

SERVICE MANUAL for PROFESSIONAL REPAIRERS

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Revision of Information:

This information may be changed or updated at any time without any prior notice. Please confirm that this information is up-to-date before using it.

CAUTION

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

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.



SERVICE MANUAL for PROFESSIONAL REPAIRERS

French Model

· This unit has two types of names for model name (WH-1000XM5), and model (YY2954).

SPECIFICATIONS

C S V / 1.6 Å (Using a commercially available USB Normal At, salastor).
DC S V / 1.6 Å and 9 V / 2.3 Å (Using a commercially available USB Power Delivery AC adaptor) or use buil-in lithium-ion batteries (Product Operation Power: DC 3.8 V)
Operating temperature:
O'C to 4.0 °C
Fower consumption:
Love power mode: 0.5 W or less
'This unit enters Low power mode immediately after charging is completed when connected to the AC adaptor.

Mass:

ance: 48 Ω (1 kHz) (when connecting via the headphone cable with the

unit turned off)
Frequency response: (IEITA) (when connecting via the headphone cable with the unit turned on)
Included Items:
Wireless Noise Cancelling Stereo Headset (1)
USB Npo-C** cable (USB-A to USB-C**) (approx. 20 cm) (1)
Headphone cable (approx. 1.2 m) (1)
Carrying case (1)

Communication specification

Communication system: Bluetooth Specification version 5.2

Output: Bluetooth Specification Power Class 1

Operating frequency: Bluetooth: 2 400 MHz - 2 483.5 MHz

Design and specifications are subject to change without notice.

USB AC adaptor
A commercially available USB AC adaptor capable of supplying an output current of 1.5 A or more

Commercially available AC adaptor compatible with USB PD (USB Power Delivery) It is recommended that you use the adaptor whose output is 5 V / 2 A or

Compatible iPhone/iPod models

Phone 12 Pro Max, iPhone 12 Pro, iPhone 12, iPhone 12 mini, iPhone 55 (2nd generation), iPhone 11 iPro Max, iPhone 11 Pro, iPhone 51 Min. iPhone AS, iPhone 43, iPhone 43, iPhone 45 iPhone 54 iPho

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 from the Corporation of the Corp

WIRELESS NOISE CANCELING STEREO HEADSET

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SECTION 1 SERVICING NOTES

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

UNLEADED SOLDER

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

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

4 : LEAD FREE MARK

Unleaded solder has the following characteristics.

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

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

Soldering irons using a temperature regulator should be set to about 350 $^{\circ}\mathrm{C}.$

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

· Strong viscosity

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

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

ABOUT THE LITHIUM-ION RECHARGEABLE BATTERY

The lithium-ion rechargeable battery built into this unit cannot be replaced with a new battery.

ABOUT REUSE OF THE LITHIUM-ION RECHARGEABLE BATTERY

When removing the lithium-ion rechargeable battery from adhesive sheet, the lithium-ion rechargeable battery cannot be reused.

ABOUT MODEL NAME

This unit has a model in addition to the model name.

There is no model name on the headset body.

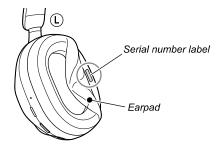
Only the model is written on the model number label.

Model name: WH-1000XM5 Model: YY2954

CHECKING METHOD OF SERIAL NUMBER

When checking the serial number, turn over the cushion part of the earpad on the L-ch side, and refer to the label affixed to the inner wall of the plate front.

Note: When the headphone assy is replaced with a new part, the serial number will change.



COLOR VARIATIONS

(B) Black, (S) Platinum Silver, (L) Midnight Blue, (P) Smoky Pink

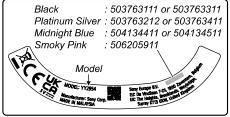
MODEL IDENTIFICATION

To identify the destination or check the model name, model, refer to the model number label inside the cushion of the earpad on the L-ch side.

Note 1: The contents of model number label might be changed in the midway of production.

Note 2: The model name (WH-1000XM5) is not indicated on the model number label or the print on the main unit.





Note 3: This model number label indicates that it is WH-1000XM5/YY2954 for France (European area). If the model number label is other than this, it is WH-1000XM5/YY2954 with a destination other than France (European area).

BLUETOOTH CONNECTION CHECK

To check the connection with the BLUETOOTH device, refer to the help guide with WH-1000XM5.

WH-1000XM5 does not have the NFC function.

Note: After completing the BLUETOOTH connection checking work, be sure to refer to "INITIALIZATION METHOD" on page 5 to perform initialization and delete the device pairing information.

RESETTING METHOD

If the headset does not turn on the power, or if it does not work properly, such as when it is turned on the power but you cannot operate it, reset it according to the following procedure.

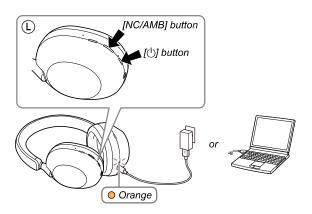
Note 1: Even if this operation is performed, the device registration information and other settings are retained.

Resetting procedure:

- Connect the USB Type-C cable that came with the headset to the booted PC or sold separately USB AC adaptor to charge the headset, and check that the charging indicator light up orange.
- 2. Press the [\circlearrowleft] button and [NC/AMB] button simultaneously. (The charging indicator light off and then light up again)
- 3. The headset reset.

Note 2: When charge the headset after performing a reset, disconnect the USB Type-C cable from the headset and reconnect it.

Connection:



INITIALIZATION METHOD

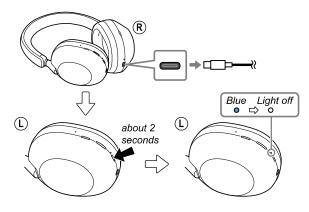
After completing the repairing and replacing, be sure to initialize the headset according to the following procedure.

Note 1: When initialization is performed, all device pairing information is deleted and settings return to factory defaults.

Initialization procedure:

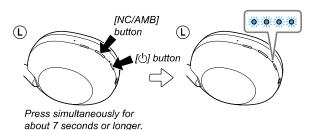
1. Check that the USB Type-C cable is not connected to the headset, press and hold the [\circlearrowleft] button until the indicator (blue) light off (about 2 seconds), and turn off the power.

Note 2: If already power is turned off, check the USB Type-C cable is not connected, perform the work from step 2.



2. Press and hold the [�] button and [NC/AMB] button simultaneously for about 7 seconds, the indicator (blue) flashing 4 times to complete the initialization, and the settings automatically return to the factory default.

Note 3: After performing initialization, delete the pairing of headset from the BLUETOOTH device such as a smartphone, and then pairing the device again.



