



Lee's Summit Fire Station 4 & 5

Lee's Summit, MO

Addressable Fire Alarm

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Addressable Fire Alarm Control Panels

6808

Addressable Fire Alarm Control Panel

The 6808 is an addressable fire alarm control panel (FACP) that is a direct replacement for the 5808 FACP. The 6808 can be configured to achieve a point capacity of 198 points. It has one built-in signaling line circuit (SLC), which can support 99 System Sensor® (SK) sensors and 99 SK modules or 127 Hochiki® (SD) devices per loop.

A common communications and annunciation link allows up to 17 panels to be connected via copper or fiber optic cable. A designated panel is configured as the communicator for all panels in the link for convenient single-point communications. It also has a built-in, dual-line POTS and IP communicator with additional cellular options available.

The 6808 system can be enhanced by adding modules such as the 6860 remote annunciator which also has four programmable function buttons to help automate tasks and reduce time spent at the panel.

SWIFT® wireless compatibility provides options for wireless detection through a Class A mesh network. It is ideal for hard-to-wire locations, buildings where new wiring is not allowed, or to provide an easy install fire system for new construction projects. SWIFT devices can be combined with other hard-wired 6808 compatible devices.

The 6808 also has a form-C trouble relay, two programmable form-C relays, along with powerful features such as drift compensation, pre-trouble maintenance alert, a built-in sensor test to comply with NFPA 72 calibration testing requirements, and calibration trouble alert.



6808

The supports a variety of devices, including the 6860, 5860, and 6855 remote annunciators, 5824 serial parallel printer interface module (for printing system reports), the 5496 NAC expander, 5895XL power module, and SK or SD devices.

FEATURES & BENEFITS

- Capable of providing up to 198 points to satisfy smaller installation needs
- Connect up to 17 panels on one site with convenient single-point access using the SK-NIC Network Interface Card. Connected panels can have mixed compatible FACP models
- Convenient field-upgradeable firmware
- Built-in dual path POTS and IP communications with optional cellular models available for reliable backup reporting
- 6860 annunciator with a 4 x 40 large display
- Four user-programmable buttons minimize time spent executing complex or routine tasks
- Built-in USB interface for convenient and quick programming
- Programmable date setting for automatic and convenient Daylight Saving Time changes
- JumpStart® auto programming reduces installation time
- 125 software zones and 125 output groups for flexible design options

SIGNAL LINE CIRCUIT (SLC)

The 6808 SLC loop supports multiple device types, maintenance alerts, and a built-in sensor test to comply with NFPA 72 calibration testing requirements.

INDICATOR LIGHTS

- **General Alarm (Red):** Flashes if in alarm; solid when alarm is silenced
- **Supervisory (Yellow):** Flashes if a supervisory condition exists; solid when supervisory is silenced
- **System Troubles (Yellow):** Flashes if a trouble condition exists; solid when trouble is silenced
- **System Silenced (Yellow):** On when an alarm, trouble or supervisory condition has been silenced but not yet cleared
- **System Power (Green):** Flashes for AC failure; solid when power systems are normal

USER INTERFACE

The 6808 built-in 4 x 20 annunciator with 80 character LCD display and large easy-to-use tactile touchpad can be used for system operation, programming and maintenance. It has five LEDs for alarm, supervisory, system trouble, system silenced and system power.

System operations include silencing alarms and troubles, resetting alarms and the display of alarm troubles and memory. The system's non-volatile event history buffer stores 1,000 events for viewing from the built-in or remote annunciator. System operations can be initiated with a mechanical firefighter's key or a valid 4- to 7-digit operator's code.

PROGRAMMING

The 6808 system offers several options to simplify and speed-up programming. JumpStart® auto programming minimizes programming required to start a new system. The built-in keypad, or the 6860, 5860 or 6855 remote annunciators give you on-site access to current system programming. Programming can also be accomplished using the Windows®-based Honeywell Fire Software Suite (HFSS) program.

SOFTWARE TOOLS

SKST: Silent Knight Selection Tool provides the installer or design architect with a Windows® software system configuration tool to create a detailed Bill of Material (BOM) and battery calculations.

HFSS: Honeywell Fire Software Suite provides communication and panel programming, detector status, event history and additional data. Requires a PC running Microsoft® Windows®.

ADDITIONAL INFORMATION

Twisted-unshielded pair wire is recommended.

The 6808 also has 13 preset notification cadence patterns (including ANSI 3.41).

AGENCY LISTINGS AND APPROVALS

NPFA 13, NFPA 15, NFPA 16, NFPA 70, NFPA 72: Central station; remote Signaling; Local Protective Signaling Systems; Auxiliary Protected Premises Unit; Water Deluge releasing service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signaling services

- **UL Listed:** S2766
- **CSFM:** 7165-0559:0502
- **FDNY:** COA# 6246
- **FM approved**

ORDERING INFORMATION

6808: Addressable Fire Alarm Control Panel. (Red cabinet).

COMPATIBLE ANNUNCIATORS

6860: 4x40 LCD remote fire annunciator (4 lines and up to 160 characters) per system; four programmable buttons
5860: 4x20 LCD remote fire annunciator. 5860 is gray; 5860R is red
6855: 4x20 LCD remote fire annunciator

5865-3 or 5865-4: LED annunciators can display up to 30 LEDs (15 red and 15 yellow). The 5865-4 has key switches for silence and reset, and a system trouble LED.

5880: LED / IO module has 40 programmable LED outputs and eight supervised dry contact inputs which are useful for custom applications. You can use up to eight 5880 modules on one control panel for maximum flexibility. Its compact size allows mounting inside the annunciator, or in an accessory cabinet.

6808 COMPATIBLE DEVICES AND ACCESSORIES

See the data sheets listed below for a complete listing of the SK, SD or SWIFT devices.

53623: SK Devices Data Sheet

53624: SD Devices Data Sheet

350614, 350616 & 350618: SWIFT wireless devices

For a complete and current listing of compatible devices and accessories, visit www.silentknight.com.

Important: You cannot mix SK and SD devices in the same fire alarm system.

SK COMPATIBLE ADDRESSABLE DEVICES

SK-ACCLIMATE: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature

SK-BEAM: Reflected beam smoke detector without test feature

SK-BEAM-T: Reflected beam smoke detector with test feature

SK-CONTROL: Supervised control module

SK-CONTROL-6: Six circuit supervised control module

SK-DUCT: Photoelectric duct smoke detector with extended air speed range

SK-FIRE-CO: Four criteria fire and carbon monoxide detector

SK-HEAT: Fixed thermal detector (135°F)

SK-HEAT-W: Fixed thermal detector (135°F), white

SK-HEAT-ROR: Fixed rate of rise detector (135°F)

SK-HEAT-ROR-W: Fixed rate of rise detector (135°F), white

SK-HEAT-HT: Fixed high temperature thermal detector (190°F)

SK-HEAT-HT-W: Fixed high temperature thermal detector (190°F), white

SK-ISO: Fault isolator module

SK-MINIMON: Mini monitor module

SK-MONITOR: Monitor module

SK-MONITOR-2: Dual input monitor module

SK-MON-10: 10 input monitor module

SK-PHOTO: Photoelectric smoke detector

SK-PHOTO-W: Photoelectric smoke detector, white

SK-PHOTO-T: Photoelectric smoke detector with thermal (135°F fixed temperature)

SK-PHOTO-T-W: Photoelectric smoke detector with thermal (135°F fixed temperature), white

SK-PHOTOR: Photoelectric detector with remote test capability

SK-PHOTO-R-W: Photoelectric detector with remote test capability, white

SK-PULL-SA: Addressable single action pull station

SK-PULL-DA: Addressable dual action pull station

SK-RELAY: Addressable relay module

SK-RELAY-6: Addressable Six relay control module

SK-RELAYMON-2: Addressable Dual relay/monitor module

SK-ZONE: Addressable zone interface module

SK-ZONE-6: Six zone interface module

B300-6(-IV): 6" base for SK-W Series

B210LP: 6" mounting base

B501(-BL,-IV,-WHITE): 4" flangeless base

B501: 4" Flangeless mounting base

B200S(-IV,-WH): Intelligent sounder base

B200S: Intelligent sounder base

B200S-LF(-IV,-WH): Low-Frequency intelligent sounder base

B200S-LF: Low-frequency intelligent sounder base

B224RB(-IV,-WH): Relay base

B224RB: Relay base

B224BI(-IV,-WH): Isolator base

B224BI: Isolator base

SD COMPATIBLE ADDRESSABLE DEVICES

SD505-6AB: Addressable 6" base

SD505-6IB: Addressable 6" short circuit isolator base

SD505-6RB: Addressable 6" relay base

SD505-6SB: Addressable 6" sounder base

SD500-AIM: Addressable input module (switch input)

SD500-ANM: Addressable notification module

SD500-ARM: Addressable relay module

SD505-DTS-K: Remote test switch and LED indicator for the SD505-DUCTR

SD505-DUCT: Addressable Duct Smoke Detector.

SD505-DUCTR: Addressable Duct Detector housing with relay base.

SD505-HEAT: Absolute temperature heat detector. Trip point range from 135°F–150°F (0°C–37°C).

SD500-LIM: Addressable Line isolator module

SD500-MIM: Addressable Mini input monitor module (switch input)

SD505-PHOTO: Photoelectric smoke detector

SD500-PS/-PSDA: Addressable Single or dual action pull station

SD500-SDM: Addressable smoke detector module

AUDIBLE/VISIBLE DEVICES

These AV devices are all 2-wire. Color: "R" indicates red; "W" denotes white. For a complete listing of Silent Knight AV devices go to www.silentknight.com.

CHSRL/CHSWL: Wall chime/strobe

CHSCRL/CHSCWL: Ceiling chime/strobe

CHRL/CHWL: Wall chime

HRL/HWL: Wall horn

P2RL/P2WL: Wall horn/strobe

PC2RL/PC2WL: Ceiling horn/strobe

SRL/SWL: Wall strobe

SCRL/SCWL: Ceiling strobe

SPSCRL/SPSCWL: Ceiling speaker/strobe

SPSRL/SPSWL: Wall speaker/strobe

SPRL/SPWL: Wall speaker

SPCRL/SPCWL: Ceiling speaker

SWIFT WIRELESS DEVICES

SWIFT is only compatible with System Sensor (SK) devices. It is not compatible with Hochiki (SD) devices.

WSK-WGI: Wireless Gateway

WSK-PHOTO: Wireless Photoelectric smoke detector

WSK-PHOTO-T: Wireless Multi-criteria photoelectric smoke detector with thermal detection (135°F fixed temperature) and B510W 4" base

WSK-HEAT: Wireless Heat, (135°F fixed temperature) and B510W 4" base

WSK-HEAT-ROR: Wireless heat, ROR (135°F fixed temperature) and B510W 4" base

WSK-MONITOR: Wireless monitor module

WSK-RELAY: Wireless relay module

W-USB: SWIFT Tools USB transceiver used for communication with SWIFT devices

SBUS ACCESSORIES

5496: A 6 amp notification power expander with four power-limited notification appliance circuit outputs.

5883: Relay Interface. Provides 10 Form C relays.

5824: Serial/Parallel Printer Interface Module for printer connection.

5895XL: Power Supply with six Flexput™ circuits, and two Form C relays. Max. 16 per system.

5815RMK: Remote mounting kit. Dimensions: 10 3/8"W x 10-3/16"H x 3"D

COMMUNICATION OPTIONS

CELL-CAB-SK: Cellular communicator, metal enclosure with lock/key*

CELL-MOD: Cellular communicator, plastic enclosure*

*Sole path, powered by panel.

IPGSM-4G: Dual path fire alarm communicator, cellular and/or IP (primary or backup, selectable)

SK-IP-2: Remote reporting via the Internet. Requires a VisorAlarm® receiver at the central station

MISC. ACCESSORIES

SK-NIC: Network Interface Card. Provides a common communications link for the 6808.

SK-NIC-KIT: Installation Accessory Kit

SK-FML: Fiber-Optic Multi Mode, transmitter and receiver

SK-FSL: Fiber-Optic Single Mode

RBB: Remote battery box accessory cabinet for batteries that are too large to fit in the FACP cabinet. Dimensions: 16" W x 10" H x 6" D (406mm W x 254mm H x 152mm D).

SK-SCK: Seismic Compliance Kit used to securely fasten batteries to the fire panel.

6808 Technical Specifications

PHYSICAL

Overall Dimensions: 16.36"W x 26.37"H x 3.91"D

Shipping Weight: 32 lbs.

Color: Red

ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)

Humidity: 0 to 93% relative humidity (non-condensing)

ELECTRICAL

6808 Primary AC: 120 VAC @ 60Hz, 3.3A Total

Accessory Load: 6A @ 27.4VDC power-limited

Standby Current: 190mA

Alarm Current: 250mA

Battery Charging Capacity: 7 to 35AH

Battery Size: 7AH to 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

NOTIFICATION APPLIANCE CIRCUITS (NACs)

Four programmable circuits which can be programmed individually as:

NACs: 3A @ 27.4VDC per circuit, power-limited (with a maximum current of 6A)

Auxiliary Power Circuits: 3A @ 27.4VDC per circuit, power-limited

Supports Class B (Style 4) and Class A (Style 6 or 7) configuration for the SLC

WIRING: See the product manual for wiring details

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For Technical Support, call 800-446-6444.

Honeywell Silent Knight

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Northford, CT 06472
800-328-0103

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**SILENT
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5496 Intelligent Power Module

A dynamic combination of power and intelligence for your notification expansion needs.

The Model 5496 Intelligent Power Module by Silent Knight is the most-powerful and cost-effective power supply available today. It delivers 6 amps of notification appliance circuit power and built-in synchronization for appliances from System Sensor®, Gentex®, Faraday, AMSECO and Wheelock® — what you need to drive power-hungry components like ADA notification appliances. The 5496's advanced microprocessor design is years ahead of the competition. Its switch mode power supply design is up to 50% more efficient than competitive linear mode power supplies.

For the most sophisticated and cost-effective notification power supply available, you need Model 5496. Call Silent Knight today for more information at 1-800-328-0103.

