Portland, Maine   Yes. Life's good here.

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Permitting and Inspections
Department
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02/24/2020

Permitting and Inspections Department
Michael A. Russell, MS, Director

Fire Alarm Permit Application

Construction Address: 38 Pleasant Street / 23 Danforth St

Total Square Footage of Proposed Structure: 3,800

Tax Assessor's Chart, Block & Lot			**Applicant Name:** Guardian Systems of Maine
Chart#	Block#	Lot#	
			Address: 320 Presumpscot Street, Portland

Cost of Work: $ 14925

Phone: 536-4800

Email: rich@guardiansystemsmaine.com

Lessee/Owner Name (if different):
Donna Schwartz
Address: Portland
Phone: 207-775-3374
Email: dlshrs@maine.rr.com

Contractor Name (if different):
Same
Address:
Phone:
Email:

Current use (i.e. single family): Mixed

If vacant, what was the previous use?

Proposed specific use: Same

Is property part of a subdivision? If yes, name: NO

Project description: Install fire alarm system

Life Safety Code Occupancy Classification: Business with apartments

Is this new work or a renovation to an existing system? New

Is the top occupiable floor of the building greater than 75 feet above the lowest level of Fire Department access (high-rise)? NO

Name of company providing programming and certification of system*: Guardian Systems of Maine

Electrical permit #: Elec2020-02411

Will a master box be installed? ○ Yes   ● No   If yes, complete all items for approval):

AES approved installing contractor:

Documentation of AES approval:

Property Owner:

Property Owner Billing Address:

Property common name:

E-911 address for protected premises:

Emergency contact phone: Additional emergency contact phone:

Number of stories protected:

Is the building protected by a supervised, automatic sprinkler system?   ○ Yes   ● No

Name of person to contact when the permit is ready: Beth

Address: 322 Presumpscot St

City, State & Zip: Portland, me 04103

Email Address: beth@guardiansystemsMaine.com   **Phone:** 221-3331

*For a list of approved fire alarm companies, see www.portlandmaine.gov/1486/Approved-Fire-Alarm-Companies

Features

- Allows for communication to Monitoring Station
- Communicates using SIA-DCS or Ademco Contact ID Protocols
- For use with IPA, AFC, and ARC series Addressable Panels and PFC-4064 Conventional Panel
- Status LEDs indicate operation of DACT card
- Installs with ease behind main panel LCD display via User Interface bracket
- Device address is set internally to address 1
- Includes two (2) RJ45 phone cords
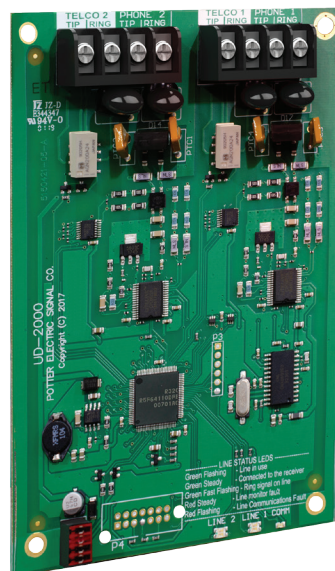
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Permitting and Inspections
Department
Approved Conditions
02/24/2020

FM

UL LISTED

Description

The UD-2000 Digital Alarm Communicator Transmitter (DACT) provides for up to two (2) phone lines for communication to a monitoring station. The UD-2000 communicates using the SIA-DCS or Ademco Contact ID protocols. When enabled, the DACT automatically monitors each phone line or voltage and has the ability to seize the line and connect with a remote receiver. Once the communication is complete, the DACT will hang up.

The DACT is provided with terminal blocks for each phone line and two RJ45 cords. In order for the DACT to work properly, it must be installed on a plain old telephone service (POTS) line or equivalent deemed by the authority having jurisdiction. The DACT must be installed before any other equipment to ensure it can seize the phone line.

Phone lines are high voltage and should be run in a separate conduit from other circuits. The wire conductors connecting the DACT to the phone system should be 26 AWG or larger.

Technical Specifications

Operating Voltage	22.0-24.0V
Standby Current	16mA
Alarm Current	23mA
Max UD-2000s per panel	1
Dimensions	4"W * 6"H * 1-5/8"D
Operating Tempuratures	0°C - 49°C (32°F- 120°F)
Operating Humidity Range	10% - 93% @ 30°C (86°F) (non-condensing)
Mounting Options	In FACP Behind keypad
Shipping Weight	0.47 lbs

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8830146 - REV B • 6/19

PAGE 1 OF 3

RJ31X Phone Jack to UD-2000
Plain Old Telephone (POTS) lines
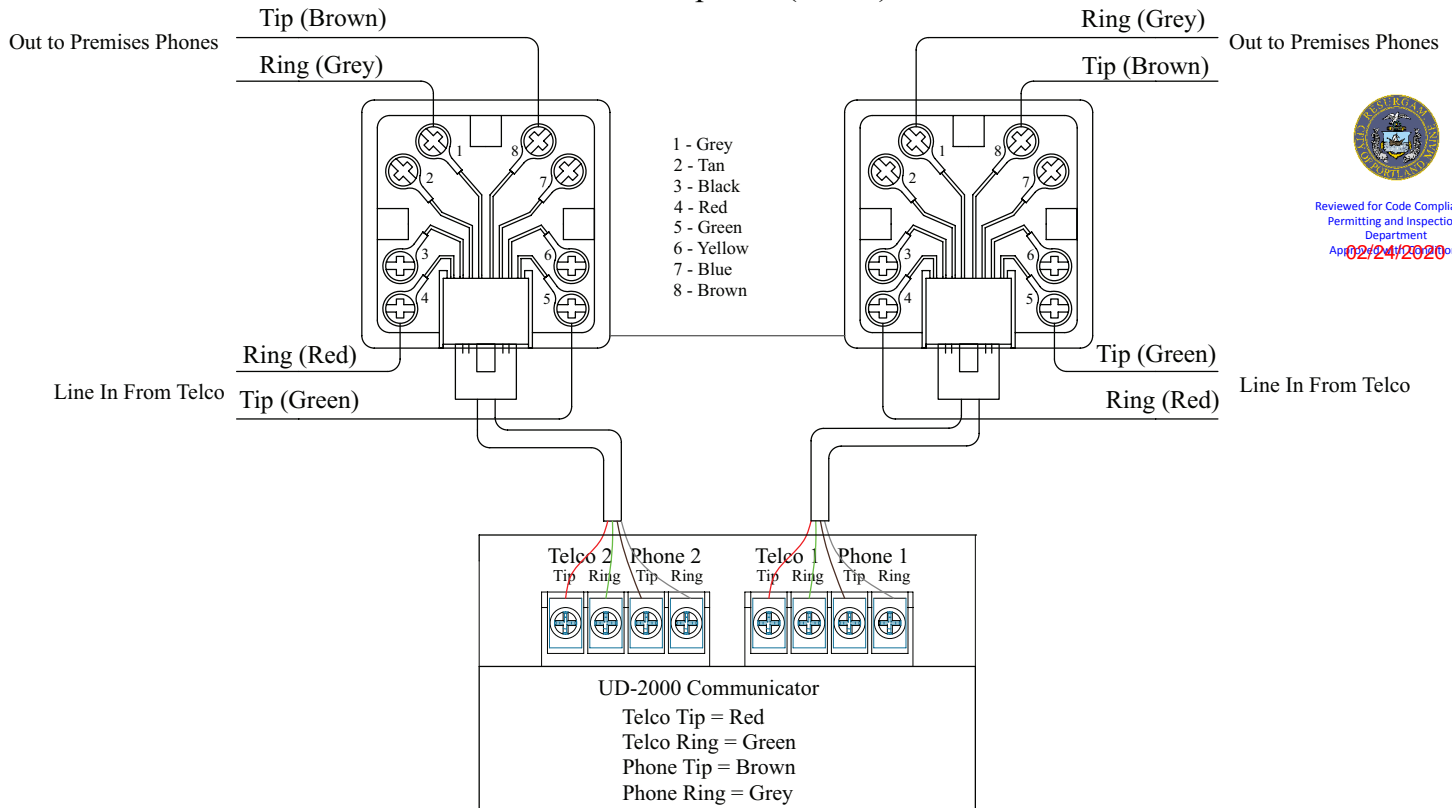
Out to Premises Phones — Tip (Brown)
Ring (Grey)

Ring (Grey) — Out to Premises Phones
Tip (Brown)

1 - Grey
2 - Tan
3 - Black
4 - Red
5 - Green
6 - Yellow
7 - Blue
8 - Brown

Ring (Red)
Line In From Telco — Tip (Green)

Tip (Green)
Ring (Red) — Line In From Telco

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Telco 2   Phone 2   Telco 1   Phone 1
Tip Ring Tip Ring Tip Ring Tip Ring

UD-2000 Communicator
Telco Tip = Red
Telco Ring = Green
Phone Tip = Brown
Phone Ring = Grey

NOTICE
Install in accordance with compatible fire alarm control panel installation manual
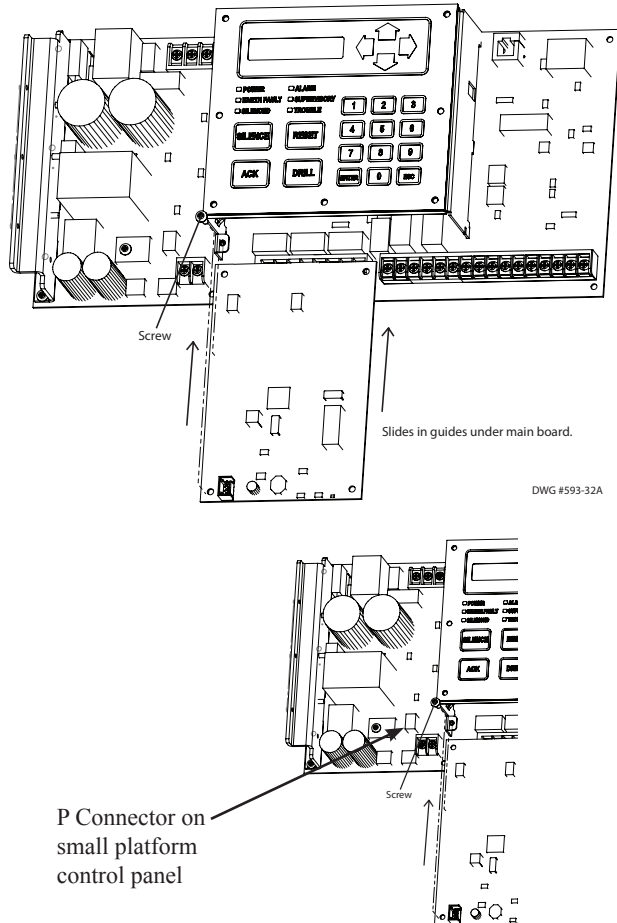
Installation

The UD-2000 DACT is connected to the control panel using the provided four-wire cable connection (P/N 5210514) between P4 and UD-2000 P1. The connection is power limited and supervised.

1. Power system down.
2. Slide the UD-2000 into the card guides located under the User Interface bracket.
3. Secure the UD-2000 to the User Interface bracket using the provided #6-32x3/8" screw
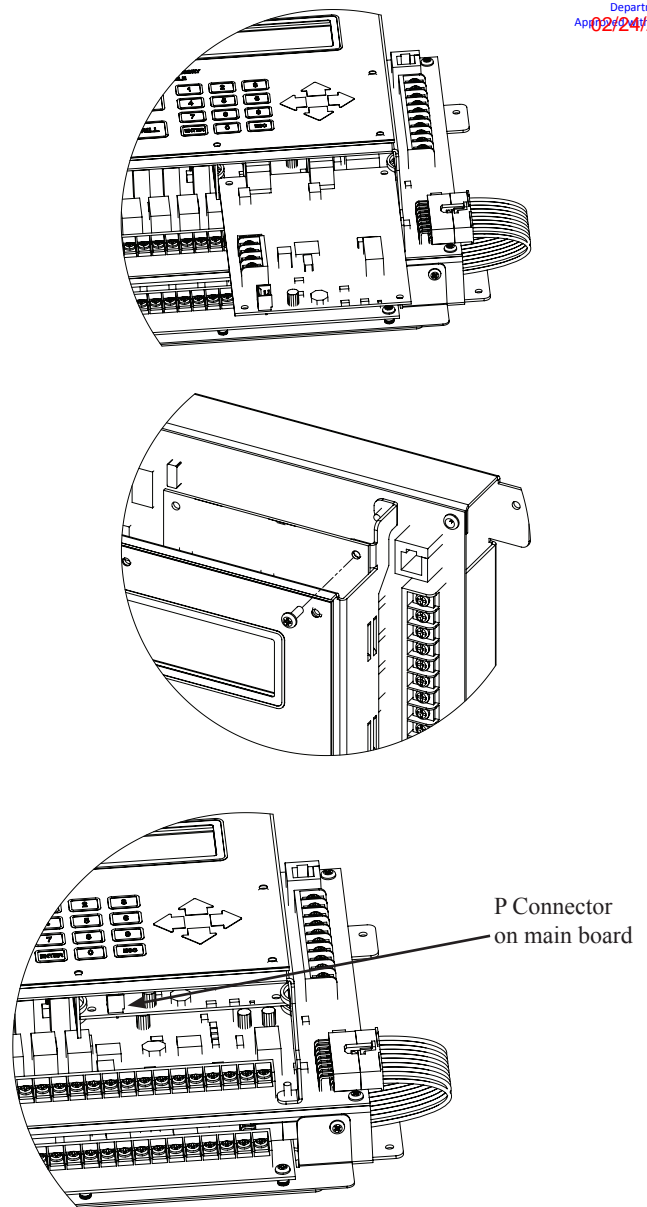4. Install the provided four-wire conductor jumper between UD-2000 P1 and P4.

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UD-2000 DACT Installation on Small Platform Panel

Fig 1

Screw

Slides in guides under main board.

DWG #593-32A

P Connector on small platform control panel

Screw

UD-2000 DACT Installation on Large Platform Panel

Fig 2

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P Connector on main board

Ordering Information

Model	Description	Stock No.
UD-2000	Digital Alarm Communicator	3992769

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(1) GENERAL NOTES:

    A. FIRE ALARM SYSTEM WIRING SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, APPLICABLE STATE AND LOCAL CODES, AND SHALL BE COORDINATED WITH THE LOCAL AUTHORITY HAVING JURISDICTION.

