

# MDCC-2000

## SERVICE MANUAL

US Model

Ver 1.1 2001. 07



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Laboratories Licensing Corporation

Model Name Using Similar Mechanism	NEW
MD Mechanism Type	CCMD-2000
Optical Pick-up Mechanism Type	KMS-250A

### SPECIFICATIONS

#### Laser diode properties

Material: GaAlAs

Wavelength: 780 nm

Emission duration: Continuous

Laser output: Less than 44.6 μW

(This output is the value measured at a distance of about 200 mm from the lens surface on the optical pick-up block with 7 mm aperture.)

#### Revolutions

400 rpm to 1800 rpm (CLV)

#### Error correction

Advanced Cross Interleave Reed Solomon Code (ACIRC)

#### Sampling frequency

44.1 kHz

#### Coding

ATRAC 3 (Adaptive TRansform Acoustic Coding 3)

#### Modulation system

EFM (Eight to Fourteen Modulation)

#### Number of channels

2 or 4 monaural channels

#### Frequency response

50–10,000 Hz

#### Speaker

Approx. 5.0 cm (2 inches) dia.

#### Power output

600 mW (at 10% distortion)

#### Input

MIC: Canon XLR-3-31 type 0.44 mV (-65 dB)

LINE IN 1-4: mini jack 0.49 V (-4 dB)

#### Output

EAR (minijack)

for 8–300 Ω earphones

LINE OUT 1,2 (minijack) 0.22 V (-11 dB) load impedance 47 kΩ

ADA (minijack) 0.22 V (-11 dB) load impedance 10 kΩ

PA (minijack) 0.22 V (-11 dB) load impedance 47 kΩ

PC (9 pin D-sub)

DISPLAY (modular)

#### Other connector

CONTROL UNIT connector

REMOTE jack

#### Power requirements

12 V DC

DC IN 12V jack accepts the supplied AC power adaptor for use on 120 V AC, 60 Hz

#### Dimensions

Approx. 320 x 280 x 118 mm (w/h/d)

(12½ x 11⅓ x 4¾ inches)

including projecting parts and controls

#### Mass

Approx. 4.5 kg (9 lb 15 oz)

#### Accessories supplied

AC power adaptor (1)

AC power cord (1)

Sony CR2032 lithium battery (1)

MiniDisc (2)

Design and specifications are subject to change without notice.

MD CONFER-CORDER

9-873-111-12

2001G1600-1

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Personal Audio Company

Shinagawa Tec Service Manual Production Group

SONY®

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**Flexible Circuit Board Repairing**

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

**Notes on chip component replacement**

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

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION.**

**REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**Unleaded solder**

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

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

**: LEAD FREE MARK**

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350°C.

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

- Strong viscosity

Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

- Usable with ordinary solder

It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

**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**

Never look into the laser diode emission from right above when checking it for adjustment. It is feared that you will lose your sight.

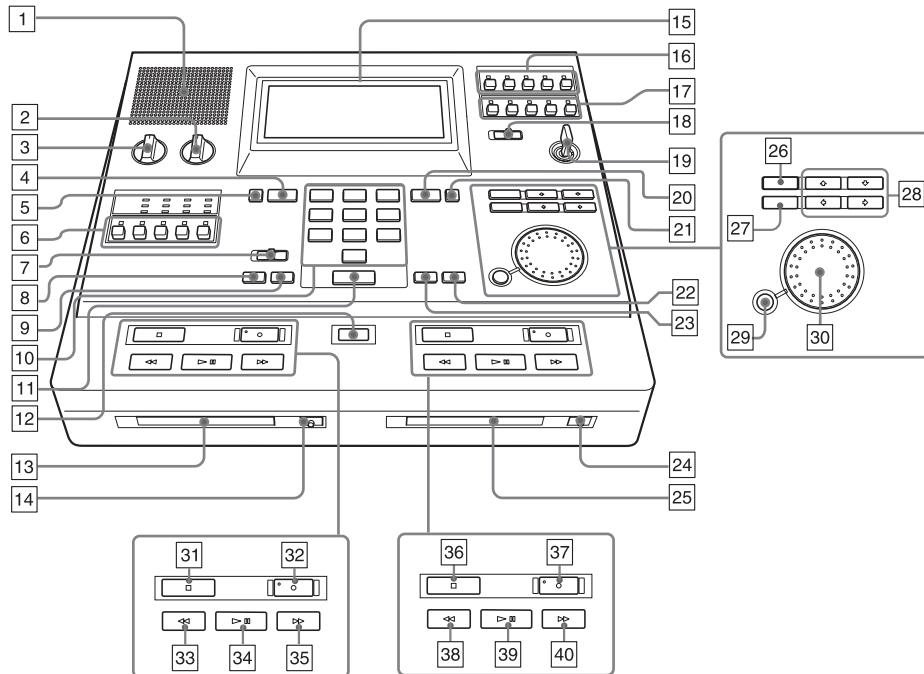
**CAUTION**

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

This section is extracted from instruction manual.

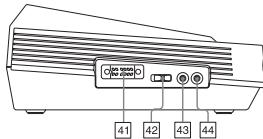
### Location and Function of Controls

For details, refer to the pages indicated in ( ).



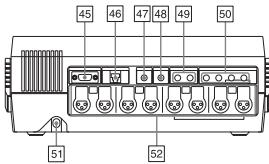
- |   |   |
|---|---|
| <p><b>1</b> Built-in speaker</p> <p><b>2</b> LCD CONTRAST control<br/>Adjusts the contrast of the display.</p> <p><b>3</b> MONITOR VOL control</p> <p><b>4</b> DECK A button (17, 18)</p> <p><b>5</b> DISPLAY MODE A button (21)</p> <p><b>6</b> MONITOR select buttons (ALL/1/2/3/4)</p> <p><b>7</b> SEARCH selector (17, 18)<br/>(INDEX SEARCH/TIME SEARCH)</p> <p><b>8</b> POINT SEARCH-POINT button (deck A) (20)</p> <p><b>9</b> POINT SEARCH-RESET button (deck A) (20)</p> <p><b>10</b> Number buttons</p> <p><b>11</b> SEARCH button (17, 18)</p> <p><b>12</b> INDEX button (14)</p> <p><b>13</b> MD insertion slot (deck A)</p> <p><b>14</b> ▲ EJECT button (deck A)</p> <p><b>15</b> LCD display</p> <p><b>16</b> LINE OUT 1 select buttons (ALL/1/2/3/4) (31)</p> <p><b>17</b> LINE OUT 2 select buttons (ALL/1/2/3/4) (31)</p> <p><b>18</b> PA/ADA selector (OFF/ON [ADA/PA]) (30)<br/>Switches the output to the PA/ADA jacks on or off.</p> <p><b>19</b> STANDBY switch</p> | <p><b>20</b> DECK B button (17, 18)</p> <p><b>21</b> DISPLAY MODE B button (21)</p> <p><b>22</b> POINT SEARCH-RESET button (deck B) (20)</p> <p><b>23</b> POINT SEARCH-POINT button (deck B) (20)</p> <p><b>24</b> ▲ EJECT button (deck B)</p> <p><b>25</b> MD insertion slot (deck B)</p> <p><b>26</b> FUNCTION button</p> <p><b>27</b> DELETE button</p> <p><b>28</b> Arrow buttons</p> <p><b>29</b> ENTER button</p> <p><b>30</b> Jog dial</p> <p><b>31</b> ■ STOP button (deck A)</p> <p><b>32</b> ● REC button (deck A)</p> <p><b>33</b> ◀ REW/BS button (deck A)</p> <p><b>34</b> ▶ II PLAY/PAUSE button (deck A)</p> <p><b>35</b> ▶ FF/FS button (deck A)</p> <p><b>36</b> ■ STOP button (deck B)</p> <p><b>37</b> ● REC button (deck B)</p> <p><b>38</b> ◀ REW/BS button (deck B)</p> <p><b>39</b> ▶ II PLAY/PAUSE button (deck B)</p> <p><b>40</b> ▶ FF/FS button (deck B)</p> |
|---|---|

## Left side



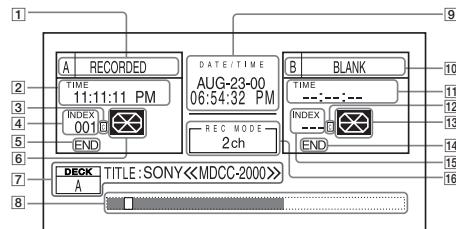
- 41 CONTROL UNIT connector (32)  
42 TRANSCRIBE selector (33)  
43 REMOTE jack (15)  
44 EAR jack (16)

## Rear



- 45 PC connector (RS-232C type)  
46 DISPLAY connector  
Used for connection of an external counter unit.  
47 ADA jack  
Allows the unit to be connected to a separately purchased amplifier system.  
48 PA (public address) jack (30)  
49 LINE OUT jacks  
50 LINE IN jacks  
51 DC IN 12V  
52 Microphone connectors (Canon XLR-3 pin type)

## Display Window (Information screen)



- 1 A: display (deck A)  
Indicates the disc inserted in deck A or the status of deck A as follows:  
BLANK: a blank disc  
NO DISC: no disc  
PB ONLY: a commercially available recorded disc (for playback only)  
PROTECTED: a protected disc (3)  
RECORDED: a recorded disc  
2 TIME display (deck A)  
Indicates the recorded time at the current location for each index item. It blinks during time search. (18)  
3 (copied) display (deck A)  
Indicates that a disc digitally copied with the Copy function is inserted. (26)  
4 INDEX counter (deck A)  
Lights up when a disc is inserted. Blinks during an index search. (17)  
5 END display (deck A)  
This shows the end of the disc.  
6 Disc status display (deck A)  
Indicates the status of the disc with pictures.
- 7 DECK A/DECK B display  
Indicates various data by characters and various error messages. (38)  
8 Disc position display  
Indicates the current playback/recording location on the disc by a white box. Already recorded parts are indicated in black. The further it is to the right, the closer the disc is to the end.  
Depending on the condition of the disc, the black part might not reach the far right even if the disc is full.  
9 DATE/TIME display  
Indicates the current date and time.  
10 B: display (deck B)  
Indicates the same contents as deck A.  
11 TIME display (deck B)  
12 (copied) display (deck B)  
13 Disc status display (deck B)  
14 END display (deck B)  
15 INDEX counter (deck B)  
16 REC MODE display  
Indicates the recording mode (2ch/4ch) currently selected.

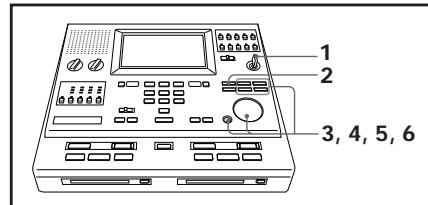
## Introduction 5

## 6 Introduction

## Setting the Date and Time

## Setting the Date

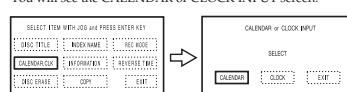
To record the date and time etc. on MiniDiscs when you record, be sure to set the Date and Time.



- 1 Insert the key and set it to ON.  
You will see the initial screen in a few seconds.

- 2 Press FUNCTION.

- 3 Select CALENDAR,CLK using the jog dial or the arrow buttons, and press ENTER.  
You will see the CALENDAR or CLOCK INPUT screen.



- 4 Select CALENDAR using the jog dial or the arrow buttons, and press ENTER.  
You will see the SET MONTH (mmm) and DAY (dd) and YEAR (yy) screen with the name of a month blinking.



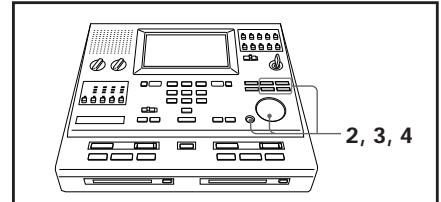
**Note**  
You cannot use the  $\leftrightarrow/\leftrightarrow$  buttons when setting the month, day and year.

- 5 Set the month using the jog dial or  $\uparrow/\downarrow$  buttons, and press ENTER.  
You will see "01" of the day blinking.

- 6 Set the day and the year in the same way as step 5.  
When the year is set, the display will return to the information screen.

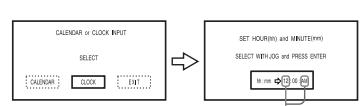
**Note**  
You cannot use the  $\leftrightarrow/\leftrightarrow$  buttons when setting the month, day and year.

## Setting the Time



- 1 Carry out steps 2 and 3 of "Setting the Date".  
You will see the CALENDAR or CLOCK INPUT screen.

- 2 Select CLOCK using the jog dial or the arrow buttons, and press ENTER.  
You will see the SET HOUR (hh) and MINUTE (mm) screen with the hours and AM/PM blinking.

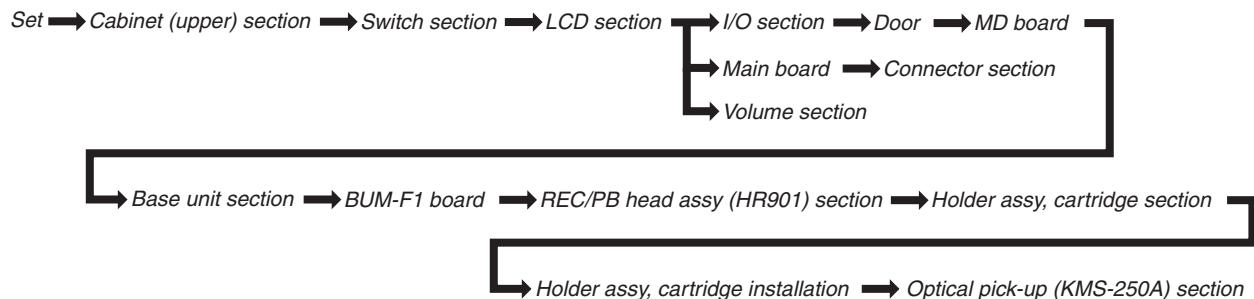


- 3 Set the hour using the jog dial or  $\uparrow/\downarrow$  buttons, and press ENTER.  
You will see the minutes blinking.

- 4 Set the minutes in the same way as step 3.  
The display will return to the information screen and the clock will start.

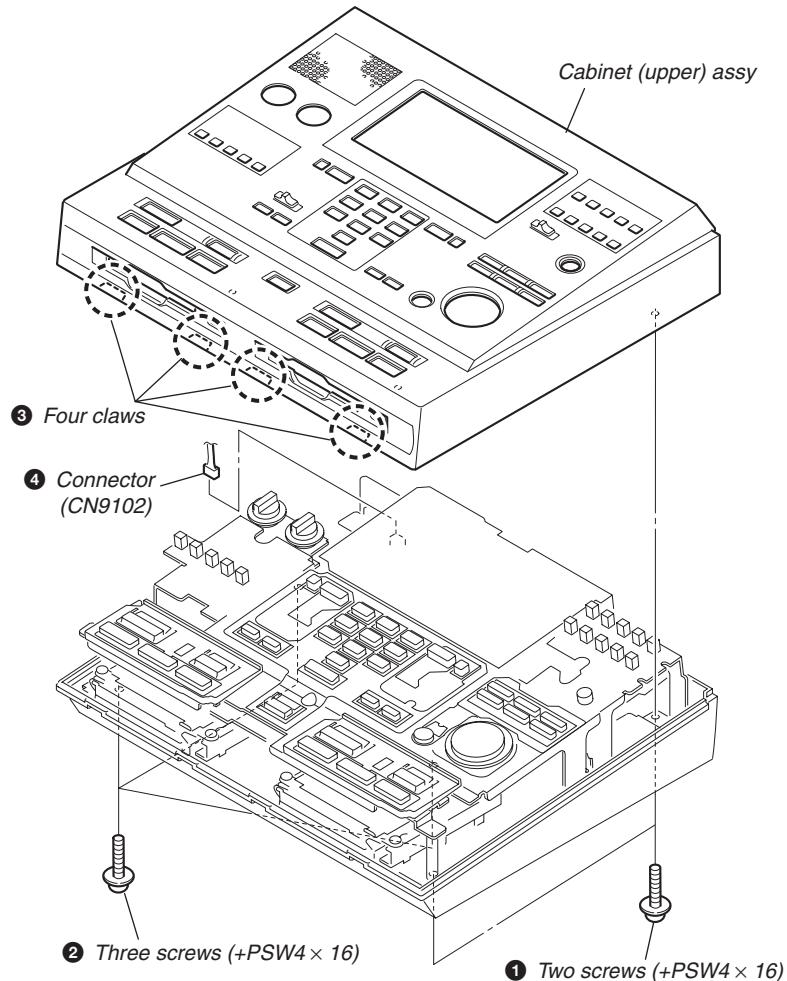
## SECTION 2 DISASSEMBLY

- The equipment can be removed using the following procedure.

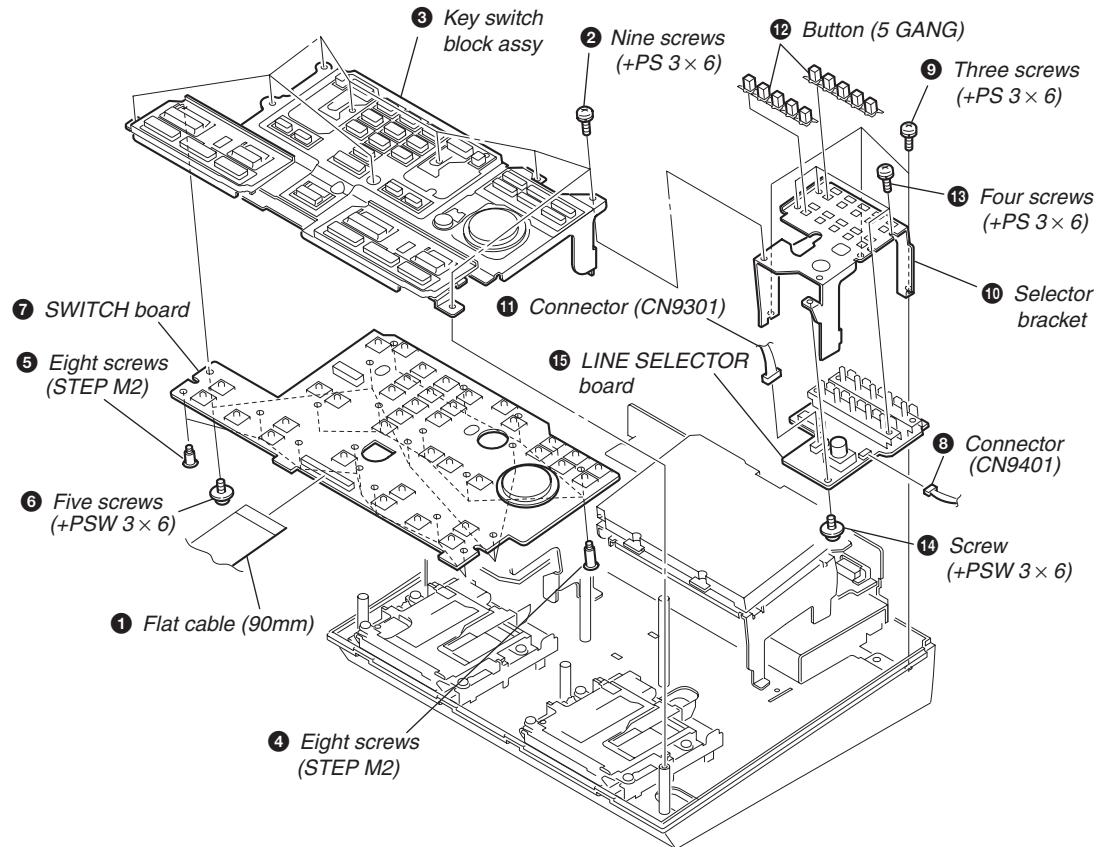


**Note :** Follow the disassembly procedure in the numerical order given.

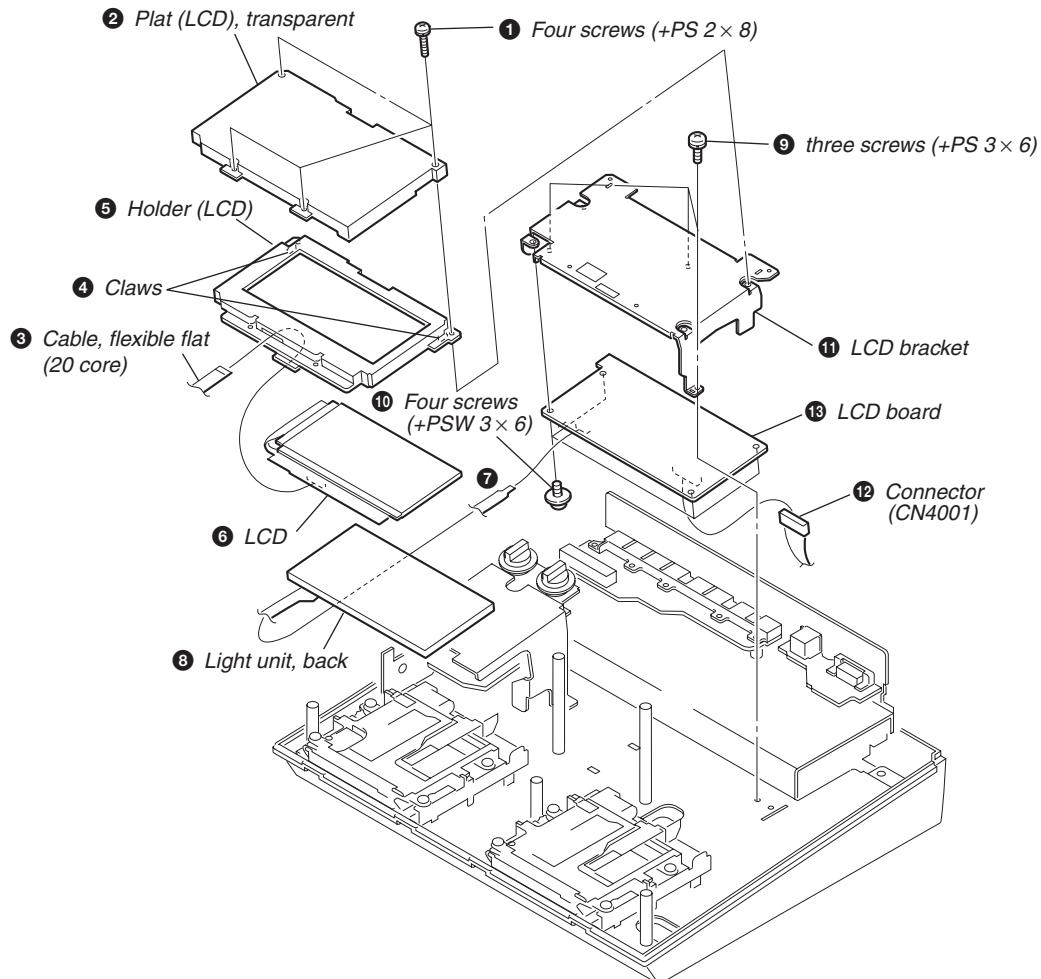
### 2-1. CABINET(UPPER) SECTION



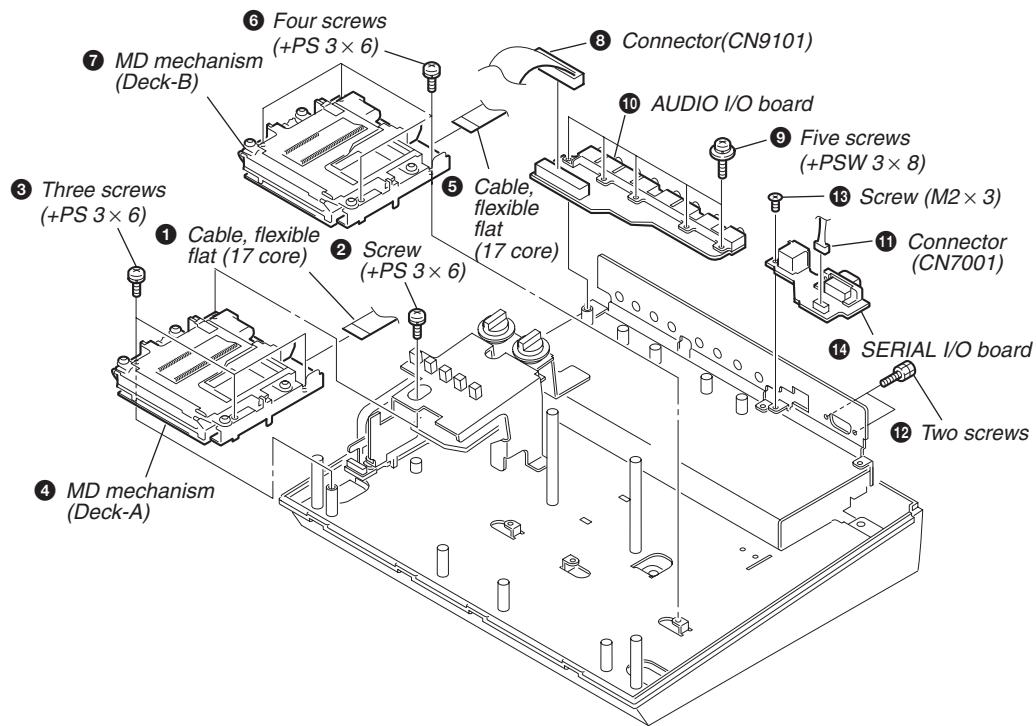
## 2-2. SWITCH SECTION



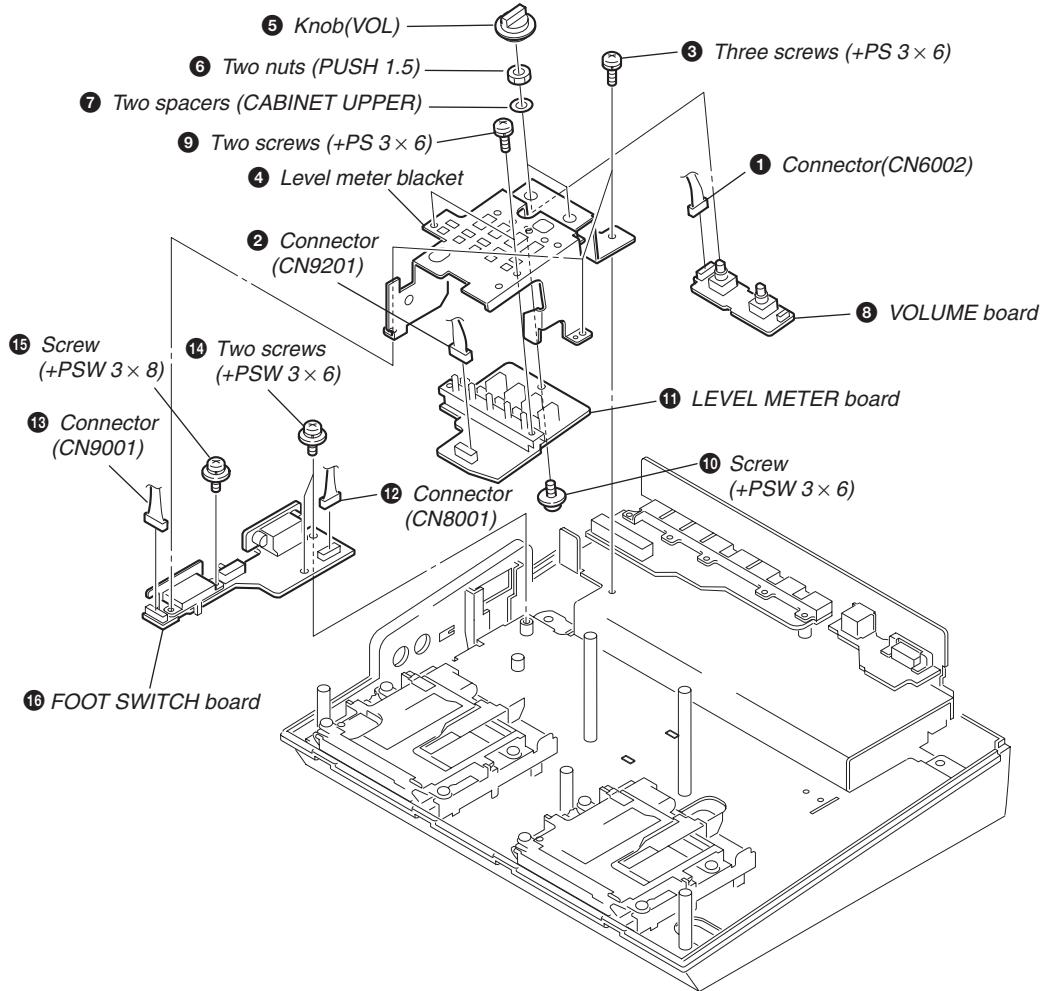
## 2-3. LCD SECTION



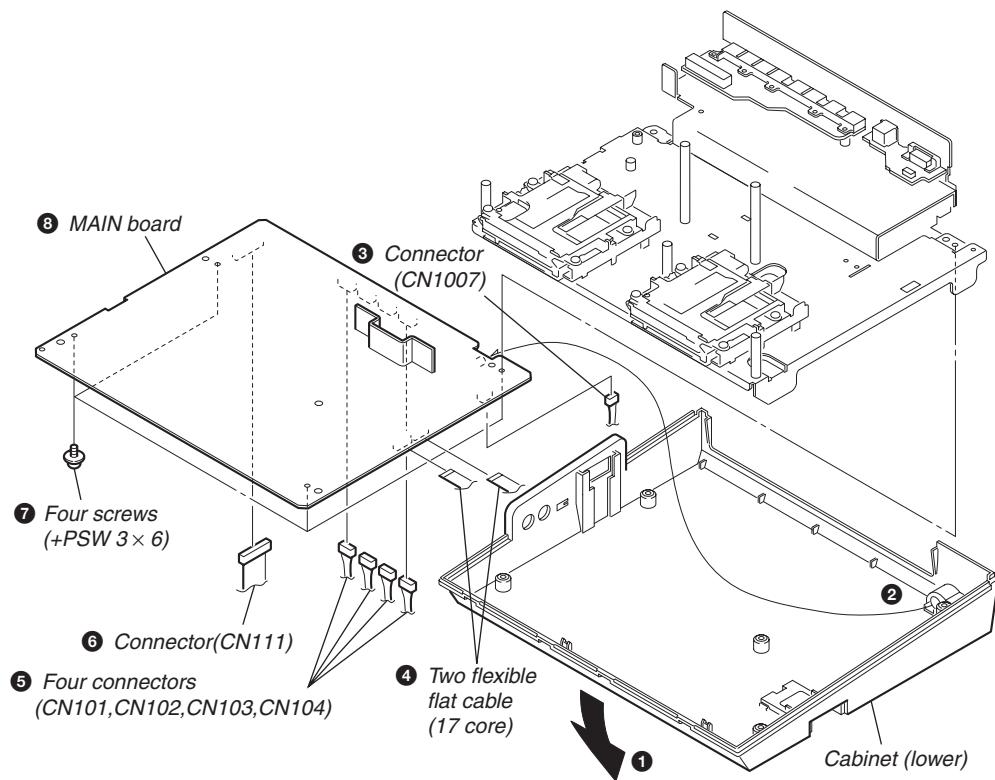
## 2-4. I/O SECTION



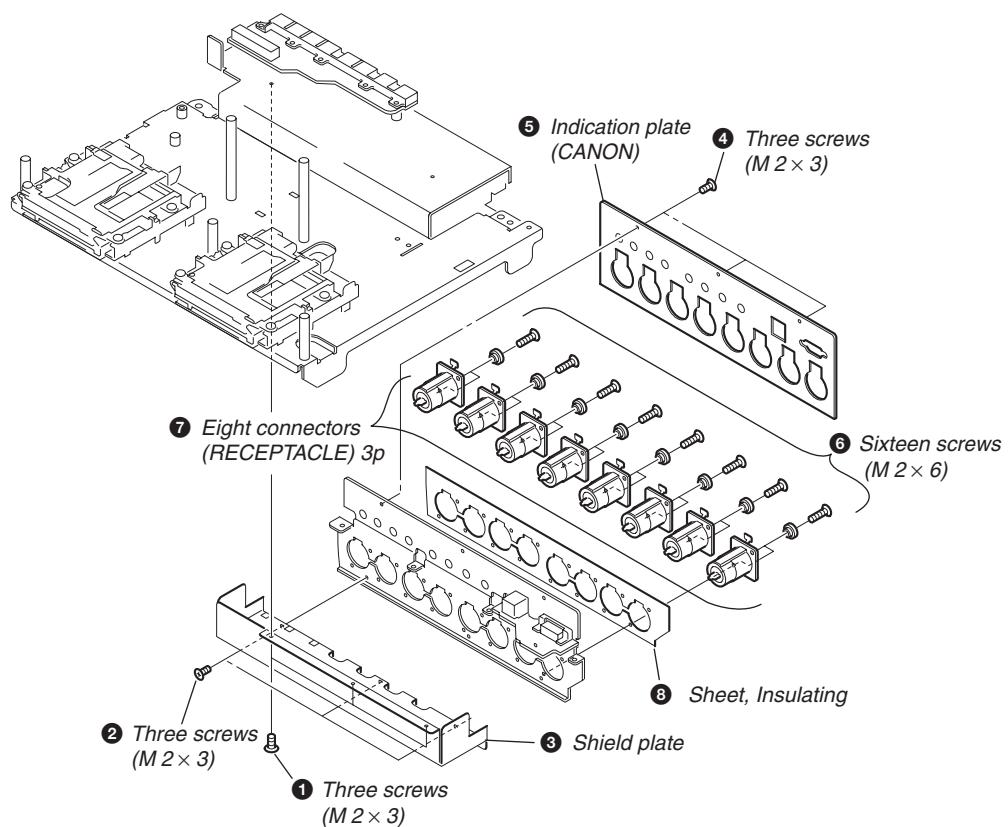
## 2-5. VOLUME SECTION



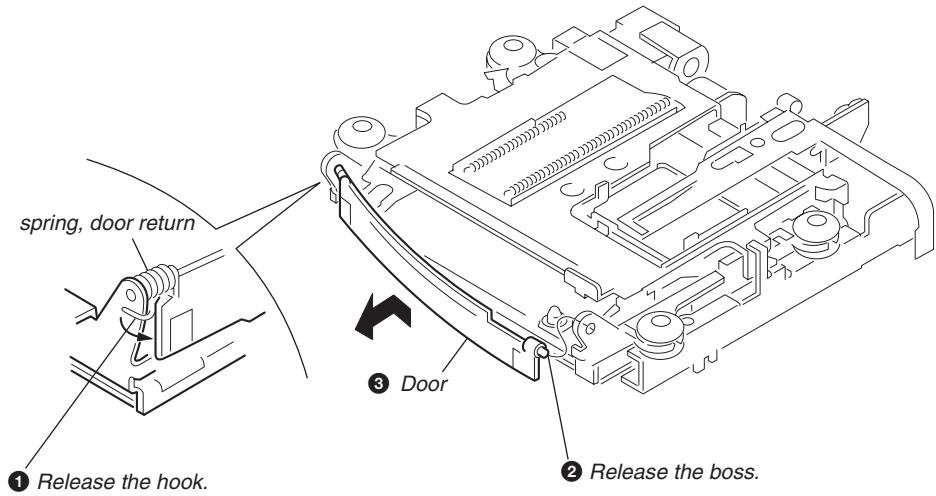
## 2-6. MAIN BOARD



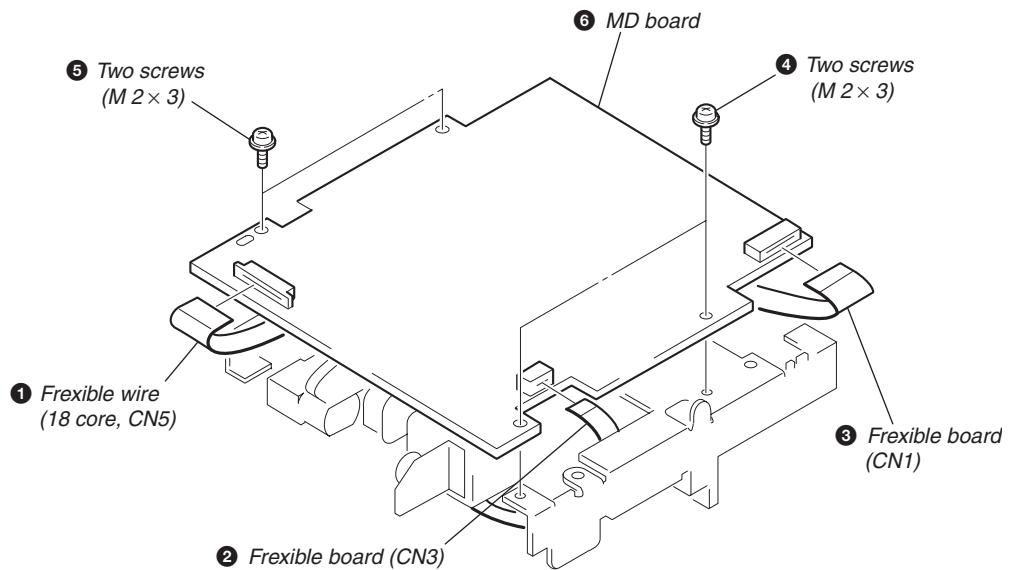
## 2-7. CONNECTOR SECTION



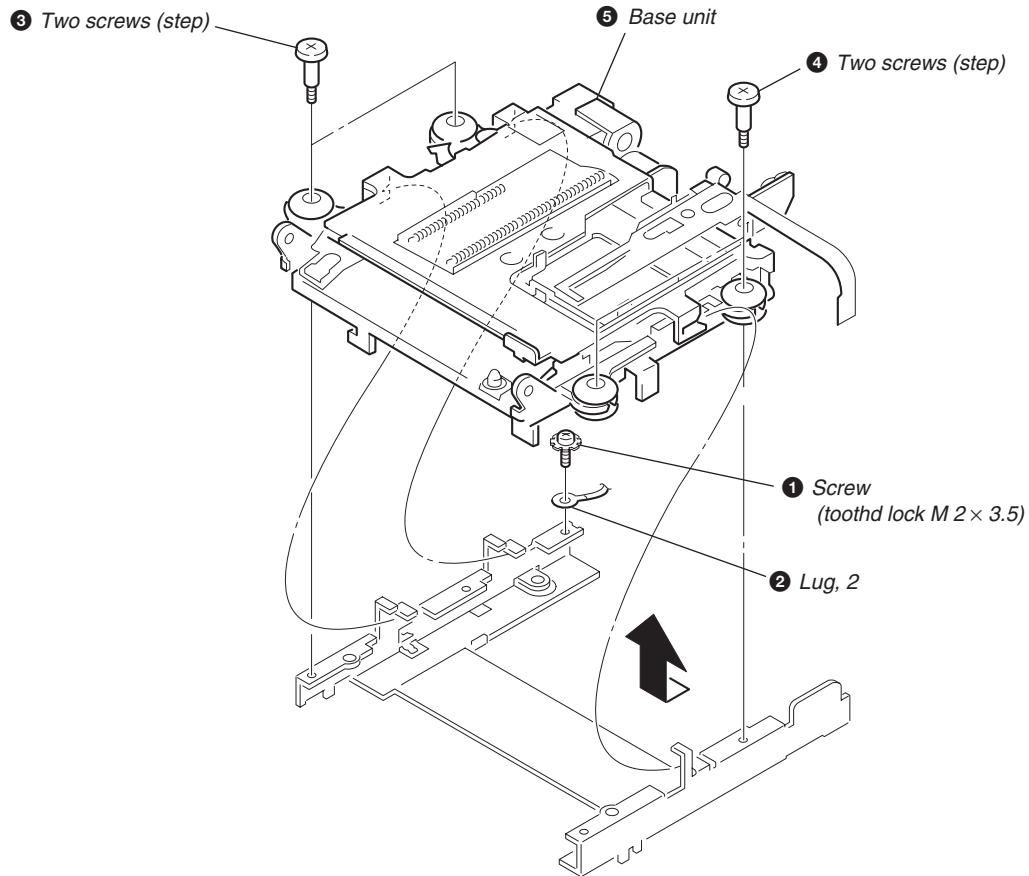
## 2-8. DOOR



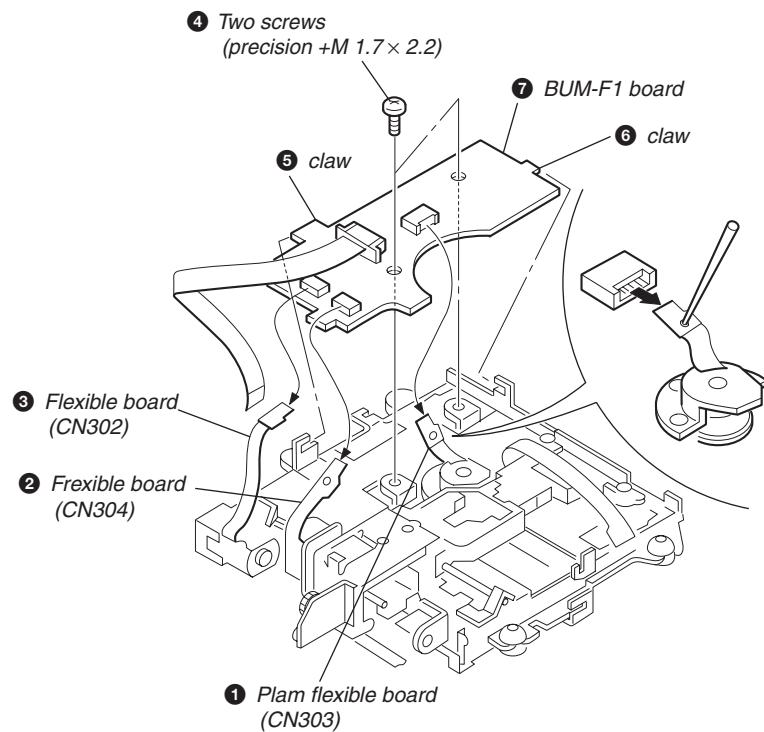
## 2-9. MD BOARD



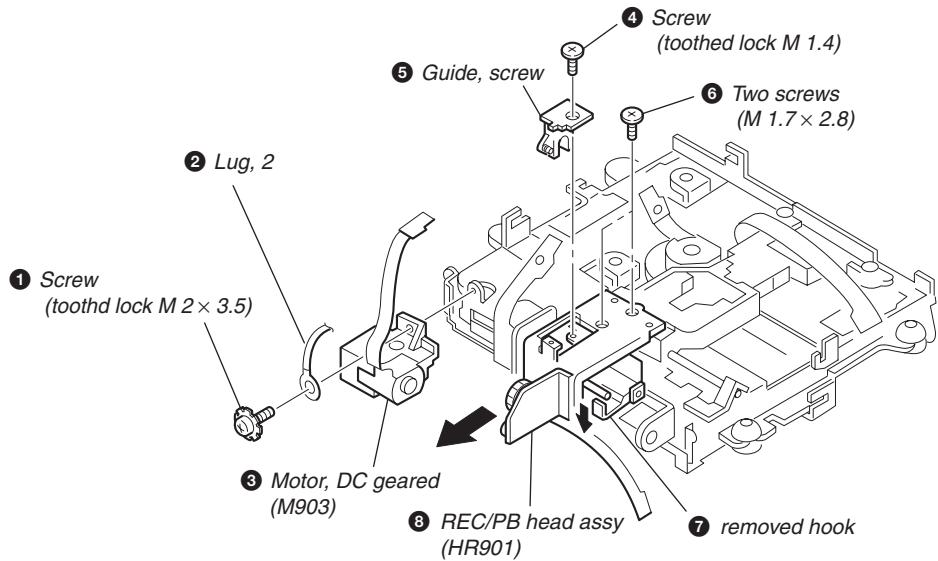
## 2-10. BASE UNIT SECTION



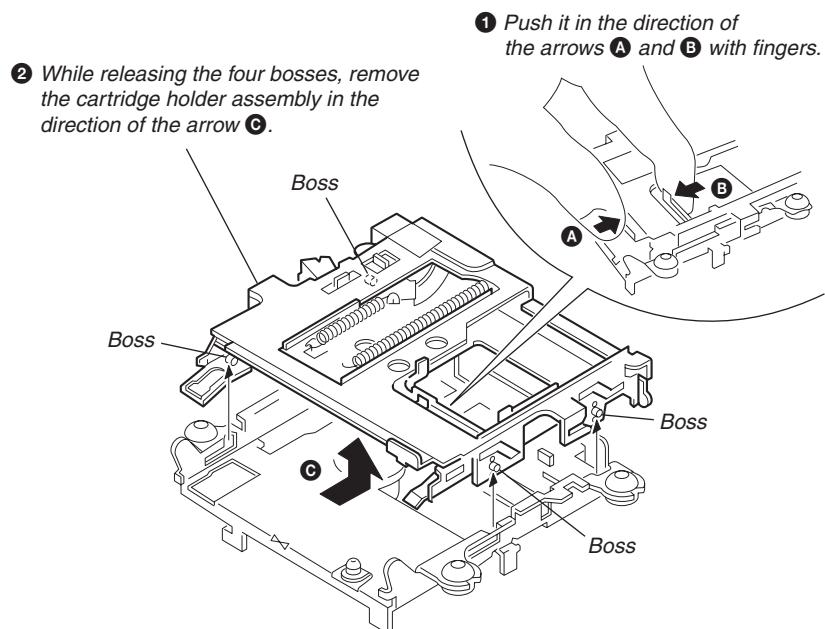
## 2-11. BUM-F1 BOARD



**2-12. REC/PB HEAD ASSY (HR901) SECTION**

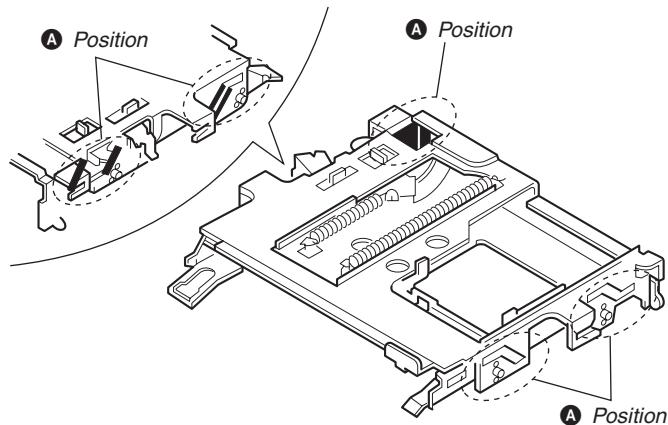


**2-13. HOLDER ASSY, CARTRIDGE SECTION**

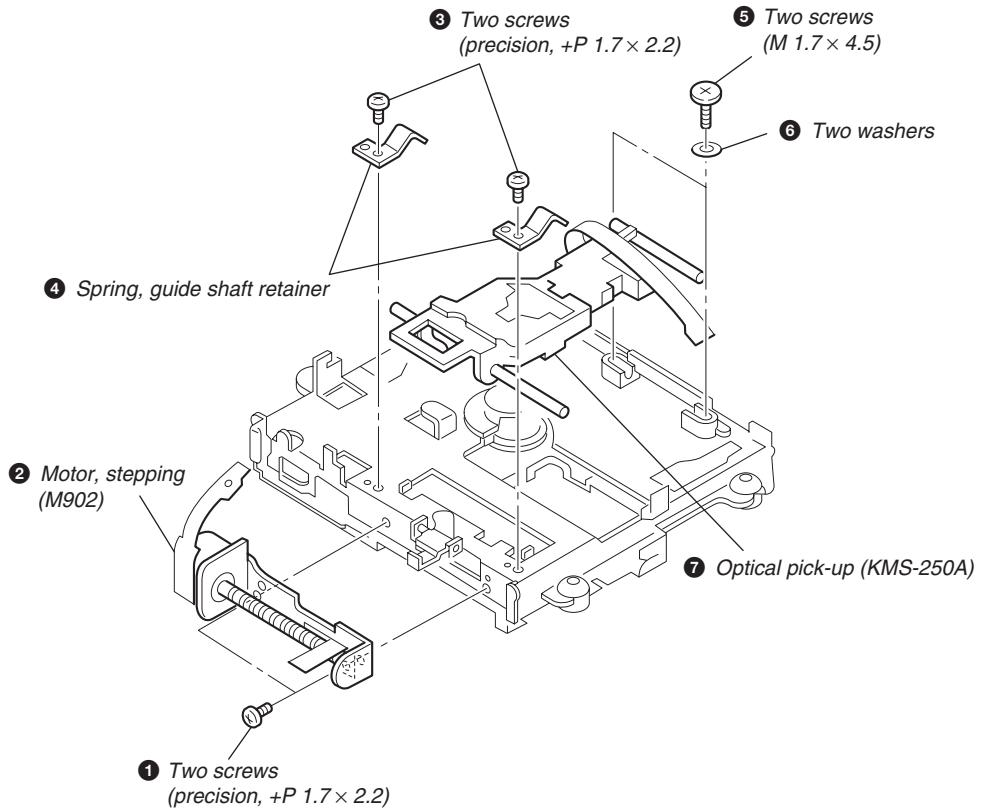


## 2-14. HOLDER ASSY, CARTRIDGE INSTALLATION

*When installing the cartridge holder, coat the portion A shown in the illustration with grease (EM-30L).*



## 2-15. OPTICAL PICK-UP (KMS-250A) SECTION



## SECTION 3 TEST MODE

### 3-1. Description

#### 3-1-1. How to Enter the Test Mode

After pressing the numeric keys in the order starting from [1], [2], [3], [5], [8] up to [0], press the [ENT] button.

#### 3-1-2. How to Exit the Test Mode

1. While pressing the [ENT] button, rotate the JOG dial and set “k\_test\_h” to “0”.
2. After pressing the numeric keys in the order starting from [0], [8], [5], [3], [2] up to [1], press the [ENT] button.

#### 3-1-3. How to Cancel the ENTER key

The numeric keys that have been input up to the moment can be canceled at the following so that the machine does not enter the test mode unless otherwise needed.

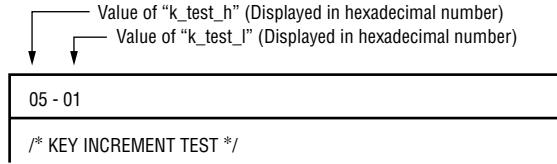
1. When the interval of pressing the previous numeric key and the next key exceeds one second or more.
2. When the deck select key is pressed.
3. When the k\_mode changes.
4. When the selected deck has changed.
5. When the test mode is set.

#### 3-1-4. How to Select the Test Item

The test item can be selected by “k\_test\_h” and “k\_test\_l”.

##### 1. Displaying the selected item

The selected item is displayed on LCD as follows.



##### 2. How to select the test item using the JOG dial

1. While pressing [ENT] button, rotate the JOG dial. “k\_test\_h” changes.

When “k\_test\_h” changes, “k\_test\_l” is set to “0”.

Select the desired test category using “k\_test\_h”.

2. While pressing [ENT] button, rotate the JOG dial. “k\_test\_l” changes.

Select the desired test item using “k\_test\_l”.

3. Sets the selected test item either by pressing [ENT] button after selecting “k\_test\_l” or by pressing the [ENTER] button.

##### 3. How to select the test item with the use of the PC remote command

The desired test item can be selected by sending the remote command of rewriting “k\_test\_h” and “k\_test\_l” from the PC to the machine.

When the “k\_test\_h/l” change command is sent from a PC to the machine while the “k\_test\_h/l” change inhibit bit is being set, the machine returns NAK and the machine does not change “k\_test\_h/l”.

#### 3-1-5. Test Display

01 - 00	(Top menu)
00 - 00 EXIT	(Exit)
01 - 00 THIS MENU	(Top menu)
02 - 00 AUDIO	(Audio firmware test)
03 - 00 MECH	(Mechanism test)
04 - 00 DISPLAY	(Display system test)
05 - 00 KEY	(Key test)
06 - 00 COMMUNICATION	(Communication test)
07 - 00 AUDIO HW	(Audio hardware test)
08 - 00 DIGITAL HW	(Digital hardware test)
09 - 00 NVRAM	(NVRAM test)

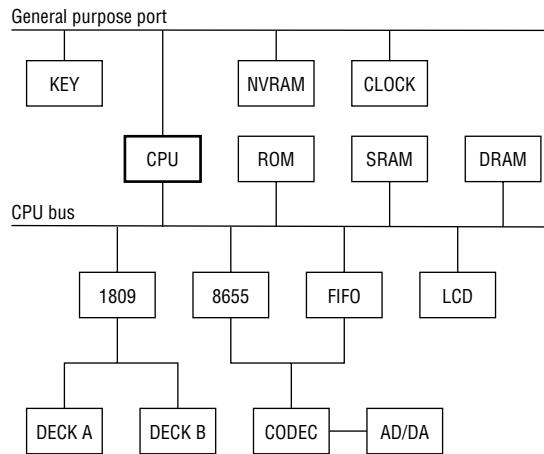
#### 3-1-6. Communication with Mechanism Deck

Communication with the mechanism deck is performed using programs such as “Hyper terminal” or the like that have been started up on a PC.

Refer to 3-3-3. “Selecting the Terminal”.

(Communication control with the log system or trace monitor is not possible.)

#### 3-1-7. Circuit Block

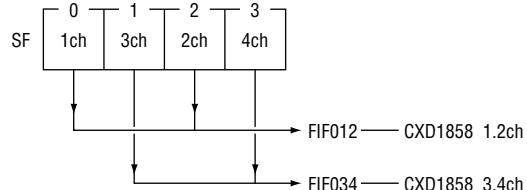


### 3-2. Audio Firmware Test: [AUDIO]

SF data storage method in the DRAM.

- Test program is stored as shown below.

(Operations start in the order starting from channel 1, channel 2, channel 3, and up to channel 4 under the ordinary operation conditions but the test mode starts from channel 1, channel 3, channel 2, and channel 4 in this order.)



LCD: Types, conditions and others of the test are displayed on the LCD during each test.

Channel selector and channel selector LED: Select the channel selector by manual operation.

Voice mirror: Change the input level by manual operation.

- Perform the following tests after the machine is set in the “STOP” mode.

02-00 /\* AUDIO-F TEST MENU \*/

02-00 AUDIO-F MENU

### 3-2-1. Audio Recording and Playback Test without Disc

- The audio signal (up to the full memory capacity of the DRAM at a maximum) is recorded in the ATRAC data recording area in the DRAM and is played back.
- Note: If the audio sources of channel 1 to channel 4 are all the same,
  - Playback is slower than normal if the 4 channels are recorded and 2 channels are played back.  
(The pitch of the playback remains unchanged and the playback speed of it is half of normal.)
  - Playback is faster than normal if the 2 channels are recorded and 4 channels are played back.  
(The pitch of the playback remains unchanged and the speed of it is double of normal.)

---

02-01	4ch-REC	on DRAM
02-02	4ch-PLAY	on DRAM
02-03	2ch-REC	on DRAM
02-04	2ch-PLAY	on DRAM
02-05	reserve	
02-06	reserve	

### 3-2-2. Microphone Sound Monitoring from Speaker during Stop

- Application: For testing “ripping” sound of speaker (Sweep sound is input from external source.)
- Application: For testing the voice mirror LED (sound is input from external source.)

---

02-07	REC_MONI	SP, 1-4ch
-------	----------	-----------

### 3-2-3. ROM Playback 1

- The pseudo ATRAC data on the EPROM is copied to the 1SG area on the DRAM and is played back repeatedly.
- Application: Level/Frequency response test

---

02-08	990Hz,	-0.2db,	1-4ch	(For playback of the reference level)
02-09	43Hz,	-0.2db,	1-4ch	
02-0A	10KHz,	-0.2db,	1-4ch	
02-0B	990Hz,	-12db,	1-4ch	
02-0C	Infinity,	0,	1-4ch	(For S/N test)

### 3-2-4. ROM Playback 2

- The pseudo ATRAC data on the EPROM is copied to the 1SG area on the DRAM and is played back repeatedly.
- Application: Separation/Frequency response test
- Other channels : No sound

---

02-0D	990Hz,	-0.2db,	1ch
02-0E	990Hz,	-0.2db,	2ch
02-0F	990Hz,	-0.2db,	3ch
02-10	990Hz,	-0.2db,	4ch
02-11	43Hz,	-0.2db,	1ch
02-12	43Hz,	-0.2db,	2ch
02-13	43Hz,	-0.2db,	3ch
02-14	43Hz,	-0.2db,	4ch
02-15	10KHz,	-0.2db,	1ch
02-16	10Hz,	-0.2db,	2ch
02-17	10Hz,	-0.2db,	3ch
02-18	10Hz,	-0.2db,	4ch

### 3-2-5. Audio Muting Test

- ROM\_PB (990Hz, -0.2dB, 1 to 4ch)

---

02-19	XMUTE=on,	MODE=00,	(During ROM_PB, circuit playback + mute)
02-1A	XMUTE=on,	MODE=01,	(During ROM_PB, circuit recording + mute)
02-1B	XMUTE=on,	MODE=10,	(During ROM_PB, circuit STOP + mute)
02-1C	XMUTE=on,	MODE=11,	(During ROM_PB, circuit STANDBY + mute)
02-1D	XMUTE=off,	MODE=00,	(During ROM_PB, circuit is in playback.)
02-1E	XMUTE=off,	MODE=01,	(During ROM_PB, circuit is in record.)
02-1F	XMUTE=off,	MODE=10,	(During ROM_PB, circuit is STOP.)
02-20	XMUTE=off,	MODE=11,	(During ROM_PB, circuit is STANDBY.)