Model 5496

Intelligent Power Module

The model 5496 is a 6 amp notification power expander that provides its own AC power connection, battery charging circuit, and backup battery for use with fire and security controls such as the IntelliKnight Model 5808 Fire Control /Communicator. The 5496 is the cost-effective solution for powering notification appliances required by the Americans with Disabilities Act (ADA). The 5496 has built-in ANSI cadence pattern, which can upgrade older control panels that lack cadence capability. The Output circuits can be programmed as Notification Appliance Circuits, or as Auxiliary Power (configurable for, constant, resettable, or door holder power).

Features

- UL Listed for 6 amps of notification power
- Power supply's advanced switch mode design reduces damaging heat and manages power up to 50% more efficiently than other systems
- Built-in synchronization for appliances from AMSECO, Gentex®, Faraday, System Sensor®, and Wheelock®
- 24 VDC filtered output voltage
- Four power-limited notification outputs; 2 Class A or 4 Class B, or 1 Class A and 2 Class B
- NACs are programmable as Notification Appliance Circuits, or as auxiliary power to be used as constant, resettable, or door holder

power

- 3 amps per output circuit
- Ground fault detector
- Communicates to the FACP via 4-wire SBUS (wire runs up to 6000 ft)
- AC loss delay option shuts off power to non-essential high-current accessories like magnetic door holders
- Lightweight design adds to ease of installation and reduces shipping costs
- UL 864, 1481 & 1971 listed
- ANSI Cadence pattern output capability built-in

Specifications

AC Input: 120 VAC at 2.7 A

Output: 24 VDC at 6 amps

Current:

Standby 40 mA
Alarm 160 mA

Notification/Aux. Power circuits: 4

Output configuration:

- 2 Class A (Style Z)
- 4 Class B (Style Y) (1 Class A & 2 Class B)

Amps per output circuit:
3.0 (6.0 amps total)

Notification circuit output:

20.4 to 27.3 VDC, 3.0 amps each,
4.7k EOL resistor required on each Class B circuit

Battery charging capacity: 35.0 AH



5496 Intelligent Power Module

Ambient Temp.:

32° to 120° F (0° to 49° C)

Dimensions:

12.25" W x 16" H x 3" D
(30.88 W x 40.64 H x 7.62 D cm)

Listings:

UL
CSFM
MEA 429-92-E vol. XIV

Compatible FACPs

- IntelliKnight 5700
- IntelliKnight 5808
- IntelliKnight 5820XL
- IntelliKnight 5820XL-EVS

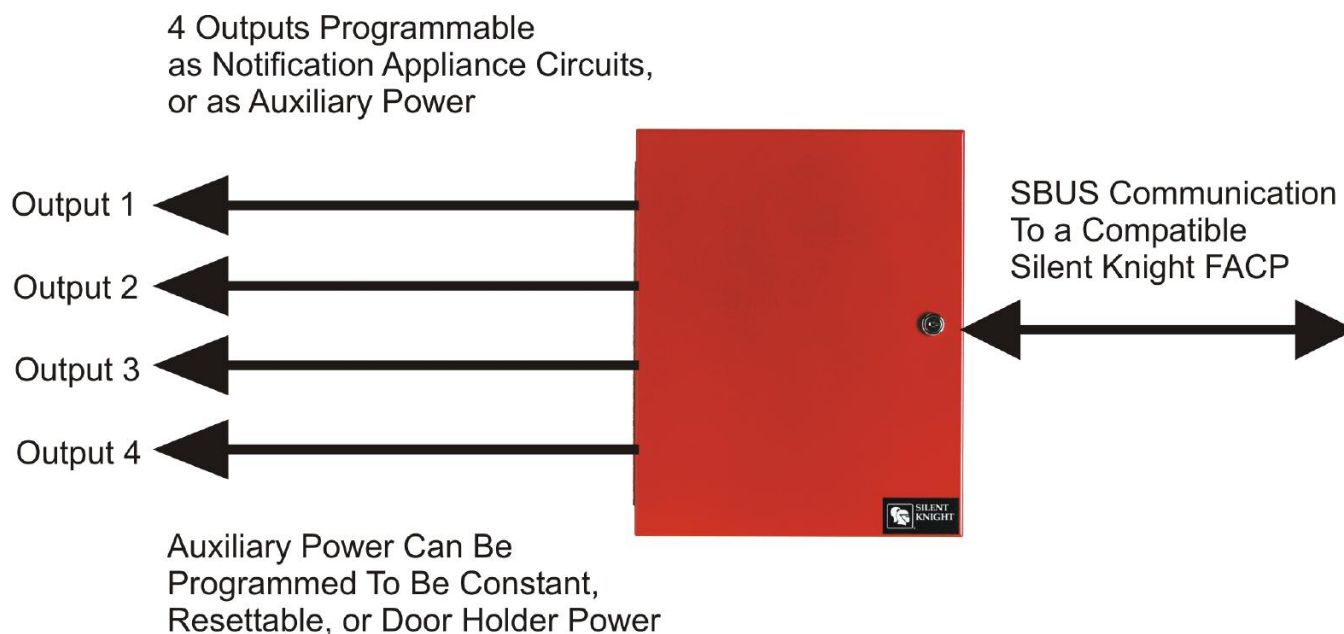
Firepower 5496

Distributed Power Module

Engineering Specifications

The contractor shall supply a power module compatible with the Silent Knight FACP. The power module must have 6.0 amps of output power. The power module shall connect to the main FACP via an RS 485 system bus (SBUS). The Outputs shall be programmable as Notification Appliance Circuits, or as Auxiliary Power (configurable for, constant, resettable, or door holder power). The power module shall have four separate outputs.

The power module RS 485 bus shall be optically isolated providing ground loop isolation and transient protection.



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**SILENT
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5860 Remote Annunciator

Bring the power to control an IntelliKnight fire alarm control panel to every area within your facility.

Now you can operate and program your IntelliKnight system from up to eight locations throughout your facility. The 5860 remote annunciator provides the same advanced, easy-to-use interface found on the IntelliKnight panel's built-in annunciator. The 80-character display and ergonomically designed keypad allow for simple and error-free system operation. All operations—including reset, silence, detector status checking, fire drill, and programming—are identical.

Access to the system is through a firefighter's key or an access code. For security, a special installation code is needed for programming functions. The 5860 connects to the IntelliKnight panel via the RS-485 system bus. Wire runs can be up to 6000 feet from the panel.

For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description

Features include an 80-character backlit LCD providing easy-to-understand system messages. The annunciator is ergonomically designed with over-sized buttons for the most frequently used features, like Reset and Silence.

In addition to status messages displayed on the LCD, there are five LEDs for alarm, supervisory, trouble, silence, and AC power status.

The annunciator is available in gray to match virtually any decor and red for applications where the annunciator must stand out. The annunciator enclosure can be surface or flush mounted. A trim ring kit is available for surface mounting.

Features

- 80-character backlit LCD display (4 lines with 20 characters on each line)
- Tactile and audible feedback
- Accepts user codes or firefighter's key
- Larger keypad buttons for system reset and silence
- Install up to eight 5860s per FACP
- Available in red or light gray
- Support for simultaneous use of

multiple 5860s

- RS-485 interface to panel
- Operation and appearance is identical to 5860 built-in annunciator
- On-board piezo sounder audibly indicates alarms, troubles, and supervisories
- Five status LEDs for alarm, supervisory, trouble, silence and AC power conditions
- Wiring lengths up to 6000 ft. from the FACP (depending on wire gauge and number of devices on SBUS)
- UL listed, complies with NFPA 72
- CSFM approved

Electrical Specifications

Operating Voltage: 24 VDC

Standby Current: 20 mA max

Alarm Current: 25 mA

Wiring Distance: 6,000 max. from FACP (depending on wire gauge and number of devices on the SBUS)

Max Per System: 8

Mechanical Specifications

Physical 9.1" W x 7.4" H x 1.5" D (23.1 W x 18.8 H x 3.8 D cm)

Shipping Weight: 2.8 lbs (1.3 kg)

Color

5860R: Red

5860: Gray



5860

Environmental

Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

Compatibility

The 5860 is compatible with the following FACP's:

- IntelliKnight 5820XL FACP
- IntelliKnight 5808 FACP
- IntelliKnight 5700 FACP

Approvals/Listings

NFPA 72; UL Listed;
CSFM 7170-0559: 135;
MEA 429-92-E Vol. IX;
FM Approved

5860 Remote Annunciator

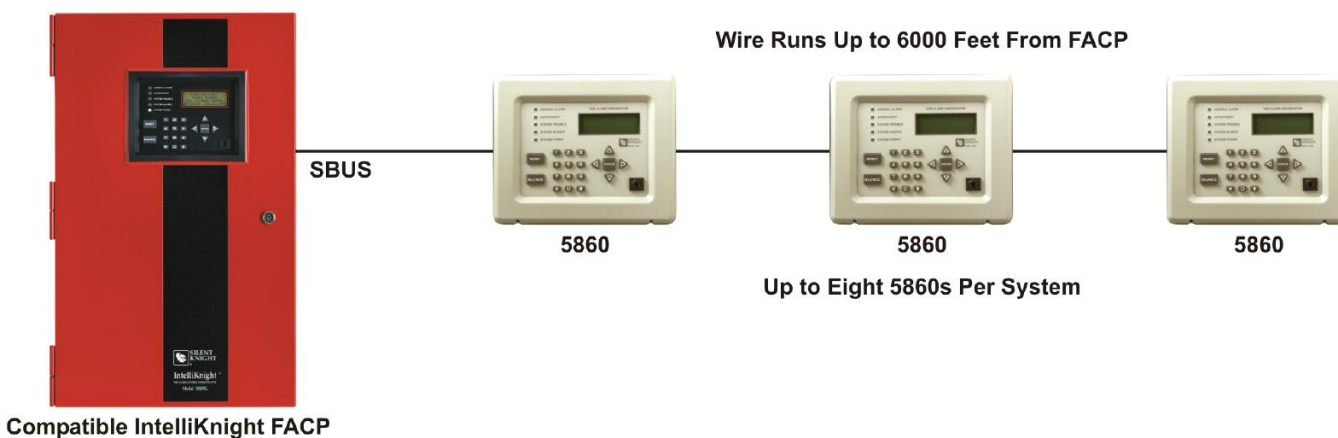
Engineering Specifications

The main control must have a built-in annunciator and must support up to eight remote annunciators. Remote annunciators shall have the same control and display layout so as to match the appearance of the built-in annunciator. Remote annunciators shall be available in two colors, red or light gray.

Remote annunciators shall have identical functionality and operation as the built-in annunciator. All annunciators must have an 80-character LCD display and must feature five LEDs for: General Alarm, Supervisory, System Trouble, System Silence, and System Power.

All controls and programming keys are silicone mechanical type with tactile and audible feedback. Keys have a travel of .040 inches. No membrane style buttons will be permissible.

The annunciator must be able to silence and reset alarms through the use of a code entered on the annunciator keypad or by using a firefighter's key. The annunciator must have two levels of user codes that will limit the operating system programming to authorized individuals. The control panel must allow all annunciators to accommodate multiple user input simultaneously.



Ordering Information

- | | |
|-------|---|
| 5860R | Remote Annunciator four line LCD annunciator with 20 characters per line. Red. |
| 5860 | Remote Annunciator.Four line LCD annunciator with 20 characters per line. Gray. |

Accessories

- | | |
|--------|--------------------------------------|
| 5860TR | Red Trim Ring for surface mounting. |
| 5860TG | Gray Trim Ring for surface mounting. |



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MADE IN AMERICA

FORM# 350224 Rev E
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NP SERIES - NP18-12

Reliability is your Security

Utilizing the latest advance design Oxygen Recombination Technology, Yuasa have applied their 80 years experience in the lead acid battery field to produce the optimum design of Sealed Lead Acid batteries.

FEATURES

- Superb recovery from deep discharge.
- Electrolyte suspension system.
- Gas Recombination.
- Multipurpose: Float or Cyclic use.
- Usable in any orientation.
- Superior energy density.
- Lead calcium grids for extended life.
- Manufactured World wide.
- Application specific designs.

Technical Features

Sealed Construction

Yuasa's unique construction and sealing technique ensures no electrolyte leakage from case or terminals.

Electrolyte Suspension System

All NP batteries utilize Yuasa's unique electrolyte suspension system incorporating a microfine glass mat to retain the maximum amount of electrolyte in the cells. The electrolyte is retained in the separator material and there is no free electrolyte to escape from the cells. No gels or other contaminants are added.

Control of Gas Generation

The design of Yuasa's NP batteries incorporates the very latest oxygen recombination technology to effectively control the generation of gas during normal use.

Low Maintenance Operation

Due to the perfectly sealed construction and the recombination of gasses within the cell, the battery is almost maintenance free.



Terminals

NP batteries are manufactured using a range of terminals which vary in size and type. Please refer to details as shown.

Operation in any Orientation

The combination of sealed construction and Yuasa's unique electrolyte suspension system allows operation in any orientation, with no loss of performance or fear of electrolyte leakage.

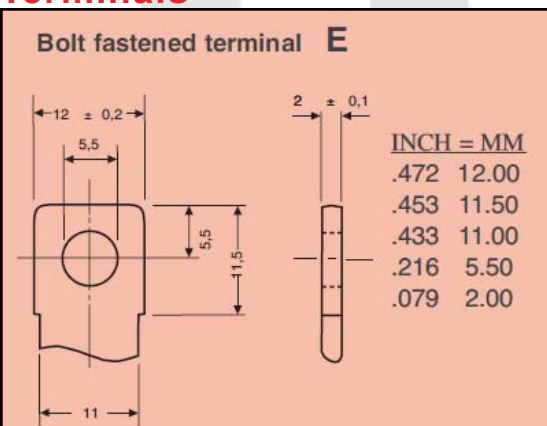
Valve Regulated Design

The batteries are equipped with a simple, safe, low pressure venting system which releases excess gas and automatically reseals should there be a build up of gas within the battery due to severe overcharge. Note. On no account should the battery be charged in a sealed container.

