NW-WM1A/WM1Z

SERVICE MANUAL

Ver. 1.0 2016.10

US Model
Canadian Model
NW-WM1Z
AEP Model
UK Model
E Model
Australian Model
Chinese Model
Tourist Model
NW-WM1A/WM1Z

Note:
Be sure to keep your PC used for service and checking of this unit always updated with the latest version of your anti-virus software.
In case a virus affected unit was found during service, contact your Service Headquarters.

Photo: NW-WM1A

Photo: NW-WM1Z

- Headphones and microSD card are not supplied with this unit.

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

注意
如果电池更换不当会有爆炸危险
只能用同样类型或等效类型的电池来更换

警　告
本電池如果更換不正確會有爆炸的危險
請依製造商說明書處理用過之電池

SPECIFICATIONS

Display

Size/resolution	4.0-inch (10.2 cm) / FWVGA (854 × 480 Pixels)
Panel type	TFT color display with white LED-backlight Capacitive touch screen

Interface

USB	Hi-Speed USB (USB 2.0 compliant)
Headphone	Stereo mini-jack, Balanced standard-jack
WM-PORT	WM-PORT (multiple connecting terminal): 22 pins
External memory	microSD microSDHC microSDXC

Bluetooth

Bluetooth Specifications

Communication system	Bluetooth Specification Version 4.2
Frequency band	2.4 GHz band (2.4000 GHz - 2.4835 GHz)
Modulation method	FHSS
Compatible Bluetooth profiles (*1)	A2DP (Advanced Audio Distribution Profile) AVRCP (Audio Video Remote Control Profile)
Supported Codec (*2)	SBC (*3), LDAC

*1 Bluetooth profiles are standardized according to the purpose of the Bluetooth device.
*2 Codec indicates the audio signal compression and conversion format.
*3 SBC stands for Subband Codec.

Output (headphones)

Frequency	Frequency response 20 Hz to 40,000 Hz (when playing data file, single signal measurement)

General

Power Source	Built-in Rechargeable lithium-ion Battery USB power (from a computer via a USB connector of the player)
Charging Time	USB-based charging Approx. 7 hours
Operating temperature	5°C to 35°C (41 °F to 95 °F)
Dimensions (Walkman)	w/h/d, projecting parts not included Approx. 65.3 mm × 123.4 mm × 19.9 mm (2.58 inches × 4.86 inches × 0.79 inches)
	w/h/d Approx. 72.9 mm × 124.2 mm × 19.9 mm (2.87 inches × 4.89 inches × 0.79 inches)
Mass (Walkman)	NW-WM1Z Approx. 455 g (16.1 oz)
	NW-WM1A Approx. 267 g (9.5 oz)
Dimensions (Leather case) (NW-WM1Z only)	w/h/d, projecting parts not included Approx. 81 mm × 132 mm × 29 mm (31.9 inches × 52.0 inches × 11.5 inches)

Capacity

NW-WM1Z	256 GB
NW-WM1A	128 GB

Actual available memory for other contents (*1)

NW-WM1Z	Approx. 230.60 GB = 247,612,538,880 byte
NW-WM1A	Approx. 114.15 GB = 122,573,127,680 byte

*1 Available capacity may vary. A portion of the memory is used for data management functions.

DIGITAL MUSIC PLAYER

9-896-325-01
2016J33-1

Sony Video & Sound Products Inc.

SONY®

Battery life

The values shown below are the approximate battery life when content is played continuously at the default settings.

Music (Approx.)

MP3 128 kbps	33 hours
AAC 256 kbps	31 hours
FLAC 96 kHz/24 bit	30 hours
FLAC 192 kHz/24 bit	26 hours
DSD 2.8224 MHz/1 bit	15 hours
DSD 5.6448 MHz/1 bit	13 hours
DSD 11.2896 MHz/1 bit	11 hours

Bluetooth (Approx.)

MP3 128 kbps	SBC - Connection Preferred: 17 hours
FLAC 96 kHz/24 bit	LDAC - Connection Preferred (Auto): 15 hours

Note

- Even if the player is turned off for an extended period, a small amount of battery power is still consumed.
- Battery life may vary depending on volume setting, conditions of use and ambient temperature.
- The battery is consumed considerably when the screen is on.
- The battery life may become about 45 % shorter when some of the sound quality settings are active.
- A Bluetooth connection will shorten the battery life by up to 55 % depending on the following conditions.
  – Format of the content.
  – Settings of the connected device.

Maximum recordable number of songs

The approximate times are based on the case in which you transfer or record only 4 minute songs.

Number (Approx.)

	NW-WM1Z (256 GB)	NW-WM1A (128 GB)
MP3 128 kbps	20,000 songs	20,000 songs
AAC 256 kbps	20,000 songs	15,000 songs
FLAC 44.1 kHz/16 bit	5,700 songs	2,800 songs
FLAC 96 kHz/24bit	1,700 songs	860 songs
FLAC 192 kHz/24 bit	870 songs	430 songs
DSD 2.8224 MHz/1 bit	1,400 songs	700 songs
DSD 5.6448 MHz/1 bit	710 songs	350 songs
DSD 11.2896 MHz/1 bit	350 songs	170 songs

Supported formats

Music (*1, *2, *3)

Audio Formats

MP3

Media File format: MP3 (MPEG-1 Layer3) file format
File extension: .mp3
Bit rate: 32 kbps to 320 kbps (Supports variable bit rate (VBR))
Sampling frequency: 32, 44.1, 48 kHz

WMA

Media File format: ASF file format
File extension: .wma
Bit rate: 32 kbps to 192 kbps (Supports variable bit rate (VBR))
Sampling frequency: 44.1 kHz

FLAC

Media File format: FLAC file format
File extension: .flac
Bit depth: 16, 24 bit
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz

Linear PCM

Media File format: Wave-Riff file format
File extension: .wav
Bit depth: 16, 24, 32 bit (float/integer)
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz

AAC

Media File format: MP4 file format
File extension: .mp4, .m4a, .3gp
Bit rate: 16 kbps to 320 kbps (Supports variable bit rate (VBR))
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48 kHz

HE-AAC

Media File format: MP4 file format
File extension: .mp4, .m4a, .3gp
Bit rate: 32 kbps to 144 kbps
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48 kHz

Apple Lossless

Media File format: MP4 file format
File extension: .m4a, .mp4
Bit depth: 16, 24 bit
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz

AIFF

Media File format: AIFF file format
File extension: .aif, .aiff, .afc, .aifc
Bit depth: 16, 24, 32 bit
Sampling frequency: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz

DSD

Media File format: DSF, DSDIFF
File extension: .dsf, .dff
Bit depth: 1 bit
Sampling frequency: 2.8224, 5.6448, 11.2896 MHz

Note

- Files that are 4 GB or larger cannot be played back.
- This product recognizes audio sources exceeding CD quality (44.1 kHz/16 bit quantization) and DAT quality (48 kHz/16 bit quantization) as High-Resolution Audio.
- The "HR" symbol is displayed for High-Resolution Audio sources.

*1 Sampling frequency may not correspond to all encoders.
*2 Copyright protected files cannot be played back.
*3 Non-standard bit rates or non-guaranteed bit rates are included depending on the Sampling frequency.

System requirements

Computer

- Windows Vista® (Service Pack 2 or later)
- Windows® 7 (Service Pack 1 or later)
- Windows® 8.1
- Windows® 10
- Mac OS® X v10.8～10.11

Pre-installed OS only supported.
[Compatibility mode] is not supported.

PC application for Windows

Media Go application for Windows (recommendation)

- Internet connection
- Hard Disk Drive/Solid State Drive: 400 MB or more of available space

PC application for Mac

Content Transfer for Mac application for Mac (recommendation)

- Internet connection
- Hard Disk Drive/Solid State Drive: 30 MB or more of available space

Web browser

OS standard browser

Internet

Internet connection (for Gracenote® MusicID® service, podcast features, Store access, or online help)

Guarantee operation

Not supported by the following environments:

- Personally constructed computers or operating systems
- An environment that is an upgrade of the original manufacturer-installed operating system
- Multi-boot environment

We do not guarantee operation for all computers even if they meet the above System Requirements.

The contents of the package

NW-WM1Z/WM1A (Common)

- Walkman (1)
- USB cable (1)
- Wrist strap (1)
- Startup Guide
- Instruction Manual

NW-WM1Z

- Leather case (1)

Note

- Headphones and a microSD card are not supplied with the Walkman.

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- This software is based in part on the work of the Independent JPEG Group.
- This product is protected by certain intellectual property rights of Microsoft Corporation. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft or an authorized Microsoft subsidiary.

FLEXIBLE CIRCUIT BOARD REPAIRING

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

TABLE OF CONTENTS

SECTION 1
SERVICING NOTES

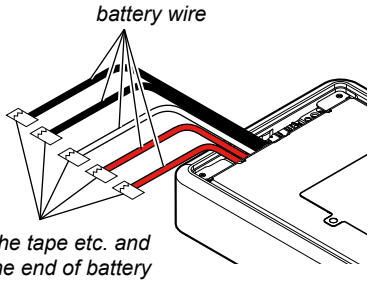
The SERVICING NOTES contains important information for servicing. Be sure to read this section before repairing the unit.

ABOUT REUSE OF BUILT-IN THE RECHARGEABLE LITHIUM ION BATTERY

It cannot reuse, when the built-in rechargeable lithium ion battery is removed from battery adhesive sheet. Be sure to replace the new parts.

ABOUT INSULATING OF THE BUILT-IN RECHARGEABLE LITHIUM ION BATTERY

When wire of the built-in rechargeable lithium ion battery is removed from board, insulate the end of battery wire by wrap a tape etc. to prevent short-circuited of the battery wire part of the built-in rechargeable lithium ion battery.



Wrap by the tape etc. and insulate the end of battery wire.

DESTINATION ABBREVIATIONS

The following abbreviations for model destinations are used in this service manual.

- Abbreviations
  AEP : European, East European and Moldova models
  AUS : Australian model
  CH : Chinese model
  CND : Canadian model
  EE : Russian model (CIS area: Except for Moldova)
  JE : Tourist model

METHOD OF DISTINGUISHING THE WALKMAN MAIN UNIT

When distinguish the destination of the WALKMAN main unit, check by following method.

- **Method of using the tool**

Note 1: Check before you replace the MAIN board of the repairing unit, to perform this method.

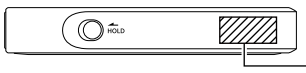
If the WALKMAN main unit is running normally, please distinguish by using the model information check tool, connecting WALKMAN to PC (personal computer) by USB cable (WM-PORT).
Refer to “1. Advance preparation” on page 5 and “2-3. Model information check” on page 8 for how to operate the model information check tool.

- **Method of distinguishing in the printed of the WALKMAN main unit**

It can distinguishing by check in the contents of printed of the left side of the WALKMAN main unit. Refer to the following table.

Note 2: The NW-WM1A has been engraved to the main unit.
The NW-WM1Z has been affixed label to the main unit.

– Left side view –



NW-WM1A : Engraved
NW-WM1Z : Label

	NW-WM1A	NW-WM1Z
		
US, CND	–	MADE IN MALAYSIA Fabriqué en Malaisie
AEP, UK	SONY CORP. 1-7-1 KONAN MINATO-KU TOKYO, 108-0075 JAPAN MADE IN MALAYSIA	SONY CORP. 1-7-1 KONAN MINATO-KU TOKYO, 108-0075 JAPAN MADE IN MALAYSIA
E, AUS, JE	모델명/Model: NW-WM1A 해당 무선설비는 운용 중 MADE IN MALAYSIA 전파혼신 가능성이 있음. 제조연월 : 0000-00 R33021 CCAO16LP015AT7 5V	모델명/Model: NW-WM1Z 해당 무선설비는 운용 중 MADE IN MALAYSIA 전파혼신 가능성이 있음. 제조연월 : 0000-00 R33021 CCAO16LP015OT5 5V
CH	数码音频播放器 索尼公司 CMIIT ID: 2016DJ4344 5V 马来西亚制造	数码音频播放器 索尼公司 CMIIT ID : 2016DJ4346 5V 马来西亚制造
EE	DIGITAL MUSIC PLAYER MADE IN MALAYSIA MM-YYYY	DIGITAL MUSIC PLAYER MADE IN MALAYSIA MM-YYYY

ABOUT WORKING OF THE BOARD REPLACING

When replaced the MAIN board, be sure to refer to each settings/checks on the following and perform.

1. Advance preparation

- Before working, refer to "METHOD OF DISTINGUISHING THE WALKMAN MAIN UNIT" on pege 4 for of WALKMAN main unit name and destination.
- Prepare the following tools etc.
  - USB cable (WM-PORT)
  - PC (personal computer (OS: Windows 7 or later))
  - Tools for each settings/checking

Use		Destination	Tool
Destination/model settings	NW-WM1A	AEP, UK	NWWM1A_CEW_NOHP_ChangeDestination_V1.00.zip
		E, AUS, JE	NWWM1A_E_NOHP_ChangeDestination_V1.00.zip
		CH	NWWM1A_CN_NOHP_ChangeDestination_V1.00.zip
		EE	NWWM1A_EE_NOHP_ChangeDestination_V1.00.zip
	NW-WM1Z	US, CND	NWWM1Z_UC_NOHP_ChangeDestination_V1.00.zip
		AEP, UK	NWWM1Z_CEW_NOHP_ChangeDestination_V1.00.zip
		E, AUS, JE	NWWM1Z_E_NOHP_ChangeDestination_V1.00.zip
		CH	NWWM1Z_CN_NOHP_ChangeDestination_V1.00.zip
		EE	NWWM1Z_EE_NOHP_ChangeDestination_V1.00.zip
Initial settings	NW-WM1A		NWWM1A_Color_Init_Setting_V1.00.zip
	NW-WM1Z		NWWM1Z_Color_Init_Setting_V1.00.zip
Model information check		ALL	NWWM1_A30_ModelInfo-V1.00.zip
Pre-installed contents settings	Pre-installed contents	Except CH	WM1_opt3_WW_1.00.zip
		CH	WM1_opt3_CN_1.00.zip
	Transfer tool (See Note 3)	ALL	WM1_opt3_transfer_tool_Vx.xx.xx.zip

Note 1: For detail about the Destination column of the above table, refer to "DESTINATION ABBREVIATIONS" and "Method of distinguishing in the printed of the WALKMAN main unit" on page 4.

Note 2: Check the method of obtaining the each tools to the each service headquarters.

Note 3: Transfer tool, please use the version that is consistent with the firmware version of the main unit. When use non-consistent version transfer tool, an error occurs in the middle of the transfer.
Tool name in the above table, does not described the version (represent as "Vx.xx.xx").
Please check the firmware version of the WALKMAN main unit beforehand.

Note 4: Each tools, using by OS of Windows 7 or later.

Note 5: If you want to run the each tools, please close the SonicStage/x-Application/Media Go etc. applications.

Procedure:

1. On PC (personal computer), unzip the advance prepared each settings/checking tools.
2. Copy the unzip folder to root directory of C drive on PC (personal computer).

Note 6: The folder can be saved any drive as long as the folder path is with English (one byte character).
Described with the example that "the folders were saved under root directory of C drive" on this service manual.

2. Settings

Settings/checks according to the following order.

Destination/model settings (use for the destination/model settings tool)
↓
Initial settings (use for the initial settings tool)
↓
Model information check (use for the model information check tool)
↓
Pre-installed contents settings (use for the pre-installed contents/transfer tools)

2-1. Destination/model settings

Perform settings of the destination and each model etc.
The initial setting of the factory shipment is different on the destination and model to the WALKMAN main unit.
Be sure to refer to "METHOD OF DISTINGUISHING THE WALKMAN MAIN UNIT" on page 4 in advance.

Note 1: Contents those have been recorded in this unit all will be erased.

Used folder name (tool):

Refer to "Destination/model settings" column of the table on the left.

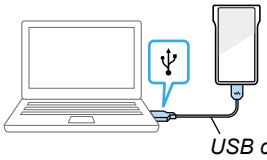
Note 2: Please refer to "DESTINATION ABBREVIATIONS" on page 4 for the sales country or area of each destination.

IMPORTANT:
Be sure to use the destination/model settings tool select the correct destination. It is a compliance violation to change the destination to other regions.

– Continued on next page –

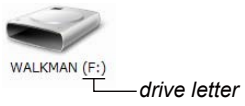
Procedure:

1. Connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).
   (The power supply of the WALKMAN is automatically turned on)



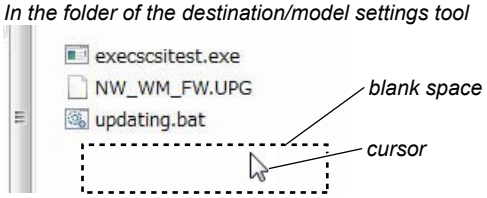
– The following steps will all operate on the PC (personal computer) –

2. Check how the WALKMAN is recognized by MSC connection, and the check of the drive letter is necessary.
   (at this example, it is "F:")

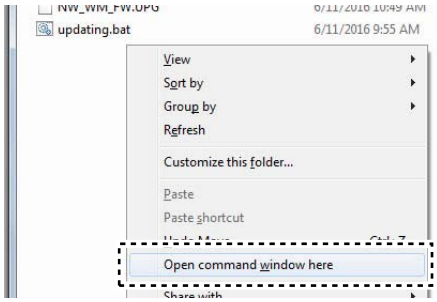


3. Open the folder that the destination/model settings tool.
4. In the non-selected state for files in the folder, and put a cursor to blank space in the folder.

In the folder of the destination/model settings tool



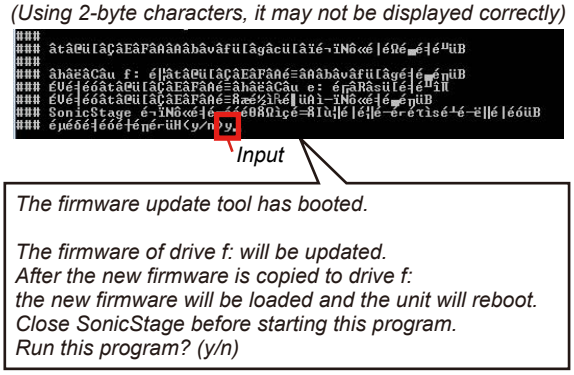
5. The right-click while pressing the Shift key in the state of step 4.
6. Select the "Open command window here" from the displayed menu, and launch the command prompt application software.



7. Input the following command and press the Enter key.
   "updating.bat f:"
   ("f:" is drive letter of checked at step 2)

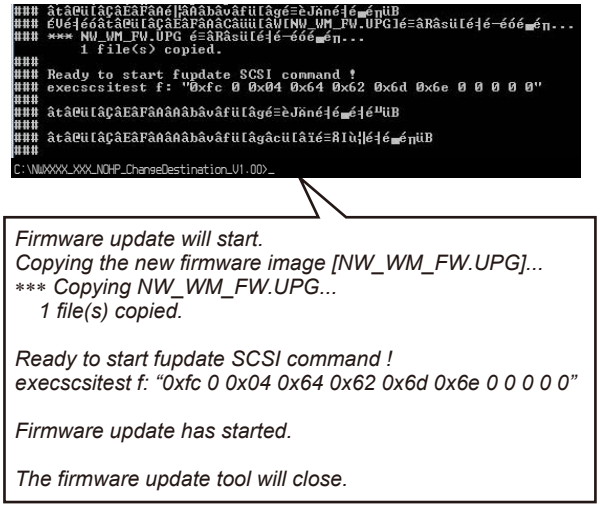
8. Check that the following figure message has been displayed, and input "y", and press the Enter key.

(Using 2-byte characters, it may not be displayed correctly)



9. The following figure message is displayed, and the destination/model settings is performed on the WALKMAN main unit.

(Using 2-byte characters, it may not be displayed correctly)



10. The WALKMAN main unit reboots automatically after the destination/model settings are performed.
11. After rebooting, check that the USB connection screen is displayed on the liquid crystal display of the "WALKMAN main unit.
    (The settings is completed when the USB connection screen is displayed.)
12. Input "exit" and press the Enter key to close the command prompt application software.

Destination/model settings is complete.
Please proceed to the "2-2. Initial Settings" on page 7.

2-2. Initial Settings

Perform settings that are appropriate for each model. After the destination/model settings, be sure to perform the initial settings.

Used folder name (tool):

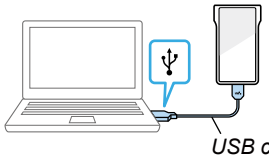
For NW-WM1A : NWWM1A_Color_Init_Setting_V1.00
For NW-WM1Z : NWWM1Z_Color_Init_Setting_V1.00

Note 1: "BLACK" folder exist in folder for the NW-WM1Z, but this is no problem to use it.

Procedure:

1. Connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).
   (The power supply of the WALKMAN is automatically turned on)

Note 2: If leave the connection status in the previous step, this step is not necessary.

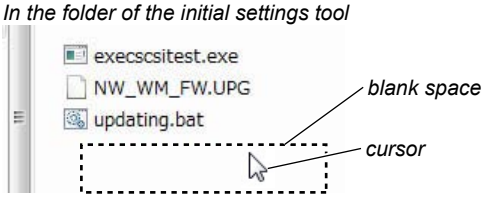


– The following steps will all operate on the PC (personal computer) –

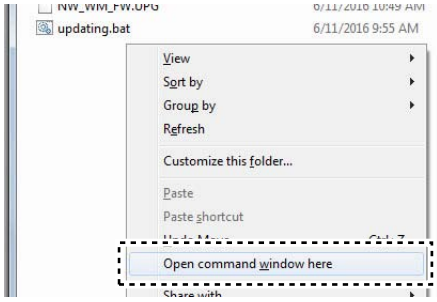
2. Check how the WALKMAN is recognized by MSC connection, and the check of the drive letter is necessary.
   (at this example, it is "F:")

3. Open the folder that the initial settings tool.
4. In the non-selected state for files in the folder, and put a cursor to blank space in the folder.

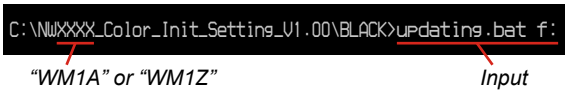
In the folder of the initial settings tool



5. The right-click while pressing the Shift key in the state of step 4.
6. Select the "Open command window here" from the displayed menu, and launch the command prompt application software.

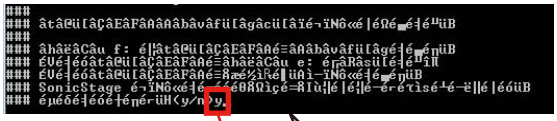


7. Input the following command and press the Enter key.
   "updating.bat f:"
   ("f:" is drive letter of checked at step 2)



8. Check that the following figure message has been displayed, and input "y", and press the Enter key.

(Using 2-byte characters, it may not be displayed correctly)

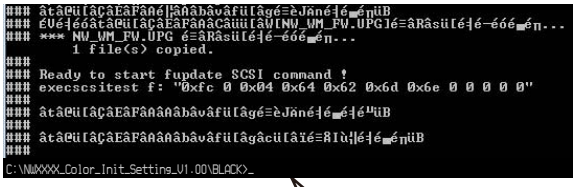


The firmware update tool has booted.

The firmware of drive f: will be updated.
After the new firmware is copied to drive f:
the new firmware will be loaded and the unit will reboot.
Close SonicStage before starting this program.
Run this program? (y/n)

9. The following figure message is displayed, and the initial settings is performed on the WALKMAN main unit.

(Using 2-byte characters, it may not be displayed correctly)



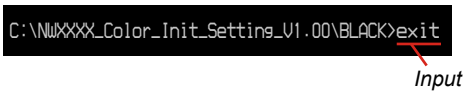
Firmware update will start.
Copying the new firmware image [NW_WM_FW.UPG]...
**** Copying NW_WM_FW.UPG...*
1 file(s) copied.

Ready to start fupdate SCSI command !
execscsitest f: "0xfc 0 0x04 0x64 0x62 0x6d 0x6e 0 0 0 0 0"

Firmware update has started.

The firmware update tool will close.

10. The WALKMAN main unit reboots automatically after the initial settings are performed.
11. After rebooting, check that the USB connection screen is displayed on the liquid crystal display of the "WALKMAN main unit.
    (The settings is completed when the USB connection screen is displayed.)
12. Input "exit" and press the Enter key to close the command prompt application software.



Initial settings is complete.
Please proceed to the "2-3. Model information check" on page 8.

2-3. Model information check

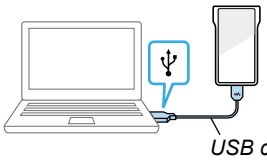
It can check the settings information.
Be sure to that the correct settings have been performed.

Used folder name (tool):
NWWM1_A30_ModelInfo-V1.00

Procedure:

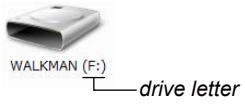
1. Connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).
   (The power supply of the WALKMAN is automatically turned on)

Note 1: If leave the connection status in the previous step, this step is not necessary.

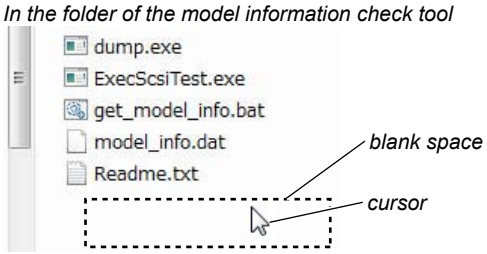


– The following steps will all operate on the PC (personal computer) –

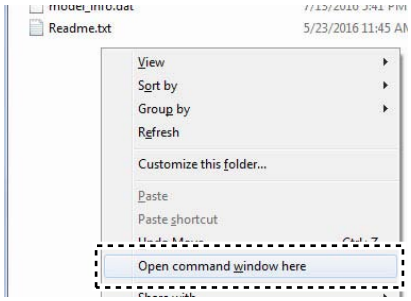
2. Check how the WALKMAN is recognized by MSC connection, and the check of the drive letter is necessary.
   (at this example, it is "F:")



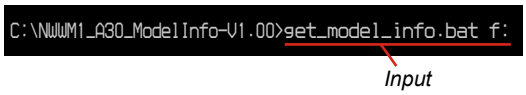
3. Open the folder that the model information check tool.
4. In the non-selected state for files in the folder, and put a cursor to blank space in the folder.



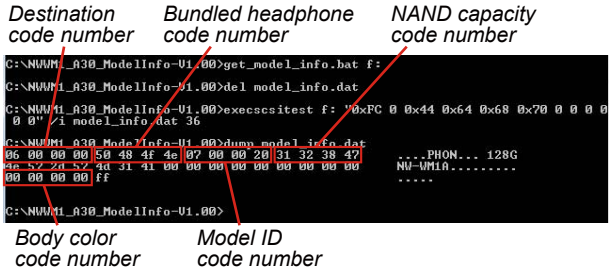
5. The right-click while pressing the Shift key in the state of step 4.
6. Select the "Open command window here" from the displayed menu, and launch the command prompt application software.



