

# HCD-GTX999

## SERVICE MANUAL

E Model

Ver. 1.0 2008.06



- HCD-GTX999 is the amplifier, USB, CD player, HDD Jukebox and tuner section in DSK-GTX999.

• "WALKMAN" and "WALKMAN" logo are registered trademarks of Sony Corporation.

• MICROVAULT is a trademark of Sony Corporation.

• MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

• Title Updater is a trademark of Sony Corporation.

• Microsoft, Windows, Windows Vista and Windows Media are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

• This product is protected by certain intellectual property rights of Microsoft Corporation. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft or an authorized Microsoft subsidiary.

• Built with Linter Database. Copyright © 2006-2007, Brycen Corp., Ltd.

Copyright © 1990-2003, Relex, Inc., All rights reserved.

• Music 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](http://www.gracenote.com).

CD and music-related data from Gracenote, Inc., copyright © 2000-2008 Gracenote, Gracenote Software, copyright © 2000-2008 Gracenote. This product and service may practice one or more of the following U.S. Patents: #5,987,525; #6,061,680; #6,154,773; #6,161,132; #6,230,192; #6,230,207; #6,240,459; #6,330,993; and other patents issued or pending. Some services supplied under license from Open Globe, Inc. for U.S. Patent: #6,304,523.

Gracenote and CDDB are registered trademarks of Gracenote. The Gracenote logo and logotype, and the "Powered by Gracenote" logo are trademarks of Gracenote.

GRACENOTE DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT. GRACENOTE DOES NOT WARRANT THE RESULTS THAT WILL BE OBTAINED BY YOUR USE OF THE GRACENOTE SOFTWARE OR ANY GRACENOTE SERVER. IN NO CASE WILL GRACENOTE BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR FOR ANY LOST PROFITS OR LOST REVENUES.



### Gracenote® End User License Agreement

This application or device contains software from Gracenote, Inc. of Emeryville, California ("Gracenote"). The software from Gracenote (the "Gracenote Software") enables this application to perform disc and/or file identification and obtain music-related information, including name, artist, track, and title information ("Gracenote Data") from online servers or embedded databases (collectively "Gracenote Servers") and to perform other functions. You may use Gracenote Data only by means of the intended End-User functions of this application or device.

You agree that you will use Gracenote Data, the Gracenote Software, and Gracenote Servers for your own personal non-commercial use only. You agree not to assign, copy, transfer or transmit the Gracenote Software or any Gracenote Data to any third party. YOU AGREE NOT TO USE OR EXPLOIT GRACENOTE DATA, THE GRACENOTE SOFTWARE, OR GRACENOTE SERVERS, EXCEPT AS EXPRESSLY PERMITTED HEREIN.

You agree that your non-exclusive license to use the Gracenote Data, the Gracenote Software, and Gracenote Servers will terminate if you violate these restrictions. If your license terminates, you agree to cease any and all use of the Gracenote Data, the Gracenote Software, and Gracenote Servers. Gracenote reserves all rights in Gracenote Data, the Gracenote Software, and the Gracenote Servers, including all ownership rights. Under no circumstances will Gracenote become liable for any payment to you for any information that you provide. You agree that Gracenote, Inc. may enforce its rights under this Agreement against you directly in its own name.

The Gracenote service uses a unique identifier to track queries for statistical purposes. The purpose of a randomly assigned numeric identifier is to allow the Gracenote service to count queries without knowing anything about who you are. For more information, see the web page for the Gracenote Privacy Policy for the Gracenote service.

The Gracenote Software and each item of Gracenote Data are licensed to you "AS IS." Gracenote makes no representations or warranties, express or implied, regarding the accuracy of any Gracenote Data from in the Gracenote Servers. Gracenote reserves the right to delete data from the Gracenote Servers or to change data categories for any cause that Gracenote deems sufficient. No warranty is made that the Gracenote Software or Gracenote Servers are error-free or that functioning of Gracenote Software or Gracenote Servers will be uninterrupted. Gracenote is not obligated to provide you with new enhanced or additional data types or categories that Gracenote may provide in the future and is free to discontinue its services at any time.

GRACENOTE DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT. GRACENOTE DOES NOT WARRANT THE RESULTS THAT WILL BE OBTAINED BY YOUR USE OF THE GRACENOTE SOFTWARE OR ANY GRACENOTE SERVER. IN NO CASE WILL GRACENOTE BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR FOR ANY LOST PROFITS OR LOST REVENUES.

The system names and product names indicated in this manual are generally the trademarks or registered trademarks of the manufacturer.™ and ® marks are omitted in this manual.

CD Section	Model Name Using Similar Drive	NEW
	CD Mechanism Type	CDM77B-F2BD82F-WAO
	Base Unit Name	BU-F2BD82F-A
	Optical Pick-up Block Name	KSM215DHAP
HD Section	Model Name Using Similar Drive	NEW
	Hard Disc Drive Name	HDD/SG-NIGHTHAWK-S (80GB)

## SPECIFICATIONS

### Amplifier section

The following measured at AC 120, 220, 240 V, 50/60 Hz (Latin American models (except for Brazilian model))  
The following measured at AC 127, 220 V, 50/60 Hz (Brazilian model)

### Except for Brazilian model

Front speaker:  
Power output (rated):  
120 W + 120 W (at 6 ohms, 1 kHz, 1% THD)  
RMS output power (reference):  
200 W + 200 W (per channel at 6 ohms, 1 kHz, 10% THD)

Subwoofer:  
RMS output power (reference):  
190 W (100 Hz, 10% THD)

### Brazilian model

Front speaker:  
Power output (rated):  
120 W + 120 W (at 6 ohms, 1 kHz, 1% THD)  
RMS output power (reference):  
150 W + 150 W (at 6 ohms, 1 kHz, 10% THD)

Subwoofer:  
RMS output power (reference):  
190 W (100 Hz, 10% THD)

### Inputs

AUDIO IN L/R (phono jacks):  
voltage 250 mV, impedance  
47 kilohms  
VIDEO AUDIO IN L/R (phono jacks):  
voltage 250 mV, impedance  
47 kilohms  
MIC (phone jack):  
sensitivity 1 mV, impedance  
10 kilohms

### Outputs

PHONES (stereo mini jack):  
accepts headphones with an impedance of 8 ohms or more  
FRONT SPEAKER:  
Use only the supplied speaker  
SS-GTX999  
SUBWOOFER:  
Use only the supplied subwoofer  
SS-WG999

### HDD Jukebox section

Capacity:  
80 GB\*  
\*A portion of the memory is used for system management functions. Actual available memory is approx. 72 GB.  
Recording system:  
MP3  
Maximum recording time (measured with MP3 128 kbps):  
About 1,300 h  
Maximum number of tracks:  
20,000  
Maximum number of albums:  
2,000  
Supported bit rate:  
MP3 (MPEG 1 Audio Layer-3):  
32 - 320 kbps, VBR  
WMA: 48 - 192 kbps, VBR  
AAC: 48 - 320 kbps  
Sampling frequencies:  
MP3 (MPEG 1 Audio Layer-3):  
32/44.1/48 kHz  
WMA: 44.1 kHz  
AAC: 44.1 kHz

### USB section

↳ (USB port):  
Type A  
Supported bit rate:  
MP3 (MPEG 1 Audio Layer-3):  
32 - 320 kbps, VBR  
WMA: 48 - 192 kbps, VBR  
AAC: 48 - 320 kbps  
Sampling frequencies:  
MP3 (MPEG 1 Audio Layer-3):  
32/44.1/48 kHz  
WMA: 44.1 kHz  
AAC: 44.1 kHz

### CD player section

System:  
Compact disc and digital audio system  
Laser Diode Properties  
Emission duration: Continuous  
Laser Output\*: Less than 44.6µW  
\*This output is the value measurement at a distance of 200mm from the objective lens surface on the Optical Pick-up Block with 7mm aperture.  
Frequency response:  
20 Hz - 20 kHz  
Signal-to-noise ratio:  
More than 90 dB  
Dynamic range:  
More than 88 dB

- Continued on next page -

## HDD AUDIO SYSTEM

9-889-164-01

2008F05-1

© 2008.06

Sony Corporation

Audio Business Group

Published by Sony Techno Create Corporation

# SONY®

**Tuner section**  
 FM stereo, FM/AM superheterodyne tuner  
 Antenna:  
     FM lead antenna  
     AM loop antenna  
 FM tuner section:  
 Tuning range:  
     Brazilian model: 87.5 – 108.0 MHz  
     (100 kHz step)  
     Other models: 87.5 – 108.0 MHz  
     (50 kHz step)  
 Intermediate frequency: 10.7 MHz  
 AM tuner section:  
 Tuning range:  
     530 – 1,710 kHz  
     (with 10 kHz tuning interval)  
     531 – 1,710 kHz  
     (with 9 kHz tuning interval)  
 Intermediate frequency: 450 kHz

**General**  
 Power requirements  
     Latin American models (except for  
     Brazilian model):  
     AC 120, 220, 230 – 240 V, 50/60 Hz,  
     adjustable with voltage selector  
     Argentine model:  
     AC 220 V, 50/60 Hz  
     Brazilian model:  
     AC 127 or 220 V, 50/60 Hz, adjustable  
     with voltage selector  
 Power consumption  
     230 W  
 Dimensions (w/h/d) (excl. speakers)  
     Approx. 280 × 397 × 428 mm  
 Mass (excl. speakers)  
     Approx. 12.3 kg  
 Operating temperature:  
     +5 °C (+41 °F) to +35 °C (+95 °F)  
 Operating humidity:  
     25 % to 80 %  
 Design and specifications are subject to  
 change without notice.

### 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.

CLASS 1 LASER PRODUCT  
 LUOKAN 1 LASERLAITE  
 KLASS 1 LASERAPPARAT

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

### SAFETY-RELATED COMPONET 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.

<b>1. SERVICING NOTES</b> .....	3
<b>2. GENERAL</b> .....	6
<b>3. DISASSEMBLY</b>	
3-1. Disassembly Flow .....	8
3-2. Case (Top) .....	8
3-3. Front Panel Block .....	9
3-4. USB CONNECTOR Board .....	9
3-5. USB MICOM Board .....	10
3-6. HDD Assy (80 GB) .....	10
3-7. CD Mechanism Block .....	11
3-8. Bracket (CDM) Block .....	11
3-9. Back Panel Block .....	12
3-10. MAIN Board .....	12
<b>4. TEST MODE</b> .....	13
<b>5. ELECTRICAL CHECKS</b> .....	15
<b>6. DIAGRAMS</b>	
6-1. Block Diagram - CD SERVO, PANEL Section - .....	16
6-2. Block Diagram - USB, HDD Section - .....	17
6-3. Block Diagram - MAIN Section - .....	18
6-4. Block Diagram - AMP Section - .....	19
6-5. Block Diagram - POWER SUPPLY Section - .....	20
6-6. Printed Wiring Board - CD Board - .....	22
6-7. Schematic Diagram - CD Board - .....	23
6-8. Printed Wiring Board - USB MICOM Board - .....	24
6-9. Schematic Diagram - USB MICOM Board (1/4) - .....	25
6-10. Schematic Diagram - USB MICOM Board (2/4) - .....	26
6-11. Schematic Diagram - USB MICOM Board (3/4) - .....	27
6-12. Schematic Diagram - USB MICOM Board (4/4) - .....	28
6-13. Printed Wiring Boards - USB, LED Section - .....	29
6-14. Schematic Diagram - USB, LED Section - .....	29
6-15. Printed Wiring Board - MAIN Board - .....	30
6-16. Schematic Diagram - MAIN Board (1/3) - .....	31
6-17. Schematic Diagram - MAIN Board (2/3) - .....	32
6-18. Schematic Diagram - MAIN Board (3/3) - .....	33
6-19. Printed Wiring Boards - INPUT, OUTPUT Section - .....	34
6-20. Schematic Diagram - INPUT, OUTPUT Section - .....	34
6-21. Printed Wiring Board - MOTOR Board - .....	35
6-22. Schematic Diagram - MOTOR Board - .....	35
6-23. Printed Wiring Board - AMP Board - .....	36
6-24. Schematic Diagram - AMP Board - .....	37
6-25. Printed Wiring Board - KEY Section (1/2) - .....	38
6-26. Schematic Diagram - KEY Section (1/2) - .....	39
6-27. Printed Wiring Boards - KEY Section (2/2) - .....	40
6-28. Schematic Diagram - KEY Section (2/2) - .....	41
6-29. Printed Wiring Board - DISPLAY Board - .....	42
6-30. Schematic Diagram - DISPLAY Board - .....	43
6-31. Printed Wiring Board - TRANS Board - .....	44
6-32. Schematic Diagram - TRANS Board - .....	45
6-33. Printed Wiring Board - SUB TRANS Board - .....	46
6-34. Schematic Diagram - SUB TRANS Board - .....	47
<b>7. EXPLODED VIEWS</b>	
7-1. Top Case, Side Panel Section .....	63
7-2. Center Panel Section .....	64
7-3. Base Panel Section .....	65
7-4. HDD Section .....	66
7-5. Chassis Section .....	67
7-6. CD Mechanism Section (CDM77B-F2BD82F-WAO) .....	68
7-7. Base Unit Section (BU-F2BD82F-A) .....	69
<b>8. ELECTRICAL PARTS LIST</b> .....	70

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

## 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 [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. While pressing the [■] button, press the [▲] button for more 5 seconds).
4. The message “UNLOCKED” is displayed and the disc tray is unlocked.

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

### NOTE THE HANDLING OF HDD

#### 1. Note The Transported

Do not give set the high impact when you transport this set. HDD might be damaged by the impact.

#### 2. Note The Repairing

Do not move the set for state power on, and for at least 30 seconds after the set is power off. HDD might be damaged by the impact.

### NOTE THE IC5 AND IC13 ON THE USB MICOM BOARD REPLACING

IC5 and IC13 on the USB MICOM board cannot exchange with single. When these parts on the USB MICOM board are damaged, exchange the entire mounted board.

### NOTE THE DISASSEMBLY OF USB CONNECTOR BOARD

USB CONNECTOR board and HDD LED (A)/(B) board connection part are damaged easily. Note the printed pattern may peel, remove carefully.

### NOTE THE IC202 ON THE MAIN BOARD REPLACING

Execute the following procedures immediately after the IC202 on the MAIN board is exchanged, and the cold reset is executed.

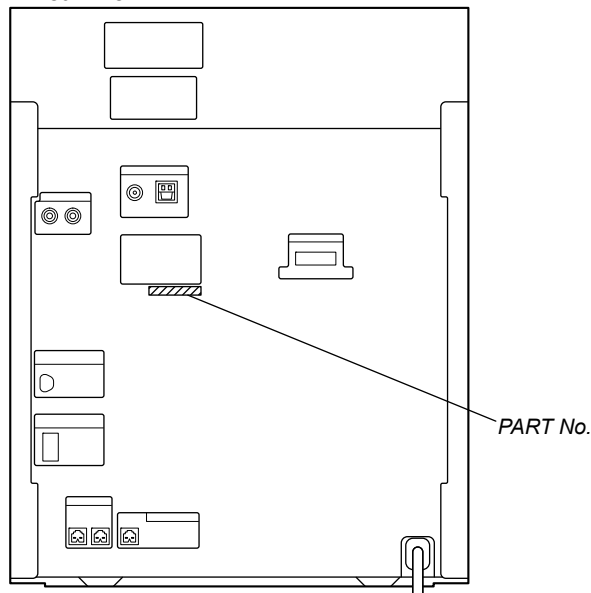
#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [TUNER/BAND] button to select TUNER (FM) function.
3. Press the [TUNING MODE] button on the remote commander to preset menu displayed.
4. Press the [↑]/[↓] buttons to select “FM2 88.00 MHz”.
5. Press the [TUNER MEMORY] button on the remote commander.
6. Press the [↑]/[↓] buttons to select “FM9”.
7. Press the [ENTER] button to preset memory.

**Note:** Do not disconnect the AC plug while this operation.

### MODEL IDENTIFICATION

#### – Rear View –



Model	Part No.
120V AC area in E model, Chilean and Peruvian models	3-294-738-0□
Argentina model	3-294-738-2□
Brazilian model	3-294-738-3□

## REPLACEMENT PROCEDURE OF HDD

### 1. Prior Notes

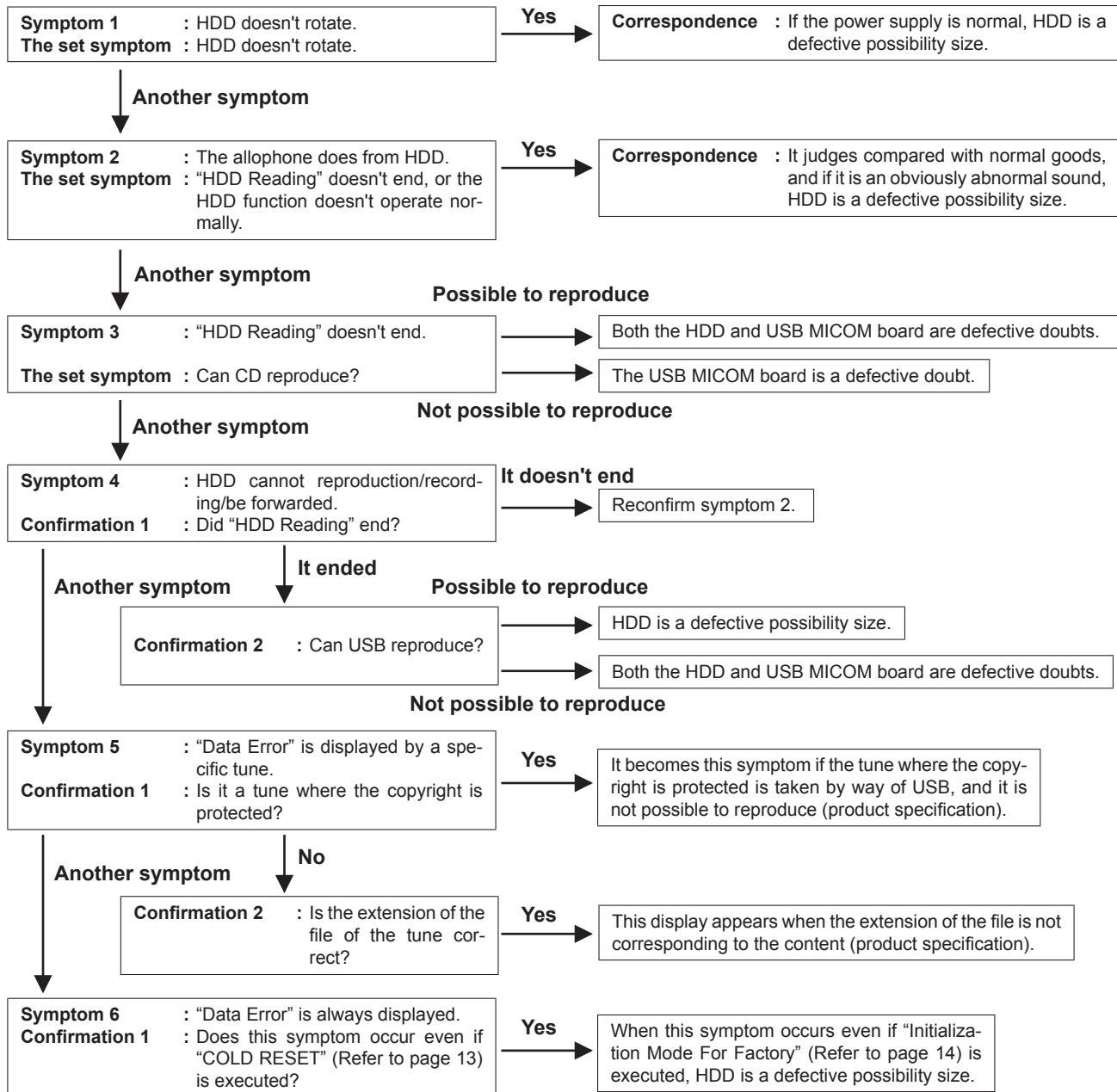
- It is backup in the customer in preparation for the HDD exchange as for the tune recorded to HDD beforehand.
- Note that all recorded tunes are deleted when "Factory Reset" is done.

### 2. Common Check

#### Procedure:

1. Execute "COLD RESET" (Refer to page 13) after confirming the symptom.
2. Confirm the installation of HDD.
3. Confirm the power supply to HDD.
4. Confirm the state to HDD of the connecting cable and the connector.

### 3. Procedure According To Symptom



Execute "HDD Writing/Reading Test" (Refer to page 14) 3 times when these symptoms do not reproduce it. It can be judged that HDD is normal if NG is not generated.

### 4. Processing After HDD Is Replaced

#### Procedure:

1. Confirm the execution of "HDD Writing/Reading Test" (Refer to page 14), and not becoming NG.
2. Execute "CDDDB Version Display" (Refer to page 14), and confirm the CDDDB version is 989 (South American model) or 988(Except South American model).
3. Confirm the tune can be recorded from CD to HDD, and the tune be reproduced normally.
4. Execute "Initialization Mode For Factory" (Refer to page 14) at the end.

## Precautions

### Discs that this system CAN play

- Audio CD
- CD-R/CD-RW (audio data/MP3 files)

### Discs that this system CANNOT play

- CD-ROM
- CD-R/CD-RW other than those recorded in music CD format or MP3 format conforming to ISO9660 Level 1/Level 2, Joliet
- CD-R/CD-RW recorded in multisession that have not ended by “closing the session”
- CD-R/CD-RW of poor recording quality, CD-R/CD-RW that have scratches or are dirty, or CD-R/CDRW recorded with an incompatible recording device
- CD-R/CD-RW which is finalized incorrectly
- Discs containing files other than MPEG 1 Audio Layer-3 (MP3) files
- Discs of non-standard shape (for example, heart, square, star)
- Discs that have adhesive tape, paper, or sticker attached to them
- Rental or used discs with attached seals where the glue extends beyond the seal
- Discs that have labels printed using ink that feels tacky when touched

### Notes on discs

- Before playing, wipe the disc with a cleaning cloth from the centre out to the edge.
- Do not clean discs with solvents, such as benzine thinner, or commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose discs to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- Do not use a commercial cleaning disc as it may cause the unit to malfunction.

### On safety

- Completely disconnect the power cord (mains lead) from the wall outlet (mains) if it is not going to be used for an extended period of time. When unplugging the unit, always grip the plug. Never pull the cord itself.
- Should any solid object or liquid get into the system, unplug the system, and have it checked by qualified personnel before operating it again.
- AC power cord must be changed only at the qualified service shop.

### On placement

- Do not place the system in an inclined position or in locations that are extremely hot, cold, dusty, dirty, or humid or lacking adequate ventilation, or subject to vibration, direct sunlight or a bright light.
- Be careful when placing the unit or speakers on surfaces that have been specially treated (for example, with wax, oil, polish) as staining or discoloration of the surface may result.
- If the system is brought directly from a cold to a warm location or is placed in a very damp room, moisture may condense on the lens inside the CD player, and cause the system to malfunction. In this situation, remove the disc, and leave the system turned on for about an hour until the moisture evaporates.

### On heat buildup

- Heat buildup on the unit during operation is normal and is not cause for alarm.
- Do not touch the cabinet if it has been used continuously at a high volume because the cabinet may have become hot.
- Do not obstruct the ventilation holes.

### On the speaker system

This speaker system is not magnetically shielded, and the picture on nearby TV sets may become magnetically distorted. In this situation, turn off the TV, wait 15 to 30 minutes, and turn it back on. If there is no improvement, move the speakers far away from the TV.

### On volume adjustment

CDs reproduce sound with considerably less noise than vinyl records. For this reason, if you raise the volume while listening to a segment containing only noise (as you might do in the case of a vinyl record), a sudden output of high volume sound may cause damage to the speakers. Make sure to lower the volume before the start of playback.

### Consideration for others

Keep the volume at a moderate level out of consideration of your neighbors, especially at night.

### About the Hard Disk Drive

Because of its high storage density, the hard disk drive can read and write data at very high speeds. It is, however, easily damaged by mechanical vibration, shock, or dust. Although the hard disk drive is equipped with safety mechanisms to prevent the loss of data due to these factors, the following precautions should be taken during the handling of the system.

- Do not subject the system to strong shocks or vibrations.
- Do not place the system in a location subject to mechanical vibration or at an unstable location.
- Do not move the system while the power cord is connected to a wall outlet.
- Do not disconnect the power cord while the system is recording or playing a track.
- Do not use the system in a place subject to extreme changes in temperature (a temperature gradient greater than 18°F (10°C)/hour).
- Do not attempt to replace or upgrade the hard disk drive by yourself, as this may cause the system to malfunction.

Sony cannot provide compensation for any loss of data caused by a damaged hard disk drive.

### Note on the power cord

Before you unplug the power cord from the wall outlet, make sure that the system is turned off. If you unplug the power cord while the system is operating, data that was recorded may be lost or the system may malfunction.

### Cleaning the cabinet

Clean this system with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as thinner, benzine, or alcohol.

### Note on playing MP3/WMA/AAC files

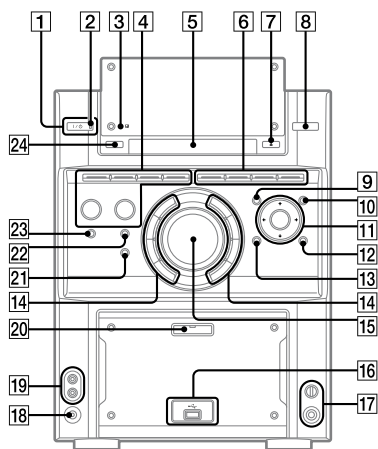
Compatibility with all MP3/WMA/AAC encoding/writing software, recording device, and recording media cannot be guaranteed. Incompatible MP3/WMA/AAC files may produce noise or interrupted audio or may not play at all.

This section is extracted from instruction manual.

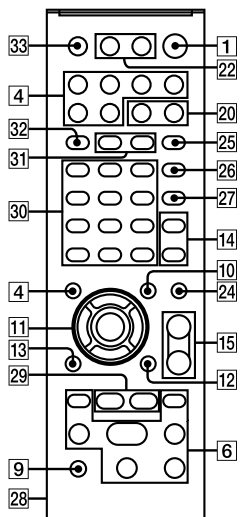
**Guide to parts and controls**

This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.

**Unit**



**Remote**



- 1**  
I/⏻ (on/standby)  
Press to turn on or off the system.
- 2**  
STANDBY indicator  
Lights up when the system is turned off.
- 3**  
Remote sensor
- 4**  
CD  
Press to select the CD function.
- TUNER/BAND  
Press to select the TUNER function.  
Press to select FM or AM reception.
- VIDEO  
Press to select the VIDEO function.
- AUDIO  
Press to select the AUDIO function.
- HDD  
Press to select the HDD function.
- USB  
Press to select the USB function.
- FUNCTION  
Press to select the function.

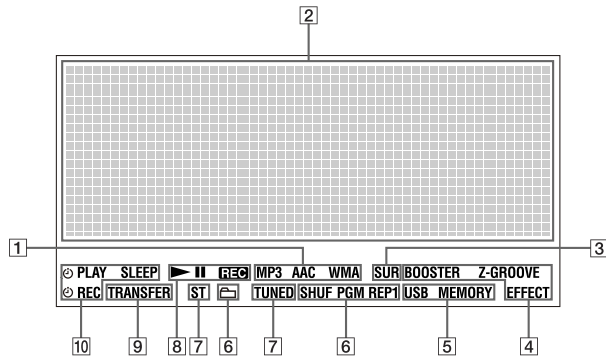
- 5**  
Disc tray
- 6**  
Unit: ▶▶ (play/pause)  
Remote: ▷\* (play)  
▶▶ (pause)  
Press to start or pause playback.
- (stop)  
Press to stop playback.
- ◀◀/▶▶ (go back/go forward)  
Press to select a track or file.
- Unit: TUNING +/-  
Remote: +/- (tuning)  
Press to tune in the desired station.
- ◀◀/▶▶ (rewind/fast forward)  
Press to find a point in a track or file.
- 7**  
▲ (open/close)  
Press to open or close the disc tray.
- 8**  
Unit: SEAMLESS SHUFFLE  
Press to start the seamless music shuffle playback.

- 9**  
TRANSFER  
Press to transfer tracks on the HDD Jukebox to an USB device.
- 10**  
TITLE UPDATE  
Press to display the Title Update menu.
- 11**  
▲/▼/◀/▶  
Press to select a menu item or to change a setting.  
Press to move the cursor (◀/▶) when entering text.  
Press to move the cursor to the first or last letter (▲/▼) of the text string when entering text.
- ENTER  
Press to enter the settings.
- 12**  
OPTIONS  
Press to display the Option menu.
- 13**  
BACK  
Press to go back to the previous display.
- 14**  
Unit: PRESET EQ  
Remote: EQ  
Press to select the sound effect.
- GROOVE  
Press to reinforce the bass.
- Unit: SURROUND  
Press to activate or deactivate the surround effect.
- Unit: EQ BAND  
Press to select the frequency band when adjusting the equalizer.
- Unit: SOUND FLASH  
Press to activate the sound flashing effect.
- Unit: CHORUS  
Press to activate or deactivate the chorus effect on the output sound.
- Unit: DELAY  
Press to activate or deactivate the delay effect on the output sound.
- Unit: FLANGER  
Press to activate or deactivate the flanger effect on the output sound.
- 15**  
Unit: MASTER VOLUME  
Remote: VOLUME +/- \*  
Turn or press to adjust the volume.
- 16**  
↔ (USB) port  
Connect an optional USB device.
- ↔ (USB) indicator  
Lights up in red when transferring to the connected optional USB device or when erasing audio tracks or folders.
- 17**  
MIC LEVEL  
Turn to adjust the microphone volume.
- MIC jack  
Connect a microphone.
- 18**  
PHONES jack  
Connect the headphones.
- 19**  
AUDIO IN L/R jacks  
Connect an optional audio component (Portable audio player, etc.).

- 20**  
Unit: HDD REC  
Remote: HDD REC ● (start recording)  
Press to import/record audio data to the HDD Jukebox from a CD, tuner, USB device or connected audio/video component.
- HDD REC ■ (pause recording)  
Press to start or pause recording audio data to the HDD Jukebox from a tuner or connected audio/video component.
- 21**  
Unit: REC TO USB  
Press to start recording audio data from a CD to the HDD Jukebox and transfer data to a connected USB device seamlessly.
- 22**  
Unit: REC TIMER  
Press to set the Recording Timer.
- CLOCK/TIMER SELECT  
CLOCK/TIMER SET  
Press to set the clock and the timers.
- 23**  
Unit: ILLUMINATION  
Press to select the POWER ILLUMINATOR.
- 24**  
DISPLAY  
Press to change the information on the display.
- 25**  
FM MODE  
Press to select the FM reception mode (monaural or stereo).
- 26**  
TUNING MODE  
Press to select the tuning mode.
- 27**  
TUNER MEMORY  
Press to preset the radio station.
- 28**  
Battery compartment lid
- 29**  
📁 +/-  
Press to select a folder.
- 30**  
Numeric\*/text buttons  
Press to select a track or file during playback or to enter text.
- a/A button  
Press to switch between lowercase and uppercase letters.
- ↩ button  
Press to go to the previous character.
- 31**  
PLAY MODE  
Press to select the play mode of a CD, MP3 disc, optional USB device or HDD Jukebox.
- REPEAT  
Press to select the repeat mode of a CD, MP3 disc, optional USB device or HDD Jukebox.
- 32**  
CLEAR  
Press to erase a letter that was just entered or to delete a pre-programmed track or file.
- 33**  
SLEEP  
Press to set the Sleep Timer.

\* The numeric button 5 **30**, VOLUME + **15** and **▷** **16** buttons on the remote have a tactile dot as a reference when operating the system.

**Display**



- 1 Indicates the audio formats.
- 2 Displays the text information.
- 3 Lights up when the surround is turned on.
- 4 Lights up when "AUTO" is selected for "MP3 BOOSTER +" function. Lights up when "GROOVE" or "Z-GROOVE" is turned on. Lights up when "FLANGER," "DELAY" or "CHORUS" is turned on.
- 5 Lights up when the USB device is recognized.
- 6 Indicates the selected play mode.
- 7 Lights up in "TUNER" function.
- 8 Indicates the playback and recording status.
- 9 Lights up while audio data is being transferred.
- 10 Lights up when the timer is set.

**Setting the clock**

Use buttons on the remote to set the clock.

- 1 Press I/⏻ 1 to turn on the system.
- 2 Press CLOCK/TIMER SET 22. The hour indication flashes. If "PLAY SET" flashes, press ▲/▼ 11 repeatedly to select "CLOCK SET," and then press ENTER 11.
- 3 Press ▲/▼ 11 repeatedly to set the hour, and then press ENTER 11.
- 4 Follow the same procedure to set the minutes.

**Note**  
The clock settings are lost when you disconnect the power cord or if a power failure occurs.

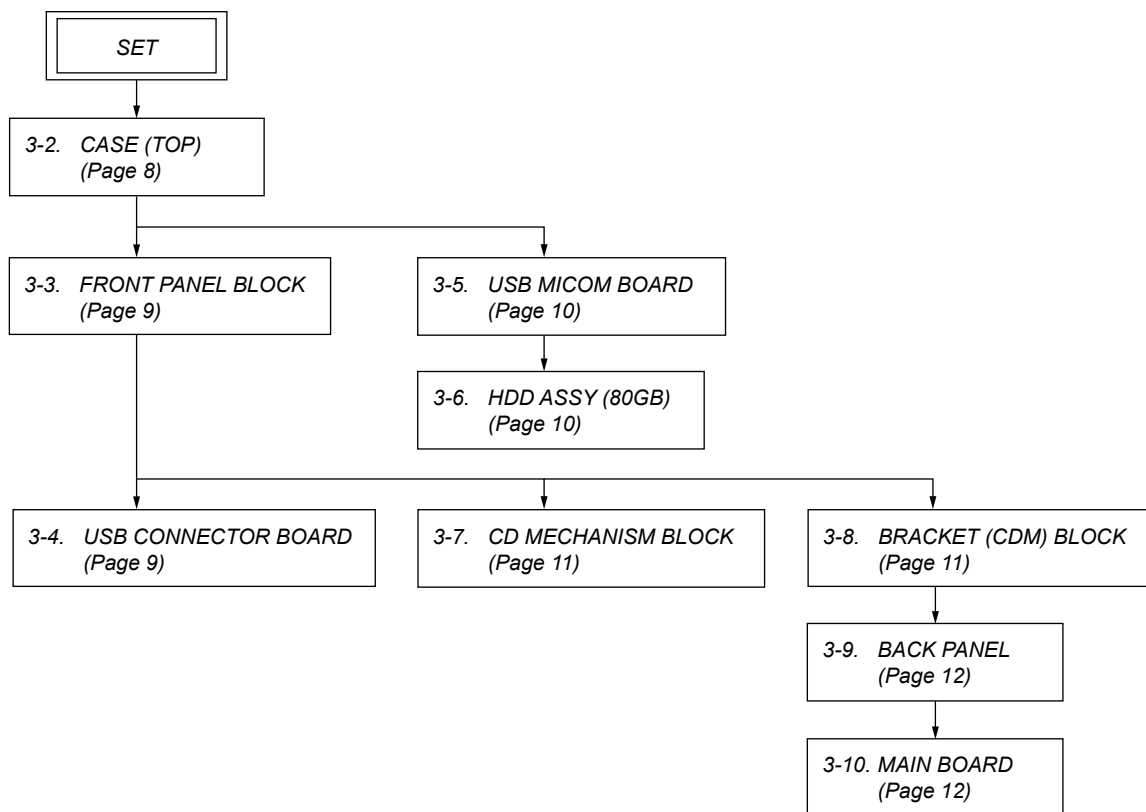
**To display the clock when the system is off**

Press DISPLAY 24 repeatedly until the clock is displayed. The clock is displayed for about 8 seconds.

## SECTION 3 DISASSEMBLY

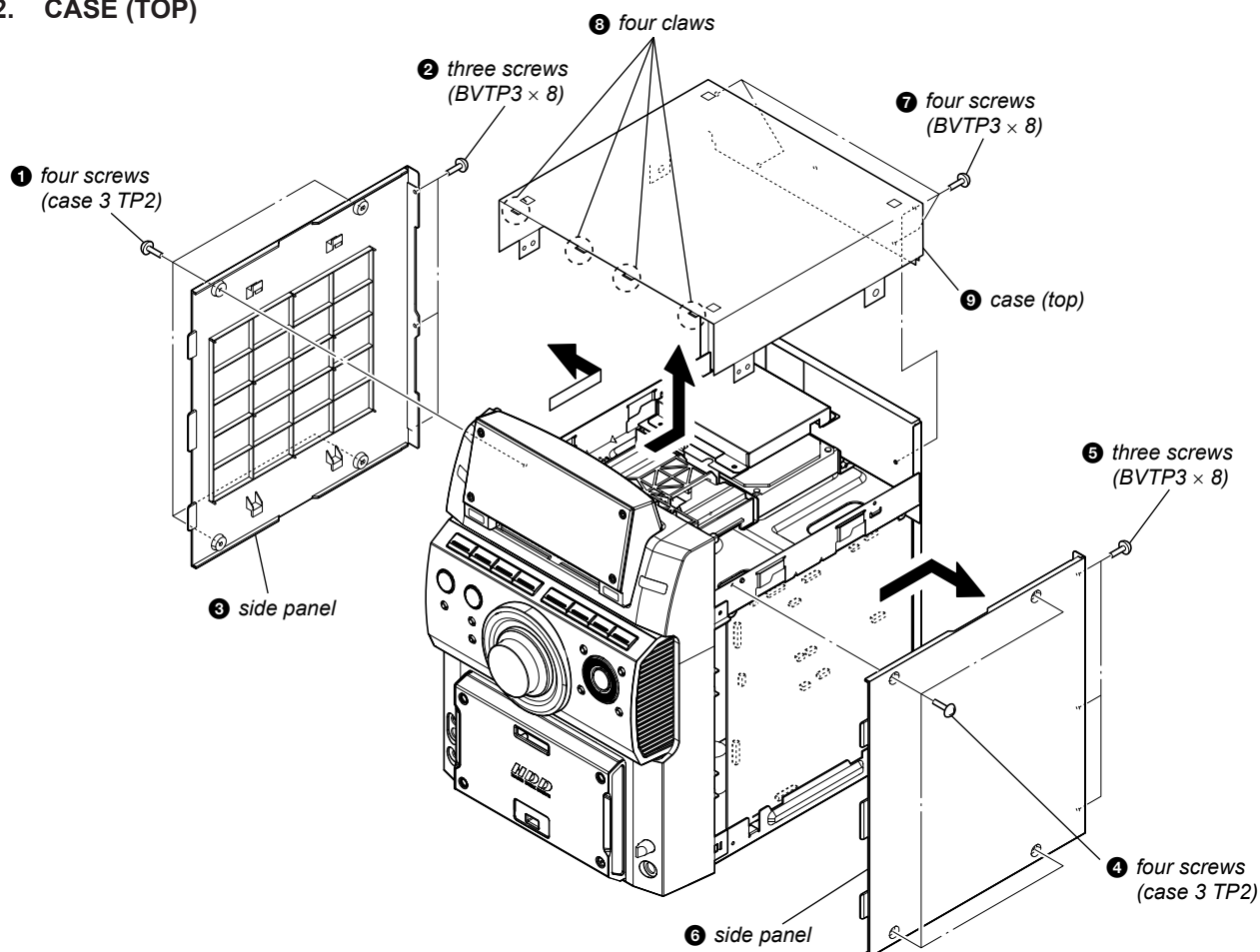
- This set can be disassembled in the order shown below.

### 3-1. DISASSEMBLY FLOW



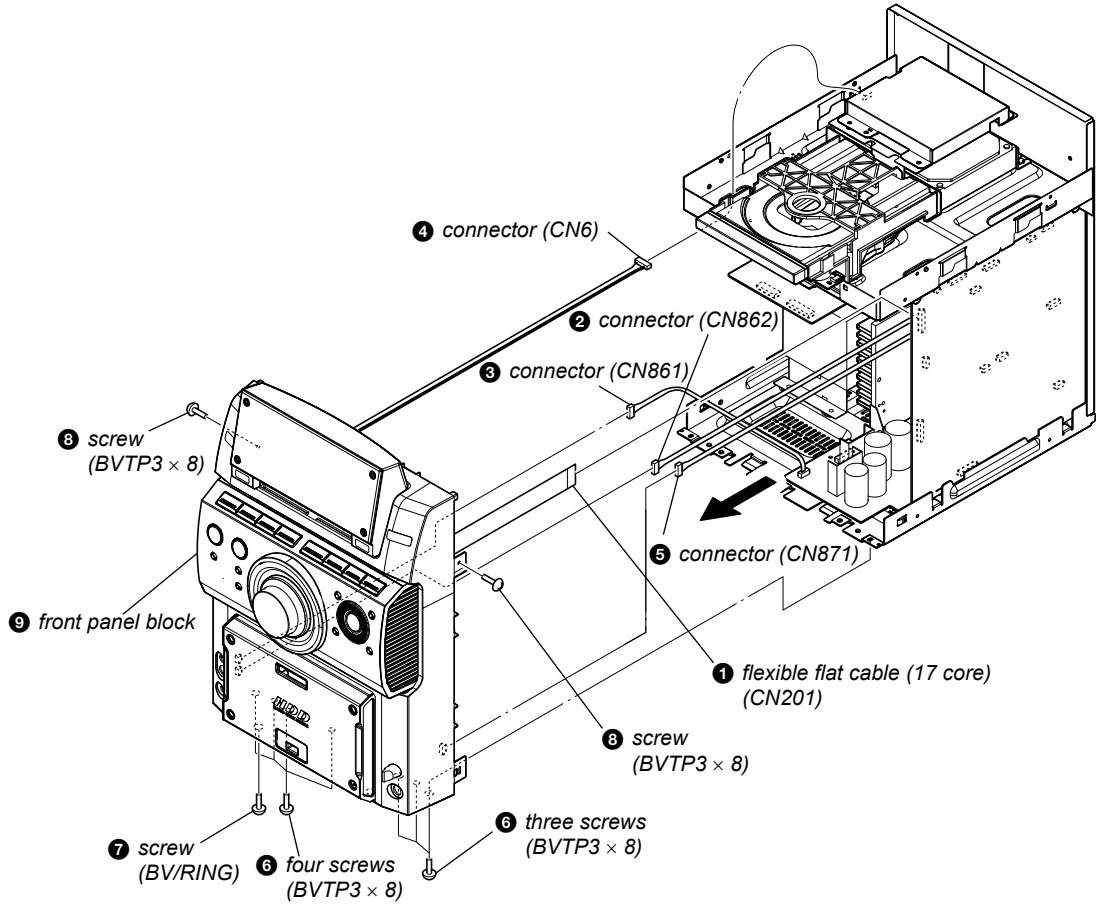
**Note:** Follow the disassembly procedure in the numerical order given.