SECTION 2 DISASSEMBLY

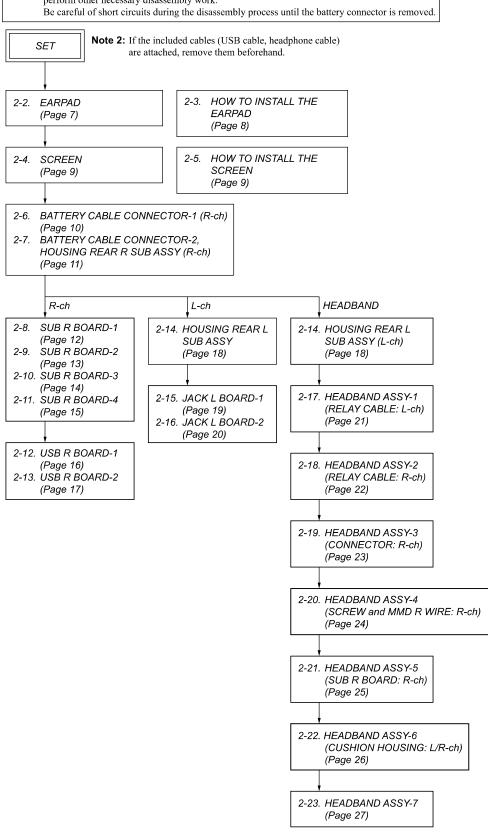
This set can be disassembled in the order shown below.

2-1. DISASSEMBLY FLOW

Note 1: The lithium-ion rechargeable battery is built in on the R-ch side.

When disassembling this unit, disassemble the R-ch side first, disconnect the battery connector from the SUB R board, disconnect the connection between the battery and the board, and then perform other necessary disassembly work.

Be careful of short circuits during the disassembly process until the battery connector is removed.



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

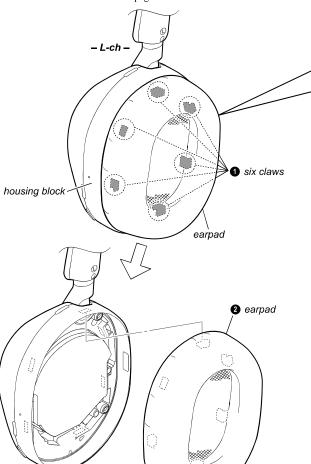
2-2. EARPAD

Note 1: The left and right earpads can be removed using the same procedure.

This explanation uses illustrations from the left channel side.

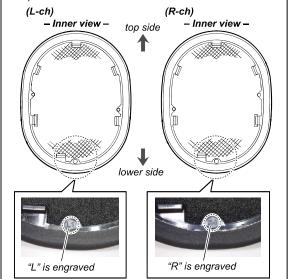
Note 2: See page 8 for how to install the earpad.

Note 3: The model number label is displayed inside the left earpad.
When checking the destination, refer to "MODEL
IDENTIFICATION" on page 4.



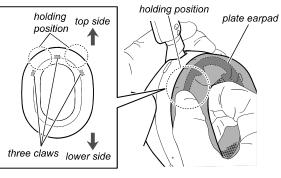
• How to identify the L-ch/R-ch earpads

There is a model number label inside the earpad on the L-ch. It is also possible to identify the L-ch and R-ch earpads by the presence or absence of model number label.



• How to remove the earpad

Refer to the figure below, hold the plate earpad (hard plastic part internal of the earpad) by hand, pull it inside until sound that claw of the earpad remove from the housing block is heard, and remove the total of six claws in order.



Note 4: Do not hold and pull the cushion portion of the earpad.

Doing so will damage the earpad.

cushion portion

2-3. HOW TO INSTALL THE EARPAD

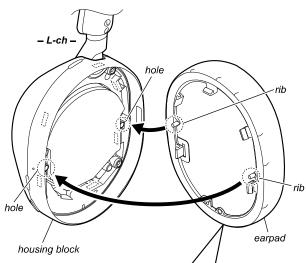
Note 1: The left and right earpads can be installed using the same procedure. This explanation uses illustrations from the left channel side.

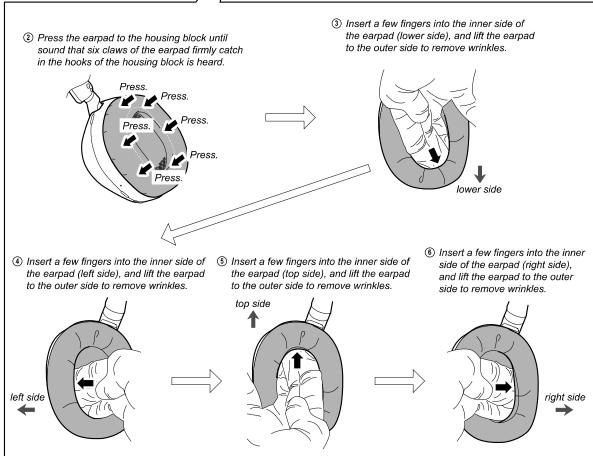
Note 2: The model number label is displayed inside the left earpad.

When checking the destination, refer to "MODEL IDENTIFICATION" on page 4.

Attach in order from 1 to 6.

1 Align the two ribs and two holes.





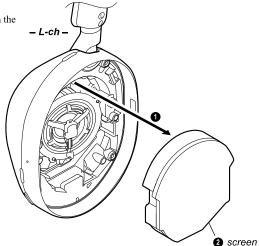
Note 3: Before performing steps ③ to ⑥, make sure that the claws of the earpad are firmly locked to the housing block.

Note 4: In steps ③ to ⑥, wrinkles on the earpad resulting from customer use cannot be removed.

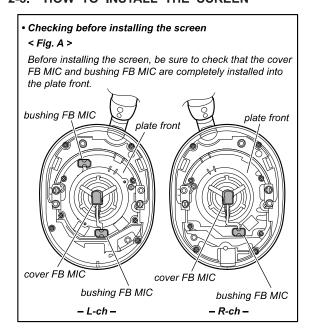
2-4. SCREEN

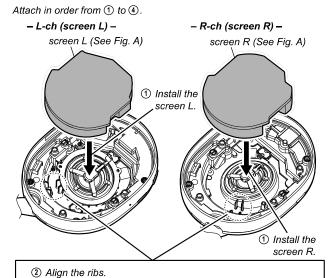
Note: The left and right screens can be removed using the same procedure.

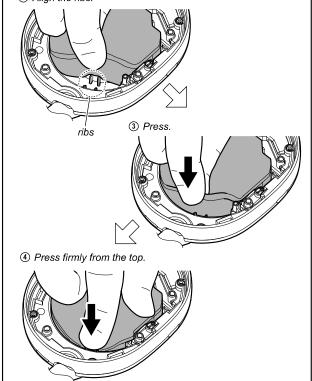
This explanation uses illustrations from the left channel side.

