

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/ HDX589W/HDX685/HDX686W

## SERVICE MANUAL



Ver. 1.0 2009.02

US Model  
HCD-HDX285/HDX287WC/HDX585/  
HDX587WC/HDX589W

Canadian Model  
HCD-HDX685/HDX686W

E Model  
HCD-HDX285



Photo: HCD-HDX285

- HCD-HDX285 is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX285.
- HCD-HDX287WC is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX287WC.
- HCD-HDX585 is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX585.
- HCD-HDX587WC is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX587WC.
- HCD-HDX589W is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX589W.
- HCD-HDX685 is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX685.
- HCD-HDX686W is the amplifier, super audio CD/DVD, tuner and video section in DAV-HDX686W.

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Model Name Using Similar Mechanism	HCD-HDX275
DVD Mechanism Type	CDM81C-DVBU101
Optical Pick-up Block Name	KHM-310CAB or KHM-313CAB

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS for the U.S. model

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 3 ohms loads, both channels driven, from 180 - 20,000 Hz; rated 84 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milli watts to rated output.

#### Amplifier Section (HDX285/HDX287WC/HDX585/ HDX587WC/HDX685)

U.S. models:

Surround mode (reference) RMS output power  
FL/FR/C/SL/SR\*: 144 watts  
(per channel at 3 ohms, 1 kHz, 10% THD)  
Subwoofer\*: 280 watts (at 1.5 ohms, 80 Hz, 10% THD)

Other models:

Stereo mode (rated) 108 W + 108 W (at 3 ohms, 1 kHz, 1% THD)  
Surround mode (reference) RMS output power  
FL/FR/C/SL/SR\*: 144 watts  
(per channel at 3 ohms, 1 kHz, 10% THD)  
Subwoofer\*: 280 watts (at 1.5 ohms, 80 Hz, 10% THD)

#### Amplifier Section (HDX589W/HDX686W)

U.S. models:

Surround mode (reference) RMS output power  
FL/FR/C\*: 144 watts (per channel at 3 ohms, 1 kHz, 10% THD)  
Subwoofer\*: 280 watts (at 1.5 ohms, 80 Hz, 10% THD)

Other models:

Stereo mode (rated) 108 W + 108 W (at 3 ohms, 1 kHz, 1% THD)

Surround mode (reference) RMS output power  
FL/FR/C\*: 144 watts (per channel at 3 ohms, 1 kHz, 10% THD)  
Subwoofer\*: 280 watts (at 1.5 ohms, 80 Hz, 10% THD)

\* Depending on the decoding mode settings and the source, there may be no sound output.

Inputs (Analog)

TV/VIDEO (AUDIO IN) Sensitivity: 450/250 mV  
AUDIO IN Sensitivity: 250/125 mV

Inputs (Digital)

TV/VIDEO (COAXIAL IN/OPTICAL IN)  
Impedance: 75 ohms/-  
Input Stream: Dolby Digital 5.1ch/DTS 5.1ch/Linear PCM 2ch  
(Sampling Frequency: less than 48 kHz)

Outputs (Analog)

Phones Accepts low- and high-impedance headphones.

– Continued on next page –

## DVD RECEIVER

# SONY®

Sony Corporation

Audio&Video Business Group

9-889-396-01

2009B05-1

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## Super Audio CD/DVD System

Laser Diode Properties Emission Duration:  
Continuous  
Laser Output: Less than  
44.6 $\mu$ W

\* 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.

### Signal format system

North American models: NTSC  
Other models: PAL/NTSC

## Tuner Section

System PLL quartz-locked digital  
synthesizer

### FM tuner section

#### Tuning range

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

Antenna (aerial) FM wire antenna (aerial)

Antenna (aerial) terminals 75 ohms, unbalanced

Intermediate frequency 10.7 MHz

### AM tuner section

#### Tuning range

North American model: 530 kHz - 1,710 kHz (with  
the interval set at 10 kHz)  
531 kHz - 1,710 kHz (with  
the interval set at 9 kHz)

Middle Eastern model: 531 kHz - 1,602 kHz (with  
the interval set at 9 kHz)

Other models: 531 kHz - 1,602 kHz (with  
the interval set at 9 kHz)  
530 kHz - 1,610 kHz (with  
the interval set at 10 kHz)

Antenna (aerial) AM loop antenna (aerial)

Intermediate frequency 450 kHz

## Video Section

Outputs VIDEO: 1 Vp-p 75 ohms  
COMPONENT:  
Y: 1 Vp-p 75 ohms  
Pb/Cb, Pr/Cr: 0.7 Vp-p  
75 ohms  
HDMI OUT: Type A (19  
pin)

## General

### Power requirements

North American models: 120 V AC, 60 Hz

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

HDX285/HDX287WC/HDX585/HDX587WC/HDX685

Power consumption On: 160 W  
Standby: 0.3 W (at the  
Power Saving mode)

HDX589W/HDX686W

Power consumption On: 120 W  
Standby: 0.3 W (at the  
Power Saving mode)

Output voltage (DIGITAL MEDIA PORT)

DC 5 V

Output current (DIGITAL MEDIA PORT)

700 mA

HDX285/HDX585/HDX685

Dimensions (approx.) 430 mm  $\times$  85 mm  $\times$  415  
mm (17 in  $\times$  3  $\frac{3}{8}$  in  $\times$   
16  $\frac{3}{8}$  in) (w/h/d) incl.  
projecting parts

HDX287WC/HDX587W/HDX589W/HDX686W

Dimensions (approx.) 430 mm  $\times$  85 mm  $\times$  420  
mm (17 in  $\times$  3  $\frac{3}{8}$  in  $\times$   
16  $\frac{5}{8}$  in) (w/h/d) incl.  
projecting parts  
430 mm  $\times$  85 mm  $\times$  450  
mm (17 in  $\times$  3  $\frac{3}{8}$  in  $\times$   
17  $\frac{3}{4}$  in) (w/h/d) with the  
wireless transceiver  
inserted

Mass (approx.) 5.2 kg (11 lb 8 oz)

Design and specifications are subject to change  
without notice.

## 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.

## ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

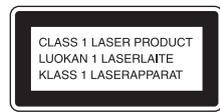
**NOTES ON CHIP COMPONENT REPLACEMENT**

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

**FLEXIBLE CIRCUIT BOARD REPAIRING**

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

**CAUTION**  
 Danger of explosion if battery is incorrectly replaced.  
 Replace only with the same or equivalent type.



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

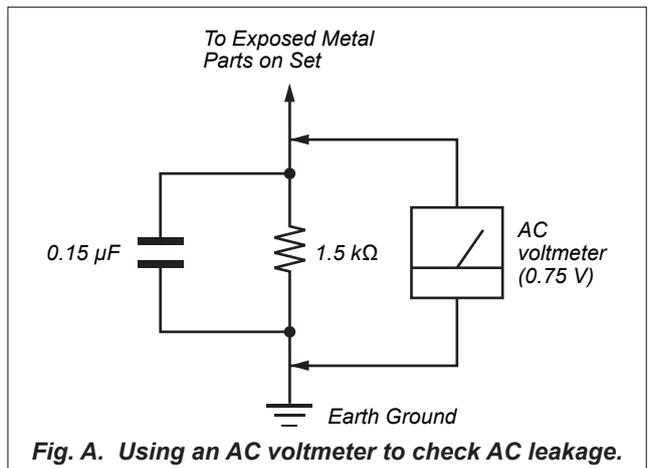
**SAFETY CHECK-OUT**

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

**LEAKAGE TEST**

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

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



**SELF DIAGNOSIS FUNCTION**

*(When letters/numbers appear in the display)*

When the self-diagnosis function is activated to prevent the system from malfunctioning, a 5-character service number (e.g., C 13 50) with a combination of a letter and 4 digits appears on the TV screen or front panel display. In this case, check the following table.



First 3 characters of the service number	Cause and/or corrective action
C 13	The disc is dirty. ➔ Clean the disc with a soft cloth.
C 31	The disc is not inserted correctly. ➔ Restart the system, then re-insert the disc correctly.
E XX (XX is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. ➔ Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

**When the version number appears on the TV screen**

When you turn on the system, the version number [VER.X.XX] (X is a number) may appear on the TV screen. Although this is not a malfunction and for Sony service use only, normal system operation will not be possible. Turn off the system, and then turn on the system again to operate.



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

**Note:** Refer to the Servicing Notes "FL-JACK AND P-SW BOARDS DISCRIMINATION" (page 5) for how to distinguish Suffix-11 and Suffix-12.

**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)

**LF : LEAD FREE MARK**

Unleaded solder has the following characteristics.

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

**RELEASING THE TRAY LOCK**

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

**Releasing Procedure:**

1. Press the [I/⏻] button to turn on the system.
2. Press the [FUNCTION] button repeatedly to select "DVD".
3. While pressing the [■] button, press the [▲] button until "UNLOCKED" displayed on the fluorescent indicator tube (around 5 seconds).

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

**RELEASING THE DEMO PLAY LOCK**

**Releasing Procedure:**

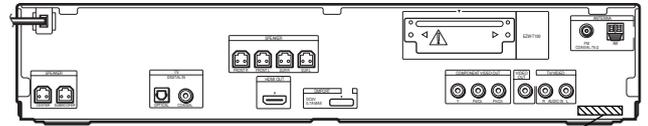
1. Press the [I/⏻] button to turn on the system.
2. Press the [FUNCTION] button repeatedly to select "DVD".
3. While pressing the [■] button, press the [▶] button until "DEMO OFF" displayed on the fluorescent indicator tube (around 5 seconds).

**Note:** When "DEMO ON" is displayed, the set is not possible to turn off the system.

**NOTE OF REPLACING THE IC1103 ON THE MAIN BOARD**

IC1103 on the MAIN board cannot exchange with single. When this part is damaged, exchange the entire mounted board.

**MODEL IDENTIFICATION**



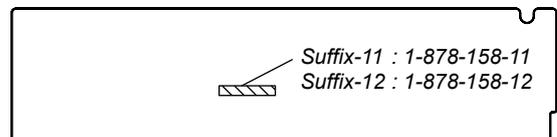
PART No.

Model	Part No.
HDX585	4-120-917-0□
HDX686W	4-120-917-1□
HDX685	4-120-917-2□
HDX287WC	4-120-917-3□
HDX587WC	4-120-917-4□
HDX589W	4-120-917-5□
HDX285: US model	4-120-917-6□
HDX285: 240V AC area in E model	4-120-917-8□
HDX285: Saudi Arabia model	4-120-917-9□

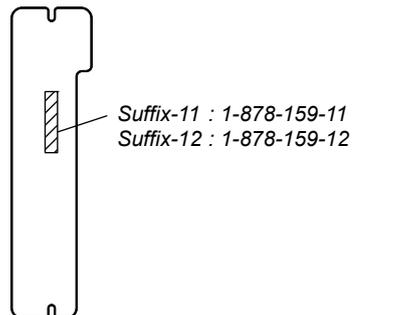
**FL-JACK AND P-SW BOARDS DISCRIMINATION**

In this set, the FL-JACK and P-SW boards have been changed in the midway of production. Repair after distinguishing each type set to doing the repair referring to following.

**- FL-JACK Board (Component Side) -**



**- P-SW Board (Component Side) -**



## Playable Discs

Type	Disc logo	Characteristics	Icon
DVD VIDEO	     	<ul style="list-style-type: none"> <li>DVD VIDEO</li> <li>DVD-R/DVD-RW in DVD VIDEO format or video mode</li> <li>DVD+R/DVD+RW in DVD VIDEO format</li> </ul>	
VR (Video Recording) mode	 	<ul style="list-style-type: none"> <li>DVD-R/DVD-RW in VR (Video Recording) mode (except for DVD-R DL)</li> </ul>	
VIDEO CD		<ul style="list-style-type: none"> <li>VIDEO CD (Ver. 1.1 and 2.0 discs)</li> <li>Super VCD</li> <li>CD-R/CD-RW/CD-ROM in video CD format or Super VCD format</li> </ul>	
Super Audio CD		<ul style="list-style-type: none"> <li>Super Audio CD</li> </ul>	
CD		<ul style="list-style-type: none"> <li>Audio CD</li> <li>CD-R/CD-RW in audio CD format</li> </ul>	
DATA CD	–	<ul style="list-style-type: none"> <li>CD-R/CD-RW/CD-ROM in DATA CD format, containing MP3 files<sup>1)</sup>, JPEG image files<sup>2)</sup>, DivX video files<sup>3)</sup>, and MPEG4 video files<sup>3)</sup>, and conforming to ISO 9660<sup>4)</sup> Level 1/Level 2, or Joliet (extended format)</li> </ul>	
DATA DVD	–	<ul style="list-style-type: none"> <li>DVD-ROM/DVD-R/DVD-RW/DVD+R/DVD+RW in DATA DVD format, containing MP3 files<sup>1)</sup>, JPEG image files<sup>2)</sup>, DivX video files<sup>3)</sup>, and MPEG4 video files<sup>3)</sup>, and conforming to UDF (Universal Disk Format)</li> </ul>	

<sup>1)</sup>MP3 (MPEG1 Audio Layer 3) is a standard format defined by ISO/MPEG for compresses audio data. MP3 files must be in MPEG1 Audio Layer 3 format.

<sup>2)</sup>JPEG image files must conform to the DCF image file format. (DCF "Design rule for Camera File system": Image standards for digital cameras regulated by Japan Electronics and Information Technology Industries Association (JEITA).)

<sup>3)</sup>Except for North American models.

- If MP3 files and JPEG image files in music CD format or video CD format are recorded in the first session, only the first session will be played back.

### Region code

Your system has a region code printed on the rear of the unit and will only play a DVD labeled with the same region code.

A DVD VIDEO labeled  will also play on this system.

If you try to play any other DVD VIDEO, the message [Playback prohibited by area limitations.] will appear on the TV screen. Depending on the DVD VIDEO, no region code indication may be given even though playing the DVD VIDEO is prohibited by area restrictions.

### Note about playback operations of a DVD or VIDEO CD

Some playback operations on a DVD or VIDEO CD may be intentionally set by software producers. Since this system will play a DVD or VIDEO CD according to the disc contents the software producers designed, some playback features may not be available. Be sure to read the operating instructions supplied with the DVD or VIDEO CD.

<sup>4)</sup>A logical format of files and folders on CD-ROMs, defined by ISO (International Organization for Standardization).

### Notes on discs

This product is designed to playback discs that conform to the Compact Disc (CD) standard. DualDiscs and some of the music discs encoded with copyright protection technologies do not conform to the Compact Disc (CD) standard, therefore, these discs may not be playable by this product.

### Example of discs that the system cannot play

The system cannot play the following discs:

- CD-ROM/CD-R/CD-RW other than those recorded in the formats listed on page 7
  - CD-ROM recorded in PHOTO CD format
  - Data part of CD-Extra
  - CD Graphics disc
  - DVD Audio
  - DATA CD/DATA DVD that does not contain MP3 files, JPEG image files, DivX video files\*, or MPEG4 video files\*
  - DVD-RAM
  - Blu-ray Disc
- \* Except for North American models.

Also, the system cannot play the following discs:

- A DVD VIDEO with a different region code (page 9)
- A disc that has a non-standard shape (e.g., card, heart)
- A disc with paper or stickers on it
- A disc that has the adhesive of cellophane tape or a sticker still left on it

### Note about CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW

In some cases, CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW cannot be played on this system due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software.

The disc will not play if it has not been correctly finalized. For more information, refer to the operating instructions for the recording device.

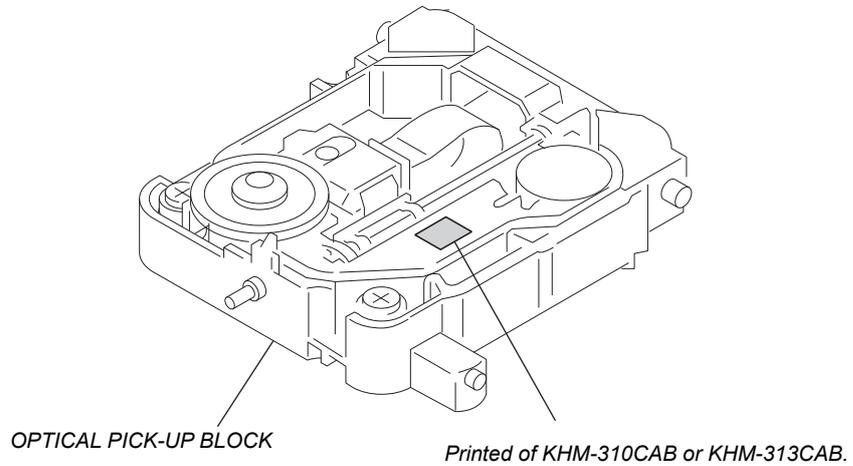
Note that some playback functions may not work with some DVD+RWs/DVD+Rs, even if they have been correctly finalized. In this case, view the disc by normal playback. Also some DATA CDs/DATA DVDs created in Packet Write format cannot be played.

### About Multi Session CD

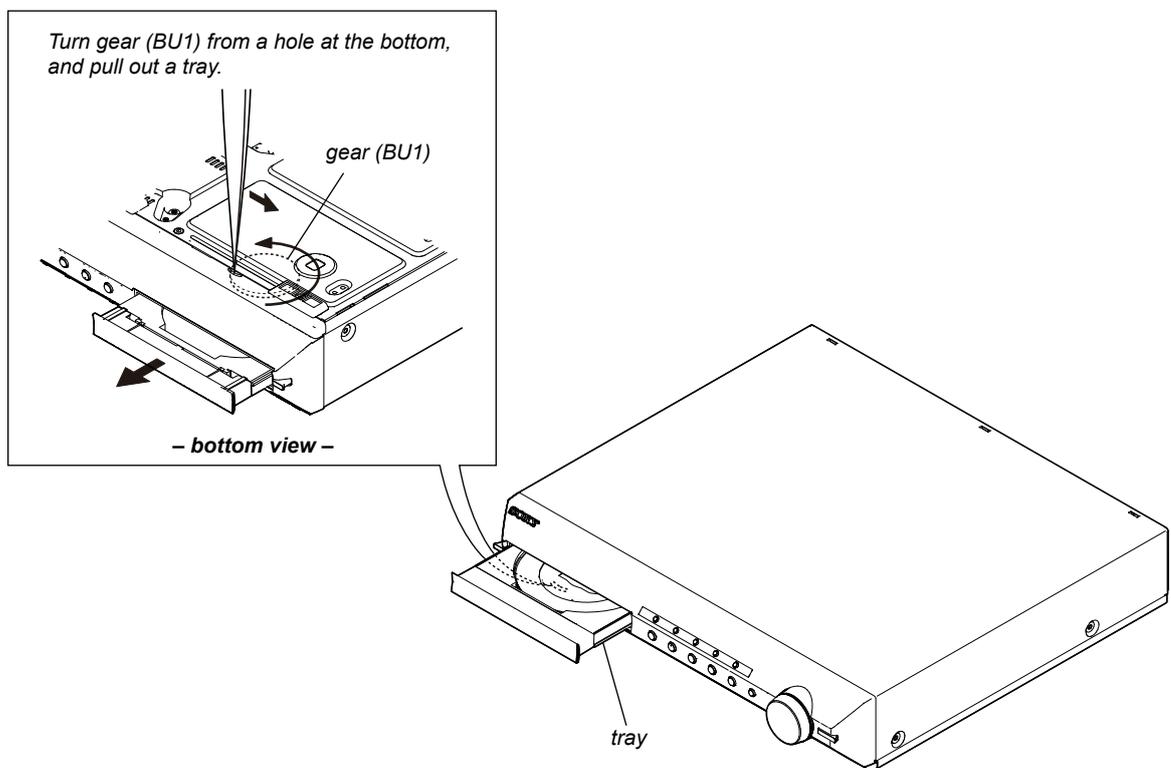
- This system can play a Multi Session CD when an MP3 file is contained in the first session. Any subsequent MP3 files recorded in later sessions can also be played back.
- This system can play a Multi Session CD when a JPEG image file is contained in the first session. Any subsequent JPEG image files recorded in later sessions can also be played back.

**HOW TO IDENTIFY OPTICAL PICK-UP BLOCK**

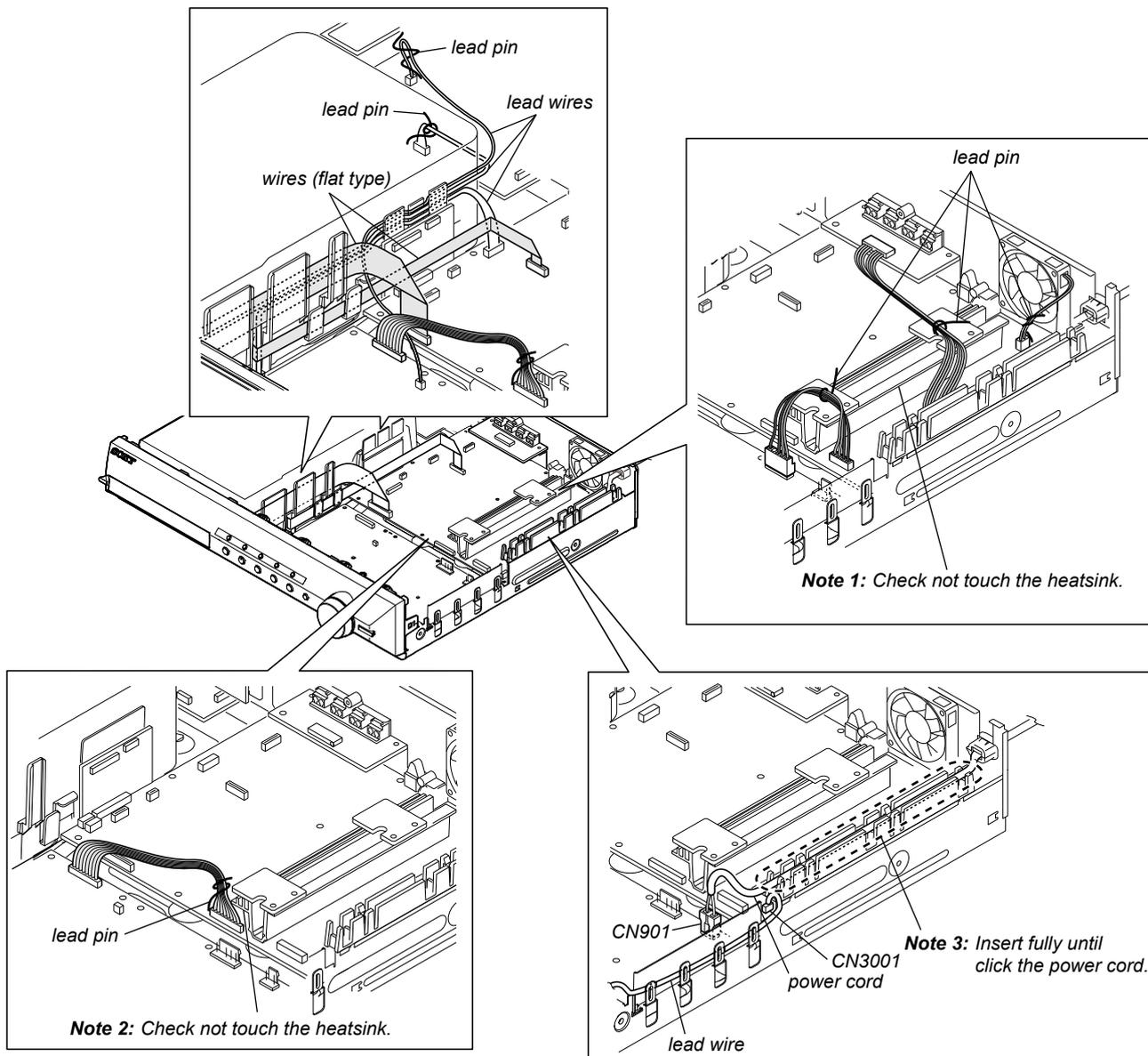
**Note:** There are two kinds of OPTICAL PICK-UP BLOCK in this set. When replacing the OPTICAL PICK-UP BLOCK, make sure which OPTICAL PICK-UP BLOCK it is following the "How to Identify" in the figure shown below.



**HOW TO OPEN THE TRAY WHEN POWER SWITCH TURN OFF**

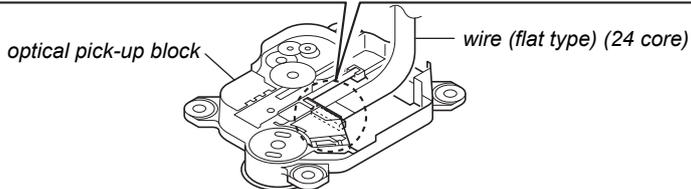


HARNESS SETTING



PRECAUTION WHEN REMOVE GOOD OPTICAL PICK-UP BLOCK

**CAUTION**  
 Be sure to bridge here, and then disconnect the wire (flat type) (24 core).  
 (optical pick-up block will be destroyed without bridging)  
 On the contrary at the installation, connect the wire (flat type) (24 core) first, and then remove the bridge.  
 Note: For a soldering iron, use the one with a ground wire.  
 (Refer to DISASSEMBLY 3-12. OPTICAL PICK-UP BLOCK (KHM-310CAB or KHM-313CAB))



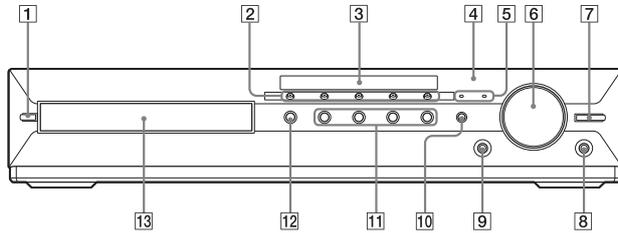
SECTION 2  
GENERAL

This section is extracted from instruction manual.

Index to Parts and Control

For more information, refer to the pages indicated in parentheses.

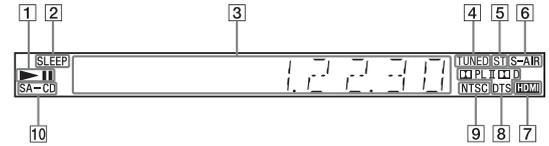
Front panel



- |                               |                           |
|-------------------------------|---------------------------|
| 1 I/⏻ (on/standby)            | 8 PHONES jack             |
| 2 DISC 1-5 buttons/indicators | 9 AUDIO IN/A.CAL MIC jack |
| 3 Front panel display         | 10 FUNCTION               |
| 4 [ ] (remote sensor)         | 11 Play operation buttons |
| 5 MOVIE/MUSIC indicator       | 12 ▲ (open/close)         |
| 6 VOLUME control              | 13 Disc tray              |
| 7 DMPORT BOOSTER              |                           |

Front panel display

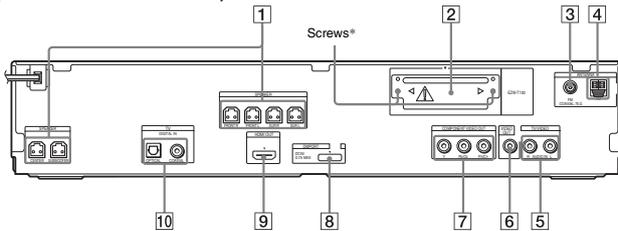
About the indications in the front panel display



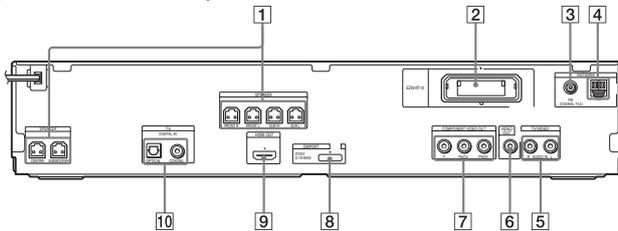
- |  |   |
|--|---|
| 1 Playing status   | 7 Lights up when the HDMI OUT jack is correctly connected to HDCP (High-bandwidth Digital Content Protection) compliant device with HDMI or DVI (Digital Visual Interface) input. |
| 2 Flashes when the sleep timer is set.   | 8 Current surround format (Except for JPEG image file)  |
| 3 Displays the system's status such as chapter, title, or track number, time information, radio frequency, playing status, decoding mode, etc. | 9 Lights up when the color system is set to NTSC. (Asian, Australian, and Middle Eastern models only)   |
| 4 Lights up when a station is received. (Radio only)   | 10 Lights up when a Super Audio CD/CD is loaded.  |
| 5 Stereo/Monaural effect (Radio only)  |   |
| 6 Lights up when the S-AIR transmitter (not supplied) is inserted in the unit and the system transmits the sound.                              |   |

Rear panel

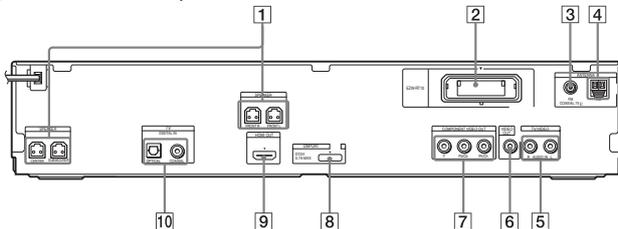
(HDX285/HDX585/HDX685)



(HDX287WC/HDX587WC)



(HDX589W/HDX686W)



- |   |  |
|---|--|
| 1 SPEAKER jacks                                     | 8 DMPORT (DIGITAL MEDIA PORT) jack             |
| 2 EZW-T100 slot (HDX285/HDX585/HDX685)              | 9 HDMI OUT jack                                |
| 2 EZW-RT10 slot (HDX287WC/HDX587WC/HDX589W/HDX686W) | 10 TV/VIDEO (DIGITAL IN COAXIAL/OPTICAL) jacks |
| 3 COAXIAL 75Ω FM jack                               |  |
| 4 AM terminal                                       |  |
| 5 TV/VIDEO (AUDIO IN R/L) jacks                     |  |
| 6 VIDEO OUT jack                                    |  |
| 7 COMPONENT VIDEO OUT jacks                         |  |

\* **CAUTION**  
Please do not remove the screws unless you are installing the EZW-T100.

## Remote control

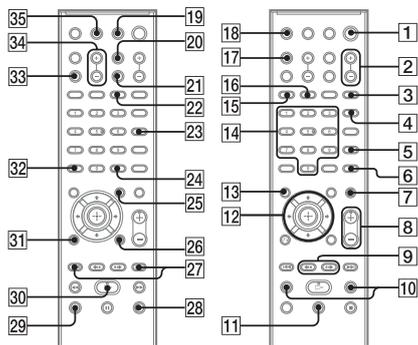
(HDX285/HDX585/HDX685)

ALPHABETICAL ORDER		BUTTON DESCRIPTIONS
<b>A - O</b>	<b>P - Z</b>	
ANGLE [3]	PICTURE NAVI [15]	Number buttons [14]
AUDIO [16]	PRESET +/- [27]	I/⏻ (on/standby) [1]
CLEAR [32]	PROG +/- <sup>1)</sup> [27]	TV I/⏻ (on/standby) [19]
D.TUNING [22]	S-AIR MODE [4]	⏮/⏪/⏩/⏭ [12]
DISC SKIP [33]	SLEEP [17]	⏮/⏩ REPLAY/ADVANCE [9]
DISPLAY [21]	SOUND MODE [5]	⏮/⏩ [27]
DVD MENU [25]	SUBTITLE [22]	⏮/⏩ [10]
DVD TOP MENU [13]	SYSTEM MENU [24]	STEP ⏮/⏩ [9]
DYNAMIC BASS [6]	THEATER/THEATRE <sup>2)</sup> [18]	SLOW ⏮/⏩ [10]
ENTER [24]	TOOLS [26]	▷ (play) [30]
FUNCTION +/- [2]	TUNING +/- [10]	■ (stop) [28]
MENU [25]	TV [29]	▬ (pause) [11]
MUTING [7]	TV CH +/- <sup>3)</sup> [27]	Ⓜ DISPLAY* [26]
NIGHT [23]	TV INPUT [20]	⌂ RETURN [31]
ONE-TOUCH PLAY [35]	TV VOL +/- [8]	./- <sup>1)</sup> [32]
		○ <sup>3)</sup> [32]

## Remote control

(HDX287WC/HDX587WC/HDX589W/HDX686W)

ALPHABETICAL ORDER		BUTTON DESCRIPTIONS
<b>A - O</b>	<b>P - Z</b>	
ANGLE [3]	PICTURE NAVI [15]	Number buttons [14]
AUDIO [16]	PRESET +/- [27]	I/⏻ (on/standby) [1]
CLEAR [32]	S-AIR MODE [4]	TV I/⏻ (on/standby) [19]
D.TUNING [22]	SLEEP [17]	⏮/⏪/⏩/⏭ [12]
DISC SKIP [33]	SOUND MODE [5]	⏮/⏩ REPLAY/ADVANCE [9]
DISPLAY [21]	SUBTITLE [22]	⏮/⏩ [27]
DVD MENU [25]	SYSTEM MENU [24]	⏮/⏩ [10]
DVD TOP MENU [13]	THEATER [18]	STEP ⏮/⏩ [9]
DYNAMIC BASS [6]	TOOLS [26]	SLOW ⏮/⏩ [10]
ENTER [24]	TUNING +/- [10]	▷ (play) [30]
FUNCTION +/- [2]	TV [29]	■ (stop) [28]
MENU [25]	TV CH +/- [27]	▬ (pause) [11]
MUTING [7]	TV INPUT [20]	Ⓜ DISPLAY* [26]
NIGHT [23]	TV VOL +/- [8]	⌂ RETURN [31]
ONE-TOUCH PLAY [35]	VOLUME +/- [8]	○ [32]

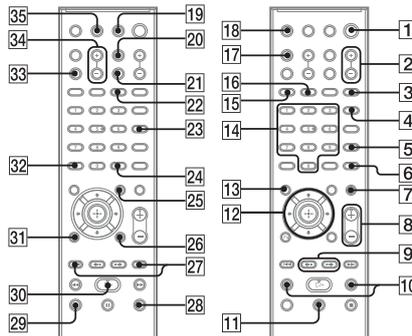


<sup>1)</sup>Except for North American models.

<sup>2)</sup>The button name differs depending on the area.

<sup>3)</sup>North American models only.

<sup>4)</sup>This button is available for the "DVD" or "DMPORT" function. Depending on the DIGITAL MEDIA PORT adapter, this button may not work.

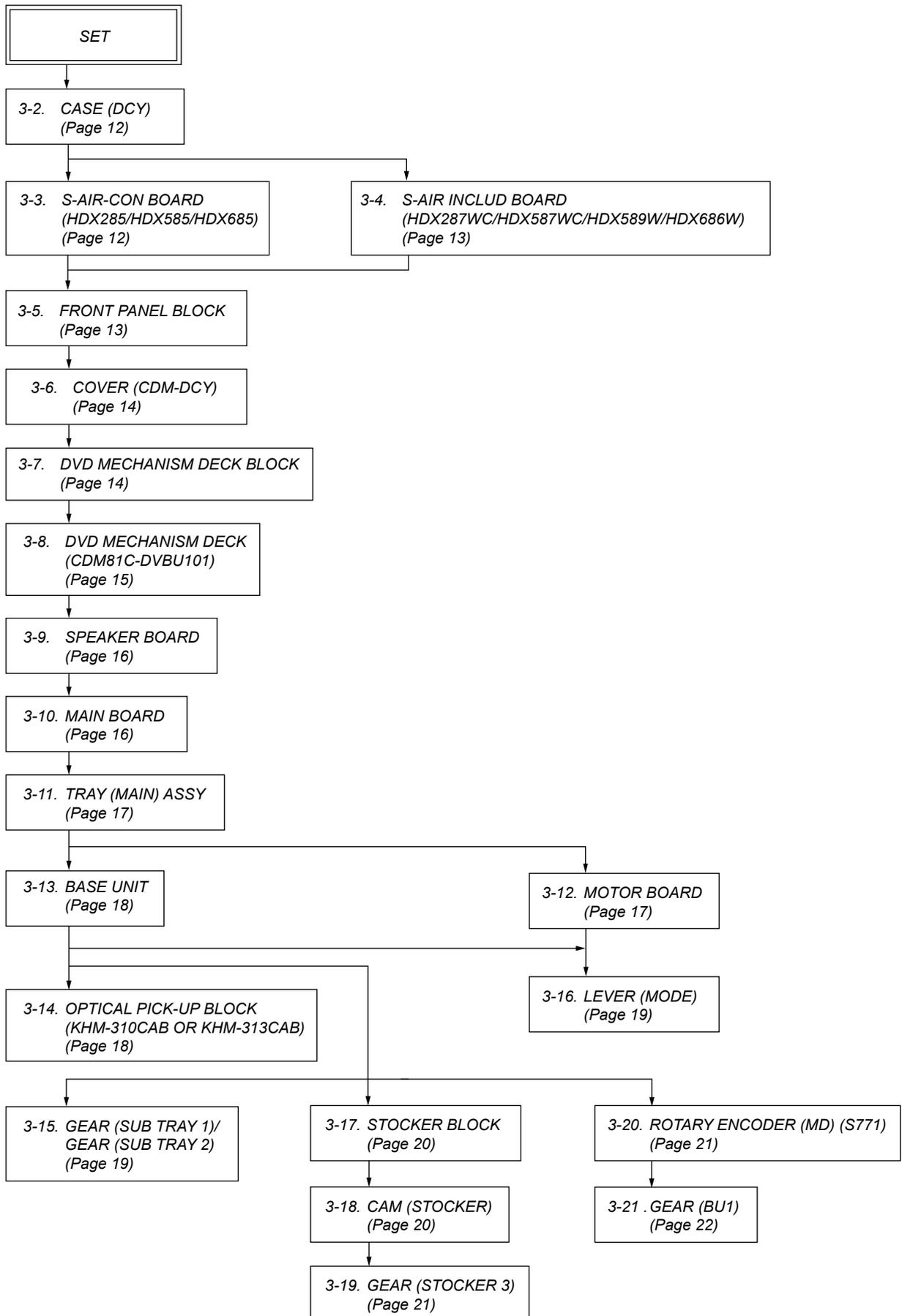


\* This button is available for the "DVD" or "DMPORT" function. Depending on the DIGITAL MEDIA PORT adapter, this button may not work.

**SECTION 3  
DISASSEMBLY**

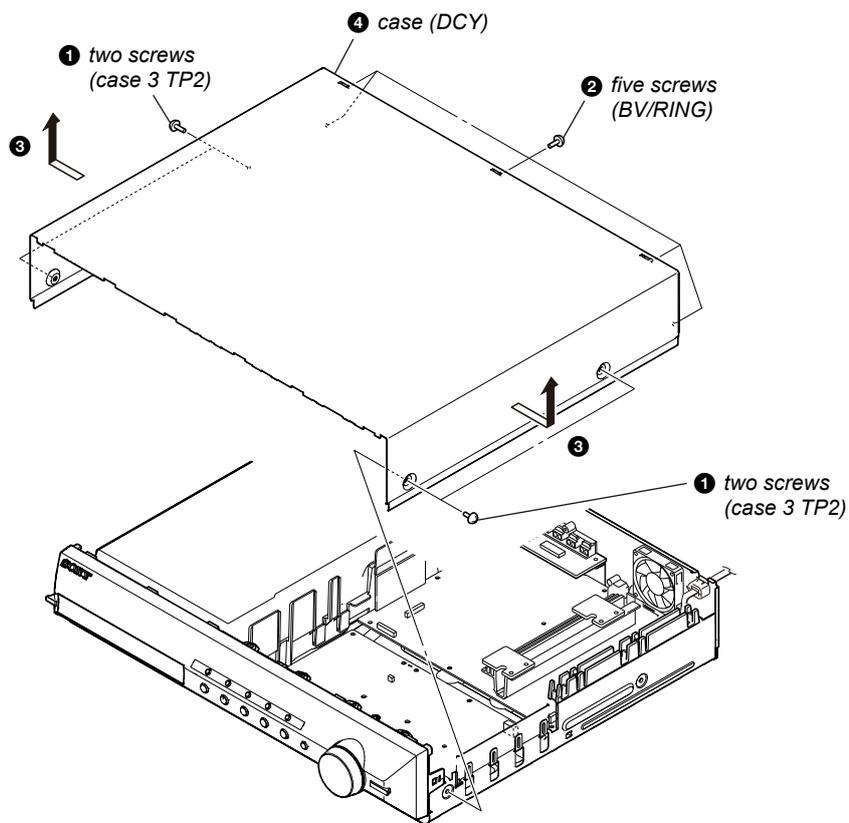
- This set can be disassembled in the order shown below.

**3-1. DISASSEMBLY FLOW**

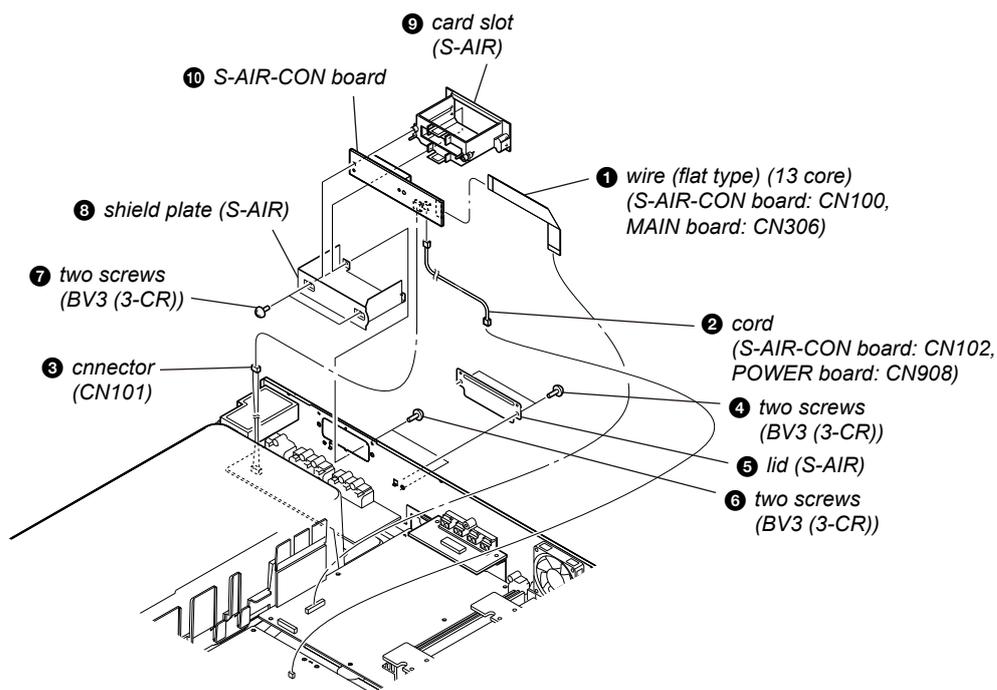


**Note:** Follow the disassembly procedure in the numerical order given.

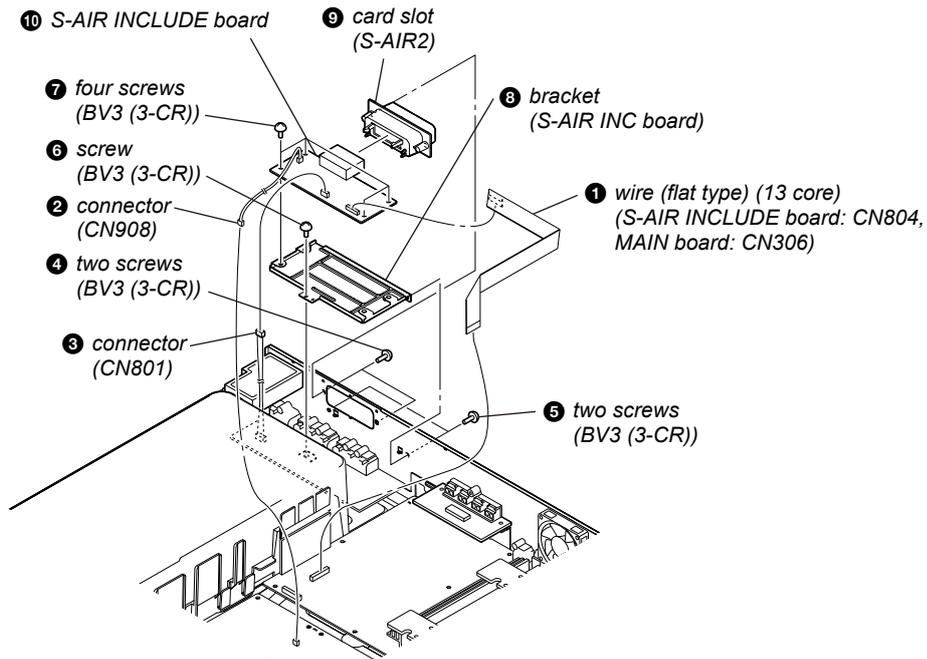
**3-2. CASE (DCY)**



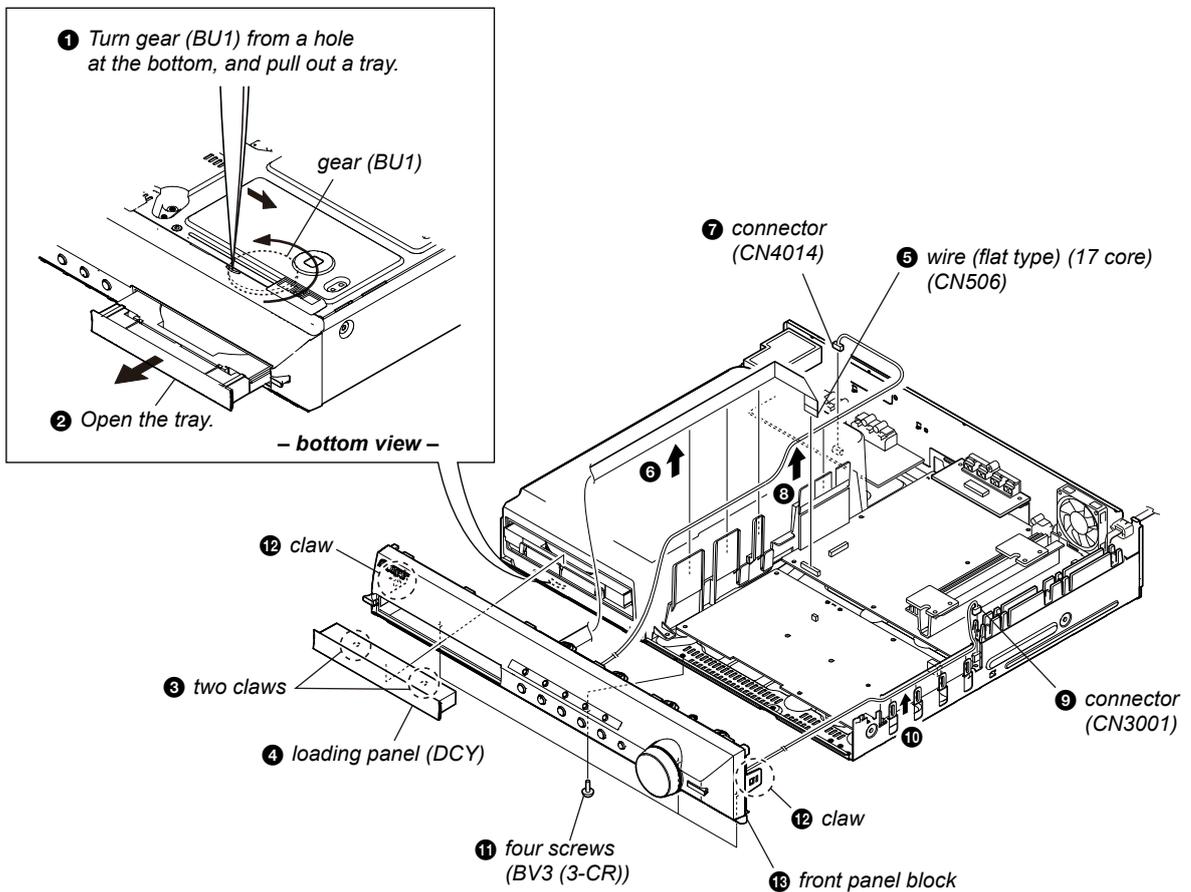
**3-3. S-AIR-CON BOARD (HDX285/HDX585/HDX685)**



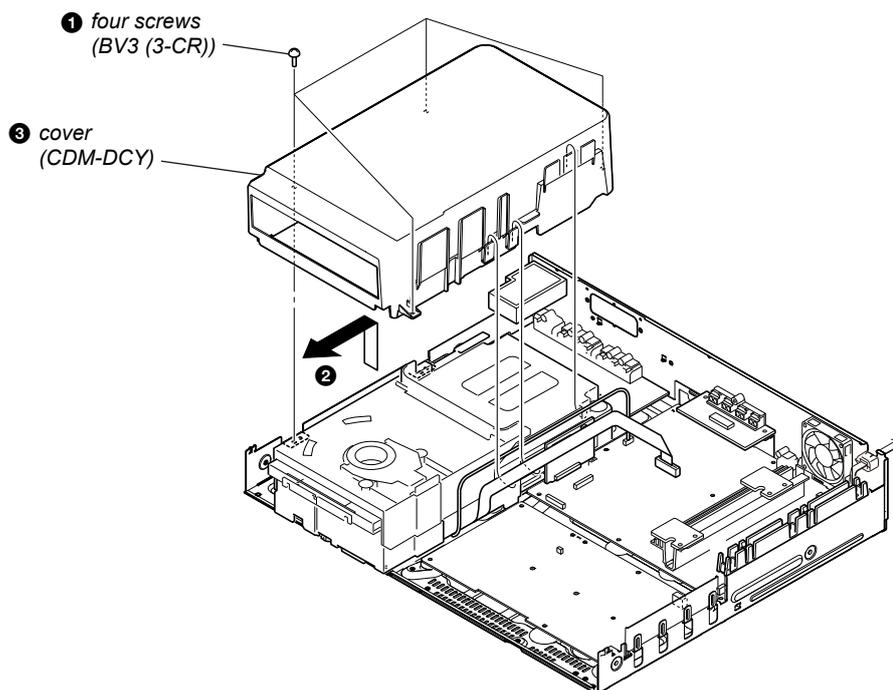
3-4. S-AIR INCLUDE BOARD (HDX287WC/HDX587WC/HDX589W/HDX686W)



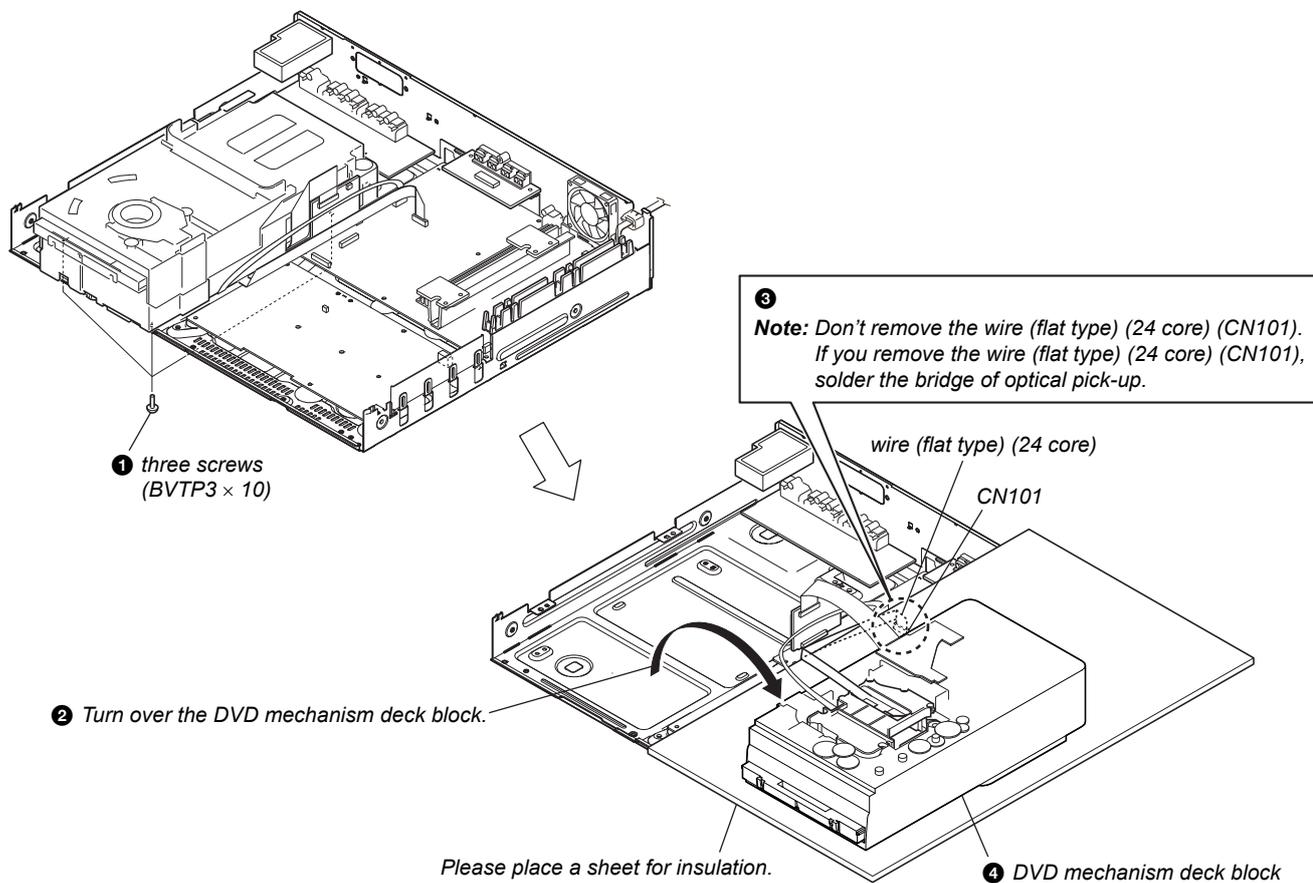
3-5. FRONT PANEL BLOCK



3-6. COVER (CDM-DCY)



