

Google Chromebook: Shimless Workflow Guide

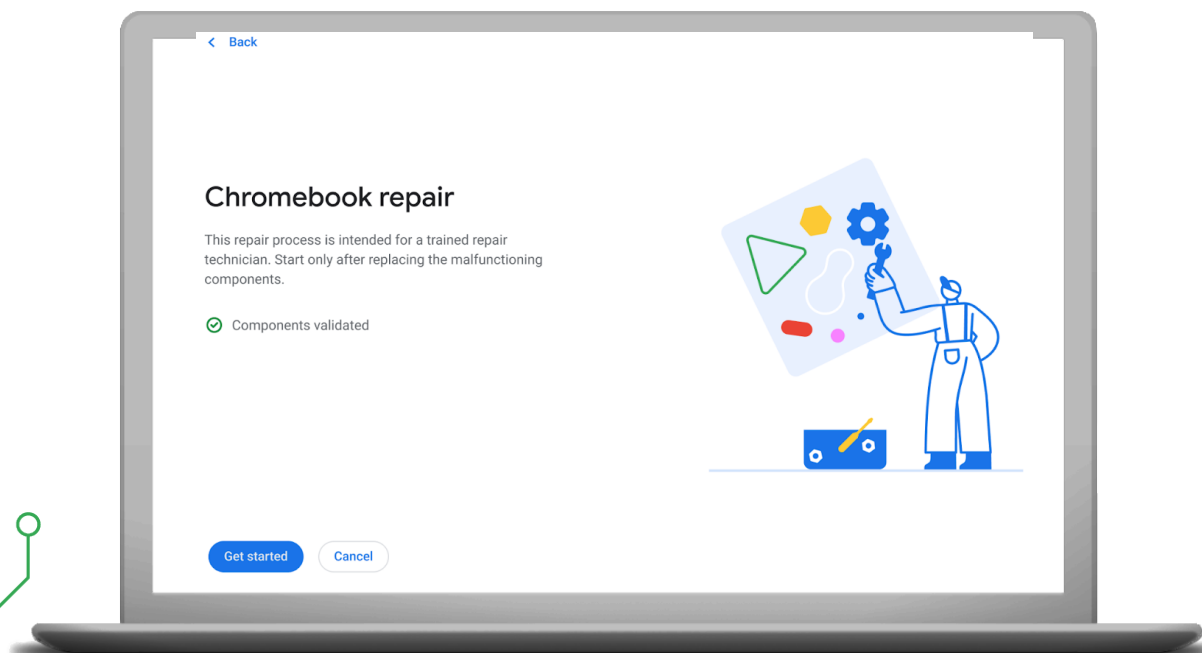


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Getting Started

Shimless RMA provides a user-friendly repair flow that is built right into ChromeOS. These customized paths will result in quicker repairs.



Before we get started, let's review the equipment you may need:

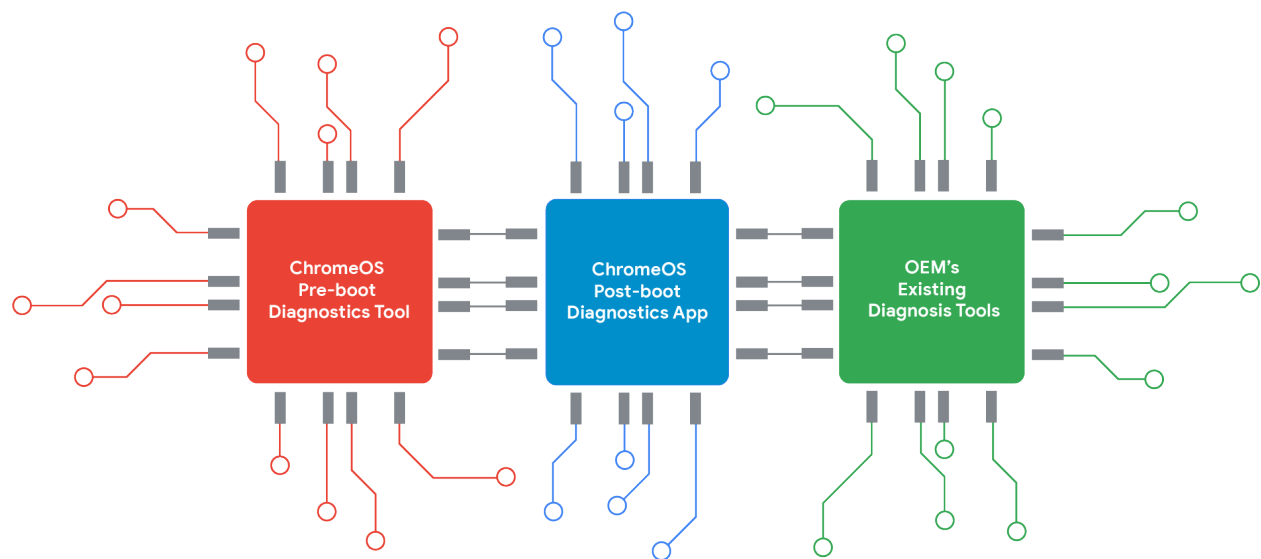
- Make sure you have any necessary tools to complete the repair or open the device.
- RSU setup to disable the hardware write protection. This includes a RSU-enabled security key, QR code scanner, and a secondary device on Wi-Fi.
- Make sure the Chromebook you are servicing is up to date (M107 or higher). If the device requires an update, it can be completed over Wi-Fi, Ethernet, or manually using a Recovery USB.

