

MZ-NH700/NHF800

SERVICE MANUAL

Ver 1.1 2004.09



Photo: MZ-NHF800

US Model
MZ-NHF800

Canadian Model

AEP Model

UK Model

E Model

Australian Model

MZ-NH700/NHF800

Chinese Model

Tourist Model

MZ-NH700

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Model Name Using Similar Mechanism	NEW
MD Mechanism Type	MT-MZNH900-181
Optical Pick-up Name	ABX-U

SPECIFICATIONS

MD recorder

Audio playing system

MiniDisc digital audio system

Laser diode properties

Material: GaAlAs

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

Emission duration: continuous

Laser output: less than $44.6 \mu\text{W}$

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

Recording and playback time

When using HMD1G (1GB disc):

Maximum 34 hours in Hi-LP stereo

When using MDW-80 in Hi-MD mode:

Maximum 10 hours and 10 min. in Hi-LP stereo

When using MDW-80 in MD mode:

Maximum 160 min. in monaural

Maximum 320 min. in LP4 stereo

Revolutions

350 rpm to 3,000 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

Sampling rate converter

Input: 32 kHz/44.1 kHz/48 kHz

Coding

Hi-MD:

ATRAC3plus (Adaptive Transform Acoustic Coding 3 plus)

MD:

ATRAC

ATRAC3 — LP2/LP4

Modulation system

Hi-MD:

1-7RL (Run Length Limited)/PRML

(Partial Response Maximum Likelihood)

MD:

EFM (Eight to Fourteen Modulation)

Frequency response

20 to 20,000 Hz $\pm 3 \text{ dB}$

Inputs

MIC: stereo mini-jack

(minimum input level 0.13 mV)

LINE IN (OPT)¹⁾:

stereo mini-jack for analog input (minimum input level 49 mV)

optical (digital) mini-jack for optical (digital) input

Outputs

\square : stereo mini-jack (dedicated remote control jack)

Maximum output (DC)

Headphones:

5 mW + 5 mW (24 Ω) (USA model)

3 mW + 3 mW (16 Ω) (European models)

5 mW + 5 mW (16 Ω) (Other models)

Radio (MZ-NHF800)

Frequency range

USA model:

FM: 87.5 - 108.0 MHz

AM: 530 - 1,710 kHz (10 kHz step)

531 - 1,710 kHz (9 kHz step)

TV: 2 - 13 CH

WEATHER: 1 - 7 CH

Canadian model:

FM: 87.5 - 108.0 MHz

AM: 530 - 1,710 kHz (10 kHz step)

531 - 1,710 kHz (9 kHz step)

Models for Europe and China:

FM: 87.5 - 108.0 MHz

AM: 531 - 1,602 kHz

Other models:

FM: 87.5 - 108.0 MHz

AM: 530 - 1,710 kHz

Antenna

FM/TV/WEATHER:

Headphones/earphones cord antenna

AM:

Built-in ferrite bar antenna

General

Power requirements

Sony AC Power Adaptor connected at the DC

IN 3V jack:

120 V AC, 60 Hz (Models for USA, Canada, Mexico, and Taiwan)

230 V AC, 50/60 Hz (Models for continental Europe and Chile)

240 V AC, 50 Hz (Model for Australia)

230 V AC, 50 Hz (Models for U.K. and Hong Kong)

115 V/230 V AC, 50/60 Hz (Other models in MZ-NHF800)

100 - 240 V AC, 50/60 Hz (Other models in MZ-NH700)

The recorder:

Nickel metal hydride rechargeable battery

NH-7WMAA 1.2V 700 mAh (MIN) Ni-MH

LR6 (size AA) alkaline battery

AC power adaptor DC 3V

Operating temperature

+5° C (+41° F) to +35° C (+95° F)

Dimensions

Approx. 81.0 × 29.2 × 78.9 mm (w/h/d)

(3¹/₄ × 1¹/₁₆ × 3¹/₈ in.) (excluding projecting parts and controls)

Mass

Approx. 103 g (3.7 oz) (the recorder only)

Approx. 122 g (4.4 oz) (including the rechargeable battery)

¹⁾The LINE IN (OPT) jack is used to connect either a digital (optical) cable or a line (analog) cable.

²⁾Measured in accordance with JEIAT.

— Continued on next page —

PORTABLE MINIDISC RECEIVER

9-879-056-02
2004I05-1
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Sony Corporation
Personal Audio Company
Published by Sony Engineering Corporation

SONY®

MZ-NH700/NHF800

Battery life

When recording continuously

Hi-MD mode (When using a 1GB Hi-MD disc)

(Unit: approx.hours)(JEITA³⁾)

Batteries	Linear PCM	Hi-SP	Hi-LP
NH-7WMAA ⁴⁾	3	4.5	5
LR6 ⁵⁾	2.5	3.5	4.5

³⁾ Measured in accordance with the JEITA (Japan Electronics and Information Technology Industries Association) standard.

⁴⁾ When using a 100% fully charged nickel metal hydride rechargeable battery

⁵⁾ When using a Sony LR6 (size AA) "STAMINA" alkaline dry battery (produced in Japan)

Hi-MD mode (When using a 60/74/80-minute standard disc)

(Unit: approx.hours)(JEITA)

Batteries	Linear PCM	Hi-SP	Hi-LP
NH-7WMAA	2.5	4.5	5.5
LR6	5	8	9.5

MD mode

(Unit: approx.hours)(JEITA)

Batteries	SP Stereo	LP2 Stereo	LP4 Stereo
NH-7WMAA	4.5	6	6.5
LR6	7.5	9.5	11

When playing continuously

Hi-MD mode (When using a 1GB Hi-MD disc)

(Unit: approx.hours)(JEITA)

Batteries	Linear PCM	Hi-SP	Hi-LP
NH-7WMAA	4.5	7.5	9
LR6	11	18.5	21.5

Hi-MD mode (When using a 60/74/80-minute standard disc)

(Unit: approx.hours)(JEITA)

Batteries	Linear PCM	Hi-SP	Hi-LP
NH-7WMAA	4	7.5	9
LR6	9.5	17	20

MD mode

(Unit: approx.hours)(JEITA)

Batteries	SP Stereo	LP2 Stereo	LP4 Stereo
NH-7WMAA	7.5	9	10
LR6	20.5	24	26

When using the radio (MZ-NHF800)

(Unit: approx.hours)(JEITA)

Batteries	FM/AM	TV/Wb (weather) ⁶⁾
NH-7WMAA	7.5	7
LR6	18.5	17

⁶⁾ USA model only.

On power sources

• For use in your house: use the AC power adaptor supplied with this recorder. Do not use any other AC power adaptor since it may cause the recorder to malfunction.

Polarity of the plug



Supplied accessories

AC power adaptor (1)
Remote control (1)
Headphones (for USA model) (1)
Earphones (except USA model) (1)
Dedicated USB cable (1)
NH-7WMAA Nickel metal hydride rechargeable battery (1)
CD-ROM (SonicStage/MD Simple Burner (1))*
Battery carrying case (1)
Carrying pouch (except USA model)
Optical cable (MZ-NH700) (except Canadian and Mexican Models) (1)
Clamp filter (2)

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

Design and specifications are subject to change without notice.

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.

CAUTION

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

Notes on chip component replacement

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

Flexible Circuit Board Repairing

- Keep the temperature of 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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

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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.

Providing the required system environment

System requirements

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

Computer	IBM PC/AT or Compatible • CPU: Pentium II 400 MHz or higher (Pentium III 450 MHz or higher is recommended.) • 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: 64 MB or more (128 MB or more is recommended)
	Others • CD drive (capable of digital playback by WDM) • Sound Board • USB port (supports USB (previously USB 1.1))
Operating System	Factory installed: 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

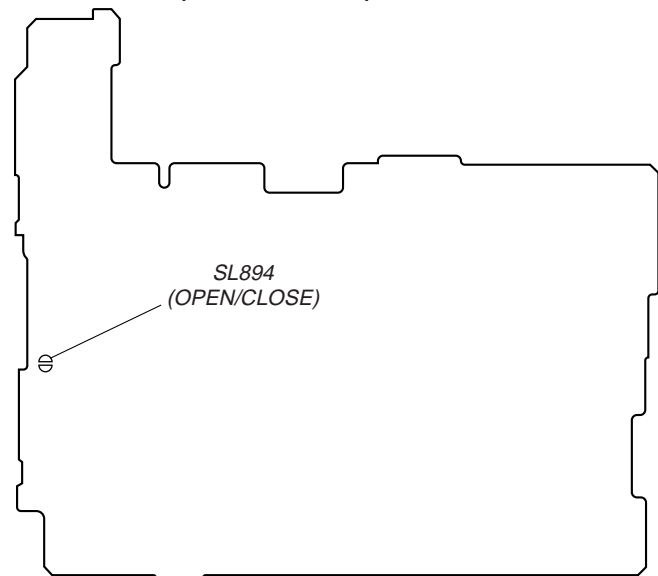
- We do not ensure trouble-free operation on all computers that satisfy the system requirements.
- The NTFS format of Windows XP/Windows 2000 Professional can be used only with the standard (factory) settings.
- We do not ensure trouble-free operation of the system suspend, sleep, or hibernation function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

OPERATION CHECK WHEN THE LID IS OPEN

In making an operation check with the MAIN Board removed from the set, short the SL894 (OPEN/CLOSE) 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) –

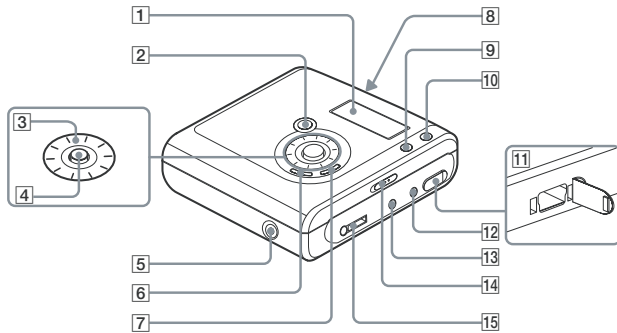


SECTION 2 GENERAL

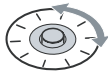
This section is extracted from instruction manual.

Looking at controls

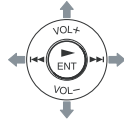
The recorder



- 1 Display window
- 2 T MARK/REC (+▶) button
- 3 Jog dial



- 4 5-way control key

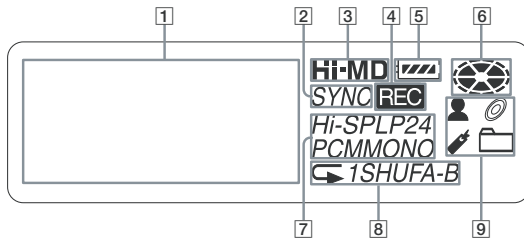


Operation	Function
Press ▶ENT ¹⁾	play, enter
Press towards ◀◀	find the beginning of the previous track, rewind
Press towards ▶▶	find the beginning of the next track, fast forward
Press towards VOL+ ¹⁾ or VOL-	volume

¹⁾ There are tactile dots beside the ▶ENT and VOL+ buttons.

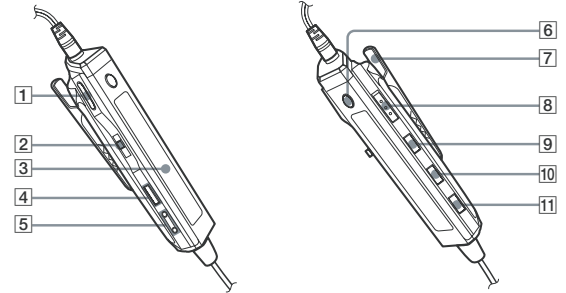
- 5 DC IN 3V jack
- 6 ■ (pause) button
- 7 ■ (stop) • CANCEL/CHG button
- 8 OPEN switch
- 9 GROUP button
- 10 ◀NAVI/▶MENU button
Press lightly to go to the NAVI (navigation) setting mode. Press for 2 seconds or more to go to MENU setting mode.
- 11 USB cable connecting jack
- 12 LINE IN (OPT) jack
- 13 MIC (PLUG IN POWER) jack
There is a tactile dot beside the MIC (PLUG IN POWER) jack.
- 14 HOLD switch
Slide the switch in the direction of the arrow to disable the buttons on the recorder. To prevent the buttons from being accidentally operated when you carry the recorder, use this function.
- 15 ◯ (headphones/earphones) jack

The display window of the recorder



- 1 Character information display
Displays the disc and track names, date, error messages, track numbers, etc.
- 2 SYNC (synchro-recording) indication
- 3 Hi-MD/MD indication
"Hi-MD" lights up when the operation mode of the recorder is in Hi-MD mode and "MD" lights up when the operation mode is in MD mode.
- 4 REC indication
Lights up during recording or file transfers from the computer. When flashing, the recorder is in record standby mode.
- 5 Battery indication
Shows the approximate remaining battery power. If the battery is weak, the indication becomes empty and starts flashing.
- 6 Disc indication
Shows that the disc is rotating for recording or playing.
- 7 Track mode (PCM, Hi-SP, Hi-LP, SP, LP2, LP4, MONO) indication
- 8 Sub play mode/Repeat play indications
Shows the selected Sub play mode (single-track play, shuffle play, etc.) or Repeat play.
- 9 Main play mode indications
Shows the selected main play mode (group play, bookmark play, etc.).

The headphones/earphones with a remote control (MZ-NHF800)



- 1 VOL +, - buttons
Press to adjust the volume.
- 2 Jog lever (▶▶/ENT, ◀◀, ▶▶) • BAND, TUNE -, TUNE +

When using a MiniDisc

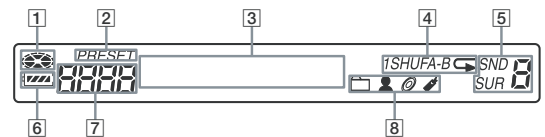
Operation	Function
Press ▶▶/ENT	play, pause, enter
Slide towards ◀◀	find the beginning of the previous track, rewind
Slide towards ▶▶	find the beginning of the next track, fast forward

When using the radio

Operation	Function
Press BAND	select a band
Slide towards TUNE -	tune backwards
Press towards TUNE +	tune forward

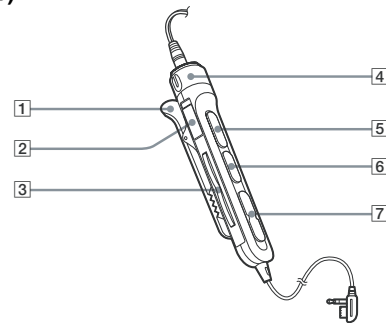
- 3 Display window
- 4 ■ (stop) button
- 5 ◻ (group) +, -
- 6 RADIO ON/OFF button
Press to turn on or off the radio.
- 7 Clip
- 8 HOLD switch
To prevent the buttons from being accidentally operated when you carry the recorder, use this function.
- 9 DISPLAY button
- 10 P-MODE/◀ button
- 11 SOUND button

The display window of the remote control (MZ-NHF800)



- 1 Disc indication
- 2 PRESET indication
- 3 Character information display
- 4 Sub play mode/Repeat play indications
- 5 SND (sound) and SUR (surround) indications
- 6 Battery level indication
- 7 Track number/Band/Presets number display
- 8 Main play mode indications

The headphones/earphones with a remote control (MZ-NH700)



- 1 Clip
- 2 HOLD switch
To prevent the buttons from being accidentally operated when you carry the recorder, use this function.
- 3 ◻ (group) +, - buttons
- 4 Volume control (VOL +, -)
Turn to adjust the volume.
- 5 ▶▶/■ (play, pause) button


- 6 ■ (stop) button
- 7 ◀◀, ▶▶ buttons

Operation	Function
Press ◀◀	find the beginning of the previous track, rewind
Press ▶▶	find the beginning of the next track, fast forward

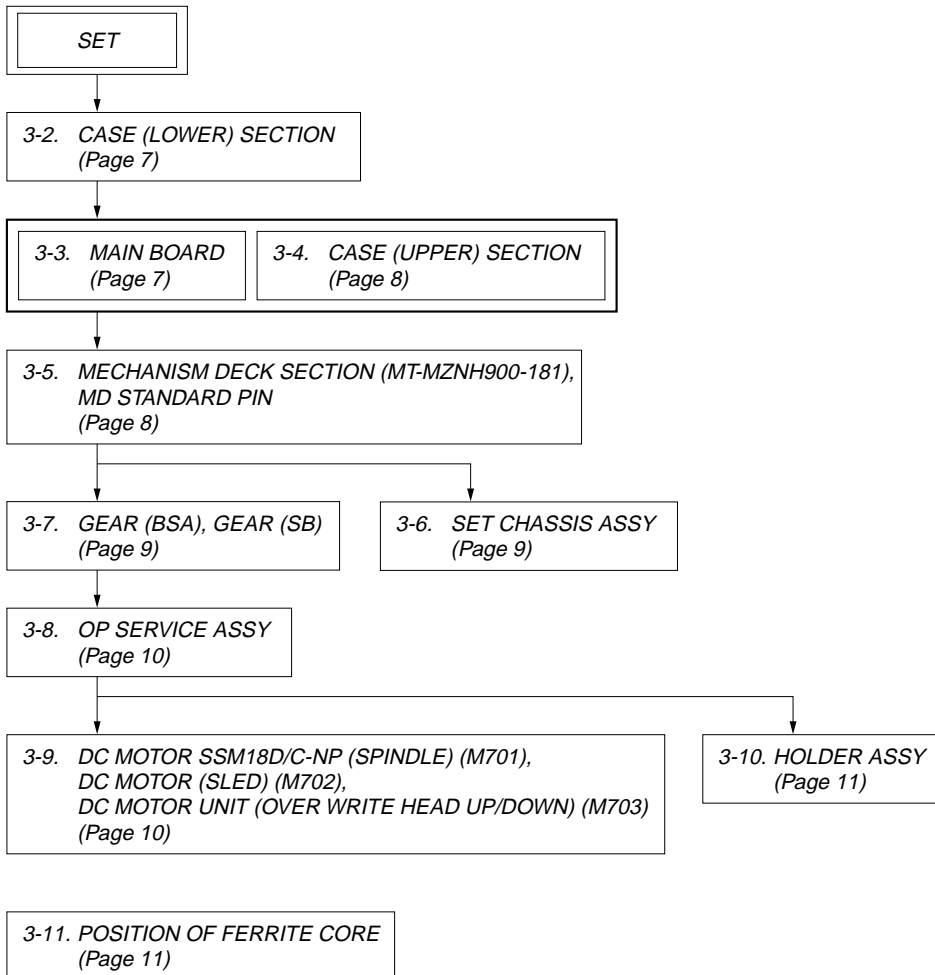
SECTION 3 DISASSEMBLY

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

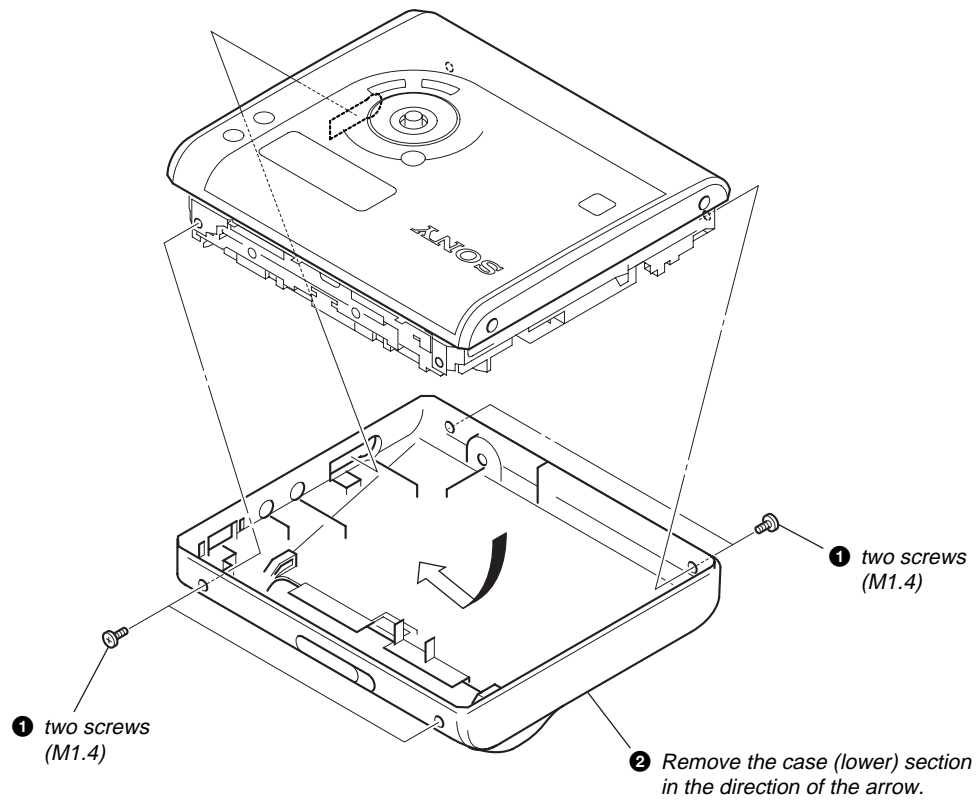
3-1. DISASSEMBLY FLOW

Note 1: The process described in  can be performed in any order.

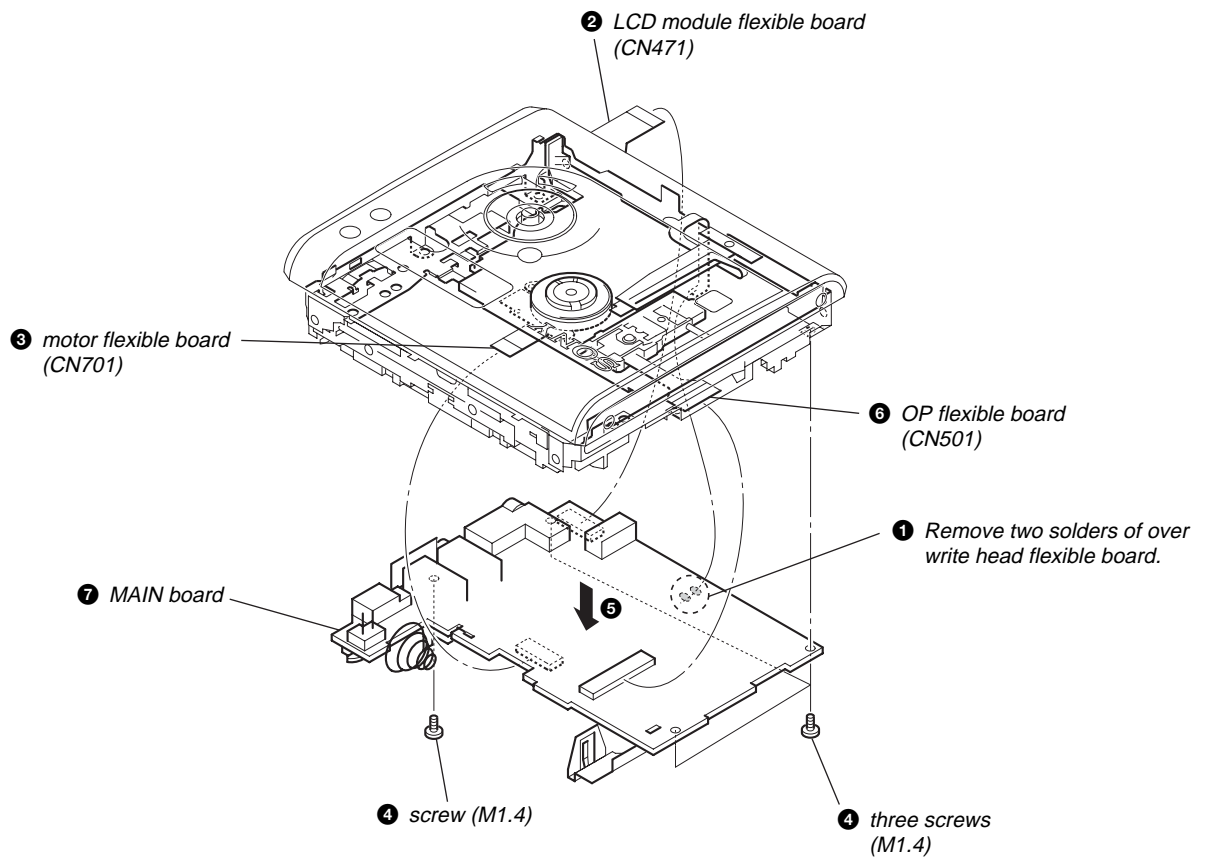
Note 2: Without completing the process described in , the next process can not be performed.