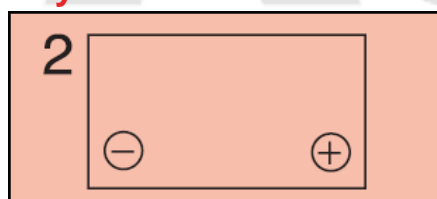
General Specifications

Nominal Capacity (Ah)	NP18-12
20hr to 1.75vpc 30°C	17.2
10hr to 1.75vpc 20°C	16
5hr to 1.70vpc 20°C	14.5
1hr to 1.60vpc 20°C	10.3
Voltage	12
Energy Density (Wh.L.20hr)	94
Specific Energy (Wh.kg.20hr)	38
Int. Resistance (m.Ohms)	11
Maximum discharge (A)	112
Short Circuit current (A)	500
Dimensions (mm)	
Length	180
Width	76
Height overall	167
Weight (Kg)	6.2
Terminal	E
Layout	2
Terminal Torque Nm	-

Terminals



Layout



NP SERIES - NP18-12

Data Sheet

Lead Calcium Grids

The heavy duty lead calcium alloy grids provide an extra margin of performance and life in both cyclic and float applications and give unparalleled recovery from deep discharge.

Long Cycle Service Life

Depending upon the average depth of discharge, over a thousand discharge/charge cycles can be expected.

Float Service Life

The expected service life is five years in float standby applications.

Separators

The use of the special separator material provides a very efficient insulation between plates preventing inter-plate short circuits and prohibiting the shedding of active materials.

Long shelf Life

The extremely low self discharge rate allows the battery to be stored for extended periods up to one year at normal ambient temperatures with no permanent loss of capacity.

Operating Temperature Range

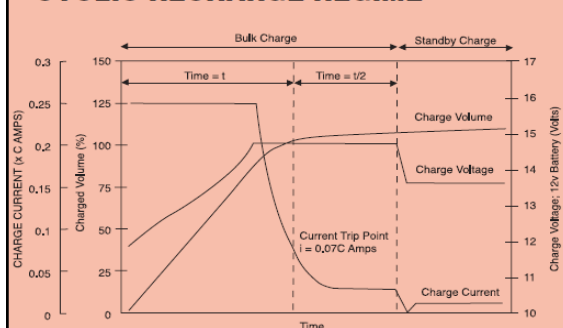
The batteries can be used over a broad temperature range permitting considerable flexibility in system design and location.

Charge – 15°C to 50°C

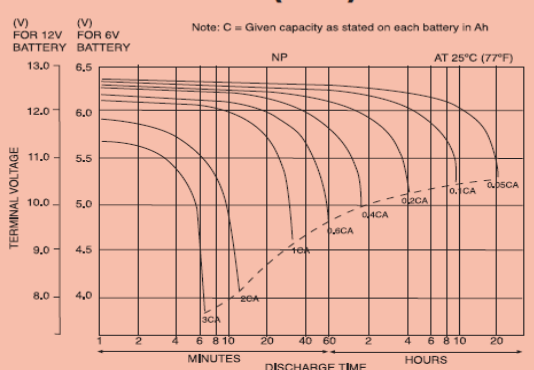
Discharge – 20°C to 60°C

Storage – 20°C to 50°C (fully charged battery)

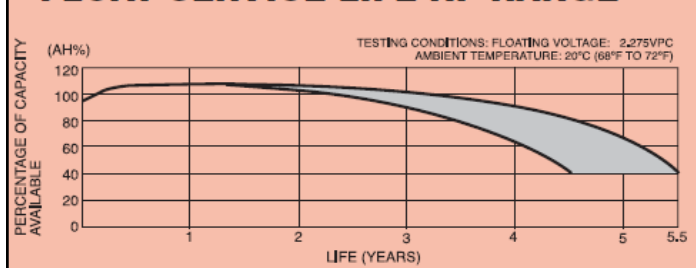
CYCLIC RECHARGE REGIME



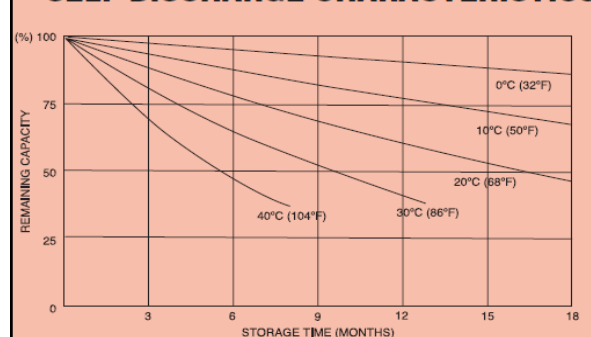
NP DISCHARGE CHARACTERISTICS CURVES AT 25°C (77°F)



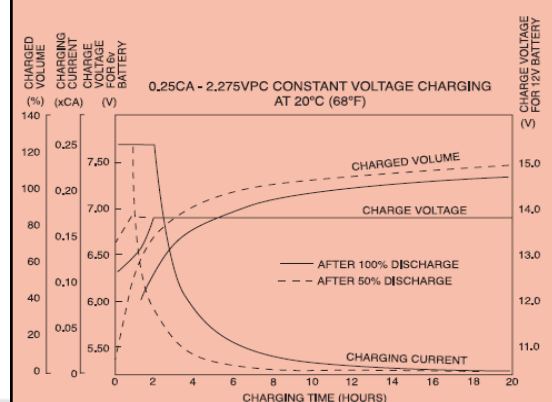
FLOAT SERVICE LIFE NP RANGE



SELF DISCHARGE CHARACTERISTICS



FLOAT CHARGE CHARACTERISTICS

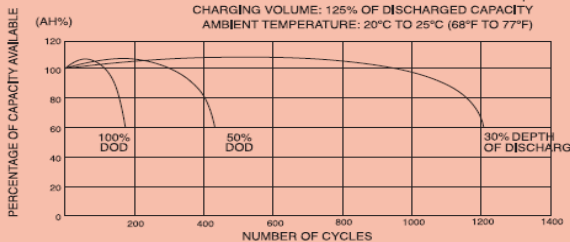


TYPICAL DISCHARGE CHARACTERISTICS NP RANGE

CYCLE SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE

TESTING CONDITIONS: DISCHARGE CURRENT: 0.17C Amp. (F.V. 1.7V/CELL)
CHARGING CURRENT: 0.09C Amp.

CHARGING VOLUME: 125% OF DISCHARGED CAPACITY
AMBIENT TEMPERATURE: 20°C TO 25°C (68°F TO 77°F)



Yuasa Battery Inc.
2901 Montrose Ave
Laureldale, PA 19605
www.yuasabatteries.com

Registered number 1548820

Cat. No. NP7-12 January 08

Distributed by



NP SERIES - NP7-12

Data Sheet

Lead Calcium Grids

The heavy duty lead calcium alloy grids provide an extra margin of performance and life in both cyclic and float applications and give unparalleled recovery from deep discharge.

Long Cycle Service Life

Depending upon the average depth of discharge, over a thousand discharge/charge cycles can be expected.

Float Service Life

The expected service life is five years in float standby applications.

Separators

The use of the special separator material provides a very efficient insulation between plates preventing inter-plate short circuits and prohibiting the shedding of active materials.

Long shelf Life

The extremely low self discharge rate allows the battery to be stored for extended periods up to one year at normal ambient temperatures with no permanent loss of capacity.

Operating Temperature Range

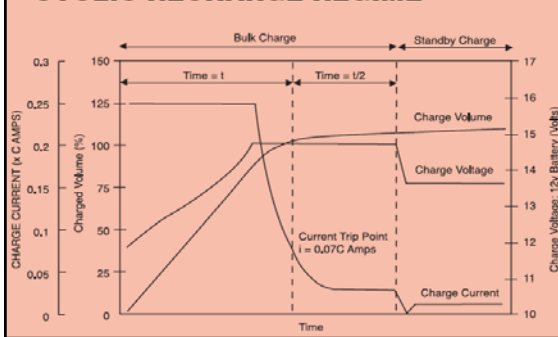
The batteries can be used over a broad temperature range permitting considerable flexibility in system design and location.

Charge – 15°C to 50°C

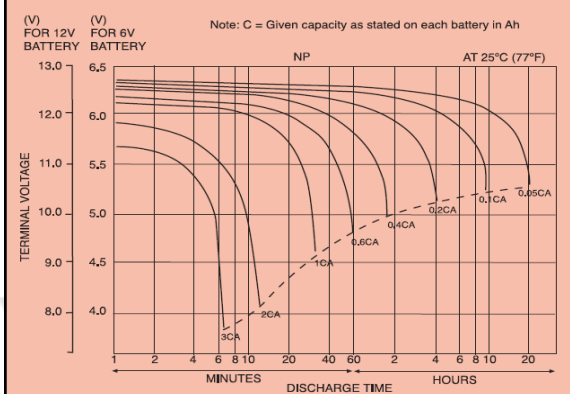
Discharge – 20°C to 60°C

Storage – 20°C to 50°C (fully charged battery)

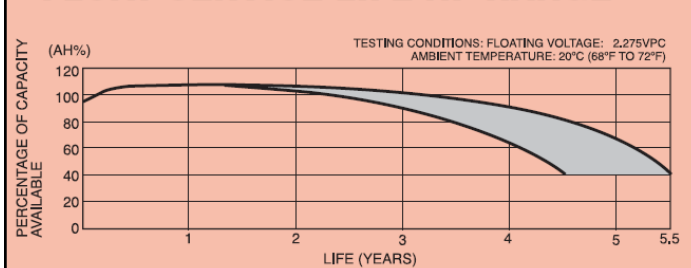
CYCLIC RECHARGE REGIME



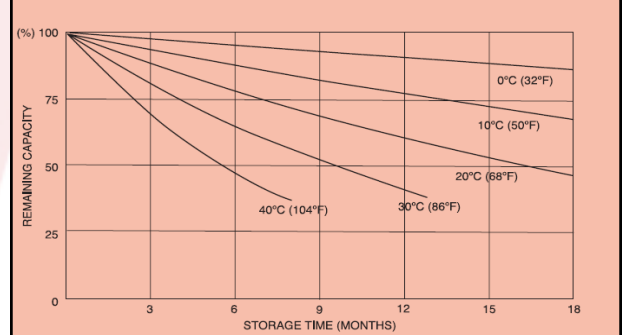
NP DISCHARGE CHARACTERISTICS CURVES AT 25°C (77°F)



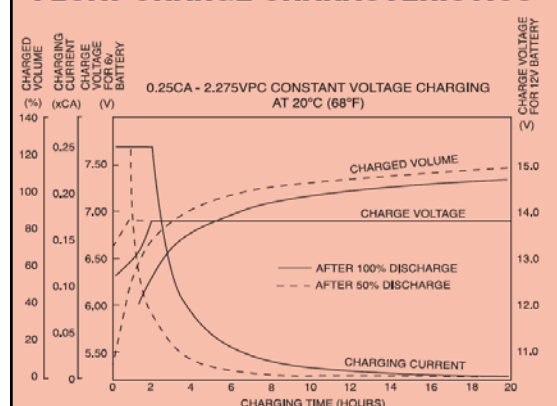
FLOAT SERVICE LIFE NP RANGE



SELF DISCHARGE CHARACTERISTICS

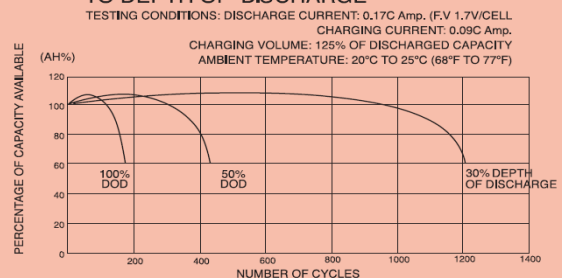


FLOAT CHARGE CHARACTERISTICS



TYPICAL DISCHARGE CHARACTERISTICS NP RANGE

CYCLE SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE



Yuasa Battery Inc.
2901 Montrose Ave
Laureldale, PA 19605
www.yuasabatteries.com

Registered number 1548820

Cat. No. NP7-12 January 08

Distributed by



**NO
EXCUSES!**



FDB

FIRE DOCUMENT BOX



The FDB is the perfect fit to meet the demanding code requirements today. SAE's number one goal is to manufacture code compliant solutions and this product allows you to do just that. NFPA 72 2010 section 6.2.2.1 states, "A record of installed software and firmware version numbers shall be maintained at the location of the fire alarm control unit."

This durable 16 gauge steel enclosure with a solid piano hinge and key lock will keep all of your code required documents in one safe place. Along with your fire alarm software you can store your test & inspection documents, service records, manuals & AS built drawings for the system.

The FDB is designed to hold critical manuals and documents with a durable steel retainer. It has designated hooks to organize key rings and hold important business cards for easy access and reference. Inside the cover it has a organized note table that allows for documentation for passwords and other critical system information.

Standard Features:

- 2 Key ring hooks to hold system keys
- Business card holder for key contacts
- Overall Dimensions are 12" x 13" tall and 2 ¼ deep
- 16 gauge steel box and cover for security
- Durable powercoat baked on finish
other colors available
- Standard ¾" cat 30 key lock other lock assemblies available
- Solid stainless steel piano hinge
- Permanently screened white ink 1" high
"Fire Alarm Documents"
- Legend sheet for passwords and system information



**ISO 9001
REGISTERED
COMPANY**



ACEBOX

Space Age Electronics, Inc.
www.1sae.com
800.486.1723 Toll Free
508.485.0966 Local
508.485.4740 Fax

Specifications:

The fire alarm documents box (FDB) shall be constructed of 18 gauge cold rolled steel. It shall have a red powder coat epoxy finish. The cover shall be permanently screened with 1" high lettering "FIRE ALARM DOCUMENTS" with white indelible ink. The access door shall be locked with a 3/4" barrel lock and the hinge shall be a solid width 12" stainless steel piano hinge. The enclosure will supply 4 mounting holes. Inside the enclosure will accommodate standard 8 1/2 x 11 manuals and loose document records that will be protected within the enclosure. A legend sheet will be permanently attached to the door for system required documentation, key contacts and system information. The enclosure shall also provide 2 key ring holders with a location to mount standard business type cards for key contact personnel.



