



Portland, Maine



Yes. Life's good here.

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Permitting and Inspections Department
Approved with Conditions
05/20/2020

Permitting and Inspections Department

Fire Alarm Permit Application

Construction Address: 235 Presumpscot St. B		
Total Square Footage of Proposed Structure: 9310		
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# <input type="text"/> <input type="text"/> <input type="text"/>		Applicant Name: Norris Inc.
Cost of Work: \$ 5000		Address: 2257 West Broadway South Portland, ME. 04106
Lessee/Owner Name (if different): Life Storage		Phone: 207-883-3473
Address: 235 Presumpscot St. Portland, ME.		Email: melissap
Phone: 207-450-5010		Contractor Name (if different): BH Milliken
Email: cooperproperties.joe@gmail.com		Address: 235 Presumpscot St.
Current use (i.e. single family): n/a		Phone: 207-879-1877
If vacant, what was the previous use? n/a		Email: wm@bhmilliken.com
Proposed specific use: self storage		
Is property part of a subdivision? If yes, name: no		
Project description: install fire alarm devices in new addition.		
Life Safety Code Occupancy Classification: storage		
Is this new work or a renovation to an existing system? add to existing		
Is the top occupiable floor of the building greater than 75 feet above the lowest level of Fire Department access (high-rise)? no		
Name of company providing programming and certification of system*: Norris Inc.		
Electrical permit #: ELEC2019-02168		
Will a master box be installed? <input type="radio"/> Yes <input checked="" type="radio"/> No If yes, complete all items for approval):		
AES approved installing contractor: <input type="text"/>		
Documentation of AES approval: <input type="text"/>		
Property Owner: <input type="text"/>		
Property Owner Billing Address: <input type="text"/>		
Property common name: <input type="text"/>		
E-911 address for protected premises: <input type="text"/>		
Emergency contact phone: <input type="text"/> Additional emergency contact phone: <input type="text"/>		
Number of stories protected: <input type="text"/>		
Is the building protected by a supervised, automatic sprinkler system? <input checked="" type="radio"/> Yes <input type="radio"/> No		
Name of person to contact when the permit is ready: Melissa Peters, Norris Inc.		
Address: same as above		
City, State & Zip: <input type="text"/>		
Email Address: melissap@norrisinc.com		Phone: 207-883-3473

*For a list of approved fire alarm companies, see www.portlandmaine.gov/1486/Approved-Fire-Alarm-Companies



Norris Inc.

PO Box 2551
2257 West Broadway
South Portland, ME 04106

1-800-370-3473
Fax 207-879-0540

www.norrisinc.com



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Please complete this form and return to Norris Inc.

Building Owner Information Form

Job Name:

Project #

Electrical Contractor:

NFPA requires this information for proper documentation.

The contractor must provide all of the requested information below before ANY equipment can be released.

Electrical Contractor Contact:

Estimated Date Equip. Needed:

Estimated Finals Date:

Building Owner:

Job Site Address:

City:

State:

Zip:

Customer Contact:

Phone:



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Thank you for your cooperation.

**Please advise the building owners that if this system is equipped with a digital communicator,
then they MUST also make monitoring arrangements prior to a certificate of occupancy.**

Norris Inc will attempt to contact the building owners.



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STOP!

**THIS COPY IS FOR YOUR ELECTRICIAN
ON THE JOBSITE**

PLEASE BE SURE THIS COPY IS FORWARDED

- 1.) A riser diagram is enclosed. DO NOT USE THE ENGINEER'S RISER SHOWN ON THE PLANS. If there is any information that you question, call us immediately.**
- 2.) YOU MUST CALL AT LEAST FIVE DAYS IN ADVANCE TO SCHEDULE FINAL CONNECTION ASSISTANCE.**
- 3.) All wires must be labeled and clear of any grounds, shorts or opens, and must maintain polarity throughout. Meter out all circuits before calling for final connection assistance. If applicable verify End of Line resistors are in place.**
- 4.) If using shielded cable, the drain wires must be connected and fully insulated, so that neither the shield or the drain wire touches the backbox.**
- 5.) Unless special arrangements are made, we will make one final job site visit. If a special visit is required for an elevator inspection or partial occupancy, then additional charges may if prior arrangements were not made. Call your customer service representative if needed.**
- 6.) If you have any defective or left over parts, DO NOT WRITE ON THEM OR THE BOXES. Save the original box, all mounting hardware and instructions. Returns that do not conform to this practice will not be accepted for credit.**
- 7.) If the system is being monitored through a digital communicator, please see information on the next page.**



**IMPORTANT INFORMATION FOR THE BUILDING OWNERS
SPECIAL NOTE REGARDING ALARM MONITORING SERVICES**

Included with your alarm system package is a digital communicator, which sends coded messages to a private 24 hour central station if your alarm system is activated. This is a code requirement for most fire alarm systems. As a service to our customer, we offer central station monitoring services from our local UL Listed central station at extremely competitive rates.

If the central station monitoring contract is purchased through Norris Inc. prior to our scheduled start up; we will connect, program, and test the communicator at no additional charge.

Should the building owners decide to obtain monitoring services from another company, then the cost for programming and testing the communicator will be the sole responsibility of the firm they have contracted with. Furthermore, if programming changes are made to the system by persons other than Norris Inc. technicians, then the company performing the changes shall be solely liable for any personal injury or loss of life or damage to, or loss of property arising out of the use of or inability to use the system and it shall result in a waiver of any system warranties.