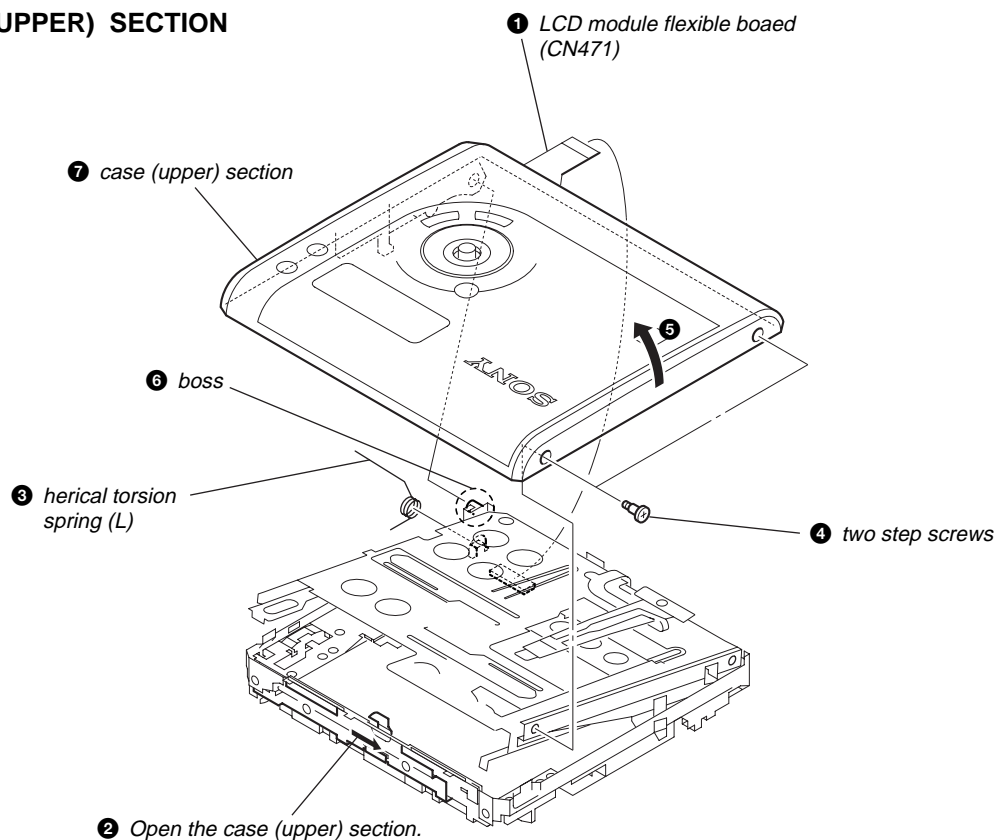
3-2. CASE (LOWER) SECTION



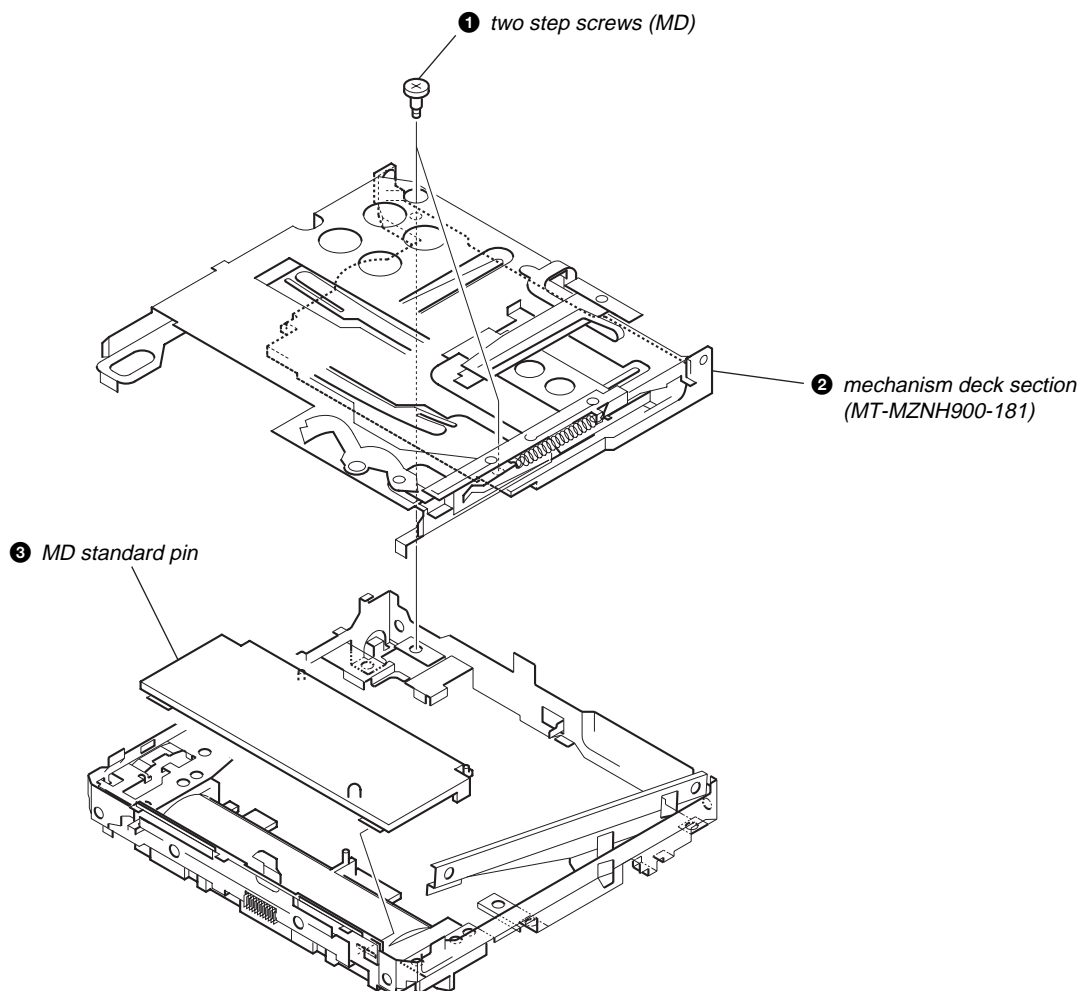
3-3. MAIN BOARD



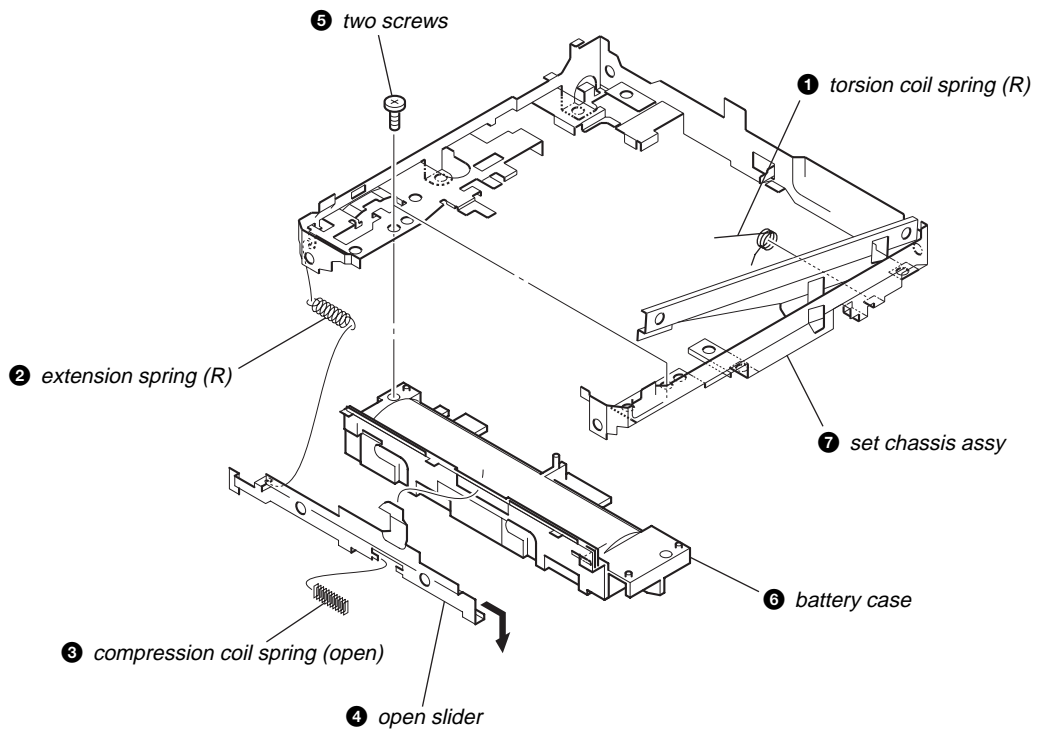
3-4. CASE (UPPER) SECTION



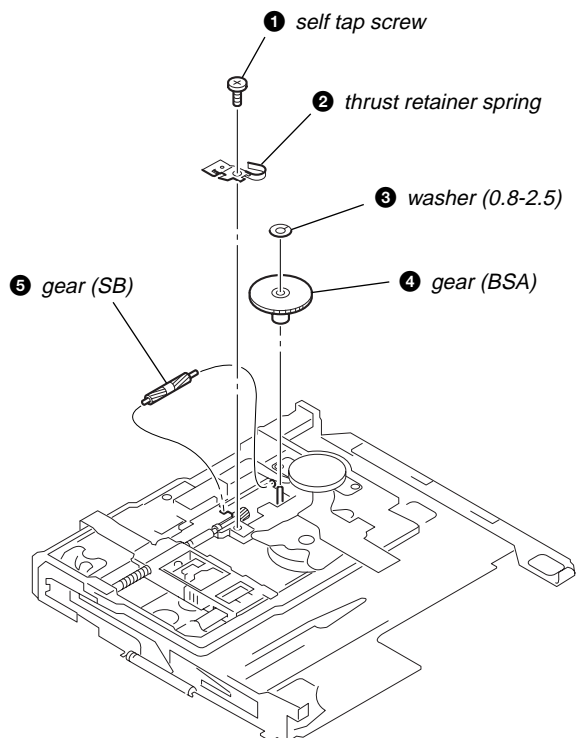
3-5. MECHANISM DECK SECTION (MT-MZNH900-181), MD STANDARD PIN



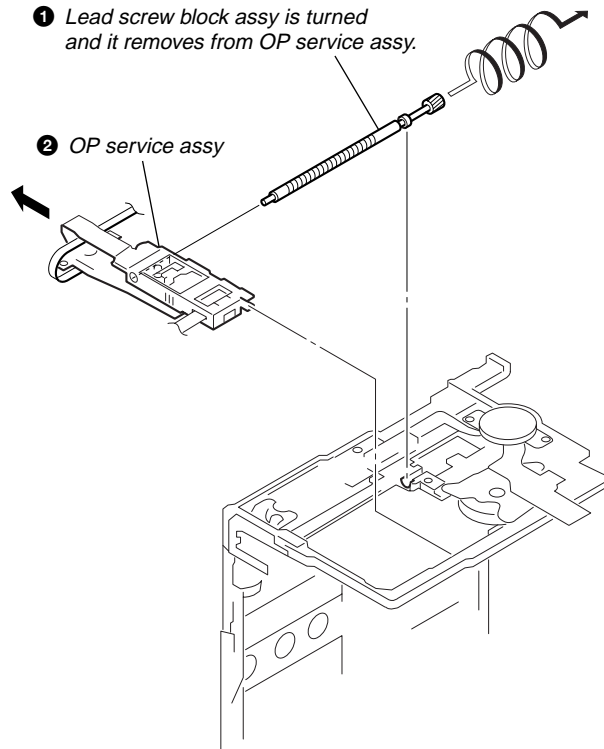
3-6. SET CHASSIS ASSY



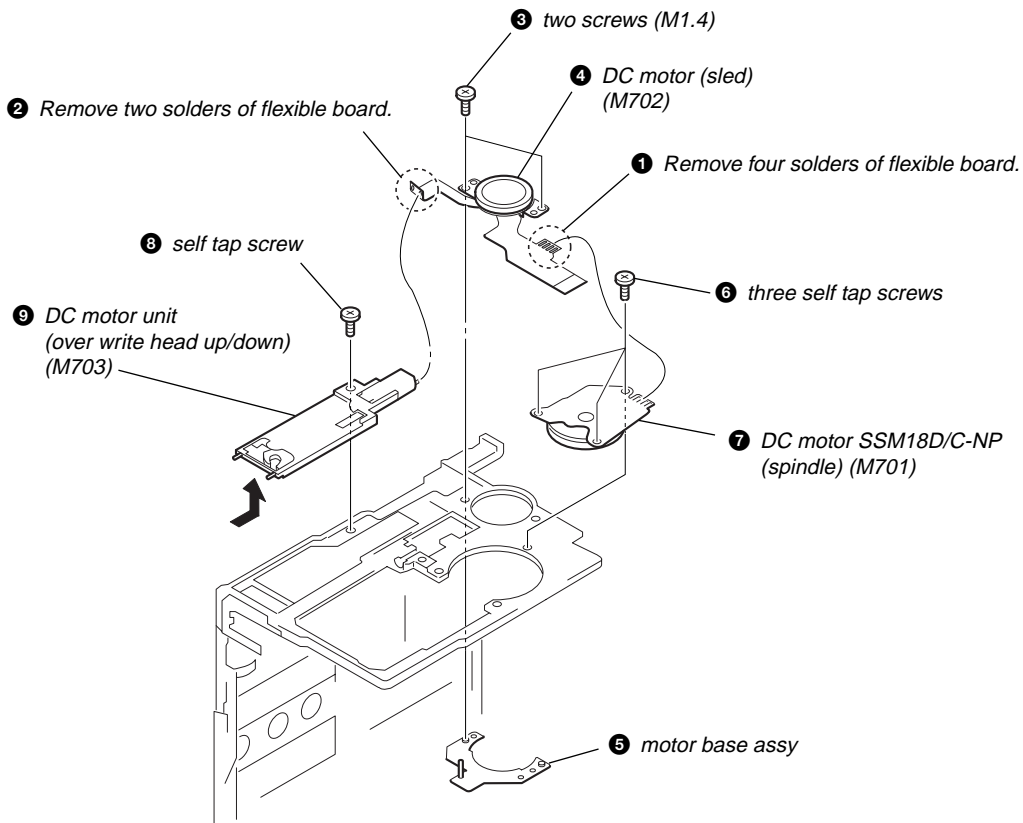
3-7. GEAR (BSA), GEAR (SB)



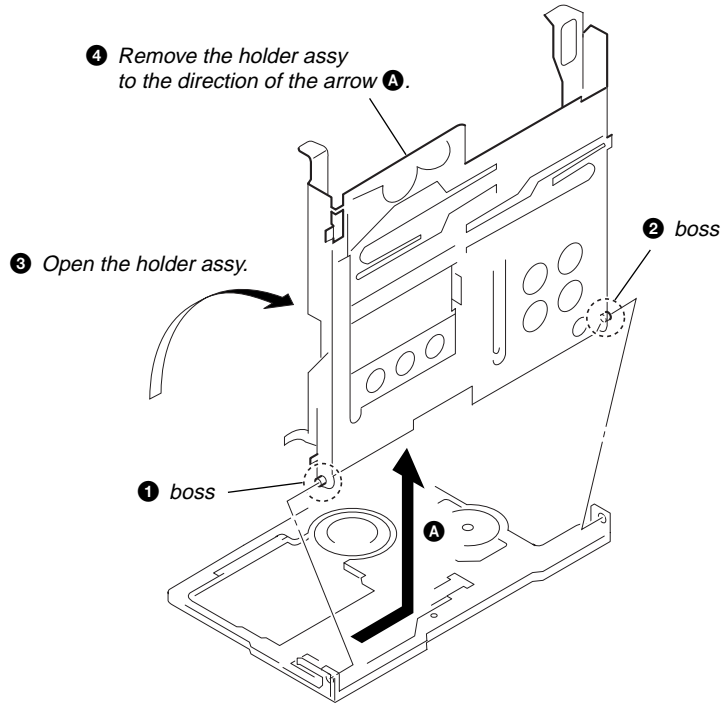
3-8. OP SERVICE ASSY



3-9. DC MOTOR SSM18D/C-NP (SPINDLE) (M701), DC MOTOR (SLED) (M702), DC MOTOR UNIT (OVER WRITE HEAD UP/DOWN) (M703)

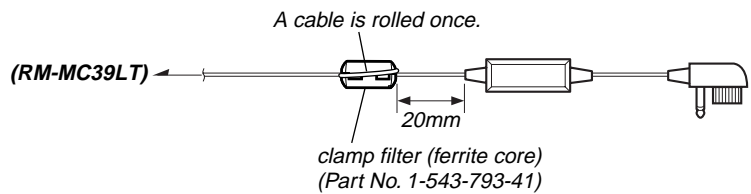
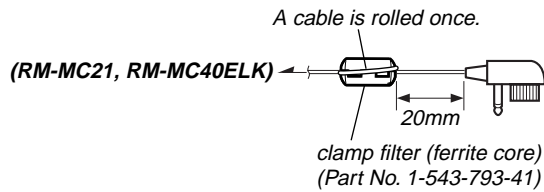
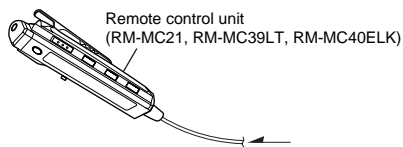


3-10. HOLDER ASSY

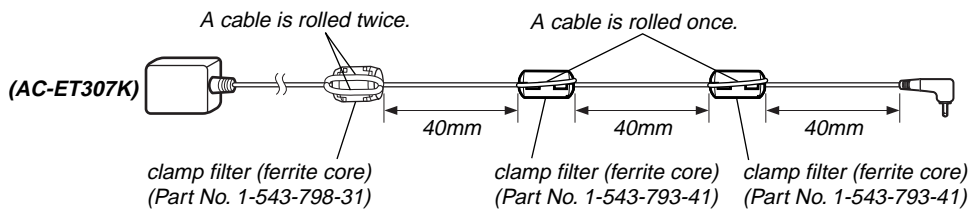
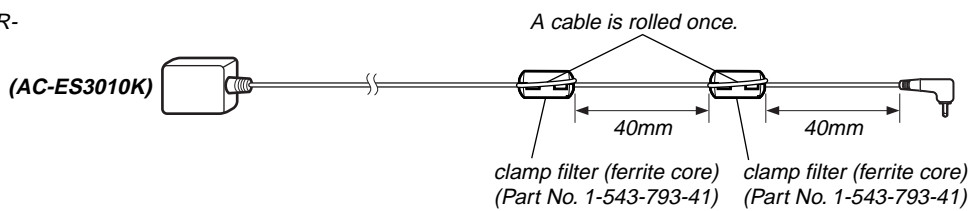


3-11. POSITION OF FERRITE CORE

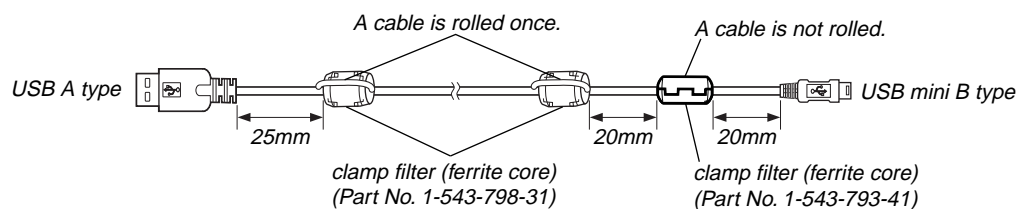
-REMOTE CONTROL UNIT-



-AC ADAPTOR-



-USB CABLE-



SECTION 4 TEST MODE

OUTLINE

A key having no particular description in the text, indicates a set key.

1. ENTERING THE TEST MODE

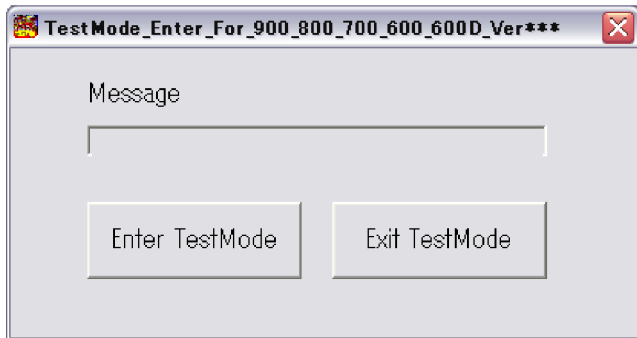
Preparation:

Copy the “TestMode_Enter_For_900_800_700_600_600D_Ver***.exe” folder of the PC application of the latest version to your PC in advance. (operating system: Windows 2000, Windows XP)

Also, when using this application, the SonicStage Ver. 2.0 or 2.1 is necessary, and install it in your PC in advance.

Procedure:

1. If a Simple Burner has run on the PC, finish it (including the one that is resident in the task tray).
2. Start the “TestMode_Enter_For_900_800_700_600_600D_Ver***.exe”.
3. Insert the fully charged Ni-MH rechargeable battery (NH-7WMAA).
4. Open and close the top panel of the main unit to wait until the system reading finished.
5. Connect the main unit and PC by USB cable.
6. Check by device manager screen from property of “My computer” that the set is recognised to your PC normally.
7. Click the [Enter TestMode] button on the screen of application
8. Disconnect the USB cable, when “OK” message is displayed on the application screen.
9. Remove the battery.



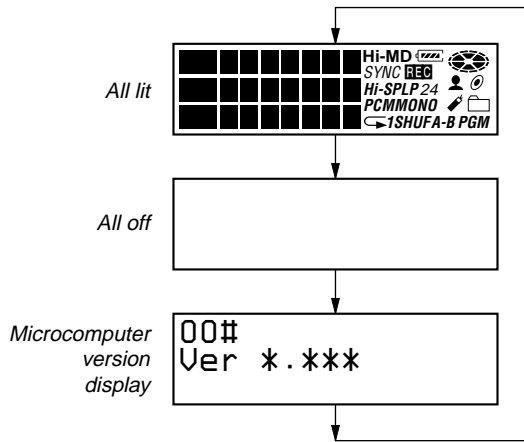
Screen of the PC application “TestMode_Enter_For_900_800_700_600_600D_Ver***.exe” (“***” is version number)

Note: Once the test mode is activated with this application, the test mode is then activated forcibly by only turning on the power. After the repair completed, be sure to release the test mode by using this application once more.

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.

Display check mode:



“00#”: Model type 005 (MZ-NH700)
004 (MZ-NHF800)
“*.*.*”: Microcomputer version

- When the key is pressed and hold down, the display at that time is held so that display can be checked.

3. RELEASING THE TEST MODE

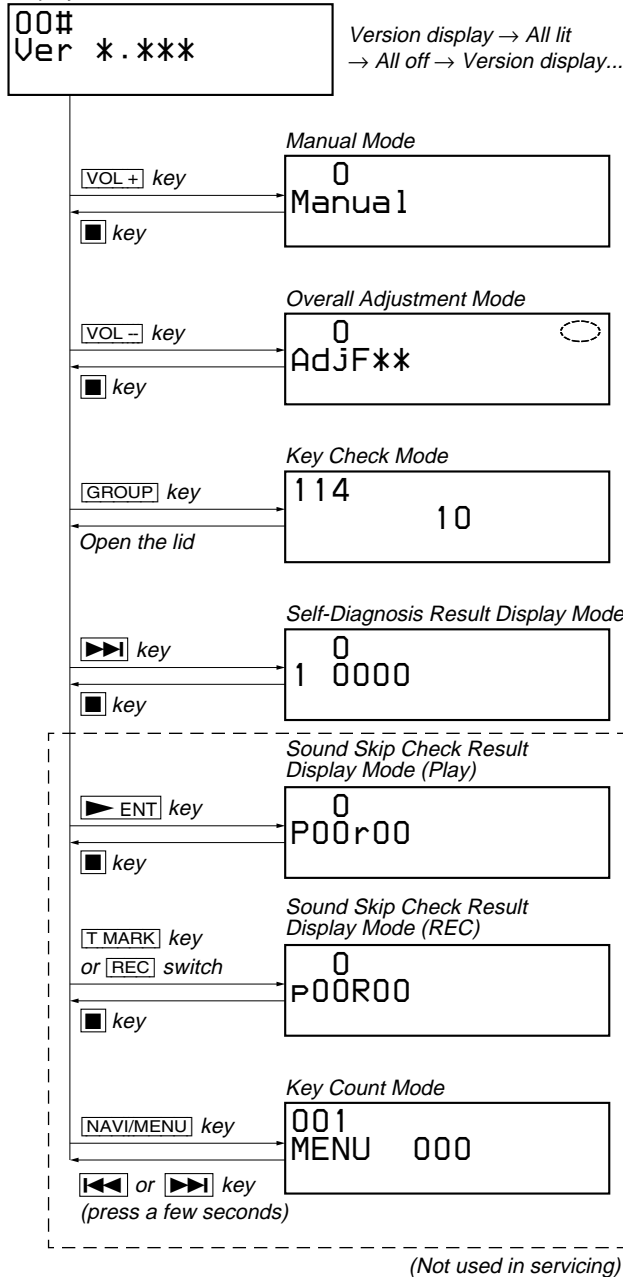
Procedure:

1. If a Simple Burner has run on the PC, finish it (including the one that is resident in the task tray).
2. Start the “TestMode_Enter_For_900_800_700_600_600D_Ver***.exe”.
3. Insert the fully charged Ni-MH rechargeable battery (NH-10WM).
4. Open and close the top panel of the main unit to wait until the system reading finished.
5. Connect the main unit and PC by USB cable.
6. Check by device manager screen that the set is recognised to your PC normally.
7. Click the [Exit TestMode] button on the screen of application
8. Disconnect the USB cable, when “OK” message is displayed on the application screen.
9. Remove the battery.

4. CONFIGURATION OF THE TEST MODE

Flow of the test mode:

Display Check Mode

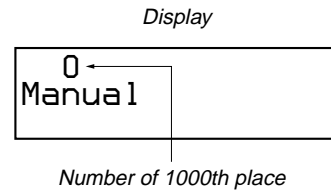


5. MANUAL MODE

This is mode to adjust or check the operation of the set by function.

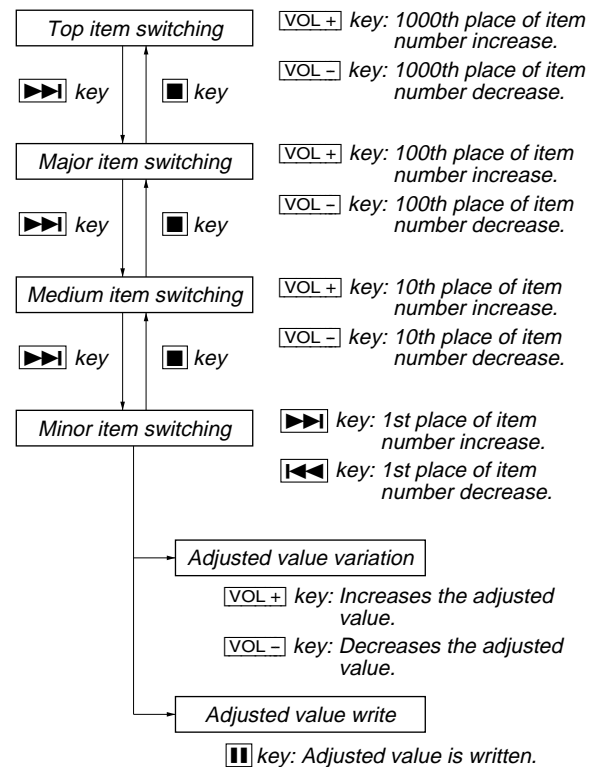
Operation of The Manual Mode

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



3. During each test, the optical pick-up moves outward or inward while the [▶▶] or [◀◀] key is pressed for several seconds respectively.
4. Each test item is assigned with a four-digit item number; 1000th place is a top item, 100th place is a major item, 10th place is a medium item, and unit place is a minor item. The values adjusted in the test mode are written to the non-volatile memory (for the items where adjustment was made).
5. To quit the Manual mode, press the [■] key and return to the Display Check mode.

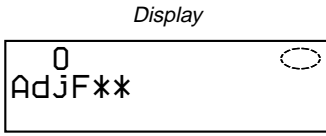
Flow of manual mode operation:



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.

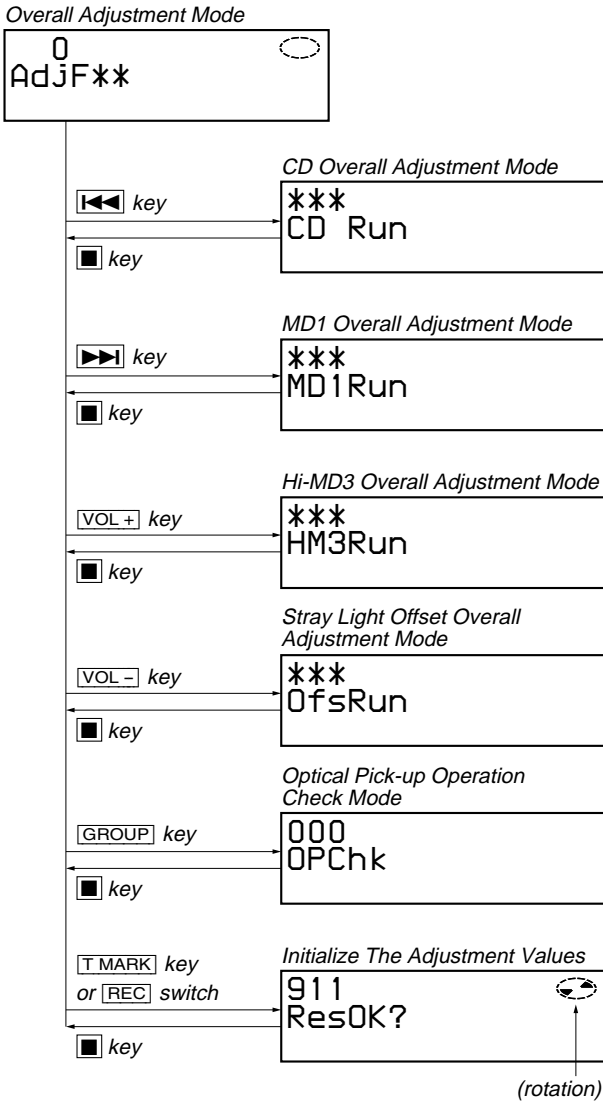
Lit the outer segments: Completed the charge function check.

"**":

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

3. To quit 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 charge function check
NoTmp!	Does not setting the temperature correction value
NotCD!	Does not complete the CD Overall adjustment beforethe 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

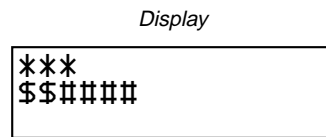
This set uses the self-diagnostic function system in which if an error occurred during the recording or playing, the mechanism control block and the power supply control block in the microcomputer detect it and record its cause as history in the nonvolatile memory. By checking this history in the test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



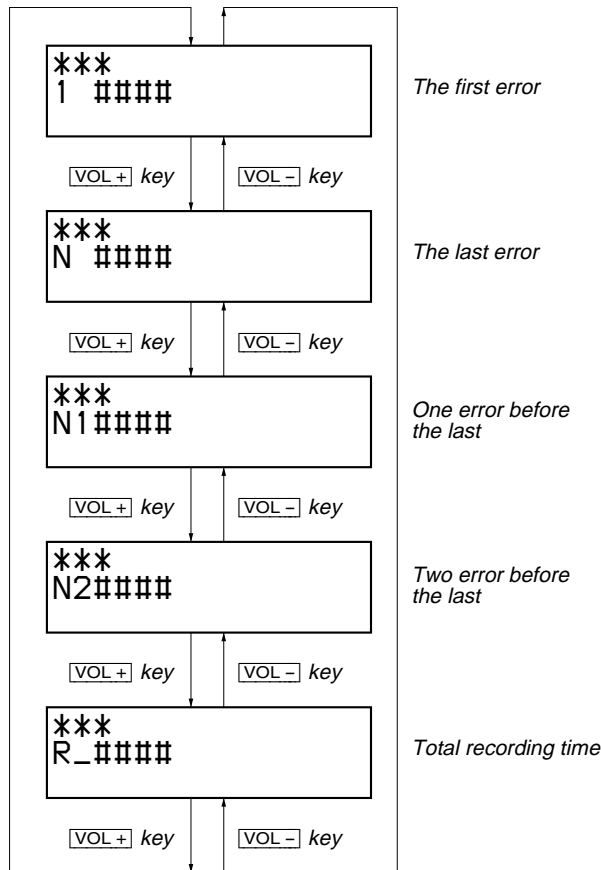
"***" : Error code

"\$\$" : Error history code

"####" : Total recording time

3. To quit 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 code	Description
00	No error
01	Attempt to access an abnormal address
02	High temperature detected
03	Focus error (no change)
04	Abnormal rotation of disc
05	Fault of disc discriminate
06	Error of access loop (no change)
07	Error of access loop (with change)
08	Could not read address
09	Focus error (with change)
12	Could not read data with SYNC
13	TOC address data error
32	Focus error, ABCD offset error
33	Tracking error, offset error
34	Tracking error, X1 tracking error, offset error

7-3. Clear The Total Recording Time

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

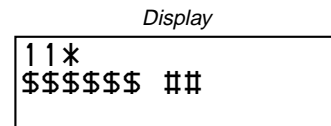
1. Enter the test mode (Display Check mode).
2. Press the [▶▶] key to activate the Self-Diagnosis Result Display mode.
3. Press the [VOL-] key once to display the total recording time indication.
4. Press the [II] key and display “ClrOK?”.
5. Press the [II] key again to display “RecT 0” and clear the total recording time.

8. KEY CHECK MODE

This mode is used for key check.

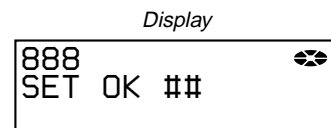
Operation of The Key Check Mode

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

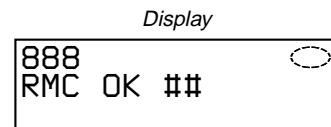


- “*” : Remote commander (0: with, 4: without)
- “\$\$\$\$\$\$” : Pressed key name.
When remote commander key is pressed, display becomes as “r\$\$\$\$\$”.
- When the jog dial is turned, it displays “JOG+ X” or “JOG-X” (“X” is number of 1 to 3). If the jog dial is turned four click, it displays “JOG+OK” or “JOG-OK”.
- “##” : Key voltage of remote commander. (Hexadecimal number)

3. When all keys (*1) check is OK on the main unit, it displays as follows.



When all keys (*1, 2) check is OK on the remote commander, it displays as follows.



- *1) Turn the jog dial four click clockwise and counterclockwise to jog test is OK.
 - *2) [RADIO ON/OFF] key (MZ-NHF800) is not included in this check.
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 quit the Key Check mode, open the lid and return to the Display check mode.

SECTION 5 ELECTRICAL ADJUSTMENTS

1. PRECAUTIONS FOR ADJUSTMENT

- 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.
 - Use the following tools and measuring instruments.
 - Digital voltmeter
 - Regulated dc power supply (two sets)
 - Thermometer (using the Temperature Correction)
 - Laser power meter
 - CD adjustment disc TDYS-1 (Part No. : 4-963-646-01)
 - MD1/HiMD1 hybrid adjustment disc MDW-74/GA1 (Part No. : 4-229-747-01)
 - Hi-MD3 adjustment disc HMD1GSDJ (Part No. : 7-819-098-37) *1
 - Remote commander in accessories (with LCD)
 - AC adapter in accessories
 - Ni-MH rechargeable battery (NH-7WMAA) in accessories (full charged)
 - PC application software for test mode
"TestMode_Enter_For_900_800_700_600_600D_Ver***.exe" *2
 - USB cable
- *1) Hi-MD3 adjustment disc (HMD1GSDJ) is consumable. Therefore if it is used 400 times, exchange it for a new.
- *2) Use the newest version every time.
Copy the whole folder of this program to your PC.
Operating system: Windows 2000, Windows XP
When using this application, the SonicStage Ver. 2.0 or 2.1 is necessary, and install it in your PC in advance.
- Unless specified otherwise, supply DC 1.5 V from battery terminals (CL431: BATT+, CL432: BATT-).

2. ADJUSTMENT SEQUENCE

Adjustment must be done with the following order.

Adjustment order:

- Entering the test mode
- Initialize the adjustment value
- Setting the temperature correction value
- Power supply voltage adjustment
- Charge function check
- Laser power check
- Setting the adjustment values
- Servo Overall adjustment
- Resume clear
- Releasing the test mode

3. ADJUSTMENT OF THE EACH ITEM

3-1. Entering The Test Mode

Refer to the "SECTION 4. TEST MODE".

3-2. Initialize The Adjustment Value

Procedure:

- In the test mode (Display Check mode), press the **[VOL-]** key to enter the Overall adjustment mode.
- Press the **[T MARK]** key and display "911 ResOK?".
- Press the **[■]** key to display "911 Reset!" and initialize the adjustment values.
- Press the **[■]** key and back to Display Check mode.

3-3. Setting The Temperature Correction Value

Procedure:

- In the test mode (Display Check mode), press the **[VOL+]** key to enter the Manual mode.
- Press the **[▶▶]** key twice, and press the **[VOL+]** key twice to display as follows.

Display

130
Temp

- Press the **[▶▶]** key once to select the item number 0131 and display as follows.

Display

131
###S**

adjustment value (hexadecimal)

- Measure the ambient temperature.
- Adjust with **[VOL+]/[VOL-]** keys so that the adjusted value (hexadecimal value) becomes the ambient temperature.
(example: 25 °C = 19h)
- Press the **[■]** key to write the adjusted value.
- Press the **[■]** key four times and back to the Display Check mode.

3-4. Power Supply Voltage Adjustment

Adjustment must be done with the following order.

