

StrikeGuard™

LIGHTNING WARNING SYSTEM

Strike Guard employs state-of-the-art technology to address the most demanding lightning safety and equipment protection applications.

Designed for critical industrial applications, Strike Guard monitors cloud and cloud-to-ground lightning within a user-set radius and provides contact-closure signaling at user-set lightning activity thresholds. Patented optical signal processing and proprietary optical-coincidence technology prevent false alarms.



Strike Guard Sensor data are communicated via lightning-proof fiber-optic cable to an independent Lightning Data Receiver with system status, caution and alarm indicators, relays, and PC compatible output.

STRIKE GUARD DELIVERS:

- Fully automatic alarm triggering with user-set range categories
- 20 mile detection radius
- No false alarms! Patented technology
- Sensor and communication self-test
- Sensor is battery powered for easy installation
- Durable fiber-optic communication with connector-less technology
- Lightning-proof data communication
- NEMA 4X Sensor enclosure
- Lightning Data Receiver with battery-back up
- Optional, Strike View, Windows® -based display software
- Strike Guard Simulation Software for training and testing

The proven and patented technology in Strike Guard provides significant improvement over first-generation lightning sensors. Strike Guard enables automated initiation of lightning evacuation plans, data back-up, generator activation, and equipment shutdown procedures with utmost confidence.

LIGHTNING DATA RECEIVER SPECIFICATIONS:

INSTALLATION: Wall-mountable with size 10 screws.

ENCLOSURE: Type 304 stainless steel.

BATTERY: User-replaceable alkaline C-cells. Low battery indicator.

COMMUNICATION: Connector-less fiber-optic link for Sensor input and output to PC. Integral Sensor data repeater.

EXTERNAL CONTROL: 2 relays, single pole, double throw. 1 A at 120 VAC, UL, CSA approved.

LIGHTNING ALARM RANGE SETTINGS: <5 miles, <10 miles or <20 miles.

SETTINGS: Lightning alarm range, alarm timeout, and lightning counts for contact-closure signaling.

AUDIBLE NOTIFICATION: Alarm Mode, Lightning Flash.

EXTERNAL POWER: In-line switching power supply. Input 100-240 VAC, 50/60 Hz. UL, VDE, FCC, CSA, CE.

SENSOR SPECIFICATIONS:

INSTALLATION: Materials and hardware included for roof-mount.

SITE REQUIREMENTS: Minimal siting restrictions.

ENCLOSURE: NEMA 4X

COMMUNICATION: PMMA fiber-optic, 100 ft cable included.

BATTERY: Lithium primary cells, 4-year life minimum.

STRIKE VIEW SOFTWARE SPECIFICATIONS:

COMPUTER REQUIREMENTS: 64 MB; Pentium I or higher recommended.

PLATFORM: Windows® 95/98 ME/2000/XP

PC INPUT: Strike Guard RS-232 to Fiber-optic Converter provided with 9 socket serial interface.

USB adapter cable available.

CABLE: PMMA fiber-optic cable.

INSTALLATION: CD-ROM.

Strike Guard Sensor interfaces to a Lightning Data Receiver and optional Windows®-based Strike View Software.

The Lightning Data Receiver offers:

1. Audible and visual alarm and system status indicators
2. Full battery back-up (200 hr typical)
3. Relays to interface with sirens and remote-controlled equipment
4. Output for PC to run Strike View Software

Strike View Software offers:

1. Lightning Data Receiver-to-PC fiber-optic communication link for RS-232 or USB port
2. Data logging
3. Exclusive countdown timer from last lightning detected
4. Lightning histograms to monitor storm progression

Each lightning detection and notification problem presents unique challenges. Let us consult with you to configure a custom solution that meets your needs.

Ask us about networked sensors to cover larger areas and multiple locations.

Strike Guard is exclusively distributed by:

WXLINE

Wxline, LLC • 3924 North Calle Casita • Tucson, AZ 85718

For more information contact:
Turf Products - Enfield, CT
1-800-243-4355

www.wxline.com

Specifications are subject to change.

Strike Guard™

WAVE Siren™

WIRELESS AUDIBLE VISUAL ENUNCIATOR

WAVE employs state-of-the-art wireless technology to address the most demanding audible and visual event notification and hazard warning applications over areas of less than an acre to hundreds of acres.