We appreciate that you understand the delicate nature of this life safety and/or security system and realize that serious problems may arise when modifications to the system are made, including very simple programming changes.

Call Norris Inc. at 1-800-370-FIRE (3473) to make arrangements for central station monitoring services.



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Fax 207-879-0540

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SUBMITTAL PACKAGE

Project: Life Storage

System: Fire Alarm

Submitted by: Norris Inc.

2257 West Broadway

South Portland, Maine 04106

Telephone: 1-800-370-3473

Submittal Date: 5/8/2020



Company Profile

“We are extremely proud to represent the highest quality manufacturers integrating life safety, alarm, and communication systems throughout northern New England.”

—Bradford Norris, President—

Mission Statement

Provide quality engineered systems, exceptional service.

Goal

Learn...Continually Improve...Exceed Expectations

Founded in 1979, Norris Inc. has grown to become northern New England’s leading integrated system contracting and supply company. Norris Inc. is an innovated proactive organization with extensive experience in integration interdisciplinary building management systems. Our local and national affiliations assure that your project will be done properly regardless of size. Representing leading manufacturers, our comprehensive projects provide outstanding quality, reliability, and performance... Surpassing customer application requirements and exceeding the stringent requirements of Underwriters Laboratories, National Fire Protection Association and other codes.

We maintain an exceptional level of quality and provide the highest levels of customer service. Our knowledgeable technical support will insure the great service you deserve.

Whether your needs involve industrial, commercial, institutional, or educational applications, you can trust that Norris Inc. has the complete resources it takes to provide the right solution, right away.



LIMITED WARRANTY

Norris Inc. warrants that the products of its manufacturers shall be free from defects in materials or workmanship as warranted by the manufacturer which is typically for a one (1) year period from the completed installation date, but not always. The completed installation date will be the date when the end-user was able to begin using or started using the product(s) or the system, whether partially or in its entirety. For projects that have a specification or bid instructions to follow which contains specific warranty requirements, Norris Inc. will always honor the warranty terms exactly as specified in the project's specifications or bid documents, which may be more or less in coverage and duration than the manufacturer's warranty. In performing hundreds of projects per year with thousands of different products it is impossible for Norris Inc. to track the terms and details of specified or individual product warranties. Therefore, Norris Inc. will request that the owner's representative provide these special warranty details when the warranty work is requested; otherwise a standard one (1) year warranty on the equipment will be honored. The manufacturer's warranty is for equipment only and does not include any labor and/or shipping costs. All warranties provided by Norris Inc. are limited with the same limitations included with the manufacturer's warranty which is included in the manuals of the products being provided.

The warranty will apply only if such goods have been properly installed, are subject to normal proper use and have not been modified in any manner whatsoever. Upon return of the defective product, Norris Inc. will, at its sole discretion, either repair or replace, at no cost, such goods determined to have a defect in materials or workmanship. In cases of a warranty repair, Norris Inc. will use its sole discretion to determine if a suitable replacement part can be provided on loan while the repairs are being performed.

All warranty work is performed during regular business hours. If emergency warranty work is required, the customer will pay the difference between the emergency service bill and our normal hourly charges.

Norris Inc.'s limited warranty does not apply to those products that are damaged due to misuse, abuse, negligence, exposure to adverse environmental conditions, acts of God, or have been modified in any manner whatsoever.

Norris Inc.'s standard terms and conditions are provided with our invoices. Those Terms and Conditions shall be provided upon request.

NORRIS INC. SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM LOSS OF LIFE AND/OR PROPERTY OR OTHER DAMAGE OR LOSSES OWING TO THE FAILURE OF NORRIS INC. PRODUCTS BEYOND THE COST OF REPAIR OR REPLACEMENT OF ANY DEFECTIVE PRODUCTS.

NORRIS INC. MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY AND NO OTHER WARRANTY, ORAL OR WRITTEN, EXPRESS OR IMPLIED AS ALLOWED TO THE FULLEST EXTENT OF THE LAW.



OUR CONTINUOUS COMMITMENT TO OUR ENVIRONMENT

At Norris Inc, we are proudly committed to continuous environmental improvement for a sustainable future and to develop strong partnerships within our community.

Our mission while running our operations is to do everything within our power to improve the environmental quality of our world and to work together to create a clean and safe place to live in and work in for future generations.

We will incorporate and promote green practices within our operations with policies to support it, a system of rewarding those that fully embrace it and then will regularly review our practices for continuous improvement.

We will establish policies, make investments in technologies and set the example in our own operations to include our ongoing commitment to go paperless and making it a requirement to Reuse, Reduce, & Recycle, to turn off unneeded lights, to not allow our vehicles to idle, to encourage carpooling and to utilize practical energy efficient transportation.

We will always be 100% compliant with all applicable environmental laws and regulations and will report any violations.

We will remain committed to working locally and whenever possible to sell and use locally manufactured products.

We will insist that every purchase we make will include a review of its environmental impact with a very high priority to selecting the greenest products and services available.

We will remain committed to selling low energy products. This includes promoting wireless technologies, using existing wire infrastructure in our installations, promoting solar powered devices, using our Remote Services in lieu of on-site service calls and performing calculations to minimize power supply and battery needs.

We will educate our employees and customers to illustrate that green practices and purchases are almost always less costly in the long run.

We will support and give priority to organizations that show the strongest commitment to the environment.

We will actively encourage and promote the same responsible green practices that we utilize in the work place to our employees for use in their everyday personal lives.



