

# **Acer AL1716 Capacitor Replacement**

This guide will demonstrate the technique for disassembling the monitor, identifying and replacing blown capacitors.

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#### **INTRODUCTION**

When desktop monitors stop working, the cause can be attributed to blown capacitors on a circuit board. Rather than discarding the monitor, it's often times easier and cheaper to replace the capacitor yourself. The cost of a monitor can range from \$50-500, while capacitors are generally under \$1. It should be noted that capacitors are electrical components that store a charge, so it's advised to perform this repair only after the device has been unplugged from any power source for at least 24 hours. As an extra precaution, review the <a href="How to Safely Discharge a Capacitor">How to Safely Discharge a Capacitor</a> guide before disassembly. A smooth surface and a medium level of force will be required.



## **TOOLS:**

- Phillips #0 Screwdriver (1)
- iFixit Opening Tools (1)
- Spudger (1)
- Soldering Iron (1)
- Solder (1)
- Desoldering Braid (1)

#### Step 1 — Acer AL1716 Capacitor







- Ensure that your monitor has been unplugged from any power source for at least 24 hours.
- Pinch as shown, and pull towards the body to remove the cover from the stand. This will require significant force.
- Remove the four 0.7 mm Phillips #0 screws connecting the stand to the monitor.



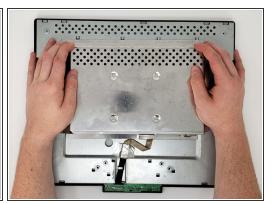




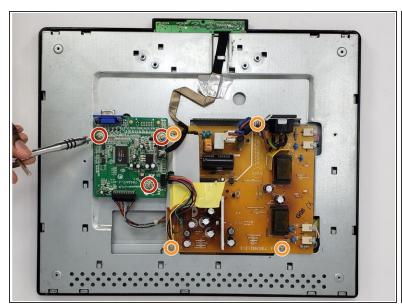
- Remove the four 0.7 mm Phillips #0 screws connecting the back panel to the monitor.
  - Remove the single 0.85 mm Phillips #0 screw from the location shown.
- Insert the plastic opening tool into the crevice along the side, top, and bottom of the monitor.
  - Pry open the monitor by running the plastic opening tool along the crevice.
- Lift the back panel off of the monitor as shown.





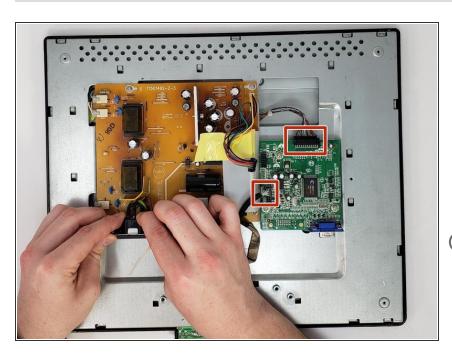


- Remove the two 0.7 mm Phillips #0 screws on the sides of the centerpiece motherboard cover.
- Remove by hand the two hexagonal screws securing the digital visual interface (DVI) input.
  - The DVI is typically a blue/black connector with two built-in screw connections on either side. It
    is secured by hand tightening the two side screws.
- Push the centerpiece motherboard cover toward the body to remove.

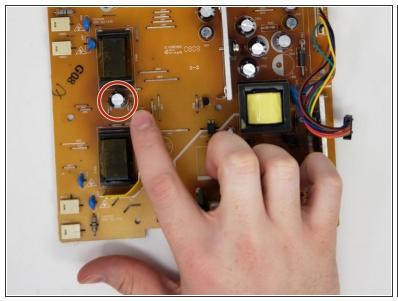


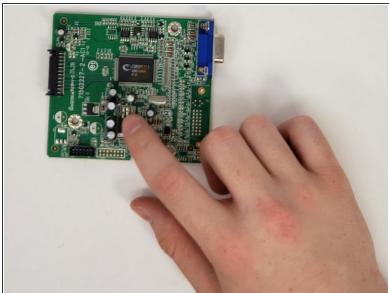


- Caution: The circuit board contains capacitors (they look like cylinders) that can shock you if they discharge. Be careful not to touch them as you work. If possible, use a <u>capacitor discharge probe</u> to safely rid the capacitors of dangerous charges.
- Remove the three 0.7 mm Phillips #0 screws connecting the motherboard to the monitor.
- Remove the four 0.7 mm Phillips #0 screws.
- Use a spudger or plastic opening tool to disconnect the two red and two blue connectors by placing the tool into the crevice and lifting up the connector.
  - ↑ Ensure that your pry tool is ESD-safe.



- Using two fingers, disconnect the power input from the housing by pushing towards the body through the opening.
- Remove the remaining connections by holding down the motherboard and lifting up the connections.
- (i) A medium level of force will be required to remove the connections.





- Examine the top of each capacitor to check capacitor life.
  - (i) A domed top surface indicates a blown capacitor that needs to be replaced.
  - Replace necessary capacitors via soldering the old capacitor out and soldering a new capacitor in.
  - Refer to this soldering guide for <u>How To Solder and Desolder Connections</u>.

To reassemble your device, follow these instructions in reverse order.