3-4-1. Setting

Procedure:

- Enter the test mode (Display Check mode), and make sure that the power supply voltage is 1.2 V.
- Press the **[VOL+]** key to enter the Manual mode.
- Press the **[VOL+]** key twice to display as follows.

Display

2
POWER

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

Display

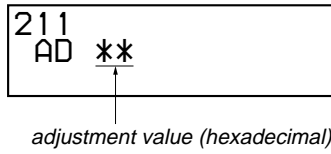
210
PwrAdj

- Repeat the next procedures (3-4-2. PwrAdj Adjustments), and adjust all contents of "table 3-4-1. PwrAdj Specifications".

3-4-2. PwrAdj adjustments

Repeat the following procedures and adjust all contents of “table 3-4-1. PwrAdj Specifications”.

Example Display (Item No. 2211)



Procedure:

1. Connect the digital voltmeter to measuring point (refer to the following table) and ground (CL433).
2. Press the **▶▶** key to change the item number.
3. Adjust with **[VOL+]/[VOL-]** keys so that the value of digital voltmeter becomes specification value.
4. Press the **||** key to write the adjusted value.
5. Press the **▶▶** key to select the next item.
6. Repeat adjustment from step 1 until item number 2233.

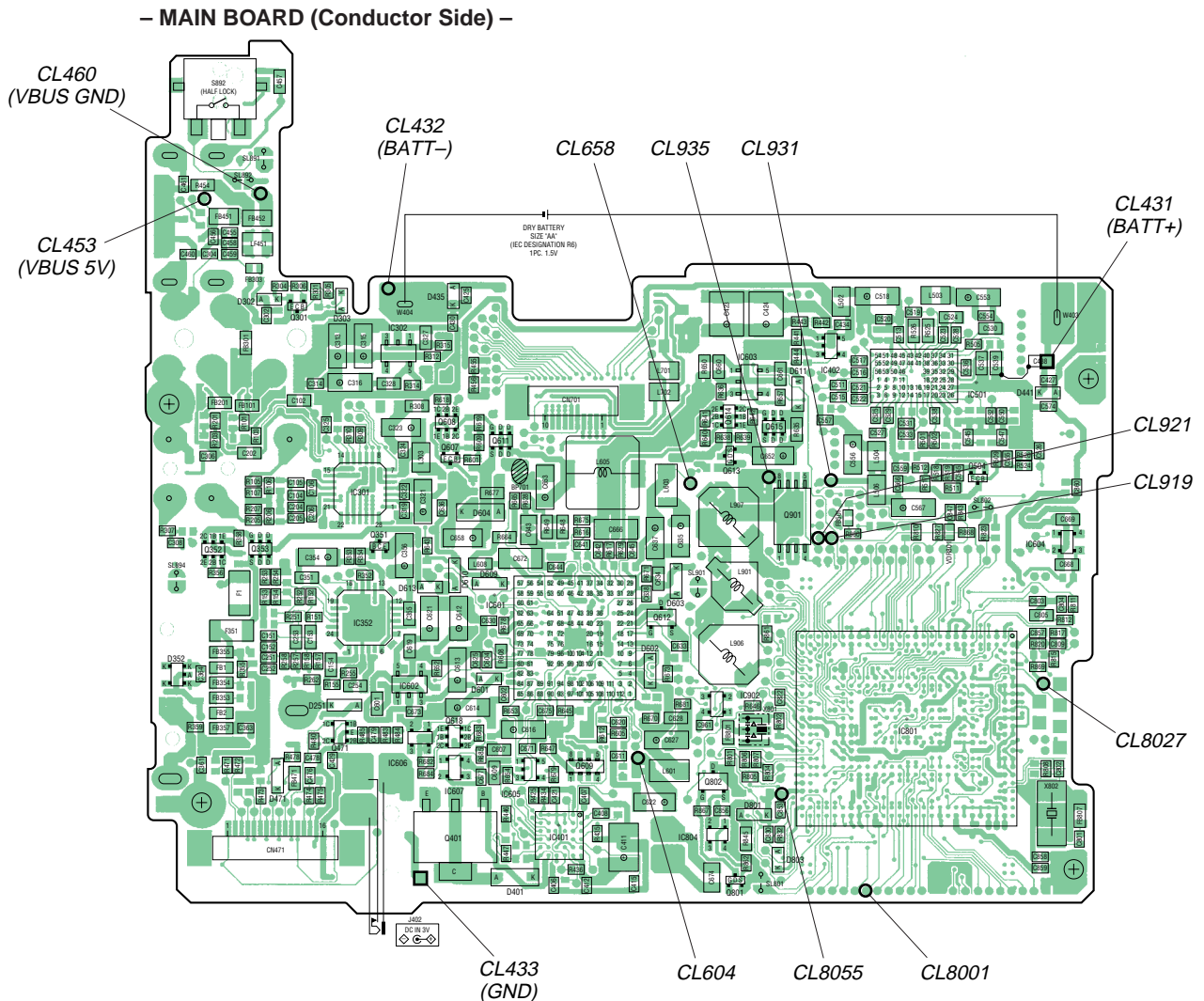
ItemNo.	Display	Specification value	Measuring point
2211	211 AD **	2.05 V + 0.02 V	CL8027
2212	212 AD **	2.25 V ± 0.01 V	CL8027
2213	213 AD **	1.20 V + 0.01 V	CL8001
2214	214 AD **	3.10 V ± 0.015 V	CL658
2215	215 AD **	3.10 V ± 0.015 V	CL658
2216	216 AD **	3.02 V ± 0.02 V	CL919
2217	217 AD **	3.02 V ± 0.02 V	CL919
2218	218 AD **	2.275 V ± 0.01 V	CL921
2219	219 AD **	2.480 V ± 0.01 V	CL921
2221	221 AD **	2.740 V ± 0.01 V	CL921
2222	222 AD **	2.985 V ± 0.01 V	CL921
2223	223 AD **	2.52 V ± 0.02 V	CL931
2224	224 AD **	0.89 V ± 0.02 V	CL604
2225	225 AD **	1.08 V ± 0.02 V	CL604
2226	226 AD **	1.52 V ± 0.02 V	CL604
2227	227 AD **	2.27 V ± 0.02 V	CL604
2228	228 AD **	2.97 V ± 0.02 V	CL604
2229	229 AD **	0.94 V ± 0.02 V	CL604
2231	231 AD **	1.28 V ± 0.02 V	CL604
2232	232 AD **	2.57 V ± 0.02 V	CL604
2233	233 AD **	2.57 V ± 0.02 V	CL604

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

Note2: Ground point of all measuring points is CL433.

Table 3-4-1. PwrAdj Specifications

Adjustment Location:



3-4-3. VBsAdj adjustments

Procedure:

1. In the “3-4-2. PwrAdj Adjustments” completed status, press the **▶▶** key to display as follows.



2. Apply the voltage of 5 V to the CL453 (VBUS 5V) and CL460 (VBUS 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 3-4-2. VBsAdj Specifications”)
5. Press the **■** key to write the adjusted value.
6. Press the **▶▶** key to select the next item, and repeat adjustments to item number 2243 at the same manner as step 3 to step 5.

Item No.	Display	Specification value	Measuring point
2241	241 AD **	1.13 V ± 0.01 V	CL8001
2242	242 AD **	2.05 V + 0.02 V	CL8027
2243	243 AD **	3.30 V ± 0.01 V	CL8055

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

Note2: Ground point of all adjustment points is CL433.

Note3: Refer to page 18 for adjustment location.

Table 3-4-2. VBsAdj Specifications

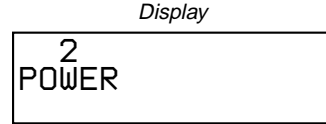
7. Press the **▶▶** key to select the item number 2244, and turn off the power supply of battery terminal.
8. Adjust with **[VOL+]/[VOL-]** keys so that the voltage of between CL935 and CL433 (GND) becomes 1.80 V (– 0.02 V).
9. Press the **■** key to write the adjusted value.
10. Apply the voltage of 1.2 V to the battery terminal again.
11. Press the **■** key to display “240 VBsAdj” (Item number: 2240).
12. Turn off the voltage of 5 V to the CL453 (VBUS 5V) and CL460 (VBUS GND).
13. Press the **■** key three times and back to the Display Check mode.

3-5. Charge Function Check

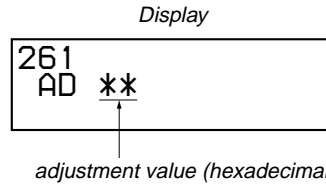
Note: When perform this check, don’t apply a voltage to battery terminals.

Procedure:

1. Connect the digital voltmeter to CL431 (BATT+) and CL433 (GND).
2. Enter the test mode using the AC adapter.
3. Press the **[VOL+]** key to enter the Manual mode.
4. Press the **[VOL+]** key twice to display as follows.



5. Press the **▶▶** key once, press the **[VOL+]** key once, press the **▶▶** key once, press the **[VOL+]** key three times, and press the **▶▶** key once to display as follows.



6. Adjust with **[VOL+]/[VOL-]** keys so that the value of digital voltmeter becomes 1.80 V.
7. Press the **■** key to write the adjusted value.
8. Press the **▶▶** key to select the next item.
9. Disconnect the digital voltmeter.
10. Press the **▶▶** key to select the next item (2262) and display “262 AD CC”.
11. Press the **■** key and confirm that the adjustment value changes from “CC” to “DD”.
If it changes to “BB”, IC401 (for charge IC) is fault.
12. Press the **▶▶** key to select the next item (2263) and display “263 AD CC”.
13. Press the **■** key and confirm that the adjustment value changes from “CC” to “DD”.
If it changes to “BB”, IC401 (for charge IC) is fault.
14. Disconnect the power supply (AC adaptor).
15. Connect the resistor of the specified value (see table below) to the battery terminals (CL431: BATT+, CL432: BATT–), and then connect the AC adapter again, and enter the test mode.
16. Select item number 2264 through the operation similar to steps 2 to 8.
17. Press the **■** key and confirm that the adjustment value changes from “CC” to “DD”.
If it changes to “BB”, IC401 (for charge IC) is fault.
18. In the same manner, exchange the resistors with the power supply disconnected, and confirm that the adjustment value is “CC” in each item number.

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

Item No.	Display	Connecting Resistor
2262	262 AD **	No resistor
2263	263 AD **	No resistor
2264	264 AD **	22 Ω (0.1 watts or more)
2265	265 AD **	10 Ω (1.0 watts or more)
2266	266 AD **	10 Ω (1.0 watts or more)
2267	267 AD **	2.2 Ω (1.5 watts or more)

Table 3-5-1. Charge Adjustment Specifications

3-6. Laser Power Check

Procedure:

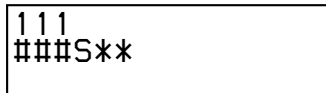
1. In the test mode (Display Check mode), press the [VOL+] key to enter the Manual mode.
2. Open the lid and press the [◀◀] key continuously until the optical pick-up moves to the most inward track.
3. Set the laser power meter so that the laser beam from the optical pick-up aims at the objective lens of laser power meter at right angle.
4. Press the [VOL-] key once to display as follows.

Display



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

Display



6. Confirm that the value of laser power meter is 0.67 mW ± 21%.
7. Press the [▶▶] key to select the item number 9112.
8. Confirm that the value of laser power meter is 0.76 mW ± 18%.
9. Press the [▶▶] key to select the item number 9113.
10. Confirm that the value of laser power meter is 6.25 mW ± 12%.
11. Press the [■] key four times and back to the Display Check mode.

3-7. Setting The Adjustment Values

3-7-1. 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 (*1)	Pr_nominal / 0.05
	Por / 0.05
0212	Kr × (-100)
0213 (*2)	Pw_nominal / 0.05
	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 3-7-1. Hi-MD3 adjustment parameter

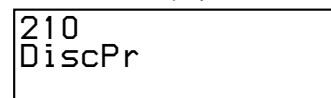
Example of Calculation:

Item No.	Parameter		Result	
			Decimal	Hexadecimal
0211	Pr_nominal	2.50 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. In the test mode (Display Check mode), press the [VOL+] key to enter the Manual mode.
2. Press the [▶▶] key once, press the [VOL+] key once, and press the [▶▶] key once again to display as follows.

Display

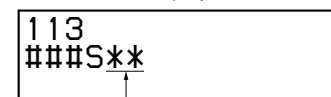


3. Press the [▶▶] key once to select the item number 0211.
4. Adjust with [VOL+]/[VOL-] keys so that the adjustment value of LCD becomes calculated value.
5. Press the [■] key to write the adjusted value.
6. Press the [▶▶] key to next item.
7. Repeat adjustment from step 4 until item number 0216.

3-7-2. Other setting

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

Display



adjustment value (hexadecimal)

3. Press the [VOL+]/[VOL-] key and set the according value to each model type and destination referring to the following table.
4. Press the [■] key to write the adjusted value.

Destination	Model Type	
	MZ-NH700	MZ-NHF800
US	-	50
Canadian, Australian	20	30
AEP, UK, East European	A0	B0
E18, Hong Kong, Korean, Chinese, Tourist	25	34
E91, Mexican	20	-

- Abbreviation
 E18: 100V - 240V AC area in E model
 E91: 220V AC area in E model

Table 3-7-2. Mode Type and Destination Setting

3-8. 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 “3-7. Setting The Adjustment Values” again, then retry this adjustments from step 1.

Procedure:

1. Insert the full charged Ni-MH rechargeable battery (NH-10WM), then open and close the lid and 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/GA1).
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 “HMD OK” is displayed on the LCD.
12. Eject the disc.
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.

3-9. Resume Clear

Procedure:

1. In the test mode (Display Check mode), press the **[VOL+]** key to enter the Manual mode.
2. 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.
3. Press the **[■]** key to resume clear.
4. Press the **[■]** key four times and back to the Display Check mode. And remove the Ni-MH rechargeable battery.

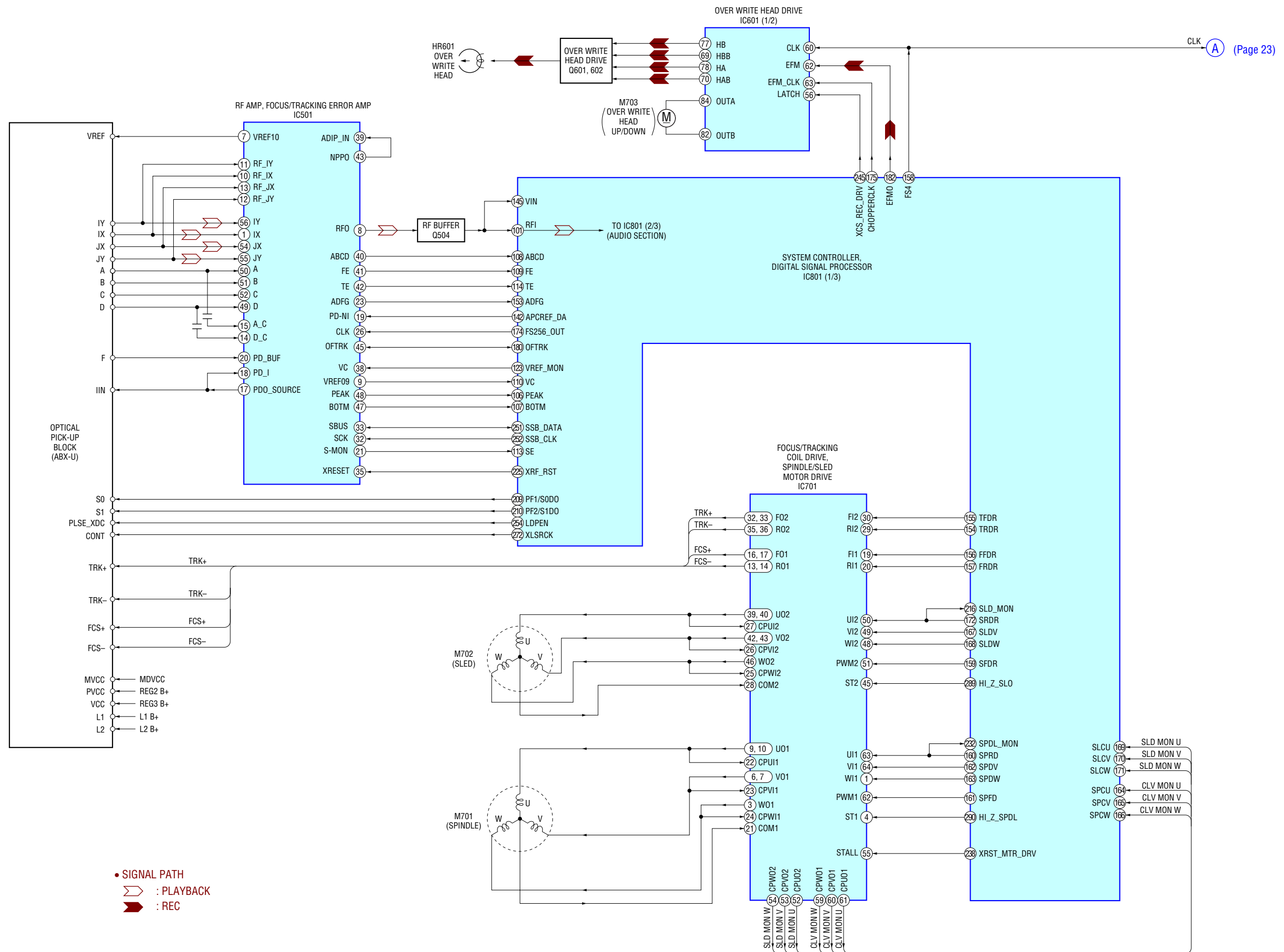
3-10. Releasing The Test Mode

Refer to the “SECTION 4. TEST MODE”.

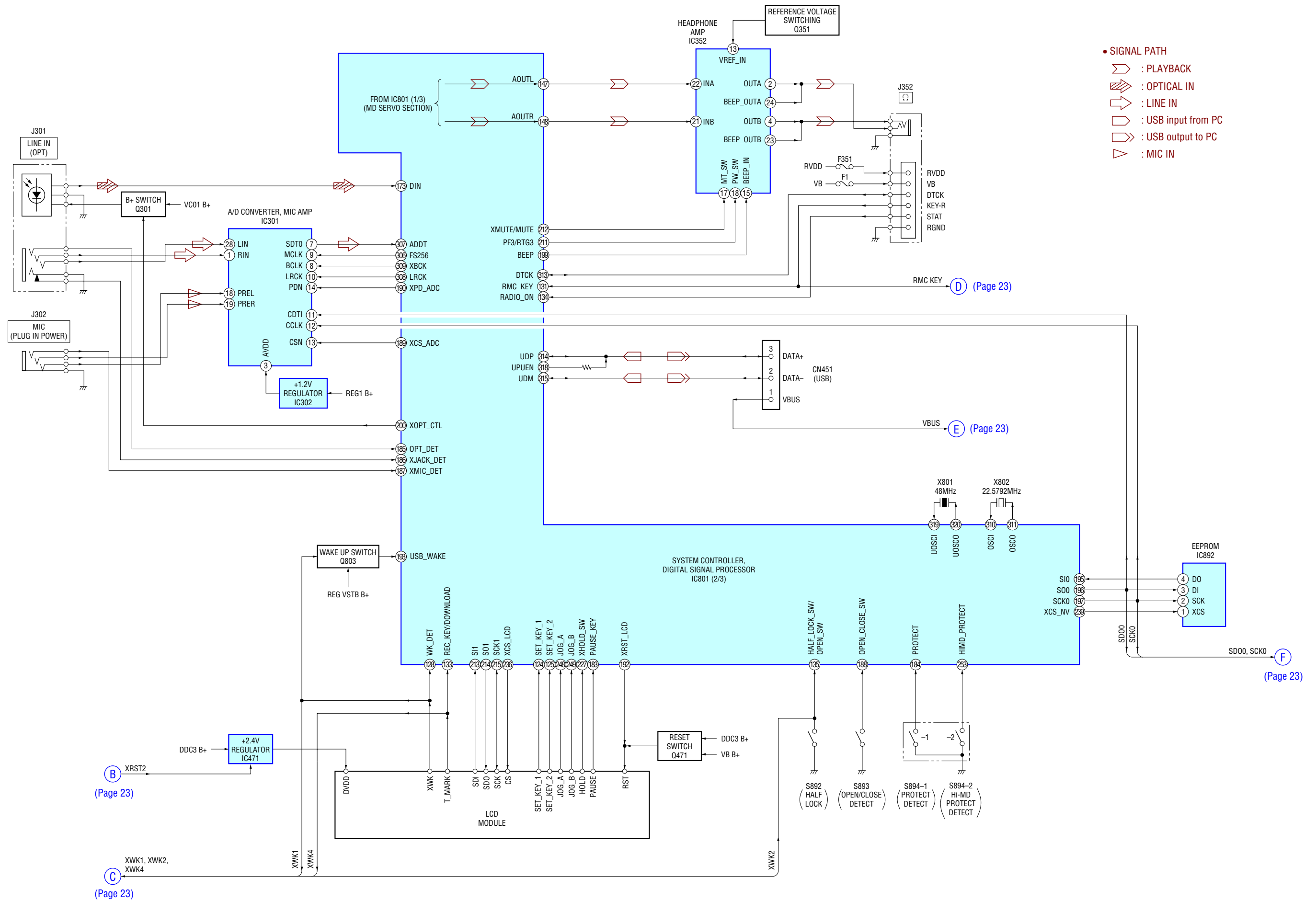
Note: Once the test mode is activated with this application, the test mode is then activated forcibly by only turning on the power. After the repair completed, be sure to release the test mode by using this application once more.

SECTION 6
DIAGRAMS

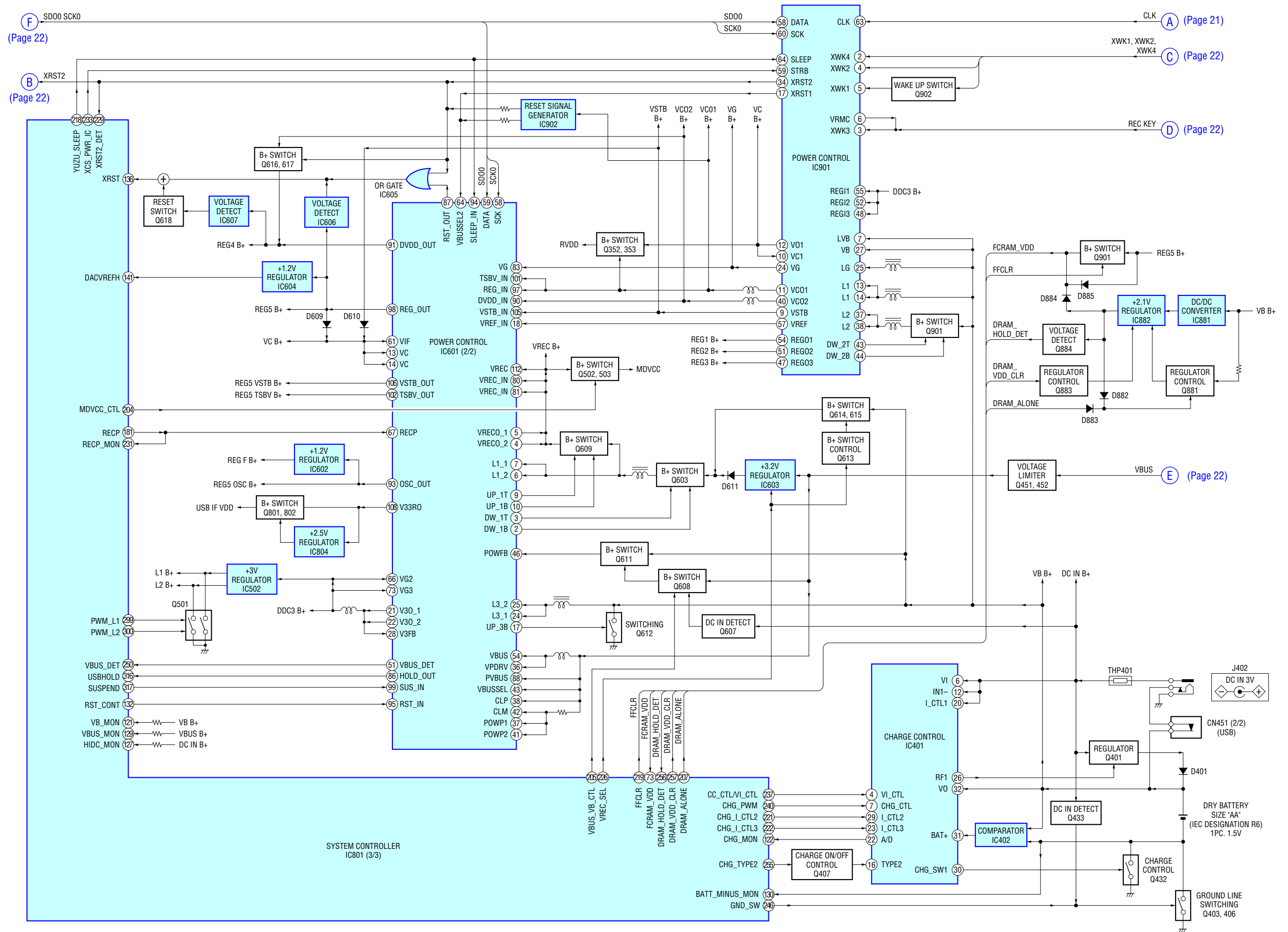
6-1. BLOCK DIAGRAM – MD SERVO Section –



6-2. BLOCK DIAGRAM – AUDIO Section –



6-3. BLOCK DIAGRAM – POWER SUPPLY Section –



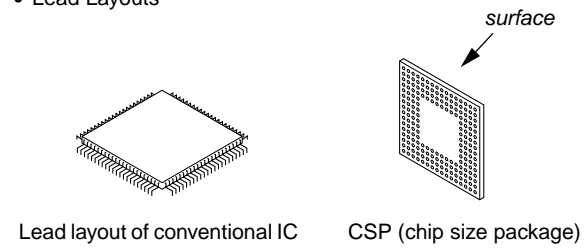
• Note For Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

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

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

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



Note on Schematic Diagram:

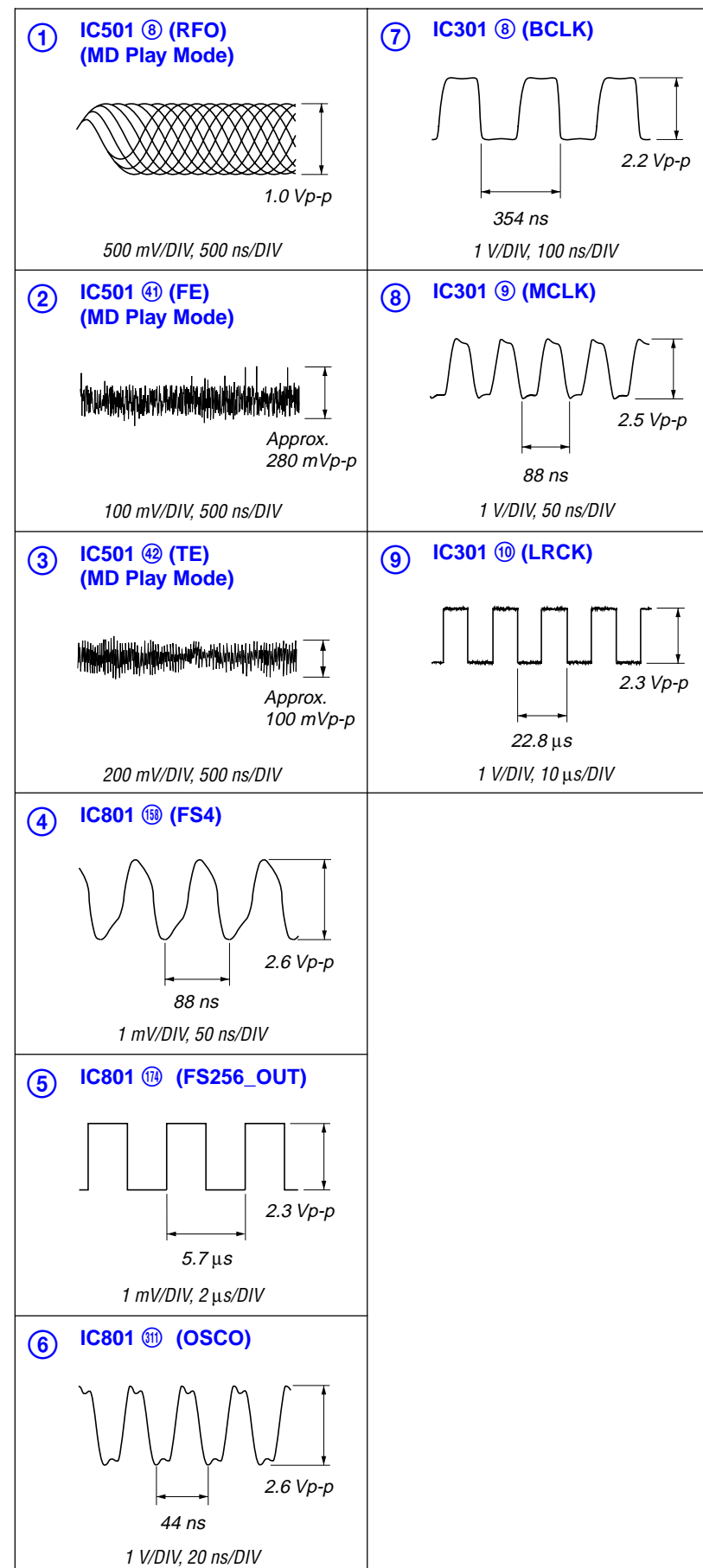
- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{ W}$ or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.

