

MZ-DH10P

SERVICE MANUAL

Ver. 1.2 2005.05



US Model
AEP Model
UK Model
Chinese Model
Tourist Model

US and foreign patents licensed from Dolby Laboratories.

- SonicStage is trademark or registered trademark of Sony Corporation.
- MD Simple Burner, OpenMG, "MagicGate", "MagicGate Memory Stick", "Memory Stick", Hi-MD, Net MD, ATRAC, ATRAC3, ATRAC3plus and their logos are trademarks of Sony Corporation.
- Microsoft, Windows, Windows NT and Windows Media are trademarks or registered trademarks of Microsoft Corporation in the United States and /or other countries.
- IBM and PC/AT are registered trademarks of International Business Machines Corporation.
- Macintosh is a trademark of Apple Computer, Inc. in the United States and/ or other countries.
- Pentium is a trademark or registered trademark of Intel Corporation.
- All other trademarks and registered trademarks are trademarks or registered trademarks of their respective holders.
- TM and [®] marks are omitted in this manual.
- CD and music-related data from Gracenote, Inc., copyright © 2000-2004 Gracenote. Gracenote CDDDB[®] Client Software, copyright 2000-2004 Gracenote. This product and service may practice one or more of the following U.S. Patents: #5,987,525; #6,061,680; #6,154,773, #6,161,132, #6,230,192, #6,230,207, #6,240,459, #6,330,593, and other patents issued or pending. Services supplied and/or device manufactured under license for following Open Globe, Inc. United States Patent 6,304,523.
- Gracenote is a registered trademarks of Gracenote. The Gracenote logo and logotype, and the "Powered by Gracenote" logo are trademarks of Gracenote.

Program © 2001, 2002, 2003, 2004, 2005 Sony Corporation Documentation © 2005 Sony Corporation

Model Name Using Similar Mechanism	NEW
MD Mechanism Type	MT-MZDH10P-181
Optical Pick-up Name	ABX-UJ

SPECIFICATIONS

Audio playing system

MiniDisc digital audio system

Laser diode properties

Material: GaAlAsMQW
Wavelength: $\lambda = 790 \text{ nm}$

Recording and playback time

List of the recording time for each disc (Approx.)

The recording time is varied depending on disc type, disc mode, codec, and bit rate.

When using a disc in Hi-MD mode

Codec/Bit rate	1GB Hi-MD disc	Recording time*		
		80-minute standard disc	74-minute standard disc	60-minute standard disc
Linear PCM/1.4Mbps	1 hour and 34 minutes	28 minutes	26 minutes	21 minutes
ATRAC3plus/256kbps	7 hours and 55 minutes	2 hours and 20 minutes	2 hours and 10 minutes	1 hour and 40 minutes
ATRAC3plus/64kbps	34 hours	10 hours and 10 minutes	9 hours and 20 minutes	7 hours and 40 minutes
ATRAC3plus/48kbps	45 hours	13 hours and 30 minutes	12 hours and 30 minutes	10 hours
ATRAC3/132kbps	16 hours and 30 minutes	4 hours and 50 minutes	4 hours and 30 minutes	3 hours and 40 minutes
ATRAC3/105kbps	20 hours and 40 minutes	6 hours and 10 minutes	5 hours and 40 minutes	4 hours and 40 minutes
ATRAC3/66kbps	32 hours and 40 minutes	9 hours and 50 minutes	9 hours	7 hours and 20 minutes
MP3**/128kbps	17 hours	5 hours	4 hours and 30 minutes	3 hours and 30 minutes

When using a disc in MD mode

Codec/Bit rate	Recording time*		
	80-minute standard disc	74-minute standard disc	60-minute standard disc
ATRAC (stereo)/292kbps	1 hour and 20 minutes	1 hour and 14 minutes	1 hour
ATRAC3/132, 105kbps	2 hours and 40 minutes	2 hours and 28 minutes	2 hours
ATRAC3/66kbps	5 hours and 20 minutes	4 hour and 56 minutes	4 hours

* When transferring 4-minute tracks

**MP3 file formats are as follows: MPEG-1 Audio Layer-3/sampling frequency 44.1 kHz/fixed bit rate.

Revolutions

Approx. 350 rpm to 3,600 rpm (CLV)

Error correction

Hi-MD:

LDC (Long Distance Code)/BIS (Burst Indicator Subcode)

MD:

ACIRC (Advanced Cross Interleave Reed Solomon Code)

Sampling frequency

44.1 kHz

PORTABLE MD PLAYER

9-879-552-03
2005E05-1
© 2005.05

Sony Corporation
Personal Communications Business Division
Published by Sony Engineering Corporation

SONY[®]

MZ-DH10P

Ver. 1.2

Playable audio format

Linear PCM (44.1 kHz/16 bit)
ATRAC3plus (Adaptive TRansform Acoustic Coding 3 plus)
ATRAC3
ATRAC
MP3 (MPEG-1 Audio Layer-3/sampling frequency 44.1 kHz/bit rate 32-320 kbps (fixed/variable bit rate))

Modulation system

Hi-MD:
1-7RLL (Run Length Limited)/PRML (Partial Response Maximum Likelihood)
MD:
EFM (Eight to Fourteen Modulation)

Frequency response (When outputting through earphone)

20 to 20,000 Hz \pm 3 dB

Onput connector

⌚: stereo mini-jack (dedicated remote jack)

Maximum output (DC)

Headphones:
2.8 mW + 2.8 mW (16 Ω) (European model)
5 mW + 5 mW (16 Ω) (Other models)

Image device

5.6 mm (1/3.2 type) color CMOS
Primary color filter

Total pixels number of camera

Approx. 1,330,000 pixels

Effective pixels number of camera

Approx. 1,300,000 pixels

Lens Single focal lens

f = 4.7 mm (7/32 inches) (35 mm camera conversion: 36 mm (1 5/16 inches)), F3.2

Exposure control

Automatic

Data formats

Still images: DCF compliant
(Exif Ver. 2.2 JPEG compliant),

Flash

Recommended distance: 0.5 m to 0.7 m (1.6 to 2.3 ft)

LCD screen

38mm in opposite angle (1.5 type)
Total number of dots 114 960 (479 x 240) dots

Power requirements

Sony AC Power Adaptor connected at the DC IN 6V jack:
120V AC, 60Hz (US model)
220V AC, 50Hz (Chinese model)
100 - 240 V AC, 50/60 Hz (Other models)
The player:
Lithium-ion rechargeable battery
LIP-4WM, 3.7 V, 370 mAh, Li-ion
USB cradle:
AC power adaptor DC 6V

Operating temperature

+5° C (+41° F) to +35° C (+95° F)

Battery operation time

Battery life¹⁾

This value varies depending on how the player is used.

When listening to music (hour) (Approx.)

Hi-MD mode	Linear PCM	Hi-SP	Hi-LP	MP3 ²⁾
1GB Hi-MD disc	8.5	12	14	13
60/74/80-minute standard disc	7	11.5	14	12.5

MD mode	SP	LP2	LP4
60/74/80-minute standard disc	13	14	14.5

Measured in accordance with the JEITA (Japan Electronics and Information Technology Industries Association) standard.

- 1) When using a 100% fully charged lithium-ion rechargeable battery
- 2) When transferring at 128kbps

When viewing still images while listening to music in the slide show (hour) (Approx.)

Hi-MD mode	Linear PCM	Hi-SP	Hi-LP	MP3 ²⁾
1GB Hi-MD disc	1.75	2	2	2
60/74/80-minute standard disc	1.75	2	2	2

Measured in accordance with the JEITA (Japan Electronics and Information Technology Industries Association) standard.

When shooting still images (Approx.)³⁾

Image size	Number of still images
1GB Hi-MD disc	110
60/74/80-minute standard disc	100

Measured in accordance with the CIPA (Camera & Imaging Products Association) standard.

3) Shooting in the following situations:

- Shooting one time every 30 seconds
- The flash strobes once every two times
- The power turns on and off once every ten times
- The image size is 1.3M Fine

When viewing still images (hour) (Approx.)⁴⁾

Image size	Battery life
1GB Hi-MD disc	1
60/74/80-minute standard disc	1

Measured in accordance with the CIPA (Camera & Imaging Products Association) standard.

4) Viewing single still images in order at about 5-second intervals

Dimensions

Approx. 83.6 x 81.1 x 21.4 mm (w/h/d)
(3.3/3.2 x 3.2/3.2 x 0.8/3.2 in.) (excluding projecting parts and controls)

Mass

Approx. 145 g (5.1 oz.) (the player only)

Approx. 155 g (5.5 oz.) (including the rechargeable battery)

Supplied Accessories

AC power adaptor

Remote control ¹⁾

USB cradle

Earphones

Dedicated USB cable²⁾

LIP-4WM Lithium-ion rechargeable battery

Rechargeable battery case

Carrying pouch

Ferrite core (for the remote cord, AEP and UK models only)

CD-ROM³⁾ (SonicStage/MD Simple Burner)

Operating Instructions

1) For US model, remote control with a ferrite core is supplied.

2) For Chinese and Tourist models, the ferrite core is not attached to the dedicated USB cable.

3) Do not play a CD-ROM on an audio CD player.

Design and specifications are subject to change without notice.

On power sources

- For use in your house: For the supplied USB cradle, use the AC power adaptor supplied with this player. Do not use any other AC power adaptor since it may cause the player to malfunction.



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

CAUTION

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

TABLE OF CONTENTS

1. SERVICING NOTES	4
2. GENERAL	5
3. DISASSEMBLY	
3-1. Disassembly Flow	6
3-2. Panel (Bottom) Block	7
3-3. Camera Module	7
3-4. MAIN Board	8
3-5. Panel (Upper) Block	8
3-6. Ornamental Belt	9
3-7. Mechanism Deck (MT-MZDH10P-181), Battery Case	9
3-8. Gear (SA), Gear (SB)	10
3-9. OP Service Assy	10
3-10. DC Motor SSM18D/C-NP (Spindle) (M701), DC Motor SSM21A/C-NP (Sled) (M702), DC Motor Unit (Over Write Head Up/Down) (M703)	11
3-11. Holder Assy	11
3-12. Position Of Ferrite Core	12
4. TEST MODE	13
5. ELECTRICAL ADJUSTMENTS	17
6. DIAGRAMS	
6-1. Block Diagram – MD SERVO Section –	21
6-2. Block Diagram – AUDIO/CAMERA Section –	22
6-3. Block Diagram – POWER SUPPLY Section –	23
6-4. Schematic Diagram – MAIN Board (1/9) –	25
6-5. Schematic Diagram – MAIN Board (2/9) –	26
6-6. Schematic Diagram – MAIN Board (3/9) –	27
6-7. Schematic Diagram – MAIN Board (4/9) –	28
6-8. Schematic Diagram – MAIN Board (5/9) –	29
6-9. Schematic Diagram – MAIN Board (6/9) –	30
6-10. Schematic Diagram – MAIN Board (7/9) –	31
6-11. Schematic Diagram – MAIN Board (8/9) –	32
6-12. Schematic Diagram – MAIN Board (9/9) –	33
6-13. Printed Wiring Board – MAIN Board (Component Side) –	34
6-14. Printed Wiring Board – MAIN Board (Conductor Side) –	35
6-15. Printed Wiring Boards – PANEL Section –	36
6-16. Schematic Diagram – PANEL Section –	37
7. EXPLODED VIEWS	
7-1. Overall Section	51
7-2. Panel (Upper) Section	52
7-3. Chassis Section	53
7-4. Mechanism Deck Section (MT-MZDH10P-181)	54
8. ELECTRICAL PARTS LIST	55

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

关于安全相关零部件的警告

原理图和零件清单中标有 \triangle 记号的零部件、或带有 \triangle 记号的虚线所表示的零部件，对于安全操作至关重要。更换时，必须依据本手册或索尼公司追加发行的手册中列明的零件号，使用索尼公司的零件进行。

SECTION 1 SERVICING NOTES

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead. (Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

LF : LEAD FREE MARK

Unleaded solder has the following characteristics.

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

NOTES ON REPLACEMENT OF CSP (CHIP SIZE PACKAGE) IC

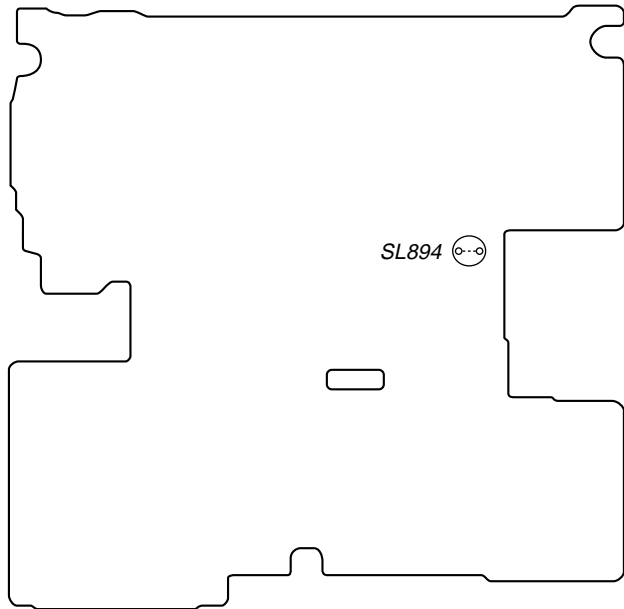
Replacement of MM1690LCBE (IC401), SN761059AZQLR (IC501), SC901585VAR2 (IC601), CXD2683-225GG (IC801) and S29PL032J55BFI120A (IC802) used in this set requires a special tool.

OPERATION CHECK WHEN THE MAIN BOARD IS REMOVED

In making an operation check with the MAIN board removed from the set, short the SL894 of the MAIN board with the solder before starting the operation check.

Note: Be sure to remove the solder used for shortcircuit after the repair is completed.

– MAIN BOARD (Conductor Side) –



Providing the required system environment

System requirements

The following system environment is required in order to use the SonicStage Ver. 3.0/MD Simple Burner Ver. 2.0 software for the MD Walkman.

Computer	IBM PC/AT or Compatible • CPU: Pentium III 450 MHz or higher • Hard disk drive space: 200 MB or more (1.5 GB or more is recommended) (The amount space will vary according to Windows version and the number of music files stored on the hard disk.) • RAM: 128 MB or more
	Others • CD drive (capable of digital playback by WDM) (A CD-R/RW drive is necessary for CD writing) • Sound Board • USB port
Operating System	Factory installed: Windows XP Media Center Edition 2005/Windows XP Media Center Edition 2004/Windows XP Media Center Edition/Windows XP Professional/Windows XP Home Edition/Windows 2000 Professional/Windows Millennium Edition/Windows 98 Second Edition
Display	High Color (16bit) or higher, 800 × 600 dots or better (1024 × 768 dots or better is recommended)
Others	• Internet access: for Web registration, EMD services and CDDB • Windows Media Player (version 7.0 or higher) installed for playing WMA files

This software is not supported by the following environments:

- OSs other than the indicated above
- Personally constructed PCs or operating systems
- An environment that is an upgrade of the original manufacturer-installed operating system
- Multi-boot environment
- Multi-monitor environment
- Macintosh

Notes

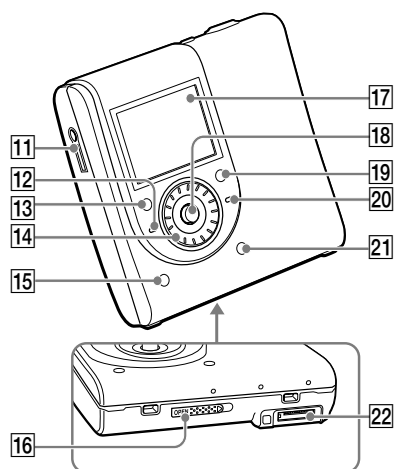
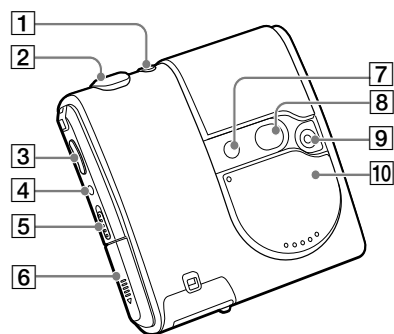
- We do not ensure trouble-free operation on all computers that satisfy the system requirements.
- The NTFS format of Windows XP/Windows 2000 Professional can be used only with the standard (factory) settings.
- For Windows 2000 Professional users, install Service Pack 3 or later version before using the software.
- We do not ensure trouble-free operation of the system suspend, sleep, or hibernation function on all computers.

**SECTION 2
GENERAL**

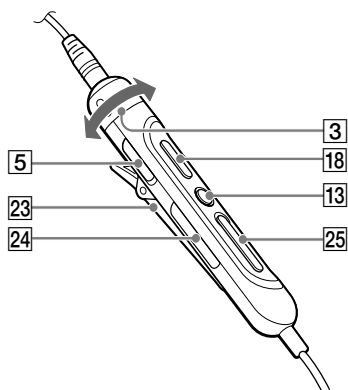
This section is extracted from instruction manual.

Guide to Parts and Controls

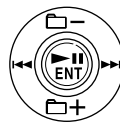
Player



Remote



- 1 (shooting/viewing) button
- 2 Shutter button
- 3 Player: VOL +/- buttons
Remote: VOL +/- control
- 4 DOWNLOAD²⁾ button
- 5 HOLD switch
- 6 Battery compartment
- 7 Flash
- 8 Mirror
- 9 Lens
- 10 Lens cover (AUDIO/PHOTO)³⁾
- 11 (earphones) jack
- 12 CHG lamp
- 13 Player: (stop)/CANCEL button
Remote: (stop) button
- 14 Jog dial
- 15 DISPLAY/ SLIDE SHOW button
- 16 OPEN switch
- 17 Display
- 18 Player: 5-way control key
(, /ENT¹⁾, ,)



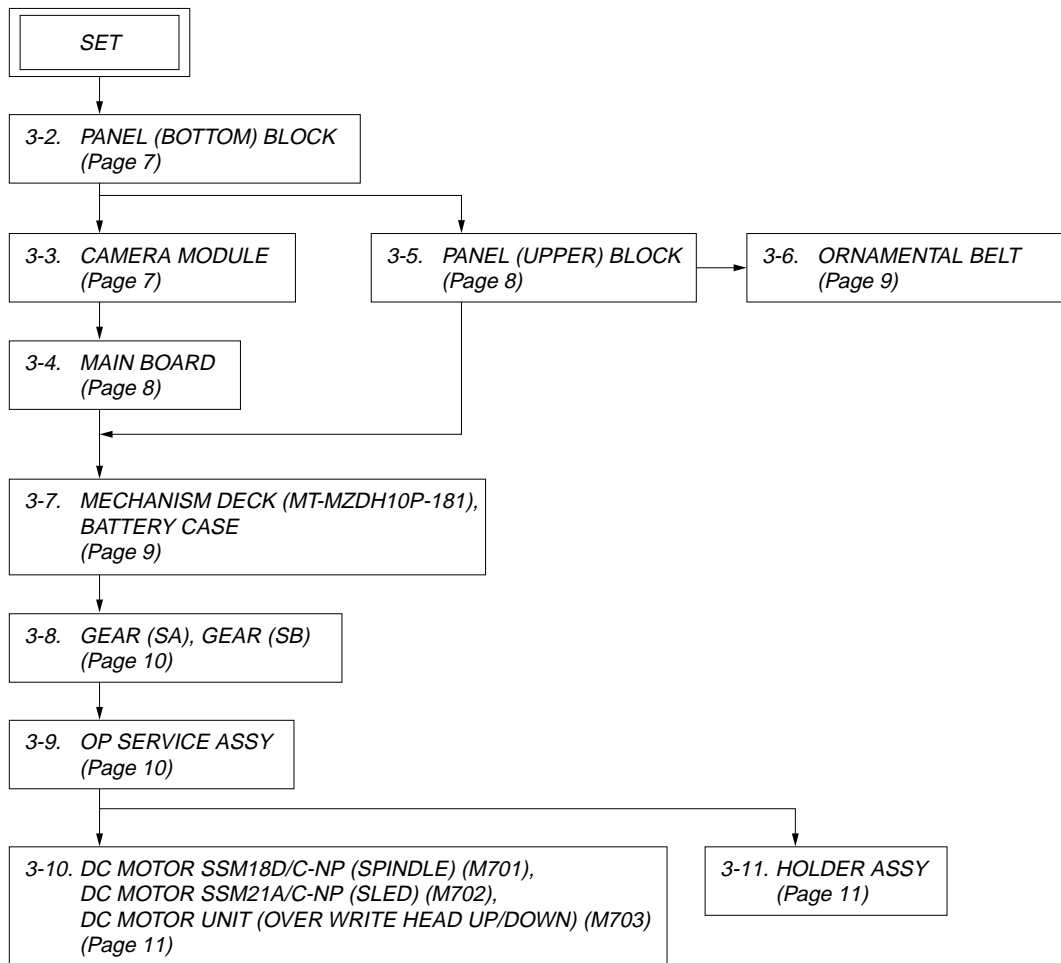
Remote: button

- 19 SEARCH button
 - 20 OPR lamp
 - 21 MENU button
 - 22 Connector for the USB cradle
 - 23 Clip
 - 24 (group) +/- button
 - 25 button
- 1) There is tactile dot.
 - 2) To read music tracks onto a disc directly from an audio CD in the CD drive of your computer using MD Simple Burner, use this button.
 - 3) When the lens cover is closed, the player is in the music mode. When the lens cover is open, the player is in the shooting mode or in the viewing mode.

SECTION 3 DISASSEMBLY

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

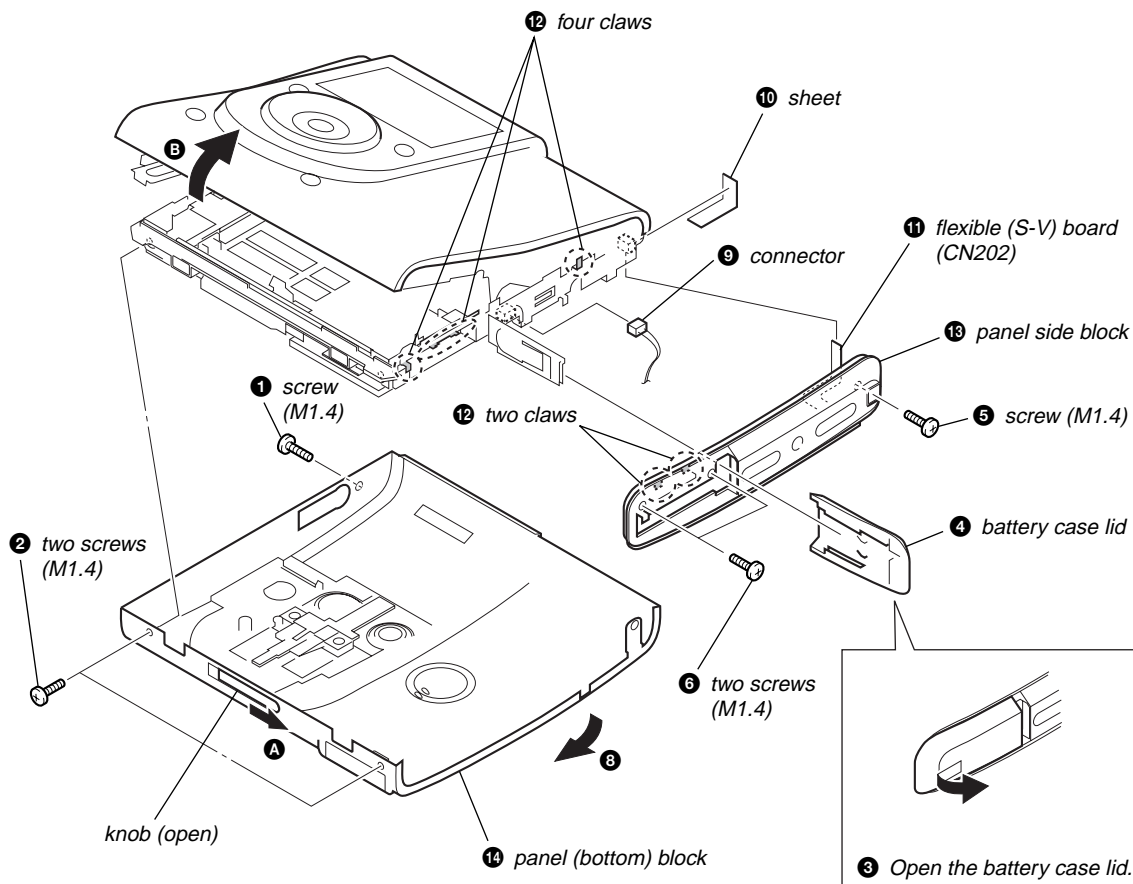
3-1. DISASSEMBLY FLOW



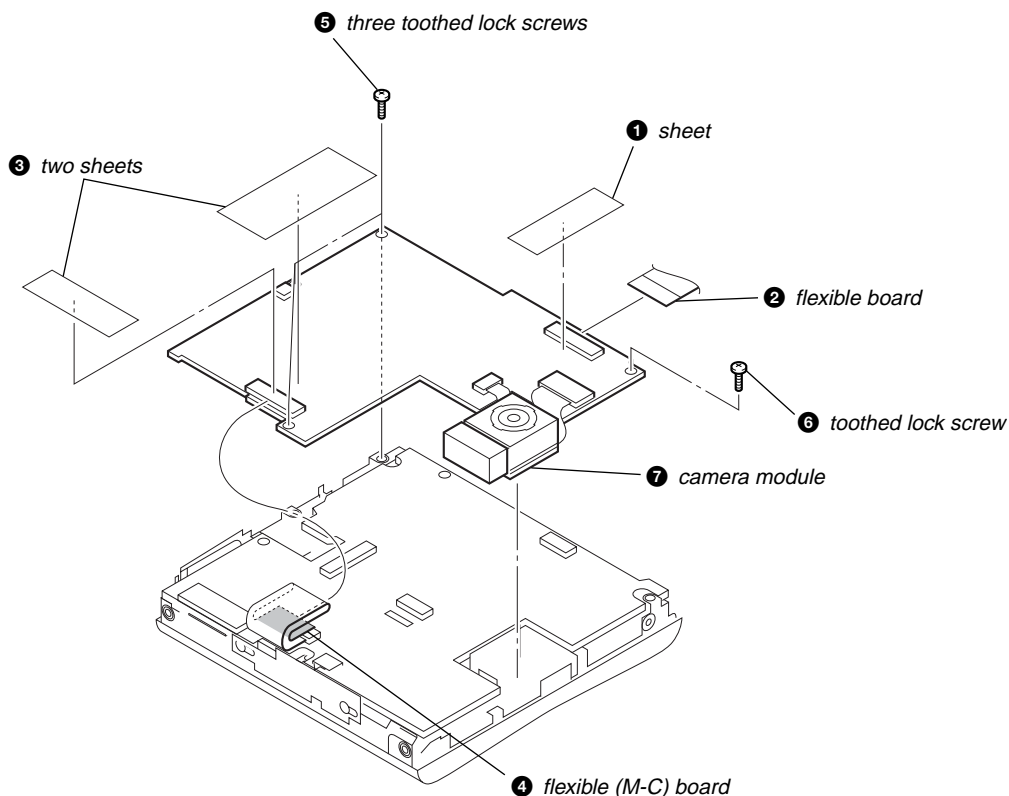
Note: Follow the disassembly procedure in the numerical order given.

3-2. PANEL (BOTTOM) BLOCK

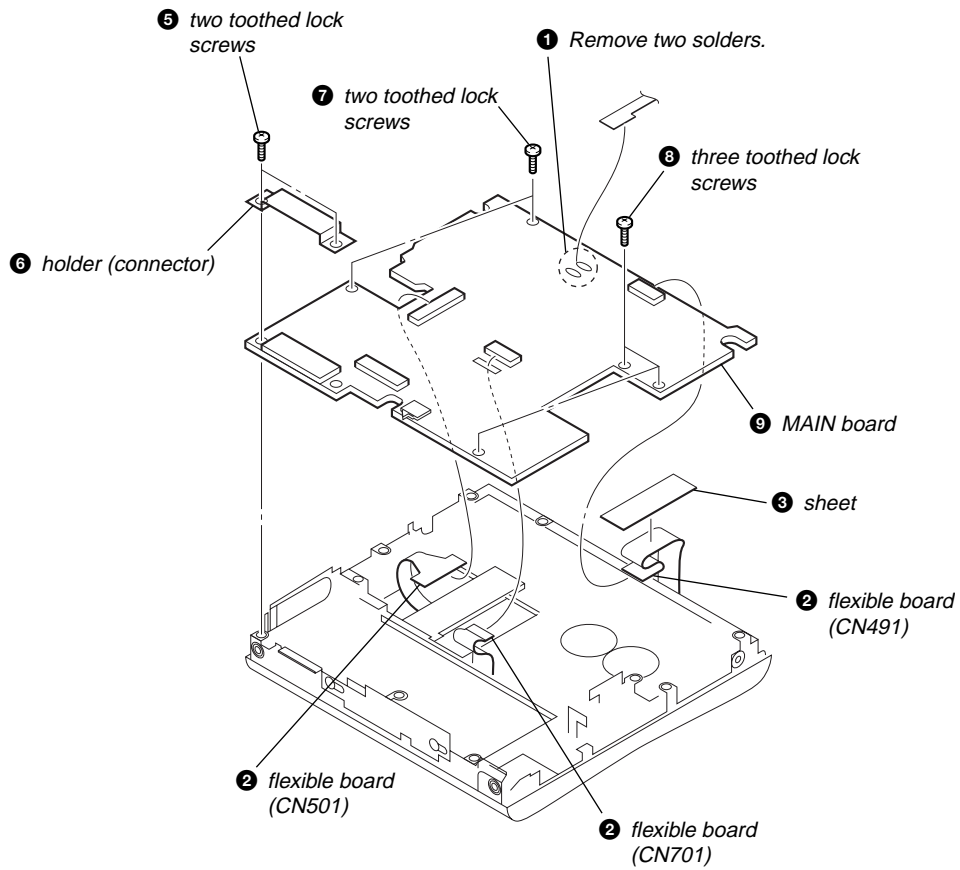
- 7 Slide the knob (open) in the direction of arrow **A**, and open the panel (upper) block in the direction of arrow **B**.



