

# HCD-WZ8D

## SERVICE MANUAL

Ver 1.0 2003. 07

AEP Model

UK Model

E Model

Australian Model



- HCD-WZ8D is the tuner, and the CD/DVD player section in MHC-WZ8D.

DVD Section	Model Name Using Similar Mechanism	HCD-SA30
	DVD Mechanism Type	CDM77A-DVBU20
	Optical Pick-up Name	TDP022W

### SPECIFICATIONS

#### CD/DVD player section

Laser	Semiconductor laser (DVD: $\lambda=650$ nm, CD: $\lambda=780$ nm)
Frequency response	Emission duration: continuous DVD (PCM 48 kHz): 2 Hz – 22 kHz = ( $\pm 1$ dB) CD: 2 Hz – 20 kHz = ( $\pm 1$ dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Video color system format	NTSC, PAL
DVD DIGITAL (OPTICAL) OUT (European, Russian and Australian models only) (Square optical connector jack, rear panel):	Optical Wavelength: 660 nm

#### Tuner section

FM stereo, FM/AM superheterodyne tuner	
FM tuner section	
Tuning range	
Russian model	65.0 – 74.0 MHz (There is no stereo effect)
Other models	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

#### AM tuner section

Tuning range	Latin American model:	530 – 1,710 kHz (with the tuning interval set at 10 kHz)
		531 – 1,710 kHz (with the tuning interval set at 9 kHz)
	European, Russian and Middle Eastern models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
	Other models:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
		530 – 1,710 kHz (with the tuning interval set at 10 kHz)

#### Power consumption

European and Russian models:	235 watts
	0.3 watts (in Power Saving Mode)
Other models:	260 watts
Dimensions (w/h/d)	
CD/DVD player/Tuner:	Approx. 255 × 135 × 355 mm
Mass	
CD/DVD player/Tuner:	Approx. 3.0 kg
Supplied accessories:	Remote Commander (1) Batteries (2) AM loop antenna (1) FM lead antenna (1) Speaker pads (20) Speaker cords (5) Video cord (1)

Design and specifications are subject to change  
without notice.

## CD/DVD PLAYER TUNER

9-877-415-01

2003G1678-1

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**Sony Corporation**

Home Audio Company

Published by Sony Engineering Corporation

# SONY®

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

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

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

## NOTES ON LASER DIODE EMISSION CHECK

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

Laser component in this product is capable  
of emitting radiation exceeding the limit for  
Class 1.

CLASS 1 LASER PRODUCT  
LUOKAN 1 LASERLAITE  
KLASS 1 LASERAPPARAT

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

The following caution label is located inside the apparatus.

**CAUTION** : INVISIBLE LASER RADIATION WHEN OPEN AND  
INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.  
**ADVARSEL** : USYNLIG LASERSTRÅLING VED ÅBNING NÅR  
SIKKERHEDSAFTRYDRE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE  
FOR STRÅLING.  
**VORSICHT** : UNSICHTBARE LASERSTRÄHLUNG, WENN  
ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG  
ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.  
**VARO!** : AVATTAESSA JA SUOJALUKITUS OHITTEAESSA OLET ALT-  
TINA NAKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEN.  
**VARNING** : OSYNLIG LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD  
OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.  
**ADVERSEL** : USYNLIG LASERSTRÅLING NÅR DEKSEL ÄPNES OG  
SIKKERHEDSLS BRYTES. UNNGÅ EKSPOSERING FOR STRÅLEN.  
**VIGYAZAT!** : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSU-  
GÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

## CAUTION

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

## Notes on chip component replacement

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

## Flexible Circuit Board Repairing

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

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**[When bringing in the equipment for service]**

In case of repairing, please bring the entire system set([HCD-WZ5, DXA-WZ5],except for the speaker) to the service station.

**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

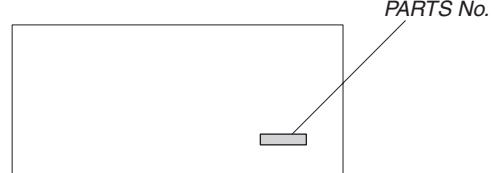
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

- Usable with ordinary solder

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

**MODEL IDENTIFICATION**

— BACK PANEL —



MODEL	PARTS No.
AEP, UK models	4-244-897-0□
EA model	4-244-897-1□
E3, E15 models	4-244-897-2□
E2 model	4-244-897-3□
AUS models	4-244-897-4□
TH model	4-244-897-6□
KR model	4-244-897-7□
MY, SP models	4-244-897-8□
RU models	4-244-897-9□
PH model	4-247-928-0□

- Abbreviation

AUS	: Australian model
E2	: 120V AC area in E model
E3	: 240V AC area in E model
E15	: 220-240V AC area in E model
EA	: Saudi Arabia model
KR	: Korean model
MY	: Malaysia model
PH	: Philippines model
RU	: Russian model
SP	: Singapore model
TH	: Thai model

**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.**

This section is extracted  
from instruction manual.

## List of button locations and reference pages

How to use this page	Illustration number
Use this page to find the location of buttons and other parts of the system that are mentioned in the text.	TAPE A/B <b>3</b> (41, 42)

Name of button/part      Reference page

### Main unit

#### ALPHABETICAL ORDER

##### A - J

ALBUM – **15** (14, 17, 19)  
ALBUM + **14** (14, 17, 19)  
CD SYNC **9** (41)  
COLOR SELECT **20** (50)  
Control lever **7** (11, 45)  
Disc tray **25** (13)  
DISPLAY **19** (39, 49, 51, 52)  
Display window **24**  
DVD **5** (11, 12, 13, 19, 37, 41,  
42)  
DVD MENU **14** (16, 27)  
DVD TOP MENU **15** (16)  
ECHO LEVEL<sup>\*1</sup> **21** (46)  
EFFECT **17** (43, 45)  
EQ EDIT **18** (45, 60)  
GROOVE **7** (43)  
Headphone jack **13**

##### K - Z

KARAOKE/MPX<sup>\*2</sup> **16** (45)  
MD (VIDEO) **2** (42, 55)  
MIC LEVEL<sup>\*2</sup> **22** (45)  
Microphone jacks<sup>\*2\*3</sup> **23**  
MOVIE MODE **7** (43)  
MPX<sup>\*4</sup> **16** (46)  
MUSIC MODE **7** (43, 45)  
PUSH ENTER **7** (12, 16, 17, 18,  
19, 21, 23, 26, 28, 31, 36, 45,  
46, 47, 48)  
Remote sensor **12**  
SOUND FIELD **7** (43)  
TAPE A/B **3** (40, 41, 42, 46)  
TUNER/BAND **6** (36, 37, 42)  
VOLUME **11** (47)

#### BUTTON DESCRIPTIONS

- I/∅ (power) **1** (10, 37, 47, 55,  
60)
- II (pause) **4** (10, 14, 40)
- ◀▶ (play) **4** (14, 30, 40, 41,  
46)
- (stop) **4** (11, 14, 27, 37, 40,  
41, 46, 60)
- +▶▶▶ (fast forward/go  
forward) **4** (14, 36, 40)
- ◀◀◀◀ (rewind/go back) **4**  
(14, 36, 40)
- ▲ (open/eject) **8** (13)
- START (recording start) **10**  
(41, 46)

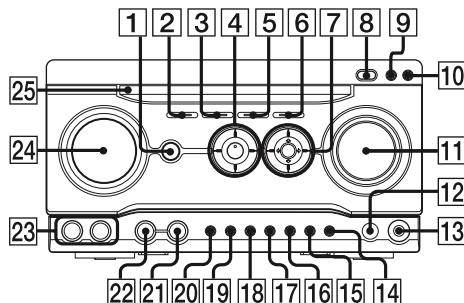
<sup>\*1</sup> Except for European, Russian  
and Latin American models

<sup>\*2</sup> Except for European and  
Russian models

<sup>\*3</sup> Microphone jacks for:  
Latin American model: 1  
Asian, Australian and Middle  
Eastern models: 2

<sup>\*4</sup> European and Russian models  
only

CD/DVD player/Tuner



## Setting the clock

Use buttons on the remote for the operation.

- 1 Press I/∅ to turn on the system.
- 2 Press CLOCK/TIMER SET.
- 3 Press ↑ or ↓ repeatedly to set the hour.
- 4 Press →.
- 5 Press ↑ or ↓ repeatedly to set the minute.
- 6 Press ENTER.

The clock starts working.

#### To adjust the clock

- 1 Press CLOCK/TIMER SET.
- 2 Press ↑ or ↓ repeatedly to select "CLOCK  
SET?", then press ENTER.
- 3 Do the same procedures as step 3 to 6  
above.

## Remote control

### ALPHABETICAL ORDER

#### A - O

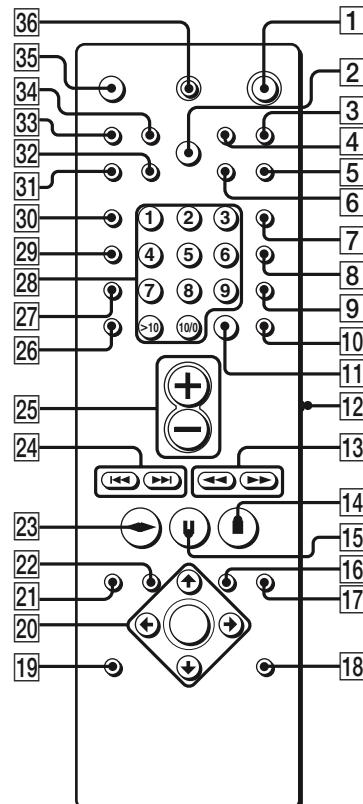
ALBUM – **21** (14, 17, 19)  
 ALBUM + **22** (14, 17, 19)  
 ANGLE **26** (26)  
 AUDIO **27** (23)  
 BAND **8** (36, 37)  
 CLEAR **11** (19, 20, 22)  
 CLOCK/TIMER SELECT **32**  
 (48, 49)  
 CLOCK/TIMER SET **34** (12, 47,  
 48)  
 COMMAND MODE switch **12**  
 (10)  
 DIMMER **30** (50)  
 DISPLAY **31** (39, 49, 51, 52)  
 DVD DISPLAY **16** (17, 18, 21,  
 23, 26, 28, 34, 52, 53)  
 DVD MENU **22** (16, 27)  
 DVD SET UP **17** (12, 15, 24, 26,  
 29, 31, 35, 61)  
 DVD TOP MENU **21** (16)  
 ENTER **20** (12, 16, 17, 18, 19, 21,  
 23, 26, 28, 31, 36, 45, 46, 47,  
 48)  
 FUNCTION **7** (12, 13, 19, 36,  
 37, 40, 47)  
 GROOVE **2** (43)  
 KEY CONTROL **5** (43, 46)  
 MOVIE MODE **18** (43)  
 MUSIC MODE **19** (43, 45)  
 Number buttons **28** (15, 16, 20,  
 22, 25, 26, 28)

#### P - Z

PLAY MODE/DIRECTION **33**  
 (14, 19, 40, 41, 42, 46)  
 PRESET –/+ **24** (36, 37)  
 PREV/NEXT **24** (14)  
 REPEAT/FM MODE **6** (18, 38)  
 SELECT **23** (16)  
 SLEEP **35** (47)  
 SOUND FIELD **9** (43)  
 SUBTITLE **29** (24)  
 TUNER MEMORY **5** (36)  
 TUNING MODE **4** (36, 37)  
 TUNING –/+ **13** (36, 38)  
 TV CH –/+ **24** (10)  
 TV/VIDEO **3** (10)  
 VOL +/- **25** (10, 47)

### BUTTON DESCRIPTIONS

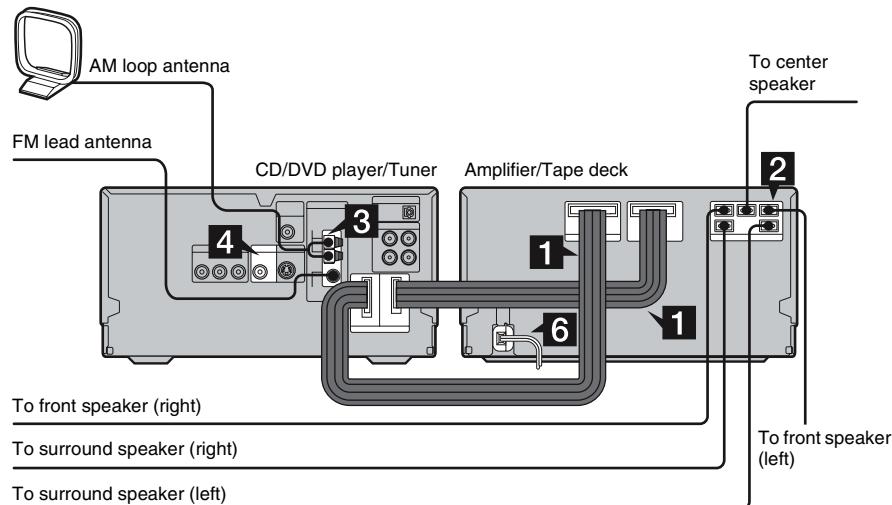
Ι/Φ (power) **1** (10, 47)  
 ◀◀/▶▶ (rewind/fast forward)  
**13** (14, 36, 40)  
 SLOW ◀◀/▶▶ **13** (14)  
 ◀◀/▶▶ (go back/go forward)  
**24** (14, 36, 40)  
 ▶▶ (play) **23** (14, 30, 40, 41,  
 46)  
 II (pause) **15** (14, 40)  
 ■ (stop) **14** (14, 40, 41, 46)  
 ↑/↓/←/→ **20** (12, 16, 23, 28,  
 33, 47)  
 ↺ RETURN **10** (16, 28)  
 TV Ι/Φ **36** (10)



## Getting Started

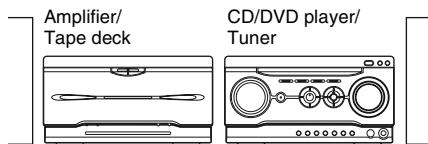
### Hooking up the system

Perform the following procedures **1** to **7** to hook up your system using the supplied cords and accessories. European model is used for illustration purpose.



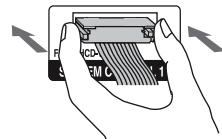
#### Preparation

Place the components as shown below.



- 1** Connect the system control cables to the **SYSTEM CONTROL** connectors on the tape deck.

Connect to the same numbered jack in the order indicated on the rear panel.



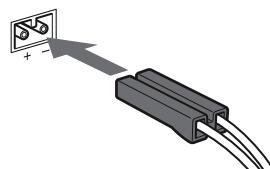
#### Note

The system cable is used to send signals and electricity between the components for interlinked operation.

Be sure to insert the connector horizontally until it clicks into place. Otherwise the system will not operate correctly.

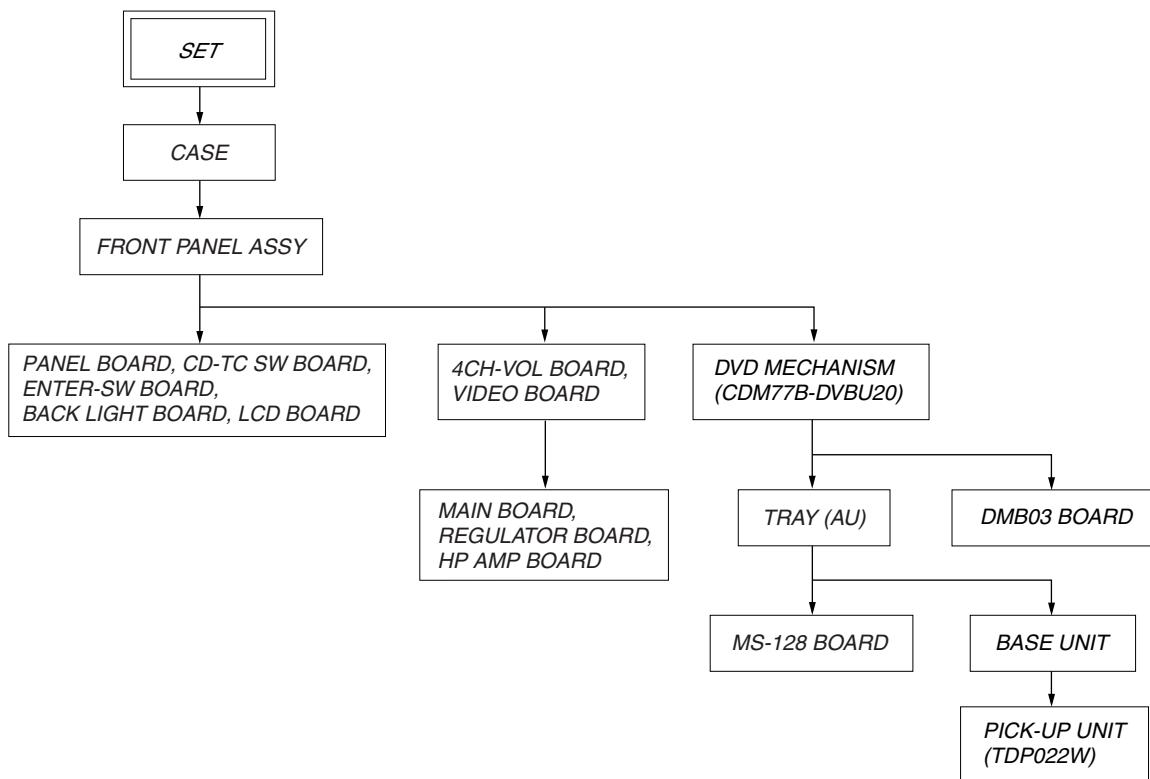
- 2** Connect the speakers.

Be sure to match the appropriate speaker cords from the speaker terminals to the corresponding SPEAKER terminals on the tape deck.



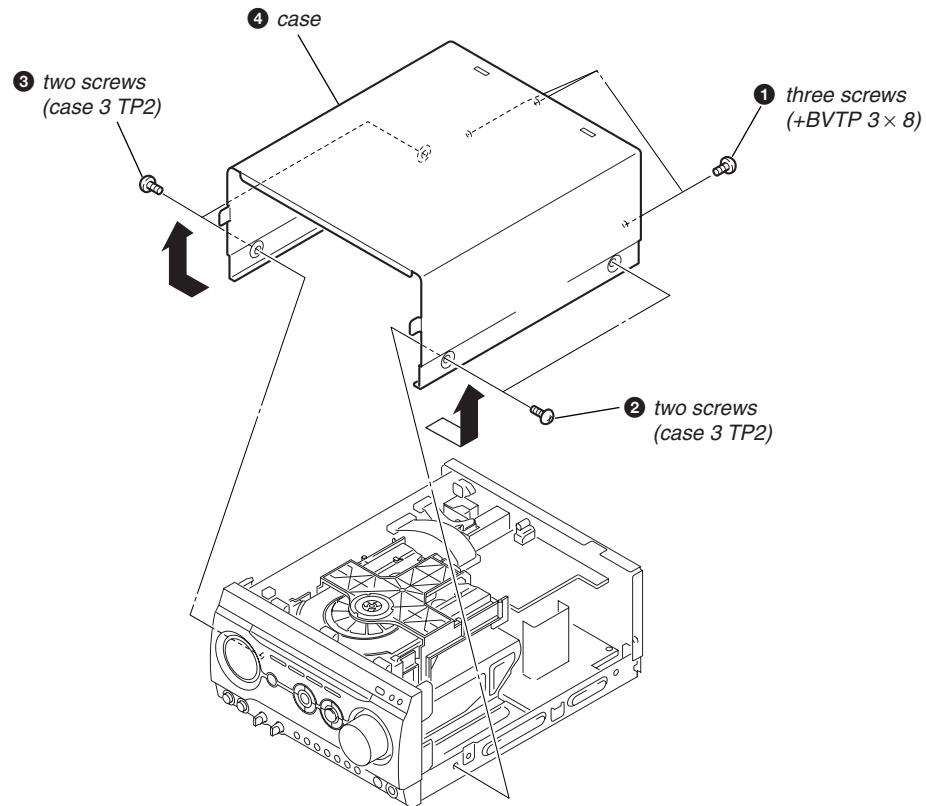
## SECTION 2 DISASSEMBLY

- The equipment can be removed using the following procedure.



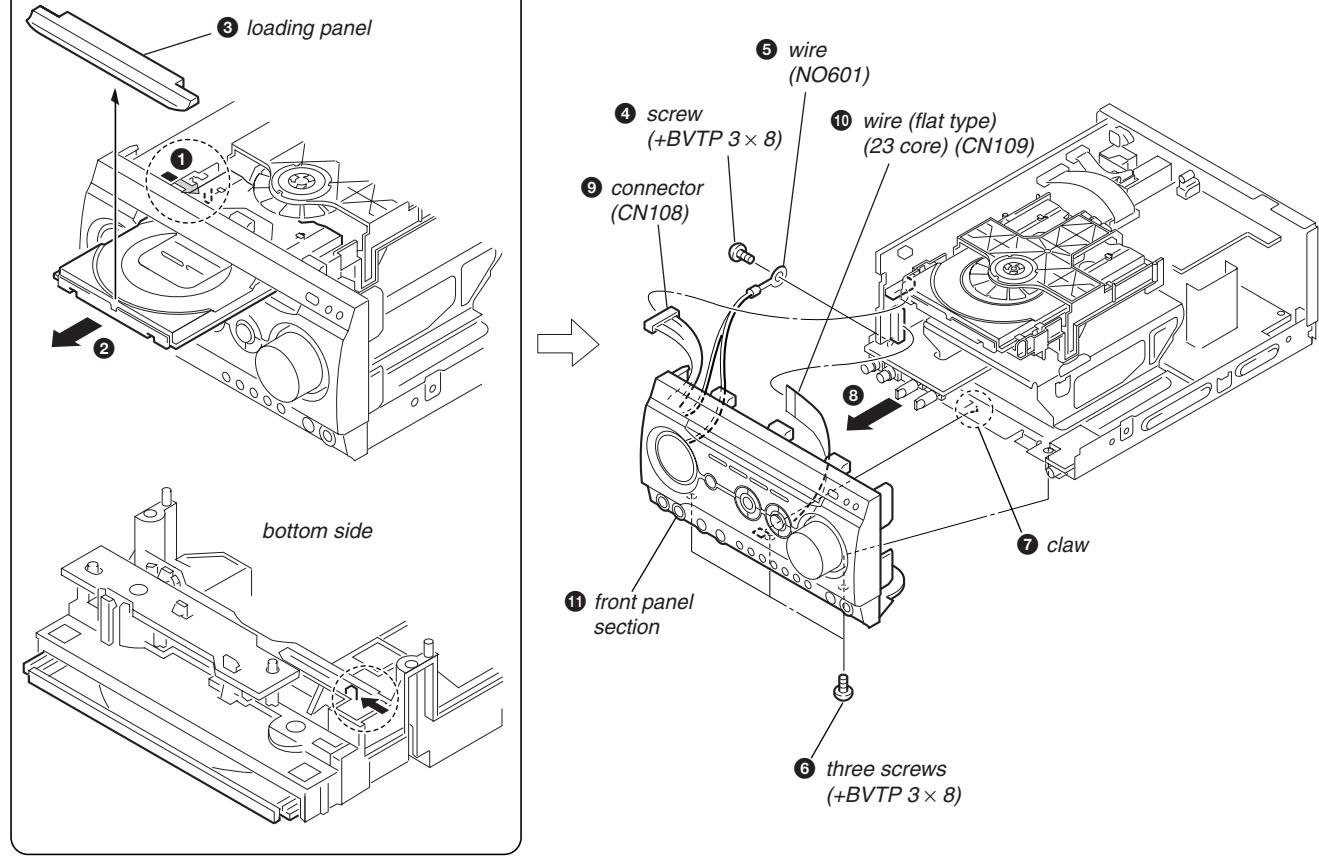
**Note :** Follow the disassembly procedure in the numerical order given.

### 2-1. Case

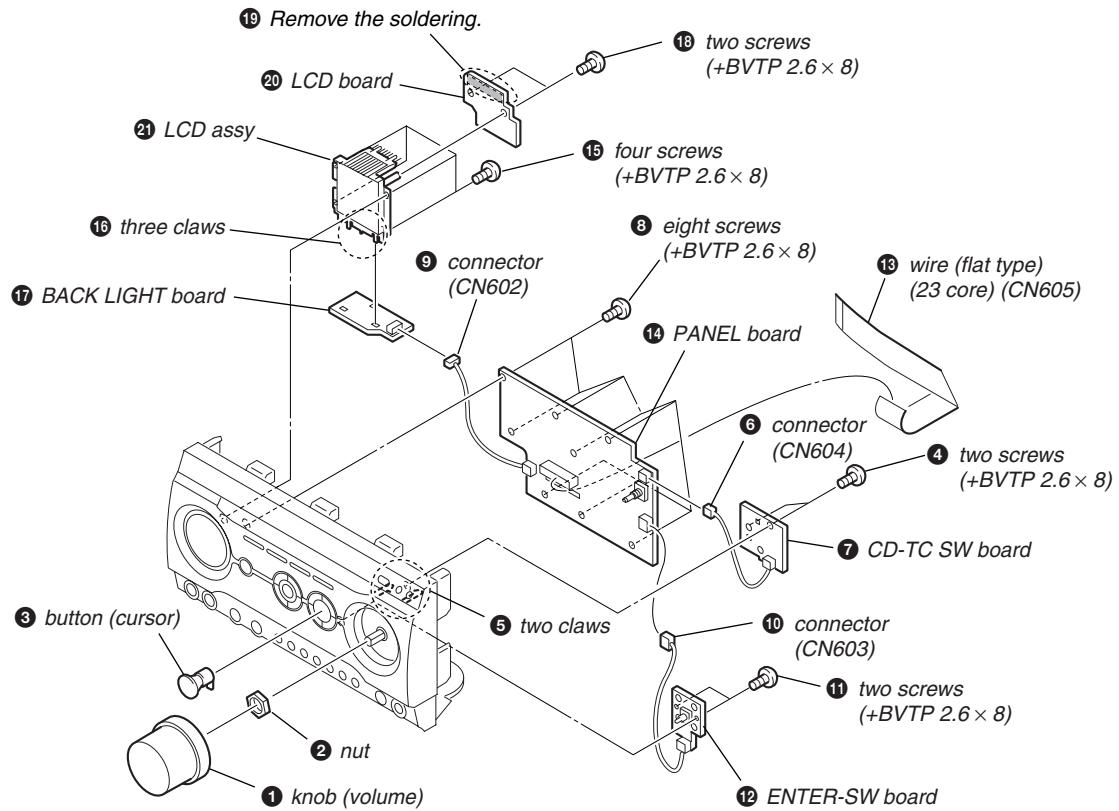


## 2-2. Front Panel Assy

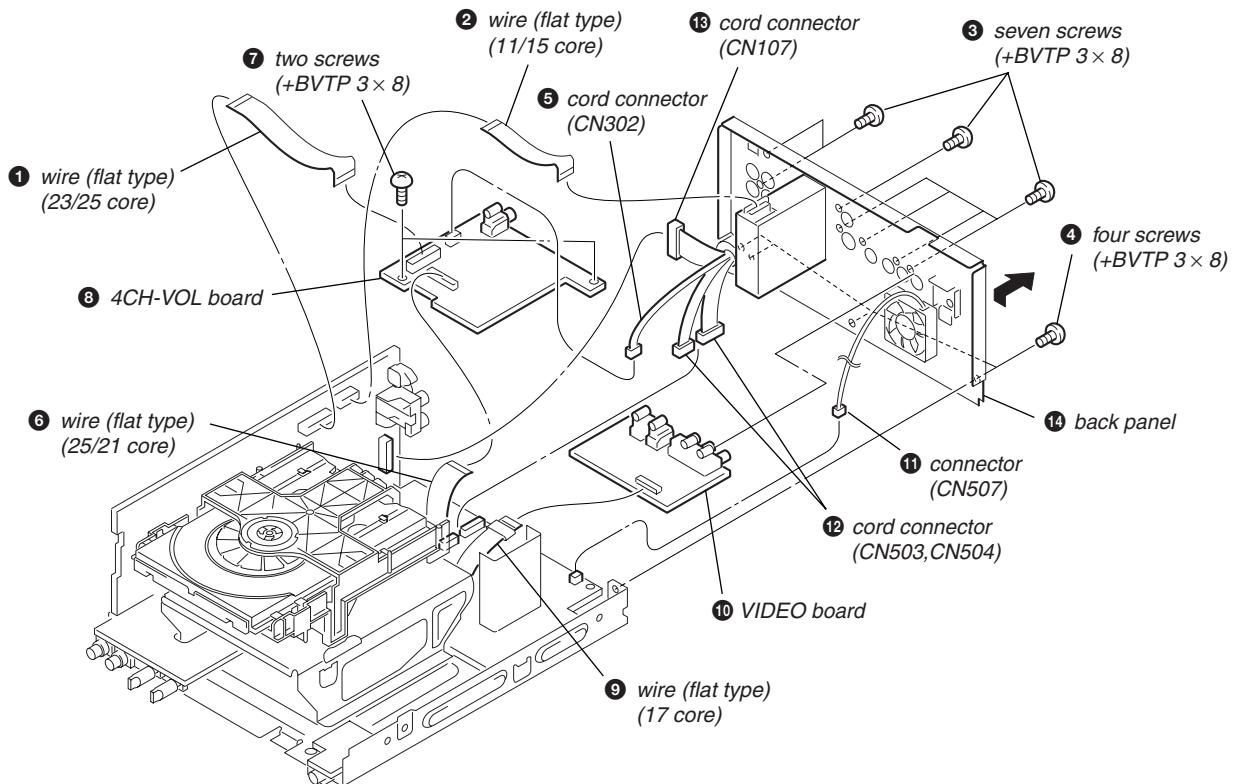
How to eject the disc tray when the main power cannot be turned on.



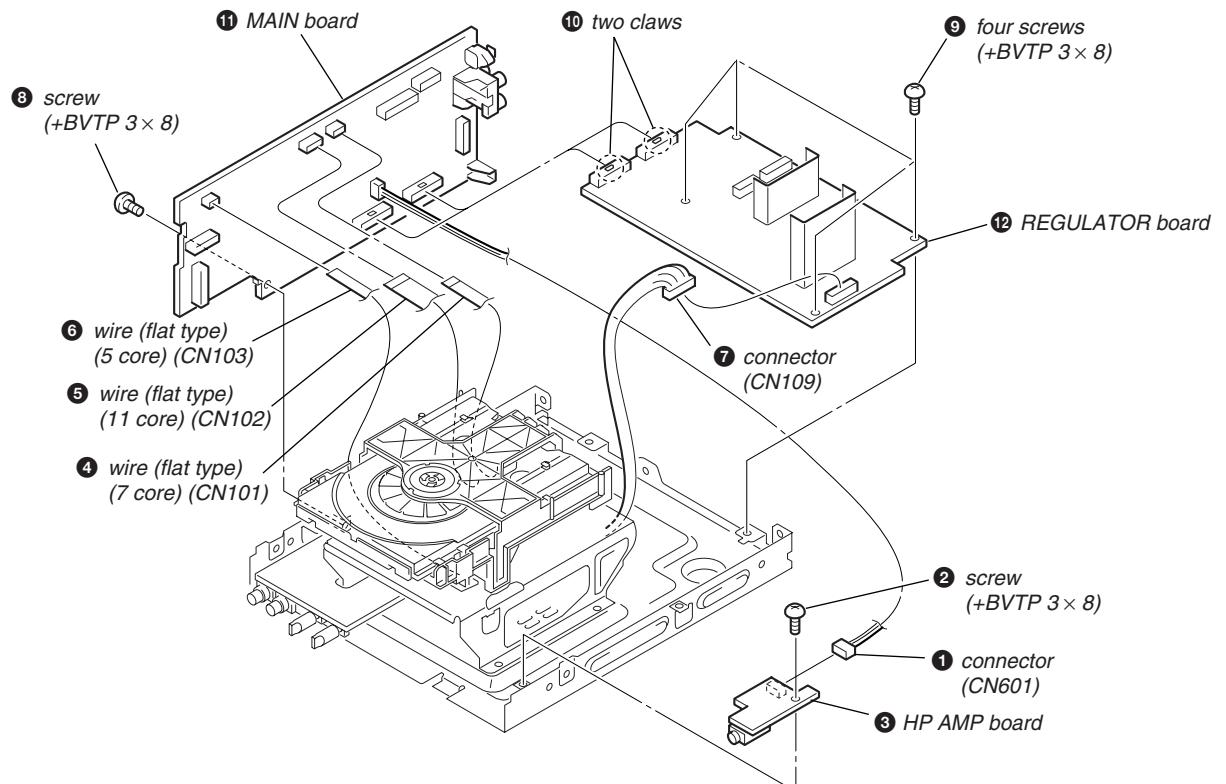
## 2-3. PANEL Board, CD-TC-SW Board, ENTER-SW Board, BACK LIGHT Board, LCD Board