REMOTE INTERNET CONNECTIONS

As an added service to our customers and in order to facilitate the commissioning of the system(s) being provided within this submittal and then later to provide warranty support Norris Inc. may (at Norris Inc's option) use internet connections to gain access to the system(s) being provided. Many methods can be used, but the most popular is utilizing software named LogMeIn. This software or any other method used to connect to the customer's network will allow Norris Inc's technicians the ability to get onto the programming and diagnostic levels of the system(s) being provided via the building owner's or tenant's data network and program, diagnose or make needed changes to the operation of the system(s). This will provide a better working atmosphere to perform programming from a controlled environment without the disruptions of a construction job-site and allow fast and efficient trouble shooting and/or servicing if problems should occur later. Acceptance of this submittal by those approving it shall constitute an acceptance and approval to perform the work necessary to install and/or enable these network connections if Norris Inc. chooses to do so. It is the sole responsibility of the submittal approvers to advise the building owners and/or tenants that Norris Inc. has the ability to gain access to their network. At the specific request of those approving this submittal or the contractor that Norris Inc. is working for the building owners or tenants that own the network, Norris Inc. can remove or disable the ability to connect to the building's network. However, leaving it in place will allow for quicker and more cost effective service when it is needed. Under absolutely no circumstances shall Norris Inc, its principals, employees, or heirs to be held responsible for any losses incurred as a result of this network connection or the inability for the network connection to operate as expected.



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This is to certify that

NORRIS, INC.

is an authorized Premier Engineered Systems Distributor for
NOTIFIER

During the year of 2020

Richard Bauer
Vice President Sales

ESD Since 1987

Life Storage System Adds



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Date:

5/8/2020

Project #:

1793

Contractor:

BH Milliken

(207) 879-1877

Equipment List

<u>Quantity</u>	<u>Manufacturer</u>	<u>Part Number</u>	<u>Description</u>
5	NOTIFIER	NOTBG12LX	ADDRESSABLE PULL STATION
1	NOTIFIER	NP200	ADDRESSABLE SMOKE DETECTOR
1	NOTIFIER	FCPS24S8	REMOTE POWER SUPPLY
2	SIGMASTEK	SP127	12V 7AH BATTERY
4	SYSTEM SENSOR	P2RL	HORN STROBE, WALL, RED

N-ANN-80 80-Character Serial LCD Annunciator

General

The N-ANN-80 annunciator is a compact, backlit, 80-character LCD fire annunciator that mimics the Fire Alarm Control Panel (FACP) display. It provides system status indicators for AC Power, Alarm, Trouble, Supervisory, and Alarm Silenced conditions. The N-ANN-80 and the FACP communicate over a two-wire serial interface employing the ANN-Bus communication format. Connected devices are powered, via two additional wires, by either the host FACP or a remote UL-listed, filtered power supply. The N-ANN-80 is black; for white order N-ANN-80-W.

The N-ANN-80 displays English-language text of system point information including device type, zone, independent point alarm, trouble or supervisory status, as well as any custom alpha labels programmed into the control panel. It includes control switches for remote control of critical system functions. (A keyswitch prevents unauthorized operation of the control switches.)

Up to eight N-ANN-80s may be connected to the ANN-Bus of each FACP. Minimal programming is required, which saves time during system commissioning. The N-ANN-80 is compatible with NOTIFIER FACP's with an ANN-Bus, such as the NFW-50X.

Features

- Listed to UL Standard 864, 9th Edition
- Backlit 80-character LCD display (20 characters x 4 lines)
- Mimics all display information from the host panel
- Control switches for System Acknowledge, Signal Silence, Drill, and Reset
- Control switches can be independently enabled or disabled at the FACP
- Keyswitch enables/disables control switches and mechanically locks annunciator enclosure
- Keyswitch can be enabled or disabled at the FACP
- Enclosure supervised for tamper
- System status LEDs for AC Power, Alarm, Trouble, Supervisory, and Alarm Silence
- Local sounder can be enabled or disabled at the FACP
- N-ANN-80 connects to the ANN-Bus terminal on the FACP and requires minimal panel programming
- Displays device type identifiers, individual point alarm, trouble, supervisory, zone, and custom alpha labels
- Time-and date display field
- Surface mount directly to wall or to single, double, or 4" square electrical box
- Semi-flush mount to single, double, or 4" square electrical box. Use ANN-SB80KIT for angled view mounting
- Can be remotely located up to 6,000 feet (1,800 m) from the panel
- Backlight turns off during AC loss to conserve battery power but will turn back on if an alarm condition occurs
- May be powered by 24 VDC from the host FACP or by remote power supply (requires 24 VDC)
- Up to eight N-ANN-80s can be connected on the ANN-Bus

Controls and Indicators

- AC Power
- Alarm



- Trouble
- Supervisory
- Alarm Silenced



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Specifications

- **Operating voltage range:** 18 VDC to 28 VDC
- **Current consumption @ 24 VDC nominal** (filtered and non-resettable): 40 mA maximum
- **Ambient temperature:** 32°F to 120°F (0°C to 49°C)
- **Relative humidity:** 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F)
- 5.375" (13.65 cm.) high x 6.875" (17.46 cm.) wide x 1.375" (3.49 cm.) deep
- For use indoors in a dry location
- All connections are power-limited and supervised

The ANN-Bus

POWERING THE DEVICES ON THE ANN-BUS FROM AUXILIARY POWER SUPPLY

The ANN-Bus can be powered by an auxiliary power supply when the maximum number of ANN-Bus devices exceeds the ANN-Bus power requirements. See the FACP manual for more information.