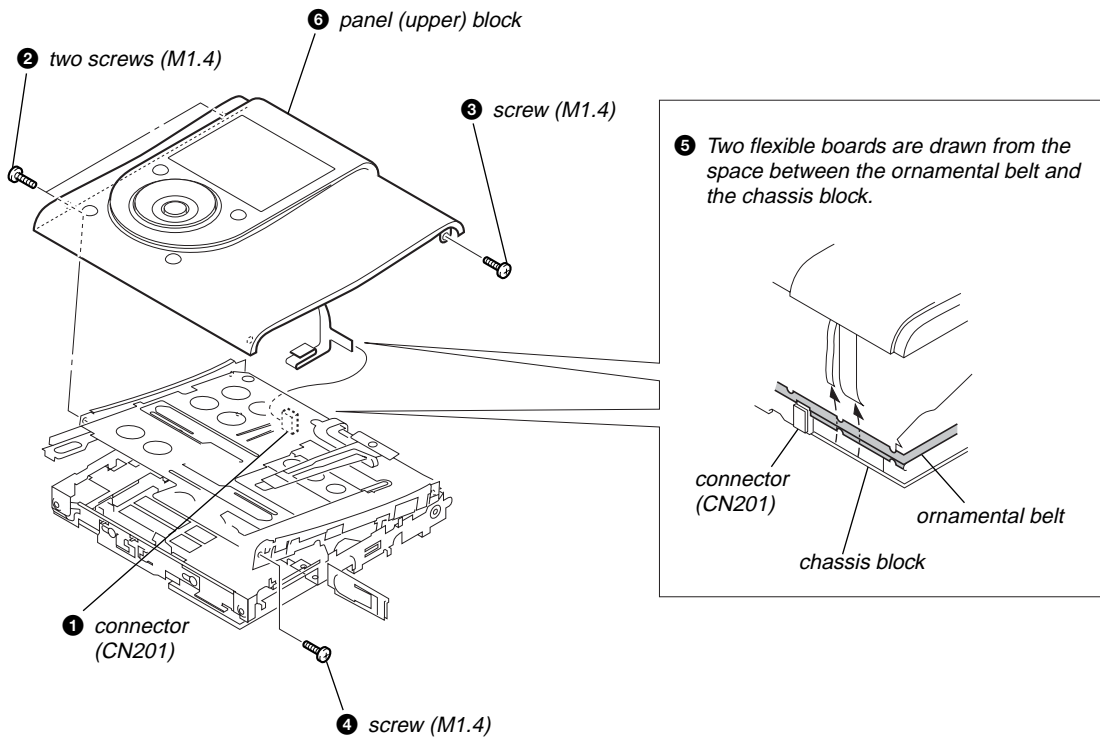
3-3. CAMERA MODULE



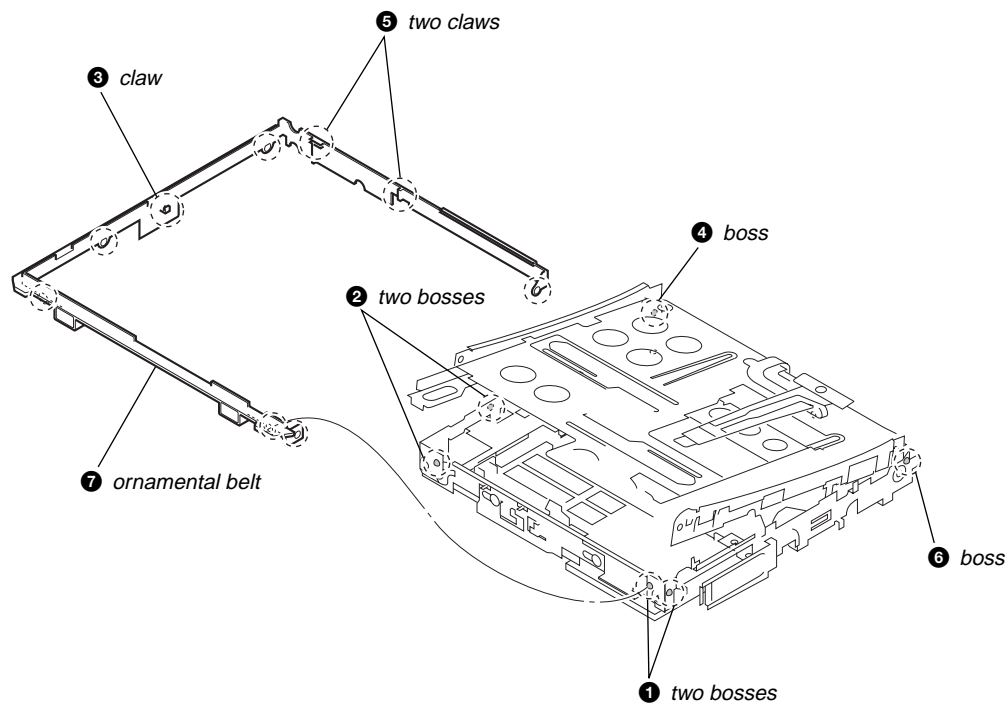
3-4. MAIN BOARD



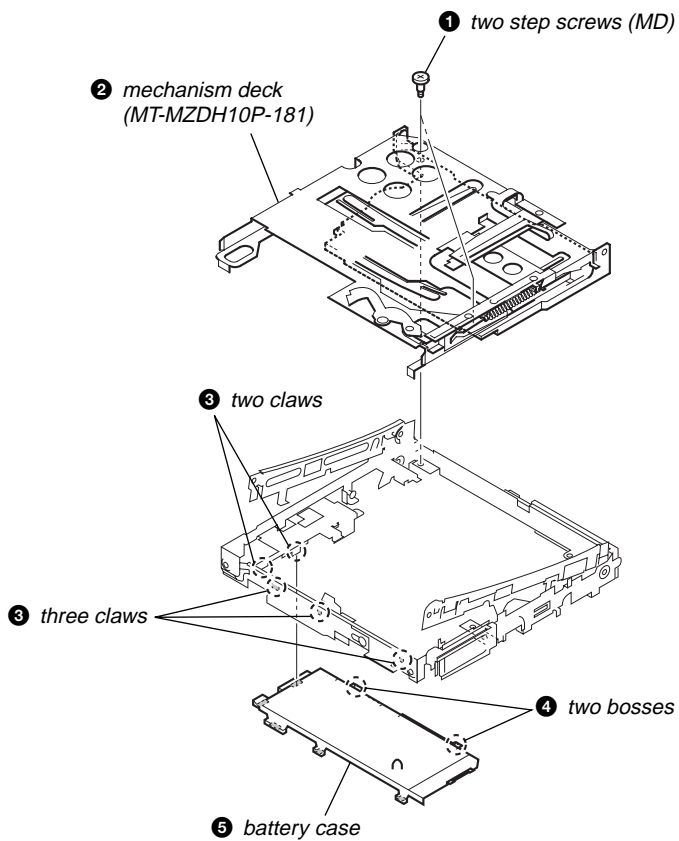
3-5. PANEL (UPPER) BLOCK



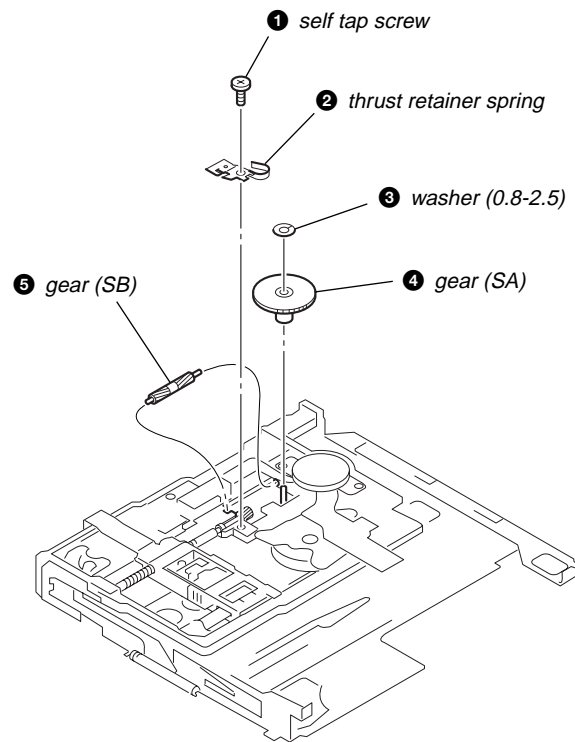
3-6. ORNAMENTAL BELT



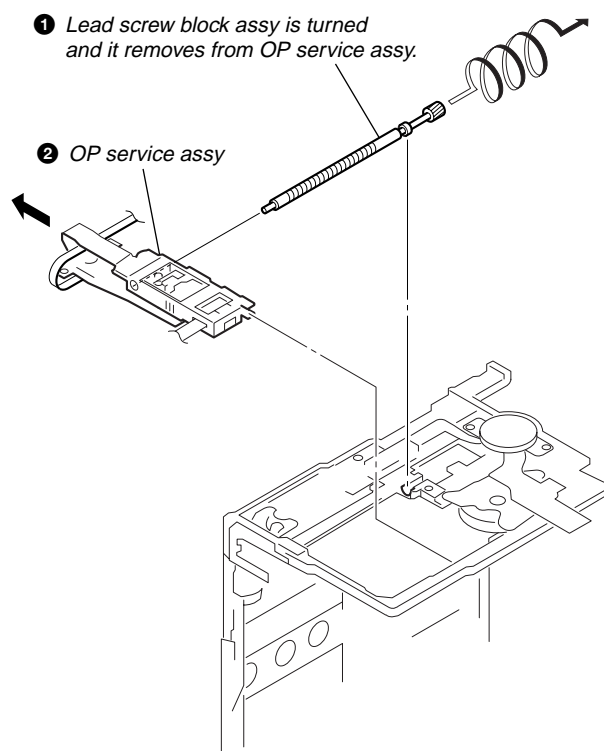
3-7. MECHANISM DECK (MT-MZDH10P-181), BATTERY CASE



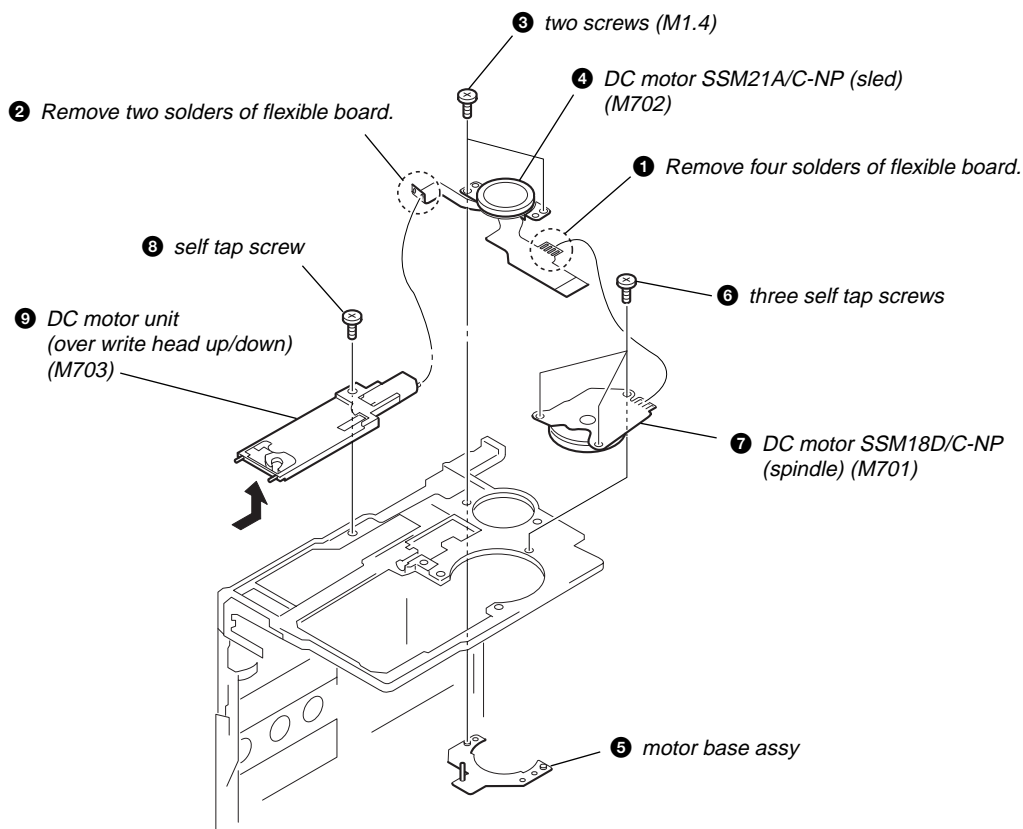
3-8. GEAR (SA), GEAR (SB)



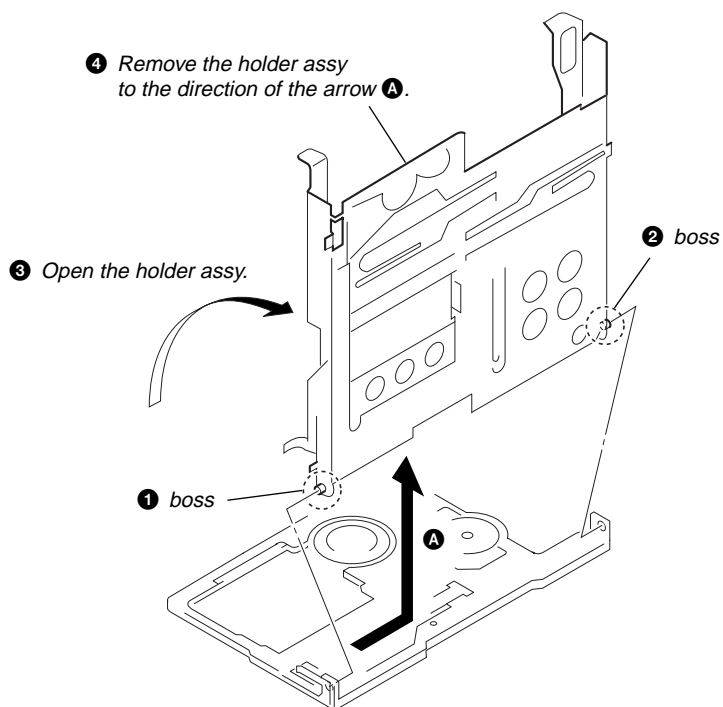
3-9. OP SERVICE ASSY



3-10. DC MOTOR SSM18D/C-NP (SPINDLE) (M701), DC MOTOR SSM21A/C-NP (SLED) (M702), DC MOTOR UNIT (OVER WRITE HEAD UP/DOWN) (M703)

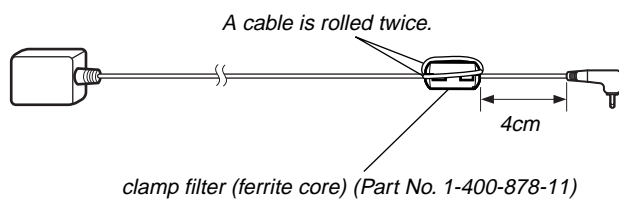


3-11. HOLDER ASSY

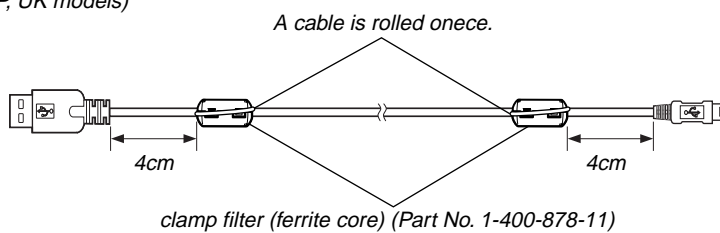


3-12. POSITION OF FERRITE CORE

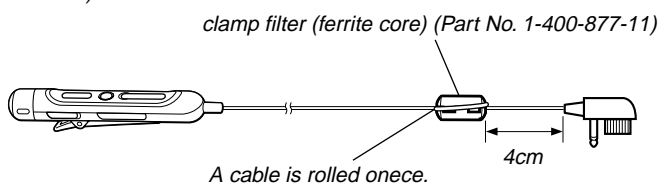
-AC ADAPTOR-



-USB CABLE-
(US, AEP, UK models)



-REMOTE CONTROL-
(US, AEP, UK models)



SECTION 4 TEST MODE

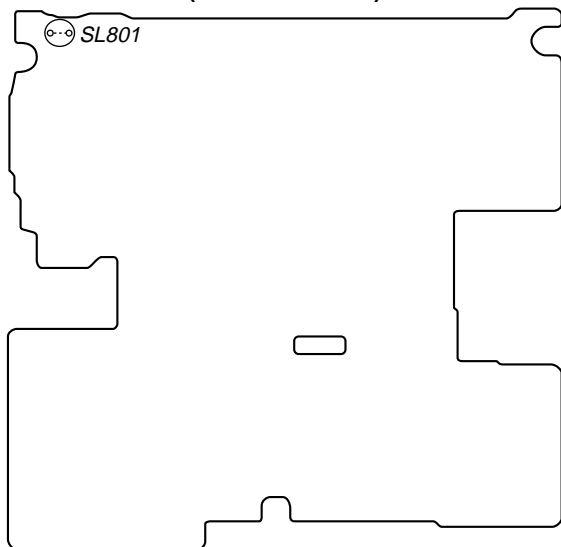
OUTLINE

Operation in the test mode is performed with the set. A key having no particular description in the text, indicates a set key. Also, For the LCD display, the LCD on the remote commander is shown.

1. ENTERING THE TEST MODE

Short SL801 on the MAIN board with a solder bridge. Then, turn on the power.

– MAIN BOARD (Conductor Side) –

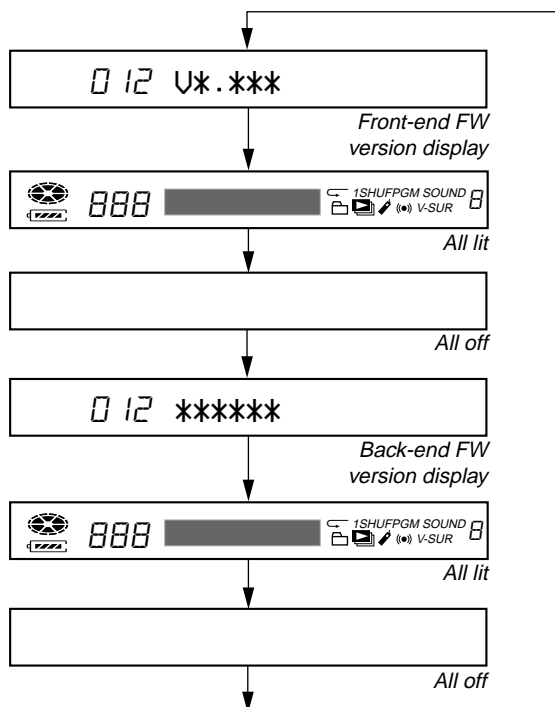


2. OPERATION IN SETTING THE TEST MODE

- When the test mode becomes active, first the Display Check mode is selected.
- Other mode can be selected from the Display Check mode.
- When the test mode is set, the LCD repeats the following display.
- When the key is pressed and hold down, the display at that time is held so that display can be checked.

Display check mode:

Remote commander LCD display



3. RELEASING THE TEST MODE

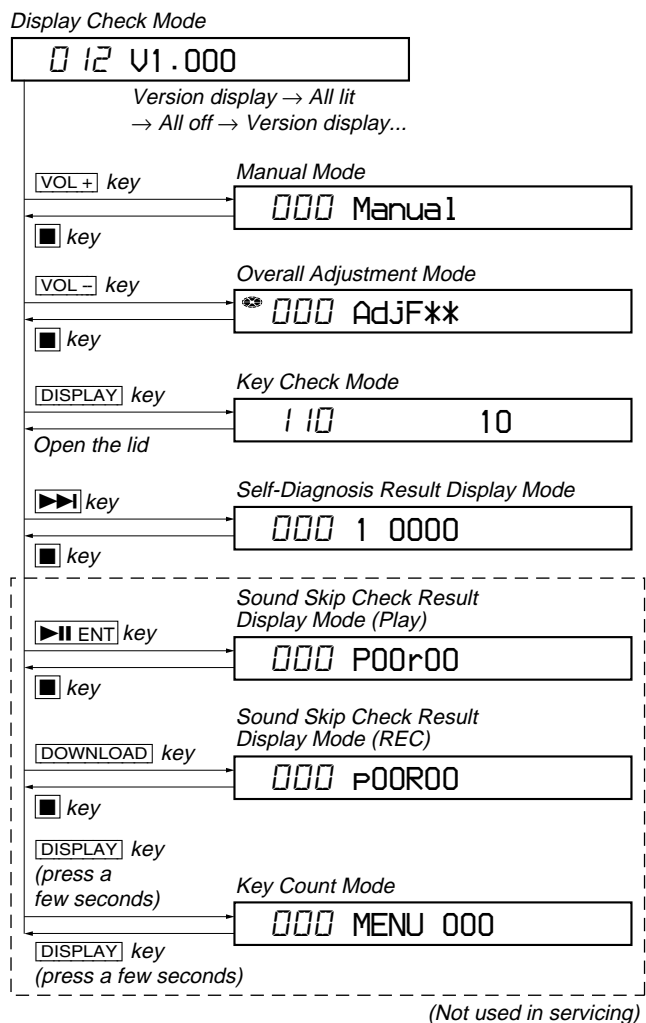
Turn off the power and open the solder bridge on SL801 on the MAIN board.

Note1: Remove the solders completely. Remaining could be shorted with the chassis, etc.

Note2: When the power supply is switched on in the state where all electrical adjustments have not finished, it is displayed on LCD as "Error EE" and the usual operation can't be performed. When a power supply is accidentally turn off in the middle of electrical adjustments, it is again set as test mode and electrical adjustments is mode to complete.

4. CONFIGURATION OF THE TEST MODE

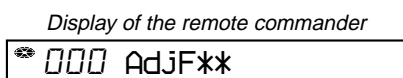
Flow of the test mode:



6. OVERALL ADJUSTMENT MODE

6-1. Operation of The Overall Adjustment Mode

1. Enter the test mode (Display Check mode).
2. Press the [VOL-] key to activate the Overall Adjustment mode where the LCD displays as shown below.



Disc mark:

Lit the inner segments: Completed the power supply adjustment.

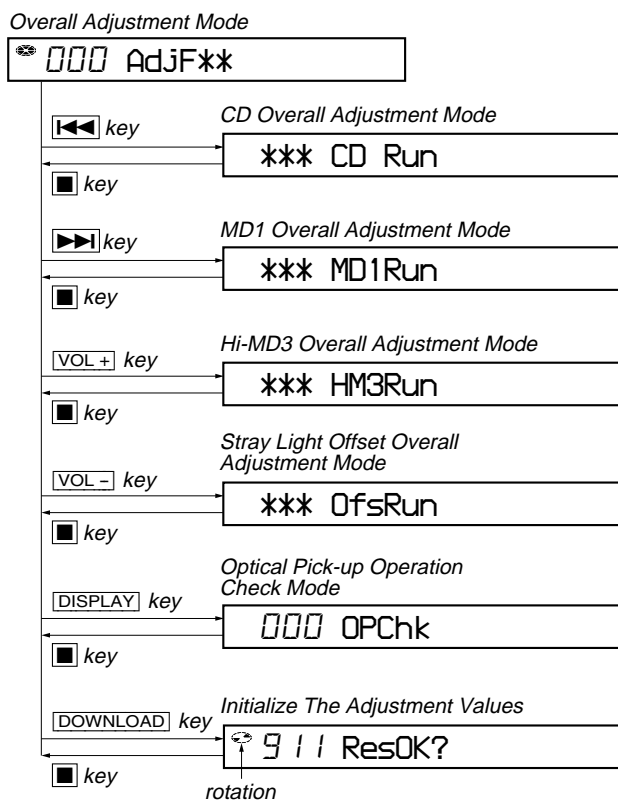
Lit the outer segments: Completed the check of charge function.

“**”:

If “DF” or “FF” is displayed, it mean that completed the servo overall adjustment.

3. To release the Overall Adjustment mode, press the [■] key and return to the Display Check mode.

Flow of overall adjustment mode:



6-2. Error Message in The Overall Adjustment Mode

In the Overall Adjustment mode, if an error occurred, it displays as following table.

Display	Description
Close!	Dose not close the lid
DfDis!	Unsuitableness disc was inserted
NoChg!	Does not finish the check of charge function yet
NotCD!	Does not complete the CD Overall adjustment before the MD1 Overall adjustment
NotM1!	Does not complete the MD1 Overall adjustment before the Hi-MD3 Overall adjustment
NotH3!	Does not complete the Hi-MD3 Overall adjustment before the Stray Light Offset Overall adjustment
****NG	Error of item number “****”

7. SELF-DIAGNOSIS RESULT DISPLAY MODE

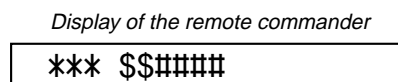
This set uses the self-diagnostic function system in which if an error occurred during the recording or playing, the mechanism control block and the power supply control block in the microcomputer detect it and record its cause as history in the nonvolatile memory. By checking this history in the test mode, you can analyze a fault and determine its location.

Total recording time is recorded as a guideline of how long the optical pick-up has been used, and by comparing it with the total recording time at the time when an error occurred in the self-diagnosis result display mode, you can determine when the error occurred.

Clear the total recording time, if the optical pick-up was replaced.

7-1. Operation of The Self-Diagnosis Result Display Mode

1. Enter the test mode (Display Check mode).
2. Press the [▶▶] key to activate the Self-Diagnosis Result Display mode where the LCD displays as shown below.



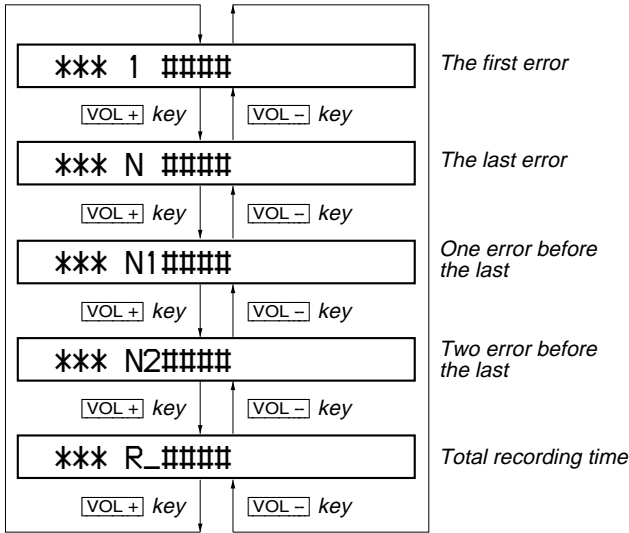
“***” : Error display code

“\$\$” : Error revision history code

“#####” : Addition information when error occurs

3. To release the Self-Diagnosis Result Display mode, press the [■] key and return to the Display Check mode.

Flow of Self-diagnosis Result Display mode operation:



7-2. Error Code of The Self-Diagnosis Result Display Mode

Error display code	Description
000	No error
001	Attempt to access an abnormal address
002	High temperature detected
003	Focus error (no change)
004	Abnormal rotation of disc
005	Fault of disc discriminate
006	Error of access loop (no change)
007	Error of access loop (with change)
008	Could not read address
009	Focus error (with change)
012	Could not read data with SYNC
013	TOC address data error
032	Focus error, ABCD offset error
033	Tracking error, offset error
034	X1 tracking error, Tracking error, offset error

Error display code	Addition information when error occurs
000	0000
001	Illegal cluster specified when error occurs
002 to 034	Total recording time when error occurs

7-3. Clear The Total Recording Time

After replacing the optical pick-up, clear the total recording time.

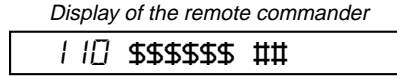
1. Enter the test mode (Display Check mode).
2. Press the [▶▶] key to activate the Self-Diagnosis Result Display mode.
3. Press the [VOL-] key once to display the total recording time indication.
4. Press the [□+], [▶▶ ENT] key on the set or [□-] key on the remote commander and display "ClrOK?".
5. Press the [□+], [▶▶ ENT] key on the set or [□-] key on the remote commander again to display "RecT 0" and clear the total recording time.

8. KEY CHECK MODE

This mode is used for key check.

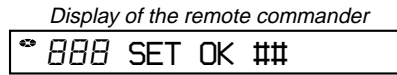
Operation of The Key Check Mode

1. Enter the test mode (Display Check mode).
2. Press the [DISPLAY] key to activate the Key Check mode where the LCD displays as shown below.

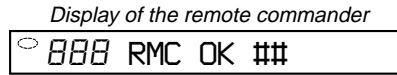


- “\$\$\$\$\$\$” : Pressed key name.
When remote commander key is pressed, display becomes as “r\$\$\$\$\$”.
- When the jog dial is turned, it displays “JOG+ X” or “JOG-X” (“X” is number of 1 to 3). If the jog dial is turned four click, it displays “JOG+OK” or “JOG-OK”.
- “##” : Key voltage of remote commander. (Hexadecimal number)

3. When all keys check is OK on the main unit, it displays as follows.



When all keys check is OK on the remote commander, it displays as follows.



4. When all keys check are OK both the main unit and the remote commander, it display backs to the Display Check mode automatically.
5. To release the Key Check mode, open the lid and return to the Display check mode.

SECTION 5 ELECTRICAL ADJUSTMENTS

1. PRECAUTIONS FOR ADJUSTMENT

1. Adjustment must be done in the test mode only. After adjusting, release the test mode. A key having no particular description in the text, indicates a set key. Also, for the LCD display, the LCD on the remote commander is shown.
2. Use the following tools and measuring instruments.
 - Digital voltmeter
 - Regulated dc power supply (two sets)
 - Laser power meter
 - CD adjustment disc TDYS-1 (Part No. : 4-963-646-01)
 - MD1/HiMD1 hybrid adjustment disc MDW-74/GA2 (Part No. : J-2503-022-A)
 - Hi-MD3 adjustment disc HMD1GSDJ (Part No. : 8-892-388-38) *1
 - Remote commander in accessories (with LCD)
 - Battery charging stand and AC adapter in accessories

*1) Hi-MD3 adjustment disc (HMD1GSDJ) is consumable. Therefore if it is used 400 times, exchange it for a new.

2. ADJUSTMENT SEQUENCE

Adjustment must be done with the following order.

Adjustment order:

1. Entering the test mode
2. Initialize the adjustment value
3. Power supply voltage adjustment
4. Charge function check
5. Laser power check
6. Setting the adjustment values
7. Servo Overall adjustment
8. Resume clear
9. Releasing the test mode

3. ADJUSTMENT OF THE EACH ITEM

3-1. Entering The Test Mode

Refer to the "SECTION 4. TEST MODE". (See page 13)

3-2. Initialize The Adjustment Value

Procedure:

1. In the test mode (Display Check mode), press the [VOL-] key to enter the Overall adjustment mode.
2. Press the [DOWNLOAD] key and display "911 ResOK?".
3. Press the [] , [ENT] key on the set or [] key on the remote commander to display "911 Reset!" and initialize the adjustment values.
4. Press the [] key and back to Display Check mode.

3-3. Power Supply Voltage Adjustment

Adjustment must be done with the following order.

3-3-1. Setting

Procedure:

1. Apply the voltage of 3.7 V to the battery terminals, and enter the test mode (Display Check mode).
2. Press the [VOL+] key to enter the Manual mode.
3. Press the [VOL+] key twice to display as follows.

Display of the remote commander

002 POWER

4. Press the [] key once, press the [VOL+] key once, and press the [] key once again to display as follows.

Display of the remote commander

2 10 PwrAdj

5. Repeat the next procedures (3-3-2. PwrAdj Adjustments), and adjust all contents of "table 3-3-1. PwrAdj Specifications".

3-3-2. PwrAdj adjustments

Repeat the following procedures and adjust all contents of "table 3-3-1. PwrAdj Specifications".

Example Display (Item No. 2211)

2 11 VC1 **

adjustment value (hexadecimal)

Procedure:

1. Connect the digital voltmeter to measuring point (refer to the following table) and TP461 (GND).
2. Press the [] key to change the item number to 2211.
3. Adjust with [VOL+]/[VOL-] keys so that the value of digital voltmeter becomes specification value.
4. Press the [] , [ENT] key on the set or [] key on the remote commander to write the adjusted value.(Shifts to the next item automatically)
5. Repeat adjustment from step 3 until item number 2233.

ItemNo.	Display	Specification value	Measuring point
2211	211 VC1 **	2.05V ± 0.02V	TP8003
2212	212 VC1H N **	2.25V ± 0.01V	TP8003
2213	213 VC2 **	1.20V ± 0.01V	TP602
2214	214 DDC3 L **	2.60V ± 0.015V	TP913
2215	215 DDC3 H **	3.10V ± 0.015V	TP913
2216	216 REG1 L **	2.32V ± 0.02V	TP901
2217	217 REG1 H **	3.02V ± 0.02V	TP901
2218	218 REG2 1 **	2.275V ± 0.01V	TP509
2219	219 REG2 2 **	2.480V ± 0.01V	TP509
2221	221 REG2 3 **	2.740V ± 0.01V	TP509
2222	222 REG2 4 **	2.985V ± 0.01V	TP509
2223	223 REG3 **	2.52V ± 0.02V	TP516
2224	224 VREC 1 **	0.89V ± 0.02V	TP601
2225	225 VREC 2 **	1.08V ± 0.02V	TP601
2226	226 VREC 3 **	1.52V ± 0.02V	TP601
2227	227 VREC 4 **	2.27V ± 0.02V	TP601
2228	228 VREC 5 **	2.97V ± 0.02V	TP601
2229	229 VREC 6 **	0.94V ± 0.02V	TP601
2231	231 VREC 7 **	1.28V ± 0.02V	TP601
2232	232 VREC 8 **	2.57V ± 0.02V	TP601
2233	233 VREC 9 **	2.57V ± 0.02V	TP601

Note1: "**" is adjustment value (hexadecimal number).