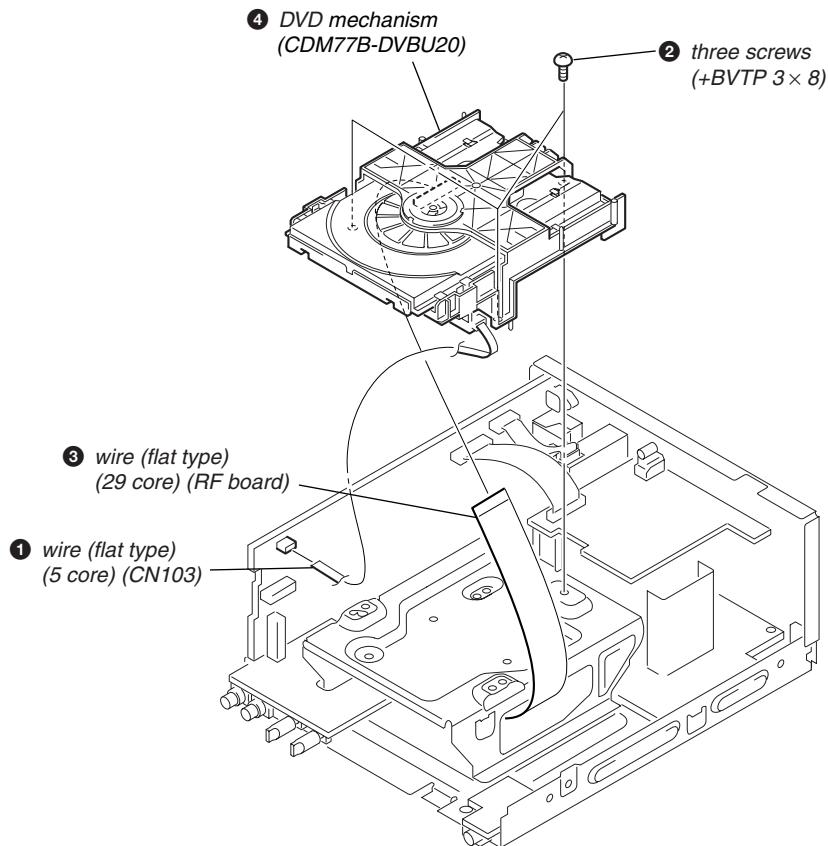
## 2-4. 4CH-VOL Board, VIDEO Board



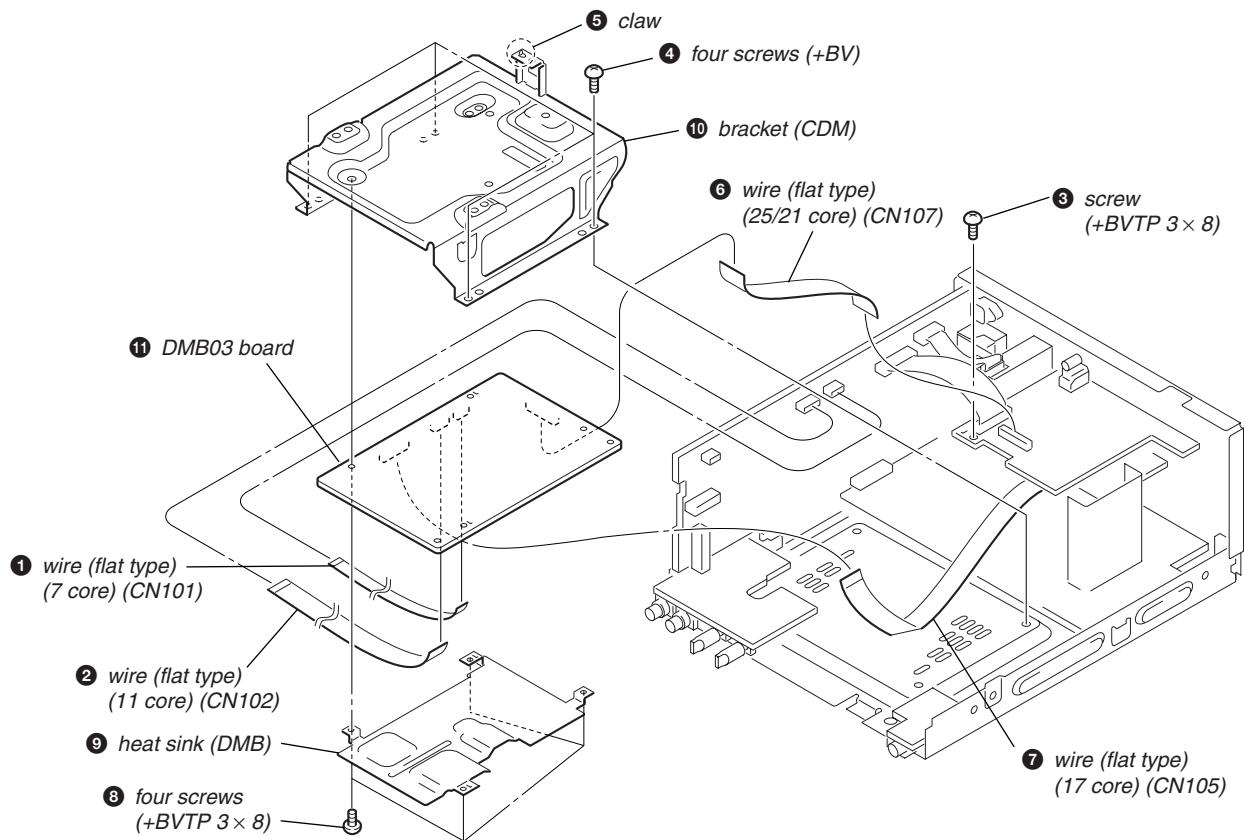
## 2-5. MAIN Board, REGULATOR Board, HP AMP Board

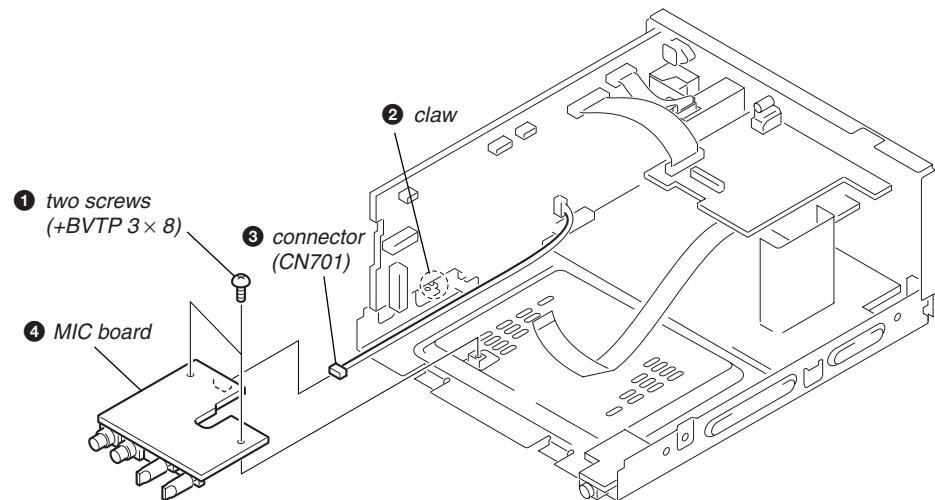
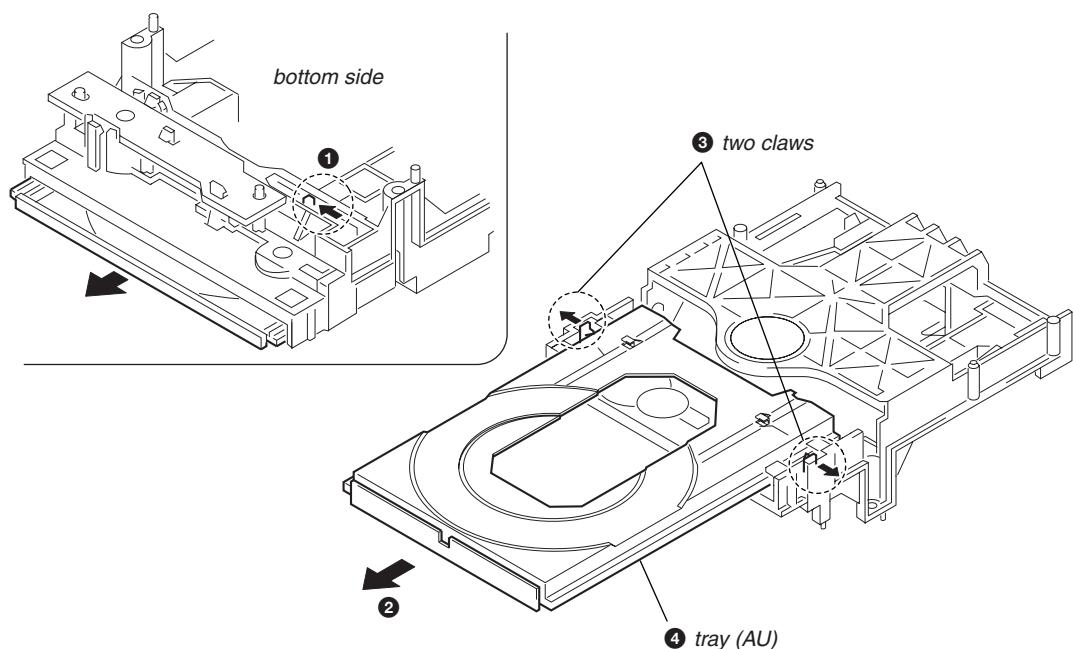


## 2-6. DVD Mechanism (CDM77A-DVBU20)

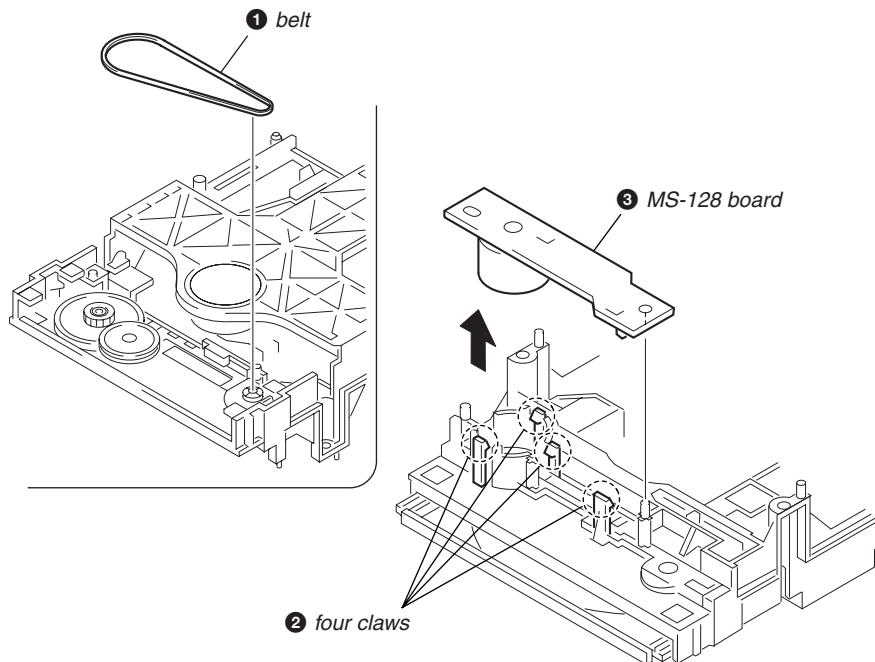


## 2-7. DMB03 Board

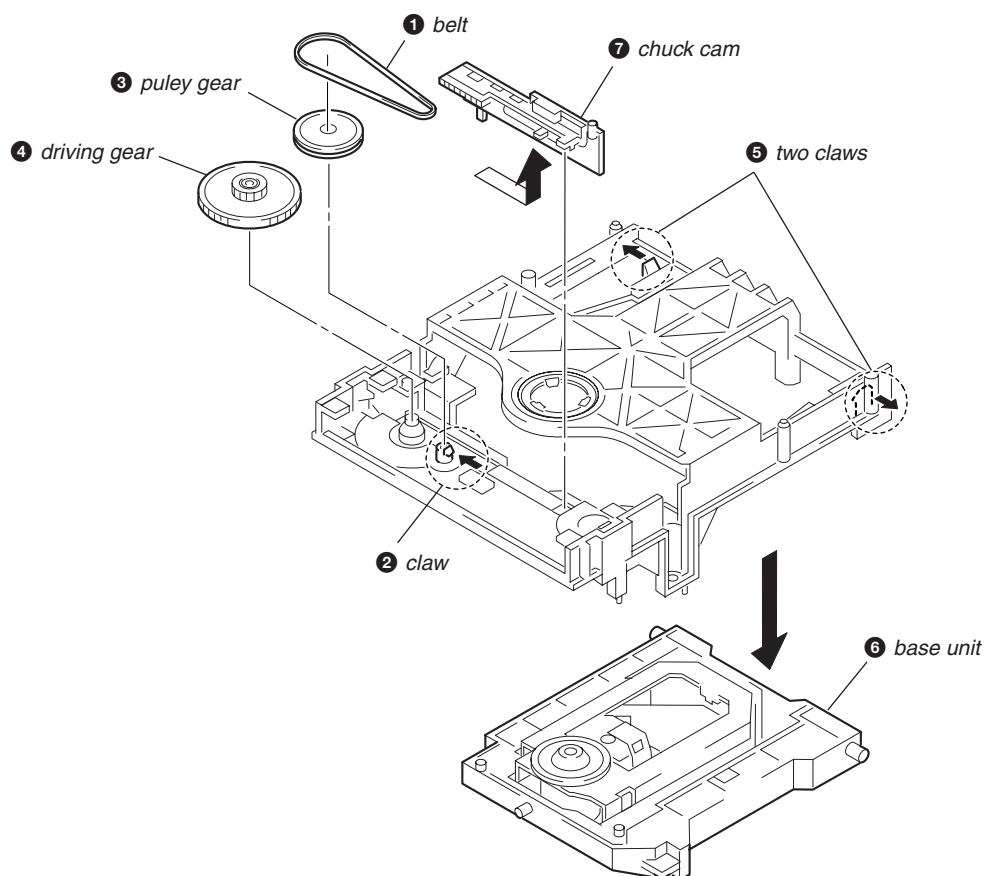


**2-8. MIC Board****2-9. Tray (AU)**

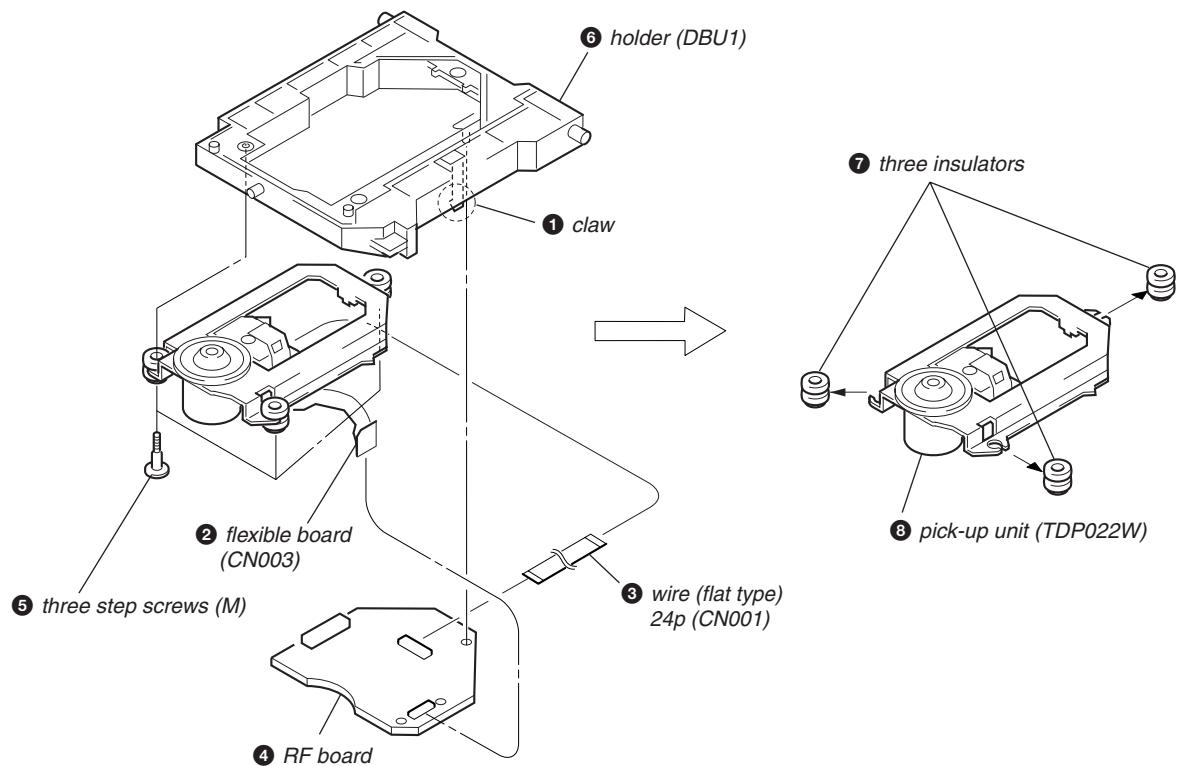
## 2-10. MS-128 Board



## 2-11. Base Unit



## 2-12. Pick-up Unit (TDP022W)



## **SECTION 3**

### **TEST MODE**

**[Cold Reset]**

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

**Procedure:**

1. Press three buttons **[■]**, **[EQ EDIT]** and **[I/O]** simultaneously.
2. The liquid crystal display does not display any message and the set is reset.

**[MD/VIDEO Function Selection Mode]**

- This mode is used to select the function of MD or VIDEO.

**Procedure:**

1. Press the **[I/O]** button to turn the set on.
2. Press the **[MD(VIDEO)]** and **[I/O]** buttons simultaneously.
3. The function will change from MD to VIDEO, and "VIDEO" is displayed.
4. To change change back to MD , repeat the same procedure.

**[AM Channel Step 9 kHz/10kHz Selection Mode]**

- Either the 9 kHz step or 10 kHz step can be selected for the AM channel step.

**Procedure:**

1. Set the function to AM.
2. Turn off the main power.
3. While depressing the **[■]** button, press the **[I/O]** button to turn on the main power.
4. "AM 9k Step" or "AM 10k Step" is displayed and the channel step is changed over.

\* For E model only

**[DVD Ship Mode (without Cold Reset)]**

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

**Procedure:**

1. Press the **[I/O]** button to turn the set on.
2. Set the function to DVD.
3. Press the **[■]** button and the **[↑]** (Control lever) button simultaneously.
4. After the "STANDBY" display blinks six times, the message "LOCK" is displayed on the liquid crystal display, and the DVD ship mode is set.

**[DVD Ship Mode (without Cold Reset)]**

- This mode is used to perform the DVD Ship Mode with Cold Reset.

**Procedure:**

1. Press the **[I/O]** button to turn the set on.
2. Set the function to DVD.
3. Press three buttons **[■]**, **[● START]** (REC PAUSE) and **[◀◀◀◀-]** simultaneously.
4. After the "STANDBY" display blinks six times, the message "LOCK" is displayed on the liquid crystal display, and the DVD ship mode is set.

**[Color System Selection]**

\* Color system can be changed to PAL or NTSC.

**Procedure:**

1. Turn off the main power.
2. Press two buttons **[II]** and **[I/O]** simultaneously.  
"COLOR PAL" is displayed and the color system is changed to PAL. The set is powered on and the function is set to DVD.
3. To change the color system to NTSC, turn off the main power.
4. Press two buttons **[II]** and **[I/O]** simultaneously.  
"COLOR NTSC" is displayed and the color system is changed to NTSC. The set is powered on and the function is set to DVD.

**[Disc Tray Lock]**

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

**Setting Procedure :**

1. Press the **[I/O]** button to turn the set on.
2. Set the function to DVD.
3. Press two buttons of **[■]** and **[▲]** simultaneously for five seconds.
4. The message "LOCKED" is displayed and the tray is locked.

**Releasing Procedure :**

1. Press two buttons of **[■]** and **[▲]** simultaneously for five seconds again.
  2. The message "UNLOCKED" is displayed and the tray is unlocked.
- Note : When "LOCKED" is displayed, the tray lock is not released by turning power on/off with the **[I/O]** button.

**[MC Test Mode]**

- \* This mode is used to check operations of the amplifier and tape deck.

**Procedure:**

1. Press the **[I/O]** button to turn the set on.
2. Press three buttons **[■]**, **[● START]** (REC PAUSE) and **[MUSIC MODE]** simultaneously.
3. "MD" is displayed and dotted lines blink.
4. Every pressing the **[EQ EDIT]** button changes the displays in the order of "GEQ MIN" → "GEQ FLAT" → "GEQ MAX"
5. When the **[VOLUME]** control knob is turned clockwise even slightly, the sound volume increases to its maximum and the message "VOLUME MAX" appears for two seconds, the display returns to the original display.
6. When the **[VOLUME]** control knob is turned counterclockwise even slightly, the sound volume decreases to its minimum and the message "VOLUME MIN" appears for two seconds, the display returns to the original display.
7. When a tape is inserted in Deck B and by pressing the **[● START]** (REC PAUSE) button recording is started, the input source function selects MD automatically.
8. During the recording by pressing the **[◀◀◀◀-]** button, the TAPE A/B is selected and tape is rewound. Tape stops at around the record-starting position and playback of the recorded portion of the tape is started.
9. Press the **[I/O]** button to turn the set off.

**[GC Test Mode]**

- This mode is used to check the software version, key board, VACS level, liquid crystal display and LEDs.

**Procedure:**

1. Press three buttons **[■]**, **[● START]** (REC PAUSE) and **[TUNER/BAND]** simultaneously.
2. Segments of the liquid crystal display and LEDs are all turned on.
3. To enter the software version display mode, press the **[◀◀◀◀-]** button. The model name and destination are displayed.
4. Each time the **[◀◀◀◀-]** button is pressed, the display changes in the following order. MC, GC, CD, CDD, CDMA, CDMB, BDA, BDB, ST, TA, TM, TC and MD. Each time the **[▶▶▶▶]** button is pressed, the contents of the version display change.
5. Press the **[◀▶]** button, and the key check mode is activated.
6. In the key check mode, "K 0 V 0" is displayed. Each time a button is pressed, "K 0" value increases. However, once a button is pressed, it is no longer taken into account. "V 0" value increases like 1, 2, 3 ... if rotaing the **[VOLUME]** knob clockwise, or it decreases like 0, 9, 8 ... if rotating couunterclockwise.
7. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

- **VACS Level Display Mode**

**Procedure:**

1. Press three buttons [■], [● START] (REC PAUSE) and [TUNER/BAND] simultaneously.
2. Press the [II] button. The VACS level "VACS 0+0" is displayed.
3. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

- **Display Check**

**Procedure:**

1. Press three buttons [■], [● START] (REC PAUSE) and [TUNER/BAND] simultaneously.
2. Press the [■] button and the display changes. Each time the [■] button is pressed, the pattern of segments changes.
3. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

**[VACS ON/OFF Mode]**

- This mode is used to switch on and off the VACS (Variable Attenuation Control System).

**Procedure:**

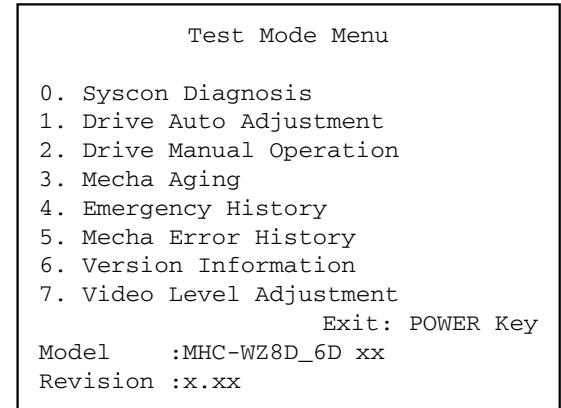
1. Press the [I/O] button to turn the set on.
2. To enter the test mode, press three buttons [■], [● START] (REC PAUSE) and [MOVIE MODE] simultaneously.
3. The message "VACS OFF" or "VACS ON" appears.

**DVD OSD Test Mode**
**[GENERAL DESCRIPTION]**

The Test Mode allows you to make diagnosis and adjustment easily using the remote commander and monitor TV. The instructions, diagnostic results, etc. are given on the on-screen display (OSD).

**[STARTING TEST MODE]**

1. Press the [I/O] button to turn the power on, and set the function to DVD.
2. While pressing the [■] and [▲] button, turn the [VOLUME] knob clockwise to enter the test mode.
3. It displays "SERVICE IN" on the liquid crystal display, and displays the Test Mode Menu on the monitor screen as follows. (At the bottom of the menu screen, the model name and revision number are displayed)

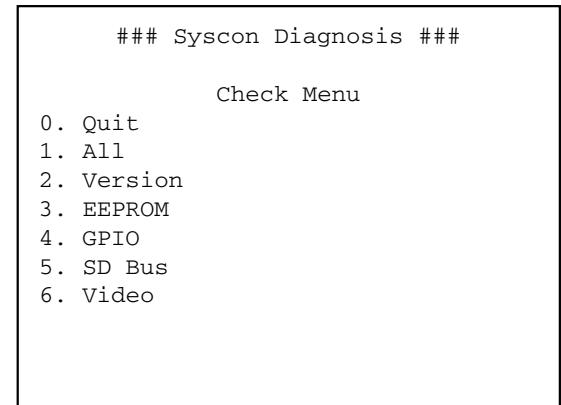


4. To execute each function, select the desired menu and press its number on the remote commander [COMMAND MODE] (RM-SWZ8D).
5. To release from test mode, press the [I/O] button and turn the power off.

**[OPERATING TEST MODE]**
**0. SYSCON DIAGNOSIS**

The same contents as board detail check by serial interface can be checked from the remote commander operation.

On the Test Mode Menu screen, press [10/0] key on the remote commander, and the following Check Menu will be displayed.

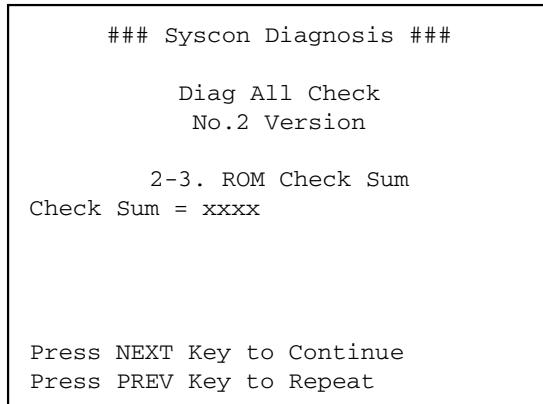

**0-0. Quit**

Quit the Syscon Diagnosis and return to the Test Mode Menu.

**0-1. All (All items continuous check)**

This menu checks all diagnostic items continuously. Normally, all items are checked successively one after another automatically unless an error is found, but at a certain item that requires judgment through a visual check to the result, the following screen is displayed for the key entry.

- Example display



For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.

Following the message, press the [NEXT ►►] button to go to the next item, or press the [◀◀ PREV] button to repeat the same operation again.

To quit the diagnosis and return to Check Menu screen, press the [RETURN] key on the remote commander to display Check Menu.

- Error occurred

If an error occurred, the diagnosis is suspended and error is displayed. Press the [RETURN] key on the remote commander to quit the diagnosis, or press the [◀◀ PREV] button to repeat the same check where an error occurred, or press the [NEXT►►] button to continue the check from the item next to faulty item.

### General Description of Checking Method

Selecting 2 and subsequent items calls the submenu screen of each item. And selecting 2 and subsequent items executes respective menus and outputs the results.

For the contents of each submenu, see "Check Items List" as below.

#### Check Items List:

- 0-2. Version
  - 0-2-1. All
  - 0-2-2. Revision
  - 0-2-3. ROM Check Sum
  - 0-2-4. Model Type
  - 0-2-5. Region
- 0-3. EEPROM Check
  - 0-3-1. Sampling Check
  - 0-3-2. Detail Check
- 0-4. GP I/O Check
- 0-5. SD Bus Check
- 0-6. Video Check

#### 0-2. Version

##### 0-2-2. Revision

The revision number of ROM (IC206) that the program for the DVD system processor (IC207) is stored.

##### 0-2-3. ROM Check Sum

Check sum is calculated.  
(4 digits hexadecimal number)

##### 0-2-4. Model Type

Model name is displayed. (MHC-WZ8D)

#### 0-2-5. Region

Model destination code is displayed. (2 digits number)

### 0-3. EEPROM Check

#### 0-3-1. Sampling Check

EEPROM check at every 64 words.

It compares read data with write data of each address. When there are discrepancies between two data, it displays error.

#### 0-3-2. Detail Check

EEPROM check at every 1 word.

It compares read data with write data of each address. When there are discrepancies between two data, it displays error.

### 0-4. GP I/O Check

Pull up/down setting check of the DVD system processor (IC207) pin 150, 151 and 154 (for clock setting port).

### 0-5. SD Bus Check

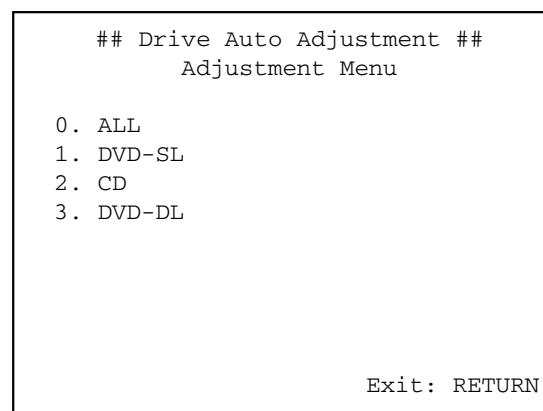
SD bus data check between DVD decoder (IC701) and D-RAM (IC706).

### 0-6. Video Check

Output the color bars for video level adjustment.

## 1. DRIVE AUTO ADJUSTMENT

On the Test Mode Menu screen, press the [1] key on the remote commander, and the Adjustment Menu will be displayed.



Normally, [10/0] is selected to adjust DVD (single layer), CD and DVD (dual layer) in this order. But, individual items can be adjusted for the case where adjustment is suspended due to an error. In this mode, the adjustment can be made easily through the operation following the message displayed on the screen.

The disc used for adjustment must be the one specified for adjustment.

#### 1-0. ALL

Press the [10/0] key on the remote commander, and the servo set data in EEPROM will be initialized. Then, 1. DVD-SL disc, 2. CD disc and 3. DVD-DL disc are adjusted in this order.

Each time one disc was adjusted, it is ejected. Replace it with the specified disc following the message. You can finish the adjustment by pressing the [RETURN] button on the remote commander.

**Note:** During adjustment of each disc, the measurement for disc type judgment is made. As automatic adjustment does not judge the disc type unlike conventional models, take care not to insert wrong type discs. Also, do not give a shock during adjustment.

**1-1. DVD-SL (single layer)**

Press the [1] key on the remote commander and insert a DVD single layer disc following the message. Then the adjustment will be made through the steps below, then adjusted values will be written to the EEPROM.

**DVD Single Layer Disc Adjustment Steps:**

1. Sled tilt reset
2. Disc check memory SL
3. Wait 300 msec
4. Set disc type SL
5. LD on
6. Spindle start
7. Wait 1 sec
8. Focus servo on 0
9. Auto track offset adjust
10. CLVA on
11. Wait 500 msec
12. Tracking on
13. Wait 1 sec
14. Sled on
15. Check CLV on
16. Auto LFO adjust
17. Auto focus offset adjust
18. Auto tilt position adjust
19. Auto focus gain adjust
20. Auto focus offset adjust
21. EQ boost adjust
22. Auto loop filter offset adjust
23. Auto track gain adjust
- Search Check
24. 32 track jump forward
25. 32 track jump reverse
26. 500 track jump forward
27. 500 track jump reverse
28. All servo stop
29. EEP copy loop filter offset

**1-2. CD**

Press the [2] key on the remote commander and insert a CD disc following the message. Then the adjustment will be made through the steps below, then adjusted values will be written to the EEPROM.

**CD Adjustment Steps**

1. Sled tilt rest
2. Disc check memory CD
3. Wait 500 msec
4. Set disc type CD
5. LD on
6. Spindle start
7. Wait 500 msec
8. Focus servo on 0
9. Auto track offset adjust
10. CLVA on
11. Wait 500 msec
12. Tracking on
13. (TC display start)
14. Wait 1 sec
15. Jitter display start
16. Sled ON
17. Check CLV on
18. Auto loop filter offset adjust
19. Auto focus offset adjust
20. Auto focus gain adjust
21. Auto focus offset adjust
22. EQ boost adjust
23. Auto LFO Adjust

**24. Auto track gain adjust****Search Check**

25. 32Tj forward
26. 32Tj reverse
27. 500Tj forward
28. 500Tj reverse
29. All servo stop

**1-3. DVD-DL (dual layer)**

Press the [3] key on the remote commander and insert a DVD dual layer disc following the message. Then the adjustment will be made through the steps below, then adjusted values will be written to the EEPROM.

**DVD Dual Layer Disc Adjustment Steps:**

1. Sled tilt reset
2. Disc check memory DL
3. Wait 500 msec
4. Set disc type DL
5. LD on
6. Spindle start
7. Wait 1 sec
- Layer 1 Adjust
8. Focus servo on 0
9. Auto track offset adjust
10. CLVA on
11. Wait 500 msec
12. Tracking on
13. Wait 500 msec
14. Sled on
15. Check CLV lock
16. Auto loop filter offset adjust, Auto focus adjust
17. Auto focus gain adjust
18. Auto focus offset adjust
19. EQ boost adjust
20. Auto loop filter offset adjust
21. Auto Track Gain Adjust
- Search Check

22. 32 track jump forward
23. 32 track jump reverse
24. 500 track jump forward
25. 500 track jump reverse

**Layer 0 Adjust**

26. Focus jump (L1 → L0)
27. Auto track offset adjust L0
28. CLVA on
29. Wait 500 msec
30. Tracking on
31. Wait 500 msec
32. Sled on
33. Check CLV lock
34. Auto focus filter offset adjust
35. Auto Focus Adjust
36. Auto focus gain adjust
37. Auto focus offset adjust
38. EQ boost adjust
39. Auto Loop Filter Offset
40. Auto track gain adjust
- Search Check

41. 32 track jump forward
42. 32 track jump reverse
43. 500 track jump forward
44. 500 track jump reverse

**Layer Jump Check**

45. Layer jump (L0 ? L1)
46. Layer jump (L1 ? L0)
47. All servo stop

## 2. DRIVE MANUAL OPERATION

**Note:** This mode is used for design, and not used in service fundamentally.

On the Test Mode Menu screen, press the [2] key on the remote commander, and the Operation Menu will be displayed. For the manual operation, each servo on/off control and adjustment can be executed manually.

```
## Drive Manual Operation ##
Operation Menu
1. Disc Type
2. Servo Control
3. Track/Layer Jump
4. Non EEPROM Write Adjust
5. EEPROM Write Adjust
6. Memory Check
7. Disc Check Memory
8. Error Rate Display
9. SACD Water Mark
```

Exit: RETURN

In using the manual operation menu, take care of the following points. These commands do not provide protection, thus requiring correct operation. The sector address or time code field is displayed when a disc is loaded.

**Note:**

1. Set correctly the disc type to be used on the Disc Type screen.
2. In case of an alarm, immediately press the [■] button to stop the servo operation, and press the [**I/O**] button to turn the power off.

### Basic operation:

(controllable from front panel or remote commander)

[**I/O**]

: Power OFF (release the Test Mode)

[■]

: Servo stop

[▲]

: Stop and eject>Loading

[RETURN]

: Return to Operation Menu or Test Mode Menu

[◀◀ PREV], [NEXT▶▶]

: Transition between sub modes of menu

[1] to [9], [10/0]

: Selection of menu items

Cursor [▼] / [▲]

: Increase/Decrease in manually adjusted value

### 2-1. Disc Type

Disc Type

Disc Type Select

1. Disc Type Auto Check
2. Set Disc Type DVD
3. Set Disc Type CD
4. Set Disc Type Hybrid

Exit: RETURN

#### 2-1-1. Disc Type Auto Check

- 1) Press the [1] key on the remote commander to display the Disc Type Auto Check screen.
- 2) Insert a disc and press the [ENTER] key on the remote commander.
- 3) It judges the type of inserted disc automatically and displays the disc type and so on as below.

Disc Type Auto Check

Disc Type	xx
Layer	xx
Mirr Time	xx
Mirr Count	xx
FZC Count	xx
PI Reference	xx
PI Peak	xx

ENTER . Execute

Exit: RETURN

Disc Type : CD, DVD or Hybrid (SACD)

Layer : SINGLE, DUAL or HYBRID

Mirr Time : Mirror time of between disc surface and record surface when disc type judgment. (hexadecimal number)

Mirr Count : The number of times which mirror counts between disc surface and record surface when disc type judging.

FZC Count : The number of times which focus zero cross points of each layer when lens down.

PI Reference : The average of PI reference voltage. (hexadecimal number)

PI Peak : PI peak level voltage. It performs only when disc type judgment is successful. (hexadecimal number)

#### 2-1-2. Disc Type DVD

It sets up so that it may judge as a disc type of specification of the disc with which the set was inserted.