### 3-2. CASE (TOP)

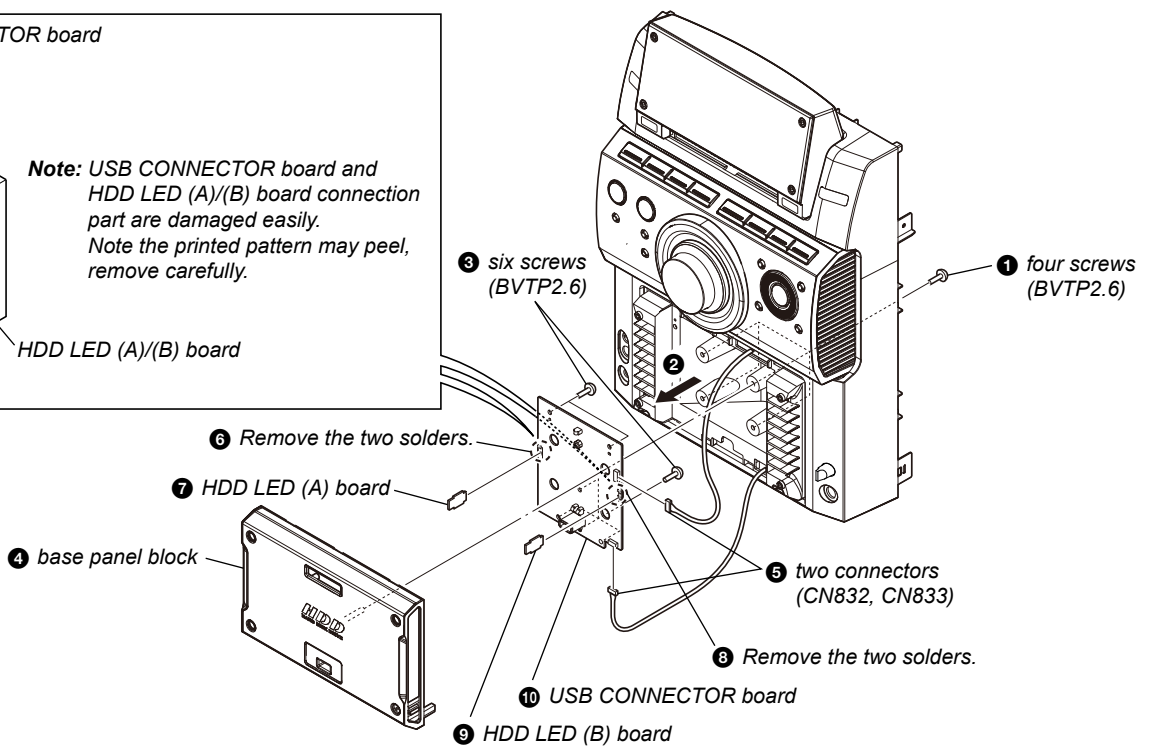
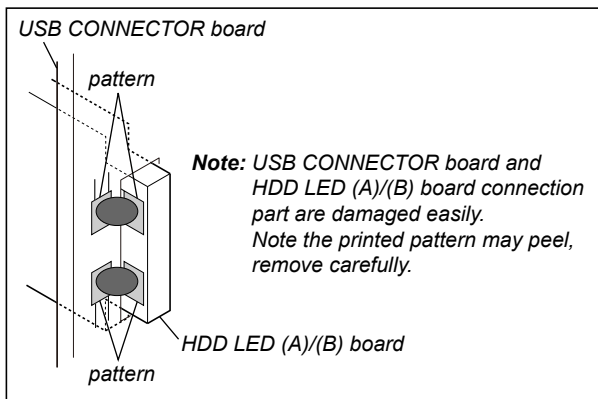




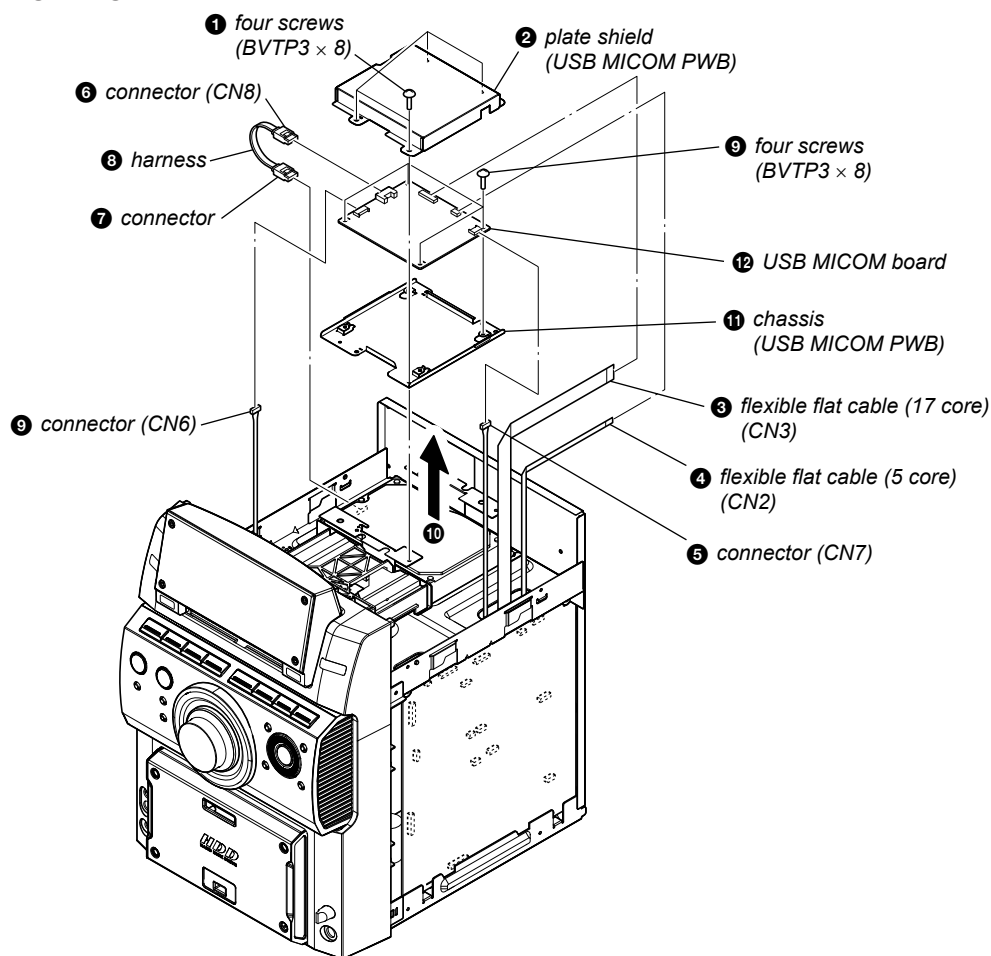
3-3. FRONT PANEL BLOCK



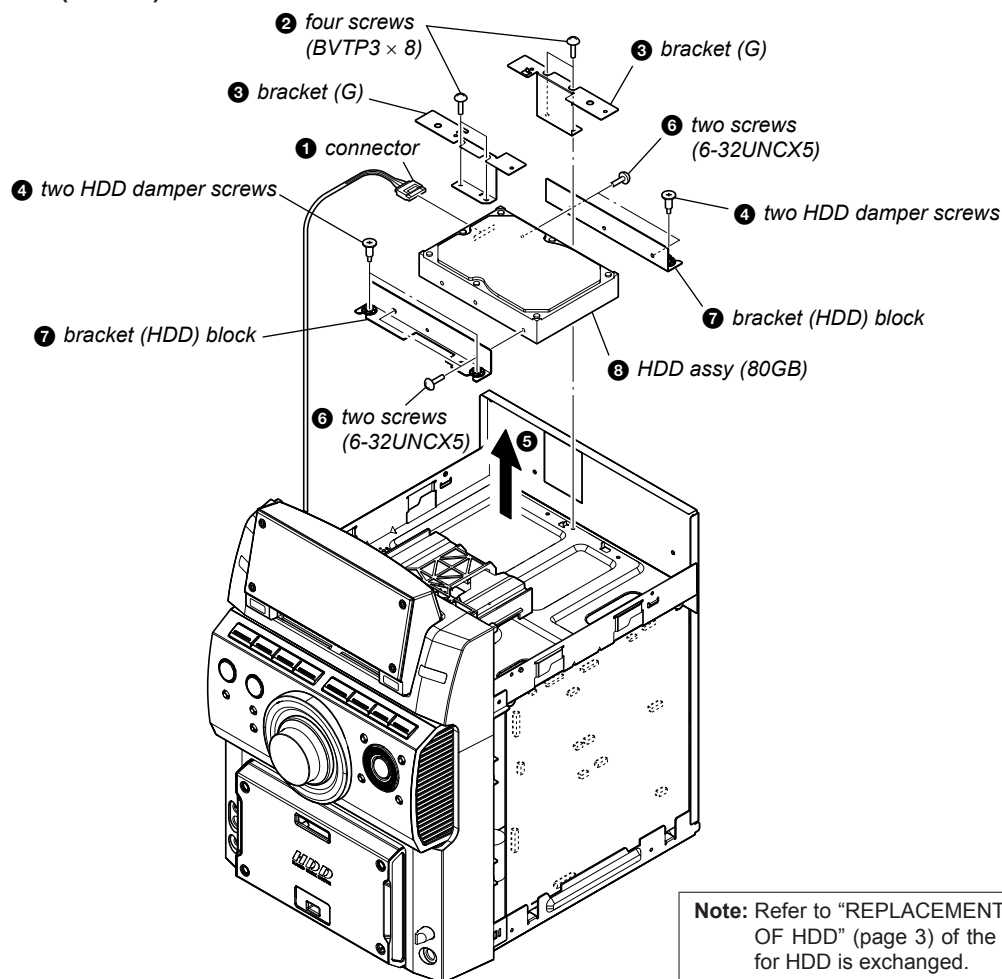
3-4. USB CONNECTOR BOARD



## 3-5. USB MICOM BOARD

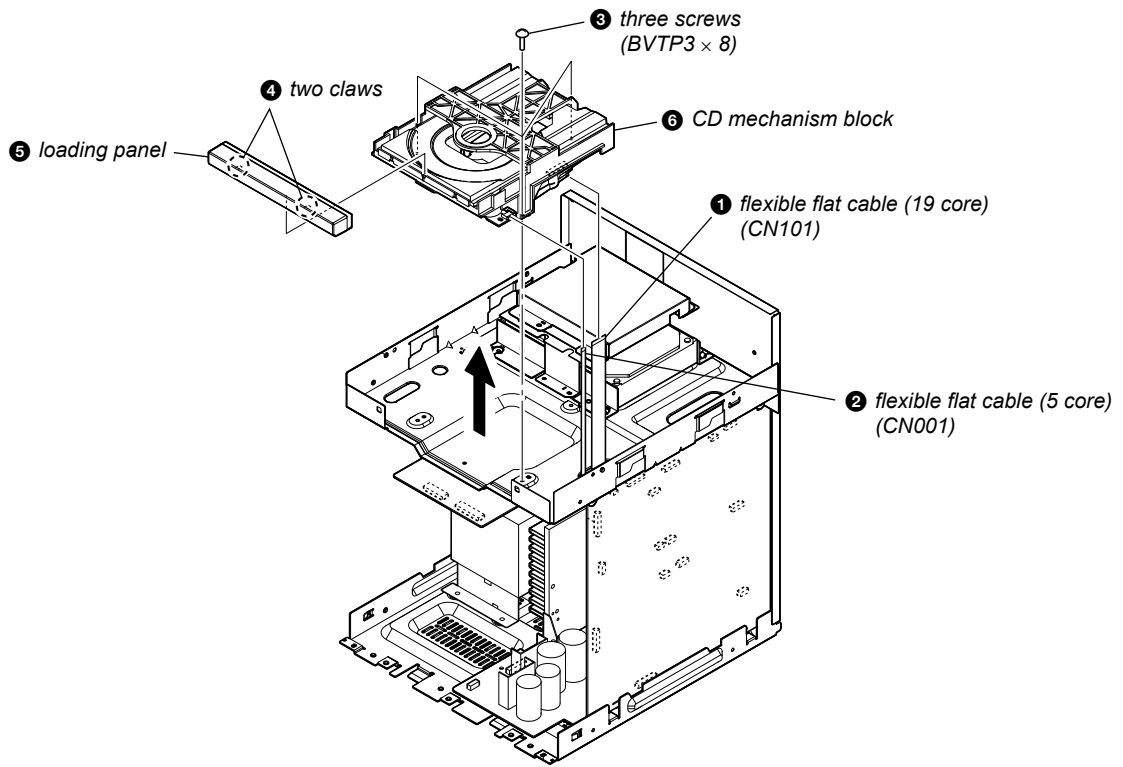


## 3-6. HDD ASSY (80 GB)

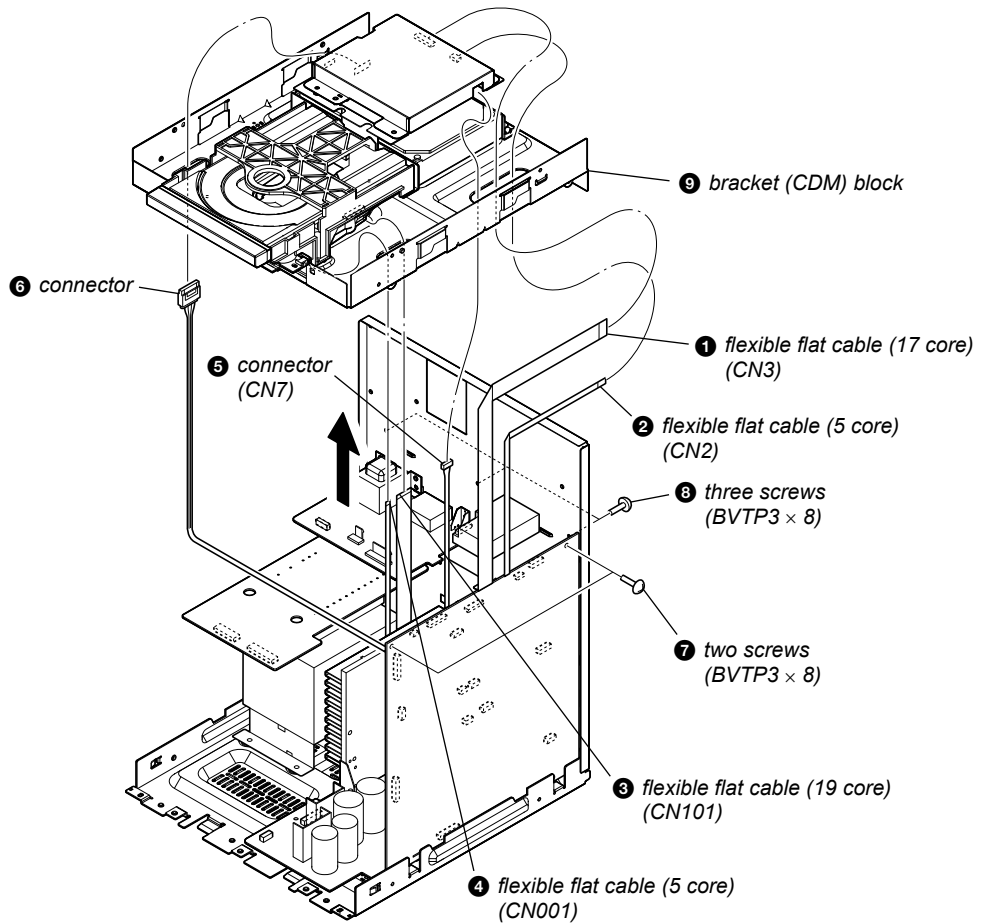


**Note:** Refer to "REPLACEMENT PROCEDURE OF HDD" (page 3) of the servicing notes for HDD is exchanged.

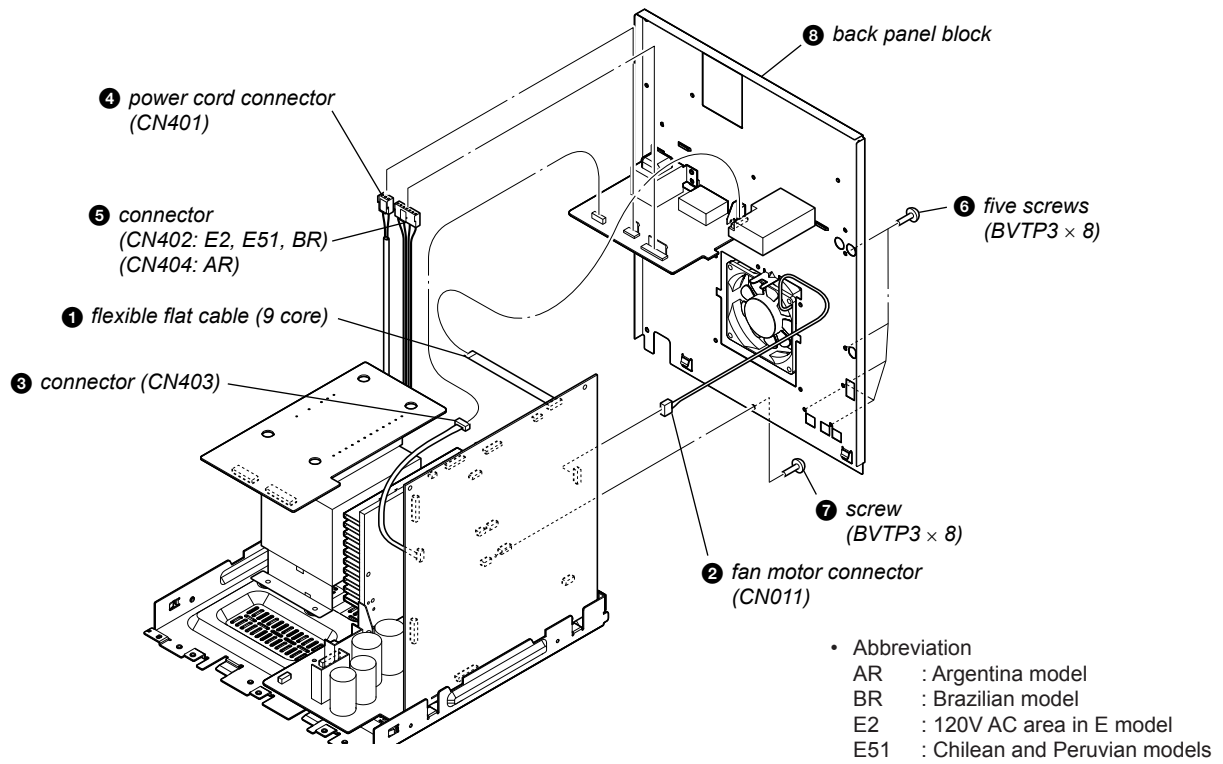
3-7. CD MECHANISM BLOCK



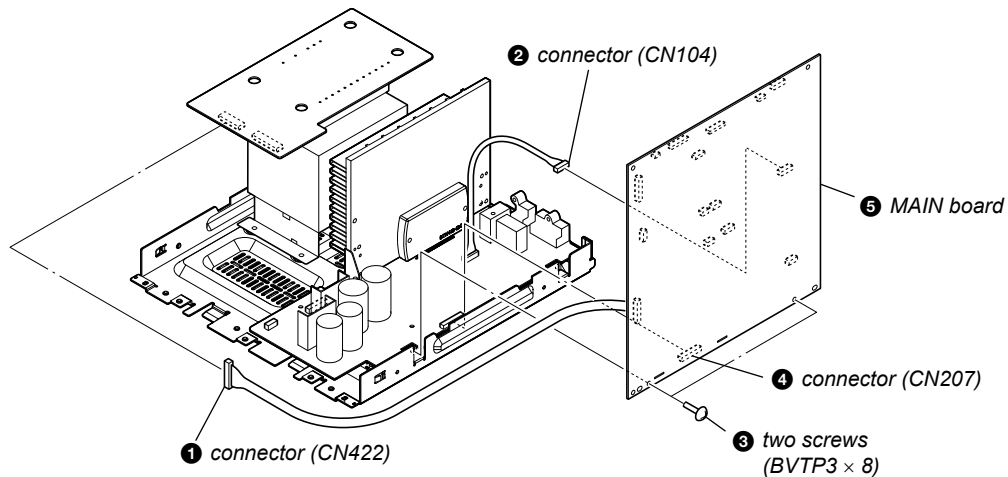
3-8. BRACKET (CDM) BLOCK



## 3-9. BACK PANEL BLOCK



## 3-10. MAIN BOARD



## SECTION 4 TEST MODE

**Note:** Never execute the item because the set might not operate normally when the item being written, "Not used for the servicing." in each item is executed.

### COLD RESET

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

#### Procedure:

1. In the standby status, press the [I/⏻] button to turn the power on.
2. Press three buttons of [■], [ENTER] and at last [I/⏻] simultaneously.
3. The set enters standby status.

### COMMON TEST MODE

#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [■], [GROOVE], and [▲] simultaneously.
3. It enters the common test mode and the "PLAY SLEEP" segment on the fluorescent indicator tube blinks.
4. Each time the [VOLUME] dial is turned, "VOLUME MIN" and "VOLUME MAX" are displayed.
5. Each time the [EQ] button on the remote commander is pressed, "TONE MAX", "TONE MIN" and "TONE FLAT" are displayed.
6. To release from this mode, press the [I/⏻] button to turn the power off.

### PANEL TEST MODE

#### Enter The Panel Test Mode

#### Procedure:

1. In the standby status, press the [I/⏻] button to turn the power on.
2. Press three buttons of [ILLUMINATION], [■], and [▲] simultaneously.
3. When the panel test mode is activated, LEDs and segments of the fluorescent indicator tube are all turned on.

### Version Check

#### Procedure:

1. In the panel test mode (all LEDs and segments of the fluorescent indicator tube are turned on), press the [BACK] button.
2. On the fluorescent indicator tube, model name, destination, MC version and its last updated date are displayed.
3. Each time [BACK] button is pressed, the display changes starting from MC, GC, GENE, GNS, HDD, USB, CD, CDMA, CDMB, ST, TA and TM version this order, and returns to the MC version display.
4. To release from this mode, press three buttons of [ILLUMINATION], [■], and [▲] simultaneously.

### Key Test Mode

#### Procedure:

1. In the panel test mode (all LEDs and segments of the fluorescent indicator tube are turned on), press the [ENTER] button.
2. The message "KEY 0/35 VOL 0" displayed. Whenever any buttons are pressed and the [VOLUME] dial is turned, the value is changed. All key pressed, display becomes "KEY 35/35" and "KEY OK".
3. To release from this mode, press three buttons of [ILLUMINATION], [■], and [▲] simultaneously.

### TUNER STEP CHANGE

The AM tuning interval can be changed over 9 kHz or 10 kHz.

#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [TUNER/BAND] button to select TUNER (AM) function.
3. Press the [I/⏻] button again to turn the power off (standby).
4. After pressing the [DISPLAY] button while pressing the [TUNE + ►► ►►] button, press the [I/⏻] button.
5. It turns power on and display "9k STEP" or "10k STEP", and thus the tuning interval is changed over.

### CD SHIP MODE

This mode can run the CD sled motor optionally. Use this mode, for instance, when cleaning the optical pick-up.

#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Confirm there is no disc in all trays.
3. Press the [FUNCTION] button to select CD function.
4. Press two buttons of [OPTIONS] and [I/⏻] simultaneously.
5. Set to the CD ship mode. (chucking on)
6. After blink "STANDBY", "LOCK" is displayed, disconnect the AC plug.

### CD TRAY LOCK

This mode is for the antitheft of CD disc in shop. (not for transport)

#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. Insert a disc.
4. While pressing the [■] button, press the [▲] button for more 5 seconds.
5. The message "LOCKED" is displayed and the disc tray is locked. (Even if exiting from this mode, the disc tray is still locked)
6. If press the [▲] button to eject the disc, the message "LOCKED" is displayed and can not eject the disc.
7. To release this lock, while pressing the [■] button, press the [▲] button for 5 seconds again.
8. The message "UNLOCKED" is displayed and the disc tray is unlocked.

### VACS ON/OFF MODE

VACS on/off change mode.

#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [TUNING - ◀◀◀ ◀◀], [CHORUS], and [↑] simultaneously.
3. VACS mode on. (not displayed)  
To VACS mode off, do the step 2 again.

### VACS DISPLAY ON/OFF MODE

VACS mode state display.

#### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [TUNING - ◀◀◀ ◀◀], [CHORUS], and [↓] simultaneously.
3. The message "VACS \* AC—" or "VACS OFF AC—" is displayed.  
\*: 1 to 6 (VACS level)  
—: power supply frequency
4. To release from this mode, do the step 2 again.

## SW DISPLAY ON/OFF MODE

Subwoofer level setting and check mode.

### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [TUNING – ⏪⏩ ◀▶], [CHORUS], and [▶] simultaneously.
3. The message “SWxxdB AD\*\*\*” or “SW OFF AD\*\*\*” is displayed.  
xx: 0, 4, 7, 10  
\*\*\*: 0\*\* to 1\*\* (subwoofer level VR)
4. To release from this mode, do the step 2 again.

## HDD TEST MODE

The CDDB version display, custom DB initialization, HDD writing/reading test, HDD test data deletion, format, HDD setup and initialization mode for factory can be executed in this mode.

**Note:** Never execute the item because the set might not operate normally when the item being written, “Not used for the servicing.” in each item is executed.

### Enter The HDD Test Mode

#### Procedure:

1. In the standby status, press the [I/⏻] button to turn the power on.
2. Press three buttons of [TUNE – ⏪⏩ ◀▶], [GROOVE] and [↓] simultaneously.
3. When the HDD test mode is activated.

### 1. CDDB Version Display

The version of CDDB built into HDD is displayed.

#### Procedure:

1. Enter the HDD test mode.
2. Press the [↑]/[↓] buttons to select the “CDDB Version”, and press the [ENTER] button.
3. The version of CDDB is displayed on the fluorescent indicator tube.

### 2. Custom DB Initialization

The initialization of custom DB recorded in HDD is executed.

**Note:** Not used for the servicing.

#### Procedure:

1. Enter the HDD test mode.
2. Press the [↑]/[↓] buttons to select the “Custom Init”, and press the [ENTER] button.
3. The following files in HDD are deleted.
  - ROOT\SYSTEM\CCUDB\CCU.EDB
  - ROOT\SYSTEM\CCUDB\CCU.IDX
  - ROOT\SYSTEM\CCUDB\CCUTOC.IDX
  - ROOT\SYSTEM\CCUDB\SCCU.EDB
  - ROOT\SYSTEM\CCUDB\SCCU.IDX
  - ROOT\SYSTEM\CCUDB\SCCUTOC.IDX

### 3. HDD Writing/Reading Test

The writing/reading of test data is done to HDD, and whether it operates normally is checked.

**Note:** Not used for the servicing.

#### Procedure:

1. Enter the HDD test mode.
2. Press the [↑]/[↓] buttons to select the “HDD W/R Test”, and press the [ENTER] button.
3. The writing/reading of the test data is done to HDD, and the result is displayed.  
When the writing/reading of the test data ends normally, the written test data is deleted.
  - W/R Test OK : The writing/reading of the test data ended normally.
  - W/R NG : Abnormality occurred in the writing/reading of the test data.
  - Erase NG : It failed in the deletion of the test data.

### 4. Format

The deletion of all folders and files in HDD is executed.

**Note 1:** Not used for the servicing.

**Note 2:** When this mode is executed, all data including the SYSTEM file in HDD is deleted.

#### Procedure:

1. Enter the HDD test mode.
2. Press the [↑]/[↓] buttons to select the “Format”, and press the [ENTER] button.
3. All folders and files in HDD are deleted.

### 5. HDD Setup

The installation of initial data is executed from the USB memory to HDD.

**Note 1:** Not used for the servicing.

**Note 2:** The SYSTEM file and the DEMO tune are copied from USB memory after all data in HDD is deleted with format when this mode is executed, and HDD can be returned to the state of initialization (It takes the time of about 80 minutes).

#### Procedure:

1. Connect the USB memory where initial data is recorded to the set.
2. Enter the HDD test mode.
3. Press the [↑]/[↓] buttons to select the “Setup”, and press the [ENTER] button.
4. The following data is copied from the USB memory to HDD.
  - ROOT\SYSTEM\TitleUpdater.exe
  - ROOT\SYSTEM\TitleUpdaterVersion.txt
  - ROOT\SYSTEM\UCODE.DAT
  - ROOT\SYSTEM\CDDB\ecddb.idx
  - ROOT\SYSTEM\CDDB\ecddb.mdt
  - ROOT\SYSTEM\CDDB\elists.db
  - ROOT\MUSIC\ (File of description to “MUJIC\music.txt”)

### 6. Initialization Mode For Factory

The user use areas other than the “Sony Demo” artist in HDD are initialized, and the cold reset is executed.

#### Procedure:

1. Enter the HDD test mode.
2. Press the [↑]/[↓] buttons to select the “FactoryPreset”, and press the [ENTER] button.
3. Press the [↑]/[↓] buttons to select the “OK?”, and press the [ENTER] button.
4. All folder/file in the following folders in HDD is deleted.
  - ROOT\SYSTEM\CCUDB
  - ROOT\MUSIC (excluding folder/file that belongs to “Sony Demo” artist)
5. After initialization ends, the cold reset is executed.

## SECTION 5 ELECTRICAL CHECKS

### HDD FACTORY SHIPMENT TEST MODE

The user use areas in HDD are initialized, and the cold reset is executed.

**Note:** When this mode is executed, all the MUSIC data including the DEMO tune in HDD is deleted (The SYSTEM file is not deleted). Execute this mode after it notes it enough when executing it because all the MUSIC data and CDDDB updates that the user recorded are deleted.

**Procedure:**

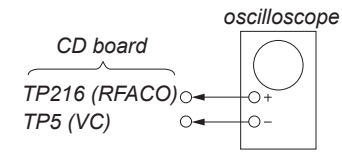
1. In the standby status, press the [I/⏻] button to turn the power on.
2. Press three buttons of [■], [GROOVE] and [HDD REC] simultaneously.
3. Press the [↑]/[↓] buttons to select the "OK?", and press the [ENTER] button.
4. All folder/file in the following folders in HDD is deleted.
  - ROOT\SYSTEM\CCUDB
  - ROOT\MUSIC
5. After initialization ends, the cold reset is executed.

### CD SECTION

**Note:**

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

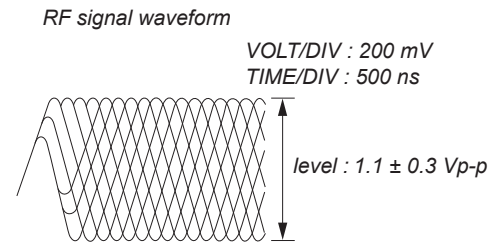
#### RF LEVEL CHECK



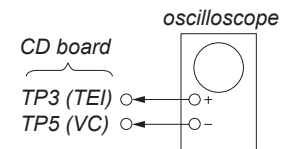
**Procedure:**

1. Connect an oscilloscope TP216 (RFACO) and TP5 (VC) on the CD board.
2. Turn the power ON.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

**Note:** Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

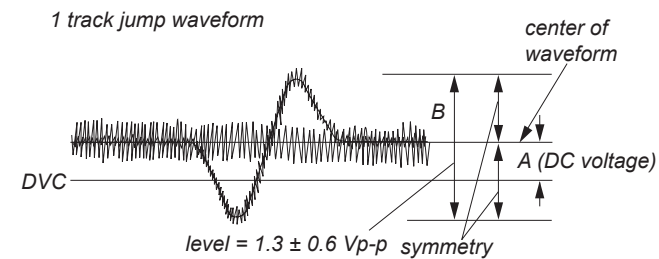


#### E-F BALANCE (1 TRACK JUMP) CHECK

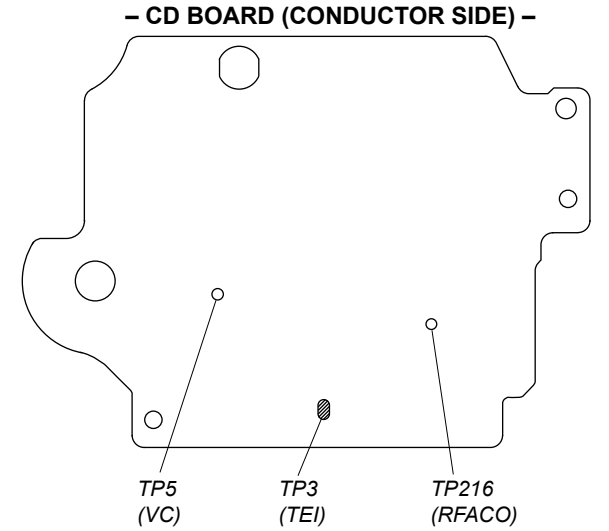


**Procedure:**

1. Connect an oscilloscope to TP3 (TEI) and TP5 (VC).
2. Turn the power ON.
3. Load a disc (YEDS-18) and playback the number 5 track.
4. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.

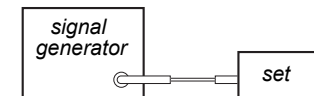


### Connecting and Adjustment Location: CD board



### TUNER SECTION

#### FM TUNE 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)

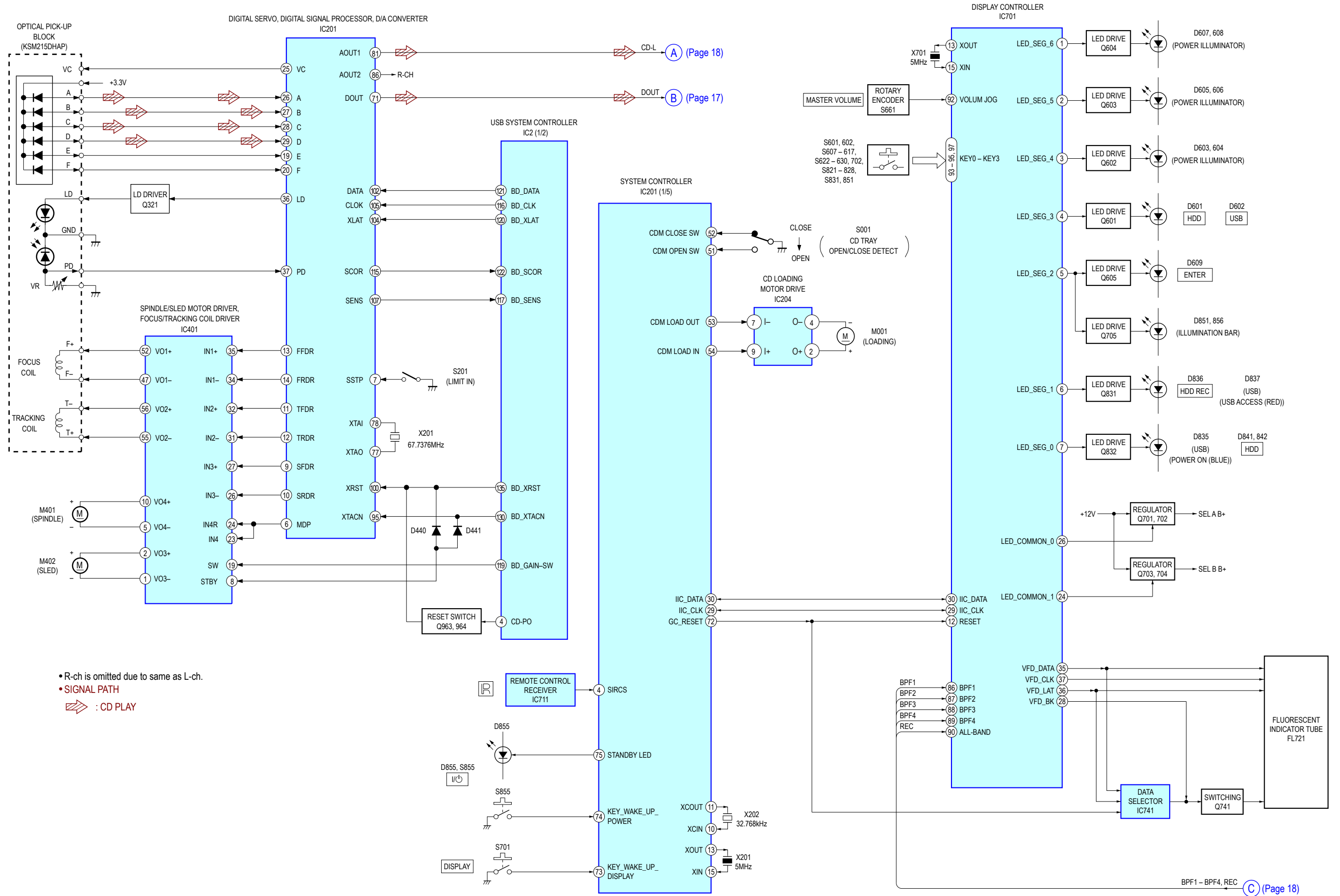
**Note:** Use 75 ohm coaxial cable to connect signal generator and the set. You cannot use video cable for checking. Use signal generator whose output impedance is 75 ohm.

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.

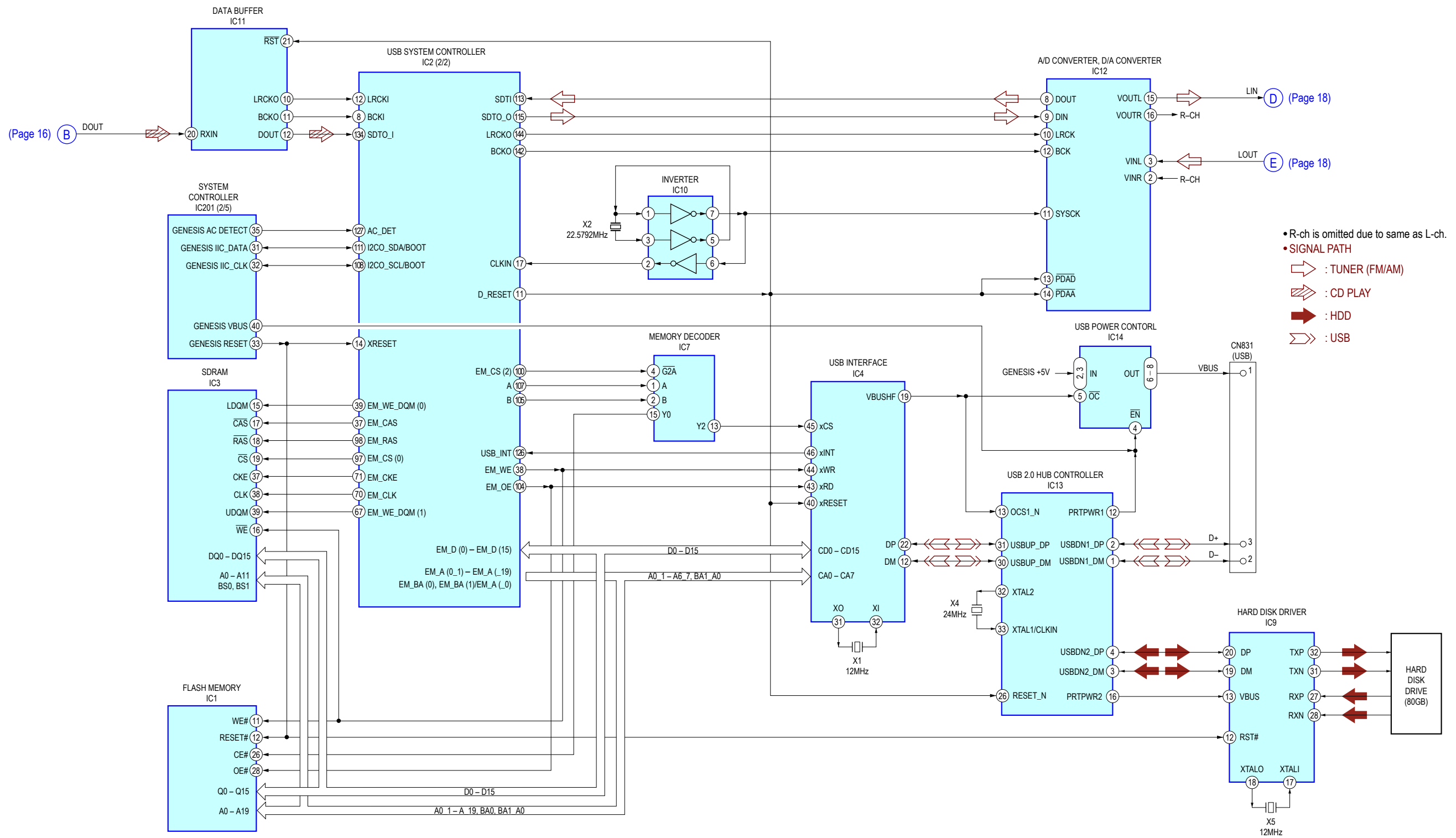
SECTION 6  
DIAGRAMS

6-1. BLOCK DIAGRAM - CD SERVO, PANEL Section -

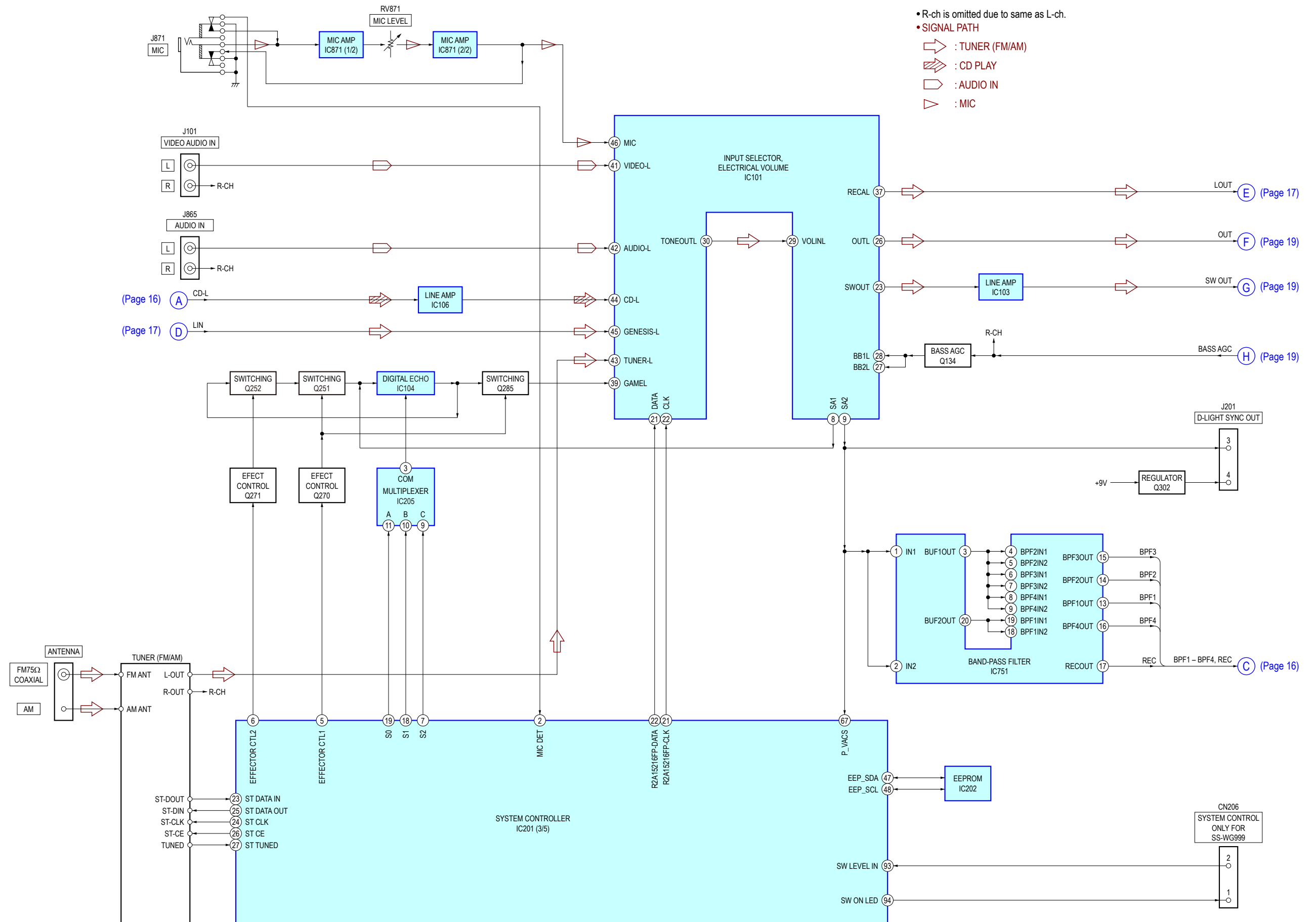




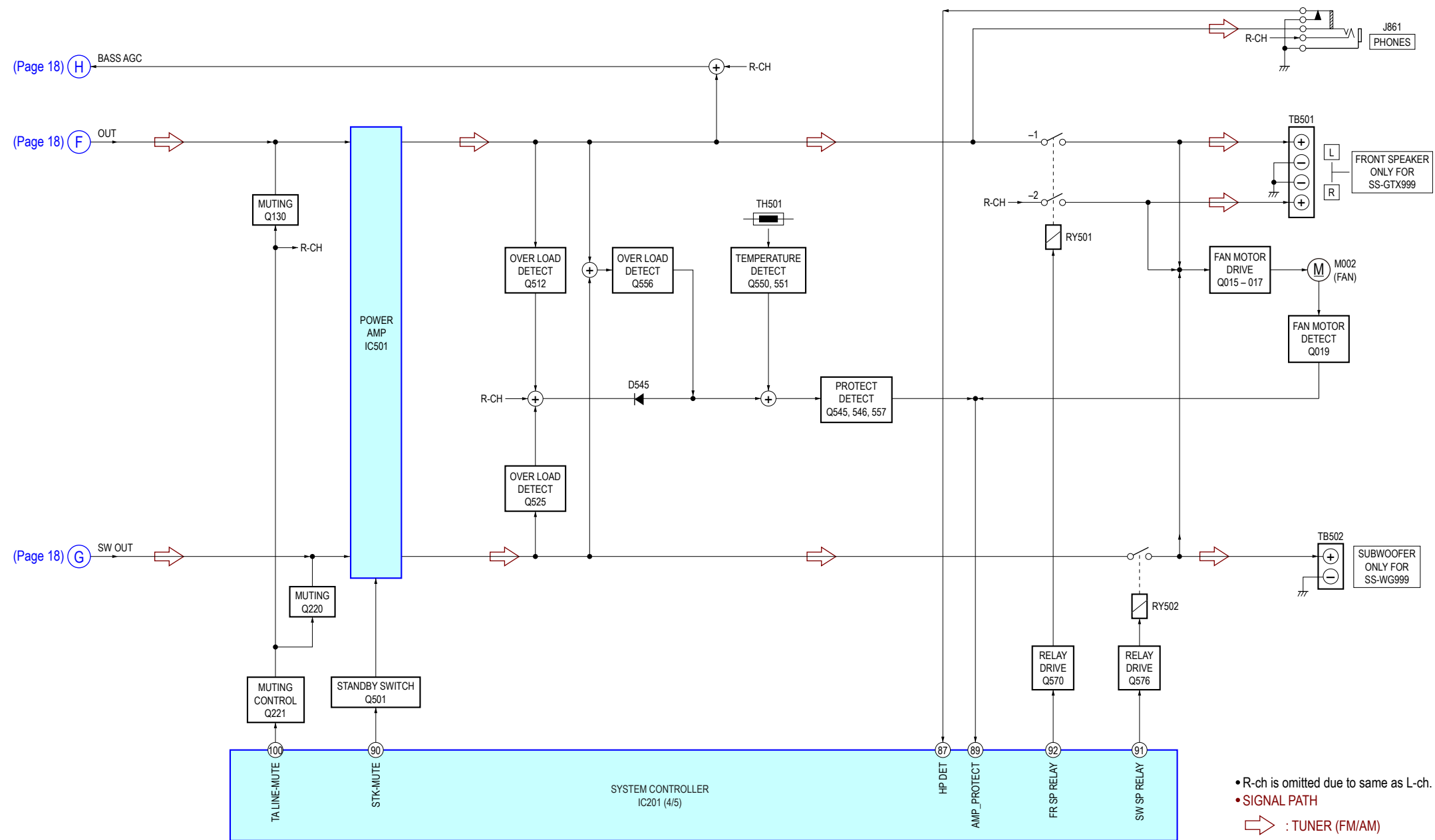
6-2. BLOCK DIAGRAM - USB, HDD Section -



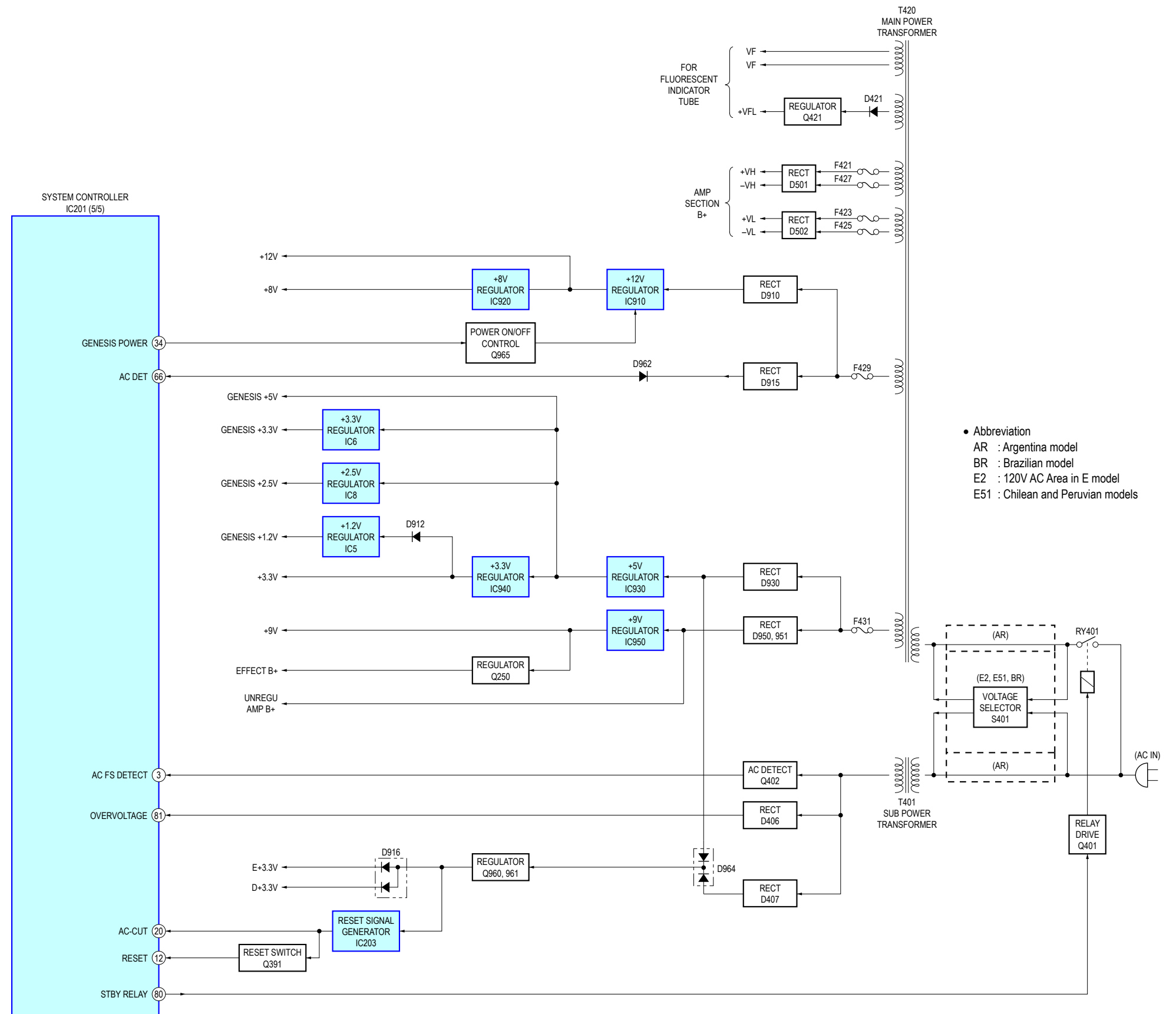
6-3. BLOCK DIAGRAM - MAIN Section -



6-4. BLOCK DIAGRAM - AMP Section -



6-5. BLOCK DIAGRAM - POWER SUPPLY Section -



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

**For Printed Wiring Boards.**

**Note:**

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

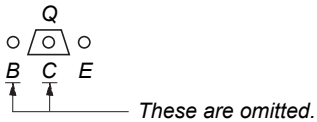
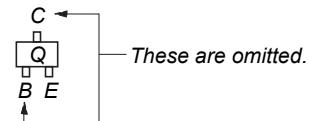
**Caution:**

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

**Caution:**

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

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



**For Schematic Diagrams.**

**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4 W or less unless otherwise specified.
- △: internal component.
- □: nonflammable resistor.
- □: panel designation.

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

- —: B+ Line.
- - - -: B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.

— CD Board —

no mark : CD PLAY

— USB MICOM Board —

no mark : USB PLAY

— Other Boards —

no mark : TUNER (FM/AM)

( ) : CD PLAY

<< >> : USB PLAY

- Voltages are taken with VOM (Input impedance 10 M $\Omega$ ). 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.