7. Input the following command and press the Enter key.
   "get_model_info.bat f:"
   ("f:" is drive letter of checked at step 2)



8. It will appear the following figure results.
   (Displayed characters/values in the following figure are example)



9. Check the code number of each items.

Model name	Check items	Code number
NW-WM1A	Destination	AEP : 03 01 00 00
		UK : 03 01 00 00
		EE : 02 00 00 00
		E : 06 00 00 00
		AUS : 06 00 00 00
		CH : 04 00 00 00
		JE : 06 00 00 00
	Bundled headphones (not bundled)	50 48 4f 4e
	Model ID	07 00 00 20
	NAND capacity (128GB)	31 32 38 47
	Body color	00 00 00 00
NW-WM1Z	Destination	US : 01 00 00 00
		CND : 01 00 00 00
		AEP : 03 01 00 00
		UK : 03 01 00 00
		EE : 02 00 00 00
		E : 06 00 00 00
		AUS : 06 00 00 00
		CH : 04 00 00 00
		JE : 06 00 00 00
	Bundled headphones (not bundled)	50 48 4f 4e
	Model ID	08 00 00 21
	NAND capacity (256GB)	32 35 36 47
	Body color	00 00 00 00

Note 2: For detail about the Destination column of the above table, refer to "DESTINATION ABBREVIATIONS" on page 4.

10. Input "exit" and press the Enter key to close the command prompt application software.

Model information check is complete.
Please proceed to the "2-4. Pre-installed contents settings" on page 9.

2-4. Pre-installed contents settings

Write the pre-installed contents.
Perform after each checks/settings.

Used folder name (tool):

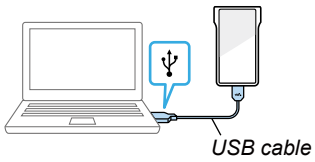
Pre-installed contents
WM1_opt3_WW_1.00 (Except CH)
WM1_opt3_CN_1.00 (CH)
Transfer tool
WM1_opt3_transfer_tool_Vx.xx.xx

Note 1: Transfer tool, please use the version that is consistent with the firmware version of the main unit. When use non-consistent version transfer tool, an error occurs in the middle of the transfer.
Tool name in the above table, does not described the version (represent as "Vx.xx.xx").
Please check the firmware version of the WALKMAN main unit beforehand.

Procedure:

1. Connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).
(The power supply of the WALKMAN is automatically turned on)

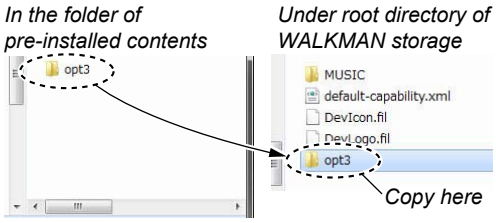
Note 2: If leave the connection status in the previous step, this step is not necessary.



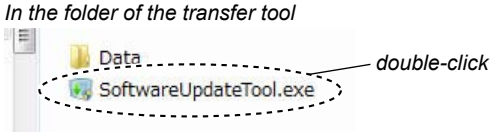
– Step 2 through step 10 will operate on the PC (personal computer) –

2. Check how the WALKMAN is recognized by MSC connection, and the check of the drive letter is necessary.
(at this example, it is "F:")

3. Open the folder that the pre-installed contents and open the WALKMAN storage.
4. Copy the "opt3" folder in the pre-installed contents folder to the under root directory of the WALKMAN storage.

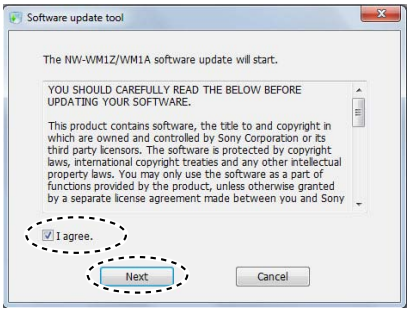


5. Open the transfer tool folder, and double-click for launch the "SoftwareUpdateTool.exe".

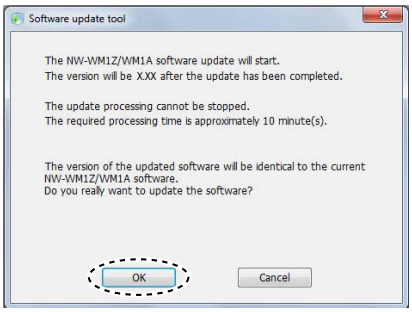


6. Check into the [I agree] box on "SoftwareUpdateTool", and click the [Next] button.

Note 3: The language displayed in "SoftwareUpdateTool" changes with linguistic environment of PC.

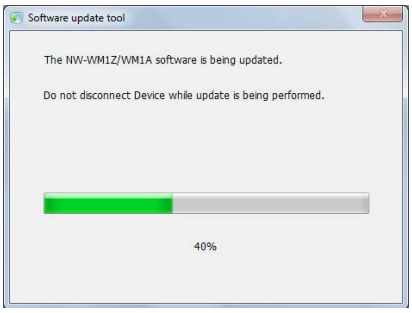


7. Click the [OK] button on "SoftwareUpdateTool" screen.

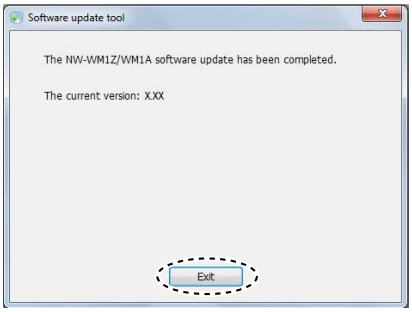


8. Wait for a while until progress will be 100%.

Note 4: The WALKMAN main unit is rebooted automatically in the middle of progress.



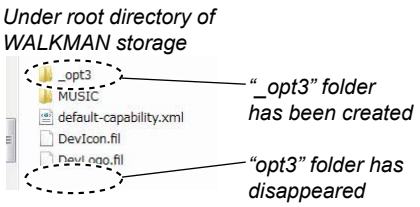
9. After the WALKMAN is rebooted, check that the Update completion screen is displayed, and click the [Finish] button on "SoftwareUpdateTool".



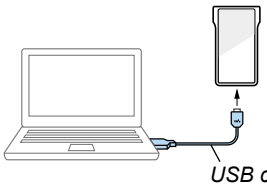
– Continued on next page –

10. Open the WALKMAN storage. Check disappear copied “opt3” folder in step 4 and the “_opt3” folder has been created.

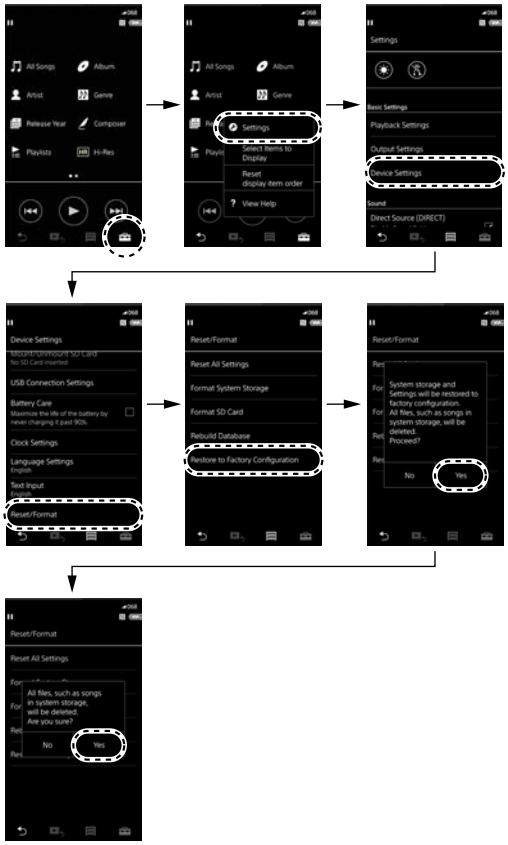
Note 5: If the “_opt3” folder does not created, start over from step 1.



11. Disconnect the WALKMAN main unit from PC (personal computer).

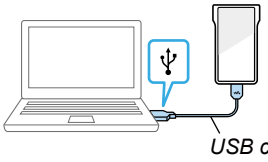


12. The menu of the WALKMAN main unit to operate in the following order, and restore the WALKMAN main unit to the factory configuration state.
[🧰] ⟶ [Settings] ⟶ [Device Settings] of “Basic Settings” ⟶ [Reset/Format] ⟶ [Restore to Factory Configuration] ⟶ [Yes] ⟶ [Yes]

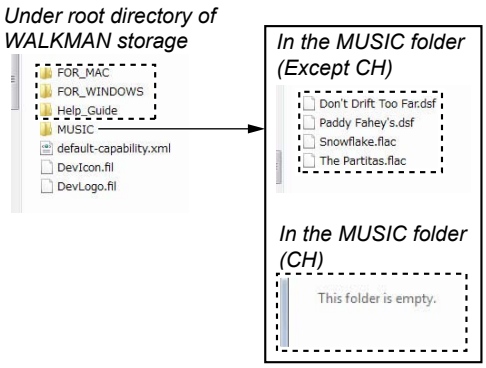


13. The WALKMAN is rebooting.

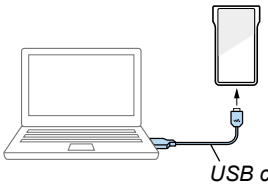
14. After the WALKMAN is rebooted, language/date/time of initial setup wizard to complete, and connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).



15. On PC (personal computer), open the WALKMAN storage. Folders and contents that has been surrounded by a dotted line frame of the following to check that the presence.



16. Disconnect the WALKMAN main unit from PC (personal computer).



All the setting/check is complete.

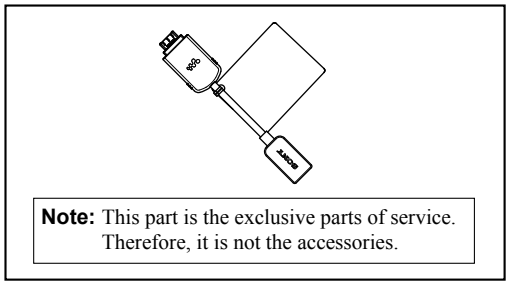
ABOUT THE REPAIRING OF BOARD

When boards installed in this unit are defective, it is replaced by the board. Individual electrical parts that mounted on the board cannot be replaced.

THE EXCLUSIVE PARTS FOR SERVICE

The USB conversion cable for Hi-Res audio output corresponding to the Hi-Res audio output for the exclusive of the WALKMAN.

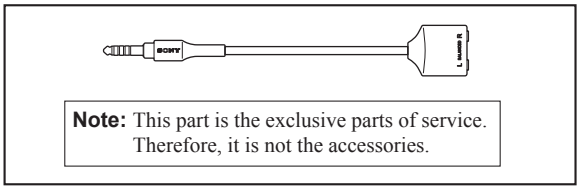
Part No.	Description
X-2588-492-2	SERVICE ASSY (WMC-NWH10)



Note: This part is the exclusive parts of service. Therefore, it is not the accessories.

A conversion adaptor that easily converts a 3-pole mini headphone plug (balanced connection, ϕ 3.5 mm)×2 into a balanced standard headphone plug (ϕ 4.4 mm).
When using this conversion adaptor, you cannot enjoy the original sound quality performance of this unit.
Explain the details above to the customer and make sure the customer understands them before selling this part.

Part No.	Description
1-844-544-11	ADAPTOR, CONVERSION (PC-BC10)



Note: This part is the exclusive parts of service. Therefore, it is not the accessories.

NFC CONNECTION CHECKING METHOD

If checking the operation of the NFC, without the use of a test mode, please do the connection check in the normal mode. Connection checking method of the normal mode, please refer to the following.

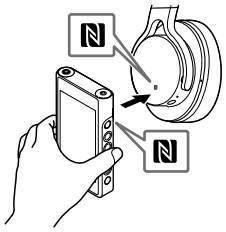
Advance preparation:

Bluetooth audio device equipped with NFC function
(If NFC switch is exist to the Bluetooth audio device, please turn on the NFC switch.)

Connection method:

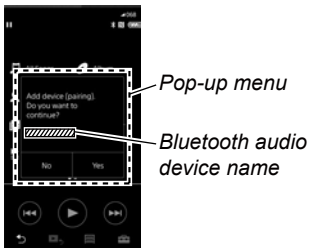
1. Touch N mark of the WALKMAN and N mark of the Bluetooth audio device in the displayed state in the WALKMAN screen.

Note 1: It can not be connected when the WALKMAN screen is off.
Note 2: Continue to touch until instructed appear on the WALKMAN screen.



2. If the NFC connection is normal, the pop-up menu shown in the figure below is displayed on the WALKMAN screen.

Note 3: If there is a problem with the connection, you are not presented with the pop-up menu.
Note 4: If there is a problem with the connection, not display the pop-up menu.



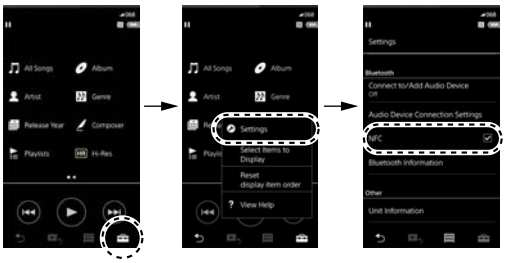
3. Touch the [No] button to complete the connection check.

Note 5: If the [Yes] button is touched and connection completed, touch N mark of the WALKMAN and N mark of the Bluetooth audio device once again, and Bluetooth connection is disconnected. Then performed the "Restore to Factory Configuration" from the menu of the WALKMAN, please delete the registered information of Bluetooth audio device.

What to do if you can not connect:

If can not connect, please corrective action below.

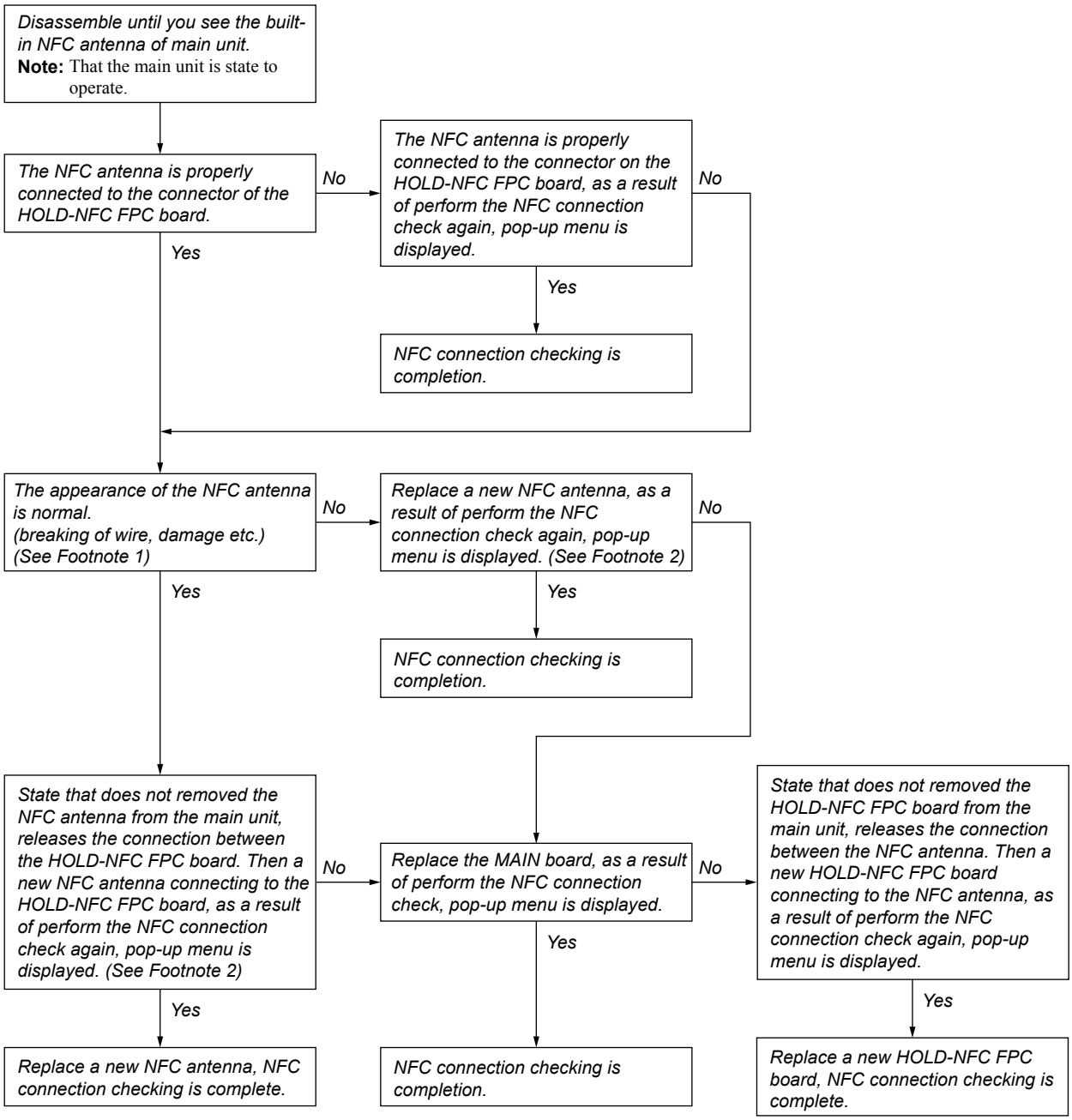
- From the menu of the WALKMAN main unit, to check into the check-box on [NFC]. Then touch the Bluetooth audio device. (If there is no check, NFC will not work)
  [🧰] → [Settings] → [NFC] of "Bluetooth"



- Slowly move the WALKMAN over the N mark of the Bluetooth audio device.
- If the WALKMAN is in a case, remove the case and touch the Bluetooth audio device.
- If the WALKMAN screen is off, touch the Bluetooth device to the displayed state in the WALKMAN screen.
  (It can not be connected when the screen is off)

If the pop-up menu does not appear even if the above corrective action performed, it is a problem with the NFC function.
Please correspondence in accordance with the NFC function checking flow chart on page 12.
(If necessary, refer to "SECTION 2 DISASSEMBLY" on page 14 and the "SECTION 4 EXPLODED VIEWS" on page 49)

NFC function checking flow chart:



Footnote 1: After checking that the NFC antenna is properly connected to the connector of the HOLD-NFC FPC board, connect the tester to the connection pattern of the FPC connector and confirm that the resistance is close to 0Ω.

Footnote 2: If the pop-up menu is not displayed even after replacing with a new NFC antenna and checking the connection, check the status of the HOLD-NFC FPC board. The NFC antenna is connected to the main board via the HOLD-NFC FPC board.
Check if the buttons on the right side of the main unit function and confirm that the HOLD-NFC FPC board is properly connected to the main board. If the buttons do not function properly, the HOLD-NFC FPC board connection may be poor or disconnected.

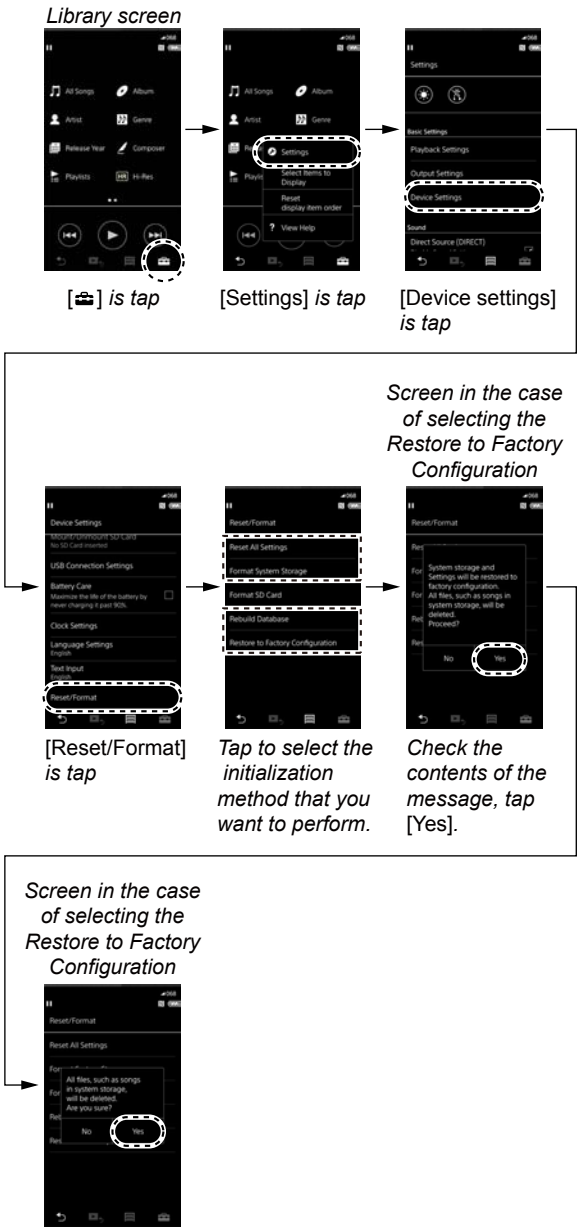
VARIOUS INITIALIZATION METHOD

It can perform the various initialization from the settings menu of the WALKMAN main unit. Refer to the following, please run the appropriate initialization.

- Various initialization item

Reset All Settings	This operation resets all setting parameters to the default settings. If you select this operation, the WALKMAN will restart automatically. The following settings will not be changed. • Elapsed time of the selected track • Preset 1 through 3 for [Saved Sound Settings] • The bookmark list (1 through 10) • User settings for the library screen • Information on recently transferred content • Clock settings • Language settings • User setting for [Text Input]
Format System Storage	This operation reformats the internal memory of the WALKMAN. Note that all data (including sample data) stored on the WALKMAN will be deleted. Please be sure to execute on the WALKMAN according to the Setting method. Does not guarantee performance if you reformat the memory of the WALKMAN using a computer.
Rebuild Database	This operation rebuilds the database on the WALKMAN. You can rebuild the database manually. If you rebuild the database, the following information will be erased. • Elapsed time of the selected track • Playback order
Restore to Factory Configuration	This operation initializes both the settings and internal memory. You can restore the WALKMAN to its default settings. All transferred data will be erased. However, the WALKMAN will restore its preinstalled sample content and installers as default settings. If you select this operation, the WALKMAN will restart automatically and the initial setup wizard will launch. If you execute this item, pairing information for Bluetooth devices will be deleted from the WALKMAN.

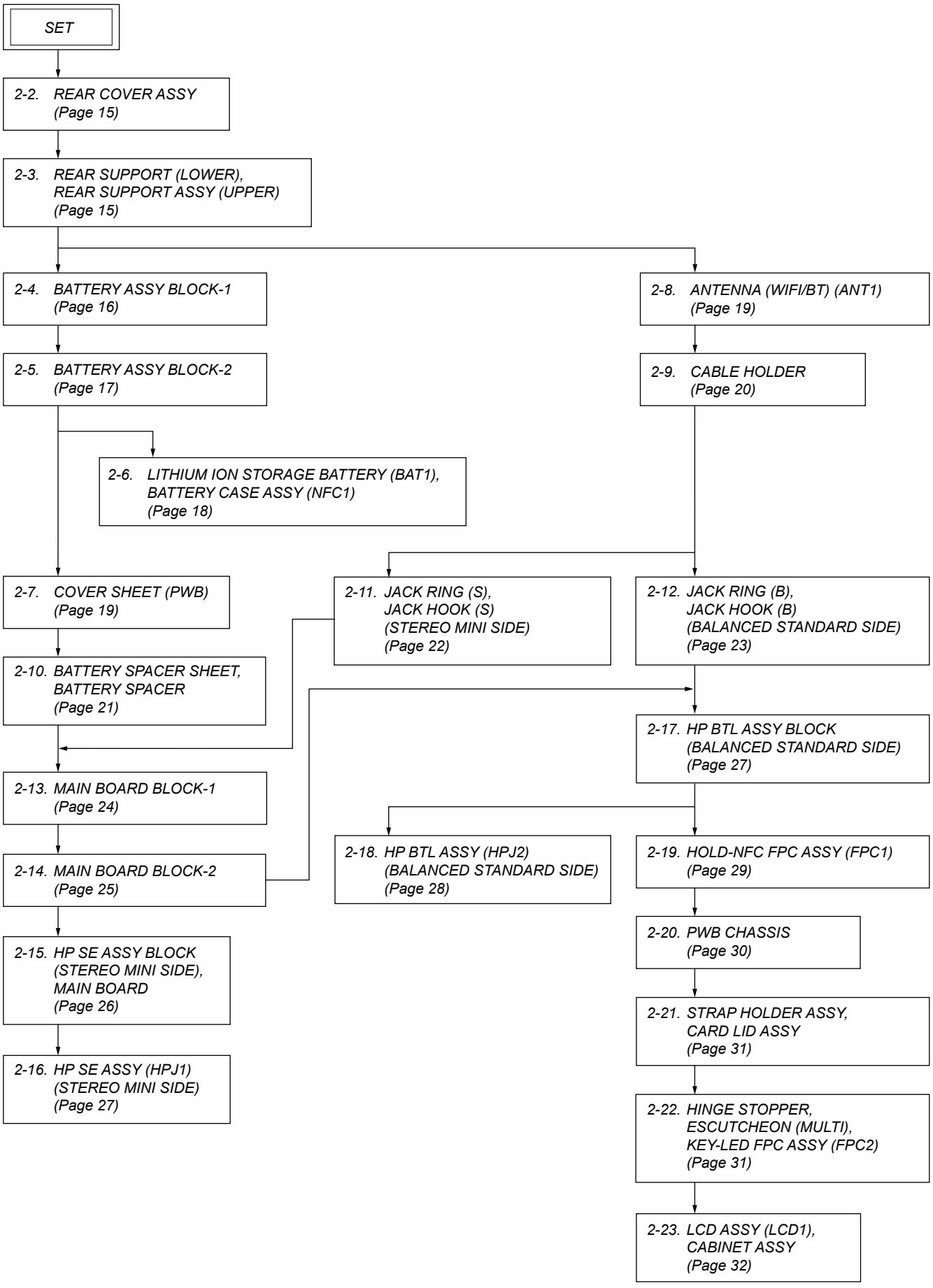
- Setting method



SECTION 2
DISASSEMBLY

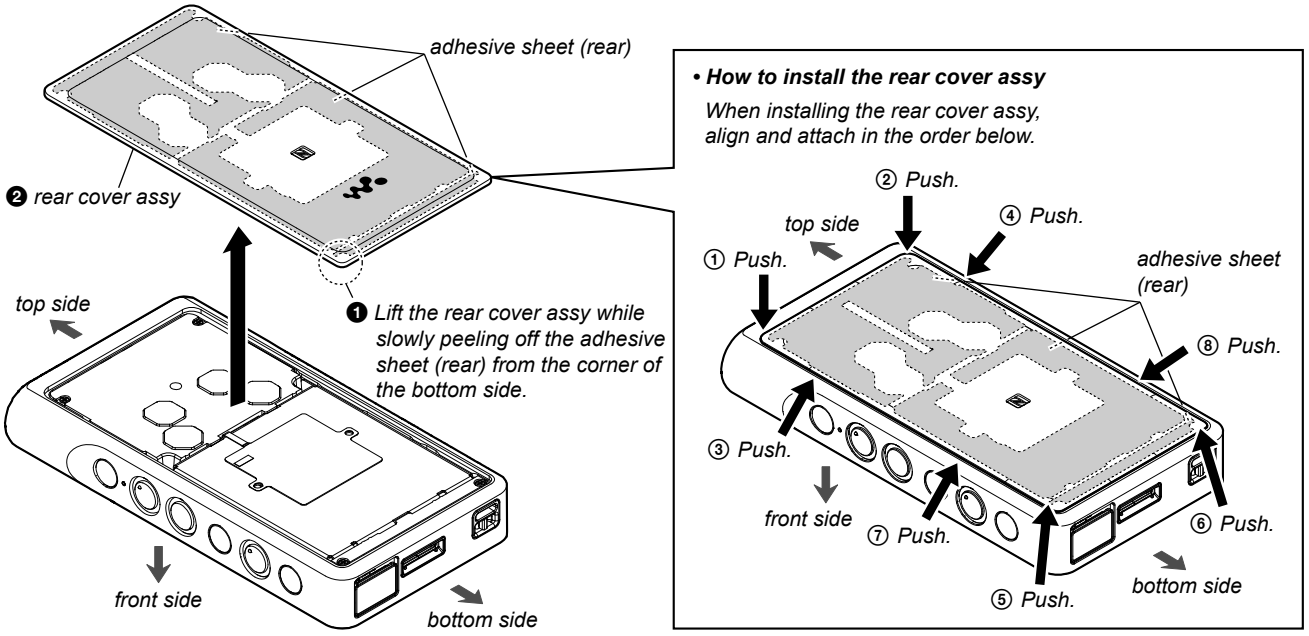
- This set can be disassembled in the order shown below.

