



Made in America

## Safetracer Instructions

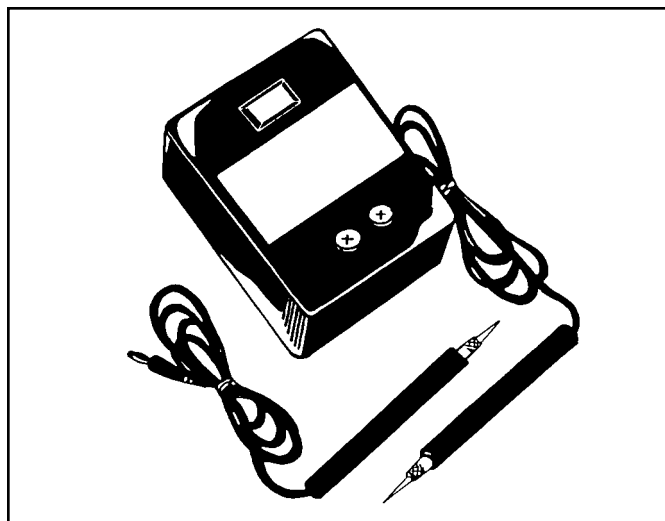


Figure 1. Model 35170 Safetracer

### Description

A continuity tester specifically designed for testing paths on circuit boards with components mounted. The very low probe voltage will not bias semiconducting devices into conduction. All semiconducting devices appear as open circuits. Will not harm even the most sensitive components. 9 volt battery included.

### Instructions

1. The SAFETRACER always draws battery power when turned on, even when no tone is being emitted. For this reason, always turn the power switch off when not in use to conserve battery life. With a standard 9 volt battery, expect about 2,000 hours of service life. A.C. powered operation can be done by using a 9 volt wall transformer such as the RADIO SHACK part no. 273-1552 or 270-1552B.
2. The probe voltage is 0.2 volts so that semiconductors are not biased into conduction when probed resulting in "zero" induced test current through them. This means you cannot

use the SAFETRACER to check diode polarity as the diode will appear as an open circuit no matter which way the probes touch it. For this reason, both probes of the SAFETRACER are red instead of red and black.

3. Due to the low resistance cutoff of the SAFETRACER, always probe wiring paths with the probe tips using moderate pressure. A light touch against the side of the probe tip may not be enough to break through the oxide layer present on all metals and will appear as an open circuit. Test jacks are provided so that other probe sets may be substituted. Any probe set with standard banana plugs may be used with the SAFETRACER.

4. The D.C. resistance cutoff of the safetracer is about 30 ohms. Tone volume will start to decrease after 20 ohms. An internal adjustment controls this function. If you need to verify or change the factory setting, follow the instructions on the label inside the case.

### Operation

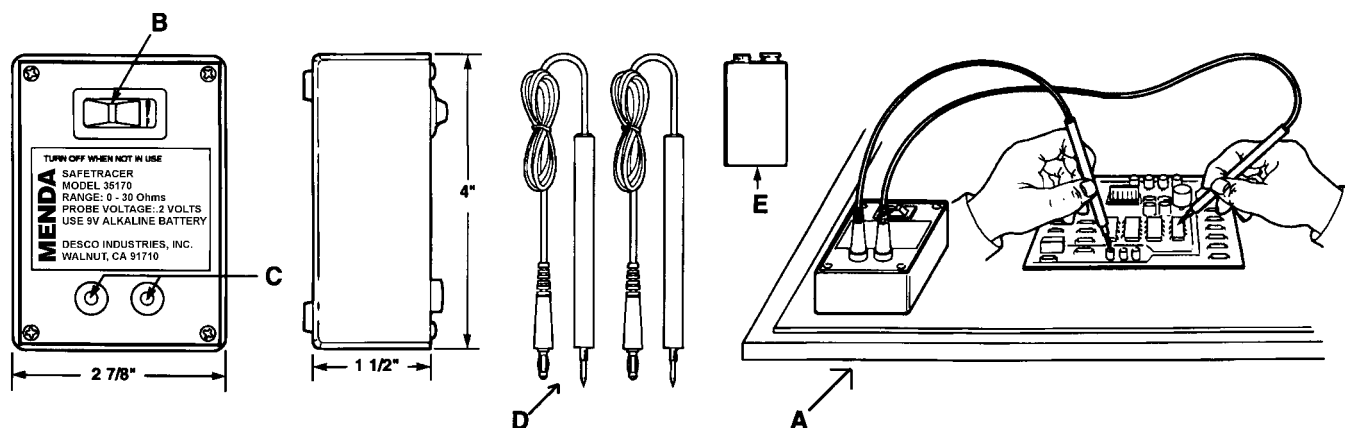
- A. When the probes are plugged into the unit, the path of a circuit board can be tested by touching the probe tips to the components of the circuit board. An audible beep will verify the continuity of the circuit. Low probe voltage will not bias semiconducting devices into conduction. Will not harm even the most sensitive components. **Turn unit off when not in use to save battery.**
- B. Sliding on/off switch
- C. Two standard banana jacks
- D. Two 42" straight wire leads. Each lead is terminated with a banana plug on one end and tapered probe on the other. Probe tips are replaceable.
- E. Operates on a standard 9V battery, included

### Electrical Specifications:

Range: 0-30 Ohms  
Probe: 0.2 volts at 150 : a amps

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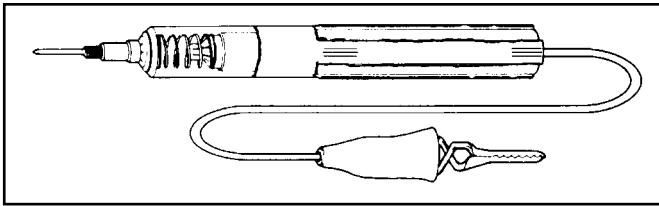
US PATENT 4683422



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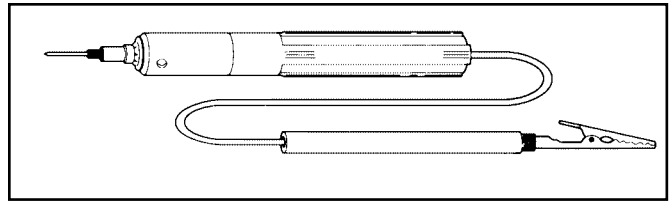
Phone: (909) 627-2453 • Fax (909) 755-8848 • Web Site: [www.mendapump.com](http://www.mendapump.com)

## Other Continuity Testers Available From Menda



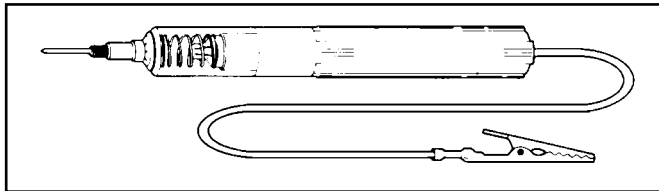
### MODEL 35100 VOLTAGE AND CONTINUITY TESTER

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 specifications, ask for Drawing 35100.



### MODEL 35135 AUDIBLE CONTINUITY TESTER

The model 00135 is an audible version of the model 35130 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. Both nose and probe lead accept probe 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 12mA maximum. For detailed specifications, ask for Drawing 35135.



### MODEL 35130 CONTINUITY TESTER

The 35130 Circuitracer® is the continuity only version of the model 35100. 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, ask for Drawing 35130.

### Limited Warranty

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