Pixel Watch 4 (41mm)

Repair manual

Version 1.1, September 2025

Google recommends that you seek professional assistance for all device repairs.

Self service repair isn't recommended unless you are an adult with the technical expertise to safely repair electronic devices. If you choose to perform self repair, you agree to assume the risk associated with such repair.

Use caution if you engage in repair.

When you open or repair your device, be careful of electric shock, device damage, fire and personal injury risks, and other hazards. Before you service the product, read the full set of precautions in this document.

Welcome!
We are here to help.

At Google, we innovate, design, and build to create helpful and sustainable products. Product longevity is important to us and repairability is part of that. Repair enables our products to stay in-use and out of landfills.

If you have any questions or want support, please reach out.

support.google.com

This manual is organized into sections for easy and intuitive navigation.

Precautions

Safety is a top priority for Google. Users should work in a safe environment and have the necessary skills and training to complete the repairs safely.

Repair flows

Here, we have a flow chart of the most efficient repair methods.

Disassembly

Each section contains a list, in the order of device disassembly, of prerequisite steps, tools, fixtures, and parts to complete the repair.

Assembly

For each disassembly, we provide a guide to reassembly. This might include rework steps for certain components.

Troubleshooting & testing

Use the diagnostic steps and testing recommended in this section to identify the source of device problems and issues.

Glossary

All of the terms and acronyms you need to communicate with the same language.

Table of contents

Revision history

Version	Date	Change description
V1.0	July, 2025	First release
V1.1	Sep, 2025	1. Correct GPN a. Battery to G949-01617-00 b. VIB to G949-01618-00 2. Corrected Greased Screw and O-ring GPNs on Pg 13, 24, 34, 35, 66, 67, 106, 108 a. Corrected Hook Screw GPN from G250-07759-01 to G250-08032-00 b. Corrected hook screw o-ring GPN from G804-01275-00 to G804-01304-00 3. Update Band Cap part descriptions to remove product acronym 4. Removed air leak fixture call out from Introduction

Pixel Watch 4 (41mm) repair manual

Precautions

Important: Before you begin

Be careful if you engage in repair

When you open or repair a device, be careful of electric shock, device damage, fire and personal injury risks, and other hazards.

Always perform repairs in a clean work space with good ventilation and no combustible materials.

Make sure that no additional screws or small parts are left in the device after assembly.

Always verify that screws are securely fastened.

Before you service the product, read the full set of precautions in this document.

Use caution: Batteries should be carefully handled, and could be dangerous when damaged

- Fully discharge device battery before you attempt repair.
- Never bend, dent, puncture, or use tools to pry the battery.
- Store batteries in the replacement part packaging as soon as possible after removal to prevent damage.
- If a battery begins to vent, cover it in sand or use gloves and tongs to place the battery in a fire safe container as soon as possible.
- Take care to prevent shorting of battery terminals or the battery damage, as it could result in fire or overheating.
- Dispose of the battery according to local regulations.

Use caution: Part handling — glass

- Wear protective gloves and safety glasses when you handle damaged parts.
- Use protective film when you remove damaged parts.
- After removal, store the damaged part in the replacement part packaging as soon as possible to prevent injury.

Important: Before you begin

Tools and fixtures

The use of Google-authorized tools and fixtures is **strongly recommended** to repair a device in a safe and effective manner.

Use caution:

- We *don't* recommend that you perform repairs without the specified tools and fixtures.
- Improper use of tools and fixtures might result in injury to yourself, the user of the device or other third parties, as well as damage to the product, tools, fixtures, replacement parts, or other spare parts.

Important: Before you disassemble the device

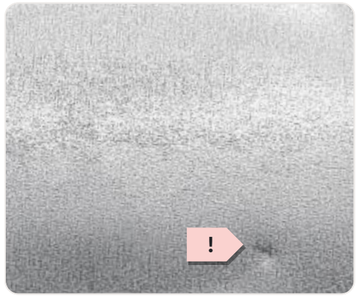
- Disconnect the device from all power sources before any disassembly.
- Make sure that the battery is fully discharged before any disassembly.
- If the device battery shows signs of swelling or damage, or if the device feels hot or emits a strong odor, *don't* attempt disassembly. Please reach out to Google customer support.
- Take care not to expose the device or its components to liquids after disassembly.

Important: Before disassembling the device

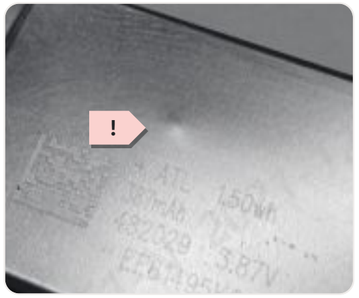
- Please refer to this repair manual for all repairs of your device.
- Repairs not undertaken pursuant to the instructions in this repair manual could result in a degradation of your device's performance or to the performance of features running on your device.

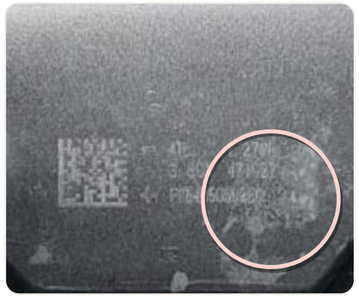
Use caution ⚠

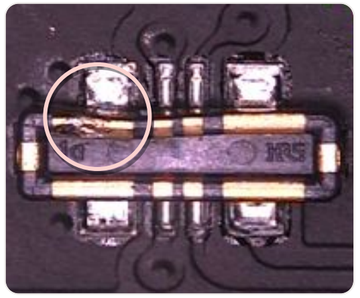
Examples of unacceptable battery conditions that are not suitable for repair*

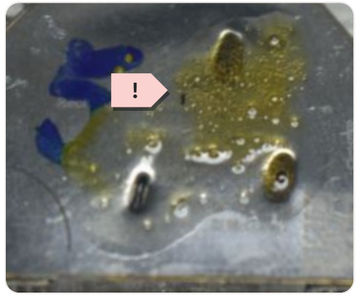

Dent


Line protrusion

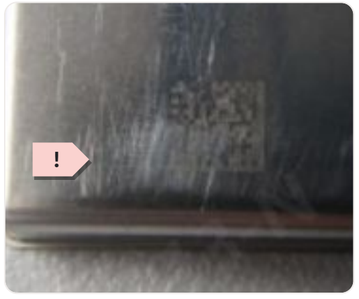

Protrusion (dot)

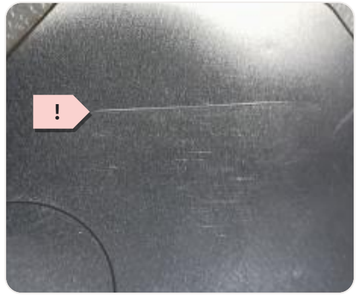

Contamination mark


Connector metal deformation


Electrolyte leakage


Deformation


Scratch


Scratch


Dent corner side

*These are examples of potentially dangerous battery conditions but *don't* reflect all possible dangerous conditions. Please follow the general safety guidance outlined in this document.

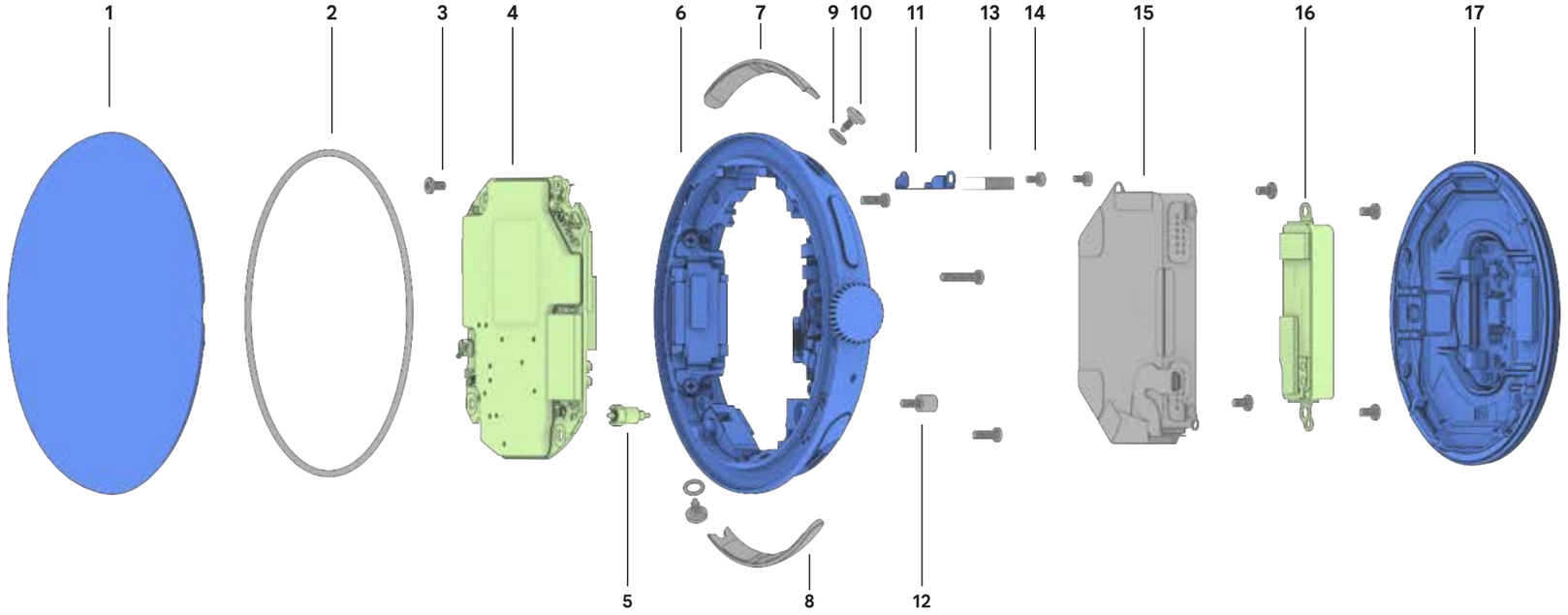
Pixel Watch 4 (41mm) repair manual

Introduction

Pixel Watch 4 (41mm): Expanded view

Reuse indications

- Reusable without cleaning
- Reusable with cleaning
- Not reusable after disassembly



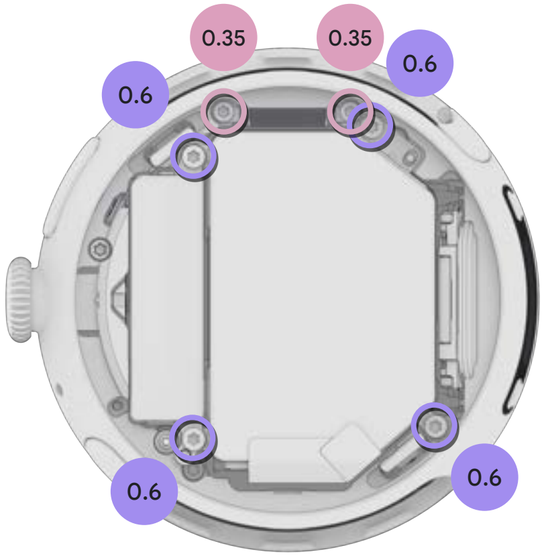
Pixel Watch 4 (41mm) part ID

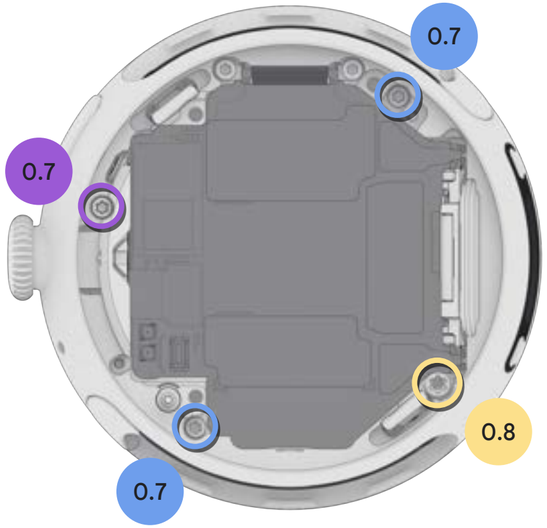
1	Display module	6	HSG module	11	B2B Bracket	16	Vibrator
2	HSG O-ring	7	Band cap (North)	12	Screws	17	BSH module
3	Screw	8	Band cap (South)	13	EMI tape		
4	Logic board	9	Band pocket screw O-ring	14	Screws		
5	ANT pogo pin	10	Band pocket screw	15	Battery		

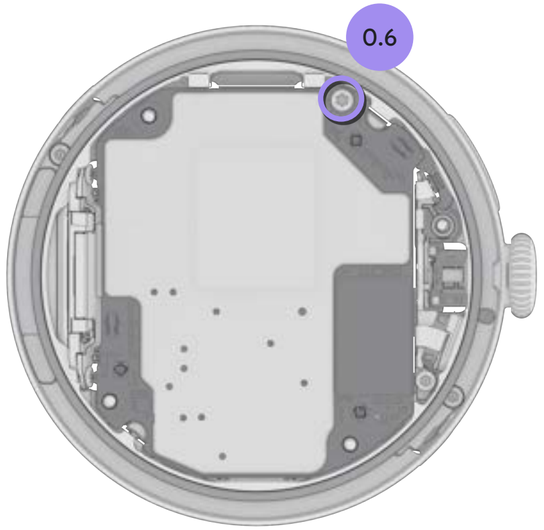
Screw map

These are the screws used in the Pixel Watch 4:

Screw 2IP G250-08163-00	**Screw 1IP** G250-07759-01	**Screw 2IP** G250-08032-00
		
Screw 2IP G250-07761-01	**Screw 5IP** G250-07762-01	**Screw 2IP** G250-07760-01
		







> ⚠ **Screws are a single use item**
>
> Screws are a single use item and if removed from the device, they should be replaced with a new screw.

