iFixit
Maximizing Lifetime ROI
Repair Manuals

Fix your own hardware with our free service manuals. Step-by-step photos and instructions make it easy.

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Don't see the repair you're looking for? Help us out by starting it!
Installing iPhone 4 Home Button

Removing the home button and its cover.

Author: Walter Galan Difficulty: Difficult

Use this guide to replace a damaged home button to regain use of your iPhone.

How To: Replace an iPhone 4 Home Button

Sections
- Rear Panel 3 steps
- Battery 3 steps
- Logic Board 13 steps
- Speaker Enclosure Assembly 2 steps
- Display Assembly 9 steps
- Home Button 3 steps

Files
- Home_Button_Screw_Template.pdf

Tools
- Phillips 00 Screwdriver
- Plastic Opening Tools
- Small Flathead Screwdriver
- Spudger
- Tweezers
- iPhone 4 5-Point Pentalobe Screwdriver (if iPhone has external pentalobe screws)
- iPhone SIM Card Eject Tool

Tools (continued)

Relevant Parts
- iPhone 4 Home Button Assembly
  - $14.95
Step 1 — Rear Panel

- Apple has recently substituted the two Phillips screws with 5-Point "Pentalobe" screws. If your iPhone 4 has 5-Point "Pentalobe" screws instead of Phillips, please refer to the second picture.
- Remove the two 3.6 mm Pentalobe screws next to the dock connector.
- During reassembly, we recommend you replace the 5-point screws with equivalent Phillips screws. Our Liberation Kit provides the tools and screws needed to replace the Pentalobe screws with Phillips screws.
- The 5-Point Screwdriver should only be used once, as it has the potential to strip the screws.

Step 2

- Push the rear panel toward the top edge of the iPhone.
- The panel will move about 2 mm.
Step 3
- Lift the rear panel away from the iPhone.

Step 4 — Battery
- Remove the single 2.5 mm Phillips screw securing the battery connector to the logic board.
- Some devices may have two screws, one of which holds down the contact pad which is located above the screw indicated in red in the photo.
TOOLS
Professional-grade repair tools for any repair. We've got the exact tool you'll need for the job.

SHOP

PARTS
Replacement parts for all of the popular gadgets, from iPhone batteries to MacBook displays.

SHOP

https://www.ifixit.com/Store
The greenest electronics are the ones that are never made

- Reduce
- Reuse
- Recycle
Manufacturing electronics is hard...
...and truly recycling electronics is even harder...
Promote repairability within the organization

• Customers
• Employees
• Purchasers
• IT Department
Patagonia + iFixit Repairs

Repair Your Patagonia Gear
My down jacket is leaking feathers! How can I patch the hole?

For a quick patch on the fly, apply some Tenacious Tape. Never pull the feathers out—always push the feathers back in. Pulling the feathers out will pull more feathers out. If you are looking for a long-term solution, you will most likely need a baffle repair. While a baffle repair is documented and described in detail in the Patagonia Down Jacket Repair Guide, it is an advanced repair and is not simple to do.
Step 5

- Sew about half an inch past the end of the slit.
- Lift the presser foot and clip the threads to free the garment.
• Enable and empower employees to do simple repairs
• Listen to and solicit employee feedback on replacement cycles
• Give employees motivation to take care of their technology
• Communicate the cost (both financial & environmental) of new IT purchases
**Purchasers**

- **Things to look for in a device**
  - Durability
  - Service manuals - manufacturer, iFixit, etc.
  - Replaceable batteries
  - Availability of spare parts
  - Difficulty of repairs - “repairability score”
<table>
<thead>
<tr>
<th>Company</th>
<th>Model &amp; Year</th>
<th>Repairability Features</th>
</tr>
</thead>
</table>
| Dell | XPS 10 2013 | + Easy to open. Easy to remove battery.  
+ Color-coded screws and labeled cables inside.  
- LCD is fused to the glass. | 9 |
| Amazon | Kindle Fire HD 2013 | + Simplistic, modular design.  
+ LCD and front glass are not fused.  
- Glass panel is glued to the front plastic frame. | 8 |
| Samsung | Galaxy Tab 2 7.0 2012 | + Modular design and easy-to-remove components.  
+ Front glass is not fused to the LCD.  
- Heat gun is needed to replace the LCD. | 8 |
| Amazon | Kindle Fire 2011 | + Device is easy to open. No proprietary fasteners.  
+ Simple design with standard Phillips screws.  
- Glass panel is fused to frame. | 8 |