→ : TUNER (FM/AM)

→ : CD PLAY

→ : USB

→ : AUDIO IN

→ : HDD

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

→ : MIC

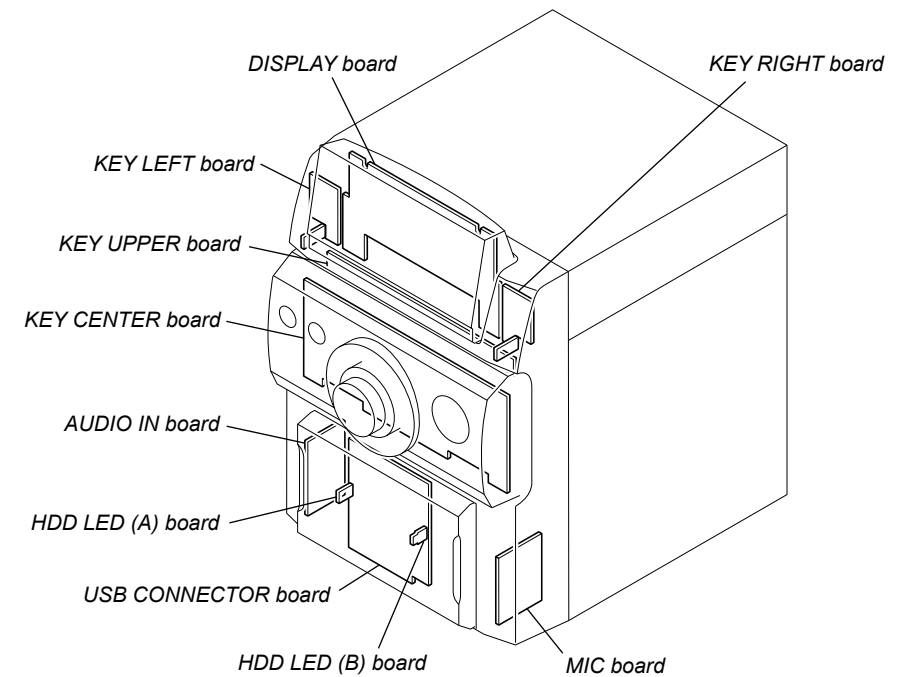
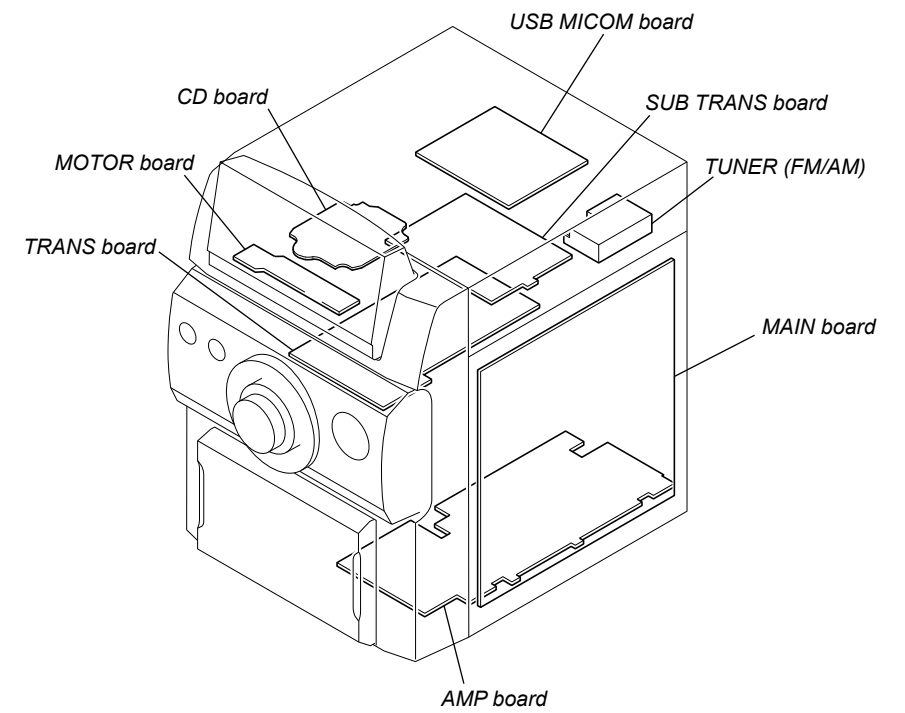
→ : MIC

→ : MIC

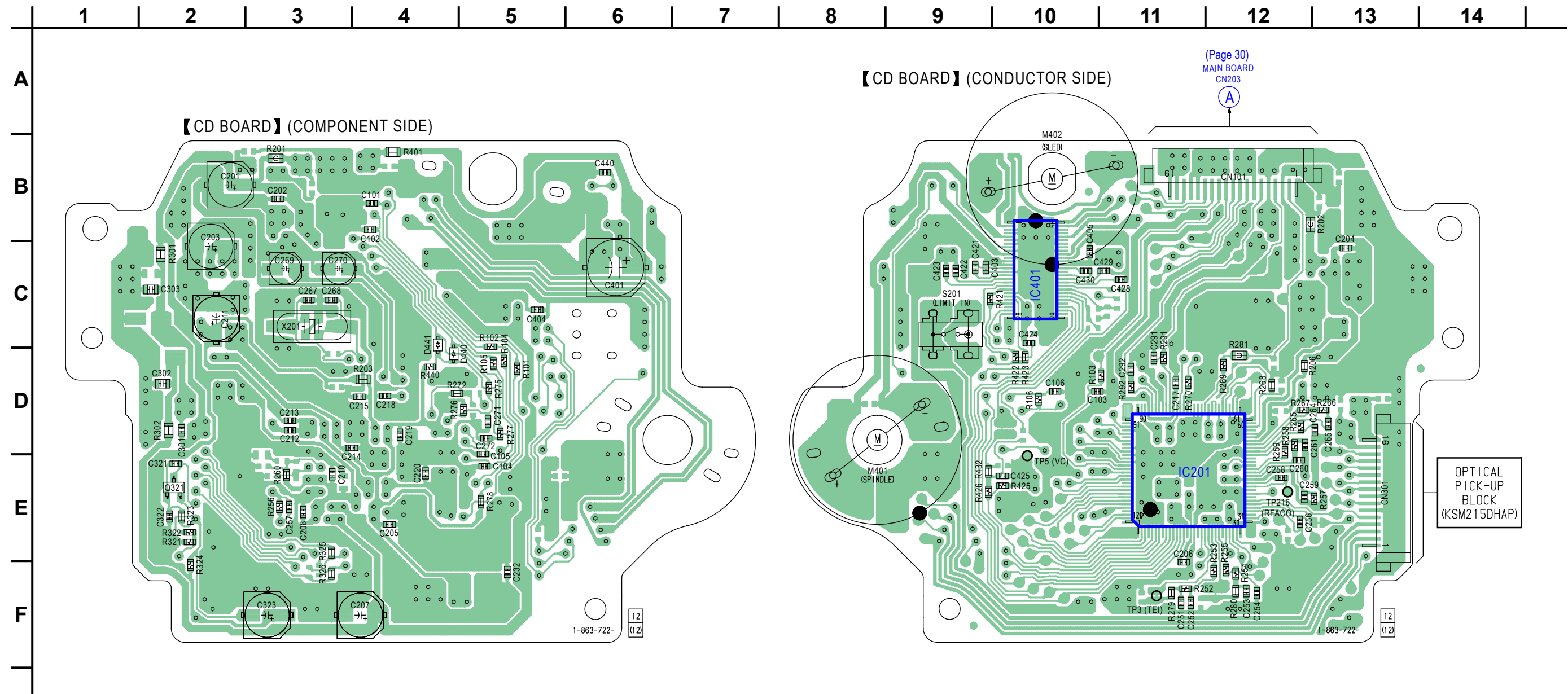
→ : MIC

→ : MIC

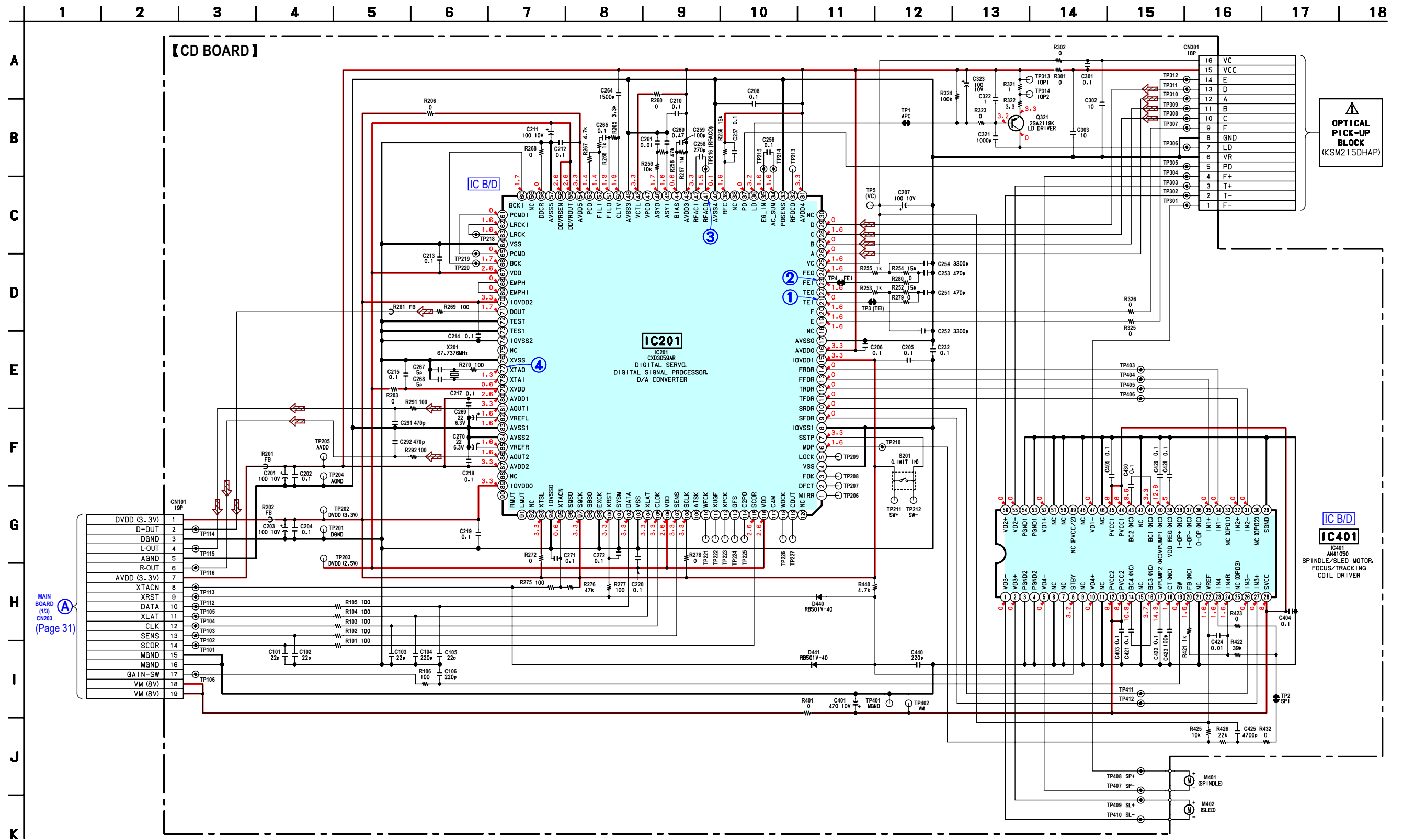
• Circuit Boards Location



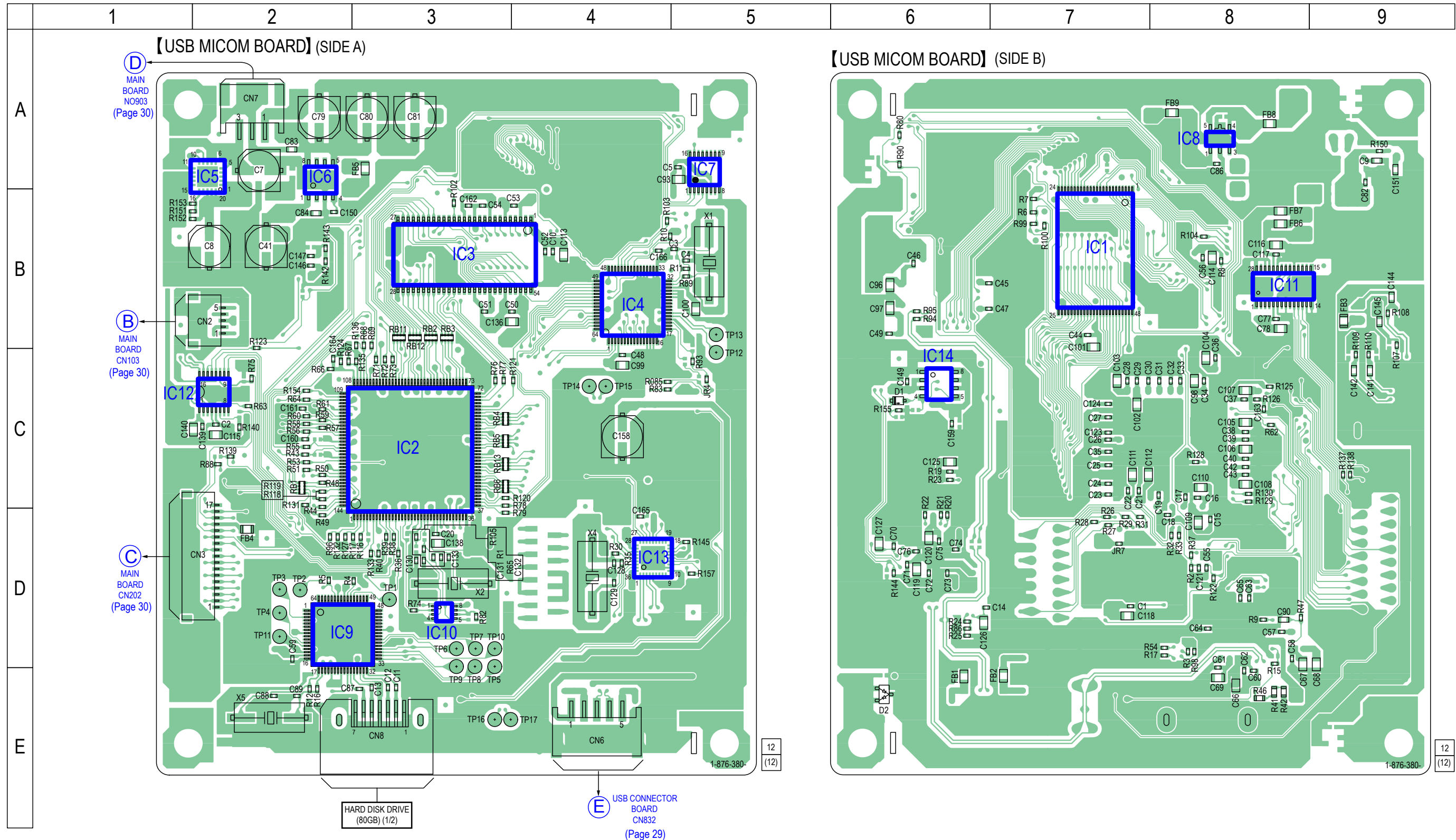
6-6. PRINTED WIRING BOARD - CD Board - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



6-7. SCHEMATIC DIAGRAM - CD Board - • See page 35 for waveforms. • See page 48 for IC Block Diagrams.



6-8. PRINTED WIRING BOARD - USB MICOM Board - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

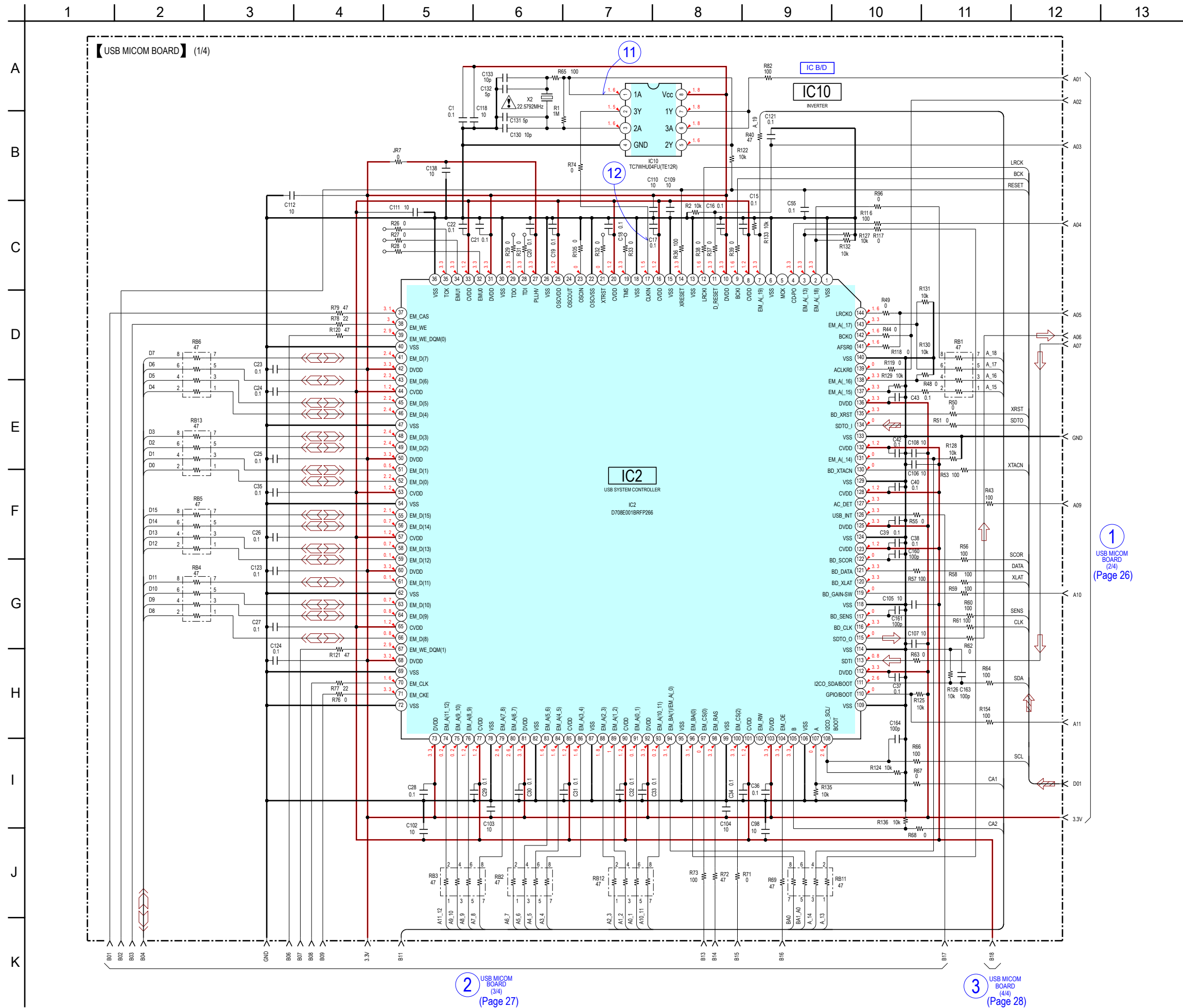
Ref. No.	Location	Ref. No.	Location
D1	C-6	IC7	A-5
D2	E-6	IC8	A-8
IC1	B-7	IC9	D-2
IC2	C-3	IC10	D-3
IC3	B-3	IC11	B-8
IC4	B-4	IC12	C-2
IC5	A-2	IC13	D-4
IC6	A-2	IC14	C-6

**Note 1:** IC5 and IC13 on the USB MICOM board cannot exchange with single. When these parts on the USB MICOM board are damaged, exchange the entire mounted board.

**Note 2:** Refer to "REPLACEMENT PROCEDURE OF HDD" (page 4) of the servicing notes for HDD is exchanged.



6-9. SCHEMATIC DIAGRAM - USB MICOM Board (1/4) - • See page 35 for waveforms. • See page 48 for IC Block Diagrams. • See page 55 for IC Pin Function Description.

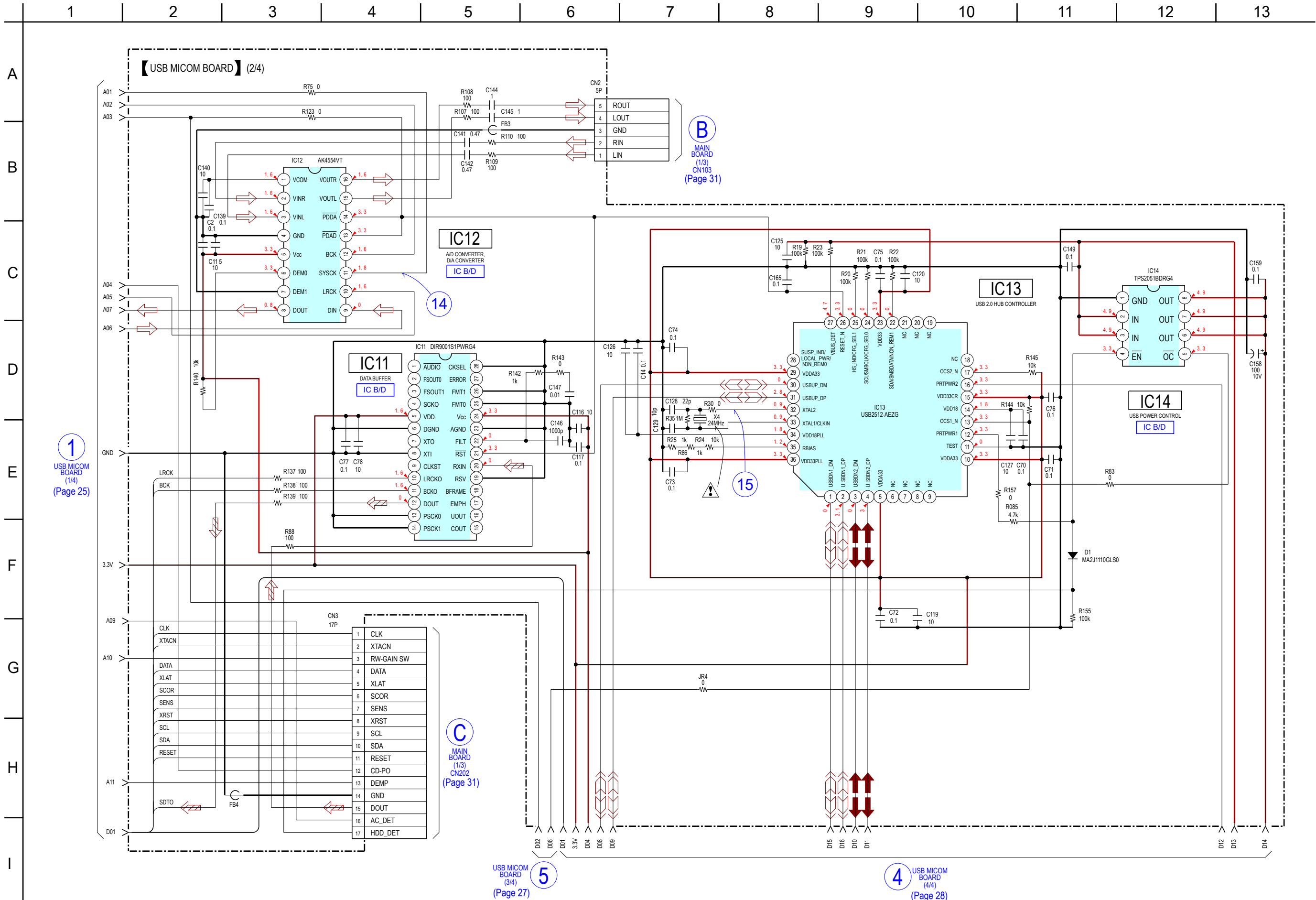


1 USB MICOM BOARD (2/4) (Page 26)

2 USB MICOM BOARD (3/4) (Page 27)

3 USB MICOM BOARD (4/4) (Page 28)

6-10. SCHEMATIC DIAGRAM - USB MICOM Board (2/4) - • See page 48 for IC Block Diagrams. • See page 55 for IC Pin Function Description.



1  
USB MICOM BOARD (1/4)  
(Page 25)

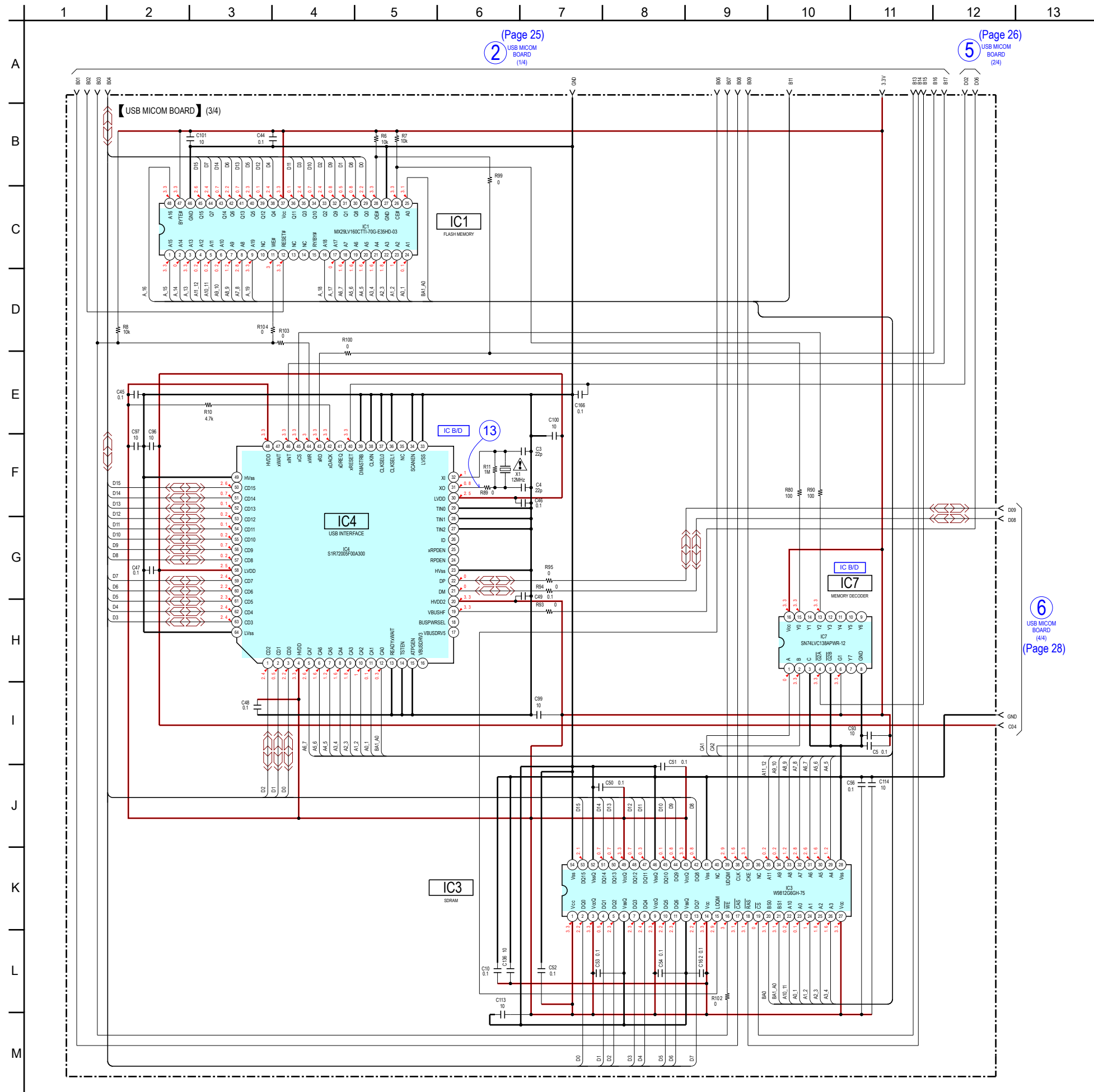
C  
MAIN BOARD (1/3)  
CN202  
(Page 31)

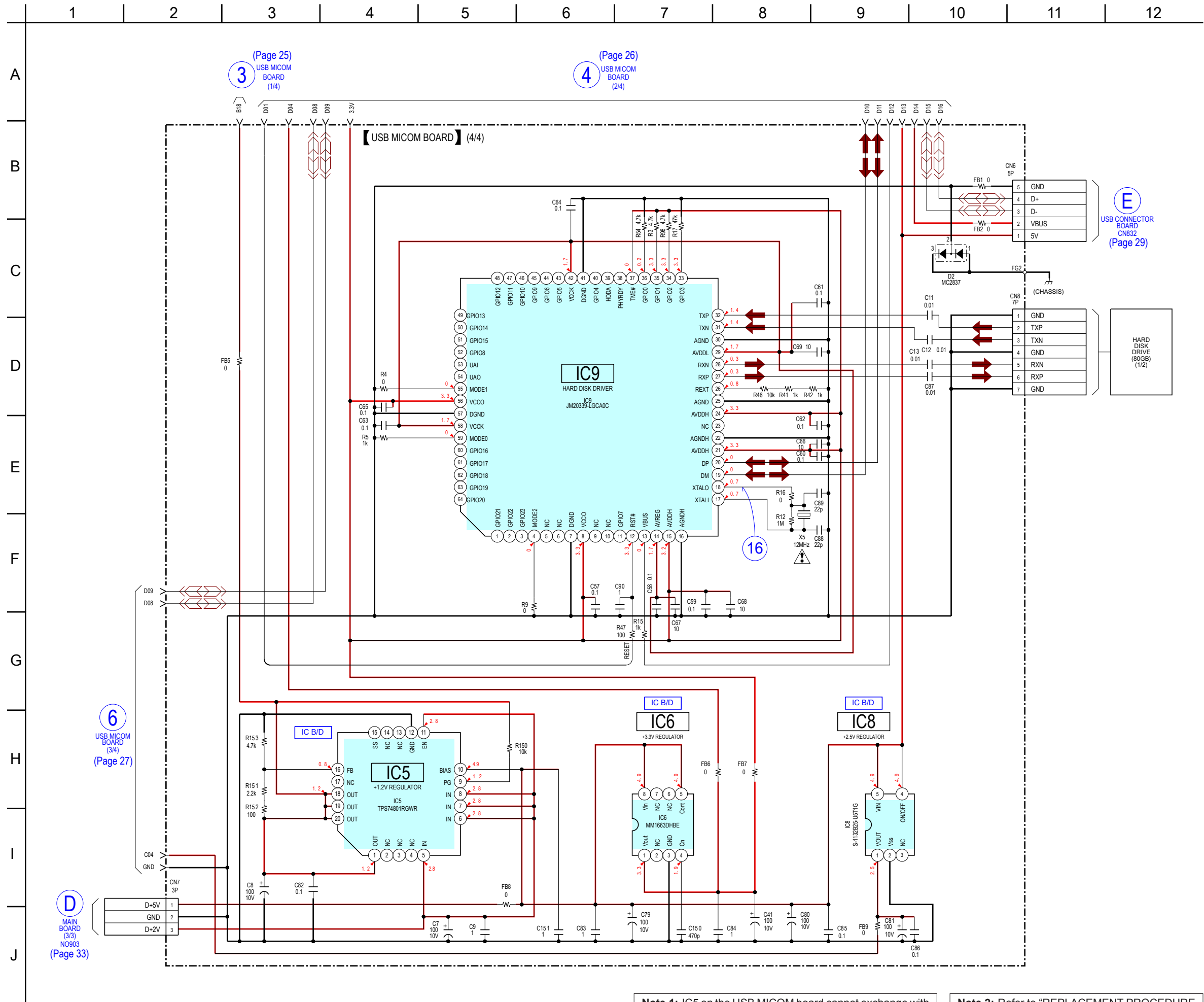
5  
USB MICOM BOARD (3/4)  
(Page 27)

4  
USB MICOM BOARD (4/4)  
(Page 28)

**Note:** IC13 on the USB MICOM board cannot exchange with single. When this part on the USB MICOM board is damaged, exchange the entire mounted board.

6-11. SCHEMATIC DIAGRAM - USB MICOM Board (3/4) - • See page 35 for waveforms. • See page 48 for IC Block Diagrams.



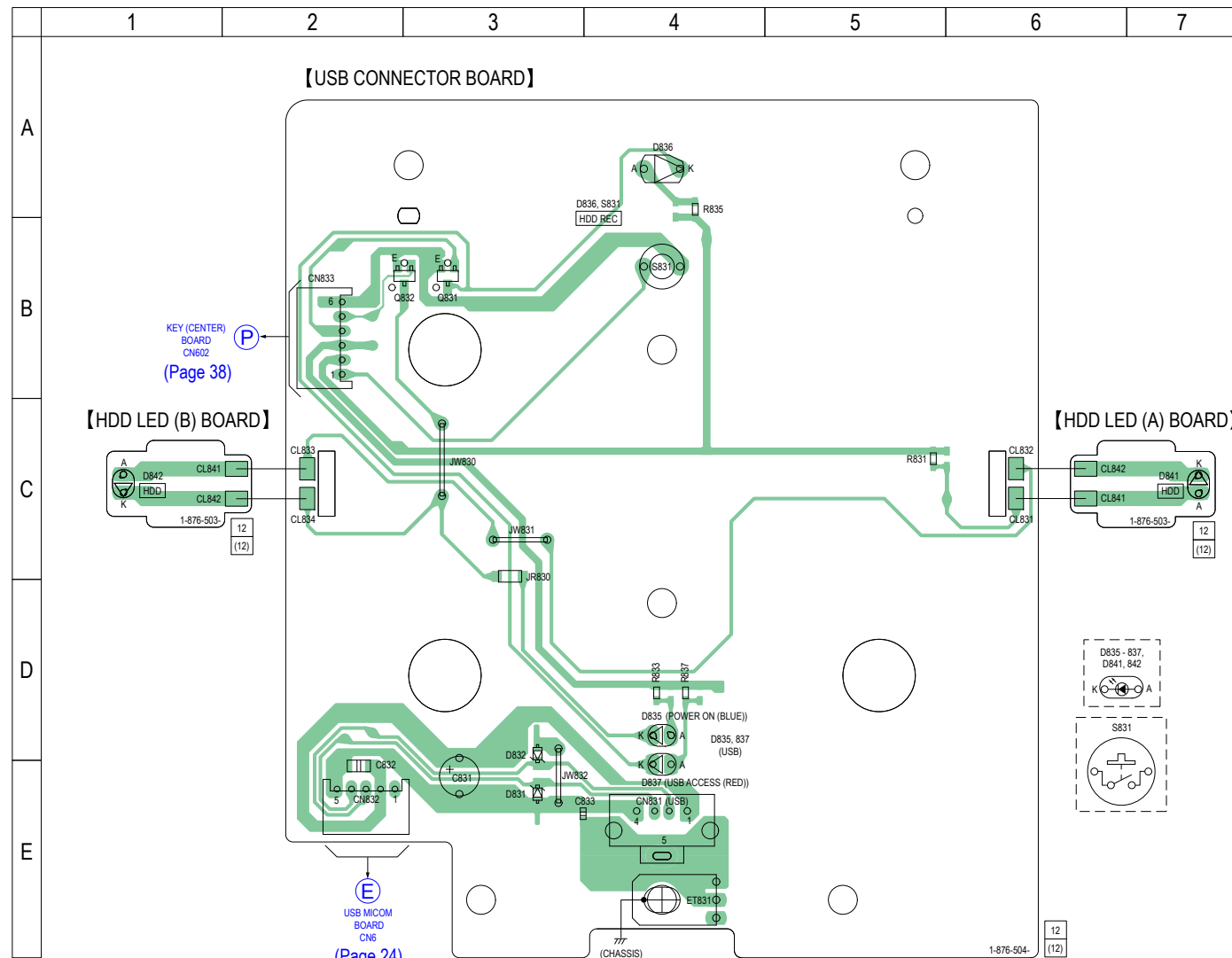


**Note 1:** IC5 on the USB MICOM board cannot exchange with single. When this part on the USB MICOM board is damaged, exchange the entire mounted board.

**Note 2:** Refer to "REPLACEMENT PROCEDURE OF HDD" (page 4) of the servicing notes for HDD is exchanged.

6-13. PRINTED WIRING BOARDS - USB, LED Section -

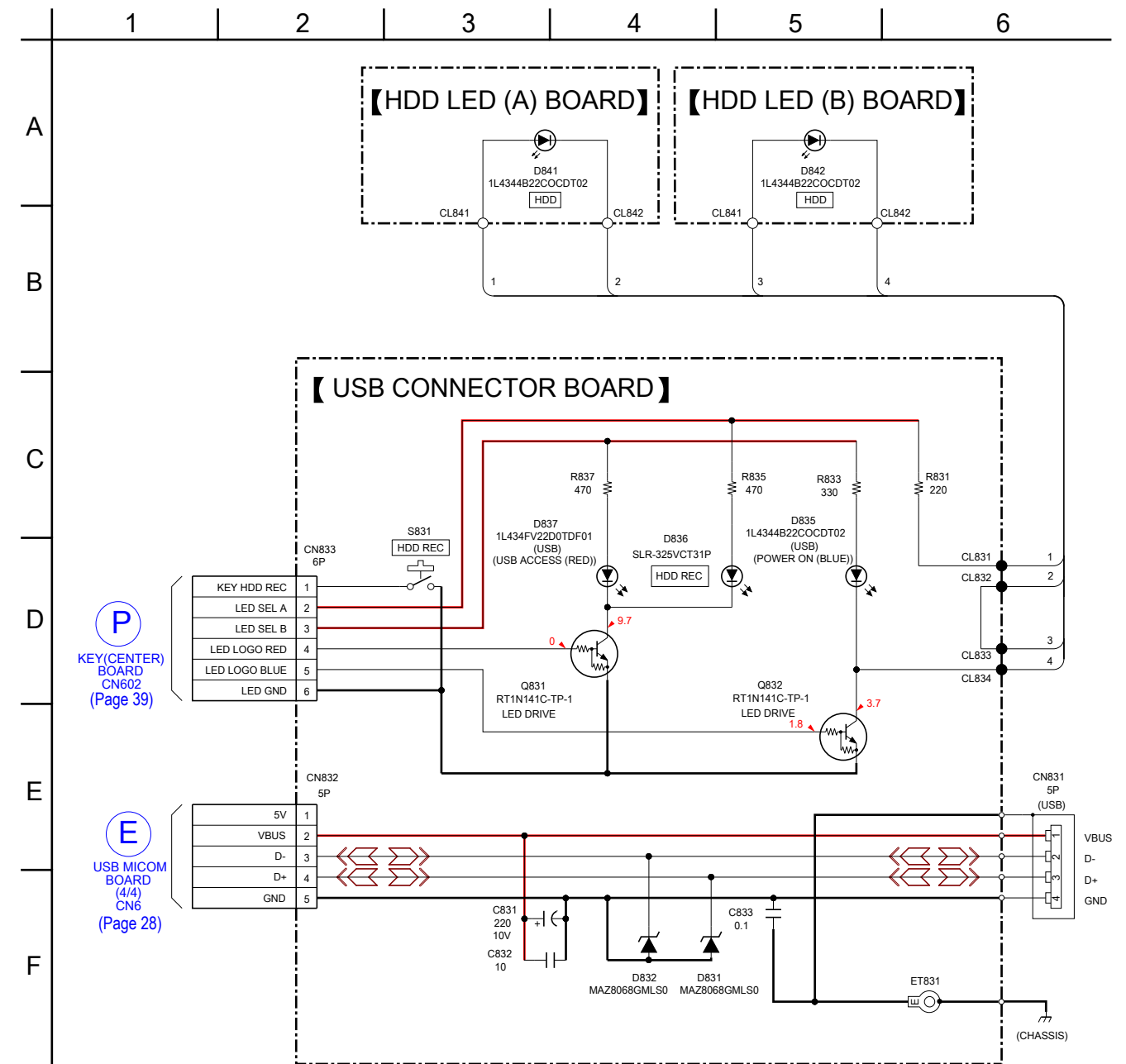
• See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

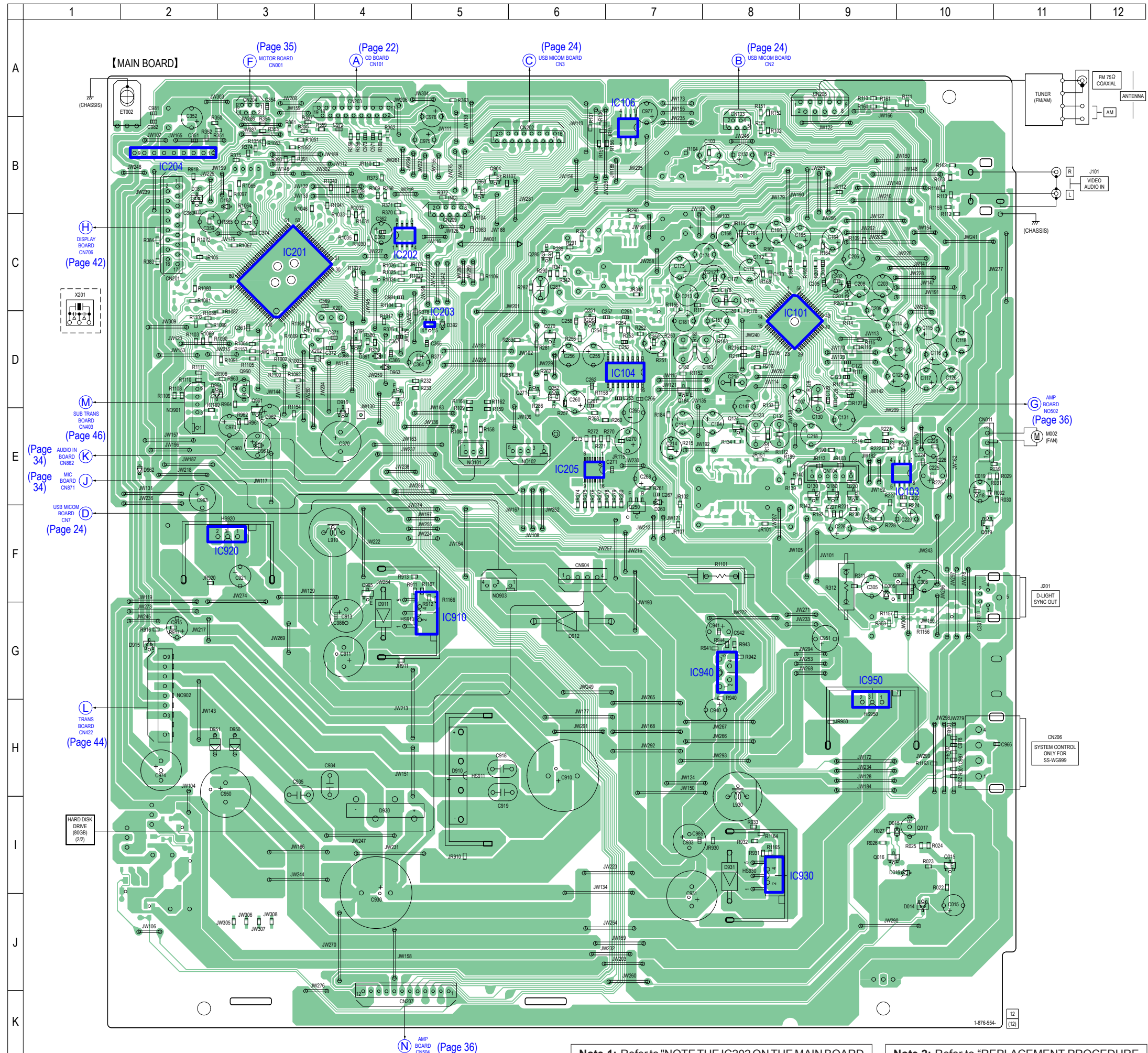
Ref. No.	Location
D832	E-3
D835	D-4
D836	A-4
D837	E-4
D841	C-1
D842	C-7
Q831	B-3
Q832	B-3

6-14. SCHEMATIC DIAGRAM - USB, LED Section -



• Semiconductor Location

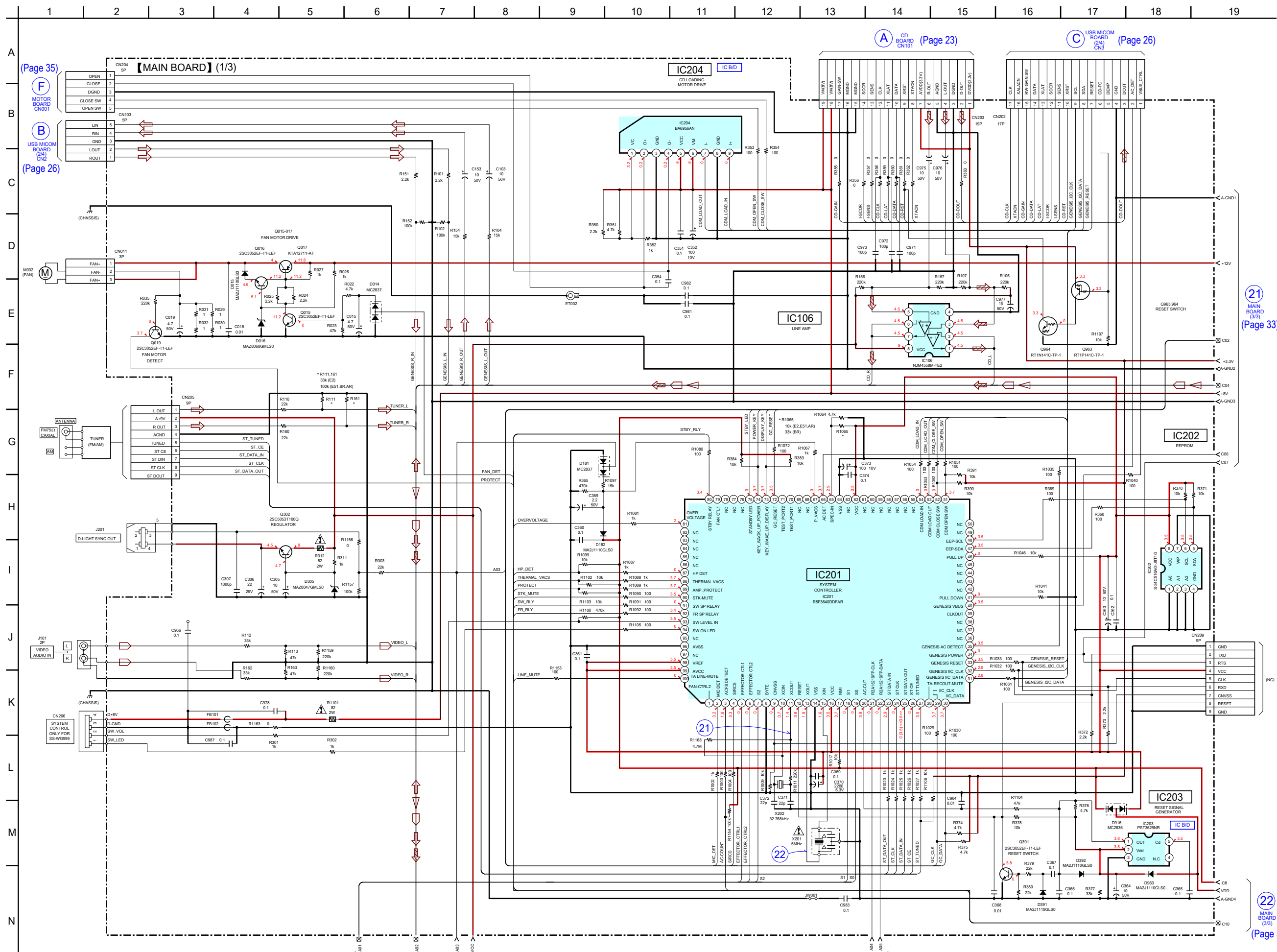
Ref. No.	Location
D014	J-10
D015	I-10
D016	I-10
D181	B-2
D182	B-3
D260	E-7
D305	F-9
D391	D-4
D392	D-5
D910	H-5
D911	G-4
D912	G-6
D915	G-2
D916	E-4
D930	I-4
D931	I-8
D950	H-3
D951	H-2
D961	E-3
D962	E-2
D963	D-4
D964	D-3
IC101	D-8
IC103	E-10
IC104	D-7
IC106	B-7
IC201	C-3
IC202	C-4
IC203	D-5
IC204	B-2
IC205	E-6
IC910	G-5
IC920	F-3
IC930	I-8
IC940	G-8
IC950	H-9
Q015	I-10
Q016	I-9
Q017	I-10
Q019	F-10
Q130	E-9
Q134	E-8
Q180	E-9
Q184	D-7
Q220	E-9
Q221	D-4
Q250	F-7
Q251	D-6
Q252	D-6
Q270	D-6
Q271	D-6
Q285	C-6
Q302	F-10
Q391	D-4
Q960	D-3
Q961	E-3
Q963	B-5
Q964	B-5
Q965	F-4



**Note 1:** Refer to "NOTE THE IC202 ON THE MAINBOARD REPLACING" (page 3) of the servicing notes for IC202 on the MAIN board is exchanged.

**Note 2:** Refer to "REPLACEMENT PROCEDURE OF HDD" (page 4) of the servicing notes for HDD is exchanged.

6-16. SCHEMATIC DIAGRAM - MAIN Board (1/3) - • See page 35 for waveforms. • See page 48 for IC Block Diagrams. • See page 55 for IC Pin Function Description.



