

**Features**

- Supports single and dual channel applications
- Flexible programming
- Up to 2 hours of message storage
- Up to 255 customizable audio patterns
- Internal message library of predefined messages and tones
- Ability to record and import message files from a laptop
- Text-to-speech to translate custom text through a variety of natural and fluent sounding voices.
- Expandable up to 104 programmable push buttons for speaker and ECS assignment
- User push buttons for All Call and control.
- A supervised auxiliary input to interface with low-level audio sources
- Background Music
- Connect up to 31 SCA (single channel) or DCA (dual channel) amplifiers
- Interface with LOC-1000 (Local Operator Console) to control the system from remote areas.
- Optional Fire Fighters Telephone system
- All features of the IPA-4000 included
- Equipped with microphone
- UUKL Listed for Smoke Control



NYC Fire Dept.  
Certificate of Approval  
6266



**Description**

The IPA-4000V is an enhanced version of the IPA-4000 addressable fire alarm system, now with voice integration. The panel features all pre-existing fire highlights and shares new innovative voice functionalities to provide reliability and safety with the panel. The panel introduces the VM-1000 voice module and digital message repeater to deliver audio to designated remote amplifiers. The VM-1000 contains two V-Link channels (audio riser outputs) to support single and dual channel amplifiers. The voice module also includes a supervised low level auxiliary input to interface with external audio sources and supports applications requiring background music. The IPA-4000V is equipped with an ECS user interface providing 8 programmable push buttons for speaker and ECS zone assignment, LED indicators to display activity and trouble conditions, and common user function buttons for All Call and CTRL.

The optional SB-24 (Switch Board w/24 Programmable Switches) will offer 24 additional programmable push buttons. A maximum of four (4) SB-24's can be installed, offering up to 96 programmable push buttons.

The IPA-4000V can link up to thirty-one (31) SCA (single channel amplifier) or DCA (dual channel amplifier) amplifiers, thirty (30) LOC-1000 (local operator console) and one (1) FFT-1000 (Firefighter Telephone System).

The Potter Panel Programmer introduces Audio Patterns which allows users to select and create audio files easily and effectively from the user's laptop. The programmer offers an internal library of predefined message and tones for common emergency conditions. Audio Patterns provides the ability to conveniently record and import audio files directly from a laptop. The exclusive Text-To-Speech feature translates custom digital text into fluent and natural sounding voices. Offering multiple voices and languages to accommodate customer preferences.

**Technical Specifications**

Dimensions	21 3/8"W x 29 1/8"H x 4 7/8"D
AC Mains	5.0 Amps @ 120 VAC 50/60 HZ 3.0 Amps @ 240 VAC 50/60 HZ
Enclosure	16 gauge cold rolled steel with removable locked door with Lexan viewing window
Battery	Standby Current-130 mA Alarm Current-220 mA <ul style="list-style-type: none"> <li>• 10 Amps power for NACs, I/O, and P-Link</li> <li>• 3 Amps per NAC, regulated</li> <li>• 1 Amp per I/O circuit, regulated</li> <li>• Battery Charger range 8-55 Ah</li> <li>• Battery Charger voltage 27.3 VDC</li> <li>• P-Link maximum current of 1 Amp</li> </ul>
Temperature and Humidity Range	32° to 120° (0°C to 49°C) with a maximum humidity of 93% non-condensing.
Standards	<ul style="list-style-type: none"> <li>• NFPA 12, 12A, 13, 15, 16, 17, 17A, 70, 72, 92,750, and 2001</li> <li>• 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)</li> <li>• IBC (International Building Code)</li> </ul>

