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# SAMSUNG

# **REPAIR GUIDE**

SM-G766B

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# **Usage Notices**

All functionality, features, specifications, and other device information provided in this document, including but not limited to, benefits, design, pricing, components, performance, availability, and capabilities of the device are subject to change without notice. Samsung reserves the right to alter this document or the device described herein at any time, without obligation to provide notification of such changes.

# **Precautions for Repair**

Samsung is not liable for any damage or defect determined to be caused by repair by a non-authorised carrier, self repair or non-professional repair of the device. Samsung is not liable for any resulting damage to the device, or any injury or other device safety issue caused by any attempt to repair the device which does not follow these repair and maintenance instructions.

Any damage to the device or defect caused by an attempt to repair the device by any person other than a Samsung certified carrier will not be covered by the warranty.

- Use only demagnetised tools that are specifically designed for small electronic repairs, as most electronic parts are sensitive to electromagnetic forces.
- Use only high quality screwdrivers when servicing devices. Low quality screwdrivers can easily damage the heads of screws.
- Always use genuine replacement parts. Third-party replacement parts may not function properly and could cause a fire or injury.
- Some parts, such as sensors (laser AF/proximity/fingerprint), the rear camera, the TSP (touch panel), speakers, and other components, may need calibration to guarantee their performance after repair.
- The performance of the device's water and dust resistance cannot be guaranteed when it is repaired by the user or another unskilled worker.
- If you need to access the failure data of your device or need to get a more detailed diagnosis, visit a Samsung Service Centre.
- If you need to replace unsold parts, visit a Samsung Service Centre and receive further instruction.
- Before conducting repairs, remember to make backup copies of all important data stored in the device.

- Make sure to wear the appropriate safety equipment before carrying out repairs. Samsung is not responsible for injuries that may occur because of not wearing the proper safety equipment. Refer to Tools for Disassembly and Assembly for a list of tools that you will need for assembling and disassembling the device.
- Repair the device in a safe place.
- Before repairing the device, make sure the device is turned off. To turn off the device, press the Volume Down button and the Side button at the same time, or open the notification panel and tap the Power icon.
- If the device is damaged, emits smoke, or if you smell something burning, stop using the device immediately and contact Samsung.
- It is recommended to use safety equipment such as glasses, gloves, and a mask when repairing the device.
- Be careful not to damage the device when removing the back cover.
- Before assembly, ensure that there are no screws or foreign objects around the battery.
- During assembly, check if there are any abnormalities before reattaching the back cover, and be careful not to damage the battery by hitting or denting it. If the battery is damaged, visit a Samsung Service Centre.
- Do not place the device directly into a microwave and heat it.
- Before repairing your device, make sure its battery is fully discharged.
- Visit www.samsung.com to view the device information, related material, and safety information.

# ESD (Electrostatic Discharge) Precautions

It is the sudden flow of electricity between two electrically charged objects caused by contact, an electrical short, or dielectric breakdown. ESD can cause negative effects on mobile devices, especially electrical parts.

- It is recommended to use ESD safety (Anti-static) equipment such as an anti-static wrist strap and gloves, and an ESD safe mat when repairing the device.
- Increase the airflow to the work area to decrease the chance of accidental static electricity discharges, as the potential for static electricity discharge may be increased in low-humidity environments, such as air-conditioned rooms.

### Instructional Icons

- Marning: situations that could cause injury to yourself or others
- (D) Caution: situations that could cause damage to your device or other equipment
- **Notice**: notes, usage tips, or additional information

# Software Update

# **Updating Software through FOTA**

Update your device's software through the firmware over-the-air (FOTA) service. You can also schedule software updates.

Launch the **Settings** app and tap **Software update**  $\rightarrow$  **Download and install**.

- Install now: Install updates.
- Schedule install: Set the time to install updates automatically.
- You may incur additional charges when updating the software through a mobile network.
  - If the latest software has been downloaded to the device, these options will not appear.

# Software Update Failure

If your device becomes disconnected from a network before the update is complete, the update may fail. Reconnect to a network and complete the update.

# Updating Software through Smart Switch

You can use Smart Switch to update your device's software to the latest version. You must download the desktop version of the Smart Switch app from www.samsung.com/smartswitch.

- This feature may not be supported on some devices or computers.
  - Limitations apply. Visit www.samsung.com/smartswitch for details. Samsung takes copyright seriously.
- 1 On the computer, visit www.samsung.com/smartswitch to download Smart Switch.
- 2 On the computer, launch **Smart Switch**.
- **3** Connect your device to the computer using the device's USB cable.
- 4 Click Update.

- 5 Read the on-screen instructions and click **Continue**.
- 6 Read the precautions about the update and click **OK**.
- 7 Read and agree to the terms and conditions. The update will start.

### **Recovering from a Software Update Failure**

If a software update is interrupted because of an error on your device or computer, your device may fail to operate normally. If this occurs, you can perform a factory data reset on your device for emergency recovery.

- Before performing the factory data reset, remember to make backup copies of all important data stored in the device. Samsung is not responsible for the loss of data stored in the device.
- 1 Disconnect your device from the computer and launch **Smart Switch** again on the computer.
- 2 Click → Emergency Software Recovery and Reset. The device list will appear.
- 3 Click the device that experienced a software update error and click **Device reset**  $\rightarrow$  **OK**.

The device will perform a factory data reset.

### **Recovering on Another Computer**

If the emergency recovery process continues to fail on the computer where the software update failed, you can repair your device on another computer using the recovery code. This will include a factory data reset of your device.

- Before performing the factory data reset, remember to make backup copies of all important data stored in the device. Samsung is not responsible for the loss of data stored in the device.
  - The recovery code can be found only on the computer where the software update has failed.
- 1 On the computer where the software update has failed, launch **Smart Switch**.
- 2 Click → Emergency Software Recovery and Reset.

- **3** On the devices list, click the device that failed to update the software and check the recovery code.
- 4 On another computer, launch Smart Switch.
- 5 Click  $\rightarrow$  Emergency Software Recovery and Reset  $\rightarrow$  Emergency code recovery.
- 6 Enter the recovery code and click OK.
- 7 Follow the on-screen instructions to put your device into recovery mode and complete the emergency recovery.

# Performing a Factory Data Reset

The factory data reset restores the device's default settings. This erases all data, including files and downloaded apps, from the device.

Before performing the factory data reset, remember to make backup copies of all important data stored in the device. Samsung is not responsible for the loss of data stored in the device.

Make sure your device's battery level is sufficient, as losing power during a factory reset may result in system problems.

- 1 Launch the Settings app and tap General management → Reset → Factory data reset.
- 2 Read the on-screen instructions and check which account you are signed in with. If your device is signed in to your Google account, log out of your Google account. If you do not log out of your Google account, logging in to another account after the factory data reset will not be possible, because your device will be locked.