Note2: Ground point of all measuring points is TP461.

Note3: Refer to page 18 for adjustment location.

Table 3-3-1. PwrAdj Specifications

3-3-3. VBsAdj adjustments

Procedure:

1. In the “3-3-2. PwrAdj Adjustments” completed status, display as follows.

Display of the remote commander



2. Apply the voltage of 5 V to the TP453 and TP460 (GND).
3. Press the **▶▶** key to change the item number to 2241.
4. Adjust with **VOL+ / VOL-** keys so that the value of digital voltmeter becomes specification value. (refer to “table 3-3-2. VBsAdj Specifications”)
5. Press the **☐+**, **▶▶ ENT** key on the set or **☐-** key on the remote commander to write the adjusted value.
6. Repeat adjustments to item number 2243 at the same manner as step 4 to step 5.

7. Select the item number 2244, and turn off the power supply of battery terminal.
8. Adjust with **VOL+ / VOL-** keys so that the voltage of between TP604 and TP461 (GND) becomes 4.10 V (– 0.02 V).
9. Press the **☐+**, **▶▶ ENT** key on the set or **☐-** key on the remote commander to write the adjusted value.
10. Apply the voltage of 3.7 V to the battery terminal again.
11. Turn off the voltage of 5 V to the TP453 and TP460 (GND).
12. Press the **■** key three times and back to the Display Check mode.

ItemNo.	Display	Specification value	Measuring point
2241	241 REG4 **	1.13 V ± 0.01 V	TP602
2242	242 REG5 **	2.05 V + 0.02 V	TP8003
2243	243 REG6 **	3.30 V ± 0.01 V	TP8007

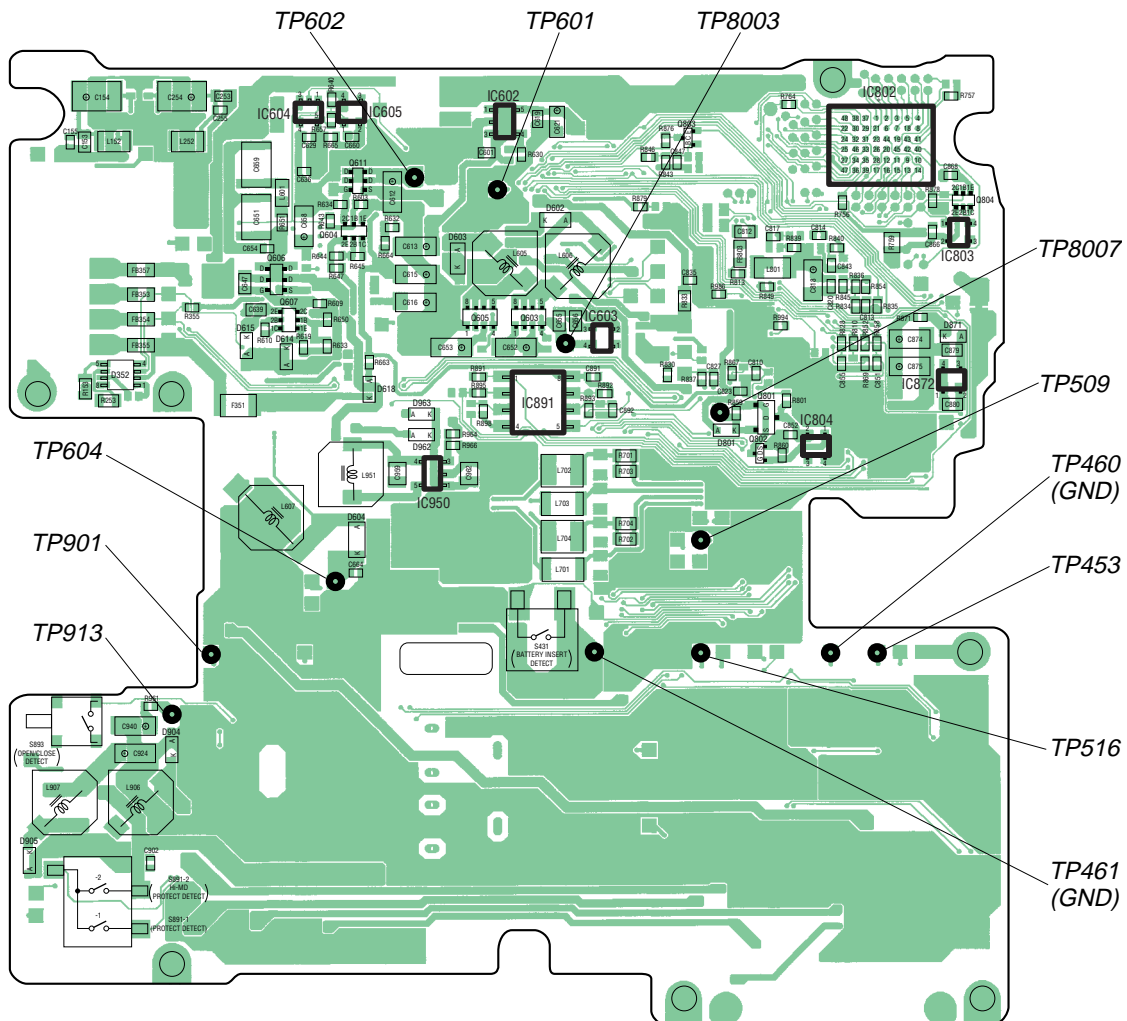
Note1: “**” is adjustment value (hexadecimal number).

Note2: Ground point of all adjustment points is TP461.

Table 3-3-2. VBsAdj Specifications

Adjustment Location:

– MAIN BOARD (Component Side) –



3-4. Charge Function Check

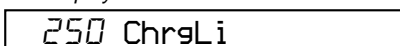
Note1: When perform this check, don't apply a voltage to battery terminals.

Note2: Be sure to disconnect the AC adapter when connecting the resistors. Doing so with the power supply connected causes a trouble.

Procedure:

1. Connect the 10 ohms resistor (more than 3 watts) to battery terminals.
2. Connect the AC adapter to the battery charging stand in accessories and set the main unit.
3. Enter the test mode (Display Check mode).
4. Press the [VOL+] key to enter the Manual mode.
5. Press the [VOL+] key twice, press the [▶▶] key once, press the [VOL+] key once, press the [▶▶] key once, press the [VOL+] key twice to display as follows.

Display of the remote commander



6. And [▶▶] key once again to select the item number 2251 and display "251 ChgChk **" on the LCD of remote commander.
7. Press the [☐+] , [▶▶ENT] key on the set or [☐-] key on the remote commander confirm that "ADJ OK" is displayed.
8. Press the [■] key four times and back to the Display Check mode.
9. Cut the power supply and remove the resistor that connected to the battery terminals.

3-5. Laser Power Check

Procedure:

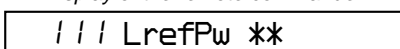
1. Enter the test mode (Display Check mode).
2. Press the [VOL+] key to enter the Manual mode.
3. Open the lid and press the [◀◀] key continuously until the optical pick-up moves to the most inward track.
4. Press the [VOL-] key once to display as follows.

Display of the remote commander



5. Press the [▶▶] key three times to select the item number 9111 and display as follows.

Display of the remote commander



6. Set the laser power meter so that the laser beam from the optical pick-up aims at the objective lens of laser power meter at right angle. (Confirm it with the disc not inserted)
7. Confirm that the value of laser power meter is 0.860 mW ± 19.2%.
8. Press the [▶▶] key to select the item number 9112.
9. Confirm that the value of laser power meter is 0.763 mW ± 18.2%.
10. Press the [▶▶] key to select the item number 9113.
11. Confirm that the value of laser power meter is 6.87 mW ± 12%.
12. Press the [■] key four times and back to the Display Check mode.

3-6. Setting The Adjustment Values

3-6-1. Hi-MD3 setting

Preparation:

1. Perform calculation every item based on the data given by the Hi-MD3 adjustment disc by referring to the following table. (Round off the value in decimal place)
2. Convert the calculated value into hexadecimal number.

Note: The Hi-MD3 adjustment parameters vary depending on the disc, and therefore use the parameters of the disc used when performing the adjustment.

Item No.	Calculating formula (*3)
0211	Pr_nominal / 0.05
(*1)	Por / 0.05
0212	Kr × (-100)
0213	Pw_nominal / 0.05
(*2)	Ppw / 0.05
0214	Kw × (-100)
0215	Prmin / 0.05
0216	Pwmin / 0.05

*1) If the "Pr_nominal" value is indicated, use the "Pr_nominal" value and not used "Por" value.

*2) If the "Pw_nominal" value is indicated, use the "Pw_nominal" value and not used "Ppw" value.

*3) Round off after the decimal point.

Table 3-6-1. Hi-MD3 adjustment parameter

Example of Calculation:

Item No.	Parameter		Result	
			Decimal	Hexadecimal
0211	Pr_nominal	2.48 mW	50	32h
0212	Kr	-0.3 %/°C	30	1Eh
0213	Pw_nominal	7.35 mW	147	93h
0214	Kw	-0.4 %/°C	40	28h
0215	Prmin	1.9 mW	38	26h
0216	Pwmin	5.8 mW	116	74h

Procedure:

1. Enter the test mode (Display Check mode).
2. Press the [VOL+] key to enter the Manual mode.
3. Press the [▶▶] key once, press the [VOL+] key once, and press the [▶▶] key once again to display as follows.

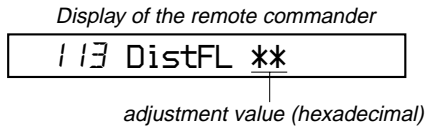
Display of the remote commander



4. Press the [▶▶] key once to select the item number 0211.
5. Adjust with [VOL+]/[VOL-] keys so that the adjustment value of LCD becomes calculated value.
6. Press the [☐+] , [▶▶ENT] key on the set or [☐-] key on the remote commander to write the adjusted value.
7. Press the [▶▶] key to next item.
8. Repeat adjustment from step 4 until item number 0216.

3-6-2. Destination setting

1. Enter the test mode (Display Check mode).
2. Press the **[VOL+]** key to enter the Manual mode.
3. Press the **[▶▶]** key five time to select the item number 0113 and display as follows.



4. Press the **[VOL+]/[VOL-]** key and set the according value to each destination referring to the following table.
5. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value.
6. Press the **[▶▶]** key to select the item number 0114.
7. Repeat adjustment from step 3.
8. Press the **[■]** key four times and back to the Display Check mode.

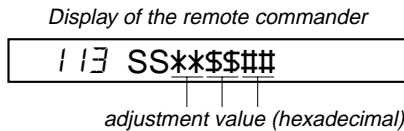
Destination	Setting value	
	Item No. 0113	Item No. 0114
US	28	80
AEP and UK	A0	80
Chinese and Tourist	24	80

Table 3-6-2. Destination Setting

3-6-3. Other setting

Procedure:

1. Enter the test mode (Display Check mode).
2. Press the **[VOL+]** key to enter the Manual mode.
3. Press the **[VOL+]** key once and press the **[▶▶]** key five time to select the item number 1113 and display as follows.



4. Adjust with **[VOL+]/[VOL-]** keys so that the adjustment value of “**” on the LCD becomes “1A”.
5. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value. (**\$\$** blinks and disc mark rotates on the LCD)
6. Adjust with **[VOL+]/[VOL-]** keys so that the adjustment value of “\$\$” on the LCD becomes “20”.
7. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value. (**###** blinks and disc mark rotates on the LCD)
8. Adjust with **[VOL+]/[VOL-]** keys so that the adjustment value of “###” on the LCD becomes “5E”.
9. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value.
10. Press the **[VOL+]** key once to change the adjustment value of “**” on the LCD into “1B”.
11. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value. (**\$\$** blinks and disc mark rotates on the LCD)
12. Adjust with **[VOL+]/[VOL-]** keys so that the adjustment value of “\$\$” on the LCD becomes “F1”.
13. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value. (**###** blinks and disc mark rotates on the LCD)
14. Adjust with **[VOL+]/[VOL-]** keys so that the adjustment value of “###” on the LCD becomes “1A”.

15. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to write the adjusted value.
16. Press the **[■]** key four times and back to the Display Check mode.

3-7. Servo Overall Adjustment

Note1: Be sure to adjustment so that the set is horizontal and the LCD is upside. Unless performed in that state, it is not adjusted correctly.

Note2: If NG is displayed in the middle of this adjustments, perform “3-2. Initialize The Adjustment Value” and “3-6. Setting The Adjustment Values” again, then retry this adjustments from step 1.

Procedure:

1. Enter the test mode (Display Check mode).
2. Press the **[VOL-]** key to enter the Overall Adjustment mode.
3. Insert the CD adjustment disc (TDYS-1).
4. Put the main unit horizontal so that the LCD becomes upside, and press the **[◀◀]** key.
5. Wait until “CD OK” is displayed on the LCD.
6. Insert the MD1/HiMD1 hybrid adjustment disc (MDW-74/GA2).
7. Put the main unit horizontal so that the LCD becomes upside, and press the **[▶▶]** key.
8. Wait until “MD1 OK” is displayed on the LCD.
9. Insert the Hi-MD3 adjustment disc (HMD1GSDJ).
10. Put the main unit horizontal so that the LCD becomes upside, and press the **[VOL+]** key.
11. Wait until “HMD3OK” is displayed on the LCD.
12. Eject the disc and close the lid.
13. Put the main unit horizontal so that the LCD becomes upside, and press the **[VOL-]** key.
14. Wait until “OfstOK” is displayed on the LCD.
15. Press the **[■]** key and back to the Display Check mode.

3-8. Resume Clear

Procedure:

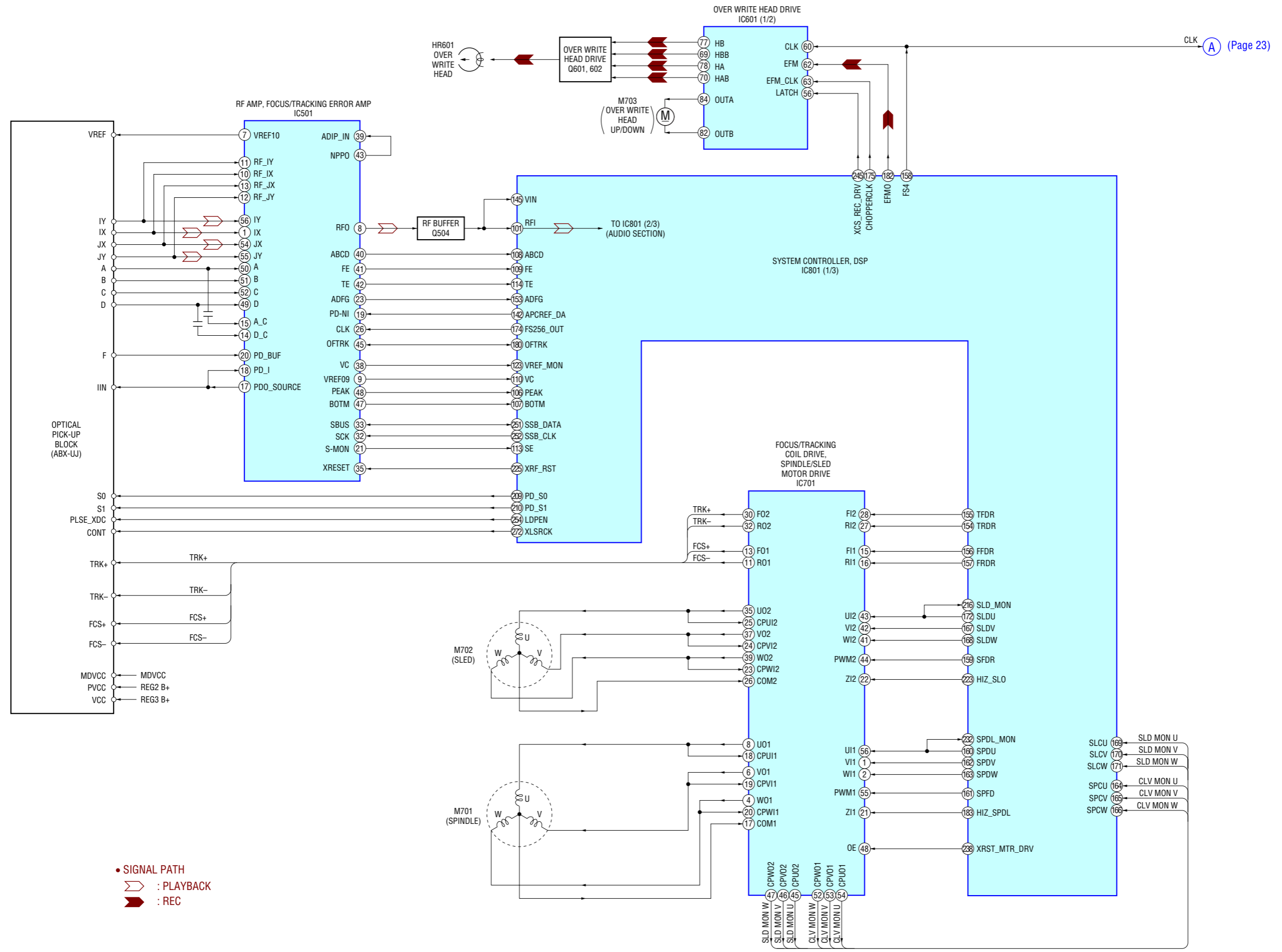
1. Enter the test mode (Display Check mode).
2. Press the **[VOL+]** key to enter the Manual mode.
3. Press the **[VOL+]** key once, press the **[▶▶]** key once, press the **[VOL-]** key once, press the **[▶▶]** key once, and press the **[VOL+]** key twice, press the **[▶▶]** key three times to select the item number 1933.
4. Press the **[◀+]**, **[▶▶ ENT]** key on the set or **[◀-]** key on the remote commander to resume clear.
5. Press the **[■]** key four times and back to the Display Check mode.

3-9. Releasing The Test Mode

Refer to the “SECTION 4. TEST MODE”. (See page 13)

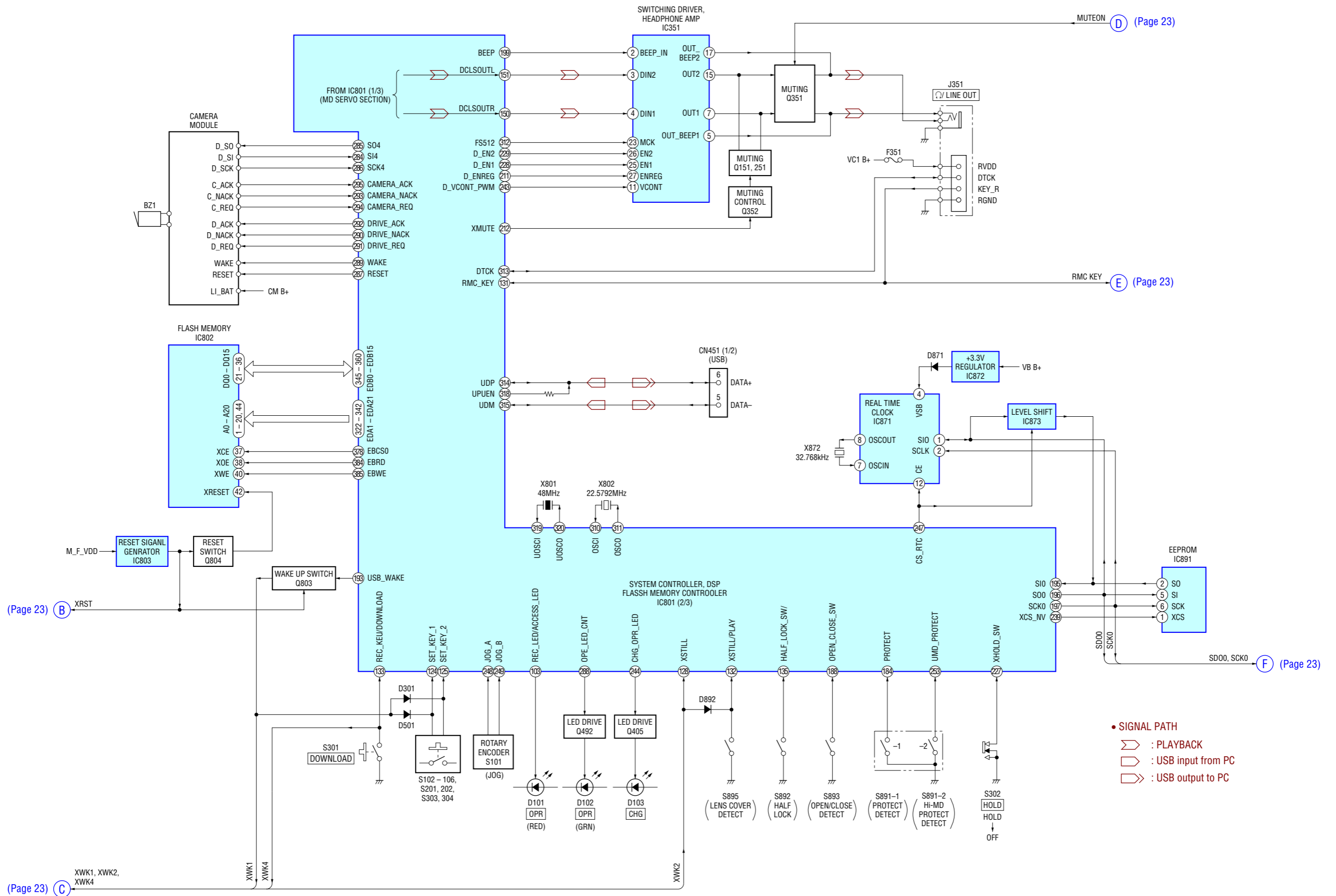
SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAM – MD SERVO Section –

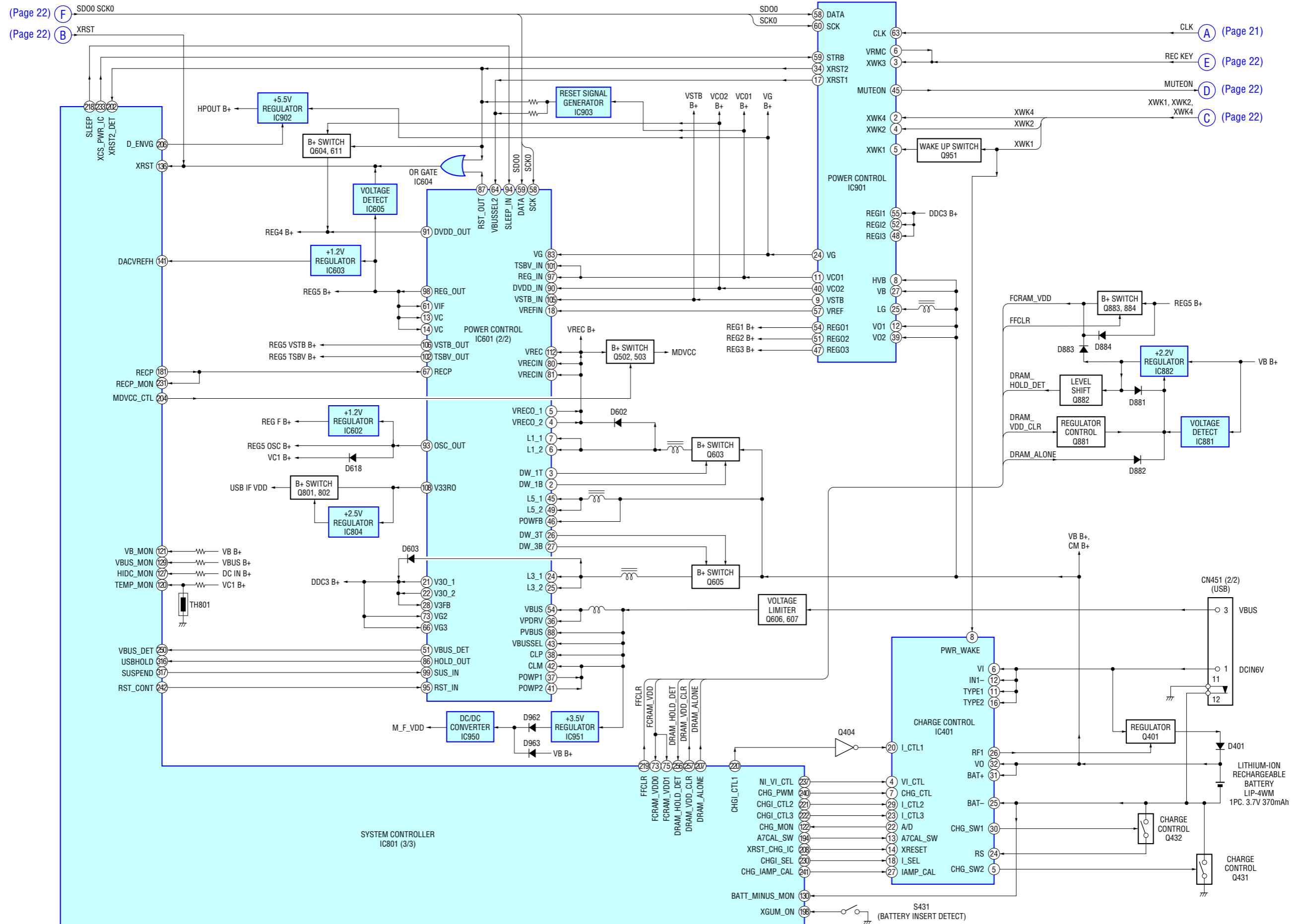


• SIGNAL PATH
➤ : PLAYBACK
➤ : REC

6-2. BLOCK DIAGRAM – AUDIO/CAMERA Section –



6-3. BLOCK DIAGRAM – POWER SUPPLY Section –



• **Note For Printed Wiring Boards and Schematic Diagrams**

Note on Printed Wiring Board:

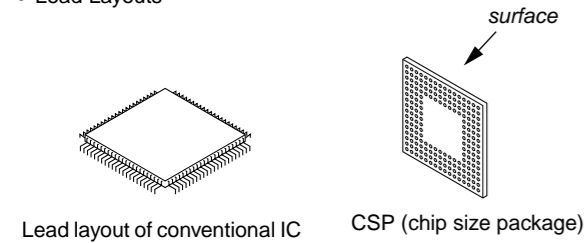
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Through hole.
- △ : internal component.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

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

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

* Replacement of IC401, IC501, IC601, IC801 and IC802 used in this set requires a special tool.

- MAIN board is multi-layer printed board. However, the patterns of intermediate-layer have not been included in this diagrams.
- Lead Layouts



Note on Schematic Diagram:

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

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

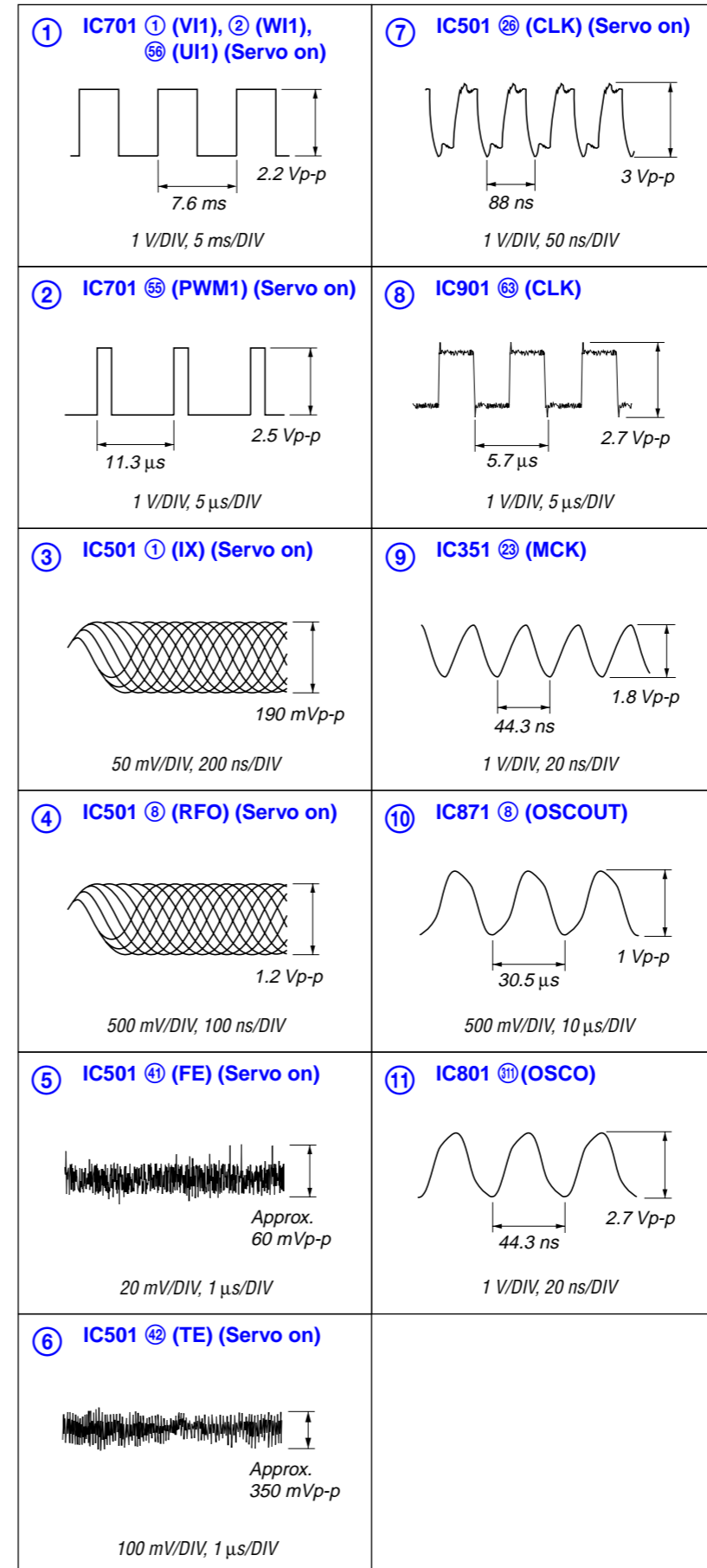
原理图和零件清单中标有△记号的零部件、或带有△记号的虚线所圈示的零部件，对于维系安全至关重要。因此只能以指定号码的零部件来更换。

- — : B+ Line.
- Power voltage is dc 3.7 V and fed with regulated dc power supply from rechargeable battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : PLAYBACK
[] : PLAYBACK (SERVO OFF)
() : PLAYBACK (SERVO ON)
* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
▷ : PLAYBACK
▷ : REC
▷ : USB input from PC
▷ : USB output to PC

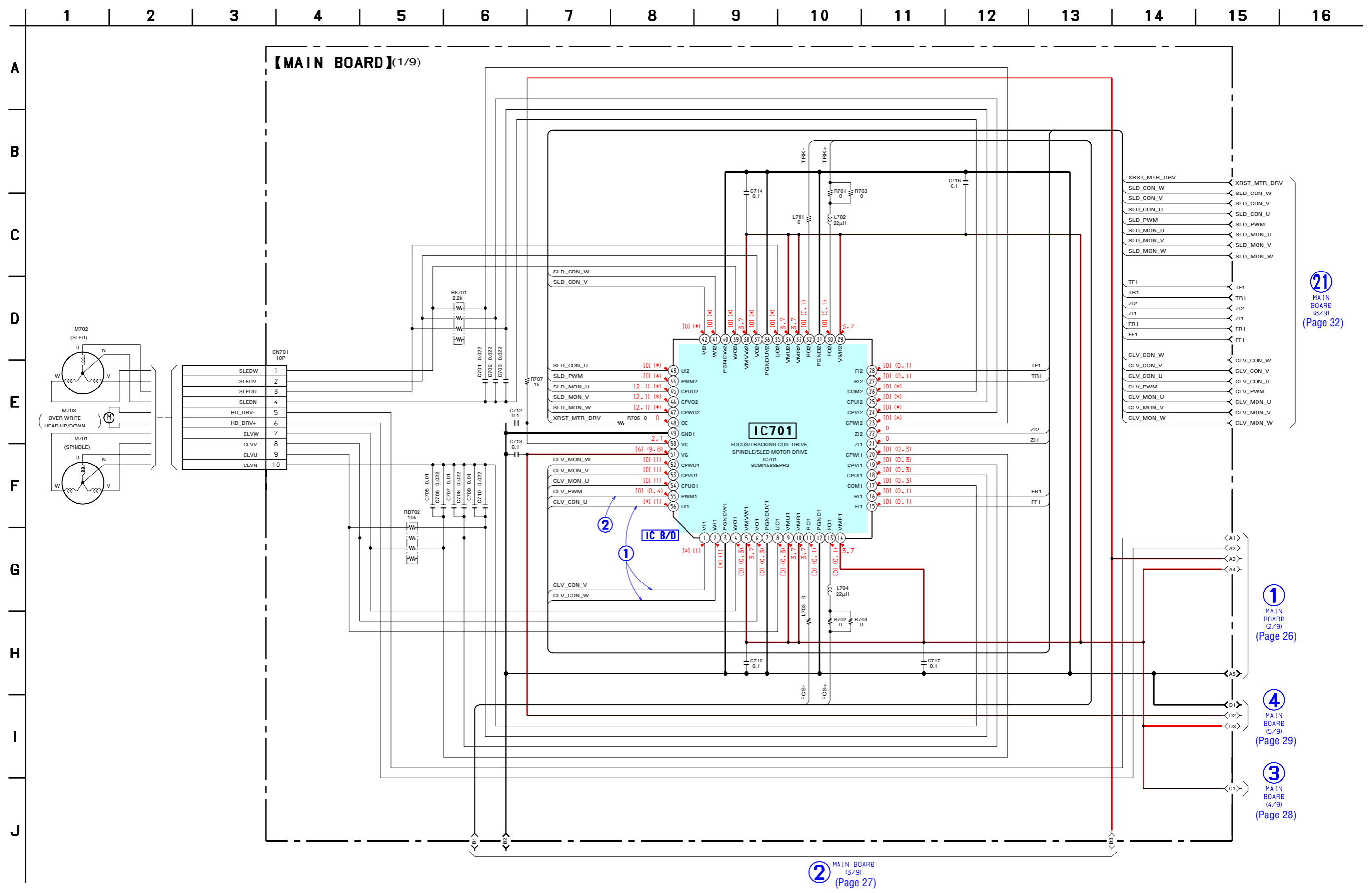
* Replacement of IC401, IC501, IC601, IC801 and IC802 used in this set requires a special tool.

