

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND



BUILDING PERMIT

This is to certify that MARK MORRIS ELECTRIC INC
of 104 Thadeus St, S. Portland, ME 04106

For installation at 135 CHADWICK ST

Job ID: 2011-11-2821-FAFS

CBL: 063- B-001-001

has permission to replace 1st & 2nd Floor fire alarm initiation devices
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be


Fire Prevention Officer


Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD**

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Final Fire

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-11-2821-FAFS
replace 1st & 2nd Floor fire alarm
initiation devices

For installation at:
135 CHADWICK ST

CBL: 063- B-001-001

Conditions of Approval:

Fire

Scope of work includes converting conventional initiation devices to addressable on the 1st and 2nd floors only. Existing FACP to remain.

The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

In field installation shall be installed per code as conditions dictate.

Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.

Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance.

The fire alarm system shall be certified by a master fire alarm company and have a new fire alarm inspection sticker.

System acceptance and commissioning must be coordinated with the Fire Department. Call 874-8703 to schedule.

Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.

Zoning

This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. without special approvals.

This property shall remain medical offices on the first floor with 18 residential units above.. Any change of use shall require a separate permit application for review and approval.

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

| | | | |
|---|---|---|------------------------------------|
| Job No: 2011-11-2821-FAFS | Date Applied: 11/28/2011 | CBL: 063- B-001-001 | |
| Location of Construction: 135 CHADWICK ST | Owner Name: BOWDOIN DEVELOPMENT LLC | Owner Address: 131 CHADWICK ST PORTLAND, ME 04102 | Phone: |
| Business Name: | Contractor Name: MARK @ MORRIS ELECTRIC, INC | Contractor Address: 104 Thadeaus St., Unit #10, South Portland, ME 04106 | Phone: 767-2900 |
| Lessee/Buyer's Name: | Phone: | Permit Type: FIRE ALARM | Zone: R-6 |
| Past Use: Medical offices on 1 st floor with 18 apts above | Proposed Use: Same: Medical offices on 1 st floor with 18 apts above – to install Fire Alarm on 1 st and 2 nd floors | Cost of Work: \$12'000.00 | CEO District: |
| | | Fire Dept: <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A | Inspection: Use Group: Type: |
| | | Signature: <i>[Signature]</i> (58) | Signature: |
| Proposed Project Description: fire alarm | | Pedestrian Activities District (P.A.D.) | |
| Permit Taken By: Gayle | | Zoning Approval | |

| Special Zone or Reviews | Zoning Appeal | Historic Preservation |
|---|--|---|
| <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM Date: <i>ok with conditions</i> <i>11/30/11</i> | <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied | <input checked="" type="checkbox"/> Not in Dist or Landmark <input type="checkbox"/> Does not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>[Signature]</i> |

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

| | | | |
|---|---------|------|-------|
| SIGNATURE OF APPLICANT | ADDRESS | DATE | PHONE |
| RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE | | DATE | PHONE |

Mail Permit to: Mark Morris Electric, Inc
104 Thaddeus St., Unit 10
South Portland, Me 04106

66
2011 11 28 21



Fire Alarm Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 135 131 CHADWICK ST. CBL: 063 B 001-002
Exact location: (within structure) 1ST AND 2ND FLOORS ALL AREAS
Type of occupancy(s) (NFPA & ICC): EXISTING BUSINESS AND MIXED USE (18 APARTMENTS)
Building owner: BOWDOIN DEVELOPMENT COMPANY
System Designer (point of contact): MARK J. MORRIS Must be
Designer phone: 207-767-2900 E-mail: MMECEME@YAHOO.COM
Installing contractor: MARK MORRIS ELECTRIC, INC Certificate of Fitness No: 1007
Contractor phone: 207-767-2900 E-mail: MMECEME@YAHOO.COM

This is a new application: YES NO New AES Master Box: YES NO
(Include Master Box approval form)
Amendment to an existing permit: YES NO Permit no: _____

The following documents shall be provided with this application:

- Floor plans
- Wiring diagram
- Annunciator details
- Input/ Output Matrix
- Equipment data sheets
- Electrical Permit Pulled (check alarm/com)
- Scope of Work
- 11 1/2 x 17s
- pdf copy (may be e-mailed)
- Designer qualifications
- Battery/ voltage drop calcs

Master box approval only: YES NO
(If yes check New AES Master Box above)

COST OF WORK: \$12,000.00
PERMIT FEE: 140.00
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

RECEIVED
NOV 28 2011
Dept. of Building Inspections
City of Portland, Maine

The designer shall be the responsible party for this application. Download a new copy of this application at www.portlandmaine.gov/fire for every submittal. Submit all plans in electronic PDF in addition to readable 11 1/2 x 17s to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

Prior to acceptance of any fire alarm system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

All installation(s) must comply with the City of Portland Technical Standard for Signaling Systems for the Protection of Life and Property, available at www.portlandmaine.gov/fire.

Applicant signature: Mark Morris Date: 11/23/2011

MARK MORRIS ELECTRIC, INC.
104 THADEUS ST., UNIT 10
SOUTH PORTLAND, MAINE 04106
mark@markmorriselectric.com

207-767-2900 ph
866-803-3235 fax

November 23, 2011

**CHANGE TO EXISTING FIRE ALARM SYSTEM
SCOPE OF WORK**

**CUSTOMER: BOWDOIN DEVELOPMENT COMPANY
131 CHADWICK STREET
PORTLAND, MAINE 04102**

JOB LOCATION: SAME


SCOPE OF WORK:

THE DESCRIPTION OF THIS BUILDING IS AN EXISTING, PARTIALLY SPRINKLED, MIXED COMMERCIAL AND 18 APARTMENT UNIT FACILITY. FLOORS ONE AND TWO ARE COMMERCIAL OFFICES.

REPLACE THE EXISTING CONVENTIONAL FIRE ALARM INITIATING DEVICES ON THE FIRST AND SECOND FLOORS WITH INTELLIGENT, ADDRESSABLE DEVICES. THE EXISTING SILENT KNIGHT FIRE ALARM CONTROL PANEL IS AN INTELLIGENT ADDRESSABLE STYLE PANEL.

WE WILL REMOVE THE TWO ADDRESSABLE MODULES WHICH INTERFACE THE EXISTING CONVENTIONAL DEVICES ON THESE TWO FLOORS WITH THE FIRE ALARM CONTROL PANEL AND REPLACE THE EXISTING DEVICES WITH ADDRESSABLE HEAT DETECTORS IN THE OFFICE SPACES AND ADDRESSABLE PHOTOELECTRIC SMOKE DETECTORS IN THE COMMON HALLS AND STAIRWELLS.