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

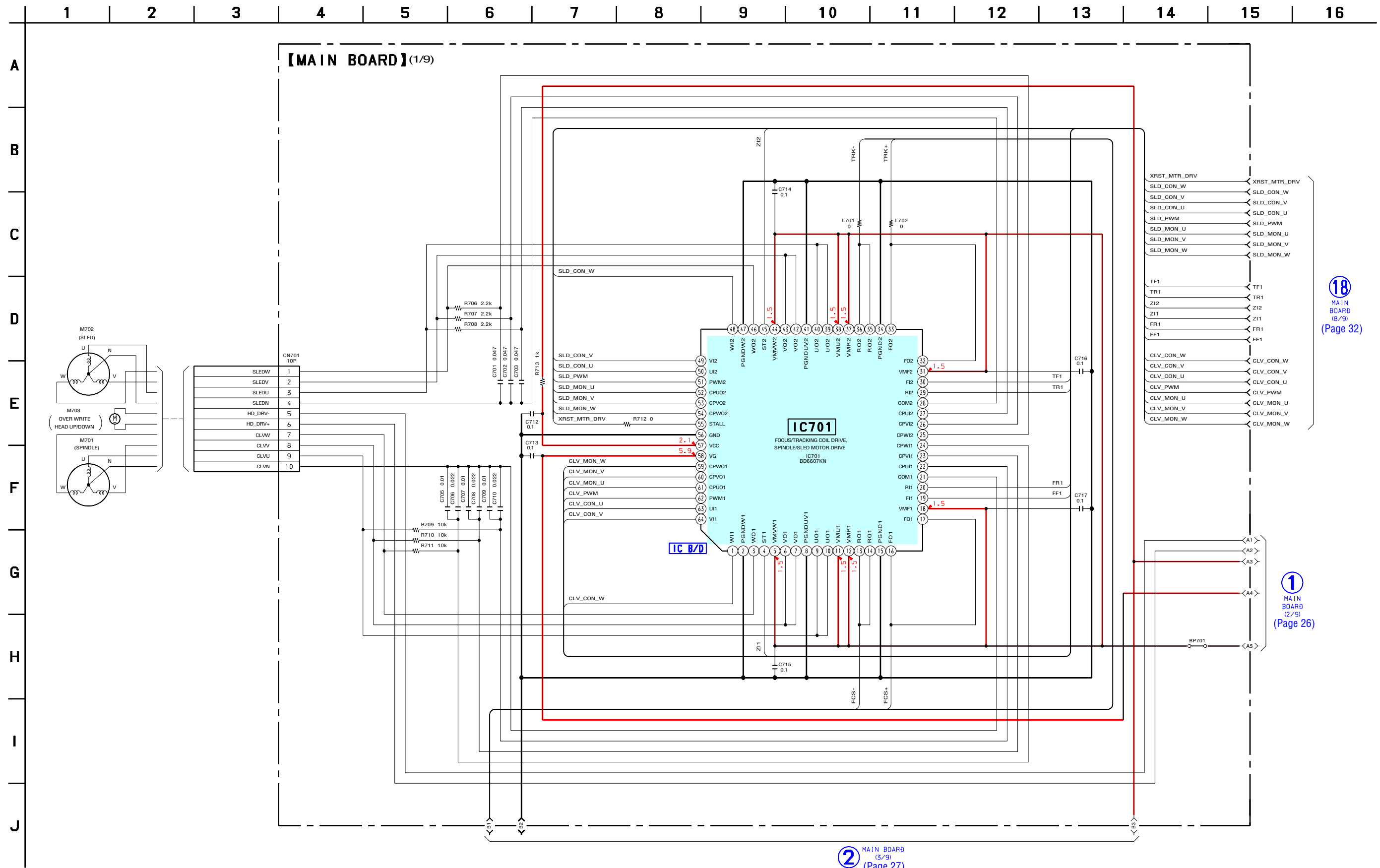
Note:
 Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- Total current is measured with MD installed.
- Power voltage is dc 1.5 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground in playback mode.
- no mark : PLAYBACK
- * : 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
 - ◁ : OPTICAL IN
 - ◀ : LINE IN
 - ◁ : USB input from PC
 - ▶ : USB output to PC
 - ▷ : MIC IN
- Abbreviation
 - EE : East European model

• Waveforms



6-4. SCHEMATIC DIAGRAM – MAIN Section (1/9) – • See page 36 for IC Block Diagram.

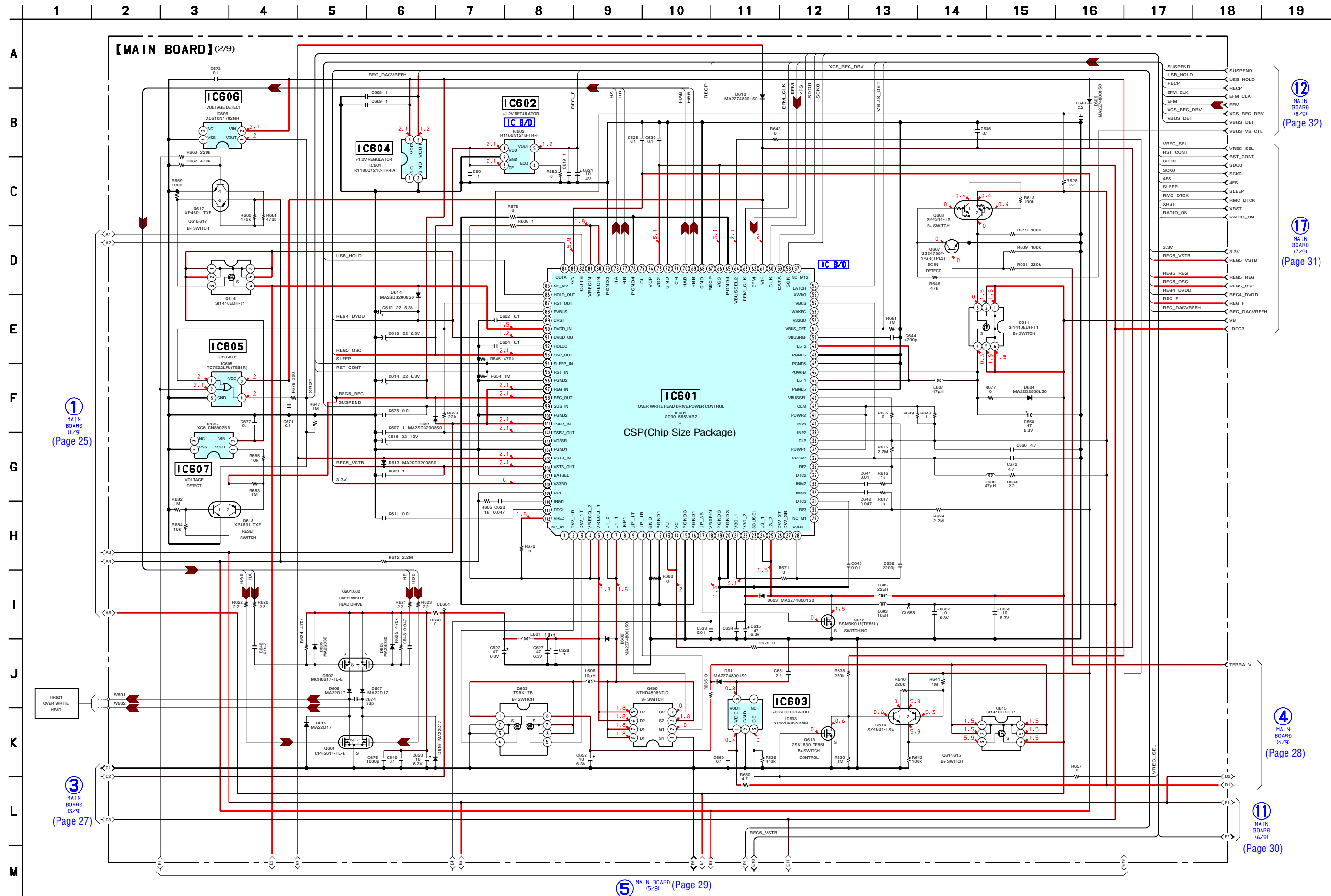


18
MAIN BOARD (8/9)
(Page 32)

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

2
MAIN BOARD (5/9)
(Page 27)

6-5. SCHEMATIC DIAGRAM – MAIN Section (2/9) – • See page 36 for IC Block Diagrams.



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

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

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

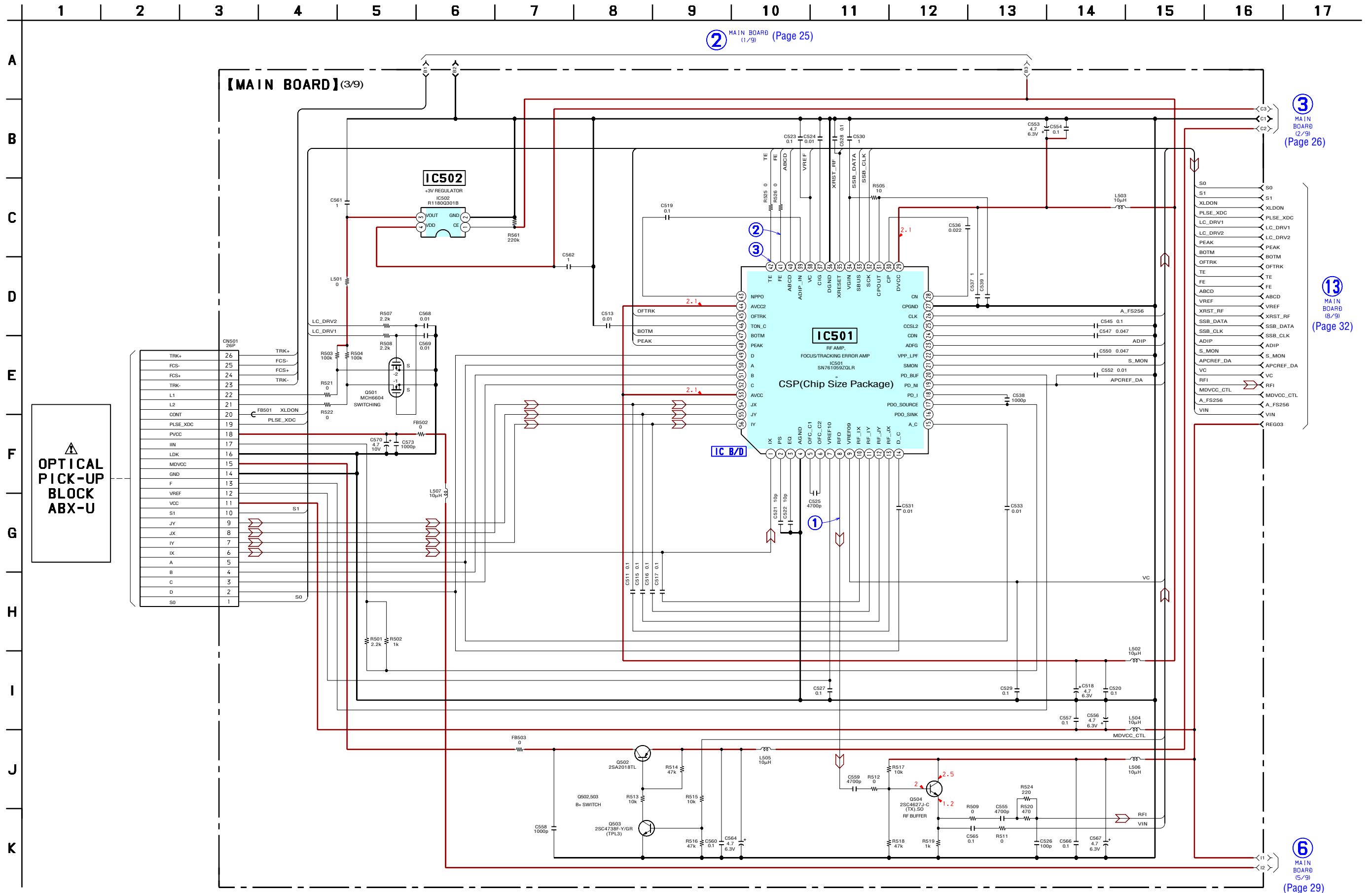
12 MAIN BOARD (8/9) (Page 32)

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

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

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

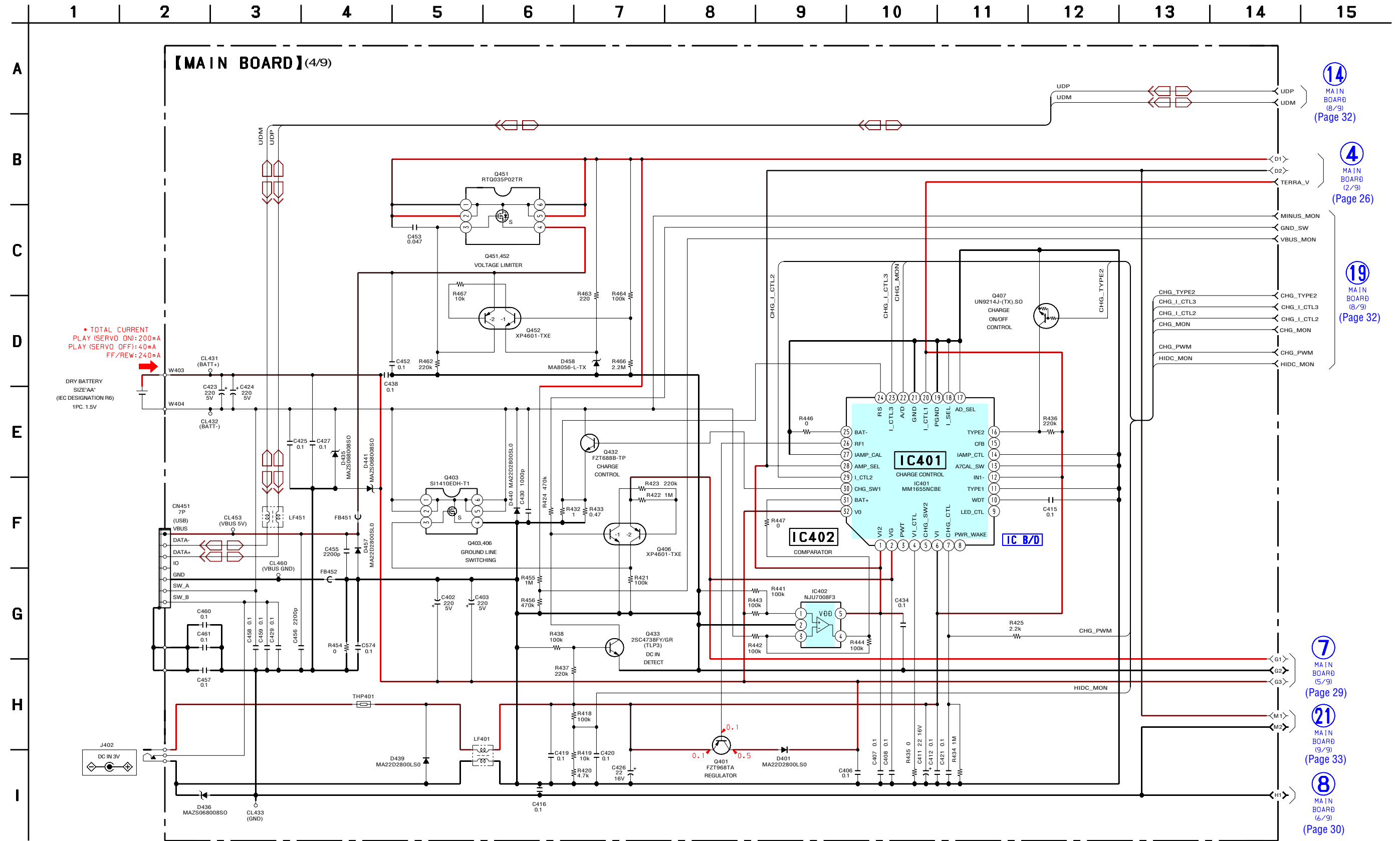
6-6. SCHEMATIC DIAGRAM – MAIN Section (3/9) – • See page 24 for Waveforms. • See page 36 for IC Block Diagram.



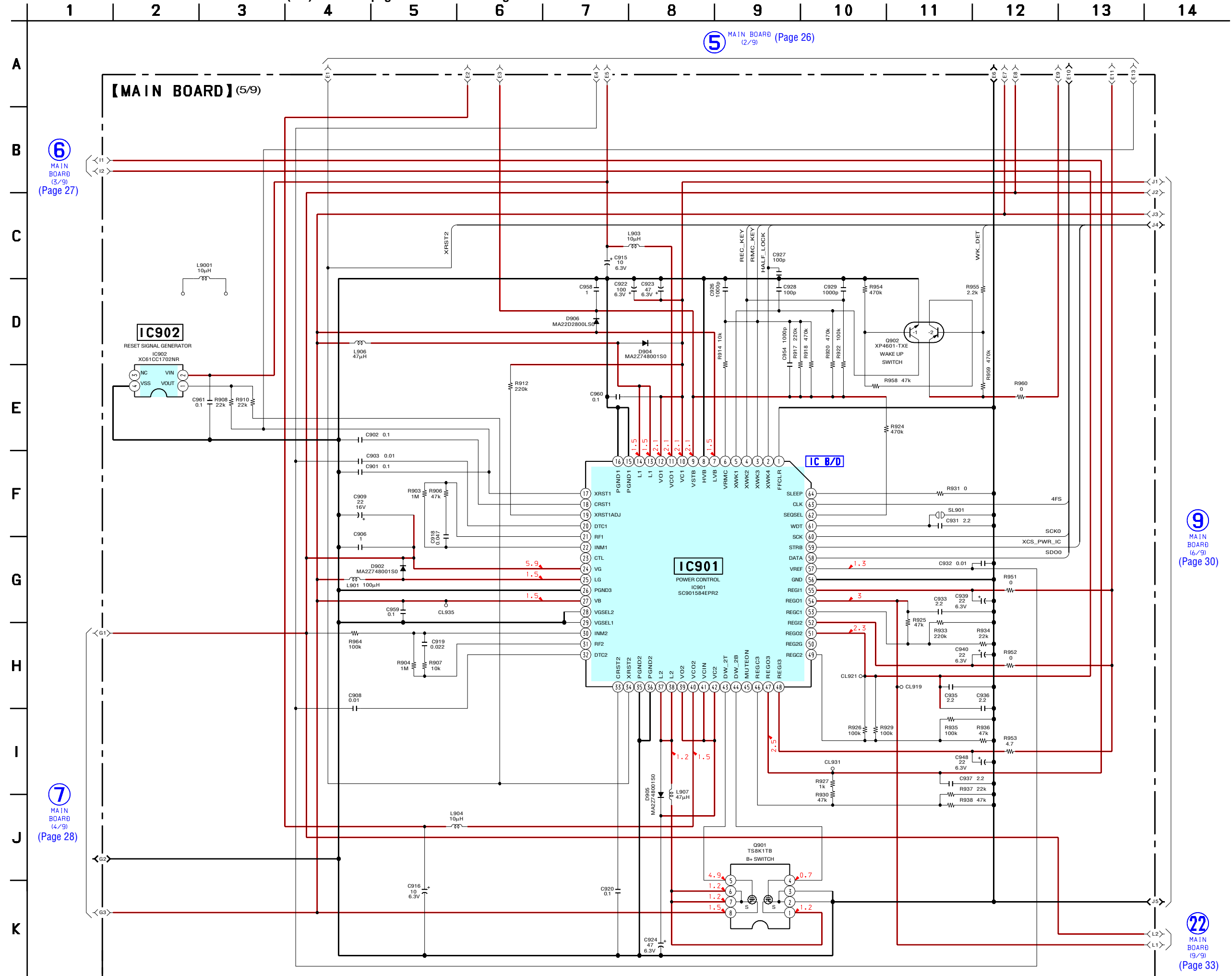
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

6-7. SCHEMATIC DIAGRAM – MAIN Section (4/9) – • See page 36 for IC Block Diagram.



6-8. SCHEMATIC DIAGRAM – MAIN Section (5/9) – • See page 36 for IC Block Diagram.



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

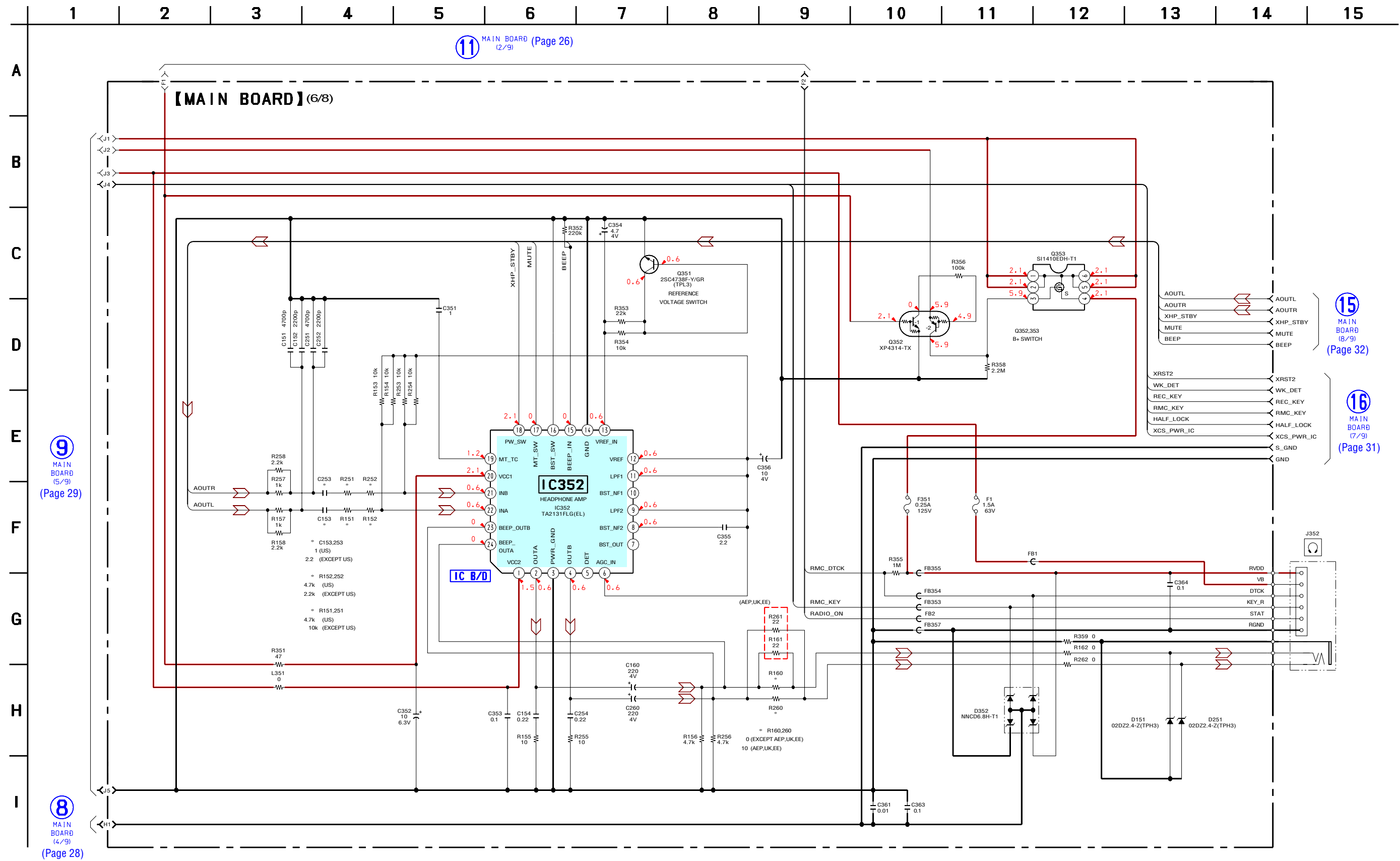
6 MAIN BOARD (3/9) (Page 27)

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

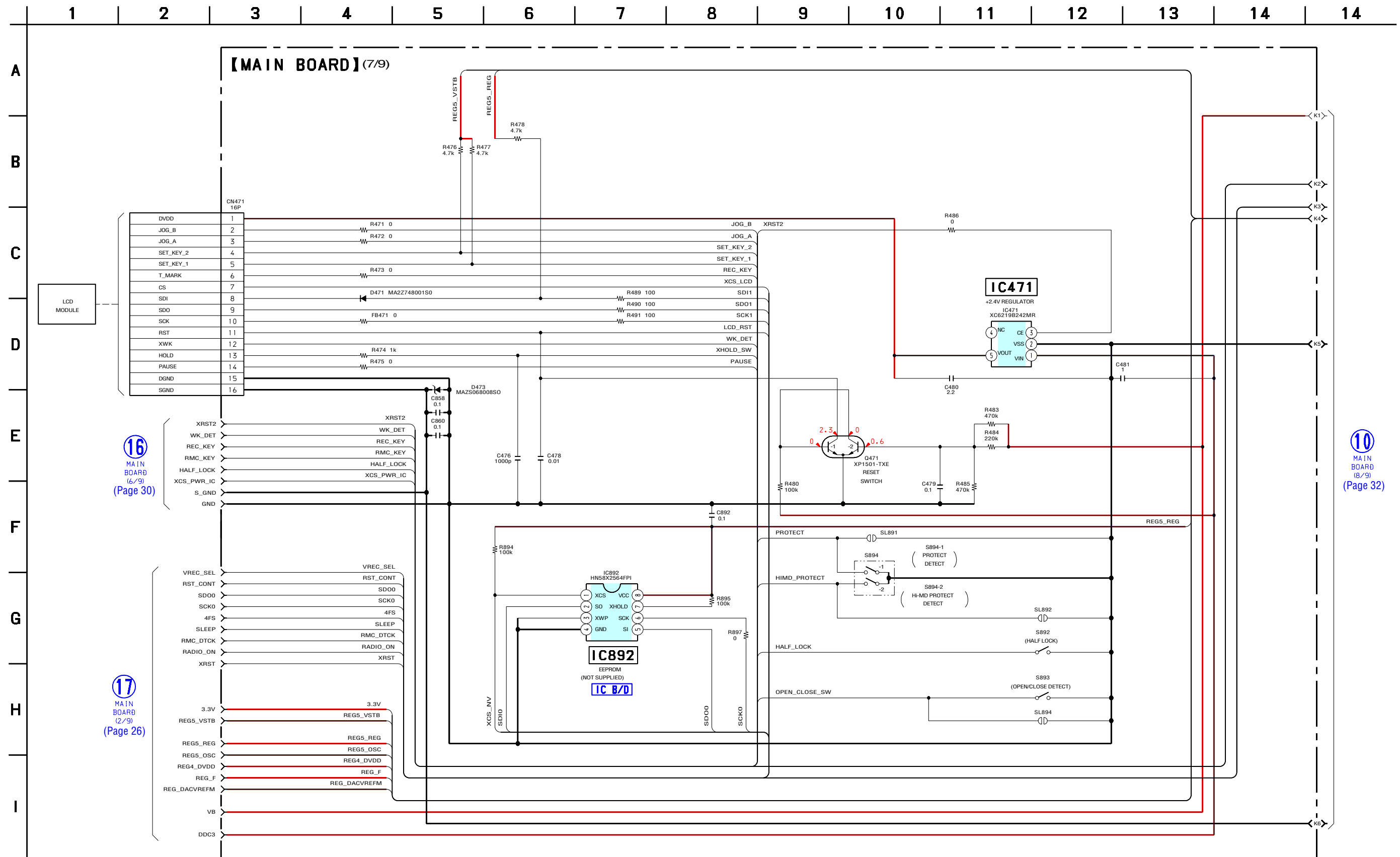
9 MAIN BOARD (6/9) (Page 30)

22 MAIN BOARD (9/9) (Page 33)

6-9. SCHEMATIC DIAGRAM – MAIN Section (6/9) – • See page 36 for IC Block Diagram.



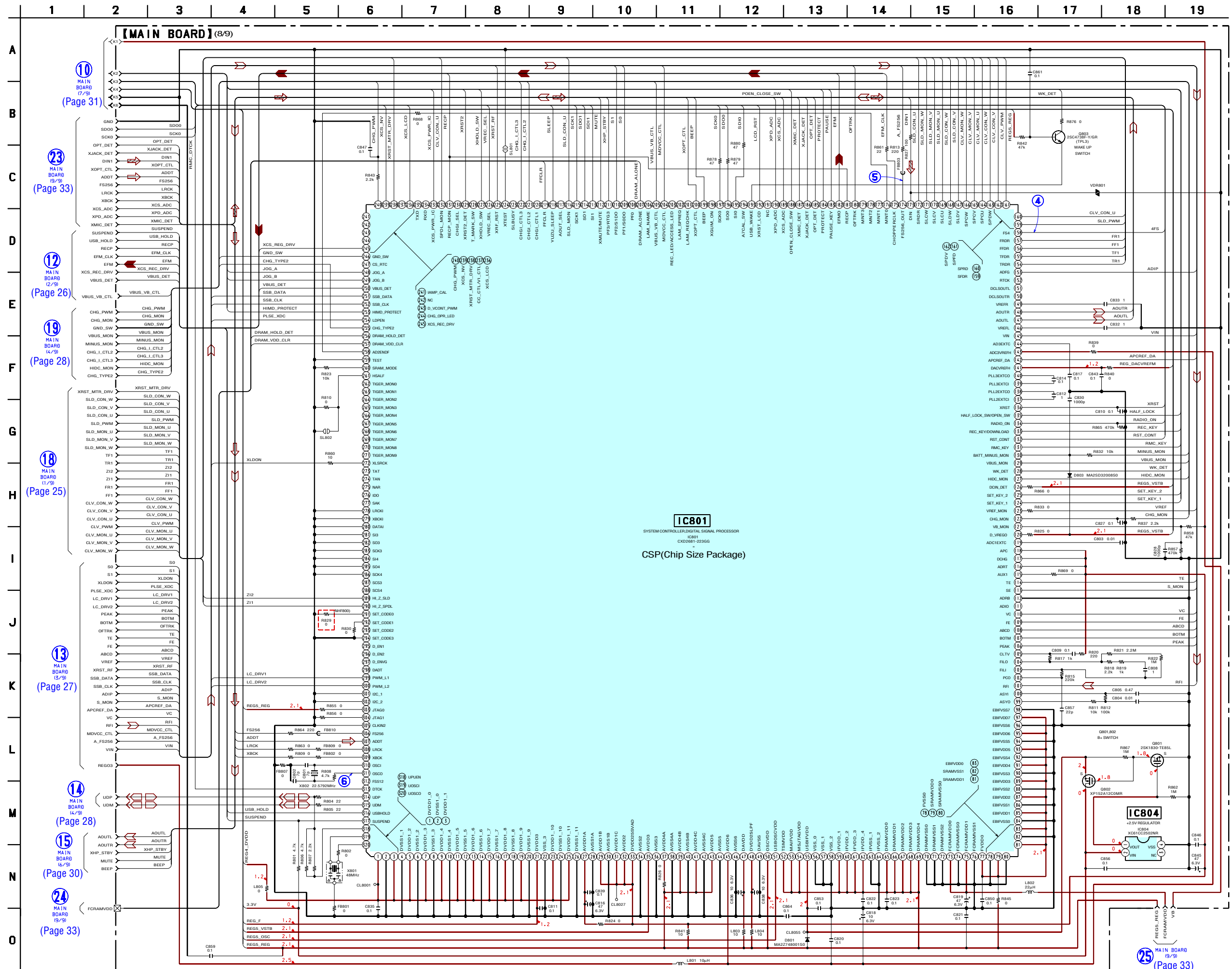
6-10. SCHEMATIC DIAGRAM – MAIN Section (7/9) – • See page 36 for IC Block Diagram.