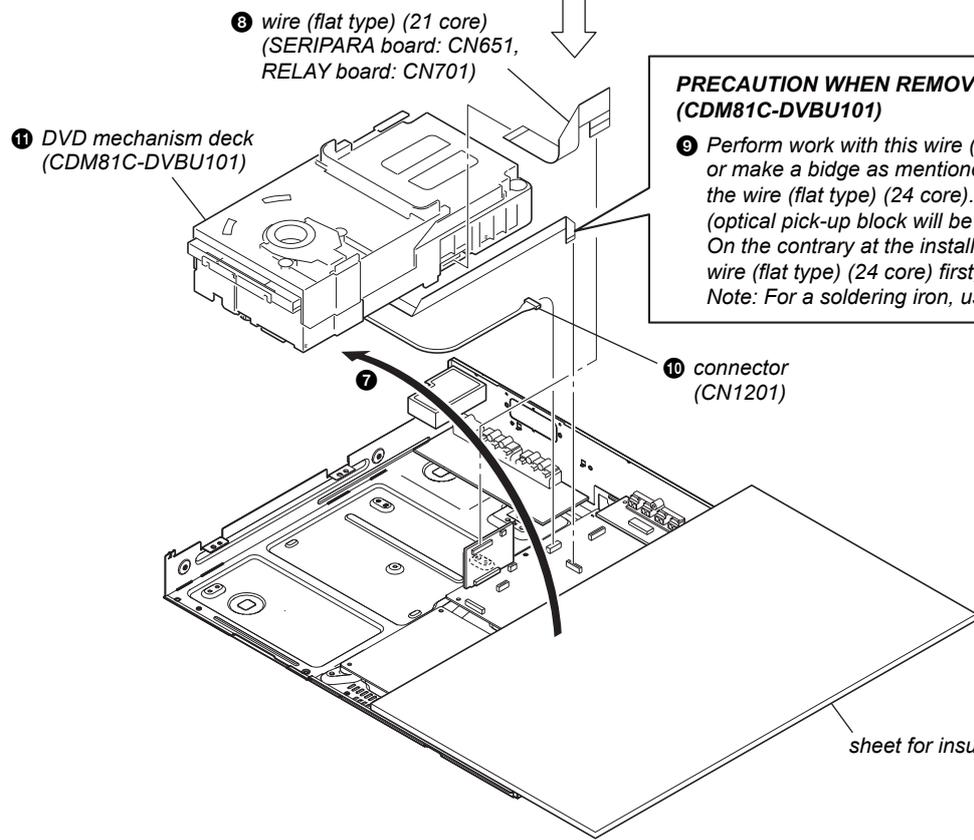
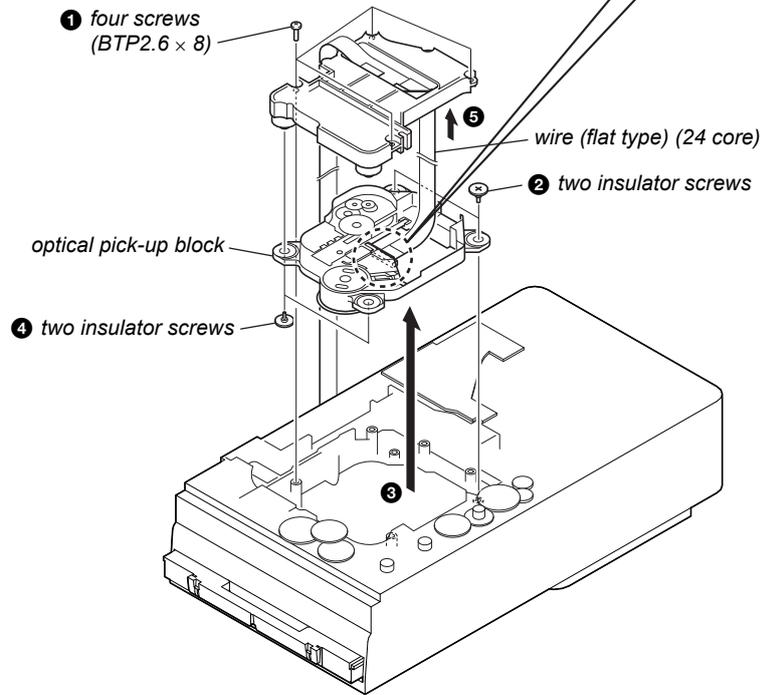
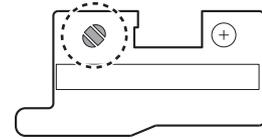
3-7. DVD MECHANISM DECK BLOCK



3-8. DVD MECHANISM DECK (CDM81C-DVBU101)

**PRECAUTION WHEN REMOVING GOOD OPTICAL PICK-UP**

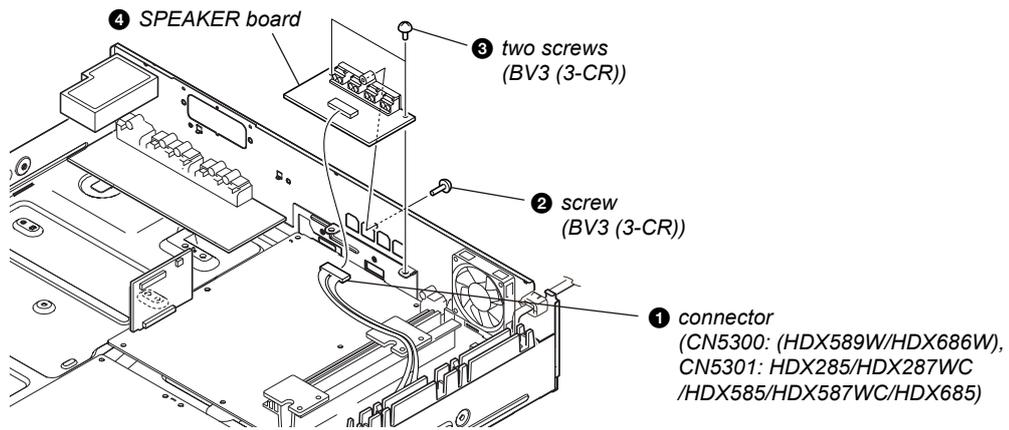
⑥ Be sure to bridge here, and then disconnect the wire (flat type) (24 core).  
 (optical pick-up block will be destroyed without bridging)  
 On the contrary at the installation, connect the  
 wire (flat type) (24 core) first, and then remove the bridge.  
 Note: For a soldering iron, use the one with a ground wire.  
 (Refer to DISASSEMBLY 3-12. OPTICAL PICK-UP BLOCK (KHM-310CAB or KHM-313CAB))



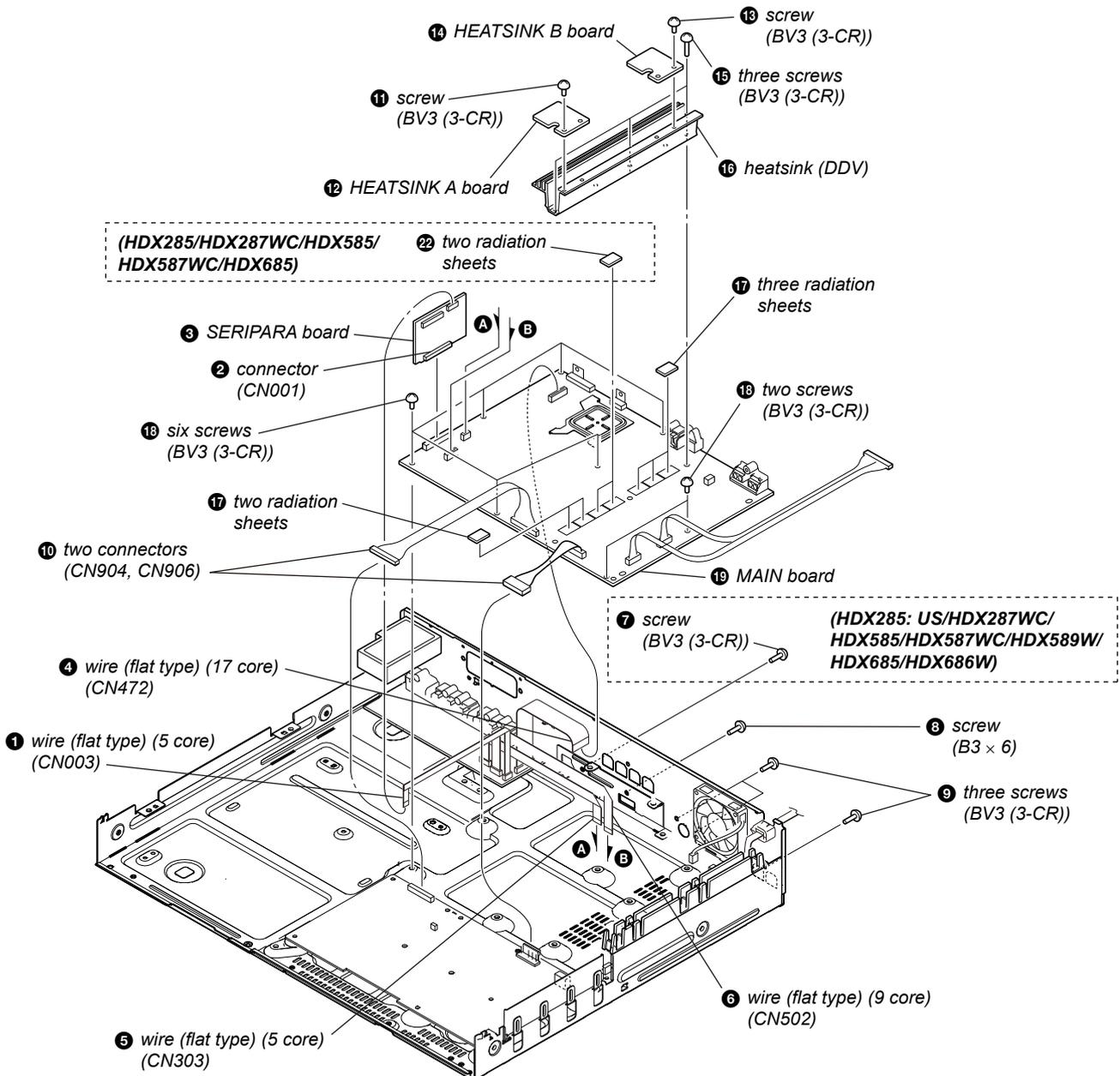
**PRECAUTION WHEN REMOVING DVD MECHANISM DECK (CDM81C-DVBU101)**

⑨ Perform work with this wire (flat type) (24 core) connected, or make a bridge as mentioned above and then disconnect the wire (flat type) (24 core).  
 (optical pick-up block will be destroyed without bridging.)  
 On the contrary at the installation, connect the  
 wire (flat type) (24 core) first, and then remove the bridge.  
 Note: For a soldering iron, use the one with a ground wire.

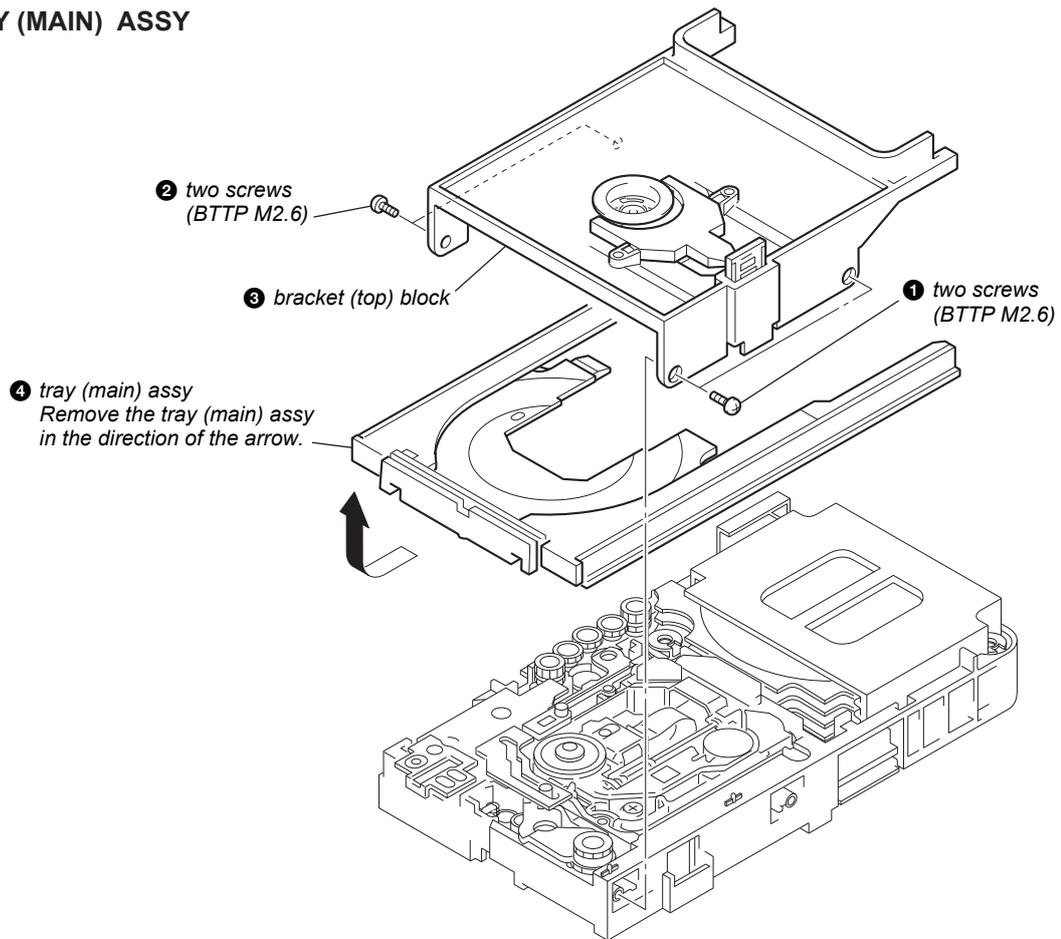
3-9. SPEAKER BOARD



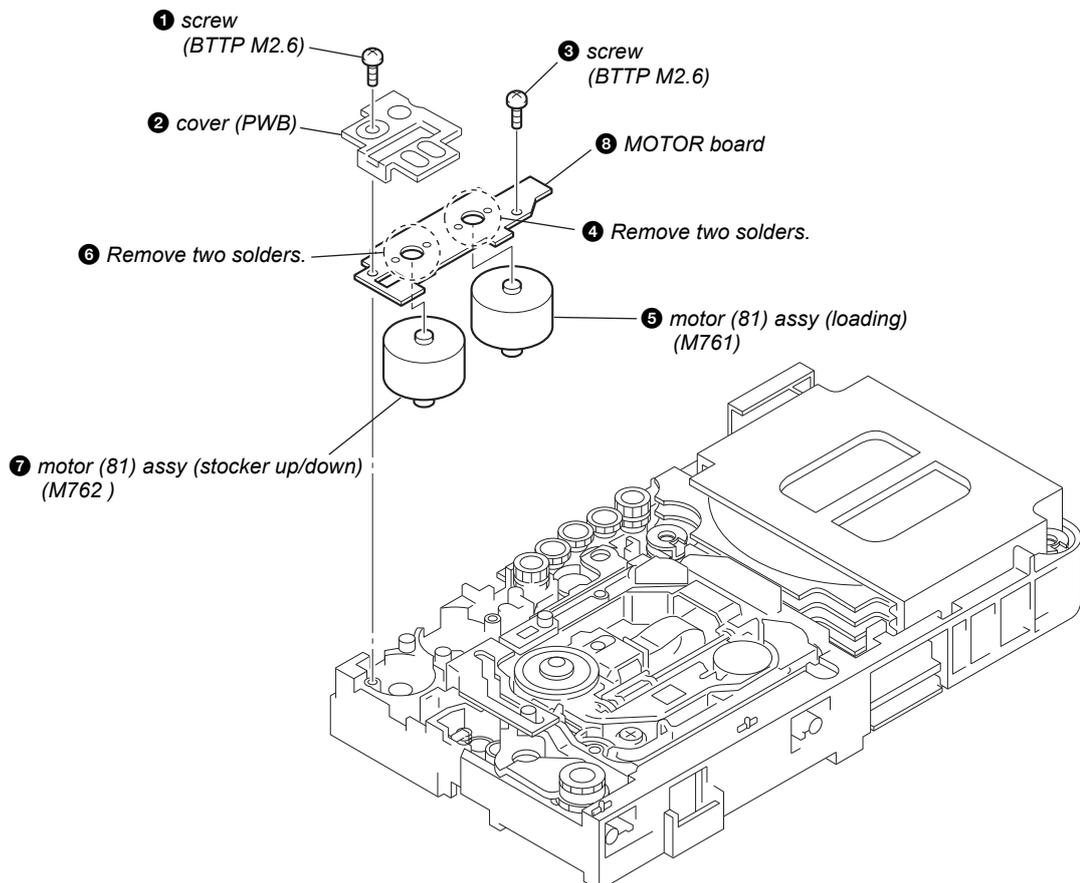
3-10. MAIN BOARD



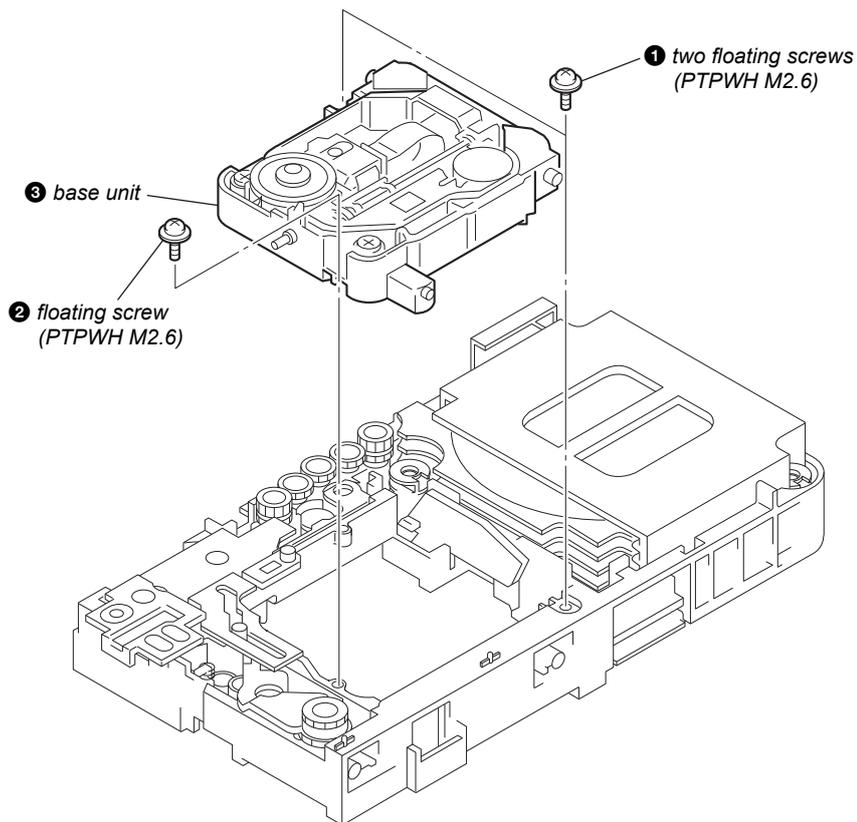
3-11. TRAY (MAIN) ASSY



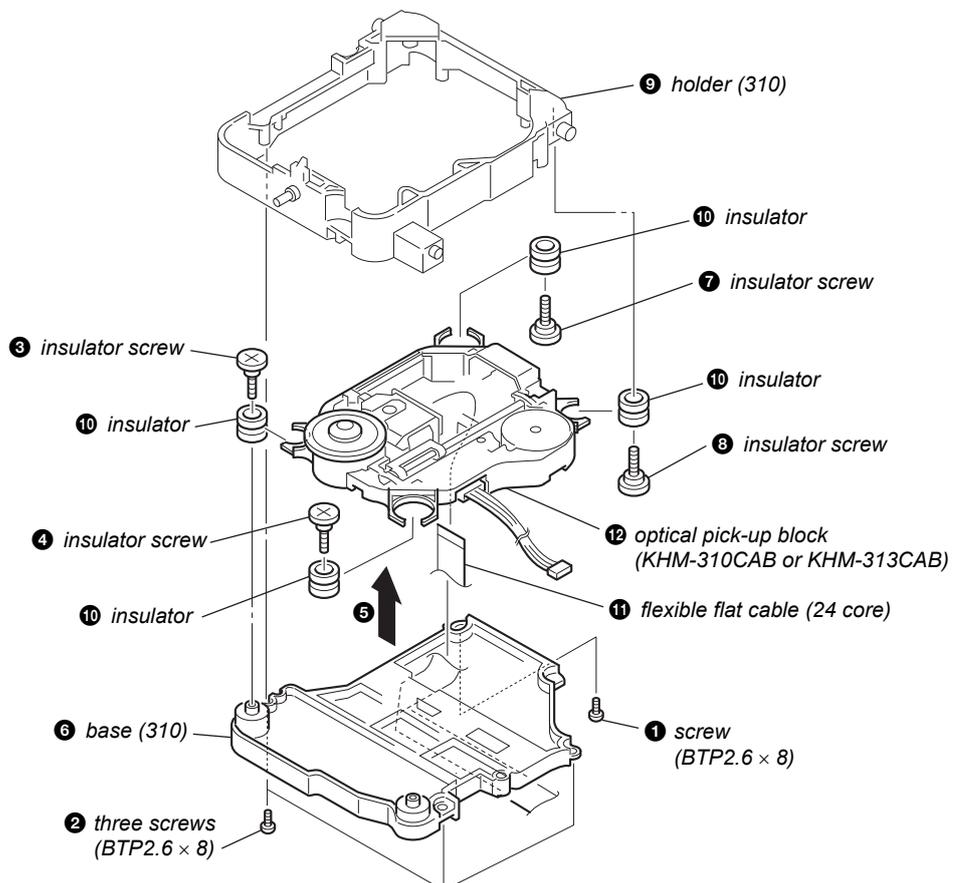
3-12. MOTOR BOARD



3-13. BASE UNIT

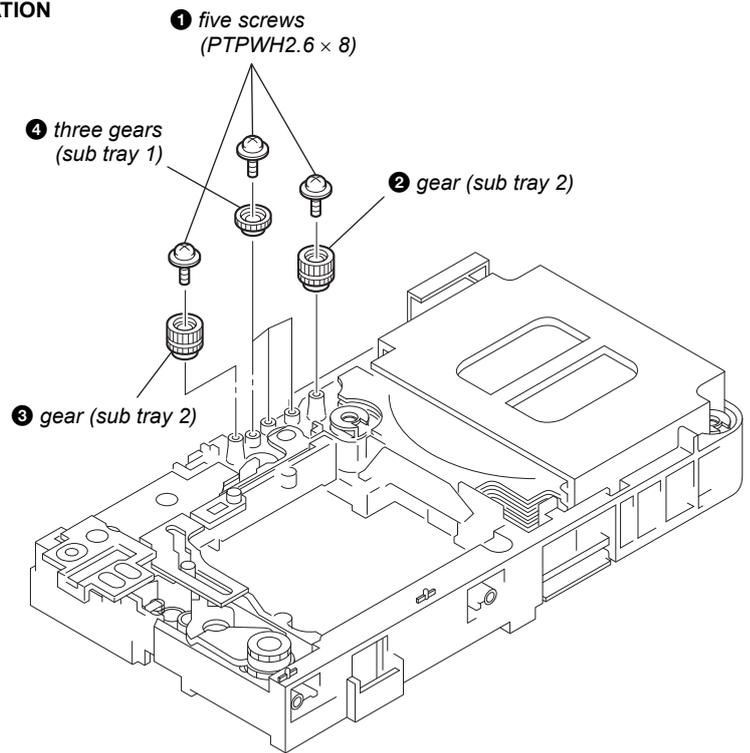
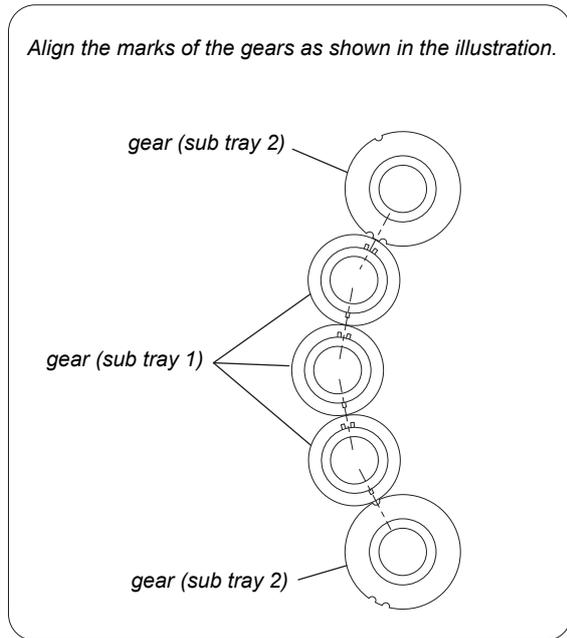


3-14. OPTICAL PICK-UP BLOCK (KHM-310CAB OR KHM-313CAB)

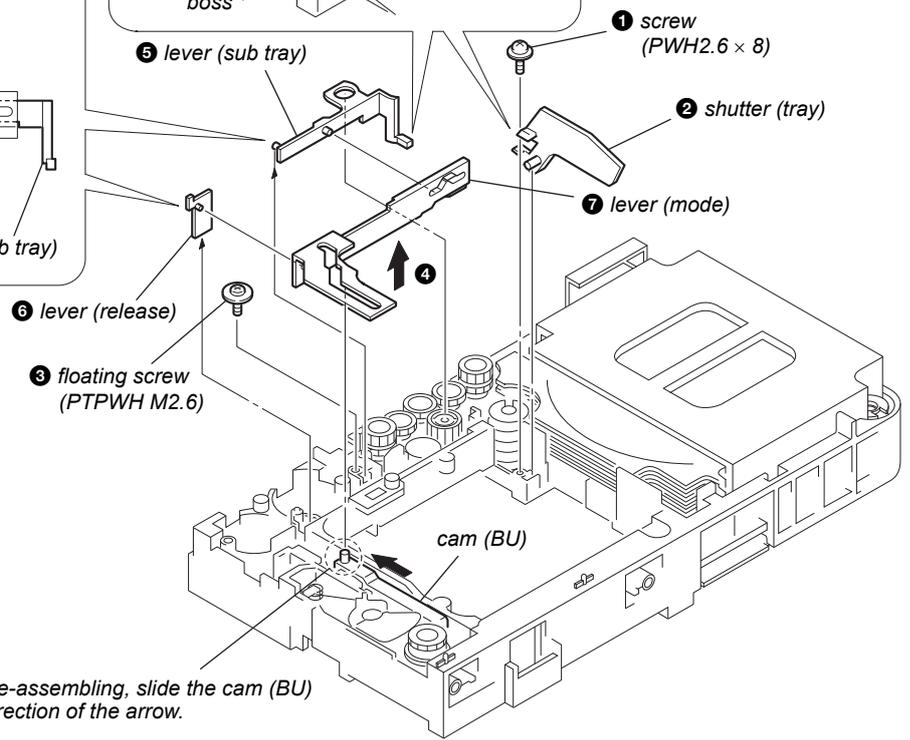
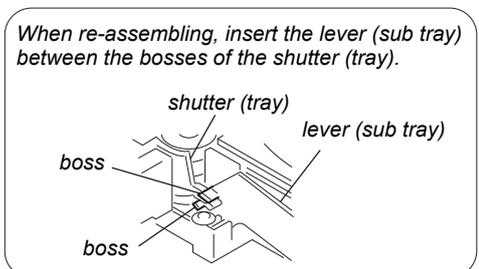
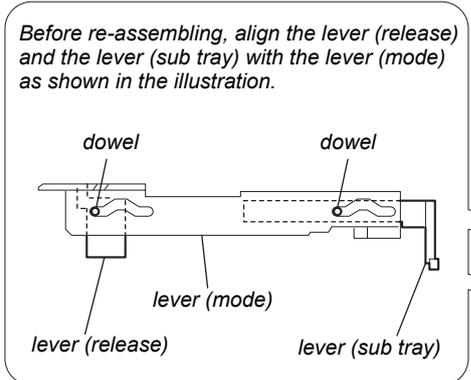


### 3-15. GEAR (SUB TRAY 1)/GEAR (SUB TRAY 2)

#### PRECAUTION DURING GEAR (SUB TRAY 1/2) INSTALLATION

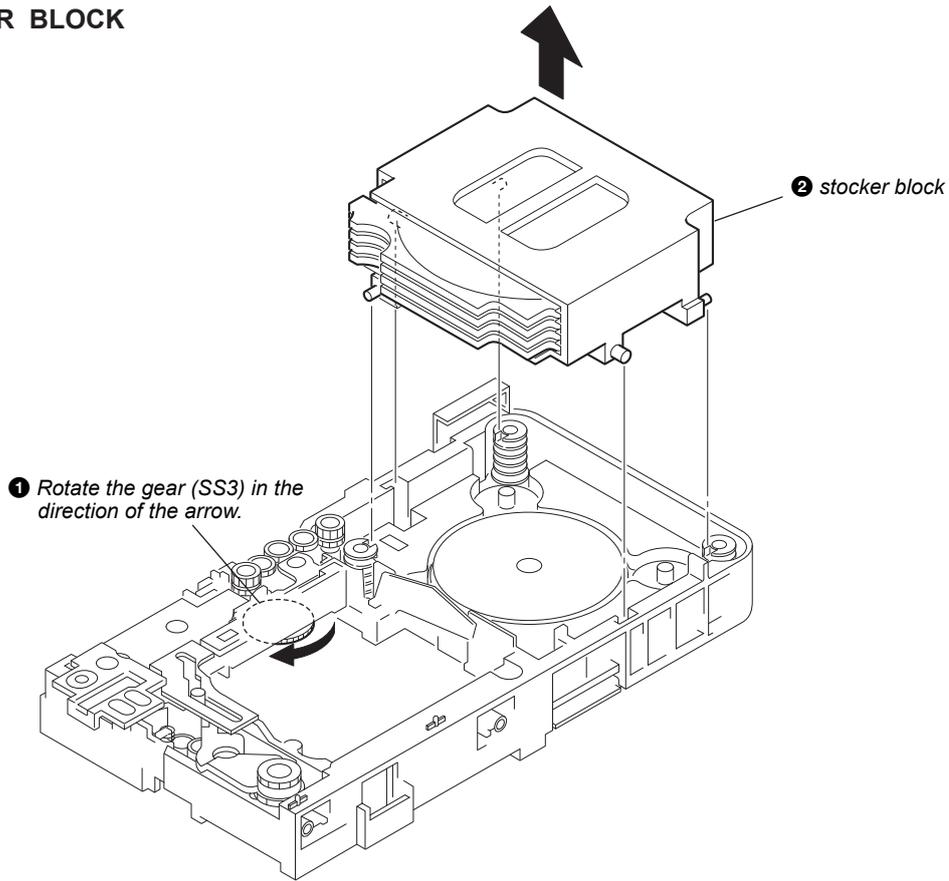


### 3-16. LEVER (MODE)



Before re-assembling, slide the cam (BU) in the direction of the arrow.

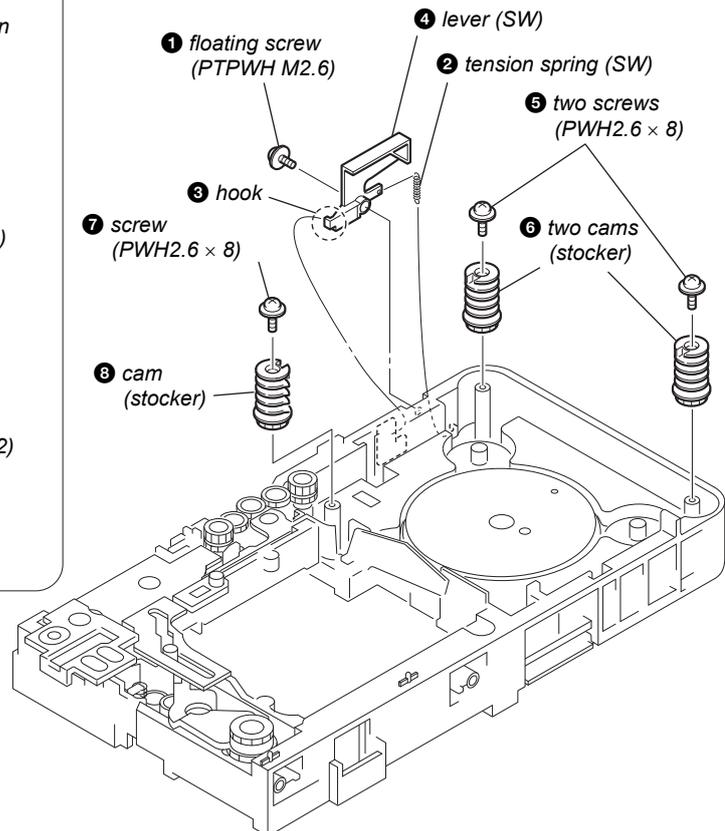
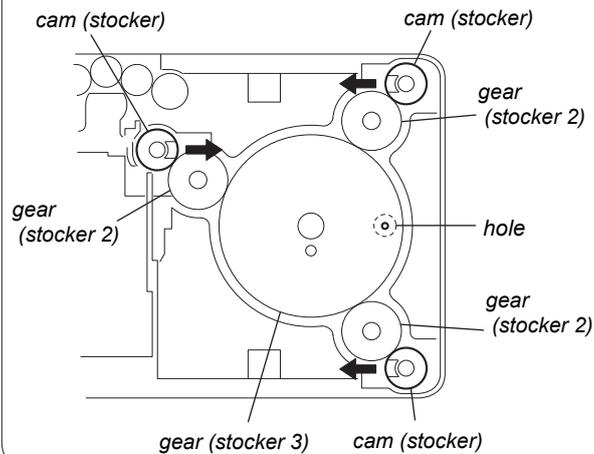
3-17. STOCKER BLOCK



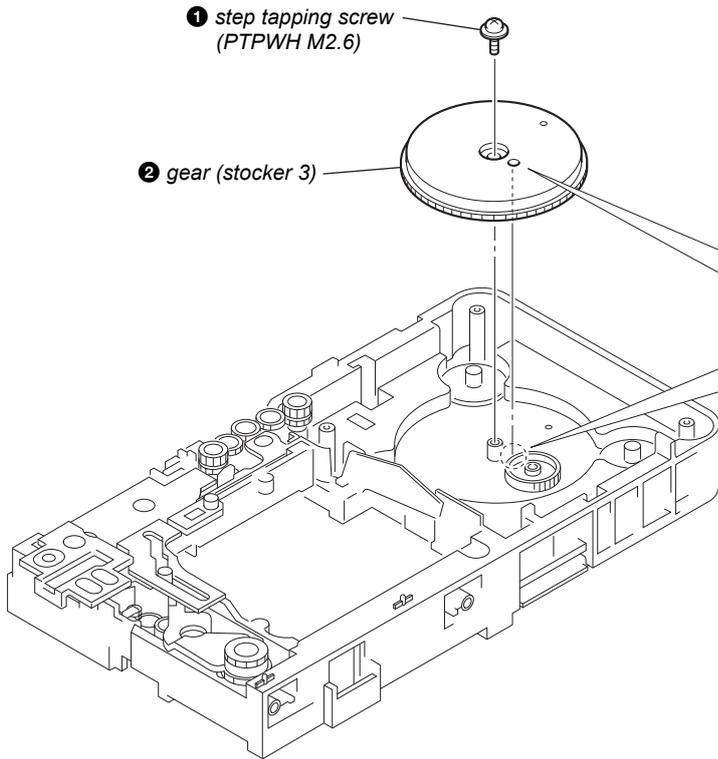
3-18. CAM (STOCKER)

PRECAUTION DURING CAM (STOCKER) INSTALLATION

Before installing the cams (stocker), fix the gear (stocker 3) in the manner so that the hole of the gear (stocker 3) should be aligned with the hole of the chassis located beneath the gear (stocker 3). Be sure to install the cams (stocker) in such a way that the grooves of the cams (stocker) face the direction of the arrows.

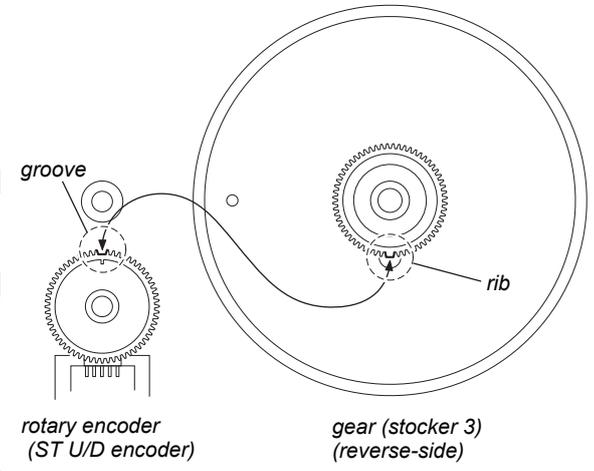


3-19. GEAR (STOCKER 3)



PRECAUTION DURING GEAR (STOCKER 3) INSTALLATION

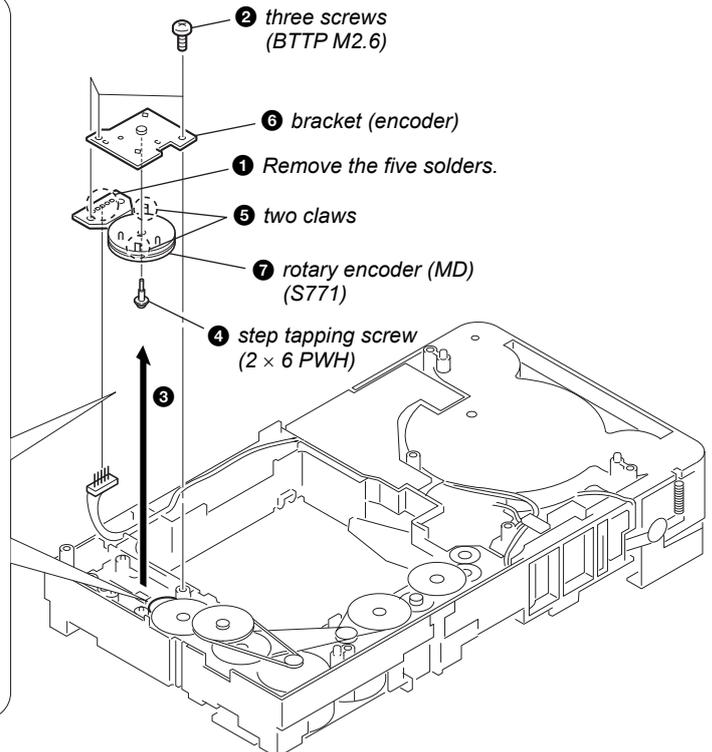
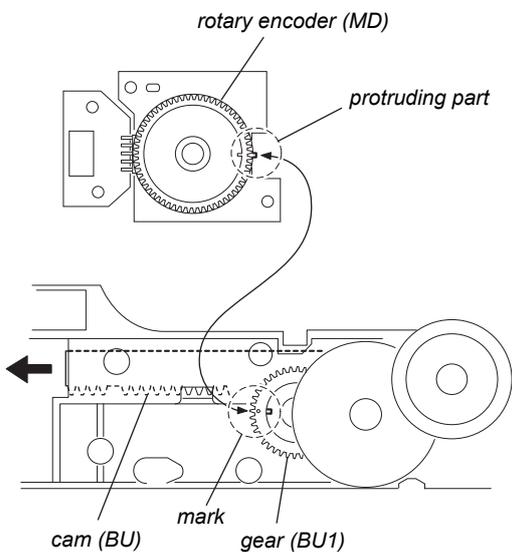
Be sure to align the rib of the gear (stocker 3) with the groove of the rotary encoder.



3-20. ROTARY ENCODER (MD) (S771)

PRECAUTION DURING ROTARY ENCODER (MD) INSTALLATION

Slide the cam (BU) in the direction of the arrow so that the mark of the gear (BU1) can be seen. Engage the gears while aligning the mark of the gear (BU1) with the protruding part of the rotary encoder.



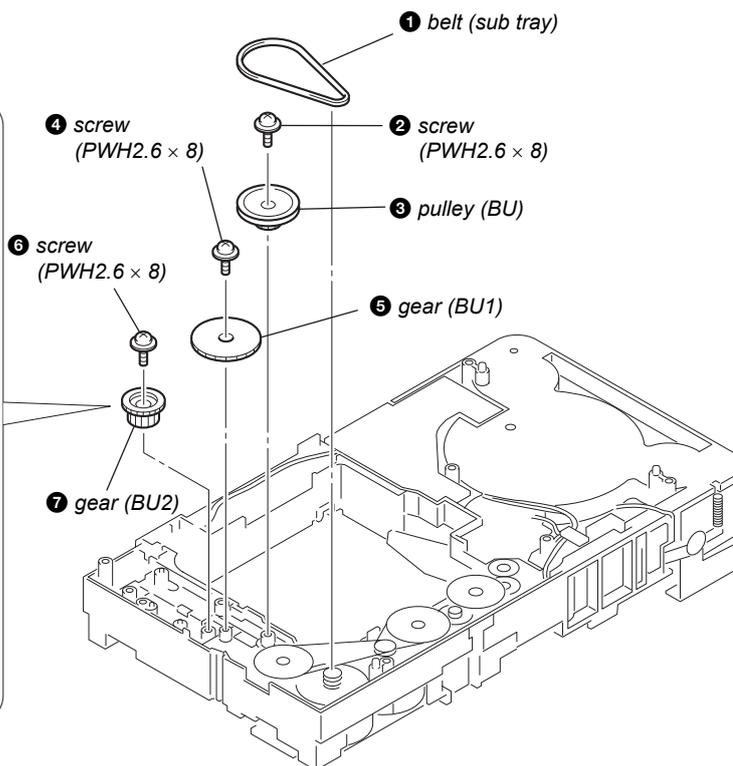
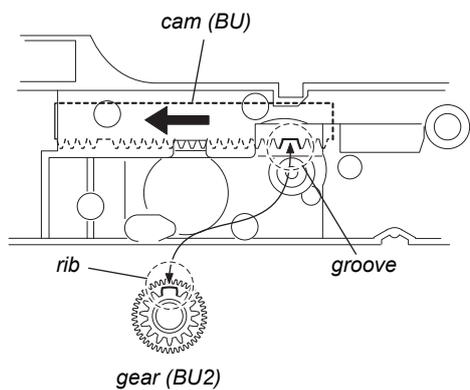
– CD mechanism deck bottom view –

3-21. GEAR (BU1)

**PRECAUTION DURING GEAR (BU2) INSTALLATION**

Before re-assembling, slide the cam (BU) in the direction of the arrow.

Assemble the gear (BU2) in such a manner that the groove of the cam (BU) is aligned with the rib of the gear (BU2).



– CD mechanism deck bottom view –

## SECTION 4

### TEST MODE

**Note:** Incorrect operations may be performed if the test mode is not entered properly. In this case, press the [I/⏻] button to turn the power off, and retry to enter the test mode.

#### COLD RESET

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

##### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons [■], [▶] and [I/⏻] simultaneously.
3. When this button is operated, display as “COLD RESET” for a while and all of the settings are reset.

#### PANEL TEST MODE

This mode is used to check the software version, FL, LED and KEY.

##### 1. Display Test Mode

##### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons [■], [◀◀] and [FUNCTION] simultaneously.
3. When the display test mode is activated, all segments are turned on. When the [■] button is pressed in this state, test pattern 1 is displayed on the fluorescent indicator tube. (The half of the segments on the fluorescent indicator tube are turned on) When the [■] button is pressed again, test pattern 2 is displayed on the fluorescent indicator tube. (Half the segments of the remainder on the fluorescent indicator tube are turned on) When the [■] button is pressed again, all segments are turned on.
4. To exit from this mode, press three buttons [■], [◀◀] and [FUNCTION] simultaneously.

##### 2. Version Test Mode

##### Procedure:

1. When the display test mode is activated, press the [◀◀] button and model name is displayed, the version test mode is activated.
2. Whenever the [◀◀] button is pressed, the display changes in order of model name → destination → MC → model name.

**Note:** Model name/destination is different according to model.

3. Press the [▶▶] button and the date of the software production is displayed.
4. Press the [▶▶] button again and the version is displayed.
5. To exit from this mode, press three buttons [■], [◀◀] and [FUNCTION] simultaneously.

##### 3. Key Test Mode

##### Procedure:

1. When the display test mode is activated, press the [▶] button, to select the key test mode.
2. To enter the KEY test mode, the fluorescent indicator displays “K0 V0”. Each time an another button is pressed, “K” value increases. However, once a button is pressed, it is no longer taken into account. When all keys are pressed correctly, “K12 V0” is displayed.
3. When the [VOLUME] dial is turned in the direction of (+), “V0” is changed to “V1”, then ... “V9”.  
When the [VOLUME] dial is turned in the direction of (-), “V0” is changed to “V9”, then ... “V1”.
4. To exit from this mode, press three buttons [■], [◀◀] and [FUNCTION] simultaneously.

#### DISC TRAY LOCK

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

##### Setting Procedure:

1. Press the [I/⏻] button to turn the set on.
2. Press the [FUNCTION] button to set DVD function.
3. Insert a disc.
4. Press the [■] button and the [▲] button simultaneously for five seconds.
5. The message “LOCKED” is displayed and the tray is locked.

##### Releasing Procedure:

1. Press the [■] button and the [▲] button simultaneously for five seconds again.
2. The message “UNLOCKED” is displayed and the tray is unlocked.

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

#### DVD SHIP MODE

Use this mode when returning the set to the customer after repair.

##### Procedure:

1. Press the [I/⏻] button to turn the set on.
2. Press the [FUNCTION] button to set the function “DVD”.
3. Remove all discs, and then press two buttons [▶] and [I/⏻] simultaneously.
4. After a message “MECHA LOCK” ↔ “UNPLAG” is displayed on the fluorescent indicator tube, pull out the AC plug.
5. To exit from this mode, press the [I/⏻] button to turn the set on.

#### AM STEP CHANGE (Except HDX285: 240V AC area in E and Saudi Arabia models)

A step of AM channels can be changed over between 9 kHz and 10 kHz.

##### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to set the function “TUNER AM”.
3. Press the [I/⏻] button to turn the power off.
4. Press two buttons [▶▶] and [I/⏻] simultaneously, and the display of fluorescent indicator tube changes to “AM 9k STEP” or “AM 10k STEP”, and thus the channel step is changed over.

#### PRODUCT OUT

This mode moves the optical pick-up to the position durable to vibration and clears all data including preset data stored in the RAM to initial conditions. Use this mode when returning the set to the customer after repair.

##### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Enter the DVD service mode referring to “2. ENTERING DVD SERVICE MODE” (page 25).
3. Select “Version information” pressing the [4] button on the remote commander.
4. Press the button on the remote commander in order of [DVD MENU] → [CLEAR].
5. The message “initialize...” is displayed on the fluorescent indicator tube. After a while, the message “Complete” is displayed on the fluorescent indicator tube and the display disappears.
6. The message “MECHA LOCK” ↔ “UNPLAG” is displayed on the fluorescent indicator tube disconnect the AC power plug, then the ship mode is set.

## VERSION DISPLAY

This mode displays the version of the STR/DVD micro controller.

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

## AUTOMATIC ACOUSTIC FIELD CALIBRATION MICROPHONE TEST MODE

### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Insert ECM-AC2 supplied as an accessory into the AUDIO IN/ A.CAL MIC jack.
3. While pressing the [■] and [▲] buttons simultaneously, turn the [VOLUME] dial in the direction of (-).
4. Confirm that the following are shown on the display panel.
  - ① The jack inserted/non-inserted detection display and the STEREO/MONO detection display.
  - ② Presence of DIGITAL voice input to the microcomputer. (OK: input, NG: no input)
  - ③ The value of the MIC input to the micro controller. (shown "255h")

* * *	* *	* * *
①	②	③
① "NON" : Not detected "ST" : STEREO "MN" : MONO	② OK : input NG : no input	③ 0-255 (Changes in real time)

5. To exit this mode, press two buttons [■] and [▲] simultaneously, turn the [VOLUME] dial in the direction of (-).

## DEMO PLAY OUT

It is a mode to release the demonstration reproduct by the dedicated demonstration disc.

### Procedure:

1. During playback the DEMO disc, press the [■] and [▶] buttons for five seconds simultaneously.
2. The message "DEMO OFF" is displayed, a mode to reproduct the demonstration is released.

## AMP TEST MODE

The examination of the AMP measurement safety standard/temperature characteristic modes can be easily executed by executing this mode in a short time.

### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons [■], [▶] and [▲] simultaneously.
3. The message "MEASURE" is displayed on the fluorescent indicator tube and enter the AMP measurement mode.
4. When the [DISPLAY] button on the remote commander is pressed in the state of step 3, the message "SAFETY" is displayed on the fluorescent indicator tube and enter the AMP safety standard/temperature characteristic mode.
5. When the [MUTING] button on the remote commander is pressed in the state of step 3, the message "VOL N" is displayed on the fluorescent indicator tube.
6. When the [MUTING] button on the remote commander is pressed in the state of step 5, the message "VOL M/M" is displayed on the fluorescent indicator tube and enter the volume MIN/MAX mode. In this mode, the message "VOLUME MAX" is displayed on the fluorescent indicator tube when

[VOLUME +] button on the remote commander is pressed, and the message "VOLUME MIN" is displayed on the fluorescent indicator tube when [VOLUME -] button on the remote commander is pressed.

7. To exit from this mode, press the [I/⏻] button. The message "COLD RESET" is displayed on the fluorescent indicator tube for a while and all the settings are reset.

## PROTECTION FACTOR (SD DETECTION/DC DETECTION) IDENTIFICATION TEST MODE

When an error is detected, the florescent indicator tube alternately displays

"PROTECTOR" ↔ "PUSH POWER".

↓ Press the [I/⏻] button.

\* Buttons other than the [I/⏻] button are invalid.

"STANDBY" blinks three times on the florescent indicator tube.

↓

The protection release state (POWER OFF) is established.

(No florescent indicator tube display)

↓ Press the [I/⏻] button twice.

↓

The power to the system turns on, and the normal operation is established. (Restore)

### During the protection state:

1. If the AC plug is connected or disconnected during the protection state, the protection state is released, and the normal operation is established. (The protection state is not maintained)
2. The protection factor is displayed by pressing the button on the remote commander in order of [RETURN] → [3] → [2] → [0] → [0] → [ANGLE] during the protection state. (during the "PROTECTOR" ↔ "PUSH POWER" display)
  - When SD is detected: Repeats "SD DETECT" ↔ "PUSH POWER".
  - When DC is detected: Repeats "DC DETECT" ↔ "PUSH POWER".

### SD detection:

When the "L" output from the SD (shutdown) port on the S-MASTER POWER Driver Shutdown and voltage descent (15V or less) of 30V power supply (PVDD) are detected.

### DC detection:

When the "L" output from the power/speaker error detection circuit (DC detection port) is detected for two seconds continually, the power system other than that of the florescent indicator tube is turned off, and the protection state is established.

## COLOR SYSTEM CHANGE (HDX285: 240V AC area in E and Saudi Arabia models only)

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

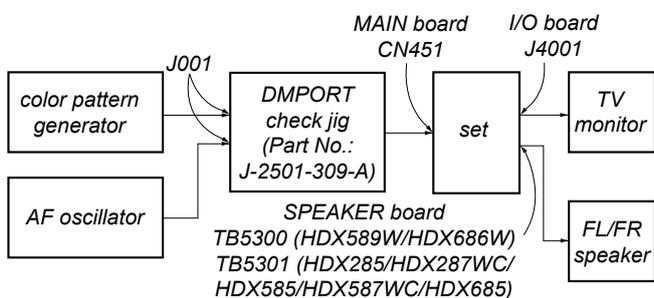
### Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to select the "DVD".
3. Press the [I/⏻] button to turn the power off.
4. Press two buttons [◀◀] and [I/⏻] simultaneously.
5. The message "COLOR PAL" or "COLOR NTSC" will be displayed on the fluorescent indicator tube and color system of the video output is changed.