    B. CAUTION: DO NOT CONNECT ANY POWER TO THE CONTROL PANEL (BATTERIES OR 120V AC) UNTIL ALL OTHER FIELD WIRING IS TESTED AND CONNECTED.

    C. DO NOT INSTALL FIRE ALARM CONTROL PANEL, NAC POWER SUPPLY PANEL, SMOKE DETECTORS OR ANY ADDRESSABLE DEVICES IN UNHEATED SPACES.

    D. DO NOT INSTALL ANY AC CURRENT-CARRYING CONDUCTORS CLOSE TO OR IN THE SAME RACEWAY WITH FIRE ALARM SYSTEM CONDUCTORS.

    E. SOLID LINES REPRESENT CONNECTIONS TO BE MADE BY THE SYSTEM INSTALLER.

    F. ALL RELAYS ARE SHOWN IN NORMAL SUPERVISORY CONDITION. ALL RELAYS ARE FORM "C" TYPE.

(2) INSTALLATION NOTES

    A. SMOKE DETECTORS SHALL NOT BE MOUNTED ANY CLOSER THAN 3' FROM ANY AIR DUCT OPENINGS

    B. ELEVATOR LOBBY SMOKE DETECTORS SHALL BE MOUNTED WITHIN 10' OF THE ELEVATOR DOOR

    C. MANUAL PULL STATIONS SHALL BE MOUNTED PER ADA REQUIREMENTS: 48" AFF OR 42" AFF TO COMPLY WITH SIDE/FRONT REACH REQUIREMENTS

    D. WALL MOUNTED HORN/STROBES & STROBES SHALL BE MOUNTED 6" FROM CEILING, OR 96" TO 80" AFF TO THE CENTER OF STROBE

    E. HORN/STROBES & STROBES SHALL BE MOUNTED 15' FROM THE CORNER OF THE WALL. IF THIS IS NOT POSSIBLE, DEVICE SHALL BE CENTERED ON THAT WALL.

    F. CEILING MOUNTED HALLWAY DEVICES SHALL BE LOCATED IN A SYMMETRICAL MANNER DOWN CENTER OF HALLWAY WHEN POSSIBLE.

    G. MONITORING REQUIRES TWO FAIRPOINT PHONE LINES UNLESS OTHER ARRANGEMENTS HAVE BEEN MADE.

(3) SEE INITIATION CIRCUITS AND NAC CIRCUITS FOR INTEGRATION OF BOTH SLC AND NAC CIRCUITS
(4) ALL CABLING IS 14/2 FOR THE NAC CIRCUITS UNLESS OTHERWISE SHOWN
(5) ALL CABLING IS 16/2 FOR THE SLC CIRCUITS UNLESS OTHERWISE SHOWN
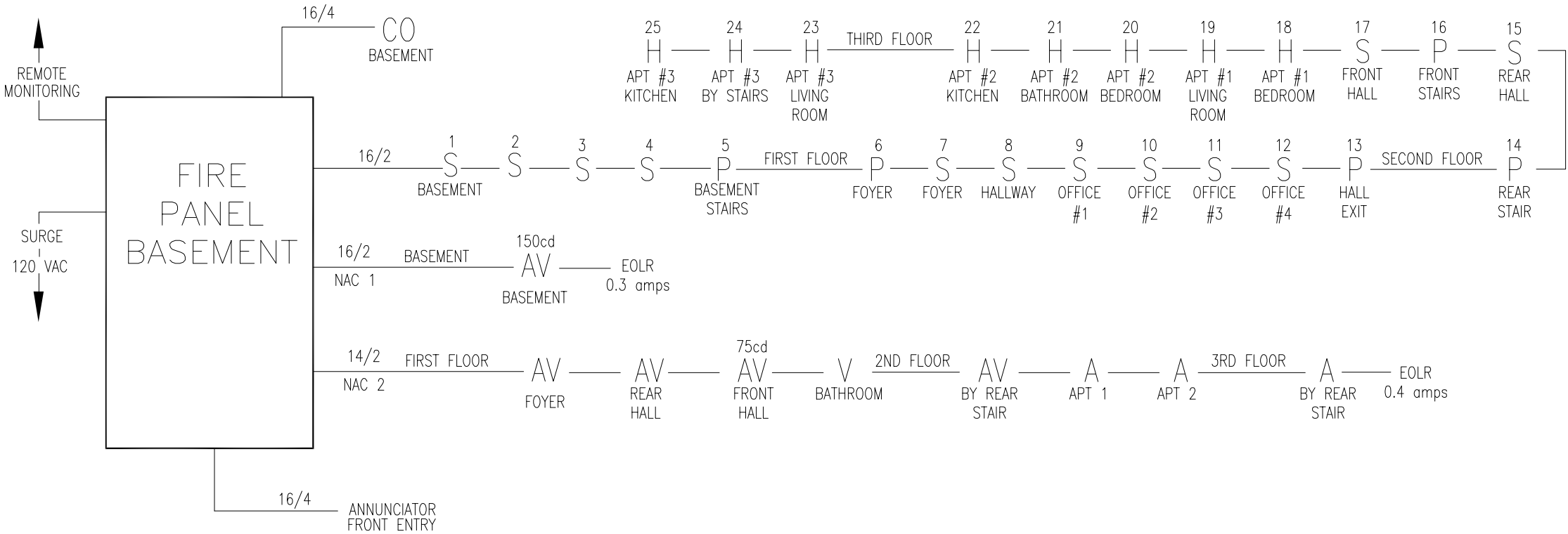(6)

AC = ALARM CONTROL MODULE
R = ARM = ADDRESSABLE RELAY MODULE
AV = AUDIO VISUAL DEVICE
    (SET TO 15cd UNLESS NOTED OTHERWISE)
B = EXTERIOR BEACON
CO = CO DETECTOR
D = DUAL MODULE
DUCT=DUCT DETECTOR
F = FLOW
FACP = MAIN FIRE PANEL
H = HEAT DETECTOR
I = ISOLATION MODULES
T.S. = TWISTED SHIELDED
S/CO = SMOKE/CO DETECTOR
RL = REMOTE LIGHT

⬢ = FIRE EXTINGUSHER MONITORING

K = KNOX BOX
LA = LOW AIR
MM = MINI MODULE
P = PULL STATION
PS = PRESSURE SWITCH
RI = REMOTE INDICATOR
S = SMOKE
SA = SMOKE WITH AUDIBLE BASE
T= TAMPER
TS = TEST SWITCH
V = VISUAL DEVICE ONLY
(SET TO 15cd UNLESS NOTED OTHERWISE)
MH = MINI HORN
RTS = REMOTE TEST MODULE
PS = PULL STATION
CL = CORRIDOR LIGHT
CO = CO DETECTOR (MAY REQUIRES 24 VDC POWER)
SCM = INPUT MODULE

CONSULTANT: Rich Brobst JR.

320 PRESUMPSCOT ST. UNIT#2
PORTLAND, MAINE 04103

Phone: (207) 536-4800
Cell: (207) 699-6800

RISER DIAGRAM

REMOTE MONITORING

16/4 — CO BASEMENT

FIRE PANEL BASEMENT

SURGE
120 VAC

16/2 — S BASEMENT (1) — S (2) — S (3) — S (4) — P BASEMENT STAIRS (5) — FIRST FLOOR — P FOYER (6) — S FOYER (7) — S HALLWAY (8) — S OFFICE #1 (9) — S OFFICE #2 (10) — S OFFICE #3 (11) — S OFFICE #4 (12) — P HALL EXIT (13) — SECOND FLOOR — P REAR STAIR (14)

H APT #3 KITCHEN (25) — H APT #3 BY STAIRS (24) — H APT #3 LIVING ROOM (23) — THIRD FLOOR — H APT #2 KITCHEN (22) — H APT #2 BATHROOM (21) — H APT #2 BEDROOM (20) — H APT #1 LIVING ROOM (19) — H APT #1 BEDROOM (18) — S FRONT HALL (17) — P FRONT STAIRS (16) — S REAR HALL (15)

16/2 NAC 1 — BASEMENT — 150cd AV BASEMENT — EOLR 0.3 amps

14/2 NAC 2 — FIRST FLOOR — AV FOYER — AV REAR HALL — 75cd AV FRONT HALL — V BATHROOM — 2ND FLOOR — AV BY REAR STAIR — A APT 1 — A APT 2 — 3RD FLOOR — A BY REAR STAIR — EOLR 0.4 amps

16/4 — ANNUNCIATOR FRONT ENTRY

38 Pleasant Street
Device List

Quantity	Item	Description
1	Potter IPA-60	Fire panel, 60 points, 2 NACs, 5 amps, 2 I/O circuits
2	Bat 12-7	Battery 12 volts, 7 amp/hours
1	UD-2000	Dact for Potter panels
1	E120V-GT	Space Age 120 VAC surge protector and breaker label
1	RA-6500R	Annunciator
12	PAD-100-PD	Addressable smoke detector
8	PAD-100-HD	Addressable Heat
1	PAD-100-CD	Addressable CO detector
20	PAD-100-6B	Detector base
1	PAD-100-SB	Sounder Base
1	SSU00673	Space Age Fire Document cabinet
5	PAD-100-PSDA	Addressable dual action pull station
5	HS-24WR	Horn/strobe wall mount, red
1	CHS-24R	Horn/strobe ceiling mount, red
1	S-24WR	Strobe only, wall mount, red
3	EH-24R	Horn, red
1		Key box 3261

KNOX *Serving Fire Departments Since 1975*

High Security Industrial/Government Key Box

Recessed Mount with Face Flange

Surface Mount

The number one high-security KNOX-BOX® is used for most commercial applications including businesses, schools, government and public buildings, community associations and apartment complexes. The 3200 Series KNOX-BOX holds keys, access cards and other small items necessary for emergency access.
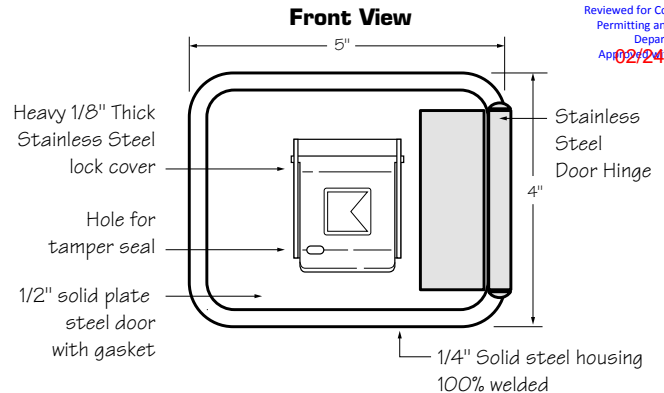
The hinged-door 3200 Series KNOX-BOX is more convenient than the lift-off door version because it allows single-handed operation and opened or closed, it's all one unit.
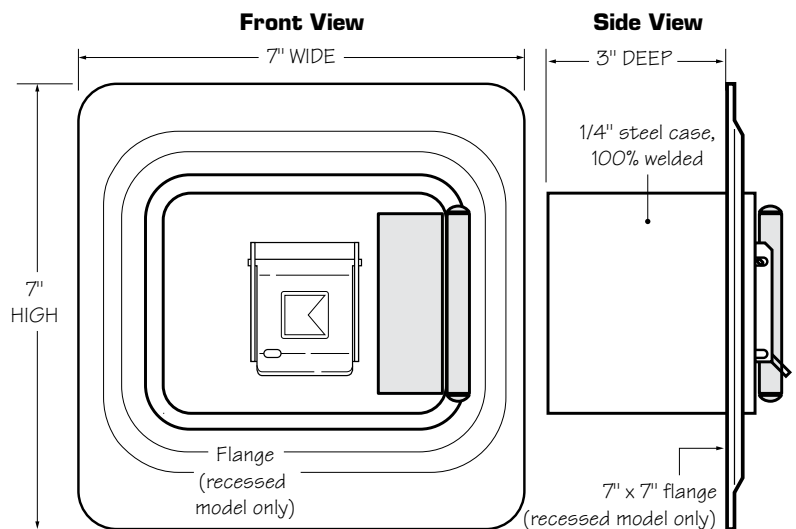
Features and Benefits

*   Holds up to 10 keys or 1 access card in interior compartment

*   Ensures high security. Box and lock are UL® Listed

*   Includes a Knox-Coat® proprietary finishing process that protects Knox products up to four times better than standard powder coat

*   Resists moist conditions with a weather resistant door gasket

*   Hinged door allows single-handed operation

*   Colors: Black, Dark Bronze or Aluminum
    Weight: Surface mount - 8 lbs.
    Recessed mount - 9 lbs.

Options

*   Alarm tamper switches (UL Listed)

*   Additional rust and corrosion protection (Aluminization)

*   Recessed Mounting Kit (RMK) for recessed models only

*   Inside switch for use on electrical doors, gates and other electrical equipment

Front View

5"

Heavy 1/8" Thick Stainless Steel lock cover

Hole for tamper seal

1/2" solid plate steel door with gasket

Stainless Steel Door Hinge

4"

1/4" Solid steel housing 100% welded

3200 Surface Mount

Front View

7" WIDE

7" HIGH

Flange (recessed model only)

Side View

3" DEEP

1/4" steel case, 100% welded

7" x 7" flange (recessed model only)

3200 Recessed Mount

Ordering Specifications

To insure procurement and delivery of the 3200 Series KNOX-BOX, it is suggested that the following specification paragraph be used:

KNOX-BOX surface/recessed mount with hinged door, with/without UL Listed tamper switches. 1/4" plate steel housing, 1/2" thick steel door with interior gasket seal and stainless steel door hinge. Box and lock UL Listed. Lock has 1/8" thick stainless steel dust cover with tamper seal mounting capability.