Designed for critical safety applications, the WAVE Transmitter broadcasts digitally encrypted messages to activate WAVE Siren Stations within a three mile radius. The Transmitter accepts contact-closure signaling for automated triggering during programmable hours of operation. WAVE relies on low-frequency RF communication to operate in noisy environments and over challenging terrain.

WAVE Siren Station horns are modular in design to provide audible notification specific to the desired coverage area and application. Based on coverage area and sound pressure level requirements, Siren Stations can be ordered with up to four 100 W re-entrant horn, high-efficiency compression-drivers.



WAVE SIREN DELIVERS:

- Automatic or manual wireless siren actuation within a three mile radius
- Secure encoded communications
- Comprehensive, automatic self-test of RF communication and system status
- High intensity strobe light option for visual notification
- Siren Station NEMA 4X enclosure
- RF transmission test signal for Siren Station site selection
- Manual key operation or automated operation with contact-closure signal
- Programmable hours of operation to restrict automated external control
- Solar- or AC-powered Siren Station available
- High capacity, battery back-up for uninterrupted operation in a lightning environment
- Exclusive quick-connect technology for horns and solar panel

WAVE Siren and the Strike Guard Lightning Warning System combine to provide a fully automated lightning warning system. Strike Guard easily connects to the WAVE Transmitter to trigger the WAVE Siren Stations and WAVE Sequencers for audible lightning hazard notification and equipment protection at multiple locations.



TRANSMITTER SPECIFICATIONS:

INSTALLATION: Wall-mountable.

ENCLOSURE: Type 304 stainless steel for indoor environment.

BATTERY: User-replaceable lead-acid batteries. Low-battery indicator.

COMMUNICATION: 10 W, 27.255 MHz, DIP switch address programming.

SETTINGS: Hours of operation for external control input are programmable via soft keys and front panel LCD.

DISPLAY: System status, power and transmit indicator, manual selection knob, key-activated manual transmission.

CONTROL INPUT: Contact-closure signaling. CAT 5 interface cable.

EXTERNAL POWER: In-line switching power supply. Input 100-240 VAC, 50/60 Hz. UL, VDE, FCC, CSA, CE.

RANGE: Three mile radius, longer range with available high-gain antenna.

ANTENNA: Standard 3 ft monopole antenna, 50 ft coaxial cable.

SIREN STATION SPECIFICATIONS:

INSTALLATION: Typically affixed to a custom 12 ft (above ground) fiberglass pole available from Wxline. Also designed for tripod mount or pressure-treated wood pole mount (4x6 or 6x6).

EXTERNAL INDICATORS: Status, power and communication.

CONFIGURATION: Up to four compression drivers per Siren Station.

HORN MOUNTING: Stainless steel mounting plate with horn orientation adjustments.

HORN SPL OUTPUT: 130 dB at 3 m.

COMPRESSION DRIVER POWER RATING: 100 W continuous.

AMPLIFICATION: Internal 150 W, class AB amplifier.

ENCLOSURE: NEMA 4X, corrosion resistant.

COMMUNICATION: Superheterodyne. Complete RF supervision.

BATTERY: 7 AHr user-replaceable lead-acid battery, 12 AHr with solar unit.

ANTENNA: Eight-inch monopole antenna. High-gain antenna available for longer range.

EXTERNAL POWER: Input 100-240 VAC, 50/60 Hz. Solar-powered option available.

OPTION: High intensity strobe light.



The WAVE Transmitter sends secure coded RF messages to activate an unlimited number of Siren Stations and Sequencers within a three mile radius.

The WAVE Transmitter offers:

1. Easy programming through front panel switches and LCD
2. Comprehensive, automatic system status monitoring
3. Manual control or automated activation from external contact-closure
4. Manual selection of desired transmission via front panel quick-select knob

The WAVE Siren Station offers:

1. Simplified installation and flexibility through modular design
2. Solar or AC power input
3. Optional strobe light to provide visual indication of conditions
4. External indicators of system status
5. Super-high sound pressure level – directional or omni-directional

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The WAVE Sequencer employs state-of-the-art wireless technology to shut down and isolate vulnerable electrical components during local thunderstorms. The Sequencer receives digitally encoded signals from the WAVE Transmitter to initiate the automatic orderly protection of critical industrial systems (irrigation and computer systems) or to initiate remote sequenced events (data back-up, generator start, and other industrial control functions).