- [1]: DVD single layer disc (12 cm)
- [2]: DVD dual layer disc (0 layer, 12 cm)
- [3]: DVD dual layer disc (1 layer, 12 cm)
- [4]: DVD-RW disc (12 cm)
- [5]: DVD single layer disc (8 cm)
- [6]: DVD dual layer disc (0 layer, 8 cm)
- [7]: DVD dual layer disc (1 layer, 8 cm)
- [8]: DVD-RW disc (8 cm)

### 2-1-3. Disc Type CD

It sets up so that it may judge as a disc type of specification of the disc with which the set was inserted.

- [1]: CD disc (normal speed, 12 cm)
- [2]: CD disc (double speed, 12 cm)
- [3]: CD disc (normal speed, 8 cm)
- [4]: CD disc (double speed, 8 cm)
- [5]: CD-RW disc (normal speed, 12 cm)
- [6]: CD-RW disc (double speed, 12 cm)
- [7]: CD-RW disc (normal speed, 8 cm)
- [8]: CD-RW disc (double speed, 8 cm)

### 2-1-4. Disc Type Hybrid

It sets up so that it may judge as a disc type of specification of the disc with which the set was inserted.

- [1]: SACD Hybrid disc (SACD layer, 12 cm)
- [2]: SACD Hybrid disc (CD layer, normal speed, 12 cm)
- [3]: SACD Hybrid disc (CD layer, double speed, 12 cm)
- [4]: SACD Hybrid disc (SACD layer, 8 cm)
- [5]: SACD Hybrid disc (CD layer, normal speed, 8 cm)
- [6]: SACD Hybrid disc (CD layer, double speed, 8 cm)

## 2-2. Servo Control

**Note:** Be sure to perform the disc type setup before performing this item.

Servo Control	
1.LD	off R.Sled FWD
2.Focus	off L.Sled REV
3.SPDL	off U.Sled Reset
4.CLVA	off D.Sled Limit
5.Trk.	off
6.Sled	off
7.Fcs.Srch	off
 0.All Servo Off	
Exit: RETURN	

On this screen, the servo on/off control necessary for replay is executed. Normally, turn on each servo from 1 sequentially and when CLVA is turned on, the usual trace mode becomes active. In the trace mode, DVD sector address or CD time code is displayed. This is not displayed where the spindle is not locked.

The spindle could run overriding the control if the spindle system is faulty or RF is not present. In such a case, do not operate CLVA.

- [1] LD : Turn on/off the laser.
- [2] Focus : Search the focus and turn on the focus.
- [3] SPDL : Turn on/off the spindle.
- [4] CLVA : Turn on/off normal servo of spindle servo.
- [5] Trk. : Turn on/off the tracking servo.
- [6] Sled : Turn on/off the sled servo.
- [7] FCS. Srch : Turn on/off the focus search.
- [10/0] : All servo off.
- [R] Sled FWD (right cursor) : Move the sled forward.
- [L] Sled REV (left cursor) : Move the sled reverse.
- [U] Sled FWD (up cursor) : Reset the sled.
- [D] Sled REV (down cursor) : Limit in the sled.

### 2-3. Track/Layer Jump

Track/Layer Jump	
1.	1Tj FWD
2.	1Tj REV
3.	500Tj Fine FWD
4.	500Tj Fine REV
5.	10kTj Dirc FWD
6.	10kTj Dirc REV
7.	20kTj Dirc FWD
8.	20kTj Dirc REV
 0. All Servo Off	
Exit: RETURN	

On this screen, track jump, etc. can be performed. Only for the DVD dual layer disc, the focus jump and layer jump are displayed in the right field

- [1] 1Tj FWD : 1 track jump forward.
- [2] 1Tj REV : 1 track jump reverse.
- [3] 500Tj FWD: 500 track jump (fine search)forward.
- [4] 500Tj REV : 500 track jump (fine search) reverse.
- [5] 10kTj FWD: 10k track jump (direct search) forward.
- [6] 10kTj REV : 10k track jump (direct search) reverse.
- [7] 20kTj FWD: 20k track jump (direct search) forward.
- [8] 20kTj REV : 20k track jump (direct search) reverse.
- [10/0] : All servo off.

### 2-4. Non EEPROM Write Adjust

Non EEPROM Write Adjust	
1.	Focus Offset
2.	Focus Gain
3.	Trk. Offset Coarse
4.	Trk. Offset Fine
5.	Trk. Gain
6.	EQ Boost
 0.All Servo Off	
Exit: RETURN	

On this screen, each item can be adjusted manually. Select the desired number  [1] to  [10/0] from the remote commander, and current setting for the selected item will be displayed, then increase or decrease numeric value with the  key or  key. This value is stored in the EEPROM. If CLV has been applied, the jitter is displayed for reference for the adjustment.

- [1] Focus Offset : Adjusts focus offset.
- [2] Focus Gain : Adjusts focus gain.
- [3] TRK. Offset : Adjusts tracking offset of the RF amp (IC001) side.
- [4] TRK. Offset : Adjusts tracking offset of the DSP (IC401) side.
- [5] TRK. Gain : Adjusts track gain.
- [6] EQ Boost : Adjusts amount of boost of equalizer.
- [10/0] : All servo off.

## 2-5. EEPROM Write Adjust

EEPROM Write Adjust	
1. Focus Offset	
2. Focus Gain	
3. Trk. Offset Coarse	
4. _____	
5. Trk. Gain	
6. EQ Boost	
0.All Servo Off	
Exit: RETURN	

On this screen, each item can be adjusted automatically. Select the desired number [1] to [10/0] from the remote commander, and selected item is adjusted automatically.

- [1] Focus Offset : Adjusts focus offset.
- [2] Focus Gain : Adjusts focus gain.
- [3] TRK. Offset : Adjusts tracking offset of the RF amp (IC001) side.
- [5] TRK. Gain : Adjusts track gain.
- [6] EQ Boost : Adjusts amount of boost of equalizer.
- [10/0] : All servo off.

## 2-6. Memory Check

Display images are shown as follows, and all two screens are able to switch by the **↑** key (UP) or **↓** key (DW).

EEPROM Data 1/2		CD	SL	L0	L1
Focus Gain		xx	xx	xx	xx
Trk. Gain		xx	xx	xx	xx
Focus Offset		xx	xx	xx	xx
Trk. Offset		xx	xx	xx	xx
EQ. Boost		xx	xx	xx	xx
PI Level		xx	xx	--	--
Fcs. Balance		--	xx	--	--
Jitter		xx	xx	xx	xx
Mirror Time		xx	xx	xx	--
FE Level		--	xx	--	--
Traverse Lvl.		--	xx	--	--
Next:DW Default:CLR		Exit:RET			

EEPROM Data 2/2		CDRW	DVDRW
Focus Gain		xx	xx
Trk. Gain		xx	xx
Focus Offset		xx	xx
Trk. Offset		xx	xx
EQ. Boost		xx	xx
Prev:UP Default:CLR		Exit:RET	

On this screen, current servo adjusted data stored in the EEPROM are displayed. The adjusted data are initialized by pressing the **CLEAR** key, but be careful that they are not recoverable after initialization.

Before clearing the adjusted data, make a note of the set data. This screen will also appear if [0]-All is selected in the Drive Auto Adjustment. In this case, default setting cannot be made.

## 2-7. Disc Check Memory

Disc Check Memory	
1. SL Disc check	
2. CD Disc check	
3. DL Disc check	
Exit: RETURN	

On this screen, measure the mirror time of chucked disc, and write to the EEPROM.

## 2-8. Error Rate Display

Error Rate Display	
UC	CR ADD
PI1 Err	Now xx xxxx xxxxxxxxxxxx
	Max xx xxxx xxxxxxxxxxxx
	Avg xx xxxx xxxxxxxxxxxx
PI2 Err	Now xx xxxx xxxxxxxxxxxx
	Max xx xxxx xxxxxxxxxxxx
	Avg xx xxxx xxxxxxxxxxxx
PO Err	Now xx xxxx xxxxxxxxxxxx
	Max xx xxxx xxxxxxxxxxxx
	Avg xx xxxx xxxxxxxxxxxx
Exit: RETURN	

On this screen, measure and display the error rate.

UC : Incorrect value  
CR : Correct value  
Add : Address

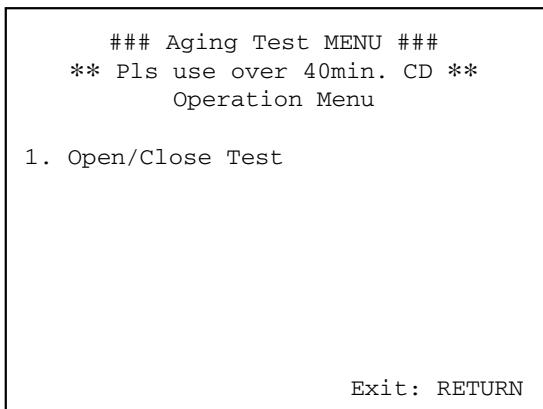
## 2-9. SACD Water Mark Check (Not used)

SACD Water Mark Check	
PSP AMP	
PSN	
Start: ENTER Stop: RETURN	

On this screen, measure the PSP AMP value and PSN value of SACD water mark.

### 3. MECHA AGING

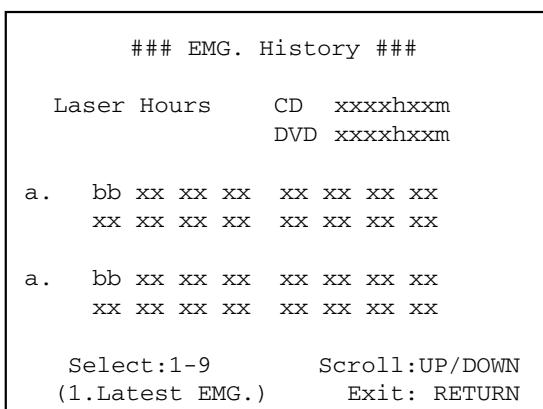
On the Test Mode Menu screen, selecting [3] executes the aging of the mechanism deck.



- 1) On the Aging Test MENU screen, press the [1] key on the remote commander to display the Open/Close Test screen.
  - 2) Insert discs and press the [ENTER] key on the remote commander.
  - 3) Is starts the aging.
- During aging, the disc number, operating status and repeat cycle are displayed. Aging can be aborted at any time by pressing the [RETURN] key. After the operation is stopped, press the [RETURN] key to return to the Aging Test MENU.

### 4. EMERGENCY HISTORY

On the Test Mode Menu screen, selecting [4] displays the information such as servo emergency history. The history information from last 1 up to 10 can be scrolled with the **↑** key or **↓** key. Also, specific information can be displayed by directly entering that number with ten keys.



xxxxhxxm: The laser on total hours. Data below minutes are omitted.

- a. : Error number.
- bb : Error code.
- xx : Not used.

- Clearing History Information

#### Clearing laser hours:

Press the [DVD DISPLAY] and [CLEAR] keys in this order.  
Then both CD and DVD data are cleared.

#### Clearing emergency history:

Press the [DVD TOP MENU] and [CLEAR] keys in this order.

#### Initializing set up data:

Press [DVD MENU] and [CLEAR] keys in this order.

The data have been initialized when "Set Up Initialized" message is displayed. The EMG. History screen will be restored soon.

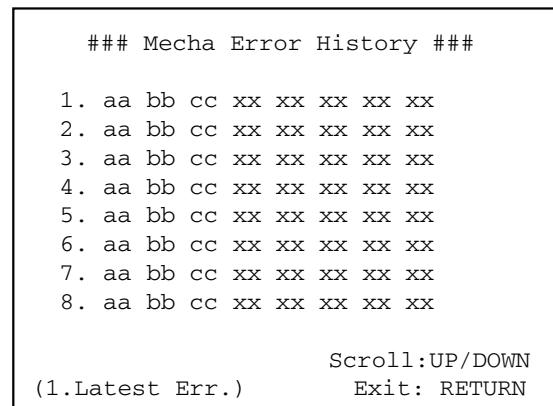
- Code list of Emergency History

- 10: Communication to RF AMP (IC001) failed.
- 11: Each servo for focus, tracking, and spindle is unlocked.
- 12: Check sum error of EEPROM (IC204).
- 14: Communication to servo DSP (IC509) failed, or servo DSP (IC509) is faulty.
- 15: Communication to DVD decoder (IC701) failed, or DVD decoder (IC701) is faulty.
- 16: Communication to DSD decoder (IC801) failed, or DSD decoder (IC801) is faulty. (Not used)
- 20: Initialization of sled servo failed. It is not placed in the initial position.
- 23: Sled servo operation error.
- 24: Made a request to move the sled servo to wrong position.
- 30: Tracking balance adjustment error.
- 31: Tracking gain adjustment error.
- 33: Focus bias adjustment error.
- 34: Focus gain adjustment error.
- 35: Equalizer adjustment error.
- 40: Focus servo does not operate.
- 41: With a DVD dual layer disc, focus jump failed.
- 50: CLV (spindle) servo does not operate.
- 51: Spindle does not stop.
- 60: Made a request to seek nonexistent address.
- 61: Seek error of retry more than regulated times.
- 70: Control data could not be read.
- 80: Disc reading failed.

### 5. MECHA ERROR HISTORY

On the Test Mode Menu screen, selecting [5] displays the information of mechanism deck error history.

The history information from last 1 up to 8 can be scrolled with the **↑** key or **↓** key. Also, specific information can be displayed by directly entering that number with ten keys.



aa: Initialization is completed or not.

FF : Complete.

other number : Not complete.

bb: Operating status of mechanism deck at an error occurred.

(lod sq jcp)

00 : Initializing.

10 to 15 : Open operating.

16 to 19 : Kicking cause open failed.

1A to 1F : Open operating.

20 to 27 : Complete the open operation.

28 : No disc and complete the open operation.

29 to 2F : Complete the open operation.

30 to 3F : Close requesting.

40 to 4F : Open requesting.

50 to 5F : Close operating.

60 to 6F : Complete the chucking operation.

80 to 8F : Complete the release operation.

(BU is home position)

90 to 9F : BU down operating.

A0 to AF : Opening/closing the shutter. Or stationary state in open/close the shutter is enablement.

B0 to BF : BU up requesting.

C0 to CF : BU down requesting.

D0 to DF : BU upping.

E0 to EF : No disc checking in disc loading.

cc: Operating status of mechanism deck at an error occurred.

(lod oq jcp)

00 : Complete the operation.

10 to 1F : Open operating.

20 to 2F : Close operating.

30 to 3F : Release operating.

60 to 6F : Chucking operating.

70 to 7F : Kicking operating.

80 to 8F : Returning the BU to home position. (after kicking)

## 6. VERSION INFORMATION

On the Test Mode Menu screen, selecting [6] displays the ROM version and region code.

The parenthesized hexadecimal number in version field is checksum value of ROM.

```
## Version Information ##

IF con.    Ver.x. xx
SYScon.   Ver.x. xx (xxxx)
          Model      MHC-WZ8D_6D
          Region     0x
          Config     xxxxxxxx

Front End Ver.x.xx

Exit: RETURN
```

IF con. : The version of system controller (IC501).

SYScon. : The version of DVD system processor (IC207).

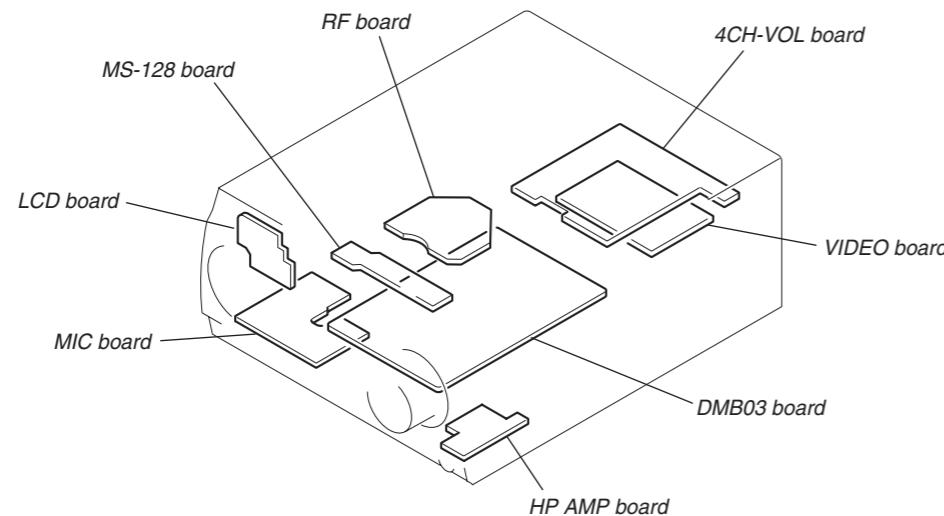
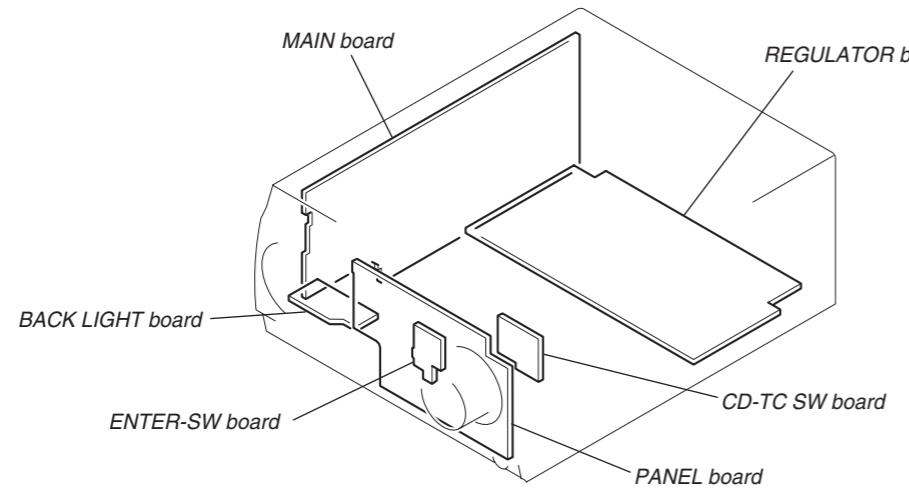
Front End: The version of mechanism controller (IC901).

## 7. VIDEO LEVEL ADJUSTMENT

On the Test Mode Menu screen, selecting [7] displays color bars for video level adjustment. During display of color bars, OSD disappears but the menu screen will be restored if pressing the [RETURN] key.

## SECTION 4 DIAGRAMS

### Circuit Boards Location



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

#### Note on Schematic Diagram:

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

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

- : B+ Line
- : B- Line
- : adjustment for repair
- Power voltage is fed with DXA-WZ8D from external connector (SYSTEM CONTROL 1, 2).
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance  $10 \text{ M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circle numbers refer to waveforms.
- Signal path**

  - : AUDIO
  - : VIDEO
  - : PB (TAPE)
  - : REC (TAPE)
  - : CD
  - : DVD
  - : TUNER
  - : MD
  - : Y
  - : CHROMA
  - : COMPONENT VIDEO

- Abbreviation**

AUS	: Australian model
E2	: 120V AC area in E model
E3	: 240V AC area in E model
E15	: 220-240V AC area in E model
EA	: Saudi Arabia model
KR	: Korean model
MY	: Malaysia model
PH	: Philippines model
RU	: Russian model
SP	: Singapore model
TH	: Thai model

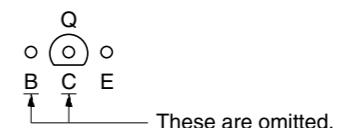
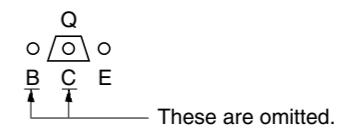
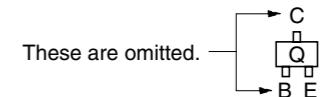
#### Note on Printed Wiring Boards:

- : parts extracted from the component side
- : parts extracted from the conductor side
- : Pattern from the side which enables seeing

#### Caution:

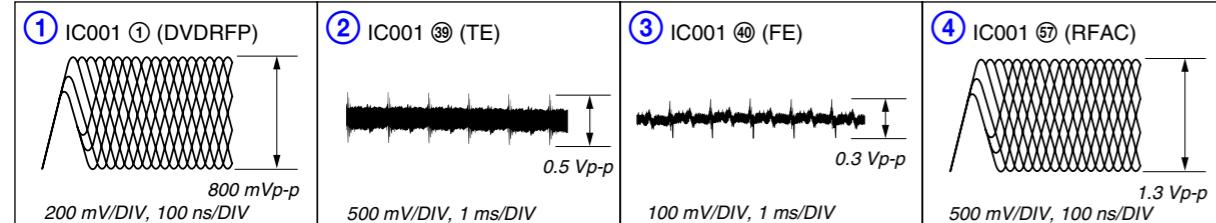
Pattern face side: Parts on the pattern face side seen from the pattern face are indicated  
(SIDE B)  
Parts face side: Parts on the parts face side seen from the parts face are indicated  
(SIDE A)

- Indication of transistor

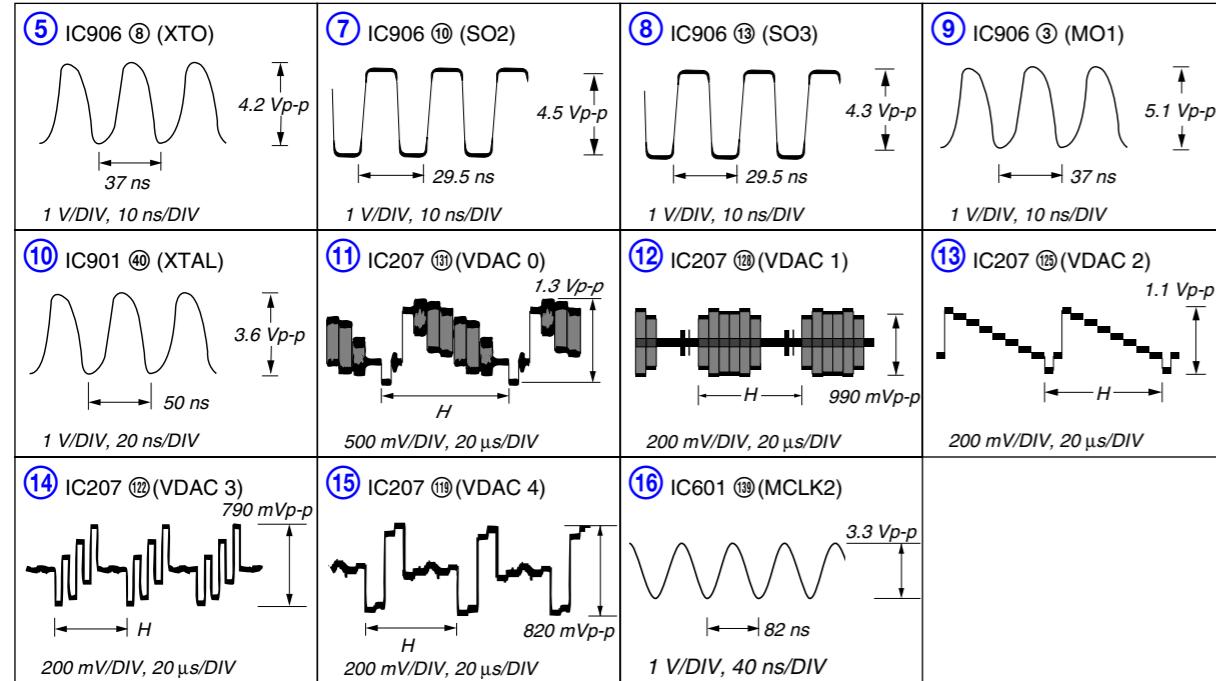


## • Waveforms

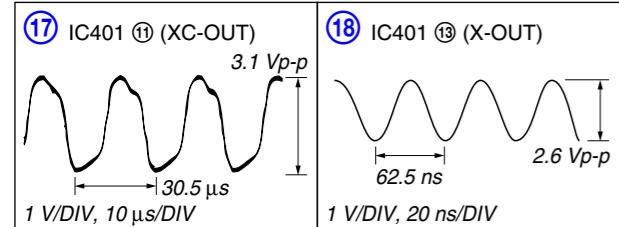
-RF Board-



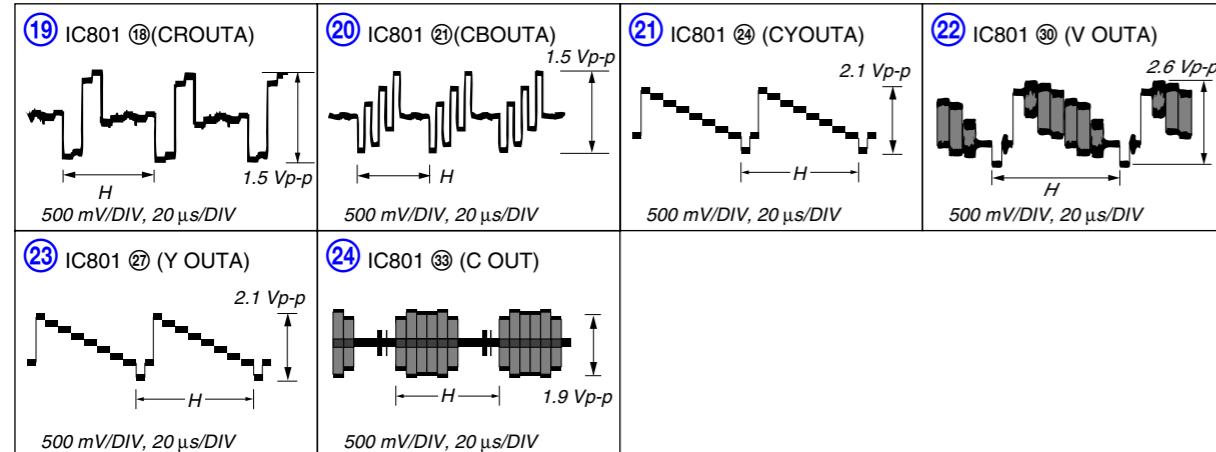
-DMB03 Board-



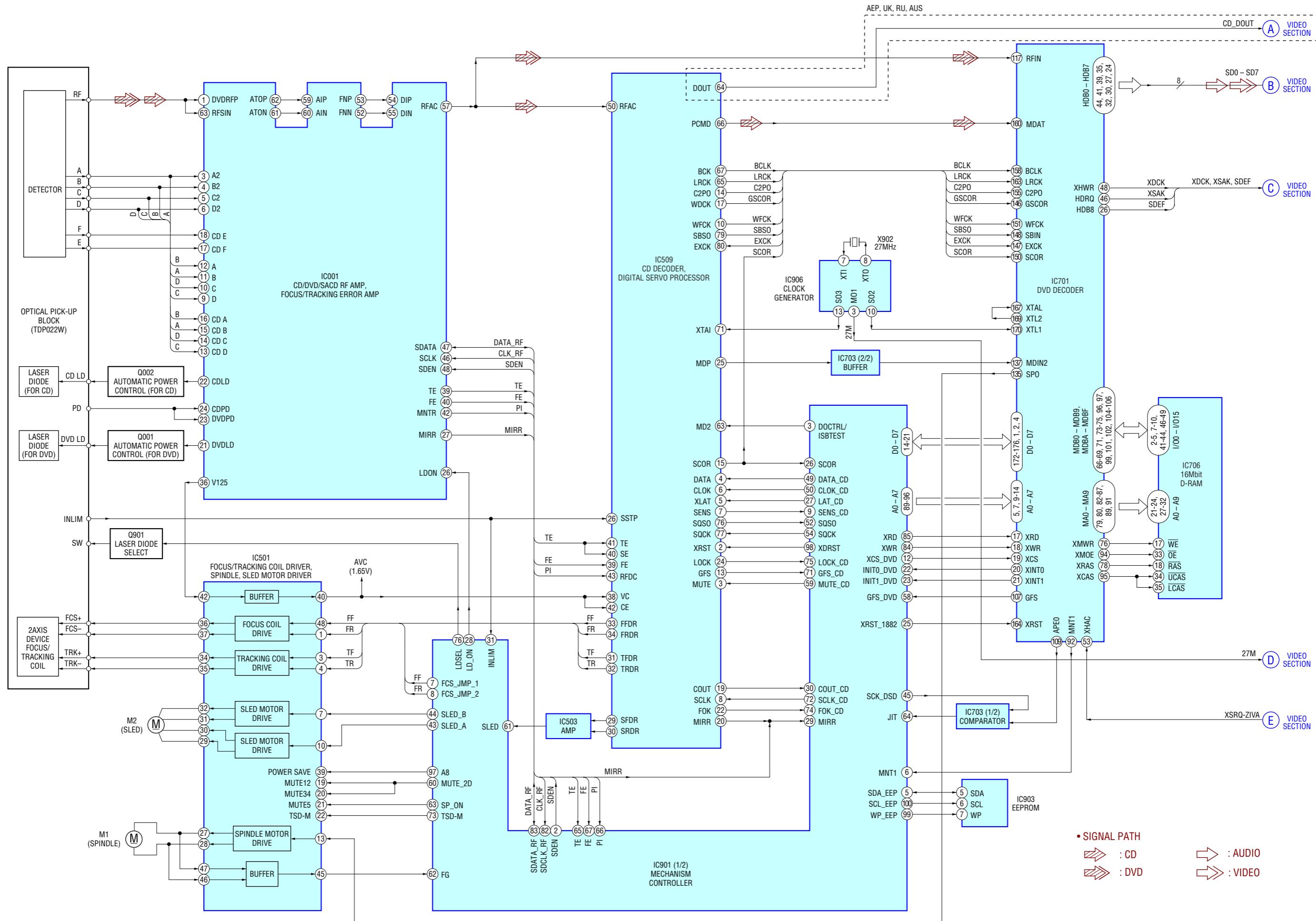
-MAIN Board-



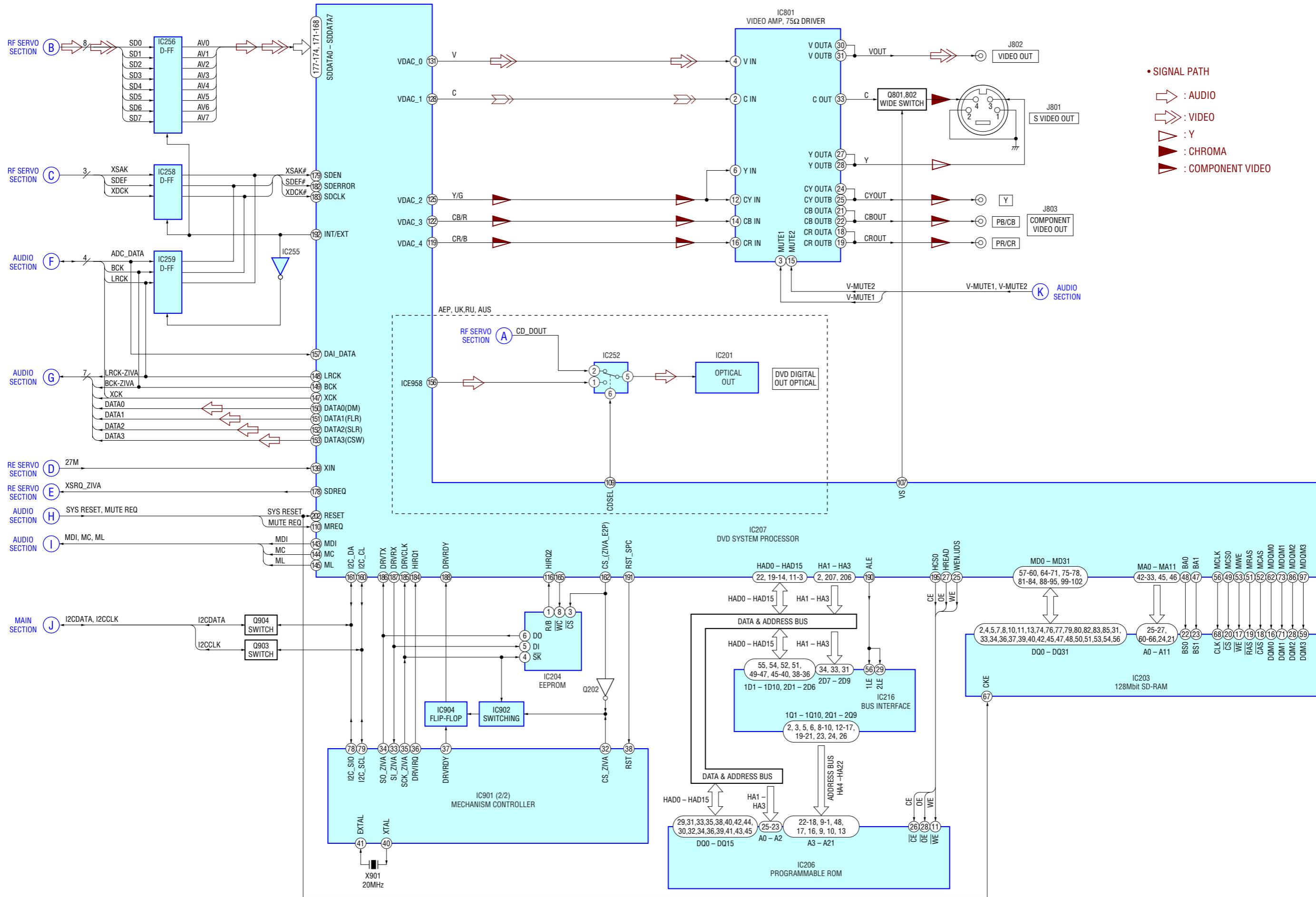
-VIDEO Board-



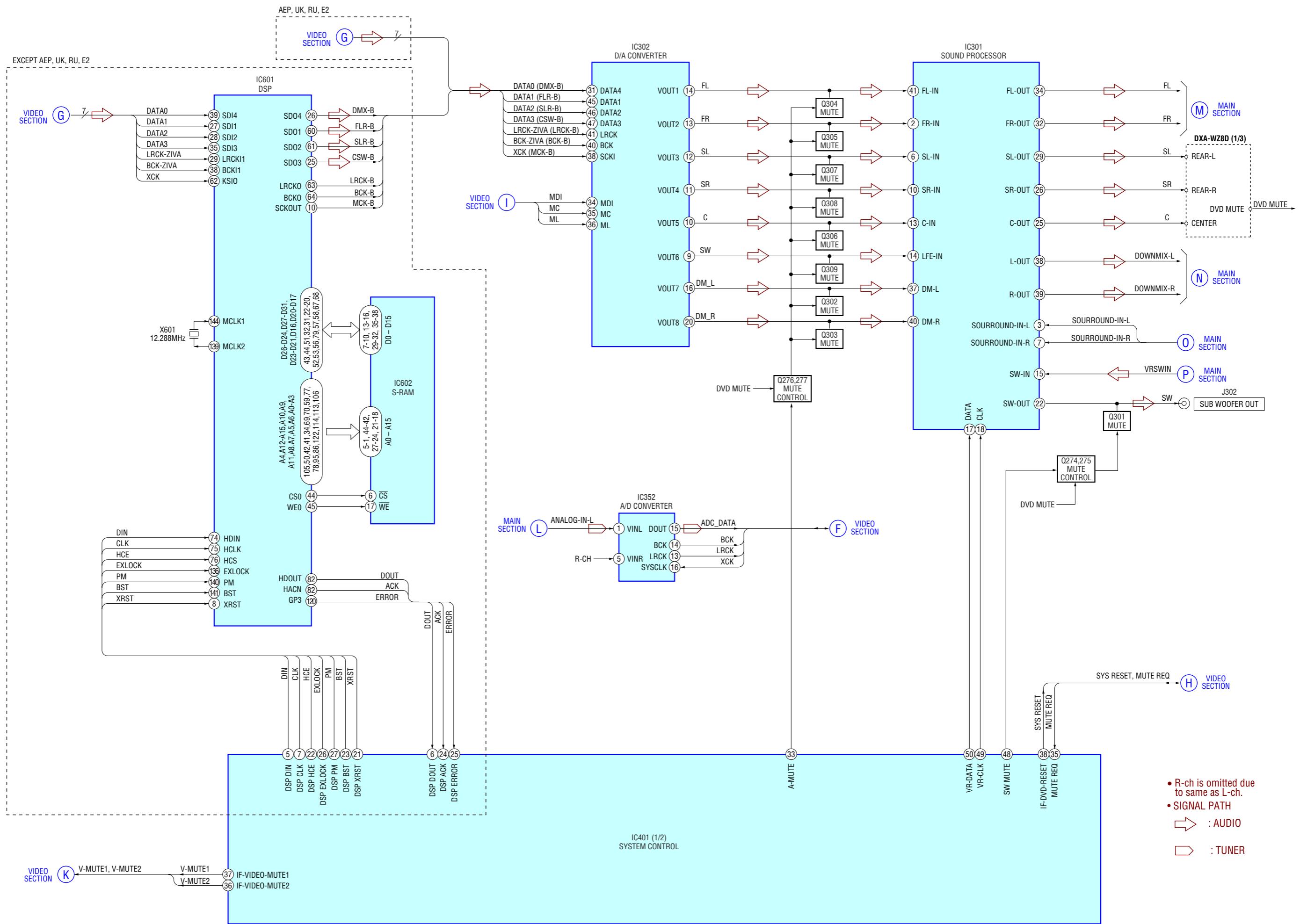
## 4-1. Block Diagrams – RF Servo Section –



