

LIMITED ONE YEAR WARRANTY

This product is warranted to the purchaser against defects in material and workmanship for one year from the date of purchase.

What is covered: Repair parts and labor, or replacement at the company's option. Transportation charges to the purchaser.

What is not covered: Transportation charges to the company. Damages from abuse or improper maintenance, see operating instructions. Any other expense. Consequential damages, incidental damages, or incidental expenses, including damages to property. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

How to Obtain Warranty Performance: Attach to the product your name, address, description of problem, phone number and proof of date of purchase. Package and return to:

Service Center
Universal Enterprises, Inc.
5500 S.W. Arctic Drive
Beaverton, Oregon 97005

Implied Warranties: Any implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to one year from date of purchase. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

To the extent any provision of this warranty is prohibited by federal or state law and cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

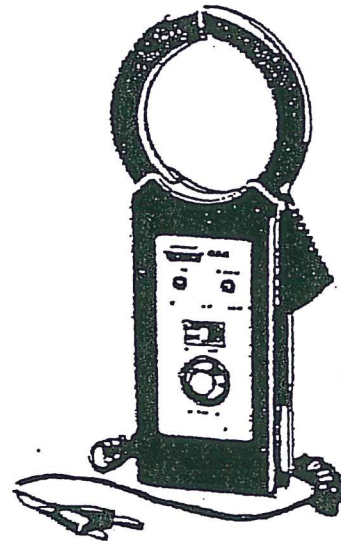
universal



enterprises

CA2

OPERATING INSTRUCTIONS



8030 SW Nimbus • Beaverton, OR 97008
(503) 644-8723 • Fax: (503) 643-6322

CA2 OPERATING INSTRUCTIONS

INTRODUCTION

The CA2 Digital Clamp-On Current Probe is designed to measure AC and DC current. It is an optional accessory that can be used with Universal's DM30, DM50, DM210, DM310, DM350, DM360 and DM400 digital multimeters.

FEATURES

- Dual range measurements
- Measure AC or DC amperage
- Power on indication light
- Low battery indication
- DCA zero adjust knob

SPECIFICATIONS

Measuring Ranges:

- AC Amps: 0-200A on 200mV AC range
0-400A on 2V AC range
- DC Amps: 0-200A on 200mV DC range
0-400A on 2V DC range

Output:

- AC Amps: 1mV AC per 1A AC
- DC Amps: 1mV DC per 1A DC
- Accuracy: 20A. $\pm(2\% \div 0.5mV)$
- 400A. $\pm(2\% \div 2mV)$

Operating Temperature: -32° to $-122^{\circ}F$
(0° to $-50^{\circ}C$)

Operating Humidity: less than 90% RH
Battery: 9V Battery (recommend heavy duty)
Power Consumption: Approximately 15mA
Dimensions: 3.2"(w) x 7.9"(h) x 1.2"(d)
(80 x 200 x 300mm)

Weight: 9.45 oz.

ACCESSORIES

9V Battery (NEDA #1604) AB9
110V AC Line Splitter ALS1

MEASURING PROCEDURE AC CURRENT MEASUREMENT

1. Determine the highest amperage range to be measured.
2. Connect the black lead into the "COM" input jack and the red lead into the "V/Ω" input jack on your digital multimeter.
3. Set the digital multimeter range selector switch to 200mV AC to measure 0-200A AC or the 2V AC range to measure 0-400A AC. Always use the highest current range first.
4. Clamp the jaws of the CA2 around a single circuit wire. NOTE: Clamp only one wire at a time for measurement. If two or more wires are clamped together, the tester will not read properly.
5. Take the reading directly from the digital multimeter's display. NOTE: 1mV AC per 1A AC.

DC CURRENT MEASUREMENT

1. Follow the steps outlined in AC CURRENT MEASUREMENT setting the range selector switch to 200mV DC to measure 0-200A DC or 2V DC to measure 0-400A DC. NOTE: 1mV DC per 1A DC.

LOW BATTERY INDICATION

When the "LOW BATTERY" indicator light snows, replace the battery. In-spec measurements may still be made for approximately one-half hour after the low battery indication appears.

RETURNING FOR REPAIR

- Before returning your instrument for repair, please make a quick check to ensure the failure is not due to one or more of the following:
1. Low or dead battery.
 2. Digital multimeter is not set on proper range.
 3. Black lead and red lead are in proper input jacks.