### 3-3. Mechanism Deck: [MECH]

---

03-00	/* MD TEST MENU */
-------	--------------------

01-0E	.....etc
10-1F	DECK-A Only (Check & Setting)
20-2F	DECK-B Only (Check & Setting)
30-3F	DECK-A Only (Display Log)
40-4F	DECK-B Only (Display Log)
50-57	Laser Check

#### 3-3-1. Displaying the Number of Times of Using the Lasers

The number of times of using the lasers of the deck-A and deck-B is displayed.

The number of times of using the lasers is stored in the NVRAM, and the number of times that the laser power has entered the MO write (number of clusters), is displayed.

---

03-01
-------

DECK-A Laser Cnt = xxxxxxxx
DECK-B Laser Cnt = xxxxxxxx

#### 3-3-2. Displaying Temperature of Mechanism

The temperatures of the mechanism of deck-A and deck-B are displayed.

The temperature of mechanism indicates the temperature inside the RF amplifier mounted on this machine. However, use this temperature as a reference value because it is not highly accurate.

---

03-02
-------

Thermo
--------

DECK-A      35°C
[Result] = [55] [0B] [58] [62] [07] [09] [09]

DECK-B      31°C
------------------

[Result] = [55] [0B] [58] [5F] [06] [06] [06]
---

3rd byte of the above [Result] data string : Initial value of the temperature sensor at 25°C

4th byte of the above [Result] data string : Present temperature sensor value

#### 3-3-3. Selecting the Terminal

Select the PC terminals (RS-232C) on the rear of this machine. Either one of the two patterns “Other” and “Mech”, can be selected.

Other : For checking contents, etc of the system memory  
Mech : For checking status of the mechanism operation

---

03-0A
-------

Terminal Mode = Mech
----------------------

The PC should use the terminal software (such as Hyper-Terminal or Tera-Term).

Sets the communication as follows.

Baud rate : 9600 bps  
 Data length : 8 bits  
 Parity : None  
 Stop bit : 1  
 Flow control : None

### 3-3-4. Dump List

Displays the Dump-List of the specified address.

Sets the address value (Adrr) and number (Num) of display bytes by rotating the JOG dial and pressing [ENTER] button.

03-0D

Adrr = 00000000 Num = 00

### 3-3-5. Deleting (Deck-A/Deck-B)

Performs deletion of the disc data.

03-14 (DECK-A)

03-24 (DECK-B)

### 3-3-6. OA (Inner track, Middle track and Outer track) (Deck-A/Deck-B)

Performs the OA (overall) test against the inner track (UTOC area)/Middle track/Outermost track.

Performs "Write", "Read", and "Verify" for every 1 cluster as many as 10 clusters in each area.

03-15 (DECK-A)

03-25 (DECK-B)

### Result display

When the OA test of each area has ended with success, the following message appears on the LCD.

\*\*\*Total OK\*\*\*

- After the above message appears with normal end, the disc is ejected automatically.

### 3-3-7. OA (Overall Test for Normal Recording ) (Deck-A/Deck-B)

The OA test in the same operation as the normal recording is performed.

The process of "Write", "Read" and "Verify" is performed for every 1 cluster starting from the innermost track of the recording area to the outermost track. Then the "UTOC Write" is performed for every 10 clusters.

03-16 (DECK-A)

03-26 (DECK-B)

When the "Mech" position of the terminal is selected, the test status can be checked as follows.

Description of the contents displaying the test status

Example of display

\$\$ TEST-drv [CNT] (W/R/D/S) (TW/TR) (Result)

drv : Drive No.

CNT : Number of times of test

W : Number of times of "Write" error

Number of times of the write failure for the single write command ("Seek" error is not included.)

R : Number of times of "Read" error

Number of times of the read failure for the single read command ("Seek" error is not included.)

D : Number of times of alternation

Number of times of giving-up to write into the specified cluster

S : Number of times of "Seek" error

Number of times that "Seek" error has occurred

TW : Number of times of TOC "Write" error

Number of times of the TOC write failure for the single TOC "Write" command ("Seek" error is no included.)

TR : Number of times of TOC "Read" error

Number of times of the TOC read failure for the single TOC "Read" command ("Seek" error is no included.)

Result : Test result up to present (1 : OK, 0 : NG)

### Result display

When the OA test has ended with success, the following message appears on the LCD.

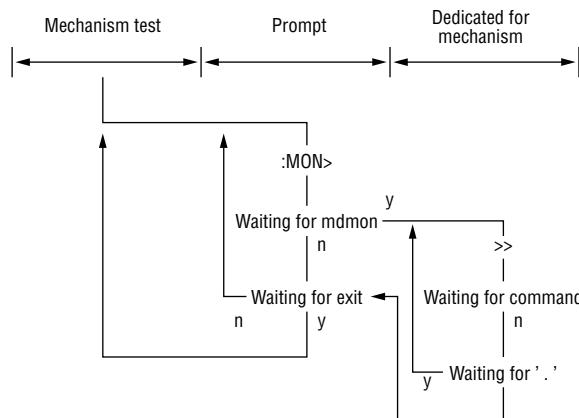
\*\*\*Total OK\*\*\*

### 3-3-8. Checking Operations of Mechanism (Deck-A/Deck-B)

Operations of the mechanism are checked using the terminal.

03-17 (DECK-A)

03-27 (DECK-B)



### Operation step

Step 1 : Enters the test mode of the mechanism.

Step 2 : Type in "mdmon" against "MON>" and set it.

Step 3 : Press the [ENTER] button several times until the machine enters the test mode dedicated for mechanism.

Step 4 : Performs the operation check in accordance with the display output.

Step 5 : Type in ":" to return to "Prompt".

Step 6 : Type in "exit" to set the operation and exit the test mode of the mechanism.

## 3-3-9. Eject (Deck-A/Deck-B)

Ejects the disc.

---

03-18 (DECK-A)  
03-28 (DECK-B)

---

## 3-3-10. Clearing the Number of Times of Using the Laser

(Deck-A/Deck-B)

The number of times of using the laser is stored, and is cleared as follows.

It is necessary to clear the number of times data of using the laser whenever the laser is replaced.

---

03-19 (DECK-A)  
03-29 (DECK-B)

---

DECK-B Laser Count Clear

NV-RAM Save OK

## 3-3-11. OA (Overall Test for Random Recording )

(Deck-A/Deck-B)

The (OA) overall test is performed using the same operation as that of the normal recording.

The “write”, “read”, and “verify” are performed at every cluster at random within the recording area. The “UTOC write” is performed at every ten clusters.

The test ends after the specified time has passed.

When the “Mech” position of the terminal is selected, the test status can be checked as follows.

Description of the contents displaying the test status

Example of display

\$\$ TEST-drv [CNT] (W/R/D/S) (TW/TR) (Result)

drv : Drive No.  
CNT : Number of times of test  
W : Number of times of “Write” error  
Number of times of the write failure for the single write command (“Seek” error is not included.)  
R : Number of times of “Read” error  
Number of times of the read failure for the single read command (“Seek” error is not included.)  
D : Number of times of alternation  
Number of times of giving-up to write into the specified cluster  
S : Number of times of “Seek” error  
Number of times that “Seek” error has occurred  
TW : Number of times of TOC “Write” error  
Number of times of the TOC write failure for the single TOC “Write” command (“Seek” error is no included.)  
TR : Number of times of TOC “Read” error  
Number of times of the TOC read failure for the single TOC “Read” command (“Seek” error is no included.)

Result : Test result up to present (1 : OK, 0 : NG)

## Result display

When the OA test has ended with success, the following message appears on the LCD.

\*\*\*Total OK\*\*\*

## 3-3-12. Rescue (2-channel Mode) (Deck-A/Deck-B)

When the UTOC information shows error, the disc can be recovered as follows.

---

03-1E (DECK-A)  
03-2E (DECK-B)

---

DECK-A Rescue 2Ch Mode

Disc-Input!!

## Result display

Index structure	: Only 1 index is used over the entire area of a disc.
Recording mode	: 2-channel mode
Original	: Original
Name information	: Invalid
Time information	: Invalid

## 3-3-13. Rescue (4-channel Mode) (Deck-A/Deck-B)

When the UTOC information shows error, the disc can be recovered as follows.

---

03-1F (DECK-A)  
03-2F (DECK-B)

---

DECK-A Rescue 4Ch Mode

Disc-Input!!

## Contents of recovery

Index structure	: Only 1 index is used over the entire area of a disc.
Recording mode	: 4-channel mode
Original	: Original
Name information	: Invalid
Time information	: Invalid

## 3-3-14. Laser Power OFF (Deck-A/Deck-B)

Turns off the laser power.

---

03-50 (DECK-A)

Laser Power (DECK-A) = OFF

[Result] = [01] [1D] [00] [00] [00] [00]

---

03-54 (DECK-B)

Laser Power (DECK-B) = OFF

[Result] = [01] [1D] [00] [00] [00] [00]

## 3-3-15. Laser Power MO-WRITE (Deck-A/Deck-B)

Sets the laser power to the “MO-WRITE”.

---

03-51 (DECK-A)

Laser Power (DECK-A) = MO-WRITE

[Result] = [01] [1D] [00] [18] [00] [01] [00]

---

03-55 (DECK-B)

Laser Power (DECK-B) = MO-WRITE

[Result] = [01] [1D] [00] [18] [00] [01] [00]

## 3-3-16. Laser Power CD-READ (Deck-A/Deck-B)

Sets the laser power to the “CD-READ”.

---

03-52 (DECK-A)

Laser Power (DECK-A) = CD READ

[Result] = [01] [1D] [00] [08] [00] [02] [00]

---

03-56 (DECK-B)

Laser Power (DECK-B) = CD READ

[Result] = [01] [1D] [00] [08] [00] [02] [00]

- 3-3-17. Laser Power MO-READ (Deck-A/Deck-B)  
Sets the laser power to the “MO-READ”.

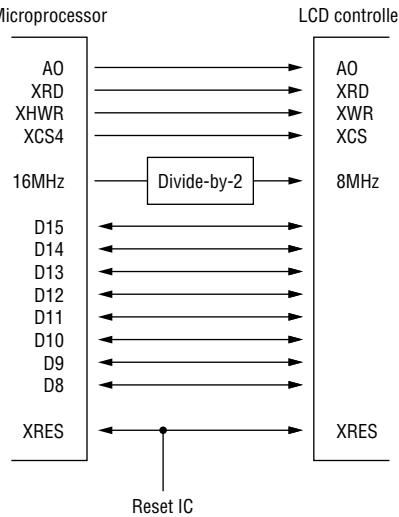
03-53 (DECK-A)  
Laser Power (DECK-A) = MO READ  
[Result] = [01] [1D] [00] [08] [00] [03] [00]

03-57 (DECK-B)  
Laser Power (DECK-B) = MO READ  
[Result] = [01] [1D] [00] [08] [00] [03] [00]

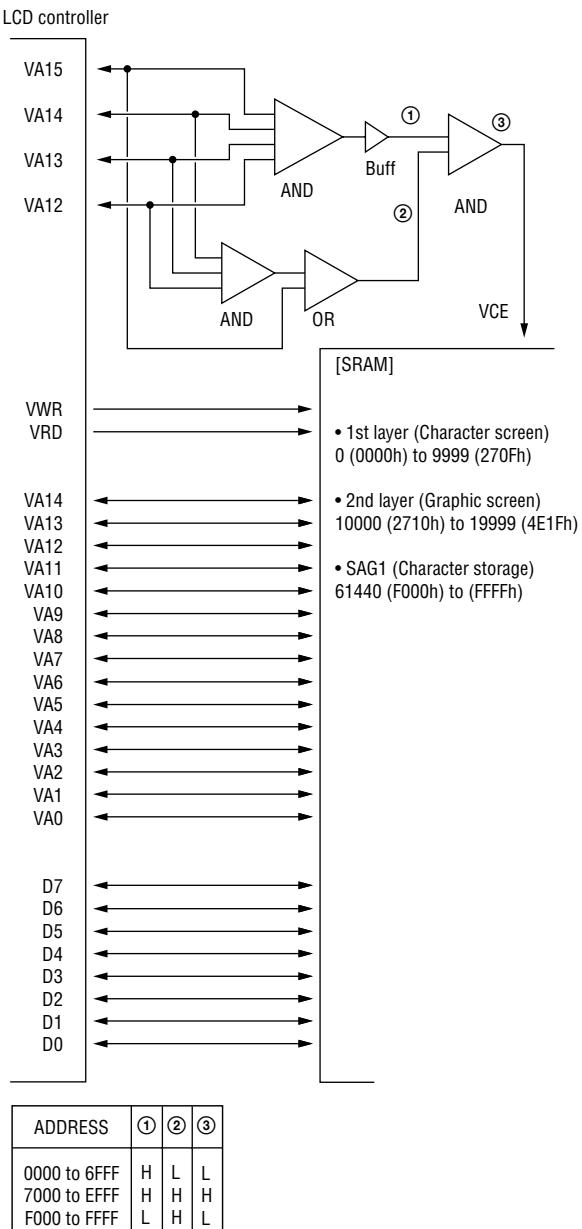
## 3-4. Display System Test: [DISPLAY]

04-00 /\* DISPLAY TEST MENU \*/  
04-01 [LCD\_cntr] - [u\_com] : connection check  
[LCD\_cntr] - [h\_sram] : connection check  
[LCD\_cntr] - [LCD] : connection check  
04-02 LCD DOT all set  
04-03 LCD DOT all clear  
04-04 character check on h\_sram (SAG1) [1]  
04-05 character check on h\_sram (SAG1) [2]  
04-06 [u\_com - [LCD\_cntr] : test signal  
04-07 transmission of character data  
04-08... content of global\_area\_address

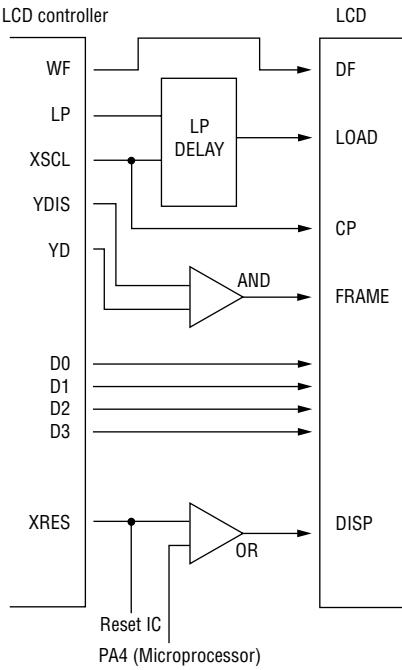
- Connecting the Microprocessor with LCD Controller



- Connecting the LCD Controller with SRAM



- Connecting the LCD Controller with LCD



#### 3-4-1. Connection Check between Microprocessor and LCD Controller, and between LCD Controller and SRAM

- Check the checksum of the font and the graphic data that are transferred to SAG1 (F000h to FFFFh) of the SRAM for display when releasing the STANDBY mode.

[Calculation is under way.]

04-01

(data read from LCD cntr) = ????????

- When [OK] appears:

Connection between the microprocessor and LCD controller and the connection between LCD controller and SRAM are correct.

04-01

(data read from LCD cntr) = xxxxxxxx

[OK]

- When [NG] appears:

1. If the following \*NG display is recognized, "XRD" is suspected.
2. If the following \*NG display is not recognized (upon confirmation through trace monitor), either one of the connections between microprocessor and LCD controller or the connection between LCD controller and SRAM or the connection between LCD controller and LCD is defective.  
(At this time, if the test signal is output from the microprocessor to LCD controller in step 04-06, whether the connection is OK or NG can be confirmed, and also which of the connections between LCD controller and SRAM or the connection between LCD controller and LCD is NG.)

04-01

(data read from LCD cntr) = KKKKKKKK

[NG]

Mabye read pattern NG. or.  
[LCD\_cntr]-[u\_com],[h\_sram]: connect NG

#### 3-4-2. LCD Dot Check (Lighting All Dots)

Lighting all dots of LCD (Graphic data: By 0xff transfer)

04-02

#### 3-4-3. Checking the LCD Dot (Turning off all dots)

All dots of LCD are turned off. (Graphic data : By 0x00 transfer)

04-03

#### 3-4-4. Test Signal Output from Microprocessor to LCD Controller

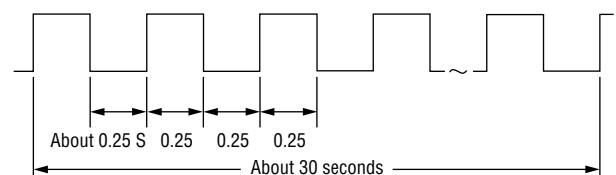
Test signal output is under preparation.

04-06

NOW test signal loading...

Test signal is under preparation.

0xff and 0x00 are output repeatedly to the microprocessor ports D15 to D8 as follows.



The test signal output ends.

04-06

finished test signal output

### 3-5. Key Test: [KEY]

05-00

/\* KEY TEST MANU \*/

05-01 KEY INCREMENT TEST  
05-02 ANY KEY TEST  
05-03 K\_mode LOG

#### 3-5-1. Key Test by Pressing Keys in Order

05-01

/\* KEY INCREMENT TEST \*/

Turn ON

⇒ DISPLAY(A)

When the specified "DISPLAY (A)" key is pressed correctly, the following messages appear.

05-10

/\* KEY INCREMENT TEST \*/

⇒ DISPLAY(A)

OK

Turn OFF

When releasing your finger from the key, the next key to be pressed is specified.

When an incorrect key that is different from the specified one is pressed, following messages appear.

05-10

---

/\* KEY INCREMENT TEST \*/

⇒ DISPLAY(A)

NG

Turn OFF

The test cannot be advanced unless the correct key is pressed.

The “Key Test by Pressing Keys in Order” is complete.

(Normally end)

When all of the key pressings are correct,  
“COMPLETE”

appears on the LCD screen and type in 05-42.

(Abnormally end)

When the incorrect key is pressed more than once,  
“xxxxx  
at FAULT”

appears on the LCD screen.

An incorrect key that was detected at first in the order of pressing keys,  
is displayed in “xxxxx”.

## 3-5-2. Key Test by Pressing Arbitrary Key

05-02

---

/\* KEY TEST \*/

PUSH KEY	:	OFF	(FF/F5-FF)
AD CODE	:	FF FF FF FF FF FF	
TRANSCRIBE	:	A	POW : ON
SEARCH MODE	:	INDEX	JOG : 00

Displays the name of the pressed key.

Example : When the [STOP] button of the deck-A is pressed,

05-05

---

PUSH KEY	:	STOP (A)	(00/00-09)
----------	---	----------	------------

appears.

The first 2-digit “00” of (00/00-09) indicate the value that the pressed key after it is converted by AD converter. The digits “00-09” indicate the range when the key is judged as “STOP (A)”.

### AD CODE

Displays values when the key inputs are converted by AD converter, in the order starting from 0 up to 7 from the left of the LCD screen.

05-05

---

AD CODE	:	FF FF FF FF FF FF
---------	---	-------------------

Group 0                          Group 7

### Allocation of key groups and keys

Application	Foot switch operation									
Type	ANALOG									
Group	0									
Allocation of Kn	0	FS_PLAY								
	1	FS_FS								
	2	FS_BS								
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									

Application	Operation of the mechanism	Operation of the mechanism	Operation of the mechanism	Search
Type	ANALOG	ANALOG	ANALOG	ANALOG
Group	1	2	3	4
Allocation of Kn	0 STOP(A) 1 STOP(B) 2 PLAY/PAUSE(A) 3 REW/REV(A) 4 FF/CUE(A) 5 MARK(A) 6 MARK_OFF(A)	REC(A) REC(B) PLAY/PAUSE(B) REW/REV(B) FF/CUE(B) MARK(B) MARK_OFF(B)	INDEX EJECT(A) EJECT(B) DECK_A DECK_B SEARCH	0 1 2 3 4 5 6 7 8 9 10

Application	Function	Function	Function	Power supply, etc.
Type	ANALOG	ANALOG	ANALOG	DIGITAL
Group	5	6	7	8
Allocation of Kn	0 FUNCTION 1 △ 2 ▽ 3 DEL 4 <(LEFT) 5 >(RIGHT)	ENTER DISP_MODE(A) DISP_MODE(B)	REC_PAUSE	Use is prohibited Use is prohibited A/B(FS) INDEX/TIME STANDBY/ON

### 3-6. Communication Test: [COMMUNICATION]

- RS232-C connector

When the pin-2 and pin-3 of the RS232-C connectors are connected, two values are displayed in the 2-digit hexadecimal values respectively on the LCD screen, one is the send data and the other is data that have been received by the loop-back.

Display example

Tx DATA	57	← Send data.
Rx DATA	57	← Received data.

The value of the received data follows a little bit delayed after the send data.

The send data increments at every about 0.5 seconds.

- Modular jack

When pin-2 and pin-3 of the modular jack are connected to pin-3 of the RS232-C connector, the same test can be done.

- Communication packet

The status packet is used.

Packet size = 38 bytes

---

```
06-00
/* PC_I/F LOOP BACK */
Tx DATA = xx
Rx DATA = xx
```

---

### 3-7. Audio Hardware Test: [AUDIO HW]

- The following test should be performed while the machine is set in the “STOP” mode.

---

```
07-00 /* AUDIO-H TEST MENU */
07-00 AUDIO-H MENU
```

---



---

```
07-01 RESERVE
```

---

#### 3-7-1. Testing the Alarm Sound

```
07-02 XMUTE=on, MODE=00 (During alarm, circuit playback + mute)
07-03 XMUTE=on, MODE=01 (During alarm, circuit recording + mute)
07-04 XMUTE=on, MODE=10 (During alarm, circuit STOP + mute)
07-05 XMUTE=on, MODE=11 (During alarm, circuit STANDBY + mute)
07-06 XMUTE=off, MODE=00 (During alarm, circuit is in playback.)
07-07 XMUTE=off, MODE=01 (During alarm, circuit is in record.)
07-08 XMUTE=off, MODE=10 (During alarm, circuit is STOP)
07-09 XMUTE=off, MODE=11 (During alarm, circuit is STANDBY)
```

#### 3-7-2. Testing LED

---

```
07-0A LED=4ch, LED=on
07-0B LED=2ch, LED=off
```

---

#### 3-7-3. Stopping FINT Information

---

```
07-0C FINT INFORMATION
```

---

### 3-8. Digital Hardware System Test: [DIGITAL HW]

- Performs the menu display of the digital system test items.

- SRAM test

Write/read test of the SRAM area is performed at the startup when the main power is turned on.

0x5555, 0xAAAA and 0x0000 are used as the write data.

After completion of the writing the respective data, the data are read-out and are collated.

The test area is 0x200000 to 0x207FFF in the area 1.

When an error occurs during reading and collating, the REC LED on the deck-A will blink permanently.

(The REC LED on the deck-A is connected to the pin-11 (PC0) of the IC1077 HD64003TF16.)

- DRAM test

Write/read test of the DRAM area is performed at the startup when the main power is turned on.

0x5555, 0xAAAA and 0x0000 are used as the write data.

After completion of the writing the respective data, the data are read-out and are collated.

The test area is 0x600000 to 0x7FFFFF in the area 3. The test is performed at every 257 bytes.

When an error occurs during reading and collating, the REC LED on the deck-B will blink permanently.

(The REC LED on the deck-B is connected to the pin-12 (PC1) of the IC1077 HD64003TF16.)

#### 3-8-1. The Menu Display

---

```
08-01
/* DIGITAL HW TEST */
```

---

```
08-01 THIS MENU
08-02 ROM VERSION & DATE
08-03 ROM CHECK SUM
08-04 JOG INPUT
08-05 PULSE 10 mSEC
08-06 CXD-8655 WRITE/READ
08-07 CLOCK IC
08-08 CLOCK IC (power on)
08-09 LED ON/OFF
08-0A NMI
08-0B MODEL
08-0C LOCAL
```

#### 3-8-2. ROM Version

Displays the release version of the programmed ROM.

---

```
08-02
/* ROM VERSION & DATE */
```

---

ROM: Ver No.0017 DATE: 2001.02.21

DECK A ROM : V 2.33  
DECK B ROM : V 2.33

#### 3-8-3. Check Sum of the ROM

Checksum of the programmed ROM is calculated.

The checksum area is 0x00000 to 0x07FFFF in the area 0.

Displays the address under calculation in hexadecimal number.

---

```
08-03
/* ROM CHECK SUM */
```

---

CHECK SUM = xxxx

Displays the calculation result in the 2 bytes hexadecimal number.

The result indicates the value which is the same as checksum calculated by the ROM writer.

---

```
08-FF
/* ROM CHECK SUM */
```

```
CHECK SUM = 9375
COMPLETED
```

#### 3-8-4. Entry by JOG Operation

The input data of the JOG operation is sampled by 1 msec. cycle. When the input data agree twice continuously, the data are confirmed as the input data. The confirmed input data pass through the chattering processing. Then the resultant input data is displayed.

---

```
08-04
/* JOG INPUT */
```

```
JOG-1 = 1
JOG-2 = 0 or 1
```

Displays the input status of the pin-2 of the CPU in the JOG-1. Displays the input status of the pin-3 of the CPU in the JOG-2. The JOG-1 is the input at pin-2 (PB0) connector of the IC1077 HD64003TF16. The JOG-2 is the input at pin-3 (PB1) connector of the IC1077 HD64003TF16.

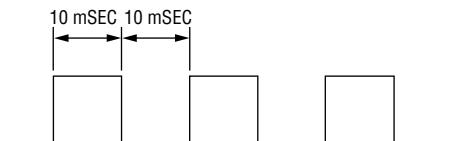
#### 3-8-5. PULSE Output

- Connection between the CXD-1809 and the CPU bus can be checked by this test.

---

```
08-05
/* PULSE 10mSEC */
```

The pulse for confirming the clock oscillation of the microprocessor is output. This pulse is output to pin-73 (RA03) terminal TP1058 of the IC1033 CXD-1809. The pulse width is 10 msec and the tolerance is less than 1/100.



#### 3-8-6. Write/Read Test of CXD-8655

After writing 0x55 in the “Interrupt Timing Register” of the CXD-8655 (IC1021), the value in the same register is read out and is checked whether the data is 0x55 or not.

---

```
08-06
/* CXD- 8 6 5 5 WR/RD */
```

WRITE/READ COMPLETE.

If value is the same, “WRITE/READ COMPLETE” appears. If value differs, “WRITE/READ ERROR!” appears.

#### 3-8-7. Watch IC Test I

Displays the inside data of the watch IC and performs the error correction of the oscillation clock.

---

```
08-07
```

```
/* CLOCK DATA */
```

```
SECOND = 54    CORRECT = 10
MINUTE = 37    CRTL_1 = 20
OCLOCK = 14    CTRL_2 = 00
WEEK = 00
DAY = 02      SET CORRECT (JOG & ENTER)
MONTH = 91     32769.500 - 32769.599 (10)
YEAR = 00
```

“MONTH = 91” means a status that the 100-yaer bit is on. It becomes November by masking MSB.

#### 1. Contents of displays

Items	Contents of display
SECOND	Displays the value of the “second” count register in 2-digit BCD.
MINUTE	Displays the value of the “minute” count register in 2-digit BCD.
OCLOCK	Displays the value of the “hour” count register in 2-digit BCD using 24-hour display.
WEEK	Displays the value of the “week” count register in 2-digit hexadecimal number. No. 0 to No. 7 corresponds to Sunday through Saturday respectively. But, because this machine does not use the day of No. 7, the data is different from the actual day of the week.
DAY	Displays the value of the “date” count register in 2-digit hexadecimal number.
MONTH	Displays the value of the “month” count register in 2-digit hexadecimal number. The bit 7 is set to “1” when the “year” count register is capable up to 100 years.
YEAR	Displays the value of the “year” count register in 2-digit BCD.

Displays the value of the “CORRECT” error correction register in 2-digit hexadecimal number.

CRTL\_1      Displays the value of the control register 1 in 2-digit hexadecimal number.

Bit name	Used for	Setup value
7 : WALE	Alarm control	0 = Alarm is invalid
6 : DALE	Alarm control	0 = Alarm is invalid
5 : 12 24	12-hours/24-hours clock	1 = 24-hours clock
4 : CLEN2	32 kHz output	0 = Valid
3 : TEST	IC test	0 = Normal operation mode
2 : CT2	Selecting the periodic interrupt	0 = OFF
1 : CT1		0 = OFF
0 : CT0		0 = OFF

CRTL\_2 Displays the value of the control register 2 in 2-digit hexadecimal number.

Bit name	Used for	Setup value
7 : VDSL	Power supply monitoring voltage	0 = 2.1V
6 : VDET	Result of power supply monitoring	0 = More than monitoring voltage
5 : SCRATCH	Scribble bit	
4 : XSTP	Stops sending data status	0 = Normal send
3 : CLEN1	32 kHz output	0 = Valid
2 : CTFG	Fixed cycle interrupt output	0 = OFF
1 : WAFG	Alarm matches.	0 = Does not match.
0 : DAFG	Alarm matches.	0 = Does not match.

SET CORRECT Indicates the method to set the correction value.  
32768.500 to Indicates the clock oscillation frequency range.  
32768.599 ( ) Indicates the correction value in parenthesis ( ).

## 2. Error Correction

Corrects an error of the clock oscillation frequency of the watch IC.

- Pull up the clock output (TP1001) of the watch IC to the Vcc with a resistor (about 10 kΩ).
- Measure the clock oscillation frequency.  
The frequency counter which has the measurement accuracy of eight digits or more should be used.
- Select the range of the oscillation frequency using the JOG dial.
- Press the ENTER button.  
When the writing data into the watch IC and the storing data into the NVRAM are complete, "COMPLETE" appears.
- When the ENTER button pressed once and then the hand removed from the ENTER button, the value that are set in "CORRECT=" is reflected and stored.

### (Note)

In order to return the machine to the customer with the status in which the clock error correction value is being saved, select "SHIPPING" in the test mode of the NVRAM and press the **ENTER** button, or alternately exit the test mode and enter the STANDBY mode.

In the latter method, be careful that the stamp information, password, reverse time, etc are not initialized.  
(If the NVRAM is initialized or the pattern write test is performed, the clock error correction value that is saved in the NVRAM, will also be initialized.)

## 3-8-8. Watch IC Test II (When power is turned on)

The inside data of the watch IC before executing the backup battery run-out check is displayed at the moment of immediately after the power-on of the machine.

Accordingly, the data before resetting the watch IC at the event of backup battery run-out check, etc can be confirmed.

### 08-08

---

/\* CLOCK IC (Data just before power on) \*/

SECOND = 54	CORRECT = 10
MINUTE = 37	CRTL_1 = 20
OCLOCK = 14	CTRL_2 = 00
WEEK = 00	
DAY = 02	[OSCILLATOR : OK (CONTINUED) ]
MONTH = 91	[SECOND-YEAR DATA : LEGAL ]
YEAR = 00	[BACKUP BATTERY : OK (MORE THAN 2.1V) ]

"MONTH = 91 becomes November by masking MSB in the status in which the 100-yaer bit is set to on.

### 1. Contents of displays

The contents are the same as those of Section 3-8-7. "Watch IC Test I" except for the following.

Items	Contents of displays
[OSCILLATOR : OK (CONTINUED)	] When the oscillation stop is not detected.
[OSCILLATOR : NG (STOPED)	] When the oscillation stop is detected.
[SECOND-YEAR DATA : LEGAL	] When the data of second, minute, hour, date, month, and year are of the possible values.
[SECOND-YEAR DATA : ILLEGAL	] When the data of second, minute, hour, date, month, and year are of the impossible values.
[BACKUP BATTERY : OK (MORE THAN 2.1V)	] When the backup battery is normal.
[BACKUP BATTERY : LESS THAN 2.1V	] When the backup battery has run out.

## 3-8-9. LED ON/OFF

The LEDs of the channel 3 and channel 4 of the monitor and those of LINE OUT, the deck-A and deck-B, and the REC button simultaneously blink.

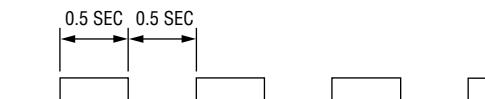
### 08-09

---

/\* LED ON/OFF \*/

- 3ch/4ch
- DECK A/B
- REC A/B

The period of blinking is 0.5 seconds for "on" and 0.5 seconds for "off".



## 3-8-10. NMI Test

When the NMI starts, "NMI ON" appears.

---

```
08-0A
/* NMI */
```

---

NMI ON

"NMI OFF" appears about one second later.

---

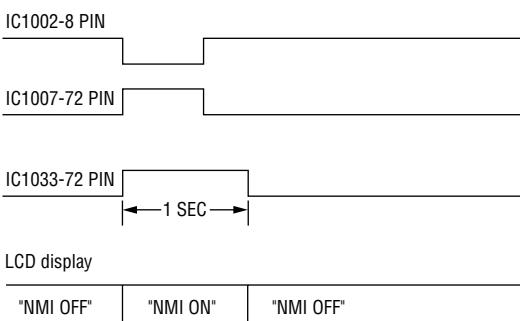
```
08-0A
/* NMI */
```

---

NMI OFF

Outputs the pulse to pin-73 (RA03) terminal TP1058 of the IC1033 CXD-1809.

Pulse width is about 1 sec.



LCD display

---

"NMI OFF"	"NMI ON"	"NMI OFF"
-----------	----------	-----------

## 3-9. NVRAM Test: [NVRAM]

After writing the word data (2 bytes) with 128 words to the even-numbered address from the address 0x00, write 128 words to the odd-numbered address from the address 0x01.

After reading and checking at every even-numbered address from the address 0x00, read and check at odd-numbered address from the address 0x01.

---

```
09-01
/* NVRAM INITIATE / CHECK */
```

---

09-01 SHIPPING  
09-02 INITIALIZE  
09-03 PATTERN CHECK

SELECT and ENTER

While pressing the **[]** button, rotate the [JOG] dial, then the setup or test starts by pressing the **[ENTER]** button after changed k\_test\_l.

- Remote selection

By sending the remote command for the setup of k\_test\_h and k\_test\_l, the test can start to perform directly without operating buttons of **[]**, [JOG], **[ENTER]**, etc.

## 3-9-1. Setup for Shipment of the Machine

The data except the watch correction value and the number of times of use of the laser are initialized.

---

```
09-01
/* NVRAM INITIATE / CHECK */
```

---

Setting-up is under way.

Setup for shipment of the machine is under way.

---

```
09-10
/* NVRAM SHIPPING */
```

---

### Result

(Normal completion)

Display of completion of setup for shipment of the machine

---

```
09-FF
/* NVRAM SHIPPING */
```

---

COMPLETE.

CUT OFF POWER!

Shut off the power supply after this.

(After completion of the test mode by setting k\_test\_h to 0x00, you may set the [STANDBY] mode.)

(Abnormal completion)

Display of the abnormal completion of the setup for shipment of the machine

---

```
09-10
/* NVRAM SHIP INITIATE */
```

---

ERROR.

REPAIR HARDWARE!

Data of the NVRAM are undefined.

Investigation to perform repair, etc is required.

### Initialized data of the NVRAM

Marks	Items	Values	Remarks
A	disp_cnt_A/B	0x11	A=Lower 4-bit, B=Higher 4-bit
B	deck status	0x00	use, mark_a/b
C	mark_clust_a	0x00	Cluster address of the mark A
D	mark_clust_b	0x00	Cluster address of the mark B
E	mark_sect_a	0x00	Sector address of the mark A
F	mark_sect_b	0x00	Sector address of the mark B
G	pb_stop (A/B)	0x00	Playback stop position address
H	laser (A/B)	?	Count of use of the laser
I	rec_mode	0x01	Record ATARC mode
J	rev_time	0x00	Reverse time
K	pass_word	0x00	Password
L	correct	?	Error correction value of the watch
M	reserve	1	Reserved
N	crc_int	?	CRC of the above
O	stamp	0x00	Stamp character string
P	crc_stamp	?	CRC in stamp character string

## 3-9-2. Initialization of the NVRAM

09-02

/\* NVRAM INITIALIZE/CHECK \*/

During execution of the initialization, “k\_test\_l” shows the following values.

Value of k_test_l	Status
0x21	During write.
0x22	During read.
0xFF	Completion of the check

Display during initialization

09-20

/\* NVRAM INITIALIZE \*/

NOW NVRAM INITIALIZE.

## Result

(Normal completion of the initialization)

If nv\_error=0, the initialization has normally ended.

09-FF

/\* NVRAM INITIALIZE \*/

COMPLETE.

CUT OFF POWER.

All data of the NVRAM are set up to 0xFFFF (the initial value of the device).

After this, shut off the power supply.

(Note) The correction information of the watch is set up to “No correction (0)”.

(Abnormal completion of the initialization)

If nv\_error=0x10, the initialization has ended with failure.

09-FF

/\* NVRAM INITIALIZE \*/

ERROR.

REPAIR HEARDWARE!

The data of the NVRAM are undefined.

Investigation to perform repair, etc is required.

(Note) The correction information of the watch is set up to “No correction (0)”.

## 3-9-3. 4-Pattern Check

09-03

/\* NVRAM INITIALIZE / CHECK \*/

During execution of the check, “k\_test\_l” shows the following values.

Value of k_test_l	Status
0x31	Data write is in progress. Both even number and odd number are 0x0000.
0x32	Data read and data check are in progress.
0x33	Data write is in progress. Even number is 0x5555 and odd number is 0xAAAA.
0x34	Data read and data check are in progress.
0x35	Data write is in progress. Even number is 0xAAAA and odd number is 0x5555.
0x36	Data read and data check are in progress.
0x37	Data write is in progress. Both even number and odd number are 0xFFFF.
0x38	Data read and data check are in progress.
0xFF	Check is complete.

Display during check

09-31

/\* NVRAM PATTERN CHECK \*/

## 1. NOW 00-00 PATTERN CHECK

Result of the check

(In the normal case)

If nv\_error=0, the result is normal.

09-FF

/\* NVRAM CHECK \*/

1. 00-00 PATTERN CHECK OK.

2. 55-AA PATTERN CHECK OK.

3. AA-55 PATTERN CHECK OK.

4. FF-FF PATTERN CHECK OK.

CHECK END.

CUT OFF POWER.

All data of the NVRAM are set up to 0xFFFF (the initial value of the device).

After this, shut off the power supply.

(Note) The correction information of the watch is set up to “No correction (0)”.

(In the abnormal case)

If nv\_error>0, the result is abnormal.

09-FF

/\* NVRAM CHECK \*/

1. 00-00 PATTERN CHECK OK.

2. 55-AA PATTERN CHECK OK.

3. AA-55 PATTERN CHECK ERROR.

4. FF-FF PATTERN CHECK OK.

REPAER THE HEARDWARE!

Example : An error in write and read of the AA-55 pattern

Investigation to perform repair, etc is required.

(Note) The correction information of the watch is set up to “No correction (0)”.

**MEMO**

## SECTION 4

### ELECTRICAL ADJUSTMENTS

#### 4-1. Laser Power Adjustment

1. Enter the test mode of Checking Operations of Mechanism, and start up the adjustment program. (Refer to section 3-3-13. Checking Operations of Mechanism.)

```
:MON>mdmon
MD DRIVE TEST MODE MONITOR      Wait.....      Hit '.' to exit
```

```
>>>PDMD-7 TEST MODE V2.14 [Feb. 16 1998]
>>
```

2. When the return key is pressed, the menu is displayed.

```
>>>PDMD-7 TEST MODE V2.14
P)Play A)Access N)Info E)Eject R)Rec K)Erase V)Volum !)Reset
X)Cmd L)Laser F)Focus W)Switch S)Spindl J)Jump G)FGSV D)Sled
M)EEPROM U)Adjust C)Spec T)Still Y)Sync      1)Mon 2)Aging
>>
```

3. Select U)Adjust.

```
>>u
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>
```

4. Select 2) LASER.

```
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>2
--- READJUST?
```

5. Set the laser power meter (J-2501-046-A) and press the return key.

```
>>WRITE POWER : 6.85 mW
1)- 2)+ [DA] FD [00ED]
```

6. Adjust the laser power by pressing [1] key (decreasing the laser power), [2] key (increasing the laser power) until the laser power measurement value is as close as possible to 6.85 mW. Press the return key to set the adjustment value.

(Do not take to long time for adjustment. If it takes too long time, the laser power will fluctuate due to temperature increase.)

```
1)- 2)+ [DA] FD [00ED]
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>
```

7. Eject the probe of the laser power meter.

```
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>e
```

#### 4-2. Servo Adjustment

1. Set the MD data disk (recordable disk).

```
2. Select 3) EFBL/SERVO/FBIAS.
```

```
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>3
---MO PIT (FBIAS)-----FBIAS [10]
---MO GROOVE (EFBL)-----EFBL [0F]
---MO WRITE (EFBL)-----EFBL [0F]
---MO GROOVE (FOCUS)-----K13 [4D]
---MO GROOVE (TRACKING)-----K23 [43] K07 [43]
---MO GROOVE (FBIAS)-----FBIAS [2F]

T=6774(msec)
```

3. Press the [ESC] key to terminate the adjustment menu.

```
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>
>>
```

4. Eject the MD data disk (recordable disk).

```
>>e
```

5. Select U)Adjust.

```
>>u
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>
```

6. Set the MD data disk (read only disk).

7. Select 3) EFBL/SERVO/FBIAS.

```
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>
---CD DISC (EFBL)-----EFBL[10]
---CD DISC (FOCUS)-----K13[38]
---CD DISC (TRACKING)-----K23[30] K07[30]
---CD (FBIAS)-----FBIAS[00]
```

```
T=3143(msec)
```

8. Press the [ESC] key to terminate the adjustment menu.

```
1)TEMP 2)LASER 3)EFBL/SERVO/FBIAS
5)EFBL 6)SERVO 7)FBIAS E)Eject >>
>>
```

9. Eject the MD data disk (read only disk).

```
>>e
```

10. Press the period [.] key to exit the adjustment program.

```
>>.
```

---

```
:MON>
```

11. Turn off the main power of this machine.

```
:MON>pwof
```

#### Note :

If discs are replaced while the machine is left in the U/Adjust mode in the machines up to Ver 2.14, the disk types may be incorrectly recognized and adjustment may not be possible.

In such a case, press the [ESC] key to terminate the U)Adjust mode once and then select U)Adjust again.

## SECTION 5 DIAGRAMS

**Note on Printed Wiring Boards: MAIN SECTION**

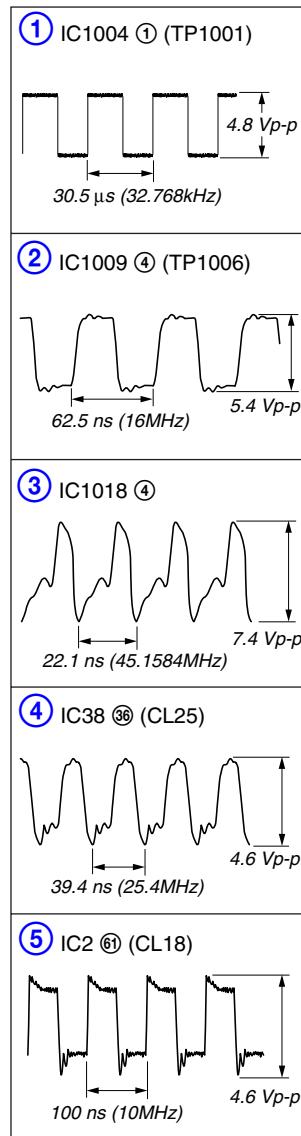
- : parts extracted from the component side.
- : Pattern from the side which enables seeing.  
(The other layers' patterns are not indicated.)
- : Pattern of the rear side.

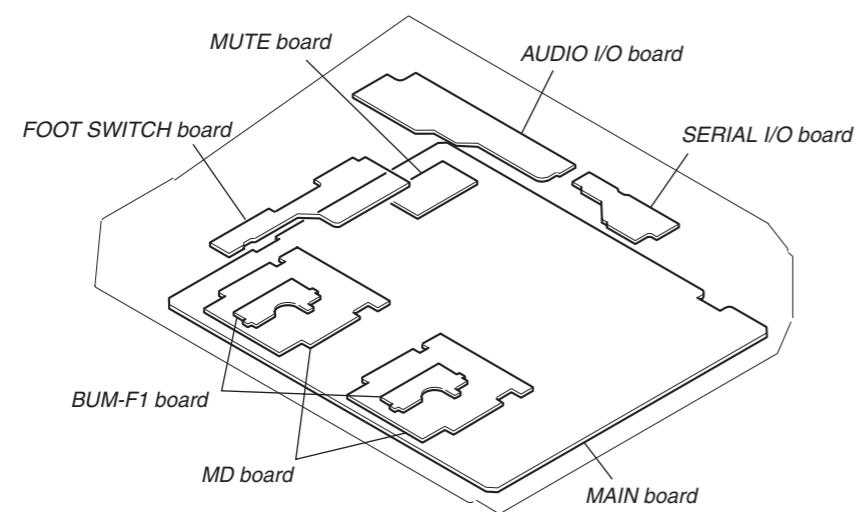
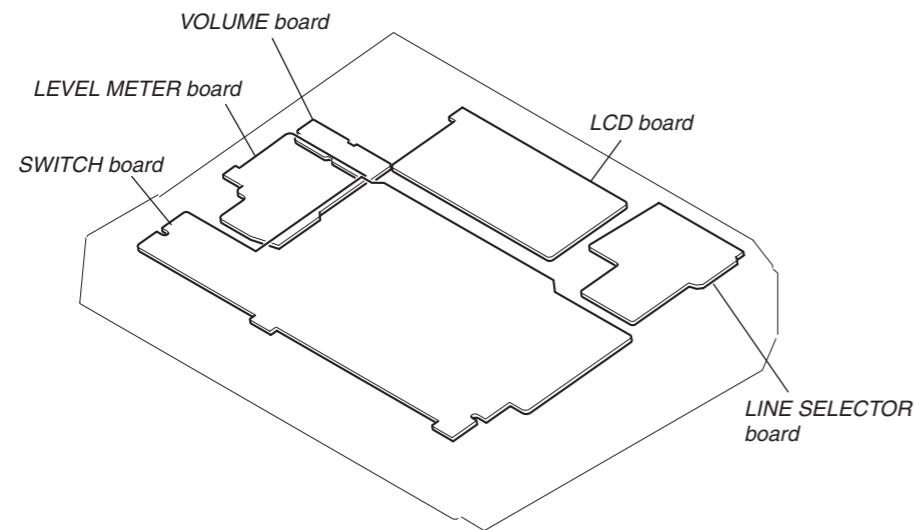
**Note on Schematic Diagram: MAIN SECTION**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$  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.

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

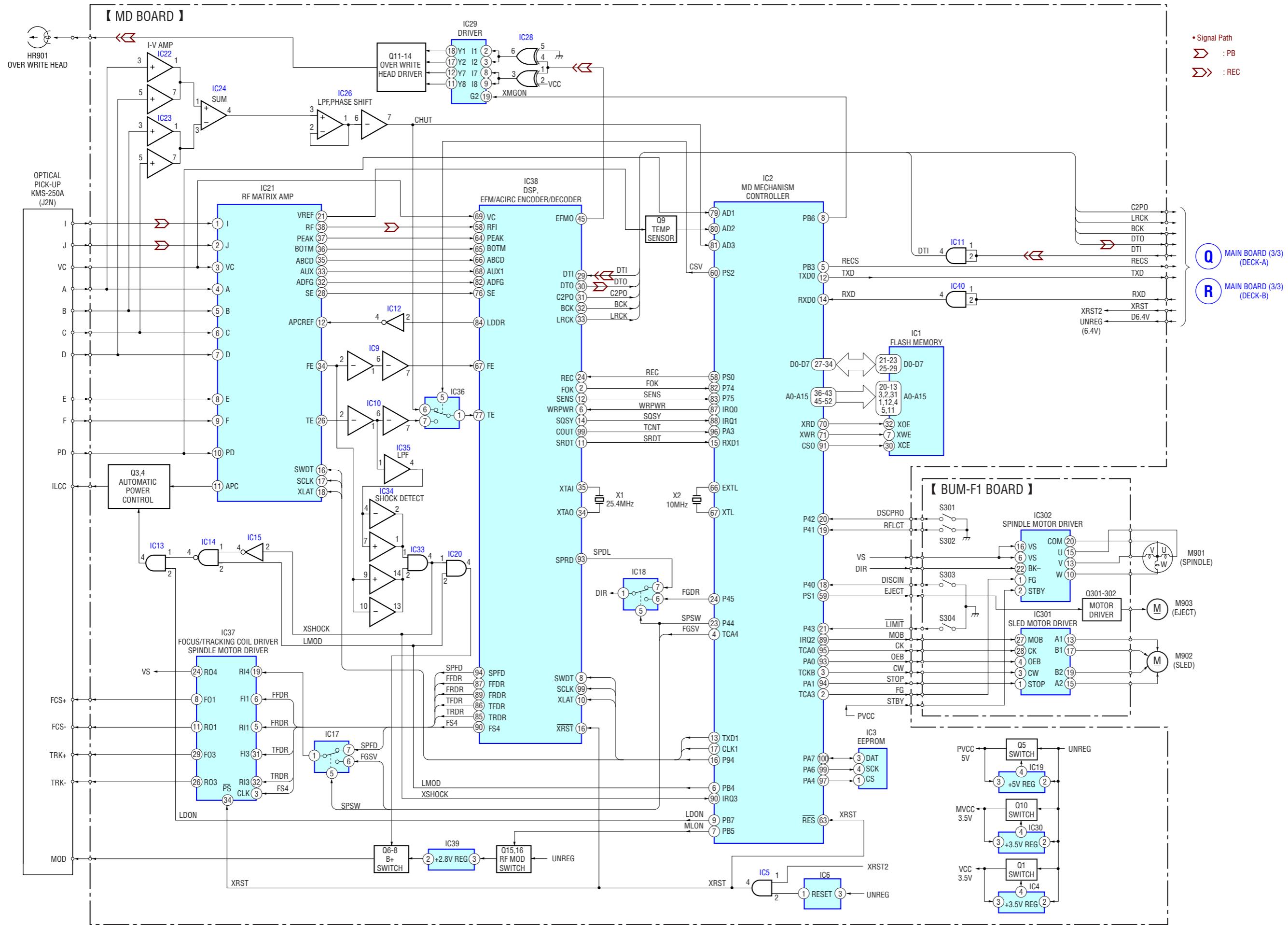
- : B+ Line.
- Power voltage is dc 12V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.  
no mark : PLAY
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ).  
Voltage variations may be noted 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.  
 : PB  
 : REC

