Installation Guide

1104-09-002-M Rev E

I²R SSR

Smart Surge Recorder

Part# 1104-09-002

The I²R SSR is a smart surge recorder used to monitor and capture the number and time of transient surges.

The device uses an inductive current probe to sense any surge current on the ground (earth) conductor. A microprocessor processes the sensor signal and records the data for later viewing on the LCD.

Main Features

1. Records the number and date of each transient incident
2. Long lasting lithium battery allows operation independent of external power supply
3. Large surge history capacity (up to 80 records)
4. Time-set and all clear function built into perpetual calendar
5. Low energy consumption at dormant state. To view records activate device by pressing MENU key
6. Easy installation on standard 35mm DIN rail

Technical Information

Sensitivity Level	1 kA – 3 kA counting (8/20µs)
Visual Indication	LCD
Estimated Lifespan	6 years
Dimension – H x W x D	3.6” x 1.4” x 2.6” 91 mm x 37 mm x 67 mm
Operating Temperature	0º C to +70º C
Weight (Max) lb, kg	0.24, 0.11
Relative Humidity	<95% non-condensing

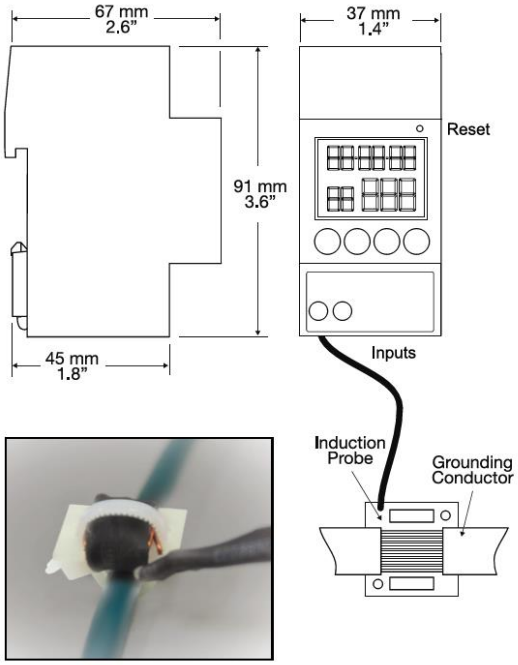

Figure 1 – Correct Installation

Installation and Wiring

1. Install the I²R SSR on a 35mm DIN rail, attach the surge current inductive probe to the surge current discharge path (Ground or Earth Conductor) using the included plastic tie wrap. **Important:** the connection between the inductive prove and the grounding conductor must be secure. Refer to Figure 1 for proper orientation of the probe. Incorrect installation will affect the sensitivity of the counter and its overall performance. Use special care routing the wire leads to ensure there are no loops or sharp bends.
2. Insert the two leads of the inductive probe into the input terminals of the counter (no polarity) and then tighten the terminal screws. After connecting, test to ensure the wire leads are secure. Note: special maintenance is not required for the counter. Check all connections periodically.

Usage and Maintenance

Viewing Memory

When the LCD is blank screen, press **MENU** key to activate LCD, automatic continuous display of the current date and time screen, then show the surge history display. The surge history display has 3 fields， the surge event number, the hour and date when the surge event occurred (Year, Month, Day). Press the ▲ and ▼ keys to view the history. The most recent surge recorded will be displayed. If no surges have been recorded, the date and time will not be displayed, only zeros appearing in the Surge Event field.

Date

Year

Surge Event

Figure 2: Surge History (Year)

Time

Hour

Surge Event

Figure 3: Surge History (Hour)

Note, can't exit manually during the editing process, only by waiting for about 30s automatic black screen exit.）

Setting Date

When the LCD is blank screen, press ↵ key to activate LCD, the current time will be displayed with flashing hyphens, when Y is displayed at the bottom left of the screen, we can set the date, the flash characters can be edited, use the ▲ and ▼ keys to adjust the value of each digit, and use the ↵ key to advance to the next digit. When done, wait for about 30s until the character stops flashing, the new date is saved.

Date Display
(year, month, day)

Figure 4: Setting Date

Setting Time

When the LCD is blank screen, press ↵ key continuously to enter the time setting screen, when H is displayed at the bottom left of the screen, we can set the time, the flash characters can be edited, use the ▲ and ▼ keys to adjust the value of each digit, and use the ↵ key to advance to the next digit. When done, wait for about 30s until the character stops flashing, the new time is saved. (Note, Setting date and Setting Time can be done continuously.)

Time Display
(hours, minutes, seconds)

Figure 5: Setting Time

Reset

If you need clear historical data, please use a small pointed tool to press the reset button until all characters are displayed in 88-88-88 and then loosened.

Figure 6: Reset