**DIGITAL MEDIA PORT TEST**

**Procedure:**

1. Connect the DMPORT CHECK JIG (Part No.: J-2501-309-A) with the terminal DMPORT.
2. Press the [I/⏻] button to turn the power on.
3. Confirm that both LEDs of the DMPORT confirmation JIG lights. (Confirmation the power supply line.)
4. Set the [FUNCTION] button with "DMPORT" on this model.
5. Press three buttons [■], [▶] and [FUNCTION] simultaneously, the DMPORT test mode is activated.
6. It is confirmed that "DMPORT OK" is displayed on this set display. (Confirmation of communication line)
7. To a pinjack of the DMPORT confirmation JIG input information relevant to audio signal (sine-wave 1.0Vrms) and composite video signal (white 100% 1.0 Vp-p, color bar, etc.)
8. Confirm the output of speakers and monitor TV. (Confirmation of analog signal)
9. To exit from this mode, press three buttons [■], [▶] and [FUNCTION] simultaneously.



**DVD SECTION**

**1. DVD SERVICE MODE GENERAL DESCRIPTION**

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

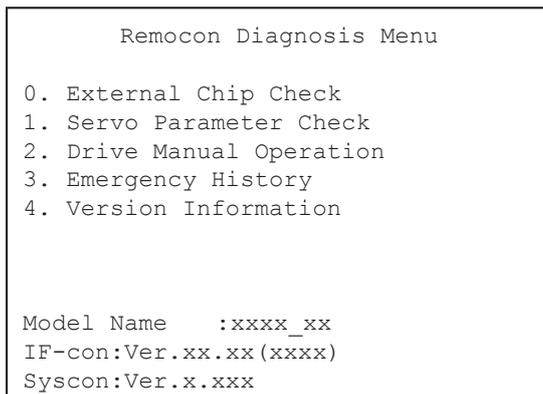
Be sure to execute the IOP measurement when a base unit is replaced.

**Note:** In this mode, disregard it because it doesn't use them in the servicing though the message such as "2A0" might be displayed on the fluorescent indicator tube.

**2. ENTERING DVD SERVICE MODE**

**Procedure:**

1. Press the [I/⏻] button to turn on the system.
2. Press the [FUNCTION] button repeatedly to select the "DVD".
3. While pressing the [■] and [▲] buttons simultaneously, turn [VOLUME] dial in the direction of (+) with the DVD player in power on.
4. The message "SERVICE IN" appears on the fluorescent indicator tube and top menu of the Remocon Diagnosis Menu appears on the on-screen display on the TV screen as follows. The model name, IF-con version and Syscon version are displayed at the bottom of the on-screen display.



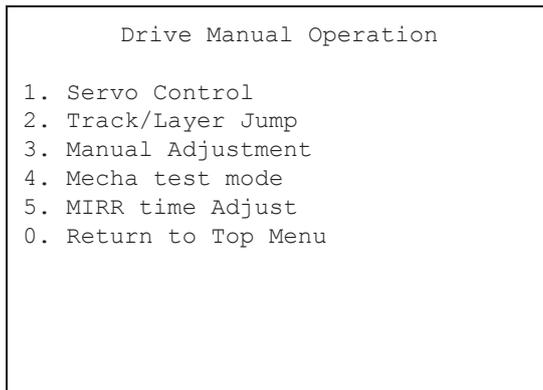
5. To execute each function, press its number by using numeric button on the remote commander.
6. To release from this mode, press the [I/⏻] button to turn off the system.

**3. EXECUTING IOP MEASUREMENT**

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

**Procedure:**

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



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

```

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

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

```

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

- Convert data from hexadecimal to decimal by using conversion table.
- If the value is smaller than 93 (decimal), then it is OK. However if the value is higher than 93, then BU (base unit) is defective and need to be change.
- Press the [↶] RETURN button on the remote commander to return to previous menu.
- Press the [0] button on the remote commander to return to the top menu of Remocon Diagnosis Menu.
- Press the [I/⏻] button to turn off the system.

#### 4. CHECKING EMERGENCY HISTORY

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

##### Procedure:

- From the top menu of Remocon Diagnosis Menu, select "3. Emergency History" by pressing the [3] button on the remote commander. The following screen appears on the on-screen display.

```

Emg. History Check
Laser Hours      CD   999h  59min
                  DVD   999h  59min

01. 01 05 04 04      00 92 46 00
    00 00 00 00      00 00 23 45

02. 02 02 01 01      00 A9 4B 00
    00 00 00 00      00 00 23 45

[Next]Next page [Prev]Prev page
[0]Return to Top Menu
    
```

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

##### A. Error code

```

Example of Error code

01. 01 05 04 04      00 92 46 00
    00 00 00 00      00 00 23 45
    
```

##### The meaning of error code is as below:

- 01: Communication error (No reply from syscon)
- 02: Syscon hung up
- 03: Power OFF request when syscon hung up
- 19: Thermal shutdown
- 24: MoveSledHome error
- 25: Mechanical move error (5 changer)
- 26: Mechanical move stack error
- 30: DC motor adjustment error
- 31: DPD offset adjustment error
- 32: TE balance adjustment error
- 33: TE sensor adjustment error
- 34: TE loop gain adjustment error
- 35: FE loop gain adjustment error
- 36: Bad jitter after adjustment
- 40: Focus NG
- 42: Focus layer jump NG
- 51: Spindle stop error
- 52: Open kick spindle error
- 60: Focus on error
- 61: Seek fail error
- 62: Read Q data/ID error
- 70: Lead in data read fail
- 71: TOC read time out (CD)
- 80: Can't buffering
- 81: Unknown media type

SECTION 5  
ELECTRICAL ADJUSTMENTS

**B. Parameter of error code**

This is the detail of error code.

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

**C. Time of error code**

This is the laser time when an error occurred.

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

**To Clear the Laser Hour**

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

Emg. History Check			
Laser Hours	CD	0h	0min
	DVD	0h	0min
01.	01	05 04 04	00 92 46 00
		00 00 00 00	00 00 23 45
02.	02	02 01 01	00 A9 4B 00
		00 00 00 00	00 00 23 45

[Next]Next page [Prev]Prev page  
[0]Return to Top Menu

**To Clear the Emergency History**

Press the [DVD TOP MENU] button on the remote commander and then press the [CLEAR] button on the remote commander. The error code for all emergency history would be reset.

Emg. History Check			
Laser Hours	CD	999h	59min
	DVD	999h	59min
01.	00	00 00 00	00 00 00 00
		00 00 00 00	00 00 00 00
02.	00	00 00 00	00 00 00 00
		00 00 00 00	00 00 00 00

[Next]Next page [Prev]Prev page  
[0]Return to Top Menu

**To Execute the Initialize Setup Data**

**Procedure:**

1. Press the [DVD MENU] button on the remote commander and then press the [CLEAR] button on the remote commander. The following screen appears on the on-screen display.

Emg. History Check			
Laser Hours	CD	999h	59min
	DVD	999h	59min
Initialize setup data...			

[Next]Next page [Prev]Prev page  
[0]Return to Top Menu

2. The screen after a while returns to former display.

To Return to the Top Menu of Remocon Diagnosis Menu  
Press the [0] button on the remote commander.

**5. CHECKING VERSION INFORMATION**

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

**Procedure:**

1. From the top menu of Remocon Diagnosis Menu, select "4. Version Information" by pressing the [4] button on the remote commander. The following screen appears on the on-screen display.

Version information
Firm(Main): Ver. X.XXXX
Firm(Sub): XX.XX
RISC: XXXXXX
8032: XXXXXX
Audio DSP: XX.XX.XX.XX
Servo DSP: XX.XX.XX.XX
Phy. Adr.: X.X.X
[0]Return to Top Menu

2. To return to the top menu of Remocon Diagnosis Menu, press the [0] on the remote commander.

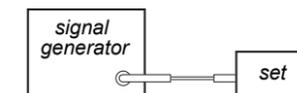
**DVD SECTION**

When the base unit is replaced, perform the adjustment and the measurement as shown below in this order.

EXECUTING IOP MEASUREMENT (See page 25)

**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)

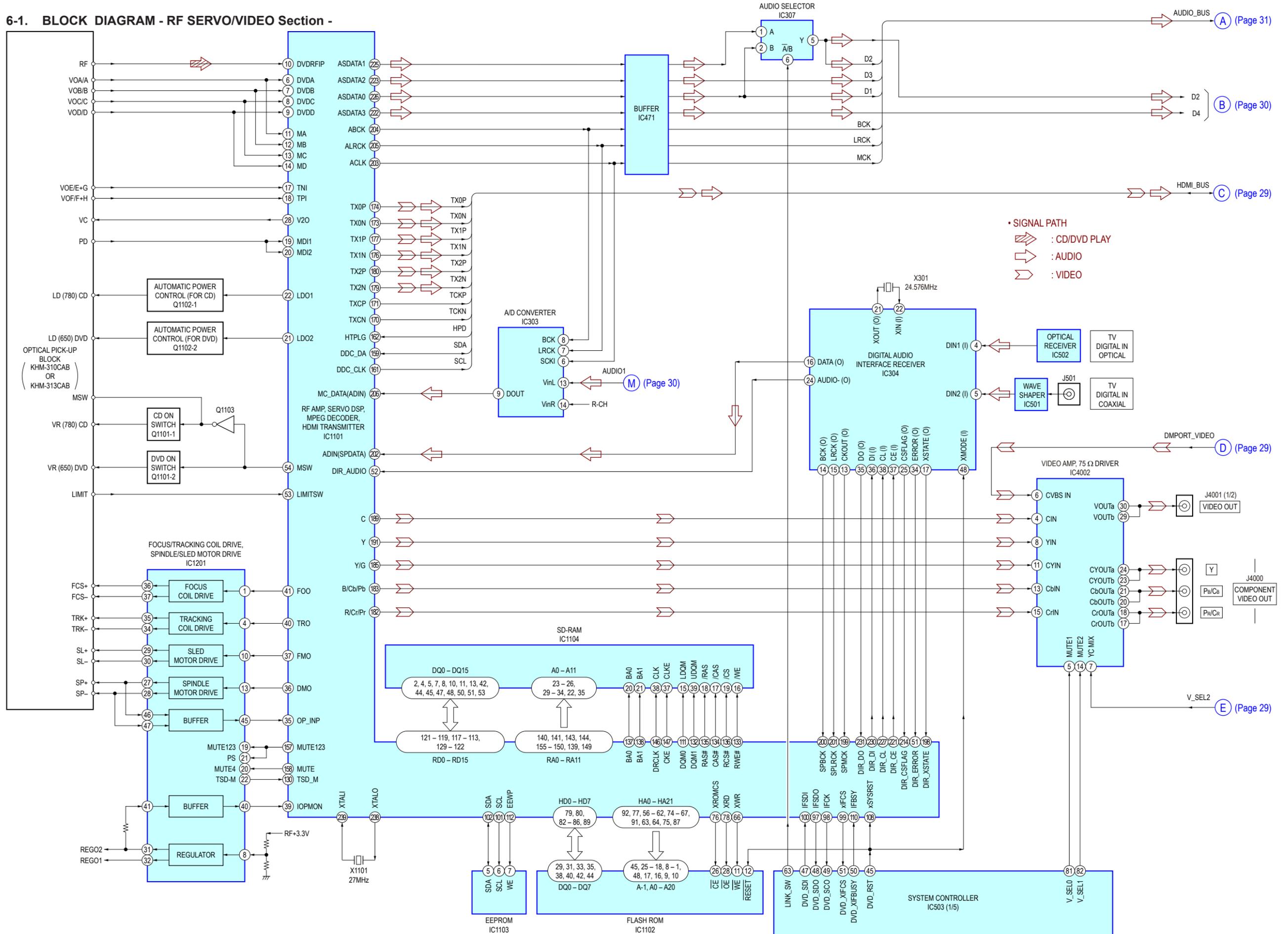
**Note:** Use 75 ohm coaxial cable to connect signal generator and the set.  
You cannot use video cable for checking.  
Use signal generator whose output impedance is 75 ohm.

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.

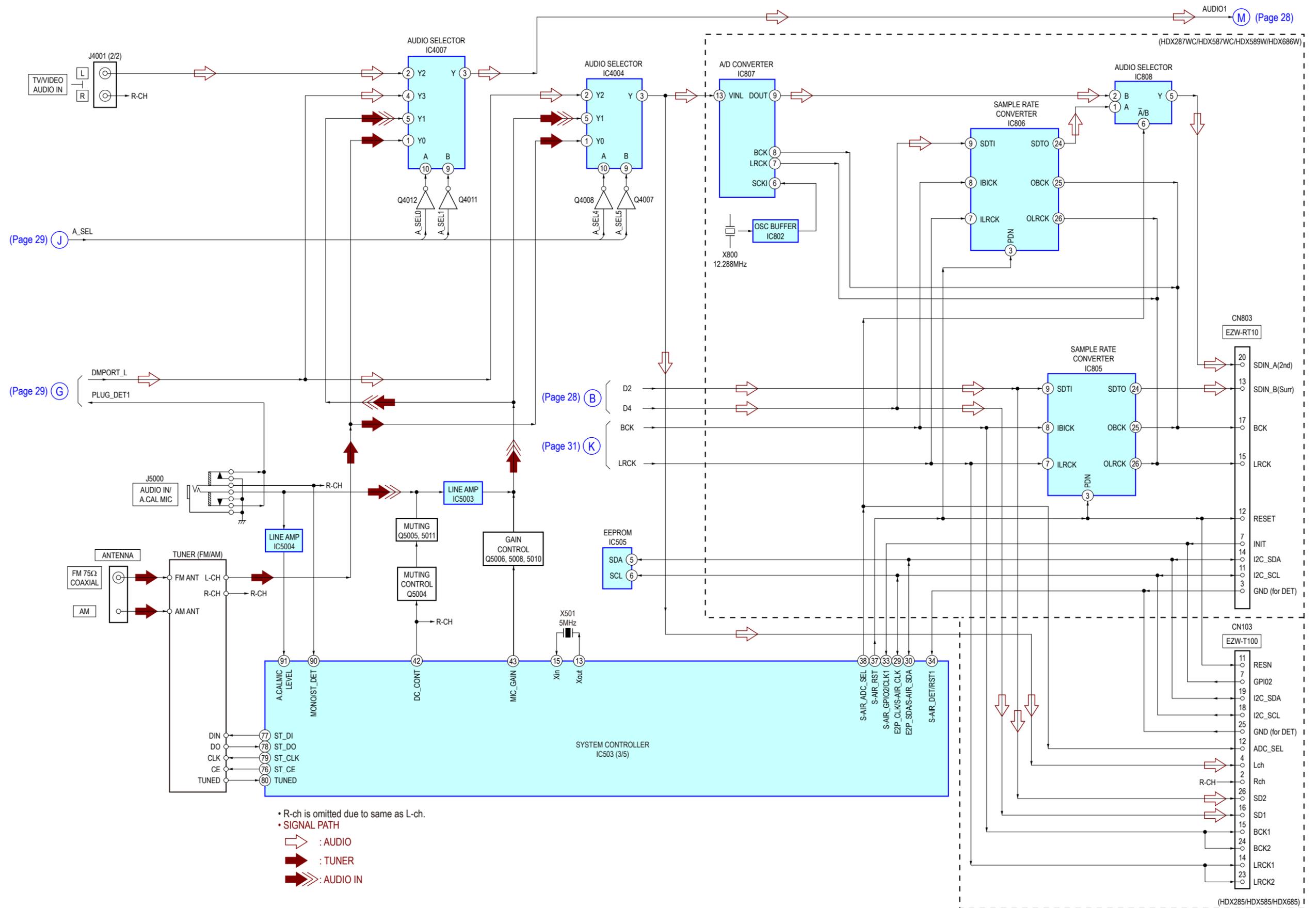
SECTION 6  
DIAGRAMS

6-1. BLOCK DIAGRAM - RF SERVO/VIDEO Section -

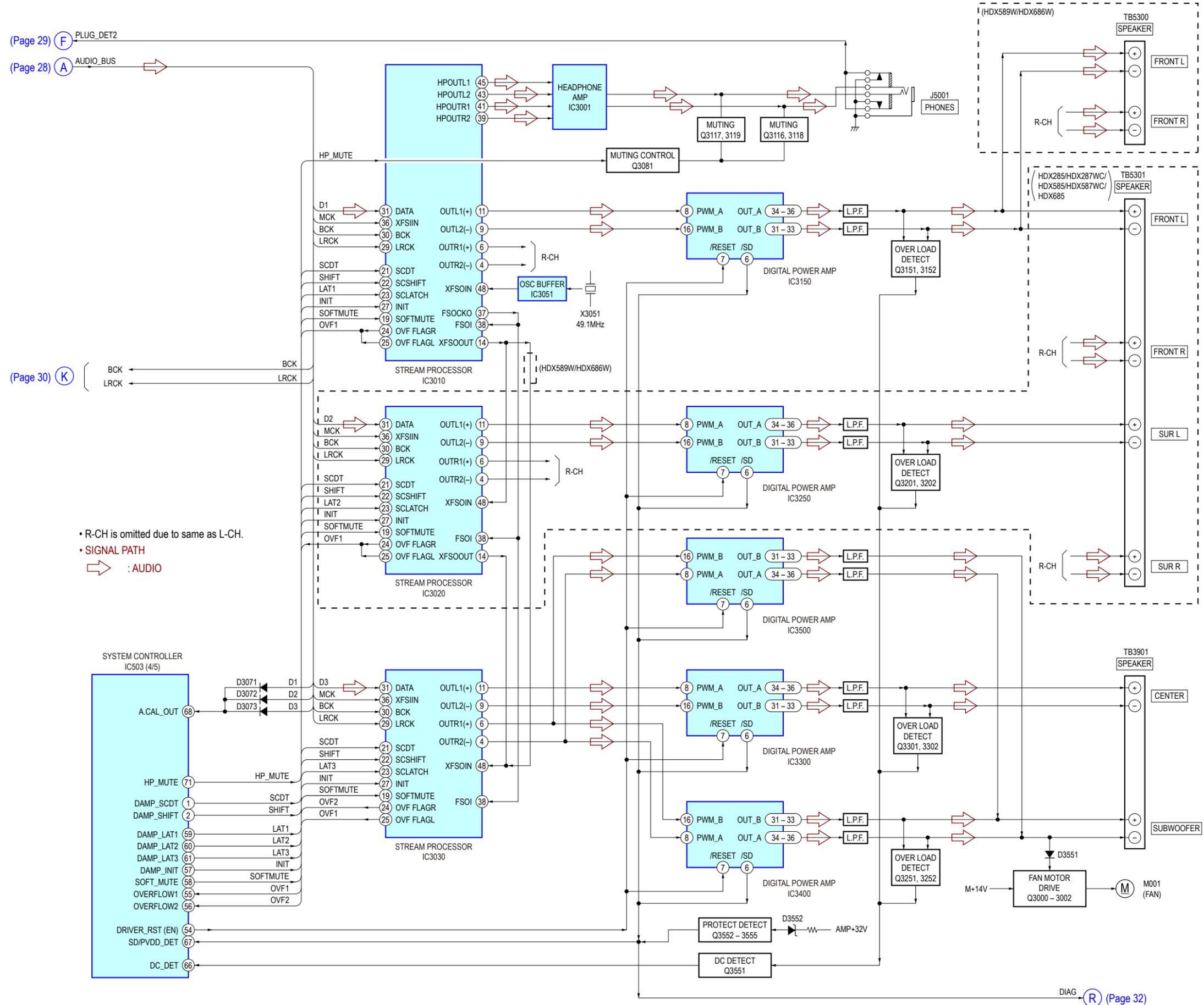




6-3. BLOCK DIAGRAM - TUNER/S-AIR Section -

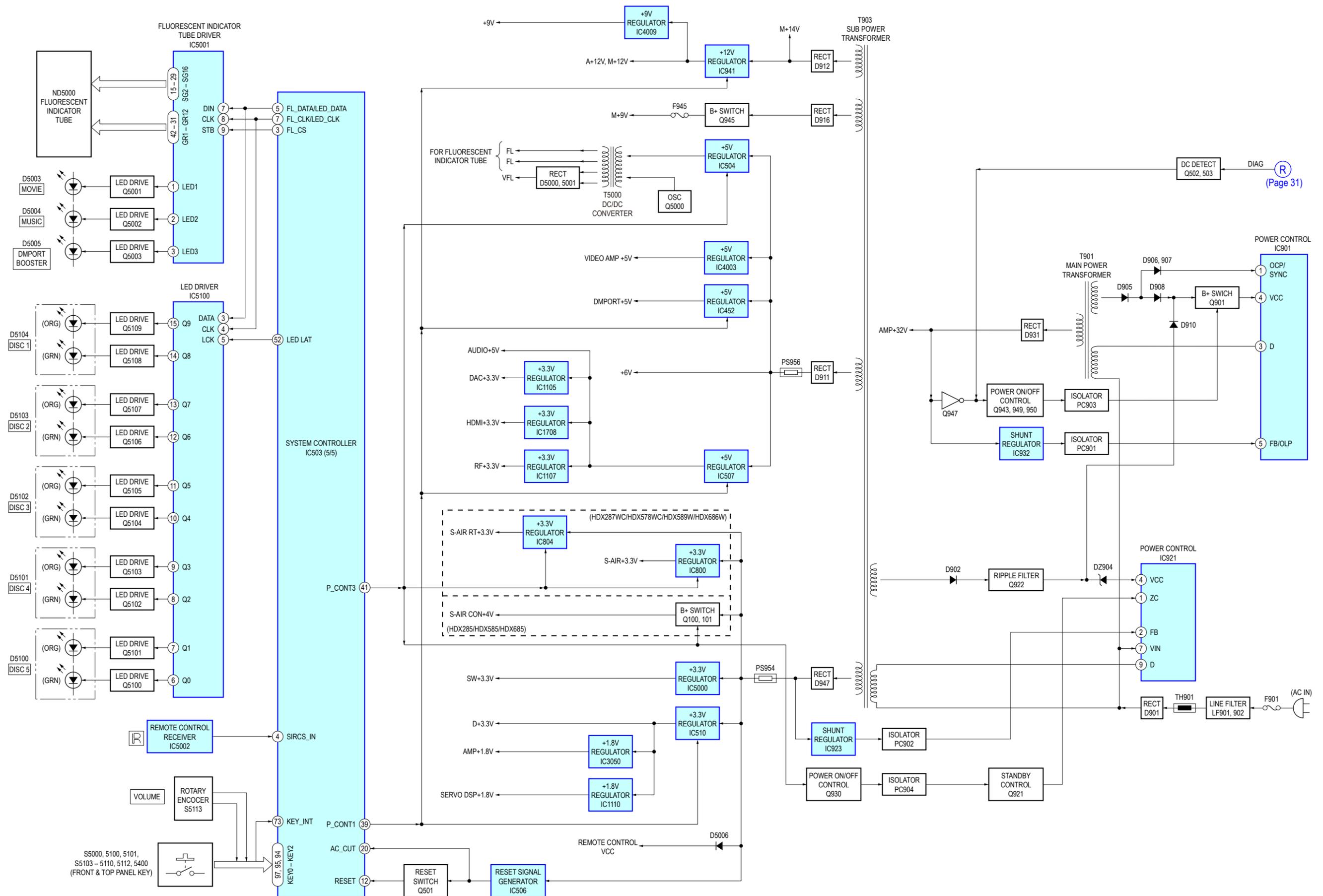


6-4. BLOCK DIAGRAM - AMP Section -



• R-CH is omitted due to same as L-CH.  
 • SIGNAL PATH  
 : AUDIO

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



(Page 31)

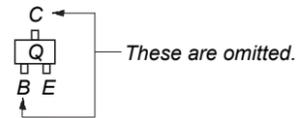
**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.**  
**(In addition to this, the necessary note is printed in each block.)**

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

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



- Abbreviation  
 CND : Canadian model  
 E3 : 240V AC area in E model  
 EA : Saudi Arabia model

**For Schematic Diagrams.**

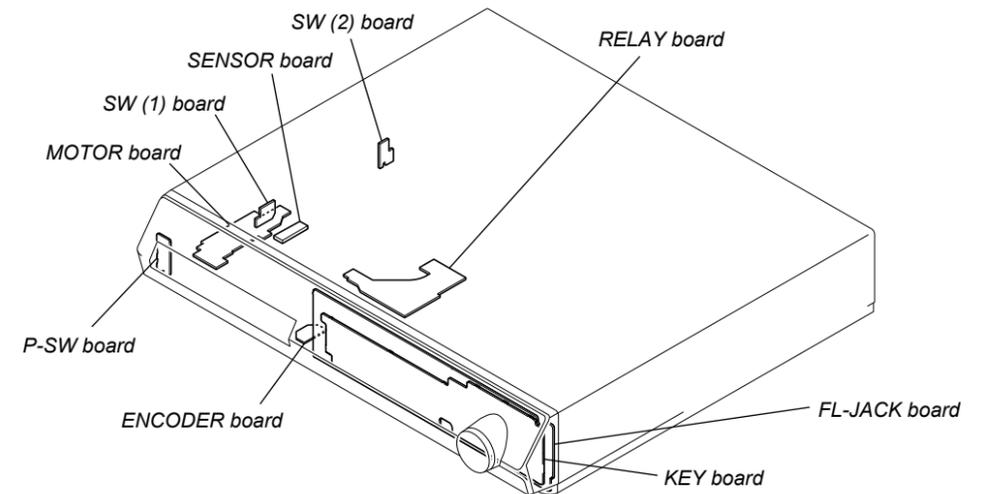
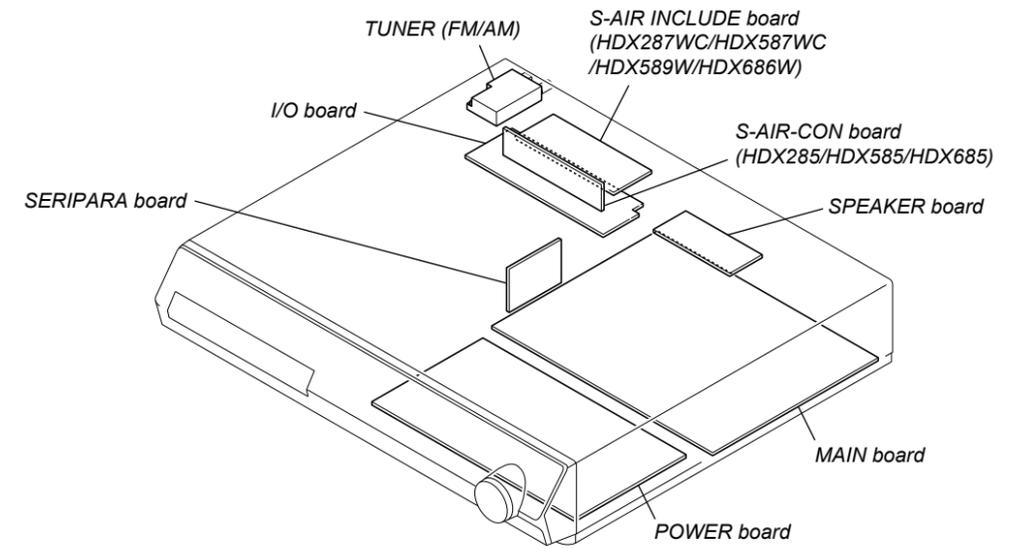
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and 1/4 W or less unless otherwise specified.
  - △: internal component.
  - ⊞: nonflammable resistor.
  - ⊞: fusible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

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

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

- : B+ Line.
- - -: B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.  
 no mark: TUNER  
 [ ]: DVD PLAY  
 \*: Impossible to measure
- 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.  
 ⇨: AUDIO  
 ⇨: CD/DVD PLAY  
 ⇨: TUNER  
 ⇨: AUDIO IN  
 ⇨: VIDEO
- Abbreviation  
 CND : Canadian model  
 E3 : 240V AC area in E model  
 EA : Saudi Arabia model

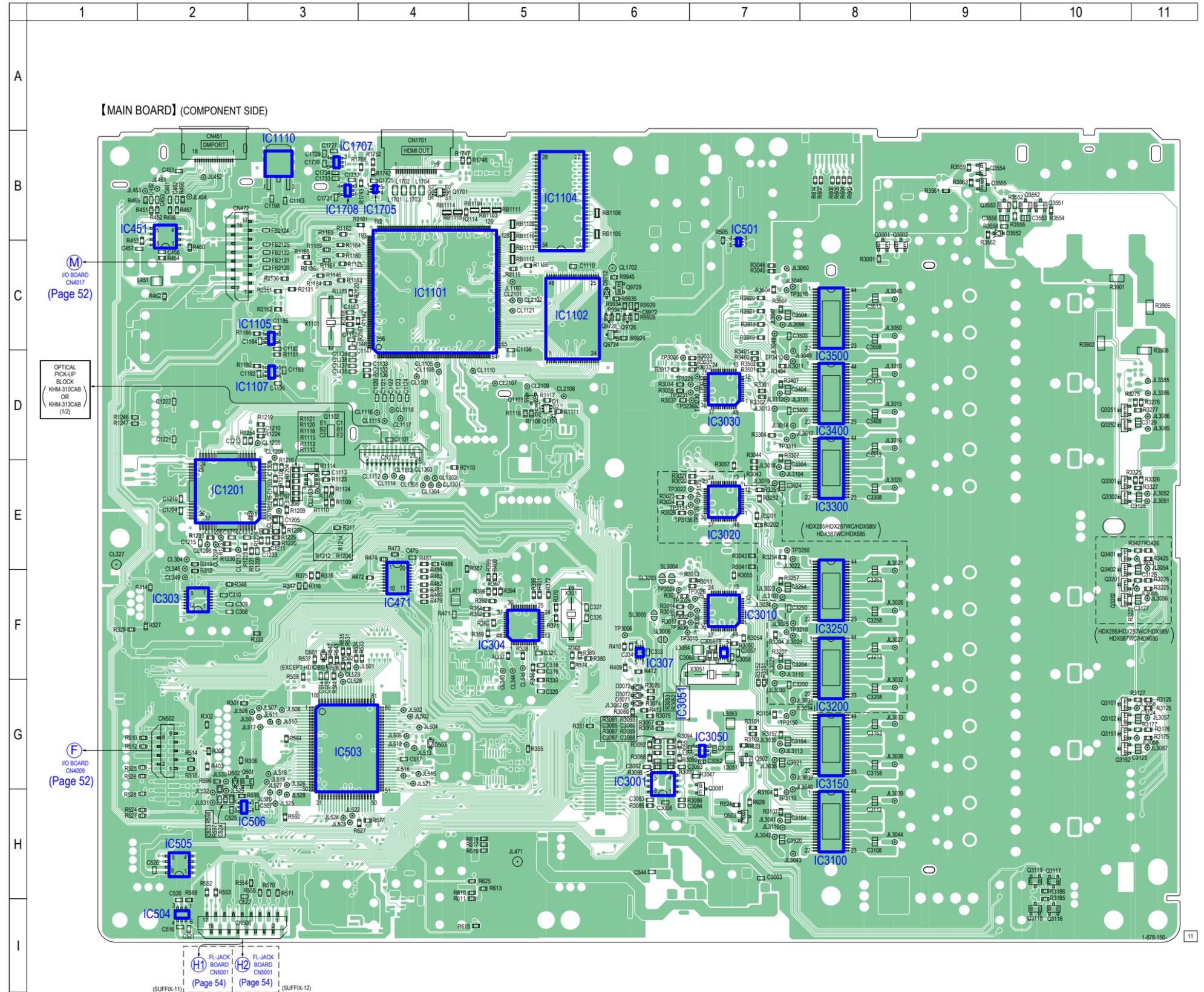
• Circuit Boards Location



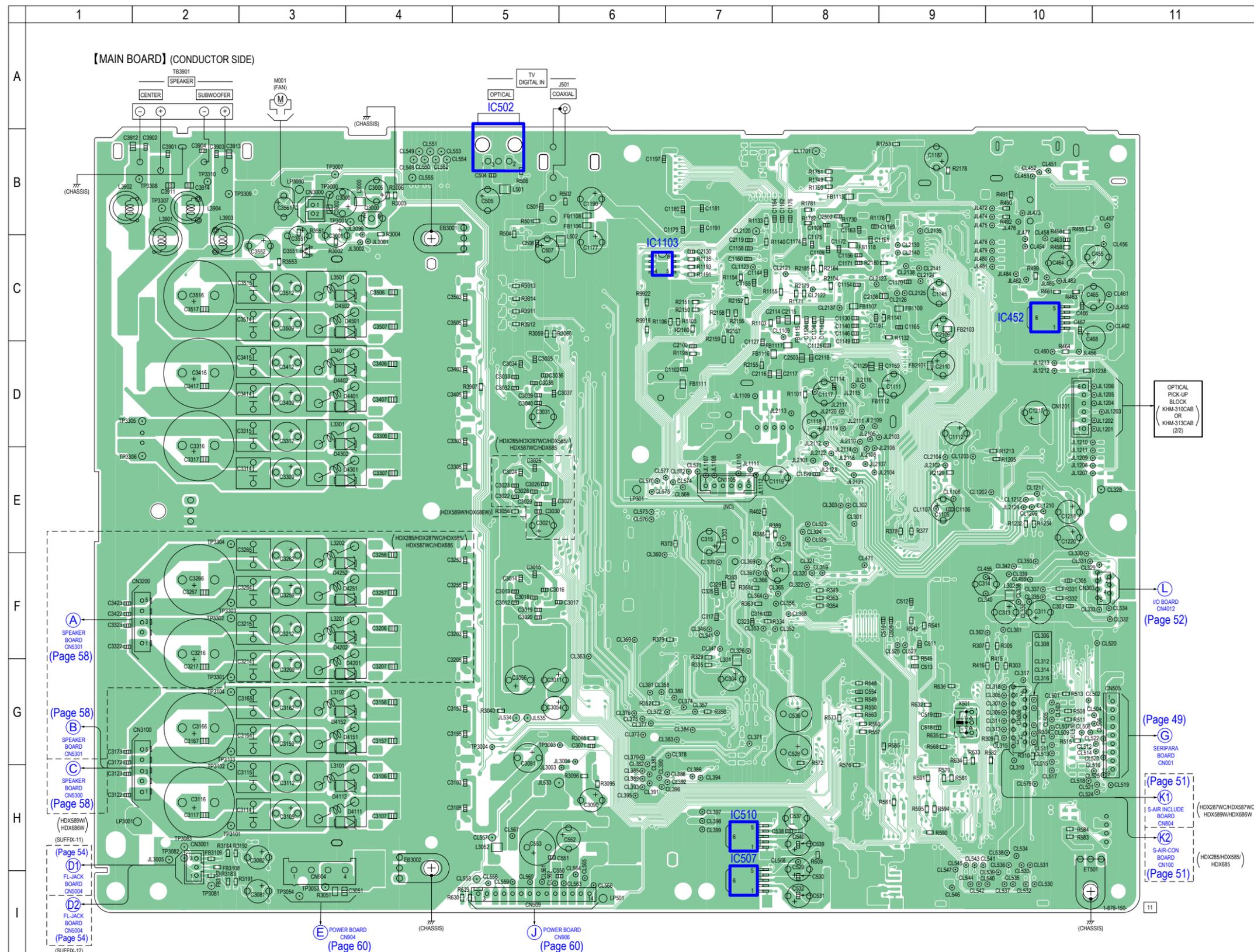
6-6. PRINTED WIRING BOARD - MAIN Board (Component Side) - See page 33 for Circuit Boards Location. •  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D501	F-3	IC3300	E-8
D502	G-2	IC3400	D-8
D503	G-4	IC3500	C-8
D3071	G-6		
D3072	G-6	Q501	G-3
D3073	G-6	Q502	G-7
D3552	B-9	Q503	H-7
D9712	C-6	Q1101	D-5
		Q1102	E-3
		Q1103	D-5
IC303	F-2	Q1701	B-4
IC304	F-5	Q3001	C-8
IC307	F-6	Q3002	C-8
IC451	B-1	Q3081	H-7
IC471	F-4	Q3101	G-10
IC501	C-7	Q3102	G-10
IC503	G-3	Q3116	I-10
IC504	I-2	Q3117	H-10
IC505	H-2	Q3118	I-10
IC506	H-2	Q3119	H-10
IC1101	C-4	Q3151	G-10
IC1102	C-5	Q3152	G-10
IC1104	B-5	Q3201	F-10
IC1105	C-3	Q3202	F-10
IC1107	D-3	Q3251	D-10
IC1110	B-3	Q3252	D-10
IC1201	E-2	Q3301	E-10
IC1705	B-4	Q3302	E-10
IC1707	B-3	Q3401	E-10
IC1708	B-3	Q3402	F-10
IC3001	G-6	Q3551	B-10
IC3010	F-7	Q3552	B-10
IC3020	E-7	Q3553	B-9
IC3030	D-7	Q3554	B-9
IC3050	G-7	Q9724	C-6
IC3051	F-7	Q9725	C-6
IC3100	H-8	Q9726	C-6
IC3150	G-8	Q9727	C-6
IC3200	F-8	Q9728	C-6
IC3250	F-8	Q9729	C-6



6-7. PRINTED WIRING BOARD - MAIN Board (Conductor Side) - • See page 33 for Circuit Boards Location. • **LF** : Uses unleaded solder.

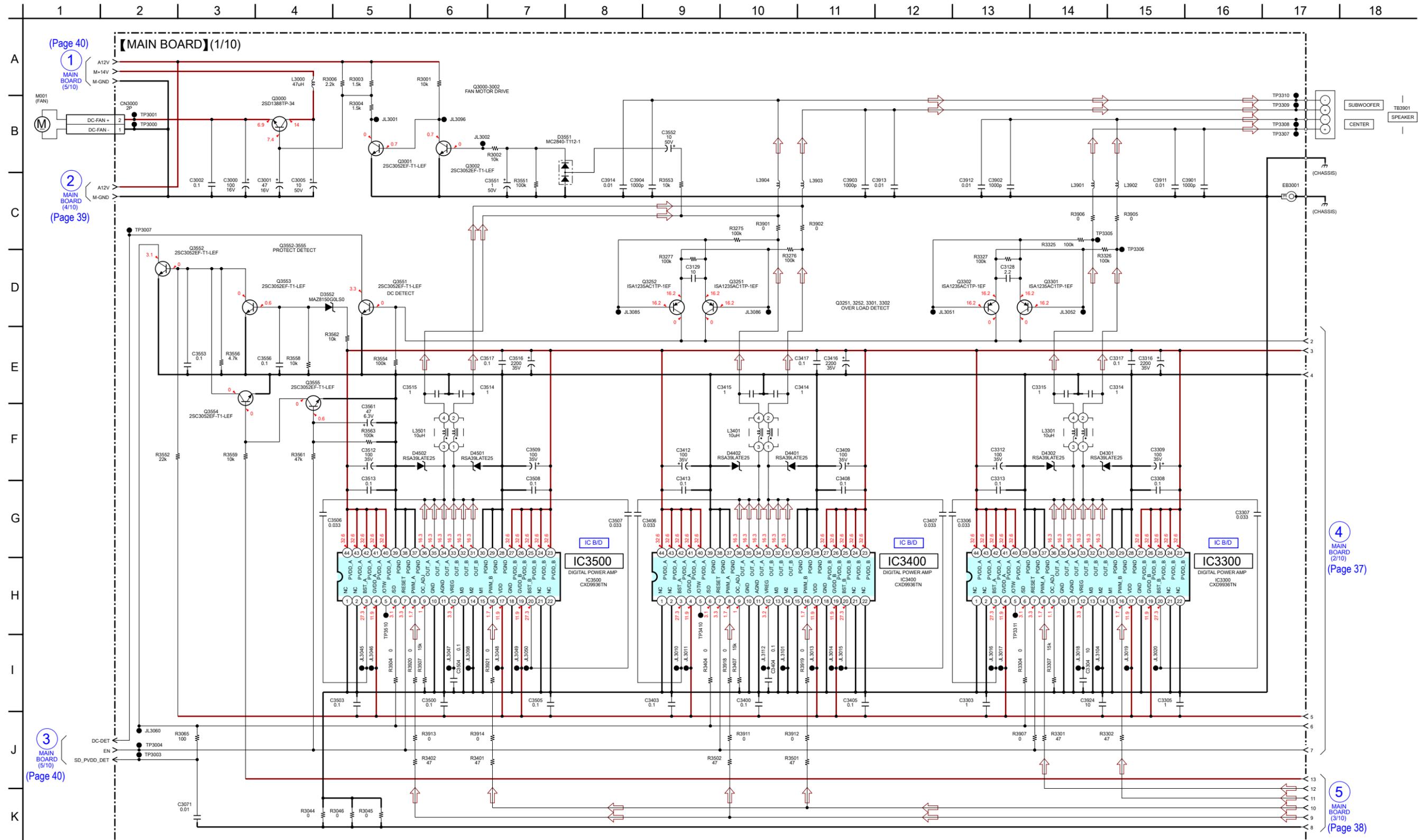


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D3551	C-3	D4402	D-4
D4111	H-4	D4501	C-4
D4112	H-4	D4502	C-4
D4151	G-4		
D4152	G-4	IC452	C-10
D4201	G-4	IC502	B-5
D4202	F-4	IC507	I-7
D4251	F-4	IC510	H-7
D4252	F-4	IC1103	C-6
D4301	E-4		
D4302	E-4	Q3000	B-4
D4401	D-4		

Note: IC1103 cannot exchange with single. When this part is damaged, exchange the entire mounted board.

6-8. SCHEMATIC DIAGRAM - MAIN Board (1/10) - • See page 62 for IC Block Diagrams.

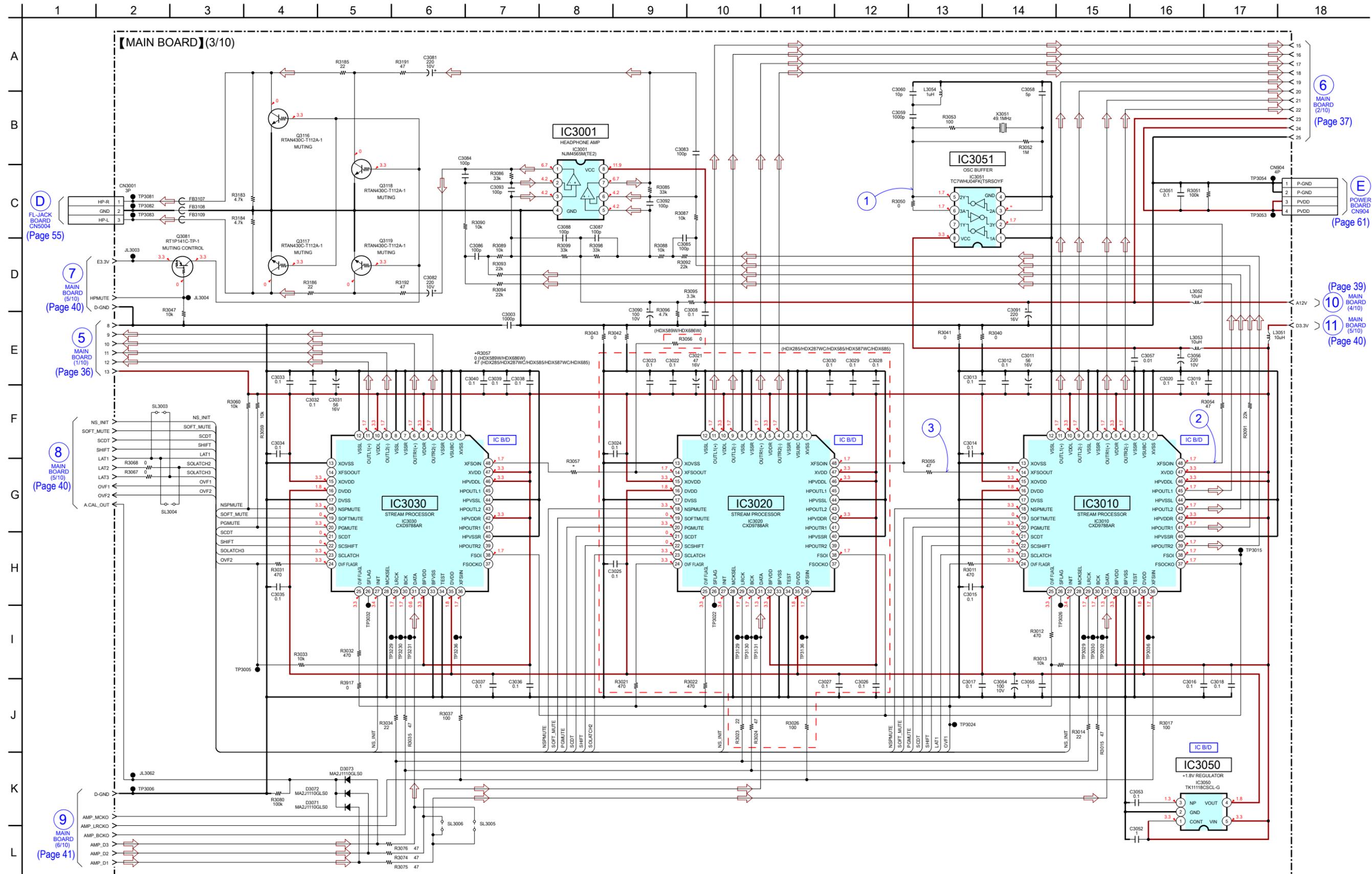


4 MAIN BOARD (2/10) (Page 37)

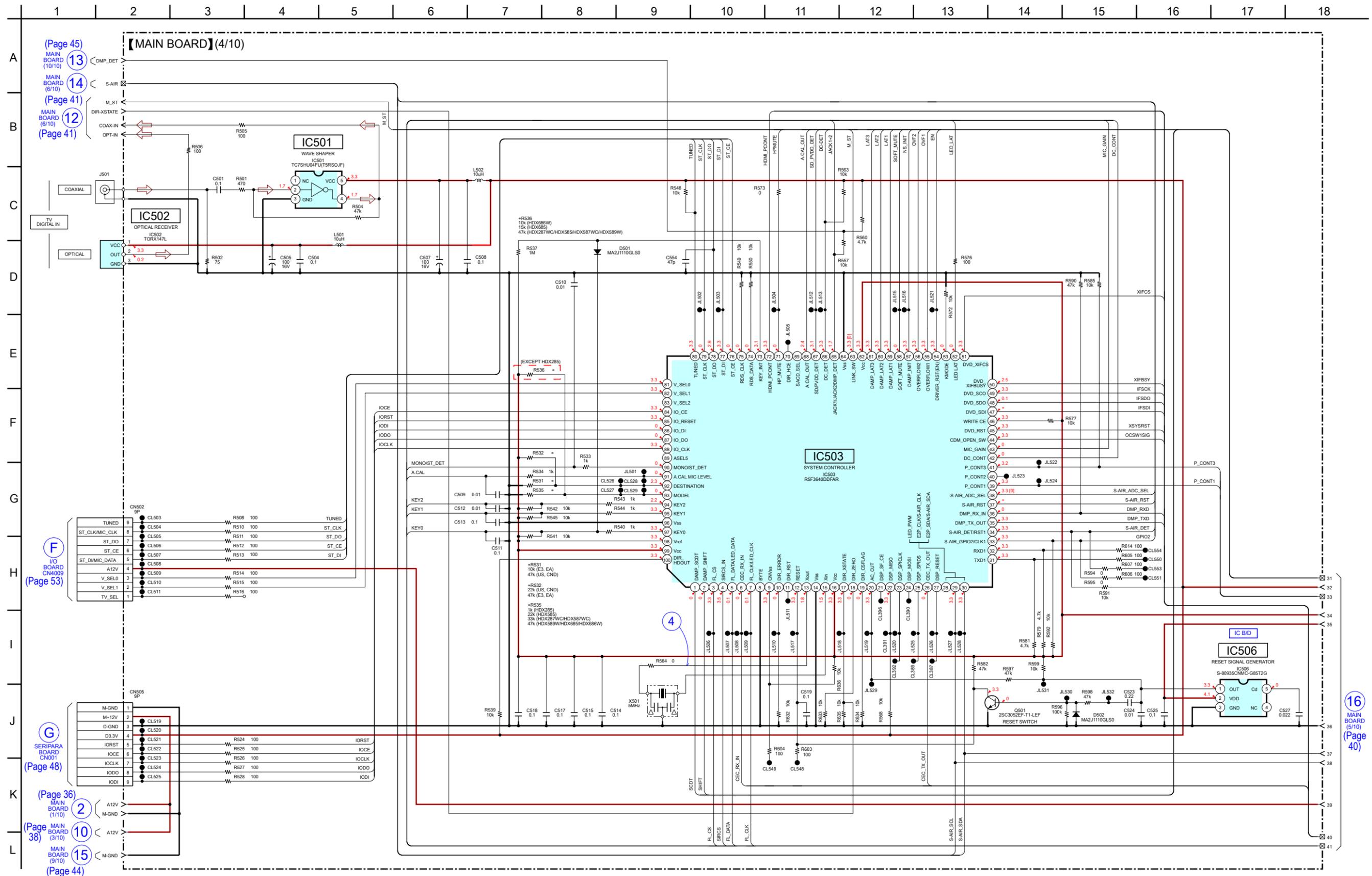
5 MAIN BOARD (3/10) (Page 38)



6-10. SCHEMATIC DIAGRAM - MAIN Board (3/10) - • See page 59 for Waveforms. • See page 62 for IC Block Diagrams.



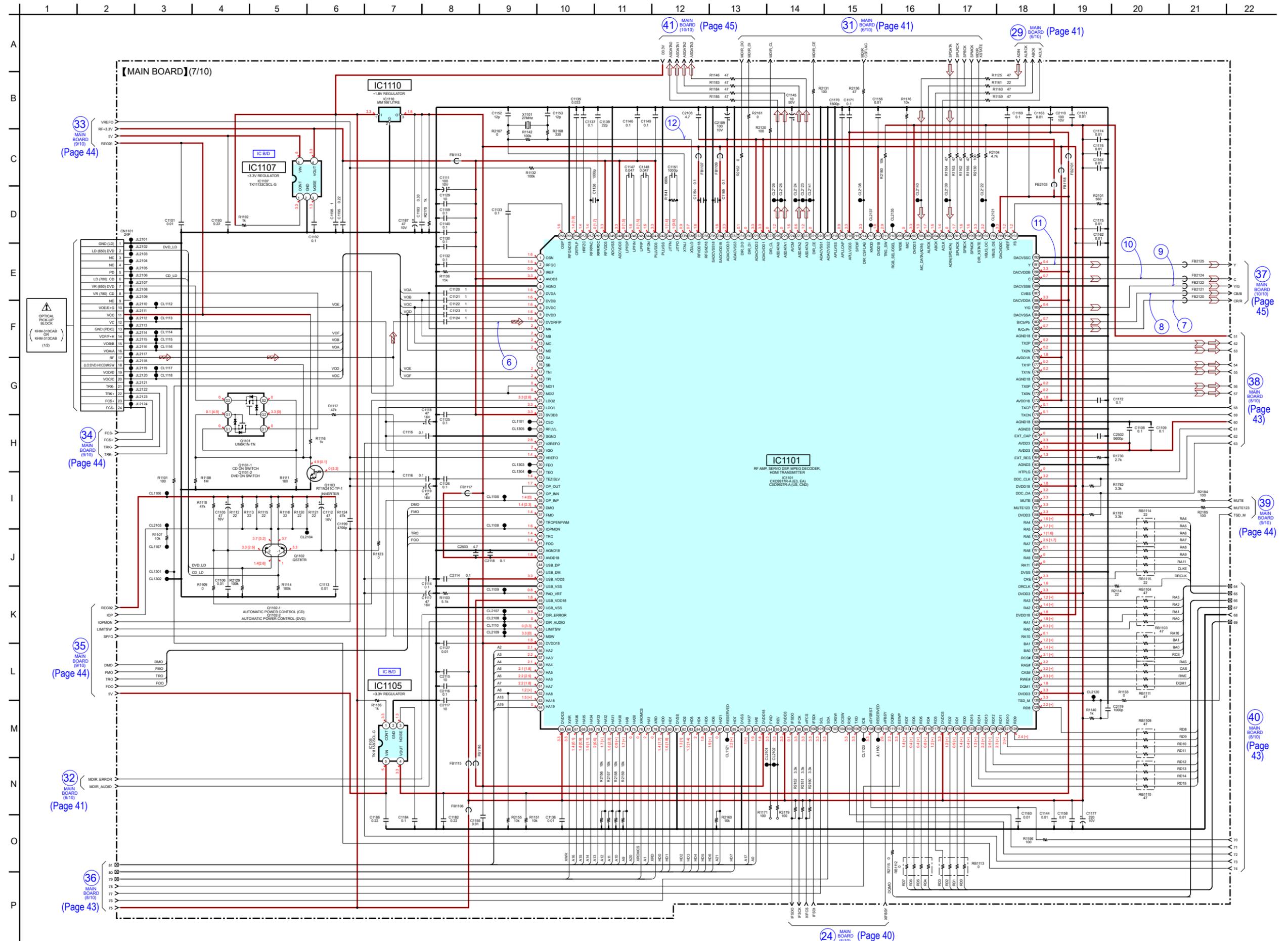
6-11. SCHEMATIC DIAGRAM - MAIN Board (4/10) - • See page 59 for Waveforms. • See page 62 for IC Block Diagrams. • See page 70 for IC Pin Function Description.