**• WAVEFORMS**

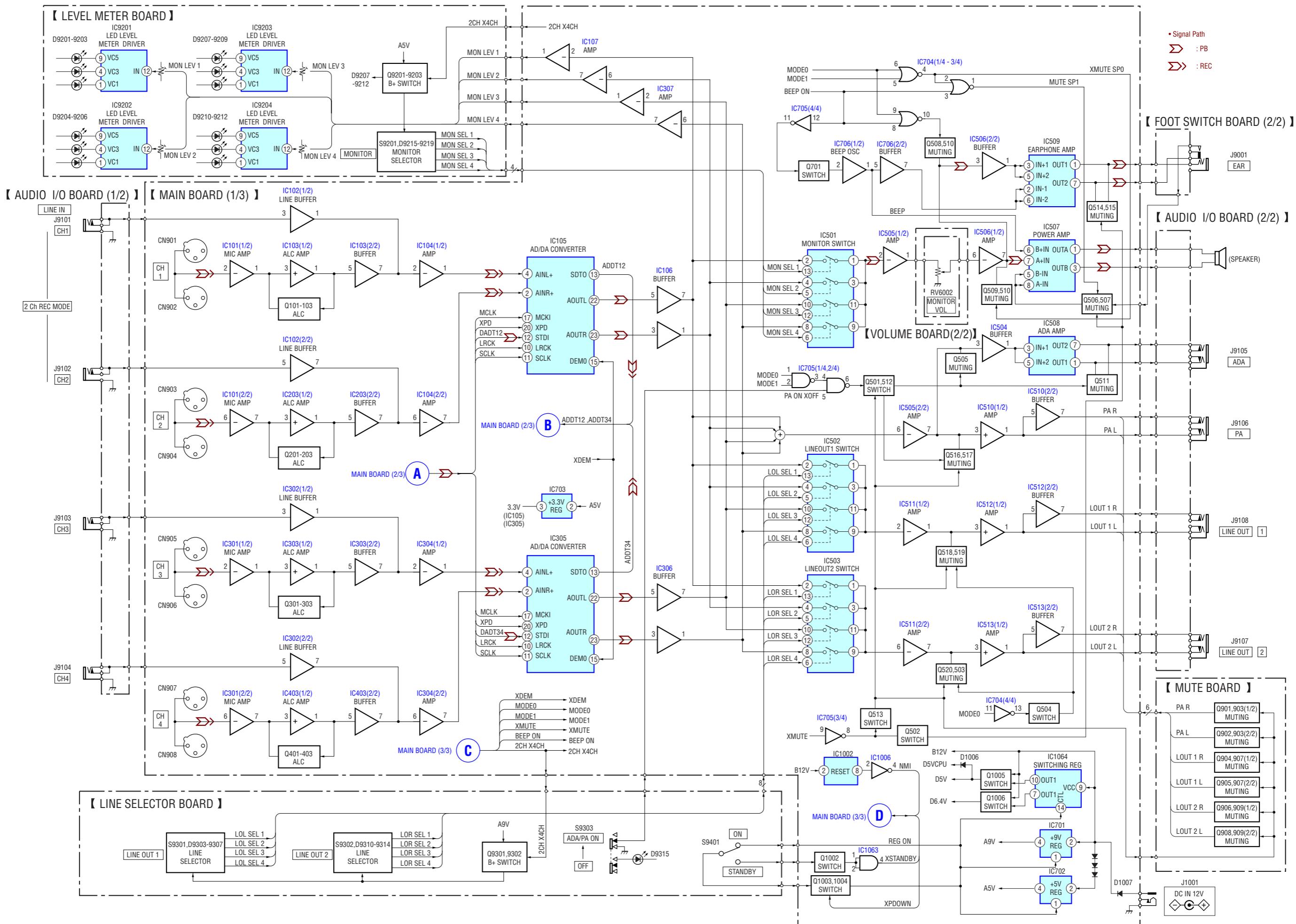
**5-1. CIRCUIT BOARDS LOCATION**

## 5-2. BLOCK DIAGRAMS

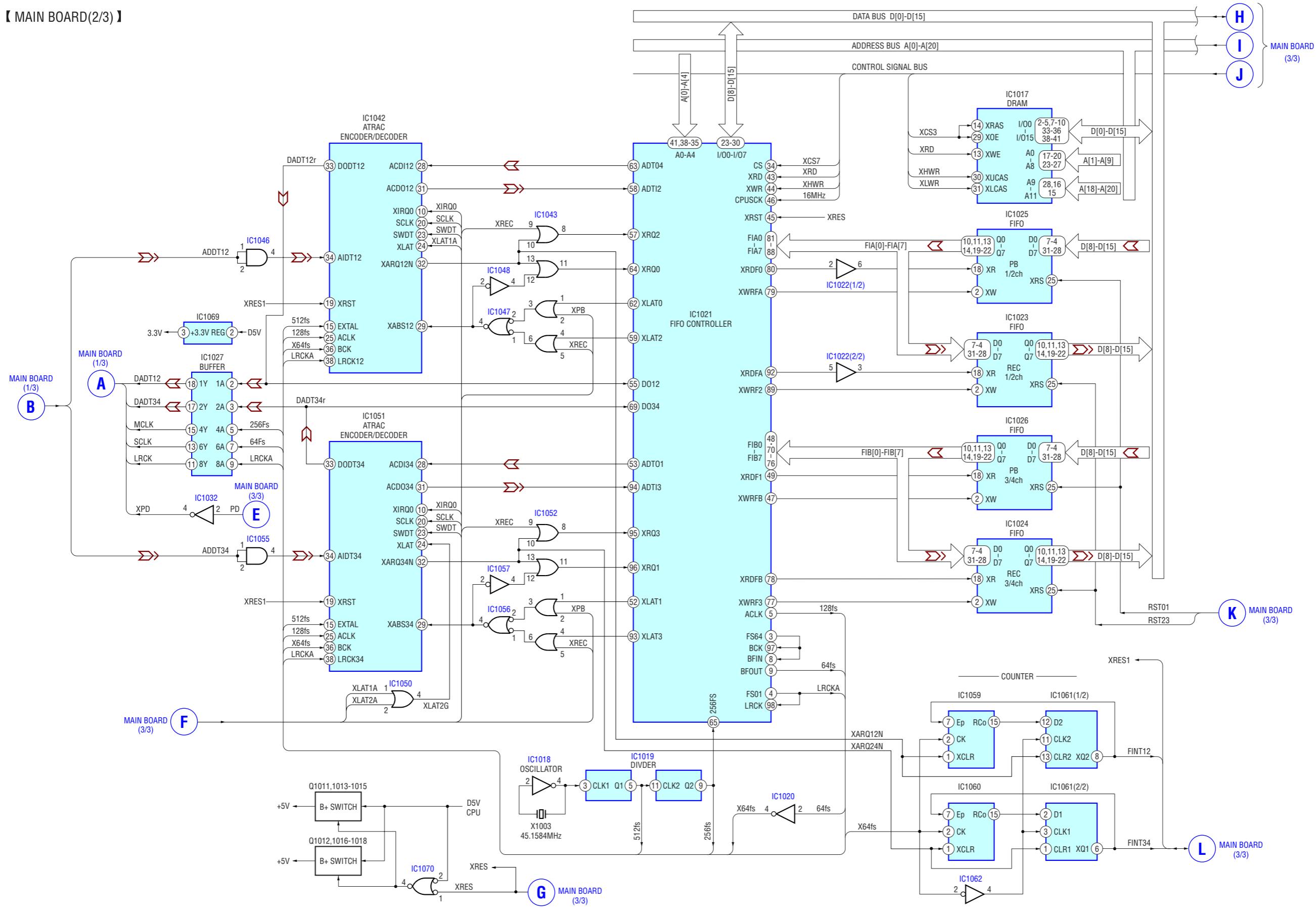
## MD SECTION



## I/O SECTION



## FIFO SECTION

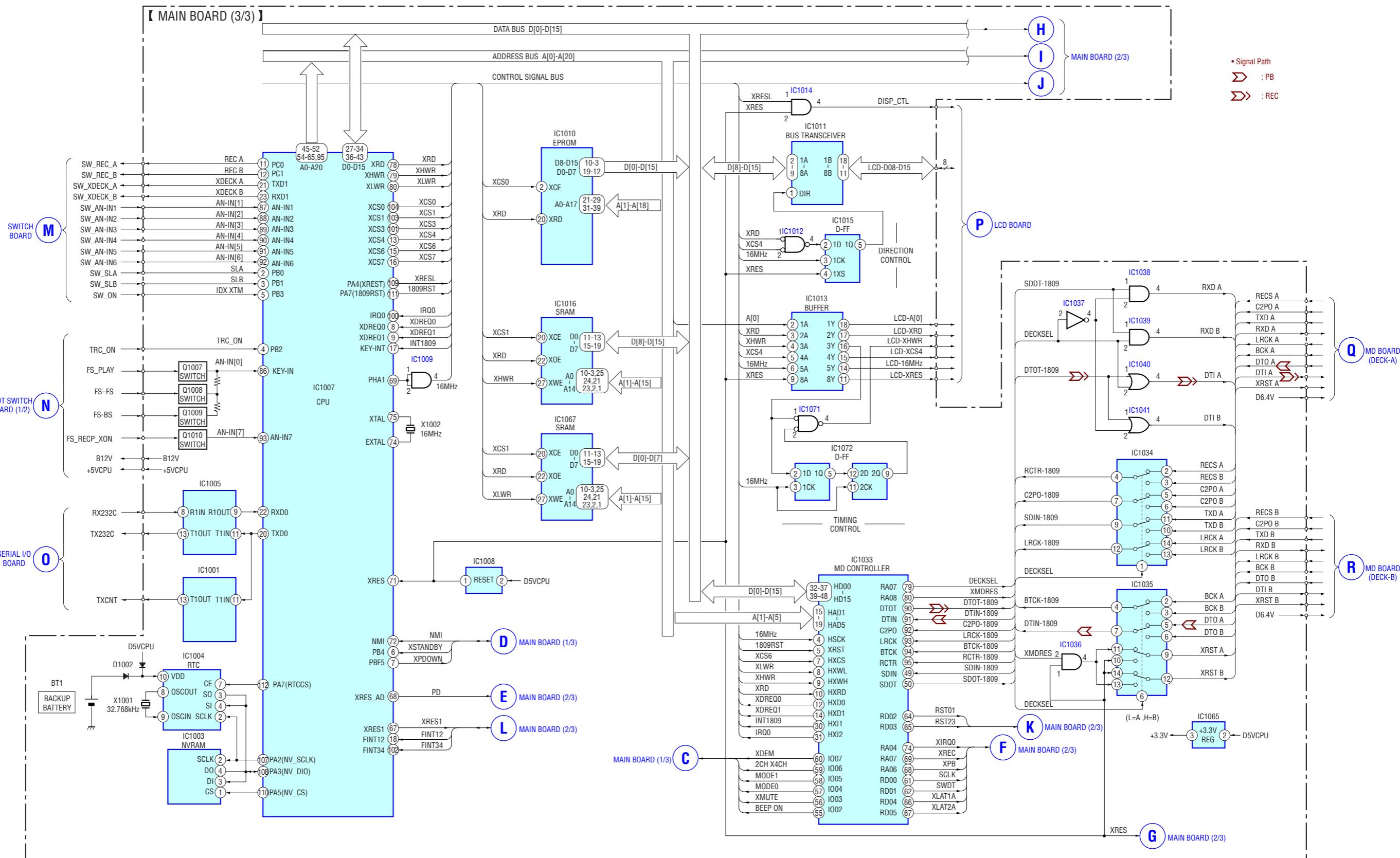


- Signal Path

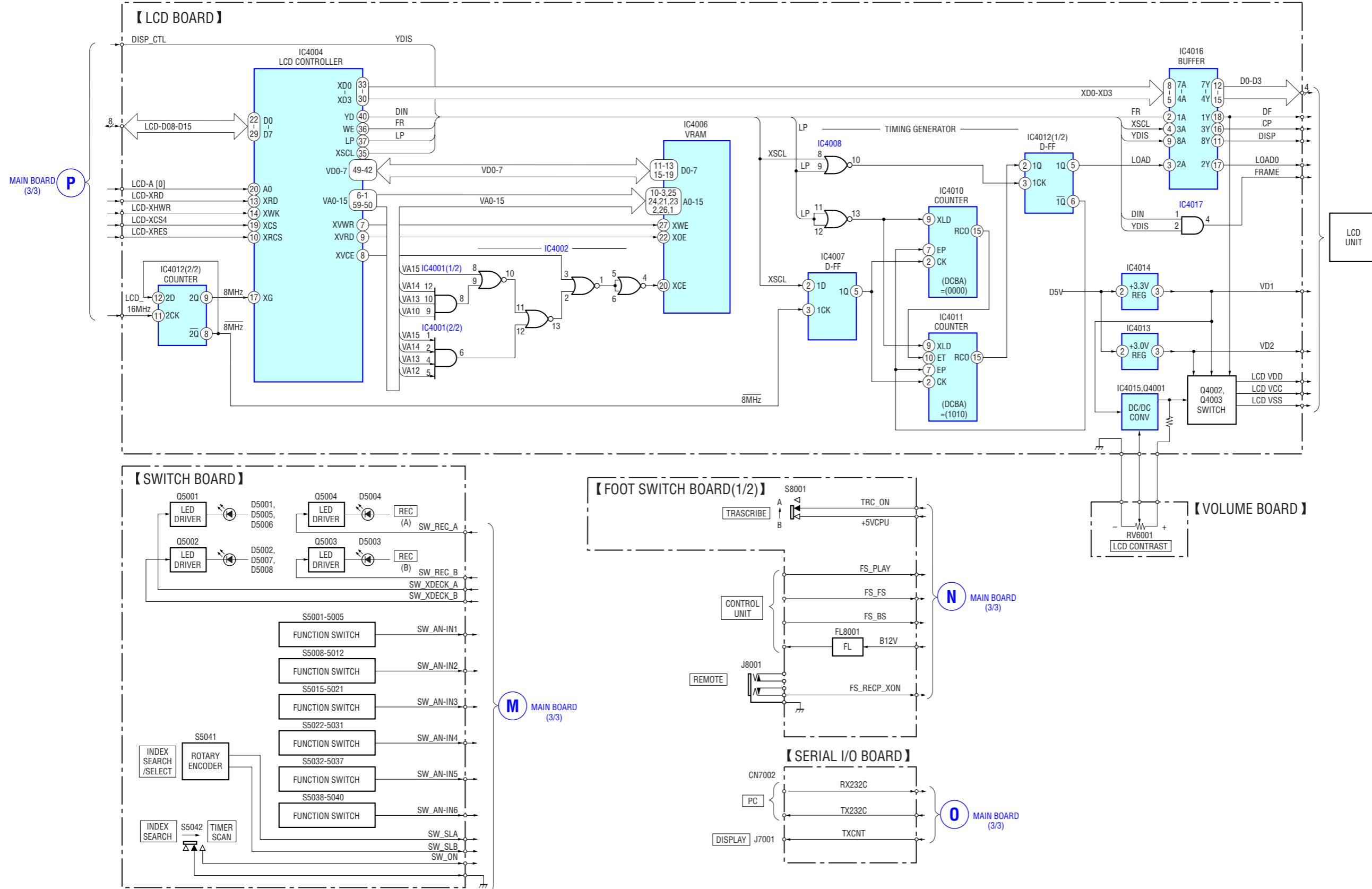
➤ : PB

➤➤ : REC

## CPU SECTION



## LCD SECTION



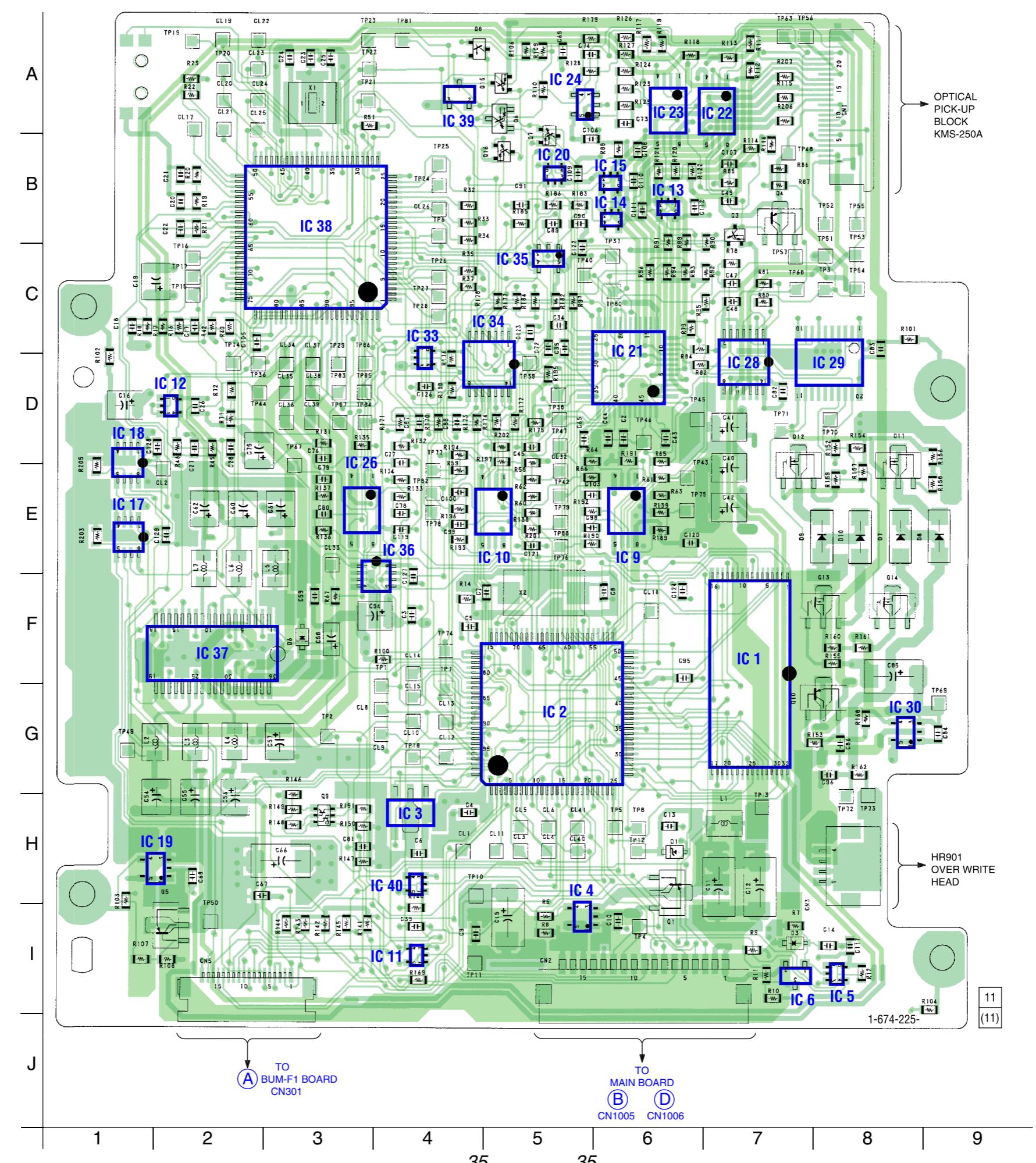
## 5-3. PRINTED WIRING BOARD MD SECTION



• Uses unleaded solder.

• See page 29 for Circuit Boards Location.

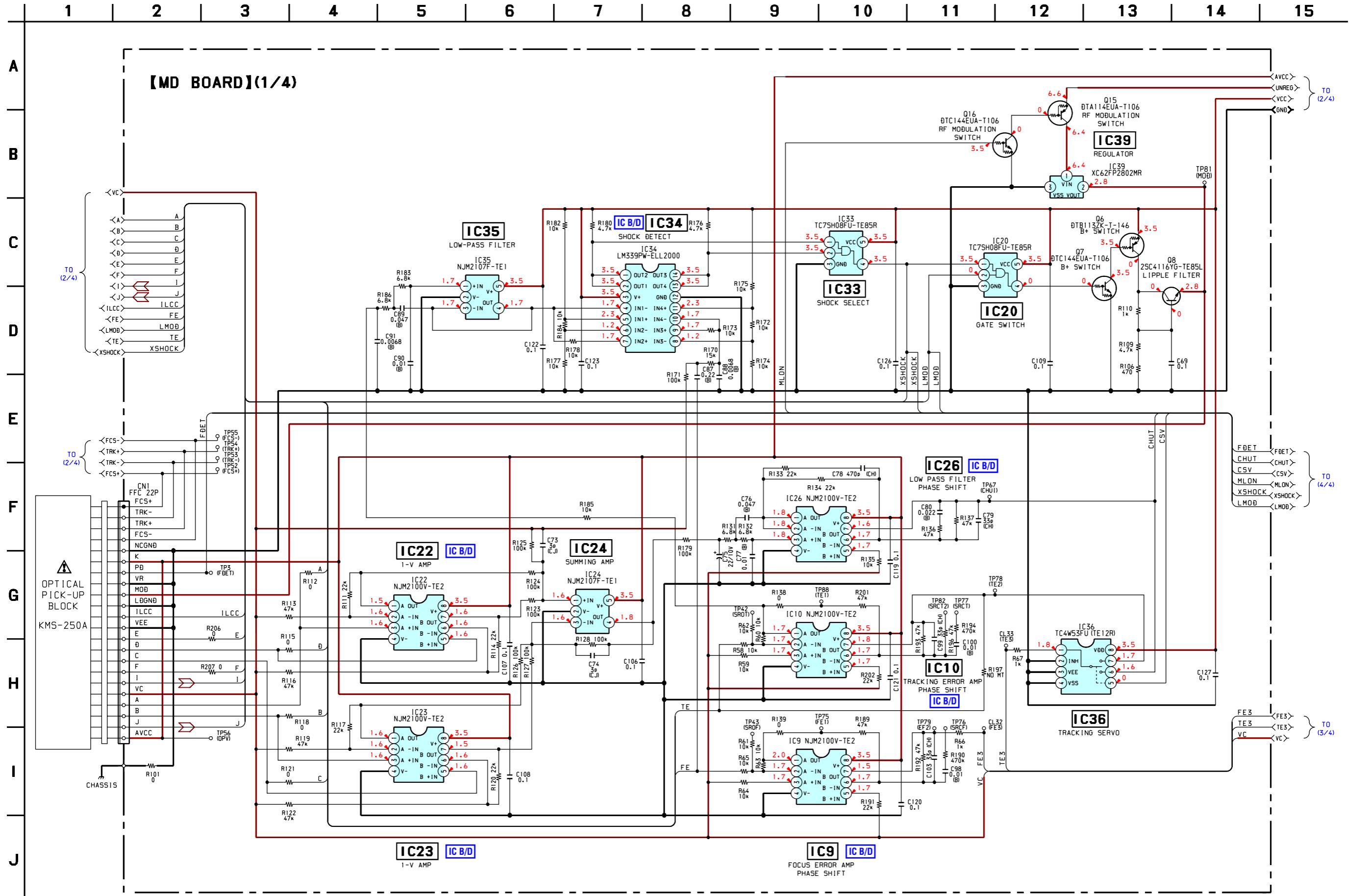
## 【MD BOARD】



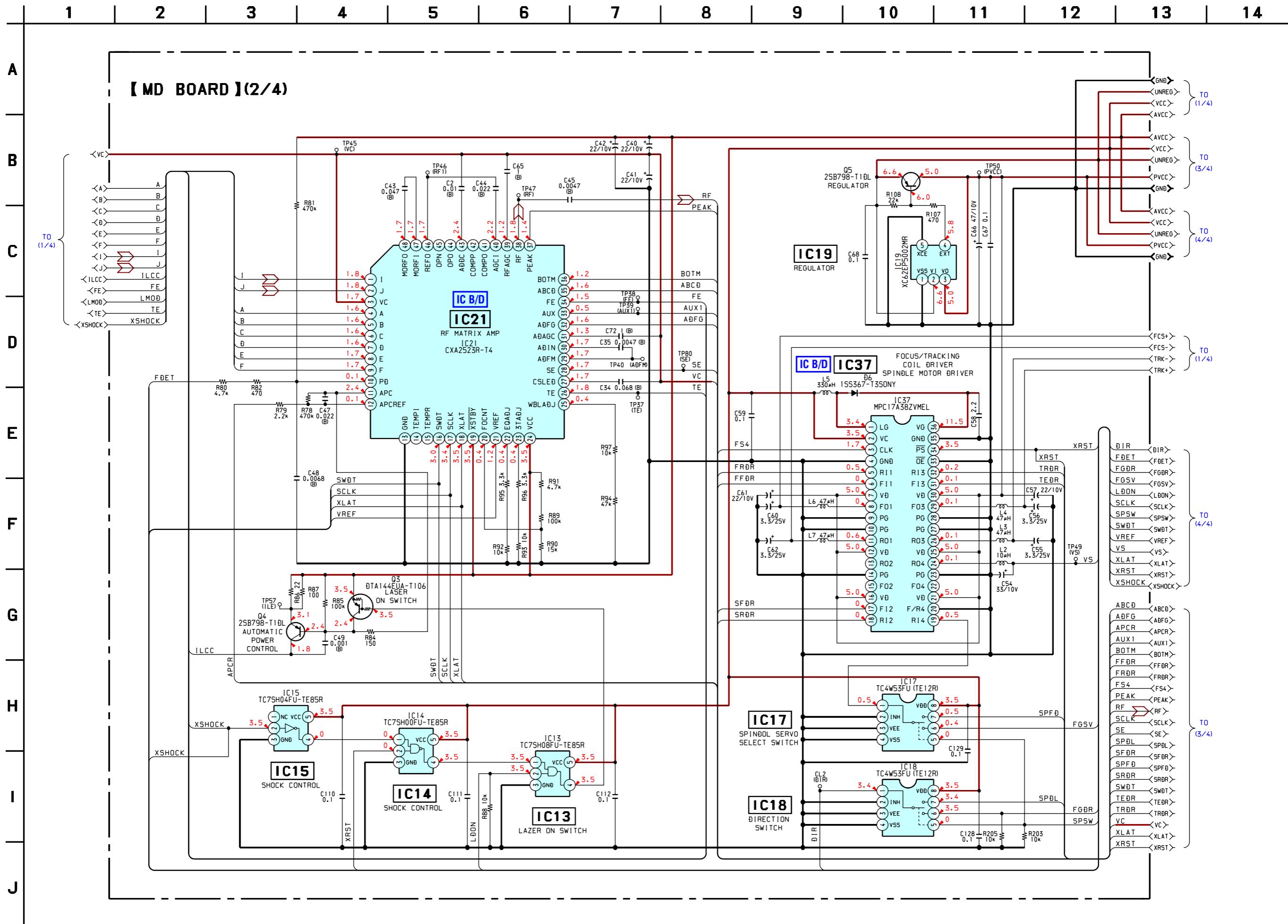
## • Semiconductor Location

Ref. No.	Location
D1	H-6
D3	I-7
D6	F-3
D7	E-8
D8	E-7
D9	E-8
D10	E-7
IC1	F-7
IC2	G-5
IC3	H-4
IC4	H-5
IC5	I-8
IC6	I-7
IC9	E-6
IC10	E-5
IC11	I-4
IC12	D-2
IC13	B-6
IC14	B-6
IC15	B-6
IC17	E-1
IC18	D-1
IC19	H-2
IC20	B-5
IC21	D-6
IC22	A-7
IC23	A-6
IC24	A-5
IC26	E-3
IC28	D-7
IC29	D-8
IC30	G-8
IC33	C-4
IC34	C-5
IC35	C-5
IC36	E-4
IC37	F-2
IC38	B-3
IC39	A-4
IC40	H-4
Q1	I-6
Q3	B-6
Q4	B-7
Q5	H-2
Q6	A-5
Q7	A-5
Q8	A-4
Q9	H-3
Q10	G-7
Q11	D-8
Q12	D-7
Q13	F-7
Q14	F-8
Q15	A-5
Q16	B-5

## 5-4. SCHEMATIC DIAGRAM MD SECTION (1/4) • See page 81 for IC Block Diagrams.

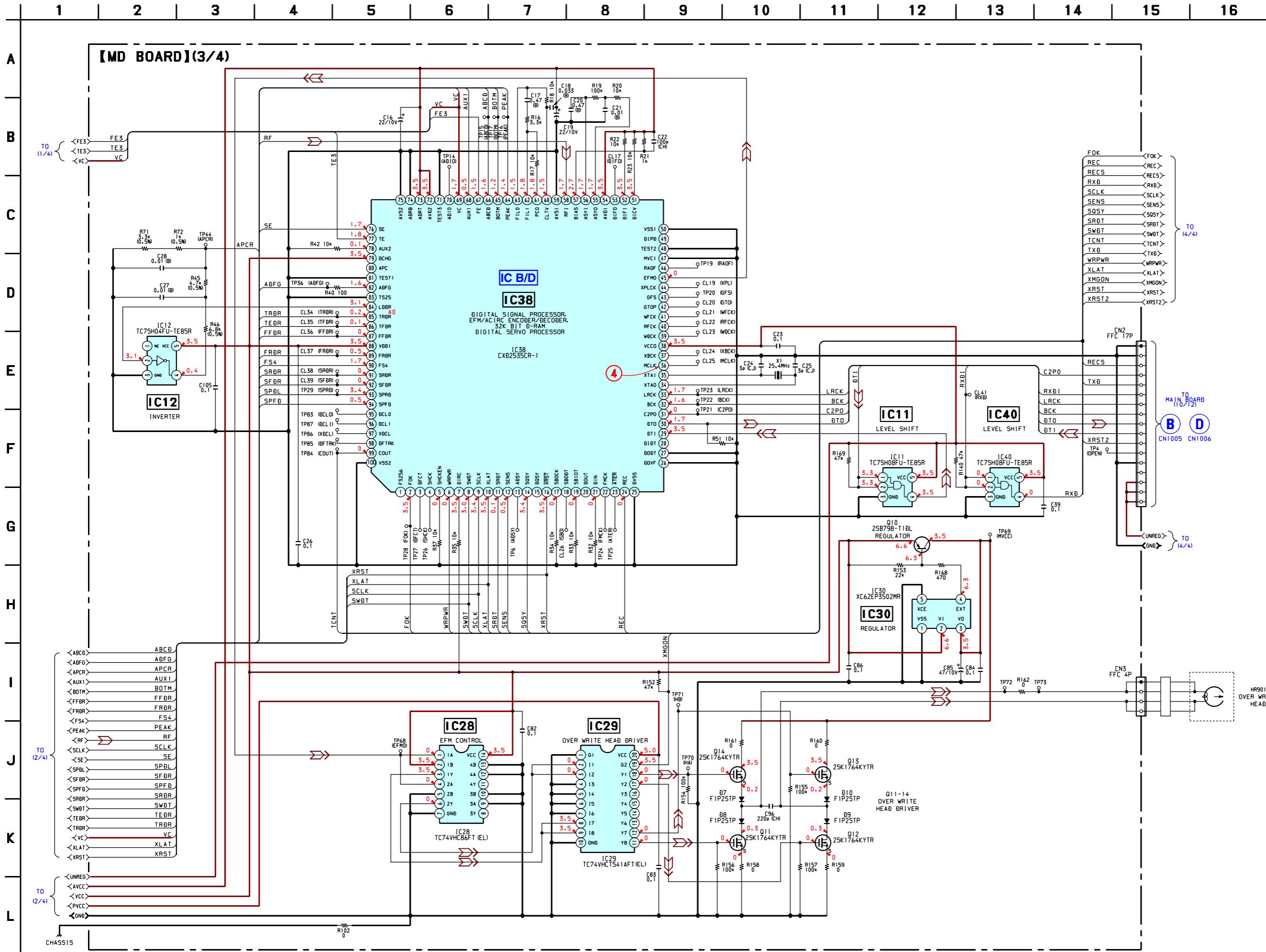


## 5-5. SCHEMATIC DIAGRAM MD SECTION (2/4) • See page 77, 81 for IC Block Diagrams.

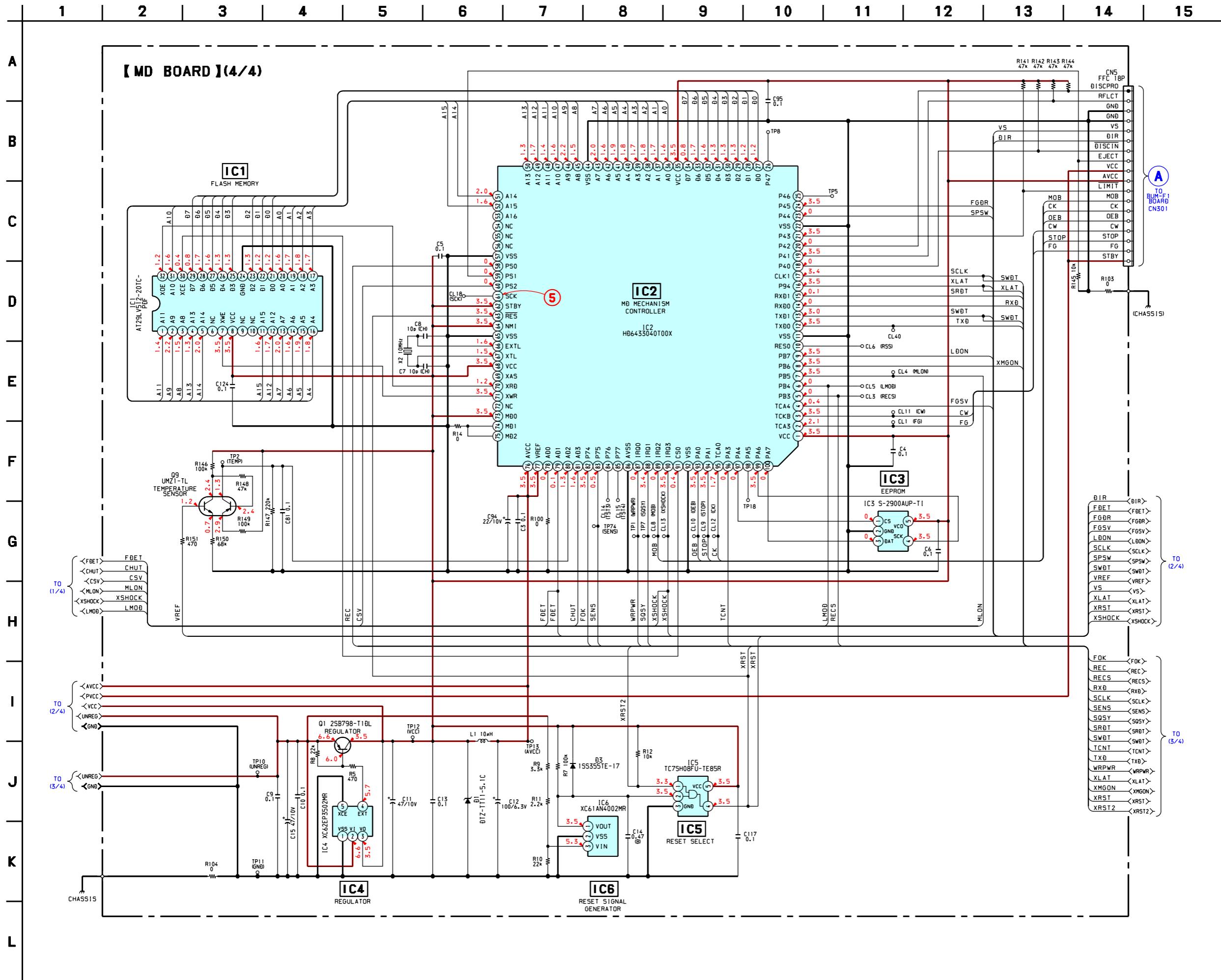


**5-6. SCHEMATIC DIAGRAM MD SECTION (3/4)** • See page 78 for IC Block Diagrams. • See page 28 for Waveforms

See page 78 for IC Block Diagrams. • See page 28 for Waveforms



## 5-7. SCHEMATIC DIAGRAM MD SECTION (4/4) • See page 28 for Waveforms.

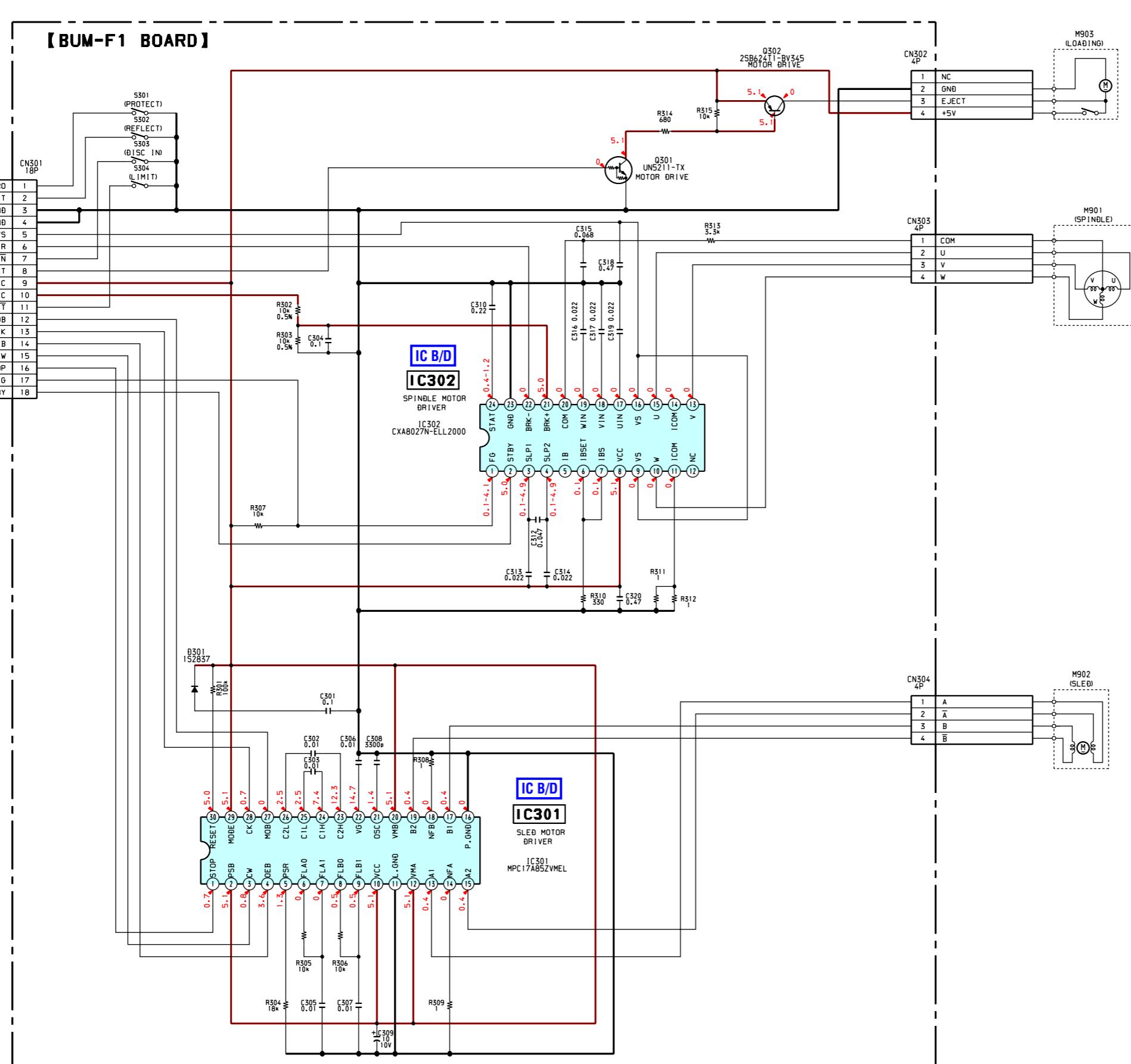


## 5-8. SCHEMATIC DIAGRAM BUM SECTION • See page 80 for IC Block Diagrams.

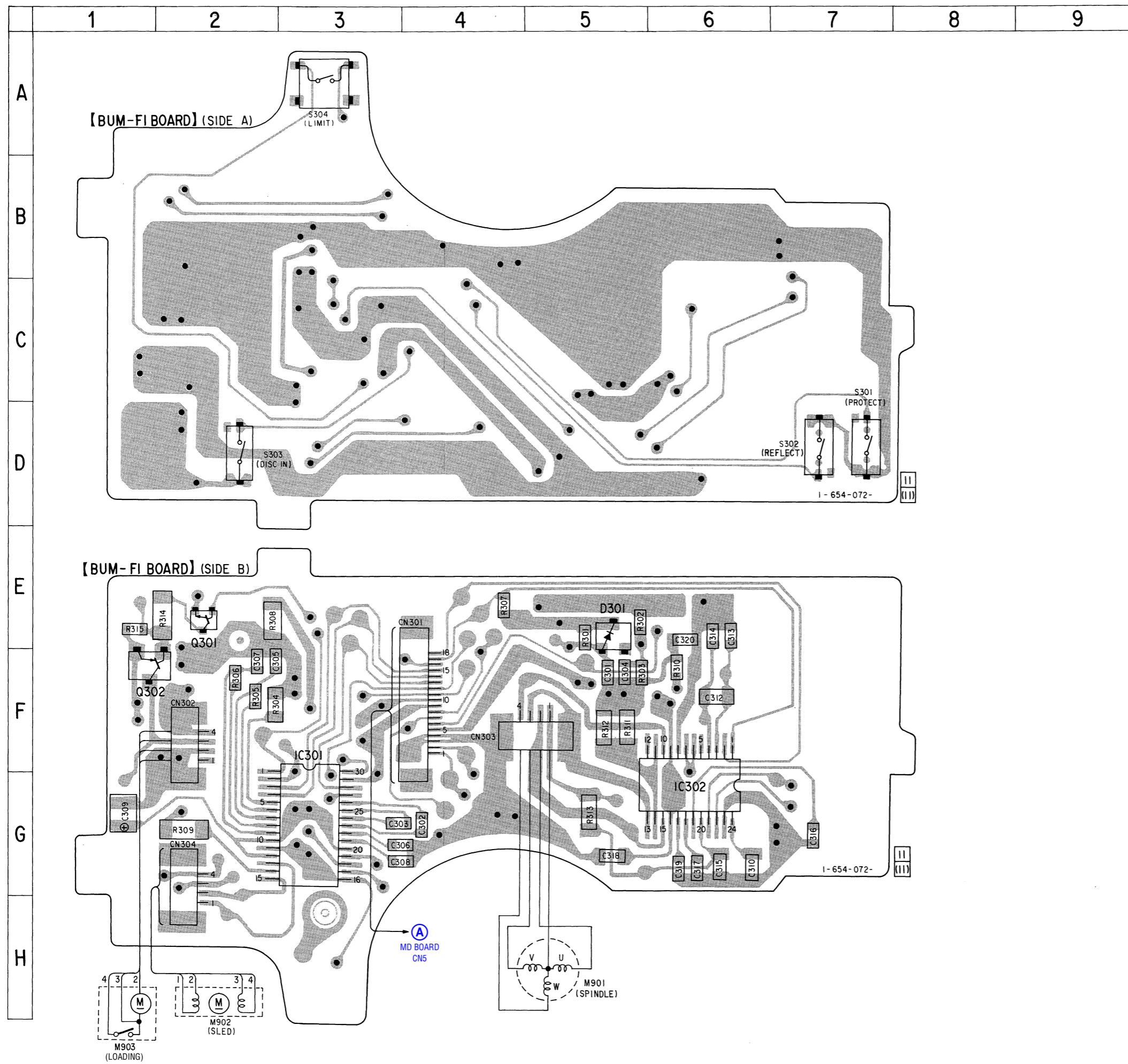
1 2 3 4 5 6 7 8 9 10 11 12 13 14

## 【BUM-F1 BOARD】

A	TO MD BOARD CN5
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
L	

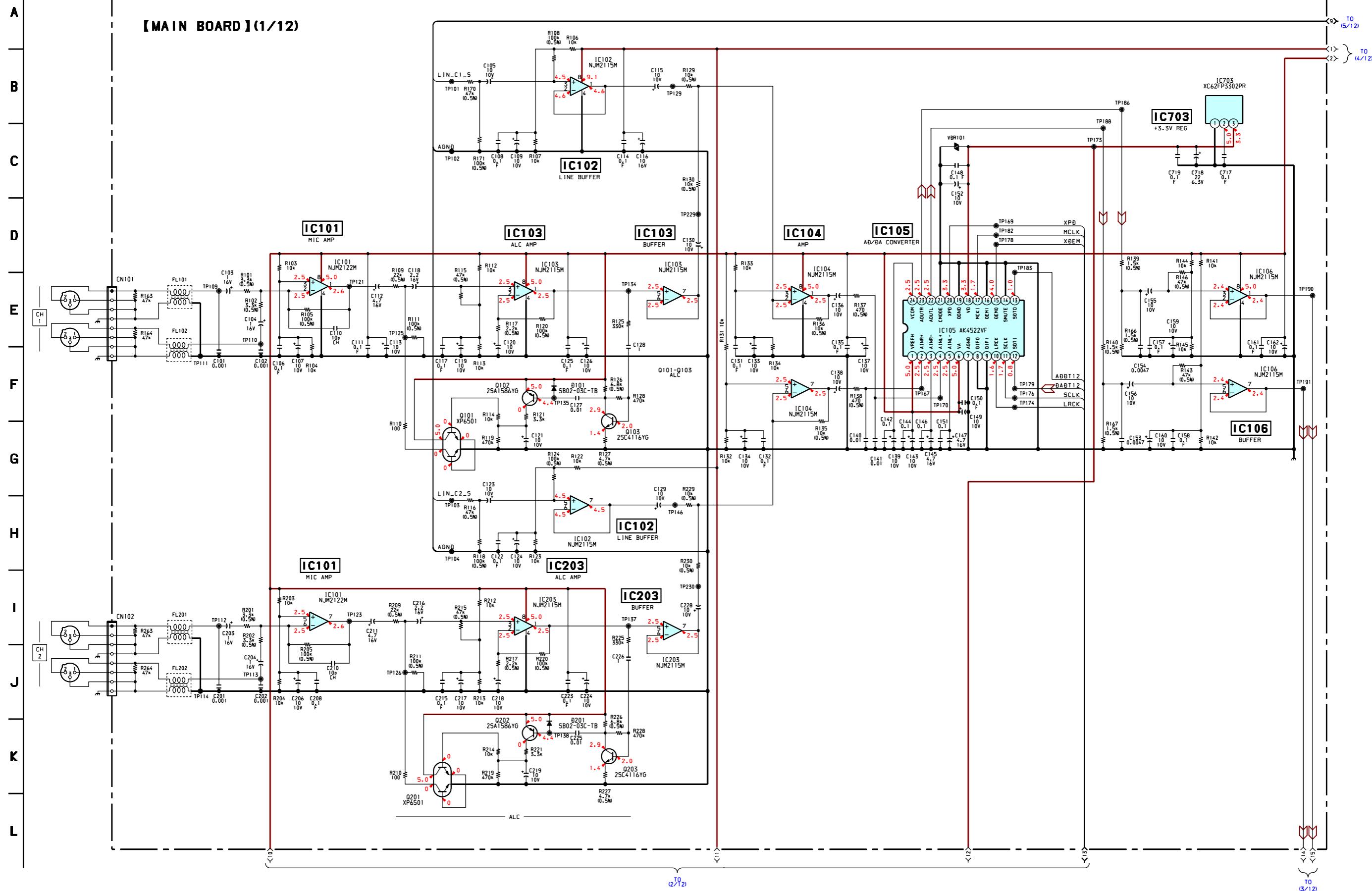


**5-9. PRINTED WIRING BOARD BUM SECTION** •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.

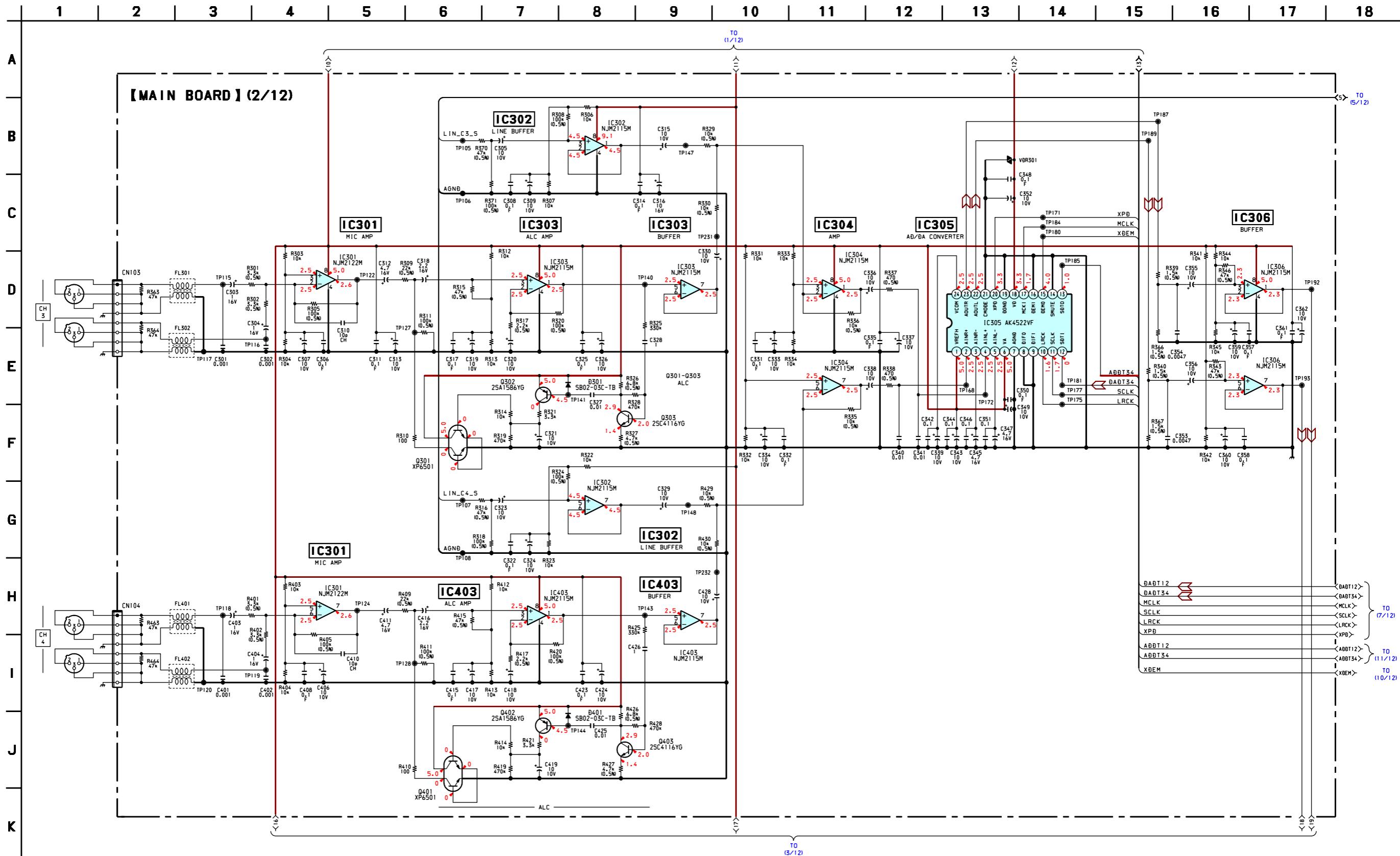


## 5-10. SCHEMATIC DIAGRAM MAIN SECTION (1/12)

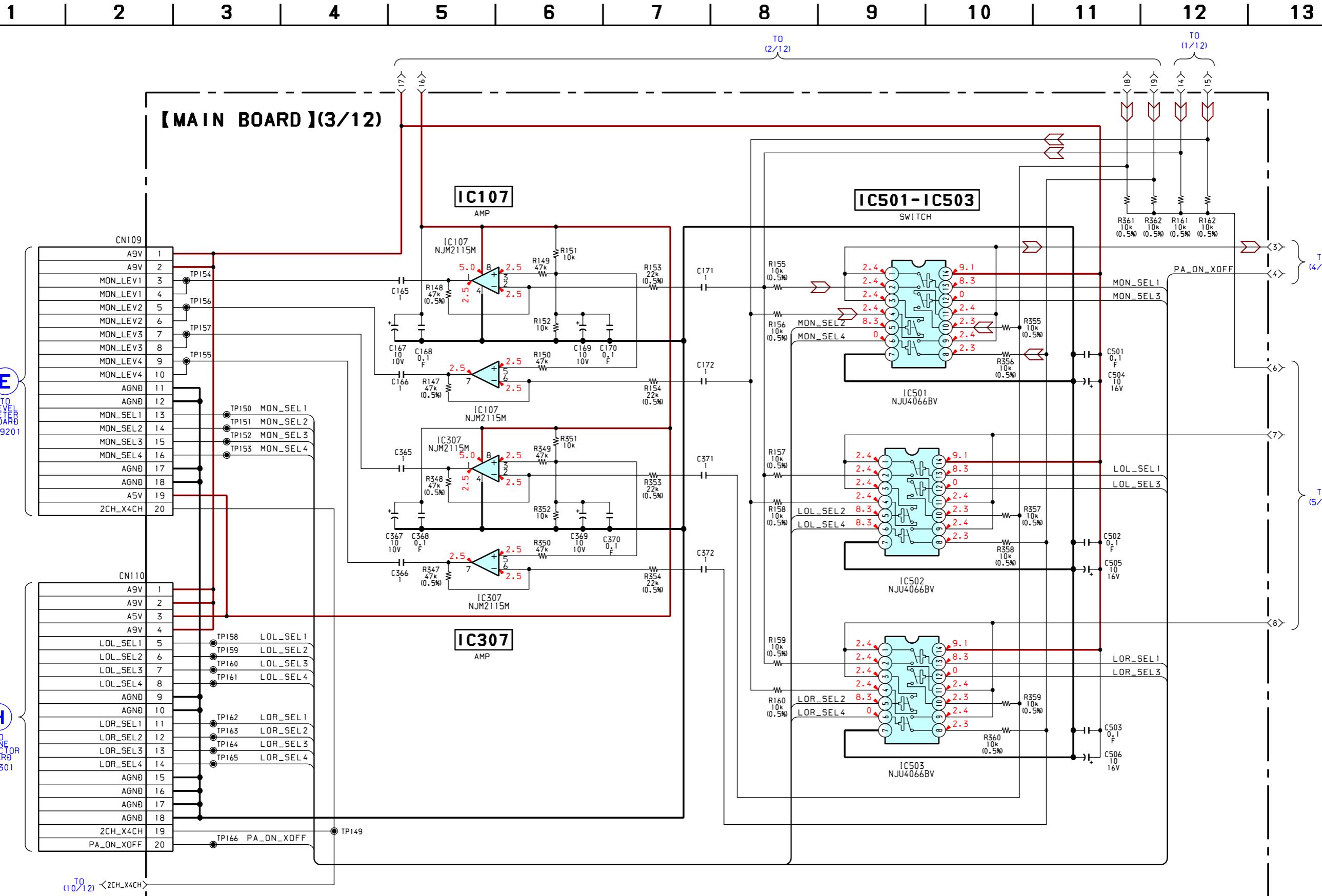
1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18



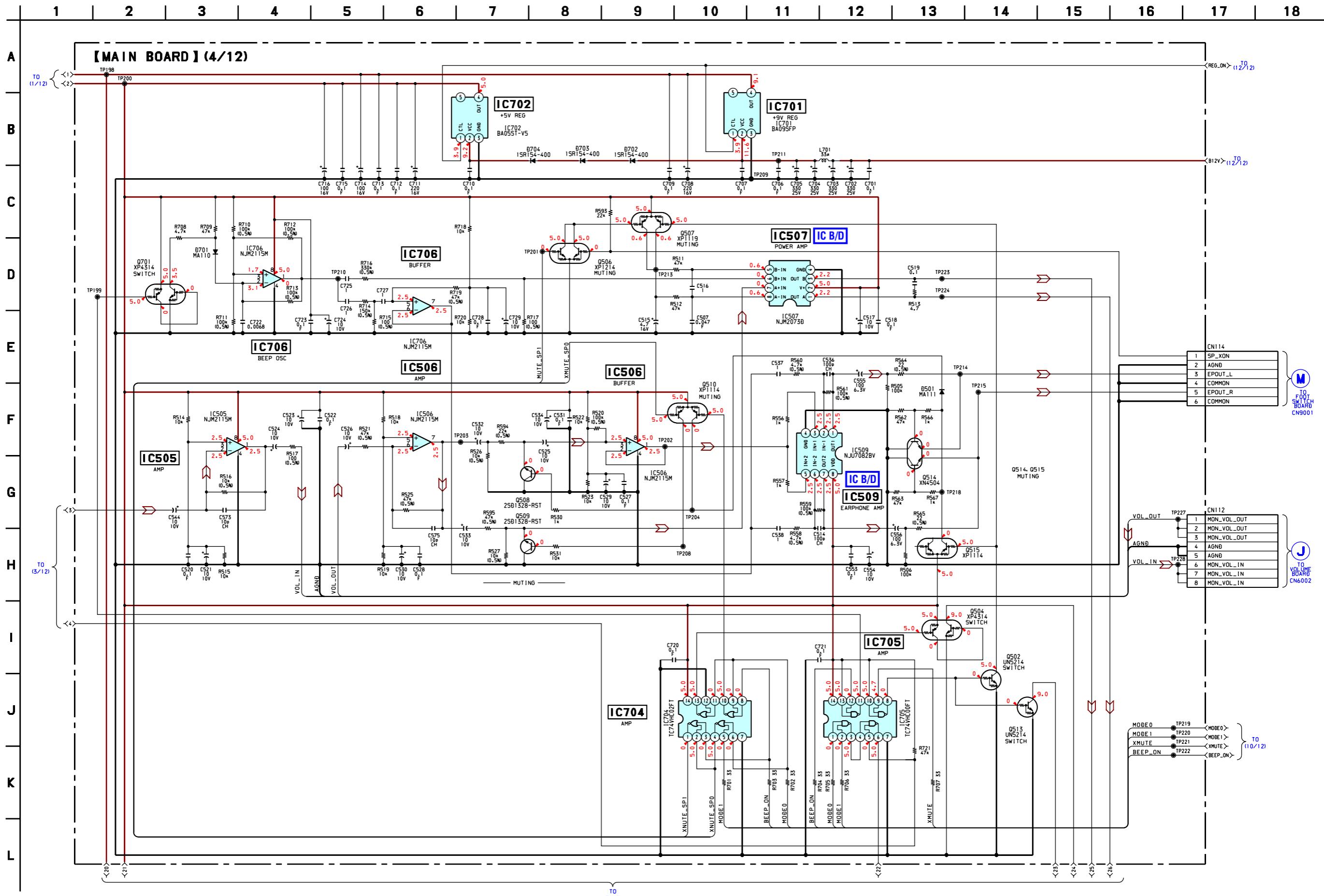
## 5-11. SCHEMATIC DIAGRAM MAIN SECTION (2/12)



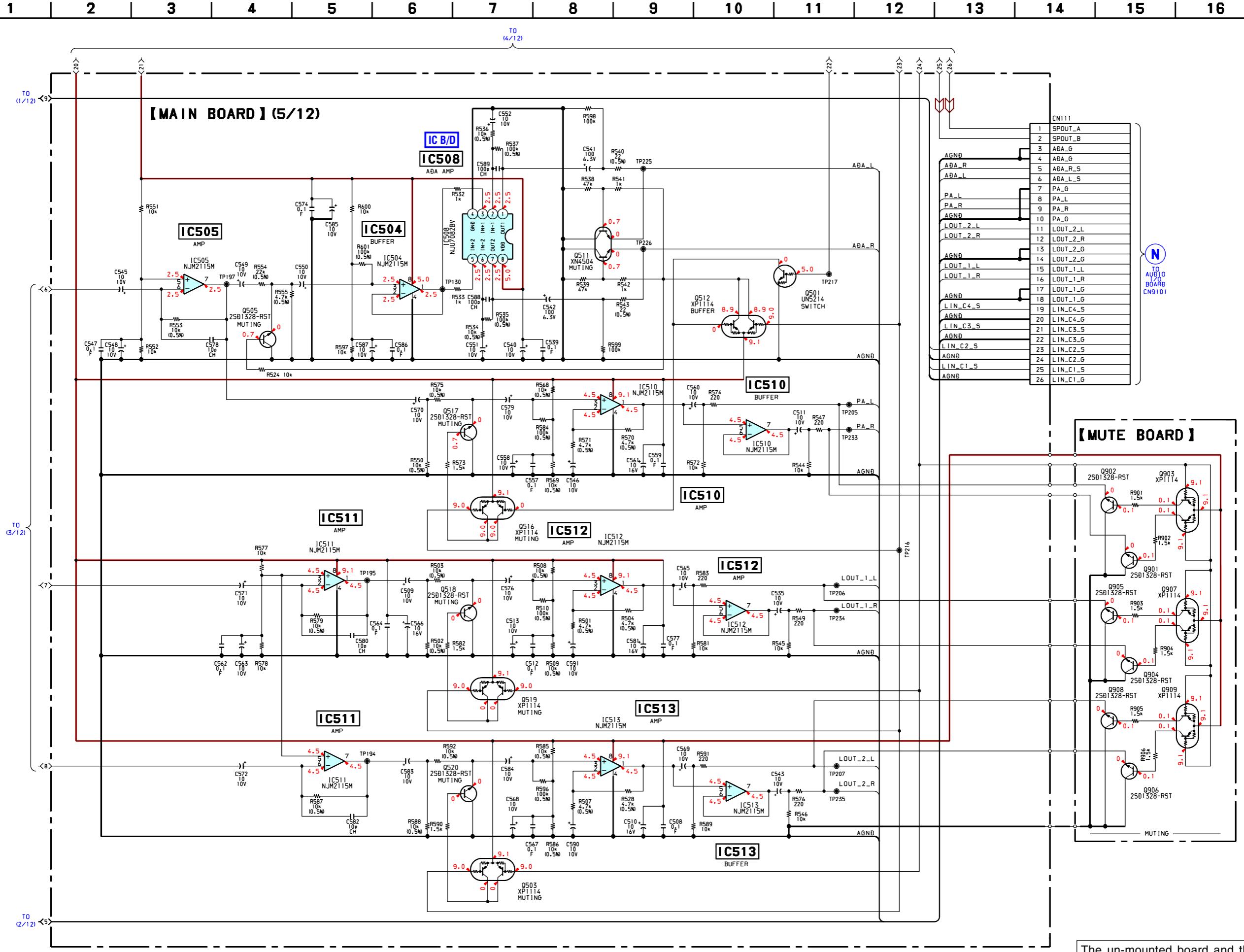
## 5-12. SCHEMATIC DIAGRAM MAIN SECTION (3/12)



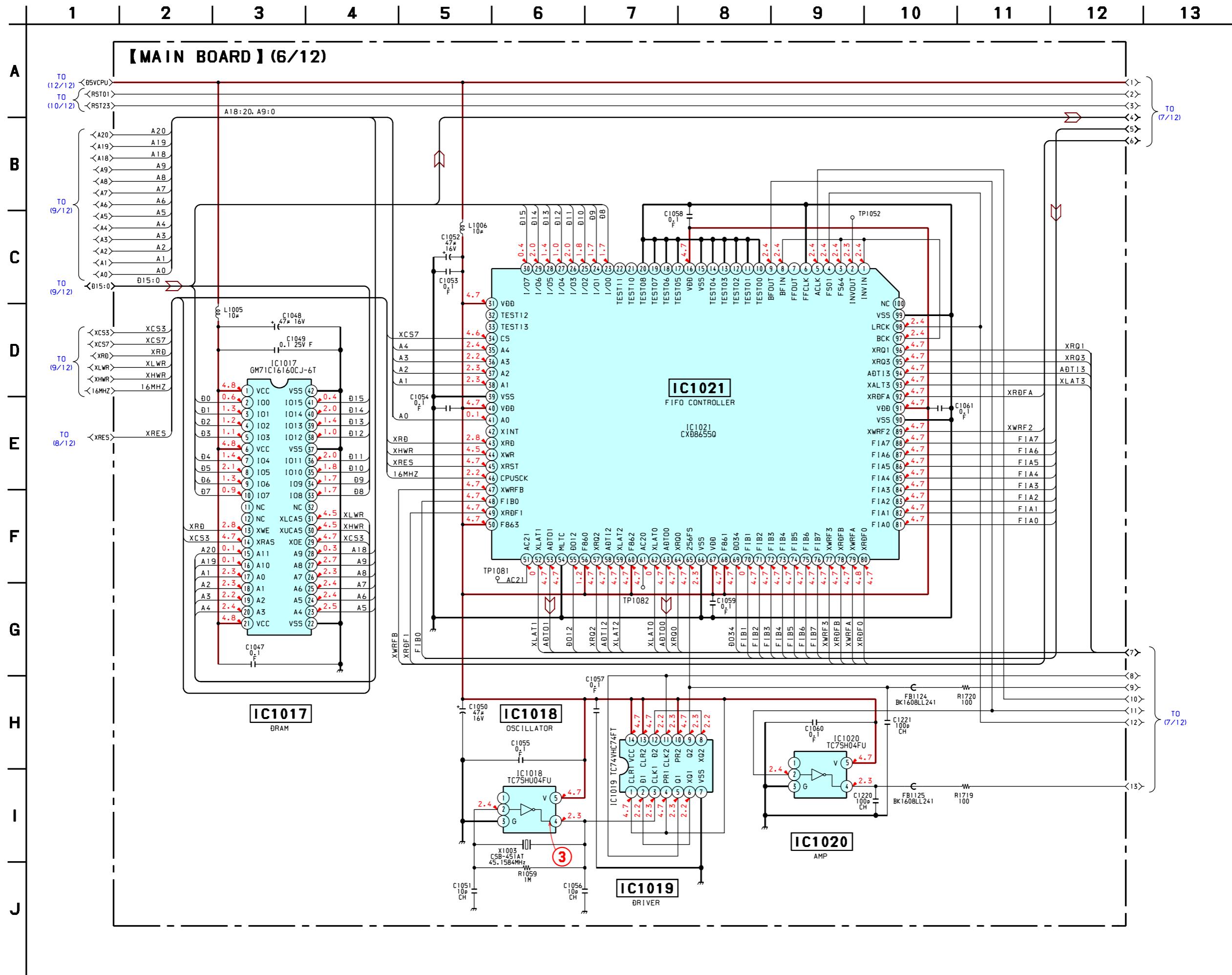
## 5-13. SCHEMATIC DIAGRAM MAIN SECTION (4/12) • See page 81, 84 for IC Block Diagrams.