#### 3 Tap Reset $\rightarrow$ Delete all.

All data will be deleted when rebooting.

During a factory data reset, the device may repeat rebooting and the logo may be displayed for a long time.

# **Quality Test**

# Quality Test Using the Samsung Members App

It is recommended to evaluate your device through the Samsung Members app after it has been repaired to guarantee its performance. If the test results show any abnormalities or that another malfunction has occurred because of the repair, visit a Samsung Service Centre to receive further instruction. Any malfunctions caused by your repair may incur additional repair charges.

- The Samsung Members app is subject to update without any prior notice.
  - To use this feature, you must sign in to your Samsung account.
  - Some features may not be available depending on the carrier or model.

# **Device Diagnostics**

- Launch the Samsung Members app.
   If you do not have the app, download it from the Galaxy Store or Play Store.
- 2 Tap Support → Phone diagnostics. The diagnostics screen will appear and you can check the test status and items.



3 Tap Test all.

The device performs a test on all items. When the test is finished, you can check the test results.

- Tick mark: Working normally
- Exclamation mark: Needs further inspection
- The test proceeds automatically, but you may need to follow the on-screen instructions depending on the test item. Keep an eye on the screen during testing to ensure smooth progress.
  - If the exclamation mark appears on any test items after finishing the test, tap them to find the solutions. If the problem persists, visit a Samsung Service Centre.

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	/	25	
	1	to test	
		4/2023	
N	ormal 23	Action required	1
You can te icon.	est a function i	ndividually by ta	apping its
$\bigcirc$		$(\mathbf{v})$	$( \cdot )$
NFC	SIM card	Power restart status	Official
	0	0	$\cap$
$\bigcirc$	$\left( \cdot \right)$	(.)	( . )
Mobile	Sensors	Proximity	Touch scre

### **Test Items**

#### NFC

- Function: Check whether your device can read near field communication (NFC) tags that contain information about products.
- Provided information
  - Status: View whether the feature is working normally.



#### SIM card

- Function: Check whether the SIM card is working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - Service provider: View the carrier.
  - Number: View the phone number.
- If the test result is not **Normal**, remove the SIM card from the SIM card tray and replace it. If possible, try again with another SIM card.

#### Power restart status

- Function: Check your device's restart history.
- Provided information
  - Status: View whether the feature is working normally.
  - FAQ: View frequently asked questions.
  - History: View your device's restart history.





#### **Official software**

- Function: Check whether the software is working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - Service information: View the Samsung Service Centre location.



#### Mobile network

- Function: Check whether your mobile network is working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - Settings: Configure your mobile network settings.
  - FAQ: View frequently asked questions.

#### Sensors

- Function: Check whether the sensors are working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - Sensor types: View the status of each sensor.





#### **Proximity recognition**

- Function: Check whether the proximity recognition feature is working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - FAQ: View frequently asked questions.



#### **Touch screen**

- Function: Check whether the touchscreen is working normally.
- Provided information
  - Status: View whether the feature is working normally.



#### Buttons

- Function: Check whether the buttons are working normally.
- How to check:

Press the buttons by following the directions on the screen.

- Provided information
  - Status: View whether the feature is working normally.
  - Button types: View the status of each button.
- Make sure that the buttons are not contaminated to get more accurate test results.

#### Torch

- Function: Check whether the torch is working normally.
- Provided information
  - Status: View whether the feature is working normally.





#### Speaker

- Function: Check whether the speakers are working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - Speaker types: View the status of each speaker.
  - FAQ: View frequently asked questions.

#### Vibration

- Function: Check whether the vibration feature is working normally.
- Provided information
  - Status: View whether the feature is working normally.
  - Vibration types: View the status of each type of vibration.
  - FAQ: View frequently asked questions.
  - History: View the vibration history.

<	
	4))
	Speaker
	Normal
	In-call speaker: Normal Media speaker: Normal
	Retry
	View related FAQ

	**
	Vibration
	Normal
	Call vibration: Normal Notification vibration: Normal
You	u can also check the vibration history for each app.
	Retry
	View related FAQ
	View vibration history

#### Camera

- Function: Check whether the rear and front cameras are working normally.
- How to check:

Tap the camera button to test the rear and front cameras.

The picture that was taken will be displayed to check the quality of the pictures.

- Provided information
  - Status: View the status whether the feature is working normally.
  - Camera types: View the status of each camera.
  - FAQ: View frequently asked questions.
- To test this more accurately, check if the camera is obstructed by foreign objects, the case, or protective film.



#### Mic

- Function: Check whether the microphone is working normally.
- How to check:
  - 1) Tap **Record** and say something for the recording.
  - 2) When the recording is finished, tap **Play** and select a button according to the question.
- Provided information
  - Status: View whether the feature is working properly.
  - Mic types: View the status of each mic.
  - FAQ: View frequently asked questions.
- The number of tests may vary depending on the model.
  - If you cannot hear anything after recording, check whether the media volume is turned up.



#### Quality Test

#### Location accuracy

- Function: Check whether the location accuracy is working normally.
- How to check:

#### Tap Start.

- Provided information
  - Status: View whether the feature is working normally.
  - FAQ: View frequently asked questions.
- The results might be more accurate when you test outside.

#### Wi-Fi

- Function: Check whether Wi-Fi can search for Wi-Fi routers.
- Provided information
  - Status: View whether the feature is working normally.
  - Available networks: View the number of available networks.
  - Signal strength: View the signal strength of the connected Wi-Fi router.
  - Networks: View available networks.
  - History: View the Wi-Fi control history.
- To test this feature, the Wi-Fi feature must be activated.





#### Bluetooth

- Purpose: Check whether Bluetooth can search for other Bluetooth devices.
- Provided information
  - Status: View whether the feature is working normally.
  - FAQ: View frequently asked questions.
- To test this feature, the Bluetooth feature must be activated.

#### **Fingerprint recognition**

- Purpose: Check whether the fingerprint recognition sensor is working.
- How to check:

Place your finger on the fingerprint recognition sensor.

- Provided information
  - Status: View whether the feature is working normally.
- To test this feature, your fingerprint must be registered.

<	
	*
	Bluetooth
	Normal
	Retry
	View related FAQ

®
Fingerprint recognition
Normal
Retry

#### **Face recognition**

- Purpose: Check whether the face recognition sensor is working.
- How to check: Look at the screen.
- Provided information
  - Status: View whether the feature is working normally.
  - FAQ: View frequently asked questions.
- To test this feature, your face must be registered.

#### Wired headphones

- Purpose: Check whether the headphone jack recognises the headphones normally.
- How to check:
  - 1) Connect headphones to your device.
  - 2) Tap **Play** and listen for the sound.
  - 3) Answer the question using the buttons.
- Provided information
  - Status: View whether the feature is working normally.
- Io test this feature, you must connect headphones.





