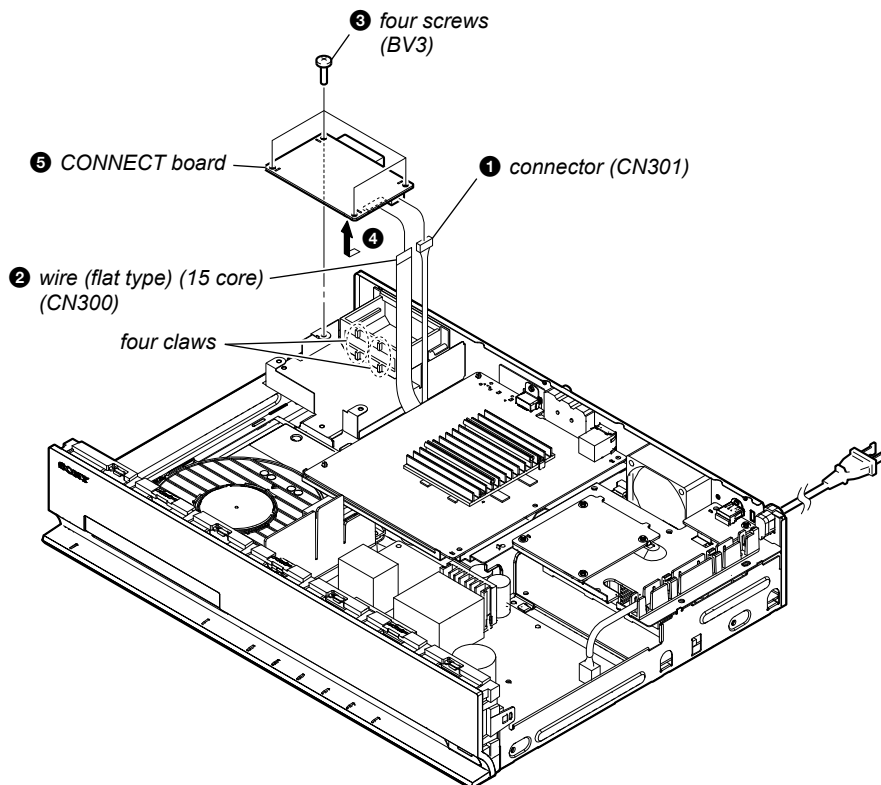


2-6. FRONT PANEL BLOCK

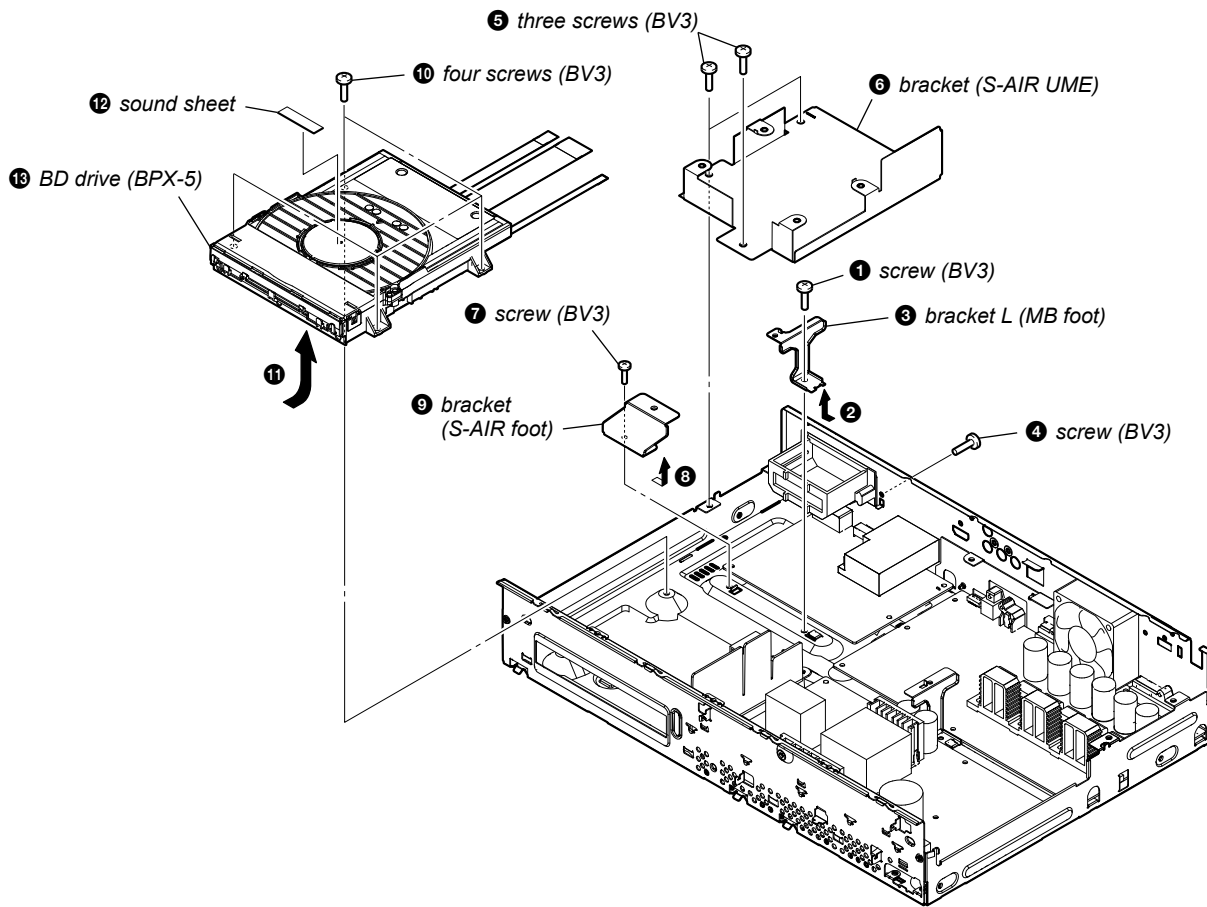
Note: Please prepare the thin wire (clip etc.).



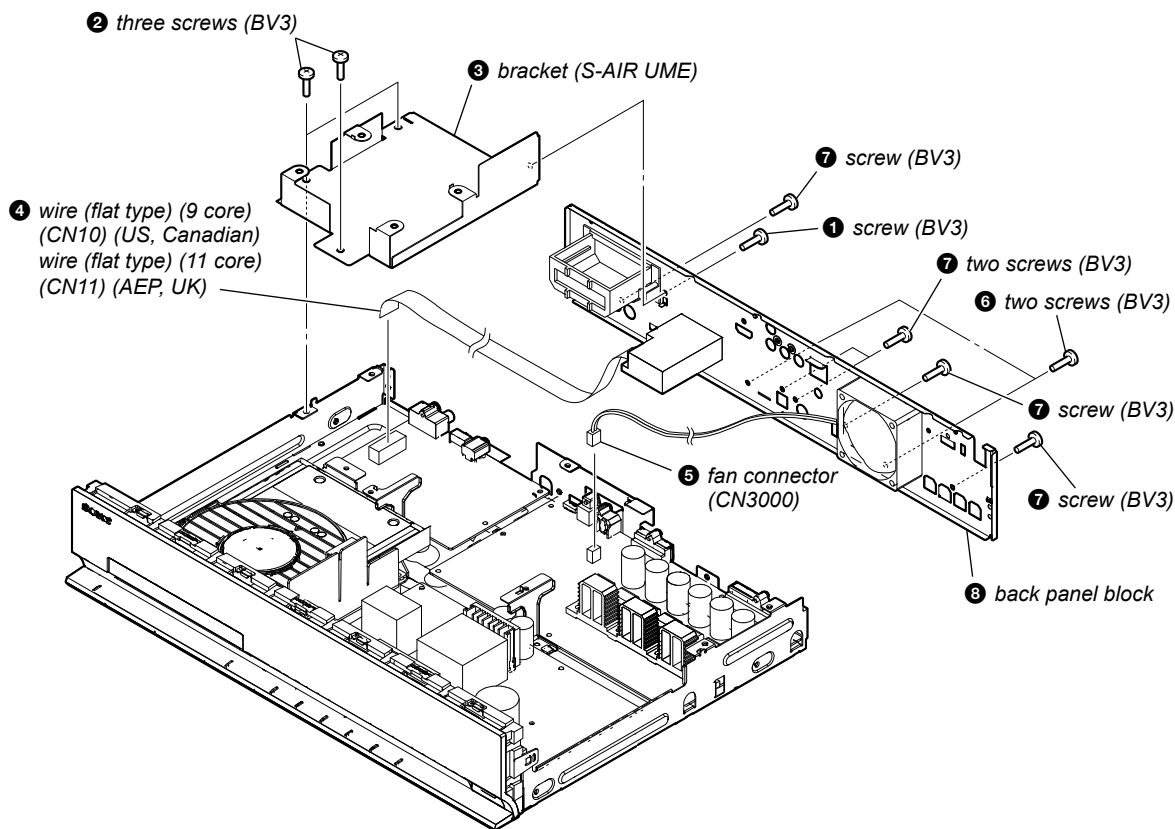
2-7. CONNECT BOARD



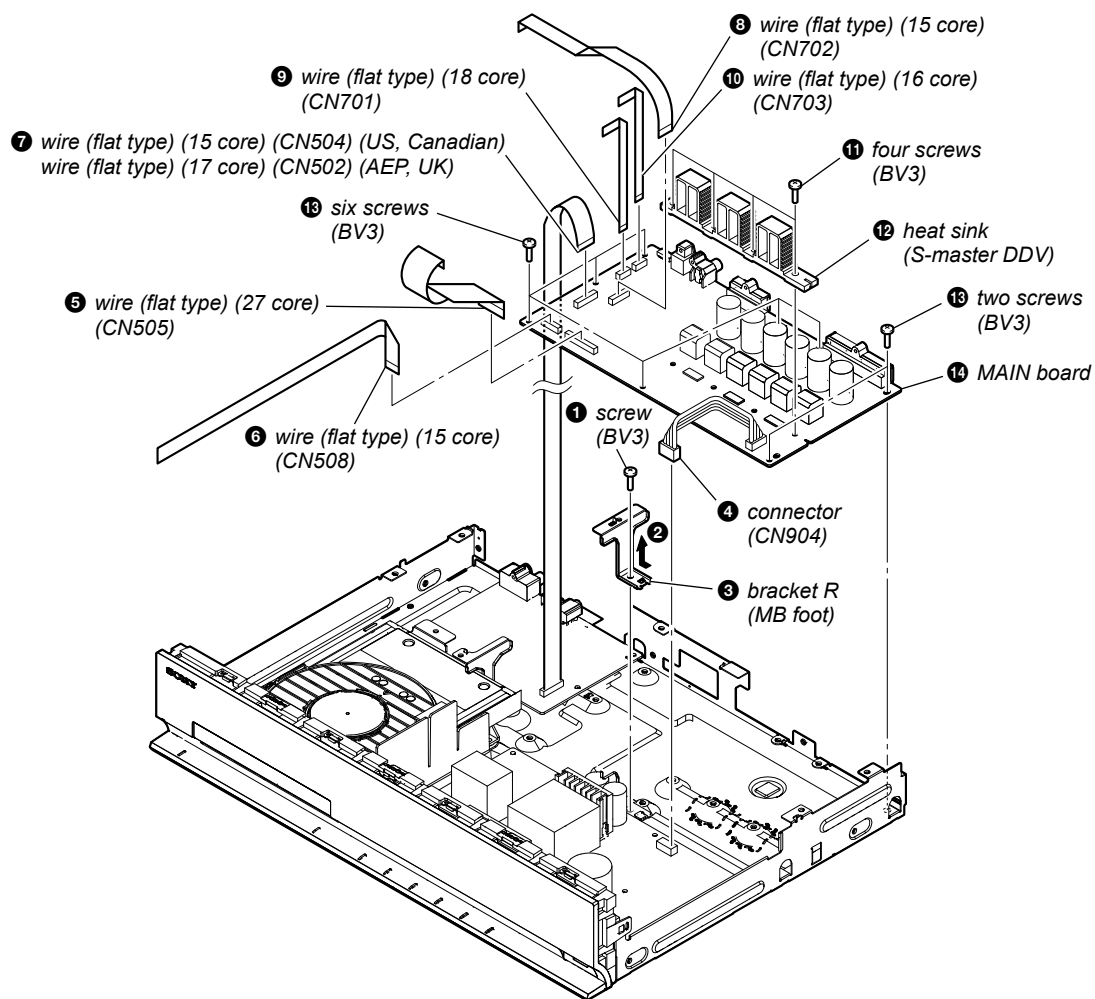
2-8. BD DRIVE (BPX-5)



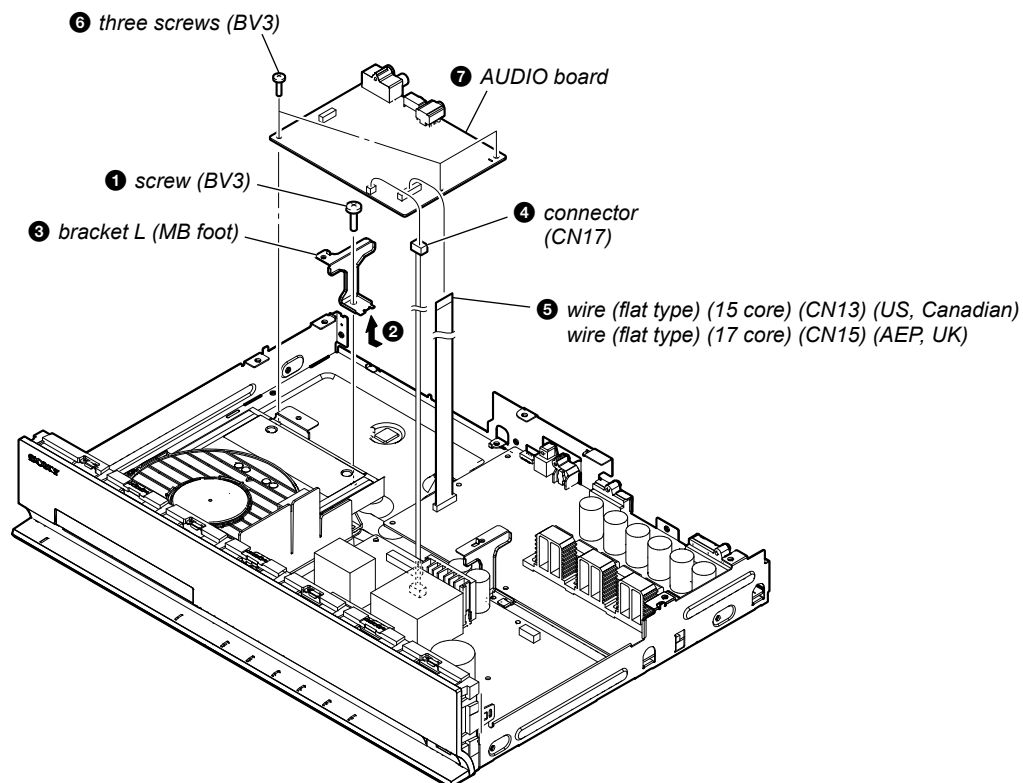
2-9. BACK PANEL BLOCK



2-10. MAIN BOARD

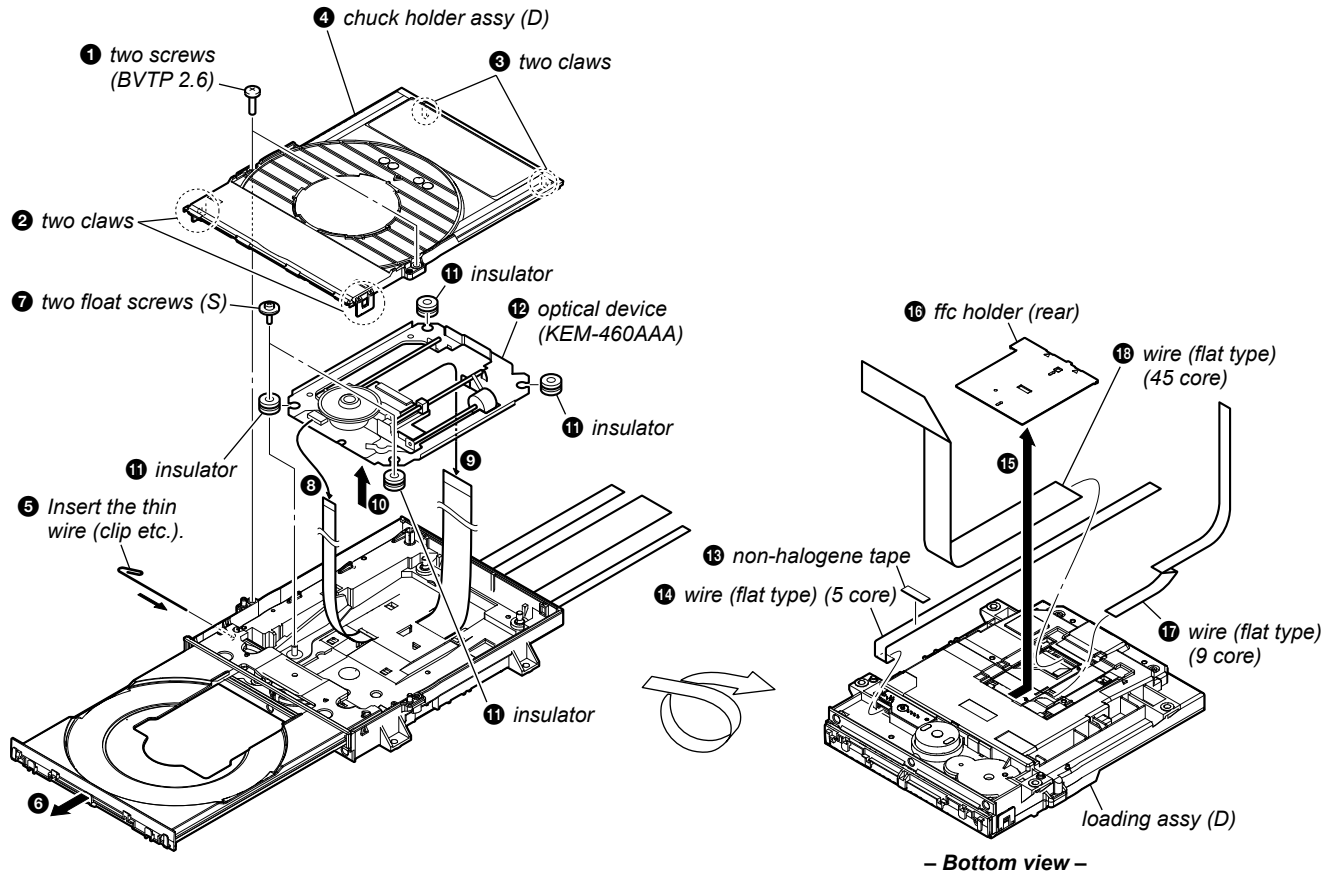


2-11. AUDIO BOARD



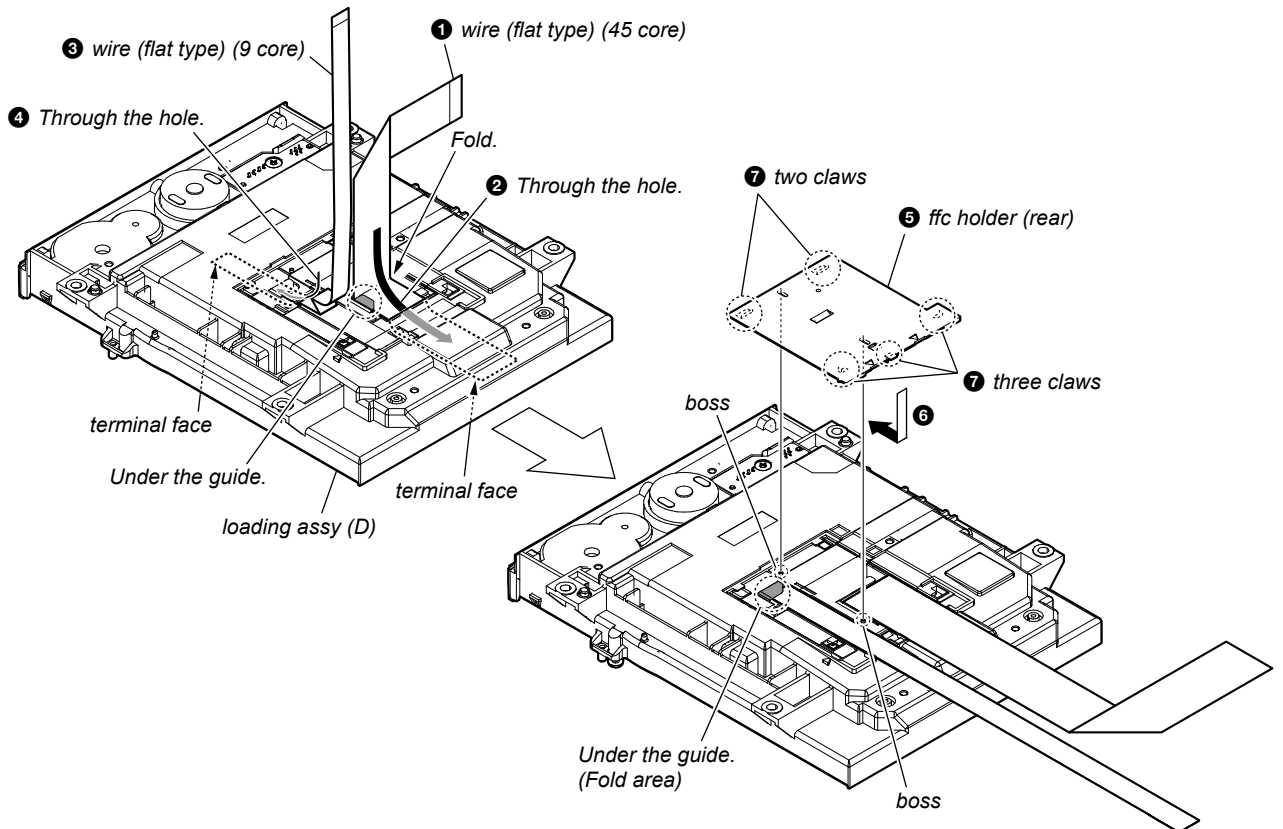
2-12. OPTICAL DEVICE (KEM-460AAA), WIRE (FLAT TYPE)

Note: Please prepare the thin wire (clip etc.).



• Installation of wire (flat type) (45 core) and wire (flat type) (9 core)

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



SECTION 3 TEST MODE

COLD RESET

The cold reset clears data except BD/DVD data stored in the RAM to initial conditions. Execute this mode when returning the set to the customers.

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [■] and [VOLUME -] buttons simultaneously and hold down (around 5 seconds).
3. The message “COLD RESET” appears on fluorescent indicator tube, then becomes standby states.

DEMO MODE

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

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to select the “BD/DVD”.
3. Press the [■] and [▲] buttons simultaneously and hold down until “DEMO ON” or “DEMO OFF” displayed on the fluorescent indicator tube (around 5 seconds).

S-AIR ID SETTING CHANGE

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] and [VOLUME +] buttons simultaneously and hold down (around 5 seconds).
3. S-AIR ID setting is changed (A → B → C → A...).

PANEL TEST

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press button in order of the [RETURN] → [0] → [0] → [1] → [SUBTITLE] on the remote commander (Make the interval when each button is pressed within two seconds).
3. All segments in fluorescent indicator tube are lighted up. And half segments in fluorescent indicator tube are lighted up, others half segments in fluorescent indicator tube are lighted up, then LEDs and all segments in fluorescent indicator tube are lighted up. This operation is repeated.
4. When all segments in fluorescent indicator tube are lighted up in the state of step 3, press the [VOLUME +] button on the remote commander and model information is displayed on the fluorescent indicator tube.
Each time the [VOLUME +] button on the remote commander is pressed, the display changes from destination information, STR version, SYS version, UI version, BDLIB version, ST version, TA version, DSP version, TM version, CEC version, SAIR version, PF version in this order, and returns to the model information display.
Each time the [VOLUME -] button on the remote commander is pressed, the version and date are switched.
5. In the state of step 3, press the [FUNCTION] button on the remote commander and “K 0” is displayed on the fluorescent indicator tube.
“K 0” value increases whenever a button on the set is pressed. However, once a button has been pressed, it is no longer taken into account.
All buttons on the set are pressed, “OK” and “K 7” are alternately displayed on the fluorescent indicator tube.
6. To release from this mode, press the [I/⏻] button.

AMP TEST

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press button in order of the [RETURN] → [0] → [1] → [1] → [SUBTITLE] on the remote commander (Make the interval when each button is pressed within two seconds).
3. The message “MEASURE” appears on the fluorescent indicator tube and enter the AMP test mode.
4. Press the [BLUE] button on the remote commander, the state of D.C.A.C. microphone is displayed on the fluorescent indicator tube.

*** @@ \$\$\$

*** : Either of “IN”/“NON” is displayed by the state of detection of the microphone.

@@ : Either of “OK”/“NG” is displayed by the state of digital audio data input.

\$\$\$: Microphone input audio data A/D value (0 – 255).

5. Press the [MUTING] button on the remote commander, “VOL N” (The change in the volume is usual)/“VOL MSM” (The change in the volume is a switch of MIN/1/20/MAX) can be switched.
6. Press the [SUBTITLE] button on the remote commander, the message “VACS ON” or “VACS OFF” appears on the fluorescent indicator tube and thus the VACS on/off are changed.
7. To release from this mode, press the [I/⏻] button.

BD SERVICE MODE

Note: The operation in this mode must use a remote commander.

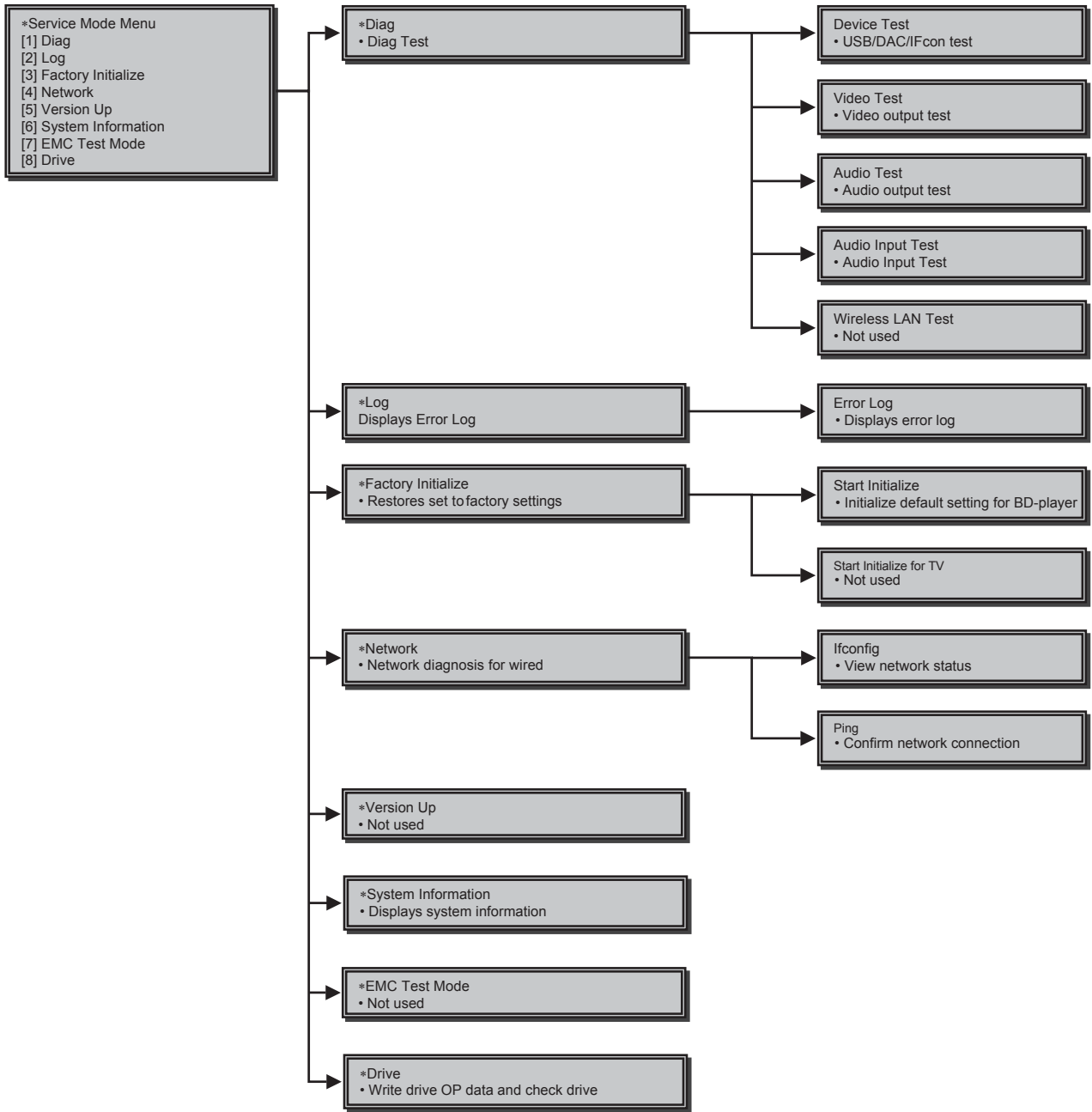
Setting method of the BD service mode:

1. Press the [I/⏻] button to turn the power on.
2. Press button in order of the [RETURN] → [0] → [2] → [1] → [SUBTITLE] on the remote commander. (Make the interval when each button is pressed within two seconds)
3. Enter the BD service mode.

1. Main Functions

- ErrorLog display
Display the error log. Displayed contents can also be saved in an USB memory device.
- Diag
Performs unit test of devices installed on the board.
- Factory Initialize
Restores the set to its factory settings.
- Network
Checks the wired network connection.
- Version Up (version update)
Not used.
- System Information
Displays the system information of the set.
Displays information such as the software version, drive information, etc.
- EMC Test Mode
Not used.
- Drive
Write drive OP data and check drive.

2. Menu Tree



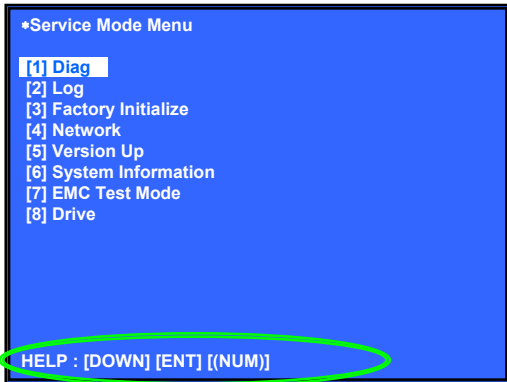
3. Service Mode Menu (Top Menu)

This is the top menu of service mode.
Each function is accessed from this screen.

Operation:

- [1] Moves to Diag screen
- [2] Moves to Log screen
- [3] Moves to Factory Initialize screen
- [4] Moves to Network screen
- [5] Moves to Version Up (DISC version update) screen (Not used)
- [6] Moves to System Information screen
- [7] Moves to EMC test mode screen (Not used)
- [8] Moves to Drive screen
- [↑]/[↓] Moves the cursor
- [⊕] Moves to the screen of the item selected with the cursor

* Cursor is not displayed when the menu is first displayed.



HELP (currently available keys, etc.) is displayed

4. Diag (Device Test)

This screen is used to test devices mounted on the board.

Screen 1: Selects the test category

Operation:

- [←]/[→] Selects the category
- [↓]/[⊕] Moves to the selected category

Screen 2: Device test

Selects the device to test after selecting Device Test in screen 1.

Operation:

- [←]/[→] Selects the device to test
- [⊕] Executes the test
- [↑] Returns to selection of test category
- Selects the cursor during IFCon and D terminal tests
- [↓] Selects the cursor during IFCon and D terminal tests

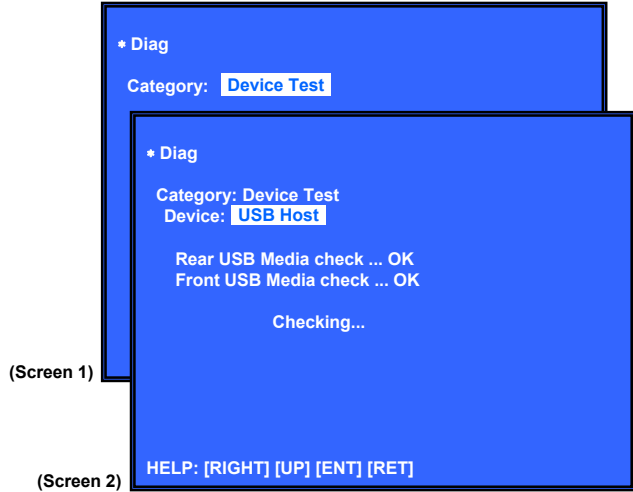
List of test categories

- Device Test
- Video Test
- Audio Test
- Audio Input Test
- Wireless LAN Test (not used)

- Device Test: List of devices
USB Host (*1)

*1) USB media check (front and rear). Only one time.

* For details concerning device test, see the Diag reference.



5. Diag (Video/Audio Test)

This screen performs video and audio tests.

Screen 1: When video test category is selected

Operation:

- [⊕] Shows/hides the color bar
- [↑]/[RETURN] Returns to the selection of test category

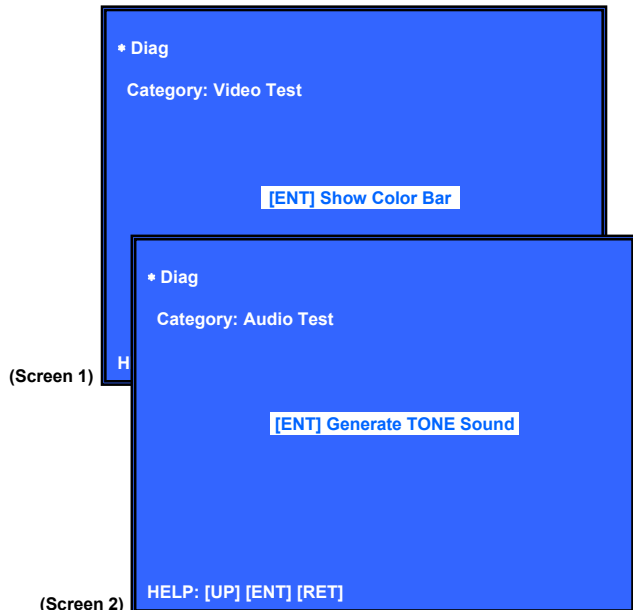
Screen 2: When audio test category is selected

Operation:

- [⊕] Plays back/stops the tone sound
- [↑]/[RETURN] Returns to the selection of test category

- Video test:
Outputs a color bar (composite & component & HDMI).

- Audio test:
TONE sound output (speaker (8 ch) & HDMI (2 ch)).



6. Diag (Audio Input Test)

This screen performs audio input test.

Screen 1: Selects the test category

Operation:

[←]/[→] Selects the category

[↓]/[⊕] Moves to the selected category

Screen 2: Select Audio Input Test

Operation:

[↑]/[↓] Select test

[⊕] Start/stop input sound

[RETURN] Returns to the selection of test category

- Digital Input

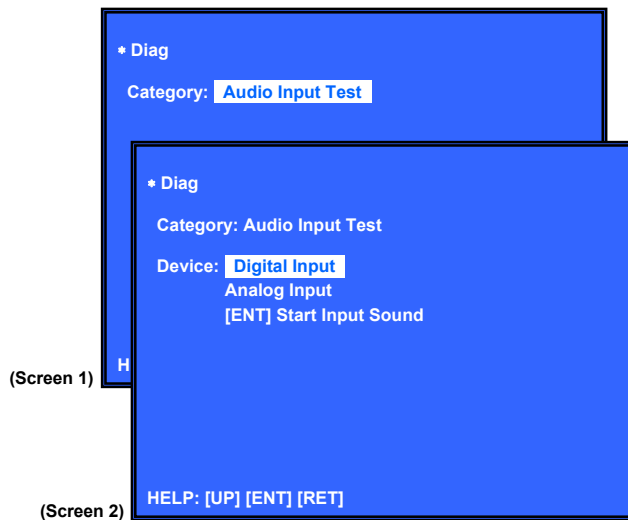
Input : SPDIF (optical, 48 kHz, 2 ch only).

Sound output : Speaker (2 ch).

- Analog Input

Input : Line In (2 ch).

Sound output : Speaker (2 ch).



7. Diag (Wireless LAN Test)

This screen performs wireless LAN test.

Note: Not used for the servicing.

8. Log: Error Log (Output of each Log)

This screen displays the contents of each log.

Note: Do not refer to the displayed date.

Screen 1: Selects log

Operation:

[1]/[⊕] Moves to the Error Log output screen

[RETURN] Returns to the top menu of the service mode

Screen 2: Displays the Error Log

Operation:

[←] Returns to the previous page

[→] Moves to the next page

[RETURN] Returns to the screen (screen 1) that selects the log type

[RED] Writes the log contents to an USB memory device

- Viewing the log display

Error Log:

001 08/01/01 00: 53: 19: [ErrCode: 080400000000]

[Number (starting from old log)] [date] [time] [error code]

About copying log to USB memory device:

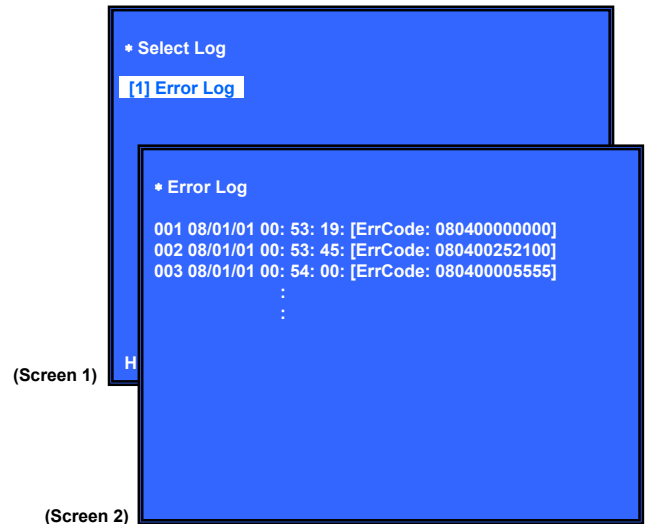
Press the [RED] button in each log display screen with the USB memory device inserted into the set

Note: Please do not press the [RED] button immediately after USB memory is inserted.

Please do not pull out USB memory immediately after the [RED] button was pressed.

Error Log:

When “getErrLogFile.trm file” exists in the USB memory device, errlog.log file is output.



9. Factory Initialize (Factory Settings)

Return all of the player setting to their factory defaults.

Operation:

Screen 1

Press the [1] button in this screen when restoring the set to its factory settings.

All saved titles will also be deleted.

- [1] Start Factory Initialize
- [2] Start Factory Initialize for TV (Not used)
- [↑]/[↓] Moves the cursor
- [⊕] Activate the selected cursor
- [RETURN] Returns to the top menu of the service mode

Screen 2

It is a screen of the end of initialization.

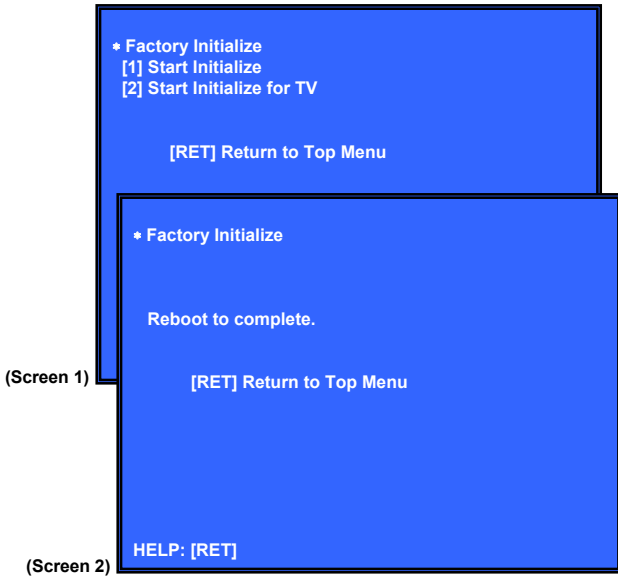
[RETURN] Returns to the top menu of the service mode

To complete factory initialize, process COLD RESET subsequently.

Please disconnect AC power cord, and connect AC again. Then press the [I/⏻] button to turn the power on, and press the [■] and [VOLUME -] buttons simultaneously and hold down (around 5 seconds) to execute COLD RESET.

Remove the AC power cord and insert the AC power cord again.

* Operations in other service menus can also be performed.



10. Network (Network Test Diagnosis Screen: Ifconfig)

Network menu for the wired ethernet.

Screen 1: Ifconfig Test

Operation:

- [⊕] Activate Ifconfig (Display network setting)
- [→] Select ping test
- [RETURN] Returns to the top menu of the service mode

Screen 2: Ping Test

Operation:

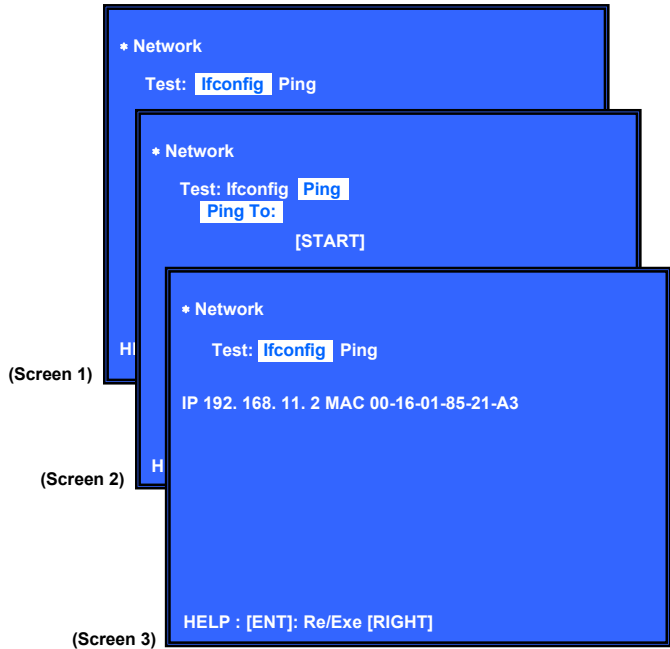
- [←] Select Ifconfig test
- [RETURN] Returns to the top menu of the service mode (The details of a Ping test are “11. Network (Network Test Diagnosis Screen: Ping)”)

Screen 3: Ifconfig Test Active

Display Ifconfig command results.

Operation:

- [⊕] Ifconfig retry
- [→] Select ping test
- [RETURN] Returns to the top menu of the service mode



11. Network (Network Test Diagnosis Screen: Ping)

Ping test for the wired ethernet.

Screen 1: Ping Test

Operation:

- [←] Select Ifconfig test
- [↓] Ping execution preparation
- [RETURN] Returns to the top menu of the service mode

Screen 2: The IP address of the Ping point is set up (IP address input mode)

When “Ping to :>” is reversed, the [⊕] button is pressed and IP is inputted.

Operation:

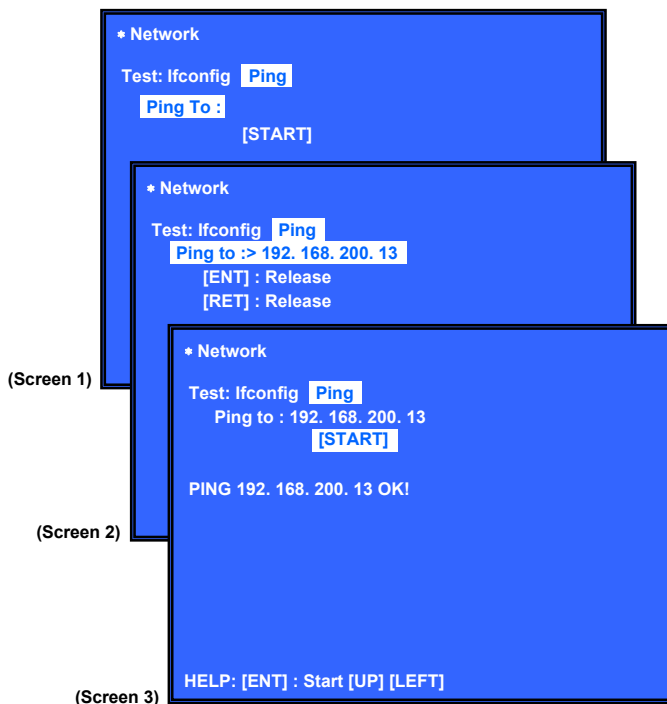
- [⊕] Finish to input
- [RETURN] Finish to input
- [←] Finish to input and Select Ifconfig Test
- [0] to [9] Input Character sting ‘0-9’
- [TIME] Input Character sting ‘.’
- [CLEAR] Backspace

Screen 3: Ping Test Active

When [START] is reversed, the [⊕] button is pressed and execute ping .

Operation:

- [⊕] Activate ping test
- [↑] The IP address of the ping point is set up
- [RETURN] Returns to the top menu of the service mode



12. System Information (System Information Display)

This screen displays system information.

Screen 1: Basic Information

Operation:

- [→] Drive information (delta IOP of a drive is measured) displayed (go to screen 2)
- [RETURN] Returns to the top menu of the service mode

Screen 2: Drive Information Menu

Operation:

- [←] Basic Information displayed (go to screen 1)
- [RETURN] Returns to the top menu of the service mode

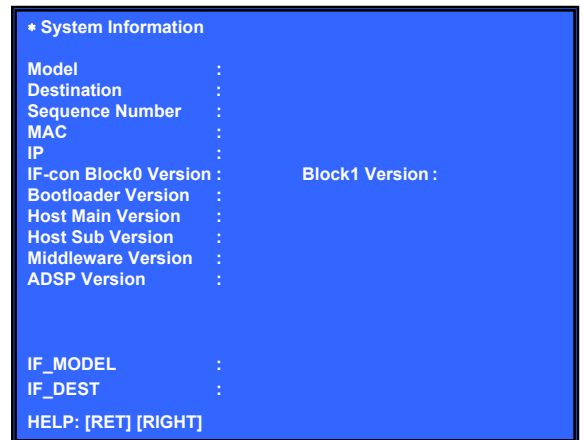
When delta IOP is measured, it becomes impossible to use the Version Up function.

Contents List:

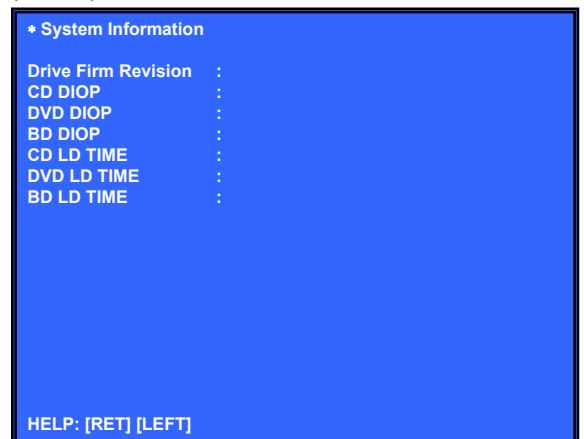
- Model
- Destination
- Sequence Number
- MAC
- IP
- IFCON IFCON Version
- Bootloader Bootloader Version
- Host Main Host Main Version
- Host Sub Host Sub Version
- Middleware Middleware Version
- ADSP ADSP Version
- IF Model
- IF Dest

- Drive Firm Revision
- CD DIOP Delta IOP
- DVD DIOP Delta IOP
- BD DIOP Delta IOP
- CD LD TIME LD Time
- DVD LD TIME LD Time
- BD LD TIME LD Time

(Screen 1)



(Screen 2)

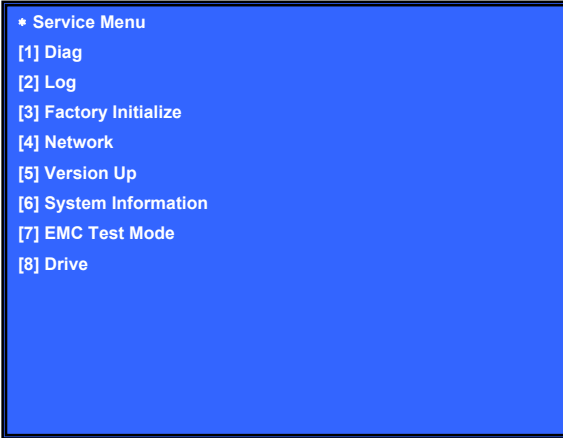


13. Drive

This menu is used to operate the drive using drive-related diagnostic and tools.

Screen 1: Selecting items under *Service Menu

(Screen 1)



Screen 3: *Drive OP data Write

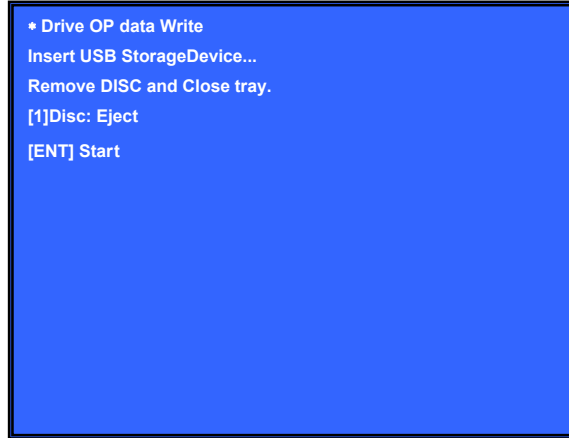
Purpose: Write OP data into flash IC

[↑]/[↓] Move the cursor up and down

[⊕] Start the selected cursor item

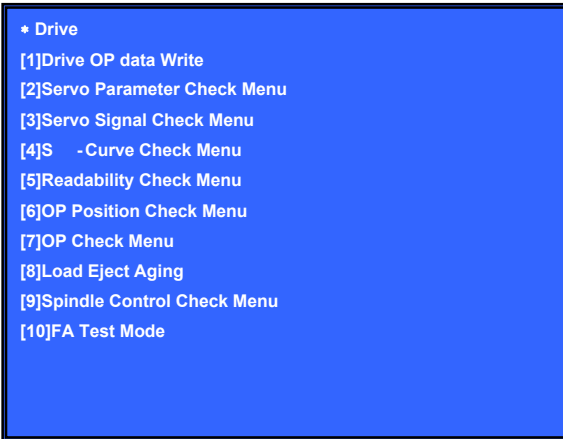
[RETURN] Returns to the top menu of the service mode

(Screen 3)



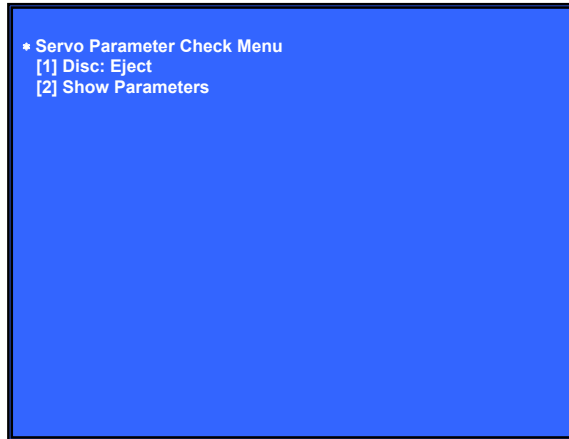
Screen 2: Selecting items under *Drive

(Screen 2)



Screen 4: *Servo Parameter Check Menu (Not Used)

(Screen 4)



Operation:

[↑]/[↓] Move the cursor up and down

[⊕] Open the selected cursor item

[RETURN] Returns to the top menu of the service mode

• Test item list

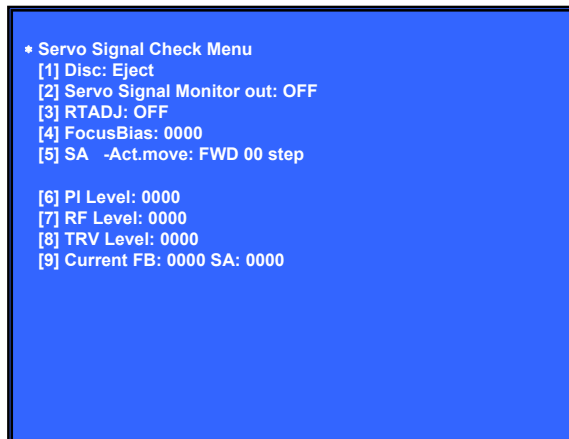
- [1] Drive OP data Write
- [2] Servo Parameter Check Menu
- [3] Servo Signal Check Menu
- [4] S-Curve Check Menu
- [5] Readability Check Menu
- [6] OP Position Check Menu
- [7] OP Check Menu
- [8] Load Eject Aging
- [9] Spindle Control Check Menu
- [10] FA Test Mode

Not used for the servicing.

Press the [RETURN] button if having entered this mode.

Screen 5: *Servo Signal Check Menu (Not Used)

(Screen 5)

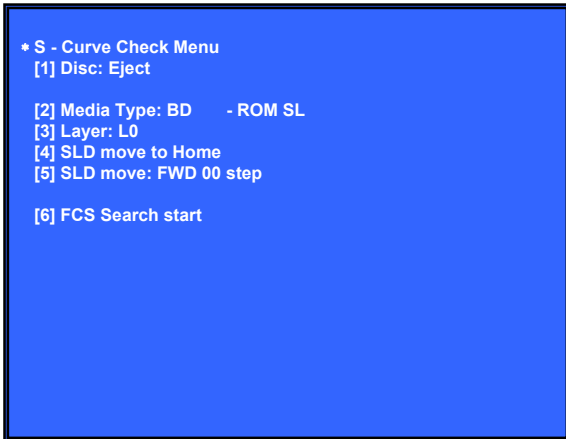


Not used for the servicing.

Press the [RETURN] button if having entered this mode.