ChromeOS Recovery USB or SD card

Launching the Repair Flow

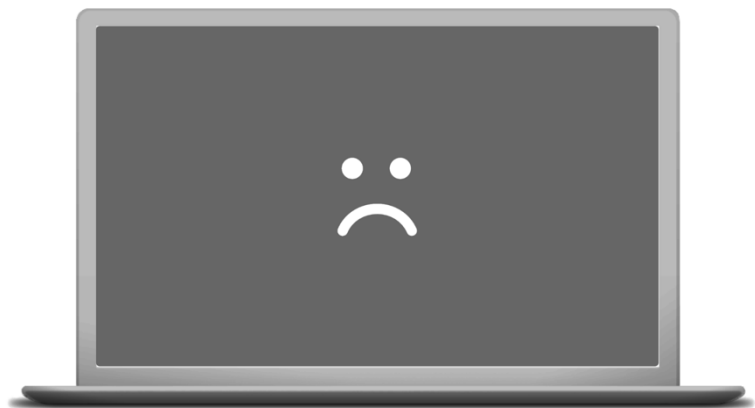
Before starting the Shimless workflow, make sure you have already replaced the malfunctioning components.

If you are not sure what components need to be replaced, you can use the Chromebook Diagnostic Tool or any internal OEM diagnostics.



Step 1: Replace Malfunctioning Components

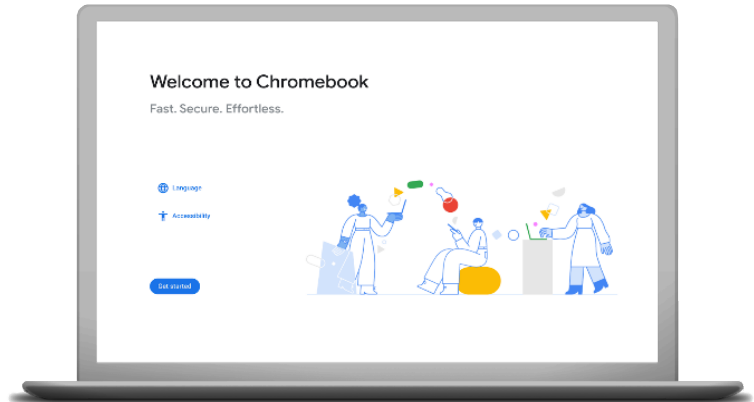
Any broken parts should be replaced **before launching** the repair flow.



Step 2: Boot into ChromeOS

You don't need to login to initiate the Shimless RMA process.

If the message “ChromeOS is missing or damaged” appears on screen, you may need to use a Recovery USB to restore the OS first.