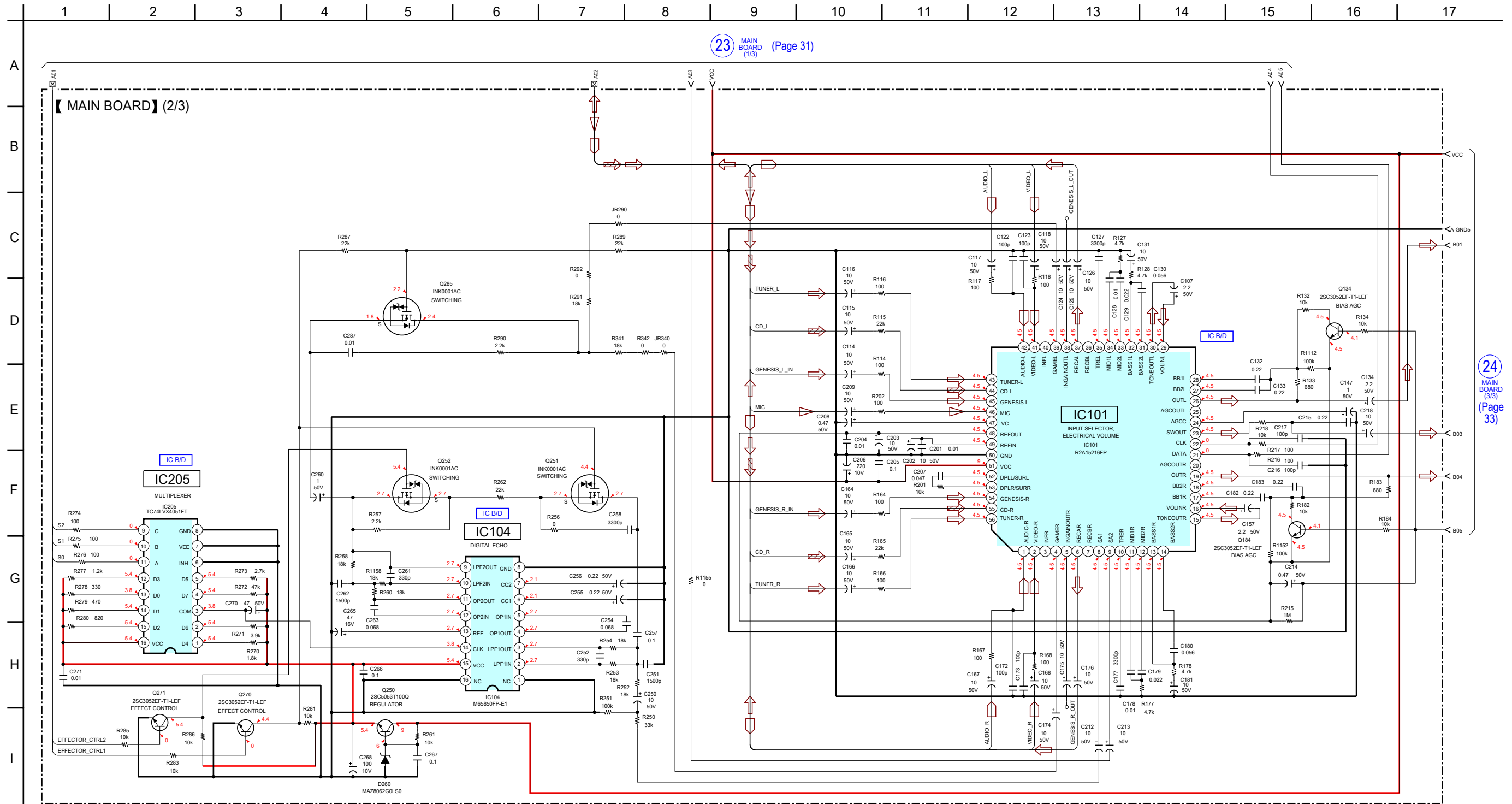
21 MAIN BOARD (3/3) (Page 33)

22 MAIN BOARD (3/3) (Page 33)

23 MAIN BOARD (2/3) (Page 32)

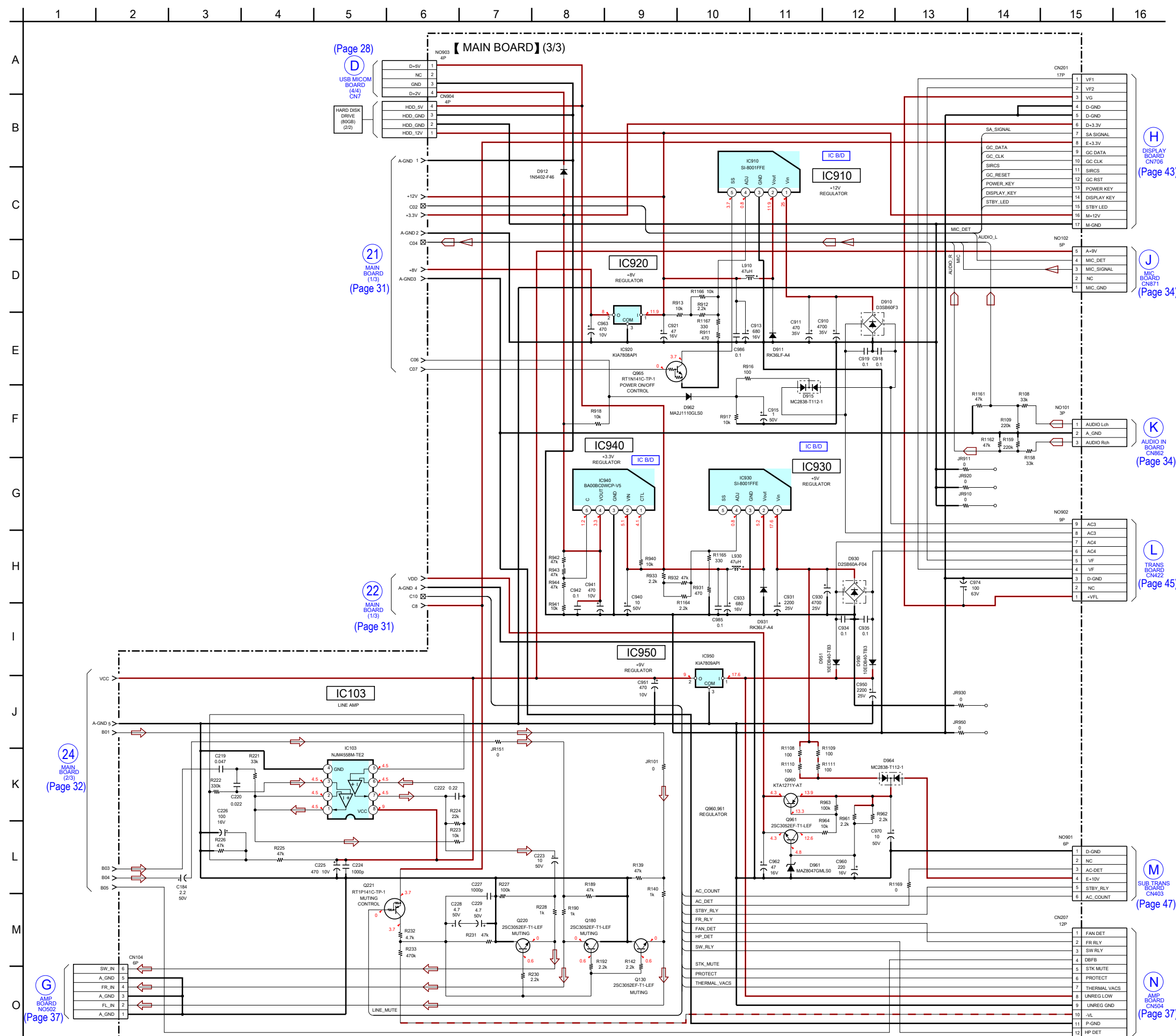
Note: Refer to "NOTE THE IC202 ON THE MAIN BOARD REPLACING" (page 3) of the servicing notes for IC202 on the MAIN board is exchanged.

6-17. SCHEMATIC DIAGRAM - MAIN Board (2/3) - • See page 48 for IC Block Diagrams.



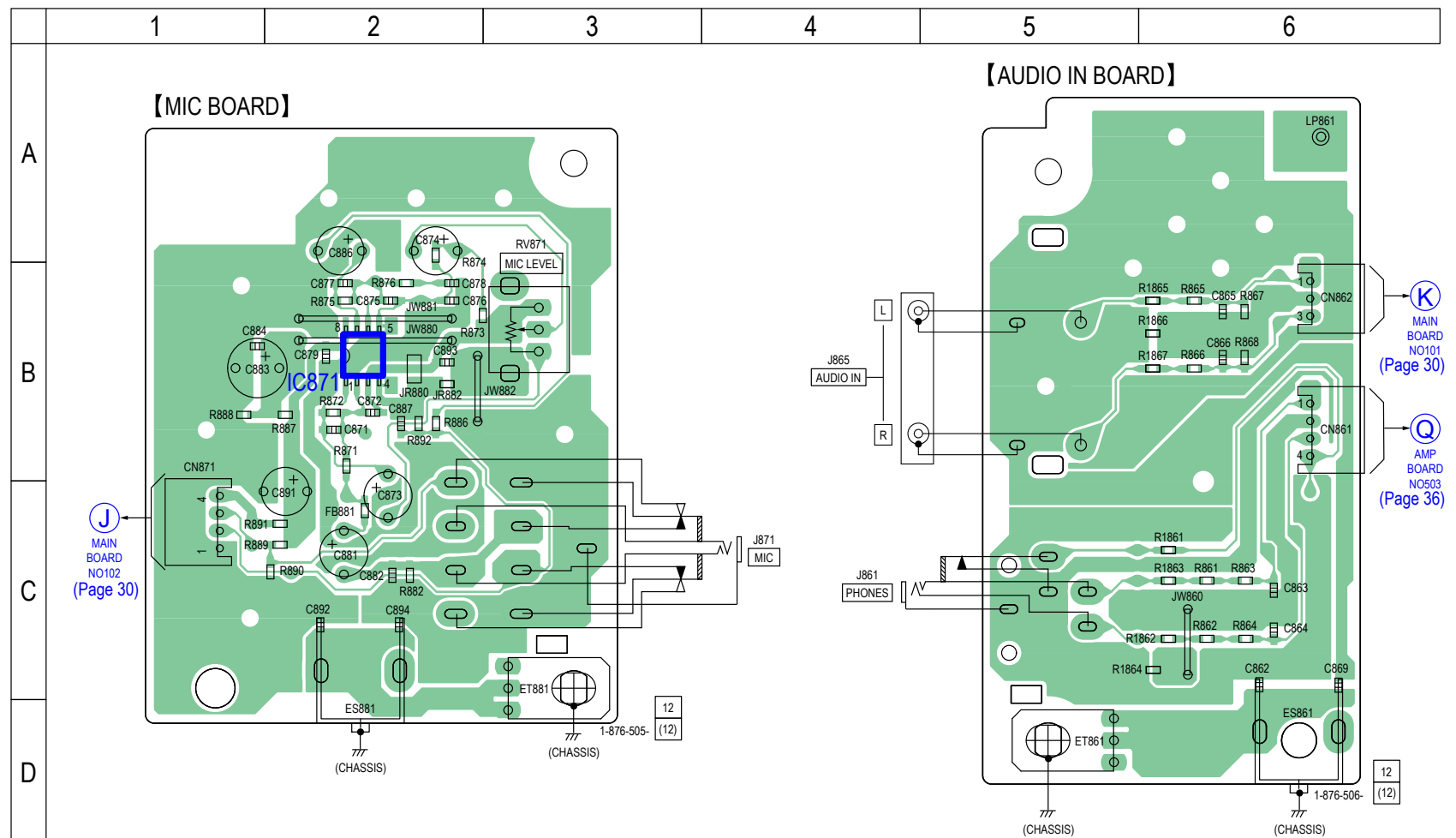


6-18. SCHEMATIC DIAGRAM - MAIN Board (3/3) - See page 48 for IC Block Diagrams.

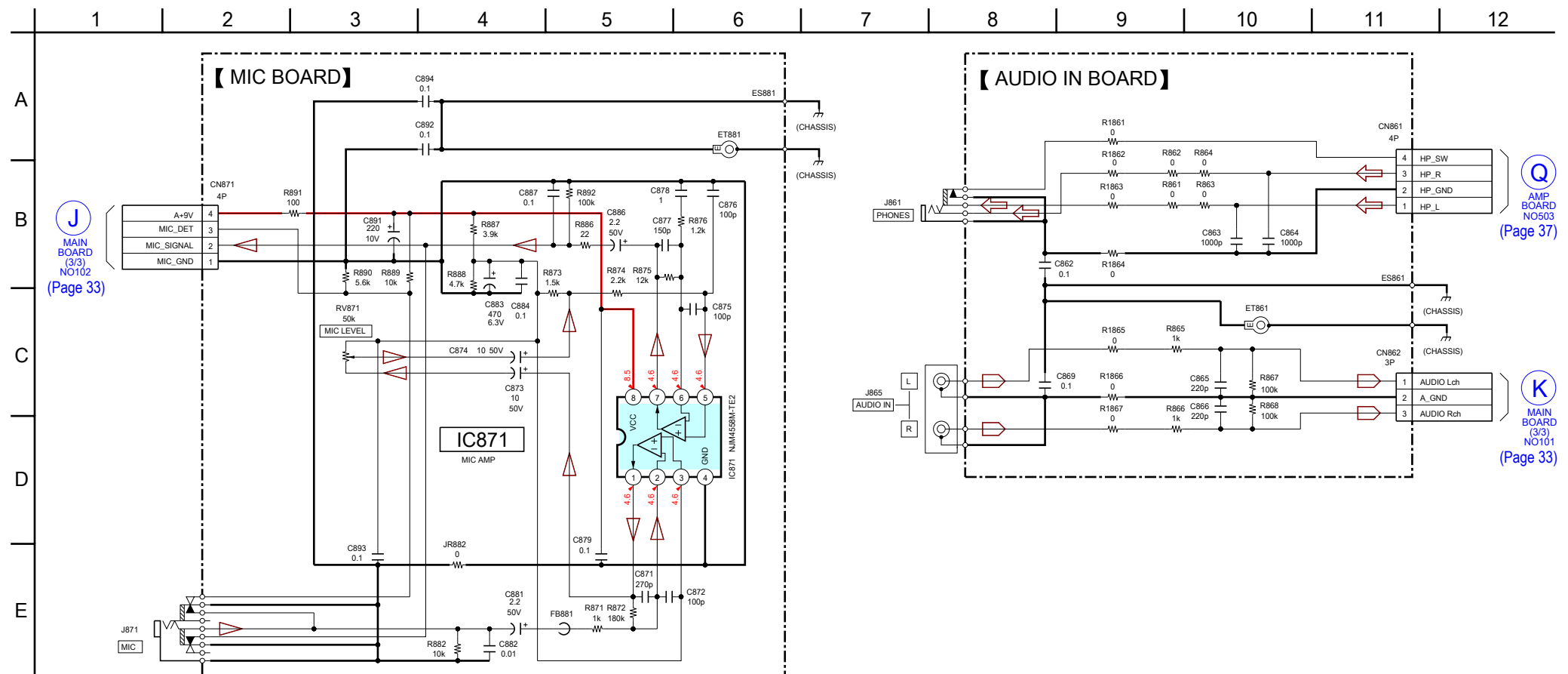


Note: Refer to "REPLACEMENT PROCEDURE OF HDD" (page 4) of the servicing notes for HDD is exchanged.

6-19. PRINTED WIRING BOARDS - INPUT, OUTPUT Section - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.

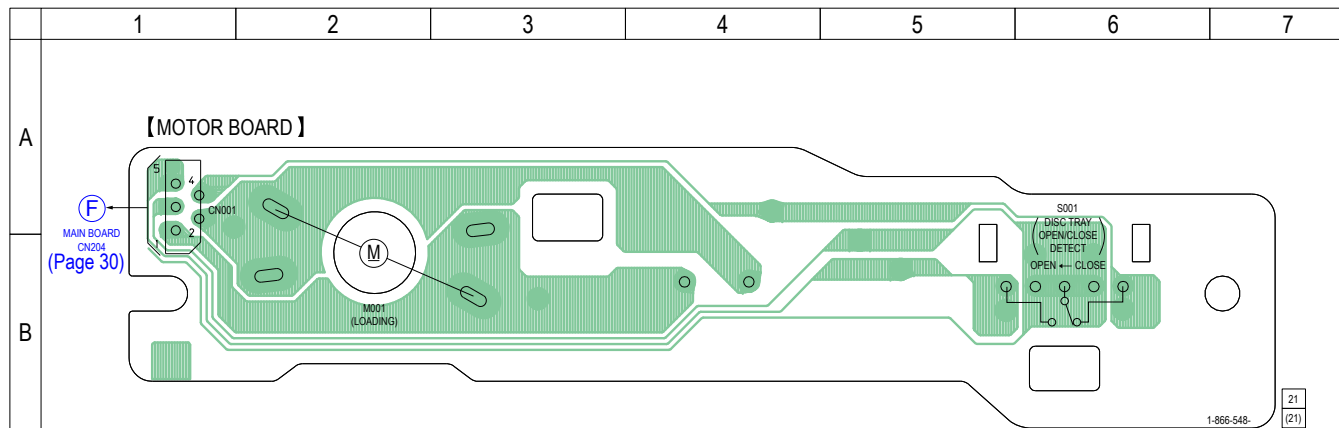


6-20. SCHEMATIC DIAGRAM - INPUT, OUTPUT Section -

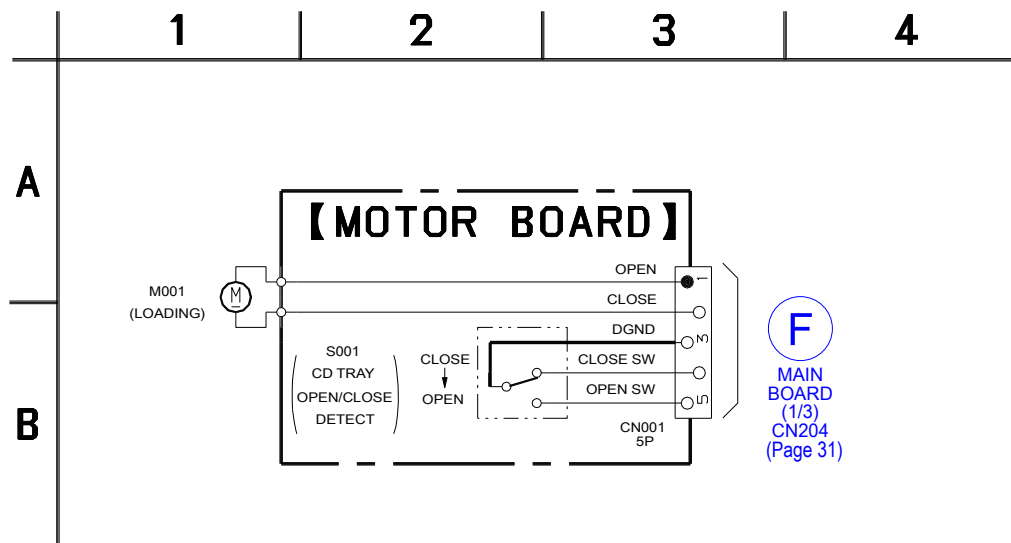


6-21. PRINTED WIRING BOARD - MOTOR Board -

• See page 21 for Circuit Boards Location. •  : Uses unleaded solder.

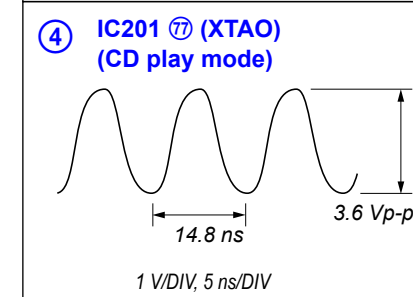
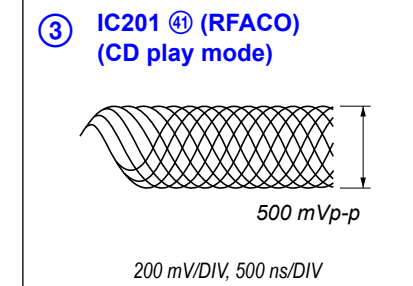
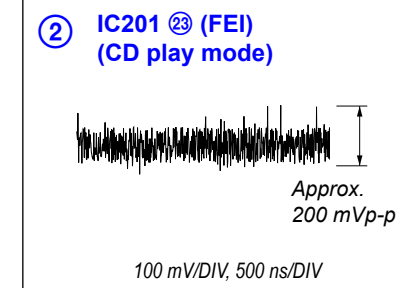
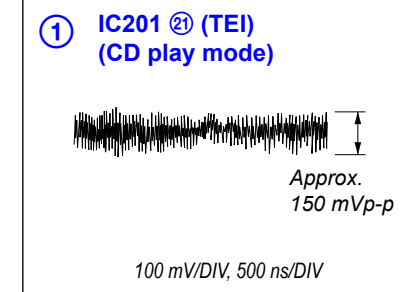


6-22. SCHEMATIC DIAGRAM - MOTOR Board -

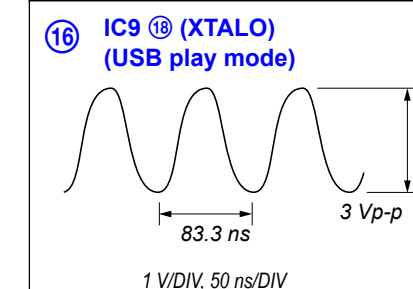
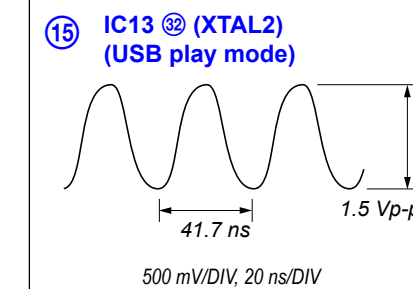
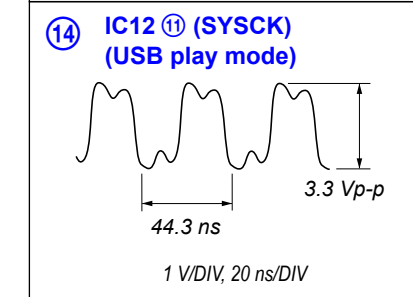
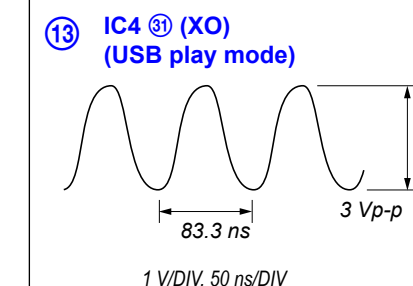
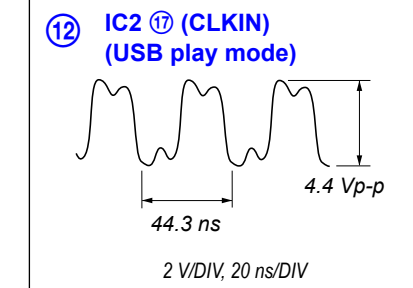
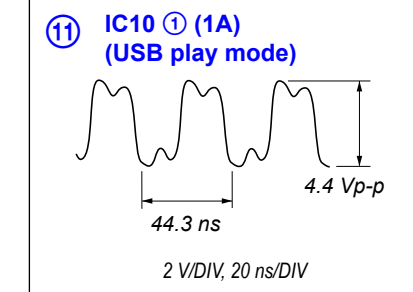


• Waveforms

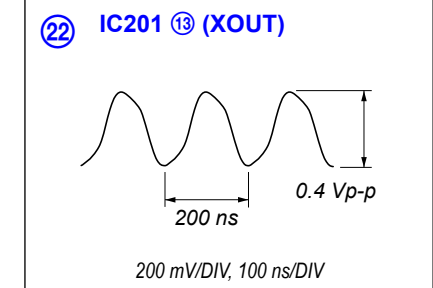
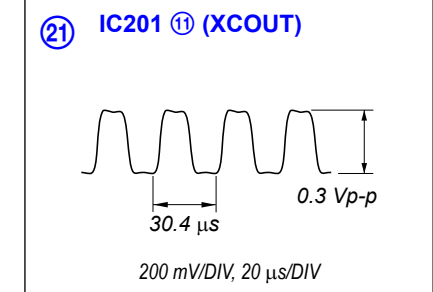
- CD Board -



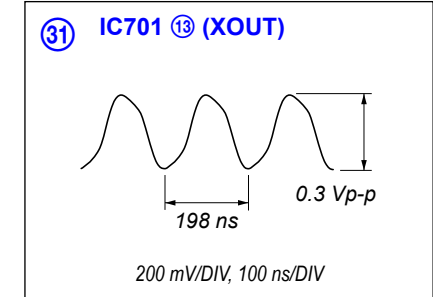
- USB MICOM Board -



- MAIN Board -



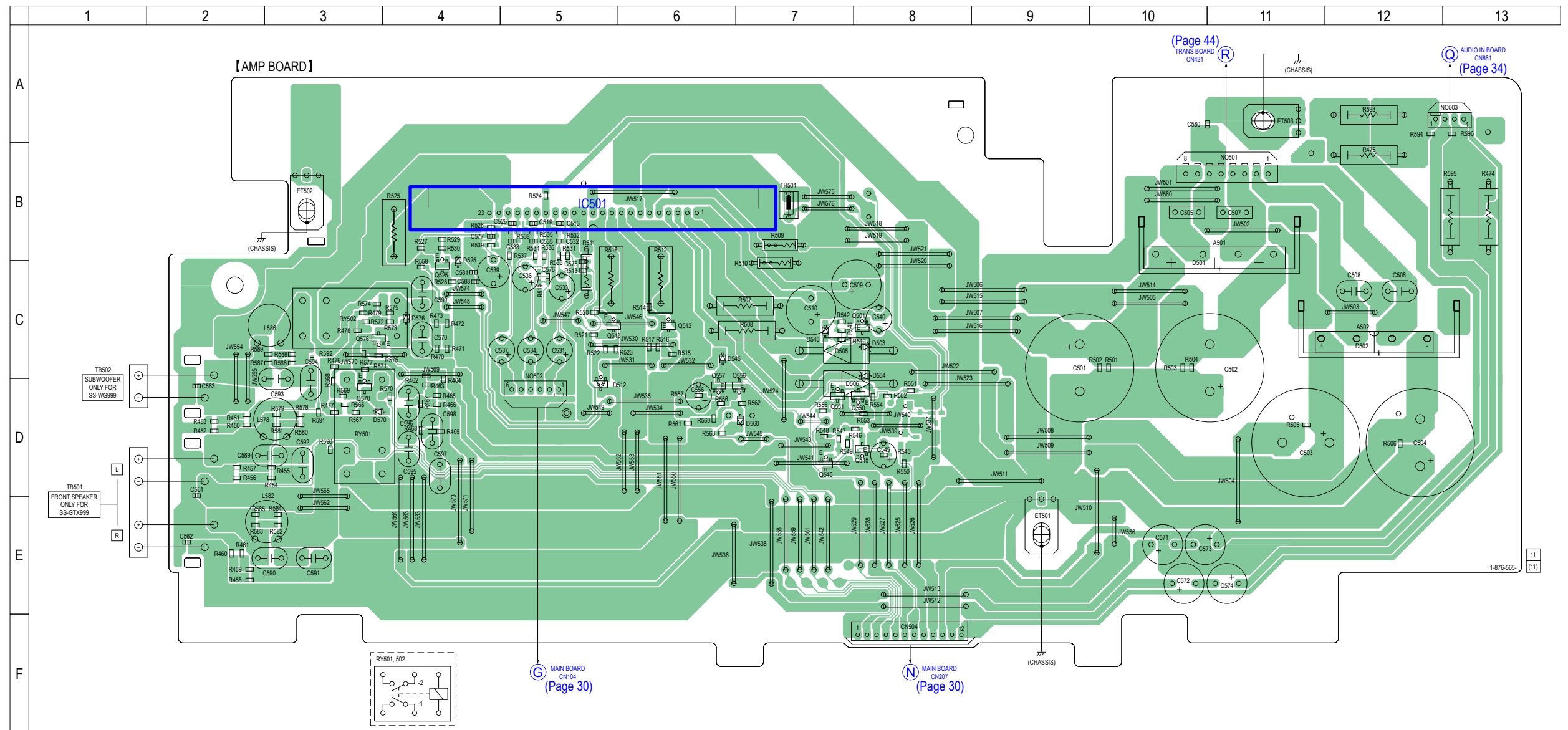
- DISPLAY Board -



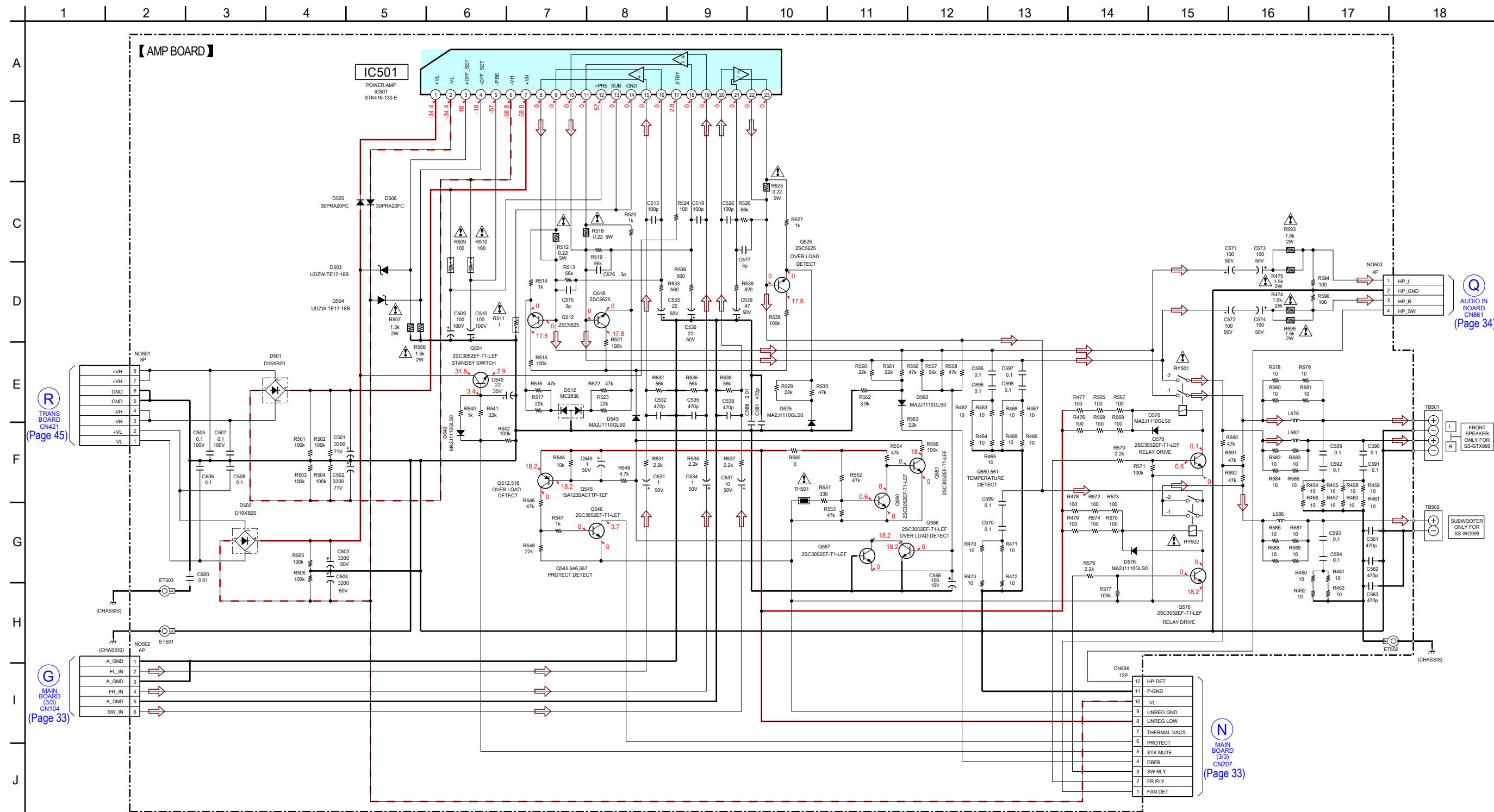
• Semiconductor Location

Ref. No.	Location
D501	B-11
D502	C-12
D503	C-8
D504	C-8
D505	C-7
D506	D-7
D512	D-5
D525	C-4
D540	C-7
D545	C-6
D560	D-7
D570	D-3
D576	C-4
IC501	B-5
Q501	C-8
Q512	C-6
Q518	C-5
Q525	C-4
Q545	D-8
Q546	D-7
Q550	D-8
Q551	D-7
Q556	D-7
Q557	D-6
Q570	D-3
Q576	C-3

6-23. PRINTED WIRING BOARD - AMP Board - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



6-24. SCHEMATIC DIAGRAM - AMP Board -




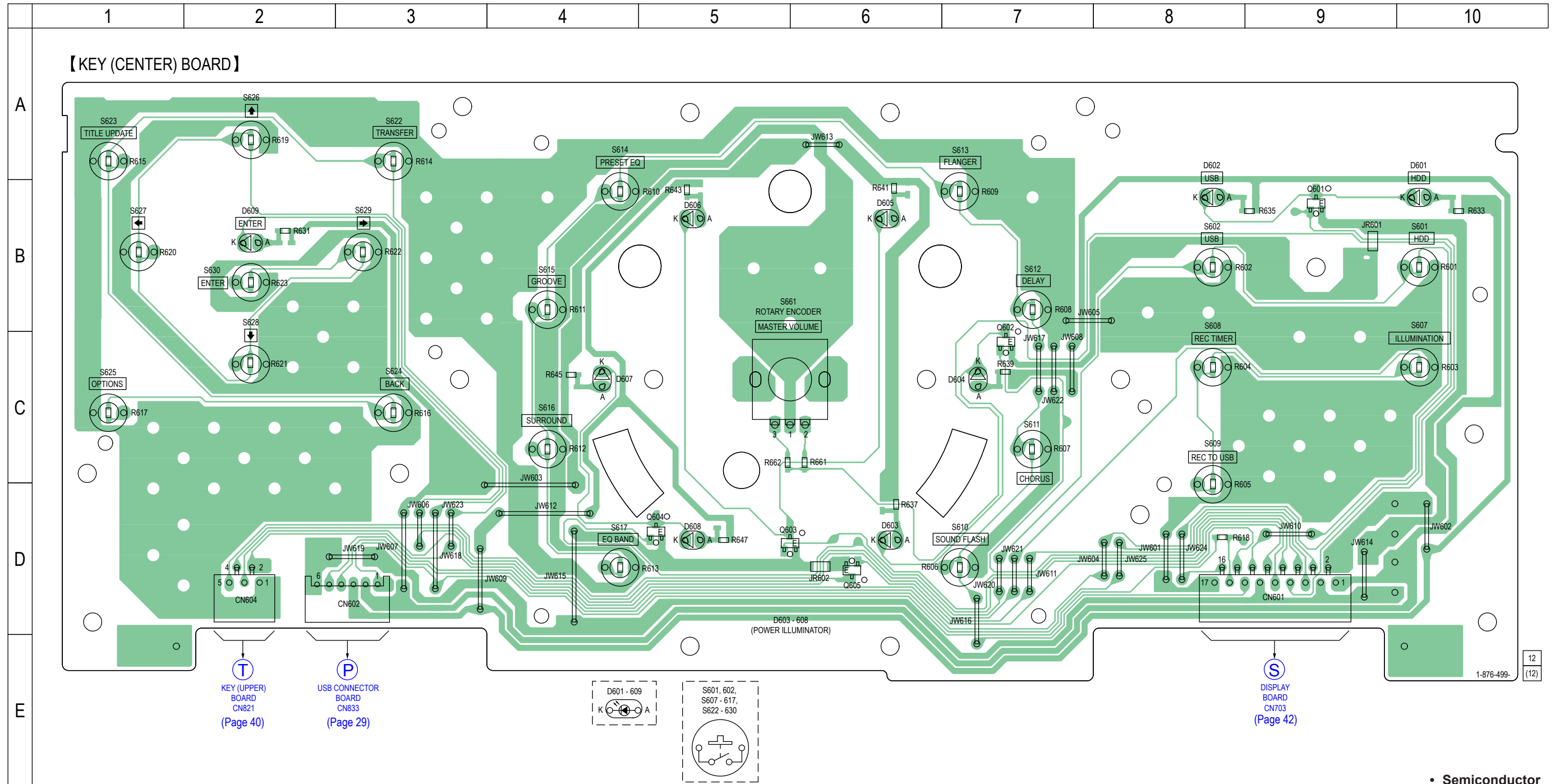
R TRANS BOARD (Page 45)

G MAIN BOARD (3/3) (Page 33)

N MAIN BOARD (3/3) (Page 33)

Q AUDIO IN BOARD (Page 34)

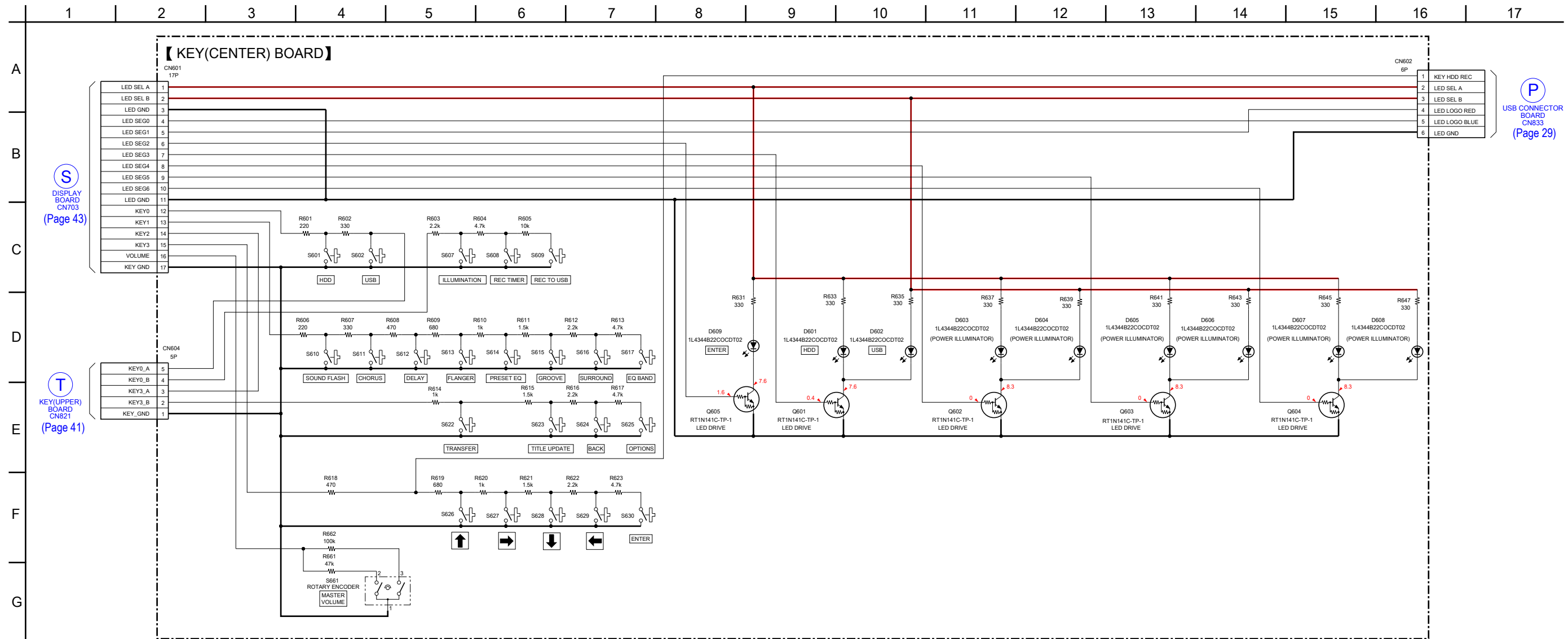
6-25. PRINTED WIRING BOARD - KEY Section (1/2) - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
D601	B-10
D602	B-8
D603	D-6
D604	C-7
D605	B-6
D606	B-5
D607	C-4
D608	D-5
D609	B-2
Q601	B-9
Q602	C-7
Q603	D-5
Q604	D-5
Q605	D-6

6-26. SCHEMATIC DIAGRAM - KEY Section (1/2) -

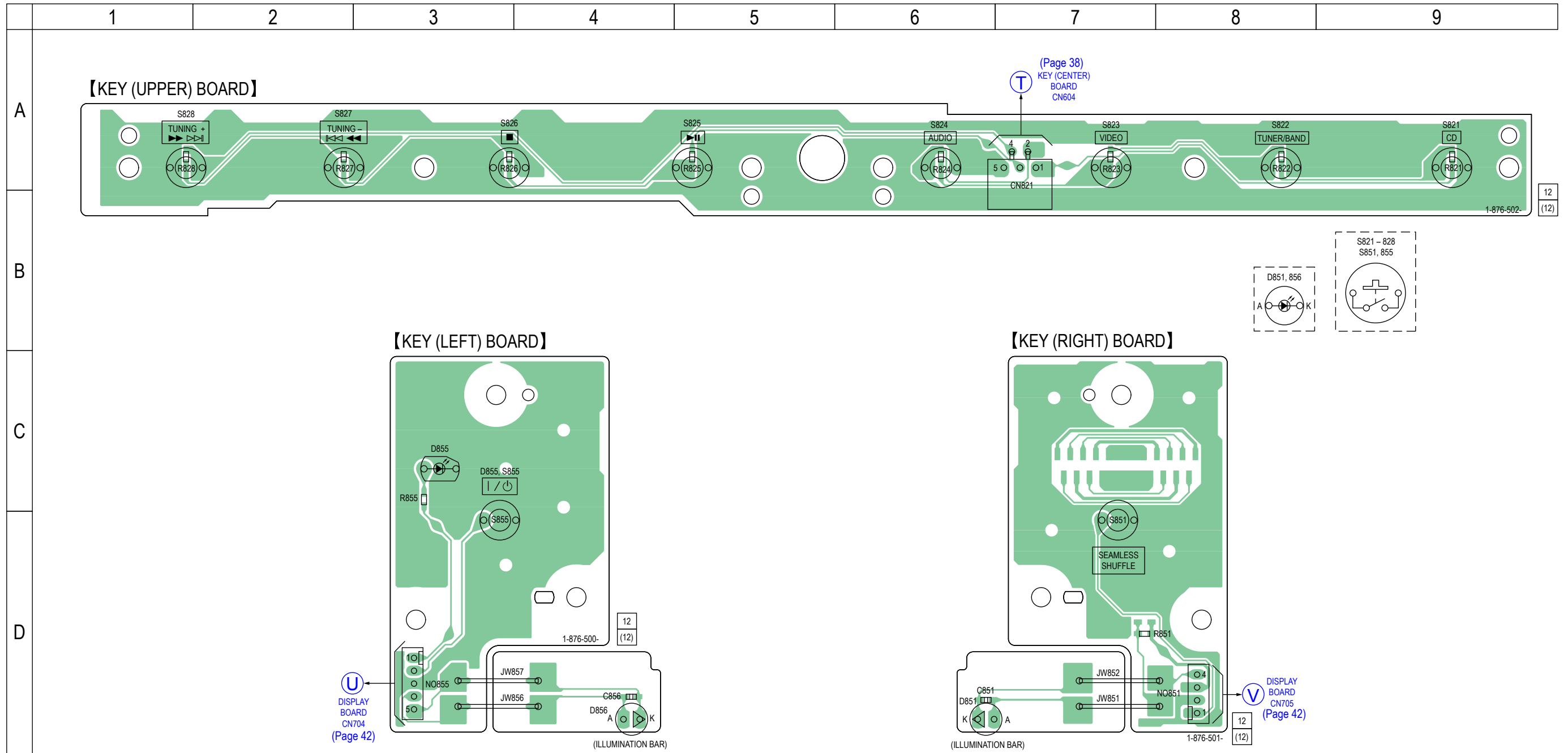


(S) DISPLAY BOARD CN703 (Page 43)

(T) KEY(UPPER) BOARD CN821 (Page 41)

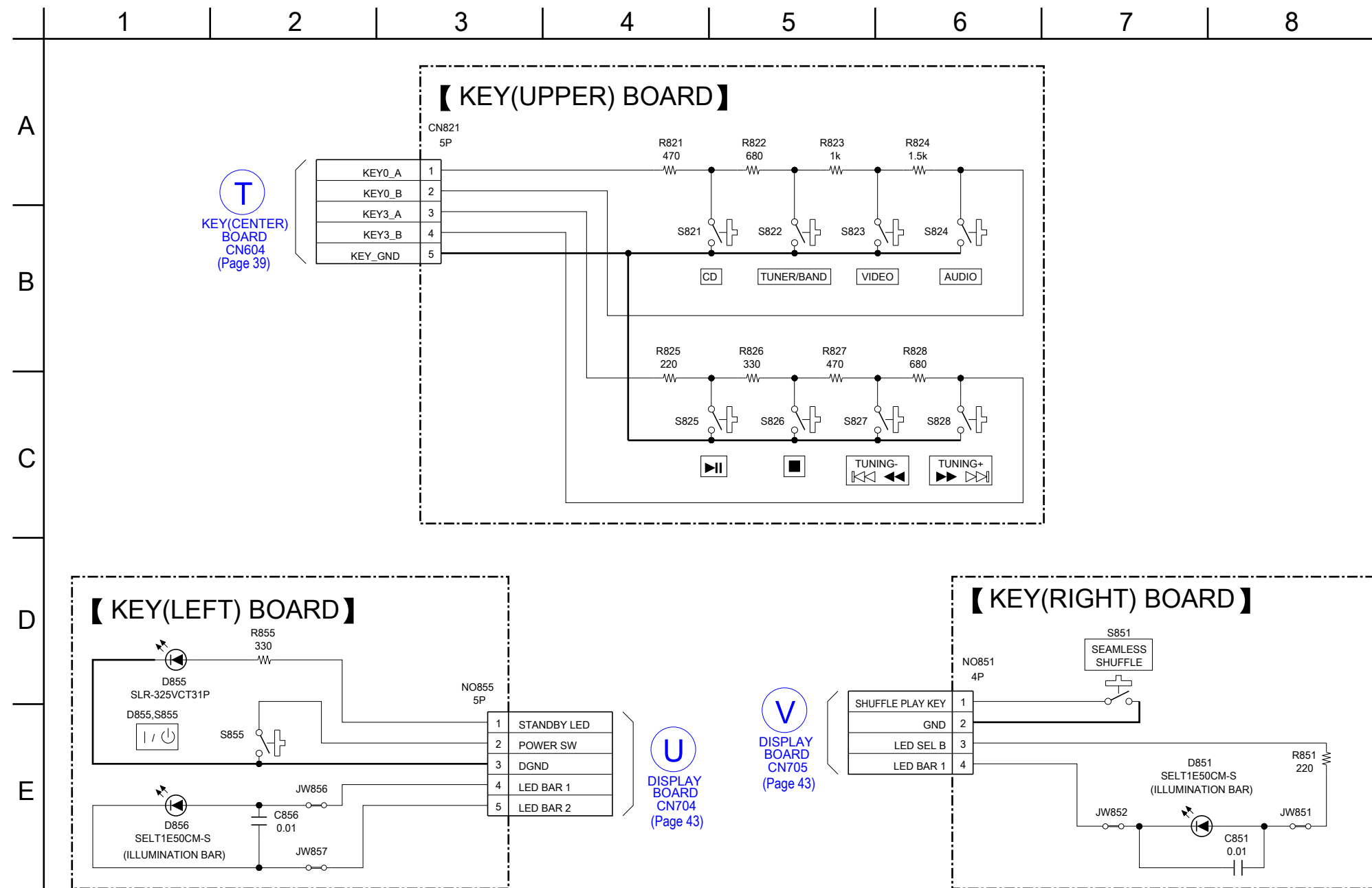
(P) USB CONNECTOR BOARD CN833 (Page 29)

6-27. PRINTED WIRING BOARDS - KEY Section (2/2) - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.