ANN-BUS DEVICE ADDRESSING

Each ANN-Bus device requires a unique address (ID Number) in order to communicate with the FACP. A maximum of 8 devices can be connected to the FACP ANN-Bus communication circuit. See the FACP manual for more information.

WIRE REQUIREMENTS: COMMUNICATIONS CIRCUIT

The N-ANN-80 connects to the FACP ANN-Bus communications circuit. To determine the type of wire and the maximum wiring distance that can be used with FACP ANN-Bus accessory modules, it is necessary to calculate the total worst case current draw for all modules on a single 4-conductor bus. The total worst case current draw is calculated by adding the individual worst case currents for each module.

NOTE: For total worst case current draw on a single ANN-Bus refer to appropriate FACP manual.

WIRE REQUIREMENTS: POWER CIRCUIT

- 14 to 18 AWG (0.75 - 2.08 mm²) wire for 24 VDC power circuit is acceptable.
- All connections are power-limited and supervised.
- A maximum of eight N-ANN-80 modules may be connected to this circuit.

Ordering Options:

N-ANN-80: Black 80 character LCD Annunciator.

N-ANN-80-W: White, 80 character LCD Annunciator.

ANN-SB80KIT-B: Black surface mount backbox with angled wedge.

ANN-SB80KIT-W: White surface mount backbox with angled wedge.

Agency Listings and Approvals

The listings and approvals below apply to the N-ANN-80. 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:** S635
- **FM approved**
- **CSFM:** 7120-0028:0240
- **MEA:** 442-06-E Vol. 2



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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.

NOTIFIER

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203.484.7161
www.notifier.com

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Country of Origin: USA



NOT-BG12LX

Addressable Manual Pull Station



Intelligent/Addressable Devices

General

The Notifier NOT-BG12LX is a state-of-the-art, dual-action (i.e., requires two motions to activate the station) pull station that includes an addressable interface for FireWarden series intelligent control panels, and the NSP-25 panel. Because the NOT-BG12LX is addressable, the control panel can display the exact location of the activated manual station. This leads fire personnel quickly to the location of the alarm.

Features

- Maintenance personnel can open station for inspection and address setting without causing an alarm condition.
- Built-in bicolor LED, which is visible through the handle of the station, flashes in normal operation and latches steady red when in alarm.
- Handle latches in down position and the word “ACTIVATED” appears to clearly indicate the station has been operated.
- Captive screw terminals wire-ready for easy connection to SLC loop (accepts up to 12 AWG/3.25 mm² wire).
- Can be surface mounted (with SB-10 or SB-I/O) or semi-flush mounted. Semi-flush mount to a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box.
- Smooth dual-action design.
- Meets ADAAG controls and operating mechanisms guidelines (Section 4.1.3[13]); meets ADA requirement for 5 lb. maximum activation force.
- Highly visible.
- Attractive shape and textured finish.
- Key reset.
- Includes Braille text on station handle.
- Optional trim ring (BG12TR).
- Meets UL 38, Standard for Manually Actuated Signaling Boxes.

Construction

Shell, door, and handle are molded of durable polycarbonate material with a textured finish.

Specifications

- **Shipping Weight:** 9.6 oz. (272.15 g)
- **Normal operating voltage:** 24 VDC.
- **Maximum SLC loop voltage:** 28.0 VDC.
- **Maximum SLC standby current:** 375 μ A.
- **Maximum SLC alarm current:** 5 mA.
- **Temperature Range:** 32°F to 120°F (0°C to 49°C)
- **Relative Humidity:** 10% to 93% (noncondensing)
- **For use indoors in a dry location**

Installation

The NOT-BG12LX will mount semi-flush into a single-gang, double-gang, or standard 4" (10.16 cm) square electrical outlet box, or will surface mount to the model SB-10 or SB-I/O surface backbox. If the NOT-BG12LX is being semi-flush mounted, then the optional trim ring (BG12TR) may be used.



The NOT-BG12LX
Addressable Manual Pull Station

The BG12TR is usually needed for semi-flush mounting with 4" (10.16 cm) or double-gang boxes (not with single-gang boxes).

Operation

Pushing in, then pulling down on the handle causes it to latch in the down/activated position. Once latched, the word “ACTIVATED” (in bright yellow) appears at the top of the handle, while a portion of the handle protrudes from the bottom of the station. To reset the station, simply unlock the station with the key and pull the door open. This action resets the handle; closing the door automatically resets the switch.

Each manual station, on command from the control panel, sends data to the panel representing the state of the manual switch. Two rotary decimal switches allow address settings (1 – 99 on NFW2-100/NFW2-100C, 1 – 50 for NFW-50/NFW-50C).

Architectural/Engineering Specifications

Manual Fire Alarm Stations shall be non-coded, with a key-operated reset lock in order that they may be tested, and so designed that after actual Emergency Operation, they cannot be restored to normal except by use of a key. An operated station shall automatically condition itself so as to be visually detected as activated. Manual stations shall be constructed of red-colored polycarbonate material with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in white letters, 1.00 inches (2.54 cm) or larger. Stations shall be suitable for surface mounting on matching backbox SB-10 or SB-I/O; or semi-flush mounting on a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box, and shall be installed



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within the limits defined by the Americans with Disabilities Act (ADA) or per national/local requirements. Manual Stations shall be Underwriters Laboratories listed.