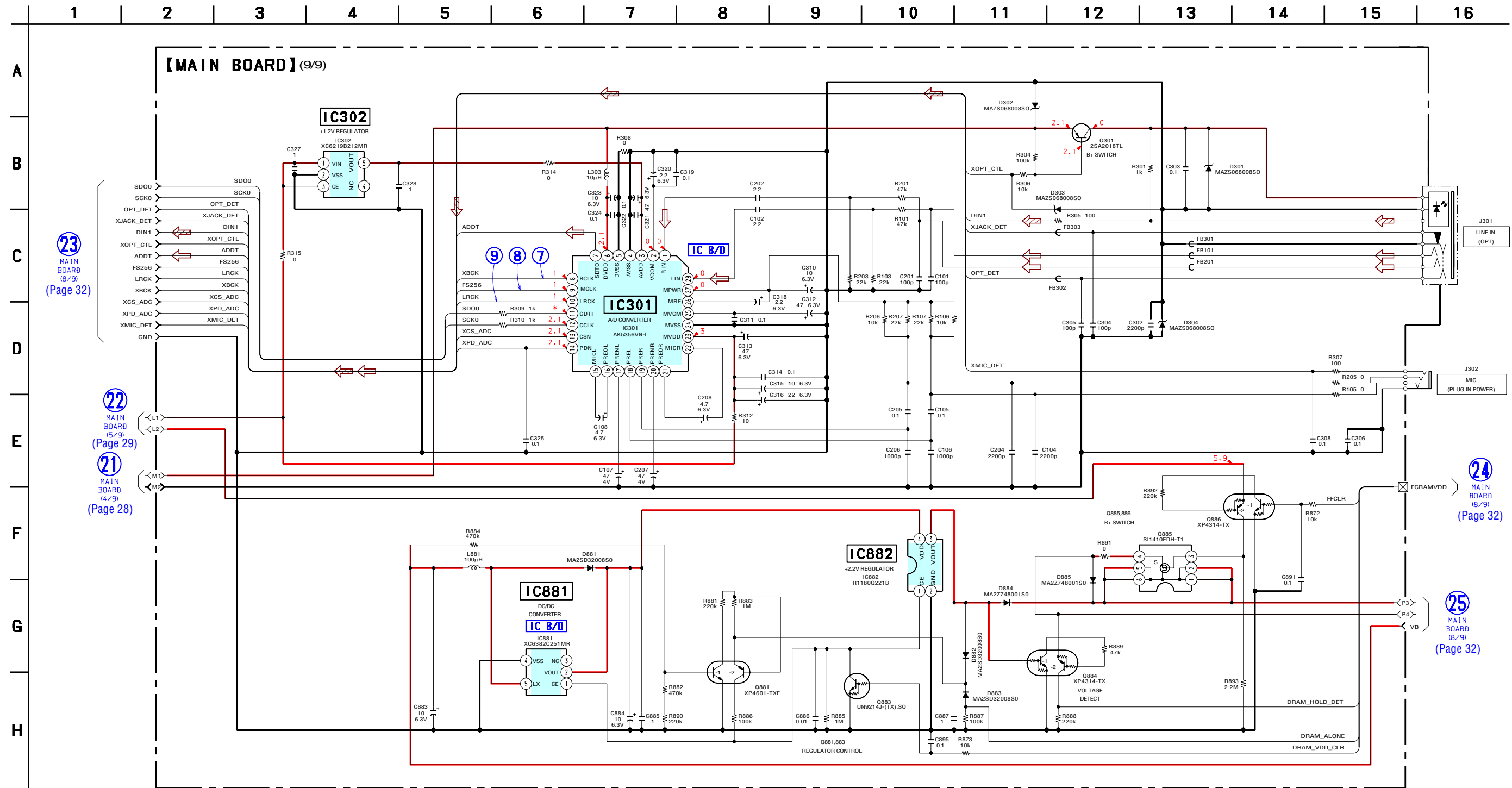
16
MAIN BOARD (6/9)
(Page 30)

17
MAIN BOARD (2/9)
(Page 26)

10
MAIN BOARD (8/9)
(Page 32)



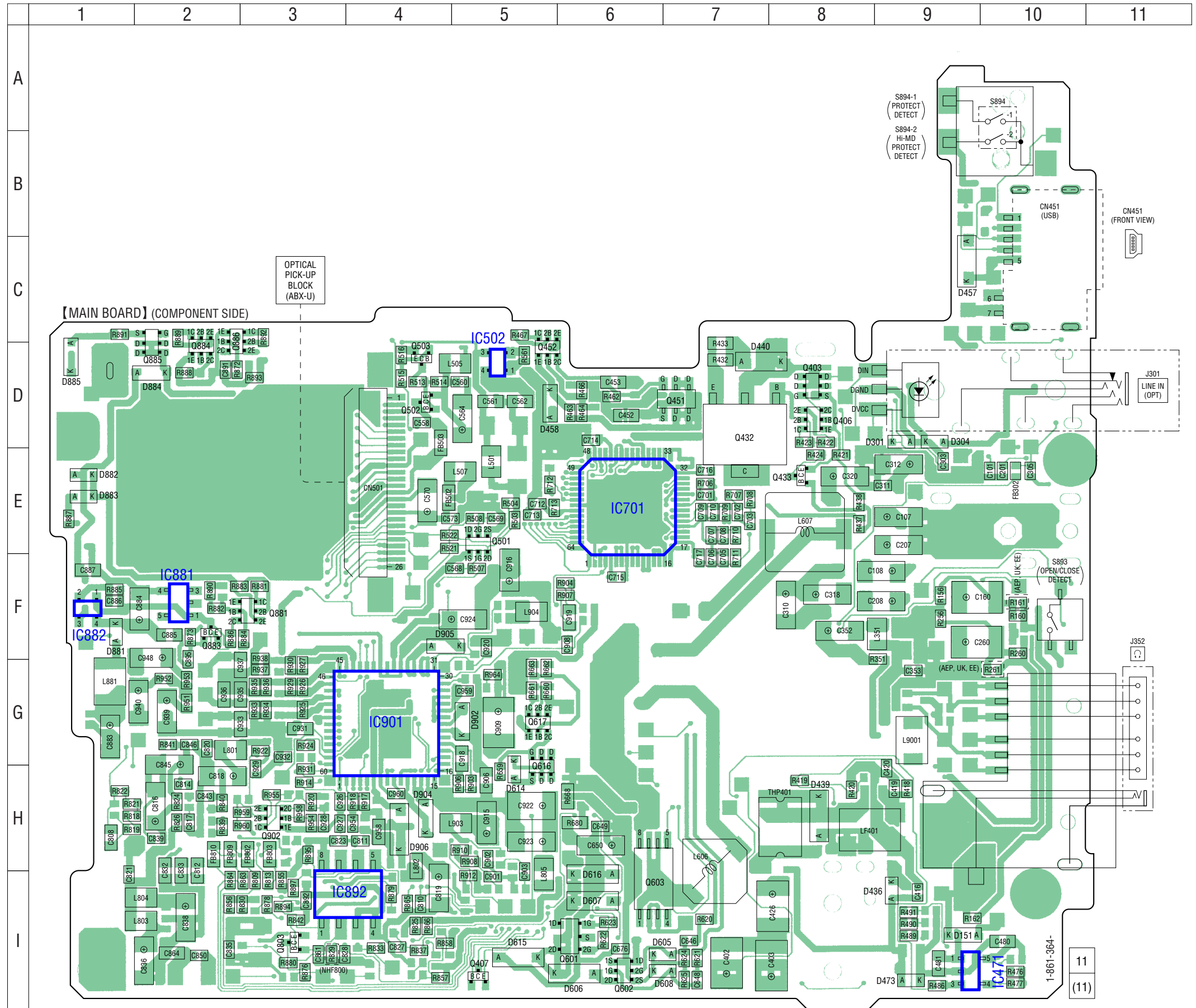
6-12. SCHEMATIC DIAGRAM – MAIN Section (9/9) – • See page 24 for Waveforms. • See page 36 for IC Block Diagrams.



6-13. PRINTED WIRING BOARD – MAIN Section (1/2) –  : Uses unleaded solder.

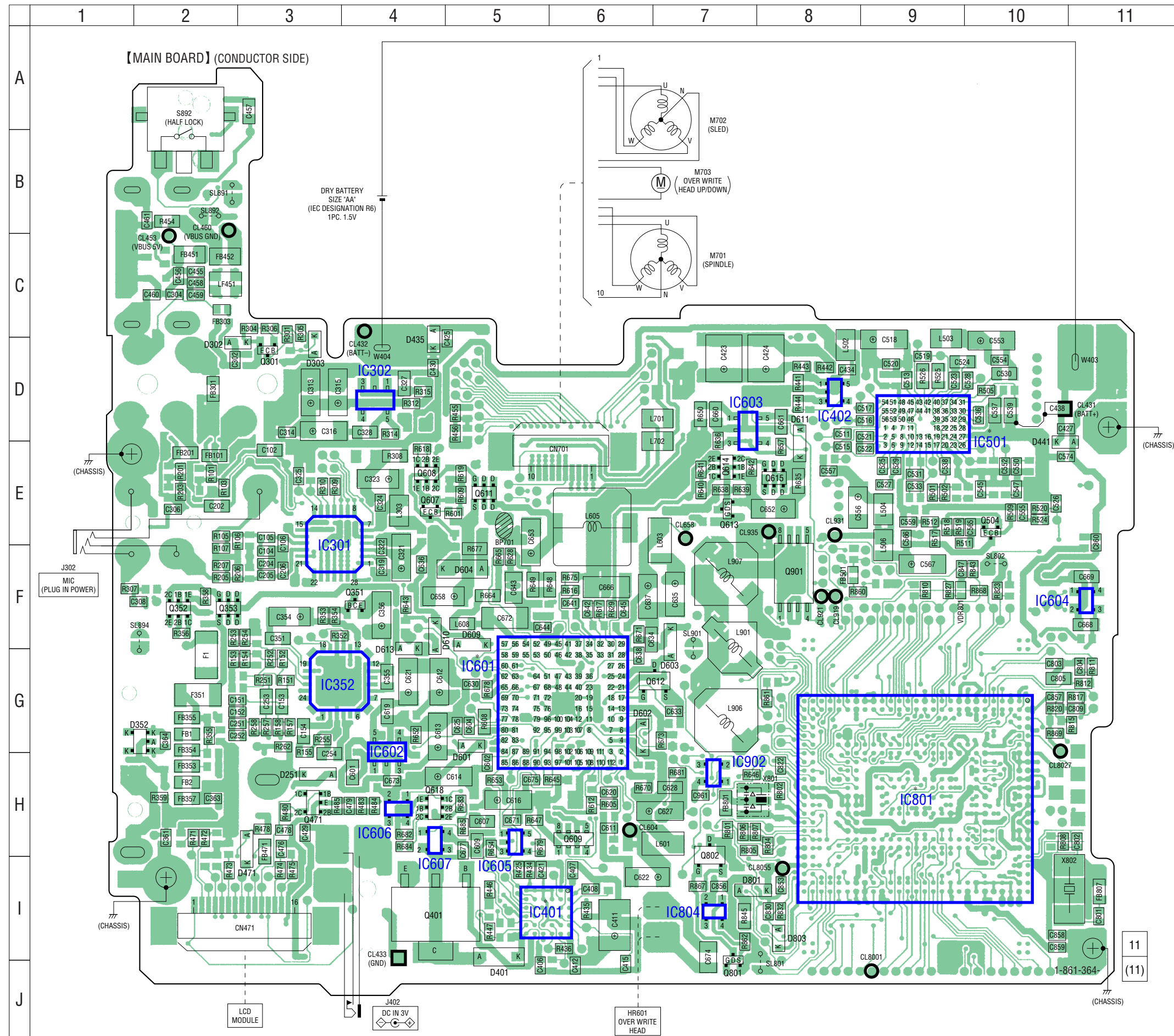
• Semiconductor Location

Ref. No.	Location
D151	I-9
D301	D-9
D304	D-9
D436	I-9
D439	H-8
D440	D-7
D457	C-9
D458	D-5
D473	I-9
D605	I-6
D606	I-6
D607	I-6
D608	I-6
D614	H-5
D615	I-5
D616	I-6
D881	F-1
D882	E-1
D883	E-1
D884	D-2
D885	D-1
D902	G-5
D904	H-4
D905	F-4
D906	H-4
IC471	I-9
IC502	D-5
IC701	E-6
IC881	F-2
IC882	F-1
IC892	I-4
IC901	G-4
Q403	D-8
Q406	D-8
Q407	I-5
Q432	D-7
Q433	E-8
Q451	D-7
Q452	D-5
Q501	E-5
Q502	D-4
Q503	D-4
Q601	I-6
Q602	I-6
Q603	I-6
Q616	H-5
Q617	G-5
Q803	I-3
Q881	F-3
Q883	F-2
Q884	D-2
Q885	D-2
Q886	D-2
Q902	H-3



6-14. PRINTED WIRING BOARD – MAIN Section (2/2) –  : Uses unleaded solder.

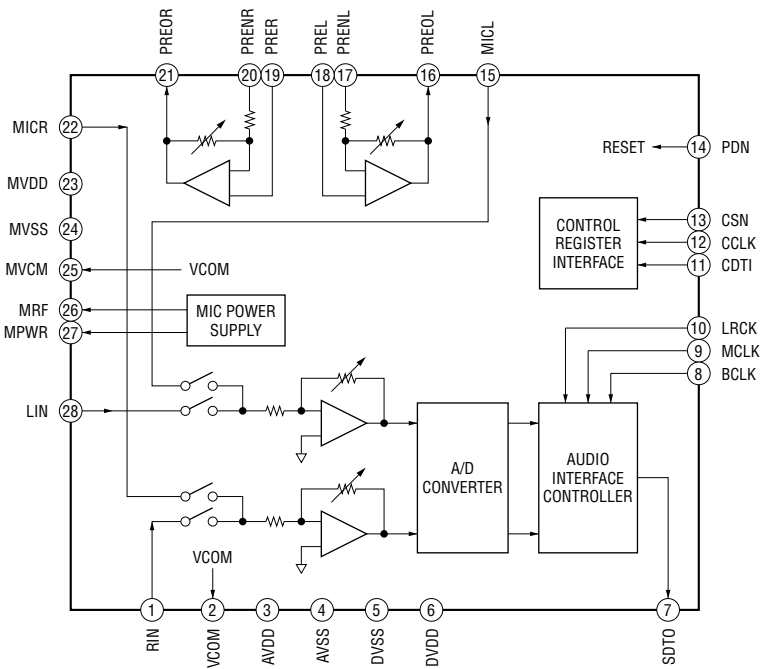
• Semiconductor Location



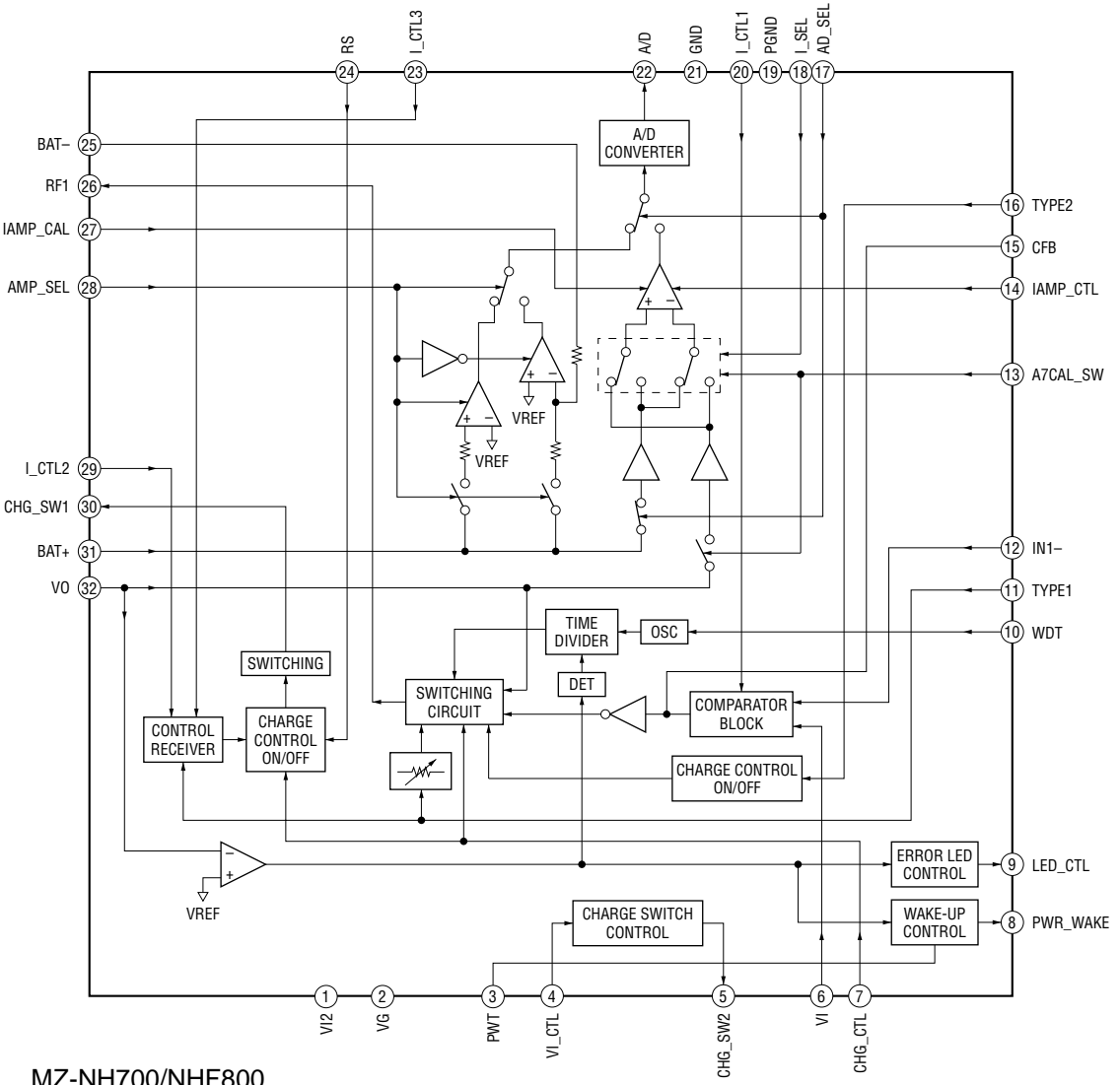
Ref. No.	Location
D251	H-3
D302	D-2
D303	D-3
D352	G-2
D401	I-5
D435	D-4
D441	D-10
D471	H-3
D601	G-5
D602	G-6
D603	F-7
D604	F-5
D609	F-5
D610	F-4
D611	E-8
D613	G-4
D801	I-7
D803	I-8
IC301	F-3
IC302	D-4
IC352	G-3
IC401	I-5
IC402	D-8
IC501	D-9
IC601	G-6
IC602	H-4
IC603	D-7
IC604	F-11
IC605	H-5
IC606	H-4
IC607	H-4
IC801	H-9
IC804	I-7
IC902	H-7
Q301	D-3
Q351	F-4
Q352	F-2
Q353	F-2
Q401	I-4
Q471	H-3
Q504	E-10
Q607	E-4
Q608	E-4
Q609	H-6
Q611	E-5
Q612	G-7
Q613	E-7
Q614	E-7
Q615	E-8
Q618	H-4
Q801	I-7
Q802	H-7
Q901	F-8

• IC Block Diagrams

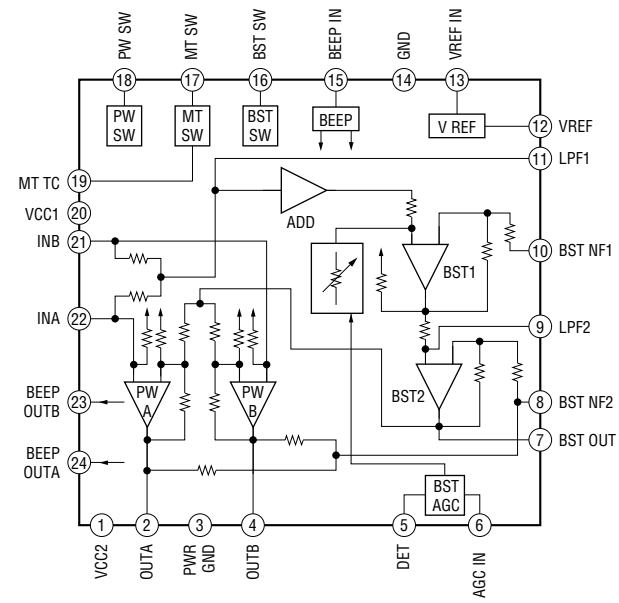
IC301 AK5356VN-L



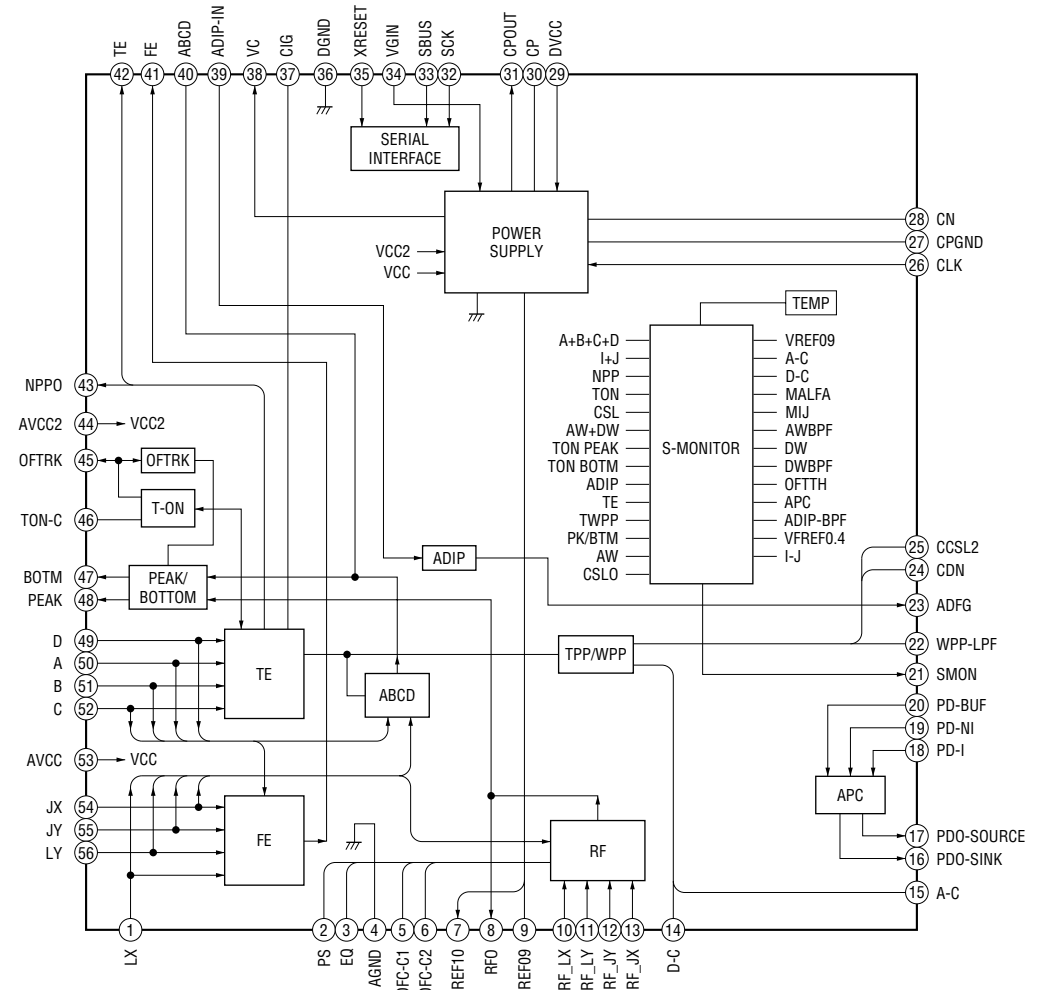
IC401 MM1655NCBE



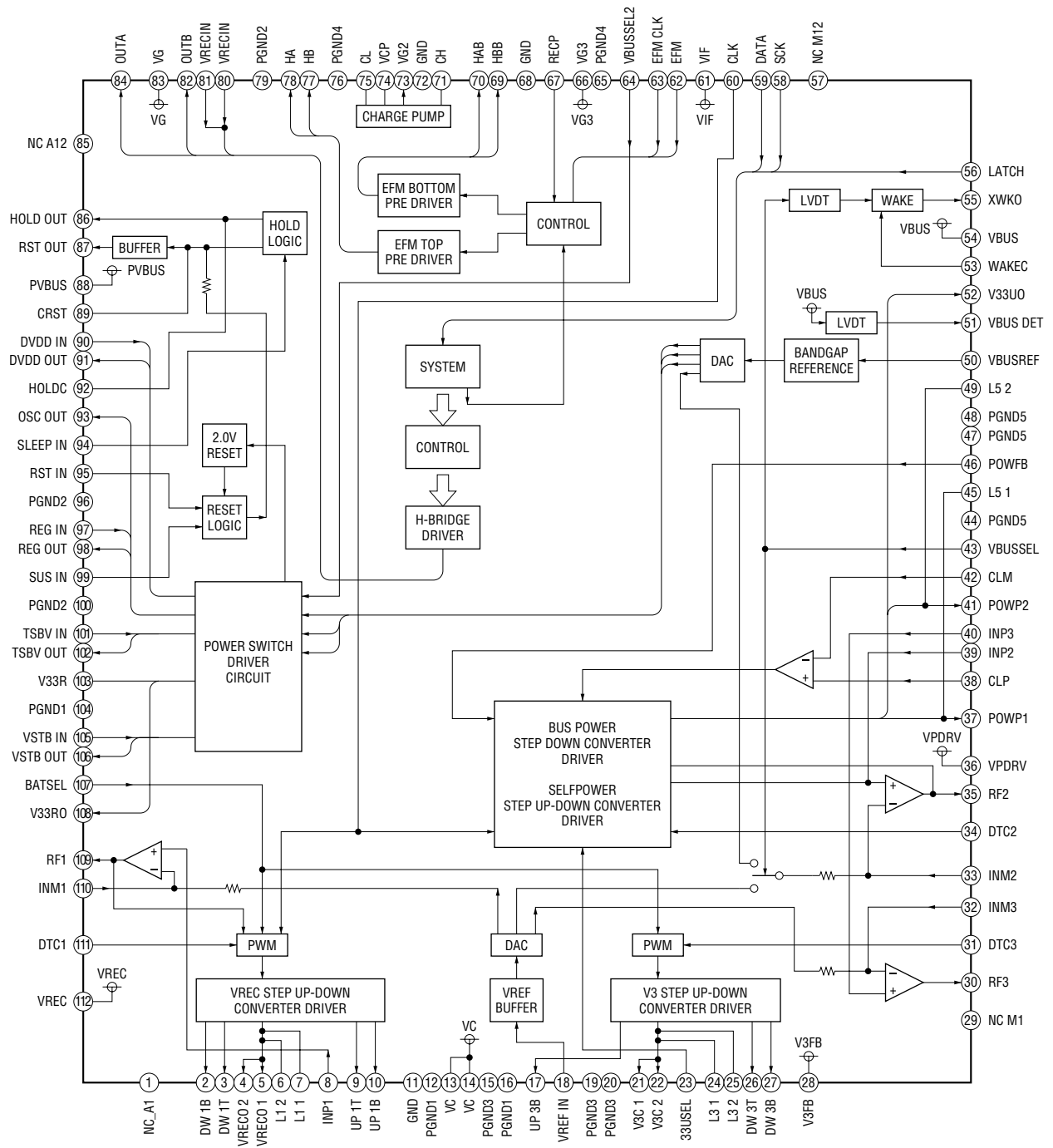
C352 TA2131FLG (EL)