Screen 6: *S-Curve Check Menu (Not Used)

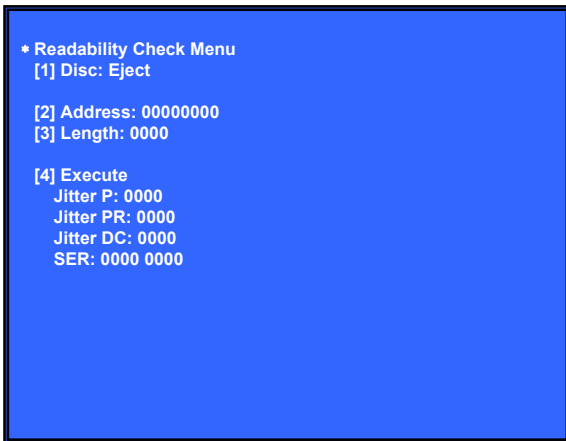
(Screen 6)



Not used for the servicing.
Press the [RETURN] button if having entered this mode

Screen 7: *Readability Check Menu (Not Used)

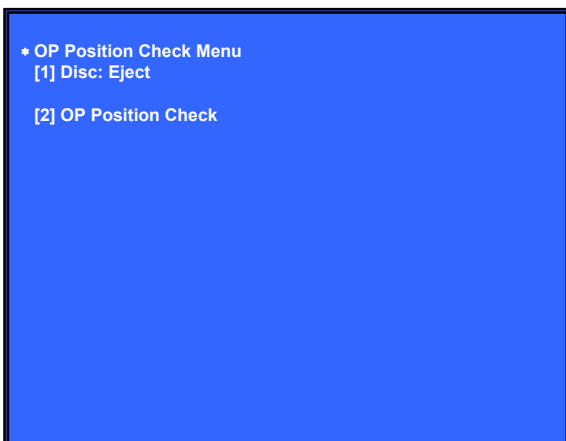
(Screen 7)



Not used for the servicing.
Press the [RETURN] button if having entered this mode.

Screen 8: *OP Position Check Menu (Not Used)

(Screen 8)

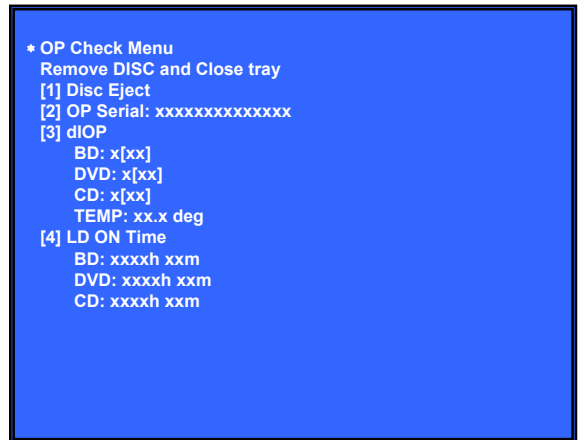


Not used for the servicing.
Press the [RETURN] button if having entered this mode.

Screen 9: *OP Check Menu

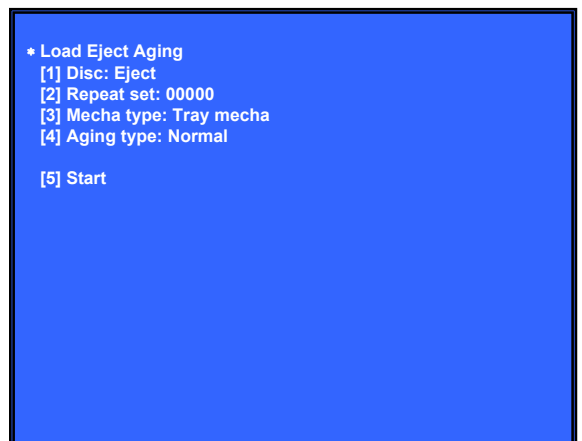
Purpose: Verify OP related such as delta IOP and LD time
 [↑]/[↓] Move the cursor up and down
 [⊕] Start the selected cursor item
 [RETURN] Returns to the top menu of the service mode

(Screen 9)



Screen 10: *Load Eject Aging (Not Used)

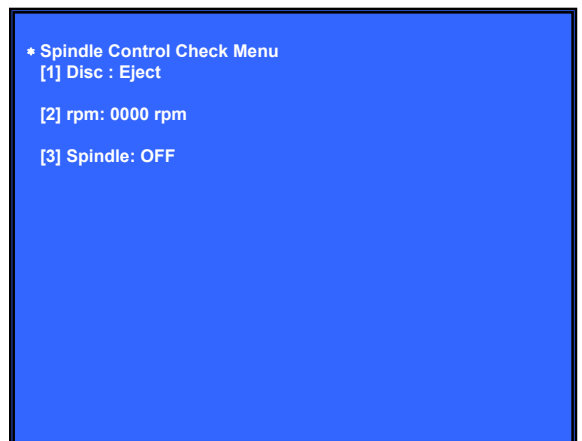
(Screen 10)



Not used for the servicing.
Press the [RETURN] button if having entered this mode.

Screen 11: *Spindle Control Check Menu (Not Used)

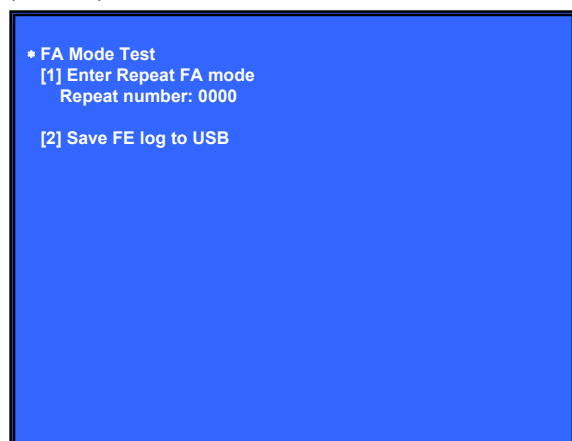
(Screen 11)



Not used for the servicing.
Press the [RETURN] button if having entered this mode.

Screen 12: *FA Mode Test (Not Used)

(Screen 12)



Not used for the servicing.

Press the [RETURN] button if having entered this mode.

CONFIRMATION ITEM

1. Playback Operation Confirmation

1-1. Test Disc

Part No.	Description	Layer
J-6090-199-A	BLX-104	Single Layer
J-6090-200-A	BLX-204	Dual Layer
J-2501-307-A	CD (HLX-A1)	
J-2501-305-A	HLX-513	Single Layer (NTSC)
J-2501-306-A	HLX-514	Dual Layer (NTSC)
J-6090-077-A	HLX-506	Single Layer (PAL)
J-6090-078-A	HLX-507	Dual Layer (PAL)

Note: Refer to the service manual of BDP-BX1/S350 (Part No. 9-883-989-1□) (page 1-3 to 1-14E) for the use of BLX-104/204.

Operation and Display:

1. BLX-104

Procedure:

- Select 23.976Hz/1080p.
 - Play "4.Motion picture".
 - Check whether player can play back or not.
 - Check each outputs.
Video:
Composite/S Video/component/HDMI.
Audio:
Speaker out.
- * When 1080/24p monitor is nothing, 1080i (59.94Hz or 50Hz) can use instead of 1080/24p.
However this is temporary correspondence.
- * When the output of HDMI is 1080p, the signal of Composite/S Video/Component are not output.
It is necessary to lower the output of HDMI to 1080i or less.

2. BLX-204

Procedure:

- Select 1080i (59.94Hz or 50Hz).
- Play "4.Motion picture".
- Check whether player can play back or not.
(Check the picture and sound output)

3. CD (HLX-A1)

Procedure:

Check whether player can play back or not.
(Check the sound output)

4. HLX-513/514 (NTSC), HLX-506/507 (PAL)

Procedure:

- After displayed Main Menu, select "1.Video Signal".
- Play "1.Color bar 100%".
(Check the picture and sound output)
- Return to Menu.
- Play "Demonstration 4:3" or "Demonstration 16:9".
(Check the picture and sound output)

1-2. Playback operation confirmation

Confirm operation in each signal/output mode of test disc (BLX-104/204) according to the content of the repair.

Note: "AV Sync." doesn't operate.

2. Networking Confirmation

Confirm it according to the following procedure when you confirm the connection of the network.

Note: Do not execute "Network Connection Diagnostics" of "Network Settings" of the home menu with only the router connected.

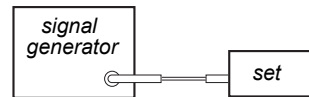
Procedure:

- Connect the router with the set with LAN cable.
- Turn on the power of the set and the router.
- Press the [HOME] button on the remote commander, and the home menu is displayed.
- Select "Setup" → "Network Settings" → "Internet Settings", and press the [⊕] button on the remote commander.
- Select "View Networks Status" and press the [⊕] button on the remote commander.
- Confirm IP address are displayed in "IP Address", "Subnet Mask" and "Default Gateway".

Physical Connection:	XXXX
Internet Access:	XXXX
IP Address Setting:	XXXX
IP Address:	XXX.XXX.XXX.XXX
Subnet Mask:	XXX.XXX.XXX.XXX
Default Gateway:	XXX.XXX.XXX.XXX
DNS Settings:	XXXX
Primary DNS:	XXX.XXX.XXX.XXX
Secondary DNS:	XXX.XXX.XXX.XXX
MAC Address:	XXX.XXX.XXX.XXX

SECTION 4 ELECTRICAL CHECK

FM TUNER LEVEL CHECK

**Procedure:**

1. Turn on the set.
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)

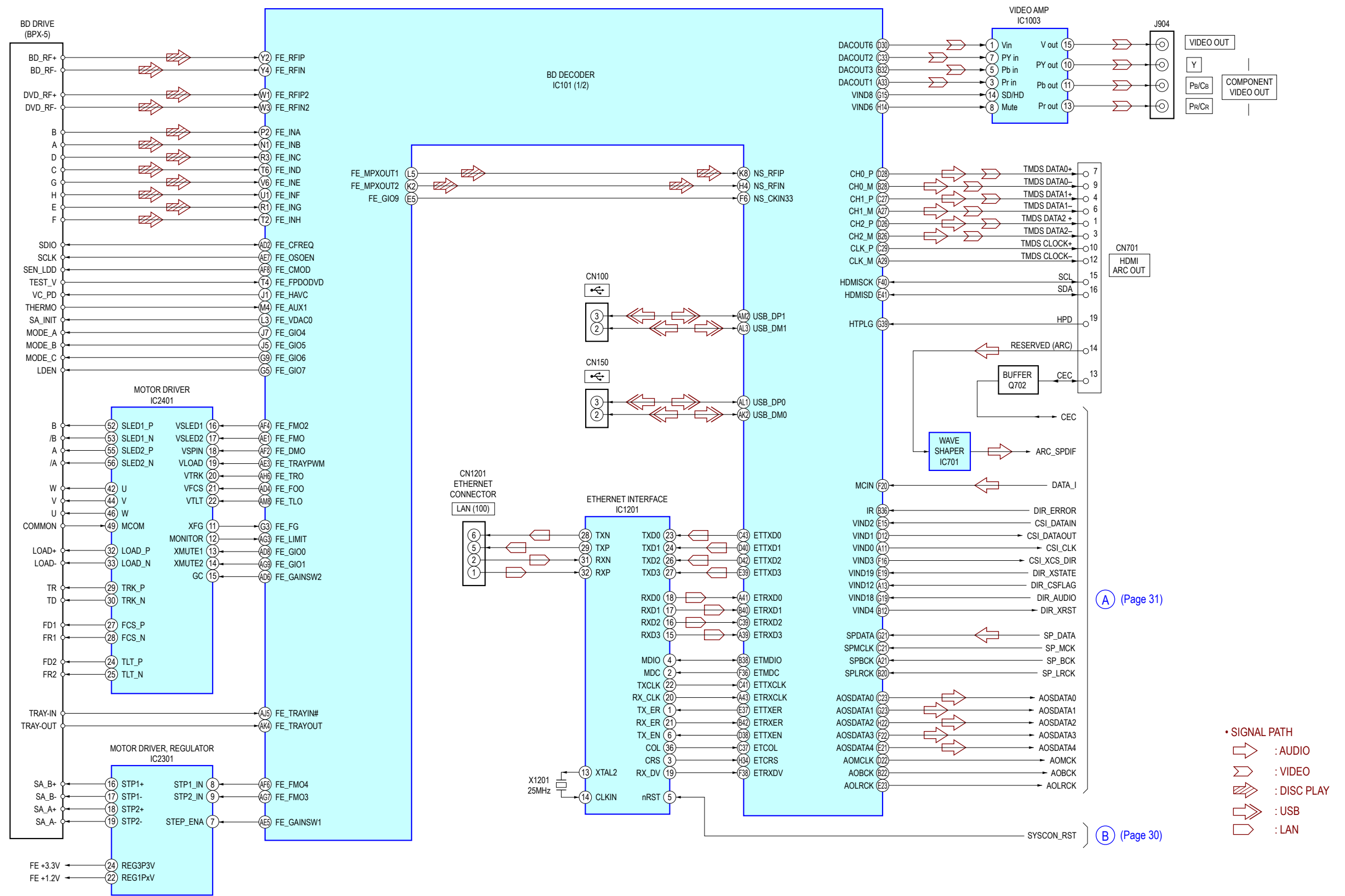
Note: Use 75 ohm coaxial cable to connect signal generator and the set.
You cannot use video cable for checking.
Use signal generator whose output impedance is 75 ohm.

3. Set to FM tuner function and tune A, B and C signals.
4. Confirm "TUNED" is lit on the display for A, B and C signals.

When the selected station signal is received in good condition, "TUNED" is displayed.

SECTION 5
DIAGRAMS

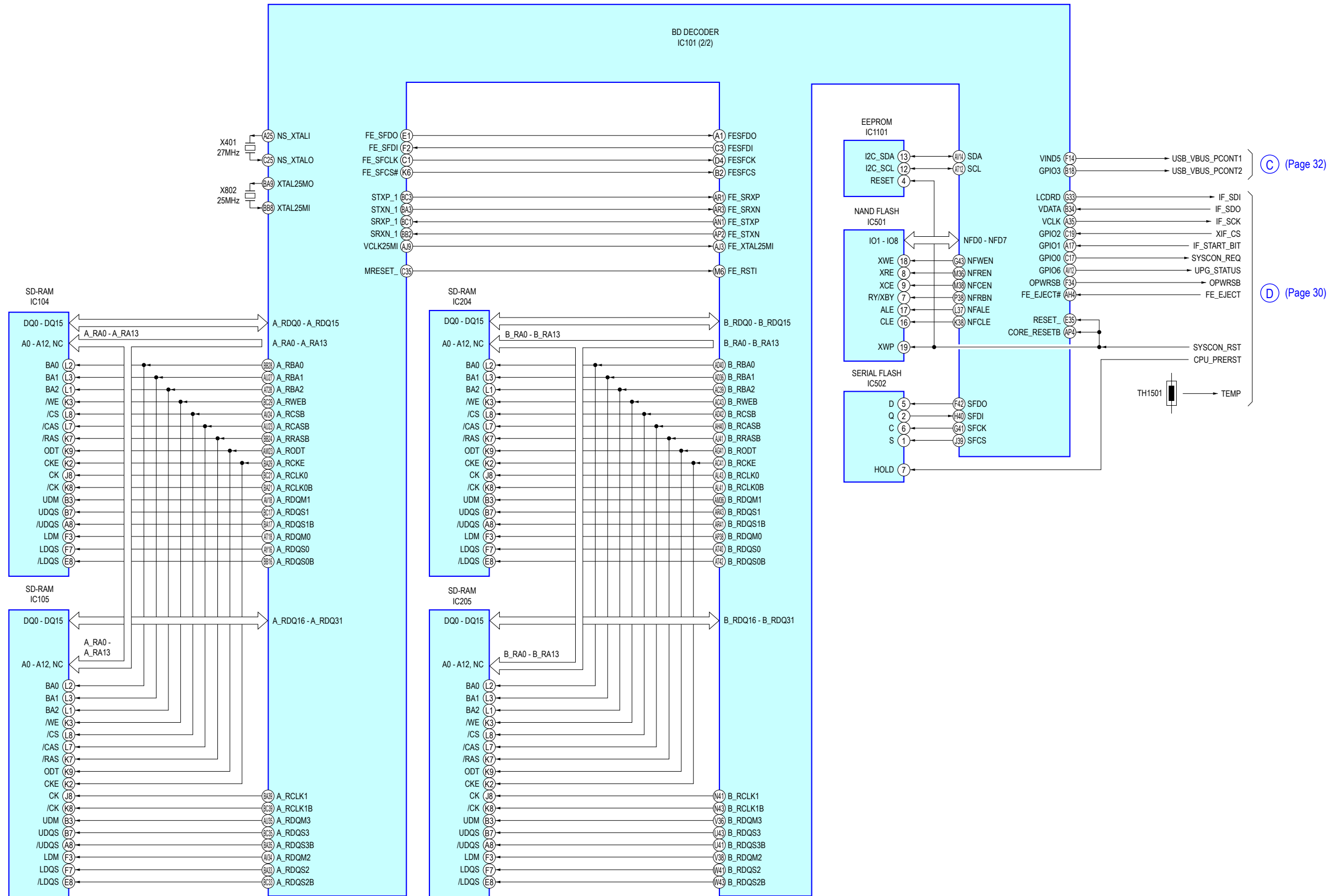
5-1. BLOCK DIAGRAM - SERVO Section -



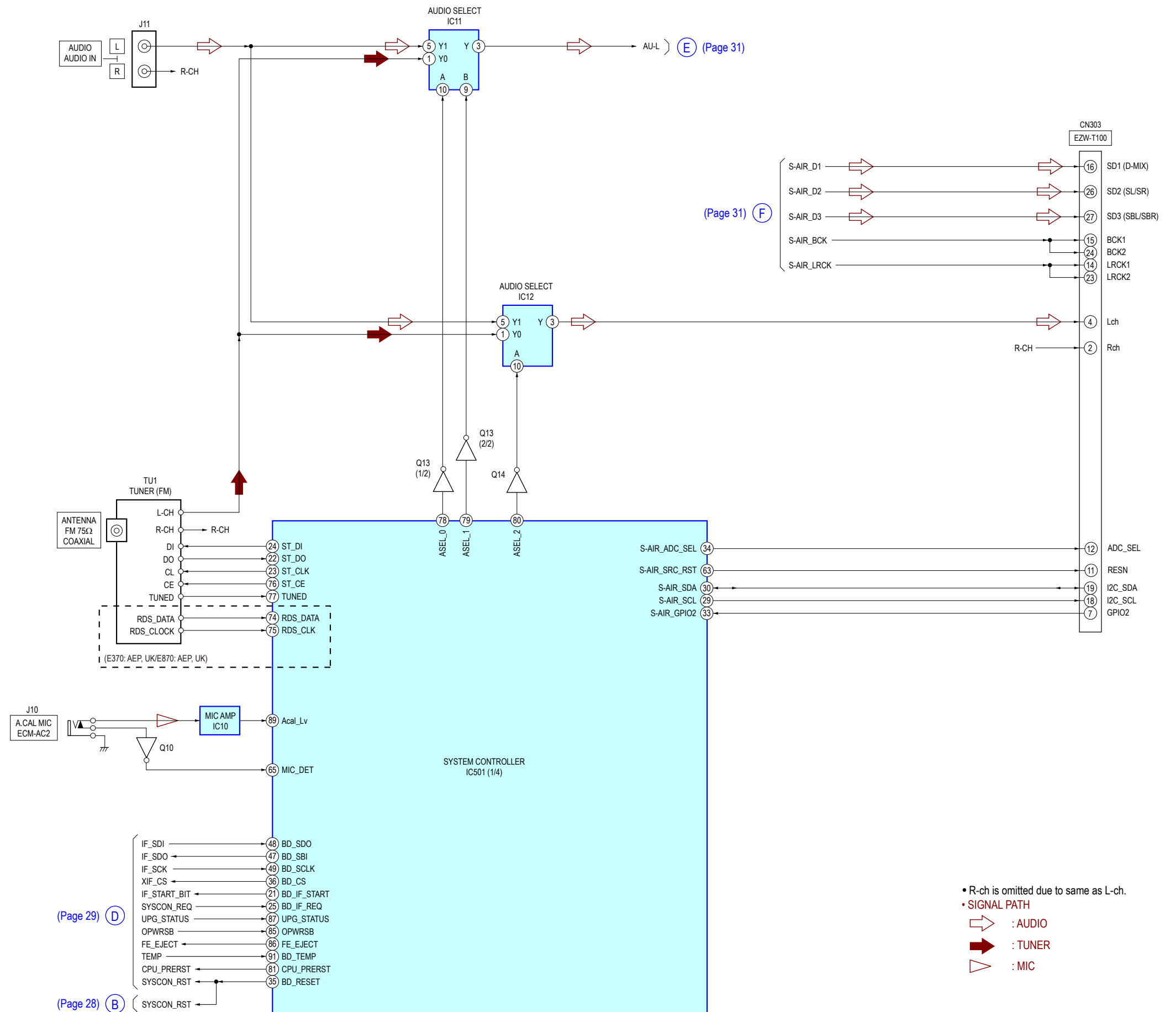
(A) (Page 31)

(B) (Page 30)

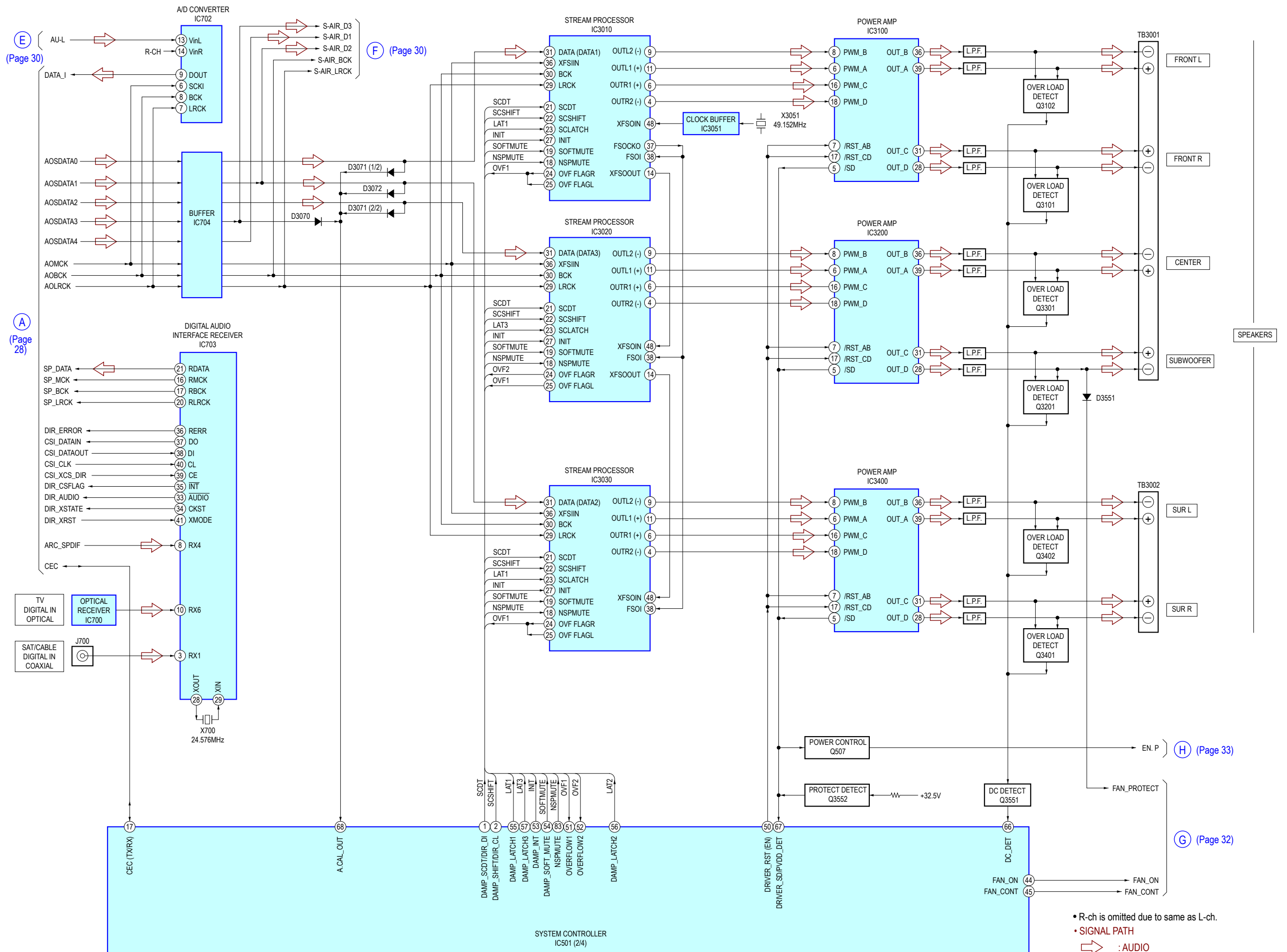
5-2. BLOCK DIAGRAM - MEMORY Section -



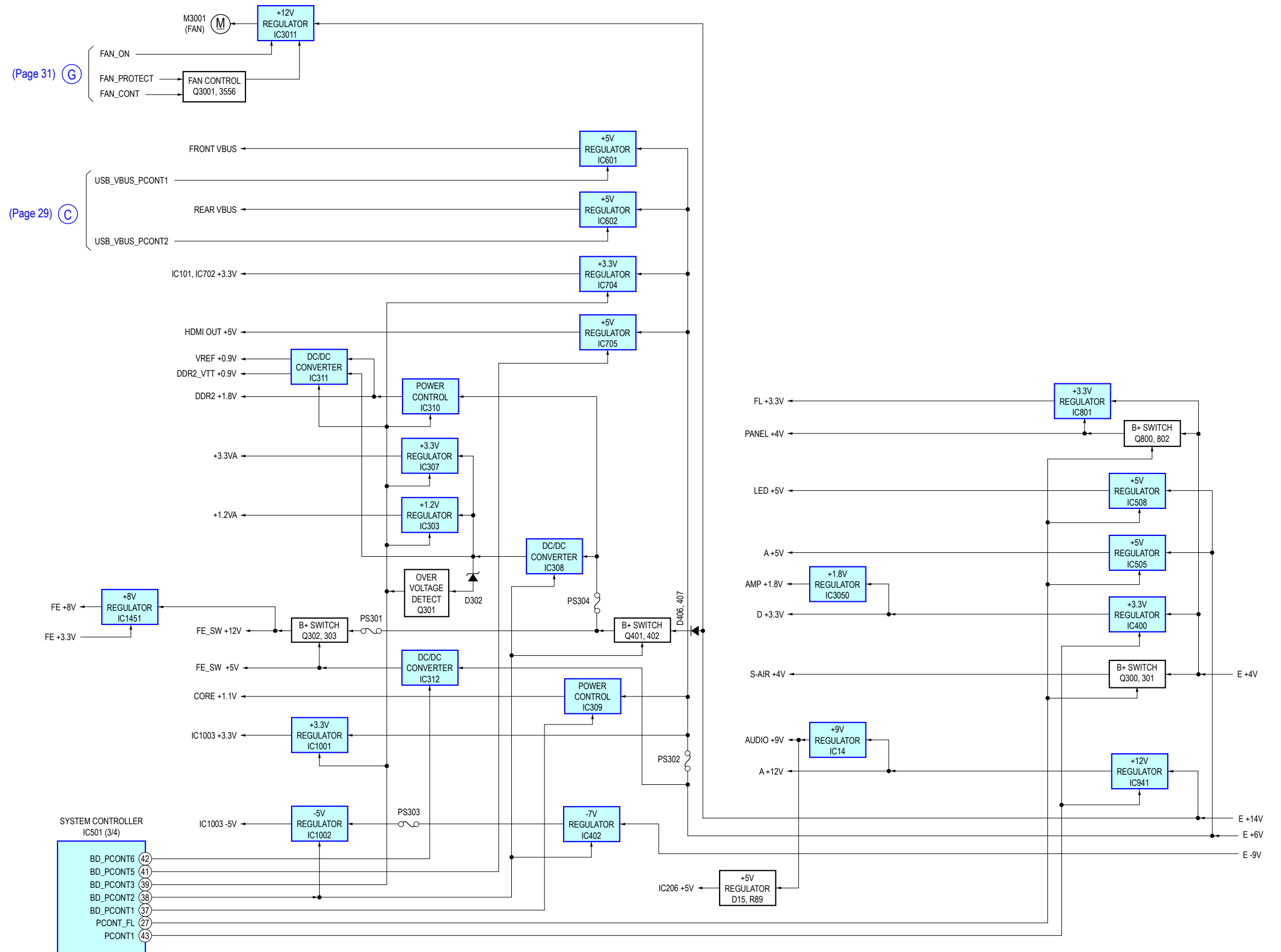
5-3. BLOCK DIAGRAM - TUNER, S-AIR Section -



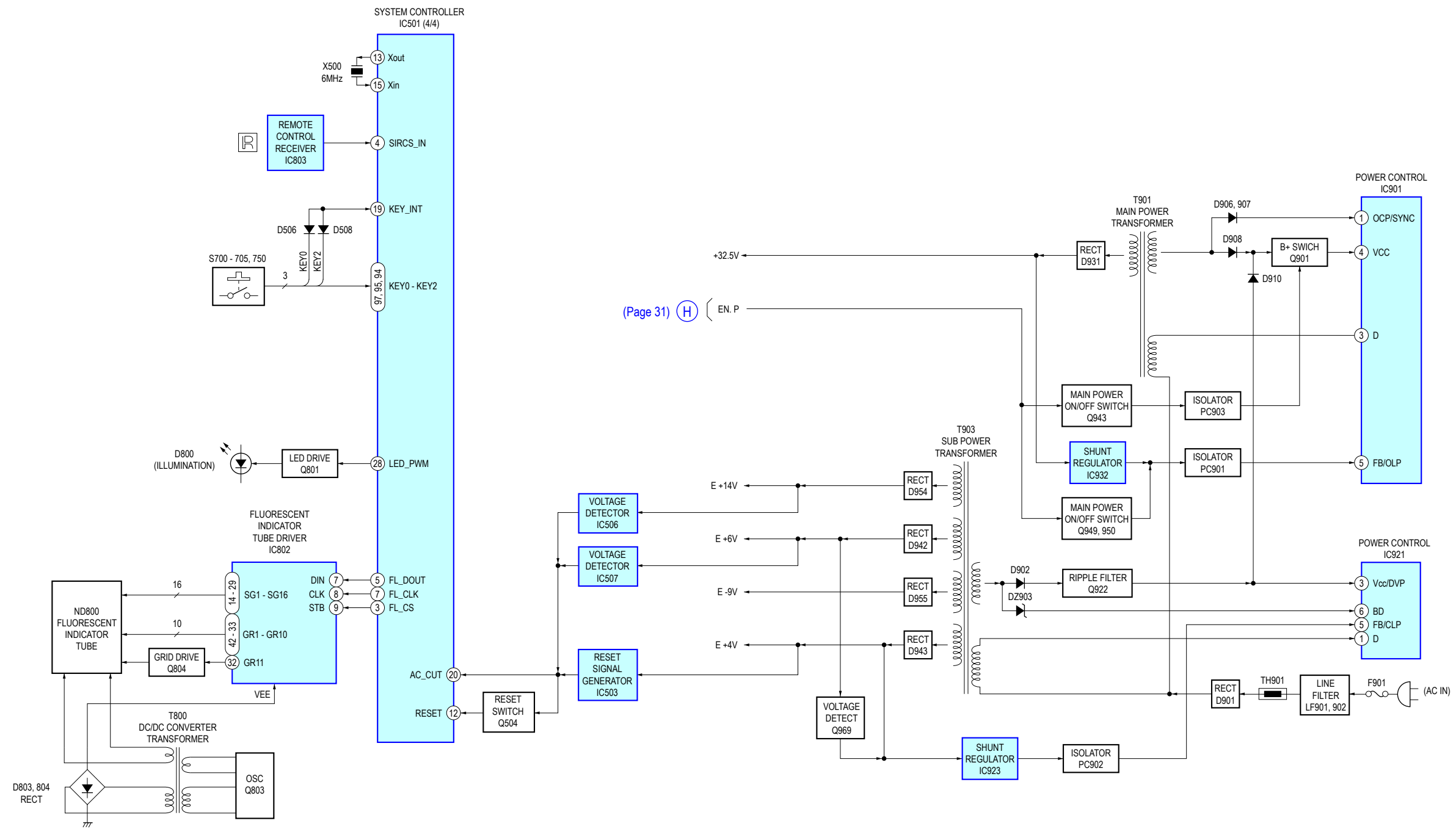
5-4. BLOCK DIAGRAM - AUDIO Section -



5-5. BLOCK DIAGRAM - REGULATOR Section -



5-6. BLOCK DIAGRAM - PANEL, POWER SUPPLY Section -



(Page 31) H

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

For Printed Wiring Boards.

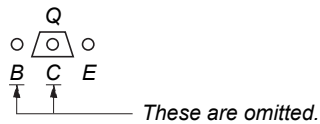
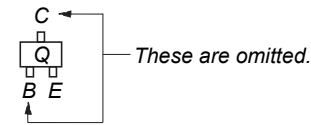
Note:

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

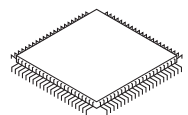
Caution:

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

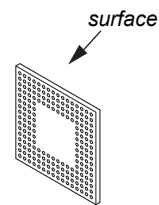
- MAIN and MB-134 boards are multi-layer printed board. However, the patterns of intermediate-layers have not been included in this diagrams.
- Indication of transistor.



- Abbreviation
CND : Canadian model
- Lead layouts



Lead layout of conventional IC



CSP (Chip Size Package)

Note 1: When the MAIN board is replaced, spread the compound referring to "NOTE OF REPLACING THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on servicing notes (page 8).

Note 2: When the POWER board is replaced, spread the compound referring to "NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD" on servicing notes (page 9).

For Schematic Diagrams.

Note:

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

Note:

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

Note:

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

- : B+ Line.
- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
 - MB-134 board —
no mark: BD PLAY
* : Impossible to measure
 - Other boards —
no mark: TUNER
* : Impossible to measure
- Voltages are taken with VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - : AUDIO
 - : VIDEO
 - : DISC PLAY
 - : USB
 - : LAN
 - : TUNER
 - : MIC

Abbreviation

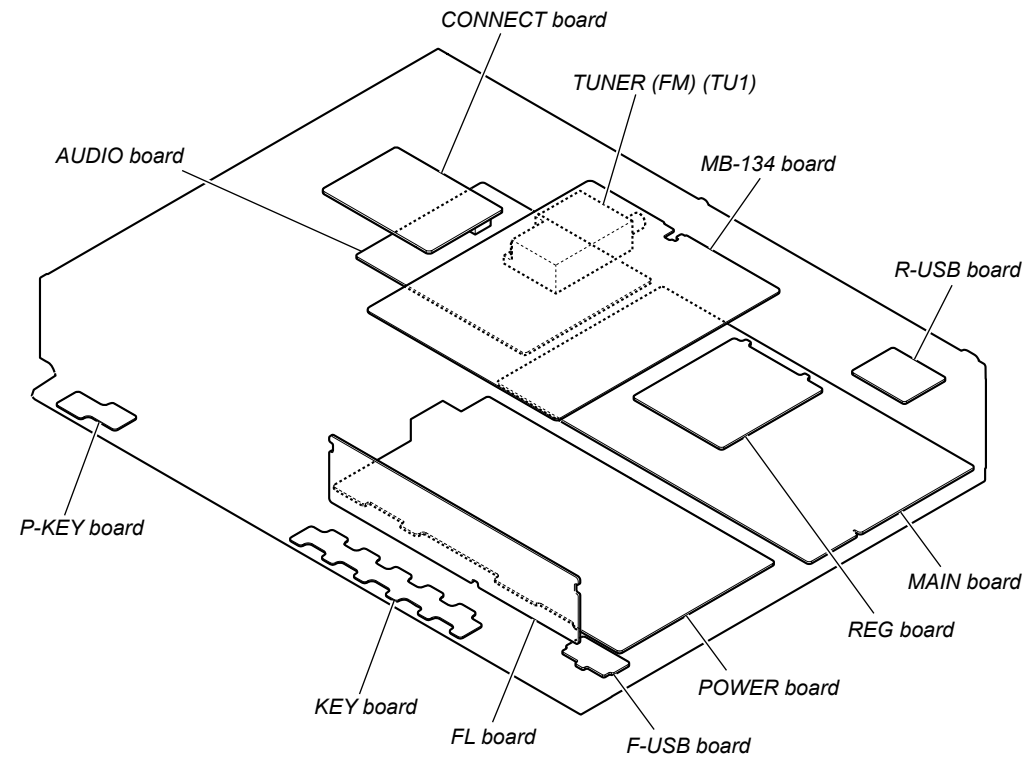
CND : Canadian model

- The voltage and waveform of CSP (chip size package) cannot be measured, because its lead layout is different from that of conventional IC.

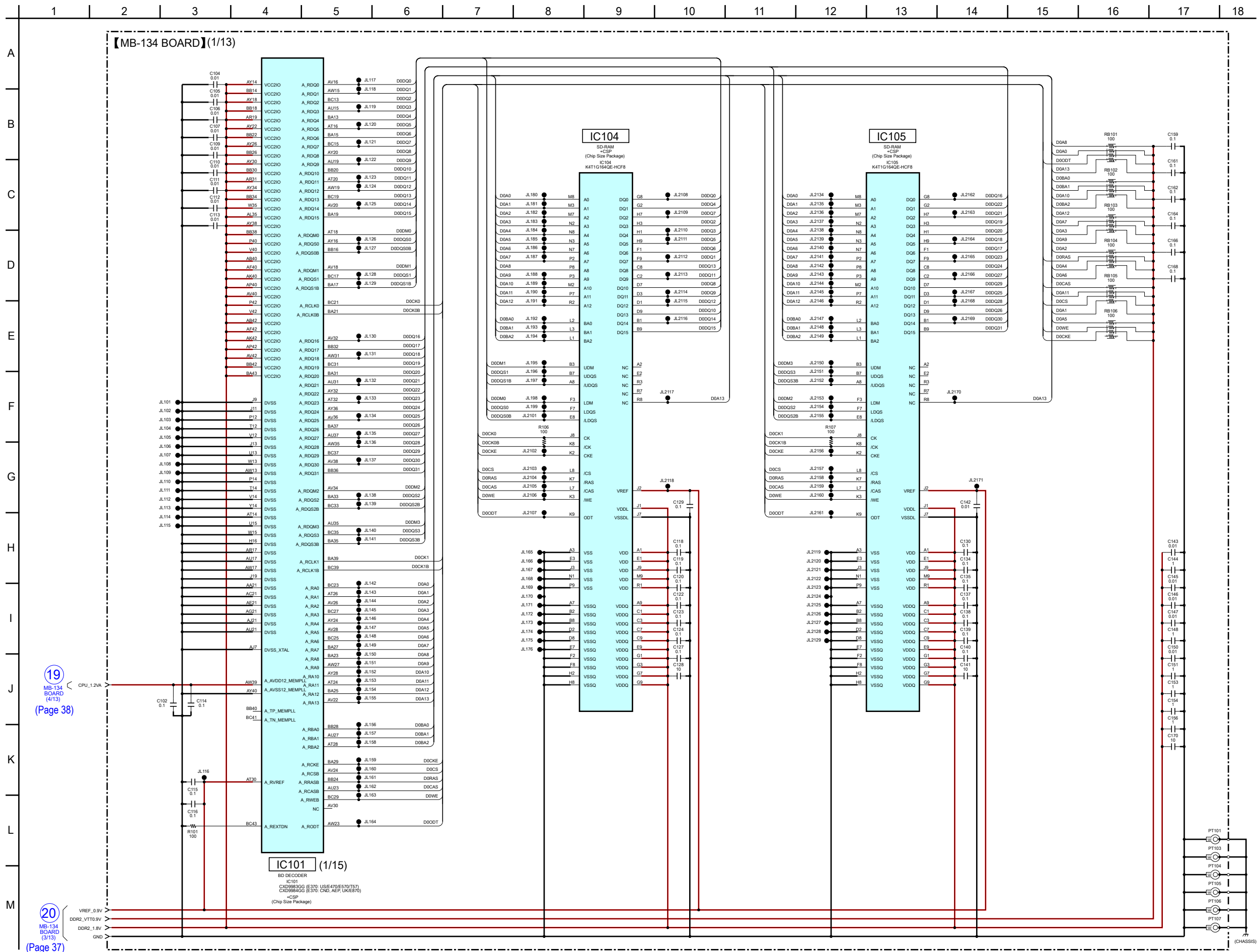
Note 1: When the MAIN board is replaced, spread the compound referring to "NOTE OF REPLACING THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on servicing notes (page 8).

Note 2: When the POWER board is replaced, spread the compound referring to "NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD" on servicing notes (page 9).

• Circuit Boards Location

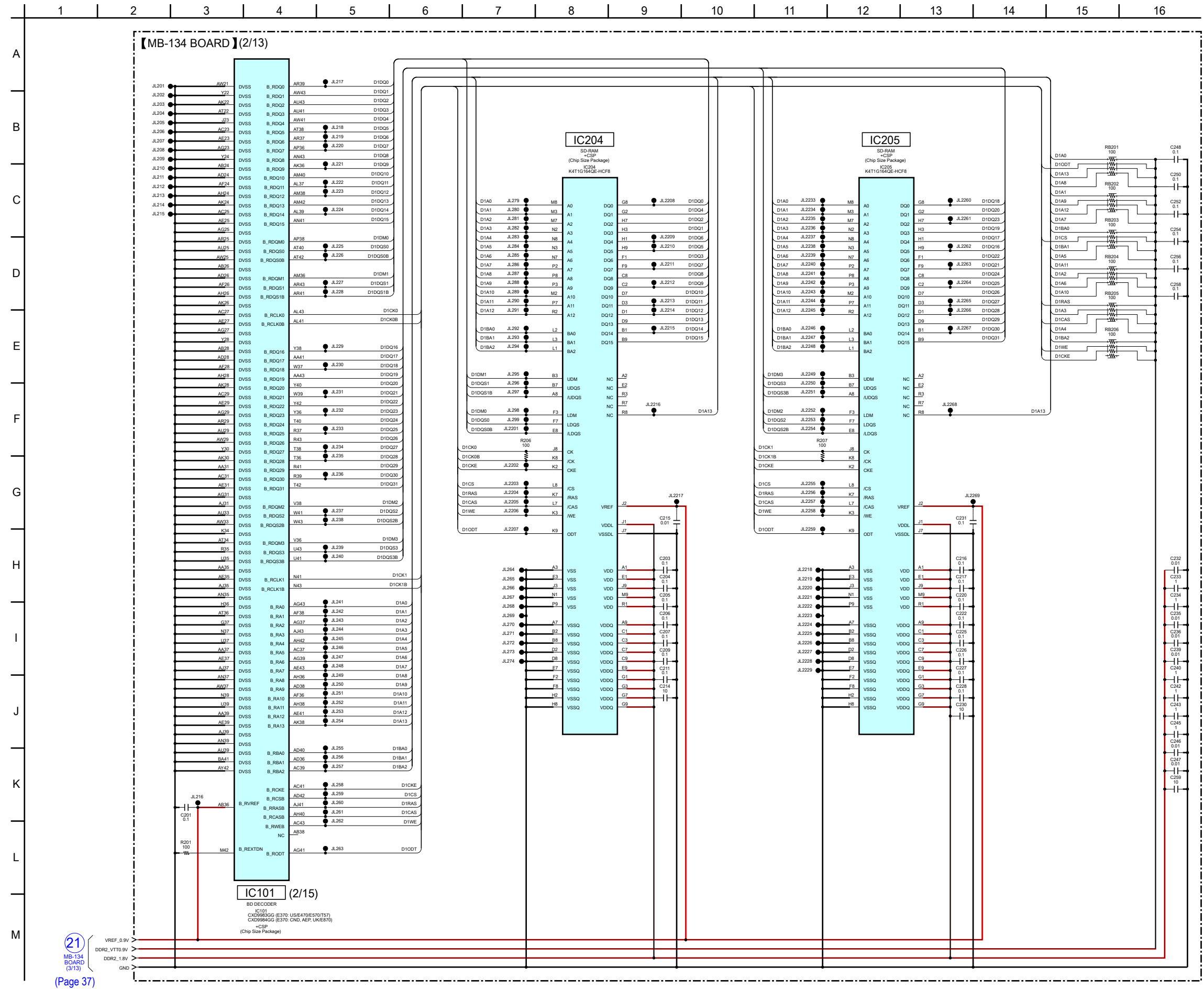


5-7. SCHEMATIC DIAGRAM - MB-134 Board (1/13) - See page 77 for IC Pin Function Description.



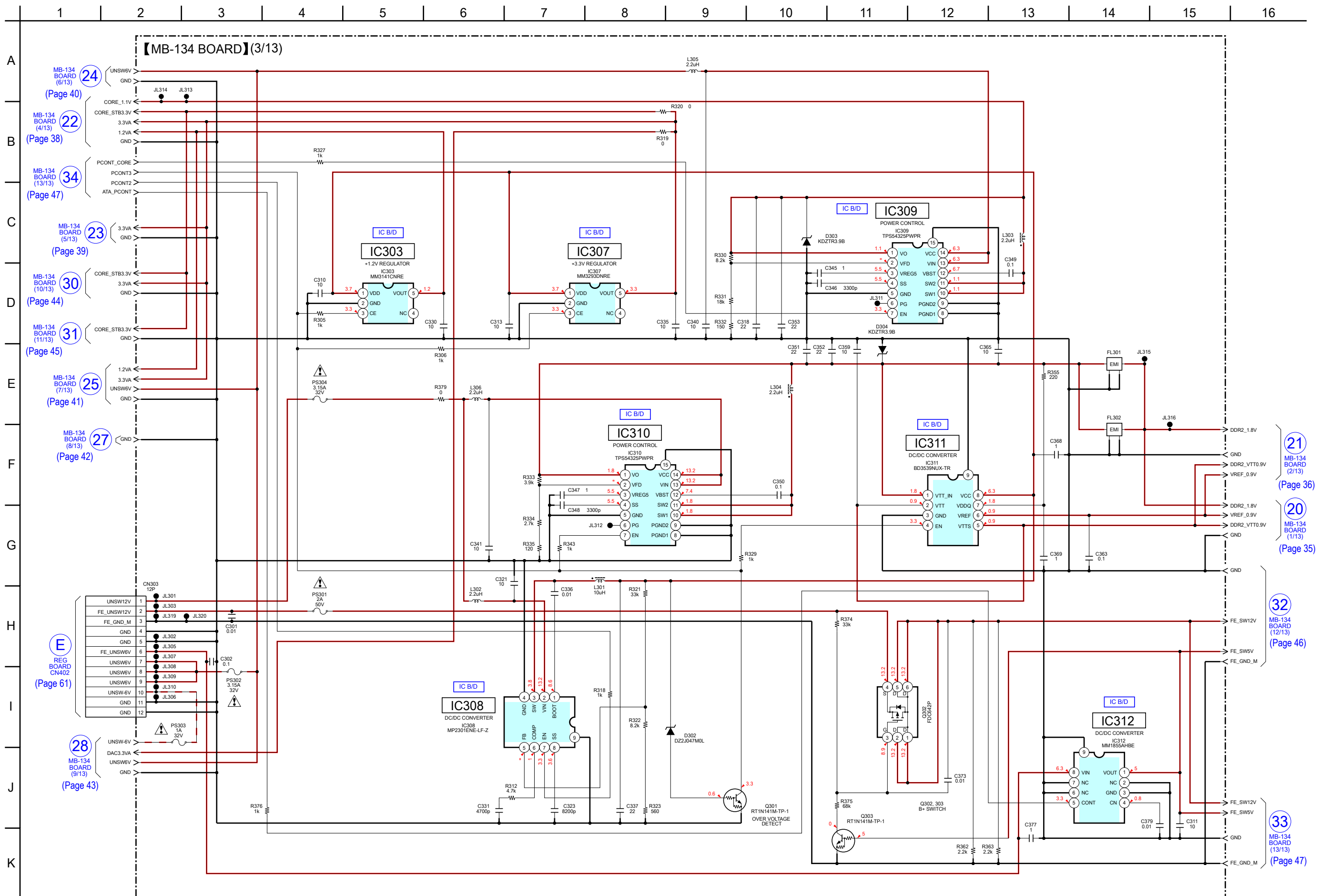
Note: IC101, IC104 and IC105 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

5-8. SCHEMATIC DIAGRAM - MB-134 Board (2/13) - • See page 77 for IC Pin Function Description.



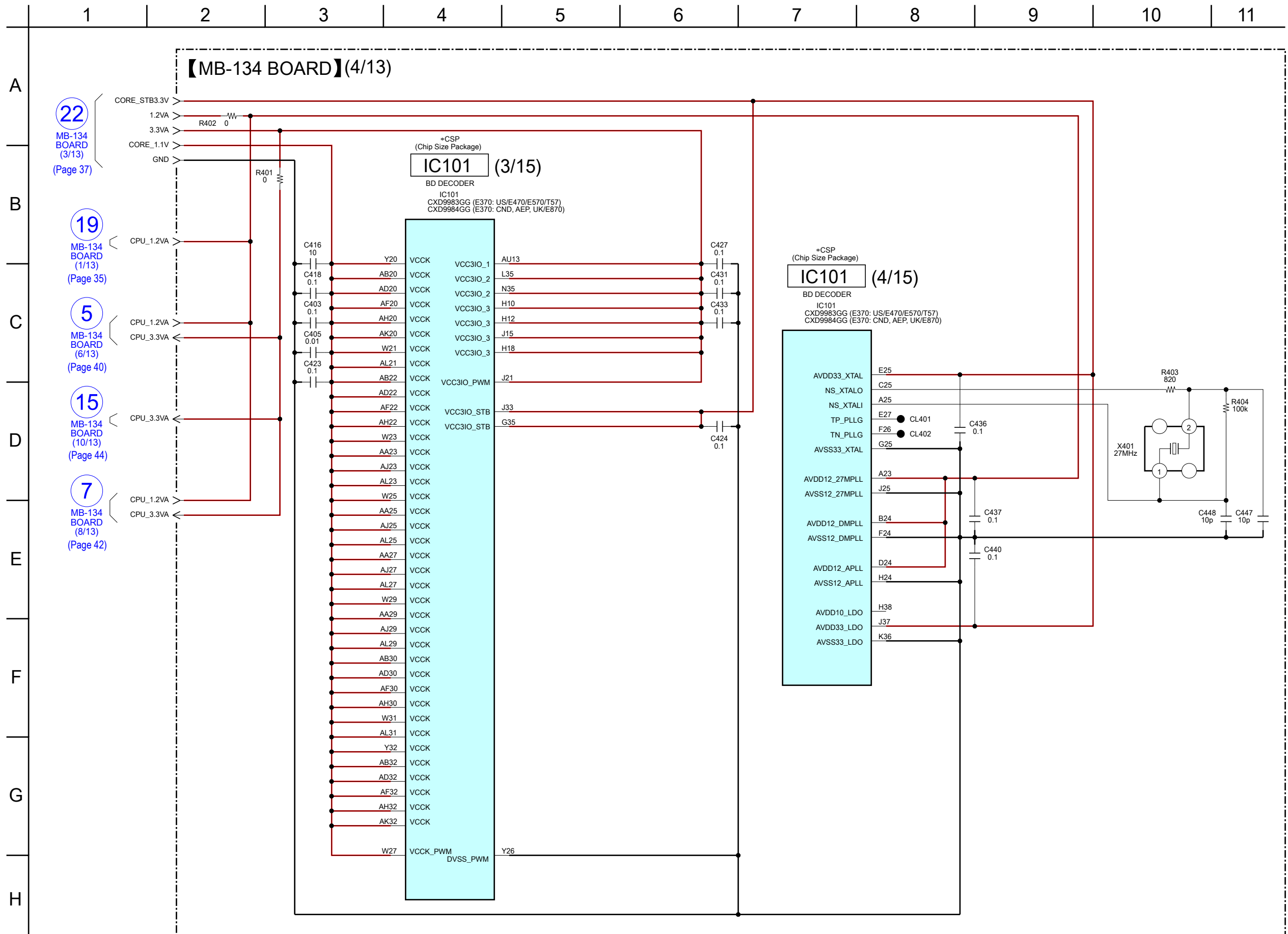
Note: IC101, IC204 and IC205 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

5-9. SCHEMATIC DIAGRAM - MB-134 Board (3/13) - • See page 67 for IC Block Diagrams.



