

## Basic Functionality of the Strike Guard Lightning Detection Sensor



The Strike Guard Lightning Warning System is comprised of a self-powered Lightning Sensor, a Lightning Data Receiver (also referred to as “the LDR” or “the Receiver”), and a fiber-optic communications link.

### The Strike Guard Lightning Detection Sensor

The Sensor monitors cloud and cloud-to-ground lightning within 20 miles and categorizes lightning threats by proximity:

Lightning within 20 Miles: CAUTION

Lightning within 10 Miles: WARNING

Lightning within 5 Miles: ALARM

No Lightning ALARMS events for 30 minutes: ALL-CLEAR

Patented optical signal processing and proprietary optical-coincidence technology prevent false alarms.



### Functions of the Sensor

1. Receives and processes the optical and radio emissions of lightning discharges within 20 miles of the Sensor.
2. Classifies lightning signals by estimated range to the discharge.
3. Rejects background noise.
4. Transmits serial data messages to the Lightning Data Receiver via a lightning- proof fiber-optic link.
5. Performs a periodic self-test of Sensor functions including battery charge level and transmits confidence messages to the Lightning Data Receiver to ensure that a healthy Sensor and viable communications link are available.

## Installation Diagram: Strike Guard with Strike View Software and WAVE Siren Warning System

