

INSTALLATION AND MAINTENANCE INSTRUCTIONS

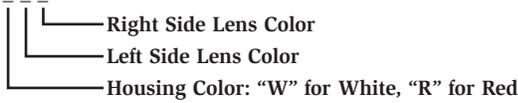


A Division of Pittway
3825 Ohio Avenue, St. Charles, Illinois 60174
1-800-SENSOR2, FAX: 630-377-6495
www.systemsensor.com

SpectrAlert Dual Strobe

For use with the following 24-volt models:

DS2475WAR	DS2475WCG	DS2475RAR	DS2475RCC
DS2475WAC	DS2475WCB	DS2475RAC	DS2475RCB
DS2475WAG	DS2475WGR	DS2475RAG	DS2475RGR
DS2475WAB	DS2475WGB	DS2475RAB	DS2475RGB
DS2475WCR	DS2475WBR	DS2475RCR	DS2475RBR



Lens colors: "A" for Amber, "B" for Blue, "C" for Clear, "G" for green, "R" for Red

SPECTRAlert

U.S. Patent Nos. 5,593,569;
5,850,178; 5,598,139; 6,049,446

Specifications

Voltage Range:	20 to 30 Volts DC or Full-Wave Rectified
with module:	21 to 30 Volts DC or Full-Wave Rectified
Flash Rate:	1 Flash Per Second
Operating Temperature:	32° F to 120° F (0° C to 49° C)
Light Output:	75 candela
Listings:	UL S3593 (Strobe)

General Description

The SpectrAlert series notification appliances are designed to meet the requirements of NFPA, The National Fire Alarm Code, and UL. Also, check with your local Authority Having Jurisdiction for other codes or standards that may apply.

This SpectrAlert DS2475 Strobe can be installed in systems using 24-volt panels having DC or full-wave rectified (FWR) power supplies. The models can also be installed in systems requiring synchronization (module MDL required) or systems that do not require synchronization (no module required).

NOTICE: This manual shall be left with the owner/user of this equipment.

Power Supply Considerations

Panels typically supply DC filtered voltage or FWR (full-wave rectified) voltage. The system design engineer must calculate the number of units used in a zone based on the type of panel supply. Be certain the sum of all the device currents do not exceed the current capability of the panel. Calculations are based on using the device current found in the subsequent charts and must be the current specified for the type of panel power supply used.

Wire Sizes

The designer must be sure that the last device on the circuit has sufficient voltage to operate the device within its rated voltage. When calculating the voltage available to the last device, it is necessary to consider the voltage drop due to the resistance of the wire. The thicker the wire, the less the voltage drop. Generally, for purposes of determining the wire size necessary for the system, it is best to consider all of the devices as "lumped" on the end of the supply circuit (simulates "worst case").

Typical wire size resistance:

18 AWG solid:	Approximately 8 ohms/1,000 ft.
16 AWG solid:	Approximately 5 ohms/1,000 ft.
14 AWG solid:	Approximately 3 ohms/1,000 ft.
12 AWG solid:	Approximately 2 ohms/1,000 ft.

Example: Assume you have 10 devices on a zone and each requires 50 mA average and 2000 Ft. of 14 AWG wiring (total length = outgoing + return). The voltage at the end of the loop is 0.050 amps per device x 10 devices x 3 ohms/1,000 ft. x 2000 ft = 3 volts drop.

The same number of devices using 12 AWG wire will produce only 2 volts drop. The same devices using 18 AWG wire will produce 8 volts drop. Consult your panel manufacturer's specifications, as well as SpectrAlert's operating voltage range to determine acceptable voltage drop.

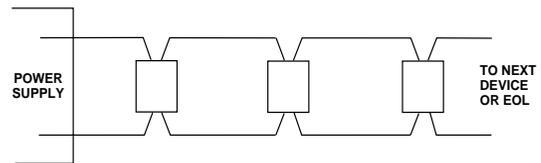
Note: If class "A" wiring is installed, the wire length may be up to 4 times the single wire length in this calculation.

Current Draws Per Strobe

AVERAGE CURRENT (mA)						PEAK CURRENT (mA)						IN RUSH CURRENT (mA)					
24V Models						24V Models						24V Models					
20V		24V		30V		20V		24V		30V		20V		24V		30V	
DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR	DC	FWR
169	220	140	191	115	174	460	560	450	570	420	620	190	230	220	290	290	370

System Operation: Non-Synchronized Devices

Figure 1A. Powered by a 2-wire circuit:



NOTE: Reversing polarity from power supply will stop powering one strobe and start powering the other.

Figure 1B: Strobes powered in tandem:

NOTE: Supply power must be continuous for proper operation.

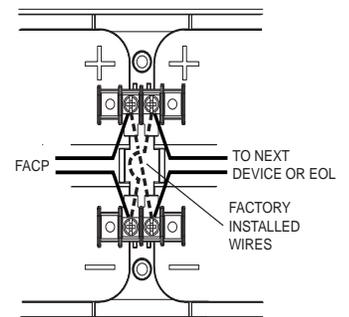


Figure 2. Powered by a 4-wire circuit to provide independent left strobe and right strobe operation (Remove factory installed jumpers, see Figure 1B):

NOTE: Strobes must be powered continuously for proper operation.