ESD protection

Electro static discharge (ESD) could damage components, so it's important to work in an ESD-safe environment during repair.

Follow these four steps to stay ESD safe:

Stay grounded

Carry out repairs on an ESD mat. The person who repairs the device should wear a grounded ESD strap.

Avoid static buildup

Don't wear synthetic fibers such as fleeces that could generate static.

Protective bags

Pack all ESD-sensitive parts in metalized protective bags during shipping.

Avoid to touch pins

Use ESD-safe tools to handle components to avoid touching the pins.

Did you know?

ESD is the sudden flow of electricity through two electrically charged objects. For example, ESD is a shock you feel when you walk on a carpet, and then touch a metal door handle.

Turning Pixel Watch 4 (41mm) on / off

Turn the power on or off

- To turn on a device when it's powered off, press and hold the crown button for a few seconds until the G logo appears.
- To power off the device when it's turned on, select power off in the setting menu on the screen to power off the device.

Turn screen off and back on

- To turn screen on and off when the device is turned on, press the crown button once to turn off the screen. The screen automatically turns on when you raise your wrist, and the screen automatically turns off if you *don't* use it for a long time.
- Other screen settings could be set in the screen menu Settings.

Restart or reboot

- To restart the device, select *Restart* in the *Settings* menu on the screen.

Tools and fixtures

The use of Google-authorized tools and fixtures is strongly recommended to repair a device in a safe and effective manner.

Use caution

- We *don't* recommend that you perform repairs without the specified tools and fixtures.
- Improper use of tools and fixtures *might* result in injury to yourself, the user of the device or other third parties, as well as damage to the product, tools, fixtures, replacement parts, or other spare parts.

Tools and fixtures

Google-approved fixtures: Pixel Watch 4 (41mm)

Google-approved fixtures are Google-tested and are strongly encouraged to ensure high quality and safe repairs.

HSG O-ring guide top fixture - 41mm

G940-01079-00

HSG position bottom fixture - 41mm

G940-01078-00

Tools and fixtures

Standard tools

Standard consumables are suggested to ensure high quality and safe repairs.
These items *don't* need to be purchased from a Google-recommended supplier.

ESD wristband

ESD spudger

Plastic

ESD tweezers

Plastic

Torx screwdriver

Head-**1IP**

Torx screwdriver

Head-**2IP**

Torx screwdriver

Head-**5IP**

93301 ESD tweezers

Plastic

Suction pen

(VTB-W-6RS or VTA-W-SET)

Universal watch holder

Tools and fixtures

Standard consumables

Standard consumables are suggested to ensure high quality and safe repairs.
These items *don't* need to be purchased from a Google-recommended supplier.

IPA

Dust-free cloth

Lubricant silicone grease

Polysi PST-841

Anti-static ESD gloves

ESD finger cots

Dust-free cotton swabs

Tools and fixtures

Safety items

Safety items are suggested to ensure high quality and safe repairs.
These items *don't* need to be purchased from a Google-recommended supplier.

Safety glasses

Heat resistant protective gloves

Cut resistant protective gloves

Nitrile or lint-free gloves

Sand bucket

Tools and fixtures

Repair fixture recommendations

Google-approved fixtures are Google-tested and are strongly encouraged to ensure high quality and safe repairs.

Type of repair	Fixtures recommended
All repairs	Pixel Watch 4 (41mm) tool bundle, universal HSG O-ring fixture, torx screwdriver hex head 1IP, 2IP, 5IP, universal screw O-Ring guide pin, universal protective film, universal line pen, and suction cup (diameter 40 mm).

Replacement parts

Important notice about the replacement parts

- The use of Google authorized replacement parts is strongly recommended.
- Performance within product specifications can’t be assured if Google-authorized replacement parts are not used.

Use caution

Use of replacement parts other than Google-authorized replacement parts, such as aftermarket batteries, *might* impact device safety, reliability, and performance.

Replacement parts

Reuse indications — Reusable without cleaning | Reusable after cleaning | Not reusable after disassembly

Logic board
G949-0149x-00

Display module
G710-07707-01

HSG module
G730-09624-0x

B2B bracket
G853-02306-00

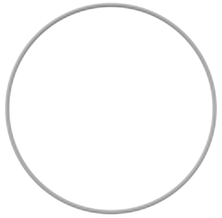
BSH module
G710-07704-0x

Vibrator
G949-01618-00

Battery
G949-01617-00

ANT pogo pin
G852-05269-00

HSG O-ring
G804-01273-00



Screw
G250-07762-01

Screw
G250-07760-01

Screw
G250-07761-01

Replacement parts

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Plastic, band cap, north
G852-04938-00

Plastic, band cap, south
G852-05395-00

B2B bracket conductive tape
G823-00556-02

Screw O-ring
G804-01304-00

Screw
G250-08032-00

Screw
G250-08163-00

Screw
G250-07759-01

Glossary

Glossary

Acronym or term	Definition
Display module	The OLED, glass cover, and sometimes other components such as the fingerprint sensor. **Also known as:** Cover Glass (CG), display, screen
Logic board	The main electronic component in the device with the processor, memory, storage, and often Wi-Fi and bluetooth components soldered on. **Also known as:** MLB, main logic board, main board, PCBA
MIC	The component used to capture audio to make a call, video, or dictate some notes. **Also known as:** microphone
HSG module	The housing that contains the buttons and provides protection for the logic board and other components. **Also known as:** middle frame
BSH module	A biosensor is an analytical device, used for the detection of a chemical substance, that combines a biological component with a physicochemical detector. **Also known as:** back cover, Bio Sensor Hub
NG	**Not Good.** Usually refers to a condition that is not acceptable.
Vibrator	A vibrator is a mechanical device to generate vibrations. The vibration is often generated by an electric motor with an unbalanced mass on its driveshaft. **Also known as:** LRA

Glossary

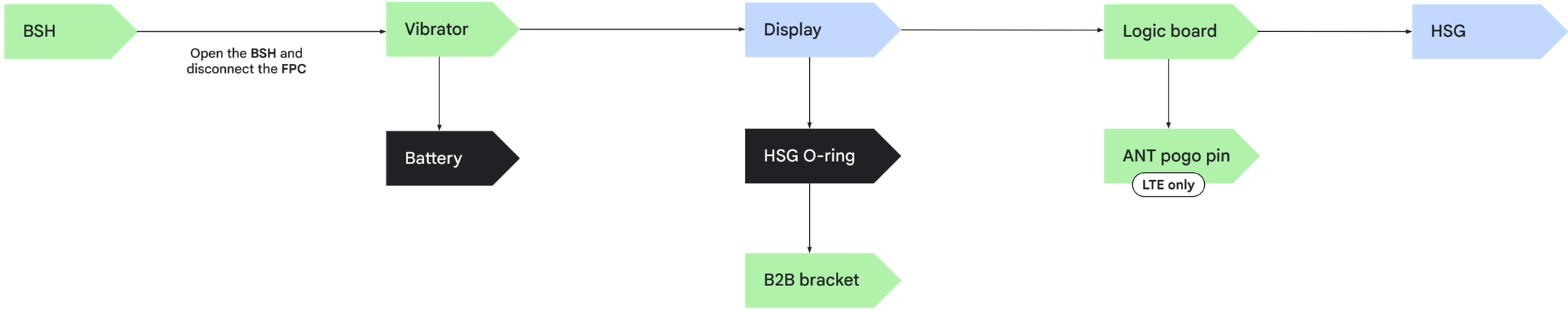
Acronym or term	Definition
ESD	Electro Static Discharge The sudden flow of electricity through two electrically charged objects.
IPA	Isopropyl Alcohol Used to clean components and enclosures. Comes as pads or a solution.
FPC	Flexible Printed Circuit A type of low profile and flexible printed circuit.
SBOM	Service Bill Of Materials
EMI	Electromagnetic Interference
NFC	Near Field Communication
ZIF	Zero Insertion Force
BTB	Board to Board
LTE	Long-Term Evolution

Pixel Watch 4 (41mm) repair manual

Repair flows

Pixel Watch 4 (41mm) Disassembly flowchart

To be removed before next process
Optional to remove
Reusable w/o cleaning
Reusable after cleaning
Not reusable after disassembly



How to read this chart

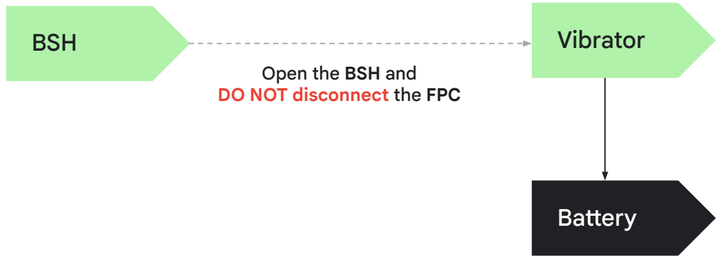
Disassemble in the order of arrows.

To replace the battery, remove the BSH module, vibrator, and then the battery.

Replacing the battery only? See next page ➜

Pixel Watch 4 (41mm) Disassembly flowchart

(Battery replacement only)



To be removed before next process

Optional to remove

Reusable w/o cleaning

Reusable after cleaning

Not reusable after disassembly

How to read this chart

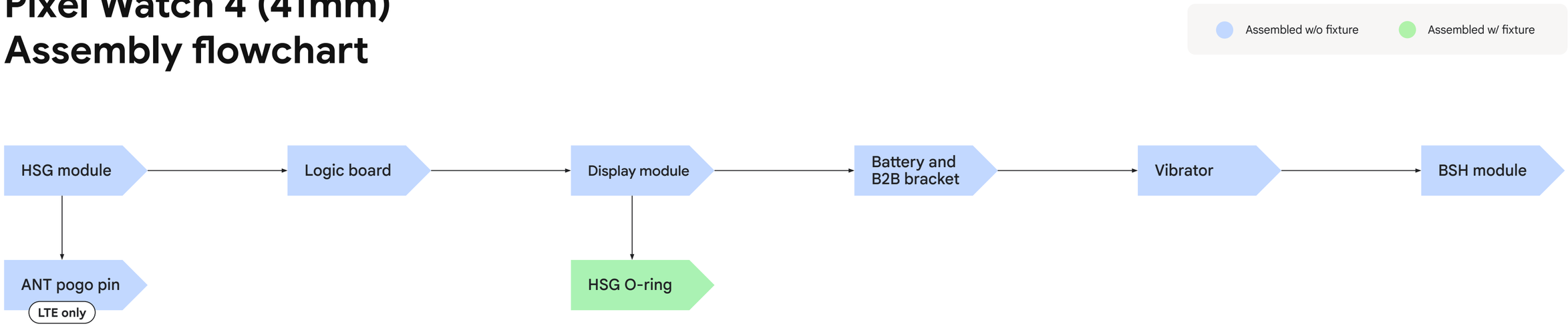
Disassemble in the order of arrows.

For example, to replace the battery: Open the BSH module, vibrator, then the battery.

Did you know?

You do not need to disconnect the BSH if you are only replacing the battery.

Pixel Watch 4 (41mm) Assembly flowchart



How to read this chart

Assemble the HSG module, logic board, display module, battery and B2B bracket, Vibrator, and BSH module.

Pixel Watch 4 (41mm) repair manual

Disassembly

Replacing the battery only? ➜

Disassembly instructions

BSH module

The BSH module is connected by two internal hooks of the middle frame assembly, which is secured by strap screws.

Use caution!

Don't use excessive force when suck the bottom with the suction cup to avoid damaging the internal FPC.

Prerequisites

Turn off the product and disconnect the charger before disassembly.

Remove the hook screws on both sides of the strap.

Tools

Torx screwdriver head-2IP

ESD tweezers

ESD spudger

parts

BSH Module

Here’s the list of parts for the BSH module disassembly:

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

BSH module
G710-07704-0x

Screw
G250-08032-00

Screw O-ring
G804-01304-00

Remove the band pocket screws

- Remove the screw from each side of the band pocket with a **torx plus 2IP screwdriver as shown in** Fig 1
- Orient your screwdriver vertically to the screw head as shown in Fig 2
- After you remove the screws, verify that you also remove the **O-rings** from HSG as shown in Fig 3

Part: G804-01304-00 *2 (screw O-ring)

Part: G250-08032-00 *2 (screw_2IP)

Fig 1

Fig 2

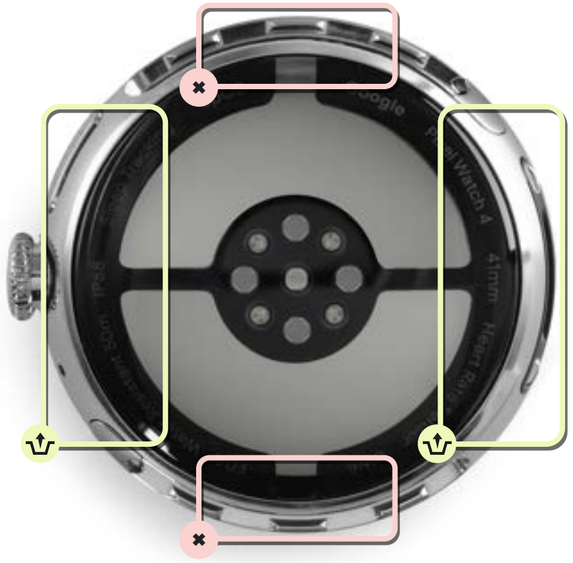
Fig 3

Note

1. *Don't* reuse the screw
2. Make sure also remove the screw **o-ring** from HSG

Remove the BSH

Insert a **spudger** between the Bio Sensor Hub (BSH) and HSG to open the BSH module.



Use caution

The BSH module is connected to the logic board through a heart rate board, so be careful with the flex when you open up the device.

