844-538-3766
Web: everonsolutions.com

Fire Alarm Submittal
Job #

SYSTEM DESCRIPTION

Milissa Johnson

Revision 1 - 1/17/25:
Change all Heat Detectors to Smoke Detectors.
Add Smoke detector (4) to Men's R/R, Women's R/R,
Janitor Closet, Equipment Room.
Updated U.L. Certificate information.

NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES®

Providing Certification Programs Since 1961

NICET®

BE IT KNOWN THAT

Milissa A Johnson

IS HEREBY AWARDED THE FOLLOWING CERTIFICATION

Fire Alarm Systems Level III

Certification Number **147320**

Valid Through **2027-05-01**

VERIFY ONLINE
nicet.org/verify

BASED UPON SUCCESSFUL DEMONSTRATION OF REQUISITE KNOWLEDGE, EXPERIENCE AND WORK PERFORMANCE AS SET FORTH BY THIS INSTITUTE.

CHAIR OF THE NICET BOARD OF GOVERNORS

A DIVISION OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

CERTIFICATE OF COMPLIANCE

THIS IS TO CERTIFY that the Alarm / Service Company identified below is included by - UL Solutions (UL) in its UL Product iQ directories as eligible to use the UL Listing Mark in connection with Certificated Systems. The only evidence of compliance with UL's requirements is the issuance of a UL Certificate for the System and the Certificate is active under UL's Certificate Verification Service. This Certificate does not apply in any way to the communication channel between the protected property and any facility that monitors signals from the protected property.

Listed Service From: IRVING, TEXAS

Alarm / Service Company: (3577745)

Everon LLC
4221 W JOHN CARPENTER FWY
IRVING, Texas 75063-2924   UNITED STATES

The Alarm / Service Company is Listed in the following Certificate Service Categories:

File	Vol No.	CCN	Listing Category
BP10566	1	CRZM	Monitoring Stations, National Industrial Security
S2684	20	UUFX	Central-station Protective Signaling Services
BP1790	3	CPVX	Central-station Burglar Alarm Systems
BP6719	3	CRZH	National Industrial Security Systems
BP8312	38	CVSG	Mercantile Burglar Alarm Systems
S5337	6	UUJS	Local, Auxiliary, Remote Station and Proprietary Protective Signaling Services

THIS CERTIFICATE EXPIRES ON 31-DEC-25

"LOOK FOR THE UL ALARM / SYSTEM CERTIFICATE"

Features

- 1,270 addresses available on this analog addressable system
- Additional system capacity achieved via multi-point SLC modules
- 1500 software zones
- NFPA 72 Compliant Smoke Sensitivity Test Built-In
- System Operates as Class A or Class B for SLC, P-Link and NACs
- 10 Amp Power Supply, Expandable to 315 amps
- 6 NACS, Regulated, Rated at 3 Amps each, expandable to 192
- 4 Input/Output (I/O) Circuits for system flexibility rated at 1 Amp each
- Strobe Synchronization and System Wide Sync for Gentex®, AMSECO®, Cooper Wheelock® and System Sensor® strobes
- Dedicated Alarm, Supervisory and Trouble Relays
- 4,000 Event History Buffer
- Optional two line DACT with UD-2000 that can report General, Zone or Point Information
- Built in IP communicator
- Ethernet Port for Programming and Network Connectivity
- E-Mail System Status, Reports and Event Information
- Product includes 5 year warranty

FM APPROVED

NYC Fire Dept. Certificate of Approval 6256

7165-0328:0509

UL LISTED S735

Description

The AFC-1000 is an expandable analog/addressable releasing fire alarm system with a total system capacity of 1270 addresses. Additional capacity on the system is achieved using multi-point SLC modules The control panel utilizes the exclusive Potter protocol that includes a complete line of sensors and modules. Each SLC may be comprised of any combination of smoke sensor, heat detectors or modules and allows for a total of 50 ohms of impedance and may use any wire compliant with the National Electrical Code (NEC).

The AFC-1000 has a 10 Amp power supply with six Notification Appliance Circuits (NACs) and four Input/Output (I/O) circuits. The NACs are rated at 3 Amps each and the I/Os are rated at 1 Amp each. Each output is regulated and power limited. In addition, each output is uniquely programmable and may be configured for steady signal, strobe synchronization, constant power, door holder power, or releasing. The strobe synchronization includes Gentex, AMSECO, System Sensor and Cooper/Wheelock and with the exclusive Quadrasync each output may have a unique brand and all strobes will flash together.

The NACs may be expanded using the PSN-1000 series intelligent power supplies. Each PSN-1000 adds another 10 Amps of power, 2 additional input circuits and the AFC-1000 will support up to 31 power supplies. The system will synchronize the strobes system wide. In addition, the PSN-1000E has space to allow the installation of up to six PAD100-SLCE SLC loop expansion cards. The cards mount on a stacker bracket that allows access to all SLC circuit connections.

Technical Specifications

Dimensions	18 $^{15}/_{16}$"W x 27 $^{5}/_{16}$"H x 4 $^{7}/_{16}$"D
AC Mains	5.0 Amps @ 120 VAC 50/60 HZ 3.0 Amps @ 240 VAC 50/60 HZ
Enclosure	16 gauge cold rolled steel with removable locked door with Lexan viewing window
Battery	Standby Current-130 mA Alarm Current-220 mA • 10 Amps power for NACs, I/O, and P-Link • 3 Amps per NAC, regulated • 1 Amp per I/O circuit, regulated • Battery Charger range 8-55 Ah • Battery Charger voltage 27.3 VDC • P-Link maximum current of 1 Amp
Temperature and Humidity Range	32° to 120° (0°C to 49°C) with a maximum humidity of 93% non-condensing.

SLC Loop Accessories

The control panel may be connected with up to 1,270 addressable devices or modules in any combination. The SLC is not restricted by any special wire requirements and may be wired with any wire that complies with the NEC.

SLC Loop Devices

Device	Description
PAD100-PD	Analog Photo Electric Smoke Detector is a smoke detector with a listed obscuration of 1.02 to 3.83 percent per foot.
PAD100-PHD	Combination Analog Photo Electric Smoke/Heat Detector – a smoke detector with a listed obscuration of 1.02 to 3.83 percent obscuration and a fixed temperature 135° Fahrenheit heat detector.
PAD100-HD	Analog Fixed (135d-185dF) or Rate-of-Rise Heat Detector (software selectable)
PAD100-DUCTR	Addressable Duct Smoke Detector with Form C Relay. Addressable Duct Smoke Detector with Form C relay rated at 10a @ 250/120VAC or 8amps at 30VDC.
PAD100-DUCT	Addressable Duct Smoke Detector.
PAD100-6B	6" round base that is mounted to an electrical box and wired for connection of one of the above sensors.
PAD100-4B	4" round base that may be mounted to an electrical box and wired for connection to the above sensors.
PAD100-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop.
PAD100-RB	Addressable Relay Base that contains one relay controlled by the SLC. Relay is rated at rated at 2 amps at 30 VDC or 0.5A at 125VAC.
PAD100-SB	Addressable Sounder Base that contains an addressable sounder module that may be configured for local, group and all call.
PAD100-CD	Addressable CO gas detector.
PAD100-DD	Addressable photo electric smoke detector for use in DUCT/DUCTR enclosure.
PAD100-LFSB	Addressable Low Frequency Sounder Base that contains an addressable sounder module that may be configured for local, group and all call. The LFSB complies with the Low Frequency Signal Requirements (520 Hz)
PAD100-SPKB	Speaker base is a wall or ceiling mount speaker capable of 25 or 70.7 VRMS and is field selectable from 1/8W to 4W.

Modules

Device	Description
PAD100-MIM	Micro Input Module provides a small foot print contact module for mounting inside an enclosure.
PAD100-PSSA	Single Action Addressable Pull Station.
PAD100-PSDA	Dual Action Addressable Pull Station.
PAD100-SIM	Single Input Module is a standard contact module with an LED that mounts into a 4" square electrical box.
PAD100-DIM	Dual Input Module is a device that can monitor two distinct inputs with a single device or in a Class A mode.
PAD100-TRTI	Two Relay Two Input module provides two form C relays that are individually controlled by the control panel. Each relay is rated for 2 amps at 30VDC or 0.5 amps at 125VAC. Also provides two contact inputs.
PAD100-NAC	Notification Appliance Circuit module is an addressable remote appliance circuit controlled by the panel.
PAD100-ZM	Zone Module is used to connect conventional 2-wire smoke detectors to the system.
PAD100-IM	Module interrupts a short on the SLC and prevents the short from affecting protected devices on the loop.
PAD100-RM	Relay Module that provides one form C relay controlled by the control panel. Relay is rated for 2 amps at 30VDC or 0.5 amps at 125VAC.
PAD100-LED	Module provides a single addressable LED that is controlled by the control panel.
PAD100-SM	Speaker Module provides switching for two audio channels.
PAD100-LEDK	Addressable LED and key switch that mounts in a single gang box.
PAD100-DRTS	DUCTR Remote Test Switch that mounts in a single gang box and optionally supervised. For use with the PAD100-DUCTR only.
PAD100-OROI	One Relay One Input Module provides one form C relay and one input. The relay is rated at 2 amps at 30VDC or 0.5 amps at 125VAC.

SLC Features

The Potter protocol is a digital protocol with a proven design for reliability and noise immunity. The system does not require special cable or conductors for connection of the Signaling Line Circuit as long as the cable is compliant with NFPA 70 and NFPA 72. The system allows for Class A or Class B installations as well as "T-Taps."Each loop is capable of 127 points, with a max wiring distance of 10,000 ft.

Sensor Features

The sensors through the fire alarm control panel provide a real time status as to the condition of the system. The smoke detector sensitivity, heat detector temperature level and drift compensation are all programmable options. The system also allows for a day/night mode where the panel automatically adjusts the sensitivity depending on the time of day. To assist in the reduction of false alarms, the smoke detectors also have a maintenance warning that sends a trouble signal when a detector is dirty to the point that it can no longer maintain the programmed sensitivity.

User Interface

The fire alarm control panel has a 4 x 40 LCD display to provide information to the system status. The keypad has navigation keys to allow manipulation of the Menu on board the panel. The panel is shipped standard with the following LEDs:

• AC Power - Green
• Alarm - Red
• Earth Fault - Amber
• Supervisory - Amber
• Silenced - Amber
• Trouble - Amber
• Pre-Release - Amber
• Release - Red

The common buttons include a Silence, Reset, Acknowledge, and Drill. All of the buttons are accessible once the locked door is opened.

P-Link

The AFC-1000 has a proprietary communication protocol that communicates through a RS-485 connection to field devices. Up to 64 devices may be connected to a single P-Link connection. The P-Link includes the communication terminals and regulated 24 VDC connection for the field devices. The field devices may be any of the following:

PAD100-SLCE-Analog/Addressable loop expansion module

SLCE-127 -Nohmi addressable loop expansion module for retrofit applications.

RA-6075R – 2 x 16 LCD annunciator with a key pad in a locked metal enclosure.

RA-6500R(F) – 4 x 40 LCD annunciator with a key pad in a locked metal enclosure. Flush mount version available.

LED-16(F) – 16 LED annunciator with common indicators in a locked metal enclosure. Flush mount version available.

PSN-1000(E) – 10 amp, remote intelligent power supply with 6 NACs, 2 Inputs and a P-Link repeater. This panel is listed in conjunction with the AFC-100 as releasing circuits

CA-6500 – Class A convertor that converts the SLC, NACs and P-Link connection

UD-2000 – UL listed, Dual line telephone alarm communicator

DRV-50 – LED driver expander, used to connect up to 50 LEDs in a graphic display

FCB-1000 – Fire communication bridge, provides remote mounting of the Ethernet connection

FIB-1000 – Fiber interface module, used to extend P-Link to multi-mode fiber (2 required)

RLY-5 – Relay module, provides 5 form C relay contacts rated at 3.0 amps 24VDC/125AC

SPG-1000 – Serial parallel gateway, allows for the connection to a serial or parallel printer

The **FIB-1000**, **FCB-1000** and the **SPG-1000** may be installed in the stacker bracket or ordered with the optional rack mount enclosure.

MC-1000 Multi-Connect allows up to sixty-three AFC series panels to share a single reporting technology.

IDC-6 – Initiating device circuit provides 6 programmable inputs

AE-2 – Two card expansion cabinet

AE-8 – Eight card expansion cabinet

**AE-14** – Fourteen card expansion cabinet

Ethernet/I.P. Connection

The AFC-1000 is shipped standard with an Ethernet connection. This connection is the programming port and may be connected to a building Wide Area Network (WAN) or Local Area Network (LAN). Once connected to the Internet, the panel may be selectively programmed to e-mail alarm conditions, trouble conditions, supervisory conditions, test, Event History and detector status. An e-mail may be sent to the panel and the panel will e-mail the event history, detector status, configuration file or server status to an authorized E-mail account. In addition, reminders may be set to send an e-mail for service, testing or other conditions.

In addition, the Ethernet connection is UL listed as an IP communicator. The IP communicator is listed to report to the UL listed Sur-Gard III IP receiver. The IP communicator replaces the traditional less reliable alarm communicator transmitter that utilized telephone lines. The IP communicator is an active method of connection and communication to the monitoring station.

Dimensions

TOP

DEPTH

18.91″

17.60″

LEFT SIDE

26.00 "

27.32 "

RIGHT SIDE

4.41″

3.75″

DEPTH

BOTTOM
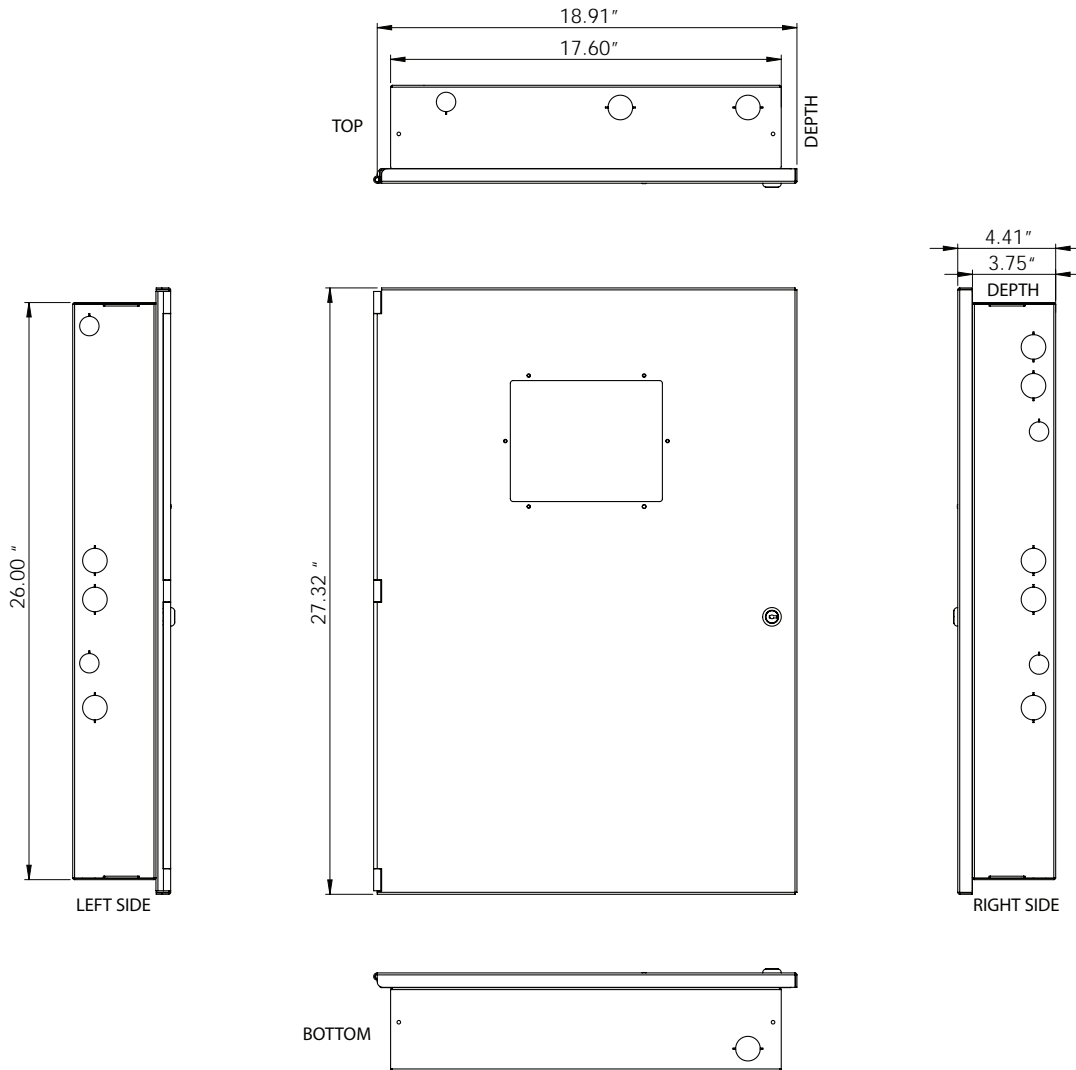
Ordering Information

Model	Description	Stock No.
AFC-1000	Fire Alarm Control Panel	3992754
	Replacement Board AFC-1000	3992758

Features

- Industry leading 4 line by 40 Character LCD
- Common buttons for navigation
- Common LEDs for status indication
- 31 annunciator per panel
- Maximum wire length of 6,500 feet
- Available in 4 colors
- Product includes a 5 year warranty

Description

The RA-6500 is a LCD remote annunciator for the PFC-6000 series fire control panels. The RA-6500 communicates using a RS-485 connection to the main panel providing common indication of Alarms, Supervisory, Trouble and other system status and control functions.