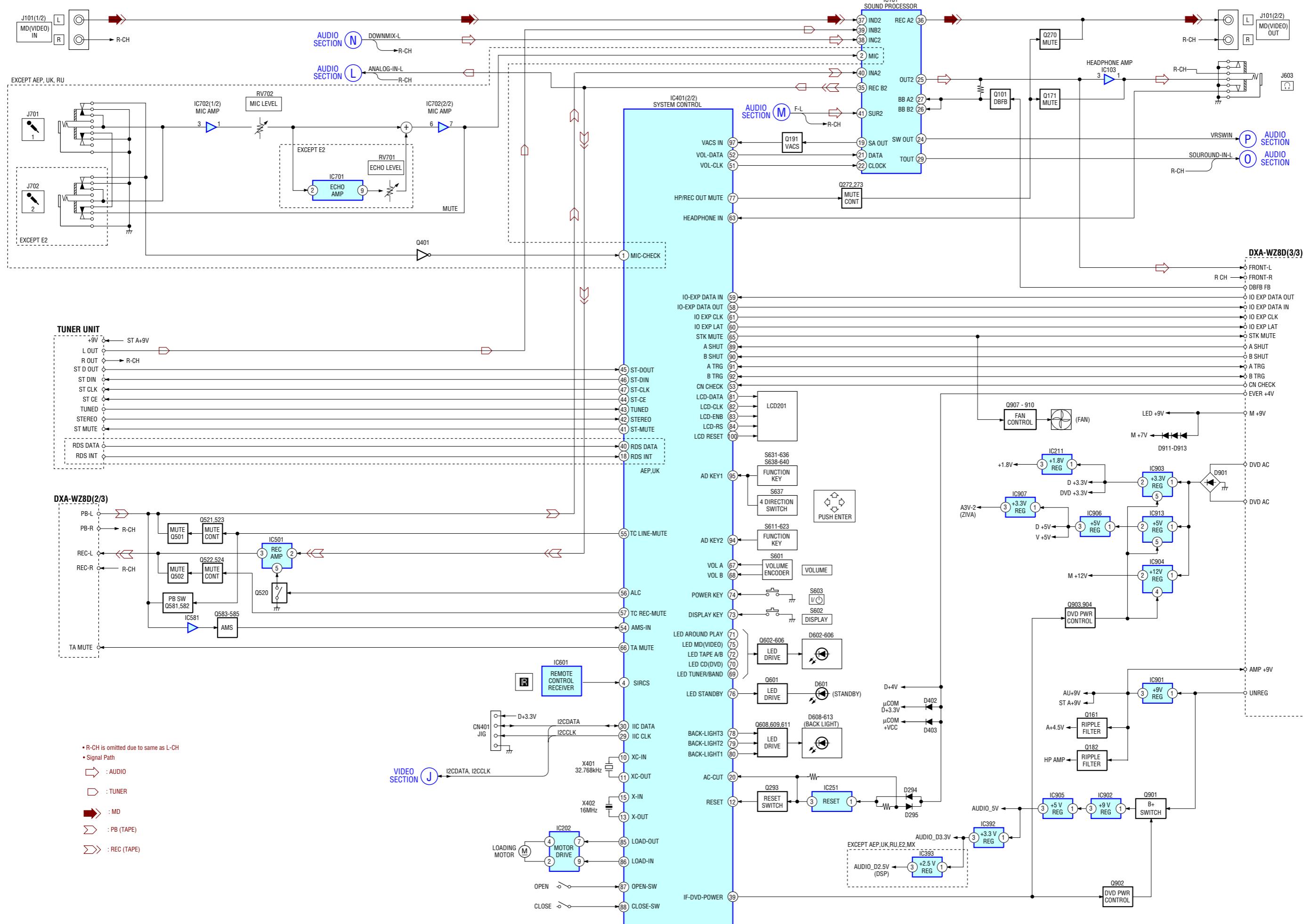
## - Video Section -



## - Audio Section -

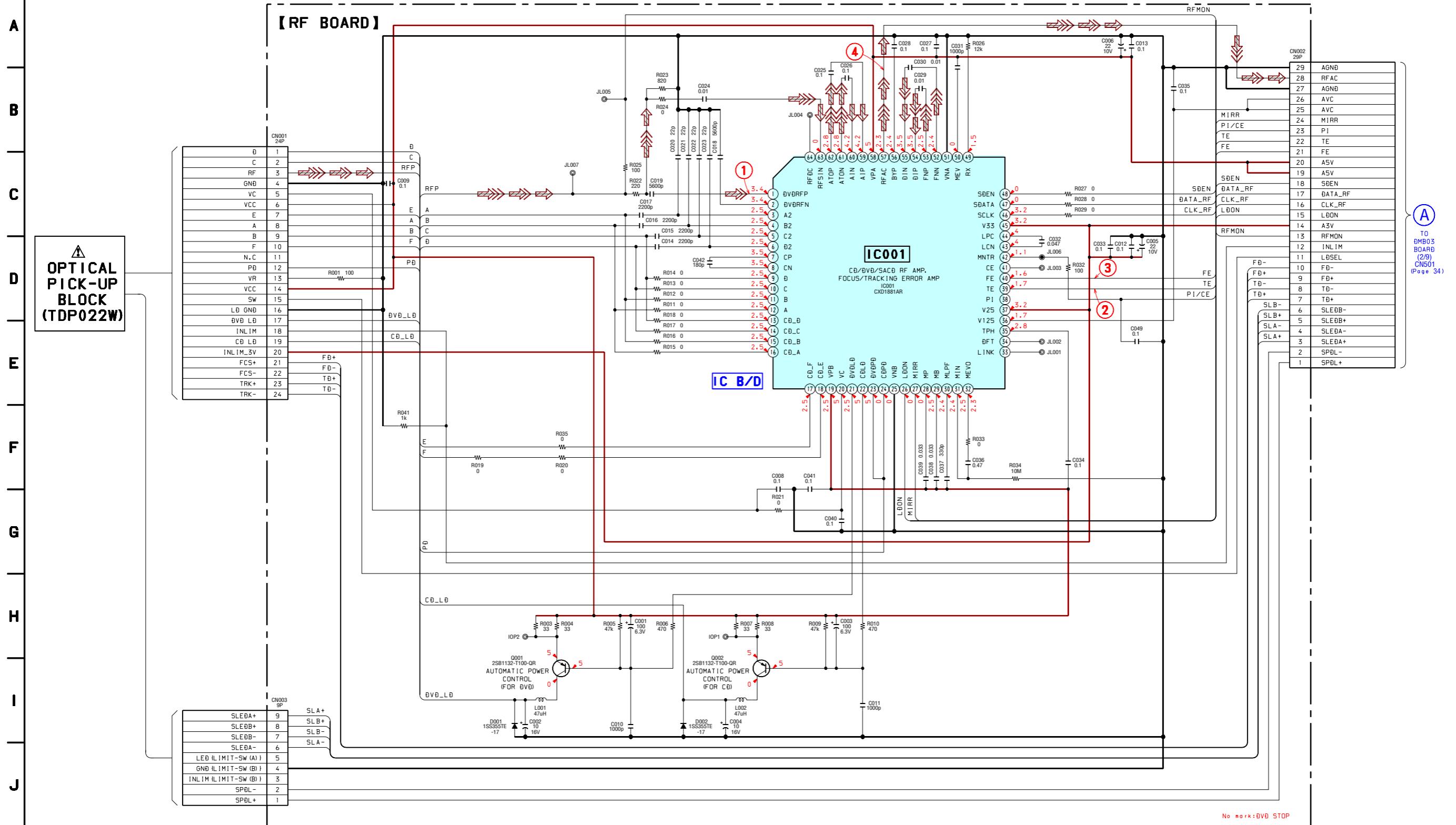


## - Main Section -

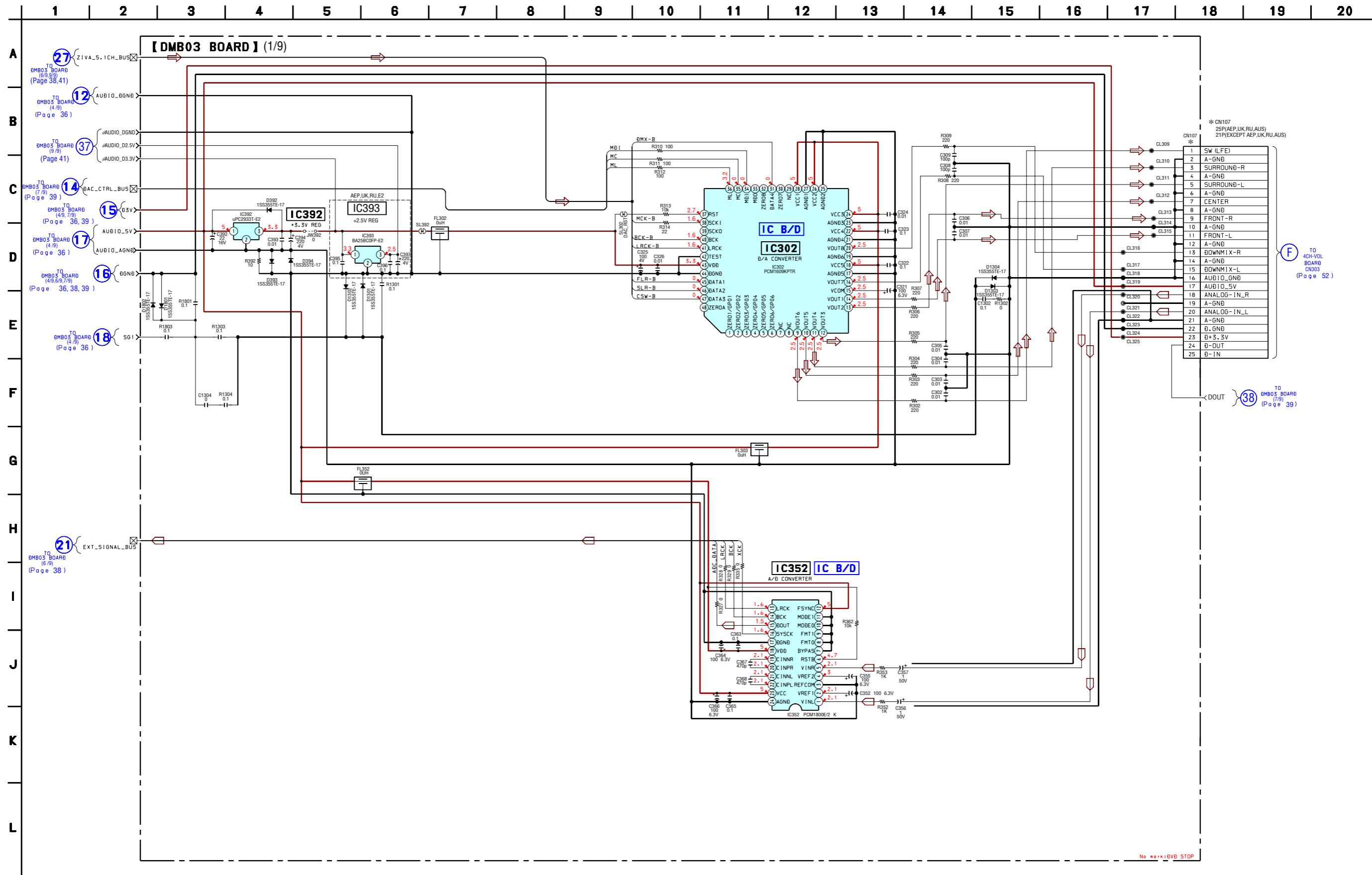


## 4-3. Schematic Diagram – RF Board – • See page 24 for Waveforms. • See page 55 for IC Block Diagrams.

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

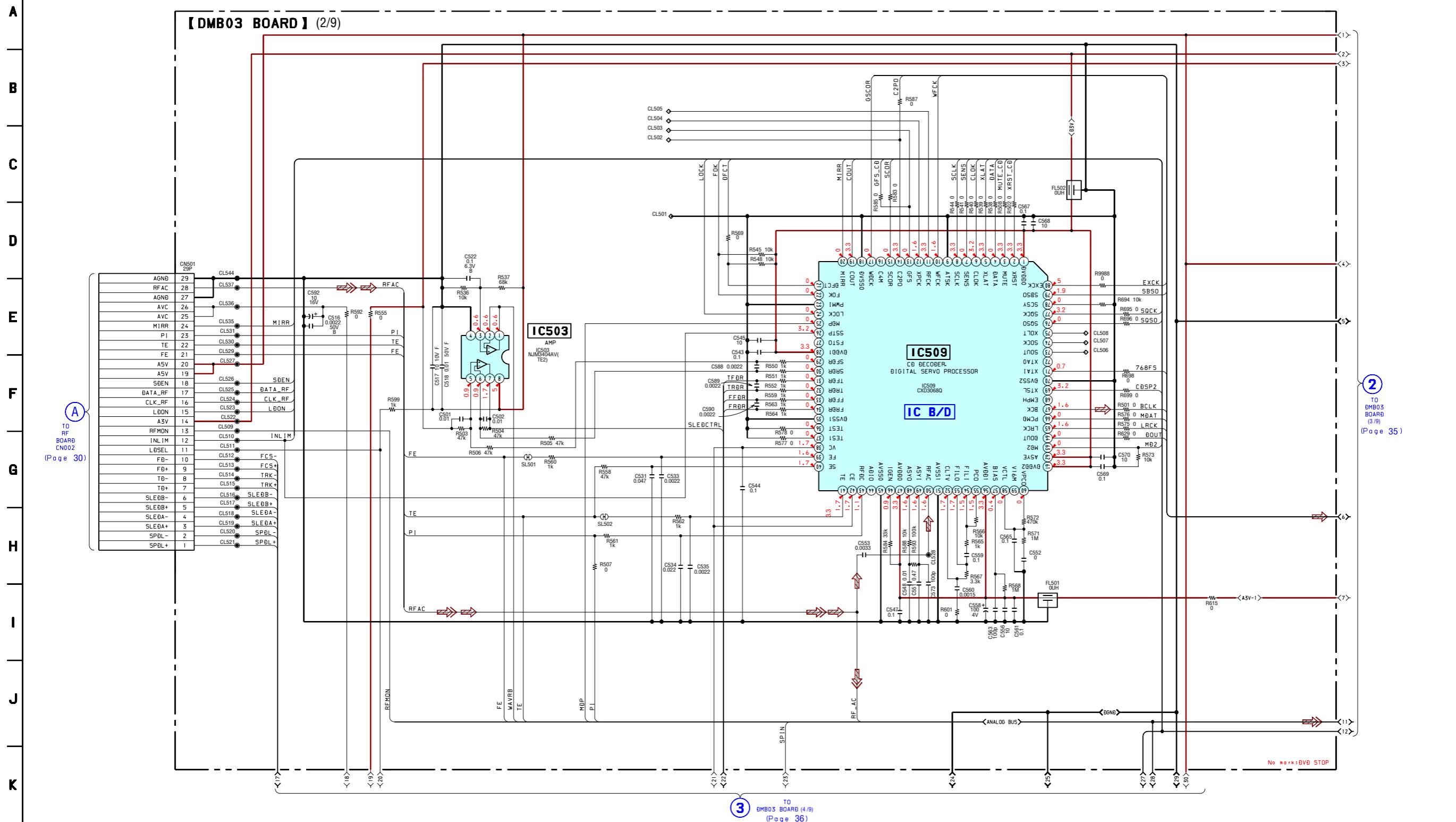


## 4-6. Schematic Diagram – DMB03 Board (1/9) – • See page 56 for IC Block Diagrams.

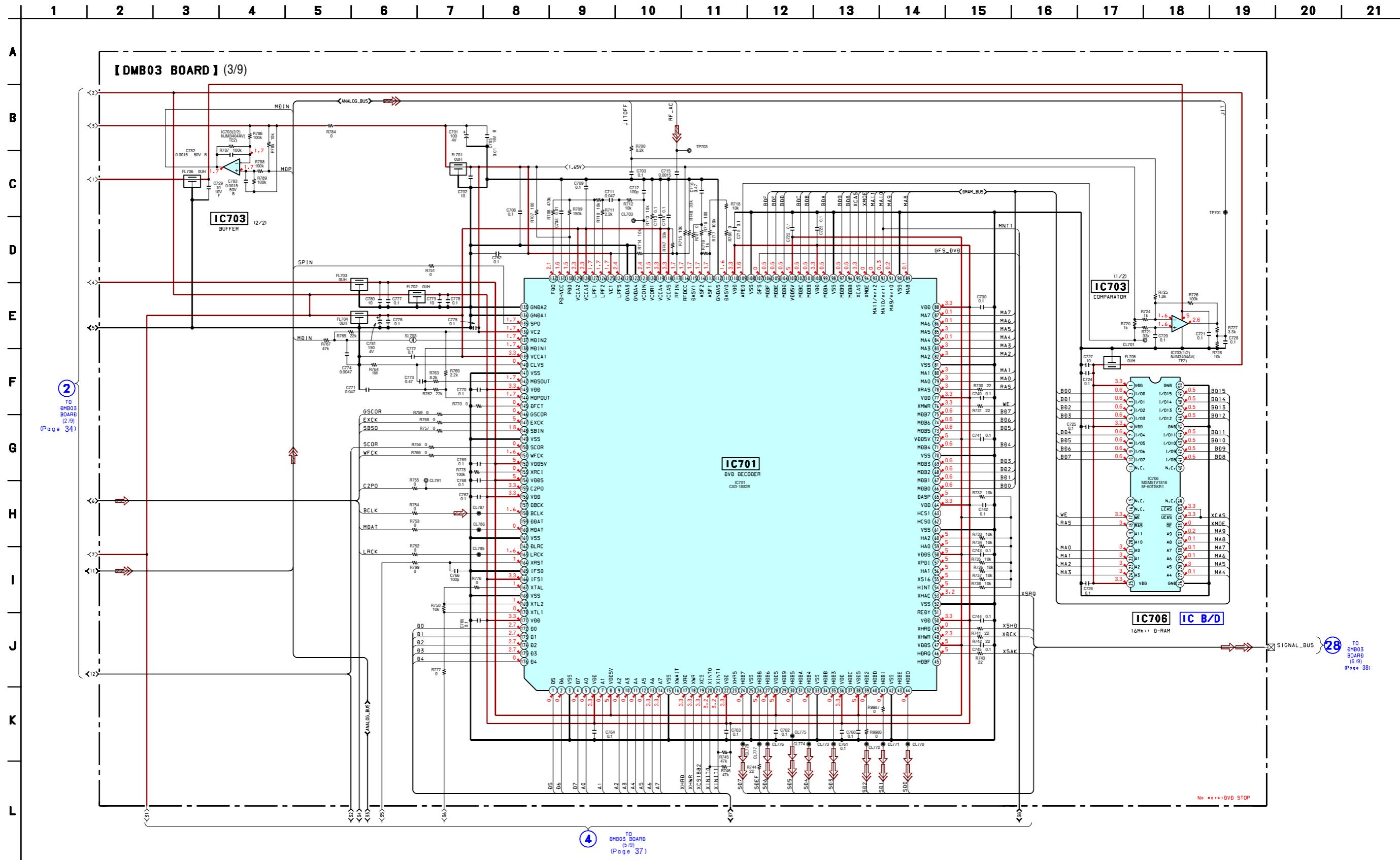


## 4-7. Schematic Diagram – DMB03 Board (2/9) – • See page 57 for IC Block Diagrams.

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19

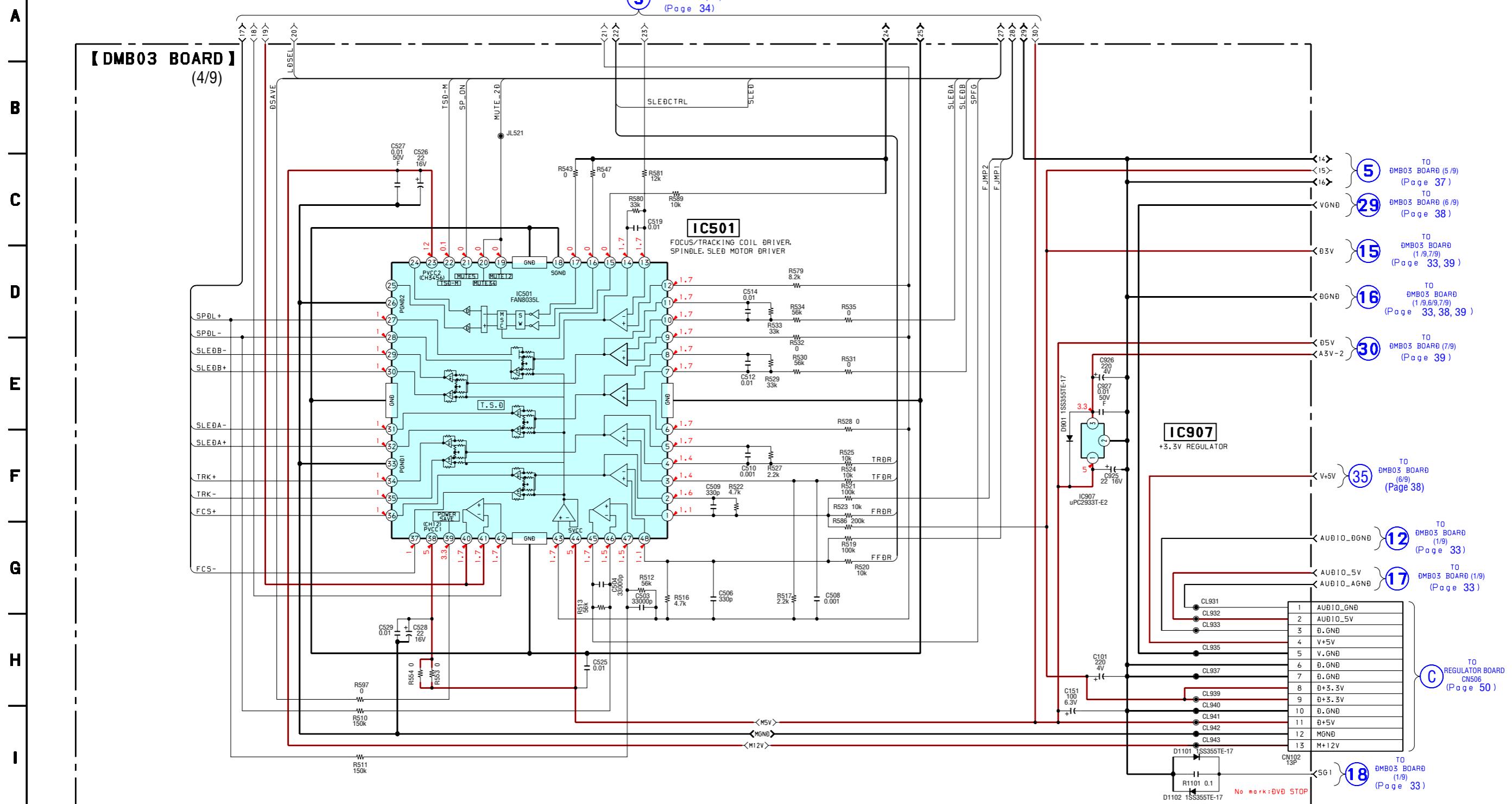


## 4-8. Schematic Diagram – DMB03 Board (3/9) – • See page 58 for IC Block Diagrams.

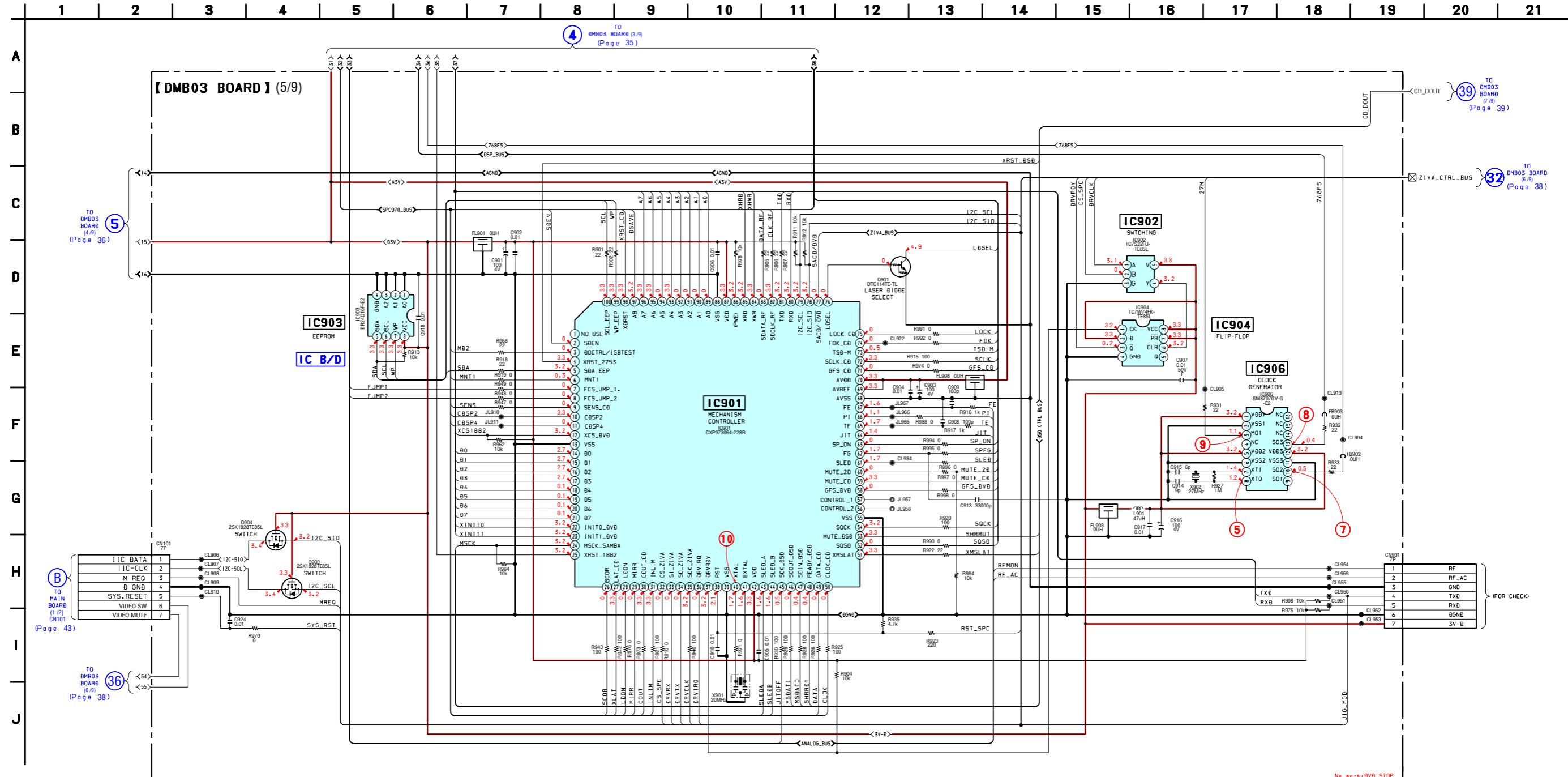


## 4-9. Schematic Diagram – DMB03 Board (4/9) –

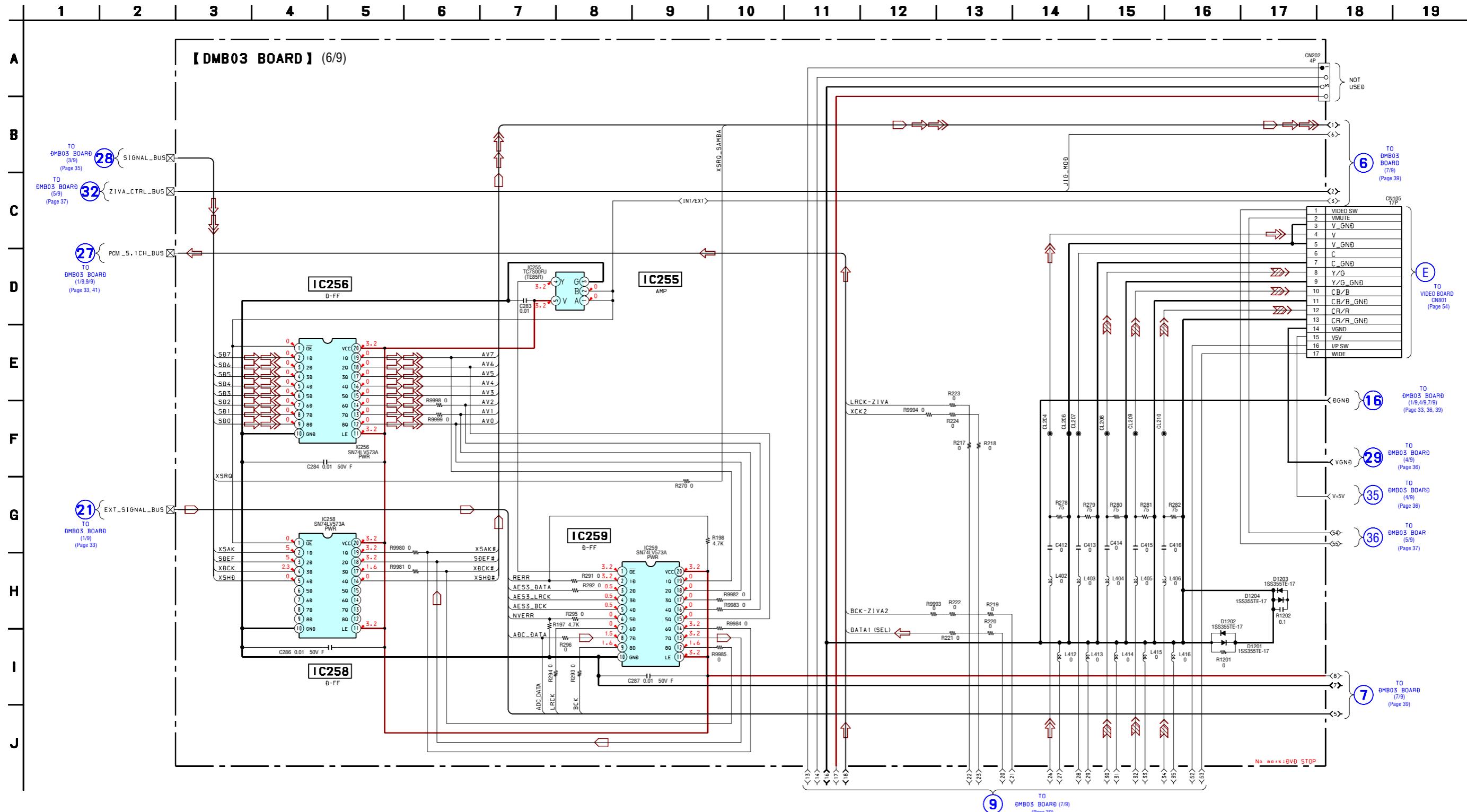
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



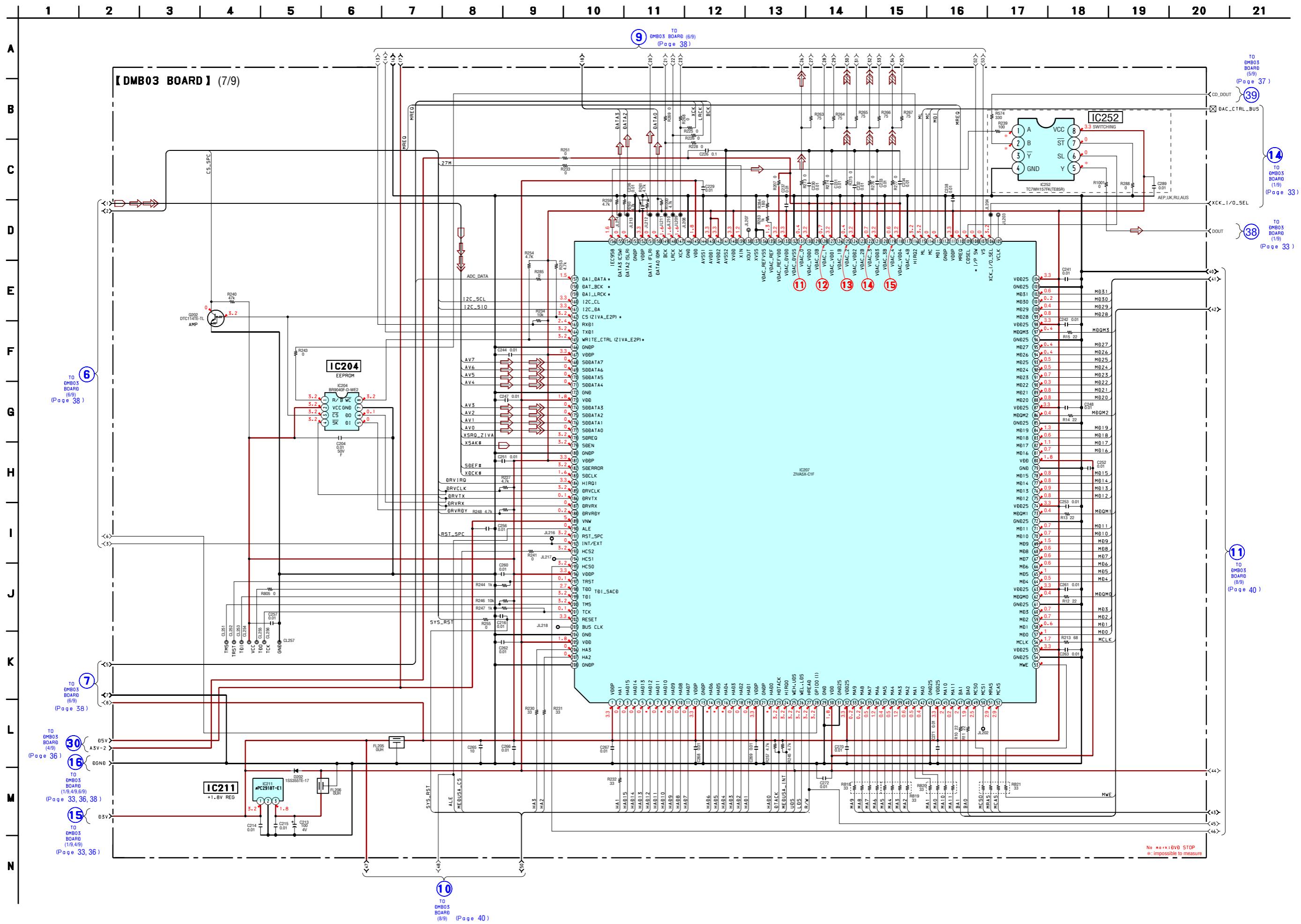
4-10. Schematic Diagram – DMB03 Board (5/9) – • See page 24 for Waveforms. • See page 58 for IC Block Diagrams.