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

• **Waveforms**
– MAIN Board –



6-4. SCHEMATIC DIAGRAM – MAIN Board (1/9) – • See page 24 for Waveforms. • See page 38 for IC Block Diagrams.



21 MAIN BOARD (8/9) (Page 32)

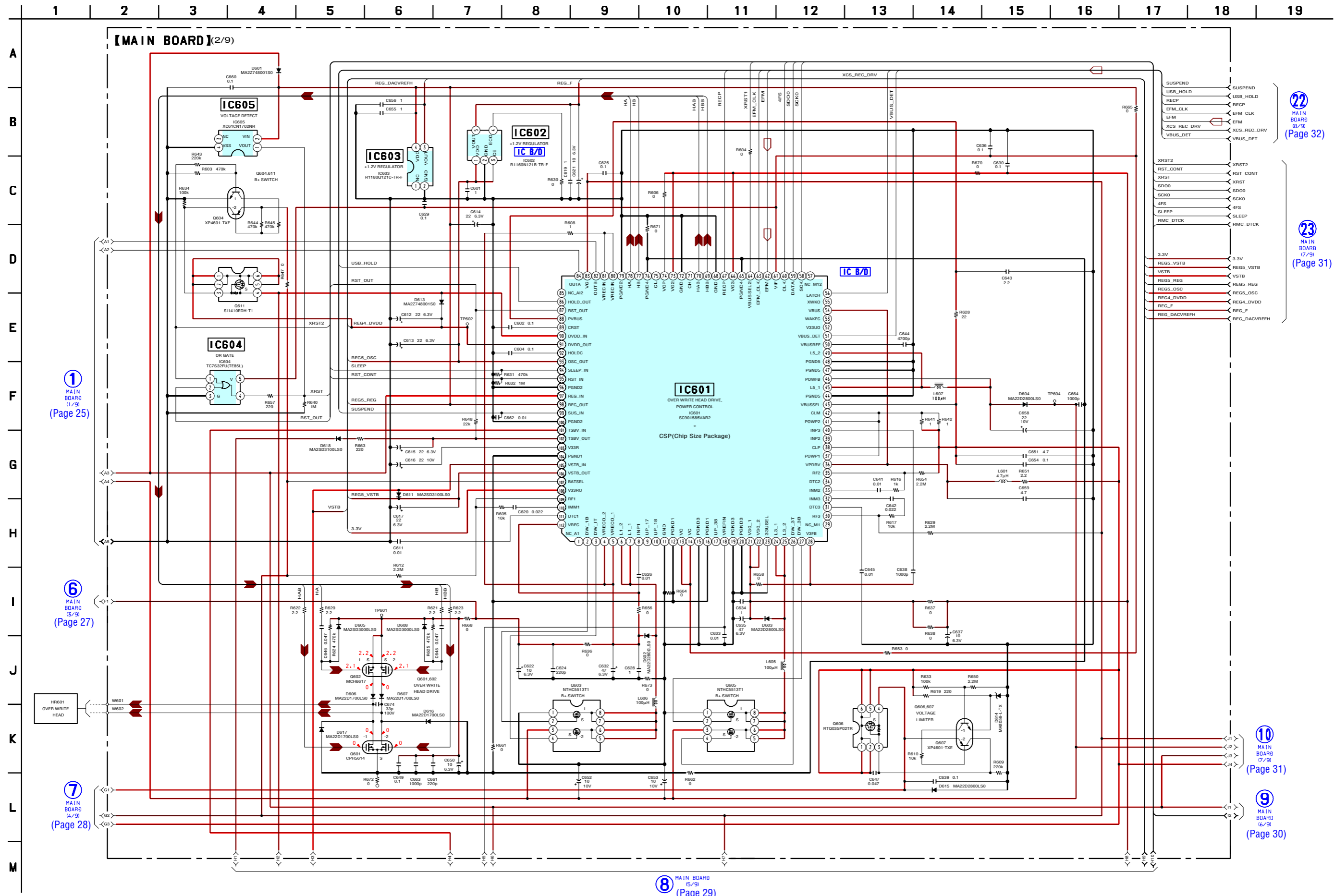
1 MAIN BOARD (2/9) (Page 26)

4 MAIN BOARD (5/9) (Page 29)

3 MAIN BOARD (4/9) (Page 28)

2 MAIN BOARD (3/9) (Page 27)

6-5. SCHEMATIC DIAGRAM – MAIN Board (2/9) – • See page 38 for IC Block Diagrams.



1 MAIN BOARD (1/9) (Page 25)

6 MAIN BOARD (5/9) (Page 27)

7 MAIN BOARD (4/9) (Page 28)

8 MAIN BOARD (5/9) (Page 29)

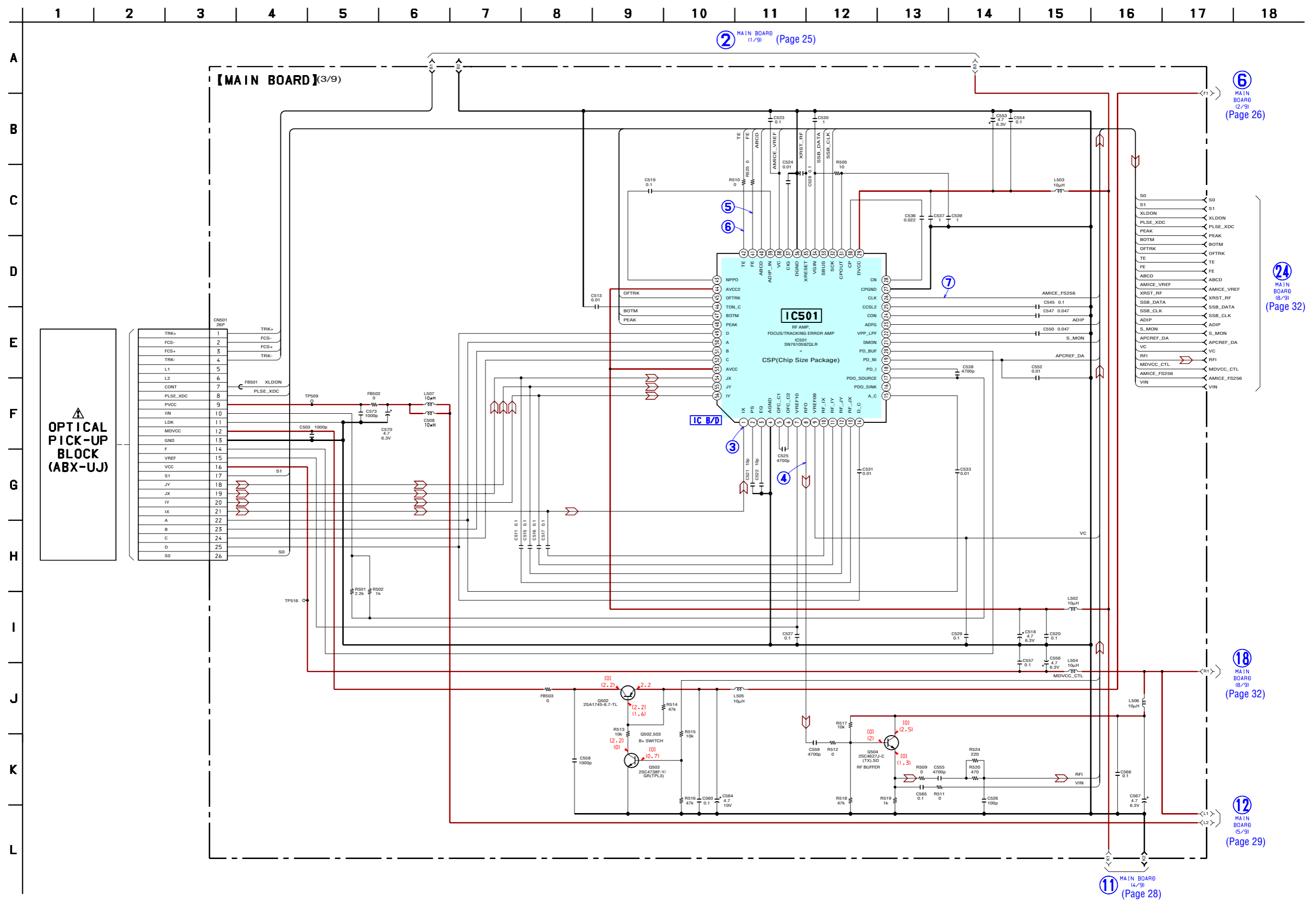
22 MAIN BOARD (8/9) (Page 32)

23 MAIN BOARD (7/9) (Page 31)

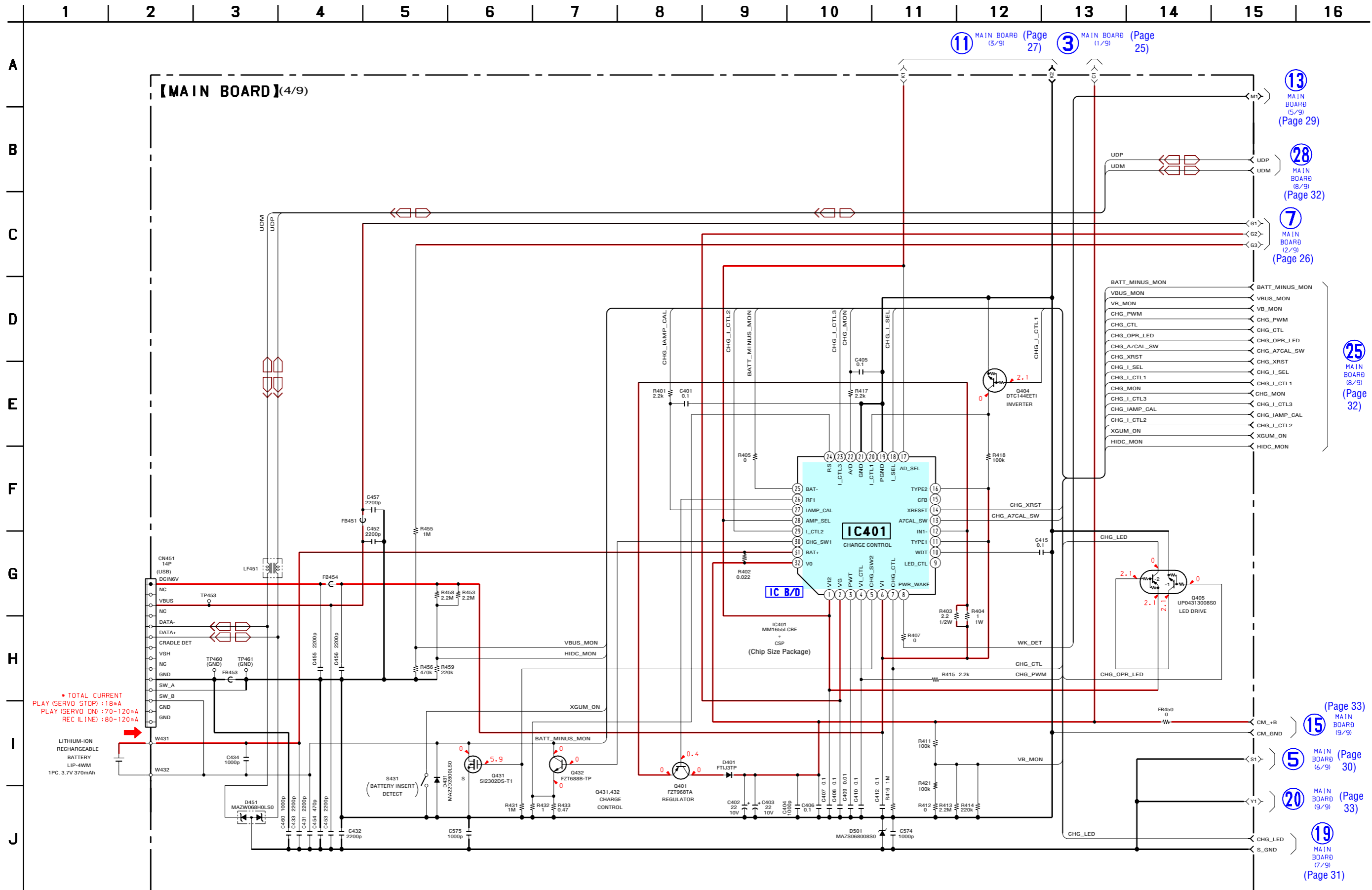
10 MAIN BOARD (7/9) (Page 31)

9 MAIN BOARD (6/9) (Page 30)

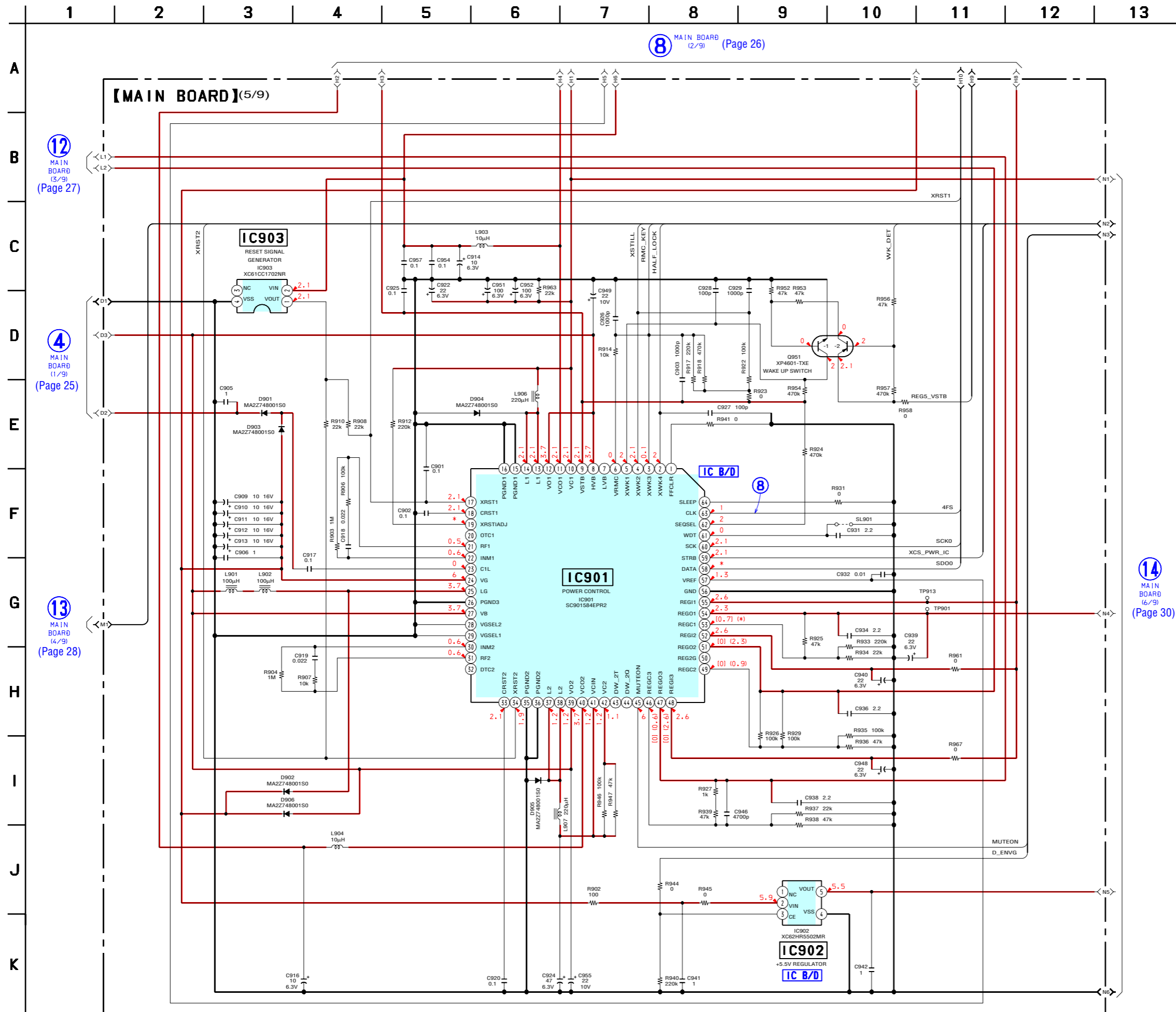
6-6. SCHEMATIC DIAGRAM – MAIN Board (3/9) – • See page 24 for Waveforms. • See page 38 for IC Block Diagrams.



6-7. SCHEMATIC DIAGRAM – MAIN Board (4/9) – • See page 38 for IC Block Diagrams.



6-8. SCHEMATIC DIAGRAM – MAIN Board (5/9) – • See page 24 for Waveforms. • See page 38 for IC Block Diagrams.



12 MAIN BOARD (13/9) (Page 27)

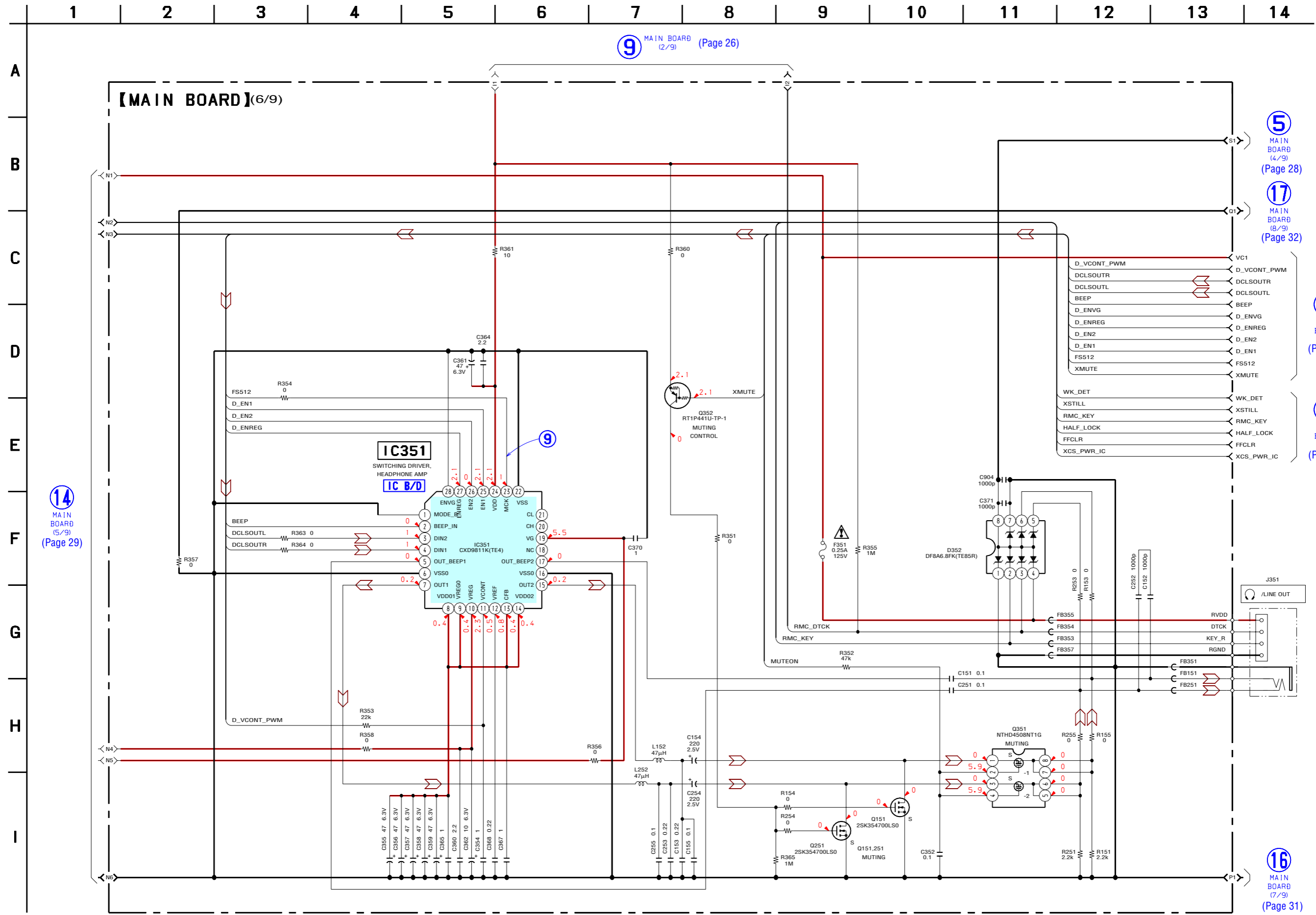
4 MAIN BOARD (1/9) (Page 25)

13 MAIN BOARD (4/9) (Page 28)

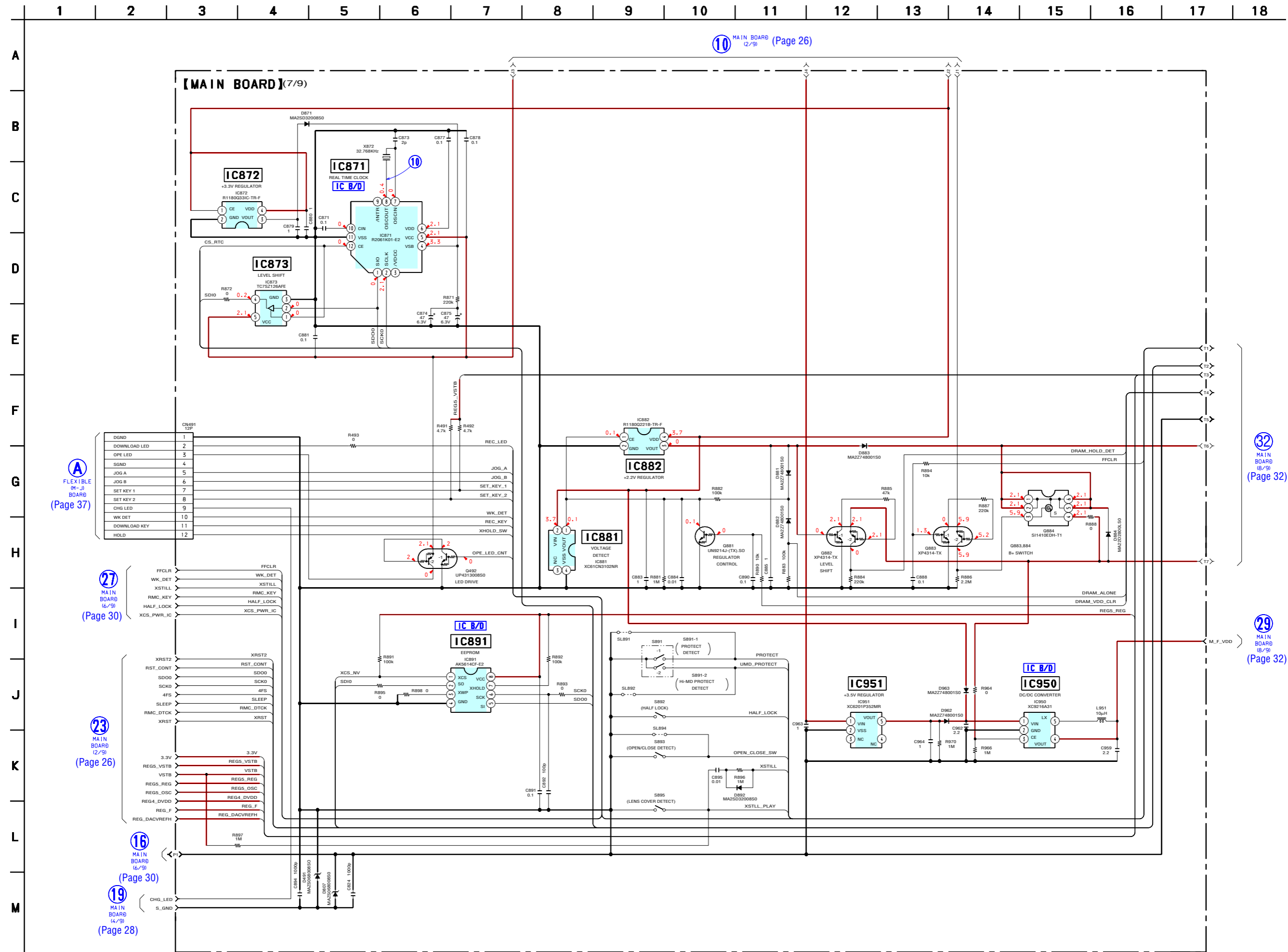
14 MAIN BOARD (6/9) (Page 30)

8 MAIN BOARD (2/9) (Page 26)

6-9. SCHEMATIC DIAGRAM – MAIN Board (6/9) – • See page 24 for Waveforms. • See page 38 for IC Block Diagrams.



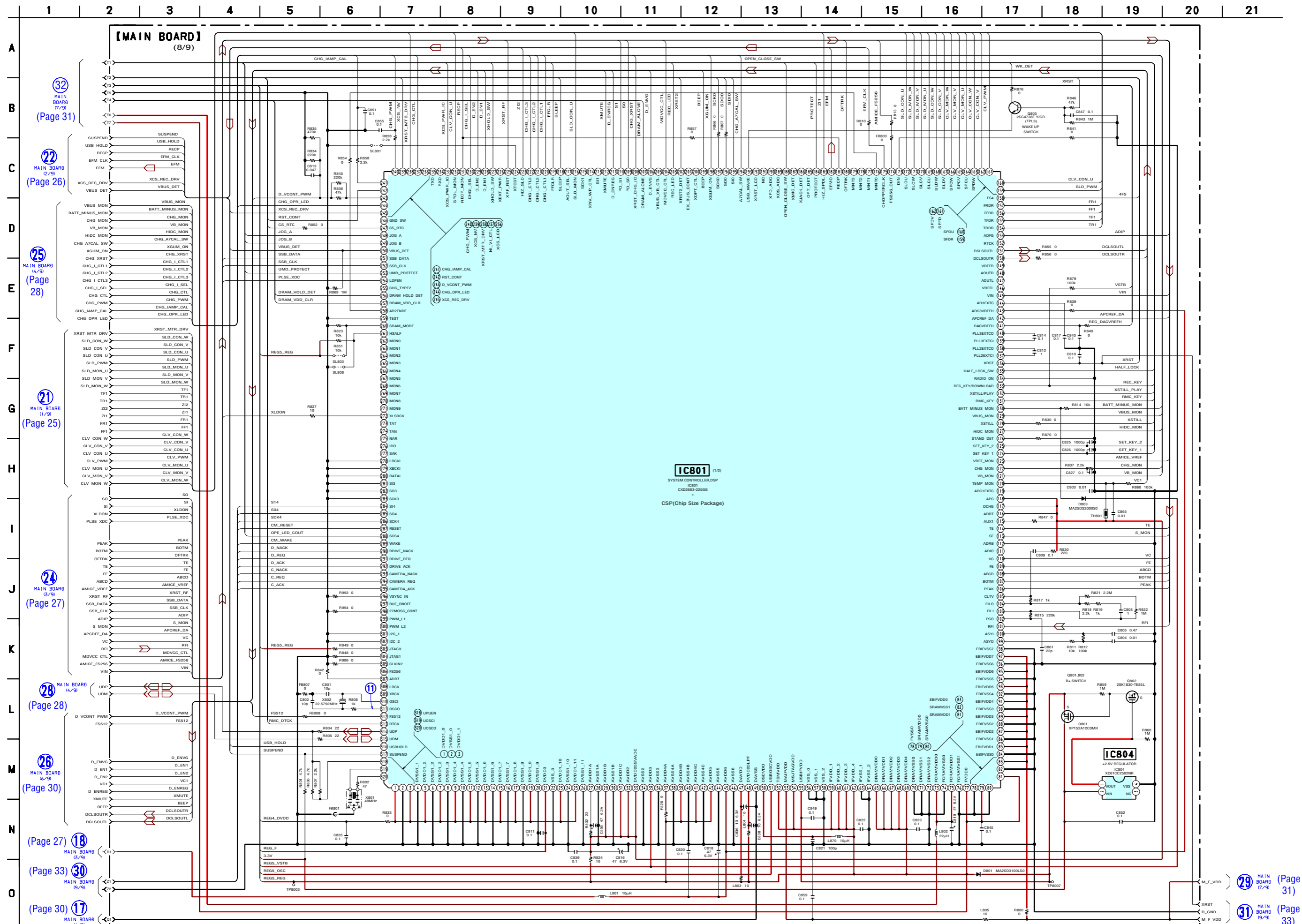
6-10. SCHEMATIC DIAGRAM – MAIN Board (7/9) – • See page 24 for Waveforms. • See page 38 for IC Block Diagrams.




