



# TINKER & RASOR

CORROSION MITIGATION INSTRUMENTATION

P. O. BOX 1667 SAN BERNARDINO, CA 92402

TEL: (909) 890-0700

FAX: (909) 890-0736

## PRODUCT INSTRUCTIONS

### MODEL ACT

### Amp Clamp Tester

#### Contents of the Shipping Package:

Model ACT Instrument Kit Includes:

- Instrument, with battery (installed)
- Current Loop, stored inside instrument cover
- Charger, battery
- Instruction manual
- Warranty Card



The Model ACT is designed to provide an accurate DC current output to verify the accuracy of commercially available current meters and amp clamp meters. The ACT is designed for use in the field as well as lab settings. Anywhere an amp clamp or current meter is used, the ACT can be used to verify the current meter.

The ACT is recommended to be calibrated on a minimum of an annual basis by Tinker & Rasor. By maintaining the calibration cycle of the ACT, current meters and amp clamps can be sent for calibration services when indicated.

The Model ACT comes with the instrument, housed in a rugged plastic box. The current loop is stored inside the lid of the instrument. The loop has banana plugs which fit into the front (top) of the instrument case for use with amp clamps. The other item included with the ACT is the battery charger.

#### UNPACKING AND INSPECTION

Open the package and ensure that you have received all items as shown on the packing list. The packing list is provided in a clear plastic pouch on the outside of the box.

Inspection should be made upon receipt of the instrument. If damage has occurred during shipment, file a claim with the carrier immediately.

If it necessary to contact your supplier or Tinker & Rasor concerning damaged or missing items, please include the serial number, purchase order and invoice number of the instrument in question.

#### USE INSTRUCTIONS

Prior to use, charge battery. See the Battery section for more information (below).

- Open the case by rotating the handle toward the cover (top) of the case and then lift the cover and rotate it away from the handle.
- Inside the cover is a short instruction list and a foam piece.
- The current loop is held in place by the foam.



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- For use with an amp clamp, the current loop is removed and fitted into place by inserting the banana plugs into the banana jacks on the front (top) of the case. Push the current loop into the case until firmly seated.
- Adjust the current output knob to the desired current: 1.0 Amp or 500 milliamps. It is recommended that both output ranges be used in testing the amp clamp or current meter.
- Press the power button and note the LED will indicate power.
- When the instrument is ON, current is flowing through the current loop and can be used immediately.
- When testing an amp clamp, it is recommended that the loop of the amp clamp be centered with the current loop of the Model ACT.
- Observe the reading on the amp clamp or current meter.
- Once a reading has been observed, move the current output knob to the other current range.
- Observe the reading on the amp clamp or current meter.  
NOTE: See Technical Specifications for accuracy details.
- Turn the instrument OFF by pressing and the Power button again. Observe the Power LED goes OFF. The Power LED may slowly go out. This is normal.



## INDICATORS

### *Low Battery*

Flashing or blinking Power LED indicates low battery. The instrument should not be used with a low battery indication.

### *Polarity*

The DC current is polarity dependent, and flows from positive to negative through the loop. The positive connection point is indicated by the color RED on the case. As most amp clamps and current meters are polarity dependent, it is recommended that the meter under test be connected with the ACT in the correct polarity. An indicator, usually an arrow, may be found on the amp clamp or current meter.

## BATTERY

The Model ACT is powered by a rechargeable Li-Ion battery. It is recommended that the battery be charged before each use. Charging is usually complete in 4 to 5 hours. It is recommended that the Model ACT be charged overnight.

The battery charger has an LED indicator. The LED will glow Red when the battery is being charged. The LED indicator will change to Green the battery is charged and the charger is in trickle mode or when disconnected from the battery.



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The battery is charged using the supplied battery charger only. The charger is to be used with 110v or 230v AC. The battery charger comes with the standard North American plug type. For use outside of North America an adapter is required.

### CALIBRATION

The instrument comes with a calibration document, and a calibration sticker is placed on the main panel of the instrument so that calibration status is quickly known.

The Model ACT is a highly accurate current source and should be calibrated annually or more frequently. The ACT should be calibrated by Tinker & Rasor trained technicians only.

| Technical Specifications |  | Replaceable Parts List |                                 |
|--------------------------|--|------------------------|---------------------------------|
| Output type:             | DC   | PART #                 | DESCRIPTION                     |
| Current:                 | 1.000 Amp, 0.500 Amp                             | 031-023                | Charger, Battery, Li 8.4v, 1.2A |
| Accuracy:                | 1.0 Amp: +/-5%                                   | 168-002                | Tester, current loop, ACT       |
|                          | 0.5 Amp: +/-2.5%                                 |                        |                                 |
| Battery:                 | 7.4 volt, 2400 mAH (Li-Ion Polymer)              |                        |                                 |
| Charger:                 | 110v / 230v AC input, 8.4v, 1.2 AMP<br>DC output |                        |                                 |
| Calibration Cycle:       | Annual (recommended)                             |                        |                                 |

### Mailing Address

Tinker & Rasor  
P.O. Box 1667  
San Bernardino, CA 92402  
Phone: (909) 890-0700

### Shipping Address

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