Step 3: Initiate the Shimless RMA Flow

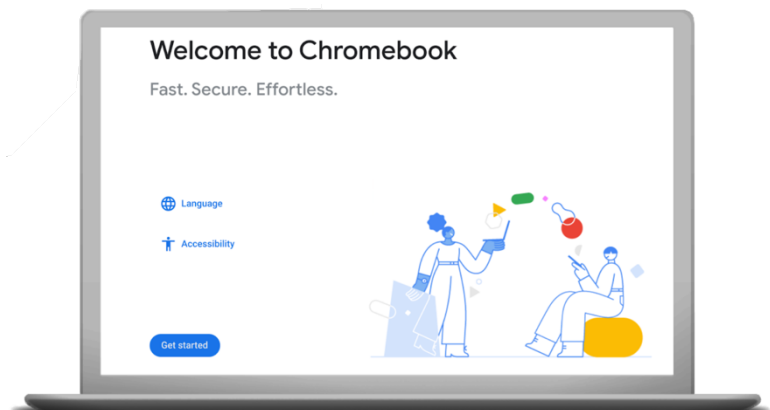
To initiate the Repair Flow, we will need to use the new Shimless RMA combination.

While **holding down the power button**, press the **Refresh button 3 times**. For best results the Key Combination must be completed **within 3 seconds**.



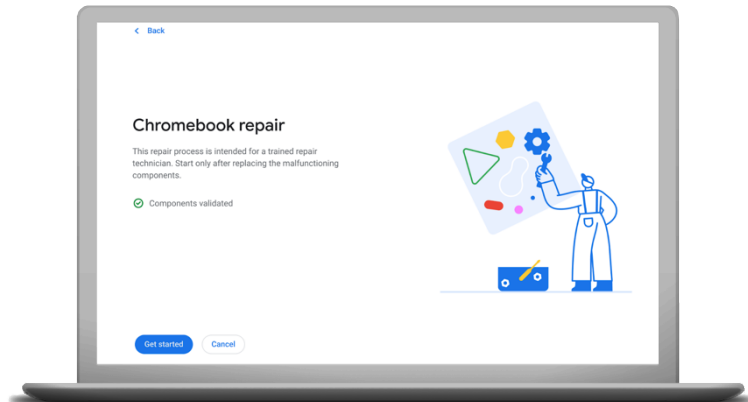
Key

The device will then initiate the Shimless repair flow. The Chromebook will then validate the installed components. This may take up to 10 seconds.



Step 4: Components Validation

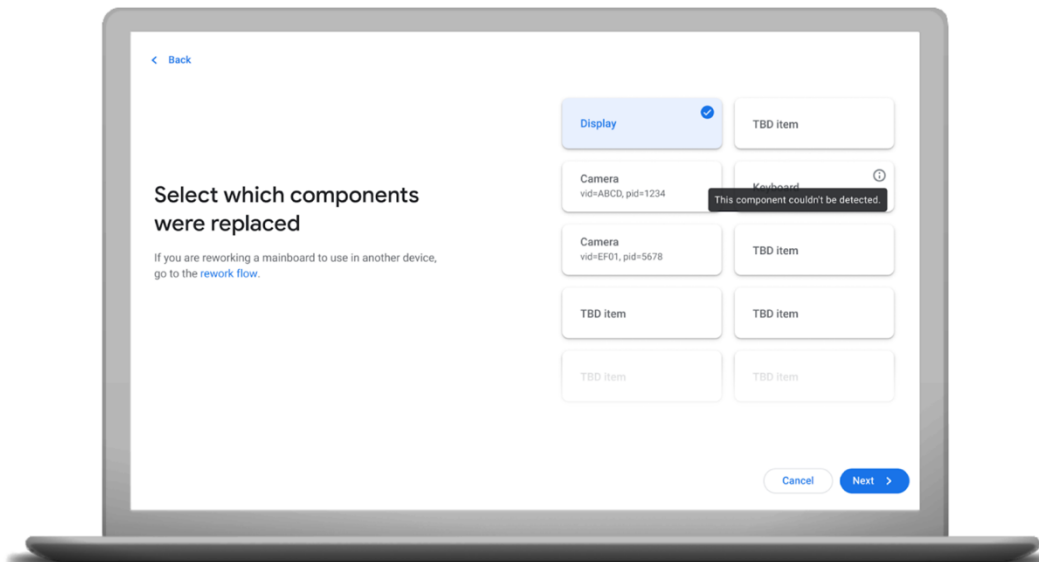
Once your components are validated, the screen will update with a message letting you know that the device is ready to start the repair flow.



Step 5: Replaced Component(s)

Select all the components that were replaced. Remember that you can scroll down to choose more than one component if it applies.