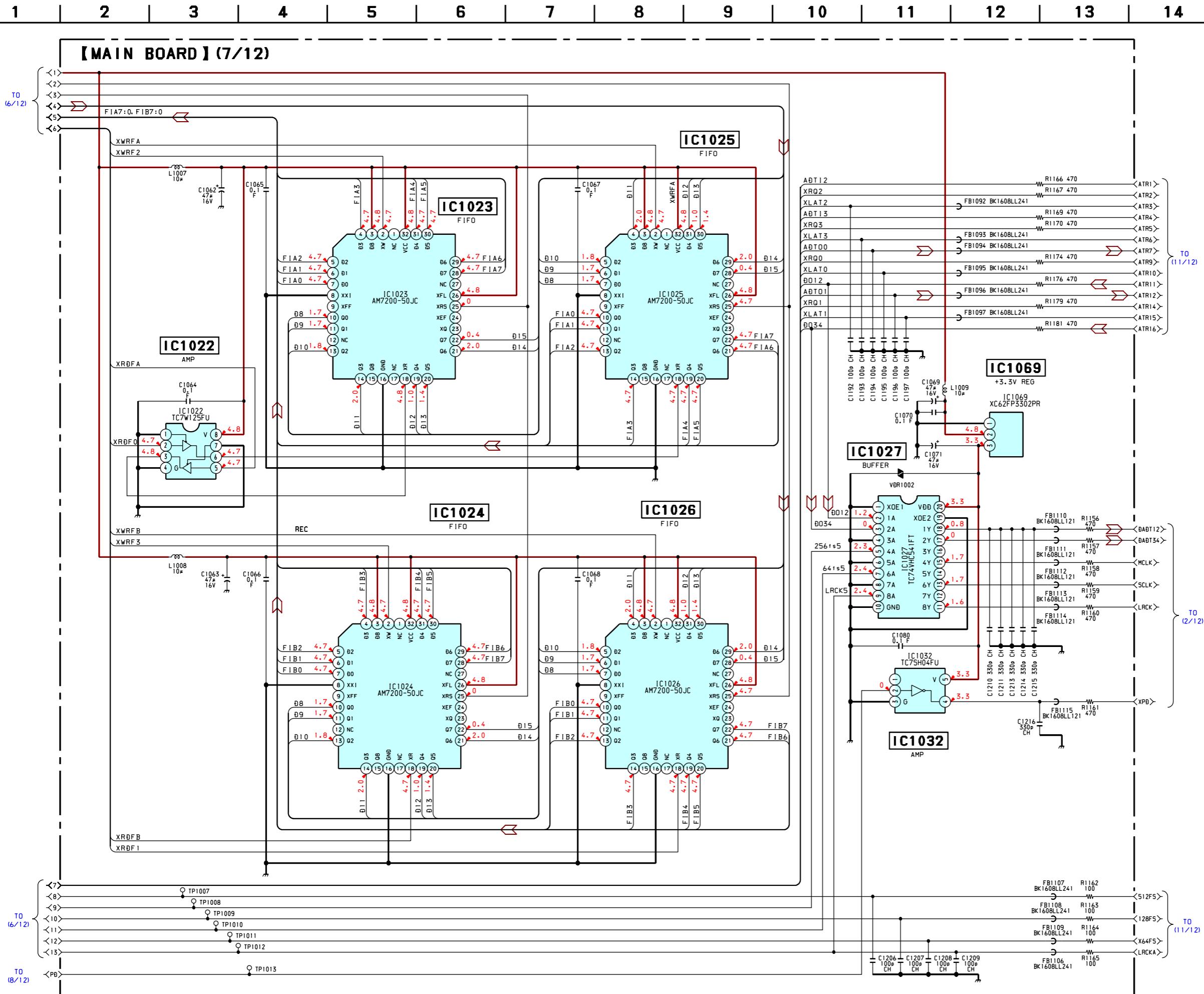
## 5-14. SCHEMATIC DIAGRAM MAIN SECTION (5/12) • See page 81 for IC Block Diagrams.



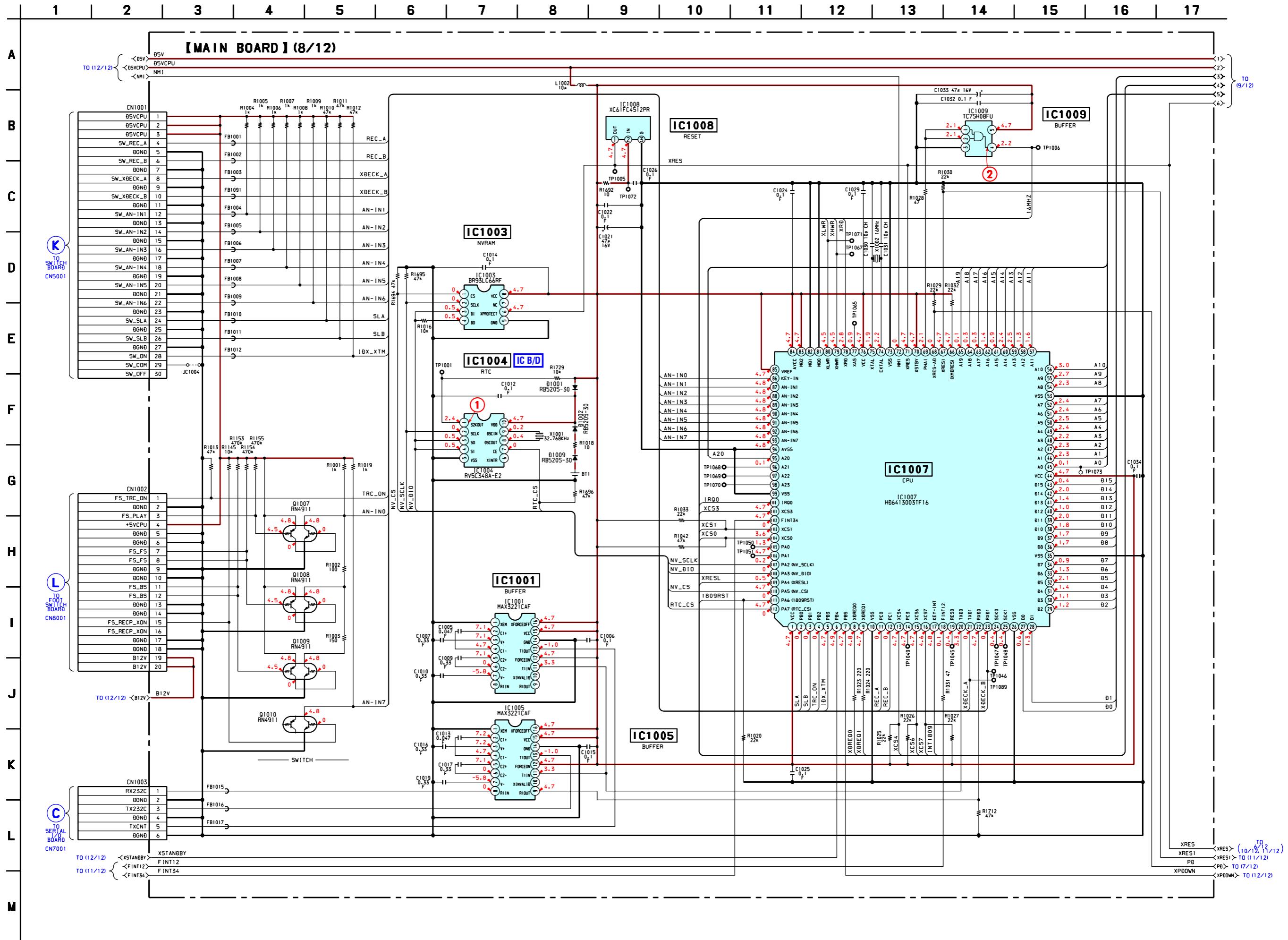
## 5-15. SCHEMATIC DIAGRAM MAIN SECTION (6/12) • See page 74 for IC Pin Function Description. • See page 28 for Waveforms.



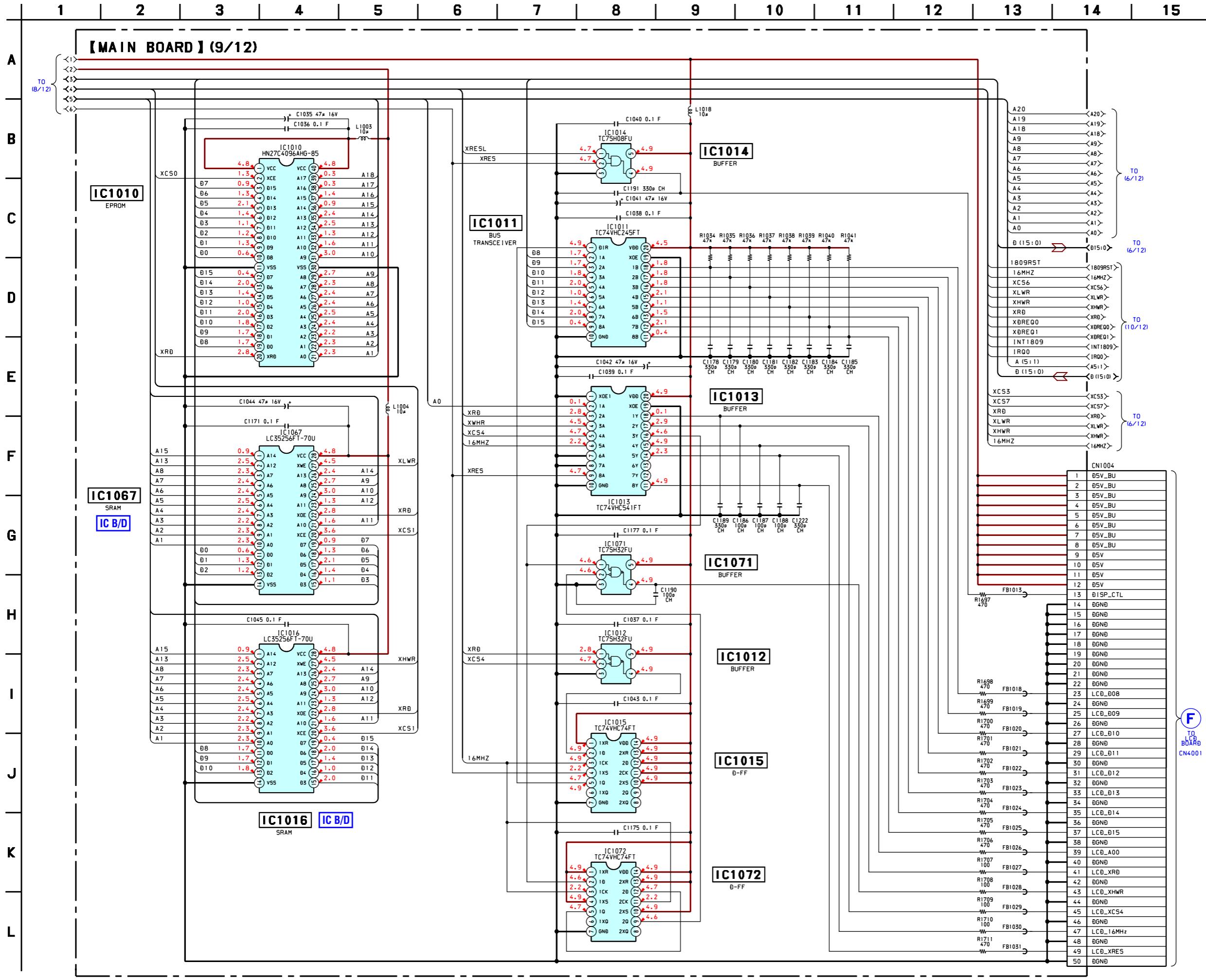
## 5-16. SCHEMATIC DIAGRAM MAIN SECTION (7/12)



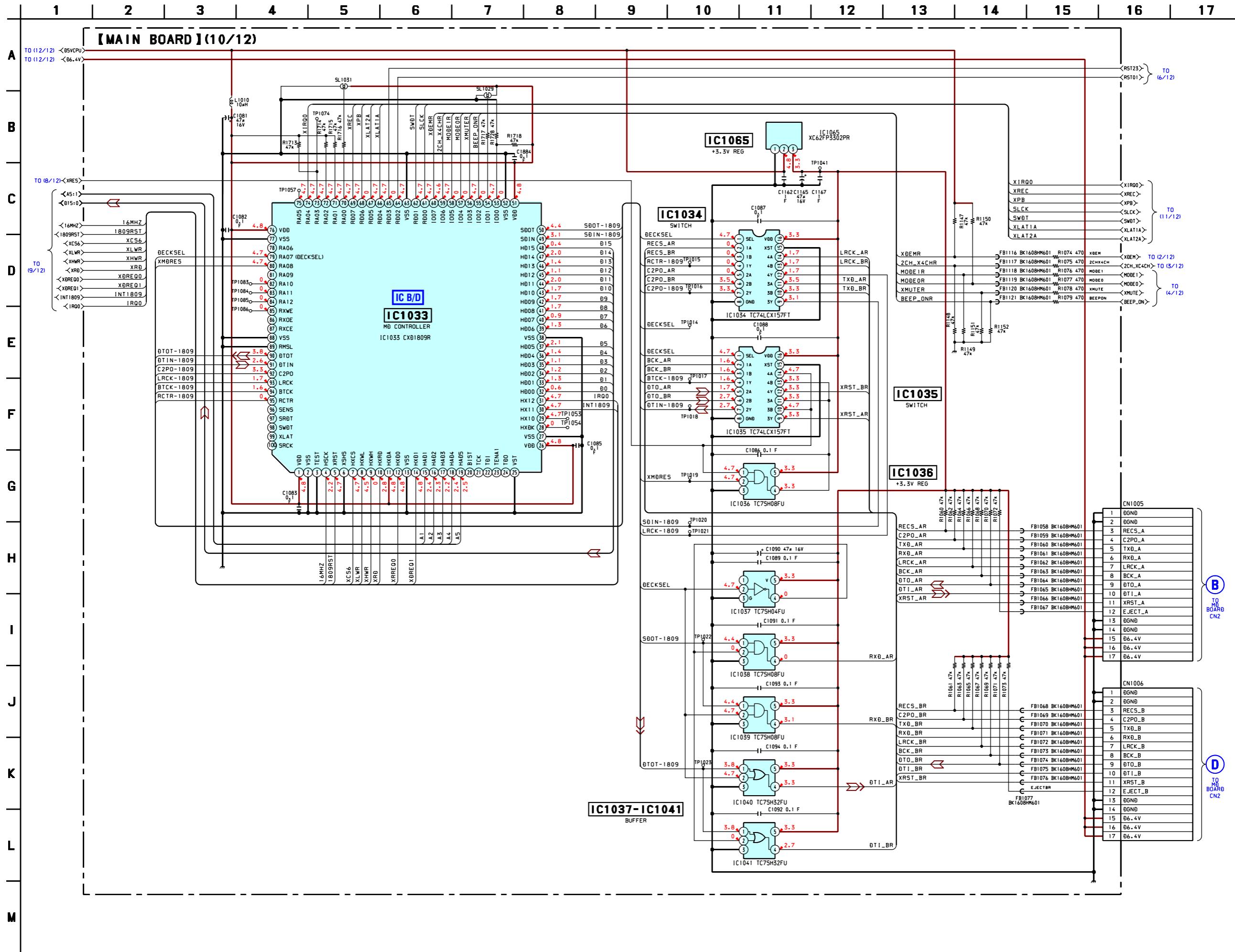
## 5-17. SCHEMATIC DIAGRAM MAIN SECTION (8/12) • See page 75 for IC Pin Function Description. • See page 28 for Waveforms.



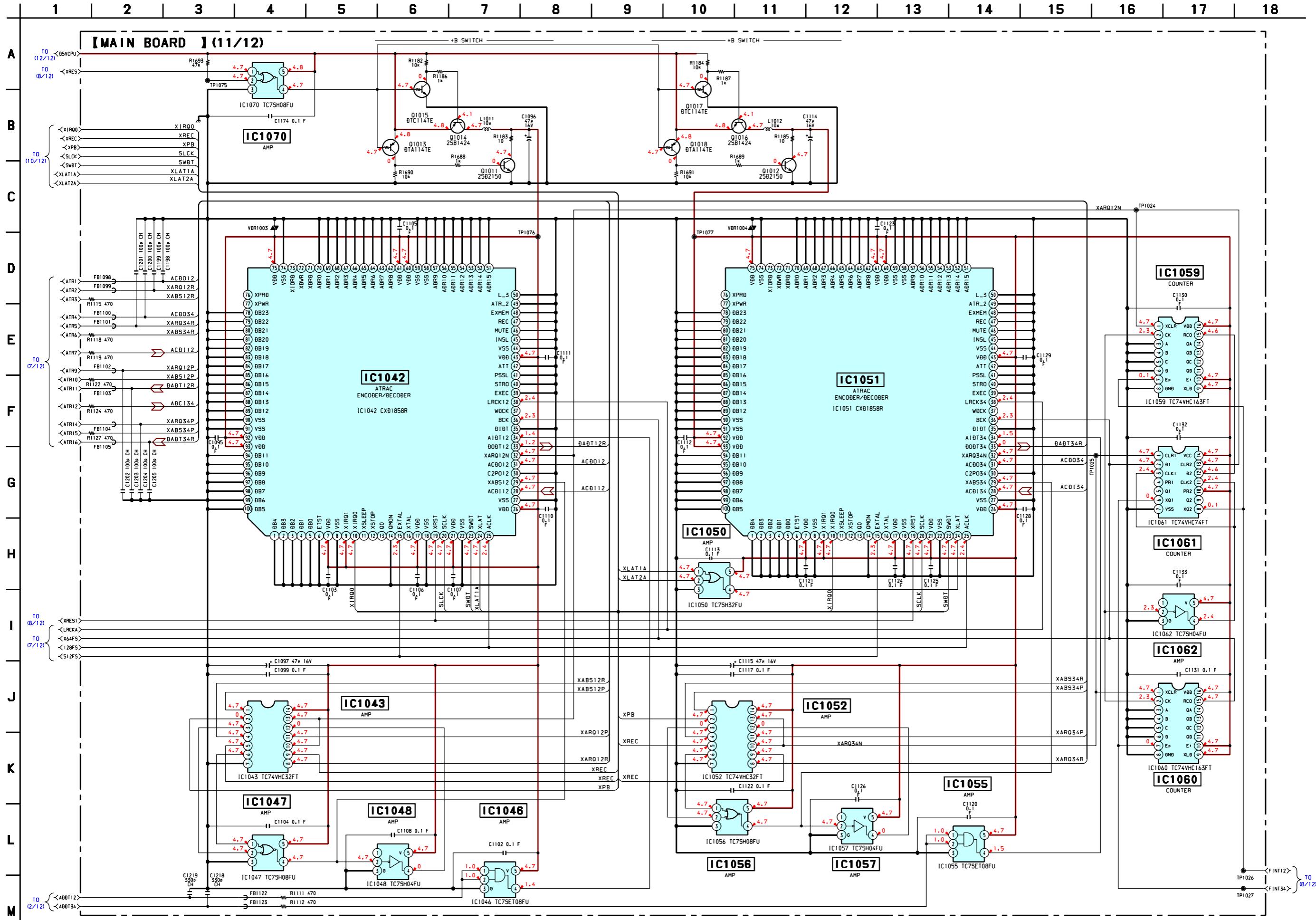
**5-18. SCHEMATIC DIAGRAM MAIN SECTION (9/12)** • See page 84 for IC Block Diagrams.



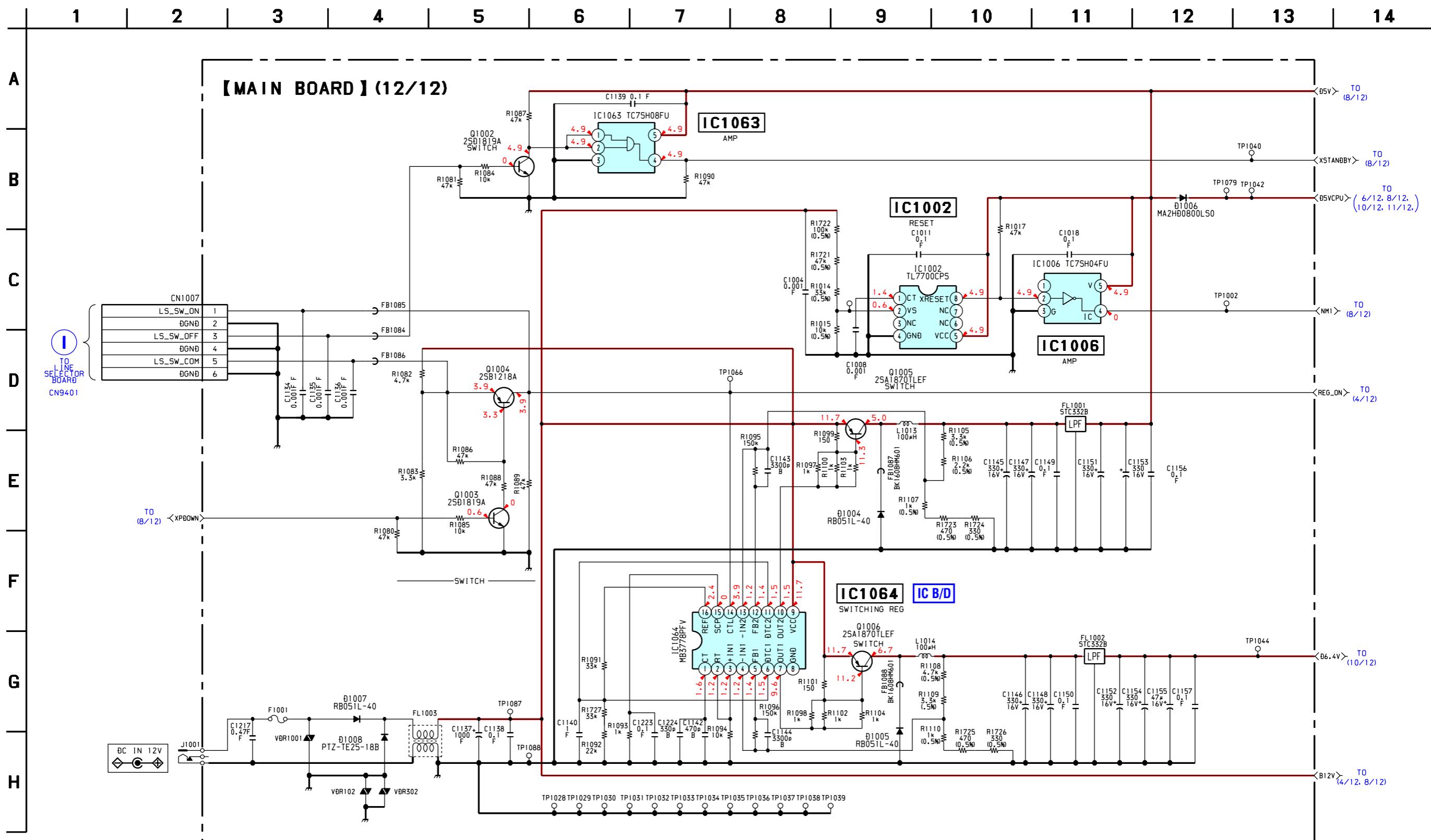
**5-19. SCHEMATIC DIAGRAM MAIN SECTION (10/12)** • See page 81, 82 for IC Block Diagrams



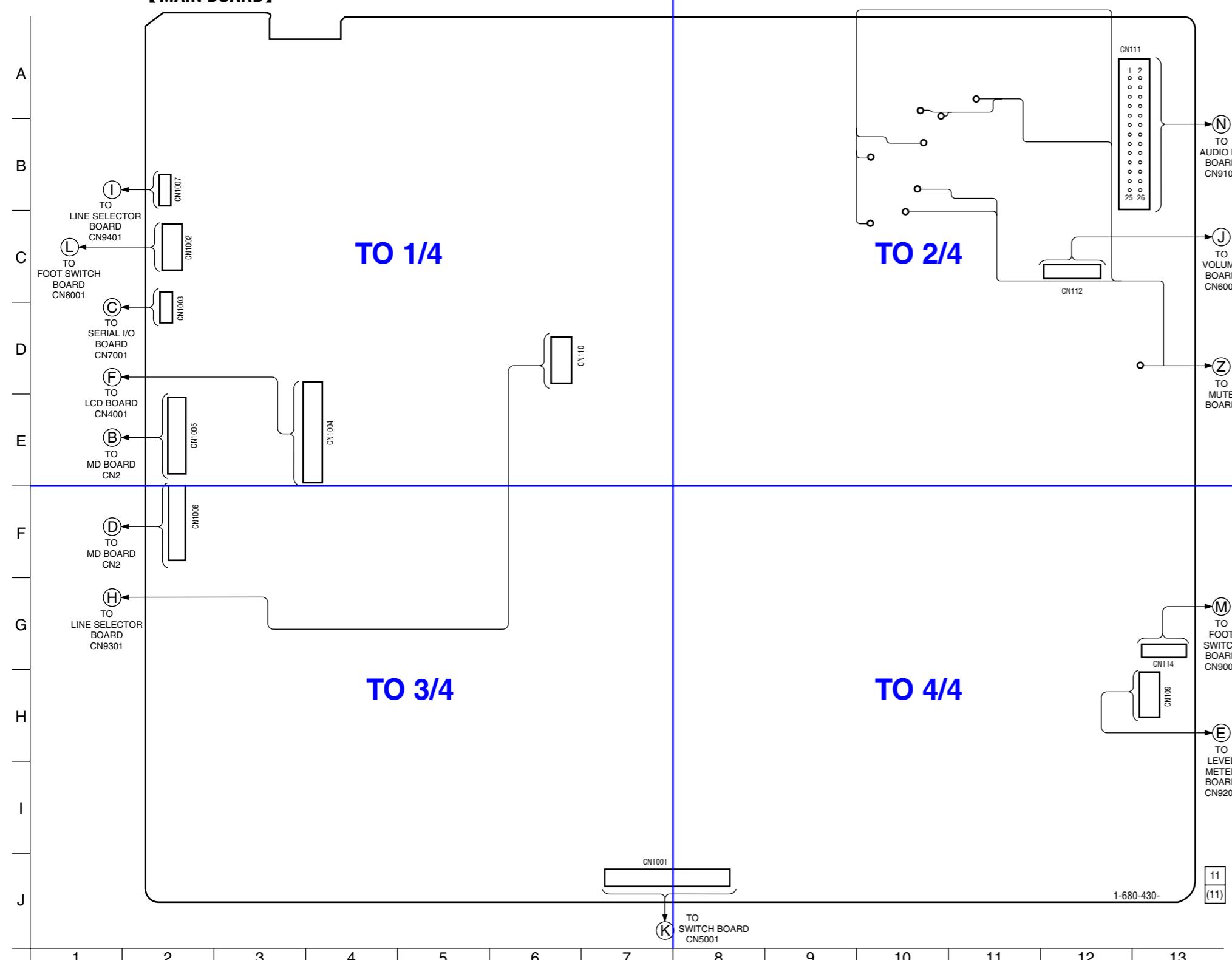
## 5-20. SCHEMATIC DIAGRAM MAIN SECTION (11/12)



## 5-21. SCHEMATIC DIAGRAM MAIN SECTION (12/12) • See page 83 for IC Block Diagrams.



## 【MAIN BOARD】

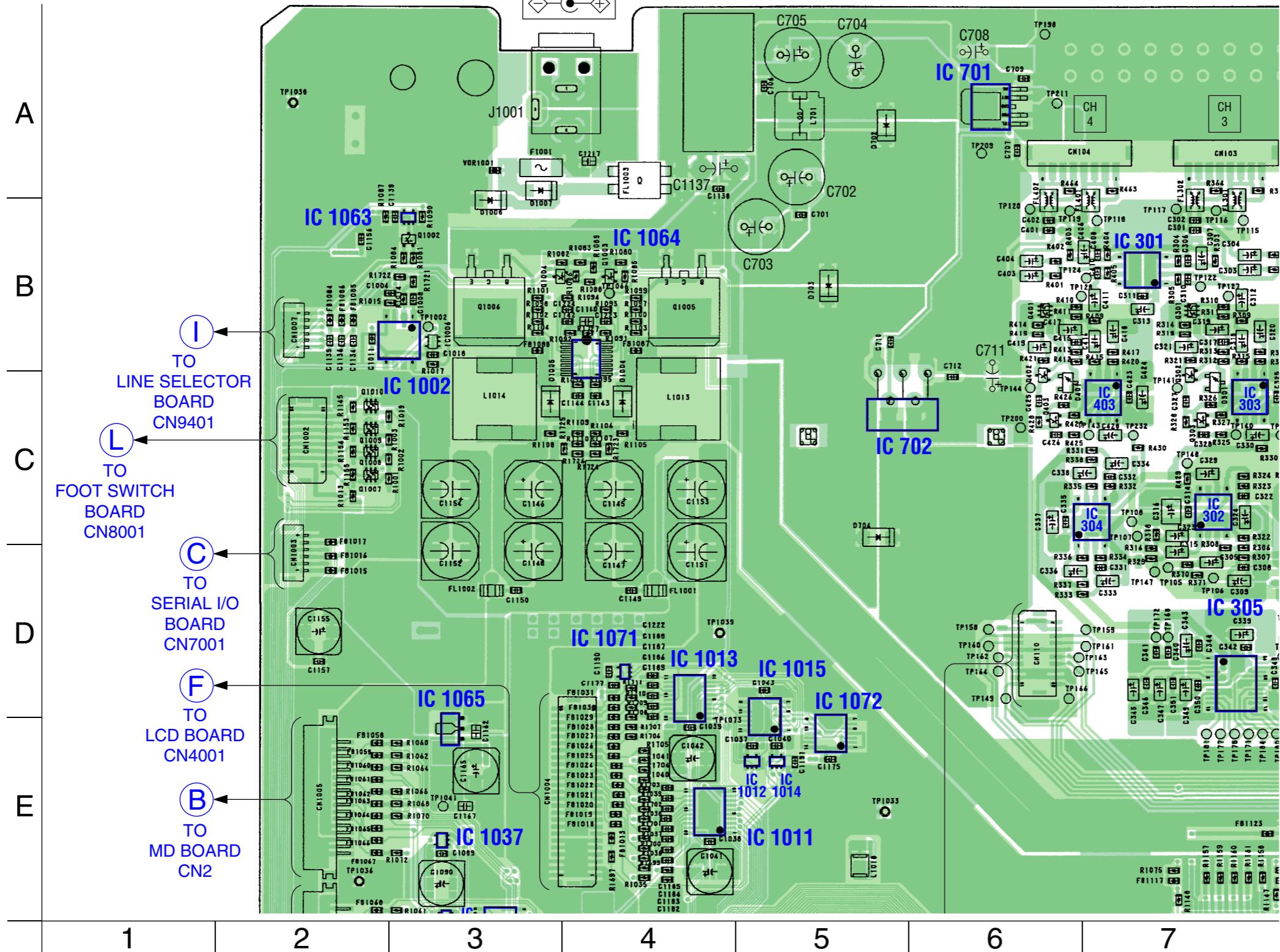


## • Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	B-9	IC1004	J-5	IC1071	D-4
D201	B-8	IC1005	H-6	IC1072	D-5
D301	B-7	IC1006	B-3		
D401	B-6	IC1007	H-5	Q101	B-9
D501	C-13	IC1008	I-2	Q102	B-9
D701	D-11	IC1009	H-3	Q103	B-9
D702	A-6	IC1010	G-5	Q201	B-8
D703	B-5	IC1011	E-5	Q202	B-8
D704	C-5	IC1012	E-5	Q203	C-8
D1001	J-5	IC1013	D-4	Q301	B-7
D1002	J-5	IC1014	E-5	Q302	B-7
D1004	C-4	IC1015	D-5	Q303	C-7
D1005	C-4	IC1016	F-7	Q401	B-6
D1006	H-3	IC1017	G-7	Q402	B-6
D1007	A-4	IC1018	I-6	Q403	C-6
D1008	B-3	IC1019	H-7	Q501	D-12
		IC1020	H-7	Q502	D-12
IC101	B-9	IC1021	H-7	Q503	B-10
IC102	C-9	IC1022	H-9	Q504	D-11
IC103	C-9	IC1023	G-9	Q505	B-11
IC104	C-8	IC1024	H-8	Q506	D-12
IC105	D-9	IC1025	G-8	Q507	B-12
IC106	D-9	IC1026	H-9	Q508	C-11
IC107	F-12	IC1027	G-9	Q509	A-12
IC203	C-8	IC1032	G-8	Q510	D-11
IC301	B-7	IC1033	F-4	Q511	A-11
IC302	C-7	IC1034	F-4	Q512	A-11
IC303	C-7	IC1035	F-3	Q513	D-13
IC304	C-7	IC1036	F-3	Q514	C-12
IC305	D-7	IC1037	E-3	Q515	C-13
IC306	C-9	IC1038	F-3	Q516	B-11
IC307	E-12	IC1039	F-3	Q517	B-11
IC403	C-7	IC1040	F-3	Q518	C-10
IC501	D-11	IC1041	F-3	Q519	B-10
IC502	E-10	IC1042	I-10	Q520	B-10
IC503	D-10	IC1043	I-11	Q701	D-11
IC504	B-11	IC1046	I-11	Q1002	B-3
IC505	C-10	IC1047	I-11	Q1003	B-4
IC506	B-11	IC1048	I-11	Q1004	B-4
IC507	A-12	IC1050	H-10	Q1005	B-4
IC508	A-10	IC1051	G-10	Q1006	B-3
IC509	D-12	IC1052	H-12	Q1007	C-3
IC510	B-10	IC1055	G-11	Q1008	C-3
IC511	C-10	IC1056	G-11	Q1009	C-3
IC512	B-10	IC1057	G-11	Q1010	C-3
IC513	B-10	IC1059	H-10	Q1011	H-10
IC701	A-6	IC1060	H-11	Q1012	G-10
IC702	C-5	IC1061	H-11	Q1013	I-10
IC703	E-8	IC1062	H-10	Q1014	H-10
IC704	D-12	IC1063	B-2	Q1015	I-10
IC705	D-12	IC1064	B-4	Q1016	G-10
IC706	D-11	IC1065	D-3	Q1017	G-10
IC1001	H-6	IC1067	F-6	Q1018	G-10
IC1002	C-3	IC1069	F-8		
IC1003	J-5	IC1070	I-10		

MAIN SECTION (1/4) •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.

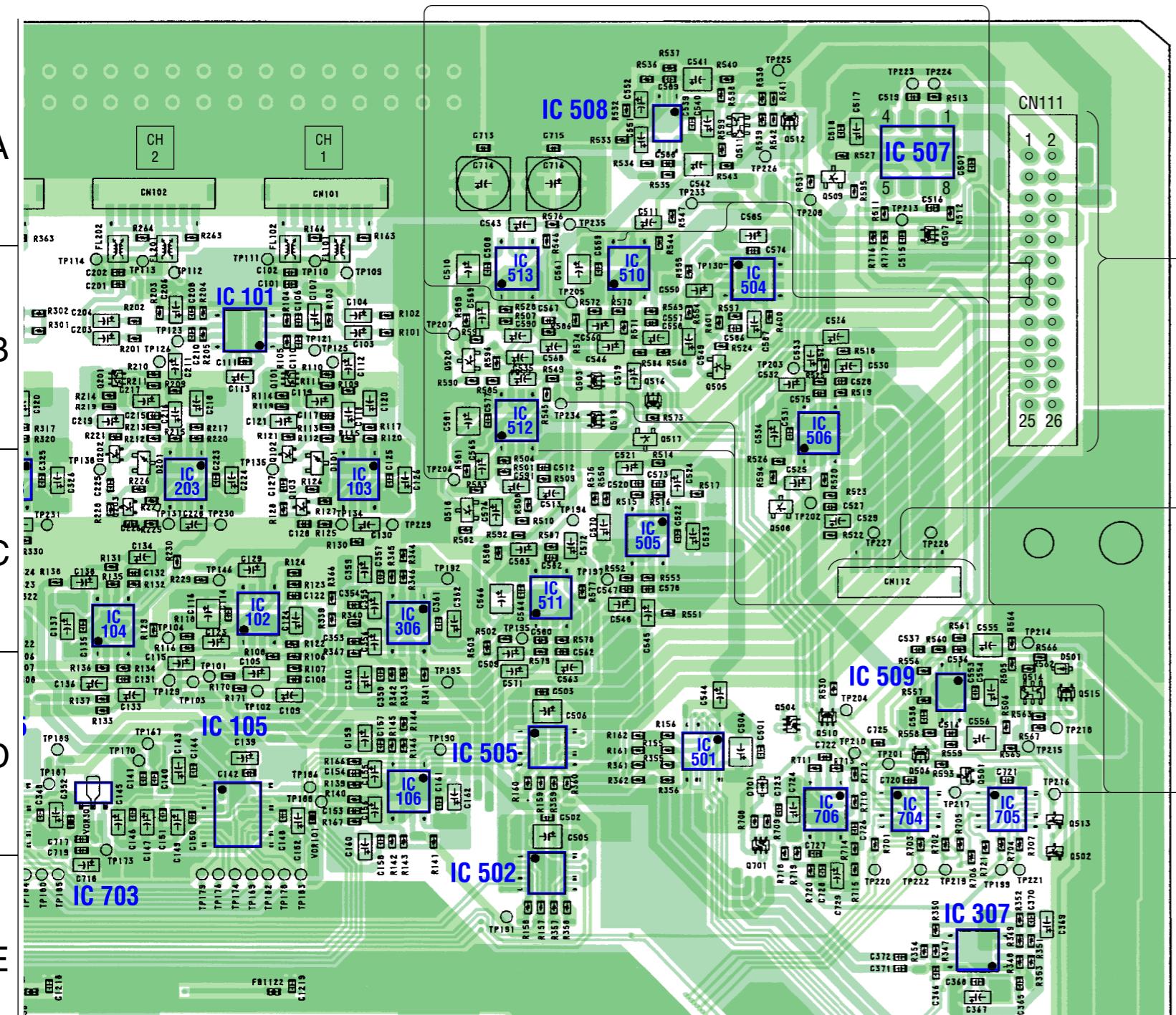
## 【 MAIN BOARD 】



### • Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	B-9	IC1004	J-5	IC1071	D-4
D201	B-8	IC1005	H-6	IC1072	D-5
D301	B-7	IC1006	B-3		
D401	B-6	IC1007	H-5	Q101	B-9
D501	C-13	IC1008	I-2	Q102	B-9
D701	D-11	IC1009	H-3	Q103	B-9
D702	A-6	IC1010	G-5	Q201	B-8
D703	B-5	IC1011	E-5	Q202	B-8
D704	C-5	IC1012	E-5	Q203	C-8
D1001	J-5	IC1013	D-4	Q301	B-7
D1002	J-5	IC1014	E-5	Q302	B-7
D1004	C-4	IC1015	D-5	Q303	C-7
D1005	C-4	IC1016	F-7	Q401	B-6
D1006	H-3	IC1017	G-7	Q402	B-6
D1007	A-4	IC1018	I-6	Q403	C-6
D1008	B-3	IC1019	H-7	Q501	D-12
		IC1020	H-7	Q502	D-13
		IC1021	H-7	Q503	B-10
		IC1022	H-9	Q504	D-11
		IC1023	G-9	Q505	B-11
		IC1024	H-8	Q506	D-12
		IC1025	G-8	Q507	B-12
		IC1026	H-9	Q508	C-11
		IC1027	G-9	Q509	A-12
		IC203	G-8	Q510	D-11
		IC301	B-7	Q511	A-11
		IC302	C-7	Q512	A-11
		IC303	C-7	Q513	D-13
		IC304	C-7	Q514	C-12
		IC305	D-7	Q515	C-13
		IC306	C-9	Q516	B-11
		IC307	E-12	Q517	B-11
		IC403	C-7	Q518	C-10
		IC501	D-11	Q519	B-10
		IC502	E-10	Q520	B-10
		IC503	D-10	Q701	D-11
		IC504	B-11	Q1002	B-3
		IC505	C-10	Q1003	B-4
		IC506	B-11	Q1004	B-4
		IC507	A-12	Q1005	B-4
		IC508	A-10	Q1006	B-3
		IC509	D-12	Q1007	C-3
		IC510	B-10	Q1008	C-3
		IC511	C-10	Q1009	C-3
		IC512	B-10	Q1010	C-3
		IC513	B-10	Q1011	H-10
		IC701	A-6	Q1012	G-10
		IC702	C-5	Q1013	I-10
		IC703	E-8	Q1014	H-10
		IC704	D-12	Q1015	I-10
		IC705	D-12	Q1016	G-10
		IC706	D-11	Q1017	G-10
		IC1001	H-6	Q1018	G-10
		IC1002	C-3		
		IC1003	J-5		
		IC1067	F-6		
		IC1069	F-8		
		IC1070	I-10		

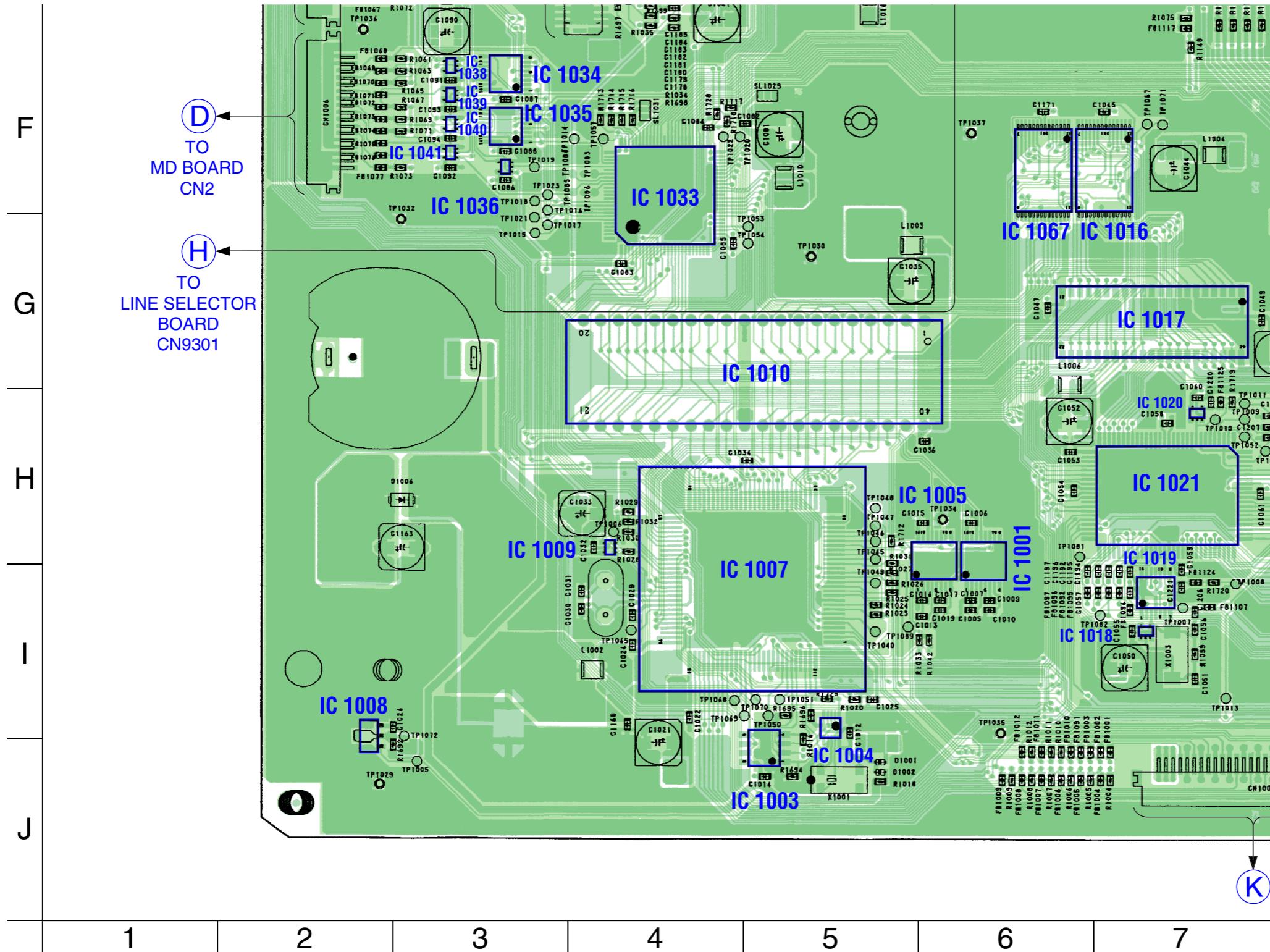
MAIN SECTION (2/4) •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	B-9	IC1004	J-5	IC1071	D-4
D201	B-8	IC1005	H-6	IC1072	D-5
D301	B-7	IC1006	B-3		
D401	B-6	IC1007	H-5	Q101	B-9
D501	C-13	IC1008	I-2	Q102	B-9
D701	D-11	IC1009	H-3	Q103	B-9
D702	A-6	IC1010	G-5	Q201	B-8
D703	B-5	IC1011	E-5	Q202	B-8
D704	C-5	IC1012	E-5	Q203	C-8
D1001	J-5	IC1013	D-4	Q301	B-7
D1002	J-5	IC1014	E-5	Q302	B-7
D1004	C-4	IC1015	D-5	Q303	C-7
D1005	C-4	IC1016	F-7	Q401	B-6
D1006	H-3	IC1017	G-7	Q402	B-6
D1007	A-4	IC1018	I-6	Q403	C-6
D1008	B-3	IC1019	H-7	Q501	D-12
		IC1020	H-7	Q502	D-13
		IC1021	H-7	Q503	B-10
		IC1022	H-9	Q504	D-11
		IC1023	G-9	Q505	B-11
		IC1024	H-8	Q506	D-12
		IC1025	G-8	Q507	B-12
		IC1026	H-9	Q508	C-11
		IC1027	G-9	Q509	A-12
		IC1028	G-8	Q510	D-11
		IC1031	B-7	Q511	A-11
		IC1032	F-4	Q512	A-11
		IC1033	C-7	Q513	D-13
		IC1034	C-7	Q514	C-12
		IC1035	C-7	Q515	C-13
		IC1036	C-7	Q516	B-11
		IC1037	D-7	Q517	B-11
		IC1038	C-9	Q518	C-10
		IC1039	E-12	Q519	B-10
		IC1040	C-7	Q520	B-10
		IC1041	D-11	Q521	I-10
		IC1042	E-10	Q522	I-11
		IC1043	D-10	Q523	D-11
		IC1044	B-11	Q524	B-3
		IC1045	C-10	Q525	B-4
		IC1046	C-10	Q526	B-4
		IC1047	B-11	Q527	B-4
		IC1048	B-11	Q528	B-4
		IC1049	A-12	Q529	B-4
		IC1050	A-10	Q530	B-3
		IC1051	D-12	Q531	C-3
		IC1052	B-10	Q532	C-3
		IC1053	C-10	Q533	C-3
		IC1054	B-11	Q534	C-3
		IC1055	C-10	Q535	C-3
		IC1056	B-10	Q536	C-3
		IC1057	B-10	Q537	C-3
		IC1058	B-10	Q538	H-10
		IC1059	A-6	Q539	H-10
		IC1060	C-5	Q540	G-10
		IC1061	E-8	Q541	I-10
		IC1062	D-12	Q542	H-10
		IC1063	B-12	Q543	I-10
		IC1064	D-11	Q544	G-10
		IC1065	H-6	Q545	D-3
		IC1066	C-3	Q546	F-6
		IC1067	J-5	Q547	I-10
		IC1068		Q548	G-10
		IC1069		Q549	G-10
		IC1070		Q550	G-10

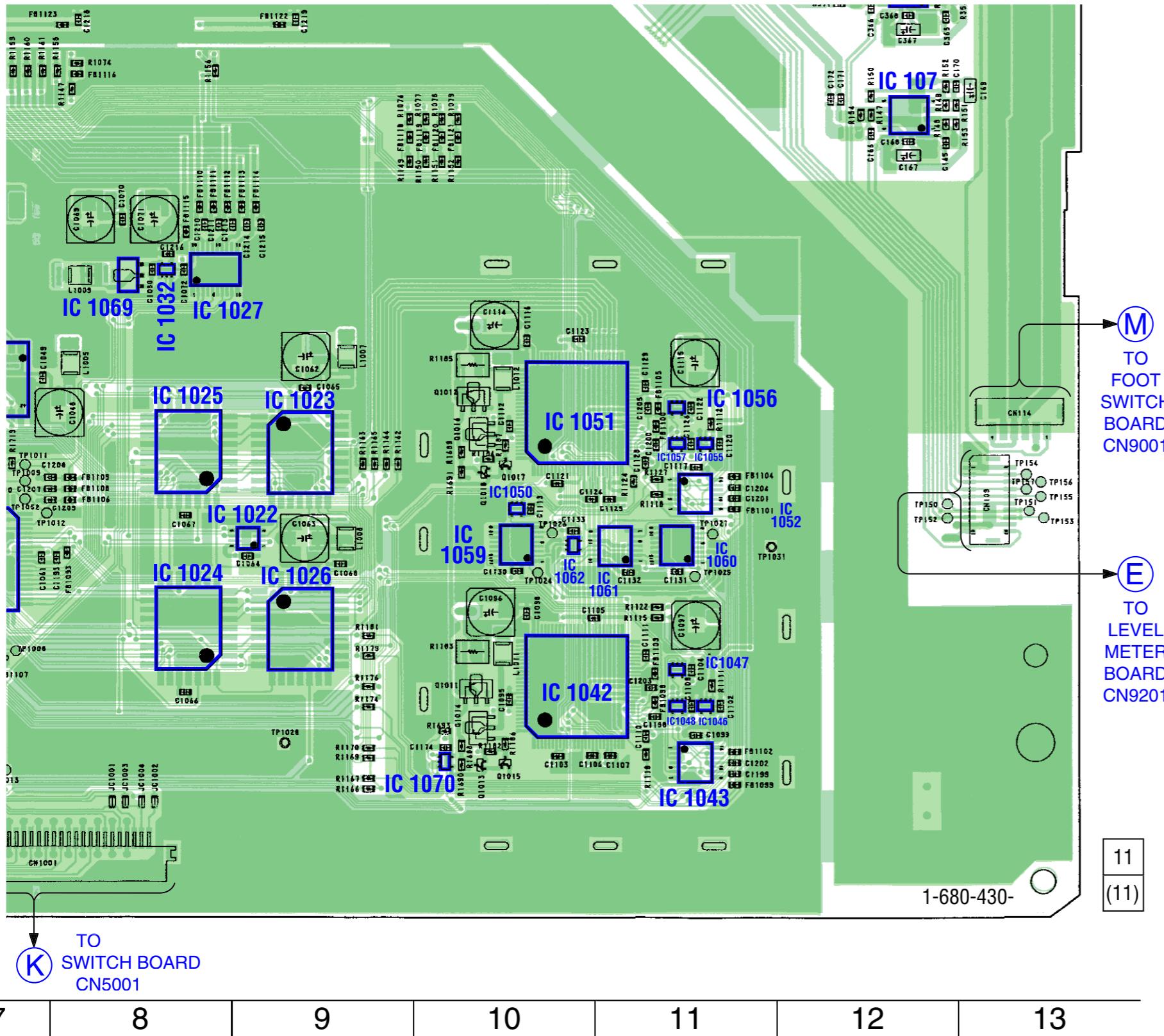
MAIN SECTION (3/4) •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	B-9	IC1004	J-5	IC1071	D-4
D201	B-8	IC1005	H-6	IC1072	D-5
D301	B-7	IC1006	B-3		
D401	B-6	IC1007	H-5	Q101	B-9
D501	C-13	IC1008	I-2	Q102	B-9
D701	D-11	IC1009	H-3	Q103	B-9
D702	A-6	IC1010	G-5	Q201	B-8
D703	B-5	IC1011	E-5	Q202	B-8
D704	C-5	IC1012	E-5	Q203	C-8
D1001	J-5	IC1013	D-4	Q301	B-7
D1002	J-5	IC1014	E-5	Q302	B-7
D1004	C-4	IC1015	D-5	Q303	C-7
D1005	C-4	IC1016	F-7	Q401	B-6
D1006	H-3	IC1017	G-7	Q402	B-6
D1007	A-4	IC1018	I-6	Q403	C-6
D1008	B-3	IC1019	H-7	Q501	D-12
		IC1020	H-7	Q502	D-13
IC101	B-9	IC1021	H-7	Q503	B-10
IC102	C-9	IC1022	H-9	Q504	D-11
IC103	C-9	IC1023	G-9	Q505	B-11
IC104	C-8	IC1024	H-8	Q506	D-12
IC105	D-9	IC1025	G-8	Q507	B-12
IC106	D-9	IC1026	H-9	Q508	C-11
IC107	F-12	IC1027	G-9	Q509	A-12
IC203	C-8	IC1032	G-8	Q510	D-11
IC301	B-7	IC1033	F-4	Q511	A-11
IC302	C-7	IC1034	F-4	Q512	A-11
IC303	C-7	IC1035	F-3	Q513	D-13
IC304	C-7	IC1036	F-3	Q514	C-12
IC305	D-7	IC1037	E-3	Q515	C-13
IC306	C-9	IC1038	F-3	Q516	B-11
IC307	E-12	IC1039	F-3	Q517	B-11
IC403	C-7	IC1040	F-3	Q518	C-10
IC501	D-11	IC1041	F-3	Q519	B-10
IC502	E-10	IC1042	I-10	Q520	B-10
IC503	D-10	IC1043	I-11	Q701	D-11
IC504	B-11	IC1046	I-11	Q1002	B-3
IC505	C-10	IC1047	I-11	Q1003	B-4
IC506	B-11	IC1048	I-11	Q1004	B-4
IC507	A-12	IC1050	H-10	Q1005	B-4
IC508	A-10	IC1051	G-10	Q1006	B-3
IC509	D-12	IC1052	H-12	Q1007	C-3
IC510	B-10	IC1055	G-11	Q1008	C-3
IC511	C-10	IC1056	G-11	Q1009	C-3
IC512	B-10	IC1057	G-11	Q1010	C-3
IC513	B-10	IC1059	H-10	Q1011	H-10
IC701	A-6	IC1060	H-11	Q1012	G-10
IC702	C-5	IC1061	H-11	Q1013	I-10
IC703	E-8	IC1062	H-10	Q1014	H-10
IC704	D-12	IC1063	B-2	Q1015	I-10
IC705	D-12	IC1064	B-4	Q1016	G-10
IC706	D-11	IC1065	D-3	Q1017	G-10
IC1001	H-6	IC1067	F-6	Q1018	G-10
IC1002	C-3	IC1069	F-8		
IC1003	J-5	IC1070	I-10		