Manual stations shall connect with two wires to one of the control panel SLC loops. The manual station shall, on command from the control panel, send data to the panel representing the state of the manual switch. Manual stations shall provide address setting by use of rotary decimal switches.

Product Line Information

NOT-BG12LX: Dual-action addressable pull station. Includes key locking feature. (Listed for Canadian and non-Canadian applications.)

SB-10: Surface backbox; metal.

SB-I/O: Surface backbox; plastic.

BG12TR: Optional trim ring.

17021: Keys, set of two.

Agency Listings and Approvals

In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL/ULC Listed:** S692 (listed for Canadian and non-Canadian applications).
- **MEA:** 67-02-E Vol. IV.
- **CSFM:** 7150-0028:0199.
- **FM Approved.**

Patented: U.S. Patent No. D428,351; 6,380,846; 6,314,772; 6,632,108.

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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 Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
www.notifier.com

NP-200 Series

Addressable Photoelectric Detectors



Addressable Devices

General

The NOTIFIER NP-200 Series intelligent plug-in smoke detectors are designed for both performance and aesthetics. A new modern, sleek, contemporary design and enhanced optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources in accordance with more stringent code standards. Exclusively for use with NOTIFIER's FireWarden Series Addressable Fire Alarm Control Panels, the NP-200 Series point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for emergency personnel quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage. Two LEDs on each sensor light to provide a local, visible sensor indication. Dual electronic thermistors add 135°F (57°C) fixed temperature thermal sensing on the NP-200T. The NP-200R is a remote test capable detector for use with DNR Series duct detector housings.

Features

SLC LOOP

- Two-wire loop connection.
- Unit uses base for wiring.

ADDRESSING

- Addressable by device.
- Rotary, decimal addressing: *Please refer to the FireWarden panel manuals for device capacity.*

ARCHITECTURE

- New modern profile for improved aesthetics.
- Unique single-source design to respond quickly and dependably to a broad range of fires.
- Integral communications and built-in type identification.
- Built-in tamper-resistant feature.
- Removable cover and insect-resistant screen for simple field cleaning.

OPERATION

- Designed to meet UL 268 7th Edition.
- Factory preset at 1.5% nominal sensitivity for panel alarm threshold level.
- Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on in alarm.
- Low standby current.

MECHANICALS

- Sealed against back pressure.
- Mounts to: single-gang box, 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box, or 4.0" (10.16 cm) square electrical box (*with or without a mud ring - not included*).

OPTIONS

- Remote LED output connection, RA100Z.

Installation

NP-200 series plug-in detectors use a detachable mounting base to simplify installation, service and maintenance.



NP-200 in B300-6 Base



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Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see *DN-60054*.

NOTE: *Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class B) wiring. NP-200R mounts in a DNR/DNRW duct detector housing.*

Operation

Each NP-200 Series detector uses one possible addresses on the FireWarden Signaling Line Circuit (SLC). It responds to regular polls from the system and reports its type and status.

Detector Sensitivity Test

Each detector can have its sensitivity tested (required per NFPA 72, Chapter 14 on *Inspection, Testing and Maintenance*) when installed/connected to an FireWarden Series addressable fire alarm control panel. The results of the sensitivity test can be printed off the FireWarden Series for record keeping.

Specification

Voltage range: 15 – 32 VDC (peak).

Standby current: 200 μ A @ 24 VDC.

Max current: 4.5 mA @ 24 VDC (latched "ON").

Air velocity: 4,000 ft./min. (20 m/sec.) maximum.

Sensitivity: UL Applications: 0.5% to 4.0% per foot obscuration

Size: 2.0" (5.3 cm) high; base determines diameter.

– B300-6: 6.1" (15.6 cm) diameter.

– B501: 4" (10.2 cm) diameter.

For a complete list of detector bases see *DN-60981*.

Shipping weight: 3.4 oz. (95 g).

Operating temperature range:

• NP-200: 0°C to 50°C (32°F to 122°F);

• NP-200T: 0°C to 38°C (32°F to 100°F).

• NP-200R: installed in a DNR(A)/DNRW -20°C to 70°C (-4°F to 158°F).

Relative humidity: 10%-93%, non-condensing.

Listings

Listings and approvals below apply to the NP200 Series detectors. In some cases, certain detectors may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL/ULC Listed: S911
- CSFM: 7272-0028:0503
- FM Approved

Product Line Information

NOTE: Detectors must be mounted to one of the Intelligent Bases listed below.

NOTE: "IV" suffix indicates FlashScan® and CLIP device.

NP-200: White, Addressable photoelectric detector; B300-6 base included. FlashScan only.

NP-200-IV: Ivory, Addressable photoelectric detector; B300-6 base included.

NP-200T: White, Same as NP-200 but with thermal element; B300-6 base included. FlashScan only.

NP-200T-IV: Ivory, Same as NP-200 but with thermal element; B300-6 base included.

NP-200R: White, Remote test capable addressable photoelectric detector for use with DNR(A)/DNRW. FlashScan only.

NP-200R-IV: Ivory, Remote test capable addressable photoelectric detector; for use with DNR(A)/DNRW.

INTELLIGENT BASES

NOTE: For details on intelligent bases, see DN-60981.

B300-6: White, 6" base, standard flanged low-profile mounting base. (CSFM: 7300-1653:0109 Pending)

B300-6-IS: White, 6" base isolator. (CSFM: 7300-1653:0109 Pending)

B300-6-IV: Ivory, 6" base, standard flanged low-profile mounting base. (CSFM: 7300-1653:0109 Pending)

B300A-6: Same as B300-6, ULC listed.