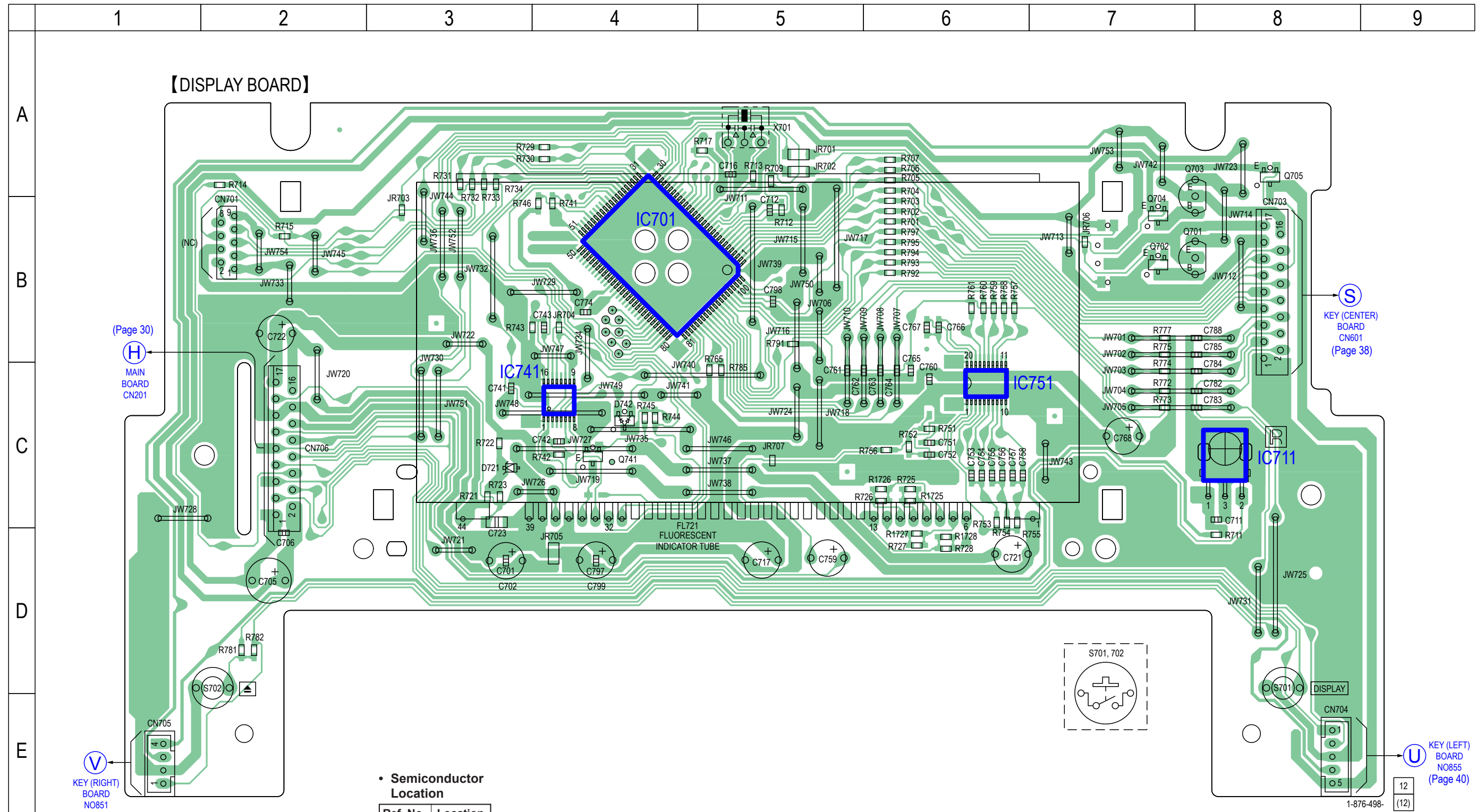




6-28. SCHEMATIC DIAGRAM - KEY Section (2/2) -



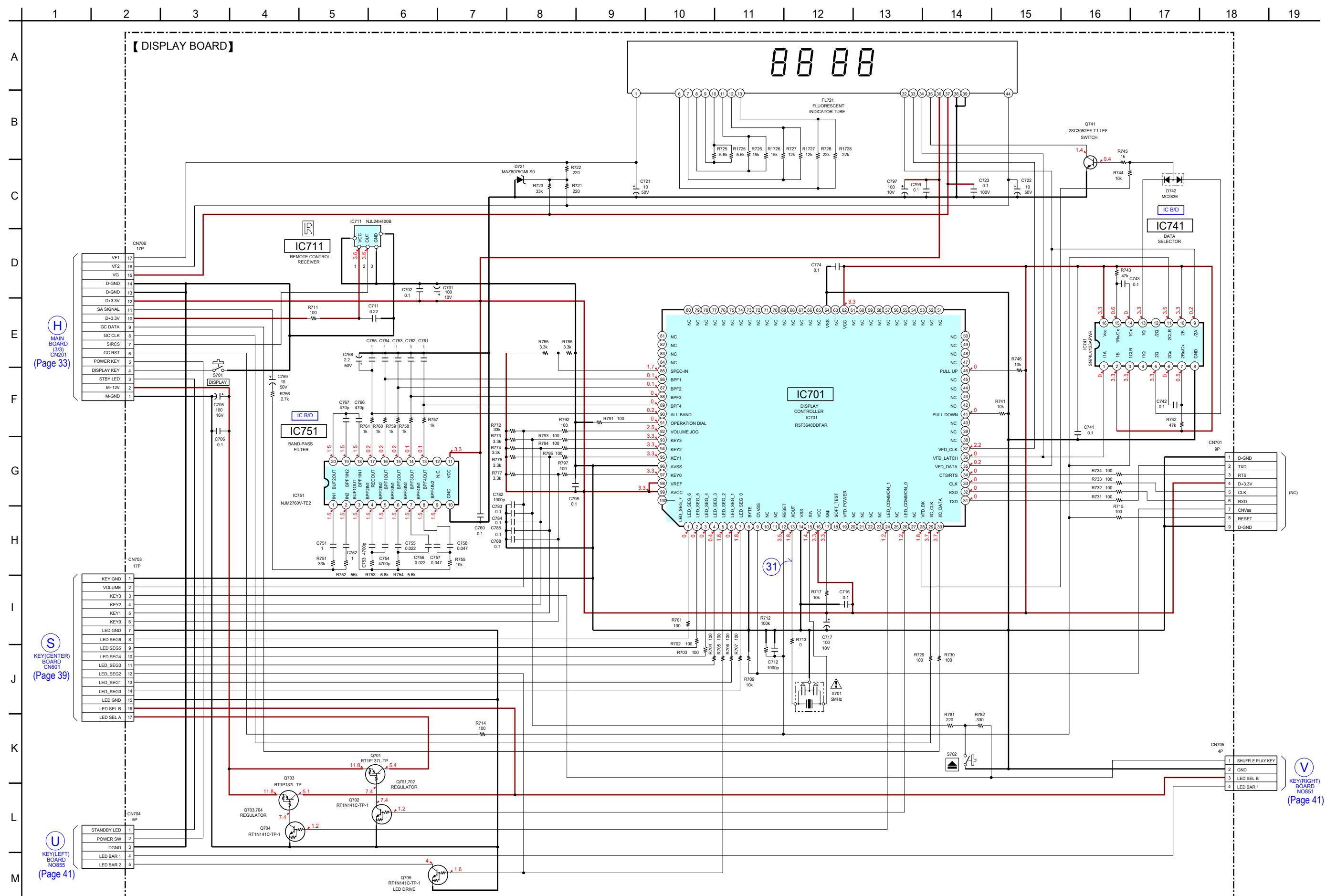
6-29. PRINTED WIRING BOARD - DISPLAY Board - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
D721	C-3
D742	C-4
IC701	B-4
IC711	C-8
IC741	C-4
IC751	C-6
Q701	B-7
Q702	B-7
Q703	A-7
Q704	B-7
Q705	A-8
Q741	C-4

6-30. SCHEMATIC DIAGRAM - DISPLAY Board - • See page 35 for waveforms. • See page 48 for IC Block Diagrams. • See page 55 for IC Pin Function Description.



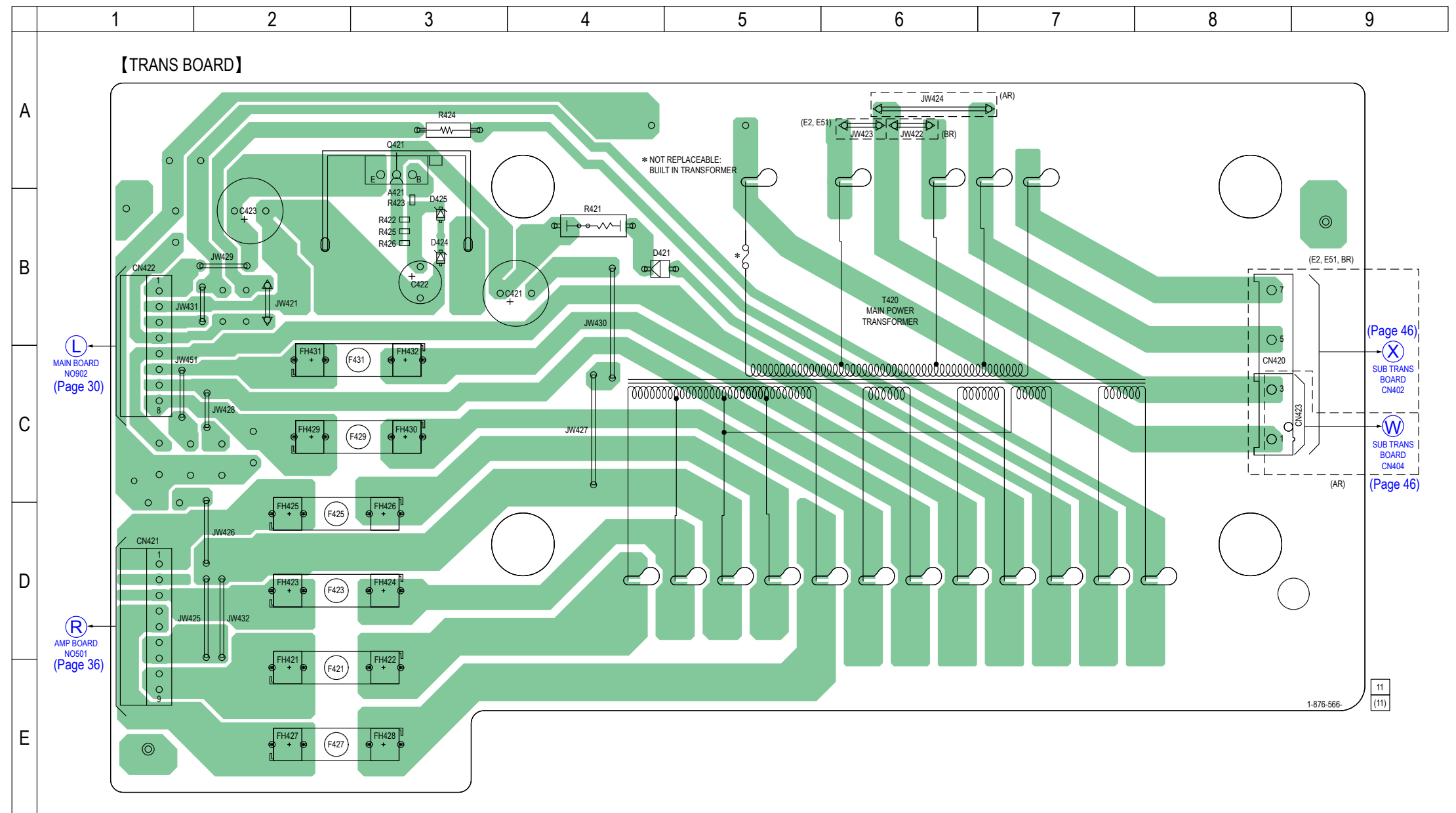
(H) MAIN BOARD (3/3) CN201 (Page 33)

(S) KEY(CENTER) BOARD CN601 (Page 39)

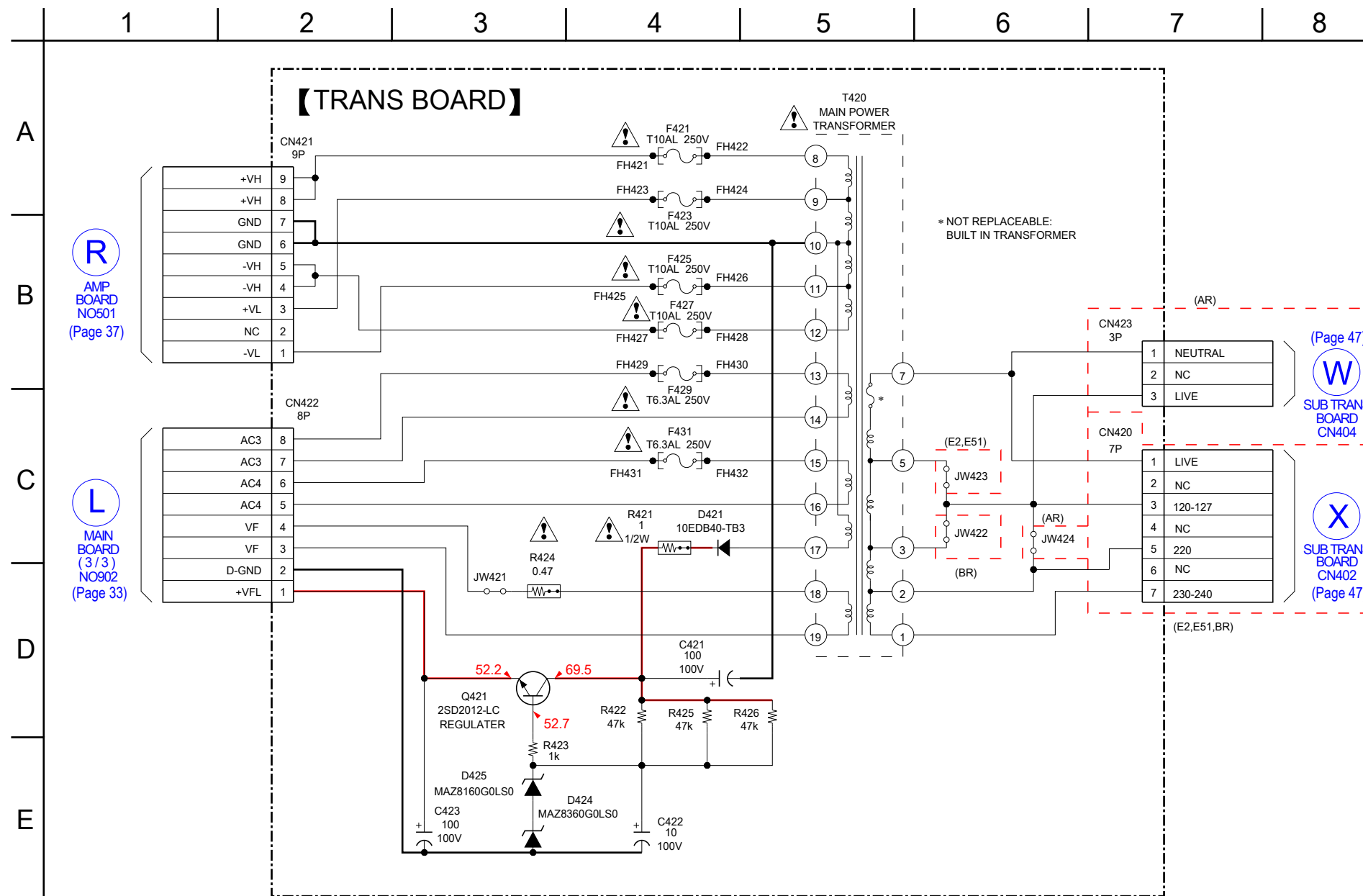
(U) KEY(LEFT) BOARD NC655 (Page 41)

(V) KEY(RIGHT) BOARD NO851 (Page 41)

6-31. PRINTED WIRING BOARD - TRANS Board - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.



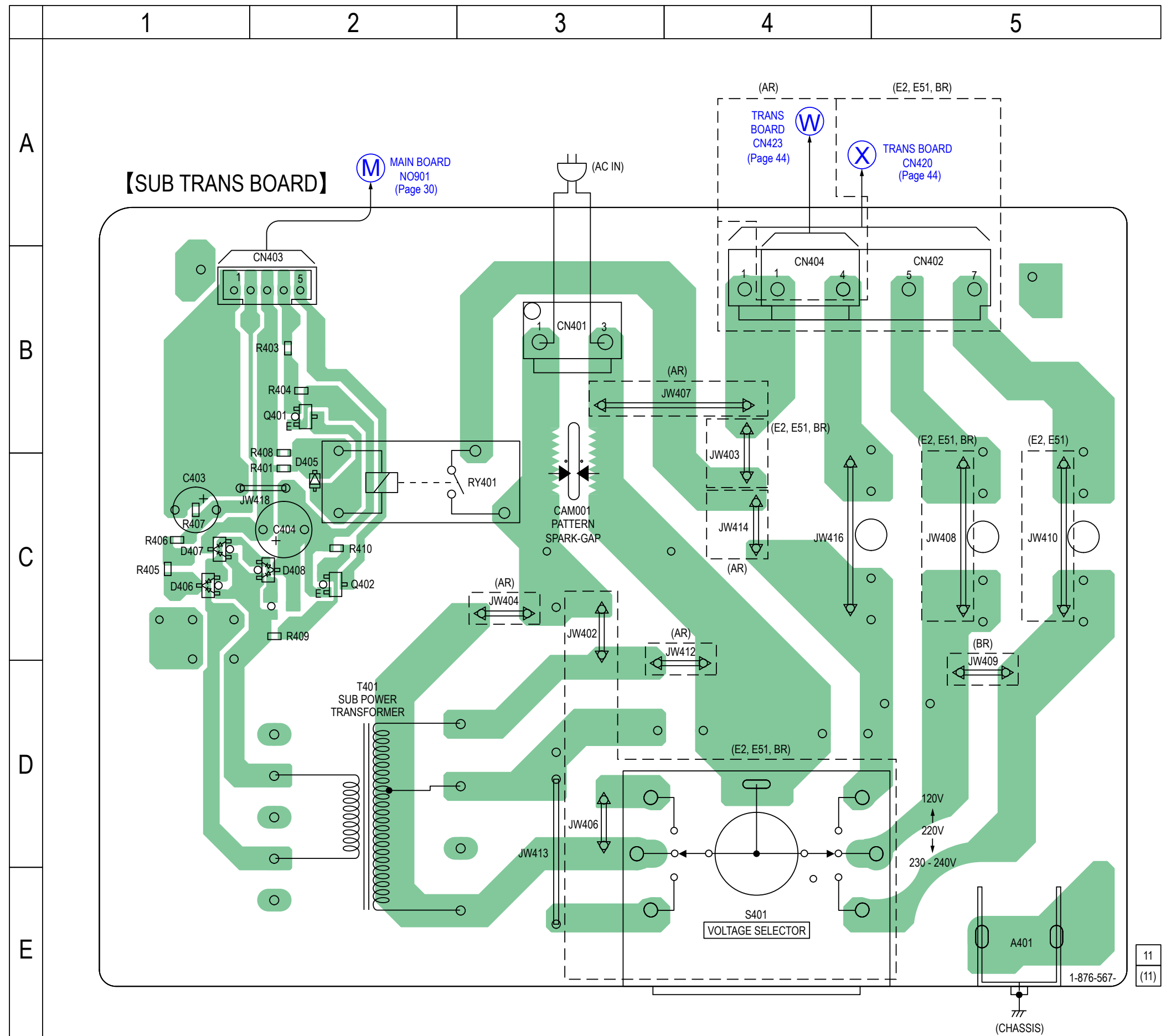
6-32. SCHEMATIC DIAGRAM - TRANS Board -



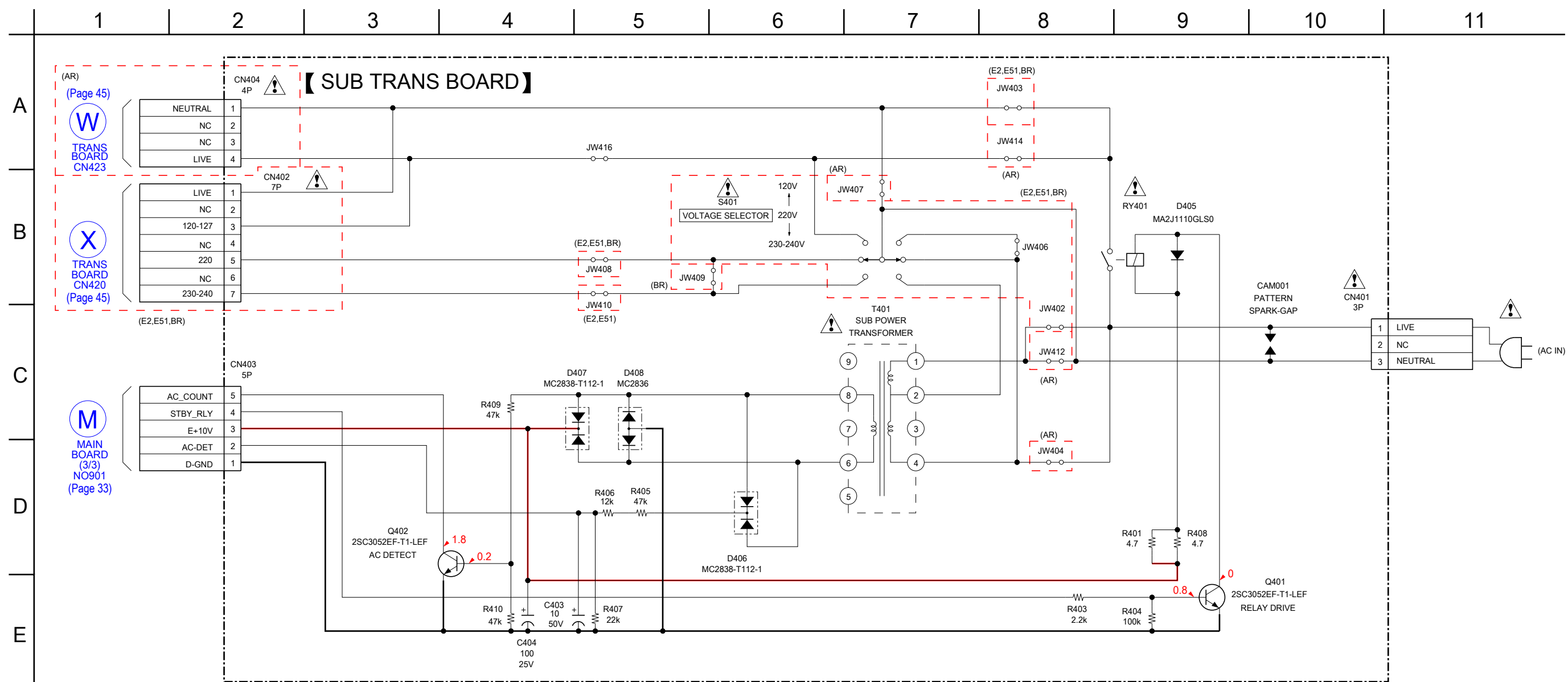
• Semiconductor Location

Ref. No.	Location
D405	C-2
D406	C-1
D407	C-1
D408	C-2
Q401	B-2
Q402	C-2

6-33. PRINTED WIRING BOARD - SUB TRANS Board - • See page 21 for Circuit Boards Location. •  : Uses unleaded solder.

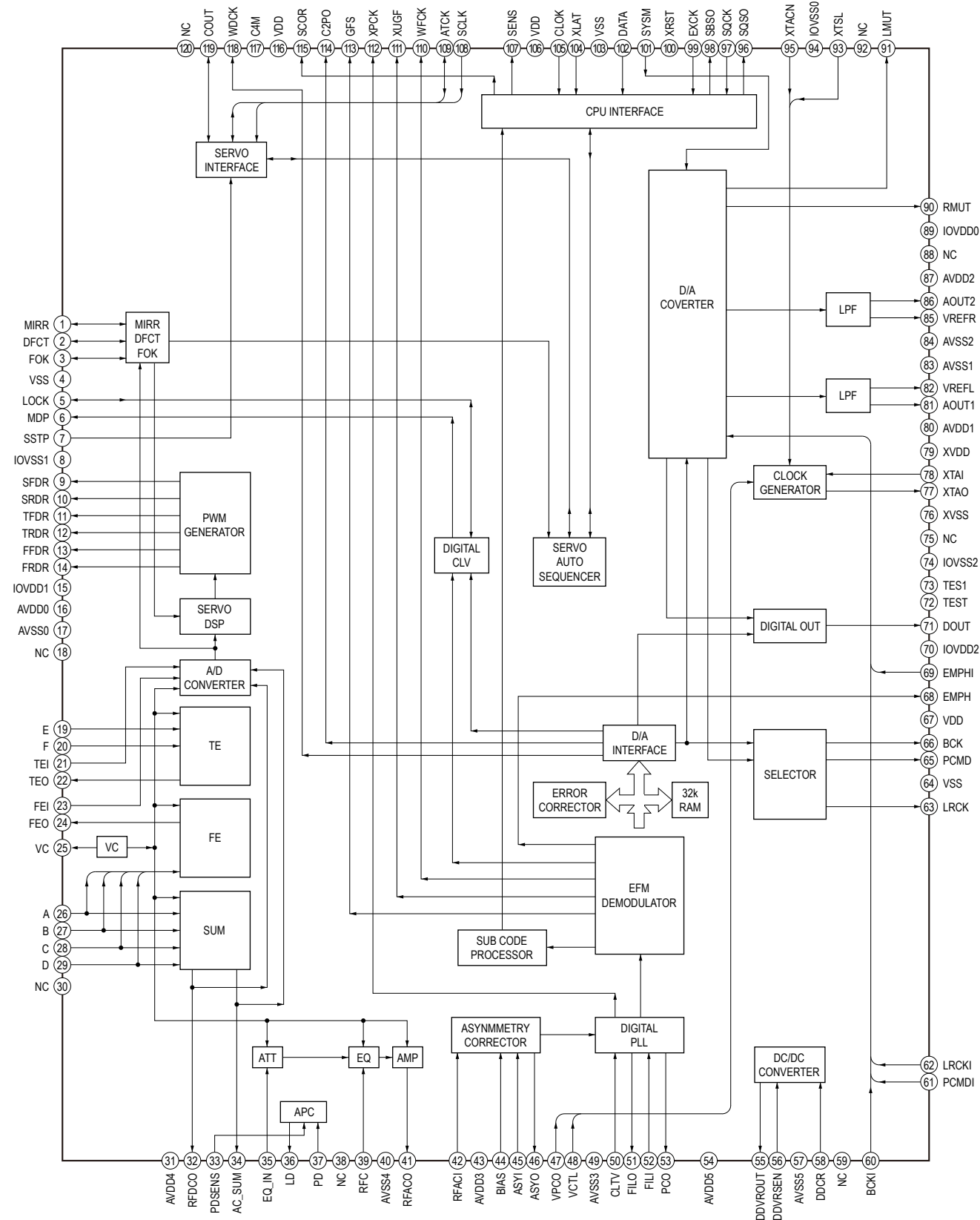


6-34. SCHEMATIC DIAGRAM - SUB TRANS Board -

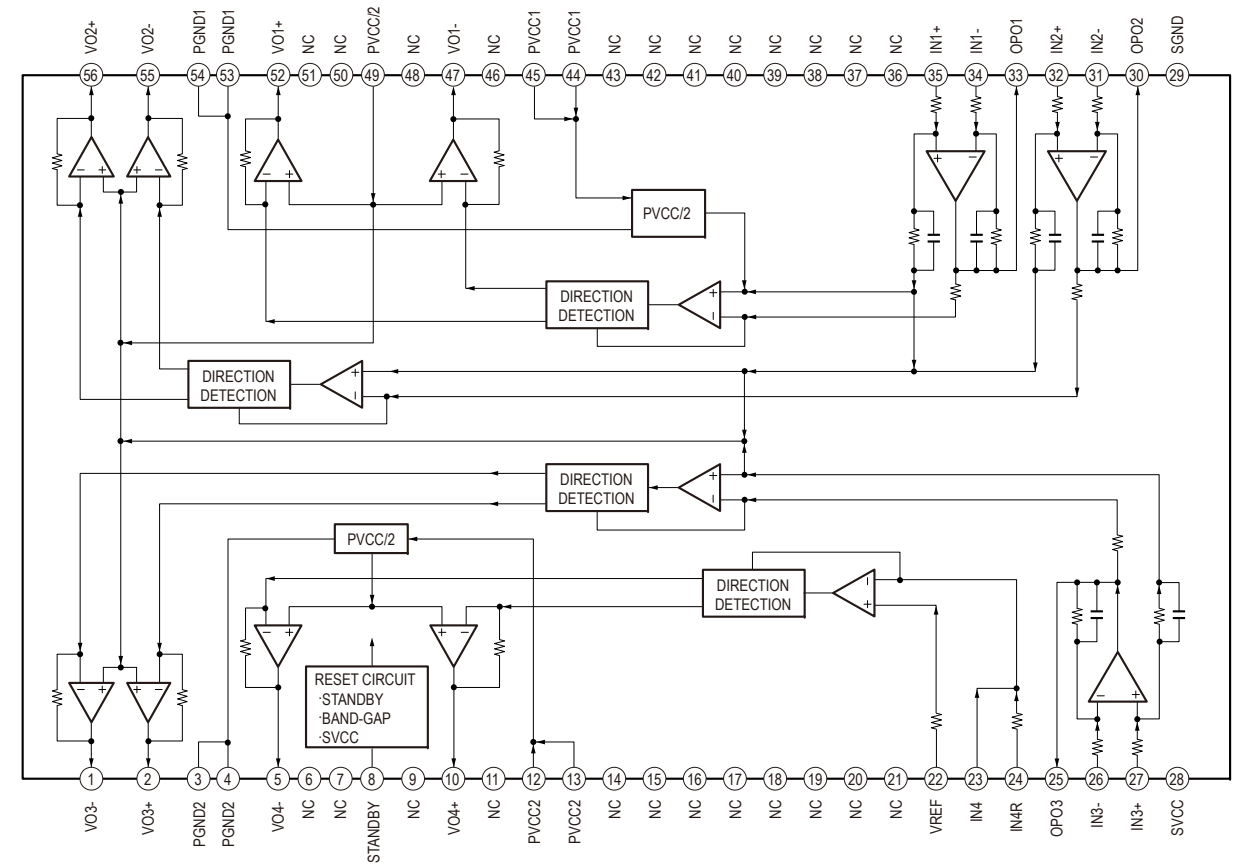


• IC Block Diagrams

– CD Board –  
IC201 CXD3059AR

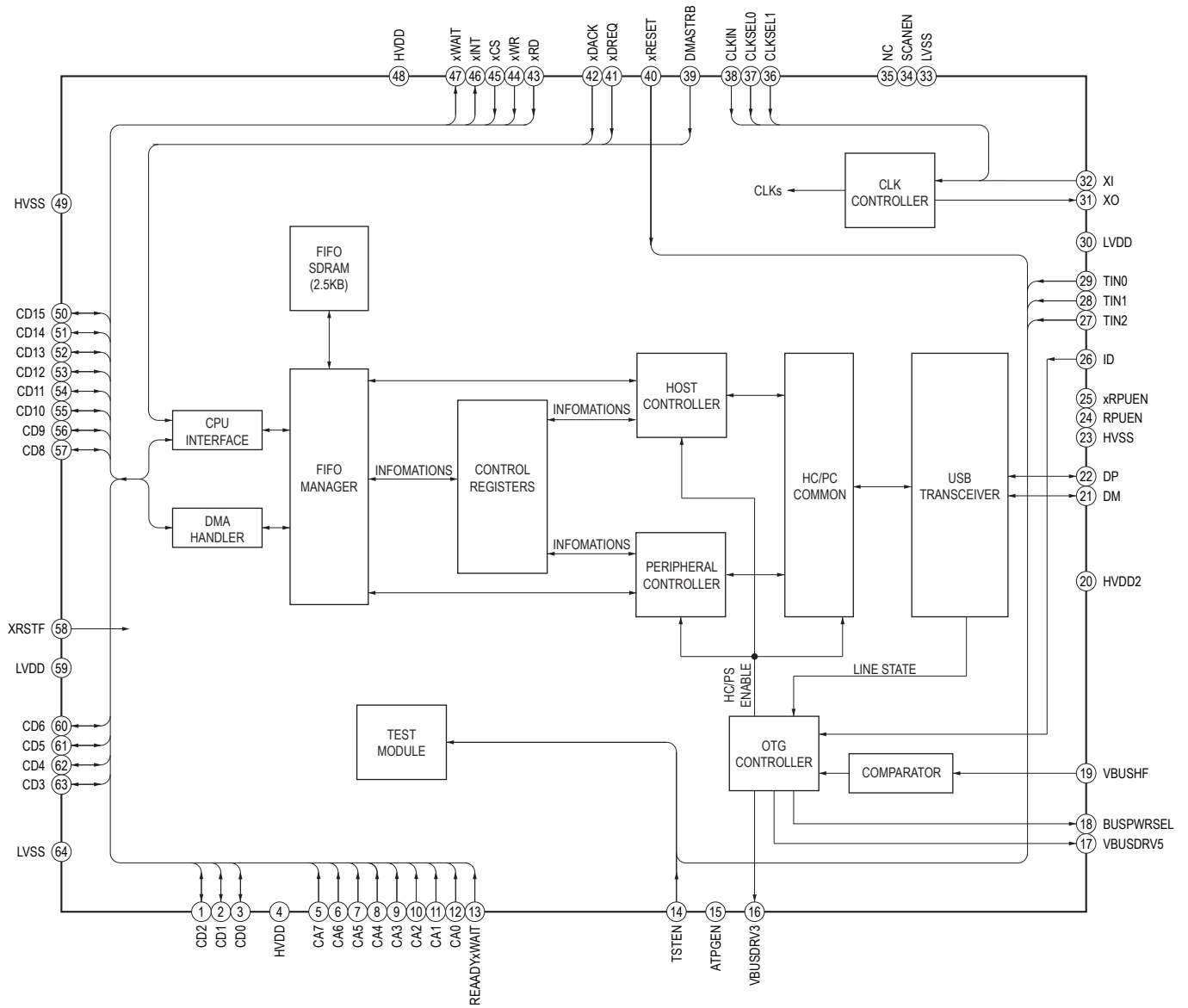


IC401 AN41050

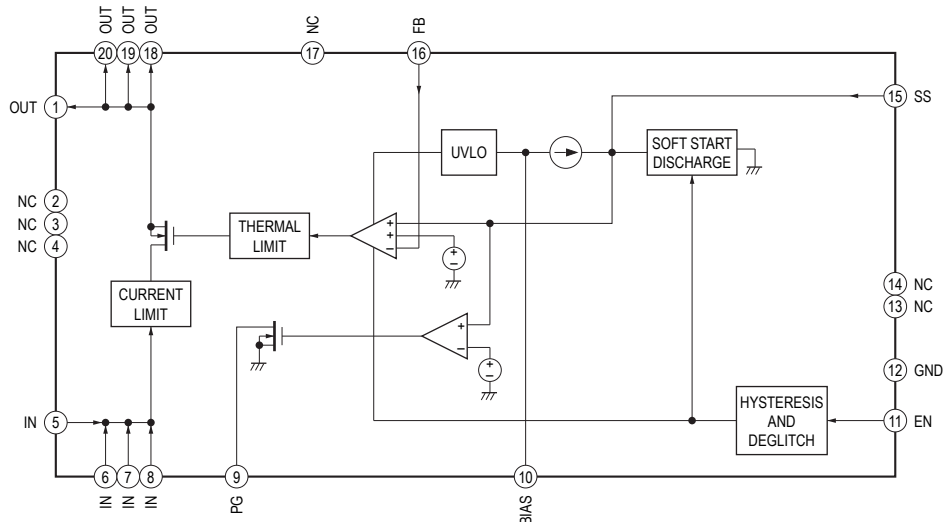




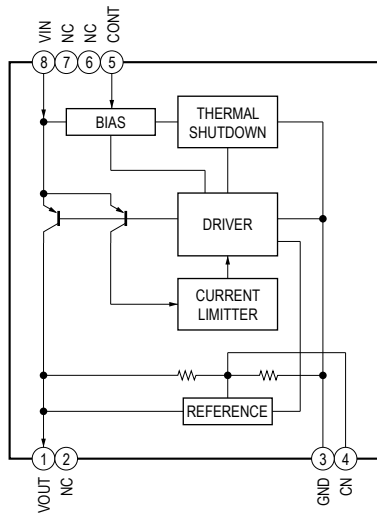
**- USB MICOM Board -**  
**IC4 S1R72005F00A300**