Key Ring Hooks

Business Card Holder

For replacement forms order PIN: EA0316 (Qty. 10)

Property Information	Minimum Required Documentation (SIG-FUN)
Name of property: _____	(Reference NFPA-72 2013 Section 7.2.1)
Address: _____	1 Written narrative providing intent and system description
Description of property: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Occupancy type: _____	
Certifications and Approvals	
16.1 System Installation Contractor:	
This system, as specified herein, has been installed and tested according to all NFPA standards cited herein.	
Signed: _____	2 Riser diagram
Printed name: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Date: ____/____/____	3 Floor plan layout showing location of all devices and control equipment
Organization: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Title: _____	4 Sequence of operation in either an input/output matrix or narrative form
Phone: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
16.5 Authority Having Jurisdiction:	
I have witnessed a satisfactory acceptance test of this system and find it to be installed and operating properly in accordance with its approved plans and specifications, with its approved sequence of operations, and with all NFPA standards cited herein.	
Signed: _____	5 Equipment technical data sheets
Printed name: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Date: ____/____/____	6 Manufacturers published instructions, including operation and maintenance instruction
Organization: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Title: _____	7 Battery calculations (where batteries are provided)
Phone: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Equipment Information	
ID No 1: _____	8 Voltage drop calculations for notification appliance circuits
Serial: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Access code: _____	9 Completed record of inspection and testing in accordance with 7.6.6 and 7.8.2
ID No 2: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
Serial: _____	10 Completed record of completion in accordance with 7.5.8 and 7.8.2
Access code: _____	<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location
11 Copy of site specific software, where applicable	
<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location	
12 Record (as-built) drawings	
<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location	
13 Periodic inspection, testing, and maintenance documentation in accordance with Section 7.6	
<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location	
14 Records, record retention, and record maintenance in accordance with 7.7	
<input type="checkbox"/> N/A <input type="checkbox"/> Enclosed <input type="checkbox"/> At Location	
Signed: _____ Date: ____/____/____	

Space Age Electronics, Inc. 58 Chocksett Road Sterling, MA 01564 800-486-1723 www.1sae.com LT10644 Rev. 1

Legend sheet for storing system information including contacts, sign-off, maintenance & test information, and alternate locations of additional records.

Ordering Information:

Part # Description

SSU00672 Fire Document Box RED

SSU00673 Custom screening with your Logo

Check out our Infinity line eFAD single gang 2 Gig digital storage solutions (IAMEFAD)

ACEBOX

Space Age Electronics, Inc.
www.1sae.com
800.486.1723 Toll Free
508.485.0966 Local
508.485.4740 Fax

No Excuses, Just Solutions!

This document is subject to change without notice, see doc # ED0479 for legal disclaimer

ED0447

LT10505

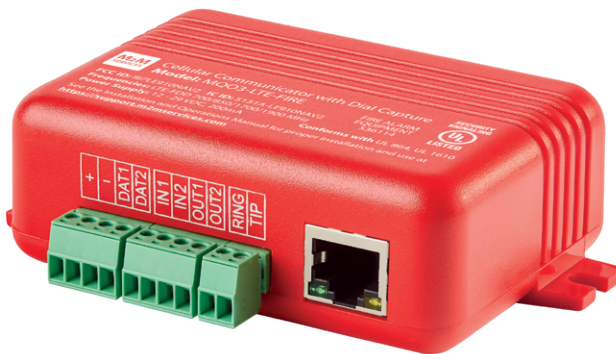
Rev.B

2/2



SIMPLICITY.
APPLIED.

COMMERCIAL FIRE COMMUNICATOR



MQ03-LTE-FIRE



FUTURE-PROOF TECHNOLOGY

AT&T and T-Mobile LTE with fallback to 3G/4G



FLEXIBLE COMMUNICATION OPTIONS

Cellular & LAN communication channels



INTERACTIVE FEATURES

Smartphone App for end users and Admin App for installers



IMPROVED RECURRING REVENUE

Flat-rate low monthly fees for improved profitability

**MQ03-LTE-FIRE**

MAIN FEATURES

UNIVERSAL PANEL COMPATABILITY – Dial Capture Interface supporting Contact ID, SIA and Pulse 4+2

EXCEPTIONAL REDUNDANCY – Dual-SIM for AT&T/T-Mobile. Dual-path, LAN & cellular channels

SUPERVISED CONNECTIVITY – 5 minute polling

ADMIN PORTAL – Online 24/7 device management & real-time status monitoring of all accounts



SPECIFICATIONS

- Multi-band LTE 700/850/1700/1900 MHz
- 3G/4G 850/1900 MHz fallback
- 2 inputs & 2 outputs (programmable)
- Supply voltage: +12 to +30 VDC
- Consumption: Standby 50mA, Peak 200mA
- Dimensions: 2.48" x 3.54" x 1.26"
- Weight: 2.65oz without antenna

CONFORMS TO UL STANDARDS

- UL 864 - for Control Units and Accessories for Fire Alarm Systems
- UL 1610 - for Central-Station Burglar-Alarm Units



SMARTPHONE APPs FOR END USERS & INSTALLERS

- RControl and RControl Admin for Android / iPhone
- Real-time push and email notifications
- Multiple end users and devices per account
- 12 months events history
- Basic configurations and diagnostics

For a live demo of the RControl app, follow the links:



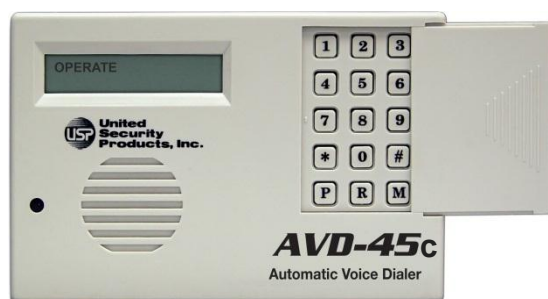
... install and enter:
Username: rcdemo
Password: rcdemo



United Security Products, Inc.

AVD-45c

Automatic Voice/Pager Dialer



The AVD-45c is one of the most comprehensive automatic voice security dialers available. Representing an exciting new level of achievement, the AVD-45c combines technologically advanced features, ease of programming and reliable operation in a compact, unobtrusive dialer completely compatible with any security alarm system.

Installation and hookup are quick and easy, whether installed in conjunction with normally open, normally closed dry contact or voltage activation sensors. The unit can also function as a stand-alone device, by simple connection to an ordinary telephone jack.

Applications

- Security/burglar/fire alarm notification
- Equipment malfunction notification
- Environmental warning notification
- High/Low Temperature threshold notification

Features

- Single Channel- Dial 4 number locations for voice/pager operation
- Normally Open, Normally Closed, or Voltage activation
- Programmable PBX (PABX), Tone/Pulse dialing
- Memory retention (EEPROM) if power is removed or temporarily interrupted
- OGM (max 32 sec duration): very good quality
- Exit/entry delay functions
- Internal 9V alkaline battery (4-hr standby)
- External PP-1 rechargeable battery (up to 24 hr standby) sold separately
- Primary DC supply (standard): works over full range of 9-18VDC
- Self contained alarm system
- Power supply sold separately

Specifications

Power source: 9-18VDC

Current (OPERATE mode - standby): 28mA typical.

Current (OPERATE mode - dialing): 100mA max.

Activation:

- 1) N.C. Activation: dialer activates when an "open" is detected
- 2) N.O. Activation: dialer activates when a "close" is detected
- 3) Voltage Activation:

N.C. (applied voltage: Min. +5VDC, Max. +28VDC)

N.O. (loss of continuous voltage: Min. 0VDC, Max. 0.25VDC)

Max. Digits for outgoing numbers: 28

Operating temperature range: -18 to 55 C (0 to 130 F)

Dimensions (inches): 6x4x1.5in

Weight (ounces): 12.25oz

Mounting: Wall or Flat Surface

Case Material: ABS

Color: White

Warranty: 1 Year

Voice/Pager Dialers

United Security Products

Automatic Dialers are a NEW

BREED of Security

Communications and Notification

equipment for the Security

Professional. Small, Compact

and User Friendly. USP Dialers

deliver the most advanced

technology in the World today.

Available in Models ranging from

single to 4 alarm zones. USP

Dialers deliver voice and numeric

messages to landline phones or

cell phones in any language up

to 8 numbers

About USP

United Security Products, Inc.

has supplied quality magnetic

contacts and sensors to the

security alarm industry for over

40 years. With proven

performance in more than 50

million burglar alarm installations,

security systems dealers rely on

USP magnetic contacts,

pressure mats and automatic

voice dialers to protect their

customers. USP's Window Bug,

glass protection sensor, and

HUBs, Hold-up Buttons have

provided the most innovative

devices in the security industry.

For your next installation, be sure

to specify USP products.

40 Years of Superior American Manufacturing
Made in U.S.A
U.S. and FOREIGN PATENTS PENDING



United Security Products, Inc.

United Security Products • 13250 Gregg St. Suite B • Poway, CA 92064

Toll Free: 800-227-1592 • Tel: 858-413-3049 • Fax: 858-413-0124

www.unitedsecurity.com



**SILENT
KNIGHT**

by Honeywell

SK-Pull-SA and SK-Pull-DA

Intelligent Pull Stations

The SK-Pull-SA and SK-Pull-DA are a single action or dual action addressable fire alarm pull station for use with Silent Knight's IntelliKnight fire control panel. Extremely easy to operate, the SK-Pull-DA and SK-Pull-SA provide a fast and practical means of manually initiating a fire alarm signal. The IntelliKnight panel recognizes each manual pull station by its specific address saving precious seconds in determining the location of an alarm.

For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description

The SK-Pull-SA is a single action pull station requiring only one motion to activate the station. The SK-Pull-DA is a dual action pull station requiring two motions to activate the station. Both pull stations are designed to work with Silent Knight IntelliKnight series fire alarm control panels (FACPs).

Features

- Installer can open station without causing an alarm condition
- Dual-color LED is visible through handle of station blinks green to indicate normal operation and remains steady red in an alarm condition
- Key operated test and reset lock using lock plate actuator
- Key matches compatible FACP locks
- Meets the Americans with Disabilities Act Accessibility Guidelines (ADAAG) controls and operating mechanisms guidelines (Section 4.1.3[13])
- Meets ADA requirement for 5 lbs maximum pull force to active
- Shell, door, and handle molded from durable LEXAN®
- Reliable analog communications for trouble-free operation
- Braille text on station handle
- Handle latches in down position and the word *Activated* appears, clearly indicating the station has been pulled
- Rotary address switches for fast installation
- UL Listed, including UL 38, Standard of Manually Actuated Signaling System



SK-Pull-SA



SK-Pull-DA

Compatibility

The SK-Pull-SA and SK-Pull-DA are compatible with the following IntelliKnight FACP's:

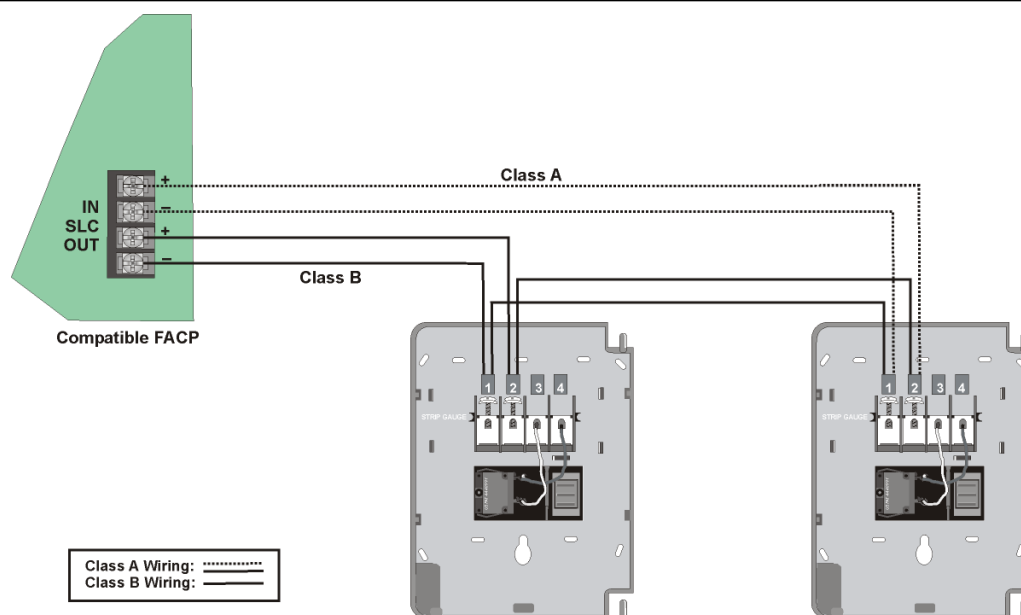
5600
5700
5808
5820XL
5820XL-EVS

Model SK-Pull-DA and SK-Pull-SA Intelligent Pull Stations

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Addressable Pull Stations, Silent Knight model SK-Pull-SA single action pull station or SK-Pull-DA, dual action pull station.

SK-Pull-DA or SK-Pull-SA meet the ADAAG controls and operating mechanisms guidelines, and the ADA requirements for a 5 lb. maximum pull force to activate the pull station.



Wiring SK-Pull-SA & SK-Pull-DA Pull Stations

Specifications

Physical

Height: 5.5" (14 cm)

Width: 4" (10.2 cm)

Depth: 5.4 oz. (3.7 cm)

Housing Material: LEXAN polycarbonate resin

Bi-Colored LED:

Blinking Green: Normal

Steady Red: Alarm

Switch: Single pole, single throw (SPST) normally open (N/O) switch which closes upon activation of the pull station

Electrical

Operating Voltage: 15–32 VDC

Average Operating Current (LED flashing): 300 μ A

Wire Gauge: Up to 12 AWG (3.1 mm²)

Environmental

Operating Temperature 32° – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

Accessories

BG-TR

Optional trim ring.

SB-I/O

Surface backbox



**SILENT
KNIGHT**

by Honeywell

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone: (800) 328-0103, Fax: (203) 484-7118. For Technical Support, Please call 800-446-6444. www.silentknight.com

MADE IN AMERICA

FORM# 350135 Rev C
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**SILENT
KNIGHT**

by Honeywell

SK-Photo, SK-Photo-T and SK-PhotoR

Intelligent Photoelectric Smoke Sensors

The SK-Photo is a photoelectric smoke detector, the SK-Photo-T is a photoelectric smoke detector with thermal and SK-PhotoR is a photoelectric detector with remote test capability. These plug in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with Silent Knight IntelliKnight Fire Alarm Control Panels (FACPs).

For more information about the IntelliKnight system, or to locate your nearest source, please call 800-328-0103.

Description

SK-Photo and SK-Photo-T are plug-in type smoke sensors that combine a photoelectric sensing chamber with addressable analog communications. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

SK-Photo and SK-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. In the SK-Photo-T, dual electronic thermistors add 135°F (57°C) thermal technology to maximize detection.