32 MAIN BOARD (8/9) (Page 32)

29 MAIN BOARD (8/9) (Page 32)

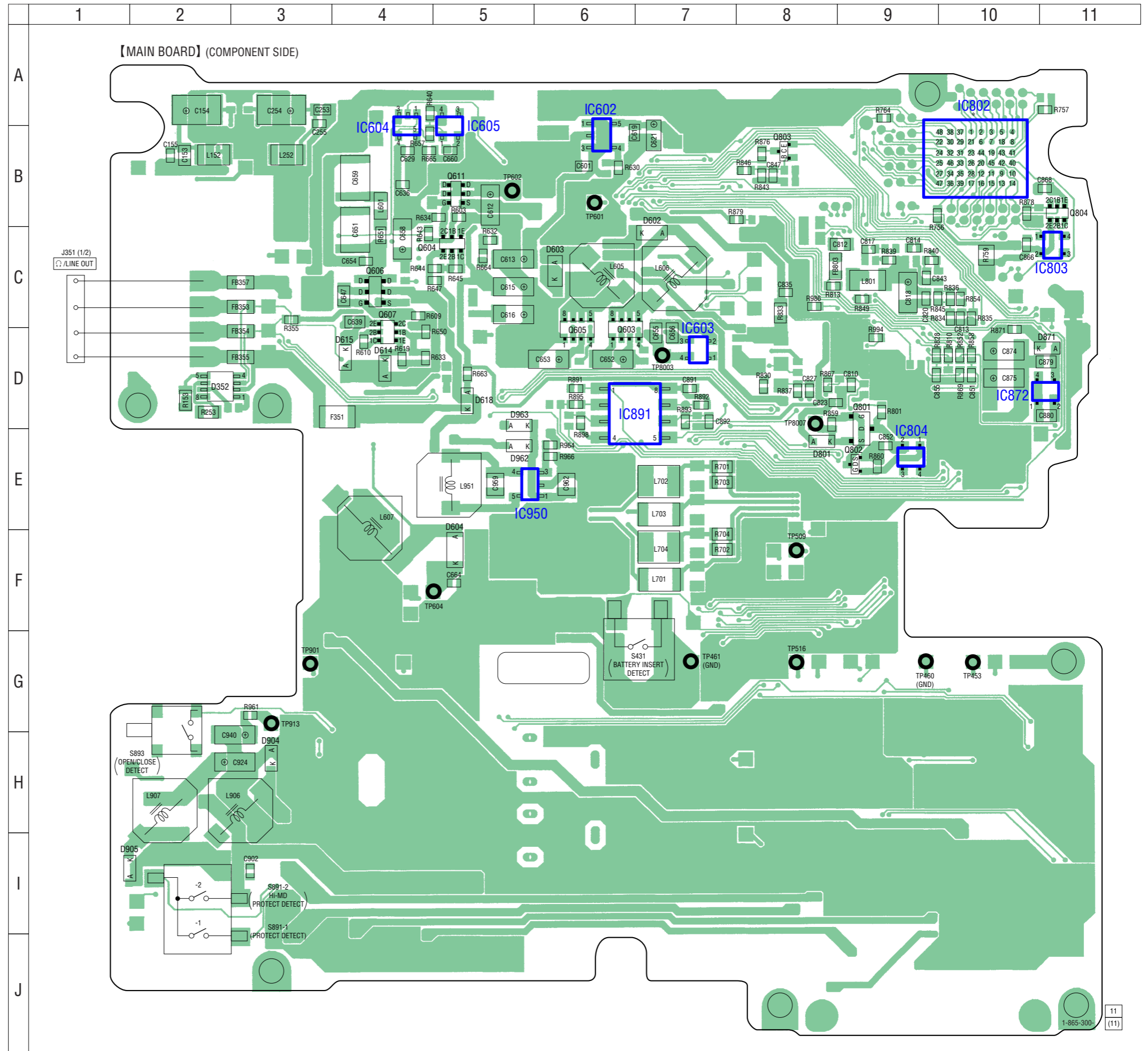
6-11. SCHEMATIC DIAGRAM – MAIN Board (8/9) – • See page 24 for Waveforms. • See page 44 for IC Pin Function Description.




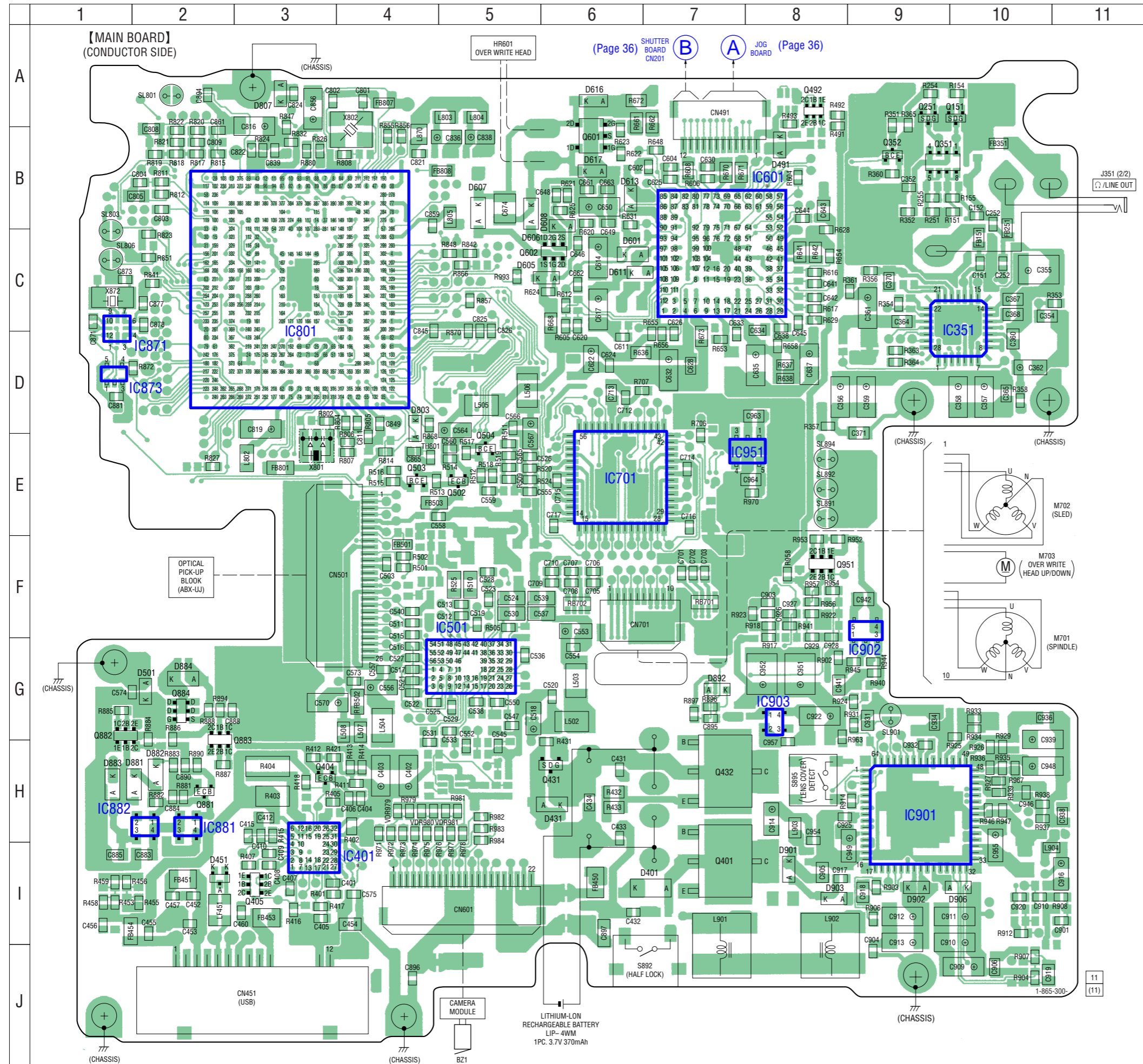
6-13. PRINTED WIRING BOARD – MAIN Board (Component Side) –  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D352	D-2
D602	C-7
D603	C-6
D604	F-5
D614	D-4
D615	D-4
D618	D-5
D801	E-8
D871	D-11
D904	H-3
D905	I-2
D962	E-5
D963	D-5
IC602	B-6
IC603	D-7
IC604	B-4
IC605	B-5
IC802	B-10
IC803	C-11
IC804	E-9
IC872	D-11
IC891	D-6
IC950	E-5
Q603	D-6
Q604	C-5
Q605	D-6
Q606	C-4
Q607	D-4
Q611	B-5
Q801	E-9
Q802	E-9
Q803	B-8
Q804	B-11



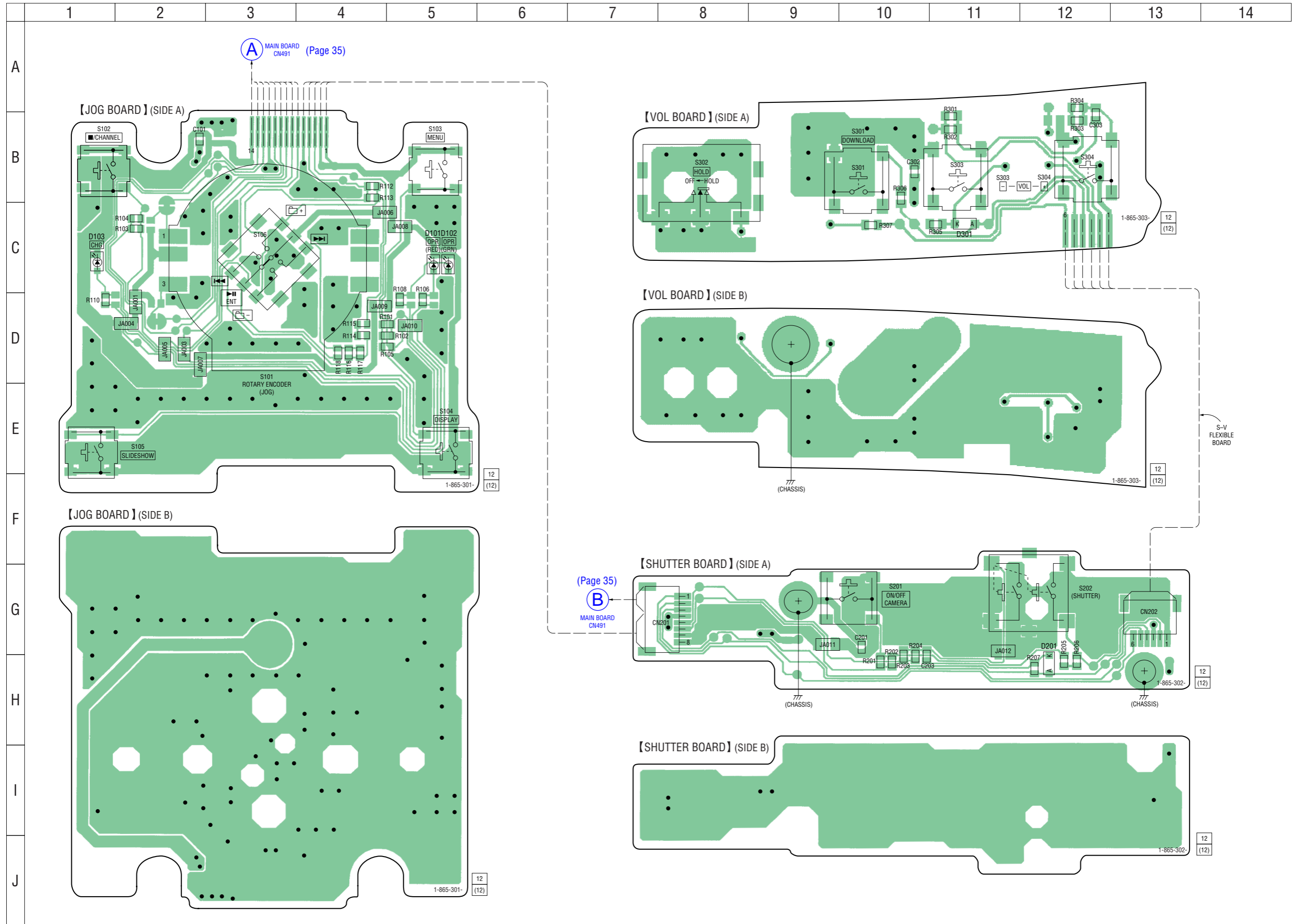
6-14. PRINTED WIRING BOARD – MAIN Board (Conductor Side) –  : Uses unleaded solder.



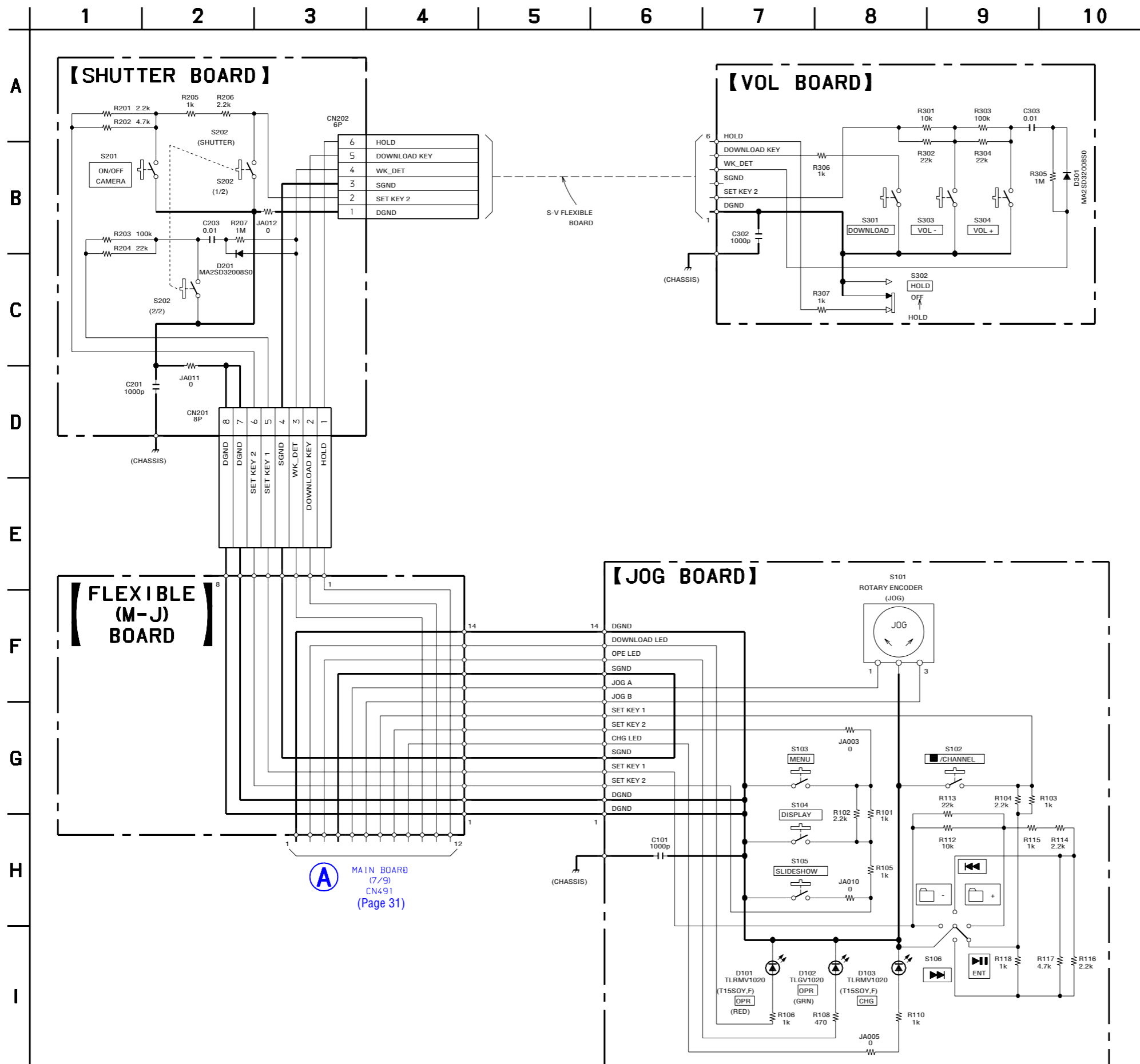
• Semiconductor Location

Ref. No.	Location
D401	I-7
D431	H-6
D451	I-2
D491	B-8
D501	G-2
D601	C-6
D605	C-6
D606	B-5
D607	B-5
D608	B-6
D611	C-6
D613	B-6
D616	A-6
D617	B-6
D803	D-4
D807	A-3
D881	H-2
D882	H-2
D883	H-1
D884	G-2
D892	G-7
D901	I-8
D902	I-9
D903	I-8
D906	I-10
IC351	C-10
IC401	I-3
IC501	G-5
IC601	C-7
IC701	E-6
IC801	C-3
IC871	C-1
IC873	D-1
IC881	H-2
IC882	H-2
IC901	H-9
IC902	F-9
IC903	G-8
IC951	E-8
Q151	A-10
Q251	A-9
Q351	B-9
Q352	B-9
Q401	I-7
Q404	H-3
Q405	I-3
Q431	H-6
Q432	H-7
Q492	A-8
Q502	E-5
Q503	E-4
Q504	E-5
Q601	B-6
Q602	C-6
Q881	H-2
Q882	G-1
Q883	G-2
Q884	G-2
Q951	F-8

6-15. PRINTED WIRING BOARDS – PANEL Section –  : Uses unleaded solder.

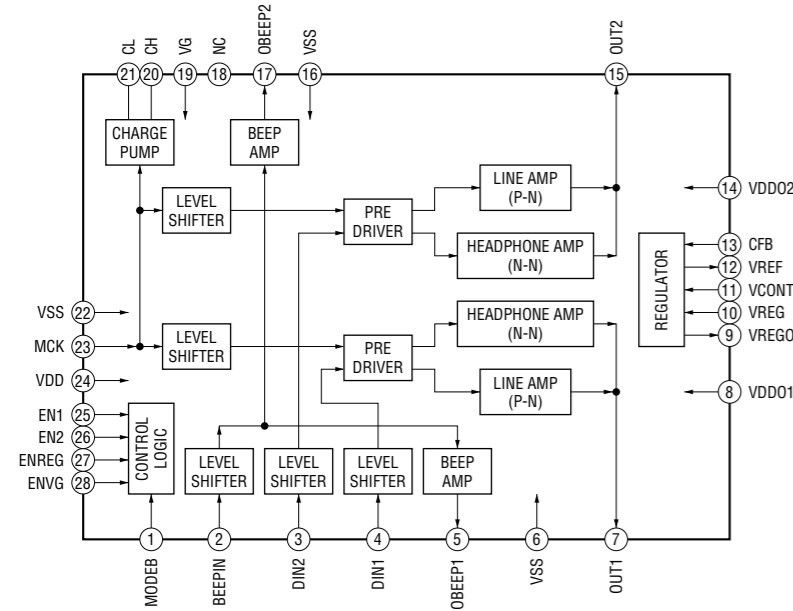


6-16. SCHEMATIC DIAGRAM – PANEL Section –

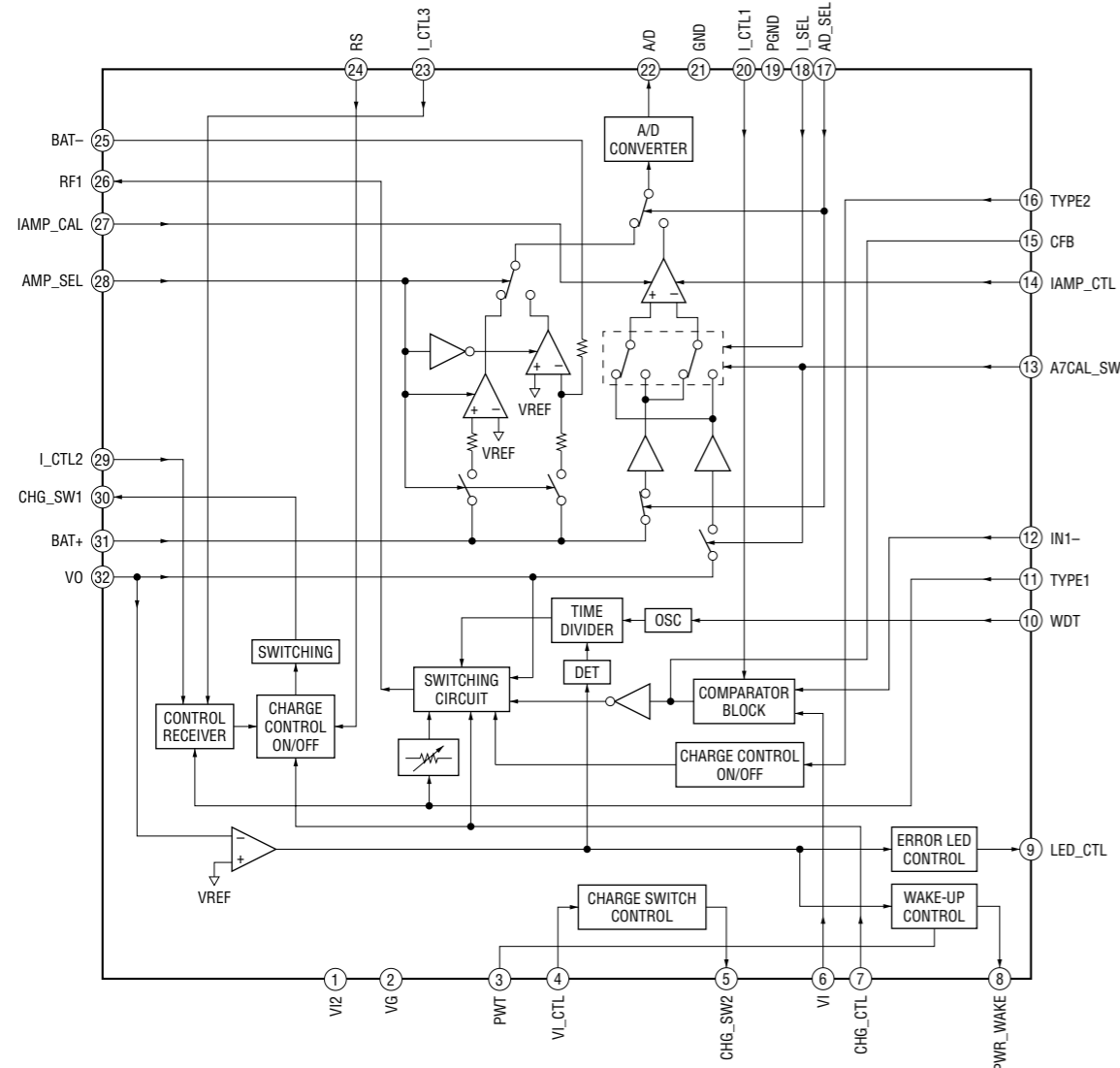


• IC Block Diagram
- MAIN Board -

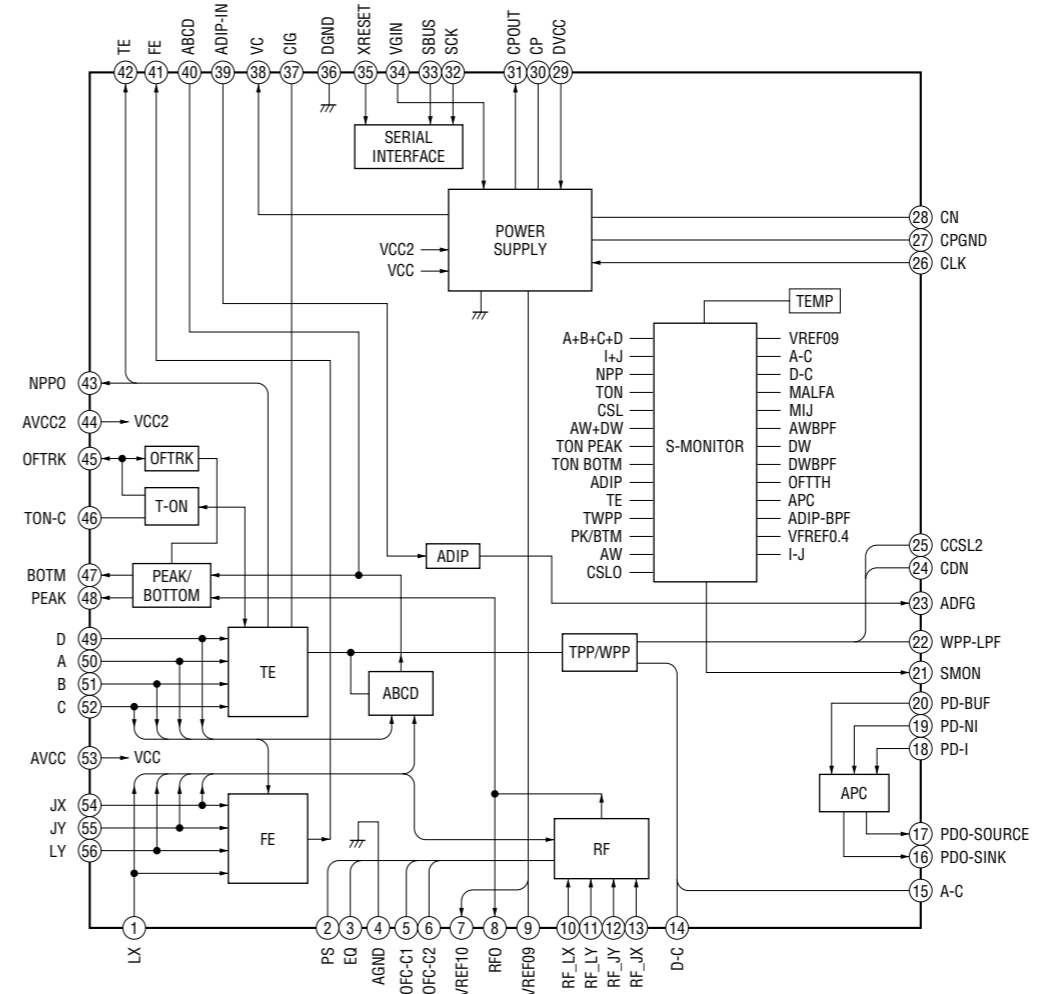
IC351 CXD9811K (TE4)