The RA-6500 features a 4x40 LCD display with LED's for Power, Alarm, Supervisory, Trouble, and Silenced conditions. It can be mounted on a single gang electrical box or a four square electrical box. The annunciator is enclosed in a sheet metal enclosure and has a Potter lock securing the keypad.

Technical Specifications

Standby Current	20 mA
Alarm Current	25 mA
Operating Temperature	0°C-49°C (32°F-120°F)
Operating Humidity Range	10%-93% @ 30°C (86°F) non condensing humidity
Maximum Wire Length	6500 ft.
Maximum Annunciators	31
Size (WxHxD)	10" x 7-7/8" x 1-5/8"
Wire Gauge	14 AWG-22 AWG

Installation

The RA-6500 is connected to the PFC-6000 series fire control panels using a four wire RS-485 connection. The connection is power limited and supervised. Up to thirty-one (31) RA-6500 LCD annunciators can be connected using Class B or Class A wiring. Class A wiring requires an optional Class A Expander.
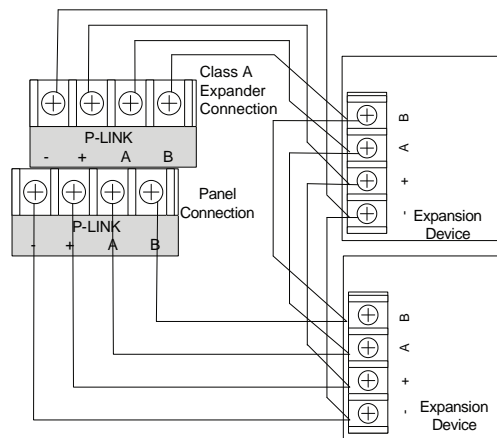
RA-6500 Class B Wiring Example

Fig 1
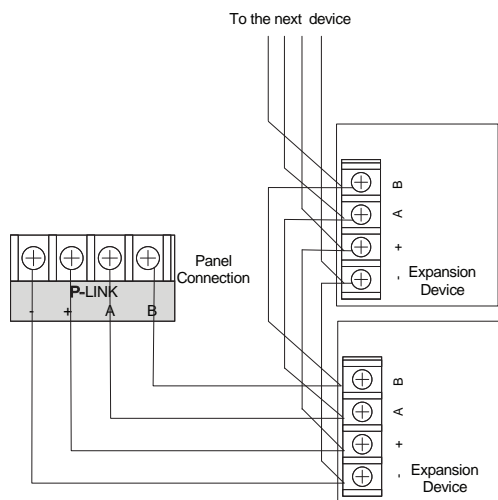
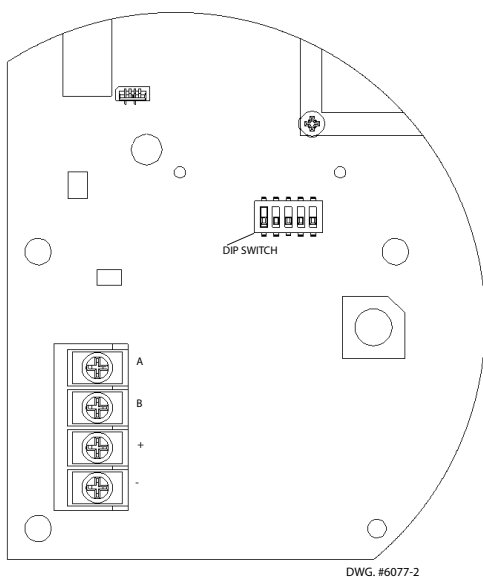*RA-6500 Class A Wiring Example*

Fig 2

Address Settings

The RA-6500 address is set by dip switch S1 located on the back of the RA-6500. The address must be set in the range of 1 to 31 to be recognized by the control panel.
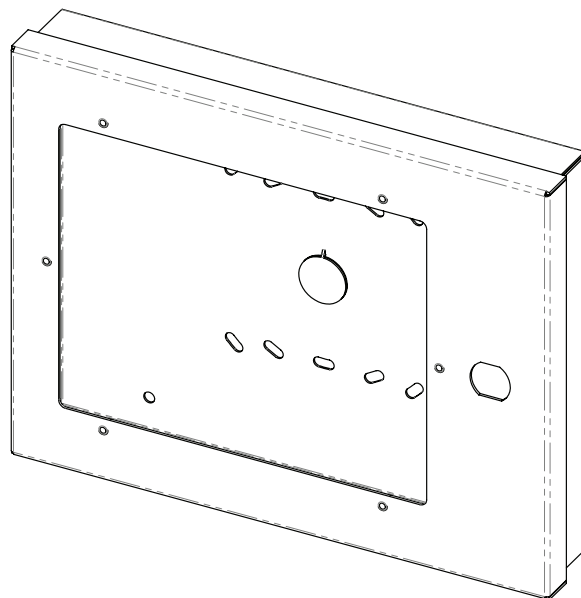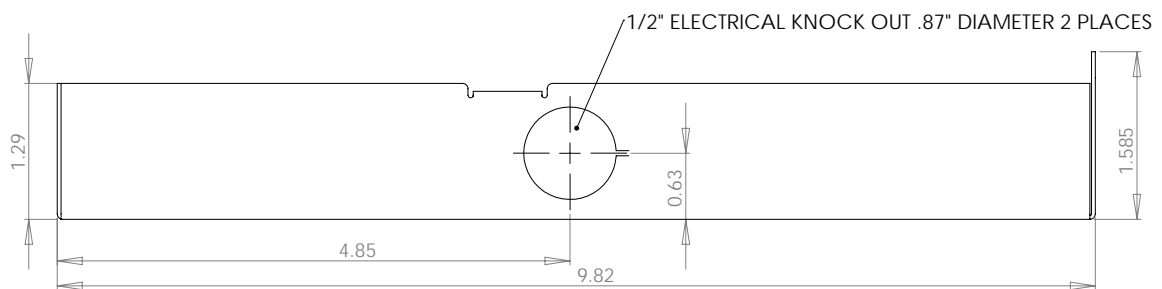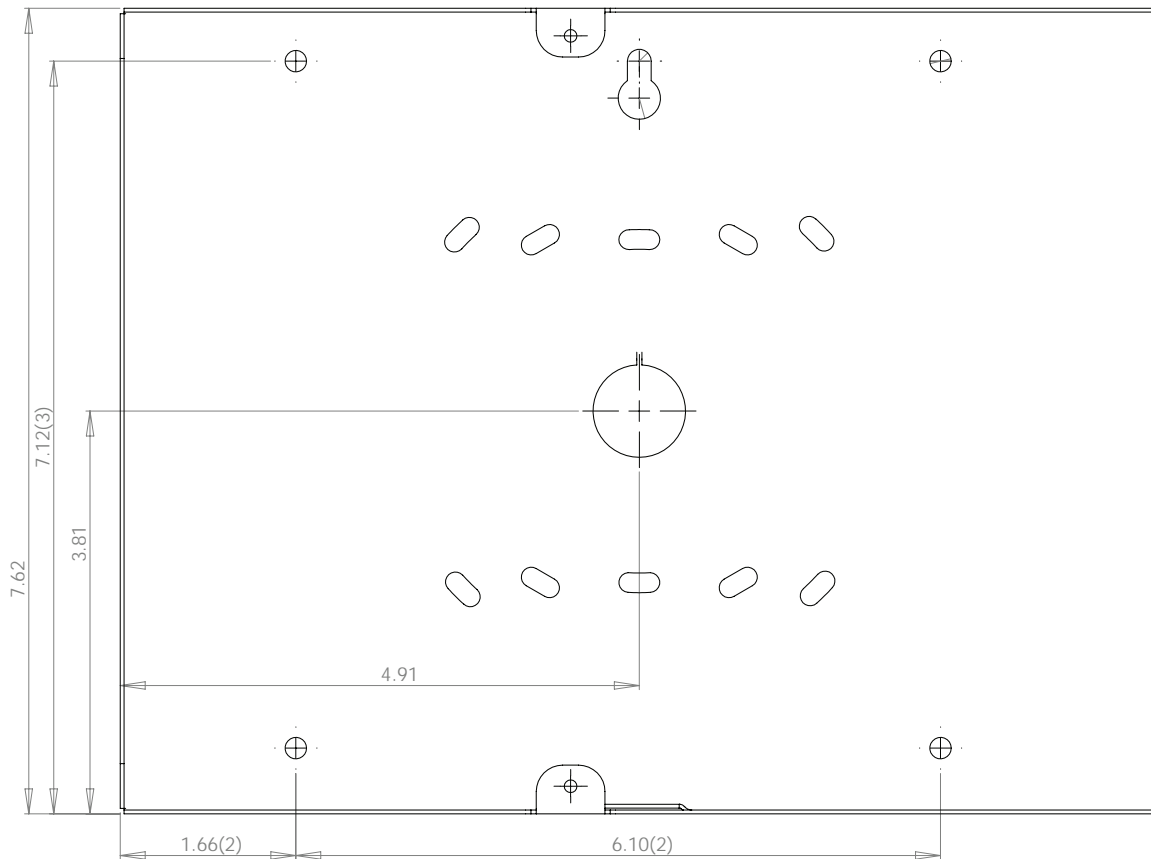
RA-6500 Remote (Panel View)

Fig 3

RA-6500 Enclosure

Fig 4

Dimensions

1/2" ELECTRICAL KNOCK OUT .87" DIAMETER 2 PLACES

Dip Switch Settings

Refer to the table below for dip switch settings per Annunciator Address.

Annunciator Address	Dip Switch Settings				
	SW-1	SW-2	SW-3	SW-4	SW-5
1	On	Off	Off	Off	Off
2	Off	On	Off	Off	Off
3	On	On	Off	Off	Off
4	Off	Off	On	Off	Off
5	On	Off	On	Off	Off
6	Off	On	On	Off	Off
7	On	On	On	Off	Off
8	Off	Off	Off	On	Off
9	On	Off	Off	On	Off
10	Off	On	Off	On	Off
11	On	On	Off	On	Off
12	Off	Off	On	On	Off
13	On	Off	On	On	Off
14	Off	On	On	On	Off
15	On	On	On	On	Off
16	Off	Off	Off	Off	On

Annunciator Address	Dip Switch Settings				
	SW-1	SW-2	SW-3	SW-4	SW-5
17	On	Off	Off	Off	On
18	Off	On	Off	Off	On
19	On	On	Off	Off	On
20	Off	Off	On	Off	On
21	On	Off	On	Off	On
22	Off	On	On	Off	On
23	On	On	On	Off	On
24	Off	Off	Off	On	On
25	On	Off	Off	On	On
26	Off	On	Off	On	On
27	On	On	Off	On	On
28	Off	Off	On	On	On
29	On	Off	On	On	On
30	Off	On	On	On	On
31	On	On	On	On	On

Ordering Information

Model	Description	Stock No.
RA-6500	LCD Annunciator - RED	3992660
RA-6500	LCD Annunciator - BLACK	3992744
RA-6500	LCD Annunciator - GRAY	3992745
RA-6500	LCD Annunciator - LIGHT GRAY	3992746

StarLink™ SLE-MAX2-FIRE
Sole/Dual-Path Alarm Communicator
Submittal Data Sheet

INTRODUCTION

The **SLE-MAX2-FIRE** *Sole/Dual-Path Alarm Communicator is* specifically designed to interface with FACP (Fire Alarm Control Panels) and comply with UL 864 10th edition. The **SLE-MAX2-FIRE** operates on both the Verizon and AT&T cellular networks and utilizes CAT-M1 technology. This device supports both Sole Path, cellular only; Traditional Dual Path, cellular and IP; and Super Dual™, Supervised Dual Carrier and Dual Path communication methods. Super Dual™, exclusive to NAPCO, is a UL 864 10th edition Certified fire communication service that allows the communicator to utilize two cellular carriers to provide dual path reporting. This is accomplished through the supervision of each carrier at the required NFPA intervals, i.e., 6 Hour supervision for NFPA 2013 through 2022. For Dual Path cellular/IP reporting, the system can communicate via an on-board Ethernet jack or via Wi-Fi using the optional UL 864 Certified **SLE-WIFI-MODULE**. The communication mode (Sole Path or Dual Path) requires selection of the appropriate service plan at the point of communicator activation. The communicator is equipped with two form "C" dry relays, one for a trouble output and one for an auxiliary output. The unit is also equipped with four EOLR supervised inputs to report a Fire Alarm, a Fire Trouble, a Water Flow Alarm and a Supervisory Alarm, each triggered from the N/O and Common terminals of the associated FACP output relays. This communicator is for use as the primary means of communication with the central station and do not have backup mode capability. This communicator can also be utilized as a Sole Path Cell communicator. No POTS (Telco Line) connection is permitted. For Commercial Burglary installations, under the armed condition, any loss of communication must be treated as a Burglary Alarm at the central station.

For connection to the FACP DACT, the **SLE-MAX2-FIRE** provides two RJ-45 Telco connections to satisfy the FACP telephone requirements. The primary Telco connector can be supervised and can report a trouble signal to the central station upon any open or short on the primary Telco wires that prevents reporting. The secondary telephone line is supervised by the FACP; when a line fault is detected, a signal trouble is reported to the central station through the primary telephone line.

The **SLE-MAX2-FIRE** is compatible with most 12VDC or 24VDC alarm control panels (always adhere to the documentation provided by the control panel manufacturer). Mount to a single-, dual-, or three-gang electrical box and route the wires through the back knock-out(s), or as specified by local codes. **See WI2140 for programming information.**

Summary of Supported Reporting Plans

Sole Path Service Plan (Cellular-only, Verizon & AT&T)

The system selects and locks onto the higher quality cellular carrier signal (primary) upon power up and will reevaluate every 7 days. If the secondary signal exhibits higher quality, the system will switch carriers. If the primary carrier fails, the system will immediately switch carriers.

Traditional Dual Path Service (Cellular, Verizon & AT&T, and IP)

The system selects and locks onto the higher quality cellular carrier signal (primary) upon power up and will reevaluate every 7 days. If the secondary signal exhibits higher quality, the system will switch carriers. If the primary carrier fails, the system will immediately switch carriers. Also requires an IP connection to the subscriber's network via the on-board Ethernet jack. **Note:** The cable modem/router and switch (if any) at the premises requires standby power; therefore a UL 1481, UL 864 or ITE (*Information Technology Equipment*) Certified UPS must be used at the premises to power these devices for 24 hours (unless an engine-driven generator is provided on the premises, then only 4 hours of UPS backup are required).

Super Dual™, Dual Path Service (Cellular-only, Verizon & AT&T)

The system utilizes both cellular carriers to provide a UL 864 Certified dual path service plan. An IP connection is not required. If either cellular carrier fails, the system will continue operating on the remaining carrier and will report the trouble to the central station and will locally annunciate the trouble.

The **SLE-MAX2-FIRE** communicators use proprietary data-capture technology that captures the alarm report from the control panel and transmits the alarm signals to the SLE Control Center (NAPCO NOC); the alarm signals are then forward-

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SLE-MAX2-FIRE

Commercial / Residential Fire / Burglary CAT-M1 alarm capture Communicator. SIM cards are included. Red plastic enclosure. Rated nominal 12/24VDC input.