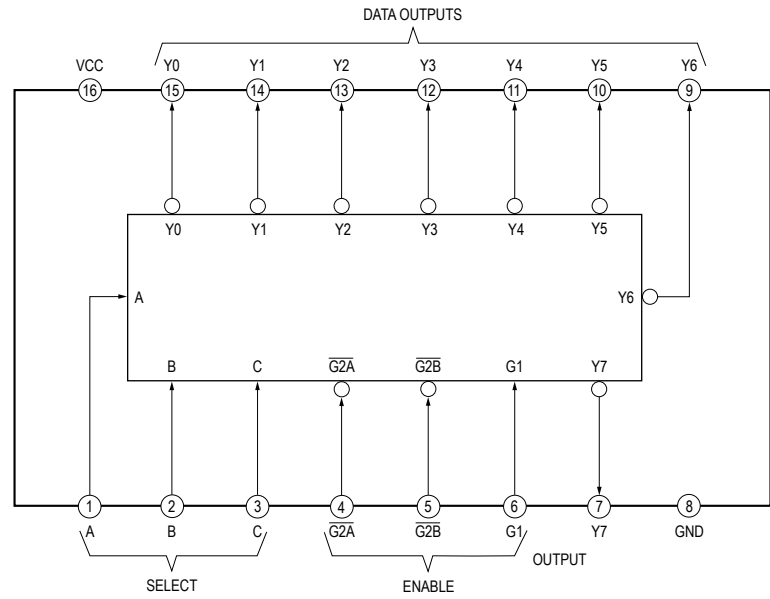
**IC5 TPS74801RGWR**



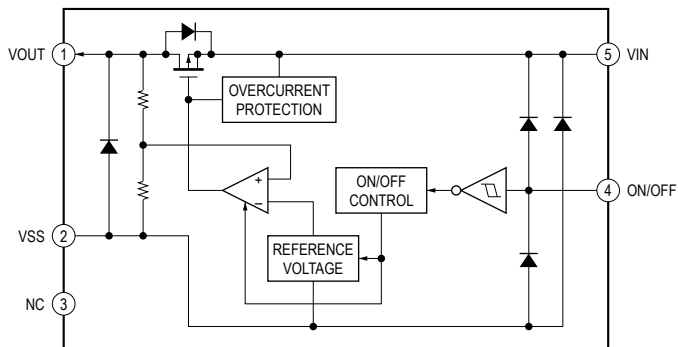
**IC6 MM1663DHBE**



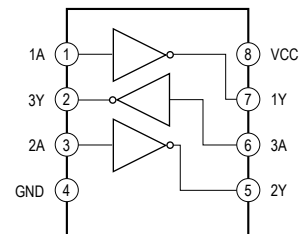
**IC7 SN74LVC138APWR-12**



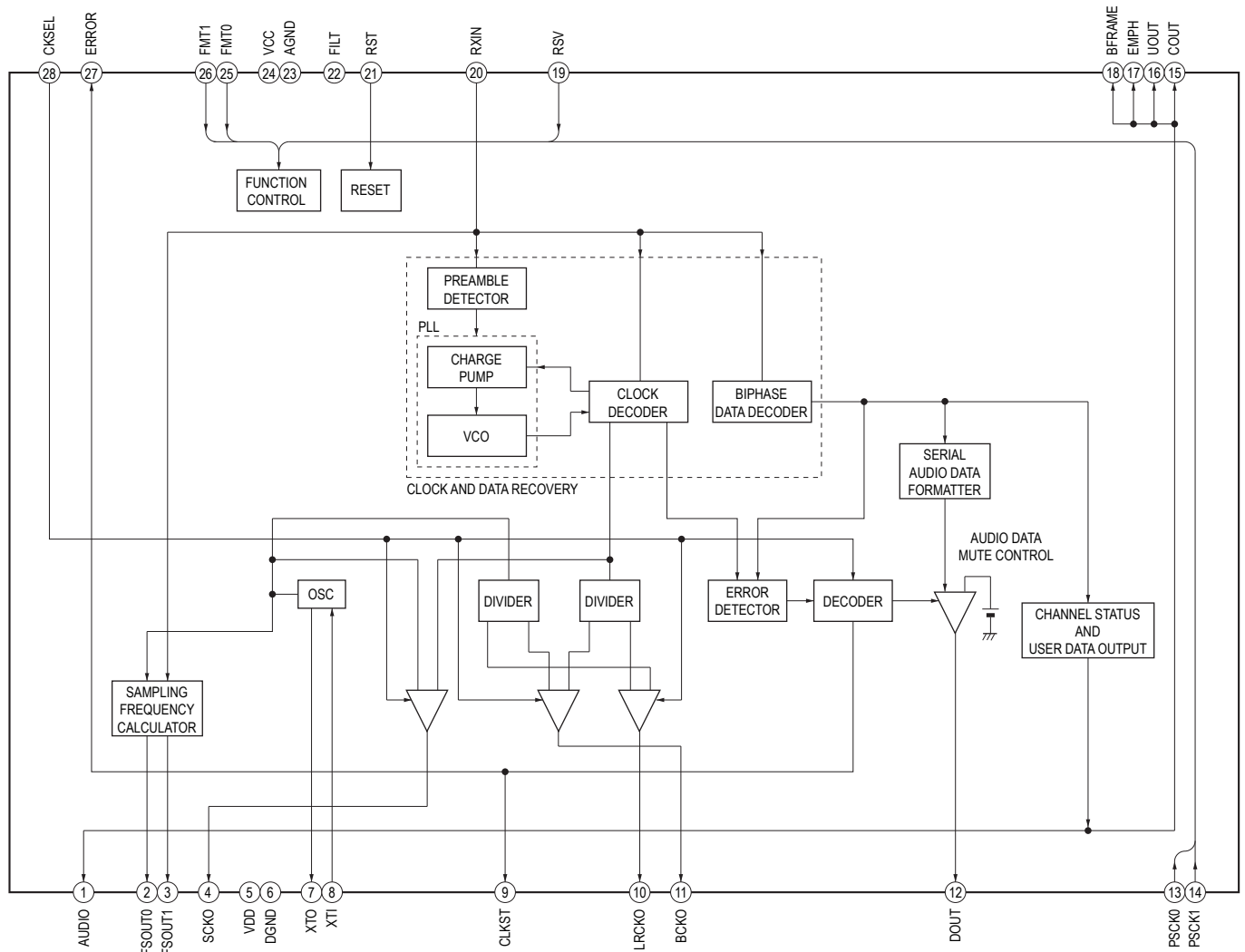
**IC8 S-1132B25-U5T1G**



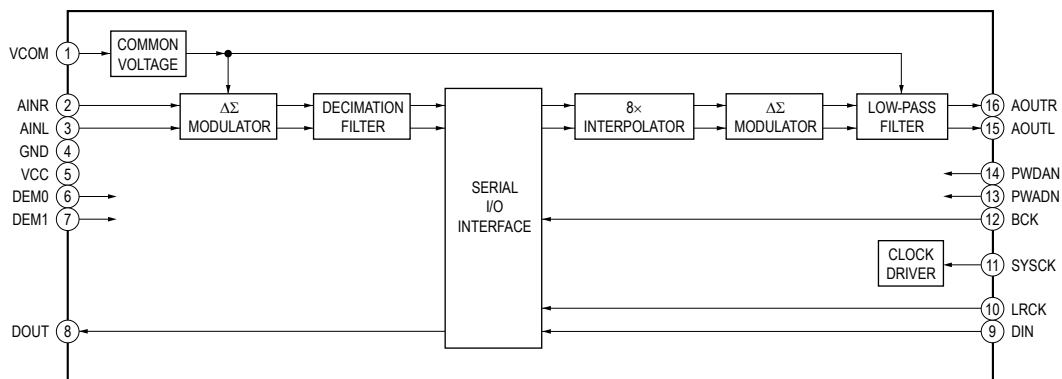
**IC10 TC7WHU04FU (TE12R)**



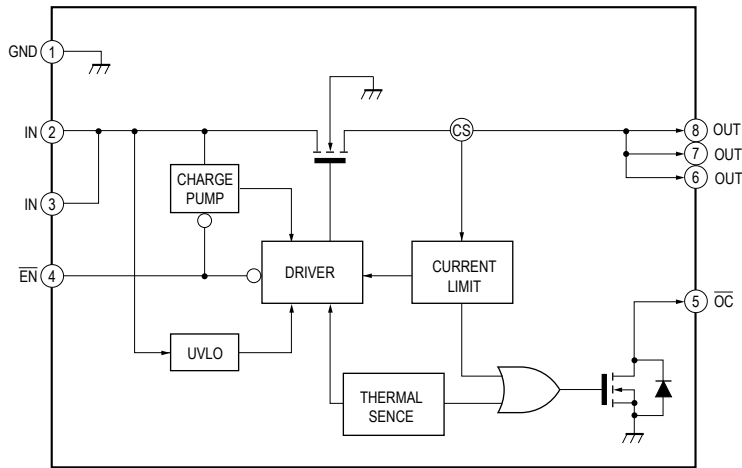
IC11 DIR9001S1PWRG4



IC12 AK4554VT-8-E2

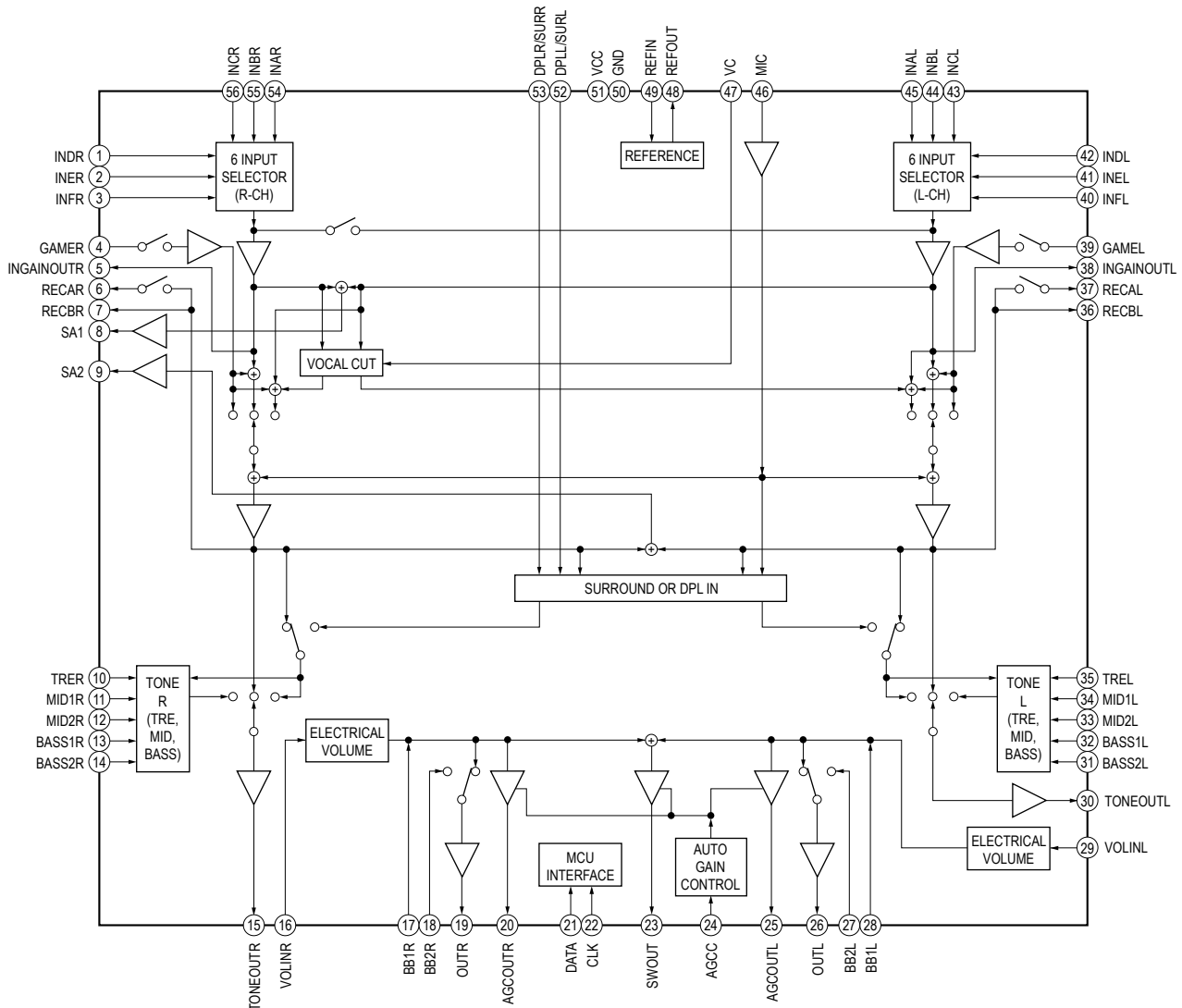


## IC14 TPS2051BDRG4

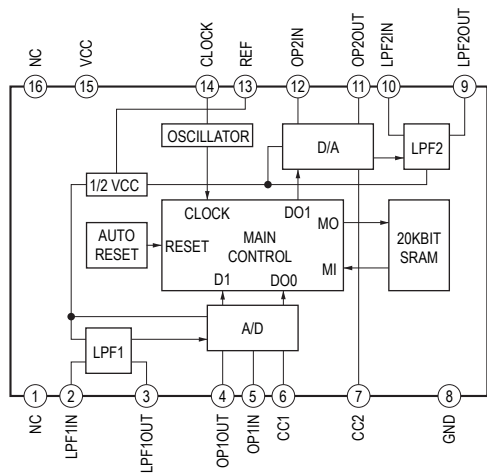


## - MAIN Board -

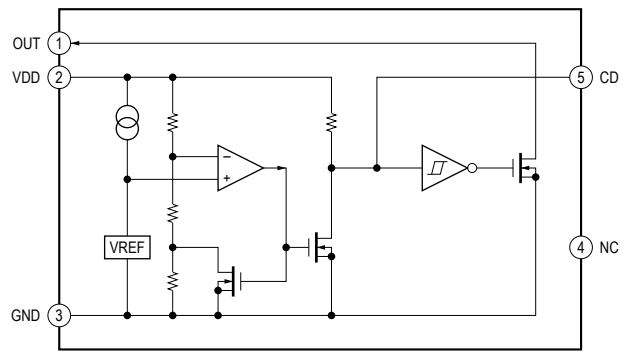
### IC101 R2A15216FP



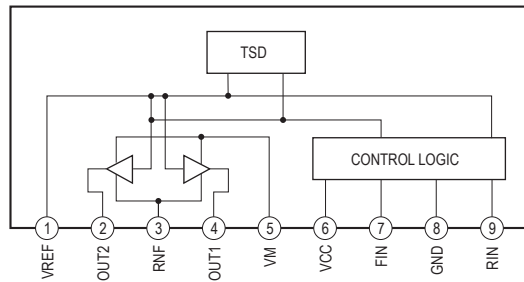
IC104 M65850FP-E1



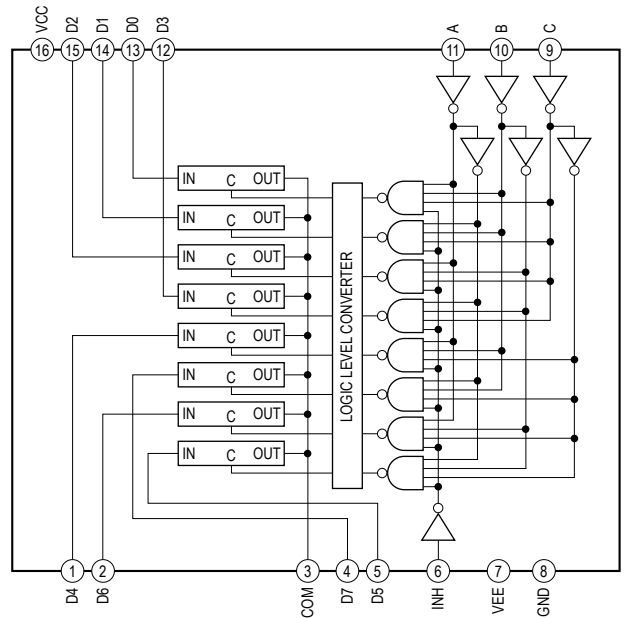
IC203 PST3629NR



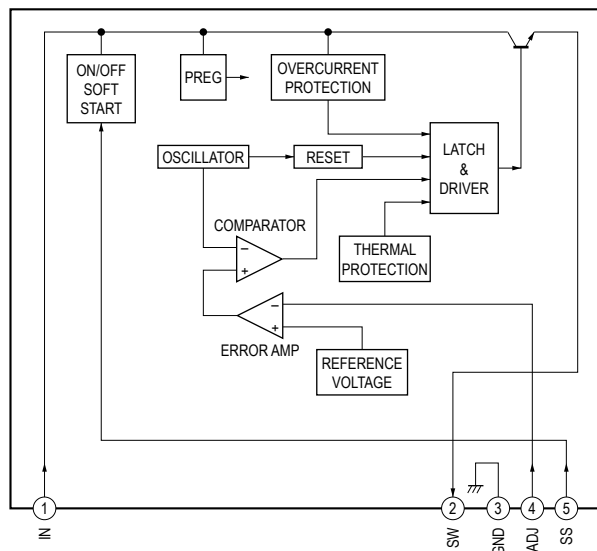
IC204 BA6956AN



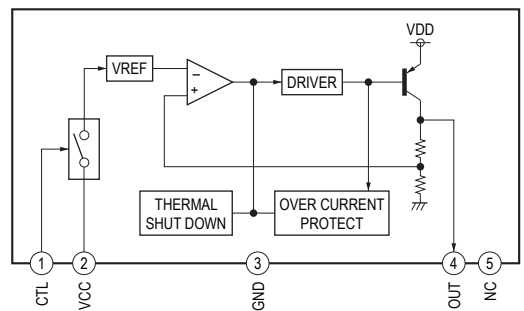
IC205 TC74LVX4051FT



IC910, 930 SI-8001FFE

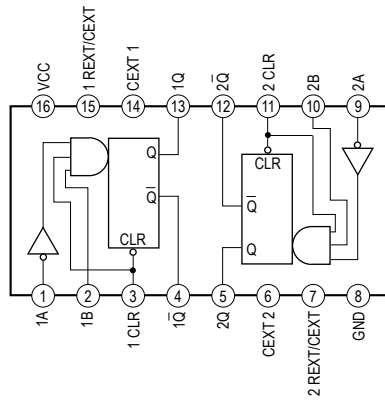


IC940 BA00BC0WCP-V5E2

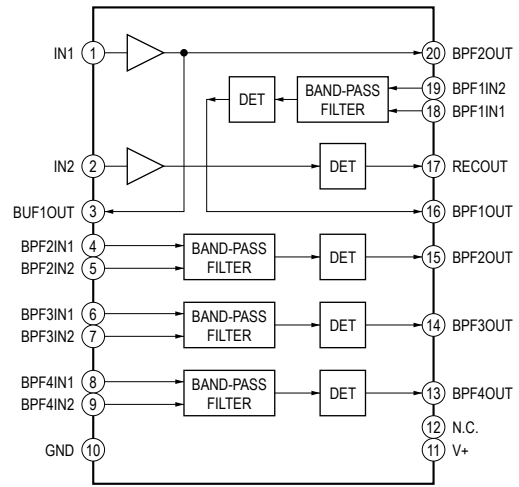


## - DISPLAY Board -

IC741 SN74LV123APWR



IC751 NJM2760V-TE2



## • IC Pin Function Description

## USB MICOM BOARD IC2 D708E001BRFP266 (USB SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VSS	-	Ground terminal
2, 3	EM_A (_18), EM_A (_13)	O	Address signal output to the flash memory
4	CD-PO	O	Reset signal output to the digital servo "L": reset
5	MCK	-	Not used
6	VSS	-	Ground terminal
7	EM_A (_19)	O	Address signal output to the flash memory
8	CVDD	-	Power supply terminal (+1.2V)
9	BCKI	I	Bit clock signal input from the data buffer
10	DVDD	-	Power supply terminal (+3.3V)
11	D_RESET	O	Reset signal output to the data buffer, A/D converter, D/A converter, USB interface and USB 2.0 hub controller "L": reset
12	LRCKI	I	L/R sampling clock signal input from the data buffer
13	VSS	-	Ground terminal
14	XRESET	I	Reset signal input from the system controller "L": reset
15	VSS	-	Ground terminal
16	CVDD	-	Power supply terminal (+1.2V)
17	CLKIN	I	System clock (22.5792MHz) input terminal
18	VSS	-	Ground terminal
19	TMS	-	Not used
20	CVDD	-	Power supply terminal (+1.2V)
21	XTRST	-	Not used
22	OSCVSS	-	Ground terminal
23	OSCIN	-	Not used
24	OSCOU	-	Not used
25	OSCVDD	-	Power supply terminal (+1.2V)
26	VSS	-	Ground terminal
27	PLLHV	-	Power supply terminal (+3.3V)
28	TDI	-	Not used
29	TDO	-	Not used
30	VSS	-	Ground terminal
31	DVDD	-	Power supply terminal (+3.3V)
32	EMU (0)	-	Not used
33	CVDD	-	Power supply terminal (+1.2V)
34	EMU (1)	-	Not used
35	TCK	-	Not used
36	VSS	-	Ground terminal
37	EM_CAS	O	Column address strobe signal output to the SDRAM
38	EM_WE	O	Write enable signal output to the SDRAM, flash memory and USB interface
39	EM_WE_DQM (0)	O	Write enable signal output to the SDRAM
40	VSS	-	Ground terminal
41	EM_D (7)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
42	DVDD	-	Power supply terminal (+3.3V)
43	EM_D (6)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
44	CVDD	-	Power supply terminal (+1.2V)
45, 46	EM_D (5), EM_D (4)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
47	VSS	-	Ground terminal
48, 49	EM_D (3), EM_D (2)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
50	DVDD	-	Power supply terminal (+3.3V)
51, 52	EM_D (1), EM_D (0)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
53	CVDD	-	Power supply terminal (+1.2V)
54	VSS	-	Ground terminal
55, 56	EM_D (15), EM_D (14)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
57	CVDD	-	Power supply terminal (+1.2V)
58, 59	EM_D (13), EM_D (12)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
60	DVDD	-	Power supply terminal (+3.3V)
61	EM_D (11)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface

Pin No.	Pin Name	I/O	Description
62	VSS	-	Ground terminal
63, 64	EM_D (10), EM_D (9)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
65	CVDD	-	Power supply terminal (+1.2V)
66	EM_D (8)	I/O	Two-way data bus with the SDRAM, flash memory and USB interface
67	EM_WE_DQM (1)	O	Write enable signal output to the SDRAM
68	DVDD	-	Power supply terminal (+3.3V)
69	VSS	-	Ground terminal
70	EM_CLK	O	Clock signal output to the SDRAM
71	EM_CKE	O	Clock enable signal output to the SDRAM
72	VSS	-	Ground terminal
73	DVDD	-	Power supply terminal (+3.3V)
74 to 76	EM_A (11_12), EM_A(9_10), EM_A(8_9)	O	Address signal output to the SDRAM and flash memory
77	CVDD	-	Power supply terminal (+1.2V)
78	VSS	-	Ground terminal
79	EM_A (7_8)	O	Address signal output to the SDRAM and flash memory
80	EM_A (6_7)	O	Address signal output to the SDRAM, flash memory and USB interface
81	DVDD	-	Power supply terminal (+3.3V)
82	VSS	-	Ground terminal
83, 84	EM_A (5_6), EM_A (4_5)	O	Address signal output to the SDRAM, flash memory and USB interface
85	CVDD	-	Power supply terminal (+1.2V)
86	EM_A (3_4)	O	Address signal output to the SDRAM, flash memory and USB interface
87	VSS	-	Ground terminal
88, 89	EM_A (2_3), EM_A (1_2)	O	Address signal output to the SDRAM, flash memory and USB interface
90	CVDD	-	Power supply terminal (+1.2V)
91	EM_A (0_1)	O	Address signal output to the SDRAM, flash memory and USB interface
92	DVDD	-	Power supply terminal (+3.3V)
93	EM_A (10_11)	O	Address signal output to the SDRAM and flash memory
94	EM_BA (1)/EM_A (_0)	O	Bank address signal output to the SDRAM, and address signal output to the flash memory and USB interface
95	VSS	-	Ground terminal
96	EM_BA (0)	O	Bank address signal output to the SDRAM
97	EM_CS (0)	O	Chip select signal output to the SDRAM
98	EM_RAS	O	Row address strobe signal output to the SDRAM
99	VSS	-	Ground terminal
100	EM_CS (2)	O	Chip select signal output to the memory decoder
101	CVDD	-	Power supply terminal (+1.2V)
102	EM_RW	-	Not used
103	DVDD	-	Power supply terminal (+3.3V)
104	EM_OE	O	Output enable signal output to the flash memory and USB interface
105	B	O	Address decode signal output to the memory decoder
106	VSS	-	Ground terminal
107	A	O	Address decode signal output to the memory decoder
108	I2CO_SCL/BOOT	I/O	Two-way I2C serial clock signal bus with the system controller
109	VSS	-	Ground terminal
110	GPIO/BOOT	-	Not used
111	I2CO_SDA/BOOT	I/O	Two-way I2C serial data bus with the system controller
112	DVDD	-	Power supply terminal (+3.3V)
113	SDTI	I	Audio serial data input from the A/D converter and D/A converter
114	VSS	-	Ground terminal
115	SDTO_O	O	Audio serial data output to the A/D converter and D/A converter
116	BD_CLK	O	Serial data transfer clock signal output to the digital servo
117	BD_SENS	I	Internal status (SENSE) input from the digital servo
118	VSS	-	Ground terminal
119	BD_GAIN-SW	O	Gain switch signal output to the motor/coil driver
120	BD_XLAT	O	Serial data latch pulse output to the digital servo
121	BD_DATA	O	Serial data output to the digital servo
122	BD_SCOR	I	Sub-code sync (S0+S1) detection signal input from the digital servo



Pin No.	Pin Name	I/O	Description
123	CVDD	-	Power supply terminal (+1.2V)
124	VSS	-	Ground terminal
125	DVDD	-	Power supply terminal (+3.3V)
126	USB_INT	I	Interrupt signal input from the USB interface
127	AC_DET	I	Power failure detection input from the system controller
128	CVDD	-	Power supply terminal (+1.2V)
129	VSS	-	Ground terminal
130	BD_XTACN	O	Oscillation circuit on/off control signal output to the digital servo
131	EM_A (_14)	O	Address signal output to the flash memory
132	CVDD	-	Power supply terminal (+1.2V)
133	VSS	-	Ground terminal
134	SDTO_I	O	Audio serial data output to the A/D converter and D/A converter
135	BD_XRST	O	Reset signal output to the digital servo "L": reset
136	DVDD	-	Power supply terminal (+3.3V)
137, 138	EM_A (_15), EM_A (_16)	O	Address signal output to the flash memory
139	ACLKR0	-	Not used
140	VSS	-	Ground terminal
141	AFSR0	-	Not used
142	BCKO	O	Bit clock signal output to the A/D converter and D/A converter
143	EM_A (_17)	O	Address signal output to the flash memory
144	LRCKO	O	L/R sampling block signal output to the A/D converter and D/A converter

## USB MICOM BOARD IC9 JM20339-LGCA0C (HARD DISK DRIVER)

Pin No.	Pin Name	I/O	Description
1 to 3	GPIO21 to GPIO23	-	Not used
4	MODE2	-	Not used
5, 6	NC	-	Not used
7	DGND	-	Ground terminal
8	VCCO	-	Power supply terminal (+3.3V)
9, 10	NC	-	Not used
11	GPIO7	-	Not used
12	RST#	I	Reset signal input from the USB system controller "L": reset
13	VBUS	I	VBUS voltage detect signal input from the USB 2.0 hub controller
14	AVREG	O	Power supply voltage (+1.8V) output terminal
15	AVDDH	-	Power supply terminal (+3.3V)
16	AGNDH	-	Ground terminal
17	XTALI	I	System clock (12 MHz) input terminal
18	XTALO	O	System clock (12 MHz) output terminal
19, 20	DM, DP	I/O	Audio serial data input/output with the USB 2.0 hub controller
21	AVDDH	-	Power supply terminal (+3.3V)
22	AGNDH	-	Ground terminal
23	NC	-	Not used
24	AVDDH	-	Power supply terminal (+3.3V)
25	AGND	-	Ground terminal
26	REXT	-	Not used
27, 28	RXP, RXN	O	Audio serial data output to the hard disk drive
29	AVDDL	-	Power supply terminal (+1.8V)
30	AGND	-	Ground terminal
31, 32	TXN, TXP	I	Audio serial data input from the hard disk drive
33 to 36	GPIO3 to GPIO0	-	Not used
37	TME#	-	Not used
38	PHYRDY	-	Not used
39	HDDA	-	Not used
40	GPIO4	-	Not used
41	DGND	-	Ground terminal
42	VCCK	-	Power supply terminal (+1.8V)
43 to 52	GPIO5, GPIO6, GPIO9 to GPIO15, GPIO8	-	Not used
53, 54	UAI, UAO	-	Not used
55	MODE1	-	Not used
56	VCCO	-	Power supply terminal (+3.3V)
57	DGND	-	Ground terminal
58	VCCK	-	Power supply terminal (+1.8V)
59	MODE0	-	Not used
60 to 64	GPIO16 to GPIO20	-	Not used

## USB MICOM BOARD IC13 USB2512-AEZG (USB 2.0 HUB CONTROLLER)

Pin No.	Pin Name	I/O	Description
1, 2	USBDN1_DM, USBDN1_DP	I/O	Audio serial data input/output with the USB connector
3, 4	USBDN2_DM, USBDN2_DP	I/O	Audio serial data input/output with the hard disk driver
5	VDDA33	-	Power supply terminal (+3.3V)
6 to 9	NC	-	Not used
10	VDDA33	-	Power supply terminal (+3.3V)
11	TEST	-	Not used
12	PRTPW1	O	Power supply on/off control signal output terminal for the USB VBUS section "H": power on
13	OSC1_N	I	Over current sense signal input from the USB interface
14	VDD18	-	Power supply terminal (+3.3V)
15	VDD33CR	-	Power supply terminal (+3.3V)
16	PRTPW2	O	VBUS voltage detect signal output to the hard disk driver
17	OSC2_N	I	Over current sense signal input terminal
18 to 21	NC	-	Not used
22	SDA/SMBDATA/NON/ REM1	-	Not used
23	VDD33	-	Power supply terminal (+3.3V)
24	SCL/SMBCLK/ CFG_SEL0	-	Not used
25	HS_IND/CFG_SEL1	-	Not used
26	RESET_N	I	Reset signal input from the USB system controller "L": reset
27	VBUS_DET	I	VBUS voltage detect signal input terminal
28	SUSP_IND/ LOCAL_PWR/NON_PEM0	-	Not used
29	VDDA33	-	Power supply terminal (+3.3V)
30, 31	USBUP_DM, US- BUP_DP	I/O	Audio serial data input/output with the USB interface
32	XTAL2	O	System clock (24 MHz) output terminal
33	XTAL1/CLKIN	I	System clock (24 MHz) input terminal
34	VDD18PLL	-	Power supply terminal (+1.8V)
35	RBIAS	-	Not used
36	VDD33PLL	-	Power supply terminal (+3.3V)

## MAIN BOARD IC201 R5F3640DDFAR (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	FAN-CTL2	O	Fan control signal output terminal Not used
2	MIC DET	I	Microphone detection signal input terminal "L": microphone insert
3	AC FS DETECT	I	AC detection signal input terminal
4	SIRCS	I	SIRCS signal input from the remote control receiver
5, 6	EFFECTOR CTL1, EFFECTOR CTL2	O	Effector control signal output terminal "H": effector mode on
7	S2	O	Effector control signal output to the multiplexer
8	BYTE	I	External data bus width changeover signal input terminal Fixed at "L" in this set
9	CNVSS	-	Not used
10	XCIN	I	Sub system clock (32.768 kHz) input terminal
11	XCOU	O	Sub system clock (32.768 kHz) output terminal
12	RESET	I	Reset signal input terminal
13	XOUT	O	Main system clock (5 MHz) output terminal
14	VSS	-	Ground terminal
15	XIN	I	Main system clock (5 MHz) input terminal
16	VCC	-	Power supply terminal (+3.3V)
17	NMI	-	Not used
18, 19	S1, S0	O	Effector control signal output to the multiplexer
20	AC-CUT	I	AC cut on/off detection signal input from the reset signal generator "L": AC cut on
21	R2A15216FP-CLK	O	Serial data transfer clock signal output to the electrical volume
22	R2A15216FP-DATA	O	Serial data output to the electrical volume
23	ST DATA IN	I	Serial data input from the tuner (FM/AM)
24	ST CLK	O	Serial data transfer clock signal output to the tuner (FM/AM)
25	ST DATA OUT	O	Serial data output to the tuner (FM/AM)
26	ST CE	O	Chip enable signal output to the tuner (FM/AM)
27	ST TUNED	I	Tuning detection signal input from the tuner (FM/AM)
28	TA-RECOUT-MUTE	O	Not used
29	IIC_CLK	I/O	Two-way I2C serial clock signal bus with the display controller
30	IIC_DATA	I/O	Two-way I2C serial data bus with the display controller
31	GENESIS IIC_DATA	I/O	Two-way I2C serial data bus with the USB system controller
32	GENESIS IIC_CLK	I/O	Two-way I2C serial clock signal bus with the USB system controller
33	GENESIS RESET	O	Reset signal output to the USB system controller, flash memory and hard disk driver "L": reset
34	GENESIS POWER	O	Power supply on/off control signal output terminal "H": power on
35	GENESIS AC DETECT	O	Power failure detection output to the USB system controller
36 to 38	NC	-	Not used
39	CLKOUT	O	Not used
40	GENESIS VBUS	O	Power supply on/off control signal output terminal for the USB VBUS section "H": power on
41	PULL DOWN	-	Not used
42 to 45	NC	-	Not used
46	PULL UP	-	Not used
47	EEP-SDA	I/O	Two-way serial data bus with the EEPROM
48	EEP-SCL	I/O	Two-way serial clock signal bus with the EEPROM
49, 50	NC	-	Not used
51	CDM OPEN SW	I	Disc tray open position detection signal input terminal
52	CDM CLOSE SW	I	Disc tray close position detection signal input terminal
53	CDM LOAD OUT	O	Loading motor control signal output terminal (for loading out)
54	CDM LOAD IN	O	Loading motor control signal output terminal (for loading in)
55 to 61	NC	-	Not used
62	VCC	-	Power supply terminal (+3.3V)
63	NC	-	Not used
64	VSS	-	Ground terminal
65	SPEC-IN	I	Destination setting terminal
66	AC DET	I	AC detection signal input terminal
67	P_VACS	I	VACS signal input from the electrical volume
68, 69	NC	-	Not used
70, 71	TEST_PORT1, TEST_PORT2	O	Not used
72	GC_RESET	O	Reset signal output to the display controller and data selector

Pin No.	Pin Name	I/O	Description
73	KEY_WAKE_UP_DISPLAY	I	Key input terminal for the power key
74	KEY_WAKE_UP_POWER	I	Key input terminal for the display key
75	STANDBY LED	O	LED drive signal output terminal for the standby LED "H": LED on
76 to 78	NC	-	Not used
79	FAN-CTL1	O	Fan control signal output terminal Not used
80	STANDBY RELAY	O	Power on/off relay drive signal output terminal "H": power on
81	OVERVOLTAGE	I	Over voltage detection signal input terminal
82 to 86	NC	-	Not used
87	HP DET	I	Headphone detection signal input terminal "H": headphone insert
88	THERMAL VACS	I	Not used
89	AMP_PROTECT	I	Protect signal input terminal
90	STK-MUTE	O	Standby signal output to the power amplifier
91	SW SP RLY	O	Subwoofer speaker on/off relay drive signal output terminal "H": Subwoofer speaker on
92	FR SP RLY	O	Front speaker on/off relay drive signal output terminal "H": front speaker on
93	SW LEVEL IN	I	Subwoofer speaker level signal input from the SS-WG999
94	SW ON LED	O	LED drive signal output to the SS-WG999
95	NC	-	Not used
96	AVSS	-	Ground terminal
97	NC	-	Not used
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	-	Power supply terminal (+3.3V)
100	TA LINE-MUTE	O	Muting on/off control signal output terminal "L": muting on

## DISPLAY BOARD IC701 R5F3640DDFAR (DISPLAY CONTROLLER)

Pin No.	Pin Name	I/O	Description
1 to 3	LED_SEG_6 to LED_SEG_4	O	LED drive signal output terminal for the power illuminator indicator "H": LED on
4	LED_SEG_3	O	LED drive signal output terminal for the HDD and USB indicator "H": LED on
5	LED_SEG_2	O	LED drive signal output terminal for the ENTER and illumination bar indicator "H": LED on
6	LED_SEG_1	O	LED drive signal output terminal for the HDD REC and USB (red) indicator "H": LED on
7	LED_SEG_0	O	LED drive signal output terminal for the USB (blue) and HDD indicator "H": LED on
8	BYTE	I	External data bus width changeover signal input terminal Fixed at "L" in this set
9	CNVSS	-	Not used
10, 11	NC	-	Not used
12	RESET	I	Reset signal input from the system controller
13	XOUT	O	System clock (5 MHz) output terminal
14	VSS	-	Ground terminal
15	XIN	I	System clock (5 MHz) input terminal
16	VCC	-	Power supply terminal (+3.3V)
17	NMI	-	Not used
18	SOFT-TEST	O	Not used
19	VFD_POWER	O	Not used
20 to 23	NC	-	Not used
24	LED_COMMON_1	O	LED selection signal output terminal (SEL A)
25	NC	-	Not used
26	LED_COMMON_0	O	LED selection signal output terminal (SEL B)
27	NC	-	Not used
28	VFD_BK	O	Blank control signal output to the fluorescent indicator tube
29	IIC_CLK	I/O	Two-way I2C serial clock signal bus with the system controller
30	IIC_DATA	I/O	Two-way I2C serial data bus with the system controller
31	TXD	-	Not used
32	RXD	-	Not used
33	CLK	-	Not used
34	CTS/RTS	-	Not used
35	VFD_DATA	O	Serial data output to the fluorescent indicator tube and data selector
36	VFD_LATCH	O	Serial data latch pulse signal output to the fluorescent indicator tube and data selector
37	VFD_CLK	O	Serial clock signal output to the fluorescent indicator tube
38 to 40	NC	-	Not used
41	PULL DOWN	-	Not used
42 to 45	NC	-	Not used
46	PULL UP	-	Not used
47 to 61	NC	-	Not used
62	VCC	-	Power supply terminal (+3.3V)
63	NC	-	Not used
64	VSS	-	Ground terminal
65 to 84	NC	-	Not used
85	SPEC-IN	I	Destination setting terminal
86 to 89	BPF1 to BPF4	I	VACS signal input from the band-pass filter
90	ALL-BAND	I	VACS signal input from the band-pass filter
91	OPERATION DIAL	I	Not used
92	VOLUME JOG	I	Jog dial pulse input from the rotary encoder (for VOLUME)
93 to 95	KEY3 to KEY1	I	Panel key input terminal
96	AVSS	-	Ground terminal
97	KEY0	I	Panel key input terminal
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	-	Power supply terminal (+3.3V)
100	LED_SEG_7	O	Not used

## SECTION 7 EXPLODED VIEWS

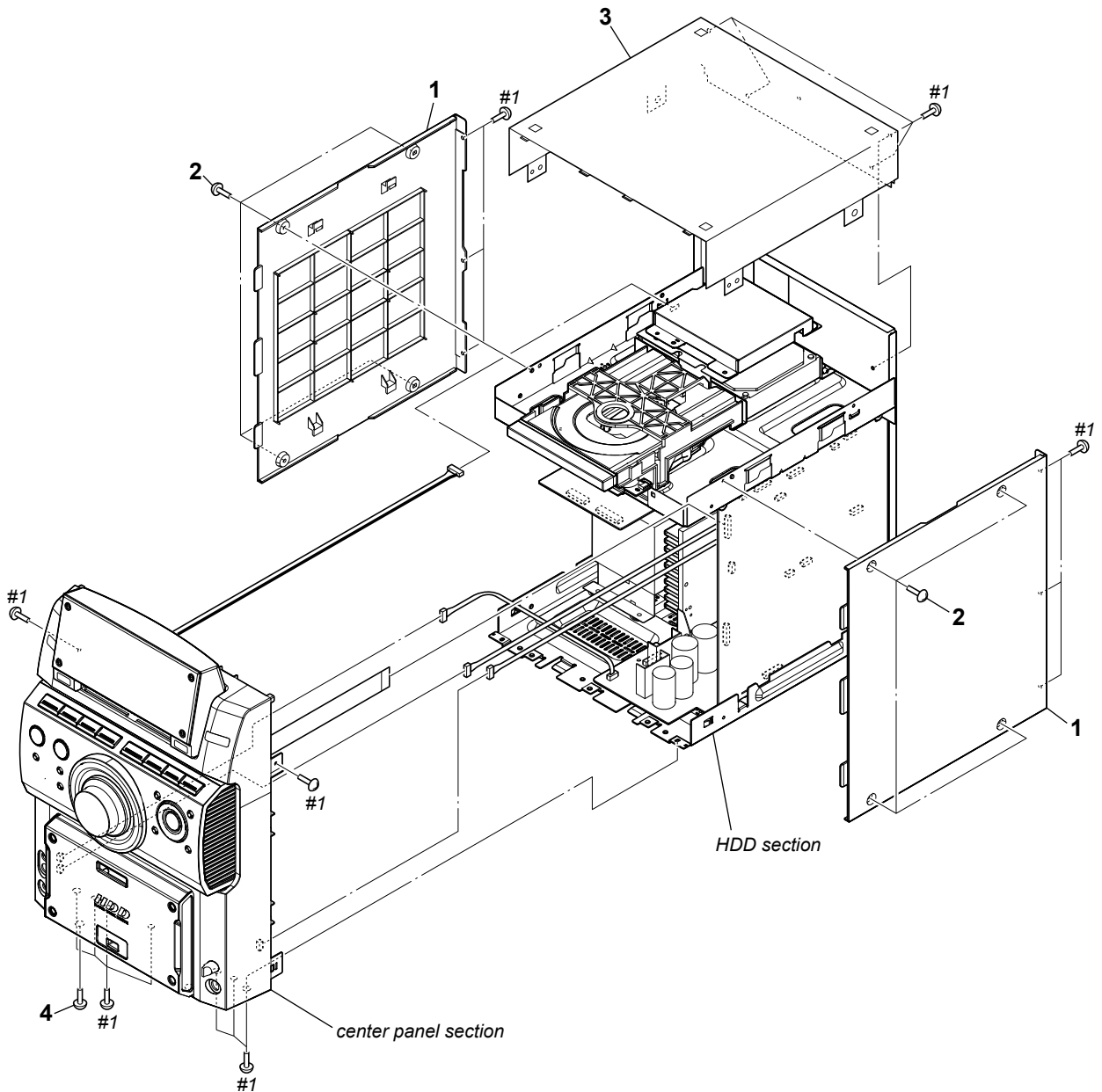
**Note:**

- -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  
 AR : Argentina model  
 BR : Brazilian model  
 E2 : 120V AC area in E model  
 E51 : Chilean and Peruvian models

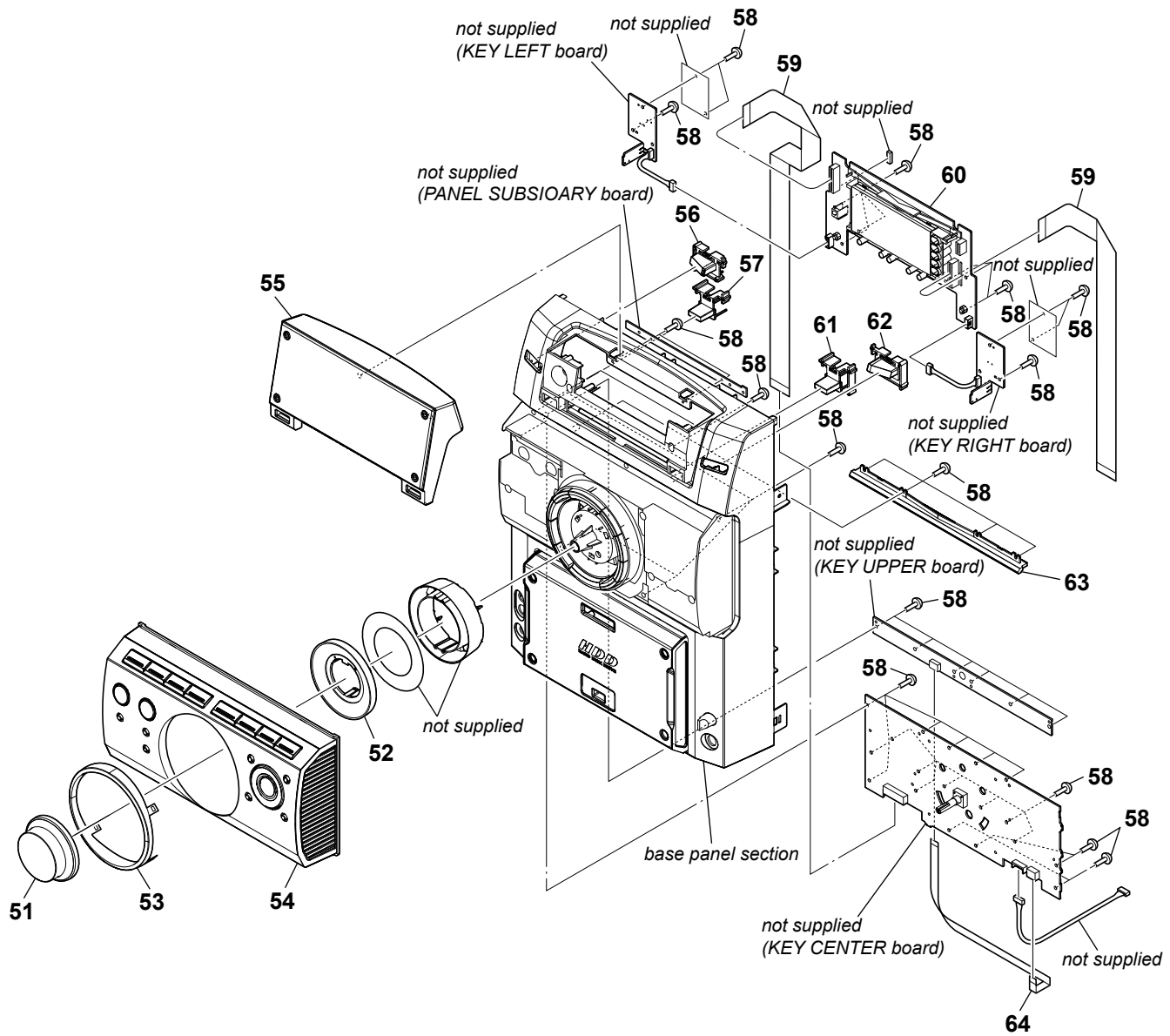
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

### 7-1. TOP CASE, SIDE PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-294-726-01	PANEL, SIDE		4	3-704-515-32	SCREW (BV/RING)	
2	3-363-099-32	SCREW (CASE 3 TP2)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
3	2-599-854-61	CASE (TOP)					

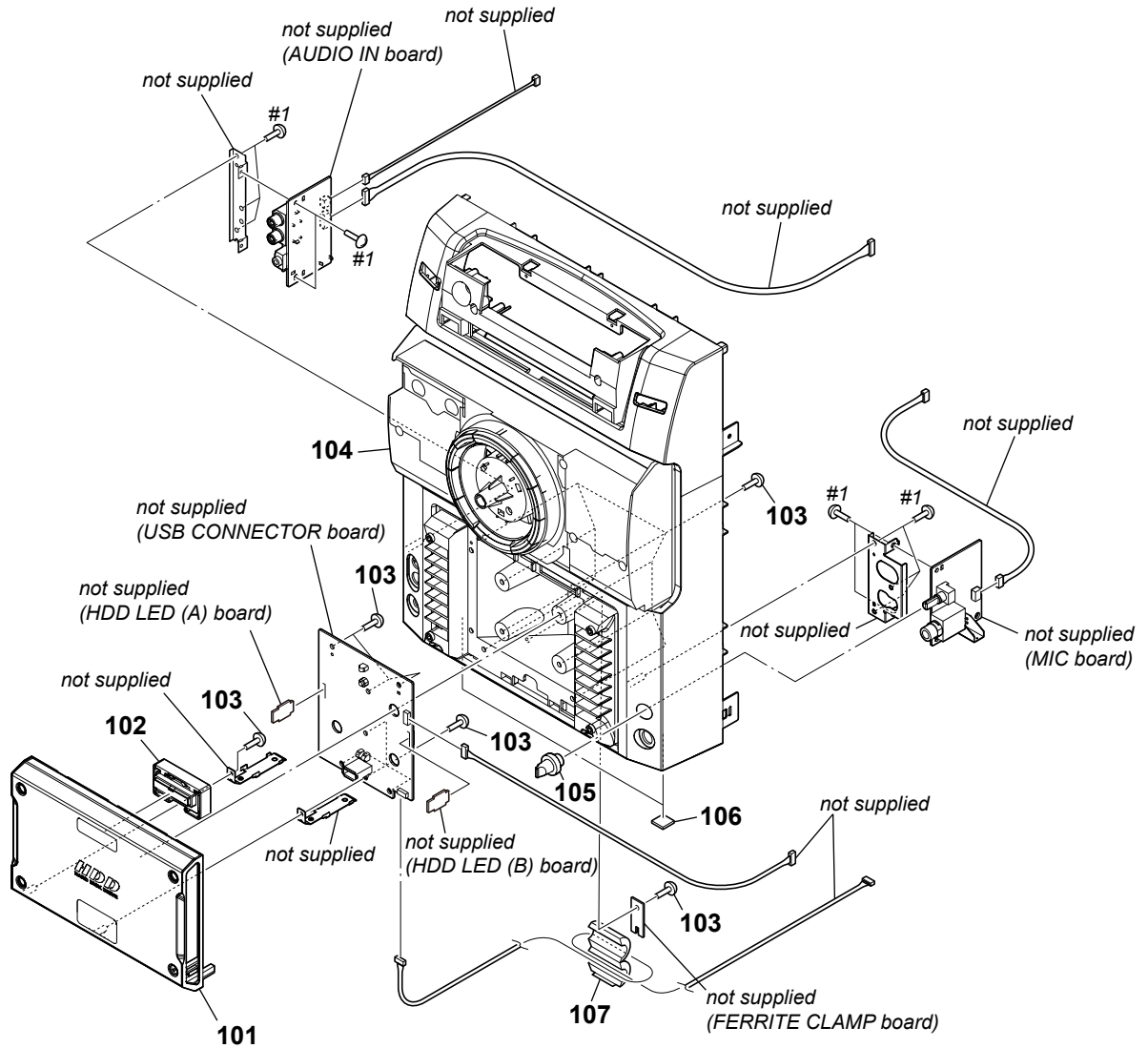
## 7-2. CENTER PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-294-720-01	KNOB (VOL)		58	3-087-053-01	+BVTP2.6 (3CR)	
52	3-294-719-01	PLATE (VOL), LIGHT GUIDE		59	1-832-859-21	CABLE, FLEXIBLE FLAT (17 CORE)	
53	3-294-723-01	ORNAMENT (VOL)		60	A-1530-475-A	DISPLAY BOARD, COMPLETE	
54	X-2319-067-1	CENTER PANEL ASSY		61	3-294-707-01	BUTTON (EJECT)	
55	X-2319-069-2	TOP COVER ASSY		62	3-294-713-01	BUTTON (SHUFFLE)	
56	X-2319-070-1	BUTTON (POWER) ASSY		63	3-294-718-01	ILLUMINATION	
57	3-294-709-01	BUTTON (DISPLAY)		64	1-831-744-21	CABLE, FLEXIBLE FLAT (5 CORE)	

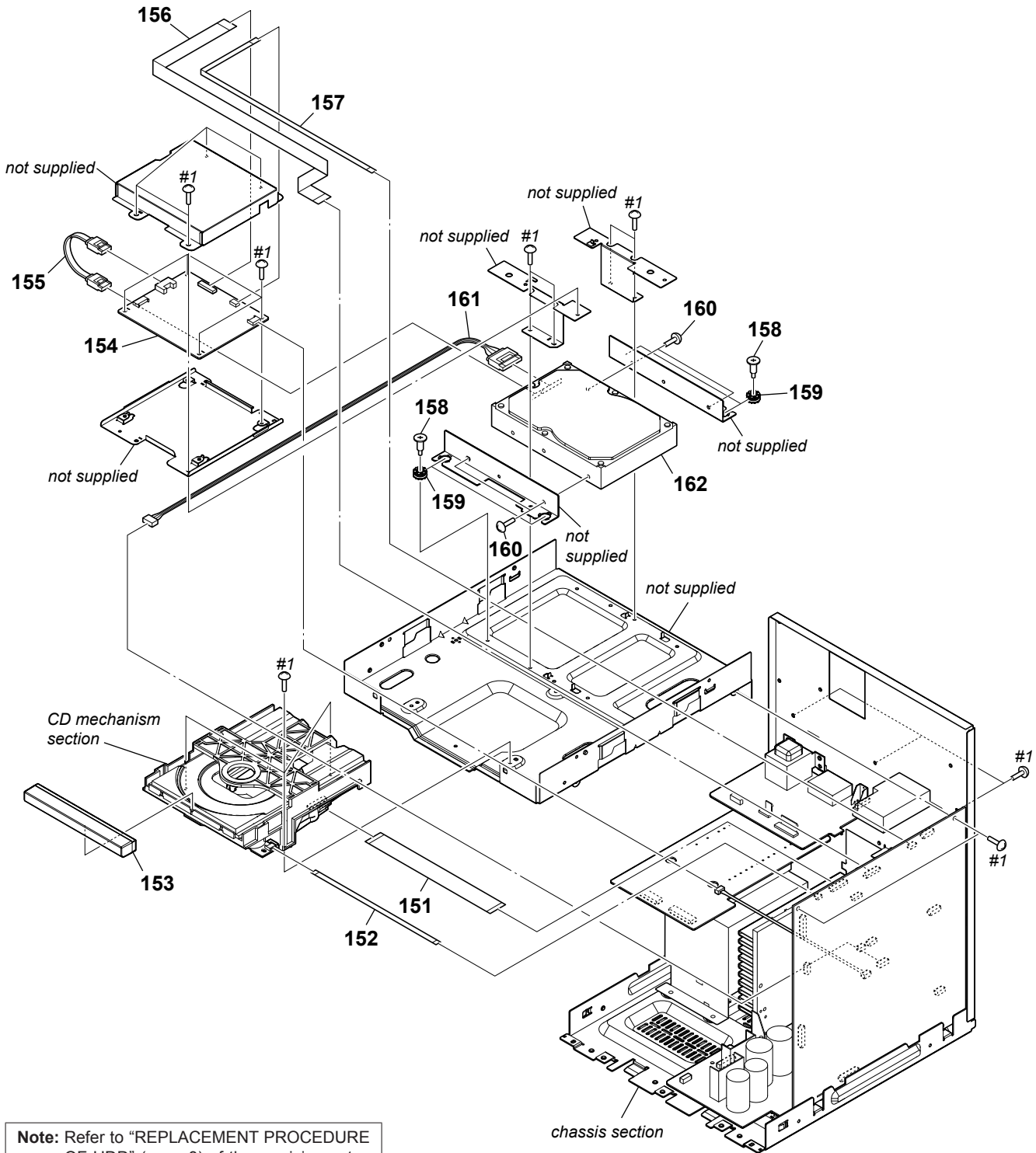


7-3. BASE PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-2319-068-2	BASE PANEL ASSY		106	4-247-752-01	FOOT, RUBBER	
102	X-2319-071-2	BUTTON (REC) ASSY		107	1-457-368-11	CORE, FERRITE	
103	3-087-053-01	+BVTP2.6 (3CR)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
104	X-2320-625-2	FRONT PANEL ASSY					
105	3-291-797-11	MIC KNOB					

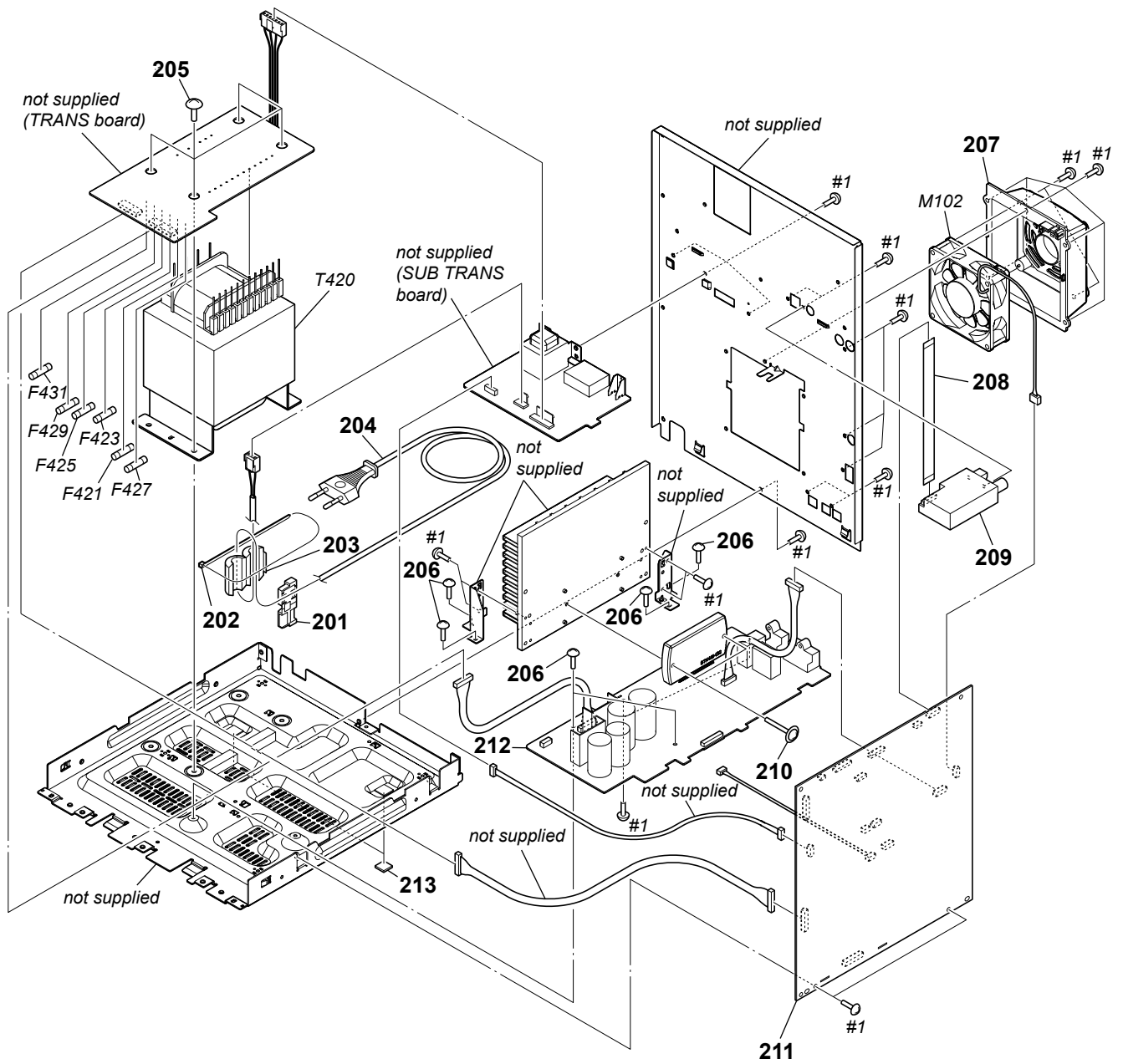
## 7-4. HDD SECTION



**Note:** Refer to "REPLACEMENT PROCEDURE OF HDD" (page 3) of the servicing notes for HDD is exchanged.

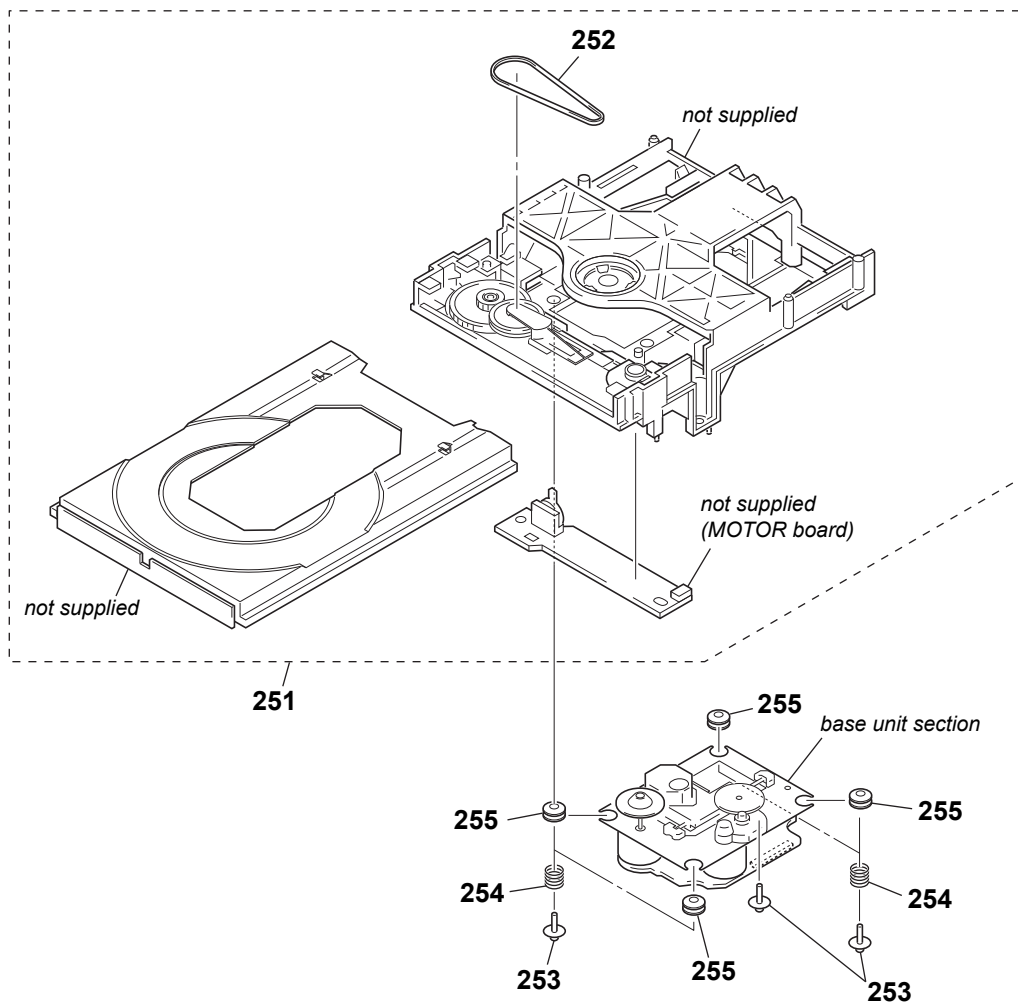
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	1-832-736-21	CABLE, FLEXIBLE FLAT (19 CORE)		158	4-112-079-01	SCREW, HDD DAMPER	
152	1-832-536-21	CABLE, FLEXIBLE FLAT (5 CORE)		159	3-089-380-01	DAMPER	
153	3-294-706-03	PANEL, LOADING		160	3-087-675-01	6-32UNCX5	
154	A-1531-914-A	USB MICOM BOARD, COMPLETE		161	1-966-028-11	HARNESS	
155	1-965-872-11	HARNESS		162	A-1561-781-A	HDD ASSY (80 GB)	
156	1-832-600-21	CABLE, FLEXIBLE FLAT (17 CORE)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
157	1-832-538-21	CABLE, FLEXIBLE FLAT (5 CORE)					

