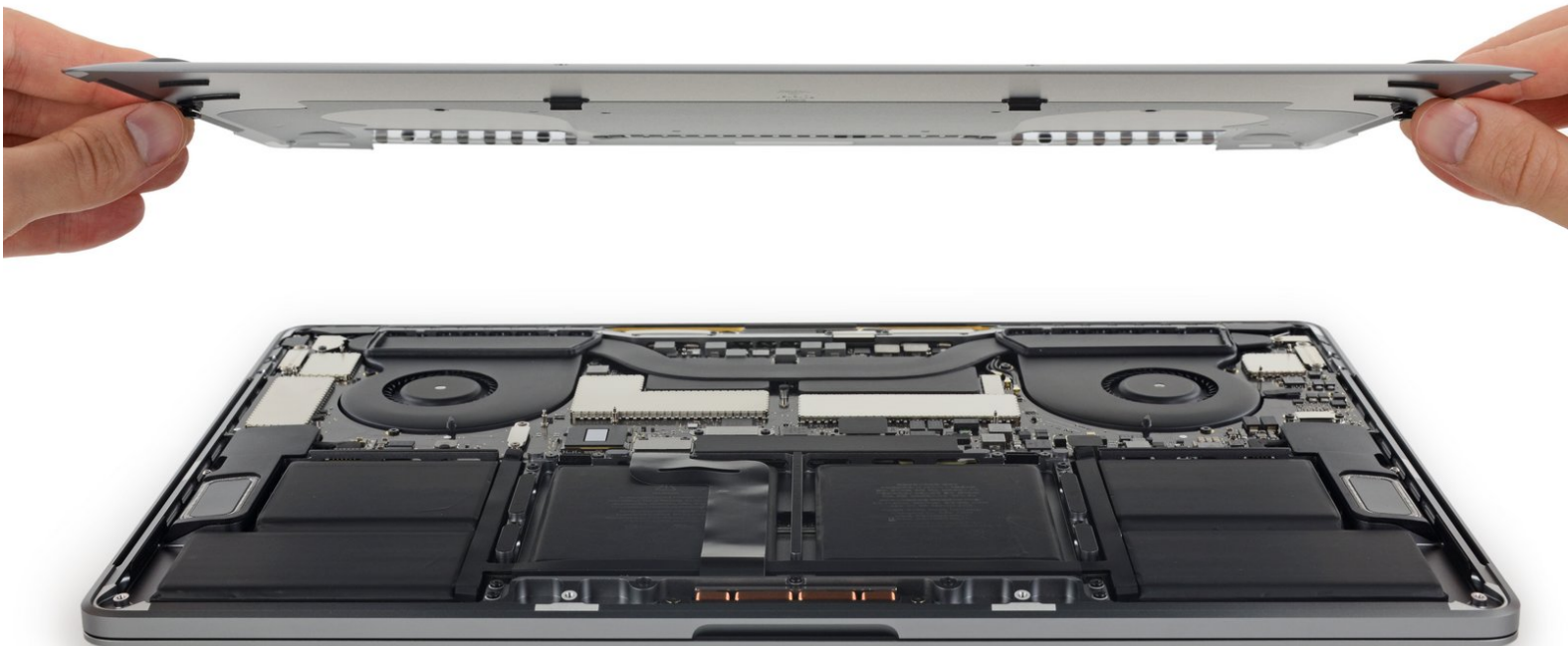




MacBook Pro 15" Touch Bar Late 2016 Lower Case Replacement

Remove the lower case on your 15" MacBook Pro with Touch Bar, either to replace it or to access the internals for further repair.

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INTRODUCTION

Use this guide to remove the bottom cover, a.k.a. lower case. This serves as the starting point for every repair on your MacBook Pro.

For your safety, discharge your MacBook Pro's battery below 25% before you begin this procedure. A charged lithium-ion battery can create a dangerous and uncontrollable fire if accidentally punctured.



TOOLS:

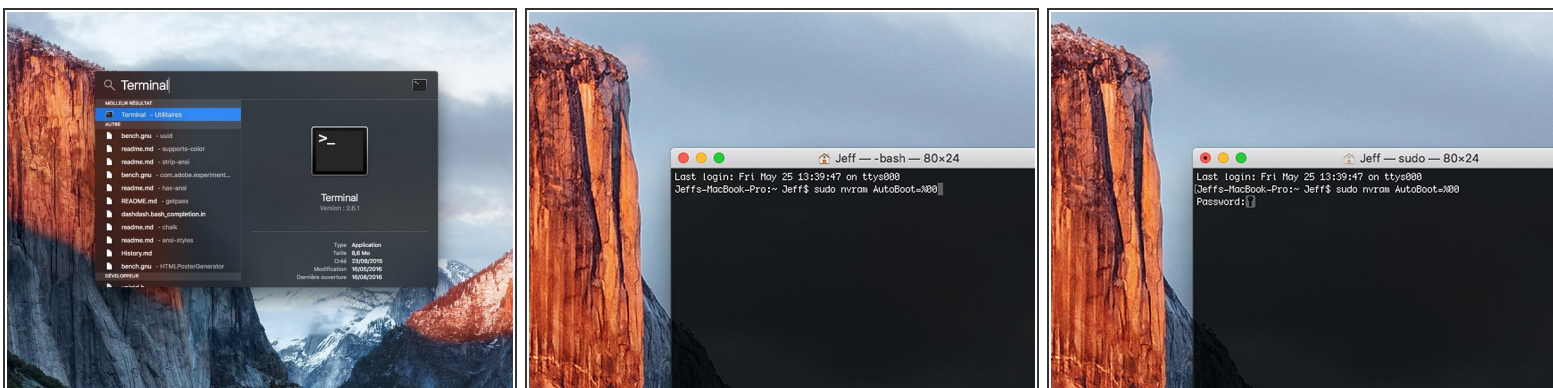
- [P5 Pentalobe Screwdriver Retina MacBook Pro and Air](#) (1)
- [Suction Handle](#) (1)
- [iFixit Opening Picks set of 6](#) (1)