Exterior Dimensions: Surface mount body- 4"H x 5"W x 3 1/4"D
Recessed mount flange- 7"H x 7"W
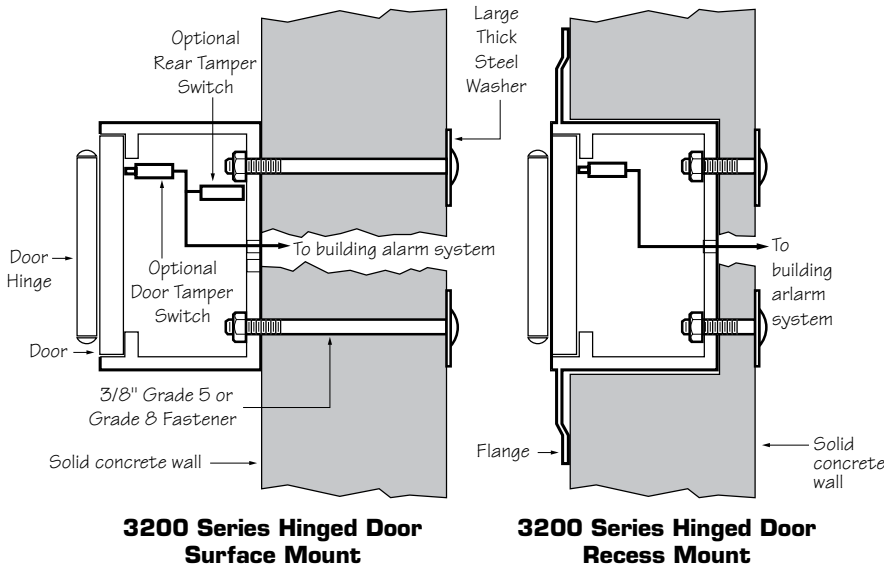Lock: UL Listed. Double-action rotating tumblers and hardened steel pins accessed by a biased cut key.
Finish: Knox-Coat® proprietary finishing process
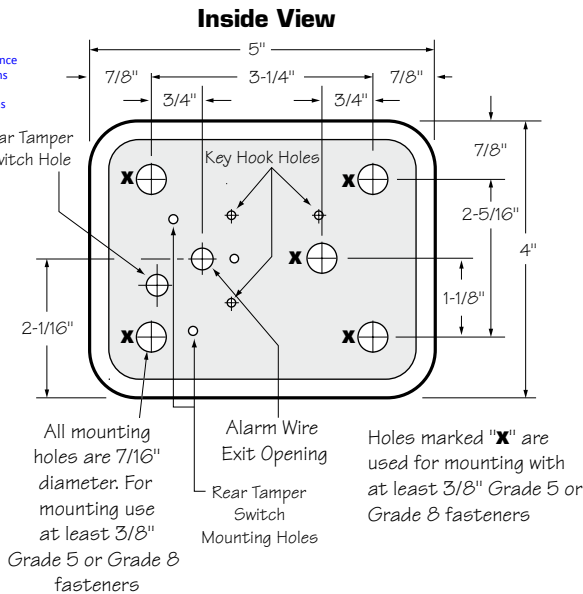Colors: Black, Dark Bronze or Aluminum
P/N: 3200 Series KNOX-BOX (mfr's cat. ID)
Mfr's Name: **KNOX COMPANY**

Recessed Mounting Kit

The 3200 Recessed Mounting Kit (RMK) is used for recessed models only. It contains a shell housing and mounting hardware to be cast-in-place in new concrete or masonry construction. After construction is completed, the KNOX-BOX mounts inside the RMK. The RMK may only be used in new concrete or masonry construction.
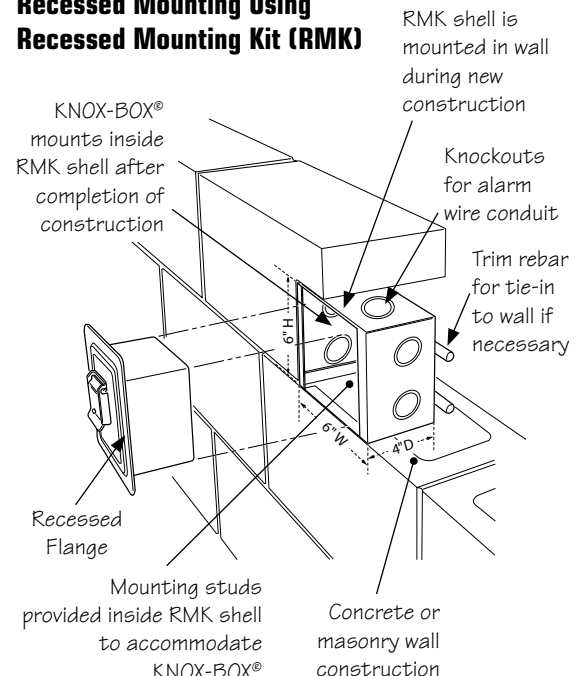
Installation In Cast Concrete

The optional Recessed Mounting Kit is for use in new concrete or masonry construction only. The kit includes a shell housing and mounting hardware to be cast-in-place. The KNOX-BOX is mounted into the shell housing after construction is completed.

Dimensions

Rough-in Dimensions: 6-1/2"H x 6-1/2"W x 5"D

IMPORTANT: Care should be taken to insure that the front of the RMK shell housing, including the cover plate and screw heads, is flush with the finish wall. The RMK must be plumbed to insure vertical alignment of the vault.

Suggested minimum mounting height 6 feet above ground

Optional Rear Tamper Switch

Large Thick Steel Washer

Door Hinge

To building alarm system

Optional Door Tamper Switch

To building arlarm system

Door

3/8" Grade 5 or Grade 8 Fastener

Solid concrete wall

Flange

Solid concrete wall

3200 Series Hinged Door Surface Mount

3200 Series Hinged Door Recess Mount

Inside View

5"

7/8"   3-1/4"   7/8"

3/4"   3/4"

Rear Tamper Switch Hole

Key Hook Holes

7/8"

2-5/16"

4"

1-1/8"

2-1/16"

All mounting holes are 7/16" diameter. For mounting use at least 3/8" Grade 5 or Grade 8 fasteners

Alarm Wire Exit Opening

Rear Tamper Switch Mounting Holes

Holes marked "x" are used for mounting with at least 3/8" Grade 5 or Grade 8 fasteners

Attention: KNOX-BOX® is a very strong device that MUST be mounted properly to ensure maximum security and resist physical attack.

Knox® Rapid Entry System
The Knox Company manufacturers a complete line of high security products including Knox-Box key boxes, key vaults, cabinets, key switches, padlocks, locking FDC caps, plugs and electronic master key security systems. For more information or technical assistance, please call Customer Service at 1-800-552-5669.

Recessed Mounting Using Recessed Mounting Kit (RMK)

RMK shell is mounted in wall during new construction

KNOX-BOX® mounts inside RMK shell after completion of construction

Knockouts for alarm wire conduit

Trim rebar for tie-in to wall if necessary

6"H

6"W   4"D

Recessed Flange

Mounting studs provided inside RMK shell to accommodate KNOX-BOX®

Concrete or masonry wall construction

KNOX COMPANY • 1601 W. Deer Valley Road, Phoenix, AZ 85027 • (800) 552-5669 • (623) 687-2300 • Fax (623) 687-2299 • Web: www.knoxbox.com • E-mail: info@knoxbox.com

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MKT-KBSPEC-0019-B

P POTTER
The Symbol of Protection

Features

- Compatible with Potter IPA Series Panels
- 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

UL LISTED

Description

The RA-6500F is a flush mount LCD remote annunciator for the PFC series, Potter Plus series, and IPA series fire control panels. The RA-6500F 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-6500F features a 4x40 LCD display with LED's for Power, Alarm, Supervisory, Trouble, Silence, Pre-Release, and Release conditions. It can be flush mounted or surface mounted. The annunciator is enclosed in a sheet metal enclosure and has a Potter lock securing the keypad.

Technical Specifications

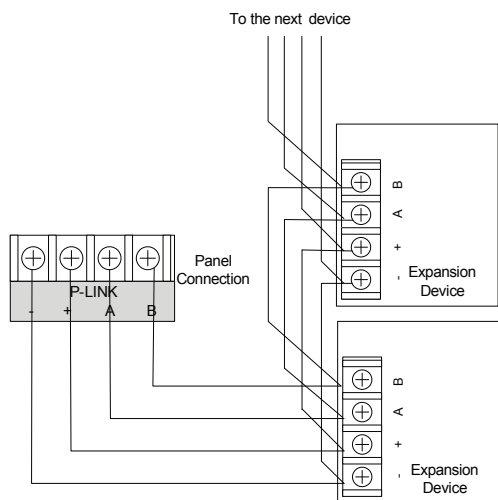|	
Standby Current	20 mA
Alarm Current	25 mA
Operating Temperature	0°C-49°C (32°F-120°F)
Operating Humidity Range	0 to 93% (non-condensing)
Maximum Wire Length	6500 ft.
Maximum Annunciators	31
Flush Mount Size (WxHxD)	11 3/8" x 9-1/4" x 7/8"
Surface Mount Size (WxHxD)	11 3/8" x 9-1/4" x 3 1/8"
Wire Gauge	12 AWG-22 AWG

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Installation

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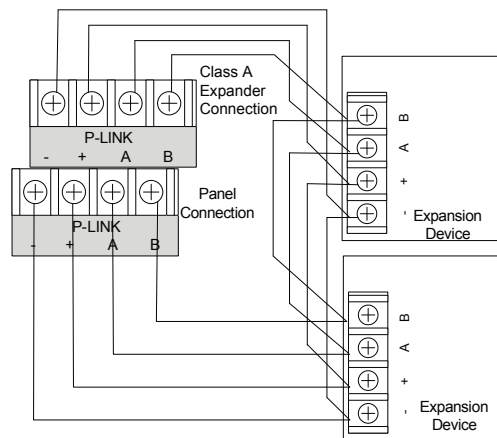
RA-6500F Class B Wiring Example

Fig 1

RA-6500F Class A Wiring Example

Fig 2

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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-6500F	LCD Annunciator Flush Mount - RED	3992725
RA-6500F	LCD Annunciator Flush Mount - BLACK	3992741
RA-6500F	LCD Annunciator Flush Mount - GRAY	3992742
RA-6500F	LCD Annunciator Flush Mount - LIGHT GRAY	3992743

P 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

UL LISTED

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 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.

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02/24/2020

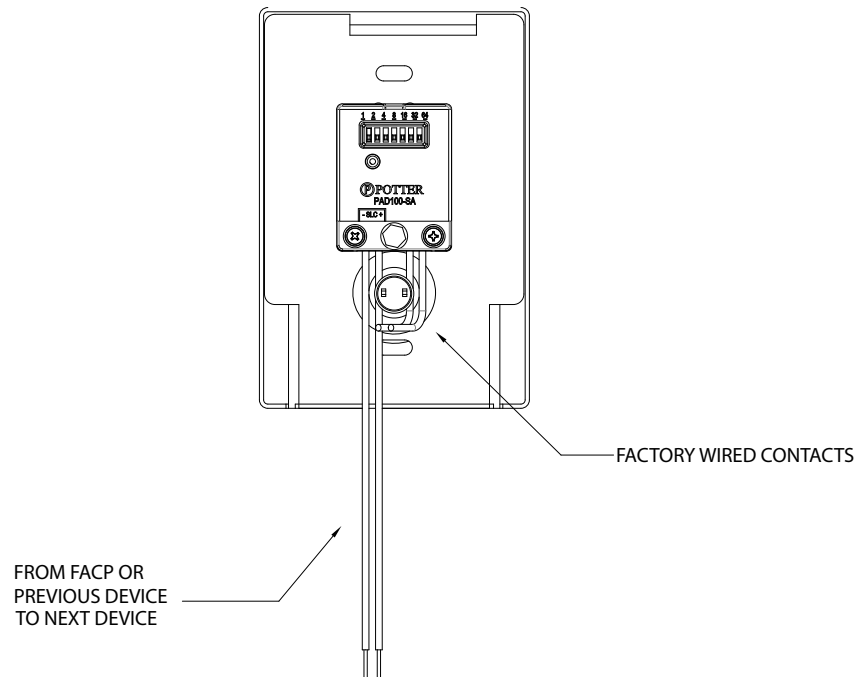**POTTER**
The Symbol of Protection

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
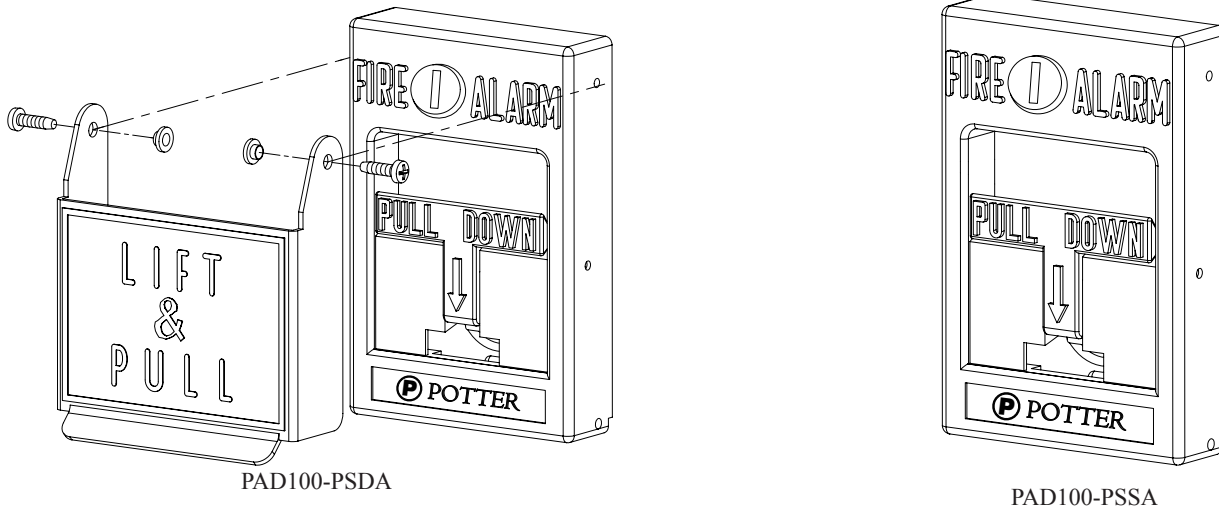
PAD100-PSSA

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

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Features

- 60 addresses available on this analog addressable system
- Additional system capacity achieved via multi-point SLC modules
- 99 software zones
- NFPA 72 Compliant Smoke Sensitivity Test Built-In
- System Operates as Class A or Class B for SLC, P-Link and NACs
- 5 Amp Power Supply, Expandable to 310 amps
- 2 NACS, Regulated, Rated at 3 Amps each, expandable to 188
- 2 Input/Output (I/O) Circuits for system flexibility rated at 1 Amp each, ideal for manual release and abort
- Strobe Synchronization and System Wide Sync for Potter/AMSECO®, Gentex®, Cooper Wheelock® and System Sensor® strobes
- Dedicated Alarm, Supervisory and Trouble Relays
- 4,000 Event History Buffer
- Cabinet will house up to 18 AH batteries
- Optional two line DACT with UD-1000 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

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Description

The IPA-60 is an analog/addressable releasing fire alarm system with a total system capacity of 60 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 IPA-60 has a 5 Amp power supply with two Notification Appliance Circuits (NACs) and two 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 Potter/AMSECO, Gentex, System Sensor and Cooper/Wheelock and with the exclusive Quadrasync each output may have a unique brand and all strobes will flash together. The I/Os are designed for inputs such as manual release stations and abort switches that will not require polling and react nearly instantaneously.