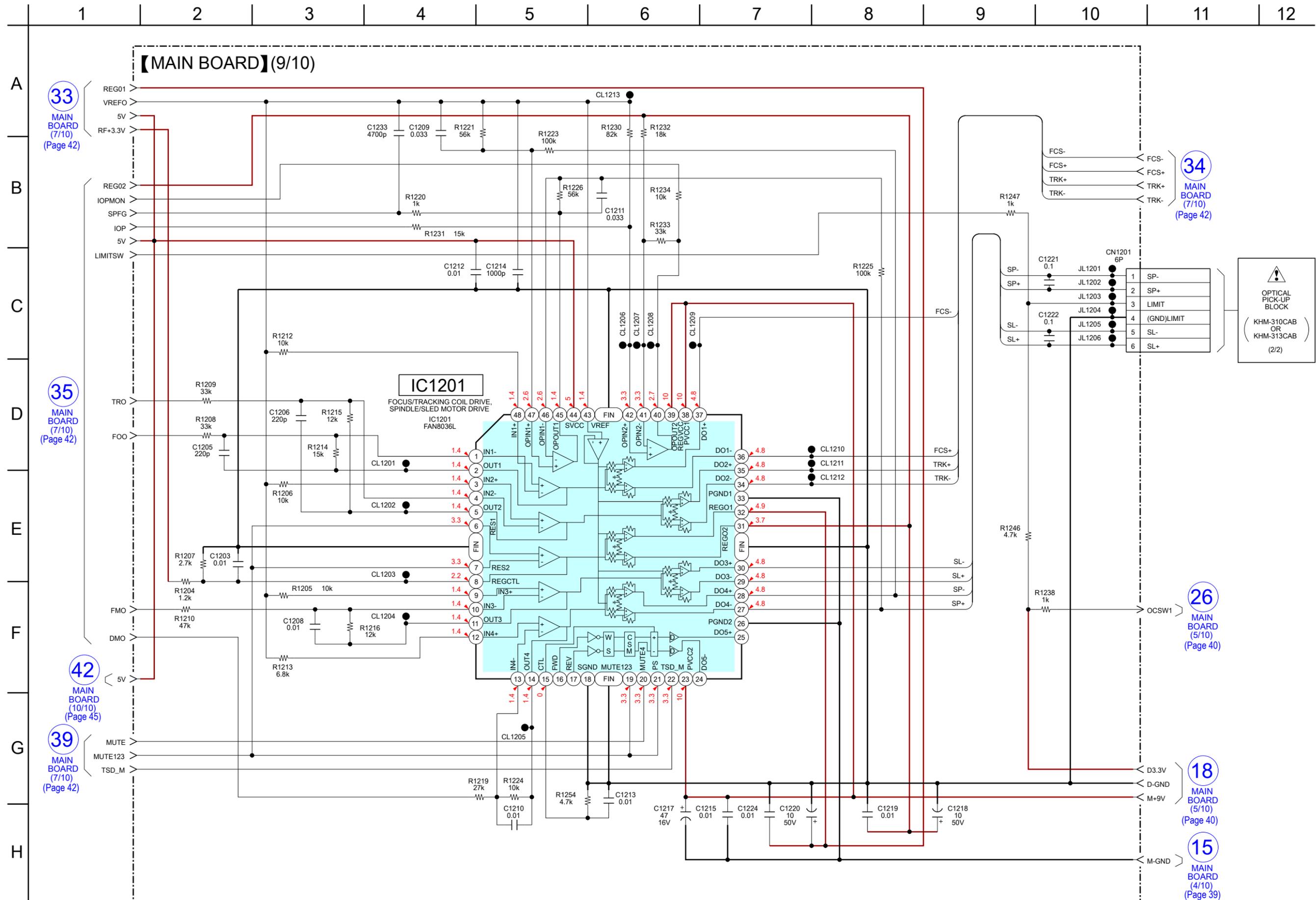


6-14. SCHEMATIC DIAGRAM - MAIN Board (7/10) - • See page 59 for Waveforms. • See page 62 for IC Block Diagrams. • See page 70 for IC Pin Function Description.

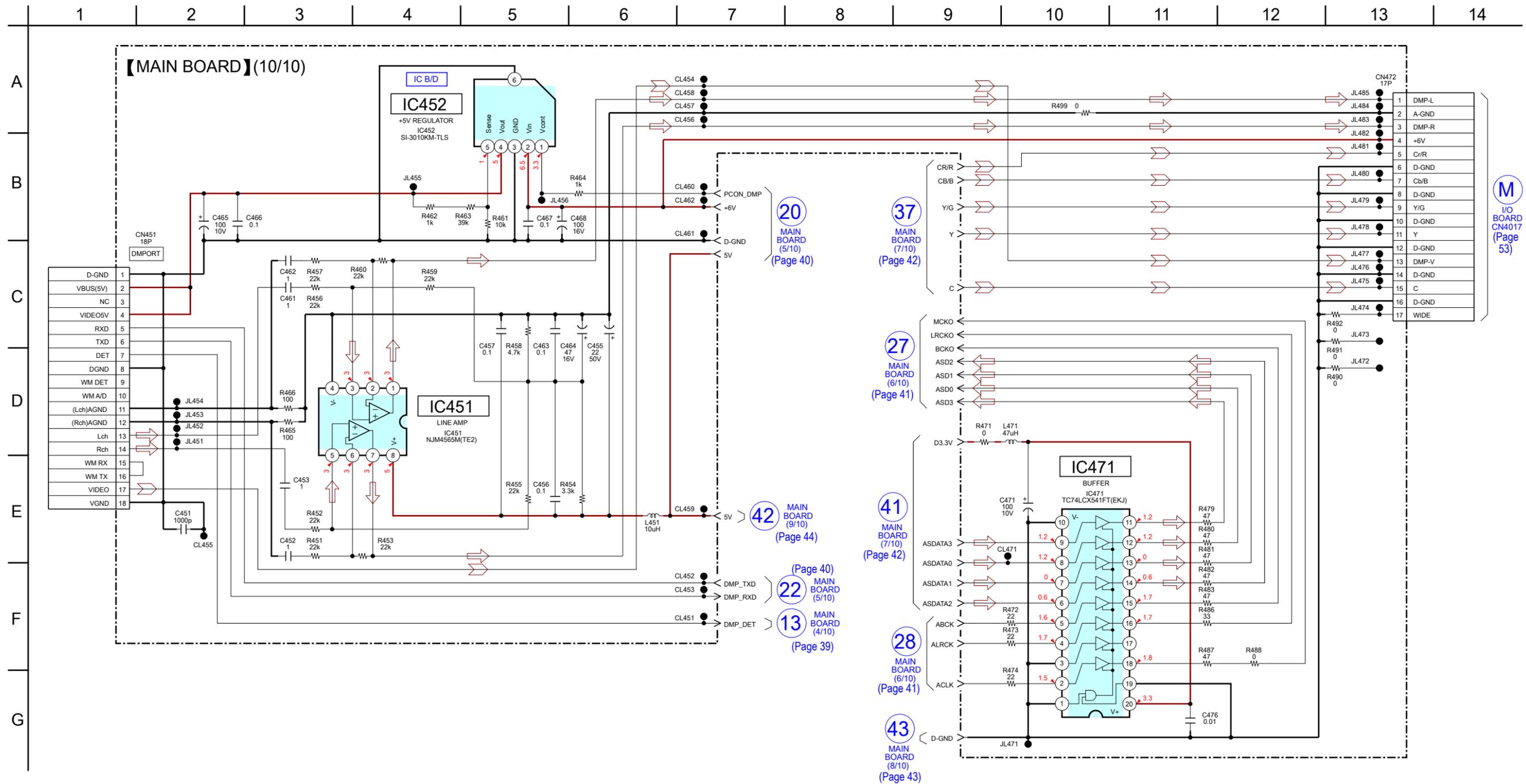




6-16. SCHEMATIC DIAGRAM - MAIN Board (9/10) -



6-17. SCHEMATIC DIAGRAM - MAIN Board (10/10) - • See page 62 for IC Block Diagrams.

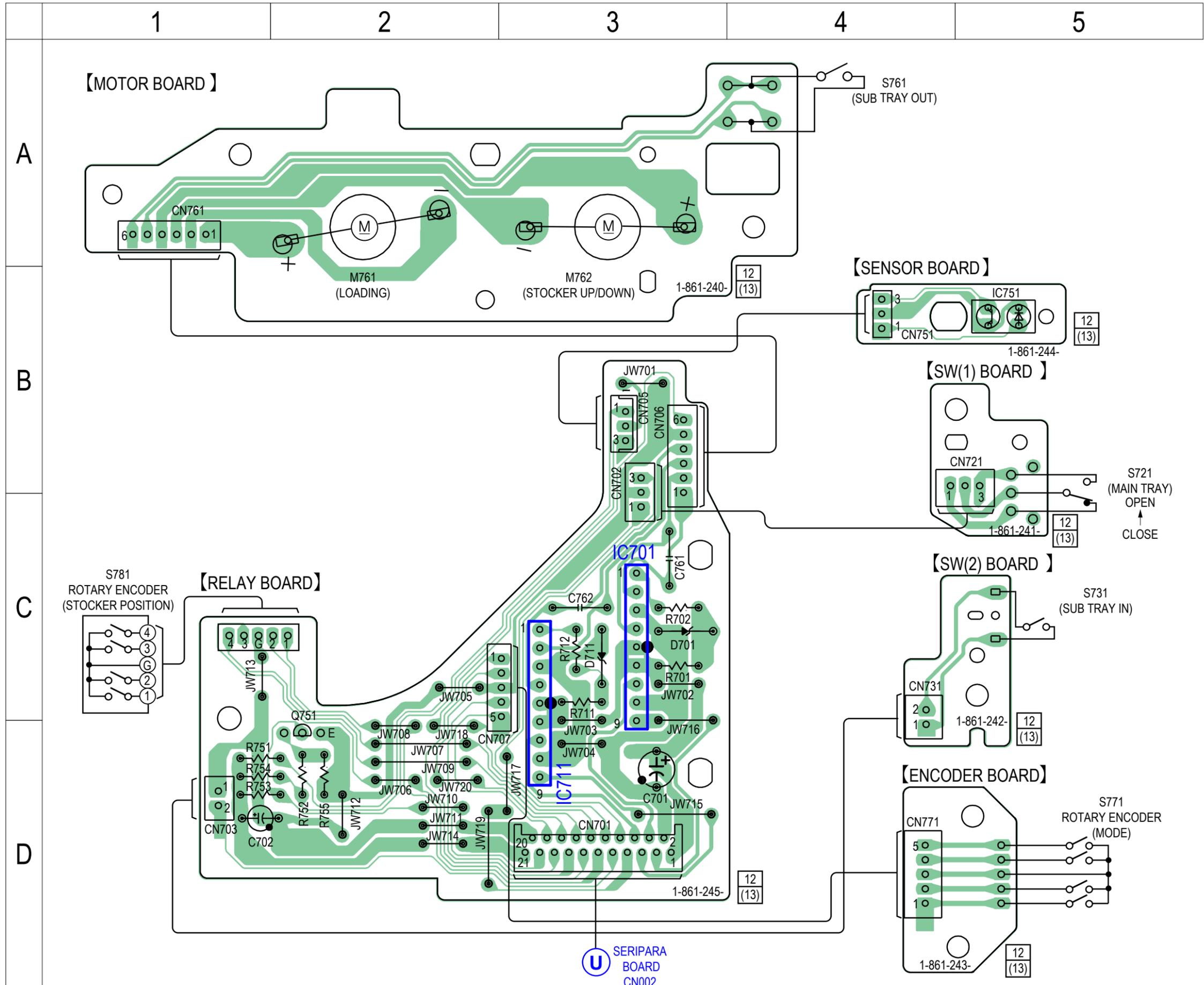


M I/O BOARD CN4017 (Page 53)

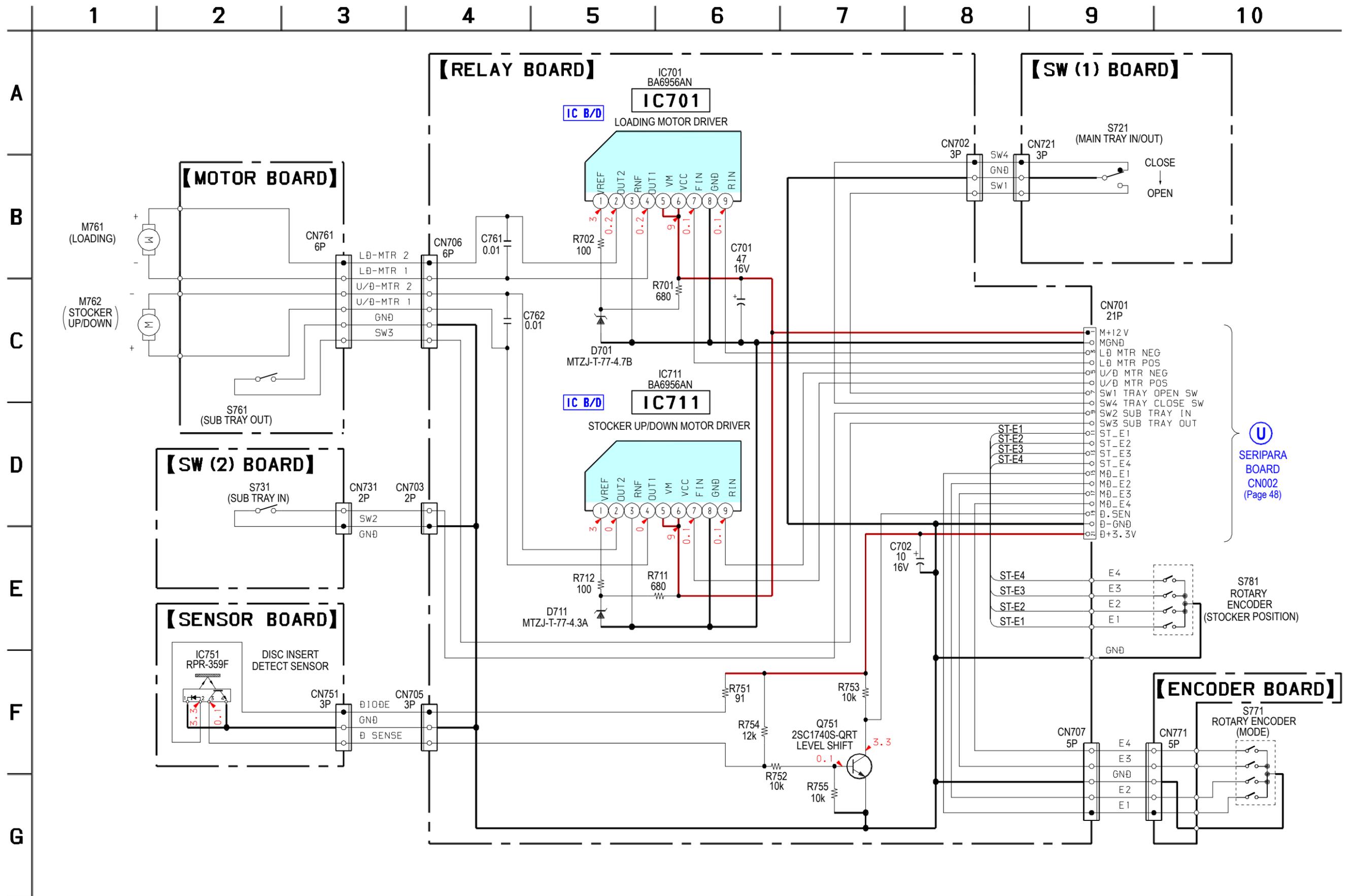
6-18. PRINTED WIRING BOARDS - RELAY Section - • See page 33 for Circuit Boards Location. •  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D701	C-3
D711	C-3
IC701	C-3
IC711	C-3
IC751	B-5
Q751	D-2

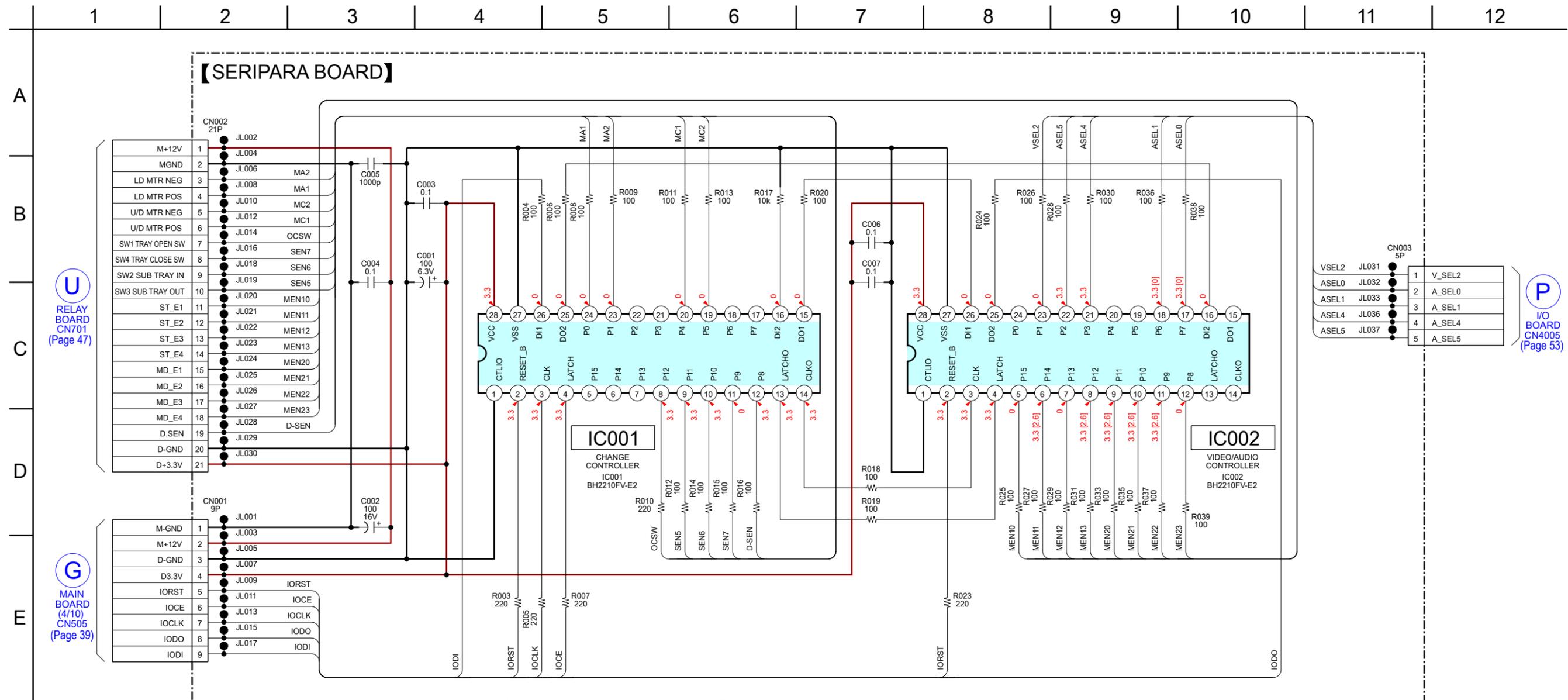


6-19. SCHEMATIC DIAGRAM - RELAY Section - • See page 62 for IC Block Diagrams.



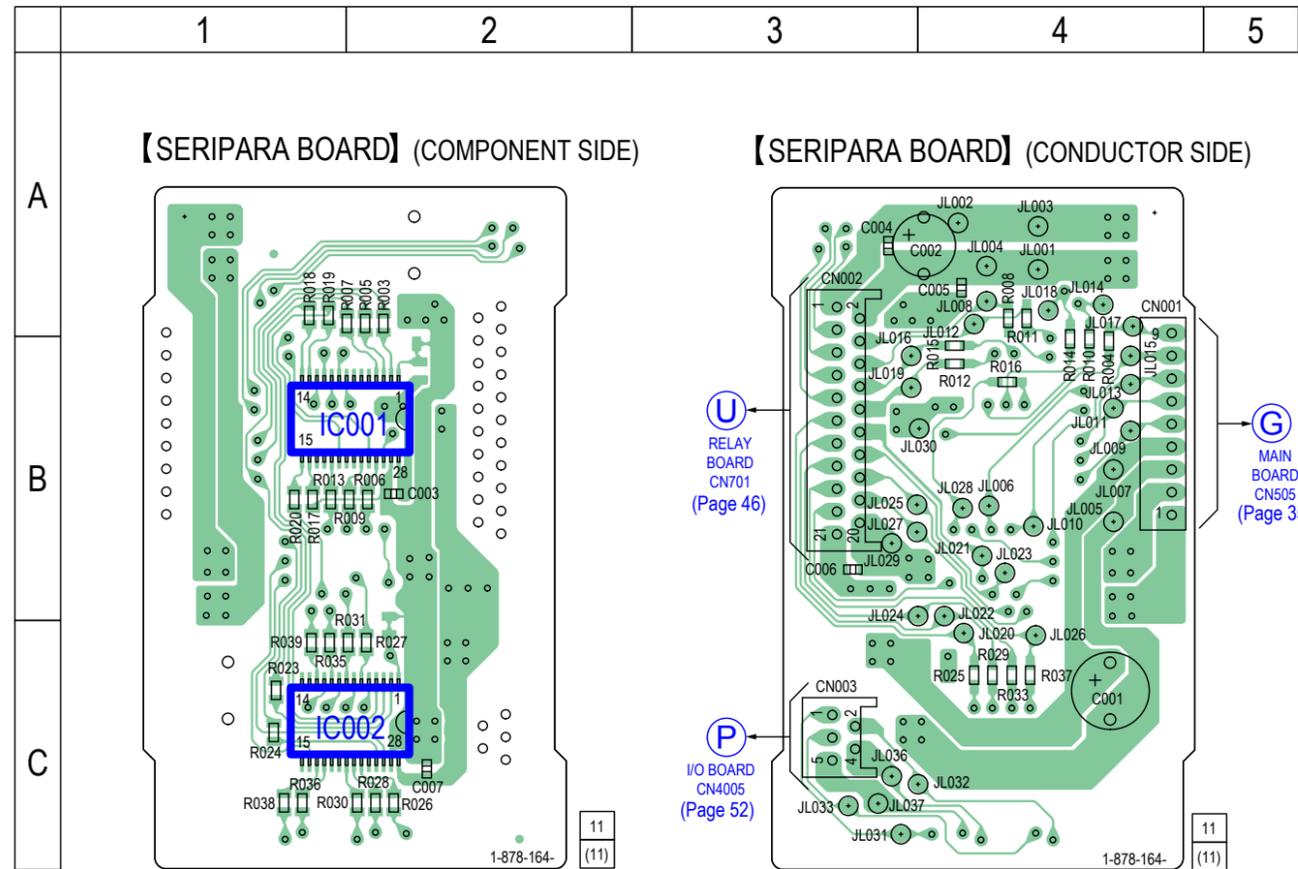
**U**  
SERIPARA BOARD  
CN002  
(Page 48)

6-20. SCHEMATIC DIAGRAM - SERIPARA Board - See page 70 for IC Pin Function Description.

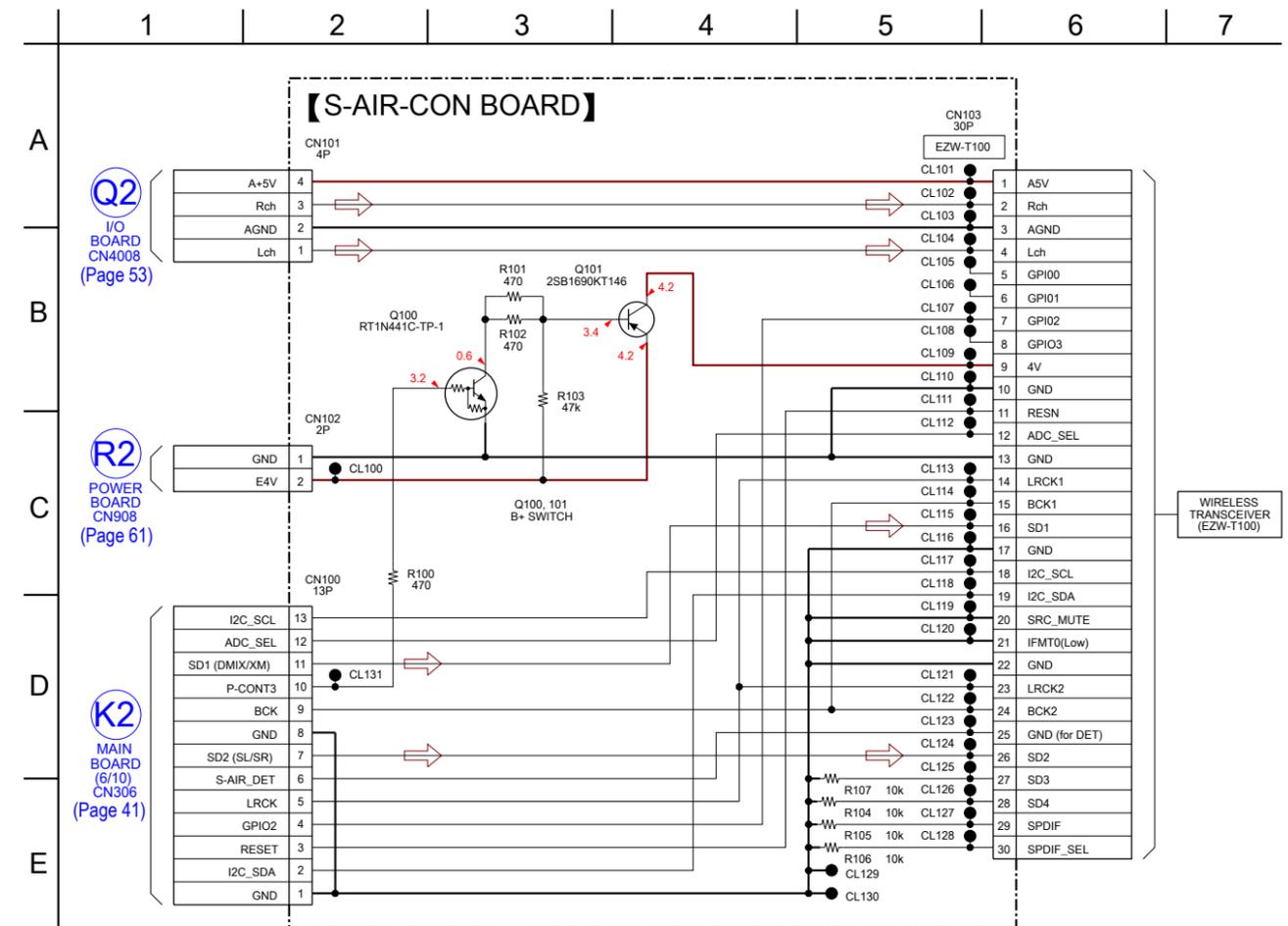


6-21. PRINTED WIRING BOARD - SERIPARA Board -

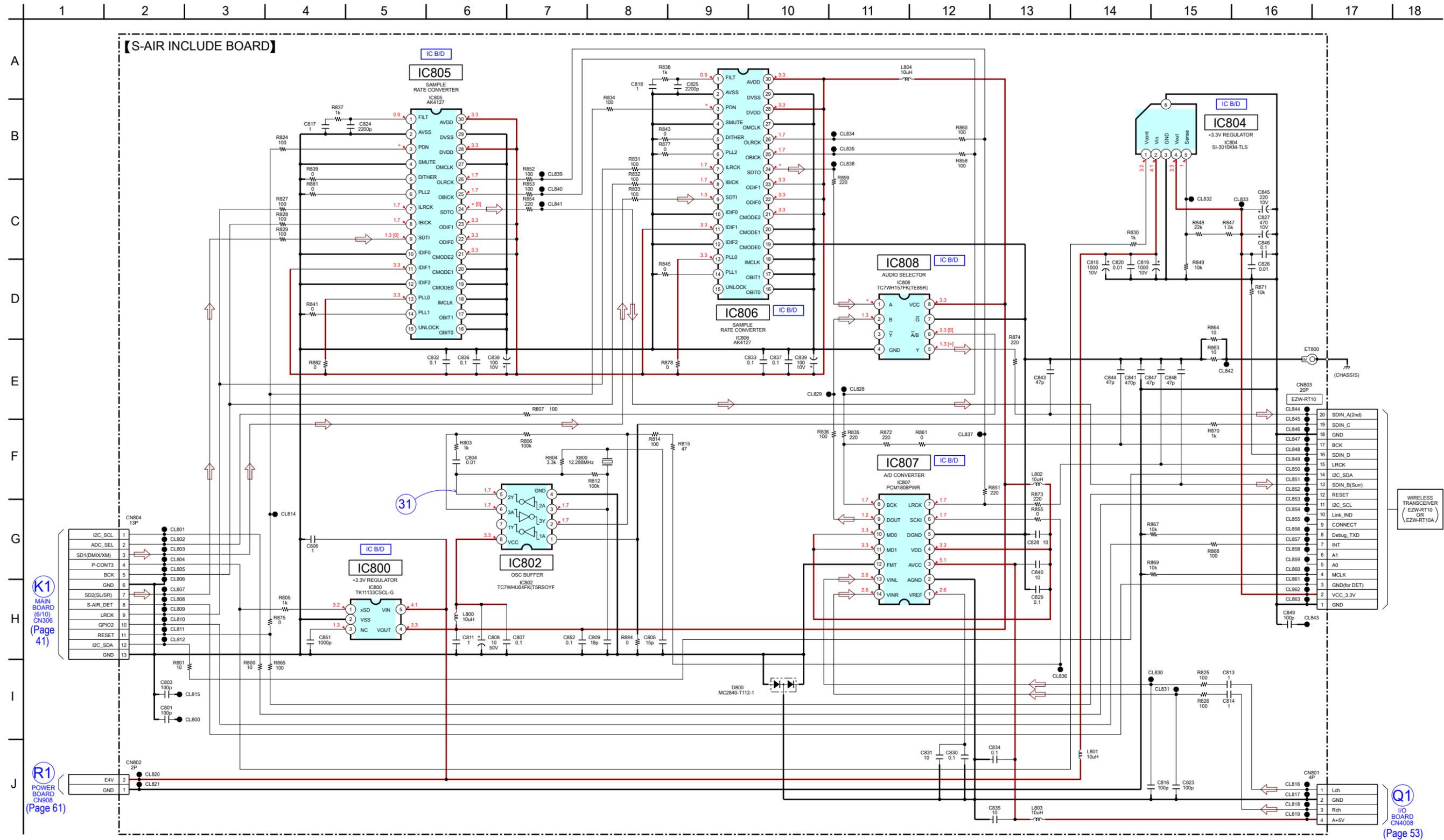
• See page 33 for Circuit Boards Location. •  : Uses unleaded solder.



6-22. SCHEMATIC DIAGRAM - S-AIR-CON Board (HDX285/HDX585/HDX685) -



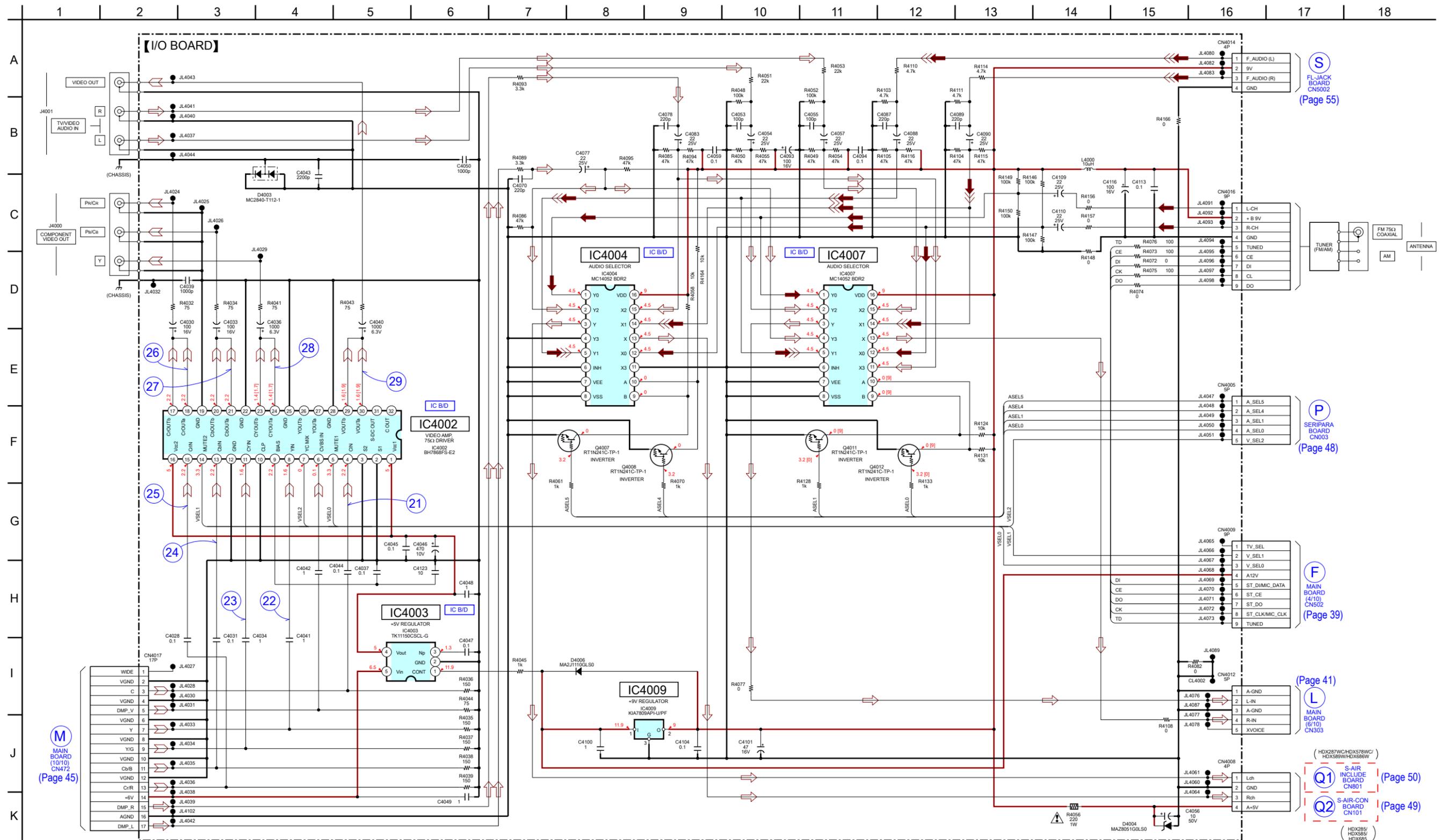
6-23. SCHEMATIC DIAGRAM - S-AIR INCLUDE Board (HDX287WC/HDX587WC/HDX589W/HDX686W) - • See page 59 for Waveforms. • See page 62 for IC Block Diagrams.



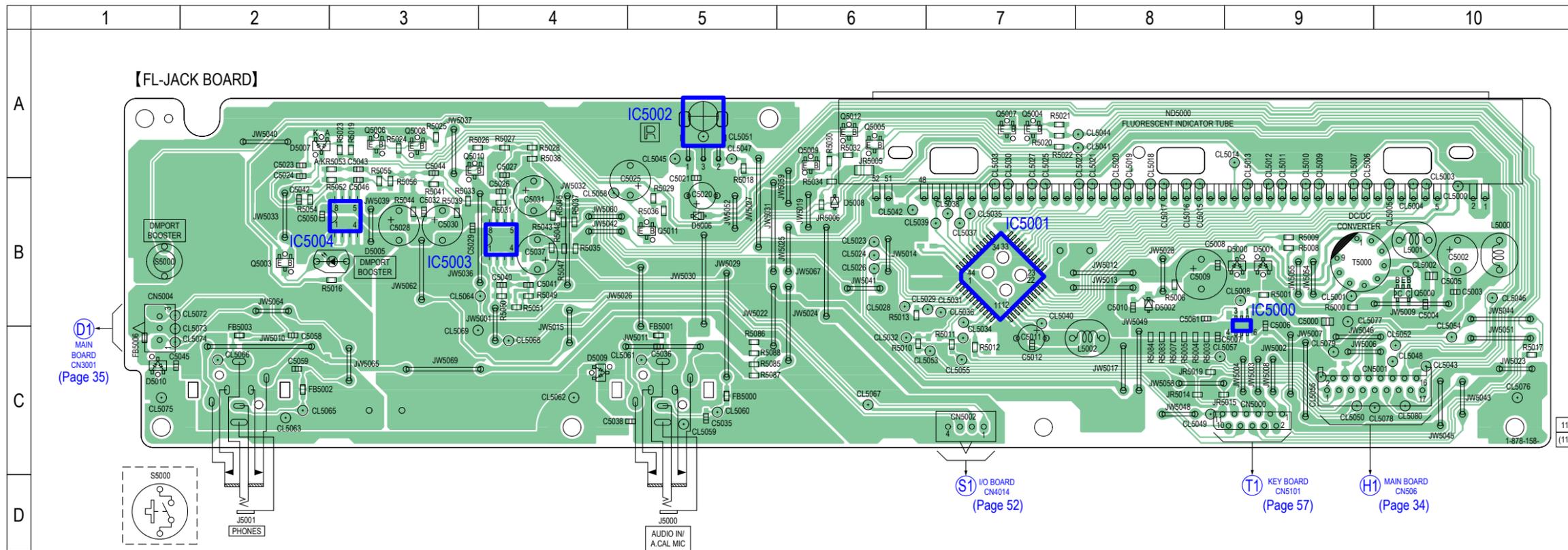




6-26. SCHEMATIC DIAGRAM - I/O Board - • See page 59 for Waveforms. • See page 62 for IC Block Diagrams.



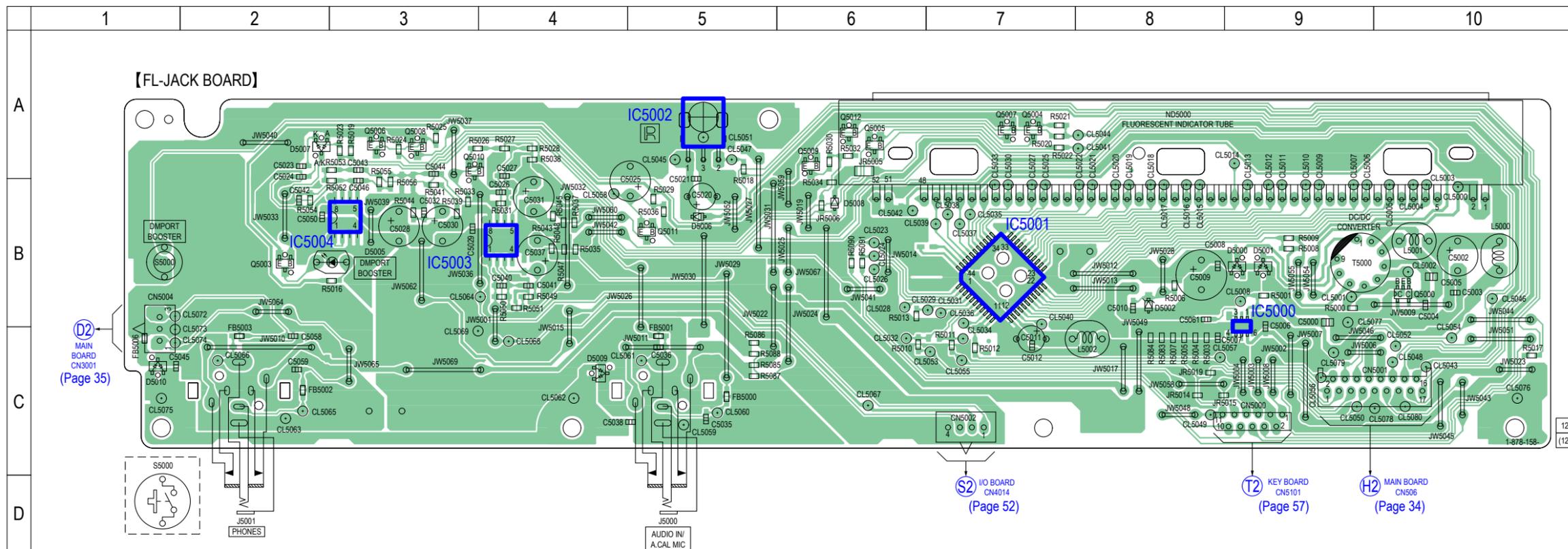
6-27. PRINTED WIRING BOARD - FL-JACK Board (Suffix-11) - • See page 33 for Circuit Boards Location. •  : Uses unleaded solder.



• Semiconductor Location

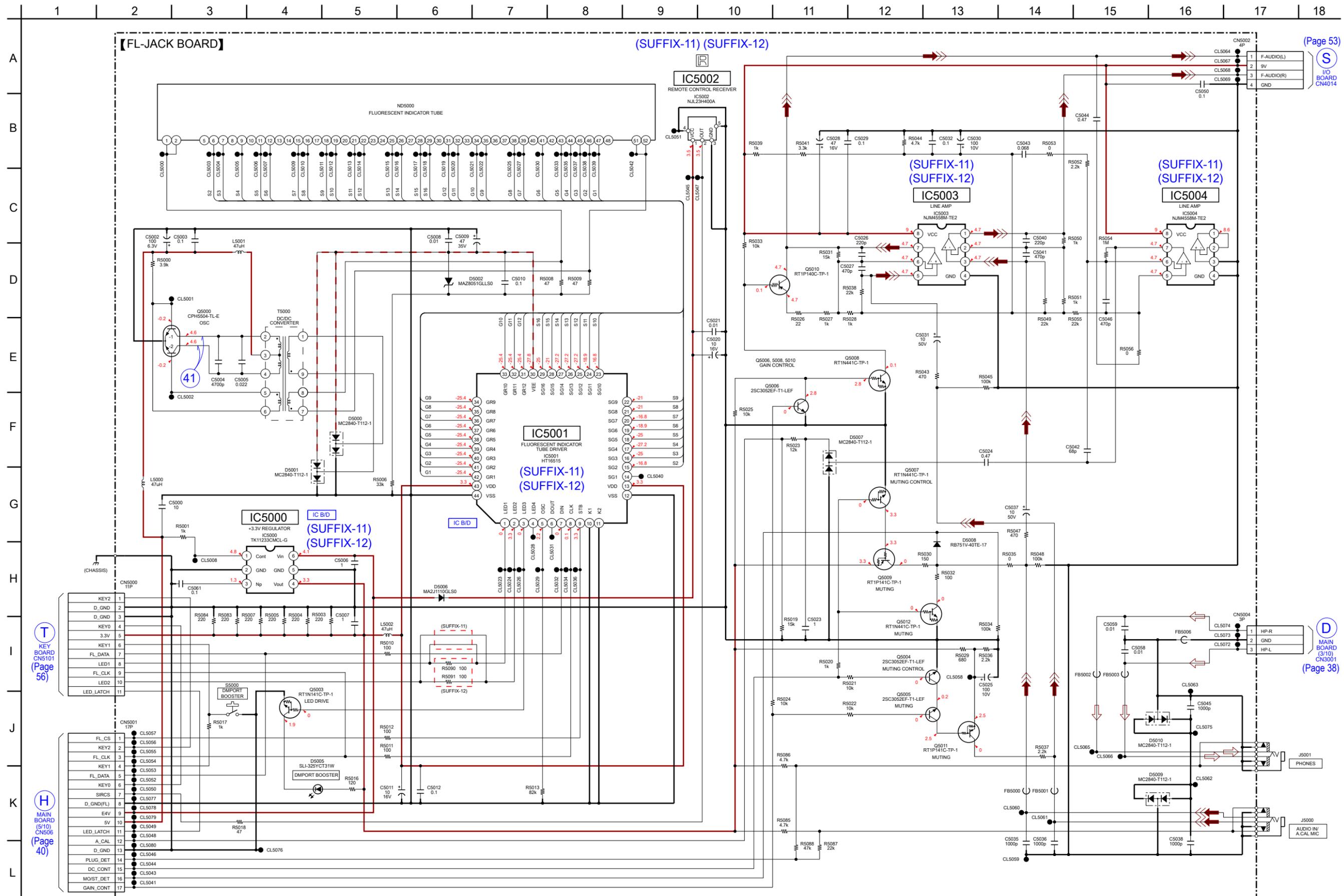
Ref. No.	Location
D5000	B-9
D5001	B-9
D5002	B-8
D5005	B-3
D5006	B-5
D5007	A-2
D5008	B-6
D5009	C-4
D5010	C-1
IC5000	B-9
IC5001	B-7
IC5002	A-5
IC5003	B-4
IC5004	B-3
Q5000	B-10
Q5003	B-2
Q5004	A-7
Q5005	A-6
Q5006	A-3
Q5007	A-7
Q5008	A-3
Q5009	A-6
Q5010	A-3
Q5011	B-5
Q5012	A-6

6-28. PRINTED WIRING BOARD - FL-JACK Board (Suffix-12) - • See page 33 for Circuit Boards Location. •  : Uses unleaded solder.



Note: Refer to the Servicing Notes "FL-JACK AND P-SW BOARDS DISCRIMINATION" (page 5) for how to distinguish Suffix-11 and Suffix-12.

6-29. SCHEMATIC DIAGRAM - FL-JACK Board - See page 62 for IC Block Diagrams.



(Page 53)  
S  
I/O BOARD  
CN4014

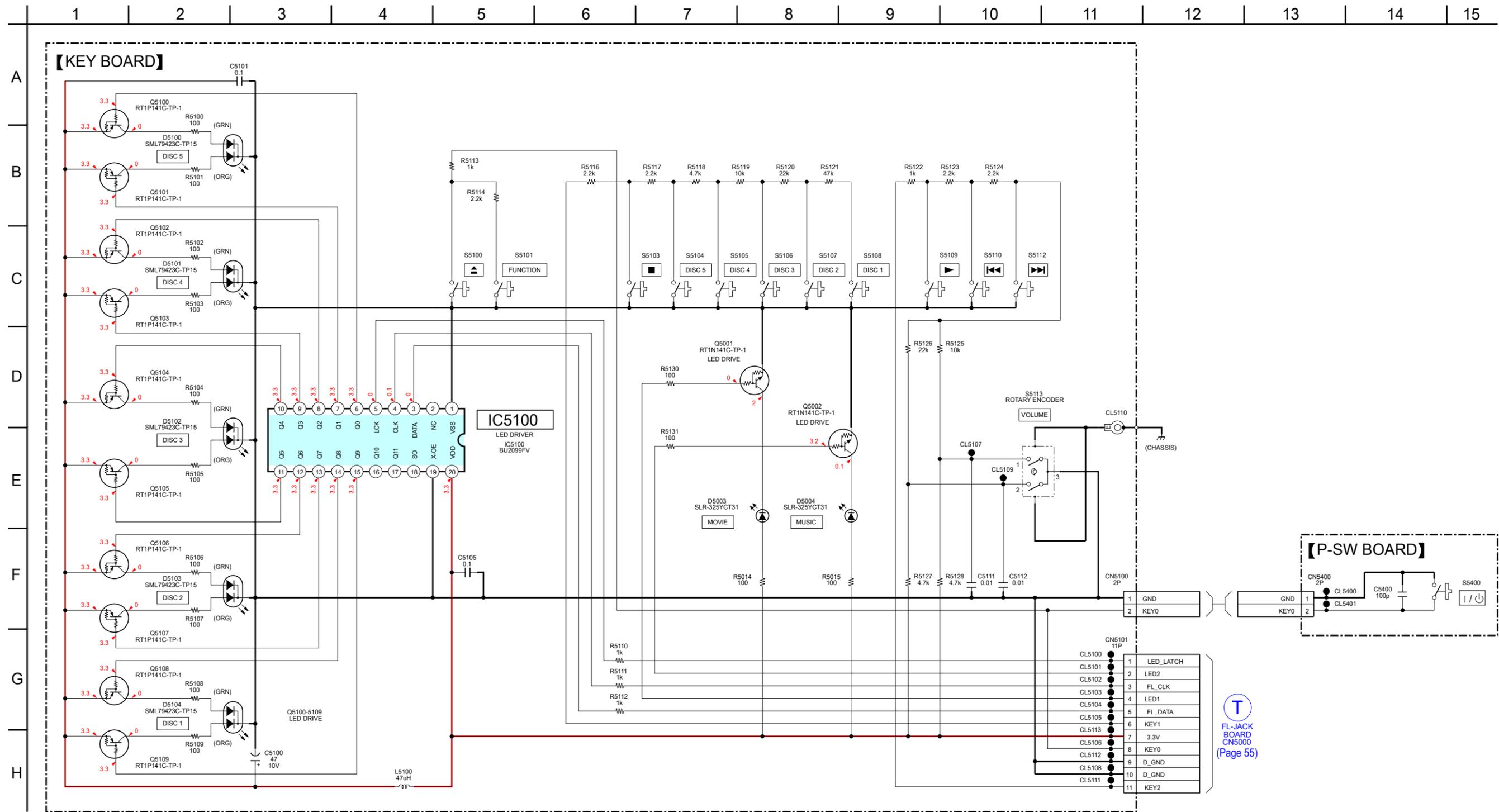
(Page 38)  
D  
MAIN BOARD  
(3/10)  
CN3001

(Page 56)  
T  
KEY BOARD  
CN5101

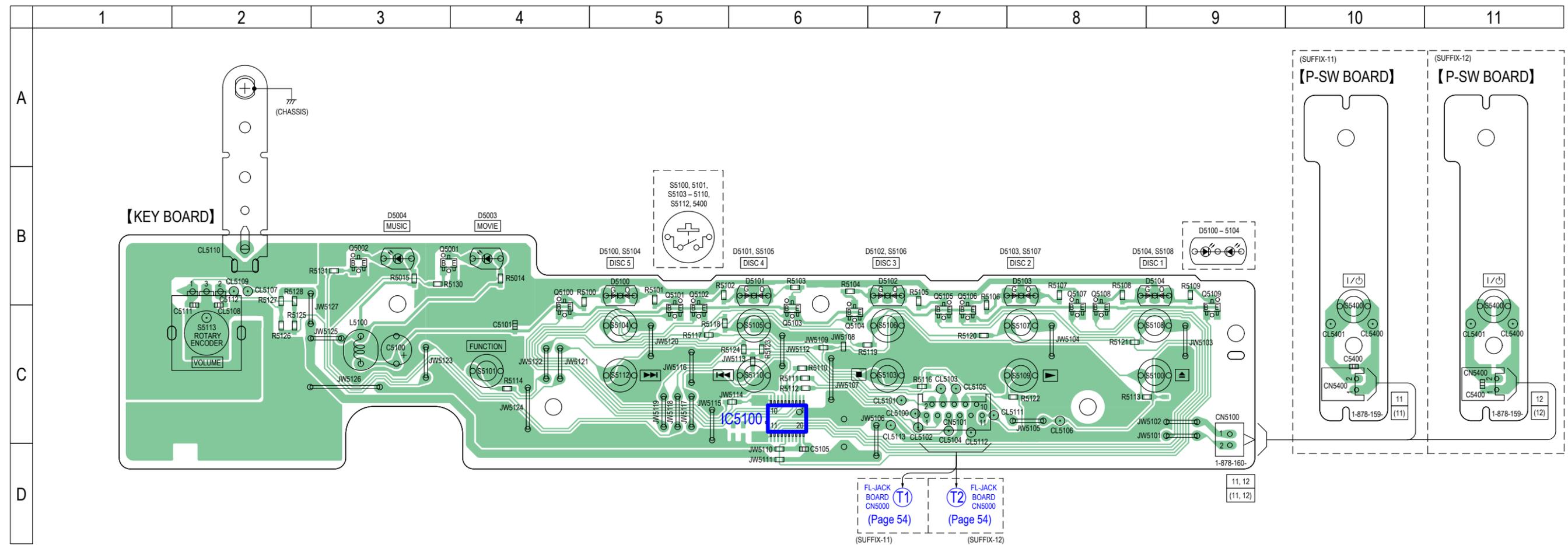
(Page 40)  
H  
MAIN BOARD  
(5/10)  
CN506

Note: Refer to the Servicing Notes "FL-JACK AND P-SW BOARDS DISCRIMINATION" (page 5) for how to distinguish Suffix-11 and Suffix-12.

6-30. SCHEMATIC DIAGRAM - KEY/P-SW Boards - • See page 70 for IC Pin Function Description.



6-31. PRINTED WIRING BOARDS - KEY/P-SW Boards - • See page 33 for Circuit Boards Location. •  : Uses unleaded solder.



