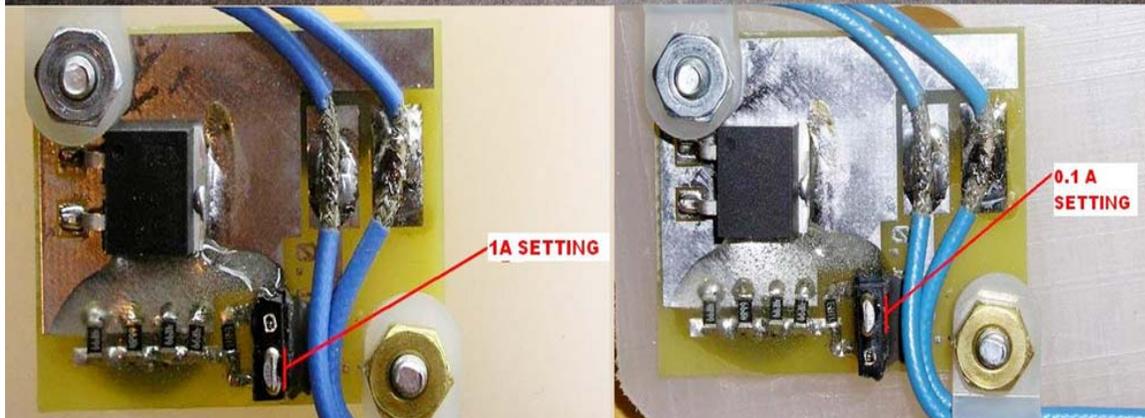




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User's Manual AEC9008-3 Low Ohms Adapter



UM9008-700A
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AEC9008-3 Instructions

The AEC9008-3 LOA is a very close approximation of a 4-wire resistance measurement adapter. One set of wires takes constant current excitation out to the tips of the test clips, a second set of wires takes voltages impressed between the two clips to the input terminals of the user supplied multimeter. The user also supplies a 6V, spring-top lantern battery and hefty rubber bands to attach the LOA to the top of the battery.

Insert banana plugs into the voltage input jacks on your multimeter. Set the multimeter to most sensitive scale (200 mV typical). Make sure test clips are separated - clip one lead to the insulated jacket of the other lead.

Use 3 rubber bands to strap the AEC9008-3 Low Ohms Adapter to the top of a 6V, spring-top lantern battery as shown in the photo (#64 bands work good).

Set desired excitation current (100 mA or 1000 mA) by positioning the selection jumper picture above to appropriate position.

Attach alligator clips across the low resistance pathway to be explored and observe reading on multimeter.

Caution

When using the 1000 mA excitation feature, there is considerable heat dissipated in the Low Ohms Adapter electronics. Measurements should be made in not more than 20 seconds or so whereupon the adapter should be allowed to cool. 100 mA excitation measurements can be made over any necessary duration of time.

100 mA Operation: A reading of 200.0 millivolts is equal to a resistance of 2.000 ohms. In the photo on the front of this document, the multimeter reads 100.3 millivolts. The test resistor is marked 1.00 ohms, 1%.

A reading of 2.000 volts is equal to 20.00 ohms.

1000 mA Operation: A reading of 200.0 millivolts is equal to a resistance of 200.0 millohms. Limit 1000 mA readings to 20 seconds or less with allowances for cooling between readings.

The Low Ohms Adapter should be removed from the battery for storage to reduce risk of inadvertent connection of test leads leading to depletion of the battery. In fact, if you have a 6V lantern (Wallmart sells lantern WITH battery for under \$5), the battery can be returned to service as a flashlight energy source.