2-1. DISASSEMBLY FLOW



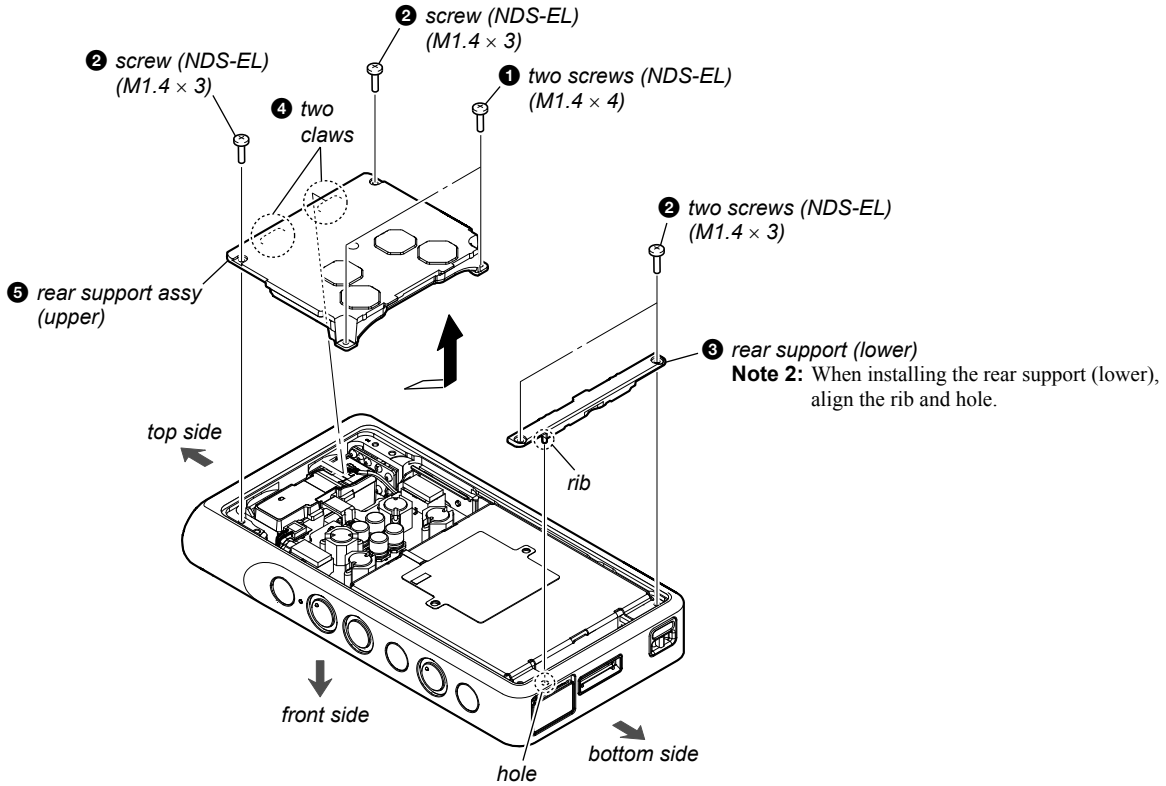
Note: Follow the disassembly procedure in the numerical order given.

2-2. REAR COVER ASSY



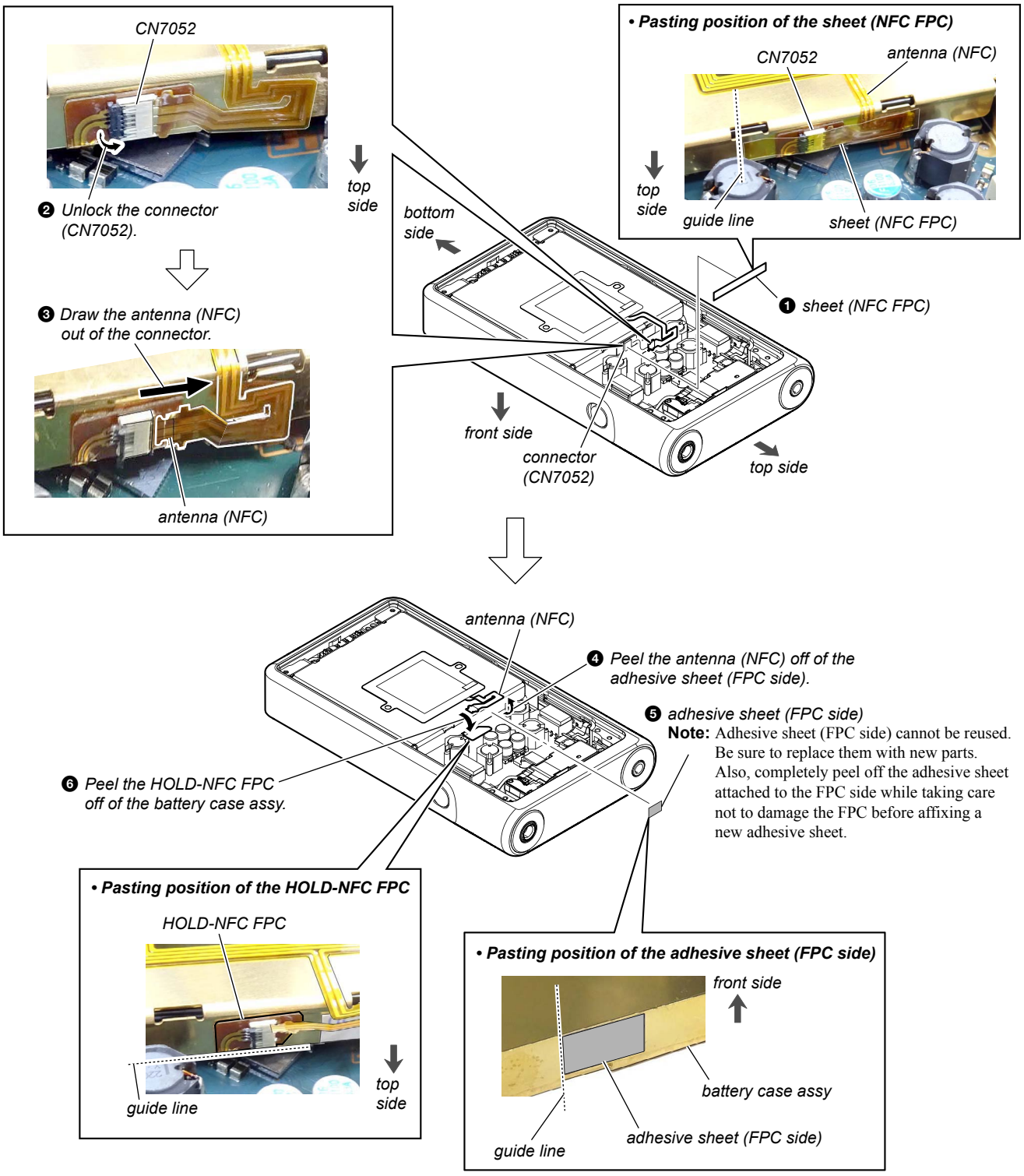
2-3. REAR SUPPORT (LOWER), REAR SUPPORT ASSY (UPPER)

Note 1: Start removing from either the rear support assy (lower) or rear support assy (upper).

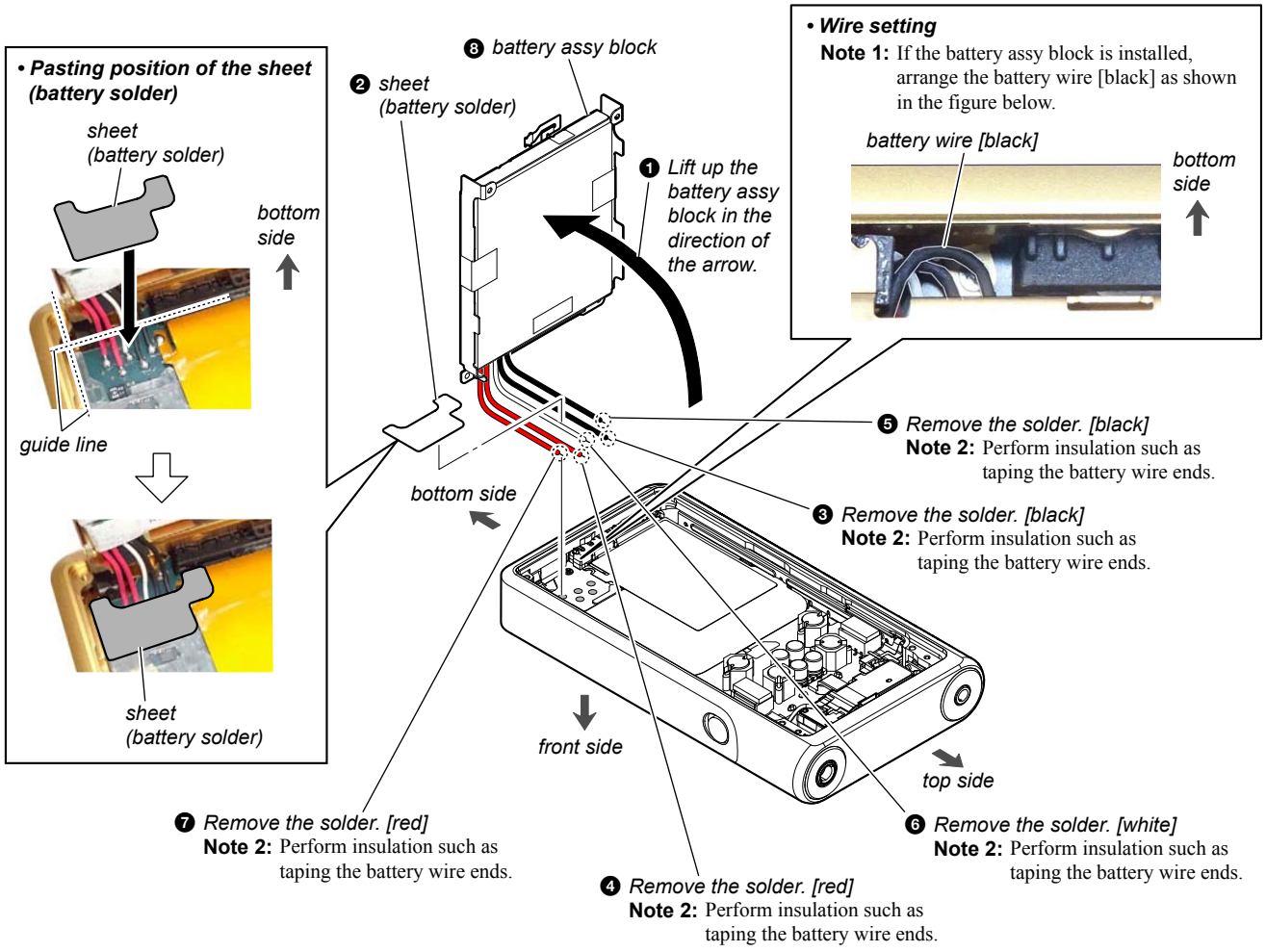


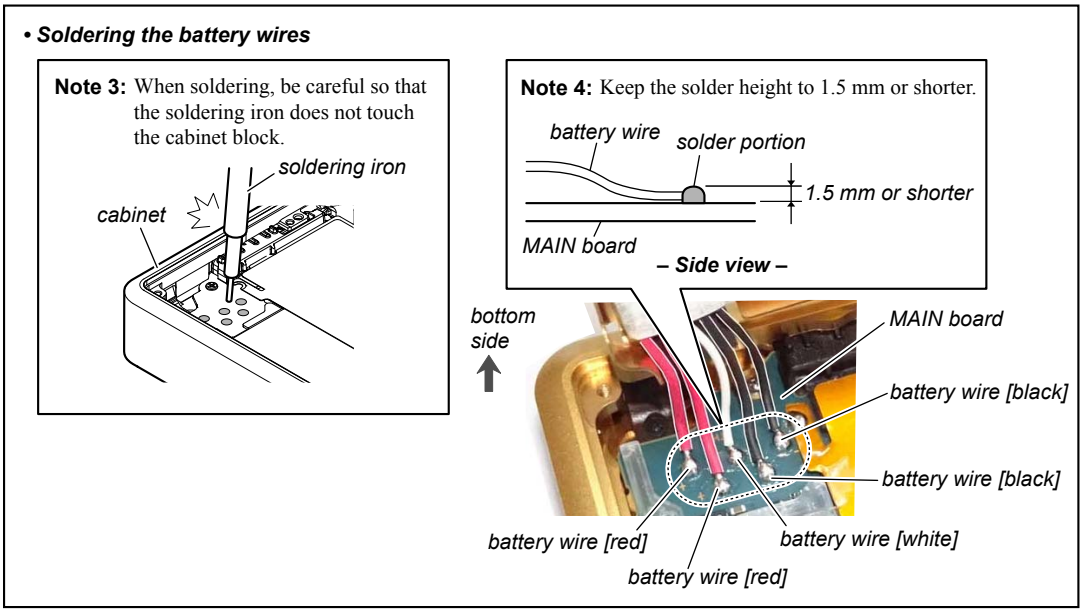
2-4. BATTERY ASSY BLOCK-1

• Continued on 2-5 (page 17).

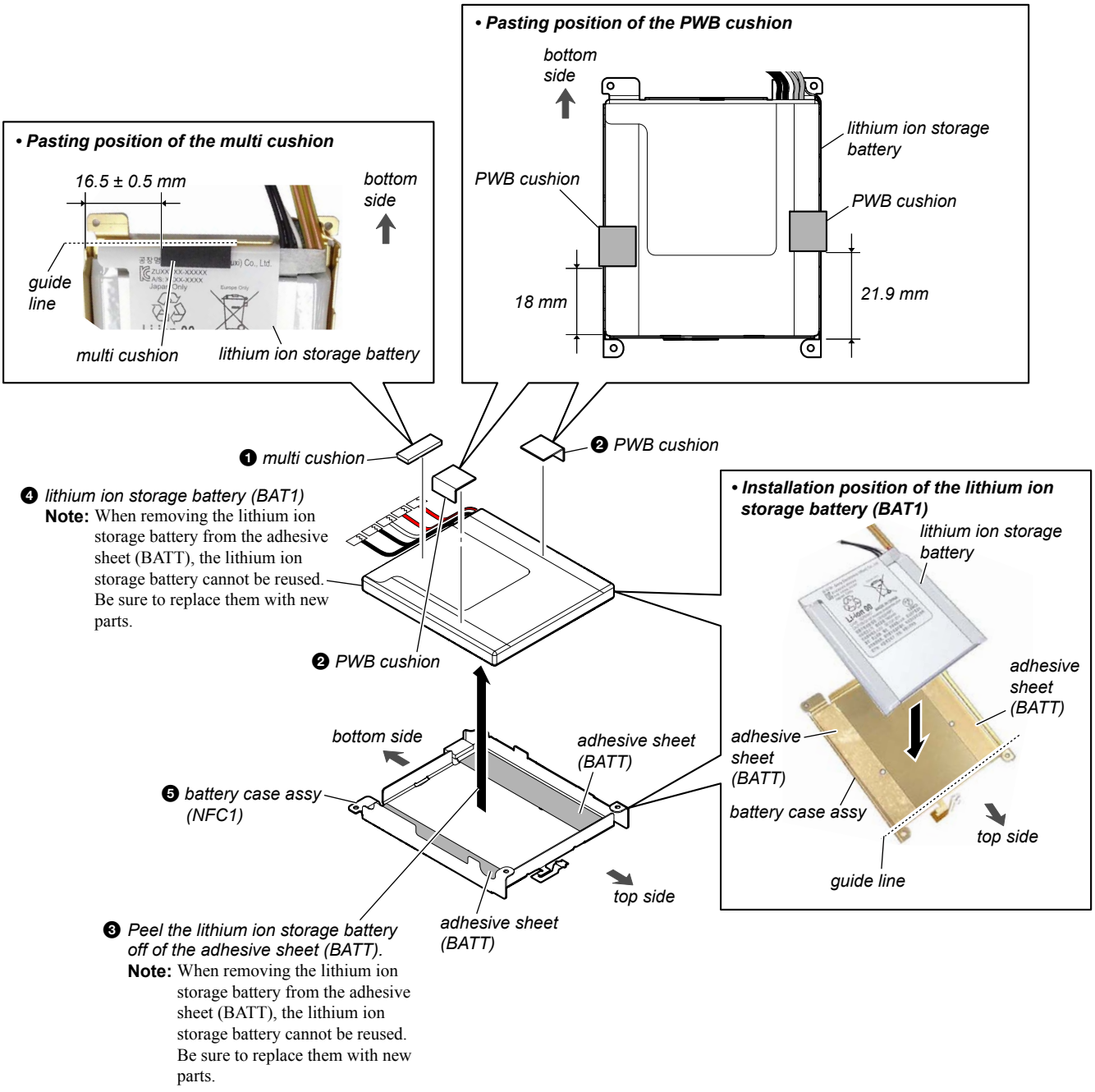


2-5. BATTERY ASSY BLOCK-2

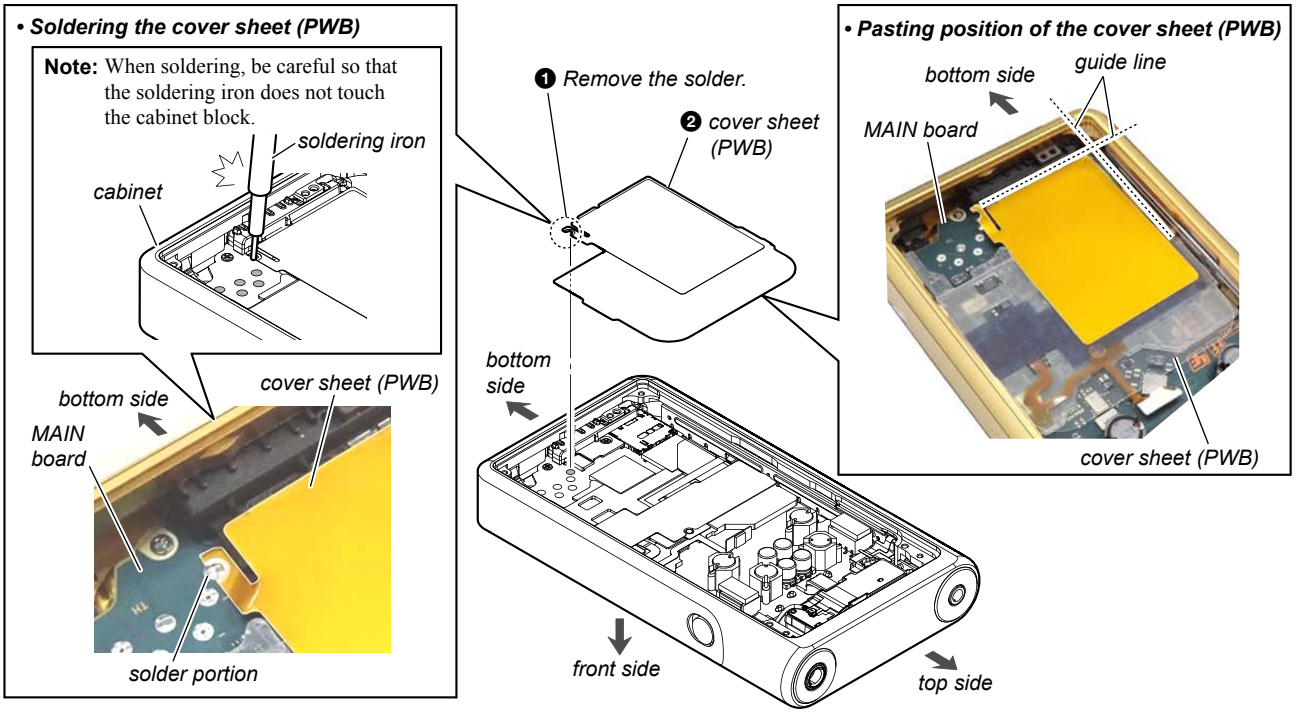




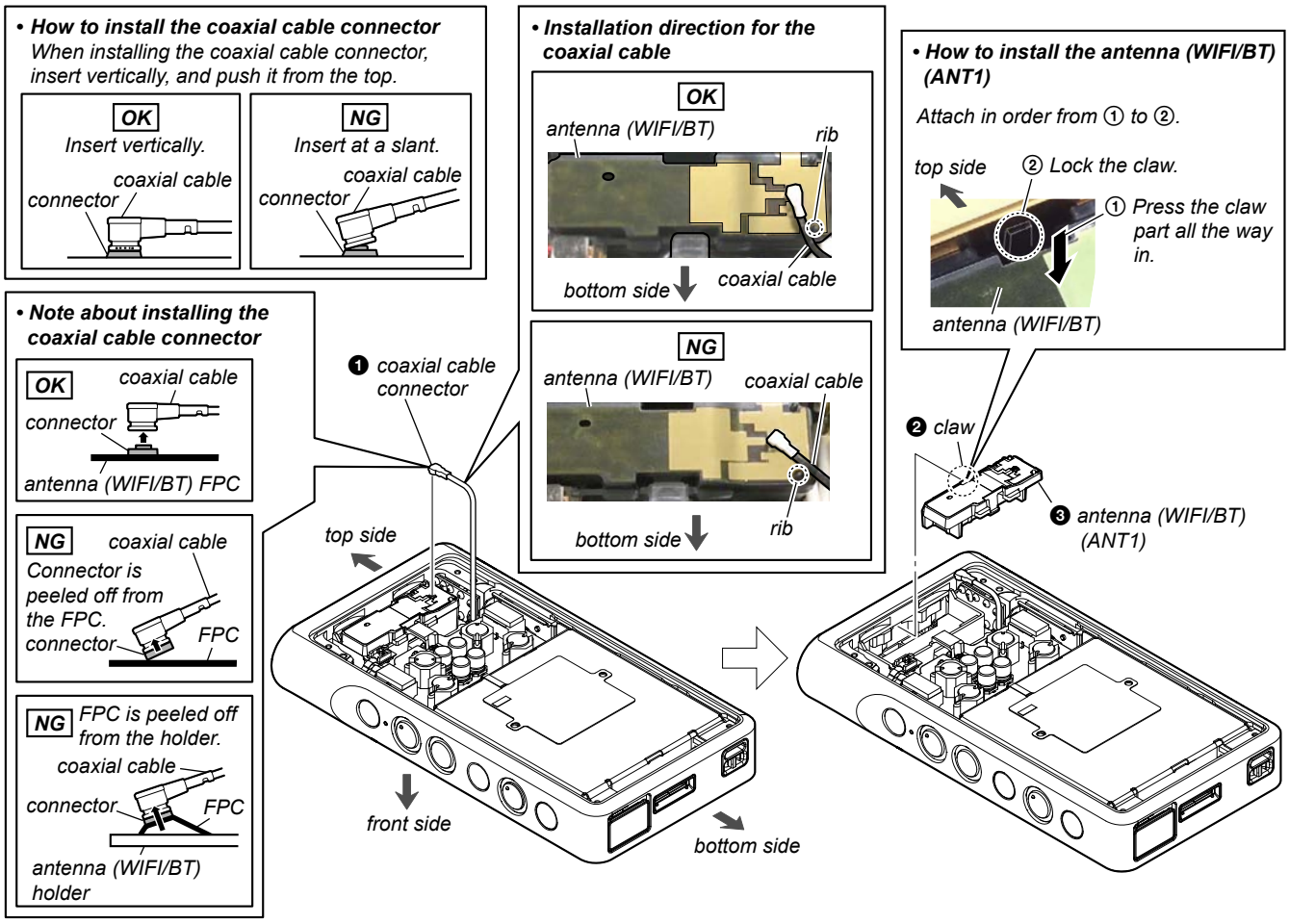
2-6. LITHIUM ION STORAGE BATTERY (BAT1), BATTERY CASE ASSY (NFC1)