7-5. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-703-244-00	BUSHING (2104), CORD		211	A-1530-467-A	MAIN BOARD, COMPLETE (BR)	
202	3-655-653-11	BAND (TAITON), BINDING		212	A-1530-503-A	AMP BOARD, COMPLETE (E2, E51)	
203	1-457-369-12	CORE, FERRITE		212	A-1530-504-A	AMP BOARD, COMPLETE (AR)	
△ 204	1-829-387-11	CORD, POWER (AR)		212	A-1530-506-A	AMP BOARD, COMPLETE (BR)	
△ 204	1-833-218-11	CORD, POWER (BR)		213	4-247-752-01	FOOT, RUBBER	
△ 204	1-834-966-11	CORD, POWER (E2, E51)		△ F421	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
205	4-900-386-01	SCREW		△ F423	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
206	3-077-331-01	+BV3 (3-CR)		△ F425	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
207	3-285-881-01	COVER (FAN)		△ F427	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
208	1-832-815-21	CABLE, FLEXIBLE FLAT (9 CORE)		△ F429	1-532-506-33	FUSE (T6.3AL/250V)	
209	1-693-762-11	TUNER (FM/AM) (BR)		△ F431	1-532-506-33	FUSE (T6.3AL/250V)	
209	1-693-764-11	TUNER (FM/AM) (E2, E51, AR)		M102	1-787-400-11	D.C. FAN	
210	3-905-609-31	SCREW (TRANSISTOR)		△ T420	1-445-435-11	TRANSFORMER, POWER	
211	A-1530-465-A	MAIN BOARD, COMPLETE (E2)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
211	A-1530-466-A	MAIN BOARD, COMPLETE (E51, AR)					

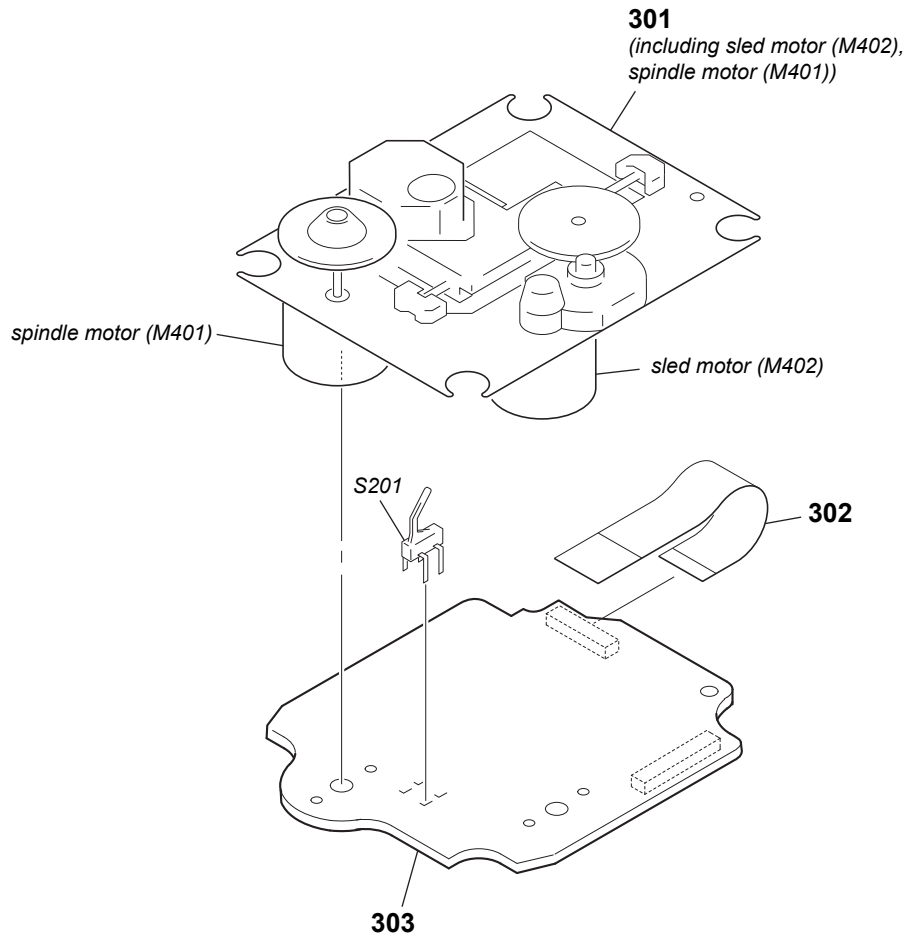
## 7-6. CD MECHANISM SECTION (CDM77B-F2BD82F-WAO)



Ref. No.	Part No.	Description	Remark
251	A-1242-967-A	LOADING (BK) ASSY	
252	3-080-478-01	BELT	
253	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	

Ref. No.	Part No.	Description	Remark
254	4-227-045-41	SPRING (INSULATOR)	
255	4-229-005-41	INSULATOR	

7-7. BASE UNIT SECTION  
(BU-F2BD82F-A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ 301	8-820-272-02	OPTICAL PICK-UP BLOCK (KSM215DHAP/C2NP)		303	A-1550-930-A	CD BOARD, COMPLETE	
302	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)		S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	

**SECTION 8  
ELECTRICAL PARTS LIST**

**AMP**

**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.
- CAPACITORS  
uF: μF

- COILS  
uH: μH
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable
- SEMICONDUCTORS  
In each case, u: μ, for example:  
uA. . . : μA. . . , uPA. . . , μPA. . . ,  
uPB. . . : μPB. . . , uPC. . . , μPC. . . ,  
uPD. . . : μPD. . .

- Abbreviation  
AR : Argentina model  
BR : Brazilian model  
E2 : 120V AC area in E model  
E51 : Chilean and Peruvian models

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-1530-503-A	AMP BOARD, COMPLETE (E2, E51)					
	A-1530-504-A	AMP BOARD, COMPLETE (AR)					
	A-1530-506-A	AMP BOARD, COMPLETE (BR)					
		*****					
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S					
		< CAPACITOR >					
C501	1-127-813-11	ELECT (BLOCK) 3300uF	20% 71V	C590	1-136-165-00	FILM 0.1uF	5% 50V
C502	1-127-813-11	ELECT (BLOCK) 3300uF	20% 71V	C591	1-136-165-00	FILM 0.1uF	5% 50V
C503	1-127-811-11	ELECT (BLOCK) 3300uF	20% 50V	C592	1-136-165-00	FILM 0.1uF	5% 50V
C504	1-127-811-11	ELECT (BLOCK) 3300uF	20% 50V	C593	1-136-165-00	FILM 0.1uF	5% 50V
C505	1-137-749-11	MYLAR 0.1uF	100V	C594	1-136-165-00	FILM 0.1uF	5% 50V
		< CONNECTOR >					
C506	1-136-165-00	FILM 0.1uF	5% 50V	C595	1-136-165-00	FILM 0.1uF	5% 50V
C507	1-137-749-11	MYLAR 0.1uF	100V	C596	1-136-165-00	FILM 0.1uF	5% 50V
C508	1-136-165-00	FILM 0.1uF	5% 50V	C597	1-136-165-00	FILM 0.1uF	5% 50V
C509	1-128-563-11	ELECT 100uF	20% 100V	C598	1-136-165-00	FILM 0.1uF	5% 50V
C510	1-128-563-11	ELECT 100uF	20% 100V	C599	1-136-165-00	FILM 0.1uF	5% 50V
		< DIODE >					
C513	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	D501	6-500-249-01	DIODE D15XB20	
C519	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	D502	6-500-360-01	DIODE D10XB20	
C526	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	D503	6-501-179-01	DIODE UDZW-TE17-16B	
C531	1-126-960-11	ELECT 1uF	20% 50V	D504	6-501-179-01	DIODE UDZW-TE17-16B	
C532	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	D505	6-500-968-21	DIODE 30PRA20FC	
		< EARTH TERMINAL >					
C533	1-126-965-91	ELECT 22uF	20% 50V	D506	6-500-968-21	DIODE 30PRA20FC	
C534	1-126-960-11	ELECT 1uF	20% 50V	D512	6-500-334-01	DIODE MC2836-T112-1	
C535	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	D525	6-501-817-01	DIODE MA2J1110GLS0	
C536	1-126-965-91	ELECT 22uF	20% 50V	D540	6-501-817-01	DIODE MA2J1110GLS0	
C537	1-126-964-11	ELECT 10uF	20% 50V	D545	6-501-817-01	DIODE MA2J1110GLS0	
		< IC >					
C538	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	D560	6-501-817-01	DIODE MA2J1110GLS0	
C539	1-126-967-11	ELECT 47uF	20% 50V	D570	6-501-817-01	DIODE MA2J1110GLS0	
C540	1-126-965-11	ELECT 22uF	20% 50V	D576	6-501-817-01	DIODE MA2J1110GLS0	
C545	1-126-960-11	ELECT 1uF	20% 50V				
C556	1-104-658-91	ELECT 100uF	20% 10V	ET501	1-537-771-21	TERMINAL BOARD, GROUND	
		< COIL >		ET502	1-537-771-21	TERMINAL BOARD, GROUND	
C561	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	ET503	1-537-771-21	TERMINAL BOARD, GROUND	
C562	1-162-962-11	CERAMIC CHIP 470PF	10% 50V				
C563	1-162-962-11	CERAMIC CHIP 470PF	10% 50V				
C570	1-136-165-00	FILM 0.1uF	5% 50V				
C571	1-126-968-11	ELECT 100uF	20% 50V	IC501	6-600-674-01	IC STK416-130-E	
		< TRANSISTOR >					
C572	1-126-968-11	ELECT 100uF	20% 50V				
C573	1-126-968-11	ELECT 100uF	20% 50V	L578	1-422-009-13	COIL, AIR-CORE	
C574	1-126-968-11	ELECT 100uF	20% 50V	L582	1-422-009-13	COIL, AIR-CORE	
C575	1-162-908-11	CERAMIC CHIP 3PF	0.25PF 50V	L586	1-422-009-13	COIL, AIR-CORE	
C576	1-162-908-11	CERAMIC CHIP 3PF	0.25PF 50V				
		< TRANSISTOR >					
C577	1-162-908-11	CERAMIC CHIP 3PF	0.25PF 50V	Q501	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
C580	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	Q512	6-551-268-01	TRANSISTOR 2SC5625	
C581	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	Q518	6-551-268-01	TRANSISTOR 2SC5625	
C588	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V				
C589	1-136-165-00	FILM 0.1uF	5% 50V				

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q525	6-551-268-01	TRANSISTOR	2SC5625			R520	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q545	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF			R521	1-216-845-11	METAL CHIP	100K	5%	1/10W
Q546	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			R522	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q550	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			R523	1-216-837-11	METAL CHIP	22K	5%	1/10W
Q551	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			R524	1-216-809-11	METAL CHIP	100	5%	1/10W
Q556	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			△ R525	1-220-893-11	METAL	0.22	10%	5W F
Q557	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			R526	1-216-842-11	METAL CHIP	56K	5%	1/10W
Q570	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			R527	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q576	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF			R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
		< RESISTOR >				R529	1-216-837-11	METAL CHIP	22K	5%	1/10W
R450	1-216-797-11	METAL CHIP	10	5%	1/10W	R530	1-216-841-11	METAL CHIP	47K	5%	1/10W
R451	1-216-797-11	METAL CHIP	10	5%	1/10W	R531	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R452	1-216-797-11	METAL CHIP	10	5%	1/10W	R532	1-216-842-11	METAL CHIP	56K	5%	1/10W
R453	1-216-797-11	METAL CHIP	10	5%	1/10W	R533	1-216-818-11	METAL CHIP	560	5%	1/10W
R454	1-216-797-11	METAL CHIP	10	5%	1/10W	R534	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R455	1-216-797-11	METAL CHIP	10	5%	1/10W	R535	1-216-842-11	METAL CHIP	56K	5%	1/10W
R456	1-216-797-11	METAL CHIP	10	5%	1/10W	R536	1-216-818-11	METAL CHIP	560	5%	1/10W
R457	1-216-797-11	METAL CHIP	10	5%	1/10W	R537	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R458	1-216-797-11	METAL CHIP	10	5%	1/10W	R538	1-216-842-11	METAL CHIP	56K	5%	1/10W
R459	1-216-797-11	METAL CHIP	10	5%	1/10W	R539	1-216-820-11	METAL CHIP	820	5%	1/10W
R460	1-216-797-11	METAL CHIP	10	5%	1/10W	R540	1-216-821-11	METAL CHIP	1K	5%	1/10W
R461	1-216-797-11	METAL CHIP	10	5%	1/10W	R541	1-216-837-11	METAL CHIP	22K	5%	1/10W
R462	1-216-797-11	METAL CHIP	10	5%	1/10W	R542	1-216-845-11	METAL CHIP	100K	5%	1/10W
R463	1-216-797-11	METAL CHIP	10	5%	1/10W	R545	1-216-833-11	METAL CHIP	10K	5%	1/10W
R464	1-216-797-11	METAL CHIP	10	5%	1/10W	R546	1-216-841-11	METAL CHIP	47K	5%	1/10W
R465	1-216-797-11	METAL CHIP	10	5%	1/10W	R547	1-216-821-11	METAL CHIP	1K	5%	1/10W
R466	1-216-797-11	METAL CHIP	10	5%	1/10W	R548	1-216-837-11	METAL CHIP	22K	5%	1/10W
R467	1-216-797-11	METAL CHIP	10	5%	1/10W	R549	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R468	1-216-797-11	METAL CHIP	10	5%	1/10W	R550	1-216-864-11	SHORT CHIP	0		
R469	1-216-797-11	METAL CHIP	10	5%	1/10W	R551	1-216-815-11	METAL CHIP	330	5%	1/10W
R470	1-216-797-11	METAL CHIP	10	5%	1/10W	R552	1-216-841-11	METAL CHIP	47K	5%	1/10W
R471	1-216-797-11	METAL CHIP	10	5%	1/10W	R553	1-216-841-11	METAL CHIP	47K	5%	1/10W
R472	1-216-797-11	METAL CHIP	10	5%	1/10W	R554	1-216-841-11	METAL CHIP	47K	5%	1/10W
R473	1-216-797-11	METAL CHIP	10	5%	1/10W	R555	1-216-845-11	METAL CHIP	100K	5%	1/10W
△ R474	1-215-893-51	METAL OXIDE	1.5K	5%	2W F	R556	1-216-841-11	METAL CHIP	47K	5%	1/10W
△ R475	1-215-893-51	METAL OXIDE	1.5K	5%	2W F	R557	1-216-842-11	METAL CHIP	56K	5%	1/10W
R476	1-216-809-11	METAL CHIP	100	5%	1/10W	R558	1-216-841-11	METAL CHIP	47K	5%	1/10W
R477	1-216-809-11	METAL CHIP	100	5%	1/10W	R560	1-216-837-11	METAL CHIP	22K	5%	1/10W
R478	1-216-809-11	METAL CHIP	100	5%	1/10W	R561	1-216-837-11	METAL CHIP	22K	5%	1/10W
R479	1-216-809-11	METAL CHIP	100	5%	1/10W	R562	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R501	1-216-845-11	METAL CHIP	100K	5%	1/10W	R563	1-216-837-11	METAL CHIP	22K	5%	1/10W
R502	1-216-845-11	METAL CHIP	100K	5%	1/10W	R565	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-845-11	METAL CHIP	100K	5%	1/10W	R567	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W	R568	1-216-809-11	METAL CHIP	100	5%	1/10W
R505	1-216-845-11	METAL CHIP	100K	5%	1/10W	R569	1-216-809-11	METAL CHIP	100	5%	1/10W
R506	1-216-845-11	METAL CHIP	100K	5%	1/10W	R570	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
△ R507	1-215-893-51	METAL OXIDE	1.5K	5%	2W F	R571	1-216-845-11	METAL CHIP	100K	5%	1/10W
△ R508	1-215-893-51	METAL OXIDE	1.5K	5%	2W F	R572	1-216-809-11	METAL CHIP	100	5%	1/10W
△ R509	1-212-881-61	FUSIBLE	100	5%	1/4W F	R573	1-216-809-11	METAL CHIP	100	5%	1/10W
△ R510	1-212-881-61	FUSIBLE	100	5%	1/4W F	R574	1-216-809-11	METAL CHIP	100	5%	1/10W
△ R511	1-202-972-61	FUSIBLE	1	5%	1/4W F	R575	1-216-809-11	METAL CHIP	100	5%	1/10W
△ R512	1-220-893-11	METAL	0.22	10%	5W F	R576	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R513	1-216-842-11	METAL CHIP	56K	5%	1/10W	R577	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-821-11	METAL CHIP	1K	5%	1/10W	R578	1-216-797-11	METAL CHIP	10	5%	1/10W
R515	1-216-845-11	METAL CHIP	100K	5%	1/10W	R579	1-216-797-11	METAL CHIP	10	5%	1/10W
R516	1-216-841-11	METAL CHIP	47K	5%	1/10W	R580	1-216-797-11	METAL CHIP	10	5%	1/10W
R517	1-216-837-11	METAL CHIP	22K	5%	1/10W	R581	1-216-797-11	METAL CHIP	10	5%	1/10W
△ R518	1-220-893-11	METAL	0.22	10%	5W F	R582	1-216-797-11	METAL CHIP	10	5%	1/10W
R519	1-216-842-11	METAL CHIP	56K	5%	1/10W	R583	1-216-797-11	METAL CHIP	10	5%	1/10W
						R584	1-216-797-11	METAL CHIP	10	5%	1/10W

# HCD-GTX999

**AMP**   **AUDIO IN**   **CD**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R585	1-216-797-11	METAL CHIP	10 5% 1/10W	R1862	1-216-864-11	SHORT CHIP	0
R586	1-216-797-11	METAL CHIP	10 5% 1/10W	R1863	1-216-864-11	SHORT CHIP	0
R587	1-216-797-11	METAL CHIP	10 5% 1/10W	R1864	1-216-864-11	SHORT CHIP	0
R588	1-216-797-11	METAL CHIP	10 5% 1/10W	R1865	1-216-864-11	SHORT CHIP	0
R589	1-216-797-11	METAL CHIP	10 5% 1/10W	R1866	1-216-864-11	SHORT CHIP	0
R590	1-216-841-11	METAL CHIP	47K 5% 1/10W	R1867	1-216-864-11	SHORT CHIP	0
*****							
R591	1-216-841-11	METAL CHIP	47K 5% 1/10W	A-1550-930-A	CD BOARD, COMPLETE	*****	
R592	1-216-841-11	METAL CHIP	47K 5% 1/10W	< CAPACITOR >			
△ R593	1-215-893-51	METAL OXIDE	1.5K 5% 2W F	C101	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
R594	1-216-809-11	METAL CHIP	100 5% 1/10W	C102	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
△ R595	1-215-893-51	METAL OXIDE	1.5K 5% 2W F	C103	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
R596	1-216-809-11	METAL CHIP	100 5% 1/10W	C104	1-164-230-11	CERAMIC CHIP	220PF 5% 50V
		< RELAY >		C105	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
△ RY501	1-755-308-21	RELAY		C106	1-164-230-11	CERAMIC CHIP	220PF 5% 50V
△ RY502	1-755-308-21	RELAY		C201	1-128-995-21	ELECT CHIP	100uF 20% 10V
		< TERMINAL BOARD >		C202	1-164-360-11	CERAMIC CHIP	0.1uF 16V
TB501	1-820-067-11	TERMINAL BOARD (SPEAKER)		C203	1-128-995-21	ELECT CHIP	100uF 20% 10V
		(FRONT SPEAKER ONLY FOR SS-GTX999)		C204	1-164-360-11	CERAMIC CHIP	0.1uF 16V
TB502	1-780-473-21	TERMINAL BOARD (SPEAKER) 1P		C205	1-164-360-11	CERAMIC CHIP	0.1uF 16V
		(SUBWOOFER ONLY FOR SS-WG999)		C206	1-164-360-11	CERAMIC CHIP	0.1uF 16V
		< THERMISTOR >		C207	1-128-995-21	ELECT CHIP	100uF 20% 10V
△ TH501	1-807-796-21	THERMISTOR		C208	1-164-360-11	CERAMIC CHIP	0.1uF 16V
		*****		C210	1-164-360-11	CERAMIC CHIP	0.1uF 16V
		AUDIO IN BOARD		C211	1-128-995-21	ELECT CHIP	100uF 20% 10V
		*****		C212	1-164-360-11	CERAMIC CHIP	0.1uF 16V
		< CAPACITOR >		C213	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C862	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C214	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C863	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C215	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C864	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C217	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C865	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C218	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C866	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C219	1-164-360-11	CERAMIC CHIP	0.1uF 16V
C869	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C220	1-164-360-11	CERAMIC CHIP	0.1uF 16V
		< CONNECTOR >		C232	1-164-360-11	CERAMIC CHIP	0.1uF 16V
* CN861	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P		C251	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
CN862	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		C252	1-162-967-11	CERAMIC CHIP	0.0033uF 10% 50V
		< EARTH TERMINAL >		C253	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
ET861	1-537-771-21	TERMINAL BOARD, GROUND		C254	1-162-967-11	CERAMIC CHIP	0.0033uF 10% 50V
		< JACK >		C256	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
J861	1-794-702-11	JACK, HEADPHONE (PHONES)		C257	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
* J865	1-750-178-31	JACK, PIN 2P (AUDIO IN)		C258	1-164-388-91	CERAMIC CHIP	270PF 5% 50V
		< RESISTOR >		C259	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
R861	1-216-864-11	SHORT CHIP	0	C260	1-117-863-11	CERAMIC CHIP	0.47uF 10% 6.3V
R862	1-216-864-11	SHORT CHIP	0	C261	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
R863	1-216-864-11	SHORT CHIP	0	C264	1-162-965-11	CERAMIC CHIP	0.0015uF 10% 50V
R864	1-216-864-11	SHORT CHIP	0	C265	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
R865	1-216-821-11	METAL CHIP	1K 5% 1/10W	C267	1-162-910-11	CERAMIC CHIP	5PF 0.25PF 50V
R866	1-216-821-11	METAL CHIP	1K 5% 1/10W	C268	1-162-910-11	CERAMIC CHIP	5PF 0.25PF 50V
R867	1-216-845-11	METAL CHIP	100K 5% 1/10W	C269	1-124-778-00	ELECT CHIP	22uF 20% 6.3V
R868	1-216-845-11	METAL CHIP	100K 5% 1/10W	C270	1-124-778-00	ELECT CHIP	22uF 20% 6.3V
R1861	1-216-864-11	SHORT CHIP	0	C271	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
				C272	1-164-360-11	CERAMIC CHIP	0.1uF 16V
				C291	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
				C292	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
				C301	1-164-360-11	CERAMIC CHIP	0.1uF 16V
				C302	1-137-710-91	CERAMIC CHIP	10uF 20% 6.3V
				C303	1-137-710-91	CERAMIC CHIP	10uF 20% 6.3V
				C321	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V



Ref. No.	Part No.	Description	Remark
C322	1-115-156-11	CERAMIC CHIP 1uF	10V
C323	1-128-995-21	ELECT CHIP 100uF 20%	10V
C401	1-128-396-11	ELECT CHIP 470uF 20%	10V
C403	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C404	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C405	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C421	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C422	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C423	1-162-927-11	CERAMIC CHIP 100PF 5%	50V
C424	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C425	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C428	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C429	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C430	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C440	1-164-230-11	CERAMIC CHIP 220PF 5%	50V
< CONNECTOR >			
CN101	1-770-702-21	CONNECTOR, FFC/FPC 19P	
CN301	1-770-425-51	CONNECTOR, FFC/FPC 16P	
< DIODE >			
D440	8-719-058-24	DIODE RB501V-40TE-17	
D441	8-719-058-24	DIODE RB501V-40TE-17	
< IC >			
IC201	8-752-425-12	IC CXD3059AR	
IC401	8-759-713-71	IC AN41050	
< TRANSISTOR >			
Q321	6-551-120-01	TRANSISTOR 2SA2119K	
< RESISTOR/FERRITE BEAD >			
R101	1-216-809-11	METAL CHIP 100 5%	1/10W
R102	1-216-809-11	METAL CHIP 100 5%	1/10W
R103	1-216-809-11	METAL CHIP 100 5%	1/10W
R104	1-216-809-11	METAL CHIP 100 5%	1/10W
R105	1-216-809-11	METAL CHIP 100 5%	1/10W
R106	1-216-809-11	METAL CHIP 100 5%	1/10W
R201	1-500-445-21	FERRITE, EMI (SMD) (2012)	
R202	1-500-445-21	FERRITE, EMI (SMD) (2012)	
R203	1-216-295-91	SHORT CHIP 0	
R206	1-216-864-11	SHORT CHIP 0	
R252	1-216-835-11	METAL CHIP 15K 5%	1/10W
R253	1-216-821-11	METAL CHIP 1K 5%	1/10W
R254	1-216-835-11	METAL CHIP 15K 5%	1/10W
R255	1-216-821-11	METAL CHIP 1K 5%	1/10W
R256	1-216-835-11	METAL CHIP 15K 5%	1/10W
R257	1-216-857-11	METAL CHIP 1M 5%	1/10W
R258	1-216-841-11	METAL CHIP 47K 5%	1/10W
R259	1-216-833-11	METAL CHIP 10K 5%	1/10W
R260	1-216-864-11	SHORT CHIP 0	
R265	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R266	1-216-821-11	METAL CHIP 1K 5%	1/10W
R267	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R268	1-216-864-11	SHORT CHIP 0	
R269	1-216-809-11	METAL CHIP 100 5%	1/10W
R270	1-216-809-11	METAL CHIP 100 5%	1/10W
R272	1-216-864-11	SHORT CHIP 0	
R275	1-216-809-11	METAL CHIP 100 5%	1/10W

Ref. No.	Part No.	Description	Remark
R276	1-216-841-11	METAL CHIP 47K 5%	1/10W
R277	1-216-809-11	METAL CHIP 100 5%	1/10W
R278	1-216-864-11	SHORT CHIP 0	
R279	1-216-864-11	SHORT CHIP 0	
R280	1-216-864-11	SHORT CHIP 0	
R281	1-469-324-21	FERRITE, EMI (SMD) (2012)	
R291	1-216-809-11	METAL CHIP 100 5%	1/10W
R292	1-216-809-11	METAL CHIP 100 5%	1/10W
R301	1-216-295-91	SHORT CHIP 0	
R302	1-216-295-91	SHORT CHIP 0	
R321	1-218-446-11	METAL CHIP 1 5%	1/10W
R322	1-216-791-11	METAL CHIP 3.3 5%	1/10W
R323	1-216-864-11	SHORT CHIP 0	
R324	1-216-845-11	METAL CHIP 100K 5%	1/10W
R325	1-216-864-11	SHORT CHIP 0	
R326	1-216-864-11	SHORT CHIP 0	
R401	1-216-295-91	SHORT CHIP 0	
R421	1-216-821-11	METAL CHIP 1K 5%	1/10W
R422	1-216-840-11	METAL CHIP 39K 5%	1/10W
R423	1-216-864-11	SHORT CHIP 0	
R425	1-216-833-11	METAL CHIP 10K 5%	1/10W
R426	1-216-837-11	METAL CHIP 22K 5%	1/10W
R432	1-216-864-11	SHORT CHIP 0	
R440	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
< SWITCH >			
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
< VIBRATOR >			
X201	1-813-379-11	VIBRATOR, CRYSTAL (67.7376MHz)	
*****			
A-1530-475-A	DISPLAY BOARD, COMPLETE		
*****			
< CAPACITOR >			
C701	1-124-584-00	ELECT 100uF 20%	10V
C702	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C705	1-125-972-91	ELECT 100uF 20%	16V
C706	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C711	1-115-467-11	CERAMIC CHIP 0.22uF 10%	10V
C712	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C716	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C717	1-124-584-00	ELECT 100uF 20%	10V
C721	1-126-964-11	ELECT 10uF 20%	50V
C722	1-126-964-11	ELECT 10uF 20%	50V
C723	1-100-623-91	CERAMIC CHIP 0.1uF 10%	100V
C741	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C742	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C743	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C751	1-165-908-11	CERAMIC CHIP 1uF 10%	10V
C752	1-165-908-11	CERAMIC CHIP 1uF 10%	10V
C753	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C754	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
C755	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C756	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C757	1-165-176-11	CERAMIC CHIP 0.047uF 10%	16V
C758	1-165-176-11	CERAMIC CHIP 0.047uF 10%	16V
C759	1-126-964-11	ELECT 10uF 20%	50V
C760	1-164-156-11	CERAMIC CHIP 0.1uF	25V

## DISPLAY

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C761	1-165-908-11	CERAMIC CHIP 1uF 10%	10V	R704	1-216-809-11	METAL CHIP 100 5%	1/10W
C762	1-165-908-11	CERAMIC CHIP 1uF 10%	10V	R705	1-216-809-11	METAL CHIP 100 5%	1/10W
C763	1-165-908-11	CERAMIC CHIP 1uF 10%	10V	R706	1-216-809-11	METAL CHIP 100 5%	1/10W
C764	1-165-908-11	CERAMIC CHIP 1uF 10%	10V	R707	1-216-809-11	METAL CHIP 100 5%	1/10W
C765	1-165-908-11	CERAMIC CHIP 1uF 10%	10V	R709	1-216-833-11	METAL CHIP 10K 5%	1/10W
C766	1-164-315-11	CERAMIC CHIP 470PF 5%	50V	R711	1-216-809-11	METAL CHIP 100 5%	1/10W
C767	1-164-315-11	CERAMIC CHIP 470PF 5%	50V	R712	1-216-845-11	METAL CHIP 100K 5%	1/10W
C768	1-126-961-11	ELECT 2.2uF 20%	50V	R713	1-216-864-11	SHORT CHIP 0	
C774	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R714	1-216-809-11	METAL CHIP 100 5%	1/10W
C782	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	R715	1-216-809-11	METAL CHIP 100 5%	1/10W
C783	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R717	1-216-833-11	METAL CHIP 10K 5%	1/10W
C784	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R721	1-216-813-11	METAL CHIP 220 5%	1/10W
C785	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R722	1-216-813-11	METAL CHIP 220 5%	1/10W
C788	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R723	1-216-839-11	METAL CHIP 33K 5%	1/10W
C797	1-124-584-00	ELECT 100uF 20%	10V	R725	1-216-830-11	METAL CHIP 5.6K 5%	1/10W
C798	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R726	1-216-835-11	METAL CHIP 15K 5%	1/10W
C799	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R727	1-216-834-11	METAL CHIP 12K 5%	1/10W
< CONNECTOR >				R728	1-216-837-11	METAL CHIP 22K 5%	1/10W
CN701	1-779-277-11	CONNECTOR, FFC (LIF (NON-ZIF)) 9P		R729	1-216-809-11	METAL CHIP 100 5%	1/10W
CN703	1-784-778-11	CONNECTOR, FFC 17P		R730	1-216-809-11	METAL CHIP 100 5%	1/10W
CN704	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P		R731	1-216-809-11	METAL CHIP 100 5%	1/10W
CN705	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P		R732	1-216-809-11	METAL CHIP 100 5%	1/10W
CN706	1-784-778-11	CONNECTOR, FFC 17P		R733	1-216-809-11	METAL CHIP 100 5%	1/10W
< DIODE >				R734	1-216-809-11	METAL CHIP 100 5%	1/10W
D721	6-501-747-01	DIODE MAZ8075GMLS0		R741	1-216-833-11	METAL CHIP 10K 5%	1/10W
D742	6-500-334-01	DIODE MC2836-T112-1		R742	1-216-841-11	METAL CHIP 47K 5%	1/10W
< FLUORESCENT INDICATOR TUBE >				R743	1-216-841-11	METAL CHIP 47K 5%	1/10W
FL721	1-483-007-11	INDICATOR TUBE, FLUORESCENT		R744	1-216-833-11	METAL CHIP 10K 5%	1/10W
< IC >				R745	1-216-821-11	METAL CHIP 1K 5%	1/10W
IC701	A-1556-631-A	IC R5F3640DDFAR (for SERVICE)		R746	1-216-833-11	METAL CHIP 10K 5%	1/10W
IC711	6-711-556-01	IC NJL24H400B-SA		R751	1-216-839-11	METAL CHIP 33K 5%	1/10W
IC741	8-759-549-00	IC SN74LV123APWR		R752	1-216-842-11	METAL CHIP 56K 5%	1/10W
IC751	6-705-678-01	IC NJM2760V-TE2		R753	1-218-867-11	METAL CHIP 6.8K 0.5%	1/10W
< JUMPER RESISTOR >				R754	1-216-830-11	METAL CHIP 5.6K 5%	1/10W
JR701	1-216-296-11	SHORT CHIP 0		R755	1-216-833-11	METAL CHIP 10K 5%	1/10W
JR702	1-216-296-11	SHORT CHIP 0		R756	1-216-826-11	METAL CHIP 2.7K 5%	1/10W
JR703	1-216-864-11	SHORT CHIP 0		R757	1-216-821-11	METAL CHIP 1K 5%	1/10W
JR704	1-216-864-11	SHORT CHIP 0		R758	1-216-821-11	METAL CHIP 1K 5%	1/10W
JR705	1-216-296-11	SHORT CHIP 0		R759	1-216-821-11	METAL CHIP 1K 5%	1/10W
JR706	1-216-864-11	SHORT CHIP 0		R760	1-216-821-11	METAL CHIP 1K 5%	1/10W
JR707	1-216-864-11	SHORT CHIP 0		R761	1-216-821-11	METAL CHIP 1K 5%	1/10W
< TRANSISTOR >				R765	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q701	8-729-040-20	TRANSISTOR RT1P137L-TP		R772	1-216-839-11	METAL CHIP 33K 5%	1/10W
Q702	8-729-027-43	TRANSISTOR DTC114EKA-T146		R773	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q703	8-729-040-20	TRANSISTOR RT1P137L-TP		R774	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q704	8-729-027-43	TRANSISTOR DTC114EKA-T146		R775	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q705	8-729-027-43	TRANSISTOR DTC114EKA-T146		R777	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q741	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		R781	1-216-813-11	METAL CHIP 220 5%	1/10W
< RESISTOR >				R782	1-216-815-11	METAL CHIP 330 5%	1/10W
R701	1-216-809-11	METAL CHIP 100 5%	1/10W	R785	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R702	1-216-809-11	METAL CHIP 100 5%	1/10W	R791	1-216-809-11	METAL CHIP 100 5%	1/10W
R703	1-216-809-11	METAL CHIP 100 5%	1/10W	R792	1-216-809-11	METAL CHIP 100 5%	1/10W
R1726	1-216-835-11	METAL CHIP 15K 5%	1/10W	R793	1-216-809-11	METAL CHIP 100 5%	1/10W
R1727	1-216-834-11	METAL CHIP 12K 5%	1/10W	R794	1-216-809-11	METAL CHIP 100 5%	1/10W
R1728	1-216-837-11	METAL CHIP 22K 5%	1/10W	R795	1-216-809-11	METAL CHIP 100 5%	1/10W
				R797	1-216-809-11	METAL CHIP 100 5%	1/10W
				R1725	1-216-830-11	METAL CHIP 5.6K 5%	1/10W

**DISPLAY**   **HDD LED (A)**   **HDD LED (B)**   **KEY (CENTER)**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< SWITCH >		R603	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
S701	1-771-410-21	SWITCH, TACTILE (DISPLAY)		R604	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
S702	1-771-410-21	SWITCH, TACTILE (▲)		R605	1-216-833-11	METAL CHIP 10K 5%	1/10W
		< VIBRATOR >		R606	1-216-813-11	METAL CHIP 220 5%	1/10W
△ X701	1-795-058-21	VIBRATOR, CERAMIC (5MHz)		R607	1-216-815-11	METAL CHIP 330 5%	1/10W
*****				R608	1-216-817-11	METAL CHIP 470 5%	1/10W
		HDD LED (A) BOARD		R609	1-216-819-11	METAL CHIP 680 5%	1/10W
		*****		R610	1-216-821-11	METAL CHIP 1K 5%	1/10W
		< LED >		R611	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
D841	6-501-451-01	LED 1L4344B22COC DT02 (HDD)		R612	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
*****				R613	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
		HDD LED (B) BOARD		R614	1-216-821-11	METAL CHIP 1K 5%	1/10W
		*****		R615	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
		< LED >		R616	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
D842	6-501-451-01	LED 1L4344B22COC DT02 (HDD)		R617	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
*****				R618	1-216-817-11	METAL CHIP 470 5%	1/10W
		KEY (CENTER) BOARD		R619	1-216-819-11	METAL CHIP 680 5%	1/10W
		*****		R620	1-216-821-11	METAL CHIP 1K 5%	1/10W
		< CONNECTOR >		R621	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
CN601	1-784-739-11	CONNECTOR, FFC 17P		R622	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
CN602	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P		R623	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
CN604	1-784-727-11	CONNECTOR, FFC 5P		R631	1-216-815-11	METAL CHIP 330 5%	1/10W
		< LED >		R633	1-216-815-11	METAL CHIP 330 5%	1/10W
D601	6-501-451-01	LED 1L4344B22COC DT02 (HDD)		R635	1-216-815-11	METAL CHIP 330 5%	1/10W
D602	6-501-451-01	LED 1L4344B22COC DT02 (USB)		R637	1-216-815-11	METAL CHIP 330 5%	1/10W
D603	6-501-451-01	LED 1L4344B22COC DT02 (POWER ILLUMINATOR)		R639	1-216-815-11	METAL CHIP 330 5%	1/10W
D604	6-501-451-01	LED 1L4344B22COC DT02 (POWER ILLUMINATOR)		R641	1-216-815-11	METAL CHIP 330 5%	1/10W
D605	6-501-451-01	LED 1L4344B22COC DT02 (POWER ILLUMINATOR)		R643	1-216-815-11	METAL CHIP 330 5%	1/10W
D606	6-501-451-01	LED 1L4344B22COC DT02 (POWER ILLUMINATOR)		R645	1-216-815-11	METAL CHIP 330 5%	1/10W
D607	6-501-451-01	LED 1L4344B22COC DT02 (POWER ILLUMINATOR)		R647	1-216-815-11	METAL CHIP 330 5%	1/10W
D608	6-501-451-01	LED 1L4344B22COC DT02 (POWER ILLUMINATOR)		R661	1-216-841-11	METAL CHIP 47K 5%	1/10W
D609	6-501-451-01	LED 1L4344B22COC DT02 (ENTER)		R662	1-216-845-11	METAL CHIP 100K 5%	1/10W
		< JUMPER RESISTOR >		< SWITCH/ROTARY ENCODER >			
JR601	1-216-296-11	SHORT CHIP 0		S601	1-771-410-21	SWITCH, TACTILE (HDD)	
JR602	1-216-296-11	SHORT CHIP 0		S602	1-771-410-21	SWITCH, TACTILE (USB)	
		< TRANSISTOR >		S607	1-771-410-21	SWITCH, TACTILE (ILLUMINATION)	
Q601	8-729-027-43	TRANSISTOR DTC114EKA-T146		S608	1-771-410-21	SWITCH, TACTILE (REC TIMER)	
Q602	8-729-027-43	TRANSISTOR DTC114EKA-T146		S609	1-771-410-21	SWITCH, TACTILE (REC TO USB)	
Q603	8-729-027-43	TRANSISTOR DTC114EKA-T146		S610	1-771-410-21	SWITCH, TACTILE (SOUND FLASH)	
Q604	8-729-027-43	TRANSISTOR DTC114EKA-T146		S611	1-771-410-21	SWITCH, TACTILE (CHORUS)	
Q605	8-729-027-43	TRANSISTOR DTC114EKA-T146		S612	1-771-410-21	SWITCH, TACTILE (DELAY)	
		< RESISTOR >		S613	1-771-410-21	SWITCH, TACTILE (FLANGER)	
R601	1-216-813-11	METAL CHIP 220 5%	1/10W	S614	1-771-410-21	SWITCH, TACTILE (PRESET EQ)	
R602	1-216-815-11	METAL CHIP 330 5%	1/10W	S615	1-771-410-21	SWITCH, TACTILE (GROOVE)	
				S616	1-771-410-21	SWITCH, TACTILE (SURROUND)	
				S617	1-771-410-21	SWITCH, TACTILE (EQ BAND)	
				S622	1-771-410-21	SWITCH, TACTILE (TRANSFER)	
				S623	1-771-410-21	SWITCH, TACTILE (TITLE UPDATE)	
				S624	1-771-410-21	SWITCH, TACTILE (BACK)	
				S625	1-771-410-21	SWITCH, TACTILE (OPTIONS)	
				S626	1-771-410-21	SWITCH, TACTILE (▲)	
				S627	1-771-410-21	SWITCH, TACTILE (↔)	
				S628	1-771-410-21	SWITCH, TACTILE (◆)	
				S629	1-771-410-21	SWITCH, TACTILE (▶)	
				S630	1-771-410-21	SWITCH, TACTILE (ENTER)	
				S661	1-786-417-11	ENCODER, ROTARY (MASTER VOLUME)	
				*****			

# HCD-GTX999

**KEY (LEFT)**   **KEY (RIGHT)**   **KEY (UPPER)**   **MAIN**

Ref. No.	Part No.	Description	Remark		
KEY (LEFT) BOARD *****					
< CAPACITOR >					
C856	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
< LED >					
D855	6-501-483-01	LED SLR-325VCT31P (I/C)			
D856	6-502-384-01	LED SELT1E50CM-S (ILLUMINATION BAR)			
< RESISTOR >					
R855	1-216-815-11	METAL CHIP	330	5%	1/10W
< SWITCH >					
S855	1-771-410-21	SWITCH, TACTILE (I/C)			
*****					
KEY (RIGHT) BOARD *****					
< CAPACITOR >					
C851	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
< LED >					
D851	6-502-384-01	LED SELT1E50CM-S (ILLUMINATION BAR)			
< RESISTOR >					
R851	1-216-813-11	METAL CHIP	220	5%	1/10W
< SWITCH >					
S851	1-771-410-21	SWITCH, TACTILE (SEAMLESS SHUFFLE)			
*****					
KEY (UPPER) BOARD *****					
< CONNECTOR >					
CN821	1-784-727-11	CONNECTOR, FFC 5P			
< RESISTOR >					
R821	1-216-817-11	METAL CHIP	470	5%	1/10W
R822	1-216-819-11	METAL CHIP	680	5%	1/10W
R823	1-216-821-11	METAL CHIP	1K	5%	1/10W
R824	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R825	1-216-813-11	METAL CHIP	220	5%	1/10W
R826	1-216-815-11	METAL CHIP	330	5%	1/10W
R827	1-216-817-11	METAL CHIP	470	5%	1/10W
R828	1-216-819-11	METAL CHIP	680	5%	1/10W
< SWITCH >					
S821	1-771-410-21	SWITCH, TACTILE (CD)			
S822	1-771-410-21	SWITCH, TACTILE (TUNER/BAND)			
S823	1-771-410-21	SWITCH, TACTILE (VIDEO)			
S824	1-771-410-21	SWITCH, TACTILE (AUDIO)			
S825	1-771-410-21	SWITCH, TACTILE (▶  )			
S826	1-771-410-21	SWITCH, TACTILE (■)			
S827	1-771-410-21	SWITCH, TACTILE (TUNING- ◀◀◀ ◀◀)			
S828	1-771-410-21	SWITCH, TACTILE (TUNING+ ▶▶▶ ▶▶  )			
*****					

Ref. No.	Part No.	Description	Remark		
A-1530-465-A		MAIN BOARD, COMPLETE (E2)			
A-1530-466-A		MAIN BOARD, COMPLETE (E51, AR)			
A-1530-467-A		MAIN BOARD, COMPLETE (BR)			
*****					
7-685-646-79		SCREW +BVTP 3X8 TYPE2 N-S			
< CAPACITOR >					
C015	1-126-163-11	ELECT	4.7uF	20%	50V
C018	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C019	1-126-963-11	ELECT	4.7uF	20%	50V
C103	1-126-964-11	ELECT	10uF	20%	50V
C107	1-126-961-11	ELECT	2.2uF	20%	50V
C114	1-126-964-11	ELECT	10uF	20%	50V
C115	1-126-964-11	ELECT	10uF	20%	50V
C116	1-126-964-11	ELECT	10uF	20%	50V
C117	1-126-964-11	ELECT	10uF	20%	50V
C118	1-126-964-11	ELECT	10uF	20%	50V
C122	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C123	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C124	1-126-964-11	ELECT	10uF	20%	50V
C125	1-126-964-11	ELECT	10uF	20%	50V
C126	1-126-964-11	ELECT	10uF	20%	50V
C127	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C128	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C129	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C130	1-136-162-00	FILM	0.056uF	5%	50V
C131	1-126-964-11	ELECT	10uF	20%	50V
C132	1-137-190-91	FILM	0.22uF	5%	50V
C133	1-137-190-91	FILM	0.22uF	5%	50V
C134	1-126-961-11	ELECT	2.2uF	20%	50V
C147	1-126-960-11	ELECT	1uF	20%	50V
C153	1-126-964-11	ELECT	10uF	20%	50V
C157	1-126-961-11	ELECT	2.2uF	20%	50V
C164	1-126-964-11	ELECT	10uF	20%	50V
C165	1-126-964-11	ELECT	10uF	20%	50V
C166	1-126-964-11	ELECT	10uF	20%	50V
C167	1-126-964-11	ELECT	10uF	20%	50V
C168	1-126-964-11	ELECT	10uF	20%	50V
C172	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C173	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C174	1-126-964-11	ELECT	10uF	20%	50V
C175	1-126-964-11	ELECT	10uF	20%	50V
C176	1-126-964-11	ELECT	10uF	20%	50V
C177	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C178	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C179	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C180	1-136-162-00	FILM	0.056uF	5%	50V
C181	1-126-964-11	ELECT	10uF	20%	50V
C182	1-137-190-91	FILM	0.22uF	5%	50V
C183	1-137-190-91	FILM	0.22uF	5%	50V
C184	1-126-961-11	ELECT	2.2uF	20%	50V
C201	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C202	1-126-964-11	ELECT	10uF	20%	50V
C203	1-126-964-11	ELECT	10uF	20%	50V
C204	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C205	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C206	1-126-923-91	ELECT	220uF	20%	10V
C207	1-114-146-91	CERAMIC CHIP	0.047uF	10%	25V
C208	1-126-959-11	ELECT	0.47uF	20%	50V

