CORROSION MITIGATION INSTRUMENTATION 2828 FM 758, NEW BRAUNFELS, TX 78130 TEL: (830) 253-5621

# PRODUCT INSTRUCTIONS MODEL PRM PEAK READING VOLTMETER

# Use with Tinker & Rasor Models High Voltage Holiday Detectors

IMPORTANT NOTE: Do not use this instrument in an explosive environment.

<u>UPDATED INFORMATION:</u> The Model PRM has been updated for better performance when used with T&R Models APS and AP/W with integrated voltmeter LCD displays, starting with serial number 1177. Previously built units may be sent to the factory for update evaluation.

- The Tinker & Rasor Model PRM Peak Reading Voltmeter is designed to measure the **peak value** of high voltage pulses within its scale range, with a maximum capacity of 40 kilovolts. Voltage measurements can be made of peak values with a rise time of less than one millionth of a second.
- 2. The Tinker & Rasor Model PRM Peak Reading Voltmeter consist of:
  - 1 Voltmeter
  - 1 Ground Cable
  - 1 High Voltage Cable with Red Clamp

#### 3. Unpacking

Check all components against the packing list. If damage has occurred in shipment, <u>file a claim with the carrier immediately</u>. If it is necessary to contact your supplier or the manufacturer concerning damaged or missing items, be sure to include all the information such as serial number, purchase order number and invoice number. This will ensure you of obtaining proper and expeditious service.

### 4. Description

The Model PRM is a portable, battery powered, voltmeter capable of accurately measuring pulse type high voltages such as those generated by the "so called" spark type Holiday Detector and clearly recognizing the values of either polarity.

Equipped with large five-digit liquid crystal display and single control switch for selecting proper polarity and testing of self-contained power supply.

The cables supplied with the meter are well insulated for the proper use in measuring high voltages, however, care should be exercised not to physically hold or touch these cables or connections while the high voltage potential is present. Also, cables should not rest on each other or be placed on conductive surface while making voltage measurements.

# Always observe proper safety precautions when operating high voltage equipment.

Web: www.tinker-rasor.com E-mail: Info@tinker-rasor.com

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## 5. Voltage Testing Procedures

- A. Connect one of the two high tension cables, supplied with the voltmeter, between the dome top terminal of voltmeter and the high voltage output of the Holiday Detector.
- B. Connect the other high tension cable between the ground post of the voltmeter and the ground terminal of the Holiday Detector.
- C. After properly connecting cables (see note below) turn Holiday Detector "ON".
- D. Turn the control knob on the voltmeter to the positive (+) position and observe the meter reading. If the meter reading does not closely correspond to the factory markings of the Holiday Detector, turn the control knob to the negative (-) position. The meter reading must be within 10% of the factory markings on the Holiday Detector in one or the other polarities, otherwise there is a fault in one or both instruments.

**Note**: It may be necessary to use the cables supplied with the Holiday Detector in conjunction with those supplied with the Voltmeter, because the terminals vary on different Holiday Detectors. For example: Connections can be made directly to the ground wire and

6. Battery Test high voltage cable of the Holiday Detector to facilitate proper electrical connections.

Turn control knob to "Bat." position. Battery should read minimum of 6.0 volts. Replace if needed with fresh batteries, 6 each 1-1/2 volt "AA" Cell Batteries. Do not store Voltmeter with batteries in place for long periods of time.

- 7. Battery Replacement (See Photo Illustration Below)
  - 1. Make sure the PRM is off.
  - 2. Remove the two screws on the face plate with a Phillips-head screwdriver.
  - 3. Pry open the face plate, and be mindful with the wires connected to the face plate.
  - 4. Remove the Velcro strap to remove the battery holder.
  - 5. Replace the (6) AA cell batteries. T&R #010-002
  - 6. Repeat the steps in reverse to restore the PRM to operation order.



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#### 8. Maintenance and Service

Do not expose to excessive moisture (keep dry) and keep clean.

#### 9. FACTORY REPAIRS

Holiday Detectors returned to the factory for repairs should be sent TRANSPORTATION PREPAID. In most cases the detector can be repaired and returned the same day it is received at the factory.

When ordering parts or requesting further information always give the serial number.

Shipping Address: Attn: Repairs Tinker & Rasor 2828 FM 758 New Braunfels, TX. 78130 Phone# (830) 253-5621

Please provide the following when shipping instruments:

- What is wrong with the instrument
- Return shipping address
- Contact person who can approve repairs, and their contact information.
- If applicable, purchase order the instrument was bought with.

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