All the selections available correspond to the current Chromebook you are servicing.



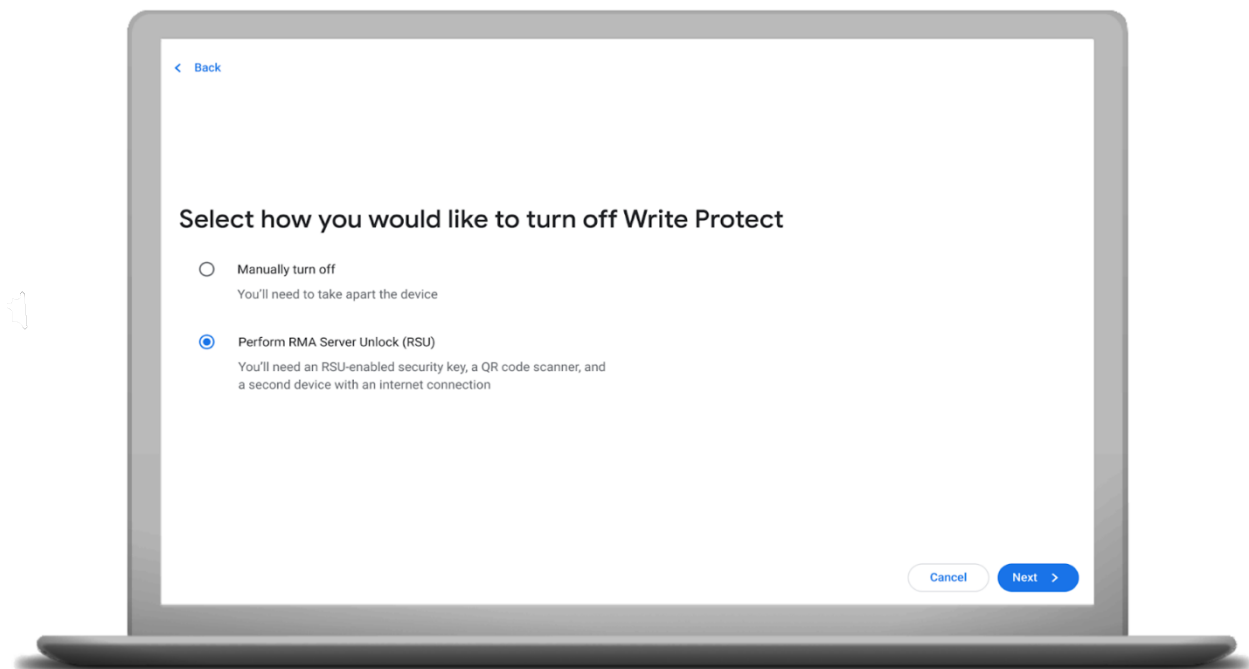
Note: If the Main Logic Board (MLB) is being reworked, you will select the option to go directly to MLB rework flow.

Disable Write Protect Different User

Next, you will indicate how to disable Write Protect.

To utilize RSU (RMA Server Unlock), you will need to: scan a QR code using a hand-held scanner, a computer with the Chrome web browser installed, and an RSU-enabled security key in order to disable Write Protect.

- ☐ If the device is **unenrolled**, you can choose to disable Write Protect with RSU or the manual disablement option.
- ☐ If the device is **enrolled**, you will only be able to choose the RSU option.



Note: Not all repairs require turning off the Write Protect. In these cases, you will be prompted to the final step.

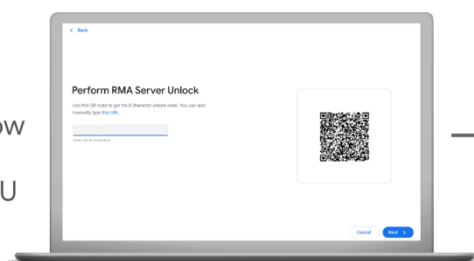
Different User

Once the Write Protect is disabled, you will not be able to **exit out of the repair flow** until you have completed the process.