#### S Pen

- Purpose: Check whether the S Pen is recognised in all areas of the touchscreen.
- How to check:
  - Tap all the rectangles on the screen with the S Pen. The tapped or dragged rectangles will turn blue.
  - 2) Hover the S Pen over the screen and move from A to B. The blue circle will move along with the S Pen.
- Provided information
  - Status: View whether the feature is working normally.
  - S Pen features: View the status of S Pen features.
  - FAQ: View frequently asked questions.
- Make sure that the screen is clean to get more accurate test results.
  - This test is only available for the S Pen supported models.



#### **USB** connection

- Purpose: Check whether the multipurpose jack recognises the USB cable normally.
- How to check:
   Connect any USB cable to your device.
- Provided information
  - Status: View whether the feature is working normally.
  - FAQ: View frequently asked questions.
- To test this feature, the USB cable must be connected to a computer.

#### Cable charging

- Purpose: Check whether the multipurpose jack recognises the charger normally.
- How to check:

Connect a charger to your device.

- Provided information
  - Status: View whether the feature is working normally.
  - Charging speed: View the charging speed according to the charger you connected.
- 🖉 Use only Samsung-approved chargers.

<
ų
USB connection
Normal
Retry
View related FAQ

<
T S
Cable charging
Normal
Charging speed: Normal
Retry

#### Wireless charging

- Purpose: Check whether the wireless charging feature is working normally.
- How to check:
   Put your device on a wireless charger.
- Provided information
  - Status: View whether the feature is working normally.
  - Charging speed: View the charging speed according to the wireless charger you put your device on.
- Use only Samsung-approved wireless chargers.

#### **Battery status**

- Function: Check the battery values and analysis.
- Provided information
  - Status: View whether the feature is working normally.
  - Life: View the remaining battery life (measured by comprehensive battery values).
  - Capacity: View the battery capacity.
  - FAQ: View frequently asked questions.

<	
3	
Wireless charging	
Normal	
Charging speed: Normal	
Retry	



# Calibrations

In order to guarantee the stable and correct performance of components or sensors, it is required to conduct calibrations through the **Self Repair Assistant** app after repair.

If the calibration results show any malfunctions, visit a Samsung Service Centre for further action. Any malfunctions caused by your repair may incur additional repair charges.

- The **Self Repair Assistant** app is subject to update without any prior notice.
  - In order to conduct the accurate calibrations after repair, visit a Samsung Service Centre or website to buy calibration equipment if you do not have any.

# Used Parts and Calibration Functions in Supported Models

	Screen	Battery	Back Glass	Charging Port	Speaker
Optical Fingerprint Cal.	Yes	No	No	No	No
Range Sensor Cal.	Yes	Yes	Yes	Yes	Yes
Battery Cycle Resets.	No	Yes	No	No	No
Touch Screen Panel Cal.	Yes	No	No	No	No
Speaker Cal.	No	No	No	No	Yes
Under-display Camera Cal.	Yes	No	No	No	No
Digital Hall Sensor Cal.	Yes	No	No	No	No

The calibration functions are automatically conducted based on the selected parts.

- Depending on the model, the screen module may include batteries. So when the screen module is replaced, the battery also has to be selected and a battery cycle reset must be performed.
  - In the Fold models, touch screen panel calibration is performed for both the main and cover screens.
  - Digital hall sensor calibration is only for the Fold and Flip models and under-display camera calibration is only for the Fold models.

## Using the Self Repair Assistant App

- 1 Download the **Self Repair Assistant** app from **Galaxy Store**.
- For US devices, you need to install the APK file for the Self Repair Assistant app manually. However, if the Auto Blocker function which is provided from Android OS 14 (U OS) is turned on, you cannot install any APK files manually through the My Files app. In this case, launch the Settings app, tap Security and privacy → Auto Blocker, and then tap the switch to turn it off to install the Self Repair Assistant app.

	Q :	Settings C	< Security and privacy Q	< Auto Blocker
Download		Wallpaper and style     Wallpapers • Color palette	Additional security settings	On
Oct 7 5:27 PM	1 item	Themes Themes · Wallpapers · Icons	Biometrics Auto Blocker	Auto Blocker keeps your phone safe by blockin threats and other suspicious activity.
Oct 7 5:27 PM	0 items	Home screen Layout - App icon badges	Auto Blocker Keep your phone safe by blocking threats and other suspicious activity.	Blocks apps from unauthorized stores Only apps from authorized stores can be instal
Music Self Repair Assistant		Lock screen     Screen lock type • Always On Display	More security settings Secure Folder, Secure Wr-FI, and more Privacy	Learn more Turns on app security checks Apps installed on your phone will be checked fi malicious activity. Learn more
	Cancel	Security and privacy Biometrics • Permission manager	Permissions used in last 24 hours	Blocks commands by USB cable Malicious chargers, computers, and other devia won't be able to send commands to your phone
Podcasts		Location     Location requests	Camera Microphone Location	when connected using a USB cable. Advanced
Decordings	0 items	Safety and emergency     Medical info • Wireless emergency alerts	Permission manager	Messaging app protection Block images suspected of containing malware in messaging apps.
Can't install app from unknown s uto Blocker is on. To keep your phone s an only install apps from authorized stor	afe, you	(2) Accounts and backup Manage accounts - Smart Switch	Allow or deny apps to access features or data on your phone.	Block software updates by USB cable
ок		G Google Google services	Control access to the camera, microphone, and clipboard.	Prevent installation of system software using a USB cable. This can prevent someone with physical access to your phone from installing malicious software without your knowledge.
		0003000000000	More privacy settings	malicious software without your knowledge.

2 Launch the **Self Repair Assistant** app.



- **3** Read Privacy Notice and tap **Continue**.
- If you are not signed in to your Samsung account, a button will appear to sign in.
  - If you select the link to read the full Privacy Notice, you will be directed to our site.





4 Check permissions and tap **Continue**.



- 5 Select the part that you have replaced and tap **Next**.
- The required calibrations will be conducted automatically.
  - If the device does not have certain components or sensors associated with the part that has been replaced, relative calibration will be skipped automatically.

All Select t	he item	is you want to calibrate.
0		Display
<b>⊘</b>	Ō	Battery
$\bigcirc$	:2	Back glass
$\bigcirc$	Ŧ	Charging port
		Next

- 6 Read the on-screen instructions and tap **Start**.
- Refer to Optical Fingerprint Sensor Calibration, Resetting the Battery Cycle Count, Range Sensor Calibration, Touch Screen Panel Calibration, Speaker Calibration, Under-display Camera Calibration (Fold Models Only), and Digital Hall Sensor Calibration (Fold and Flip Models Only) for more information.

# Optical fingerprint sensor calibration



- 7 Check the results of each calibration item.
  - **Completed**: Calibration was done normally.
  - Failed: Calibration failed.
  - Skipped: Calibration was skipped.

