



Made in America

## Low Resistance Tester Operation and Maintenance



Figure 1. Item 35105, Menda Low Resistance Tester

### Features

This Menda Low Resistance Tester is designed to test resistance in the area of 0.1 ohms. It indicates a resistance of 0.1 ohms, or less, by an audible signal as well as the illumination of a blue LED. Resistances above this range simply will cause no signal. The Tester operates on 2 standard AA alkaline batteries. When the combined voltage of the 2 X AA batteries declines to about 1.6 volts, the Tester will give a pulsing audio and visual indication when the front probe is depressed indicating low batteries needing replacement. The unit is housed in a rugged extruded aluminum case for durability. Probe tips are nickel-plated brass and are replaceable. The tester may be easily calibrated with accuracy to within 1% of the setpoint.

The design of the Menda Low Resistance Tester utilizes modified Kelvin circuitry. The result is that the Tester is highly accurate and easily discriminate between 0.1 ohms and a measurement 10% higher.

### Operation

The Tester is operated by pressing the handheld probe making contact with one surface and depressing the front probe on the tester containing another surface. Depressing the front probe actuates an internal switch that initiates the testing. A moderately light pressure is necessary on both probes to penetrate any surface oxidation that may be present on the material being tested. A steady tone and blue light indicate the resistance between the two contact points to be 0.1 ohms or less. A pulsing tone and light indicate that the batteries are almost exhausted and should be replaced. No tone or light indicates a higher resistance. Pushing the probes together will confirm that the batteries are not dead.

### Battery Replacement

Batteries are easily replaced by removing the rear cover (where the wire lead exits). Remove the 2 screws and simply slide the circuit board assembly out. Remove the old batteries and replace them with 2 alkaline AA batteries, noting the proper polarity. Rechargeable NiCad batteries can also be used, but they must be recharged externally. Reassemble the unit, taking care that the front probe is oriented properly to pass through the square hole in the front panel.

### Calibration

Rough field calibration may be accomplished using the Menda 35106 Calibration Unit. Applying the Low Resistance Tester to the Calibration Unit's Pass and Fail test points allows for easy calibration.

In the event that the unit requires adjustment, this can be accomplished by removing the rear cover as done for battery replacement and sliding the circuit board out. Place the circuit board assembly on an insulated surface on the bench and install fresh batteries. Locate the trimpot adjustment near the LED and turn it gently counter-clockwise to the stop. Apply the Pass resistance value, while depressing the board-mounted switch. Slowly turn the trimpot clockwise just to the point where the signals come on. If this is done carefully, the setting can be adjusted within 1% of the 0.1 ohm reference. Confirm that the Fail resistance provides no signal. Reassemble the unit, taking care that the front probe is oriented properly to pass through the square hole in the front panel.

#### Limited Warranty

Menda expressly warrants that for a period of one (1) year from the date of purchase, Menda Low Resistance Testers will be free of defects in material (parts) and workmanship (labor). Within the warranty period, the product will be tested, repaired, or replaced at Menda's option, free of charge. Call our Customer Service Department at 909-627-2453 for a Return Material Authorization (RMA) and proper shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of purchase date. Any unit under warranty should be shipped prepaid to the Menda factory. Warranty repairs will take approximately two weeks.

If your unit is out of warranty, call Customer Service at 909-627-2453 for a Return Material Authorization (RMA) and proper shipping instructions and address. Menda will quote repair charges necessary to bring your unit up to factory standards.

#### Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

#### Limit of Liability

In no event will Menda or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.

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