The 6820EVS panel and accessories provide features to meet the requirements for Mass Notification Systems as described in UL 2572.

The 6820EVS is an intelligent addressable Fire Alarm Control Panel combined with an Emergency Voice System (EVS) and are direct replacements for the 5820XL-EVS FACP. When the EVS features are enabled, they are integrated with the fire alarm and voice evacuation functions of the control panel.

The emergency voice system operations include an onboard supervised microphone. All-call and non-active call buttons can quickly select all active or non-active output groups. The system also allows for emergency messages over fire.

The 6820EVS FACP has one built-in signaling line circuit (SLC), which can support 159 SK detectors and 159 SK modules, or 127 SD protocol devices. Additional SLC loops can be added for a maximum of 1110 (SK) or 635 (SD) points per panel.

The built-in digital alarm communicator/transmitter (DACT) is dual technology, IP and POTS. The POTS transmits system status (alarms, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. The IP communicator’s internet monitoring capability sends alarm signals over the Internet saving the monthly cost of two dedicated business telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line. Optional cellular reporting is available.

The 6820EVS has six onboard Flexput® circuits that can be configured as notification outputs or auxiliary power. The 6820EVS also has a form-C trouble relay, and two programmable form-C relays, along with powerful features such as drift compensation, pre-trouble maintenance alert, a built-in sensor test to comply with NFPA 72 calibration testing requirements, and a calibration trouble alert.

A common communications and annunciation link allows up to 17 panels to be connected via copper or fiber optic cable. A designated panel is configured as the communicator for all panels in the link for convenient single-point communications.

FEATURES AND BENEFITS

- Single enclosure for both fire and emergency voice components
- Ability to select EVS messages as priority over fire
- 15 Recordable one-minute messages that can be mapped to eight EVS buttons
- Capable of producing 520 Hz tones to meet NFPA 72 requirements
- Support for up to 4 LOCs and 8 addressable amplifiers
- Expandable SLC loops to 1110 (SK) or 635 (SD) point capacity
- Six Flexput circuits for NAC outputs or auxiliary power
- Selectable strobe synchronization for Amseco®, System Sensor, Wheelock®, and Gentex® devices
- Built-in DACT with IP and optional cellular reporting
- Built-in USB interface for quick and easy programming
- JumpStart® auto programming reduces installation time
- 999 software zones & 999 output groups for flexible design options
- 23 preset notification cadence patterns (including ANSI® 3.41)
- Allows up to 24 SBUS devices
- Four programmable function keys
- Two programmable relays and one fixed trouble relay
- Compatible with SWIFT® wireless devices
- Convenient field-upgradeable firmware
- Network support for up to 17 sites
- Network card allows copper network connection with a multi-mode or single-mode fiber connection
- Real-time clock/calendar with automatic daylight savings control
- History file with 1,000 event capacity
USER INTERFACE

LED INDICATORS
- General Alarm (Red)
- Supervisory (Yellow)
- System Trouble (Yellow)
- System Silenced (Yellow)
- System Power (Green)

KEYPAD
- 12-key numeric pad
- Acknowledge
- Alarm Silence
- System Reset
- Drill
- F1-F4 Programmable Function Keys

PROGRAMMING
The 6820EVS system offers several options to simplify and expedite programming. JumpStart® auto programming minimizes programming required to start a new system. The built-in keypad, or the remote annunciators give on-site access to current system programming. System programming can also be accomplished using the Windows®-based Honeywell Fire Software Suite (HFSS).

ORDERING INFORMATION
6820EVS: Addressable fire alarm control panel, red

COMPATIBLE EVS EQUIPMENT
EVS-50W: 50 Watt amplifier
EVS-125W: 125 Watt amplifier
EVS-100W: 50/100 Watt amplifier
EVS-100WBU: External backup amplifier
EVS-INT50W: 50 /Watt internal amplifier
EVS-CE4: Provides 4 additional audio circuits
EVS-RVM: Remote voice module
EVS-SW24: 24 switch expander
EVS-VCM: Network voice control module
EVS-LOC: Local operator console