Disconnect the BSH FPC

- Flip the BSH to the side opposite the crown as shown in Fig 1
- With the **plastic spudger,** gently lift the ZIF locking flap located on the side opposite the **FPC** direction as shown in Fig 2.1
- Gently pull the **FPC** to disconnect it from the **ZIF connector** as shown in Fig 3

Fig 1

Fig 2

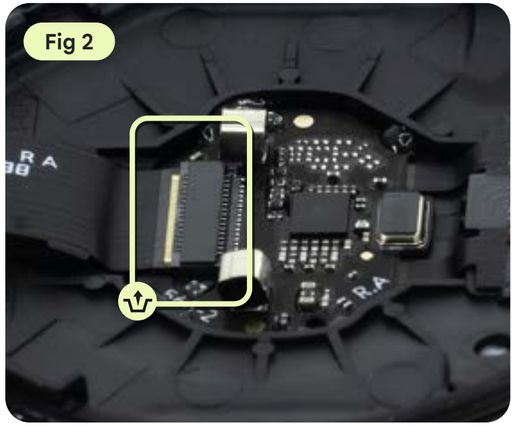


Fig 2.1

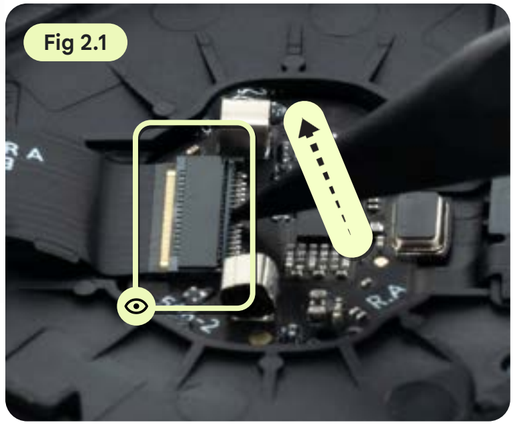


Fig 3

> **Use caution**
>
> Be careful to avoid damage to the components on the BSH.

Finished! Need assembly instructions? ➜

Disassembly instructions

Vibrator

The FPC at the bottom of the vibrator has two contacts that correspond to the logic board shrapnel.

Use caution!

Pay attention to protect the FPC contact point at the bottom of the vibrator to avoid contamination.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Tools

Torx screwdriver head-2IP

ESD tweezers

Parts

Vibrator

Here’s the list of parts for the vibrator disassembly:

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Vibrator
G949-01618-00

Screw *2
G250-08163-00

Remove the vibrator screws

Remove the two darker screws with a **torx plus 2IP screwdriver.**

Part: G250-08163-00 *2 (screw)

Note

***Don't* reuse the screw.**

Use caution

Be careful when you use the screwdriver. *Don't* damage the adjacent battery.

Incorrect use of the screwdriver could cause injury to you or others and damage the battery or the product.

Remove the vibrator

Use the **ESD tweezers**, grab the **vibrator** from the one end and gently lift to remove.

Part: G949-01618-00 (vibrator)

Use caution

Be careful when you use the tweezer.
***Don't* damage the placement tab on the vibrator.**

Finished! Need assembly instructions? ➜

Disassembly instructions

Battery

The flex FPC of the battery is connected to the logic board and has a metal protective layer on the surface.

Use caution!

Don't use the battery if it falls, and *don't* touch the battery with sharp objects such as tweezers.

Follow all battery precautions before attempting repair.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Vibrator

Tools

Torx screwdriver head—2IP

ESD tweezers

ESD spudger

parts

Battery

Here's the list of parts for the battery disassembly:

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Battery

G949-01617-00

Screw *2

G250-08163-00

Remove the battery screws

Remove the two darker screws with a **torx plus 2IP screwdriver.**

Part: G250-08163-00 *2 (screw)

Note

***Don't* reuse the screw.**

Use caution

Be careful when you use the screwdriver.

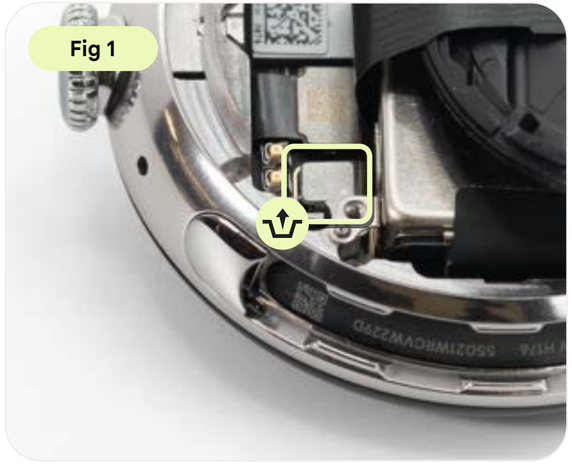
***Don't* damage the adjacent battery.**

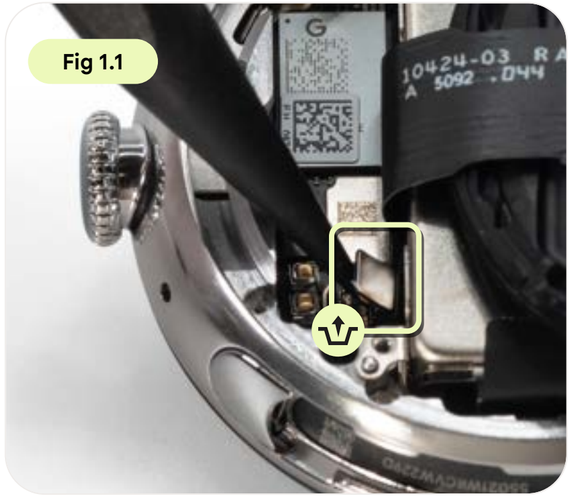
Incorrect use of the screwdriver could cause injury to you or others or damage to the battery or the product.

Disconnect the battery BTB

- Use the **plastic spudger,** to carefully lift and disconnect the **battery connector** from the logic board as shown in Fig 1 Fig 1.1
- Remove the **battery** with your hand and lift it from the space previously occupied by the vibrator as shown in Fig 2

Part: G949-01617-00 (battery)





Use caution

Keep small screws and sharp objects away from the battery.

For your safety, we recommend you to install a new battery after the removal.

Finished! Need assembly instructions? ➜

Disassembly instructions

Display module

The display module is connected to the logic board, so be careful with the flex when you open up the device.

Use caution!

Use safety gloves to handle damaged displays as it might splinter during removal and could cause injury.

Apply a protective film to broken glass before removal.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Vibrator

Battery

Tools

Torx screwdriver head-2IP

Torx screwdriver head-5IP

Torx screwdriver head-1IP

ESD tweezers

parts

Display module

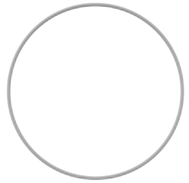
Here’s the list of parts for the display module disassembly:

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Display module
G710-07707-01

HSG O-ring
G804-01273-00



Display B2B bracket
G853-02306-00

B2B bracket conductive tape
G823-00556-02

Screw 3
G250-07760-01

Screw 4
G250-07761-01

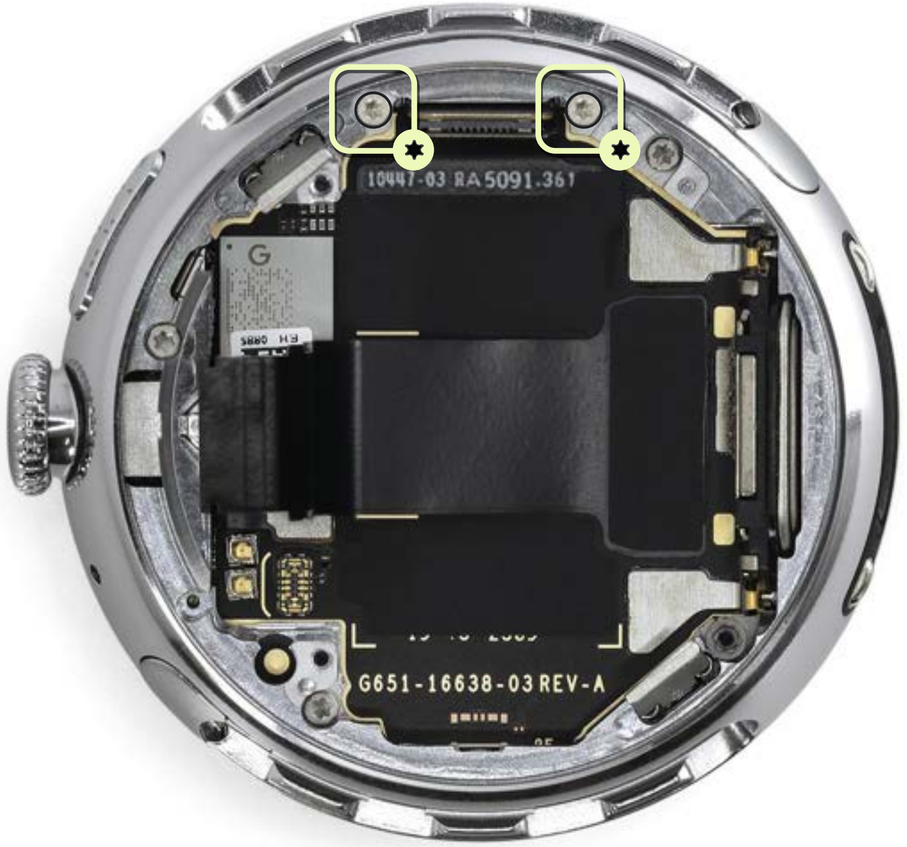
Screw 1
G250-07759-01

Screw 2
G250-07762-01

Remove the BTB bracket screws

Remove the two BTB bracket screws with a **torx plus 1IP screwdriver.**

Part: G250-08163-00 *2 (screw)



Note

***Don't* reuse the screw.**

Use caution

Use safety gloves to handle damaged displays as it might splinter during removal and could cause injury.

Review all safety precautions, before you begin work.

Remove the display BTB bracket

- Rotate the **display BTB bracket** with **ESD tweezers** to detach it as shown in Fig 1 Fig 1.1
- Remove the **display bracket conductive tape** with **ESD tweezers** as shown in Fig 2

Part: G853-02306-00 (display B2B bracket)

Part: G823-00556-02 (display bracket conductive tape)

Note

***Don't* reuse the display bracket conductive tape.**

Fig 1

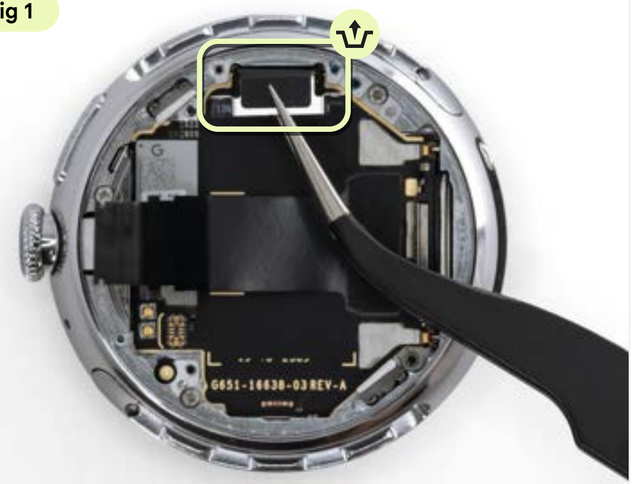


Fig 2

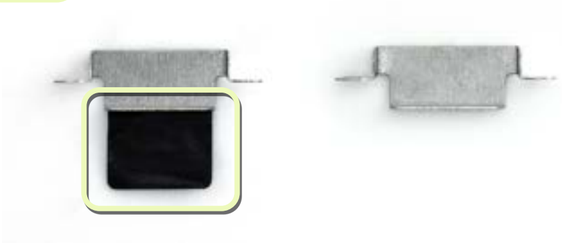


Fig 1.1

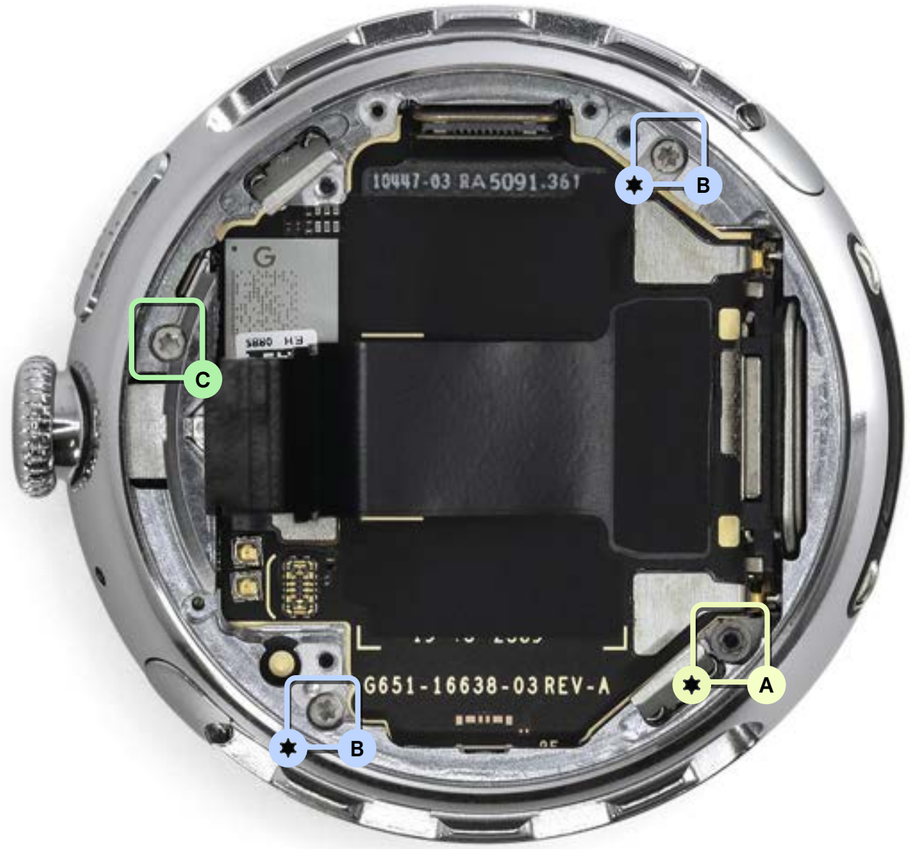
Remove the screws of the display

- Use a **torx screwdriver** to remove the **four long screws** from the display assembly.
- Note that there are three **different screw sizes.**