The IPA-60 is listed for releasing of fire suppression systems. The software allows cross zones, counting zones, and timers for suppression. The system is capable of multiple release outputs across multiple hazards. In addition, the PSN-1000 may be used to extend releasing capability. 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 IPA-60 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 expansion cards. The cards mount on a stacker bracket that allows access to all SLC circuit connections.

Technical Specifications

Dimensions	16"W x 17"H x 3 $^7/_8$"D
AC Mains	3.0 Amps @ 120 VAC 50/60 HZ 2.0 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-200 mA • 5 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.
Standards	• NFPA 12, 12A, 13, 15, 16, 17, 17A, 70, 72, 750, and 2001 • ANSI/UL 864 - Local (L), Remote Station (RS), Central Station (CS), Propriety (PPU), Auxiliary (AUX).Type of Service: Automatic (A), Manual (M), Water flow (WF) Sprinkler Supervisory (SS) Type of Signaling: Digital Alarm Communicator (DAC), March Time (March), Non Coded (NC), Reverse Polarity (Rev Pol), Other Technologies (OT) • IBC 2000, 2003, 2006, 2009, 2012

IPA-60
Fire Alarm Control Panel

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SLC Loop Accessories

The control panel may be connected with up to 60 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 Temperature Heat Detector that is selectable from 135° F to 185°F.
PAD100-DUCTR	Addressable Duct Smoke Detector with Form C Relay.
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.

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	Isolater 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.
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", 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 2 x 16 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 IPA-60 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

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 I/Os and a P-Link repeater. This panel is listed in conjunction with the IPA-60 as releasing circuits.

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

UD-1000 – 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 IPA series panels to share a single reporting technology.

AE-2 – Two card expansion cabinet

AE-8 – Eight card expansion cabinet

AE-14 – Fourteen card expansion cabinet

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Ethernet/I.P. Connection

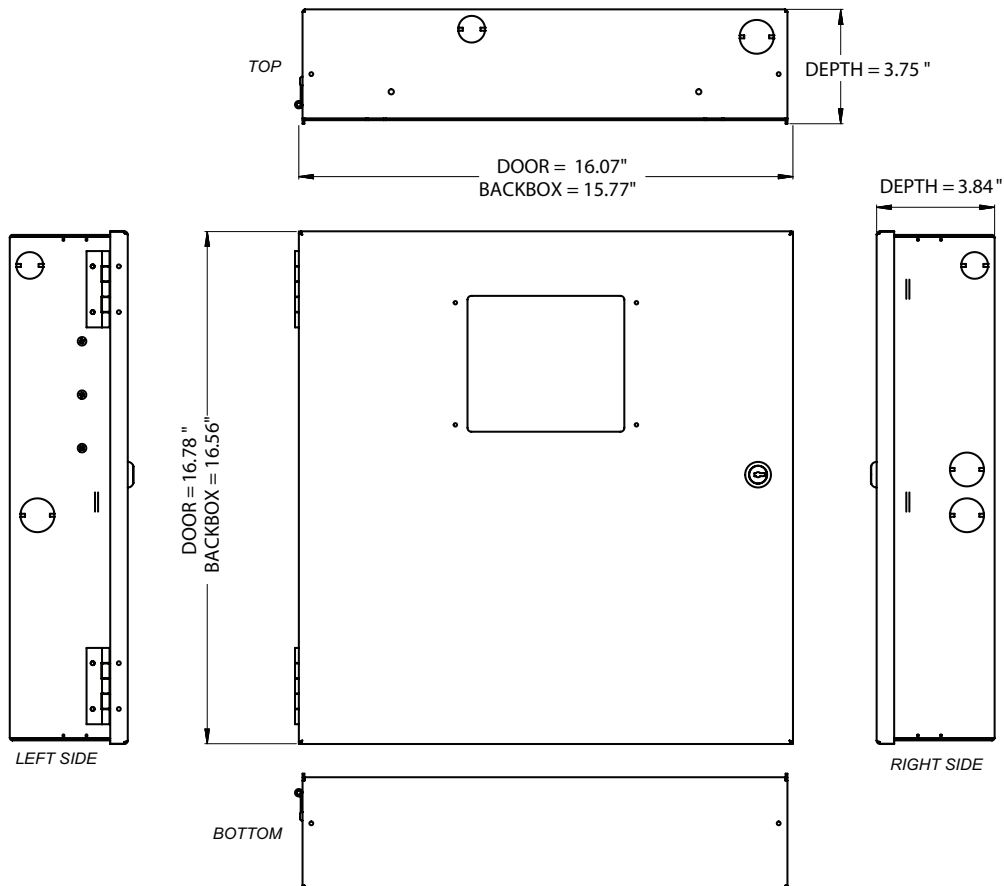The IPA-60 is shipped standard with an Ethernet connection. This connection is the programming port and may be connected to a building Wide Area Network (WAN) or Local Area Network (LAN). Once connected to the Internet, the panel may be selectively programmed to e-mail alarm conditions, trouble conditions, 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.

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Dimensions

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TOP

DEPTH = 3.75 "

DOOR = 16.07"
BACKBOX = 15.77"

DEPTH = 3.84 "

LEFT SIDE

DOOR = 16.78 "
BACKBOX = 16.56"

RIGHT SIDE

BOTTOM

DWG #593-1

Ordering Information

Model	Description	Stock No.
IPA-60	Fire Alarm Releasing Control Panel	3992714

Compatible Releasing Devices

Note: For releasing applications please order the Potter EOLD (3005012) for circuits connected to a releasing solenoid or actuator.

Brand	Description
Skinner	73218BN4UNLVN0C112CZ 73212BN4TNLVN0C322C2
Victaulic	753-E Series
Mini Max	MX123 & MX200 w/ 8876677 & 889323
Viking	11591, 11601, 11602, 13843, & 13844
TLX	PA0036

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Features

- Integrated Sounder in base
- 75 dB (UL 464 Listed) sounder output
- Sounder independent of sensor, allows for a single station, grouped or all-call
- May be mapped to any device connected to the control panel
- Terminals accept 22 to 12 AWG wire sizes
- Supports Class A, Class X and Class B wiring
- Does not require SLC Loop address

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Description

The Addressable Sounder Base 6" (PAD100-SB) is a sounder base that may be utilized in a variety of applications. The base has a locking feature for the sensor that may be used or removed in the field. Once the head is removed, the sounder is accessible in the bottom of the unit.

The base has an independent sounder module that may be programmed as a single station, zone or all call sounder. The PAD100-SB passes through the sound pattern sent to the sounder, therefore it may reproduce in any pattern the power supply provides.

The panel will support any combination of sensors or modules on the SLC. The PAD100-SB does not consume an address on the loop and is fully programmable to operate with any input. Once activated the sounder will also follow the input from the power source and de-activate accordingly.
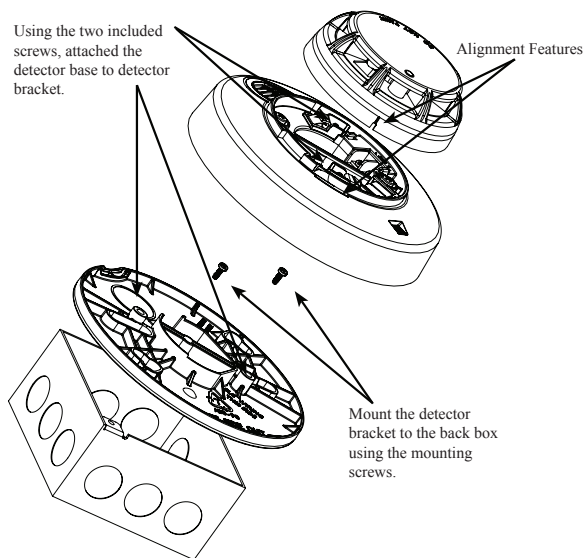
Technical Specifications

Working Range for SLC	24 VDC
Working voltage range for PWR	16 - 33 VDC
Active current for PWR	30 ma
Sound pressure level	75dB/10ft (min.) as per UL464
Installation temperature range	32°F to 120°F (0°C to 49°C)
Operating relative humidity range	0% to 93% (Non-condensing)
Start-up time	Max. 1 sec.
Maximum number of devices per zone	127
Color	Eggshell White
Dimensions (without detector)	Height: 0.75 in (19mm) Diameter: 6.3 in (166 mm)

Detector Base Mounting

PAD100-SB should be mounted directly on the electrical box. The mounting holes are configured for a single gang, double gang, octagon or 4" square box. See Fig. 1.

Fig. 1

Using the two included screws, attached the detector base to detector bracket.

Alignment Features

Mount the detector bracket to the back box using the mounting screws.

Locking Feature

Eliminate the Locking Feature

PAD100-SB include a locking feature that prevents removal of the detector and removal of the base cover without using a tool.

1. To eliminate this feature, break off the locking tab and then install the detector. See Fig. 2.

Fig. 2

Break off tab (gray area) in image to disable locking feature.
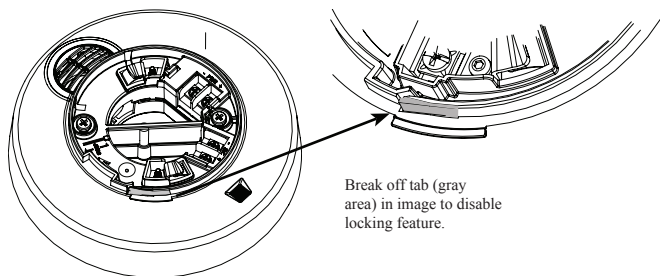
Removing of Detector Head from Base

2. To remove the detector from the base once the locking feature has been activated, insert a small screwdriver into the slot on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise. See Fig. 3.

Fig. 3

Insert small screwdriver into slot to remove detector from base.
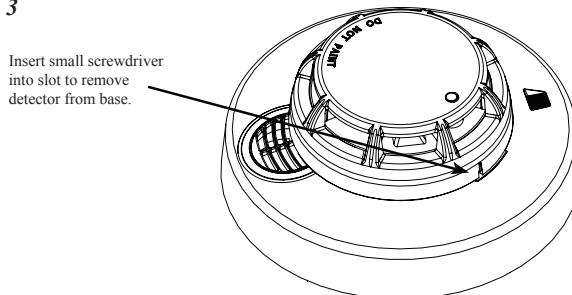
3. To remove the base cover from the lower enclosure once the locking feature has been activated, insert a small screwdriver into the slot on the on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise.

Ordering Information

Model	Description	Stock No.
PAD100-SB	Addressable Sounder Base	3992729

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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

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Application

The Potter PAD100-6DB and PAD100-4DB detector bases are used to install Potter's addressable smoke and heat detectors. The PAD100-6DB will mount on a single gang, double gang, octagon or 4" square electrical box.

Description

The PAD100-6DB and PAD100-4DB 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 14 AWG. When installed on recessed electrical boxes the PAD100-6DB 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

Mounting Options	Single gang, double gang, octagon, and 4" square box
Terminals	Screw-Clamp Type
Wire Guage	22 to 12 AWG
Dimensions	Diameter: 6.3 in (166 mm) Height 0.72 in (18 mm)
Shipping Weight	87g (3.07 oz)
Material	Durable Plastic

Locking Feature

The PAD100-6DB and PAD100-4DB include a locking feature that prevents removal of the detector without using a tool.
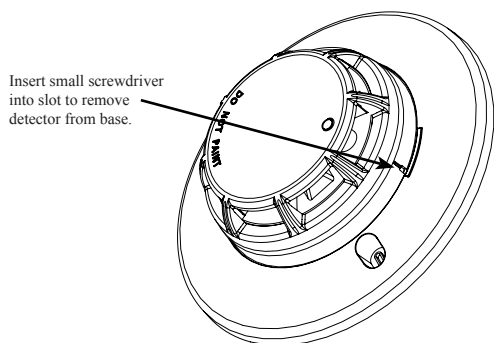
1. To eliminate this feature, break off the locking tab (refer to Figure 1), and then install the detector.

Fig. 1

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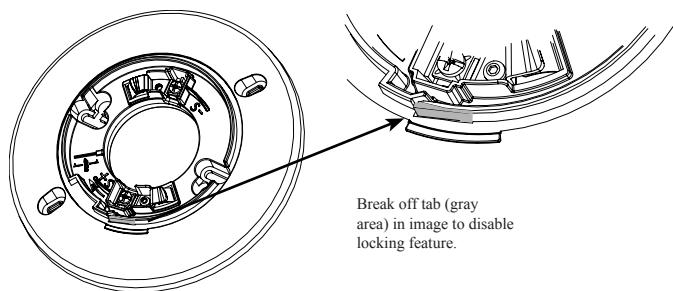
2. To remove the detector from the base when the locking feature has been enabled, insert a small screw driver into the slot on the base to push the plastic tab while simultaneously turning the detector head counter-clockwise.

Fig. 2

Insert small screwdriver into slot to remove detector from base.