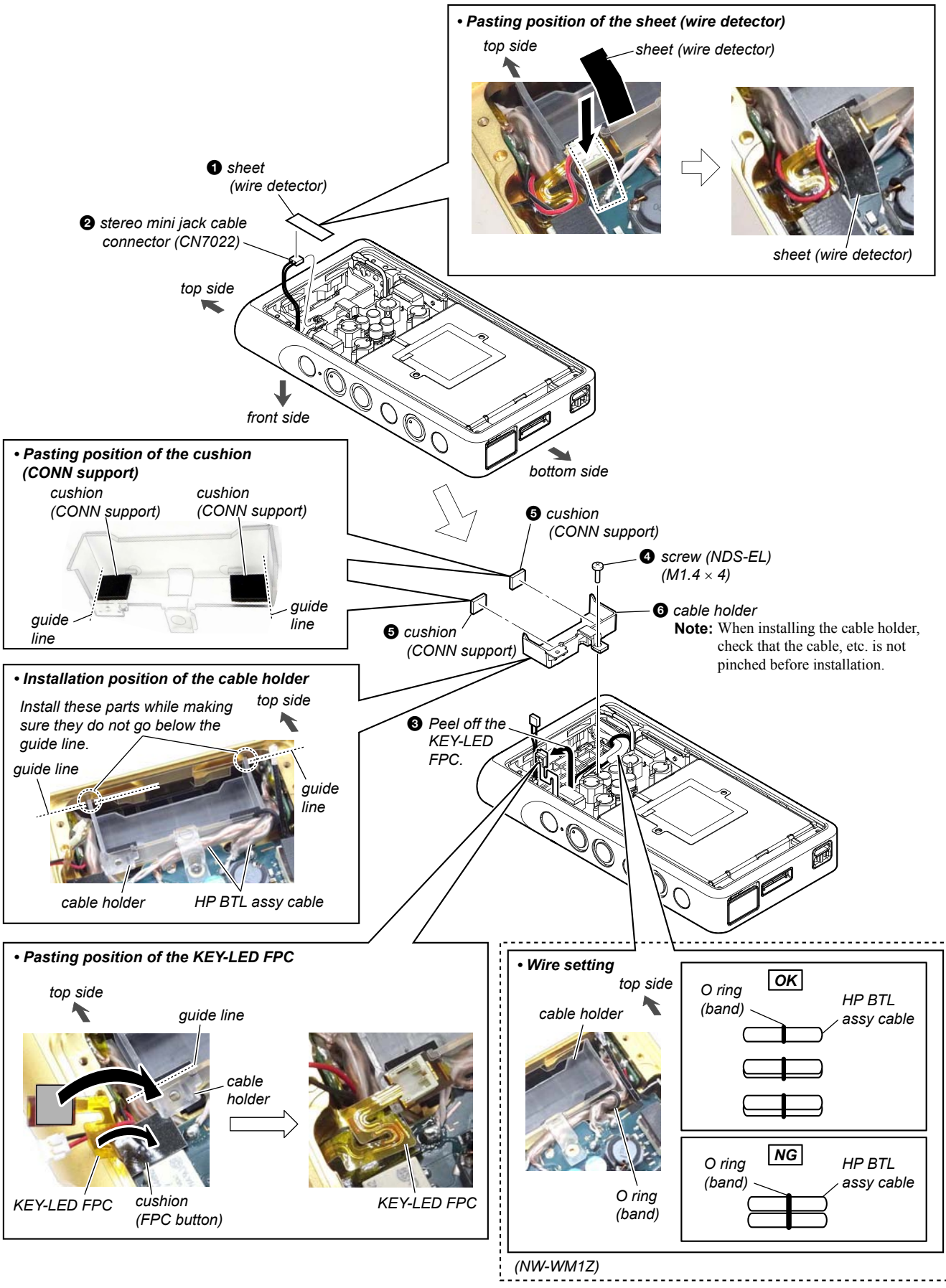
2-7. COVER SHEET (PWB)



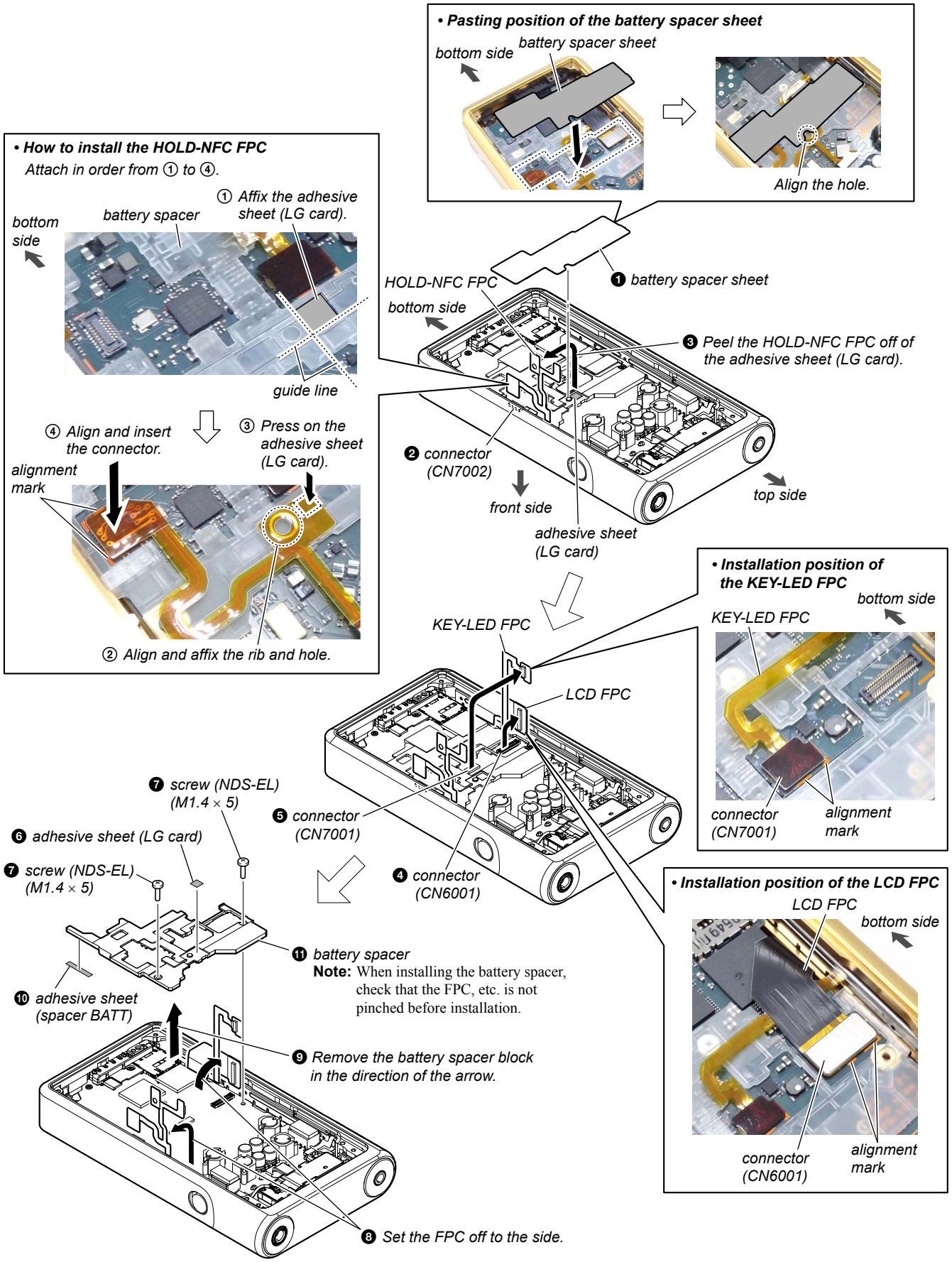
2-8. ANTENNA (WIFI/BT) (ANT1)



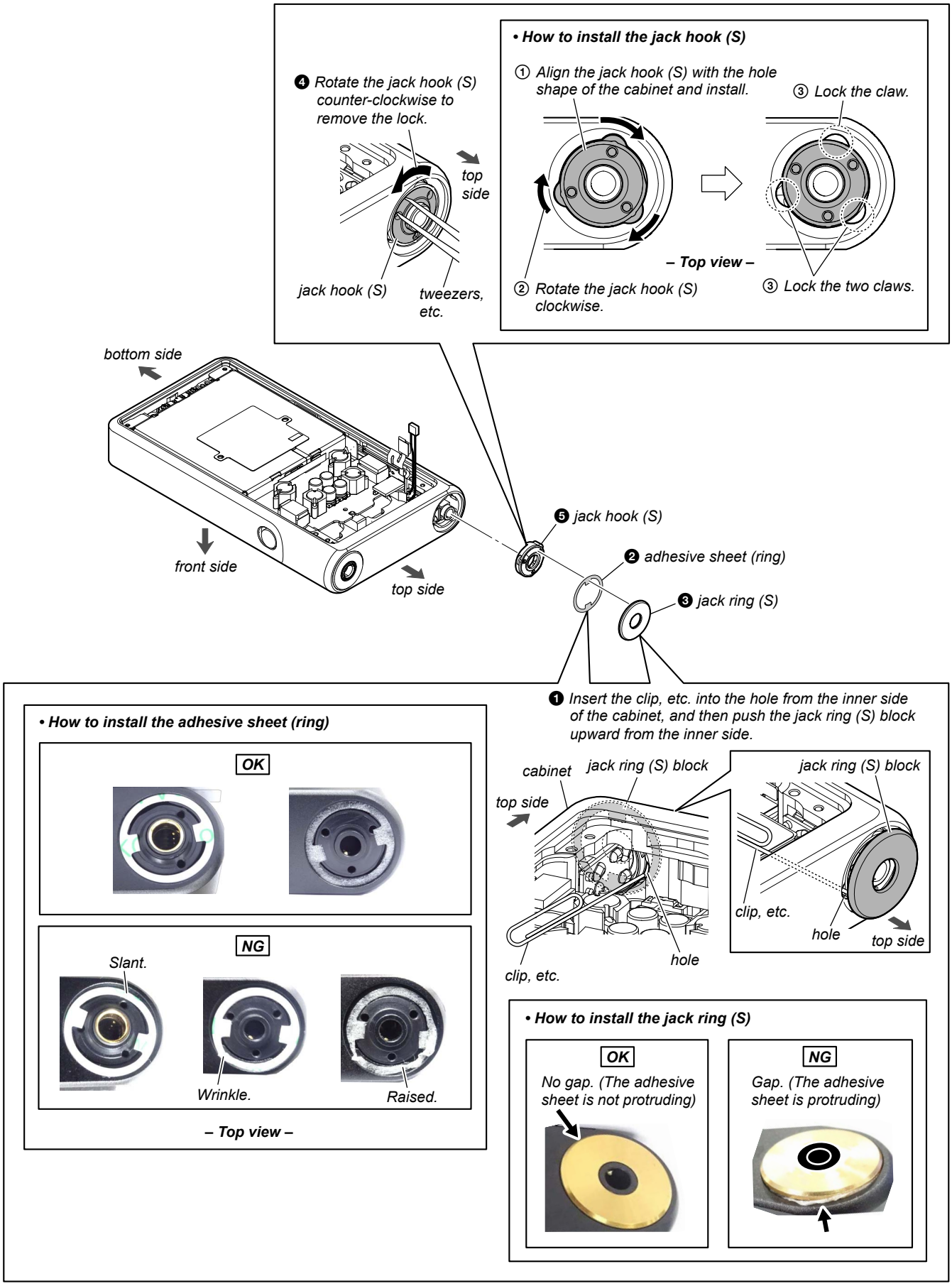
2-9. CABLE HOLDER



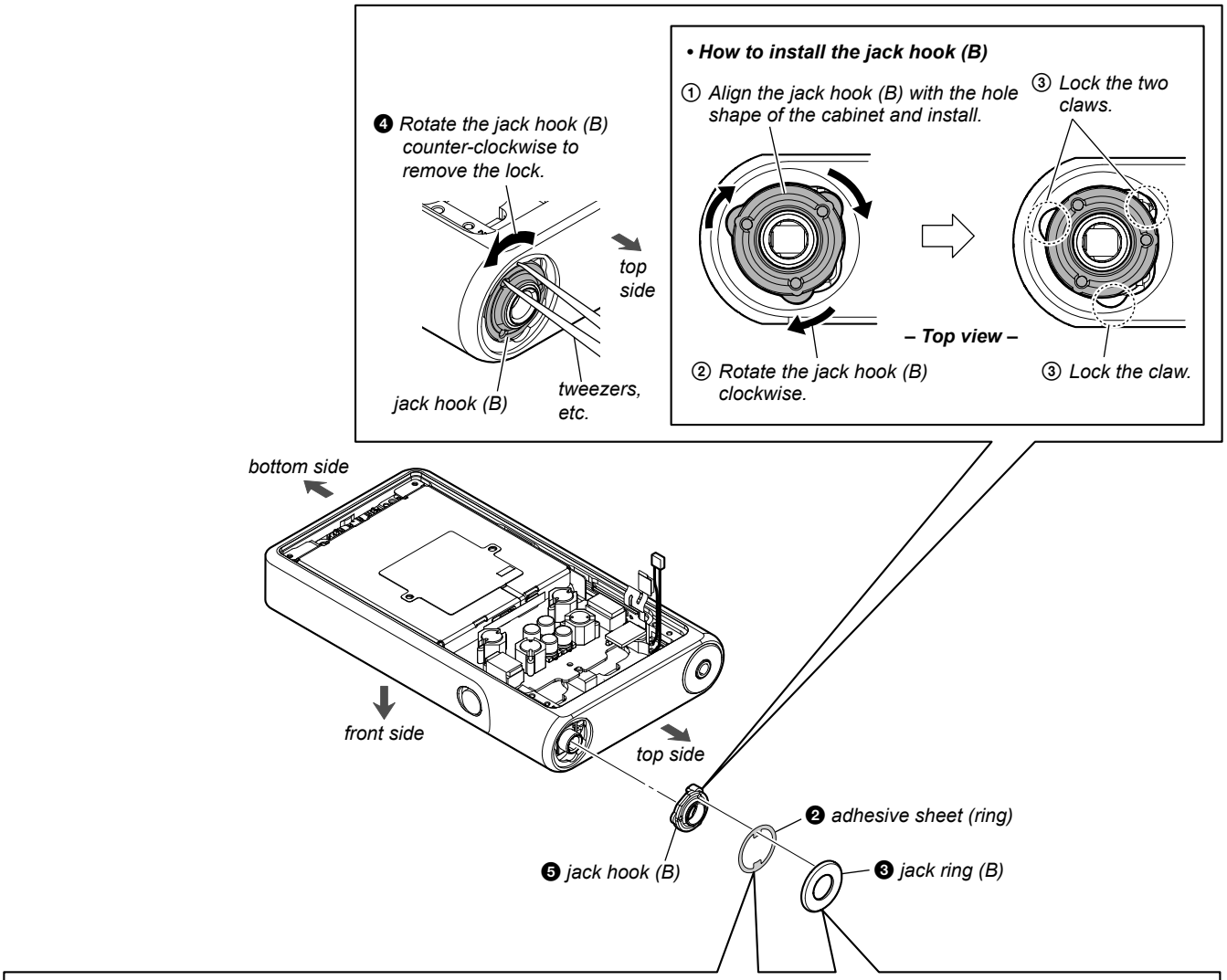
2-10. BATTERY SPACER SHEET, BATTERY SPACER

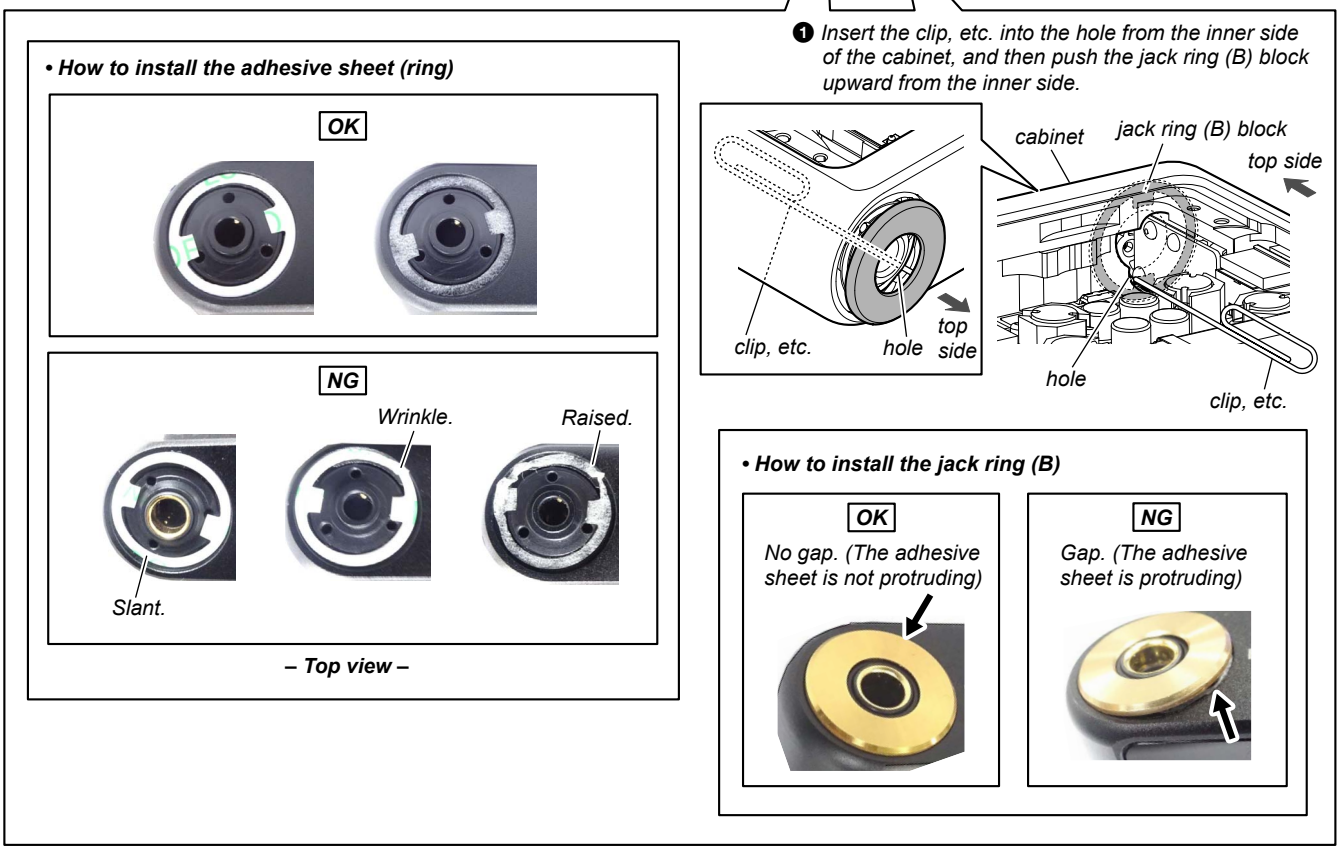


2-11. JACK RING (S), JACK HOOK (S) (STEREO MINI SIDE)



2-12. JACK RING (B), JACK HOOK (B) (BALANCED STANDARD SIDE)

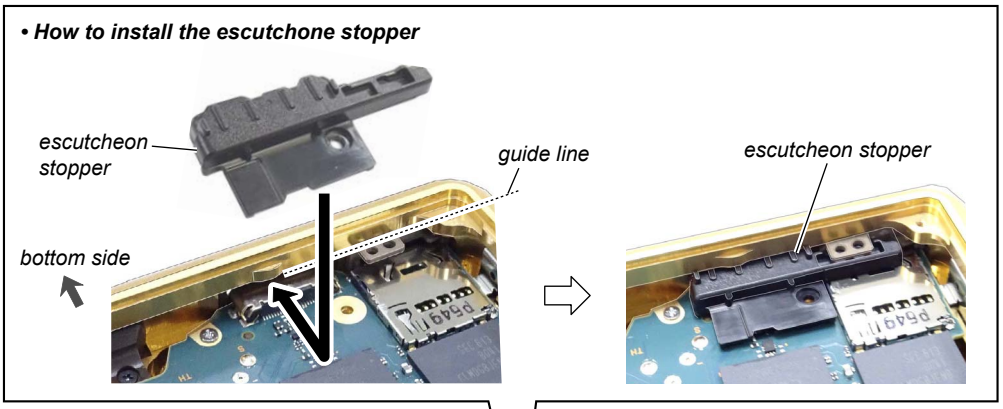


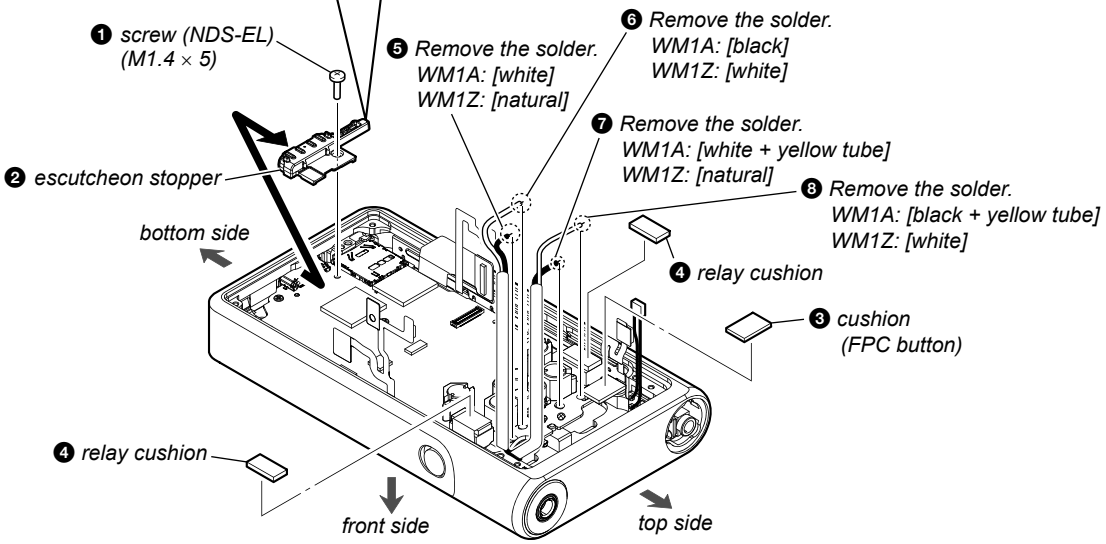


2-13. MAIN BOARD BLOCK-1

• Continued on 2-14 (page 25).

• How to install the escutchone stopper

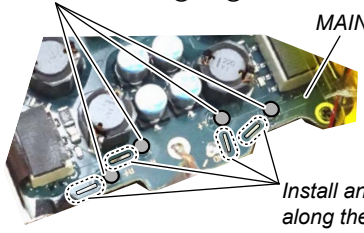




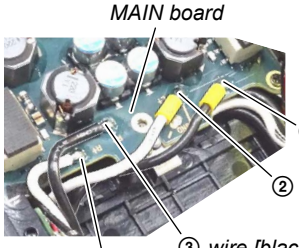
• Installing the wires on the balanced standard side

(NW-WM1A)

Solder the wires of the HP BTL assy block in order from ① to ④.

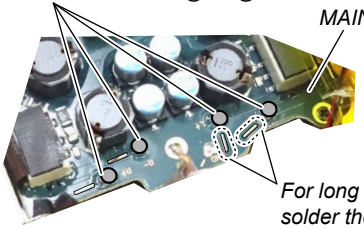


Install and solder the wires along the guidelines marked on the MAIN board.

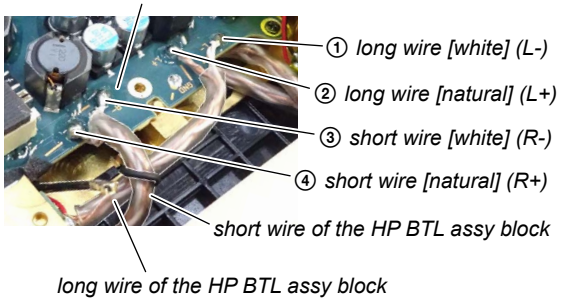


(NW-WM1Z)

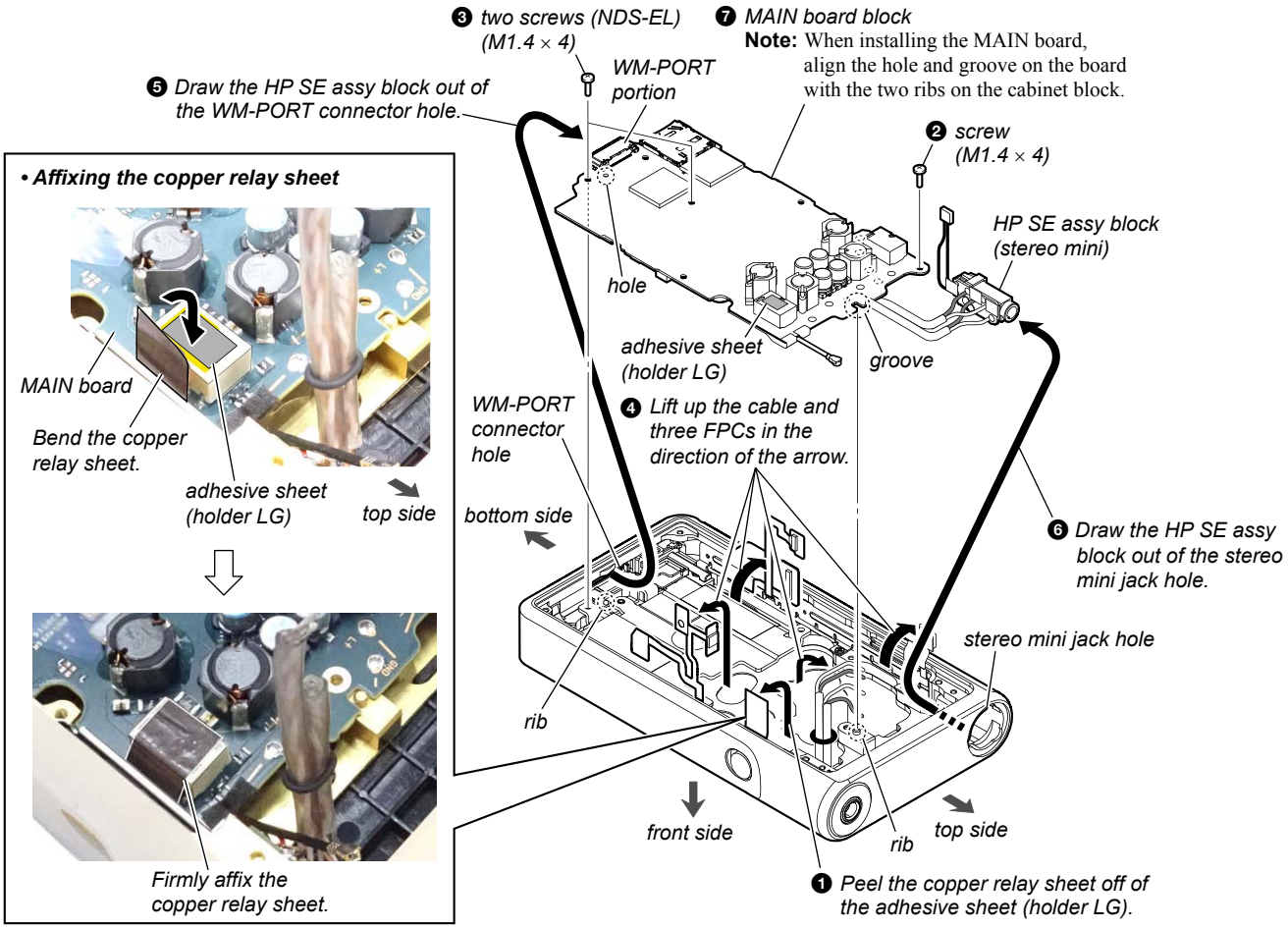
Solder the wires of the HP BTL assy block in order from ① to ④.