B300A-6-IV: Ivory, 6" standard flanged low-profile mounting base, ULC listed.

B300-6-BP: Bulk pack of B300-6, package contains 10

B501-WHITE: White, 4" standard European flangeless mounting base. UL/ULC listed. (CSFM: 7300-1653:0109 Pending)

B501-BL: Black, 4" standard European flangeless mounting base. UL/ULC listed. (CSFM: 7300-1653:0109 Pending)

B501-IV: Ivory color, 4" standard European flangeless mounting base. UL/ULC listed. (CSFM: 7300-1653:0109 Pending)

B501BP: Bulk pack of B501-WHITE contains 10.

B224RB-WH: White, relay base. (CSFM: 7300-1653:0216 Pending)

B224RB-IV: Ivory, relay base. (CSFM: 7300-1653:0216 Pending)

B224RBA-WH: White, relay base, ULC listing.

B224RBA-IV: Ivory, relay base, ULC listing.

B224BI-WH: White, **isolator** detector base. (CSFM: 7300-1653:0216 Pending)

B224BI-IV: Ivory **isolator** detector base. (CSFM: 7300-1653:0216 Pending)

B224BIA-WH: White, **isolator** detector base, ULC listing.

B224BIA-IV: Ivory **isolator** detector base, ULC listing.

B200S-WH: White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. (CSFM: 7300-1653:0213 Pending)

B200S-IV: Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol. (CSFM: 7300-1653:0213 Pending)

B200SA-WH: Same as B200S-WH, ULC listing.

B200SA-IV: Same as B200S-IV, ULC listing.

B200SCOA-WH: White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications).

B200SCOA-IV: Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications, ULC listing).

B200S-LF-WH: White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. (CSFM: 7300-1653:0238 Pending)

B200S-LF-IV: Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. (CSFM: 7300-1653:0238 Pending)

B200SR-WH: White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications. (CSFM: 7300-1653:0213 Pending)

B200SR-IV: Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications. (CSFM: 7300-1653:0213 Pending)

B200SRA-WH: Same as B200SR-WH with, ULC listing.

B200SRA-IV: Same as B200SR-IV in Ivory color, ULC listing.

B200SR-LF-WH: White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications. (CSFM: 7300-1653:0238 Pending)

B200SR-LF-IV: Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications. (CSFM: 7300-1653:0238 Pending)

MOUNTING KITS AND ACCESSORIES

TR300: White, replacement flange for B210LP(A) base.

TR300-IV: Ivory, replacement flange for B210LP(A) base.

RA100Z(A): Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300-6(A).

M02-04-00: Test magnet.

M02-09-00: Test magnet with telescoping handle.



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We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

For more information, contact Notifier. Phone: (800) 627-3473, FAX: (203) 484-7118.
www.notifier.com

FCPS-24S6 & FCPS-24S8 Series Remote Power Supplies

The FCPS-24S6 Series (6-amp) and FCPS-24S8 Series (8-amp) are remote power supplies with battery charger. The FCPS-24S6/-24S8 may be connected to any 12 or 24 volt fire alarm control panel (FACP) or may be used as stand-alone supplies. Primary applications include notification appliance circuit (NAC) expansion (to support ADA requirements and NAC synchronization) or auxiliary power to support 24 volt system accessories. The FCPS-24S6/-24S8 provides regulated and filtered 24 VDC power to four notification appliance circuits configured as either four Class B (Style Y) or Class A (Style Z, with ZNAC-4 option module). Alternately, the four outputs may be configured as all non-resettable, all resettable or two non-resettable and two resettable. The FCPS-24S6/-24S8 also contains a battery charger capable of charging up to 18 AH batteries. The FCPS-24S6C and FCPS-24S8C are ULC-listed.

NOTE: Unless otherwise specified, the terms FCPS-24S6 and FCPS-24S8 used in this document refers to the FCPS-24S6 and FCPS-24S8, FCPS-24S6C and FCPS-24S8C, the FCPS-24S6E and FCPS-24S8E.

Features

- UL-Listed NAC synchronization using System Sensor®, Wheelock®, or Gentex® “Commander²” appliances
- Operates as a “sync-follower” or as a “sync-generator” (default) See note on page 2.
- Contains two fully-isolated input/control circuits - triggered from FACP NAC (NAC expander mode) or jumped permanently “ON” (stand-alone mode)
- Four Class B (Style Y) or four Class A (Style Z, with ZNAC-4 module) NACs
- 6-amp (FCPS-24S6) or 8-amp (FCPS-24S8) full load output, with 3 amps maximum/circuit, in NAC expander mode (UL 864)
- 4-amp (FCPS-24S6) or 6-amp (FCPS-24S8) continuous output in stand-alone mode (UL 1481)
- Compatible with coded inputs; signals passed through
- Optional power-supervision relay (EOLR-1)
- In stand-alone mode, output power circuits may be configured as: resettable, (reset line from FACP required), non-resettable, or a mix of two and two
- Fully regulated and filtered power output - optimal for powering four-wire smoke detectors, annunciators, and other system peripherals requiring regulated/filtered power
- Power-limiting technology meets UL power-limiting requirements
- Form-C normally-closed trouble relay
- Fully supervised power supply, battery, and NACs
- Selectable earth fault detection
- AC trouble report selectable for immediate 2-hour delay
- Works with virtually any UL 864 fire alarm control which utilizes an industry-standard reverse-polarity notification circuit (including unfiltered and unregulated NAC power)
- Requires input trigger voltage of 9 - 32 VDC
- Self-contained in compact, locking cabinet - 15”H x 14.5”W x 2.75”D (cm: 38.1H x 36.83W x 6.985D)
- Includes integral battery charger capable of charging up to 18 AH batteries. Cabinet capable of housing 7.0 AH batteries
- Battery charger may be disabled via DIP switch for applications requiring larger batteries
- Fixed, clamp-type terminal blocks accommodate up to 12 AWG (3.1mm²) wire