IC501 SN761059ZQLR

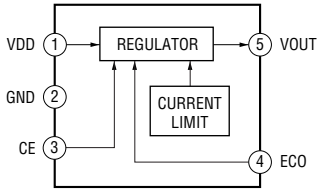


IC601 SC901585VAR2

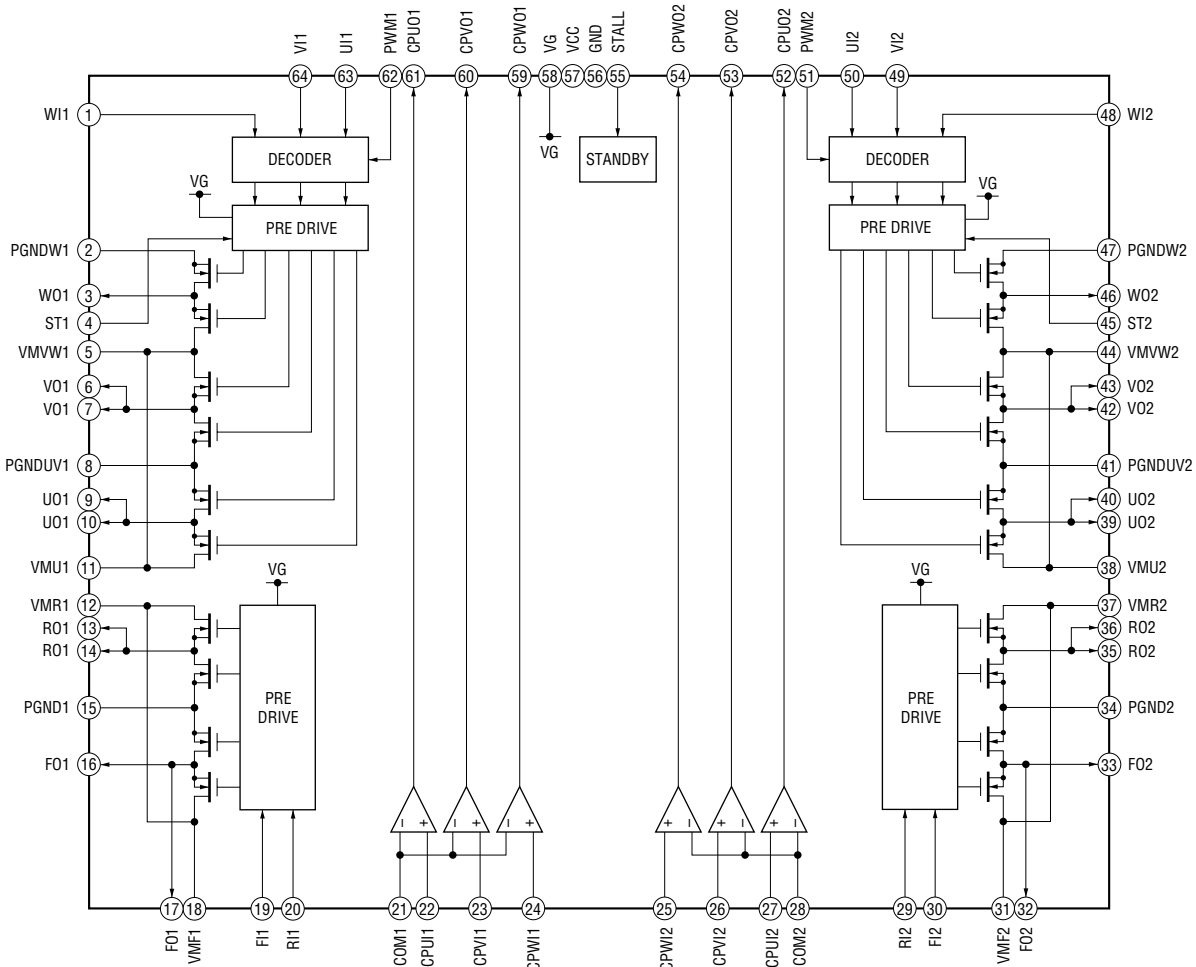


MZ-NH700/NHF800

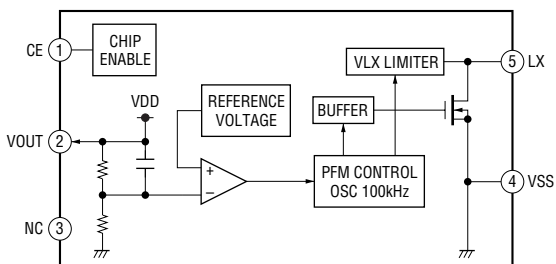
IC602 R1160N121B-TR-FA



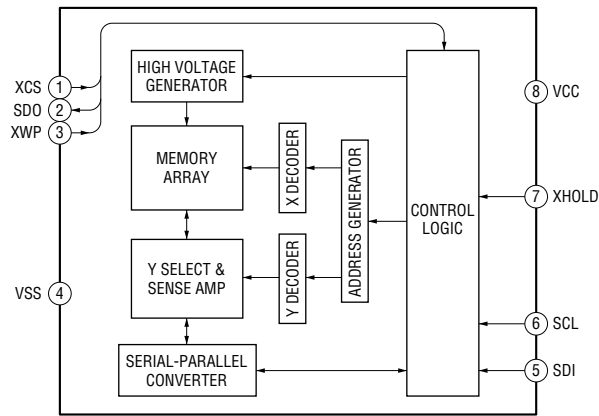
IC701 BD6607KN



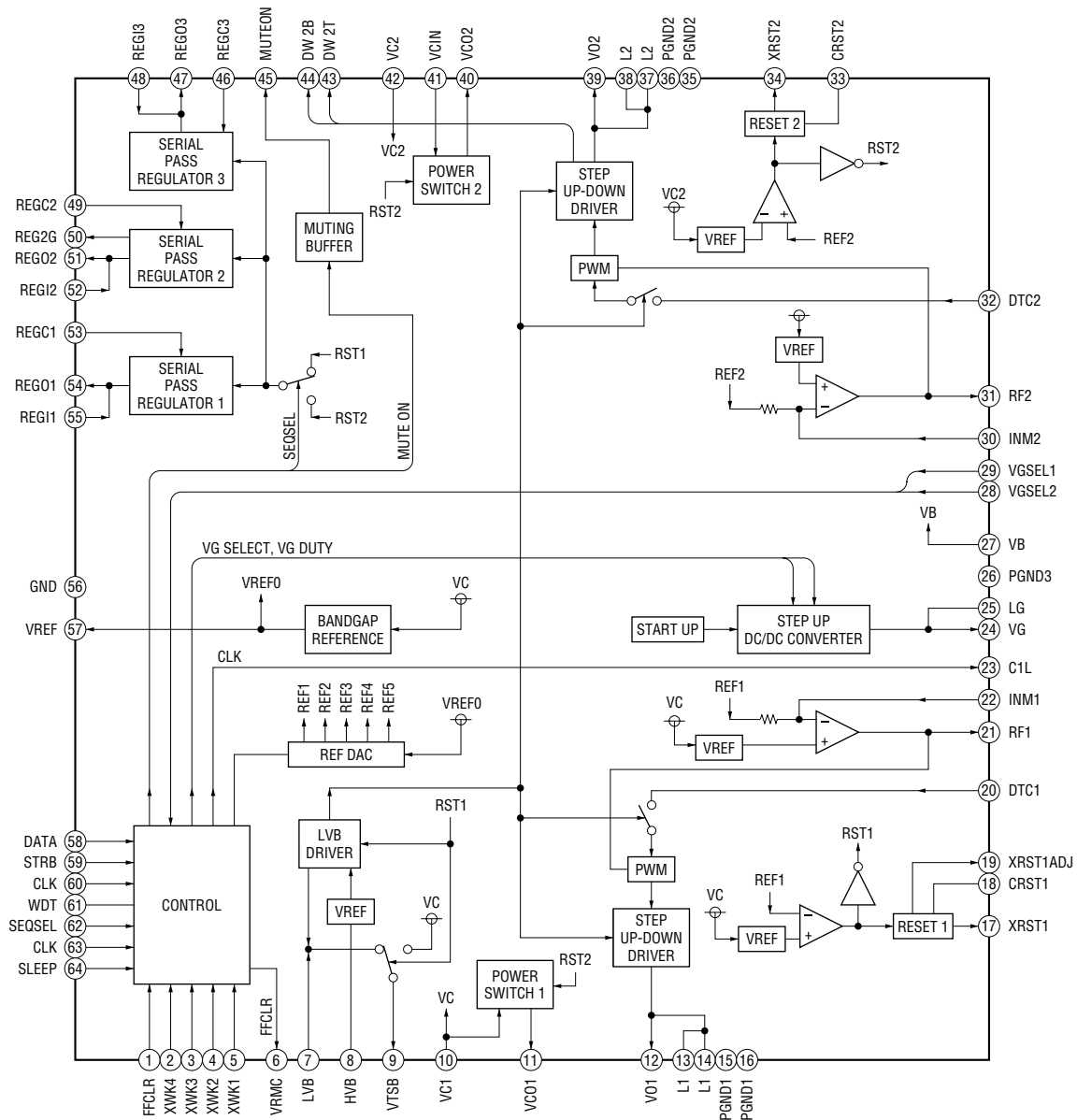
IC881 XC6382C251MR



IC892 HN58X2564FPIEZ



IC901 SC901584EPR2



MZ-NH700/NHF800

Ver 1.1

• IC Pin Function Description

IC801 CXD2681-223GG (SYSTEM CONTROLLER, DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	DVDD1_0	—	Power supply terminal
2	DVSS1_0	—	Ground terminal
3	DVDD1_1	—	Power supply terminal
4	DVSS1_1	—	Ground terminal
5	DVDD1_2	—	Power supply terminal
6	DVSS1_2	—	Ground terminal
7	DVDD1_3	—	Power supply terminal
8	DVSS1_3	—	Ground terminal
9	DVDD1_4	—	Power supply terminal
10	DVSS1_4	—	Ground terminal
11	DVDD1_5	—	Power supply terminal
12	DVSS1_5	—	Ground terminal
13	DVDD1_6	—	Power supply terminal
14	DVSS1_6	—	Ground terminal
15	DVDD1_7	—	Power supply terminal
16	DVSS1_7	—	Ground terminal
17	DVDD1_8	—	Power supply terminal
18	DVSS1_8	—	Ground terminal
19	DVDD1_9	—	Power supply terminal
20	DVSS1_9	—	Ground terminal
21	DVDD3	—	Power supply terminal
22	VSS_3	—	Ground terminal
23	DVDD1_10	—	Power supply terminal
24	DVSS1_10	—	Ground terminal
25	DVDD1_11	—	Power supply terminal
26	DVSS1_11	—	Ground terminal
27	AVDD1A	—	Power supply terminal (for PLL)
28	AVSS1A	—	Ground terminal (for PLL)
29	AVDD1B	—	Power supply terminal
30	AVSS1B	—	Ground terminal
31	AVDD1C	—	Power supply terminal
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 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 AUX)
55	USBIFVDD	—	Power supply terminal (for USB interface)
56 to 58	VSS_0 to VSS_2	—	Ground terminal
59 to 62	IFVDD_1 to IFVDD_4	—	Power supply terminal (for interface)
63	IFVSS_1	—	Ground terminal (for interface)
64	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 AUX)
78	FVSS0	—	Ground terminal (for AUX)
79	SRAMVDD0	—	Power supply terminal (for AUX)
80	SRAMVSS0	—	Ground terminal (for AUX)
81	SRAMVDD1	—	Power supply terminal (for AUX)
82	SRAMVSS1	—	Ground terminal (for AUX)
83	EBIFVDD0	—	Power supply terminal (for interface circuit)
84	EBIFVSS0	—	Ground terminal (for interface circuit)
85	EBIFVDD1	—	Power supply terminal (for interface circuit)
86	EBIFVSS1	—	Ground terminal (for interface circuit)
87	EBIFVDD2	—	Power supply terminal (for interface circuit)
88	EBIFVSS2	—	Ground terminal (for interface circuit)
89	EBIFVDD3	—	Power supply terminal (for interface circuit)
90	EBIFVSS3	—	Ground terminal (for interface circuit)
91	EBIFVDD4	—	Power supply terminal (for interface circuit)
92	EBIFVSS4	—	Ground terminal (for interface circuit)
93	EBIFVDD5	—	Power supply terminal (for interface circuit)
94	EBIFVSS5	—	Ground terminal (for interface circuit)
95	EBIFVDD6	—	Power supply terminal (for interface circuit)
96	EBIFVSS6	—	Ground terminal (for interface circuit)
97	EBIFVDD7	—	Power supply terminal (for interface circuit)
98	EBIFVSS7	—	Ground terminal (for interface circuit)
99	ASYO	O	Playback EFM duplex signal output
100	ASYI	I	Playback EFM comparator slice level input
101	RFI	I	Playback EFM RF signal input from the RF amplifier

Pin No.	Pin Name	I/O	Description
102	PCO	O	Phase comparison output terminal for the playback EFM system master PLL
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 Not used
117	DCHG	—	Connecting terminal with the analog power supply of low impedance
118	APC	I	Error signal input for the laser automatic power control
119	ADC1EXTC	—	Connection terminal for an external capacitor
120	D_VREGO	I	Voltage sensibility of regulator for class-D amplifier Not used
121	VB_MON	I	Unregulated power supply voltage monitoring terminal
122	CHG_MON	I	Charge or discharge current monitoring terminal Not used
123	VREF_MON	I	Reference voltage input terminal
124	SET_KEY_1	I	Front panel key input terminal
125	SET_KEY_2	I	Front panel key input terminal
126	DCIN_DET	I	DC input voltage for battery charge monitoring terminal Not used
127	HIDC_MON	I	High DC voltage monitoring terminal
128	WK_DET	I	Panel key input for wake-up
129	VBUS_MON	I	USB power supply voltage monitoring terminal
130	BATT_MINUS_MON	I	Voltage monitoring terminal for the minus terminal of rechargeable battery
131	RMC_KEY	I	Remote commander key input terminal
132	RST_CONT	O	System reset signal output to the power control IC
133	REC_KEY /DOWNLOAD	I	DOWNLOAD key input terminal
134	RADIO_ON	I	Radio on detection input from the remote commander jack
135	HALF_LOCK_SW /OPEN_SW	I	Front panel open switch detection terminal
136	XRST	I	System reset signal input from the power control IC
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 terminal
143	ADC3VREFH	I	Reference voltage input terminal
144	ADC3EXTC	—	Connection terminal for an external capacitor
145	VIN	I	RF signal input from the RF amplifier

Pin No.	Pin Name	I/O	Description
146	VREFL	I	Reference voltage terminal connected to the capacitor (for the built-in D/A converter L-CH)
147	AOUTL	O	Built-in D/A converter L-CH signal output
148	AOUTR	O	Built-in D/A converter R-CH signal output
149	VREFR	I	Reference voltage terminal connected to the capacitor (for the built-in D/A converter R-CH)
150	DCLSOUTR	O	PWM modulator signal output for the class-D headphone amplifier Not used
151	DCLSOUTL	O	PWM modulator signal output for the class-D headphone amplifier Not used
152	RTCK	—	Not used
153	ADFG	I	ADIP duplex FM signal (22.05±1kHz) 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
159	SFDR	O	Sled servo drive PWM signal output to the motor driver
160	SPRD	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	SRDR	O	Sled motor drive control signal output (U) to the motor driver
173	DIN	I	Digital audio signal input terminal
174	FS256_OUT	O	11.2896 MHz clock output
175	CHOPPERCLK	O	Clock signal output for chopper
176 to 179	MNT0 to MNT3	O	Monitor output for DSP
180	OFTRK	I/O	Tracking signal input/output for MD3
181	RECP	O	Laser power changeover signal output
182	EFMO	O	EFM encode data output for the record
183	PAUSE_KEY	I	Pause key input terminal
184	PROTECT	I	Recording protector detection input for normal disc
185	OPT_DET	I	Optical digital input plug detection input terminal “H”: optical in
186	XJACK_DET	I	Line input plug detection input terminal “L”: plug in
187	XMIC_DET	I	Microphone input plug detection input terminal “L”: plug in
188	OPEN_CLOSE_SW	I	Open switch input terminal
189	XCS_ADC	O	Chip select signal output for A/D converter
190	XPD_ADC	O	Power control signal output for A/D converter
191	NC	—	Not used
192	XRST_LCD	O	Reset signal output for the LCD module
193	USB_WAKE	I	System wake up signal input by USB connect
194	A7CAL_SW	O	A7 offset voltage CAL on/off control signal output terminal Not used

Pin No.	Pin Name	I/O	Description
195	SI0	I	Serial data input from the EEPROM
196	SO0	O	Serial data output to the EEPROM, A/D converter and controllers
197	SCK0	O	Serial clock output to the EEPROM, A/D converter and controllers
198	XGUM_ON	I	Rechargeable battery detection signal input terminal Not used
199	BEEP	O	Beep sound control signal output to the headphone amplifier
200	XOPT_CTL	O	Power supply on/off control signal output for the optical input jack
201	LAM_REQCHK	I	LAM power check terminal Not used
202	LAM_SPREQ	O	LAM force stop request signal output Not used
203	REC_LED /ACCESS_LED	O	REC or Access LED drive signal output terminal Not used
204	MDVCC_CTL	O	Power supply control signal output for the OP modulation
205	VBUS_VB_CTL	O	USB power supply control signal output terminal
206	LAM_NAME	O	LAM name data request signal output terminal Not used
207	DRAM_ALONE	O	Self-refresh signal output for internal D-RAM
208	PF0	—	Not used
209	PF1/S0DO	O	Connect to the optical pick-up block
210	PF2/S1DO	O	Connect to the optical pick-up block
211	PF3/RTG3	O	Connect to the headphone amplifier
212	XMUTE /MUTE	O	Muting on/off control signal output terminal
213	SI1	I	Serial data input from the LCD module
214	SO1	O	Serial data output to the LCD module
215	SCK1	I/O	Serial data transfer clock signal input/output terminal with the LCD module
216	SLD_MON	I	Sled servo monitoring terminal
217	AOUT_SEL	O	Headphone/line output switching terminal Not used
218	YUZU_SLEEP	O	Chip enable output to the power control IC
219	FFCLR	O	Power on/off control signal output for FCRAM (internal RAM)
220	CHGI_CTL1	O	Charge current limiter control signal output at the time of DC adaptor use “L”: charge Not used
221	CHGI_CTL2	O	Charge current control signal output terminal “L”: low current charge
222	CHGI_CTL3	O	Charge current control signal output terminal “L”: low current charge
223	SLBUSY	I	Receive signal monitoring terminal for sled command
224	XTEST	I	Terminal for the test mode setting (normally open) “L”: test mode
225	XRF_RST	O	Reset signal output to the RF amplifier
226	VREC_SEL	O	VREC start-up timing control signal output terminal
227	XHOLD_SW	I	HOLD switch detection input terminal
228	T_MARK_SW	I	Track mark switch input terminal Not used
229	XRST2_DET	I	Reset signal input from the power control IC
230	CHGI_SEL	O	Charge/discharge control signal output for current sense amplifier Not used
231	RECP_MON	I	Laser power changeover signal monitoring terminal
232	SPDL_MON	I	Spindle servo monitoring terminal
233	XCS_PWR_IC	O	Chip select signal output to the power control IC
234	RXD	I	Not used
235	TXD	O	Not used
236	XCS_LCD	O	Chip select signal output to the LCD module
237	CC_CTL /VI_CTL	O	Constant current circuit control signal output terminal

Pin No.	Pin Name	I/O	Description
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 terminal
241	IAMP_CAL	O	Offset signal output of current sense amplifier Not used
242	NC	—	Not used
243	D_VCONT_PWM	O	For voltage control signal output terminal for class-D amplifier Not used
244	CHG_OPR_LED	O	Charge indication LED drive signal output terminal Not used
245	XCS_REC_DRV	O	Chip select signal output to the over write head driver
246	GND_SW	O	Ground line switching signal output terminal
247	CS_RTC	O	Chip select signal output for real time clock Not used
248	JOG_A	I	Jog dial pulse input terminal
249	JOG_B	I	Jog dial pulse input terminal
250	VBUS_DET	I	USB power supply voltage detection terminal
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	HIMD_PROTECT	I	Recording protector detection input for Hi-MD disc
254	LDPEN	O	Pulse/DC light-emit switching signal output terminal
255	CHG_TYPE2	O	Battery charge control signal output terminal "H": charging
256	DRAM_HOLD_DET	I	Detection terminal for internal D-RAM power supply information keeping
257	DRAM_VDD_CLR	O	Internal D-RAM power latch clear signal output for quick mode sleep
258	AD2ENDF	I	Monitoring terminal for flag of servo signal A/D measuring finish
259	TEST	—	Not used
260	SRAM_MODE	I	Not used
261	HSALF	I	Not used
262 to 271	TIGER_MON0 to TIGER_MON9	O	Trigger monitoring terminal output clock=18.5 MHz
272	XLSRCK	O	Pulse output for laser strobe recording
273	TAT	—	Not used
274	TAN	—	Not used
275	NAR	—	Not used
276	IDO	—	Not used
277	SAK	—	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 clock signal 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	Data input from ATRAC3 plus encoder communication Not used
285	SO4	O	Data output for ATRAC3 plus encoder communication Not used
286	SCK4	O	Clock signal output for ATRAC3 plus encoder communication Not used
287	SCS3	O	Chip select signal output for LAM microcomputer communication Not used

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Pin No.	Pin Name	I/O	Description
288	SCS4	O	Chip select signal output for ATRAC3 plus encoder communication Not used
289	HI_Z_SLD	O	Standby signal output terminal for the sled motor
290	HI_Z_SPDL	O	Standby signal output terminal for the spindle motor
291 to 294	SET_CODE0 to SET_CODE3	I	Setting terminal for the destination
295	D_EN1	O	Control signal output for class-D amplifier Not used
296	D_EN2	O	Control signal output for class-D amplifier Not used
297	D_ENVG	O	Enable/disable switching control terminal for class-D amplifier booster circuit Not used
298	DADT	O	Audio data output terminal Not used
299	PWM_L1	O	LC drive PWM output terminal
300	PWM_L2	O	LC drive PWM output terminal
301	I2C 1	—	Open drain for IIC
302	I2C 2	—	Open drain for IIC
303, 304	TEST	—	Not used
305	CLKIN2	I	Clock signal input terminal (13.5 MHz or 27 MHz) Not used
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 external A/D converter
309	XBCK	O	Bit clock (2.8224 MHz) output to the external A/D converter
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 output for class-D amplifier Not used
313	DTCK	I/O	TSB master data clock input/output or SSB data input/output
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 terminal
317	SUSPEND	O	USB suspend signal output
318	UPUEN	O	USB pull-up resistor connection control output terminal
319	UOSCI	I	Resonator (48MHz) connection terminal for the USB oscillation circuit
320	UOSCO	O	Resonator (48MHz) connection terminal for the USB oscillation circuit
321 to 325	NC	—	Not used

SECTION 7 EXPLODED VIEWS

NOTE:

- XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE) . . . (RED)

↑
↑
 Parts Color Cabinet's Color

- Abbreviation

AUS : Australian model

CH : Chinese model

CND : Canadian model

E15 : Iran model

E18 : 100 V - 240 V AC area in E model

E91 : 220 V area in E model

EE : East European model

EK : Hong Kong model

JE : Tourist model

KR : Korean model

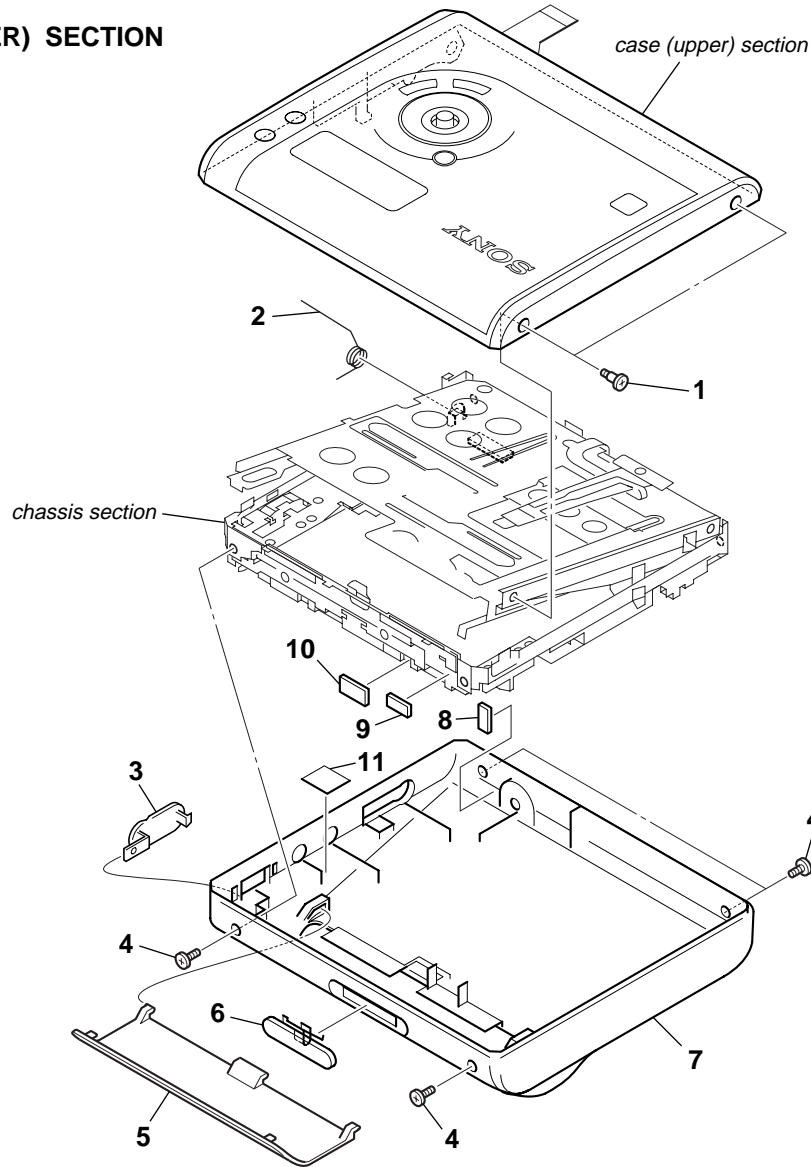
MX : Mexican model

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

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

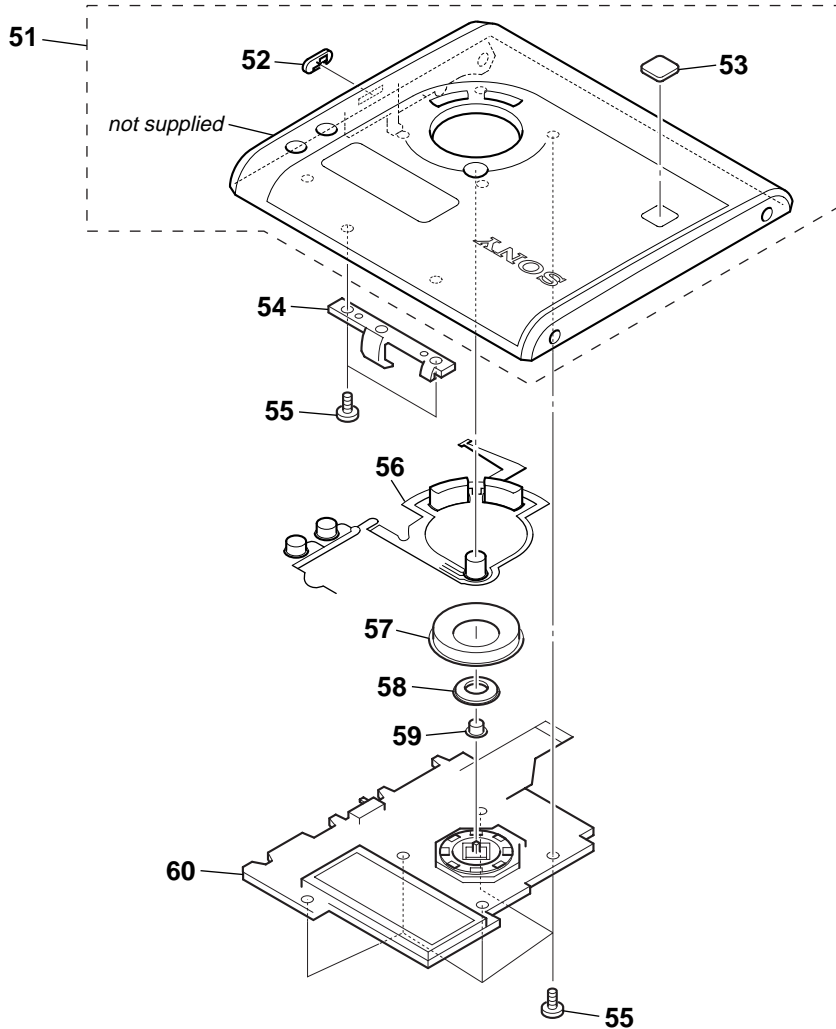
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE (LOWER) SECTION



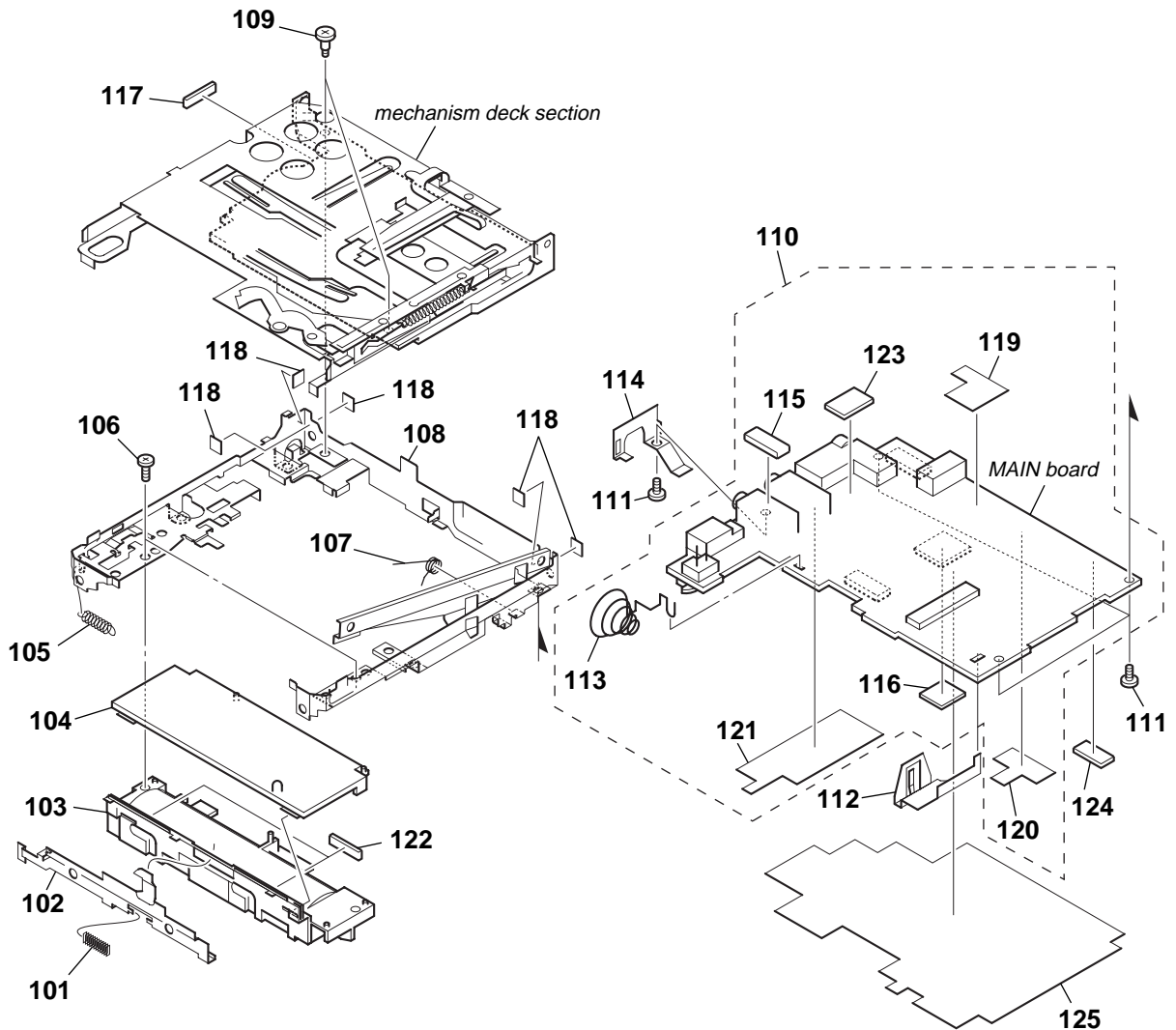
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-241-529-01	SCREW, STEP		6	3-266-206-21	KNOB (OPEN) (for BLUE) (NH700)	
2	3-266-200-01	SPRING (L), TORSION COIL		6	3-266-206-41	KNOB (OPEN) (NHF800)	
3	3-266-207-01	CAP (USB)		7	3-266-205-01	CASE (LOWER) (for SILVER) (NH700)	
4	3-234-449-17	SCREW (M1.4) (NHF800)		7	3-266-205-11	CASE (LOWER) (for BLUE) (NH700)	
4	3-234-449-19	SCREW (M1.4) (NH700)		7	3-266-205-31	CASE (LOWER) (NHF800)	
5	3-266-208-01	LID, BATTERY CASE (for SILVER) (NH700)		8	3-242-558-01	SPACER (LINE IN)	
5	3-266-208-11	LID, BATTERY CASE (for BLUE) (NH700)		9	2-190-583-01	SPACER (BATT CASE)	
5	3-266-208-31	LID, BATTERY CASE (NHF800)		10	2-190-583-11	SPACER (BATT CASE)	
6	3-266-206-01	KNOB (OPEN) (for SILVER) (NH700)		11	2-055-327-01	LEAF (LOWER), COPPER	