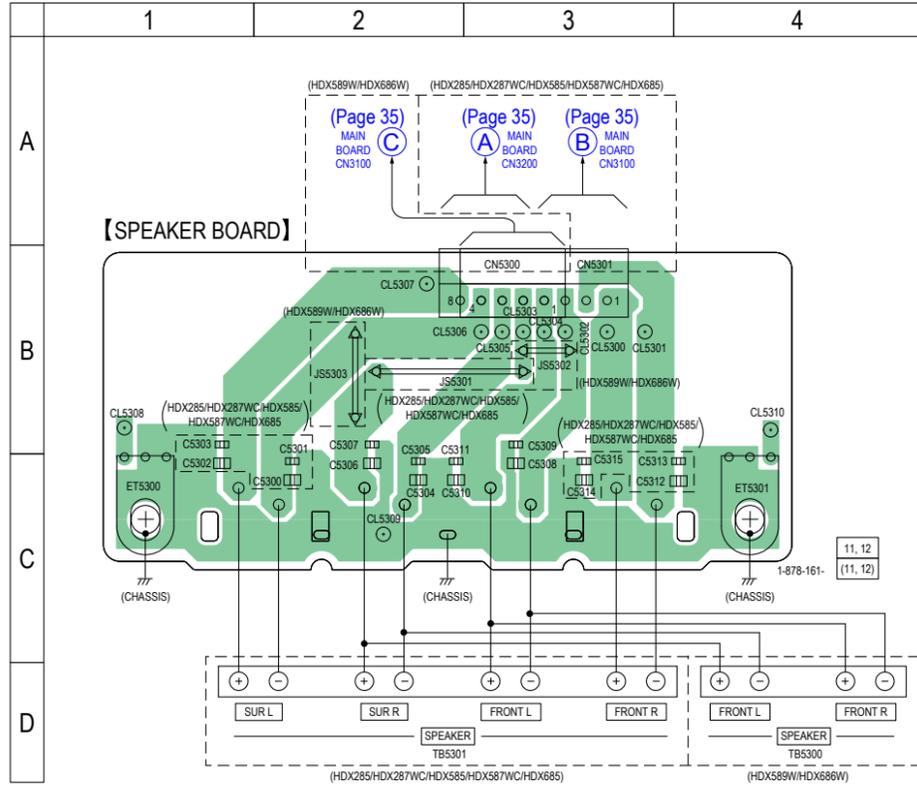
**Note:** Refer to the Servicing Notes "FL-JACK AND P-SW BOARDS DISCRIMINATION" (page 5) for how to distinguish Suffix-11 and Suffix-12.

• **Semiconductor Location**

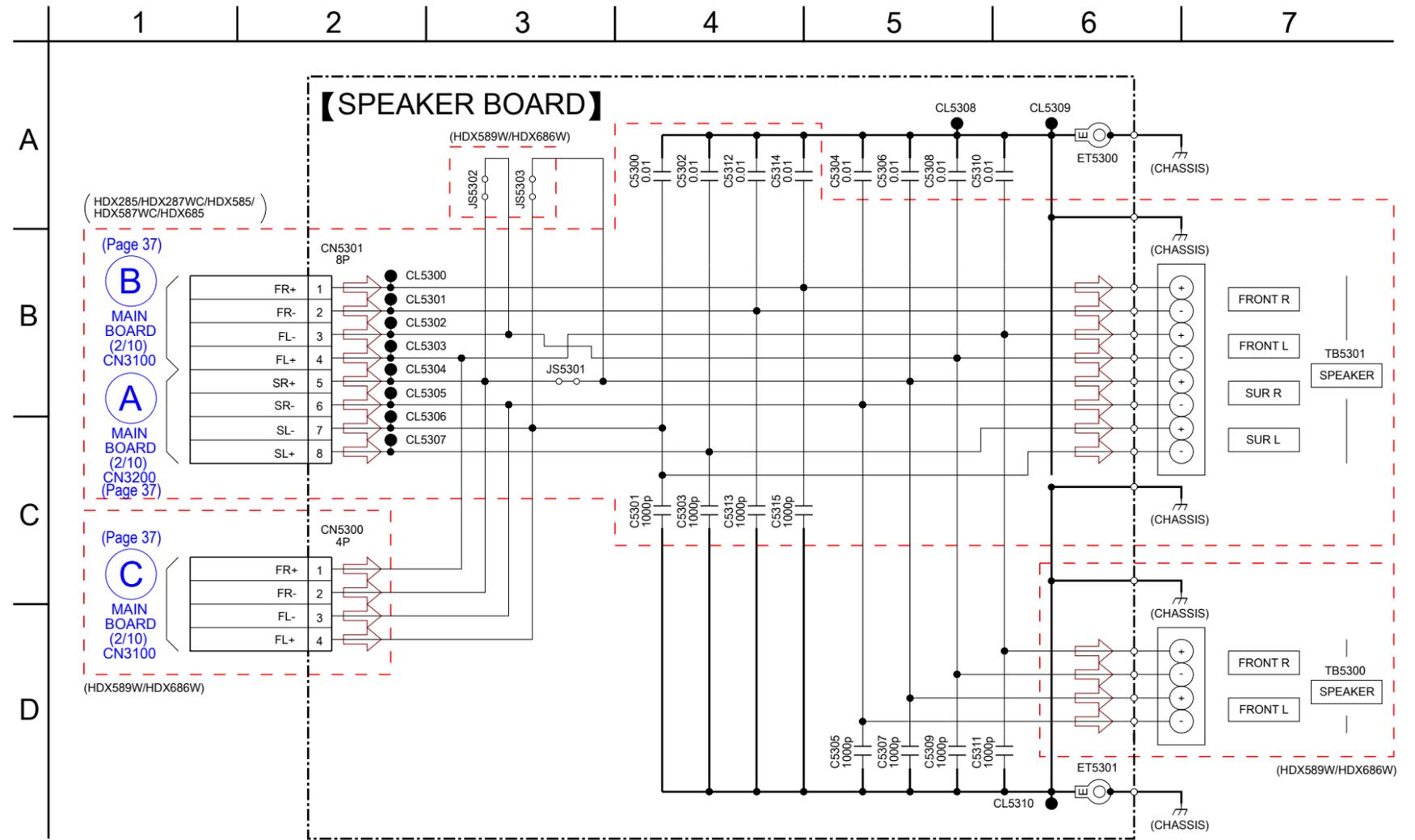
Ref. No.	Location
D5003	B-4
D5004	B-3
D5100	B-5
D5101	B-6
D5102	B-7
D5103	B-8
D5104	B-9
IC5100	C-6
Q5001	B-3
Q5002	B-3
Q5100	C-4
Q5101	C-5
Q5102	C-5
Q5103	C-6
Q5104	C-6
Q5105	C-7
Q5106	C-7
Q5107	C-8
Q5108	C-8
Q5109	C-9

6-32. PRINTED WIRING BOARD - SPEAKER Board -

• See page 33 for Circuit Boards Location. •  : Uses unleaded solder.

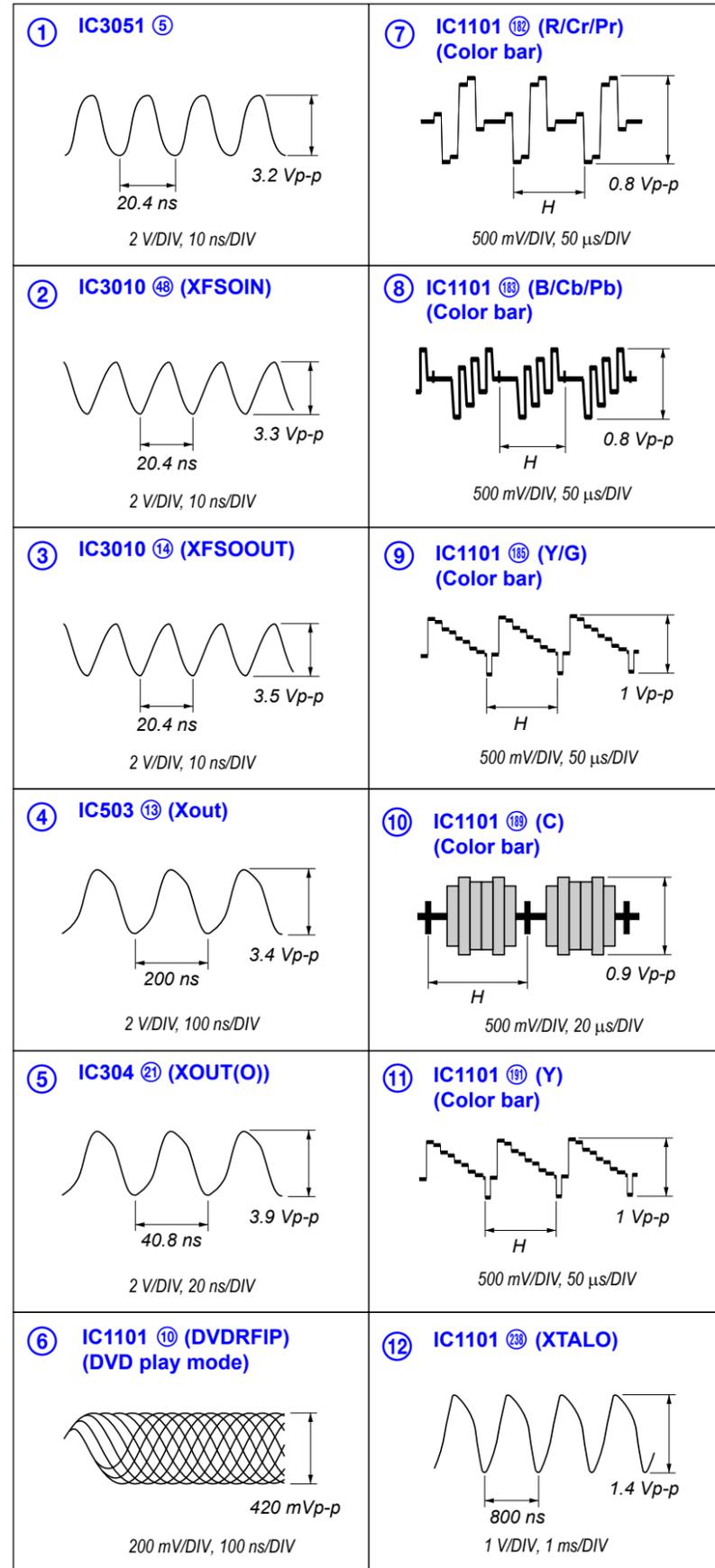


6-33. SCHEMATIC DIAGRAM - SPEAKER Board -

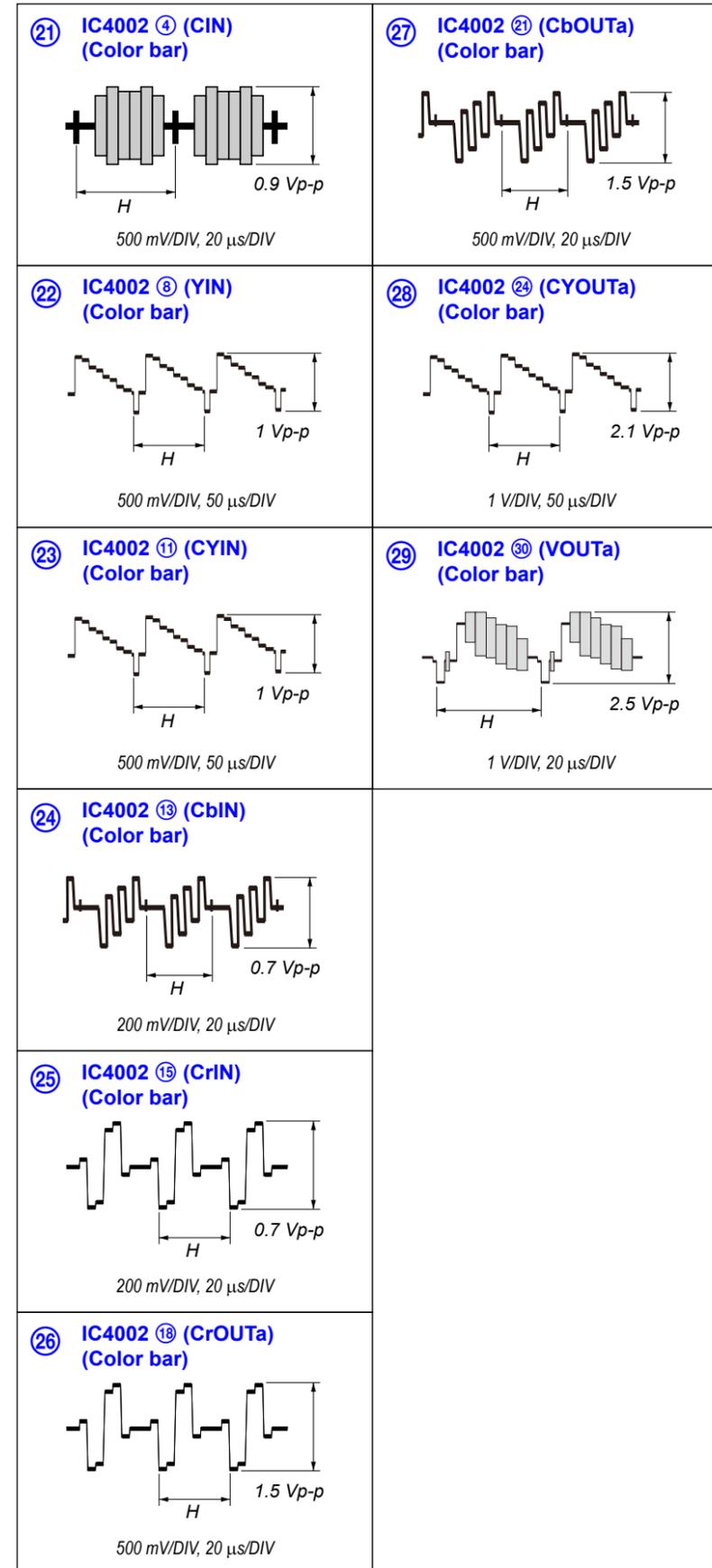


• Waveforms

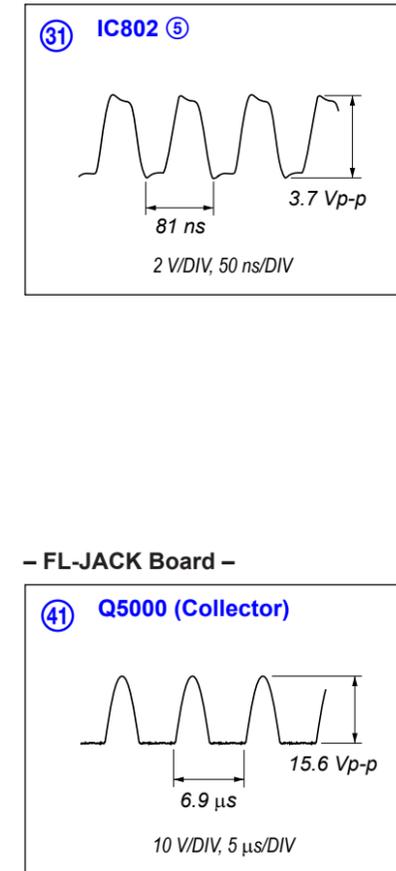
– MAIN Board –



– I/O Board –



– S-AIR INCLUDE Board –

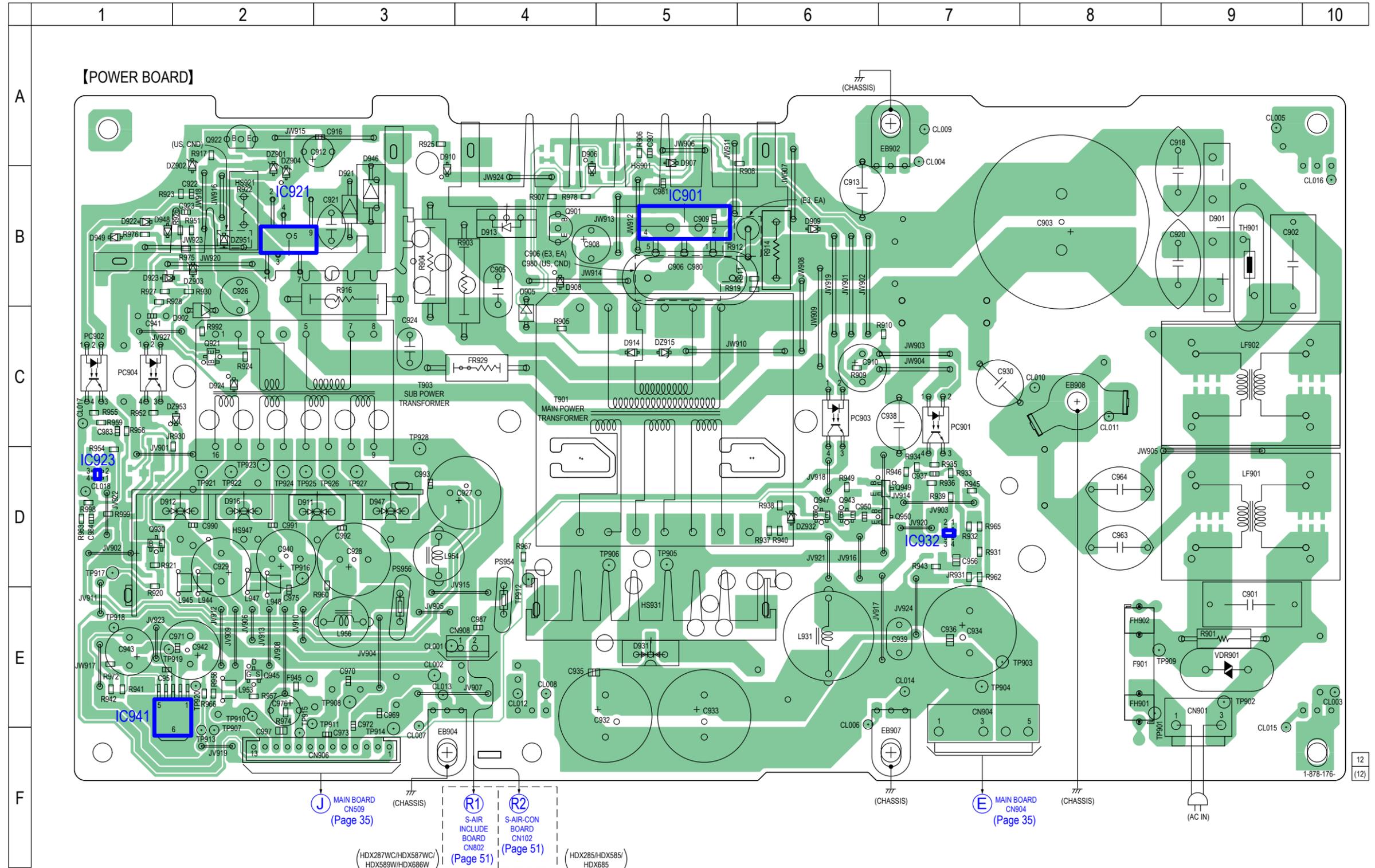


– FL-JACK Board –

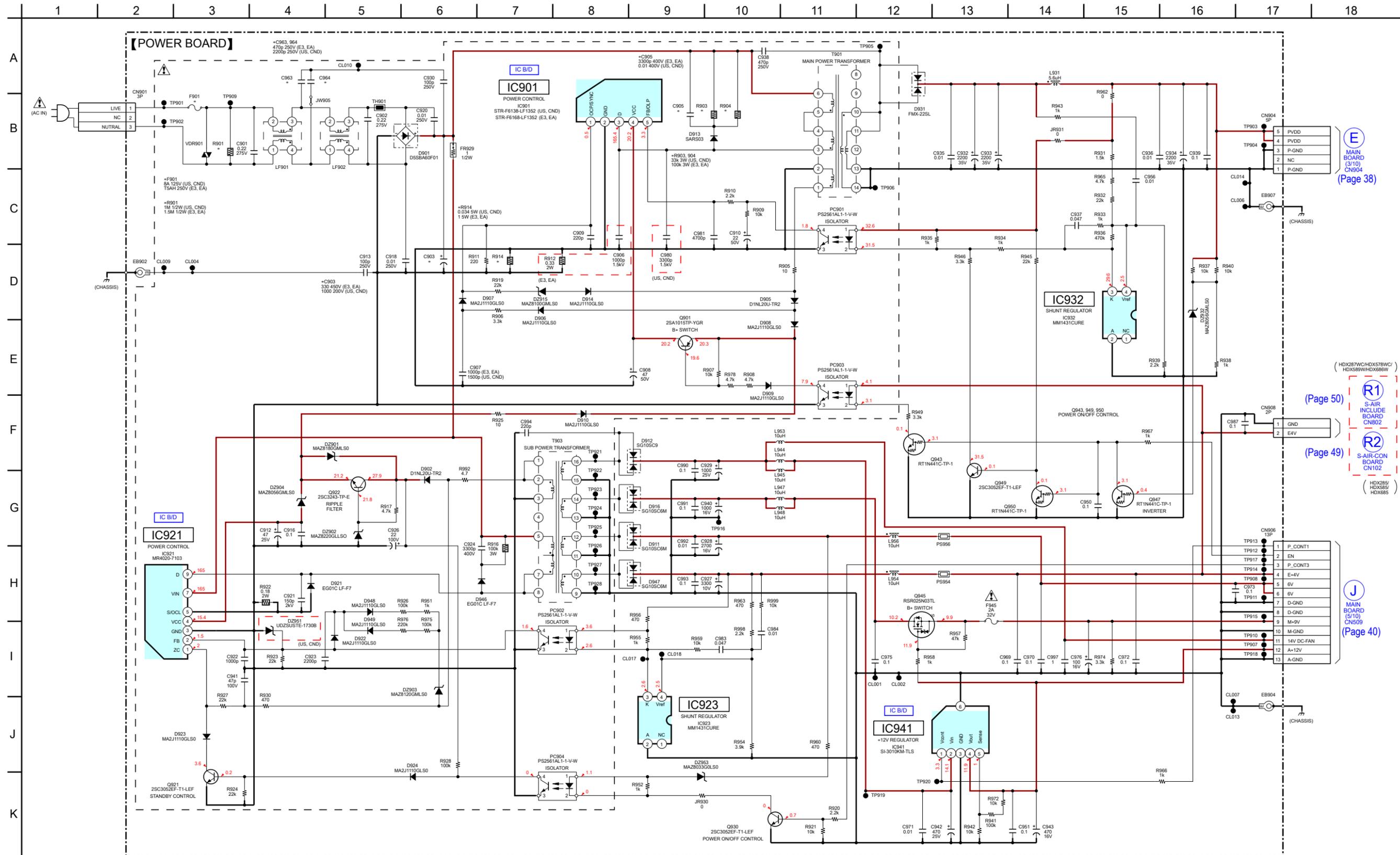
6-34. PRINTED WIRING BOARD - POWER Board - • See page 33 for Circuit Boards Location. •  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D901	B-9
D902	C-2
D905	C-4
D906	B-4
D907	A-5
D908	B-4
D909	B-6
D910	B-3
D911	D-3
D912	D-2
D913	B-4
D914	C-5
D916	D-2
D921	B-3
D922	B-1
D923	B-1
D924	C-2
D931	E-5
D946	B-3
D947	D-3
D948	B-1
D949	B-1
DZ901	B-2
DZ902	B-2
DZ903	B-2
DZ904	B-2
DZ915	C-5
DZ932	D-6
DZ951	B-2
DZ953	C-2
IC901	B-5
IC921	B-2
IC923	D-1
IC932	D-7
IC941	E-1
PC901	C-7
PC902	C-1
PC903	C-6
PC904	C-1
Q901	B-4
Q921	C-2
Q922	A-2
Q930	D-1
Q943	D-6
Q945	E-2
Q947	D-6
Q949	D-7
Q950	D-7

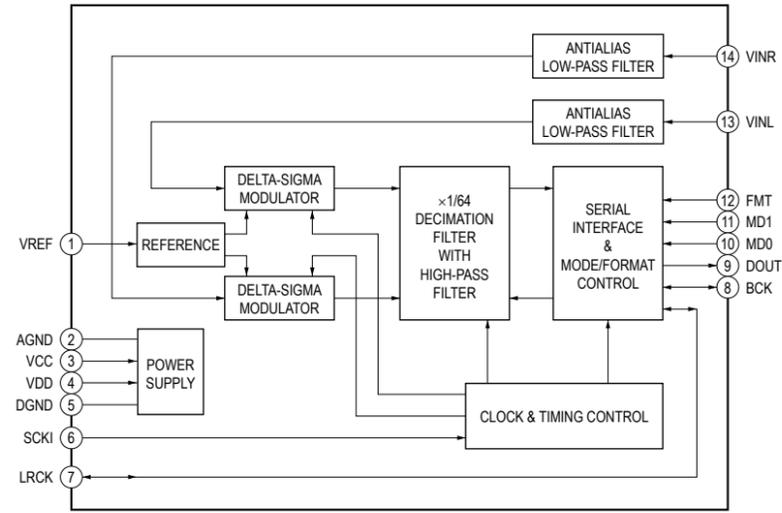


6-35. SCHEMATIC DIAGRAM - POWER Board - See page 62 for IC Block Diagrams.

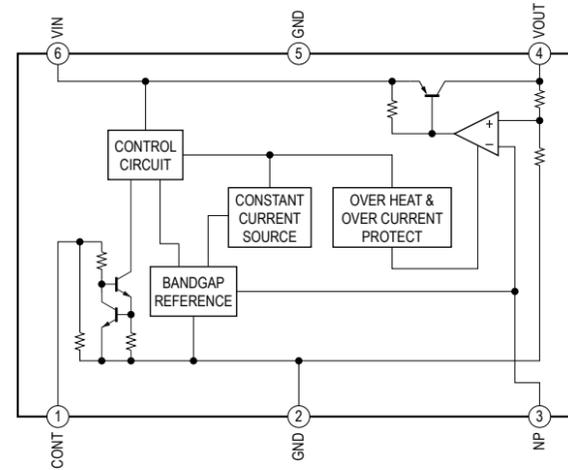


• IC Block Diagrams

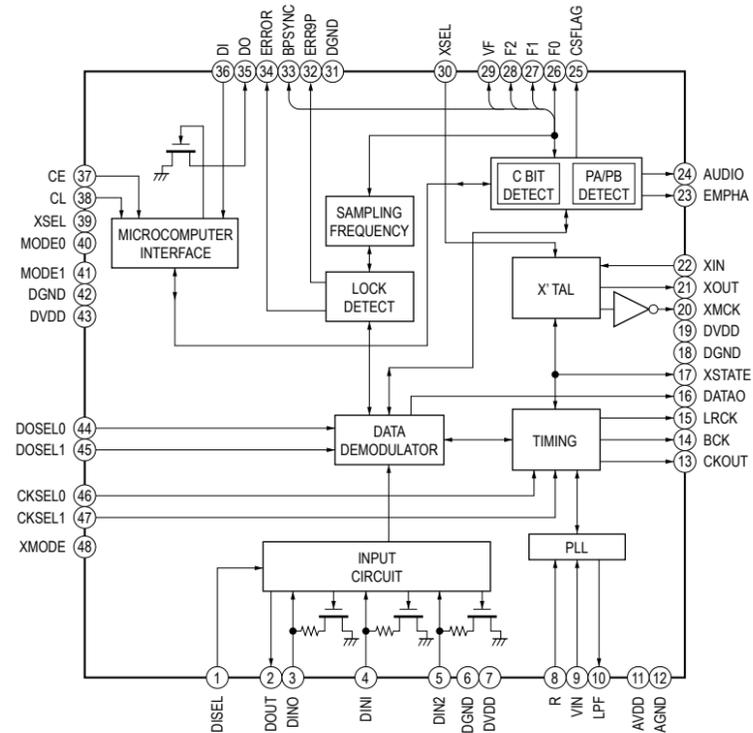
– MAIN Board –  
IC303 PCM1808PWR



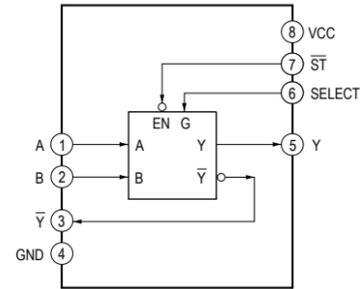
IC504 TK11250CMCL-G



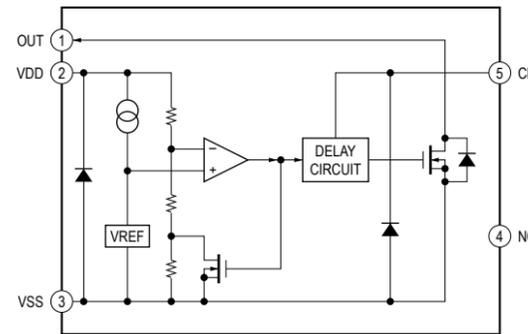
IC304 LC89056W-E



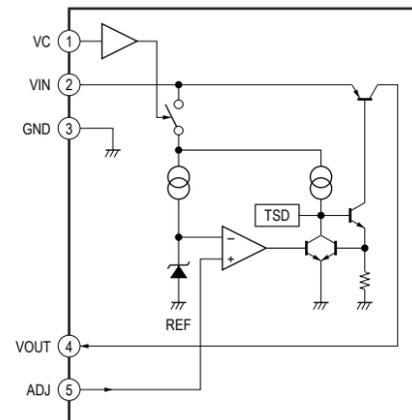
IC307 TC7WH157FK (TE85R)



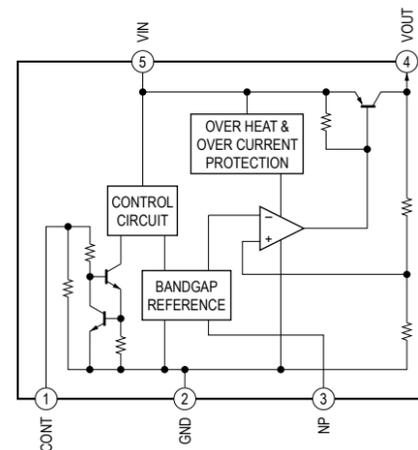
IC506 S-80935CNMC-G85T2G



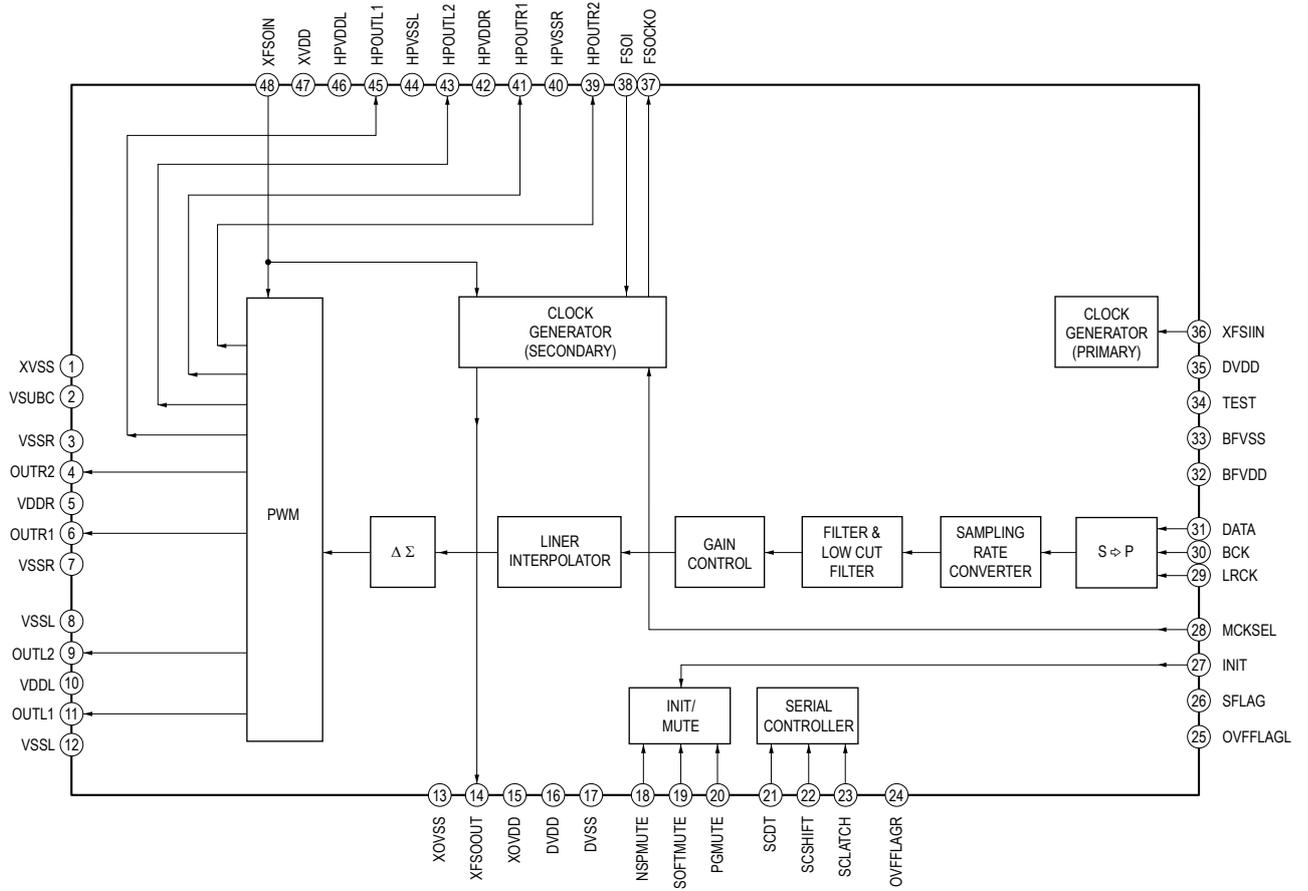
IC452, 507, 510 SI-3010KM-TLS



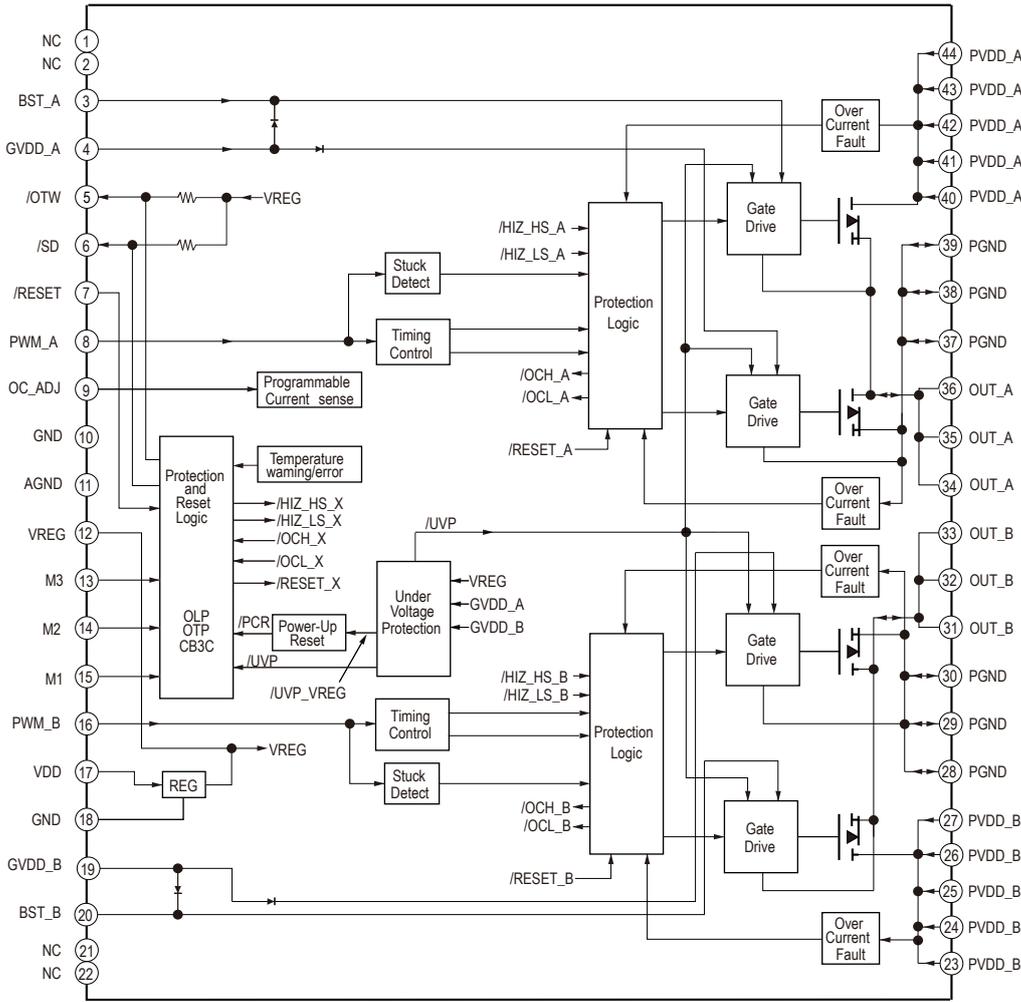
IC1105, 1107, 1708 TK11133CSCL-G  
IC1707 TK11150CSCL-G  
IC3050 TK11118CSCL-G



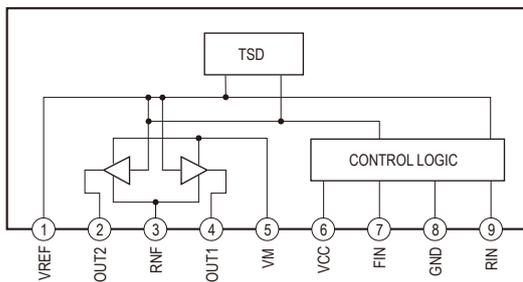
IC3010, 3020, 3030 CXD9788AR



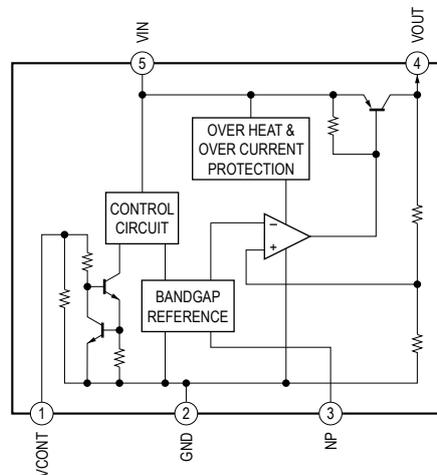
IC3100, 3150, 3200, 3250, 3300, 3400, 3500 CXD9936TN



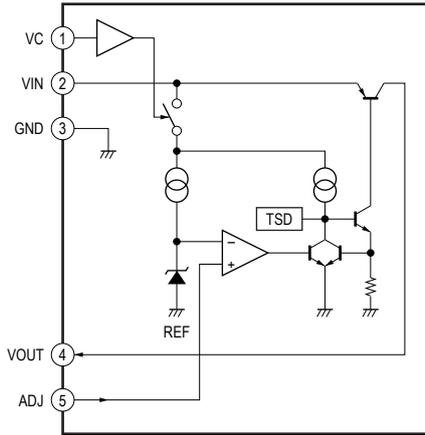
- RELAY Board -  
IC701, 711 BA6956AN



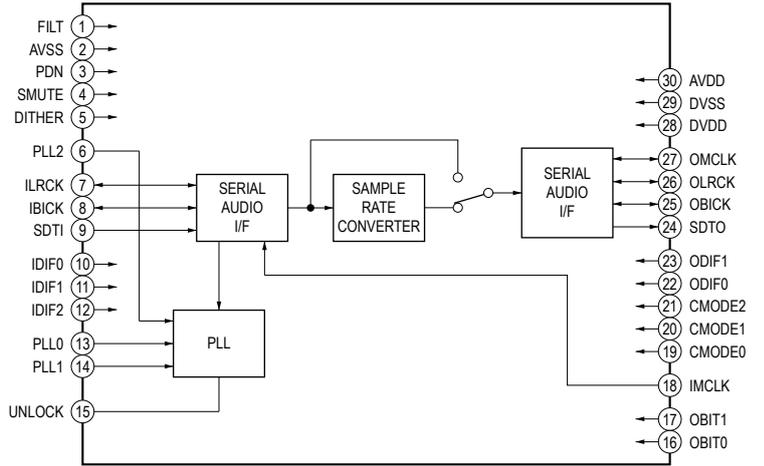
- S-AIR INCLUDE Board -  
IC800 TK11133CSCL-G



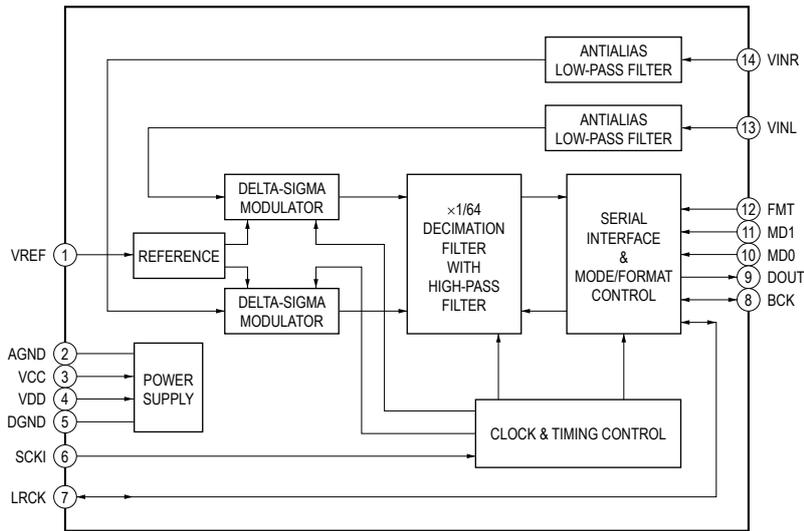
**IC804 SI-3010KM-TLS**



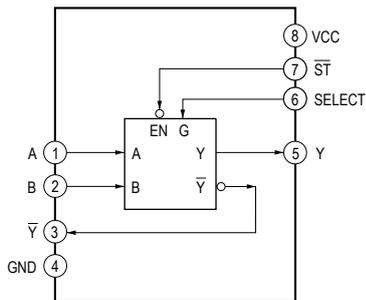
**IC805, 806 AK4127VF-E2**



**IC807 PCM1808PWR**

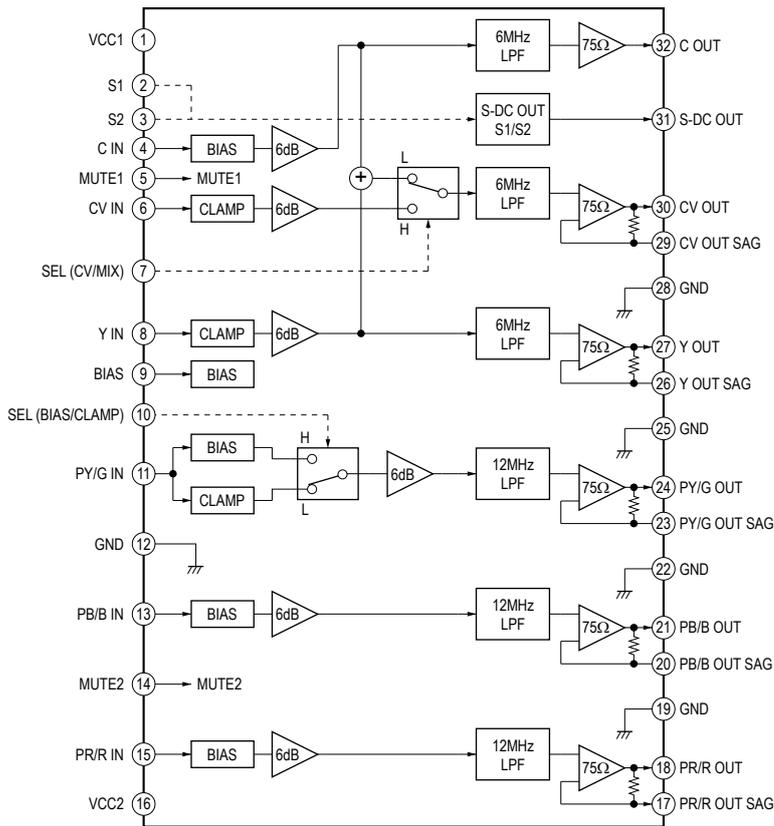


**IC808 TC7WH157FK (TE85R)**

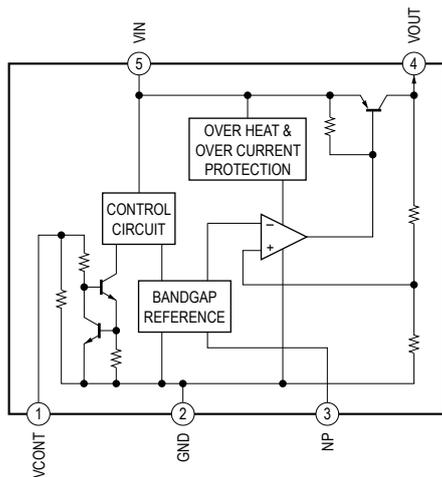


- I/O Board -

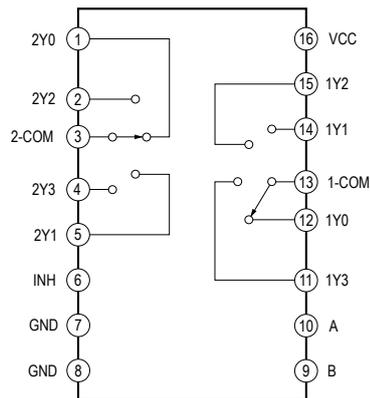
IC4002 BH7868FS-E2



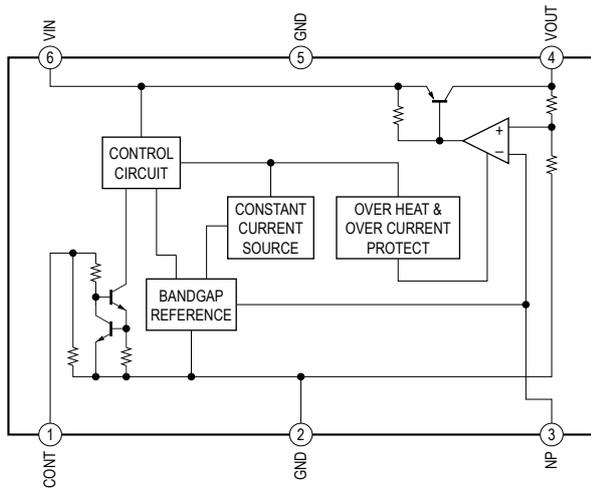
IC4003 TK11150CSCL-G



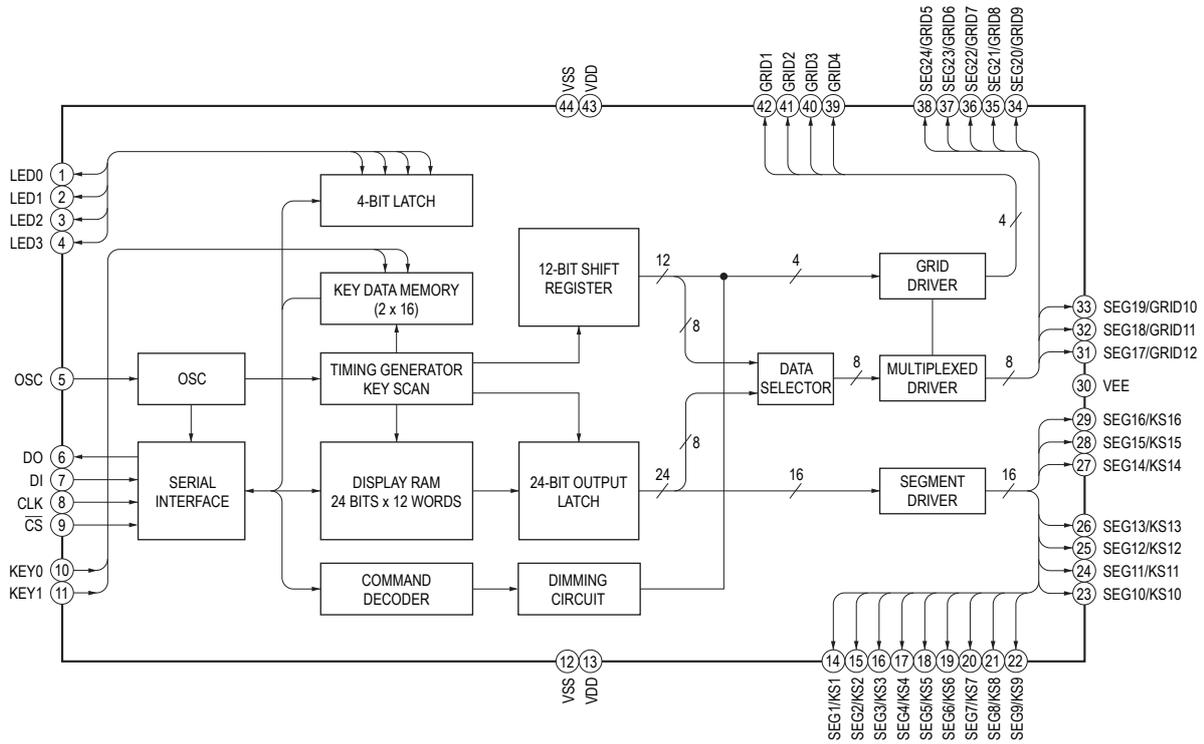
IC4004, 4007 MC14052 BDR2



- FL-JACK Board -  
IC5000 TK11233CMCL-G



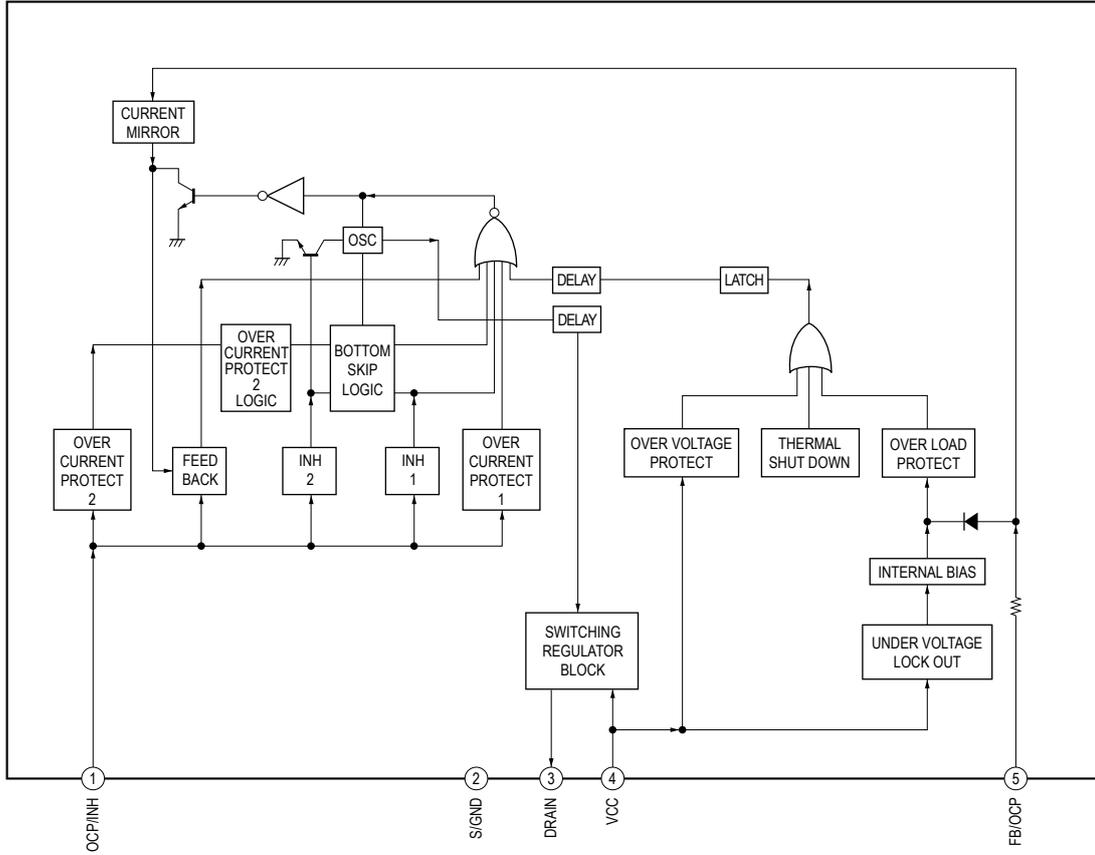
IC5001 HT16515



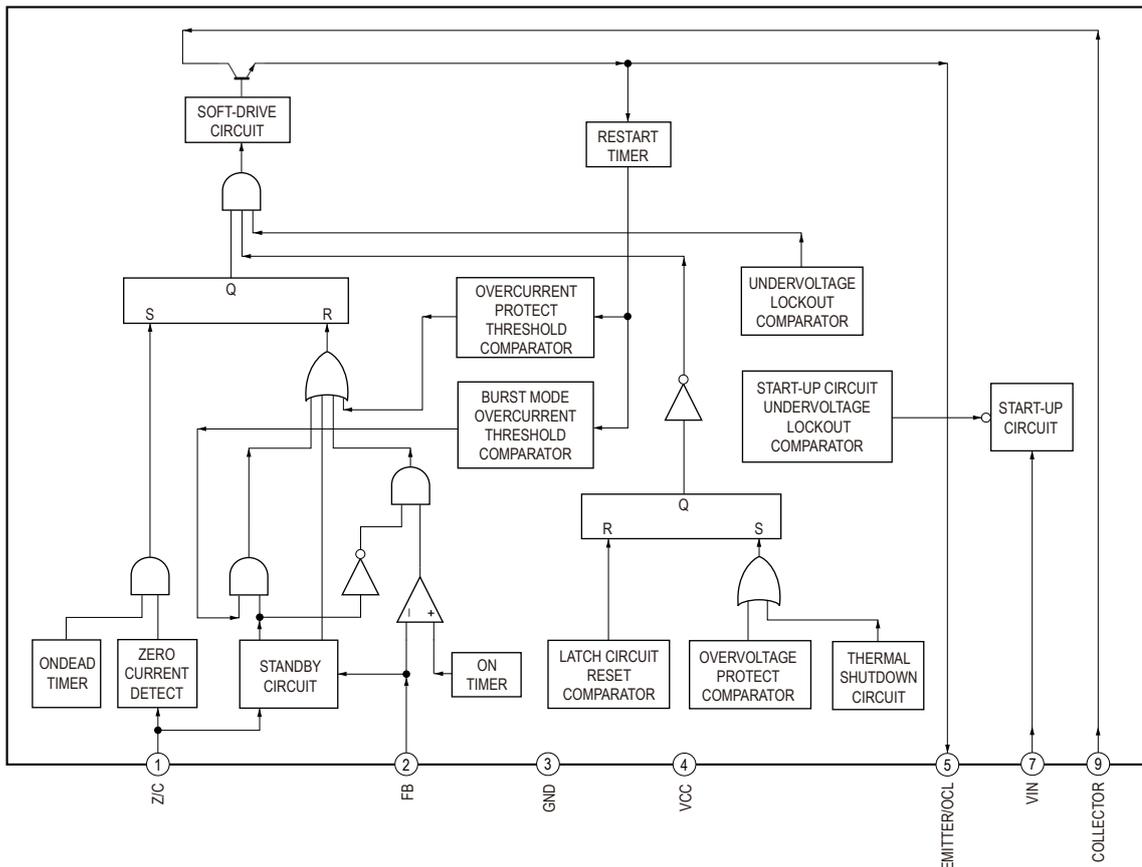
- POWER Board -

IC901 STR-F6138-LF1352 (US and Canadian models)