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Specifications

Primary (AC) Power:

- **FCPS-24S6/-24S8:** 120 VAC, 60 Hz, 3.2A maximum
- **FCPS-24S6C/-24S8C:** 120 VAC, 60 Hz, 3.2A maximum
- **FCPS-24S6E/-24S8E:** 240 VAC, 50 Hz, 1.6A maximum
- Wire Size: minimum #14 AWG (2.0mm²) with 600 V insulation

Control Input Circuit:

- **Trigger Input Voltage:** 9 to 32 VDC
- **Trigger Current:** 2.0 mA (16 - 32 V); Per Input: 1.0 mA (9 - 16 V)

Trouble Contact Rating: 5 A at 24 VDC

Auxiliary Power Output: Special application power 500 mA maximum

Output Circuits:

- +24 VDC filtered, regulated
- 3.0 A maximum for any one circuit
- Total continuous current for all outputs (stand-alone mode):
 - FCPS-24S6: 4.0 A maximum
 - FCPS-24S8: 6.0 A maximum
- Total short-term current for all outputs (NAC expander mode):
 - FCPS-24S6: 6.0 A maximum
 - FCPS-24S8: 8.0 A maximum

Secondary Power (Battery) Charging Circuit:

- Supports lead-acid batteries only
- Float-charge voltage: 27.6 VDC
- Maximum current charge: 1.5 A
- Maximum battery capacity: 18 AH

Applications

Example 1: Expand notification appliance power an additional 6.0 A (FCPS-24S6) or 8.0 A (FCPS-24S8). Use up to four Class B (Style Y) outputs or four Class A (Style Z) outputs (using ZNAC-4). For example, the FACP notification appliance circuits will activate the FCPS when reverse-polarity activation occurs. Trouble conditions on the FCPS are sensed by the FACP through the notification appliance circuit.

Example 2: Use the FCPS to expand auxiliary regulated 24-volt system power up to 4.0 A (FCPS-24S6) or up to 6.0 A (FCPS-24S8). Both resettable and non-resettable power options are available. Resettable outputs are created by connecting the resettable output from the FACP to one or both of the FCPS inputs.

Example 3: Use addressable control modules to activate the FCPS instead of activating it through the FACP notification appliance circuits. This typically allows for mounting the FCPS at greater distances* away from the FACP while expanding system architecture in various applications.

For example, an addressable control module is used to activate the FCPS, and an addressable monitor module is used to sense FCPS trouble conditions. Local auxiliary power output from the FCPS provides power to the addressable control module.

NOTE: Addressable FACP's are capable of locating control and monitor modules at distances of up to 12,500 feet (3,810 meters).

Sync Follower/Generator Note

In some installations, it is necessary to synchronize the flash timing of all strobes in the system for ADA compliance. Strobes accomplish this by monitoring very short timing pulses on the NAC power which are created by the FACP. When installed at the end of a NAC wire run, the FCPS-24S6/-24S8 can track (i.e. "follow") the strobe synchronization timing pulses on the existing NAC wire run. This maintains the overall system flash timing of the additional strobes attaches to the FCPS.

When the FCPS-24S6/-24S8 is configured (via DIP switch settings) as a "sync follower," the FCPS' NAC outputs track the strobe synchronization pulses present at the FCPS' sync input terminal. The pulses originate from an upstream FACP or other power supply.

When the FCPS-24S6/-24S8 are configured (via DIP switch settings) as a "sync generator," the FCPS' sync input terminals are not used. Rather, the FCPS is the originator of the strobe synchronization pulses on the FCPS' NAC outputs. In "sync generator" mode, the sync type (System Sensor, Wheelock, or Gentex) is selectable via DIP switch settings.

Standards and Codes

The FCPS-24S6 and FCPS-24S8 comply with the following standards:

- **NFPA 72** National Fire Alarm Code
- **UL 864** Standard for Control Units for Fire Alarm Systems (NAC expander mode)
- **UL 1481** Power Supplies for Fire Alarm Systems

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S635, S674
- **ULC Listed:** S635 (FCPS-24S6C & FCPS-24S8C)
- **CSFM Approved:** 7315-0028:0225
- **MEA:** 299-02-E
- **FM Approved**

Ordering Information

FCPS-24S6: 6.0 A, 120 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15"H x 14.5"W x 2.75"D [cm: 38.1H x 36.83W x 6.985D]), and installation instructions

FCPS-24S6C: Same as above, ULC-listed

FCPS-24S6R: Same as FCPS-24S6 with red enclosure

FCPS-24S6E: 6.0 A, 240 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15"H x 14.5"W x 2.75"D [cm: 38.1H x 36.83W x 6.985D]), and installation instructions

FCPS-24S8: 8.0 A, 120 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15"H x 14.5"W x 2.75"D [cm: 38.1H x 36.83W x 6.985D]), and installation instructions

FCPS-24S8C: Same as above, ULC-listed

FCPS-24S8R: Same as FCPS-24S8 with red enclosure

FCPS-24S8E: 8.0 A, 240 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15"H x 14.5"W x 2.75"D [cm: 38.1H x 36.83W x 6.985D]), and installation instructions

ZNAC-4: Class A (Style Y) NAC option module

EOLR-1: 12/24 VDC end-of-line relay for monitoring four-wire smoke detector power

BAT-1270: Battery, 12-volt, 7.0 AH (two required, see BAT Series data sheet DN-6933)

PS-1270: Battery, 12-volt, 7.0 AH (two required)



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 **NOTIFIER**®
by Honeywell



Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications

System Sensor L-Series audible visible notification products are rich with features guaranteed to cut installation times and maximize profits with lower current draw and modern aesthetics.