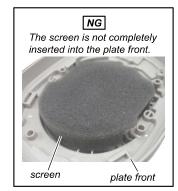


2-5. HOW TO INSTALL THE SCREEN



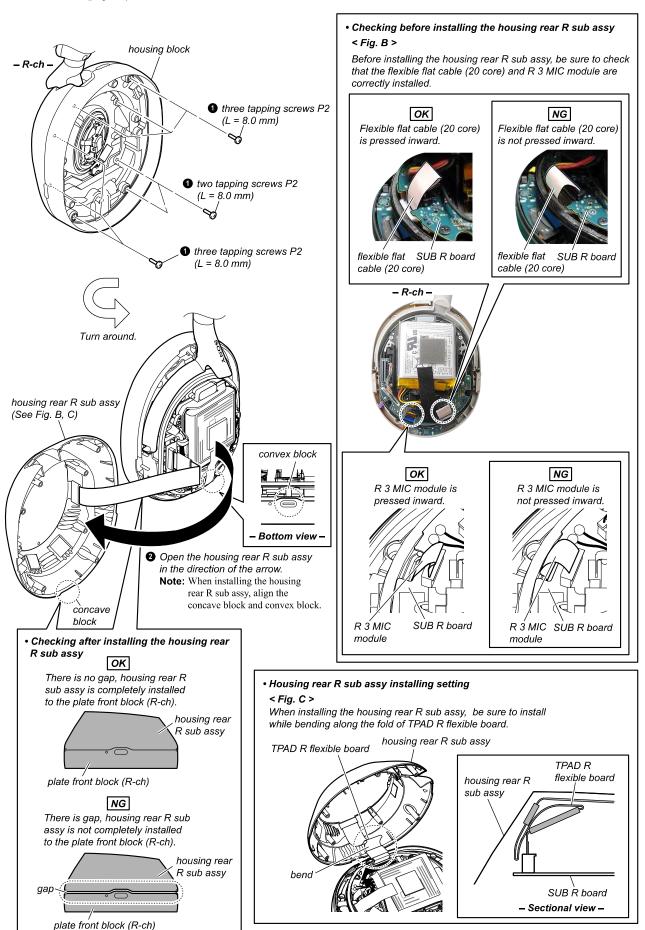




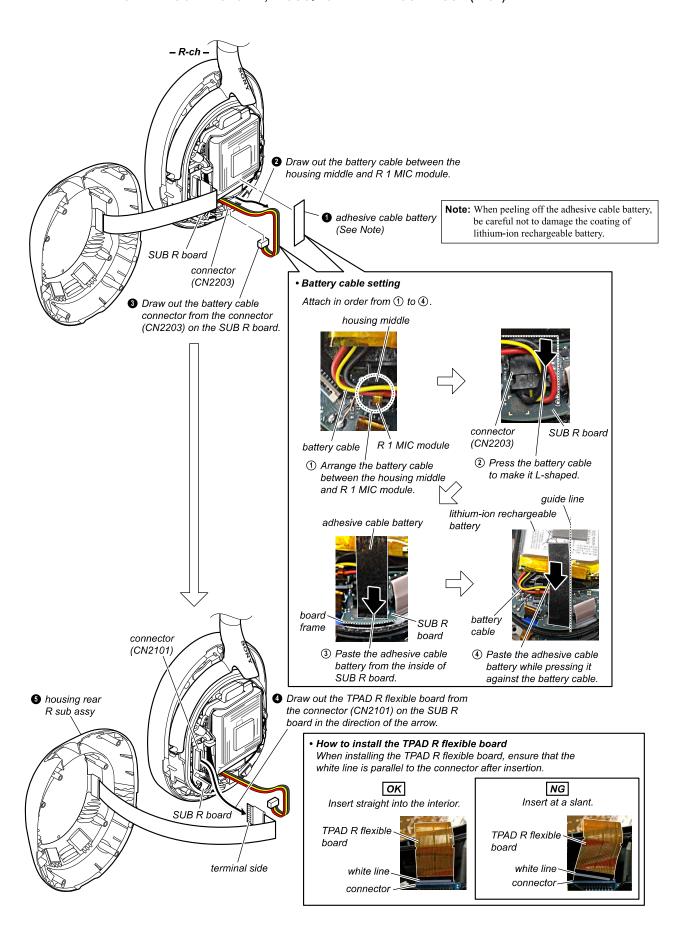


2-6. BATTERY CABLE CONNECTOR-1 (R-ch)

· Continued on 2-7 (page 11).

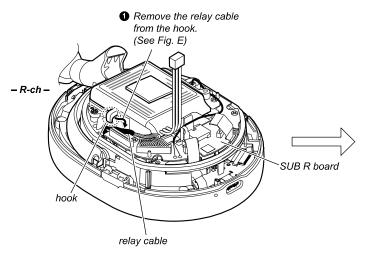


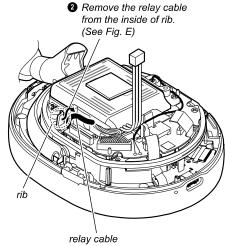
2-7. BATTERY CABLE CONNECTOR-2, HOUSING REAR R SUB ASSY (R-ch)

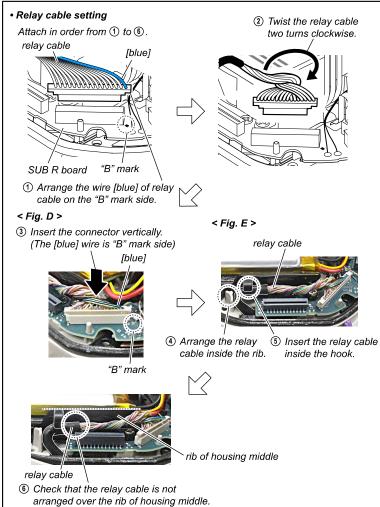


2-8. SUB R BOARD-1 (R-ch)

· Continued on 2-9 (page 13).





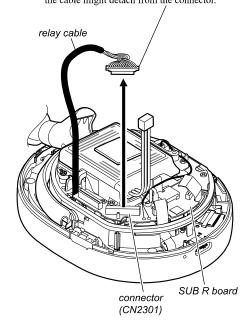




① Draw out the relay cable connector from the connector (CN2301) on the SUB R board. (See Fig. D)

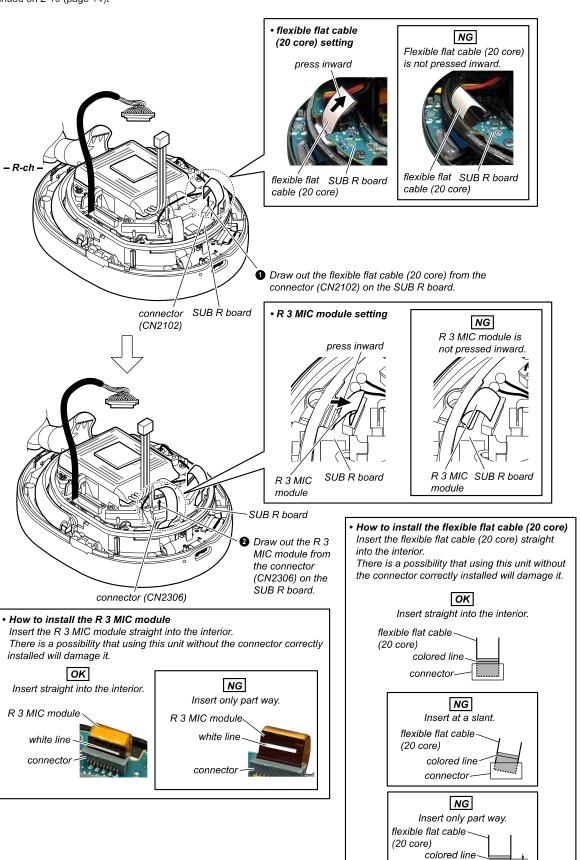
Note: Pull out the connector vertically so that the connector does not get damaged or get detached from the relay cable with connector.

Also, do not hold and pull by the cable because the cable might detach from the connector.