Wiring Diagram

Fig. 3

To FACP Loop (SLC)

First Detector Base   S+   S-

Last Detector Base   S+   S-
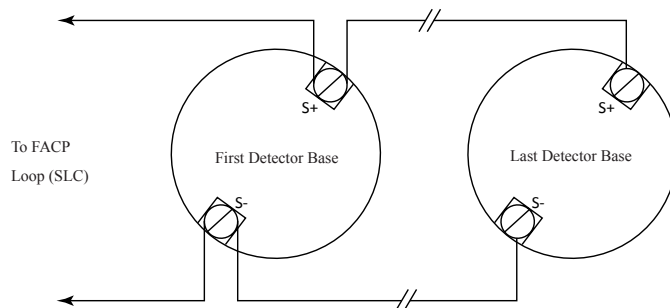
Ordering Information

Model	Description	Stock No.
PAD100-6DB	6" Sensor Base	3992732
PAD100-4DB	4" Sensor Base	3992731

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Features

- Low profile, less than 2 inches with the base
- Wide selectable sensitivity range of 1.0 to 3.7%/foot
- Sensor 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
- LED alarm indicator
- Product includes a 5 year warranty

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Description

The Photoelectric Smoke Sensor is a listed Analog Addressable smoke sensor compatible with fire alarm control panels that utilize the Potter Addressable Device (PAD) protocol. The PAD100-PD is a low profile smoke sensor with a wide sensitivity range. The sensor and base (not included) are made of a durable plastic in an off-white color to blend in with the ceiling.

The PAD100-PD has a sensitivity range of 1.0 to 3.7 % per foot and is UL. The PAD100-PD features drift compensation and has built in dirty detector warning as well as. The PAD100-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 sensor is compatible with any of the PAD series sensor bases and simply twists on. The PAD100-PD is addressed using DIP switches in the rear of the sensor 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
Alarm indicator	1 LED
Alarm set-point range	1.0 to 3.7 %/ft 3.6-12 %/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)	101g (3.56oz)
Dimensions (without base)	Height: 1.35 in (34mm) Diameter: 3.93 in (100 mm)

Air Velocity Ratings

The PAD100-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 PAD100-PD will operate even though the LED may not illuminate.

Operation

The PAD100-PD is an analog addressable sensor 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 PAD100-PD with the PAD100-4DB or PAD100-6DB has a low profile of less than two (2) inches to blend into the surrounding environment. The sensor includes an insect screen to prevent foreign objects from reaching the chamber and the can be cleaned to restore operation of a dirty detector.

Sensor Sensitivity

The PAD100-PD and the compatible control panel work in tandem to keep the sensitivity consistent. As the sensor is installed over time, the sensor compensates for the dirt in the unit until it is out of range. At that time, the panel will indicate a dirty sensor. The sensor will then have to be cleaned or replaced.

The PAD100-PD can be programmed to provide a maintenance alert prior to reaching the dirty sensor level which will allow for intervention prior to the sensor going into trouble. This allows for sensor replacement or cleaning prior to a nuisance trouble occurs.

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

Spacing

The PAD100-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, double gang, octagon, 4" square or mud ring electrical box.

Device	Description	Stock No.
PAD100-4DB	4" Standard Base	3992731
PAD100-6DB	6" Standard Base	3992732
PAD100-IB	6" base with an isolator module included.	3992730
PAD100-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	3992728
PAD100-SB	6" base with sounder module included. Sound pattern is provided from external source.	3992729

Ordering Information

Model	Description	Stock No.
PAD100-PD	Photoelectric Smoke Sensor	3992733

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Features

- Selectable Rate of Rise and/or Fixed Heat Detector
- Low profile
- Reliable detection technology
- LED Alarm Indicator
- Ambient temperature listing of 32° F to 150° F
- Simple DIP switch address setting, no programming tool required
- Product includes a 5 year warranty

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Description

The PAD100-HD is a listed Analog Addressable rate of rise and/or fixed temperature heat sensor compatible with any fire alarm control panel that has the Potter Addressable Device (PAD) protocol. The heat sensing portion utilizes a proven thermistor for accurate and reliable heat detection. The sensor and base (not included) are made of a durable plastic in an off white to blend in with the ceiling.

The PAD100-HD is UL listed with a selectable fixed temperature point from 135° to 185° Fahrenheit and can be used for rate of rise applications. See detector spacing limitations below. This flexibility allows the installer to cover a wide variety of applications with a single unit.

The PAD100-HD 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 sensor is compatible with any of the PAD series sensor bases and simply twists on. The PAD100-HD is addressed using DIP switches in the rear of the sensor 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
Alarm indicator	1 LED
Alarm set-point range	135 to 185 °F/ 57 to 85 °C
Installation temperature range	32 to 150 °F / 0 to 66 °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)	82g (2.89 oz)
Dimensions (without base)	Height: 1.94 in (49mm) Diameter 3.93 in (100mm)

Operation

The PAD100-HD is an analog addressable sensor 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 LED flashes every time the unit is polled and 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 PAD100-HD with the PAD100-4DB or PAD100-6DB has a low profile to blend into the surrounding environment. The system has a maximum of 30 LEDs that can be turned on simultaneously. If the system already has 30 LEDs on, the PAD100-HD will operate even though the LED will not illuminate.

Spacing

The ANSI/UL listed spacing limitations of PAD100-HD smooth ceiling are dependent on alarm set point.

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Alarm Set-Point	Rate of Rise Spacing	Fixed Temperature Spacing
135°F to 160°F (57°C to 71°C)	Max. 70 ft.	Max. 70 ft.
161°F to 174°F (72°C to 79°C)	Max. 60 ft.	Max. 60 ft.
175°F to 185°F (80°C to 85°C)	Max. 15 ft.	Max. 15 ft.

Compatible Bases

All bases will mount on a single gang, double gang, octagon, 4" square or mud ring electrical box.

Device	Description	Stock No.
PAD100-4DB	4" Standard Base	3992731
PAD100-6DB	6" Standard Base	3992732
PAD100-IB	6" base with an isolator module included.	3992730
PAD100-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	3992728
PAD100-SB	6" base with sounder module included. Sound pattern is provided from external source.	3992729

Ordering Information

Model	Description	Stock No.
PAD100-HD	Fixed Temperature Heat Sensor	3992735

POTTER
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Features

- Carbon Monoxide detection device compliant with UL 2075
- 8 year lifespan with built in end of life indication
- Low profile
- Walk Test mode allows for fast easy validation of sensor operation
- Reliable detection technology
- LED Alarm Indicator
- Product includes a 5 year warranty

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Description

The PAD100-CD is an Analog Addressable carbon monoxide (CO) sensor compatible with any fire alarm control panel that has the Potter Addressable Device (PAD) protocol. The CO sensing portion utilizes a proven electrochemical sensor for accurate detection of CO gas for life safety applications. The sensor and base (not included) are made of a durable plastic in an off white to blend in with the ceiling.

The PAD100-CD is listed to comply with the requirements of UL 2075. The sensor 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 sensor is compatible with any of the PAD series sensor bases and simply twists on. The PAD100-CD is addressed using DIP switches in the rear of the sensor 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
Alarm indicator	1 LED
Alarm set-point range	70 ppm, 150 ppm, 400 ppm
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)	92g (3.25oz)
Dimensions (without base)	Height: 1.43 in (36mm) Diameter: 3.93 inches (100mm)

Operation

The PAD100-CD is an analog addressable sensor 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 LED flashes 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 PAD100-CD with the PAD100-4DB or PAD100-6DB has a low profile of less than two (2) inches to blend into the surrounding environment.

Detection Levels

The PAD100-CD will provide alarm reports at these required levels:

Alarm set-point

70 ppm for 2 hours

150 ppm for 30 min

400 ppm for 10 minutes

Reviewed for Code Compliance
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Department
Approved with Conditions
02/24/2020

Compatible Bases

All bases will mount on a single gang, double gang, octagon, 4" square or mud ring electrical box.

Device	Description	Stock No.
PAD100-4DB	4" Standard Base	3992731
PAD100-6DB	6" Standard Base	3992732
PAD100-IB	6" base with an isolator module included.	3992730
PAD100-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	3992728
PAD100-SB	6" base with sounder module included. Sound pattern is provided from external source.	3992729

Ordering Information

Model	Description	Stock No.
PAD100-CD	Carbon Monoxide Detector	3992736

POTTER
The Symbol of Protection

IPA-60
Battery & Voltage Drop Calculations

Project Name:	38 Pleasant Street	Standby Hours:	24
		Alarm Mins:	5
Installed By:		Batt Efficiency:	80%
Designed By:		SLC Type:	Class B
Date:		NAC Source Voltage:	20.4

Model #: IPA-60

Panel ID:

Location:

Max Panel Current (amps): 5

User assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submittal.

	FACP		Standby (amps)		Alarm (amps)	
Qty	Part #	Description	Each	Total	Each	Total
1	IPA-60	Analog Addressable FACP	0.130	0.130	0.220	0.220
		Panel Standby:		**0.130**	**Panel Alarm:**	**0.220**

	P-LINK (RS-485)		Standby		Alarm	
	MC-1000	Multi-Connect Expander	0.010		0.010	
1	UD-1000	DACT Card	0.016	0.016	0.023	0.023
	RA-6075R	LCD Annunciator	0.020		0.025	
1	RA-6500R(F)	Flush Mount LCD Annunciator	0.020	0.020	0.050	0.050
	LED-16(F)	Flush Mount LED Annunciator	0.025		0.025	
	LED-16	LED Annunciator LED Power*	0.015		0.210	
	CA-6075	Class A Module	0.012		0.044	
	PSN-1000(E)	Power Expander	0.015		0.015	
	PAD100-SLCE-127	SLC Expander	0.060		0.060	
	NOHMI-SLCE-127*	SLC Expander	0.060		0.060	
	RLY-5	Relay Expander	0.025		0.035	
	RLY-5	Relay Expander Power*	0.010		0.135	
	DRV-50	LED Driver Module	0.025		0.025	
	DRV-50	LED Driver Module LED Power*	0.010		0.215	
	FCB-1000	Fire Communications Bridge	0.025		0.025	
	FIB-1000	Fiber Interface Board	0.030		0.030	
	SPG-1000	Serial Parallel Gateway	0.040		0.040	

* REQUIRED IF USING NOHMI PROTOCOL SLC DEVICES

(Maximum current draw on P-Link limited to 1 Amp)   **P-LINK Standby:** 0.036   **P-LINK Alarm:** 0.073

***Only enter quantity if PLINK power is being used to power devices**

	SLC Devices		Standby		Alarm	
12	PAD100-PD	Analog Photo Smoke	0.000300	0.003600	0.000300	0.003600
	PAD100-PHD	Analog Photo Smoke/Heat	0.000300		0.000300	
8	PAD100-HD	Analog Fixed Temp Heat	0.000300	0.002400	0.000300	0.002400
1	PAD100-CD	Analog Carbon Monoxide Detector	0.000300	0.000300	0.000300	0.000300
	PAD100-DUCT	Addressable Duct Detector	0.000300		0.000300	
	PAD100-DRTS	Duct Remote Test Switch	0.010000		0.015000	
	PAD100-DUCTR*	Addressable Duct Detector w/Relay	0.000500		0.000500	
5	PAD100-PSSA/PSDA	Addressable Pull Station Single/Dual Action	0.000200	0.001000	0.000200	0.001000
	PAD100-MIM	Micro Input Module	0.000200		0.000200	
	PAD100-SIM	Single Input Module	0.000240		0.000240	
	PAD100-DIM	Dual Input Module	0.000240		0.000240	
	PAD100-RM	Relay Module	0.000240		0.000240	
	PAD100-OROI	One Relay One Input Module	0.000240		0.000240	
	PAD100-TRTI	Two Relay Two Input Module	0.000240		0.000240	
	PAD100-ZM*	Conventional Zone Module	0.000240		0.000240	
	PAD100-NAC*	Notification Appliance Circuit	0.000200		0.000200	
	PAD100-SM	Speaker Module	0.000240		0.000240	
	PAD100-IM	Isolator Module	0.000150		0.000150	
	PAD100-LED	LED Module	0.000240		0.000240	
	PAD100-LEDK	Addressable LED w/ Key Switch	0.000200		0.000200	
1	PAD100-SB*	Addressable Sounder Base	0.000200	0.000200	0.000200	0.000200
	PAD100-RB	Addressable Relay Base	0.000200		0.000200	
	PAD100-IB	Addressable Isolator Base	0.000150		0.000150	
	PSA	Analog Photo Smoke	0.000325		0.000325	
	PSHA	Analog Photo Smoke/Heat	0.000325		0.000325	
	RHA	Analog Rate of Rise Heat	0.000325		0.000325	
	FHA	Analog Fixed Temp Heat	0.000325		0.000325	
	DDA	Addressable Duct Detector	0.000325		0.000325	
	APS-SA/APS-DA	Addressable Pull Station Single/Dual Action	0.000325		0.000325	
	MCM	Mini Contact Input Module	0.000325		0.000325	
	SCM-4	Single Contact Input Module	0.000325		0.001000	
	DCM-4	Dual Contact Input Module	0.000325		0.001000	
	TRM-4	Twin Relay Output Module	0.000325		0.001000	
	CIZM-4 *	Conventional Zone Input Mod	0.000325		0.001000	
	MOM-4 *	Monitored Output Module	0.000325		0.001000	
	ARB	Detector Base w/Relay	0.000325		0.000325	

ASB *	Detector Base w/Sounder	0.000325		0.000325		
SCI **	Short Circuit Isolator (Class A)	0.000325		0.002340		
AIB **	Detector Base w/Isolator (Class A)	0.000325		0.002340		
IM/IB/SCI/AIB Class B **	Current Draw from Install Manual					
	SLC Loop Alarm LED Current	0.000000	0.000000	0.036000	0.036000	

*	Requires Aux Power (Configure Below)	**SLC Standby:**	**0.007500**	**SLC Alarm:**	**0.043500**
**	See the installation manual for special considerations when installing AIB, SCI				
	devices on Class B loops.				