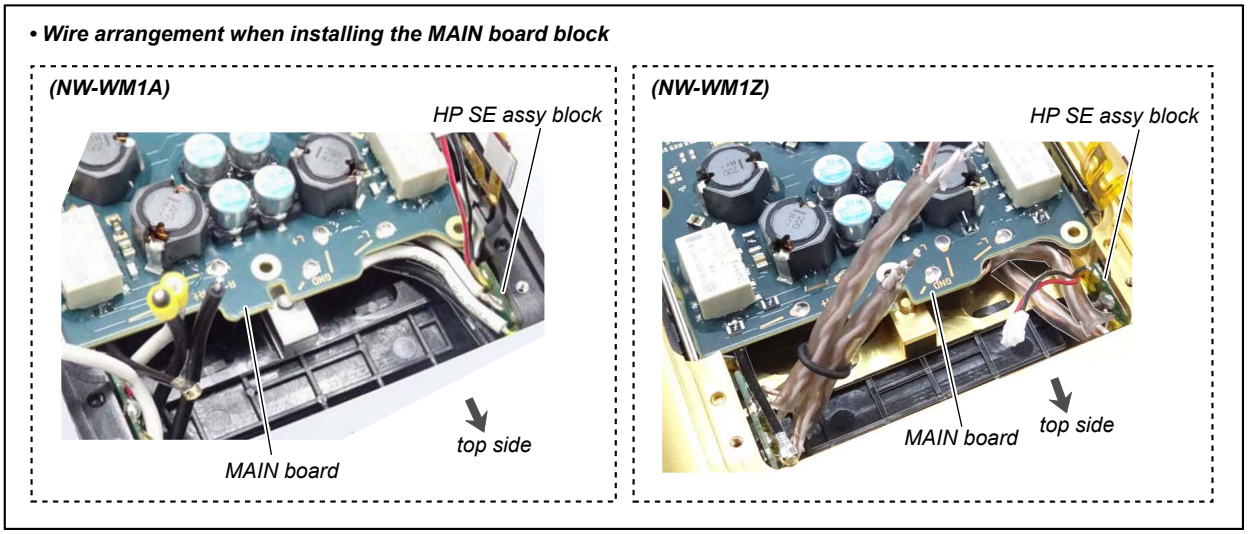


For long wires, install and solder the wires along the guidelines marked on the MAIN board.



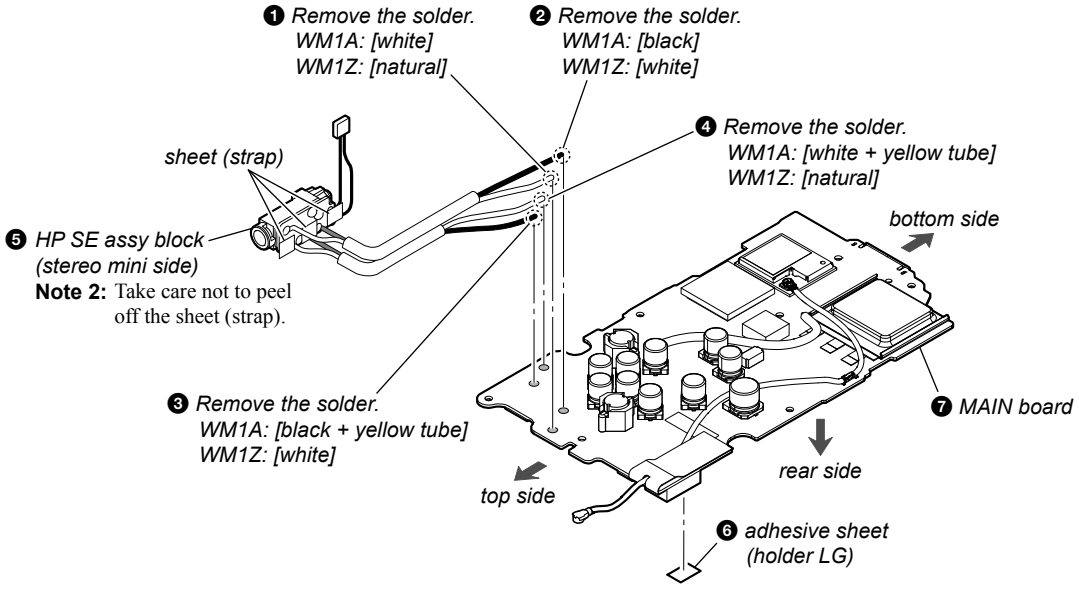
2-14. MAIN BOARD BLOCK-2



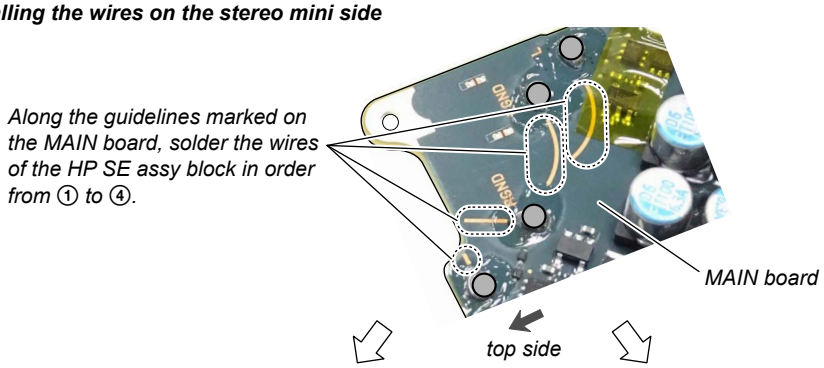


2-15. HP SE ASSY BLOCK (STEREO MINI SIDE), MAIN BOARD

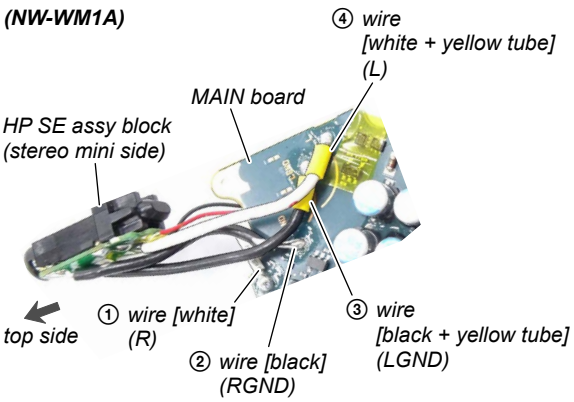
Note 1: When the MAIN board is replaced, refer to "ABOUT WORKING OF THE BOARD REPLACING" on page 5.



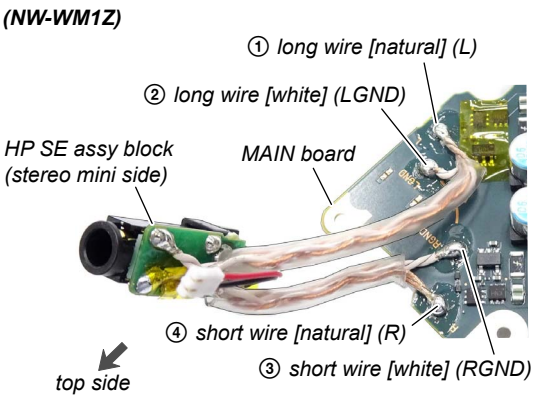
• *Installing the wires on the stereo mini side*



(NW-WM1A)

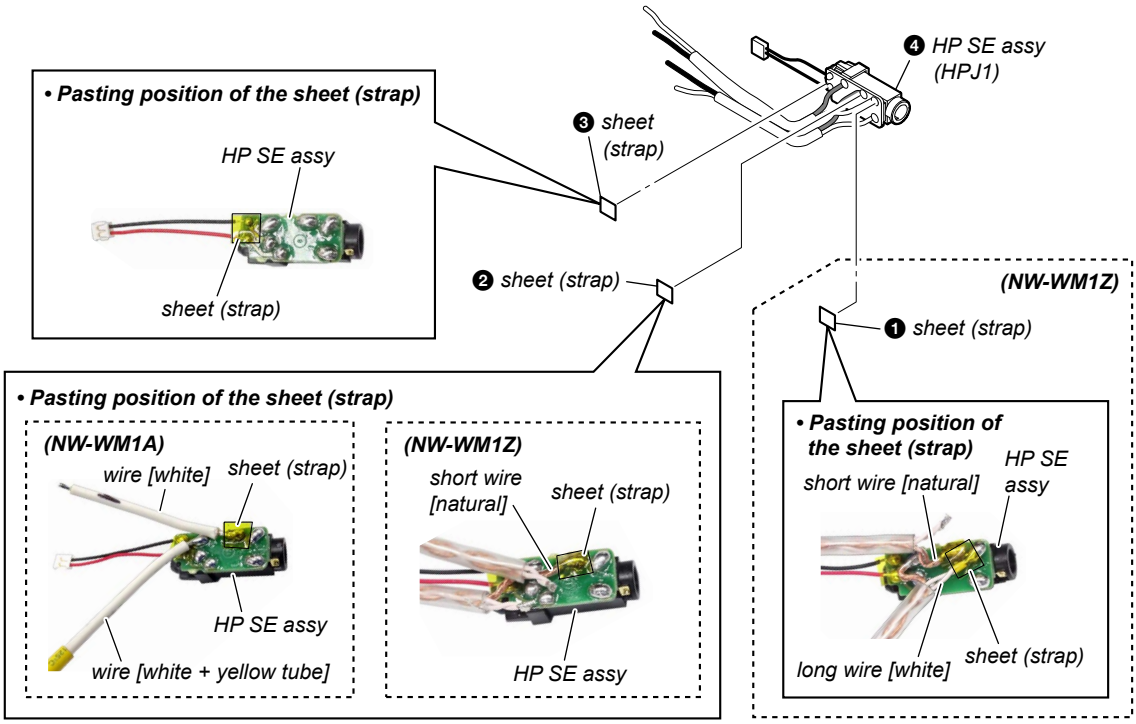


(NW-WM1Z)

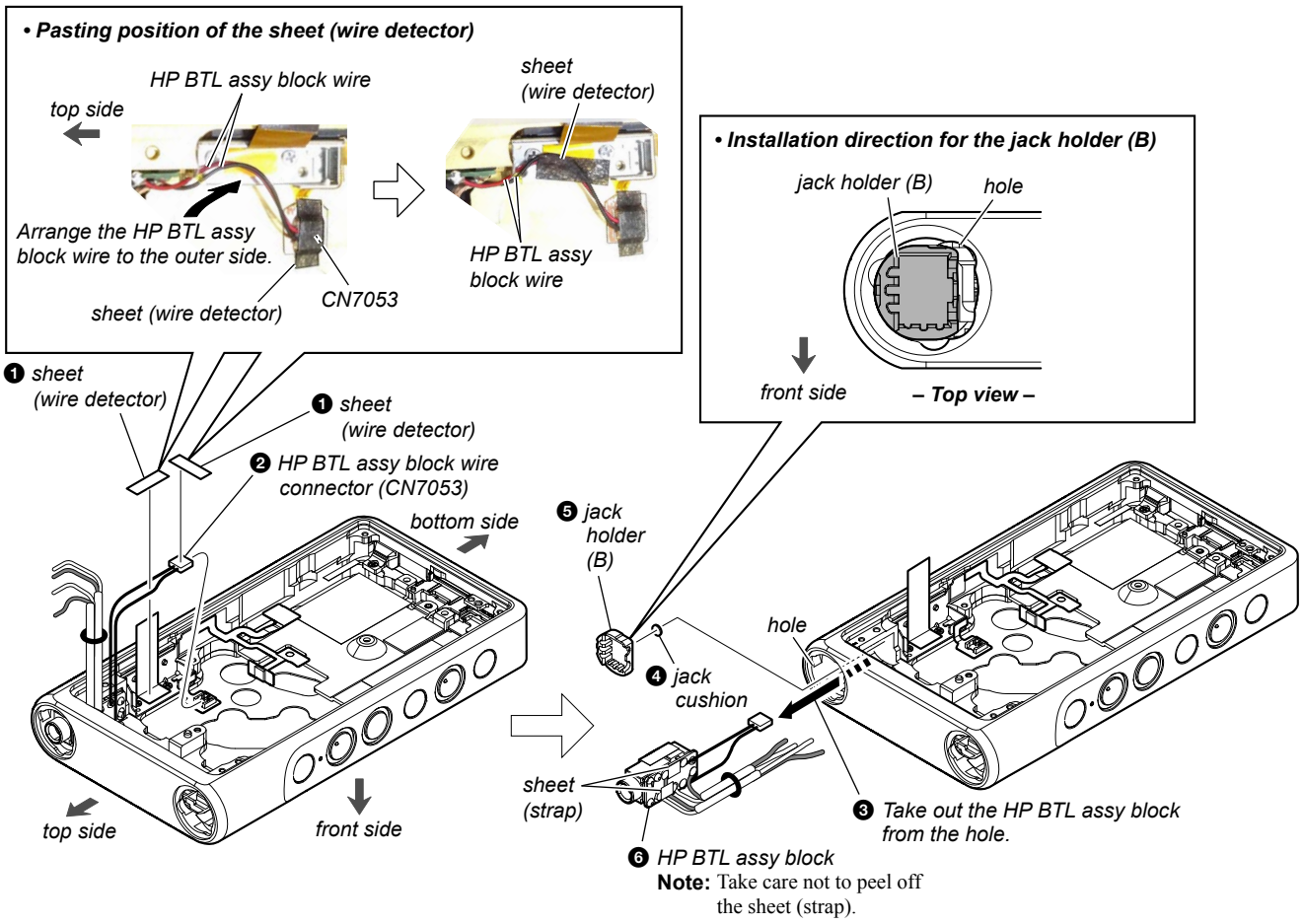


2-16. HP SE ASSY (HPJ1) (STEREO MINI SIDE)

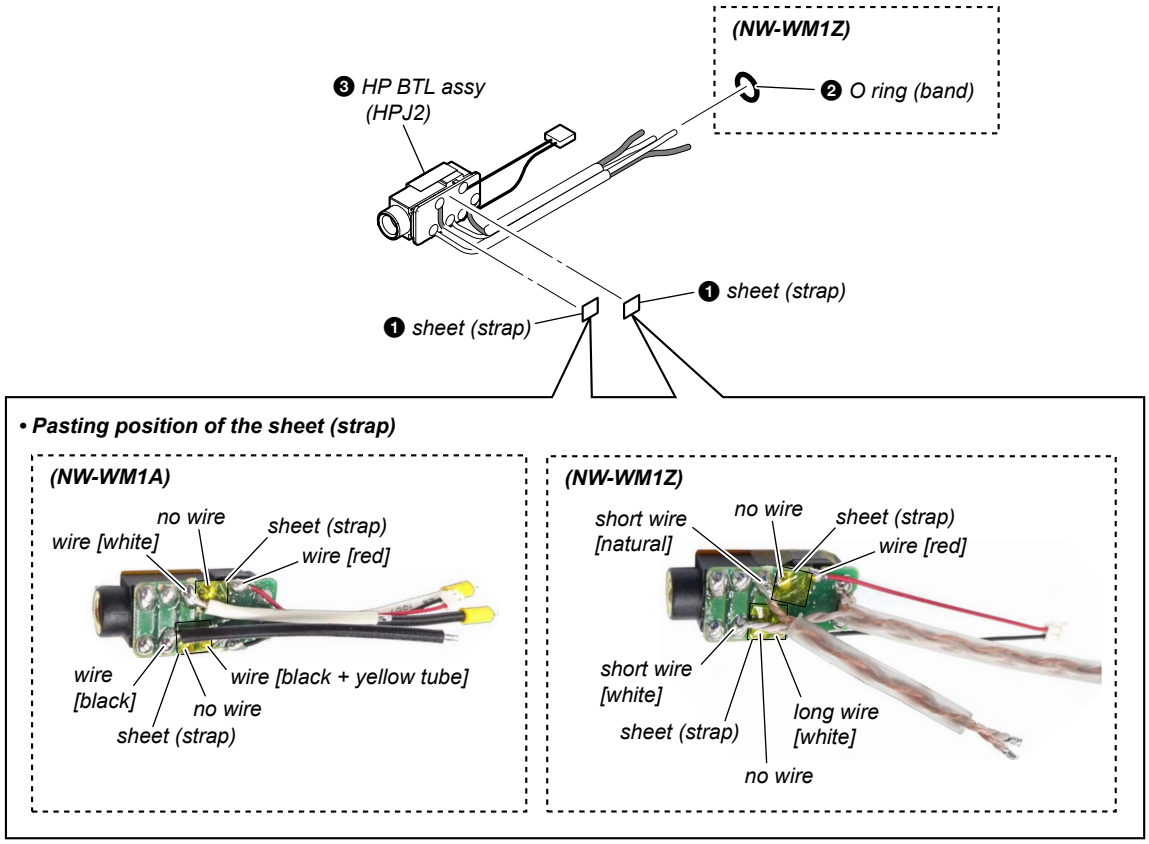
Note: Some wire connections have been removed from the picture in the figure to make the position of the sheet (strap) easier to recognize.



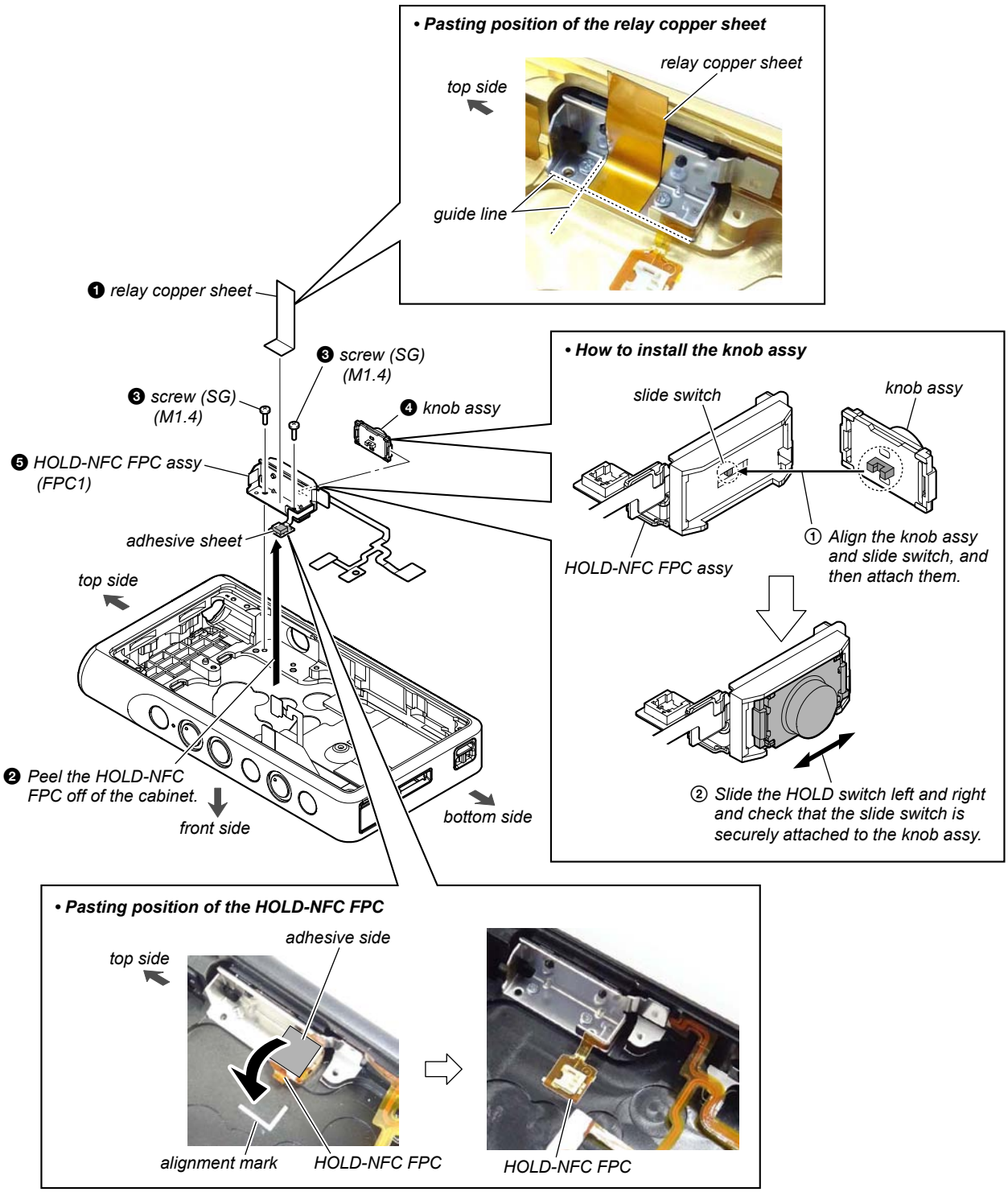
2-17. HP BTL ASSY BLOCK (BALANCED STANDARD SIDE)



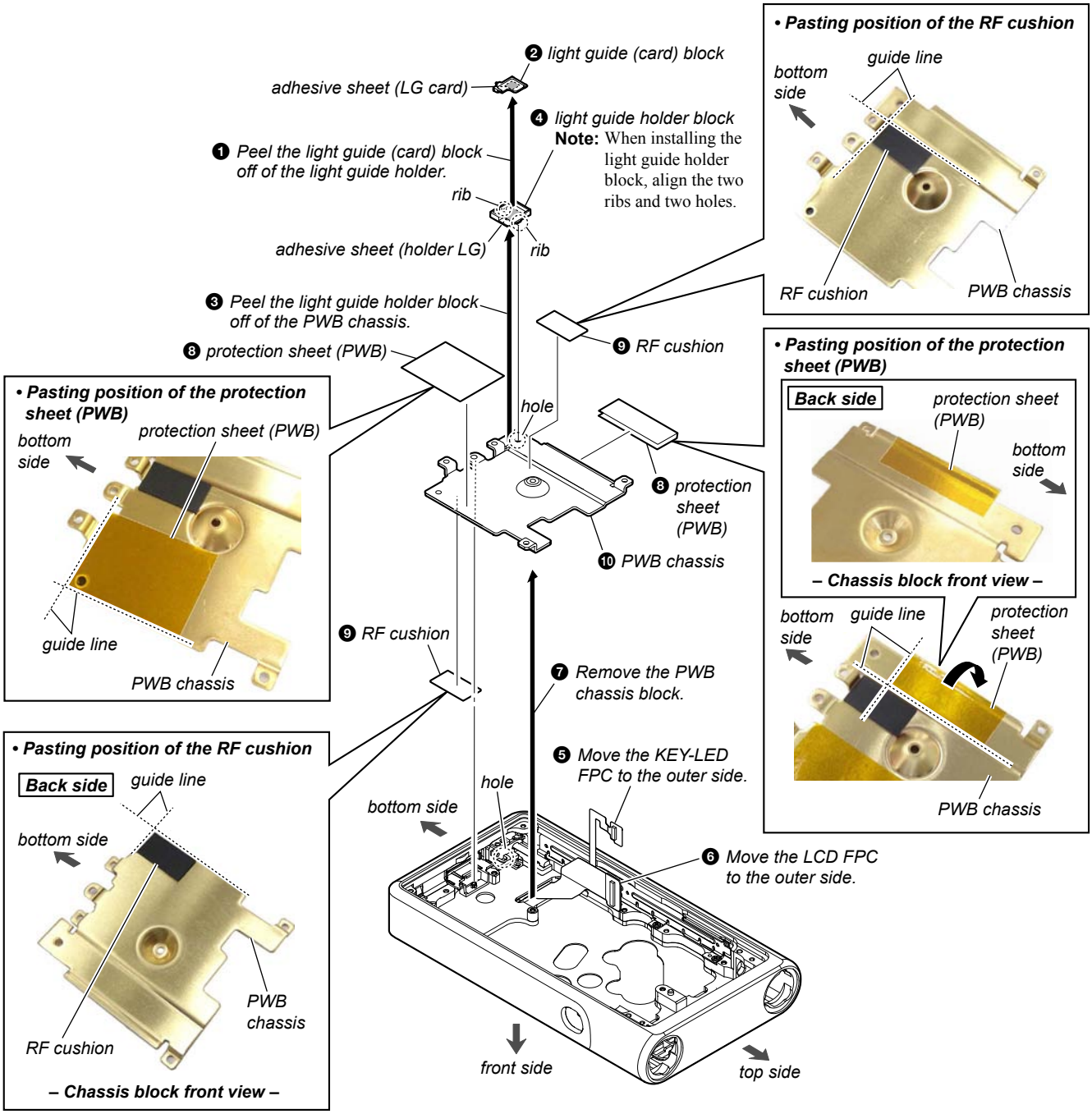
2-18. HP BTL ASSY (HPJ2) (BALANCED STANDARD SIDE)



2-19. HOLD-NFC FPC ASSY (FPC1)