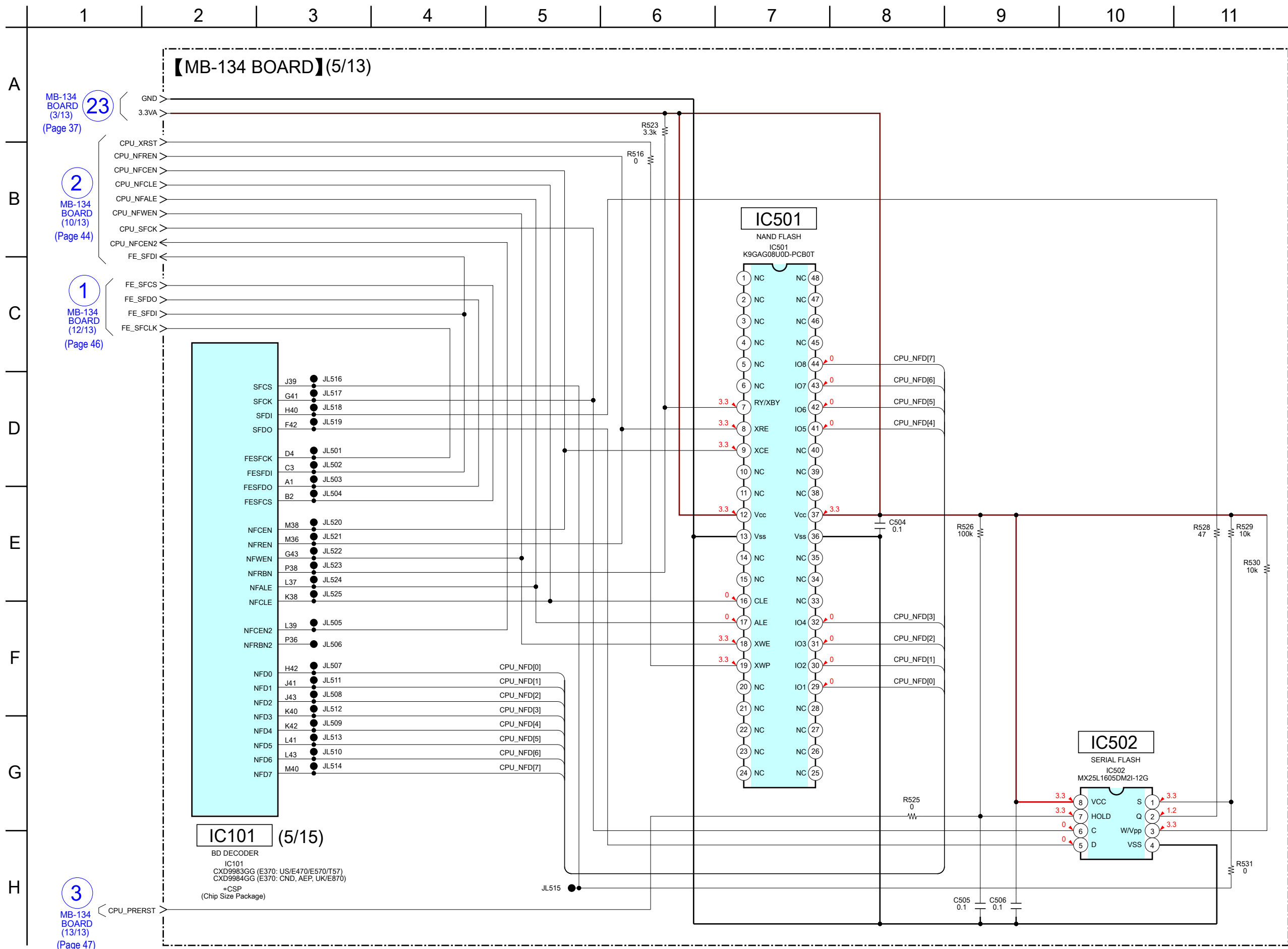
Note: IC307 and IC311 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

5-10. SCHEMATIC DIAGRAM - MB-134 Board (4/13) - • See page 77 for IC Pin Function Description.



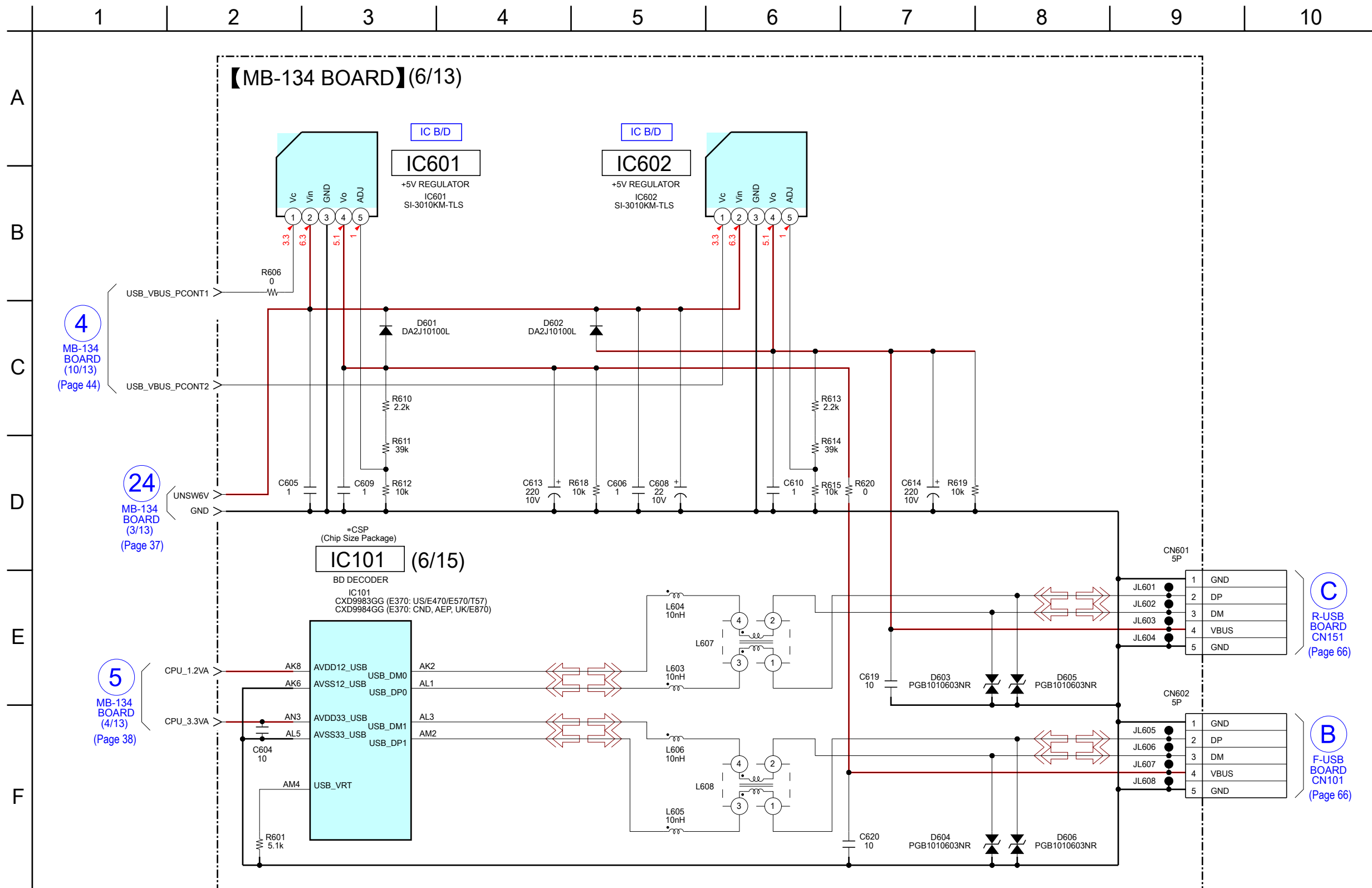
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-11. SCHEMATIC DIAGRAM - MB-134 Board (5/13) - • See page 77 for IC Pin Function Description.

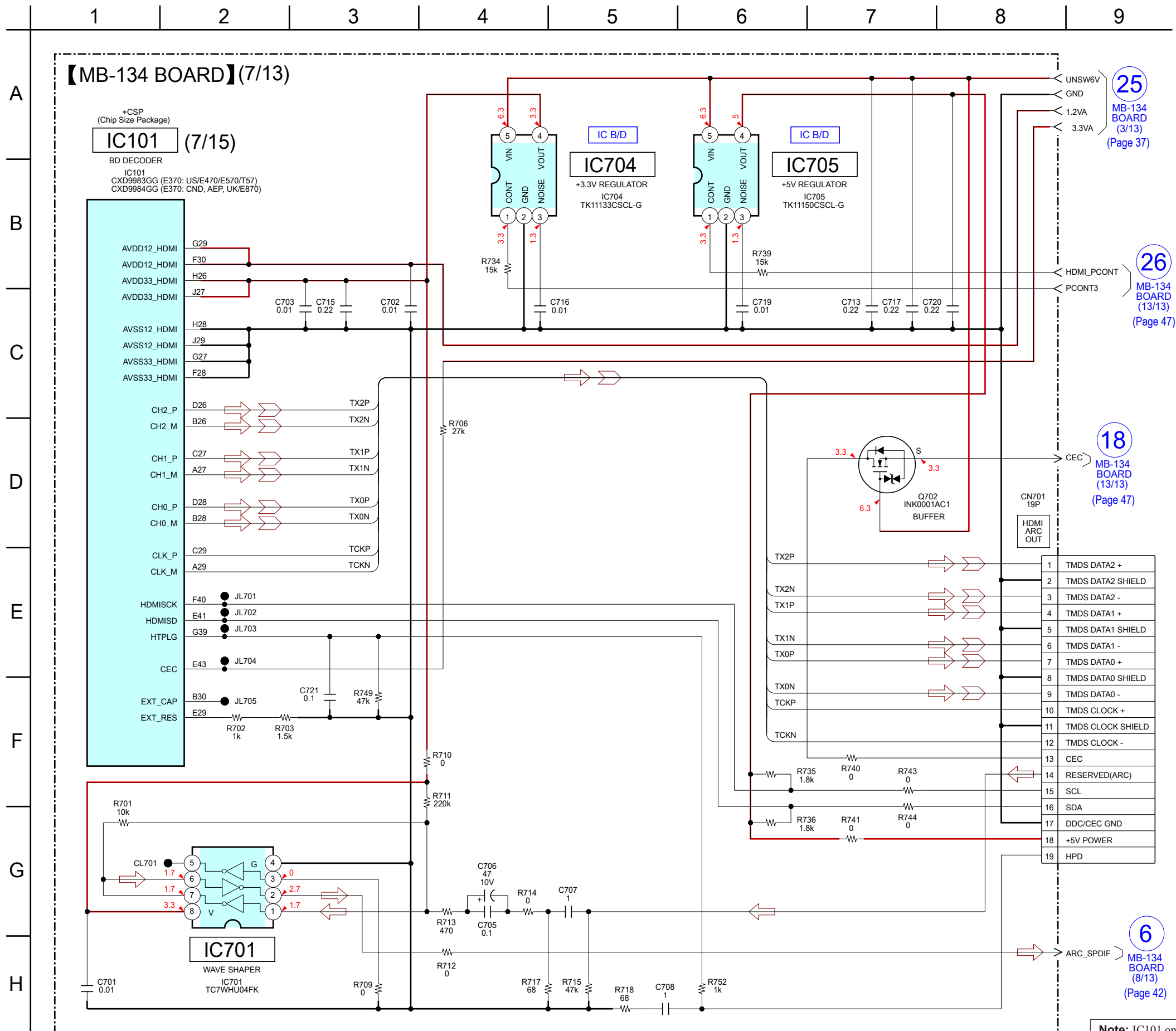


Note: IC101, IC501 and IC502 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

5-12. SCHEMATIC DIAGRAM - MB-134 Board (6/13) - • See page 67 for IC Block Diagrams. • See page 77 for IC Pin Function Description.

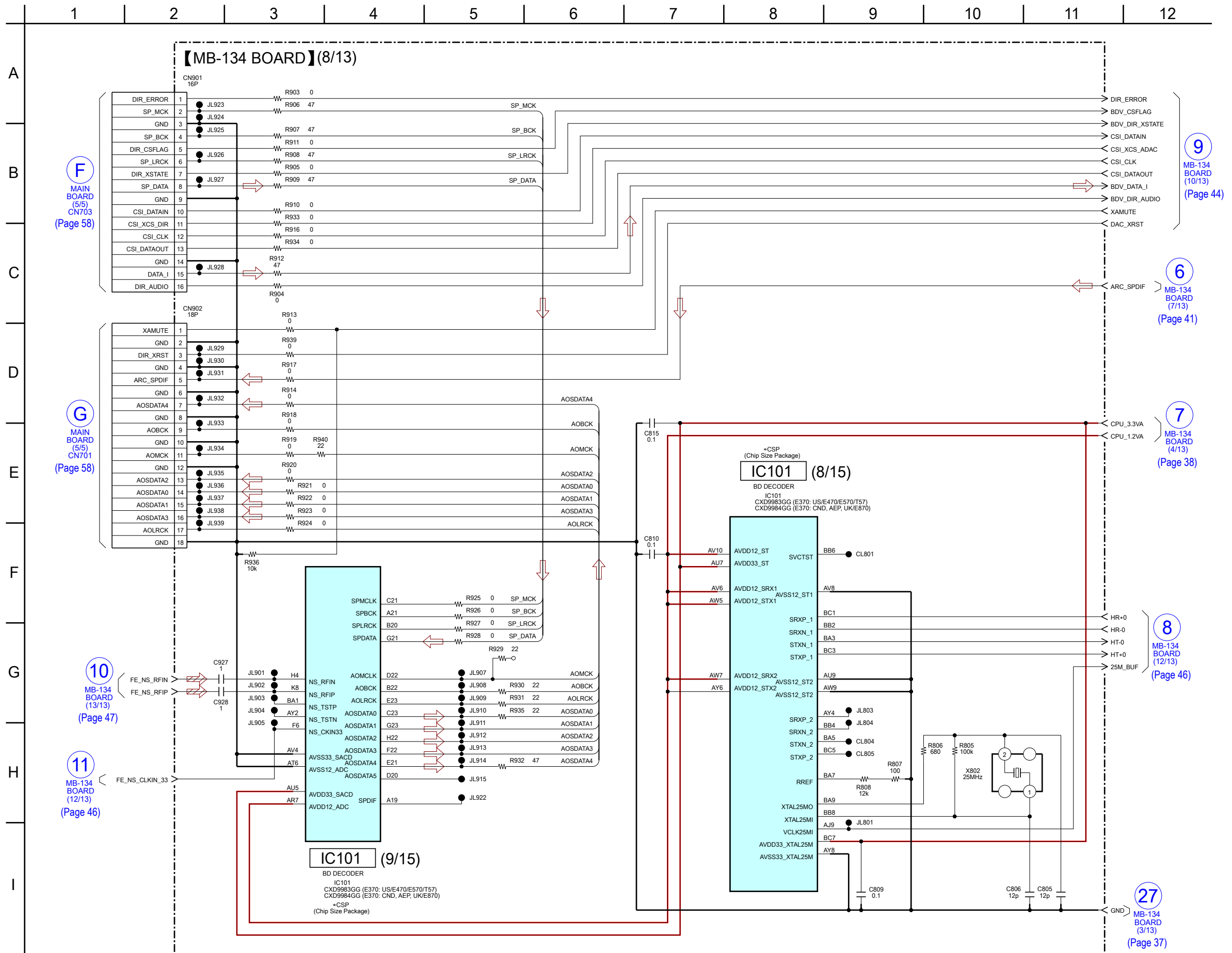


5-13. SCHEMATIC DIAGRAM - MB-134 Board (7/13) - • See page 67 for IC Block Diagrams. • See page 77 for IC Pin Function Description.



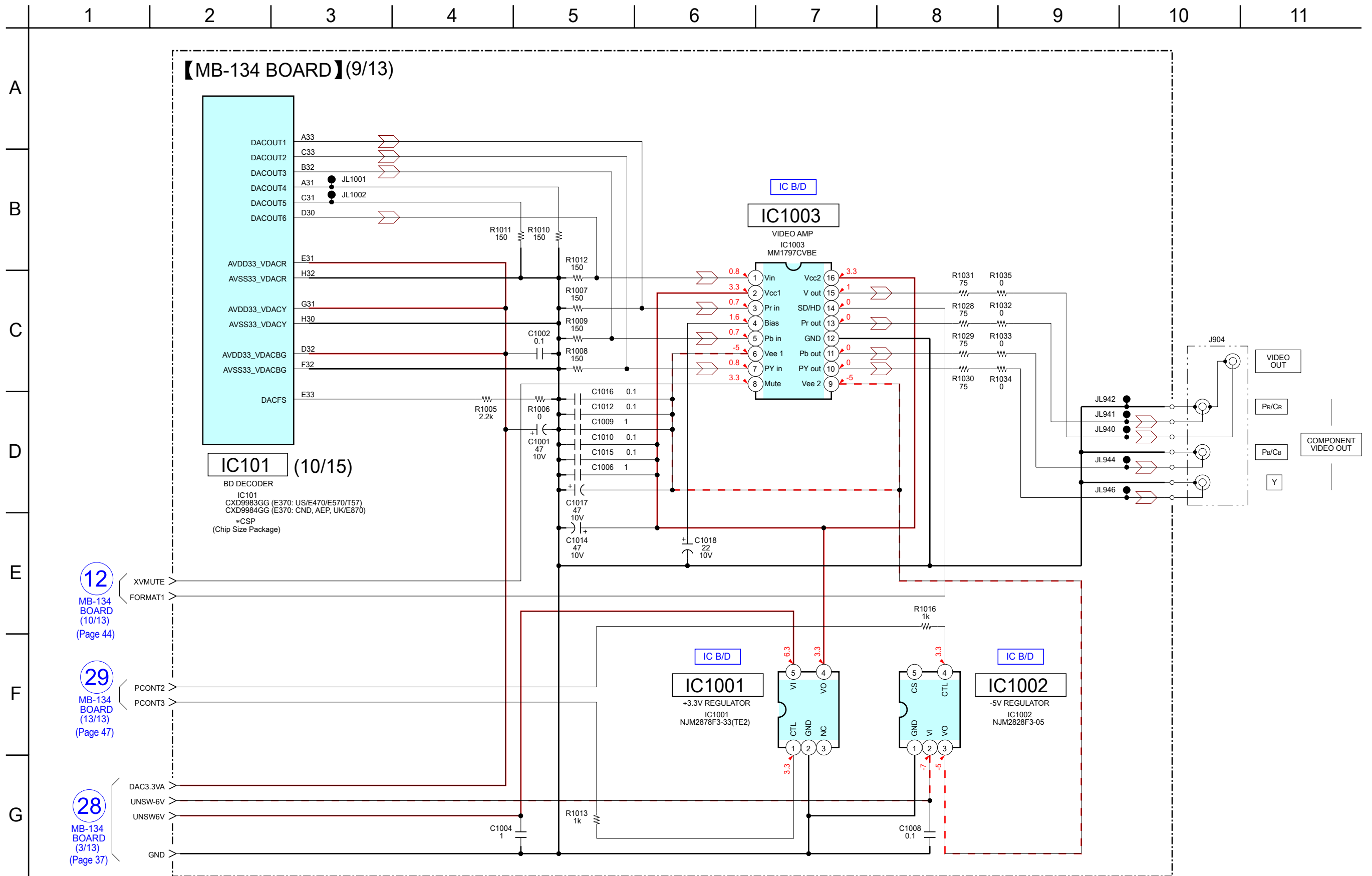
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-14. SCHEMATIC DIAGRAM - MB-134 Board (8/13) - • See page 77 for IC Pin Function Description.



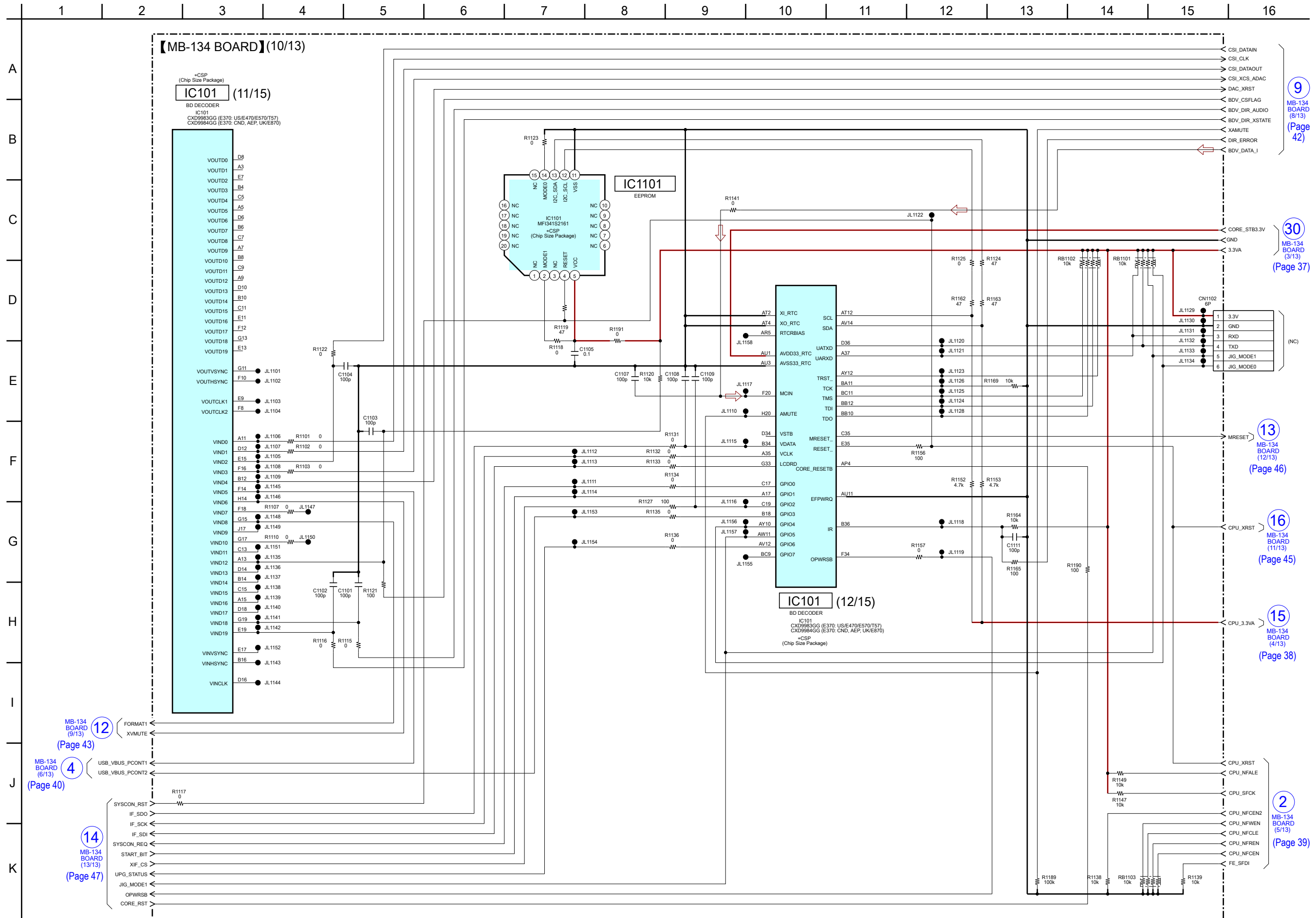
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-15. SCHEMATIC DIAGRAM - MB-134 Board (9/13) - • See page 67 for IC Block Diagrams. • See page 77 for IC Pin Function Description.



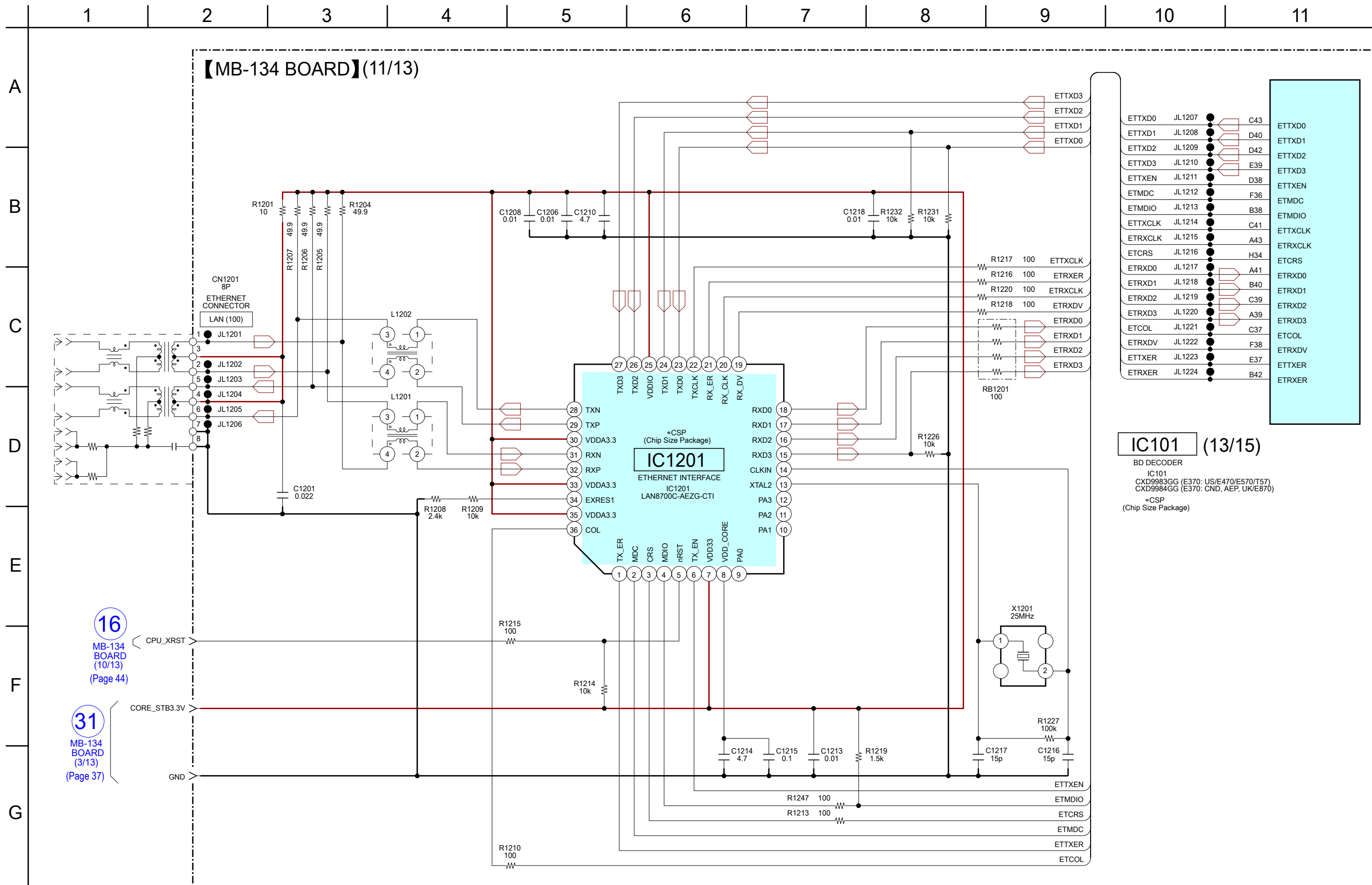
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-16. SCHEMATIC DIAGRAM - MB-134 Board (10/13) - • See page 77 for IC Pin Function Description.



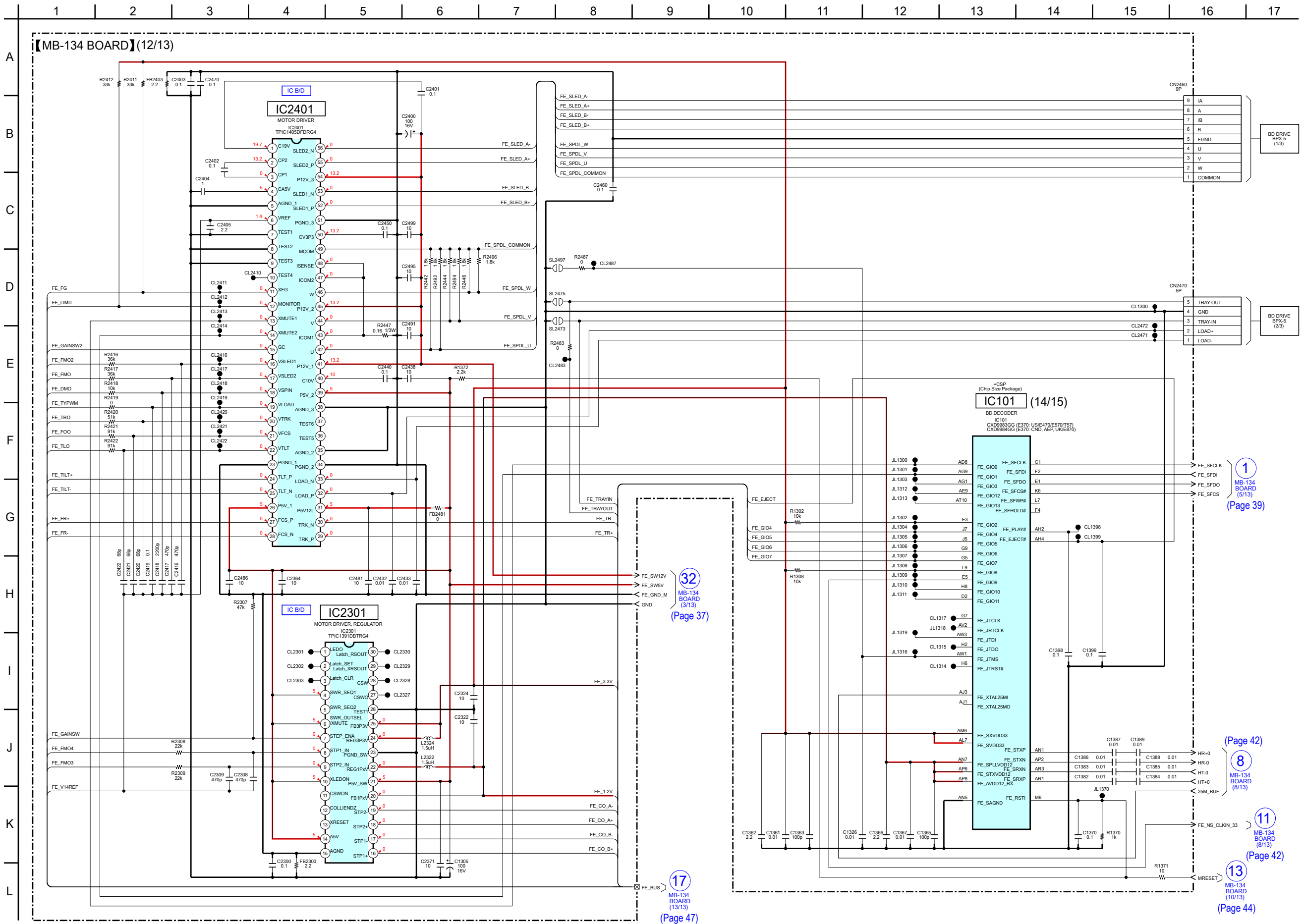
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-17. SCHEMATIC DIAGRAM - MB-134 Board (11/13) - • See page 77 for IC Pin Function Description.



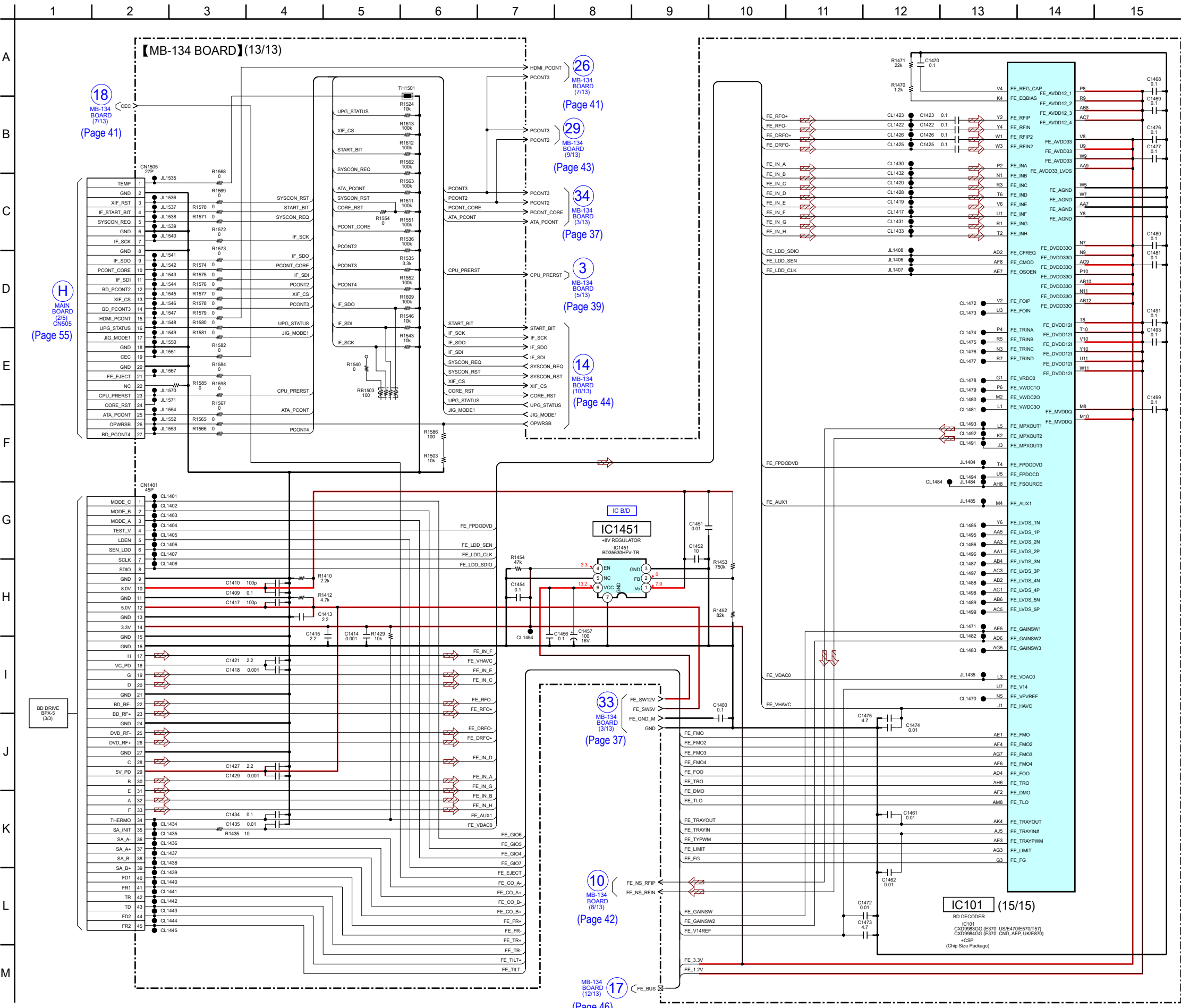
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-18. SCHEMATIC DIAGRAM - MB-134 Board (12/13) - • See page 67 for IC Block Diagrams. • See page 77 for IC Pin Function Description.




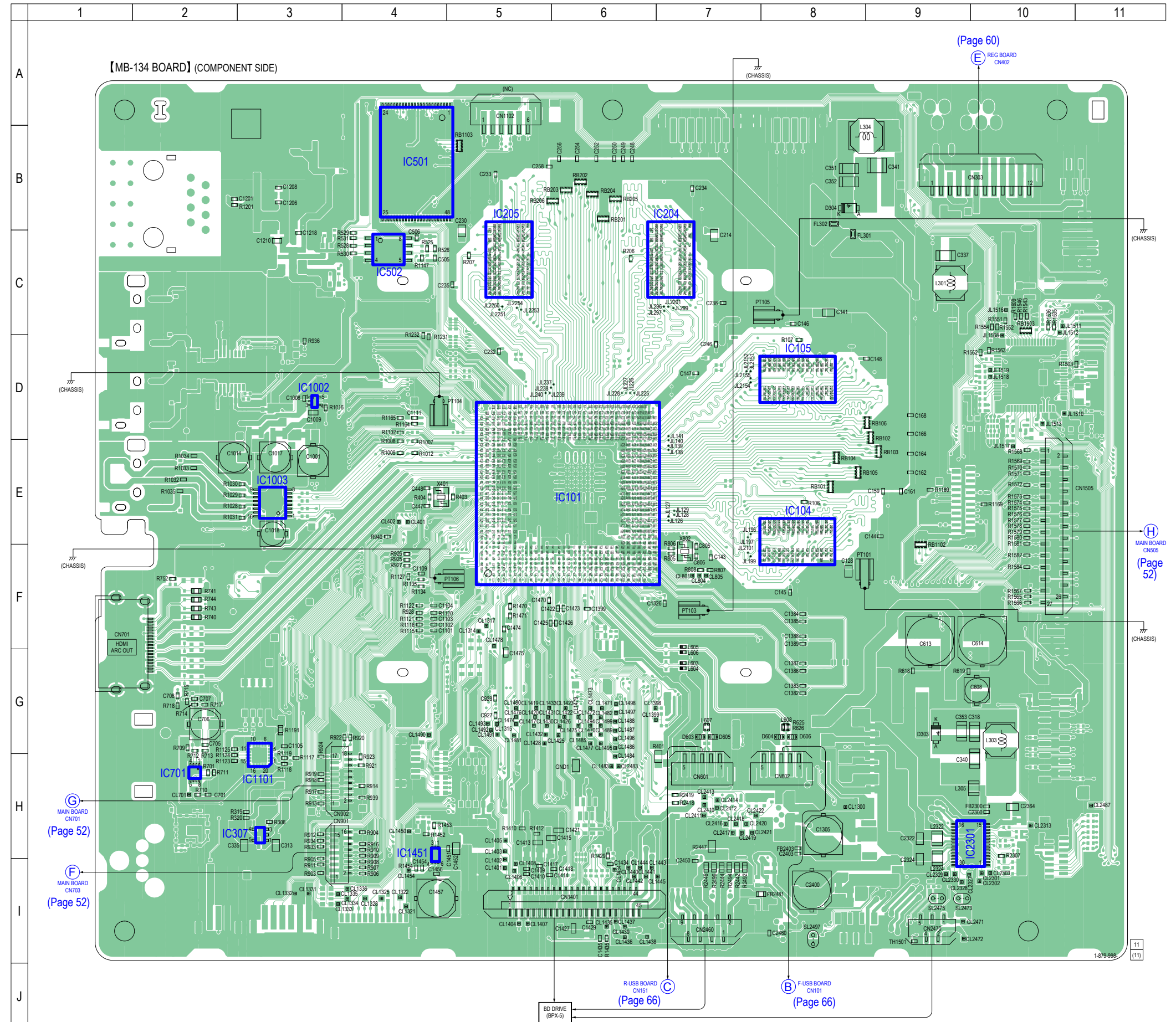
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-19. SCHEMATIC DIAGRAM - MB-134 Board (13/13) - • See page 67 for IC Block Diagrams. • See page 77 for IC Pin Function Description.




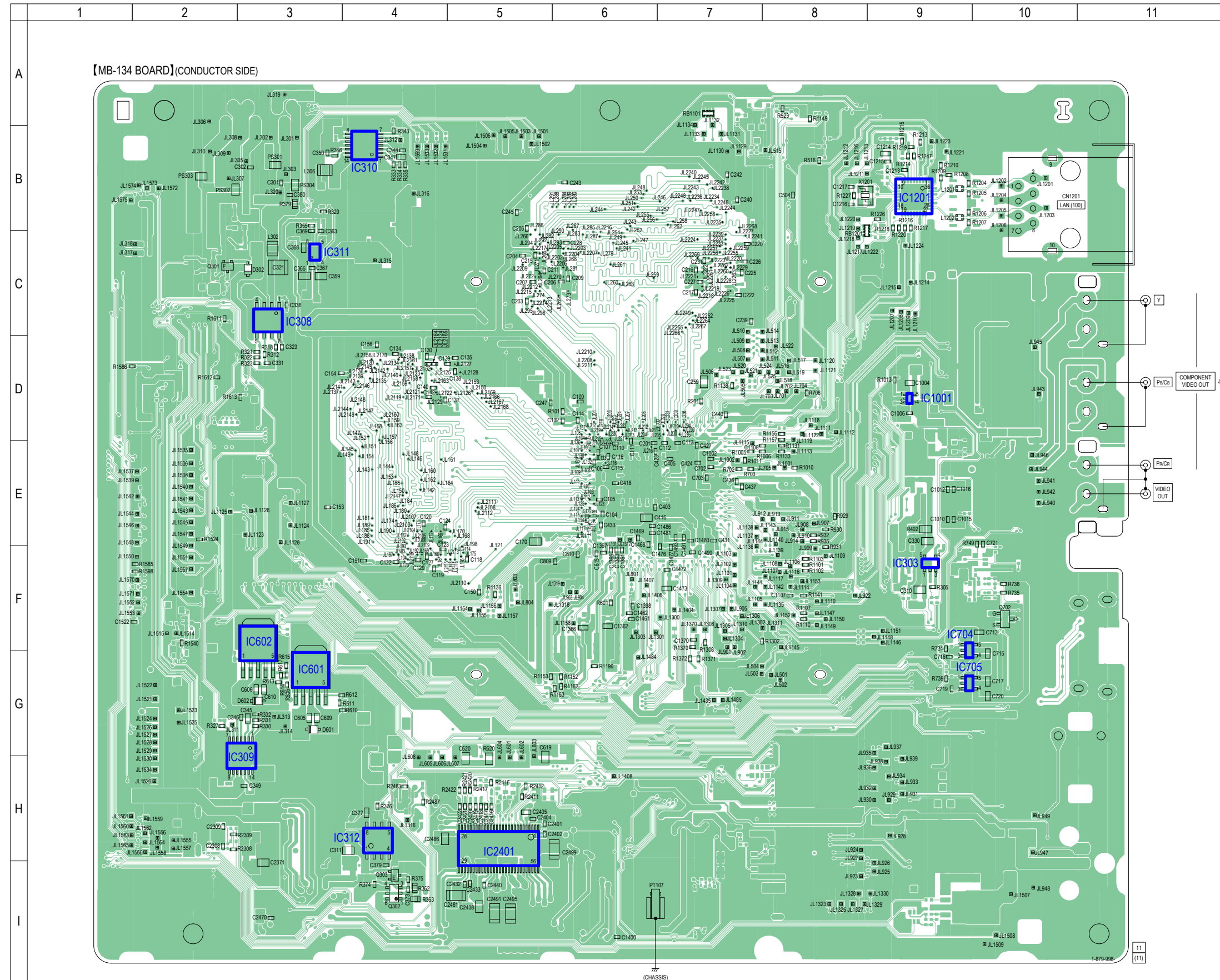
Note: IC101 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

5-20. PRINTED WIRING BOARD - MB-134 Board (Component Side)- • See page 34 for Circuit Boards Location. •  : Uses unleaded solder.



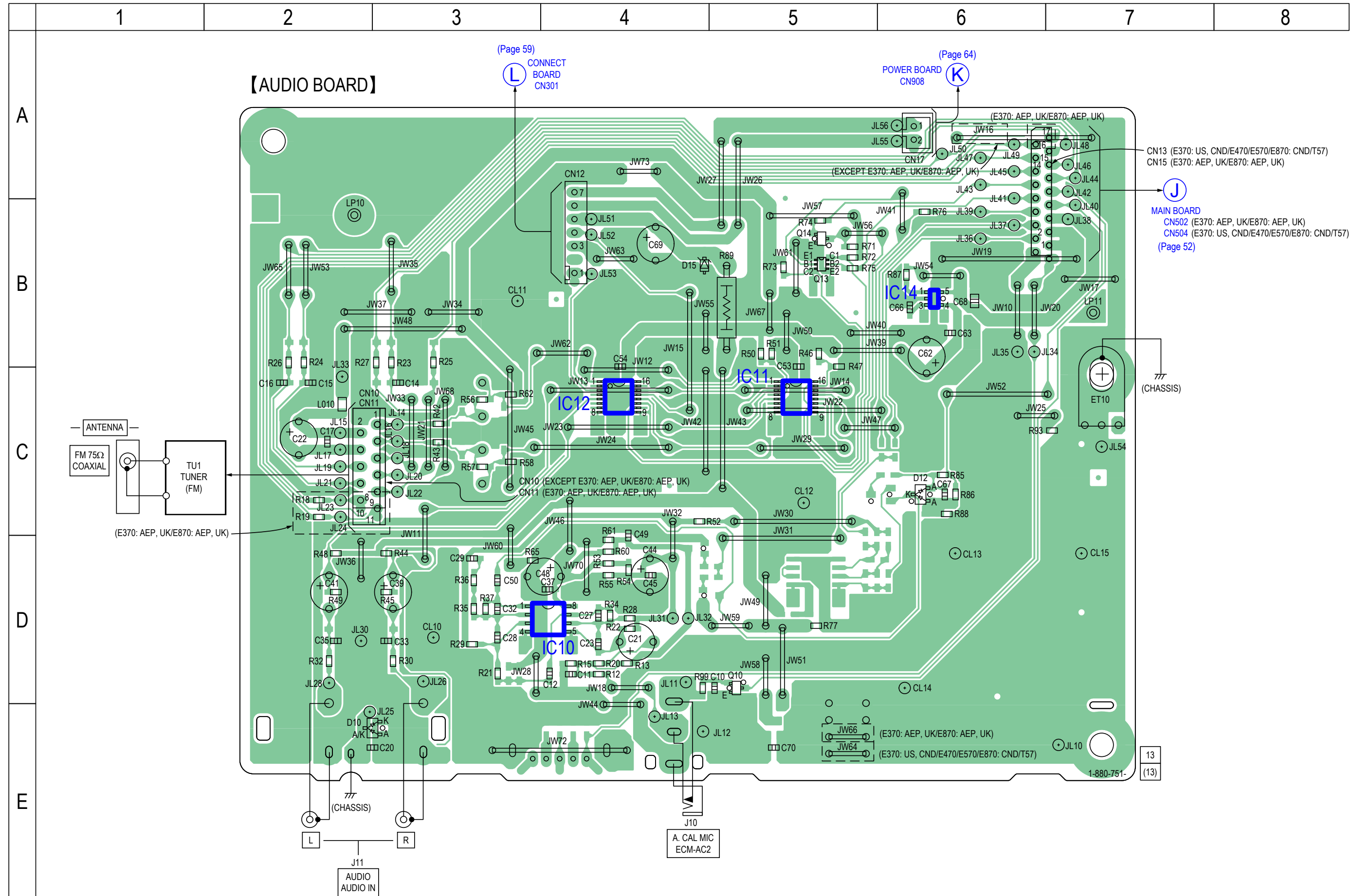
Note: IC101, IC104, IC105, IC204, IC205, IC307, IC501 and IC502 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

5-21. PRINTED WIRING BOARD - MB-134 Board (Conductor Side) - See page 34 for Circuit Boards Location. •  : Uses unleaded solder.

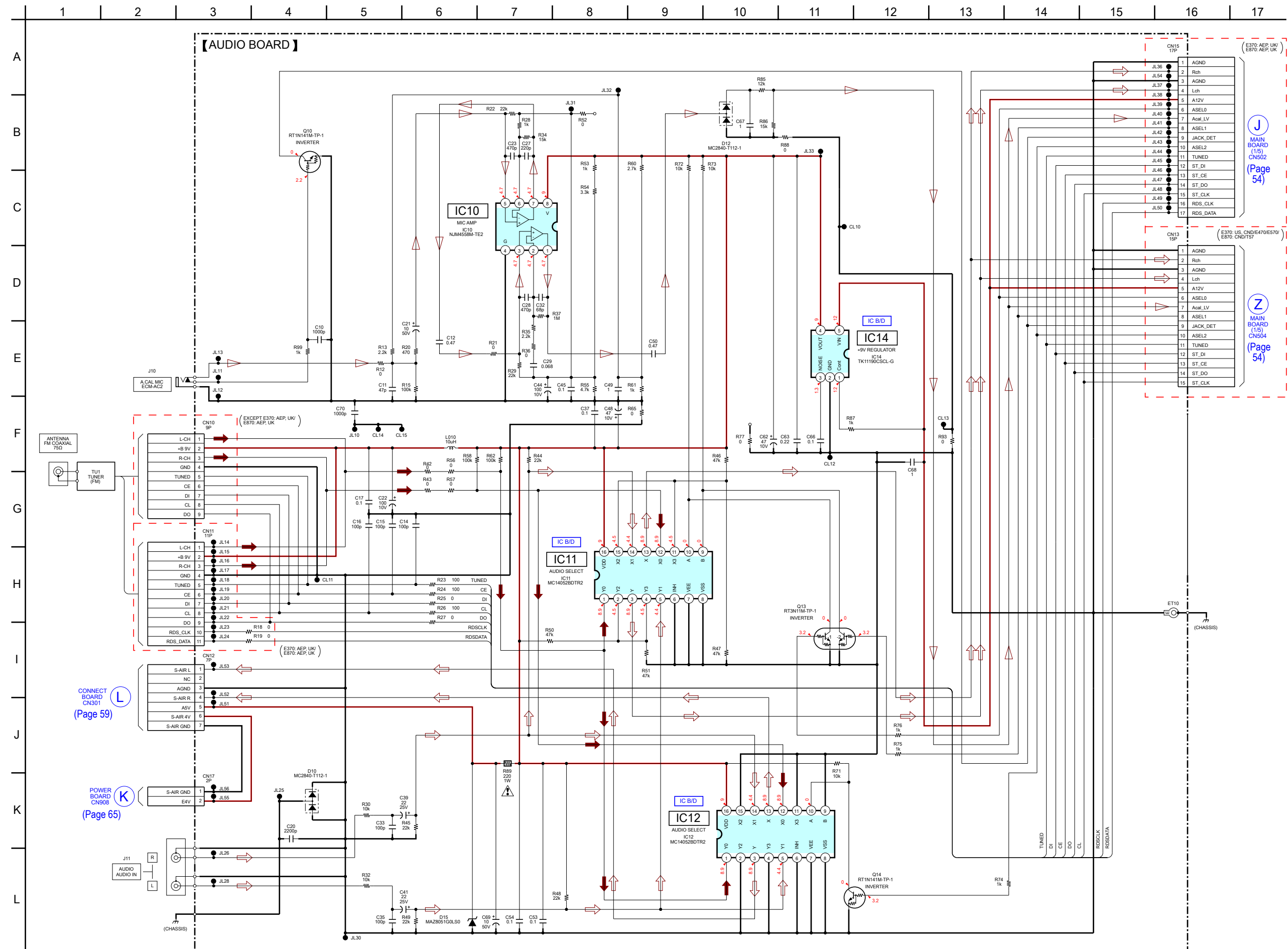


Note: IC311 on the MB-134 board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

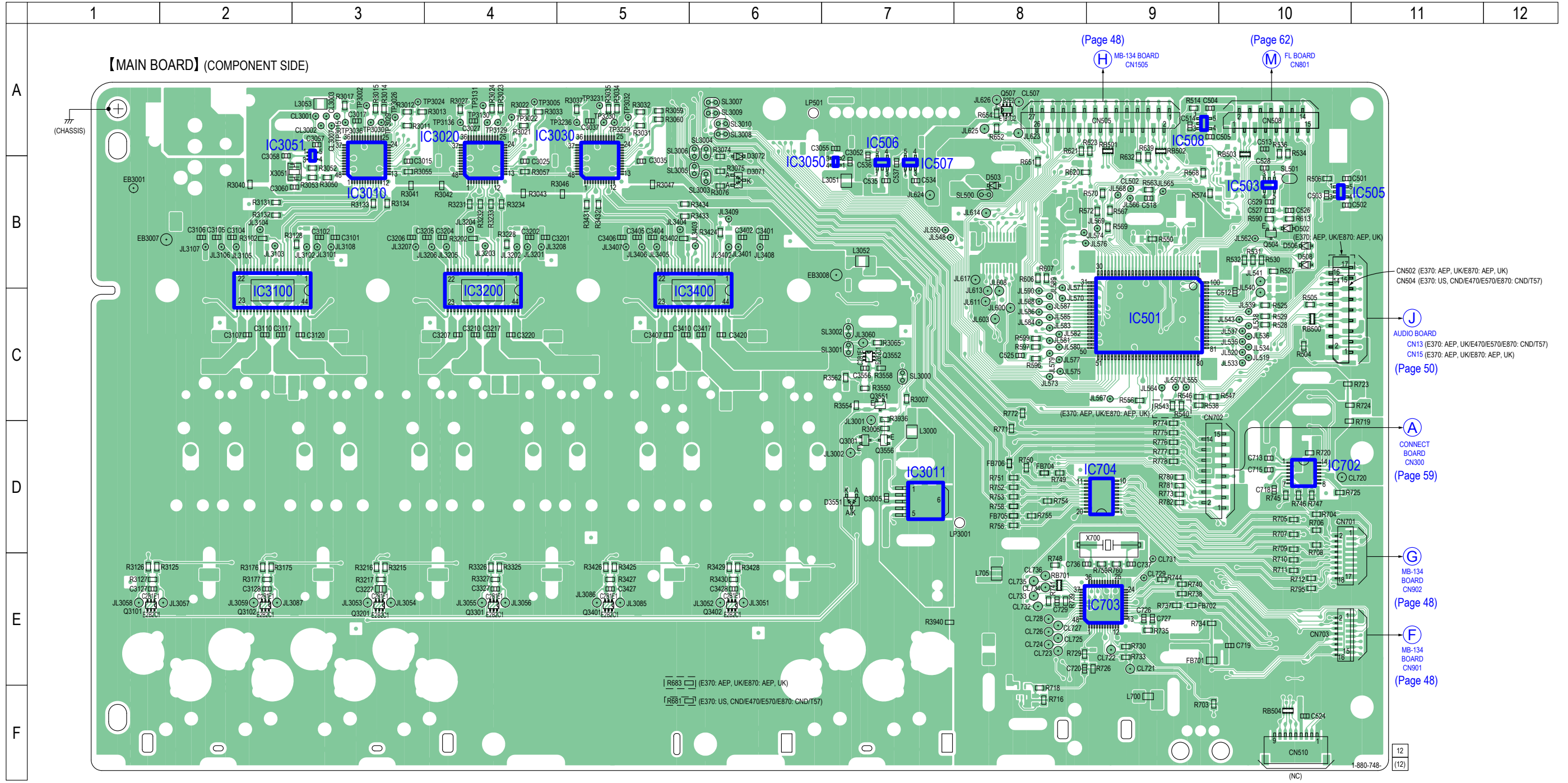
5-22. PRINTED WIRING BOARD - AUDIO Board - • See page 34 for Circuit Boards Location. •  : Uses unleaded solder.




5-23. SCHEMATIC DIAGRAM - AUDIO Board - • See page 67 for IC Block Diagrams.