## 4-11. Schematic Diagram – DMB03 Board (6/9) –



## 4-12. Schematic Diagram – DMB03 Board (7/9) – • See page 24 for Waveforms.



## 4-13. Schematic Diagram – DMB03 Board (8/9) – • See page 57 for IC Block Diagrams.

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

A

## 【DMB03 BOARD】 (8/9)

B

C

D

E

F

11

TO  
DMB03  
BOARD  
(7/9)

(Page 39)

G

H

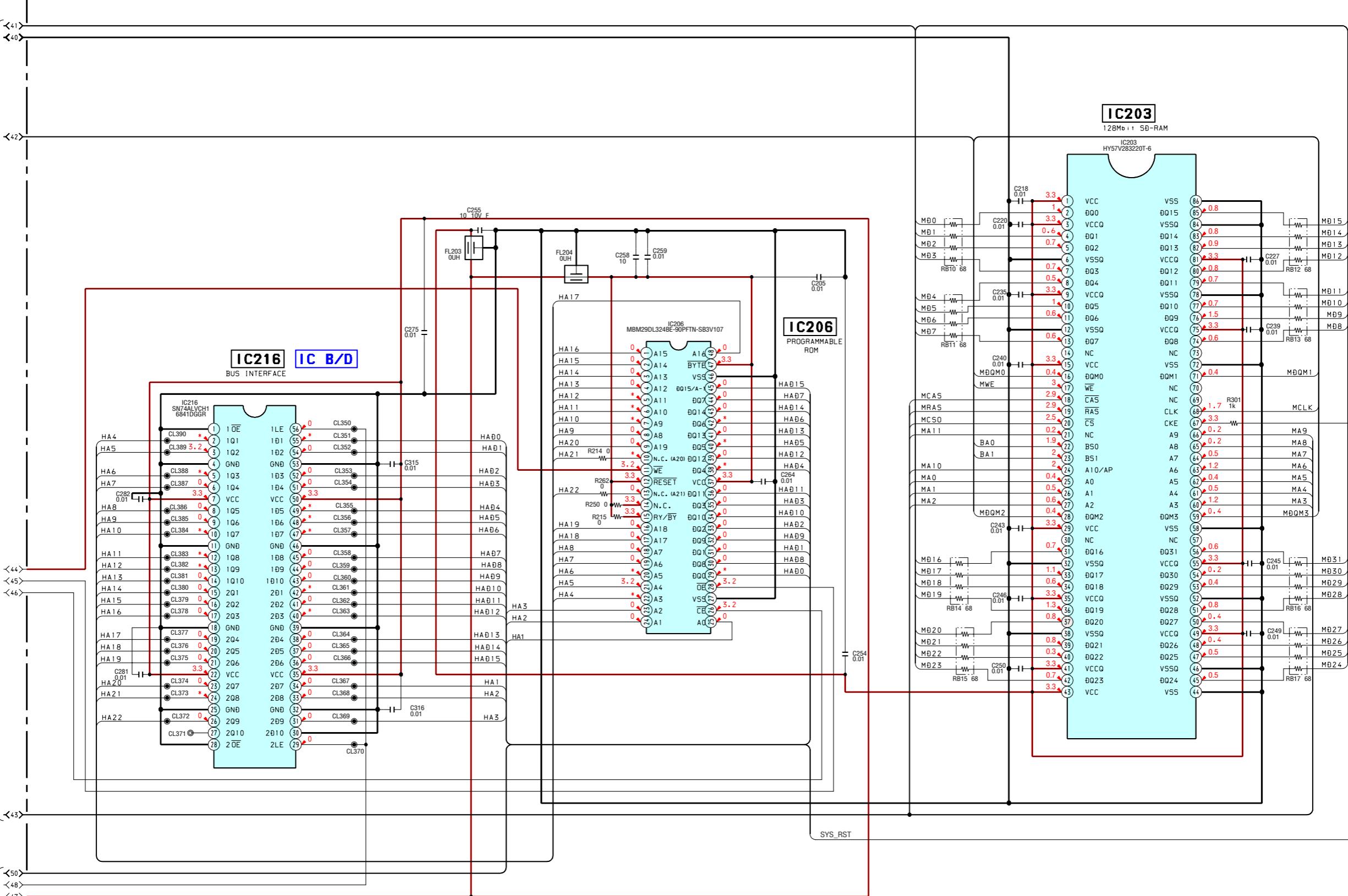
I

J

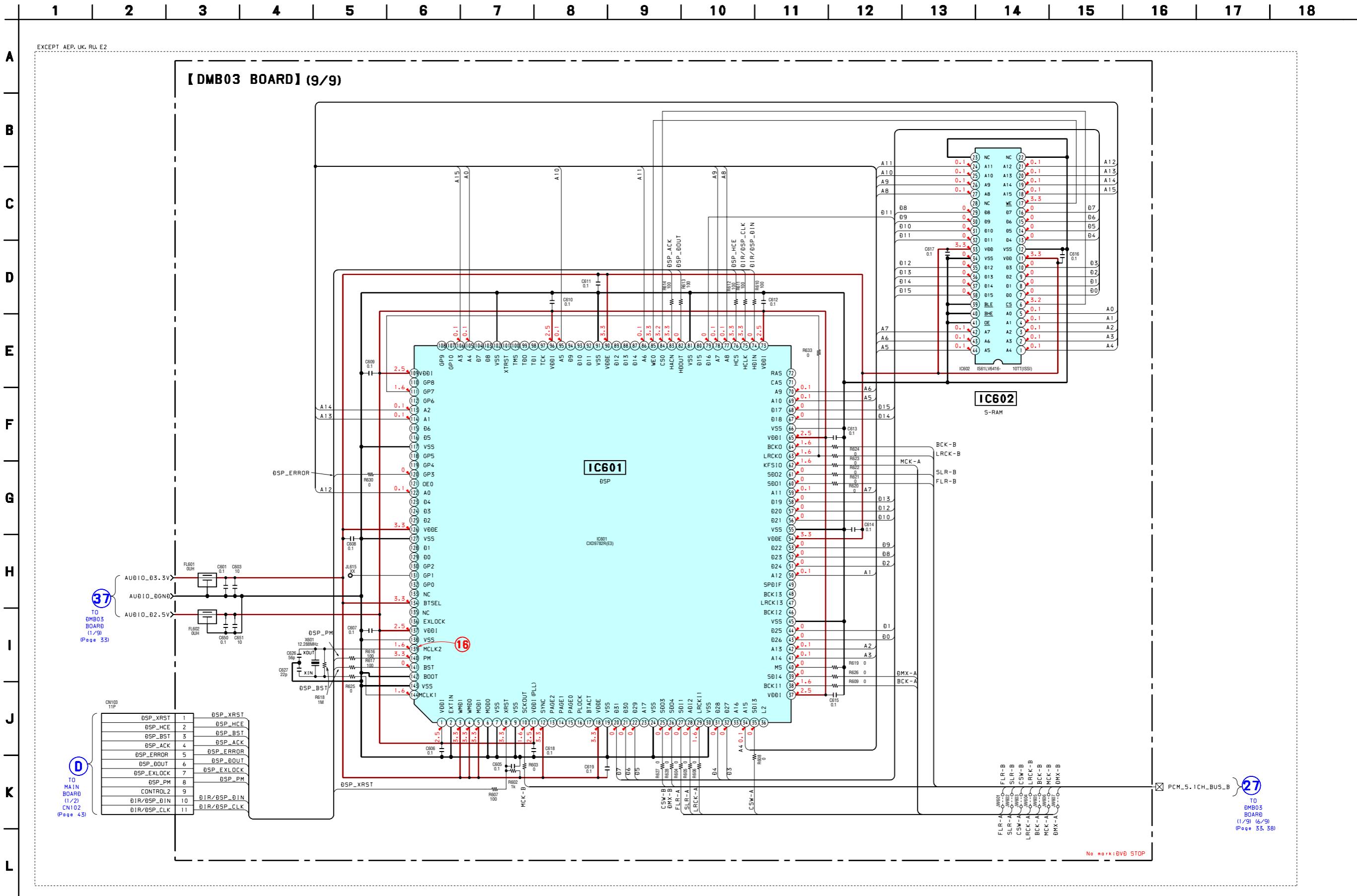
K

TO  
DMB03  
BOARD  
(7/9)

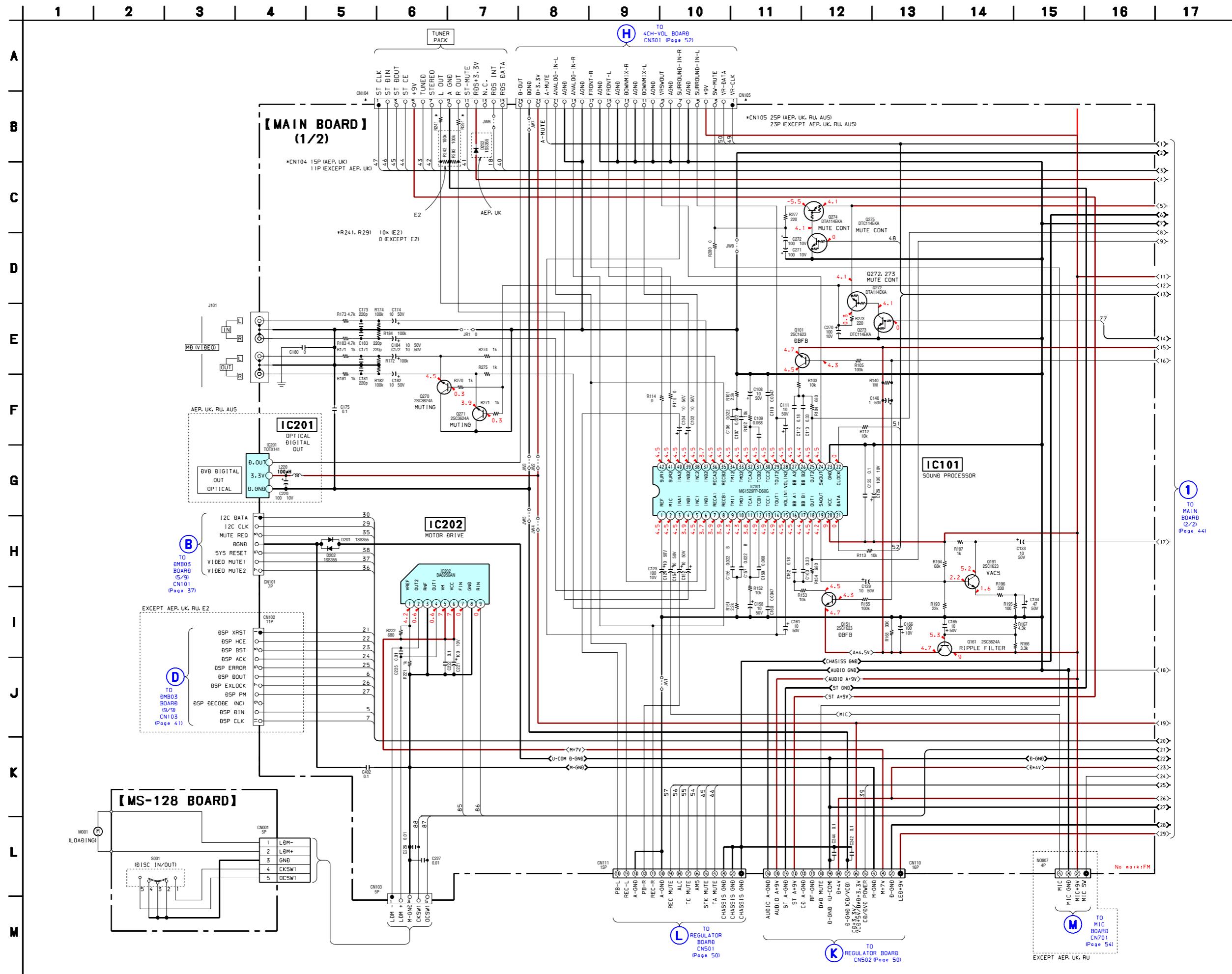
(Page 39)



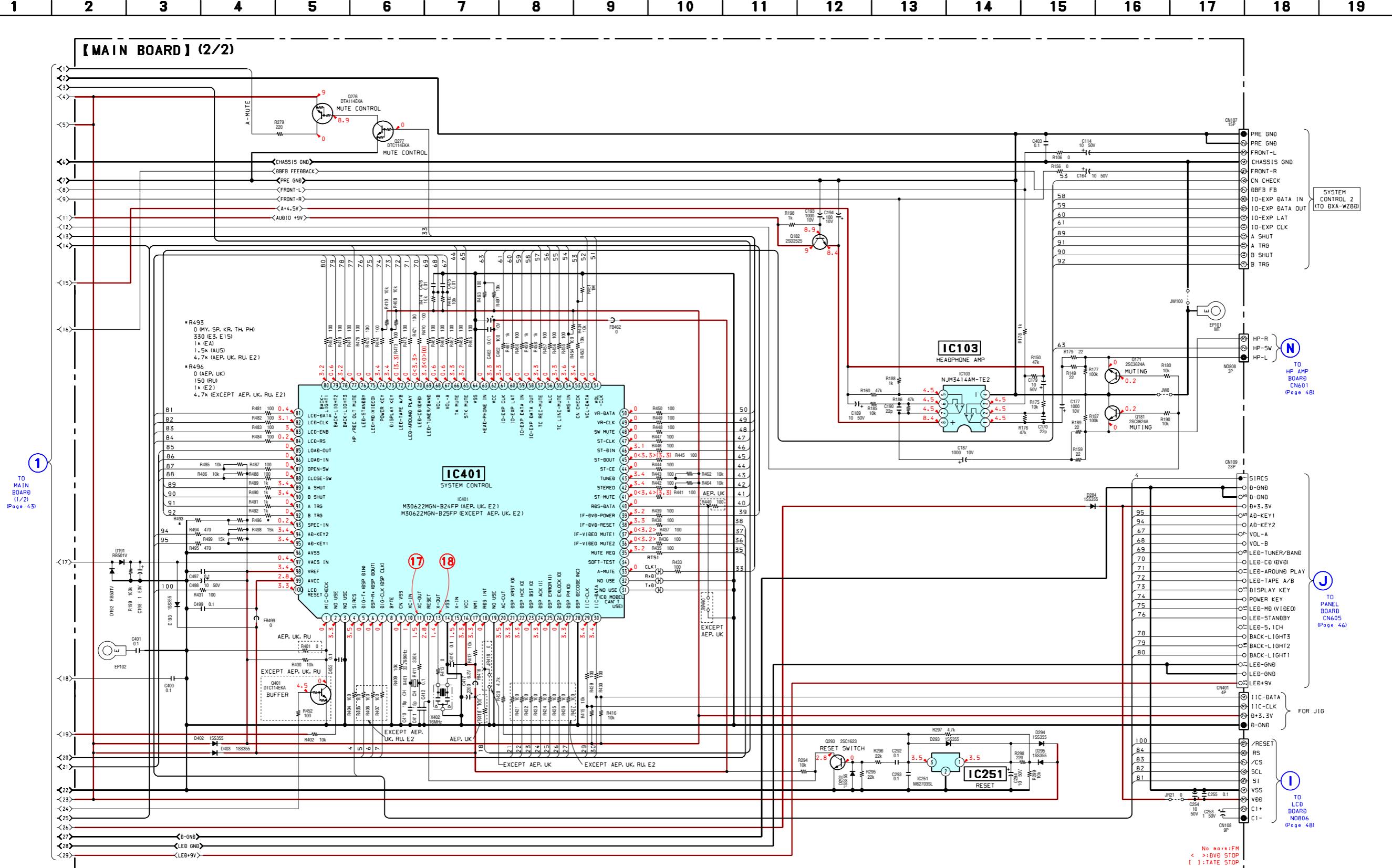
## 4-14. Schematic Diagram – DMB03 Board (9/9) – • See page 24 for Waveforms.



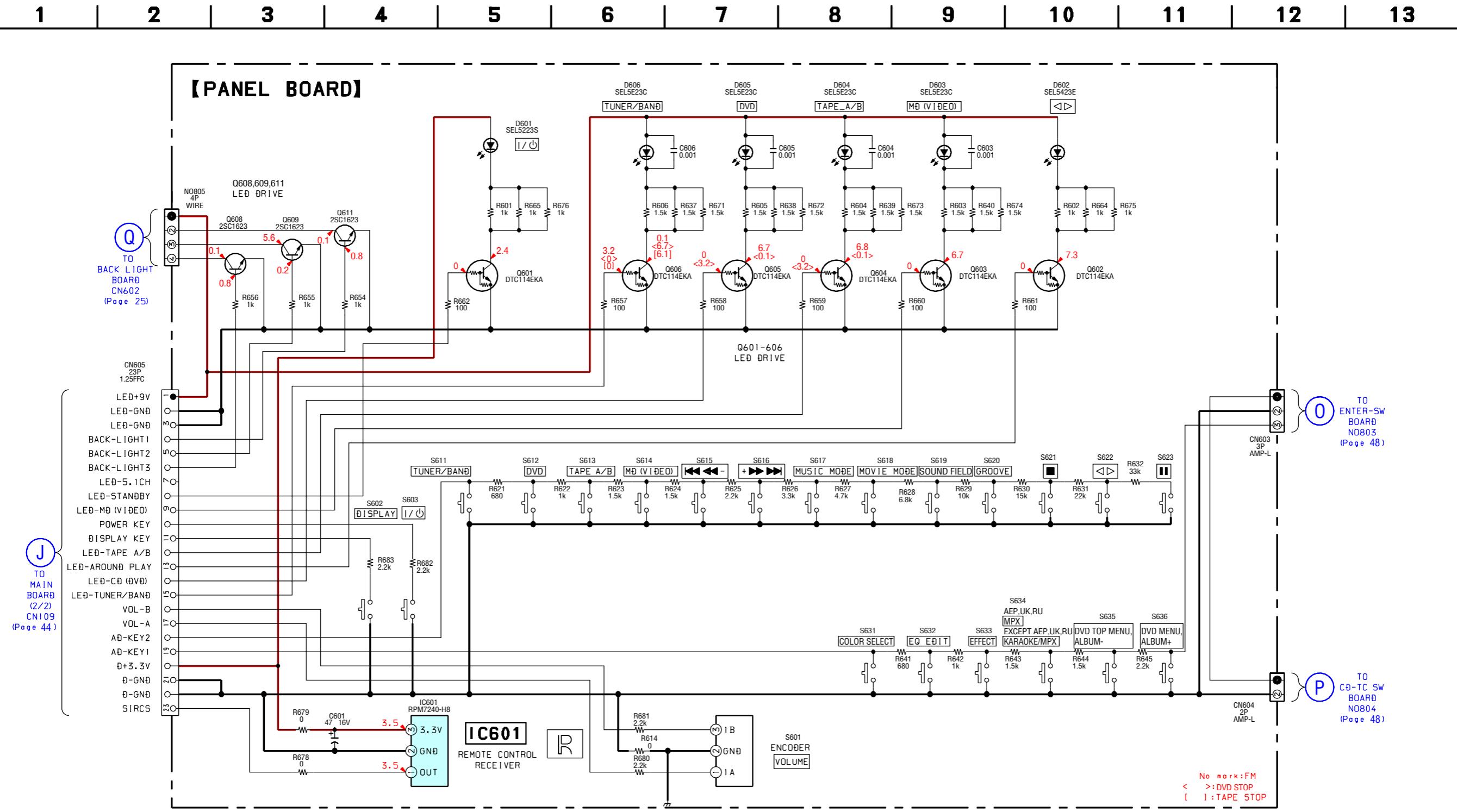
## 4-16. Schematic Diagram – Main Section (1/2) – • See page 59 for IC Block Diagrams.



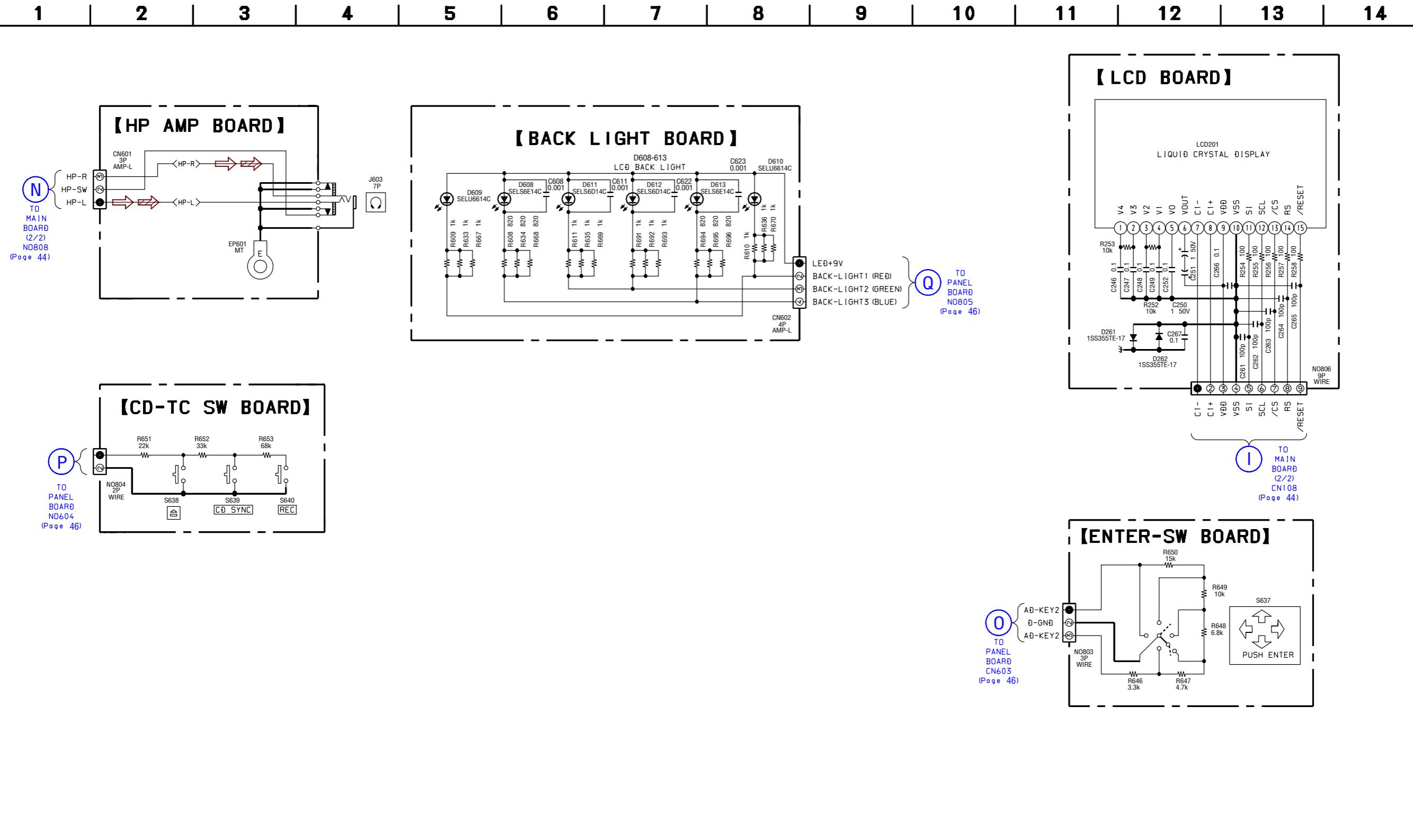
## 4-17. Schematic Diagram – Main Section (2/2) – • See page 24 for Waveforms. • See page 59 for IC Block Diagrams.



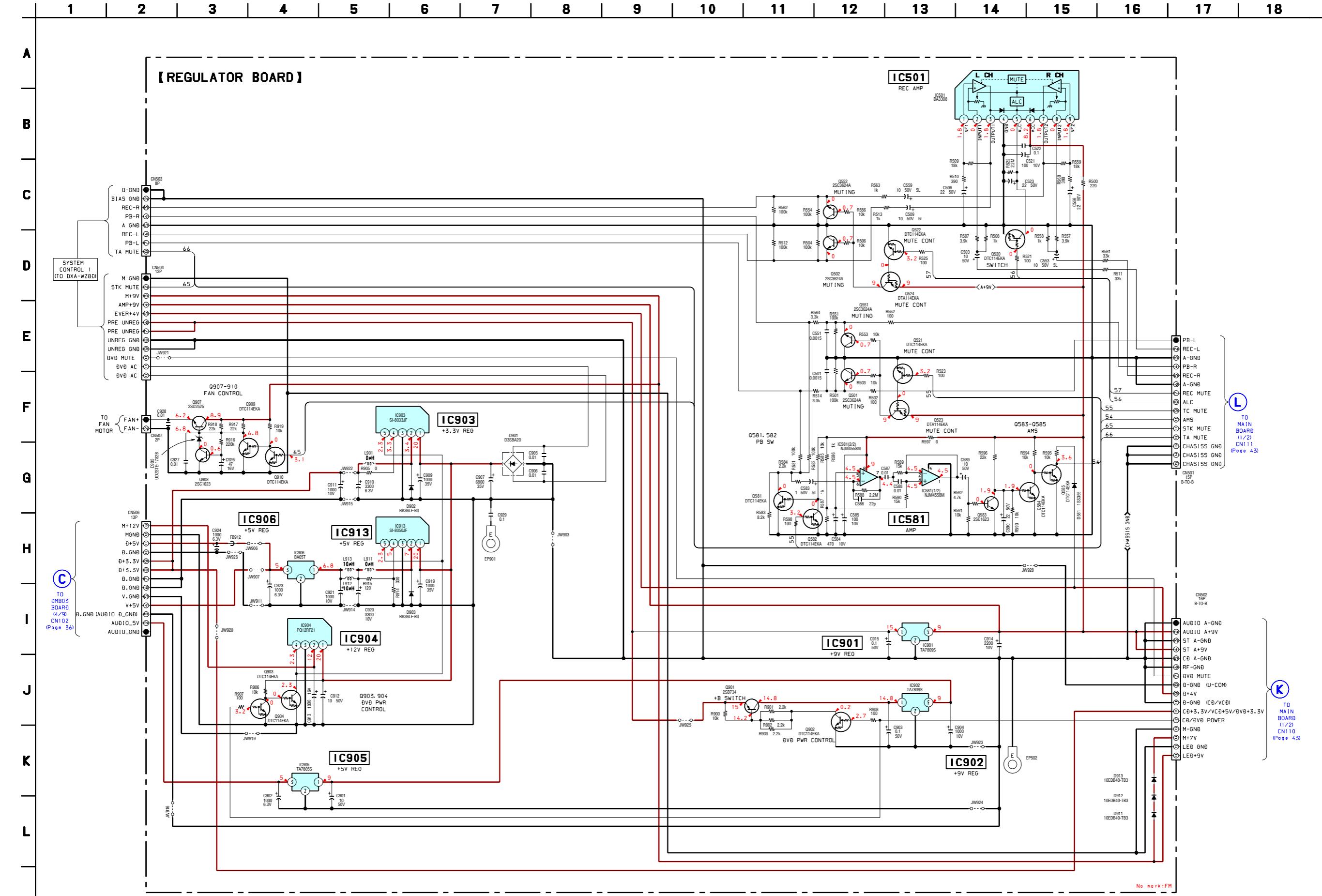
## 4-19. Schematic Diagram – PANEL Board –



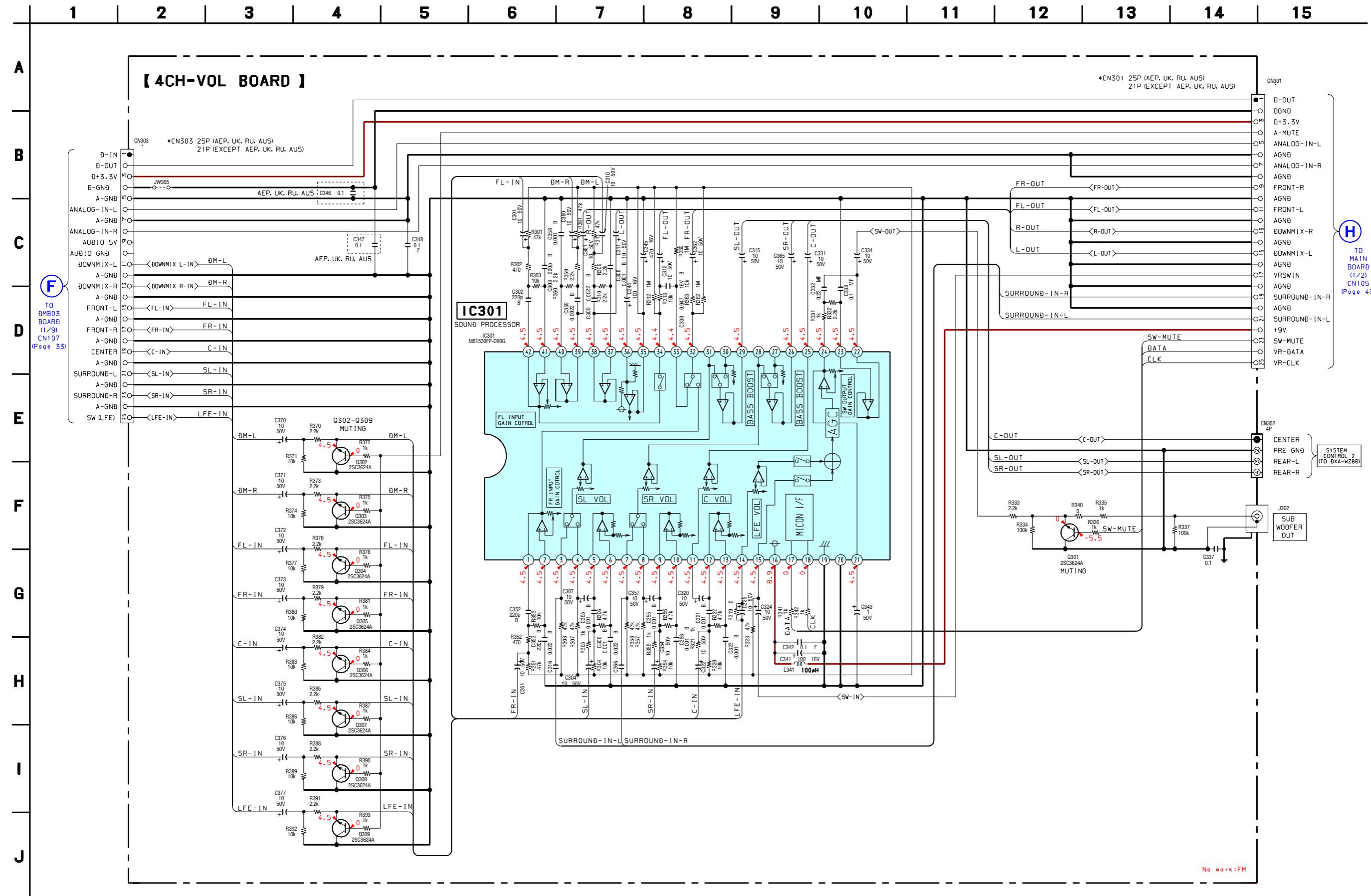
## 4-21. Schematic Diagram – LCD/Switch Section –



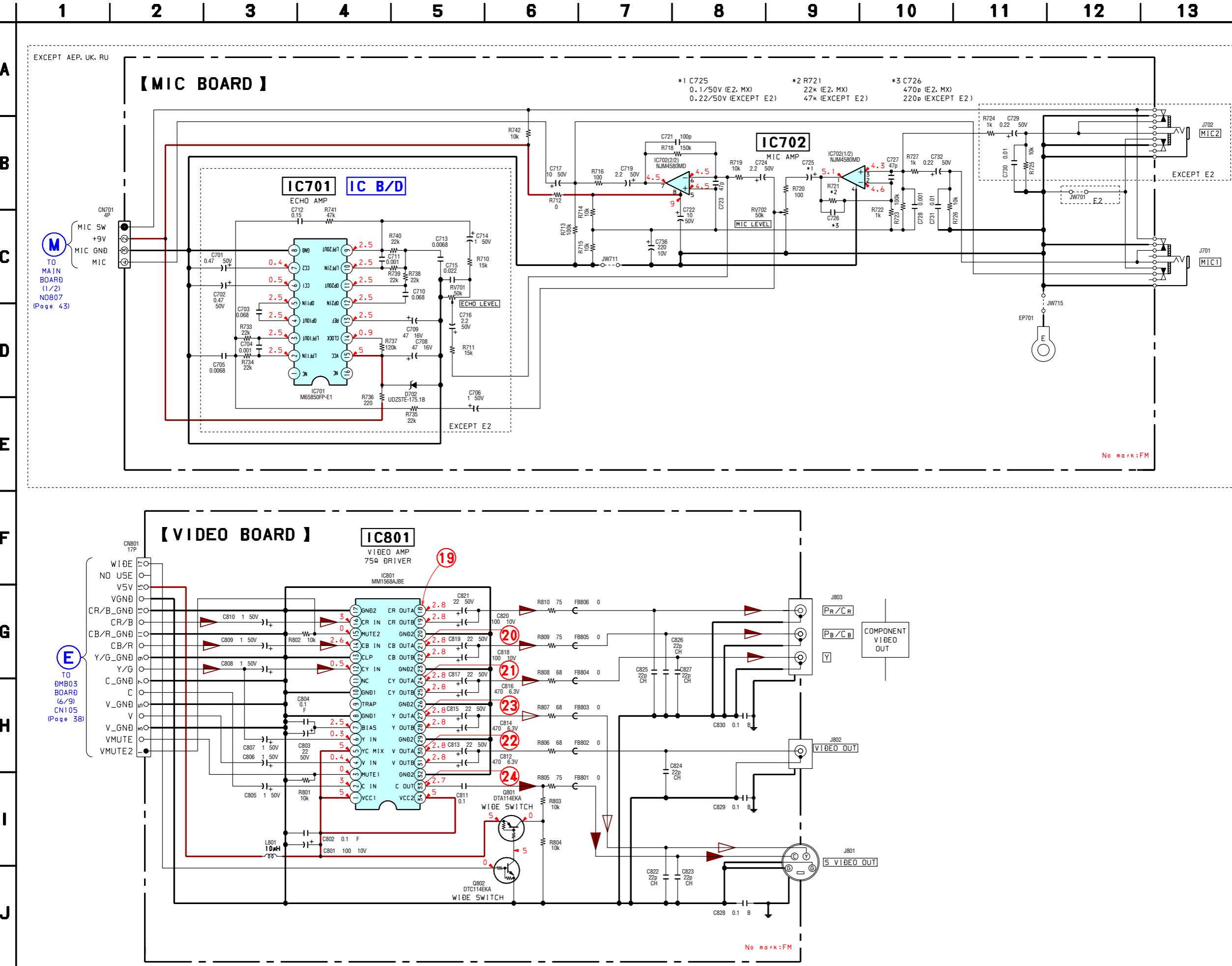
## 4-23. Schematic Diagram – REGULATOR Board – • See page 59 for IC Block Diagrams.