MAIN SECTION (4/4) •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



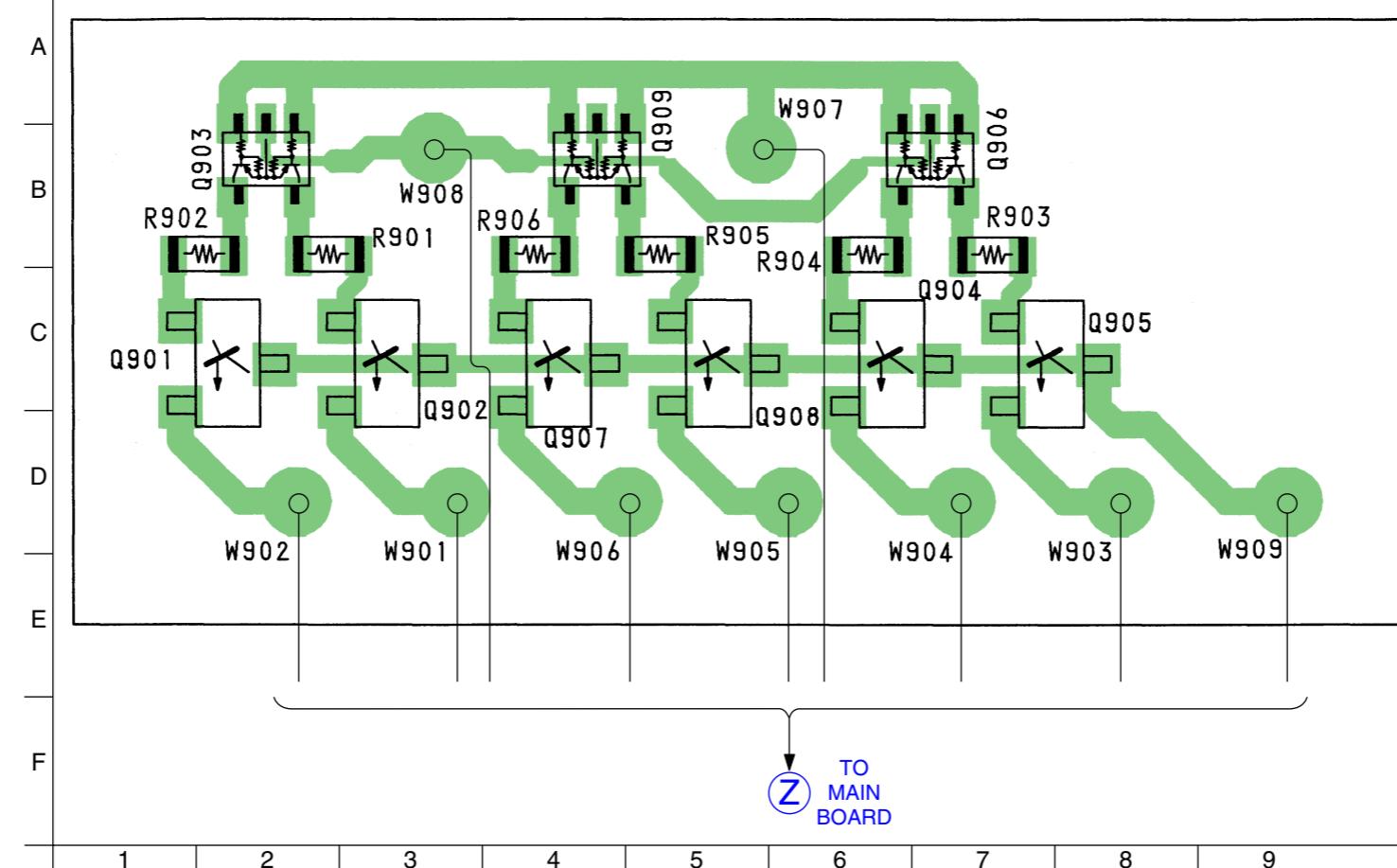
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D101	B-9	IC1004	J-5	IC1071	D-4
D201	B-8	IC1005	H-6	IC1072	D-5
D301	B-7	IC1006	B-3		
D401	B-6	IC1007	H-5	Q101	B-9
D501	C-13	IC1008	I-2	Q102	B-9
D701	D-11	IC1009	H-3	Q103	B-9
D702	A-6	IC1010	G-5	Q201	B-8
D703	B-5	IC1011	E-5	Q202	B-8
D704	C-5	IC1012	E-5	Q203	C-8
D1001	J-5	IC1013	D-4	Q301	B-7
D1002	J-5	IC1014	E-5	Q302	B-7
D1004	C-4	IC1015	D-5	Q303	C-7
D1005	C-4	IC1016	F-7	Q401	B-6
D1006	H-3	IC1017	G-7	Q402	B-6
D1007	A-4	IC1018	I-6	Q403	C-6
D1008	B-3	IC1019	H-7	Q501	D-12
		IC1020	H-7	Q502	D-13
		IC1021	H-7	Q503	B-10
		IC1022	H-9	Q504	D-11
		IC1023	G-9	Q505	B-11
		IC1024	H-8	Q506	D-12
		IC1025	G-8	Q507	B-12
		IC1026	H-9	Q508	C-11
		IC1027	G-9	Q509	A-12
		IC1028	G-8	Q510	D-11
		IC1031	F-7	Q511	A-11
		IC1032	F-7	Q512	A-11
		IC1034	F-4	Q513	D-13
		IC1035	F-3	Q514	C-12
		IC1036	F-3	Q515	C-13
		IC1037	E-3	Q516	B-11
		IC1038	F-3	Q517	B-11
		IC1039	F-3	Q518	C-10
		IC1040	F-3	Q519	B-10
		IC1041	F-3	Q520	B-10
		IC1042	I-10	Q521	D-11
		IC1043	I-11	Q701	D-11
		IC1046	I-11	Q1002	B-3
		IC1047	I-11	Q1003	B-4
		IC1048	I-11	Q1004	B-4
		IC1050	H-10	Q1005	B-4
		IC1051	G-10	Q1006	B-3
		IC1052	H-12	Q1007	C-3
		IC1055	G-11	Q1008	C-3
		IC1056	G-11	Q1009	C-3
		IC1057	G-11	Q1010	C-3
		IC1059	H-10	Q1011	H-10
		IC1060	H-11	Q1012	G-10
		IC1061	H-11	Q1013	I-10
		IC1062	H-10	Q1014	H-10
		IC1063	B-2	Q1015	I-10
		IC1064	B-4	Q1016	G-10
		IC1065	D-3	Q1017	G-10
IC1001	H-6	IC1067	F-6	Q1018	G-10
IC1002	C-3	IC1069	F-8		
IC1003	J-5	IC1070	I-10		

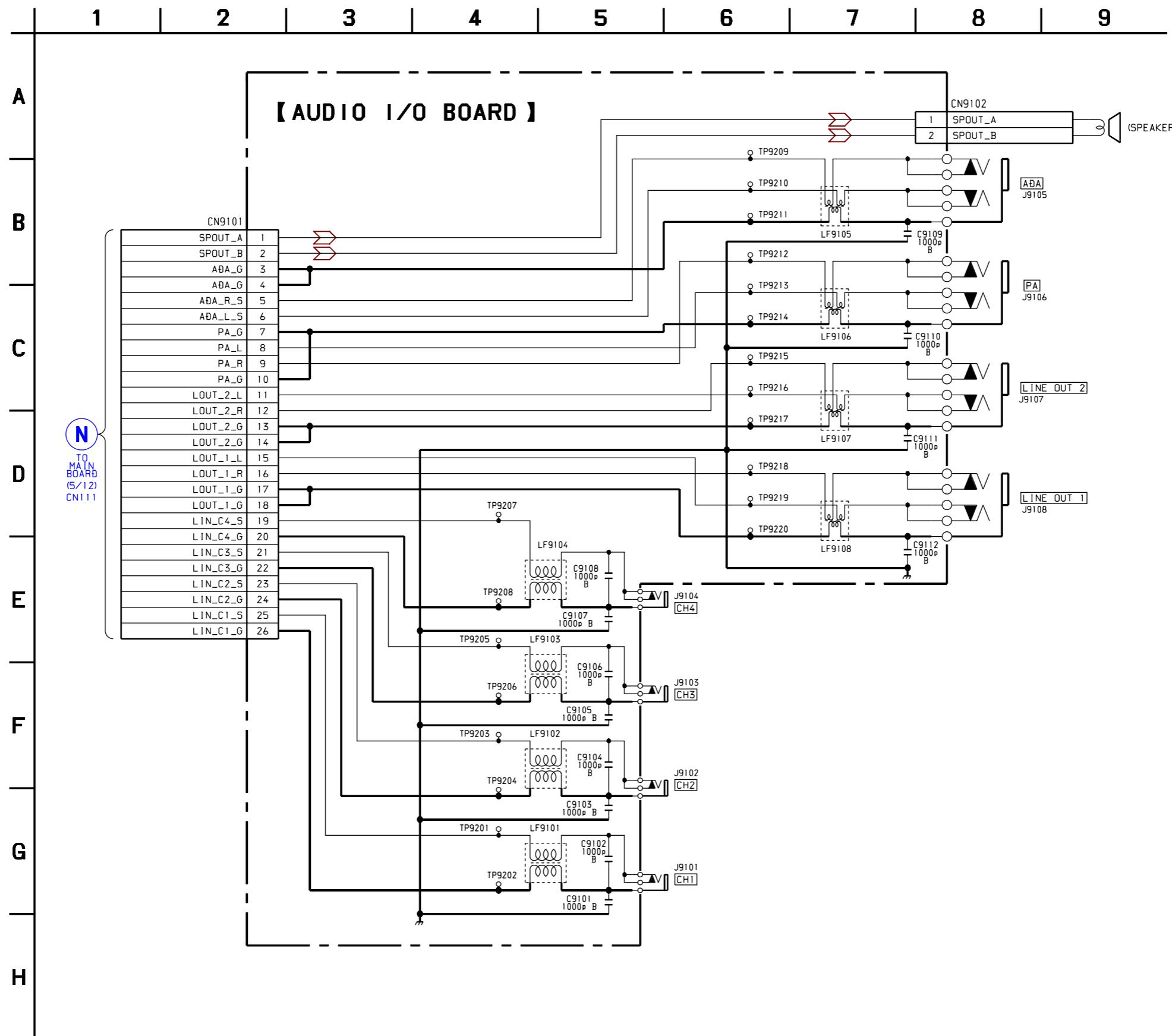
**5-23. PRINTED WIRING BOARD MUTE SECTION** •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.

The un-mounted board and the mounted board of the MUTE BOARD are not supplied.  
Only the mounted parts are supplied.

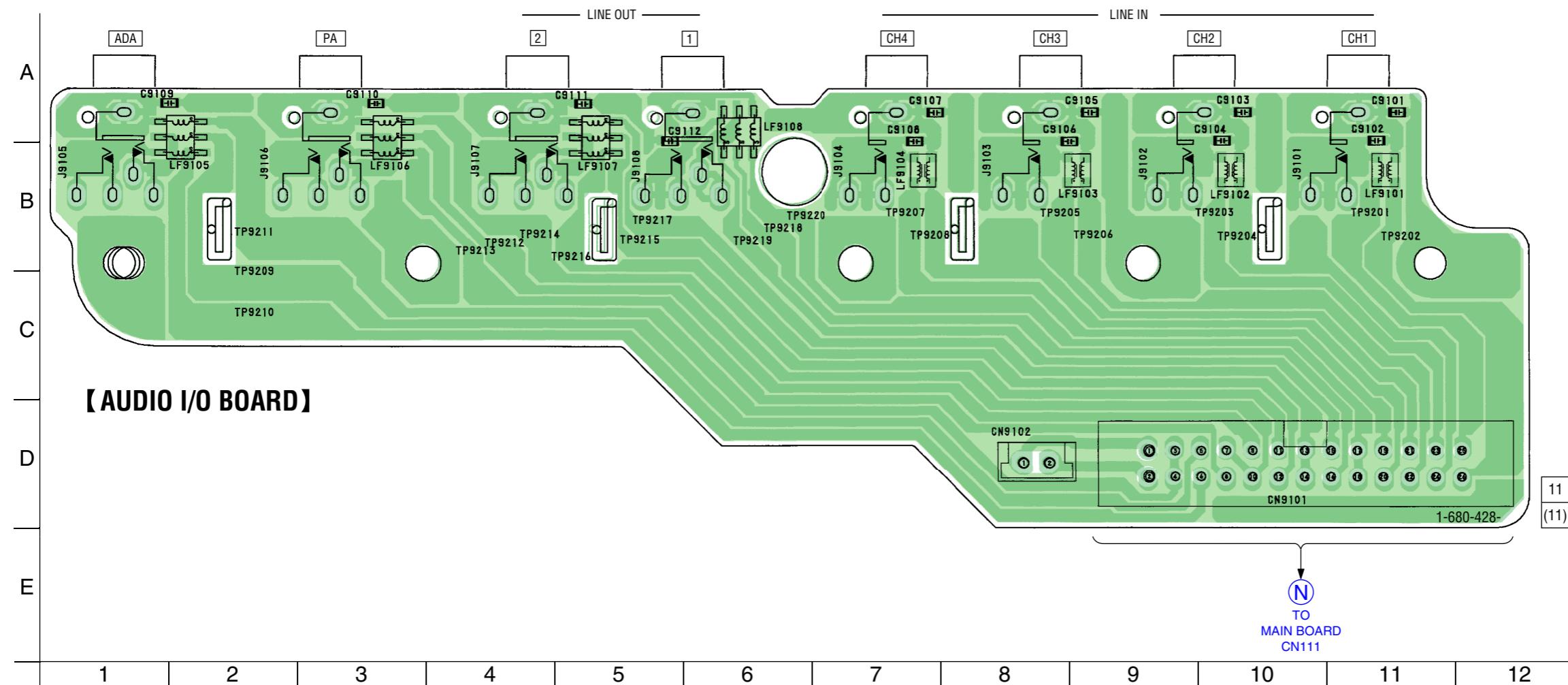
**[MUTE BOARD]**



## 5-24. SCHEMATIC DIAGRAM AUDIO SECTION



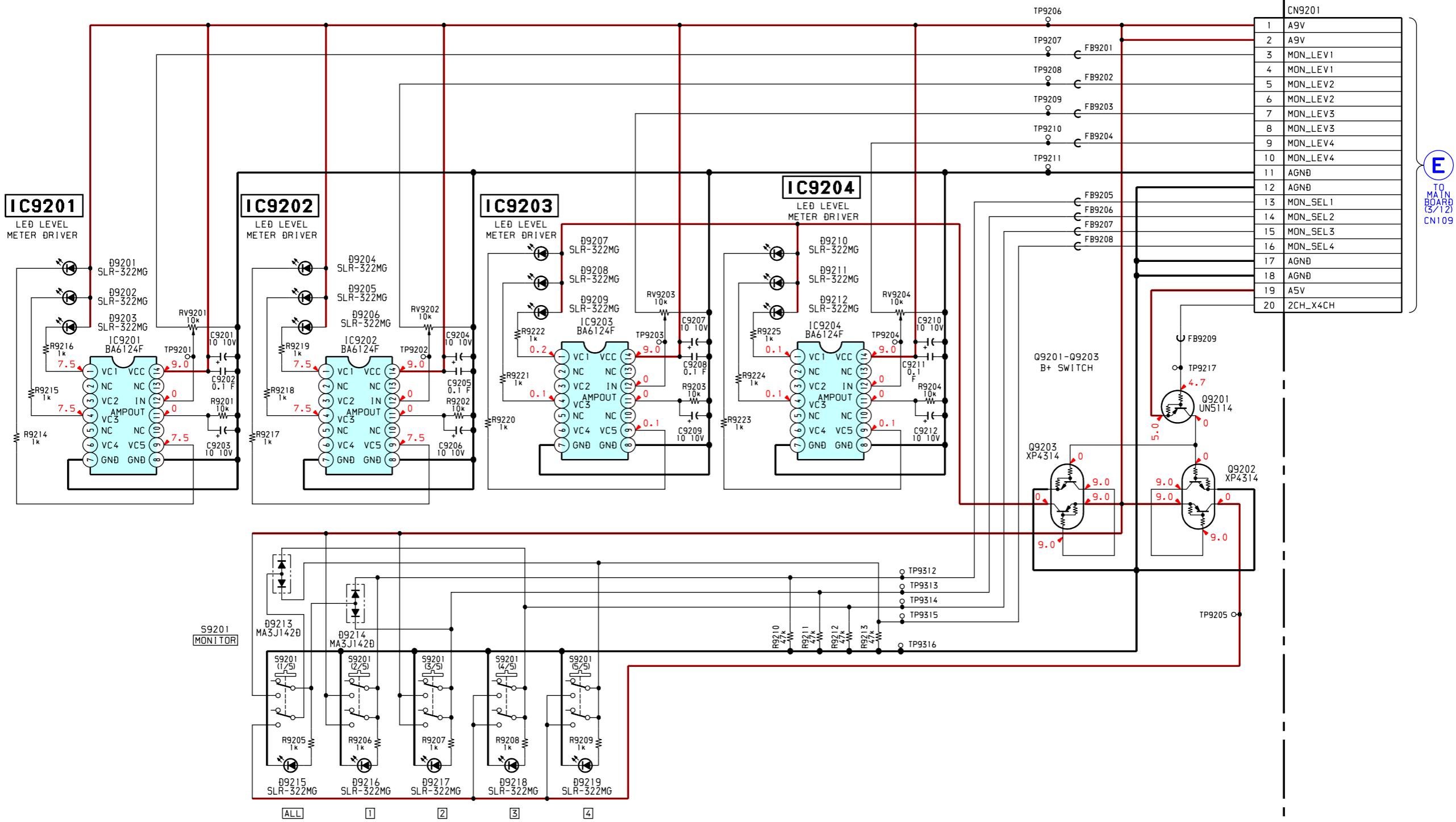
5-25. PRINTED WIRING BOARD AUDIO SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



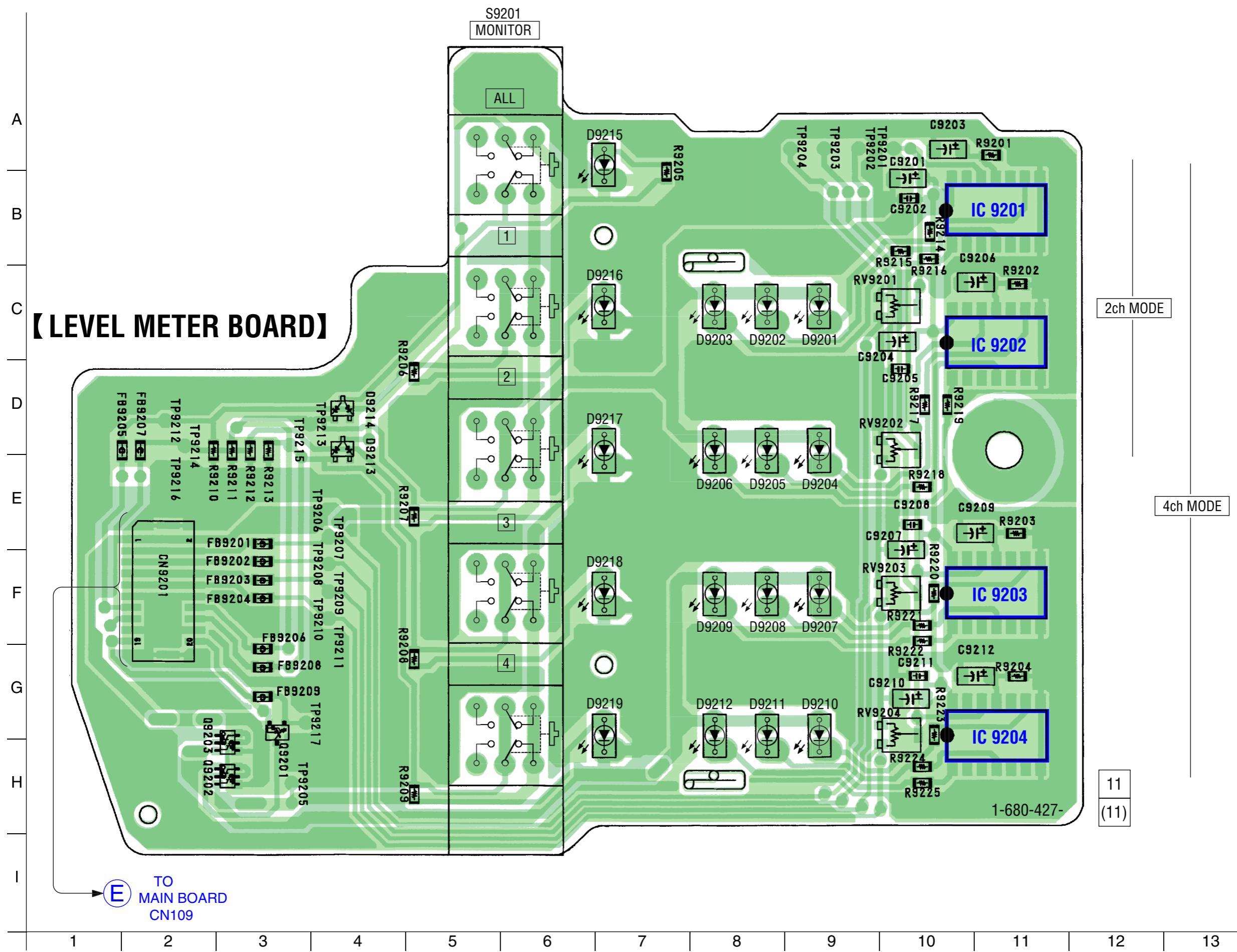
## 5-26. SCHEMATIC DIAGRAM LEVEL METER SECTION

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13

## A [ LEVEL METER BOARD ]

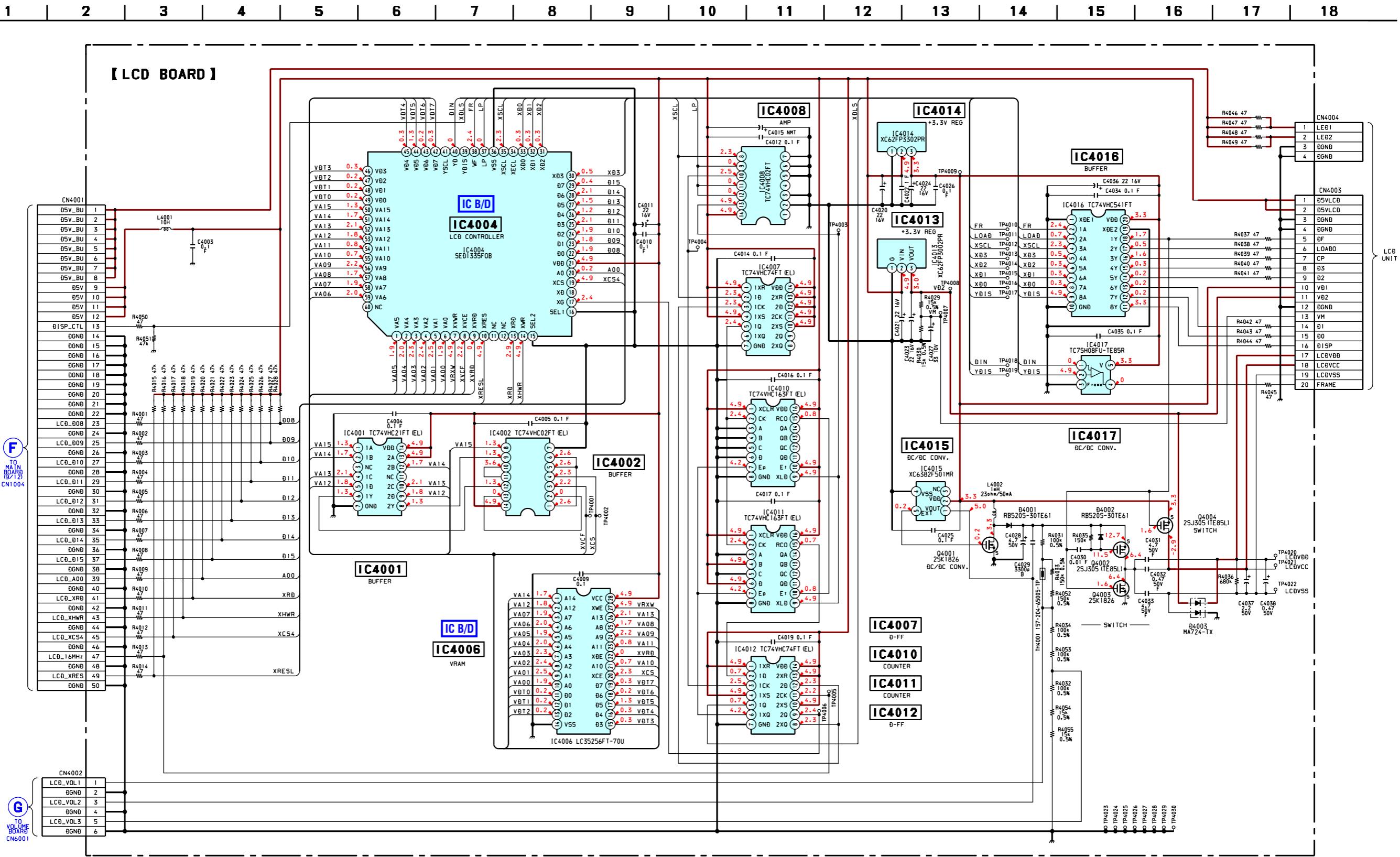


5-27. PRINTED WIRING BOARD LEVEL METER SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



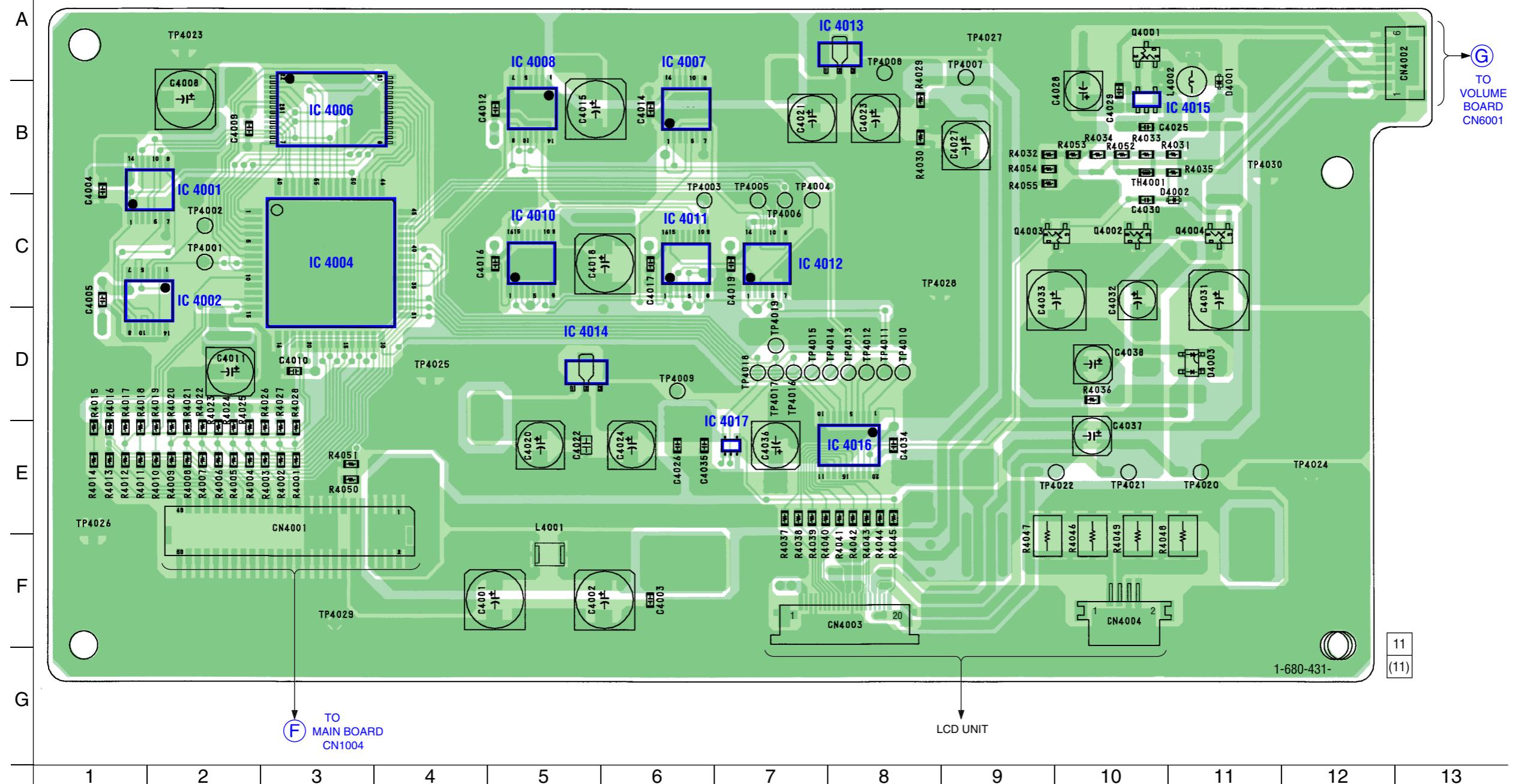
## **5-28. SCHEMATIC DIAGRAM LCD SECTION** • See page 79 for IC Block Diagrams.

See page 79 for IC Block Diagrams



5-29. PRINTED WIRING BOARD LCD SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.

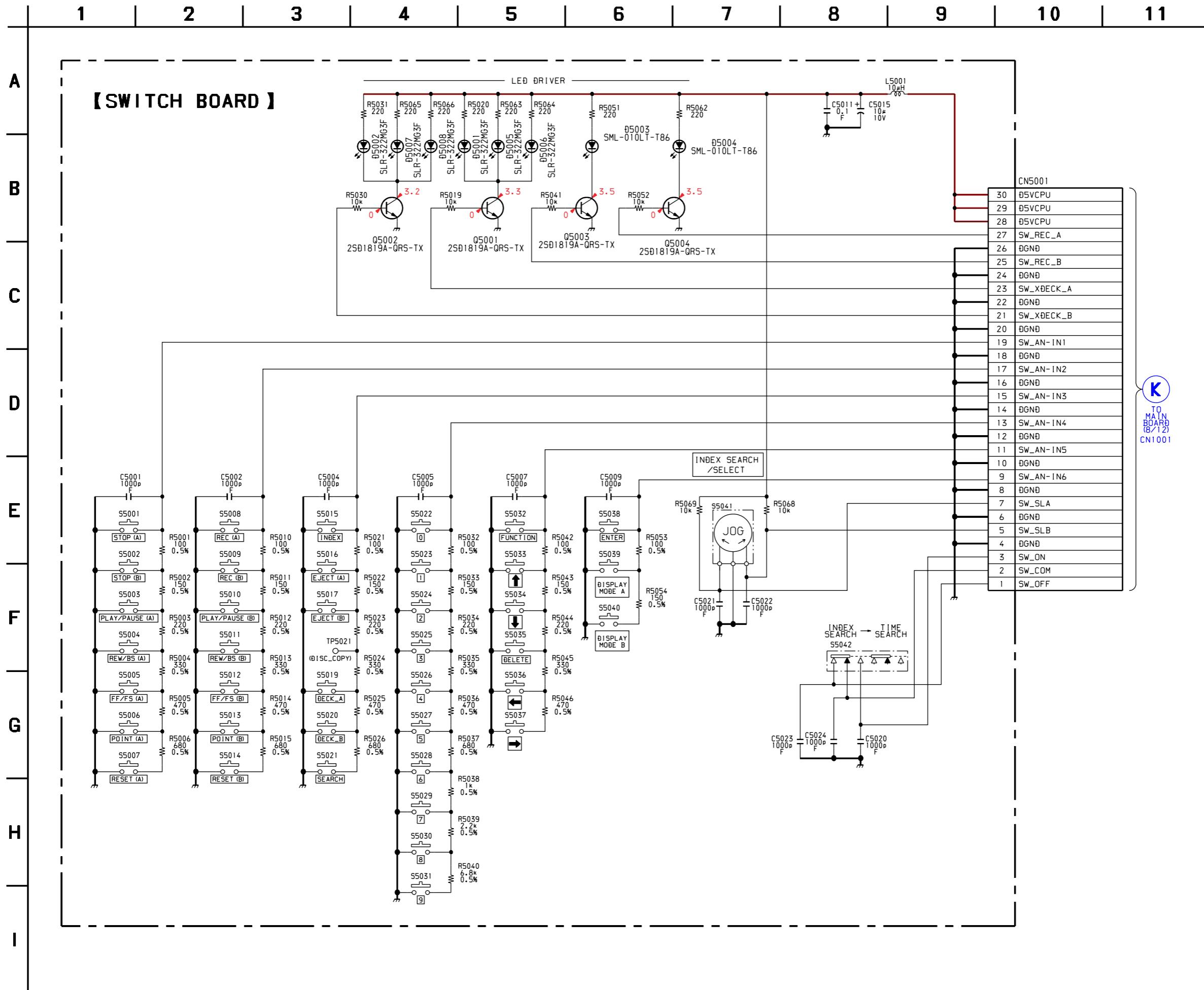
### LCD BOARD

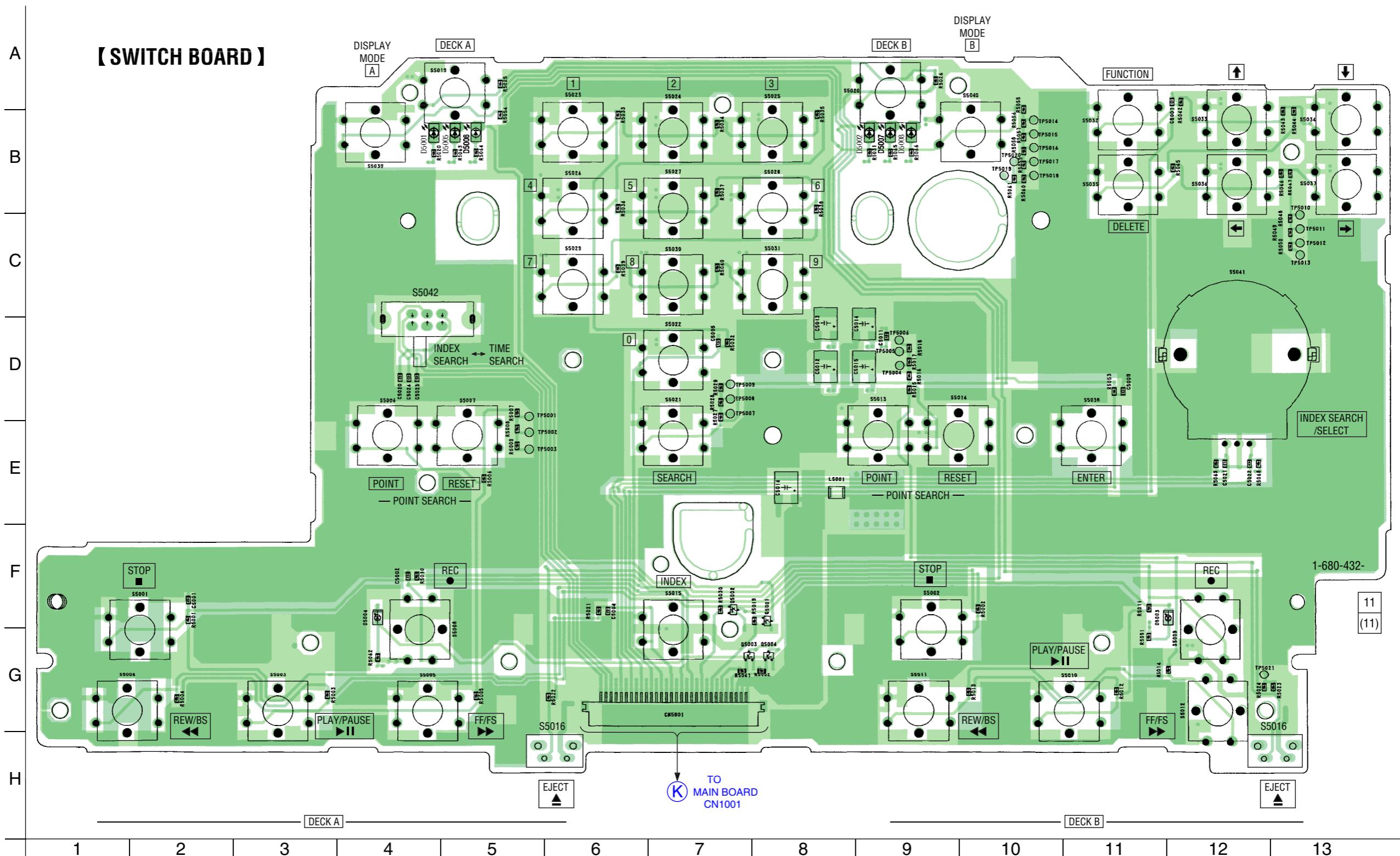


#### Semiconductor Location

Ref. No.	Location
D4001	A-11
D4002	B-11
D4003	D-11
IC4001	B-2
IC4002	C-2
IC4004	C-3
IC4006	B-3
IC4007	B-6
IC4008	A-5
IC4010	C-5
IC4011	C-6
IC4012	C-7
IC4013	A-7
IC4014	D-5
IC4015	B-11
IC4016	E-8
IC4017	D-7
Q4001	A-10
Q4002	B-10
Q4003	C-10
Q4004	B-11

## 5-30. SCHEMATIC DIAGRAM SWITCH SECTION

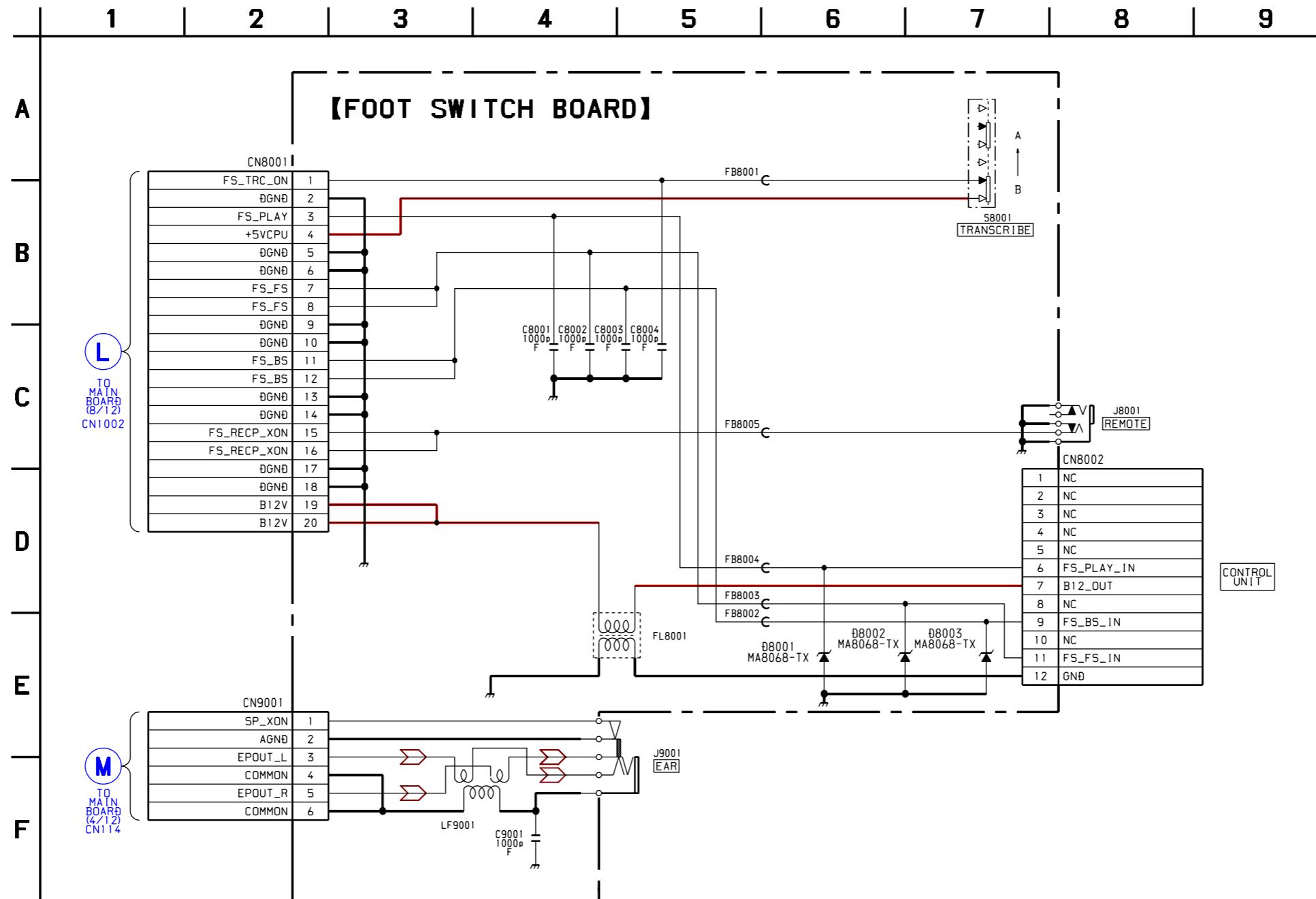


5-31. PRINTED WIRING BOARD SWITCH SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.

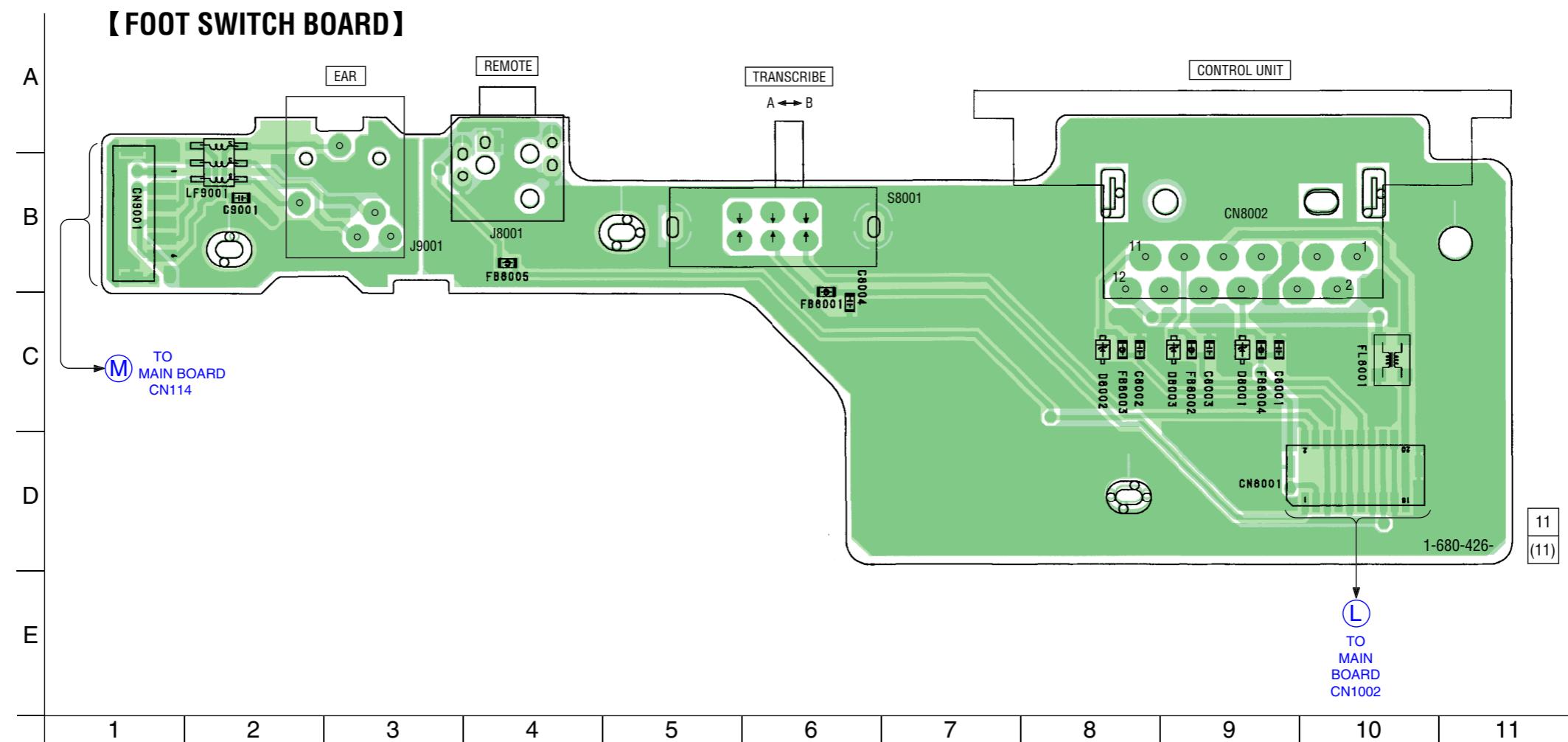
## • Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D5001	B-4	Q5001	F-8
D5002	B-9	Q5002	F-7
D5003	F-11	Q5003	F-7
D5004	F-4	Q5004	F-8
D5005	B-5		
D5006	B-5		
D5007	B-9		
D5008	B-9		

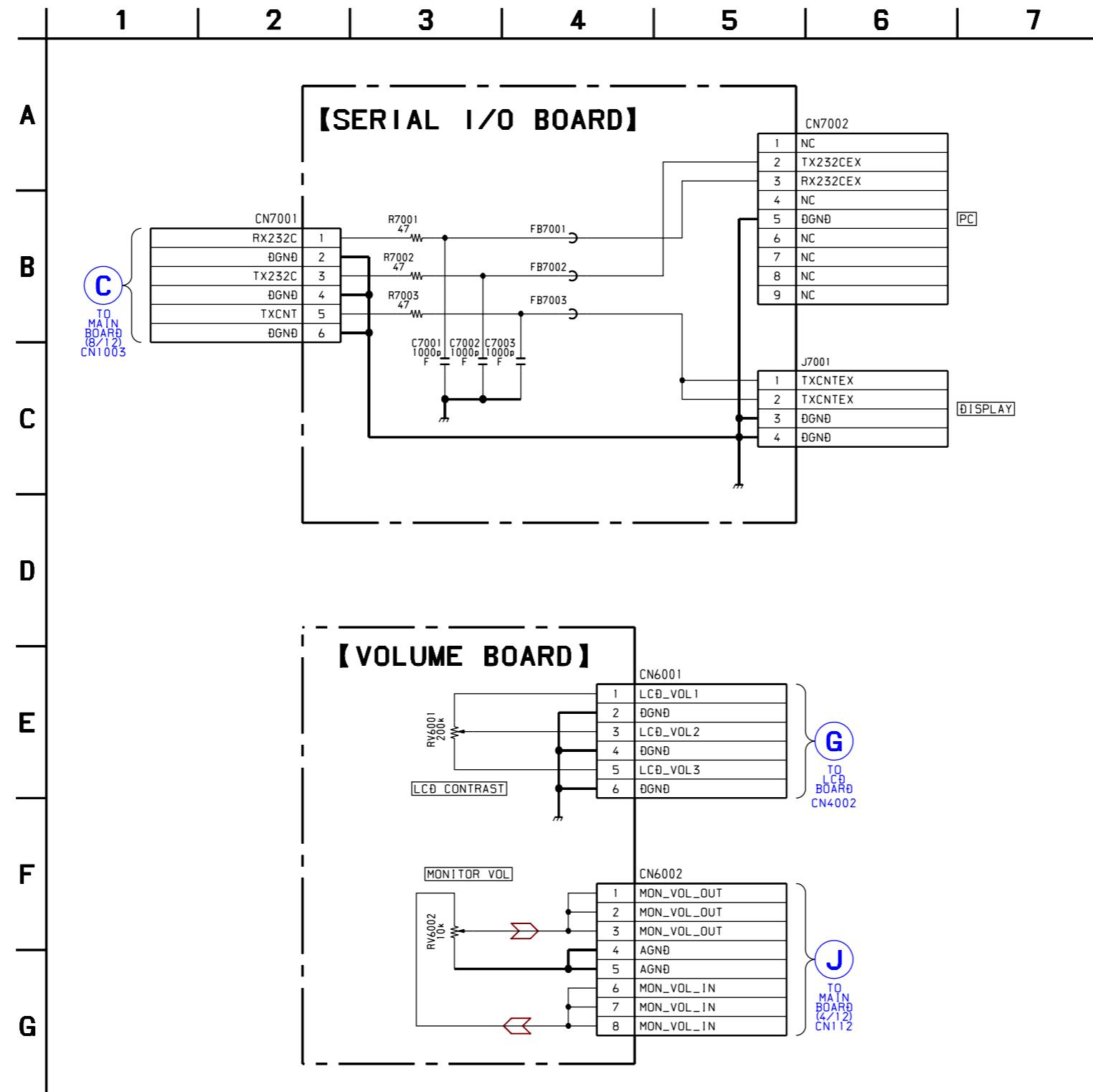
## 5-32. SCHEMATIC DIAGRAM FOOT SWITCH SECTION



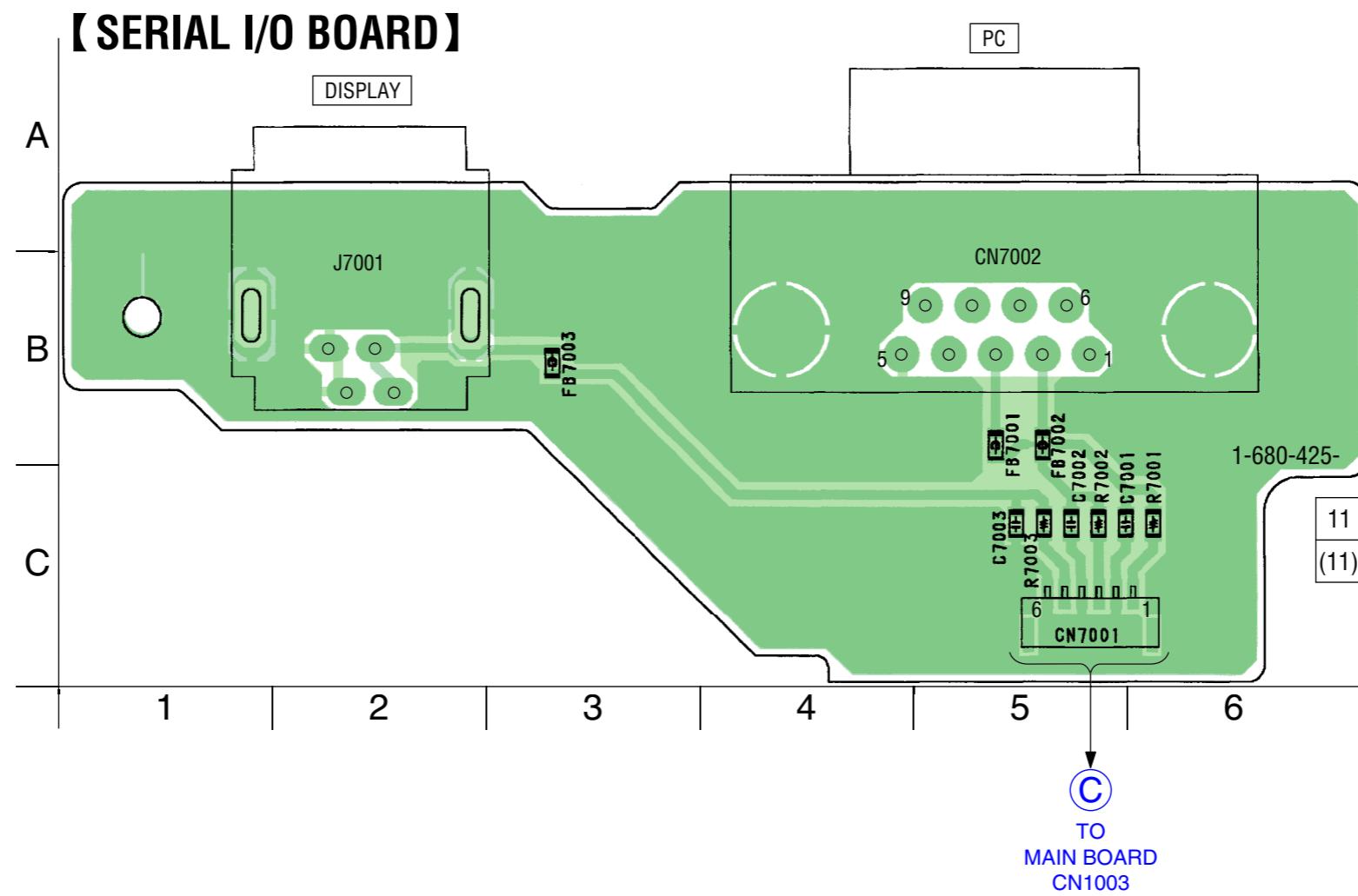
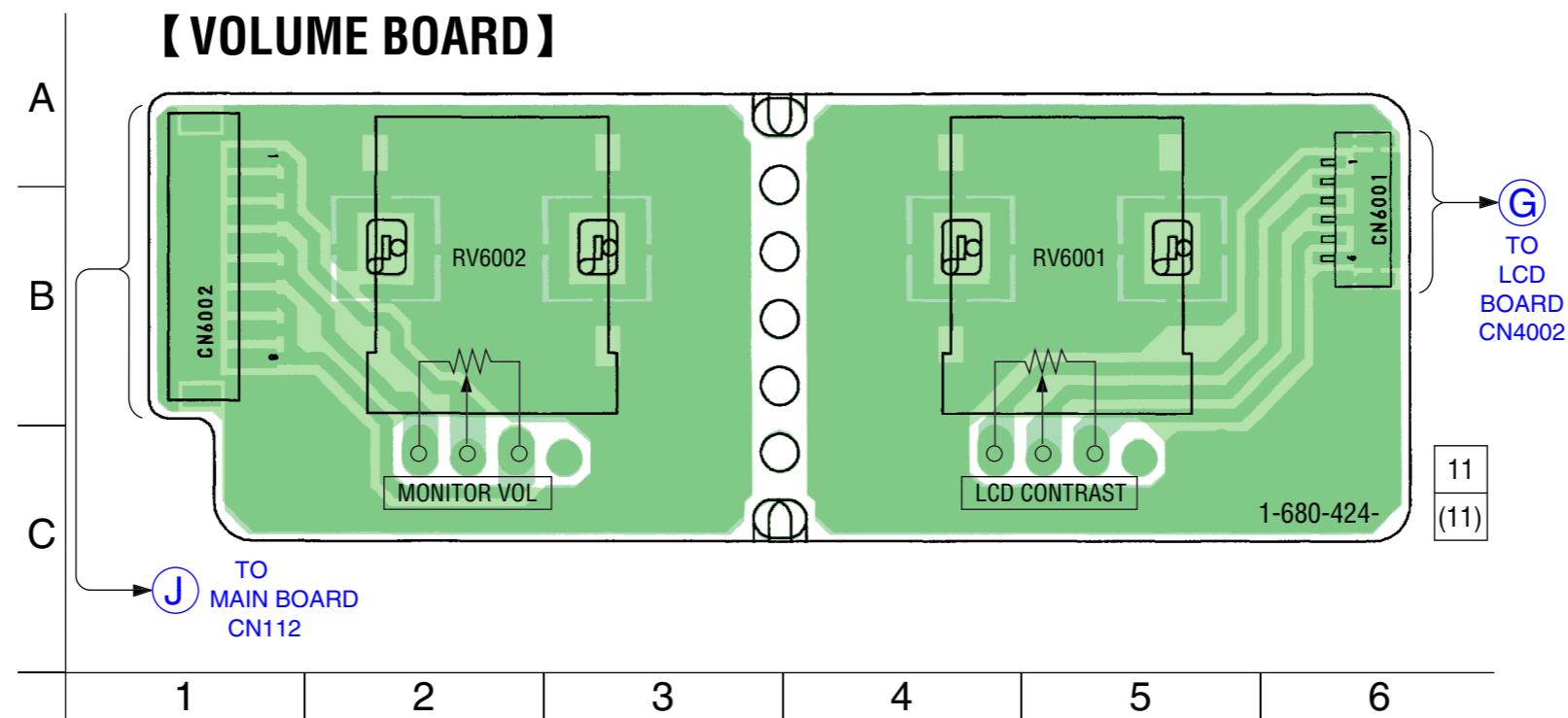
5-33. PRINTED WIRING BOARD FOOT SWITCH SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