2-9. SUB R BOARD-2 (R-ch)

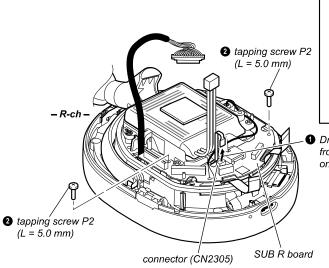
• Continued on 2-10 (page 14).



connector-

2-10. SUB R BOARD-3 (R-ch)

· Continued on 2-11 (page 15).

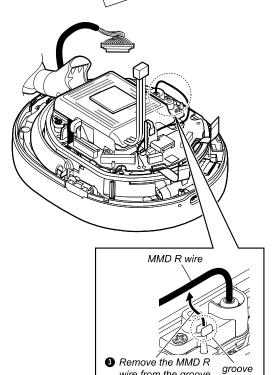


How to install the R 1 MIC module
 Insert the R 1 MIC module straight into the interior.
 There is a possibility that using this unit without the connector correctly installed will damage it.

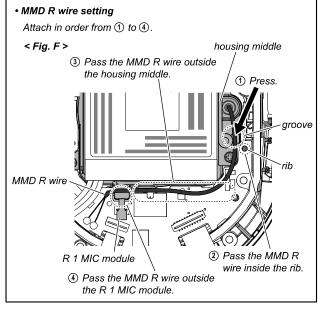
 OK
 Insert straight into the interior.

R 1 MIC module
 white line
 connector

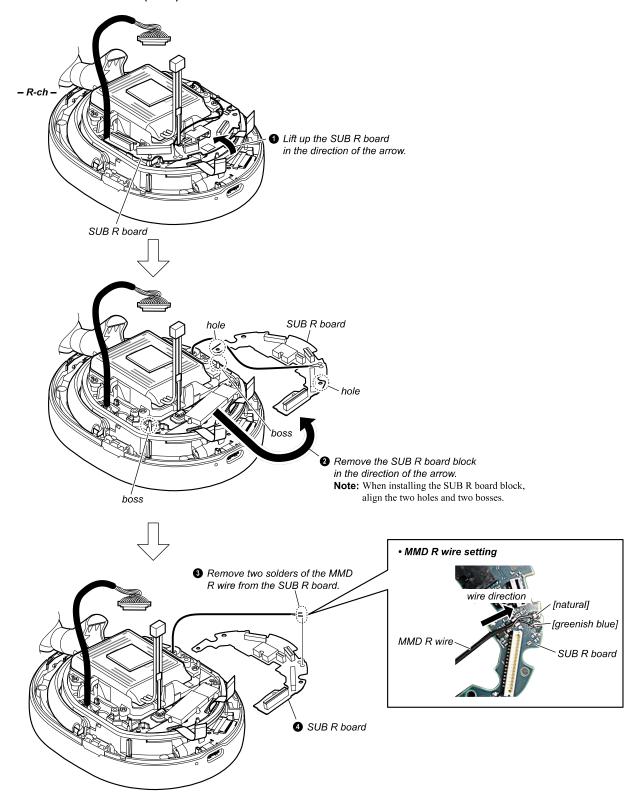
 Draw out the R 1 MIC module from the connector (CN2305) on the SUB R board.



wire from the groove. (See Fig. F)

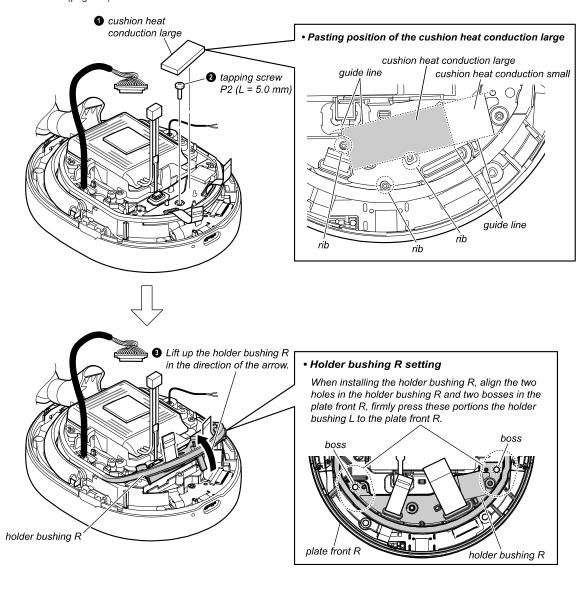


2-11. SUB R BOARD-4 (R-ch)



2-12. USB R BOARD-1 (R-ch)

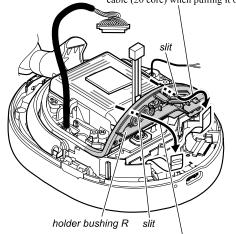
· Continued on 2-13 (page 17).



2-13. USB R BOARD-2 (R-ch)

① Draw out the flexible flat cable (20 core) from the slit of the holder bushing R. (See Fig. M)

Note 1: Be careful not to damage the flexible flat cable (20 core) when pulling it out.

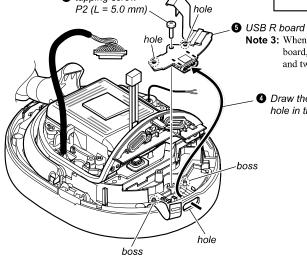


② Draw out the R3 MIC module from the slit of the holder bushing R. (See Fig. N)

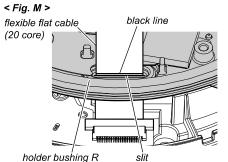
Note 2: Be careful not to damage the R3

MIC module when pulling it out.



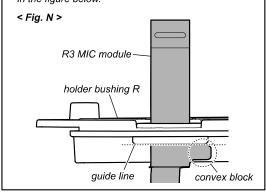


• Flexible flat cable (20 core) setting
When inserting the flexible flat cable (20 core) to
the slit of the holder bushing R, align the black line
on the flexible flat cable (20 core) as shown in the
figure below.



R3 MIC module setting
 When inserting the R3 MIC module to the slit
 of the holder bushing R, align the convex block
 of the R3 MIC module with the position shown

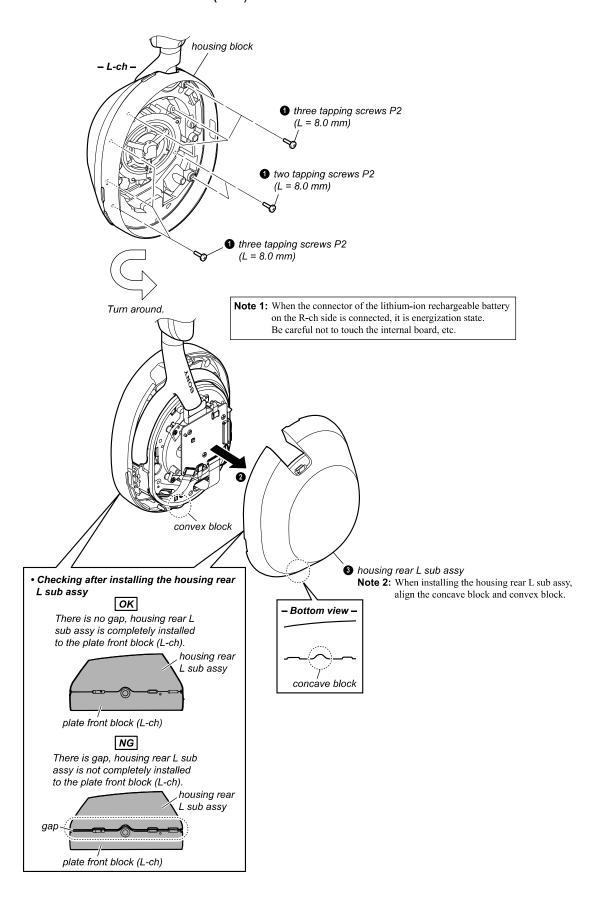
in the figure below.