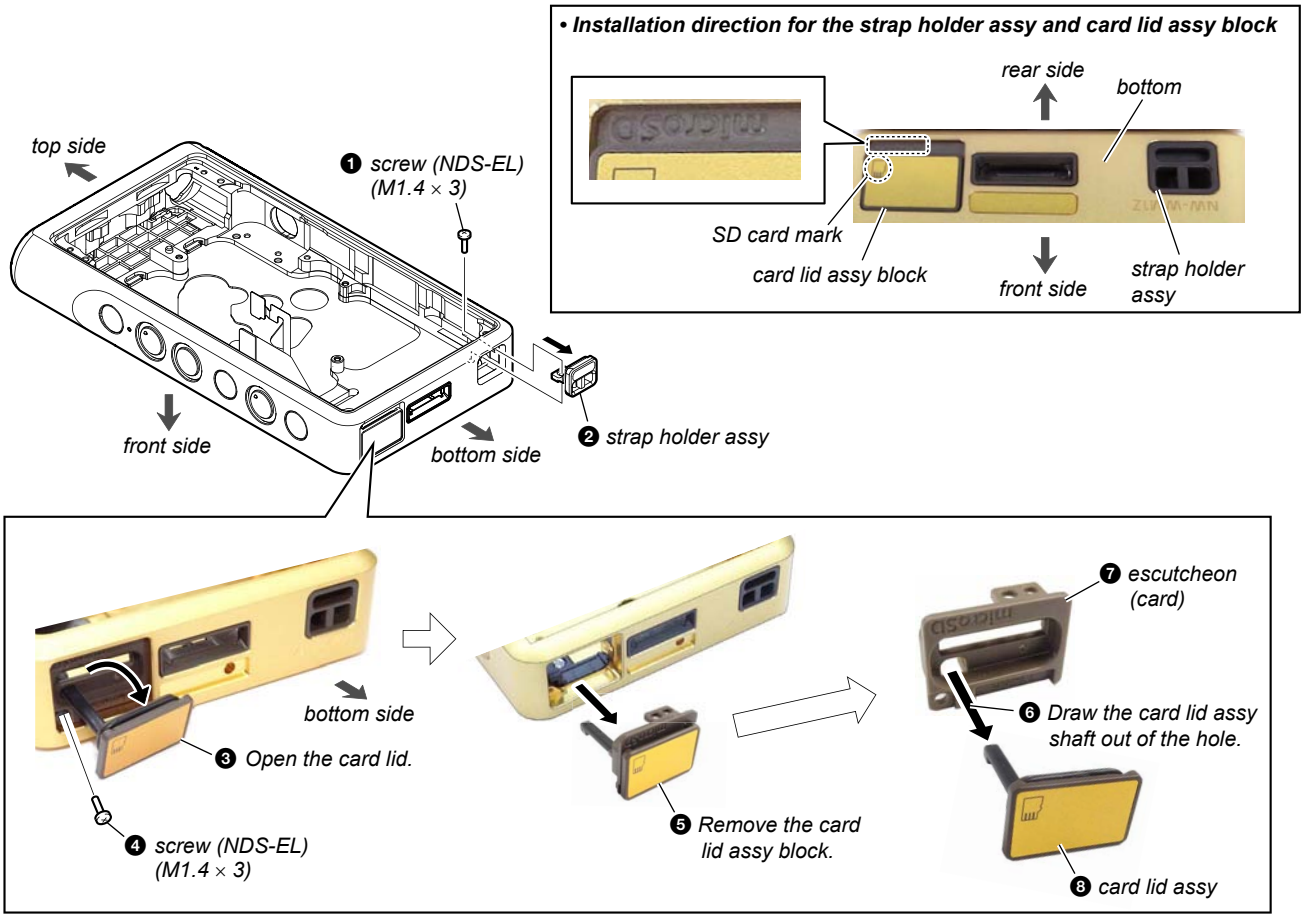


2-20. PWB CHASSIS

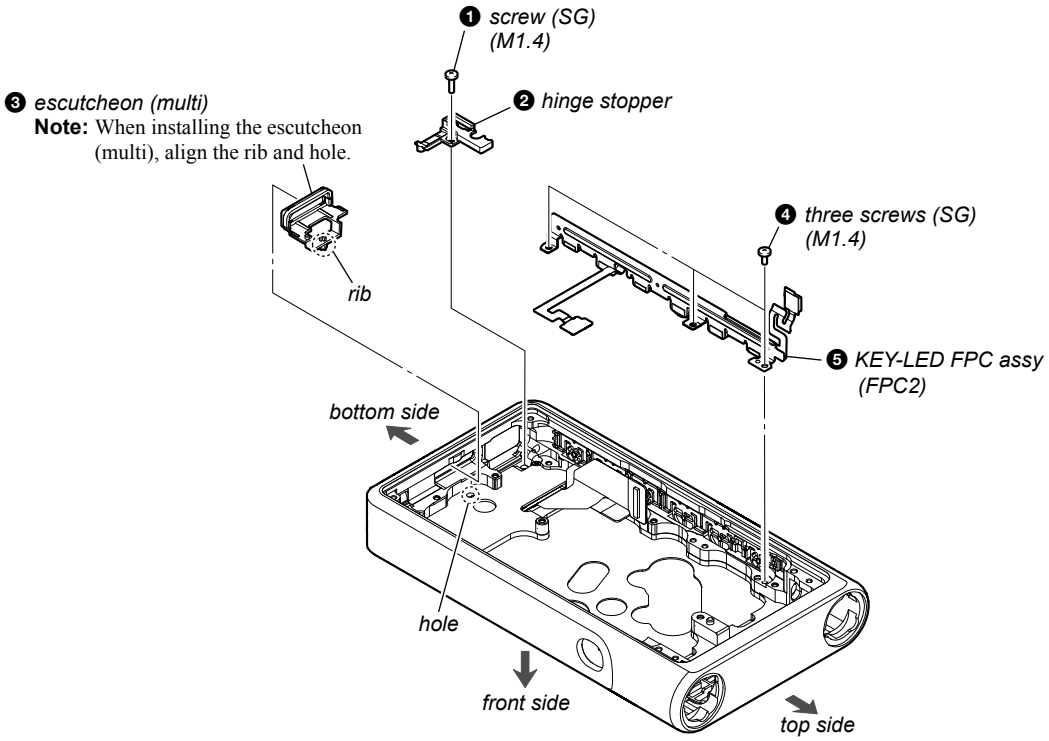


2-21. STRAP HOLDER ASSY, CARD LID ASSY

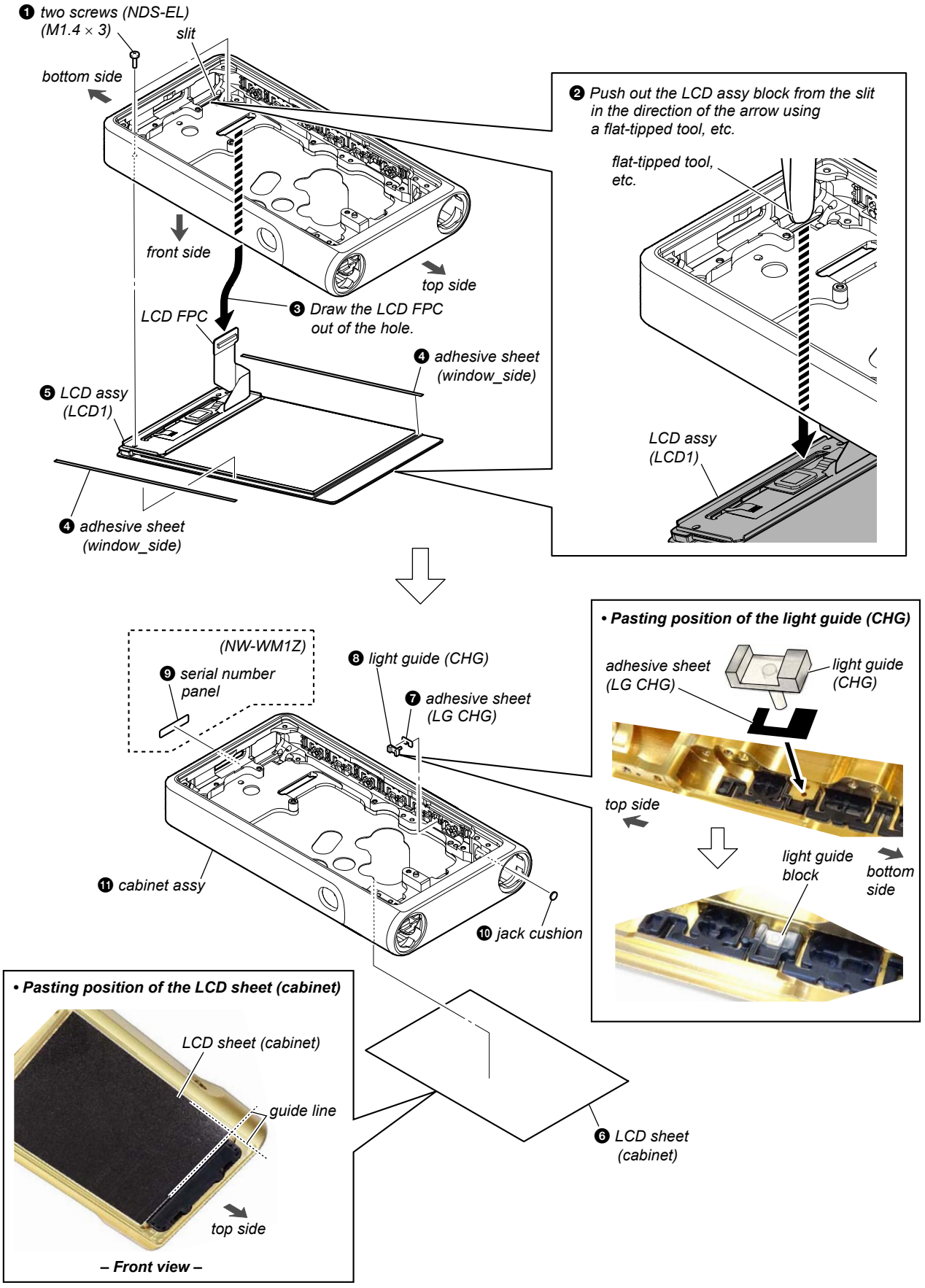
Note: Start removing from either the strap holder assy or card lid assy.



2-22. HINGE STOPPER, ESCUTCHEON (MULTI), KEY-LED FPC ASSY (FPC2)



2-23. LCD ASSY (LCD1), CABINET ASSY



SECTION 3
TEST MODE

Note: Information on the test mode must correspond in enough security. When the leakage has been revealed by any chance, the source of information is specified.

1. ADVANCE PREPARATION

Before working, prepare the following tools etc.

- Tool for test mode:
  For NW-WM1A : NWWM1A_TestMode_V1.00
  For NW-WM1Z : NWWM1Z_TestMode_V1.00
- USB cable (WM-PORT)
- PC (personal computer (OS: Windows 7 or later))

Note 1: Check the method of obtaining the test mode tool to the each service headquarters.
Note 2: test mode tool, using by OS of Windows 7 or later.
Note 3: If you want to run the test mode tool, please close the SonicStage/ x-Application/Media Go etc. applications.

2. SETTING THE TEST MODE

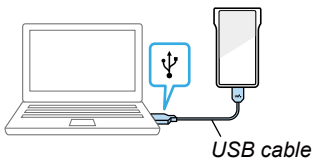
Setting method:

The setting method will all operate on the PC (personal computer).

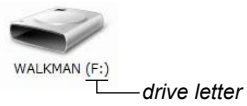
1. Unzip the advance prepared test mode tool.
2. Copy the unzip folder to root directory of C drive.

Note: The folder can be saved any drive as long as the folder path is with English (one byte character).
Described with the example that "the folders were saved under root directory of C drive" on this service manual.

3. Connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).
   (The power supply of the WALKMAN is automatically turned on)

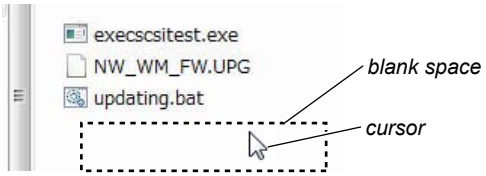


4. Check how the WALKMAN is recognized by MSC connection, and the check of the drive letter is necessary.
   (at this example, it is "F:")



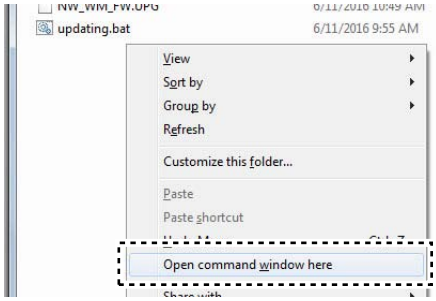
5. Open the folder of tool for the test mode.
6. In the non-selected state for files in the folder, and put a cursor to blank space in the folder.

Folder window of tool for the test mode

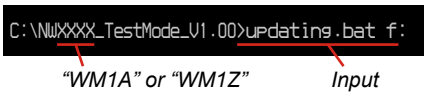


7. The right-click while pressing the Shift key in the state of step 6.

8. Select the "Open command window here" from the displayed menu, and launch the command prompt application software.

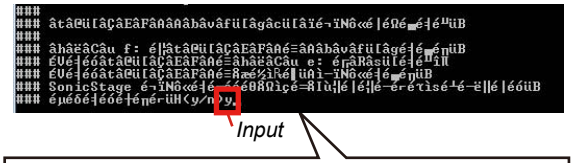


9. Input the following command and press the Enter key.
   "updating.bat f:"
   ("f:" is drive letter of checked at step 4)



10. Check that the following figure message has been displayed, and input "y", and press the Enter key.

(Using 2-byte characters, it may not be displayed correctly)

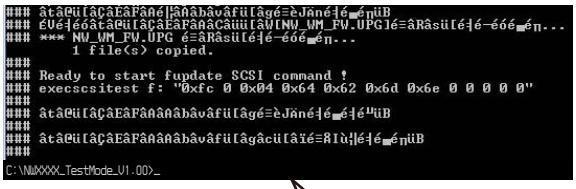


The firmware update tool has booted.

The firmware of drive f: will be updated.
After the new firmware is copied to drive f:
the new firmware will be loaded and the unit will reboot.
Close SonicStage before starting this program.
Run this program? (y/n)

11. The following figure message is displayed, and the test mode is performed on the WALKMAN main unit.

(Using 2-byte characters, it may not be displayed correctly)



Firmware update will start.
Copying the new firmware image [NW_WM_FW.UPG]...
**** Copying NW_WM_FW.UPG...*
1 file(s) copied.

Ready to start fupdate SCSI command !
execscsitest f: "0xfc 0 0x04 0x64 0x62 0x6d 0x6e 0 0 0 0 0"

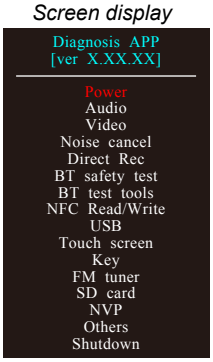
Firmware update has started.

The firmware update tool will close.

– Continued on next page –

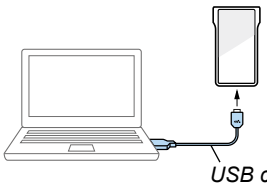
12. The WALKMAN main unit reboots and the test mode menu is displayed on the WALKMAN main unit.

Screen display



13. Input “exit” and press the Enter key to close the command prompt application software.

14. Disconnect the WALKMAN main unit from PC (personal computer).

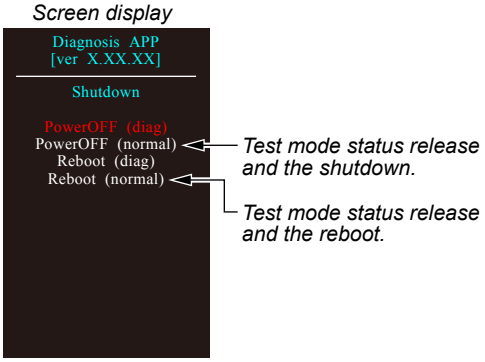


3. RELEASING THE TEST MODE

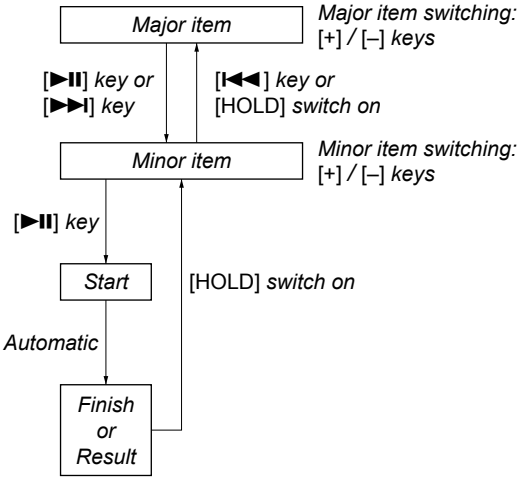
Releasing method:

To release the test mode, please performed with refer to “5-16-2. Power off (test mode release)” or “5-16-4. Reboot (test mode release)”.

Screen display



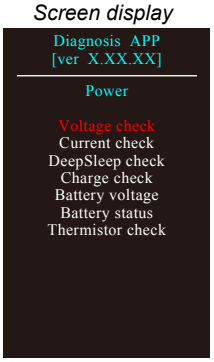
4. CONFIGURATION OF THE TEST MODE



5. OPERATION OF THE TEST MODE

5-1. Power (Power)

Screen display



5-1-1. Power supply voltage check (Voltage check)

It can be check the power supply voltage in the state where all power supply lines are starting.

Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Power”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Voltage check”.
4. Press the [▶II] key, power supply voltage check screen is displayed.

Screen display

5. Press the [▶II] key, all power supply lines are started.
6. In step 5 state, the power supply voltage of each power supply line can be confirmed by measuring the voltage.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

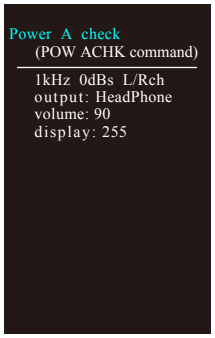
5-1-2. Consumption current (audio playback) check (Current check)

It can be check the consumption current (audio playback) in the state where audio signal is outputted of the "Sampling rate: 44.1 kHz/Frequency: 1 kHz (L/R-ch)/Bit rate: 16 bit".

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Power", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Current check".
4. Press the [▶II] key, consumption current check screen is displayed.

Screen display



Key input settings under this mode of operation:

[+]/[–] : Volume up/down
[▶▶I] : Backlight switching (on/off)
[I◀◀] : Output switching (HeadPhone/BTL/LineOut)
[▶II] : Audio signal output (10 seconds)

5. In step 4 state, check the audio playback consumption current.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

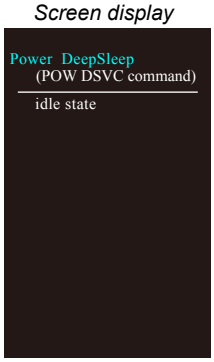
5-1-3. Standby current check (DeepSleep check)

It can be check the standby current.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Power", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "DeepSleep check".
4. Press the [u] key, enter the state of the deep sleep.
   (Screen display is turned off)
5. In step 4 state, check the measuring the consumption current in standby.
6. Sleep is released by pressing any key (button) of WALKMAN main unit.

Screen display



7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

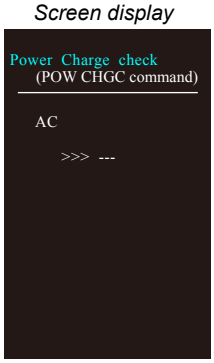
5-1-4. Charge current check (Charge check)

It can be check the charge current.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Power", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Charge check".
4. Press the [▶II] key, charge setting screen is displayed.

Screen display



5. In step 4 state, each time the [I◀◀]/[▶▶I] key is pressed, the charge state will change in order of "AC"⟷"0mA"⟷"500mA", and will reflected the settings that were changed by pressing the [▶II] key.

AC : The charging current check from WM-PORT pin 20 (DC IN).
500mA : The charging current check from WM-PORT pin 11 (VBUS). 500 mA or less of charging current.
0mA : The charging current check from WM-PORT pin 11 (VBUS). 0 mA of charging current.

6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

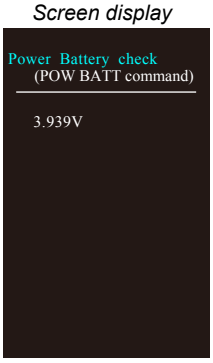
5-1-5. Battery voltage detection check (Battery voltage)

It can be check the battery voltage.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Power", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Battery voltage".
4. Press the [▶II] key, the battery voltage is displayed.
   (Displayed value in the following figure is example)

Screen display



5. In step 4 state, each time the [▶II] key is pressed, the battery voltage value is updated.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-1-6. Battery insertion and removal check (Battery status)

Note: Not used for the servicing.

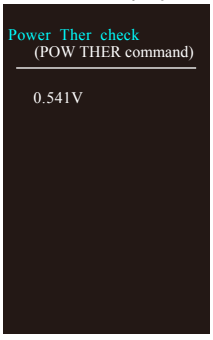
5-1-7. Thermistor voltage check (Thermistor check)

It can be check the thermistor voltage.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Power", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Thermistor voltage".
4. Press the [▶II] key, the battery voltage is displayed.
   (Displayed value in the following figure is example)

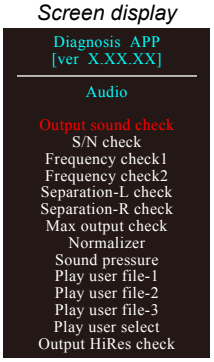
Screen display



5. In step 4 state, each time the [▶II] key is pressed, the thermistor voltage value is updated.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-2. Audio (Audio)

Screen display



Common key input setting of the audio item:

[+]/[–] : Selection of "play time", "output", "volume"

When select a "play time"

[I◀◀]/[▶▶I] : Play time up/down (0 to 60)

When select a "output"

[I◀◀]/[▶▶I] : Output switching
(HeadPhone/LineOut/BTL)

When select a "volume"

[I◀◀]/[▶▶I] : Volume up/down (0 to 120)

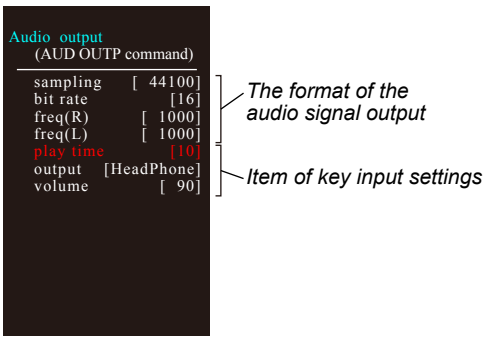
5-2-1. Output sound check (Output sound check)

It can be output the "Sampling rate: 44.1 kHz/Frequency: 1 kHz (L/R-ch)/Bit rate: 16 bit" audio signal for the output sound check.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Audio", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Output sound check".
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

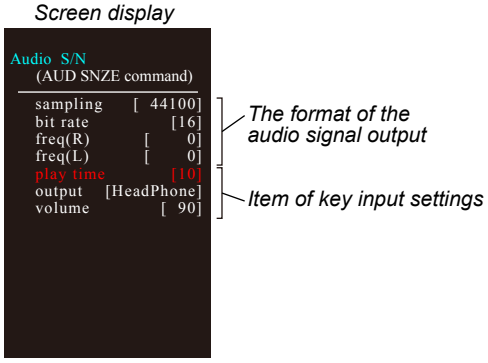
5-2-2. S/N check (S/N check)

It can be output the "Sampling rate: 44.1 kHz/Frequency: 0 kHz (L/R-ch)/Bit rate: 16 bit" audio signal for the S/N check.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Audio", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "S/N check".
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

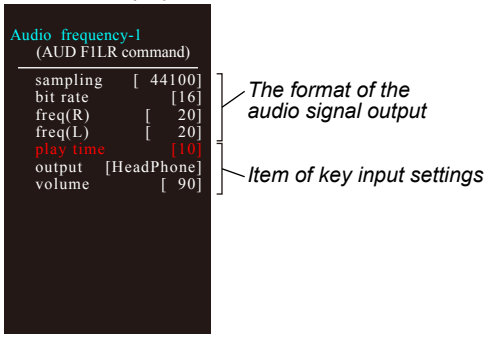
5-2-3. Frequency response check 1 (Frequency check1)

It can be output the "Sampling rate: 44.1 kHz/Frequency: 20 Hz (L/R-ch)/Bit rate: 16 bit" audio signal for the frequency response check.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Audio", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Frequency check1".
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

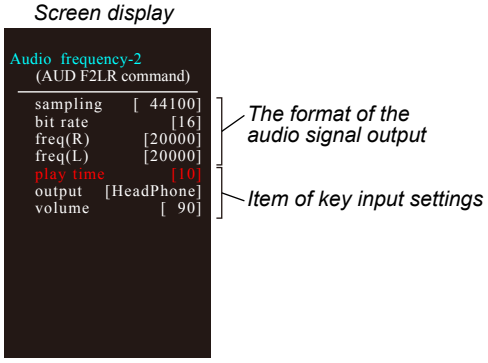
5-2-4. Frequency response check 2 (Frequency check2)

It can be output the "Sampling rate: 44.1 kHz/Frequency: 20 kHz (L/R-ch)/Bit rate: 16 bit" audio signal for the frequency response check.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Audio", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Frequency check2".
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

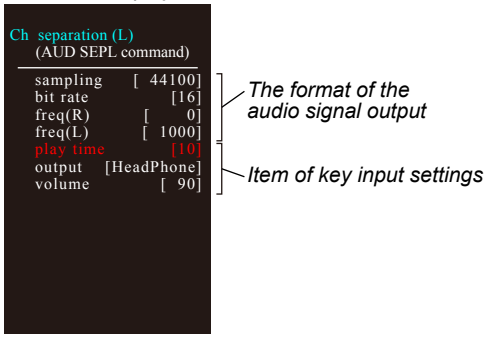
5-2-5. CH separation (L-ch) check (Separation-L check)

It can be output the "Sampling rate: 44.1 kHz/Frequency: 1 kHz (L-ch)/Bit rate: 16 bit" audio signal for the separation (L-ch) check.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Audio", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Separation-L check".
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

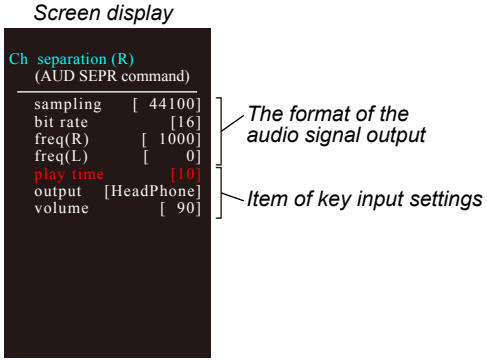
5-2-6. CH separation (R-ch) check (Separation-R check)

It can be output the “Sampling rate: 44.1 kHz/Frequency: 1 kHz (R-ch)/Bit rate: 16 bit” audio signal for the separation (R-ch) check.

Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Audio”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Separation-R check”.
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

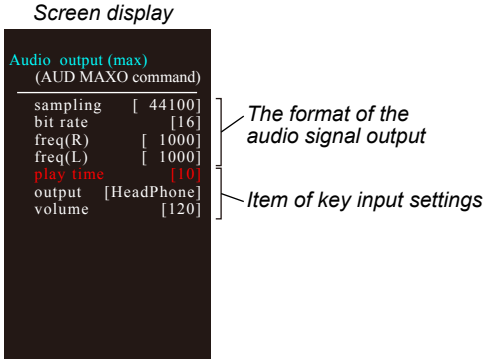
5-2-7. Maximum output check (Max output check)

It can be output the “Sampling rate: 44.1 kHz/Frequency: 1 kHz (L/R-ch)/Bit rate: 16 bit/Volume: 120” audio signal for the maximum output check.

Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Audio”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Max output check”.
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.

Note: This test item can not change the volume. It has been fixed at the maximum value (120).