The WAVE Transmitter accepts contact-closure signals from the Strike Guard Lightning Data Receiver and sends disable and/or enable signals via radio to the Sequencer based on detection of local lightning by Strike Guard. The Sequencer has manual override capability and is programmable to initiate full automatic control or automatic shutdown with manual re-enabling.



Each Sequencer allows three separate relays or contactors to be switched automatically to power off, isolate, and/or ground any number of electrical circuits or cables. The time delays between the Sequencer outputs may be used to facilitate an orderly irrigation pump shut-down/start-up sequence. The 12 VDC outputs of the Sequencer are designed to control relays appropriate for managing the loads represented by pumps, irrigation systems and other critical equipment. Contact Wxline or your distributor for a list of recommended relays and typical wiring diagrams.

The WAVE Sequencer provides front panel manual Sequence Off and Sequence On switches and a key-switch that enables or disables the automatic restore function.

WAVE SEQUENCER DELIVERS:

- Three mile wireless communication link distance
- Secure encoded communications
- Front-panel status indicators for communication, battery and output condition
- Battery back-up for uninterrupted operation in a lightning environment
- Low-voltage outputs for controlling relays
- Extensive system self-tests, including communication, battery and output status
- Stainless steel enclosure, optional NEMA 4X enclosure

The WAVE Sequencer complements the WAVE Transmitter and Strike Guard Lightning Warning System to provide automatic remote shut-down and isolation of vulnerable electrical irrigation equipment during local thunderstorms. The Sequencer is the critical control element in modern, intelligent, active lightning protection schemes for central irrigation control computers, irrigation satellites and pump station equipment.

TRANSMITTER SPECIFICATIONS:

INSTALLATION: Wall-mountable.

ENCLOSURE: Type 304 stainless steel for indoor environment.

BATTERY: User-replaceable lead-acid batteries. Low-battery indicator.

COMMUNICATION: 10 W, 27.255 MHz, DIP switch address programming.

SETTINGS: Hours of operation for external control input are programmable via soft keys and front panel LCD.

DISPLAY: System status, power and transmit indicator, manual selection knob, key-activated manual transmission.

CONTROL INPUT: Contact-closure signaling. CAT 5 interface cable.

EXTERNAL POWER: In-line switching power supply. Input 100-240 VAC, 50/60 Hz. UL, VDE, FCC, CSA, CE.

RANGE: Three mile radius, longer range with available high-gain antenna.

ANTENNA: Standard 3 ft monopole antenna, 50 ft coaxial cable.

SEQUENCER SPECIFICATIONS:

INSTALLATION: Wall-mountable.

ENCLOSURE: Type 304 stainless steel for indoor environment.

ENCLOSURE OPTION: ABS NEMA 4X enclosure for outdoor environment.

CONTROL OUTPUT: 12 VDC (600 mA per output or 1.8 A total).

OUTPUT DELAY RANGE: 0-320 seconds per output on Sequence On and Sequence Off command.

COMMUNICATION: Superheterodyne. Complete RF supervision.

BATTERY: User-replaceable lead-acid batteries. Low-battery indicator.

ANTENNA: Standard 3 ft monopole antenna, 25 ft coaxial cable.

EXTERNAL POWER: In-line switching power supply. Input 100-240 VAC, 50/60 Hz. UL, VDE, FCC, CSA, CE.



WAVE Transmitter sends signal to Sequencers.



Strike Guard Lightning Warning System components

The WAVE Transmitter sends secure codes to activate an unlimited number of Siren Stations and Sequencers within a three mile radius.

The WAVE Transmitter offers:

1. Easy programming through front panel switches and LCD
2. Comprehensive, automatic system status monitoring
3. Manual control or automated activation from external relay input
4. Manual selection of desired transmission via front panel quick-select knob
5. Test-mode transmissions for communication tests

The WAVE Sequencer offers:

1. Three 12 VDC outputs to control up to three sequenced relays
2. Sequenced disable and enable
3. Remote automatic control via WAVE Transmitter, or local manual control of Sequence On and Sequence Off command
4. External indicators of system status, integrated self-test features

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