https://www.ifixit.com/tablet_repairability
<table>
<thead>
<tr>
<th>Device</th>
<th>Company</th>
<th>Repairability</th>
<th>Advantages</th>
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<tbody>
<tr>
<td>iPad 3</td>
<td>Apple</td>
<td>2</td>
<td>LCD is easy to remove once the front panel is removed.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Excessive adhesive holds everything in place.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- High chance of cracking the glass during disassembly.</td>
</tr>
<tr>
<td>iPad 2</td>
<td>Apple</td>
<td>2</td>
<td>LCD is easy to replace once the front panel is removed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Battery is difficult to remove and replace.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- High chance of cracking the glass during disassembly.</td>
</tr>
<tr>
<td>Surface Pro 2</td>
<td>Microsoft</td>
<td>1</td>
<td>Battery is not soldered to the motherboard.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Tons of adhesive and screws hold everything in place.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Opening the device risks shearing the display cables.</td>
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  - Replaceable batteries
  - Availability of spare parts
  - Difficulty of repairs - “repairability score”

- Consider impacts of BYOD in quantities required
- If you know enough you can question the IT department
IT Department

Internal “Genius Bar” Service

- **Repair workstations**: Specialty mobile repair tools and software
- **Repair manuals**: Use iFixit’s service manuals and extensive troubleshooting knowledge base
- **Hands-on training**: Self-driven training materials coupled with expert network
- **Mobile apps**: Training materials on technician’s own device
- **Online training portal**: Track technician training with Dozuki, iFixit’s proprietary training software
Industry-Leading Training Software

- **World-class development team** dedicated to software excellence
- **Apps available** for all major platforms
- Robust training platform used by Fortune 100 companies to centralize training for service manuals, assembly instructions, product support & more.
## Ticket Management

<table>
<thead>
<tr>
<th>#</th>
<th>Customer</th>
<th>Subject</th>
<th>Created</th>
<th>Status</th>
<th>Problem Type</th>
<th>Tech</th>
<th>Last Updated</th>
<th>Detail</th>
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<tbody>
<tr>
<td>4203</td>
<td>Marley James</td>
<td>Won't Power On</td>
<td>03-30-13</td>
<td>In Progress</td>
<td>Hardware</td>
<td>Jonah Moses</td>
<td>2 days</td>
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<td>4209</td>
<td>Troy Bernard</td>
<td>Laptop is doesn't power up</td>
<td>04-25-13</td>
<td>Invoiced</td>
<td>Hardware</td>
<td>POS/Front Desk</td>
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<tr>
<td>4215</td>
<td>Chris Jackson</td>
<td>iPhone Screen Cracked</td>
<td>05-08-13</td>
<td>Scheduled</td>
<td>Hardware</td>
<td>Jonah Moses</td>
<td>about 11 hours</td>
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<td>4222</td>
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<td>05-27-13</td>
<td>In Progress</td>
<td>Hardware</td>
<td>Jonah Moses</td>
<td>5 days</td>
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<td>4224</td>
<td>John Smith</td>
<td>Dishwasher leaking</td>
<td>05-29-13</td>
<td>Waiting</td>
<td>Hardware</td>
<td>Tech 1</td>
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<tr>
<td>4229</td>
<td>Jim Johnson</td>
<td>Dell with charging issue</td>
<td>06-09-13</td>
<td>Customer</td>
<td>Hardware</td>
<td>Jonah Moses</td>
<td>less than a minute</td>
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<tr>
<td>4230</td>
<td>Britt Lourentso</td>
<td>Acer V71 running slowly, needs tuneup</td>
<td>06-09-13</td>
<td>New</td>
<td>TuneUp</td>
<td>Jonah Moses</td>
<td>3 days</td>
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<tr>
<td>4231</td>
<td>Nick Brown</td>
<td>Dell needs tune up</td>
<td>06-12-13</td>
<td>New</td>
<td>TuneUp</td>
<td>Jonah Moses</td>
<td>about 12 hours</td>
<td></td>
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</tbody>
</table>
Repair is a cornerstone of our environmental and economic future.