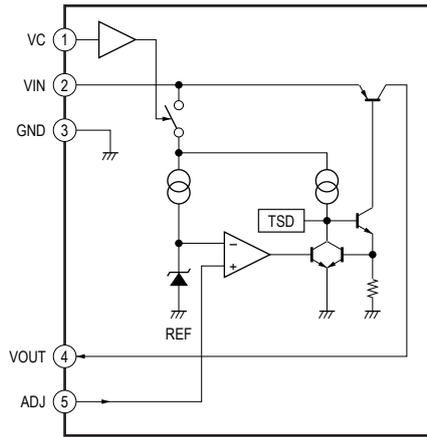
IC901 STR-F6168-LF1352 (240V AC area in E and Saudi Arabia models)



IC921 MR4020-7103



IC941 SI-3010KM-TLS



# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## • IC Pin Function Description

### MAIN BOARD IC503 R5F3640DDFAR (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	DAMP_SCDT	O	Serial data output to the stream processor
2	DAMP_SHIFT	O	Serial data transfer clock signal output to the stream processor
3	FL_CS	O	Chip select signal output to the fluorescent indicator tube driver
4	SIRCS_IN	I	SIRCS signal input from the remote control receiver
5	FL_DATA/LED_DATA	O	Serial data output to the fluorescent indicator tube driver and LED driver
6	CEC_RX_IN	I	CEC data input from the HDMI OUT connector
7	FL_CLK/LED_CLK	O	Serial data transfer clock signal output to the fluorescent indicator tube driver and LED driver
8	BYTE	I	External data bus width selection signal input terminal Fixed at "L" in this set
9	CNVSS	I	Processor mode switch input terminal
10	DIR_ERROR	I	PLL lock error signal and input data error detection signal input terminal Not used
11	DIR_RST	O	Reset signal output terminal Not used
12	RESET	I	System reset signal input from the reset signal generator "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it change to "H"
13	Xout	O	Main system clock output terminal (5 MHz)
14	Vss	-	Ground terminal
15	Xin	I	Main system clock input terminal (5 MHz)
16	Vcc	-	Power supply terminal (+3.3V)
17	DIR_XSTATE	I	Clock change status detection signal input from the digital audio interface receiver "L": change Not used
18	DIR_ZERO	I	Zero data detection signal input from the digital audio interface receiver Not used
19	DIR_CSFLAG	I	Channel change status detection signal input from the digital audio interface receiver "H": change Not used
20	AC_CUT	I	AC cut detection signal input terminal "L": AC cut on
21	DSP_SF_CE	O	Chip enable signal output terminal Not used
22	DSP_MISO	I	Serial data input terminal Not used
23	DSP_SPICLK	O	Serial data transfer clock signal output terminal Not used
24	DSP_MOSI	O	Serial data output terminal Not used
25	DSP_SPIDS	O	Device selection signal output terminal Not used
26	CEC_TX_IN	O	CEC data output to the HDMI OUT connector
27	DSP_RESET	O	Reset signal output terminal Not used
28	LED_PWM	O	LED drive signal output terminal Not used
29	E2P_CLK/S-AIR_CLK	I/O	Serial data transfer clock signal output to the EEPROM and two-way clock bus with the wireless transceiver
30	E2P_SDA/S-AIR_SDA	I/O	Two-way data bus with the EEPROM and wireless transceiver
31	TXD1	O	Transmission data for flash writing output terminal
32	RXD1	I	Receive data for flash writing input terminal
33	S-AIR_GPIO2/CLK1	I	Interrupt signal input from the wireless transceiver Request to send signal for flash writing input terminal
34	S-AIR_DET/RTS1	I	Wireless transceiver detection signal input terminal Clock signal for flash writing input terminal
35	DMP_TX_OUT	O	Serial data output to the DMPOR connector
36	DMP_RX_IN	I	Serial data input from the DMPOR connector
37	S-AIR_RST	O	Reset signal output to the wireless transceiver "L": reset (HCD-HDX285/HDX585/HDX685) Reset signal output to the wireless transceiver and sample rate converter "L": reset (HCD-HDX287WC/HDX587WC/HDX589W/HDX686W)
38	S-AIR_ADC_SEL	O	A/D converter selection signal output to the wireless transceiver (HCD-HDX285/HDX585/HDX685) Audio data selection signal output terminal (HCD-HDX287WC/HDX587WC/HDX589W/HDX686W)
39	P_CONT1	O	Power supply on/off control signal output terminal "H": power on
40	P_CONT2	O	Power supply on/off control signal output terminal Not used
41	P_CONT3	O	Power supply on/off control signal output terminal "H": power on
42	DC_CONT	O	Auto calibration microphone DC control signal output terminal
43	MIC_GAIN	O	Microphone gain control signal output terminal
44	CDM_OPEN_SW	I	Disc tray open/close detection switch input terminal Not used

Pin No.	Pin Name	I/O	Description
45	DVD_RST	O	Reset signal output to the digital audio interface receiver, servo DSP and flash memory "L": reset
46	WRITE_CE	I	Chip enable signal for flash writing input terminal Not used
47	DVD_SDI	O	Serial data output to the servo DSP
48	DVD_SDO	I	Serial data input from the servo DSP
49	DVD_SCO	I	Serial data transfer clock signal input from the servo DSP
50	DVD_XIFBUSY	O	Busy signal output to the servo DSP
51	DVD_XIFCS	I	Chip select signal input from the servo DSP
52	LED_LAT	O	Serial data latch pulse signal output to the LED driver
53	KMODE	I	Karaoke mode information input terminal Not used
54	DRIVER_RST (EN)	O	Reset signal output to the digital power amplifier "L": reset
55, 56	OVERFLOW1, OVERFLOW2	I	Overflow detection signal input from the stream processor
57	DAMP_INIT	O	Reset signal output to the stream processor "L": reset
58	SOFT_MUTE	O	Soft muting on/off control signal output to the stream processor "L": muting on
59	DAMP_LAT1	O	Serial data latch pulse signal output to the stream processor
60	DAMP_LAT2	O	Serial data latch pulse signal output to the stream processor (HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX685)
61	DAMP_LAT3	O	Serial data latch pulse signal output to the stream processor
62	Vcc	-	Power supply terminal (+3.3V)
63	LINK_SW	O	Link control signal output terminal
64	Vss	-	Ground terminal
65	JACK1/JACK2 /DMP_DET	I	Auto calibration microphone, headphone and digital media port adapter connecting detection signal input terminal
66	DC_DET	I	Speaker DC detection signal input terminal
67	SD/PVDD_DET	I	Shut down signal input from the digital power amplifier PVDD power supply detection signal input terminal
68	A.CAL_OUT	I	Speaker output detection signal for auto calibration input terminal
69	SACD_SEL	O	SA-CD selection signal output terminal Not used
70	DIR_HCE	O	Chip enable signal output terminal Not used
71	HP_MUTE	O	Headphone muting on/off control signal output terminal "L": muting on
72	HDMI_PCONT	O	HDMI hot plug detection control signal output terminal HDMI +5V power on/off control signal output terminal "H": power on
73	KEY_INT	I	Wake up signal input terminal
74	RDS_DATA	I	RDS data input terminal Not used
75	RDS_CLK	I	RDS clock signal input terminal Not used
76	ST_CE	O	Chip enable signal output to the tuner (FM/AM)
77	ST_DI	O	Serial data output to the tuner (FM/AM)
78	ST_DO	I	Serial data input from the tuner (FM/AM)
79	ST_CLK	O	Serial data transfer clock signal output to the tuner (FM/AM)
80	TUNED	I	Tuning detection signal input from the tuner (FM/AM) "L": tuned
81	V_SEL0	O	Video data selection signal output to the video amplifier "L": video muting on
82	V_SEL1	O	Video data selection signal output to the video amplifier "L": DMPORT, "H": others
83	V_SEL2	O	Video data selection signal output terminal Not used
84	IO_CE	O	Chip enable signal output to the changer controller
85	IO_RESET	O	Reset signal output to the changer controller and audio/video controller "L": reset
86	IO_DI	O	Serial data output to the changer controller
87	IO_DO	I	Serial data input from the audio/video controller
88	IO_CLK	O	Serial data transfer clock signal output to the changer controller
89	A_SEL5	O	Audio data selection signal output terminal Not used
90	MONO/ST_DET	I	Monaural/stereo detection signal input terminal
91	A.CAL MIC LEVEL	I	Microphone input level detection signal for auto calibration input terminal
92	DESTINATION	I	Destination setting terminal
93	MODEL	I	Model setting terminal
94, 95	KEY2, KEY1	I	Front panel key input terminal (A/D input)
96	Vss	-	Ground terminal
97	KEY0	I	Front panel key input terminal (A/D input)

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

Pin No.	Pin Name	I/O	Description
98	Vref	-	Reference voltage (+3.3V) terminal
99	Vcc	-	Power supply terminal (+3.3V)
100	DIR_HDOOUT	I	Serial data input terminal Not used

**MAIN BOARD IC1101 CXD9917R-A (240V AC area in E and Saudi Arabia models),  
CXD9927R-A (US and Canadian models)  
(RF AMP, SERVO DSP, MPEG DECODER, HDMI TRANSMITTER)**

Pin No.	Pin Name	I/O	Description
1	OSN	-	RF offset cancellation capacitor connecting terminal
2	RFGC	O	RF AGC loop capacitor connecting terminal for DVD-ROM
3	IREF	I	Reference current input terminal
4	AVDD3	-	Power supply terminal (+3.3V)
5	AGND	-	Ground terminal
6	DVDA	I	AC coupled input path A
7	DVDB	I	AC coupled input path B
8	DVDC	I	AC coupled input path C
9	DVDD	I	AC coupled input path D
10	DVDRFP	I	AC coupled DVD RF signal input from the optical pick-up block
11	MA	I	DC coupled main-beam RF signal input A
12	MB	I	DC coupled main-beam RF signal input B
13	MC	I	DC coupled main-beam RF signal input C
14	MD	I	DC coupled main-beam RF signal input D
15	SA	I	DC coupled sub-beam RF signal input A Not used
16	SB	I	DC coupled sub-beam RF signal input B Not used
17	TNI	I	3 beam satellite PD signal negative input from the optical pick-up block
18	TPI	I	3 beam satellite PD signal positive input from the optical pick-up block
19, 20	MDI1, MDI2	I	Laser power monitor input from the optical pick-up block
21	LDO2	O	Laser diode drive signal output to the optical pick-up block (for DVD)
22	LDO1	O	Laser diode drive signal output to the optical pick-up block (for CD)
23	SVDD3	-	Power supply terminal (+3.3V)
24	CSO	O	Central servo signal output terminal Not used
25	RFLVL	O	RFRP low pass output terminal Not used
26	SGND	-	Ground terminal
27	V2REFO	O	Reference voltage (+2.8V) output terminal Not used
28	V2O	O	Reference voltage (+2V) output to the optical pick-up block
29	VREFO	O	Reference voltage (+1.4V) output terminal
30	FEO	O	Focus error monitor output terminal Not used
31	TEO	O	Tracking error monitor output terminal Not used
32	TEZISLV	O	Tracking error slicing level output terminal Not used
33	OP_OUT	O	Output from the internal operational amplifier Not used
34	OP_INN	I	Negative input to the internal operational amplifier Not used
35	OP_INP	I	Positive input to the internal operational amplifier Not used
36	DMO	O	Spindle motor control signal output to the motor driver
37	FMO	O	Sled motor control signal output to the motor driver
38	TROPENPWM	O	Loading motor control signal output terminal Not used
39	IOPMON	I	Power monitor terminal
40	TRO	O	Tracking coil control signal output to the coil driver
41	FOO	O	Focus coil control signal output to the coil driver
42	AGND18	-	Ground terminal
43	AVDD18	-	Power supply terminal (+1.8V)
44	USB_DP	I/O	USB communication data (+) input/output terminal Not used
45	USB_DM	I/O	USB communication data (-) input/output terminal Not used
46	USB_VDD3	-	Power supply terminal (+3.3V)
47	USB_VSS	-	Ground terminal
48	PAD_VRT	I/O	USB generating reference current input/output terminal Not used
49	USB_VDD18	-	Power supply terminal (+1.8V)
50	USB_VSS	-	Ground terminal
51	DIR_ERROR	I	PLL lock error signal and input data error detection signal input from the digital audio interface receiver "H": error
52	DIR_AUDIO	I	PCM/Non PCM detection signal input from the digital audio interface receiver "L": PCM, "H": Non PCM

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

Pin No.	Pin Name	I/O	Description
53	LIMITSW	I	Limit detection switch input terminal
54	MSW	O	CD/DVD selection signal output terminal "L": CD, "H": DVD
55	DVDD18	-	Power supply terminal (+1.8V)
56 to 64	HA2 to HA8, HA18, HA19	O	Address signal output to the flash ROM
65	DVDD3	-	Power supply terminal (+3.3V)
66	XWR	O	Write enable signal output to the flash ROM
67 to 75	HA16 to HA9, HA20	O	Address signal output to the flash ROM
76	XROMCS	O	Chip select signal output to the flash ROM
77	HA1	O	Address signal output to the flash ROM
78	XRD	O	Read enable signal output to the flash ROM
79, 80	HD0, HD1	I/O	Two-way data bus with the flash ROM
81	DVSS	-	Ground terminal
82 to 86	HD2 to HD6	I/O	Two-way data bus with the flash ROM
87	HA21	O	Address signal output to the flash ROM
88	RESERVED	O	Not used
89	HD7	I/O	Two-way data bus terminal with the flash ROM
90	DVSS	-	Ground terminal
91, 92	HA17, HA0	O	Address signal output to the flash ROM
93	DVDD18	-	Power supply terminal (+1.8V)
94	FWD	O	Loading motor drive signal output terminal (forward direction) Not used
95	REV	O	Loading motor drive signal output terminal (reverse direction) Not used
96	DVDD3	-	Power supply terminal (+3.3V)
97	IFSDO	O	Serial data output to the system controller
98	IFCK	O	Serial data transfer clock signal output to the system controller
99	xIFCS	O	Chip select signal output to the system controller
100	IFSDI	I	Serial data input from the system controller
101	SCL	O	Serial data transfer clock signal output to the EEPROM
102	SDA	I/O	Two-way data bus with the EEPROM
103	CKSW	I	Chucking detection switch input terminal Not used
104	OCSW	I	Disc tray open/close detection switch input terminal Not used
105	RXD	I	Receive data for flash writing input terminal
106	TXD	O	Transmission data for flash writing output terminal
107	ICE	I	ICE mode enable signal input terminal Not used
108	xSYSRST	I	Reset signal input from the system controller "L": reset
109	RESERVED	I	Not used
110	IFBSY	I	Busy signal input from the system controller
111	DQM0	O	Data mask signal output to the SD-RAM
112	EEWP	O	Write protect signal output to the EEPROM
113 to 117	RD7 to RD3	I/O	Two-way data bus with the SD-RAM
118	DVDD3	-	Power supply terminal (+3.3V)
119 to 129	RD2 to RD0, RD15 to RD8	I/O	Two-way data bus with the SD-RAM
130	TSD_M	O	Thermal shut down signal output to the coil/motor driver
131	DVDD3	-	Power supply terminal (+3.3V)
132	DQM1	O	Data mask signal output to the SD-RAM
133	RWE#	O	Write enable signal output to the SD-RAM
134	CAS#	O	Column address strobe signal output to the SD-RAM
135	RAS#	O	Row address strobe signal output to the SD-RAM
136	RCS#	O	Chip select signal output to the SD-RAM
137, 138	BA0, BA1	O	Bank address signal output to the SD-RAM
139 to 141	RA10, RA0, RA1	O	Address signal output to the SD-RAM
142	DVDD18	-	Power supply terminal (+1.8V)
143, 144	RA2, RA3	O	Address signal output to the SD-RAM
145	DVDD3	-	Power supply terminal (+3.3V)
146	DRCLK	O	Serial data transfer clock signal output to the SD-RAM

Pin No.	Pin Name	I/O	Description
147	CKE	O	Clock enable signal output to the SD-RAM
148	DVSS	-	Ground terminal
149 to 155	RA11, RA9 to RA4	O	Address signal output to the SD-RAM
156	DVDD3	-	Power supply terminal (+3.3V)
157	MUTE123	O	Muting signal output to the coil/motor driver (for focus/tracking coil and sled motor)
158	MUTE	O	Muting signal output to the coil/motor driver (for spindle motor)
159	DDC_DA	I/O	Two-way data bus with the HDMI OUT connector
160	DVDD18	-	Power supply terminal (+1.8V)
161	DDC_CLK	O	Serial data transfer clock signal output to the HDMI OUT connector
162	HTPLG	I	HDMI hot plug detection signal input terminal
163	AGND3	-	Ground terminal
164	EXT_RES	I	External resistor connecting terminal
165, 166	AVDD3	-	Power supply terminal (+3.3V)
167	EXT_CAP	I	External capacitor connecting terminal
168, 169	AGND3, AGND18	-	Ground terminal
170	TXCN	O	TMDS clock signal (negative) output to the HDMI OUT connector
171	TXCP	O	TMDS clock signal (positive) output to the HDMI OUT connector
172	AVDD18	-	Power supply terminal (+1.8V)
173	TX0N	O	TMDS data (negative) output to the HDMI OUT connector
174	TX0P	O	TMDS data (positive) output to the HDMI OUT connector
175	AGND18	-	Ground terminal
176	TX1N	O	TMDS data (negative) output to the HDMI OUT connector
177	TX1P	O	TMDS data (positive) output to the HDMI OUT connector
178	AVDD18	-	Power supply terminal (+1.8V)
179	TX2N	O	TMDS data (negative) output to the HDMI OUT connector
180	TX2P	O	TMDS data (positive) output to the HDMI OUT connector
181	AGND18	-	Ground terminal
182	R/Cr/Pr	O	Component video (Pr/Cr) signal output to the video amplifier
183	B/Cb/Pb	O	Component video (Pb/Cb) signal output to the video amplifier
184	DACVSSA	-	Ground terminal
185	Y/G	O	Component video (Y) signal output to the video amplifier
186	DACVDDA	-	Power supply terminal (+3.3V)
187	CVBS	O	Composite video signal output to the video amplifier Not used
188	DACVSSB	-	Ground terminal
189	C	O	Chroma signal output to the video amplifier
190	DACVddb	-	Power supply terminal (+3.3V)
191	Y	O	Y signal output to the video amplifier
192	DACVSSC	-	Ground terminal
193	FS	I	Full scale adjustment terminal
194	VREF	I	Bandgap reference voltage terminal
195	DACVDDC	-	Power supply terminal (+3.3V)
196	VBUS_OE	O	VBUS control signal output terminal Not used
197	VBUS_OC	I	VBUS over current detection signal input terminal Not used
198	DIR_XSTATE	I	Clock change status detection signal input from the digital audio interface receiver "L": change
199	SPMCK	I	Master clock signal input from the digital audio interface receiver
200	SPBCK	I	Bit clock signal input from the digital audio interface receiver
201	SPLRCK	I	L/R sampling clock signal input from the digital audio interface receiver
202	ADIN(SPDATA)	I	Audio data input from the digital audio interface receiver
203	ACLK	O	Master clock signal output to the stream processor
204	ABCK	O	Bit clock signal output to the stream processor
205	ALRCK	O	L/R sampling clock signal output to the stream processor
206	MC_DATA(ADIN)	I	Audio data input from the A/D converter
207	DVDD3	-	Power supply terminal (+3.3V)
208	MIC	I	Karaoke microphone detection signal input terminal Not used
209	WIDE	O	Normal/squeeze selection signal output terminal Not used

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

Pin No.	Pin Name	I/O	Description
210	REG_SEL/DSEL	O	RGB and disc selection signal output terminal Not used
211	TRG_SW	I	Trigger detection switch input terminal Not used
212	DVDD18	-	Power supply terminal (+1.8V)
213	KMOD	O	Karaoke mode status output terminal Not used
214	DIR_CSFCAG	I	Channel change status detection signal input from the digital audio interface receiver "H": change
215	SPDIF	O	SPDIF audio data output terminal Not used
216	APLLVDD3	-	Power supply terminal (+3.3V)
217	APLLCAP	I	External capacitor connecting terminal
218	APLLVSS	-	Ground terminal
219, 220	ADACVSS2, ADACVSS1	-	Ground terminal
221	DIR_CE	O	Chip enable signal output to the digital audio interface receiver
222	ASDATA3	O	Audio data output to the wireless transceiver
223	ASDATA2	O	Audio data output to the stream processor
224	AVCM	-	Audio D/A converter reference voltage terminal
225	ASDATA1	O	Audio data output to the wireless transceiver and stream processor (HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX685) Audio data output to the wireless transceiver (HCD-HDX589W/HDX686W)
226	ASDATA0	O	Audio data output to the wireless transceiver and stream processor
227	DIR_CL	O	Serial data transfer clock signal output to the digital audio interface receiver
228, 229	ADACVDD1, ADACVDD2	-	Power supply terminal (+3.3V)
230	DIR_DI	O	Serial data output to the digital audio interface receiver
231	DIR_DO	I	Serial data input from the digital audio interface receiver
232	ADACVSS1	-	Ground terminal
233	ADACVDD1	-	Power supply terminal (+3.3V)
234	SADCVDD18	-	Power supply terminal (+1.8V)
235	SADCVSS18	-	Ground terminal
236	RFGND18	-	Ground terminal
237	RFVDD18	-	Power supply terminal (+1.8V)
238	XTALO	O	System clock output terminal (27 MHz)
239	XTALI	I	System clock input terminal (27 MHz)
240	JITFO	O	Output terminal of the RF jitter meter
241	JITFN	I	Input terminal of the RF jitter meter
242	PLLSS	-	Ground terminal
243	PLLVDD3	-	Power supply terminal (+3.3V)
244	LPFON	O	Loop filter amplifier negative output terminal
245	LPFIP	I	Loop filter amplifier positive input terminal
246	LPFIN	I	Loop filter amplifier negative input terminal
247	LPFOP	O	Loop filter amplifier positive output terminal
248	ADCVDD3	-	Power supply terminal (+3.3V)
249	ADCVSS	-	Ground terminal
250	RFVDD3	-	Power supply terminal (+3.3V)
251	RFRPDC	O	RF ripple detection signal output terminal
252	RFRPAC	I	RF ripple detection signal input terminal
253	HRFZC	I	High frequency RF ripple zero crossing terminal
254	CRTPLP	O	Defect level filter capacitor connecting terminal
255	RFGND18	-	Ground terminal
256	OSP	O	RF offset cancellation capacitor connecting terminal

## SERIPARA BOARD IC001 BH2210FV-E2 (CHANGER CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	CTLIO	I	Input/output selection signal input terminal "L": input, "H": output Fixed at "L": in this set
2	RESET_B	I	Reset signal input from the system controller "L": reset
3	CLK	I	Serial data transfer clock signal input from the system controller
4	LATCH	I	Serial data latch pulse signal input from the system controller
5 to 7	P15 to P13	I	Not used
8	P12	I	Main tray open detection switch input terminal "L": main tray is opened
9	P11	I	Sub tray out detection switch input terminal "L": sub tray out
10	P10	I	Sub tray in detection switch input terminal "L": sub tray in
11	P9	I	Main tray close detection switch input terminal "L": main tray is closed
12	P8	I	Disc insert detection signal input terminal
13	LATCHO	O	Serial data latch pulse signal output to the audio/video controller
14	CLKO	O	Serial data transfer clock signal output to the audio/video controller
15	DO1	O	Serial data output to the audio/video controller
16	DI2	I	Serial data input terminal Not used
17, 18	P7, P6	O	Not used
19, 20	P5, P4	O	Stocker up/down motor drive signal output terminal
21, 22	P3, P2	O	Not used
23, 24	P1, P0	O	Loading motor drive signal output terminal
25	DO2	O	Serial data output to the audio/video controller
26	DI2	I	Serial data input from the system controller
27	VSS	-	Ground terminal
28	VCC	-	Power supply terminal (+3.3V)

SERIPARA BOARD IC002 BH2210FV-E2 (AUDIO/VIDEO CONTROLLER)

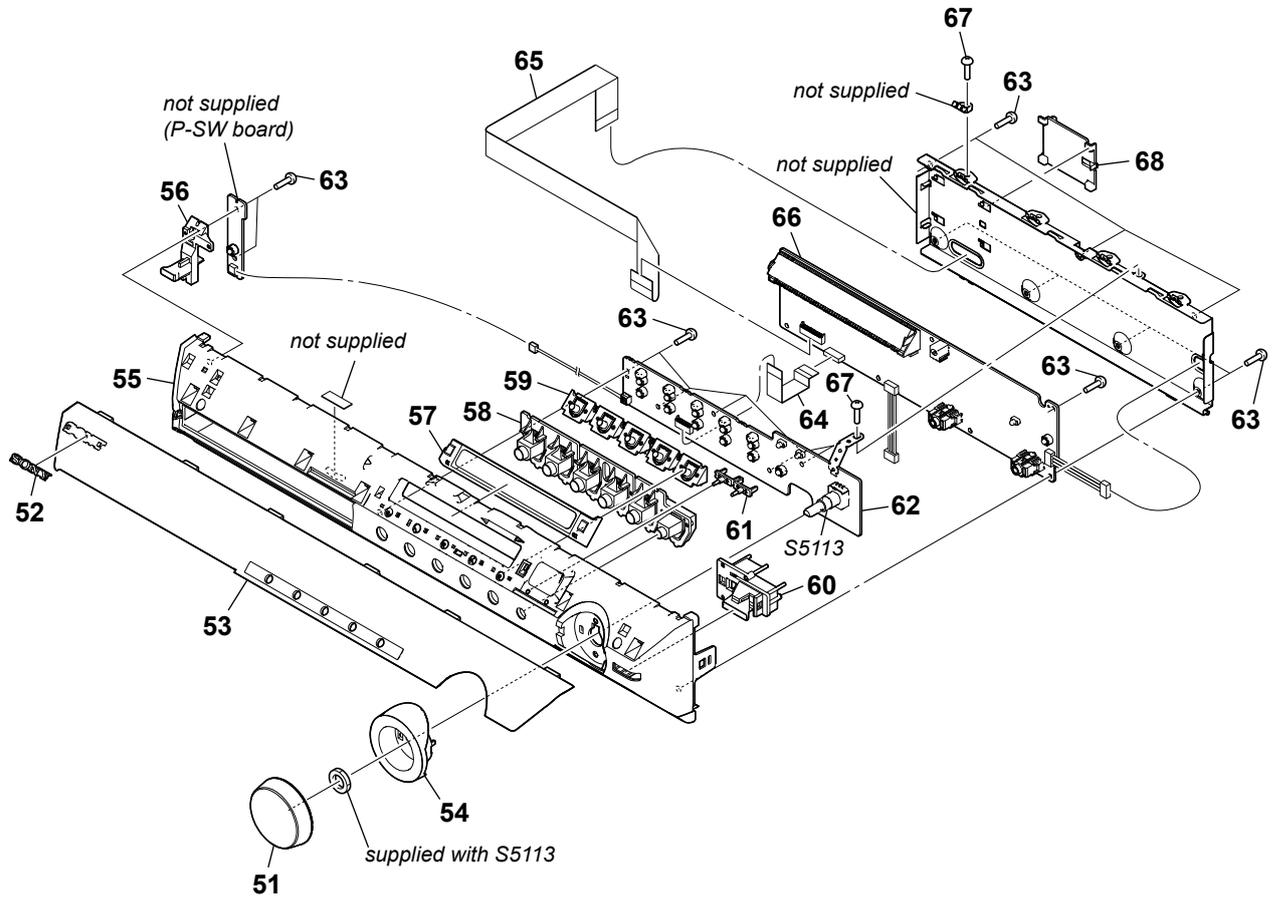
Pin No.	Pin Name	I/O	Description
1	CTLIO	I	Input/output selection signal input terminal "L": input, "H": output Fixed at "L": in this set
2	RESET_B	I	Reset signal input from the system controller "L": reset
3	CLK	I	Serial data transfer clock signal input from the changer controller
4	LATCH	I	Serial data latch pulse signal input from the changer controller
5 to 8	P15 to P12	I	Stocker position detection rotary encoder input terminal
9 to 12	P11 to P8	I	Mode detection rotary encoder input terminal
13	LATCHO	O	Serial data latch pulse signal output terminal Not used
14	CLKO	O	Serial data transfer clock signal output terminal Not used
15	DO1	O	Serial data output terminal Not used
16	DI2	I	Serial data input from the system controller
17	P7	O	Audio data selection signal output terminal "L": DVD, DMPORT, AUDIO, "H": TUNER, TV/VIDEO
18	P6	O	Audio data selection signal output terminal "L": DVD, TV/VIDEO, DMPORT, "H": TUNER, AUDIO
19, 20	P5, P4	O	Not used
21	P3	O	Audio data selection signal output terminal "L": AUDIO, "H": others
22	P2	O	Audio data selection signal output terminal "L": DMPORT, "H": others
23	P1	O	Video data selection signal output terminal "L": others, "H": DMPORT
24	P0	O	Not used
25	DO2	O	Serial data output to the system controller
26	DI2	I	Serial data input from the changer controller
27	VSS	-	Ground terminal
28	VCC	-	Power supply terminal (+3.3V)

## KEY BOARD IC802 BU2099FV (LED DRIVER)

Pin No.	Pin Name	I/O	Description
1	VSS	-	Ground terminal
2	NC	-	Not used
3	DATA	I	Serial data input from the system controller
4	CLK	I	Serial data transfer clock signal input from the system controller
5	LCK	I	Serial data latch pulse signal input from the system controller
6	Q0	O	LED drive signal output terminal for DISC 5 indicator (green) "L": LED on
7	Q1	O	LED drive signal output terminal for DISC 5 indicator (orange) "L": LED on
8	Q2	O	LED drive signal output terminal for DISC 4 indicator (green) "L": LED on
9	Q3	O	LED drive signal output terminal for DISC 4 indicator (orange) "L": LED on
10	Q4	O	LED drive signal output terminal for DISC 3 indicator (green) "L": LED on
11	Q5	O	LED drive signal output terminal for DISC 3 indicator (orange) "L": LED on
12	Q6	O	LED drive signal output terminal for DISC 2 indicator (green) "L": LED on
13	Q7	O	LED drive signal output terminal for DISC 2 indicator (orange) "L": LED on
14	Q8	O	LED drive signal output terminal for DISC 1 indicator (green) "L": LED on
15	Q9	O	LED drive signal output terminal for DISC 1 indicator (orange) "L": LED on
16, 17	Q10, Q11	-	Not used
18	SO	O	Serial data output terminal Not used
19	X-OE	I	Output enable signal input terminal Not used
20	VDD	-	Power supply terminal (+3.3V)



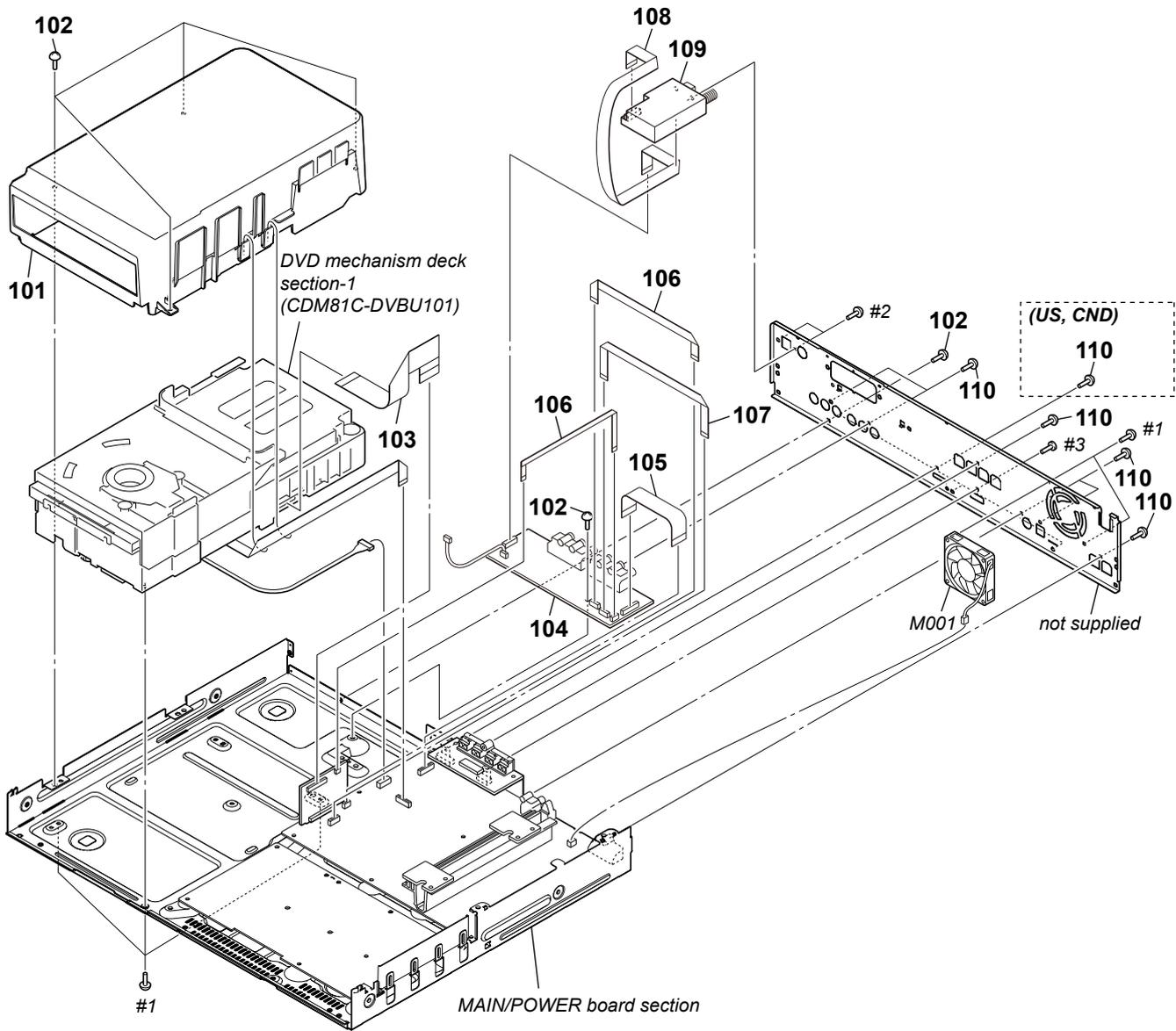
7-2. FRONT PANEL SECTION



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-120-907-01	KNOB (VOL-DCY)		57	4-120-913-01	FILTER (COLOR-DCY)	
52	3-943-995-01	EMBLEM (NO.5), SONY		58	4-120-910-01	BUTTON (PLAY-DCY) (▶, ▶▶, ■, ◀◀, ◀◀◀, FUNCTION)	
53	4-120-905-02	WINDOW (DCY) (HDX585)		59	4-120-922-01	BUTTON (DISC)	
53	4-120-905-12	WINDOW (DCY) (HDX686W)		60	4-120-911-02	BUTTON (BOOSTER) (DMPORT BOOSTER)	
53	4-120-905-22	WINDOW (DCY) (HDX685)		61	4-120-912-01	INDICATOR (MM-DCY)	
53	4-120-905-32	WINDOW (DCY) (HDX287WC)		62	A-1602-530-A	KEY BOARD, COMPLETE	
53	4-120-905-42	WINDOW (DCY) (HDX587WC)		63	3-087-053-01	+BVTP.6 (3CR)	
53	4-120-905-52	WINDOW (DCY) (HDX589W)		64	1-828-317-11	WIRE (FLAT TYPE) (11 CORE)	
53	4-120-905-62	WINDOW (DCY) (HDX285)		65	1-828-353-11	WIRE (FLAT TYPE) (17 CORE)	
54	4-120-906-02	RING (VOL-DCY)		66	A-1602-528-A	FL-JACK BOARD, COMPLETE	
55	4-120-904-01	PANEL, FRONT (DCY) (HDX285: US/HDX585/HDX685)		67	3-077-331-21	+BV3 (3-CR)	
55	4-120-904-11	PANEL, FRONT (DCY) (HDX287WC/HDX587WC/HDX589W/HDX686W)		68	4-120-914-01	HOLDER (FFC-DCY)	
55	4-120-904-21	PANEL, FRONT (DCY) (HDX285: EA, E3)		S5113	1-480-136-11	ENCODER, ROTARY (12 TYPE) (VOLUME)	
56	4-120-909-01	BUTTON (POWER-DCY) (I/⏻)					

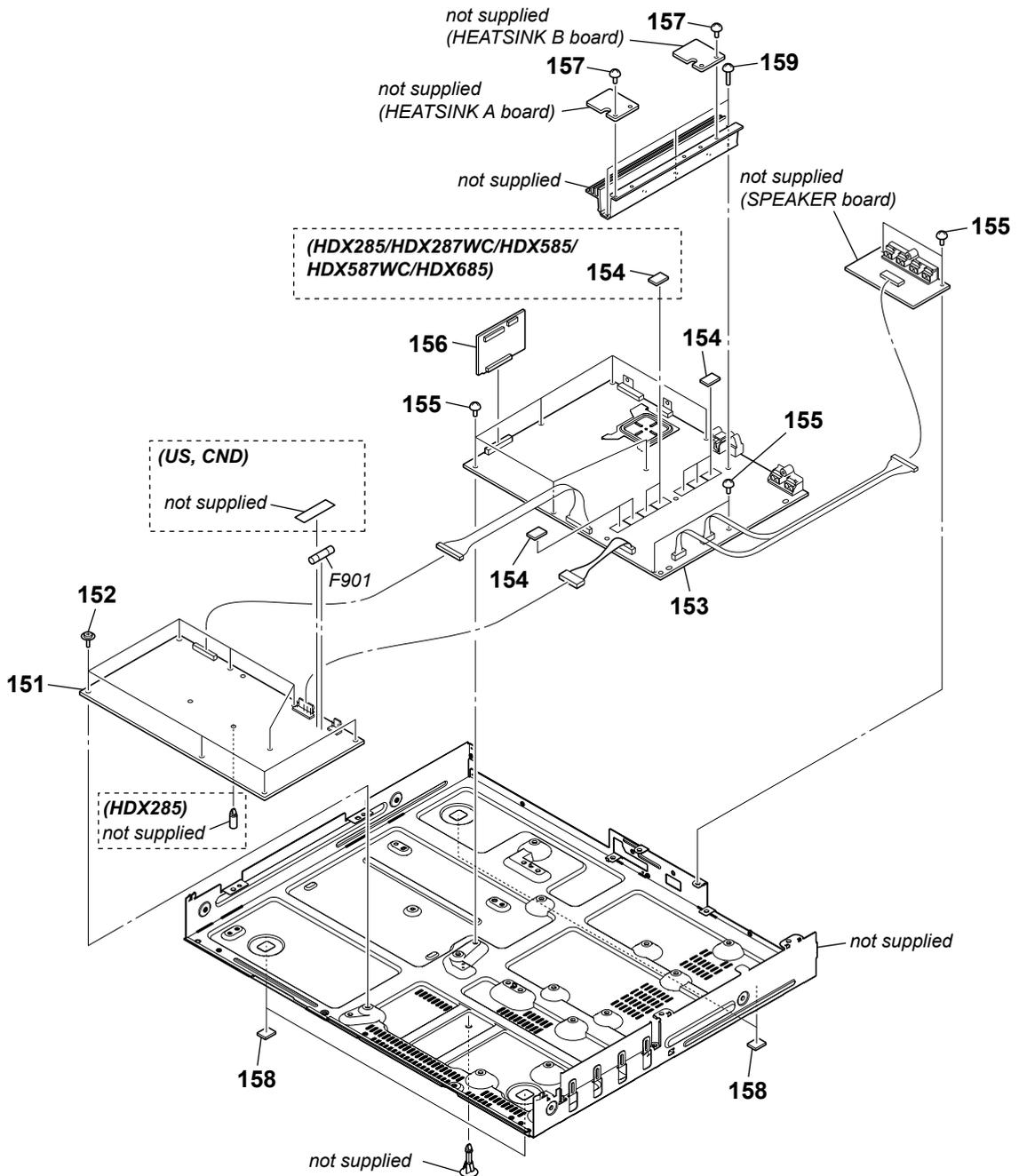
7-3. BACK PANEL SECTION



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

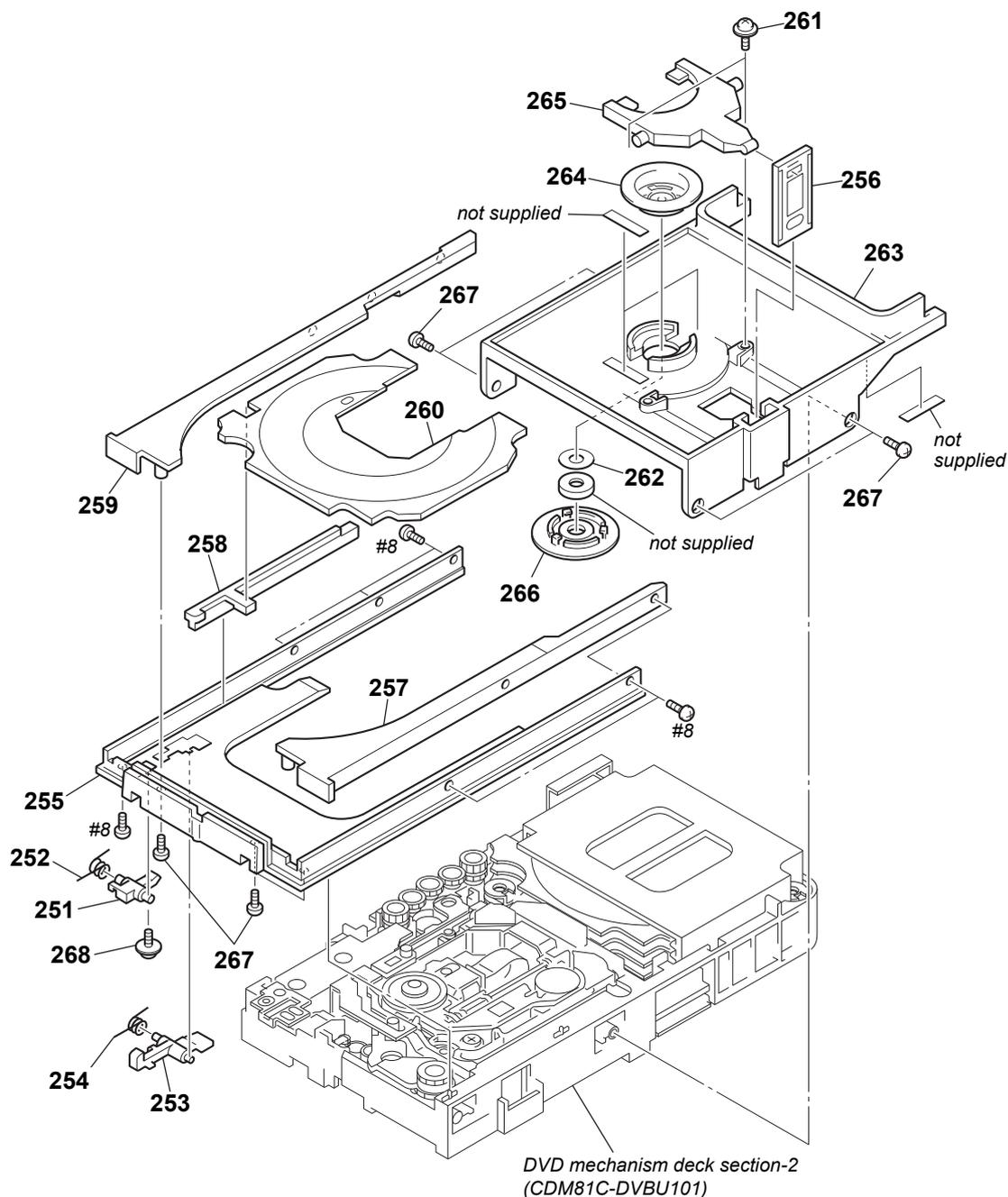
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-120-915-01	COVER (CDM-DCY)		109	1-693-778-11	TUNER (FM/AM) (EA, E3)	
102	3-077-331-21	+BV3 (3-CR)		109	1-693-779-11	TUNER (FM/AM) (US, CND)	
103	1-828-370-11	WIRE (FLAT TYPE) (21 CORE)		110	3-077-331-01	+BV3 (3-CR)	
104	A-1602-537-A	I/O BOARD, COMPLETE		M001	1-787-396-11	D.C. FAN (50 SQUARE)	
105	1-828-347-11	WIRE (FLAT TYPE) (17 CORE)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
106	1-828-289-11	WIRE (FLAT TYPE) (5 CORE)		#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
107	1-828-310-11	WIRE (FLAT TYPE) (9 CORE)		#3	7-682-547-04	SCREW +B 3X6	
108	1-828-955-11	WIRE (FLAT TYPE) (9 CORE)					

7-4. MAIN/POWER BOARD SECTION



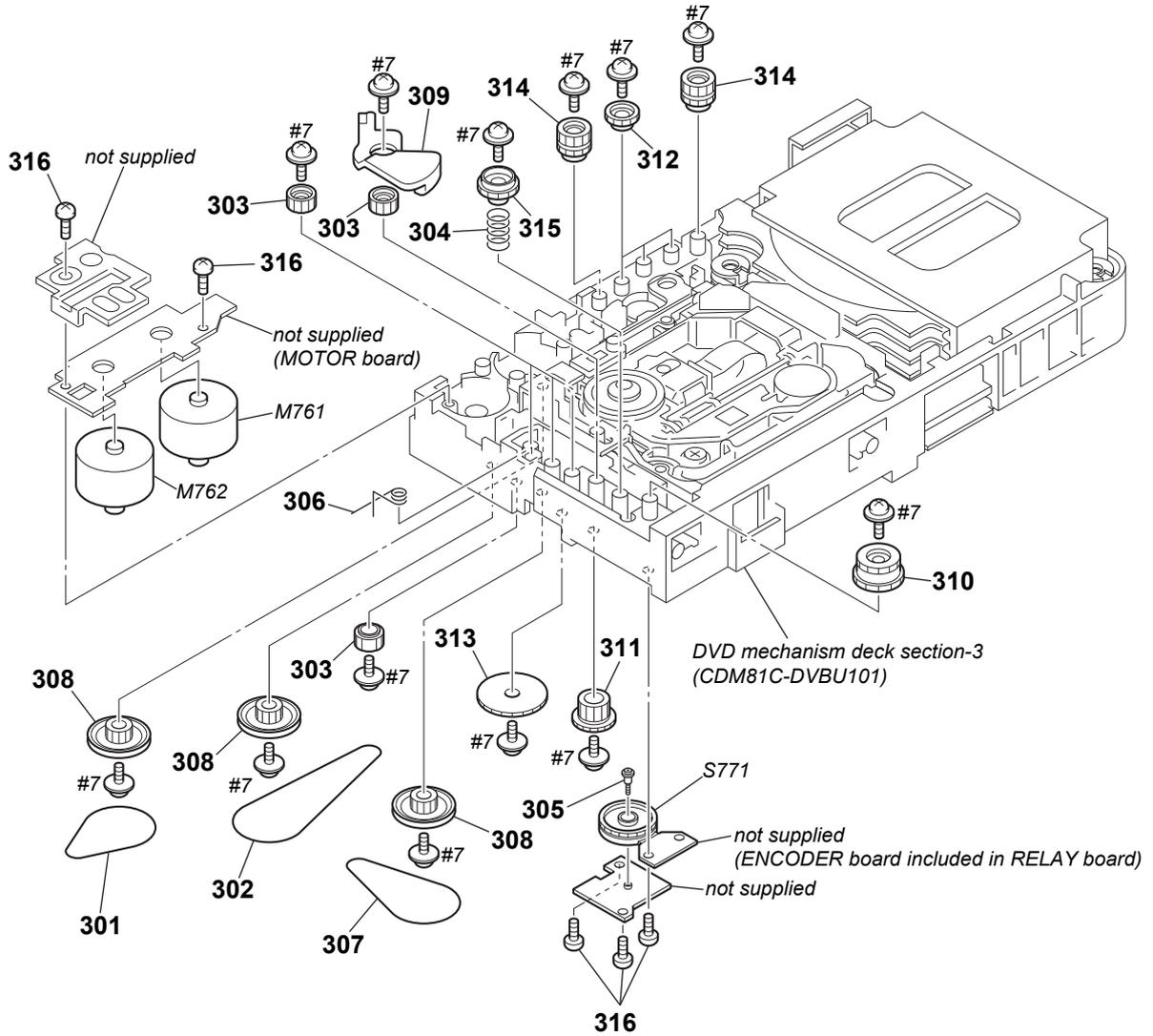
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	A-1568-848-A	POWER BOARD, COMPLETE (EA, E3)		153	A-1703-692-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX585)
151	A-1568-850-A	POWER BOARD, COMPLETE (US, CND)		154	4-125-473-01	SHEET, RADIATION (US)	
152	2-677-839-01	+PWH 3X8 (SUMITITE)		154	4-125-473-11	SHEET, RADIATION (CND, E3, EA)	
153	A-1602-539-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX285: EA, E3)	155	3-077-331-21	+BV3 (3-CR)	
153	A-1602-547-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX285: US)	156	A-1602-535-A	SERIPARA BOARD, COMPLETE	
153	A-1602-568-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX589W)	157	3-077-331-01	+BV3 (3-CR)	
153	A-1602-575-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX287WC/HDX587WC)	158	4-232-478-51	FOOT	
153	A-1602-588-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX685)	159	3-077-331-11	+BV3 (3-CR)	
153	A-1602-597-A	MAIN BOARD, COMPLETE (for SERVICE)	(HDX686W)	F901	1-533-311-12	FUSE, GLASS CYLINDRICAL (DIA.5) (8A/125V)	(US, CND)
				F901	1-576-232-51	FUSE (H.B.C.) (T5AH/250V) (EA, E3)	

7-5. DVD MECHANISM DECK SECTION-1 (CDM81C-DVBU101)