THE TOTAL NUMBER OF DEVICES TO BE REPLACED WILL BE 109.



MARK J. MORRIS, PRESIDENT

MAINE MASTER ELECTRICIAN

NICET LEVEL II

CITY OF PORTLAND FIRE DEPARTMENT CERTIFICATE OF FITNESS #1007

M
XX:XXX

-----ELEVATOR RECALL MODULE/ EXISTING CONVENTIONAL INITIATING ZONE DEVICE MONITORING MODULE

FS
XX:XXX

----- EXISTING SPRINKLER SYSTEM ADDRESSABLE FLOW SWITCH

TS
XX:XXX

-----EXISTING SPRINKLER SYSTEM TAMPER SWITCH

P
XX:XXX

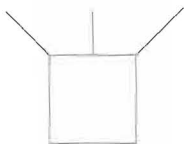
-----ADDRESSABLE PULL STATION

H
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-----ADDRESSABLE FIXED TEMPERATURE HEAT DETECTOR

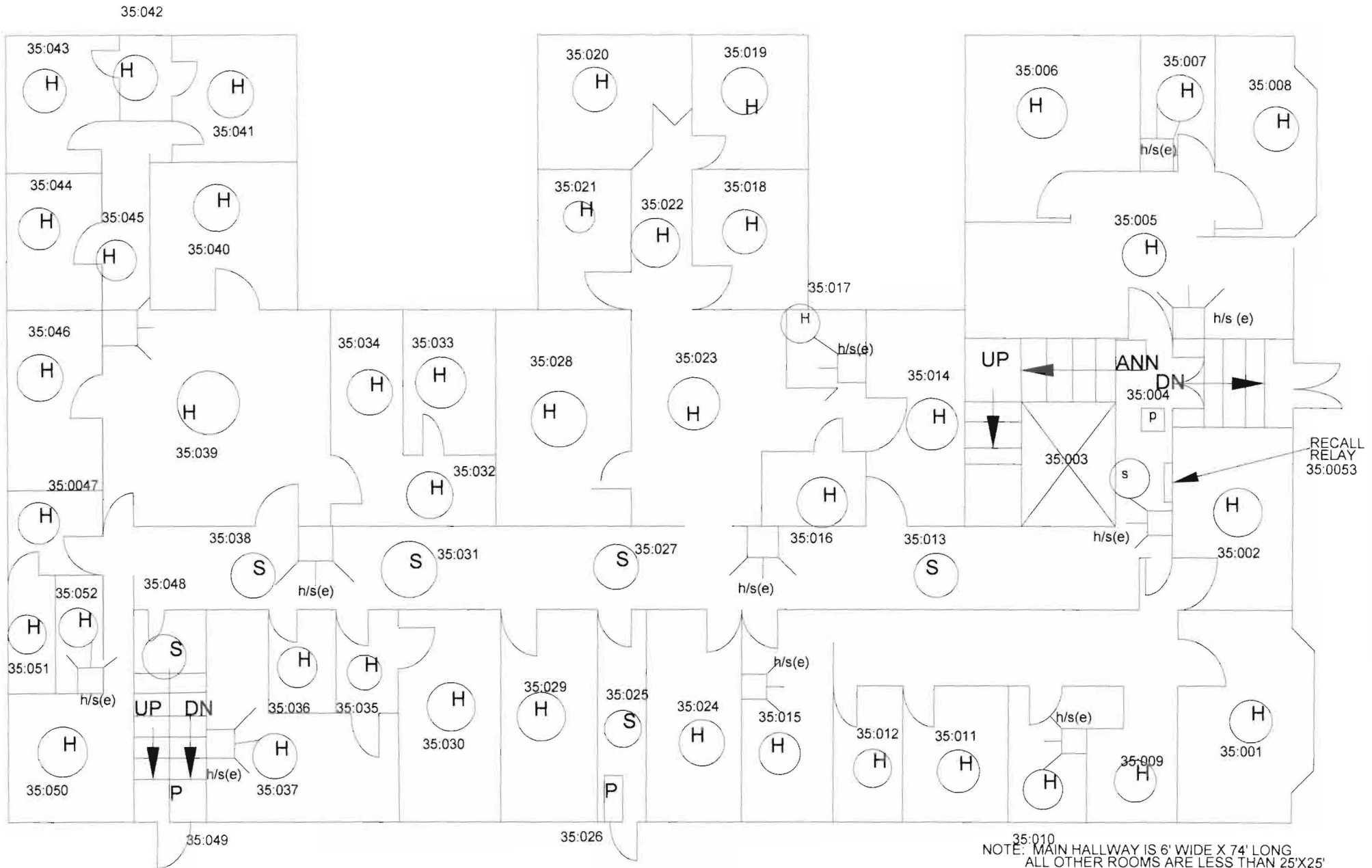
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-----ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR



-----EXISTING AUDIBLE/VISUAL NOTIFICATION APPLIANCE

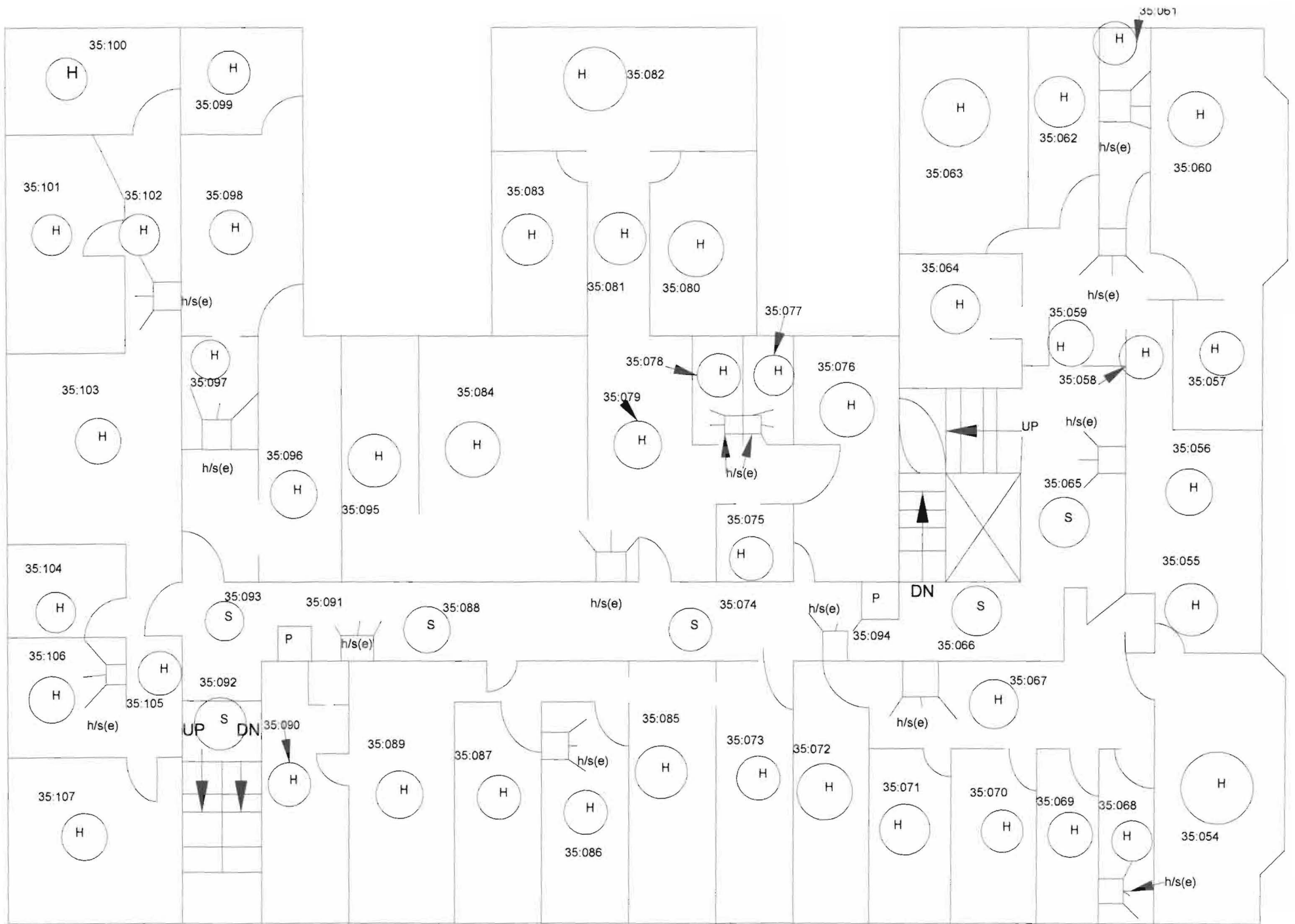
ANN



NOTE: MAIN HALLWAY IS 6' WIDE X 74' LONG
 ALL OTHER ROOMS ARE LESS THAN 25'X25'

131 CHADWICK STREET FIRST FLOOR FIRE ALARM DEVICE MAP

MARK MORRIS ELECTRIC, INC.
 104 THADEUS ST., UNIT 10
 SOUTH PORTLAND, ME 04106

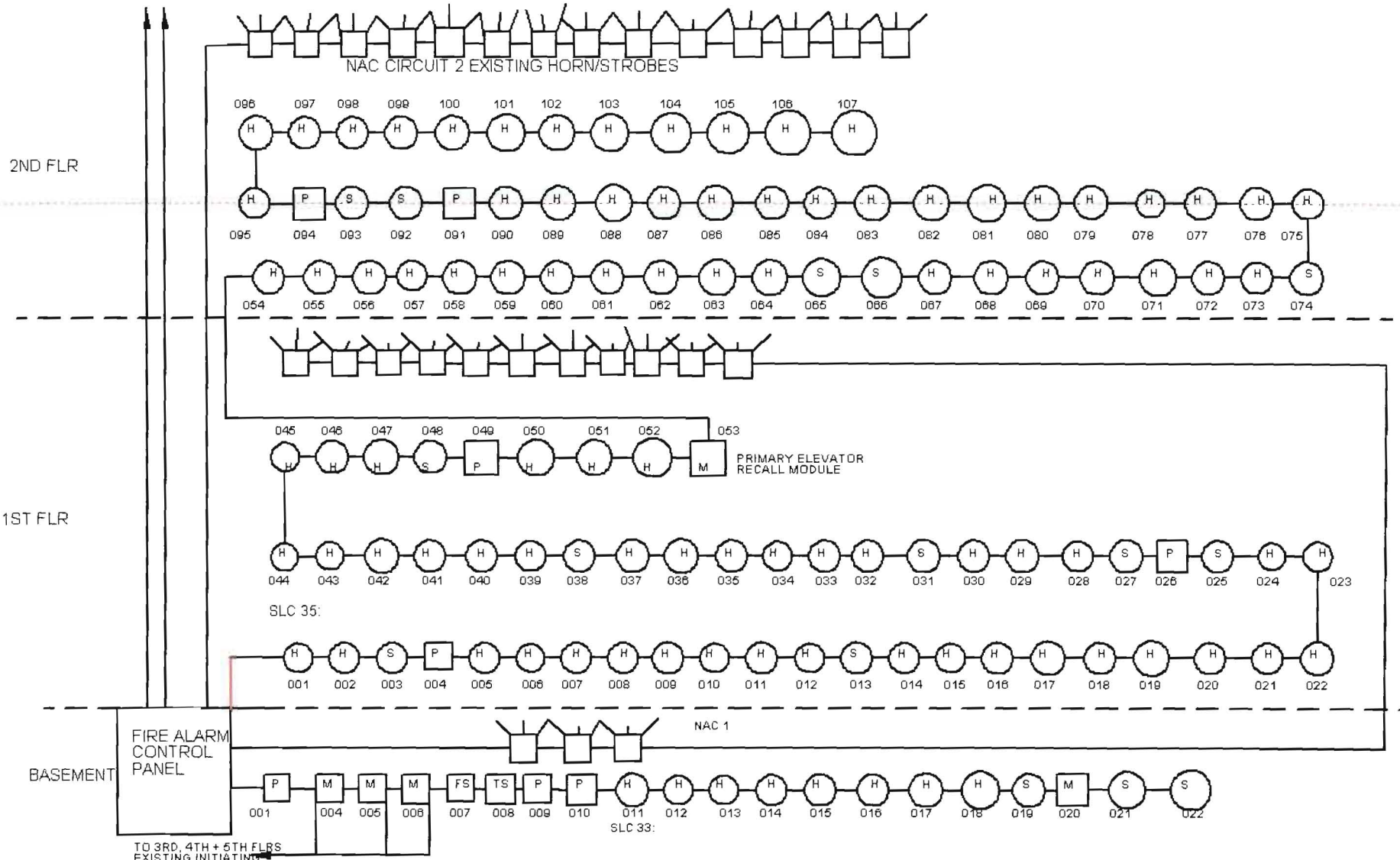


MARK MORRIS ELECTRIC, INC.
 104 THADEUS ST., UNIT 10
 SOUTH PORTLAND, ME 04106

131 CHADWICK STREET, SECOND FLOOR FIRE ALARM DEVICE MAP

NOTE: MAIN HALLWAY IS 6' WIDE X 74' LONG
 ALL OTHER ROOMS ARE LESS THAN 25'X25'