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C209	1-126-964-11	ELECT	10uF	20%	50V	C911	1-126-951-11	ELECT	470uF	20%	35V
C212	1-126-964-11	ELECT	10uF	20%	50V	C913	1-165-730-11	ELECT	680uF	20%	16V
C213	1-126-964-11	ELECT	10uF	20%	50V	C915	1-126-960-11	ELECT	1uF	20%	50V
C214	1-126-959-11	ELECT	0.47uF	20%	50V	C918	1-136-165-00	FILM	0.1uF	5%	50V
C215	1-137-190-91	FILM	0.22uF	5%	50V	C919	1-136-165-00	FILM	0.1uF	5%	50V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C921	1-126-947-11	ELECT	47uF	20%	35V
C217	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C930	1-128-548-11	ELECT	4700uF	20%	25V
C218	1-126-964-11	ELECT	10uF	20%	50V	C931	1-126-943-11	ELECT	2200uF	20%	25V
C219	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C933	1-165-730-11	ELECT	680uF	20%	16V
C220	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C934	1-136-165-00	FILM	0.1uF	5%	50V
C222	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C935	1-136-165-00	FILM	0.1uF	5%	50V
C223	1-126-964-11	ELECT	10uF	20%	50V	C940	1-126-964-11	ELECT	10uF	20%	50V
C224	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C941	1-126-925-91	ELECT	470uF	20%	10V
C225	1-126-925-91	ELECT	470uF	20%	10V	C942	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C226	1-126-933-11	ELECT	100uF	20%	16V	C950	1-126-943-11	ELECT	2200uF	20%	25V
C227	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C951	1-126-925-91	ELECT	470uF	20%	10V
C228	1-126-963-11	ELECT	4.7uF	20%	50V	C960	1-126-934-11	ELECT	220uF	20%	16V
C229	1-126-963-11	ELECT	4.7uF	20%	50V	C962	1-126-947-11	ELECT	47uF	20%	35V
C250	1-126-964-11	ELECT	10uF	20%	50V	C963	1-126-925-91	ELECT	470uF	20%	10V
C251	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	C966	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C252	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	C970	1-126-964-11	ELECT	10uF	20%	50V
C254	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	C971	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C255	1-126-957-11	ELECT	0.22uF	20%	50V	C972	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C256	1-126-957-11	ELECT	0.22uF	20%	50V	C973	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C974	1-128-576-11	ELECT	100uF	20%	63V
C258	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V	C975	1-126-964-11	ELECT	10uF	20%	50V
C260	1-126-960-11	ELECT	1uF	20%	50V	C976	1-126-964-11	ELECT	10uF	20%	50V
C261	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	C977	1-126-964-11	ELECT	10uF	20%	50V
C262	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	C978	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C263	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	C981	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C265	1-126-947-11	ELECT	47uF	20%	35V	C982	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C266	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C983	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C267	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C984	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C268	1-104-658-91	ELECT	100uF	20%	10V	C985	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C270	1-126-967-11	ELECT	47uF	20%	50V	C986	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C271	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V	C987	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C287	1-130-483-00	MYLAR	0.01uF	5%	50V						
C305	1-126-964-11	ELECT	10uF	20%	50V			< CONNECTOR >			
C306	1-104-662-91	ELECT	22uF	20%	25V	CN011	1-564-506-11	PLUG, CONNECTOR 3P			
C307	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	CN103	1-779-273-11	CONNECTOR, FFC (LIF (NON-ZIF)) 5P			
C351	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	* CN104	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
C352	1-104-658-91	ELECT	100uF	20%	10V	CN201	1-784-778-11	CONNECTOR, FFC 17P			
C354	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	CN202	1-779-285-11	CONNECTOR, FFC (LIF (NON-ZIF)) 17P			
C359	1-126-961-11	ELECT	2.2uF	20%	50V	CN203	1-779-287-11	CONNECTOR, FFC (LIF (NON-ZIF)) 19P			
C360	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	CN204	1-779-273-11	CONNECTOR, FFC (LIF (NON-ZIF)) 5P			
C361	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	CN205	1-784-770-11	CONNECTOR, FFC 9P			
C362	1-164-156-11	CERAMIC CHIP	0.1uF		25V	CN206	1-820-049-11	CONNECTOR (SUBWOOFER)			
C363	1-126-964-11	ELECT	10uF	20%	50V			(SYSTEM CONTROL ONLY FOR SS-WG999)			
C364	1-126-964-11	ELECT	10uF	20%	50V	CN207	1-573-844-11	CONNECTOR, BOARD TO BOARD 12P			
C365	1-164-156-11	CERAMIC CHIP	0.1uF		25V	CN209	1-779-277-11	CONNECTOR, FFC (LIF (NON-ZIF)) 9P			
C366	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	CN904	1-564-507-11	PLUG, CONNECTOR 4P			
C367	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V			< DIODE >			
C368	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V						
C369	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	D014	6-501-579-01	DIODE MC2837			
C370	1-104-656-11	ELECT	2200uF	20%	6.3V	D015	6-501-817-01	DIODE MA2J1110GLS0			
C371	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	D016	6-501-743-01	DIODE MAZ8068GMLS0			
C372	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	D181	6-501-579-01	DIODE MC2837			
C373	1-104-658-91	ELECT	100uF	20%	10V	D182	6-501-817-01	DIODE MA2J1110GLS0			
C374	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	D260	6-501-736-01	DIODE MAZ8062G0LS0			
C910	1-126-955-11	ELECT	4700uF	20%	35V	D305	6-501-726-01	DIODE MAZ8047GMLS0			

**MAIN**

Ref. No.	Part No.	Description	Remark
D391	6-501-817-01	DIODE MA2J1110GLS0	
D392	6-501-817-01	DIODE MA2J1110GLS0	
D910	8-719-077-77	DIODE D3SB60F3	
D911	8-719-079-47	DIODE RK36LF-A4	
D912	6-501-046-01	DIODE 1N5402-F46	
D915	6-500-335-01	DIODE MC2838-T112-1	
D916	6-500-334-01	DIODE MC2836-T112-1	
D930	8-719-077-76	DIODE D2SB60A-F04	
D931	8-719-079-47	DIODE RK36LF-A4	
D950	6-500-522-21	DIODE 10EDB40-TB3	
D951	6-500-522-21	DIODE 10EDB40-TB3	
D961	6-501-726-01	DIODE MAZ8047GMLS0	
D962	6-501-817-01	DIODE MA2J1110GLS0	
D963	6-501-817-01	DIODE MA2J1110GLS0	
D964	6-500-335-01	DIODE MC2838-T112-1	
		< EARTH TERMINAL >	
ET002	1-537-771-21	TERMINAL BOARD, GROUND	
		< FERRITE BEAD >	
FB101	1-469-179-21	INDUCTOR, FERRITE BEAD	
FB102	1-469-179-21	INDUCTOR, FERRITE BEAD	
		< IC >	
IC101	6-712-027-01	IC R2A15216FP	
IC103	8-759-100-96	IC uPC4558G2	
IC104	8-759-496-41	IC M65850FP-E1	
IC106	8-759-100-96	IC uPC4558G2	
IC201	A-1556-867-A	IC R5F3640DDFAR (for SERVICE)	
IC202	6-709-450-01	IC S-24CS16A0I-J8T1G	
IC203	6-701-680-01	IC PST3629NR	
IC204	8-759-598-69	IC BA6956AN	
IC205	6-709-217-01	IC TC74LVX4051FT	
IC910	6-712-052-01	IC SI-8001FFE	
IC920	8-759-646-54	IC KIA7808API	
IC930	6-712-052-01	IC SI-8001FFE	
IC940	6-710-643-01	IC BA00BC0WCP-V5E2	
IC950	6-700-830-01	IC KIA7809API	
		< JACK/CONNECTOR >	
J101	1-815-045-11	JACK, PIN 2P (VIDEO AUDIO IN)	
J201	1-820-048-11	CONNECTOR (LIGHTING) (D-LIGHT SYNC OUT)	
		< JUMPER RESISTOR >	
JR101	1-216-864-11	SHORT CHIP 0	
JR102	1-216-864-11	SHORT CHIP 0	
JR103	1-216-864-11	SHORT CHIP 0	
JR104	1-216-864-11	SHORT CHIP 0	
JR105	1-216-864-11	SHORT CHIP 0	
JR106	1-216-864-11	SHORT CHIP 0	
JR107	1-216-864-11	SHORT CHIP 0	
JR108	1-216-864-11	SHORT CHIP 0	
JR109	1-216-864-11	SHORT CHIP 0	
JR110	1-216-864-11	SHORT CHIP 0	
JR111	1-216-864-11	SHORT CHIP 0	
JR112	1-216-864-11	SHORT CHIP 0	
JR113	1-216-864-11	SHORT CHIP 0	
JR114	1-216-864-11	SHORT CHIP 0	
JR115	1-216-864-11	SHORT CHIP 0	

Ref. No.	Part No.	Description	Remark
JR151	1-216-864-11	SHORT CHIP 0	
JR290	1-216-864-11	SHORT CHIP 0	
JR340	1-216-864-11	SHORT CHIP 0	
JR910	1-216-864-11	SHORT CHIP 0	
JR911	1-216-864-11	SHORT CHIP 0	
JR920	1-216-864-11	SHORT CHIP 0	
JR930	1-216-864-11	SHORT CHIP 0	
JR950	1-216-864-11	SHORT CHIP 0	
JW305	1-216-864-11	SHORT CHIP 0	
JW306	1-216-864-11	SHORT CHIP 0	
JW307	1-216-864-11	SHORT CHIP 0	
JW308	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L910	1-400-424-11	COIL, CHOKE 47uH	
L930	1-400-424-11	COIL, CHOKE 47uH	
		< TRANSISTOR >	
Q015	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q016	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q017	8-729-037-13	TRANSISTOR KTA1271Y	
Q019	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q130	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q134	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q180	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q184	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q220	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q221	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q250	8-729-056-46	TRANSISTOR 2SC5053T100Q	
Q251	6-551-714-01	FET INK0001AC1-T112A-1	
Q252	6-551-714-01	FET INK0001AC1-T112A-1	
Q270	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q271	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q285	6-551-714-01	FET INK0001AC1-T112A-1	
Q302	8-729-056-46	TRANSISTOR 2SC5053T100Q	
Q391	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q960	8-729-037-13	TRANSISTOR KTA1271Y	
Q961	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q963	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q964	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q965	8-729-027-43	TRANSISTOR DTC114EKA-T146	
		< RESISTOR >	
R022	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R023	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R024	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R025	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R026	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R027	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R029	1-218-446-11	METAL CHIP 1 5% 1/10W	
R030	1-218-446-11	METAL CHIP 1 5% 1/10W	
R031	1-218-446-11	METAL CHIP 1 5% 1/10W	
R032	1-218-446-11	METAL CHIP 1 5% 1/10W	
R035	1-216-849-11	METAL CHIP 220K 5% 1/10W	
R101	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R102	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R104	1-216-835-11	METAL CHIP 15K 5% 1/10W	
R106	1-216-849-11	METAL CHIP 220K 5% 1/10W	
R107	1-216-849-11	METAL CHIP 220K 5% 1/10W	
R108	1-216-839-11	METAL CHIP 33K 5% 1/10W	

**Note:** Refer to "NOTE THE IC202 ON THE MAIN BOARD REPLACING" (page 3) of the servicing notes for IC202 on the MAIN board is exchanged.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R109	1-216-849-11	METAL CHIP	220K	5%	1/10W	R228	1-216-821-11	METAL CHIP	1K	5%	1/10W
R110	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R111	1-216-839-11	METAL CHIP	33K	5%	1/10W	R230	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
					(E2)	R231	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-845-11	METAL CHIP	100K	5%	1/10W	R232	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
					(E51, BR, AR)	R233	1-216-853-11	METAL CHIP	470K	5%	1/10W
R112	1-216-839-11	METAL CHIP	33K	5%	1/10W	R250	1-216-839-11	METAL CHIP	33K	5%	1/10W
R113	1-216-841-11	METAL CHIP	47K	5%	1/10W	R251	1-216-845-11	METAL CHIP	100K	5%	1/10W
R114	1-216-809-11	METAL CHIP	100	5%	1/10W	R252	1-216-836-11	METAL CHIP	18K	5%	1/10W
R115	1-216-837-11	METAL CHIP	22K	5%	1/10W	R253	1-216-836-11	METAL CHIP	18K	5%	1/10W
R116	1-216-809-11	METAL CHIP	100	5%	1/10W	R254	1-216-836-11	METAL CHIP	18K	5%	1/10W
R117	1-216-809-11	METAL CHIP	100	5%	1/10W	R256	1-216-864-11	SHORT CHIP	0		
R118	1-216-809-11	METAL CHIP	100	5%	1/10W	R257	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R127	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R258	1-216-836-11	METAL CHIP	18K	5%	1/10W
R128	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R260	1-216-836-11	METAL CHIP	18K	5%	1/10W
R132	1-216-833-11	METAL CHIP	10K	5%	1/10W	R261	1-216-833-11	METAL CHIP	10K	5%	1/10W
R133	1-216-819-11	METAL CHIP	680	5%	1/10W	R262	1-216-837-11	METAL CHIP	22K	5%	1/10W
R134	1-216-833-11	METAL CHIP	10K	5%	1/10W	R270	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R139	1-216-841-11	METAL CHIP	47K	5%	1/10W	R271	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R140	1-216-821-11	METAL CHIP	1K	5%	1/10W	R272	1-216-841-11	METAL CHIP	47K	5%	1/10W
R142	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R273	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R151	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R274	1-216-809-11	METAL CHIP	100	5%	1/10W
R152	1-216-845-11	METAL CHIP	100K	5%	1/10W	R275	1-216-809-11	METAL CHIP	100	5%	1/10W
R154	1-216-835-11	METAL CHIP	15K	5%	1/10W	R276	1-216-809-11	METAL CHIP	100	5%	1/10W
R156	1-216-849-11	METAL CHIP	220K	5%	1/10W	R277	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R157	1-216-849-11	METAL CHIP	220K	5%	1/10W	R278	1-216-815-11	METAL CHIP	330	5%	1/10W
R158	1-216-839-11	METAL CHIP	33K	5%	1/10W	R279	1-216-817-11	METAL CHIP	470	5%	1/10W
R159	1-216-849-11	METAL CHIP	220K	5%	1/10W	R280	1-216-820-11	METAL CHIP	820	5%	1/10W
R160	1-216-837-11	METAL CHIP	22K	5%	1/10W	R281	1-216-833-11	METAL CHIP	10K	5%	1/10W
R161	1-216-839-11	METAL CHIP	33K	5%	1/10W	R283	1-216-833-11	METAL CHIP	10K	5%	1/10W
					(E2)	R285	1-216-833-11	METAL CHIP	10K	5%	1/10W
R161	1-216-845-11	METAL CHIP	100K	5%	1/10W	R286	1-216-833-11	METAL CHIP	10K	5%	1/10W
					(E51, BR, AR)	R287	1-216-837-11	METAL CHIP	22K	5%	1/10W
R162	1-216-839-11	METAL CHIP	33K	5%	1/10W	R289	1-216-837-11	METAL CHIP	22K	5%	1/10W
R163	1-216-841-11	METAL CHIP	47K	5%	1/10W	R290	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R164	1-216-809-11	METAL CHIP	100	5%	1/10W	R291	1-216-836-11	METAL CHIP	18K	5%	1/10W
R165	1-216-837-11	METAL CHIP	22K	5%	1/10W	R292	1-216-864-11	SHORT CHIP	0		
R166	1-216-809-11	METAL CHIP	100	5%	1/10W	R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R167	1-216-809-11	METAL CHIP	100	5%	1/10W	R302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R168	1-216-809-11	METAL CHIP	100	5%	1/10W	R303	1-216-837-11	METAL CHIP	22K	5%	1/10W
R177	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R311	1-216-821-11	METAL CHIP	1K	5%	1/10W
R178	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	△ R312	1-243-563-71	METAL OXIDE	82	5%	2W F
R182	1-216-833-11	METAL CHIP	10K	5%	1/10W	R341	1-216-836-11	METAL CHIP	18K	5%	1/10W
R183	1-216-819-11	METAL CHIP	680	5%	1/10W	R342	1-216-864-11	SHORT CHIP	0		
R184	1-216-833-11	METAL CHIP	10K	5%	1/10W	R350	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R189	1-216-841-11	METAL CHIP	47K	5%	1/10W	R351	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R190	1-216-821-11	METAL CHIP	1K	5%	1/10W	R352	1-216-821-11	METAL CHIP	1K	5%	1/10W
R192	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R353	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-216-833-11	METAL CHIP	10K	5%	1/10W	R354	1-216-809-11	METAL CHIP	100	5%	1/10W
R202	1-216-809-11	METAL CHIP	100	5%	1/10W	R355	1-216-864-11	SHORT CHIP	0		
R215	1-216-857-11	METAL CHIP	1M	5%	1/10W	R356	1-216-864-11	SHORT CHIP	0		
R216	1-216-809-11	METAL CHIP	100	5%	1/10W	R357	1-216-864-11	SHORT CHIP	0		
R217	1-216-809-11	METAL CHIP	100	5%	1/10W	R358	1-216-864-11	SHORT CHIP	0		
R218	1-216-833-11	METAL CHIP	10K	5%	1/10W	R359	1-216-864-11	SHORT CHIP	0		
R221	1-216-839-11	METAL CHIP	33K	5%	1/10W	R360	1-216-864-11	SHORT CHIP	0		
R222	1-216-851-11	METAL CHIP	330K	5%	1/10W	R361	1-216-864-11	SHORT CHIP	0		
R223	1-216-833-11	METAL CHIP	10K	5%	1/10W	R362	1-216-864-11	SHORT CHIP	0		
R224	1-216-837-11	METAL CHIP	22K	5%	1/10W	R363	1-216-864-11	SHORT CHIP	0		
R225	1-216-841-11	METAL CHIP	47K	5%	1/10W	R365	1-216-853-11	METAL CHIP	470K	5%	1/10W
R226	1-216-841-11	METAL CHIP	47K	5%	1/10W	R368	1-216-809-11	METAL CHIP	100	5%	1/10W
R227	1-216-845-11	METAL CHIP	100K	5%	1/10W	R369	1-216-809-11	METAL CHIP	100	5%	1/10W

# HCD-GTX999

**MAIN** **MIC**

Ref. No.	Part No.	Description	Quantity	Percentage	Remark
R370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W
R372	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R373	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R374	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R375	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R376	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R377	1-216-839-11	METAL CHIP	33K	5%	1/10W
R378	1-216-833-11	METAL CHIP	10K	5%	1/10W
R379	1-216-837-11	METAL CHIP	22K	5%	1/10W
R380	1-216-837-11	METAL CHIP	22K	5%	1/10W
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W
R384	1-216-833-11	METAL CHIP	10K	5%	1/10W
R390	1-216-833-11	METAL CHIP	10K	5%	1/10W
R391	1-216-833-11	METAL CHIP	10K	5%	1/10W
R911	1-218-839-11	METAL CHIP	470	0.5%	1/10W
R912	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R913	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R916	1-216-809-11	METAL CHIP	100	5%	1/10W
R917	1-216-833-11	METAL CHIP	10K	5%	1/10W
R918	1-216-833-11	METAL CHIP	10K	5%	1/10W
R931	1-218-839-11	METAL CHIP	470	0.5%	1/10W
R932	1-218-887-11	METAL CHIP	47K	0.5%	1/10W
R933	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R940	1-216-833-11	METAL CHIP	10K	5%	1/10W
R941	1-216-833-11	METAL CHIP	10K	5%	1/10W
R942	1-216-841-11	METAL CHIP	47K	5%	1/10W
R943	1-216-841-11	METAL CHIP	47K	5%	1/10W
R944	1-216-841-11	METAL CHIP	47K	5%	1/10W
R961	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R962	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R963	1-216-845-11	METAL CHIP	100K	5%	1/10W
R964	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1002	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1003	1-216-809-11	METAL CHIP	100	5%	1/10W
R1004	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1009	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1011	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1017	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1023	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1024	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1025	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1026	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1027	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1029	1-216-809-11	METAL CHIP	100	5%	1/10W
R1030	1-216-809-11	METAL CHIP	100	5%	1/10W
R1031	1-216-809-11	METAL CHIP	100	5%	1/10W
R1032	1-216-809-11	METAL CHIP	100	5%	1/10W
R1033	1-216-809-11	METAL CHIP	100	5%	1/10W
R1035	1-216-809-11	METAL CHIP	100	5%	1/10W
R1040	1-216-809-11	METAL CHIP	100	5%	1/10W
R1041	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1046	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1051	1-216-809-11	METAL CHIP	100	5%	1/10W
R1052	1-216-809-11	METAL CHIP	100	5%	1/10W
R1053	1-216-809-11	METAL CHIP	100	5%	1/10W
R1054	1-216-809-11	METAL CHIP	100	5%	1/10W
R1064	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1065	1-216-833-11	METAL CHIP	10K	5%	1/10W

(E2, E51, AR)

Ref. No.	Part No.	Description	Quantity	Percentage	Remark
R1065	1-216-839-11	METAL CHIP	33K	5%	1/10W (BR)
R1067	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1072	1-216-809-11	METAL CHIP	100	5%	1/10W
R1080	1-216-809-11	METAL CHIP	100	5%	1/10W
R1081	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1087	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1088	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1089	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1090	1-216-809-11	METAL CHIP	100	5%	1/10W
R1091	1-216-809-11	METAL CHIP	100	5%	1/10W
R1092	1-216-809-11	METAL CHIP	100	5%	1/10W
R1097	1-216-835-11	METAL CHIP	15K	5%	1/10W
R1099	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1100	1-216-853-11	METAL CHIP	470K	5%	1/10W
△ R1101	1-243-563-71	METAL OXIDE	82	5%	2W F
R1102	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1104	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1105	1-216-809-11	METAL CHIP	100	5%	1/10W
R1106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1107	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1108	1-216-809-11	METAL CHIP	100	5%	1/10W
R1109	1-216-809-11	METAL CHIP	100	5%	1/10W
R1110	1-216-809-11	METAL CHIP	100	5%	1/10W
R1111	1-216-809-11	METAL CHIP	100	5%	1/10W
R1112	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1152	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1153	1-216-809-11	METAL CHIP	100	5%	1/10W
R1154	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1155	1-216-864-11	SHORT CHIP	0		
R1156	1-216-864-11	SHORT CHIP	0		
R1157	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1158	1-216-836-11	METAL CHIP	18K	5%	1/10W
R1159	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1160	1-216-849-11	METAL CHIP	220K	5%	1/10W
R1161	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1162	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1163	1-216-864-11	SHORT CHIP	0		
R1164	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R1165	1-218-835-11	METAL CHIP	330	0.5%	1/10W
R1166	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R1167	1-218-835-11	METAL CHIP	330	0.5%	1/10W
R1168	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R1169	1-216-864-11	SHORT CHIP	0		
< VIBRATOR >					
△ X201	1-795-058-21	VIBRATOR, CERAMIC (5MHz)			
X202	1-814-067-11	OSCILLATOR, CRYSTAL (32.768kHz)			
*****					
MIC BOARD					
*****					
< CAPACITOR >					
C871	1-164-388-91	CERAMIC CHIP	270PF	5%	50V
C872	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C873	1-126-964-11	ELECT	10uF	20%	50V
C874	1-126-964-11	ELECT	10uF	20%	50V
C875	1-162-927-11	CERAMIC CHIP	100PF	5%	50V



**MIC**   **MOTOR**   **SUB TRANS**   **TRANS**

Ref. No.	Part No.	Description	Remark
C876	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C877	1-164-217-11	CERAMIC CHIP 150PF	5% 50V
C878	1-165-908-11	CERAMIC CHIP 1uF	10% 10V
C879	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C881	1-126-961-11	ELECT 2.2uF	20% 50V
C882	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
C883	1-104-655-91	ELECT 470uF	20% 6.3V
C884	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C886	1-126-961-11	ELECT 2.2uF	20% 50V
C887	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C891	1-126-923-91	ELECT 220uF	20% 10V
C892	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C893	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C894	1-164-156-11	CERAMIC CHIP 0.1uF	25V
< CONNECTOR >			
* CN871	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
< EARTH TERMINAL >			
ET881	1-537-771-21	TERMINAL BOARD, GROUND	
< FERRITE BEAD >			
FB881	1-469-179-21	INDUCTOR, FERRITE BEAD	
< IC >			
IC871	8-759-100-96	IC uPC4558G2	
< JACK >			
J871	1-770-226-11	JACK (LARGE TYPE) (MIC)	
< JUMPER RESISTOR >			
JR880	1-216-296-11	SHORT CHIP 0	
JR882	1-216-864-11	SHORT CHIP 0	
< RESISTOR >			
R871	1-216-821-11	METAL CHIP 1K	5% 1/10W
R872	1-216-848-11	METAL CHIP 180K	5% 1/10W
R873	1-216-823-11	METAL CHIP 1.5K	5% 1/10W
R874	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R875	1-216-834-11	METAL CHIP 12K	5% 1/10W
R876	1-216-822-11	METAL CHIP 1.2K	5% 1/10W
R882	1-216-833-11	METAL CHIP 10K	5% 1/10W
R886	1-216-801-11	METAL CHIP 22	5% 1/10W
R887	1-216-828-11	METAL CHIP 3.9K	5% 1/10W
R888	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R889	1-216-833-11	METAL CHIP 10K	5% 1/10W
R890	1-216-830-11	METAL CHIP 5.6K	5% 1/10W
R891	1-216-809-11	METAL CHIP 100	5% 1/10W
R892	1-216-845-11	METAL CHIP 100K	5% 1/10W
< VARIABLE RESISTOR >			
RV871	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)	
*****			
MOTOR BOARD			
*****			
< CONNECTOR >			
CN001	1-779-542-21	CONNECTOR, FFC (LIF (NON-ZIF)) 5P	

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S001	1-786-514-21	SWITCH, LEVER (SLIDE) (CD TRAY OPEN/CLOSE DETECT)	
*****			
SUB TRANS BOARD			
*****			
< CAPACITOR >			
C403	1-126-964-11	ELECT 10uF	20% 50V
C404	1-104-665-11	ELECT 100uF	20% 25V
< CONNECTOR >			
△ CN401	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P	
△ CN402	1-568-106-11	PIN, CONNECTOR (3.96mm PITCH) 4P	
CN403	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P	(E2, E51, BR)
△ CN404	1-565-792-11	PIN, CONNECTOR (3.96mm PITCH) 2P (AR)	
< DIODE >			
D405	6-501-817-01	DIODE MA2J1110GLS0	
D406	6-500-335-01	DIODE MC2838-T112-1	
D407	6-500-335-01	DIODE MC2838-T112-1	
D408	6-500-334-01	DIODE MC2836-T112-1	
< TRANSISTOR >			
Q401	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
Q402	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
< RESISTOR >			
R401	1-216-793-11	METAL CHIP 4.7	5% 1/10W
R403	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
R404	1-216-845-11	METAL CHIP 100K	5% 1/10W
R405	1-216-841-11	METAL CHIP 47K	5% 1/10W
R406	1-216-834-11	METAL CHIP 12K	5% 1/10W
R407	1-216-837-11	METAL CHIP 22K	5% 1/10W
R408	1-216-793-11	METAL CHIP 4.7	5% 1/10W
R409	1-216-841-11	METAL CHIP 47K	5% 1/10W
R410	1-216-841-11	METAL CHIP 47K	5% 1/10W
< RELAY >			
△ RY401	1-755-334-11	RELAY, AC POWER	
< SWITCH >			
△ S401	1-786-055-31	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (E2, E51, BR)	
< TRANSFORMER >			
△ T401	1-445-402-11	TRANSFORMER, POWER (BR)	
△ T401	1-445-413-11	TRANSFORMER, POWER (E2, E51, AR)	
*****			
TRANS BOARD			
*****			
< CAPACITOR >			
C421	1-128-563-11	ELECT 100uF	20% 100V
C422	1-128-582-11	ELECT 10uF	20% 100V
C423	1-128-563-11	ELECT 100uF	20% 100V

# HCD-GTX999

**TRANS**    **USB CONNECTOR**    **USB MICOM**

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN421	1-564-524-11	PLUG, CONNECTOR 9P	
* CN422	1-564-523-11	PLUG, CONNECTOR 8P	
< DIODE >			
D421	6-500-522-21	DIODE 10EDB40-TB3	
D424	6-501-797-01	DIODE MAZ8360G0LS0	
D425	6-501-777-01	DIODE MAZ8160G0LS0	
< FUSE HOLDER >			
FH421	1-533-217-31	FUSE HOLDER	
FH422	1-533-217-31	FUSE HOLDER	
FH423	1-533-217-31	FUSE HOLDER	
FH424	1-533-217-31	FUSE HOLDER	
FH425	1-533-217-31	FUSE HOLDER	
FH426	1-533-217-31	FUSE HOLDER	
FH427	1-533-217-31	FUSE HOLDER	
FH428	1-533-217-31	FUSE HOLDER	
FH429	1-533-217-31	FUSE HOLDER	
FH430	1-533-217-31	FUSE HOLDER	
FH431	1-533-217-31	FUSE HOLDER	
FH432	1-533-217-31	FUSE HOLDER	
< TRANSISTOR >			
Q421	8-729-018-60	TRANSISTOR 2SD2012-LC	
< RESISTOR >			
△ R421	1-212-934-51	FUSIBLE 1 5% 1/2W F	
R422	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R423	1-216-821-11	METAL CHIP 1K 5% 1/10W	
△ R424	1-219-123-11	FUSIBLE 0.47 5% 1/4W F	
R425	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R426	1-216-841-11	METAL CHIP 47K 5% 1/10W	
*****			
USB CONNECTOR BOARD			
*****			
< CAPACITOR >			
C831	1-126-923-91	ELECT 220uF 20% 10V	
C832	1-127-692-11	CERAMIC CHIP 10uF 10% 16V	
C833	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
< CONNECTOR >			
CN831	1-794-990-11	CONNECTOR, USB (A) (USB)	
CN832	1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P	
CN833	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P	
< DIODE >			
D831	6-501-743-01	DIODE MAZ8068GMLS0	
D832	6-501-743-01	DIODE MAZ8068GMLS0	
D835	6-501-451-01	LED 1L4344B22COCDT02 (USB)	
D836	6-501-483-01	LED SLR-325VCT31P (HDD REC)	
D837	6-501-691-01	LED 1L434FV22D0TDF01 (USB)	
< EARTH TERMINAL >			
ET831	1-537-771-21	TERMINAL BOARD, GROUND	

Ref. No.	Part No.	Description	Remark
< JUMPER RESISTOR >			
JR830	1-216-296-11	SHORT CHIP 0	
< TRANSISTOR >			
Q831	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q832	8-729-027-43	TRANSISTOR DTC114EKA-T146	
< RESISTOR >			
R831	1-216-813-11	METAL CHIP 220 5% 1/10W	
R833	1-216-815-11	METAL CHIP 330 5% 1/10W	
R835	1-216-817-11	METAL CHIP 470 5% 1/10W	
R837	1-216-817-11	METAL CHIP 470 5% 1/10W	
< SWITCH >			
S831	1-771-410-21	SWITCH, TACTILE (HDD REC)	
*****			
A-1531-914-A	USB MICOM BOARD, COMPLETE		
*****			
< CAPACITOR >			
C1	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C2	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C3	1-164-858-11	CERAMIC CHIP 22PF 5% 50V	
C4	1-164-858-11	CERAMIC CHIP 22PF 5% 50V	
C5	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C7	1-128-995-21	ELECT CHIP 100uF 20% 10V	
C8	1-128-995-21	ELECT CHIP 100uF 20% 10V	
C9	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C10	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C11	1-164-943-81	CERAMIC CHIP 0.01uF 10% 16V	
C12	1-164-943-81	CERAMIC CHIP 0.01uF 10% 16V	
C13	1-164-943-81	CERAMIC CHIP 0.01uF 10% 16V	
C14	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C15	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C16	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C17	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C18	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C19	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C20	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C21	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C22	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C23	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C24	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C25	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C26	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C27	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C28	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C29	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C30	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C31	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C32	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C33	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C34	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C35	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C36	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C37	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C38	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C39	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
C40	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C41	1-128-995-21	ELECT CHIP	100uF	20%	10V	C105	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C106	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C43	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C107	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C44	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C108	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C109	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C46	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C110	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C111	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C112	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C113	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C50	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C114	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C115	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C52	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C116	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C117	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C54	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C118	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C55	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C119	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C56	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C120	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C57	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C121	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C58	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C122	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C59	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C124	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C60	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C125	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C61	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C126	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C62	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C127	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C63	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C128	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C64	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C129	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C65	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C130	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C66	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	C131	1-164-845-11	CERAMIC CHIP	5PF	0.25PF	50V
C67	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	C132	1-164-845-11	CERAMIC CHIP	5PF	0.25PF	50V
C68	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	C133	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C69	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	C136	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C70	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C138	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C71	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C139	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C72	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C140	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C73	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C141	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C74	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C142	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C75	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C144	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C76	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C145	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C77	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C146	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C78	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	C147	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V
C79	1-128-995-21	ELECT CHIP	100uF	20%	10V	C149	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C80	1-128-995-21	ELECT CHIP	100uF	20%	10V	C150	1-114-214-81	CERAMIC CHIP	470PF	5%	50V
C81	1-128-995-21	ELECT CHIP	100uF	20%	10V	C151	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C82	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C158	1-128-995-21	ELECT CHIP	100uF	20%	10V
C83	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C159	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C84	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C160	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C85	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C161	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C86	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C162	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C87	1-164-943-81	CERAMIC CHIP	0.01uF	10%	16V	C163	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C88	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	C164	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C89	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	C165	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C90	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C166	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C93	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V			< CONNECTOR >			
C96	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	CN2	1-784-857-51	CONNECTOR, FFC (LIF (NON-ZIF)) 5P			
C97	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	CN3	1-784-869-51	CONNECTOR, FFC (LIF (NON-ZIF)) 17P			
C98	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	CN6	1-774-731-21	PIN, CONNECTOR (PC BOARD) 5P			
C99	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	CN7	1-774-730-21	PIN, CONNECTOR (PC BOARD) 3P			
C100	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	CN8	1-821-796-11	CONNECTOR, SATA SMT (7P)			
C101	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V			< DIODE >			
C102	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V	D1	6-501-817-01	DIODE MA2J1110GLS0			
C103	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V						
C104	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V						

## USB MICOM

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D2	6-501-579-01	DIODE MC2837		R29	1-218-990-81	SHORT CHIP 0	
		< JUMPER RESISTOR/FERRITE BEAD >		R30	1-218-990-81	SHORT CHIP 0	
FB1	1-216-295-91	SHORT CHIP 0		R31	1-218-990-81	SHORT CHIP 0	
FB2	1-216-295-91	SHORT CHIP 0		R32	1-218-990-81	SHORT CHIP 0	
FB3	1-469-324-21	FERRITE, EMI (SMD) (2012)		R33	1-218-990-81	SHORT CHIP 0	
FB4	1-469-324-21	FERRITE, EMI (SMD) (2012)		R35	1-218-989-11	RES-CHIP 1M 5% 1/16W	
FB5	1-216-295-91	SHORT CHIP 0		R36	1-218-941-81	RES-CHIP 100 5% 1/16W	
FB6	1-216-295-91	SHORT CHIP 0		R37	1-218-990-81	SHORT CHIP 0	
FB7	1-216-295-91	SHORT CHIP 0		R38	1-218-990-81	SHORT CHIP 0	
FB8	1-216-295-91	SHORT CHIP 0		R39	1-218-990-81	SHORT CHIP 0	
FB9	1-216-295-91	SHORT CHIP 0		R40	1-218-937-11	RES-CHIP 47 5% 1/16W	
		< IC >		R41	1-218-847-11	METAL CHIP 1K 0.5% 1/10W	
IC1	6-808-117-02	IC MX29LV160CTTI-70G-GTX999-01		R42	1-218-847-11	METAL CHIP 1K 0.5% 1/10W	
IC2	6-711-829-01	IC D708E001BRFP266		R43	1-218-941-81	RES-CHIP 100 5% 1/16W	
IC3	6-711-928-01	IC W9812G6GH-75-ER10		R44	1-218-990-81	SHORT CHIP 0	
IC4	6-710-038-01	IC S1R72005F00A300		R46	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
IC5	(Not supplied)	IC TPS74801RGWR		R47	1-218-941-81	RES-CHIP 100 5% 1/16W	
IC6	6-709-584-01	IC MM1663DHBE		R48	1-218-990-81	SHORT CHIP 0	
IC7	8-759-669-42	IC SN74LVC138APWR-12		R49	1-218-990-81	SHORT CHIP 0	
IC8	6-710-963-01	IC S-1132B25-U5T1G		R50	1-218-990-81	SHORT CHIP 0	
IC9	6-712-182-01	IC JM20339-LGCA0C		R51	1-218-990-81	SHORT CHIP 0	
IC10	8-759-591-61	IC TC7WHU04FU (TE12R)		R53	1-218-941-81	RES-CHIP 100 5% 1/16W	
IC11	6-713-125-01	IC DIR9001S1PWRG4		R54	1-218-961-11	RES-CHIP 4.7K 5% 1/16W	
* IC12	6-709-229-01	IC AK4554VT-8-E2		R55	1-218-990-81	SHORT CHIP 0	
IC13	(Not supplied)	IC USB2512-AEZG		R56	1-218-941-81	RES-CHIP 100 5% 1/16W	
IC14	6-710-624-01	IC TPS2051BDRG4		R57	1-218-941-81	RES-CHIP 100 5% 1/16W	
		< JUMPER RESISTOR >		R58	1-218-941-81	RES-CHIP 100 5% 1/16W	
JR4	1-218-990-81	SHORT CHIP 0		R59	1-218-941-81	RES-CHIP 100 5% 1/16W	
JR7	1-218-990-81	SHORT CHIP 0		R60	1-218-941-81	RES-CHIP 100 5% 1/16W	
		< RESISTOR >		R61	1-218-941-81	RES-CHIP 100 5% 1/16W	
R085	1-218-961-11	RES-CHIP 4.7K 5% 1/16W		R62	1-218-990-81	SHORT CHIP 0	
R1	1-218-989-11	RES-CHIP 1M 5% 1/16W		R63	1-218-990-81	SHORT CHIP 0	
R2	1-218-965-11	RES-CHIP 10K 5% 1/16W		R64	1-218-941-81	RES-CHIP 100 5% 1/16W	
R3	1-218-961-11	RES-CHIP 4.7K 5% 1/16W		R65	1-218-941-81	RES-CHIP 100 5% 1/16W	
R4	1-218-990-81	SHORT CHIP 0		R66	1-218-941-81	RES-CHIP 100 5% 1/16W	
R5	1-218-953-11	RES-CHIP 1K 5% 1/16W		R67	1-218-990-81	SHORT CHIP 0	
R6	1-218-965-11	RES-CHIP 10K 5% 1/16W		R68	1-218-990-81	SHORT CHIP 0	
R7	1-218-965-11	RES-CHIP 10K 5% 1/16W		R69	1-218-937-11	RES-CHIP 47 5% 1/16W	
R8	1-218-965-11	RES-CHIP 10K 5% 1/16W		R71	1-218-990-81	SHORT CHIP 0	
R9	1-218-990-81	SHORT CHIP 0		R72	1-218-937-11	RES-CHIP 47 5% 1/16W	
R10	1-218-961-11	RES-CHIP 4.7K 5% 1/16W		R73	1-218-941-81	RES-CHIP 100 5% 1/16W	
R11	1-218-989-11	RES-CHIP 1M 5% 1/16W		R74	1-218-990-81	SHORT CHIP 0	
R12	1-218-989-11	RES-CHIP 1M 5% 1/16W		R75	1-218-990-81	SHORT CHIP 0	
R15	1-218-953-11	RES-CHIP 1K 5% 1/16W		R76	1-218-990-81	SHORT CHIP 0	
R16	1-218-990-81	SHORT CHIP 0		R77	1-218-933-11	RES-CHIP 22 5% 1/16W	
R17	1-218-973-11	RES-CHIP 47K 5% 1/16W		R78	1-218-933-11	RES-CHIP 22 5% 1/16W	
R19	1-218-977-11	RES-CHIP 100K 5% 1/16W		R79	1-218-937-11	RES-CHIP 47 5% 1/16W	
R20	1-218-977-11	RES-CHIP 100K 5% 1/16W		R80	1-218-941-81	RES-CHIP 100 5% 1/16W	
R21	1-218-977-11	RES-CHIP 100K 5% 1/16W		R82	1-218-941-81	RES-CHIP 100 5% 1/16W	
R22	1-218-977-11	RES-CHIP 100K 5% 1/16W		R83	1-218-990-81	SHORT CHIP 0	
R23	1-218-977-11	RES-CHIP 100K 5% 1/16W		R86	1-218-953-11	RES-CHIP 1K 5% 1/16W	
R24	1-218-965-11	RES-CHIP 10K 5% 1/16W		R88	1-218-941-81	RES-CHIP 100 5% 1/16W	
R25	1-218-953-11	RES-CHIP 1K 5% 1/16W		R89	1-218-990-81	SHORT CHIP 0	
R26	1-218-990-81	SHORT CHIP 0		R90	1-218-941-81	RES-CHIP 100 5% 1/16W	
R27	1-218-990-81	SHORT CHIP 0		R93	1-218-990-81	SHORT CHIP 0	
R28	1-218-990-81	SHORT CHIP 0		R94	1-218-990-81	SHORT CHIP 0	
				R95	1-218-990-81	SHORT CHIP 0	
				R96	1-218-990-81	SHORT CHIP 0	
				R98	1-218-961-11	RES-CHIP 4.7K 5% 1/16W	
				R99	1-218-990-81	SHORT CHIP 0	

**Note:** IC5 and IC13 on the USB MICOM board cannot exchange with single. When these parts on the USB MICOM board are damaged, exchange the entire mounted board.

Ref. No.	Part No.	Description	Remark
R100	1-218-990-81	SHORT CHIP	0
R102	1-218-990-81	SHORT CHIP	0
R103	1-218-990-81	SHORT CHIP	0
R104	1-218-990-81	SHORT CHIP	0
R105	1-218-990-81	SHORT CHIP	0
R107	1-218-941-81	RES-CHIP	100 5% 1/16W
R108	1-218-941-81	RES-CHIP	100 5% 1/16W
R109	1-218-941-81	RES-CHIP	100 5% 1/16W
R110	1-218-941-81	RES-CHIP	100 5% 1/16W
R116	1-218-941-81	RES-CHIP	100 5% 1/16W
R117	1-218-990-81	SHORT CHIP	0
R118	1-218-990-81	SHORT CHIP	0
R119	1-218-990-81	SHORT CHIP	0
R120	1-218-937-11	RES-CHIP	47 5% 1/16W
R121	1-218-937-11	RES-CHIP	47 5% 1/16W
R122	1-218-965-11	RES-CHIP	10K 5% 1/16W
R123	1-218-990-81	SHORT CHIP	0
R124	1-218-965-11	RES-CHIP	10K 5% 1/16W
R125	1-218-965-11	RES-CHIP	10K 5% 1/16W
R126	1-218-965-11	RES-CHIP	10K 5% 1/16W
R127	1-218-965-11	RES-CHIP	10K 5% 1/16W
R128	1-218-965-11	RES-CHIP	10K 5% 1/16W
R129	1-218-965-11	RES-CHIP	10K 5% 1/16W
R130	1-218-965-11	RES-CHIP	10K 5% 1/16W
R131	1-218-965-11	RES-CHIP	10K 5% 1/16W
R132	1-218-965-11	RES-CHIP	10K 5% 1/16W
R133	1-218-965-11	RES-CHIP	10K 5% 1/16W
R135	1-218-965-11	RES-CHIP	10K 5% 1/16W
R136	1-218-965-11	RES-CHIP	10K 5% 1/16W
R137	1-218-941-81	RES-CHIP	100 5% 1/16W
R138	1-218-941-81	RES-CHIP	100 5% 1/16W
R139	1-218-941-81	RES-CHIP	100 5% 1/16W
R140	1-218-965-11	RES-CHIP	10K 5% 1/16W
R142	1-218-953-11	RES-CHIP	1K 5% 1/16W
R143	1-218-990-81	SHORT CHIP	0
R144	1-218-965-11	RES-CHIP	10K 5% 1/16W
R145	1-218-965-11	RES-CHIP	10K 5% 1/16W
R150	1-218-965-11	RES-CHIP	10K 5% 1/16W
R151	1-218-957-11	RES-CHIP	2.2K 5% 1/16W
R152	1-218-941-81	RES-CHIP	100 5% 1/16W
R153	1-218-961-11	RES-CHIP	4.7K 5% 1/16W
R154	1-218-941-81	RES-CHIP	100 5% 1/16W
R155	1-218-977-11	RES-CHIP	100K 5% 1/16W
R157	1-218-990-81	SHORT CHIP	0
< COMPOSITION CIRCUIT BLOCK >			
RB1	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB2	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB3	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB4	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB5	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB6	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB11	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB12	1-234-944-21	RES, NETWORK 47 (1005X4)	
RB13	1-234-944-21	RES, NETWORK 47 (1005X4)	
< VIBRATOR >			
△ X1	1-767-654-21	VIBRATOR, CRYSTAL (12MHz)	
△ X2	1-767-286-21	VIBRATOR, CRYSTAL (22.5792MHz)	
△ X4	1-760-613-21	VIBRATOR, CRYSTAL (24MHz)	
△ X5	1-767-654-21	VIBRATOR, CRYSTAL (12MHz)	

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS *****			
59	1-832-859-21	CABLE, FLEXIBLE FLAT (17 CORE)	
64	1-831-744-21	CABLE, FLEXIBLE FLAT (5 CORE)	
107	1-457-368-11	CORE, FERRITE	
151	1-832-736-21	CABLE, FLEXIBLE FLAT (19 CORE)	
152	1-832-536-21	CABLE, FLEXIBLE FLAT (5 CORE)	
155	1-965-872-11	HARNESS	
156	1-832-600-21	CABLE, FLEXIBLE FLAT (17 CORE)	
157	1-832-538-21	CABLE, FLEXIBLE FLAT (5 CORE)	
161	1-966-028-11	HARNESS	
162	A-1561-781-A	HDD ASSY (80 GB)	
203	1-457-369-12	CORE, FERRITE	
△ 204	1-829-387-11	CORD, POWER (AR)	
△ 204	1-833-218-11	CORD, POWER (BR)	
△ 204	1-834-966-11	CORD, POWER (E2, E51)	
208	1-832-815-21	CABLE, FLEXIBLE FLAT (9 CORE)	
209	1-693-762-11	TUNER (FM/AM) (BR)	
209	1-693-764-11	TUNER (FM/AM) (E2, E51, AR)	
251	A-1242-967-A	LOADING (BK) ASSY	
△ 301	8-820-272-02	OPTICAL PICK-UP BLOCK (KSM215DHAP/C2NP)	
302	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)	
△ F421	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
△ F423	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
△ F425	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
△ F427	1-576-332-33	FUSE, CYLINDRICAL (TIME LUG) (T10AL/250V)	
△ F429	1-532-506-33	FUSE (T6.3AL/250V)	
△ F431	1-532-506-33	FUSE (T6.3AL/250V)	
M102	1-787-400-11	D.C. FAN	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
△ T420	1-445-435-11	TRANSFORMER, POWER	
*****			
ACCESSORY *****			
△	1-569-008-33	ADAPTOR, CONVERSION (E2, E51)	

**Note:** Refer to "REPLACEMENT PROCEDURE OF HDD" (page 4) of the servicing notes for HDD is exchanged.

\*\*\*\*\*