Part2: G250-07762-01 *1 (socket screw)

Part3: G250-07760-01 *2 (CG Socket screw)

Part4: G250-07761-01 *1 (socket screw)



A: G250-07762-01 (5IP)

B: G250-07760-01 (2IP)

C: G250-07761-01 (2IP)

Note

***Don't* reuse the screws.**

Remove the display FPC

- Disconnect the **display connector** with **ESD tweezers** as shown in Fig 1
- Make sure that the end of the display FPC remains separated as shown in Fig 2 Fig 2.1

Fig 1

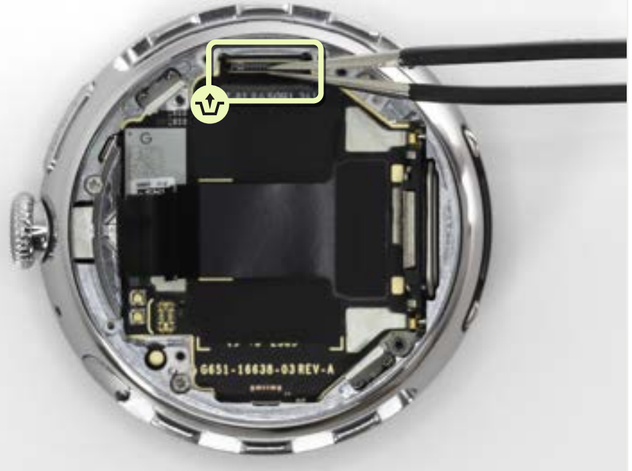


Fig 2

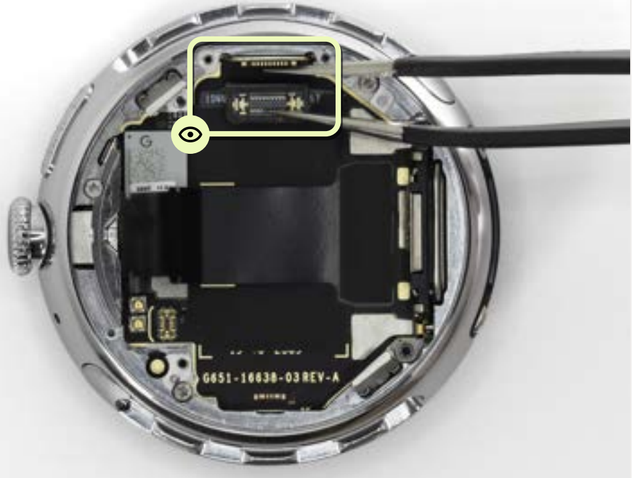


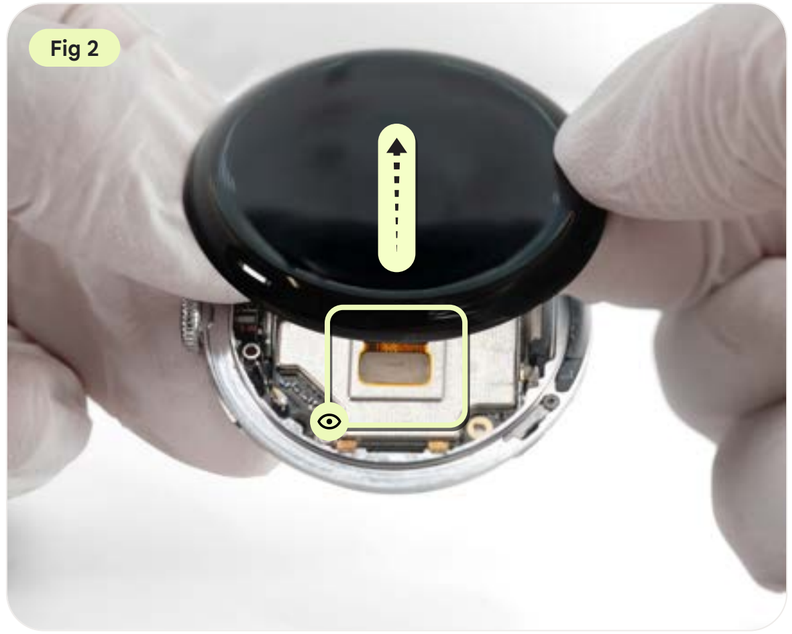
Fig 2.1

Remove the display FPC (contined)

- Insert a **spudger** between the coverglass and HSG to open the display module as shown in Fig 1
- Gently pull the FPC through the HSG access hole from the display side as shown in Fig 2

Fig 1

Fig 2



Remove the O-ring

Use **ESD tweezers** to remove the **sealing of the O-ring** between the display and the HSG module.

Part: G804-01273-00 (HSG O-Ring)

⚠ Use caution

Sometimes the O ring is on the display module side.

Finished! Need assembly instructions? ➜

Disassembly instructions

Logic board

The logic board consists of memory, storage, the processor, display hotbar FPC, BIO hotbar FPC, and communication components, such as Wi-Fi and RF.

Use caution!

Avoid deformation of the charging shrapnel on one end of the main board when disassembled.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Vibrator

Battery

Display module

Tools

Hex screwdriver head-2IP

ESD tweezers

Parts

Logic board

Here's the list of parts for the logic board disassembly:

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Logic board

G949-0149x-xx

Logic board Screw

G250-08163-00

Antenna pogo pin

G852-05269-00

Disconnect the HSG FPC

- Remove the logic board screw with a **torx screwdriver head 2IP.**
- Flip the device and disconnect the **input module connector** with **ESD tweezers.**

Part: G250-08163-00 (screw)

Note

***Don't* reuse the screw.**

Use caution

Be careful to avoid damage to the components on the logic board.

Remove the logic board

Use your fingers to push from the back of the **logic board** and remove it from the HSG module on the opposite side.

Part: G949-0149x-00 (logic board)

Remove the ANT pogo pin (LTE only)

Remove **antenna pogo pin** with **ESD tweezers**.

Part: G852-05269-00 (antenna pogo pin)

Note

Please note the difference between the LTE and Wi-Fi versions. The LTE version has an antenna connection pin, whereas the Wi-Fi version doesn't.

Finished! Need assembly instructions? ➜

Disassembly instructions

HSG module

The HSG module consists of a speaker, an input module, two strap buttons, a side button, and a crown.

Use caution!

If you reuse the housing module, verify that any screw or adhesive residue is completely removed.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Vibrator

Battery

Display module

Logic board

Tools

IPA

ESD gloves

Dust-free cotton swabs

Dust-free cloth

Parts

HSG module

Here’s the list of parts for the HSG module disassembly:

Reuse the indications Reusable without cleaning | Reusable after cleaning | Non reusable after disassembly

HSG module

G730-09624-0X

Finished! Need assembly instructions? ➜

Disassembly instructions

Band cap

The band cap needs to be removed if you are performing the **optional** leak test.

Use caution!

Careful when prying up the band cap to avoid damaging the housing or band pocket screw.

Prerequisites

Turn off the product and disconnect the charger before disassembly.

Remove the hook screws on both sides of the band pocket.

Tools

ESD spudger

Parts

Band cap

Here’s the list of parts for the HSG module disassembly.

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Plastic, Band cap, South

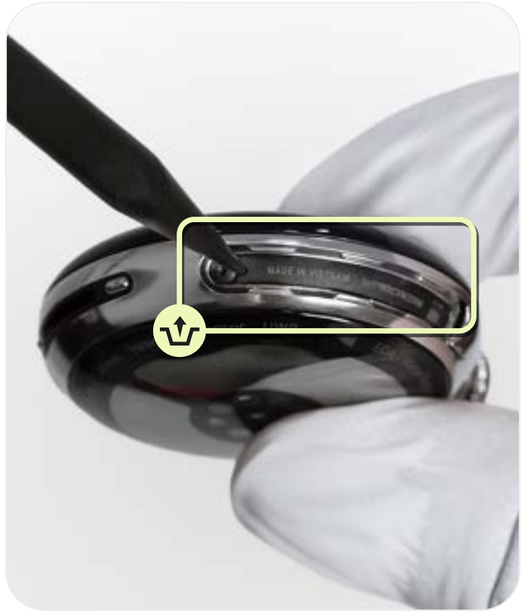
G852-05395-00

Band cap removal

(Optional for AirLeak test only)

Place a plastic spudger at the notch of the Band cap (South) and pry the cap upward to remove.

Part: G852-05395-00 (Plastic band cap South)



Note

Ensure the band attach cap Is removed carefully, without damaging the nearby housing or screw components.

Finished! Need assembly instructions? ➜

Pixel Watch 4 (41mm) repair manual

Disassembly

(Battery replacement only)

BSH module

Vibrator

Battery

Disassembly instructions

BSH module

The BSH module is connected by two internal hooks of the middle frame assembly, which is secured by strap screws.

Use caution!

Do not use too much force when sucking the bottom with the suction cup to avoid damaging the internal FPC.

Prerequisites

Turn off the product and disconnect the charger before disassembly.

Remove the hook screws on both sides of the strap.

Tools

Torx Screwdriver head—2IP

ESD tweezers

ESD spudger

parts

BSH module

Here’s the list of parts for the BSH module disassembly.

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

BSH module

G710-07704-0

Screw

G250-08032-00

Band screw O-ring

G804-01304-00

Remove the band pocket screws

- Remove the screw from each side of band pocket with a **torx plus 2IP screwdriver.** Fig 1
- Orient your screwdriver vertically to the screw head. Fig 2
- After removing the screws, ensure you also remove the **O-rings** from HSG. Fig 3

Part: G804-01304-00 *2 (Screw O-ring)

Part: G250-08032-00 *2 (Screw_2IP)

Fig 1

Fig 2

Fig 3

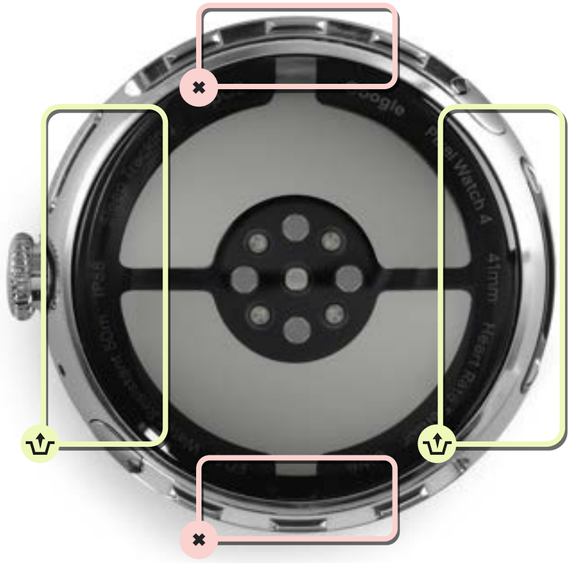
Note

1. Don't reuse the screw
2. Make sure also remove the screw **o-ring** from HSG

Remove the BSH

(Bio Sensor Hub)

Insert a **plastic spudger** between the BSH and HSG to open the BSH module.



Caution

The BSH module is connected to the logic board via a heart rate board, so be careful with the flex when you open up the device.

Prop the BSH

- Flip the **BSH** gently to the side away from the crown.
- Make sure that the **FPC** remains connected.

Fig 1

Fig 2

Fig 3

Use caution

The BSH module is connected to the logic board through a heart rate board, so be careful with the flex when you open up the device.

Be careful to avoid damage to the components on the BIO board.

Disassembly instructions

Vibrator

The FPC at the bottom of the vibrator has 2 contacts corresponding to the logic board shrapnel.

Use caution!

Pay attention to protect the FPC contact point at the bottom of the vibrator to avoid contamination.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Tools

Torx Screwdriver head—2IP

ESD tweezers

parts

Vibrator

Here’s the list of parts for the vibrator disassembly.

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Vibrator

G949-01618-00

Screw *2

G250-08163-00

Remove the vibrator screws

Remove the two darker screws with a **torx plus 2IP screwdriver.**

Part: G250-08163-00 *2 (Screw)

Note

***Don't* reuse the screw.**

Caution

Be careful when you use the screwdriver. *Don't* damage the adjacent battery.

Incorrect use of the screwdriver could cause injury to you or others or damage to the battery or the product.

Remove the vibrator

Using the **ESD tweezer,** grab the **vibrator** from the one end and gently lift to remove.

Part: G949-01618-00 (Vibrator)

Caution

Be careful when you use the tweezer.

***Don't* damage the placement tab on the vibrator.**

Disassembly instructions

Battery

The flex FPC of the battery is connected to the logic board and has a metal protective layer on the surface.

Use caution!

Do not use the battery if it has fallen, and do not touch the battery with sharp objects such as tweezers.

Prerequisites

Here's the list of components that you should remove first:

BSH module

Vibrator

Tools

Torx Screwdriver head—2IP

ESD tweezers

ESD spudger

parts

Battery

Here's the list of parts for the battery disassembly

Reuse indications

- Reusable without cleaning
- Reusable after cleaning
- Not reusable after disassembly

Battery

G949-01617-00

Screw *2

G250-08163-00

Remove the battery screws

Remove the two darker screws with a **torx plus 2IP screwdriver.**

Part: G250-08163-00 *2 (Screw)

Note

***Don't* reuse the screw.**

Caution

Be careful when you use the screwdriver. *Don't* damage the adjacent battery.