UP TO 3RD, 4TH + 5TH FLR
 EXISTING DEVICES
 NAC3 NAC 4



131 CHADWICK STREET...PORTLAND, MAINE
 FIRE ALARM SYSTEM RISER DIAGRAM

November 22, 2011

FIRE ALARM SYSTEM AT 131 CHADWICK STREET, PORTLAND, MAINE

BATTERY CALCULATIONS

**INCLUDES ALL CURRENT DRAW FROM THE EXISTING SILENT KNIGHT IFP 1000
 FIRE ALARM CONTROL PANEL, EXISTING DEVICES AND NEW DEVICES ADDED TO REPLACE THE
 EXISTING CONVENTIONAL DEVICES ON FLOORS ONE AND TWO.**

| DEVICE | QUANTITY | STANDBY I | ALARM I | TOTAL STANDBY I DRAW | TOTAL ALARM I DRAW |
|--|----------|-----------|---------|----------------------|--------------------|
| IFP 1000 FACP EXISTING | 1 | 0.140A | 0.260A | 0.140A | 0.260A |
| EXISTING HEAT DETECTORS, SMOKE DETECTORS AND PULL STATIONS | 14 | 0.55mA | 0.55Ma | 0.0077A | 0.0077A |
| SK ZONE EXISTING MODULES | 3 | 5.1mA | 5.1mA | 0.02A | 0.02A |
| NEW SMOKE DETECTORS, HEAT DETECTORS, PULL STATIONS AND RECALL MODULES. | 111 | 0.55mA | 0.55mA | 0.06105A | 0.06105A |
| NEW SLC EXTENDER MODULE | 1 | 125mA | 125mA | 0.125A | 0.125A |
| EXISTING HORN/STROBE NOTIFICATION DEVICES | 37 | 0 | 95mA | 0 | 3.515A |
| TOTALS | | | | 0.35375A | 3.98875A |

BATTERIES: 4X 12VDC 7AH (TWO SERIES BANKS IN PARALLEL) = 24VDC 14AH

STANDBY CAPACITY: 14AH/0.35375A = 39.58HOURS STANDBY

ALARM CAPACITY: 14AH/3.98875A = 3.51HOURS ALARM



SD500-PS and SD500-PSDA Addressable Pull-Station



IntelliKnight's addressable pull stations combine fast response with pin-point location ID.

The SD500-PS and SD500-PSDA are a single action or dual action addressable manual fire alarm pull station for use with Silent Knight's IntelliKnight fire control panel. Extremely easy to operate, the SD500-PS/PSDA provides a fast and practical means of manually initiating a fire alarm signal. The IntelliKnight panel recognizes each manual pull station by its specific address saving precious seconds in determining the location of an alarm. The SD500-PS/PSDA mounts to a single gang box and features a rugged metal construction that lasts and lasts.

Combine all this with the features you've come to expect from Silent Knight - easy installation and stable operation - and it adds up to a flexible solution for all your fire protection needs.

Model SD500-PS & SD500-PSDA Addressable Pull Station

The SD500-PS is a single action addressable fire pull station, and the SD500-PSDA is a dual action addressable fire pull station. The SD500-PS/PSDA feature rugged metal construction. A terminal strip on back of the pull station allows interconnection of the pull station to the SLC of an IntelliKnight control panel. The SD500-PS/PSDA is designed for indoor use in non-explosive environments. The normally open initiating point contacts are gold-plated to avoid risk of corrosion. The SD500-PS/PSDA has been tested by UL for compliance to the requirements of the Americans with Disabilities ACT (ADA).

Features

- UL Listed
- CSFM listed
- ADA compliant
- Key reset (Same key as Silent Knight enclosures)
- Surface mount back box available
- Terminals - accept up to 14 gauge wire

- Extremely easy to operate
- Corrosion-resistant gold-plated contacts.
- Reflective label makes it easier to locate in low light

Operation

The SD500-PS/PSDA single action pull stations are operated by a pull on the front pull cover of the station. A plunger switch, wired to a self contained addressable module, is released as the pull station opens to initiate the alarm. Once operated, the cover hangs down and can be seen up to 100 feet away. The pull station is reset by returning the front cover to the normal upright position and relocking the station with a reset key. The reset keys are the same keys used on Silent Knight enclosures.

The SD500-PS/PSDA includes a status LED which blinks, indicating that the addressable module is communicating with the loop. The status LED lights continuously during an alarm. A dip switch on the addressable module is used to set the unique address.

Specifications

| | |
|--------------------|-------|
| Operating Voltage: | 24VDC |
| Standby Current: | .55mA |
| Alarm Current: | .55mA |



SD500-PS

| | |
|--|--------------------------------|
| Ambient Temperature: | 32°F to 120°F (0°C to 49°C) |
| Mounting: | Single gang box - |
| Optional Red Surface Mount Box PS-SMBB | |