The SK-PhotoR is a remote test capable detector for use with the DNR/DNRW duct smoke detector. (not included)

Features

- Sleek, low-profile design
- Base included
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Dual electronic thermistor design on the SK-Photo-T
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Variety of mounting options to meet any application
- Dual LED indicators for 360° visibility
- Detector transmits signal to indicate maintenance is required

- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Plug-in mounting provides ease of installation
- Tamper-proof feature available on mounting bases
- Listed for use in duct applications
- Rotary address switches for fast installation
- UL Listed
- FM Approved

Specifications

Physical

Height: 2.0" (5.0 cm)

Diameter: 4.1" (10.4 cm) installed in B501 base

Electrical

Operating Voltage: 15–32 VDC

Standby Current:

300 µA @ 24 VDC Maximum

Alarm Current: 6.5 mA @ 24 VDC max (with LED on)

Environmental

Operating Temperature

SK-Photo: 32° – 120°F (0°C – 49°C)

SK-Photo-T: 32° – 100°F (0°C – 38°C)

Humidity: 10% – 93% non-condensing

Other Ratings

SK-Photo-T Thermal: Fixed temperature set point 135°F (57°C)

Velocity: 0 – 4000 fpm (0 – 20 m/sec)



SK-Photo (Base included)

Installation

The SK-Photo and SK-Photo-T plug into a compatible IntelliKnight-series detector base. The SK-PhotoR is a remote test capable detector head included within the DNR (W) duct smoke detector.

Compatibility

SK-Photo, and SK-Photo-T are compatible with the following detector bases:

B210LP	6" base (included)
B501	2 wire base
B224RB	Relay base
B224BI	Isolator base
B200SR	Sounder base

The SK-Photo, SK-Photo-T, and SK-PhotoR are compatible with the following IntelliKnight FACPs:

5820XL
5820XL-EVS
5808
5700
5600 (Rev 2.0 or higher)

Model SK-Photo, SK-Photo-T and SK-PhotoR Intelligent Photoelectric Smoke Sensors

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Intelligent photoelectric smoke sensors Silent Knight SK-Photo or SK-Photo-T with thermal. The combination detector head, and twist-lock base, shall be UL listed and compatible with Silent Knight's IntelliKnight fire control panels.

The base shall permit direct interchange with SK-Photo or SK-Photo-T. Base shall be the appropriate twist-lock base part number B210LP (included).

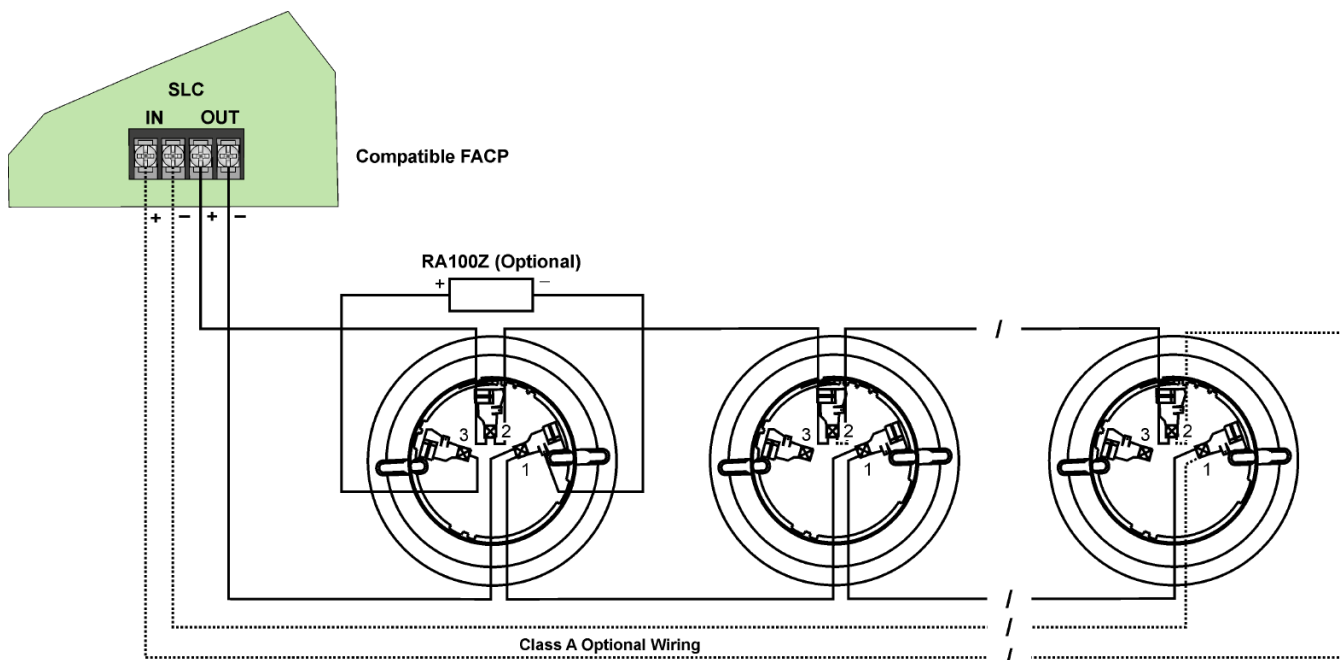
The PhotoR is a remote test capable detector for use with DNR(W) duct smoke detectors. (not included).

The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady. The detector may be reset by actuating the control panel reset switch.

The calibration of the detector shall be capable of being selected and measured by the control panel without the need for external test apparatus.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable as required.

The SK-Photo shall automatically perform a functional test of the detector. The test method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.



Wiring SK-Series Detector Mounting Bases



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by Honeywell

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www.silentknight.com

MADE IN AMERICA

FORM# 350118 Rev E
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**SILENT
KNIGHT**

by Honeywell

SK-Heat, SK-Heat-HT and SK-Heat-ROR

Addressable Thermal Heat and Rate-of-Rise Detectors

The SK-Heat, SK-Heat-HT, and SK-Heat-ROR are plug in thermal detectors, with integral communication, that provide features that surpass conventional detectors. These thermal detectors are for use with Silent Knight IntelliKnight series Fire Alarm Control Panels (FACPs).

IntelliKnight heat detectors are an essential component in virtually any IntelliKnight installation. The IntelliKnight panel recognizes each detector by its specific address, so precious seconds are not wasted in determining location of an alarm.

Description

SK-Heat, SK-Heat-HT and SK-Heat-ROR are intelligent sensors that utilize a state-of-the art thermistor sensing circuit for fast response. Sensitivity is continuously monitored and reported to the FACP. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

SK-Heat is a fixed temperature sensor that uses a thermistor sensing circuit to produce 135°F (57°C) fixed temperature alarm.

SK-Heat-HT is a variable high temperature detector that provides high temperature detection at 135°F - 190°F. (57°C - 88°C)

SK-Heat-ROR is a rate-of-rise temperature sensor with 135°F (57°C) fixed temperature alarm.

Features

- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Innovative thermistor sensing circuit
- Superior EMI resistance for reliability
- Variety of mounting options to meet any application
- Dual LED indicators for 360°

visibility

- Detector transmits signal to indicate maintenance is required
- Plug-in mounting provides ease of installation
- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Tamper-proof feature available on mounting bases
- Rotary address switches for fast installation
- UL Listed

Specifications

Physical

Height: 2.0" (51 mm)
Diameter: 6.1" (155 mm) installed in B210LP base
Shipping Weight: 4.8 oz (137 g)

Electrical

Operating Voltage:
15 to 32 Volts DC Peak
Standby Current:
300µA @ 24 VDC
LED Current: 6.5 mA@ 24 VDC

Environmental

Operating Temperature

SK-Heat & SK-Heat-ROR:
-4° - 100°F (-20°C - 38°C)

SK-Heat-HT: -4° - 150°F
(-20°C - 66°C)

Humidity: 10% - 93%
noncondensing

Thermal Ratings

SK-Heat: Fixed temperature alarm
135°F (57°C)



SK-Heat (base included)

SK-Heat-HT: High temperature heat sensor 135°F - 190°F (57°C - 88°C)

SK-Heat-ROR: Rate-of-rise detection 15°F/min (8.3°C/min)

Compatibility

The SK-Heat-HT and SK-Heat-ROR are compatible with the following IntelliKnight FACP's:

5820XL
5808
5700

The SK-Heat is compatible with the following IntelliKnight FACP's:

5820XL
5808
5700
5600 (Rev 2.0 or higher)

The SK-Heat, SK-Heat-HT and SK-Heat-ROR are compatible with the following detector bases:

B210LP	6" base (included)
B501	2 wire base
B224BI	Isolator base
B224RB	Relay base
B200SR	Sounder base

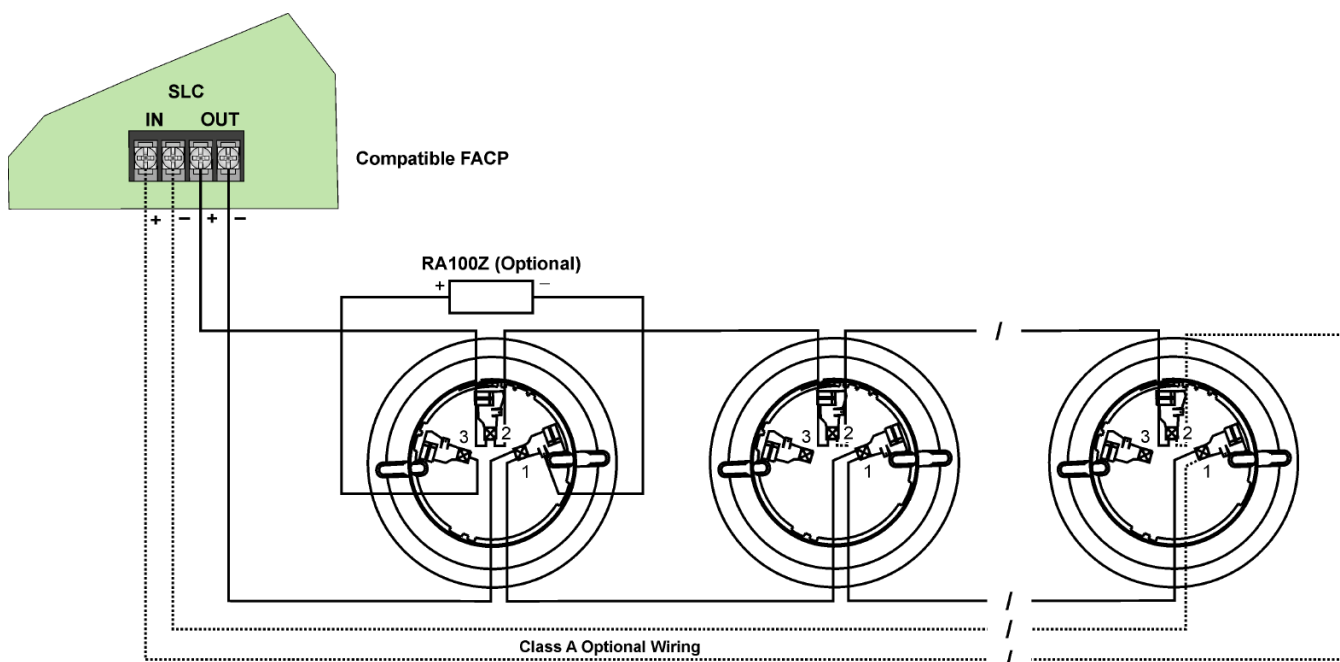
Model SK-Heat, SK-Heat-HT, SK-Heat ROR Addressable Thermal and Rate-of-Rise Thermal Detectors

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Intelligent Thermal Sensor Silent Knight Model SK-Heat, SK-Heat-HT or SK-Heat-ROR. The base included shall be B210LP.

The Heat detector shall have a flashing status LED for visual supervision. When the detector is activated, the flashing LED will latch on steady at full brilliance. The detector may be reset by actuating the control panel reset switch.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field removable when not required. Voltage and RF/transient suppression techniques shall be employed to minimize false alarm potential.



Wiring SK-Series Detector Mounting Bases

Accessories

RA100Z - Remote LED Annunciator.

RMK400 - Recessed Mounting Kit. Provides low profile for use with B501.

XR2B - Detector Removal Tool. A removal and re- placement tool for SK plug-in detectors. Includes the T55-127-000.

M02-04-01 - Replacement Test Magnet.

M02-09-00 - Test Magnet with Telescoping Handle.

XP-4 - Extension Pole for XR2B. Extends from 5 – 15 ft.

T55-127-000 - Detector Removal Head.

BCK-200B - Black Detector Kit. For SK-series detectors.

* Unless otherwise noted, specifications apply to all SK thermal detectors.



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www.silentknight.com

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**SILENT
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SK-Monitor-2

Intelligent Dual Monitor Module

The SK-Monitor-2 module is capable of monitoring two separate Class B circuits simultaneously, making it ideal for waterflow tamper switch and flow switch monitoring.

For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description

The SK-Monitor-2 is an addressable monitor module with two initiating circuits for use with Silent Knight IntelliKnight series fire alarm control panels (FACPs). The SK-Monitor-2 acts as an interface to contact devices, such as waterflow switches and pull stations.

The SK-Monitor-2 supports Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

Features

- Monitor two circuits, with unique addresses, simultaneously
- Support for Class B wiring
- Fully supervised
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Attractive ivory cover plate
- Rotary address switches for fast installation
- SEMS screws for easy wiring
- UL Listed



SK-Monitor-2

Installation

SK-Monitor-2 mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® part number SMB500) is available from Silent Knight.