AGENCY LISTINGS

ETL LISTED
Intertek

UL CERTIFIED

- ETL Listed: All Models Conform to UL Standards: UL 864, UL 2610, UL 985, UL 1023
- New York City Certificate of Approval 2023-TMCOAP-010503-CERT
- CSFM LISTING No.: 7300-0992:0503
- UL Certified to UL 864 10th Edition, UL 2610, UL 985 and UL 1023

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ed to ANY central station. The communicator can transmit to any central station capable of receiving SIA Contact ID or 4/2 via DACR technology or the DSC Sur-Gard Model System II or Sur-Gard System V central station receivers, Bosch D6100IPV6 or Bosch D6600 Receiver (with ITS-D6686 Ethernet Adapter) via TCP/IP using standard line security.

The **SLE-MAX2** Series of Communicators are provided with two antennas to reduce the possibility of RF nulls and ensure reliable cellular service. Only one antenna is active at a time, and should the communicator have a loss of adequate signal strength, the communicator will connect to the tower via the other antenna. If neither antenna can connect to the tower within 200 seconds, a trouble output will be activated. If using an external antenna such as from the NAPCO StarLink SLE-ANTEXTXXX Series of Extended Antenna Kits, connect it to the left antenna connector.

StarLink Fire Self-Supervision

NFPA 72 requires that any fire communicator trouble be locally annunciated by the fire panel within 200 seconds of the trouble. The troubles include loss of signal, NOC supervision check-in failure, etc. The StarLink MAX2 Fire communicator models include a "**Self-Supervising Fire Communicator**" feature that allows the communicator to annunciate a communication trouble without the need for wiring to an FACP zone input or any FACP reprogramming. This is accomplished by dropping the emulated phone line voltage to the FACP secondary phone line, causing the FACP to annunciate a communication trouble. To enable Self-Supervision, simply remove Jumper **JP2**. Note that when using Self-Supervision, some FACPs may require the Jumper **J7** shunt to be removed for the Primary Phone line to restore correctly. To also report a communicator trouble to the central station, enable the feature "**Tip/Ring Wiring Fault Report**" in the *Advanced* tab in the StarLink NOC.

ADDITIONAL COMPONENTS

In addition to the **SLE-MAX2-FIRE** listed above, the following sub-assemblies are available:

SLE-WIFI-MODULE - Allows your NAPCO StarLink device to connect to the Internet by means of a wireless (Wi-Fi) link, eliminating a wired Ethernet cable connection. **Note:** 7AH battery required when using the **SLE-WIFI-MODULE**. For more information, see WI2191. Not Certified for Commercial or Residential Burglary.

SLE-FIRE-VR - Control Panel Voltage Drop Kit (see WI2580).

SLE-DLCBL - Download Cable, 6 feet.

SLE-ANTEXT30 – Antenna kit* with 30 feet of LMR 300 cable.

SLE-ANTEXT50 - Antenna kit* with 50 feet of LMR 300 cable.

SLE-ANTEXT75 - Antenna kit* with 75 feet of LMR 400 cable.

SLE-ANTEXT100 - Antenna kit* with 100 feet of LMR 400 cable.

SLE-ANTEXT04 - Antenna kit * with 4 feet of LMR 300 cable. Ideal for installations that may require a few extras dBs of gain but running the external cable may not be practical.

SPECIFICATIONS

Electrical Ratings for +12V / 24V (powered by the control panel)[†]

- Input Voltage: 10-24VDC regulated (power-limited output from Certified control panel Aux/Remote Fire Power).

IMPORTANT: Powering the communicator with DC voltage above 27.5VDC could cause damage; if the control panel output voltage is operating between 27.5 - 30.7VDC, the **SLE-FIRE-VR** *Control Panel Voltage Drop Kit* is available to maintain the communicator input voltage below 27.5VDC. **Absolute maximum input voltage with SLE-FIRE-VR installed is 30.7VDC and FWR (Full Wave Rectification voltage) is NOT supported**.

- Input Current:
   10VDC standby: 115mA
   12VDC standby: 101mA
   15VDC standby: 92mA
   24VDC standby: 85mA
   Wi-Fi Module: (Optional) Add 45mA to the above.
   (With peak RF transmission current of 325mA).

Electrical Ratings for the IN 1 Fire Input:

- Input Voltage: 9-25VDC.
- Maximum Input Current: Up to 2mA from FACP NAC circuit

Electrical Ratings for IN 2, IN 3, IN 4, and IN 5:

(Inputs **IN 2, IN 3, IN 4, and IN 5 are** Class B)

- Maximum Loop Voltage: 25VDC input.
- Maximum Loop Current: 1.7mA
- End of Line Resistor (EOLR) Value: 10K

Electrical Ratings for PGM3 Output:

- Open Collector Output: Maximum Voltage 25VDC.
- Maximum PGM Sink Current: 50mA (up to 15VDC), 25mA (15.1VDC - 25VDC)

Physical (W x H x D)

- Plastic Housing: 8 x 5-$\frac{29}{64}$ x 1½" (20.3 x 13.9 x 3.8cm)
- Mounting: Plastic housing includes three keyhole slots for triple gang boxes (see scale template on page 13);
- Antenna Length: 8.25" (21cm)

Environmental

- Operating Temperature: 0°C - 49°C (32°F - 120°F)
- Humidity: Maximum 93% Non-Condensing
- Indoor / dry location use only

[†]For Commercial Fire installations, a UL Certified Fire Alarm regulated power supply or FACP regulated auxiliary output is required.

*All antenna kits include high quality/low loss LMR 300 or 400 Coax Type N male to SMA male terminated cable, all mounting hardware and StarLink SLE-ANTEXT-ISO Commercial Fire Ground Fault Isolation Plate to ensure that the external antenna will not cause ground fault system troubles. (Any suitable external cellular antenna is permitted by UL). Always follow the manufacturer's installation instructions. **Note:** Antennas are not Certified by UL.

POTTER
The Symbol of Protection

Features

- Single or Dual Action versions
- Durable die-cast construction
- Reset key matches the fire alarm control panels
- Compatible with IPA Series panels
- SLC Class A, Class X & Class B
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

FM APPROVED

Description

The PAD100-PSSA (Single Action) is activated by simply pulling the white "T" bar handle down. The PAD100-PSDA (Dual Action) is activated by lifting the front cover and then pulling the white "T" bar handle down. Once activated, the "T" bar cannot be reset without opening the front cover. Opening the front cover will also activate the pull station. To reset the PAD100-PS Series, use the Potter WS-93 key to unlock and open the front cover. Once the cover is open, push the "T" bar back into the normal position and re-secure the front cover.

Application

The PAD100-PSSA/PSDA is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. It is a non-coded addressable pull station available in either a single or dual action model and installs on a single gang box or surface mounts using the P32-BB or P32-DBB (deep) back box.

Technical Specifications

Operating Voltage	24.0 VDC
Max SLC Standby Current	200uA
Max SLC Alarm Current	200uA
Environmental Limitations	32°F - 120°F (0° - 49°C) Indoor Only
Dimensions	4.75" H x 3.25" W x 1.75" D
Relative Humidity Range	0 - 93% (non-condensing)
Mounting Options	Single gang box or Potter P32-BB/DBB
Shipping Weight	APS-SA - 1.22 lbs. APS-DA - 1.46 lbs.

Setting the Address

The PAD100-PS Series uses one SLC address assigned to the device. The address is set using the DIP switch located on the back of the PAD100-PS device.
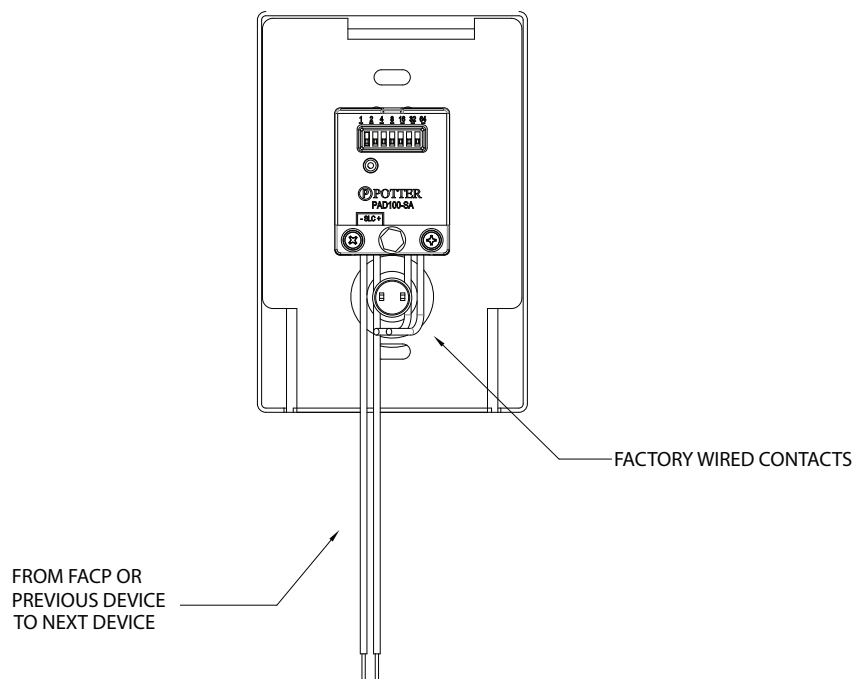
Pull Station Front View
Fig 1

PAD100-PSDA
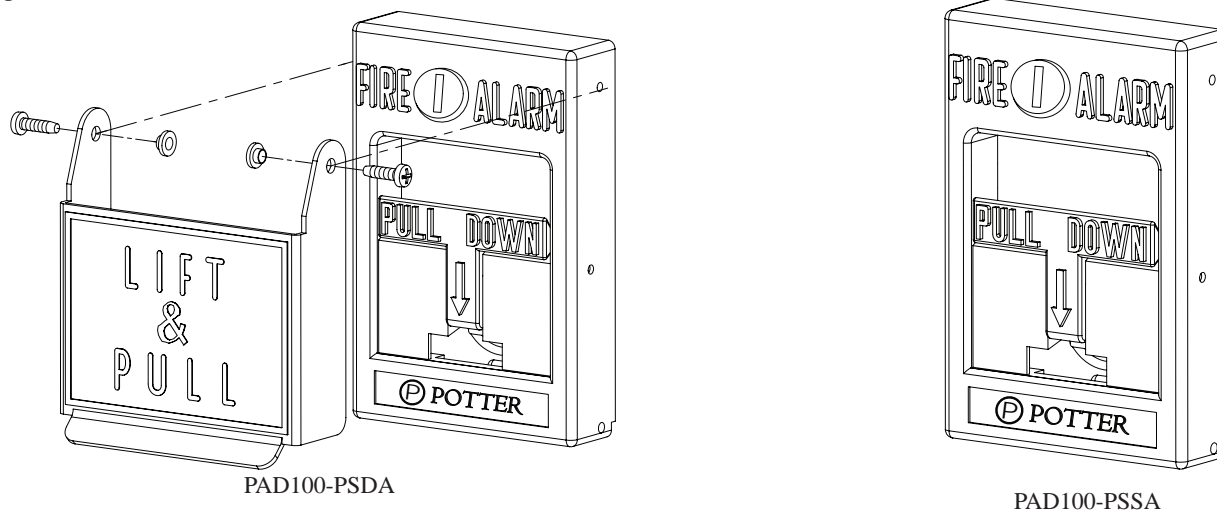
PAD100-PSSA

Pull Station Back View and Wiring
Fig 2

FACTORY WIRED CONTACTS

FROM FACP OR
PREVIOUS DEVICE
TO NEXT DEVICE

Ordering Information

Model	Description	Stock No.
PAD100-PSSA	Addressable Pull Station, Single Action	3992721
PAD100-PSDA	Addressable Pull Station, Dual Action	3992720

Features

- Low profile, less than 2 inches with the base
- Wide selectable sensitivity range of 1.1 to 3.5%/foot
- Detector communicates sensitivity to control panel
- UL listed smoke calibration and sensitivity
- Optional locking tab to prevent unwanted removal
- Simple DIP switch address setting, no programming tool required
- Magnetic test switch
- LED alarm indicator
- Product includes 5-year warranty
- UUKL Listed for Smoke Control
- UL268 7th edition compliant

Description

The Photoelectric Smoke Detector is a listed Analog Addressable smoke detector compatible with fire alarm control panels that utilize the Potter Addressable Device (PAD) protocol. The PAD300-PD is a low profile smoke detector with a wide sensitivity range. The detector and base are made of a durable plastic in an off-white color to blend in with the ceiling.

The PAD300-PD has a sensitivity range of 1.1 to 3.5 % per foot and is UL listed. The PAD300-PD features drift compensation and has built in dirty detector warning as well. The PAD300-PD and the control panel communicate over a proven and robust digital communication path and the system analyzes the information at the particular device. The total polling speed is less than five (5) seconds, well under the UL requirements.

The detector is compatible with any of the PAD300 series detector bases and simply twists on. The PAD300-PD is addressed using DIP switches in the rear of the detector and can be easily programmed in the field without special tools.

Setting the Address

Each addressable device on the SLC loop must have a unique address from 1 to 127 to function properly. The address is set using DIP switches.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to SLC or device. Verify the following:

1. Power to the device is removed.

2. Field wiring is correctly installed.

3. Field wiring has no open or short circuits.

Technical Specifications

Operating Voltage	24 VDC
Detector Current Draw	300 µA
Alarm Indicator	1 LED
Alarm Set-point Range	1.1 to 3.5%/ft (3.6 to 11%/m)
Installation Temperature Range	32 to 120 ° F (0 to 49 ° C)
Operating Relative Humidity range	0% to 93% (Non-condensing)
Start-up Time	Max. 1 sec.
Maximum Number of Addresses Per Loop	127
Maximum Number of Lighted Indicators in Alarm Per Loop	30
Color	Eggshell White
Weight (without base)	91g (3.2oz)
Dimensions (without base)	Height: 1.42 in (36mm) Diameter: 3.93 in (100 mm)

Air Velocity Ratings

The PAD300-PD has an Open Area of Protection air velocity rating of 0 to 300 feet per minute.

The system has a maximum of 30 LEDs that can be turned on simultaneously. If the system already has 30 LEDs on, the PAD300-PD will operate even though the LED may not illuminate.

Operation

The PAD300-PD is an analog addressable detector that uses one address on the Signaling Line Circuit (SLC) of a compatible fire alarm control panel. The unit communicates with the control panel as it is polled. The LEDs flash every time the unit is polled and they will flash at a fast rate if the unit is in an active status. The polling LED can be turned off if desired for less conspicuous operation.

The PAD300-PD with the PAD300-4DB or PAD300-6DB has a low profile of less than two (2) inches to blend into the surrounding environment. The detector includes an insect screen to prevent foreign objects from reaching the chamber and can be cleaned to restore operation of a dirty detector.

Detector Sensitivity

The PAD300-PD and the compatible control panel work in tandem to keep the sensitivity consistent. As the detector is installed over time, the detector compensates for the dirt in the unit until it is out of range. At that time, the panel will indicate a dirty detector. The detector will then have to be cleaned or replaced.

The PAD300-PD can be programmed to provide a maintenance alert prior to reaching the dirty detector level which will allow for intervention prior to the detector going into trouble. This allows for detector replacement or cleaning prior to a nuisance trouble occurs.

NOTE: As required by NFPA, do not install the detectors until all construction is complete and the work area has been thoroughly cleaned. If the detectors have been installed in a construction environment, they should be cleaned or replaced before the system is placed into service.

Spacing

The PAD300-PD is UL listed with a recommended maximum spacing of 30 feet. Refer to NFPA 72 for specific information regarding detector spacing, placement and special applications.

Compatible Bases

All bases will mount on a single gang, 3-1/2" octagon, 3-1/2" square, double gang, 4" octagon, 4" square, 50mm c/c, 60mm c/c and 70mm c/c boxes.

Device	Description	Stock No.
PAD300-4DB	4" Detector Base	3992781
PAD300-6DB	6" Detector Base	3992782
PAD300-IB	6" base with an isolator module included	3992783
PAD300-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	3992784
PAD300-SB	6" base with sounder module included. Sound pattern is provided from external source	3992785
PAD300-LFSB	6" base with 520Hz sounder module included. Sound pattern is provided from external source	3992786

Ordering Information

Model	Description	Stock No.
PAD300-PD	Photoelectric Smoke Detector	3992775

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The Symbol of Protection

Features

- Terminals marked with polarity to assist with installation
- Duplicate Terminals for In-and-out SLC Wiring
- Terminals accept 22 to 12 AWG wire sizes
- Installs on Single Gang, Double Gang, Octagon or 4" Square Box
- Locking tab prevents unauthorized detector removal
- Product includes 5-year warranty
- 6" mounting base comes with trim plate cover

Application

The Potter PAD300-6DB and PAD300-4DB detector bases are used to install PAD300 series detectors. The PAD300-6DB will mount on a single gang, double gang, octagon, 4" square, 50mm, 60mm, and 70mm electrical box.