NAC Circuits (See NAC Configuration below)			Standby (amps) Total	Alarm (amps) Total
Ckt	Use	Description		
1	Notification		0.00000	0.30000
2	Notification		0.00000	0.40000
		NAC Standby:	**0.00000**	**NAC Alarm:** **0.70000**

I/O Circuits (See I/O Configuration below)			Standby (amps) Total	Alarm (amps) Total
Ckt	Use	Description		
1	Aux Power		0.00000	0.03000
2	Unused		0.00000	0.00000
		I/O Standby:	**0.00000**	**I/O Alarm:** **0.03000**

Battery Calculation Summary

	Standby (amps)	Alarm (amps)
Panel Current:	0.13000	0.22000
P-Link Current:	0.03600	0.07300
SLC Device Current:	0.00750	0.04350
NAC Circuit Current:	0.00000	0.70000
I/O Circuit Current:	0.00000	0.03000

SLC Loop Type: Class B

Device Addresses Used: 26

Device Addresses Available: 60

Total Standby:	0.173500	**Total Alarm:**	1.06650
Standby Hours:	24	**Alarm Mins:**	5
AH Required:	4.17	**AH Required:**	0.09

Total Combined Standby & Alarm AmpHours Required: 4.26

Efficiency Factor: 80%

Required Battery AmpHours: 5.33

Battery AmpHours Provided: 7

Note: The cabinet will house two 8 AH or 18 AH batteries. The charging circuit is rated for up to two 55 AH batteries.

5

NAC Circuit Configuration & Voltage Drop   *38 Pleasant Street*

NAC 1	MAX Circuit Current (amps): 3	Source Voltage Used (VDC): 20.4

Usage: Notification   Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	0.300	20.40	16

		Circuit Devices	Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Desc	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
1		(No lookup function)			0.300000	0.300000
			Total Standby:	0.00000	Total Alarm:	0.30000

NAC 2	MAX Circuit Current (amps): 3	Source Voltage Used (VDC): 20.4

Usage: Notification   Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	0.400	20.40	16

		Circuit Devices	Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Desc	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
1		(No lookup function)			0.400000	0.400000
			Total Standby:	0.00000	Total Alarm:	0.40000

I/O 1

	MAX Circuit Current (amps): 1		Source Voltage Used (VDC): 20.4	

Usage: Aux Power   Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	0.030	20.40	16

	Circuit Devices		Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Desc	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
		(No lookup function)				
1		Sounder Base Power			0.030000	0.030000
		Total Standby:	**0.00000**		Total Alarm:	**0.03000**

I/O 2

	MAX Circuit Current (amps): 1		Source Voltage Used (VDC): 20.4	

Usage: Unused   Description:

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#14 Solid	2.5		0.000	0.000	20.40	16

	Circuit Devices		Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Desc	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
		(No lookup function)				
		Total Standby:	**0.00000**		Total Alarm:	**0.00000**

Sequence of Operations

	Audio/visual activation globally on general alarm	Audio/visual activation locally within the unit on local alarm only	Activate audible/visual signal at FACP & Annunciator	Device Description at FACP & Annunciator	Shutdown of HVAC equipment	Log event in system history	Activate Elevator Fire Hat	Activate Elevator primary or secondary control	Activate Elevator shunt trip	Silence of audible devices Including FACP & annunciator	Release door holders	Release locked doors	Event acknowledgement	Reset of all system functions and all visual devices	Remote transmission to Central Station A=alarm; T=trouble; S=Supervisory; L = log only	Remote indicator
Manual Pull Stations	X		X	X		X					X	X			A	
Smoke detectors common area	X		X	X		X					X	X			A	
Smoke detectors elevator lobbies	X		X	X		X		X			X	X			A	
Smoke Detectors elevator shaft/machine room	X		X	X		X	X	X			X	X			A	
Duct mounted Smoke Detectors			X	X	X	X									S	X
Smoke detectors with sounder base		X	X	X		X									S	
Sounder on smoke detector with sounder base	X															
Heat Detectors common area	X		X	X		X					X	X			A	
Heat Detectors Elevator shaft/machine room	X		X	X		X	X		X		X	X			A	
Sprinkler flow or pressure switches	X		X	X		X					X	X			A	
Sprinkler Tamper, low temp, or low air			X	X		X									S	
Secondary fire panel such as kitchen hood	X		X	X		X					X	X			A	
FACP/annunciator silence button			X	X		X				X					L	
FACP/annunciator acknowledge button			X	X		X							X			

Fire Alarm sequence of operations

Sequence of Operations

	Audio/visual activation globally on general alarm	Audio/visual activation locally within the unit on local alarm only	Activate audible/visual signal at FACP & Annunciator	Device Description at FACP & Annunciator	Shutdown of HVAC equipment	Log event in system history	Activate Elevator Fire Hat	Activate Elevator primary or secondary control	Activate Elevator shunt trip	Silence of audible devices Including FACP & annunciator	Release door holders	Release locked doors	Event acknowledgement	Reset of all system functions and all visual devices	Remote transmission to Central Station A=alarm; T=trouble; S=Supervisory; L = log only	Remote indicator
FACP/annunciator reset button			X	X		X								X	L	
Removal of any device			X	X		X									T	
Ground fault			X	X		X									T	
System wiring "open"			X	X		X									T	
AC Power loss			X	X		X									T	
Secondary power loss			X	X		X									T	
Telephone line loss			X	X		X									T	

DURACELL® SLA Batteries
ULTRA

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with conditions
02/24/2020

Duracell® Ultra SLA technology offers high-density power that out-performs traditional lead acid batteries. The Absorbed Glass Mat (AGM) construction is designed for efficient gas recombination and allows for maintenance-free operation. Duracell® Ultra SLA batteries maintain their high capacity with a design that is resistant to damage caused by deep discharge. Every Duracell® Ultra SLA battery is inspected to ensure the highest standards in materials and fabrication.

50-150
Cycles at 100% Discharge

SPILL PROOF GUARANTEE

Features:

- Duracell® Ultra SLA GEL batteries contain a proprietary grid alloy formula combined with advanced plate curing techniques to provide maximum performance.
- Duracell® Ultra batteries contain a unique electrolyte formula with a special sub-colloid additive for higher reliability and longer life.
- Will achieve more life cycles than standard AGM and Deep Cycle batteries.
- The unique construction and sealing techniques of these batteries are guaranteed to give you leak-proof operation.
- Heavy-duty lead calcium tin alloy grids provide an extra margin of performance and service life in cyclic applications, even after repeated over-discharges.
- Quality Assurance Engineers monitor and control the entire production process.
- Recycling of used SLA batteries available.
- Delivery available.

CASE Quantities AVAILABLE

Sealed Lead Acid

| Maintenance Free | Spill Proof Design | 1 Year Warranty | Stringent Quality Control |

DURACELL® ULTRA

SLA Batteries

PROJECT NAME:
CATALOG #
FIXTURE TYPE
NOTES

General Purpose

Battery	Volts	Capacity Ah (20Hrs)	Dimensions (LxWxH Inches)			Terminal Type	Group Size	Weight (Lbs.)
DURA12-0.8WL	12V	0.8	3.78	0.98	2.4	WL	-	0.77
DURA12-1.3F	12V	1.3	3.82	1.69	2.28	F1, T1	-	1.37
DURA12-2.3F	12V	2.3	6.97	1.38	2.64	F1, T1	-	2.04
DURA12-2.9F	12V	2.9	3.11	2.2	3.9	F1, T1	-	2.36
DURA12-3.3F	12V	3.3	5.28	2.64	2.63	F1, T1	-	3.18
DURA12-3.3F2	12V	3.3	-	-	-	-	-	-
RAYA12-4F	12V	4	3.54	2.76	4.21	F1, T1	-	-
DURA12-5F	12V	5	3.54	2.76	4.21	F1, T1	-	-
DURA12-5F2	12V	5	3.56	2.77	3.94	F2, T2	-	-
DURA12-5.1A	12V	5.1	5.51	1.89	4.21	F1, T1	-	4.6
DURA12-5.5F	12V	5.5	3.54	2.76	3.98	-	-	-
RAYA12-7F	12V	7	5.95	2.56	3.94	F1, T1	-	-
DURA12-7F	12V	7	5.94	2.56	3.94	F1, T1	-	-
DURA12-7F2	12V	7	5.94	2.56	3.7	F2, T2	-	-
DURA12-8F	12V	8	5.94	2.56	3.94	F1, T1	-	-
DURA12-8F2	12V	8	5.94	2.56	3.94	F2, T2	-	-
DURA12-9NB	12V	9	5.95	2.56	3.9	NB, J	-	-
DURA12-9F2	12V	9	5.95	2.56	3.94	F2, T2	-	-
DURA12-10F2	12V	10	5.95	2.54	4.38	F2, T2	-	7.5
DURA12-11NB	12V	11	5.28	3.15	6.5	-	-	10.1
DURA12-12F2	12V	12	5.94	3.9	3.98	F2, T2	-	-
DURA12-12F	12V	12	5.94	3.86	3.86	F1, T1	-	-
DURA12-14F2	12V	14	5.94	3.86	3.98	F2, T2	-	8.91
DURA12-18F2	12V	18	7.13	3.03	6.57	F2, T2	-	-
DURA12-18NB	12V	18	7.13	3.03	6.57	NB, J	-	12.43
DURA12-26NB	12V	26	6.5	6.93	4.92	NB, J	-	20.7
DURA12-35C	12V	35	7.72	5.16	6.5	C	-	27.3
DURA12-44C/FR	12V	46	7.8	6.54	6.85	C	-	38
DURA12-55C/FR	12V	55	9.02	5.43	8.35	-	-	42.1
DURA12-80C/FR	12V	80	10.24	6.65	8.46	C	-	-
DURA12-100C/FR	12V	100	12.09	6.65	8.46	C	-	74.6
DURA12-140C/FR	12V	140	13.43	6.81	11.3	C	-	108
DURA4-4.5F2	4V	4.5	1.85	1.85	3.98	F2, T2	-	1.4
DURA6-1.3F	6V	1.3	3.82	0.94	2.28	F1, T1	-	0.715
DURA6-2ST	6V	2	1.69	1.45	2.99	ST	-	0.75
DURA6-2.9F	6V	2.9	2.6	1.46	3.82	F1, T1	-	1.26
DURA6-3.3F	6V	3.3	5.28	1.34	2.64	F1, T1	-	1.65
RAYA6-4F	6V	4	2.76	1.85	4.13	F1, T1	-	-
DURA6-5SP	6V	5	2.6	2.6	4.53	SP	-	2.09
DURA6-5F	6V	5	2.76	1.85	4.21	F1, T1	-	-
DURA6-7.2F	6V	7.2	5.94	1.34	3.68	F1, T1	-	2.43
DURA6-8.2F	6V	8.2	3.9	2.24	4.53	F1, T1,	-	3.8
DURA6-10F	6V	10	5.94	1.97	3.98	F1, T1	-	4.851
DURA6-12F	6V	12	5.94	1.97	3.98	F1, T1	-	-
DURA6-12F2	6V	12	5.94	1.97	3.98	F2, T2	-	4.602
RAYA6-14T2	6V	14	4.25	2.8	5.51	H	-	6.24
DURA6-14A	6V	14	4.25	2.8	5.51	F1 (-) F2 (+), T1 (-) T2 (+), FP	-	6.16
DURA6-42F2	6V	42	6.25	3.37	6.37	F2, T2	-	16.64
DURA6-42NB	6V	42	6.34	3.43	6.42	NB, J	-	16.62
DURA6-200C	6V	200	12.05	6.65	8.63	C	-	-
DURA8-3.2F	8V	3.2	5.28	1.44	2.48	F1, T1	-	1.65

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UL LISTED

E120V-GT

Hybrid Surge Protection Device

Safety and performance is what Eclips is all about. While there are many varying criteria to be considered for surge protective devices (SPD), if the design engineer neglects the importance there can be serious implications for the client and equipment.

Every piece of electrical equipment is designed to operate at a specified nominal voltage. Typically equipment is designed to handle minor variations. However external sources such as lightning, motors, and short circuits cause wild and damaging variations.

Critical systems wired to your electrical service like Fire Alarm Control Panels (FACP), Mass Notification systems, amplifiers, motors, pumps (HVAC), power boosters and many more must require appropriate levels surge protection. The E120 series is an ideal choice for your 120V AC applications. because it has the robustness not only to absorb a spike, but to clamp long enough to trip the branch circuit breaker and still be functional for additional surges.

The number one cause of destruction, degradation and downtime of critical electrical equipment is from power surges and lightning strikes.

The E120V-GT device is an ideal solution to protect equipment. UL listed it maintains system integrity and protects against transients introduced into / onto electrical lines via poor atmospheric and utility conditions as well as internally generated inductive loads and transient TVSS. It reduces system downtime associated with power surges and lightning strikes. Prevents destruction and degradation of electrical components in the system. Fix your nuisance and non-billable service calls as a result of transients and poor power quality and show your customer you care about system integrity.

Standard Features:

- Available in 120 VAC
- UL Listed 1449 3rd Edition Type 2 & 3
  2X to open circuit breaker @5000A
- Includes lockout & labels per
  NFPA 72 2013 10.6.5.2
- Surface or conduit mounting
- Diagnostic indicator light
- Self restoring
- 3 Wire device (18" length)

Made In U.S.A.

ISO 9001 REGISTERED COMPANY

NFPA

UL® - Uses UL Recognized Components

NEMA

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No Excuses, Just Solutions!

![SPACE AGE ELECTRONICS, INC.]

Specifications:

All 120volt AC equipment will have Transient Voltage Surge Suppression (TVSS) protection manu-factured by Space Age Electronics, Inc., part number E120V-GT ECLIPS Brand. The Unit shall be UL listed to standard 1449 rev 3. The unit will be labeled clearly with indelible ink. Mounting can be con-duit mounted with a ¾" pipe threaded nipple to secure in panel, or surface panel mount with 2 external mounting holes. The unit shall have thermal fuses to protect against fire in short circuit conditions. The E120V will have 18" long, 14 gauge wires (3x) ground wire must be green. 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.