< Calibration results
Battery
Battery initialisation Completed
Range sensor calibration Completed
🖉 Display
Range sensor calibration Completed
For best performance, restart your phone after calibrating.

8 On the calibration results page, tap **Close** to close the app.

Restart your device to finish calibrating.

Ō	Battery
U	
	Battery initialisation Completed
	Range sensor calibration Completed
2	Display
	Range sensor calibration Completed

# **Optical Fingerprint Sensor Calibration**

Whenever the screen is replaced, the optical fingerprint sensor must be calibrated to guarantee optimised fingerprint sensor performance for devices that have it.

Optical fingerprint sensor calibration is available through the **Self Repair Assistant** app.

- This feature may not be available depending on the model. The availability of this feature can be automatically checked in the Self Repair Assistant app, so please follow the guidance of the Self Repair Assistant app.
  - Three rubbers (the white calibration box, the black calibration box, and the 3D fingerprint dummy rubber) are required to start this calibration.

White calibration box

Black calibration box

3D fingerprint dummy rubber







- 1 Launch the **Self Repair Assistant** app.
- **2** Tap **Display**  $\rightarrow$  **Next**.
- The required calibration or test items will be processed automatically.
  - If the device does not have certain components or sensors associated with the part that has been replaced, relative calibration will be skipped automatically.



3 Check the part and calibration and then tap **Start**.

- 4 Read the on-screen instructions and tap **Start**.
- The white calibration box must be prepared before you start.

- 5 Put the white calibration box on the sensor area (below the square side) and push the rubber by applying force with your finger.
  Tap Next and keep pushing the rubber with your finger until you see the success message.
- The bottom side of the rubber that is shaped like a square should be located on the square guide line.









- 6 Put the black calibration box on the sensor area (below the square side) and push the rubber by applying force with your finger.
   Tap Next and keep pushing the rubber with your finger until you see the success message.
- The black calibration box must be prepared before you start.
  - The bottom side of the rubber that is shaped like a square should be located on the square guide line.



7 Put the 3D fingerprint dummy rubber on the sensor area (below the square side) and push the rubber by applying force with your finger.

Tap **Next** and keep pushing the rubber with your finger until you see the success message.

- The 3D fingerprint dummy rubber must be prepared before you start.
  - The bottom side of the rubber that is shaped like a square should be located on the square guide line. (Do not place the pattern horizontally on the 3D fingerprint dummy rubber.)





- 8 Check the result of the calibration.
- Completed appears only when the calibration is successfully completed. If Completed does not appear, try calibrating again.

< Calibration results
Display Optical fingerprint sensor calibration Completed
For best performance, restart your phone after calibrating.
Close

### **Resetting the Battery Cycle Count**

The battery cycle count should be reset whenever your device's battery is replaced.

- 1 Launch the **Self Repair Assistant** app.
- 2 Select the part that you have replaced. Tap **Battery**  $\rightarrow$  **Next**.



**3** Check part and calibration and tap **Start**.

The calibrations shown below are related to parts that were recently replaced. Each calibration is only done once, even if the same calibration is shown for multiple parts.

 Battery

 Battery initialisation

 Range sensor calibration

 Start

#### 4 Tap Start.

5 Read the on-screen instructions and tap Scan to scan the QR code, or tap Enter manually to enter the serial number manually.

< Confirm new battery
QR code
You can find the QR code sticker on the battery packaging.
Scan
IIII Serial number
You can find the serial number on the QR code sticker that came with the battery packaging.
Enter manually
**6** Scan the QR code or enter the serial number that appears on the battery package.

The reset will begin.

This image is an example of the QR code. Make sure to scan the QR code on the battery package.



< Confirm new battery
Battery serial number

7 Check the calibration results.



## **Range Sensor Calibration**

When replacing screens, batteries, back glasses, or charging ports, range sensor calibration is required to ensure the range sensors of devices equipped with them are optimised.

Range sensor calibration is available through the **Self Repair Assistant** app.

- Some content may differ from your device depending on the region, service provider, model specifications, or device's software.
- 1 Launch the **Self Repair Assistant** app.
- 2 Select the part that you have replaced and tap **Next**.



**3** Check part and calibration and tap **Start**.



4 Read the on-screen instructions and tap **Start**.

5 In a dark room or area, place the phone face-down, then press the Volume button.

6 The calibration will perform automatically. A tone will play when calibration is complete.

7 Check the calibration result.



Camera range

sensor calibration

## **Touch Screen Panel Calibration**

When replacing screens, touch screen panel calibration is required to ensure accurate touch input.

Touch screen panel calibration is available through the **Self Repair Assistant** app.

- In the Fold models, touch screen panel calibration is performed for both the main and cover screens.
- 1 Launch the **Self Repair Assistant** app.
- 2 Select the part that you have replaced and tap **Next**.



**3** Check part and calibration and tap **Next**.

6	2	Display			
		Touch screen panel calibration			
		Range sensor calibration			
		Next			

4 Read the on-screen instructions and tap **Start**.

5 The calibration will perform automatically and the screen will turn white during





6 Check the calibration result.

calibration.

# Calibration results Display Touch screen panel calibration Completed Range sensor calibration Completed

## **Speaker Calibration**

When replacing speakers, the speaker must be calibrated to guarantee optimised speaker performance for devices that have it.

Speaker calibration is available through the **Self Repair Assistant** app.

- 1 Launch the **Self Repair Assistant** app.
- 2 Select the part that you have replaced and tap **Next**.



**3** Check part and calibration and tap **Next**.

	_
다》 Speaker	
Speaker calibration	
Next	

4 Tap Start.



**5** The calibration will perform automatically.



6 Check the calibration result.

<	Calibration results		
<b>(小)</b> Speaker			
	Speaker calibration Completed		

# Under-display Camera Calibration (Fold Models Only)

Whenever the screen is replaced, the under-display camera must be calibrated to guarantee optimised under-display camera performance for devices that have it. Under-display camera calibration is available through the **Self Repair Assistant** app.

- This feature may not be available depending on the model. The availability of this feature can be automatically checked in the Self Repair Assistant app, so please follow the guidance of the Self Repair Assistant app.
- 1 Launch the **Self Repair Assistant** app.
- 2 Select the part that you have replaced and tap **Next**.



**3** Check part and calibration and tap **Next**.

2	Display
	Optical fingerprint sensor calibration
	Digital Hall sensor calibration
	Main screen touch screen panel calibration
	Under-display camera calibration
	Cover screen touch screen panel calibration

#### 4 Tap Start.



- 5 The calibration will perform automatically.
- 6 Check the calibration result.

< Calibration results					
Display					
Digital Hall sensor calibration Completed					
Main screen touch screen panel calibration Completed					
Under-display camera calibration Completed					
Cover screen touch screen panel calibration Completed					

# Digital Hall Sensor Calibration (Fold and Flip Models Only)

Whenever the screen is replaced, the digital hall sensor must be calibrated to guarantee optimised digital hall sensor performance for devices that have it.