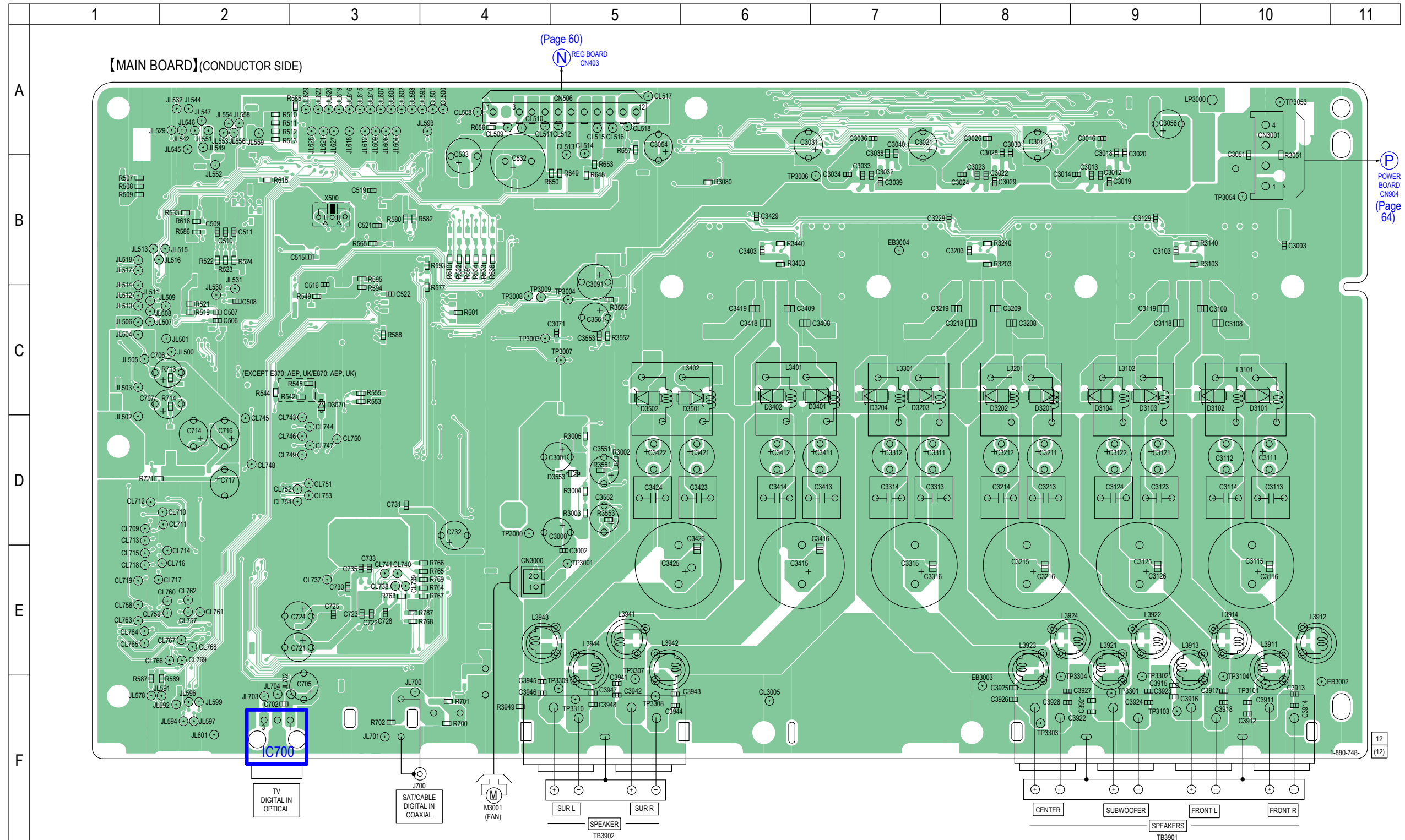


5-24. PRINTED WIRING BOARD - MAIN Board (Component Side)- • See page 34 for Circuit Boards Location. • : Uses unleaded solder.

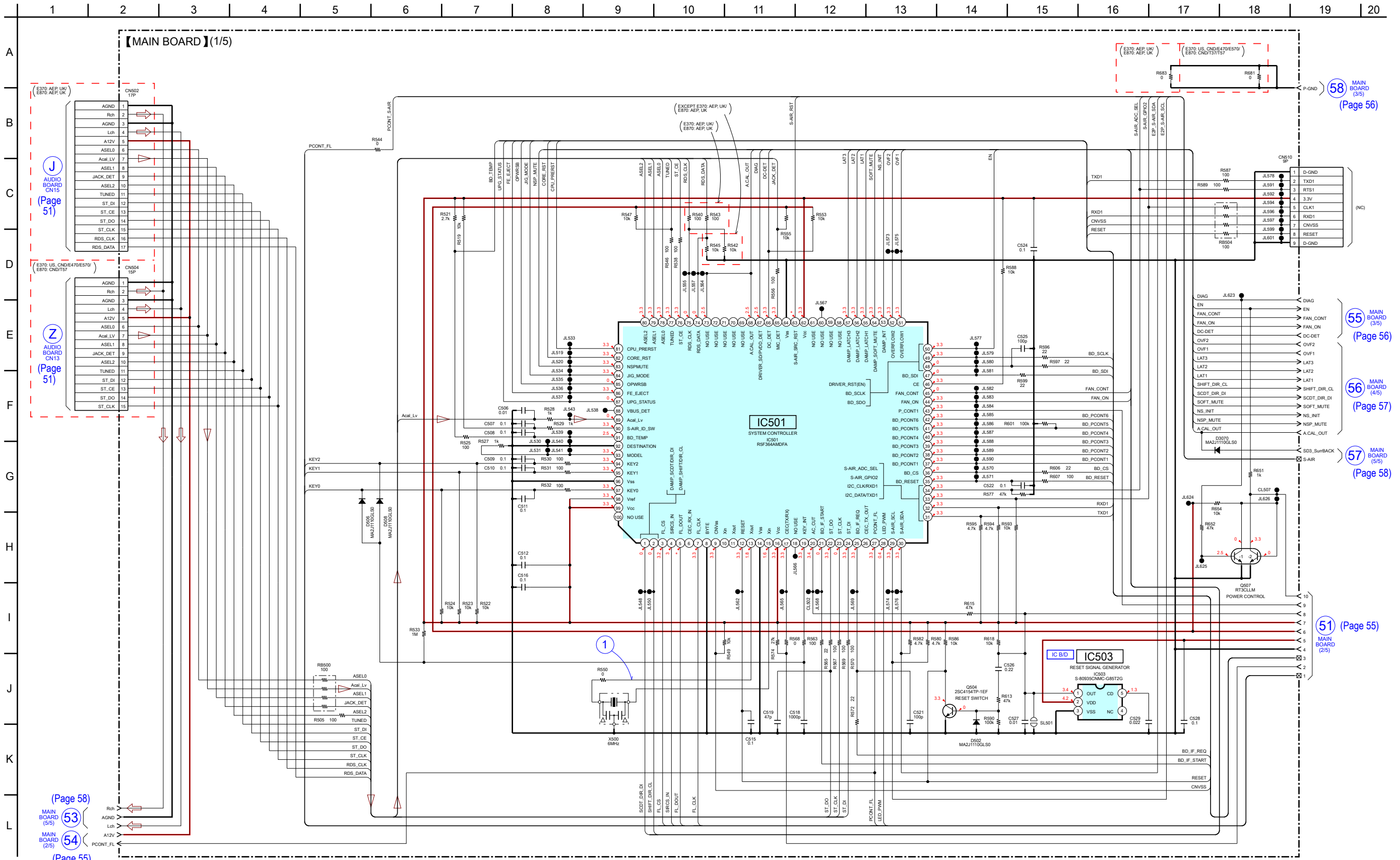


Note: When IC3100, IC3200 and IC3400 on the MAIN board are replaced, spread the compound referring to “NOTE OF REPLACING THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD” on servicing notes (page 8).

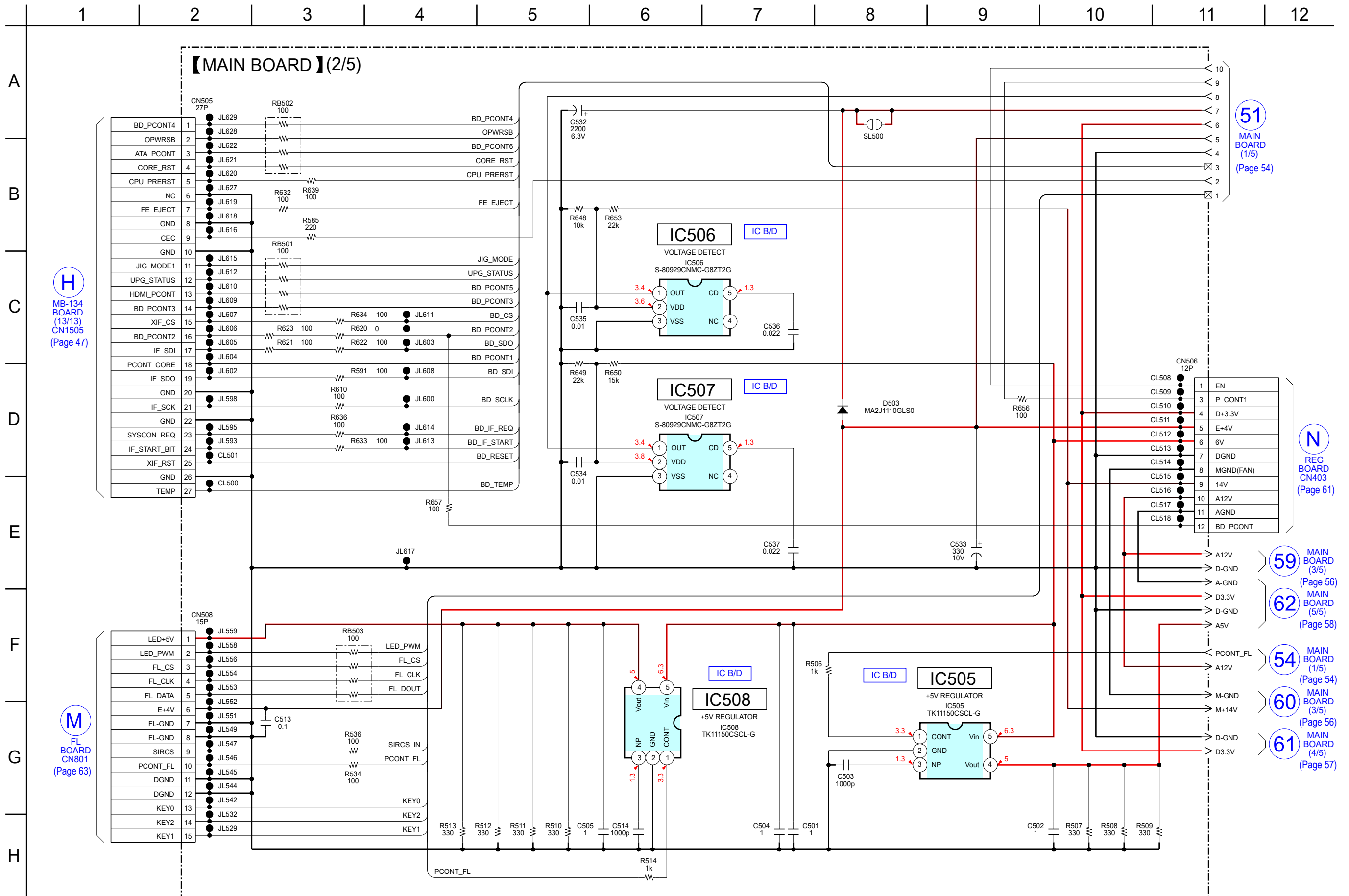
5-25. PRINTED WIRING BOARD - MAIN Board (Conductor Side)- • See page 34 for Circuit Boards Location. •  : Uses unleaded solder.



5-26. SCHEMATIC DIAGRAM - MAIN Board (1/5) - • See page 60 for waveforms. • See page 67 for IC Block Diagrams. • See page 77 for IC Pin Function Description.



5-27. SCHEMATIC DIAGRAM - MAIN Board (2/5) - • See page 67 for IC Block Diagrams.



51 MAIN BOARD (1/5) (Page 54)

N REG BOARD CN403 (Page 61)

59 MAIN BOARD (3/5) (Page 56)

62 MAIN BOARD (5/5) (Page 58)

54 MAIN BOARD (1/5) (Page 54)

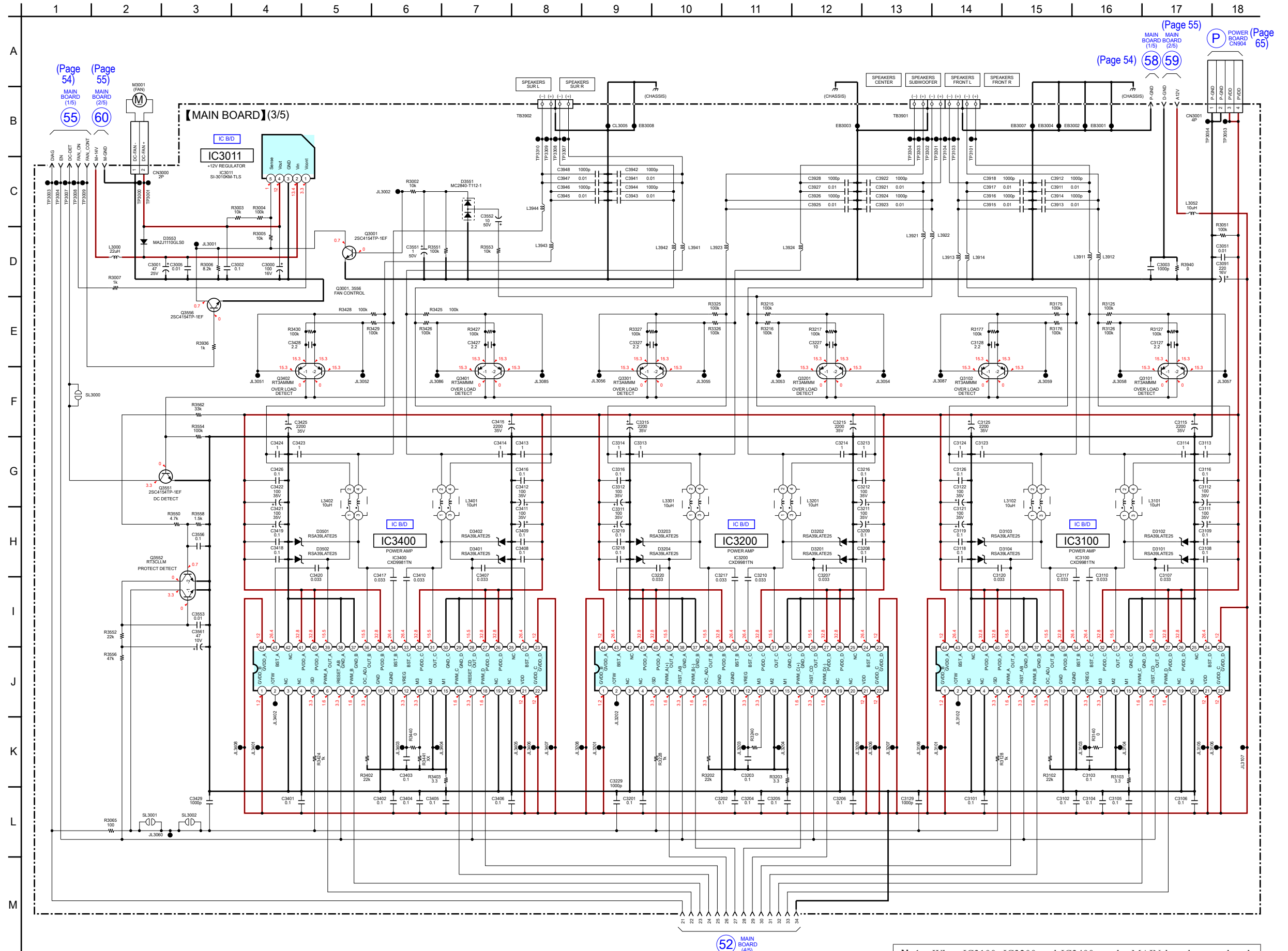
60 MAIN BOARD (3/5) (Page 56)

61 MAIN BOARD (4/5) (Page 57)

H MB-134 BOARD (13/13) CN1505 (Page 47)

M FL BOARD CN801 (Page 63)

5-28. SCHEMATIC DIAGRAM - MAIN Board (3/5) - • See page 67 for IC Block Diagrams.

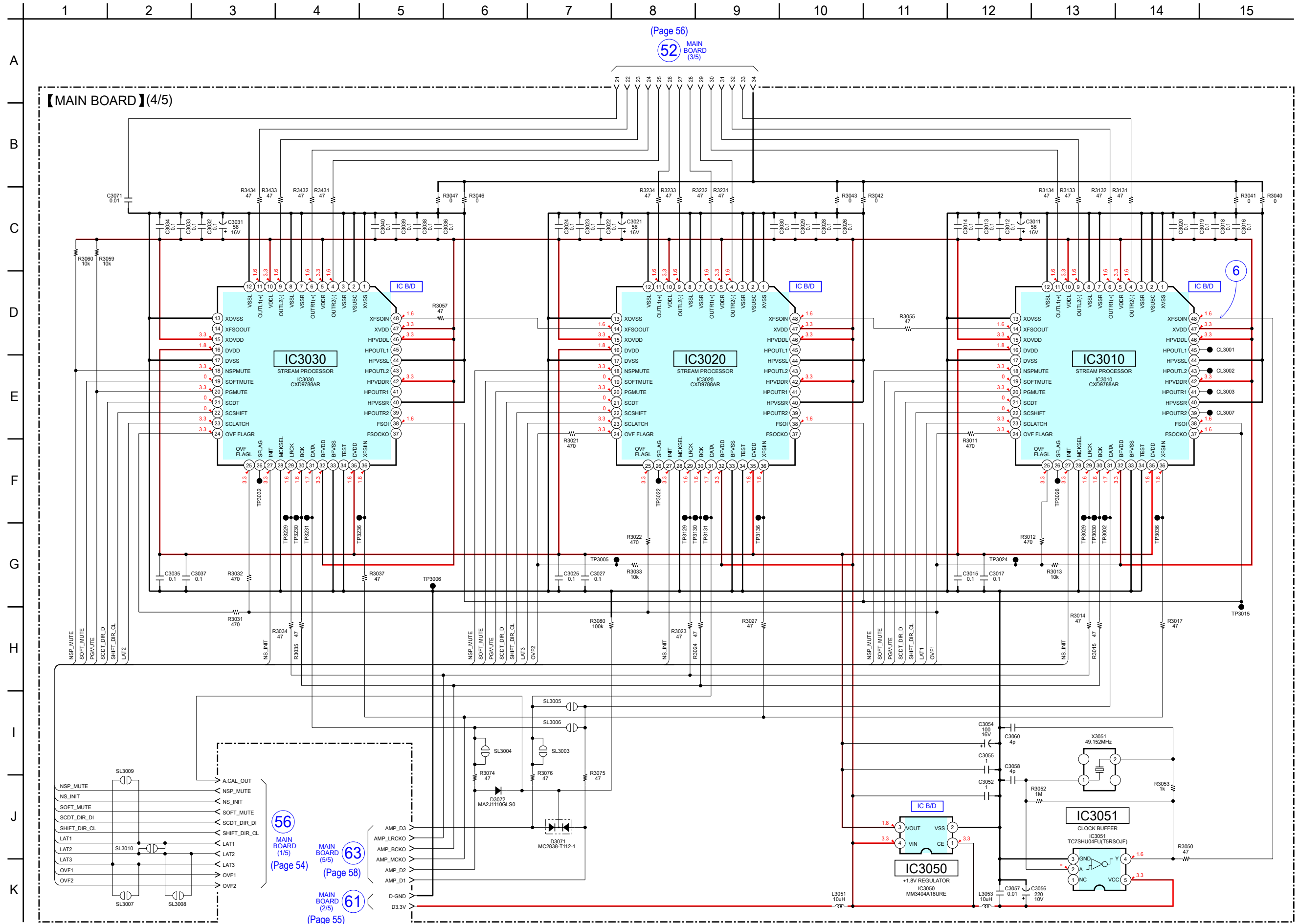


(Page 54) 58 59 (Page 55) MAIN BOARD (1/5) MAIN BOARD (2/5) (Page 65) POWER BOARD CN904

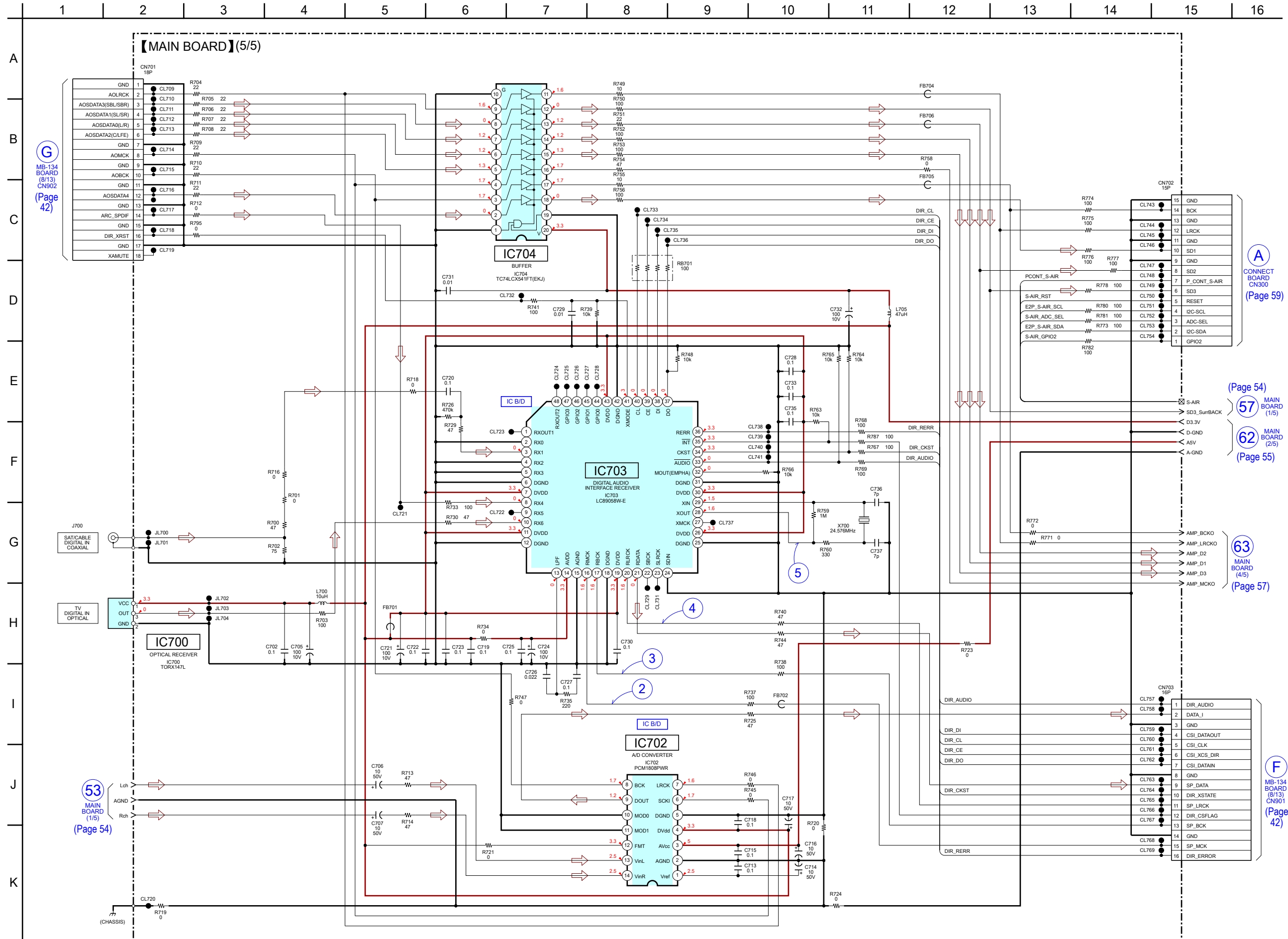
52 MAIN BOARD (4/5) (Page 57)

Note: When IC3100, IC3200 and IC3400 on the MAIN board are replaced, spread the compound referring to "NOTE OF REPLACING THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD" on servicing notes (page 8).

5-29. SCHEMATIC DIAGRAM - MAIN Board (4/5) - • See page 60 for waveforms. • See page 67 for IC Block Diagrams.

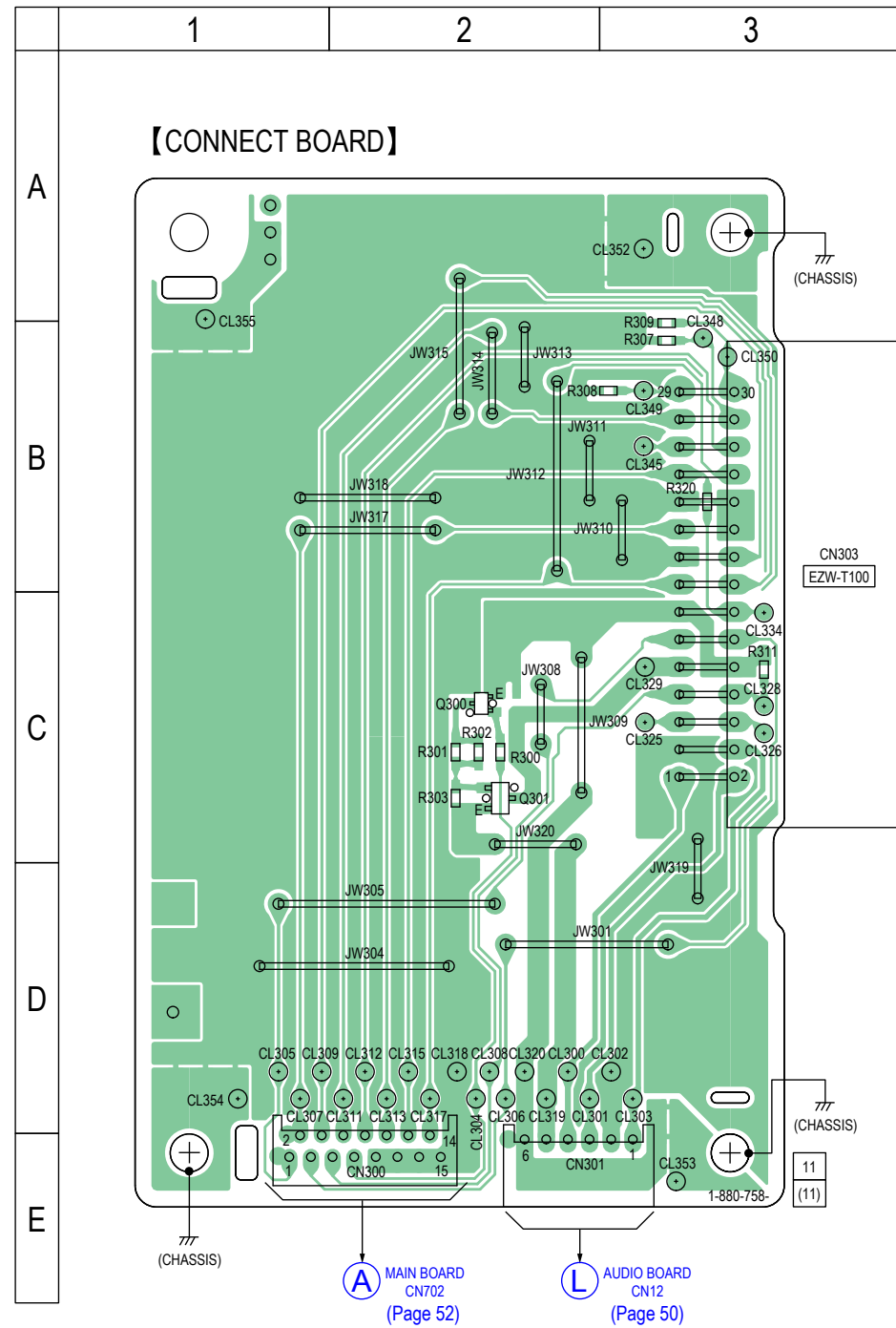


5-30. SCHEMATIC DIAGRAM - MAIN Board (5/5) - • See page 60 for waveforms. • See page 67 for IC Block Diagrams.

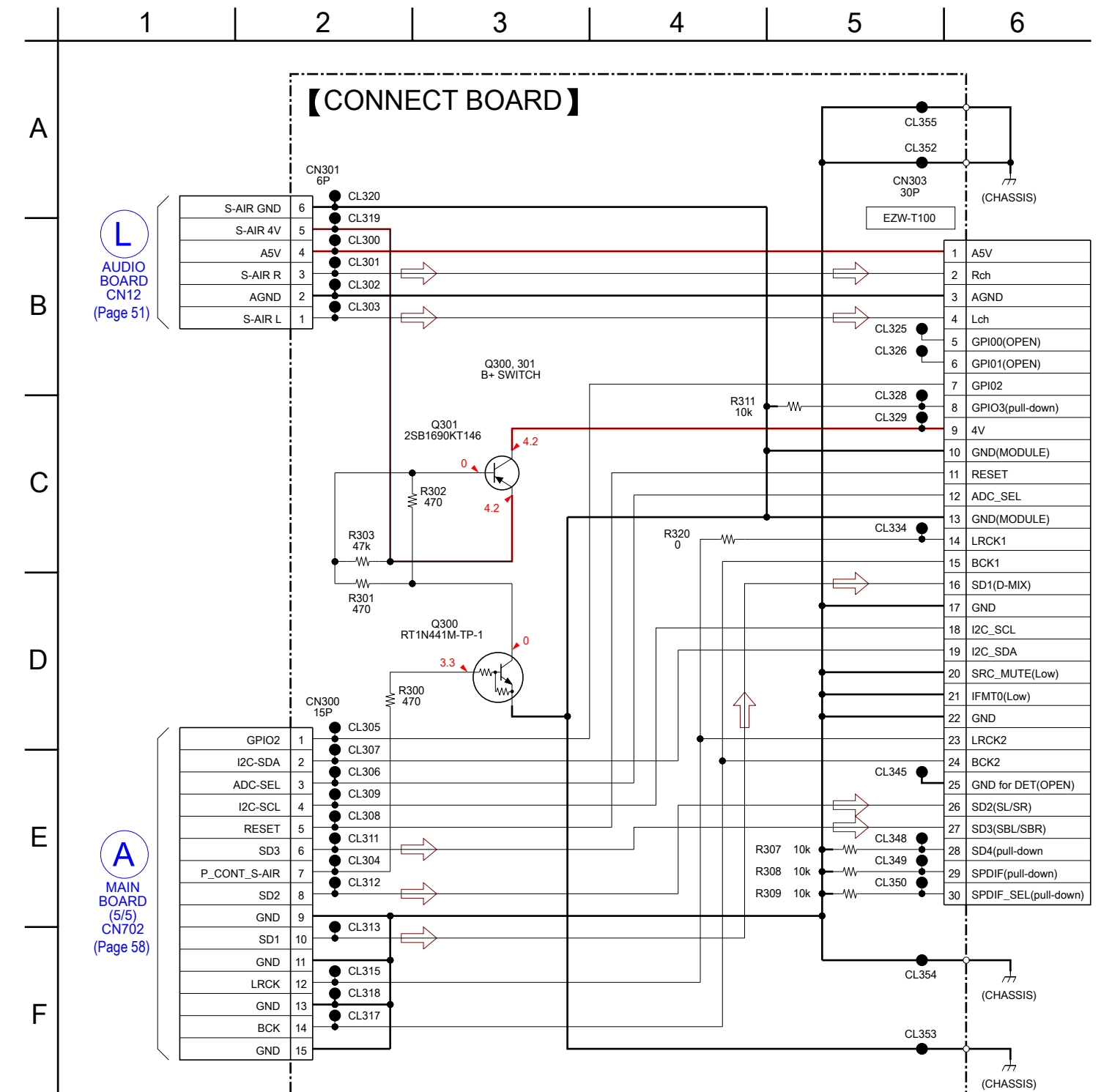


5-31. PRINTED WIRING BOARD - CONNECT Board -

• See page 34 for Circuit Boards Location. •  : Uses unleaded solder.

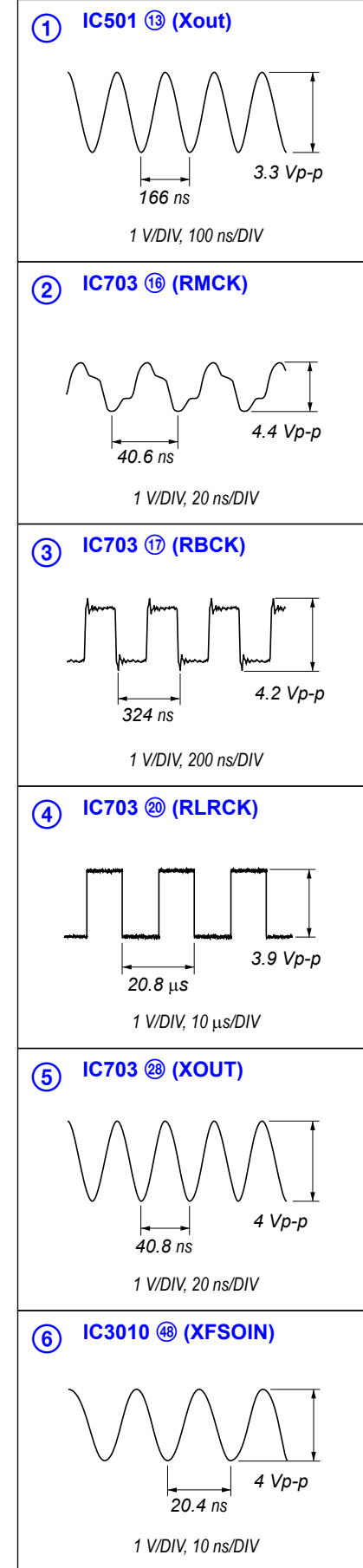


5-32. SCHEMATIC DIAGRAM - CONNECT Board -

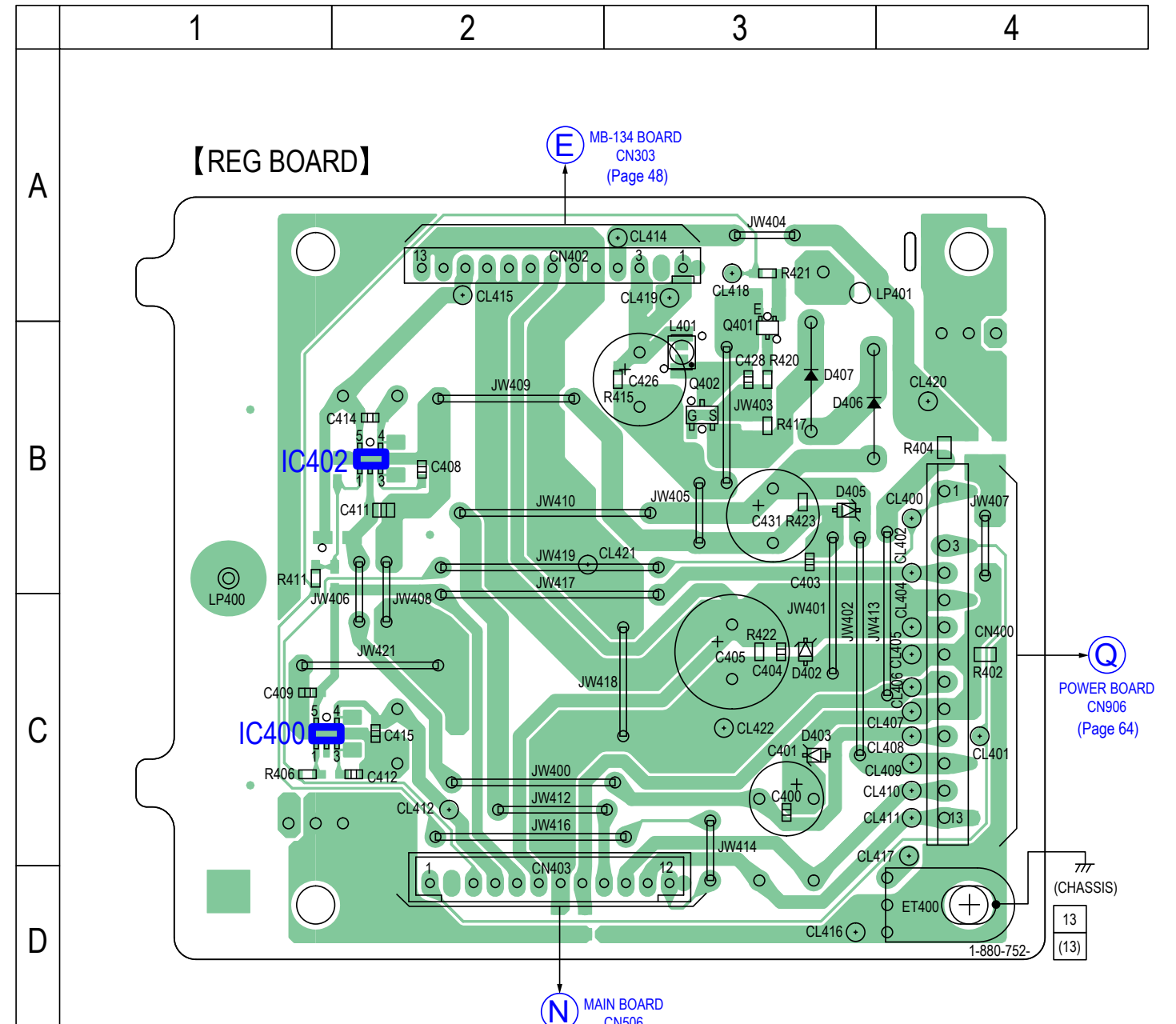


• Waveforms

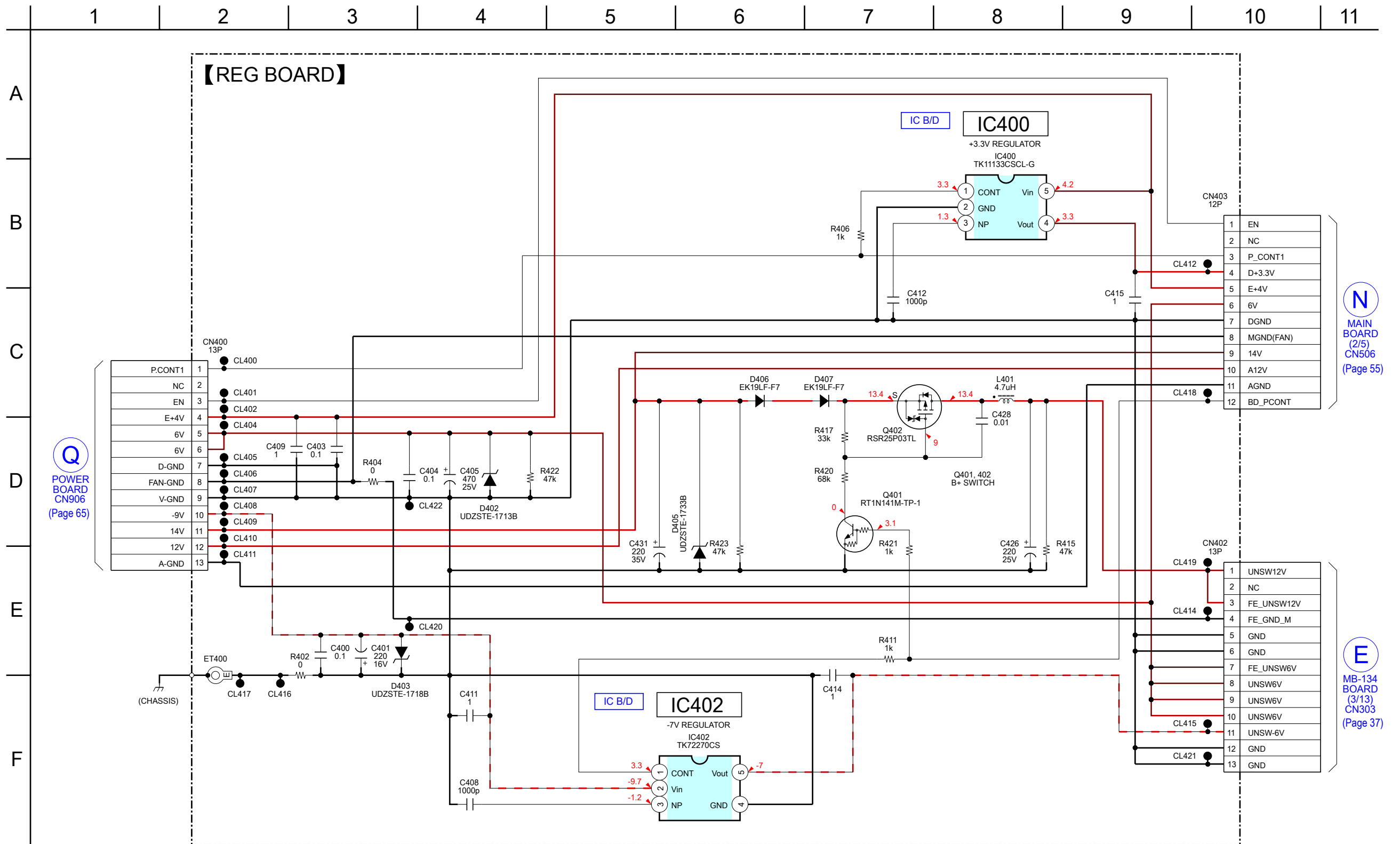
- MAIN Board -



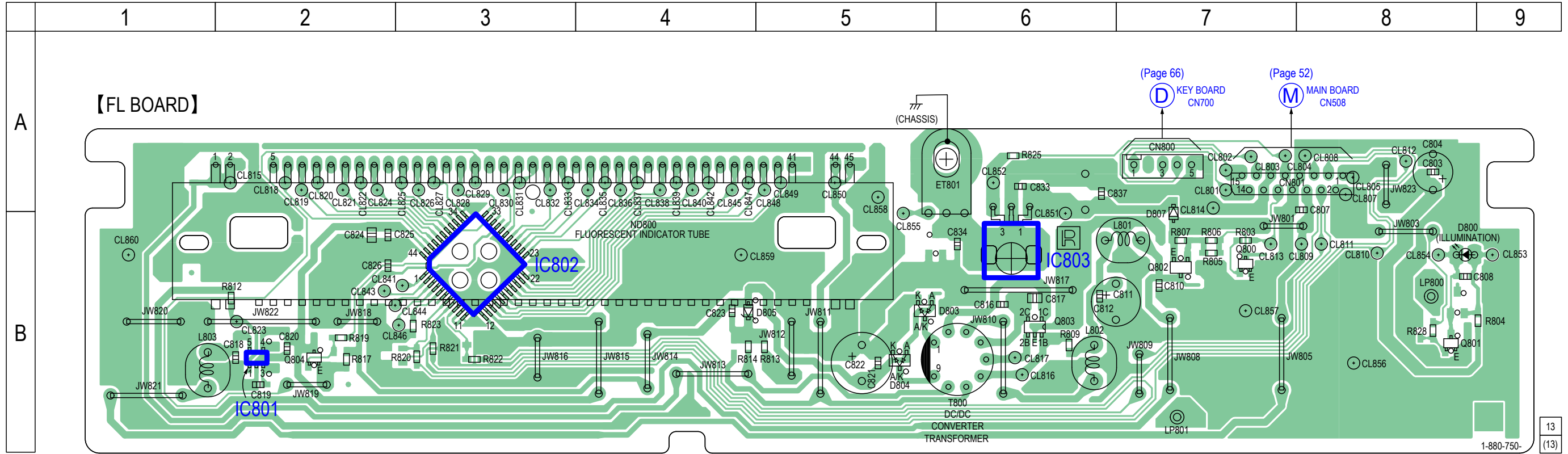
5-33. PRINTED WIRING BOARD - REG Board - • See page 34 for Circuit Boards Location. • : Uses unleaded solder.



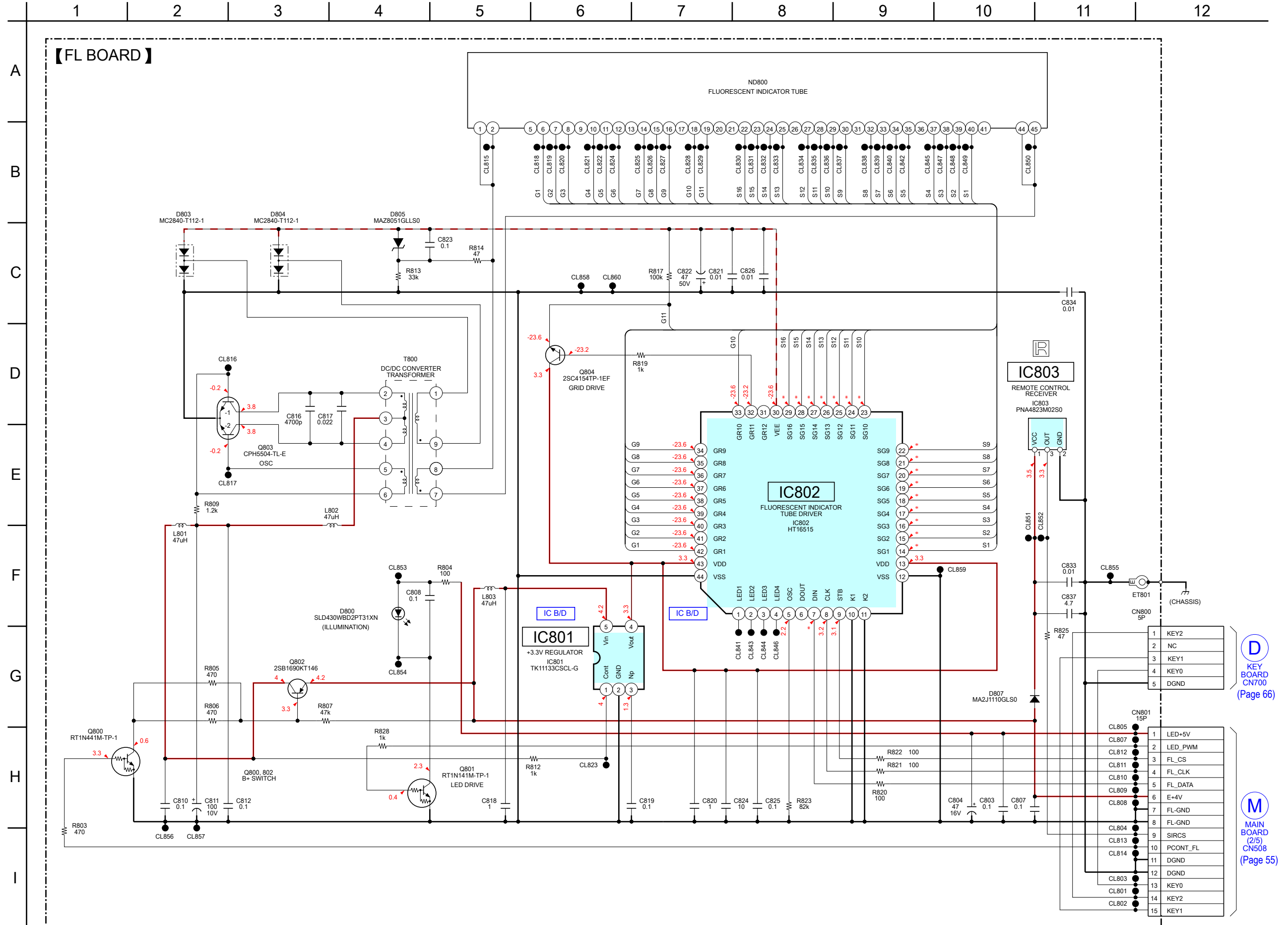
5-34. SCHEMATIC DIAGRAM - REG Board - • See page 67 for IC Block Diagrams.



5-35. PRINTED WIRING BOARD - FL Board - • See page 34 for Circuit Boards Location. •  : Uses unleaded solder.



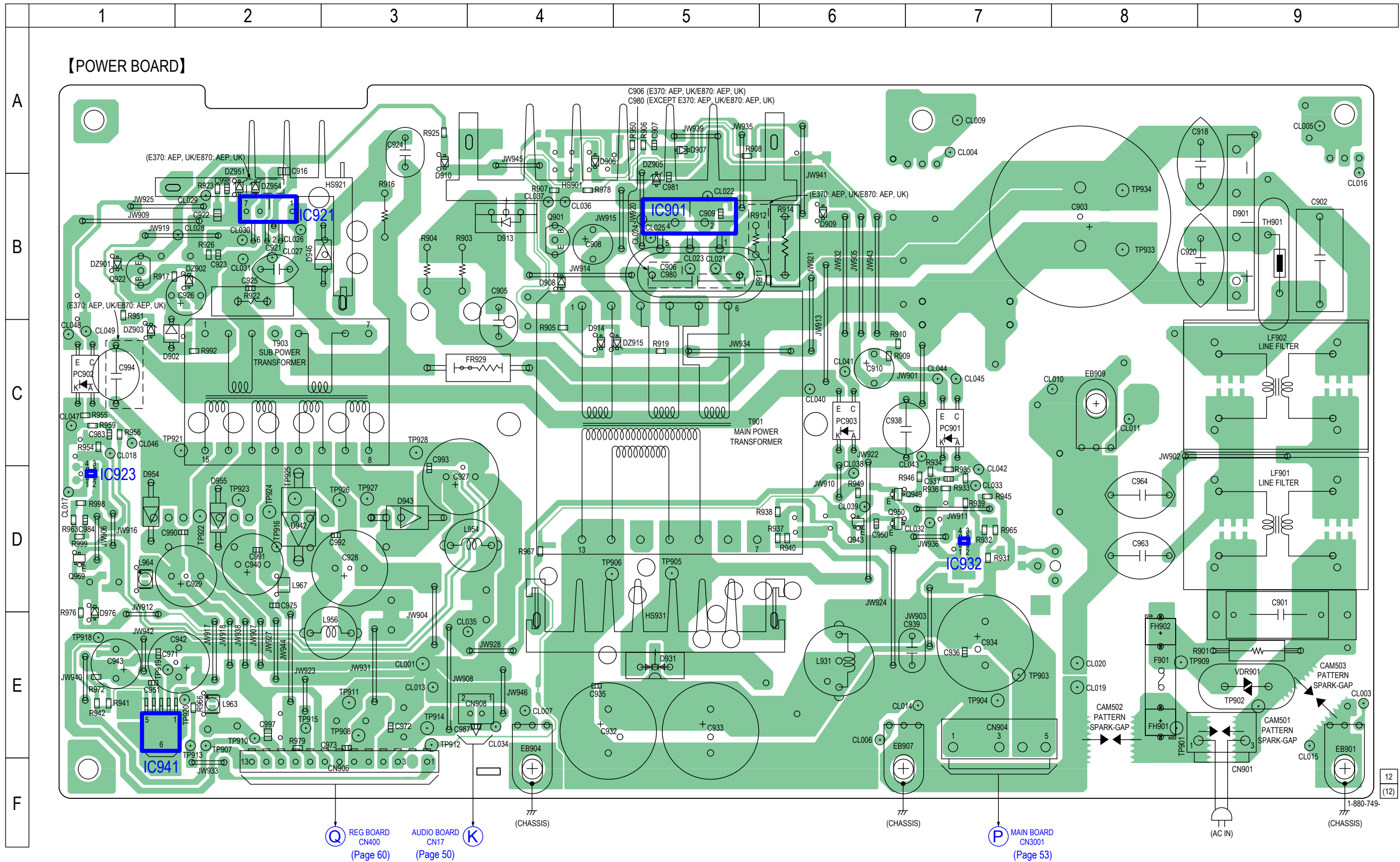
5-36. SCHEMATIC DIAGRAM - FL Board - • See page 67 for IC Block Diagrams.



