

How to Tell If a Ceramic Fuse Is Blown

To tell if a ceramic fuse is blown, test the removed fuse with a multimeter after safely isolating the equipment from power. An open-circuit reading indicates that the fuse has opened. Because ceramic bodies are opaque, appearance alone cannot confirm whether the internal element is intact.

Can You Tell if a Ceramic Fuse Is Blown by Looking?

Unlike a glass fuse, a ceramic fuse hides its internal element. A blown ceramic fuse can look completely normal, without discoloration or visible damage.

Cracks, damaged end caps, or scorching are reasons to take a fuse out of service, but their absence does not prove it is working. Equipment that will not turn on is another clue, not a diagnosis.

How to Test a Ceramic Fuse with a Multimeter

1 SAFETY FIRST



Disconnect all power sources and verify that no voltage is present before touching internal components. Follow the equipment manufacturer's service instructions. Never use continuity or resistance mode on an energized circuit.

⚠ Microwave ovens and other equipment with hazardous stored energy should be serviced by a qualified technician — even when unplugged.

2 REMOVE THE FUSE



Remove the replaceable cartridge fuse from its holder before testing. Testing the fuse while it is still connected can give a false reading because current may travel through another circuit path. Leave soldered-in fuse removal to a qualified technician.

3 SET UP YOUR MULTIMETER



- Black probe → COM
- Red probe → V/Ω jack
- Select Ω resistance mode or continuity mode

Settings may vary by multimeter model.

4 CHECK THE METER



Touch the probes together. You should see a very low resistance reading. In continuity mode, the meter will usually beep.

5 TEST THE FUSE



Place one probe on each metal end cap of the fuse and maintain firm contact. Read the display.



GOOD FUSE

Very low resistance or continuity detected

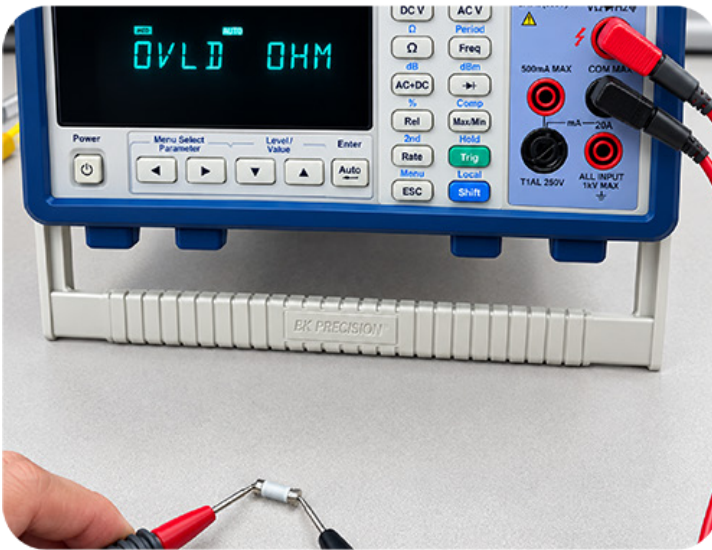


BLOWN FUSE

OL, Open, or very high / infinite resistance

A continuity beep is helpful, but the threshold varies by multimeter.

What Does the Multimeter Reading Mean?



OVLD / OPEN LINE - No continuity found.



Low resistance measurement seen
fuse is active and has continuity.

OL or an open-circuit indication: After confirming the meter's range and probe contact, this means the fuse no longer provides a continuous electrical path and needs replacement.

A stable resistance reading: The element still conducts. However, an intact fuse does not always measure zero ohms. For example, the OptiFuse FCD datasheet lists 4.57Ω for the FCD-250mA. Compare readings with the specific fuse's documentation listed on our website instead of applying a universal "below 1Ω" rule.

Continuity confirms an electrical path; it does not certify that the fuse is undamaged or suitable for the application.

Choosing the Correct Ceramic Fuse Replacement

Use the equipment manufacturer's specified replacement or an approved equivalent. Match the current rating and operating characteristics. It's also important to verify physical fit and required approvals if the application requires it.

OptiFuse's FCD series provides fast-acting protection in a 5 × 20mm ceramic body. The TCD series uses the same physical format with a time-lag characteristic for applications requiring tolerance of brief inrush currents. Matching dimensions do not make these series interchangeable.

Never bypass a fuse, increase its amperage to stop repeated openings, or substitute glass solely because it fits. If the replacement opens again, stop using the equipment and investigate the cause.