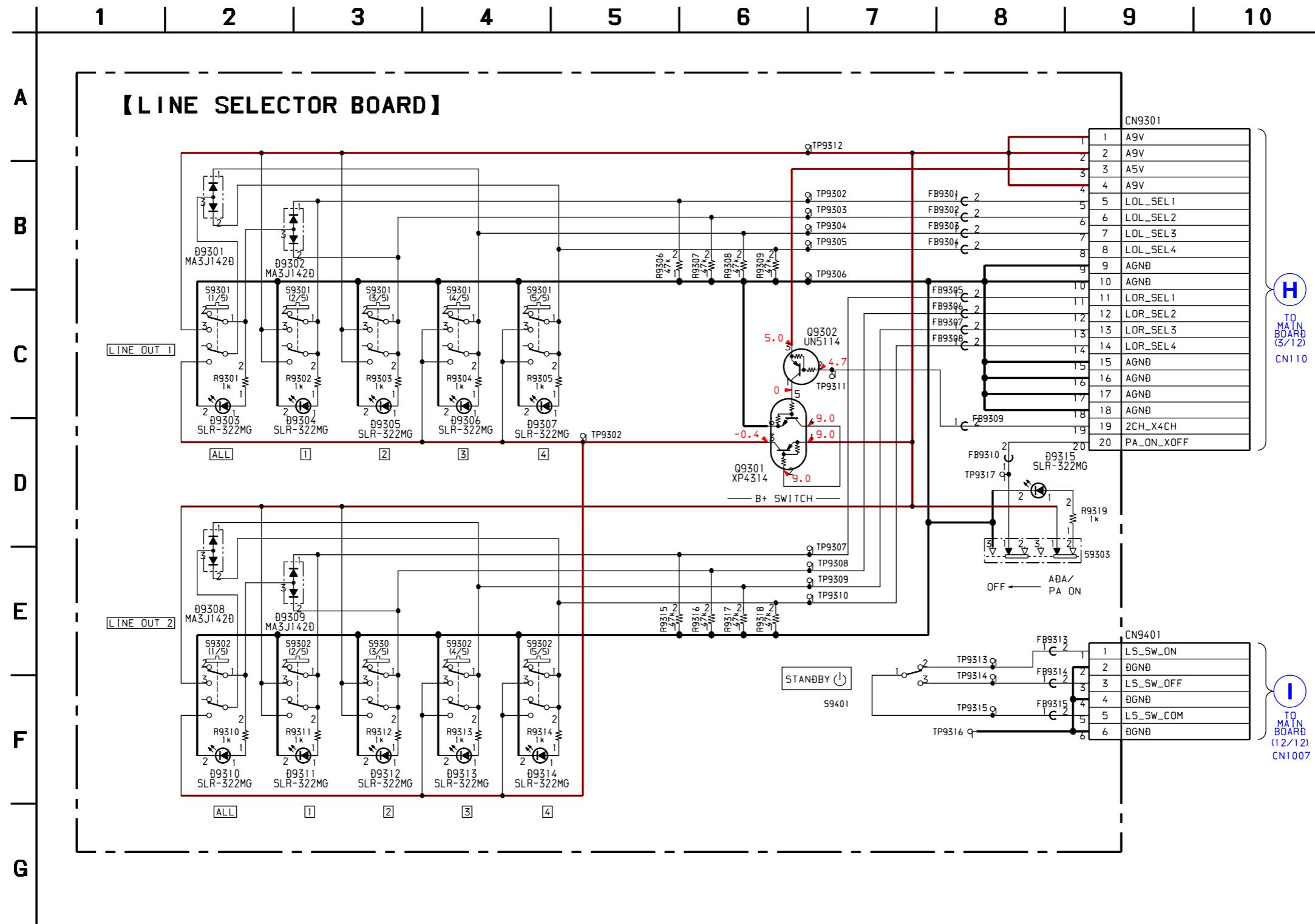
## 5-34. SCHEMATIC DIAGRAM VOLUME/SERIAL I/O SECTION



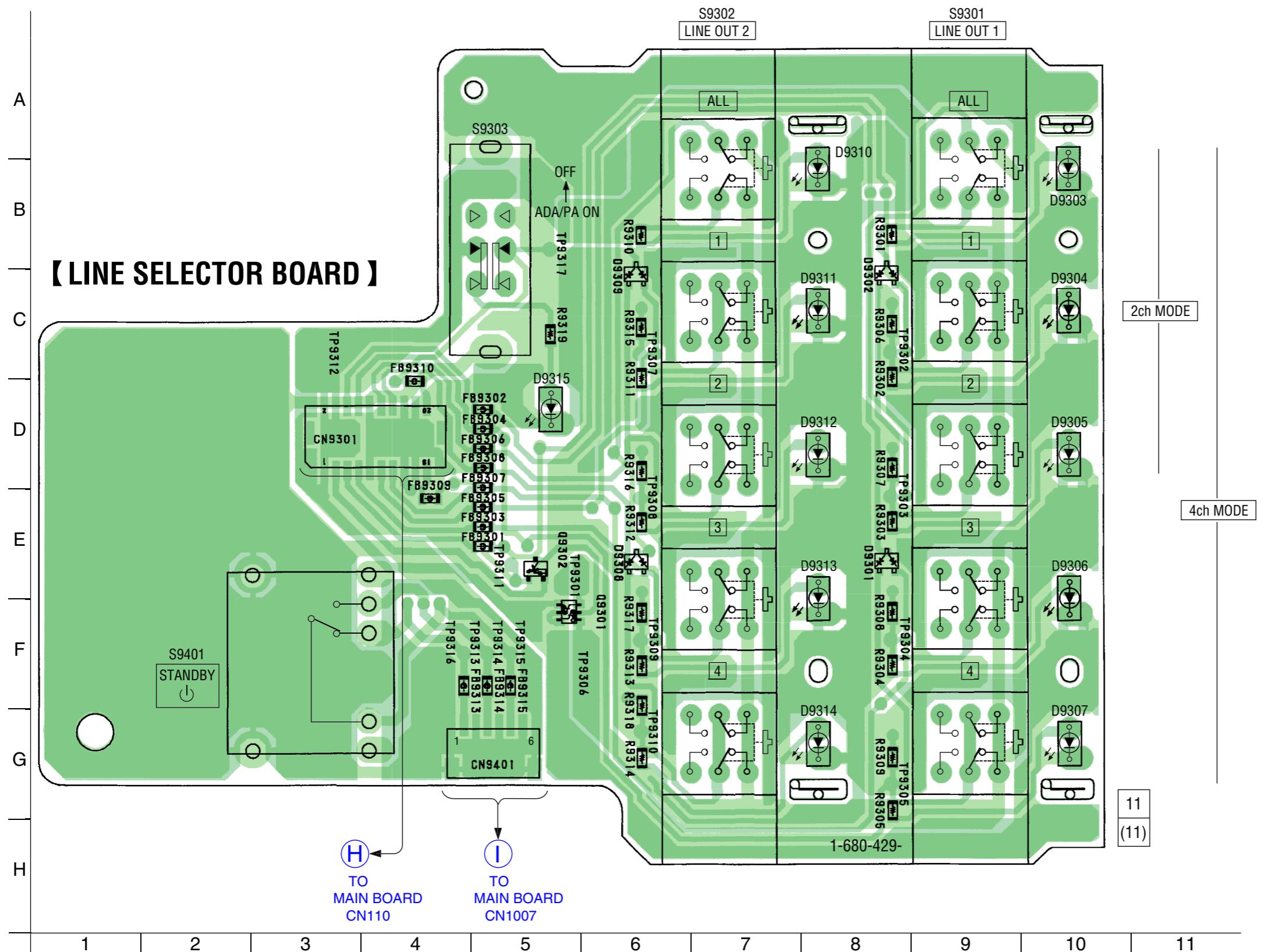
5-35. PRINTED WIRING BOARD VOLUME / SERIAL I/O SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



## 5-36. SCHEMATIC DIAGRAM LINE SELECTOR SECTION



5-37. PRINTED WIRING BOARD LINE SELECTOR SECTION •  : Uses unleaded solder. • See page 29 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D9301	E-8
D9302	B-8
D9303	B-10
D9304	B-10
D9305	D-10
D9306	E-10
D9307	F-10
D9308	E-6
D9309	B-6
D9310	A-8
D9311	C-8
D9312	D-8
D9313	E-8
D9314	F-8
D9315	D-5
Q9301	F-6
Q9302	E-5

## 5-38. IC PIN FUNCTION DESCRIPTION

• IC1021 CXD8655Q (FIFO CONTROLLER) (MAIN BOARD)

Pin No.	Pin Name	I/O	Description
1	INVIN	I	Input terminal of an inverter for a general purpose
2	INVOOUT	O	Output terminal of an inverter for a general purpose (open)
3	FS64	O	Divider output (1/4) of 256fs
4	FS01	O	Divider output (1/256) of 256fs
5	ACLK	O	Clock output (128fs) for data communications with ATRAC CODEC
6	FFCLK	I	Not used (connected to ground)
7	FFOUT	O	Not used (open)
8	BFIN	I	Input terminal of a buffer for a general purpose (64fs)
9	BFOUT	O	Output terminal of a buffer for a general purpose (64fs)
10 - 14	TEST00-04	I	Not used (connected to ground)
15	VSS	—	Ground
16	VDD	—	Power supply (+5V)
17 - 20	TEST05-08	I	Not used (connected to ground)
21 - 22	TEST10-11	O	Not used (open)
23 - 30	I/O0-7	I/O	Data bus
31	VDD	—	Power supply (+5V)
32 - 33	TEST12-13	O	Not used (open)
34	CS	I	Chip select signal input
35 - 38	A4-1	I	Address bus from the CPU
39	VSS	—	Ground
40	VDD	—	Power supply (+5V)
41	A0	I	Address bus from the CPU
42	XINT	O	Not used
43	XRD	I	Read signal input from the CPU
44	XWR	I	Write signal input from the CPU
45	XRST	I	Reset signal input from the CPU
46	CPUSCK	I	System clock input from the CPU (16MHz)
47	XWRFB	O	Write signal output for the FIFO (PLAY 3/4ch)
48	FIB0	I/O	Input/output terminal of data communications with the FIFO (3/4ch)
49	XRDF1	O	Read signal output for the FIFO (PLAY 3/4ch)
50	F863	I	Not used (connected to ground)
51	AC21	O	Not used (open)
52	XLAT1	O	Latch signal output for transferring serial data (ADTO1) to the ATRAC CODEC (3/4ch) during PLAY operation
53	ADTO1	O	Serial data output to the ATRAC decoder (3/4ch)
54	MLTC	I	Input terminal for multi-chip setting (connected to ground for single-chip setting)
55	DO12	I	Input terminal of 1/2ch digital audio data
56	F860	I	Not used (connected to ground)
57	XRQ2	I	Request signal input to receive serial data from the ATRAC encoder during REC operation
58	ADTI2	I	Serial data input from the ATRAC encoder (1/2ch)
59	XLAT2	O	Strobe signal output for receiving serial data (ADTI2) from the ATRAC CODEC (1/2ch) during REC operation
60	F862	I	Not used (connected to ground)
61	AC20	O	Not used (open)
62	XLATO0	O	Latch signal output for transferring serial data (ADTO0) to the ATRAC CODEC (1/2ch) during PLAY operation
63	ADTO0	O	Serial data output to the ATRAC decoder (1/2ch)
64	XRQ0	I	Request signal input to send serial data from the ATRAC decoder (1/2ch) during PLAY operation
65	256FS	I	Clock input (256fs)
66	VSS	—	Ground
67	VDD	—	Power supply (+5V)
68	F861	I	Not used (connected to ground)
69	DO34	I	Input terminal of 3/4ch digital audio data

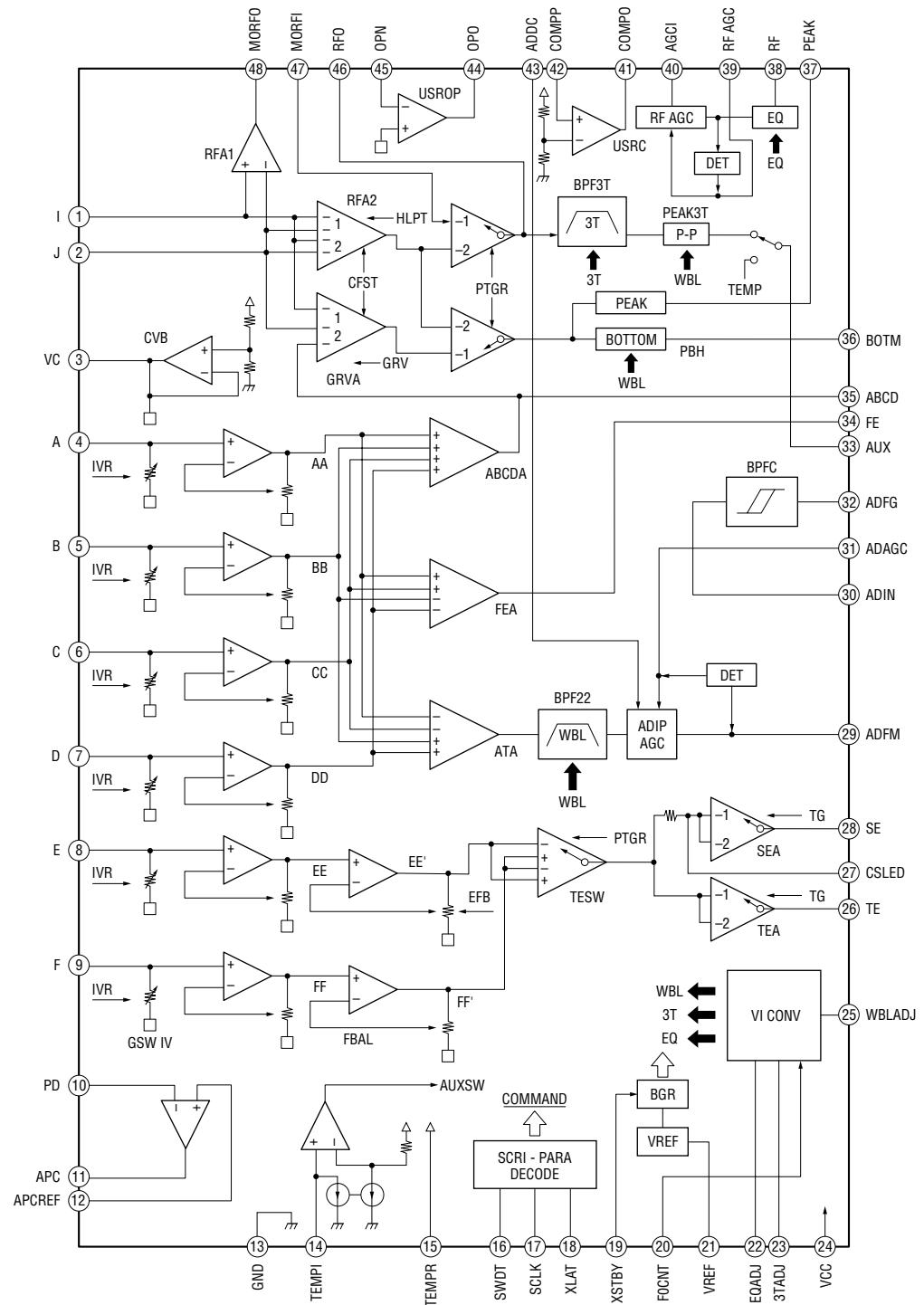
Pin No.	Pin Name	I/O	Description
70 - 76	FIB1-7	I/O	Input/output terminal of data communications with the FIFO (3/4ch)
77	XWRF3	O	Write signal output for the FIFO (REC 3/4ch)
78	XRDFB	O	Read signal output for the FIFO (REC 3/4ch)
79	XWRFA	O	Write signal output for the FIFO (PLAY 1/2ch)
80	XRDF0	O	Read signal output for the FIFO (PLAY 1/2ch)
81 - 88	FIA0-7	I/O	Input/output terminal of data communications with the FIFO (1/2ch)
89	XWRF2	O	Write signal output for the FIFO (REC 1/2ch)
90	VSS	—	Ground
91	VDD	—	Power supply (+5V)
92	XRdfa	O	Read signal output for the FIFO (REC 1/2ch)
93	XLAT3	O	Strobe signal output for receiving serial data (ADTI3) from the ATRAC CODEC (3/4ch) during REC operation
94	ADTI3	I	Serial data input from the ATRAC encoder (3/4ch)
95	XRQ3	I	Request signal input to receive serial data from the ATRAC encoder (3/4ch) during REC operation
96	XRQ1	I	Request signal input to send serial data from the ATRAC decoder (3/4ch) during PLAY operation
97	BCK	I	BCK signal input (FS64)
98	LRCK	I	LRCK signal input (FS01)
99	VSS	—	Ground
100	NC	—	Not used

• IC1007 HD6413003TF16 (CPU) (MAIN BOARD)

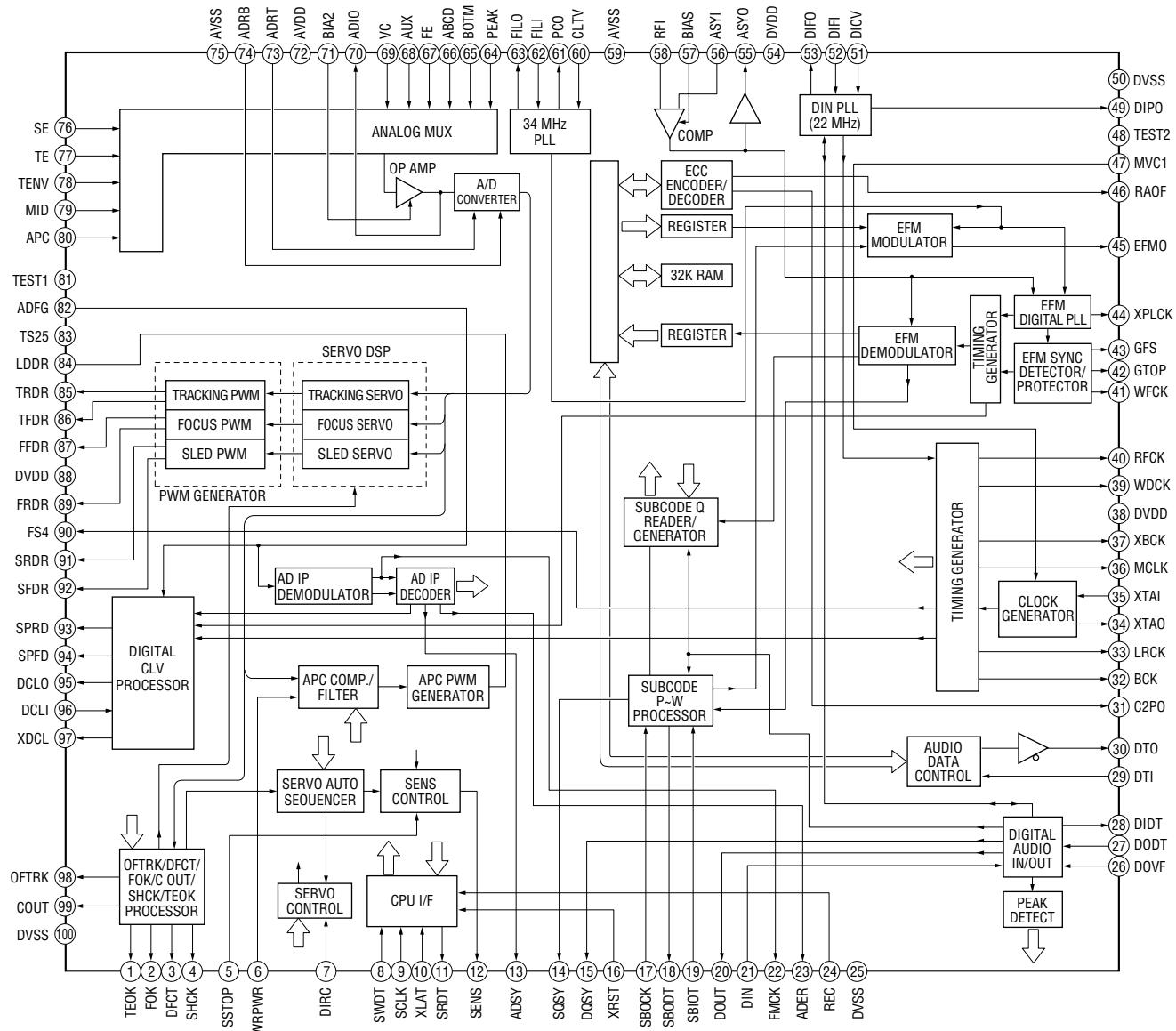
Pin No.	Pin Name	I/O	Description
1	VCC	—	Power supply (+5V)
2 - 3	PB0-1	I	Data signal input from the jog dial
4	PB2	I	Transcriber DeckXA/B selection signal input
5	PB3	I	Search mode INDEX/XTIME selection signal input
6	PB4	I	Standby signal input from the STANDBY switch (L=STANDBY)
7	PB5	O	Power control signal output after power off sequence
8	XDREQ0	I	CH0 DMA request signal input
9	XDREQ1	I	CH1 DMA request signal input
10	VSS	—	Ground
11	PC0	O	DECK-A REC LED control signal output (H=ON,L=OFF)
12	PC1	O	DECK-B REC LED control signal output (H=ON,L=OFF)
13	XCS4	O	Chip select signal output for area 4 (LCD controller)
14	PC3	—	Not used
15	XCS6	O	Chip select signal output for area 6 (MD controller)
16	XCS7	O	Chip select signal output for area 7 (FIFO controller)
17	KEY-INT	I	Interrupt request 6 signal input from the MD controller
18	FINT12	I	Interrupt request 7 signal input from the ATRAC CODEC 1/2ch
19	RES0	O	Not used
20	TXD0	O	Serial communication interface data signal output
21	TXD1	O	LED control signal output (DECK-A)
22	RXD0	I	Serial communication interface data signal input
23	RXD1	O	LED control signal output (DECK-B)
24	SCK0	—	Not used
25	SCK1	—	Not used
26	VSS	—	Ground
27 - 34	D0-7	I/O	Data bus
35	VSS	—	Ground
36 - 43	D8-15	I/O	Data bus
44	VCC	—	Power supply (+5V)
45 - 52	A0-7	O	Address bus
53	VSS	—	Ground
54 - 65	A8-19	O	Address bus
66	(XWDRES)	I	Not used (pull up)
67	XRES1	O	ATRAC CODEC reset signal output
68	XRES-AD	O	AD/DA converter reset signal output
69	PHAI	O	System clock output (16MHz)
70	XSTBY	I	Not used (connected to +5V)
71	XRES	I	Reset signal input (L=reset)
72	NMI	I	Nonmaskable interrupt signal input
73	VSS	—	Ground
74	EXTAL	I	Input for connection to a crystal resonator
75	XTAL	I	Input for connection to a crystal resonator
76	VCC	—	Power supply (+5V)
77	XAS	O	Not used
78	XRD	O	Read signal output
79	XHWR	O	Write data signal output on the upper data bus
80	XLWR	O	Write data signal output on the lower data bus
81	MD0	I	Operating mode control input (ground)
82	MD1	I	Operating mode control input (ground)
83	MD2	I	Operating mode control input (+5V)

Pin No.	Pin Name	I/O	Description
84	AVCC	—	Power supply input for the A/D converter
85	VREF	—	Reference voltage input for the A/D converter
86	KEY-IN	I	Analog signal input
87 - 93	AN-IN1-7	I	Analog signal input
94	AVSS	—	Ground for the A/D converter
95	A20	O	Address bus
96 - 98	A21-23	O	Address bus (not used)
99	VSS	—	Ground
100	IRQ0	I	Interrupt request 0 signal input from the MD controller
101	XCS3	O	Chip select signal output for area 3 (DRAM)
102	FINT34	I	Interrupt request 2 signal input from the ATRAC CODEC 3/4ch
103	XCS1	O	Chip select signal output for area 1 (SRAM)
104	XCS0	O	Chip select signal output for area 0 (PROM)
105	PA0	—	Not used
106	PA1	—	Not used
107	PA2(NV_SCLK)	O	Serial clock output for the NVRAM and RTC
108	PA3(NV_DIO)	I/O	Serial data bus for the NVRAM and RTC
109	PA4(XRESL)	O	Control signal output for the LCD horizontal line
110	PA5(NV_CS)	O	Chip select signal output for the NVRAM
111	PA6(1809RST)	O	Reset signal output for the MD controller
112	PA7(RTC_CS)	O	Chip select signal output for the RTC

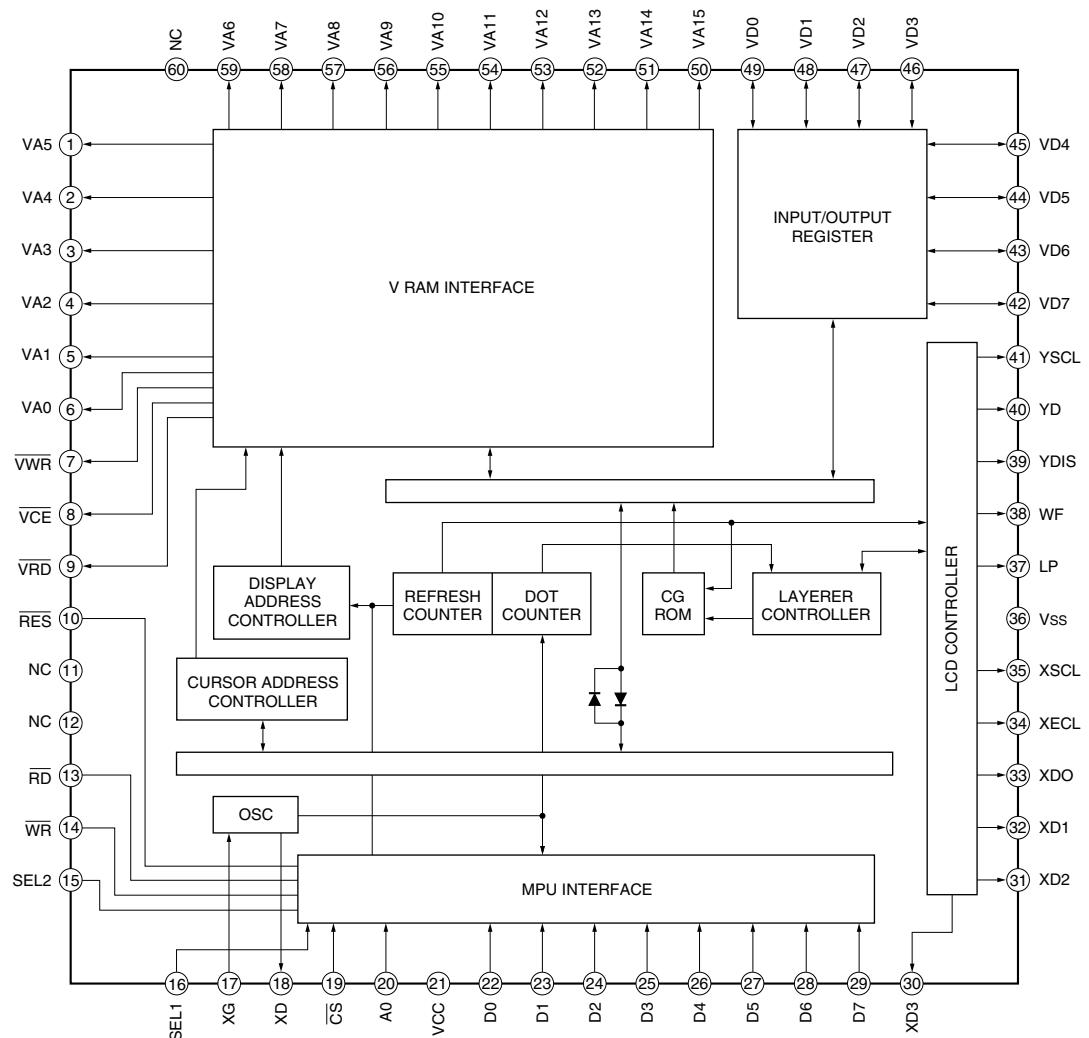
**5-39. IC BLOCK DIAGRAMS**  
**IC21 CXA2523R-T4 (MD BOARD)**



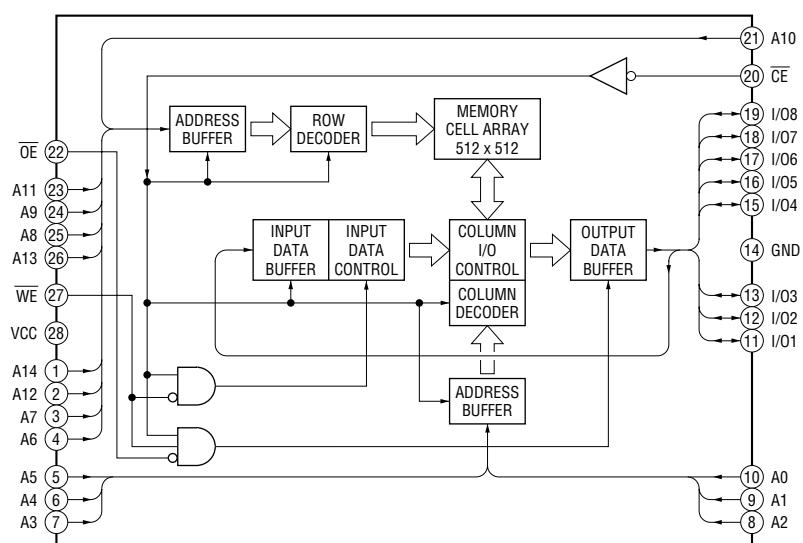
## IC38 CXD2535CR-1 (MD BOARD)



## IC4004 SED1335FOB (LCD BOARD)

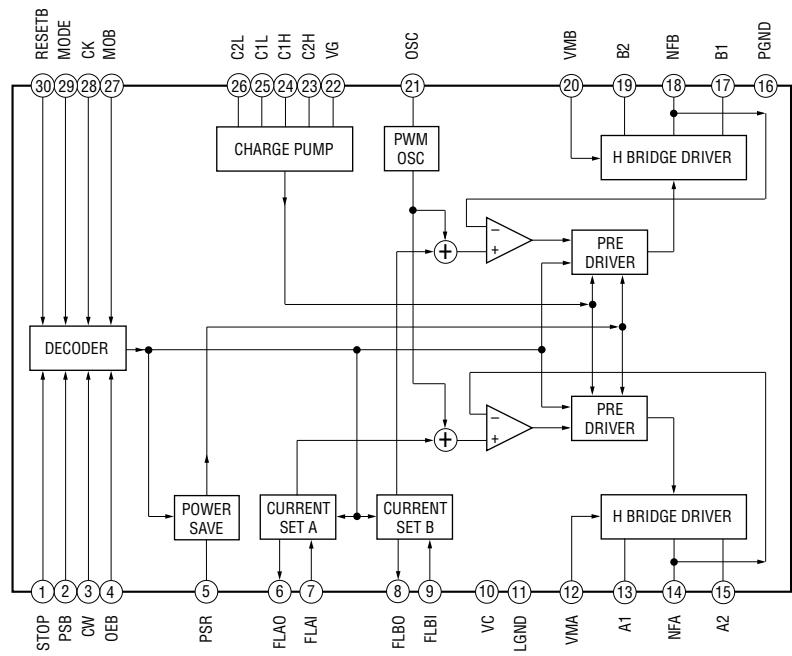


## IC4006 LC35256FT-70U (LCD BOARD)

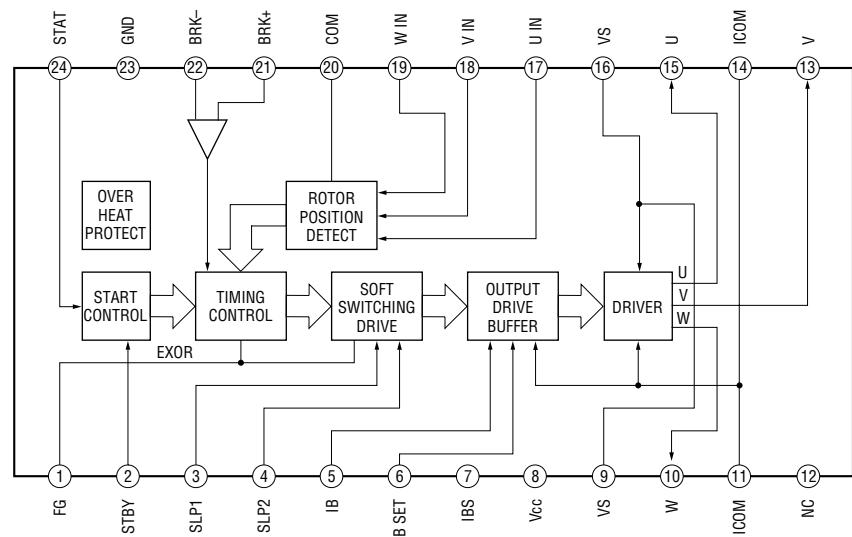


# MDCC-2000

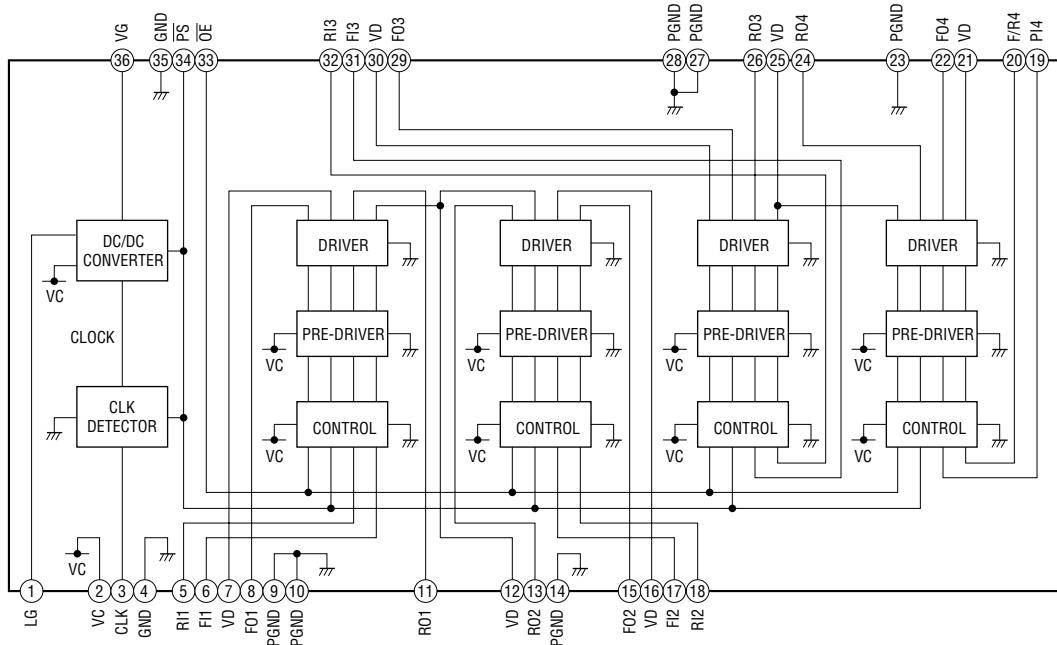
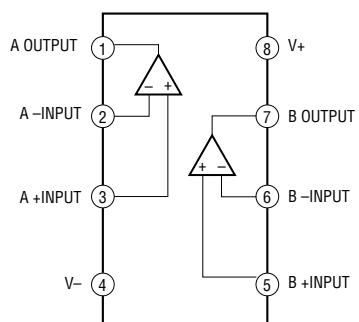
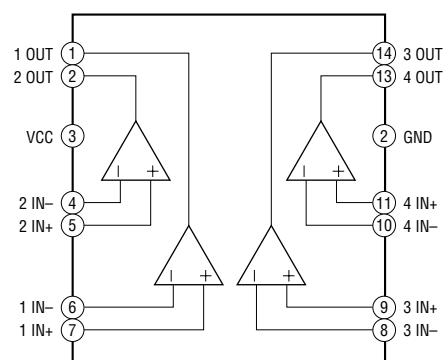
## IC301 MPC17A85ZVMEL (BUM-F1 BOARD)



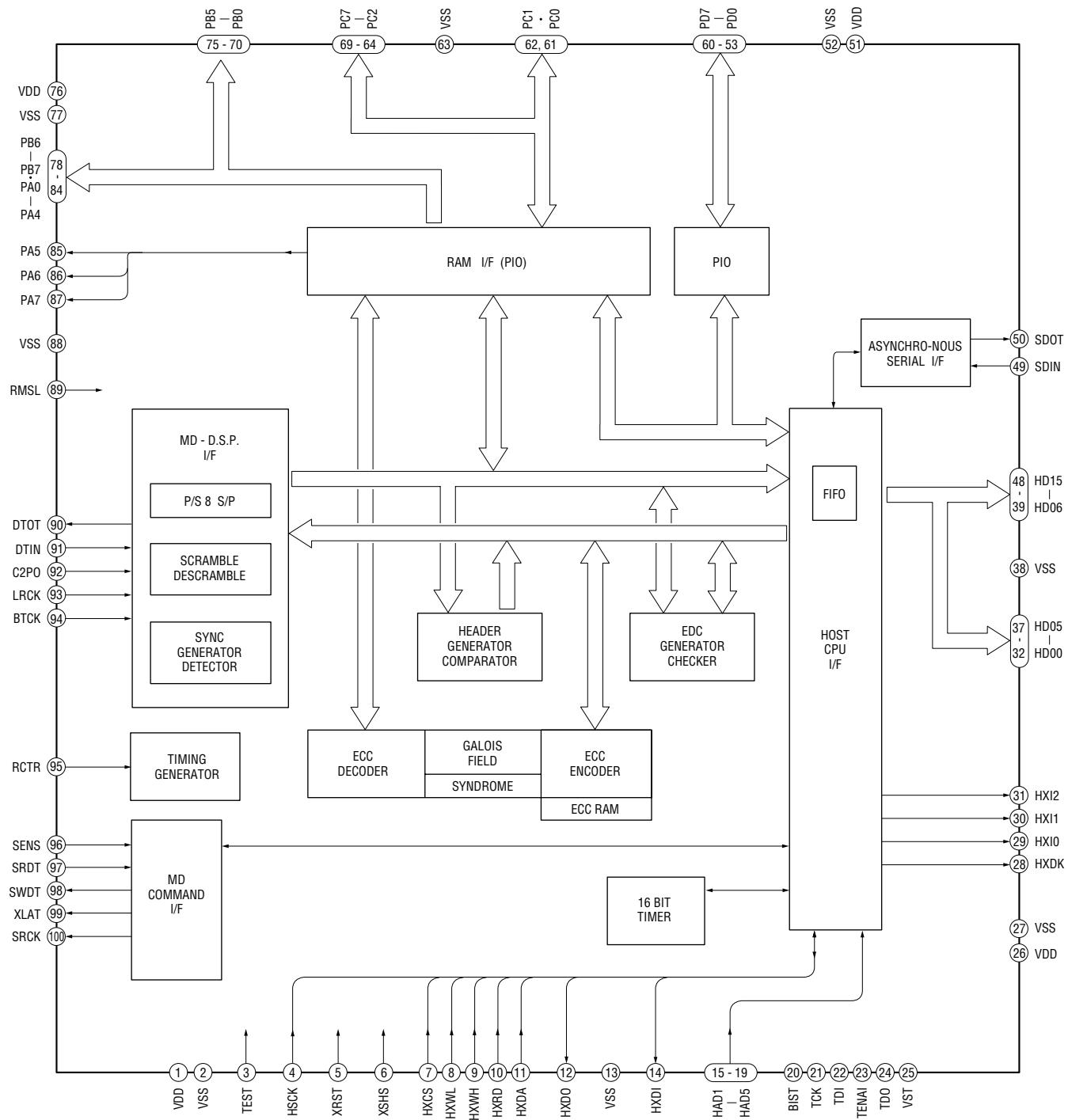
## IC302 CXA8027N-ELL2000 (BUM-F1 BOARD)



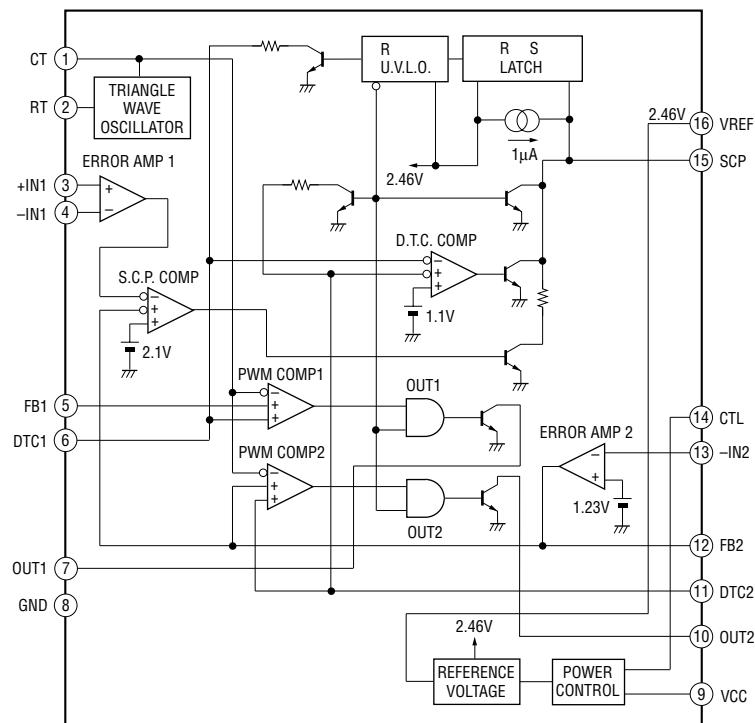
## IC37 MPC17A38ZVMEL (MD BOARD)

IC9,IC10,IC22,IC23,IC26 NJM2100V-TE2 (MD BOARD)  
IC509,IC508 NJU7082BV(TE2) (MAIN BOARD)IC34 LM339PW-ELL2000 (MD BOARD)  
IC1033 CXD1809R (MAIN BOARD)

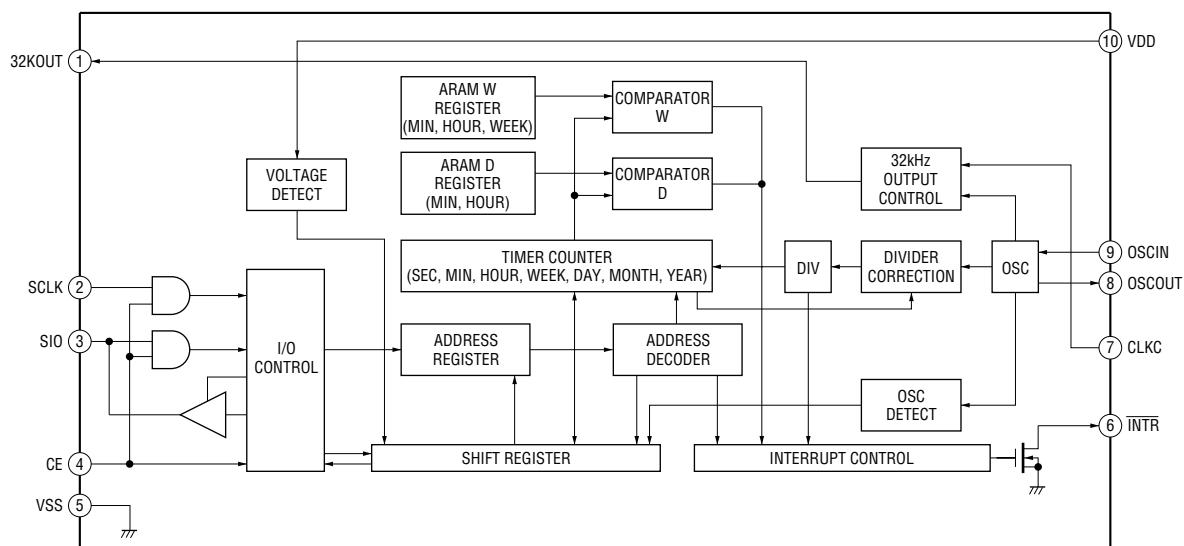
## IC1033 CXD1809R (MAIN BOARD)



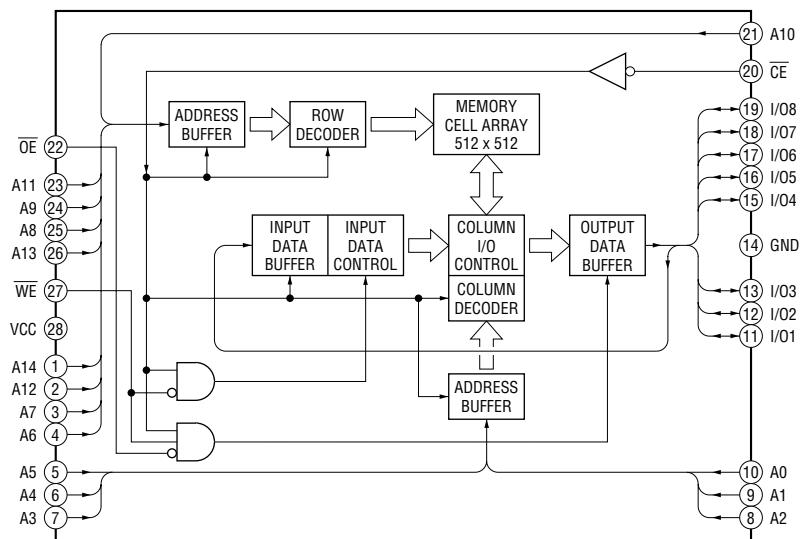
## IC1064 MB3778PFV-EF (MAIN BOARD)



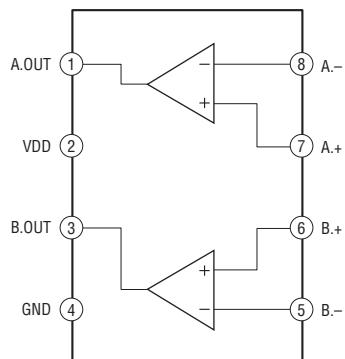
## IC1004 RV5C348A-E2 (MAIN BOARD)



## IC1016,IC1067 LC35256FT-70U (MAIN BOARD)



## IC507 NJM2073D (MAIN BOARD)



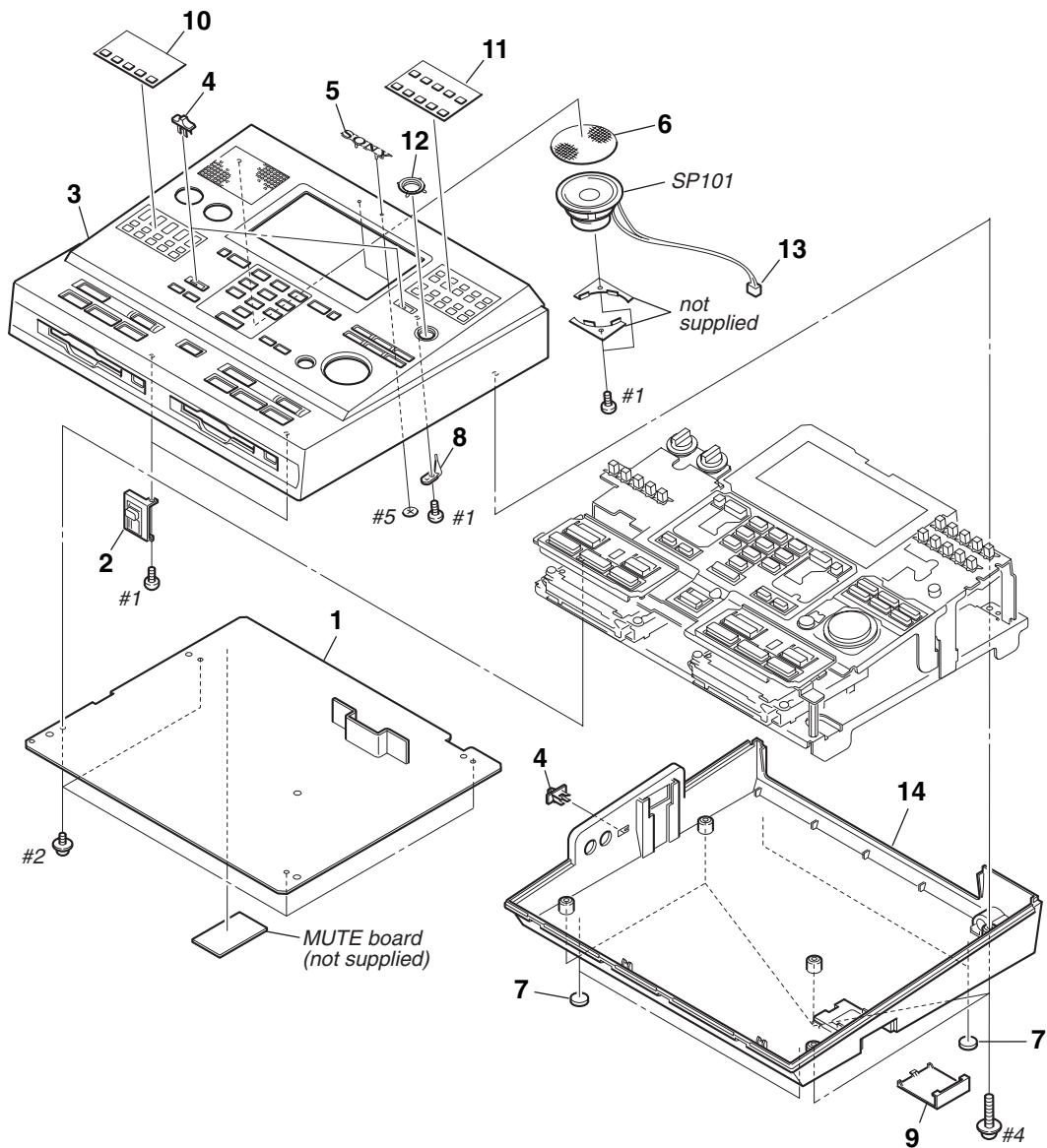
## SECTION 6 EXPLODED VIEWS

**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

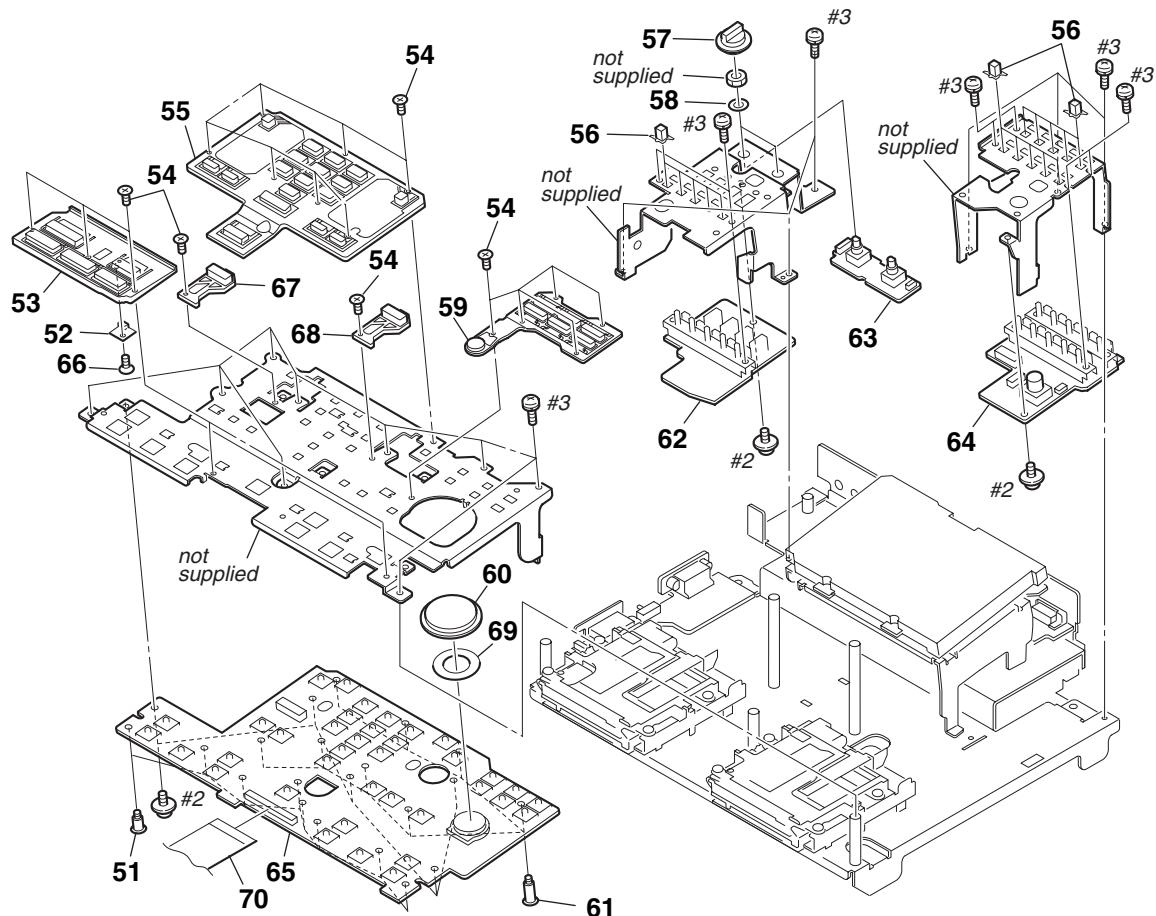
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

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

**6-1. CABINET SECTION**

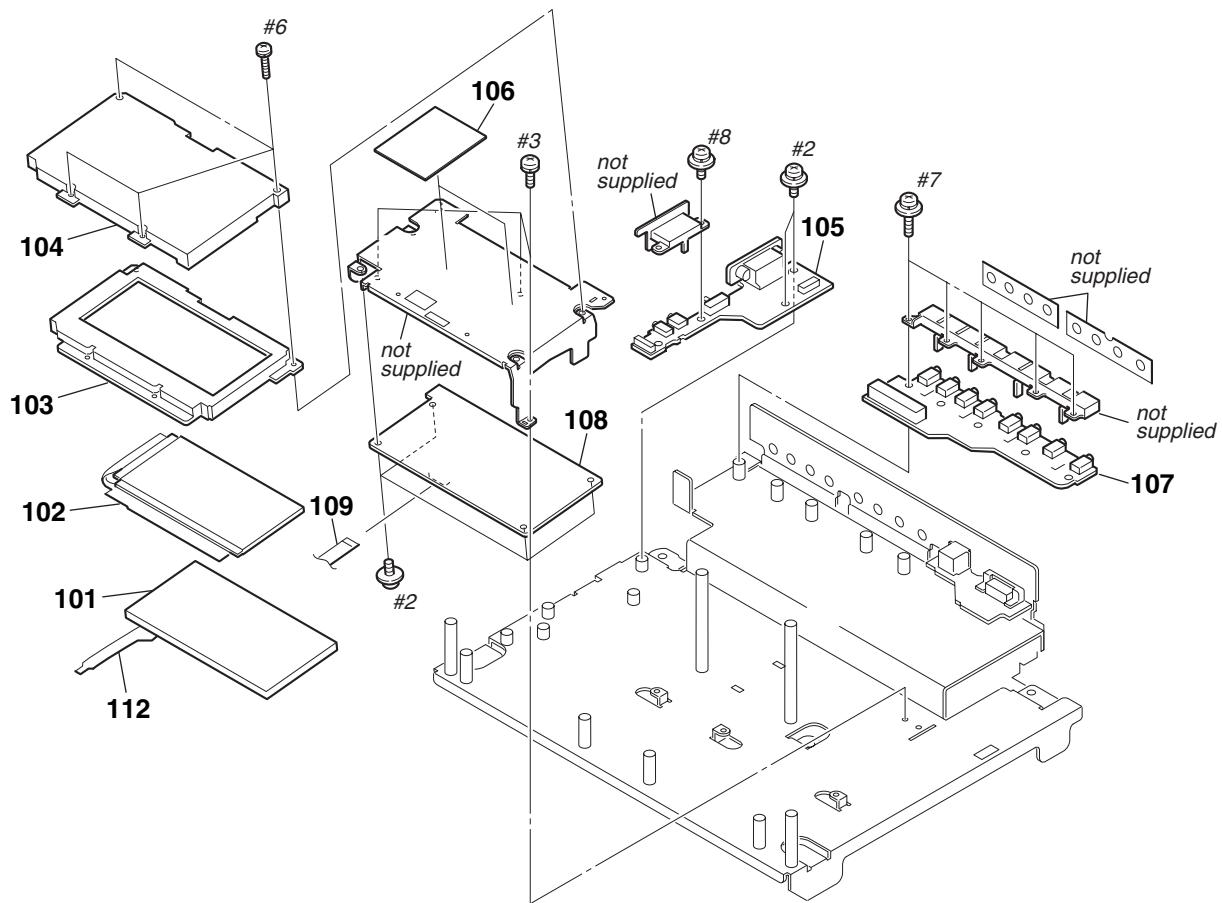
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 1	A-3021-371-A	MAIN BOARD, COMPLETE		9	3-225-522-01	LID, BATTERY CASE	
2	3-225-516-01	BUTTON (EJECT)		10	3-225-508-01	PLATE, TRANSPARENT	
3	X-3379-897-1	CABINET (UPPER) ASSY		11	3-225-509-01	PLATE, TRANSPARENT	
4	3-225-517-01	KNOB (PA)		12	3-225-518-01	PLATE (KEY), ORNAMENTAL	
5	3-718-322-02	EMBLEM, SONY		* 13	1-562-504-11	CONNECTOR, MICRO (HOUSING) 2P	
6	3-225-543-01	NET, SPEAKER		14	3-225-520-01	CABINET (LOWER)	
7	3-343-250-01	CUSHION		SP101	1-504-888-12	SPEAKER (5.0cm)	
8	3-225-538-01	PLATE (PA), LIGHT GUIDE					