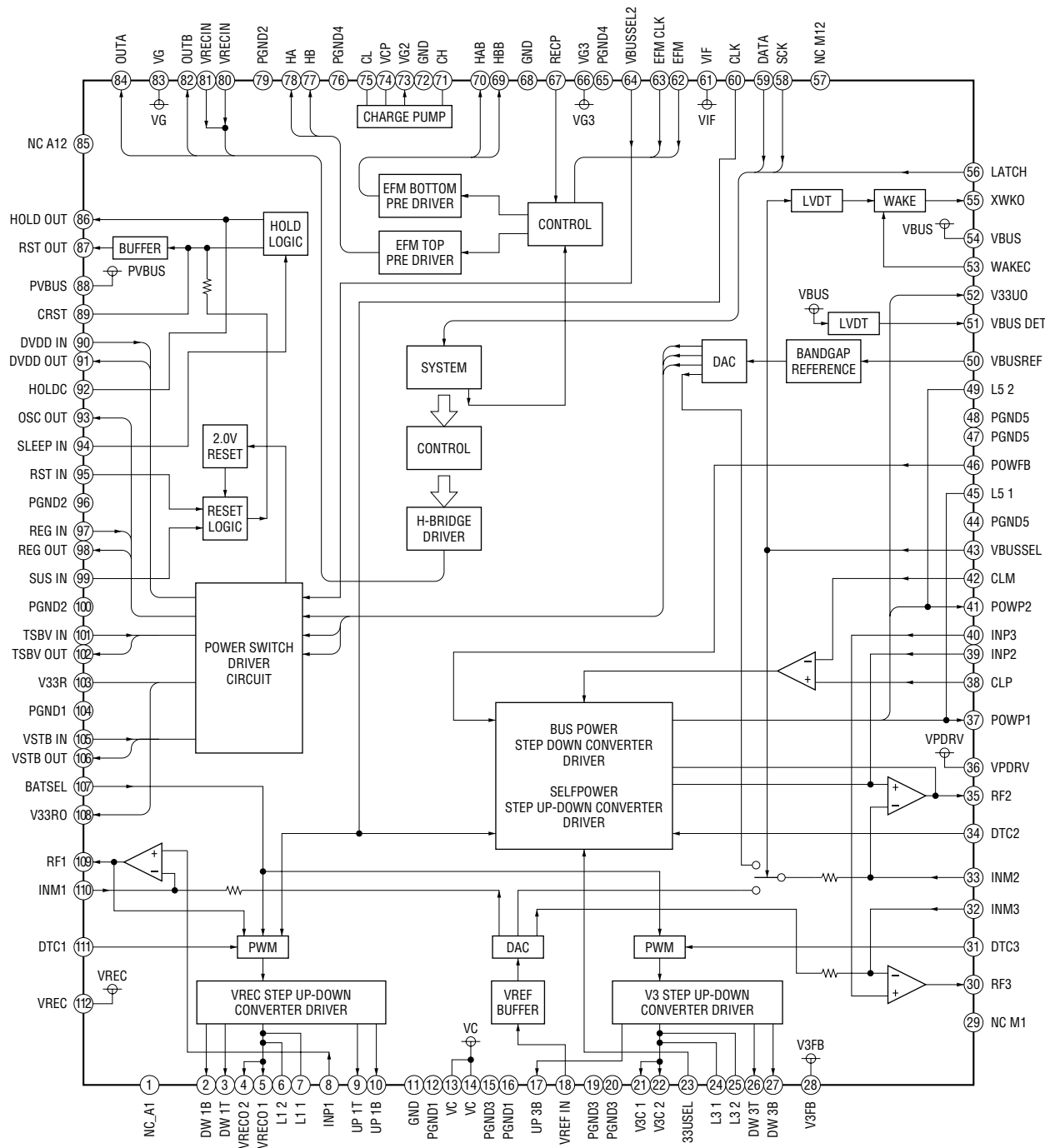
IC401 MM1690LCBE



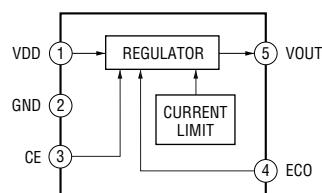
IC501 SN761059AZQLR

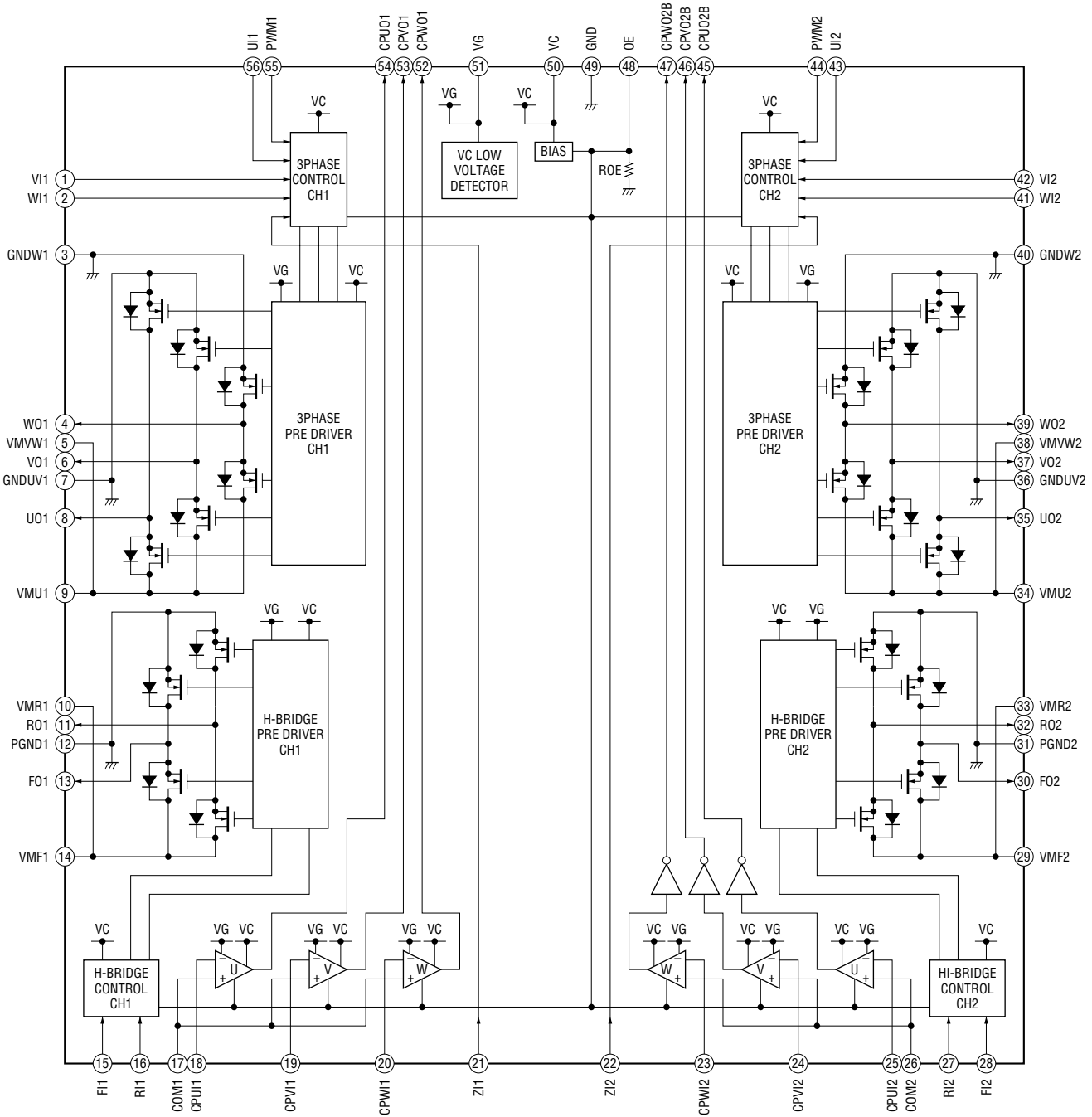


IC601 SC901585VAR2

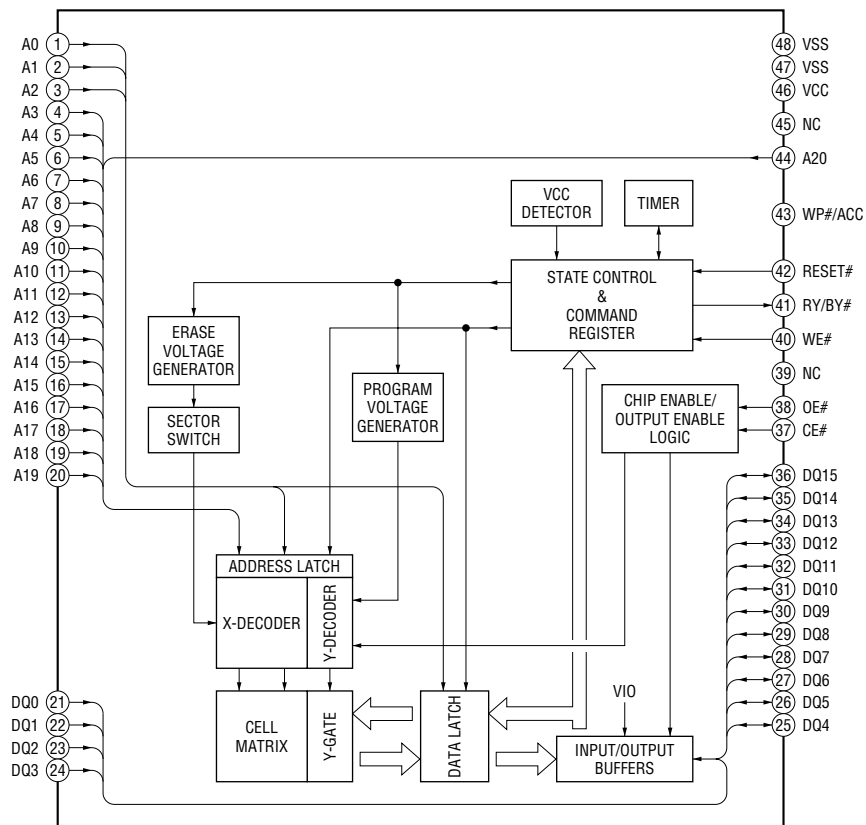


IC602 R1160N121B-TR-FA

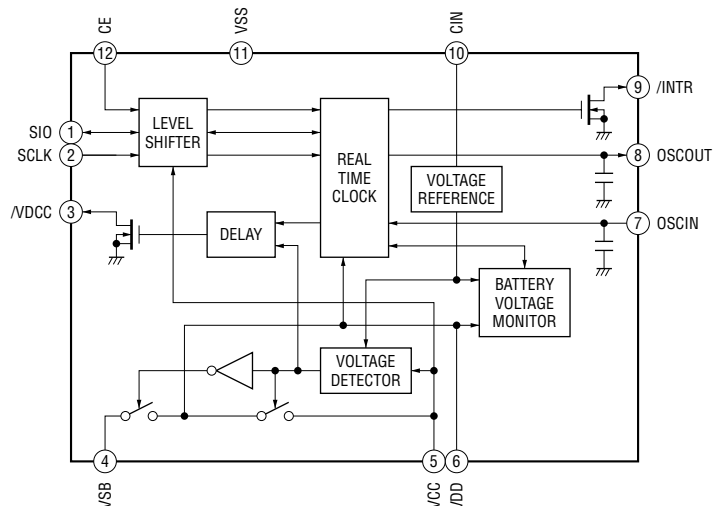




IC802 S29PL032J55BF120A

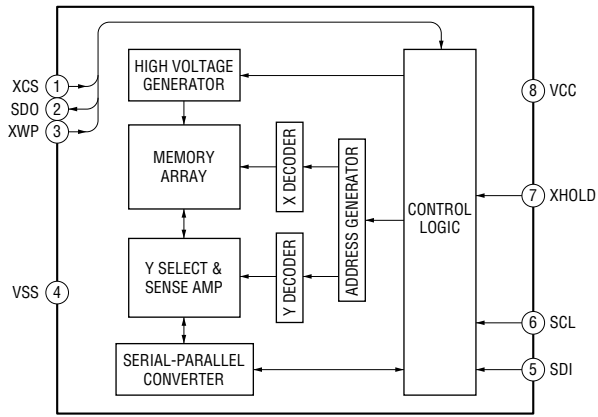


IC871 R2061K01-E2

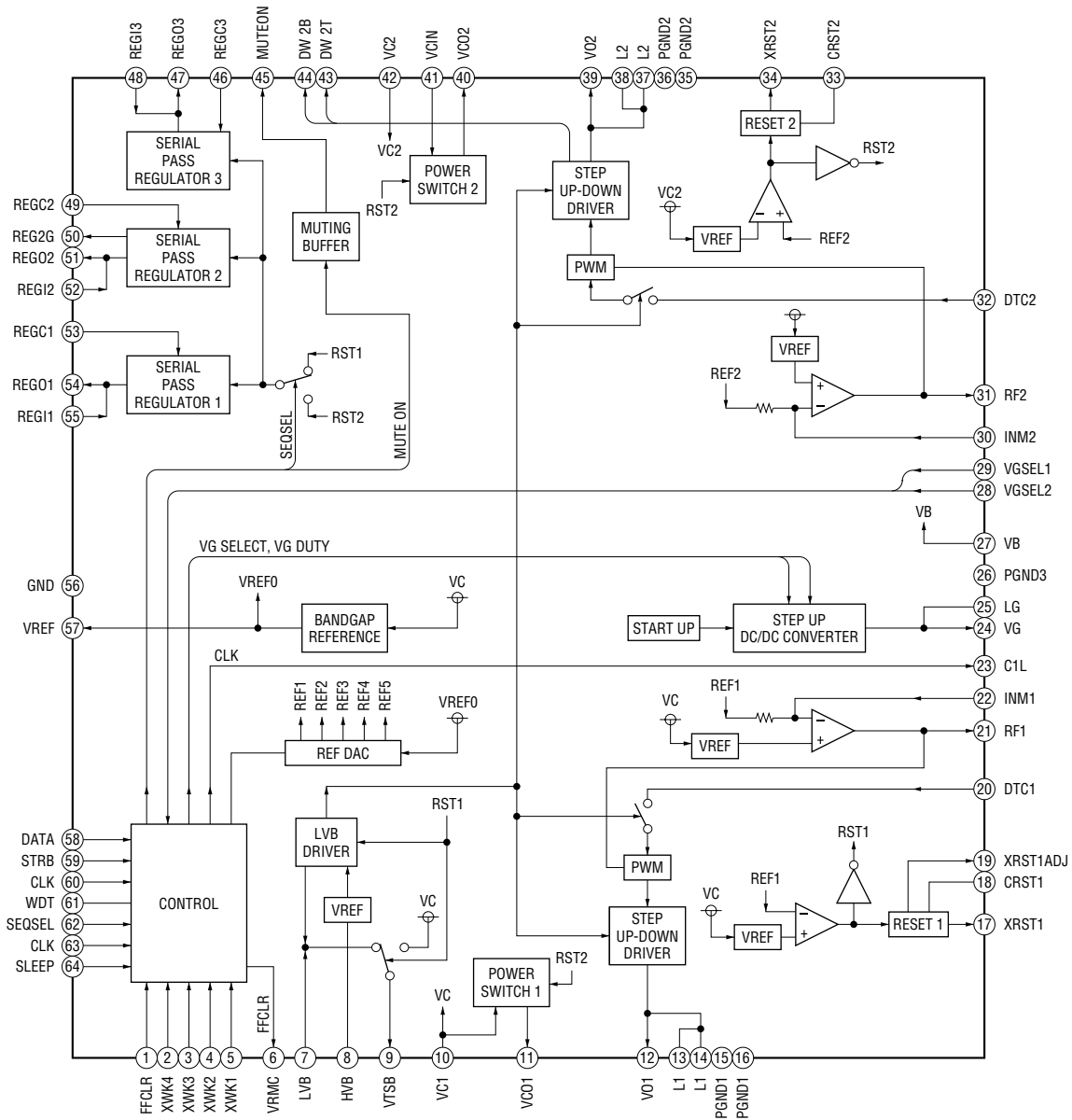


MZ-DH10P

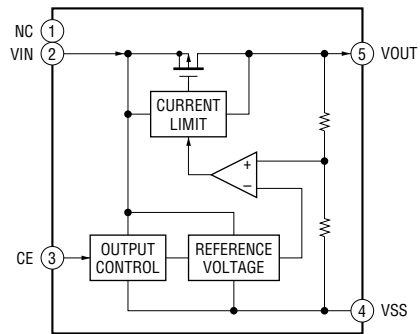
IC891 AK6514CF-E2



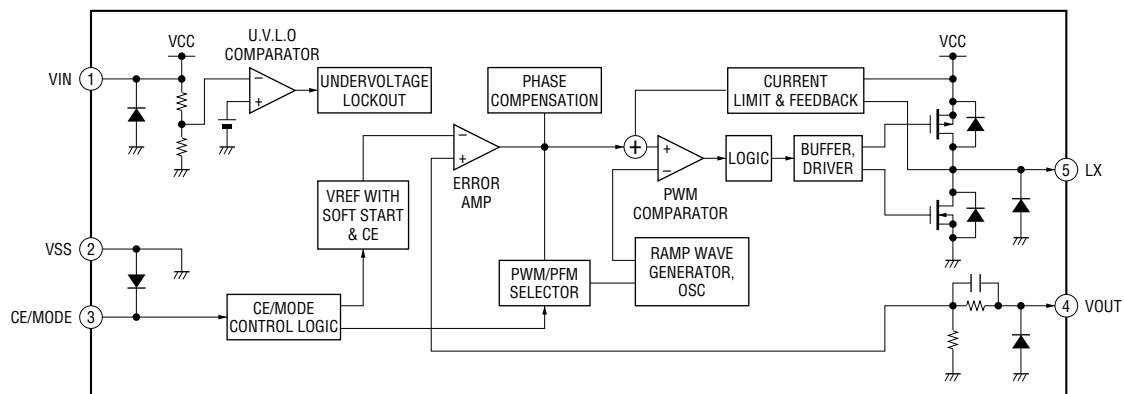
IC901 SC901584EPR2



IC902 XC62HR5502MR



IC950 XC9216A31CMR



• **IC Pin Function Description**

MAIN BOARD IC801 CXD2683-225GG (SYSTEM CONTROLLER, DSP, FLASH MEMORY CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	DVDD1_0	-	Power supply terminal (DSP logic system)
2	DVSS1_0	-	Ground terminal (DSP logic system)
3	DVDD1_1	-	Power supply terminal (DSP logic system)
4	DVSS1_1	-	Ground terminal (DSP logic system)
5	DVDD1_2	-	Power supply terminal (DSP logic system)
6	DVSS1_2	-	Ground terminal (DSP logic system)
7	DVDD1_3	-	Power supply terminal (DSP logic system)
8	DVSS1_3	-	Ground terminal (DSP logic system)
9	DVDD1_4	-	Power supply terminal (DSP logic system)
10	DVSS1_4	-	Ground terminal (DSP logic system)
11	DVDD1_5	-	Power supply terminal (DSP logic system)
12	DVSS1_5	-	Ground terminal (DSP logic system)
13	DVDD1_6	-	Power supply terminal (DSP logic system)
14	DVSS1_6	-	Ground terminal (DSP logic system)
15	DVDD1_7	-	Power supply terminal (DSP logic system)
16	DVSS1_7	-	Ground terminal (DSP logic system)
17	DVDD1_8	-	Power supply terminal (DSP logic system)
18	DVSS1_8	-	Ground terminal (DSP logic system)
19	DVDD1_9	-	Power supply terminal (DSP logic system)
20	DVSS1_9	-	Ground terminal (DSP logic system)
21	DVDD3	-	Power supply terminal (DSP logic system)
22	VSS_3	-	Ground terminal (DSP logic system)
23	DVDD1_10	-	Power supply terminal (DSP logic system)
24	DVSS1_10	-	Ground terminal (DSP logic system)
25	DVDD1_11	-	Power supply terminal (DSP logic system)
26	DVSS1_11	-	Ground terminal (DSP logic system)
27	AVDD1A	-	Power supply terminal (for PLL)
28	AVSS1A	-	Ground terminal (for PLL)
29	AVDD1B	-	Power supply terminal (for RFA of asymmetry correction cell)
30	AVSS1B	-	Ground terminal (for RFA of asymmetry correction cell)
31	AVDD1C	-	Power supply terminal (for ASYO of asymmetry correction cell)
32	AVDD2	-	Power supply terminal (for A/D converter)
33	DVDD25SVADC	-	Power supply terminal (for A/D converter)
34	AVSS2	-	Ground terminal (for A/D converter)
35	AVDD3	-	Power supply terminal (for A/D converter)
36	AVSS3	-	Ground terminal (for A/D converter)
37	AVDD4A	-	Power supply terminal (for PLL)
38	AVSS4A	-	Ground terminal (for PLL)
39	AVDD4B	-	Power supply terminal (for PLL)
40	AVSS4B	-	Ground terminal (for PLL)
41	AVDD4C	-	Power supply terminal (for D/A converter)
42	AVSS4C	-	Ground terminal (for D/A converter)
43	AVDD5	-	Power supply terminal (for PLL)
44	AVSS5	-	Ground terminal (for PLL)
45	AVDD6	-	Power supply terminal (for A/D converter)
46	AVSS6	-	Ground terminal (for A/D converter)

Pin No.	Pin Name	I/O	Description
47	DAVDD	-	Power supply terminal (for D/A converter)
48	DVDD25LPF	-	Power supply terminal (for D/A converter)
49	DAVSS	-	Ground terminal (for D/A converter)
50	OSCVDD	-	Power supply terminal (for 22.5792 MHz OSC)
51	USBOSCVDD	-	Power supply terminal (for the USB 48 MHz OSC)
52	TSMVDD	-	Power supply terminal (for the TSB master communication)
53	MAIFVDD	-	Power supply terminal (for MA interface)
54	MSJTAGVDD	-	Power supply terminal (for MS interface and JTAG)
55	USBIFVDD	-	Power supply terminal (for USB interface)
56 to 58	VSS_0 to VSS_2	-	Power supply terminal (for 22.5792 MHz OSC, USB 48 MHz OSC, TSB master communication, MS interface, MA interface, JTAG and USB interface)
59 to 62	IFVDD_1 to IFVDD_4	-	Power supply terminal (for interface)
63, 64	IFVSS_1, IFVSS_2	-	Ground terminal (for interface)
65 to 69	DRAMVDD0 to DRAMVDD4	-	Power supply terminal (for D-RAM/DSP interface)
70 to 72	DRAMVSS0 to DRAMVSS2	-	Ground terminal (for D-RAM/DSP interface)
73	FCRAMVDD0	-	Power supply terminal (for D-RAM)
74	FCRAMVSS0	-	Ground terminal (for D-RAM)
75	FCRAMVDD1	-	Power supply terminal (for D-RAM)
76	FCRAMVSS1	-	Ground terminal (for D-RAM)
77	FVDD0	-	Power supply terminal (for flash memory)
78	FVSS0	-	Ground terminal (for flash memory)
79	SRAMVDD0	-	Power supply terminal (for S-RAM)
80	SRAMVSS0	-	Ground terminal (for S-RAM)
81	SRAMVDD1	-	Power supply terminal (for S-RAM)
82	SRAMVSS1	-	Ground terminal (for S-RAM)
83	EBIFVDD0	-	Power supply terminal (for external flash memory bus interface)
84	EBIFVSS0	-	Ground terminal (for external flash memory bus interface)
85	EBIFVDD1	-	Power supply terminal (for external flash memory bus interface)
86	EBIFVSS1	-	Ground terminal (for external flash memory bus interface)
87	EBIFVDD2	-	Power supply terminal (for external flash memory bus interface)
88	EBIFVSS2	-	Ground terminal (for external flash memory bus interface)
89	EBIFVDD3	-	Power supply terminal (for external flash memory bus interface)
90	EBIFVSS3	-	Ground terminal (for external flash memory bus interface)
91	EBIFVDD4	-	Power supply terminal (for external flash memory bus interface)
92	EBIFVSS4	-	Ground terminal (for external flash memory bus interface)
93	EBIFVDD5	-	Power supply terminal (for external flash memory bus interface)
94	EBIFVSS5	-	Ground terminal (for external flash memory bus interface)
95	EBIFVDD6	-	Power supply terminal (for external flash memory bus interface)
96	EBIFVSS6	-	Ground terminal (for external flash memory bus interface)
97	EBIFVDD7	-	Power supply terminal (for external flash memory bus interface)
98	EBIFVSS7	-	Ground terminal (for external flash memory bus interface)
99	ASYO	O	Playback EFM duplex signal output terminal
100	ASYI	I	Playback EFM comparator slice level input terminal
101	RFI	I	Playback EFM RF signal input from the RF amplifier
102	PCO	O	Phase comparison output terminal for the playback EFM system master PLL

Pin No.	Pin Name	I/O	Description
103	FILI	I	Filter input terminal for the playback EFM system master PLL
104	FILO	O	Filter output terminal for the playback EFM system master PLL
105	CLTV	I	Internal VCO control voltage input terminal for the playback EFM system master PLL
106	PEAK	I	Peak hold signal input of the light amount signal (RF/ABCD) the RF amplifier
107	BOTM	I	Bottom hold signal input of the light amount signal (RF/ABCD) the RF amplifier
108	ABCD	I	Light amount signal (ABCD) input from the RF amplifier
109	FE	I	Focus error signal input from the RF amplifier
110	VC	I	Middle point voltage input from the RF amplifier
111	ADIO	O	Monitor output terminal of A/D converter input signal Not used
112	ADRB	I	A/D converter the lower limit voltage input terminal
113	SE	I	Sled error signal input from the RF amplifier
114	TE	I	Tracking error signal input from the RF amplifier
115	AUX1	I	Auxiliary A/D input terminal
116	ADRT	I	The upper limit voltage of A/D converter input terminal
117	DCHG	-	Connecting terminal with the analog power supply of low impedance
118	APC	I	Error signal input terminal for the laser automatic power control
119	ADC1EXTC	-	Connection terminal for an external capacitor
120	TEMP_MON	I	Thermistor connection terminal for temperature detection
121	VB_MON	I	Detection terminal of rechargeable battery power supply voltage (UNREG)
122	CHG_MON	I	Charge or discharge current monitor input from power control IC
123	VREF_MON	I	Reference voltage monitor input from the RF amplifier
124, 125	SET_KEY_1, SET_KEY_2	I	Set key input terminal (A/D input)
126	STAND_DET	I	Monitor input terminal of DC input voltage for battery charge Not used
127	HIDC_MON	I	Monitor input terminal of High DC voltage
128	XSTILL	I	Detection terminal of panel key input for camera wake up
129	VBUS_MON	I	Monitor input terminal of USB power supply voltage (VBUS)
130	BATT_MINUS _MON	I	Monitor input terminal of rechargeable battery minus terminal voltage
131	RMC_KEY	I	Remote commander key input terminal (A/D input)
132	XSTILL_PLAY	I	Lens cover detection switch input terminal
133	REC_KEY/ DOWNLOAD	I	DOWNLOAD key input terminal
134	RADIO_ON	I	Radio on detection input terminal Not used
135	HALF_LOCK_SW	I	Top panel open switch detection terminal
136	XRST	I	System reset signal input terminal
137	PLL2EXTCI	I	Connection terminal for an external capacitor
138	PLL2EXTCO	O	Connection terminal for an external capacitor
139	PLL3EXTCI	I	Connection terminal for an external capacitor
140	PLL3EXTCO	O	Connection terminal for an external capacitor
141	DACVREFH	I	Reference voltage input terminal
142	APCREF_DA	O	Reference voltage output to the RF amplifier
143	ADC3VREFH	I	Reference voltage input terminal
144	ADC3EXTC	-	Connection terminal for an external capacitor (for A/D converter)
145	VIN	I	RF signal input from the RF amplifier
146	VREFL	I	Reference voltage input terminal (for internal D/A converter L-CH) Not used
147	AOUTL	O	Internal D/A converter (L-CH) output terminal Not used
148	AOUTR	O	Internal D/A converter (R-CH) output terminal Not used

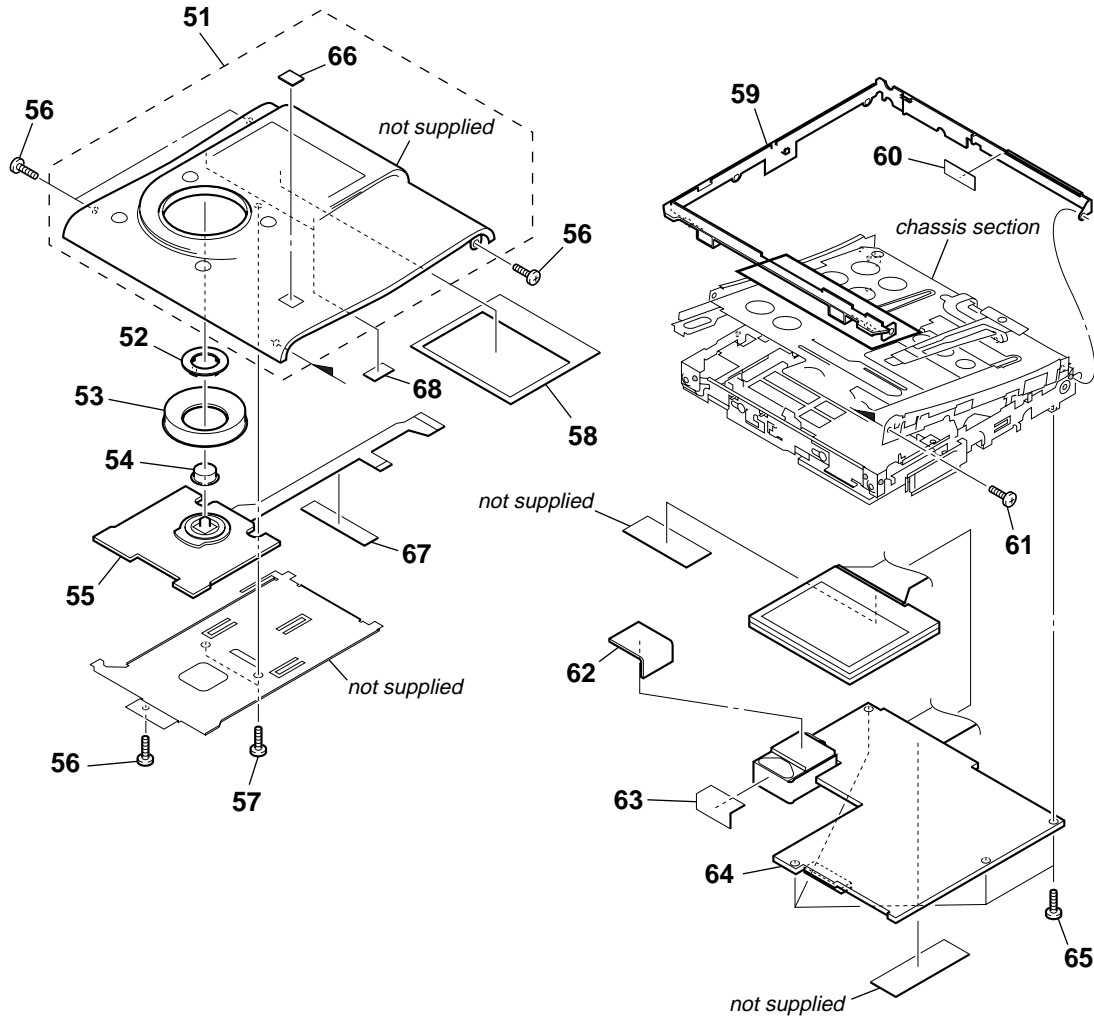
Pin No.	Pin Name	I/O	Description
149	VREFR	I	Reference voltage input terminal (for internal D/A converter R-CH) Not used
150	DCLSOUTR	O	PWM modulator signal output to the headphone amplifier (R-CH)
151	DCLSOUTL	O	PWM modulator signal output to the headphone amplifier (L-CH)
152	RTCK	O	Not used
153	ADFG	I	ADIP duplex FM signal (21.05kHz to 23.05 kHz) input from the RF amplifier
154	TRDR	O	Tracking servo drive PWM signal output (-) to the coil driver
155	TFDR	O	Tracking servo drive PWM signal output (+) to the coil driver
156	FFDR	O	Focus servo drive PWM signal output (+) to the coil driver
157	FRDR	O	Focus servo drive PWM signal output (-) to the coil driver
158	FS4	O	176.4 kHz clock signal output to the over write head driver and power control IC
159	SFDR	O	Sled servo drive PWM signal output to the motor driver
160	SPDU	O	Spindle motor drive control signal output (U) to the motor driver
161	SPFD	O	Spindle servo drive PWM signal output to the motor driver
162	SPDV	O	Spindle motor drive control signal output (V) to the motor driver
163	SPDW	O	Spindle motor drive control signal output (W) to the motor driver
164	SPCU	I	Spindle motor drive comparison signal input (U) from the motor driver
165	SPCV	I	Spindle motor drive comparison signal input (V) from the motor driver
166	SPCW	I	Spindle motor drive comparison signal input (W) from the motor driver
167	SLDV	O	Sled motor drive control signal output (V) to the motor driver
168	SLDW	O	Sled motor drive control signal output (W) to the motor driver
169	SLCU	I	Sled motor drive comparison signal input (U) from the motor driver
170	SLCV	I	Sled motor drive comparison signal input (V) from the motor driver
171	SLCW	I	Sled motor drive comparison signal input (W) from the motor driver
172	SLDU	O	Sled motor drive control signal output (U) to the motor driver
173	DIN	I	Digital audio signal input terminal Not used
174	FS256_OUT	O	11.2896 MHz clock output to the RF amplifier
175	CHOPPERCLK	O	Clock signal output for chopper to the over write head driver
176 to 179	MNT0 to MNT3	O	Monitor output terminal for DSP Not used
180	OFTRK	I/O	Tracking signal input/output for MD3 with the RF amplifier
181	RECP	O	Laser power selection signal output to the power control IC
182	EFMO	O	EFM encode data output for the recording to the over write head driver
183	HI_Z_SPDL	O	Standby signal output for the spindle motor to the motor driver
184	PROTECT	I	Recording protector for normal disc detection switch input terminal
185	OPT_DET	I	Optical digital input plug detection signal input terminal "H": optical in Not used
186	XJACK_DET	I	Line input plug detection signal input terminal "L": plug in Not used
187	XMIC_DET	I	Microphone input plug detection signal input terminal "L": plug in Not used
188	OPEN_CLOSE_SW	I	Top panel open/close detection switch input terminal
189	XCS_ADC	O	Chip select signal output to the A/D converter Not used
190	XPD_ADC	O	Power control signal output to the A/D converter Not used
191	NC	-	Not used
192	XRST_LCD	O	LCD reset signal output terminal Not used
193	USB_WAKE	O	System wake up signal output terminal by USB connection
194	A7CAL_SW	O	A7 offset voltage CAL on/off control signal output to the charge control IC
195	SI0	I	Serial data input from the real time clock and EEPROM
196	SO0	O	Serial data output to the real time clock, EEPROM and power control IC
197	SCK0	O	Serial data transfer clock signal output to the real time clock, EEPROM and power control IC
198	XGUM_ON	I	Rechargeable battery insert detection switch input terminal

Pin No.	Pin Name	I/O	Description
199	BEEP	O	Beep sound control signal output to the headphone amplifier
200	XOPT_CTL	O	Power supply on/off control signal output terminal for the optical input jack Not used
201	EX_BUS_CONT	I	External bus control signal input terminal Not used
202	XRST2	I	Reset signal input from the power control IC
203	REC_LED	O	Recording indication LED drive signal output terminal
204	MDVCC_CTL	O	Power supply control signal output terminal for the optical pick-up block
205	VBUS_VB_CTL	O	USB power supply control signal output terminal Not used
206	D_ENVG	O	Power on/off control signal output terminal for headphone amplifier
207	DRAM_ALONE	O	Power on/off control signal output terminal for internal D-RAM
208	XRST_CHG_IC	O	Reset signal output to the charge control IC
209, 210	PD_S0, PD_S1	O	PD IC mode selection signal output to the optical pick-up block
211	D_ENREG	O	Internal power supply on/off control signal output to the headphone amplifier
212	XMUTE/MUTE	O	Muting on/off control signal output terminal
213	SII	I	Serial data input terminal Not used
214	XNV_WP_CTL	O	Write protect signal output to the EEPROM Not used
215	SCK1	O	Serial data transfer clock signal output terminal Not used
216	SLD_MON	I	Monitor signal input terminal of sled servo
217	AOUT_SEL	O	Headphone/line output selection signal output terminal Not used
218	SLEEP	O	Chip enable signal output to the power control IC
219	FFCLR	O	Power supply on/off control signal output terminal for FCRAM (internal RAM)
220	CHGI_CTL1	O	Charge current limiter control signal output terminal at the time of AC adapter use "L": charging
221, 222	CHGI_CTL2, CHGI_CTL3	O	Charge current control signal output terminal "H": low current charge
223	HI_Z_SLD	O	Standby signal output for the sled motor to the motor driver
224	XTEST	I	Input terminal for the test mode setting "L": test mode
225	XRF_RST	O	Reset signal output to the RF amplifier
226	XEXT_PWR	O	Not used
227	XHOLD_SW	I	HOLD switch input terminal
228, 229	D_EN1, D_EN2	O	Headphone/LINE/beep selection signal output to the headphone amplifier
230	CHGI_SEL	O	Charge/discharge control signal output for current detection amplifier to the charge control IC
231	RECP_MON	I	Monitor input terminal for laser power selection signal output
232	SPDL_MON	I	Monitor signal input terminal of spindle servo
233	XCS_PWR_IC	O	Chip select signal output to the power control IC
234	RXD	I	Reception data input terminal Not used
235	TXD	O	Transmission data output terminal Not used
236	XCS_LCD	O	LCD drive chip select signal output terminal Not used
237	NI_VI_CTL	O	Constant current circuit control signal output to the charge control IC
238	XRST_MTR_DRV	O	Reset signal output to the motor driver
239	XCS_NV	O	Chip select signal output to the EEPROM
240	CHG_PWM	O	Charge current or voltage control signal output to the charge control IC
241	CHG_IAMP_CAL	O	Offset signal output for current detection amplifier charge control IC
242	RST_CONT	O	Reset signal output to the power control IC
243	D_VCONT_PWM	O	For voltage control signal output to the headphone amplifier
244	CHG_OPR_LED	O	Charging indication LED drive signal output terminal
245	XCS_REC_DRV	O	Chip select signal output to the over write head driver
246	GND_SW	O	Ground line selection signal output terminal Not used
247	CS_RTC	O	Chip select signal output to the real time clock