## 4-25. Schematic Diagram – 4CH-VOL Board –

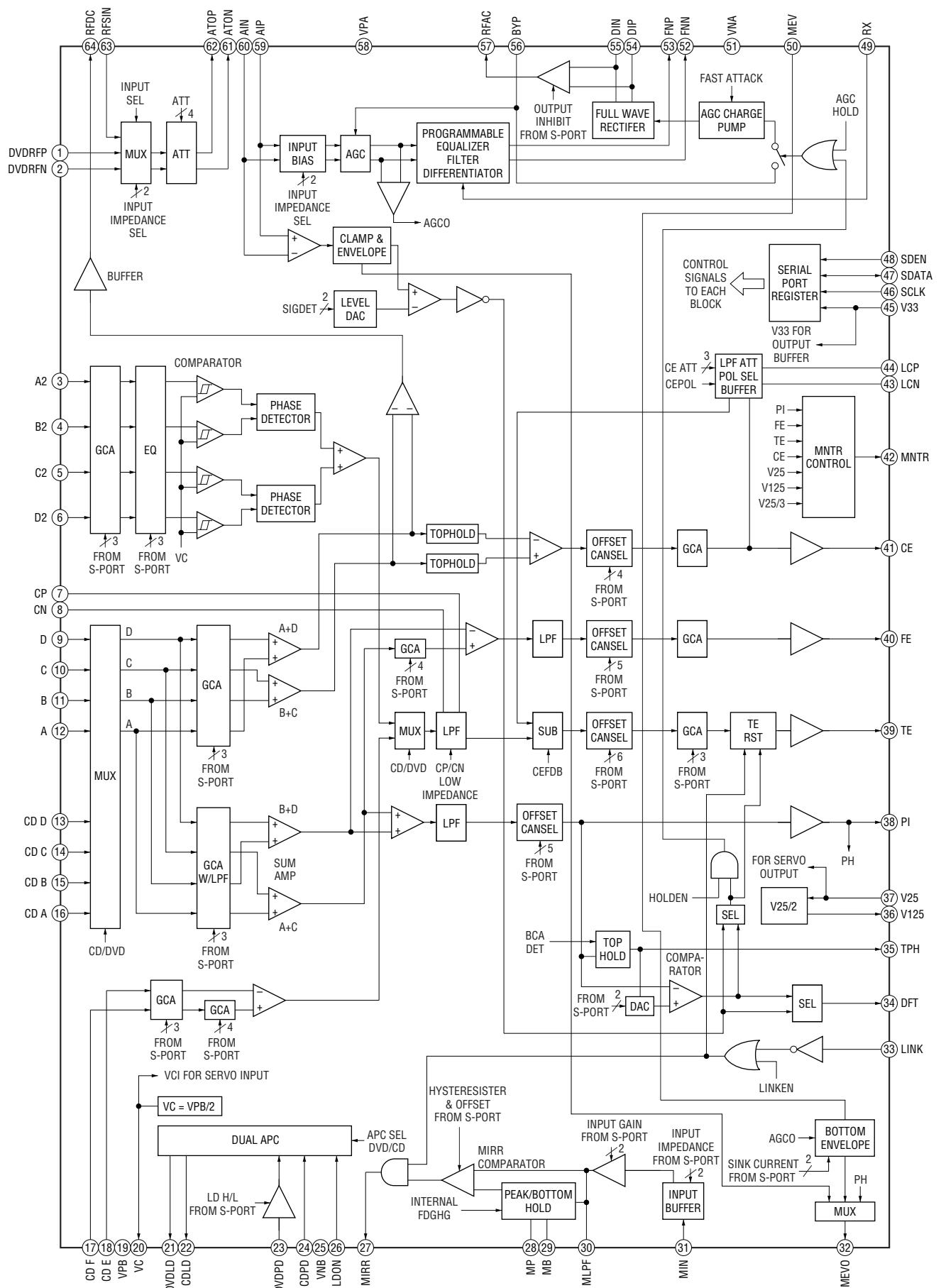


## 4-27. Schematic Diagram – VIDEO/MIC Board – • See page 24 for Waveforms.

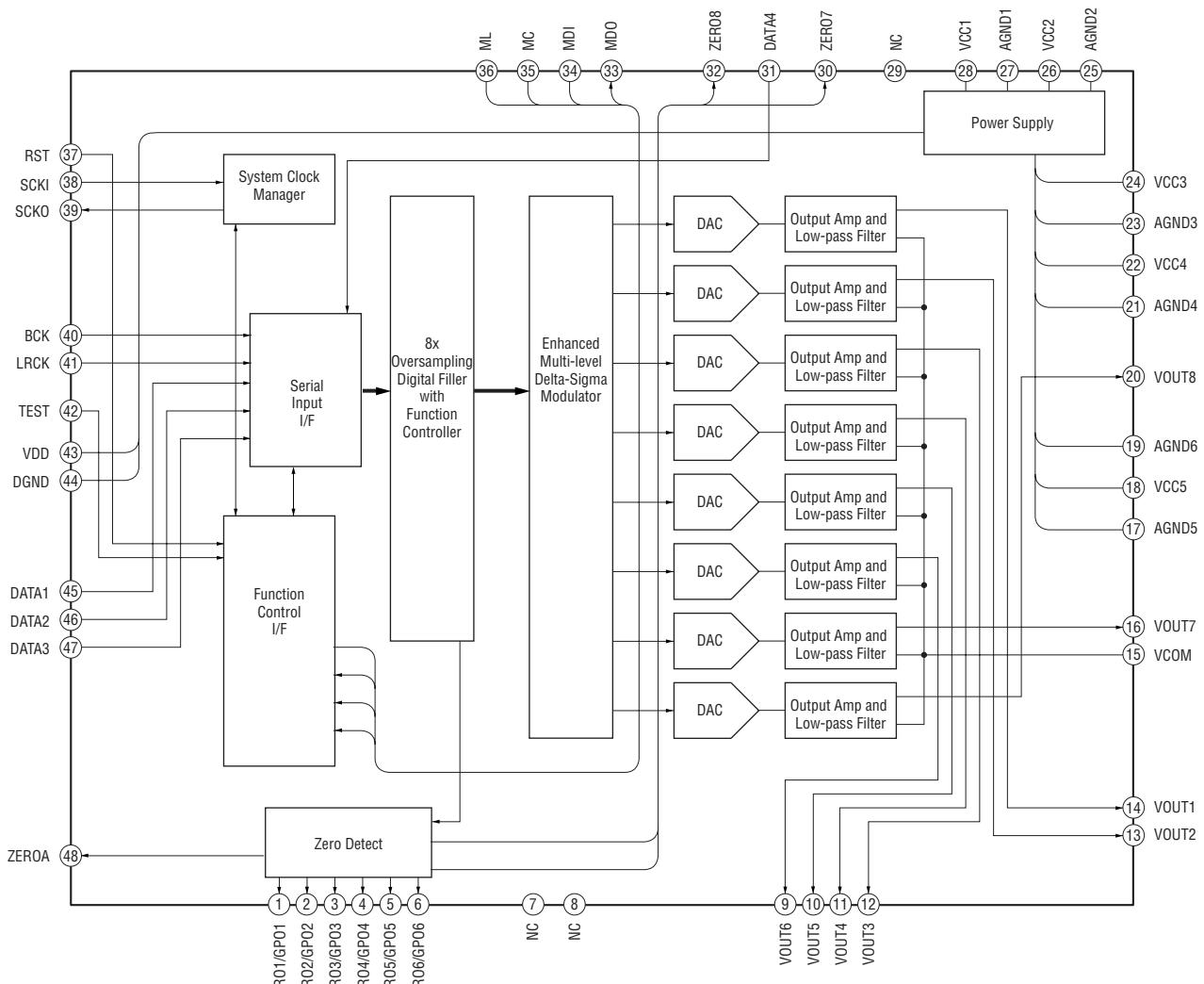


## 4-28. IC Block Diagrams

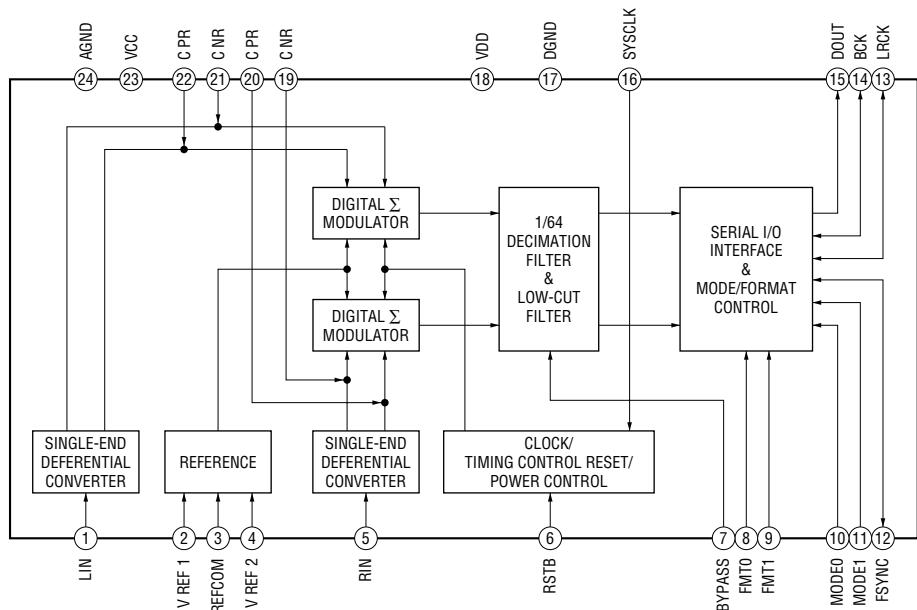
IC001 CXD1881AR (RF Board)



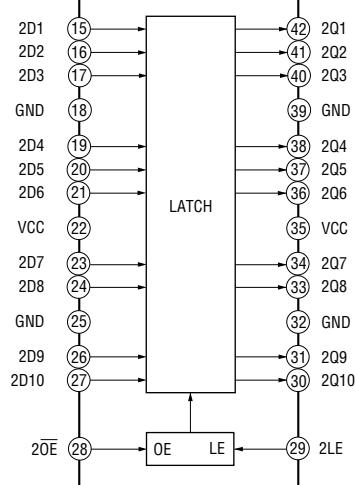
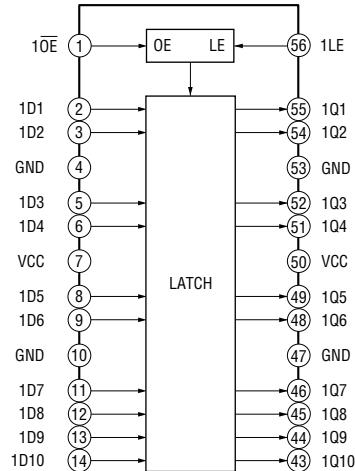
## IC302 PCM1609KPTR (DMB03 Board)



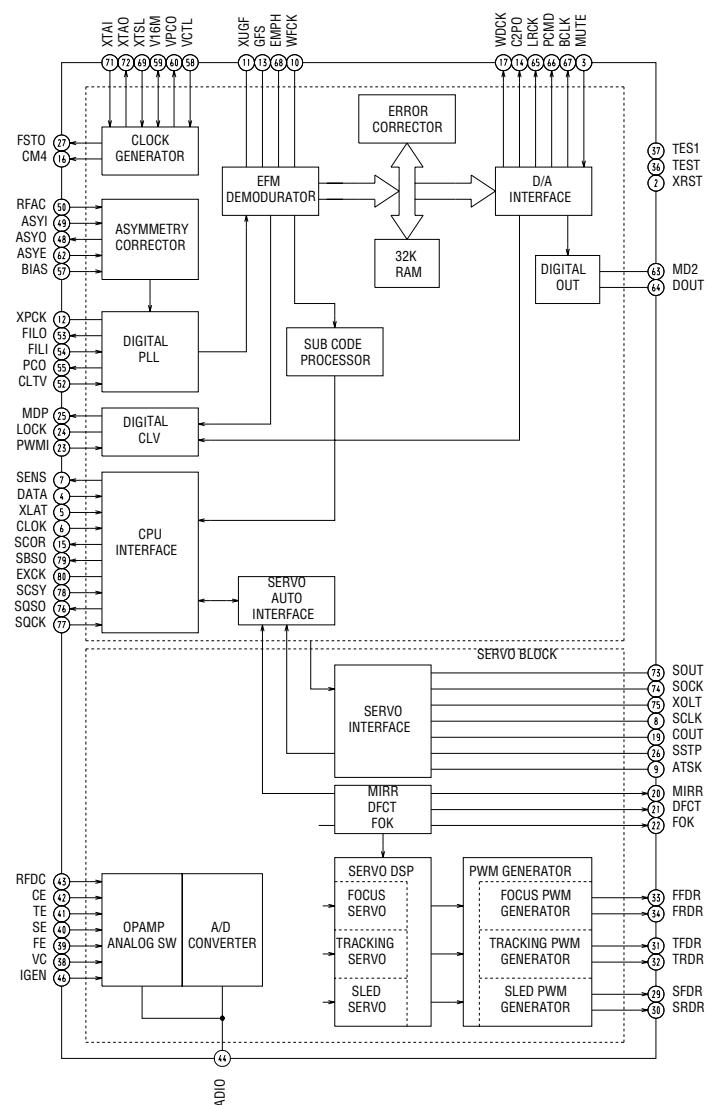
## IC352 PCM1800E/2K (DMB03 Board)



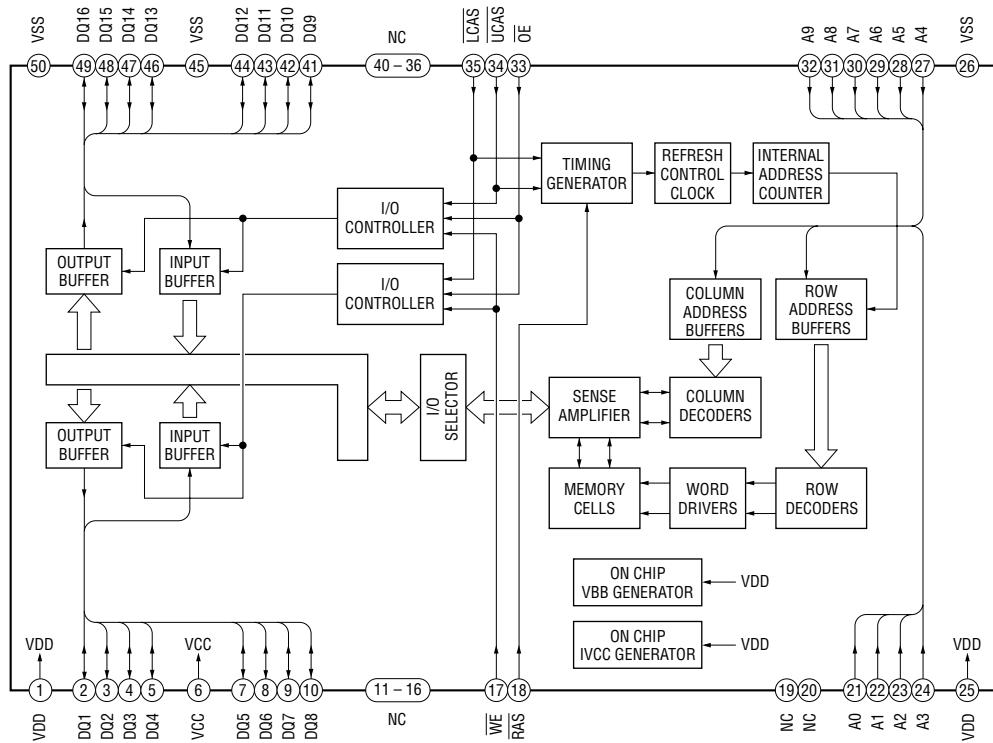
## IC216 SN74ALVCH16841DGGR (DMB03 BOARD)



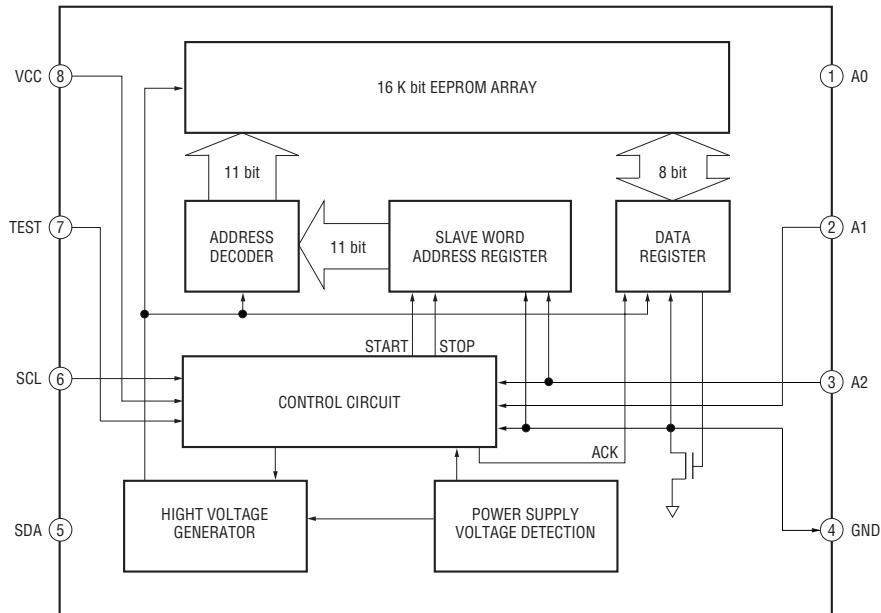
## IC509 CXD3068Q (DMB03 Board)



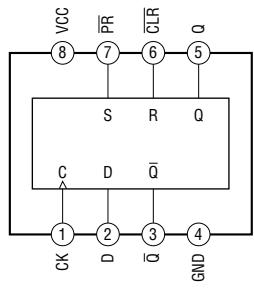
## IC706 MSM51V18165F-60TSKR1 (DMB03 Board)



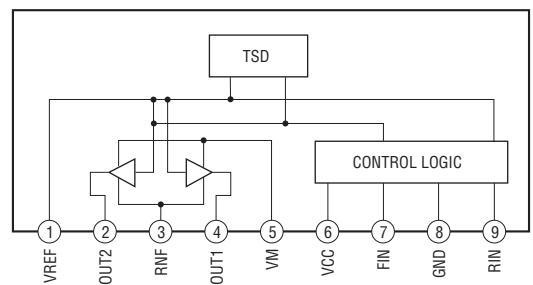
## IC903 BR24C16F-E2 (DMB03 Board)



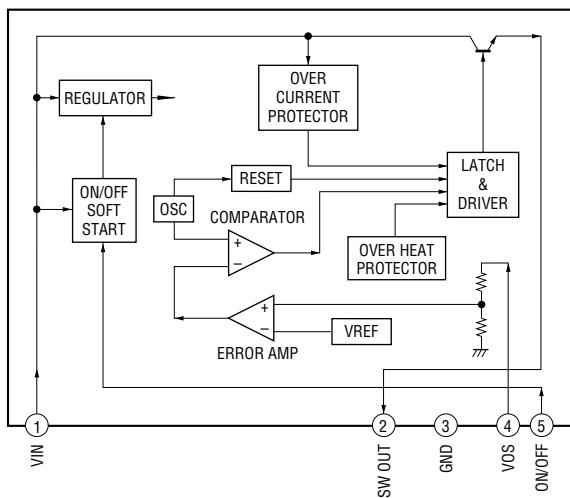
**IC904 TC7W74FK-TE85L (DMB03 Board)**



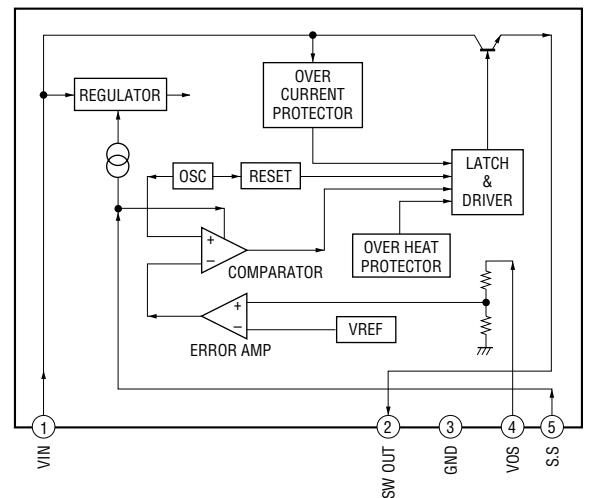
**IC202 BA6956AN (MAIN Board)**



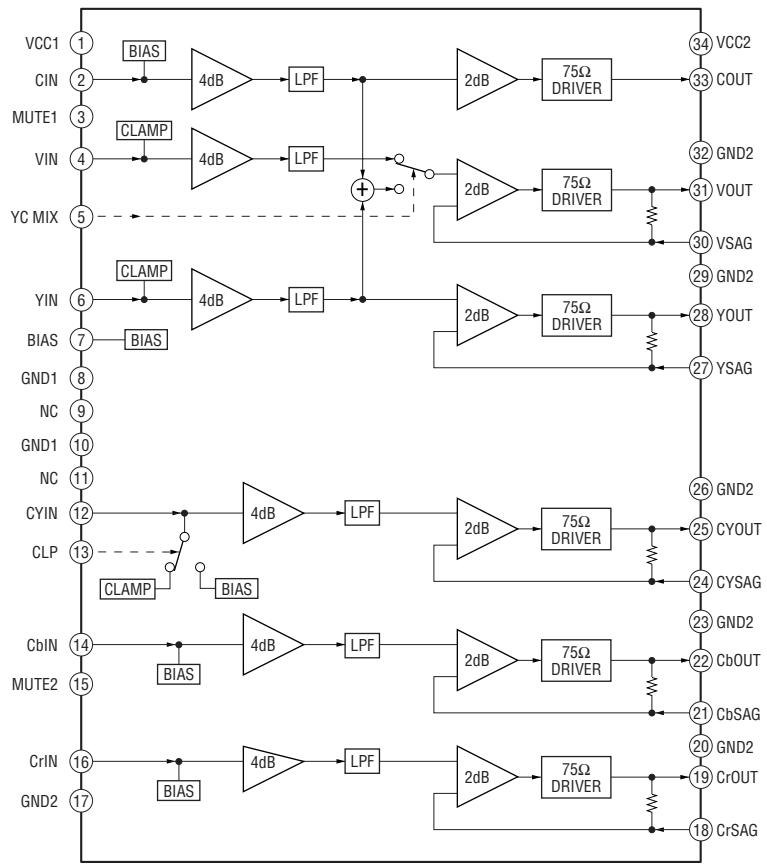
**IC903 SI-8033JF (REGULATOR Board)**



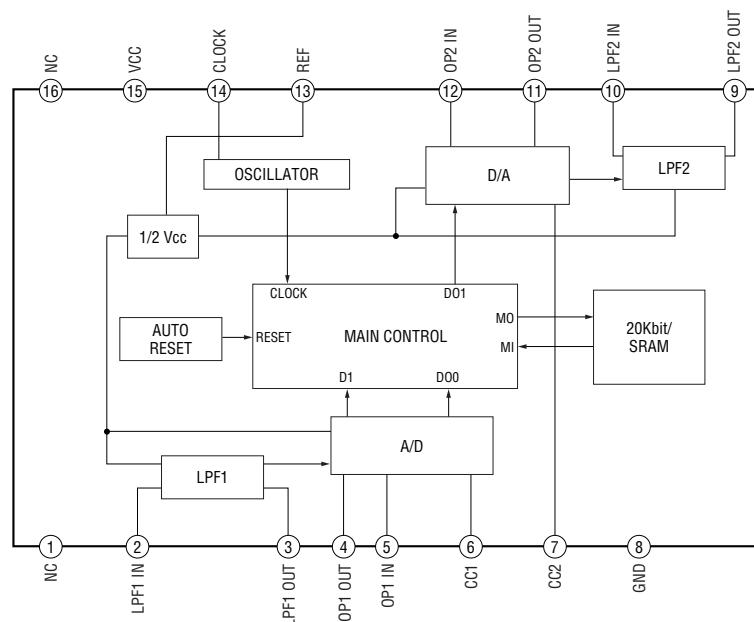
**IC913 SI-8050JF (REGULATOR Board)**



## IC801 MM1568AJBE (VIDEO Board)



## IC701 M65850FP-E1 (MIC Board)



**4-29. IC Pin Function Description****• IC207 ZIVA5X-C1F (DVD SYSTEM PROCESSOR)(DMB03 BOARD)**

Pin No.	Pin Name	I/O	Description
1	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
2	HA1	I/O	Address bus
3	HAD15	I/O	Data bus (address signal multiplexed)
4	HAD14	I/O	Data bus (address signal multiplexed)
5	HAD13	I/O	Data bus (address signal multiplexed)
6	HAD12	I/O	Data bus (address signal multiplexed)
7	HAD11	I/O	Data bus (address signal multiplexed)
8	HAD10	I/O	Data bus (address signal multiplexed)
9	HAD9	I/O	Data bus (address signal multiplexed)
10	HAD8	I/O	Data bus (address signal multiplexed)
11	HAD7	I/O	Data bus (address signal multiplexed)
12	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
13	GNDP	—	Ground terminal (I/O signal)
14	HAD6	I/O	Data bus (address signal multiplexed)
15	HAD5	I/O	Data bus (address signal multiplexed)
16	HAD4	I/O	Data bus (address signal multiplexed)
17	HAD3	I/O	Data bus (address signal multiplexed)
18	HAD2	I/O	Data bus (address signal multiplexed)
19	HAD1	I/O	Data bus (address signal multiplexed)
20	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
21	GNDP	—	Ground terminal (I/O signal)
22	HAD0	I/O	Data bus (address signal multiplexed)
23	HDTACK	I/O	Acknowledge signal input/output for host data transfer (not used)
24	HIRQ0	I	Interrupt signal input for Medusa (not used)
25	WEH.UDS	I/O	Host upper data strobe signal output
26	WEL.LDS	I/O	Host lower data strobe signal output (not used)
27	HREAD	I/O	Read/write strobe signal output
28	GPIO0	I/O	Jig detection port (pull-up)
29	GND	—	Ground terminal (inside core)
30	VDD	—	Power supply terminal (+1.8V)(inside core)
31	GND25	—	Ground terminal (SDRAM I/O signal)
32	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
33	MA9	O	SDRAM address bus
34	MA8	O	SDRAM address bus
35	MA7	O	SDRAM address bus
36	MA6	O	SDRAM address bus
37	MA5	O	SDRAM address bus
38	MA4	O	SDRAM address bus
39	MA3	O	SDRAM address bus
40	MA2	O	SDRAM address bus
41	MA1	O	SDRAM address bus
42	MA0	O	SDRAM address bus
43	GND25	—	Ground terminal (SDRAM I/O signal)
44	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
45	MA10	O	SDRAM address bus
46	MA11	O	SDRAM address bus
47	BA1	O	SDRAM bank select 1 signal output
48	BA0	O	SDRAM bank select 0 signal output
49	MCS0	O	SDRAM chip select 0 signal output
50	MCS1	O	Not used

Pin No.	Pin Name	I/O	Description
51	MRAS	O	SDRAM row address strobe signal output
52	MCAS	O	SDRAM column address strobe signal output
53	MWE	O	SDRAM write enable signal output ("H" : read, "L" : write)
54	GND25	—	Ground terminal (SDRAM I/O signal)
55	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
56	MCLK	O	SDRAM Clock output
57	MD0	I/O	SDRAM data
58	MD1	I/O	SDRAM data
59	MD2	I/O	SDRAM data
60	MD3	I/O	SDRAM data
61	GND25	—	Ground terminal (SDRAM I/O signal)
62	MDQM0	O	Byte read /write mask signal 0 output
63	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
64	MD4	I/O	SDRAM data
65	MD5	I/O	SDRAM data
66	MD6	I/O	SDRAM data
67	MD7	I/O	SDRAM data
68	MD8	I/O	SDRAM data
69	MD9	I/O	SDRAM data
70	MD10	I/O	SDRAM data
71	MD11	I/O	SDRAM data
72	GND25	—	Ground terminal (SDRAM I/O signal)
73	MDQM1	O	Byte read /write mask signal 1 output
74	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
75	MD12	I/O	SDRAM data
76	MD13	I/O	SDRAM data
77	MD14	I/O	SDRAM data
78	MD15	I/O	SDRAM data
79	GND	—	Ground terminal (inside core)
80	VDD	—	Power supply terminal (+1.8V)(inside core)
81	MD16	I/O	SDRAM data
82	MD17	I/O	SDRAM data
83	MD18	I/O	SDRAM data
84	MD19	I/O	SDRAM data
85	GND25	—	Ground terminal (SDRAM I/O signal)
86	MDQM2	O	Byte read /write mask signal 2 output
87	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
88	MD20	I/O	SDRAM data
89	MD21	I/O	SDRAM data
90	MD22	I/O	SDRAM data
91	MD23	I/O	SDRAM data
92	MD24	I/O	SDRAM data
93	MD25	I/O	SDRAM data
94	MD26	I/O	SDRAM data
95	MD27	I/O	SDRAM data
96	GND25	—	Ground terminal (SDRAM I/O signal)
97	MDQM3	O	Byte read /write mask signal 3 output
98	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
99	MD28	I/O	SDRAM data
100	MD29	I/O	SDRAM data

Pin No.	Pin Name	I/O	Description
101	MD30	I/O	SDRAM data
102	MD31	I/O	SDRAM data
103	GND25	—	Ground terminal (SDRAM I/O signal)
104	VDD25	—	Power supply terminal (+3.3V)(SDRAM I/O signal)
105	VCLK	I/O	System clock (not used)
106	XCK_I/O_SEL	I/O	5.1ch/downmix switch signal output
107	VS	O	S1 signal output (not used)
108	I/P SW	O	Progressive/interlace switch signal output (not used)
109	CDSEL	O	CD-DA selection signal output (not used)
110	MREQ	O	Audio muting request signal output
111	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
112	GNDP	—	Ground terminal (I/O signal)
113	MDI	O	Serial data output to the D/A converter (IC302)
114	MC	O	Serial data clock output to the D/A converter (IC302)
115	ML	O	Latch enable signal output to the D/A converter (IC302)
116	HIRQ2_	I	Busy signal input from the EEPROM (IC204)
117	VDAC_4B	—	Video DAC bias bit 4 (connected to the ground)
118	VDAC_VDD4	—	Power supply terminal (+3.3V)(Video DAC 4)
119	VDAC_4	O	VDAC output 4
120	VDAC_3B	—	Video DAC bias bit 3 (connected to the ground)
121	VDAC_VDD3	—	Power supply terminal (+3.3V)(Video DAC 3)
122	VDAC_3	O	VDAC output 3
123	VDAC_2B	—	Video DAC bias bit 2 (connected to the ground)
124	VDAC_VDD2	—	Power supply terminal (+3.3V)(Video DAC 2)
125	VDAC_2	O	VDAC output 2
126	VDAC_1B	—	Video DAC bias bit 1 (connected to the ground)
127	VDAC_VDD1	—	Power supply terminal (+3.3V)(Video DAC 1)
128	VDAC_1	O	VDAC output 1 (not used)
129	VDAC_0B	—	Video DAC bias bit 0 (connected to the ground)
130	VDAC_VDD0	—	Power supply terminal (+3.3V)(Video DAC 0)
131	VDAC_0	O	VDAC output 0
132	VDAC_DVSS	—	Ground terminal (Video DAC digital system)
133	VDAC_DVDD	—	Power supply terminal (+3.3V)(Video DAC digital system)
134	VDAC_REFVDD	—	Power supply terminal (Video DAC reference)
135	VDAC_REF	I	Reference voltage input terminal(for Video DAC)
136	VDAC_REFVSS	—	Ground terminal (Video DAC reference)
137	XVSS	—	Ground terminal (crystal oscillator)
138	XOUT	O	Crystal oscillation signal output (not used)
139	XIN	I	Crystal oscillation signal input
140	XVDD	—	Power supply terminal (crystal oscillator)
141	AVSS2	—	Ground terminal (analog PLL)
142	AVDD2	—	Power supply terminal (+3.3V)(analog PLL)
143	AVDD1	—	Power supply terminal (+3.3V)(analog PLL)
144	AVSS1	—	Ground terminal (analog PLL)
145	VDD	—	Power supply terminal (+1.8V)(inside core)
146	GND	—	Ground terminal (inside core)
147	XCK	O	Audio system clock output
148	LRCK	O	LRCK signal output for audio
149	BCK	O	BCK signal output for audio
150	DATA0(DM)	O	Audio data(Down Mix signal) output

<b>Pin No.</b>	<b>Pin Name</b>	<b>I/O</b>	<b>Description</b>
151	DATA1(FLR)	O	Audio data(Front L/R signal) output
152	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
153	GNDP	—	Ground terminal (I/O signal)
154	DATA2(SLR)	O	Audio data(Rear L/R signal) output
155	DATA3(CSW)	O	Audio data(Center/Subwoofer signal) output
156	IEC958	O	S/PDIF signal (not used)
157	DAI_DATA	I	Data input from ADC (not used)
158	DAI_BCK	I	BCK signal input from ADC (not used)
159	DAI_LRCK	I	LRCK signal input from ADC (not used)
160	I2C_CL	I/O	I2C clock bus
161	I2C_DA	I/O	I2C data bus
162	CS(ZIVA_E2P)	O	Chip select signal output to the EEPROM (IC204)
163	RXD1	I	Serial data input for check jig
164	TXD1	O	Serial data output for check jig
165	WRITE_CTRL(ZIVA_E2P)	O	Write control signal output to the EEPROM (IC204)
166	GNDP	—	Ground terminal (I/O signal)
167	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
168	SDDATA7	I	SDBus data7 input
169	SDDATA6	I	SDBus data6 input
170	SDDATA5	I	SDBus data5 input
171	SDDATA4	I	SDBus data4 input
172	GND	—	Ground terminal (inside core)
173	VDD	—	Power supply terminal (+1.8V)(inside core)
174	SDDATA3	I	SDBus data3 input
175	SDDATA2	I	SDBus data2 input
176	SDDATA1	I	SDBus data1 input
177	SDDATA0	I	SDBus data0 input
178	SDREQ	O	SDBus data request signal output
179	SDEN	I	SDBus data enable signal input
180	GNDP	—	Ground terminal (I/O signal)
181	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
182	SDERROR	I	SDBus data error signal input
183	SDCLK	I	SDBus data clock input
184	IRQ1	I	Interrupt signal input from the mechanism controller (IC901)
185	DRVCLK	I	Serial data clock input from the mechanism controller (IC901)
186	DRVTX	I	Serial data input from the mechanism controller (IC901) and the EEPROM (IC204)
187	DRVRX	O	Serial data output to the mechanism controller (IC901) and the EEPROM (IC204)
188	DRVRDY	I	Ready signal input from the mechanism controller (IC901)
189	VNW	—	Power supply for 5V tolerance voltage input
190	ALE	O	Latch enable signal output for address data demux
191	RST_SPC	O	Reset signal output to the mechanism controller (IC901)
192	INT/EXT	O	Input selection signal output for SDBus or ADC
193	HCS2	O	Chip select signal output for Medusa (not used)
194	HCS1	I/O	Not used
195	HCS0	O	Chip select signal output to the external ROM (IC206)
196	VDDP	—	Power supply terminal (+3.3V)(I/O signal)
197	TRST	I	Reset signal input
198	TDO	O	Data output
199	TDI	I	Data input
200	TMS	I	TMS signal input

