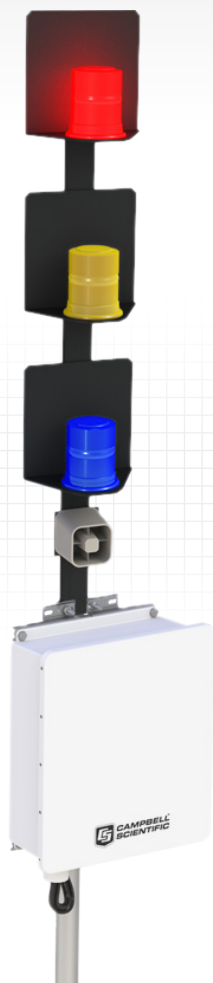# CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

RA110
Remote Alarm System

Lightning Forecasting for Safety
at remote sites

Overview

The RA110 allows an alarm system to be located several miles from the LW110 Lightning Warning System. The RA110 uses telemetry to receive electric-field information from the LW110. When the electric fields indicate that there is a potential for lightning, the RA110 triggers visual and audible alarms that warn of the possible dangers.

The RA110 consists of an RA100 Remote Strobe and Siren Alarm, a CR800 datalogger, a power supply, communication device, and an ENC14/16 enclosure. Communication options include fiber, spread spectrum radio, and Internet. There are also several options for mounting the enclosure and the RA100 alarm system.

Benefits and Features

- ❯ SAE Class II LED beacons with 100,000 hour rated lifetime
- ❯ 120 dB siren
- ❯ "All clear" notices when lightning threat has passed
- ❯ Allows the alarm system to be located several miles from the LW110 Lightning Warning System
- ❯ Rugged construction
- ❯ Controlled by a Campbell Scientific CR800 datalogger

- ❯ Includes two stainless-steel brackets for mounting to a flat surface
- ❯ Optional pole-mount kit allows mounting to a pole with a 1.5 to 4 in. outside diameter
- ❯ 3.3 ft extension accessory allows mounting to a parapet wall
- ❯ Multiple RA110s can receive electric-field information from one LW110 Lightning Warning System

Example Configuration

1. RA100 Strobe & Siren Alarm
2. ENC14/16 Enclosure
3. CR800 Measurement and Control Datalogger
4. 12 Ahr Battery w/ AC-to-DC Transformer
5. RF401A Spread Spectrum Radio
6. Stainless-Steel Pole

Customizations

The RA110 Remote Alarm System is customizable, allowing you to configure the station to your project's specifications, while retaining turn-key functionality. The following components are alternatives or additions to the above configuration:

Communication

Ethernet
> NL200 Network Link Interface

Fiber
> FC100 Fiber Optic Converter

Radio
> RF401A Spread Spectrum Radio
> RF451 900-MHz, 1-W Spread-Spectrum Radio

Alarm

> RA100 Strobe & Siren Alarm

Power Supply

> 84 Ah battery with 50 W Solar Panel
> 12 Ah battery with AC power
> 12 Ah battery with AC power and UL certification

Mounting

Tripod
> CM106 7-to-10 ft Galvanized-Steel-Tubing Tripod
> CM110 10-foot Stainless-Steel Instrument Tripod

Pole
> CM500 10-ft Galvanized Pole (2.4 in. OD) w/o j-bolt mount
> CM505 8-ft Galvanized Pole (2.4 in. OD) w/ j-bolt mount
> CM510 8-ft 304 Stainless Steel Pole (2.4 in. OD) w/ j-bolt mount
> CM515 8-ft 316L Stainless Steel Pole (2.4 in. OD) w/ j-bolt mount