Digital hall sensor calibration is available through the **Self Repair Assistant** app.

- This feature may not be available depending on the model. The availability of this feature can be automatically checked in the Self Repair Assistant app, so please follow the guidance of the Self Repair Assistant app.
  - For Fold models: If the main screen does not turn on after being replaced (the main screen is off and the cover screen is on when the device is unfolded), follow the steps below to perform digital hall sensor calibration. The boot screen (the screen where the Samsung and carrier logos appear) will appear normally and then turn off, so it is not a hardware failure.
    - 1) Fold the device and launch the **Self Repair Assistant** app on the cover screen.
    - 2) Move to the digital hall sensor calibration screen, unfold the device, and then press the Volume Up button or the Volume Down button.
    - 3) You will hear a vibration, and the calibration will be performed automatically.

When calibration is complete, the main screen will turn on normally.

- For Flip models: If the main screen does not turn on after being replaced (the main screen is off and the cover screen is on when the device is unfolded), follow the steps below to force the main screen to turn on and perform digital hall sensor calibration. The boot screen (the screen where the Samsung and carrier logos appear) will appear normally and then turn off, so it is not a hardware failure.
  - 1) Connect the USB cable to the device, and connect the other end of the USB cable to the USB power adapter or your computer.
  - 2) While pressing and holding the Side button, press the Volume Up button once and the Volume Down button twice.
  - 3) When the main screen turns on, perform digital hall sensor calibration.

- 1 Launch the **Self Repair Assistant** app.
- 2 Select the part that you have replaced and tap **Next**.



**3** Check part and calibration and tap **Next**.

4 Tap Start.





5 The calibration will perform automatically.



Completed

Completed

Touch screen panel calibration

6 Check the calibration result.

# **Exploded View and Parts List**

Market Free Composition (1997) The product's composition may vary depending on the country, region, or carrier.

## **Exploded View**



## **Parts List**

Number	Name
QCR96	Screw 2259
QCR532	Screw 3532
QME02	Main Flex Cable(Charging Port to Main Board)
QBR03	Top Cover
QBR02	Bottom Cover
QBA01	Battery
QCA12	Rear Camera(Ultra Wide)
QCA11	Front Camera
QCA13	Rear Camera(Wide)
QM001	Vibrator Motor
QCB03	Antenna Flex Cable(White)
QCB01	Antenna Flex Cable(Blue)
QCB05	Antenna Flex Cable(Red)
QSP02	Bottom Speaker
QSP01	Top Speaker
QIF01	Charging Port
QCK02	Emergency Button
QV001	Volume Button
QCK01	XCover Button
QBR01	Bracket
QBC01	Back Cover
QMP01	Main Board(PBA)
QFR01	Screen
QRE11	Rear Frame

## Tools for Disassembly and Assembly

When repairing devices, you absolutely must wear protective equipment for your safety.

Availability of rental services for toolkits with a complete set of tools for self repair service may vary depending on the country and is currently available only in limited countries.



Tool & Part Code	Image	Description
ESD Safe Mat		Prevent electrostatic damage (recommended)
Cross-head Screwdriver		Tools for screwing in cross-head screws
Opening Pick		Tool for disassembling the screen and other parts
Opening Tool		Tool for disassembling the connector and other parts
Suction Cup		<ul> <li>Tool for disassembling the screen and other parts</li> <li>For separable handle suction cups, be careful not to injure yourself as the handle can be parted during use.</li> </ul>

Tool & Part Code	Image	Description
ESD Safe Tweezers and Round tip metal tweezers		<ul> <li>Tool for handling connectors, cables, and other parts</li> <li>Because it is possible to damage parts or components when using sharp tweezers, use tweezers made with plastic or rubber material.</li> <li>When removing a vibrator motor, it is required to use the round tip metal tweezers.</li> </ul>
Heating Bag	Rexio care or care with the second se	Tool for removing the screen and other parts
Acrylic Protective cover for broken glass		Prevents injuries and scattering caused by broken glass

Tool & Part Code	Image	Description
Press Fixture		<ul> <li>Tool for pressing the screen</li> <li>This tool is available to use by the rental of tool kit that contains a complete set of the tools for self repair service.</li> </ul>
Bottom Press Tray		<ul> <li>Tool to place the device when pressing the screen using press fixture</li> <li>This tool is available to use by the rental of tool kit that contains a complete set of the tools for self repair service.</li> </ul>
Top Press Tray	COMMON PRESS TOR V.I.D	<ul> <li>Tool to cover the bottom press tray when pressing the screen using press fixture</li> <li>This tool is available to use by the rental of tool kit that contains a complete set of the tools for self repair service.</li> </ul>

Tool & Part Code	Image	Description
		Tool to place into the top press tray when pressing the screen using press fixture
Top Rubber Pad		This tool is available to use by the rental of tool kit that contains a complete set of the tools for self repair service.
		Tool to cover the battery when pressing the battery using press fixture
Battery Rubber Pad		This tool is available to use by the rental of tool kit that contains a complete set of the tools for self repair service.
Calibration		Tool to calibrate the optical fingerprint sensor after replacing the screen
Rubber for Optical Fingerprint Sensor		This tool is available to use by the rental of tool kit that contains a complete set of the tools for self repair service.

## Fasteners (Adhesives and Materials) for Assembly

The fasteners composition may vary depending on the repair parts, country, region, or carrier.

ltem	Quantity	Image	Description
Screen Adhesive Tape	1		Double sided adhesive tape for attaching the screen
Screw 3532	15	(januar)	Screws for the bracket
Screw 2259	3	a (†	Screws for the main board 2 ea Screw for the charging port 1 ea
Vibrator Motor Adhesive Tape	1		Double sided adhesive tape for attaching the vibrator motor

## Disassembly and Reassembly for replacement

- The product's composition may vary depending on the country, region, or carrier.
  - Repairable parts may vary depending on the country or region.

#### Before disassembling,

- Unplug and turn off device before disassembling.
- Wear an anti-static wrist strap and connect it to the grounded ESD safe mat.

#### Before reassembling,

- Remove the adhesive tape residues perfectly.
- Prepare all existing screws of this device and adhesive tapes.
- Wear an anti-static wrist strap and connect it to the grounded ESD safe mat.
- Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.

### For all cases of broken glass,

- 1 Wear safety glasses and cut-resistant gloves.
- 2 To prevent injuries and scattering caused by broken glass, attach the tape on the broken glass.
- If your device's glass breaks, be careful not to injure your hands or other body parts on debris.
- **3** Press the tape with strong force so that it is strongly attached to the broken glass.

🧭 Wait until the adhesive between the tape and the glass is strengthened.