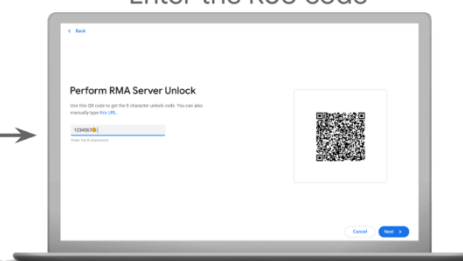
RSU:

If device is enrolled, the flow automatically advances to RSU + Powerwash

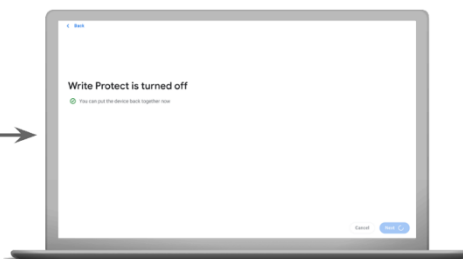
Scan the QR code



Enter the RSU code



Success! Write Protect disabled



Manual
disablement:

Note: The manual disconnect method may vary depending on device. Refer to the device manufacturer's support page for the instructions.

Install Firmware Image

You will need to insert a USB thumbdrive or an SD Card that contains the Chromebook Recovery Utility image to recover the firmware.

If the device does not support the RO firmware verification, you MUST reimage the firmware using a Recovery USB thumbdrive.

Different User

Confirm Basic Information

During this step, you will be able to change any basic information about the device if necessary.

< Back

Please confirm device information
Change device information as needed.

Serial Number
S123456

Region
US [Revert](#)

White label
-no white label- [Revert](#)

SKU ⓘ
12830

The SKU should only be changed if the new component(s) are different from the ones they replaced. For example, a touchscreen replacing a non-touchscreen, or memory being upgraded from 8GB to 16GB.

Next >

Provisioning the Device

At this stage, a variety of silent provisions will be happening in the background during the repair flow:

- Fingerprint sensor (if present) is reset.
- Registration code (if present) is cleared.
- Device stable secret is regenerated.
- FW_CONFIG is updated if the SKU changed.
- SSFC is updated if the replaced component(s) are second source.

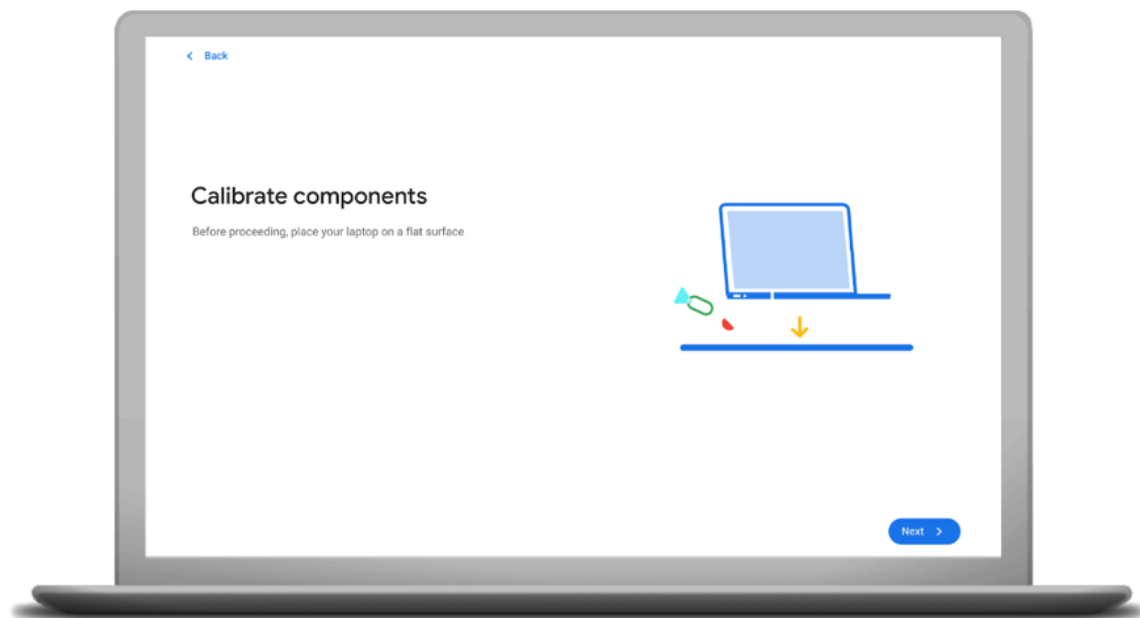


○ Replaced component(s) are silently calibrated if needed (eg. speakers).