**SILENT
KNIGHT**

8 EASTWIND STREET

SD500-PS and SD500-PSDA Addressable Pull-Station

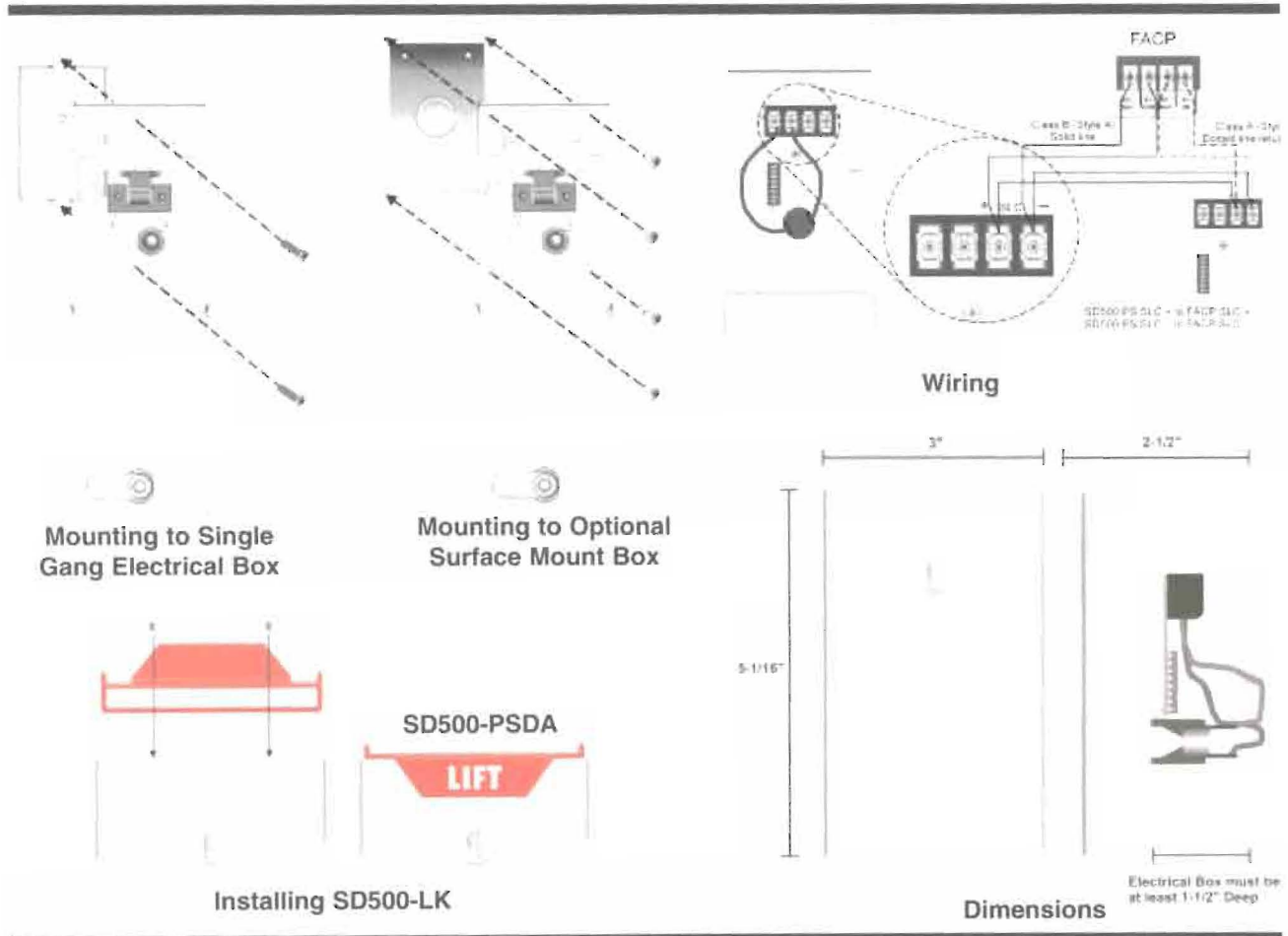


Engineering Specifications

Manual pull station shall be addressable Module SD500-PS/SD500-PSDA. Equipment shall be made of 14 gauge C.R.S.(Cold Rolled Steel), painted with a red enamel . The label shall contain the words Fire Alarm and be made of a reflective material embossed text 3/8 inches tall. Operating instruction shall be clearly visible on the same label. Manual station Shall contain a key operated test and reset lock using a lock plate actuator, the key shall match the control panel.

Manual station shall contain four terminal blocks with two connected to the addressable module and two connect to the SLC loop. Manual station shall provide data to the control panel with an ID address programmed by dip switch settings .

Manual stations shall be Underwriters Laboratories Inc. listed and installed within the limits defined in the American Disabilities Act.



SILENT KNIGHT

A Tyco International Company

7550 Meridian Circle, Maple Grove, MN 55369-4927
800-446-6444 or in Minnesota 763-493-6435
 FAX: 763-493-6475
 World Wide Web: <http://www.silentknight.com>

MADE IN AMERICA
 FORM# 350342, Rev. 09/03

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**SILENT
KNIGHT**

by Honeywell

Model SD500-ARM Addressable Relay Module

Place relay applications anywhere on the IntelliKnight loop with the SD500-ARM Addressable Relay Module.

The SD500-ARM is an addressable device that adds great flexibility to the IntelliKnight system. Providing two Form C contacts rated at 2.0 amps @ 30 VDC or .6 amp @ 120 VAC. The SD500-ARM allows you to control a wide variety of normally open and normally closed applications, including elevator recall, door closing, fan operation, and auxiliary notification. And, because the relay module is addressable, these applications can be located at any point in the signaling line circuit.

Like other IntelliKnight SLC devices, the SD500-ARM is compact for adaptability and pleasing aesthetics. Combine this with the features you've come to expect from Silent Knight fire protection devices—easy installation and stable operation—and it adds up to a flexible solution for all your fire protection needs.

Model SD500-ARM Addressable Relay Module

The SD500-ARM provides two Form C contacts rated at 2A @ 30 VDC or .6A @ 120 VAC. These contacts can be used for virtually any normally open or normally closed application.

Operation

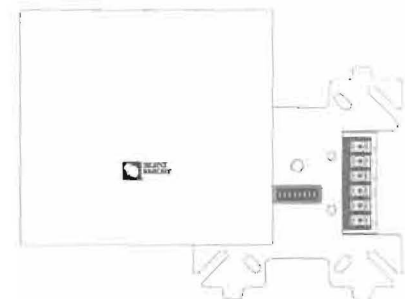
Each relay module is programmed with a unique SLC loop address. When an event that controls the relay module occurs, the relay is triggered by the IntelliKnight panel.

Features

- Two sets of Form C contacts.
- Contacts are rated at 2A @ 30 VDC or .6A @ 120 VAC.
- Up to 127 relays can be used on each SLC loop.
- Relay programming is completely flexible—can be mapped to zone conditions.
- Polling LED visible through cover plate.

Specifications

| | |
|---------------------|--------------------------------|
| Contact Rating: | Form C |
| | 2A @ 30 VDC |
| | .6A @ 120 VAC |
| Standby Current: | .55 mA |
| Alarm Current: | .55 mA |
| Ambient Temperature | 32°F to 120°F (0°C to 49°C) |
| Mounting | 4-square electrical box |



Model SD500-ARM

Approvals

- UL listed, complies with NFPA 72.
- CSFM approved
- MEA Approved, 429-92-E, Vol. 9
- FM approved