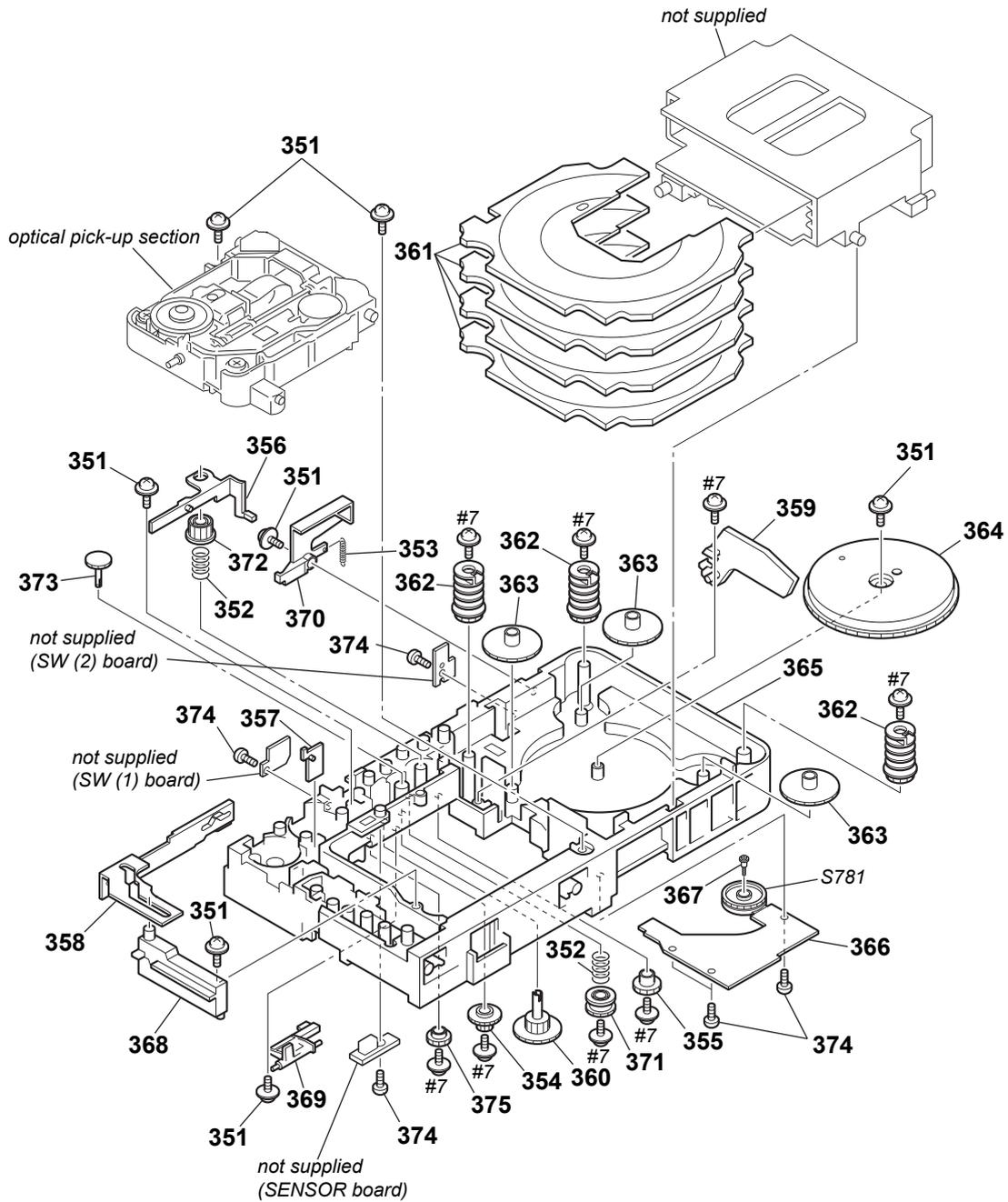
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-251-849-01	LEVER (SW2)		261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
252	4-251-991-01	SPRING (SW2), TORSION		262	4-251-923-01	YOKE (310)	
253	4-251-860-01	LEVER (LOCK)		263	4-251-821-03	BRACKET (TOP)	
254	4-251-867-01	SPRING (LOCK), TORSION		264	4-251-922-01	PULLEY B (310), CHUCKING	
255	4-251-828-01	TRAY (MAIN)		265	4-251-824-01	LIFTER	
256	4-251-822-01	JOINT (LIFTER)		266	4-251-837-01	PULLEY A (310), CHUCKING	
257	4-251-857-01	COVER (R)		267	4-218-253-52	SCREW (M2.6), +BTTP	
258	4-251-830-01	SLIDER (ST)		268	4-674-137-11	SCREW (PTP 2X5)	
259	4-251-858-01	COVER (L)		#8	7-685-102-19	SCREW +P 2X4 TYPE2 NON-SLIT	
260	4-251-829-02	TRAY (SUB)					

7-6. DVD MECHANISM DECK SECTION-2 (CDM81C-DVBU101)



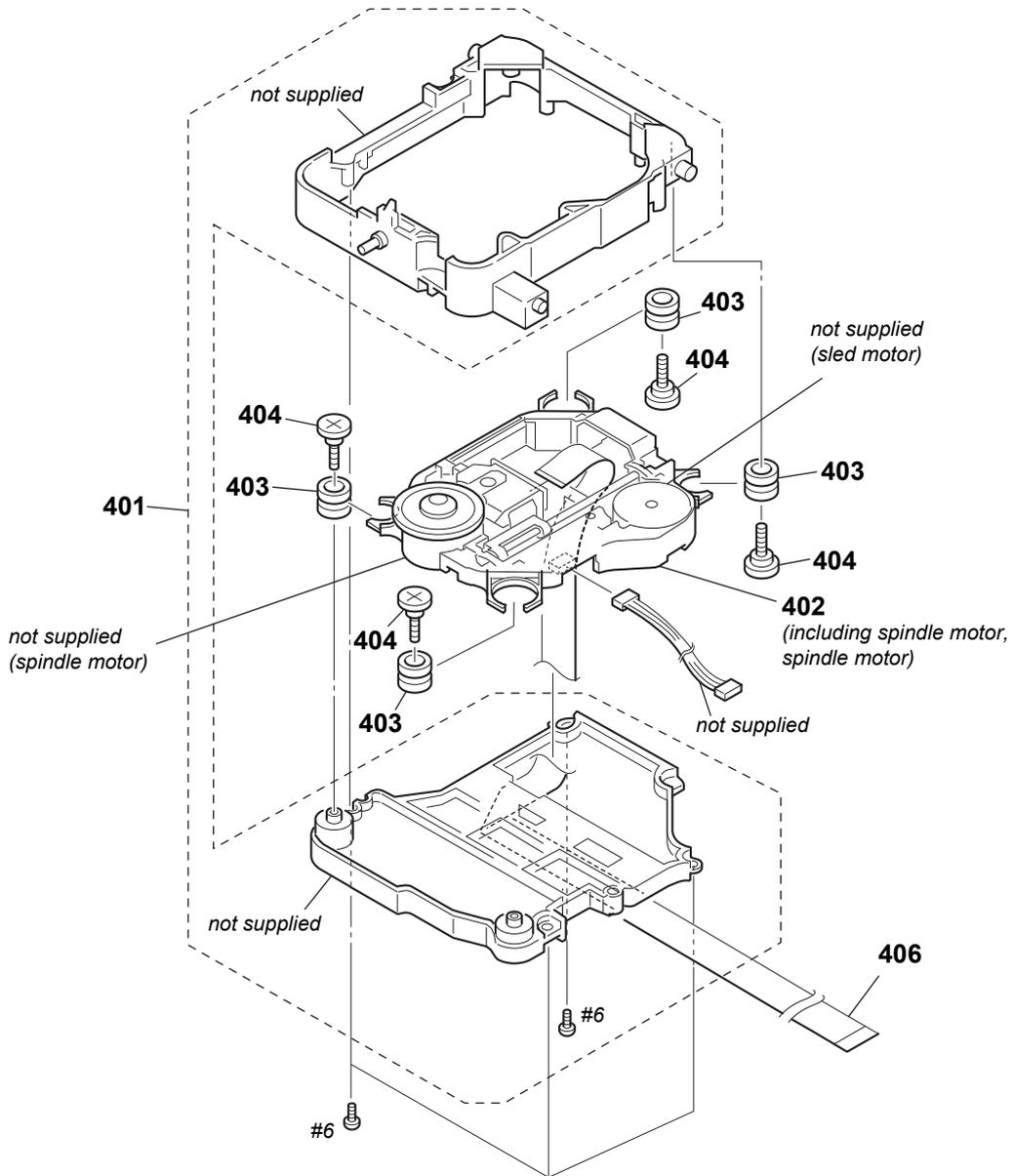
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	4-251-868-01	BELT (SUB TRAY)		311	4-251-856-01	GEAR (BU2)	
302	4-251-869-01	BELT (MAIN TRAY)		312	4-251-841-01	GEAR (SUB TRAY 1)	
303	4-251-850-01	GEAR (MAIN TRAY 1)		313	4-251-854-01	GEAR (BU1)	
304	4-251-873-01	SPRING (MODE), COMPRESSION		314	4-251-842-02	GEAR (SUB TRAY 2)	
305	4-239-618-01	SCREW (+PWH, 2X6), STEP TAPPING		315	4-251-851-01	GEAR (MAIN TRAY 2)	
306	4-251-872-01	SPRING (LEVER), TORSION		316	4-218-253-52	SCREW (M2.6), +BTTP	
307	4-251-870-01	BELT (BU)		M761	A-4713-174-A	MOTOR (81) ASSY (LOADING)	
308	4-251-853-01	PULLEY (BU)		M762	A-4713-174-A	MOTOR (81) ASSY (STOCKER UP/DOWN)	
309	4-251-834-01	LEVER (MAIN TRAY)		S771	1-478-552-11	ENCODER, ROTARY (MD)	
310	4-251-852-01	GEAR (MAIN TRAY 3)		#7	7-685-902-21	TAPPING +PWH 2.6X8 TYPE2 N-S	

7-7. DVD MECHANISM DECK SECTION-3 (CDM81C-DVBU101)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING		365	4-251-823-01	CHASSIS (CDM81)	
352	4-251-873-01	SPRING (MODE), COMPRESSION		366	A-4750-232-A	RELAY BOARD, COMPLETE	
353	4-251-874-02	SPRING (SW), EXTENSION		367	4-239-618-01	SCREW (+PWH, 2X6), STEP TAPPING	
354	4-251-844-01	GEAR (SS2)		368	4-251-825-01	CAM (BU)	
355	4-251-835-01	GEAR (STOCKER 1)		369	4-251-832-01	LEVER (STOCKER)	
356	4-251-833-01	LEVER (SUB TRAY)		370	4-251-861-01	LEVER (SW)	
357	4-251-843-01	LEVER (RELEASE)		371	4-251-839-01	GEAR (STOCKER 4)	
358	4-251-831-02	LEVER (MODE)		372	4-251-840-01	GEAR (SUB TRAY)	
359	4-251-862-01	SHUTTER (TRAY)		373	4-251-847-01	GEAR (SS4)	
360	4-251-845-01	GEAR (SS3)		374	4-218-253-52	SCREW (M2.6), +BTTP	
361	4-251-829-02	TRAY (SUB)		375	4-251-841-01	GEAR (SUB TRAY 1)	
362	4-251-827-01	CAM (STOCKER)		S781	1-478-551-11	ENCODER, ROTARY (STOCKER UP/DOWN)	
363	4-251-836-01	GEAR (STOCKER 2)		#7	7-685-902-21	TAPPING +PWH 2.6X8 TYPE2 N-S	
364	4-251-838-01	GEAR (STOCKER 3)					

7-8. OPTICAL PICK-UP SECTION



**Note 1:** If flexible flat cable is replaced, install it after bending it in the same form as that before replacement.

**Note 2:** Refer to the Servicing Notes "HOW TO IDENTIFY OPTICAL PICK-UP BLOCK" (page 7), if replacing the Ref. No. 402.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	X-4956-097-1	HOLDER (310) ASSY		403	2-634-618-01	INSULATOR	
△ 402	8-820-291-02	OPTICAL PICK-UP BLOCK (KHM-310CAB/C2RP) (Including sled motor, spindle motor)		404	3-087-599-01	INSULATOR SCREW	
△ 402	8-820-322-04	OPTICAL PICK-UP BLOCK (KHM-313CAB/C2RP) (Including sled motor, spindle motor)		406	1-836-385-11	FLEXIBLE FLAT CABLE 24P	
				#6	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	





# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

I/O

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C4048	1-165-908-11	CERAMIC CHIP	1uF 10% 10V				
C4049	1-165-908-11	CERAMIC CHIP	1uF 10% 10V			< RESISTOR >	
C4050	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V				
C4053	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R4032	1-218-285-11	METAL CHIP	75 5% 1/10W
				R4034	1-218-285-11	METAL CHIP	75 5% 1/10W
C4054	1-104-662-91	ELECT	22uF 20% 25V	R4035	1-218-827-11	METAL CHIP	150 0.5% 1/10W
C4055	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R4036	1-218-827-11	METAL CHIP	150 0.5% 1/10W
C4056	1-126-964-11	ELECT	10uF 20% 50V	R4037	1-218-827-11	METAL CHIP	150 0.5% 1/10W
C4057	1-104-662-91	ELECT	22uF 20% 25V				
C4059	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R4038	1-218-827-11	METAL CHIP	150 0.5% 1/10W
				R4039	1-218-827-11	METAL CHIP	150 0.5% 1/10W
C4070	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	R4041	1-218-285-11	METAL CHIP	75 5% 1/10W
C4077	1-104-662-91	ELECT	22uF 20% 25V	R4043	1-218-285-11	METAL CHIP	75 5% 1/10W
C4078	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	R4044	1-218-285-11	METAL CHIP	75 5% 1/10W
C4083	1-104-662-91	ELECT	22uF 20% 25V				
C4087	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	R4045	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R4048	1-216-845-11	METAL CHIP	100K 5% 1/10W
C4088	1-104-662-91	ELECT	22uF 20% 25V	R4049	1-216-841-11	METAL CHIP	47K 5% 1/10W
C4089	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	R4050	1-216-841-11	METAL CHIP	47K 5% 1/10W
C4090	1-104-662-91	ELECT	22uF 20% 25V	R4051	1-216-837-11	METAL CHIP	22K 5% 1/10W
C4093	1-126-933-11	ELECT	100uF 20% 16V				
C4094	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R4052	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R4053	1-216-837-11	METAL CHIP	22K 5% 1/10W
C4100	1-127-573-11	CERAMIC CHIP	1uF 10% 16V	R4054	1-216-841-11	METAL CHIP	47K 5% 1/10W
C4101	1-126-947-11	ELECT	47uF 20% 35V	R4055	1-216-841-11	METAL CHIP	47K 5% 1/10W
C4104	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	△ R4056	1-215-865-51	METAL OXIDE	220 5% 1W F
C4109	1-104-662-91	ELECT	22uF 20% 25V				
C4110	1-104-662-91	ELECT	22uF 20% 25V	R4058	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R4061	1-216-821-11	METAL CHIP	1K 5% 1/10W
C4113	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R4070	1-216-821-11	METAL CHIP	1K 5% 1/10W
C4116	1-126-933-11	ELECT	100uF 20% 16V	R4072	1-216-864-11	SHORT CHIP	0
C4123	1-165-989-11	CERAMIC CHIP	10uF 10% 6.3V	R4073	1-216-809-11	METAL CHIP	100 5% 1/10W
		< CONNECTOR >		R4074	1-216-864-11	SHORT CHIP	0
CN4005	1-784-365-51	CONNECTOR, FFC/FPC 5P		R4075	1-216-809-11	METAL CHIP	100 5% 1/10W
CN4009	1-779-277-11	CONNECTOR, FFC (LIF (NON-ZIF)) 9P		R4076	1-216-809-11	METAL CHIP	100 5% 1/10W
CN4012	1-779-273-11	CONNECTOR, FFC (LIF (NON-ZIF)) 5P		R4077	1-216-864-11	SHORT CHIP	0
CN4014	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P		R4082	1-216-864-11	SHORT CHIP	0
CN4016	1-784-770-11	CONNECTOR, FFC 9P					
CN4017	1-820-116-41	CONNECTOR, FFC/FPC 17P		R4085	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R4086	1-216-841-11	METAL CHIP	47K 5% 1/10W
		< DIODE >		R4089	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
D4003	6-500-848-01	DIODE MC2840-T112-1		R4093	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
D4004	6-501-728-01	DIODE MAZ8051G0LS0		R4094	1-216-841-11	METAL CHIP	47K 5% 1/10W
D4006	6-501-817-01	DIODE MA2J1110GLS0					
		< IC >		R4095	1-216-841-11	METAL CHIP	47K 5% 1/10W
IC4002	6-707-489-01	IC BH7868FS-E2		R4103	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
IC4003	6-705-337-01	IC TK11150CSCL-G		R4104	1-216-841-11	METAL CHIP	47K 5% 1/10W
IC4004	8-759-385-76	IC MC14052 BDR2		R4105	1-216-841-11	METAL CHIP	47K 5% 1/10W
IC4007	8-759-385-76	IC MC14052 BDR2		R4108	1-216-864-11	SHORT CHIP	0
IC4009	6-713-032-01	IC KIA7809API-U/PF					
		< JACK >		R4110	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
J4000	1-822-283-11	JACK, PIN 3P (COMPONENT VIDEO OUT)		R4111	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
J4001	1-822-280-11	JACK, PIN 3P (TV/VIDEO AUDIO IN, VIDEO OUT)		R4114	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
				R4115	1-216-841-11	METAL CHIP	47K 5% 1/10W
		< COIL >		R4116	1-216-841-11	METAL CHIP	47K 5% 1/10W
L4000	1-469-525-91	INDUCTOR	10uH				
		< TRANSISTOR >		R4124	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q4007	8-729-027-52	TRANSISTOR	DTC124EKA-T146	R4128	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q4008	8-729-027-52	TRANSISTOR	DTC124EKA-T146	R4131	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q4011	8-729-027-52	TRANSISTOR	DTC124EKA-T146	R4133	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q4012	8-729-027-52	TRANSISTOR	DTC124EKA-T146	R4146	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R4147	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R4148	1-216-864-11	SHORT CHIP	0
				R4149	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R4150	1-216-845-11	METAL CHIP	100K 5% 1/10W
				R4156	1-216-864-11	SHORT CHIP	0
				R4157	1-216-864-11	SHORT CHIP	0
				R4164	1-216-833-11	METAL CHIP	10K 5% 1/10W

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

I/O	KEY	MAIN
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R4166	1-216-864-11	SHORT CHIP	0	R5103	1-216-809-11	METAL CHIP	100 5% 1/10W
*****				R5104	1-216-809-11	METAL CHIP	100 5% 1/10W
	A-1602-530-A	KEY BOARD, COMPLETE		R5105	1-216-809-11	METAL CHIP	100 5% 1/10W
		*****		R5106	1-216-809-11	METAL CHIP	100 5% 1/10W
		< CAPACITOR >		R5107	1-216-809-11	METAL CHIP	100 5% 1/10W
C5100	1-126-947-11	ELECT	47uF 20% 35V	R5108	1-216-809-11	METAL CHIP	100 5% 1/10W
C5101	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R5109	1-216-809-11	METAL CHIP	100 5% 1/10W
C5105	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R5110	1-216-821-11	METAL CHIP	1K 5% 1/10W
C5111	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R5111	1-216-821-11	METAL CHIP	1K 5% 1/10W
C5112	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R5112	1-216-821-11	METAL CHIP	1K 5% 1/10W
		< CONNECTOR >		R5113	1-216-821-11	METAL CHIP	1K 5% 1/10W
CN5101	1-779-548-21	CONNECTOR, FFC (LIF (NON-ZIF)) 11P		R5114	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
		< LED >		R5116	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
D5003	8-719-060-26	LED SLR-325YCT31 (MOVIE)		R5117	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
D5004	8-719-060-26	LED SLR-325YCT31 (MUSIC)		R5118	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
D5100	8-719-056-13	LED SML79423C-TP15 (DISC 5)		R5119	1-216-833-11	METAL CHIP	10K 5% 1/10W
D5101	8-719-056-13	LED SML79423C-TP15 (DISC 4)		R5120	1-216-837-11	METAL CHIP	22K 5% 1/10W
D5102	8-719-056-13	LED SML79423C-TP15 (DISC 3)		R5121	1-216-841-11	METAL CHIP	47K 5% 1/10W
D5103	8-719-056-13	LED SML79423C-TP15 (DISC 2)		R5122	1-216-821-11	METAL CHIP	1K 5% 1/10W
D5104	8-719-056-13	LED SML79423C-TP15 (DISC 1)		R5123	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
		< IC >		R5124	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
IC5100	6-704-046-01	IC BU2099FV		R5125	1-216-833-11	METAL CHIP	10K 5% 1/10W
		< JUMPER RESISTOR >		R5126	1-216-837-11	METAL CHIP	22K 5% 1/10W
JW5108	1-216-864-11	SHORT CHIP	0	R5127	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JW5109	1-216-864-11	SHORT CHIP	0	R5128	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JW5110	1-216-864-11	SHORT CHIP	0	R5130	1-216-809-11	METAL CHIP	100 5% 1/10W
JW5111	1-216-864-11	SHORT CHIP	0	R5131	1-216-809-11	METAL CHIP	100 5% 1/10W
JW5113	1-216-864-11	SHORT CHIP	0	S5100	1-762-875-21	SWITCH, KEYBOARD (▲)	
JW5114	1-216-864-11	SHORT CHIP	0	S5101	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
		< COIL >		S5103	1-762-875-21	SWITCH, KEYBOARD (■)	
L5100	1-410-671-31	INDUCTOR	47uH	S5104	1-762-875-21	SWITCH, KEYBOARD (DISC 5)	
		< TRANSISTOR >		S5105	1-762-875-21	SWITCH, KEYBOARD (DISC 4)	
Q5001	8-729-027-43	TRANSISTOR	DTA114EKA-T146	S5106	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
Q5002	8-729-027-43	TRANSISTOR	DTA114EKA-T146	S5107	1-762-875-21	SWITCH, KEYBOARD (DISC 2)	
Q5100	8-729-027-23	TRANSISTOR	DTA114EKA-T146	S5108	1-762-875-21	SWITCH, KEYBOARD (DISC 1)	
Q5101	8-729-027-23	TRANSISTOR	DTA114EKA-T146	S5109	1-762-875-21	SWITCH, KEYBOARD (▶)	
Q5102	8-729-027-23	TRANSISTOR	DTA114EKA-T146	S5110	1-762-875-21	SWITCH, KEYBOARD (◀◀)	
Q5103	8-729-027-23	TRANSISTOR	DTA114EKA-T146	S5112	1-762-875-21	SWITCH, KEYBOARD (▶▶)	
Q5104	8-729-027-23	TRANSISTOR	DTA114EKA-T146	S5113	1-480-136-11	ENCODER, ROTARY (12 TYPE) (VOLUME)	
Q5105	8-729-027-23	TRANSISTOR	DTA114EKA-T146	*****			
Q5106	8-729-027-23	TRANSISTOR	DTA114EKA-T146	⊞	A-1602-539-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX285: E3, EA)
Q5107	8-729-027-23	TRANSISTOR	DTA114EKA-T146	⊞	A-1602-547-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX285: US)
Q5108	8-729-027-23	TRANSISTOR	DTA114EKA-T146	⊞	A-1602-568-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX589W)
Q5109	8-729-027-23	TRANSISTOR	DTA114EKA-T146	⊞	A-1602-575-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX287WC/HDX587WC)
		< RESISTOR >		⊞	A-1602-588-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX685)
R5014	1-216-809-11	METAL CHIP	100 5% 1/10W	⊞	A-1602-597-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX686W)
R5015	1-216-809-11	METAL CHIP	100 5% 1/10W	⊞	A-1703-692-A	MAIN BOARD COMPLETE (for SERVICE)	(HDX585)
R5100	1-216-809-11	METAL CHIP	100 5% 1/10W			*****	
R5101	1-216-809-11	METAL CHIP	100 5% 1/10W			< CAPACITOR >	
R5102	1-216-809-11	METAL CHIP	100 5% 1/10W	C303	1-100-742-91	CERAMIC CHIP	2.2uF 20% 10V
				C304	1-126-923-91	ELECT	220uF 20% 10V

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C305	1-100-742-91	CERAMIC CHIP	2.2uF	20%	10V	C527	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C308	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C528	1-126-916-11	ELECT	1000uF	20%	6.3V
C309	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C529	1-104-658-91	ELECT	100uF	20%	10V
C310	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C530	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C311	1-126-964-11	ELECT	10uF	20%	50V	C531	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C313	1-126-964-11	ELECT	10uF	20%	50V	C532	1-126-933-11	ELECT	100uF	20%	16V
C314	1-126-964-11	ELECT	10uF	20%	50V	C536	1-126-916-11	ELECT	1000uF	20%	6.3V
C315	1-126-923-91	ELECT	220uF	20%	10V	C537	1-104-658-91	ELECT	100uF	20%	10V
C316	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C538	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C539	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V	C540	1-126-933-11	ELECT	100uF	20%	16V
C319	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C544	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C320	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C550	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C321	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C551	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C323	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C552	1-126-933-11	ELECT	100uF	20%	16V
C325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C553	1-126-935-11	ELECT	470uF	20%	16V
C326	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V	C554	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C327	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V	C1101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C329	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1102	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C333	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1105	1-126-947-11	ELECT	47uF	20%	35V
C334	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1106	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C451	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C1108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C452	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1109	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C453	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1110	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C455	1-126-965-91	ELECT	22uF	20%	50V	C1111	1-104-658-91	ELECT	100uF	20%	10V
C456	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1112	1-126-947-11	ELECT	47uF	20%	35V
C457	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C461	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1115	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C463	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C464	1-126-947-11	ELECT	47uF	20%	35V	C1117	1-126-947-11	ELECT	47uF	20%	35V
C465	1-104-658-91	ELECT	100uF	20%	10V	C1118	1-126-947-11	ELECT	47uF	20%	35V
C466	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1119	1-126-947-11	ELECT	47uF	20%	35V
C467	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1120	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C468	1-126-933-11	ELECT	100uF	20%	16V	C1121	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-104-658-91	ELECT	100uF	20%	10V	C1122	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C476	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1123	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C501	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1124	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C504	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1125	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C505	1-126-933-11	ELECT	100uF	20%	16V	C1126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C507	1-126-933-11	ELECT	100uF	20%	16V	C1127	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C508	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1129	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1130	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1132	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C511	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1133	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1135	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C513	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1136	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C514	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1137	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C515	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1138	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1139	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C517	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1140	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C518	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1144	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1145	1-126-964-11	ELECT	10uF	20%	50V
C520	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C521	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C1147	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C522	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1148	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C523	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C1149	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C524	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1151	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C525	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1152	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C526	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1153	1-162-916-11	CERAMIC CHIP	12PF	5%	50V

HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C1154	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C1733	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C1155	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C1734	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C1156	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2100	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1158	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2108	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1159	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C2109	1-104-658-91	ELECT	100uF	20%	10V
C1160	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2110	1-104-658-91	ELECT	100uF	20%	10V
C1161	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1162	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2115	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C1163	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1164	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C2117	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C1165	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C2118	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1169	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C2119	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1170	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	C2130	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1171	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C2502	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C1172	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C2503	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1174	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3000	1-126-382-11	ELECT	100uF	20%	16V
C1175	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3001	1-126-947-11	ELECT	47uF	20%	35V
C1176	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3002	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C1177	1-126-923-91	ELECT	220uF	20%	10V	C3003	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1179	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3005	1-126-795-11	ELECT	10uF	20%	50V
C1180	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3008	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1181	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3011	1-165-726-31	ELECT	56uF	20%	16V
C1182	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C3012	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1183	1-128-934-11	CERAMIC CHIP	0.33uF	20%	10V	C3013	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1184	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3014	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1186	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C3015	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1187	1-126-947-11	ELECT	47uF	20%	35V	C3016	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1190	1-104-658-91	ELECT	100uF	20%	10V	C3017	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1191	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3018	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1192	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3019	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1193	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C3020	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1195	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C3021	1-126-947-11	ELECT	47uF	20%	35V
C1197	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1198	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C3022	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1199	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3023	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1205	1-164-230-11	CERAMIC CHIP	220PF	5%	50V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1206	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	C3024	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1208	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1209	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	C3025	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1211	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	C3026	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3027	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1214	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1215	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3028	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1217	1-126-947-11	ELECT	47uF	20%	35V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1218	1-126-964-11	ELECT	10uF	20%	50V	C3029	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1219	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1220	1-126-964-11	ELECT	10uF	20%	50V	C3030	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1221	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1222	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C3031	1-165-726-31	ELECT	56uF	20%	16V
C1224	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C3032	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1233	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1725	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1727	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1729	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1730	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1731	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)
C1732	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C3033	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3158	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V
C3034	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3159	1-112-246-11	ELECT 100uF	20% 35V
C3035	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3162	1-112-246-11	ELECT 100uF	20% 35V
C3036	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V				
C3037	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3163	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V
				C3164	1-114-885-51	FILM 1uF	5% 50V
C3038	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3165	1-114-885-51	FILM 1uF	5% 50V
C3039	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3166	1-112-831-31	ELECT 2200uF	20% 35V
C3040	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3167	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V
C3051	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V				
C3052	1-165-908-11	CERAMIC CHIP 1uF	10% 10V	C3172	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
				C3173	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C3053	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C3200	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C3054	1-104-658-91	ELECT 100uF	20% 10V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3055	1-165-908-11	CERAMIC CHIP 1uF	10% 10V	C3203	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C3056	1-126-923-91	ELECT 220uF	20% 10V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3057	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C3204	1-107-725-11	CERAMIC CHIP 0.1uF	10% 16V
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3058	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V	C3205	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C3059	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3060	1-162-915-11	CERAMIC CHIP 10PF	0.5PF 50V	C3206	1-115-185-11	CERAMIC CHIP 0.033uF	10% 50V
C3071	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3081	1-126-923-91	ELECT 220uF	20% 10V	C3207	1-115-185-11	CERAMIC CHIP 0.033uF	10% 50V
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3082	1-126-923-91	ELECT 220uF	20% 10V	C3208	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V
C3083	1-162-927-11	CERAMIC CHIP 100PF	5% 50V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3084	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C3209	1-112-246-11	ELECT 100uF	20% 35V
C3085	1-162-927-11	CERAMIC CHIP 100PF	5% 50V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3086	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C3212	1-112-246-11	ELECT 100uF	20% 35V
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3087	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C3213	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V
C3088	1-162-927-11	CERAMIC CHIP 100PF	5% 50V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3090	1-104-658-91	ELECT 100uF	20% 10V	C3214	1-114-885-51	FILM 1uF	5% 50V
C3091	1-126-934-11	ELECT 220uF	20% 16V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3092	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C3215	1-114-885-51	FILM 1uF	5% 50V
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3093	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C3216	1-112-831-31	ELECT 2200uF	20% 35V
C3103	1-100-352-91	CERAMIC CHIP 1uF	20% 16V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3104	1-100-966-91	CERAMIC CHIP 10uF	20% 10V	C3217	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V
C3105	1-100-352-91	CERAMIC CHIP 1uF	20% 16V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3106	1-115-185-11	CERAMIC CHIP 0.033uF	10% 50V	C3250	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3107	1-115-185-11	CERAMIC CHIP 0.033uF	10% 50V	C3253	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C3108	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3109	1-112-246-11	ELECT 100uF	20% 35V	C3254	1-107-725-11	CERAMIC CHIP 0.1uF	10% 16V
C3112	1-112-246-11	ELECT 100uF	20% 35V			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3113	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V	C3255	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3114	1-114-885-51	FILM 1uF	5% 50V				
C3115	1-114-885-51	FILM 1uF	5% 50V				
C3116	1-112-831-31	ELECT 2200uF	20% 35V				
C3117	1-115-339-11	CERAMIC CHIP 0.1uF	10% 50V				
C3122	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V				
C3123	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V				
C3124	1-125-838-11	CERAMIC CHIP 2.2uF	10% 6.3V				
C3125	1-125-838-11	CERAMIC CHIP 2.2uF	10% 6.3V				
C3126	1-125-838-11	CERAMIC CHIP 2.2uF	10% 6.3V				
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)					
C3127	1-125-838-11	CERAMIC CHIP 2.2uF	10% 6.3V				
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)					
C3128	1-125-838-11	CERAMIC CHIP 2.2uF	10% 6.3V				
C3129	1-165-989-11	CERAMIC CHIP 10uF	10% 6.3V				
C3153	1-100-352-91	CERAMIC CHIP 1uF	20% 16V				
C3154	1-100-966-91	CERAMIC CHIP 10uF	20% 10V				
C3155	1-100-352-91	CERAMIC CHIP 1uF	20% 16V				
C3156	1-115-185-11	CERAMIC CHIP 0.033uF	10% 50V				
C3157	1-115-185-11	CERAMIC CHIP 0.033uF	10% 50V				

HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C3256	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3422	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3257	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3423	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C3258	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3500	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C3259	1-112-246-11	ELECT 100uF 20% 35V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3503	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C3262	1-112-246-11	ELECT 100uF 20% 35V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3504	1-107-725-11	CERAMIC CHIP 0.1uF 10% 16V	
C3263	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3505	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C3264	1-114-885-51	FILM 1uF 5% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3506	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V	
C3265	1-114-885-51	FILM 1uF 5% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3507	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V	
C3266	1-112-831-31	ELECT 2200uF 20% 35V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3508	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
C3267	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3509	1-112-246-11	ELECT 100uF 20% 35V	
C3303	1-100-352-91	CERAMIC CHIP 1uF 20% 16V		C3512	1-112-246-11	ELECT 100uF 20% 35V	
C3304	1-100-966-91	CERAMIC CHIP 10uF 20% 10V		C3513	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
C3305	1-100-352-91	CERAMIC CHIP 1uF 20% 16V		C3514	1-114-885-51	FILM 1uF 5% 50V	
C3306	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V		C3515	1-114-885-51	FILM 1uF 5% 50V	
C3307	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V		C3516	1-112-831-31	ELECT 2200uF 20% 35V	
C3308	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V		C3517	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
C3309	1-112-246-11	ELECT 100uF 20% 35V		C3551	1-115-871-11	ELECT 1uF 20% 50V	
C3312	1-112-246-11	ELECT 100uF 20% 35V		C3552	1-126-964-11	ELECT 10uF 20% 50V	
C3313	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V		C3553	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
C3314	1-114-885-51	FILM 1uF 5% 50V		C3556	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
C3315	1-114-885-51	FILM 1uF 5% 50V		C3561	1-126-513-11	ELECT 47uF 20% 6.3V	
C3316	1-112-831-31	ELECT 2200uF 20% 35V		C3901	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C3317	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V		C3902	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C3322	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3903	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C3323	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		C3904	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C3400	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V		C3911	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C3403	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V		C3912	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C3404	1-107-725-11	CERAMIC CHIP 0.1uF 10% 16V		C3913	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C3405	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V		C3914	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C3406	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V		C3920	1-114-419-21	CERAMIC CHIP 10uF 10% 16V	
C3407	1-115-185-11	CERAMIC CHIP 0.033uF 10% 50V		C3921	1-114-419-21	CERAMIC CHIP 10uF 10% 16V	
C3408	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V		C3924	1-114-419-21	CERAMIC CHIP 10uF 10% 16V	
C3409	1-112-246-11	ELECT 100uF 20% 35V		C9972	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C3412	1-112-246-11	ELECT 100uF 20% 35V				< CONNECTOR >	
C3413	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V		CN303	1-779-273-11	CONNECTOR, FFC (LIF (NON-ZIF)) 5P	
C3414	1-114-885-51	FILM 1uF 5% 50V		CN306	1-779-281-11	CONNECTOR, FFC (LIF (NON-ZIF)) 13P	
C3415	1-114-885-51	FILM 1uF 5% 50V		CN451	1-817-615-21	CONNECTOR, SQUARE TYPE (RECE) (DMPORT)	
C3416	1-112-831-31	ELECT 2200uF 20% 35V		CN472	1-820-116-41	CONNECTOR, FFC/FPC 17P	
C3417	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V		CN502	1-820-112-41	CONNECTOR, FFC/FPC 9P	
				CN505	1-784-038-21	CONNECTOR, BOARD TO BOARD 9P	
				CN506	1-820-116-41	CONNECTOR, FFC/FPC 17P	
				CN1101	1-815-763-32	CONNECTOR, FFC/FPC 24P	
				CN1105	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
				CN1201	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
				CN1701	1-821-755-11	HDMI CONNECTOR (HDMI OUT)	
				CN3000	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P	
				CN3001	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
						< DIODE >	
				D501	6-501-817-01	DIODE MA2J1110GLS0	
				D502	6-501-817-01	DIODE MA2J1110GLS0	
				D503	6-501-817-01	DIODE MA2J1110GLS0	
				D3071	6-501-817-01	DIODE MA2J1110GLS0	
				D3072	6-501-817-01	DIODE MA2J1110GLS0	
				D3073	6-501-817-01	DIODE MA2J1110GLS0	

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D3551	6-500-848-01	DIODE MC2840-T112-1		IC1101	6-713-716-01	IC CXD9917R-A (E3, EA)	
D3552	6-501-774-01	DIODE MAZ8150G0LS0		IC1101	6-713-717-01	IC CXD9927R-A (US, CND)	
D4111	6-501-696-01	DIODE RSA39LTE25		IC1102	6-808-686-01	IC MX29LV320DBTI-70-CHI-0902UC (US, CND)	
D4112	6-501-696-01	DIODE RSA39LTE25		IC1102	6-808-687-01	IC MX29LV320DBTI-70-CHI-0902CE (E3, EA)	
D4151	6-501-696-01	DIODE RSA39LTE25		IC1103	(Not supplied)	IC BR24S64F-WE2	
D4152	6-501-696-01	DIODE RSA39LTE25		IC1104	6-713-754-01	IC W9864G6IH-6J-ER10	
D4201	6-501-696-01	DIODE RSA39LTE25 (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)		IC1105	6-702-302-01	IC TK11133CSCL-G	
D4202	6-501-696-01	DIODE RSA39LTE25 (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)		IC1107	6-702-302-01	IC TK11133CSCL-G	
D4251	6-501-696-01	DIODE RSA39LTE25 (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)		IC1110	6-707-739-01	IC MM1661JTRE	
D4252	6-501-696-01	DIODE RSA39LTE25 (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)		IC1201	6-704-524-01	IC FAN8036L	
D4301	6-501-696-01	DIODE RSA39LTE25		IC1705	8-759-592-47	IC TC7SZ08FU (TE85R)	
D4302	6-501-696-01	DIODE RSA39LTE25		IC1707	6-705-337-01	IC TK11150CSCL-G	
D4401	6-501-696-01	DIODE RSA39LTE25		IC1708	6-702-302-01	IC TK11133CSCL-G	
D4402	6-501-696-01	DIODE RSA39LTE25		IC3001	8-759-710-97	IC NJM4565M-D	
D4501	6-501-696-01	DIODE RSA39LTE25		IC3010	6-705-979-01	IC CXD9788AR	
D4502	6-501-696-01	DIODE RSA39LTE25		IC3020	6-705-979-01	IC CXD9788AR (HDX285/HDX287WC/HDX585/ HDX587WC/HDX685)	
D9712	6-501-817-01	DIODE MA2J1110GLS0		IC3030	6-705-979-01	IC CXD9788AR	
		< FERRITE BEAD >		IC3050	6-702-300-01	IC TK11118CSCL-G	
FB1106	1-469-324-21	FERRITE, EMI (SMD) (2012)		IC3051	6-709-888-01	IC TC7WHU04FK (T5RSOYF)	
FB1107	1-469-324-21	FERRITE, EMI (SMD) (2012)		IC3100	6-712-370-01	IC CXD9936TN	
FB1108	1-469-324-21	FERRITE, EMI (SMD) (2012)		IC3150	6-712-370-01	IC CXD9936TN	
FB1109	1-469-324-21	FERRITE, EMI (SMD) (2012)		IC3200	6-712-370-01	IC CXD9936TN (HDX285/HDX287WC/HDX585/ HDX587WC/HDX685)	
FB1111	1-469-670-21	FERRITE, EMI (SMD) (2012)		IC3250	6-712-370-01	IC CXD9936TN (HDX285/HDX287WC/HDX585/ HDX587WC/HDX685)	
FB1112	1-469-670-21	FERRITE, EMI (SMD) (2012)		IC3300	6-712-370-01	IC CXD9936TN	
FB1113	1-469-670-21	FERRITE, EMI (SMD) (2012)		IC3400	6-712-370-01	IC CXD9936TN	
FB1115	1-469-670-21	FERRITE, EMI (SMD) (2012)		IC3500	6-712-370-01	IC CXD9936TN	
FB1116	1-469-670-21	FERRITE, EMI (SMD) (2012)				< JACK >	
FB1117	1-469-670-21	FERRITE, EMI (SMD) (2012)		J501	1-822-282-11	JACK, PIN 1P (TV DIGITAL IN COAXIAL)	
FB1118	1-469-670-21	FERRITE, EMI (SMD) (2012)				< COIL >	
FB2101	1-469-324-21	FERRITE, EMI (SMD) (2012)		L301	1-469-525-91	INDUCTOR 10uH	
FB2103	1-469-324-21	FERRITE, EMI (SMD) (2012)		L302	1-469-525-91	INDUCTOR 10uH	
FB2120	1-469-118-21	FERRITE, EMI (SMD) (1608)		L303	1-469-525-91	INDUCTOR 10uH	
FB2121	1-469-118-21	FERRITE, EMI (SMD) (1608)		L451	1-469-525-91	INDUCTOR 10uH	
FB2122	1-469-118-21	FERRITE, EMI (SMD) (1608)		L471	1-469-527-91	INDUCTOR 47uH	
FB2124	1-469-118-21	FERRITE, EMI (SMD) (1608)		L501	1-469-525-91	INDUCTOR 10uH	
FB2125	1-469-118-21	FERRITE, EMI (SMD) (1608)		L502	1-469-525-91	INDUCTOR 10uH	
FB3107	1-469-118-21	FERRITE, EMI (SMD) (1608)		L1701	1-457-374-21	COMMOM MODE CHOKE COIL	
FB3108	1-469-118-21	FERRITE, EMI (SMD) (1608)		L1702	1-457-374-21	COMMOM MODE CHOKE COIL	
FB3109	1-469-118-21	FERRITE, EMI (SMD) (1608)		L1703	1-457-374-21	COMMOM MODE CHOKE COIL	
		< IC >		L1704	1-457-374-21	COMMOM MODE CHOKE COIL	
IC303	6-710-554-01	IC PCM1808PWR		L3000	1-469-527-91	INDUCTOR 47uH	
IC304	8-759-825-15	IC LC89056W-E		L3051	1-469-525-91	INDUCTOR 10uH	
IC307	8-759-680-48	IC TC7WH157FK (TE85R)		L3052	1-469-525-91	INDUCTOR 10uH	
IC451	8-759-710-97	IC NJM4565M-D		L3053	1-469-525-91	INDUCTOR 10uH	
IC452	6-712-613-01	IC SI-3010KM-TLS		L3054	1-412-939-11	INDUCTOR 1uH	
IC471	6-707-853-01	IC TC74LCX541FT (EKJ)		L3101	1-457-579-21	INDUCTOR 10uH	
IC501	6-706-492-01	IC TC7SHU04FU (T5RSOJF)		L3102	1-457-579-21	INDUCTOR 10uH	
IC502	6-600-466-01	IC TORX147L (SONY) (TV DIGITAL IN OPTICAL)		L3201	1-457-579-21	INDUCTOR 10uH (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)	
IC503	A-1602-156-A	IC R5F3640DDFAR (for SERVICE)		L3202	1-457-579-21	INDUCTOR 10uH (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)	
IC504	6-705-338-01	IC TK11250CMCL-G		L3301	1-457-579-21	INDUCTOR 10uH	
IC505	6-713-500-01	IC BR24S16F-WE2		L3401	1-457-579-21	INDUCTOR 10uH	
IC506	6-705-203-01	IC S-80935CNMC-G85T2G		L3501	1-457-579-21	INDUCTOR 10uH	
IC507	6-712-613-01	IC SI-3010KM-TLS		L3901	1-457-078-11	AIR-CORE COIL	
IC510	6-712-613-01	IC SI-3010KM-TLS		L3902	1-457-077-11	AIR-CORE COIL	

**Note:** IC1103 cannot exchange with single. When this part is damaged, exchange the entire mounted board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L3903	1-457-078-11	AIR-CORE COIL		R327	1-216-864-11	SHORT CHIP	0
L3904	1-457-077-11	AIR-CORE COIL		R328	1-216-864-11	SHORT CHIP	0
		< TRANSISTOR >		R329	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q501	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R330	1-216-839-11	METAL CHIP	33K 5% 1/10W
Q502	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R331	1-216-805-11	METAL CHIP	47 5% 1/10W
Q503	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R332	1-216-805-11	METAL CHIP	47 5% 1/10W
Q1101	6-550-008-01	FET	UM6K1N-TN	R333	1-216-864-11	SHORT CHIP	0
Q1102	6-550-653-01	TRANSISTOR	QST8TR	R334	1-216-809-11	METAL CHIP	100 5% 1/10W
Q1103	8-729-027-52	TRANSISTOR	DTC124EKA-T146	R335	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
Q1701	6-550-008-01	FET	UM6K1N-TN	R337	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3000	8-729-111-29	TRANSISTOR	2SD1616A-K	R338	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3001	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R340	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3002	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R347	1-216-864-11	SHORT CHIP	0
Q3081	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R348	1-216-864-11	SHORT CHIP	0
Q3101	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R349	1-216-864-11	SHORT CHIP	0
Q3102	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R350	1-216-864-11	SHORT CHIP	0
Q3116	6-551-953-01	TRANSISTOR	RTAN430C-T112A-1	R351	1-216-864-11	SHORT CHIP	0
Q3117	6-551-953-01	TRANSISTOR	RTAN430C-T112A-1	R352	1-216-864-11	SHORT CHIP	0
Q3118	6-551-953-01	TRANSISTOR	RTAN430C-T112A-1	R353	1-216-864-11	SHORT CHIP	0
Q3119	6-551-953-01	TRANSISTOR	RTAN430C-T112A-1	R354	1-216-864-11	SHORT CHIP	0
Q3151	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R355	1-216-864-11	SHORT CHIP	0
Q3152	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R359	1-216-864-11	SHORT CHIP	0
Q3201	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (HDX285/ HDX287WC/HDX585/HDX587WC/HDX685)	R360	1-216-864-11	SHORT CHIP	0
Q3202	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (HDX285/ HDX287WC/HDX585/HDX587WC/HDX685)	R362	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3251	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R363	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3252	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R364	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3301	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R365	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3302	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R368	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3401	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (HDX285/ HDX287WC/HDX585/HDX587WC/HDX685)	R369	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3402	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (HDX285/ HDX287WC/HDX585/HDX587WC/HDX685)	R370	1-216-857-11	METAL CHIP	1M 5% 1/10W
Q3551	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R371	1-216-815-11	METAL CHIP	330 5% 1/10W
Q3552	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R372	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3553	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R373	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3554	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R374	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q3555	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R375	1-216-864-11	SHORT CHIP	0
Q9724	6-551-699-01	TRANSISTOR	ISA1602AM1TP-1EF	R376	1-216-864-11	SHORT CHIP	0
Q9726	8-729-620-13	TRANSISTOR	2SC4154TP-1EF	R377	1-216-864-11	SHORT CHIP	0
Q9728	8-729-620-13	TRANSISTOR	2SC4154TP-1EF	R378	1-216-864-11	SHORT CHIP	0
Q9729	8-729-027-43	TRANSISTOR	DTC114EKA-T146	R379	1-216-864-11	SHORT CHIP	0
		< RESISTOR >		R380	1-216-864-11	SHORT CHIP	0
R301	1-216-809-11	METAL CHIP	100 5% 1/10W	R387	1-216-864-11	SHORT CHIP	0
R302	1-216-809-11	METAL CHIP	100 5% 1/10W	R388	1-216-864-11	SHORT CHIP	0
R303	1-216-809-11	METAL CHIP	100 5% 1/10W	R389	1-216-864-11	SHORT CHIP	0
R304	1-216-809-11	METAL CHIP	100 5% 1/10W	R392	1-216-833-11	METAL CHIP	10K 5% 1/10W
R305	1-216-809-11	METAL CHIP	100 5% 1/10W	R393	1-216-833-11	METAL CHIP	10K 5% 1/10W
R306	1-216-809-11	METAL CHIP	100 5% 1/10W	R394	1-216-809-11	METAL CHIP	100 5% 1/10W
R307	1-216-809-11	METAL CHIP	100 5% 1/10W	R395	1-216-809-11	METAL CHIP	100 5% 1/10W
R308	1-216-809-11	METAL CHIP	100 5% 1/10W	R396	1-216-864-11	SHORT CHIP	0
R309	1-216-809-11	METAL CHIP	100 5% 1/10W	R397	1-216-864-11	SHORT CHIP	0
R310	1-216-809-11	METAL CHIP	100 5% 1/10W	R399	1-216-864-11	SHORT CHIP	0
R316	1-216-801-11	METAL CHIP	22 5% 1/10W	R400	1-216-864-11	SHORT CHIP	0
R317	1-216-801-11	METAL CHIP	22 5% 1/10W	R401	1-216-864-11	SHORT CHIP	0
R318	1-216-801-11	METAL CHIP	22 5% 1/10W	R402	1-216-864-11	SHORT CHIP	0
R319	1-216-801-11	METAL CHIP	22 5% 1/10W	R403	1-216-809-11	METAL CHIP	100 5% 1/10W
				R409	1-216-809-11	METAL CHIP	100 5% 1/10W
				R410	1-216-809-11	METAL CHIP	100 5% 1/10W
				R412	1-216-809-11	METAL CHIP	100 5% 1/10W
				R413	1-216-809-11	METAL CHIP	100 5% 1/10W
				R414	1-216-864-11	SHORT CHIP	0
				R415	1-216-864-11	SHORT CHIP	0

