



## SK-2 & SK-2E Fire Alarm Control Panel



A flexible, powerful, cost-effective panel for fire protection applications.

The SK-2 and SK-2E (SK-2/E) are two zone conventional fire alarm control panels (FACPs) that bring the latest in microprocessor technology to conventional fire controls. The SK-2 is a 120 VAC FACP and the SK-2E is a 240 VAC FACP. These FACPs provide reliable fire signaling protection

for small- to medium-sized commercial, industrial, and institutional buildings.

For more information about the SK-2/E system, or to locate your nearest source, please call 1-800-446-6444, or in Minnesota, call 763-493-6435.

### Description

The two zone SK-2/E is a 24 VDC FACP that provides two Class B initiating device circuits and one Class B notification appliance circuit (NAC).

The SK-2/E NAC protocol includes the ability to silence audible devices while strobes continue to flash, using only a single pair of wires. The SK-2/E is also compatible with conventional input devices such as two- and four-wire smoke detectors, pull stations, waterflow devices, tamper switches and other normally-open contact devices.

Activation of a compatible smoke detector or any normally-open fire alarm initiating device activates audible and visual signaling devices, illuminates an indicating LED, sounds the piezo sounder at the FACP, activates the FACP alarm relay, and operates an optional module used to notify a remote station or initiate an auxiliary control function.

The SK-2/E is compatible with System Sensor® I<sup>3</sup> detectors providing advanced features such as drift compensation, maintenance alert, and freeze warning. Automatic synchronization of audio/visual devices is provided, using three selections for manufacturer protocol.

### Features

- Two Style B (Class B) initiating device circuits (IDCs)
- One Style Y (Class B) notification appliance circuit (NAC)

- Support for synchronization of standard ANSI audible signals and ADA compliant strobes per NFPA 72
- Selectable for System Sensor, Wheelock, and Gentex protocols
- Selective silence feature allows manual silence of horns while strobes continue to flash on the same NAC
- Silent or audible walk test operation mode
- Alarm verification selectable per zone
- Program each zone for supervisory or fire with separate red and yellow LEDs
- Disable switches provided per zone
- Program NACS for
  - Silence inhibit
  - Auto silence
  - Strobe synchronization
  - Temporal or steady signal
  - Silenceable or nonsilenceable
  - Disable
- Form C alarm and trouble relays
- 3A total usable current
- Optional dress panel (PN SK-DP2/4)

### Electrical Specifications

SK-2 Primary AC: 120 VAC @ 50/60 Hz, 2.3A

SK-2E Primary AC: 240 VAC @ 50 Hz, 1.15A

Wiring: 14 AWG (2.0 mm<sup>2</sup>) with 600 V insulation min

### Initiating Device Circuits (IDCs)

Operating Voltage: 22 VDC nominal; power-limited

Standby Current: 4 mA

Alarm Current: 15 mA min

Short-circuit Current: 40 mA max



**SK-2**

Loop Resistance: 100 max  
EOL Resistor: 4.7K , 1/2 watt

### NACs

2.5A @ 24 VDC with standard transformer, power-limited  
Signaling Current: 2.5A max with standard transformer  
EOL Resistor: 4.7K , 1/2 watt

### Form C Relays

Types: Trouble and alarm  
Contact Ratings: 2A @ 30 VAC, resistive

### Auxiliary Output

Resettable  
Operating Voltage: 24 VDC nominal  
Current: 500 mA max, power-limited



# SK-2 & SK-2E Fire Control Panel



## Engineering Specifications

The contractor shall provide a completely electrically supervised fire alarm control panel Silent Knight Model SK-2/E. The system shall contain a fire alarm control panel capable of operating and supervising smoke detection devices, alarm notification devices, and an on-board annunciator. It shall be compatible with a digital communicator accessory.

The fire alarm control panel shall have a power limited supply, two Class B initiation circuits which shall accommodate heat detectors, smoke detectors, and manual pull stations. Smoke detection shall be achieved with either 2- or 4-wire detectors that are compatible with the system. The initiation inputs shall be programmable as 1) verification zones in which detectors are automatically reset one time before signaling an alarm condition; or 2) combination waterflow supervisory zones that allows the FACP to distinguish between an alarm switch (waterflow device) and a supervisory switch (tamper) installed on the same circuit. The FACP shall have one 2.5 amp programmable notification output. It shall have dedicated relays for alarm and trouble and a resettable power output rated at 500 mA.

The FACP shall have an on-board annunciator to indicate alarm, supervisory, trouble, and maintenance conditions. The annunciator must include LEDs for AC, GENERAL TROUBLE, ALARM SILENCE, WALK TEST, EARTH FAULT, AND LOW BATTERY. The annunciator shall also contain LEDs to annunciate fire alarms, troubles, supervisory, and maintenance by zone. The FACP must be fully operational from the annunciator and include buttons for ACKNOWLEDGE, ALARM, SILENCE, RESET, and WALK TEST. The annunciator must also have separate DISABLE switches for each zone and notification circuit.

### Electrical Specifications (cont)

#### Battery

Type: Sealed lead acid only  
Charging Circuit: 27.6 VDC @ 0.8A  
max normal flat charge  
Charging Capacity: 7 AH  
Size: 18 AH max allowed in FACP.  
Larger batteries can housed  
in an RBB accessory cabinet

#### Compatible Initiating and NAC Devices

See SK document PN 52612.

#### Mechanical Specifications

Cabinet Backbox Dimensions:  
14.5" W x 15" H x 3" D  
(36.83 W x 38.10 H x 7.62 D cm)  
Cabinet Door:  
14.677" W x 15.342" H x 0.375" D  
(37.28 W x 38.97 H x 0.95 D cm)  
Cabinet Color: Red  
Telephone Requirements:  
FCC Part 15 and Part 68 approved  
Type of Jack: RJ31X (two required)

#### Installation

The SK-2/E can be surface mounted using two key slots at the top of the backbox and two additional 0.25" diameter holes at the bottom, or semi-flush mounted using optional Trim Ring P/N TR-1-R

#### Approvals

NFPA 72; UL Listed;  
CSFM 7165-0559: 145;  
MEA 297-01-E-3

#### Ordering Information

**SK-2**  
120 VAC Two Zone Conventional FACP

**SK-2E**  
240 VAC Two Zone Conventional FACP

#### Accessories

**SK-DP2/4**  
Dress Panel. Allows access to the panel controls but restricts access to system wiring.

#### SK-4XTM

Transmitter Module. Provides a supervised output for local energy municipal box transmitter and alarm and trouble reverse polarity.

#### RBB

Remote Battery Box Accessory Cabinet. Use if back up batteries are too large to fit into FACP cabinet.  
Dimensions: 16"W x 10"H x 6"D  
(406 mm W x 254 mm H x 152 mm D)

#### Digital Communicator Accessories

**5104B**  
Six-Zone fire control communicator

**5129**  
Four channel slave fire communicator



This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Silent Knight 7550 Meridian Circle Suite 100, Maple Grove, Mn 55369-4927.  
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