PARTS:

- [MacBook Pro 15" Retina \(Late 2016-2019\) Lower Case](#) (1)


Step 1 — Disable Auto Boot




- i** Before starting this procedure, you must disable your Mac's **Auto Boot** feature. Auto Boot powers on your Mac when you open the lid, and may be accidentally triggered during disassembly. [Use this guide](#) or follow the abbreviated instructions below to disable Auto Boot.
- Power on your Mac and launch **Terminal**.
 - Copy and paste the following command (or type it exactly) into Terminal:
 - **sudo nvram AutoBoot=%00**
 - Press **[return]**. If prompted, enter your administrator password and press **[return]** again. *Note: Your return key may also be labeled ↵ or "enter."*
- i** You can now safely power down your Mac and open the bottom case, without it accidentally powering on.
- ★** When your repair is complete and your Mac is successfully reassembled, re-enable Auto Boot with the following command:
- **sudo nvram AutoBoot=%03**


Step 2 — Lower Case



 Completely power off and unplug your MacBook Pro before you begin. Close the display and flip the entire laptop upside-down.

- Use a P5 Pentalobe driver to remove six screws securing the lower case, of the following lengths:
 - Four 4.7 mm screws
 - Two 6.6 mm screws

 Note the orientation of the screws as you remove them—they need to be reinstalled at a slight angle.

 Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from to avoid damaging your device.

Step 3



- Press a suction handle into place near the front edge of the lower case, between the screw holes.
- Lift up on the suction handle just enough to open a small gap under the lower case.

Step 4



- Slide the corner of an opening pick into the gap you just created underneath the lower case.
- Slide the opening pick around the nearest corner and then halfway up the side of the MacBook Pro.
- ❗ This releases the first of the hidden clips securing the lower case. You should feel and hear the clip pop free.

Step 5




- Repeat the previous step on the opposite side, using your opening pick to release the second clip.

Step 6



- Lift the front edge of the lower case (the side opposite the display hinge) just enough to slide your fingertips underneath and get a good grip on it.
- ⓘ Two additional hidden clips near the middle of the cover may pop free at this point, if they haven't already.

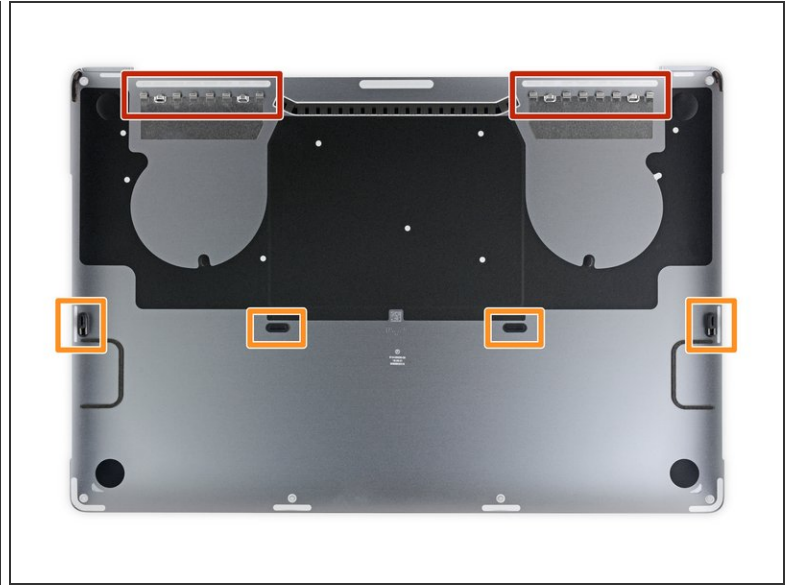
 Don't lift very far and don't try to remove the lower case yet.

Step 7



- Pull the lower case firmly towards the front of the MacBook (away from the hinge area) to separate the last of the clips securing the lower case.
 - Pull first at one corner, then the other.
- ⚠ Pull to the side—not up.
- ⓘ This may require a lot of force.

Step 8



- Remove the lower case.

✦ To reinstall the lower case:

- [Set it in place](#) and align the sliding clips near the display hinge. Press down and slide the cover toward the hinge. It should stop sliding as the clips engage.
- When the sliding clips are fully engaged and the lower case looks correctly aligned, press down firmly on the lower case to engage the four hidden clips. You should feel and hear them click into place.

To reassemble your device, follow the above steps in reverse order.

Repair didn't go as planned? Check out our [Answers community](#) for troubleshooting help.