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R416	1-216-864-11	SHORT CHIP	0	R534	1-216-821-11	METAL CHIP	1K 5% 1/10W
R451	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R535	1-216-821-11	METAL CHIP	1K 5% 1/10W (HDX285)
R452	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R535	1-216-837-11	METAL CHIP	22K 5% 1/10W (HDX585)
R453	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R535	1-216-839-11	METAL CHIP	33K 5% 1/10W (HDX287WC/HDX587WC)
R454	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R535	1-216-841-11	METAL CHIP	47K 5% 1/10W (HDX589W/HDX685/HDX686W)
R455	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R536	1-216-833-11	METAL CHIP	10K 5% 1/10W (HDX686W)
R456	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R536	1-216-835-11	METAL CHIP	15K 5% 1/10W (HDX685)
R457	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R536	1-216-841-11	METAL CHIP	47K 5% 1/10W (HDX287WC/HDX585/HDX587WC/HDX589W)
R458	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R537	1-216-857-11	METAL CHIP	1M 5% 1/10W
R459	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R539	1-216-833-11	METAL CHIP	10K 5% 1/10W
R460	1-218-879-11	METAL CHIP	22K 0.5% 1/10W	R540	1-216-821-11	METAL CHIP	1K 5% 1/10W
R461	1-218-871-11	METAL CHIP	10K 0.5% 1/10W	R541	1-216-833-11	METAL CHIP	10K 5% 1/10W
R462	1-218-847-11	METAL CHIP	1K 0.5% 1/10W	R542	1-216-833-11	METAL CHIP	10K 5% 1/10W
R463	1-218-885-11	METAL CHIP	39K 0.5% 1/10W	R543	1-216-821-11	METAL CHIP	1K 5% 1/10W
R464	1-216-821-11	METAL CHIP	1K 5% 1/10W	R544	1-216-821-11	METAL CHIP	1K 5% 1/10W
R465	1-216-809-11	METAL CHIP	100 5% 1/10W	R545	1-216-833-11	METAL CHIP	10K 5% 1/10W
R466	1-216-809-11	METAL CHIP	100 5% 1/10W	R548	1-216-833-11	METAL CHIP	10K 5% 1/10W
R471	1-216-864-11	SHORT CHIP	0	R549	1-216-833-11	METAL CHIP	10K 5% 1/10W
R472	1-216-801-11	METAL CHIP	22 5% 1/10W	R550	1-216-833-11	METAL CHIP	10K 5% 1/10W
R473	1-216-801-11	METAL CHIP	22 5% 1/10W	R552	1-216-809-11	METAL CHIP	100 5% 1/10W
R474	1-216-801-11	METAL CHIP	22 5% 1/10W	R553	1-216-809-11	METAL CHIP	100 5% 1/10W
R479	1-216-805-11	METAL CHIP	47 5% 1/10W	R554	1-216-821-11	METAL CHIP	1K 5% 1/10W
R480	1-216-805-11	METAL CHIP	47 5% 1/10W	R555	1-216-809-11	METAL CHIP	100 5% 1/10W
R481	1-216-805-11	METAL CHIP	47 5% 1/10W	R557	1-216-833-11	METAL CHIP	10K 5% 1/10W
R482	1-216-805-11	METAL CHIP	47 5% 1/10W	R560	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R483	1-216-805-11	METAL CHIP	47 5% 1/10W	R561	1-216-821-11	METAL CHIP	1K 5% 1/10W
R486	1-216-803-11	METAL CHIP	33 5% 1/10W	R563	1-216-833-11	METAL CHIP	10K 5% 1/10W
R487	1-216-805-11	METAL CHIP	47 5% 1/10W	R564	1-216-864-11	SHORT CHIP	0
R488	1-216-864-11	SHORT CHIP	0	R568	1-216-833-11	METAL CHIP	10K 5% 1/10W
R490	1-216-864-11	SHORT CHIP	0	R569	1-216-821-11	METAL CHIP	1K 5% 1/10W
R491	1-216-864-11	SHORT CHIP	0	R570	1-216-809-11	METAL CHIP	100 5% 1/10W
R492	1-216-864-11	SHORT CHIP	0	R571	1-216-809-11	METAL CHIP	100 5% 1/10W
R499	1-216-864-11	SHORT CHIP	0	R572	1-216-833-11	METAL CHIP	10K 5% 1/10W
R501	1-216-817-11	METAL CHIP	470 5% 1/10W	R573	1-216-864-11	SHORT CHIP	0
R502	1-218-285-11	METAL CHIP	75 5% 1/10W	R576	1-216-809-11	METAL CHIP	100 5% 1/10W
R504	1-216-841-11	METAL CHIP	47K 5% 1/10W	R577	1-216-833-11	METAL CHIP	10K 5% 1/10W
R505	1-216-809-11	METAL CHIP	100 5% 1/10W	R579	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R506	1-216-809-11	METAL CHIP	100 5% 1/10W	R581	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R508	1-216-809-11	METAL CHIP	100 5% 1/10W	R582	1-216-841-11	METAL CHIP	47K 5% 1/10W
R510	1-216-809-11	METAL CHIP	100 5% 1/10W	R583	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R511	1-216-809-11	METAL CHIP	100 5% 1/10W	R584	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R512	1-216-809-11	METAL CHIP	100 5% 1/10W	R585	1-216-833-11	METAL CHIP	10K 5% 1/10W
R513	1-216-809-11	METAL CHIP	100 5% 1/10W	R590	1-216-841-11	METAL CHIP	47K 5% 1/10W
R514	1-216-809-11	METAL CHIP	100 5% 1/10W	R591	1-216-833-11	METAL CHIP	10K 5% 1/10W
R515	1-216-809-11	METAL CHIP	100 5% 1/10W	R592	1-216-833-11	METAL CHIP	10K 5% 1/10W
R516	1-216-809-11	METAL CHIP	100 5% 1/10W	R594	1-216-864-11	SHORT CHIP	0
R524	1-216-809-11	METAL CHIP	100 5% 1/10W	R595	1-216-864-11	SHORT CHIP	0
R525	1-216-809-11	METAL CHIP	100 5% 1/10W	R596	1-216-845-11	METAL CHIP	100K 5% 1/10W
R526	1-216-809-11	METAL CHIP	100 5% 1/10W	R597	1-216-841-11	METAL CHIP	47K 5% 1/10W
R527	1-216-809-11	METAL CHIP	100 5% 1/10W	R598	1-216-841-11	METAL CHIP	47K 5% 1/10W
R528	1-216-809-11	METAL CHIP	100 5% 1/10W	R599	1-216-833-11	METAL CHIP	10K 5% 1/10W
R531	1-216-833-11	METAL CHIP	10K 5% 1/10W (E3, EA)	R603	1-216-809-11	METAL CHIP	100 5% 1/10W
R531	1-216-841-11	METAL CHIP	47K 5% 1/10W (US, CND)	R604	1-216-809-11	METAL CHIP	100 5% 1/10W
R532	1-216-837-11	METAL CHIP	22K 5% 1/10W (US, CND)	R605	1-216-809-11	METAL CHIP	100 5% 1/10W
R532	1-216-841-11	METAL CHIP	47K 5% 1/10W (E3, EA)	R606	1-216-809-11	METAL CHIP	100 5% 1/10W
R533	1-216-821-11	METAL CHIP	1K 5% 1/10W				

HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
R607	1-216-809-11	METAL CHIP	100	5%	1/10W	R1164	1-216-805-11	METAL CHIP	47	5%	1/10W
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1165	1-216-805-11	METAL CHIP	47	5%	1/10W
R610	1-218-847-11	METAL CHIP	1K	0.5%	1/10W	R1171	1-216-809-11	METAL CHIP	100	5%	1/10W
R611	1-218-885-11	METAL CHIP	39K	0.5%	1/10W	R1176	1-216-833-11	METAL CHIP	10K	5%	1/10W
R613	1-218-871-11	METAL CHIP	10K	0.5%	1/10W	R1183	1-216-805-11	METAL CHIP	47	5%	1/10W
R614	1-216-809-11	METAL CHIP	100	5%	1/10W	R1184	1-216-805-11	METAL CHIP	47	5%	1/10W
R615	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1185	1-216-805-11	METAL CHIP	47	5%	1/10W
R616	1-218-851-11	METAL CHIP	1.5K	0.5%	1/10W	R1186	1-216-821-11	METAL CHIP	1K	5%	1/10W
R617	1-218-879-11	METAL CHIP	22K	0.5%	1/10W	R1191	1-216-821-11	METAL CHIP	1K	5%	1/10W
R619	1-218-871-11	METAL CHIP	10K	0.5%	1/10W	R1192	1-216-821-11	METAL CHIP	1K	5%	1/10W
R623	1-216-841-11	METAL CHIP	47K	5%	1/10W	R1193	1-216-821-11	METAL CHIP	1K	5%	1/10W
R624	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1198	1-216-809-11	METAL CHIP	100	5%	1/10W
R625	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1204	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R627	1-216-809-11	METAL CHIP	100	5%	1/10W	R1205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R628	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1206	1-216-833-11	METAL CHIP	10K	5%	1/10W
R629	1-216-809-11	METAL CHIP	100	5%	1/10W	R1207	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R630	1-216-809-11	METAL CHIP	100	5%	1/10W	R1208	1-216-839-11	METAL CHIP	33K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1209	1-216-839-11	METAL CHIP	33K	5%	1/10W
R633	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1210	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1212	1-216-833-11	METAL CHIP	10K	5%	1/10W
R635	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1213	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R636	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1214	1-216-835-11	METAL CHIP	15K	5%	1/10W
R1101	1-216-809-11	METAL CHIP	100	5%	1/10W	R1215	1-216-834-11	METAL CHIP	12K	5%	1/10W
R1103	1-218-864-11	METAL CHIP	5.1K	0.5%	1/10W	R1216	1-216-834-11	METAL CHIP	12K	5%	1/10W
R1105	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1219	1-216-838-11	METAL CHIP	27K	5%	1/10W
R1106	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1220	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1107	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1221	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R1108	1-216-857-11	METAL CHIP	1M	5%	1/10W	R1223	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R1109	1-216-864-11	SHORT CHIP	0			R1224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1110	1-216-841-11	METAL CHIP	47K	5%	1/10W	R1225	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R1111	1-216-809-11	METAL CHIP	100	5%	1/10W	R1226	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R1112	1-211-977-11	METAL CHIP	22	0.5%	1/10W	R1230	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R1113	1-211-977-11	METAL CHIP	22	0.5%	1/10W	R1231	1-218-875-11	METAL CHIP	15K	0.5%	1/10W
R1114	1-216-845-11	METAL CHIP	100K	5%	1/10W	R1232	1-218-877-11	METAL CHIP	18K	0.5%	1/10W
R1115	1-211-977-11	METAL CHIP	22	0.5%	1/10W	R1233	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R1116	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1234	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1117	1-216-841-11	METAL CHIP	47K	5%	1/10W	R1238	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1118	1-216-801-11	METAL CHIP	22	5%	1/10W	R1246	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1120	1-216-801-11	METAL CHIP	22	5%	1/10W	R1247	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1121	1-216-801-11	METAL CHIP	22	5%	1/10W	R1254	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1123	1-216-864-11	SHORT CHIP	0			R1730	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1124	1-216-841-11	METAL CHIP	47K	5%	1/10W	R1742	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1125	1-216-805-11	METAL CHIP	47	5%	1/10W	R1743	1-216-864-11	SHORT CHIP	0		
R1132	1-216-845-11	METAL CHIP	100K	5%	1/10W	R1747	1-216-864-11	SHORT CHIP	0		
R1133	1-216-864-11	SHORT CHIP	0			R1748	1-216-864-11	SHORT CHIP	0		
R1135	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1749	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R1136	1-216-835-11	METAL CHIP	15K	5%	1/10W	R1750	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R1140	1-216-821-11	METAL CHIP	1K	5%	1/10W	R1751	1-216-864-11	SHORT CHIP	0		
R1141	1-216-855-11	METAL CHIP	680K	5%	1/10W	R1752	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1142	1-216-845-11	METAL CHIP	100K	5%	1/10W	R1753	1-216-864-11	SHORT CHIP	0		
R1146	1-216-805-11	METAL CHIP	47	5%	1/10W	R1758	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1151	1-216-833-11	METAL CHIP	10K	5%	1/10W	R1781	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1154	1-216-809-11	METAL CHIP	100	5%	1/10W	R1782	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1155	1-216-809-11	METAL CHIP	100	5%	1/10W	R2101	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R1156	1-216-809-11	METAL CHIP	100	5%	1/10W	R2104	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1159	1-216-805-11	METAL CHIP	47	5%	1/10W	R2110	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1160	1-216-805-11	METAL CHIP	47	5%	1/10W	R2114	1-216-801-11	METAL CHIP	22	5%	1/10W
R1161	1-216-801-11	METAL CHIP	22	5%	1/10W	R2115	1-216-864-11	SHORT CHIP	0		
R1162	1-216-805-11	METAL CHIP	47	5%	1/10W	R2120	1-216-809-11	METAL CHIP	100	5%	1/10W
R1163	1-216-805-11	METAL CHIP	47	5%	1/10W	R2129	1-216-845-11	METAL CHIP	100K	5%	1/10W

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R2130	1-216-809-11	METAL CHIP	100 5% 1/10W	R3050	1-216-864-11	SHORT CHIP	0
R2131	1-216-809-11	METAL CHIP	100 5% 1/10W	R3051	1-216-097-11	METAL CHIP	100K 5% 1/10W
R2136	1-216-805-11	METAL CHIP	47 5% 1/10W	R3052	1-216-857-11	METAL CHIP	1M 5% 1/10W
R2150	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R3053	1-216-809-11	METAL CHIP	100 5% 1/10W
R2151	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R3054	1-216-805-11	METAL CHIP	47 5% 1/10W
R2152	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R3055	1-216-805-11	METAL CHIP	47 5% 1/10W
R2155	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3056	1-216-864-11	SHORT CHIP	0 (HDX589W/HDX686W)
R2156	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3057	1-216-805-11	METAL CHIP	47 5% 1/10W
R2157	1-216-833-11	METAL CHIP	10K 5% 1/10W			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
R2158	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3057	1-216-864-11	SHORT CHIP	0 (HDX589W/HDX686W)
R2159	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3059	1-216-833-11	METAL CHIP	10K 5% 1/10W
R2160	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3060	1-216-833-11	METAL CHIP	10K 5% 1/10W
R2161	1-216-864-11	SHORT CHIP	0	R3065	1-216-809-11	METAL CHIP	100 5% 1/10W
R2162	1-216-864-11	SHORT CHIP	0	R3067	1-216-864-11	SHORT CHIP	0
R2167	1-216-864-11	SHORT CHIP	0	R3068	1-216-864-11	SHORT CHIP	0
R2168	1-216-815-11	METAL CHIP	330 5% 1/10W	R3074	1-216-805-11	METAL CHIP	47 5% 1/10W
R2178	1-216-821-11	METAL CHIP	1K 5% 1/10W	R3075	1-216-805-11	METAL CHIP	47 5% 1/10W
R2179	1-216-809-11	METAL CHIP	100 5% 1/10W	R3076	1-216-805-11	METAL CHIP	47 5% 1/10W
R2180	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3080	1-216-845-11	METAL CHIP	100K 5% 1/10W
R2184	1-216-809-11	METAL CHIP	100 5% 1/10W	R3085	1-216-839-11	METAL CHIP	33K 5% 1/10W
R2185	1-216-809-11	METAL CHIP	100 5% 1/10W	R3086	1-216-839-11	METAL CHIP	33K 5% 1/10W
R3001	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3087	1-216-833-11	METAL CHIP	10K 5% 1/10W
R3002	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3088	1-216-833-11	METAL CHIP	10K 5% 1/10W
R3003	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R3089	1-216-833-11	METAL CHIP	10K 5% 1/10W
R3004	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R3090	1-216-833-11	METAL CHIP	10K 5% 1/10W
R3006	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R3091	1-216-837-11	METAL CHIP	22K 5% 1/10W
R3011	1-216-817-11	METAL CHIP	470 5% 1/10W	R3092	1-216-837-11	METAL CHIP	22K 5% 1/10W
R3012	1-216-817-11	METAL CHIP	470 5% 1/10W	R3093	1-216-837-11	METAL CHIP	22K 5% 1/10W
R3013	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3094	1-216-837-11	METAL CHIP	22K 5% 1/10W
R3014	1-216-801-11	METAL CHIP	22 5% 1/10W	R3095	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R3015	1-216-805-11	METAL CHIP	47 5% 1/10W	R3096	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R3017	1-216-809-11	METAL CHIP	100 5% 1/10W	R3098	1-216-839-11	METAL CHIP	33K 5% 1/10W
R3021	1-216-817-11	METAL CHIP	470 5% 1/10W	R3099	1-216-839-11	METAL CHIP	33K 5% 1/10W
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		R3101	1-216-805-11	METAL CHIP	47 5% 1/10W
R3022	1-216-817-11	METAL CHIP	470 5% 1/10W	R3102	1-216-805-11	METAL CHIP	47 5% 1/10W
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		R3104	1-216-864-11	SHORT CHIP	0
R3023	1-216-801-11	METAL CHIP	22 5% 1/10W	R3107	1-216-835-11	METAL CHIP	15K 5% 1/10W
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		R3125	1-216-845-11	METAL CHIP	100K 5% 1/10W
R3024	1-216-805-11	METAL CHIP	47 5% 1/10W	R3126	1-216-845-11	METAL CHIP	100K 5% 1/10W
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		R3127	1-216-845-11	METAL CHIP	100K 5% 1/10W
R3026	1-216-809-11	METAL CHIP	100 5% 1/10W	R3151	1-216-805-11	METAL CHIP	47 5% 1/10W
		(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)		R3152	1-216-805-11	METAL CHIP	47 5% 1/10W
R3031	1-216-817-11	METAL CHIP	470 5% 1/10W	R3154	1-216-864-11	SHORT CHIP	0
R3032	1-216-817-11	METAL CHIP	470 5% 1/10W	R3157	1-216-835-11	METAL CHIP	15K 5% 1/10W
R3033	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3175	1-216-845-11	METAL CHIP	100K 5% 1/10W
R3034	1-216-801-11	METAL CHIP	22 5% 1/10W	R3176	1-216-845-11	METAL CHIP	100K 5% 1/10W
R3035	1-216-805-11	METAL CHIP	47 5% 1/10W	R3177	1-216-845-11	METAL CHIP	100K 5% 1/10W
R3037	1-216-809-11	METAL CHIP	100 5% 1/10W	R3183	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R3040	1-216-864-11	SHORT CHIP	0	R3184	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R3041	1-216-864-11	SHORT CHIP	0	R3185	1-216-801-11	METAL CHIP	22 5% 1/10W
R3042	1-216-864-11	SHORT CHIP	0	R3186	1-216-801-11	METAL CHIP	22 5% 1/10W
R3043	1-216-864-11	SHORT CHIP	0	R3191	1-216-805-11	METAL CHIP	47 5% 1/10W
R3044	1-216-864-11	SHORT CHIP	0	R3192	1-216-805-11	METAL CHIP	47 5% 1/10W
R3045	1-216-864-11	SHORT CHIP	0	R3201	1-216-805-11	METAL CHIP	47 5% 1/10W
R3046	1-216-864-11	SHORT CHIP	0			(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
R3047	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3202	1-216-805-11	METAL CHIP	47 5% 1/10W
						(HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

MAIN
MOTOR
POWER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R3204	1-216-864-11	SHORT CHIP	0 (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)	R3902	1-216-296-11	SHORT CHIP	0
R3207	1-216-835-11	METAL CHIP	15K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3905	1-216-296-11	SHORT CHIP	0
R3225	1-216-845-11	METAL CHIP	100K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3906	1-216-296-11	SHORT CHIP	0
R3226	1-216-845-11	METAL CHIP	100K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3907	1-216-864-11	SHORT CHIP	0
R3227	1-216-845-11	METAL CHIP	100K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3911	1-216-864-11	SHORT CHIP	0
R3251	1-216-805-11	METAL CHIP	47 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3912	1-216-864-11	SHORT CHIP	0
R3252	1-216-805-11	METAL CHIP	47 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3913	1-216-864-11	SHORT CHIP	0
R3254	1-216-864-11	SHORT CHIP	0 (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3914	1-216-864-11	SHORT CHIP	0
R3257	1-216-835-11	METAL CHIP	15K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	R3917	1-216-864-11	SHORT CHIP	0
R3275	1-216-845-11	METAL CHIP	100K 5% 1/10W	R3918	1-216-864-11	SHORT CHIP	0
R3276	1-216-845-11	METAL CHIP	100K 5% 1/10W	R3919	1-216-864-11	SHORT CHIP	0
R3277	1-216-845-11	METAL CHIP	100K 5% 1/10W	R3920	1-216-864-11	SHORT CHIP	0
R3301	1-216-805-11	METAL CHIP	47 5% 1/10W	R3921	1-216-864-11	SHORT CHIP	0
R3302	1-216-805-11	METAL CHIP	47 5% 1/10W	R9918	1-216-821-11	METAL CHIP	1K 5% 1/10W
R3304	1-216-864-11	SHORT CHIP	0	R9922	1-216-833-11	METAL CHIP	10K 5% 1/10W
R3307	1-216-835-11	METAL CHIP	15K 5% 1/10W	R9924	1-216-821-11	METAL CHIP	1K 5% 1/10W
R3325	1-216-845-11	METAL CHIP	100K 5% 1/10W	R9928	1-216-837-11	METAL CHIP	22K 5% 1/10W
R3326	1-216-845-11	METAL CHIP	100K 5% 1/10W	R9929	1-216-837-11	METAL CHIP	22K 5% 1/10W
R3327	1-216-845-11	METAL CHIP	100K 5% 1/10W	R9934	1-216-833-11	METAL CHIP	10K 5% 1/10W
R3327	1-216-845-11	METAL CHIP	100K 5% 1/10W	R9935	1-216-864-11	SHORT CHIP	0
R3401	1-216-805-11	METAL CHIP	47 5% 1/10W	R9941	1-216-838-11	METAL CHIP	27K 5% 1/10W
R3402	1-216-805-11	METAL CHIP	47 5% 1/10W	R9945	1-216-813-11	METAL CHIP	220 5% 1/10W
R3404	1-216-864-11	SHORT CHIP	0	< COMPOSITION CIRCUIT BLOCK >			
R3407	1-216-835-11	METAL CHIP	15K 5% 1/10W	RB1103	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3425	1-216-845-11	METAL CHIP	100K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	RB1104	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3426	1-216-845-11	METAL CHIP	100K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	RB1105	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3427	1-216-845-11	METAL CHIP	100K 5% 1/10W (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	RB1106	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3501	1-216-805-11	METAL CHIP	47 5% 1/10W	RB1109	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3502	1-216-805-11	METAL CHIP	47 5% 1/10W	RB1110	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3504	1-216-864-11	SHORT CHIP	0	RB1111	1-234-944-21	RES, NETWORK 47 (1005X4)	
R3507	1-216-835-11	METAL CHIP	15K 5% 1/10W	RB1112	1-234-400-21	CONDUCTOR, NETWORK (1005X4)	
R3551	1-216-845-11	METAL CHIP	100K 5% 1/10W	RB1113	1-234-400-21	CONDUCTOR, NETWORK (1005X4)	
R3552	1-216-837-11	METAL CHIP	22K 5% 1/10W	RB1114	1-234-943-21	RES, NETWORK 22 (1005X4)	
R3553	1-216-833-11	METAL CHIP	10K 5% 1/10W	RB1115	1-234-943-21	RES, NETWORK 22 (1005X4)	
R3554	1-216-845-11	METAL CHIP	100K 5% 1/10W	< TERMINAL >			
R3556	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	TB3901	1-780-453-11	TERMINAL BOARD (SPEAKER) 2P (SPEAKER CENTER/SUBWOOFER)	
R3558	1-216-833-11	METAL CHIP	10K 5% 1/10W	< VIBRATOR >			
R3559	1-216-833-11	METAL CHIP	10K 5% 1/10W	X301	1-814-106-21	VIBRATOR, CRYSTAL (24.576MHz)	
R3561	1-216-841-11	METAL CHIP	47K 5% 1/10W	X501	1-795-058-21	VIBRATOR, CERAMIC (5MHz)	
R3562	1-216-833-11	METAL CHIP	10K 5% 1/10W	X1101	1-814-103-21	VIBRATOR, CRYSTAL (27MHz)	
R3563	1-216-845-11	METAL CHIP	100K 5% 1/10W	X3051	1-814-108-21	VIBRATOR, CRYSTAL (49.1MHz)	
R3901	1-216-296-11	SHORT CHIP	0	*****			
				MOTOR BOARD			
				*****			
				< SWITCH >			
				S761	1-786-704-11	SWITCH, LEVER (SUB TRAY OUT)	
				*****			
				A-1568-848-A	POWER BOARD, COMPLETE (E3, EA)		
				A-1568-850-A	POWER BOARD, COMPLETE (US, CND)		
				*****			
				7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3		
				7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3		

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

## POWER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< CAPACITOR >							
△ C901	1-165-529-11	MYLAR	0.22uF	10	275V		
△ C902	1-165-529-11	MYLAR	0.22uF	10	275V		
△ C903	1-112-330-11	ELECT (BLOCK)	1000uF	20%	200V		
△ C903	1-114-347-11	ELECT (BLOCK)	330uF	20%	450V		(US, CND)
△ C905	1-112-334-91	FILM	0.01uF	5%	400V		(E3, EA)
△ C905	1-112-335-91	FILM	0.0033uF	5%	400V		(US, CND)
△ C906	1-117-815-11	FILM	1000PF	3%	1.5KV		(E3, EA)
△ C907	1-162-964-91	CERAMIC CHIP	0.001uF	10%	50V		(E3, EA)
△ C907	1-162-965-91	CERAMIC CHIP	0.0015uF	10%	50V		(E3, EA)
△ C908	1-107-909-91	ELECT	47uF	20%	50V		(US, CND)
△ C909	1-162-960-91	CERAMIC CHIP	220PF	10%	50V		
△ C910	1-126-965-91	ELECT	22uF	20%	50V		
△ C912	1-126-947-91	ELECT	47uF	20%	35V		
△ C913	1-112-866-51	CERAMIC	100PF	10%	250V		
△ C916	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
△ C918	1-112-887-51	CERAMIC	0.01uF	20%	250V		
△ C920	1-112-887-51	CERAMIC	0.01uF	20%	250V		
△ C921	1-117-220-81	CERAMIC	150PF	5%	2KV		
△ C922	1-162-964-91	CERAMIC CHIP	0.001uF	10%	50V		
△ C923	1-162-966-91	CERAMIC CHIP	0.0022uF	10%	50V		
△ C924	1-112-335-91	FILM	0.0033uF	5%	400V		
△ C926	1-107-930-91	ELECT	22uF	20%	100V		
C927	1-112-223-11	ELECT	3300uF	20%	10V		
C928	1-112-232-11	ELECT	2700uF	20%	16V		
C929	1-112-241-21	ELECT	1000uF	20%	25V		
△ C930	1-112-866-51	CERAMIC	100PF	10%	250V		
C932	1-114-994-11	ELECT	2200uF	20%	35V		
C933	1-114-994-11	ELECT	2200uF	20%	35V		
C934	1-112-831-31	ELECT	2200uF	20%	35V		
C935	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V		
C936	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V		
C937	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V		
△ C938	1-112-869-51	CERAMIC	470PF	10%	250V		
C939	1-136-165-00	FILM	0.1uF	5%	50V		
C940	1-112-228-21	ELECT	1000uF	20%	16V		
△ C941	1-114-128-91	CERAMIC CHIP	47PF	5%	100V		
C942	1-126-941-11	ELECT	470uF	20%	25V		
C943	1-126-935-11	ELECT	470uF	20%	16V		
C950	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C951	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C956	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V		
△ C963	1-112-869-51	CERAMIC	470PF	10%	250V		(E3, EA)
△ C963	1-112-871-51	CERAMIC	0.0022uF	20%	250V		(US, CND)
△ C964	1-112-869-51	CERAMIC	470PF	10%	250V		(E3, EA)
△ C964	1-112-871-51	CERAMIC	0.0022uF	20%	250V		(US, CND)
C969	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C970	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C971	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		
C972	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C973	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C975	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C976	1-126-933-11	ELECT	100uF	20%	16V		
△ C980	1-117-828-11	FILM	3300PF	3%	1.5KV		(US, CND)
△ C981	1-162-968-91	CERAMIC CHIP	0.0047uF	10%	50V		
C983	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V		
C984	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		
C987	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C990	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C991	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C992	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		
C993	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V		
C997	1-116-078-11	CERAMIC CHIP	1uF	10%	50V		
< CONNECTOR >							
CN901	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P					
CN904	1-785-102-11	PIN, CONNECTOR (3.96mm PITCH) 4P					
CN906	1-564-715-11	PIN, CONNECTOR (SMALL TYPE) 13P					
CN908	1-564-505-11	PLUG, CONNECTOR 2P					
< DIODE >							
△ D901	8-719-082-57	DIODE	D5SBA60F01				
△ D902	8-719-063-74	DIODE	D1NL20U-TR2				
△ D905	8-719-063-74	DIODE	D1NL20U-TR2				
△ D906	6-501-817-01	DIODE	MA2J1110GLS0				
△ D907	6-501-817-01	DIODE	MA2J1110GLS0				
△ D908	6-501-817-01	DIODE	MA2J1110GLS0				
△ D909	6-501-817-01	DIODE	MA2J1110GLS0				
△ D910	6-501-817-01	DIODE	MA2J1110GLS0				
D911	6-502-484-21	DIODE	SG10SC6M-5600				
D912	6-501-917-11	DIODE	SG10SC9-5600				
△ D913	6-500-241-01	DIODE	SARS03				
△ D914	6-501-817-01	DIODE	MA2J1110GLS0				
D916	6-502-484-21	DIODE	SG10SC6M-5600				
△ D921	6-502-234-01	DIODE	EG01C LF-F7				
△ D922	6-501-817-01	DIODE	MA2J1110GLS0				
△ D923	6-501-817-01	DIODE	MA2J1110GLS0				
△ D924	6-501-817-01	DIODE	MA2J1110GLS0				
D931	6-501-849-01	DIODE	FMX-22SL				
△ D946	6-502-234-01	DIODE	EG01C LF-F7				
D947	6-502-484-21	DIODE	SG10SC6M-5600				
△ D948	6-501-817-01	DIODE	MA2J1110GLS0				
△ D949	6-501-817-01	DIODE	MA2J1110GLS0				
△ DZ901	6-501-782-01	DIODE	MAZ8180GMLS0				
△ DZ902	6-502-231-01	DIODE	MAZ8220GLLS0				
△ DZ903	6-501-768-01	DIODE	MAZ8120GMLS0				
△ DZ904	6-501-734-01	DIODE	MAZ8056GMLS0				
△ DZ915	6-501-760-01	DIODE	MAZ8100GMLS0				
DZ932	6-501-734-01	DIODE	MAZ8056GMLS0				
△ DZ951	8-719-083-71	DIODE	UDZSUSTE-1730B (US, CND)				
DZ953	6-501-713-01	DIODE	MAZ8033G0LS0				
< EARTH TERMINAL >							
EB902	1-537-770-21	TERMINAL BOARD, GROUND					
EB904	1-537-770-21	TERMINAL BOARD, GROUND					
EB907	1-537-770-21	TERMINAL BOARD, GROUND					
< FUSE >							
△ F945	1-576-794-11	FUSE	(2A/32V)				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< FUSE HOLDER >		△ R901	1-240-938-91	METAL 1.5M 5%	0.5W F (E3, EA)
FH901	1-533-217-31	FUSE HOLDER		△ R903	1-215-926-51	METAL OXIDE 33K 5%	3W F (US, CND)
FH902	1-533-217-31	FUSE HOLDER		△ R903	1-215-929-51	METAL OXIDE 100K 5%	3W F (E3, EA)
		< FUSIBLE RESISTOR >		△ R904	1-215-926-51	METAL OXIDE 33K 5%	3W F (US, CND)
△ FR929	1-246-373-11	FUSIBLE 1 10%	1/2W F	△ R904	1-215-929-51	METAL OXIDE 100K 5%	3W F (E3, EA)
		< IC >		△ R905	1-216-797-91	METAL CHIP 10 5%	1/10W
△ IC901	6-707-741-01	IC STR-F6138-LF1352 (US, CND)		△ R906	1-216-827-91	METAL CHIP 3.3K 5%	1/10W
△ IC901	6-707-742-01	IC STR-F6168-LF1352 (E3, EA)		△ R907	1-216-833-91	METAL CHIP 10K 5%	1/10W
IC921	6-711-790-01	IC MR4020-7103		△ R908	1-216-829-91	METAL CHIP 4.7K 5%	1/10W
IC923	6-711-947-01	IC MM1431CURE		△ R909	1-216-833-91	METAL CHIP 10K 5%	1/10W
IC932	6-711-947-01	IC MM1431CURE		△ R910	1-216-825-91	METAL CHIP 2.2K 5%	1/10W
IC941	6-712-613-01	IC SI-3010KM-TLS		△ R911	1-216-813-91	METAL CHIP 220 5%	1/10W
		< JUMPER RESISTOR >		△ R912	1-216-363-61	METAL OXIDE 0.33 5%	2W F (E3, EA)
JR930	1-216-864-11	SHORT CHIP 0		△ R914	1-220-891-11	METAL 0.1 10%	5W F (E3, EA)
JR931	1-216-864-11	SHORT CHIP 0					
		< COIL >		△ R914	1-248-180-11	METAL 0.034 5%	5W F (US, CND)
L931	1-457-438-11	COIL, CHOKE 5.6uH		△ R916	1-215-929-51	METAL OXIDE 100K 5%	3W F
L944	1-414-398-11	INDUCTOR 10uH		△ R917	1-216-829-91	METAL CHIP 4.7K 5%	1/10W
L945	1-414-398-11	INDUCTOR 10uH		△ R919	1-216-837-91	METAL CHIP 22K 5%	1/10W
L947	1-414-398-11	INDUCTOR 10uH		R920	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
L948	1-414-398-11	INDUCTOR 10uH		R921	1-216-833-11	METAL CHIP 10K 5%	1/10W
L953	1-414-398-11	INDUCTOR 10uH		△ R922	1-246-384-41	METAL 0.18 5%	2W F
L954	1-457-578-11	COIL, CHOKE 10uH		△ R923	1-218-879-91	METAL CHIP 22K 0.5%	1/10W
L956	1-457-578-11	COIL, CHOKE 10uH		△ R924	1-216-837-91	METAL CHIP 22K 5%	1/10W
		< LINE FILTER >		△ R925	1-216-797-91	METAL CHIP 10 5%	1/10W
△ LF901	1-457-054-21	COIL, LINE FILTER (E3, EA)		△ R926	1-218-895-91	METAL CHIP 100K 0.5%	1/10W
△ LF901	1-457-449-11	COIL, LINE FILTER (US, CND)		△ R927	1-216-837-91	METAL CHIP 22K 5%	1/10W
△ LF902	1-457-054-21	COIL, LINE FILTER (E3, EA)		△ R928	1-216-845-91	METAL CHIP 100K 5%	1/10W
△ LF902	1-457-449-11	COIL, LINE FILTER (US, CND)		R930	1-216-817-11	METAL CHIP 470 5%	1/10W
		< PHOTO COUPLER >		R931	1-218-851-11	METAL CHIP 1.5K 0.5%	1/10W
△ PC901	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R932	1-218-879-11	METAL CHIP 22K 0.5%	1/10W
△ PC902	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R933	1-216-821-11	METAL CHIP 1K 5%	1/10W
△ PC903	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R934	1-216-821-11	METAL CHIP 1K 5%	1/10W
△ PC904	6-600-276-01	PHOTO COUPLER PS2561AL1-1-V-W		R935	1-216-821-11	METAL CHIP 1K 5%	1/10W
		< THERMISTOR >		R936	1-216-853-11	METAL CHIP 470K 5%	1/10W
PS954	1-802-595-11	THERMISTOR, POSITIVE MF-R250		R937	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
PS956	1-802-596-11	THERMISTOR, POSITIVE MF-R300		R938	1-218-847-11	METAL CHIP 1K 0.5%	1/10W
		< TRANSISTOR >		R939	1-218-855-11	METAL CHIP 2.2K 0.5%	1/10W
△ Q901	8-729-231-15	TRANSISTOR 2SA1015TP-YGR		R940	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
△ Q921	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		R941	1-218-895-11	METAL CHIP 100K 0.5%	1/10W
△ Q922	6-550-702-01	TRANSISTOR 2SC3243-TP-E		R942	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
Q930	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		R943	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q943	8-729-038-28	TRANSISTOR RT1N441C-TP-1		R945	1-216-837-11	METAL CHIP 22K 5%	1/10W
Q945	6-550-718-01	FET RSR025N03TL		R946	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q947	8-729-038-28	TRANSISTOR RT1N441C-TP-1		R949	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q949	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF		△ R951	1-218-847-91	METAL CHIP 1K 0.5%	1/10W
Q950	8-729-038-28	TRANSISTOR RT1N441C-TP-1		R952	1-216-821-11	METAL CHIP 1K 5%	1/10W
		< RESISTOR >		R954	1-218-861-11	METAL CHIP 3.9K 0.5%	1/10W
△ R901	1-219-759-91	METAL 1M 5%	1/2W F (US, CND)	R955	1-216-821-11	METAL CHIP 1K 5%	1/10W
				R956	1-216-817-11	METAL CHIP 470 5%	1/10W
				R957	1-216-841-11	METAL CHIP 47K 5%	1/10W
				R958	1-216-821-11	METAL CHIP 1K 5%	1/10W
				R959	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
				R960	1-216-817-11	METAL CHIP 470 5%	1/10W

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

**POWER** **P-SW** **RELAY** **S-AIR INCLUDE**

Ref. No.	Part No.	Description	Remark
R962	1-216-864-11	SHORT CHIP 0	
R963	1-218-839-11	METAL CHIP 470 0.5% 1/10W	
R965	1-218-863-11	METAL CHIP 4.7K 0.5% 1/10W	
R966	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R967	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R972	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R974	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
△ R975	1-218-895-91	METAL CHIP 100K 0.5% 1/10W	
△ R976	1-218-903-91	METAL CHIP 220K 0.5% 1/10W	
△ R978	1-216-829-91	METAL CHIP 4.7K 5% 1/10W	
△ R992	1-216-793-91	METAL CHIP 4.7 5% 1/10W	
R998	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R999	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
< TRANSFORMER >			
△ T901	1-443-649-11	TRANSFORMER, CONVERTER (US, CND)	
△ T901	1-443-874-11	TRANSFORMER, CONVERTER (E3, EA)	
△ T903	1-445-320-11	TRANSFORMER, CONVERTER	
< THERMISTOR >			
△ TH901	1-805-841-21	THERMISTOR, NTC 3.0 (US, CND)	
△ TH901	1-805-842-21	THERMISTOR, NTC 6.0 (E3, EA)	
< VARISTOR >			
△ VDR901	1-802-839-11	VARISTOR	
*****			
P-SW BOARD			
*****			
< CAPACITOR >			
C5400	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
< CONNECTOR >			
CN5400	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
< SWITCH >			
S5400	1-762-875-21	SWITCH, KEYBOARD (I/⌂)	
*****			
A-4750-232-A	RELAY BOARD, COMPLETE		
	(Including ENCODER board)		
*****			
< CAPACITOR >			
C701	1-126-786-11	ELECT 47uF 20% 16V	
C702	1-126-791-11	ELECT 10uF 20% 35V	
C761	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C762	1-162-306-11	CERAMIC 0.01uF 20% 16V	
< CONNECTOR >			
CN701	1-779-558-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P	
< DIODE >			
D701	8-719-921-40	DIODE MTZJ-4.7C	
D711	8-719-982-10	DIODE MTZJ-4.3A	
< IC >			
IC701	8-759-598-69	IC BA6956AN	

Ref. No.	Part No.	Description	Remark
IC711	8-759-598-69	IC BA6956AN	
< TRANSISTOR >			
Q751	8-729-119-78	TRANSISTOR 2SC2785-HFE	
< RESISTOR >			
R701	1-249-415-11	CARBON 680 5% 1/4W	
R702	1-247-807-31	CARBON 100 5% 1/4W	
R711	1-249-415-11	CARBON 680 5% 1/4W	
R712	1-247-807-31	CARBON 100 5% 1/4W	
R751	1-247-806-11	CARBON 91 5% 1/4W	
R752	1-249-429-11	CARBON 10K 5% 1/4W	
R753	1-249-429-11	CARBON 10K 5% 1/4W	
R754	1-249-430-11	CARBON 12K 5% 1/4W	
R755	1-249-429-11	CARBON 10K 5% 1/4W	
*****			
S-AIR INCLUDE BOARD			
(HDX287WC/HDX587WC/HDX589W/HDX686W)			
*****			
< CAPACITOR >			
C801	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C803	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C804	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C805	1-162-917-11	CERAMIC CHIP 15PF 5% 50V	
C806	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C807	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C808	1-126-964-11	ELECT 10uF 20% 50V	
C809	1-162-918-11	CERAMIC CHIP 18PF 5% 50V	
C811	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C813	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C814	1-165-908-11	CERAMIC CHIP 1uF 10% 10V	
C815	1-126-926-11	ELECT 1000uF 20% 10V	
C816	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C817	1-125-837-91	CERAMIC CHIP 1uF 10% 6.3V	
C818	1-125-837-91	CERAMIC CHIP 1uF 10% 6.3V	
C819	1-126-926-11	ELECT 1000uF 20% 10V	
C820	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C823	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C824	1-162-966-11	CERAMIC CHIP 0.0022uF 10% 50V	
C825	1-162-966-11	CERAMIC CHIP 0.0022uF 10% 50V	
C826	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C827	1-126-925-91	ELECT 470uF 20% 10V	
C828	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V	
C829	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C830	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C831	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V	
C832	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C833	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C834	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C835	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V	
C836	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C837	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C838	1-104-658-91	ELECT 100uF 20% 10V	
C839	1-104-658-91	ELECT 100uF 20% 10V	
C840	1-165-989-11	CERAMIC CHIP 10uF 10% 6.3V	
C841	1-164-315-11	CERAMIC CHIP 470PF 5% 50V	
C843	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	
C844	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	
C845	1-137-649-31	ELECT 220uF 20% 10V	

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

S-AIR INCLUDE

S-AIR-CON

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C846	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	R845	1-216-864-11	SHORT CHIP 0	
C847	1-162-923-11	CERAMIC CHIP 47PF 5%	50V	R847	1-218-851-11	METAL CHIP 1.5K 0.5%	1/10W
C848	1-162-923-11	CERAMIC CHIP 47PF 5%	50V	R848	1-218-879-11	METAL CHIP 22K 0.5%	1/10W
C849	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	R849	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
C851	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	R851	1-216-813-11	METAL CHIP 220 5%	1/10W
C852	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	R852	1-216-809-11	METAL CHIP 100 5%	1/10W
< CONNECTOR >				R853	1-216-809-11	METAL CHIP 100 5%	1/10W
CN801	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P		R854	1-216-813-11	METAL CHIP 220 5%	1/10W
CN803	1-821-747-11	CONNECTOR, CARD EDGE 20P (L) (EZW-RT10)		R855	1-216-864-11	SHORT CHIP 0	
CN804	1-785-468-41	CONNECTOR, FFC/FPC 13P		R858	1-216-809-11	METAL CHIP 100 5%	1/10W
< DIODE >				R859	1-216-813-11	METAL CHIP 220 5%	1/10W
D800	6-500-848-01	DIODE MC2840-T112-1		R860	1-216-809-11	METAL CHIP 100 5%	1/10W
< IC >				R861	1-216-864-11	SHORT CHIP 0	
IC800	6-702-302-01	IC TK11133CSCL-G		R863	1-216-797-11	METAL CHIP 10 5%	1/10W
IC802	6-709-888-01	IC TC7WHU04FK (T5RSOYF)		R864	1-216-797-11	METAL CHIP 10 5%	1/10W
IC804	6-712-613-01	IC SI-3010KM-TLS		R865	1-216-809-11	METAL CHIP 100 5%	1/10W
IC805	6-713-513-01	IC AK4127VF-E2		R867	1-216-833-11	METAL CHIP 10K 5%	1/10W
IC806	6-713-513-01	IC AK4127VF-E2		R868	1-216-809-11	METAL CHIP 100 5%	1/10W
IC807	6-710-554-01	IC PCM1808PWR		R869	1-216-833-11	METAL CHIP 10K 5%	1/10W
IC808	8-759-680-48	IC TC7WH157FK (TE85R)		R870	1-216-821-11	METAL CHIP 1K 5%	1/10W
< COIL >				R871	1-216-833-11	METAL CHIP 10K 5%	1/10W
L800	1-469-525-91	INDUCTOR 10uH		R872	1-216-813-11	METAL CHIP 220 5%	1/10W
L801	1-414-398-11	INDUCTOR 10uH		R873	1-216-813-11	METAL CHIP 220 5%	1/10W
L802	1-469-525-91	INDUCTOR 10uH		R874	1-216-813-11	METAL CHIP 220 5%	1/10W
L803	1-469-525-91	INDUCTOR 10uH		R875	1-216-864-11	SHORT CHIP 0	
L804	1-469-525-91	INDUCTOR 10uH		R877	1-216-864-11	SHORT CHIP 0	
< RESISTOR >				R878	1-216-864-11	SHORT CHIP 0	
R800	1-216-797-11	METAL CHIP 10 5%	1/10W	R881	1-216-864-11	SHORT CHIP 0	
R801	1-216-797-11	METAL CHIP 10 5%	1/10W	R882	1-216-864-11	SHORT CHIP 0	
R803	1-216-821-11	METAL CHIP 1K 5%	1/10W	R884	1-216-864-11	SHORT CHIP 0	
R804	1-216-827-11	METAL CHIP 3.3K 5%	1/10W	< VIBRATOR >			
R805	1-216-821-11	METAL CHIP 1K 5%	1/10W	X800	1-814-109-21	VIBRATOR, CRYSTAL (12.288MHz)	
R806	1-216-845-11	METAL CHIP 100K 5%	1/10W	*****			
R807	1-216-809-11	METAL CHIP 100 5%	1/10W	S-AIR-CON BOARD (HDX285/HDX585/HDX685)			
R812	1-216-845-11	METAL CHIP 100K 5%	1/10W	*****			
R814	1-216-809-11	METAL CHIP 100 5%	1/10W	< CONNECTOR >			
R815	1-216-805-11	METAL CHIP 47 5%	1/10W	CN100	1-779-550-21	CONNECTOR, FFC (LIF (NON-ZIF)) 13P	
R824	1-216-809-11	METAL CHIP 100 5%	1/10W	CN101	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
R825	1-216-809-11	METAL CHIP 100 5%	1/10W	CN102	1-564-517-11	PLUG, CONNECTOR 2P	
R826	1-216-809-11	METAL CHIP 100 5%	1/10W	CN103	1-821-744-11	CONNECTOR, CARD EDGE 30P (EZW-T100)	
R827	1-216-809-11	METAL CHIP 100 5%	1/10W	< TRANSISTOR >			
R828	1-216-809-11	METAL CHIP 100 5%	1/10W	Q100	8-729-038-28	TRANSISTOR RT1N441C-TP-1	
R829	1-216-809-11	METAL CHIP 100 5%	1/10W	Q101	6-550-363-01	TRANSISTOR 2SB1690KT146	
R830	1-216-821-11	METAL CHIP 1K 5%	1/10W	< RESISTOR >			
R831	1-216-809-11	METAL CHIP 100 5%	1/10W	R100	1-216-817-11	METAL CHIP 470 5%	1/10W
R832	1-216-809-11	METAL CHIP 100 5%	1/10W	R101	1-216-817-11	METAL CHIP 470 5%	1/10W
R833	1-216-809-11	METAL CHIP 100 5%	1/10W	R102	1-216-817-11	METAL CHIP 470 5%	1/10W
R834	1-216-809-11	METAL CHIP 100 5%	1/10W	R103	1-216-841-11	METAL CHIP 47K 5%	1/10W
R835	1-216-813-11	METAL CHIP 220 5%	1/10W	R104	1-216-833-11	METAL CHIP 10K 5%	1/10W
R836	1-216-809-11	METAL CHIP 100 5%	1/10W	R105	1-216-833-11	METAL CHIP 10K 5%	1/10W
R837	1-216-821-11	METAL CHIP 1K 5%	1/10W	R106	1-216-833-11	METAL CHIP 10K 5%	1/10W
R838	1-216-821-11	METAL CHIP 1K 5%	1/10W	R107	1-216-833-11	METAL CHIP 10K 5%	1/10W
R839	1-216-864-11	SHORT CHIP 0		*****			
R841	1-216-864-11	SHORT CHIP 0					
R843	1-216-864-11	SHORT CHIP 0					

# HCD-HDX285/HDX287WC/HDX585/HDX587WC/HDX589W/HDX685/HDX686W

**SENSOR**   **SERIPARA**   **SPEAKER**   **SW (1)**

Ref. No.	Part No.	Description	Remark
		SENSOR BOARD *****	
		< PHOTO SENSOR >	
IC751	8-759-989-76	PHOTO SENSOR RPR-359F	
*****			
	A-1602-535-A	SERIPARA BOARD, COMPLETE *****	
		< CAPACITOR >	
C001	1-124-584-00	ELECT 100uF 20%	6.3V
C002	1-126-933-11	ELECT 100uF 20%	16V
C003	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C004	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C005	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C006	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C007	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< CONNECTOR >	
CN001	1-784-041-41	CONNECTOR, BOARD TO BOARD 9P	
CN002	1-779-558-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P	
CN003	1-779-542-21	CONNECTOR, FFC (LIF (NON-ZIF)) 5P	
		< IC >	
IC001	6-707-095-01	IC BH2210FV-E2	
IC002	6-707-095-01	IC BH2210FV-E2	
		< RESISTOR >	
R003	1-216-813-11	METAL CHIP 220 5%	1/10W
R004	1-216-809-11	METAL CHIP 100 5%	1/10W
R005	1-216-813-11	METAL CHIP 220 5%	1/10W
R006	1-216-809-11	METAL CHIP 100 5%	1/10W
R007	1-216-813-11	METAL CHIP 220 5%	1/10W
R008	1-216-809-11	METAL CHIP 100 5%	1/10W
R009	1-216-809-11	METAL CHIP 100 5%	1/10W
R010	1-216-813-11	METAL CHIP 220 5%	1/10W
R011	1-216-809-11	METAL CHIP 100 5%	1/10W
R012	1-216-809-11	METAL CHIP 100 5%	1/10W
R013	1-216-809-11	METAL CHIP 100 5%	1/10W
R014	1-216-809-11	METAL CHIP 100 5%	1/10W
R015	1-216-809-11	METAL CHIP 100 5%	1/10W
R016	1-216-809-11	METAL CHIP 100 5%	1/10W
R017	1-216-833-11	METAL CHIP 10K 5%	1/10W
R018	1-216-809-11	METAL CHIP 100 5%	1/10W
R019	1-216-809-11	METAL CHIP 100 5%	1/10W
R020	1-216-809-11	METAL CHIP 100 5%	1/10W
R023	1-216-813-11	METAL CHIP 220 5%	1/10W
R024	1-216-809-11	METAL CHIP 100 5%	1/10W
R025	1-216-809-11	METAL CHIP 100 5%	1/10W
R026	1-216-809-11	METAL CHIP 100 5%	1/10W
R027	1-216-809-11	METAL CHIP 100 5%	1/10W
R028	1-216-809-11	METAL CHIP 100 5%	1/10W
R029	1-216-809-11	METAL CHIP 100 5%	1/10W
R030	1-216-809-11	METAL CHIP 100 5%	1/10W
R031	1-216-809-11	METAL CHIP 100 5%	1/10W
R033	1-216-809-11	METAL CHIP 100 5%	1/10W
R035	1-216-809-11	METAL CHIP 100 5%	1/10W
R036	1-216-809-11	METAL CHIP 100 5%	1/10W
R037	1-216-809-11	METAL CHIP 100 5%	1/10W

Ref. No.	Part No.	Description	Remark
R038	1-216-809-11	METAL CHIP 100 5%	1/10W
R039	1-216-809-11	METAL CHIP 100 5%	1/10W
*****			
		SPEAKER BOARD *****	
		< CAPACITOR >	
C5300	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5301	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5302	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5303	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5304	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C5305	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C5306	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C5307	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C5308	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C5309	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C5310	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C5311	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C5312	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5313	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5314	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
C5315	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
		< CONNECTOR >	
* CN5300	1-564-519-11	PLUG, CONNECTOR 4P (HDX589W/HDX686W)	
CN5301	1-564-523-11	PLUG, CONNECTOR 8P (HDX285/HDX287WC/ HDX585/HDX587WC/HDX685)	
		< TERMINAL >	
TB5300	1-780-576-11	TAMINAL BOARD (SPEAKER) 2P (SPEAKER FRONT L/FRONT R) (HDX589W/HDX686W)	
TB5301	1-780-454-11	TERMINAL BOARD (SPEAKER) 4P (SPEAKER FRONT L/FRONT R/SUR L/SUR R) (HDX285/HDX287WC/HDX585/HDX587WC/ HDX685)	
*****			
		SW (1) BOARD *****	
		< SWITCH >	
S721	1-786-084-11	SWITCH, DETECTION (MAIN TRAY OPEN/CLOSE)	
*****			

Ref. No.	Part No.	Description	Remark
		SW (2) BOARD *****	
		< SWITCH >	
S731	1-786-382-11	SWITCH, PUSH (1 KEY) (SUB TRAY IN)	
*****			
		MISCELLANEOUS *****	
7	1-828-331-11	WIRE (FLAT TYPE) (13 CORE)	
8	1-828-330-11	WIRE (FLAT TYPE) (13 CORE)	
△ 11	1-834-966-41	POWER-SUPPLY CORD (EA, E3)	
△ 11	1-834-978-11	CORD, POWER (US, CND)	
64	1-828-317-11	WIRE (FLAT TYPE) (11 CORE)	
65	1-828-353-11	WIRE (FLAT TYPE) (17 CORE)	
103	1-828-370-11	WIRE (FLAT TYPE) (21 CORE)	
105	1-828-347-11	WIRE (FLAT TYPE) (17 CORE)	
106	1-828-289-11	WIRE (FLAT TYPE) (5 CORE)	
107	1-828-310-11	WIRE (FLAT TYPE) (9 CORE)	
108	1-828-955-11	WIRE (FLAT TYPE) (9 CORE)	
109	1-693-778-11	TUNER (FM/AM) (EA, E3)	
109	1-693-779-11	TUNER (FM/AM) (US, CND)	
△ 402	8-820-291-02	OPTICAL PICK-UP BLOCK (KHM-310CAB/C2RP) (Including sled motor, spindle motor)	
△ 402	8-820-322-04	OPTICAL PICK-UP BLOCK (KHM-313CAB/C2RP) (Including sled motor, spindle motor)	
406	1-836-385-11	FLEXIBLE FLAT CABLE 24P	
△ F901	1-533-311-12	FUSE, GLASS CYLINDRICAL (DIA.5) (8A/125V) (US, CND)	
△ F901	1-576-232-51	FUSE (H.B.C.) (T5AH/250V) (EA, E3)	
M001	1-787-396-11	D.C. FAN (50 SQUARE)	
M761	A-4713-174-A	MOTOR (81) ASSY (LOADING)	
M762	A-4713-174-A	MOTOR (81) ASSY (STOCKER UP/DOWN)	
S771	1-478-552-11	ENCODER, ROTARY (MD)	
S781	1-478-551-11	ENCODER, ROTARY (STOCKER UP/DOWN)	
*****			
		ACCESSORIES *****	
△	1-770-019-71	ADAPTOR, CONVERSION PLUG 3P (HDX285: EA)	

**Note 1:** If wire (flat type) and flexible flat cable are replaced, install it after bending it in the same form as that before replacement.

**Note 2:** Refer to the Servicing Notes "HOW TO IDENTIFY OPTICAL PICK-UP BLOCK" (page 7), if replacing the Ref. No. 402.