## 6-2. KEY SECTION



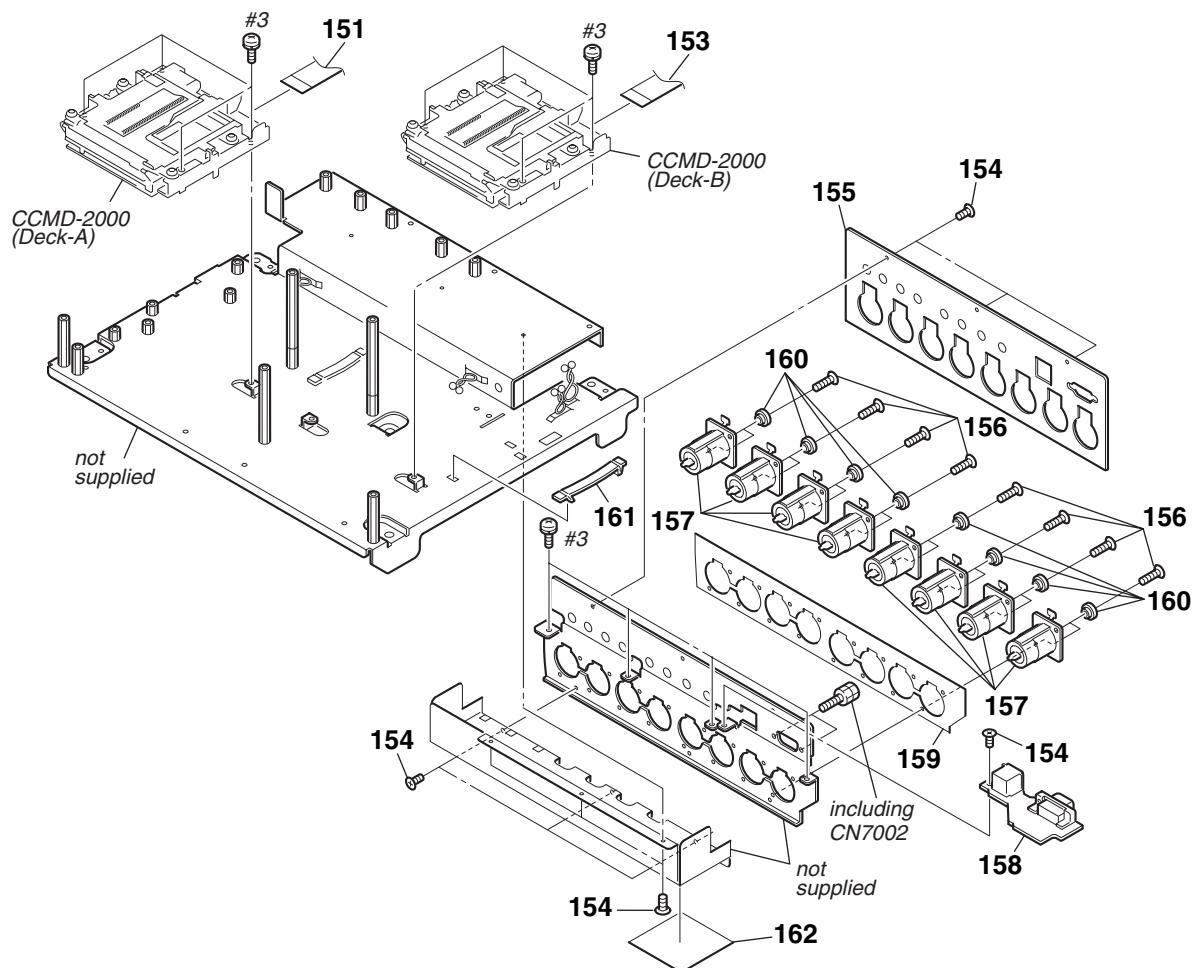
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	3-231-088-01	SCREW (M2), STEP		61	3-231-088-11	SCREW (M2), STEP	
52	3-225-513-01	PLATE (REC), LIGHT GUIDE		* 62	1-680-427-11	LEVEL METER BOARD	
53	3-225-512-01	BUTTON (MD)		* 63	1-680-424-11	VOLUME BOARD	
54	3-724-455-41	SCREW		* 64	1-680-429-11	LINE SELECTOR BOARD	
55	3-225-511-01	BUTTON (TEN KEY)		* 65	1-680-432-11	SWITCH BOARD	
56	3-225-531-01	BUTTON (5 GANG)		66	3-355-424-01	SCREW, TAPPING	
57	3-225-532-01	KNOB (VOL)		67	3-225-514-01	BUTTON (SEARCH)	
58	3-231-950-01	SPACER (CABINET UPPER)		68	3-225-514-11	BUTTON (SEARCH)	
59	3-225-515-01	BUTTON (FUNCTION)		69	3-233-394-01	SPACER (ENCODER)	
60	3-225-528-01	KNOB (ENCODER)		* 70	1-757-620-11	CABLE, FLEXIBLE FLAT (30 CORE)	

### 6-3. LCD SECTION



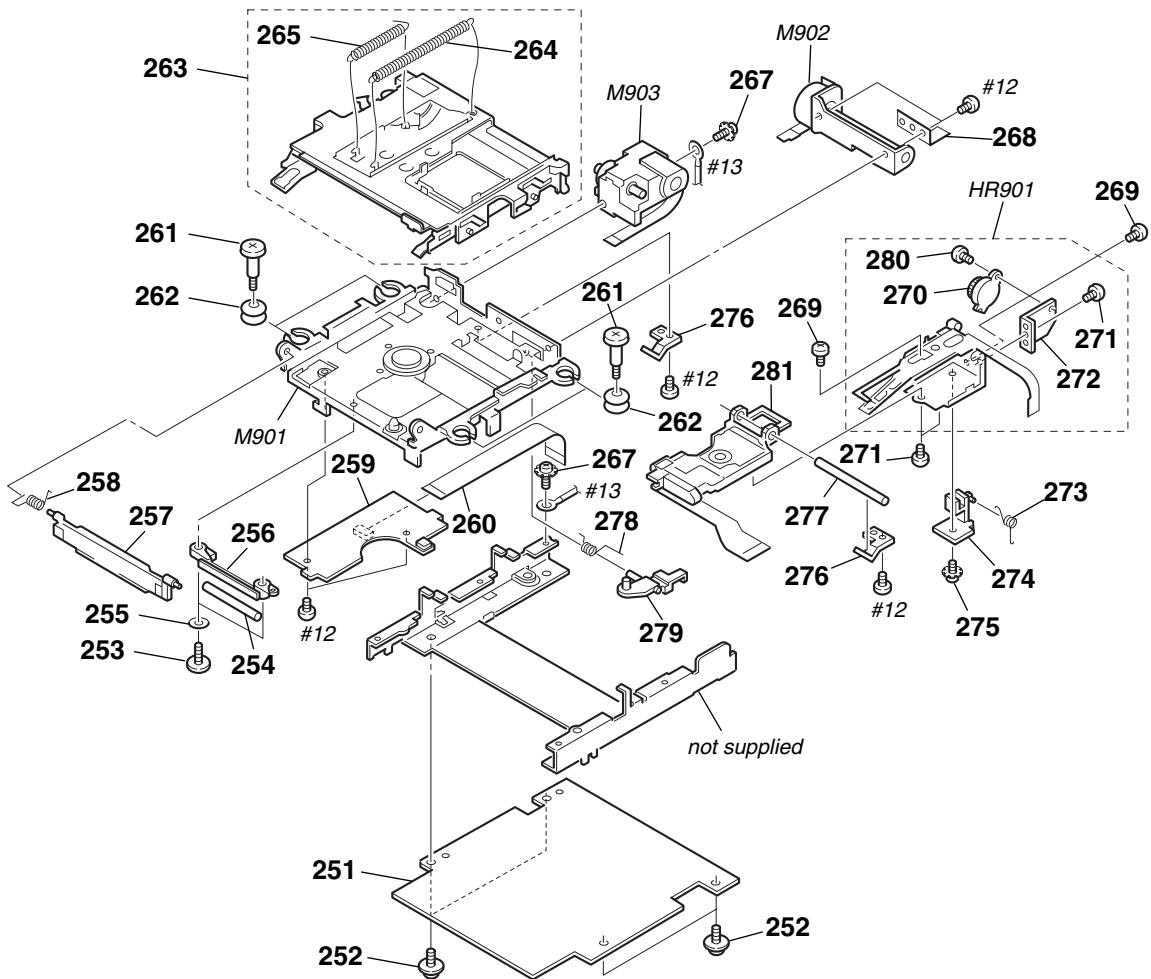
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	1-476-469-11	LIGHT UNIT, BACK		106	3-229-120-01	CUSHION (LCD)	
102	1-803-019-11	DISPLAY PANEL, LIQUID CRYSTAL		* 107	1-680-428-11	AUDIO I/O BOARD	
103	3-225-537-01	HOLDER (LCD)		* 108	A-3062-207-A	LCD BOARD, COMPLETE	
104	3-225-507-01	PLATE (LCD), TRANSPARENT		109	1-757-623-11	CABLE, FLEXIBLE FLAT (20 CORE)	
* 105	1-680-426-11	FOOT SWITCH BOARD		112	1-680-433-11	B-LIGHT FLEXIBLE BOARD	

## 6-4. CONNECTOR SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 151	1-757-622-11	CABLE, FLEXIBLE FLAT (17 CORE)		* 158	1-680-425-11	SERIAL I/O BOARD	
* 153	1-757-621-11	CABLE, FLEXIBLE FLAT (17 CORE)		159	3-225-541-01	SHEET, INSULATING	
154	3-724-455-41	SCREW		160	3-225-542-01	BUSHING, INSULATING	
155	3-225-521-01	PLATE (CANON), INDICATION		161	3-225-496-01	CLAMP (FLAT CLAMP 45)	
156	3-724-455-11	SCREW (M2X6)		162	3-232-312-01	SHEET (CANON SHIELD), INSULATING	
157	1-509-184-51	CONNECTOR (RECEPTACLE) 3P					

**6-5. MD MECHANISM SECTION (CCMD-2000)  
(DECK-A/DECK-B)**



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 251	A-3062-214-A	MD BOARD, COMPLETE		269	3-704-246-13	SCREW (P1.4X2.0)	
252	4-628-169-01	SCREW (M2X3)		270	3-953-235-01	DAMPER, OIL	
253	4-628-170-01	SCREW (M1.7X4.5)		271	4-628-168-01	SCREW (M1.7X2.8)	
* 254	4-628-165-01	SHAFT, SUB GUIDE		* 272	4-628-647-01	BRACKET, DAMPER	
255	3-701-437-11	WASHER		273	4-628-180-01	SPRING, SCREW GUIDE	
* 256	4-628-190-01	BRACKET, SUB SHAFT		274	4-628-189-02	GUIDE, SCREW	
257	4-628-193-21	DOOR		275	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
258	4-628-178-01	SPRING, DOOR RETURN		* 276	4-628-166-01	SPRING, GUIDE SHAFT RETAINER	
259	A-3178-000-A	BUM-F1 BOARD, COMPLETE		277	4-987-697-01	SHAFT (GUIDE A)	
260	1-777-945-11	WIRE, FLAT TYPE (18 CORE)		* 278	4-628-182-01	HOOK, OWH TRIGGER	
261	4-628-167-01	SCREW, STEP		279	3-040-840-01	SPRING, TRIGGER HOOK	
262	4-979-919-01	INSULATOR (102)		280	3-713-786-51	SCREW +P 2X3	
263	X-3377-612-1	HOLDER ASSY, CARTRIDGE		△ 281	8-583-027-03	OPTICAL PICK-UP KMS-250A	
* 264	4-628-164-01	SPRING, TENSION		M901	A-3174-053-A	MOTOR, SPINDLE CHASSIS ASSY (SPINDLE)	
* 265	4-628-181-01	SPRING, TENSION		M902	1-698-454-12	MOTOR, STEPPING (F LA15-2002-A) (SLED)	
267	4-628-646-11	SCREW(M2X3.5),TOOTHED LOCK(+P)		M903	1-698-455-11	MOTOR, DC GEARED (12C-082G) (LOADING)	
* 268	4-628-355-01	SPRING, SCREW RETAINER		HR901	A-3174-011-A	REC/PB HEAD ASSY	

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

## SECTION 7

### ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS:  
uF:  $\mu$ F
- RESISTORS  
All resistors are in ohms.  
METAL: metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable
- COILS  
uH:  $\mu$ H

## • SEMICONDUCTORS

In each case, u:  $\mu$ , for example:  
uA...:  $\mu$ A..., uPA... ,  $\mu$ PA... ,  
uPB... ,  $\mu$ PB... , uPC... ,  $\mu$ PC... ,  
uPD... ,  $\mu$ PD...

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

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

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks								
*	1-680-428-11	AUDIO I/O BOARD	*****				A-3178-000-A	BUM-F1 BOARD, COMPLETE	*****								
<b>&lt; CAPACITOR &gt;</b>																	
C9101 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C301 1-164-360-11 CERAMIC CHIP 0.1uF 16V C9102 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C302 1-162-974-11 CERAMIC CHIP 0.01uF 50V C9103 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C303 1-162-974-11 CERAMIC CHIP 0.01uF 50V C9104 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C304 1-164-360-11 CERAMIC CHIP 0.1uF 16V C9105 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C305 1-162-970-11 CERAMIC CHIP 0.01uF 10% 25V  C9106 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C306 1-162-974-11 CERAMIC CHIP 0.01uF 50V C9107 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C307 1-162-970-11 CERAMIC CHIP 0.01uF 10% 25V C9108 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C308 1-162-967-11 CERAMIC CHIP 0.0033uF 10% 50V C9109 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C309 1-104-913-11 TANTAL. CHIP 10uF 20.00% 16V C9110 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C310 1-164-489-11 CERAMIC CHIP 0.22uF 10.00% 16V  C9111 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C312 1-163-809-11 CERAMIC CHIP 0.047uF 10% 25V C9112 1-162-964-11 CERAMIC CHIP 0.001uF 10% 50V C313 1-164-227-11 CERAMIC CHIP 0.022uF 10% 25V  C314 1-164-227-11 CERAMIC CHIP 0.022uF 10% 25V C315 1-164-344-11 CERAMIC CHIP 0.068uF 10.00% 25V C316 1-164-227-11 CERAMIC CHIP 0.022uF 10% 25V  C317 1-164-227-11 CERAMIC CHIP 0.022uF 10% 25V C318 1-164-005-11 CERAMIC CHIP 0.47uF 25V C319 1-164-227-11 CERAMIC CHIP 0.022uF 10% 25V C320 1-164-005-11 CERAMIC CHIP 0.47uF 25V																	
<b>&lt; CONNECTOR &gt;</b>																	
CN9101	1-568-002-11	CONNECTOR 26P	CN301 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN302 1-766-759-11 CONNECTOR, FFC/FPC 4P								
CN9102	1-564-505-21	PLUG, CONNECTOR 2P	CN303 1-766-759-11 CONNECTOR, FFC/FPC 4P						CN304 1-766-759-11 CONNECTOR, FFC/FPC 4P								
<b>&lt; JACK &gt;</b>																	
J9101	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (CH1)	CN305 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN306 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9102	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (CH2)	CN307 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN307 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9103	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (CH3)	CN308 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN308 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9104	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (CH4)	CN309 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN309 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9105	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (ADA)	CN310 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN310 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9106	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (PA)	CN311 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN311 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9107	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (LINE OUT2)	CN312 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN312 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
J9108	1-507-999-31	JACK (SMALL TYPE) (DIA. 3.5) (LINE OUT1)	CN313 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN313 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
<b>&lt; LINE FILTER &gt;</b>																	
LF9101	1-416-405-21	FERRITE 0uH	CN314 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN314 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9102	1-416-405-21	FERRITE 0uH	CN315 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN315 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9103	1-416-405-21	FERRITE 0uH	CN316 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN316 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9104	1-416-405-21	FERRITE 0uH	CN317 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN317 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9105	1-403-601-21	FILTER, COMMON MODE	CN318 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN318 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9106	1-403-601-21	FILTER, COMMON MODE	CN319 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN319 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9107	1-403-601-21	FILTER, COMMON MODE	CN320 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN320 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
LF9108	1-403-601-21	FILTER, COMMON MODE	CN321 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P						CN321 1-573-927-11 CONNECTOR, FFC/FPC (ZIF) 18P								
*****																	
<b>&lt; IC &gt;</b>																	
IC301	8-759-350-04	IC MPC17A85ZVMEL	D301 8-719-801-78 DIODE 1S2837-T1						D302 8-719-801-78 DIODE 1S2837-T1								
IC302	8-759-098-52	IC CXA8027N-ELL2000	D303 8-719-801-78 DIODE 1S2837-T1						D304 8-719-801-78 DIODE 1S2837-T1								
<b>&lt; TRANSISTOR &gt;</b>																	
Q301	8-729-015-76	TRANSISTOR UN5211-TX	Q302 8-729-141-48 TRANSISTOR 2SB624T1-BV345						Q303 8-729-141-48 TRANSISTOR 2SB624T1-BV345								
<b>&lt; RESISTOR &gt;</b>																	
R301	1-216-845-11	METAL CHIP 100K 5% 1/16W	R302 1-218-716-11 METAL CHIP 10K 0.5% 1/16W						R303 1-218-716-11 METAL CHIP 10K 0.5% 1/16W								
R302	1-218-716-11	METAL CHIP 10K 0.5% 1/16W	R304 1-216-079-00 METAL CHIP 18K 5% 1/10W						R305 1-216-833-11 METAL CHIP 10K 5% 1/16W								
R303	1-218-716-11	METAL CHIP 10K 0.5% 1/16W	R306 1-216-833-11 METAL CHIP 10K 5% 1/16W						R307 1-216-833-11 METAL CHIP 10K 5% 1/16W								
R304	1-216-079-00	METAL CHIP 18K 5% 1/10W	R308 1-216-833-11 METAL CHIP 10K 5% 1/16W						R309 1-216-833-11 METAL CHIP 10K 5% 1/16W								
R305	1-216-833-11	METAL CHIP 10K 5% 1/16W	R310 1-216-833-11 METAL CHIP 10K 5% 1/16W						R311 1-216-833-11 METAL CHIP 10K 5% 1/16W								

BUM-F1

FOOT SWITCH

LCD

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
R306	1-216-833-11	METAL CHIP	10K	5%	1/16W	*	A-3062-207-A	LCD BOARD, COMPLETE	*****		
R307	1-216-833-11	METAL CHIP	10K	5%	1/16W				< CAPACITOR >		
R308	1-217-806-11	RES-CHIP	1	5%	1/8W	C4003	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
R309	1-217-806-11	RES-CHIP	1	5%	1/8W	C4004	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
R310	1-216-815-11	METAL CHIP	330	5%	1/16W	C4005	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
R311	1-217-806-11	RES-CHIP	1	5%	1/8W	C4009	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
R312	1-217-806-11	RES-CHIP	1	5%	1/8W	C4010	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
R313	1-216-210-00	RES-CHIP	3.3K	5%	1/8W	C4011	1-126-395-11	ELECT	22uF	20%	16V
R314	1-216-194-00	METAL CHIP	680	5%	1/8W	C4012	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
R315	1-216-833-11	METAL CHIP	10K	5%	1/16W	C4014	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
			< SWITCH >			C4016	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
S301	1-692-363-11	SWITCH, PUSH (1 KEY) (PROTECT)				C4017	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
S302	1-692-273-11	SWITCH, PUSH (1 KEY) (REFLECT)				C4019	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
S303	1-692-273-11	SWITCH, PUSH (1 KEY) (DISC IN)				C4020	1-126-395-11	ELECT	22uF	20%	16V
S304	1-572-467-61	SWITCH, PUSH (1 KEY) (LIMIT)				C4021	1-126-395-11	ELECT	22uF	20%	16V
*	1-680-426-11	FOOT SWITCH BOARD				C4022	1-164-346-11	CERAMIC CHIP	1uF	16V	
			*****			C4023	1-126-395-11	ELECT	22uF	20%	16V
			< CAPACITOR >			C4024	1-126-395-11	ELECT	22uF	20%	16V
C8001	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	C4025	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C8002	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	C4026	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C8003	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	C4027	1-126-393-11	ELECT CHIP	33uF	20.00%	10V
C8004	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	C4028	1-128-996-11	ELECT CHIP	4.7uF	20%	50V
C9001	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	C4029	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
			< CONNECTOR >			C4030	1-162-974-11	CERAMIC CHIP	0.01uF	50V	
* CN8001	1-793-807-11	PIN, CONNECTOR (WITH PWB) 20P				C4031	1-128-597-11	ELECT CHIP	4.7uF	20.00%	50V
CN8002	1-750-568-11	SOCKET, CONNECTOR (CONTROL UNIT)				C4032	1-128-593-11	ELECT CHIP	0.47uF	20.00%	50V
			< DIODE >			C4033	1-128-597-11	ELECT CHIP	4.7uF	20.00%	50V
D8001	8-719-017-58	DIODE	MA8068-TX			C4034	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
D8002	8-719-017-58	DIODE	MA8068-TX			C4035	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
D8003	8-719-017-58	DIODE	MA8068-TX			C4036	1-126-395-11	ELECT	22uF	20%	16V
			< FERRITE BEAD >			C4037	1-126-601-11	ELECT CHIP	2.2uF	20%	50V
FB8001	1-414-229-11	FERRITE	0uH			C4038	1-126-191-11	ELECT CHIP	0.47uF	20.00%	50V
FB8002	1-414-229-11	FERRITE	0uH						< CONNECTOR >		
FB8003	1-414-229-11	FERRITE	0uH			* CN4001	1-815-206-21	PIN, CONNECTOR	50P		
FB8004	1-414-229-11	FERRITE	0uH			CN4002	1-770-623-21	PIN, CONNECTOR	6P		
FB8005	1-414-229-11	FERRITE	0uH			CN4003	1-573-929-11	CONNECTOR, FFC/FPC (ZIF)	20P		
			< FILTER >			CN4004	1-770-687-11	CONNECTOR, FFC/FPC	4P		
FL8001	1-411-312-11	FILTER, COMMON MODE							< DIODE >		
			< JACK >			D4001	8-719-069-29	DIODE	RB520S-30TE61		
J8001	1-566-895-11	JACK 1P (REMOTE)				D4002	8-719-069-29	DIODE	RB520S-30TE61		
J9001	1-563-282-11	JACK, SMALL TYPE (EAR)				D4003	8-719-420-77	DIODE	MA724-TX		
			< LINE FILTER >						< IC >		
LF9001	1-403-601-21	FILTER, COMMON MODE				IC4001	8-759-523-92	IC	TC74VHC21FT(EL)		
			< SWITCH >			IC4002	8-759-523-79	IC	TC74VHC02FT(EL)		
S8001	1-570-707-21	SWITCH, SLIDE (TRANSCRIBE)				IC4004	8-759-188-96	IC	SED1335FOB		
			< ***** >			IC4006	6-700-495-01	IC	LC35256FT-70U		
						IC4007	8-759-523-95	IC	TC74VHC74FT(EL)		
						IC4008	8-759-523-79	IC	TC74VHC02FT(EL)		
						IC4010	8-759-524-18	IC	TC74VHC163FT(EL)		
						IC4011	8-759-524-18	IC	TC74VHC163FT(EL)		
						IC4012	8-759-523-95	IC	TC74VHC74FT(EL)		
						IC4013	8-759-582-86	IC	XC62FP3002PR		

LCD

LEVEL METER

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
IC4014	8-759-486-73	IC XC62FP3302PR		R4041	1-216-805-11	METAL CHIP	47 5% 1/16W
IC4015	8-759-582-85	IC XC6382F501MR		R4042	1-216-805-11	METAL CHIP	47 5% 1/16W
IC4016	8-759-524-50	IC TC74VHC541FT(EL)		R4043	1-216-805-11	METAL CHIP	47 5% 1/16W
IC4017	8-759-196-96	IC TC7SH08FU-TE85R		R4044	1-216-805-11	METAL CHIP	47 5% 1/16W
		< COIL >		R4045	1-216-805-11	METAL CHIP	47 5% 1/16W
L4001	1-414-398-11	INDUCTOR	10uH	R4046	1-218-233-11	RES-CHIP	47 5% 1/2W
L4002	1-469-989-11	INDUCTOR	1MH	R4047	1-218-233-11	RES-CHIP	47 5% 1/2W
		< TRANSISTOR >		R4048	1-218-233-11	RES-CHIP	47 5% 1/2W
Q4001	8-729-037-55	TRANSISTOR	2SK1826(TE85L)	R4049	1-218-233-11	RES-CHIP	47 5% 1/2W
Q4002	8-729-023-89	TRANSISTOR	2SJ305(TE85L)	R4050	1-216-805-11	METAL CHIP	47 5% 1/16W
Q4003	8-729-037-55	TRANSISTOR	2SK1826(TE85L)	R4051	1-216-841-11	METAL CHIP	47K 5% 1/16W
Q4004	8-729-023-89	TRANSISTOR	2SJ305(TE85L)	R4052	1-218-899-11	METAL CHIP	150K 0.5% 1/16W
		< RESISTOR >		R4053	1-218-895-11	METAL CHIP	100K 0.5% 1/16W
R4001	1-216-805-11	METAL CHIP	47 5% 1/16W	R4054	1-218-875-11	METAL CHIP	15K 0.5% 1/16W
R4002	1-216-805-11	METAL CHIP	47 5% 1/16W	R4055	1-218-875-11	METAL CHIP	15K 0.5% 1/16W
R4003	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4004	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4005	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4006	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4007	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4008	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4009	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4010	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4011	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4012	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4013	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4014	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4015	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4016	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4017	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4018	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4019	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4020	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4021	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4022	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4023	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4024	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4025	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4026	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4027	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4028	1-216-841-11	METAL CHIP	47K 5% 1/16W				
R4029	1-218-875-11	METAL CHIP	15K 0.5% 1/16W				
R4030	1-218-875-11	METAL CHIP	15K 0.5% 1/16W				
R4031	1-218-895-11	METAL CHIP	100K 0.5% 1/16W				
R4032	1-218-895-11	METAL CHIP	100K 0.5% 1/16W				
R4033	1-218-899-11	METAL CHIP	150K 0.5% 1/16W				
R4034	1-218-895-11	METAL CHIP	100K 0.5% 1/16W				
R4035	1-216-847-11	METAL CHIP	150K 5% 1/16W				
R4036	1-216-855-11	METAL CHIP	680K 5% 1/16W				
R4037	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4038	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4039	1-216-805-11	METAL CHIP	47 5% 1/16W				
R4040	1-216-805-11	METAL CHIP	47 5% 1/16W				
		< THERMISTOR >		TH4001	1-810-947-11	THERMISTOR (1608)	*****
				*	1-680-427-11	LEVEL METER BOARD	*****
					3-225-530-01	BRACKET (LED MOUNT B)	
		< CAPACITOR >		C9201	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9202	1-164-156-11	CERAMIC CHIP	0.1uF 25V
				C9203	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9204	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9205	1-164-156-11	CERAMIC CHIP	0.1uF 25V
				C9206	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9207	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9208	1-164-156-11	CERAMIC CHIP	0.1uF 25V
				C9209	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9210	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
				C9211	1-164-156-11	CERAMIC CHIP	0.1uF 25V
				C9212	1-104-851-11	TANTAL. CHIP	10uF 20.00% 10V
		< CONNECTOR >					
				*	CN9201	1-793-807-11	PIN, CONNECTOR (WITH PWB) 20P
		< DIODE >		D9201	8-719-077-40	LED SLR-322MG3F	
				D9202	8-719-077-40	LED SLR-322MG3F	
				D9203	8-719-077-40	LED SLR-322MG3F	
				D9204	8-719-077-40	LED SLR-322MG3F	
				D9205	8-719-077-40	LED SLR-322MG3F	
				D9206	8-719-077-40	LED SLR-322MG3F	
				D9207	8-719-077-40	LED SLR-322MG3F	
				D9208	8-719-077-40	LED SLR-322MG3F	
				D9209	8-719-077-40	LED SLR-322MG3F	
				D9210	8-719-077-40	LED SLR-322MG3F	
				D9211	8-719-077-40	LED SLR-322MG3F	
				D9212	8-719-077-40	LED SLR-322MG3F	
				D9213	8-719-059-50	DIODE MA3J142D0LS0	
				D9214	8-719-059-50	DIODE MA3J142D0LS0	
				D9215	8-719-077-40	LED SLR-322MG3F (ALL)	

## LEVEL METER

## LINE SELECTOR

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
D9216	8-719-077-40	LED SLR-322MG3F (1)				< SWITCH >	
D9217	8-719-077-40	LED SLR-322MG3F (2)		S9201	1-786-094-11	SWITCH BLOCK (MONITOR)	*****
D9218	8-719-077-40	LED SLR-322MG3F (3)				*****	
D9219	8-719-077-40	LED SLR-322MG3F (4)		*	1-680-429-11	LINE SELECTOR BOARD	*****
		< FERRITE BEAD >					
FB9201	1-414-229-11	FERRITE 0uH					
FB9202	1-414-229-11	FERRITE 0uH					
FB9203	1-414-229-11	FERRITE 0uH					
FB9204	1-414-229-11	FERRITE 0uH					
FB9205	1-414-229-11	FERRITE 0uH					
FB9206	1-414-229-11	FERRITE 0uH		*	CN9301	1-793-807-11	PIN, CONNECTOR (WITH PWB) 20P
FB9207	1-414-229-11	FERRITE 0uH		CN9401	1-770-623-21	PIN, CONNECTOR 6P	
FB9208	1-414-229-11	FERRITE 0uH					
FB9209	1-414-229-11	FERRITE 0uH					
		< DIODE >					
IC9201	6-700-089-01	IC BA6124F-E2		D9301	8-719-059-50	DIODE MA3J142D0LS0	
IC9202	6-700-089-01	IC BA6124F-E2		D9302	8-719-059-50	DIODE MA3J142D0LS0	
IC9203	6-700-089-01	IC BA6124F-E2		D9303	8-719-077-40	LED SLR-322MG3F (ALL)	
IC9204	6-700-089-01	IC BA6124F-E2		D9304	8-719-077-40	LED SLR-322MG3F (1)	
		< TRANSISTOR >		D9305	8-719-077-40	LED SLR-322MG3F (2)	
Q9201	8-729-402-96	TRANSISTOR UN5114-TX		D9306	8-719-077-40	LED SLR-322MG3F (3)	
Q9202	8-729-030-46	TRANSISTOR XP4314-TX		D9307	8-719-077-40	LED SLR-322MG3F (4)	
Q9203	8-729-030-46	TRANSISTOR XP4314-TX		D9308	8-719-059-50	DIODE MA3J142D0LS0	
		< RESISTOR >		D9309	8-719-059-50	DIODE MA3J142D0LS0	
R9201	1-216-833-11	METAL CHIP 10K 5% 1/16W		D9310	8-719-077-40	LED SLR-322MG3F (ALL)	
R9202	1-216-833-11	METAL CHIP 10K 5% 1/16W		D9311	8-719-077-40	LED SLR-322MG3F (1)	
R9203	1-216-833-11	METAL CHIP 10K 5% 1/16W		D9312	8-719-077-40	LED SLR-322MG3F (2)	
R9204	1-216-833-11	METAL CHIP 10K 5% 1/16W		D9313	8-719-077-40	LED SLR-322MG3F (3)	
R9205	1-216-821-11	METAL CHIP 1K 5% 1/16W		D9314	8-719-077-40	LED SLR-322MG3F (4)	
		< FERRITE BEAD >		D9315	8-719-077-40	LED SLR-322MG3F	
R9206	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9301	1-414-229-11	FERRITE 0uH	
R9207	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9302	1-414-229-11	FERRITE 0uH	
R9208	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9303	1-414-229-11	FERRITE 0uH	
R9209	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9304	1-414-229-11	FERRITE 0uH	
R9210	1-216-841-11	METAL CHIP 47K 5% 1/16W		FB9305	1-414-229-11	FERRITE 0uH	
				FB9306	1-414-229-11	FERRITE 0uH	
R9211	1-216-841-11	METAL CHIP 47K 5% 1/16W		FB9307	1-414-229-11	FERRITE 0uH	
R9212	1-216-841-11	METAL CHIP 47K 5% 1/16W		FB9308	1-414-229-11	FERRITE 0uH	
R9213	1-216-841-11	METAL CHIP 47K 5% 1/16W		FB9309	1-414-229-11	FERRITE 0uH	
R9214	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9310	1-414-229-11	FERRITE 0uH	
R9215	1-216-821-11	METAL CHIP 1K 5% 1/16W					
		< TRANSISTOR >		FB9313	1-414-229-11	FERRITE 0uH	
R9216	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9314	1-414-229-11	FERRITE 0uH	
R9217	1-216-821-11	METAL CHIP 1K 5% 1/16W		FB9315	1-414-229-11	FERRITE 0uH	
R9218	1-216-821-11	METAL CHIP 1K 5% 1/16W					
R9219	1-216-821-11	METAL CHIP 1K 5% 1/16W		Q9301	8-729-030-46	TRANSISTOR XP4314-TX	
R9220	1-216-821-11	METAL CHIP 1K 5% 1/16W		Q9302	8-729-402-96	TRANSISTOR UN5114-TX	
		< RESISTOR >					
R9221	1-216-821-11	METAL CHIP 1K 5% 1/16W		R9301	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R9222	1-216-821-11	METAL CHIP 1K 5% 1/16W		R9302	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R9223	1-216-821-11	METAL CHIP 1K 5% 1/16W		R9303	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R9224	1-216-821-11	METAL CHIP 1K 5% 1/16W		R9304	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R9225	1-216-821-11	METAL CHIP 1K 5% 1/16W		R9305	1-216-821-11	METAL CHIP 1K 5% 1/16W	
		< VARIABLE RESISTOR >					
RV9201	1-225-901-11	RES, ADJ, CERMET (3 TYPE) 10K		R9306	1-216-841-11	METAL CHIP 47K 5% 1/16W	
RV9202	1-225-901-11	RES, ADJ, CERMET (3 TYPE) 10K		R9307	1-216-841-11	METAL CHIP 47K 5% 1/16W	
RV9203	1-225-901-11	RES, ADJ, CERMET (3 TYPE) 10K		R9308	1-216-841-11	METAL CHIP 47K 5% 1/16W	
RV9204	1-225-901-11	RES, ADJ, CERMET (3 TYPE) 10K		R9309	1-216-841-11	METAL CHIP 47K 5% 1/16W	
				R9310	1-216-821-11	METAL CHIP 1K 5% 1/16W	

## LINE SELECTOR

## MAIN

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description		Remarks
R9311	1-216-821-11	METAL CHIP	1K	5%	1/16W	C136	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
R9312	1-216-821-11	METAL CHIP	1K	5%	1/16W	C137	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
R9313	1-216-821-11	METAL CHIP	1K	5%	1/16W	C138	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
R9314	1-216-821-11	METAL CHIP	1K	5%	1/16W	C139	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
R9315	1-216-841-11	METAL CHIP	47K	5%	1/16W	C140	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
R9316	1-216-841-11	METAL CHIP	47K	5%	1/16W	C141	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
R9317	1-216-841-11	METAL CHIP	47K	5%	1/16W	C142	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V
R9318	1-216-841-11	METAL CHIP	47K	5%	1/16W	C143	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
R9319	1-216-821-11	METAL CHIP	1K	5%	1/16W	C144	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V
					< SWITCH >	C145	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V
S9301	1-786-094-11	SWITCH BLOCK (LINE OUT 1)				C146	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V
S9302	1-786-094-11	SWITCH BLOCK (LINE OUT 2)				C147	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V
S9303	1-554-481-00	SWITCH, SLIDE (ADA/PA ON)				C148	1-164-156-11	CERAMIC CHIP	0.1uF	25V
S9401	1-786-093-11	SWITCH (KEY LOCK) (STAND BY)				C149	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
					*****	C150	1-164-156-11	CERAMIC CHIP	0.1uF	25V
*	A-3021-371-A	MAIN BOARD, COMPLETE				C151	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V
					*****	C152	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
	3-899-248-11	SCREW (M3X8)				C153	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V
					< HOLDER >	C154	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V
BT1	1-550-414-21	HOLDER, BATTERY				C155	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
					< CAPACITOR >	C156	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C157	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C102	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C158	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C103	1-135-177-21	TANTALUM CHIP	1uF	20%	20V	C159	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C104	1-135-177-21	TANTALUM CHIP	1uF	20%	20V	C160	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C105	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C161	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C106	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C162	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C107	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C165	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C108	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C166	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C109	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C167	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C110	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C168	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C111	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C169	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C112	1-107-686-11	TANTAL. CHIP	4.7uF	20.00%	16V	C170	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C113	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C171	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C114	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C172	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C115	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C201	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C116	1-104-913-11	TANTAL. CHIP	10uF	20.00%	16V	C202	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C117	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C203	1-135-177-21	TANTALUM CHIP	1uF	20% 20V
C118	1-104-915-11	TANTAL. CHIP	2.2uF	20.00%	16V	C204	1-135-177-21	TANTALUM CHIP	1uF	20% 20V
C119	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C206	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C120	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C208	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C121	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C210	1-162-915-11	CERAMIC CHIP	10PF	0.5PF 50V
C122	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C211	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V
C123	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C215	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C124	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C216	1-104-915-11	TANTAL. CHIP	2.2uF	20.00% 16V
C125	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C217	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C126	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C218	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C127	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C219	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C128	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V	C223	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C129	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C224	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C130	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C225	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C131	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C226	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C132	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C228	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C133	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C301	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C134	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C302	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C135	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C303	1-135-177-21	TANTALUM CHIP	1uF	20% 20V
						C304	1-135-177-21	TANTALUM CHIP	1uF	20% 20V
						C305	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
						C306	1-164-156-11	CERAMIC CHIP	0.1uF	25V
						C307	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V

Ref. No.	Part No.	Description	Remarks		Ref. No.	Part No.	Description	Remarks	
C308	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C370	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C309	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C371	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C310	1-162-915-11	CERAMIC CHIP	10PF	0.5PF 50V	C372	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C311	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C401	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C312	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V	C402	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C313	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C403	1-135-177-21	TANTALUM CHIP	1uF	20% 20V
C314	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C404	1-135-177-21	TANTALUM CHIP	1uF	20% 20V
C315	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C406	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C316	1-104-913-11	TANTAL. CHIP	10uF	20.00% 16V	C408	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C317	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C410	1-162-915-11	CERAMIC CHIP	10PF	0.5PF 50V
C318	1-104-915-11	TANTAL. CHIP	2.2uF	20.00% 16V	C411	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V
C319	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C415	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C320	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C416	1-104-915-11	TANTAL. CHIP	2.2uF	20.00% 16V
C321	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C417	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C322	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C418	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C323	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C419	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C324	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C423	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C325	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C424	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C326	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C425	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C327	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	C426	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C328	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V	C428	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C329	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C501	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C330	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C502	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C331	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C503	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C332	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C504	1-104-913-11	TANTAL. CHIP	10uF	20.00% 16V
C333	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C505	1-104-913-11	TANTAL. CHIP	10uF	20.00% 16V
C334	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C506	1-104-913-11	TANTAL. CHIP	10uF	20.00% 16V
C335	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C507	1-164-361-11	CERAMIC CHIP	0.047uF	16V
C336	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C508	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C337	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C509	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C338	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C510	1-104-913-11	TANTAL. CHIP	10uF	20.00% 16V
C339	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C511	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C340	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	C512	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C341	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V	C513	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C342	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V	C514	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C343	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C515	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V
C344	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V	C516	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C345	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V	C517	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C346	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V	C518	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C347	1-107-686-11	TANTAL. CHIP	4.7uF	20.00% 16V	C519	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V
C348	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C520	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C349	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C521	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C350	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C522	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C351	1-107-826-11	CERAMIC CHIP	0.1uF	10.00% 16V	C523	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C352	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C524	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C353	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V	C525	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C354	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V	C526	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C355	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C527	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C356	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C528	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C357	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C529	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C358	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C530	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C359	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C531	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C360	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C532	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C361	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C533	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C362	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C534	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C365	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V	C535	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C366	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V	C536	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C367	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C537	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C368	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C538	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C369	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V	C539	1-164-156-11	CERAMIC CHIP	0.1uF	25V

## MAIN

Ref. No.	Part No.	Description	Remarks		Ref. No.	Part No.	Description	Remarks		
C540	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C709	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C541	1-128-964-11	TANTAL. CHIP	100uF	20%	6.3V	C710	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C542	1-128-964-11	TANTAL. CHIP	100uF	20%	6.3V	C711	1-126-934-11	ELECT	220uF	20.00% 16V
C543	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C712	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C544	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C713	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C545	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C714	1-117-681-11	ELECT CHIP	100uF	20.00% 16V
C546	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C715	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C547	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C716	1-117-681-11	ELECT CHIP	100uF	20.00% 16V	
C548	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C717	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C549	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C718	1-119-750-11	TANTAL. CHIP	22uF	20.00% 6.3V
C550	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C719	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C551	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C720	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C552	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C721	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C553	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C722	1-162-969-11	CERAMIC CHIP	0.0068uF	10% 25V	
C554	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C723	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C555	1-128-964-11	TANTAL. CHIP	100uF	20%	6.3V	C724	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C556	1-128-964-11	TANTAL. CHIP	100uF	20%	6.3V	C725	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C557	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C726	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V	
C558	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C727	1-125-837-11	CERAMIC CHIP	1uF	10% 6.3V
C559	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C728	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C560	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C729	1-104-851-11	TANTAL. CHIP	10uF	20.00% 10V
C561	1-104-913-11	TANTAL. CHIP	10uF	20.00%	16V	C1004	1-162-971-11	CERAMIC CHIP	0.001uF	10.00% 50V
C562	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1005	1-164-361-11	CERAMIC CHIP	0.047uF	16V	
C563	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1006	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C564	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1007	1-165-112-11	CERAMIC CHIP	0.33uF	16V	
C565	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1008	1-162-971-11	CERAMIC CHIP	0.001uF	10.00% 50V
C566	1-104-913-11	TANTAL. CHIP	10uF	20.00%	16V	C1009	1-165-112-11	CERAMIC CHIP	0.33uF	16V
C567	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1010	1-165-112-11	CERAMIC CHIP	0.33uF	16V	
C568	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1011	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C569	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1012	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C570	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1013	1-164-361-11	CERAMIC CHIP	0.047uF	16V
C571	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1014	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C572	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1015	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C573	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1016	1-165-112-11	CERAMIC CHIP	0.33uF	16V
C574	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1017	1-165-112-11	CERAMIC CHIP	0.33uF	16V	
C575	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1018	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C576	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1019	1-165-112-11	CERAMIC CHIP	0.33uF	16V
C577	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1021	1-126-204-11	ELECT CHIP	47uF	20% 16V	
C578	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1022	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C579	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1024	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C580	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1025	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C581	1-104-913-11	TANTAL. CHIP	10uF	20.00%	16V	C1026	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C582	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1029	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C583	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1030	1-162-915-11	CERAMIC CHIP	10PF	0.5PF 50V
C584	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1031	1-162-915-11	CERAMIC CHIP	10PF	0.5PF 50V
C585	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1032	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C586	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1033	1-126-204-11	ELECT CHIP	47uF	20% 16V	
C587	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1034	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C588	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C1035	1-126-204-11	ELECT CHIP	47uF	20% 16V
C589	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C1036	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C590	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1037	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C591	1-104-851-11	TANTAL. CHIP	10uF	20.00%	10V	C1038	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C701	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1039	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C702	1-126-940-11	ELECT	330uF	20.00%	25V	C1040	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C703	1-126-940-11	ELECT	330uF	20.00%	25V	C1041	1-126-204-11	ELECT CHIP	47uF	20% 16V
C704	1-126-940-11	ELECT	330uF	20.00%	25V	C1042	1-126-204-11	ELECT CHIP	47uF	20% 16V
C705	1-126-940-11	ELECT	330uF	20.00%	25V	C1043	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C706	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1044	1-126-204-11	ELECT CHIP	47uF	20% 16V	
C707	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C1045	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C708	1-126-934-11	ELECT	220uF	20.00%	16V	C1047	1-164-156-11	CERAMIC CHIP	0.1uF	25V

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description		Remarks
C1048	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1123	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1049	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1124	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1050	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1125	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1051	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1126	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1052	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1128	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1053	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1129	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1054	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1130	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1055	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1131	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1056	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C1132	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1057	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1133	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1058	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1134	1-162-971-11	CERAMIC CHIP	0.001uF	10.00% 50V
C1059	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1135	1-162-971-11	CERAMIC CHIP	0.001uF	10.00% 50V
C1060	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1136	1-162-971-11	CERAMIC CHIP	0.001uF	10.00% 50V
C1061	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1137	1-126-942-61	ELECT	1000uF	20.00% 25V
C1062	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1138	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1063	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1139	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1064	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1140	1-164-346-11	CERAMIC CHIP	1uF	16V
C1065	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1142	1-162-962-11	CERAMIC CHIP	470PF	10% 50V
C1066	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1143	1-162-967-11	CERAMIC CHIP	0.0033uF	10% 50V
C1067	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1144	1-162-967-11	CERAMIC CHIP	0.0033uF	10% 50V
C1068	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1145	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1069	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1146	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1070	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1147	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1071	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1148	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1080	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1149	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1081	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1150	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1082	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1151	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1083	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1152	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1084	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1153	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1085	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1154	1-128-399-11	ELECT CHIP	330uF	20.00% 16V
C1086	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1155	1-126-204-11	ELECT CHIP	47uF	20% 16V
C1087	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1156	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1088	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1157	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1089	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1162	1-164-346-11	CERAMIC CHIP	1uF	16V
C1090	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1165	1-126-204-11	ELECT CHIP	47uF	20% 16V
C1091	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1167	1-164-346-11	CERAMIC CHIP	1uF	16V
C1092	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1171	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1093	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1174	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1094	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1175	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1095	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1177	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C1096	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1178	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1097	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1179	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1099	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1180	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1102	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1181	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1103	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1182	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1104	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1183	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1105	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1184	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1106	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1185	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1107	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1186	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1108	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1187	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1110	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1188	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1111	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1189	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1112	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1190	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1113	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1191	1-162-959-11	CERAMIC CHIP	330PF	5% 50V
C1114	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1192	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1115	1-126-204-11	ELECT CHIP	47uF	20%	16V	C1193	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1117	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1194	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1120	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1195	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1121	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1196	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
C1122	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C1197	1-162-927-11	CERAMIC CHIP	100PF	5% 50V

## MAIN

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description		Remarks
C1198	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D1008	8-719-076-95	DIODE	PTZ-TE25-18B	
C1199	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< FUSE >		
C1200	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	F1001	1-533-829-21	FUSE, CHIP		
C1201	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< FERRITE BEAD >		
C1202	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< FERRITE BEAD >		
C1203	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< FERRITE BEAD >		
C1204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1001	1-414-229-11	FERRITE	0uH	
C1205	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1002	1-414-229-11	FERRITE	0uH	
C1206	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1003	1-414-229-11	FERRITE	0uH	
C1207	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1004	1-414-229-11	FERRITE	0uH	
C1208	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1005	1-414-229-11	FERRITE	0uH	
C1209	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1006	1-414-229-11	FERRITE	0uH	
C1210	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1007	1-414-229-11	FERRITE	0uH	
C1211	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1008	1-414-229-11	FERRITE	0uH	
C1213	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1009	1-414-229-11	FERRITE	0uH	
C1214	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1010	1-414-229-11	FERRITE	0uH	
C1215	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1011	1-414-229-11	FERRITE	0uH	
C1216	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1012	1-414-229-11	FERRITE	0uH	
C1217	1-164-005-11	CERAMIC CHIP	0.47uF		25V	FB1013	1-414-229-11	FERRITE	0uH	
C1218	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1015	1-414-229-11	FERRITE	0uH	
C1219	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1016	1-414-229-11	FERRITE	0uH	
C1220	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1017	1-414-229-11	FERRITE	0uH	
C1221	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB1018	1-414-229-11	FERRITE	0uH	
C1222	1-162-959-11	CERAMIC CHIP	330PF	5%	50V	FB1019	1-414-229-11	FERRITE	0uH	
C1223	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB1020	1-414-229-11	FERRITE	0uH	
C1224	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	FB1021	1-414-229-11	FERRITE	0uH	
< CONNECTOR >										
* CN101	1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P				FB1022	1-414-229-11	FERRITE	0uH	
* CN102	1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P				FB1023	1-414-229-11	FERRITE	0uH	
* CN103	1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P				FB1024	1-414-229-11	FERRITE	0uH	
* CN104	1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P				FB1025	1-414-229-11	FERRITE	0uH	
* CN109	1-793-807-11	PIN, CONNECTOR (WITH PWB) 20P				FB1026	1-414-229-11	FERRITE	0uH	
* CN110	1-793-807-11	PIN, CONNECTOR (WITH PWB) 20P				FB1027	1-414-229-11	FERRITE	0uH	
CN111	1-568-002-11	CONNECTOR 26P				FB1028	1-414-229-11	FERRITE	0uH	
* CN112	1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P				FB1029	1-414-229-11	FERRITE	0uH	
CN1001	1-774-666-11	CONNECTOR, FFC/FPC 30P				FB1030	1-414-229-11	FERRITE	0uH	
* CN1002	1-793-807-11	PIN, CONNECTOR (WITH PWB) 20P				FB1031	1-414-229-11	FERRITE	0uH	
CN1003	1-785-125-11	CONNECTOR 6P				FB1058	1-414-229-11	FERRITE	0uH	
* CN1004	1-815-206-21	PIN, CONNECTOR 50P				FB1059	1-414-229-11	FERRITE	0uH	
CN1005	1-770-700-11	CONNECTOR, FFC/FPC 17P				FB1060	1-414-229-11	FERRITE	0uH	
CN1006	1-770-700-11	CONNECTOR, FFC/FPC 17P				FB1061	1-414-229-11	FERRITE	0uH	
CN1007	1-785-125-11	CONNECTOR 6P				FB1062	1-414-229-11	FERRITE	0uH	
< DIODE >										
D101	8-719-975-43	DIODE SB02-03C-TB				FB1063	1-414-229-11	FERRITE	0uH	
D201	8-719-975-43	DIODE SB02-03C-TB				FB1064	1-414-229-11	FERRITE	0uH	
D301	8-719-975-43	DIODE SB02-03C-TB				FB1065	1-414-229-11	FERRITE	0uH	
D401	8-719-975-43	DIODE SB02-03C-TB				FB1066	1-414-229-11	FERRITE	0uH	
D501	8-719-404-50	DIODE MA111-TX				FB1067	1-414-229-11	FERRITE	0uH	
D701	8-719-404-50	DIODE MA111-TX				FB1068	1-414-229-11	FERRITE	0uH	
D702	8-719-053-18	DIODE ISR154-400TE-25				FB1069	1-414-229-11	FERRITE	0uH	
D703	8-719-053-18	DIODE ISR154-400TE-25				FB1070	1-414-229-11	FERRITE	0uH	
D704	8-719-053-18	DIODE ISR154-400TE-25				FB1071	1-414-229-11	FERRITE	0uH	
D1001	8-719-069-29	DIODE RB520S-30TE61				FB1072	1-414-229-11	FERRITE	0uH	
D1002	8-719-069-29	DIODE RB520S-30TE61				FB1073	1-414-229-11	FERRITE	0uH	
D1004	8-719-066-98	DIODE RB051L-40TE25				FB1074	1-414-229-11	FERRITE	0uH	
D1005	8-719-066-98	DIODE RB051L-40TE25				FB1075	1-414-229-11	FERRITE	0uH	
D1006	8-719-067-33	DIODE MA2HD0800LS0				FB1076	1-414-229-11	FERRITE	0uH	
D1007	8-719-066-98	DIODE RB051L-40TE25				FB1077	1-414-229-11	FERRITE	0uH	

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
FB1084	1-414-229-11	FERRITE	0uH			< IC >	
FB1085	1-414-229-11	FERRITE	0uH	IC101	8-759-330-74	IC NJM2122M-TE2	
FB1086	1-414-229-11	FERRITE	0uH	IC102	8-759-357-68	IC NJM2115M-TE2	
FB1087	1-414-229-11	FERRITE	0uH	IC103	8-759-357-68	IC NJM2115M-TE2	
FB1088	1-414-229-11	FERRITE	0uH	IC104	8-759-357-68	IC NJM2115M-TE2	
FB1091	1-414-229-11	FERRITE	0uH	IC105	8-759-689-64	IC AK4522VF-E2	
FB1092	1-500-284-21	FERRITE	0uH	IC106	8-759-357-68	IC NJM2115M-TE2	
FB1093	1-500-284-21	FERRITE	0uH	IC107	8-759-357-68	IC NJM2115M-TE2	
FB1094	1-500-284-21	FERRITE	0uH	IC203	8-759-357-68	IC NJM2115M-TE2	
FB1095	1-500-284-21	FERRITE	0uH	IC301	8-759-330-74	IC NJM2122M-TE2	
FB1096	1-500-284-21	FERRITE	0uH	IC302	8-759-357-68	IC NJM2115M-TE2	
FB1097	1-500-284-21	FERRITE	0uH	IC303	8-759-357-68	IC NJM2115M-TE2	
FB1098	1-500-284-21	FERRITE	0uH	IC304	8-759-357-68	IC NJM2115M-TE2	
FB1099	1-500-284-21	FERRITE	0uH	IC305	8-759-689-64	IC AK4522VF-E2	
FB1100	1-500-284-21	FERRITE	0uH	IC306	8-759-357-68	IC NJM2115M-TE2	
FB1101	1-500-284-21	FERRITE	0uH	IC307	8-759-357-68	IC NJM2115M-TE2	
FB1102	1-500-284-21	FERRITE	0uH	IC403	8-759-357-68	IC NJM2115M-TE2	
FB1103	1-500-284-21	FERRITE	0uH	IC501	8-759-075-69	IC NJU4066BV(TE2)	
FB1104	1-500-284-21	FERRITE	0uH	IC502	8-759-075-69	IC NJU4066BV(TE2)	
FB1105	1-500-284-21	FERRITE	0uH	IC503	8-759-075-69	IC NJU4066BV(TE2)	
FB1106	1-500-284-21	FERRITE	0uH	IC504	8-759-357-68	IC NJM2115M-TE2	
FB1107	1-500-284-21	FERRITE	0uH	IC505	8-759-357-68	IC NJM2115M-TE2	
FB1108	1-500-284-21	FERRITE	0uH	IC506	8-759-357-68	IC NJM2115M-TE2	
FB1109	1-500-284-21	FERRITE	0uH	IC507	8-759-701-54	IC NJM2073D	
FB1110	1-500-283-11	FERRITE	0uH	IC508	8-759-573-33	IC NJU7082BV(TE2)	
FB1111	1-500-283-11	FERRITE	0uH	IC509	8-759-573-33	IC NJU7082BV(TE2)	
FB1112	1-500-283-11	FERRITE	0uH	IC510	8-759-357-68	IC NJM2115M-TE2	
FB1113	1-500-283-11	FERRITE	0uH	IC511	8-759-357-68	IC NJM2115M-TE2	
FB1114	1-500-283-11	FERRITE	0uH	IC512	8-759-357-68	IC NJM2115M-TE2	
FB1115	1-500-283-11	FERRITE	0uH	IC513	8-759-357-68	IC NJM2115M-TE2	
FB1116	1-414-229-11	FERRITE	0uH	IC701	8-759-476-24	IC BA09SFP-E2	
FB1117	1-414-229-11	FERRITE	0uH	IC702	8-759-496-15	IC BA05ST-V5	
FB1118	1-414-229-11	FERRITE	0uH	IC703	8-759-486-73	IC XC62FP3302PR	
FB1119	1-414-229-11	FERRITE	0uH	IC704	8-759-523-79	IC TC74VHC02FT(EL)	
FB1120	1-414-229-11	FERRITE	0uH	IC705	8-759-523-78	IC TC74VHC00FT(EL)	
FB1121	1-414-229-11	FERRITE	0uH	IC706	8-759-357-68	IC NJM2115M-TE2	
FB1122	1-500-283-11	FERRITE	0uH	IC1001	8-759-484-69	IC MAX3221CAE-TE2	
FB1123	1-500-283-11	FERRITE	0uH	IC1002	8-759-918-65	IC TL7700CPS-E20	
FB1124	1-500-284-21	FERRITE	0uH	IC1003	8-759-385-35	IC BR93LC66RF	
FB1125	1-500-284-21	FERRITE	0uH	IC1004	8-759-641-91	IC RV5C348A-E2	
			< FILTER >	IC1005	8-759-484-69	IC MAX3221CAE-TE2	
FL101	1-416-405-21	FERRITE	0uH	IC1006	8-759-271-86	IC TC7SH04FU-TE85R	
FL102	1-416-405-21	FERRITE	0uH	IC1007	8-759-446-15	IC HD6413003TF16	
FL201	1-416-405-21	FERRITE	0uH	IC1008	8-759-657-24	IC XC61FC4512PR	
FL202	1-416-405-21	FERRITE	0uH	IC1009	8-759-196-96	IC TC7SH08FU-TE85R	
FL301	1-416-405-21	FERRITE	0uH	IC1010	8-759-837-09	IC HN27C4096AHG-85	
FL302	1-416-405-21	FERRITE	0uH	IC1011	8-759-524-28	IC TC74VHC245FT(EL)	
FL401	1-416-405-21	FERRITE	0uH	IC1012	8-759-196-97	IC TC7SH32FU-TE85R	
FL402	1-416-405-21	FERRITE	0uH	IC1013	8-759-524-50	IC TC74VHC541FT(EL)	
FL1001	1-233-736-21	FILTER, EMI		IC1014	8-759-196-96	IC TC7SH08FU-TE85R	
FL1002	1-233-736-21	FILTER, EMI		IC1015	8-759-523-95	IC TC74VHC74FT(EL)	
FL1003	1-416-846-11	COIL, LINE FILTER		IC1016	6-700-495-01	IC LC35256FT-70U	
				IC1017	8-759-712-42	IC GM71C16160CJ-6T	
				IC1018	8-759-271-88	IC TC7SHU04FU-TE85R	
				IC1019	8-759-523-95	IC TC74VHC74FT(EL)	
				IC1020	8-759-271-86	IC TC7SH04FU-TE85R	

## MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
IC1021	8-759-441-74	IC CXD8655Q		L1011	1-414-398-11	INDUCTOR	10uH
IC1022	8-759-327-60	IC TC7W125FU-TE12R		L1012	1-414-398-11	INDUCTOR	10uH
IC1023	8-759-443-00	IC AM7200-50JC		L1013	1-414-529-21	INDUCTOR	100uH
IC1024	8-759-443-00	IC AM7200-50JC		L1014	1-414-529-21	INDUCTOR	100uH
IC1025	8-759-443-00	IC AM7200-50JC		L1018	1-414-398-11	INDUCTOR	10uH
IC1026	8-759-443-00	IC AM7200-50JC				< TRANSISTOR >	
IC1027	8-759-524-50	IC TC74VHC541FT(EL)		Q101	8-729-427-83	TRANSISTOR	XP6501-(TX).SO
IC1032	8-759-271-86	IC TC7SH04FU-TE85R		Q102	8-729-230-60	TRANSISTOR	2SA1586YG-TE85L
IC1033	8-752-375-14	IC CXD1809R		Q103	8-729-230-63	TRANSISTOR	2SC4116YG-TE85L
IC1034	8-759-475-45	IC TC74LCX157FT(EL)		Q201	8-729-427-83	TRANSISTOR	XP6501-(TX).SO
IC1035	8-759-475-45	IC TC74LCX157FT(EL)		Q202	8-729-230-60	TRANSISTOR	2SA1586YG-TE85L
IC1036	8-759-196-96	IC TC7SH08FU-TE85R		Q203	8-729-230-63	TRANSISTOR	2SC4116YG-TE85L
IC1037	8-759-271-86	IC TC7SH04FU-TE85R		Q301	8-729-427-83	TRANSISTOR	XP6501-(TX).SO
IC1038	8-759-196-96	IC TC7SH08FU-TE85R		Q302	8-729-230-60	TRANSISTOR	2SA1586YG-TE85L
IC1039	8-759-196-96	IC TC7SH08FU-TE85R		Q303	8-729-230-63	TRANSISTOR	2SC4116YG-TE85L
IC1040	8-759-196-97	IC TC7SH32FU-TE85R		Q401	8-729-427-83	TRANSISTOR	XP6501-(TX).SO
IC1041	8-759-196-97	IC TC7SH32FU-TE85R		Q402	8-729-230-60	TRANSISTOR	2SA1586YG-TE85L
IC1042	8-752-403-46	IC CXD1858R		Q403	8-729-230-63	TRANSISTOR	2SC4116YG-TE85L
IC1043	8-759-523-94	IC TC74VHC32FT(EL)		Q501	8-729-402-93	TRANSISTOR	UN5214-TX
IC1046	8-759-485-79	IC TC7SET08FU(TE85R)		Q502	8-729-402-93	TRANSISTOR	UN5214-TX
IC1047	8-759-196-96	IC TC7SH08FU-TE85R		Q503	8-729-425-88	TRANSISTOR	XP1114-TXE
IC1048	8-759-271-86	IC TC7SH04FU-TE85R		Q504	8-729-030-46	TRANSISTOR	XP4314-TX
IC1050	8-759-196-97	IC TC7SH32FU-TE85R		Q505	8-729-420-74	TRANSISTOR	2SD1328-RST-TX
IC1051	8-752-403-46	IC CXD1858R		Q506	8-729-426-31	TRANSISTOR	XP1214-TXE
IC1052	8-759-523-94	IC TC74VHC32FT(EL)		Q507	8-729-426-01	TRANSISTOR	XP1119
IC1055	8-759-485-79	IC TC7SET08FU(TE85R)		Q508	8-729-420-74	TRANSISTOR	2SD1328-RST-TX
IC1056	8-759-196-96	IC TC7SH08FU-TE85R		Q509	8-729-420-74	TRANSISTOR	2SD1328-RST-TX
IC1057	8-759-271-86	IC TC7SH04FU-TE85R		Q510	8-729-425-88	TRANSISTOR	XP1114-TXE
IC1059	8-759-524-18	IC TC74VHC163FT(EL)		Q511	8-729-425-18	TRANSISTOR	XN4504-TX
IC1060	8-759-524-18	IC TC74VHC163FT(EL)		Q512	8-729-425-88	TRANSISTOR	XP1114-TXE
IC1061	8-759-523-95	IC TC74VHC74FT(EL)		Q513	8-729-402-93	TRANSISTOR	UN5214-TX
IC1062	8-759-271-86	IC TC7SH04FU-TE85R		Q514	8-729-425-18	TRANSISTOR	XN4504-TX
IC1063	8-759-196-96	IC TC7SH08FU-TE85R		Q515	8-729-425-88	TRANSISTOR	XP1114-TXE
IC1064	8-759-166-48	IC MB3778PFV-EF		Q516	8-729-425-88	TRANSISTOR	XP1114-TXE
IC1065	8-759-486-73	IC XC62FP3302PR		Q517	8-729-420-74	TRANSISTOR	2SD1328-RST-TX
IC1067	6-700-495-01	IC LC35256FT-70U		Q518	8-729-420-74	TRANSISTOR	2SD1328-RST-TX
IC1069	8-759-486-73	IC XC62FP3302PR		Q519	8-729-425-88	TRANSISTOR	XP1114-TXE
IC1070	8-759-196-96	IC TC7SH08FU-TE85R		Q520	8-729-420-74	TRANSISTOR	2SD1328-RST-TX
IC1071	8-759-196-97	IC TC7SH32FU-TE85R		Q701	8-729-030-46	TRANSISTOR	XP4314-TX
IC1072	8-759-523-95	IC TC74VHC74FT(EL)		Q1002	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX
			< JACK >	Q1003	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX
J1001	1-774-741-11	JACK, DC (DC IN 12V)		Q1004	8-729-420-24	TRANSISTOR	2SB1218A-QRS-TX
			< JUMPER >	Q1005	8-729-035-17	TRANSISTOR	2SA1870TLEF
JC1004	1-216-864-11	METAL CHIP	0	Q1006	8-729-035-17	TRANSISTOR	2SA1870TLEF
				Q1007	8-729-021-47	TRANSISTOR	RN4911(TE85R)
			< COIL >	Q1008	8-729-021-47	TRANSISTOR	RN4911(TE85R)
L701	1-409-532-41	INDUCTOR	33uH	Q1009	8-729-021-47	TRANSISTOR	RN4911(TE85R)
L1002	1-414-398-11	INDUCTOR	10uH	Q1010	8-729-021-47	TRANSISTOR	RN4911(TE85R)
L1003	1-414-398-11	INDUCTOR	10uH	Q1011	8-729-032-04	TRANSISTOR	2SD2150-T100QRS
L1004	1-414-398-11	INDUCTOR	10uH	Q1012	8-729-032-04	TRANSISTOR	2SD2150-T100QRS
L1005	1-414-398-11	INDUCTOR	10uH	Q1013	8-729-928-72	TRANSISTOR	DTA114TE-TL
L1006	1-414-398-11	INDUCTOR	10uH	Q1014	8-729-049-50	TRANSISTOR	2SB1424-T100-R
L1007	1-414-398-11	INDUCTOR	10uH	Q1015	8-729-929-26	TRANSISTOR	DTC114TE-TL
L1008	1-414-398-11	INDUCTOR	10uH	Q1016	8-729-049-50	TRANSISTOR	2SB1424-T100-R
L1009	1-414-398-11	INDUCTOR	10uH	Q1017	8-729-929-26	TRANSISTOR	DTC114TE-TL
L1010	1-414-398-11	INDUCTOR	10uH	Q1018	8-729-928-72	TRANSISTOR	DTA114TE-TL

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
< RESISTOR >											
R101	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W	R156	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R102	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W	R157	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R103	1-216-833-11	METAL CHIP	10K	5%	1/16W	R158	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R104	1-216-833-11	METAL CHIP	10K	5%	1/16W	R159	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R105	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R160	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R106	1-216-833-11	METAL CHIP	10K	5%	1/16W	R161	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R107	1-216-833-11	METAL CHIP	10K	5%	1/16W	R162	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R108	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R163	1-216-841-11	METAL CHIP	47K	5%	1/16W
R109	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R164	1-216-841-11	METAL CHIP	47K	5%	1/16W
R110	1-216-809-11	METAL CHIP	100	5%	1/16W	R166	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W
R111	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R167	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W
R112	1-216-833-11	METAL CHIP	10K	5%	1/16W	R170	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R113	1-216-833-11	METAL CHIP	10K	5%	1/16W	R171	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R114	1-216-833-11	METAL CHIP	10K	5%	1/16W	R201	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W
R115	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R202	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W
R116	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R203	1-216-833-11	METAL CHIP	10K	5%	1/16W
R117	1-218-855-11	METAL CHIP	2.2K	0.5%	1/16W	R204	1-216-833-11	METAL CHIP	10K	5%	1/16W
R118	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R205	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R119	1-216-853-11	METAL CHIP	470K	5%	1/16W	R209	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R120	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R210	1-216-809-11	METAL CHIP	100	5%	1/16W
R121	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R211	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R122	1-216-833-11	METAL CHIP	10K	5%	1/16W	R212	1-216-833-11	METAL CHIP	10K	5%	1/16W
R123	1-216-833-11	METAL CHIP	10K	5%	1/16W	R213	1-216-833-11	METAL CHIP	10K	5%	1/16W
R124	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R214	1-216-833-11	METAL CHIP	10K	5%	1/16W
R125	1-216-851-11	METAL CHIP	330K	5%	1/16W	R215	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R126	1-218-867-11	METAL CHIP	6.8K	0.5%	1/16W	R217	1-218-855-11	METAL CHIP	2.2K	0.5%	1/16W
R127	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R219	1-216-853-11	METAL CHIP	470K	5%	1/16W
R128	1-216-853-11	METAL CHIP	470K	5%	1/16W	R220	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R129	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R221	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R130	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R225	1-216-851-11	METAL CHIP	330K	5%	1/16W
R131	1-216-833-11	METAL CHIP	10K	5%	1/16W	R226	1-218-867-11	METAL CHIP	6.8K	0.5%	1/16W
R132	1-216-833-11	METAL CHIP	10K	5%	1/16W	R227	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W
R133	1-216-833-11	METAL CHIP	10K	5%	1/16W	R228	1-216-853-11	METAL CHIP	470K	5%	1/16W
R134	1-216-833-11	METAL CHIP	10K	5%	1/16W	R229	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R135	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R230	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R136	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R263	1-216-841-11	METAL CHIP	47K	5%	1/16W
R137	1-218-839-11	METAL CHIP	470	0.5%	1/16W	R301	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W
R138	1-218-839-11	METAL CHIP	470	0.5%	1/16W	R302	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W
R139	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W	R303	1-216-833-11	METAL CHIP	10K	5%	1/16W
R140	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W	R304	1-216-833-11	METAL CHIP	10K	5%	1/16W
R141	1-216-833-11	METAL CHIP	10K	5%	1/16W	R305	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R142	1-216-833-11	METAL CHIP	10K	5%	1/16W	R306	1-216-833-11	METAL CHIP	10K	5%	1/16W
R143	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R307	1-216-833-11	METAL CHIP	10K	5%	1/16W
R144	1-216-833-11	METAL CHIP	10K	5%	1/16W	R308	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R145	1-216-833-11	METAL CHIP	10K	5%	1/16W	R309	1-218-879-11	METAL CHIP	22K	0.5%	1/16W
R146	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R310	1-216-809-11	METAL CHIP	100	5%	1/16W
R147	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R311	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R148	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R312	1-216-833-11	METAL CHIP	10K	5%	1/16W
R149	1-216-841-11	METAL CHIP	47K	5%	1/16W	R313	1-216-833-11	METAL CHIP	10K	5%	1/16W
R150	1-216-841-11	METAL CHIP	47K	5%	1/16W	R314	1-216-833-11	METAL CHIP	10K	5%	1/16W
R151	1-216-833-11	METAL CHIP	10K	5%	1/16W	R315	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R152	1-216-833-11	METAL CHIP	10K	5%	1/16W	R316	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R153	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R317	1-218-855-11	METAL CHIP	2.2K	0.5%	1/16W
R154	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R318	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R155	1-218-871-11	METAL CHIP	10K	0.5%	1/16W						

## MAIN

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R319	1-216-853-11	METAL CHIP	470K	5%	1/16W	R414	1-216-833-11	METAL CHIP	10K	5%	1/16W
R320	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R415	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R321	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R417	1-218-855-11	METAL CHIP	2.2K	0.5%	1/16W
R322	1-216-833-11	METAL CHIP	10K	5%	1/16W	R419	1-216-853-11	METAL CHIP	470K	5%	1/16W
R323	1-216-833-11	METAL CHIP	10K	5%	1/16W	R420	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R324	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R421	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R325	1-216-851-11	METAL CHIP	330K	5%	1/16W	R425	1-216-851-11	METAL CHIP	330K	5%	1/16W
R326	1-218-867-11	METAL CHIP	6.8K	0.5%	1/16W	R426	1-218-867-11	METAL CHIP	6.8K	0.5%	1/16W
R327	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R427	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W
R328	1-216-853-11	METAL CHIP	470K	5%	1/16W	R428	1-216-853-11	METAL CHIP	470K	5%	1/16W
R329	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R429	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R330	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R430	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R331	1-216-833-11	METAL CHIP	10K	5%	1/16W	R463	1-216-841-11	METAL CHIP	47K	5%	1/16W
R332	1-216-833-11	METAL CHIP	10K	5%	1/16W	R464	1-216-841-11	METAL CHIP	47K	5%	1/16W
R333	1-216-833-11	METAL CHIP	10K	5%	1/16W	R501	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W
R334	1-216-833-11	METAL CHIP	10K	5%	1/16W	R502	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R335	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R503	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R336	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R504	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W
R337	1-218-839-11	METAL CHIP	470	0.5%	1/16W	R505	1-216-845-11	METAL CHIP	100K	5%	1/16W
R338	1-218-839-11	METAL CHIP	470	0.5%	1/16W	R506	1-216-845-11	METAL CHIP	100K	5%	1/16W
R339	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W	R507	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W
R340	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W	R508	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R341	1-216-833-11	METAL CHIP	10K	5%	1/16W	R509	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R342	1-216-833-11	METAL CHIP	10K	5%	1/16W	R510	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R343	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R511	1-216-841-11	METAL CHIP	47K	5%	1/16W
R344	1-216-833-11	METAL CHIP	10K	5%	1/16W	R512	1-216-841-11	METAL CHIP	47K	5%	1/16W
R345	1-216-833-11	METAL CHIP	10K	5%	1/16W	R513	1-216-793-11	RES-CHIP	4.7	5%	1/16W
R346	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R514	1-216-833-11	METAL CHIP	10K	5%	1/16W
R347	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R515	1-216-833-11	METAL CHIP	10K	5%	1/16W
R348	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R516	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R349	1-216-841-11	METAL CHIP	47K	5%	1/16W	R517	1-218-823-11	METAL CHIP	100	0.5%	1/16W
R350	1-216-841-11	METAL CHIP	47K	5%	1/16W	R518	1-216-833-11	METAL CHIP	10K	5%	1/16W
R351	1-216-833-11	METAL CHIP	10K	5%	1/16W	R519	1-216-833-11	METAL CHIP	10K	5%	1/16W
R352	1-216-833-11	METAL CHIP	10K	5%	1/16W	R520	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R353	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R521	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R354	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R522	1-216-833-11	METAL CHIP	10K	5%	1/16W
R355	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R523	1-216-833-11	METAL CHIP	10K	5%	1/16W
R356	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R524	1-216-833-11	METAL CHIP	10K	5%	1/16W
R357	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R525	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R358	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R526	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R359	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R527	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R360	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R528	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W
R361	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R530	1-216-821-11	METAL CHIP	1K	5%	1/16W
R362	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R531	1-216-833-11	METAL CHIP	10K	5%	1/16W
R363	1-216-841-11	METAL CHIP	47K	5%	1/16W	R532	1-216-821-11	METAL CHIP	1K	5%	1/16W
R364	1-216-841-11	METAL CHIP	47K	5%	1/16W	R533	1-216-821-11	METAL CHIP	1K	5%	1/16W
R366	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W	R534	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R367	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W	R535	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R370	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R536	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R371	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R537	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R401	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W	R538	1-216-841-11	METAL CHIP	47K	5%	1/16W
R402	1-218-859-11	METAL CHIP	3.3K	0.5%	1/16W	R539	1-216-841-11	METAL CHIP	47K	5%	1/16W
R403	1-216-833-11	METAL CHIP	10K	5%	1/16W	R540	1-211-977-11	METAL CHIP	22	0.5%	1/16W
R404	1-216-833-11	METAL CHIP	10K	5%	1/16W	R541	1-216-821-11	METAL CHIP	1K	5%	1/16W
R405	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R542	1-216-821-11	METAL CHIP	1K	5%	1/16W
R409	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R543	1-211-977-11	METAL CHIP	22	0.5%	1/16W
R410	1-216-809-11	METAL CHIP	100	5%	1/16W	R544	1-216-833-11	METAL CHIP	10K	5%	1/16W
R411	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R545	1-216-833-11	METAL CHIP	10K	5%	1/16W
R412	1-216-833-11	METAL CHIP	10K	5%	1/16W	R546	1-216-833-11	METAL CHIP	10K	5%	1/16W
R413	1-216-833-11	METAL CHIP	10K	5%	1/16W	R547	1-216-813-11	METAL CHIP	220	5%	1/16W

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R549	1-216-813-11	METAL CHIP	220	5%	1/16W	R709	1-216-841-11	METAL CHIP	47K	5%	1/16W
R550	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R710	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R551	1-216-833-11	METAL CHIP	10K	5%	1/16W	R711	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R552	1-216-833-11	METAL CHIP	10K	5%	1/16W	R712	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R553	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R713	1-218-895-11	METAL CHIP	100K	0.5%	1/16W
R554	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R714	1-218-899-11	METAL CHIP	150K	0.5%	1/16W
R555	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R715	1-218-823-11	METAL CHIP	100	0.5%	1/16W
R556	1-216-821-11	METAL CHIP	1K	5%	1/16W	R716	1-218-907-11	METAL CHIP	330K	0.5%	1/16W
R557	1-216-821-11	METAL CHIP	1K	5%	1/16W	R717	1-218-823-11	METAL CHIP	100	0.5%	1/16W
R558	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R718	1-216-833-11	METAL CHIP	10K	5%	1/16W
R559	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R719	1-218-887-11	METAL CHIP	47K	0.5%	1/16W
R560	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R720	1-216-833-11	METAL CHIP	10K	5%	1/16W
R561	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R721	1-216-841-11	METAL CHIP	47K	5%	1/16W
R562	1-216-841-11	METAL CHIP	47K	5%	1/16W	R1001	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R563	1-216-841-11	METAL CHIP	47K	5%	1/16W	R1002	1-218-823-11	METAL CHIP	100	0.5%	1/16W
R564	1-211-977-11	METAL CHIP	22	0.5%	1/16W	R1003	1-218-827-11	METAL CHIP	150	0.5%	1/16W
R565	1-211-977-11	METAL CHIP	22	0.5%	1/16W	R1004	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R566	1-216-821-11	METAL CHIP	1K	5%	1/16W	R1005	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R567	1-216-821-11	METAL CHIP	1K	5%	1/16W	R1006	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R568	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1007	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R569	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1008	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R570	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R1009	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R571	1-218-863-11	METAL CHIP	4.7K	0.5%	1/16W	R1010	1-216-841-11	METAL CHIP	47K	5%	1/16W
R572	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1011	1-216-841-11	METAL CHIP	47K	5%	1/16W
R573	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	R1012	1-216-841-11	METAL CHIP	47K	5%	1/16W
R574	1-216-813-11	METAL CHIP	220	5%	1/16W	R1013	1-216-841-11	METAL CHIP	47K	5%	1/16W
R575	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1014	1-218-883-11	METAL CHIP	33K	0.5%	1/16W
R576	1-216-813-11	METAL CHIP	220	5%	1/16W	R1015	1-218-871-11	METAL CHIP	10K	0.5%	1/16W
R577	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1016	1-216-833-11	METAL CHIP	10K	5%	1/16W
R578	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1017	1-216-841-11	METAL CHIP	47K	5%	1/16W
R579	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1018	1-216-797-11	METAL CHIP	10	5%	1/16W
R581	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1019	1-218-847-11	METAL CHIP	1K	0.5%	1/16W
R582	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	R1020	1-216-837-11	METAL CHIP	22K	5%	1/16W
R583	1-216-813-11	METAL CHIP	220	5%	1/16W	R1023	1-216-813-11	METAL CHIP	220	5%	1/16W
R584	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R1024	1-216-813-11	METAL CHIP	220	5%	1/16W
R585	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1025	1-216-837-11	METAL CHIP	22K	5%	1/16W
R586	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1026	1-216-837-11	METAL CHIP	22K	5%	1/16W
R587	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1027	1-216-837-11	METAL CHIP	22K	5%	1/16W
R588	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1028	1-216-805-11	METAL CHIP	47	5%	1/16W
R589	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1029	1-216-837-11	METAL CHIP	22K	5%	1/16W
R590	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	R1030	1-216-837-11	METAL CHIP	22K	5%	1/16W
R591	1-216-813-11	METAL CHIP	220	5%	1/16W	R1031	1-216-805-11	METAL CHIP	47	5%	1/16W
R592	1-218-871-11	METAL CHIP	10K	0.5%	1/16W	R1032	1-216-837-11	METAL CHIP	22K	5%	1/16W
R593	1-216-837-11	METAL CHIP	22K	5%	1/16W	R1033	1-216-837-11	METAL CHIP	22K	5%	1/16W
R594	1-218-879-11	METAL CHIP	22K	0.5%	1/16W	R1034	1-216-841-11	METAL CHIP	47K	5%	1/16W
R595	1-218-887-11	METAL CHIP	47K	0.5%	1/16W	R1035	1-216-841-11	METAL CHIP	47K	5%	1/16W
R596	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R1036	1-216-841-11	METAL CHIP	47K	5%	1/16W
R597	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1037	1-216-841-11	METAL CHIP	47K	5%	1/16W
R598	1-216-845-11	METAL CHIP	100K	5%	1/16W	R1038	1-216-841-11	METAL CHIP	47K	5%	1/16W
R599	1-216-845-11	METAL CHIP	100K	5%	1/16W	R1039	1-216-841-11	METAL CHIP	47K	5%	1/16W
R600	1-216-833-11	METAL CHIP	10K	5%	1/16W	R1040	1-216-841-11	METAL CHIP	47K	5%	1/16W
R601	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	R1041	1-216-841-11	METAL CHIP	47K	5%	1/16W
R701	1-216-803-11	METAL CHIP	33	5%	1/16W	R1042	1-216-841-11	METAL CHIP	47K	5%	1/16W
R702	1-216-803-11	METAL CHIP	33	5%	1/16W	R1059	1-216-857-11	METAL CHIP	1M	5%	1/16W
R703	1-216-803-11	METAL CHIP	33	5%	1/16W	R1060	1-216-841-11	METAL CHIP	47K	5%	1/16W
R704	1-216-803-11	METAL CHIP	33	5%	1/16W	R1061	1-216-841-11	METAL CHIP	47K	5%	1/16W
R705	1-216-803-11	METAL CHIP	33	5%	1/16W	R1062	1-216-841-11	METAL CHIP	47K	5%	1/16W
R706	1-216-803-11	METAL CHIP	33	5%	1/16W	R1063	1-216-841-11	METAL CHIP	47K	5%	1/16W
R707	1-216-803-11	METAL CHIP	33	5%	1/16W	R1064	1-216-841-11	METAL CHIP	47K	5%	1/16W
R708	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R1065	1-216-841-11	METAL CHIP	47K	5%	1/16W

MAIN

MAIN

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Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R1722	1-218-895-11	METAL CHIP	100K	0.5%	1/16W	C40	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
R1723	1-218-839-11	METAL CHIP	470	0.5%	1/16W	C41	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
R1724	1-218-835-11	METAL CHIP	330	0.5%	1/16W	C42	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
R1725	1-218-839-11	METAL CHIP	470	0.5%	1/16W	C43	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
R1726	1-218-835-11	METAL CHIP	330	0.5%	1/16W	C44	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
R1727	1-216-839-11	METAL CHIP	33K	5%	1/16W	C45	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
R1728	1-216-841-11	METAL CHIP	47K	5%	1/16W	C47	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
			< VARISTOR >			C48	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
VDR101	1-801-862-11	VARISTOR, CHIP				C49	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
VDR102	1-801-862-11	VARISTOR, CHIP				C54	1-113-682-11	TANTAL. CHIP	33uF	20.00%	10V
VDR301	1-801-862-11	VARISTOR, CHIP				C55	1-135-213-21	TANTAL. CHIP	3.3uF	20.00%	25V
VDR302	1-801-862-11	VARISTOR, CHIP				C56	1-135-213-21	TANTAL. CHIP	3.3uF	20.00%	25V
VDR1001	1-801-863-21	VARISTOR, CHIP				C57	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
VDR1002	1-801-862-11	VARISTOR, CHIP				C58	1-164-337-11	CERAMIC CHIP	2.2uF		16V
VDR1003	1-801-862-11	VARISTOR, CHIP				C59	1-164-156-11	CERAMIC CHIP	0.1uF		25V
VDR1004	1-801-862-11	VARISTOR, CHIP				C60	1-135-213-21	TANTAL. CHIP	3.3uF	20.00%	25V
			< VIBRATOR >			C61	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
X1001	1-579-886-11	VIBRATOR, CRYSTAL 32.768kHz				C62	1-135-213-21	TANTAL. CHIP	3.3uF	20.00%	25V
X1002	1-577-076-11	VIBRATOR, CRYSTAL 16MHz				C65	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
X1003	1-760-173-11	VIBRATOR, CRYSTAL 45.1584MHz				C66	1-113-642-11	TANTAL. CHIP	47uF	20.00%	10V
*****											
*	A-3062-214-A	MD BOARD, COMPLETE				C67	1-164-156-11	CERAMIC CHIP	0.1uF		25V
			*****			C68	1-164-156-11	CERAMIC CHIP	0.1uF		25V
			< CAPACITOR >			C69	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C2	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C72	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C3	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C73	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C4	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C74	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C5	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C75	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
C6	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C76	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
C7	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C77	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C78	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C9	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C79	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C10	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C80	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C11	1-113-642-11	TANTAL. CHIP	47uF	20.00%	10V	C81	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C12	1-111-253-11	TANTAL. CHIP	100uF	20.00%	6.3V	C82	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C13	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C83	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C14	1-125-891-11	CERAMIC CHIP	0.47uF	10.00%	10V	C84	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C15	1-113-642-11	TANTAL. CHIP	47uF	20.00%	10V	C85	1-113-642-11	TANTAL. CHIP	47uF	20.00%	10V
C16	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V	C86	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C17	1-125-891-11	CERAMIC CHIP	0.47uF	10.00%	10V	C87	1-115-467-11	CERAMIC CHIP	0.22uF	10.00%	10V
C18	1-164-677-11	CERAMIC CHIP	0.033uF	10.00%	16V	C88	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C19	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V	C89	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
C20	1-125-891-11	CERAMIC CHIP	0.47uF	10.00%	10V	C90	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C21	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C91	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C22	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C94	1-104-852-11	TANTAL. CHIP	22uF	20.00%	10V
C23	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C95	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C24	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V	C96	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C25	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V	C98	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C26	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C99	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C27	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C100	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C28	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C103	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C34	1-110-563-11	CERAMIC CHIP	0.068uF	10.00%	16V	C105	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C35	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C106	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C39	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C107	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C108	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C109	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C110	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C111	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C112	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C117	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C119	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C120	1-164-156-11	CERAMIC CHIP	0.1uF 25V			< COIL >	
C121	1-164-156-11	CERAMIC CHIP	0.1uF 25V				
C122	1-164-156-11	CERAMIC CHIP	0.1uF 25V	L1	1-414-398-11	INDUCTOR	10uH
C123	1-164-156-11	CERAMIC CHIP	0.1uF 25V	L2	1-414-398-11	INDUCTOR	10uH
C124	1-164-156-11	CERAMIC CHIP	0.1uF 25V	L3	1-410-389-31	INDUCTOR CHIP	47uH
				L4	1-410-389-31	INDUCTOR CHIP	47uH
C126	1-164-156-11	CERAMIC CHIP	0.1uF 25V	L5	1-414-407-11	INDUCTOR	330uH
C127	1-164-156-11	CERAMIC CHIP	0.1uF 25V				
C128	1-164-156-11	CERAMIC CHIP	0.1uF 25V	L6	1-410-389-31	INDUCTOR CHIP	47uH
C129	1-164-156-11	CERAMIC CHIP	0.1uF 25V	L7	1-410-389-31	INDUCTOR CHIP	47uH
< CONNECTOR >				< TRANSISTOR >			
CN1	1-573-931-11	CONNECTOR, FFC/FPC (ZIF) 22P		Q1	8-729-101-07	TRANSISTOR	2SB798-T1DL
* CN2	1-793-143-11	CONNECTOR, FFC/FPC 17P		Q3	8-729-028-91	TRANSISTOR	DTA144EUA-T106
* CN3	1-793-230-21	CONNECTOR, FFC/FPC 4P		Q4	8-729-101-07	TRANSISTOR	2SB798-T1DL
CN5	1-766-654-21	CONNECTOR, FFC/FPC 18P		Q5	8-729-101-07	TRANSISTOR	2SB798-T1DL
< DIODE >				Q6	8-729-904-60	TRANSISTOR	DTB113ZK-T-146
D1	8-719-977-00	DIODE DTZ-TT11-5.1C		Q7	8-729-029-14	TRANSISTOR	DTC144EUA-T106
D3	8-719-988-61	DIODE 1SS355TE-17		Q8	8-729-230-63	TRANSISTOR	2SC4116YG-TE85L
D6	8-719-049-09	DIODE 1SS367-T3SONY		Q9	8-729-927-59	TRANSISTOR	UMZ1-TL
D7	8-719-033-60	DIODE F1P2STP		Q10	8-729-101-07	TRANSISTOR	2SB798-T1DL
D8	8-719-033-60	DIODE F1P2STP		Q11	8-729-017-65	TRANSISTOR	2SK1764KYTR
D9	8-719-033-60	DIODE F1P2STP		Q12	8-729-017-65	TRANSISTOR	2SK1764KYTR
D10	8-719-033-60	DIODE F1P2STP		Q13	8-729-017-65	TRANSISTOR	2SK1764KYTR
< IC >				Q14	8-729-017-65	TRANSISTOR	2SK1764KYTR
Q16	8-729-029-14	TRANSISTOR	DTC144EUA-T106	Q15	8-729-028-73	TRANSISTOR	DTA114EUA-T106
< RESISTOR >				Q16	8-729-029-14	TRANSISTOR	DTC144EUA-T106
IC1	8-759-460-01	IC AT29LV512-20TC-PDF		R5	1-216-817-11	METAL CHIP	470 5% 1/16W
IC2	8-759-324-27	IC HD6433040T00X		R7	1-216-845-11	METAL CHIP	100K 5% 1/16W
IC3	8-759-252-57	IC S-2900AUP-T1		R8	1-216-837-11	METAL CHIP	22K 5% 1/16W
IC4	8-759-590-46	IC XC62EP3502MR		R9	1-218-704-11	METAL CHIP	3.3K 0.5% 1/16W
IC5	8-759-196-96	IC TC7SH08FU-TE85R		R10	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
IC6	8-759-574-62	IC XC61AN4002MR		R11	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W
IC9	8-759-370-11	IC NJM2100V-TE2		R12	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC10	8-759-370-11	IC NJM2100V-TE2		R14	1-216-864-11	METAL CHIP	0 5% 1/16W
IC11	8-759-196-96	IC TC7SH08FU-TE85R		R16	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
IC12	8-759-271-86	IC TC7SH04FU-TE85R		R17	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC13	8-759-196-96	IC TC7SH08FU-TE85R		R18	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC14	8-759-196-93	IC TC7SH00FU-TE85R		R19	1-216-845-11	METAL CHIP	100K 5% 1/16W
IC15	8-759-271-86	IC TC7SH04FU-TE85R		R20	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC17	8-759-082-61	IC TC4W53FU(TE12R)		R21	1-216-821-11	METAL CHIP	1K 5% 1/16W
IC18	8-759-082-61	IC TC4W53FU(TE12R)		R22	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC19	8-759-577-56	IC XC62EP5002MR		R23	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC20	8-759-196-96	IC TC7SH08FU-TE85R		R32	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC21	8-752-074-77	IC CXA2523R-T4		R33	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC22	8-759-370-11	IC NJM2100V-TE2		R34	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC23	8-759-370-11	IC NJM2100V-TE2		R35	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC24	8-759-710-79	IC NJM2107F-TE1		R37	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC26	8-759-370-11	IC NJM2100V-TE2		R40	1-216-809-11	METAL CHIP	100 5% 1/16W
IC28	8-759-523-96	IC TC74VHC86FT(EL)		R42	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC29	8-759-490-41	IC TC74VHCT541AFT(EL)		R45	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W
IC30	8-759-590-46	IC XC62EP3502MR		R46	1-218-712-11	METAL CHIP	6.8K 0.5% 1/16W
IC33	8-759-196-96	IC TC7SH08FU-TE85R		R51	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC34	8-759-191-57	IC LM339PW-ELL2000		R58	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC35	8-759-710-79	IC NJM2107F-TE1		R59	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC36	8-759-082-61	IC TC4W53FU(TE12R)		R60	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC37	8-759-442-80	IC MPC17A38ZVME		R61	1-216-833-11	METAL CHIP	10K 5% 1/16W
IC38	8-752-382-23	IC CXD2535CR-1					
IC39	8-759-569-24	IC XC62FP2802MR					
IC40	8-759-196-96	IC TC7SH08FU-TE85R					

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R62	1-216-833-11	METAL CHIP	10K	5%	1/16W	R136	1-216-841-11	METAL CHIP	47K	5%	1/16W
R63	1-216-833-11	METAL CHIP	10K	5%	1/16W	R137	1-216-841-11	METAL CHIP	47K	5%	1/16W
R64	1-216-833-11	METAL CHIP	10K	5%	1/16W	R138	1-216-864-11	METAL CHIP	0	5%	1/16W
R65	1-216-833-11	METAL CHIP	10K	5%	1/16W	R139	1-216-864-11	METAL CHIP	0	5%	1/16W
R66	1-216-821-11	METAL CHIP	1K	5%	1/16W	R140	1-216-841-11	METAL CHIP	47K	5%	1/16W
R67	1-216-821-11	METAL CHIP	1K	5%	1/16W	R141	1-216-841-11	METAL CHIP	47K	5%	1/16W
R71	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	R142	1-216-841-11	METAL CHIP	47K	5%	1/16W
R72	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	R143	1-216-841-11	METAL CHIP	47K	5%	1/16W
R78	1-216-853-11	METAL CHIP	470K	5%	1/16W	R144	1-216-841-11	METAL CHIP	47K	5%	1/16W
R79	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R145	1-216-833-11	METAL CHIP	10K	5%	1/16W
R80	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	R146	1-216-845-11	METAL CHIP	100K	5%	1/16W
R81	1-216-853-11	METAL CHIP	470K	5%	1/16W	R147	1-216-849-11	METAL CHIP	220K	5%	1/16W
R82	1-216-817-11	METAL CHIP	470	5%	1/16W	R148	1-216-841-11	METAL CHIP	47K	5%	1/16W
R84	1-216-811-11	METAL CHIP	150	5%	1/16W	R149	1-216-845-11	METAL CHIP	100K	5%	1/16W
R85	1-216-845-11	METAL CHIP	100K	5%	1/16W	R150	1-216-843-11	METAL CHIP	68K	5%	1/16W
R86	1-218-652-11	METAL CHIP	22	0.5%	1/16W	R151	1-216-817-11	METAL CHIP	470	5%	1/16W
R87	1-218-668-11	METAL CHIP	100	0.5%	1/16W	R152	1-216-841-11	METAL CHIP	47K	5%	1/16W
R88	1-216-833-11	METAL CHIP	10K	5%	1/16W	R153	1-216-837-11	METAL CHIP	22K	5%	1/16W
R89	1-216-845-11	METAL CHIP	100K	5%	1/16W	R154	1-216-845-11	METAL CHIP	100K	5%	1/16W
R90	1-216-835-11	METAL CHIP	15K	5%	1/16W	R155	1-216-845-11	METAL CHIP	100K	5%	1/16W
R91	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R156	1-216-845-11	METAL CHIP	100K	5%	1/16W
R92	1-216-833-11	METAL CHIP	10K	5%	1/16W	R157	1-216-845-11	METAL CHIP	100K	5%	1/16W
R93	1-216-833-11	METAL CHIP	10K	5%	1/16W	R158	1-216-864-11	METAL CHIP	0	5%	1/16W
R94	1-216-841-11	METAL CHIP	47K	5%	1/16W	R159	1-216-864-11	METAL CHIP	0	5%	1/16W
R95	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R160	1-216-864-11	METAL CHIP	0	5%	1/16W
R96	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R161	1-216-864-11	METAL CHIP	0	5%	1/16W
R97	1-216-833-11	METAL CHIP	10K	5%	1/16W	R162	1-216-864-11	METAL CHIP	0	5%	1/16W
R100	1-216-864-11	METAL CHIP	0	5%	1/16W	R168	1-216-817-11	METAL CHIP	470	5%	1/16W
R101	1-216-864-11	METAL CHIP	0	5%	1/16W	R169	1-216-841-11	METAL CHIP	47K	5%	1/16W
R102	1-216-864-11	METAL CHIP	0	5%	1/16W	R170	1-216-835-11	METAL CHIP	15K	5%	1/16W
R103	1-216-864-11	METAL CHIP	0	5%	1/16W	R171	1-216-845-11	METAL CHIP	100K	5%	1/16W
R104	1-216-864-11	METAL CHIP	0	5%	1/16W	R172	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R106	1-218-684-11	METAL CHIP	470	0.5%	1/16W	R173	1-216-833-11	METAL CHIP	10K	5%	1/16W
R107	1-216-817-11	METAL CHIP	470	5%	1/16W	R174	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R108	1-216-837-11	METAL CHIP	22K	5%	1/16W	R175	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R109	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	R176	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R110	1-216-821-11	METAL CHIP	1K	5%	1/16W	R177	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R111	1-216-837-11	METAL CHIP	22K	5%	1/16W	R178	1-216-833-11	METAL CHIP	10K	5%	1/16W
R112	1-216-864-11	METAL CHIP	0	5%	1/16W	R179	1-216-845-11	METAL CHIP	100K	5%	1/16W
R113	1-216-841-11	METAL CHIP	47K	5%	1/16W	R180	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R114	1-216-837-11	METAL CHIP	22K	5%	1/16W	R182	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R115	1-216-864-11	METAL CHIP	0	5%	1/16W	R183	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R116	1-216-841-11	METAL CHIP	47K	5%	1/16W	R184	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R117	1-216-837-11	METAL CHIP	22K	5%	1/16W	R185	1-216-833-11	METAL CHIP	10K	5%	1/16W
R118	1-216-864-11	METAL CHIP	0	5%	1/16W	R186	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R119	1-216-841-11	METAL CHIP	47K	5%	1/16W	R189	1-216-841-11	METAL CHIP	47K	5%	1/16W
R120	1-216-837-11	METAL CHIP	22K	5%	1/16W	R190	1-216-853-11	METAL CHIP	470K	5%	1/16W
R121	1-216-864-11	METAL CHIP	0	5%	1/16W	R191	1-216-837-11	METAL CHIP	22K	5%	1/16W
R122	1-216-841-11	METAL CHIP	47K	5%	1/16W	R192	1-216-841-11	METAL CHIP	47K	5%	1/16W
R123	1-216-845-11	METAL CHIP	100K	5%	1/16W	R193	1-216-841-11	METAL CHIP	47K	5%	1/16W
R124	1-216-845-11	METAL CHIP	100K	5%	1/16W	R194	1-216-853-11	METAL CHIP	470K	5%	1/16W
R125	1-216-845-11	METAL CHIP	100K	5%	1/16W	R196	1-216-841-11	METAL CHIP	47K	5%	1/16W
R126	1-216-845-11	METAL CHIP	100K	5%	1/16W	R201	1-216-841-11	METAL CHIP	47K	5%	1/16W
R127	1-216-845-11	METAL CHIP	100K	5%	1/16W	R202	1-216-837-11	METAL CHIP	22K	5%	1/16W
R128	1-216-845-11	METAL CHIP	100K	5%	1/16W	R203	1-216-833-11	METAL CHIP	10K	5%	1/16W
R131	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	R205	1-216-833-11	METAL CHIP	10K	5%	1/16W
R132	1-216-831-11	METAL CHIP	6.8K	5%	1/16W	R206	1-216-864-11	METAL CHIP	0	5%	1/16W
R133	1-216-837-11	METAL CHIP	22K	5%	1/16W	R207	1-216-864-11	METAL CHIP	0	5%	1/16W
R134	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R135	1-216-833-11	METAL CHIP	10K	5%	1/16W						

<b>MD</b>	<b>SERIAL I/O</b>	<b>SWITCH</b>
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Ref. No.	Part No.	Description			Remarks		Ref. No.	Part No.	Description			Remarks						
< VIBRATOR >																		
X1	1-760-469-11	VIBRATOR, CERAMIC	CERAMIC	25.4MHz	D5006	8-719-077-40	LED	SLR-322MG3F										
X2	1-781-515-11	VIBRATOR, CRYSTAL	CRYSTAL	10MHz	D5007	8-719-077-40	LED	SLR-322MG3F										
		*****			D5008	8-719-077-40	LED	SLR-322MG3F										
< COIL >																		
*	1-680-425-11	SERIAL I/O BOARD	*****			L5001	1-414-398-11	INDUCTOR	10uH									
< CAPACITOR >																		
C7001	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	Q5001	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX									
C7002	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	Q5002	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX									
C7003	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	Q5003	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX									
		*****			Q5004	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX										
< CONNECTOR >																		
CN7001	1-785-125-11	CONNECTOR 6P	*****			< RESISTOR >												
CN7002	1-565-388-21	CONNECTOR, D-SUB 9P (PC)	*****			R5001	1-218-823-11	METAL CHIP	100			0.5%	1/16W					
< FERRITE BEAD >						R5002	1-218-827-11	METAL CHIP	150			0.5%	1/16W					
FB7001	1-414-229-11	FERRITE	0uH			R5003	1-218-831-11	METAL CHIP	220			0.5%	1/16W					
FB7002	1-414-229-11	FERRITE	0uH			R5004	1-218-835-11	METAL CHIP	330			0.5%	1/16W					
FB7003	1-414-229-11	FERRITE	0uH			R5005	1-218-839-11	METAL CHIP	470			0.5%	1/16W					
< JACK >																		
J7001	1-770-902-12	JACK, MODULAR (4C) 6P (DISPLAY)	*****			R5006	1-218-843-11	METAL CHIP	680			0.5%	1/16W					
< RESISTOR >						R5010	1-218-823-11	METAL CHIP	100			0.5%	1/16W					
R7001	1-216-805-11	METAL CHIP	47			R5011	1-218-827-11	METAL CHIP	150			0.5%	1/16W					
R7002	1-216-805-11	METAL CHIP	47			R5012	1-218-831-11	METAL CHIP	220			0.5%	1/16W					
R7003	1-216-805-11	METAL CHIP	47			R5013	1-218-835-11	METAL CHIP	330			0.5%	1/16W					
		*****			< RESISTOR >													
*	1-680-432-11	SWITCH BOARD	*****			R5014	1-218-839-11	METAL CHIP	470			0.5%	1/16W					
< CAPACITOR >						R5015	1-218-843-11	METAL CHIP	680			0.5%	1/16W					
C5001	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5019	1-216-833-11	METAL CHIP	10K			5%	1/16W					
C5002	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5020	1-216-813-11	METAL CHIP	220			5%	1/16W					
C5004	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5021	1-218-823-11	METAL CHIP	100			0.5%	1/16W					
C5005	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5022	1-218-827-11	METAL CHIP	150			0.5%	1/16W					
C5007	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5023	1-218-831-11	METAL CHIP	220			0.5%	1/16W					
		*****			R5024	1-218-835-11	METAL CHIP	330			0.5%	1/16W						
C5009	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5025	1-218-839-11	METAL CHIP	470			0.5%	1/16W					
C5011	1-164-156-11	CERAMIC CHIP	0.1uF	25V			R5026	1-218-843-11	METAL CHIP	680			0.5%	1/16W				
C5015	1-125-766-11	ELECT	10uF	20.00%			< RESISTOR >											
C5020	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5030	1-216-833-11	METAL CHIP	10K			5%	1/16W					
C5021	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5031	1-216-813-11	METAL CHIP	220			5%	1/16W					
		*****			R5032	1-218-823-11	METAL CHIP	100			0.5%	1/16W						
C5022	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5033	1-218-827-11	METAL CHIP	150			0.5%	1/16W					
C5023	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5034	1-218-831-11	METAL CHIP	220			0.5%	1/16W					
C5024	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V	R5035	1-218-835-11	METAL CHIP	330			0.5%	1/16W					
		*****			R5036	1-218-839-11	METAL CHIP	470			0.5%	1/16W						
CN5001	1-774-666-11	CONNECTOR, FFC/FPC 30P	*****			R5037	1-218-843-11	METAL CHIP	680			0.5%	1/16W					
< DIODE >						R5038	1-218-847-11	METAL CHIP	1K			0.5%	1/16W					
D5001	8-719-077-40	LED	SLR-322MG3F	*****			R5039	1-218-855-11	METAL CHIP	2.2K			0.5%	1/16W				
D5002	8-719-077-40	LED	SLR-322MG3F	*****			R5040	1-218-867-11	METAL CHIP	6.8K			0.5%	1/16W				
D5003	8-719-078-28	LED	SML-010LT-T86	*****			R5041	1-216-833-11	METAL CHIP	10K			5%	1/16W				
D5004	8-719-078-28	LED	SML-010LT-T86	*****			R5042	1-218-823-11	METAL CHIP	100			0.5%	1/16W				
D5005	8-719-077-40	LED	SLR-322MG3F	*****			R5043	1-218-827-11	METAL CHIP	150			0.5%	1/16W				
		*****			R5044	1-218-831-11	METAL CHIP	220			0.5%	1/16W						
		*****			R5045	1-218-835-11	METAL CHIP	330			0.5%	1/16W						
		*****			R5046	1-218-839-11	METAL CHIP	470			0.5%	1/16W						
		*****			R5051	1-216-813-11	METAL CHIP	220			5%	1/16W						
		*****			R5052	1-216-833-11	METAL CHIP	10K			5%	1/16W						
		*****			R5053	1-218-823-11	METAL CHIP	100			0.5%	1/16W						
		*****			R5054	1-218-827-11	METAL CHIP	150			0.5%	1/16W						
		*****			R5062	1-216-813-11	METAL CHIP	220			5%	1/16W						
		*****			R5063	1-216-813-11	METAL CHIP	220			5%	1/16W						
		*****			R5064	1-216-813-11	METAL CHIP	220			5%	1/16W						
		*****			R5065	1-216-813-11	METAL CHIP	220			5%	1/16W						

**SWITCH****MUTE****VOLUME**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>			<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>									
R5066	1-216-813-11	METAL CHIP	220	5%	1/16W	Q906	8-729-420-74	TRANSISTOR	2SD1328-RST-TX									
R5068	1-216-833-11	METAL CHIP	10K	5%	1/16W	Q907	8-729-425-88	TRANSISTOR	XP1114-TXE									
R5069	1-216-833-11	METAL CHIP	10K	5%	1/16W	Q908	8-729-420-74	TRANSISTOR	2SD1328-RST-TX									
< SWITCH >																		
S5001	1-786-095-11	SWITCH, TACTILE (STOP(A))				R901	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W							
S5002	1-786-095-11	SWITCH, TACTILE (STOP(B))				R902	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W							
S5003	1-786-095-11	SWITCH, TACTILE (PLAY/PAUSE(A))				R903	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W							
S5004	1-786-095-11	SWITCH, TACTILE (REW/BS(A))				R904	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W							
S5005	1-786-095-11	SWITCH, TACTILE (FF/FS(A))				R905	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W							
S5006	1-786-095-11	SWITCH, TACTILE (POINT(A))				R906	1-218-851-11	METAL CHIP	1.5K	0.5%	1/16W							
S5007	1-786-095-11	SWITCH, TACTILE (RESET(A))				*****												
S5008	1-786-095-11	SWITCH, TACTILE (REC(A))				*      1-680-424-11	VOLUME BOARD											
S5009	1-786-095-11	SWITCH, TACTILE (REC(B))				*****												
S5010	1-786-095-11	SWITCH, TACTILE (PLAY/PAUSE(B))				< CONNECTOR >												
S5011	1-786-095-11	SWITCH, TACTILE (RW/BS(B))				CN6001	1-785-125-11	CONNECTOR 6P										
S5012	1-786-095-11	SWITCH, TACTILE (FF/FS(B))				* CN6002	1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P										
S5013	1-786-095-11	SWITCH, TACTILE (POINT(B))				*****												
S5014	1-786-095-11	SWITCH, TACTILE (RESET(B))				< VARIABLE RESISTOR >												
S5015	1-786-095-11	SWITCH, TACTILE (INDEX)				RV6001	1-227-316-11	RES, VAR (LCD CONTRAST)										
S5016	1-554-088-00	SWITCH, KEY BOARD (EJECT(A))				RV6002	1-227-315-11	RES, VAR (MONITOR VOL)										
S5017	1-554-088-00	SWITCH, KEY BOARD (EJECT(B))				*****												
S5019	1-786-095-11	SWITCH, TACTILE (DECK A)				< TRANSISTOR >												
S5020	1-786-095-11	SWITCH, TACTILE (DECK B)				Q901	8-729-420-74	TRANSISTOR	2SD1328-RST-TX									
S5021	1-786-095-11	SWITCH, TACTILE (SEARCH)				Q902	8-729-420-74	TRANSISTOR	2SD1328-RST-TX									
S5022	1-786-095-11	SWITCH, TACTILE (0)				Q903	8-729-425-88	TRANSISTOR	XP1114-TXE									
S5023	1-786-095-11	SWITCH, TACTILE (1)				Q904	8-729-420-74	TRANSISTOR	2SD1328-RST-TX									
S5024	1-786-095-11	SWITCH, TACTILE (2)				Q905	8-729-420-74	TRANSISTOR	2SD1328-RST-TX									
S5025	1-786-095-11	SWITCH, TACTILE (3)				*****												
S5026	1-786-095-11	SWITCH, TACTILE (4)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5027	1-786-095-11	SWITCH, TACTILE (5)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5028	1-786-095-11	SWITCH, TACTILE (6)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5029	1-786-095-11	SWITCH, TACTILE (7)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5030	1-786-095-11	SWITCH, TACTILE (8)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5031	1-786-095-11	SWITCH, TACTILE (9)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5032	1-786-095-11	SWITCH, TACTILE (FUNCTION)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5033	1-786-095-11	SWITCH, TACTILE (UP)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5034	1-786-095-11	SWITCH, TACTILE (DOWN)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5035	1-786-095-11	SWITCH, TACTILE (DELETE)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5036	1-786-095-11	SWITCH, TACTILE (LEFT)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5037	1-786-095-11	SWITCH, TACTILE (RIGHT)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5038	1-786-095-11	SWITCH, TACTILE (ENTER)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5039	1-786-095-11	SWITCH, TACTILE (DISPLAY MODE A)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5040	1-786-095-11	SWITCH, TACTILE (DISPLAY MODE B)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5041	1-476-470-11	ENCODER (ROTARY) (INDEZ SEARCH/SELECT)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
S5042	1-570-707-21	SWITCH, SLIDECH (INDEX SEARCH/TIME SEARCH)				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.												
*****												The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.						
MUTE BOARD *****												The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.						
< TRANSISTOR >												The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.						
Q901	8-729-420-74	TRANSISTOR	2SD1328-RST-TX			Q902	8-729-420-74	TRANSISTOR	2SD1328-RST-TX				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.					
Q903	8-729-425-88	TRANSISTOR	XP1114-TXE			Q904	8-729-420-74	TRANSISTOR	2SD1328-RST-TX				The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.					
Q905	8-729-420-74	TRANSISTOR	2SD1328-RST-TX										The un-mounted board and the mounted board of the MUTE BOARD are not supplied. Only the mounted parts are supplied.					

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
<b>MISCELLANEOUS</b>							
<b>*****</b>							
101	1-476-469-11	LIGHT UNIT, BACK		#1	7-685-133-19	SCREW +P 2.6X6 TYPE2 SLIT	
102	1-803-019-11	DISPLAY PANEL, LIQUID CRYSTAL		#2	7-682-947-01	SCREW +PSW 3X6	
109	1-757-623-11	CABLE, FLEXIBLE FLAT (20 CORE)		#3	7-682-647-09	SCREW +PS 3X6	
112	1-680-433-11	B-LIGHT FLEXIBLE BOARD		#4	7-682-965-01	SCREW +PSW 4X16	
* 151	1-757-622-11	CABLE, FLEXIBLE FLAT (17 CORE)		#5	7-624-200-01	NUT, PUSH 1.5	
* 153	1-757-621-11	CABLE, FLEXIBLE FLAT (17 CORE)		#6	7-628-253-35	SCREW +PS 2X8	
157	1-509-184-51	CONNECTOR (RECEPTACLE) 3P		#7	7-682-948-09	SCREW +PSW 3X8	
260	1-777-945-11	WIRE, FLAT TYPE (18 CORE)		#8	7-682-648-09	SCREW +PS 3X8	
△ 281	8-583-027-07	OPTICAL PICK-UP KMS-250A		#12	7-627-000-00	SCREW, PRECISION +P1.7X2.2TYPE3	
M902	1-698-454-12	MOTOR, STEPPING (F LA15-2002-A) (SLED)		#13	7-623-505-01	LUG, 2	
M903	1-698-455-11	MOTOR, DC GEARED (12C-082G) (LODING)					
SP101	1-504-888-12	SPEAKER (5.0cm)					
<b>ACCESSORIES &amp; PACKING MATERIALS</b>							
<b>*****</b>							
△	1-418-811-11	ADAPTOR, AC (AC-MDCC120)					
△	1-528-174-31	BATTERY, LITHIUM (CR2032 TYPE)					
△	1-757-495-11	CORD, POWER (SET)					
	3-868-380-11	MANUAL, INSTRUCTION (ENGLISH)					

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

MEMO

## REVISION HISTORY

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Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.