Incorrect use of the screwdriver could cause injury to you or others or damage to the battery or the product.

Disconnect the battery BTB

- Using the **plastic spudger,** carefully lift and disconnect the **battery connector** from the logic board. Fig 1 Fig 1.1
- Remove the **battery** by hand, lifting it from the space previously occupied by the vibrator. Fig 2

Part: G949-01617-00 (Battery)

Fig 1

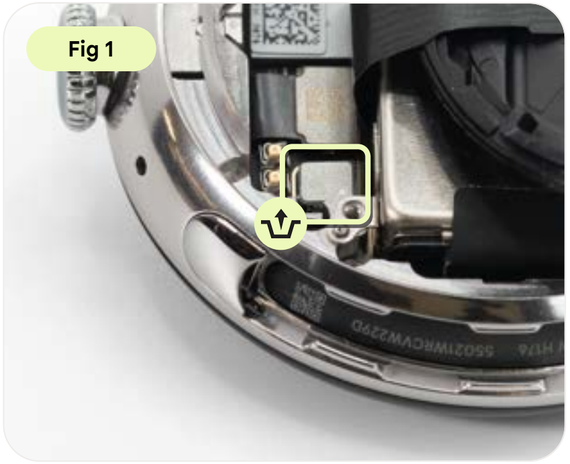


Fig 1.1

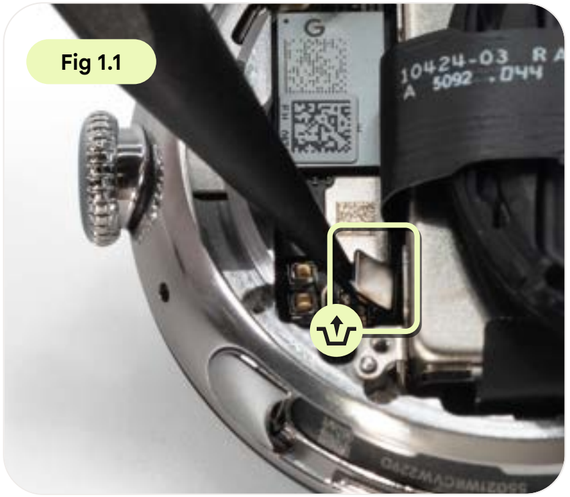


Fig 2

Caution

Keep small screws and sharp objects away from the battery.

For your safety, we recommend installing a new battery after the removal.

Finished! Need assembly instructions? ➜

Pixel Watch 4 (41mm) repair manual

Assembly

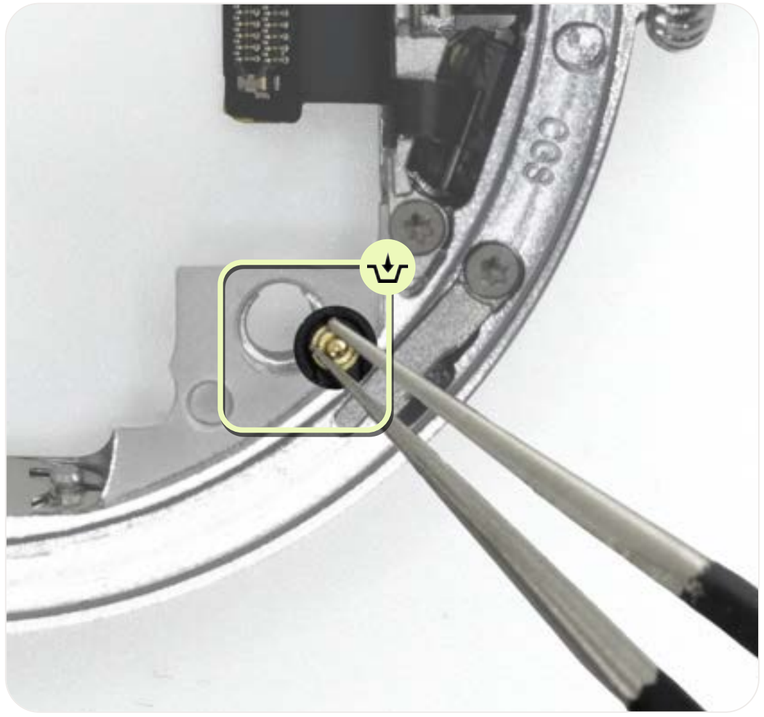
Assembly instructions

HSG module

Antenna contact pin assembly

Use **anti-static tweezers** to pick up one piece of antenna connection pin, with the small end down and the large end facing up. Then put it into the HSG.

Part: G852-05269-00 (antenna)



Note

Please note the difference between the LTE and Wi-Fi versions. The LTE version has an antenna connection pin, whereas the Wi-Fi version doesn't.

Assembly instructions

MLB module

Logic board assembly

- Align the **logic board** with the **speaker probe** as shown in Fig 1
- Angle the **logic board** into the speaker port and press down until it fits snugly against the housing as shown in Fig 2
- Inspect the charging pin to verify the correct contact with the logic board as shown in Fig 3

Part: G949-0149x-00 (logic board)

> ⚠ **Note**
>
> Don’t press the mainboard spring and speaker probe during operation to avoid deformation of the spring or probe.

Fig 1

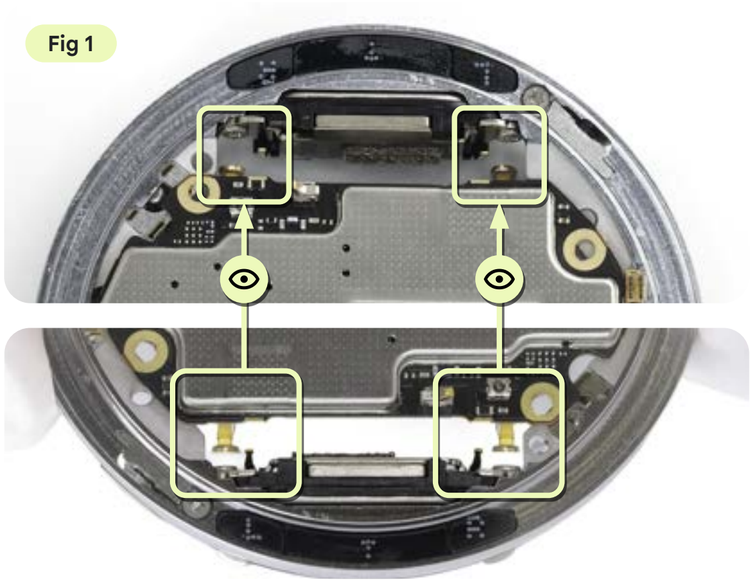


Fig 2

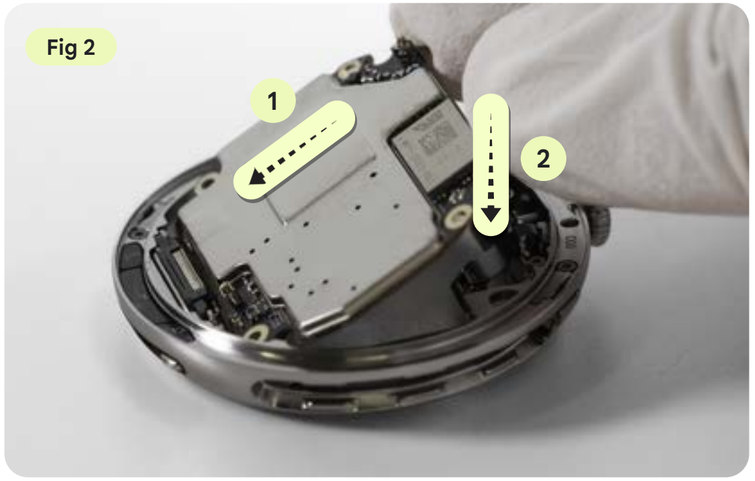
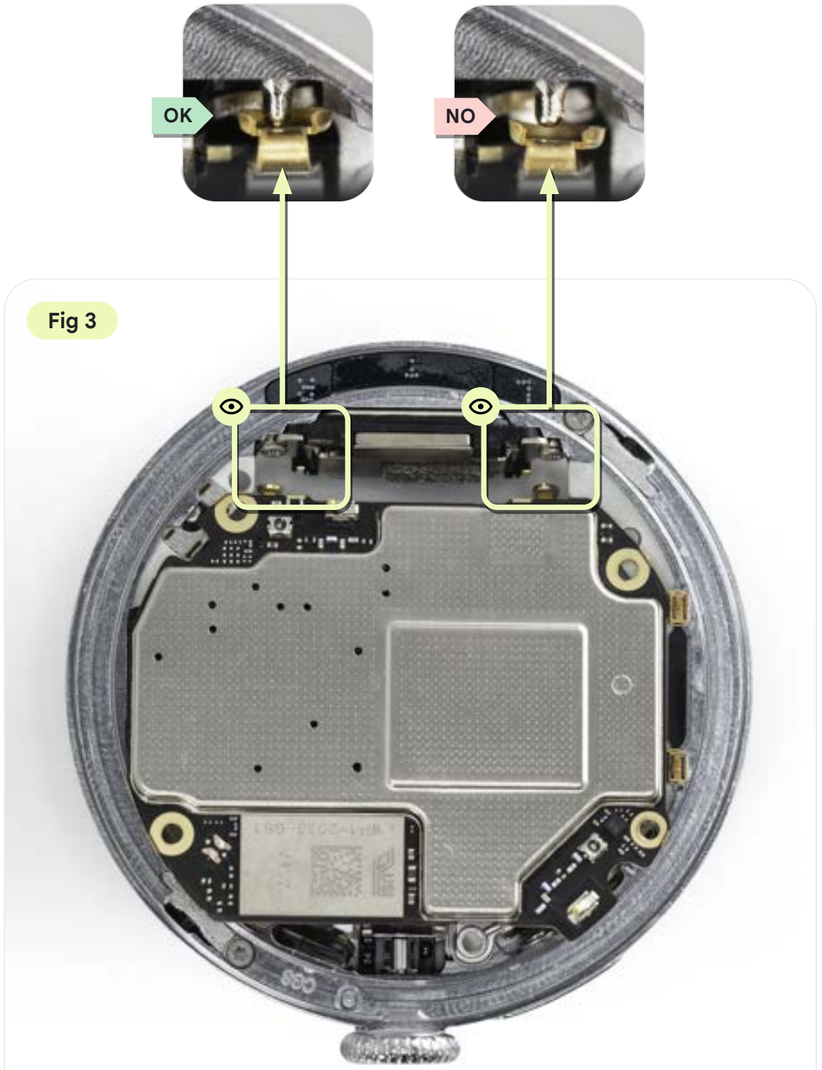


Fig 3



Screw in the logic board

Use a **torx screwdriver head 2IP** to screw in the logic board.

Part: G250-08163-00 2IP (MLB screw)

Assembly instructions

Display module

Grease the HSG O-ring

- Place one **O-ring** into a ziplock bag as shown in Fig 1
- Inject grease into the bag and rub to evenly spread it onto the O-ring surface as shown in Fig 2

Part: G804-01276-00 (HSG O-ring)

Fig 1

Fig 2

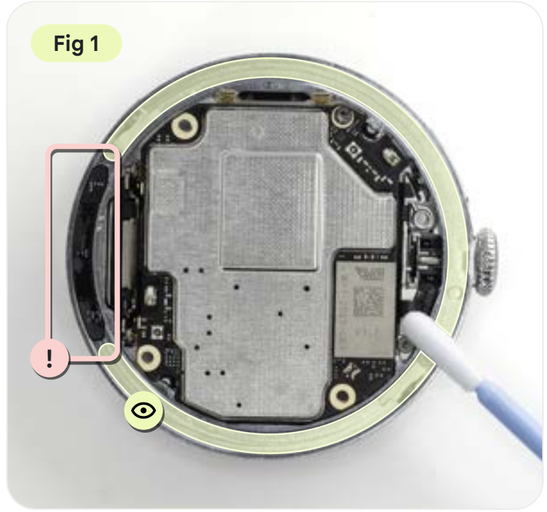
Note

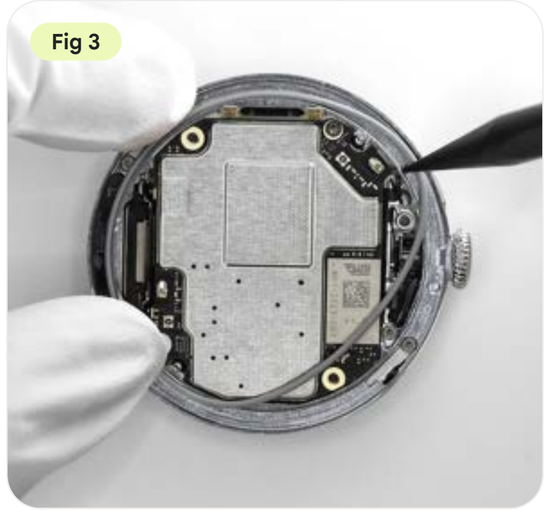
Inject an appropriate amount of grease (0.58-0.62mg per O-ring).

HSG O-ring assembly manually (condition #1)

- Use **cotton swabs** with **IPA** to clean the HSG O-ring assembly area. **Don’t** apply IPA to the magnet area as shown in Fig 1
- Blow dry the cleaned area and check for any residue.
- Use **tweezers** to pick up the greased O-ring from the ziplock bag as shown in Fig 2
- Use **a spudger** to seat the O-ring into the HSG groove as shown in Fig 3
- Inspect the HSG O-ring to verify that it's clean, lint-free, undamaged, and correctly assembled as shown in Fig 4

Part: G804-01273-00 (HSG O-ring)





Note

- Clean any grease from your fingers with alcohol before assembling.
- Clean any grease from the tweezers with alcohol after assembling.