Description

The PAD300-6DB and PAD300-4DB are low-profile, surface-mount bases used with Potter's addressable detectors. The base uses screw clamp terminals that accept wire ranging from 22 to 12 AWG. When installed on recessed electrical boxes, the PAD300-6DB is wide enough to completely cover the back box and the immediate surrounding area. The base is equipped with a locking tab to deter unauthorized removal of the attached detector.

Technical Specifications

Installation Temp Range	32°F to 150°F (0°C to 66°C)
Operating Humidity Range	0% to 93% (Non-condensing)
Dimension	PAD300-4DB: 3.93 in / 100 mm
	PAD300-6DB: 6.3 in / 160 mm
Weight	PAD300-4DB: 1.34 oz / 38 g
	PAD300-6DB: 3.03 oz / 86 g
Height	0.76 in / 20 mm
Acceptable Wire Gauge	22 to 12AWG
Mounting Options	• Single Gang • Double Gang • 3-1/2" Octagon Box • 4" Octagon Box • 4" Square with Plaster Ring • 50mm c/c Box • 60mm c/c Box • 70mm c/c Box

Locking Feature

The PAD300-6DB and PAD300-4DB include a locking feature that prevents removal of the detector without using a tool.

1. To enable this feature, break off the locking tab (See Figure 1), and then install the detector.
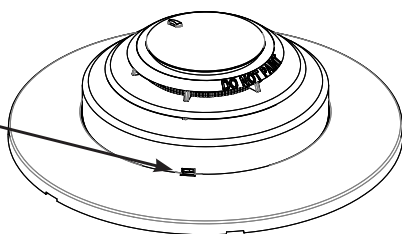
Fig. 1

Break off tab (gray area) in image to enable locking feature.
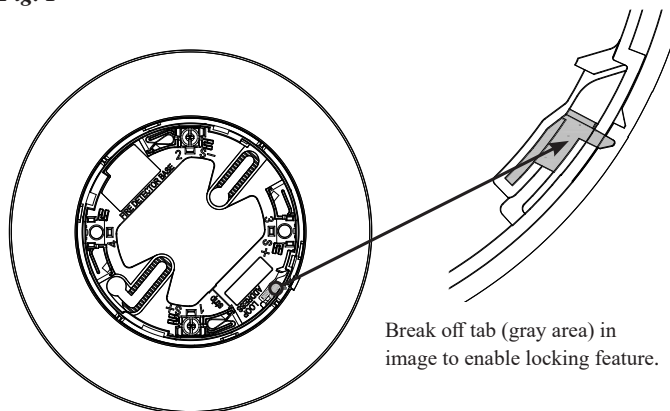
2. To remove the detector from the base when the locking feature has been enabled, insert a small screwdriver into the slot on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise.

Fig. 2

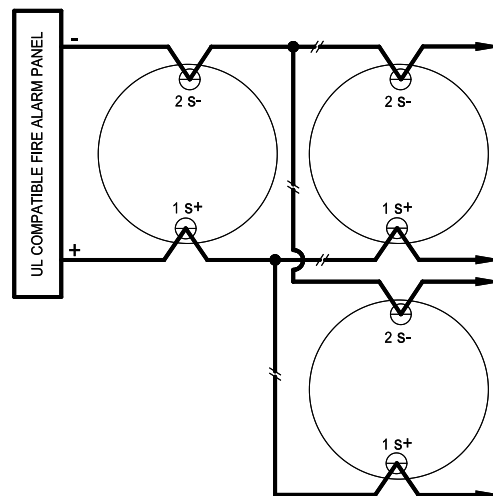Insert small screwdriver into slot to remove detector from base.

Wiring Diagrams

Fig. 3

1) Class B Wiring:

2) Class A Wiring:

3) Class X Wiring:

Ordering Information

Model	Description	Stock No.
PAD300-4DB	4" Detector Base	3992781
PAD300-6DB	6" Detector Base	3992782
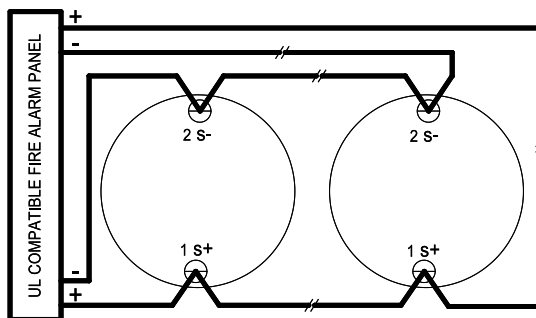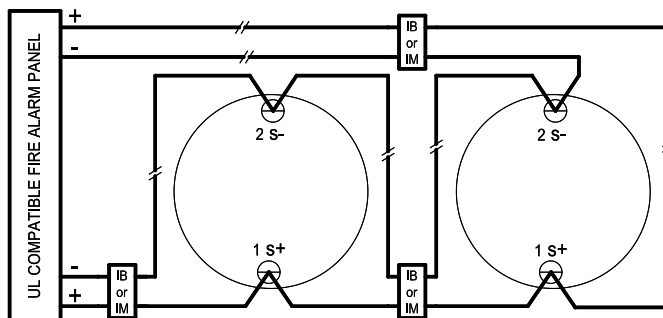
Features

- Single module with dual contact monitoring inputs
- Two (2) Class B or one (1) Class A monitoring inputs
- SLC Class A, Class X & Class B
- Mounts in a standard 4" or double gang box
- Wiring terminals accessible when mounted in box
- All wiring terminals accept 22 to 12 AWG
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

NOTE: This addressable module does not support 2-wire smoke detectors.

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Description

The PAD100-DIM uses one (1) SLC loop address when monitoring two (2) Class B circuits or one (1) Class A circuit. The module mounts on either a 4" square or double gang box. The module is capable of monitoring two (2) separate class B circuits making it ideal for monitoring sprinkler waterflow and valve tamper switches when they are located in the same proximity. The PAD100-DIM includes one red LED to indicate the module's status. In normal condition, the LED flashes when the device is being polled by the control panel. When an input is activated, the LED will flash at a fast rate.

Application

The PAD100-DIM is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. The PAD100-DIM is an interface module used to monitor dry contact devices such as sprinkler waterflow, valve tamper switches, or conventional pull stations. The module is capable of monitoring two separate Class B or one Class A circuits.

Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switch located on the PAD100-DIM. When the PAD100- DIM is used to monitor two individual Class B circuits a single device address is assigned, each input is then identified as a sub-point of the module address. For example, if the address number is assigned as "8", the first input will be "8.1" and the second input will be "8.2".

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:
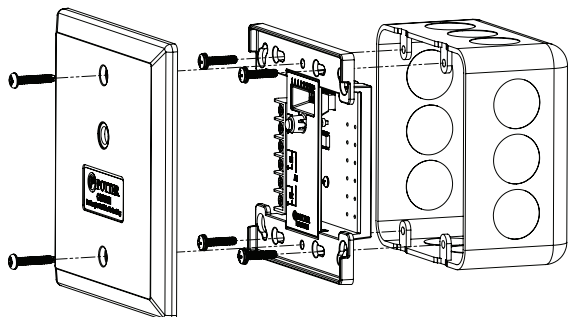
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

Technical Specifications

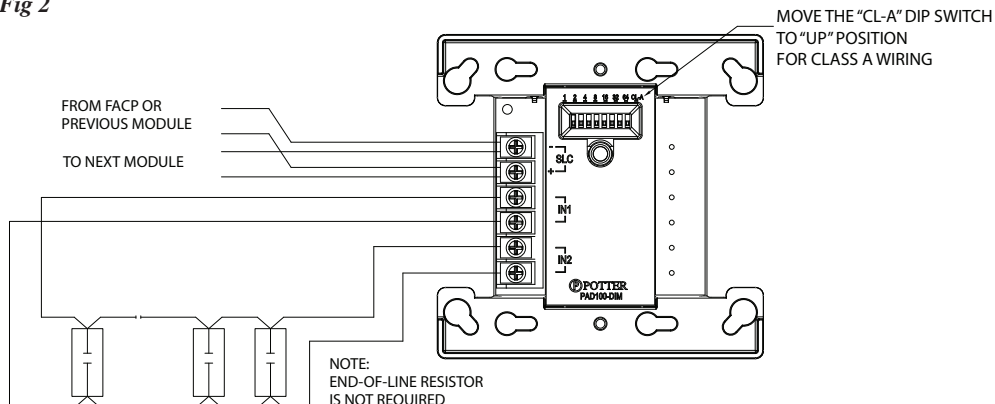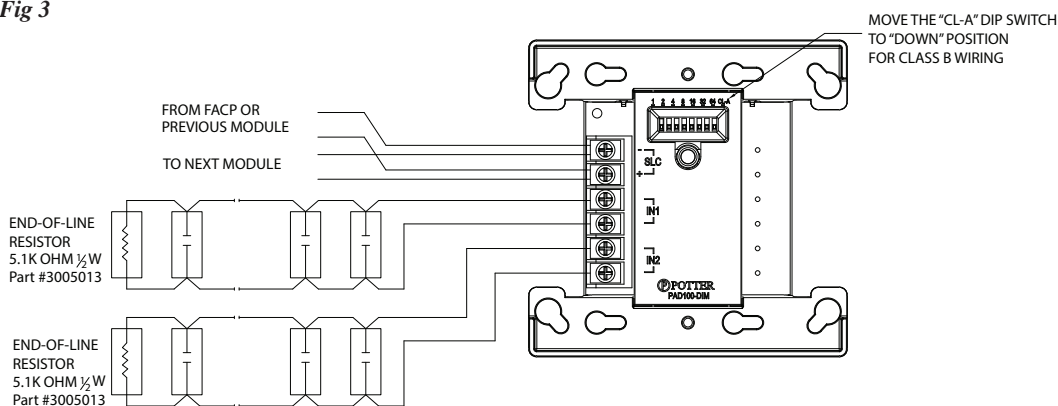|	
Operating Voltage	24.0V
Max SLC Standby Current	240µA
Max SLC Alarm Current	240µA
Max Wiring Resistance of IDC	100 Ω
Max Wiring Capacitance of IDC	1µF
EOL Resistor	5.1K Ω
Operating Temperature Range	32 to 120ºF (0 to 49ºC)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	4.17" (106mm)L × 4.17" (106mm)W × 1.14" (29mm)D
Mounting Options	Standard 4" Square or Double Gang Box
Shipping Weight	0.6 lbs

Installation Using Compatible Electrical Box

Fig 1

Wiring Diagrams

PAD100-DIM With One Class A Circuit

Fig 2

MOVE THE "CL-A" DIP SWITCH
TO "UP" POSITION
FOR CLASS A WIRING

FROM FACP OR
PREVIOUS MODULE

TO NEXT MODULE

SLC

IN1

IN2

NOTE:
END-OF-LINE RESISTOR
IS NOT REQUIRED

PAD100-DIM With Two Class B Circuits

Fig 3

MOVE THE "CL-A" DIP SWITCH
TO "DOWN" POSITION
FOR CLASS B WIRING

FROM FACP OR
PREVIOUS MODULE

TO NEXT MODULE

SLC

IN1

IN2

END-OF-LINE
RESISTOR
5.1K OHM ½ W
Part #3005013

END-OF-LINE
RESISTOR
5.1K OHM ½ W
Part #3005013

Ordering Information

Model	Description	Stock No.
PAD100-DIM	Dual Input Module	3992703

PAD100-OROI
One Relay One Input Module

Features

- One (1) Class B monitoring input
- One (1) Form C relay contact
- SLC Class A, Class X & Class B
- Mounts in a standard 4" or double gang box
- Wiring terminals accessible when mounted in box
- All wiring terminals accept 22 to 12 AWG
- Product includes a 5 year warranty
- UUKL Listed for Smoke Control

NOTE: This addressable module does not support 2-wire smoke detectors.

ASSEMBLED IN THE USA

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UL

Description

The PAD100-OROI uses one (1) SLC loop address when monitoring one (1) Class B circuit and providing one (1) Form C relay contact. The module mounts on either a 4" square or double gang box. The module is capable of monitoring one (1) Class B circuit. The PAD100-OROI includes one red LED to indicate the module's status. In normal condition, the LED flashes when the device is being polled by the control panel. When a the input is activated, the LED will flash at a fast rate.

Application

ThePAD100-OROI is compatible with Potter's IPA and AFC/ARC series addressable fire alarm control panels. The PAD100-OROI is an interface module used to monitor dry contact devices such as sprinkler waterflow, valve tamper switches, or conventional pull stations. The module is capable of monitoring one Class B circuit. The PAD100-OROI also provides one (1) form C relay contact.

Setting the Address

Each addressable SLC device must be assigned an address. The address is set using the DIP switch located on the PAD100-OROI. When the PAD100- OROI is used to monitor one Class B circuit a single device address is assigned, the input and relay are then identified as a sub-point of the module address. For example, if the address number is assigned as "8", the RLY1 relay will be "8.1" and the IN1 input will be "8.2".

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the panel or device:
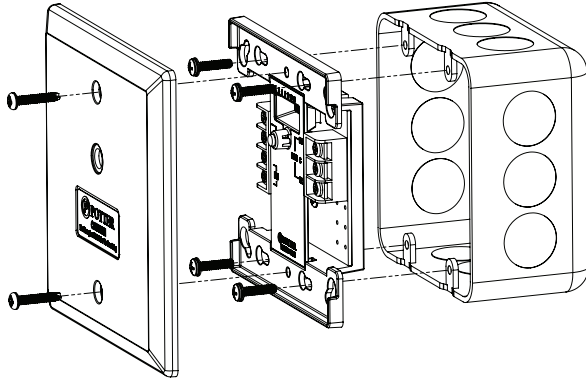
1. Power to the device is removed.
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.

Technical Specifications

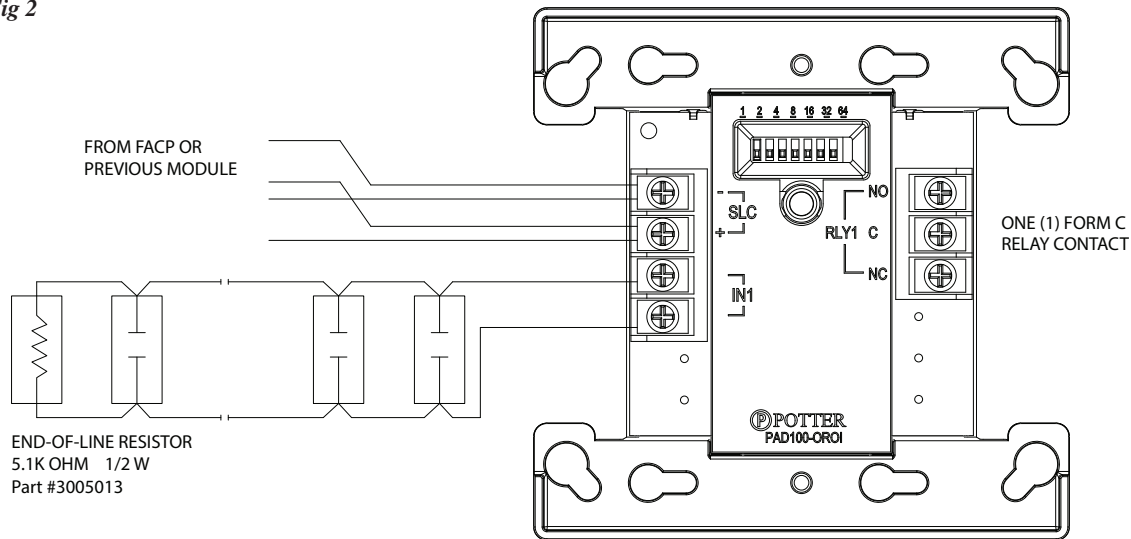|	
Operating Voltage	24.0V
Max SLC Standby Current	240μA
Max SLC Alarm Current	240μA
Relay Contacts	2A @30VDC, 0.5A @125VAC
Max Wiring Resistance of IDC	100 Ω
Max Wiring Capacitance of IDC	1μF
EOL Resistor	5.1K Ω
Operating Temperature Range	32 to 120ºF (0 to 49ºC)
Operating Humidity Range	0 to 93% (non-condensing)
Max no. of Module Per Loop	127 units
Dimensions	4.17" (106mm)L × 4.17" (106mm)W × 1.14" (29mm)D
Mounting Options	Standard 4" Square or Double Gang Box
Shipping Weight	0.6 lbs

Installation Using Compatible Electrical Box
Fig 1

Wiring Diagram

PAD100-OROI With One Class B Circuit
Fig 2

FROM FACP OR
PREVIOUS MODULE

END-OF-LINE RESISTOR
5.1K OHM   1/2 W
Part #3005013

SLC

IN1

RLY1

NO
C
NC

ONE (1) FORM C
RELAY CONTACT

PAD100-OROI

NOTICE

It is possible that the internal relay in the PAD100-OROI may be shipped in the non-normal / activated state. To ensure that the internal relay is set to the normal state, connect the module to the SLC loop and reset the control panel before terminating the wiring to the modules output.

