ENDA TECHNICAL BULLETIN TB-4005

Circuitracer® Instructions



General Guidelines

The Menda Circuitracer® is designed for use on the assembly line or in the field. The "light at the tip" of the Circuitracer® makes it unnecessary for operators to move their eyes from the point of contact. This feature effectively allows the operator to move quickly from point to point without the danger of slipping from one contact to another. The Circuitracer® line was created as a supplement to delicate, expensive meters. Menda's complete line of Circuitracer®s allow operators to test for continuity, shorts, grounds or the presence of voltage quickly, effectively and economically.

Description

MODEL 35100 VOLTAGE AND CONTINUITY TESTER



The model **35100** Circuitracer® is a three-in-one test lab. The Circuitracer® comes with the standard one inch probe tip and three feet of lead wire terminated by an insulated ground clip. The **35100** will also use any probe tip with a 10-32 thread. The model **35100** tester includes a low voltage lamp for measuring 1-3 volt powered circuits and a neon cartridge for measuring 60-600 volt powered circuits. Batteries for measuring continuity from 0-10 ohms are not included. The probe voltage on the model **35100** is 3V at 270mA maximum. For detailed specitications, please see **35100**'s technical drawing.



MODEL 35130 CONTINUITY TESTER

The **35130** Circuitracer® is the continuity only version of the model **35130**. The **35130** can measure continuity from 0-10 ohms. The model **35130** comes equipped with a low voltage TL-3 lamp, two AAA batteries, a probe tip and 3' of lead wire terminated with a standard alligator clip. The nose probe will accept all probe tips with a 10-32 thread. Probe voltage is 3V at 270mA maximum. For detailed specifications, please see **35130**'s technical drawing.



MODEL 35135 AUDIBLE CONTINUITY TESTER

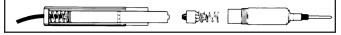
The model **35135** is an audible version of the model **35100** Circuitracer® designed for measuring continuity. The **35135** emits a strong (70db at 20cm) audible signal when a complete circuit of less than 50 ohms resistance is between the clip and probe. The probe lead accepts a tip with a 10-32 thread. This audible Circuitracer® comes equipped with 3' of lead wire, a probe tip in the nose, alligator in the lead, and two AAA batteries. The **35135** measures continuity from 0-50 ohms with a probe voltage of 3V at 15mA maximum. For detailed specifications, please see **35135**'s technical drawing.

Assembly

ASSEMBLY OF MODEL 35100 FOR TESTING UNPOWERED CIRCUITS

When assembled with two AAA batteries in the handle, the model **35100** circuitracer will become a self powered continuity tester, able to measure continuity between 0-10 ohms.

Continuity tester assembly.



- 1. Unscrew transparent probe window from handle.
- 2. Insert the incandescent lamp into the spring-connector and drop into the probe window with spring touching the back end of the probe. Ensure that there is no debris between the lamp and the spring connector. Center contact of lamp will point toward threaded end of probe window.
- 3. Turn handle on wire so that wire will retract to bottom of handle and insert two AAA batteries in handle.
- 4. Screw probe window onto handle. Touch clip to probe end to be sure Circuitracer® is working properly.

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ASSEMBLY OF MODEL 35100 FOR TESTING **POWERED CIRCUITS**

When assembled without batteries, the model 35100 circuitracer can be used to test powered circuits.



Assembly for testing 1-3 volt circuits.

- 1. Unscrew transparent probe window from handle.
- 2. Insert the incandescent lamp into the spring-connector and drop into the probe window with spring touching the back end of the probe. Center contact of lamp will point toward threaded end of probe window.
- 3. Push the lead wire and pull down slightly until three pointed washer rests on ledge inside of handle. Hold tension on back of lead wire with hand as illustrated above to keep assembly in place.
- 4. Screw transparent probe window back on handle so that the center contact of lamp makes contact with lead wire.
- 5. Test lamp by applying correct supply voltage across clip and probe before starting circuit testing.

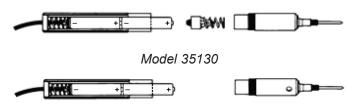


Assembly for testing 60-600 volt circuits.

- 1. Unscrew transparent probe window from handle.
- 2. Insert the neon lamp into the probe window so that one contact rests against the back end of the probe.
- 3. Push the lead wire and pull down slightly until the three pointed washer rests on ledge inside of the handle. Hold tension on back of lead wire with hand as illustrated above to keep assembly in place.
- 4. Screw transparent probe window back on handle so that the contact of neon lamp makes contact with lead
- 5. Test lamp by applying a supply voltage in excess of 60 volts across clip and probe before starting circuit testing.

ASSEMBLY OF MODELS 35130, AND 35135

Models 35130 and 35135 are powered by 2 AAA batteries. They are designed to test continuity on unpowered circuits.



Model 35135

Assembly of Continuity Circuitracers®.

- 1. Unscrew probe assembly.
- 2. Insert battery(s) into handle so that positive end of battery(s) points towards probe window.
- 3. Screw probe window onto handle. Touch clip to probe end to be sure circuitracer is working properly.

Troubleshooting Tip:

Please check to verify the battery is working. If the battery is working properly, please check the transparent probe window. If there is debris or small particles it may interfere with the connection. Use compressed air to blow any debris or particles off the transparent probe window. You can then replace the battery back in and test the circuitracer again.

Limited Warranty

Menda expressly warrants that for a period of one (1) year from the date of purchase, Menda Circuitracer® units 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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