4 Follow the disassembly steps in this guide.

## **Back Cover**

#### Disassembly

Using your fingers, lift up on the separator groove of the back cover and remove it carefully.

- Be careful not to damage your fingernails when you remove the back cover.
- () As the back cover can be damaged by excessive force, be careful not to damage the back cover.







Reassembly

▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.

Attach the back cover and press down on the all edges of the back cover evenly in order to attach the back cover perfectly. Check the gap between the back cover and frame and ensure that there are no abnormalities.

If you feel the some gap, remove the back cover and attach it again. Some foreign materials can be inside the device.









#### Battery

Disassembly

Remove Back Cover first before you begin.

Using your fingers, lift up on the separator groove of the battery and remove it carefully.

- A Be careful not to damage the battery.
- () Be careful not to damage the near components.









Reassembly

▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.

Align the battery contacts with the device contacts and carefully place the battery. Assemble the battery to the exact position of the frame using your fingers.

- A Be careful not to damage the battery.
- Be careful not to damage the near components.



Reassemble Back Cover to complete assembly.

#### Screen

#### Disassembly

- When removing the screen, ensure that the device is fixed on a flat surface.
- Remove Back Cover and Battery first before you begin.
- 1 Heat the microwaveable heating bag and apply it on the screen for 3 minutes to soften the adhesive.
- It is possible for the device or battery to be damaged by heat.
  - Do not heat the device in a microwave. Doing so could cause an explosion.
  - If your device's glass breaks, the debris can cause injury to your hands or other body parts. For your safety, attach an acrylic protective cover before disassembling the device.
- The recommended time for heating the bag is 50 seconds in a 1000 W microwave and 70 seconds in a 700 W microwave. (Correct temperature for use: 55-65 °C.) Follow the heating bag's instructions for heating.
  - Be careful not to damage the device through excessive heat. (It is recommended to disassemble the device in an area with temperature gauge.)



- 2 Place the suction cup in the top left edge of the screen, and lift it upwards carefully.
- For separable handle suction cups, be careful not to injure yourself as the handle can be parted during use.



- () Be careful that the suction cup does not adhere to the area where the tape or sticker is attached.
- If you have trouble creating a gap, heat the microwaveable heating bag additionally, and apply it on the screen to further soften the adhesive. When reheating, it should be heated no longer than 30 seconds.



- **3** While pulling up the suction cup with strong, steady force to create the gap between the screen and the frame, place the opening pick in the gap and slide the opening pick back and forth along the edge to slice through the adhesive. Repeat this on the all sides of the screen and slice through the adhesive. Lift up from the top of the screen slowly and remove the screen gently from the device.
- As the internal circuity can be damaged, do not insert the opening pick more than 3 mm. Especially, be careful not to damage the front camera at the top by the opening pick.
  - As the screen can be damaged by excessive force, be careful not to damage the screen.
- Make sure to leave the opening pick inserted in the edges to prevent the adhesive from resealing. It is recommended that a larger area of the opening pick be inserted.
  - If you have trouble creating a gap, heat the microwaveable heating bag additionally, and apply it on the screen to further soften the adhesive. When reheating, it should be heated no longer than 30 seconds.







- 4 Before removing the screen completely, remove the top cover of the flex cable connector with the tweezers carefully.
- Be careful not to damage the cable and cover.



- **5** Using the tweezers, separate the screen flex cable connector and separate the screen completely.
- Be careful not to damage the cable and the near components.



#### Reassembly

- ▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Using the tweezers, remove all adhesive tapes (—) on the separated screen.
- Make sure to remove any residual tapes (
  ) attached to the inside of the screen before reassembling the device.
  - Be careful not to damage the device and the near components.
- Apply additional heat with a microwaveable heating bag if you're having trouble separating the adhesive.







2 Remove the transparent film of the new screen adhesive tape. Using the tweezers, align the tape precisely on the screen and attach it.



**3** Using the tweezers, gently press around the all edges to ensure a secure fit.



- <image>
- 4 Using the tweezers, remove all release films from attached tape.

- **5** Using the tweezers, connect the screen flex cable connector carefully. And press on the connector softly so that it can be completely assembled.
- () Be careful not to damage the cable and the near components.





**6** Using the tweezers, assemble the top cover of the flex cable connector. And press on the cover softly so that it can be completely assembled.



- 7 Attach the screen and check the gap between the screen and the frame. Press down the all edges of the screen evenly in order to attach the screen perfectly. Ensure that there are no abnormalities.
- If you feel the some gap, remove the screen and attach it again. Some foreign materials can be inside the device.



- 8 Now you can press the fully assembled screen using the press fixture. Remove the press fixture body and its handle from the rental tool kit packaging.
- Keep your hands out of the press fixture to avoid mechanical pinching and injury.
  - This tool is only available to use by the rental of tool kit that contains a complete set of the tools for self repair service.
    - Availability of rental service may vary depending on the country and is currently available only in limited countries.
    - A rented tool kit packaging may have different packaging than shown.



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9 Carefully position the torque limit handle horizontally at the top of the press fixture.
M Keep your hands out of the press fixture to avoid mechanical pinching and injury.



10 Remove the bottom press tray, top press tray, and top rubber pad from the rental tool kit packaging.



11 Leave the bottom press tray and place the device face up into the tray.


12 Insert the top rubber pad into the top press tray. Press down the edges of the rubber pad entirely using your fingers and make sure that the pad is pressed in completely.











14 Position the top 2/3 of the screen press tray with the device lengthwise in the centre of the press fixture.



- 15 Rotate the torque limit handle to the clockwise until it makes a sound. In that press state, stay the tray for 30 seconds.
- Keep your hands out of the press fixture to avoid mechanical pinching and injury.
- When you reach the required maximum force (1N), a sound is made from the handle if you turn the handle



**16** When the press is completed after 30 seconds, rotate the torque limit handle to the anticlockwise and remove the tray from the press fixture.



17 Position the bottom 2/3 of the screen press tray with the device lengthwise in the centre of the press fixture.



- 18 Rotate the torque limit handle to the clockwise until it makes a sound. In that press state, stay the tray again for 30 seconds.
- Keep your hands out of the press fixture to avoid mechanical pinching and injury.



19 When the second press is completed after 30 seconds, rotate the torque limit handle to the anticlockwise and remove the tray from the press fixture.



**20** Position the entire screen press tray with the device horizontally in the centre of the press fixture.



**21** Rotate the torque limit handle to the clockwise until it makes a sound. In that press state, stay the tray for 30 seconds.

Keep your hands out of the press fixture to avoid mechanical pinching and injury.



22 When the third press is completed after 30 seconds, rotate the torque limit handle to the anticlockwise and remove the tray from the press fixture.





**23** Remove the device carefully from the tray.

Preasemble Battery and Back Cover to complete reassembly.

## **Charging Port and Microphone**

Main the microphone is built into the charging port module.