Ordering Information

Model	Description	Stock No.
PAD100-OROI	One Relay One Input Input Module	3992702

INSTALLATION AND MAINTENANCE INSTRUCTIONS

SYSTEM SENSOR®

RTS151KEY(A)
Remote Test Station

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

SPECIFICATIONS

Dimensions:	4.6″ H × 2.75″ W × 1.8″ D
Weight:	0.24 Lbs.
Power Requirements	
Power LED (Green):	14 – 35 VDC, 12 mA maximum
Alarm LED (Red):	2.8 – 32 VDC, 12 mA maximum
Alarm Response Time:	40 seconds maximum
Temperature:	–10°C to 60°C (14°F to 140°F)
Humidity:	95% relative humidity, noncondensing Max
Listing:	UL, FM, CE

NOTE: RTS151KEY(A) replaces RTS451KEY.
NOTICE: This manual shall be left with the owner/user of this equipment.
NOTE: A test coil is required only for use with D2/DNR/DH400/DH500 models. For D2 models order part # DCOIL. For DH400/500 models order part #Coil.

GENERAL INFORMATION

The System Sensor RTS151KEY(A) is an automatic fire detector accessory designed to test remotely located duct and beam detectors. For 4-wire detectors, the RTS151KEY(A) features a multi-colored LED that alternates between steady green and red. Green indicates power and that the detector board is in place. Red indicates alarm. For 2-wire detectors, the LED will show red for alarm. Consult the detector installation instructions for additional information.

The National Fire Protection Association has published codes, standards, and recommended practices for the installation and use of this product. It is recommended that the installer be familiar with these requirements, with local codes, and any special requirements of the local authority having jurisdiction.

RTS151 CONTENTS

1 RTS151KEY(A) remote test station

1 screw pack (2 mounting screws)

2 Keys

OPERATION

Test Function

Insert the key and turn clockwise to the "TEST" position.

Alarm Indication

With the key in the "TEST" position, some time will elapse (40 seconds maximum) depending on the detector type, before the alarm indicating LED will turn red.

Reset Function

Turn the key counterclockwise to the "RESET" position and hold. The LED should turn off. Then, turn the key back to the "NORMAL" position and remove. The RTS151KEY(A) is capable of resetting only certain models of detectors. Refer to the detector installation instructions for additional information.

Wiring Instructions

Consult the appropriate detector installation instructions for the applicable wiring diagram. The RTS151KEY(A) mounts to a single gang box (2 1/2″ minimum depth), or directly to the wall or ceiling.
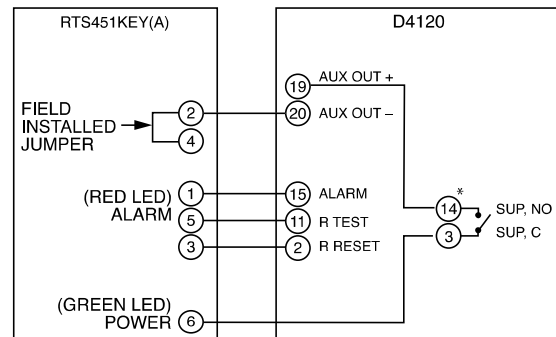
In Canadian applications, the RTS151KEY(A) is intended to be located in the same room as the smoke detector and within 60 feet of the unit.
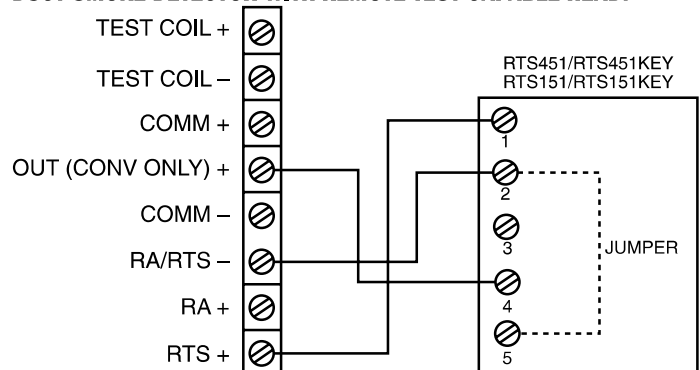
FIGURE 1. RTS151KEY(A)
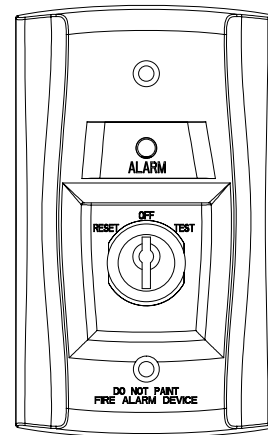
H0195-01

FIGURE 2: WIRING DIAGRAM FOR RTS151KEY(A) TO D4120 4-WIRE DUCT SMOKE DETECTOR:

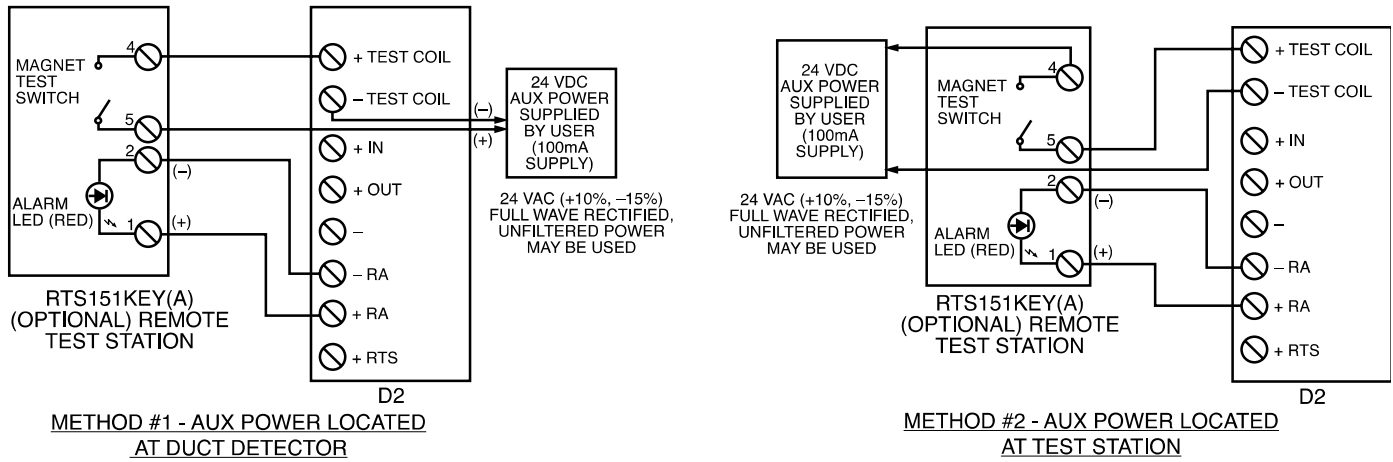* Sup. contacts cannot be used if they are wired to control panel.

H0582-21

FIGURE 3: WIRING DIAGRAM FOR RTS151KEY(A) TO DNR 2-WIRE DUCT SMOKE DETECTOR WITH REMOTE TEST CAPABLE HEAD:
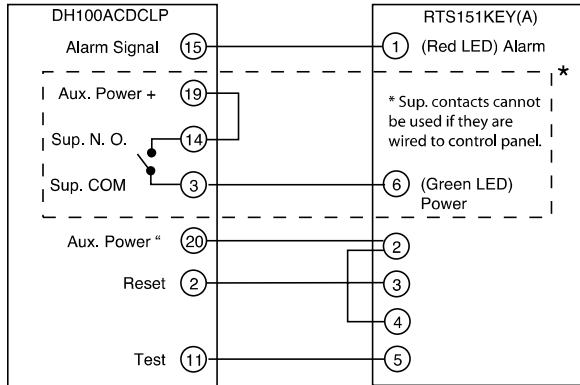

H0633-00

FIGURE 4: WIRING DIAGRAM FOR RTS151KEY(A) TO D2 2-WIRE DUCT SMOKE DETECTOR:

METHOD #1 - AUX POWER LOCATED AT DUCT DETECTOR

METHOD #2 - AUX POWER LOCATED AT TEST STATION

NOTE: THE USE OF THE RTS151KEY(A) REQUIRES THE INSTALLATION OF AN ACCESSORY COIL, DCOIL, SOLD SEPARATELY.

H0612-12

FIGURE 5. WIRING DIAGRAM FOR RTS151KEY(A) TO DH100ACDC 4-WIRE DUCT SMOKE DETECTOR:

H0156-08

FIGURE 6. WIRING DIAGRAM FOR RTS151KEY(A) TO DH100 2-WIRE DUCT SMOKE DETECTOR:

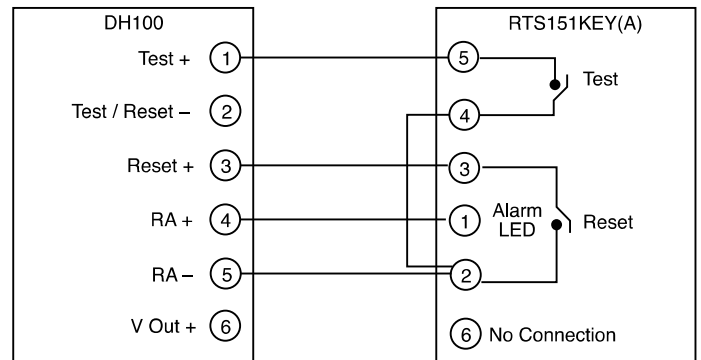NOTE: Terminal 6 of the RTS151KEY(A) is not used when wired to a 2-wire detector.

H0193-05

FIGURE 7. WIRING DIAGRAM FOR RTS151KEY(A) TO DH400ACDC DUCT SMOKE DETECTOR:
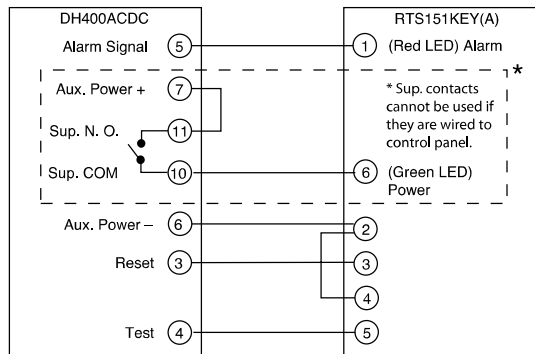
H0156-09

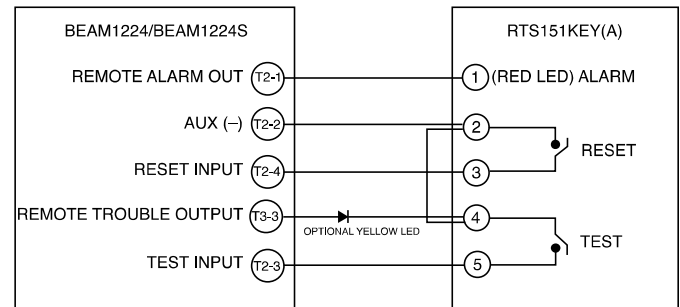**FIGURE 8. WIRING DIAGRAM FOR RTS151KEY(A) TO BEAM1224/ BEAM1224S SMOKE DETECTOR:**

NOTE: RTS151KEY(A) CAN BE USED WITH INTELLIGENT BEAM DETECTOR PRODUCTS. CONSULT INTELLIGENT BEAM DETECTOR MANUAL FOR ADDITIONAL INSTRUCTIONS

H0585-05

POTTER
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UL LISTED

S3247   *Product includes a 5 year warranty*

Features

- Nominal voltage 24 VDC
- Tamperproof field selectable candela options 15, 30, 75, 95, 115, & 150
- Super-Slide® Bracket - Ease of Supervision Testing
- Checkmate® - Instant Voltage Verification
- Synchronize strobe and/or horn with Gentex AVSM Control Module
- Prewire entire system, install mounting bracket, then install signals
- Documented lower installation and operating costs
- Input Terminals 12 to 18 AWG
- Switch Selection for High or Low dBA
- Switch Selection for 2400Hz or mechanical Tone
- Switch Selection for Continuous or Temporal 3
- Tamperproof re-entrant grill
- Surface mount with the CLNGBB (Ceiling Surface Mount Back Box)
- Silence audible while visual appliance will remain flashing (for use in accepted jurisdictions)
- Faceplate available in red or off-white

Operating Temperature:

- 32°F to 120°F (0°C to 49°C). The CS Series is not listed for outdoor use.

Unit Dimensions

- 6" (15.24 cm) x 2.6" (6.604 cm)

Description

The Potter CS/CHS Series is a ceiling mount strobe or horn/strobe combination that offers dependable audible and visual alarms and the lowest current consumption.

The CS/CHS offers tamperproof field selectable candela options of 15, 30, 75, 95, 115 and 150 candela.

The CHS horn offers a continuous or synchable temporal three in 2400Hz and mechanical tone. All tones are easy for the professional to change in the field by using switches. The models are shipped from the factory in the temporal three alarm mode.

The CS Series has a very minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage.

The Ceiling Mount Series comes standard with the 4" mounting plate which incorporates the popular Super-Slide® feature that allows the installer to easily test for supervision. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The CS/CHS also features the patented Checkmate® - Instant Voltage Verification feature which allows the installer to check the voltage drop draw without removing the signal.