## SLC Loop Accessories

The control panel may be connected with up to 4,064 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
PAD Series-PD	Analog Photoelectric Smoke Detector is a smoke detector with a listed obscuration of 1.1 to 3.5%/foot. UL 268 7th Edition.
PAD Series-PHD	Combination Analog Photoelectric Smoke/Heat Detector – a smoke detector with a listed obscuration of 1.1 to 3.5 %/foot obscuration and a fixed temperature range of 135° to 185° F heat detector. Smoke detection compliant with UL 268 7th Edition.
PAD Series-PCD	Combination Photoelectric Smoke/Carbon Monoxide Detector. Smoke detection compliant with UL 268 7th Edition. Carbon Monoxide detection compliant with UL 2075.
PAD200-PCHD	Combination Photoelectric Smoke/Heat/Carbon Monoxide Detector. Smoke detection compliant with UL 268 7th Edition. Heat detection with a fixed temperature range of 135° to 185° F and UL 521 7th Edition compliant. Carbon Monoxide detection compliant with UL 2075.
PAD Series-HD	Analog Fixed Temperature (135° - 185°F) or Rate-of-Rise Heat Detector (software selectable).
PAD Series-DUCTR	Addressable Duct Smoke Detector with Form C Relay rate at 10Amps @ 250/120VAC or 8 Amps at 30VDC.
PAD Series-DUCT	Addressable Duct Smoke Detector.
PAD100-6DB	6” round base that is mountable to an electrical box and wired for connection to the PAD100/200 devices.
PAD100-4DB	4” round base that may be mounted to an electrical box and wired for connection to the PAD100/200 devices.
PAD100-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop and used for connection to the PAD100/200 devices.
PAD100-RB	Addressable Relay Base that contains one relay controlled by the SLC. Relay at rated at 2 amps at 30 VDC or 0.5A at 125VAC. For PAD100/200 devices only.
PAD100-SB	Addressable Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call. For PAD100/200 devices only.
PAD Series-CD	Addressable CO gas detector.
PAD200-DD	Addressable photoelectric smoke detector for use in DUCT/DUCTR enclosure.
PAD300-DD	Addressable photoelectric smoke detector for use in DUCT/DUCTR enclosure or pendant mount applications.
PAD100-LFSB	Addressable Low Frequency Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call. The LFSB complies with the Low Frequency Signal Requirements (520 Hz) and used for connection to the PAD100/200 devices.
PAD100-SPKB	Speaker base is a wall or ceiling mount speaker capable of 25 or 70.7 VRMS and is field selectable from 1/8W to 4W and used for connection with the PAD100/200 devices.
PAD300-6DB	6” round base which is mountable to an electrical box and wired for connection to the PAD300 devices.
PAD300-4DB	4” round base which is mountable to an electrical box and wired for connection to the to the PAD300 devices.
PAD300-IB	Isolator base that interrupts a short in a SLC and prevents the short from affecting protected devices on the loop. Used for connection to the PAD300 devices.
PAD300-RB	Addressable Relay Base that contains one relay controlled by the SLC. The Relay is rated 2 amps at 30 VDC or 0.5A at 125VAC and used for connection to the PAD300 devices
PAD300-SB	Addressable Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call; and used for connection to the PAD300 devices.
PAD300-LFSB	Addressable Low Frequency Sounder Base that contains an addressable sounder module which allows for configuration of local, group, and/or all call. The LFSB complies with the Low Frequency Signal Requirements (520 Hz) and used for a connection to the PAD300 devices.

## Modules

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

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## SLC Features

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

## Sensor Features

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

## User Interface

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

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

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

## Ethernet/I.P. Connection

The IPA-4000 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.

## Voice Accessory

**SB-24** – Switch bank with 24 programmable push buttons. Maximum of 4 SB-24s.

## Voice Interface

The IPA-4000V panel incorporates a SB-8 user interface to specifically display ECS system status. The panel is shipped with the following LEDs:

- Ready to Page
- Trouble
- Control Requested
- Remotely Controlled
- Locally Controlled

The common push buttons include All Call, Reset and Ctrl.

## P-Link

The IPA-4000V 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 (maximum of 31 per IPA-4000)

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

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

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

**PSN-1000(E)** – 10 amp, remote intelligent power supply with 6 NACs, 2 Inputs and a P-Link repeater. This panel is listed in conjunction with the IPA-4000 as releasing circuits.