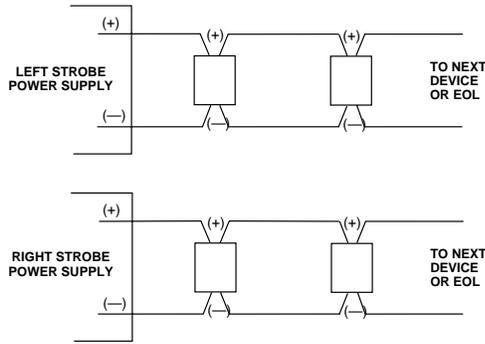
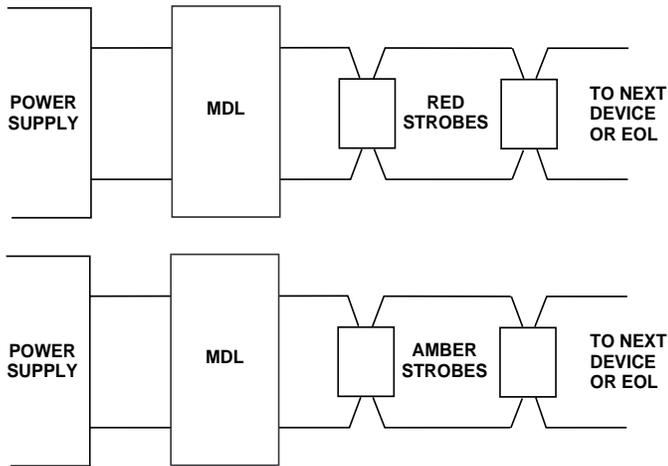


Figure 3: Synchronizing strobes using MDL:



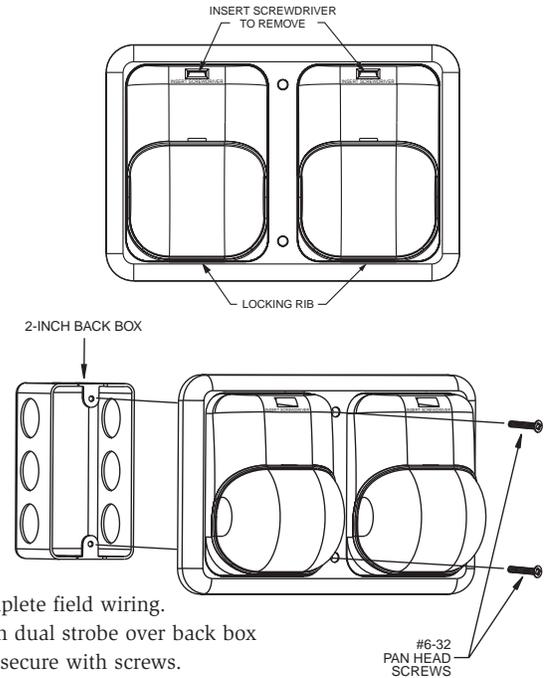
Mounting

If you would prefer to switch the lens colors, the strobe modules are field-reversible. (Fig. 4)

To reverse the strobe module: insert screwdriver, as shown in Fig. 4, to unlock snap. While pushing in the screwdriver, pull back on the strobe module. Hinge the strobe module, disengage the Locking Rib, and lift the module away from the mounting plate. Turn the module so that it is upside down from its original position, re-insert the module into the mounting plate (be sure to insert the Locking Rib into the slot), and press the module into the mounting plate. The strobe module will make a “click” when it has locked into place. Turn entire assembly so that the lenses are on the bottom. The unit can now be mounted.

The unit can be mounted to a single-gang back box, or to a 4” x 4” back box, using the mud ring provided.

Figure 4: Reversing the strobe module:



1. Complete field wiring.
2. Align dual strobe over back box and secure with screws.

Please refer to insert for the Limitations of Fire Alarm Systems



The Limitations of Strobes

The strobe will not work without power. The strobe gets its power from the fire/security panel monitoring the alarm system. If power is cut off for any reason, the strobe will not provide the desired visual warning.
NOTE: Strobes must be powered continuously for horn operation.

The signal strobe may not be seen. The electronic visual warning signal uses an extremely reliable xenon flash tube. It flashes at least once every second. The strobe must not be installed in direct sunlight or areas of high light intensity (over 60 foot candles) where the visual flash might be disregarded or not seen. The strobe may not be seen by the visually impaired.

The signal strobe may cause seizures. Individuals who have positive photic response to visual stimuli with seizures, such as persons with epilepsy, should avoid prolonged exposure to environments in which strobe signals, including this strobe, are activated.

The signal strobe cannot operate from coded power supplies. Coded power supplies produce interrupted power. The strobe must have an uninterrupted source of power in order to operate correctly. System Sensor recommends that the horn and signal strobe always be used in combination so that the risks from any of the above limitations are minimized.

Three-Year Limited Warranty

System Sensor warrants its enclosed strobe or strobe to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this strobe. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the strobe which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Repair Department, RA

_____, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.