



City of Chicago, Class 1 Addressable Approved

IntelliKnight® Model 5820XL Addressable Fire Alarm Control System

**The IntelliKnight System is the easy way to make
the most of fire alarm technology.**

IntelliKnight 5820XL is the first fire alarm system to provide you with the revolutionary value and performance of addressable sensing technology combined with exclusive, built-in digital communication, distributed intelligent power, a modular design and an expanded, easy to use interface. Powerful features such as drift compensation and maintenance alert are delivered in this powerful FACP from Silent Knight.

For more information about 5820XL system, or to locate your nearest source, please call 1-800-328-0103.

Description

5820XL performs drift compensation and calibration checks on each of the sensors in the system.

The basic 5820XL system can be expanded by adding modules such as 5860 remote annunciator, 5815XL signalling line circuit expander, 5824 serial/parallel printer interface module (for printing system reports), and 5895XL intelligent power module. 5820XL also features a powerful built-in dual line fire communicator that allows for reporting of all system activity to a remote monitoring location.

Features

- Up to 508 addressable points
- Uses standard wire—no shielded or twisted pair required
- Built-in digital communicator
- Central station reporting by point or by zone
- Built-in synchronization for appliances from AMSECO®, Gentex®, Faraday, System Sensor, and Wheelock®
- Flexput™ I/O circuits
- Supports Class B (Style 4) and Class A (Style 6) configuration for SLC, SBUS, and Flexput circuits
- Distributed, intelligent power
- Drift compensation
- 13 pre-programmed output cadences (including ANSI-3.41) and 4 programmable outputs
- Built-in annunciator with 80-character LCD display
- RS-485 bus provides communication to system accessories
- Built-in RS-232 and USB interface for programming via PC
- Built-in Form C trouble relay rated at 2.5 amps at 27.4 VDC

- Improvements in SKSS software deliver five times faster uploads/downloads
- Two built-in Form C programmable relays rated at 2.5A at 27.4 VDC
- Supports sounder bases
- 6 amp power supply and maximum charging capacity of 35 amp hours (An additional cabinet enclosure is required for batteries in excess of 18 amp hours)
- Programmable date setting for Daylight Saving Time
- Plex-1 door option combines a dead front cabinet door with a clear window, limiting access to the panel while providing single button operation of the reset and silence functions

Electrical Specifications

Primary AC: 120 VRMS at 50/60 Hz, 2.5A

Total Accessory Load: 6A @ 27.4 VDC, power-limited

Standby Current: 215 mA

Alarm Current: 385 mA

Flexput Circuits: Six programmable circuits which can be programmed individually as:

Notification circuits: 3A @ 27.4 VDC per circuit, power-limited

Auxiliary power circuits: 3A @ 27.4 VDC per circuit, power-limited

Initiation Circuits: 100 mA @ 27.4 VDC per circuit, power limited

Mechanical Specifications

Flush Mount Dimensions:

14.5"W x 24.75"H x 3.9"D
(36.8 W x 62.9 H x 9.8 D cm)

Overall Dimensions:

16.2"W x 26.4"H x 4.2"D
(40.6 W x 67 H x 11.8 D cm)



Model 5820XL

Weight: 28 lbs. (12.8 kg)

Color: Red

Battery Charging Capacity: 7.0-35 AH

Battery Size: 18 AH max allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

Telephone Requirements:

FCC Part 15 and Part 68 approved

Type of Jack: RJ31X (two required)

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Indicator Lights

General Alarm (Red): Flashes when in alarm; solid when alarm silenced

Supervisory (Yellow): Flashes when a supervisory condition exists; solid when supervisory silenced

System Troubles (Yellow): Flashes when a trouble condition exists; solid when trouble silenced

System Silenced (Yellow): On when an alarm, trouble or supervisory condition has been silenced but not yet cleared

System Power (Green): Flashes for AC failure; solid when power systems are normal

System Application

5820XL has one built-in signalling line circuit (SLC) which supports 127 devices. Three additional loops can be added using the 5815XL SLC expander's to increase overall capacity to 508 devices.