Compatible Control Panels

- 5820XL
- 5808
- 5700

Model SD500-ARM Addressable Relay Module

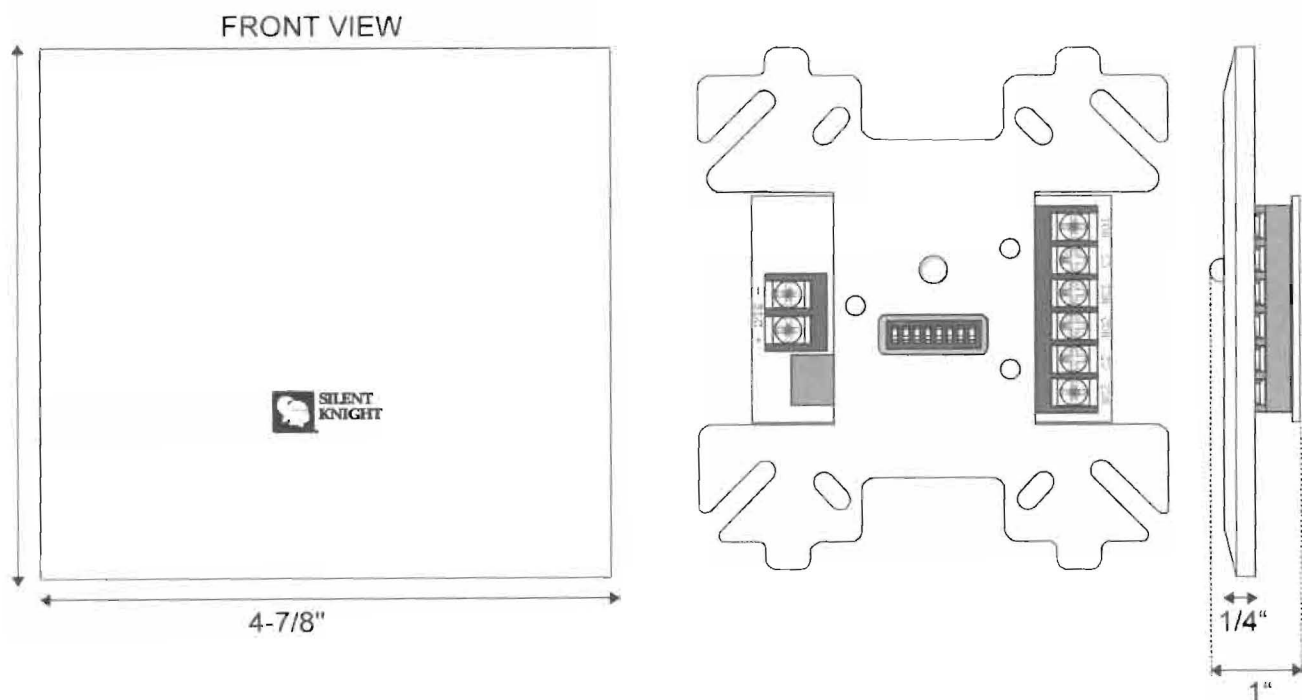
Engineering Specifications

The contractor shall furnish and install where indicated on the plans, addressable relay modules, Silent Knight SD500-ARM. The modules shall be UL listed compatible with Silent Knight's Intelliknight FACPs.

The relay module must provide two Form C dry contacts rated at 2.0 amps at 30 VDC or .6 amp at 120 VAC.

The relay module must be suitable for mounting in a standard 4-square electrical box and must include a plastic cover plate. The relay module board must provide an LED that is visible from the outside of the cover plate.

The relay must be fully programmable for such applications as are required by the installation.



Model SD500-ARM Addressable Relay Module Dimensions



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KNIGHT**

by Honeywell

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Phone: (800) 328-0103, Fax: (203) 484-7118. www.silentknight.com

MADE IN AMERICA

FORM# 350218 Rev. D

© 2010 Honeywell International Inc.



Addressable Photoelectric Type Smoke Detector



Detect smoldering fires quickly and get help fast with IntelliKnight® photoelectric smoke detectors.

IntelliKnight addressable photoelectric smoke detectors are the clear choice for commercial settings where smoldering fires are a threat. In addition to accurately detecting a smoldering fire, each SD505-APS photoelectric detector has a unique address, which is recognized by the IntelliKnight panel. No precious seconds are wasted in determining location of an alarm.

The SD505-APS compensates automatically for contamination in the environment. And detector testing is simple—even from a remote site. Like other IntelliKnight detector models, the SD505-APS offers a low profile for pleasing aesthetics. The IntelliKnight family of detectors has been designed to use a common base, Model SD505-6AB, allowing complete application and placement flexibility. Combine all this with the features you've come to expect from Silent Knight smoke detectors—easy installation, stable operation, RF/transient protection, and vandal-resistant locking—and it adds up to a flexible solution for all your fire protection needs.

Model SD505-APS Analog / Addressable Photoelectric Type Smoke Detector

The SD505-APS is particularly suited to detecting dense smoke typical of fires involving materials such as soft furnishings, plastic, foam or other similar materials which tend to smolder and produce large visible particles.

The detector features automatic compensation for contamination and a simple detector calibration test procedure that can be run from the panel or remotely (using the Windows™ based downloading software).

Operation

The SD505-APS units made up of an LED light source and a silicon photo diode receiving element. In a normal standby condition, the receiving element receives no light from the pulsing light source. In the event of fire, smoke enters the detector and light is reflected from the smoke particles to the receiving element.

The light received is converted into an electronic signal. Under normal conditions, the status LED blinks approximately every 15 seconds, indicating that the head is communicating with the loop. The LED lights continuously during the alarm period.

Features

- Low profile, 2 inches, including base
- Simple and reliable addressing without mechanical switches
- Automatic compensation for sensor contamination
- Built-in fire test feature
- Simple detector calibration testing through the control panel or remotely through a Windows™ based computer software.
- Vandal-resistance locking features
- Field cleanable
- UL listed, meets NFPA 72 Ch 7 requirements
- CSFM approved
- MEA approved
- FM Approved



SD505-APS Smoke Detector Specifications

Operating Voltage: 17-41 VDC

Current Consumption:

| | |
|----------|--------|
| Standby: | .55 mA |
| Alarm: | .55 mA |

Ambient Temperature: 32°F to 120°F
(0°C to 49°C)

Mounting: 4" Square, 4"
OCT, Single
gang mud ring

Relative Humidity: 85%
noncondensing

Air Velocity: 0 - 300 FPM

Compatible Bases: SD505-6AB
(Sold Separately)
SD505-4AB
(4" Base)



**SILENT
KNIGHT**

by Honeywell

Model SD505-APS

Addressable Photoelectric Type

Smoke Detector



Engineering Specifications

The contractor shall furnish and install where indicated on the plans, addressable photoelectric smoke detector Silent Knight SD505-APS. The combination detector head, and twist-lock base, shall be UL® listed compatible with Silent Knight's IntelliKnight fire control panels.