7-2. CASE (UPPER) SECTION



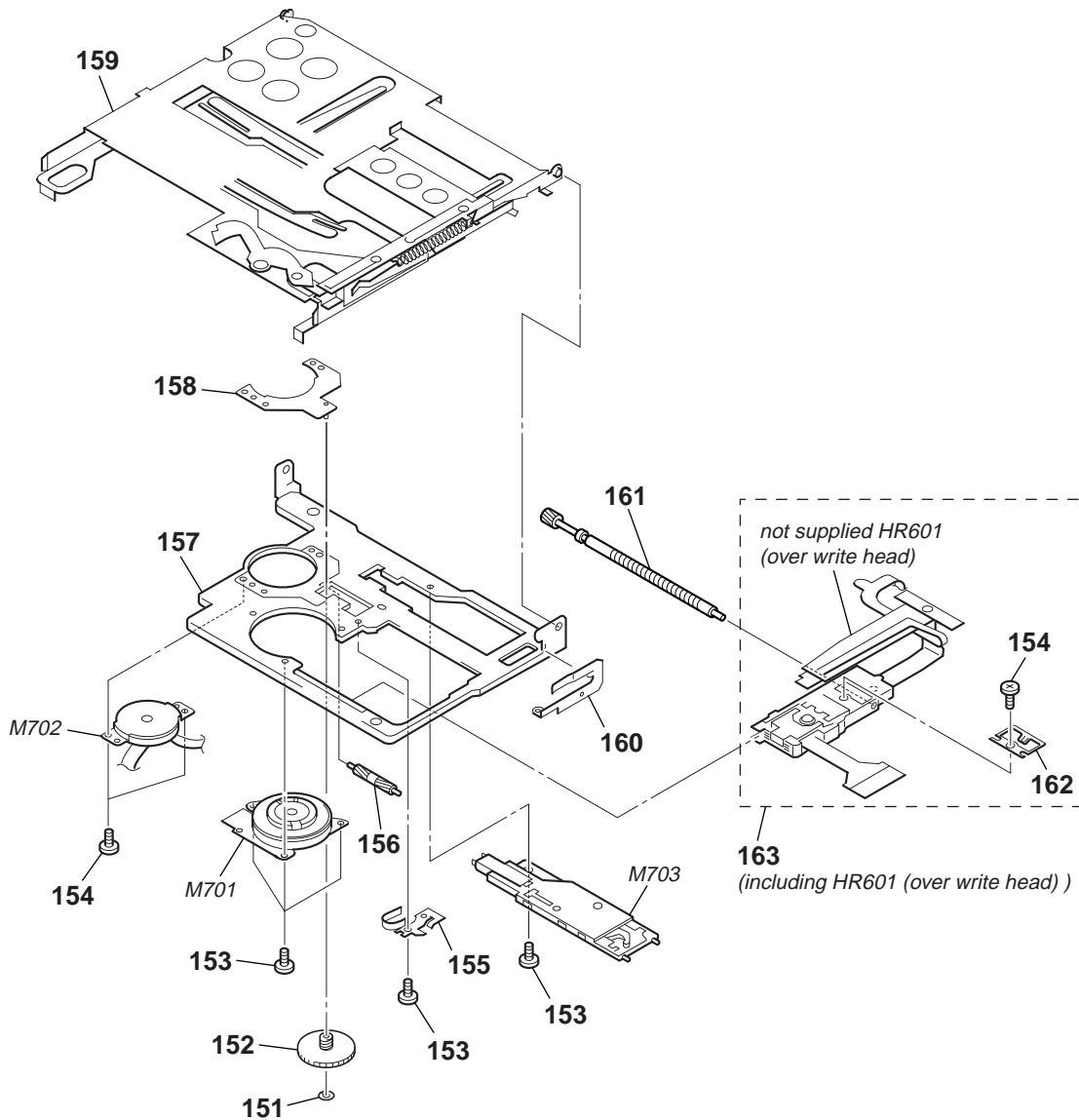
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-2023-315-1	CASE (UPPER) (S) SUB ASSY (for SILVER)	(NH700)	53	3-264-154-01	BADGE (HI-MD)	
51	X-2023-316-1	CASE (UPPER) (L) SUB ASSY (for BLUE)	(NH700)	54	3-266-189-01	OPEN LOCKER	
51	X-2023-317-1	CASE (UPPER) (2BAND) SUB ASSY	(NHF800: EXCEPT US)	55	3-254-014-01	SCREW	
51	X-2023-318-1	CASE (UPPER) (4BAND) SUB ASSY	(NHF800: US)	56	3-266-190-01	BUTTON (CONTROL) (NAVI/-MENU. GROUP. ■ ■ ■ T MARK/REC (+▶))	
52	3-249-687-41	KNOB (HOLD) (for SILVER) (NH700)		57	3-266-193-01	KNOB (ROTARY)	
52	3-249-687-51	KNOB (HOLD) (for BLUE) (NH700)		58	3-266-192-01	ESCUTCHEON (5 DIRECTION) (VOL +. ▶▶▶I. VOL -. ◀◀◀)	
52	3-249-687-71	KNOB (HOLD) (NHF800)		59	3-266-191-01	KNOB (5 DIRECTION) (▶ ENT)	
				60	1-805-514-11	LCD MODULE	

7-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-266-202-01	SPRING (OPEN), COMPRESSION COIL		110	X-2023-420-1	MAIN BOARD, COMPLETE (for SERVICE)	
102	3-266-197-01	OPEN SLIDER				(NHF800: E15, HK)	
103	3-266-196-01	CASE, BATTERY		110	X-2023-421-1	MAIN BOARD, COMPLETE (for SERVICE)	
104	3-266-194-01	MD STANDARD PIN				(NHF800: AEP, UK, EE)	
105	3-266-201-01	SPRING (R), EXTENSION		111	3-238-876-04	SCREW (M1.4), TOOTHED LOCK	
106	3-254-003-01	SCREW		112	3-266-204-01	TERMINAL (+), BATTERY	
107	3-266-199-01	SPRING (R), TORSION COIL		113	3-266-203-02	TERMINAL (-), BATTERY	
108	X-3385-056-1	CHASSIS ASSY, SET		114	2-148-293-01	SPRING (USB), LEAF	
109	3-246-996-01	SCREW (MD), STEP		115	3-242-558-01	SPACER (LINE IN)	
110	X-2023-415-1	MAIN BOARD, COMPLETE (for SERVICE)	(NH700: CND, MX, AUS)	116	1-400-711-11	FILTER, EMI	
110	X-2023-416-1	MAIN BOARD, COMPLETE (for SERVICE)	(NH700: E18, E91, HK, KR, CH, JE)	117	2-178-287-01	SHEET (HP)	
110	X-2023-417-1	MAIN BOARD, COMPLETE (for SERVICE)	(NH700: AEP, UK, EE)	118	2-179-912-01	SHEET (CHASSIS)	
110	X-2023-418-1	MAIN BOARD, COMPLETE (for SERVICE)	(NHF800: US)	119	2-177-905-01	SHEET (EMC H BRIDGE)	
110	X-2023-419-1	MAIN BOARD, COMPLETE (for SERVICE)	(NHF800: CND, AUS)	120	2-177-906-01	SHEET (EMC YUZU)	
				121	2-187-174-01	SHEET (EMC JACK)	
				122	2-179-913-01	SHEET (CASE BATTERY)	
				123	2-178-288-01	CUSHION (HP)	
				124	2-178-324-01	CUSHION (RODEO)	
				125	2-188-045-01	SHEET (EMC)	

7-4. MECHANISM DECK SECTION
(MT-MZNH900-181)



<p>The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark
151	3-338-645-31	WASHER (0.8-2.5)	
152	3-263-454-01	GEAR (BSA)	
153	3-248-370-01	SCREW, SELF TAP	
154	3-225-996-17	SCREW (M1.4) (EG), PRECISION PAN	
155	3-244-880-01	SPRING, THRUST RETAINER	
156	3-263-455-01	GEAR (SB)	
157	3-259-972-22	CHASSIS (REC)	
158	X-3384-651-2	BASE ASSY, MOTOR	
159	X-3384-650-1	HOLDER ASSY	

Ref. No.	Part No.	Description	Remark
160	3-263-453-01	PLATE, RATCHET	
161	X-2023-272-1	LEAD SCREW SERVICE ASSY	
162	3-244-879-01	SPRING, RACK	
\triangle 163	X-2021-785-1	OP SERVICE ASSY (ABX-U) (including HR601(OVER WRITE HEAD))	
M701	8-835-782-12	MOTOR, DC SSM18D/C-NP (SPINDLE)	
M702	1-787-143-11	MOTOR, DC (SLED)	
M703	1-477-519-21	MOTOR UNIT, DC (OVER WRITE HEAD UP/DOWN)	

SECTION 8 ELECTRICAL PARTS LIST

MAIN

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
AUS : Australian model E15 : Iran model
CH : Chinese model E18 : 100 V - 240 V AC area in E model
CND : Canadian model E91 : 220 V area in E 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 Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	X-2023-415-1	MAIN BOARD, COMPLETE (for SERVICE) (NH700: CND, MX, AUS)		C253	1-165-884-11	CERAMIC CHIP 2.2uF 10%	6.3V (EXCEPT US)
	X-2023-416-1	MAIN BOARD, COMPLETE (for SERVICE) (NH700: E18, E91, HK, KR, CH, JE)		C254	1-115-467-11	CERAMIC CHIP 0.22uF 10%	10V
	X-2023-417-1	MAIN BOARD, COMPLETE (for SERVICE) (NH700: AEP, UK, EE)		C260	1-137-859-11	TANTALUM CHIP 220uF 20%	4V
	X-2023-418-1	MAIN BOARD, COMPLETE (for SERVICE) (US)		C302	1-164-939-11	CERAMIC CHIP 0.0022uF 10%	50V
	X-2023-419-1	MAIN BOARD, COMPLETE (for SERVICE) (NHF800: CND, AUS)		C303	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
	X-2023-420-1	MAIN BOARD, COMPLETE (for SERVICE) (NHF800: HK, E15)		C304	1-164-874-11	CERAMIC CHIP 100PF 5%	50V
	X-2023-421-1	MAIN BOARD, COMPLETE (for SERVICE) (NHF800: AEP, UK, EE)		C305	1-164-874-11	CERAMIC CHIP 100PF 5%	50V
		*****		C306	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
	1-400-711-11	FILTER, EMI		C308	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
	3-242-558-01	SPACER (LINE IN)		C310	1-135-259-11	TANTALUM CHIP 10uF 20%	6.3V
	3-266-203-02	TERMINAL (-), BATTERY		C311	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
		< CAPACITOR >		C312	1-100-539-11	TANTALUM CHIP 47uF 20%	6.3V
C101	1-164-874-11	CERAMIC CHIP 100PF 5%	50V	C313	1-100-539-11	TANTALUM CHIP 47uF 20%	6.3V
C102	1-165-884-11	CERAMIC CHIP 2.2uF 10%	6.3V	C314	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C104	1-164-939-11	CERAMIC CHIP 0.0022uF 10%	50V	C315	1-165-851-91	TANTALUM CHIP 10uF 20%	6.3V
C105	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V	C316	1-119-750-11	TANTALUM CHIP 22uF 20%	6.3V
C106	1-164-937-11	CERAMIC CHIP 0.001uF 10%	50V	C318	1-135-149-21	TANTALUM CHIP 2.2uF 10%	10V
C107	1-131-862-11	TANTALUM CHIP 47uF 20%	4V	C319	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C108	1-135-210-11	TANTALUM CHIP 4.7uF 20%	10V	C320	1-135-149-21	TANTALUM CHIP 2.2uF 10%	10V
C151	1-164-941-11	CERAMIC CHIP 0.0047uF 10%	16V	C321	1-100-539-11	TANTALUM CHIP 47uF 20%	6.3V
C152	1-164-939-11	CERAMIC CHIP 0.0022uF 10%	50V	C322	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C153	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V	C323	1-135-259-11	TANTALUM CHIP 10uF 20%	6.3V
		(US)		C324	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C153	1-165-884-11	CERAMIC CHIP 2.2uF 10%	6.3V (EXCEPT US)	C325	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C154	1-115-467-11	CERAMIC CHIP 0.22uF 10%	10V	C327	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C160	1-137-859-11	TANTALUM CHIP 220uF 20%	4V	C328	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C201	1-164-874-11	CERAMIC CHIP 100PF 5%	50V	C351	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C202	1-165-884-11	CERAMIC CHIP 2.2uF 10%	6.3V	C352	1-135-259-11	TANTALUM CHIP 10uF 20%	6.3V
C204	1-164-939-11	CERAMIC CHIP 0.0022uF 10%	50V	C353	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C205	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V	C354	1-135-151-21	TANTALUM CHIP 4.7uF 20%	4V
C206	1-164-937-11	CERAMIC CHIP 0.001uF 10%	50V	C355	1-165-884-11	CERAMIC CHIP 2.2uF 10%	6.3V
C207	1-131-862-11	TANTALUM CHIP 47uF 20%	4V	C356	1-135-201-11	TANTALUM CHIP 10uF 20%	4V
C208	1-135-210-11	TANTALUM CHIP 4.7uF 20%	10V	C361	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C251	1-164-941-11	CERAMIC CHIP 0.0047uF 10%	16V	C363	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C252	1-164-939-11	CERAMIC CHIP 0.0022uF 10%	50V	C364	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
C253	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V	C402	1-100-609-11	TANTALUM CHIP 220uF 5V	
		(US)		C403	1-100-609-11	TANTALUM CHIP 220uF 5V	
				C406	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
				C407	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
				C408	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V
				C411	1-119-751-11	TANTALUM CHIP 22uF 20%	16V
				C412	1-125-777-11	CERAMIC CHIP 0.1uF 10%	10V

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MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C415	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C555	1-164-941-11	CERAMIC CHIP 0.0047uF	10% 16V
C416	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C556	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V
C419	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C557	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C420	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C558	1-164-937-11	CERAMIC CHIP 0.001uF	10% 50V
C421	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C559	1-164-941-11	CERAMIC CHIP 0.0047uF	10% 16V
C423	1-100-609-11	TANTALUM CHIP 220uF	5V	C560	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C424	1-100-609-11	TANTALUM CHIP 220uF	5V	C561	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C425	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C562	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C426	1-119-751-11	TANTALUM CHIP 22uF	20% 16V	C564	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V
C427	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C565	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C429	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C566	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C430	1-164-937-11	CERAMIC CHIP 0.001uF	10% 50V	C567	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V
C434	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C568	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V
C438	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C569	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V
C452	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C570	1-165-847-91	TANTALUM CHIP 4.7uF	20% 10V
C453	1-165-176-11	CERAMIC CHIP 0.047uF	10% 16V	C573	1-164-937-11	CERAMIC CHIP 0.001uF	10% 50V
C455	1-164-939-11	CERAMIC CHIP 0.0022uF	10% 50V	C574	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C456	1-164-939-11	CERAMIC CHIP 0.0022uF	10% 50V	C601	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C457	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	C602	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C458	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C604	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C459	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C607	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C460	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C609	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C461	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C611	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V
C476	1-164-937-11	CERAMIC CHIP 0.001uF	10% 50V	C612	1-119-750-11	TANTALUM CHIP 22uF	20% 6.3V
C478	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V	C613	1-119-750-11	TANTALUM CHIP 22uF	20% 6.3V
C479	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C614	1-119-750-11	TANTALUM CHIP 22uF	20% 6.3V
C480	1-165-884-11	CERAMIC CHIP 2.2uF	10% 6.3V	C616	1-165-897-11	TANTALUM CHIP 22uF	20% 10V
C481	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V	C619	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C511	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C620	1-119-923-11	CERAMIC CHIP 0.047uF	10% 10V
C513	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V	C621	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C515	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C622	1-100-539-11	TANTALUM CHIP 47uF	20% 6.3V
C516	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C625	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C517	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C627	1-100-539-11	TANTALUM CHIP 47uF	20% 6.3V
C518	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V	C628	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C519	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C630	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
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	1-100-539-11	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	1-165-851-91	TANTALUM CHIP 10uF	20% 6.3V
C525	1-164-941-11	CERAMIC CHIP 0.0047uF	10% 16V	C638	1-164-939-11	CERAMIC CHIP 0.0022uF	10% 50V
C526	1-164-874-11	CERAMIC CHIP 100PF	5% 50V	C641	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V
C527	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C642	1-119-923-11	CERAMIC CHIP 0.047uF	10% 10V
C528	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C643	1-100-743-91	CERAMIC CHIP 2.2uF	20% 16V
C529	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C644	1-164-941-11	CERAMIC CHIP 0.0047uF	10% 16V
C530	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V	C645	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V
C531	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V	C646	1-119-923-11	CERAMIC CHIP 0.047uF	10% 10V
C533	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V	C648	1-119-923-11	CERAMIC CHIP 0.047uF	10% 10V
C536	1-107-819-11	CERAMIC CHIP 0.022uF	10% 16V	C649	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V
C537	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V	C650	1-165-851-91	TANTALUM CHIP 10uF	20% 6.3V
C538	1-164-937-11	CERAMIC CHIP 0.001uF	10% 50V	C652	1-135-259-11	TANTALUM CHIP 10uF	20% 6.3V
C539	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V	C653	1-135-259-11	TANTALUM CHIP 10uF	20% 6.3V
C545	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V	C658	1-100-539-11	TANTALUM CHIP 47uF	20% 6.3V
C547	1-119-923-11	CERAMIC CHIP 0.047uF	10% 10V	C660	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C550	1-119-923-11	CERAMIC CHIP 0.047uF	10% 10V	C661	1-165-884-11	CERAMIC CHIP 2.2uF	10% 6.3V
C552	1-164-943-11	CERAMIC CHIP 0.01uF	10% 16V	C666	1-127-820-11	CERAMIC CHIP 4.7uF	10% 16V
C553	1-135-210-11	TANTALUM CHIP 4.7uF	20% 10V	C668	1-125-837-11	CERAMIC CHIP 1uF	10% 6.3V
C554	1-125-777-11	CERAMIC CHIP 0.1uF	10% 10V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C669	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C857	1-164-858-11	CERAMIC CHIP	22PF 5% 50V
C671	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C858	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C672	1-127-820-11	CERAMIC CHIP	4.7uF 10% 16V	C859	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C673	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C860	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C674	1-112-010-11	CAP, CHIP MICA	33PF 5% 100V	C861	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C675	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C864	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C676	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V	C883	1-135-259-11	TANTALUM CHIP	10uF 20% 6.3V
C677	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C884	1-135-259-11	TANTALUM CHIP	10uF 20% 6.3V
C701	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V	C885	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C702	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V	C886	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C703	1-119-923-11	CERAMIC CHIP	0.047uF 10% 10V	C887	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C705	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C891	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C706	1-107-819-11	CERAMIC CHIP	0.022uF 10% 16V	C892	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C707	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C895	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C708	1-107-819-11	CERAMIC CHIP	0.022uF 10% 16V	C901	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C709	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C902	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C710	1-107-819-11	CERAMIC CHIP	0.022uF 10% 16V	C903	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C712	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C906	1-100-352-11	CERAMIC CHIP	1uF 20% 16V
C713	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C908	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C714	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C909	1-119-751-11	TANTALUM CHIP	22uF 20% 16V
C715	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C915	1-165-851-91	TANTALUM CHIP	10uF 20% 6.3V
C716	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C916	1-165-851-91	TANTALUM CHIP	10uF 20% 6.3V
C717	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C918	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V
C801	1-164-847-11	CERAMIC CHIP	7PF 0.5PF 50V	C919	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V
C802	1-164-847-11	CERAMIC CHIP	7PF 0.5PF 50V	C920	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C803	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C922	1-128-964-11	TANTALUM CHIP	100uF 20% 6.3V
C804	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V	C923	1-100-539-11	TANTALUM CHIP	47uF 20% 6.3V
C805	1-125-891-11	CERAMIC CHIP	0.47uF 10% 10V	C924	1-100-539-11	TANTALUM CHIP	47uF 20% 6.3V
C808	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C926	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C809	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C927	1-164-874-11	CERAMIC CHIP	100PF 5% 50V
C810	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C928	1-164-874-11	CERAMIC CHIP	100PF 5% 50V
C811	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C929	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C812	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C931	1-165-884-11	CERAMIC CHIP	2.2uF 10% 6.3V
C814	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C932	1-164-943-11	CERAMIC CHIP	0.01uF 10% 16V
C816	1-100-539-11	TANTALUM CHIP	47uF 20% 6.3V	C933	1-165-884-11	CERAMIC CHIP	2.2uF 10% 6.3V
C817	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C935	1-165-884-11	CERAMIC CHIP	2.2uF 10% 6.3V
C818	1-165-851-91	TANTALUM CHIP	10uF 20% 6.3V	C936	1-165-884-11	CERAMIC CHIP	2.2uF 10% 6.3V
C819	1-100-539-11	TANTALUM CHIP	47uF 20% 6.3V	C937	1-165-884-11	CERAMIC CHIP	2.2uF 10% 6.3V
C820	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C939	1-119-750-11	TANTALUM CHIP	22uF 20% 6.3V
C821	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C940	1-119-750-11	TANTALUM CHIP	22uF 20% 6.3V
C822	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C948	1-119-750-11	TANTALUM CHIP	22uF 20% 6.3V
C823	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C954	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V
C827	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	C958	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V
C828	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V	C959	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C830	1-164-937-11	CERAMIC CHIP	0.001uF 10% 50V	C960	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C832	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V	C961	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V
C833	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V			< CONNECTOR >	
C835	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	CN451	1-818-190-21	CONNECTOR, SQUARE TYPE (USB) 7P (USB)	
C836	1-165-851-91	TANTALUM CHIP	10uF 20% 6.3V	CN471	1-818-543-21	CONNECTOR, FFC/FPC (ZIF) 16P	
C838	1-165-851-91	TANTALUM CHIP	10uF 20% 6.3V	CN501	1-818-545-21	CONNECTOR, FFC/FPC (ZIF) 26P	
C839	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	CN701	1-818-540-21	CONNECTOR, FFC/FPC (ZIF) 10P	
C843	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V			< DIODE >	
C845	1-100-539-11	TANTALUM CHIP	47uF 20% 6.3V	D151	8-719-056-72	DIODE UDZ-TE-17-2.4B	
C846	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	D251	8-719-056-72	DIODE UDZ-TE-17-2.4B	
C847	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	D301	8-719-056-54	DIODE MAZS068008SO	
C850	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V	D302	8-719-056-54	DIODE MAZS068008SO	
C853	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V				
C856	1-125-777-11	CERAMIC CHIP	0.1uF 10% 10V				

MZ-NH700/NHF800

Ver 1.1

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D303	8-719-056-54	DIODE MAZS068008SO		FB452	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)	
D304	8-719-056-54	DIODE MAZS068008SO		FB471	1-216-864-11	SHORT CHIP 0	
D352	6-500-116-01	DIODE NNCD6.8H-T1		FB501	1-400-620-21	INDUCTOR, FERRITE BEAD (1005)	
D401	6-500-483-01	DIODE MA22D2800LSO		FB502	1-216-864-11	SHORT CHIP 0	
D435	8-719-056-54	DIODE MAZS068008SO		FB503	1-216-864-11	SHORT CHIP 0	
D436	8-719-056-54	DIODE MAZS068008SO		FB801	1-216-864-11	SHORT CHIP 0	
D439	6-500-483-01	DIODE MA22D2800LSO		FB802	1-216-864-11	SHORT CHIP 0	
D440	6-500-483-01	DIODE MA22D2800LSO		FB803	1-414-760-21	INDUCTOR, FERRITE BEAD	
D441	8-719-056-54	DIODE MAZS068008SO		FB807	1-216-864-11	SHORT CHIP 0	
D457	6-500-483-01	DIODE MA22D2800LSO		FB809	1-216-864-11	SHORT CHIP 0	
D458	8-719-422-49	DIODE MA8056-L		FB810	1-414-760-21	INDUCTOR, FERRITE BEAD	
D471	8-719-072-27	DIODE MA2Z748001SO				< IC >	
D473	8-719-056-54	DIODE MAZS068008SO		IC301	6-702-894-01	IC AK5356VN-L	
D601	6-500-813-01	DIODE MA2SD32008SO		IC302	6-706-528-01	IC XC6219B212MR	
D602	8-719-072-27	DIODE MA2Z748001SO		IC352	6-705-942-01	IC TA2131FLG (EL)	
D603	8-719-072-27	DIODE MA2Z748001SO		IC401	6-705-536-01	IC MM1655NCBE	
D604	6-500-483-01	DIODE MA22D2800LSO		IC402	6-706-652-01	IC NJU7008F3 (TE1)	
D605	6-500-910-01	DIODE MA2SD3000LSO		IC471	6-705-715-01	IC XC6219B242MR	
D606	6-500-909-01	DIODE MA22D1700LSO		IC501	6-705-012-01	IC SN761059ZQLR	
D607	6-500-909-01	DIODE MA22D1700LSO		IC502	6-706-095-01	IC R1180Q301B-TR-FA	
D608	6-500-910-01	DIODE MA2SD3000LSO		IC601	6-705-000-01	IC SC901585VAR2	
D609	8-719-072-27	DIODE MA2Z748001SO		IC602	6-703-317-01	IC R1160N121B-TR-FA	
D610	8-719-072-27	DIODE MA2Z748001SO		* IC603	6-706-038-01	IC XC6209B322MR	
D611	8-719-072-27	DIODE MA2Z748001SO		IC604	6-706-079-01	IC R1180Q121C-TR-FA	
D613	6-500-813-01	DIODE MA2SD32008SO		IC605	6-706-214-01	IC TC7SL32FU (TE85R)	
D614	6-500-813-01	DIODE MA2SD32008SO		IC606	6-702-590-01	IC XC61CN1702NR	
D615	6-500-909-01	DIODE MA22D1700LSO		IC607	8-759-690-72	IC XC61CN0902NR	
D616	6-500-909-01	DIODE MA22D1700LSO		IC701	6-704-999-01	IC BD6607KN	
D801	8-719-072-27	DIODE MA2Z748001SO		IC801	8-753-229-55	IC CXD2681-223GG	
D803	6-500-813-01	DIODE MA2SD32008SO		IC804	6-706-089-01	IC XC61CC2502NR	
D881	6-500-813-01	DIODE MA2SD32008SO		IC881	6-759-639-21	IC XC6382C251MR	
D882	6-500-813-01	DIODE MA2SD32008SO		IC882	6-706-094-01	IC R1180Q221B-TR-FA	
D883	6-500-813-01	DIODE MA2SD32008SO		IC892	(Not supplied)	IC HN58X2564FPIEZ	
D884	8-719-072-27	DIODE MA2Z748001SO		IC901	6-704-997-01	IC SC901584EPR2	
D885	8-719-072-27	DIODE MA2Z748001SO		IC902	6-704-245-01	IC XC61CC1702NR	
D902	8-719-072-27	DIODE MA2Z748001SO				< JACK >	
D904	8-719-072-27	DIODE MA2Z748001SO		J301	1-815-950-12	JACK (LINE IN (OPT))	
D905	8-719-072-27	DIODE MA2Z748001SO		J302	1-794-084-12	JACK (MIC (PLUG IN POWER))	
D906	6-500-483-01	DIODE MA22D2800LSO		J352	1-816-954-22	JACK (⌚)	
		< FUSE >		J402	1-785-383-11	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 3V)
F1	1-576-462-21	FUSE (SMD) (1.5A/63V)				< COIL/SHORT >	
F351	1-576-439-21	FUSE (SMD) (0.25A/125V)		L303	1-400-397-11	INDUCTOR 10uH	
		< FERRITE BEAD/SHORT >		L351	1-216-295-00	SHORT CHIP 0	
FB1	1-400-808-21	INDUCTOR (EMI FERRITE)		L501	1-216-295-00	SHORT CHIP 0	
FB2	1-469-179-21	INDUCTOR, FERRITE BEAD		L502	1-400-397-11	INDUCTOR 10uH	
FB101	1-500-284-21	INDUCTOR, FERRITE BEAD		L503	1-400-397-11	INDUCTOR 10uH	
FB201	1-500-284-21	INDUCTOR, FERRITE BEAD		L504	1-400-397-11	INDUCTOR 10uH	
FB301	1-216-864-11	SHORT CHIP 0		L505	1-400-397-11	INDUCTOR 10uH	
FB302	1-400-807-21	BEAD, FERRITE (1005)		L506	1-400-397-11	INDUCTOR 10uH	
FB303	1-400-807-21	BEAD, FERRITE (1005)		L507	1-400-397-11	INDUCTOR 10uH	
FB353	1-469-179-21	INDUCTOR, FERRITE BEAD		L601	1-414-398-11	INDUCTOR 10uH	
FB354	1-469-179-21	INDUCTOR, FERRITE BEAD		L603	1-414-398-11	INDUCTOR 10uH	
FB355	1-469-179-21	INDUCTOR, FERRITE BEAD		L605	1-416-669-11	INDUCTOR 22uH	
FB357	1-400-808-21	INDUCTOR (EMI FERRITE)		L606	1-400-626-11	INDUCTOR 10uH	
FB451	1-469-869-21	INDUCTOR (EMI FERRITE) (2012)					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L607	1-419-881-11	INDUCTOR	47uH	Q883	8-729-037-75	TRANSISTOR	UN9214J-(TX).SO
L608	1-400-402-21	INDUCTOR	4.7uH	Q884	8-729-030-46	TRANSISTOR	XP4314-TX
L701	1-216-295-00	SHORT CHIP	0	Q885	6-550-353-01	FET	SI1410EDH-T1
L702	1-216-295-00	SHORT CHIP	0	Q886	8-729-030-46	TRANSISTOR	XP4314-TX
L801	1-400-397-11	INDUCTOR	10uH	Q901	8-729-053-71	FET	TS8K1TB
L802	1-400-343-21	INDUCTOR	22uH	Q902	8-729-427-74	TRANSISTOR	XP4601
L803	1-216-001-00	RES-CHIP	10			< RESISTOR >	
L804	1-216-001-00	RES-CHIP	10				
L805	1-216-295-00	SHORT CHIP	0	R101	1-208-927-11	METAL CHIP	47K 0.5% 1/16W
L881	1-414-404-41	INDUCTOR	100uH	R103	1-208-715-11	METAL CHIP	22K 0.5% 1/16W
L901	1-456-711-21	COIL, CHOKE	100uH (3.8X3.8)	R105	1-218-990-11	SHORT CHIP	0
L903	1-400-397-11	INDUCTOR	10uH	R106	1-208-911-11	METAL CHIP	10K 0.5% 1/16W
L904	1-400-397-11	INDUCTOR	10uH	R107	1-208-715-11	METAL CHIP	22K 0.5% 1/16W
L906	1-456-677-21	COIL, CHOKE	47uH	R151	1-218-961-11	RES-CHIP	4.7K 5% 1/16W (US)
L907	1-456-677-21	COIL, CHOKE	47uH	R151	1-218-965-11	RES-CHIP	10K 5% 1/16W (EXCEPT US)
L9001	1-414-398-11	INDUCTOR	10uH	R152	1-218-957-11	RES-CHIP	2.2K 5% 1/16W (EXCEPT US)
		< FILTER >		R152	1-218-961-11	RES-CHIP	4.7K 5% 1/16W (US)
LF401	1-411-957-11	FILTER, COMMON MODE		R153	1-218-965-11	RES-CHIP	10K 5% 1/16W
LF451	1-456-111-11	COIL, COMMON MODE CHOKE				< TRANSISTOR >	
Q301	8-729-051-23	TRANSISTOR	2SA2018TL	R154	1-218-965-11	RES-CHIP	10K 5% 1/16W
Q351	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO	R155	1-218-929-11	RES-CHIP	10 5% 1/16W
Q352	8-729-030-46	TRANSISTOR	XP4314-TX	R156	1-218-961-11	RES-CHIP	4.7K 5% 1/16W
Q353	6-550-353-01	FET	SI1410EDH-T1	R157	1-208-683-11	METAL CHIP	1K 0.5% 1/16W
Q401	6-550-326-01	TRANSISTOR	FZT968TA	R158	1-208-691-11	METAL CHIP	2.2K 0.5% 1/16W
Q403	6-550-353-01	FET	SI1410EDH-T1	R160	1-218-990-11	SHORT CHIP	0 (EXCEPT AEP, UK, EE)
Q406	8-729-427-74	TRANSISTOR	XP4601	R160	1-208-635-11	METAL CHIP	10 0.5% 1/16W (AEP, UK, EE)
Q407	8-729-037-75	TRANSISTOR	UN9214J-(TX).SO	R161	1-208-643-11	METAL CHIP	22 0.5% 1/16W (AEP, UK, EE)
Q432	8-729-044-57	TRANSISTOR	FZT688B-TP	R162	1-218-990-11	SHORT CHIP	0
Q433	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO	R201	1-208-927-11	METAL CHIP	47K 0.5% 1/16W
Q451	6-550-354-01	FET	RTQ035P02TR	R203	1-208-715-11	METAL CHIP	22K 0.5% 1/16W
Q452	8-729-427-74	TRANSISTOR	XP4601	R205	1-218-990-11	SHORT CHIP	0
Q471	8-729-429-44	TRANSISTOR	XP1501	R206	1-208-911-11	METAL CHIP	10K 0.5% 1/16W
Q501	6-550-674-01	FET	MCH6604-K-TL-E	R207	1-208-715-11	METAL CHIP	22K 0.5% 1/16W
Q502	8-729-051-23	TRANSISTOR	2SA2018TL	R251	1-218-961-11	RES-CHIP	4.7K 5% 1/16W (US)
Q503	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO				
Q504	8-729-037-89	TRANSISTOR	2SC4627J-C (TX).SO	R251	1-218-965-11	RES-CHIP	10K 5% 1/16W (EXCEPT US)
Q601	6-550-357-01	FET	CPH5614-TL-E	R252	1-218-957-11	RES-CHIP	2.2K 5% 1/16W (EXCEPT US)
Q602	6-550-740-01	FET	MCH6617-TL-E	R252	1-218-961-11	RES-CHIP	4.7K 5% 1/16W (US)
Q603	8-729-053-71	FET	TS8K1TB	R253	1-218-965-11	RES-CHIP	10K 5% 1/16W
Q607	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO	R254	1-218-965-11	RES-CHIP	10K 5% 1/16W
Q608	8-729-030-46	TRANSISTOR	XP4314-TX				
Q609	6-550-859-01	FET	NTHD4508NT1G	R255	1-218-929-11	RES-CHIP	10 5% 1/16W
Q611	6-550-353-01	FET	SI1410EDH-T1	R256	1-218-961-11	RES-CHIP	4.7K 5% 1/16W
Q612	8-729-049-81	FET	SSM3K01F (TE85L)	R257	1-208-683-11	METAL CHIP	1K 0.5% 1/16W
Q613	8-729-047-68	FET	SSM3K03FE (TPL3)	R258	1-208-691-11	METAL CHIP	2.2K 0.5% 1/16W
Q614	8-729-427-74	TRANSISTOR	XP4601	R260	1-218-990-11	SHORT CHIP	0 (EXCEPT AEP, UK, EE)
Q615	6-550-353-01	FET	SI1410EDH-T1				
Q616	6-550-353-01	FET	SI1410EDH-T1	R260	1-208-635-11	METAL CHIP	10 0.5% 1/16W (AEP, UK, EE)
Q617	8-729-427-74	TRANSISTOR	XP4601	R261	1-208-643-11	METAL CHIP	22 0.5% 1/16W (AEP, UK, EE)
Q618	8-729-427-74	TRANSISTOR	XP4601	R262	1-218-990-11	SHORT CHIP	0
Q801	8-729-047-68	FET	SSM3K03FE (TPL3)	R301	1-218-953-11	RES-CHIP	1K 5% 1/16W
Q802	8-729-051-50	FET	XP152A12COMR	R304	1-218-977-11	RES-CHIP	100K 5% 1/16W
Q803	8-729-037-52	TRANSISTOR	2SD2216J-QR (TX).SO				
Q881	8-729-427-74	TRANSISTOR	XP4601				