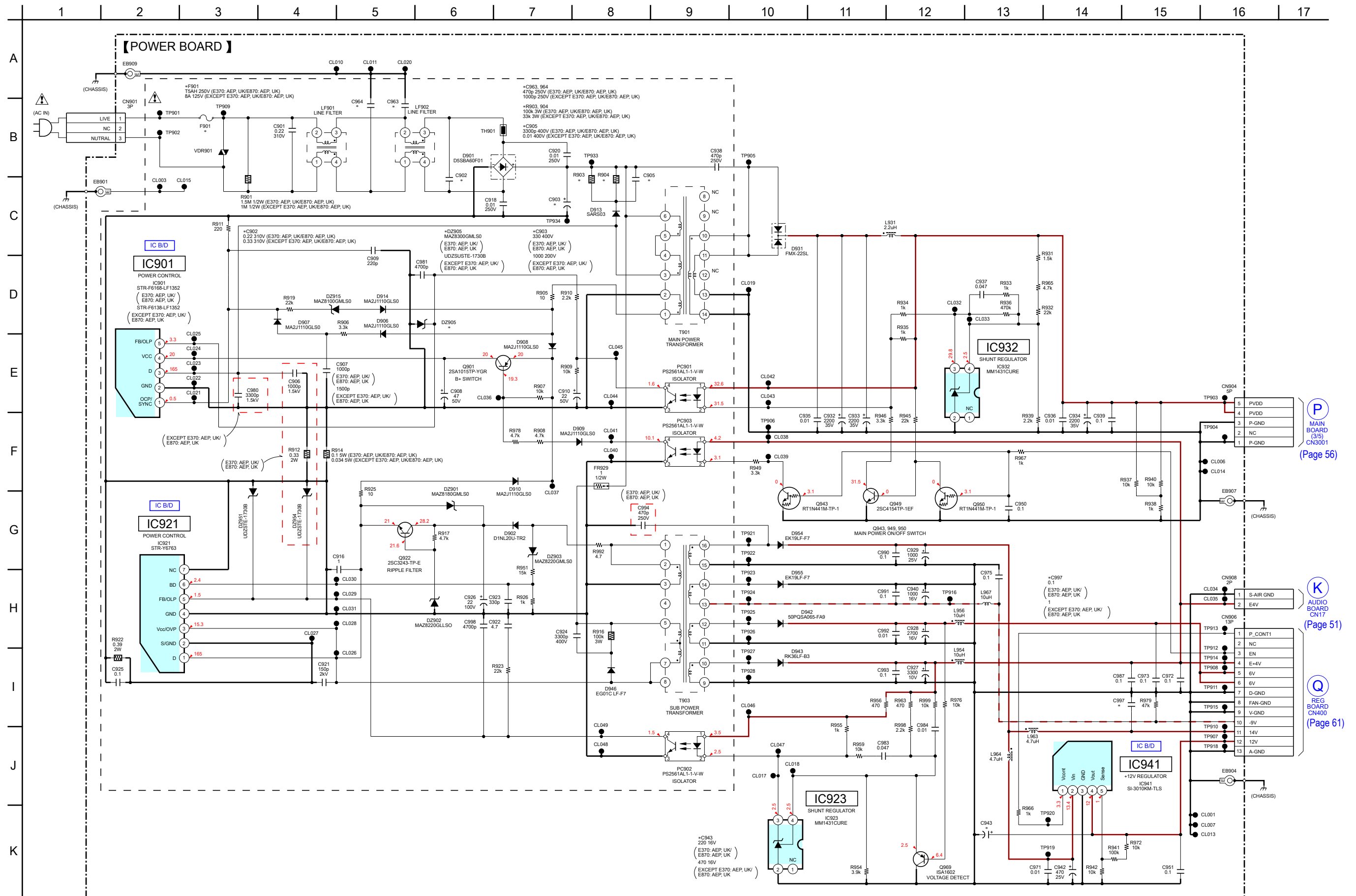
D KEY BOARD CN700 (Page 66)

M MAIN BOARD (2/5) CN508 (Page 55)

5-37. PRINTED WIRING BOARD - POWER Board - • See page 34 for Circuit Boards Location. •  : Uses unleaded solder.



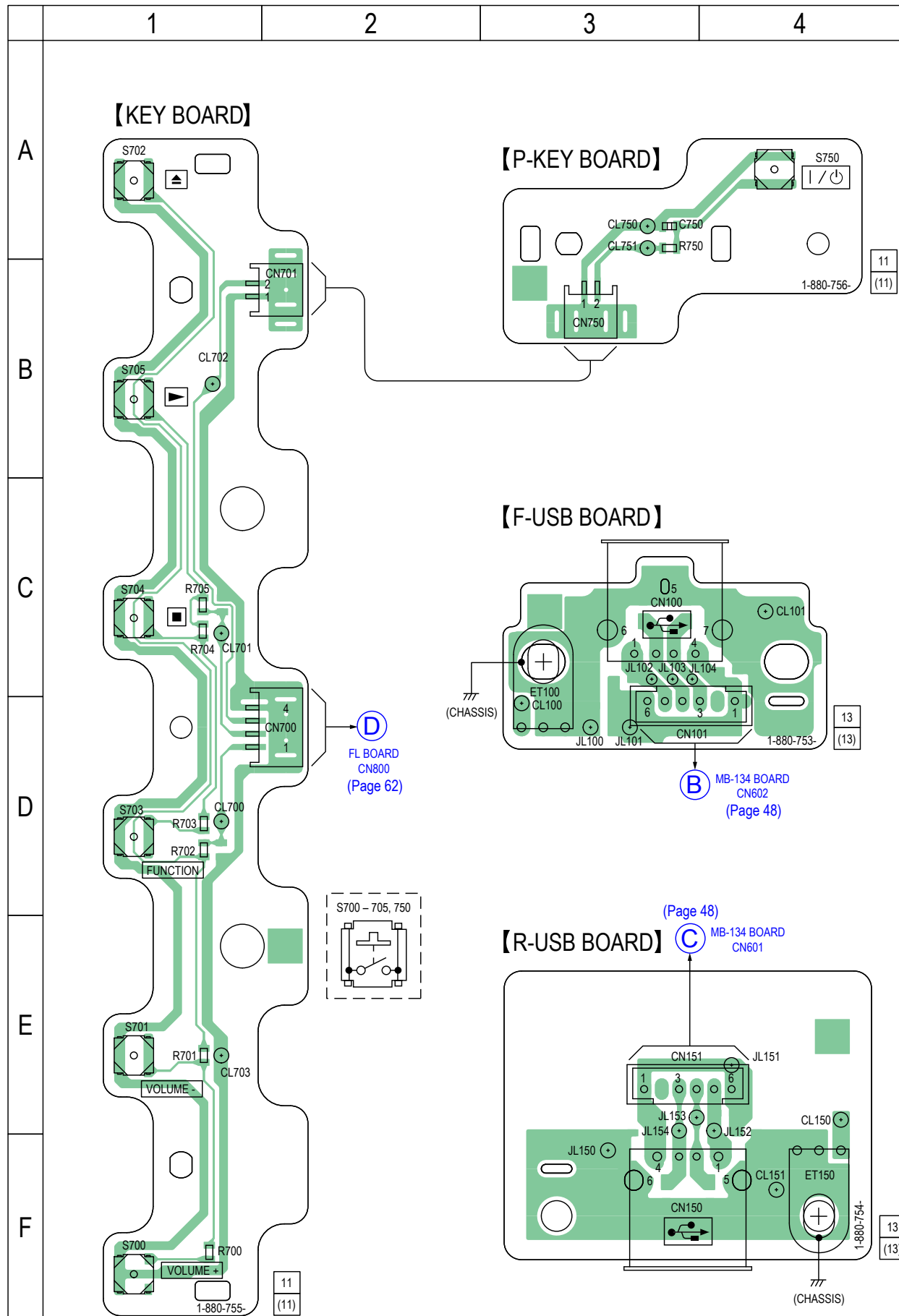
5-38. SCHEMATIC DIAGRAM - POWER Board - • See page 67 for IC Block Diagrams.



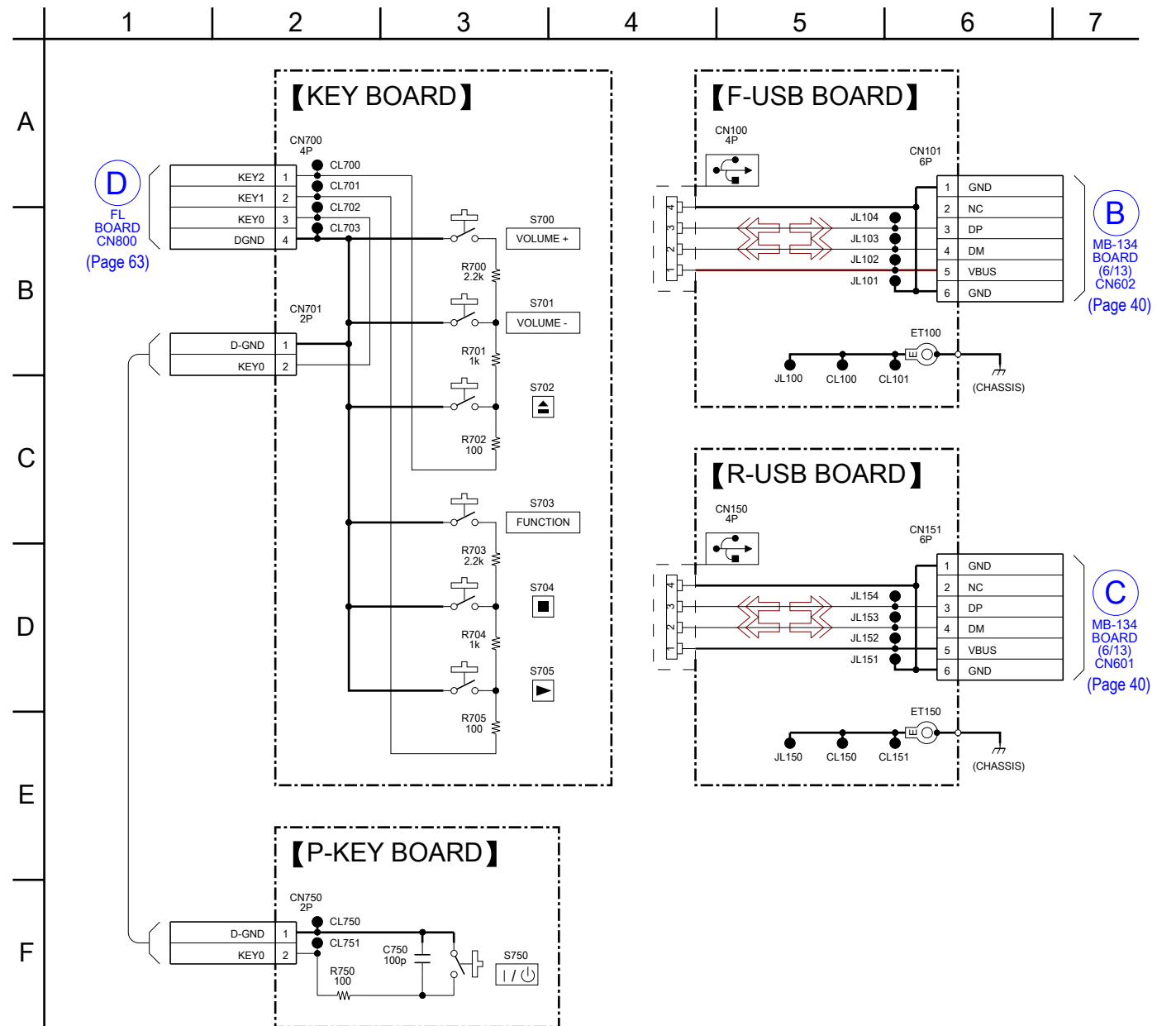
Note: When D913, D931, IC901 and IC921 on the POWER board are replaced, spread the compound referring to "NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD" on servicing notes (page 9).

5-39. PRINTED WIRING BOARDS - KEY Section -

• See page 34 for Circuit Boards Location. •  : Uses unleaded solder.

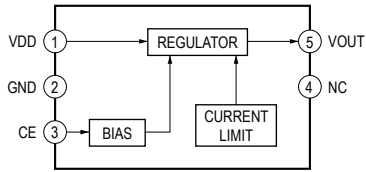


5-40. SCHEMATIC DIAGRAM - KEY Section -

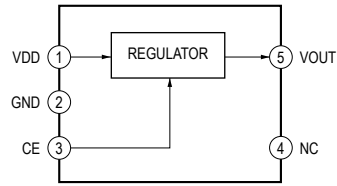


• IC Block Diagrams

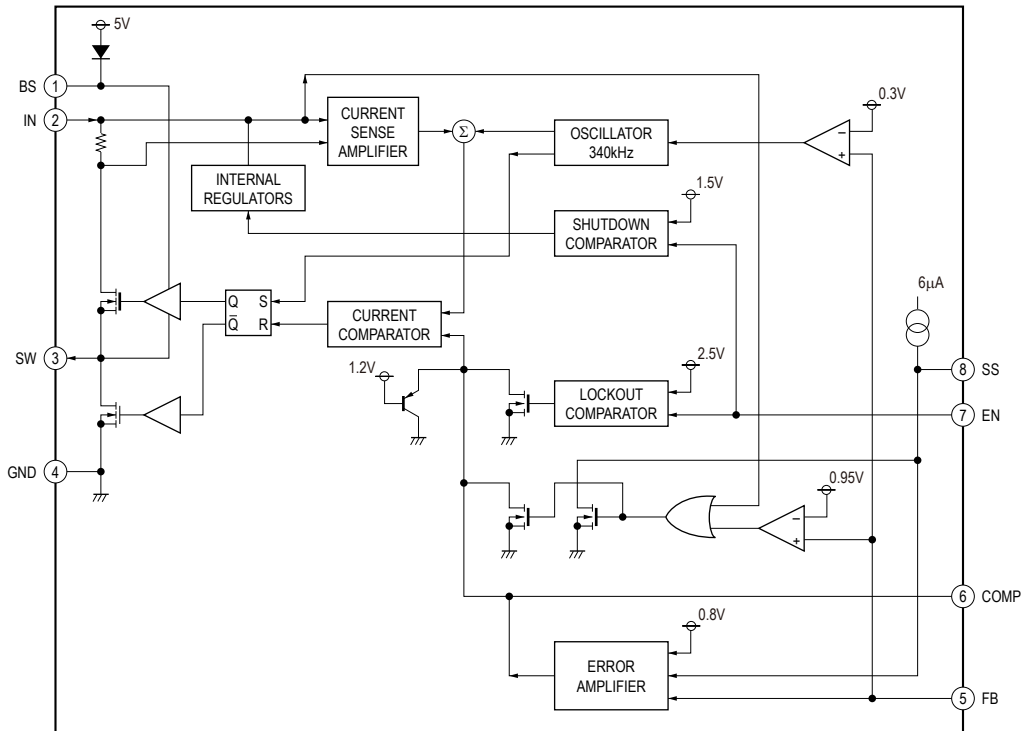
- MB-134 Board -
IC303 MM3141CNRE



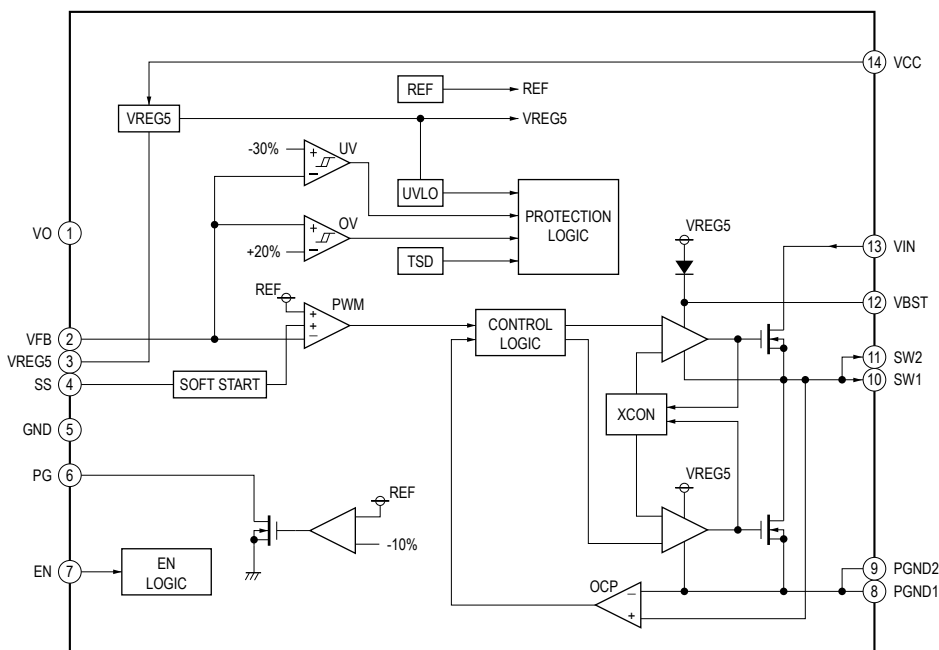
IC307 MM3293DNRE



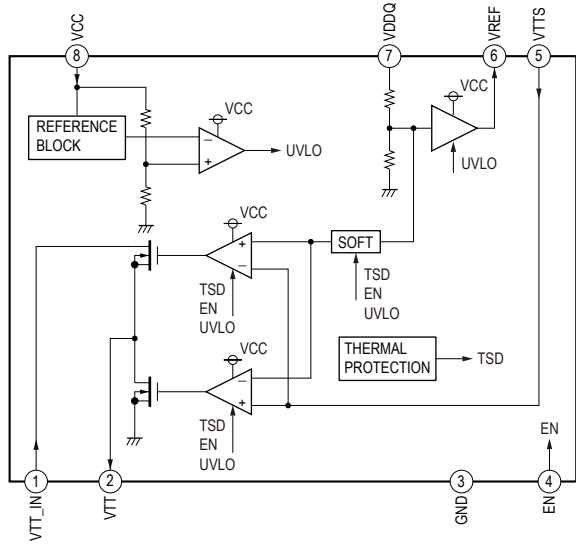
IC308 MP2301ENE-LF-Z



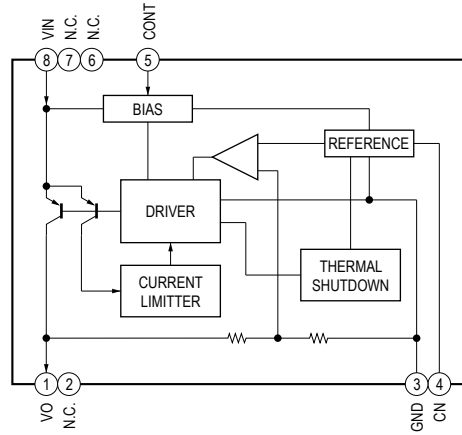
IC309, 310 TPS54325PWPR



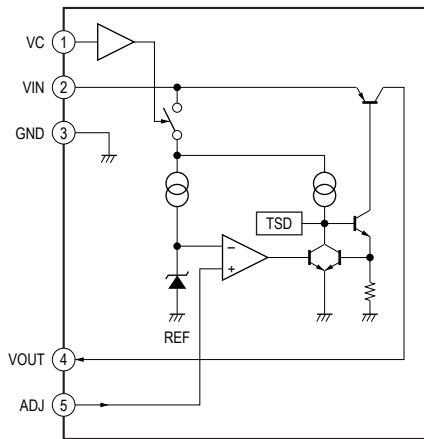
IC311 BD3539NUX-TR



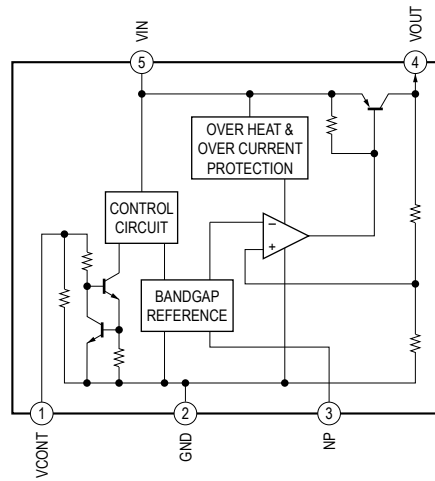
IC312 MM1855AHBE



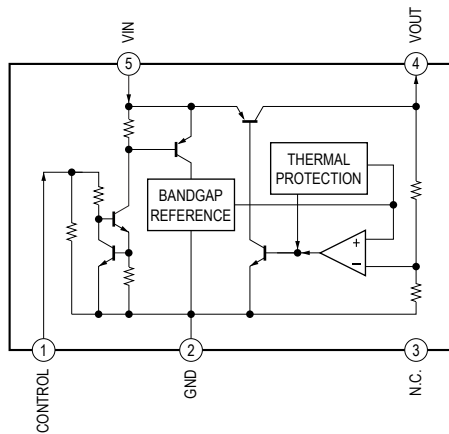
IC601, 602 SI-3010KM-TLS



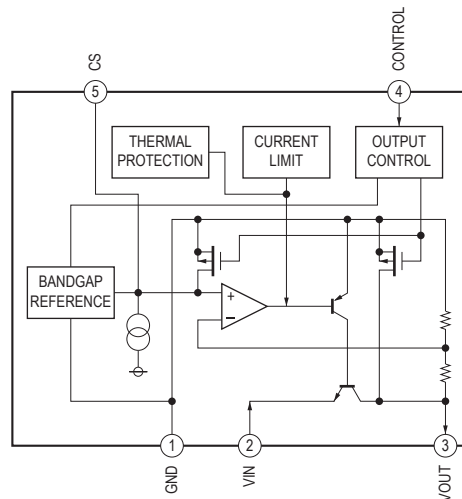
IC704 TK11133CSCL-G
IC705 TK11150CSCL-G



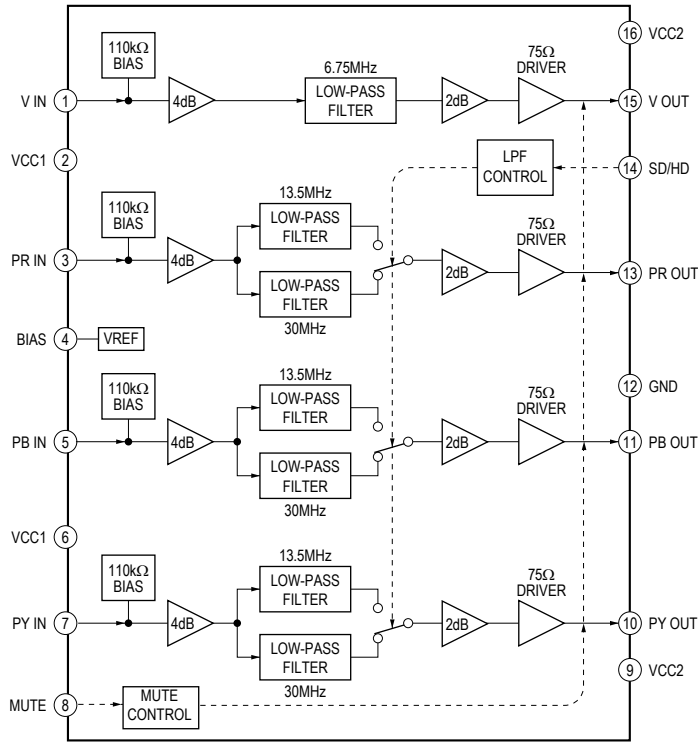
IC1001 NJM2878F3-33 (TE2)



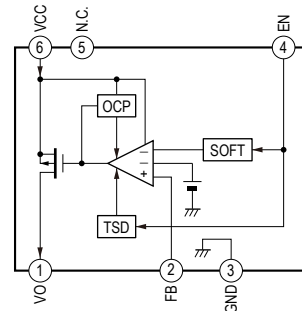
IC1002 NJM2828F3-05



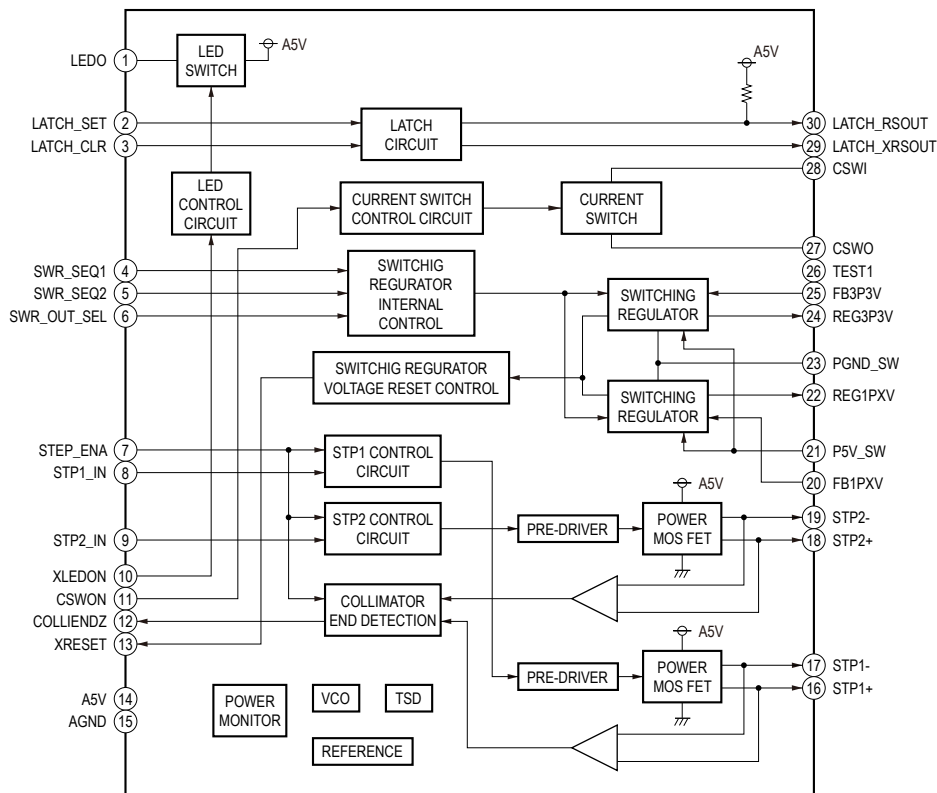
IC1003 MM1797CVBE



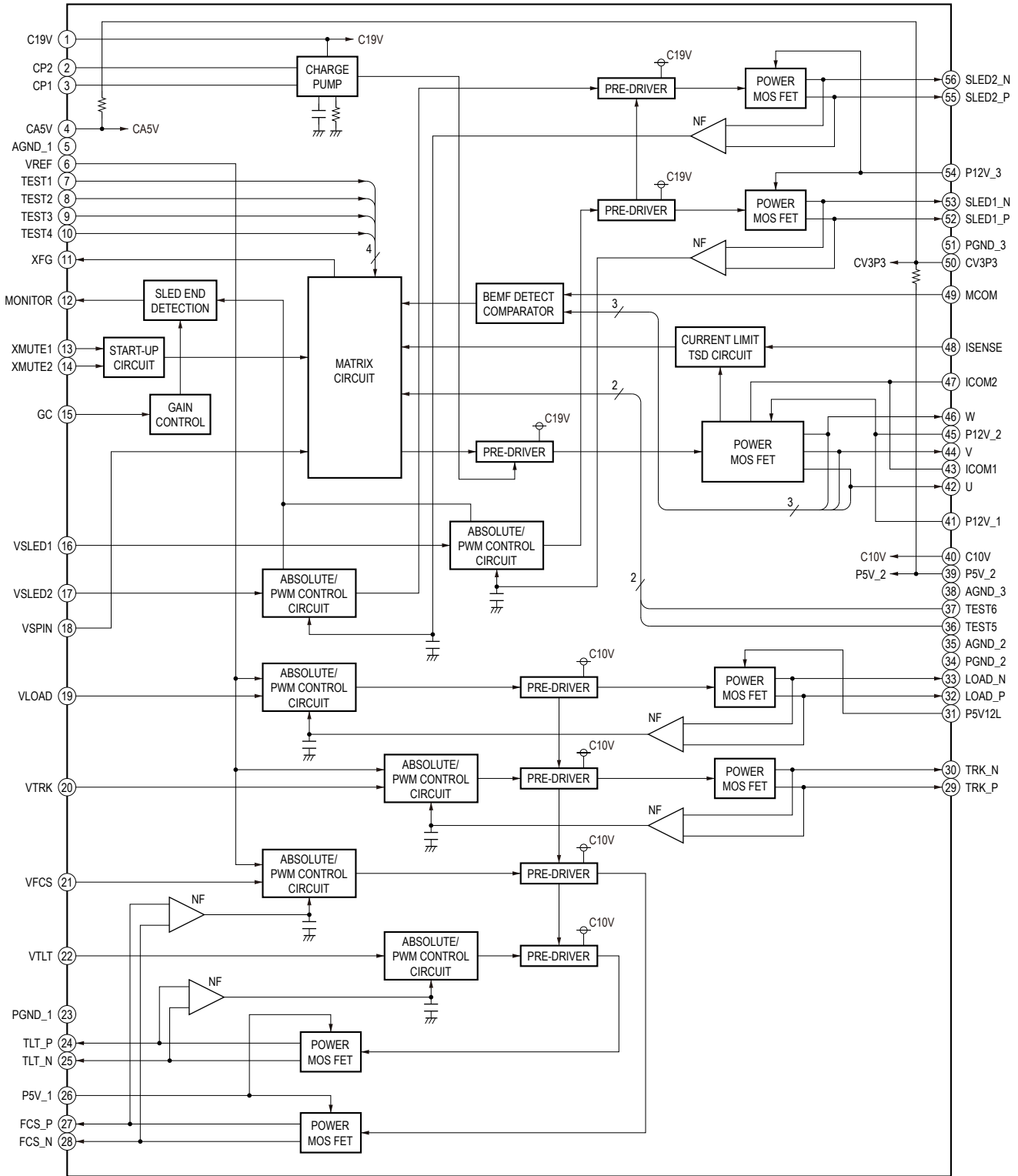
IC1451 BD35630HFV-TR



IC2301 TPIC1391DBTRG4

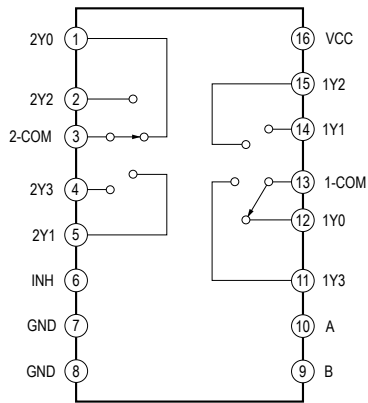


IC2401 TPIC1405DFDRG4

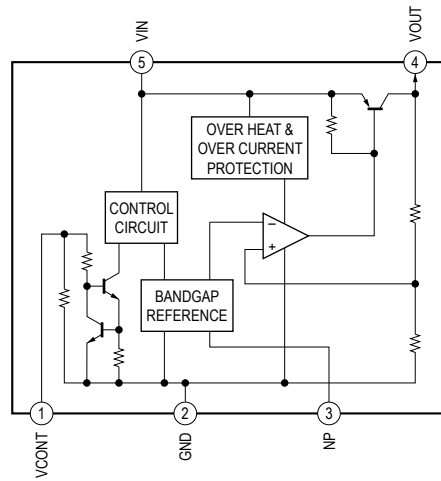


- AUDIO Board -

IC11, 12 MC14052BDTR2



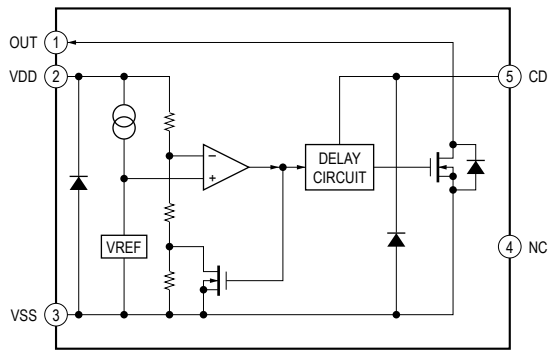
IC14 TK11190CSCL-G



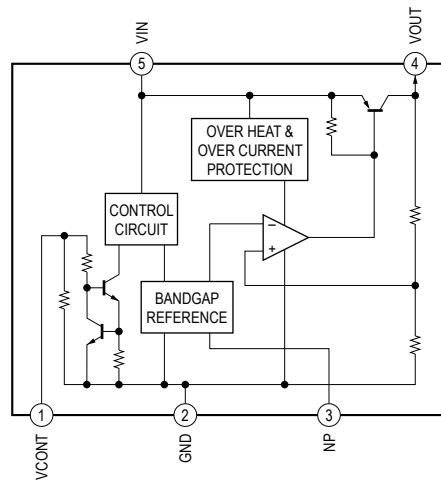
- MAIN Board -

IC503 S-80935CNMC-G85T2G

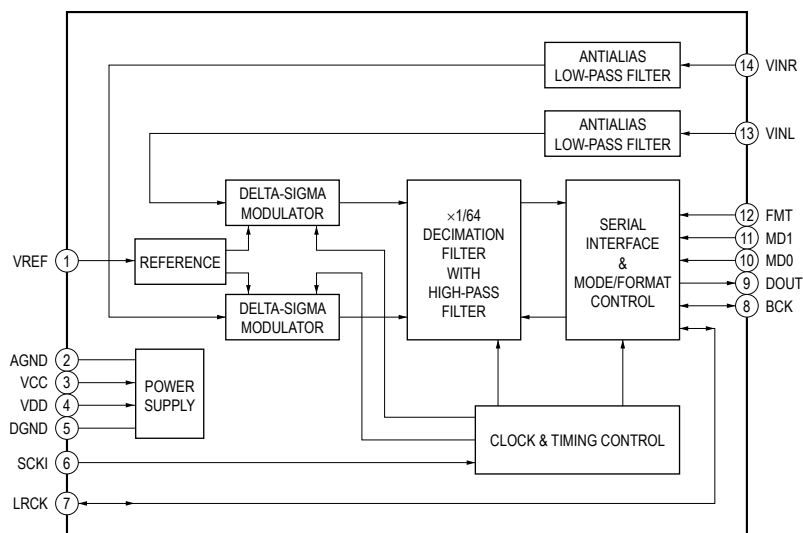
IC506, 507 S-80929CNMC-G8ZT2G



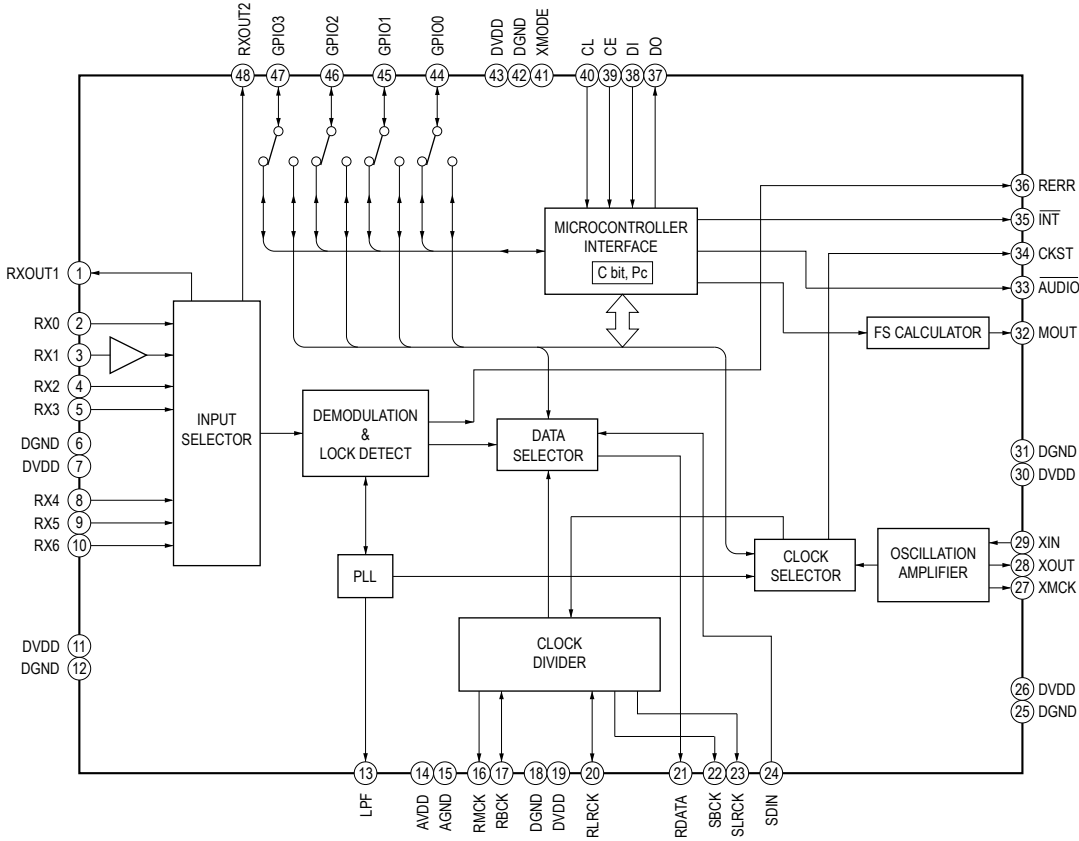
IC505, 508 TK11150CSCL-G



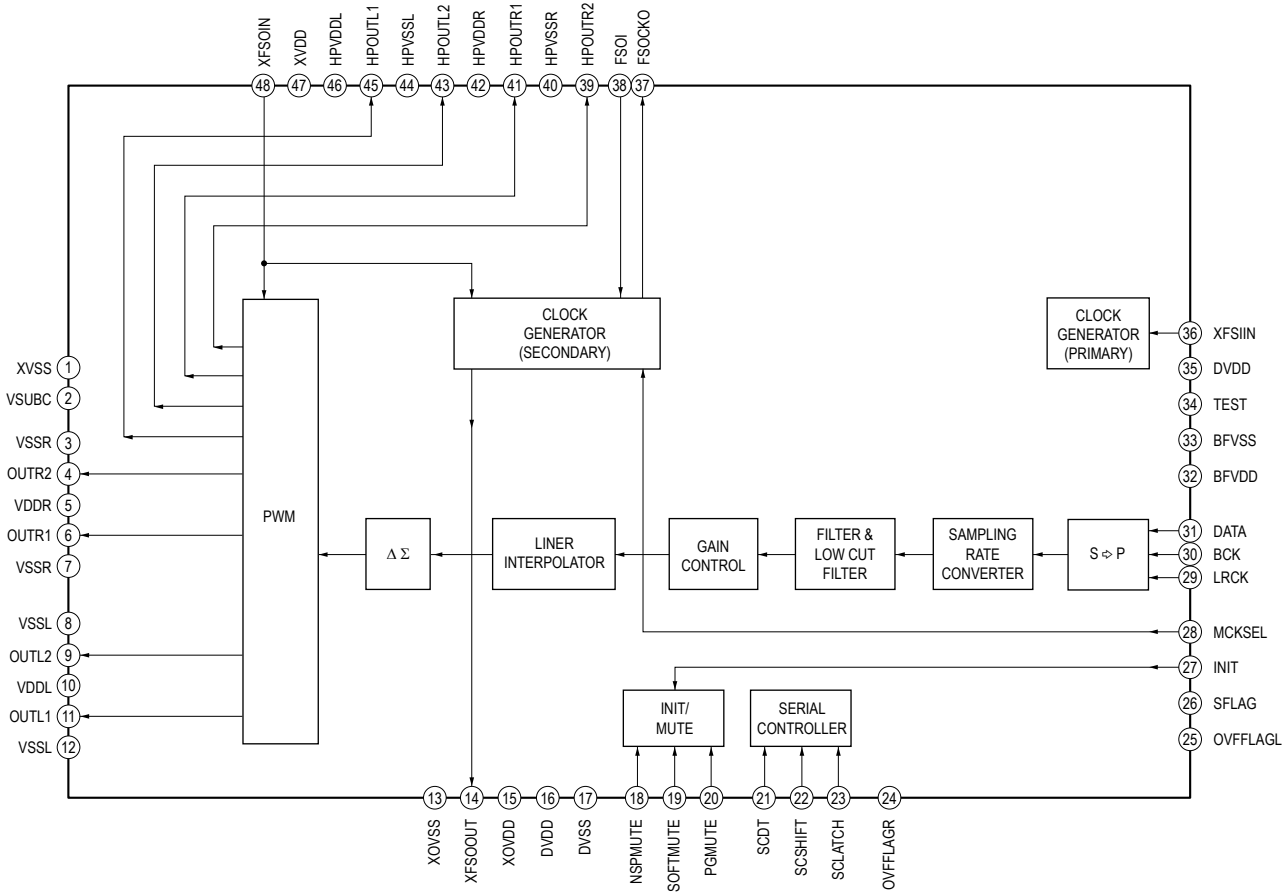
IC702 PCM1808PWR



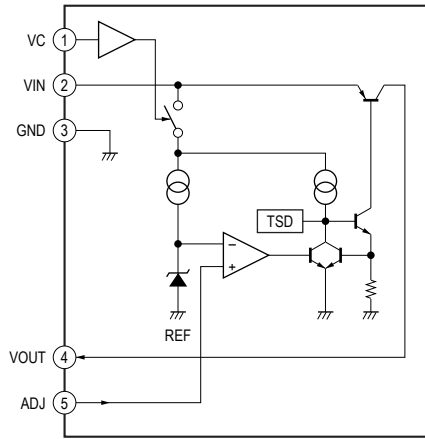
IC703 LC89058W-E



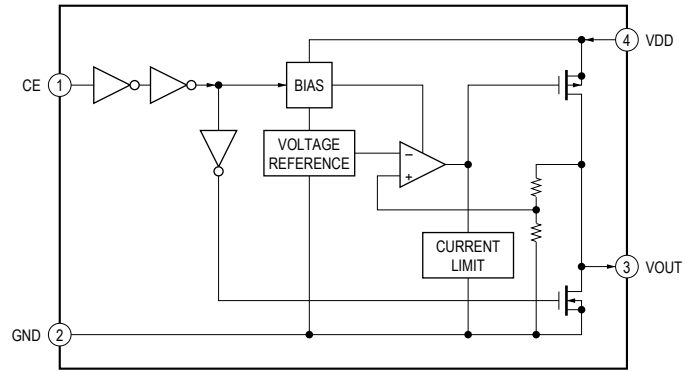
IC3010, 3020, 3030 CXD9788AR



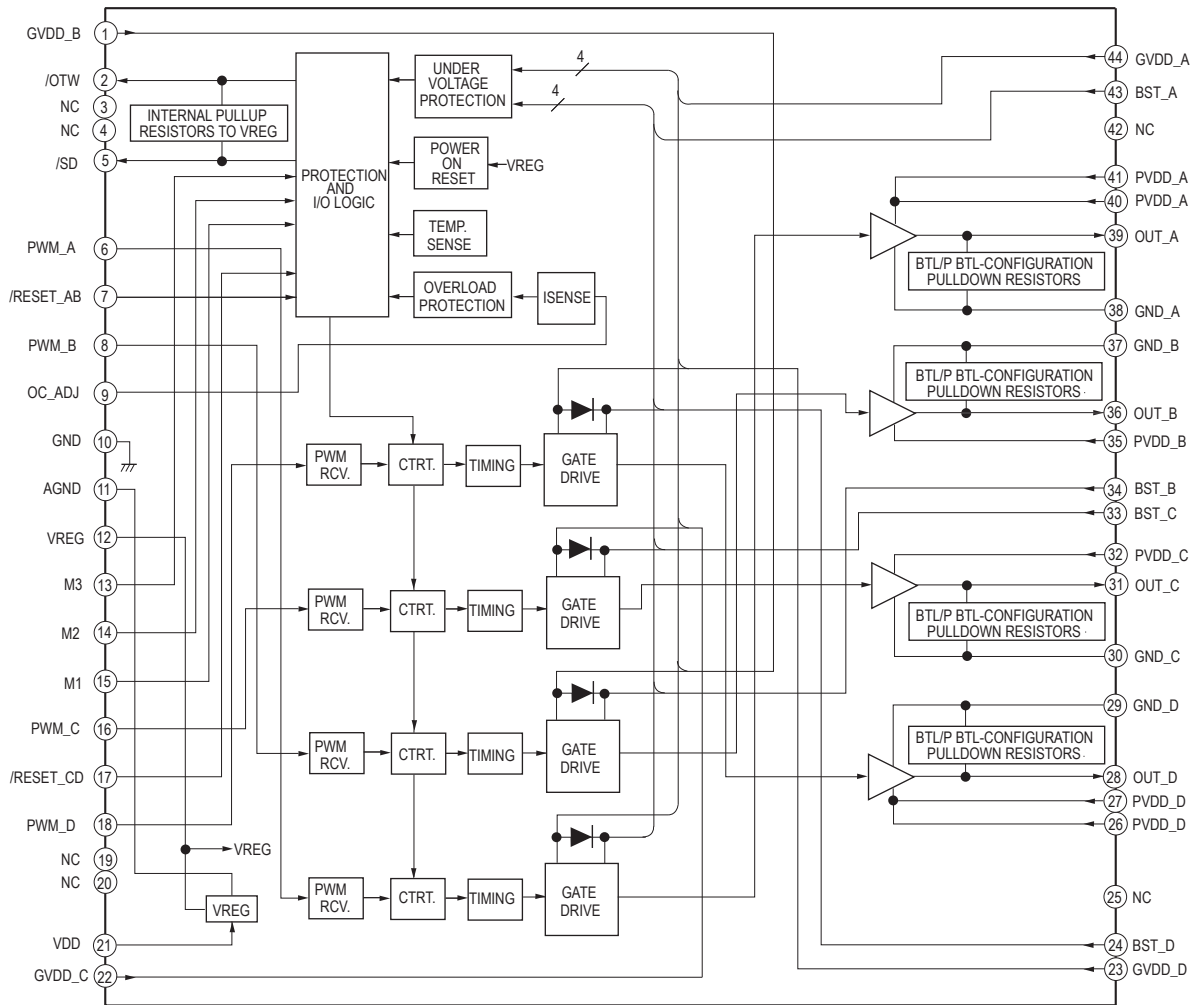
IC3011 SI-3010KM-TLS



IC3050 MM3404A18URE

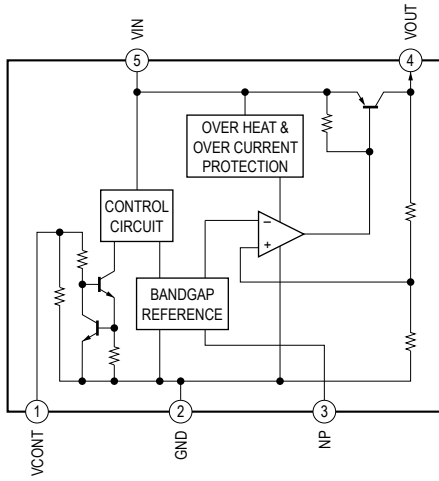


IC3100, 3200, 3400 CXD9981TN

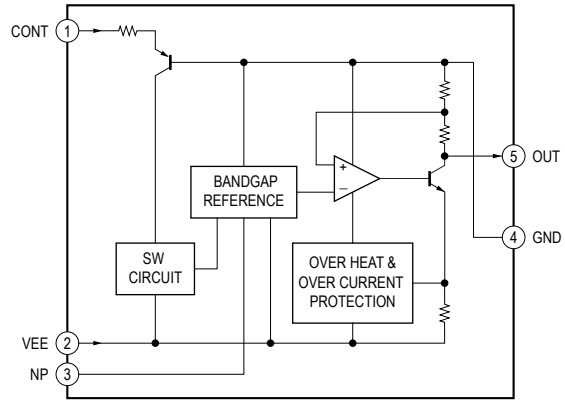


- REG Board -

IC400 TK11133CSCL-G

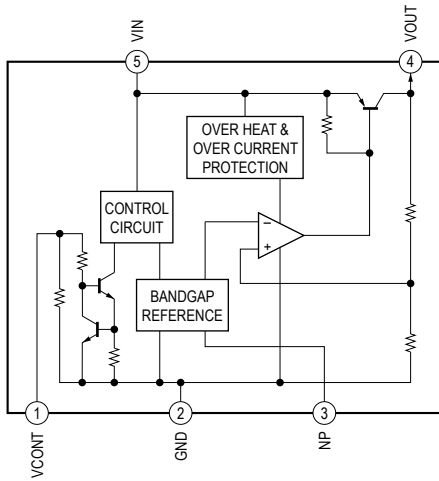


IC402 TK72270CSCL-GH

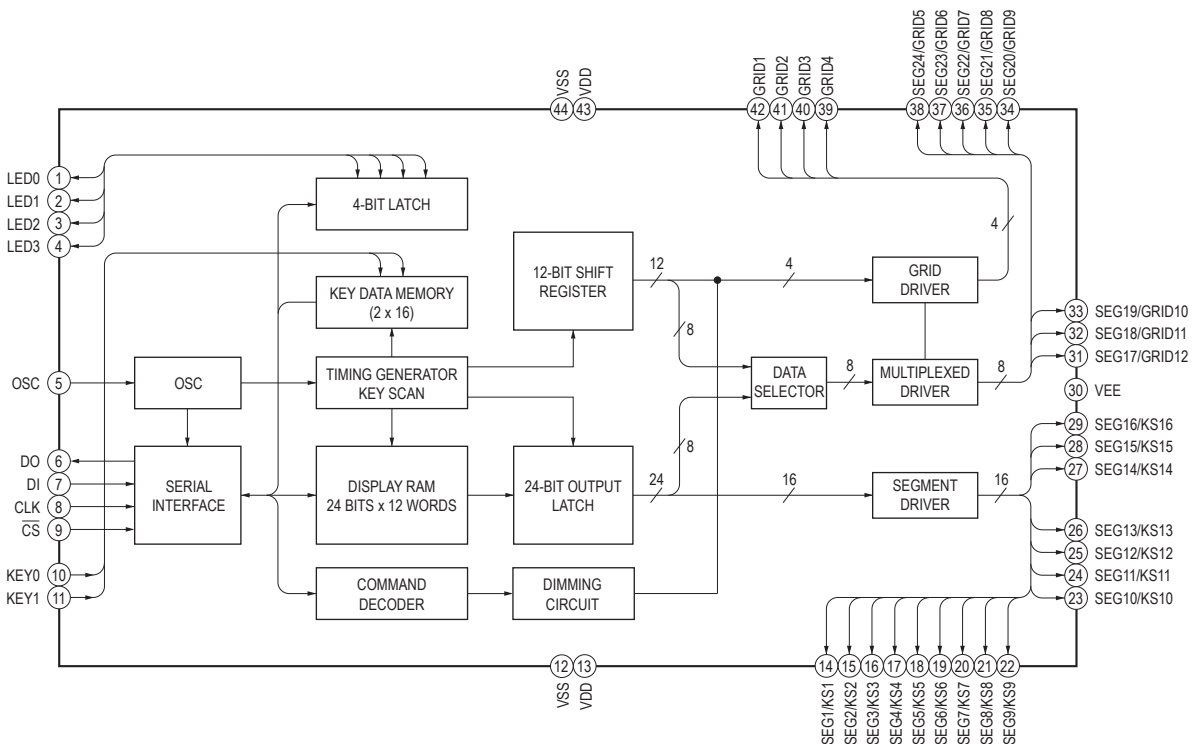


- FL Board -

IC801 TK11133CSCL-G



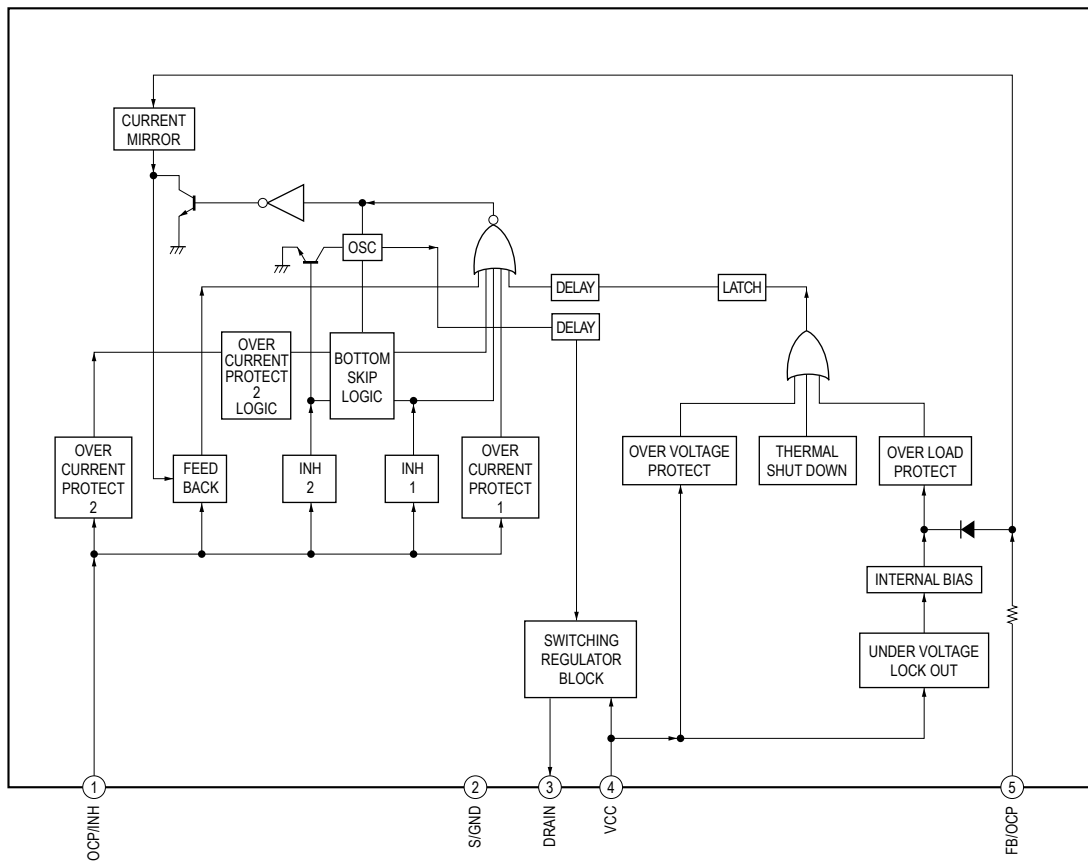
IC802 HT16515



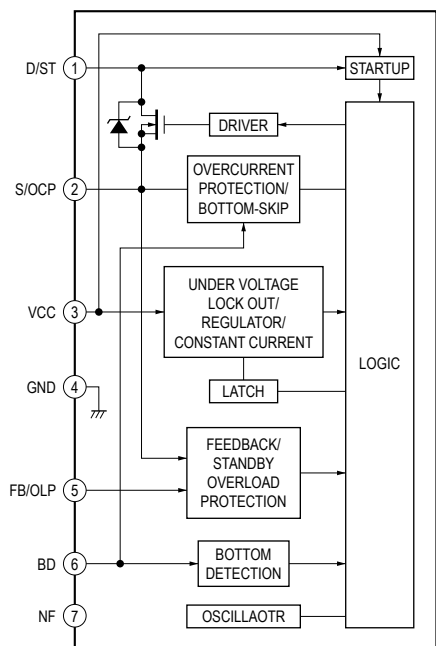
- POWER Board -

IC901 STR-F6138-LF1352 (E370: AEP, UK/E870: AEP, UK models)

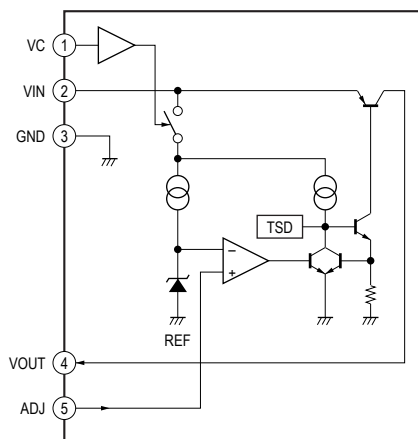
IC901 STR-F6168-LF1352 (Except E370: AEP, UK/E870: AEP, UK models)