Different User

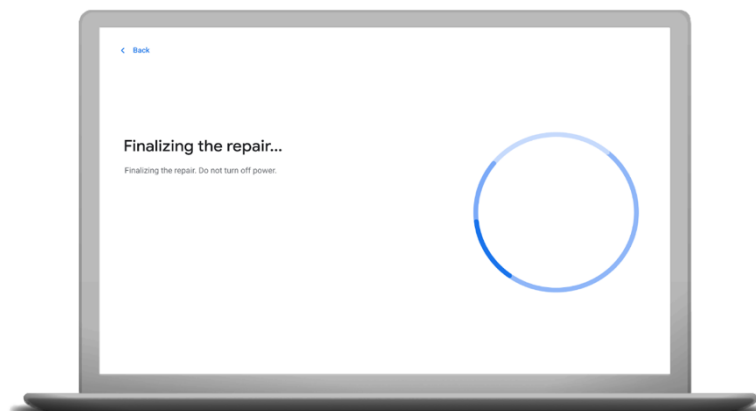
Calibrate Components

Some components, such as the accelerometer, will require you to take certain steps to calibrate.



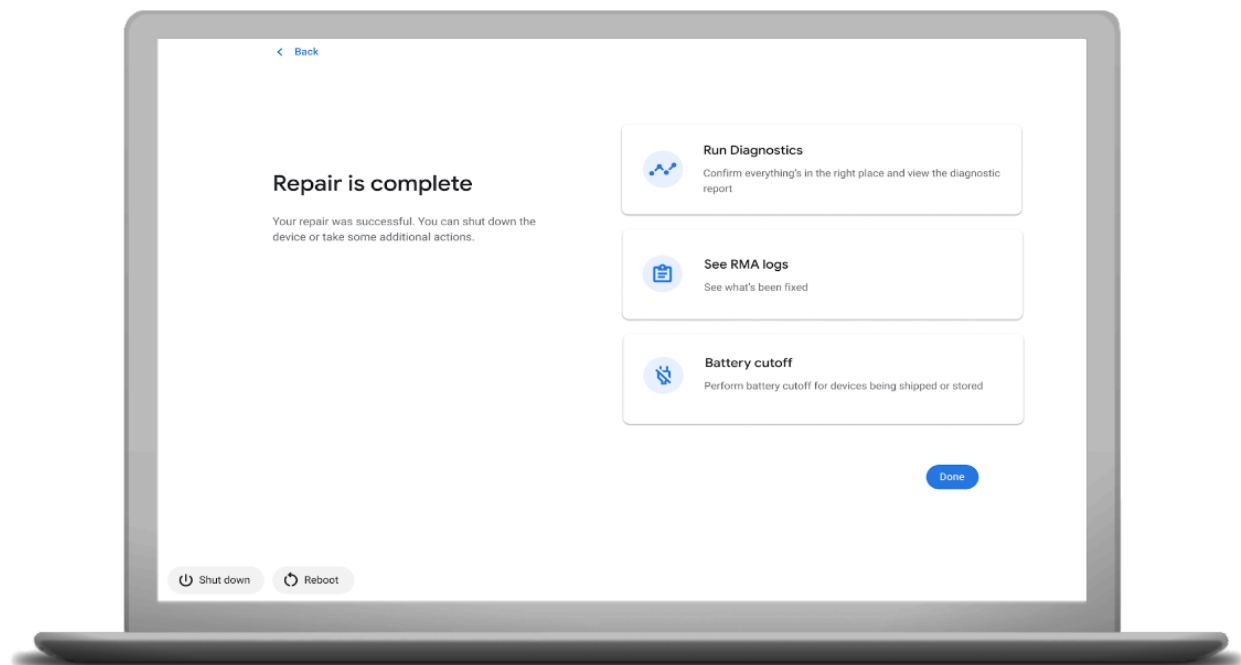
Finalizing the Repair

Once you see this screen, you're almost to the finish line of the RMA process.



Different User

Repair is Complete



Once the repair is complete, you can shut down the device or take additional actions, like running diagnostics, viewing RMA logs, etc.

Note: If you choose not to download the RMA logs at this screen, you may not be able to go back to get them later.