MZ-NH700/NHF800

Ver 1.1

MAIN

Ref. No.	Part No.	Description	Quantity	Unit	Remark	Ref. No.	Part No.	Description	Quantity	Unit	Remark
R305	1-218-941-11	RES-CHIP	100	5%	1/16W	R485	1-218-985-11	RES-CHIP	470K	5%	1/16W
R306	1-218-965-11	RES-CHIP	10K	5%	1/16W	R486	1-218-990-11	SHORT CHIP	0		
R307	1-218-941-11	RES-CHIP	100	5%	1/16W	R489	1-218-941-11	RES-CHIP	100	5%	1/16W
R308	1-216-864-11	SHORT CHIP	0			R490	1-218-941-11	RES-CHIP	100	5%	1/16W
R309	1-218-953-11	RES-CHIP	1K	5%	1/16W	R491	1-218-941-11	RES-CHIP	100	5%	1/16W
R310	1-218-953-11	RES-CHIP	1K	5%	1/16W	R501	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R312	1-218-929-11	RES-CHIP	10	5%	1/16W	R502	1-218-953-11	RES-CHIP	1K	5%	1/16W
R314	1-218-990-11	SHORT CHIP	0			R503	1-218-977-11	RES-CHIP	100K	5%	1/16W
R315	1-218-990-11	SHORT CHIP	0			R504	1-218-977-11	RES-CHIP	100K	5%	1/16W
R351	1-218-937-11	RES-CHIP	47	5%	1/16W	R505	1-218-929-11	RES-CHIP	10	5%	1/16W
R352	1-218-981-11	RES-CHIP	220K	5%	1/16W	R507	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R353	1-218-969-11	RES-CHIP	22K	5%	1/16W	R508	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R354	1-218-965-11	RES-CHIP	10K	5%	1/16W	R509	1-218-990-11	SHORT CHIP	0		
R355	1-218-989-11	RES-CHIP	1M	5%	1/16W	R511	1-218-990-11	SHORT CHIP	0		
R356	1-218-977-11	RES-CHIP	100K	5%	1/16W	R512	1-218-990-11	SHORT CHIP	0		
R358	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R513	1-218-965-11	RES-CHIP	10K	5%	1/16W
R359	1-218-990-11	SHORT CHIP	0			R514	1-218-973-11	RES-CHIP	47K	5%	1/16W
R418	1-218-977-11	RES-CHIP	100K	5%	1/16W	R515	1-218-965-11	RES-CHIP	10K	5%	1/16W
R419	1-218-965-11	RES-CHIP	10K	5%	1/16W	R516	1-218-973-11	RES-CHIP	47K	5%	1/16W
R420	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R517	1-218-965-11	RES-CHIP	10K	5%	1/16W
R421	1-218-977-11	RES-CHIP	100K	5%	1/16W	R518	1-218-973-11	RES-CHIP	47K	5%	1/16W
R422	1-218-989-11	RES-CHIP	1M	5%	1/16W	R519	1-218-953-11	RES-CHIP	1K	5%	1/16W
R423	1-218-981-11	RES-CHIP	220K	5%	1/16W	R520	1-218-949-11	RES-CHIP	470	5%	1/16W
R424	1-218-985-11	RES-CHIP	470K	5%	1/16W	R521	1-218-990-11	SHORT CHIP	0		
R425	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R522	1-218-990-11	SHORT CHIP	0		
R432	1-245-456-21	METAL CHIP	1	1%	1/5W	R524	1-218-945-11	RES-CHIP	220	5%	1/16W
R433	1-245-455-21	METAL CHIP	0.47	1%	1/5W	R525	1-216-864-11	SHORT CHIP	0		
R434	1-218-989-11	RES-CHIP	1M	5%	1/16W	R526	1-216-864-11	SHORT CHIP	0		
R435	1-218-990-11	SHORT CHIP	0			R561	1-218-981-11	RES-CHIP	220K	5%	1/16W
R436	1-218-981-11	RES-CHIP	220K	5%	1/16W	R601	1-218-981-11	RES-CHIP	220K	5%	1/16W
R437	1-218-981-11	RES-CHIP	220K	5%	1/16W	R605	1-218-953-11	RES-CHIP	1K	5%	1/16W
R438	1-218-977-11	RES-CHIP	100K	5%	1/16W	R608	1-218-446-11	METAL CHIP	1	5%	1/10W
R441	1-218-977-11	RES-CHIP	100K	5%	1/16W	R609	1-218-977-11	RES-CHIP	100K	5%	1/16W
R442	1-218-977-11	RES-CHIP	100K	5%	1/16W	R612	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R443	1-218-977-11	RES-CHIP	100K	5%	1/16W	R616	1-218-953-11	RES-CHIP	1K	5%	1/16W
R444	1-218-977-11	RES-CHIP	100K	5%	1/16W	R617	1-218-953-11	RES-CHIP	1K	5%	1/16W
R446	1-218-990-11	SHORT CHIP	0			R618	1-218-977-11	RES-CHIP	100K	5%	1/16W
R447	1-218-990-11	SHORT CHIP	0			R619	1-218-977-11	RES-CHIP	100K	5%	1/16W
R454	1-216-864-11	SHORT CHIP	0			R620	1-244-161-11	RES-CHIP	2.2	5%	1/16W
R455	1-218-989-11	RES-CHIP	1M	5%	1/16W	R621	1-244-161-11	RES-CHIP	2.2	5%	1/16W
R456	1-218-985-11	RES-CHIP	470K	5%	1/16W	R622	1-244-161-11	RES-CHIP	2.2	5%	1/16W
R462	1-218-981-11	RES-CHIP	220K	5%	1/16W	R623	1-244-161-11	RES-CHIP	2.2	5%	1/16W
R463	1-218-945-11	RES-CHIP	220	5%	1/16W	R624	1-218-985-11	RES-CHIP	470K	5%	1/16W
R464	1-208-935-11	METAL CHIP	100K	0.5%	1/16W	R625	1-218-985-11	RES-CHIP	470K	5%	1/16W
R466	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R628	1-218-933-11	RES-CHIP	22	5%	1/16W
R467	1-218-965-11	RES-CHIP	10K	5%	1/16W	R629	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R471	1-218-990-11	SHORT CHIP	0			R635	1-216-864-11	SHORT CHIP	0		
R472	1-218-990-11	SHORT CHIP	0			R636	1-218-985-11	RES-CHIP	470K	5%	1/16W
R473	1-218-990-11	SHORT CHIP	0			R638	1-218-981-11	RES-CHIP	220K	5%	1/16W
R474	1-218-953-11	RES-CHIP	1K	5%	1/16W	R639	1-218-989-11	RES-CHIP	1M	5%	1/16W
R475	1-218-990-11	SHORT CHIP	0			R640	1-218-981-11	RES-CHIP	220K	5%	1/16W
R476	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W	R641	1-218-989-11	RES-CHIP	1M	5%	1/16W
R477	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W	R642	1-218-977-11	RES-CHIP	100K	5%	1/16W
R478	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R643	1-218-990-11	SHORT CHIP	0		
R480	1-218-977-11	RES-CHIP	100K	5%	1/16W	R645	1-218-985-11	RES-CHIP	470K	5%	1/16W
R483	1-218-985-11	RES-CHIP	470K	5%	1/16W	R646	1-218-973-11	RES-CHIP	47K	5%	1/16W
R484	1-218-981-11	RES-CHIP	220K	5%	1/16W	R647	1-218-989-11	RES-CHIP	1M	5%	1/16W
						R648	1-245-456-21	METAL CHIP	1	1%	1/5W

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R649	1-245-456-21	METAL CHIP	1	1%	1/5W	R826	1-218-990-11	SHORT CHIP	0		
R650	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R827	1-218-941-11	RES-CHIP	100	5%	1/16W
R652	1-218-990-11	SHORT CHIP	0			R829	1-218-990-11	SHORT CHIP	0	(NHF800)	
R653	1-218-969-11	RES-CHIP	22K	5%	1/16W	R830	1-218-990-11	SHORT CHIP	0		
R654	1-218-989-11	RES-CHIP	1M	5%	1/16W	R832	1-218-965-11	RES-CHIP	10K	5%	1/16W
R657	1-218-990-11	SHORT CHIP	0			R833	1-218-990-11	SHORT CHIP	0		
R659	1-218-977-11	RES-CHIP	100K	5%	1/16W	R837	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R660	1-218-985-11	RES-CHIP	470K	5%	1/16W	R839	1-218-990-11	SHORT CHIP	0		
R661	1-218-985-11	RES-CHIP	470K	5%	1/16W	R840	1-218-990-11	SHORT CHIP	0		
R662	1-218-985-11	RES-CHIP	470K	5%	1/16W	R841	1-218-929-11	RES-CHIP	10	5%	1/16W
R663	1-218-981-11	RES-CHIP	220K	5%	1/16W	R842	1-218-973-11	RES-CHIP	47K	5%	1/16W
R664	1-216-789-11	METAL CHIP	2.2	5%	1/10W	R843	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R665	1-218-990-11	SHORT CHIP	0			R845	1-216-864-11	SHORT CHIP	0		
R668	1-216-864-11	SHORT CHIP	0			R855	1-218-990-11	SHORT CHIP	0		
R670	1-218-990-11	SHORT CHIP	0			R856	1-218-990-11	SHORT CHIP	0		
R671	1-218-990-11	SHORT CHIP	0			R857	1-218-985-11	RES-CHIP	470K	5%	1/16W
R673	1-218-990-11	SHORT CHIP	0			R858	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R675	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R860	1-218-929-11	RES-CHIP	10	5%	1/16W
R677	1-216-864-11	SHORT CHIP	0			R861	1-218-933-11	RES-CHIP	22	5%	1/16W
R678	1-218-990-11	SHORT CHIP	0			R862	1-218-989-11	RES-CHIP	1M	5%	1/16W
R679	1-218-945-11	RES-CHIP	220	5%	1/16W	R863	1-218-990-11	SHORT CHIP	0		
R680	1-216-864-11	SHORT CHIP	0			R864	1-218-945-11	RES-CHIP	220	5%	1/16W
R681	1-218-989-11	RES-CHIP	1M	5%	1/16W	R865	1-218-985-11	RES-CHIP	470K	5%	1/16W
R682	1-218-989-11	RES-CHIP	1M	5%	1/16W	R866	1-218-990-11	SHORT CHIP	0		
R683	1-218-989-11	RES-CHIP	1M	5%	1/16W	R867	1-218-989-11	RES-CHIP	1M	5%	1/16W
R684	1-218-965-11	RES-CHIP	10K	5%	1/16W	R868	1-218-990-11	SHORT CHIP	0		
R685	1-218-965-11	RES-CHIP	10K	5%	1/16W	R869	1-218-990-11	SHORT CHIP	0		
R706	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R872	1-218-965-11	RES-CHIP	10K	5%	1/16W
R707	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R873	1-218-965-11	RES-CHIP	10K	5%	1/16W
R708	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R876	1-218-990-11	SHORT CHIP	0		
R709	1-218-965-11	RES-CHIP	10K	5%	1/16W	R878	1-218-937-11	RES-CHIP	47	5%	1/16W
R710	1-218-965-11	RES-CHIP	10K	5%	1/16W	R879	1-218-937-11	RES-CHIP	47	5%	1/16W
R711	1-218-965-11	RES-CHIP	10K	5%	1/16W	R880	1-218-937-11	RES-CHIP	47	5%	1/16W
R712	1-218-990-11	SHORT CHIP	0			R881	1-218-981-11	RES-CHIP	220K	5%	1/16W
R713	1-218-953-11	RES-CHIP	1K	5%	1/16W	R882	1-218-985-11	RES-CHIP	470K	5%	1/16W
R801	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R883	1-218-989-11	RES-CHIP	1M	5%	1/16W
R802	1-218-990-11	SHORT CHIP	0			R884	1-218-985-11	RES-CHIP	470K	5%	1/16W
R804	1-218-933-11	RES-CHIP	22	5%	1/16W	R885	1-218-989-11	RES-CHIP	1M	5%	1/16W
R805	1-218-933-11	RES-CHIP	22	5%	1/16W	R886	1-218-977-11	RES-CHIP	100K	5%	1/16W
R806	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R887	1-218-977-11	RES-CHIP	100K	5%	1/16W
R807	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R888	1-218-981-11	RES-CHIP	220K	5%	1/16W
R808	1-218-961-11	RES-CHIP	4.7K	5%	1/16W	R889	1-218-973-11	RES-CHIP	47K	5%	1/16W
R809	1-218-990-11	SHORT CHIP	0			R890	1-218-981-11	RES-CHIP	220K	5%	1/16W
R810	1-218-990-11	SHORT CHIP	0			R891	1-218-990-11	SHORT CHIP	0		
R811	1-218-965-11	RES-CHIP	10K	5%	1/16W	R892	1-218-981-11	RES-CHIP	220K	5%	1/16W
R812	1-218-977-11	RES-CHIP	100K	5%	1/16W	R893	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R813	1-218-945-11	RES-CHIP	220	5%	1/16W	R894	1-218-977-11	RES-CHIP	100K	5%	1/16W
R815	1-218-981-11	RES-CHIP	220K	5%	1/16W	R895	1-218-977-11	RES-CHIP	100K	5%	1/16W
R817	1-218-953-11	RES-CHIP	1K	5%	1/16W	R897	1-218-990-11	SHORT CHIP	0		
R818	1-218-957-11	RES-CHIP	2.2K	5%	1/16W	R903	1-218-989-11	RES-CHIP	1M	5%	1/16W
R819	1-218-953-11	RES-CHIP	1K	5%	1/16W	R904	1-218-989-11	RES-CHIP	1M	5%	1/16W
R820	1-218-945-11	RES-CHIP	220	5%	1/16W	R906	1-218-973-11	RES-CHIP	47K	5%	1/16W
R821	1-220-804-11	RES-CHIP	2.2M	5%	1/16W	R907	1-218-965-11	RES-CHIP	10K	5%	1/16W
R822	1-218-989-11	RES-CHIP	1M	5%	1/16W	R908	1-218-969-11	RES-CHIP	22K	5%	1/16W
R823	1-218-965-11	RES-CHIP	10K	5%	1/16W	R910	1-218-969-11	RES-CHIP	22K	5%	1/16W
R824	1-218-990-11	SHORT CHIP	0			R912	1-218-981-11	RES-CHIP	220K	5%	1/16W
R825	1-218-990-11	SHORT CHIP	0			R914	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
						R917	1-218-981-11	RES-CHIP	220K	5%	1/16W

MAIN

Ref. No.	Part No.	Description	Remark
R918	1-218-985-11	RES-CHIP 470K	5% 1/16W
R920	1-218-985-11	RES-CHIP 470K	5% 1/16W
R922	1-218-977-11	RES-CHIP 100K	5% 1/16W
R924	1-218-985-11	RES-CHIP 470K	5% 1/16W
R925	1-208-927-11	METAL CHIP 47K	0.5% 1/16W
R926	1-208-935-11	METAL CHIP 100K	0.5% 1/16W
R927	1-208-683-11	METAL CHIP 1K	0.5% 1/16W
R929	1-208-935-11	METAL CHIP 100K	0.5% 1/16W
R930	1-208-927-11	METAL CHIP 47K	0.5% 1/16W
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
R951	1-218-990-11	SHORT CHIP 0	
R952	1-218-990-11	SHORT CHIP 0	
R953	1-220-803-81	RES-CHIP 4.7	5% 1/16W
R954	1-218-985-11	RES-CHIP 470K	5% 1/16W
R955	1-218-957-11	RES-CHIP 2.2K	5% 1/16W
R958	1-218-973-11	RES-CHIP 47K	5% 1/16W
R959	1-218-985-11	RES-CHIP 470K	5% 1/16W
R960	1-218-990-11	SHORT CHIP 0	
R964	1-218-977-11	RES-CHIP 100K	5% 1/16W
< SWITCH >			
S892	1-771-339-41	SWITCH, PUSH (HALF LOCK)	
S893	1-762-805-21	SWITCH, PUSH (1 KEY) (OPEN/COLSE DETECT)	
S894	1-786-703-21	SWITCH, PUSH (2 KEY) (PROTECT DETECT, Hi-MD PROTECT DETECT)	
< THERMISTOR (POSITIVE) >			
THP401	1-805-580-11	THERMISTOR, POSITIVE	
< VARISTOR >			
VDR801	1-805-697-21	VARISTOR (SMD)	
< VIBRATOR >			
X801	1-813-353-21	VIBRATOR, CERAMIC (48MHz)	
X802	1-813-314-11	VIBRATOR, CRYSTAL (22.5792MHz)	

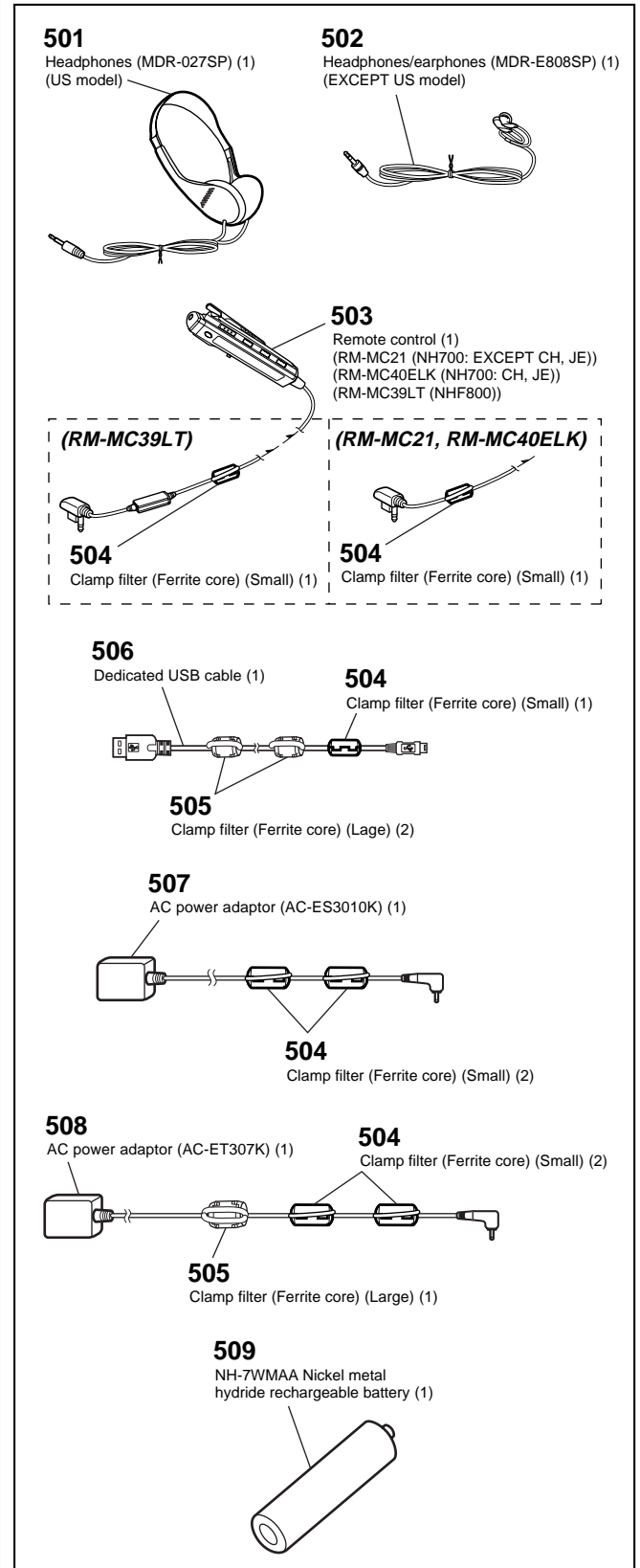
MISCELLANEOUS *****			
60	1-805-514-11	LCD MODULE	
△ 163	X-2021-785-1	OP SERVICE ASSY (ABX-U) (including HR601 (OVER WRITE HEAD))	
M701	8-835-782-12	MOTOR, DC SSM18D/C-NP (SPINDLE)	
M702	1-787-143-11	MOTOR, DC (SLED)	
M703	1-477-519-21	MOTOR UNIT, DC (OVER WRITE HEAD UP/DOWN)	

Ref. No.	Part No.	Description	Remark
ACCESSORIES *****			
	1-543-793-41	FILTER, CLAMP (FERRITE CORE) (for Optional Stereo Microphone)	
	1-543-798-31	FILTER, CLAMP (FERRITE CORE) (for Optional Line Cable)	
△	1-569-007-12	ADAPTOR, CONVERSION 2P (NH700: JE)	
	1-816-206-11	CONNECTOR, LIGHT (NH700: AEP, UK, E18, E91, EE, AUS/ NHF800: AEP, UK, E15, EE, AUS)	
	1-816-206-21	CONNECTOR, LIGHT (NH700: HK, KR, CH, JE/ NHF800: HK)	
	3-220-749-01	CASE, CARRYING (EXCEPT NHF800: US)	
	3-223-571-01	CASE, BATTERY CARRYING (EXCEPT NHF800: US)	
	3-266-457-11	MANUAL, INSTRUCTION (CZECH) (NH700: EE)	
	3-266-457-21	MANUAL, INSTRUCTION (HUNGARIAN) (NH700: EE)	
	3-266-457-31	MANUAL, INSTRUCTION (POLISH) (NH700: EE)	
	3-266-457-41	MANUAL, INSTRUCTION (SLOVAKIAN) (NH700: EE)	
	3-266-457-51	MANUAL, INSTRUCTION (RUSSIAN) (NH700: EE)	
	3-266-457-61	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (NH700: E18, HK)	
	3-266-457-71	MANUAL, INSTRUCTION (ENGLISH) (NH700: CH, JE)	
	3-266-457-81	MANUAL, INSTRUCTION (SIMPLIFIED CHINESE) (NH700: CH, JE)	
	3-266-457-91	MANUAL, INSTRUCTION (KOREAN) (NH700: KR)	
	3-266-469-11	MANUAL, INSTRUCTION (ENGLISH) (NH700: CND, AEP, UK, E18, EE, HK, AUS)	
	3-266-469-21	MANUAL, INSTRUCTION (FRENCH) (NH700: CND, AEP)	
	3-266-469-31	MANUAL, INSTRUCTION (GERMAN) (NH700: AEP)	
	3-266-469-41	MANUAL, INSTRUCTION (SPANISH) (NH700: AEP, E91, MX)	
	3-266-469-51	MANUAL, INSTRUCTION (DUTCH) (NH700: AEP)	
	3-266-469-61	MANUAL, INSTRUCTION (SWEDISH) (NH700: AEP)	
	3-266-469-71	MANUAL, INSTRUCTION (ITALIAN) (NH700: AEP)	
	3-266-469-81	MANUAL, INSTRUCTION (PORTUGUESE) (NH700: AEP)	
	3-266-469-91	MANUAL, INSTRUCTION (FINNISH) (NH700: AEP)	
	3-266-529-11	MANUAL, INSTRUCTION (ENGLISH) (NHF800: CND)	
	3-266-529-21	MANUAL, INSTRUCTION (FRENCH) (NHF800: CND)	
	3-266-529-31	MANUAL, INSTRUCTION (ENGLISH) (NHF800: AEP, UK, E15, EE, HK, AUS)	
	3-266-529-41	MANUAL, INSTRUCTION (FRENCH) (NHF800: AEP)	
	3-266-529-51	MANUAL, INSTRUCTION (GERMAN) (NHF800: AEP)	
	3-266-529-61	MANUAL, INSTRUCTION (SPANISH) (NHF800: AEP)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remark
	3-266-529-71	MANUAL, INSTRUCTION (DUTCH) (NHF800: AEP)	
	3-266-529-81	MANUAL, INSTRUCTION (SWEDISH) (NHF800: AEP)	
	3-266-529-91	MANUAL, INSTRUCTION (ITALIAN) (NHF800: AEP)	
	3-266-571-11	MANUAL, INSTRUCTION (PORTUGUESE) (NHF800: AEP)	
	3-266-571-21	MANUAL, INSTRUCTION (FINNISH) (NHF800: AEP)	
	3-266-571-31	MANUAL, INSTRUCTION (CZECH) (NHF800: EE)	
	3-266-571-41	MANUAL, INSTRUCTION (HUNGARIAN) (NHF800: EE)	
	3-266-571-51	MANUAL, INSTRUCTION (POLISH) (NHF800: EE)	
	3-266-571-61	MANUAL, INSTRUCTION (SLOVAKIAN) (NHF800: EE)	
	3-266-571-71	MANUAL, INSTRUCTION (RUSSIAN) (NHF800: EE)	
	3-266-571-81	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (NHF800: E15, HK)	
	3-266-571-91	MANUAL, INSTRUCTION (ENGLISH) (NHF800: US)	
	X-2022-247-4	CD-ROM (APPLICATION) ASSY (NH700: CND/NHF800: US, CND)	
	X-2022-248-3	CD-ROM (APPLICATION) ASSY (NH700: AEP, UK, EE/NHF800: AEP, UK, EE)	
	X-2023-448-1	CD-ROM (APPLICATION) ASSY (NH700: E18, HK, KR, AUS, CH/ NHF800: E15, HK, AUS)	
	X-2023-449-1	CD-ROM (APPLICATION) ASSY (NH700: E91, MX)	
	X-2023-450-1	CD-ROM (APPLICATION) ASSY (NH700: JE)	
501	8-954-007-91	RECEIVER, EAR MDR-027SP/1 SET (NHF800: US)	
502	8-954-008-90	RECEIVER, EAR MDR-E808SP/C SET (EXCEPT NHF800: US)	
503	1-477-548-13	REMOTE CONTROL UNIT (RM-MC21) (NH700: EXCEPT CH, JE)	
503	1-478-468-21	REMOTE COMMANDER (RM-MC40ELK) (NH700: CH, JE)	
503	A-3172-189-A	REMOTE CONTROL UNIT (RM-MC39LT) (NHF800: US)	
503	A-3172-190-A	REMOTE CONTROL UNIT (RM-MC39LT) (NHF800: CND)	
503	A-3172-191-A	REMOTE CONTROL UNIT (RM-MC39LT) (NHF800: AEP, UK, EE)	
503	A-3172-192-A	REMOTE CONTROL UNIT (RM-MC39LT) (NHF800: E15, HK, AUS)	
504	1-543-793-41	FILTER, CLAMP (FERRITE CORE)	
505	1-543-798-31	FILTER, CLAMP (FERRITE CORE)	
506	1-823-519-61	CORD, CONNECTION (DEDICATED USB CABLE)	
△ 507	1-477-965-21	ADAPTOR, AC (AC-ES3010K) (NH700: JE)	
△ 507	1-478-423-21	ADAPTOR, AC (AC-ES3010K) (NH700: KR)	
△ 507	1-478-424-21	ADAPTOR, AC (AC-ES3010K) (NH700: CH)	
△ 507	1-478-425-41	ADAPTOR, AC (AC-ES3010K) (NH700: AEP, EE, E18, E91)	
△ 507	1-478-426-51	ADAPTOR, AC (AC-ES3010K) (NH700: UK, HK)	
△ 507	1-478-427-31	ADAPTOR, AC (AC-ES3010K) (NH700: CND, MX)	
△ 507	1-478-428-21	ADAPTOR, AC (AC-ES3010K) (NH700: AUS)	
△ 508	1-478-371-11	ADAPTOR, AC (AC-ET307K) (NHF800: US, CND)	
△ 508	1-478-372-11	ADAPTOR, AC (AC-ET307K) (NHF800: AEP, EE)	

Ref. No.	Part No.	Description	Remark
△ 508	1-478-373-11	ADAPTOR, AC (AC-ET307K) (NHF800: UK, HK)	
△ 508	1-478-374-11	ADAPTOR, AC (AC-ET307K) (NHF800: AUS)	
△ 508	1-478-377-11	ADAPTOR, AC (AC-ET307K) (NHF800: E15)	
509	1-756-317-22	BATTERY, NICKEL HYDROGEN (NH-7WMAA) (EXCEPT NH700: CND/NHF800: US, CND)	



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