Note 3: When installing the USB R board, align the two holes and two bosses.

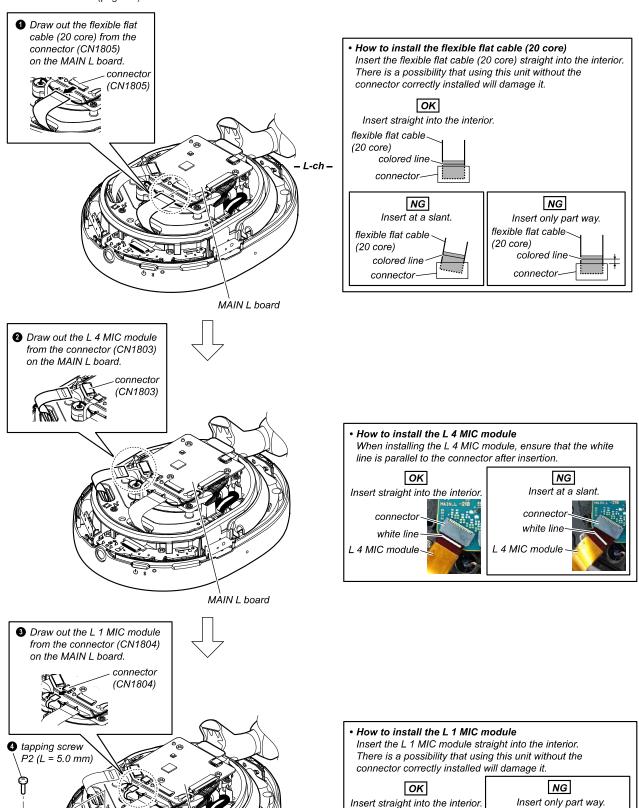
Oraw the connector out of the hole in the plate front R.

2-14. HOUSING REAR L SUB ASSY (L-ch)



2-15. JACK L BOARD-1 (L-ch)

· Continued on 2-16 (page 20).



connector 🌉

white line

L 1 MIC module

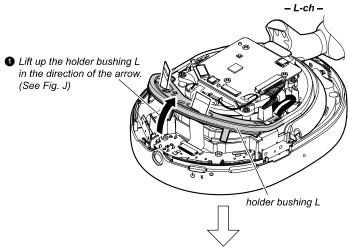
connector white line

L 1 MIC module

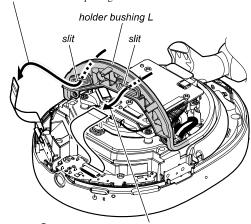
MAIN L board

19

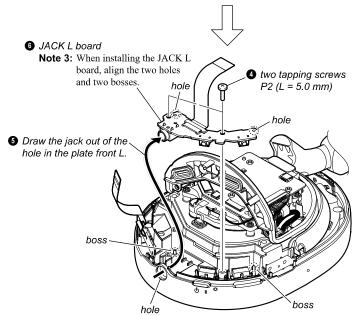
2-16. JACK L BOARD-2 (L-ch)



Oraw out the L4 MIC module from the slit of the holder bushing L. (See Fig. L) Note 2: Be careful not to damage the L4 MIC module when pulling it out.



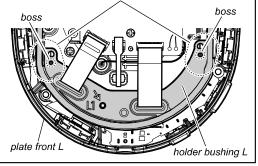
2 Draw out the flexible flat cable (20 core) from the slit of the holder bushing L. (See Fig. K) Note 1: Be careful not to damage the flexible flat cable (20 core) when pulling it out.



• Holder bushing L setting

< Fig. J >

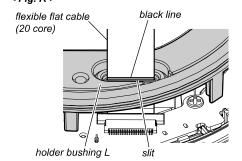
When installing the holder bushing L, align the two holes in the holder bushing L and two bosses in the plate front L, firmly press these portions the holder bushing L to the plate front L.



• Flexible flat cable (20 core) setting

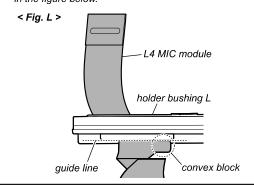
When inserting the flexible flat cable (20 core) to the slit of the holder bushing L, align the black line on the flexible flat cable (20 core) as shown in the figure below.

< Fig. K >



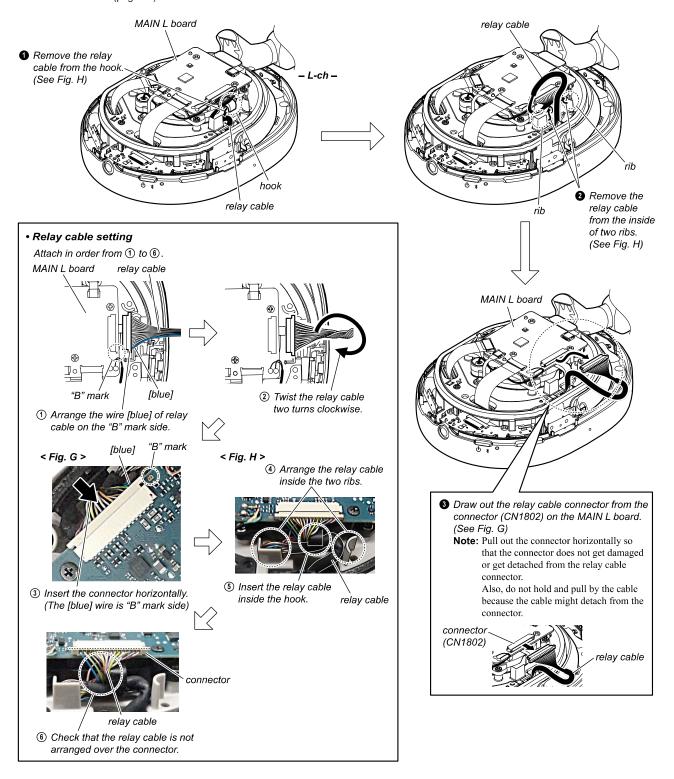
• L4 MIC module setting

When inserting the L4 MIC module to the slit of the holder bushing L, align the convex block of the L4 MIC module with the position shown in the figure below.



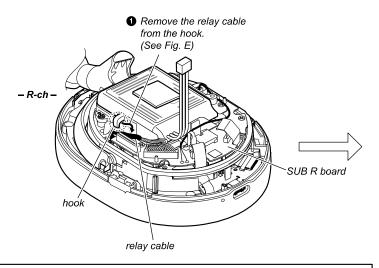
2-17. HEADBAND ASSY-1 (RELAY CABLE: L-ch)

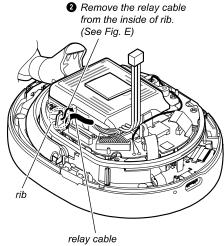
· Continued on 2-18 (page 22).