IC921 STR-Y6763



IC941 SI-3010KM-TLS



HBD-E370/E470/E570/E870/T57

• IC Pin Function Description

MB-134 BOARD IC101 CXD9983GG (E370: US/E470/E570/T57) (BD DECODER)
CXD9984GG (E370: Canadian, AEP, UK/E870) (BD DECODER)

Pin No.	Pin Name	I/O	Description
A1	FESFDO	I	Serial data input terminal for the front-end serial flash
A3	VOUTD1	-	Not used
A5	VOUTD5	-	Not used
A7	VOUTD9	-	Not used
A9	VOUTD12	-	Not used
A11	VIND0	O	Serial data transfer clock signal output to the digital audio interface receiver
A13	VIND12	I	CSFLAG signal input from the digital audio interface receiver
A15	VIND16	-	Not used
A17	GPIO1	I	Busy request signal input from the system controller
A19	SPDIF	O	Digital audio data output terminal Not used
A21	SPBCK	I	Bit clock signal input from the digital audio interface receiver
A23	AVDD12_27MPLL	-	Power supply terminal (+1.2V)
A25	NS_XTALI	O	System clock signal output terminal (27 MHz)
A27	CH1_M	O	TMDS data (negative) output to the HDMI ARC OUT connector
A29	CLK_M	O	TMDS clock signal (negative) output to the HDMI ARC OUT connector
A31	DACOUT4	O	Not used
A33	DACOUT1	O	Video signal (Pr/Cr) output terminal
A35	VCLK	O	Serial data transfer clock signal output to the system controller
A37	UARXD	-	Not used
A39	ETRXD3	I	Receive data input from the ethernet interface
A41	ETRXD0	I	Receive data input from the ethernet interface
A43	ETRXCLK	I	Receive clock signal input from the ethernet interface
B2	FESFCS	I	Chip select signal input terminal for the front-end serial flash
B4	VOUTD3	-	Not used
B6	VOUTD7	-	Not used
B8	VOUTD10	-	Not used
B10	VOUTD14	-	Not used
B12	VIND4	O	Reset signal output to the digital audio interface receiver
B14	VIND14	-	Not used
B16	VINHsync	-	Not used
B18	GPIO3	O	Power on/off control signal output terminal for the USB section
B20	SPLRCK	I	L/R sampling clock signal input from the digital audio interface receiver
B22	AOBCK	O	Bit clock signal output to the audio section
B24	AVDD12_DMPLL	-	Power supply terminal (+1.2V)
B26	CH2_M	O	TMDS data (negative) output to the HDMI ARC OUT connector
B28	CH0_M	O	TMDS data (negative) output to the HDMI ARC OUT connector
B30	EXT_CAP	-	Not used
B32	DACOUT3	O	Video signal (Pb/Cb) output terminal
B34	VDATA	I	Serial data input from the system controller
B36	IR	I	Error signal input from the digital audio interface receiver
B38	ETMDIO	I/O	Two-way data bus with the ethernet interface
B40	ETRXD1	I	Receive data input from the ethernet interface
B42	ETRXER	I	Receive error signal input from the ethernet interface
C1	FE_SFCLK	O	Serial data transfer clock signal output terminal for the front-end serial flash
C3	FESFDI	O	Serial data output terminal for the front-end serial flash
C5	VOUTD4	-	Not used
C7	VOUTD8	-	Not used
C9	VOUTD11	-	Not used
C11	VOUTD15	-	Not used
C13	VIND11	-	Not used
C15	VIND15	-	Not used
C17	GPIO0	O	Request signal output to the system controller
C19	GPIO2	I	Chip select signal input from the system controller
C21	SPMCLK	I	Master clock signal input from the digital audio interface receiver
C23	AOSDATA0	O	Digital audio data output to the power amp
C25	NS_XTALO	I	System clock signal input terminal (27 MHz)

Pin No.	Pin Name	I/O	Description
C27	CH1_P	O	TMDS data (positive) output to the HDMI ARC OUT connector
C29	CLK_P	O	TMDS clock signal (positive) output to the HDMI ARC OUT connector
C31	DACOUT5	O	Not used
C33	DACOUT2	O	Video signal (Y) output terminal
C35	MRESET_	O	Reset signal output terminal for the front-end power
C37	ETCOL	I	Collision detect signal input from the ethernet interface
C39	ETRxD2	I	Receive data input from the ethernet interface
C41	ETTXCLK	I	Transmit clock signal input from the ethernet interface
C43	ETTXD0	O	Transmit data output to the ethernet interface
D2	FE_GIO11	-	Not used
D4	FESFCK	I	Serial data transfer clock signal input terminal for the front-end serial flash
D6	VOUtd6	-	Not used
D8	VOUtd0	-	Not used
D10	VOUtd13	-	Not used
D12	VIND1	O	Serial data output to the digital audio interface receiver
D14	VIND13	-	Not used
D16	VINCLK	-	Not used
D18	VIND17	-	Not used
D20	AOSDATA5	O	Digital audio data output terminal Not used
D22	AOMCLK	O	Master clock signal output to the audio section
D24	AVDD12_APLL	-	Power supply terminal (+1.2V)
D26	CH2_P	O	TMDS data (positive) output to the HDMI ARC OUT connector
D28	CH0_P	O	TMDS data (positive) output to the HDMI ARC OUT connector
D30	DACOUT6	O	Video signal (CVBS) output terminal
D32	AVDD33_VDACBG	-	Power supply terminal (+3.3V)
D34	VSTB	-	Not used
D36	UATXD	-	Not used
D38	ETTXEN	O	Transmit enable signal output to the ethernet interface
D40	ETTXD1	O	Transmit data output to the ethernet interface
D42	ETTXD2	O	Transmit data output to the ethernet interface
E1	FE_SFDO	O	Serial data output terminal for the front-end serial flash
E3	FE_GIO2	-	Not used
E5	FE_GIO9	O	Clock signal output terminal for the SADC
E7	VOUtd2	-	Not used
E9	VOUtdCLK1	-	Not used
E11	VOUtd16	-	Not used
E13	VOUtd19	-	Not used
E15	VIND2	I	Serial data input from the digital audio interface receiver
E17	VINVSYNc	-	Not used
E19	VIND19	I	Interrupt signal input from the digital audio interface receiver
E21	AOSDATA4	O	Digital audio data output to the S-AIR section
E23	AOLRCK	O	L/R sampling clock signal output to the audio section
E25	AVDD33_XTAL	-	Power supply terminal (+3.3V)
E27	TP_PLLG	-	Not used
E29	EXT_RES	-	Not used
E31	AVDD33_VDACR	-	Power supply terminal (+3.3V)
E33	DACFS	-	Not used
E35	RESET_	I	System reset signal input from the system controller
E37	ETTXER	O	Transmit error signal output to the ethernet interface
E39	ETTXD3	O	Transmit data output to the ethernet interface
E41	HDMISD	I/O	Two-way data bus with the HDMI ARC OUT connector
E43	CEC	-	Not used
F2	FE_SFDI	I	Serial data input terminal for the front-end serial flash
F4	FE_SFHOLD#	-	Not used
F6	NS_CKIN33	I	Clock signal input terminal for the SADC
F8	VOUtdCLK2	-	Not used
F10	VOUtdSYNc	-	Not used
F12	VOUtd17	-	Not used
F14	VIND5	O	Power on/off control signal output terminal for the USB section
F16	VIND3	O	Chip enable signal output to the digital audio interface receiver

HBD-E370/E470/E570/E870/T57

Pin No.	Pin Name	I/O	Description
F18	VIND7	-	Not used
F20	MCIN	I	Digital audio data input from the A/D converter
F22	AOSDATA3	O	Digital audio data output to the S-AIR section
F24	AVSS12_DMPLL	-	Ground terminal
F26	TN_PLLG	-	Not used
F28	AVSS33_HDMI	-	Ground terminal
F30	AVDD12_HDMI	-	Power supply terminal (+1.2V)
F32	AVSS33_VDACBG	-	Ground terminal
F34	OPWRSB	O	Power on/off control signal output to the system controller
F36	ETMDC	O	Serial data transfer clock signal output to the ethernet interface
F38	ETRXDV	I	Receive data valid signal input from the ethernet interface
F40	HDMISCK	I/O	Two-way clock bus with the HDMI ARC OUT connector
F42	SFDO	O	Serial data output to the serial flash
G1	FE_VRDC0	O	Voltage output terminal for automatic power control circuit
G3	FE_FG	I	Motor hole sensor signal input from the motor driver IC
G5	FE_GIO7	O	Laser diode on/off control signal output to the BD drive
G7	FE_JTCLK	-	Not used
G9	FE_GIO6	O	MODE C signal output to the BD drive
G11	VOU TVSYNC	-	Not used
G13	VOU TD18	-	Not used
G15	VIND8	O	Video format selection signal output to the video amplifier
G17	VIND10	-	Not used
G19	VIND18	I	PCM audio data input from the digital audio interface receiver
G21	SPDATA	I	Digital audio data input from the digital audio interface receiver
G23	AOSDATA1	O	Digital audio data output to the power amp and S-AIR section
G25	AVSS33_XTAL	-	Ground terminal
G27	AVSS33_HDMI	-	Ground terminal
G29	AVDD12_HDMI	-	Power supply terminal (+1.2V)
G31	AVDD33_VDACY	-	Power supply terminal (+3.3V)
G33	LCDRD	O	Serial data output to the system controller
G35	VCC3IO_STB	-	Power supply terminal (+3.3V)
G37	DVSS	-	Ground terminal
G39	HTPLG	I	Hot plug detection signal input from the HDMI ARC OUT connector
G41	SFCK	O	Serial data transfer clock signal output to the serial flash
G43	NFWEN	O	Write enable signal output to the NAND flash
H2	FE_JTDO	-	Not used
H4	NS_RFIN	I	SACD audio data (negative) input terminal
H6	FE_JTRST#	-	Not used
H8	FE_GIO10	-	Not used
H10	VCC3IO_3	-	Power supply terminal (+3.3V)
H12	VCC3IO_3	-	Power supply terminal (+3.3V)
H14	VIND6	O	Video muting on/off control signal output to the video amplifier
H16	DVSS	-	Ground terminal
H18	VCC3IO_3	-	Power supply terminal (+3.3V)
H20	AMUTE	O	Muting on/off control signal output terminal Not used
H22	AOSDATA2	O	Digital audio data output to the power amp
H24	AVSS12_APLL	-	Ground terminal
H26	AVDD33_HDMI	-	Power supply terminal (+3.3V)
H28	AVSS12_HDMI	-	Ground terminal
H30	AVSS33_VDACY	-	Ground terminal
H32	AVSS33_VDACR	-	Ground terminal
H34	ETCRS	I	Carrier sense signal input from the ethernet interface
H36	DVSS	-	Ground terminal
H38	AVDD10_LDO	-	Power supply terminal (+1.0V)
H40	SFDI	I	Serial data input from the serial flash
H42	NFD0	I/O	Two-way data bus with the NAND flash
J1	FE_HAVC	O	Reference voltage output to the BD drive
J3	FE_MPXOUT3	-	Not used
J5	FE_GIO5	O	MODE B signal output to the BD drive
J7	FE_GIO4	O	MODE A signal output to the BD drive

Pin No.	Pin Name	I/O	Description
J9	DVSS	-	Ground terminal
J11	DVSS	-	Ground terminal
J13	DVSS	-	Ground terminal
J15	VCC3IO_3	-	Power supply terminal (+3.3V)
J17	VIND9	-	Not used
J19	DVSS	-	Ground terminal
J21	VCC3IO_PWM	-	Power supply terminal (+3.3V)
J23	DVSS	-	Ground terminal
J25	AVSS12_27MPLL	-	Ground terminal
J27	AVDD33_HDMI	-	Power supply terminal (+3.3V)
J29	AVSS12_HDMI	-	Ground terminal
J33	VCC3IO_STB	-	Power supply terminal (+3.3V)
J37	AVDD33_LDO	-	Power supply terminal (+3.3V)
J39	SFCS	O	Chip select signal output to the serial flash
J41	NFD1	I/O	Two-way data bus with the NAND flash
J43	NFD2	I/O	Two-way data bus with the NAND flash
K2	FE_MPXOUT2	O	Digital audio data output terminal for the SACD
K4	FE_EQBIAS	-	Not used
K6	FE_SFCS#	O	Chip select signal output terminal for the front-end serial flash
K8	NS_RFIP	I	SACD audio data (positive) input terminal
K34	DVSS	-	Ground terminal
K36	AVSS33_LDO	-	Ground terminal
K38	NFCLE	O	Command latch enable signal output to the NAND flash
K40	NFD3	I/O	Two-way data bus with the NAND flash
K42	NFD4	I/O	Two-way data bus with the NAND flash
L1	FE_VWDC30	-	Not used
L3	FE_VDAC0	-	Not used
L5	FE_MPXOUT1	O	Digital audio data output terminal for the SACD
L7	FE_SFWP#	-	Not used
L9	FE_GIO8	-	Not used
L35	VCC3IO_2	-	Power supply terminal (+3.3V)
L37	NFALE	O	Address latch enable signal output to the NAND flash
L39	NFCEN2	O	Chip enable signal output terminal Not used
L41	NFD5	I/O	Two-way data bus with the NAND flash
L43	NFD6	I/O	Two-way data bus with the NAND flash
M2	FE_VWDC20	-	Not used
M4	FE_AUX1	I	Monitoring signal input from the BD drive
M6	FE_RST1	I	Reset signal input terminal for the front-end power
M8	FE_MVDDO	-	Power supply terminal (+3.3V)
M10	FE_MVDDO	-	Power supply terminal (+3.3V)
M36	NFREN	O	Read enable signal output to the NAND flash
M38	NFCEN	O	Chip enable signal output to the NAND flash
M40	NFD7	I/O	Two-way data bus with the NAND flash
M42	B_REXTDN	-	Not used
N1	FE_INB	O	Main beam (B) input from the BD drive
N3	FE_TRINC	-	Not used
N5	FE_VFVREF	-	Not used
N7	FE_DVDD33O	-	Power supply terminal (+3.3V)
N9	FE_DVDD33O	-	Power supply terminal (+3.3V)
N11	FE_DVDD33O	-	Power supply terminal (+3.3V)
N35	VCC3IO_2	-	Power supply terminal (+3.3V)
N37	DVSS	-	Ground terminal
N39	DVSS	-	Ground terminal
N41	B_RCLK1	O	Clock signal (positive) output to the SD-RAM
N43	B_RCLK1B	O	Clock signal (negative) output to the SD-RAM
P2	FE_INA	O	Main beam (A) input from the BD drive
P4	FE_TRINA	-	Not used
P6	FE_VWDC10	-	Not used
P8	FE_AVDD12_1	-	Power supply terminal (+1.2V)
P10	FE_DVDD33O	-	Power supply terminal (+3.3V)

HBD-E370/E470/E570/E870/T57

Pin No.	Pin Name	I/O	Description
P12	DVSS	-	Ground terminal
P14	DVSS	-	Ground terminal
P36	NFRBN2	O	Ready/busy selection signal output terminal Not used
P38	NFRBN	O	Ready/busy selection signal output to the NAND flash
P40	VCC2IO	-	Power supply terminal (+1.8V)
P42	VCC2IO	-	Power supply terminal (+1.8V)
R1	FE_ING	O	Sub beam (G) input from the BD drive
R3	FE_INC	O	Main beam (C) input from the BD drive
R5	FE_TRINB	-	Not used
R7	FE_TRIND	-	Not used
R9	FE_AVDD12_2	-	Power supply terminal (+1.2V)
R35	DVSS	-	Ground terminal
R37	B_RDQ25	I/O	Two-way data bus with the SD-RAM
R39	B_RDQ30	I/O	Two-way data bus with the SD-RAM
R41	B_RDQ29	I/O	Two-way data bus with the SD-RAM
R43	B_RDQ26	I/O	Two-way data bus with the SD-RAM
T2	FE_INH	O	Sub beam (H) input from the BD drive
T4	FE_FPDODVD	I	Laser power monitor signal input from the BD drive
T6	FE_IND	O	Main beam (D) input from the BD drive
T8	FE_DVDD12I	-	Power supply terminal (+1.2V)
T10	FE_DVDD12I	-	Power supply terminal (+1.2V)
T12	DVSS	-	Ground terminal
T14	DVSS	-	Ground terminal
T36	B_RDQ28	I/O	Two-way data bus with the SD-RAM
T38	B_RDQ27	I/O	Two-way data bus with the SD-RAM
T40	B_RDQ24	I/O	Two-way data bus with the SD-RAM
T42	B_RDQ31	I/O	Two-way data bus with the SD-RAM
U1	FE_INF	O	Sub beam (F) input from the BD drive
U3	FE_FOIN	-	Not used
U5	FE_FPDOCD	-	Not used
U7	FE_V14	O	Reference voltage (+1.4V) output for the motor drive circuit
U9	FE_AVDD33	-	Power supply terminal (+3.3V)
U11	FE_DVDD12I	-	Power supply terminal (+1.2V)
U13	DVSS	-	Ground terminal
U15	DVSS	-	Ground terminal
U35	DVSS	-	Ground terminal
U37	DVSS	-	Ground terminal
U39	DVSS	-	Ground terminal
U41	B_RDQS3B	O	Data strobe signal (negative) output to the SD-RAM
U43	B_RDQS3	O	Data strobe signal (positive) output to the SD-RAM
V2	FE_FOIP	-	Not used
V4	FE_REG_CAP	-	Not used
V6	FE_INE	O	Sub beam (E) input from the BD drive
V8	FE_AVDD33	-	Power supply terminal (+3.3V)
V10	FE_DVDD12I	-	Power supply terminal (+1.2V)
V12	DVSS	-	Ground terminal
V14	DVSS	-	Ground terminal
V36	B_RDQM3	O	Data mask signal output to the SD-RAM
V38	B_RDQM2	O	Data mask signal output to the SD-RAM
V40	VCC2IO	-	Power supply terminal (+1.8V)
V42	VCC2IO	-	Power supply terminal (+1.8V)
W1	FE_RFIP2	I	DVD RF signal (positive) input from the BD drive
W3	FE_RFIN2	I	DVD RF signal (negative) input from the BD drive
W5	FE_AGND	-	Ground terminal
W7	FE_AGND	-	Ground terminal
W9	FE_AVDD33	-	Power supply terminal (+3.3V)
W11	FE_DVDD12I	-	Power supply terminal (+1.2V)
W13	DVSS	-	Ground terminal
W15	DVSS	-	Ground terminal
W21	VCCK	-	Power supply terminal (+1.1V)

Pin No.	Pin Name	I/O	Description
W23	VCCCK	-	Power supply terminal (+1.1V)
W25	VCCCK	-	Power supply terminal (+1.1V)
W27	VCCCK_PWM	-	Power supply terminal (+1.1V)
W29	VCCCK	-	Power supply terminal (+1.1V)
W31	VCCCK	-	Power supply terminal (+1.1V)
W35	VCC2IO	-	Power supply terminal (+1.8V)
W37	B_RDQ18	I/O	Two-way data bus with the SD-RAM
W39	B_RDQ21	I/O	Two-way data bus with the SD-RAM
W41	B_RDQS2	O	Data strobe signal (positive) output to the SD-RAM
W43	B_RDQS2B	O	Data strobe signal (negative) output to the SD-RAM
Y2	FE_RFIP	I	BD RF signal (positive) input from the BD drive
Y4	FE_RFIN	I	BD RF signal (negative) input from the BD drive
Y6	FE_LVDS_1N	-	Not used
Y8	FE_AGND	-	Ground terminal
Y10	FE_DVDD12I	-	Power supply terminal (+1.2V)
Y14	DVSS	-	Ground terminal
Y20	VCCCK	-	Power supply terminal (+1.1V)
Y22	DVSS	-	Ground terminal
Y24	DVSS	-	Ground terminal
Y26	DVSS	-	Ground terminal
Y28	DVSS	-	Ground terminal
Y30	DVSS	-	Ground terminal
Y32	VCCCK	-	Power supply terminal (+1.1V)
Y36	B_RDQ23	I/O	Two-way data bus with the SD-RAM
Y38	B_RDQ16	I/O	Two-way data bus with the SD-RAM
Y40	B_RDQ20	I/O	Two-way data bus with the SD-RAM
Y42	B_RDQ22	I/O	Two-way data bus with the SD-RAM
AA1	FE_LVDS_2P	-	Not used
AA3	FE_LVDS_2N	-	Not used
AA5	FE_LVDS_1P	-	Not used
AA7	FE_AGND	-	Ground terminal
AA9	FE_AVDD33_LVDS	-	Power supply terminal (+3.3V)
AA21	DVSS	-	Ground terminal
AA23	VCCCK	-	Power supply terminal (+1.1V)
AA25	VCCCK	-	Power supply terminal (+1.1V)
AA27	VCCCK	-	Power supply terminal (+1.1V)
AA29	VCCCK	-	Power supply terminal (+1.1V)
AA31	DVSS	-	Ground terminal
AA35	DVSS	-	Ground terminal
AA37	DVSS	-	Ground terminal
AA39	DVSS	-	Ground terminal
AA41	B_RDQ17	I/O	Two-way data bus with the SD-RAM
AA43	B_RDQ19	I/O	Two-way data bus with the SD-RAM
AB2	FE_LVDS_4N	-	Not used
AB4	FE_LVDS_3N	-	Not used
AB6	FE_LVDS_5N	-	Not used
AB8	FE_AVDD12_3	-	Power supply terminal (+1.2V)
AB10	FE_DVDD33O	-	Power supply terminal (+3.3V)
AB12	FE_DVDD33O	-	Power supply terminal (+3.3V)
AB20	VCCCK	-	Power supply terminal (+1.1V)
AB22	VCCCK	-	Power supply terminal (+1.1V)
AB24	DVSS	-	Ground terminal
AB26	DVSS	-	Ground terminal
AB28	DVSS	-	Ground terminal
AB30	VCCCK	-	Power supply terminal (+1.1V)
AB32	VCCCK	-	Power supply terminal (+1.1V)
AB36	B_RVREF	I	Reference voltage (+0.9V) input terminal for the SD-RAM
AB40	VCC2IO	-	Power supply terminal (+1.8V)
AB42	VCC2IO	-	Power supply terminal (+1.8V)
AC1	FE_LVDS_4P	-	Not used

HBD-E370/E470/E570/E870/T57

Pin No.	Pin Name	I/O	Description
AC3	FE_LVDS_3P	-	Not used
AC5	FE_LVDS_5P	-	Not used
AC7	FE_AVDD12_4	-	Power supply terminal (+1.2V)
AC9	FE_DVDD33O	-	Power supply terminal (+3.3V)
AC21	DVSS	-	Ground terminal
AC23	DVSS	-	Ground terminal
AC25	DVSS	-	Ground terminal
AC27	DVSS	-	Ground terminal
AC29	DVSS	-	Ground terminal
AC31	DVSS	-	Ground terminal
AC37	B_RA5	O	Address signal output to the SD-RAM
AC39	B_RBA2	O	Bank address signal output to the SD-RAM
AC41	B_RCKE	O	Clock enable signal output to the SD-RAM
AC43	B_RWEB	O	Write enable signal output to the SD-RAM
AD2	FE_CFREQ	I/O	Serial data input/output with the BD drive
AD4	FE_FOO	O	Motor drive signal output to the motor driver IC
AD6	FE_GAINSW2	O	Read/write gain switch signal output to the motor driver IC
AD8	FE_GIO0	O	Motor drive muting on/off control signal output to the motor driver IC
AD20	VCCK	-	Power supply terminal (+1.1V)
AD22	VCCK	-	Power supply terminal (+1.1V)
AD24	DVSS	-	Ground terminal
AD26	DVSS	-	Ground terminal
AD28	DVSS	-	Ground terminal
AD30	VCCK	-	Power supply terminal (+1.1V)
AD32	VCCK	-	Power supply terminal (+1.1V)
AD36	B_RBA1	O	Bank address signal output to the SD-RAM
AD38	B_RA9	O	Address signal output to the SD-RAM
AD40	B_RBA0	O	Bank address signal output to the SD-RAM
AD42	B_RCSB	O	Chip select signal output to the SD-RAM
AE1	FE_FMO	O	Motor drive signal output to the motor driver IC
AE3	FE_TRAYPWM	O	Motor drive signal output to the motor driver IC
AE5	FE_GAINSW1	O	Read/write gain switch signal output to the motor driver IC
AE7	FE_OSOEN	O	Serial data transfer clock signal output to the BD drive
AE9	FE_GIO12	-	Not used
AE21	DVSS	-	Ground terminal
AE23	DVSS	-	Ground terminal
AE25	DVSS	-	Ground terminal
AE27	DVSS	-	Ground terminal
AE29	DVSS	-	Ground terminal
AE31	DVSS	-	Ground terminal
AE35	DVSS	-	Ground terminal
AE37	DVSS	-	Ground terminal
AE39	DVSS	-	Ground terminal
AE41	B_RA12	O	Address signal output to the SD-RAM
AE43	B_RA7	O	Address signal output to the SD-RAM
AF2	FE_DMO	O	Motor drive signal output to the motor driver IC
AF4	FE_FMO2	O	Motor drive signal output to the motor driver IC
AF6	FE_FMO4	O	Motor drive signal output to the motor driver IC
AF8	FE_CMOD	O	Serial interface command enable signal output to the BD drive
AF20	VCCK	-	Power supply terminal (+1.1V)
AF22	VCCK	-	Power supply terminal (+1.1V)
AF24	DVSS	-	Ground terminal
AF26	DVSS	-	Ground terminal
AF28	DVSS	-	Ground terminal
AF30	VCCK	-	Power supply terminal (+1.1V)
AF32	VCCK	-	Power supply terminal (+1.1V)
AF36	B_RA10	O	Address signal output to the SD-RAM
AF38	B_RA1	O	Address signal output to the SD-RAM
AF40	VCC2IO	-	Power supply terminal (+1.8V)
AF42	VCC2IO	-	Power supply terminal (+1.8V)

Pin No.	Pin Name	I/O	Description
AG1	FE_GIO3	-	Not used
AG3	FE_LIMIT	I	Sledge inner limit signal input from the motor driver IC
AG5	FE_GAINSW3	-	Not used
AG7	FE_FMO3	O	Motor drive signal output to the motor driver IC
AG9	FE_GIO1	O	Motor drive muting on/off control signal output to the motor driver IC
AG21	DVSS	-	Ground terminal
AG23	DVSS	-	Ground terminal
AG25	DVSS	-	Ground terminal
AG27	DVSS	-	Ground terminal
AG29	DVSS	-	Ground terminal
AG31	DVSS	-	Ground terminal
AG37	B_RA2	O	Address signal output to the SD-RAM
AG39	B_RA6	O	Address signal output to the SD-RAM
AG41	B_RODT	O	On die termination enable signal output to the SD-RAM
AG43	B_RA0	O	Address signal output to the SD-RAM
AH2	FE_PLAY#	-	Not used
AH4	FE_EJECT#	I	Eject/stop key input from the system controller
AH6	FE_TRO	O	Motor drive signal output to the motor driver IC
AH8	FE_FSOURCE	-	Not used
AH20	VCCK	-	Power supply terminal (+1.1V)
AH22	VCCK	-	Power supply terminal (+1.1V)
AH24	DVSS	-	Ground terminal
AH26	DVSS	-	Ground terminal
AH28	DVSS	-	Ground terminal
AH30	VCCK	-	Power supply terminal (+1.1V)
AH32	VCCK	-	Power supply terminal (+1.1V)
AH36	B_RA8	O	Address signal output to the SD-RAM
AH38	B_RA11	O	Address signal output to the SD-RAM
AH40	B_RCASB	O	Column address strobe signal output to the SD-RAM
AH42	B_RA4	O	Address signal output to the SD-RAM
AJ1	FE_XTAL25MO	-	Not used
AJ3	FE_XTAL25MI	I	System clock signal input terminal (25 MHz)
AJ5	FE_TRAYIN#	I	Disc tray in detection signal input terminal
AJ7	DVSS_XTAL	-	Ground terminal
AJ9	VCLK25MI	O	System clock signal output terminal (25 MHz)
AJ21	DVSS	-	Ground terminal
AJ23	VCCK	-	Power supply terminal (+1.1V)
AJ25	VCCK	-	Power supply terminal (+1.1V)
AJ27	VCCK	-	Power supply terminal (+1.1V)
AJ29	VCCK	-	Power supply terminal (+1.1V)
AJ31	DVSS	-	Ground terminal
AJ35	DVSS	-	Ground terminal
AJ37	DVSS	-	Ground terminal
AJ39	DVSS	-	Ground terminal
AJ41	B_RRASB	O	Row address strobe signal output to the SD-RAM
AJ43	B_RA3	O	Address signal output to the SD-RAM
AK2	USB_DM0	I/O	USB differential serial data (negative) input/output with the USB connector (rear side)
AK4	FE_TRAYOUT	I	Disc tray out detection signal input terminal
AK6	AVSS12_USB	-	Ground terminal
AK8	AVDD12_USB	-	Power supply terminal (+1.2V)
AK20	VCCK	-	Power supply terminal (+1.1V)
AK22	DVSS	-	Ground terminal
AK24	DVSS	-	Ground terminal
AK26	DVSS	-	Ground terminal
AK28	DVSS	-	Ground terminal
AK30	DVSS	-	Ground terminal
AK32	VCCK	-	Power supply terminal (+1.1V)
AK36	B_RDQ9	I/O	Two-way data bus with the SD-RAM
AK38	B_RA13	O	Address signal output to the SD-RAM
AK40	VCC2IO	-	Power supply terminal (+1.8V)

HBD-E370/E470/E570/E870/T57

Pin No.	Pin Name	I/O	Description
AK42	VCC2IO	-	Power supply terminal (+1.8V)
AL1	USB_DP0	I/O	USB differential serial data (positive) input/output with the USB connector (rear side)
AL3	USB_DM1	I/O	USB differential serial data (negative) input/output with the USB connector (front side)
AL5	AVSS33_USB	-	Ground terminal
AL7	FE_SVDD33	-	Power supply terminal (+3.3V)
AL21	VCCCK	-	Power supply terminal (+1.1V)
AL23	VCCCK	-	Power supply terminal (+1.1V)
AL25	VCCCK	-	Power supply terminal (+1.1V)
AL27	VCCCK	-	Power supply terminal (+1.1V)
AL29	VCCCK	-	Power supply terminal (+1.1V)
AL31	VCCCK	-	Power supply terminal (+1.1V)
AL35	VCC2IO	-	Power supply terminal (+1.8V)
AL37	B_RDQ11	I/O	Two-way data bus with the SD-RAM
AL39	B_RDQ14	I/O	Two-way data bus with the SD-RAM
AL41	B_RCLK0B	O	Clock signal (negative) output to the SD-RAM
AL43	B_RCLK0	O	Clock signal (positive) output to the SD-RAM
AM2	USB_DP1	I/O	USB differential serial data (positive) input/output with the USB connector (front side)
AM4	USB_VRT	-	Not used
AM6	FE_SXVDD33	-	Power supply terminal (+3.3V)
AM8	FE_TLO	O	Motor drive signal output to the motor driver IC
AM36	B_RDQM1	O	Data mask signal output to the SD-RAM
AM38	B_RDQ12	I/O	Two-way data bus with the SD-RAM
AM40	B_RDQ10	I/O	Two-way data bus with the SD-RAM
AM42	B_RDQ13	I/O	Two-way data bus with the SD-RAM
AN1	FE_STXP	O	SATA channel 1 RX differential pair signal (positive) output terminal
AN3	AVDD33_USB	-	Power supply terminal (+3.3V)
AN5	FE_SAGND	-	Ground terminal
AN7	FE_SPLLVDD12	-	Power supply terminal (+1.2V)
AN35	DVSS	-	Ground terminal
AN37	DVSS	-	Ground terminal
AN39	DVSS	-	Ground terminal
AN41	B_RDQ15	I/O	Two-way data bus with the SD-RAM
AN43	B_RDQ8	I/O	Two-way data bus with the SD-RAM
AP2	FE_STXN	O	SATA channel 1 RX differential pair signal (negative) output terminal
AP4	CORE_RESETB	I	System reset signal input from the system controller
AP6	FE_STXVDD12	-	Power supply terminal (+1.2V)
AP8	FE_AVDD12_RX	-	Power supply terminal (+1.2V)
AP36	B_RDQ7	I/O	Two-way data bus with the SD-RAM
AP38	B_RDQM0	O	Data mask signal output to the SD-RAM
AP40	VCC2IO	-	Power supply terminal (+1.8V)
AP42	VCC2IO	-	Power supply terminal (+1.8V)
AR1	FE_SRXP	I	SATA channel 1 TX differential pair signal (positive) input terminal
AR3	FE_SRXN	I	SATA channel 1 TX differential pair signal (negative) input terminal
AR5	RTCRBIAS	-	Not used
AR7	AVDD12_ADC	-	Power supply terminal (+1.2V)
AR17	DVSS	-	Ground terminal
AR19	VCC2IO	-	Power supply terminal (+1.8V)
AR25	DVSS	-	Ground terminal
AR29	DVSS	-	Ground terminal
AR31	VCC2IO	-	Power supply terminal (+1.8V)
AR37	B_RDQ6	I/O	Two-way data bus with the SD-RAM
AR39	B_RDQ0	I/O	Two-way data bus with the SD-RAM
AR41	B_RDQS1B	O	Data strobe signal (negative) output to the SD-RAM
AR43	B_RDQS1	O	Data strobe signal (positive) output to the SD-RAM
AT2	XI_RTC	I	Not used
AT4	XO_RTC	O	Not used
AT6	AVSS12_ADC	-	Ground terminal
AT10	FE_GIO13	-	Not used
AT12	SCL	I/O	Two-way clock bus with the EEPROM
AT14	DVSS	-	Ground terminal

Pin No.	Pin Name	I/O	Description
AT16	A_RDQ5	I/O	Two-way data bus with the SD-RAM
AT18	A_RDQM0	O	Data mask signal output to the SD-RAM
AT20	A_RDQ11	I/O	Two-way data bus with the SD-RAM
AT22	DVSS	-	Ground terminal
AT24	A_RA11	O	Address signal output to the SD-RAM
AT26	A_RA1	O	Address signal output to the SD-RAM
AT28	A_RBA2	O	Bank address signal output to the SD-RAM
AT30	A_RVREF	I	Reference voltage (+0.9V) input terminal for the SD-RAM
AT32	A_RDQ23	I/O	Two-way data bus with the SD-RAM
AT34	DVSS	-	Ground terminal
AT36	DVSS	-	Ground terminal
AT38	B_RDQ5	I/O	Two-way data bus with the SD-RAM
AT40	B_RDQS0	O	Data strobe signal (positive) output to the SD-RAM
AT42	B_RDQS0B	O	Data strobe signal (negative) output to the SD-RAM
AU1	AVDD33_RTC	-	Power supply terminal (+3.3V)
AU3	AVSS33_RTC	-	Ground terminal
AU5	AVDD33_SACD	-	Power supply terminal (+3.3V)
AU7	AVDD33_ST	-	Power supply terminal (+3.3V)
AU9	AVSS12_ST2	-	Ground terminal
AU11	EEPWRQ	-	Not used
AU13	VCC3IO_1	-	Power supply terminal (+3.3V)
AU15	A_RDQ3	I/O	Two-way data bus with the SD-RAM
AU17	DVSS	-	Ground terminal
AU19	A_RDQ9	I/O	Two-way data bus with the SD-RAM
AU21	DVSS	-	Ground terminal
AU23	A_RCASB	O	Column address strobe signal output to the SD-RAM
AU25	DVSS	-	Ground terminal
AU27	A_RBA1	O	Bank address signal output to the SD-RAM
AU29	DVSS	-	Ground terminal
AU31	A_RDQ21	I/O	Two-way data bus with the SD-RAM
AU33	DVSS	-	Ground terminal
AU35	A_RDQM3	O	Data mask signal output to the SD-RAM
AU37	A_RDQ27	I/O	Two-way data bus with the SD-RAM
AU39	DVSS	-	Ground terminal
AU41	B_RDQ3	I/O	Two-way data bus with the SD-RAM
AU43	B_RDQ2	I/O	Two-way data bus with the SD-RAM
AV2	FE_JRTCLK	-	Not used
AV4	AVSS33_SACD	-	Ground terminal
AV6	AVDD12_SRX1	-	Power supply terminal (+1.2V)
AV8	AVSS12_ST1	-	Ground terminal
AV10	AVDD12_ST	-	Power supply terminal (+1.2V)
AV12	GPIO6	O	UPG status signal output to the system controller
AV14	SDA	I/O	Two-way data bus with the EEPROM
AV16	A_RDQ0	I/O	Two-way data bus with the SD-RAM
AV18	A_RDQM1	O	Data mask signal output to the SD-RAM
AV20	A_RDQ14	I/O	Two-way data bus with the SD-RAM
AV22	A_RA13	O	Address signal output to the SD-RAM
AV24	A_RCSB	O	Chip select signal output to the SD-RAM
AV26	A_RA2	O	Address signal output to the SD-RAM
AV28	A_RA5	O	Address signal output to the SD-RAM
AV30	NC	-	Not used
AV32	A_RDQ16	I/O	Two-way data bus with the SD-RAM
AV34	A_RDQM2	O	Data mask signal output to the SD-RAM
AV36	A_RDQ25	I/O	Two-way data bus with the SD-RAM
AV38	A_RDQ30	I/O	Two-way data bus with the SD-RAM
AV40	VCC2IO	-	Power supply terminal (+1.8V)
AV42	VCC2IO	-	Power supply terminal (+1.8V)
AW1	FE_JTMS	-	Not used
AW3	FE_JTDI	-	Not used
AW5	AVDD12_STX1	-	Power supply terminal (+1.2V)

HBD-E370/E470/E570/E870/T57

Pin No.	Pin Name	I/O	Description
AW7	AVDD12_SRX2	-	Power supply terminal (+1.2V)
AW9	AVSS12_ST2	-	Ground terminal
AW11	GPIO5	-	Not used
AW13	DVSS	-	Ground terminal
AW15	A_RDQ1	I/O	Two-way data bus with the SD-RAM
AW17	DVSS	-	Ground terminal
AW19	A_RDQ12	I/O	Two-way data bus with the SD-RAM
AW21	DVSS	-	Ground terminal
AW23	A_RODT	O	On die termination enable signal output to the SD-RAM
AW25	DVSS	-	Ground terminal
AW27	A_RA9	O	Address signal output to the SD-RAM
AW29	DVSS	-	Ground terminal
AW31	A_RDQ18	I/O	Two-way data bus with the SD-RAM
AW33	DVSS	-	Ground terminal
AW35	A_RDQ28	I/O	Two-way data bus with the SD-RAM
AW37	DVSS	-	Ground terminal
AW39	A_AVDD12_MEMPLL	-	Power supply terminal (+1.2V)
AW41	B_RDQ4	I/O	Two-way data bus with the SD-RAM
AW43	B_RDQ1	I/O	Two-way data bus with the SD-RAM
AY2	NS_TSTN	-	Not used
AY4	SRXP_2	I	SATA channel 2 RX differential pair signal (positive) input terminal Not used
AY6	AVDD12_STX2	-	Power supply terminal (+1.2V)
AY8	AVSS33_XTAL25M	-	Ground terminal
AY10	GPIO4	-	Not used
AY12	TRST	-	Not used
AY14	VCC2IO	-	Power supply terminal (+1.8V)
AY16	A_RDQS0	O	Data strobe signal (positive) output to the SD-RAM
AY18	VCC2IO	-	Power supply terminal (+1.8V)
AY20	A_RDQ8	I/O	Two-way data bus with the SD-RAM
AY22	VCC2IO	-	Power supply terminal (+1.8V)
AY24	A_RA4	O	Address signal output to the SD-RAM
AY26	VCC2IO	-	Power supply terminal (+1.8V)
AY28	A_RA10	O	Address signal output to the SD-RAM
AY30	VCC2IO	-	Power supply terminal (+1.8V)
AY32	A_RDQ22	I/O	Two-way data bus with the SD-RAM
AY34	VCC2IO	-	Power supply terminal (+1.8V)
AY36	A_RDQ24	I/O	Two-way data bus with the SD-RAM
AY38	VCC2IO	-	Power supply terminal (+1.8V)
AY40	A_AVSS12_MEMPLL	-	Ground terminal
AY42	DVSS	-	Ground terminal
BA1	NS_TSTP	-	Not used
BA3	STXN_1	O	SATA channel 1 TX differential pair signal (negative) output terminal
BA5	STXN_2	O	SATA channel 2 TX differential pair signal (negative) output terminal Not used
BA7	RREF	-	Not used
BA9	XTAL25MO	O	System clock signal output terminal (25 MHz)
BA11	TCK	-	Not used
BA13	A_RDQ4	I/O	Two-way data bus with the SD-RAM
BA15	A_RDQ6	I/O	Two-way data bus with the SD-RAM
BA17	A_RDQS1B	O	Data strobe signal (negative) output to the SD-RAM
BA19	A_RDQ15	I/O	Two-way data bus with the SD-RAM
BA21	A_RCLK0B	O	Clock signal (negative) output to the SD-RAM
BA23	A_RA8	O	Address signal output to the SD-RAM
BA25	A_RA12	O	Address signal output to the SD-RAM
BA27	A_RA7	O	Address signal output to the SD-RAM
BA29	A_RCKE	O	Clock enable signal output to the SD-RAM
BA31	A_RDQ20	I/O	Two-way data bus with the SD-RAM
BA33	A_RDQS2	O	Data strobe signal (positive) output to the SD-RAM
BA35	A_RDQS3B	O	Data strobe signal (negative) output to the SD-RAM
BA37	A_RDQ26	I/O	Two-way data bus with the SD-RAM
BA39	A_RCLK1	O	Clock signal (positive) output to the SD-RAM

Pin No.	Pin Name	I/O	Description
BA41	DVSS	-	Ground terminal
BA43	VCC2IO	-	Power supply terminal (+1.8V)
BB2	SRXN_1	I	SATA channel 1 RX differential pair signal (negative) input terminal
BB4	SRXN_2	I	SATA channel 2 RX differential pair signal (negative) input terminal Not used
BB6	SVCTST	-	Not used
BB8	XTAL25MI	I	System clock signal input terminal (25 MHz)
BB10	TDO	-	Not used
BB12	TDI	-	Not used
BB14	VCC2IO	-	Power supply terminal (+1.8V)
BB16	A_RDQS0B	O	Data strobe signal (negative) output to the SD-RAM
BB18	VCC2IO	-	Power supply terminal (+1.8V)
BB20	A_RDQ10	I/O	Two-way data bus with the SD-RAM
BB22	VCC2IO	-	Power supply terminal (+1.8V)
BB24	A_RRASB	O	Row address strobe signal output to the SD-RAM
BB26	VCC2IO	-	Power supply terminal (+1.8V)
BB28	A_RBA0	O	Bank address signal output to the SD-RAM
BB30	VCC2IO	-	Power supply terminal (+1.8V)
BB32	A_RDQ17	I/O	Two-way data bus with the SD-RAM
BB34	VCC2IO	-	Power supply terminal (+1.8V)
BB36	A_RDQ31	I/O	Two-way data bus with the SD-RAM
BB38	VCC2IO	-	Power supply terminal (+1.8V)
BB40	A_TP_MEMPLL	-	Not used
BB42	VCC2IO	-	Power supply terminal (+1.8V)
BC1	SRXP_1	I	SATA channel 1 RX differential pair signal (positive) input terminal
BC3	STXP_1	O	SATA channel 1 TX differential pair signal (positive) output terminal
BC5	STXP_2	O	SATA channel 2 TX differential pair signal (positive) output terminal Not used
BC7	AVDD33_XTAL25M	-	Power supply terminal (+3.3V)
BC9	GPIO7	-	Not used
BC11	TMS	-	Not used
BC13	A_RDQ2	I/O	Two-way data bus with the SD-RAM
BC15	A_RDQ7	I/O	Two-way data bus with the SD-RAM
BC17	A_RDQS1	O	Data strobe signal (positive) output to the SD-RAM
BC19	A_RDQ13	I/O	Two-way data bus with the SD-RAM
BC21	A_RCLK0	O	Clock signal (positive) output to the SD-RAM
BC23	A_RA0	O	Address signal output to the SD-RAM
BC25	A_RA6	O	Address signal output to the SD-RAM
BC27	A_RA3	O	Address signal output to the SD-RAM
BC29	A_RWEB	O	Write enable signal output to the SD-RAM
BC31	A_RDQ19	I/O	Two-way data bus with the SD-RAM
BC33	A_RDQS2B	O	Data strobe signal (negative) output to the SD-RAM
BC35	A_RDQS3	O	Data strobe signal (positive) output to the SD-RAM
BC37	A_RDQ29	I/O	Two-way data bus with the SD-RAM
BC39	A_RCLK1B	O	Clock signal (negative) output to the SD-RAM
BC41	A_TN_MEMPLL	-	Not used
BC43	A_REXTDN	-	Not used

MB-134 BOARD IC1201 LAN8700C-AEZG-CTI (ETHERNET INTERFACE)

Pin No.	Pin Name	I/O	Description
1	TX_ER	I	Transmit error signal input from the BD decoder
2	MDC	I	Serial data transfer clock signal input from the BD decoder
3	CRS	O	Carrier sense signal output to the BD decoder
4	MDIO	I/O	Two-way data bus with the BD decoder
5	nRST	I	Reset signal input from the system controller
6	TX_EN	I	Transmit enable signal input from the BD decoder
7	VDD33	-	Power supply terminal (+3.3V)
8	VDD_CORE	-	Power supply terminal (+1.8V) Not used
9 to 12	PA0 to PA3	-	Not used
13	XTAL2	O	System clock output terminal (25 MHz)
14	REFCLK	I	System clock input terminal (25 MHz)
15 to 18	RXD3 to RXD0	O	Receive data output to the BD decoder
19	RX_DV	O	Receive data valid signal output to the BD decoder
20	RX_CLK	O	Receive clock signal output to the BD decoder
21	RX_ER	O	Receive error signal output to the BD decoder
22	TX_CLK	O	Transmit clock signal output to the BD decoder
23, 24	TXD0, TXD1	I	Transmit data input from the BD decoder
25	VDDIO	-	Power supply terminal (+3.3V)
26, 27	TXD2, TXD3	I	Transmit data input from the BD decoder
28	TXN	O	Serial data (negative) output to the ethernet connector
29	TXP	O	Serial data (positive) output to the ethernet connector
30	VDDA3.3	-	Power supply terminal (+3.3V) (analog system)
31	RXN	I	Serial data (negative) input from the ethernet connector
32	RXP	I	Serial data (positive) input from the ethernet connector
33	VDDA3.3	-	Power supply terminal (+3.3V) (analog system)
34	EXRES1	I	Reference resistor connection terminal
35	VDDA3.3	-	Power supply terminal (+3.3V) (analog system)
36	COL	O	Collision detect signal output to the BD decoder

MAIN BOARD IC501 R5F364AMDFA (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	DAMP_SCDT/DIR_DI	O	Serial data output to the stream processor
2	DAMP_SHIFT/ DIR_CL	O	Serial data transfer clock signal output to the stream processor
3	FL_CS	O	Chip select signal output to the fluorescent indicator tube driver
4	SIRCS_IN	I	SIRCS signal input from the remote control receiver
5	FL_DOUT	O	Serial data output to the fluorescent indicator tube driver
6	CEC_RX_IN	-	Not used
7	FL_CLK	O	Serial data transfer clock signal output to the fluorescent indicator tube driver
8	BYTE	I	External data bus width selection signal input terminal
9	CNVss	I	Processor mode selection signal input terminal
10	Xcin	I	Sub system clock input terminal Not used
11	Xcout	O	Sub system clock output terminal Not used
12	RESET	I	System reset signal input from the reset signal generator
13	Xout	O	Main system clock output terminal (6 MHz)
14	Vss	-	Ground terminal
15	Xin	I	Main system clock input terminal (6 MHz)
16	Vcc	-	Power supply terminal (+3.3V)
17	CEC (TX/RX)	I/O	CEC serial data input/output with the HDMI ARC OUT connector
18	NO USE	-	Not used
19	KEY_INT	I	Key wake-up signal input terminal
20	AC_CUT	I	AC cut detection signal input terminal
21	BD_IF_START	O	Busy request signal output to the BD decoder
22	ST_DO	I	Serial data input from the tuner (FM)
23	ST_CLK	O	Serial data transfer clock signal output to the tuner (FM)
24	ST_DI	O	Serial data output to the tuner (FM)
25	BD_IF_REQ	I	Request signal input from the BD decoder
26	CEC_TX_OUT	-	Not used
27	PCONT_FL	O	Power on/off control signal output terminal for the front panel section
28	LED_PWM	O	LED drive signal output terminal
29	S-AIR_SDA	I/O	Two-way I2C data bus with the wireless transceiver
30	S-AIR_SCL	O	I2C clock signal output to the wireless transceiver
31	TXD1	-	Not used
32	RXD1	-	Not used
33	S-AIR_GPIO2	I	Interrupt signal input from the wireless transceiver
34	S-AIR_ADC_SEL	O	Data selection signal output terminal for S-AIR section
35	BD_RESET	O	Reset signal output to the BD decoder, NAND flash, EEPROM and ethernet interface
36	BD_CS	O	Chip select signal output to the BD decoder
37 to 39	BD_PCONT1 to BD_CONT3	O	Power on/off control signal output terminal for the BD section
40	BD_PCONT4	O	Power on/off control signal output terminal Not used
41, 42	BD_PCONT5, BD_CONT6	O	Power on/off control signal output terminal for the BD section
43	P_CONT1	O	Power on/off control signal output terminal
44	FAN_ON	O	Power on/off control signal output terminal for the FAN motor
45	FAN_CONT	O	FAN motor on/off control signal output terminal
46	CE	-	Not used
47	BD_BDI	O	Serial data output to the BD decoder
48	BD_BDO	I	Serial data input from the BD decoder
49	BD_SCLK	I	Serial data transfer clock signal input from the BD decoder
50	DRIVER_RST (EN)	O	Reset signal output to the power amplifier
51, 52	OVERFLOW1, OVERFLOW2	O	Overflow detection signal input from the stream processor
53	DAMP_INT	O	Reset signal output to the stream processor
54	DAMP_SOFT_MUTE	O	Soft muting on/off control signal output to stream processor
55 to 57	DAMP_LATCH1 to DAMP_LATCH3	O	Serial data latch pulse signal output to the stream processor
58 to 61	NO USE	-	Not used
62	Vcc	-	Power supply terminal (+3.3V)
63	S-AIR_SRC_RST	O	Reset signal output to the S-AIR section
64	Vss	-	Ground terminal

HBD-E370/E470/E570/E870/T57

Pin No.	Pin Name	I/O	Description
65	MIC_DET	I	Calibration microphone connection detection signal input terminal
66	DC_DET	I	Over load detection signal input terminal
67	DRIVER_SD/ PVDD_DET	I	Shut down signal input from the power amplifier
68	A.CAL_OUT	I	AUdio signal output detection signal input terminal
69 to 73	NO USE	-	Not used
74	RDS_DATA	I	RDS serial data input from the tuner (FM) (E370: AEP, UK/E870: AEP, UK models only)
75	RDS_CLK	I	RDS serial data transfer clock signal input from the tuner (FM) (E370: AEP, UK/E870: AEP, UK models only)
76	ST_CE	O	Chip enable signal output to the tuner (FM)
77	TUNED	I	Tuned detection signal input from the tuner (FM)
78 to 80	ASEL_0 to ASEL_2	O	Audio selection signal output terminal
81	CPU_PRERST	O	Reset signal output to the serial flash
82	CORE_RST	-	Not used
83	NSPMUTE	O	NSP muting on/off control signal output to stream processor
84	JIG_MODE	-	Noy used
85	OPWRSB	I	Power on/off control signal BD decoder
86	FE_EJECT	O	Eject/stop key output to the BD decoder
87	UPG_STATUS	I	UPG status signal input from the BD decoder
88	VBUS_DET	-	Noy used
89	Acal_Lv	I	Auto calibration microphone signal input terminal
90	S-AIR_ID_SW	-	Not used
91	BD_TEMP	I	Temperature detection signal input terminal
92	DESTINATION	I	Destination setting terminal
93	MODEL	I	Model setting terminal
94, 95	KEY2, KEY1	I	Key input terminal for front panel keys
96	Vss	-	Ground terminal
97	KEY0	I	Key input terminal for front panel keys
98	Vref	I	Reference voltage (+3.3V) input terminal
99	Vcc	-	Power supply terminal (+3.3V)
100	NO USE	-	Not used

SECTION 6 EXPLODED VIEWS

Note:

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

↑ ↑
Parts Color Cabinet's Color

- Abbreviation
CND : Canadian model

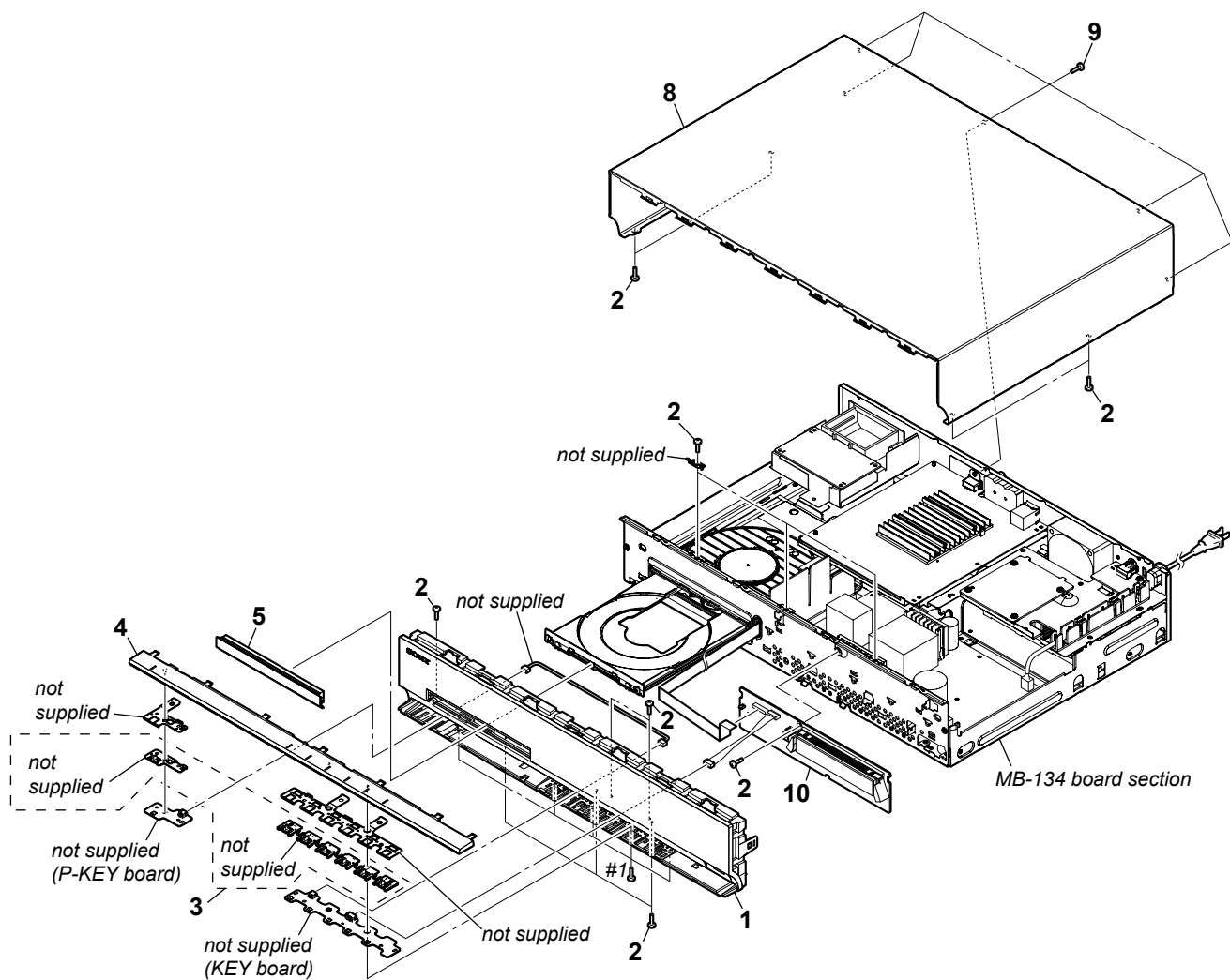
The components identified by mark or dotted line with mark are critical for safety.
Replace only with part number specified.