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

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

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

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

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

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

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

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

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

**IDC-6** – Initiating device circuit provides 6 programmable inputs

**AE-2** – Two card expansion cabinet

**AE-8** – Eight card expansion cabinet

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

**SCA-2525** – Single channel, 25W, 25V amplifier

**SCA-2570** - Single Channel, 25W, 25V or 70V selectable amplifier

**SCA-5025** - Single channel, 50W, 25V amplifier

**SCA-5070** - Single Channel, 50W, 25V or 70V selectable amplifier

**SCA-10070** - Single Channel, 100W, 25V or 70V selectable amplifier

**DCA-5025** - Dual channel, 50W, 25V amplifier

**DCA-10025** - Dual channel, 100W, 25V amplifier

**LOC-1000** – Local operator console

**FFT-1000R** - Firefighter’s Telephone System, Right Hinge Door

**FFT-1000L** - Firefighter’s Telephone System, Left Hinge Door

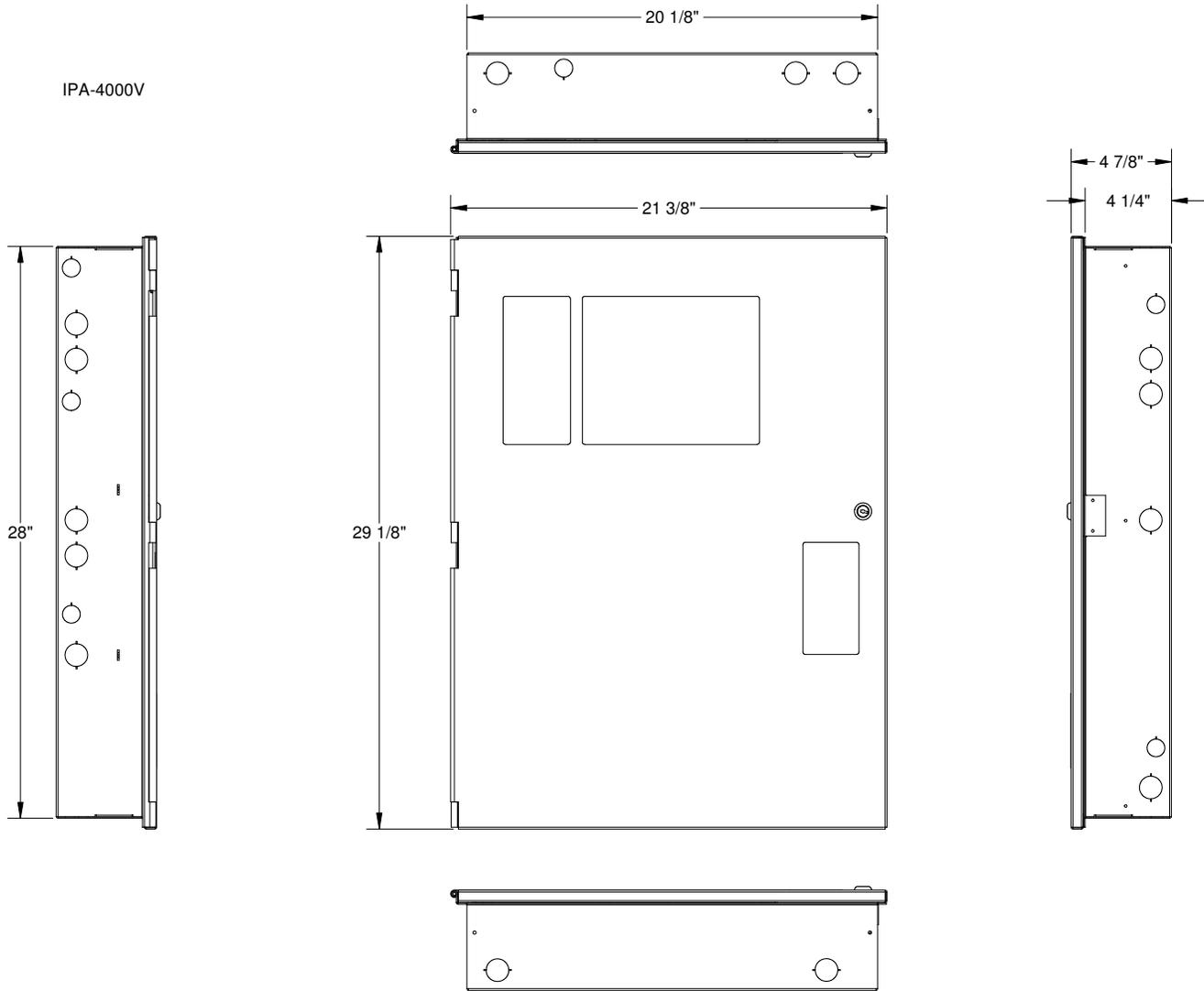
**SB-24** - Switch Board with 24 programmable switches

## 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

**Dimensions**



**Ordering Information**

Model	Description	Stock No.
IPA-4000V	IPA-4000V INTEGRATED VOICE SYSTEM	3520653