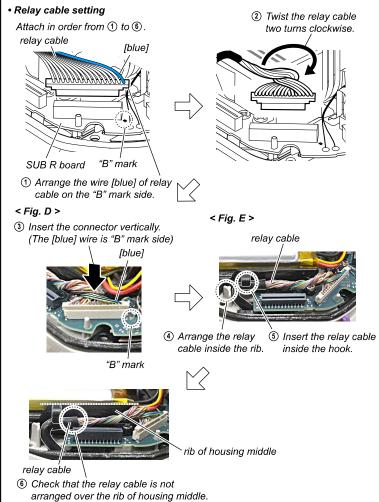


2-18. HEADBAND ASSY-2 (RELAY CABLE: R-ch)

· Continued on 2-19 (page 23).





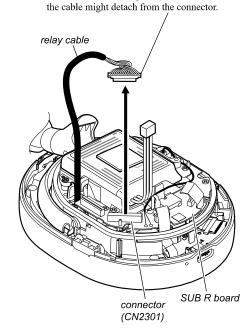




① Draw out the relay cable connector from the connector (CN2301) on the SUB R board. (See Fig. D)

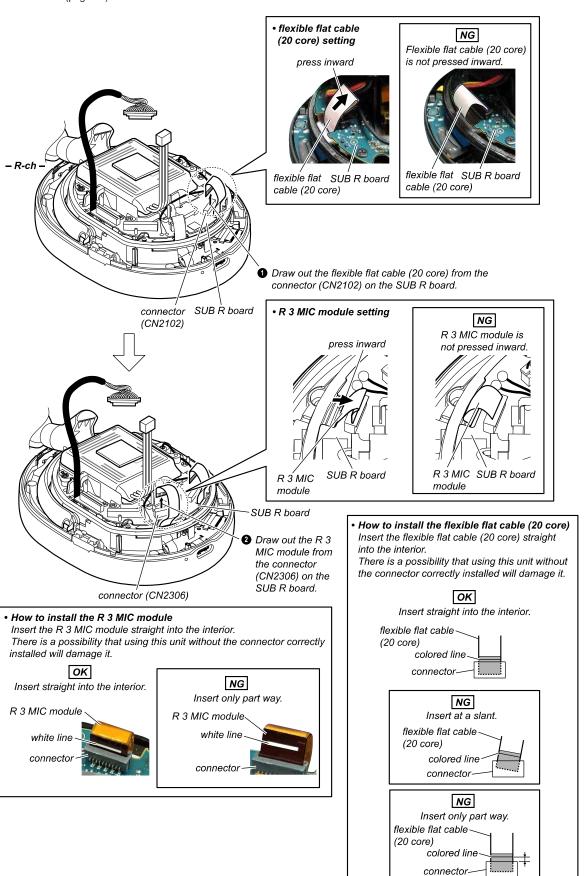
Note: Pull out the connector vertically so that the connector does not get damaged or get detached from the relay cable with connector.

Also, do not hold and pull by the cable because



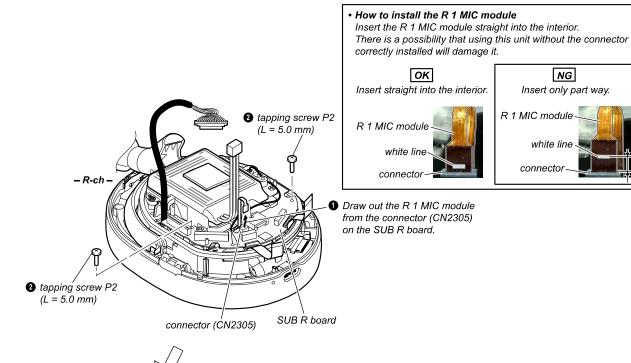
2-19. HEADBAND ASSY-3 (CONNECTOR: R-ch)

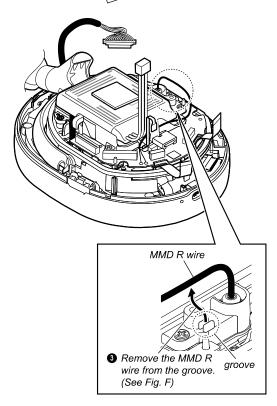
• Continued on 2-20 (page 24).

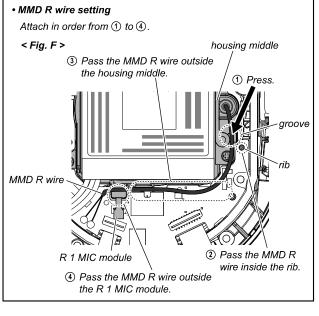


2-20. HEADBAND ASSY-4 (SCREW and MMD R WIRE: R-ch)

• Continued on 2-21 (page 25).

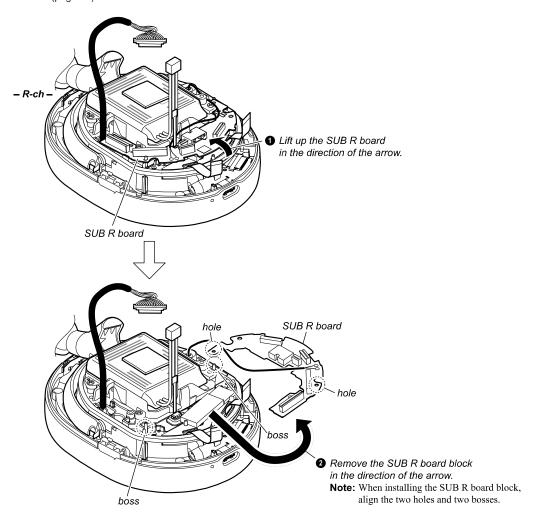






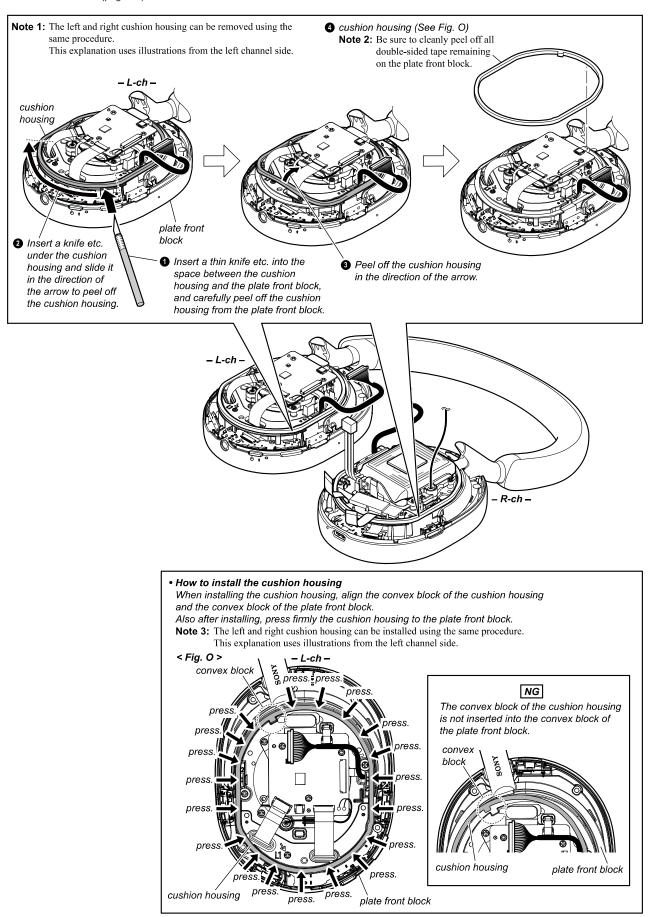
2-21. HEADBAND ASSY-5 (SUB R BOARD: R-ch)