6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

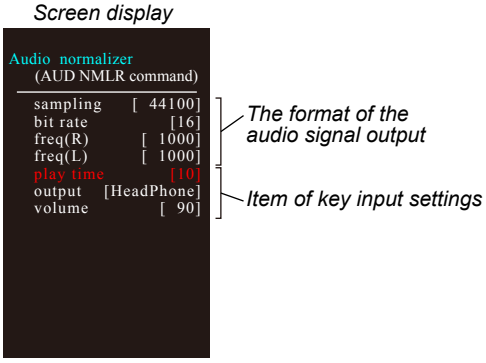
5-2-8. Normalizer check (Normalizer)

It can be output the “Sampling rate: 44.1 kHz/Frequency: 1 kHz (L/R-ch)/Bit rate: 16 bit” audio signal for the normalizer check.

Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Audio”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Normalizer”.
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

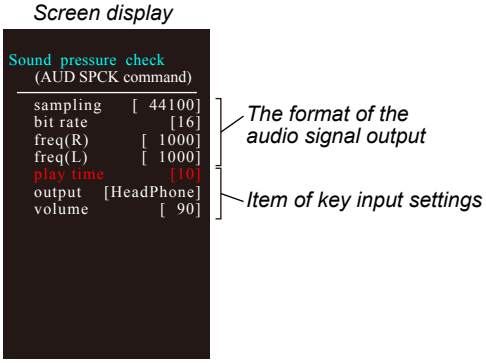
5-2-9. Sound pressure regulation level check (Sound pressure)

It can be output the “Sampling rate: 44.1 kHz/Frequency: 1 kHz (L/R-ch)/Bit rate: 16 bit” audio signal for the sound pressure regulation level check.

Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Audio”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Sound pressure”.
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display



5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-2-10. Playback user file 1 (Play user file-1)
Note: Not used for the servicing.

5-2-11. Playback user file 2 (Play user file-2)
Note: Not used for the servicing.

5-2-12. Playback user file 3 (Play user file-3)
Note: Not used for the servicing.

5-2-13. Playback user select (Play user select)
Note: Not used for the servicing.

5-2-14. Hi-Res output (Output HiRes check)
It can be output the "Sampling rate: 192 kHz/Frequency: 1 kHz (L/R-ch)/Bit rate: 32 bit" audio signal for the Hi-Res check.

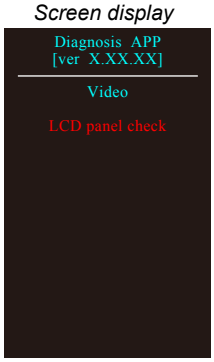
Procedure:
1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Audio", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Output HiRes check".
4. Press the [▶II] key, the audio signal output screen is displayed.

Screen display

5. Press the [▶II] key, and output an audio signal using the settings selected.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-3. Video (Video)

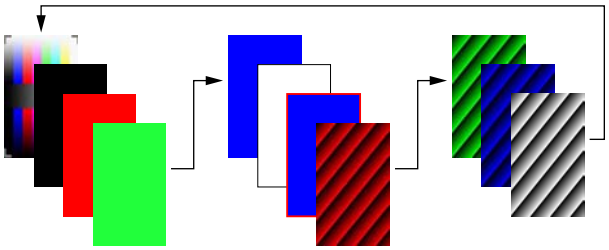
Screen display



5-3-1. LCD panel check (LCD panel check)
It can be check the LCD screen display.

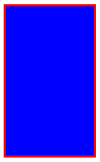
Procedure:
1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Video", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "LCD panel check".
4. Press the [▶II] key, the color bar screen is displayed.
5. In step 4 state, each time the [▶II] key is pressed, the screen display changes in the following order.

   Color bar (default) ⟶ All black ⟶ All red ⟶ All green ⟶ All blue ⟶ All white ⟶ Maximum drawing size confirmation ⟶ diagonal gradation (red) ⟶ diagonal gradation (green) ⟶ diagonal gradation (blue) ⟶ diagonal gradation (white) ⟶ Color bar ...



   Maximum drawing size confirmation:
   All blue (All sides are red) is displayed. Whether red in all sides is seen is confirmed.

6. In step 5 state, each time the [I◀◀]/[▶▶I] key is pressed, LCD brightness changes in the following order.



   brightness 120 (default) ⟷ brightness 180 ⟷ brightness 240 ⟷ brightness 1 ⟷ brightness 60 ⟷ brightness 120 ...

7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-4. Noise canceller (Noise cancel)
Note: This major item is not used in this model.

5-5. Direct recording (Direct Rec)
Note: This major item is not used for the servicing.

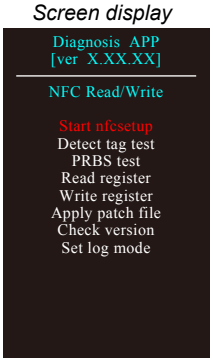
5-6. Bluetooth safety test (BT safety test)
Note: This major item is not used for the servicing.

5-7. Bluetooth test tools (BT test tools)
Note: This major item is not used for the servicing.

5-8. NFC (NFC Read/Write)
It can be detection of the NFC tag, and display the NFC device version information.

Note: If checking the operation of the NFC, without the use of a test mode, please do the connection check in the normal mode. Method of the normal mode operation, refer to "NFC CONNECTION CHECKING METHOD" on page 11.

Screen display

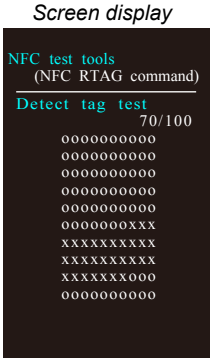


5-8-1. Start NFC setup (Start nfcsetup)
Note: Not used for the servicing.

5-8-2. NFC tag detection test (Detect tag test)
It can be check the NFC tag detection.

Procedure:
1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "NFC Read/Write", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Detect tag test".
4. Press the [▶II] key, the NFC tag detection status is displayed.
   (Displayed characters/values in the following figure are example)

Screen display



5. Detection is performed every 100 milliseconds. If detect the NFC tag to be displayed "O". If not detect the NFC tag to be displayed "X".

Note: Detection history will be displayed up to 100.

6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-8-3. NFC PRBS test (PRBS test)
Note: Not used for the servicing.

5-8-4. Read register (Read register)
Note: Not used for the servicing.

5-8-5. Write register (Write register)
Note: Not used for the servicing.

5-8-6. Apply patch file (Apply patch file)
Note: Not used for the servicing.

5-8-7. NFC version check (Check version)
It can be check the NFC device version.

Procedure:
1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "NFC Read/Write", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Check version".
4. Press the [▶II] key, NFC device version is displayed.
   (Displayed value in the following figure is example)

Screen display

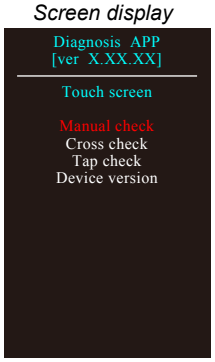
5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-8-8. Log mode setting (Set log mode)
Note: Not used for the servicing.

5-9. USB (USB)
Note: This major item is not used for the servicing.

5-10. Touch panel (Touch screen)

Screen display



5-10-1. Manual check (Manual check)

It can be displayed the pink points of the touch locus of touch panel, and check the information of the touch panel.

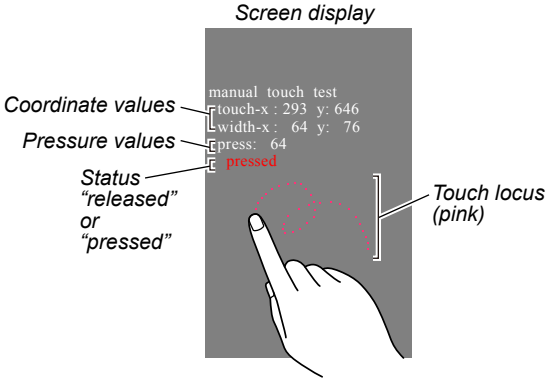
Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Touch screen”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Manual check”.
4. Press the [▶II] key, the check screen is displayed.

Screen display

5. When touch the screen, it is touch locus is displayed in pink point and each value of touch information is displayed.

Screen display



6. Press the [I◀◀] key, and erase the touch locus.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-10-2. Cross check (Cross check)

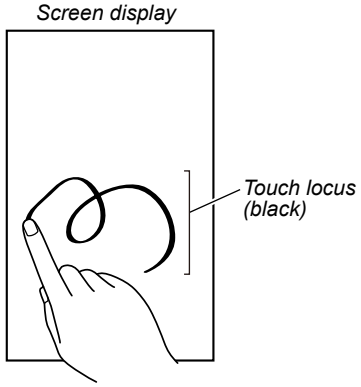
It can be displayed the black line of touch locus of touch panel, and change the line dot.

Note: It can not operate in a state in which the WALKMAN main unit was MSC connection.

Procedure:

1. Enter the test mode.
   (Refer to “2. SETTING THE TEST MODE” on page 33)
2. Press the [+]/[–] keys to select the “Touch screen”, and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the “Cross check”.
4. Press the [▶II] key, the all white screen is displayed.
5. When touch the screen, it is touch locus is displayed in black line.

Screen display



   In step 5 state, each time the [+]/[–] keys are pressed, the size (dot) of the line is changed.
   (1 ⟷ 3 ⟷ 5 ⟷ 7 ⟷ 9 ⟷ 11 (default) ⟷ 13 ⟷ 15 ⟷ 17 dot)
6. Press the [I◀◀] key, and erase the touch locus.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-10-3. Tap check (Tap check)

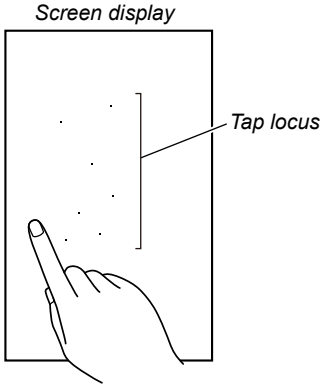
It can be displayed the black points of tap locus of touch panel, and check the tap status.

Note: It can not operate in a state in which the WALKMAN main unit was MSC connection.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Touch screen", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Tap check".
4. Press the [▶II] key, the all white screen is displayed.
5. When tap the screen, it is tap locus is displayed in black points.

Screen display



6. Press the [I◀◀] key, and erase the touch locus.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

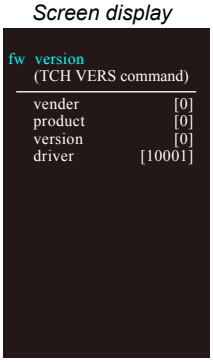
5-10-4. Touch panel version check (Device version)

It can be check the touch panel version.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Touch screen", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Device version".
4. Press the [▶II] key, touch panel version is displayed.
   (Displayed value in the following figure is example)

Screen display

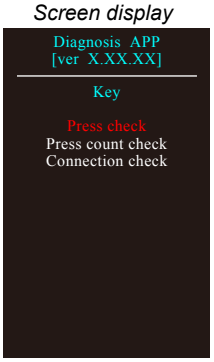


Note: If the information is not set, or if an invalid value set "---" is displayed.

5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-11. Key (Key)

Screen display



5-11-1.Key press check (Press check)

It can be check the pressing of the each keys (buttons).

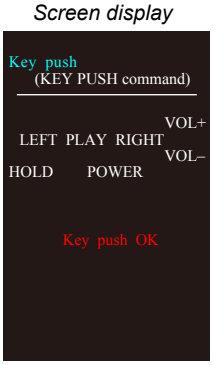
Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Key", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Press check".
4. Press the [▶II] key, all keys are displayed to the scressn.

Screen display

5. The character in the screen corresponding to the pressed key (button) is selected, every time the each key (button) of WALKMAN main unit is pressed.
   ([⏻], [+], [–], [I◀◀], [▶II], [▶▶I], Slide [HOLD] switch in the direction of on)
6. When all of the keys are checked, "Key push OK" is displayed.

Screen display



7. Slide the [HOLD] switch from "on ⟶ off", return to minor item selection screen.

5-11-2. Key press count check (Press count check)

Note: Not used for the servicing.

If you have entered this mode by mistake, press the [▶II] key in a state in which slide the [HOLD] switch in the direction of on, return to minor item selection screen.

5-11-3. Accessory connection count check (Connection check)

Note: Not used for the servicing.

5-12. FM tuner (FM tuner)

Note: This major item is not used in this model.

5-13. SD card (SD card)

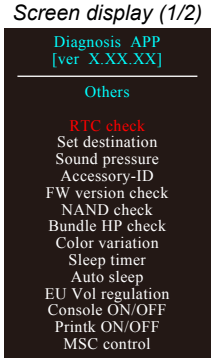
Note: This major item is not used for the servicing.

5-14. NVP (NVP)

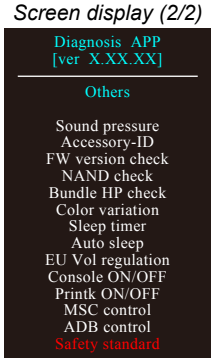
Note: This major item is not used for the servicing.

5-15. Others (Others)

Screen display (1/2)



Screen display (2/2)



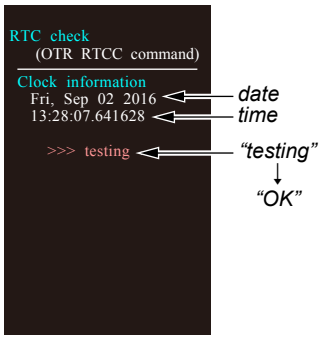
5-15-1. Real time clock check (RTC check)

It can be check the operation of an internal clock.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "RTC check".
4. Press the [▶II] key, date and time are displayed.
5. If an internal clock check is finished, the "testing" of center of screen is changed into "OK".
   (Displayed characters/values in the following figure are example)

Screen display



6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-15-2. Destination setting (Set destination)

Note: Not used for the servicing.

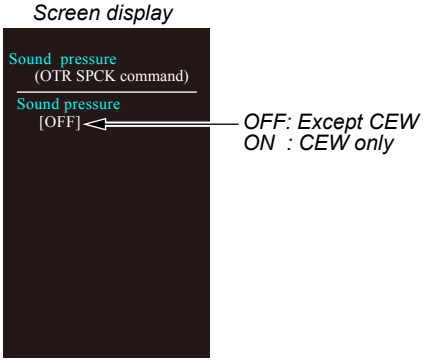
5-15-3. Sound pressure regulation check (Sound pressure)

It can be check the on/off status of the sound pressure regulation.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Sound pressure".
4. Press the [▶II] key, the on/off status of the sound pressure regulation is displayed.

Screen display



5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-15-4. Accessory ID check (Accessory-ID)

Note: Not used for the servicing.

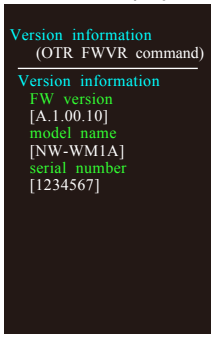
5-15-5. Firmware version check (FW version check)

It can be check the firmware version.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "FW version check".
4. Press the [▶II] key, the firmware version is displayed.
   (Displayed characters/values in the following figure are example)

Screen display



5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-15-6. NAND information check (NAND check)

It can be check the information of NAND flash memory (eMMC).

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "NAND check".
4. Press the [▶II] key, information of NAND flash memory (eMMC) is displayed.
   (Displayed characters/values in the following figure are example)

Screen display

Note: If the NAND flash memory (eMMC) has been mounted with two pieces, each time press the [▶II] key, it switched information of the first one and the second.

5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

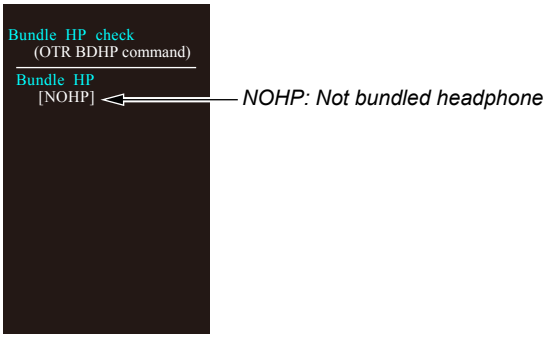
5-15-7. Bundled headphone check (Bundled HP check)

It can be check the presence or absence of bundled headphone.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Bundle HP check".
4. Press the [▶II] key, the presence or absence screen of bundled headphone is displayed.

Screen display



5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

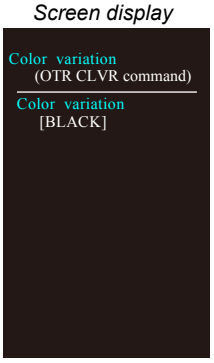
5-15-8. Color variation check (Color variation)

It can be check the information of the WALKMAN main unit body color.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Color variation".
4. Press the [▶II] key, the information screen is displayed.

Screen display



Note: In the case of NW-WM1Z, color variations will display "BLACK", but this is not a problem.

5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

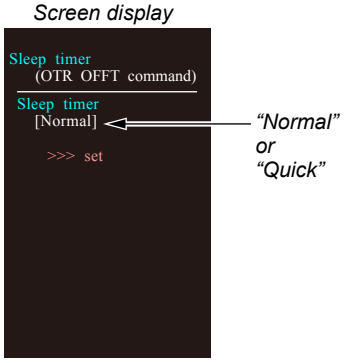
5-15-9. Sleep timer setting (Sleep timer)

It can be setting the shutdown timing of the sleep timer.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Sleep timer".
4. Press the [▶II] key, the setting screen is displayed.

Screen display



5. In step 4 state, each time the [I◀◀]/[▶▶I] keys are pressed, sleep timer setting is select. (Normal/Quick)
6. Press the [▶II] key, and change to the selected of in step 5.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

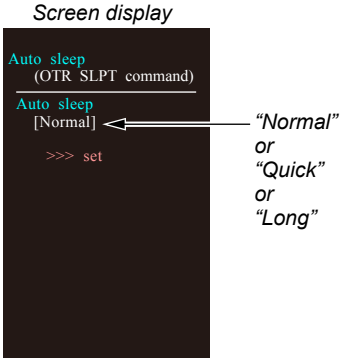
5-15-10. Auto sleep setting (Auto sleep)

It can be setting the information of time-out timer setting of until the sleep state.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Auto sleep".
4. Press the [▶II] key, the setting screen is displayed.

Screen display



5. In step 4 state, each time the [I◀◀]/[▶▶I] keys are pressed, time-out timer setting is select. (Normal/Quick/Long)
6. Press the [▶II] key, and change to the selected of in step 5.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-15-11. EU volume regulation check (EU Vol regulation)

Note: Not used for the servicing.

5-15-12. Console ON/OFF check (Console ON/OFF)

Note: Not used for the servicing.

5-15-13. Printk ON/OFF check (Printk ON/OFF)

Note: Not used for the servicing.

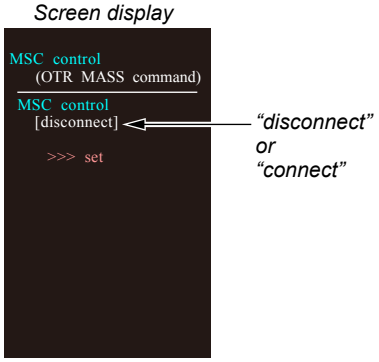
5-15-14. MSC connection control (MSC control)

It can be switched status of the MSC connection/disconnection.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "MSC control".
4. Press the [▶II] key, the control screen is displayed.

Screen display



5. In this state, each time the [I◀◀]/[▶▶I] keys are pressed, MSC connection/disconnection is select. (connect/disconnect)
6. Press the [▶II] key, and switched the selected MSC connection/disconnection status of in step 5.
7. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-15-15. ADB control (ADB control)

Note: Not used for the servicing.

5-15-16. Display the safety standard mark (Safety standard)

It can be display the safety standard screen corresponding to each destination.

Procedure:

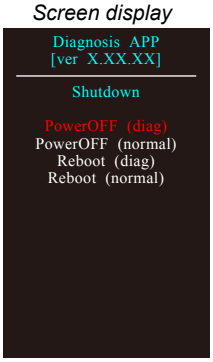
1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Others", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Safety standard".
4. Press the [▶II] key, the information screen is displayed.

Note: If the destination setting is abnormal, "invalid dest" is display. If the model setting is abnormal, "invalid model" is display. If the detect other abnormalities, "other error" is display.

5. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-16. Shutdown (Shutdown)

Screen display



5-16-1. Power off (test mode continues) (PowerOFF (diag))

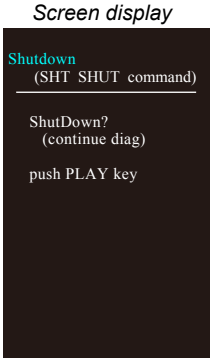
It can be the shutdown, in while continuing the test mode status.

Note: Perform this mode, the test mode is not released.
To release the test mode, please performed with refer to "5-16-2. Power off (test mode release)" or "5-16-4. Reboot (test mode release)".

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Shutdown", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "PowerOFF (diag)".
4. Press the [▶II] key, the execution screen is displayed.

Screen display



5. Press the [▶II] key, then shutdown.
   (When after the shutdown, turn the power on, it will be start up on test mode status)

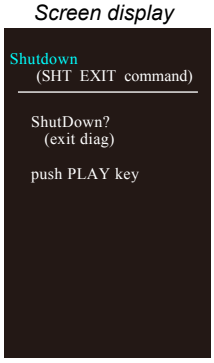
5-16-2. Power off (test mode release) (PowerOFF (normal))

It can be the shutdown, releasing the test mode status.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Shutdown", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "PowerOFF (normal)".
4. Press the [▶II] key, the execution screen is displayed.

Screen display



5. Press the [▶II] key, then shutdown.
   (When after the shutdown, turn the power on, it will be start up on normal mode status)

5-16-3. Reboot (test mode continues) (Reboot (diag))

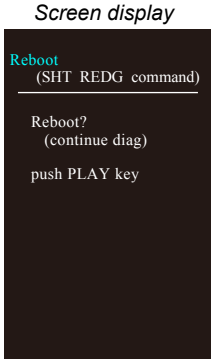
It can be the rebooted, in while continuing the test mode status.

Note: Perform this mode, the test mode is not released.
To release the test mode, please performed with refer to "5-16-2. Power off (test mode release)" or "5-16-4. Reboot (test mode release)".

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Shutdown", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Reboot (diag)".
4. Press the [▶II] key, the execution screen is displayed.

Screen display



5. Press the [▶II] key, then start the reboot.
   (After the reboot, to start up on test mode status)

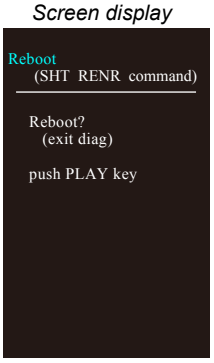
5-16-4. Reboot (test mode release) (Reboot (normal))

It can be the reboot, releasing the test mode status.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Shutdown", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Reboot (normal)".
4. Press the [▶II] key, the execution screen is displayed.

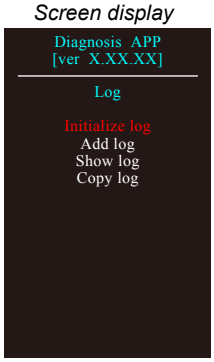
Screen display



5. Press the [▶II] key, then start the reboot.
   (After the reboot, to start up on normal mode status)

5-17. Log (Log)

Screen display



5-17-1. Initialize log data (Initialize log)

It can be initialized log data recorded to NVP.

Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Log", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Initialize log".
4. Press the [▶II] key, the execution screen is displayed.

Screen display

5. Press the [▶II] key, perform the initialization of the log data.
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.

5-17-2. Add log data (Add log)

Note: Not used for the servicing.

5-17-3. Show log data (Show log)

Note: Not used for the servicing.

5-17-4. Copy log data (Copy log)

It can be copied log information recorded to NVP to the under root directory of the WALKMAN main unit storage.

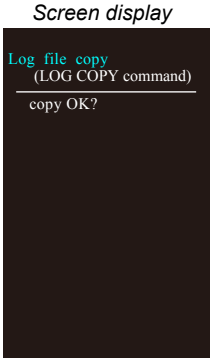
Note 1: It can not operate in a state in which the WALKMAN main unit was MSC connection.

Note 2: It can not operate in a state in the log information absence.

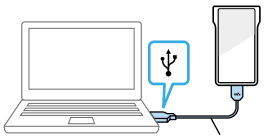
Procedure:

1. Enter the test mode.
   (Refer to "2. SETTING THE TEST MODE" on page 33)
2. Press the [+]/[–] keys to select the "Log", and press the [▶II] or [▶▶I] key to enter the minor item.
3. Press the [+]/[–] keys to select the "Copy log".
4. Press the [▶II] key, the execution screen is displayed.

Screen display

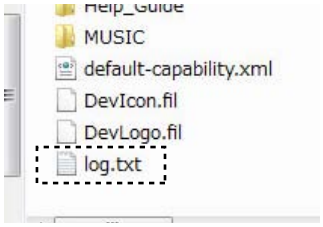


5. Press the [▶II] key, copy is performed, and create the "log.txt" to the under root directory of the WALKMAN main unit storage
6. Slide the [HOLD] switch in the direction of on, to return to minor item selection screen.
7. Refer to "5-16-4. Reboot (test mode release)", and releasing the test mode status.
8. Connect the WALKMAN main unit to PC (personal computer) by the USB cable (WM-PORT).

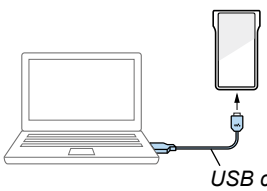


9. On PC (personal computer), open the WALKMAN main unit storage for check of log information file (log.txt) presence.

Under root directory of WALKMAN storage



10. Open the log information file (log.txt), check the log information.
11. Disconnect the WALKMAN main unit from PC (personal computer).

