



# **TINKER & RASOR**

CORROSION MITIGATION INSTRUMENTATION

P. O. BOX 281 SAN GABRIEL, CA 91778 TEL: (626) 287-5259 FAX: (626) 287-0132

## **PRODUCT INSTRUCTIONS**

# **CURRENT INTERRUPTER MODEL QC**

(QUARTZ CONTROLLED)

### 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 QC 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 Model QC

The Model QC 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. The Model QC has two timing ranges:

With the slide switch in the X1 position the complete timing cycle is one minute as shown on the rotary selector switch.

A 30 second complete cycle is available by placing the slide switch in the + 2 position. Actual time will be half of that indicated on the rotary switch.

- C. Relay Contact Positions:

**Web:** [www.tinker-rasor.com](http://www.tinker-rasor.com)

**E-mail:** [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)



# **TINKER & RASOR**

CORROSION MITIGATION INSTRUMENTATION

P. O. BOX 281 SAN GABRIEL, CA 91778 TEL: (626) 287-5259 FAX: (626) 287-0132

## **PRODUCT INSTRUCTIONS**

Relay is "OPEN" under the following conditions:

1. When the power switch is in the "OFF" position.
2. During the second portion of the operating cycle.

Relay is "CLOSED" under the following conditions:

1. When the power switch is in the "ON" position and the operate/reset switch is in the "RESET" position.
2. During the first portion of the operating cycle.

### **D. Interrupter Power Sources**

- \* Uses 12 volt lantern battery.
- \* 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 Switches and Indicator**

#### **A. Switches**

1. Operate/reset switch: Place in "RESET" position.
2. Slide switch: X1 position.
3. Power ON/OFF switch "ON" position, this will close the relay contact.
4. Select timing cycle on rotary switch.
5. Start timing by switching OPERATE/RESET toggle to OPERATE. Using an accurate time source, start timing on exact one-minute times. The Model QC will be as accurate as a good watch during its operation.

First portion of timing cycle is with relay contacts closed. For a shorter operating cycle, place slide switch in + 2 position.

Two or more Model QC Current Interrupters may be synchronized by starting on any exact time.

#### **B. Indicator**

**Meter:** Provides a continuous readout of the battery conditions.  
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.

**Web: [www.tinker-rasor.com](http://www.tinker-rasor.com) E-mail: [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)**



# **TINKER & RASOR**

CORROSION MITIGATION INSTRUMENTATION

P. O. BOX 281 SAN GABRIEL, CA 91778 TEL: (626) 287-5259 FAX: (626) 287-0132

## **PRODUCT INSTRUCTIONS**

### **IV. Battery Information**

Battery performance is related to the following factors:

A. Duration of the timing cycles -

The shorter the "RELAY CLOSED" time, the longer will be the useful battery life. Typical up to 40 hours or longer.

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 "OK" 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, CA 91778-0281.

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 Model QC 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

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, 417 Agostino Road, San Gabriel, California 91776. Immediate service is guaranteed.

**Web: [www.tinker-rasor.com](http://www.tinker-rasor.com)**

**E-mail: [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)**



# **TINKER & RASOR**

CORROSION MITIGATION INSTRUMENTATION

P. O. BOX 281 SAN GABRIEL, CA 91778 TEL: (626) 287-5259 FAX: (626) 287-0132

## **PRODUCT INSTRUCTIONS**

# **MODEL QC SPECIFICATIONS**

TIMING RANGES. . . . . AND A	TWO RANGES. A ONE MINUTE CYCLE 30 SECOND CYCLE.
TIMING SELECTION . . .	ONE MINUTE CYCLE DIVIDED AT ANY FIVE SECOND INTERVAL; 30 SECOND CYCLE DIVIDED AT ANY 2.5 SECOND INTERVAL.
RATING . . . . .	DC . . . 50 AMPS 28 VOLTS ( RESISTIVE LOAD ) AC . . . 50 AMPS 120 VOLTS ( RESISTIVE LOAD ) AC . . . 50 AMPS 240 VOLTS ( RESISTIVE LOAD )
BATTERY . . . . .	<u>USE ONLY 12 VOLT BATTERY!!!!</u>  BURGESS #TW2-X or #TW2 EVEREADY #732 RCA #VS342  IF THESE BATTERIES ARE NOT AVAILABLE CHECK FOR CORRECT BATTERY UNDER NEDA #926.
BATTERY LIFE . . . . .	40 HOURS
DIMENSIONS . . . . .	5-3/4" X 3-3/4" X 10-1/2"
WEIGHT . . . . .	OPERATING WEIGHT LESS THAN SIX POUNDS

010-170

Web: [www.tinker-rasor.com](http://www.tinker-rasor.com)

E-mail: [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)