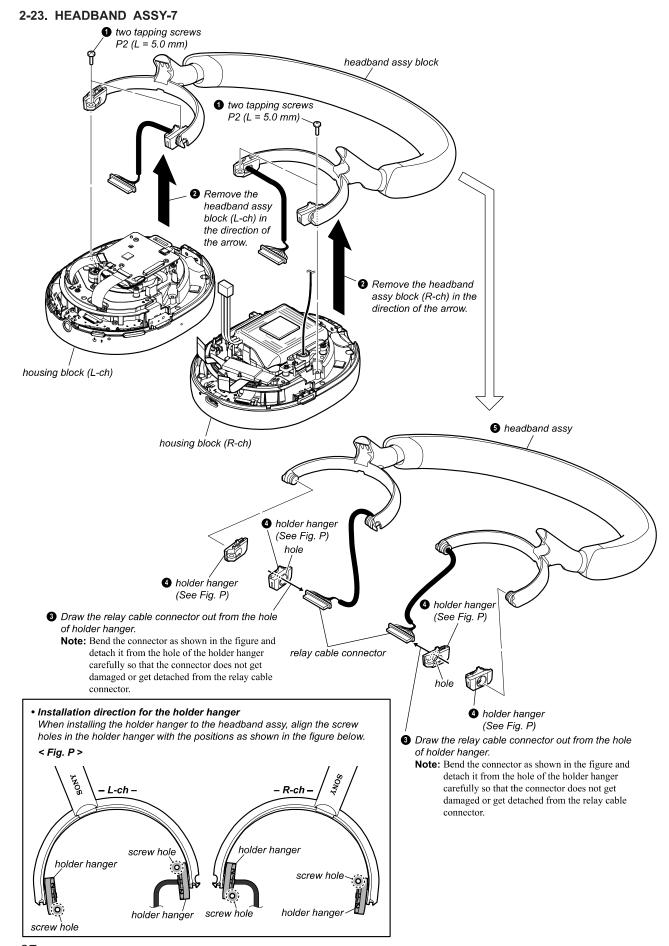
• Continued on 2-22 (page 26).



2-22. HEADBAND ASSY-6 (CUSHION HOUSING: L/R-ch)

· Continued on 2-23 (page 27).





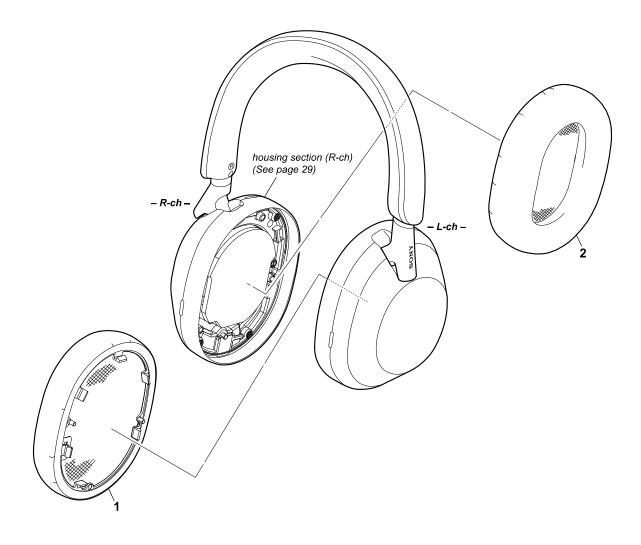
SECTION 3 EXPLODED VIEWS

Note:

- 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.
- -XX and -X mean standardized parts, so The mechanical parts with no reference number in the exploded views are not sup-
 - Color Indication of Appearance Parts Exam-

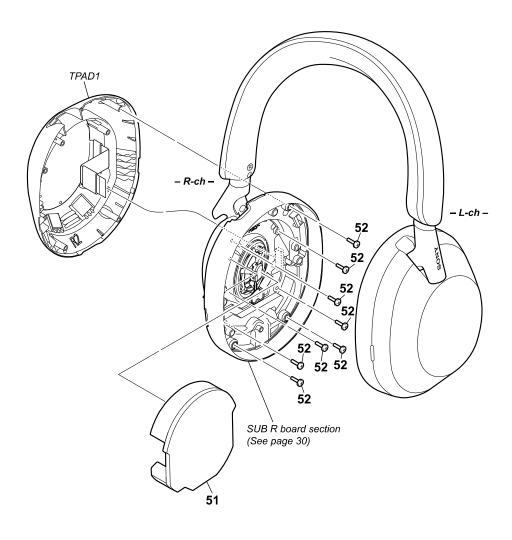
KNOB, BALANCE (WHITE) . . . (RED) Parts Color Cabinet's Color

3-1. EARPAD SECTION



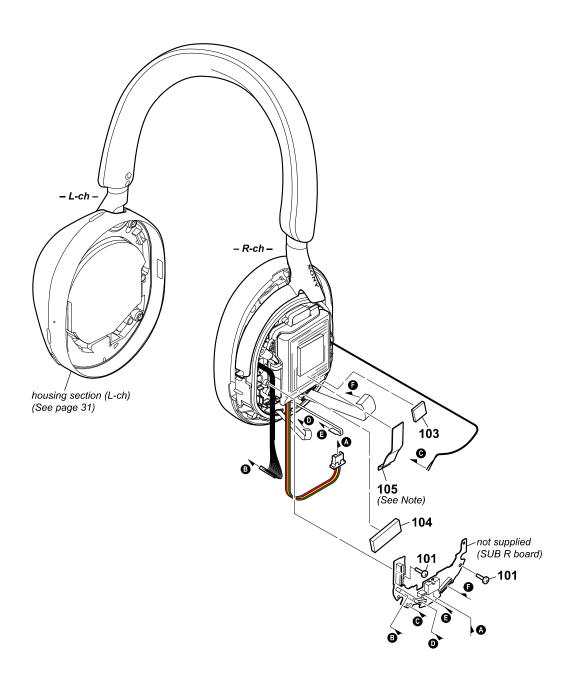
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	<u>Description</u>	Remark
1	503763311	EARPAD (L) BK (for L-ch) (with Model nu (BLAC	ımber label) K) (for Black)	2	503386821	EARPAD (R) (for R-ch) (BLACK) (for Black)	k)
1	503763411	EARPAD (L) S (for L-ch) (with Model nun (SILVER) (for Pla	/	2	503386831 503380551	EARPAD (R) (for R-ch) (SILVER) (for Plate EARPAD (R) (for R-ch) (BLUE) (for Midni	,
1	504134511	EARPAD (L) L (for L-ch) (with Model num	/	2	503380561	EARPAD (R) (for R-ch) (PINK) (for Smoky	,
1	506205911	EARPAD (L) P (for L-ch) (with Model nun	, ,				