COMPATIBLE SBUS DEVICES
6860: 4x40 LCD remote fire annunciator with four programmable buttons, red
5860: 4x20 LCD remote fire annunciator, gray
5860R: 4x20 LCD remote fire annunciator, red
6855: 4x20 LCD remote fire annunciator, red
5865-3: LED annunciators- display up to 30 LEDs (15 red/15 yellow)
5865-4: LED annunciators- display up to 30 LEDs (15 red/15 yellow). Key switches for silence and reset, and a system trouble LED
5880: LED I/O module with 40 programmable LED outputs and eight supervised dry contact inputs
5883: Relay interface. Provides 10 Form C relays
5824: Serial/Parallel printer interface module for printer connection

SK COMPATIBLE ADDRESSABLE DEVICES
Note: SK and SD devices cannot be mixed in the same fire alarm system.
SK-ACCLIMATE: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature
SK-BEAM: Reflected beam smoke detector without test feature
SK-BEAM-T: Reflected beam smoke detector with test feature
OSI-RI-SK: Reflected beam smoke detector, SK protocol
SK-CONTROL: Supervised control module
SK-CONTROL-6: Six circuit supervised control module
SK-DUCT: Photoelectric duct smoke detector with extended air speed range
SK-FIRE-CO: Four criteria fire and carbon monoxide detector
SK-FIRE-CO-W: Four criteria fire and carbon monoxide detector, white
SK-HEAT: Fixed thermal detector (135°F)
SK-HEAT-W: Fixed thermal detector (135°F), white
SK-HEAT-ROR: Fixed rate of rise detector
SK-HEAT-HT: Fixed high temperature heat detector (190°F)
SK-HEAT-HT-W: Fixed high temperature heat detector (190°F), white
SK-HEAT-ROR-W: Fixed rate of rise detector, white
SK-ISO: Fault isolator module
SK-MINIMON: Mini monitor module
SK-MONITOR: Monitor module
SK-MONITOR-2: Dual input monitor module
SK-MON-10: 10- input monitor module
SK-PHOTO: Photoelectric smoke detector
SK-PHOTO-W: Photoelectric smoke detector, white
SK-PHOTO-R: Photoelectric detector with remote test capability
SK-PHOTO-R-W: Photoelectric det. with remote test capability, white
SK-PHOTO-T: Photoelectric smoke detector with fixed heat (135°F)
SK-PHOTO-T-W: Photoelectric smoke detector with fixed thermal heat (135°F), white
SK-PHOTO-PTIR: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature, white
SK-PULL-SA: Addressable single action pull station
SK-PULL-DA: Addressable dual action pull station
SK-RELAY: Addressable relay module
SK-RELAY-6: Addressable Six relay control module
SK-RELAYMON: Addressable Dual relay/monitor module
SK-ZONE: Addressable zone interface module
SK-ZONE-6: Six zone interface module

SK BASES
B210LP: 6” mounting base
B501: 4” Flangeless mounting base
B200S: Intelligent sounder base
B200S-LF: Low-frequency intelligent sounder base
B224RB: Relay base
B224BI: Isolator base

**SD COMPATIBLE ADDRESSABLE DEVICES**

*Note:* SK and SD devices cannot be mixed in the same fire alarm system.

SD505-6AB: Addressable 6” base
SD505-6IB: Addressable 6” short circuit isolator base
SD505-6RB: Addressable 6” relay base
SD505-6SB: Addressable 6” sounder base
SD500-AIM: Addressable input module (switch input)
SD500-ANM: Addressable notification module
SD500-ARM: Addressable relay module
SD505-DTS-K: Remote test switch/LED indicator for the SD505-DUCT
SD505-DUCT: Addressable Duct Smoke Detector
SD505-DUCTR: Addressable Duct Detector housing with relay base
SD505-HEAT: Absolute temperature heat detector. Trip point range from 135°F–150°F (0°C–37°C)
SD500-LIM: Addressable Line isolator module
SD500-MIM: Addressable Mini input monitor module (switch input)
SD505-PHOTO: Photoelectric smoke detector
SD500-PS/-PSDA: Addressable Single or dual action pull station
SD500-SDM: Addressable smoke detector module