The CS Series appliances are ANSI/UL 464 and ANSI/UL 1971 listed for use with fire protective systems.
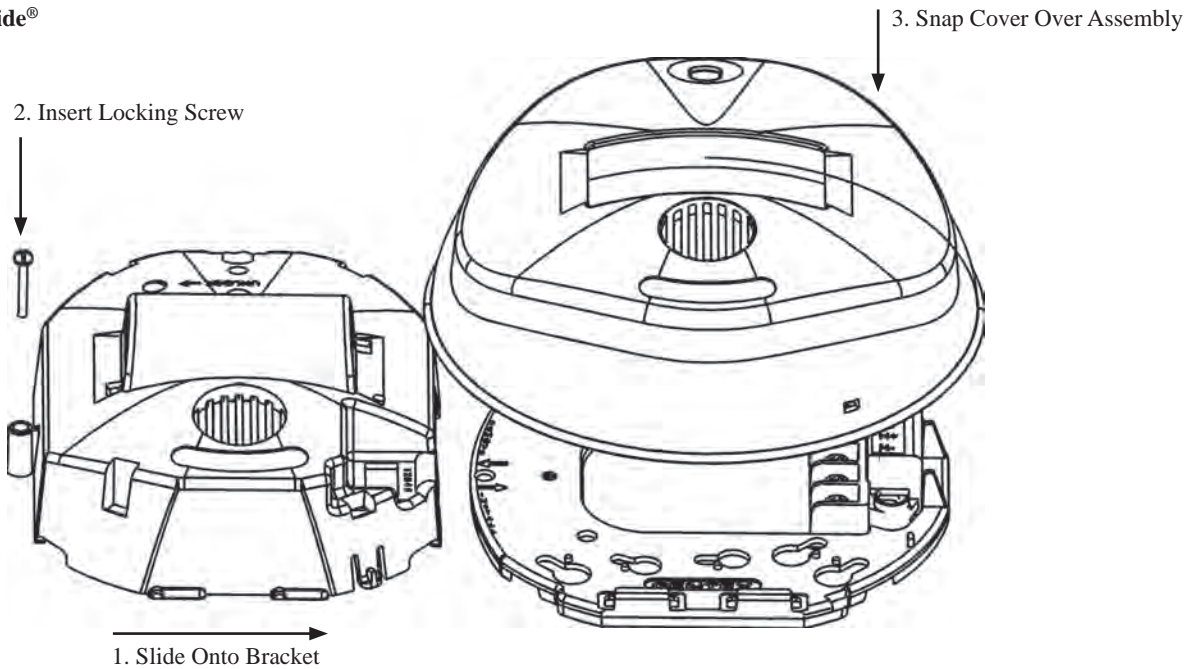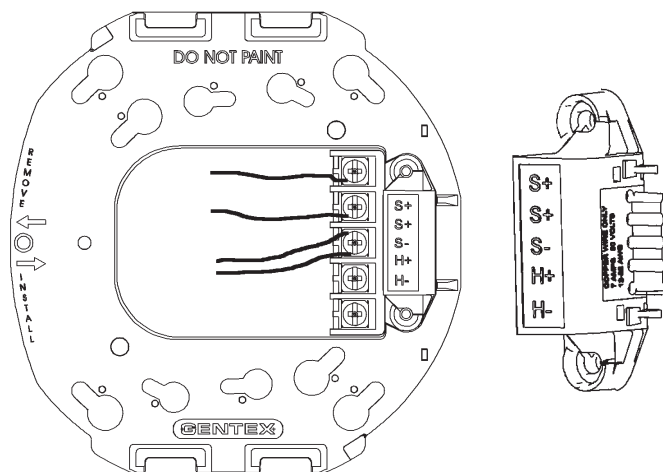
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POTTER
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Mounting Super-Slide®

2. Insert Locking Screw

3. Snap Cover Over Assembly

1. Slide Onto Bracket

Checkmate® Instant Voltage Verification

DO NOT PAINT

REMOVE / INSTALL

S+
S+
S-
H+
H-

GENTEX

Switch Locations

1 2 3 4 5

LOCK
UNLOCK

15

The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically this would be done at the end of the line to confirm design criteria. Most measurements will be taken using the S+ and S- locations although access is provided to other locations. NOTICE: CARE SHOULD BE TAKEN TO NOT SHORT THE TEST PROBES.
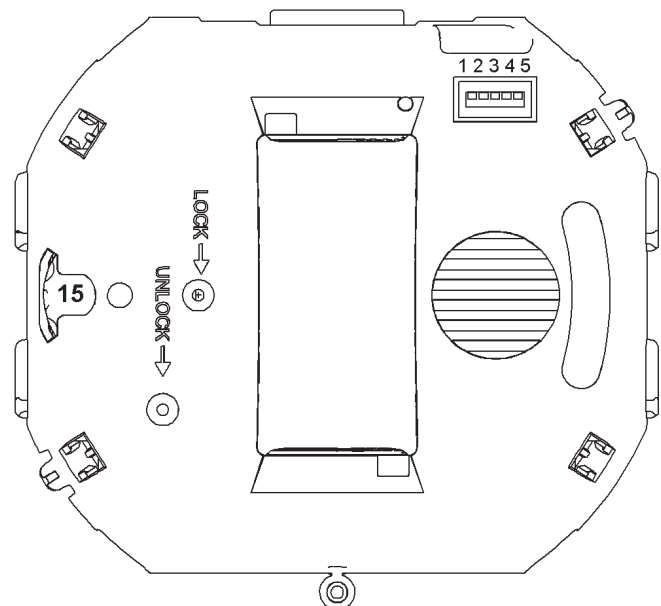
Switch positions 1 and 2 in the down position to select isolated horn and strobe power inputs. Switch 3 selects between temporal or non-temporal tone. Up is temporal. Switch 4 selects between mechanical or high frequency tone. Up is mechanical. Switch 5 selects between high or low dBA. Up is high dBA.

CS Series 24 Volt Ceiling Mount Selectable Strobe

Model Number	Part Number	Nominal Voltage	Candela
CS-24R	4890020	24 VDC	15, 30, 75, 95, 115, 150
CS-24W	4890021	24 VDC	15, 30, 75, 95, 115, 150
CS-24PR	4890022	24 VDC	15, 30, 75, 95, 115, 150
CS-24PW	4890023	24 VDC	15, 30, 75, 95, 115, 150

CHS Series 24 Volt Ceiling Mount Selectable Horn/Strobe

Model Number	Part Number	Nominal Voltage	Candela	Reverberant dBA @ 10 ft. per ANSI/UL 464	In Anechoic Room dBA @ 10 ft.
CHS-24R	4890040	24 VDC	15, 30, 75, 95, 115, 150	81-86	90
CHS-24W	4890041	24 VDC	15, 30, 75, 95, 115, 150	81-86	90
CHS-24PR	4890042	24 VDC	15, 30, 75, 95, 115, 150	81-86	90
CHS-24PW	4890043	24 VDC	15, 30, 75, 95, 115, 150	81-86	90

Model Designations:

C = Ceiling Mount S = Strobe   HS = Horn/Strobe
R = Red Faceplate W = White Faceplate

All units are available in plain (no lettering).
Plain units are non-returnable.

CS24 Product Strobe Current Ratings (mA)

	Candela	15 cd	30 cd	75 cd	95 cd	115 cd	150 cd
24 VDC	24 VDC	72 mA	101 mA	167 mA	200 mA	214 mA	286 mA
(16-33 Volts)	UL Max[1]	120 mA	120 mA	200 mA	220 mA	290 mA	321 mA

CHS24 Product Horn Decibel and Current Ratings (mA)

Horn Mode	Minimum dBA @ 10 ft. per ANSI/UL 464 (HIGH)	Minimum dBA @ 10 ft. per ANSI/UL 464 (LOW)	Regulated 24 VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	83	75	23
Temp 3 Mechanical	81	73*	22
Continuous 2400Hz	86	78	23
Continuous Mechanical	84	76	22

NOTES:
- The sound output for the temporal 3 tone is rated lower since the time the horn is off is averaged into the sound output rating. While the horn is producing a tone in the temporal 3 mode its sound pressure is the same as the continuous mode.
- For nominal and peak current across UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual.
- Potter does not recommend using a coded or pulsing signaling circuit with any of our strobe products.
- Operating the horn in this mode at this voltage will result in not meeting the minimum ANSI/UL 464 reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).
- RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33VDC for 24VDC units). For strobes the UL max current is usually at the minimum listed voltage (16VDC for 24VDC units). For audibles the max current is usually at the maximum listed voltage. For unfiltered FWR ratings, see installation manual.

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Architect & Engineering Specifications

The visible and audible/visible signal shall be Gentex model GCS or GCC or approved equal and shall be listed by Underwriters Laboratories Inc. per ANSI/UL 1971 for the GCS and ANSI/UL 464 for the GCC. The notification appliance shall also be listed with the California State Fire Marshal (CSFM).

The notification appliance (combination audible/visible units and audible units only) shall produce a peak sound output of 90dBA or greater as measured at 24VDC in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of power wires. Additionally, the user shall be able to select either continuous or temporal tone output with the temporal signal having the ability to be synchronized.

The audible/visible and visible signaling appliance shall also maintain a minimum flash rate of 1Hz or up to 2Hz regardless of power input voltage. The appliance shall have an operating current of 72mA or less at 24VDC for the 15 candela strobe circuit.

The appliance shall be polarized to allow for electrical supervision of the system wiring. The unit shall be provided with a mounting bracket with terminals with barriers for input/output wiring and be able to mount to a single gang or double gang box or double workbox with the use of an adapter plate. The unit shall have an input voltage range of 16-33 volts with either direct current or full wave rectified power.

The appliance shall be capable of test supervision without disconnecting wires, verify voltage without removing unit and be capable of mounting to a surface back box.

Conventional CS/CHS Series Wiring Diagrams
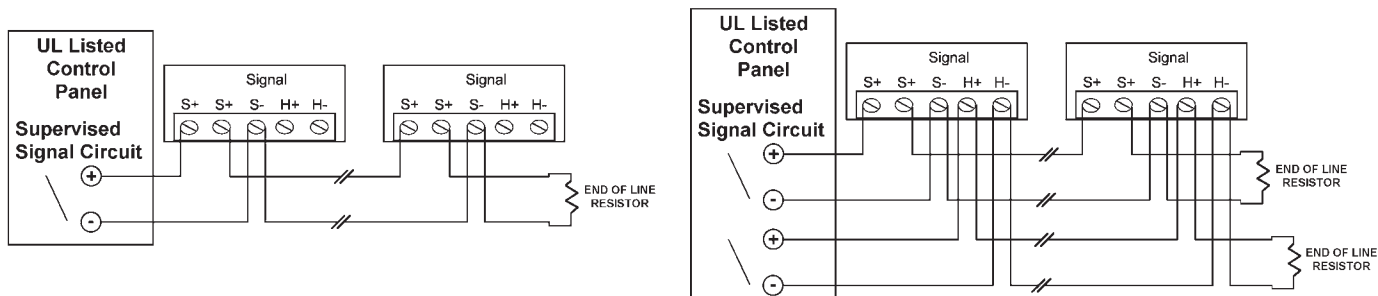
NOTES:
- All strobes are designed to flash as specified with continuous applied voltage. Strobes should not be used on coded or pulsing signaling circuits. However, use of the Gentex AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn and/or mute the horn.
- **FOR SYNCHRONIZATION WIRING INFORMATION, REFERENCE AVSM CONTROL MODULE DATA SHEET (8830050) AND/OR AVSM CONTROL MODULE MANUAL FOR SYNCHRONIZATION MODULE WIRING DIAGRAMS. AVSM CONTROL MODULE DATA SHEET AND MANUAL CAN BE OBTAINED AT http://www.pottersignal.com OR CALL POTTER ELECTRIC AT 1-800-325-3936.**

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Features

- Fixed 75cd strobe
- Includes the WPBB surface-mount (standard) or WPLPBB Low Profile (LP) enclosure
- WPBB/LP made of clear Lexan® - provides maximum visibility and reliability, allowing full 75cd output
- Super-Slide® Bracket – Ease of supervision testing
- Checkmate® - Instant voltage verification
- Synchronize strobe and/or horn with AVSM module
- Switch selection for high/low dBA
- Switch for chime, whoop, mechanical, and 2400Hz tone
- Input terminals accept 18 to 12 AWG
- Switch for continuous or temporal 3 tone (not available on whoop)
- Tamperproof re-entrant grill
- 5 year warranty

LP Version   Standard

SIGNALING
UL LISTED
S3247

Application

The S/HS-WP Series Outdoor Signals are wall mount, low profile strobes and horn/strobes that offer dependable audible and visual alarms for warning and emergency notification in outdoor locations.

Description

The S/HS-WP Series Outdoor Signals are 24VDC strobes and horn/strobes equipped with a fixed 75 candela strobe.

This series of outdoor signals are available in two different versions. The standard version includes a surface-mount back box (WPBB) to install directly on a wall. The Low Profile (LP) versions includes a low profile back box (WPLPBB) designed to be installed on a flush-mounted electrical box. The weatherproof enclosure is made of clear Lexan® which provides maximum visibility and reliability for effective visible signaling, allowing full 75cd output.

The S/HS-WP series strobe has a minimal operating current and a minimum flash rate of 1Hz regardless of input voltage. The strobe is synchronized using Gentex sync. protocol or the AVSM Sync. Module.

The S/HS-WP Series is equipped with a universal 4" mounting bracket which incorporates the popular Super-Slide® feature that allows the installer to easily pre-wire the system and test for supervision. The product also features a locking mechanism that secures the signal to the bracket without showing any screws and the Checkmate® - Instant Voltage Verification Feature which allows the installer to check the voltage drop, current draw, and match against the blue print.

Product Listings

- ANSI/UL 464 and 1638
- Complies with American with Disabilities Act (ADA)
- Complies with IBC / IFC / IRC

Technical Specifications

Operating Voltage	Nominal 24VDC (16-33VDC)
Operating Temperature	-31°F - 150°F (-35° - 66°C)
Dimensions	LP Version - 5.75" H x 4.75" W x 3.25" D Standard - 5.75" H x 4.75" W x 4.18"D
Wiring Connections	Terminals accept 18 - 12 AWG
Mounting	LP Version – Single gang, double gang, or 4" square back box Standard Version - Surface mount back box included
Shipping Weight	2.05 lbs.

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S-24-WP, 75 Candela, Outdoor Strobe Includes Standard or LP Enclosure			
Model Number	Stock Number	Body Color	WP Enclosure
S-24WR-WP	4890050	Red	Standard
S-24WW-WP	4890051	Off-White	Standard
S-24PWR-WP	4890052	Red-Plain	Standard
S-24PWW-WP	4890053	Off-White-Plain	Standard
SLP-24WR-WP	4890054	Red	Low Profile
SLP-24WW-WP	4890055	Off-White	Low Profile
SLP-24PWR-WP	4890056	Red-Plain	Low Profile
SLP-24PWW-WP	4890057	Off-White-Plain	Low Profile

Model Designations

"W" = Wall Mount

"R" = Red Face Plate

"W"=Off - White Face Plate

"P"= Plain (Note: Plain units are non-returnable)

"LP"= Low Profile (WPLPBB Enclosure)

Strobe Current Ratings	
Candela	75 cd
24 VDC	112 mA
UL Max	170 mA

NOTE: For unfiltered FWR ratings, see installation manual.

HS-24-WP Series, 75 Candela, Outdoor Horn /Strobe Includes Standard or LP Enclosure					
Model Number	Stock Number	Body Color	Reverberant dBA at 10', per ANSI/UL 464	In Anechoic Room dBA at 10'	WP Enclosure
HS-24WR-WP	4890060	Red	70-82	100	Standard
HS-24WW-WP	4890061	Off-White	70-82	100	Standard
HS-24PWR-WP	4890062	Red-Plain	70-82	100	Standard
HS-24PWW-WP	4890063	Off-White-Plain	70-82	100	Standard
HSLP-24WR	4890064	Red	70-82	100	Low Profile
HSLP-24WW	4890065	Off-White	70-82	100	Low Profile
HSLP-24PWR	4890066	Red-Plain	70-82	100	Low Profile
HSLP-24PWW	4890067	Off-White-Plain	70-82	100	Low Profile

Horn Decibel and Current Ratings			
Horn Setting	Minimum dBA at 10', Per UL 464 (HIGH)	Minimum dBA at 10', Per UL 464 (LOW)	Regulated 24VDC Max. Operating Current, at High Setting (mA)
Temporal 3 2400Hz	78	71*	28
Temporal 3 Mechanical	76	70*	25
Temporal 3 Chime	70*	66*	15
Continuous 2400Hz	81	74*	28
Continuous Mechanical	80	72*	25
Continuous Chime	70*	66*	15
Whoop	82	69*	56

*Operating the horn in this mode at this voltage will result in not meeting the minimum ANSI/UL 464 reverberant sound level required for public mode fire protection service. These settings are acceptable only for private mode fire alarm use. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is always private mode).

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Tone Switch Locations

Tone	Switch Position		
	3	4	5
Mechanical Temporal 3	ON	ON	ON
Mechanical - Continuous	OFF	ON	ON
2400Hz - Temporal 3	ON	OFF	ON
2400Hz - Continuous	OFF	OFF	ON
Chime - Temporal 3	ON	ON	OFF
Chime - Continuous	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

NOTES:

- Switch Positions 1 and 2 in the OFF position to select isolated horn and strobe power inputs

- Switch Position 6 ON = HIGH dBA

- Switch Position 6 OFF = LOW dBA

Super Slide® Mounting Bracket

Allows the installer to pre-wire the system, test for system supervision, remove the signal head until occupancy, switch out signals without changing mounting brackets and has locking edge connector for snap-in-place installation.
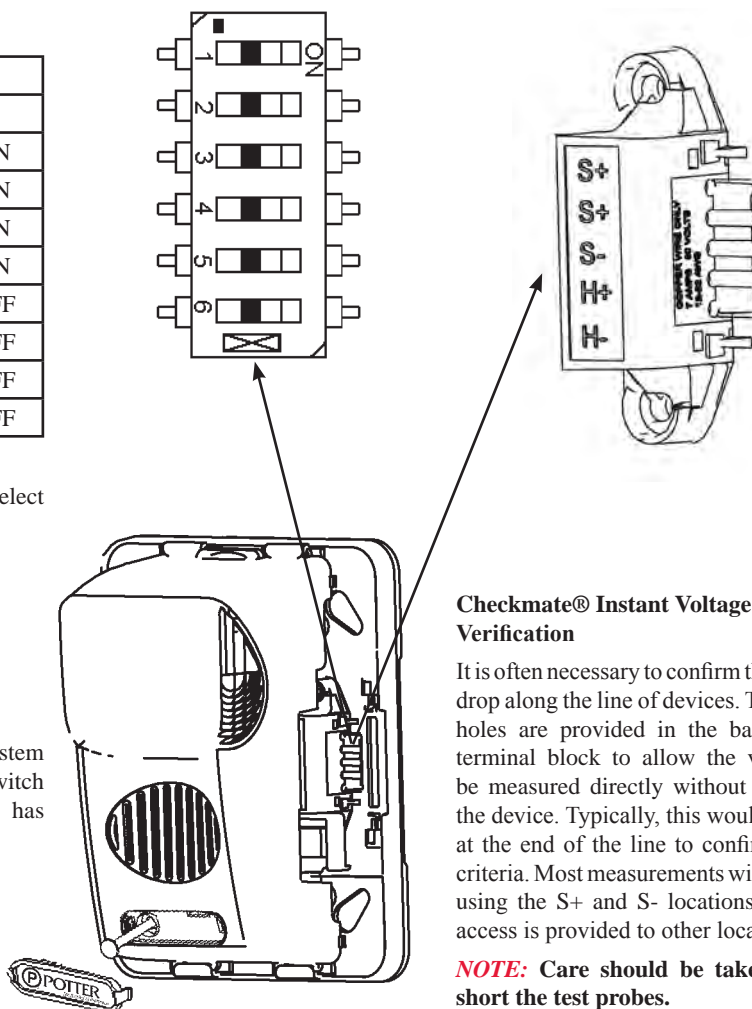
Checkmate® Instant Voltage Verification

It is often necessary to confirm the voltage drop along the line of devices. The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically, this would be done at the end of the line to confirm design criteria. Most measurements will be taken using the S+ and S- locations although access is provided to other locations.