Use caution

It’s prohibited to apply IPA on the magnet location.

HSG O-ring assembly with the jig (condition #2)

- Place the HSG in the HSG position bottom fixture
- Use cotton swabs with **IPA** to clean the **HSG O-ring** assembly area. ***Don't*** apply **IPA** to the magnet area as shown in Fig 1
- Blow dry the cleaned area and check for any residue.
- Use tweezers to pick up the greased O-ring and place it onto the HSG O-ring guide top fixture as shown in Fig 2
- Carefully carry the O-ring to the fixture and gently use the tweezers to push it down as shown in Fig 3 Fig 4
- Inspect the HSG O-ring to make sure that it's clean, lint-free, undamaged, and correctly assembled as shown in Fig 5

Part: G804-01273-00 (HSG O-ring)

Note

Clean any grease from your fingers with alcohol before assembling.

Use caution

It's prohibited to apply IPA on the magnet location.

Fig 1

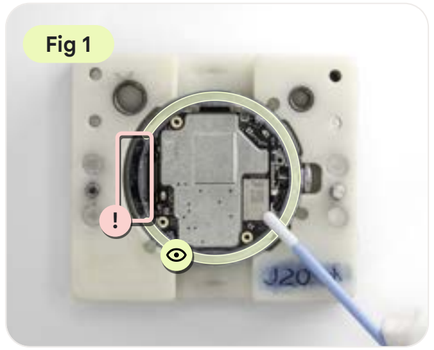


Fig 2

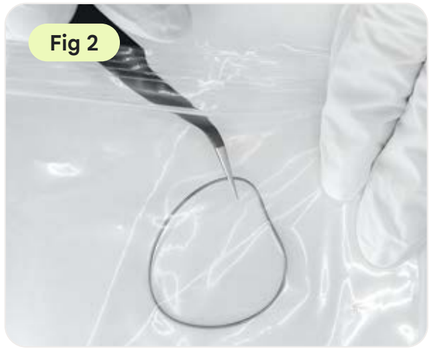


Fig 3

Fig 4

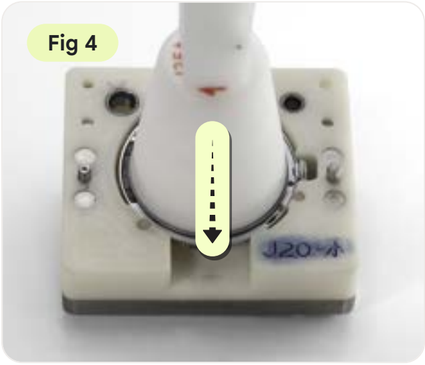
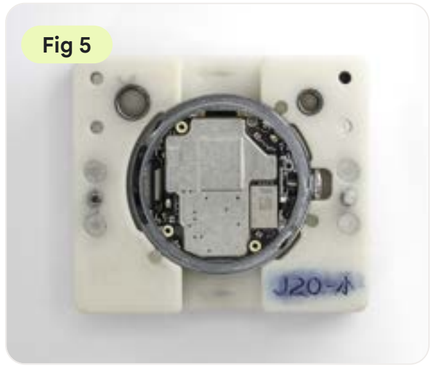


Fig 5

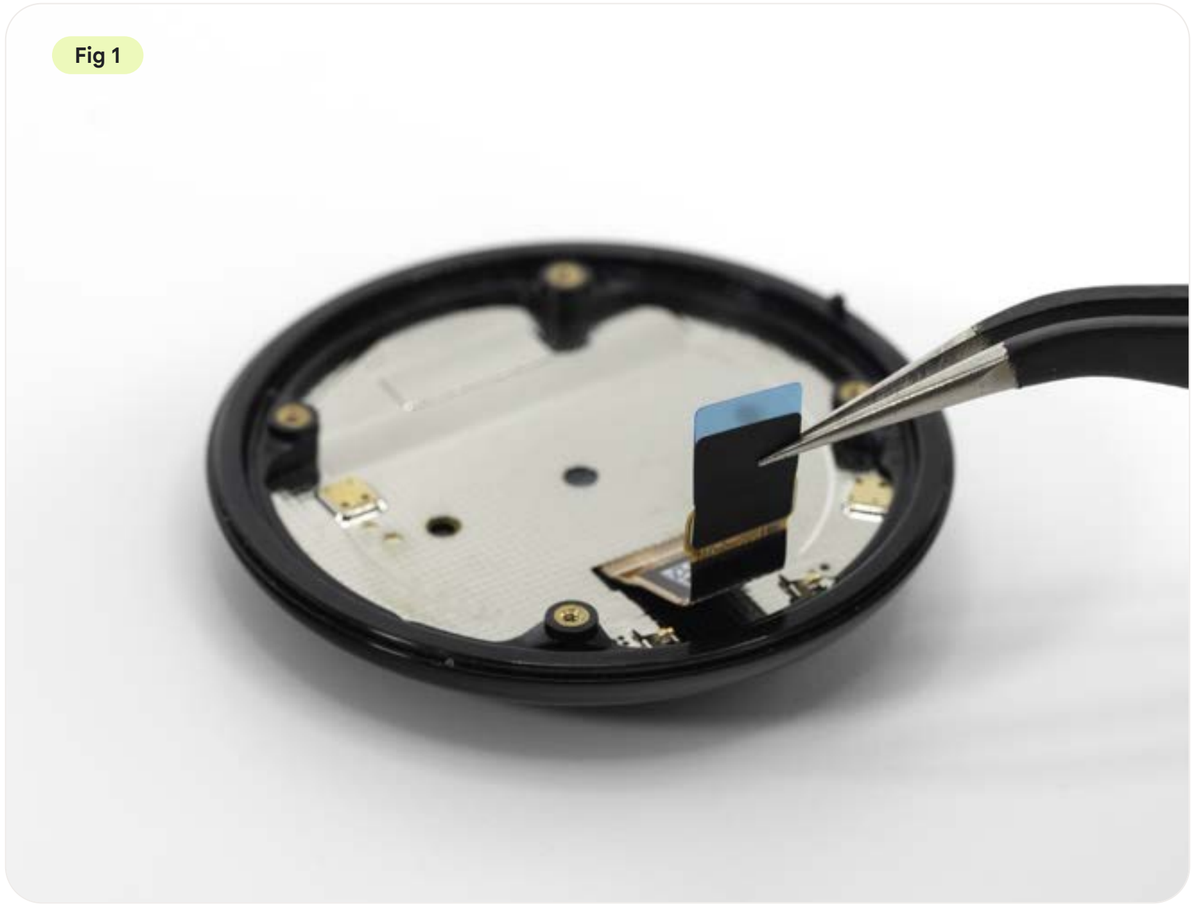


Display bracket conductive tape pre-sticking

Use **anti-static tweezers** to pick up on piece of **conductive tape** and stick it on back side of FPC as shown in Fig 1

Part: G823-00556-02 (display bracket conductive tape)

Fig 1

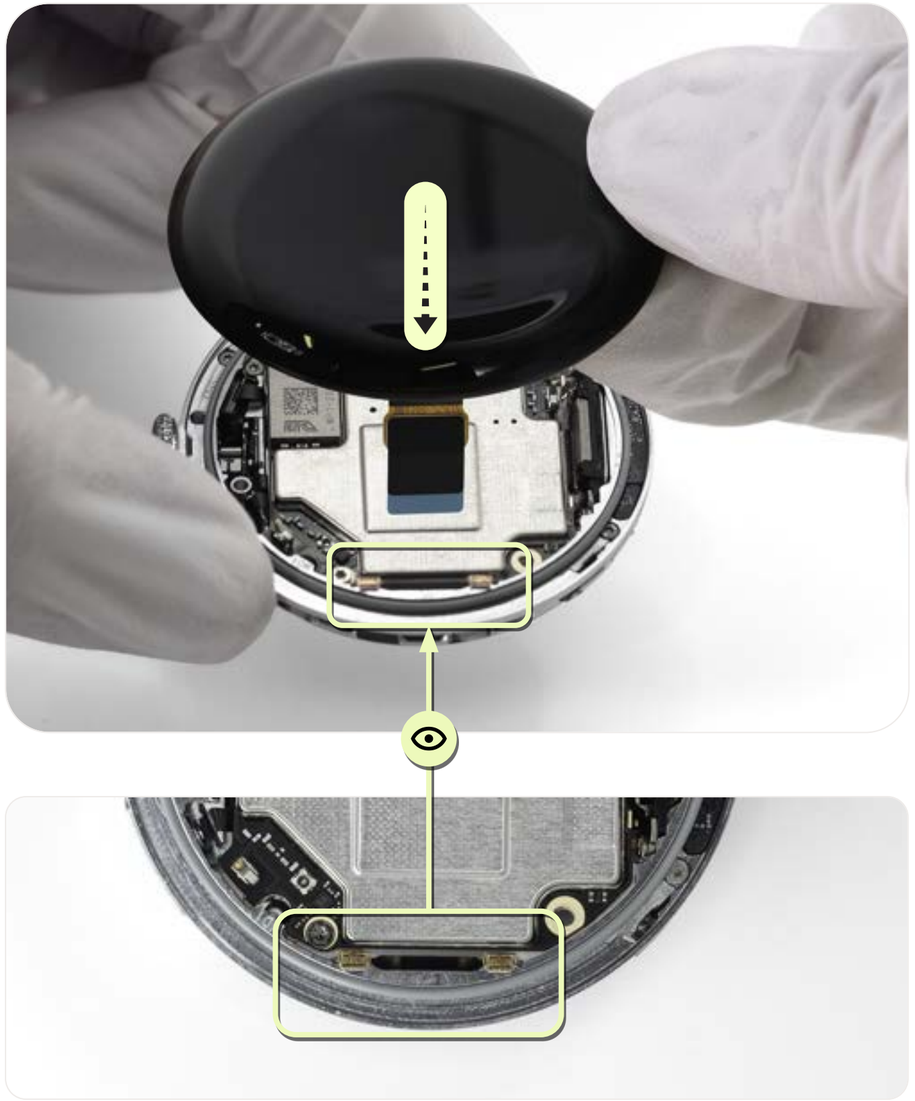


Note

The conductive tape of the display bracket can’t be reused.

Display assembly

- Align the **display BTB** to the HSG hole and press down to assemble.
- **Don’t** remove the display after you press down to secure the O-ring.



Note

Check the O-ring position before placing the display.

Screw in the Display

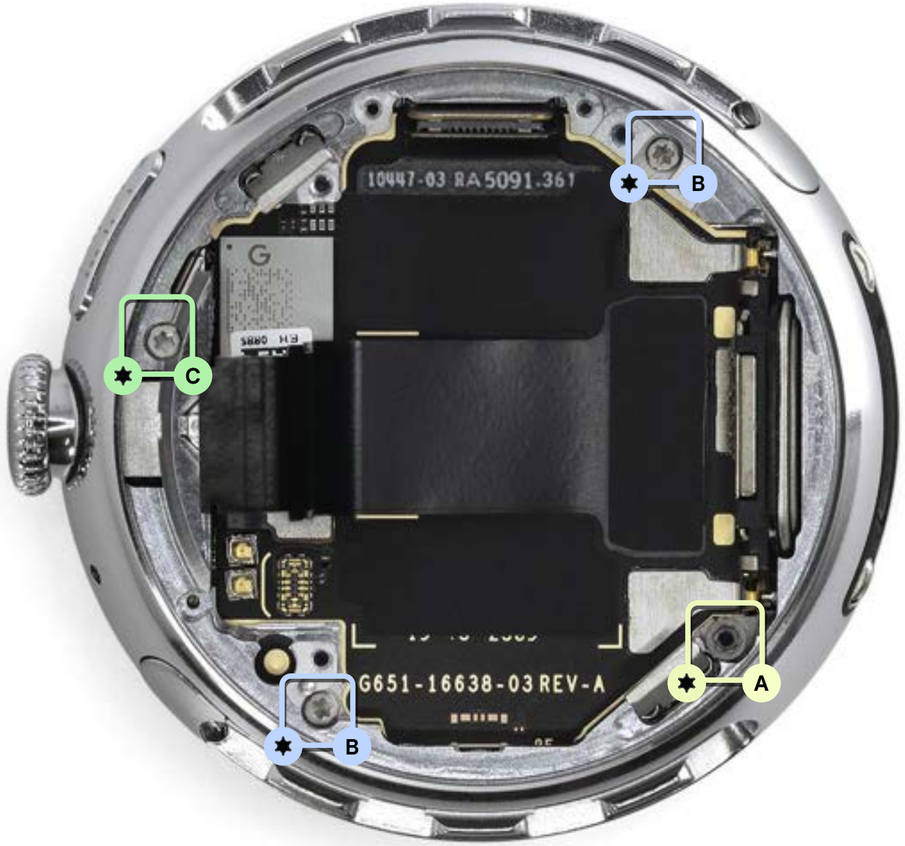
(short and stand-off)

- Use a **torx screwdriver** to screw in the **four long screws** on the display assembly.
- Align each screw hole and tighten the screws vertically downward.
- Note that there are **three different screw sizes.**

Part: G250-07762-01 *1 (socket screw 5IP) A

Part: G250-07760-01 *2 (CG short screw 2IP) B

Part: G250-07761-01 *1 (CG long screw 2IP) C



A: G250-07762-01 (5IP)

B: G250-07760-01 (2IP)

C: G250-07761-01 (2IP)

Assembly instructions

Display the BTB or BTB bracket

Display module BTB assembly

- Align the **display module BTB.** Fig 1
- Use your fingers to snap the display BTB together. Fig 1.1