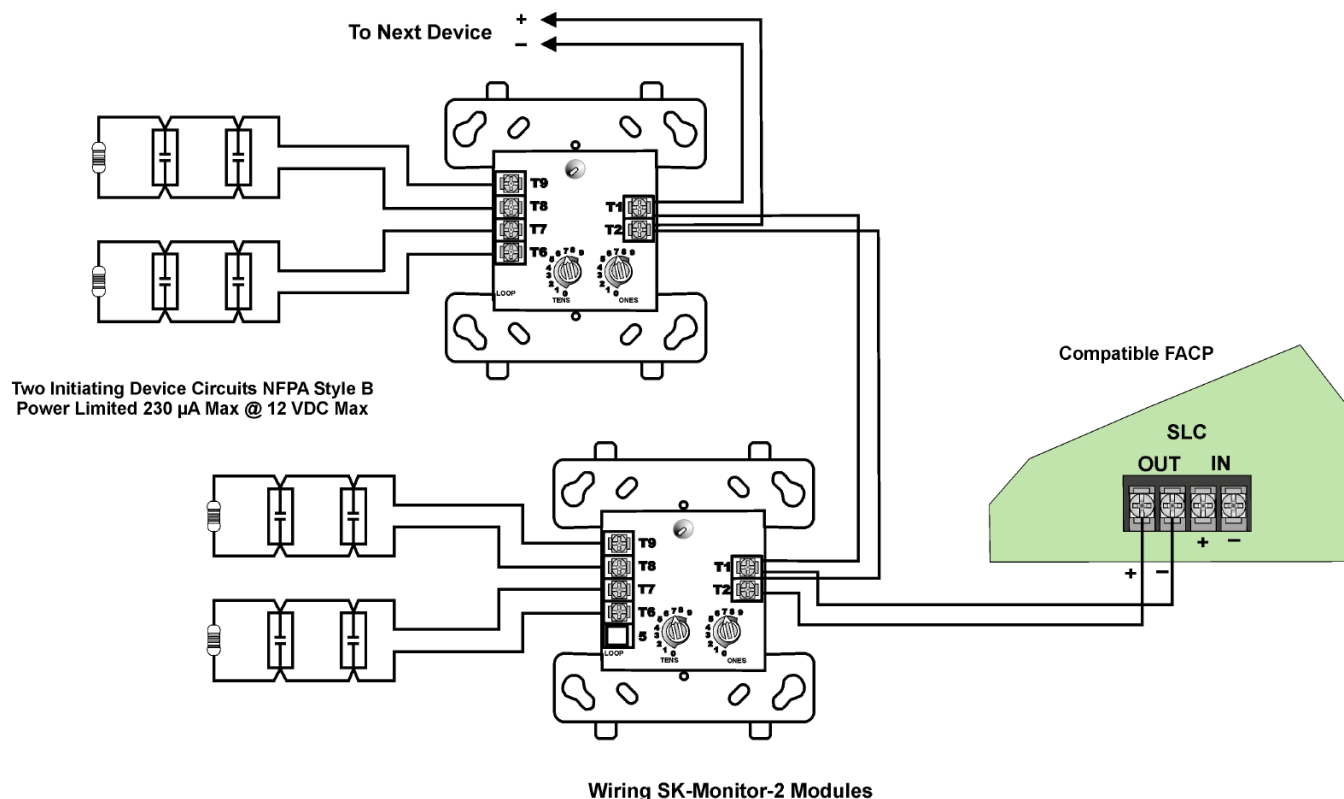
Compatibility

The SK-Monitor-2 is compatible with the following IntelliKnight FACP's:

5700
5808
5820XL
5820XL-EVS

Model SK-Monitor-2

Intelligent Dual Monitor Module



Specifications

Physical

Height: 4.5" H x 4" W x 1.25" D

Shipping Weight: 6.3 oz (196 g)

Electrical

Operating Voltage: 15 – 32 VDC

Current Draw (LED on): 6.4 mA max

Operating Current (LED flashing): 750 µA

End-of-Line Resistance: 47K Ω

Max IDC wiring resistance: 1,500Ω

SLC Line Loop Resistance: 40Ω max.

Environmental

Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

Accessories

SMB500 4" Square Surface Mount Electrical Box



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**SILENT
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SK-Relay

Intelligent Relay Module

The SK-Relay Module is intended for use in intelligent, two-wire systems where the individual address of each module is selected using the built in rotary switches.

For more information about the IntelliKnight system, or to locate your nearest source, please call 800-328-0103.

Description

The SK-Relay is an addressable relay module for use with Silent Knight IntelliKnight series fire alarm control panels (FACPs).

The SK-Relay allows a Silent Knight FACP to switch discrete contacts by code command. The relay contains two isolated sets of Form C contacts, which operate as a DPDT switch. No supervision is provided for the notification appliance circuit.

The SK-Relay contacts can be used for virtually any normally open or normally closed application. Each SK-Relay is programmed with a unique signaling line circuit (SLC) loop address. When an event occurs that controls the SK-Relay, the relay is triggered by the FACP.

Features

- Two sets of Form C contacts
- Rotary address switches for fast installation
- Contacts are rated for a variety of amps (see Specifications)
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Relay programming is completely flexible—can be mapped to zone conditions
- Polling LED visible through the cover plate
- Attractive ivory cover plate
- SEMS screws for easy wiring
- UL Listed



SK-Relay

Installation

The SK-Relay mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Silent Knight.

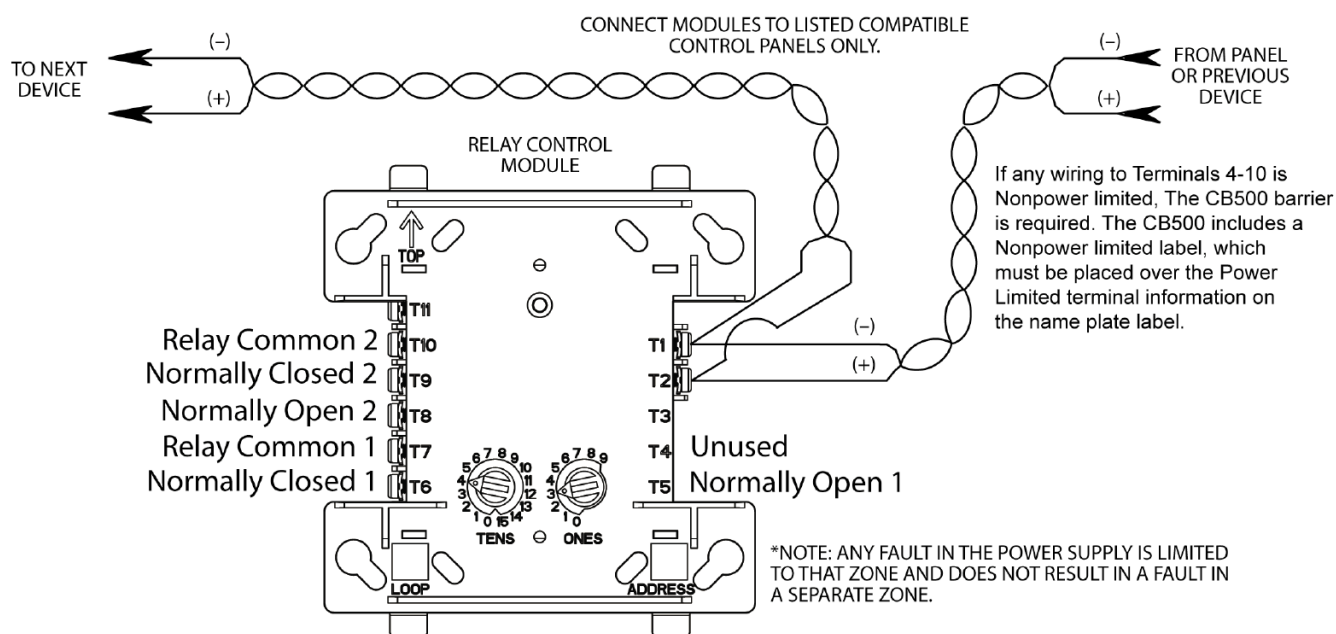
Compatibility

The SK-Relay is compatible with the following IntelliKnight FACP's:

5820XL
5820XL-EVS
5808
5700
5600 (Rev 2.0 or higher)

Model SK-Relay

Intelligent Relay Module



Wiring the SK-Relay Module

Specifications

Physical

4.675" H x 4.275" W x 1.4" D

Shipping Weight: 6.3 oz (196 g)

Environmental

Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

Electrical

Operating Voltage: 15 – 32 VDC

End-of-Line Resistance: Not used

SLC Standby & Alarm Current: .255mA max @ 24 VDC (one communication every 5 sec with LED enabled)

Ordering Information

SK-Relay Relay Module

Accessories

SMB500 4" Square Surface Mount Electrical Box

CB500 Module Barrier

Relay Contact Ratings

3.0A @ 30 VDC resistive

0.9A @ 110 VDC resistive

0.9A @ 125 VAC resistive

0.5A @ 125 VAC inductive (PF = .35)

0.7A @ 75 VAC inductive (PF = .35)


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**SILENT
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SK-DUCT **Intelligent Air Duct** **Smoke Detector**

Detect smoke in air handling systems and air handling equipment with Silent Knight's addressable duct smoke detector

The SK-Duct Intelligent air duct smoke detector is used with SK-PhotoR (included) for detecting smoke and products of combustion present in air moving through an HVAC air handling system. When smoke is detected in a duct, the unit communicates the condition to the IntelliKnight control panel. The panel, in turn, depending on programming and wiring, turns off fans, blowers, and other devices. The duct housing allows for mounting of SK-Relay addressable relay module. Now there's even more power and flexibility available to the IntelliKnight family of products!

Description

The Model SK-Duct Air Duct Smoke Detector utilizes photoelectric technology for the detection of smoke. It provides early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial and Industrial applications.

The SK-Duct is in a heavy duty gray steel back box with a clear cover. It features a pivoting housing that fits both square and rectangular footprints capable of mounting to a round or rectangular duct. It installs quickly and easily.

The unit senses smoke in the most challenging conditions, operating in airflow speeds of 100 to 4000 feet per minute, temperatures of -4°F to 158°F, and a humidity range of 0 to 95 percent (non-condensing).

Features

- Versatile mounting options: square or rectangular configuration
- New Cover tamper signal
- LED alarm indication and communication on sensor head
- Detects and limits the spread of smoke
- Rugged steel back box with clear plastic cover
- Easy to clean
- Large terminal connection screws
- Transparent cover for convenient visual inspection
- Patented sampling tube installs from front or back of the detector with no tools required
- Available space within housing to accommodate mounting of relay module
- UL listed



SK-DUCT

Specifications

Physical

(Rectangular): 14.38 in (37 cm) Length;
5in (12.7 cm) Width; 2.5 in (6.6 cm) Depth

(Square): 7.75 in (19.7cm) Length;
9 in (22.9cm) Width; 2.5 in (6.35cm) Depth

Weight: 1.6lb (0.73kg)

Environmental

Operating Temperature: -4°F – 158°F
(-20°C – 70°C)

Humidity: 0% – 95% (non-condensing)

Air Velocity

100 to 4000 ft/min (0.5 – 20.3 m/sec.)

Electrical (using SK-Photo or SK-PhotoR)

Operating Voltage: 15–32 VDC

Standby Current: 300 µA @ 24 VDC max.

Alarm Current: 6.5 mA @ 24 VDC max
(with LED on)

Model SK-DUCT

Air Duct Smoke Detector

Engineering Specifications

The air duct smoke detector shall be a SK-Duct photoelectric duct smoke detector. The detector housing shall be UL listed per UL 268A specifically for use in air handling systems. The flexible housing of the duct smoke detector fits both square and rectangular footprints. The detector shall operate at air velocities of 100 ft/min to 4000 ft/min (0.5 m/sec to 20.32 m/sec).

The unit shall be capable of providing a trouble signal in the event that the sensor cover is removed or improperly installed. It shall be capable of local testing via magnetic switch or remote testing using the RTS151KEY remote test station. Terminal connections shall be of the strip and clamp method suitable for 12–18AWG wiring.

The unit housing shall be capable of mounting a relay module.

Ordering Information

SK-Duct	Intelligent non-relay duct smoke detector	M02-04-00	Test Magnet
SK-Photo	Addressable Photo Detector	P48-21-00	Replacement End Cap for Metal Sampling Tube
SK-PhotoR	Addressable Photo Detector with remote test capability (included with SK-Duct)	APA151	Remote annunciator with piezo alarm
SK-Relay	Addressable Relay Module, must be added if relay function is required, (fits in housing)		

Accessories†

DST1	Metal Sampling Tube Duct Width up to 1'
DST1.5	Metal Sampling Tube Duct Widths 1' - 2'
DST3	Metal Sampling Tube Duct Widths 2' – 4'
DST5	Metal Sampling Tube Duct Widths 4' – 8'
DST10	Metal Sampling Tube Duct Widths 8' – 12'
DH400OE-1	Weatherproof Enclosure
ETX	Metal Exhaust Tube Duct width 1'
RA100Z	Remote LED Annunciator
DCOIL	Duct accessory coil, required if using with SK-Photo and not SK-PhotoR (included) with SK-Duct
RTS151	Magnetic Remote Test station
RTS151KEY	Key-Activated Remote Test station

Important Notes:

- The use of either RTS151 or RTS151KEY requires the installation of an accessory coil, DCOIL, sold separately. Please refer to the SK-Duct installation instructions for more information
- The RTS151/RTS151KEY test coil circuit requires an external 24VDC power supply which must be UL listed.

Accessory Current Loads at 24 VDC		
Device	Standby	Alarm
RA100Z	0mA	12mA Max.
RTS151	0mA	12mA Max.
RTS151KEY	12mA	12mA Max.



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MADE IN AMERICA

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SK-FIRE-CO

Advanced Combination Fire and CO Detector

The SK-FIRE-CO is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection. For fire, the detector combines four separate sensing elements in one unit (smoke, CO, light/flame, and heat) to sense multiple components of a fire. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulate. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection.

Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandating the use of CO detection in commercial spaces continues to increase across the U.S. and Canada. The SK-FIRE-CO is listed to the UL 2075 standard for system-connected life safety carbon monoxide monitoring.

The SK-FIRE-CO should be used in conjunction with the B200S/B200S-LF intelligent sounder base (sold separately), which can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication. With each sounder base carrying a unique address, the FACP can then command an individual sounder, or a group of sounders, to activate. The command set from the panel can be tailored to the specific event, allowing selection of tone, and group.

SK-FIRE-CO can also be used with the B210LP 6" standard



SK-FIRE-CO

FEATURES & BENEFITS

- Unique ability to detect all four major elements of a fire, smoke, carbon monoxide (CO), light/flame, heat
- Separate CO detection signal
- Highest nuisance alarm immunity
- Automatic drift compensation of smoke sensor and CO cell
- Uses only one address on the SLC
- RealTest® CO testing capability
- UL 268 and UL 2075 listed
- Separates audible signal for fire or CO alarm when used with B200S/B200S-LF base
- CO cell end-of-life warning and fault
- CSFM listed

SK-FIRE-CO Technical Specifications

PHYSICAL

Diameter: 6.875" (17.46 cm) installed in a B200S base

Height: 3.46" (8.79 cm) installed in B200S base

Shipping Weight: 4.6 oz

Color: Ivory

OPERATING

Temperature Range: 32° F to 100° F (0° C to 38° C)

Humidity: 15 to 90% relative humidity (non-condensing)

Air Velocity: 0 to 4,000 ft/min (0 to 20 m/sec)

ELECTRICAL

Operating Voltage: 15 to 32VDC

SLC Standby and Alarm Current: 300µA

SENSITIVITY SETTINGS

Sensitivity settings are programmable through zone programming.