Pin No.	Pin Name	I/O	Description
248	JOG_A	I	Jog dial pulse input terminal (A phase)
249	JOG_B	I	Jog dial pulse input terminal (B phase)
250	VBUS_DET	I	Detection terminal of USB power supply
251	SSB_DATA	I/O	SSB data input/output with the RF amplifier
252	SSB_CLK	O	SSB clock output to the RF amplifier
253	UMD_PROTECT	I	Recording protector for Hi-MD disc detection switch input terminal
254	LDPEN	O	Pulse/DC light-emit selection signal output to the optical pick-up block
255	CHG_TYPE2	O	Charge control signal output terminal "H": charging Not used
256	DRAM_HOLD_DET	I	Detection terminal for internal D-RAM power supply information keeping
257	DRAM_VDD_CLR	O	Internal D-RAM power supply latch clear signal output for quick mode sleep
258	AD2ENDF	I	Monitor input terminal for flag of servo signal A/D measuring finish
259	TEST	-	Input terminal for the test Not used
260	SRAM_MODE	I	Terminal for setting
261	HSALF	I	Terminal for setting
262 to 271	MON0 to MON9	O	Trigger monitor terminal Output clock=18.5 MHz
272	XLSRCK	O	Pulse output for laser strobe recording to the optical pick-up
273	TAT	I	Not used
274	TAN	I	Not used
275	NAR	I	Not used
276	IDO	I	Not used
277	SAK	O	Not used
278	LRCKI	I	L/R sampling clock signal input terminal for PCM data interface Not used
279	XBCKI	I	Bit clock signal input terminal for the PCM data interface Not used
280	DATAI	I	Serial data input terminal for the PCM data interface Not used
281	SI3	I	Serial data input for LAM microcomputer communication Not used
282	SO3	O	Serial data output for LAM microcomputer communication Not used
283	SCK3	O	Serial data transfer clock signal output for LAM microcomputer communication Not used
284	SI4	I	Serial data input for communication from the camera module
285	SO4	O	Serial data output for communication to the camera module
286	SCK4	O	Serial data transfer clock signal output for communication to the camera module
287	RESET	O	Reset signal output to the camera module
288	OPE_LED_CNT	O	Operating indication LED drive signal output terminal
289	WAKE	O	Wake up signal output to the camera module
290	DRIVE_NACK	O	NACK signal output to the camera module
291	DRIVE_REQ	O	Transmission request signal output to the camera module
292	DRIVE_ACK	O	ACK signal output to the camera module
293	CAMERA_NACK	O	NACK signal input from the camera module
294	CAMERA_REQ	O	Transmission request signal input from the camera module
295	CAMERA_ACK	O	ACK signal input from the camera module
296	VSYNC_IN	O	Not used
297	BUF_ONOFF	O	Not used
298	27OSC_CONT	O	Not used
299, 300	PWM_L1, PWM_L2	O	LC drive PWM output terminal Not used
301, 302	I2C_1, I2C_2	I/O	Open drain for I2C
303, 304	JTAG0, JTAG1	I/O	Terminal for setting
305	CLKIN2	I	Clock signal input terminal (13.5 MHz or 27 MHz) Not used

Pin No.	Pin Name	I/O	Description
306	FS256	O	Master clock signal (256Fs=11.2896 MHz) output to A/D converter
307	ADDT	I	Data input from A/D converter
308	LRCK	O	L/R sampling clock signal (44.1kHz) output to the A/D converter or D/A converter Not used
309	XBCK	O	Bit clock (2.8224 MHz) output to the A/D converter or D/A converter Not used
310	OSCI	I	Main system clock input terminal (22.5792 MHz)
311	OSCO	O	Main system clock output terminal (22.5792 MHz)
312	FS512	O	Clock signal (512Fs=22.5792 MHz) output to the headphone amplifier
313	DTCK	I/O	TSB master data clock input/output or SSB data input/output with the remote commander
314	UDP	I/O	USB data (+) input/output terminal
315	UDM	I/O	USB data (-) input/output terminal
316	USBHOLD	I	USB hold signal input from the power control IC
317	SUSPEND	O	USB suspend signal output to the power control IC
318	UPUEN	O	USB pull-up resistor connection control terminal
319	UOSCI	I	System clock input terminal (48 MHz) (for USB oscillation circuit)
320	UOSCO	O	System clock output terminal (48 MHz) (for USB oscillation circuit)
321	EBA0	O	Address signal output terminal Not used
322 to 342	EBA1 to EBA21	O	Address signal output to the flash memory
343, 344	EBA22, EBA23	O	Address signal output terminal Not used
345 to 360	EBD0 to EBD15	I/O	Two-way data bus with the flash memory
361 to 376	EBD16 to EBD31	I/O	Two-way data bus terminal Not used
377	EBWAIT	O	Wait signal output terminal Not used
378	EBCS0	O	Chip select signal output to the flash memory
379 to 383	EBCS1 to EBCS5	O	Chip select signal output terminal Not used
384	EBRD	O	Read signal output to the flash memory
385	EBWE	O	Write signal output to the flash memory
386 to 389	EBWR0 to EBWR3	O	Access signal output terminal Not used
390 to 392	NC	-	Not used

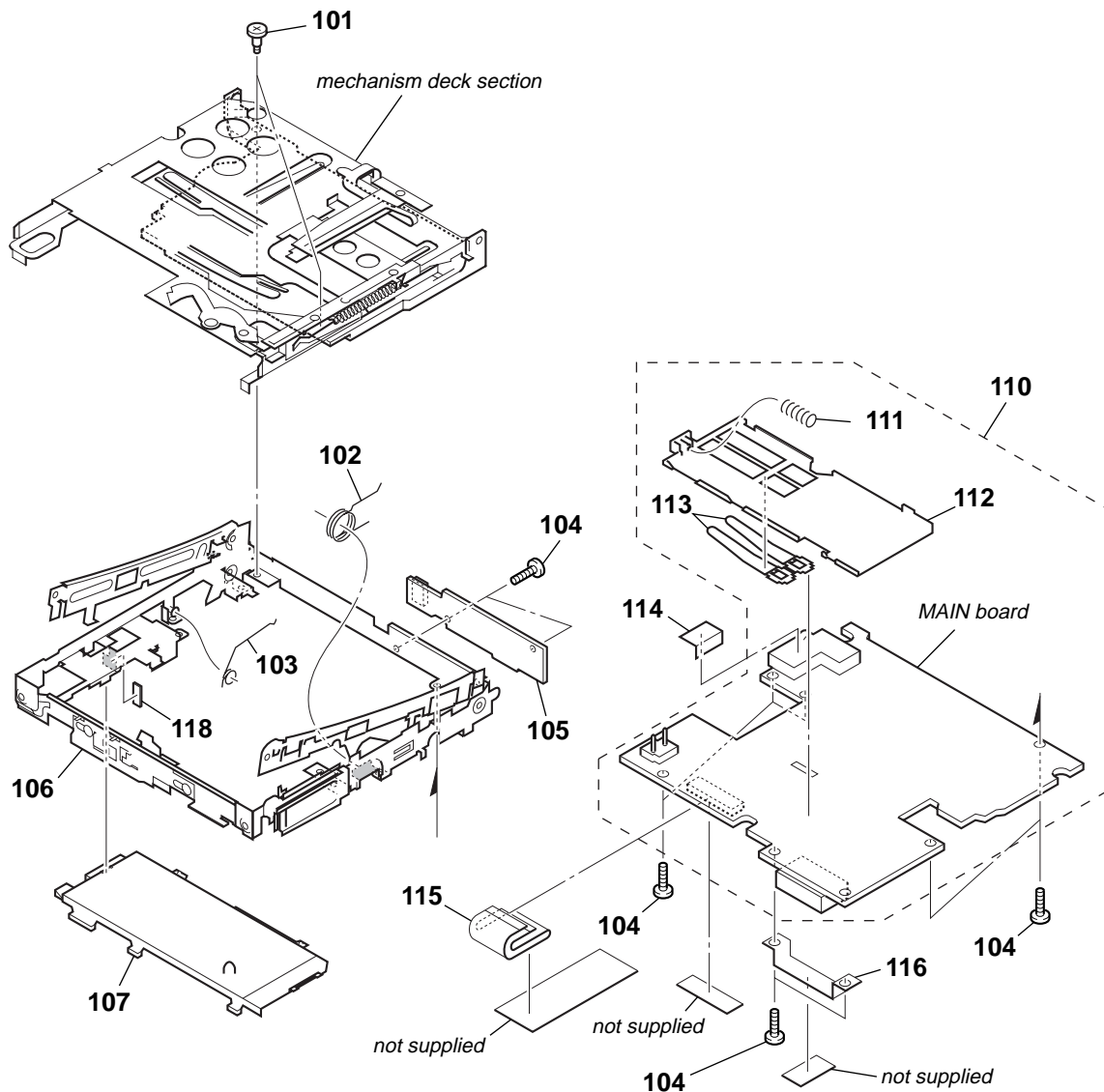
7-2. PANEL (UPPER) SECTION



Ref. No.	Part No.	Description	Remark
51	X-2055-627-1	SUB (S) ASSY, PANEL (UPPER) (SILVER) (EXCEPT CH)	
51	X-2055-628-1	SUB (B) ASSY, PANEL (UPPER) (BLACK) (CH)	
52	2-349-395-01	ORNAMENTA (JOG) (+ ▶▶▶ — ◀◀◀)	
53	2-349-393-01	DIAL (JOG)	
54	2-349-394-01	BUTTON (JOG)	
55	X-2055-631-1	JOG BOARD, COMPLETE (for SERVICE)	
56	3-225-873-09	SCREW (M1.4) (for SILVER) (EXCEPT CH)	
56	3-225-873-11	SCREW (M1.4) (for BLACK) (CH)	
57	3-254-082-01	SCREW	
58	2-349-398-01	CUSHION (LCD)	

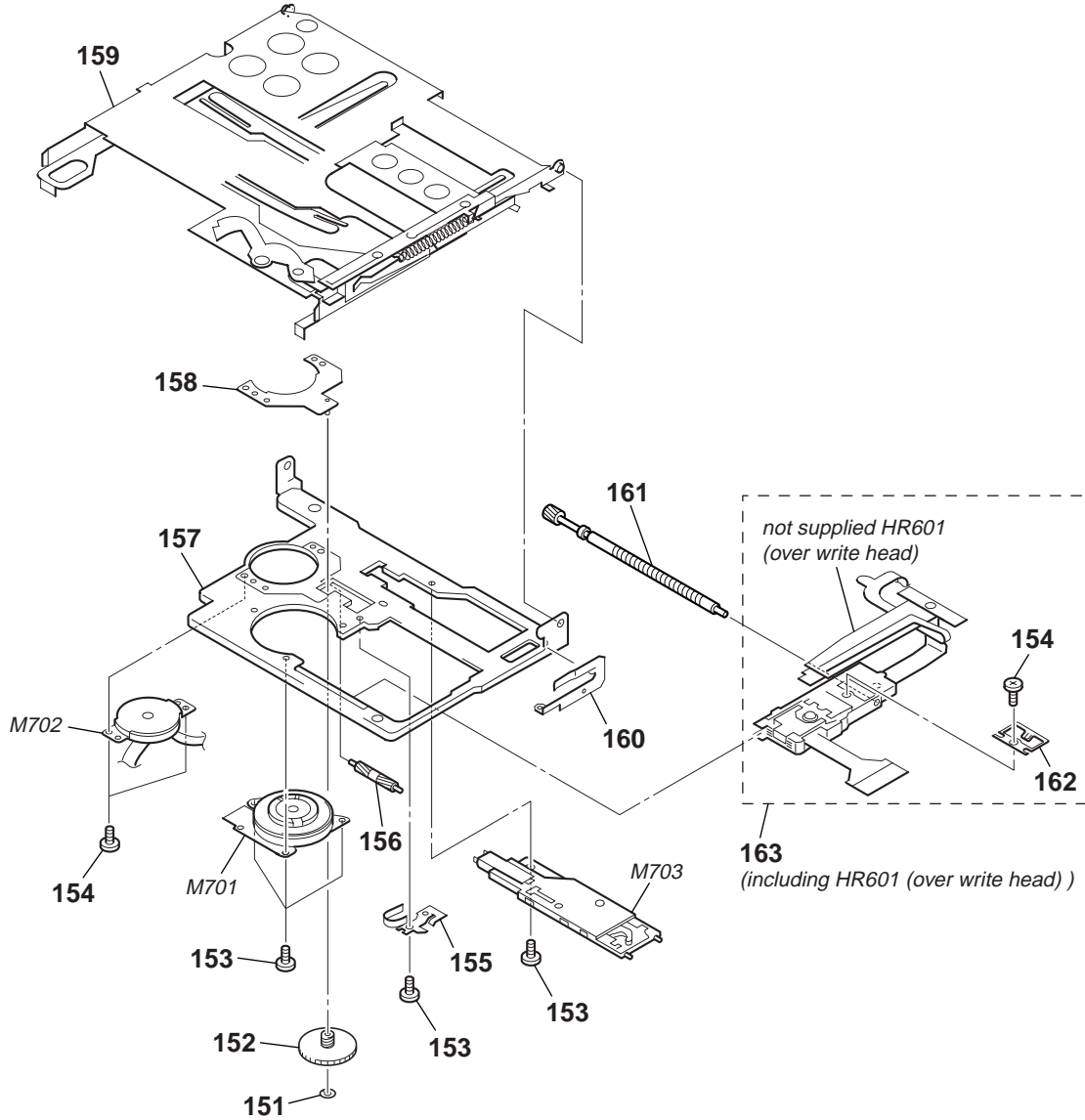
Ref. No.	Part No.	Description	Remark
59	2-349-455-01	BELT, ORNAMENTAL	
60	2-591-626-01	SHEET (BLIND)	
61	3-225-873-17	SCREW (M1.4)	
62	2-349-438-01	CUSHION (A)	
63	2-349-432-01	SPACER (MODULE)	
64	1-479-138-11	CAMERA MODULE	
65	3-238-876-04	SCREW (M1.4), TOOTHED LOCK	
66	3-264-154-02	EMBLEM (HI-MD)	
67	3-242-558-01	SPACER (LINE IN)	
68	2-598-568-01	SHEET (LIGHT LEAKAGE)	

7-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-246-996-01	SCREW (MD), STEP		111	2-349-456-01	SPRING (BATT), COMPRESSION COIL	
102	2-349-452-01	SPRING (POP UP RIGHT), TORSION		112	3-264-137-01	TABLE, TERMINAL	
103	2-349-451-01	SPRING (POP UP LEFT), TORSION		113	3-264-138-01	TERMINAL, BATTERY	
104	3-238-876-04	SCREW (M1.4), TOOTHED LOCK		114	2-349-437-01	SPACER (HP)	
105	X-2055-632-1	SHUTTER BOARD, COMPLETE (for SERVICE)		115	1-865-306-11	M-C FLEXIBLE BOARD	
106	X-2024-855-1	CHASSIS ASSY, SET		116	2-349-430-01	HOLDER (CONNECTOR)	
107	3-264-140-01	CASE, BATTERY		118	2-349-439-01	CUSHION (B)	
110	X-2055-626-1	MAIN BOARD, COMPLETE (for SERVICE)					

7-4. MECHANISM DECK SECTION
(MT-MZDH10P-181)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-338-645-31	WASHER (0.8-2.5)		160	3-263-453-01	PLATE, RATCHET	
152	3-244-882-02	GEAR (SA)		161	X-2023-272-1	SERVICE ASSY, LEAD SCREW	
153	3-248-370-01	SCREW, SELF TAP		162	3-244-879-01	SPRING, RACK	
154	3-225-996-17	SCREW (M1.4) (EG), PRECISION PAN		△ 163	X-2055-677-1	OP SERVICE ASSY (ABX-UJ) (including HR601(OVER WRITE HEAD))	
155	3-244-880-01	SPRING, THRUST RETAINER		M701	8-835-782-12	MOTOR, DC SSM18D/C-NP (SPINDLE)	
156	3-263-455-01	GEAR (SB)		M702	8-835-778-21	MOTOR, DC SSM21A/C-NP (SLED)	
157	3-259-972-24	CHASSIS (REC)		M703	1-477-519-21	MOTOR UNIT, DC (OVER WRITE HEAD UP/DOWN)	
158	X-2024-862-1	BASE, MOTOR ASSY					
159	X-2025-181-1	HOLDER ASSY					

SECTION 8 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 and -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
- Abbreviation
CH : Chinese model
JE : Tourist model

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- **SEMICONDUCTORS**
In each case, u: μ , for example:
uA... : μ A... uPA... : μ PA...
uPB... : μ PB... uPC... : μ PC...
uPD... : μ PD...
- **CAPACITORS**
uF: μ F
- **COILS**
uH: μ H

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

原理图和零件清单中标有 \triangle 记号的零部件、或带有 \triangle 记号的虚线所圈示的零部件，对于维系安全至关重要。因此只能以指定号码的零部件来更换。

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	X-2055-631-1	JOG BOARD, COMPLETE (for SERVICE) *****		S105	1-786-650-21	SWITCH, TACTILE (SLIDESHOW)	
		< CAPACITOR >		S106	(Not supplied)	SWITCH, TACTIL (▶ ENT, ◀◀, ▶▶, GROUP +/-)	

C101	1-164-937-11	CERAMIC CHIP 0.001uF 10% 50V		X-2055-626-1	MAIN BOARD, COMPLETE (for SERVICE) *****		
		< LED >		2-349-456-01	SPRING (BATT), COMPRESSION COIL		
D101	6-500-298-01	LED TLRMV1020 (T15SOY, F) (OPR (RED))		3-264-137-01	TABLE, TERMINAL		
D102	6-500-103-01	LED TLGV1020 (T15) (OPR (GRN))		3-264-138-01	TERMINAL, BATTERY		
D103	6-500-298-01	LED TLRMV1020 (T15SOY, F) (CHG)			< CAPACITOR >		
		< JUMPER RESISTOR >		C151	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
JA001	1-216-864-11	SHORT CHIP 0		C152	1-164-937-11	CERAMIC CHIP 0.001uF 10% 50V	
JA003	1-216-864-11	SHORT CHIP 0		C153	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V	
JA004	1-216-864-11	SHORT CHIP 0		C154	1-135-868-11	TANTALUM CHIP 220uF 20% 2.5V	
JA005	1-216-864-11	SHORT CHIP 0		C155	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
JA006	1-216-864-11	SHORT CHIP 0		C251	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
JA007	1-216-864-11	SHORT CHIP 0		C252	1-164-937-11	CERAMIC CHIP 0.001uF 10% 50V	
JA008	1-216-864-11	SHORT CHIP 0		C253	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V	
JA009	1-216-864-11	SHORT CHIP 0		C254	1-135-868-11	TANTALUM CHIP 220uF 20% 2.5V	
JA010	1-216-864-11	SHORT CHIP 0		C255	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
		< RESISTOR >		C352	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
R101	1-208-683-11	METAL CHIP 1K 0.5% 1/16W		C354	1-125-837-11	CERAMIC CHIP 1uF 10% 6.3V	
R102	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W		C355	1-112-011-21	TANTALUM CHIP 47uF 20% 6.3V	
R103	1-208-683-11	METAL CHIP 1K 0.5% 1/16W		C356	1-100-842-11	TANTALUM CHIP 47uF 20% 6.3V	
R104	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W		C357	1-100-842-11	TANTALUM CHIP 47uF 20% 6.3V	
R105	1-208-683-11	METAL CHIP 1K 0.5% 1/16W		C358	1-100-842-11	TANTALUM CHIP 47uF 20% 6.3V	
R106	1-218-953-11	RES-CHIP 1K 5% 1/16W		C359	1-100-842-11	TANTALUM CHIP 47uF 20% 6.3V	
R108	1-218-949-11	RES-CHIP 470 5% 1/16W		C360	1-165-884-11	CERAMIC CHIP 2.2uF 10% 6.3V	
R110	1-218-953-11	RES-CHIP 1K 5% 1/16W		C361	1-100-842-11	TANTALUM CHIP 47uF 20% 6.3V	
R112	1-208-911-11	METAL CHIP 10K 0.5% 1/16W		C362	1-117-919-11	TANTALUM CHIP 10uF 20% 6.3V	
R113	1-208-715-11	METAL CHIP 22K 0.5% 1/16W		C364	1-165-884-11	CERAMIC CHIP 2.2uF 10% 6.3V	
R114	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W		C365	1-125-837-11	CERAMIC CHIP 1uF 10% 6.3V	
R115	1-208-683-11	METAL CHIP 1K 0.5% 1/16W		C367	1-125-837-11	CERAMIC CHIP 1uF 10% 6.3V	
R116	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W		C368	1-127-715-11	CERAMIC CHIP 0.22uF 10% 16V	
R117	1-208-699-11	METAL CHIP 4.7K 0.5% 1/16W		C370	1-100-352-11	CERAMIC CHIP 1uF 20% 16V	
R118	1-208-683-11	METAL CHIP 1K 0.5% 1/16W		C371	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
		< ROTARY ENCODER/SWITCH >		C401	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	
S101	(Not supplied)	ENCODER, ROTARY (JOG)		C402	1-100-844-11	TANTALUM CHIP 22uF 20% 10V	
S102	1-786-650-21	SWITCH, TACTILE (■/CHANNEL)		C403	1-100-844-11	TANTALUM CHIP 22uF 20% 10V	
S103	1-786-650-21	SWITCH, TACTILE (MENU)		C404	1-164-937-11	CERAMIC CHIP 0.001uF 10% 50V	
S104	1-786-650-21	SWITCH, TACTILE (DISPLAY)		C405	1-125-777-11	CERAMIC CHIP 0.1uF 10% 10V	

MZ-DH10P

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C406	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C567	1-125-926-11	TANTALUM CHIP	4.7uF 20% 6.3V
C407	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C570	1-112-014-11	TANTALUM CHIP	4.7uF 20% 6.3V
C408	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C573	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C409	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C574	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C410	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C575	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C412	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	C601	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C415	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C602	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C431	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C604	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C432	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C611	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C433	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C612	1-100-453-11	TANTALUM CHIP	22uF 20% 6.3V
C434	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C613	1-100-453-11	TANTALUM CHIP	22uF 20% 6.3V
C452	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C614	1-100-453-11	TANTALUM CHIP	22uF 20% 6.3V
C453	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C615	1-100-453-11	TANTALUM CHIP	22uF 20% 6.3V
C454	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	C616	1-100-844-11	TANTALUM CHIP	22uF 20% 10V
C455	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C617	1-100-453-11	TANTALUM CHIP	22uF 20% 6.3V
C456	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C619	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C457	1-164-939-11	CERAMIC CHIP	0.0022uF 10% 50V	C620	1-107-819-11	CERAMIC CHIP	0.022uF 10% 16V
C460	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V	C621	1-117-919-11	TANTALUM CHIP	10uF 20% 6.3V
C503	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V	C622	1-100-442-11	TANTALUM CHIP	10uF 20% 6.3V
C511	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C624	1-164-933-11	CERAMIC CHIP	220PF 10% 50V
C513	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C625	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C515	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C626	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C516	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C628	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C517	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C629	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C518	1-125-926-11	TANTALUM CHIP	4.7uF 20% 6.3V	C630	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C519	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C632	1-100-842-11	TANTALUM CHIP	47uF 20% 6.3V
C520	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C633	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C521	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V	C634	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C522	1-164-850-11	CERAMIC CHIP	10PF 0.5PF 50V	C635	1-100-842-11	TANTALUM CHIP	47uF 20% 6.3V
C523	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C636	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C524	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	C637	1-117-919-11	TANTALUM CHIP	10uF 20% 6.3V
C525	1-164-941-11	CERAMIC CHIP	0.0047uF 10% 16V	C638	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C526	1-164-874-11	CERAMIC CHIP	100PF 5% 50V	C639	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C527	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C641	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C528	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C642	1-107-819-11	CERAMIC CHIP	0.022uF 10% 16V
C529	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C643	1-165-884-11	CERAMIC CHIP	2.2uF 10% 6.3V
C530	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C644	1-164-941-11	CERAMIC CHIP	0.0047uF 10% 16V
C531	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C645	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C533	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C646	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V
C536	1-107-819-11	CERAMIC CHIP	0.022uF 10% 16V	C647	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V
C537	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C648	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V
C538	1-164-941-11	CERAMIC CHIP	0.0047uF 10% 16V	C649	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C539	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C650	1-100-442-11	TANTALUM CHIP	10uF 20% 6.3V
C545	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C651	1-100-353-11	CERAMIC CHIP	4.7uF 10% 16V
C547	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V	C652	1-104-851-11	TANTALUM CHIP	10uF 20% 10V
C550	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V	C653	1-104-851-11	TANTALUM CHIP	10uF 20% 10V
C552	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C654	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C553	1-125-926-11	TANTALUM CHIP	4.7uF 20% 6.3V	C655	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C554	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C656	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C555	1-164-941-11	CERAMIC CHIP	0.0047uF 10% 16V	C658	1-100-844-11	TANTALUM CHIP	22uF 20% 10V
C556	1-125-926-11	TANTALUM CHIP	4.7uF 20% 6.3V	C659	1-100-353-11	CERAMIC CHIP	4.7uF 10% 16V
C557	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C660	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C558	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V	C661	1-164-933-11	CERAMIC CHIP	220PF 10% 50V
C559	1-164-941-11	CERAMIC CHIP	0.0047uF 10% 16V	C662	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C560	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C663	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C564	1-131-860-11	TANTALUM CHIP	4.7uF 20% 10V	C664	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C565	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C674	1-112-010-11	CAP-CHIP	33PF 5% 100V
C566	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V				

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C701	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C874	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V
C702	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C875	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V
C703	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C877	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C705	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C878	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C706	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C879	1-100-352-11	CERAMIC CHIP	1uF	20%	16V
C707	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C880	1-100-352-11	CERAMIC CHIP	1uF	20%	16V
C708	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C881	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C709	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C883	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C710	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V	C884	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C712	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C885	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C713	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C888	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C714	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C890	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C715	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C891	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C716	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C892	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C717	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C894	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C801	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	C895	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C802	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V	C896	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C803	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C897	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C804	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C901	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C805	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V	C902	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C808	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V	C903	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C809	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C904	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C810	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C905	1-100-352-11	CERAMIC CHIP	1uF	20%	16V
C811	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C906	1-100-352-11	CERAMIC CHIP	1uF	20%	16V
C812	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V	C909	1-100-845-11	TANTALUM CHIP	10uF	20%	16V
C813	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V	C910	1-100-845-11	TANTALUM CHIP	10uF	20%	16V
C814	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C911	1-100-845-11	TANTALUM CHIP	10uF	20%	16V
C816	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V	C912	1-100-845-11	TANTALUM CHIP	10uF	20%	16V
C817	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C913	1-100-845-11	TANTALUM CHIP	10uF	20%	16V
C818	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V	C914	1-100-442-11	TANTALUM CHIP	10uF	20%	6.3V
C819	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V	C916	1-100-442-11	TANTALUM CHIP	10uF	20%	6.3V
C820	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C917	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C821	1-164-874-11	CERAMIC CHIP	100PF	5%	50V	C918	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C822	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C919	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C823	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C920	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C824	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	C922	1-100-453-11	TANTALUM CHIP	22uF	20%	6.3V
C825	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	C924	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V
C826	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V	C925	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C827	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C926	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C835	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C927	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C836	1-100-442-11	TANTALUM CHIP	10uF	20%	6.3V	C928	1-164-874-11	CERAMIC CHIP	100PF	5%	50V
C838	1-100-442-11	TANTALUM CHIP	10uF	20%	6.3V	C929	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C839	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C931	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C843	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C932	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C845	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C934	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C847	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C936	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C849	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C938	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C851	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C939	1-100-453-11	TANTALUM CHIP	22uF	20%	6.3V
C852	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C940	1-100-453-11	TANTALUM CHIP	22uF	20%	6.3V
C855	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C941	1-100-352-11	CERAMIC CHIP	1uF	20%	16V
C856	1-100-842-11	TANTALUM CHIP	47uF	20%	6.3V	C942	1-100-352-11	CERAMIC CHIP	1uF	20%	16V
C859	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C946	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C861	1-164-858-11	CERAMIC CHIP	22PF	5%	50V	C948	1-100-453-11	TANTALUM CHIP	22uF	20%	6.3V
C865	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V	C949	1-100-844-11	TANTALUM CHIP	22uF	20%	10V
C866	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C951	1-100-841-11	TANTALUM CHIP	100uF	20%	6.3V
C868	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C952	1-100-841-11	TANTALUM CHIP	100uF	20%	6.3V
C871	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V	C954	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C873	1-164-842-11	CERAMIC CHIP	2PF	0.25PF	50V						

MAIN

Ref. No.	Part No.	Description	Remark
C955	1-100-844-11	TANTALUM CHIP 22uF	20% 10V
C957	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C959	1-125-889-11	CERAMIC CHIP 2.2uF	10% 10V
C962	1-125-889-11	CERAMIC CHIP 2.2uF	10% 10V
C963	1-100-352-11	CERAMIC CHIP 1uF	20% 16V
C964	1-100-352-11	CERAMIC CHIP 1uF	20% 16V
< CONNECTOR >			
CN451	1-818-137-21	CONNECTOR (CRADLE) (USB)	
CN491	1-818-984-21	CONNECTOR, FPC (ZIF) 12P	
CN501	1-818-539-21	CONNECTOR, FPC (ZIF) 26P	
CN601	1-818-538-21	CONNECTOR, FPC (ZIF) 22P	
CN701	1-818-536-21	CONNECTOR, FPC (ZIF) 10P	
< DIODE >			
D352	8-719-081-74	DIODE DF8A6.8FK (TE85R)	
D401	6-500-369-01	DIODE FT1J3TP	
D431	6-500-483-01	DIODE MA22D2800LSO	
D451	6-500-776-01	DIODE MAZW068HOLS0	
D491	8-719-056-54	DIODE MAZS068008SO	
D501	8-719-056-54	DIODE MAZS068008SO	
D601	8-719-072-27	DIODE MA2Z748001S0	
D602	6-500-483-01	DIODE MA22D2800LSO	
D603	6-500-483-01	DIODE MA22D2800LSO	
D604	6-500-483-01	DIODE MA22D2800LSO	
D605	6-500-910-01	DIODE MA2SD3000LSO	
D606	6-500-909-01	DIODE MA22D1700LSO	
D607	6-500-909-01	DIODE MA22D1700LSO	
D608	6-500-910-01	DIODE MA2SD3000LSO	
D611	6-500-912-01	DIODE MA2SD3100LSO	
D613	8-719-072-27	DIODE MA2Z748001S0	
D614	8-719-422-49	DIODE MA8056-L	
D615	6-500-483-01	DIODE MA22D2800LSO	
D616	6-500-909-01	DIODE MA22D1700LSO	
D617	6-500-909-01	DIODE MA22D1700LSO	
D618	6-500-912-01	DIODE MA2SD3100LSO	
D801	6-500-912-01	DIODE MA2SD3100LSO	
D803	6-500-813-01	DIODE MA2SD32008SO	
D807	8-719-056-54	DIODE MAZS068008SO	
D871	6-500-813-01	DIODE MA2SD32008SO	
D881	8-719-072-27	DIODE MA2Z748001S0	
D882	8-719-072-27	DIODE MA2Z748001S0	
D883	8-719-072-27	DIODE MA2Z748001S0	
D884	6-500-483-01	DIODE MA22D2800LSO	
D892	6-500-813-01	DIODE MA2SD32008SO	
D901	8-719-072-27	DIODE MA2Z748001S0	
D902	8-719-072-27	DIODE MA2Z748001S0	
D903	8-719-072-27	DIODE MA2Z748001S0	
D904	8-719-072-27	DIODE MA2Z748001S0	
D905	8-719-072-27	DIODE MA2Z748001S0	
D906	8-719-072-27	DIODE MA2Z748001S0	
D962	8-719-072-27	DIODE MA2Z748001S0	
D963	8-719-072-27	DIODE MA2Z748001S0	
< FUSE >			
△F351	1-576-439-41	FUSE (0.25A/125V)	