NOTE: **Care should be taken to not short the test probes.**

Mounting Outdoor Enclosure

Super Slide® Mounting Plate:

Mounts to WPBB Outdoor Enclosure
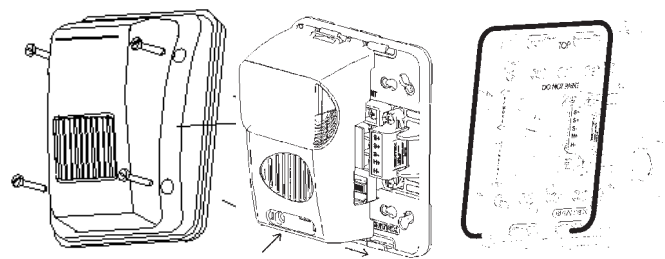
Super Slide® Mounting Plate:

Mounts to WLPBB Outdoor Enclosure

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Wiring Diagrams

NOTES:

• All strobes are designed to flash as specified with continuous applied voltage. Strobes should not be used on coded or pulsing signaling circuits. However, use of the AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn and/or mute the horn.

• **FOR SYNCHRONIZATION WIRING INFORMATION, REFERENCE AVSM CONTROL MODULE DATA SHEET (8830050) AND/OR AVSM CONTROL MODULE MANUAL FOR SYNCHRONIZATION MODULE WIRING DIAGRAMS. AVSM CONTROL MODULE DATA SHEET AND MANUAL CAN BE OBTAINED AT http://pottersignal.com OR CALL POTTER ELECTRIC AT 1-800-325-3936.**

Architect and Engineering Specifications
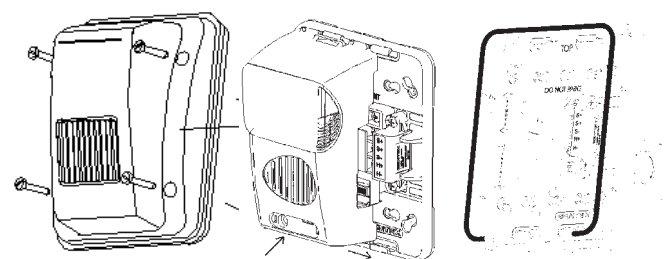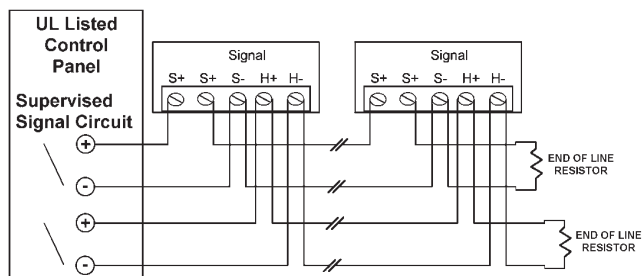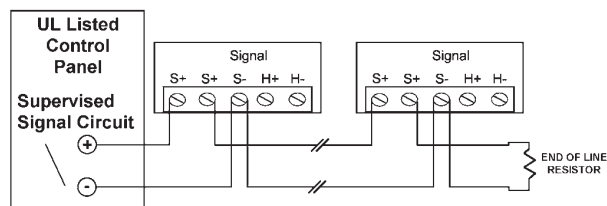
The audible and/or visible signal shall be Potter S/HS-WP Outdoor Series or approved equal and shall be listed by Underwriters Laboratories Inc. per ANSI/UL 1638 and/or ANSI/UL 464.

The notification appliance (combination audible/visible) shall produce a peak sound output of 100dBA or greater at as measured in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of power wires. Additionally, the user shall be able to select either continuous or temporal tone output with the temporal signal having the ability to be synchronized.

The audible/visible and visible signaling appliance shall also maintain a minimum flash rate of 1Hz or up to 2 Hz regardless of power input voltage. The appliance shall have an operating current of 112mA or less for the 75Cd strobe circuit. The appliance shall also be capable of meeting the candela requirements of the ADA (75cd).

The appliance shall be polarized to allow for electrical supervision of the system wiring. The unit shall be provided with a mounting bracket with terminals with barriers for input/output wiring and be able to mount to a single gang or double gang box or double workbox without the use of an adapter plate. The unit shall have an input voltage range of 16-33 volts with either direct current of full wave rectified power for 24 volt models.

The appliance shall be capable of testing supervision without disconnecting wires. Also the appliance shall be capable of mounting to a surface back box. The unit shall also be able to verify voltage at the unit without removing unit.

The appliance has extended temperature range of -31° to 150°F (-35° to 66° C). The appliance shall satisfy virtually all outdoor and severe environment applications. The WPBB enclosure includes a gasket that must be inserted between the box and mounting bracket. There are drain holes in the back box to allow for drainage, the seal on the WPBB enclosure is not water tight. The WPLPBB enclosure includes a weather seal for mounting to wall and intended for use with universal electrical box. To allow for drainage, bottom edge of enclosure is not water tight.

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ISO 9001:2008 CERTIFIED | DESIGNING, MANUFACTURING, & DISTRIBUTING QUALITY SYSTEMS

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Features

- Absorbent Glass Mat (AGM) technology for superior performance

- Valve regulated, spill proof construction allows safe operation in any position

- Power/volume ratio yielding unrivaled energy density

- Rugged impact resistant ABS case and cover (UL94-HB)

- Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified

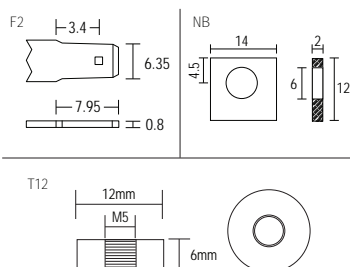- U.L. recognized under file number MH 20845
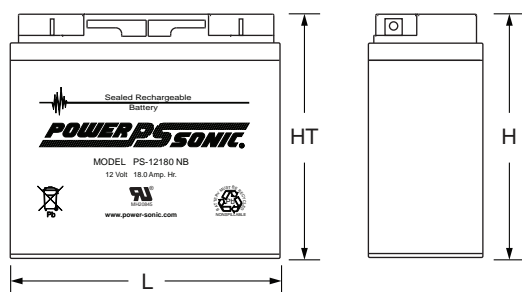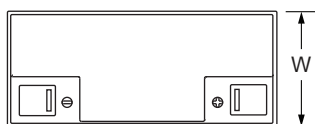
Terminals   (mm)

- F2 - Quick disconnect tabs, 0.250" x 0.032" - Mate with AMP. INC FASTON "250" series
- NB2: Tin plated brass post with nut & bolt connectors
- T12 - Threaded insert with 5mm stud

Physical Dimensions: in (mm)

| **L:** 7.13 (181) | **W:** 3.00 (76) | **H:** 6.59 (167) | **HT:** 6.59 (167) |

Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

Performance Specifications

Nominal Voltage.. 12 volts (6 cells)

Nominal Capacity

20-hr.	(900mA to 10.50 volts)	18.0 AH
10-hr.	(1.7A to 10.50 volts)	17.0 AH
5-hr.	(3.2A to 10.20 volts)	16.0 AH
1-hr.	(11.1A to 9.00 volts)	11.1 AH
15-min.	(34.3A to 9.00 volts)...	8.58 AH

Approximate Weight .... 12.60 lbs. (5.72 kg)

Energy Density (20-hr. rate) .... 1.53 W-h/in3 (93.51 W-h/l)

Specific Energy (20-hr. rate) .... 17.14 W-h/lb (37.79 W-h/kg)

Internal Resistance (approx.) .... 14 milliohms

Max Discharge Current (7 Min.) .... 54.0 amperes

Max Short-Duration Discharge Current (10 Sec.)................ 180.0 amperes

Shelf Life (% of nominal capacity at 68°F (20°C))

1 Month	97%
3 Months...	91%
6 Months	83%

Operating Temperature Range

Charge.. .... -4°F (-20°C) to 122°F (50°C)
Discharge..-40°F (-40°C) to 140°F (60°C)

Case .... ABS Plastic

Power-Sonic Chargers PSC-122000A, 124000A, 122000A-C, 124000A-C

To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website. All data subject to change without notice.

www.power-sonic.com

Shelf Life & Storage

Charging is not necessary unless 100% of capacity is required.

Charging before use is necessary to help recover full capacity.

Charge may fail to restore full capacity. Do not let batteries reach this state.

Discharge Time vs. Discharge Current

Discharge Characteristics

Life Characteristics in Stand-By Use

Life Characteristics in Cyclic Use

1. Discharge Current 0.2C (Final Voltage 1.7V/Cell)
2. Charge Current: 0.1C
3. Ambient Temperature: 20°C to 25°C (68°F to 77°F)
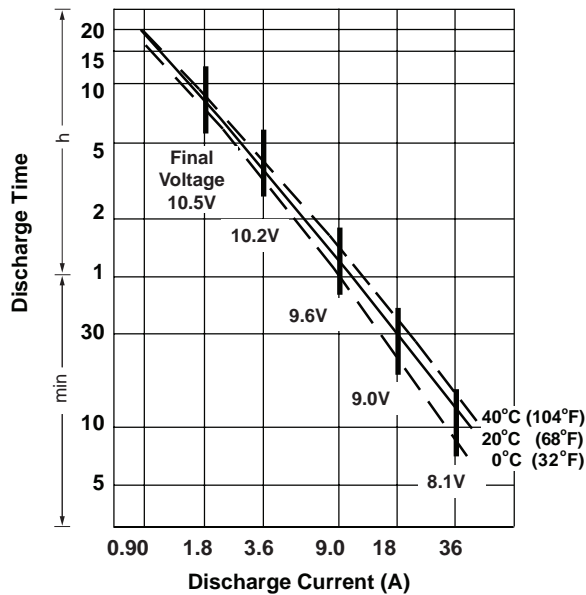
Charging

Cycle Applications: Limit initial current to 5.4A. Charge until battery voltage (under charge) reaches 14.4 to 14.7 volts at 68°F (20°C). Hold at 14.4 to 14.7 volts until current drops to under 180mA. Battery is fully charged under these conditions, and charger should be disconnected or switched to "float" voltage.

"Float" or "Stand-By" Service: Hold battery across constant voltage source of 13.5 to 13.8 volts continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

Note: Due to the self-discharge characteristics of this type of battery, it is imperative that they be charged within 6 months of storage, otherwise permanent loss of capacity might occur as a result of sulfation.

Chargers

Power-Sonic offers a wide range of chargers suitable for batteries up to 100AH. Please refer to the Charger Selection Guide in our specification sheets for "C-Series Switch Mode Chargers" and "Transformer Type A and F Series". Please contact our Technical department for advice if you have difficulty in locating suitable models.

Further Information

Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc..
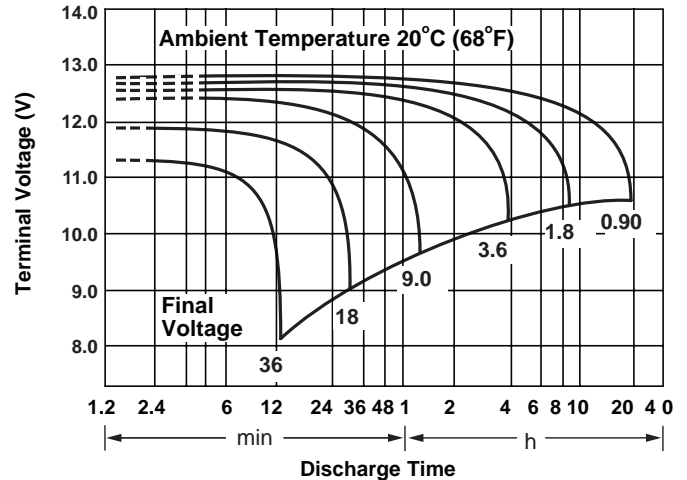
PART NUMBER 762386

UL Listed and Rated Type FPLP Multi-Conductor Non-Shielded Plenum Fire Alarm

0275/0725 FT ● FIRE/LIFE SAFETY CONTROL CABLE INIT/IND DEVICE/ZONE ABCDE0123456789

SMARTWIRE
GLIDE
TECHNOLOGY

CABLE SPECIFICATIONS

DESCRIPTION	18 AWG 4 Conductor Bare Copper, Non-Shielded Plenum Fire Alarm, FPLP (UL)
CONDUCTOR	18 (Solid Bare Copper)
INSULATION	Low-Smoke PVC .010"
COLOR CODE	Black/Red/Brown/Blue
SHIELD	N/A
DRAIN WIRE	N/A
JACKET	Low-Smoke PVC .018"
JACKET COLOR	Red Jacket with Green Stripe
MARKING	FIRE/LIFE SAFETY CONTROL CABLE INIT. / IND. DEVICE / ZONE A B C D E 0 1 2 3 4 5 6 7 8 9 18 AWG FPLP (UL) ROHS MADE IN THE USA
OVERALL DIAMETER	.184" Nom.
CABLE WEIGHT	35 Lbs/Mft.
CAPACITANCE	22 pF/Ft. Nom.
IMPEDANCE	86 Ohms
TEMPERATURE RATING	0 C to 75 C / 300 Volt

INDUSTRY STANDARDS

FLAME RATING	Approved For Plenum Use Without Conduit Per NFPA 262 Flame Test
AGENCY APPROVALS	NEC Article 760; FPLP (UL), RoHS Compliant, Made in the USA

All specifications referenced are nominal measurements unless otherwise noted.