Low: 4% per foot (30.48 cm) of smoke. Used in equipment rooms, kitchens, paint shop.

Medium: 3% per foot (30.48 cm) of smoke. Moderately clean environments: Used in hotel rooms, dorm rooms.

High: 2% per foot (30.48 cm) of smoke. Clean environments: Used in offices.

Warning: After the CO cell has reached the end-of-life, the CO sensor no longer provides life safety protection. However, when the fire detector enters Photo, Thermal, Infrared (PTIR) mode, the following sensitivities apply:

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments- Used in laboratories.

Level 2: 2% per foot (30.48 cm) of smoke. Clean environments - Ued in offices.

Level 5: 3% per foot (30.48 cm) of smoke. Moderately clean environments- Used in hotel rooms, dorm rooms.

Level 6: Thermal alarm at 135° F (57° C).

CO Monitoring UL Standard Reference – Alarm Thresholds are as follows:

Parts Per Million	Detector Response Time
70 ± 5 ppm	60-240 min
150 ± 5 ppm	10-50 min
400 ± 10 ppm	4-15 min

Note: Per UL Standard 2075, the SK-FIRE-CO has been tested to the sensitivity limits defined in UL Standard 2034.

ORDERING INFORMATION

SK-FIRE-CO: Combination Fire and CO Detector (base not included).

OPTIONAL ACCESSORIES

B200S: Intelligent sounder base

B200S-LF: Low Frequency Intelligent sounder base

B210LP: 6" mounting base

B200SR: Sounder base

B224RB: Relay base

M02-04-01: Detector test magnet

M02-09-01: Telescoping test magnet

COMPATIBILITY

The SK-FIRE-CO is compatible with the following Honeywell Silent Knight fire alarm control panels:

6820: Addressable fire alarm control panel

6820EVS: Addressable fire alarm control panel with an emergency voice system.

6808: Addressable fire alarm control panel

6700: Addressable fire alarm control panel

5700: Addressable fire alarm control panel

5808: Addressable fire alarm control panel

5820XL: Addressable fire alarm control panel

5820XL-EVS: Addressable fire alarm control panel with an emergency voice system.

For a complete listing of all compliance approvals and certifications, please visit www.silentknight.com.

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For Technical Support, call 800-446-6444.

For more information

Learn more about Honeywell Silent Knight and other products by visiting www.silentknight.com

Honeywell Silent Knight

12 Clintonville Road
Northford, CT 06472
800-328-0103

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Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

System Sensor L-Series audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.

Features

- Updated Modern Aesthetics
- Small profile devices for Horns and Horn Strobes
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and two volume selections
- Mounting plate for all standard and all compact wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert and SpectrAlert Advance devices
- Compatible with MDL3 sync module
- Strobes and Horn Strobes listed for wall mounting only
- Horns listed for wall or ceiling use

Agency Listings



The System Sensor L-Series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

L-Series Specifications

Architect/Engineer Specifications

General

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 1⁷/₈-inch back box, 4 x 4 x 1¹/₂-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 x 4 x 1⁷/₈-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

Strobe

The strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn Strobe Combination

The horn strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize Strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4¹¹/₁₆ x 4¹¹/₁₆ x 2¹/₈-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC or regulated 24 DC/FWR ¹
Operating Voltage Range²	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Operating Voltage Range MDL3 Sync Module	8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	5.6" L x 4.7" W x 1.91" D (143 mm L x 119 mm W x 49 mm D)
Compact Wall-Mount Dimensions (including lens)	5.26" L x 3.46" W x 1.91" D (133 mm L x 88 mm W x 49 mm D)
Horn Dimensions	5.6" L x 4.7" W x 1.25" D (143 mm L x 119 mm W x 32 mm D)
Compact Horn Dimensions	5.25" L x 3.45" W x 1.25" D (133 mm L x 88 mm W x 32 mm D)

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

2. Strobe products will operate at 12 V nominal only for 15 cd and 30 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)				
	Candela	8–17.5 Volts	16–33 Volts	
		DC	DC	FWR
Candela Range	15	88	43	60
	30	143	63	83
	75	N/A	107	136
	95	N/A	121	155
	110	N/A	148	179
	135	N/A	172	209
	185	N/A	222	257

UL Max. Horn Current Draw (mA RMS)				
		8–17.5 Volts	16–33 Volts	
		DC	DC	FWR
Sound Pattern	dB			
Temporal	High	39	44	54
Temporal	Low	28	32	54
Non-Temporal	High	43	47	54
Non-Temporal	Low	29	32	54
3.1 KHz Temporal	High	39	41	54
3.1 KHz Temporal	Low	29	32	54
3.1 KHz Non-Temporal	High	42	43	54
3.1 KHz Non-Temporal	Low	28	29	54
Coded	High	43	47	54
3.1 KHz Coded	High	42	43	54

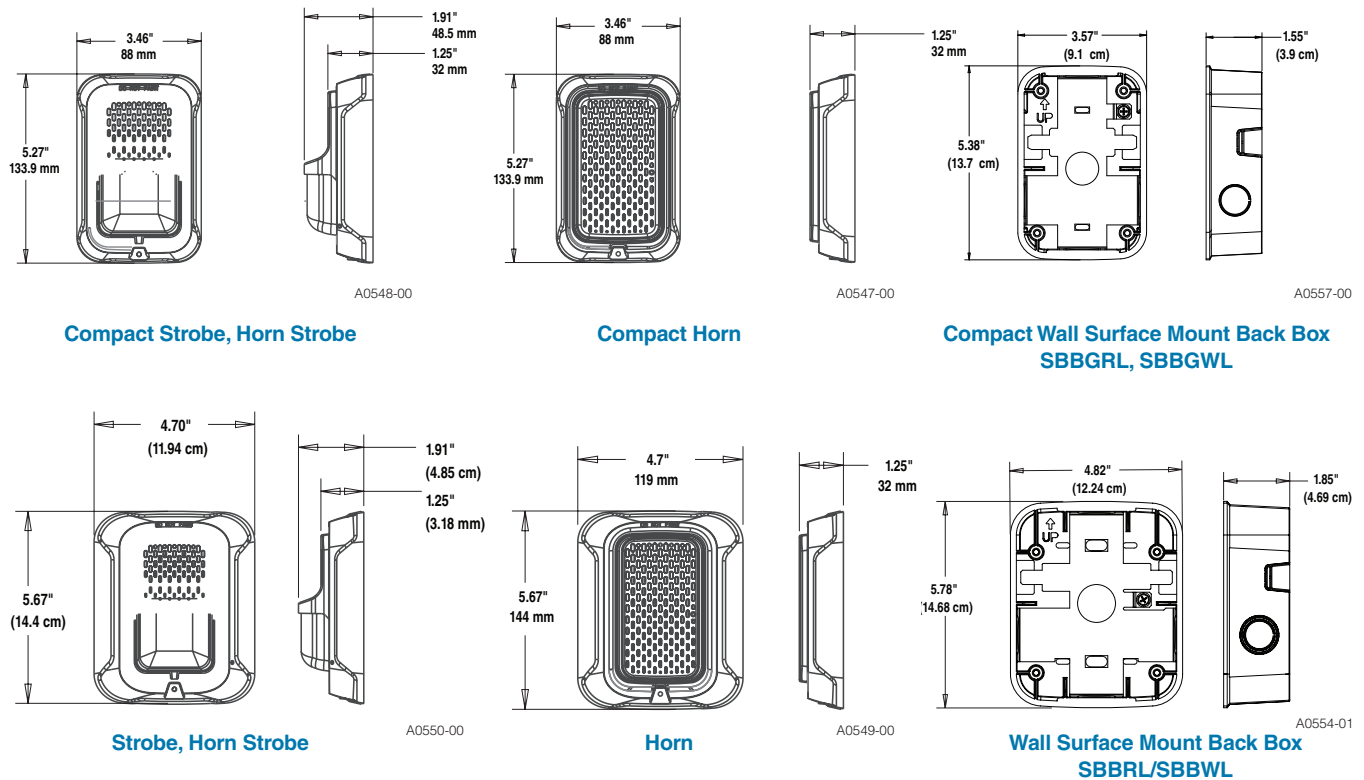
UL Max. Current Draw (mA RMS), Wall Horn Strobe, Candela Range (15–185 cd)									
DC Input	8–17.5 Volts		16–33 Volts						
	15cd	30cd	15cd	30cd	75cd	95cd	110cd	135cd	185cd
Temporal High	98	158	54	74	121	142	162	196	245
Temporal Low	93	154	44	65	111	133	157	184	235
Non-Temporal High	106	166	73	94	139	160	182	211	262
Non-Temporal Low	93	156	51	71	119	139	162	190	239
3.1K Temporal High	93	156	53	73	119	140	164	190	242
3.1K Temporal Low	91	154	45	66	112	133	160	185	235
3.1K Non-Temporal High	99	162	69	90	135	157	175	208	261
3.1K Non-Temporal Low	93	156	52	72	119	138	162	192	242
FWR Input	16–33 Volts								
	15cd	30cd	75cd	95cd	110cd	135cd	185cd		
Temporal High	83	107	156	177	198	234	287		
Temporal Low	68	91	145	165	185	223	271		
Non-Temporal High	111	135	185	207	230	264	316		
Non-Temporal Low	79	104	157	175	197	235	283		
3.1K Temporal High	81	105	155	177	196	234	284		
3.1K Temporal Low	68	90	145	166	186	222	276		
3.1K Non-Temporal High	104	131	177	204	230	264	326		
3.1K Non-Temporal Low	77	102	156	177	199	234	291		

Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)					
Switch Position	Sound Pattern	dB	8–17.5 Volts	16–33 Volts	FWR
			DC	DC	
1	Temporal	High	84	89	89
2	Temporal	Low	75	83	83
3	Non-Temporal	High	85	90	90
4	Non-Temporal	Low	76	84	84
5	3.1 KHz Temporal	High	83	88	88
6	3.1 KHz Temporal	Low	76	82	82
7	3.1 KHz Non-Temporal	High	84	89	89
8	3.1 KHz Non-Temporal	Low	77	83	83
9*	Coded	High	85	90	90
10*	3.1 KHz Coded	High	84	89	89

* Settings 9 and 10 are not available on 2-wire horn strobes. Temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output remains constantly on.

L-Series Dimensions



L-Series Ordering Information

Model	Description
Wall Horn Strobes	
P2RL	2-Wire, Horn Strobe, Red
P2WL	2-Wire, Horn Strobe, White
P2GRL	2-Wire, Compact Horn Strobe, Red
P2GWL	2-Wire, Comp 2 fils act Horn Strobe, White
P2RL-P	2-Wire, Horn Strobe, Red, Plain
P2WL-P	2-Wire, Horn Strobe, White, Plain
P2RL-SP	2-Wire, Horn Strobe, Red, FUEGO
P2WL-SP	2-Wire, Horn Strobe, White, FUEGO
P4RL	4-Wire, Horn Strobe, Red
P4WL	4-Wire, Horn Strobe, White
Wall Strobes	
SRL	Strobe, Red
SWL	Strobe, White
SGRL	Compact Strobe, Red
SGWL	Compact Strobe, White
SRL-P	Strobe, Red, Plain
SWL-P	Strobe, White, Plain
SRL-SP	Strobe, Red, FUEGO
SWL-CLR-ALERT	Strobe, White, ALERT

Model	Description
Horns*	
HRL*	Horn, Red
HWL*	Horn, White
HGRL*	Compact Horn, Red
HGWL*	Compact Horn, White
Accessories	
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White

Notes:

All -P models have a plain housing (no "FIRE" marking on cover).

All -SP models have "FUEGO" marking on cover.

All -ALERT models have "ALERT" marking on cover.

*Horn-only models are listed for wall or ceiling use.



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 AVDS865-05 • 2/22/2018



Selectable-Output Low Frequency Sounder and Low Frequency Sounder Strobes for Wall Applications

SpectrAlert® Advance audible visible notification products are rich with features guaranteed to cut installation times and maximize profits.

Features

- 520 Hz \pm 10% square wave tone
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Field-selectable candela settings on wall units: 135, 150, 177, and 185
- Rotary switch for low frequency sounder tone
- Universal mounting plate for wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert devices
- Compatible with MDL3 sync module
- Listed for ceiling or wall mounting



SPECTRAlert®
ADVANCE
from System Sensor

The SpectrAlert Advance series offers the most versatile and easy-to-use line of low frequency sounder and low frequency sounder strobes in the industry. With white and red plastic housings, dual listed for wall and ceiling mounting, SpectrAlert Advance can meet virtually any application requirement.

The wall-mount low frequency sounder, and low frequency sounder strobes were designed to address the NFPA 72 sleeping space requirements that require a low frequency notification appliance that operates within frequency range of 520 Hz \pm 10% and is of a square wave tone. Like the entire SpectrAlert Advance product line they include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, SpectrAlert Advance utilizes a universal mounting plate with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for 520 Hz low frequency sounder tones.

Agency Listings

SIGNALING



S4011 (sounder)
S5512 (strobes)



3047563

MEA
approved

MEA452-05-E



7135-1653:0223
7125-1653:0224

SpectrAlert Advance Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance low frequency sounder and low frequency sounder strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 17/8-inch back box. A universal mounting plate shall be used for mounting products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Low Frequency Sounder strobes shall have field-selectable candela settings including 135, 150, 177, and 185. The field selectable tones will sound within the frequency range of 520 Hz ± 10% square wave tone and have a permanent marking on the housing that reads "low frequency sounder".