Ref. No.	Part No.	Description	Remark
< FERRITE BEAD/JUMPER RESISTOR >			
FB151	1-400-180-21	INDUCTOR, EMI FERRITE (1608)	
FB251	1-400-180-21	INDUCTOR, EMI FERRITE (1608)	
FB351	1-400-180-21	INDUCTOR, EMI FERRITE (1608)	
FB353	1-414-594-11	INDUCTOR, FERRITE BEAD	
FB354	1-414-594-11	INDUCTOR, FERRITE BEAD	
FB355	1-414-594-11	INDUCTOR, FERRITE BEAD	
FB357	1-414-594-11	INDUCTOR, FERRITE BEAD	
FB450	1-216-295-00	SHORT CHIP 0	
FB451	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)	
FB453	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)	
FB454	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)	
FB501	1-400-620-21	INDUCTOR, FERRITE BEAD (1005)	
FB502	1-216-864-11	SHORT CHIP 0	
FB503	1-216-864-11	SHORT CHIP 0	
FB801	1-414-226-21	INDUCTOR, FERRITE BEAD	
FB803	1-216-864-11	SHORT CHIP 0	
FB807	1-216-864-11	SHORT CHIP 0	
FB808	1-216-864-11	SHORT CHIP 0	
< IC >			
IC351	6-704-998-01	IC CXD9811K (TE4)	
@ IC401	6-707-716-01	IC MM1690LCBE	
@ IC501	6-705-012-11	IC SN761059AZQLR	
@ IC601	6-705-000-01	IC SC901585VAR2	
IC602	6-703-317-01	IC R1160N121B-TR-FA	
IC603	6-706-079-01	IC R1180Q121C-TR-FA	
IC604	6-706-214-01	IC TC7SL32FU (TE85R)	
IC605	6-702-590-01	IC XC61CN1702NR	
IC701	6-705-001-01	IC SC901583EPR2	
@ IC801	8-753-239-66	IC CXD2683-225GG	
@ IC802	(Not supplied)	IC S29PL032J55BF120A	
IC803	6-702-148-01	IC XC61CN2702NR	
IC804	6-706-089-01	IC XC61CC2502NR	
IC871	6-703-012-01	IC R2061K01-E2	
IC872	6-706-096-01	IC R1180Q331C-TR-FA	
IC873	6-703-011-01	IC TC7SZ126AFE	
IC881	8-759-664-89	IC XC61CN3102NR	
IC882	6-706-094-01	IC R1180Q221B-TR-FA	
IC891	(Not supplied)	IC AK6514CF-E2	
IC901	6-704-997-01	IC SC901584EPR2	
IC902	6-706-090-01	IC XC62HR5502MR	
IC903	6-704-245-01	IC XC61CC1702NR	
IC950	6-707-942-01	IC XC9216A31CMR	
IC951	6-708-049-01	IC XC6201P352MR	
< JACK >			
J351	1-816-153-21	JACK (♁)/LINEOUT)	
< COIL/RESISTOR >			
L152	1-400-582-21	INDUCTOR 47uH	
L252	1-400-582-21	INDUCTOR 47uH	
L502	1-469-535-21	INDUCTOR 10uH	
L503	1-469-535-21	INDUCTOR 10uH	
L504	1-469-535-21	INDUCTOR 10uH	
L505	1-469-535-21	INDUCTOR 10uH	
L506	1-469-535-21	INDUCTOR 10uH	

@ Replacement of IC401, IC501, IC601, IC801 and IC802 used in this set requires a special tool.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L507	1-400-342-21	INDUCTOR	10uH			< RESISTOR >	
L508	1-400-342-21	INDUCTOR	10uH				
L601	1-400-402-21	INDUCTOR	4.7uH				
L605	1-456-711-21	COIL, CHOKE	100uH				
L606	1-400-306-11	COIL, CHOKE	100uH				
L607	1-456-722-21	COIL, CHOKE	100uH				
L701	1-216-296-11	SHORT CHIP	0				
L702	1-456-724-21	INDUCTOR	22uH				
L703	1-216-296-11	SHORT CHIP	0				
L704	1-456-724-21	INDUCTOR	22uH				
L801	1-469-535-21	INDUCTOR	10uH				
L802	1-400-343-21	INDUCTOR	22uH				
L803	1-216-797-11	METAL CHIP	10	5%	1/10W		
L804	1-216-797-11	METAL CHIP	10	5%	1/10W		
L805	1-216-797-11	METAL CHIP	10	5%	1/10W		
L870	1-400-342-21	INDUCTOR	10uH				
L901	1-456-725-21	COIL, CHOKE	100uH				
L902	1-456-725-21	COIL, CHOKE	100uH				
L903	1-400-342-21	INDUCTOR	10uH				
L904	1-400-342-21	INDUCTOR	10uH				
L906	1-456-723-21	COIL, CHOKE	220uH				
L907	1-456-723-21	COIL, CHOKE	220uH				
L951	1-456-274-21	COIL, CHOKE	10uH				
LF451	1-456-111-11	COIL, COMMON MODE CHOKE					
		< TRANSISTOR >					
Q151	6-550-379-01	FET	2SK354700LS0				
Q251	6-550-379-01	FET	2SK354700LS0				
Q351	6-550-859-01	FET	NTHD4508NT1G				
Q352	6-551-127-01	TRANSISTOR	RT1P441U-TP-1				
Q401	6-550-326-01	TRANSISTOR	FZT968TA				
Q404	6-550-192-01	TRANSISTOR	DTC144EET1				
Q405	8-729-055-00	TRANSISTOR	UP04313008S0				
Q431	8-729-046-45	FET	SI2302DS-T1				
Q432	8-729-044-57	TRANSISTOR	FZT688B-TP				
Q492	8-729-055-00	TRANSISTOR	UP04313008S0				
Q502	8-729-034-59	TRANSISTOR	2SA1745-6.7-TL-E				
Q503	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO				
Q504	8-729-037-89	TRANSISTOR	2SC4627J-C (TX).SO				
Q601	6-550-357-01	FET	CPH5614-TL-E				
Q602	6-550-740-01	FET	MCH6617-TL-E				
Q603	6-550-671-01	FET	NTHC5513T1G				
Q604	8-729-427-74	TRANSISTOR	XP4601				
Q605	6-550-671-01	FET	NTHC5513T1G				
Q606	6-550-354-01	FET	RTQ035P02TR				
Q607	8-729-427-74	TRANSISTOR	XP4601				
Q611	6-550-353-01	FET	SI1410EDH-T1				
Q801	8-729-051-50	FET	XP152A12C0MR				
Q802	8-729-047-68	FET	SSM3K03FE (TPL3)				
Q803	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO				
Q804	6-551-343-01	TRANSISTOR	UP04314008S0				
Q881	8-729-037-75	TRANSISTOR	UN9214J- (TX).SO				
Q882	8-729-030-46	TRANSISTOR	XP4314-TX				
Q883	8-729-030-46	TRANSISTOR	XP4314-TX				
Q884	6-550-353-01	FET	SI1410EDH-T1				
Q951	8-729-427-74	TRANSISTOR	XP4601				
R151	1-218-957-11	RES-CHIP	2.2K	5%	1/16W		
R153	1-216-864-11	SHORT CHIP	0				
R154	1-218-990-11	SHORT CHIP	0				
R155	1-218-990-11	SHORT CHIP	0				
R251	1-218-957-11	RES-CHIP	2.2K	5%	1/16W		
R253	1-216-864-11	SHORT CHIP	0				
R254	1-218-990-11	SHORT CHIP	0				
R255	1-218-990-11	SHORT CHIP	0				
R351	1-218-990-11	SHORT CHIP	0				
R352	1-218-973-11	RES-CHIP	47K	5%	1/16W		
R353	1-208-715-11	METAL CHIP	22K	0.5%	1/16W		
R354	1-218-990-11	SHORT CHIP	0				
R355	1-218-989-11	RES-CHIP	1M	5%	1/16W		
R356	1-218-990-11	SHORT CHIP	0				
R357	1-218-990-11	SHORT CHIP	0				
R358	1-218-990-11	SHORT CHIP	0				
R360	1-218-990-11	SHORT CHIP	0				
R361	1-218-929-11	RES-CHIP	10	5%	1/16W		
R363	1-218-990-11	SHORT CHIP	0				
R364	1-218-990-11	SHORT CHIP	0				
R365	1-218-989-11	RES-CHIP	1M	5%	1/16W		
R401	1-218-957-11	RES-CHIP	2.2K	5%	1/16W		
R402	1-245-454-21	METAL CHIP	0.022	1%	1/5W		
R403	1-245-639-11	METAL CHIP	2.2	1%	1/2W		
R404	1-245-638-21	METAL CHIP	1	1%	1W		
R405	1-218-990-11	SHORT CHIP	0				
R407	1-218-990-11	SHORT CHIP	0				
R411	1-208-935-11	METAL CHIP	100K	0.5%	1/16W		
R412	1-218-990-11	SHORT CHIP	0				
R413	1-220-804-11	RES-CHIP	2.2M	5%	1/16W		
R414	1-208-943-11	METAL CHIP	220K	0.5%	1/16W		
R415	1-218-957-11	RES-CHIP	2.2K	5%	1/16W		
R416	1-218-989-11	RES-CHIP	1M	5%	1/16W		
R417	1-218-957-11	RES-CHIP	2.2K	5%	1/16W		
R418	1-218-977-11	RES-CHIP	100K	5%	1/16W		
R421	1-208-935-11	METAL CHIP	100K	0.5%	1/16W		
R431	1-218-989-11	RES-CHIP	1M	5%	1/16W		
R432	1-245-456-21	METAL CHIP	1	1%	1/5W		
R433	1-245-455-21	METAL CHIP	0.47	1%	1/5W		
R453	1-220-804-11	RES-CHIP	2.2M	5%	1/16W		
R455	1-218-989-11	RES-CHIP	1M	5%	1/16W		
R456	1-218-985-11	RES-CHIP	470K	5%	1/16W		
R458	1-220-804-11	RES-CHIP	2.2M	5%	1/16W		
R459	1-218-981-11	RES-CHIP	220K	5%	1/16W		
R491	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W		
R492	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W		
R493	1-218-990-11	SHORT CHIP	0				
R501	1-218-957-11	RES-CHIP	2.2K	5%	1/16W		
R502	1-218-953-11	RES-CHIP	1K	5%	1/16W		
R505	1-218-929-11	RES-CHIP	10	5%	1/16W		
R509	1-218-990-11	SHORT CHIP	0				
R510	1-216-864-11	SHORT CHIP	0				
R511	1-218-990-11	SHORT CHIP	0				
R512	1-218-990-11	SHORT CHIP	0				
R513	1-218-965-11	RES-CHIP	10K	5%	1/16W		
R514	1-218-973-11	RES-CHIP	47K	5%	1/16W		

MZ-DH10P

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R515	1-218-965-11	RES-CHIP	10K	5%	1/16W	R672	1-216-864-11	SHORT CHIP	0		
R516	1-218-973-11	RES-CHIP	47K	5%	1/16W	R673	1-216-864-11	SHORT CHIP	0		
R517	1-218-965-11	RES-CHIP	10K	5%	1/16W	R701	1-216-864-11	SHORT CHIP	0		
R518	1-218-973-11	RES-CHIP	47K	5%	1/16W	R702	1-216-864-11	SHORT CHIP	0		
R519	1-218-953-11	RES-CHIP	1K	5%	1/16W	R703	1-216-864-11	SHORT CHIP	0		
R520	1-218-949-11	RES-CHIP	470	5%	1/16W	R704	1-216-864-11	SHORT CHIP	0		
R524	1-218-945-11	RES-CHIP	220	5%	1/16W	R706	1-218-990-11	SHORT CHIP	0		
R525	1-216-864-11	SHORT CHIP	0			R707	1-218-953-11	RES-CHIP	1K	5%	1/16W
R603	1-218-985-11	RES-CHIP	470K	5%	1/16W	R757	1-218-977-11	RES-CHIP	100K	5%	1/16W
R604	1-218-990-11	SHORT CHIP	0			R759	1-216-864-11	SHORT CHIP	0		
R605	1-218-965-11	RES-CHIP	10K	5%	1/16W	R764	1-218-990-11	SHORT CHIP	0		
R606	1-218-990-11	SHORT CHIP	0			R801	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R608	1-218-446-11	METAL CHIP	1	5%	1/10W	R802	1-218-937-11	RES-CHIP	47	5%	1/16W
R609	1-218-981-11	RES-CHIP	220K	5%	1/16W	R804	1-218-933-11	RES-CHIP	22	5%	1/16W
R610	1-218-965-11	RES-CHIP	10K	5%	1/16W	R805	1-218-933-11	RES-CHIP	22	5%	1/16W
R612	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R806	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R616	1-218-953-11	RES-CHIP	1K	5%	1/16W	R807	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R617	1-218-965-11	RES-CHIP	10K	5%	1/16W	R808	1-218-953-11	RES-CHIP	1K	5%	1/16W
R619	1-218-945-11	RES-CHIP	220	5%	1/16W	R810	1-218-990-11	SHORT CHIP	0		
R620	1-244-161-11	RES-CHIP	2.2	5%	1/16W	R811	1-218-965-11	RES-CHIP	10K	5%	1/16W
R621	1-244-161-11	RES-CHIP	2.2	5%	1/16W	R812	1-218-977-11	RES-CHIP	100K	5%	1/16W
R622	1-244-161-11	RES-CHIP	2.2	5%	1/16W	R813	1-218-990-11	SHORT CHIP	0		
R623	1-244-161-11	RES-CHIP	2.2	5%	1/16W	R814	1-218-965-11	RES-CHIP	10K	5%	1/16W
R624	1-218-985-11	RES-CHIP	470K	5%	1/16W	R815	1-218-981-11	RES-CHIP	220K	5%	1/16W
R625	1-218-985-11	RES-CHIP	470K	5%	1/16W	R817	1-218-953-11	RES-CHIP	1K	5%	1/16W
R628	1-218-933-11	RES-CHIP	22	5%	1/16W	R818	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R629	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R819	1-218-953-11	RES-CHIP	1K	5%	1/16W
R630	1-218-990-11	SHORT CHIP	0			R820	1-218-945-11	RES-CHIP	220	5%	1/16W
R631	1-218-985-11	RES-CHIP	470K	5%	1/16W	R821	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R632	1-218-989-11	RES-CHIP	1M	5%	1/16W	R822	1-218-989-11	RES-CHIP	1M	5%	1/16W
R633	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	R823	1-218-965-11	RES-CHIP	10K	5%	1/16W
R634	1-218-977-11	RES-CHIP	100K	5%	1/16W	R824	1-218-929-11	RES-CHIP	10	5%	1/16W
R636	1-216-864-11	SHORT CHIP	0			R826	1-218-990-11	SHORT CHIP	0		
R637	1-216-864-11	SHORT CHIP	0			R827	1-218-929-11	RES-CHIP	10	5%	1/16W
R638	1-216-864-11	SHORT CHIP	0			R828	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R640	1-218-989-11	RES-CHIP	1M	5%	1/16W	R830	1-218-990-11	SHORT CHIP	0		
R641	1-245-456-21	METAL CHIP	1	1%	1/5W	R832	1-218-933-11	RES-CHIP	22	5%	1/16W
R642	1-245-456-21	METAL CHIP	1	1%	1/5W	R833	1-216-864-11	SHORT CHIP	0		
R643	1-218-981-11	RES-CHIP	220K	5%	1/16W	R834	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R644	1-218-985-11	RES-CHIP	470K	5%	1/16W	R835	1-218-985-11	RES-CHIP	470K	5%	1/16W
R645	1-218-985-11	RES-CHIP	470K	5%	1/16W	R836	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R647	1-218-990-11	SHORT CHIP	0			R837	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R648	1-218-969-11	RES-CHIP	22K	5%	1/16W	R839	1-218-990-11	SHORT CHIP	0		
R650	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R840	1-218-990-11	SHORT CHIP	0		
R651	1-216-789-11	METAL CHIP	2.2	5%	1/10W	R841	1-218-990-11	SHORT CHIP	0		
R653	1-218-990-11	SHORT CHIP	0			R842	1-218-990-11	SHORT CHIP	0		
R654	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R843	1-218-989-11	RES-CHIP	1M	5%	1/16W
R656	1-218-990-11	SHORT CHIP	0			R845	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R657	1-218-945-11	RES-CHIP	220	5%	1/16W	R846	1-218-973-11	RES-CHIP	47K	5%	1/16W
R658	1-218-990-11	SHORT CHIP	0			R847	1-218-990-11	SHORT CHIP	0		
R661	1-216-864-11	SHORT CHIP	0			R848	1-218-990-11	SHORT CHIP	0		
R662	1-216-864-11	SHORT CHIP	0			R849	1-218-990-11	SHORT CHIP	0		
R663	1-218-945-11	RES-CHIP	220	5%	1/16W	R851	1-218-965-11	RES-CHIP	10K	5%	1/16W
R664	1-218-990-11	SHORT CHIP	0			R852	1-218-990-11	SHORT CHIP	0		
R665	1-218-990-11	SHORT CHIP	0			R854	1-218-990-11	SHORT CHIP	0		
R668	1-216-864-11	SHORT CHIP	0			R855	1-218-990-11	SHORT CHIP	0		
R670	1-216-864-11	SHORT CHIP	0			R856	1-218-990-11	SHORT CHIP	0		
R671	1-216-864-11	SHORT CHIP	0								

Ref. No.	Part No.	Description	Quantity	Unit	Remark	Ref. No.	Part No.	Description	Quantity	Unit	Remark
R857	1-218-990-11	SHORT CHIP	0			R940	1-218-981-11	RES-CHIP	220K	5%	1/16W
R858	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R941	1-218-990-11	SHORT CHIP	0		
R859	1-218-989-11	RES-CHIP	1M	5%	1/16W	R944	1-218-990-11	SHORT CHIP	0		
R860	1-218-989-11	RES-CHIP	1M	5%	1/16W	R945	1-218-990-11	SHORT CHIP	0		
R866	1-218-990-11	SHORT CHIP	0			R946	1-218-977-11	RES-CHIP	100K	5%	1/16W
R867	1-218-990-11	SHORT CHIP	0			R947	1-218-973-11	RES-CHIP	47K	5%	1/16W
R868	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	R952	1-218-973-11	RES-CHIP	47K	5%	1/16W
R869	1-218-989-11	RES-CHIP	1M	5%	1/16W	R953	1-218-973-11	RES-CHIP	47K	5%	1/16W
R870	1-218-990-11	SHORT CHIP	0			R954	1-218-985-11	RES-CHIP	470K	5%	1/16W
R871	1-218-981-11	RES-CHIP	220K	5%	1/16W	R956	1-218-973-11	RES-CHIP	47K	5%	1/16W
R872	1-218-990-11	SHORT CHIP	0			R957	1-218-985-11	RES-CHIP	470K	5%	1/16W
R876	1-218-990-11	SHORT CHIP	0			R958	1-218-990-11	SHORT CHIP	0		
R878	1-218-989-11	RES-CHIP	1M	5%	1/16W	R961	1-218-990-11	SHORT CHIP	0		
R879	1-218-977-11	RES-CHIP	100K	5%	1/16W	R963	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R880	1-218-990-11	SHORT CHIP	0			R964	1-218-990-11	SHORT CHIP	0		
R881	1-218-989-11	RES-CHIP	1M	5%	1/16W	R966	1-218-989-11	RES-CHIP	1M	5%	1/16W
R882	1-218-977-11	RES-CHIP	100K	5%	1/16W	R967	1-218-990-11	SHORT CHIP	0		
R883	1-218-977-11	RES-CHIP	100K	5%	1/16W	R970	1-218-989-11	RES-CHIP	1M	5%	1/16W
R884	1-218-981-11	RES-CHIP	220K	5%	1/16W	R971	1-218-990-11	SHORT CHIP	0		
R885	1-218-973-11	RES-CHIP	47K	5%	1/16W	R972	1-218-990-11	SHORT CHIP	0		
R886	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R973	1-218-990-11	SHORT CHIP	0		
R887	1-218-981-11	RES-CHIP	220K	5%	1/16W	R974	1-218-990-11	SHORT CHIP	0		
R888	1-218-990-11	SHORT CHIP	0			R975	1-218-990-11	SHORT CHIP	0		
R890	1-218-965-11	RES-CHIP	10K	5%	1/16W	R976	1-218-990-11	SHORT CHIP	0		
R891	1-218-977-11	RES-CHIP	100K	5%	1/16W	R977	1-218-990-11	SHORT CHIP	0		
R892	1-218-977-11	RES-CHIP	100K	5%	1/16W	R978	1-218-990-11	SHORT CHIP	0		
R893	1-218-990-11	SHORT CHIP	0			R979	1-218-985-11	RES-CHIP	470K	5%	1/16W
R894	1-218-965-11	RES-CHIP	10K	5%	1/16W	R980	1-218-985-11	RES-CHIP	470K	5%	1/16W
R895	1-218-990-11	SHORT CHIP	0			R981	1-218-985-11	RES-CHIP	470K	5%	1/16W
R896	1-218-989-11	RES-CHIP	1M	5%	1/16W	R982	1-218-990-11	SHORT CHIP	0		
R897	1-218-989-11	RES-CHIP	1M	5%	1/16W	R983	1-218-990-11	SHORT CHIP	0		
R898	1-218-990-11	SHORT CHIP	0			R984	1-218-990-11	SHORT CHIP	0		
R902	1-218-941-11	RES-CHIP	100	5%	1/16W	R986	1-218-990-11	SHORT CHIP	0		
R903	1-218-989-11	RES-CHIP	1M	5%	1/16W	R993	1-218-990-11	SHORT CHIP	0		
R904	1-218-989-11	RES-CHIP	1M	5%	1/16W	R994	1-218-990-11	SHORT CHIP	0		
R906	1-218-977-11	RES-CHIP	100K	5%	1/16W	< COMPOSITION CIRCUIT BLOCK >					
R907	1-218-965-11	RES-CHIP	10K	5%	1/16W	RB701	1-233-963-21	RES, NETWORK (CHIP TYPE) 2.2K			
R908	1-218-969-11	RES-CHIP	22K	5%	1/16W	RB702	1-233-967-11	RES, NETWORK (CHIP TYPE) 10K			
R910	1-208-715-11	METAL CHIP	22K	0.5%	1/16W	< SWITCH >					
R912	1-218-981-11	RES-CHIP	220K	5%	1/16W	S431	1-786-545-21	SWITCH, PUSH LEVER (S) (BATTERY INSERT DETECT)			
R914	1-208-911-11	METAL CHIP	10K	0.5%	1/16W	S891	1-786-672-21	SWITCH, PUSH (2 KEY) (PROTEKCT DETECT)			
R917	1-218-981-11	RES-CHIP	220K	5%	1/16W	S892	1-786-448-22	SWITCH, PUSH (1 KEY) (HALF LOCK)			
R918	1-218-985-11	RES-CHIP	470K	5%	1/16W	S893	1-786-101-22	SWITCH, DETECTION (OPEN/CLOSE DETECT)			
R922	1-218-977-11	RES-CHIP	100K	5%	1/16W	S895	1-786-101-41	SWITCH, DETECTION (LENS COVER DETECT)			
R923	1-218-990-11	SHORT CHIP	0			< THERMISTOR >					
R924	1-218-985-11	RES-CHIP	470K	5%	1/16W	TH801	1-805-194-21	THERMISTOR, NTC (SMD)			
R925	1-208-927-11	METAL CHIP	47K	0.5%	1/16W	< VARISTOR >					
R926	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	VDR979	1-805-697-21	VARISTOR (SMD)			
R927	1-208-683-11	METAL CHIP	1K	0.5%	1/16W	VDR980	1-805-697-21	VARISTOR (SMD)			
R929	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	VDR981	1-805-697-21	VARISTOR (SMD)			
R931	1-218-990-11	SHORT CHIP	0								
R933	1-208-943-11	METAL CHIP	220K	0.5%	1/16W						
R934	1-208-715-11	METAL CHIP	22K	0.5%	1/16W						
R935	1-208-935-11	METAL CHIP	100K	0.5%	1/16W						
R936	1-208-927-11	METAL CHIP	47K	0.5%	1/16W						
R937	1-208-715-11	METAL CHIP	22K	0.5%	1/16W						
R938	1-208-927-11	METAL CHIP	47K	0.5%	1/16W						
R939	1-208-927-11	METAL CHIP	47K	0.5%	1/16W						

MZ-DH10P

Ver. 1.1

MAIN **SHUTTER** **VOL**

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X801	1-795-780-21	VIBRATOR, CERAMIC (48MHz)	
X802	1-795-779-21	VIBRATOR, CRYSTAL (22.5792MHz)	
X872	1-795-602-11	VIBRATOR, CRYSTAL (32.768kHz)	

	X-2055-632-1	SHUTTER BOARD, COMPLETE (for SERVICE)	

		< CAPACITOR >	
C201	1-164-937-11	CERAMIC CHIP 0.001uF 10% 50V	
C203	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V	
		< CONNECTOR >	
CN201	1-818-471-21	CONNECTOR, FPC (ZIF) 8P	
CN202	1-818-599-21	CONNECTOR, FPC (ZIF) 6P	
		< DIODE >	
D201	6-500-813-01	DIODE MA2SD32008S0	
		< JUMPER RESISTOR >	
JA011	1-216-864-11	SHORT CHIP 0	
JA012	1-218-990-11	SHORT CHIP 0	
		< RESISTOR >	
R201	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W	
R202	1-208-699-11	METAL CHIP 4.7K 0.5% 1/16W	
R203	1-208-935-11	METAL CHIP 100K 0.5% 1/16W	
R204	1-208-715-11	METAL CHIP 22K 0.5% 1/16W	
R205	1-208-683-11	METAL CHIP 1K 0.5% 1/16W	
R206	1-208-691-11	METAL CHIP 2.2K 0.5% 1/16W	
R207	1-218-989-11	RES-CHIP 1M 5% 1/16W	
		< SWITCH >	
S201	1-786-650-21	SWITCH, TACTILE (ON/OFF CAMERA)	
S202	1-786-525-21	TACTILE SWITCH (SHUTTER)	

	X-2055-633-1	VOL BOARD, COMPLETE (for SERVICE)	

	1-865-308-11	S-V FLEXIBLE BOARD	
		< CAPACITOR >	
C302	1-164-937-11	CERAMIC CHIP 0.001uF 10% 50V	
C303	1-164-943-11	CERAMIC CHIP 0.01uF 10% 16V	
		< DIODE >	
D301	6-500-813-01	DIODE MA2SD32008S0	
		< RESISTOR >	
R301	1-208-911-11	METAL CHIP 10K 0.5% 1/16W	
R302	1-208-715-11	METAL CHIP 22K 0.5% 1/16W	
R303	1-208-935-11	METAL CHIP 100K 0.5% 1/16W	
R304	1-208-715-11	METAL CHIP 22K 0.5% 1/16W	
R305	1-218-989-11	RES-CHIP 1M 5% 1/16W	
R306	1-208-683-11	METAL CHIP 1K 0.5% 1/16W	

Ref. No.	Part No.	Description	Remark
R307	1-208-683-11	METAL CHIP 1K 0.5% 1/16W	
		< SWITCH >	
S301	1-786-650-21	SWITCH, TACTILE (DOWNLOAD)	
S302	1-786-436-21	SWITCH, SLIDE (HOLD)	
S303	1-786-650-21	SWITCH, TACTILE (VOL -)	
S304	1-786-650-21	SWITCH, TACTILE (VOL +)	

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
64	1-479-138-11	CAMERA MODULE	
115	1-865-306-11	FLEXIBLE (M-C) BOARD	
△ 163	X-2055-677-1	OP SERVICE ASSY (ABX-UJ) (including HR601(OVER WRITE HEAD))	
BZ1	1-825-273-11	BUZZER, PIEZO ELECTRIC	
M701	8-835-782-12	MOTOR, DC SSM18D/C-NP (SPINDLE)	
M702	8-835-778-21	MOTOR, DC SSM21A/C-NP (SLED)	
M703	1-477-519-21	MOTOR UNIT, DC (OVER WRITE HEAD UP/DOWN)	

		ACCESSORIES *****	
△	1-569-007-12	ADAPTOR, CONVERSION 2P (JE)	
	2-590-278-12	MANUAL, INSTRUCTION (ENGLISH)	
	2-590-278-21	MANUAL, INSTRUCTION (FRENCH) (AEP)	
	2-590-278-31	MANUAL, INSTRUCTION (GERMAN) (AEP)	
	2-590-278-41	MANUAL, INSTRUCTION (DUTCH) (AEP)	
	2-590-278-51	MANUAL, INSTRUCTION (ITALIAN) (AEP)	
	2-590-278-62	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (JE)	
	2-590-278-72	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (CH, JE)	
	3-220-749-01	CASE, CARRYING	
	X-2050-995-2	CD-ROM (APPLICATION) ASSY (SonicStage/MD Simple Burner)	
△ 501	1-479-329-12	ADAPTOR, AC (AC-ES608K3) (JE)	
△ 501	1-479-330-11	ADAPTOR, AC (AC-ES608K3) (US)	
△ 501	1-479-331-11	ADAPTOR, AC (AC-ES608K3) (AEP)	
△ 501	1-479-332-11	ADAPTOR, AC (AC-ES608K3) (UK)	
△ 501	1-479-333-11	ADAPTOR, AC (AC-ES608K3) (CH)	
502	1-479-321-11	REMOTE COMMANDER (RM-MC60/SM)	
503	A-1108-517-A	CRADLE ASSY (BCA-MZDH10P) (EXCEPT CH)	
503	A-1108-521-A	CRADLE ASSY (BCA-MZDH10P) (CH)	
504	8-912-742-92	EARPHONES MDR-E0931SPS9 SET (JE)	
504	8-912-743-90	EARPHONES MDR-E808SPB19 SET (EXCEPT JE)	
505	1-828-071-31	CORD, CONNECTION (USB)	
506	1-756-425-21	BATTERY, STORAGE, LITHIUM (LIP-4WM) (US)	
506	1-756-425-31	BATTERY, STORAGE, LITHIUM (LIP-4WM) (EXCEPT US)	
507	X-2050-928-1	CASE ASSY, CHARGE	
508	1-400-878-11	FILTER, CLAMP (FERRITE CORE) (for AC ADAPTOR, USB CABLE)	
509	1-400-877-11	FILTER, CLAMP (FERRITE CORE) (for REMOTE COMMANDER) (EXCEPT CH, JE)	

Ref. No.	Part No.	Description	Remark