Specifications - Performance:

Short Circuit Current Rating (SCCR) :	5KA
Maximum Surge Current (8x20µs) :	25,000 Amps
Enclosure Material :	UL94 QMFZ2/8 (green)
Energy Dissipation Joules :	500 Joules
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) :	140 volts AC, 50/60 Hz
Clamping Voltage :	230 Volts RMS
Design :	Thermally Fused Hybrid
Operation Indicators :	LED
Surviveability :	UL rated X2 @5000 Amps to open Series external circuit breaker

Specifications - Compliance:

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

Specifications - Operating:

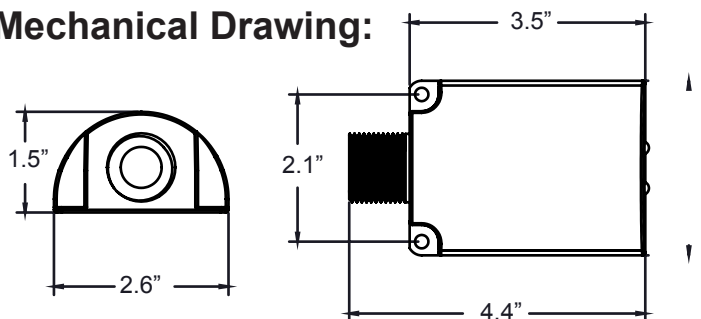|	
Service Voltage :	120 Single Phase
Circuits Protected :	L-N L-G N-G
Connection Type :	Hardwired
Installation Configuration :	Parallel

Specifications - Physical:

Weight :	5.2oz
Dimensions :	2.75" x 1.55" x 4" long
Operation Temperature :	-40 to +85º C

Mechanical Drawing:

Wiring Diagram:

![E-CLIPS]

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

No Excuses, Just Solutions!
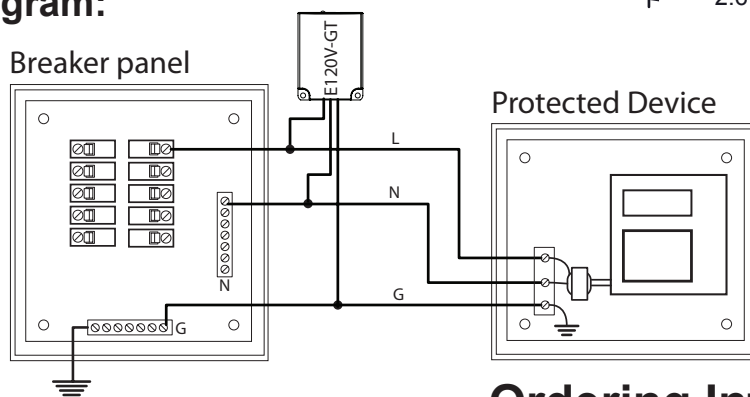
Ordering Information:

Part #	Description
E120V-GT	**120V Hybrid Surge Protective Device**
ELOCK-FA	**Circuit Lockout Kit**

FAD

FIRE ALARM DOCUMENTS
Records / Programs / Software
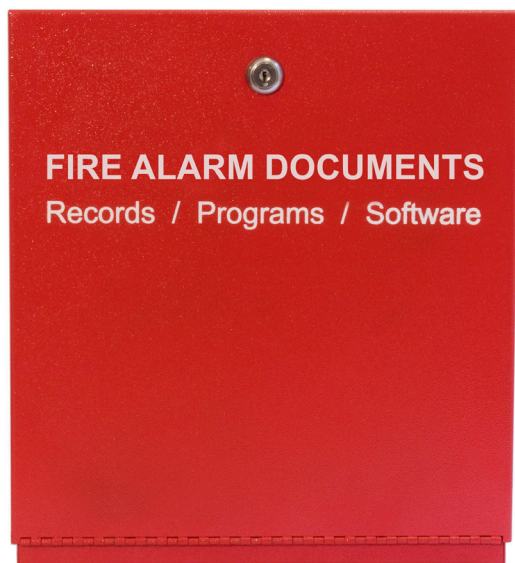
NFPA 72 section 10.18.2.1.2.8 If the documents are located in a separate enclosure or cabinet, the separate enclosure or cabinet shall be prominently labeled
FIRE ALARM DOCUMENTS.

Fire Alarm Documents
Records / Programs / Software

The FAD 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 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. With a 2GB USB flash drive it stores your fire alarm software safe and secure eliminating the occurrences of the software not being on site when technicians arrive to service the system. Along with your fire alarm software you can store your test & inspection documents, service records, manuals & AS built drawings for the system. Using a standard USB B connector it allows you to plug in with any standard SB printer cable to upload or download information.

The FAD is designed to hold critical manuals and documents with a durable steel sleeve. 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. The steel sleeve can be easily removed to hold a 1.5" three ring binder.

The innovation of a single gang cutout inside the box to implement the infinity line products with conduit knockout access enables you to provide other system functions for test and inspection. A drill switch or a shut off switch for testing are just a few examples. See the complete line of Infinity products for single gang electrical product solutions.
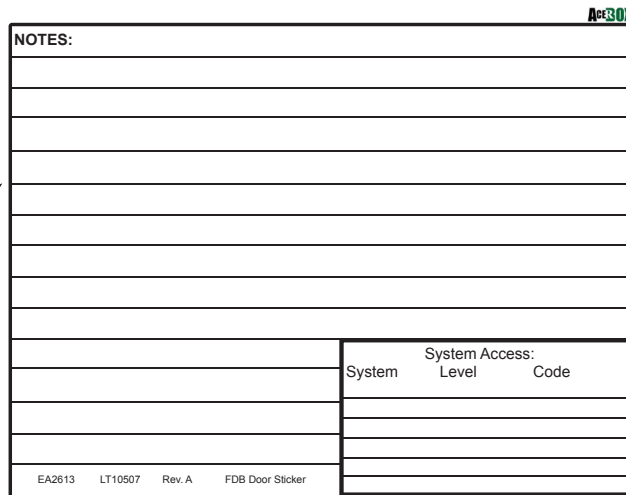
Standard Features:

- Installed with a 2 gig digital flash drive with USB B connector
- 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

ADA

NF PA

Made In U.S.A.

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Space Age Electronics, Inc.
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508.485.0966 Local
508.485.4740 Fax

No Excuses, Just Solutions!

Specifications:

The Fire Alarm Document Box (FAD) 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 indelible ink. The access door shall be locked with a ¾" 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 a removable steel sleeve that will accommodate standard 8 ½ x 11 manuals and loose document records that will be protected within the enclosure. A legend sheet permanently attached to the door for system passwords and critical information and inspection notes. The FAD will have permanently and securely mounted inside a minimum of 2GB's digital flash memory drive with a standard USB B connector for uploading and downloading information. The drive shall not be accessible without tools to any person whom gains access to the records. The enclosure shall also provide 2 key ring holders with a location to mount standard business type cards for key contact personell.

USB Storage Interface

Business Card Holder

Key Ring Hooks

CD Jewel Case Area

Drill Switch or Other Infinity Control Module (Not Included)

Notes Sticker inside FAD Door

Ordering Information:

Part #   Description

SSU00685 Fire Alarm Storage Cabinet RED

SSU00673 Custom screening with your Logo

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

POTTER
The Symbol of Protection

Features

- Nominal voltage 24 VDC
- Horn is available in 12 VDC or 24 VDC
- Super-Slide Bracket - ease of supervision testing
- Checkmate® - instant voltage verification
- Synchronize strobe and/or horn with 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 for chime, whoop, mechanical, and 2400 Hz tone
- Switch for continuous or temporal 3 (not available on whoop tone)
- Tamperproof re-entrant grill
- Surface mount with the AVBB (Surface Back Box)
- Silence horn while strobes remain flashing
- Faceplate available in red or off-white

Dimensions

- 5" (12.7 cm) height x 4.5" (11.43 cm) wide x 2.5" (6.35 cm) deep

Operating temperature

- 32°F to 120°F (0°C to 49°C). The EH-24 Series is not listed for outdoor use.

Ordering Information

Stock Number	Model Number	Model Designations
4890005	EH-24R	R = Red facepalte
4890006	EH-24W	W = Off-White faceplate
4890007	EH-24PR	P = Plain
4890008	EH-24PW	

SIGNALING
(UL) LISTED

Product includes a 5 year warranty

Description

The EH24 Series is a low profile electronic horn that offfers dependable audible output at the lowest current available.

The EH24 Series horn offers a continuous or synchronizable temporal three in 2400Hz and mechanical tone, a chime, and whoop tone. All tones are easy for the professional to change in the field by using switches.
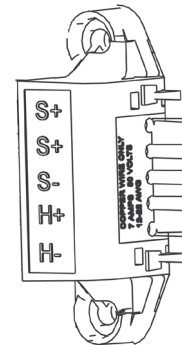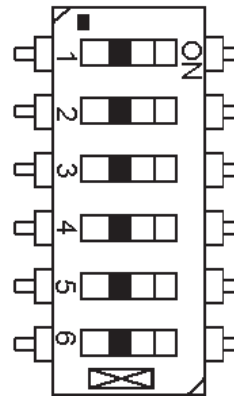
The EH24 Series is s hiped with the standard 4" mounting plate which incorporates the popular Super-Slide® feature that allows the installer to easily test for supervison. The product also features a locking mechanism which secures the product to the bracket without any screws showing.

The EH24 Series also features the patented Checkmate® - Instant Voltage Verification feature, which allows the installer to check the voltage drop draw and match it to the blueprint.

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Tone Switch Locations

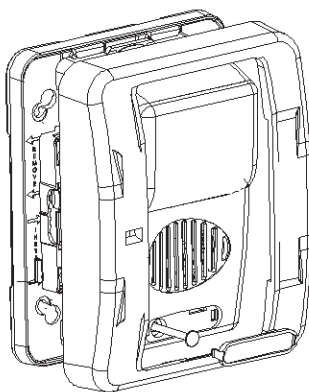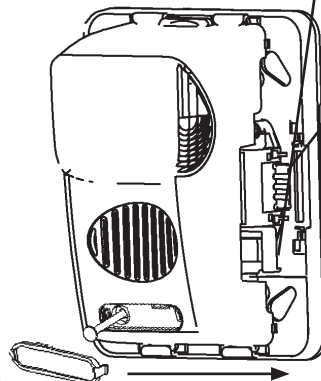| TONE	SWITCH POSITION		
	3	4	5
Mechancial Temporal 3	ON	ON	ON
Mechancial - Continuous	OFF	ON	ON
2400Hz - Temporal 3	ON	OFF	ON
2400Hz - Continuous	OFF	OFF	ON
Chime - Temporal 3	ON	ON	OFF
Chime - Continuous	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

NOTE:
- 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 a 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.

To remove bezel, grip both sides of bezel and pull in a downward and outward motion.

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EH-24 Product Horn Decibel and Current Ratings			
Horn Mode	Minimum dBA @ 10ft. per ANSI/UL 464 (HIGH)	Minimum dBA @ 10ft. per ANSI/UL 464 (LOW)	Regulated 24 VDC Max. Operating @ High Setting (mA)
Temp 3 2400Hz	78	71*	28
Temp 3 Mechancial	76	70*	25
Temp 3 Chime	70*	66*	15
Continuous 2400Hz	81	74*	28
Continuous Mechancial	80	72*	25
Continuous Chime	70*	66*	15
Whoop	82	69*	56

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. 12VDC models are DC only.
- * 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).

Architect & Engineering Specifactions

The audible and/or visible signal shall be Potter EH24 Series or approved equal and shall be listed by Underwriters Laboratories Inc. per ANSI/UL 464. The notification appliance shall also be lsited with the California State Fire Marshal (CSFM).

The notification appliance shall produce a peak sound output of 100 dBA or greater at 12 VDC or 24 VDC 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 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 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.

GEH 24 VDC Low Profile Evacuation Horn

Model Number	Part Number	Nominal Voltage	Reverberant dBA @ 10ft., per ANSI/UL 464	In Anechoic Room dBA @ 10ft.
GEH24-R	904-1205-002	24 VDC	70-82	100
GEH24-W	904-1207-002	24 VDC	70-82	100

Model Designations:
W = Wall Mount
R = Red Faceplate
W = White Faceplate

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

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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)

UL LISTED
S3247   *Product includes a 5 year warranty*

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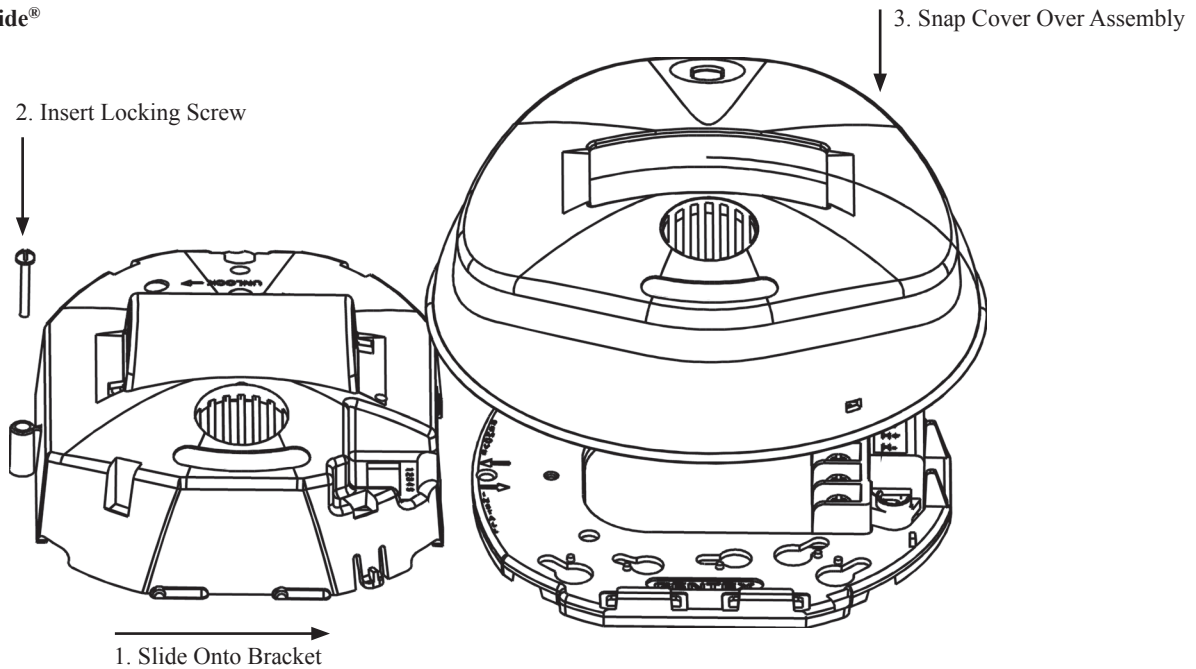
The CS Series has a very minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage.