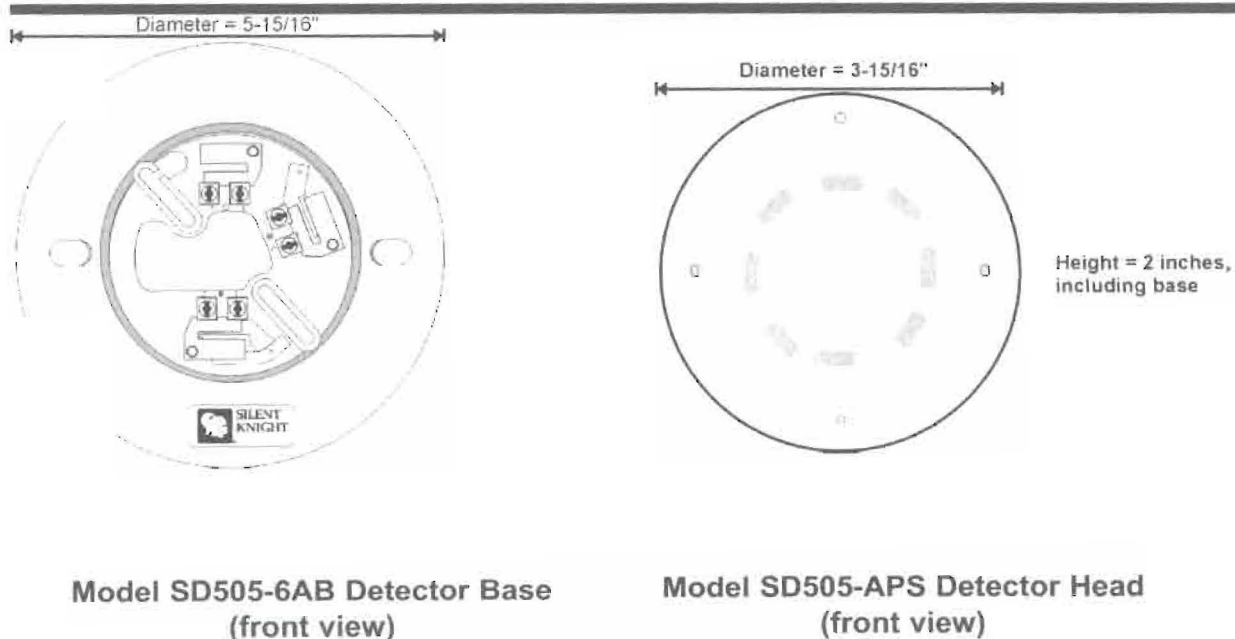
The base shall permit direct interchange with Silent Knight SD505-AIS Ionization Smoke Detector, or SD505-AHS Heat Detector. Base shall be the appropriate twist-lock base SD505-6AB.

The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady. The detector may be reset by actuating the control panel reset switch.

The calibration of the detector shall be capable of being selected and measured by the control panel without the need for external test apparatus.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable as required.

The SD505-APS shall automatically perform a functional test of the detector. The test method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.



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MADE IN AMERICA

FORM# 350225 Rev C., 05/05
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Addressable Heat Detector



IntelliKnight® addressable heat detectors combine accurate heat detection with pin-point location ID.

An essential combination for any installation.

IntelliKnight heat detectors are an essential component in virtually any IntelliKnight installation. The IntelliKnight panel recognizes each detector by its specific address, so precious seconds are not wasted in determining location of an alarm.

Like other IntelliKnight detector models, the SD505-AHS offers a low profile for pleasing aesthetics.

The IntelliKnight family of detectors has been designed to use a common base, Model SD505-6AB, allowing complete application and placement flexibility. Combine all this with the features you've come to expect from Silent Knight detectors—easy installation, stable operation, RF/transient protection, and vandal-resistant locking—and it adds up to a flexible solution for all your fire protection needs.

Model SD505-AHS Addressable Heat Detector

The SD505-AHS is a heat detector suited to virtually any commercial setting. The SD505-AHS is an absolute temperature device. This means that it responds in alarm if the temperature goes above the trip point (programmed at the panel).

The SD505-AHS provides accurate temperature measurement data to the fire alarm control panel. This heat detector is particularly suited to environments where smoke detectors cannot be used because of the presence of steam or cooking fumes, such as in a kitchen.

Operation

The SD505-AHS unit is made up of an externally mounted thermistor with a specially designed cover that protects the thermistor while allowing maximum air flow. The thermistor reads the temperature from the air it takes in. It then transmits a signal representing the temperature to the IntelliKnight panel.

If the temperature exceeds the trip point (programmed at the panel), an alarm occurs. The status LED lights continuously during the alarm period.

Under normal conditions, the status LED blinks approximately every 15 seconds, indicating that the head is communicating with the loop.

Features

- Low profile, 2 inches, including base
- Absolute temperature device
- Simple and reliable addressing
- Uses digital communication protocol
- The SD505-AHS is UL Listed and meets the requirements outlined in NFPA 72 Inspection Testing and Maintenance, Chapter 7.
- CFSM listed
- MEA listed
- FM approved



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SD505-AHS Heat Detector Specifications

| | |
|--|--|
| Operating Voltage: | 17 to 41 VDC |
| Current Consumption: | |
| Standby: | .55 mA |
| Alarm: | .55 mA |
| Detection Temperature Range: | 135°F to 150°F (57°C TO 65°C) |
| Ambient Temperature: | 32°F to 120°F (0°C to 49°C) |
| Mounting: | 4" SQR, 4" OCT Single gang mud ring |
| Rated Spacing: | 70' between sensors on smooth ceilings. |
| Compatible Bases: (Sold Separately) | SD505-6AB (6" Base) SD505-4AB (4" Base) |

Model SD505-AHS Addressable Heat Detector



Engineering Specifications

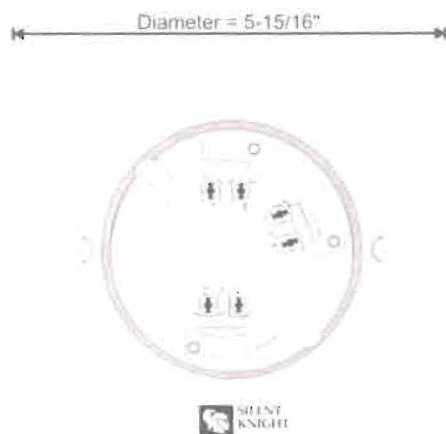
The contractor shall furnish and install where indicated on the plans, addressable heat detector Silent Knight SD505-AHS. The combination detector head, and twist-lock base, shall be UL® listed compatible with Silent Knight's IntelliKnight fire alarm control panels.

The base shall permit direct interchange with Silent SD505-APS Photoelectric Smoke Detector, or SD505-AIS Ionization Smoke Detector. Base shall be the appropriate twist-lock base SD505-6AB.