3-2. HOUSING SECTION (R-ch)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51 52	503377601 503214631	SCREEN R (for R-ch) SCREW, TAPPING, P2, TOTSUPURA (L	= 8.0 mm) (Silver)	TPAD1	A5049093A	HOUSING REAR R SUB ASSY L, SV (Including Resistor BRC, TPAE Sheet busteraid) (R flexible board,
TPAD1	A5045611A	HOUSING REAR R SUB ASSY B, SV (fo (Including Resistor BRC, TPAD R fl Sheet busterai	exible board,	TPAD1	A5073263A	HOUSING REAR R SUB ASSY P, SV (Including Resistor BRC, TPAE	\ /
TPAD1	A5045612A	HOUSING REAR R SUB ASSY S, SV (fo (Including Resistor BRC, TPAD R fl Sheet busteraid) (for Pla	exible board,			Sheet busteraid)	(for Smoky Pink)

3-3. SUB R BOARD SECTION

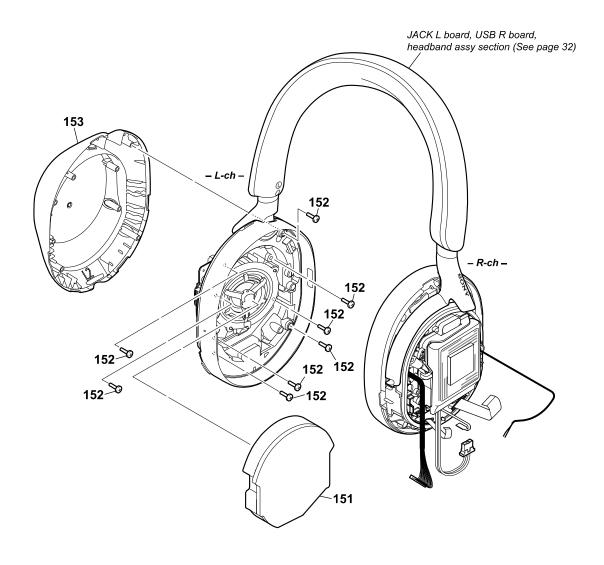


Note: When peeling off the adhesive cable battery (Ref. No. 105), be careful not to damage the coating of lithium-ion rechargeable battery.

Ref. No.	Part No.	<u>Description</u>	Remark
101	503214621	SCREW, TAPPING, P2, TOTSUPURA (L	,
103	503531811	CUSHION HEAT CONDUCTION SMALL	(Black)

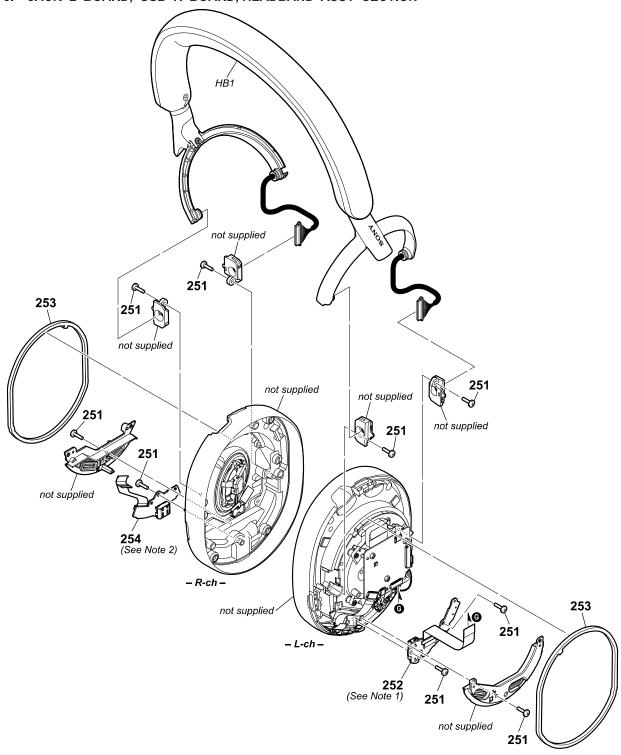
Ref. No.	Part No.	<u>Description</u>	Remark
104 105	503635111 503828301	CUSHION HEAT CONDUCTION LARGE ADHESIVE CABLE BATTERY (See Note)	

3-4. HOUSING SECTION (L-ch)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
151 152	503376301 503214631	SCREEN L (for L-ch) SCREW, TAPPING, P2, TOTSUPURA (L =	: 8.0 mm)	153	A5049092A	HOUSING REAR L SUB ASSY L, S (Including Resistor BRC)	,
		,	(Silver)			,	,
153	A5045609A	HOUSING REAR L SUB ASSY B, SV (for (Including Resistor BRC	, ,	153	A5073262A	HOUSING REAR L SUB ASSY P, S (Including Resistor BR)	. ,
153	A5045610A	HOUSING REAR L SUB ASSY S, SV (for (Including Resistor BRC) (for Plat	,				

3-5. JACK L BOARD, USB R BOARD, HEADBAND ASSY SECTION



Note 1: The USB R board is bundled in the complete JACK L board (Ref. No. 252) for repair board, but it is not necessary to replace the JACK L board and the USB R board at the same time. Use only the board that needs replacement.

Ref. No.	Part No.	Description	<u>Remark</u>
251	503214621	SCREW, TAPPING, P2, TOTSUPURA (L	= 5.0 mm)
			(Black)
252	A5066088A	JACK L BOARD, COMPLETE	
		(Including USB R board, Flexible flat cal	ble (20 core),
		Cushion FFC)	(See Note 1)
253	503375701	CUSHION HOUSING	
254	A5066088A	USB R BOARD, COMPLETE	
		(Including JACK L board, Flexible flat cal	ble (20 core),
		Cushion FFC)	(See Note 2)

Note 2: The JACK L board is bundled in the complete USB R board (Ref. No. 254) for repair board, but it is not necessary to replace the USB R board and the JACK L board at the same time. Use only the board that needs replacement.

Ref. No.	Part No.	<u>Description</u>	Remark
HB1	A5072931A	HEADBAND ASSY B SV (for Black)	
HB1 HB1 HB1	A5072932A A5072933A A5073265A	HEADBAND ASSY S SV (for Platinum Silv HEADBAND ASSY L SV (for Midnight Blue HEADBAND ASSY P, SV (for Smoky Pink)	·) ´

SECTION 4 ACCESSORIES

Ref. No.	Part No.	Description	Remark
	503539543	REFERENCE GUIDE (ENGLISH, FREN GERMAN, SPANISH, DUTCH, SWEDI PORTUGUESE, DANISH, FINNISH, N	SH, ITALIAN,
	503539553	REFERENCE GUIDE (POLISH, GREEK HUNGARIAN, BULGARIAN, SLOVAK, CROATIAN, ROMANIA	, CZECH, SLOVENIAN,
501	101614711	USB TYPE-C TO A CABLE (USB Type-C (USB-A to USB-C®) (ap	
502	100349432	(OSB-A to OSB-C-) (ap	prox. 20 cm))
		(Headphone cable (ag	oprox. 1.2 m))
503	503601321	CASE CARRYING K (BLUE) (for Midnight	nt Blue)
503	503601401	CASE CARRYING T (BLACK) (for Black)	1
503	503601411	CASE CARRYING T (LIGHT GRAY)	
		(for Pla	atinum Silver)
503	503601421	CASE CARRYING T (PINK) (for Smoky F	Pink)