### Disassembly

- Remove Back Cover, Battery, and Screen first before you begin.
- 1 Using the tweezers, remove the bottom cover of the flex cable connector carefully.
- () Be careful not to damage the cable and cover.





- 2 Using the tweezers, disconnect the 2 flex cable connectors and remove the flex cable completely.
- () When removing the connectors, be careful not to damage the cable.





- **3** Check and remove the screws at the 15 different points on the bracket using a crosshead screwdriver.
- () Be careful not to damage the bracket and near components.
- Check the number of screws that have been removed, and store them carefully to make sure that no unassembled screws are left inside the device during assembly.



- 4 Hold the top part of the device using your fingers and carefully press the left and right parts of the bracket from the back. Separate the upper part of bracket from the device frame and completely separate it as a whole.
- () As the bracket can be damaged by excessive force, be careful not to damage the bracket.











- **5** Check the screw on the charging port module and remove it using a cross-head screwdriver.
- Check the number of screws that have been removed, and store them carefully to make sure that no unassembled screws are left inside the device during assembly.



- **6** Using the tweezers, disconnect the 3 coaxial cable connectors (Red/White/Blue) from the charging port module. In case of the coaxial cable (Blue), lift up and separate it from the charging port module. Lift up on the separator groove of the charging port module using the tweezers and remove it carefully.
- () Be careful not to damage the charging port and the near components.







Reassembly

- ▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Using the tweezers, insert the charging port module to the bottom frame, and press down on it in its position smoothly.
- () Be careful not to damage the charging port and the near components.



2 Using the tweezers, assemble the coaxial cable (Blue) to the exact position of the charging port module. Connect the 3 coaxial cable connectors (Red/White/Blue) on the charging port module.





- **3** Check the screw 2259 (1 ea) at the point on the charging port module and fasten the screw using a cross-head screwdriver.
- () Be careful not to damage the charging port module side contact.



- 4 Place the upper part of bracket on the device frame and push down all edges of the bracket using your fingers softly and evenly so that the bracket can be assembled perfectly.
- Be careful not to damage the frame and near components.
  - As the bracket can be damaged by excessive force, be careful not to damage the bracket.









- **5** Check the screw 3532 (15 ea) at the 15 different points on the bracket and fasten them using a cross-head screwdriver.
- () Be careful not to damage the bracket and near components.



6 Place the flex cable to the device frame and connect the 2 flex cable connectors carefully.





7 Using the tweezers, assemble the bottom cover of the flex cable connector. And press on the cover softly so that it can be completely assembled.



8 Check carefully to see if there are any screws or other foreign substances inside the device (battery, PBA, cable, etc.). Shake the device lightly with the back of the device facing down to remove any remaining screws.



Reassemble Screen, Battery, and Back Cover to complete reassembly.

## **Rear Camera**

### Disassembly



Remove Back Cover, Battery, and Screen first before you begin.

1 Check for the disassembly steps of the Charging Port and Microphone and completely separate the bracket.



- 2 Disconnect the rear camera connector from the main board using the tweezers, and remove the rear camera carefully from the main board. Leave the camera lens facing up.
- () Be careful not to damage the main board.
- Separate and replace only the problematic camera.









#### Reassembly

- Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Remove all release films from the new rear camera module. Using the tweezers, gently insert the rear camera into the camera hole so that the lens faces backward. And connect the rear camera connector carefully on the main board.
- Be careful not to drop the camera while connecting the connector.
  - Be careful not to damage the camera lens and near components.
  - Be careful not to damage the main board.



2 Check for the reassembly steps of the Charging Port and Microphone and completely reassemble the bracket, the flex cable, with the bottom cover.



**3** Check carefully to see if there are any screws or other foreign substances inside the device (battery, PBA, cable, etc.). Shake the device lightly with the back of the device facing down to remove any remaining screws.



Reassemble Screen, Battery, and Back Cover to complete reassembly.

## **Front Camera**

### Disassembly



Remove Back Cover, Battery, and Screen first before you begin.

1 Check for the disassembly steps of the Charging Port and Microphone and completely separate the bracket.



- 2 Check the 2 screws on the main board and remove them using a cross-head screwdriver.
- (D) Be careful not to damage the main board and the near components.
- Check the number of screws that have been removed, and store them carefully to make sure that no unassembled screws are left inside the device during assembly.



- **3** Using the tweezers, disconnect the 3 coaxial cable connectors (Red/White/Blue) and the side button connector from the main board. Lift up on the separator groove of the main board using the tweezers and remove it carefully.
- Be careful not to damage the cable.







4 Disconnect the front camera connector from the main board using the tweezers, and remove the front camera carefully from the main board. Leave the camera lens facing up.





Provide the rear cameras additionally to disassemble only the main board.



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Reassembly

- ▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Remove all release films from the new front camera module. Using the tweezers, connect the front camera connector carefully on the main board.
- Be careful not to drop the camera while connecting the connector.
  - Be careful not to damage the camera lens and near components.
  - Be careful not to damage the main board.





- 2 Align the main board module onto the device frame. After attaching the upper part of the main board diagonally on the screen module, assemble the lower part.
- () The cables have to be positioned outside so as not to interfere when assembling the main board.





- **3** Connect the 3 coaxial cable connectors (Red/White/Blue) and the side button connector to the main board.
- Be careful not to damage the main board and the near components.
  - Be careful not to damage the cable.



4 Check the screw 2259 (2 ea) at the 2 different points on the main board and fasten them using a cross-head screwdriver.



5 Check for the reassembly steps of the Charging Port and Microphone and completely reassemble the bracket, the flex cable, with the bottom cover.



6 Check carefully to see if there are any screws or other foreign substances inside the device (battery, PBA, cable, etc.). Shake the device lightly with the back of the device facing down to remove any remaining screws.



Reassemble Screen, Battery, and Back Cover to complete reassembly.

# Top Speaker

Disassembly



Remove Back Cover, Battery, and Screen first before you begin.

1 Check for the disassembly steps of the Front Camera and completely separate the main board.



2 Using the tweezers, lift up on the separator groove of top speaker and remove it carefully.





Reassembly

- ▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Place the new speaker module to the exact position, and assemble it to the device frame. Press down softly and evenly on the speaker module so that the speaker module can be completely assembled.
- () Be careful not to damage the speaker module and the near components.





2 Check for the reassembly steps of the Front Camera and completely reassemble the main board, bracket, the flex cable, with the bottom cover.



**3** Check carefully to see if there are any screws or other foreign substances inside the device (battery, PBA, cable, etc.). Shake the device lightly with the back of the device facing down to remove any remaining screws.



Reassemble Screen, Battery, and Back Cover to complete reassembly.

## **Bottom Speaker**

Disassembly



Remove Back Cover, Battery, Screen, and Charging Port and Microphone first before you begin.

Using the tweezers, lift up on the separator groove of bottom speaker and remove it carefully.