Fig 1

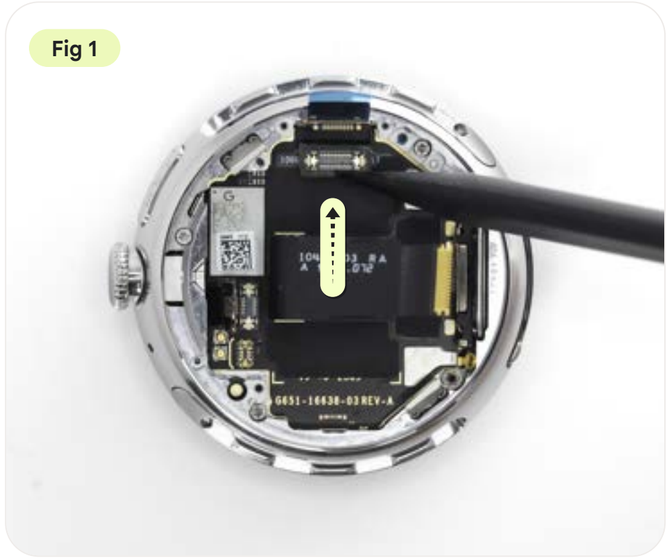
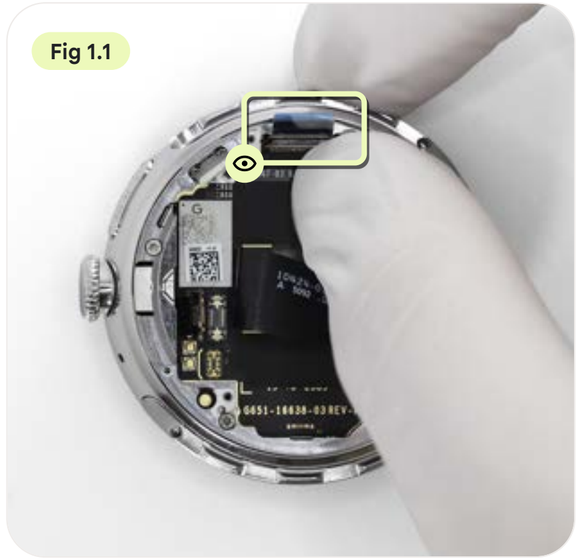
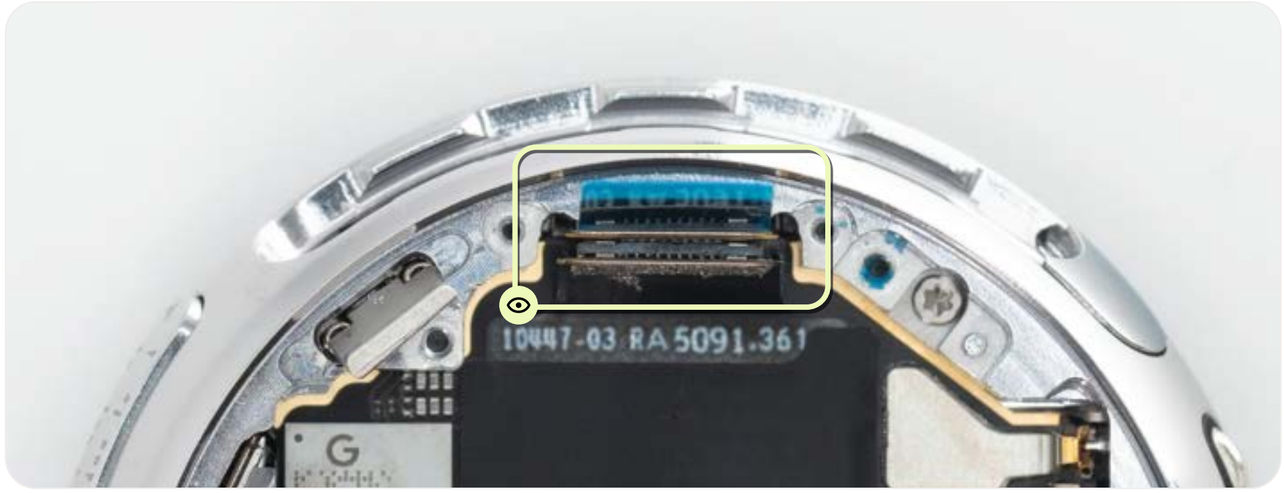


Fig 1.1





Note

If the product isn't assembled in place, it needs to be reassembled.

Display BTB bracket assembly

- Use **ESD tweezers** to pick up the **display BTB bracket** and align its tabs with the screw holes on the **HSG.**
- Press it firmly into place with **ESD tweezers.**

Part: G853-02306-00 (B2B bracket)

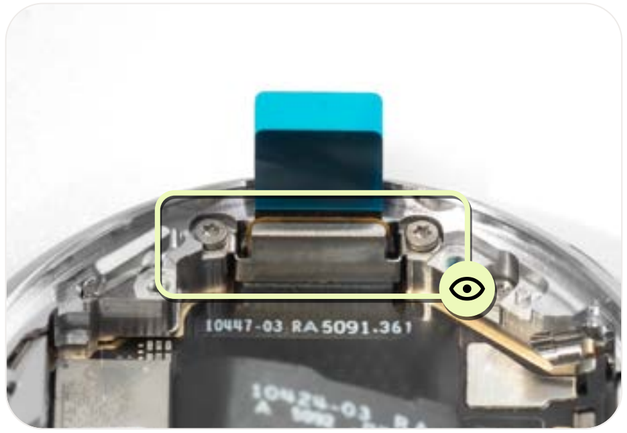
Note

Check if there's any breakage under the BTB cable.

Screw in the Display BTB bracket

- Use a **torx 1IP screwdriver** to align the **screw** with its hole and tighten it vertically downward.

Part: G250-07759-01 *2 (BTB bracket screw)



Display BTB bracket conductive tape sticking

- Remove the **film** from the **EMI tape**. Fig 1
- Use **ESD tweezers** to fold down and press the **EMI tape** and stick it to the display bracket. Fig 2
- Check the **conductive tape** for warping and wrinkles. Fig 3

Part: G250-07759-01 *2 (BTB bracket Screw)

Fig 1

Fig 2

Fig 3

Note

If conductive tape is warped or wrinkled, paste it again.

Assembly instructions

Input BTB

Input the BTB assembly

- Use a finger to press the **input BTB** onto the **logic board BTB** and apply pressure to the middle as shown in Fig 1 Fig 1.1
- Check the input BTB for gaps and pressure damage as shown in Fig 2

Fig 1

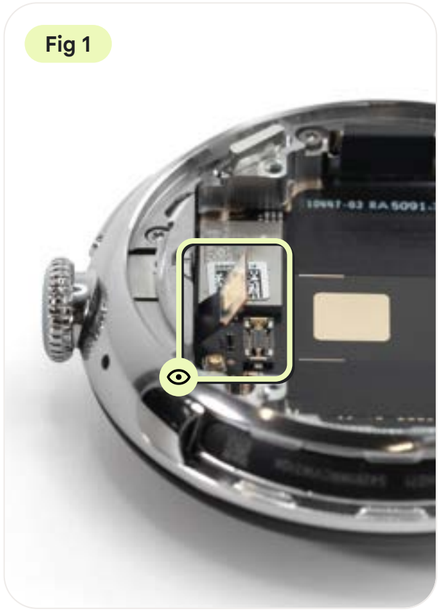


Fig 1.1

Fig 2

Use caution

Be careful to avoid connector damage when you assemble.

Assembly instructions

Battery

Assemble the battery

- Assemble the **battery** onto the HSG as shown in Fig 1
- Press the **battery BTB into the logic board BTB** with the **spudger** as shown in Fig 2

Part: G949-01617-00 *1 (battery)

Use caution

1. Before assembly, check whether the battery is damaged, bulging, or leaking.
2. Don’t use the battery if it has fallen, and don’t touch the battery with sharp objects.

Screw in the battery

- Screw in the **two screws** with a **torx 2IP screwdriver.** Make sure that you check the vertical alignment and use downward pressure.

Part: G250-08163-00 *2 (screw)

Use caution

1. Before assembly, check whether the battery is damaged, bulging, or leaking.
2. Don’t use the battery if it has fallen, and don’t touch the battery with sharp objects.

Assembly instructions

Vibrator

Vibrator assembly and locking screw

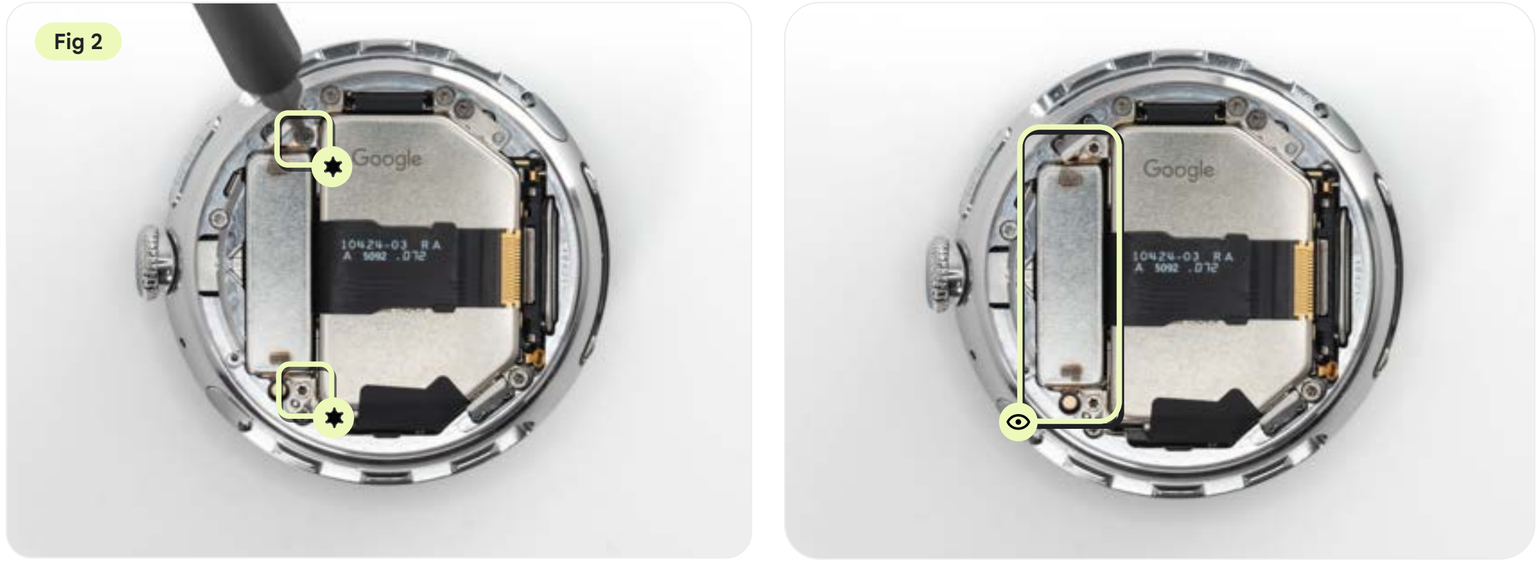
- Take the **vibrator** by hand and install it on the HSG positioning post as shown in Fig 1
- Use a **torx 2IP screwdriver** to align the screw with its hole and tighten it vertically downward as shown in Fig 2

Part: G949-01618-00 (vibrator)

Part: G250-08163-00*2 (vibrator screws, 2IP)

Fig 1

Fig 2



Assembly instructions

BSH module

Connect the BSH FPC

- Position the **bio sensor hub FPC** to the **ZIF connector** via a suction pen or 93301 type tweezer and to push it into the slot as shown in Fig 1
- With the **plastic spudger,** gently press down the **ZIF locking flap** located on the side opposite the FPC direction as shown in Fig 1.1
- Inspect the connection as shown in Fig 2

Fig 1

Fig 1

Fig 1.1

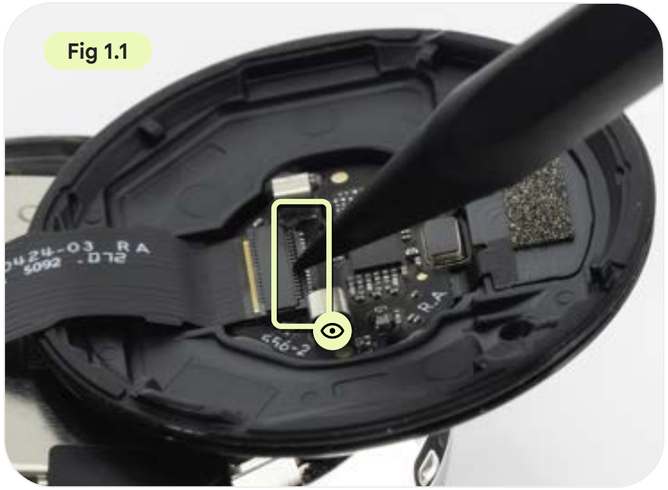
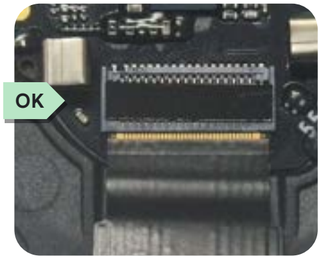
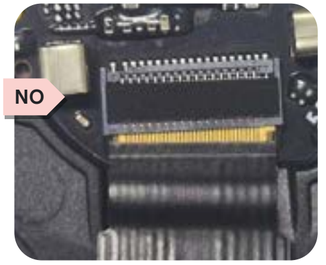


Fig 2





Note

Check the FPC assembly to the ZIF position.

Apply grease to the seal area when replace the BSH assembly.

Lubricate the baffle seal

- Check the baffle's edges for lint or granular dirt; clean with a cotton swab if necessary.
- Use a cotton swab to dip the appropriate amount of grease and apply the grease evenly along the edge of the BSH.