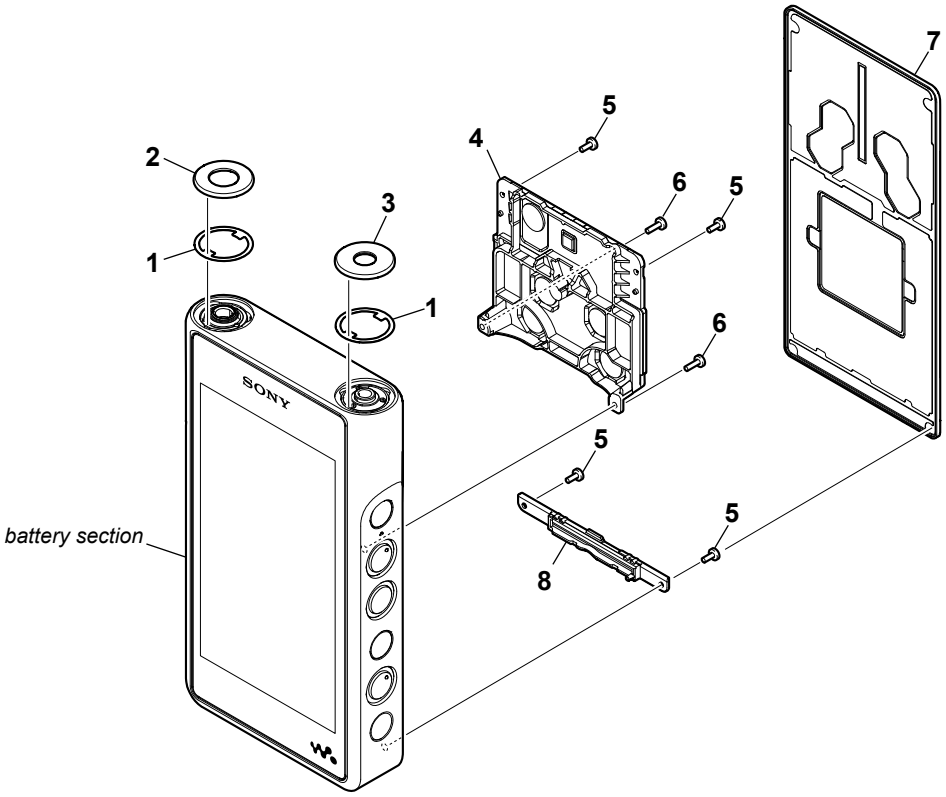


SECTION 4
EXPLODED VIEWS

Note:

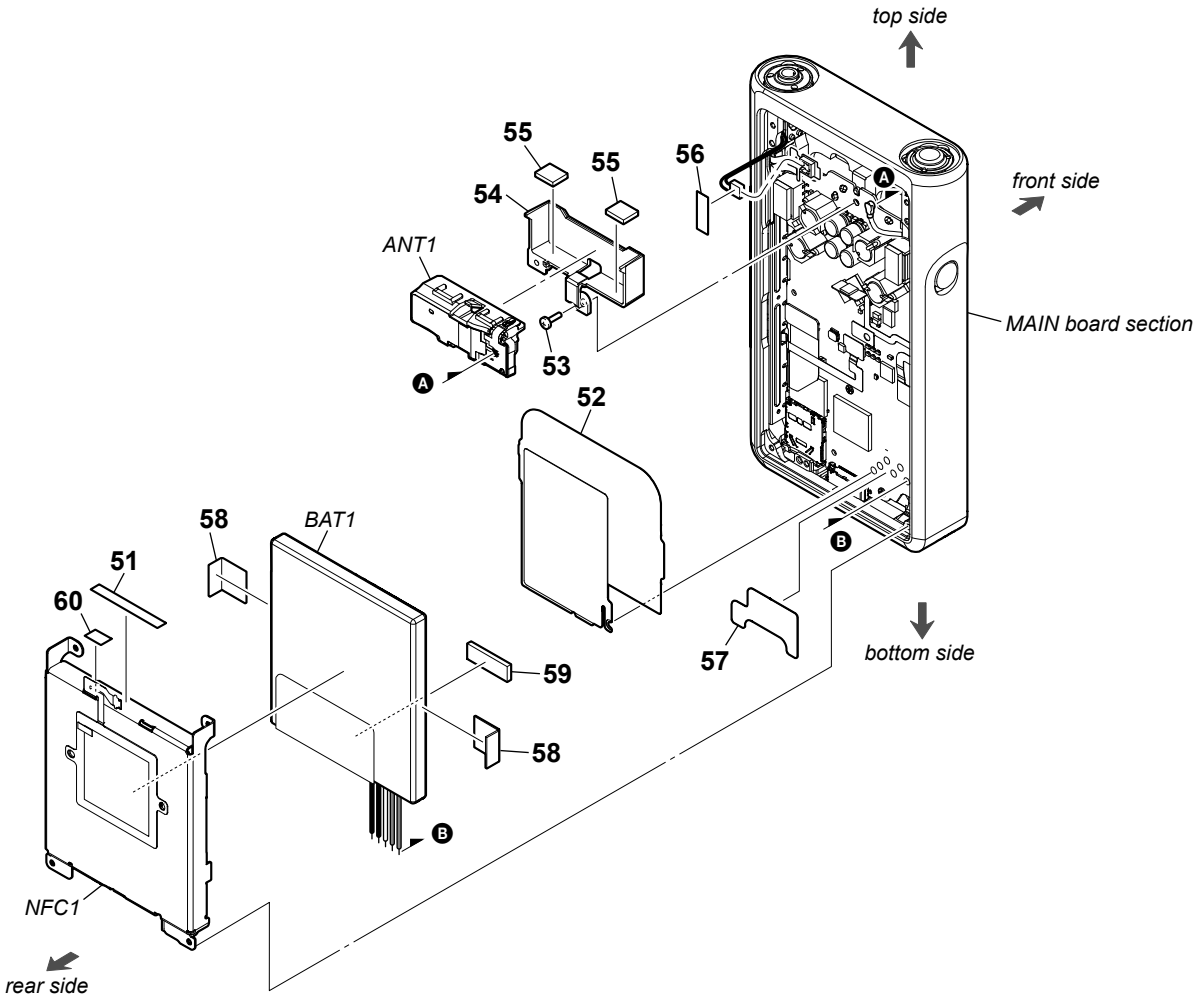
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color

4-1. REAR COVER SECTION



Ref. No.	Part No.	Description	Remark
1	4-590-471-01	SHEET (RING), ADHESIVE	
2	4-590-446-01	RING (B), JACK (for Balanced Standard side)	
3	4-590-445-01	RING (S), JACK (for Stereo Mini side)	
4	X-2594-175-1	SVX SUPPORT (UPPER), REAR ASSY (Including Cushion)	
5	4-573-907-11	SCREW (NDS-EL) M1.4 (L = 3 mm)	
6	4-573-907-21	SCREW (NDS-EL) M1.4 (L = 4 mm)	
7	X-2594-169-1	SVX COVER REAR ASSY (Including W.logo, Adhesive sheet, Plate (N), Copper sheet) (WM1A)	
7	X-2594-174-1	SVX COVER REAR ASSY (H) (Including W.logo, Adhesive sheet, Plate (N), Copper sheet) (WM1Z)	
8	4-590-461-01	SUPPORT (LOWER), REAR	

4-2. BATTERY SECTION

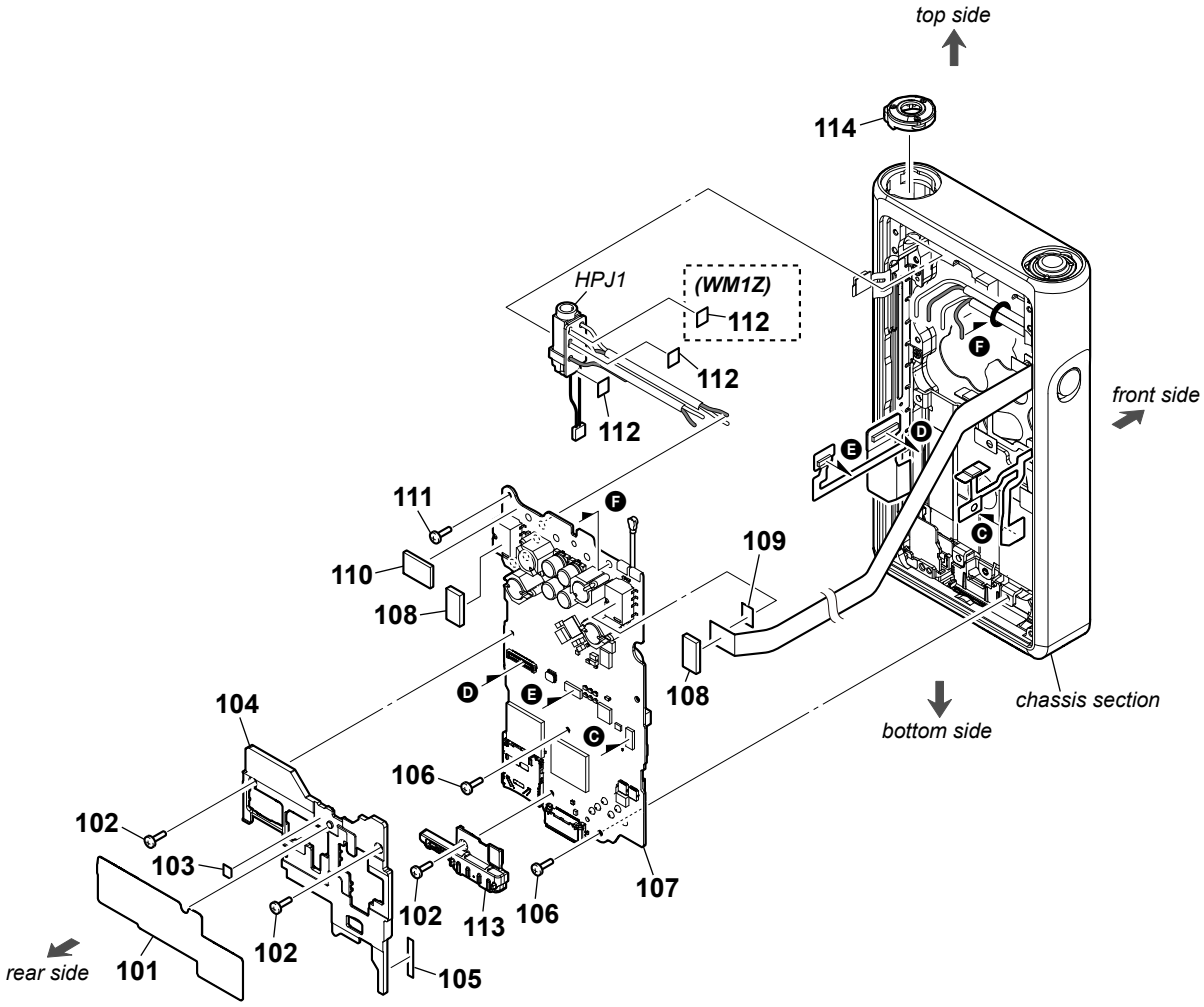


Note 1: It cannot reuse, when the lithium ion storage battery (Ref. No. BAT1) is removed from battery adhesive sheet. Be sure to replace the new parts.

Note 2: When wire of the lithium ion storage battery (Ref. No. BAT1) is removed from board, insulate the end of battery wire by a tape etc. to prevent short-circuited of the battery wire part of the battery assy (Ref. No. BAT1).

Ref. No.	Part No.	Description	Remark
51	4-545-100-01	SHEET (NFC FPC)	
52	4-590-479-01	SHEET (PWB), COVER	
53	4-573-907-21	SCREW (NDS-EL) M1.4 (L = 4 mm)	
54	4-590-480-01	HOLDER, CABLE	
55	4-566-912-01	CUSHION (CONN SUPPORT)	
56	4-593-949-01	SHEET (WIRE DETECTOR)	
57	4-591-297-01	SHEET (BATTERY SOLDER)	
58	4-599-959-01	CUSHION, PWB	
59	4-684-878-01	CUSHION, MULTI	
60	4-569-120-01	SHEET (FPC SIDE), ADHESIVE	
ANT1	1-754-991-11	ANTENNA (WIFI/BT)	
BAT1	1-853-588-11	BATTERY, LITHIUM ION STORAGE	(See Note 1, 2)
NFC1	X-2594-164-1	SVX CASE BATTERY ASSY (Including NFC antenna, Cushion, Adhesive sheet)	

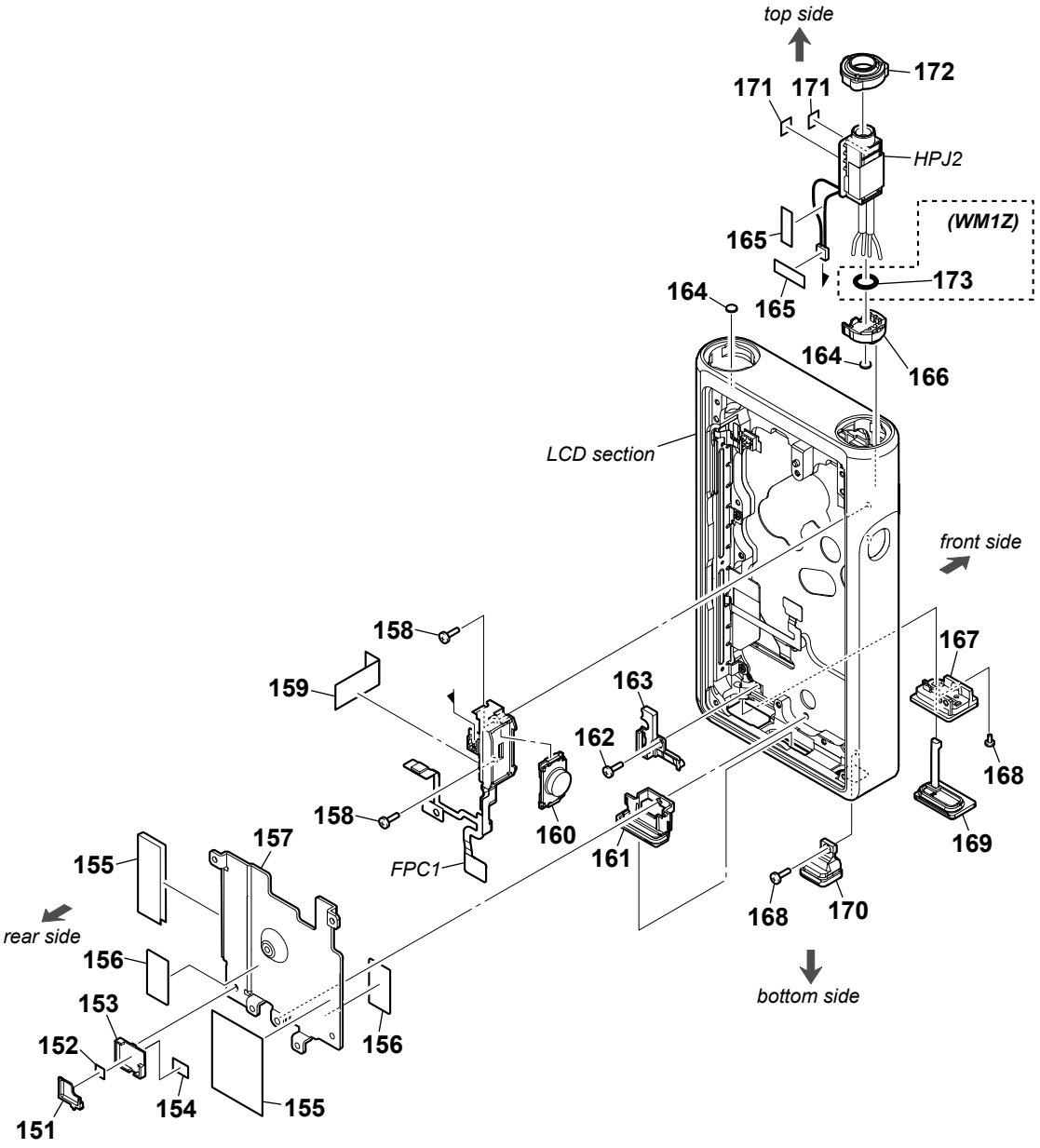
4-3. MAIN BOARD SECTION



Note: When the complete MAIN board (Ref. No. 107) is replaced, refer to "ABOUT WORKING OF THE BOARD REPLACING" on page 5.

Ref. No.	Part No.	Description	Remark
101	4-590-476-01	SHEET, SPACER BATTERY	
102	4-573-907-31	SCREW (NDS-EL) M1.4 (L = 5 mm)	
103	4-593-947-01	SHEET (LG CARD), ADHESIVE	
104	4-590-427-01	SPACER, BATTERY	
105	4-590-462-01	SHEET (SPACER BATT), ADHESIVE	
106	4-573-907-21	SCREW (NDS-EL) M1.4 (L = 4 mm)	
107	9-885-214-06	MAIN BOARD, COMPLETE (SV) (Including Electric double layers cap, Coaxial cable, Wire, Adhesive sheet, Sheet, Cushion) (WM1A) (See Note)	
107	9-885-214-07	MAIN BOARD, COMPLETE (SV) (Including Electric double layers cap, Coaxial cable, Wire, Adhesive sheet, Sheet, Cushion) (WM1Z) (See Note)	
108	4-687-782-01	CUSHION, RELAY	
109	4-593-943-01	SHEET (HOLDER LG), ADHESIVE	
110	4-593-940-01	CUSHION (FPC BUTTON)	
111	3-234-449-37	SCREW (M1.4) (L = 4 mm)	
112	4-533-681-01	SHEET (STRAP)	
113	4-590-457-01	STOPPER, ESCUTCHEON	
114	4-590-449-01	HOOK (S), JACK (for Stereo Mini side)	
HPJ1	X-2594-193-2	SVX HP SE ASSY (Including HP SE board, Wire, Adhesive sheet, Jack holder) (Stereo Mini) (WM1A)	
HPJ1	X-2594-194-2	SVX HP SE ASSY (H) (Including HP SE board, Wire, Adhesive sheet, Jack holder) (Stereo Mini) (WM1Z)	

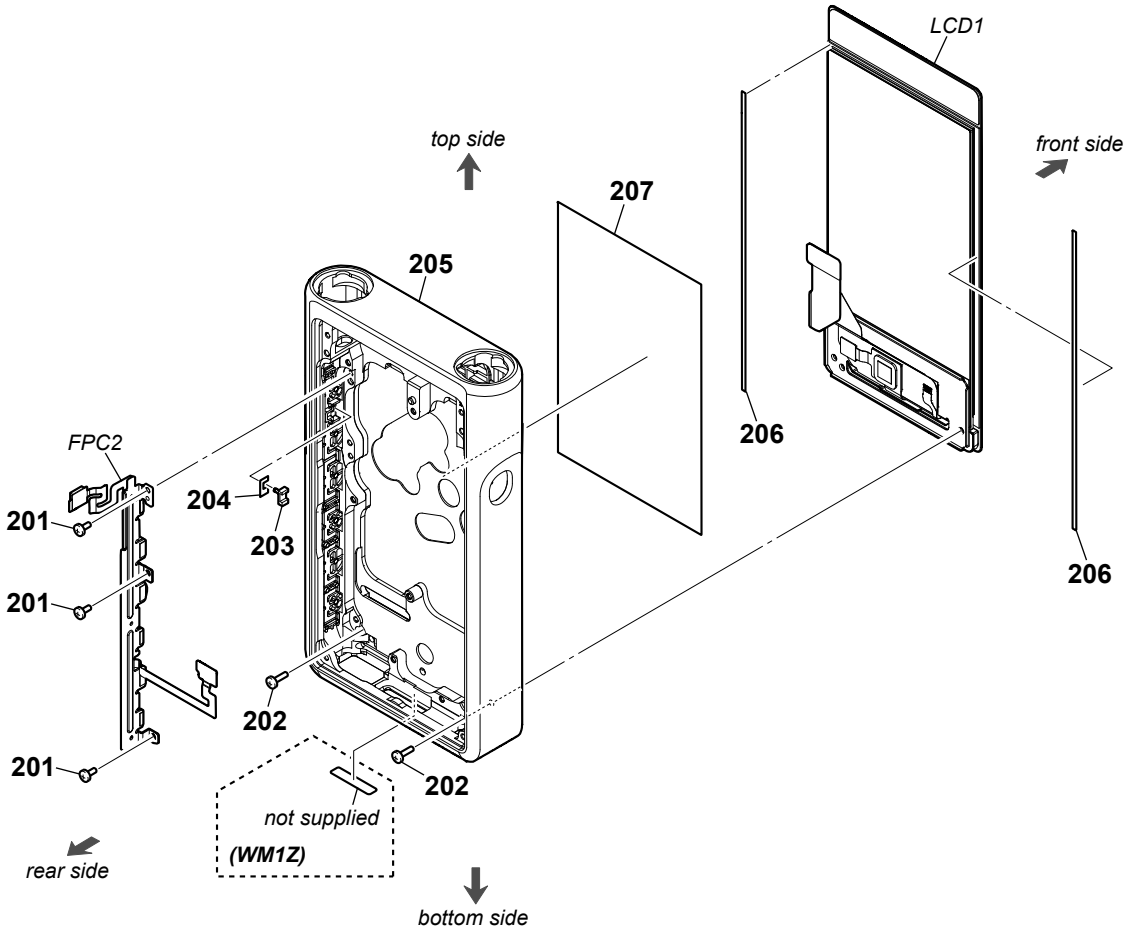
4-4. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
151	4-590-451-01	GUIDE (CARD), LIGHT	
152	4-593-947-01	SHEET (LG CARD), ADHESIVE	
153	4-590-455-01	HOLDER, LIGHT GUIDE	
154	4-593-943-01	SHEET (HOLDER LG), ADHESIVE	
155	4-571-776-01	SHEET (PWB), PROTECTION	
156	4-590-481-01	CUSHION, RF	
157	4-590-426-01	CHASSIS, PWB	
158	4-685-083-01	SCREW (SG) M1.4	
159	4-687-933-01	SHEET, COPPER RELAY	
160	X-2594-177-1	SVX KNOB ASSY (Including Knob base) (WM1A)	
160	X-2594-178-1	SVX KNOB ASSY (H) (Including Knob base)	(WM1Z)
161	4-590-459-01	ESCUTCHEON (MULTI) (WM1A)	
161	4-590-459-11	ESCUTCHEON (MULTI) (WM1Z)	
162	4-685-083-11	SCREW (SG) M1.4	
163	4-590-458-01	STOPPER, HINGE	
164	4-590-478-01	CUSHION, JACK	
165	4-593-949-01	SHEET (WIRE DETECTOR)	
166	4-590-448-01	HOLDER (B), JACK (for Balanced Standard side)	
167	4-590-456-01	ESCUTCHEON (CARD) (WM1A)	

Ref. No.	Part No.	Description	Remark
167	4-590-456-11	ESCUTCHEON (CARD) (WM1Z)	
168	4-573-907-11	SCREW (NDS-EL) M1.4 (L = 3 mm)	
169	X-2594-179-1	SVX LID CARD ASSY (Including O-ring) (WM1A)	
169	X-2594-180-1	SVX LID CARD ASSY (H) (Including O-ring)	(WM1Z)
170	X-2594-181-1	SVX HOLDER STRAP ASSY (Including Strap sheet) (WM1A)	
170	X-2594-184-1	SVX HOLDER STRAP ASSY (H) (Including Strap sheet) (WM1Z)	
171	4-533-681-01	SHEET (STRAP)	
172	4-590-450-01	HOOK (B), JACK (for Balanced Standard side)	
173	4-576-523-01	O RING (BAND) (WM1Z)	
FPC1	X-2594-162-1	SVX HOLD-NFC FPC ASSY (Including Sheet, Knob panel, Slide guide)	
HPJ2	X-2594-191-1	SVX HP BTL ASSY (Including HP BTL board, Wire, Adhesive sheet, Sheet) (Balanced Standard)	(WM1A)
HPJ2	X-2594-192-1	SVX HP BTL ASSY (H) (Including HP BTL board, Wire, Adhesive sheet, Sheet) (Balanced Standard)	(WM1Z)

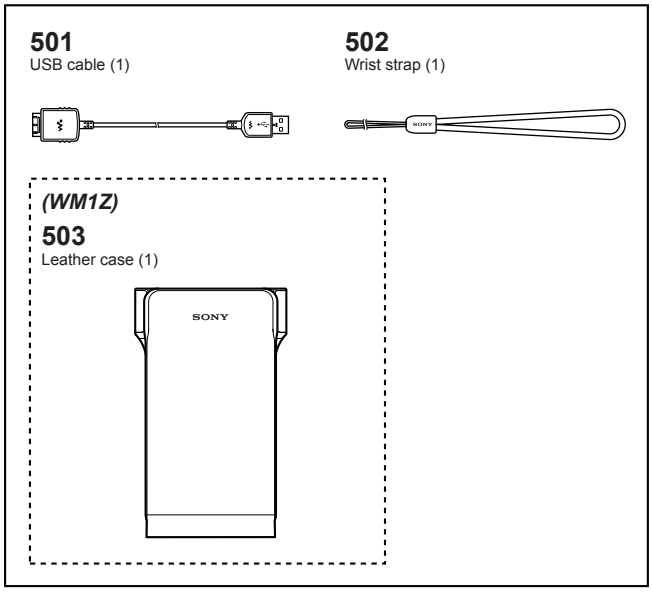
4-5. LCD SECTION



Ref. No.	Part No.	Description	Remark
201	4-685-083-01	SCREW (SG) M1.4	
202	4-573-907-11	SCREW (NDS-EL) M1.4 (L = 3 mm)	
203	4-590-432-01	GUIDE (CHG), LIGHT	
204	4-593-942-01	SHEET (LG CHG), ADHESIVE	
205	9-885-214-10	SV CABINET ASSY (CEW) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1A: AEP, UK)	
205	9-885-214-11	SV CABINET ASSY (EE) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1A: EE)	
205	9-885-214-12	SV CABINET ASSY (CN) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1A: CH)	
205	9-885-214-13	SV CABINET ASSY (E) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1A: E, AUS, JE)	
205	X-2594-202-1	SVX CABINET ASSY (H) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1Z: US, CND)	
205	X-2594-203-1	SVX CABINET ASSY (H) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1Z: AEP, UK)	
205	X-2594-204-1	SVX CABINET ASSY (H) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1Z: EE)	
205	X-2594-205-1	SVX CABINET ASSY (H) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1Z: CH)	
205	X-2594-206-1	SVX CABINET ASSY (H) (Including LCD support (top), Button, Dot pin, Button hinge, Adhesive sheet, Sheet) (WM1Z: E, AUS, JE)	
206	4-475-084-01	SHEET (WINDOW_SIDE), ADHESIVE	
207	4-590-464-01	SHEET (CABINET), LCD	
FPC2	X-2594-176-1	SVX KEY-LED FPC ASSY (Including Button panel, Cushion, Adhesive sheet)	
LCD1	X-2594-163-1	SVX LCD ASSY (Including LCD chassis, LCD support (bottom), Adhesive sheet)	

SECTION 5
ACCESSORIES

Ref. No.	Part No.	Description	Remark
	4-593-853-11	STARTUP GUIDE (WM1A)	
	4-593-853-21	STARTUP GUIDE (WM1Z)	
	4-593-854-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH, ITALIAN, GREEK, TURKISH, DUTCH, POLISH) (AEP, UK)	
	4-593-854-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH) (US, CND)	
	4-593-854-31	MANUAL, INSTRUCTION (ENGLISH, RUSSIAN, SIMPLIFIED CHINESE, TRADITIONAL CHINESE, KOREAN, ARABIC) (E, AUS, JE, EE)	
	4-593-854-41	MANUAL, INSTRUCTION (ENGLISH, SIMPLIFIED CHINESE) (CH)	
501	1-835-940-61	CORD, PC CONNECTION (USB cable)	
502	4-594-129-01	STRAP, HAND (Wrist strap)	
503	4-594-482-01	LEATHER CASE (WM1Z)	



MEMO

REVISION HISTORY

Ver.	Date	Description of Revision
1.0	2016.10	New