Reassembly

▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.

Place the new speaker module to the exact position, and assemble it to the device frame. Press down softly and evenly on the speaker module so that the speaker module can be completely assembled.

Be careful not to damage the speaker module and the near components.





Reassemble Charging Port and Microphone, Screen, Battery, and Back Cover to complete reassembly.

## Volume/XCover/Emergency Button

#### Disassembly

To remove the Volume button, the XCover button, or the Emergency button, lightly press one end of the button with your fingers so that the other end protrudes. Push the tip of the protruding button up carefully with a round-tip metal tweezer and lift it up until you can grab it with your fingers. Grab the button with your fingers and pull out it carefully from the device.

- () When holding the buttons with a tweezer, be very careful not to damage or scratch the device.
- If you have trouble separating the buttons with your tweezers, please try using a sharper and thinner tool.

#### <Volume Button>



## <XCover Button>



#### Reassembly

- ▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Remove the release film of the new Volume button. Use your fingers to grab the Volume button and insert the button on the slot carefully.
- Be careful not to damage the button and device.



2 Press down the Volume button softly and evenly so that the button can be completely assembled. Press the Volume button to make sure it clicks. It should have the same sound and feel as before disassembly.



- **3** Remove the release film of the new XCover button. Use your fingers to grab the XCover button and insert the button on the slot carefully.
- () Be careful not to damage the button and device.



4 Press down the XCover button softly and evenly so that the button can be completely assembled. Press the XCover button to make sure it clicks. It should have the same sound and feel as before disassembly.



- **5** Remove the release film of the new Emergency button. Use your fingers to grab the Emergency button and insert the button on the slot carefully.
- Be careful not to damage the button and device.



6 Press down the Emergency button softly and evenly so that the button can be completely assembled. Press the Emergency button to make sure it clicks. It should have the same sound and feel as before disassembly.



## Side Button (Fingerprint Recognition Sensor)

- The Side Button is built into the rear frame and cannot be disassembled alone.
  - The Side button has a built-in fingerprint recognition sensor.

#### Disassembly

- Remove Back Cover, Battery, and Screen first before you begin.
- 1 Check for the disassembly steps of the Charging Port and Microphone and completely separate the bracket.



- 2 Check the 2 screws on the main board and the screw on the charging port module, then remove them using a cross-head screwdriver.
- (D) Be careful not to damage the main board and the charging port module.
- Check the number of screws that have been removed, and store them carefully to make sure that no unassembled screws are left inside the device during assembly.



- **3** Separate 2 connectors of the coaxial cable (White) with the tweezers and remove the cable (White) from the device frame.
- When removing the connectors, be careful not to damage the cable.
  - Be careful not to damage the near components.



4 Separate 2 connectors of the coaxial cable (Red) with the tweezers and remove the cable (Red) from the device frame.



5 Separate 2 connectors of the coaxial cable (Blue) with the tweezers and remove the cable (Blue) from the device frame.



- **6** Using the tweezers, disconnect the side button connector from the main board. Lift up on the separator groove of the main board using the tweezers and remove it carefully.
- Be careful not to damage the main board and the near components.



- 7 Using the tweezers, lift up on the separator groove of top speaker and remove it carefully.
- () Be careful not to damage the speaker module.





- 8 Lift up on the separator groove of the charging port module using the tweezers and remove it carefully.
- Be careful not to damage the charging port and the near components.







- **9** Using the tweezers, lift up on the separator groove of bottom speaker and remove it carefully.
- () Be careful not to damage the speaker module.





- 10 Using the tweezers, lift up on the separator groove of vibrator motor and remove it carefully.
- () Be careful not to damage the vibrator motor.
- Market Frame and cannot be disassembled alone.



Reassembly

- ▲ Leaving screws inside the device may damage internal components, such as the battery. When assembling, be extra careful not to leave any unassembled screws inside the device.
- 1 Using the tweezers, remove the adhesive tape on the bottom of the vibrator motor.
- () Be careful not to damage the vibrator motor.



2 Remove the clear film from the new vibrator motor adhesive tape and apply it to the bottom of the vibrator motor. Press the tape softly so that the tape can be attached well.



**3** Remove the release film from the adhesive tape.



4 Using the tweezers, assemble the vibrator motor to the exact position of the device frame. Press the vibrator motor lightly so that it is fully attached.





- 5 Place the bottom speaker module to the exact position, and assemble it to the device frame. Press down softly and evenly on the speaker so that it can be completely assembled.
- Be careful not to damage the speaker module and the near components.





- **6** Using the tweezers, insert the charging port module to the bottom frame, and press down on it in its position smoothly.
- Be careful not to damage the charging port and the near components.





- 7 Place the top speaker module to the exact position, and assemble it to the device frame. Press down softly and evenly on the speaker so that it can be completely assembled.
- Be careful not to damage the speaker module and the near components.





- 8 Align the main board module onto the device frame. After attaching the upper part of the main board diagonally on the screen module, assemble the lower part.
- Be careful not to damage the main board.





- 9 Connect the side button connector to the main board and assemble the coaxial cable (Blue) to the device frame. Carefully connect 2 connectors of the coaxial cable (Blue).
- () Be careful not to damage the cable and the near components.



10 Assemble the coaxial cable (Red) to the device frame and carefully connect 2 connectors of the coaxial cable (Red).





11 Assemble the coaxial cable (White) to the device frame and carefully connect 2 connectors of the coaxial cable (White).





12 Check the screw 2259 (2 ea) at the 2 different points on the main board and the screw 2259 (1 ea) at the point on the charging port module. Fasten them using the crosshead screwdriver.



13 Check for the reassembly steps of the Charging Port and Microphone and completely reassemble the bracket, the flex cable, with the bottom cover.



14 Check carefully to see if there are any screws or other foreign substances inside the device (battery, PBA, cable, etc.). Shake the device lightly with the back of the device facing down to remove any remaining screws.



Reassemble Screen, Battery, and Back Cover to complete reassembly.

## After reassembling

- Check whether the parts or sensors in the device work properly with the Self Repair Assistant app after repairing and assembling your device. Refer to Calibrations for more information.
- Visit a Samsung Service Centre when finding some issues from the calibration results. However, you may incur additional charges if the device has a malfunction because of DIY repairs.

## **Directive 2012/19/EU Annex VII Components**

Directive 2012/19/EU Annex VII requirements apply to the following components.

Component	Samsung Part Name	Removal Instructions
Printed circuit board if the surface is greater than 10 square centimetres	Main Board (PBA)	Check for the disassembly steps of the Front Camera and separate the main board.
Liquid crystal display of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps	Screen	Check for the disassembly steps of the <mark>Screen</mark> and separate the screen.
Battery	Battery	Check for the disassembly steps of the Battery and separate the battery.
External Electric Cable	USB Cable	Disconnect the USB cable.

# SAMSUNG

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