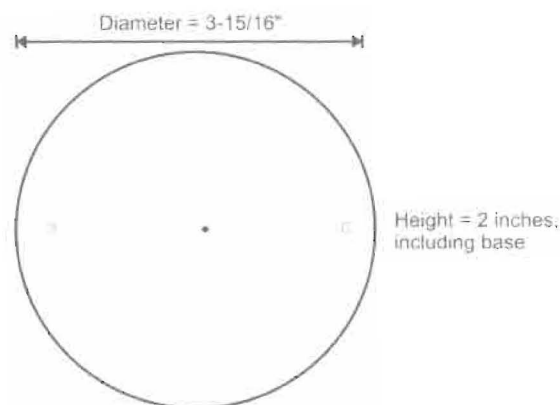
The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady at full brilliance. The detector may be reset by actuating the control panel reset switch.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field removable when not required.

Voltage and RF/transient suppression techniques shall be employed to minimize false alarm potential.



**Model SD505-6AB Detector Base
(Front View)**



**Model SD505-AHS Detector Head
(Front View)**



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. Phone: (800) 328-0103, Fax: (763) 493-6475.

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Model 5815XL Signaling Line Circuit Expander

**Add flexibility to IntelliKnight® applications
with the 5815XL SLC Expander**

The Model 5815XL SLC Expander is a signaling line circuit controller for Silent Knight's IntelliKnight 5820XL addressable fire control panel. It allows you to add 127 addressable devices to the IntelliKnight system. Three 5815XLs can be added to the 5820XL for a maximum of 508 addressable devices per IntelliKnight system.

5815XL signaling circuits have the same functionality as the SLC that is built into the IntelliKnight panel and support the same addressable devices as the main panel. The 5815XL connects to the panel via the RS 485 bus and is housed in the IntelliKnight 5820XL or 5895XL cabinet.

Model 5815XL Signaling Line Circuit Expander

The 5815XL expands the capabilities of the IntelliKnight fire control panel by allowing 127 additional addressable devices to be attached to the system.

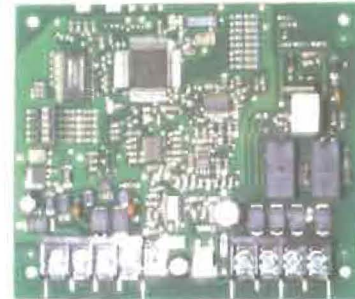
All functionality of the built-in SLC is provided with the 5815XL. Three 5815XLs can be added to an IntelliKnight system for a total of 508 addressable devices per system.

Operation

The 5815XL communicates with the IntelliKnight FACP via an RS 485 system bus. A green LED on the 5815XL board blinks to indicate good communication. If an addressable device on a 5815XL fails, the loop communicates the failure to the panel and continues to operate normally.

Features

- Adds 127 addressable devices to an IntelliKnight system
- Three 5815XLs per system
- 5815XL SLCs have same functionality as the 5820XL, including Style 6 (Class A) configuration
- Communicates with the IntelliKnight panel via RS 485 system bus
- LED indicates good communication
- House two inside the 5820XL cabinet, remotely mounted in the 5895XL cabinet, or mounted in the 5815RMK cabinet
- UL 864 listed, complies with NFPA 72 and 101
- Communicates on most standard wiring systems (ideal for retrofits)
- FM approved



Model 5815XL

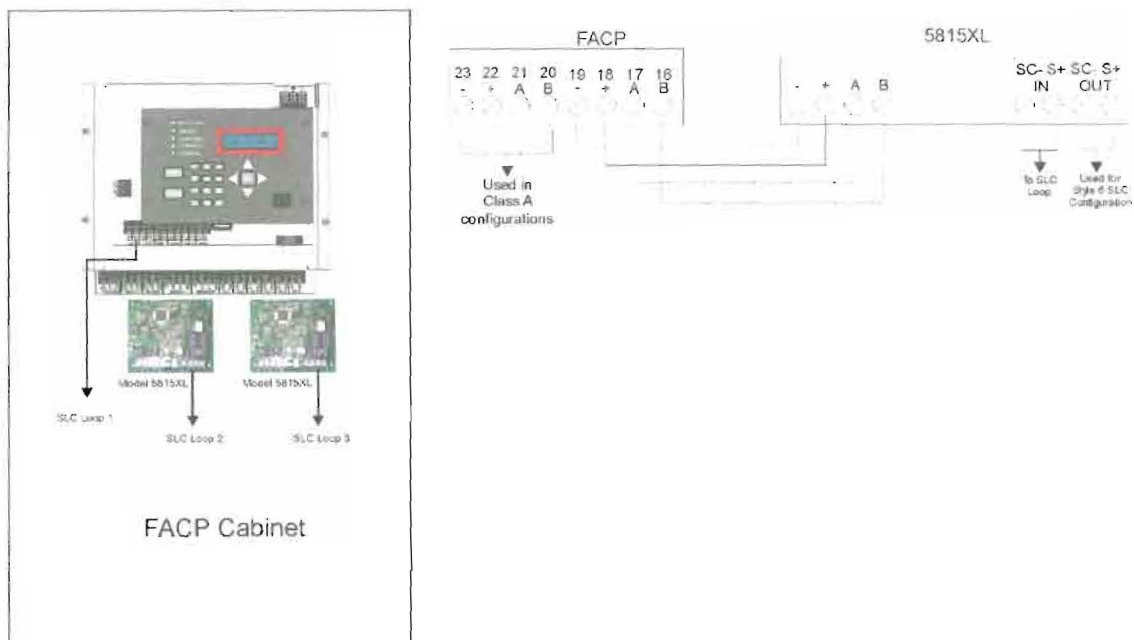
Specifications

| | |
|---|---|
| System Capacity | 5820XL FACP supports three 5815XL SLC Expanders. Each expander supports 127 addressable devices. The 5820XL supports 508 devices total. |
| Operating Voltage | 24 VDC |
| Current Consumption (standby and alarm) | 55 mA minimum - 125 mA max. (with 127 devices) |
| Ambient Temperature | 32°F to 120°F (0°C to 49°C) |
| Mounting | Inside 5820XL FACP, 5895XL cabinet, or 5815RMK cabinet |

Model 5815XL Signaling Line Circuit Expander

Engineering Specifications

The contractor shall provide a signaling circuit expander compatible with the IntelliKnight 5820XL fire control panel that allows 127 addressable devices to be added to the system. The IntelliKnight panel shall support three expanders for a total of 508 addressable devices per system. The expanders shall mount inside an IntelliKnight system cabinet, the FACP, the 5895XL, or the 5815RMK. The expanders shall provide signaling line circuits that have the same installation and functionality as built-in SLCs and shall communicate to the main panel via an RS 485 system bus. A green LED on the expander board shall blink to indicate communication with the main panel.



5815XL Block Diagram



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