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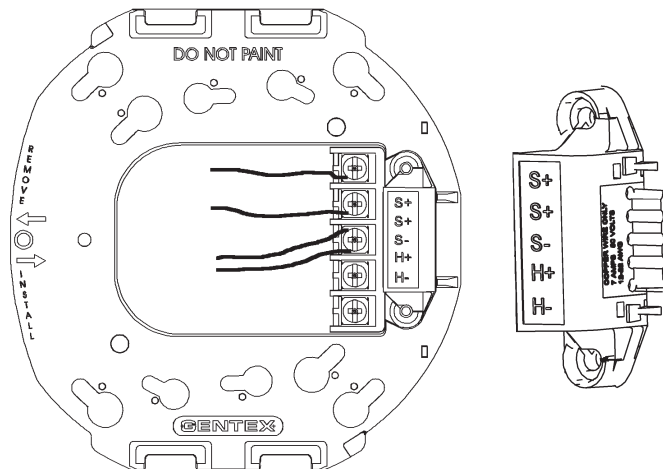
The CS/CHS also features the patented Checkmate® - Instant Voltage Verification feature which allows the installer to check the voltage drop draw without removing the signal.

The CS Series appliances are ANSI/UL 464 and ANSI/UL 1971 listed for use with fire protective systems.

Mounting Super-Slide®

3. Snap Cover Over Assembly

2. Insert Locking Screw

1. Slide Onto Bracket

Checkmate® Instant Voltage Verification

DO NOT PAINT

S+
S+
S-
H+
H-

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 Locations

1 2 3 4 5

LOCK
UNLOCK

15
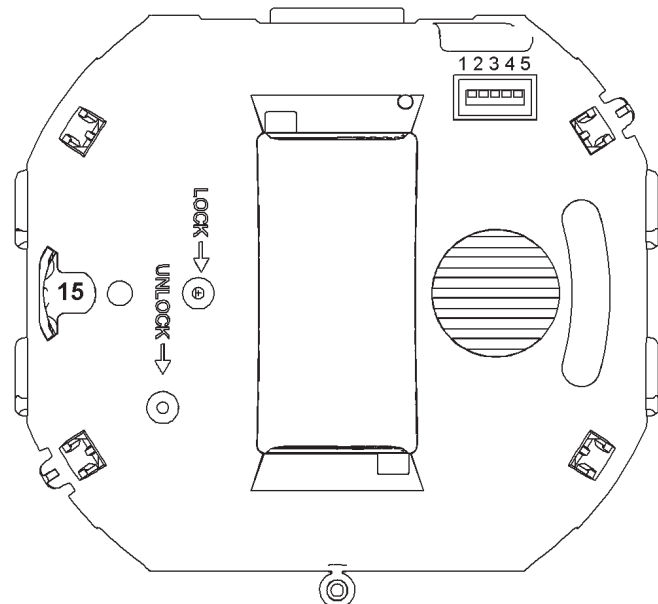
Switch positions 1 and 2 in the down position to select isolated horn and strobe power inputs. Switch 3 selects between temporal or non-temporal tone. Up is temporal. Switch 4 selects between mechanical or high frequency tone. Up is mechanical. Switch 5 selects between high or low dBA. Up is high dBA.

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POTTER
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CS/CHS
SELECTABLE CANDELA
CEILING MOUNT

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with Conditions
02/24/2020

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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CS/CHS
SELECTABLE CANDELA
CEILING MOUNT

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with conditions
02/24/2020

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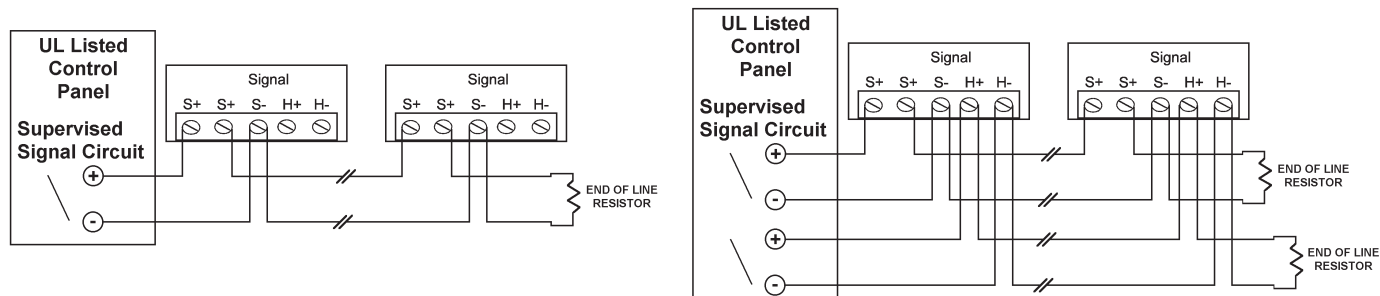
NOTES:
- All strobes are designed to flash as specified with continuous applied voltage. Strobes should not be used on coded or pulsing signaling circuits. However, use of the Gentex AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn and/or mute the horn.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

- 24VDC units have field selectable candela options of 15, 30, 60, 75, & 110
- Super-Slide® Bracket - Ease of Supervision Testing
- Checkmate® - Instant Voltage Verification
- Synchronize strobe and/or horn with AVSM Control Module
- Prewire entire system, install mounting bracket, then install signals
- Documented lower installation and operating costs
- Input terminals accept 12 to 18 AWG
- Switch selection for high or low dBA
- Switch for chime, whoop, mechanical and 2400Hz tone
- Tamperproof re-entrant style grill
- Switch for continuous or temporal 3 tone (not available on whoop tone)
- Surface mount with the AVBB (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 HS and S Series are **not** listed for outdoor use.

Unit Dimensions

- 5" (12.7 cm) high x 4.5" (11.43 cm) wide x 2.5" (6.35 cm) deep

UL LISTED
S3247

Description

The S-24/HS-24 Series is a low profile strobe and horn/strobe combination that offers dependable audible and visual alarms and the absolute lowest current available.

The S-24 & HS-24 Series 24VDC offers tamperproof field selectable candela options of 15, 30, 60, 75, and 110 candela.

The Strobe and Horn/Strobe offers a continuous or sync temporal three in 2400Hz and mechanical tone, a chime and whoop tone. All tones are easy for the professional to change in the field by the use of switches.

The S-24 & HS-24 Series has a minimal operating current and has a minimum flash rate of 1Hz regardless of input voltage.

This Series is shipped with a standard 4" metal 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 S-24/HS-24 also features the patented Checkmate® - Instant Voltage Verification feature which allows the installer to check the voltage drop draw and match it to the blueprint.

The S-24 & HS-24 Series appliances are ANSI/UL 464 and ANSI/UL 1971, listed for use with fire protective systems and are warranted for three years from date of purchase.

POTTER
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Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with conditions
02/24/2020

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

NOTE:
- 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.

Candela selection slider switch. Depress center and slide switch to desire brightness level.
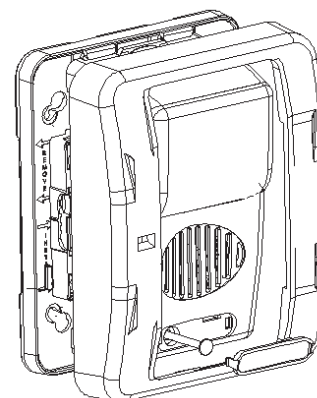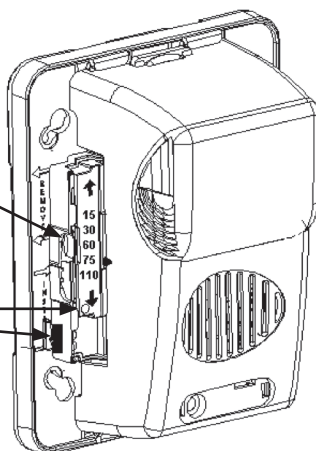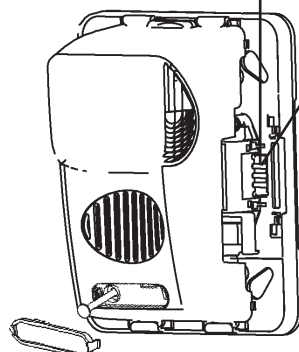
Break off pin and insert into hole at the bottom of the selector to lock candela setting. Signal must be removed from bracket and pin pushed forward from backside out of hole to change candela.
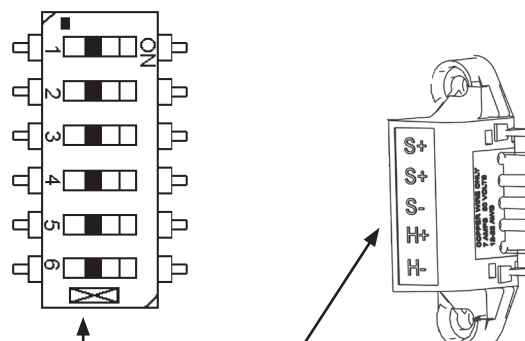
Checkmate® Instant Voltage Verification
It is often necessary to confirm the voltage drop along a line of devices. The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically, this would be done at the end of line to confirm design criteria. Most measurements will be taken using the S+ and S- locations althouhg access is provided to other locations.

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

To remove bezel, grip both sides of bezel and pull in a download and outward motion.

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POTTER
The Symbol of Protection

S-24 & HS-24
SELECTABLE CANDELA
STROBE & HORN/STROBES

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with Conditions
02/24/2020

S-24 24 VDC Selectable Candela, Low Profile Evacuation Strobe

Model Number	Part Number	Nominal Voltage	Candela (ANSI/UL 1971)
S-24WR	4890010	24 VDC	15, 30, 60, 75, 110
S-24WW	4890011	24 VDC	15, 30, 60, 75, 110

HS-24 24 VDC Selectable Candela, Low Profile Evacuation Horn/Strobe

Model Number	Part Number	Nominal Voltage	Candela (ANSI/UL 1971)	Reverberant dBA at 10 ft., per ANSI/UL 464	In Anechoic Room dBA at 10 ft.
HS-24WR	4890030	24 VDC	15, 30, 60, 75, 110	62-82	100
HS-24WW	4890031	24 VDC	15, 30, 60, 75, 110	62-82	100

S-24 & HS-24 Product Strobe Current Ratings (mA)

	24 VDC (16-33 Volts)	
Candela	**24 VDC**	UL Max[1]
15 cd	**30 mA**	42 mA
30 cd	**35 mA**	58 mA
60 cd	**66 mA**	97 mA
75 cd	**80 mA**	116 mA
110 cd	**103 mA**	161 mA

Model Designations:
W = Wall Mount
R = Red Faceplate   W = White Faceplate

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

ALERT bezel available for order.
ALERT bezel available for order.

S-24 & HS-24 Product Horn Current Ratings

Horn Mode	Horn Decibel Levels		Horn Current Ratings
	Minimum SPL at 10 ft., per ANSI/UL 464 (HIGH)	Minimum SPL at 10 ft., per ANSI/UL 464 (LOW)	Regulated 24 VDC Max. Operating @ High Setting (mA)
Temp 3 2400 Hz	78 dBA	71* dBA	28 mA
Temp 3 Mechanical	76 dBA	70* dBA	25 mA
Temp 3 Chime	70* dBA	66* dBA	15 mA
Continuous 2400 Hz	81 dBA	74* dBA	28 mA
Continuous Mechanical	80 dBA	72* dBA	25 mA
Continuous Chime	70* dBA	66* dBA	15 mA
Whoop	82 dBA	69* dBA	56 mA

NOTES:

- For nominal and peak current across ANSI/UL regulated voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see installation manual.

- Potter does nto recommend usign a coded or pulsing signaling circuit with any of our strobe products.

- 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.

* 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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Architect & Engineering Specifications

The audible and/or visible signal shall be Potter S-24 strobe and Potter HS-24 horn/strobe Series or approved equal and shall be listed by Underwriters Laboratories, Inc. per ANSI/UL 1971 and/or ANSI/UL 464. The notification appliance shall also be listed with Factory Mutual Listing Service (FM) and the California State Fire Marshal (CSFM).

The notification appliance (combination audible/visible) shall produce a peak sound output of 100dBA or greater at 24VDC 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.

Unit shall be capable of being installed so that any unauthorized attempt to change the candela setting will result in a trouble signal at the fire alarm control panel.

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 strobe appliance shall have an operating current of 42mA or less at 24VDC for the 15Cd 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 and 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 or full wave rectified power for 24VDC models.

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

Conventional Wiring Diagrams for Emergency Notification Evacuation Series
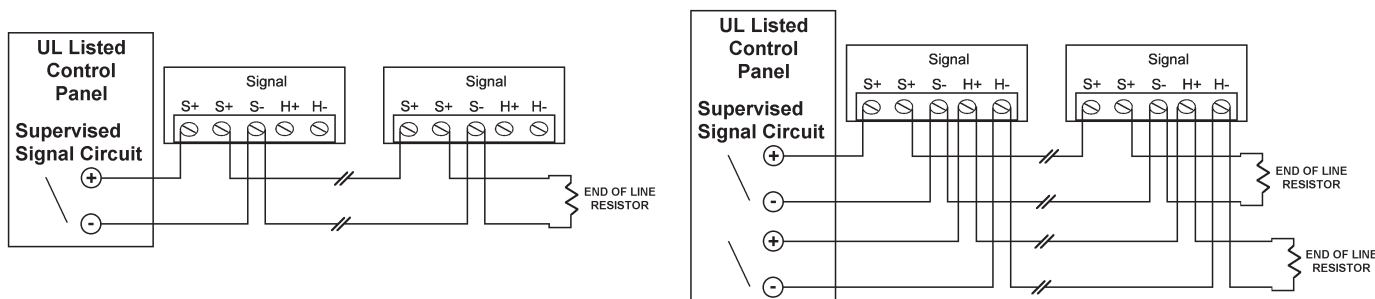
NOTES:
- All strobes are designed to flash as specified with continuous applied voltage. Strobes should not be used on coded or pulsing signaling circuits. However, use of the Potter AVSM control module or Gentex synchronization protocol is permitted to synchronize the strobe, horn, and/or mute the horn.
- **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.**

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