The 5820XL SLC loops support multiple device types, including:

- Addressable photoelectric smoke detector
- Addressable ionization smoke detector
- Addressable heat sensor
- Addressable duct smoke detector
- Contact module
- Relay output module
- Addressable notification module

The following advanced sensor capabilities are available with 5820XL:

- Automatic drift compensation
- Maintenance alert
- Built-in sensor test to comply with NFPA 72 calibration testing requirements

5820XL features a 6 amp power supply and maximum battery charging capacity of 35 amp hours. An additional cabinet enclosure is required for batteries in excess of 18 amp hours.

Flexput circuits on 5820XL control can be individually programmed to function as notification circuits, auxiliary power outputs, or initiation circuits that support both 2- and 4-wire smoke detectors.

The 5820XL system operates on non-twisted, unshielded cable when wired in compliance with standard wiring practices as called out in the National Electric Code 760-51 specifications for power-limited fire protective signalling cables. No special wiring is required. 5820XL provides 13 preset notification cadence patterns (including ANSI 3.41) and four user programmable selections for fire alarm notification.

Two programmable general purpose Form C relay outputs are provided on 5820XL.

Additionally, the IntelliKnight system features a built-in walk test and auto-programming. Its innovative, dead-front cabinet design allows for flush or surface mounting. System maintenance is easy to perform.

User Interface

The 5820XL built-in annunciator with 80 character LCD display and large easy-to-use tactile touchpad can be used for system operation, programming and maintenance. It has five LEDs for alarm, supervisory, system trouble, system silenced and system power. System operations include silencing alarms and troubles, resetting alarms and the display of alarm troubles and memory. The system's non-volatile event history buffer stores 1000 events for viewing from the built-in or remote annunciator. System operation can be initiated with a mechanical firefighter's key or a valid 4- to 7-digit operator's code.

Programming

The IntelliKnight system offers several options to simplify and speed up programming. The JumpStart® feature minimizes programming

required to start a new system. The built-in keypad and 5860 remote annunciator give on-site access to all programming. You can also program remotely using the 5660 Silent Knight Software Suite, which is Windows®-based software.

Built-In Digital Communicator

5820XL features a built-in UL listed digital communicator for remote reporting of system activity and system programming. The communicator has the ability to seize two telephone lines to report alarms and troubles to a monitoring facility. The communicator supervises two phone lines and will activate a trouble signal if a line failure is sustained for more than 45 seconds. Other communication features include: retry if communication fails, two phone number capability, download phone number capability and Touch-Tone or rotary dialing. The communicator is compatible with SIA and Ademco Contact ID. The format is selectable by account number.

Approvals

NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service.

Other Approvals: UL Listing; CSFM 7170-0559: 135; MEA 429-92-E Vol. VI; FM Approved; City of Chicago Class 1 Addressable Approved.

IntelliKnight Model 5820XL Addressable Fire Alarm Control Panel



5820XL from Silent Knight

Chicago Building Code Requirements

The models CTD2G, CITY, and FIRE are designed to comply with conventional and addressable Class I type building requirements of the City of Chicago, Illinois. They provide the ability to perform silencing of the system trouble bell and the city tie disconnect bell along. They also allow disconnecting of the municipal tie fire alarm box. For City of Chicago fire alarm projects, a fire alarm plan review and permit are required.

Ordering Information

CTD2G

City Disconnect Switch used to disconnect the fire alarm panel from reporting any alarm or trouble condition to the city in order to test and maintain the fire alarm system. When the key switch is turned to the Disconnect position a white pilot light illuminates to inform the user that the panel has been disconnected.

FIRE

Fire Alarm Trouble Bell module used to silence and test the fire alarm trouble bell. When the fire alarm system is in trouble the bell will ring. Moving the toggle switch to Bell Silence will silence the bell and activate the Bell Silenced LED.

When the trouble clears the Bell Silenced LED will turn off and a ring back will sound until the toggle switch is

returned to the Bell Normal position. When the panel is normal, moving the toggle switch to the Bell Silence position will ring the bell. Pressing the Bell Test button will ring the bell.