Fig 1

Note

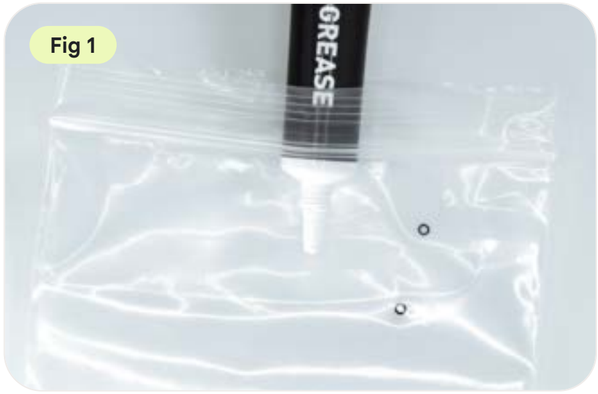
The cotton swab should be replaced once every half an hour, and the dirt should be removed as soon as possible.

Lubricate the hook screw O-ring

- Take two pieces of O-ring and put it into a ziplock bag. Inject the appropriate amount of grease into the ziplock bag and add grease as shown in Fig 1
- Rub the ziplock bag and rub the grease to evenly spread on the surface of the o-ring as shown in Fig 2
- Use the **anti-static tweezers** to take the o-ring out of the ziplock bag as shown in Fig 3
- Use **anti-static tweezers** to move one piece of O-ring on the screw as shown in Fig 4

Part: G250-08032-00 (grease hook screw)

Part: G804-01304-00 (grease hook screw o-ring)



Note

O-ring should not be exposed to air for more than 30 minutes and should be stored in a sealed bag.

Use caution

Make sure that only **one O-ring** is placed on **each screw.**

BSH module assembly

- Align the **BSH locating pin** with the **HSG positioning hole**, then horizontally press the **BSH** to the **HSG** as shown in

Fig 1 Fig 1.1 Fig 2

Fig 1

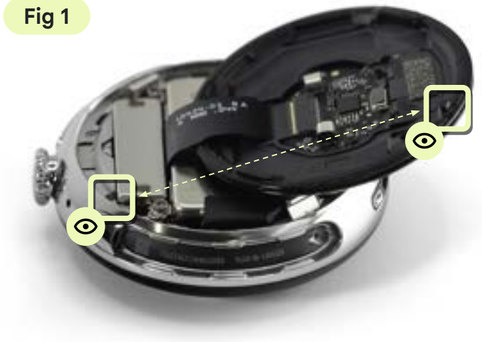
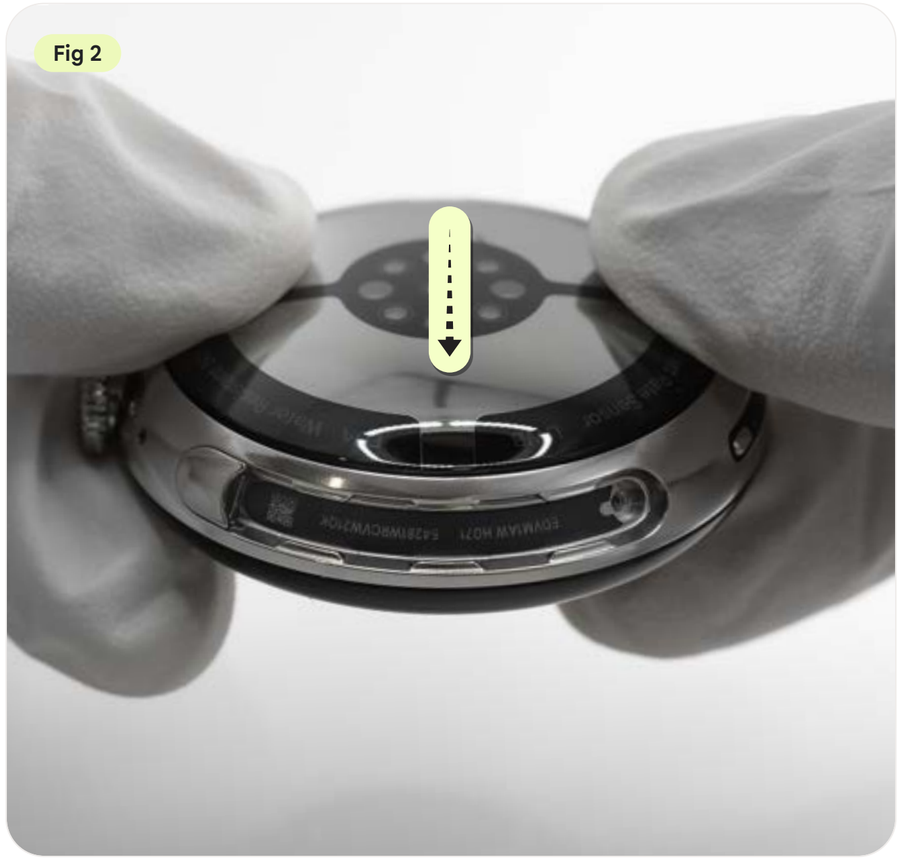


Fig 1.1

Fig 2



Note

Check the **FPC assembly** to the **ZIF** position.

Screw the BSH module

- Inspect the **BSH seal** to verify that it's fully seated and the **BSH module** is aligned properly with the **HSG** without tilting.
- Take two greased **hook screws** and use a **torx plus 2IP screwdriver** to align them with the screw holes.
- Tighten the screws vertically downward.
- Check the **HSG** and **BSH** for cosmetic issues, to verify even gaps, aligned steps, and a firm assembly.

Part: G250-08032-00 * 2 (screw)

Part: G804-01304-00 * 2 (screw o-ring)

Note

After assembly is complete, use the charger to turn on the product.

Appearance standards refer to the quality transfer limit sample.

Assembly instructions

Band cap

Band cap assembly

- Remove the adhesive film from the back of the **band attachment cap** as shown in Fig 1
- Align the north **band cap** with the pocket containing the QR code and press down to install as shown in Fig 2
- Align the south **band cap** (with a notch) with the pocket contains the center port and press down to install as shown in Fig 3

Part: G852-04952-01 (plastic band cap north)

Part: G852-05394-00 (plastic band cap south)

Note

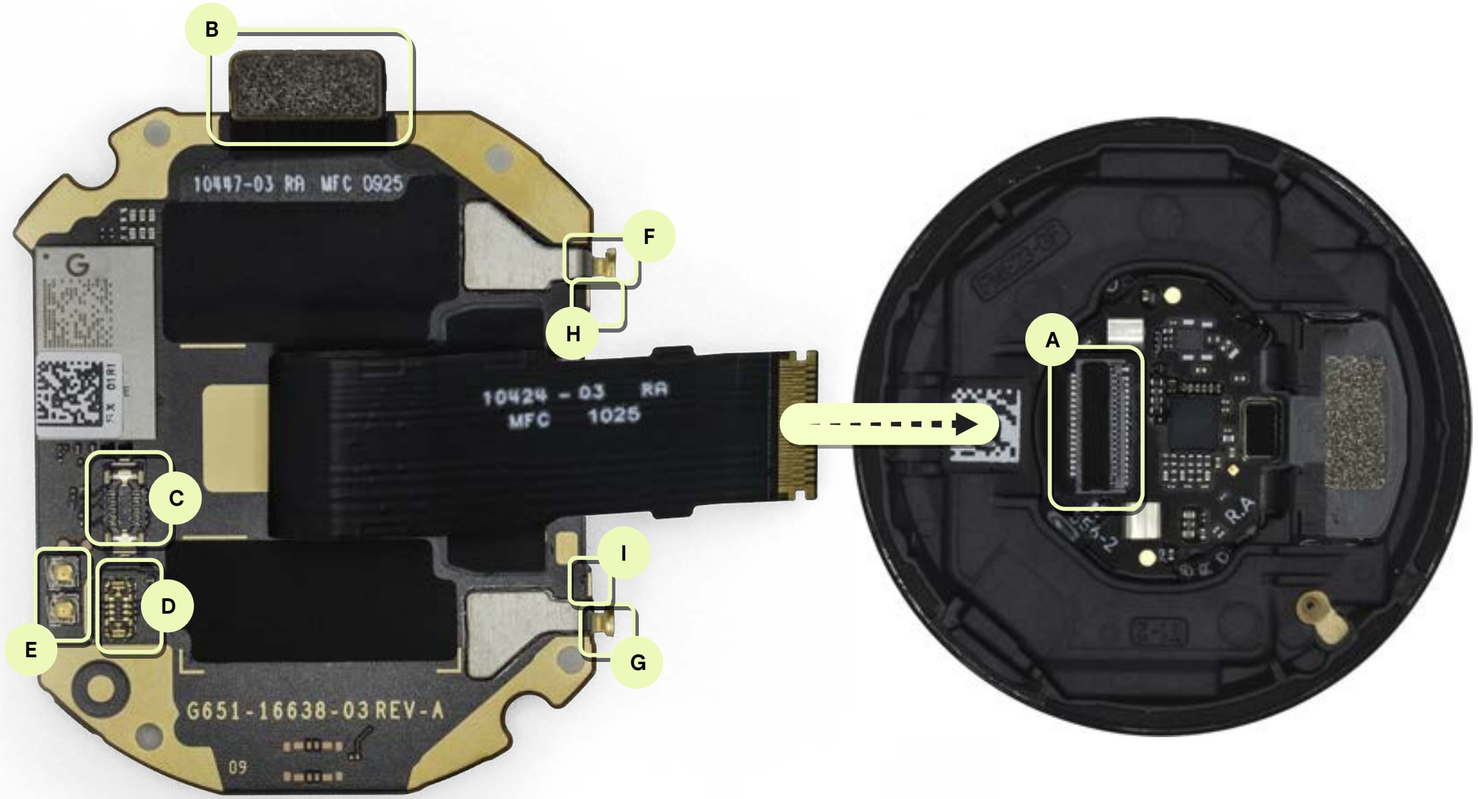
Check the **band attach cap** is installed correctly, with no deflection, warping, or missing parts.

Pixel Watch 4 (41mm) repair manual

Troubleshooting

Connectors location

Location and description	
A	BSH module connector
B	Display connector
C	Input connector
D	Battery connector
E	Vibrator pad
F	Charging _P pad
G	Charging _N pad
H	Speaker_P pad
I	Speaker_M pad



Power

Symptom	Potential root cause	Procedure
T001: doesn't power on **T002:** powers off suddenly **T004:** wired charging failure **T005:** battery damage **T006:** battery draining fast	**Damage**	• Inspect the **charging pin** for debris that prevents charging. • Inspect the device for damage. • Check the **BSH window** to see if the device is damaged by liquid. • Press the **crown button** to confirm if the **power button** is normal.  **BSH window**
	Display	• Remove the **display module** and install a new one. • Charge for 10 minutes to see whether the device could power on. **Disassembly** • Display module
	Connectivity issue	• Check the contact condition between the charger and device **charging pin** contact pads. • Remove the **vibrator** and check if the connectivity between the **battery connector** and **logic board** is normal. If they aren't fully connected, re-assemble.  **Battery connector**
	Component issue	• Use a good **battery** and **logic board** to cross-check with the original ones. • Replace the defective component. **Disassembly** • Logic board • Battery

Mic

Symptom	Potential root cause	Procedure
T007: mic - no sound **T008:** mic - low sound **T009:** mic - distorted sound	**Damage**	• Check the **BSH** window to see if the device has been damaged by liquid.  **BSH window**
	Assembly problem	• Disassemble the device and check whether the connectivity between the **Input connector** and **logic board** is normal. If they aren't fully connected, re-assemble and then test again. • Inspect whether the **input module FPC** is damaged.  **Input connector**
	Component issue	• Use a good **HSG module** and **logic board** to cross-check with the original ones. • Replace the defective component. **Disassembly** • Logic board • HSG module

Speaker

Symptom	Potential root cause	Procedure
T010: speaker no sound **T011:** speaker low sound **T012:** speaker distorted sound	**Mesh not clean**	• Inspect the **speaker mesh** and use a soft **ESD brush** to remove any debris. • Test the audio again.
	Internal debris	• If sound quality is still poor, inspect the mesh and speaker with a **microscope**.
	Connectivity issue	• Disassemble the device and check whether the connectivity between the **speaker pad** and **logic board** is normal. • If they aren't not fully connected, re-assemble and then test again.
	Component issue	• If sound quality is still poor, use a good **HSG module** and **logic board** to cross-check with the original ones. • Replace the defective component.

Contact point location

Disassembly

- Logic board
- HSG module

NFC

Symptom	Potential root cause	Procedure
T013: NFC connectivity issues	**Connectivity issue**	• Check if the **display module** is seriously damaged. • Disassemble the device and check whether the connectivity between the **display connector** and **logic board** is normal. • If they're not fully connected, re-assemble and then test again.
	Component issue	• Use a good **display module** and **logic board** to cross-check with the original ones. • Replace the defective component.

Connectors location

Logic board side

Disassembly

- Logic board
- Display module

NFC IC

Vibrator

Symptom	Potential root cause	Procedure
T014: vibrator failure	**Connectivity issue**	• Disassemble the device and check whether the **vibrator screws** are fixed properly. • Inspect the **vibrator pad** between the **logic board** and **HSG module**. • Test the vibrator again. **Vibrator pad location** 
	Component issue	• Use a good **vibrator** and **logic board** to cross-check with the original ones. • Replace the defective component. **Disassembly** • Logic board • Vibrator

Pixel Watch 4 (41mm) repair manual

Software

Software tools

Description	Documentation
Update or reinstall the software on Pixel Watch devices	**What to expect for device during updates** • Connected to charger. • Charged to at least 50%. • Connected to Wi-Fi. • Follow Google Pixel Watch Help to upgrade your device.