Pin No.	Pin Name	I/O	Description
201	TCK	I	TCK signal input
202	RESET	I	ZIVA reset input
203	BUS CLK	I/O	Not used
204	GND	—	Ground terminal (inside core)
205	VDD	—	Power supply terminal (+1.8V)(inside core)
206	HA3	I/O	Address bus 3
207	HA2	I/O	Address bus 2
208	GNDP	—	Ground terminal (I/O signal)

• IC401 M30622MGN-B22FP (AEP, UK, RU, E2, MX) , -B12FP (EXCEPT AEP, UK, RU, E2, MX)(SYSTEM CONTROL)(MAIN BOARD)

Pin No.	Pin Name	I/O	Description
1	MIC-CHECK	I	Microphone detection signal input
2	NO USE	—	Not used
3	NO USE	—	Not used (connected to the ground)
4	SIRCS	I	SIRCS signal input from the remote sensor (IC601)
5	DSP DIN	O	Serial data output to the DSP (IC601)
6	DSP DOUT	I	Serial data input from the DSP (IC601)
7	DSP CLK	O	Serial clock output to the DSP (IC601)
8	BYTE	—	External data bus width selection terminal
9	CN VSS	—	Processor modes switch terminal
10	XC-IN	I	Sub clock input terminal (32.768kHz)
11	XC-OUT	O	Sub clock output terminal (32.768kHz)
12	RESET	I	System reset signal input
13	X-OUT	O	Main system clock output terminal (16MHz)
14	VSS	—	Ground terminal
15	X-IN	I	Main system clock input terminal (16MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	NMI input terminal (fixed at "H")
18	RDS INT	I	RDS INT signal input
19	NO USE	—	Not used (connected to the ground)
20	AC-CUT	I	AC cut detection signal input
21	DSP XRST	O	Reset signal output to the DSP (IC601) ("L" : reset)
22	DSP HCE	O	Chip select signal output to the DSP (IC601)
23	DSP BST	O	Boot strap signal output to the DSP (IC601)
24	DSP ACK	I	Acknowledge signal input from the DSP (IC601)
25	DSP ERROR	I	ERROR signal input from the DSP (IC601)
26	DSP EXLOCK	O	PLL lock error and data error flag signal output to the DSP (IC601)
27	DSP PM	O	PLL reset signal output to the DSP (IC601)
28	DSP DECODE	—	Not used
29	IIC-CLK	O	IIC serial clock output
30	IIC-DATA	O	IIC serial data output
31	NO USE	—	Not used (connected to the ground)
32	NO USE	—	Not used (connected to the ground)
33	A-MUTE	O	Audio muting signal output
34	SOFT-TEST	—	Soft test terminal
35	MUTE REQ	I	Audio muting request signal input from the DVD system processor (IC207)
36	IF-VIDEO MUTE2	O	Video muting signal output
37	IF-VIDEO MUTE1	O	Video muting signal output
38	IF-DVD-RESET	O	System reset signal output to the DVD system processor (IC207)
39	IF-DVD-POWER	O	DVD power supply control signal output ("H" : on, "L" : off)
40	RDS-DATA	I	RDS data input
41	ST-MUTE	O	Muting signal output to the tuner
42	STEREO	I	Stereo detection signal input from the tuner ("L" : in, "H" : off)
43	TUNED	I	Tuner tuned status signal input from the tuner ("L" : in, "H" : off)
44	ST-CE	O	Tuner chip enable signal output to the tuner
45	ST-DOUT	O	Data output to the tuner
46	ST-DIN	I	Data input from the tuner
47	ST-CLK	O	Clock output to the tuner
48	SW MUTE	O	Sub woofer muting signal output
49	VR-CLK	O	Clock output to the audio signal processor (IC301)
50	VR-DATA	O°	Data output to the audio signal processor (IC301)

Pin No.	Pin Name	I/O	Description
51	VOL-CLK	O	Clock output to the audio signal processor (IC101)
52	VOL-DATA	O	Data output to the audio signal processor (IC101)
53	CN CHECK	I	Connection check signal input (from DXA-WZ8D)
54	AMS-IN	I	AMS signal input ("L" : in, "H" : off)(from DXA-WZ8D)
55	TC LINE-MUTE	O	TC line muting signal output ("H" : on, "L" : off)(to DXA-WZ8D)
56	ALC	O	ALC signal output ("L" : on, "H" : off)(to DXA-WZ8D)
57	TC REC-MUTE	O	TC REC muting signal output ("L" : on, "H" : off)(to DXA-WZ8D)
58	IO-EXP DATA OUT	O	Data output to the I/O expander (IC251, DXA-WZ8D)
59	IO-EXP DATA IN	I	Data input from the I/O expander (IC251, DXA-WZ8D)
60	IO-EXP LAT	O	Latch signal output to the I/O expander (IC251, DXA-WZ8D)
61	IO-EXP CLK	O	Clock output to the I/O expander (IC251, DXA-WZ8D)
62	VCC	—	Power supply terminal
63	HEAD-PHONE IN	I	Headphone detection signal input
64	VSS	—	Ground terminal
65	STK MUTE	O	Muting signal output to the power amplifier (to DXA-WZ8D)
66	TA MUTE	O	TA line muting signal output ("H" : on, "L" : off)(to DXA-WZ8D)
67	VOL-A	I	Encoder signal input from the volume encoder
68	VOL-B	I	Encoder signal input from the volume encoder
69	LED -TUNER/BAND	O	TUNER/BAND LED control signal output
70	LED-DVD	O	DVD LED control signal output
71	LED-AROUND PLAY	O	PLAY LED control signal output
72	LED-TAPE A/B	O	TAPE A/B LED control signal output
73	DISPLAY KEY	I	DISPLAY key signal input
74	POWER KEY	I	POWER key signal input
75	LED-MD (VIDEO)	O	MD (VIDEO) LED control signal output
76	LED-STANDBY	O	STANDBY LED control signal output
77	HP/REC OUT MUTE	O	Headphone/line out muting signal output ("L" : on, "H" : off)
78	BACK-LIGHT 3	O	LCD back light 3 LED control signal output (blue)
79	BACK-LIGHT 2	O	LCD back light 2 LED control signal output (green)
80	BACK-LIGHT 1	O	LCD back light 1 LED control signal output (red)
81	LCD-DATA	O	Data output to the liquid crystal display
82	LCD-CLK	O	Clock output to the liquid crystal display
83	LCD-ENB	O	Chip select signal output to the liquid crystal display
84	LCD-RS	O	Reset signal output to the liquid crystal display
85	LOAD-OUT	O	Loading motor control signal output
86	LOAD-IN	O	Loading motor control signal output
87	OPEN-SW	I	OPEN switch signal input
88	CLOSE-SW	I	CLOSE switch signal input
89	A SHUT	I	Reel pulse signal input from the deck A (from DXA-WZ8D)
90	B SHUT	I	Reel pulse signal input from the deck B (from DXA-WZ8D)
91	A TRG	O	Trigger control signal output to the deck A ("H" : on)(to DXA-WZ8D)
92	B TRG	O	Trigger control signal output to the deck B ("H" : on)(to DXA-WZ8D)
93	SPEC-IN	I	Spec setting terminal
94	AD-KEY2	I	Key input 2 (A/D)
95	AD-KEY1	I	Key input 1 (A/D)
96	AVSS	—	Ground terminal (A/D converter)
97	VACS IN	I	VACS signal input
98	VREF	—	Voltage reference terminal (A/D converter)
99	AVCC	—	Power supply terminal (A/D converter)
100	LCD RESET	O	Reset signal output to the liquid crystal display

• IC901 CXP973064-226R (MECHANISM CONTROLLER)(DMB03 BOARD)

Pin No.	Pin Name	I/O	Description
1	NO USE	O	Not used
2	SDEN	O	Serial data enable signal output to DVD/CD RF amplifier
3	DOCTRL/ISBTTEST	O	Digital out on/off control signal output to the digital signal processor “L”: digital out off, “H”: digital out on
4	XPST 2753	O	Not used
5	SDA EEP	I/O	Two-way data bus with the EEPROM
6	MNT1	I	EEPROM ready signal input from the DVD decoder
7	FCS JMP 1	O	Focus jump 1 signal output to the motor/coil driver
8	FCS JMP 2	O	Focus jump 2 signal output to the motor/coil driver
9	SENS CD	I	Internal status (SENSE) signal input from the digital signal processor
10	CDSP2	O	Loading motor drive signal (loading in direction) output terminal
11	CDSP4	O	Loading motor drive signal (loading out direction) output terminal
12	XCS DVD	O	Chip select signal output to the DVD decoder
13	VSS	—	Ground terminal (digital system)
14 to 21	D0 to D7	I/O	Two-way data bus with the DVD decoder
22	INIT0 DVD	I	Interrupt signal input from the DVD decoder
23	INIT1 DVD	I	Interrupt signal input from the DVD decoder
24	MSCK SAMBA	O	Serial data transfer clock signal output to the DSD decoder
25	XRST 1882	O	Reset signal output to the DVD decoder “L”: reset
26	SCOR	I	Subcode sync (\$0+\$1) detection signal input from the digital signal processor
27	LAT CD	O	Serial data latch pulse signal output to the digital signal processor
28	LD ON	O	Laser diode on/off control signal output to the DVD/CD RF amplifier “L”: laser diode off, “H”: laser diode on
29	MIRR	I	Mirror signal input from the digital signal processor
30	COUT CD	I	Numbers of track counted signal input from the digital signal processor
31	INLIM	I	Detection signal input from limit in switch The optical pick-up is inner position when “H”
32	CS ZIVA	O	Chip select signal output to the DVD system processor
33	SI ZIVA	I	Serial data input from the DVD system processor
34	SO ZIVA	O	Serial data output to the DVD system processor
35	SCK ZIVA	O	Serial data transfer clock signal output to the DVD system processor
36	DRVIRQ	O	Interrupt request signal output to the DVD system processor
37	DRVRDY	O	Ready signal output to the DVD system processor
38	RST	I	System reset signal input from the DVD system processor “L”: reset
39	VSS	—	Ground terminal (digital system)
40	XTAL	I	System clock input terminal (20 MHz)
41	EXTAL	O	System clock output terminal (20 MHz)
42	VDD	—	Power supply terminal (+3.3V) (digital system)
43, 44	SLED A, SLED B	O	Sled motor drive signal output
45	SCK DSD	O	Output terminal for offset adjustment of APEO
46	SDOUT DSD	O	Serial data output to the DSD decoder
47	SDIN DSD	I	Serial data input from the DSD decoder
48	READY DSD	I	Ready signal input from the DSD decoder “L”: ready
49	DATA CD	O	Serial data output to the digital signal processor
50	CLOK CD	O	Serial data transfer clock signal output to the digital signal processor
51	XMSLAT	O	Serial data latch pulse signal output to the DSD decoder
52	SQSO	I	Subcode Q data input from the digital signal processor
53	MUTE DSD	O	Muting on/off control signal output to the DSD decoder “H”: muting on
54	SQCK	O	Subcode Q data reading clock signal output to the digital signal processor
55	VSS	—	Ground terminal (digital system)
56	CONTROL 4	I	Disc tray in detection signal input terminal Not used

Pin No.	Pin Name	I/O	Description
57	CONTROL 2	I	Disc tray out detection signal input terminal Not used
58	GFS DVD	I	Guard frame sync signal input from the DVD decoder
59	MUTE CD	O	Muting on/off control signal output to the digital signal processor "H": muting on
60	MUTE 2D	O	Muting on/off control signal output to the motor/coil driver "H": muting on
61	SLED	I	Sled motor servo drive PWM signal input terminal
62	FG	I	Spindle motor control signal input
63	SP ON	O	Muting on/off control signal output to the motor/coil driver "H": muting on
64	JIT	I	Jitter signal input
65	TE	I	Tracking error signal input from the DVD/CD RF amplifier
66	PI	I	Pull in signal input from the DVD/CD RF amplifier
67	FE	I	Focus error signal input from the DVD/CD RF amplifier
68	AVSS	—	Ground terminal (for A/D converter)
69	AVREF	I	Reference voltage input terminal (for A/D converter)
70	AVDD	—	Power supply terminal (+3.3V) (for A/D converter)
71	GFS CD	I	Guard frame sync signal input from the digital signal processor
72	SCLK CD	O	SENSE serial data reading clock signal output to the digital signal processor
73	TSD	O	Thermal shut down signal output to the motor/coil driver
74	FOK CD	I	Focus OK signal input from the digital signal processor
75	LOCK CD	I	GFS is sampled by 460 Hz "H" input when GFS is "H"
76	LDSEL	O	Laser diode selection signal output
77	SACD/DVD	O	"SACD/DVD selection signal output "L": DVD, "H": SACD"
78	I2C SIO	I/O	Communication data bus with the DVD system processor and system controller
79	I2C SCL	I/O	Communication data reading clock signal input or transfer clock signal output with the DVD system processor and system controller
80	RXD	I	Serial data input from the RS-232C (for check)
81	TXD	O	Serial data output to the RS-232C (for check)
82	SDCLK RF	O	Serial data transfer clock signal output to the DVD/CD RF amplifier
83	SDATA RF	I/O	Two-way data bus with the DVD/CD RF amplifier
84	XWR	O	Write strobe signal output to the DVD decoder
85	XRD	O	Read strobe signal output to the DVD decoder
86	(PWE)	—	Not used
87	VDD	—	Power supply terminal (+3.3V) (digital system)
88	VSS	—	Ground terminal (digital system)
89 to 96	A0 to A7	O	Address signal output to the DVD decoder
97	DSAVE	O	Motor/coil driver power save control signal output terminal
98	XDRST	O	Reset signal output to the digital signal processor and DSD decoder "L": reset
99	WP EEP	O	Write protect signal output to the EEPROM
100	SCL EEP	O	Clock signal output to the EEPROM

## SECTION 5 EXPLODED VIEWS

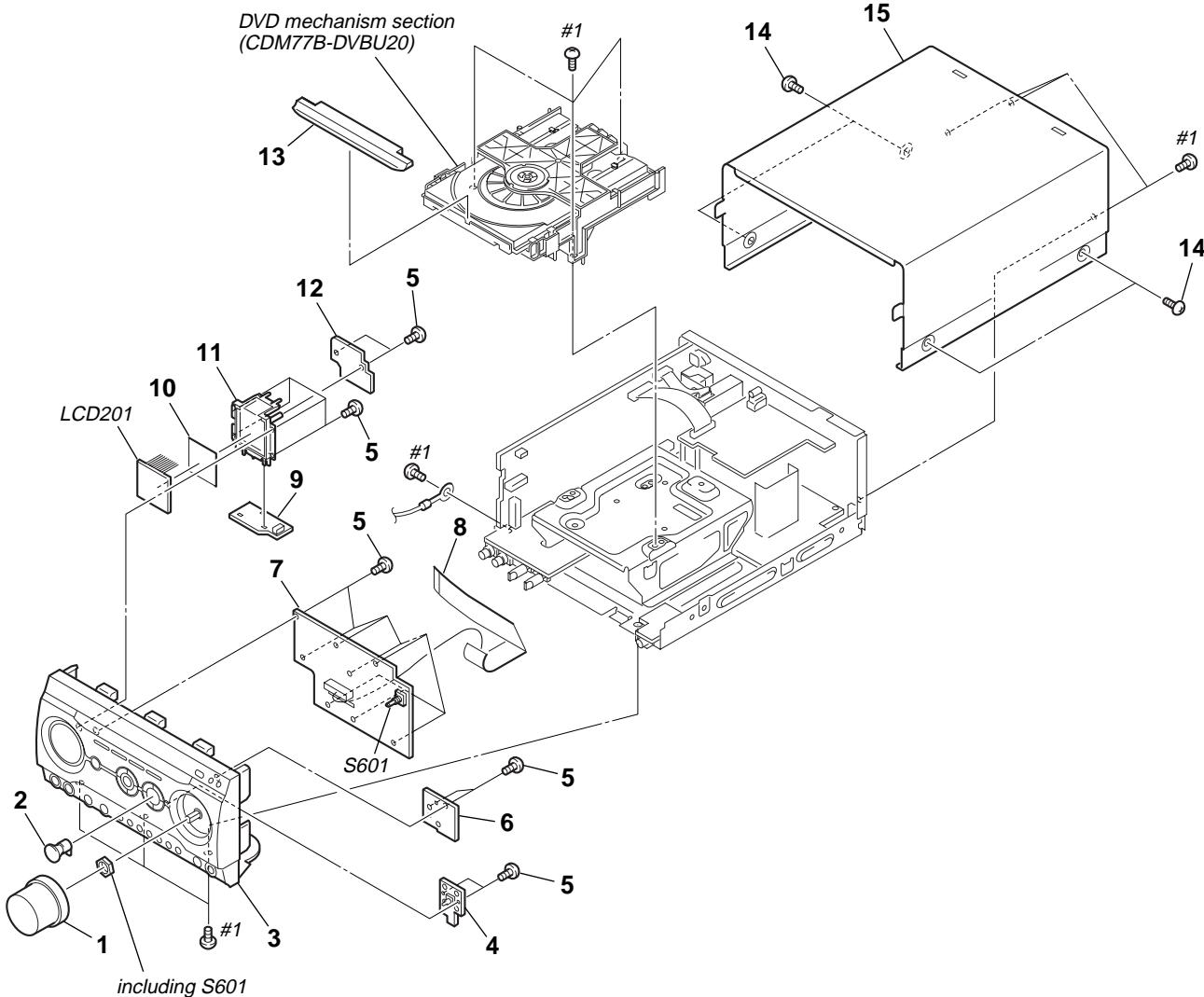
## NOTE:

- -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.

- Abbreviation
- AUS : Australian model
- E2 : 120V AC area in E model
- E3 : 240V AC area in E model
- E15 : 220-240V AC area in E model
- EA : Saudi Arabia model
- KR : Korean model
- MY : Malaysia model
- PH : Philippines model

- RU : Russian model
- SP : Singapore model
- TH : Thai model

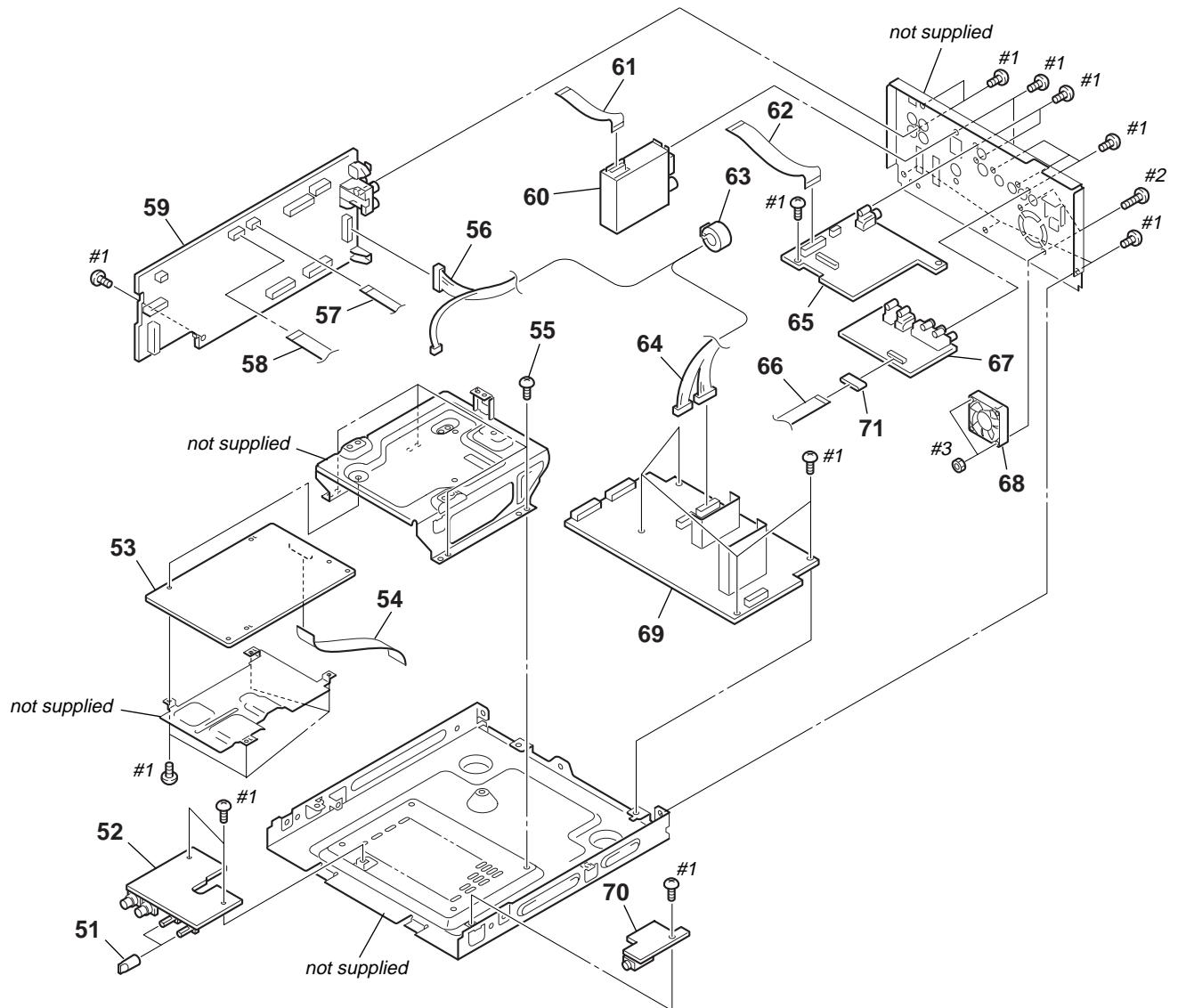
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

**5-1. Front Panel Section**

including S601

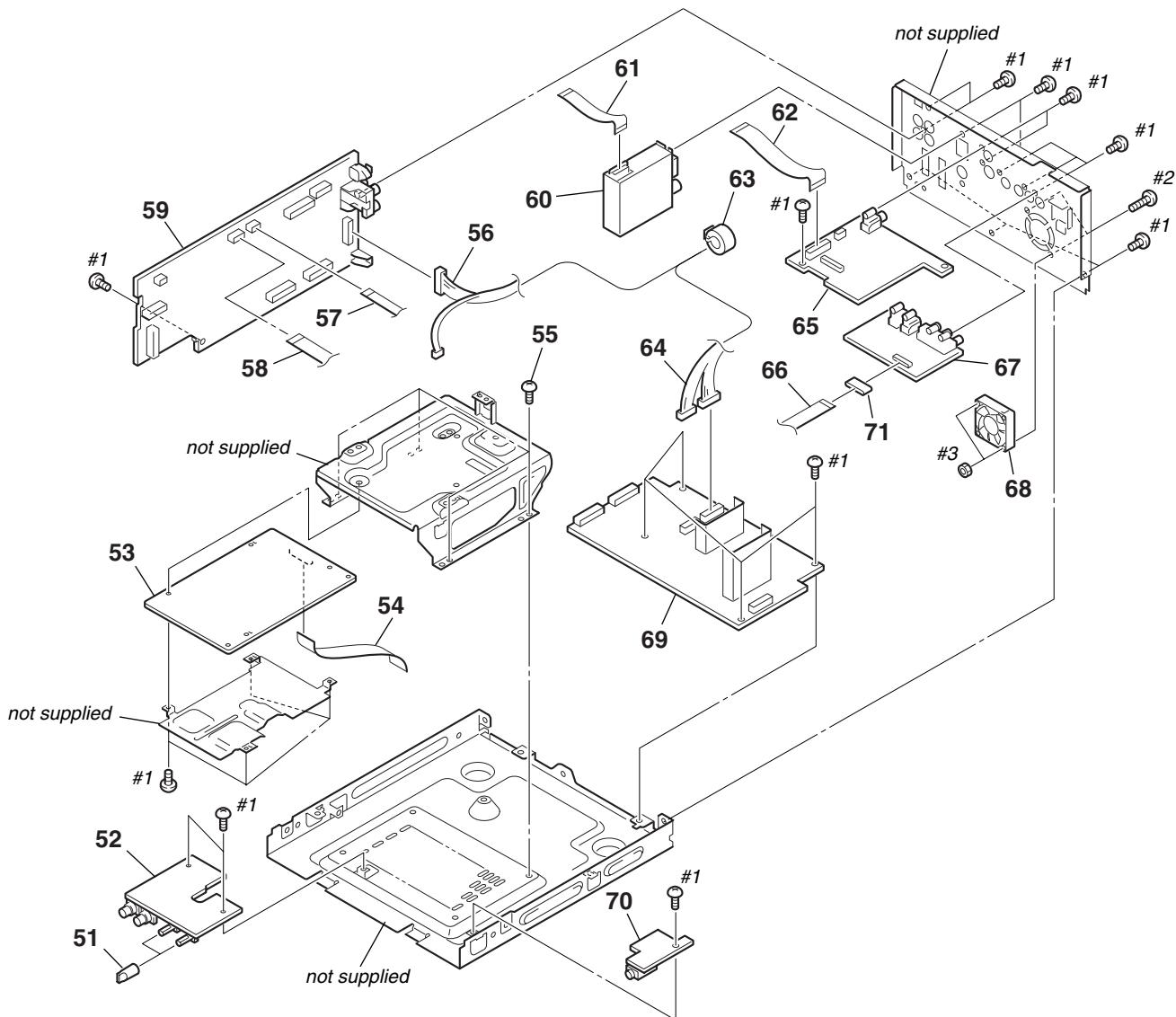
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-244-435-01	KNOB (VOLUME)		8	1-773-185-11	WIRE (FLAT TYPE) (23CORE)	
2	4-244-423-01	BUTTON (CURSOR)		9	1-687-204-11	BACK LIGHT BOARD	
3	X-4955-363-1	PANEL ASSY, FRONT (AEP, UK)		10	4-244-431-02	SHEET (LCD)	
3	X-4955-377-1	PANEL ASSY, FRONT (E2)		11	4-244-430-01	HOLDER (LCD)	
3	X-4955-390-1	PANEL ASSY, FRONT	(E3, E15, EA, MY, SP, KR, TH, PH, AUS)	12	A-4732-447-A	LCD BOARD, COMPLETE (EXCEPT TH)	
3	X-4955-723-1	PANEL ASSY, FRONT (RU)		12	A-4734-602-A	LCD BOARD, COMPLETE (TH)	
4	1-687-205-11	ENTER-SW BOARD		13	4-244-434-11	PANEL, LOADING	
5	4-951-620-01	SCREW (2.6X8), +BVTP		14	3-363-099-11	SCREW (CASE 3 TP2)	
6	1-687-207-11	CD-TC BOARD		15	4-244-441-11	CASE	
7	A-4732-210-A	PANEL BOARD, COMPLETE (EXCEPT TH)		LCD201	1-805-136-11	DISPLAY PANEL, LIQUID CRYSTAL	
7	A-4734-616-A	PANEL BOARD, COMPLETE (TH)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

## 5-2. Chassis Section (1/2)



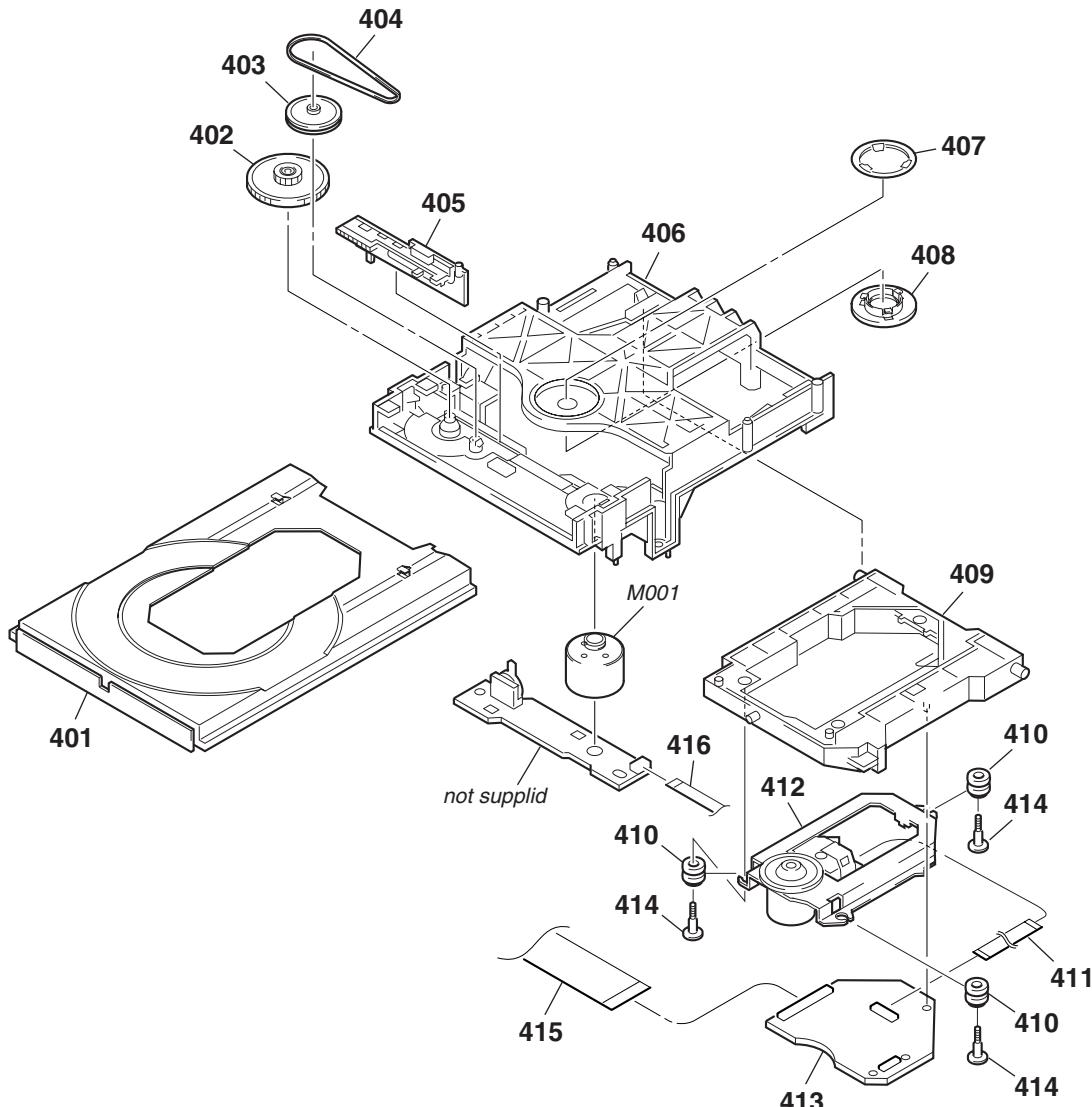
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	4-238-994-11	KNOB (MIC)	(E2, E3, E15, EA, MY, SP, KR, TH, PH, AUS)	55	3-970-608-01	SUMITITE (B3), +BV	
52	A-4732-216-A	MIC BOARD, COMPLETE	(E2)	56	1-827-003-11	CORD (WITH CONNECTOR) 19P	
52	A-4732-322-A	MIC BOARD, COMPLETE	(E3, E15, EA, MY, SP, KR, PH, AUS)	57	1-775-073-11	WIRE (FLAT TYPE)(7 CORE)(TH)	
52	A-4734-601-A	MIC BOARD, COMPLETE	(TH)	57	1-827-404-11	WIRE (FLAT TYPE)(7 CORE)(EXCEPT TH)	
53	A-4732-334-A	DMB03 BOARD, COMPLETE	(AEP, UK, RU)	58	1-791-112-11	WIRE (FLAT TYPE)(11 CORE)	(E3, E15, EA, MY, SP, KR, TH, PH, AUS)
53	A-4732-357-A	DMB03 BOARD, COMPLETE	(E2)	59	A-4732-199-A	MAIN BOARD, COMPLETE	(AEP, UK)
53	A-4732-362-A	DMB03 BOARD, COMPLETE	(E3, E15, EA, MY, SP, TH, KR, PH)	59	A-4732-213-A	MAIN BOARD, COMPLETE	(E2)
53	A-4732-369-A	DMB03 BOARD, COMPLETE	(AUS)	59	A-4732-319-A	MAIN BOARD, COMPLETE	(MY, SP, KR, PH)
54	1-775-190-11	WIRE (FLAT TYPE)(21 CORE)(TH)		59	A-4732-326-A	MAIN BOARD, COMPLETE	(EA)
54	1-827-402-11	WIRE (FLAT TYPE)(21 CORE)	(E2, E3, E15, EA, MY, SP, KR, PH)	59	A-4732-329-A	MAIN BOARD, COMPLETE	(AUS)
54	1-827-403-11	WIRE (FLAT TYPE)(25 CORE)	(AEP, UK, RU, AUS)	59	A-4734-568-A	MAIN BOARD, COMPLETE	(E3, E15)
				59	A-4734-597-A	MAIN BOARD, COMPLETE	(TH)
				59	A-4734-805-A	MAIN BOARD, COMPLETE	(RU)
				60	1-693-603-31	TUNER	(FM/AM)(E2, E3, E15, EA, MY, SP, TH, PH, AUS)