Low Frequency Sounder

The low frequency sounder shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 464 and shall be approved for fire protective service. The low frequency sounder and the Sync•Circuit™ MDL3 Module accessory, if used, shall be powered from a notification appliance circuit output and shall operate on a nominal 12 or 24 volts (includes fire alarm panels with built in sync). When used with the Sync•Circuit Module MDL3, 12-volt rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 16.5 to 33 volts. If the notification appliances are not UL 9th edition listed with the corresponding panel or power supply being used, then refer to the compatibility listing of the panel to determine maximum devices on a circuit. The low frequency sounder has an option to switch between temporal three pattern, non-temporal (continuous) pattern and coded supply within the frequency range of 520Hz ± 10% square wave tone. The low frequency sounder shall operate on a coded or non-coded power supply.

Low Frequency Sounder Strobe Combination

The low frequency sounder strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The low frequency sounder strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The sounder shall have an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The low frequency sounder on low frequency sounder strobe models shall operate on a non-coded power supply. The field selectable tones will sound within the frequency range of 520 Hz ± 10% square wave tone.

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and low frequency sounder at temporal three. Also, while operating the strobes, the module shall silence the low frequency sounder on low frequency sounder strobe models over a single pair of wires. The module shall mount to a 4¹¹/₁₆ × 4¹¹/₁₆ × 2¹/₈-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Frequency Range	520 Hz ± 10%
Strobe Flash Rate	1 flash per second
Nominal Voltage Low Frequency Sounder	Regulated 12 DC/FWR or regulated 24 DC/FWR ¹
Nominal Voltage Range Low Frequency Sounder Strobe	Regulated 24 VDC/FWR ¹
Operating Voltage Range	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Operating Voltage Range MDL3 Sync Module	8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	6.4 inches L x 4.7 inches W x 2.5 inches D (162 mm L x 119 mm W x 64 mm D)
Sounder Dimensions	5.6 inches L x 4.7 inches W x 1.3 inches D (142 mm L x 119 mm W x 33 mm D)
Low Frequency Sounder/Strobe with Surface Mount Back Box Dimensions (SBBR, SBBW)	6.4 inches L x 4.7 inches W x 4.3 inches D (162 mm L x 120 mm W x 108 mm D)
Low Frequency Sounder with Surface Mount Back Box Dimensions (SBBR, SBBW)	5.7 inches L x 4.8 inches W x 3 inches D (145 mm L x 120 mm W x 76 mm D)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

UL Current Draw Data

UL Max. Low Frequency Sounder Current Draw (mA RMS)					
Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR
Temporal 3	High	191	262	138	166
Continuous	High	292	384	138	208
Coded	High	292	388	153	205

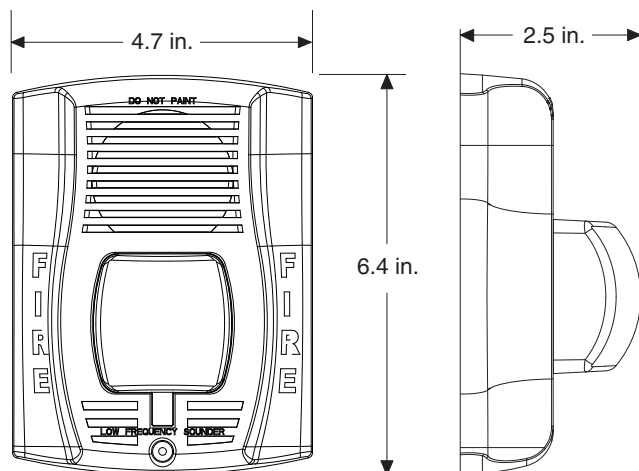
UL Max. Current Draw (mA RMS), 2-Wire Low Frequency Sounder Strobe, High Candela Range									
DC Input	16–33 Volts				FWR Input	16–33 Volts			
	135	150	177	185		135	150	177	185
Temporal 3	277	292	325	344	Temporal 3	296	309	343	351
Continuous	337	362	387	417	Continuous	393	395	432	433

Low Frequency Sounder Tones and Sound Output Data

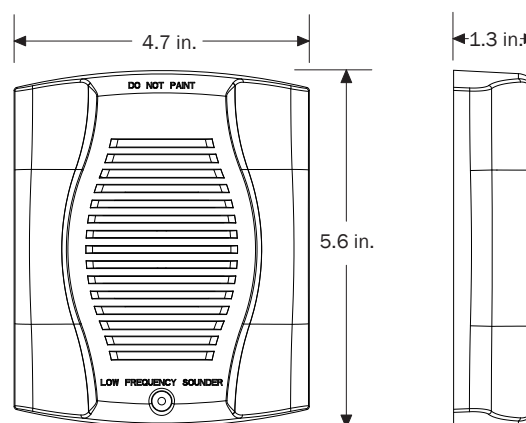
Low Frequency Sounder and Low Frequency Sounder Strobe Output (dBA)									
Switch Position	Sound Pattern	8–17.5 Volts		16–33 Volts		24-Volt Nominal			
						Reverberant		Anechoic	
		DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal 3	76	76	76	76	76	76	86	86
2	Continuous	80	80	80	80	80	80	90	90
3†	Coded	80	80	80	80	80	80	90	90

† Sounder ratings provided are for continuous voltage as provided by the NAC

SpectrAlert Advance Dimensions



Wall-mount low frequency sounder strobes



Wall-mount low frequency sounder

SpectrAlert Advance Ordering Information

Model	Description
Wall Low Frequency Sounder Strobes	
P2RH-LF	2-Wire Low Frequency Sounder Strobe, High cd, Red
P2WH-LF	2-Wire Low Frequency Sounder Strobe, High cd, White
Low Frequency Sounders	
HR-LF	Low Frequency Sounder, Red
HW-LF	Low Frequency Sounder, White
Accessories	
SBBR	Surface Mount Back Box, Wall, Red
SBBW	Surface Mount Back Box, Wall, White
TR-HS	Trim Ring, Wall, Red

Notes:

"High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.



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 AVDS16404 • 1/15



Outdoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

SpectrAlert® Advance outdoor audible visible products are rich with features that cut installation times and maximize profits.

Features

- Weatherproof per NEMA 4X, IP56
- Listed to UL 1638 (strobe) and UL 464 (horn)
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products
- Field-selectable candela settings: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Rotary switch for horn tone and three volume selections
- Horn rated at 88+ dBA at 16 volts
- Rated from -40°F to 151°F
- Universal mounting plate with an onboard shorting spring that tests wiring continuity before devices are installed
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Listed for ceiling or wall mounting

Agency Listings



S4011 (chimes, horn strobes, horns)
S3593 (outdoor and alert strobes)



3023572



MEA452-05-E



7300-1653-187 (outdoor strobes)
7125-1653-188 (horn strobes,
chime strobes)
7135-1653-189 (horns, chimes)



SpectrAlert Advance offers the broadest line of outdoor horns, strobes, and horn strobes in the industry. With white or red plastic housings, wall or ceiling mounting options, and plain or FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement, including indoor, outdoor, wet, and dry applications in temperatures from -40°F to 151°F.

Like the entire SpectrAlert Advance line, outdoor horns, strobes, and horn strobes for wall applications include a variety of features that increase application flexibility and simplify installation. First, field-selectable settings, including candela, automatic selection of 12- or 24-volt operation, horn tones, and three volume options enable installers to easily adapt devices to meet requirements.

Next, SpectrAlert Advance devices use a universal mounting plate for both wall and ceiling applications. This mounting plate includes an onboard shorting spring that ensures wiring continuity before devices are installed, so installers can verify proper wiring without mounting the devices and exposing them to potential construction damage. Once the plates are mounted, all SpectrAlert Advance devices utilize a plug-in design with a single captured screw to speed installation and virtually eliminate costly ground faults.

Outdoor devices ship with weatherproof plastic back boxes (metal back boxes are available separately) that accommodate in-and-out wiring for daisy chaining devices. Plastic back boxes feature removable side flanges and improved resistance to saltwater corrosion. Knock-outs located on the back eliminate the need to drill holes for screw-in mounting. Plastic and metal weatherproof back boxes come with 3/4-inch top and bottom conduit entries and 3/4-inch knock-outs at the back. A screw-in NPT plug with an O-ring gasket for a watertight seal is included with each back box.

SpectrAlert Advance Outdoor Horn, Strobe, and Horn Strobe Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance outdoor horns, strobes, and horn strobes shall mount to a weatherproof back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Outdoor SpectrAlert Advance products shall operate between –40 and 151 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The strobe shall be suitable for use in wet environments.

Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options shall be set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn or horn strobe models shall operate on a coded or non-coded power supply. The horn strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The horn strobe shall be suitable for use in wet environments.

Physical/Electrical Specifications

Operating Temperature	–40°F to 151°F (–40°C to 66°C)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR ¹
Operating Voltage Range²	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	5.6" L × 4.7" W × 2.5" D (142 mm L × 119 mm W × 64 mm D)
Horn Dimensions	5.6" L × 4.7" W × 1.3" D (142 mm L × 119 mm W × 33 mm D)
Wall-Mount Weatherproof Back Box Dimensions (SA-WBB)	5.7" L × 5.1" W × 2.0" D (145 mm L × 130 mm W × 51 mm D)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)						UL Max. Horn Current Draw (mA RMS)					
	Candela	8–17.5 Volts		16–33 Volts		Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR			DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71	Temporal	High	57	55	69	75
	15/75	142	148	77	81	Temporal	Medium	44	49	58	69
	30	NA	NA	94	96	Temporal	Low	38	44	44	48
	75	NA	NA	158	153	Non-Temporal	High	57	56	69	75
	95	NA	NA	181	176	Non-Temporal	Medium	42	50	60	69
	110	NA	NA	202	195	Non-Temporal	Low	41	44	50	50
	115	NA	NA	210	205	Coded	High	57	55	69	75
High Candela Range	135	NA	NA	228	207	Coded	Medium	44	51	56	69
	150	NA	NA	246	220	Coded	Low	40	46	52	50
	177	NA	NA	281	251						
	185	NA	NA	286	258						

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)									
DC Input	8–17.5 Volts		16–33 Volts						
	15	15/75	15	15/75	30	75	95	110	115
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-Temporal High	141	152	91	100	116	176	201	221	229
Non-Temporal Medium	133	145	75	85	102	163	187	207	216
Non-Temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-Temporal High	142	161	103	112	126	181	203	221	229
Non-Temporal Medium	134	155	85	95	110	166	189	208	216
Non-Temporal Low	132	154	80	90	105	161	184	202	211

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)									
DC Input	16–33 Volts				FWR Input	16–33 Volts			
	135	150	177	185		135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-Temporal High	255	270	303	309	Non-Temporal High	233	248	275	281
Non-Temporal Medium	242	259	293	299	Non-Temporal Medium	219	232	262	267
Non-Temporal Low	238	254	291	295	Non-Temporal Low	214	229	256	262

Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

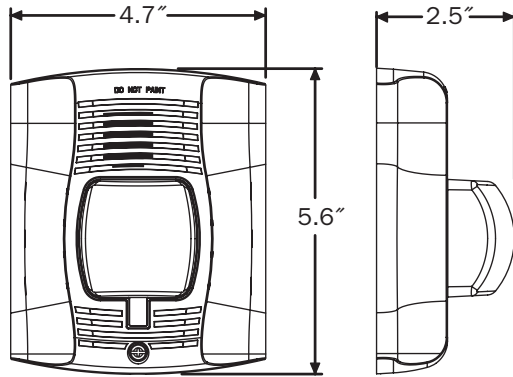
Strobe Output (cd)	
Listed Candela	Candela rating at –40°F
15	Do not use below 32°F
15/75	
30	
75	44
95	70
110	110
115	115
135	135
150	150
177	177
185	185

Horn Tones and Sound Output Data

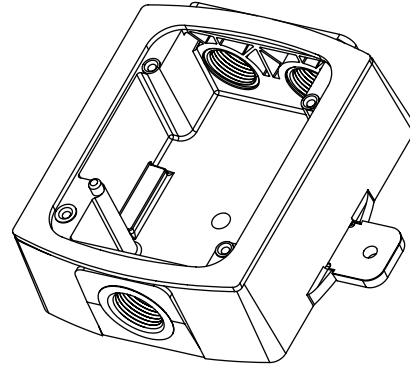
Horn and Horn Strobe Output (dBA)										
Switch Position	Sound Pattern	dB	8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
			DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non- Temporal	High	82	82	88	88	93	92	100	100
5	Non- Temporal	Medium	78	78	85	85	90	90	98	98
6	Non- Temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92

†Settings 7, 8, and 9 are not available on 2-wire horn strobe.

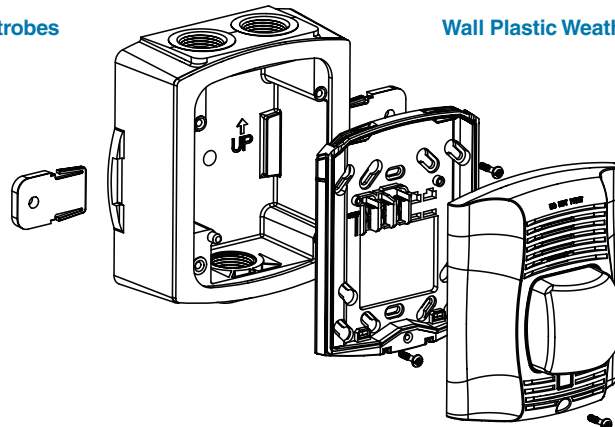
SpectrAlert Advance Diagrams



Wall-Mount Horn Strobes



Wall Plastic Weatherproof Back Box



Wall-Mount Horn Strobe with Plastic Weatherproof Back Box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn Strobes	
P2RK*†	2-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P2RHK*†	2-Wire Horn Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
P2WK*†	2-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2WHK*†	2-Wire Horn Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
P4RK†	4-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P4WK	4-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2RHK-120	2-Wire Horn Strobe, High cd, Red, Outdoor, 120 V (includes plastic weatherproof back box)
Wall Strobes	
SRK*†	Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
SRHK*†	Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
SWK*†	Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
SWHK*†	Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
Horns	
HRK†	Horn, Red, Outdoor (includes plastic weatherproof back box)
Accessories	
SA-WBB	Red, Metal Weatherproof Back Box
SA-WBBW	White, Metal Weatherproof Back Box

Notes:

* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2RK-P.

† Add "-R" to model number for weatherproof replacement device (no back box included), only for use with weatherproof outdoor flush mounting plate, WTP and WTPW.

"Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings. **When replacing standard outdoor units both the device and back box must be replaced.**



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