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

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

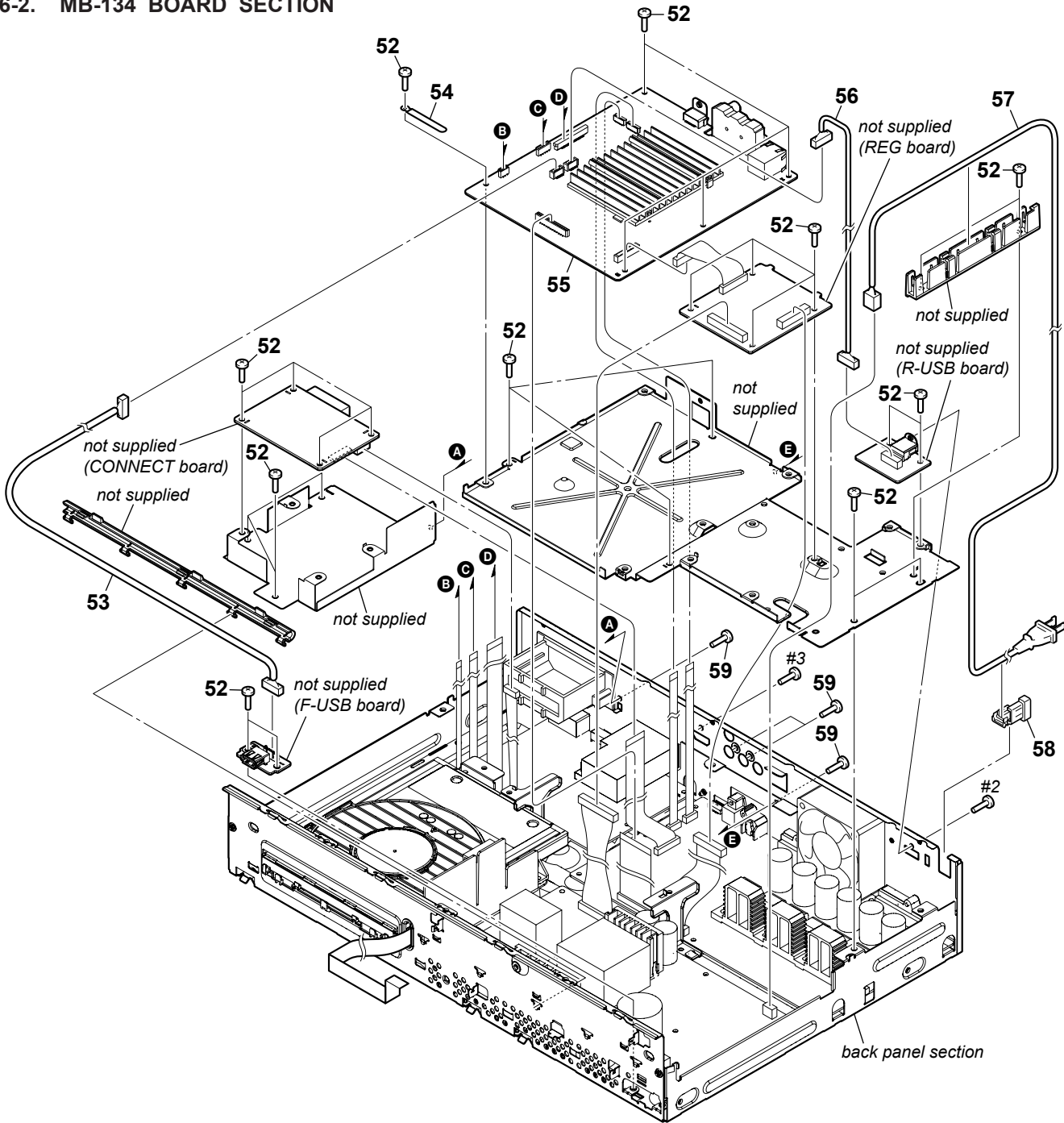
Les composants identifiés par la marque contiennent des informations confidentielles.
Suivre scrupuleusement les instructions chaque fois qu'un composant est remplacé et / ou réparé.

6-1. CASE, FRONT PANEL SECTION



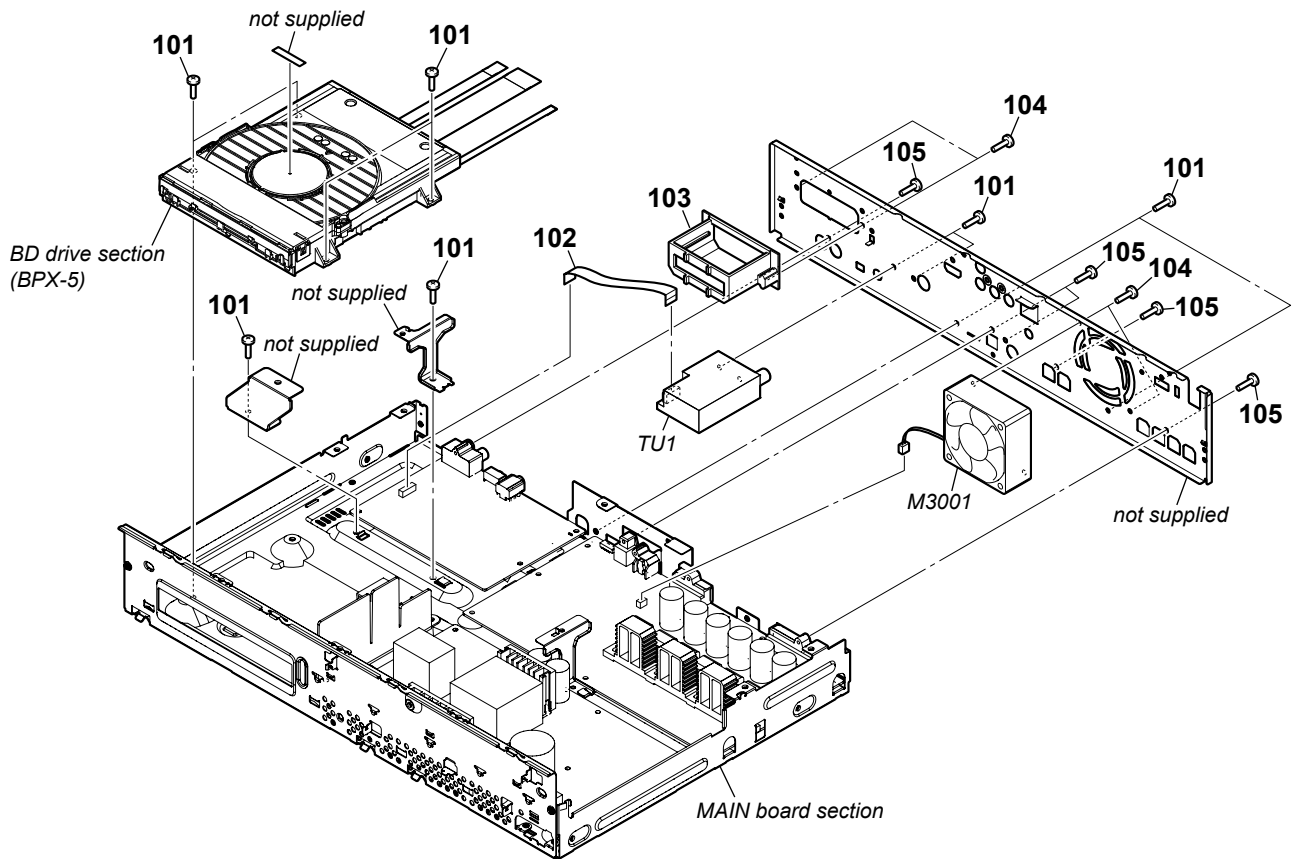
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-2546-719-2	PANEL FRONT ASSY (10EZ) (E370: AEP, UK/E870: AEP, UK)		4	4-161-647-81	ESCUTCHEON (EZ) (E470)	
1	X-2546-856-2	PANEL FRONT ASSY (10EZ V) (EXCEPT E370: AEP, UK/E870: AEP, UK)		5	X-2546-720-1	LOADING PANEL ASSY (10EZ)	
2	3-077-331-21	+BV3 (3-CR)		8	4-161-688-01	CASE (EZ) (E570/T57)	
3	4-161-650-01	BUTTON (PLAY-POW-EZ)		8	4-161-688-21	CASE (EZ) (E370: CND, AEP, UK/E470/E870)	
4	4-161-647-11	ESCUTCHEON (EZ) (E370)		8	4-161-688-41	CASE (EZ) (E370: US)	
4	4-161-647-21	ESCUTCHEON (EZ) (E570)		9	3-704-515-32	SCREW (BV/RING)	
4	4-161-647-41	ESCUTCHEON (EZ) (E870)		10	A-1746-097-A	FL BOARD, COMPLETE	
4	4-161-647-61	ESCUTCHEON (EZ) (T57)		#1	7-685-504-19	SCREW +BTP 2X6 TYPE2 N-S	

6-2. MB-134 BOARD SECTION



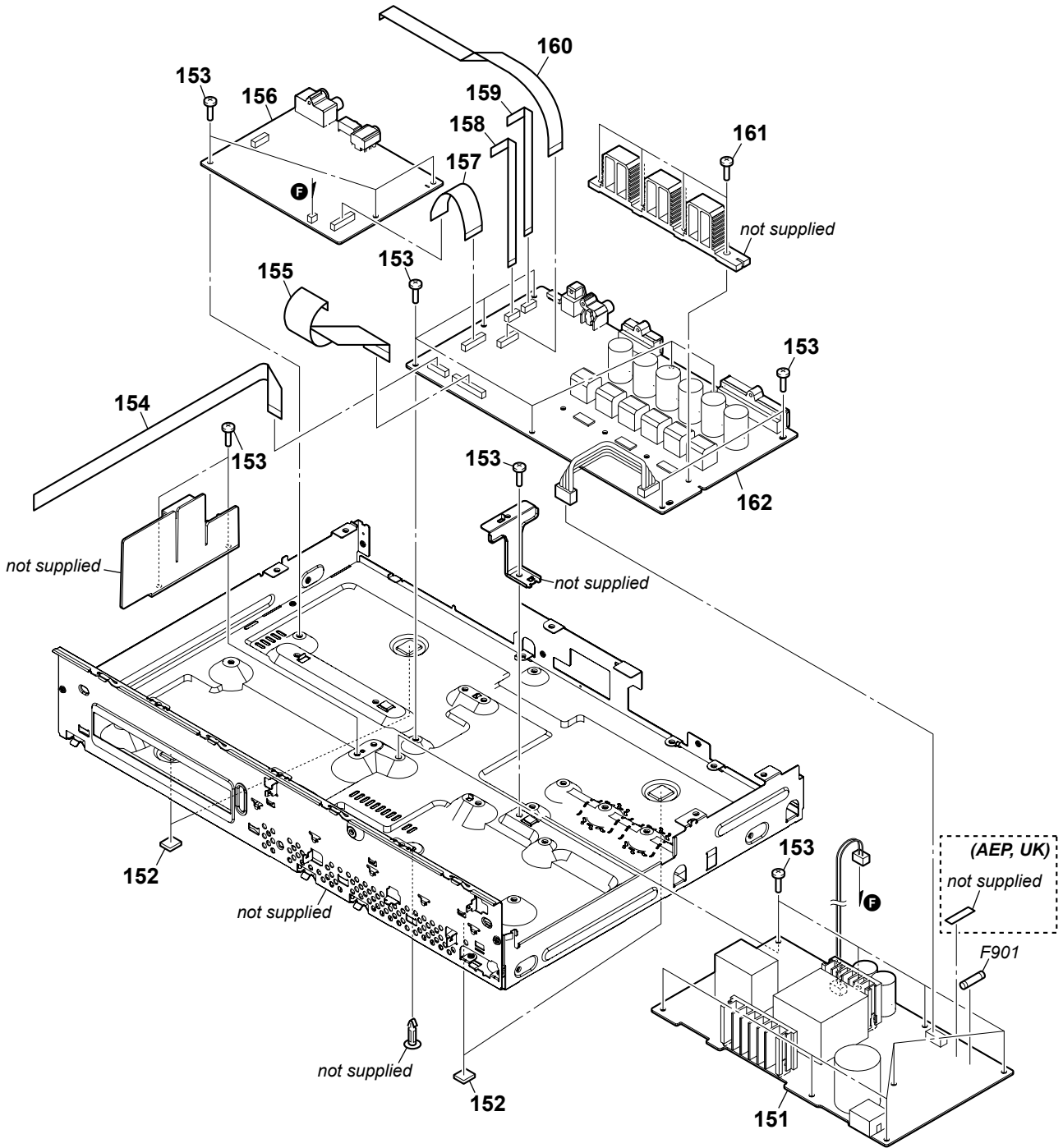
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
52	3-077-331-21	+BV3 (3-CR)		55	A-1762-858-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E470)
53	1-966-988-11	HARNESS (USB)		55	A-1762-859-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E870: AEP)
* 54	3-703-150-11	CLAMP		55	A-1762-860-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E870: UK)
55	A-1762-831-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: US)	56	1-966-989-12	HARNESS (USB)	
55	A-1762-832-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: CND)	57	1-777-071-83	CORD, POWER (AEP)	
55	A-1762-833-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: AEP)	57	1-835-078-31	CORD, POWER (UK)	
55	A-1762-834-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: UK)	57	1-837-308-11	CORD, POWER-SUPPLY (US, CND)	
55	A-1762-842-A	MB-134 BOARD, COMPLETE (for SERVICE) (T57)		58	3-703-244-00	CORD BUSH (2104)	
55	A-1762-844-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E570)	59	3-077-331-01	+BV3 (3-CR)	
55	A-1762-848-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E870: CND)	#2	7-682-147-01	SCREW +P 3X6	
				#3	7-682-546-09	SCREW +B 3X5	

6-3. BACK PANEL SECTION



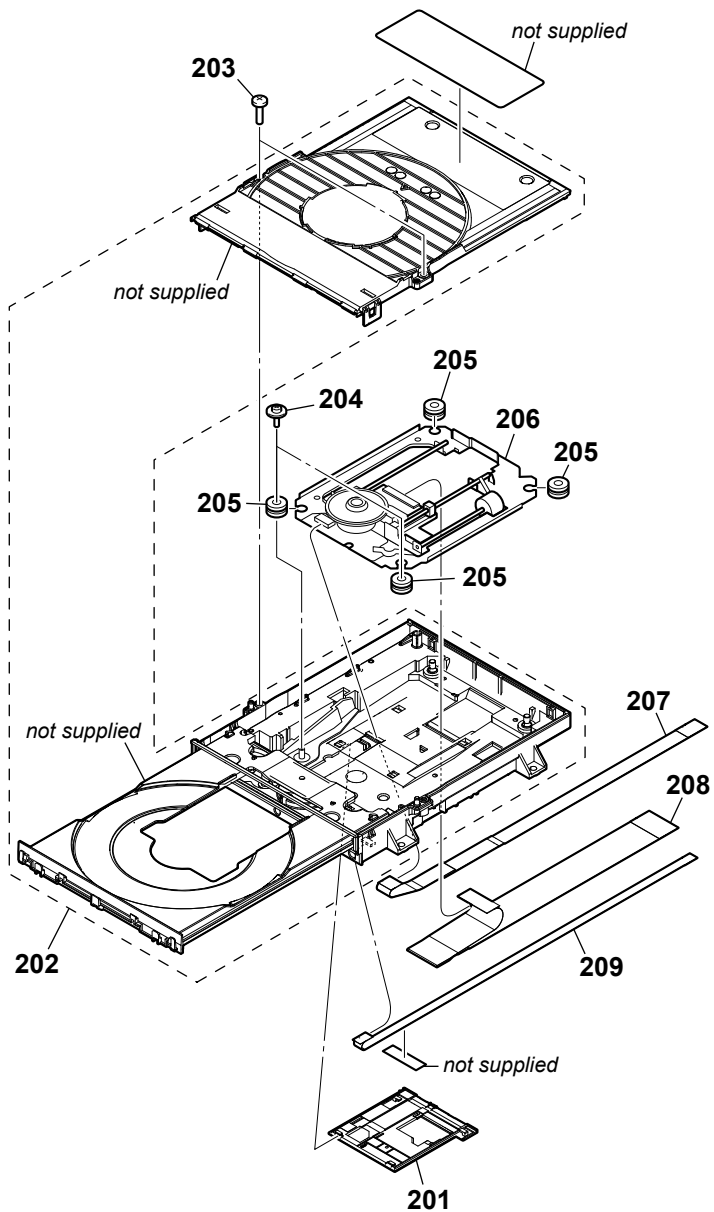
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-077-331-21	+BV3 (3-CR)		105	3-077-331-01	+BV3 (3-CR)	
102	1-828-954-51	WIRE (FLAT TYPE) (9 CORE) (US, CND)		M3001	1-787-931-11	DC FAN	
102	1-828-964-51	WIRE (FLAT TYPE) (11 CORE) (AEP, UK)		TU1	1-693-781-11	TUNER (FM) (US, CND)	
103	4-161-658-01	CARD SLOT (S-AIR UME)		TU1	1-693-787-11	TUNER (FM) (AEP, UK)	
104	3-077-331-11	+BV3 (3-CR)					

6-4. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	A-1745-451-A	POWER BOARD, COMPLETE (E370: AEP, UK/E870: AEP, UK)		157	1-828-346-51	WIRE (FLAT TYPE) (17 CORE) (AEP, UK)	
151	A-1745-455-A	POWER BOARD, COMPLETE (EXCEPT E370: AEP, UK/E870: AEP, UK)		158	1-828-740-51	WIRE (FLAT TYPE) (18 CORE)	
152	4-232-478-31	FOOT		159	1-828-730-51	WIRE (FLAT TYPE) (16 CORE)	
153	3-077-331-21	+BV3 (3-CR)		160	1-828-341-51	WIRE (FLAT TYPE) (15 CORE)	
154	1-828-343-51	WIRE (FLAT TYPE) (15 CORE)		161	3-077-331-11	+BV3 (3-CR)	
155	1-828-400-51	WIRE (FLAT TYPE) (27 CORE)		162	A-1746-692-A	MAIN BOARD, COMPLETE (EXCEPT E370: AEP, UK/E870: AEP, UK)	
156	A-1746-096-A	AUDIO BOARD, COMPLETE (US, CND) (EXCEPT E370: AEP, UK/E870: AEP, UK)		162	A-1746-698-A	MAIN BOARD, COMPLETE (E370: AEP, UK/E870: AEP, UK)	
156	A-1746-102-A	AUDIO BOARD, COMPLETE (AEP, UK) (E370: AEP, UK/E870: AEP, UK)	△ F901	1-533-311-12	FUSE, GLASS (DIA.5) (8A/125V) (US, CND)		
157	1-828-336-51	WIRE (FLAT TYPE) (15 CORE) (US, CND)	△ F901	1-576-232-51	FUSE (H.B.C.) (T5AH/250V) (AEP, UK)		

6-5. BD DRIVE SECTION (BPX-5)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-175-656-01	HOLDER, FFC (REAR)		△ 206	8-820-430-02	DEVICE, OPTICAL (KEM-460AAA/C2RP)	
202	A-1750-926-A	LOADING FOR SERVICE		207	1-837-660-51	WIRE (FLAT TYPE) (9 CORE)	
203	3-087-053-11	+BVTP2.6 (3CR)		208	1-837-658-51	WIRE (FLAT TYPE) (45 CORE)	
204	2-345-115-01	SCREW (S), FLOAT		209	1-837-659-51	WIRE (FLAT TYPE) (5 CORE)	
205	4-175-937-01	INSULATOR					

SECTION 7
ELECTRICAL PARTS LIST

AUDIO

Note:

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

- COILS
uH: µH
- SEMICONDUCTORS
In each case, u: µ, for example:
uA. . . : µA. . . , uPA. . . , µPA. . . ,
uPB. . . : µPB. . . , uPC. . . , µPC. . . ,
uPD. . . : µPD. . .
- Abbreviation
CND : Canadian model

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

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

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

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

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

Ref. No.	Part No.	Description	Remark
	A-1746-096-A	AUDIO BOARD, COMPLETE (EXCEPT E370: AEP, UK/E870: AEP, UK)	
	A-1746-102-A	AUDIO BOARD, COMPLETE (E370: AEP, UK/E870: AEP, UK) *****	
		< CAPACITOR >	
C10	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C11	1-162-923-11	CERAMIC CHIP	47PF 5% 50V
C12	1-125-891-11	CERAMIC CHIP	0.47uF 10% 10V
C14	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C15	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C16	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C17	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C20	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V
C21	1-126-964-11	ELECT	10uF 20% 50V
C22	1-104-658-91	ELECT	100uF 20% 10V
C23	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C27	1-162-960-11	CERAMIC CHIP	220PF 10% 50V
C28	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C29	1-110-563-11	CERAMIC CHIP	0.068uF 10% 16V
C32	1-162-925-11	CERAMIC CHIP	68PF 5% 50V
C33	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C35	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C37	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C39	1-104-662-91	ELECT	22uF 20% 25V
C41	1-104-662-91	ELECT	22uF 20% 25V
C44	1-104-658-91	ELECT	100uF 20% 10V
C45	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C48	1-126-947-11	ELECT	47uF 20% 35V
C49	1-115-156-11	CERAMIC CHIP	1uF 10V
C50	1-125-891-11	CERAMIC CHIP	0.47uF 10% 10V
C53	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C54	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C62	1-126-947-11	ELECT	47uF 20% 35V
C63	1-127-715-11	CERAMIC CHIP	0.22uF 10% 16V
C66	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C67	1-115-156-11	CERAMIC CHIP	1uF 10V
C68	1-127-573-11	CERAMIC CHIP	1uF 10% 16V
C69	1-126-964-11	ELECT	10uF 20% 50V
C70	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN10	1-784-770-11	CONNECTOR, FFC 9P (EXCEPT E370: AEP, UK/E870: AEP, UK)	
CN11	1-568-830-11	CONNECTOR, FFC 11P (E370: AEP, UK/E870: AEP, UK)	
CN13	1-779-283-11	CONNECTOR, FFC (LIF (NON-ZIF)) 15P (EXCEPT E370: AEP, UK/E870: AEP, UK)	
CN15	1-779-285-11	CONNECTOR, FFC (LIF (NON-ZIF)) 17P (E370: AEP, UK/E870: AEP, UK)	
CN17	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P	
		< DIODE >	
D10	6-500-848-01	DIODE MC2840-T112-1	
D12	6-500-848-01	DIODE MC2840-T112-1	
D15	6-501-728-01	DIODE MAZ8051G0LS0	
		< IC >	
IC10	8-759-100-96	IC uPC4558G2	
IC11	8-759-430-37	IC MC14052BDTR2	
IC12	8-759-430-37	IC MC14052BDTR2	
IC14	6-712-744-01	IC TK11190CSCL-G	
		< JACK >	
J10	1-563-330-31	JACK (A.CAL MIC ECM-AC2)	
J11	1-778-940-21	PHONO JACK 2P (AUDIO AUDIO IN)	
		< COIL >	
L010	1-481-524-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q10	8-729-028-96	TRANSISTOR DTC114EUA-T106	
Q13	6-551-690-01	TRANSISTOR RT3N11M-TP-1	
Q14	8-729-028-96	TRANSISTOR DTC114EUA-T106	
		< RESISTOR >	
R12	1-216-864-11	SHORT CHIP	0
R13	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R15	1-216-845-11	METAL CHIP	100K 5% 1/10W
R18	1-216-864-11	SHORT CHIP	0 (E370: AEP, UK/E870: AEP, UK)
R19	1-216-864-11	SHORT CHIP	0 (E370: AEP, UK/E870: AEP, UK)
R20	1-216-817-11	METAL CHIP	470 5% 1/10W

HBD-E370/E470/E570/E870/T57

FL **F-USB** **KEY** **MAIN**

Ref. No.	Part No.	Description	Remark
L803	1-410-671-31	INDUCTOR 47uH < FLUORESCENT INDICATOR TUBE >	
ND800	1-483-114-11	INDICATOR TUBE, FLUORESCENT < TRANSISTOR >	
Q800	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q801	8-729-028-96	TRANSISTOR DTC114EUA-T106	
Q802	6-550-363-01	TRANSISTOR 2SB1690KT146	
Q803	6-550-065-01	TRANSISTOR CPH5504-TL-E	
Q804	8-729-620-13	TRANSISTOR 2SC4154TP-1EF < RESISTOR >	
R803	1-216-817-11	METAL CHIP 470 5% 1/10W	
R804	1-216-809-11	METAL CHIP 100 5% 1/10W	
R805	1-216-817-11	METAL CHIP 470 5% 1/10W	
R806	1-216-817-11	METAL CHIP 470 5% 1/10W	
R807	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R809	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
R812	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R813	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R814	1-216-805-11	METAL CHIP 47 5% 1/10W	
R817	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R819	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R820	1-216-809-11	METAL CHIP 100 5% 1/10W	
R821	1-216-809-11	METAL CHIP 100 5% 1/10W	
R822	1-216-809-11	METAL CHIP 100 5% 1/10W	
R823	1-216-844-11	METAL CHIP 82K 5% 1/10W	
R825	1-216-805-11	METAL CHIP 47 5% 1/10W	
R828	1-216-821-11	METAL CHIP 1K 5% 1/10W < TRANSFORMER >	
T800	1-445-686-11	D.C-D.C. CONVERTER TRANSFORMER *****	
		F-USB BOARD ***** < CONNECTOR >	
CN100	1-822-423-11	CONNECTOR, USB (A) (←)	
CN101	1-784-922-11	PIN, CONNECTOR 5P *****	
		KEY BOARD ***** < CONNECTOR >	
CN700	1-580-057-11	PIN, CONNECTOR (SMD) 4P	
* CN701	1-580-055-21	PIN, CONNECTOR (SMD) 2P < RESISTOR >	
R700	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R701	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R702	1-216-809-11	METAL CHIP 100 5% 1/10W	
R703	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R704	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R705	1-216-809-11	METAL CHIP 100 5% 1/10W < SWITCH >	
S700	1-786-650-21	SWITCH, TACTILE (VOLUME +)	

Ref. No.	Part No.	Description	Remark
S701	1-786-650-21	SWITCH, TACTILE (VOLUME -)	
S702	1-786-650-21	SWITCH, TACTILE (▲)	
S703	1-786-650-21	SWITCH, TACTILE (FUNCTION)	
S704	1-786-650-21	SWITCH, TACTILE (■)	
S705	1-786-650-21	SWITCH, TACTILE (▶)	

A-1746-692-A		MAIN BOARD, COMPLETE (EXCEPT E370: AEP, UK/E870: AEP, UK)	
A-1746-698-A		MAIN BOARD, COMPLETE (E370: AEP, UK/E870: AEP, UK) *****	
< CAPACITOR >			
* C501	1-112-298-91	CERAMIC CHIP 1uF 10% 16V	
C502	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C503	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
* C504	1-112-298-91	CERAMIC CHIP 1uF 10% 16V	
C505	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C506	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C507	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C508	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C509	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C510	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C511	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C512	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C513	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C514	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C515	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C516	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C518	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C519	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	
C521	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C522	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C524	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C525	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C526	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V	
C527	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C528	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C529	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C532	1-104-656-11	ELECT 2200uF 20% 6.3V	
C533	1-126-924-11	ELECT 330uF 20% 10V	
C534	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C535	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C536	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C537	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C702	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C705	1-104-658-91	ELECT 100uF 20% 10V	
C706	1-126-964-11	ELECT 10uF 20% 50V	
C707	1-126-964-11	ELECT 10uF 20% 50V	
C713	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C714	1-126-964-11	ELECT 10uF 20% 50V	
C715	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C716	1-126-964-11	ELECT 10uF 20% 50V	
C717	1-126-964-11	ELECT 10uF 20% 50V	
C718	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C719	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C720	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C721	1-104-658-91	ELECT 100uF 20% 10V	
C722	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C723	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	

Note: When the MAIN board is replaced, spread the compound referring to "NOTE OF REPLACING THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on servicing notes (page 8).

HBD-E370/E470/E570/E870/T57

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C3405	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	CN505	1-794-341-51	CONNECTOR, FFC/FPC 27P	
C3406	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	CN508	1-820-115-51	CONNECTOR, FFC/FPC 15P	
C3407	1-100-436-91	CERAMIC CHIP 0.033uF 10%	25V				
C3408	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V	CN510	1-784-861-51	CONNECTOR, FFC (LIF (NON-ZIF)) 9P	
C3409	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V	CN701	1-779-333-51	CONNECTOR, FFC/FPC 18P (HDMI ARC OUT)	
C3410	1-100-436-91	CERAMIC CHIP 0.033uF 10%	25V	CN702	1-820-115-51	CONNECTOR, FFC/FPC 15P	
C3411	1-112-246-11	ELECT 100uF 20%	35V	CN703	1-779-332-51	CONNECTOR, FFC/FPC 16P	
C3412	1-112-246-11	ELECT 100uF 20%	35V	CN3000	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P	
C3413	1-137-198-81	FILM 1uF 5%	50V	< DIODE >			
C3414	1-137-198-81	FILM 1uF 5%	50V	D502	6-501-817-01	DIODE MA2J1110GLS0	
C3415	1-112-831-31	ELECT 2200uF 20%	35V	D503	6-501-817-01	DIODE MA2J1110GLS0	
C3416	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V	D506	6-501-817-01	DIODE MA2J1110GLS0	
C3417	1-100-436-91	CERAMIC CHIP 0.033uF 10%	25V	D508	6-501-817-01	DIODE MA2J1110GLS0	
C3418	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V	D3070	6-501-817-01	DIODE MA2J1110GLS0	
C3419	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V	D3071	6-500-335-01	DIODE MC2838-T112-1	
C3420	1-100-436-91	CERAMIC CHIP 0.033uF 10%	25V	D3072	6-501-817-01	DIODE MA2J1110GLS0	
C3421	1-112-246-11	ELECT 100uF 20%	35V	D3101	6-501-696-01	DIODE RSA39LTE25	
C3422	1-112-246-11	ELECT 100uF 20%	35V	D3102	6-501-696-01	DIODE RSA39LTE25	
C3423	1-137-198-81	FILM 1uF 5%	50V	D3103	6-501-696-01	DIODE RSA39LTE25	
C3424	1-137-198-81	FILM 1uF 5%	50V	D3104	6-501-696-01	DIODE RSA39LTE25	
C3425	1-112-831-31	ELECT 2200uF 20%	35V	D3201	6-501-696-01	DIODE RSA39LTE25	
C3426	1-115-339-11	CERAMIC CHIP 0.1uF 10%	50V	D3202	6-501-696-01	DIODE RSA39LTE25	
C3427	1-114-869-11	CERAMIC CHIP 2.2uF 10%	6.3V	D3203	6-501-696-01	DIODE RSA39LTE25	
C3428	1-114-869-11	CERAMIC CHIP 2.2uF 10%	6.3V	D3204	6-501-696-01	DIODE RSA39LTE25	
C3429	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	D3401	6-501-696-01	DIODE RSA39LTE25	
C3551	1-126-960-11	ELECT 1uF 20%	50V	D3402	6-501-696-01	DIODE RSA39LTE25	
C3552	1-126-964-11	ELECT 10uF 20%	50V	D3501	6-501-696-01	DIODE RSA39LTE25	
C3553	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	D3502	6-501-696-01	DIODE RSA39LTE25	
C3556	1-114-868-11	CERAMIC CHIP 0.1uF 10%	50V	D3551	6-500-848-01	DIODE MC2840-T112-1	
C3561	1-126-947-11	ELECT 47uF 20%	35V	D3553	6-501-817-01	DIODE MA2J1110GLS0	
C3911	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	< FERRITE BEAD >			
C3912	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB701	1-469-152-11	FERRITE, EMI (SMD) (2012)	
C3913	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	FB702	1-500-283-11	INDUCTOR, FERRITE BEAD	
C3914	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB704	1-469-094-21	FERRITE, EMI (SMD) (1608)	
C3915	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	FB705	1-400-580-21	FERRITE, EMI (SMD)	
C3916	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB706	1-469-094-21	FERRITE, EMI (SMD) (1608)	
C3917	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	< IC >			
C3918	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC501	A-1748-298-A	IC R5F364AMDFA (for SERVICE)	
C3921	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC503	6-705-203-01	IC S-80935CNMC-G85T2G	
C3922	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC505	6-705-337-01	IC TK11150CSCL-G	
C3923	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC506	6-702-913-01	IC S-80929CNMC-G8ZT2G	
C3924	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC507	6-702-913-01	IC S-80929CNMC-G8ZT2G	
C3925	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC508	6-705-337-01	IC TK11150CSCL-G	
C3926	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC700	6-600-466-01	IC TORX147L (SONY) (TV DIGITAL IN OPTICAL)	
C3927	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC702	6-710-554-01	IC PCM1808PWR	
C3928	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC703	6-713-642-01	IC LC89058W-E	
C3941	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC704	6-707-853-01	IC TC74LCX541FT (EKJ)	
C3942	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC3010	6-705-979-01	IC CXD9788AR	
C3943	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC3011	6-712-613-01	IC SI-3010KM-TLS	
C3944	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC3020	6-705-979-01	IC CXD9788AR	
C3945	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC3030	6-705-979-01	IC CXD9788AR	
C3946	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC3050	6-714-743-01	IC MM3404A18URE	
C3947	1-114-323-11	CERAMIC CHIP 0.01uF 10%	50V	IC3051	6-706-492-01	IC TC7SHU04FU (T5RSOJF)	
C3948	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	IC3100	6-714-477-01	IC CXD9981TN	
< CONNECTOR >				IC3200	6-714-477-01	IC CXD9981TN	
CN502	1-820-116-51	CONNECTOR, FFC/FPC 17P (E370: AEP, UK/E870: AEP, UK)		IC3400	6-714-477-01	IC CXD9981TN	
CN504	1-820-115-51	CONNECTOR, FFC/FPC 15P (EXCEPT E370: AEP, UK/E870: AEP, UK)					

Note: When IC3100, IC3200 and IC3400 on the MAIN board are replaced, spread the compound referring to "NOTE OF REPLACING THE IC3100, IC3200 AND IC3400 ON THE MAIN BOARD AND THE COMPLETE MAIN BOARD" on servicing notes (page 8).

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< JACK >		R525	1-216-809-11	METAL CHIP 100 5%	1/10W
J700	1-784-431-21	JACK, PIN 1P (SAT/CABLE DIGITAL IN COAXIAL)		R527	1-216-821-11	METAL CHIP 1K 5%	1/10W
		< COIL >		R528	1-216-821-11	METAL CHIP 1K 5%	1/10W
L700	1-481-524-11	INDUCTOR 10uH		R529	1-216-821-11	METAL CHIP 1K 5%	1/10W
L705	1-469-527-91	INDUCTOR 47uH		R530	1-216-809-11	METAL CHIP 100 5%	1/10W
L3000	1-469-526-91	INDUCTOR 22uH		R531	1-216-809-11	METAL CHIP 100 5%	1/10W
L3051	1-469-525-91	INDUCTOR 10uH		R532	1-216-809-11	METAL CHIP 100 5%	1/10W
L3052	1-469-525-91	INDUCTOR 10uH		R533	1-216-857-11	METAL CHIP 1M 5%	1/10W
L3053	1-469-525-91	INDUCTOR 10uH		R534	1-216-809-11	METAL CHIP 100 5%	1/10W
L3101	1-457-579-11	INDUCTOR 10uH		R536	1-216-809-11	METAL CHIP 100 5%	1/10W
L3102	1-457-579-11	INDUCTOR 10uH		R538	1-216-809-11	METAL CHIP 100 5%	1/10W
L3201	1-457-579-11	INDUCTOR 10uH		R540	1-216-809-11	METAL CHIP 100 5%	1/10W
L3301	1-457-579-11	INDUCTOR 10uH		R542	1-216-833-11	METAL CHIP 10K 5%	1/10W (E370: AEP, UK/E870: AEP, UK)
L3401	1-457-579-11	INDUCTOR 10uH		R543	1-216-809-11	METAL CHIP 100 5%	1/10W (EXCEPT E370: AEP, UK/E870: AEP, UK)
L3402	1-457-579-11	INDUCTOR 10uH		R544	1-216-864-11	SHORT CHIP 0	(E370: AEP, UK/E870: AEP, UK)
L3911	1-457-796-11	AIR-CORE COIL		R545	1-216-833-11	METAL CHIP 10K 5%	1/10W (EXCEPT E370: AEP, UK/E870: AEP, UK)
L3912	1-457-797-11	AIR-CORE COIL		R546	1-216-809-11	METAL CHIP 100 5%	1/10W
L3913	1-457-796-11	AIR-CORE COIL		R547	1-216-833-11	METAL CHIP 10K 5%	1/10W
L3914	1-457-797-11	AIR-CORE COIL		R549	1-216-833-11	METAL CHIP 10K 5%	1/10W
L3921	1-457-796-11	AIR-CORE COIL		R550	1-216-864-11	SHORT CHIP 0	
L3922	1-457-797-11	AIR-CORE COIL		R553	1-216-833-11	METAL CHIP 10K 5%	1/10W
L3923	1-457-796-11	AIR-CORE COIL		R555	1-216-833-11	METAL CHIP 10K 5%	1/10W
L3924	1-457-797-11	AIR-CORE COIL		R556	1-216-809-11	METAL CHIP 100 5%	1/10W
L3941	1-457-796-11	AIR-CORE COIL		R563	1-216-809-11	METAL CHIP 100 5%	1/10W
L3942	1-457-797-11	AIR-CORE COIL		R565	1-216-801-11	METAL CHIP 22 5%	1/10W
L3943	1-457-796-11	AIR-CORE COIL		R567	1-216-809-11	METAL CHIP 100 5%	1/10W
L3944	1-457-797-11	AIR-CORE COIL		R568	1-216-864-11	SHORT CHIP 0	
		< TRANSISTOR >		R569	1-216-809-11	METAL CHIP 100 5%	1/10W
Q504	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R570	1-216-809-11	METAL CHIP 100 5%	1/10W
Q507	6-551-272-01	TRANSISTOR RT3CLLM		R572	1-216-801-11	METAL CHIP 22 5%	1/10W
Q3001	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R574	1-216-838-11	METAL CHIP 27K 5%	1/10W
Q3101	6-551-271-01	TRANSISTOR RT3AMMM		R577	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q3102	6-551-271-01	TRANSISTOR RT3AMMM		R580	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
Q3201	6-551-271-01	TRANSISTOR RT3AMMM		R582	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
Q3301	6-551-271-01	TRANSISTOR RT3AMMM		R585	1-216-813-11	METAL CHIP 220 5%	1/10W
Q3401	6-551-271-01	TRANSISTOR RT3AMMM		R586	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q3402	6-551-271-01	TRANSISTOR RT3AMMM		R587	1-216-809-11	METAL CHIP 100 5%	1/10W
Q3551	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R588	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q3552	6-551-272-01	TRANSISTOR RT3CLLM		R589	1-216-809-11	METAL CHIP 100 5%	1/10W
Q3556	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R590	1-216-845-11	METAL CHIP 100K 5%	1/10W
		< RESISTOR >		R591	1-216-809-11	METAL CHIP 100 5%	1/10W
R505	1-216-809-11	METAL CHIP 100 5%	1/10W	R593	1-216-833-11	METAL CHIP 10K 5%	1/10W
R506	1-216-821-11	METAL CHIP 1K 5%	1/10W	R594	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R507	1-216-815-11	METAL CHIP 330 5%	1/10W	R595	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R508	1-216-815-11	METAL CHIP 330 5%	1/10W	R596	1-216-801-11	METAL CHIP 22 5%	1/10W
R509	1-216-815-11	METAL CHIP 330 5%	1/10W	R597	1-216-801-11	METAL CHIP 22 5%	1/10W
R510	1-216-815-11	METAL CHIP 330 5%	1/10W	R599	1-216-801-11	METAL CHIP 22 5%	1/10W
R511	1-216-815-11	METAL CHIP 330 5%	1/10W	R601	1-216-845-11	METAL CHIP 100K 5%	1/10W
R512	1-216-815-11	METAL CHIP 330 5%	1/10W	R606	1-216-801-11	METAL CHIP 22 5%	1/10W
R513	1-216-815-11	METAL CHIP 330 5%	1/10W	R607	1-216-809-11	METAL CHIP 100 5%	1/10W
R514	1-216-821-11	METAL CHIP 1K 5%	1/10W	R610	1-216-809-11	METAL CHIP 100 5%	1/10W
R519	1-216-833-11	METAL CHIP 10K 5%	1/10W	R613	1-216-841-11	METAL CHIP 47K 5%	1/10W
R521	1-218-857-11	METAL CHIP 2.7K 0.5%	1/10W	R615	1-216-841-11	METAL CHIP 47K 5%	1/10W
R522	1-216-833-11	METAL CHIP 10K 5%	1/10W	R618	1-216-833-11	METAL CHIP 10K 5%	1/10W
R523	1-216-833-11	METAL CHIP 10K 5%	1/10W	R620	1-216-864-11	SHORT CHIP 0	
R524	1-216-833-11	METAL CHIP 10K 5%	1/10W	R621	1-216-809-11	METAL CHIP 100 5%	1/10W
				R622	1-216-809-11	METAL CHIP 100 5%	1/10W

HBD-E370/E470/E570/E870/T57

MAIN

Ref. No.	Part No.	Description	Quantity	Percentage	Remark	Ref. No.	Part No.	Description	Quantity	Percentage	Remark
R623	1-216-809-11	METAL CHIP	100	5%	1/10W	R751	1-216-801-11	METAL CHIP	22	5%	1/10W
R632	1-216-809-11	METAL CHIP	100	5%	1/10W	R752	1-216-809-11	METAL CHIP	100	5%	1/10W
R633	1-216-809-11	METAL CHIP	100	5%	1/10W	R753	1-216-809-11	METAL CHIP	100	5%	1/10W
R634	1-216-809-11	METAL CHIP	100	5%	1/10W	R754	1-216-805-11	METAL CHIP	47	5%	1/10W
R636	1-216-809-11	METAL CHIP	100	5%	1/10W	R755	1-216-797-11	METAL CHIP	10	5%	1/10W
R639	1-216-809-11	METAL CHIP	100	5%	1/10W	R756	1-216-809-11	METAL CHIP	100	5%	1/10W
R648	1-218-871-11	METAL CHIP	10K	0.5%	1/10W	R758	1-216-864-11	SHORT CHIP	0		
R649	1-218-879-11	METAL CHIP	22K	0.5%	1/10W	R759	1-216-857-11	METAL CHIP	1M	5%	1/10W
R650	1-218-875-11	METAL CHIP	15K	0.5%	1/10W	R760	1-216-815-11	METAL CHIP	330	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W	R763	1-216-833-11	METAL CHIP	10K	5%	1/10W
R652	1-216-841-11	METAL CHIP	47K	5%	1/10W	R764	1-216-833-11	METAL CHIP	10K	5%	1/10W
R653	1-218-879-11	METAL CHIP	22K	0.5%	1/10W	R765	1-216-833-11	METAL CHIP	10K	5%	1/10W
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W	R766	1-216-833-11	METAL CHIP	10K	5%	1/10W
R656	1-216-809-11	METAL CHIP	100	5%	1/10W	R767	1-216-809-11	METAL CHIP	100	5%	1/10W
R657	1-216-809-11	METAL CHIP	100	5%	1/10W	R768	1-216-809-11	METAL CHIP	100	5%	1/10W
R681	1-216-864-11	SHORT CHIP	0			R769	1-216-809-11	METAL CHIP	100	5%	1/10W
R683	1-216-864-11	SHORT CHIP	0		(EXCEPT E370: AEP, UK/E870: AEP, UK) (E370: AEP, UK/E870: AEP, UK)	R771	1-216-864-11	SHORT CHIP	0		
R700	1-216-805-11	METAL CHIP	47	5%	1/10W	R772	1-216-864-11	SHORT CHIP	0		
R701	1-216-864-11	SHORT CHIP	0			R773	1-216-809-11	METAL CHIP	100	5%	1/10W
R702	1-218-285-11	METAL CHIP	75	5%	1/10W	R774	1-216-809-11	METAL CHIP	100	5%	1/10W
R703	1-216-809-11	METAL CHIP	100	5%	1/10W	R775	1-216-809-11	METAL CHIP	100	5%	1/10W
R704	1-216-801-11	METAL CHIP	22	5%	1/10W	R776	1-216-809-11	METAL CHIP	100	5%	1/10W
R705	1-216-801-11	METAL CHIP	22	5%	1/10W	R777	1-216-809-11	METAL CHIP	100	5%	1/10W
R706	1-216-801-11	METAL CHIP	22	5%	1/10W	R778	1-216-809-11	METAL CHIP	100	5%	1/10W
R707	1-216-801-11	METAL CHIP	22	5%	1/10W	R780	1-216-809-11	METAL CHIP	100	5%	1/10W
R708	1-216-801-11	METAL CHIP	22	5%	1/10W	R781	1-216-809-11	METAL CHIP	100	5%	1/10W
R709	1-216-801-11	METAL CHIP	22	5%	1/10W	R782	1-216-809-11	METAL CHIP	100	5%	1/10W
R710	1-216-801-11	METAL CHIP	22	5%	1/10W	R787	1-216-809-11	METAL CHIP	100	5%	1/10W
R711	1-216-801-11	METAL CHIP	22	5%	1/10W	R795	1-216-864-11	SHORT CHIP	0		
R712	1-216-864-11	SHORT CHIP	0			R3002	1-216-833-11	METAL CHIP	10K	5%	1/10W
R713	1-216-805-11	METAL CHIP	47	5%	1/10W	R3003	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R714	1-216-805-11	METAL CHIP	47	5%	1/10W	R3004	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R716	1-216-864-11	SHORT CHIP	0			R3005	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R718	1-216-864-11	SHORT CHIP	0			R3006	1-218-869-11	METAL CHIP	8.2K	0.5%	1/10W
R719	1-216-864-11	SHORT CHIP	0			R3007	1-216-821-11	METAL CHIP	1K	5%	1/10W
R720	1-216-864-11	SHORT CHIP	0			R3011	1-216-817-11	METAL CHIP	470	5%	1/10W
R721	1-216-864-11	SHORT CHIP	0			R3012	1-216-817-11	METAL CHIP	470	5%	1/10W
R723	1-216-864-11	SHORT CHIP	0			R3013	1-216-833-11	METAL CHIP	10K	5%	1/10W
R724	1-216-864-11	SHORT CHIP	0			R3014	1-216-805-11	METAL CHIP	47	5%	1/10W
R725	1-216-805-11	METAL CHIP	47	5%	1/10W	R3015	1-216-805-11	METAL CHIP	47	5%	1/10W
R726	1-216-853-11	METAL CHIP	470K	5%	1/10W	R3017	1-216-805-11	METAL CHIP	47	5%	1/10W
R729	1-216-805-11	METAL CHIP	47	5%	1/10W	R3021	1-216-817-11	METAL CHIP	470	5%	1/10W
R730	1-216-805-11	METAL CHIP	47	5%	1/10W	R3022	1-216-817-11	METAL CHIP	470	5%	1/10W
R733	1-216-809-11	METAL CHIP	100	5%	1/10W	R3023	1-216-805-11	METAL CHIP	47	5%	1/10W
R734	1-216-864-11	SHORT CHIP	0			R3024	1-216-805-11	METAL CHIP	47	5%	1/10W
R735	1-218-831-11	METAL CHIP	220	0.5%	1/10W	R3027	1-216-805-11	METAL CHIP	47	5%	1/10W
R737	1-216-809-11	METAL CHIP	100	5%	1/10W	R3031	1-216-817-11	METAL CHIP	470	5%	1/10W
R738	1-216-809-11	METAL CHIP	100	5%	1/10W	R3032	1-216-817-11	METAL CHIP	470	5%	1/10W
R739	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3033	1-216-833-11	METAL CHIP	10K	5%	1/10W
R740	1-216-805-11	METAL CHIP	47	5%	1/10W	R3034	1-216-805-11	METAL CHIP	47	5%	1/10W
R741	1-216-809-11	METAL CHIP	100	5%	1/10W	R3035	1-216-805-11	METAL CHIP	47	5%	1/10W
R744	1-216-805-11	METAL CHIP	47	5%	1/10W	R3037	1-216-805-11	METAL CHIP	47	5%	1/10W
R745	1-216-864-11	SHORT CHIP	0			R3040	1-216-864-11	SHORT CHIP	0		
R746	1-216-864-11	SHORT CHIP	0			R3041	1-216-864-11	SHORT CHIP	0		
R747	1-216-864-11	SHORT CHIP	0			R3042	1-216-864-11	SHORT CHIP	0		
R748	1-216-833-11	METAL CHIP	10K	5%	1/10W	R3043	1-216-864-11	SHORT CHIP	0		
R749	1-216-797-11	METAL CHIP	10	5%	1/10W	R3046	1-216-864-11	SHORT CHIP	0		
R750	1-216-809-11	METAL CHIP	100	5%	1/10W	R3047	1-216-864-11	SHORT CHIP	0		
						R3050	1-216-805-11	METAL CHIP	47	5%	1/10W
						R3051	1-216-845-11	METAL CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R3052	1-216-857-11	METAL CHIP	1M 5% 1/10W	R3562	1-218-883-11	METAL CHIP	33K 0.5% 1/10W
R3053	1-216-821-11	METAL CHIP	1K 5% 1/10W	R3936	1-216-821-11	METAL CHIP	1K 5% 1/10W
R3055	1-216-805-11	METAL CHIP	47 5% 1/10W	R3940	1-216-864-11	SHORT CHIP	0
R3057	1-216-805-11	METAL CHIP	47 5% 1/10W			< COMPOSITION CIRCUIT BLOCK >	
R3059	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R3060	1-216-833-11	METAL CHIP	10K 5% 1/10W	RB500	1-234-945-21	RES, NETWORK	100 (1005X4)
R3065	1-216-809-11	METAL CHIP	100 5% 1/10W	RB501	1-234-945-21	RES, NETWORK	100 (1005X4)
R3074	1-216-805-11	METAL CHIP	47 5% 1/10W	RB502	1-234-945-21	RES, NETWORK	100 (1005X4)
R3075	1-216-805-11	METAL CHIP	47 5% 1/10W	RB503	1-234-945-21	RES, NETWORK	100 (1005X4)
R3076	1-216-805-11	METAL CHIP	47 5% 1/10W	RB504	1-234-945-21	RES, NETWORK	100 (1005X4)
R3080	1-216-845-11	METAL CHIP	100K 5% 1/10W	RB701	1-234-945-21	RES, NETWORK	100 (1005X4)
R3102	1-216-837-11	METAL CHIP	22K 5% 1/10W			< TERMINAL >	
R3103	1-216-791-11	METAL CHIP	3.3 5% 1/10W				
R3125	1-216-845-11	METAL CHIP	100K 5% 1/10W	TB3901	1-780-817-11	TERMINAL BOARD (SPEAKER)	4P (SPEAKERS)
R3126	1-216-845-11	METAL CHIP	100K 5% 1/10W	TB3902	1-780-452-11	TERMINAL BOARD (SPEAKER)	2P (SPEAKERS)
R3127	1-216-845-11	METAL CHIP	100K 5% 1/10W			< VIBRATOR >	
R3128	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R3131	1-216-805-11	METAL CHIP	47 5% 1/10W	X500	1-795-059-21	VIBRATOR, CERAMIC	(5MHz)
R3132	1-216-805-11	METAL CHIP	47 5% 1/10W	X700	1-814-106-21	VIBRATOR, CRYSTAL	(24.576MHz)
R3133	1-216-805-11	METAL CHIP	47 5% 1/10W	X3051	1-814-266-11	VIBRATOR, CRYSTAL	(49.152MHz)
R3134	1-216-805-11	METAL CHIP	47 5% 1/10W	*****			
R3140	1-216-864-11	SHORT CHIP	0	Ⓜ	A-1762-831-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: US)
R3175	1-216-845-11	METAL CHIP	100K 5% 1/10W	Ⓜ	A-1762-832-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: CND)
R3176	1-216-845-11	METAL CHIP	100K 5% 1/10W	Ⓜ	A-1762-833-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: AEP)
R3177	1-216-845-11	METAL CHIP	100K 5% 1/10W	Ⓜ	A-1762-834-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E370: UK)
R3202	1-216-837-11	METAL CHIP	22K 5% 1/10W	Ⓜ	A-1762-842-A	MB-134 BOARD, COMPLETE (for SERVICE)	(T57)
R3203	1-216-791-11	METAL CHIP	3.3 5% 1/10W	Ⓜ	A-1762-844-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E570)
R3215	1-216-845-11	METAL CHIP	100K 5% 1/10W	Ⓜ	A-1762-848-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E870: CND)
R3216	1-216-845-11	METAL CHIP	100K 5% 1/10W	Ⓜ	A-1762-858-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E470)
R3217	1-216-845-11	METAL CHIP	100K 5% 1/10W	Ⓜ	A-1762-859-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E870: AEP)
R3228	1-216-821-11	METAL CHIP	1K 5% 1/10W	Ⓜ	A-1762-860-A	MB-134 BOARD, COMPLETE (for SERVICE)	(E870: UK)
R3231	1-216-805-11	METAL CHIP	47 5% 1/10W			*****	
R3232	1-216-805-11	METAL CHIP	47 5% 1/10W			< CAPACITOR >	
R3233	1-216-805-11	METAL CHIP	47 5% 1/10W	C102	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3234	1-216-805-11	METAL CHIP	47 5% 1/10W	C104	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3240	1-216-864-11	SHORT CHIP	0	C105	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3325	1-216-845-11	METAL CHIP	100K 5% 1/10W	C106	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3326	1-216-845-11	METAL CHIP	100K 5% 1/10W	C107	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3327	1-216-845-11	METAL CHIP	100K 5% 1/10W	C109	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3402	1-216-837-11	METAL CHIP	22K 5% 1/10W	C110	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3403	1-216-791-11	METAL CHIP	3.3 5% 1/10W	C111	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3424	1-216-821-11	METAL CHIP	1K 5% 1/10W	C112	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3425	1-216-845-11	METAL CHIP	100K 5% 1/10W	C113	1-112-777-11	CERAMIC CHIP	0.01uF 10% 25V
R3426	1-216-845-11	METAL CHIP	100K 5% 1/10W	C114	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3427	1-216-845-11	METAL CHIP	100K 5% 1/10W	C115	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3428	1-216-845-11	METAL CHIP	100K 5% 1/10W	C116	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3429	1-216-845-11	METAL CHIP	100K 5% 1/10W	C118	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3430	1-216-845-11	METAL CHIP	100K 5% 1/10W	C119	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3431	1-216-805-11	METAL CHIP	47 5% 1/10W	C120	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3432	1-216-805-11	METAL CHIP	47 5% 1/10W	C122	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3433	1-216-805-11	METAL CHIP	47 5% 1/10W	C123	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3434	1-216-805-11	METAL CHIP	47 5% 1/10W	C124	1-100-916-11	CERAMIC CHIP	0.1uF 10% 16V
R3440	1-216-864-11	SHORT CHIP	0				
R3550	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W				
R3551	1-216-845-11	METAL CHIP	100K 5% 1/10W				
R3552	1-216-837-11	METAL CHIP	22K 5% 1/10W				
R3553	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R3554	1-216-845-11	METAL CHIP	100K 5% 1/10W				
R3556	1-216-841-11	METAL CHIP	47K 5% 1/10W				
R3558	1-218-851-11	METAL CHIP	1.5K 0.5% 1/10W				