## Chassis Section (2/2)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
60	1-693-604-11	TUNER (FM/AM)(AEP, UK)		65	A-4732-332-A	4CH-VOL BOARD, COMPLETE (AUS)	
60	1-693-605-11	TUNER (FM/AM)(KR)		65	A-4734-603-A	4CH-VOL BOARD, COMPLETE (TH)	
60	1-693-627-11	TUNER (FM/AM)(RU)		66	1-792-108-11	WIRE (FLAT TYPE)(17 CORE)(TH)	
61	1-769-938-11	WIRE (FLAT TYPE)(11 CORE)(EXCEPT AEP, UK)		66	1-827-401-11	WIRE (FLAT TYPE)(17 CORE)(EXCEPT TH)	
61	1-773-002-11	WIRE (FLAT TYPE)(15 CORE)(AEP, UK)		67	A-4732-205-A	VIDEO BOARD, COMPLETE (EXCEPT TH)	
62	1-773-182-11	WIRE (FLAT TYPE)(23 CORE) (EXCEPT AEP, UK, RU, AUS)		67	A-4734-606-A	VIDEO BOARD, COMPLETE (TH)	
62	1-773-212-11	WIRE (FLAT TYPE)(25 CORE) (AEP, UK, RU, AUS)		68	1-787-056-11	FAN, DC	
63	1-500-657-11	CORE, FERRIET		69	A-4732-208-A	REGULATOR BOARD, COMPLETE (EXCEPT TH)	
64	1-827-012-11	CORD (WITH CONNECTOR) 20P		69	A-4734-612-A	REGULATOR BOARD, COMPLETE (TH)	
65	A-4732-203-A	4CH-VOL BOARD, COMPLETE (AEP, UK, RU)		70	1-687-208-11	HP AMP BOARD	
65	A-4732-217-A	4CH-VOL BOARD, COMPLETE (E2)		71	1-500-657-11	XXXXXXXXXX	
65	A-4732-323-A	4CH-VOL BOARD, COMPLETE (E3, E15, EA, MY, SP, KR, PH)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
				#2	7-685-873-09	SCREW +BVTT 3X10 (S)	
				#3	7-684-023-04	N 3, TYPE 2	

## 5-3. DVD Mechanism Section



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
401	4-243-742-01	TRAY (AU)		410	3-053-847-31	INSULATOR	
402	3-080-484-01	DRIVING GEAR		411	1-689-264-11	PWB, FLEXIBLE	
403	3-080-485-01	PULLEY GEAR		▲ 412	1-477-263-11	PICKUP UNIT (TDP022W)	
404	3-080-478-01	BELT		413	A-4728-690-A	RF BOARD, COMPLETE	
405	3-080-477-01	CHUCK CAM		414	4-981-923-01	SCREW (M), STEP	
406	4-243-741-01	BASE (AU), LOADING		415	1-775-265-11	WIRE (FLAT TYPE)(29 CORE)(EXCEPT TH)	
407	3-080-476-01	YODE		416	1-827-178-11	WIRE (FLAT TYPE)(5 CORE)	
408	3-080-483-01	CHUCK PLATE		M001	1-763-967-11	MOTOR, DC (LOADING)	
409	4-243-743-01	HOLDER (DBU1)					

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

## SECTION 6

### 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.
- RESISTORS  
All resistors are in ohms.  
METAL: metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable
- Items marked “\*\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS:  
uF:  $\mu$ F
- 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...
- Abbreviation  
AUS : Australian model  
E2 : 120V AC area in E model  
E3 : 240V AC area in E model  
E15 : 220-240V AC area in E model  
EA : Saudi Arabia model

KR : Korean model  
MY : Malaysia model  
PH : Philippines model  
RU : Russian model  
SP : Singapore model  
TH : Thai model

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
	A-4732-203-A	4CH-VOL BOARD, COMPLETE (AEP, UK, RU)		C347	1-164-360-11	CERAMIC CHIP	0.1uF 16V (AEP, UK, RU, AUS)
	A-4732-217-A	4CH-VOL BOARD, COMPLETE (E2)	*****	C348	1-164-360-11	CERAMIC CHIP	0.1uF 16V
	A-4732-323-A	4CH-VOL BOARD, COMPLETE (E3, E15, EA, MY, SP, KR, PH)	*****	C351	1-126-964-11	ELECT	10uF 20.00% 50V
	A-4732-332-A	4CH-VOL BOARD, COMPLETE (AUS)	*****	C352	1-162-960-11	CERAMIC CHIP	220PF 10% 50V
	A-4734-603-A	4CH-VOL BOARD, COMPLETE (TH)	*****	C353	1-162-960-11	CERAMIC CHIP	220PF 10% 50V
		< CAPACITOR >		C354	1-126-964-11	ELECT	10uF 20.00% 50V
C301	1-126-964-11	ELECT	10uF 20.00% 50V	C355	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C302	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C356	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C303	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C357	1-126-964-11	ELECT	10uF 20.00% 50V
C304	1-126-964-11	ELECT	10uF 20.00% 50V	C358	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C305	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C359	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V
C306	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C360	1-126-964-11	ELECT	10uF 20.00% 50V
C307	1-126-964-11	ELECT	10uF 20.00% 50V	C361	1-126-964-11	ELECT	10uF 20.00% 50V
C308	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C362	1-126-964-11	ELECT	10uF 20.00% 50V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	C365	1-126-964-11	ELECT	10uF 20.00% 50V
C310	1-126-964-11	ELECT	10uF 20.00% 50V	C366	1-162-995-11	CERAMIC CHIP	0.022uF 50V
C311	1-126-964-11	ELECT	10uF 20.00% 50V	C370	1-126-964-11	ELECT	10uF 20.00% 50V
C312	1-126-964-11	ELECT	10uF 20.00% 50V	C371	1-126-964-11	ELECT	10uF 20.00% 50V
C315	1-126-964-11	ELECT	10uF 20.00% 50V	C372	1-126-964-11	ELECT	10uF 20.00% 50V
C316	1-162-995-11	CERAMIC CHIP	0.022uF 50V	C373	1-126-964-11	ELECT	10uF 20.00% 50V
C320	1-126-964-11	ELECT	10uF 20.00% 50V	C374	1-126-964-11	ELECT	10uF 20.00% 50V
C321	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C375	1-126-964-11	ELECT	10uF 20.00% 50V
C322	1-126-964-11	ELECT	10uF 20.00% 50V	C376	1-126-964-11	ELECT	10uF 20.00% 50V
C323	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C377	1-126-964-11	ELECT	10uF 20.00% 50V
C324	1-126-964-11	ELECT	10uF 20.00% 50V			< CONNECTOR >	
C325	1-126-964-11	ELECT	10uF 20.00% 50V	CN301	1-784-786-11	CONNECTOR, FFC 25P (AEP, UK, RU, AUS)	
C330	1-165-176-11	CERAMIC CHIP	0.047uF 10.00% 16V	CN301	1-784-784-11	CONNECTOR, FFC 23P (EXCEPT AEP, UK, RU, AUS)	
C331	1-126-964-11	ELECT	10uF 20.00% 50V	* CN302	1-566-460-11	PIN, CONNECTOR 4P	
C332	1-136-169-00	FILM	0.22uF 5.00% 50V	CN303	1-779-293-11	CONNECTOR, FFC (LIF (NON-ZIF)) 25P (AEP, UK, RU, AUS)	
C333	1-136-165-00	FILM	0.1uF 5.00% 50V	CN303	1-779-289-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P (EXCEPT AEP, UK, RU, AUS)	
C334	1-126-964-11	ELECT	10uF 20.00% 50V			< IC >	
C337	1-164-360-11	CERAMIC CHIP	0.1uF 16V	IC301	6-703-651-11	IC M61530FP-D60G	
C341	1-126-933-11	ELECT	100uF 20.00% 16V			< JACK >	
C342	1-164-360-11	CERAMIC CHIP	0.1uF 16V	J302	1-770-377-31	JACK, PIN 1P 9 (SUB WOOFER OUT)	
C343	1-126-960-11	ELECT	1uF 20.00% 50V			< COIL >	
C344	1-126-933-11	ELECT	100uF 20.00% 16V	L341	1-412-064-11	INDUCTOR 100uH	
C345	1-126-935-11	ELECT	470uF 20.00% 16V				
C346	1-164-360-11	CERAMIC CHIP	0.1uF 16V (AEP, UK, RU, AUS)				







## DMB03

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks	
C720	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	C918	1-164-947-11	CERAMIC CHIP	0.01uF
C721	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C924	1-164-947-11	CERAMIC CHIP	0.01uF
C722	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C925	1-126-395-11	ELECT	22uF 20%
C723	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C926	1-126-246-11	ELECT CHIP	220uF 20%
C724	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C927	1-164-947-11	CERAMIC CHIP	0.01uF
C725	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C1302	1-107-820-11	CERAMIC CHIP	0.1uF
C726	1-107-820-11	CERAMIC CHIP	0.1uF	16V	C1304	1-218-990-11	SHORT CHIP	0
C727	1-117-370-11	CERAMIC CHIP	10uF	10V				< CONNECTOR >
C728	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	CN101	1-784-366-21	CONNECTOR, FFC/FPC 7P	
C729	1-117-370-11	CERAMIC CHIP	10uF	10V	CN102	1-815-954-21	PIN, CONNECTOR (PC BOARD) 13P	
C730	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN103	1-784-370-21	CONNECTOR, FFC/FPC 11P	
C740	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN105	1-784-376-11	CONNECTOR, FFC/FPC 17P	
C741	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN107	1-784-382-21	CONNECTOR, FFC/FPC 25P (AEP, UK, RU, AUS)	
C742	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN107	1-778-692-11	CONNECTOR, FFC/FPC 21P	
C743	1-107-820-11	CERAMIC CHIP	0.1uF	16V				(E3, E15, EA, MY, SP, TH, KR, PH, AUS)
C744	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN202	1-784-364-21	CONNECTOR, FFC/FPC 4P	
C745	1-107-820-11	CERAMIC CHIP	0.1uF	16V				(AEP, UK, RU, E2, E3, E15, EA, MY, SP, KR, PH)
C752	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	CN202	1-784-364-31	CONNECTOR, FFC/FPC 4P (AUS)	
C760	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN501	1-778-957-11	CONNECTOR, FFC/FPC 29P	
C761	1-107-820-11	CERAMIC CHIP	0.1uF	16V	CN901	1-764-177-11	PIN, CONNECTOR (SMD)(1.5mm) 7P	
C762	1-107-820-11	CERAMIC CHIP	0.1uF	16V				< DIODE >
C763	1-107-820-11	CERAMIC CHIP	0.1uF	16V	D202	8-719-988-61	DIODE 1SS355TE-17	
C764	1-107-820-11	CERAMIC CHIP	0.1uF	16V	D392	8-719-988-61	DIODE 1SS355TE-17	
C765	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	D393	8-719-988-61	DIODE 1SS355TE-17	
C766	1-164-874-11	CERAMIC CHIP	100PF	5.00% 50V	D394	8-719-988-61	DIODE 1SS355TE-17	
C767	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	D901	8-719-988-61	DIODE 1SS355TE-17	
C768	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	D1101	8-719-988-61	DIODE 1SS355TE-17	
C769	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	D1102	8-719-988-61	DIODE 1SS355TE-17	
C770	1-107-820-11	CERAMIC CHIP	0.1uF	16V	D1201	8-719-988-61	DIODE 1SS355TE-17	
C771	1-119-923-11	CERAMIC CHIP	0.047uF	10.00% 10V	D1202	8-719-988-61	DIODE 1SS355TE-17	
C772	1-107-820-11	CERAMIC CHIP	0.1uF	16V	D1203	8-719-988-61	DIODE 1SS355TE-17	
C773	1-125-891-11	CERAMIC CHIP	0.47uF	10.00% 10V	D1204	8-719-988-61	DIODE 1SS355TE-17	
C774	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00% 16V	D1301	8-719-988-61	DIODE 1SS355TE-17	
C775	1-107-820-11	CERAMIC CHIP	0.1uF	16V	D1302	8-719-988-61	DIODE 1SS355TE-17	
C776	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	D1303	8-719-988-61	DIODE 1SS355TE-17	
C777	1-125-777-11	CERAMIC CHIP	0.1uF	10.00% 10V	D1304	8-719-988-61	DIODE 1SS355TE-17	
C778	1-107-820-11	CERAMIC CHIP	0.1uF	16V	D1801	8-719-988-61	DIODE 1SS355TE-17	
C779	1-117-370-11	CERAMIC CHIP	10uF	10V	D1802	8-719-988-61	DIODE 1SS355TE-17	
C780	1-117-370-11	CERAMIC CHIP	10uF	10V				< FERRITE BEAD >
C781	1-165-643-21	ELECT CHIP	150uF	20% 4V				
C782	1-164-938-11	CERAMIC CHIP	0.0015uF	10.00% 50V				
C783	1-164-938-11	CERAMIC CHIP	0.0015uF	10.00% 50V				
C901	1-126-209-11	ELECT CHIP	100uF	20.00% 4V	FB902	1-500-284-21	FERRITE	OuH
C902	1-164-947-11	CERAMIC CHIP	0.01uF	50V	FB903	1-500-284-21	FERRITE	OuH
C903	1-126-209-11	ELECT CHIP	100uF	20.00% 4V				< FILTER >
C904	1-164-947-11	CERAMIC CHIP	0.01uF	50V				
C905	1-164-947-11	CERAMIC CHIP	0.01uF	50V	FL203	1-234-177-21	FERRITE	OuH
C906	1-164-947-11	CERAMIC CHIP	0.01uF	50V	FL204	1-234-177-21	FERRITE	OuH
C907	1-164-947-11	CERAMIC CHIP	0.01uF	50V	FL205	1-234-177-21	FERRITE	OuH
C908	1-164-874-11	CERAMIC CHIP	100PF	5.00% 50V	FL206	1-234-177-21	FERRITE	OuH
C909	1-164-874-11	CERAMIC CHIP	100PF	5.00% 50V	FL302	1-234-177-21	FERRITE	OuH
C910	1-164-947-11	CERAMIC CHIP	0.01uF	50V	FL303	1-234-177-21	FERRITE	OuH
C913	1-127-772-81	CERAMIC CHIP	33000PF	10% 10V	FL352	1-234-177-21	FERRITE	OuH
C914	1-164-849-11	CERAMIC CHIP	9PF	0.50PF 50V	FL501	1-234-177-21	FERRITE	OuH
C915	1-164-846-11	CERAMIC CHIP	6PF	0.50PF 50V	FL502	1-234-177-21	FERRITE	OuH
C916	1-126-209-11	ELECT CHIP	100uF	20.00% 4V	FL601	1-234-177-21	FERRITE	OuH
C917	1-164-947-11	CERAMIC CHIP	0.01uF	50V				(E3, E15, EA, MY, SP, TH, KR, PH, AUS)

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
FL602	1-234-177-21	FERRITE	0uH (E3, E15, EA, MY, SP, TH, KR, PH, AUS)	JW804	1-218-990-11	SHORT CHIP	0
FL701	1-234-177-21	FERRITE	0uH	JW805	1-218-990-11	SHORT CHIP	0
FL702	1-234-177-21	FERRITE	0uH	JW806	1-218-990-11	SHORT CHIP	0
FL703	1-234-177-21	FERRITE	0uH			< COIL >	
FL704	1-234-177-21	FERRITE	0uH	L402	1-216-296-11	SHORT CHIP	0
FL705	1-234-177-21	FERRITE	0uH	L403	1-216-296-11	SHORT CHIP	0
FL706	1-234-177-21	FERRITE	0uH	L404	1-216-296-11	SHORT CHIP	0
FL901	1-234-177-21	FERRITE	0uH	L405	1-216-296-11	SHORT CHIP	0
FL903	1-234-177-21	FERRITE	0uH	L406	1-216-296-11	SHORT CHIP	0
FL908	1-234-177-21	FERRITE	0uH	L412	1-216-296-11	SHORT CHIP	0
			< IC >	L413	1-216-296-11	SHORT CHIP	0
IC203	6-705-034-01	IC HY57V283220T-6		L414	1-216-296-11	SHORT CHIP	0
* IC204	6-703-671-01	IC BR9040F-WE2		L415	1-216-296-11	SHORT CHIP	0
IC206	6-803-555-01	IC MBM29DL324BE-90PFTN-SB3V107		L416	1-216-296-11	SHORT CHIP	0
IC207	6-703-540-01	IC ZIVA5X-C1F		L901	1-412-031-11	INDUCTOR CHIP	47uH
IC211	6-700-398-01	IC uPC2918T-E1					< TRANSISTOR >
IC216	6-700-437-01	IC SN74ALVCH16841DGGR		Q202	8-729-929-26	TRANSISTOR DTC114TE-TL	
IC252	8-759-680-48	IC TC7WH157FK (TE85R)(AEP, UK, RU, AUS)		Q901	8-729-929-26	TRANSISTOR DTC114TE-TL	
IC255	8-759-058-54	IC TC7S00FU (TE85R)		Q903	8-729-025-28	TRANSISTOR 2SK1828TE85L	
IC256	8-759-549-21	IC SN74LV573APWR		Q904	8-729-025-28	TRANSISTOR 2SK1828TE85L	
IC258	8-759-549-21	IC SN74LV573APWR					< RESISTOR >
IC259	8-759-549-21	IC SN74LV573APWR		R10	1-216-801-11	METAL CHIP	22
IC302	6-703-787-01	IC PCM1609KPTR		R11	1-216-801-11	METAL CHIP	22
IC352	8-759-560-56	IC PCM1800E/2K		R12	1-216-801-11	METAL CHIP	22
IC392	8-759-583-47	IC uPC2933T-E2		R13	1-216-801-11	METAL CHIP	22
IC393	6-700-394-01	IC BA25BC0FP-E2		R14	1-216-801-11	METAL CHIP	22
			(E3, E15, EA, MY, SP, TH, KR, PH, AUS)	R15	1-216-801-11	METAL CHIP	22
IC501	6-702-157-01	IC FAN8035L		R197	1-216-829-11	METAL CHIP	4.7K
IC503	8-759-058-43	IC NJM3404AV (TE2)		R198	1-216-829-11	METAL CHIP	4.7K
IC509	8-752-408-73	IC CXD3068Q		R207	1-216-864-11	METAL CHIP	0
IC601	6-704-421-01	IC CXD9782R		R213	1-216-807-11	METAL CHIP	68
			(E3, E15, EA, MY, SP, TH, KR, PH, AUS)	R214	1-216-864-11	METAL CHIP	0
IC602	8-759-538-16	IC IS61LV6416-10TT (ISSI)		R215	1-216-864-11	METAL CHIP	0
			(E3, E15, EA, MY, SP, TH, KR, PH, AUS)	R217	1-216-864-11	METAL CHIP	0
IC701	6-703-552-01	IC CXD1882R		R218	1-216-864-11	METAL CHIP	0
IC701	6-703-552-01	IC CXD1882R (AEP)		R219	1-216-864-11	METAL CHIP	0
IC703	8-759-058-43	IC NJM3404AV (TE2)		R220	1-216-864-11	METAL CHIP	0
IC706	8-759-564-30	IC MSM51V18165F-60TSKR1		R221	1-216-864-11	METAL CHIP	0
IC901	8-752-937-54	IC CXP973064-228R		R222	1-216-864-11	METAL CHIP	0
IC902	8-759-058-64	IC TC7S32FU-TE85L		R223	1-216-864-11	METAL CHIP	0
IC903	8-759-641-86	IC BR24C16F-E2		R224	1-216-864-11	METAL CHIP	0
IC904	6-702-563-01	IC TC7W74FK-TE85L		R225	1-216-864-11	METAL CHIP	0
IC906	6-700-407-01	IC SM8707GV-G-E2		R226	1-216-864-11	METAL CHIP	0
IC907	8-759-583-47	IC uPC2933T-E2		R227	1-216-829-11	METAL CHIP	4.7K
			< JUMPER RESISTOR >	R228	1-216-864-11	METAL CHIP	0
JW392	1-216-864-11	METAL CHIP	0 5% 1/10W	R229	1-216-803-11	METAL CHIP	33
JW601	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)	R230	1-216-803-11	METAL CHIP	5%
JW602	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)	R231	1-216-803-11	METAL CHIP	33
JW603	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)	R232	1-216-803-11	METAL CHIP	5%
JW604	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)	R233	1-216-864-11	METAL CHIP	0
JW605	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)	R234	1-216-833-11	METAL CHIP	10K
JW606	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)	R239	1-216-809-11	METAL CHIP	100
JW607	1-218-990-11	SHORT CHIP	0 (AEP, UK, RU, E2)				(AEP, UK, RU, AUS)
JW801	1-218-990-11	SHORT CHIP	0	R240	1-216-841-11	METAL CHIP	47K
JW802	1-218-990-11	SHORT CHIP	0	R241	1-216-864-11	METAL CHIP	0
JW803	1-218-990-11	SHORT CHIP	0	R243	1-216-864-11	METAL CHIP	0

















# HCD-WZ8D

**MIC**

**MS-128**

**PANEL**

<b>Ref. No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Remarks</b>	<b>Ref. No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Remarks</b>								
< JACK >															
J701	1-770-226-11	JACK (LARGE TYPE)(MIC1)	(EXCEPT AEP, UK, RU)	R742	1-216-833-11	METAL CHIP	10K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)								
J702	1-770-226-11	JACK (LARGE TYPE)(MIC2)	(EXCEPT AEP, UK, RU, E2)	< VARIABLE RESISTOR >											
< RESISTOR >															
R710	1-216-835-11	METAL CHIP	15K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	RV701	1-223-984-11	RES, VAR, CARBON 50K (ECHO LEVEL)	(E3, E15, EA, MY, SP, KR, TH, PH, AUS)								
R711	1-216-835-11	METAL CHIP	15K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	RV702	1-223-984-11	RES, VAR, CARBON 50K (MIC LEVEL)	(EXCEPT AEP, UK, RU)								
R712	1-216-864-11	METAL CHIP	0 5% 1/10W (EXCEPT AEP, UK, RU)	*****											
R713	1-216-845-11	METAL CHIP	100K 5% 1/10W (EXCEPT AEP, UK, RU)	MS-128 BOARD											
R714	1-216-833-11	METAL CHIP	10K 5% 1/10W (E2, E3, E15, EA, MY, SP, KR, PH, AUS)	*****											
R715	1-216-833-11	METAL CHIP	10K 5% 1/10W (E2, E3, E15, EA, MY, SP, KR, PH, AUS)	< CONNECTOR >											
R716	1-216-809-11	METAL CHIP	100 5% 1/10W (E2, E3, E15, EA, MY, SP, KR, PH, AUS)	CN001	1-815-412-11	CONNECTOR, FFCI FPC 5P	*****								
R718	1-216-847-11	METAL CHIP	150K 5% 1/10W (EXCEPT AEP, UK, RU)	S001	1-786-357-12	SWITCH, LEVER (SLIDE)	< SWITCH >								
R719	1-216-833-11	METAL CHIP	10K 5% 1/10W (EXCEPT AEP, UK, RU)	A-4732-210-A	PANEL BOARD, COMPLETE (EXCEPT TH)			*****							
R720	1-216-809-11	METAL CHIP	100 5% 1/10W (EXCEPT AEP, UK, RU)	A-4734-616-A	PANEL BOARD, COMPLETE (TH)			*****							
R721	1-216-841-11	METAL CHIP	47K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	< CAPACITOR >											
R721	1-216-837-11	METAL CHIP	22K 5% 1/10W (E2)	C601	1-126-947-11	ELECT	47uF 20.00% 16V								
R722	1-216-821-11	METAL CHIP	1K 5% 1/10W (EXCEPT AEP, UK, RU)	C603	1-162-971-11	CERAMIC CHIP	0.001uF 10.00% 50V								
R723	1-216-845-11	METAL CHIP	100K 5% 1/10W (EXCEPT AEP, UK, RU)	C604	1-162-971-11	CERAMIC CHIP	0.001uF 10.00% 50V								
R724	1-216-821-11	METAL CHIP	1K 5% 1/10W (E3, E15, EA, MY, SP, KR, PH, AUS)	C605	1-162-971-11	CERAMIC CHIP	0.001uF 10.00% 50V								
R725	1-216-833-11	METAL CHIP	10K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	C606	1-162-971-11	CERAMIC CHIP	0.001uF 10.00% 50V								
R726	1-216-833-11	METAL CHIP	10K 5% 1/10W (EXCEPT AEP, UK, RU)	< CONNECTOR >											
R727	1-216-821-11	METAL CHIP	1K 5% 1/10W (EXCEPT AEP, UK, RU)	CN603	1-785-329-11	PIN, CONNECTOR (LIGHT ANGLE) 3P	*****								
R733	1-216-837-11	METAL CHIP	22K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	CN604	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P	*****								
R734	1-216-837-11	METAL CHIP	22K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	CN605	1-784-784-11	CONNECTOR, FFC 23P	*****								
R735	1-216-837-11	METAL CHIP	22K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	< DIODE >											
R736	1-216-813-11	METAL CHIP	220 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	D601	8-719-058-04	DIODE SEL5223S-TP15 (I/D)	*****								
R737	1-216-846-11	METAL CHIP	120K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	D602	8-719-058-03	DIODE SEL5423E-TP15 (D)	*****								
R738	1-216-837-11	METAL CHIP	22K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	D603	6-500-327-01	DIODE SEL5E23C-STP15 (MD (VIDEO))	*****								
R739	1-216-837-11	METAL CHIP	22K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	D604	6-500-327-01	DIODE SEL5E23C-STP15 (TAPE A/B)	*****								
R740	1-216-837-11	METAL CHIP	22K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	D605	6-500-327-01	DIODE SEL5E23C-STP15 (DVD)	*****								
R741	1-216-841-11	METAL CHIP	47K 5% 1/10W (E3, E15, EA, MY, SP, KR, TH, PH, AUS)	D606	6-500-327-01	DIODE SEL5E23C-STP15 (TUNER/BAND)	*****								
< IC >															
IC601 6-600-210-01 IC RPM7240-H8 (B)															
< JUMPER RESISTOR >															
JR605	1-216-864-11	METAL CHIP	0 5% 1/10W	JR606	1-216-864-11	METAL CHIP	0 5% 1/10W								
JR607	1-216-864-11	METAL CHIP	0 5% 1/10W	JR608	1-216-864-11	METAL CHIP	0 5% 1/10W								
JR609	1-216-864-11	METAL CHIP	0 5% 1/10W	JR610	1-216-864-11	METAL CHIP	0 5% 1/10W								
JR611	1-216-864-11	METAL CHIP	0 5% 1/10W	JR612	1-216-864-11	METAL CHIP	0 5% 1/10W								
JR613	1-216-864-11	METAL CHIP	0 5% 1/10W	JR614	1-216-864-11	METAL CHIP	0 5% 1/10W								







**HCD-WZ8D**

RF
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VIDEO
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks	
< COIL >								
L001	1-412-031-11	INDUCTOR CHIP	47uH	C809	1-126-960-11	ELECT	1uF 20.00% 50V	
L002	1-412-031-11	INDUCTOR CHIP	47uH	C810	1-126-960-11	ELECT	1uF 20.00% 50V	
< TRANSISTOR >								
Q001	8-729-903-46	TRANSISTOR 2SB1132-T100-QR		C811	1-107-826-11	CERAMIC CHIP	0.1uF 10.00% 16V	
Q002	8-729-903-46	TRANSISTOR 2SB1132-T100-QR		C812	1-126-935-11	ELECT	470uF 20.00% 6.3V	
< RESISTOR >								
R001	1-218-668-11	METAL CHIP	100	0.5%	1/10W	C813	1-104-665-11	ELECT 100uF 20.00% 10V
R003	1-216-803-11	METAL CHIP	33	5%	1/10W	C814	1-126-935-11	ELECT 470uF 20.00% 6.3V
R004	1-216-803-11	METAL CHIP	33	5%	1/10W	C815	1-104-665-11	ELECT 100uF 20.00% 10V
R005	1-216-841-11	METAL CHIP	47K	5%	1/10W	C816	1-126-935-11	ELECT 470uF 20.00% 6.3V
R006	1-216-817-11	METAL CHIP	470	5%	1/10W	C817	1-104-665-11	ELECT 100uF 20.00% 10V
R007	1-216-803-11	METAL CHIP	33	5%	1/10W	C818	1-104-665-11	ELECT 100uF 20.00% 10V
R008	1-216-803-11	METAL CHIP	33	5%	1/10W	C819	1-126-965-91	ELECT 22uF 20.00% 50V
R009	1-216-841-11	METAL CHIP	47K	5%	1/10W	C820	1-104-665-11	ELECT 100uF 20.00% 10V
R010	1-216-817-11	METAL CHIP	470	5%	1/10W	C821	1-126-965-91	ELECT 22uF 20.00% 50V
R011	1-216-864-11	METAL CHIP	0	5%	1/10W	C822	1-162-919-11	CERAMIC CHIP 22PF 5% 50V
R012	1-216-864-11	METAL CHIP	0	5%	1/10W	C823	1-162-919-11	CERAMIC CHIP 22PF 5% 50V
R013	1-216-864-11	METAL CHIP	0	5%	1/10W	C824	1-162-919-11	CERAMIC CHIP 22PF 5% 50V
R014	1-216-864-11	METAL CHIP	0	5%	1/10W	C825	1-162-919-11	CERAMIC CHIP 22PF 5% 50V
R015	1-216-864-11	METAL CHIP	0	5%	1/10W	C826	1-162-919-11	CERAMIC CHIP 22PF 5% 50V
R016	1-216-864-11	METAL CHIP	0	5%	1/10W	C827	1-162-919-11	CERAMIC CHIP 22PF 5% 50V
R017	1-216-864-11	METAL CHIP	0	5%	1/10W	C828	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V
R018	1-216-864-11	METAL CHIP	0	5%	1/10W	C829	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V
R019	1-216-864-11	METAL CHIP	0	5%	1/10W	C830	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V
R020	1-216-864-11	METAL CHIP	0	5%	1/10W	< CONNECTOR >		
R021	1-216-864-11	METAL CHIP	0	5%	1/10W	CN801	1-779-554-21	CONNECTOR, FFC (LIF (NON-ZIF)) 17P
< FERRITE BEAD >								
R022	1-216-813-11	METAL CHIP	220	5%	1/10W	FB801	1-216-864-11	METAL CHIP 0 5% 1/10W
R023	1-216-820-11	METAL CHIP	820	5%	1/10W	FB802	1-216-864-11	METAL CHIP 0 5% 1/10W
R024	1-216-864-11	METAL CHIP	0	5%	1/10W	FB803	1-216-864-11	METAL CHIP 0 5% 1/10W
R025	1-216-809-11	METAL CHIP	100	5%	1/10W	FB804	1-216-864-11	METAL CHIP 0 5% 1/10W
R026	1-218-718-11	METAL CHIP	12K	0.5%	1/10W	FB805	1-216-864-11	METAL CHIP 0 5% 1/10W
R027	1-216-864-11	METAL CHIP	0	5%	1/10W	FB806	1-216-864-11	METAL CHIP 0 5% 1/10W
R028	1-216-864-11	METAL CHIP	0	5%	1/10W	< IC >		
R029	1-216-864-11	METAL CHIP	0	5%	1/10W	IC801	6-702-335-01	IC MM1568AJBE
R030	1-216-809-11	METAL CHIP	100	5%	1/10W	< JACK >		
R031	1-216-864-11	METAL CHIP	0	5%	1/10W	J801	1-537-943-11	TERMINAL, S (S VIDEO OUT)
R032	1-216-809-11	METAL CHIP	100	5%	1/10W	J802	1-774-227-11	JACK, PIN 1P (VIDEO OUT)
R033	1-216-864-11	METAL CHIP	0	5%	1/10W	J803	1-817-601-11	JACK, PIN 3P (COMPONENT VIDEO OUT)
R034	1-219-570-11	METAL CHIP	10M	5%	1/10W	< COIL >		
R035	1-216-864-11	METAL CHIP	0	5%	1/10W	L801	1-412-058-11	INDUCTOR CHIP 10uH
R036	1-216-821-11	METAL CHIP	1K	5%	1/10W	< TRANSISTOR >		
A-4732-205-A VIDEO BOARD, COMPLETE (EXCEPT TH)								
*****								
A-4734-606-A VIDEO BOARD, COMPLETE (TH)								
*****								
< CAPACITOR >								
C801	1-104-665-11	ELECT	100uF	20.00%	10V	< RESISTOR >		
C802	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R801	1-216-833-11	METAL CHIP 10K 5% 1/10W
C803	1-126-965-91	ELECT	22uF	20.00%	50V	R802	1-216-833-11	METAL CHIP 10K 5% 1/10W
C804	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R803	1-216-833-11	METAL CHIP 10K 5% 1/10W
C805	1-126-960-11	ELECT	1uF	20.00%	50V	R804	1-216-833-11	METAL CHIP 10K 5% 1/10W
C806	1-126-960-11	ELECT	1uF	20.00%	50V	R805	1-218-285-11	METAL CHIP 75 5% 1/10W
C807	1-126-960-11	ELECT	1uF	20.00%	50V			
C808	1-126-960-11	ELECT	1uF	20.00%	50V			

Ref. No.	Part No.	Description			Remarks
R806	1-218-284-11	METAL CHIP	68	5%	1/10W
R807	1-218-284-11	METAL CHIP	68	5%	1/10W
R808	1-218-284-11	METAL CHIP	68	5%	1/10W
R809	1-218-285-11	METAL CHIP	75	5%	1/10W
R810	1-218-285-11	METAL CHIP	75	5%	1/10W

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## MISCELLANEOUS

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54	1-775-190-11	WIRE (FLAT TYPE)(21 CORE)(TH)			
54	1-827-402-11	WIRE (FLAT TYPE)(21 CORE) (E2, E3, E15, EA, MY, SP, KR, PH)			
54	1-827-403-11	WIRE (FLAT TYPE)(25 CORE) (AEP, UK, RU, AUS)			
56	1-827-003-11	CORD (WITH CONNECTOR) 19P			
57	1-775-073-11	WIRE (FLAT TYPE)(7 CORE)(TH)			
57	1-827-404-11	WIRE (FLAT TYPE)(7 CORE)(EXCEPT TH)			
58	1-791-112-11	WIRE (FLAT TYPE)(11 CORE) (E3, E15, EA, MY, SP, KR, TH, PH, AUS)			
60	1-693-603-31	TUNER (FM/AM) (E2, E3, E15, EA, MY, SP, TH, PH, AUS)			
60	1-693-604-11	TUNER (FM/AM)(AEP, UK)			
60	1-693-605-11	TUNER (FM/AM)(KR)			
60	1-693-627-11	TUNER (FM/AM)(RU)			
61	1-769-938-11	WIRE (FLAT TYPE)(11 CORE)(EXCEPT AEP, UK)			
61	1-773-002-11	WIRE (FLAT TYPE)(15 CORE)(AEP, UK)			
62	1-773-182-11	WIRE (FLAT TYPE)(23 CORE) (EXCEPT AEP, UK, RU, AUS)			
62	1-773-212-11	WIRE (FLAT TYPE)(25 CORE) (AEP, UK, RU, AUS)			
63	1-500-657-11	CORE, FERRIET			
64	1-827-012-11	CORD (WITH CONNECTOR) 20P			
66	1-792-108-11	WIRE (FLAT TYPE)(17 CORE)(TH)			
66	1-827-401-11	WIRE (FLAT TYPE)(17 CORE)(EXCEPT TH)			
68	1-787-056-11	FAN, DC			
71	1-500-657-11	CORE, FERRITE			
411	1-689-264-11	PWB, FLEXIBLE			
△412	1-477-263-11	OPTICAL PICK-UP			
415	1-775-265-11	WIRE (FLAT TYPE)(29 CORE)			
416	1-827-178-11	WIRE (FLAT TYPE)(5 CORE)			
LCD201	1-805-136-11	DISPLAY PANEL, LIQUID CRYSTAL			
M001	1-763-967-11	MOTOR, DC (LOADING)			

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