CITY

City Tie Trouble module used to silence and test city tie disconnect troubles. When the CTD2G key switch is in the Disconnected position, the City Tie Trouble bell will ring. Moving the toggle switch to Bell Silence will silence the bell and activate the Bell Silenced LED. When the trouble clears the Bell Silenced LED will turn off and a ring back will sound until toggle switch is returned to the Bell Normal position. When the CTD2G key switch is in the Normal position and the toggle switch on the CITY module is in the Bell Silence position, the City Tie Trouble bell will ring. Pressing the Bell Test button will ring the bell.

These module's can each be mounted to a two-gang deep bell box or a two-gang deep wiremold box and operates on 24VDC. The module's can be flush mounted with a two-gang plaster ring on a deep 4" square 1900 box.



CITY

To purchase the above modules contact:

Gemcom, Inc
8828 S. Archer Ave
Willow Springs, IL 60480
Ph: 800-871-6840 or 888-4GEMCOM
www.gemcom.com

Additional Equipment Required

The equipment listed below is required to comply with Class I type requirements:

- **Silent Knight Plex-1 Dead Front Cabinet Door**
- **Incandescent backlit annunciator.**

Contact the vendor listed below for the custom model XL8 Tabular Annunciator with the Silent Knight 5880 LED I/O Module built-in.

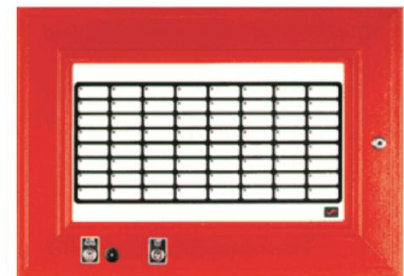
Space Age Electronics, Inc.
406 Lincoln Street
Marlboro, MA 01752
(800) 486-1723



CTD2G



FIRE



XL8 Tabular Annunciator
from Space Age ELelectronics

S-BUS Accessories**5860/R Remote Fire Annunciator**

Features the same 80 character backlit LCD display keypad and firefighter's keyswitch as the 5820XL. 5860 is gray and 5860R is red.

5815XL Signal Line Circuit Expander

The SLC expander is used to add more addressable devices to the IntelliKnight system. 5820XL supports three 5815XL's. Each 5815XL can support 127 devices.

5895XL Intelligent Power Module

Adds 6 amps of power, 6 Flexput I/O circuits and 2 Form C relay circuits to a 5820XL system.

5496 Intelligent Power Module

A 6 amp notification power expander that provides four power-limited notification appliance circuit outputs.

5880 LED/IO Module

Features 40 LED outputs, 8 normally open dry contact inputs, and one piezo output.

5865-3 and 5865-4**Remote LED Annunciator**

Features 30 programmable LED (15 red and 15 yellow) outputs, and a piezo sounder. The 5865-4 adds a silence and reset switch to the package.

5883 Relay Board

Features 10 general purpose Form C relays. Used with 5880 module.

5824 Serial/Parallel Printer Interface Module

Provides one parallel and one RS-232 serial port for connecting a printer to the 5820XL. Use to print a real-time log of system events, detector status reports, and event history. Interfaces with building control system.

Miscellaneous Accessories**5660 Silent Knight Software Suite (SKSS)**

User-friendly Windows software for remote programming of 5820XLs using a PC. Upload and view panel account information, event history, and detector status.

5670 Silent Knight Software Suite (SKSS)

Powerful end-user facility management software allows viewing of detector status and event history via modem or direct connection.

Plex-1

Dead front cabinet door with clear window to limit access to the FACP.

RBB

Remote battery box accessory cabinet. Use if backup 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)

SD505-DTS-K

Remote test switch. Used with SD505-DUCTR. Provides remote key operated test function and annunciation of detector alarm.

Hochiki and SK Devices

See the specification sheets listed below for a complete listing of the Hochiki and SK devices.

53624 Hochiki Devices Data Sheet

53623 SK Device Protocol Data Sheet



**SILENT
KNIGHT**

by Honeywell

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 12 Clintonville Road, Northford, CT 06472 Phone: (203) 484-7161, Fax: (203) 484-7118. www.silentknight.com.

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