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C606	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1218	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C608	1-128-993-21	ELECT CHIP	22uF	20%	10V	C1305	1-117-681-11	ELECT CHIP	100uF	20%	16V
C609	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1326	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C610	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1361	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C613	1-128-394-11	ELECT CHIP	220uF	20%	10V	C1362	1-114-869-11	CERAMIC CHIP	2.2uF	10%	6.3V
C614	1-128-394-11	ELECT CHIP	220uF	20%	10V	C1363	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C619	1-100-966-91	CERAMIC CHIP	10uF	20%	10V	C1365	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C620	1-100-966-91	CERAMIC CHIP	10uF	20%	10V	C1366	1-114-869-11	CERAMIC CHIP	2.2uF	10%	6.3V
C701	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V	C1367	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C702	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1370	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C703	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1382	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C705	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1383	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C706	1-128-994-21	ELECT CHIP	47uF	20%	10V	C1384	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C707	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V	C1385	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C708	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V	C1386	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C713	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C1387	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C715	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C1388	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C716	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1389	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C717	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C1398	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C719	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1399	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C720	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C1400	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C721	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1409	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C805	1-164-852-11	CERAMIC CHIP	12PF	5%	50V	C1410	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C806	1-164-852-11	CERAMIC CHIP	12PF	5%	50V	C1413	1-114-869-11	CERAMIC CHIP	2.2uF	10%	6.3V
C809	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1414	1-100-905-11	CERAMIC CHIP	0.001uF	10%	50V
C810	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1415	1-114-869-11	CERAMIC CHIP	2.2uF	10%	6.3V
C815	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1417	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C927	1-114-130-11	CERAMIC CHIP	1uF	10%	6.3V	C1418	1-100-905-11	CERAMIC CHIP	0.001uF	10%	50V
C928	1-114-130-11	CERAMIC CHIP	1uF	10%	6.3V	C1421	1-114-869-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1001	1-128-994-21	ELECT CHIP	47uF	20%	10V	C1422	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1002	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1423	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1004	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1425	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1006	1-114-130-11	CERAMIC CHIP	1uF	10%	6.3V	C1426	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1008	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1427	1-114-869-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1009	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1429	1-100-905-11	CERAMIC CHIP	0.001uF	10%	50V
C1010	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1434	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1012	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1435	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C1014	1-128-994-21	ELECT CHIP	47uF	20%	10V	C1451	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C1015	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1452	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
C1016	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1454	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1017	1-128-994-21	ELECT CHIP	47uF	20%	10V	C1456	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1018	1-128-993-21	ELECT CHIP	22uF	20%	10V	C1457	1-117-681-11	ELECT CHIP	100uF	20%	16V
C1101	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1461	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C1102	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1462	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C1103	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1468	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1104	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1469	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1105	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1470	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1107	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1472	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C1108	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1473	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1109	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1474	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V
C1111	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C1475	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1201	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C1476	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1206	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1477	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1208	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1480	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1210	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V	C1481	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1213	1-112-777-11	CERAMIC CHIP	0.01uF	10%	25V	C1491	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1214	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V	C1493	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1215	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V	C1499	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1216	1-164-854-11	CERAMIC CHIP	15PF	5%	50V	C2300	1-100-916-11	CERAMIC CHIP	0.1uF	10%	16V
C1217	1-164-854-11	CERAMIC CHIP	15PF	5%	50V	C2308	1-114-214-81	CERAMIC CHIP	470PF	5%	50V

HBD-E370/E470/E570/E870/T57

MB-134

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C2309	1-114-214-81	CERAMIC CHIP 470PF 5%	50V			< FILTER >	
C2322	1-100-909-11	CERAMIC CHIP 10uF 10%	6.3V				
C2324	1-100-909-11	CERAMIC CHIP 10uF 10%	6.3V	FL301	1-234-939-21	FILTER, EMI REMOVAL (SMD)	
C2364	1-100-909-11	CERAMIC CHIP 10uF 10%	6.3V	FL302	1-234-939-21	FILTER, EMI REMOVAL (SMD)	
C2371	1-100-909-11	CERAMIC CHIP 10uF 10%	6.3V			< IC >	
C2400	1-117-681-11	ELECT CHIP 100uF 20%	16V				
C2401	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC101	(Not supplied)	IC CXD9983GG (E370: US/E470/E570/T57)	
C2402	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC101	(Not supplied)	IC CXD9984GG (E370: CND, AEP, UK/E870)	
C2403	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC104	(Not supplied)	IC K4T1G164QE-HCF8	
C2404	1-114-130-11	CERAMIC CHIP 1uF 10%	6.3V	IC105	(Not supplied)	IC K4T1G164QE-HCF8	
C2405	1-114-869-11	CERAMIC CHIP 2.2uF 10%	6.3V	IC204	(Not supplied)	IC K4T1G164QE-HCF8	
C2416	1-114-214-81	CERAMIC CHIP 470PF 5%	50V	IC205	(Not supplied)	IC K4T1G164QE-HCF8	
C2417	1-114-214-81	CERAMIC CHIP 470PF 5%	50V	IC303	6-709-932-01	IC MM3141CNRE	
C2418	1-112-775-11	CERAMIC CHIP 0.0022uF 10%	50V	IC307	(Not supplied)	IC MM3293DNRE	
C2419	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC308	6-714-889-01	IC MP2301ENE-LF-Z	
C2420	1-164-870-11	CERAMIC CHIP 68PF 5%	50V	IC309	6-714-911-01	IC TPS54325PWPR	
C2421	1-164-870-11	CERAMIC CHIP 68PF 5%	50V	IC310	6-714-911-01	IC TPS54325PWPR	
C2422	1-164-870-11	CERAMIC CHIP 68PF 5%	50V	IC311	(Not supplied)	IC BD3539NUX-TR	
C2432	1-112-777-11	CERAMIC CHIP 0.01uF 10%	25V	IC312	6-714-890-01	IC MM1855AHBE	
C2433	1-112-777-11	CERAMIC CHIP 0.01uF 10%	25V	IC501	(Not supplied)	IC K9GAG08U0D-PCB0T	
C2438	1-100-909-11	CERAMIC CHIP 10uF 10%	6.3V	IC502	(Not supplied)	IC MX25L1605DM2I-12G	
C2440	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC601	6-712-613-01	IC SI-3010KM-TLS	
C2450	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC602	6-712-613-01	IC SI-3010KM-TLS	
C2460	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC701	6-709-888-01	IC TC7WHU04FK (T5RSOYF)	
C2470	1-100-916-11	CERAMIC CHIP 0.1uF 10%	16V	IC704	6-702-302-01	IC TK11133CSCL-G	
C2481	1-114-553-11	CERAMIC CHIP 10uF 10%	16V	IC705	6-705-337-01	IC TK11150CSCL-G	
C2486	1-100-909-11	CERAMIC CHIP 10uF 10%	6.3V	IC1001	6-711-237-01	IC NJM2878F3-33 (TE2)	
C2491	1-114-553-11	CERAMIC CHIP 10uF 10%	16V	IC1002	6-714-112-01	IC NJM2828F3-05	
C2495	1-114-553-11	CERAMIC CHIP 10uF 10%	16V	IC1003	6-714-834-01	IC MM1797CVBE	
C2499	1-114-553-11	CERAMIC CHIP 10uF 10%	16V	IC1101	6-713-555-01	IC MF1341S2161	
		< CONNECTOR >		IC1201	6-712-663-11	IC LAN8700C-AEZG-CTI	
CN303	1-766-383-21	PIN, CONNECTOR (1.5mm) (SMD) 12P		IC1451	6-713-929-01	IC BD35630HFV-TR	
CN601	1-573-768-21	PIN, CONNECTOR (1.5mm) (SMD) 5P		IC2301	6-714-902-01	IC TPIC1391DBTRG4	
CN602	1-573-768-61	PIN, CONNECTOR (1.5mm) (SMD) 5P		IC2401	6-714-901-01	IC TPIC1405DFDRG4	
CN701	1-820-735-31	HDMI CONNECTOR (HDMI ARC OUT)				< JACK >	
CN901	1-779-332-51	CONNECTOR, FFC/FPC 16P		J904	1-822-993-11	JACK, PIN (VIDEO OUT, COMPONENT VIDEO OUT)	
CN902	1-779-333-51	CONNECTOR, FFC/FPC 18P				< COIL >	
CN1102	1-573-806-21	PIN, CONNECTOR (1.5mm) (SMD) 6P		L301	1-457-735-11	INDUCTOR 10uH	
CN1201	1-819-875-31	ETHERNET CONNECTOR (8P) (LAN (100))		L302	1-400-789-21	INDUCTOR 2.2uH	
CN1401	1-822-601-51	CONNECTOR, FFC/FPC (ZIF) 45P		L303	1-457-771-11	INDUCTOR 2.2uH	
CN1505	1-794-341-51	CONNECTOR, FFC/FPC 27P		L304	1-457-771-11	INDUCTOR 2.2uH	
CN2460	1-820-112-51	CONNECTOR, FFC/FPC 9P		L305	1-400-789-21	INDUCTOR 2.2uH	
CN2470	1-794-362-51	CONNECTOR, FFC/FPC 5P		L306	1-400-789-21	INDUCTOR 2.2uH	
		< DIODE >		L603	1-414-840-21	INDUCTOR 10nH	
D302	6-502-964-01	DIODE DZ2J047M0L		L604	1-414-840-21	INDUCTOR 10nH	
D303	6-502-248-01	DIODE KDZTR3.9B		L605	1-414-840-21	INDUCTOR 10nH	
D304	6-502-248-01	DIODE KDZTR3.9B		L606	1-414-840-21	INDUCTOR 10nH	
D601	6-502-961-01	DIODE DA2J10100L		L607	1-457-223-11	COMMON MODE CHOKE COIL	
D602	6-502-961-01	DIODE DA2J10100L		L608	1-457-223-11	COMMON MODE CHOKE COIL	
D603	6-500-701-01	DIODE PGB1010603NR		L1201	1-457-223-11	COMMON MODE CHOKE COIL	
D604	6-500-701-01	DIODE PGB1010603NR		L1202	1-457-223-11	COMMON MODE CHOKE COIL	
D605	6-500-701-01	DIODE PGB1010603NR		L2322	1-481-551-21	INDUCTOR 1.5uH	
D606	6-500-701-01	DIODE PGB1010603NR				< FUSE >	
		< RESISTOR >		L2324	1-481-551-21	INDUCTOR 1.5uH	
FB2300	1-244-161-81	METAL CHIP 2.2 5%	1/16W				
FB2403	1-244-161-81	METAL CHIP 2.2 5%	1/16W				
FB2481	1-216-864-11	SHORT CHIP 0		△ PS301	1-523-094-31	FUSE (2A/50V)	

Note: IC101, IC104, IC105, IC204, IC205, IC307, IC311, IC501 and IC502 on the MB-134 board cannot exchange with single. When these parts are damaged, exchange the entire mounted board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ PS302	1-523-095-31	FUSE (3.15A/32V)		R529	1-218-965-11	METAL CHIP 10K	5% 1/16W
△ PS303	1-523-074-31	FUSE (1A/32V)		R530	1-218-965-11	METAL CHIP 10K	5% 1/16W
△ PS304	1-523-095-31	FUSE (3.15A/32V)		R531	1-218-990-81	SHORT CHIP 0	
		< CONTACT TERMINAL >		R601	1-218-864-11	METAL CHIP 5.1K	0.5% 1/10W
				R606	1-218-990-81	SHORT CHIP 0	
PT101	1-780-729-12	CONTACT TERMINAL		R610	1-208-691-11	METAL CHIP 2.2K	0.5% 1/16W
PT103	1-780-729-12	CONTACT TERMINAL		R611	1-208-721-11	METAL CHIP 39K	0.5% 1/16W
PT104	1-780-729-12	CONTACT TERMINAL		R612	1-208-911-11	METAL CHIP 10K	0.5% 1/16W
PT105	1-780-729-12	CONTACT TERMINAL		R613	1-208-691-11	METAL CHIP 2.2K	0.5% 1/16W
PT106	1-780-729-12	CONTACT TERMINAL		R614	1-208-721-11	METAL CHIP 39K	0.5% 1/16W
				R615	1-208-911-11	METAL CHIP 10K	0.5% 1/16W
PT107	1-780-638-22	CONTACT TERMINAL		R618	1-218-965-11	METAL CHIP 10K	5% 1/16W
		< TRANSISTOR >		R619	1-218-965-11	METAL CHIP 10K	5% 1/16W
				R620	1-216-295-91	SHORT CHIP 0	
Q301	8-729-028-96	TRANSISTOR DTC114EUA-T106		R701	1-218-965-11	METAL CHIP 10K	5% 1/16W
Q302	6-550-516-01	TRANSISTOR FDC642P					
Q303	8-729-028-96	TRANSISTOR DTC114EUA-T106		R702	1-208-683-11	METAL CHIP 1K	0.5% 1/16W
Q702	6-551-714-01	FET INK0001AC1-T112A-1		R703	1-208-687-11	METAL CHIP 1.5K	0.5% 1/16W
		< RESISTOR >		R706	1-218-970-11	METAL CHIP 27K	5% 1/16W
				R709	1-218-990-81	SHORT CHIP 0	
R101	1-218-941-11	METAL CHIP 100	5% 1/16W	R710	1-218-990-81	SHORT CHIP 0	
R106	1-218-941-81	METAL CHIP 100	5% 1/16W	R711	1-218-981-91	METAL CHIP 220K	5% 1/16W
R107	1-218-941-81	METAL CHIP 100	5% 1/16W	R712	1-218-990-81	SHORT CHIP 0	
R201	1-218-941-11	METAL CHIP 100	5% 1/16W	R713	1-218-949-11	METAL CHIP 470	5% 1/16W
R206	1-218-941-81	METAL CHIP 100	5% 1/16W	R714	1-218-990-81	SHORT CHIP 0	
				R715	1-218-973-11	METAL CHIP 47K	5% 1/16W
R207	1-218-941-81	METAL CHIP 100	5% 1/16W	R717	1-218-939-11	METAL CHIP 68	5% 1/16W
R305	1-218-953-11	METAL CHIP 1K	5% 1/16W	R718	1-218-939-11	METAL CHIP 68	5% 1/16W
R306	1-218-953-11	METAL CHIP 1K	5% 1/16W	R734	1-218-967-11	METAL CHIP 15K	5% 1/16W
R312	1-208-699-11	METAL CHIP 4.7K	0.5% 1/16W	R735	1-218-956-11	METAL CHIP 1.8K	5% 1/16W
R318	1-218-953-11	METAL CHIP 1K	5% 1/16W	R736	1-218-956-11	METAL CHIP 1.8K	5% 1/16W
				R739	1-218-967-11	METAL CHIP 15K	5% 1/16W
R319	1-218-990-81	SHORT CHIP 0		R740	1-216-864-11	SHORT CHIP 0	
R320	1-218-990-81	SHORT CHIP 0		R741	1-216-864-11	SHORT CHIP 0	
R321	1-208-923-11	METAL CHIP 33K	0.5% 1/16W	R743	1-216-864-11	SHORT CHIP 0	
R322	1-208-909-11	METAL CHIP 8.2K	0.5% 1/16W	R744	1-216-864-11	SHORT CHIP 0	
R323	1-208-677-11	METAL CHIP 560	0.5% 1/16W				
				R749	1-218-973-11	METAL CHIP 47K	5% 1/16W
R327	1-218-953-11	METAL CHIP 1K	5% 1/16W	R752	1-218-953-11	METAL CHIP 1K	5% 1/16W
R329	1-218-953-11	METAL CHIP 1K	5% 1/16W	R805	1-218-977-11	METAL CHIP 100K	5% 1/16W
R330	1-208-909-11	METAL CHIP 8.2K	0.5% 1/16W	R806	1-218-951-11	METAL CHIP 680	5% 1/16W
R331	1-208-713-11	METAL CHIP 18K	0.5% 1/16W	R807	1-218-941-11	METAL CHIP 100	5% 1/16W
R332	1-208-663-11	METAL CHIP 150	0.5% 1/16W				
				R808	1-208-709-11	METAL CHIP 12K	0.5% 1/16W
R333	1-208-697-11	METAL CHIP 3.9K	0.5% 1/16W	R903	1-218-990-81	SHORT CHIP 0	
R334	1-218-958-11	METAL CHIP 2.7K	5% 1/16W	R904	1-218-990-81	SHORT CHIP 0	
R335	1-208-661-11	METAL CHIP 120	0.5% 1/16W	R905	1-218-990-81	SHORT CHIP 0	
R343	1-218-953-11	METAL CHIP 1K	5% 1/16W	R906	1-218-937-11	METAL CHIP 47	5% 1/16W
R355	1-218-945-11	METAL CHIP 220	5% 1/16W				
				R907	1-218-937-11	METAL CHIP 47	5% 1/16W
R362	1-216-825-11	METAL CHIP 2.2K	5% 1/10W	R908	1-218-937-11	METAL CHIP 47	5% 1/16W
R363	1-216-825-11	METAL CHIP 2.2K	5% 1/10W	R909	1-218-937-11	METAL CHIP 47	5% 1/16W
R374	1-218-971-11	METAL CHIP 33K	5% 1/16W	R910	1-218-990-81	SHORT CHIP 0	
R375	1-218-975-11	METAL CHIP 68K	5% 1/16W	R911	1-218-990-81	SHORT CHIP 0	
R376	1-218-953-11	METAL CHIP 1K	5% 1/16W				
				R912	1-218-937-11	METAL CHIP 47	5% 1/16W
R379	1-216-864-11	SHORT CHIP 0		R913	1-218-990-81	SHORT CHIP 0	
R401	1-216-295-91	SHORT CHIP 0		R914	1-218-990-81	SHORT CHIP 0	
R402	1-216-295-91	SHORT CHIP 0		R916	1-218-990-81	SHORT CHIP 0	
R403	1-218-952-11	METAL CHIP 820	5% 1/16W	R917	1-218-990-81	SHORT CHIP 0	
R404	1-218-977-11	METAL CHIP 100K	5% 1/16W				
				R918	1-218-990-81	SHORT CHIP 0	
R516	1-218-990-81	SHORT CHIP 0		R919	1-218-990-81	SHORT CHIP 0	
R523	1-218-959-11	METAL CHIP 3.3K	5% 1/16W	R920	1-218-990-81	SHORT CHIP 0	
R525	1-218-990-81	SHORT CHIP 0		R921	1-218-990-81	SHORT CHIP 0	
R526	1-218-977-11	METAL CHIP 100K	5% 1/16W	R922	1-218-990-81	SHORT CHIP 0	
R528	1-218-937-11	METAL CHIP 47	5% 1/16W				

HBD-E370/E470/E570/E870/T57

MB-134

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R923	1-218-990-81	SHORT CHIP	0	R1147	1-218-965-11	METAL CHIP	10K 5% 1/16W
R924	1-218-990-81	SHORT CHIP	0	R1149	1-218-965-11	METAL CHIP	10K 5% 1/16W
R925	1-218-990-81	SHORT CHIP	0	R1152	1-218-961-11	METAL CHIP	4.7K 5% 1/16W
R926	1-218-990-81	SHORT CHIP	0	R1153	1-218-961-11	METAL CHIP	4.7K 5% 1/16W
R927	1-218-990-81	SHORT CHIP	0	R1156	1-218-941-81	METAL CHIP	100 5% 1/16W
R928	1-218-990-81	SHORT CHIP	0	R1157	1-218-990-81	SHORT CHIP	0
R929	1-218-933-11	METAL CHIP	22 5% 1/16W	R1162	1-218-937-11	METAL CHIP	47 5% 1/16W
R930	1-218-933-11	METAL CHIP	22 5% 1/16W	R1163	1-218-937-11	METAL CHIP	47 5% 1/16W
R931	1-218-933-11	METAL CHIP	22 5% 1/16W	R1164	1-218-965-11	METAL CHIP	10K 5% 1/16W
R932	1-218-937-11	METAL CHIP	47 5% 1/16W	R1165	1-218-941-81	METAL CHIP	100 5% 1/16W
R933	1-218-990-81	SHORT CHIP	0	R1169	1-218-965-11	METAL CHIP	10K 5% 1/16W
R934	1-218-990-81	SHORT CHIP	0	R1189	1-218-977-11	METAL CHIP	100K 5% 1/16W
R935	1-218-933-11	METAL CHIP	22 5% 1/16W	R1190	1-218-941-81	METAL CHIP	100 5% 1/16W
R936	1-218-965-11	METAL CHIP	10K 5% 1/16W	R1191	1-216-864-11	SHORT CHIP	0
R939	1-218-990-81	SHORT CHIP	0	R1201	1-218-929-11	METAL CHIP	10 5% 1/16W
R940	1-218-933-11	METAL CHIP	22 5% 1/16W	R1204	1-245-567-81	METAL CHIP	49.9 0.5% 1/16W
R1005	1-208-691-11	METAL CHIP	2.2K 0.5% 1/16W	R1205	1-245-567-81	METAL CHIP	49.9 0.5% 1/16W
R1006	1-218-990-81	SHORT CHIP	0	R1206	1-245-567-81	METAL CHIP	49.9 0.5% 1/16W
R1007	1-208-663-11	METAL CHIP	150 0.5% 1/16W	R1207	1-245-567-81	METAL CHIP	49.9 0.5% 1/16W
R1008	1-208-663-11	METAL CHIP	150 0.5% 1/16W	R1208	1-208-692-11	METAL CHIP	2.4K 0.5% 1/16W
R1009	1-208-663-11	METAL CHIP	150 0.5% 1/16W	R1209	1-208-911-11	METAL CHIP	10K 0.5% 1/16W
R1010	1-208-663-11	METAL CHIP	150 0.5% 1/16W	R1210	1-218-941-81	METAL CHIP	100 5% 1/16W
R1011	1-208-663-11	METAL CHIP	150 0.5% 1/16W	R1213	1-218-941-81	METAL CHIP	100 5% 1/16W
R1012	1-208-663-11	METAL CHIP	150 0.5% 1/16W	R1214	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1013	1-218-953-11	METAL CHIP	1K 5% 1/16W	R1215	1-218-941-81	METAL CHIP	100 5% 1/16W
R1016	1-218-953-11	METAL CHIP	1K 5% 1/16W	R1216	1-218-941-81	METAL CHIP	100 5% 1/16W
R1028	1-220-169-11	METAL CHIP	75 5% 1/16W	R1217	1-218-941-81	METAL CHIP	100 5% 1/16W
R1029	1-220-169-11	METAL CHIP	75 5% 1/16W	R1218	1-218-941-81	METAL CHIP	100 5% 1/16W
R1030	1-220-169-11	METAL CHIP	75 5% 1/16W	R1219	1-218-955-11	METAL CHIP	1.5K 5% 1/16W
R1031	1-220-169-11	METAL CHIP	75 5% 1/16W	R1220	1-218-941-81	METAL CHIP	100 5% 1/16W
R1032	1-218-990-81	SHORT CHIP	0	R1226	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1033	1-218-990-81	SHORT CHIP	0	R1227	1-218-977-11	METAL CHIP	100K 5% 1/16W
R1034	1-218-990-81	SHORT CHIP	0	R1231	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1035	1-218-990-81	SHORT CHIP	0	R1232	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1101	1-218-990-81	SHORT CHIP	0	R1247	1-218-941-81	METAL CHIP	100 5% 1/16W
R1102	1-218-990-81	SHORT CHIP	0	R1302	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1103	1-218-990-81	SHORT CHIP	0	R1308	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1107	1-218-990-81	SHORT CHIP	0	R1370	1-218-953-11	METAL CHIP	1K 5% 1/16W
R1110	1-218-990-81	SHORT CHIP	0	R1371	1-218-929-11	METAL CHIP	10 5% 1/16W
R1115	1-218-990-81	SHORT CHIP	0	R1372	1-218-957-11	METAL CHIP	2.2K 5% 1/16W
R1116	1-218-990-81	SHORT CHIP	0	R1410	1-218-957-11	METAL CHIP	2.2K 5% 1/16W
R1117	1-218-990-81	SHORT CHIP	0	R1412	1-218-961-11	METAL CHIP	4.7K 5% 1/16W
R1118	1-218-990-81	SHORT CHIP	0	R1429	1-208-911-11	METAL CHIP	10K 0.5% 1/16W
R1119	1-218-937-11	METAL CHIP	47 5% 1/16W	R1435	1-218-929-11	METAL CHIP	10 5% 1/16W
R1120	1-218-965-11	METAL CHIP	10K 5% 1/16W	R1452	1-208-933-11	METAL CHIP	82K 0.5% 1/16W
R1121	1-218-941-81	METAL CHIP	100 5% 1/16W	R1453	1-208-956-81	METAL CHIP	750K 0.5% 1/16W
R1122	1-218-990-81	SHORT CHIP	0	R1454	1-218-973-11	METAL CHIP	47K 5% 1/16W
R1123	1-218-990-81	SHORT CHIP	0	R1470	1-208-889-11	METAL CHIP	1.2K 0.5% 1/16W
R1124	1-218-937-11	METAL CHIP	47 5% 1/16W	R1471	1-208-715-11	METAL CHIP	22K 0.5% 1/16W
R1125	1-218-990-81	SHORT CHIP	0	R1503	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1127	1-218-941-81	METAL CHIP	100 5% 1/16W	R1524	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1131	1-218-990-81	SHORT CHIP	0	R1535	1-218-959-11	METAL CHIP	3.3K 5% 1/16W
R1132	1-218-990-81	SHORT CHIP	0	R1536	1-218-977-11	METAL CHIP	100K 5% 1/16W
R1133	1-218-990-81	SHORT CHIP	0	R1540	1-218-990-81	SHORT CHIP	0
R1134	1-218-990-81	SHORT CHIP	0	R1543	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1135	1-218-990-81	SHORT CHIP	0	R1546	1-218-965-11	METAL CHIP	10K 5% 1/16W
R1136	1-218-990-81	SHORT CHIP	0	R1551	1-218-977-11	METAL CHIP	100K 5% 1/16W
R1138	1-218-965-11	METAL CHIP	10K 5% 1/16W	R1552	1-218-977-11	METAL CHIP	100K 5% 1/16W
R1139	1-218-965-11	METAL CHIP	10K 5% 1/16W	R1554	1-218-990-81	SHORT CHIP	0
R1141	1-218-990-81	SHORT CHIP	0	R1562	1-218-977-11	METAL CHIP	100K 5% 1/16W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1563	1-218-977-11	METAL CHIP	100K 5% 1/16W	RB205	1-234-372-11	RES, NETWORK 100 (1005X4)	
R1565	1-218-990-81	SHORT CHIP	0	RB206	1-234-372-11	RES, NETWORK 100 (1005X4)	
R1566	1-218-990-81	SHORT CHIP	0	RB1101	1-234-378-21	RES, NETWORK 10K (1005X4)	
R1567	1-218-990-81	SHORT CHIP	0	RB1102	1-234-378-21	RES, NETWORK 10K (1005X4)	
R1568	1-218-990-81	SHORT CHIP	0	RB1103	1-234-378-21	RES, NETWORK 10K (1005X4)	
R1569	1-218-990-81	SHORT CHIP	0	RB1201	1-234-372-11	RES, NETWORK 100 (1005X4)	
R1570	1-218-990-81	SHORT CHIP	0	RB1503	1-234-372-11	RES, NETWORK 100 (1005X4)	
R1571	1-218-990-81	SHORT CHIP	0			< THERMISTOR >	
R1572	1-218-990-81	SHORT CHIP	0	TH1501	1-804-949-11	THERMISTOR, NTC (SMD)	
R1573	1-218-990-81	SHORT CHIP	0			< VIBRATOR >	
R1574	1-218-990-81	SHORT CHIP	0	X401	1-814-278-11	VIBRATOR, CRYSTAL (27MHz)	
R1575	1-218-990-81	SHORT CHIP	0	X802	1-814-242-11	VIBRATOR, CRYSTAL (25MHz)	
R1576	1-218-990-81	SHORT CHIP	0	X1201	1-814-242-11	VIBRATOR, CRYSTAL (25MHz)	
R1577	1-218-990-81	SHORT CHIP	0	*****			
R1578	1-218-990-81	SHORT CHIP	0			P-KEY BOARD	
R1579	1-218-990-81	SHORT CHIP	0			*****	
R1580	1-218-990-81	SHORT CHIP	0			< CAPACITOR >	
R1581	1-218-990-81	SHORT CHIP	0	C750	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
R1582	1-218-990-81	SHORT CHIP	0			< CONNECTOR >	
R1584	1-218-990-81	SHORT CHIP	0	* CN750	1-580-055-21	PIN, CONNECTOR (SMD) 2P	
R1585	1-218-990-81	SHORT CHIP	0			< RESISTOR >	
R1586	1-218-941-81	METAL CHIP	100 5% 1/16W	R750	1-216-809-11	METAL CHIP 100 5% 1/10W	
R1598	1-218-990-81	SHORT CHIP	0			< SWITCH >	
R1609	1-218-977-11	METAL CHIP	100K 5% 1/16W	S750	1-786-650-21	SWITCH, TACTILE (I/II)	
R1611	1-218-977-11	METAL CHIP	100K 5% 1/16W	*****			
R1612	1-218-977-11	METAL CHIP	100K 5% 1/16W	A-1745-451-A	POWER BOARD, COMPLETE (E370: AEP, UK/E870: AEP, UK)		
R1613	1-218-977-11	METAL CHIP	100K 5% 1/16W	A-1745-455-A	POWER BOARD, COMPLETE (EXCEPT E370: AEP, UK/E870: AEP, UK)		
R2307	1-218-973-11	METAL CHIP	47K 5% 1/16W	*****			
R2308	1-218-969-11	METAL CHIP	22K 5% 1/16W	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3		
R2309	1-218-969-11	METAL CHIP	22K 5% 1/16W			< CAPACITOR >	
R2411	1-218-971-11	METAL CHIP	33K 5% 1/16W	△ C901	1-114-594-21	FILM 0.22uF 10% 310V	
R2412	1-218-971-11	METAL CHIP	33K 5% 1/16W	△ C902	1-114-594-21	FILM 0.22uF 10% 310V	
R2416	1-208-720-11	METAL CHIP	36K 0.5% 1/16W	(E370: AEP, UK/E870: AEP, UK)			
R2417	1-208-720-11	METAL CHIP	36K 0.5% 1/16W	△ C902	1-116-397-21	FILM 0.33uF 10% 310V	
R2418	1-218-965-11	METAL CHIP	10K 5% 1/16W	(EXCEPT E370: AEP, UK/E870: AEP, UK)			
R2419	1-218-990-81	SHORT CHIP	0	△ C903	1-112-330-11	ELECT (BLOCK) 1000uF 20% 200V	
R2420	1-220-203-11	METAL CHIP	51K 5% 1/16W	(EXCEPT E370: AEP, UK/E870: AEP, UK)			
R2421	1-220-206-11	METAL CHIP	91K 5% 1/16W	△ C903	1-112-332-11	ELECT (BLOCK) 330uF 20% 400V	
R2422	1-220-206-11	METAL CHIP	91K 5% 1/16W	(E370: AEP, UK/E870: AEP, UK)			
R2442	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W	△ C905	1-116-392-11	FILM 0.01uF 5% 400V	
R2444	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W	(EXCEPT E370: AEP, UK/E870: AEP, UK)			
R2446	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W	△ C905	1-116-393-11	FILM 0.0033uF 5% 400V	
R2447	1-248-476-11	RES-CHIP	0.16 1% 1/3W	(E370: AEP, UK/E870: AEP, UK)			
R2483	1-218-990-81	SHORT CHIP	0	△ C906	1-117-815-11	FILM 1000PF 3% 1.5KV	
R2487	1-218-990-81	SHORT CHIP	0	(E370: AEP, UK/E870: AEP, UK)			
R2492	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W	△ C907	1-162-964-91	CERAMIC CHIP 0.001uF 10% 50V	
R2494	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W	(E370: AEP, UK/E870: AEP, UK)			
R2496	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W	△ C907	1-162-965-91	CERAMIC CHIP 0.0015uF 10% 50V	
		< COMPOSITION CIRCUIT BLOCK >		(EXCEPT E370: AEP, UK/E870: AEP, UK)			
RB101	1-234-372-11	RES, NETWORK	100 (1005X4)	△ C908	1-107-909-91	ELECT 47uF 20% 50V	
RB102	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB103	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB104	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB105	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB106	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB201	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB202	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB203	1-234-372-11	RES, NETWORK	100 (1005X4)				
RB204	1-234-372-11	RES, NETWORK	100 (1005X4)				

Note: When the POWER board is replaced, spread the compound referring to “NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD” on servicing notes (page 9).

HBD-E370/E470/E570/E870/T57

POWER

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark			
△ C909	1-162-960-91	CERAMIC CHIP	220PF	10%	50V	CN904	1-785-102-11	PIN, CONNECTOR (3.96mm PITCH) 4P				
△ C910	1-126-965-91	ELECT	22uF	20%	50V	< DIODE >						
△ C916	1-116-078-11	CERAMIC CHIP	1uF	10%	50V							
△ C918	1-112-887-51	CERAMIC	0.01uF	20%	250V							
△ C920	1-112-887-51	CERAMIC	0.01uF	20%	250V							
△ C921	1-117-220-81	CERAMIC	150PF	5%	2KV	△ D901	8-719-082-57	DIODE D5SBA60F01				
△ C922	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V	△ D902	8-719-063-74	DIODE D1NL20U-TR2				
△ C923	1-164-390-91	CERAMIC CHIP	330PF	5%	50V	△ D906	6-501-817-01	DIODE MA2J1110GLS0				
△ C924	1-116-393-11	FILM	0.0033uF	5%	400V	△ D907	6-501-817-01	DIODE MA2J1110GLS0				
△ C925	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	△ D908	6-501-817-01	DIODE MA2J1110GLS0				
△ C926	1-107-930-91	ELECT	22uF	20%	100V	△ D909	6-501-817-01	DIODE MA2J1110GLS0				
C927	1-112-223-11	ELECT	3300uF	20%	10V	△ D910	6-501-817-01	DIODE MA2J1110GLS0				
C928	1-112-232-11	ELECT	2700uF	20%	16V	△ D913	6-500-241-01	DIODE SARS03				
C929	1-112-241-21	ELECT	1000uF	20%	25V	△ D914	6-501-817-01	DIODE MA2J1110GLS0				
C932	1-114-994-11	ELECT	2200uF	20%	35V	D931	6-501-849-01	DIODE FMX-22SL				
C933	1-114-994-11	ELECT	2200uF	20%	35V	D942	6-502-518-01	DIODE 50PQSA065-FA9				
C934	1-112-831-31	ELECT	2200uF	20%	35V	D943	8-719-080-53	DIODE RK36LF-B3				
C935	1-114-323-11	CERAMIC CHIP	0.01uF	10%	50V	△ D946	6-502-234-01	DIODE EG01C LF-F7				
C936	1-114-323-11	CERAMIC CHIP	0.01uF	10%	50V	D954	6-500-288-11	DIODE EK19LF-F7				
C937	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V	D955	6-500-288-11	DIODE EK19LF-F7				
△ C938	1-112-869-51	CERAMIC	470PF	10%	250V	△ DZ901	6-501-782-01	DIODE MAZ8180GMLS0				
C939	1-136-165-00	FILM	0.1uF	5%	50V	△ DZ902	6-502-231-01	DIODE MAZ8220GLLS0				
C940	1-112-228-21	ELECT	1000uF	20%	16V	△ DZ903	6-501-787-01	DIODE MAZ8220GMLS0				
C942	1-126-941-11	ELECT	470uF	20%	25V	△ DZ905	6-501-792-01	DIODE MAZ8300GMLS0	(E370: AEP, UK/E870: AEP, UK)			
C943	1-126-934-11	ELECT	220uF	20%	16V	△ DZ905	8-719-083-71	DIODE UDZSUSTE-1730B	(EXCEPT E370: AEP, UK/E870: AEP, UK)			
C943	1-126-935-11	ELECT	470uF	20%	16V	△ DZ915	6-501-760-01	DIODE MAZ8100GMLS0				
C950	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	△ DZ951	8-719-083-71	DIODE UDZSUSTE-1730B				
C951	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	△ DZ954	8-719-083-71	DIODE UDZSUSTE-1730B	(E370: AEP, UK/E870: AEP, UK)			
△ C963	1-112-869-51	CERAMIC	470PF	10%	250V	< FUSE HOLDER >						
(E370: AEP, UK/E870: AEP, UK)												
△ C963	1-112-870-51	CERAMIC	0.001uF	20%	250V							
(EXCEPT E370: AEP, UK/E870: AEP, UK)												
△ C964	1-112-869-51	CERAMIC	470PF	10%	250V	< FUSIBLE >						
(E370: AEP, UK/E870: AEP, UK)												
△ C964	1-112-870-51	CERAMIC	0.001uF	20%	250V							
(EXCEPT E370: AEP, UK/E870: AEP, UK)												
C971	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	△ FR929	1-246-373-11	FUSIBLE	1	10%	1/2W	F
C972	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	< IC >						
C973	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V							
C975	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V							
△ C980	1-117-828-11	FILM	3300PF	3%	1.5KV							
(EXCEPT E370: AEP, UK/E870: AEP, UK)						△ IC901	6-707-741-01	IC STR-F6138-LF1352	(EXCEPT E370: AEP, UK/E870: AEP, UK)			
△ C981	1-162-968-91	CERAMIC CHIP	0.0047uF	10%	50V	△ IC901	6-707-742-01	IC STR-F6168-LF1352	(E370: AEP, UK/E870: AEP, UK)			
C983	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V	△ IC921	6-714-671-01	IC STR-Y6763				
C984	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	IC923	6-711-947-01	IC MM1431CURE				
C987	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	IC932	6-711-947-01	IC MM1431CURE				
C990	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	IC941	6-712-613-01	IC SI-3010KM-TLS				
C991	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	< COIL >						
C992	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V							
C993	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V							
△ C994	1-112-869-51	CERAMIC	470PF	10%	250V							
(E370: AEP, UK/E870: AEP, UK)						L931	1-457-878-65	INDUCTOR	2.2uH			
C997	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	L954	1-457-578-11	INDUCTOR	10uH			
(E370: AEP, UK/E870: AEP, UK)						L956	1-457-578-11	INDUCTOR	10uH			
C997	1-116-078-11	CERAMIC CHIP	1uF	10%	50V	L963	1-457-725-11	INDUCTOR	4.7uH			
(EXCEPT E370: AEP, UK/E870: AEP, UK)						<div style="border: 1px solid black; padding: 5px;"> <p>Note 1: When D913 and D931 on the POWER board are replaced, spread the compound referring to "NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD" on servicing notes (page 9).</p> </div>						
△ C998	1-162-968-91	CERAMIC CHIP	0.0047uF	10%	50V							
< CONNECTOR >												
△ CN901	1-564-321-11	PIN, CONNECTOR (3.96mm PITCH) 2P										
<div style="border: 1px solid black; padding: 5px;"> <p>Note 2: When IC901 and IC921 on the POWER board are replaced, spread the compound referring to "NOTE OF REPLACING THE D913, D931, IC901 AND IC921 ON THE POWER BOARD AND THE COMPLETE POWER BOARD" on servicing notes (page 9).</p> </div>												

POWER **REG**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L964	1-457-725-11	INDUCTOR 4.7uH		R933	1-216-821-11	METAL CHIP 1K 5% 1/10W	
L967	1-469-525-91	INDUCTOR 10uH		R934	1-216-821-11	METAL CHIP 1K 5% 1/10W	
		< LINE FILTER >		R935	1-216-821-11	METAL CHIP 1K 5% 1/10W	
△ LF901	1-457-054-21	COIL, LINE FILTER (E370: AEP, UK/E870: AEP, UK)		R936	1-216-853-11	METAL CHIP 470K 5% 1/10W	
△ LF901	1-457-449-11	COIL, LINE FILTER (EXCEPT E370: AEP, UK/E870: AEP, UK)		R937	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
△ LF902	1-457-054-21	COIL, LINE FILTER (E370: AEP, UK/E870: AEP, UK)		R938	1-218-847-11	METAL CHIP 1K 0.5% 1/10W	
△ LF902	1-457-449-11	COIL, LINE FILTER (EXCEPT E370: AEP, UK/E870: AEP, UK)		R939	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
		< PHOTO COUPLER >		R940	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
△ PC901	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R941	1-218-895-11	METAL CHIP 100K 0.5% 1/10W	
△ PC902	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R942	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
△ PC903	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R945	1-216-837-11	METAL CHIP 22K 5% 1/10W	
		< TRANSISTOR >		R946	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
△ Q901	8-729-231-15	TRANSISTOR 2SA1015TP-YGR		R949	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
△ Q922	6-550-702-01	TRANSISTOR 2SC3243-TP-E		△ R951	1-218-875-91	METAL CHIP 15K 0.5% 1/10W	
Q943	8-729-029-14	TRANSISTOR DTC144EUA-T106		R954	1-218-861-11	METAL CHIP 3.9K 0.5% 1/10W	
Q949	8-729-620-13	TRANSISTOR 2SC4154TP-1EF		R955	1-216-821-11	METAL CHIP 1K 5% 1/10W	
Q950	8-729-029-14	TRANSISTOR DTC144EUA-T106		R956	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q969	6-551-699-01	TRANSISTOR ISA1602AM1TP-1EF		R959	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
		< RESISTOR >		R963	1-218-839-11	METAL CHIP 470 0.5% 1/10W	
△ R901	1-219-759-51	METAL 1M 5% 1/2W F (EXCEPT E370: AEP, UK/E870: AEP, UK)		R965	1-218-863-11	METAL CHIP 4.7K 0.5% 1/10W	
△ R901	1-240-938-51	METAL 1.5M 5% 0.5W F (E370: AEP, UK/E870: AEP, UK)		R966	1-216-821-11	METAL CHIP 1K 5% 1/10W	
△ R903	1-250-297-65	METAL OXIDE 100K 5% 3W F (E370: AEP, UK/E870: AEP, UK)		R967	1-216-821-11	METAL CHIP 1K 5% 1/10W	
△ R903	1-250-299-65	METAL OXIDE 33K 5% 3W F (EXCEPT E370: AEP, UK/E870: AEP, UK)		R972	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
△ R904	1-250-297-65	METAL OXIDE 100K 5% 3W F (E370: AEP, UK/E870: AEP, UK)		R976	1-216-833-11	METAL CHIP 10K 5% 1/10W	
△ R904	1-250-299-65	METAL OXIDE 33K 5% 3W F (EXCEPT E370: AEP, UK/E870: AEP, UK)		△ R978	1-216-829-91	METAL CHIP 4.7K 5% 1/10W	
△ R905	1-216-797-91	METAL CHIP 10 5% 1/10W		R979	1-216-841-11	METAL CHIP 47K 5% 1/10W	
△ R906	1-216-827-91	METAL CHIP 3.3K 5% 1/10W		△ R992	1-216-793-91	METAL CHIP 4.7 5% 1/10W	
△ R907	1-216-833-91	METAL CHIP 10K 5% 1/10W		R998	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
△ R908	1-216-829-91	METAL CHIP 4.7K 5% 1/10W		R999	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
△ R909	1-216-833-91	METAL CHIP 10K 5% 1/10W				< TRANSFORMER >	
△ R910	1-216-825-91	METAL CHIP 2.2K 5% 1/10W		△ T901	1-443-649-11	TRANSFORMER, CONVERTER (EXCEPT E370: AEP, UK/E870: AEP, UK)	
△ R911	1-216-813-91	METAL CHIP 220 5% 1/10W		△ T901	1-443-874-11	TRANSFORMER, CONVERTER (E370: AEP, UK/E870: AEP, UK)	
△ R912	1-216-363-61	METAL OXIDE 0.33 5% 2W F (E370: AEP, UK/E870: AEP, UK)		△ T903	1-445-320-11	TRANSFORMER, CONVERTER	
△ R914	1-220-891-11	METAL 0.1 10% 5W F (E370: AEP, UK/E870: AEP, UK)				< THERMISTOR >	
△ R914	1-248-180-11	METAL 0.034 5% 5W F (EXCEPT E370: AEP, UK/E870: AEP, UK)		△ TH901	1-805-841-21	THERMISTOR, NTC 3.0 (EXCEPT E370: AEP, UK/E870: AEP, UK)	
△ R916	1-250-297-65	METAL OXIDE 100K 5% 3W F		△ TH901	1-805-842-21	THERMISTOR, NTC 6.0 (E370: AEP, UK/E870: AEP, UK)	
△ R917	1-216-829-91	METAL CHIP 4.7K 5% 1/10W				< VARISTOR >	
△ R919	1-216-837-91	METAL CHIP 22K 5% 1/10W		△ VDR901	1-802-839-11	VARISTOR	
△ R922	1-250-262-41	METAL 0.39 5% 2W F				*****	
△ R923	1-218-879-91	METAL CHIP 22K 0.5% 1/10W				REG BOARD	
△ R925	1-216-797-91	METAL CHIP 10 5% 1/10W				*****	
△ R926	1-218-847-91	METAL CHIP 1K 0.5% 1/10W				< CAPACITOR >	
R931	1-218-851-11	METAL CHIP 1.5K 0.5% 1/10W		C400	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V	
R932	1-218-879-11	METAL CHIP 22K 0.5% 1/10W		C401	1-126-934-11	ELECT 220uF 20% 16V	
				C403	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V	
				C404	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V	
				C405	1-126-941-11	ELECT 470uF 20% 25V	
				C408	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
				C409	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
				C411	1-100-591-91	CERAMIC CHIP 1uF 10% 25V	
				C412	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
				C414	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	

HBD-E370/E470/E570/E870/T57

REG **R-USB**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C415	1-125-837-91	CERAMIC CHIP 1uF	10% 6.3V	158	1-828-740-51	WIRE (FLAT TYPE) (18 CORE)	
C426	1-104-666-11	ELECT 220uF	20% 25V	159	1-828-730-51	WIRE (FLAT TYPE) (16 CORE)	
C428	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	160	1-828-341-51	WIRE (FLAT TYPE) (15 CORE)	
C431	1-126-949-11	ELECT 220uF	20% 35V	202	A-1750-926-A	LOADING FOR SERVICE	
< CONNECTOR >							
* CN400	1-691-774-11	PLUG (MICRO CONNECTOR) 12P		△ 206	8-820-430-02	DEVICE, OPTICAL (KEM-460AAA/C2RP)	
CN403	1-784-926-11	PIN, CONNECTOR 11P		207	1-837-660-51	WIRE (FLAT TYPE) (9 CORE)	
< DIODE >							
D402	8-719-083-63	DIODE UDZSUSTE-1713B		208	1-837-658-51	WIRE (FLAT TYPE) (45 CORE)	
D403	8-719-083-66	DIODE UDZSUSTE-1718B		209	1-837-659-51	WIRE (FLAT TYPE) (5 CORE)	
D405	8-719-083-87	DIODE UDZSUSTE-1733B		△ F901	1-533-311-12	FUSE, GLASS (DIA.5) (8A/125V) (US, CND)	
D406	6-500-288-11	DIODE EK19LF-F7		△ F901	1-576-232-51	FUSE (H.B.C.) (T5AH/250V) (AEP, UK)	
D407	6-500-288-11	DIODE EK19LF-F7		M3001	1-787-931-11	DC FAN	
< IC >							
IC400	6-702-302-01	IC TK11133CSCL-G		TU1	1-693-781-11	TUNER (FM) (US, CND)	
IC402	6-715-070-01	IC TK72270CSCL-GH		TU1	1-693-787-11	TUNER (FM) (AEP, UK)	
< COIL >							
L401	1-457-725-11	INDUCTOR 4.7uH					
< TRANSISTOR >							
Q401	8-729-028-96	FET DTC114EUA-T106					
Q402	6-551-460-01	TRANSISTOR RSR025P03TL					
< RESISTOR >							
R402	1-216-295-91	SHORT CHIP 0					
R404	1-216-295-91	SHORT CHIP 0					
R406	1-216-821-11	METAL CHIP 1K	5% 1/10W				
R411	1-216-821-11	METAL CHIP 1K	5% 1/10W				
R415	1-216-841-11	METAL CHIP 47K	5% 1/10W				
R417	1-216-839-11	METAL CHIP 33K	5% 1/10W				
R420	1-216-843-11	METAL CHIP 68K	5% 1/10W				
R421	1-216-821-11	METAL CHIP 1K	5% 1/10W				
R422	1-216-841-11	METAL CHIP 47K	5% 1/10W				
R423	1-216-841-11	METAL CHIP 47K	5% 1/10W				

R-USB BOARD							

< CONNECTOR >							
CN150	1-842-128-11	USB CONNECTOR (←→)					
CN151	1-784-922-11	PIN, CONNECTOR 5P					

MISCELLANEOUS							

53	1-966-988-11	HARNESS (USB)					
56	1-966-989-12	HARNESS (USB)					
△ 57	1-777-071-83	CORD, POWER (AEP)					
△ 57	1-835-078-31	CORD, POWER (UK)					
△ 57	1-837-308-11	CORD, POWER-SUPPLY (US, CND)					
102	1-828-954-51	WIRE (FLAT TYPE) (9 CORE) (US, CND)					
102	1-828-964-51	WIRE (FLAT TYPE) (11 CORE) (AEP, UK)					
154	1-828-343-51	WIRE (FLAT TYPE) (15 CORE)					
155	1-828-400-51	WIRE (FLAT TYPE) (27 CORE)					
157	1-828-336-51	WIRE (FLAT TYPE) (15 CORE) (US, CND)					
157	1-828-346-51	WIRE (FLAT TYPE) (17 CORE) (AEP, UK)					

MEMO

