



# 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-100A

The QC-100A is a solid state current interrupter capable of switching up to 100 amps of current. The QC-100A will operate for over 10 hours on its internal battery, or indefinitely on external 120 vAC or 12 vDC power sources. Interrupt cycles from .005 to 262.000 seconds. The QC-100A will interrupt up to a maximum of 2000 watts.

<p><b>POWER ON</b></p> <p>Indicates that the QC-100A is on when lit.</p> <p><b>CIRCUIT CLOSED</b></p> <p>Indicates that current will flow through the interrupter contacts when lit.</p> <p><b>LCD DISPLAY</b></p> <p>Used to view programming.</p>	<p><b>12 VOLT AUX. CHARGE</b></p> <p>Used to power the QC-100A or charge the internal battery from an external 12-volt DC power source.</p> 	<p><b>BATTERY CHARGING</b></p> <p>Indicates that the battery is charging from an external AC or DC power source, or that the QC-100A is operating from external power.</p>
<p><b>SYNCHRONIZE</b></p> <p>Used to connect multiple QC-100A's together to synchronize interrupt times and the interrupters internal clock. Also used to enter program data on multiple interrupters at the same time.</p>	<p><b>KEYPAD</b></p> <p>Used to enter data.</p> <p><b>B- Back</b> <b>E- Exit</b> <b>F- Forward</b></p>	<p><b>CURRENT SELECTOR SWITCH</b></p> <p>Use to select type of current to be interrupted, between DC and AC.</p>

## USING THE QC-100A

1. Prior to turning the Quasar power on, use the POWER SELECTOR SWITCH to select type of current to be interrupted, DC or AC. Turn the Quasar on using the power switch on the front panel. The POWER ON indicator will light.
2. When the QC-100A is turned on, the display will read "Enter local time". Enter the current time in a 24-hour format. The display will then show the Main Menu. If the QC-100A has been previously programmed, the unit will begin execution of the program(s) stored in non-volatile memory.



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### **3. SCROLLING MENU OPTIONS**

#### **Programming mode**

Enter new programs, beginning with Program #1.

Delete existing programs as a group.

*Note: 6 programs maximum.*

#### **Editing mode**

Edit existing programs.

Erase a single program.

Add a program, beginning with the next available program.

#### **Cycle mode**

Choose a program to cycle indefinitely.

#### **View mode**

Review programs currently stored in the QC-100A's memory or the current time programmed on the QC-100A.

#### **Exit**

Leave menu and begin automatic execution of stored programs.

### **TO PROGRAM THE QC-100A**

- Choose "1" from the menu.
- Press any key other than "E".
- Enter the Program start time. *Note: Enter local time using 24-hour format (military time e.g. 2:00 P.M. is 14:00.00). Program start time must be equal or later than previous program stop time if both programs are for the same day.*
- Enter the program stop time. *Note: Stop time must be later than stop time if the program starts and stops on the same day.*
- Enter the program On interval. *Note: How long you want the current to be applied to the structure.*
- Enter the program Off interval. *Note: How long you want the current to be removed from the structure.*

### **TO DELETE ALL PROGRAMS**

- Choose "1" from the menu.
- Press "E".
- Press "1" to confirm delete.

### **TO DELETE A SINGLE PROGRAM**

- Choose "2" from the menu.
- Press any key other than "E", press "E" to EDIT.
- Press "D" to DELETE a program.
- Enter program number to delete.

The program is now deleted and the remaining programs are moved up.



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### TO ADD A PROGRAM

- Choose “2” from the menu.
- Press any key other than “E”.
- Press “A” to add a program. *Note: 6 programs maximum.*
- Enter program. *Note: Same steps as described in the programming mode.*

### TO EDIT A PROGRAM

- Choose “2” from the menu.
- Press any key other than “E”.
- Press “E” to edit a program. *Note: 6 programs maximum.*
- Enter the program number to edit.
- Enter dates and times as in programming mode or press “F” to go forward to the next entry.

### TO ENTER CONTINUOUS CYCLE MODE

- Turn on the QC-100A.
- When the display reads “Enter local time”, enter the current time in 24-hour format.
- Choose “3” from the Main Menu.
- Enter a Program number to cycle, or “E” to exit.  
The QC-100A will begin interrupting immediately to the start and stop times in the selected program.
- To exit the Continuous Cycle mode, press any key while the unit is interrupting.

### TO VIEW PROGRAM CONTENTS

- Choose “4” from the menu.
- Press any key other than “E”.
- Choose “0” to view program, “1” to view time.
- Choose program number to display.  
The QC-100A will display start and stop times.
- Press any key to move to the next display.  
The QC-100A will display the On and Off intervals.
- Press any key to return to the Main Menu.

### NOTES:

- **After Programming the QC-100A**, the programs are stored in non-volatile memory, until the user either over-writes or erases them, even if the unit is turned off.
- **To enter the timer mode**, program the QC-100A with at least 1 program. When the time reaches the programmed start time the unit will begin interrupting until the programmed stop time is reached. If more than one program exists, the QC-100A will automatically re-enter timer mode after completion of the program, and wait for the next programmed start time. During the wait, current is applied to the structure.
- **To enter Main Menu** from the view mode, press “E” at any time.



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### **TO SYNCHRONIZE ADDITIONAL QC-100As**

- Connect synchronize cable to the “Output” jack on the front panel of the first or “master” QC-100A.
- Connect the other end of the synchronize cable to the “Input” jack of the second QC-100A.
- If you are connecting three or more interrupters, simply connect another synchronize cable to the “Output” jack of the second interrupter and into the “Input” jack of the third. Continue connecting additional interrupters in a “daisy chain” until all interrupters are connected.
- Turn on the power to all interrupters.
- Enter the current time on the keypad of the “Master” QC-100A. If all the interrupters are to have the same program, enter the program data on the “Master” QC-100A.
- After all interrupters have been programmed, disconnect the synchronize cables, leaving instrument(s) turned on and install the interrupters at desired locations.