**SWIFT WIRELESS DEVICES**

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

WSK-WGI: Wireless gateway
WSK-PHOTO: Wireless photoelectric smoke detector with B501W base
WSK-PHOTO-T: Wireless photoelectric smoke detector with fixed thermal detection (135°F) and B501W base
W-SYNC: Wireless sync module
WSK-HEAT: Wireless, fixed heat detector (135°F) with B501W base
WSK-HEAT-ROR: Wireless rate-of-rise heat detector and B501W base
WSK-MONITOR: Wireless monitor module
WSK-RELAY: Wireless relay module
WSK-PULL-DA: Wireless pull station
WAV-CRL, WAV-CWL: Wireless AV bases
W-USB: Wireless USB radio/antenna dongle that plugs into the USB port of a PC running SWIFT Tools
SWIFT Tools: Programming and diagnostic utility for the wireless gateway and devices. Available for download from www.farenhyt.com

**OPTIONAL COMMUNICATORS**

CELL-CAB-SK: Cellular communicator, metal enclosure w/lock & key
CELL-MOD: Cellular communicator, plastic enclosure
IPGSM-4G: Dual path fire alarm communicator, cellular and/or IP (primary or backup, selectable)
SK-IP -2: Remote reporting via the Internet. Requires a VisorALARM® receiver at the central station

**MISCELLANEOUS ACCESSORIES**

SK-NIC: Network Interface Card. Provides a common communications link for the IFP-300
SK-NIC-KIT: Installation Accessory Kit
SK-FML: Fiber-Optic Multi Mode, transmitter and receiver
SK-FSL: Fiber-Optic Single Mode
RBB: Remote battery box accessory cabinet
SK-SCK: Seismic compliance kit used to fasten batteries to the fire panel

**SOFTWARE SOLUTIONS**

SKST: Silent Knight Selection Tool provides the installer or design architect with a Windows®-based software system configuration tool to create a detailed bill of material (BOM) and battery calculations
HFSS: Honeywell Fire Software Suite provides remote and local panel programming, detector status, event history and additional data. Databases can be uploaded/downloaded via the panel’s USB port using a flash drive. Requires a PC running Microsoft® Windows®.

**SYSTEM EXPANDERS**

6815: SLC Expander for IDP or SK devices
5815XL: SLC expander for SD devices

RPS-1000: 6A power supply with 6 Flexput circuits & 2 Form C relays
5496: 6 amp NAC expander with 4 power-limited output cktS

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6820EVS TECHNICAL SPECIFICATIONS

SYSTEM CAPACITY
Intelligent Signaling Line Circuits: 1 (expandable)
Addressable device capacity: 1110 (SK) or 635 (SD)
Programmable software zones: 999
Output circuits: 6 (expandable)
SBUS devices: 24 (16 annunciators, 8 LED modules)
LOC units: 4
Addressable amplifiers (total watts): 8 (1000)

ELECTRICAL
AC Power: 120VAC, 60Hz, 2.7A
Standby Current: 190 mA
Alarm Current: 250 mA
Flexput Circuits: Terminal block provides connections for (six Class B or three Class A) NACs or auxiliary power. Power-limited, supervised circuitry. Maximum current per circuit: 3 A. Cannot exceed 6A total for all circuits. End-of-line resistor: 4.7k ohm, ½ watt for Class B NAC
Communication Loop: Supervised and power-limited, Class A or Class B, 32VDC, 150mA
Two Programmable Relays and One Fixed Trouble Relay: Contact rating: 2.5 A @ 27.4 VDC (resistive), Form C
Battery: Cabinet holds maximum of two 18 AH batteries
Battery Charger Capacity: 7-35 AH

PHYSICAL
Dimensions: 21.6” W x 28.1” H x 5.1” D (54.9cm W x 71.4cm H x 13.0cm D)
Weight: 50 lbs. (22.7 kg.)
Color: Red

TEMPERATURE AND HUMIDITY RANGES
This system meets NFPA requirements for operation at 0 – 49°C (32 – 120°F) and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system’s standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

NFPA STANDARDS
The 6820 complies with the following NFPA 72 Fire Alarms Systems requirements: NFPA 13, NFPA 15, NFPA 16, NFPA 70, NFPA 72 Central station; remote Signaling; Local Protective Signaling Systems; Auxiliary Protected Premises Unit; Water Deluge releasing service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signaling services

AGENCY LISTINGS AND APPROVALS
The listings and approvals below apply to the basic 6820 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.
UL Listed: S2766
CSFM: 7165-0559:0500
FDNY: COA# 6249
FM: Approved

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.

Country of origin: USA