0275/0725 FT ● FIRE/LIFE SAFETY CONTROL CABLE INIT/IND DEVICE/ZONE ABCDE0123456789

SMARTWIRE GLIDE TECHNOLOGY

CABLE SPECIFICATIONS

DESCRIPTION	16 AWG 2 Conductor Bare Copper, Twisted, Non-Shielded Plenum Fire Alarm, FPLP (UL)
CONDUCTOR	16 (Solid Bare Copper)
INSULATION	Low-Smoke PVC .010"
COLOR CODE	Black/Red
LAY LENGTH	3.5" LHL (approx. 3.4 TPF)
SHIELD	N/A
DRAIN WIRE	N/A
JACKET	Low-Smoke PVC .018"
JACKET COLOR	Red Jacket with White Stripe
MARKING	FIRE/LIFE SAFETY CONTROL CABLE INIT. / IND. DEVICE / ZONE A B C D E 0 1 2 3 4 5 6 7 8 9 16 AWG FPLP (UL) ROHS MADE IN THE USA
OVERALL DIAMETER	.178" Nom
CABLE WEIGHT	26 Lbs/Mft.
CAPACITANCE	26 pF/Ft. Nom.
IMPEDANCE	72 Ohms
DC RESISTANCE	4.10 Ohms/Mft @ 20 deg. C
TEMPERATURE RATING	0 C to 75 C / 300 Volt

INDUSTRY STANDARDS

FLAME RATING	Approved For Plenum Use Without Conduit Per NFPA 262 Flame Test
AGENCY APPROVALS	NEC Article 760; FPLP (UL), RoHS Compliant, Made in the USA

■0275/0725 FT ● FIRE/LIFE SAFETY CONTROL CABLE INIT/IND DEVICE/ZONE ABCDE0123456789

SMARTWIRE GLIDE TECHNOLOGY

CABLE SPECIFICATIONS

DESCRIPTION	14 AWG 2 Conductor Bare Copper, Twisted, Non-Shielded Plenum Fire Alarm, FPLP (UL)
CONDUCTOR	14 (Solid Bare Copper)
INSULATION	Low-Smoke PVC .010"
COLOR CODE	Black/Red
LAY LENGTH	3.75" LHL (3.2 TPF)
SHIELD	N/A
DRAIN WIRE	N/A
JACKET	Low-Smoke PVC .018"
JACKET COLOR	Red Jacket with Blue Stripe
MARKING	FIRE/LIFE SAFETY CONTROL CABLE INIT. / IND. DEVICE / ZONE A B C D E 0 1 2 3 4 5 6 7 8 9 14 AWG FPLP (UL) ROHS MADE IN THE USA
OVERALL DIAMETER	.206" Nom
CABLE WEIGHT	36 Lbs/Mft.
CAPACITANCE	26 pF/Ft. Nom.
IMPEDANCE	72 Ohms
DC RESISTANCE	2.57 Ohms/Mft @ 20 deg. C
TEMPERATURE RATING	0 C to 75 C / 300 Volt

INDUSTRY STANDARDS

FLAME RATING	Approved For Plenum Use Without Conduit Per NFPA 262 Flame Test
AGENCY APPROVALS	NEC Article 760; FPLP (UL), RoHS Compliant, Made in the USA

All specifications referenced are nominal measurements unless otherwise noted.

AceBOX
BY SPACE AGE ELECTRONICS

FAD/SRD ACE-11
Document Boxes

Store important system documents in a secure location with a cabinet built specifically to meet the requirements of NFPA72 7.7.2.1, NFPA72 7.7.2.3, NFPA72 7.7.2.5, and NFPA72 23.2.2.1.

Select models include our innovative 8GB flash drive slide tab that allows the user to select a USB-C or Micro USB connector to access records electronically per NFPA72 7.5.6.7.1 and NFPA72 7.5.6.7.2.

SPECIFICATIONS

The FAD and SRD Documents Box shall be UL Listed, constructed of 18 gauge cold rolled steel. It shall have a powder coat finish. The cover shall be permanently screened with 1" high lettering "FIRE ALARM DOCUMENTS" or "SYSTEM RECORD DOCUMENTS" with white indelible ink. The access door shall be locked with a 3/4" barrel lock and there will be a liftaway hinge. Models with digital storage will have a minimum of 8 gigabyte digital flash memory drive with a slide tab that allows user to select USB-C or Micro USB connector for uploading and downloading information. The enclosure will supply 4 mounting holes. Inside will accommodate standard 8 1/2" x 11" manuals, three-ring binders, and document records. The enclosure shall also provide 2 key ring holders with a location to mount standard business cards for key contact personnel.
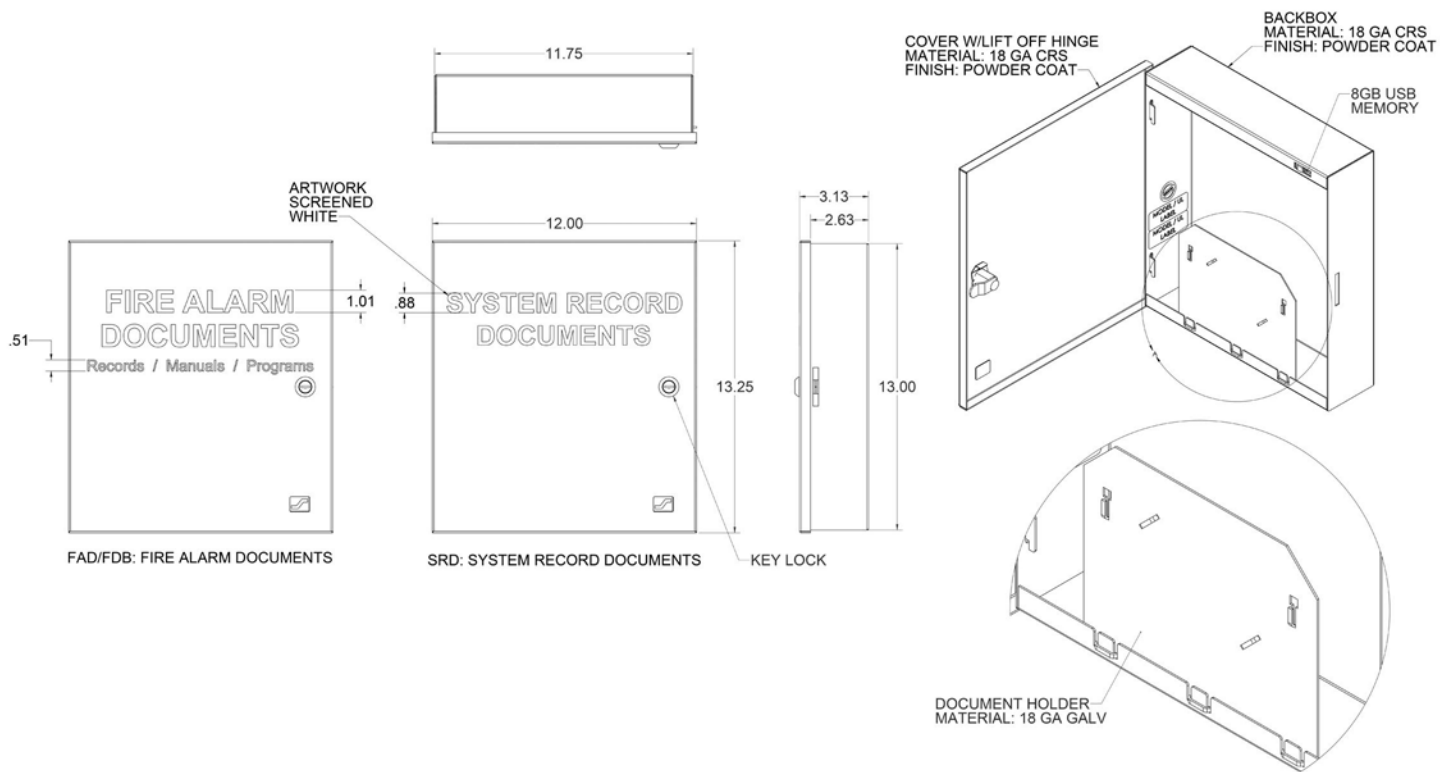
FEATURES

- 18 gauge cold rolled steel construction with red or black powder coat and white lettering

- Dimensions are 12" wide x 13" tall and 3" deep

- Liftaway hinge

- Removable document holder with two key ring hooks and business card bracket

- Slide tab allows user to select USB-C or Micro USB connector to download from 8GB digital flash memory

CUSTOM BRANDING AVAILABLE

AceBOX

DIMENSIONS

11.75

ARTWORK SCREENED WHITE

FIRE ALARM DOCUMENTS
Records / Manuals / Programs

.51

1.01 .88

12.00

SYSTEM RECORD DOCUMENTS

13.25

3.13
2.63

13.00

FAD/FDB: FIRE ALARM DOCUMENTS

SRD: SYSTEM RECORD DOCUMENTS

KEY LOCK

COVER W/LIFT OFF HINGE
MATERIAL: 18 GA CRS
FINISH: POWDER COAT

BACKBOX
MATERIAL: 18 GA CRS
FINISH: POWDER COAT

8GB USB MEMORY

DOCUMENT HOLDER
MATERIAL: 18 GA GALV

ORDERING INFORMATION

P/N#	Cover Text	Color	Custom Screening	USB Storage
SSU00672	Fire Alarm Documents	Red	No	No
SSU00673	Fire Alarm Documents	Red	Yes	No
SSU00685	Fire Alarm Documents	Red	No	Yes
SSU00686	Fire Alarm Documents	Red	Yes	Yes
SSU00689	System Record Documents	Red	No	Yes
SSU00690	System Record Documents	Red	Yes	Yes
SSU01672C	Fire Alarm Documents	Black	Yes	No
SSU01689	System Record Documents	Black	No	Yes
SSU01690	System Record Documents	Black	Yes	Yes

E-CLIPS
BY SPACE AGE ELECTRONICS

E120V-GT
Hybrid Surge Protection Device

An ideal choice for your 120VAC applications, the E120V-GT maintains system integrity and protects against transients introduced into electrical lines via poor atmospheric and utility conditions as well as internally generated inductive loads.

Not only is the E-120V-GT robust enough to absorb a spike, but to also clamp long enough to trip the branch circuit breaker and still be functional for additional surges. Reduce downtime associated with power surges and lightning strikes, prevent interruption of recurring monthly revenue based systems, and eliminate non-billable service calls and expensive repairs by protecting your equipment with this invaluable device.

Features

- 120 VAC
- 10KA Short Circuit Current Rating
- ANSI/UL Listed 1449 4th Edition, Type 2
- CSA C22.2 No. 269.2-17 2nd edition, Type 2
- Acerbox ELOCK Circuit Lockout Kit included per NFPA 72 2013 10.6.5.2
- Surface or conduit mounting
- Diagnostic indicator light
- Self restoring
- 3 Wire device (18" length)

Applications

- Fire alarm control panels
- Mass notification systems
- Dedicated branch circuits
- Amplifiers, motors, pumps, and power boosters

Specifications

All 120 VAC equipment will have Transient Voltage Surge Suppression (TVSS) protection manufactured by Space Age Electronics, Inc., part number E120V-GT. The unit shall be ANSI/UL listed to standard 1449, 4th edition and will be labeled clearly with indelible ink. Can be attached via the ¾" rigid coupling, or surface mounted via the 2 external mounting holes. The unit shall have thermal fuses to protect against fire in short circuit conditions and will have 18" long, 14 gauge wires (3x) with a green ground wire. The enclosure will be a non dielectric material UL94 QMFZ2/8 grade material providing UV protection. The unit shall provide visual indication (LED) that unit is protecting and functioning.

FAMILY OWNED MADE IN USA SINCE 1963

UL LISTED

E-CLIPS

Performance Specifications

Short Circuit Current Rating (SCCR): 10kA
Enclosure Material: UL94 QMFZ2/8 (green)
VPR=700 (L-N) 700 (L-G) 600 (N-G) Capacitance: < 2,000 pf
Clamping Response Time: < 5 nanoseconds
Current: Non-Load Bearing
Max Operating Voltage (MCOV): 140VAC, 50/60 Hz
Design: Thermally Fused Hybrid
Operation Indicators: LED
Max Surge Current: 25kA
Energy Dissipation: 500J
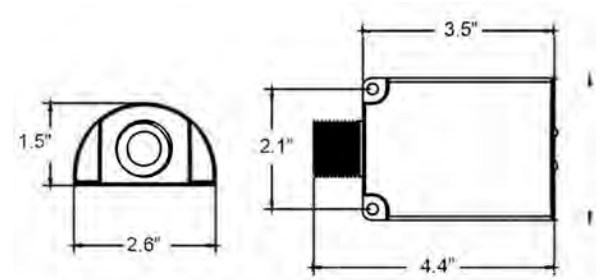**Clamping Voltage:** 230V RMS

Operating Specifications

Service Voltage: 120VAC Single Phase
Circuits Protected: L-N L-G N-G
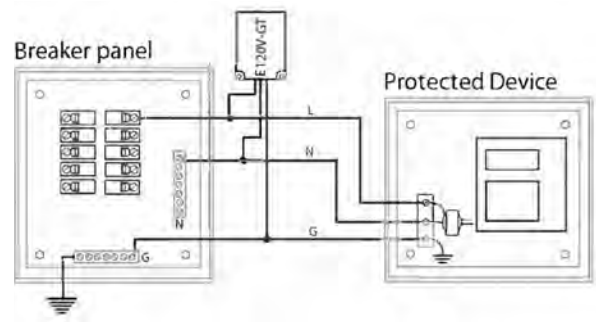**Connection Type:** Hardwired
Installation Configuration: Parallel

Compliance Specifications

UL Listed: 1449 4th Edition - VZCA
File Number: E319370 Vol. 1 Sec. 1

Dimensions

Wiring Diagram

Ordering Information

P/N# E120V-GT
120V Hybrid Surge Protection Device (ELOCK Circuit Lockout Kit included)

P/N# ELOCK-FA
Acerbox ELOCK Circuit Lockout Kit

Voice, Data and Signaling Circuit Modular Surge Protection
General Product Specifications

DITEK's 2MHLP series of signal, data and loop circuit surge protectors provide robust protection in a compact package. Designed for ease of installation, with convenient field-replaceable modules, the **2MHLP** protects two circuit pairs per module. Applications include protection of 4-20mA current loops, alarm panel NAC, SLC and IDC loops, and burglar alarm panels. The DTK-2MHLP is suitable for use on AC and DC circuits.

DTK-2MHLP
Product Features

- Multi-stage, SAD technology, hybrid design provides the best possible protection
- Hard-wire mounting base
- Field replaceable, hot swappable, modular edge card connection design
- Six voltage levels available to protect all types of voice/data applications
- Two pairs protected per module; when used with mounting base (DTK-MB) modules can be ganged to protect up to ten pairs with a common ground
- Ten Year Limited Warranty

Specifications

Agency Approvals: UL497B
Connection Method – Module: Edge card into DTK-MB mounting base
Base: 10AWG max screw terminals
Max Continuous Current: 5 Amps
Max Surge Current: 20kA
Data Rate: 200kbps (5v) to 2Mbps (130V)
Protection Modes: Line-Ground (All)
Operating Temperature: -40°F - 158°F (-40°C - 70°C)
Maximum Humidity: 95% non-condensing
Dimensions
  – **Module**: 1.9"H x 2.1"W x 1.4"D
              (48mm x 53mm x 36mm)
  – **Module with Base**: 2.6"H x 3.25"W x 1.5"D
                (66mm x 83mm x 38mm)
Weight: 1.2 oz (34g) without base;
       2.8 oz(79g) with base
Housing: ABS

Selection Guide
Example: DTK-2MHLP24BWB
DTK-2MHLP____B____

Select Voltage: 5, 12, 24, 36, 48, 75
WB: 2MHLP with Single Mounting Base
DTK-MB10: Hardwire mounting base
DTK-MBV: Horizontal wiring across base
Multiple module mounting bases available separately
(DTK-MB, DTK-2MB, DTK-3MB, DTK-4MB, DTK-5MB)
Example: (3) DTK-2MHLP36B + (1) DTK-3MB

Performance Data

Model DTK-2MHLP	Service Voltage	MCOV	Typical Let Through Voltage
5B	0-5 Volts	5 Volts	6.8 V
12B	12 Volts	18 Volts	21.6 V
24B	24 Volts	33 Volts	39 V
36B	36 Volts	48 Volts	57 V
48B	48 Volts	64 Volts	76 V
75B	75 Volts	90 Volts	108 V

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www.ditekcorp.com
Doc. Number: SPS-100010-001 Rev 12 01/14
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Specification Subject to Change

AceBOX

BY SPACE AGE ELECTRONICS

ELOCK-FA
CIRCUIT LOCKOUT KIT

- Circuit lockout tab
- Hex key
- Breaker, legend, and door labels

NFPA 2016 CODE COMPLIANCE

- 10.6.5.2 Circuit Identification and Accessibility.

- 10.6.5.2.1 The location of the branch circuit disconnecting means shall be permanently identified at the control unit.

- 10.6.5.2.2 System circuit disconnecting means shall be permanently identified as to its purpose in accordance with the following:

  (1) "FIRE ALARM" for fire alarm systems

  (2) "EMERGENCY COMMUNICATIONS" for emergency communications systems

  (3) "FIRE ALARM/ECS" for combination fire alarm and emergency communications systems

- 10.6.5.2.3 For fire alarm and/or signaling systems, the circuit disconnecting means shall have a red marking.

- 10.6.5.2.4 The red marking shall not damage the overcurrent protective devices or obscure the manufacturer's markings.

- 10.6.5.2.5 The circuit disconnecting means shall be accessible only to authorized personnel.

- 10.6.5.3 Mechanical Protection. The branch circuit(s) and connections shall be protected against physical damage.

- 10.6.5.4 Circuit Breaker Lock. Where a circuit breaker is the disconnecting means, a listed breaker locking device shall be installed.