



TINKER & RASOR

CORROSION MITIGATION INSTRUMENTATION

P. O. BOX 1667 SAN BERNARDINO, CA 92402

TEL: (909) 890-0700

FAX: (909) 890-0736

PRODUCT INSTRUCTIONS

CURRENT INTERRUPTER

MODEL CI - 50

FIVE SECTIONS of QUICK INFORMATION

- I. **INSPECTION of the INSTRUMENT**
- II. **GENERAL INFORMATION**
- III. **PANEL CONTROLS & INDICATORS**
- IV. **BATTERY INFORMATION**
- V. **MAINTENANCE**

OPERATING INFORMATION

TINKER & RASOR MODEL CI - 50 CURRENT INTERRUPTER

- I. **Inspection** of the instrument should be performed upon receipt. If damage has occurred in shipment, file a claim with the carrier immediately. If it is necessary to contact your supplier or Tinker & Rasor, be sure to include all information such as serial number, purchase order number and invoice number.

- II. **General Information**

- A. Application of the CI - 50:

The CI-50 may be connected to either the input or output side of the cathodic protection circuit. **Note:** Observe rating limits shown in the specifications. It is not necessary to observe polarity with output terminals.

WARNING: Do not connect the interrupter to the DC output side of rectifiers that have an efficiency transformer. Always interrupt the AC (input) circuit.

- B. Relay contact Positions:

Relay is "OPEN" under the following conditions:

- 1. When the "ON-OFF" power switch is in the "OFF" position.
 - 2. When the power switch is in the "ON" position and instrument is within the cycle time set on the "RELAY OFF" control.

Relay is "CLOSED" under the following conditions:

- 1. When "ON-OFF" power switch is in the "ON" position.
 - 2. When "ON-OFF" power switch is in the "ON" position and the "START TIMING" button has not been pressed.

Web: www.tinker-rasor.com

E-mail: Info@tinker-rasor.com



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C. Interrupter Power Sources:

- * Uses 12 volt lantern battery only.
- * Interrupter is delivered with a standard 12 volt lantern battery; but any external DC source between 10 VDC and 15 VDC may be used if desired.

(See battery Information)

III. Panel Controls & Indicator

There are four controls, one indicator and a set of mounted terminal lugs on the panel.

A. Controls

1. Power "ON-OFF" Switch: Move the toggle switch up to its "ON" position. This will close the relay contacts.

Note: This switch causes battery power to be applied to the Interrupter's internal electronics. Select your timing cycle (refer to the chart on bottom of Interrupter). All operating conditions can be adjusted at this time.

2. "RELAY ON" Control: This controls the impress current "ON" period. (refer to chart on bottom of Interrupter).
3. "RELAY OFF" Control: This controls the impressed current "OFF" period. (refer to chart on bottom of Interrupter).
4. "START TIMING" Control: Depress the "start timing button" to begin the interruption cycle. The cycle begins with a "RELAY OFF" condition. Allow one minute from start of first timing cycle for stabilization.

B. Indicator

1. Meter: Provides a continuous readout of the battery condition. Battery should be replaced if pointer falls in "replace" area.

C. Terminal Lugs

The terminal lugs are the rugged, heavy duty copper SLU type, rated at 70 amperes. Versatility and convenience permit both lug and clamping type connections. Polarity of terminals is unimportant.

IV. Battery Information

Battery performance is related to the following factors:

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PRODUCT INSTRUCTIONS

A. Duration of the timing cycles -

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The shorter the overall "RELAY ON" times the longer will be the useful battery life, up to 30 hours.

IV. **Battery Information**

B. Minimum available voltage -

When the battery voltage falls below 9 volts, there may not be enough power available to operate the relay.

Note: Meter indications within the "white" area do not forecast remaining operating hours.

C. Ambient temperatures -

At 32 degrees Fahrenheit, the battery delivers less than 50% of its energy. At 22 degrees Fahrenheit, the battery may not deliver enough energy to operate the Interrupter. (At these temperatures, an automotive 12-volt battery can be used).

Note: Additional battery information is available from Tinker & Rasor, P.O. Box 281, San Gabriel, California 91778.

D. Installation procedures -

When replacing the battery, observe polarity (red = positive, black = negative). Reversed polarity will cause the meter needle to deflect to the left, off-scale, indicating an improper connection. The CI-50 will not be harmed by such a connection, but it will not operate.

Use only 12-volt batteries such as:

- * Burgess -TW2-X or TW2
- * RCA - VS342
- * Eveready - 732
- * NEDA - 926

It is useful to carry an extra battery when working in remote field locations.

V. **Maintenance**

The Current Interrupter does not require maintenance other than occasional battery replacement. Normal care in use and storage will give many years of trouble-free service. However, should the Current Interrupter require factory service, ship (freight prepaid) to:

Tinker & Rasor
791 S. Waterman Ave
San Bernardino, California 92408

Web: www.tinker-rasor.com

E-mail: Info@tinker-rasor.com



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PRODUCT INSTRUCTIONS

MODEL CI - 50 SPECIFICATIONS

TIMING RANGE	SELECTABLE FROM 5 TO 45 SECONDS
TIMING SELECTION . . . SECOND	ANY COMBINATION IN THE 5 TO 45 RANGE
RATING LOAD)	DC . . . 50 AMPS 28 VOLTS (RESISTIVE
LOAD)	AC . . . 50 AMPS 120 VOLTS (RESISTIVE
LOAD)	AC . . . 25 AMPS 240 VOLTS (RESISTIVE
BATTERY	<u>USE ONLY 12-VOLT BATTERY!!!!</u>
	BURGESS #TW2-X or #TW2 EVEREADY #732 RCA #VS342 NEDA #926
BATTERY LIFE	30 HOURS
DIMENSIONS	5-3/4" X 3-3/4" X 10-1/2"
WEIGHT POUNDS	OPERATING WEIGHT LESS THAN SIX

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