Features

- Updated Modern Aesthetics
- Small profile devices for Horns and Horn Strobes
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and two volume selections
- Mounting plate for all standard and all compact wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert and SpectrAlert Advance devices
- Compatible with MDL3 sync module
- Strobes and Horn Strobes listed for wall mounting only
- Horns listed for wall or ceiling use

Agency Listings



S5512
S4011



FM approved except
for ALERT models
3057383, 3057072



7125-1653:0504
7135-1653:0503



The System Sensor L-Series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.



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L-Series Specifications

Architect/Engineer Specifications

General

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 1⁷/₈-inch back box, 4 x 4 x 1¹/₂-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 x 4 x 1⁷/₈-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

Strobe

The strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn Strobe Combination

The horn strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two audibility options and an option to switch between a temporal three pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The horn on horn strobe models shall operate on a coded or non-coded power supply.

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize Strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4¹¹/₁₆ x 4¹¹/₁₆ x 2¹/₈-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC or regulated 24 DC/FWR ¹
Operating Voltage Range²	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Operating Voltage Range MDL3 Sync Module	8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Wall-Mount Dimensions (including lens)	5.6" L x 4.7" W x 1.91" D (143 mm L x 119 mm W x 49 mm D)
Compact Wall-Mount Dimensions (including lens)	5.26" L x 3.46" W x 1.91" D (133 mm L x 88 mm W x 49 mm D)
Horn Dimensions	5.6" L x 4.7" W x 1.25" D (143 mm L x 119 mm W x 32 mm D)
Compact Horn Dimensions	5.25" L x 3.45" W x 1.25" D (133 mm L x 88 mm W x 32 mm D)

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. Strobe products will operate at 12 V nominal only for 15 cd and 30 cd.



UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)				
Candela Range	Candela	8–17.5 Volts		
		DC	DC	FWR
Candela Range	15	88	43	60
	30	143	63	83
	75	N/A	107	136
	95	N/A	121	155
	110	N/A	148	179
	135	N/A	172	209
	185	N/A	222	257

UL Max. Horn Current Draw (mA RMS)				
Sound Pattern	dB	8–17.5 Volts		
		DC	DC	FWR
Temporal	High	39	44	54
Temporal	Low	28	32	54
Non-Temporal	High	43	47	54
Non-Temporal	Low	29	32	54
3.1 KHz Temporal	High	39	41	54
3.1 KHz Temporal	Low	29	32	54
3.1 KHz Non-Temporal	High	42	43	54
3.1 KHz Non-Temporal	Low	28	29	54
Coded	High	43	47	54
3.1 KHz Coded	High	42	43	54

UL Max. Current Draw (mA RMS), Wall Horn Strobe, Candela Range (15–185 cd)										
DC Input	8–17.5 Volts		16–33 Volts							
	15cd	30cd	15cd	30cd	75cd	95cd	110cd	135cd	185cd	
Temporal High	98	158	54	74	121	142	162	196	245	
Temporal Low	93	154	44	65	111	133	157	184	235	
Non-Temporal High	106	166	73	94	139	160	182	211	262	
Non-Temporal Low	93	156	51	71	119	139	162	190	239	
3.1K Temporal High	93	156	53	73	119	140	164	190	242	
3.1K Temporal Low	91	154	45	66	112	133	160	185	235	
3.1K Non-Temporal High	99	162	69	90	135	157	175	208	261	
3.1K Non-Temporal Low	93	156	52	72	119	138	162	192	242	
FWR Input	16–33 Volts									
	15cd	30cd	75cd	95cd	110cd	135cd	185cd			
Temporal High	83	107	156	177	198	234	287			
Temporal Low	68	91	145	165	185	223	271			
Non-Temporal High	111	135	185	207	230	264	316			
Non-Temporal Low	79	104	157	175	197	235	283			
3.1K Temporal High	81	105	155	177	196	234	284			
3.1K Temporal Low	68	90	145	166	186	222	276			
3.1K Non-Temporal High	104	131	177	204	230	264	326			
3.1K Non-Temporal Low	77	102	156	177	199	234	291			

Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)					
Switch Position	Sound Pattern	dB	8–17.5 Volts	16–33 Volts	FWR
			DC	DC	
1	Temporal	High	84	89	89
2	Temporal	Low	75	83	83
3	Non-Temporal	High	85	90	90
4	Non-Temporal	Low	76	84	84
5	3.1 KHz Temporal	High	83	88	88
6	3.1 KHz Temporal	Low	76	82	82
7	3.1 KHz Non-Temporal	High	84	89	89
8	3.1 KHz Non-Temporal	Low	77	83	83
9*	Coded	High	85	90	90
10*	3.1 KHz Coded	High	84	89	89

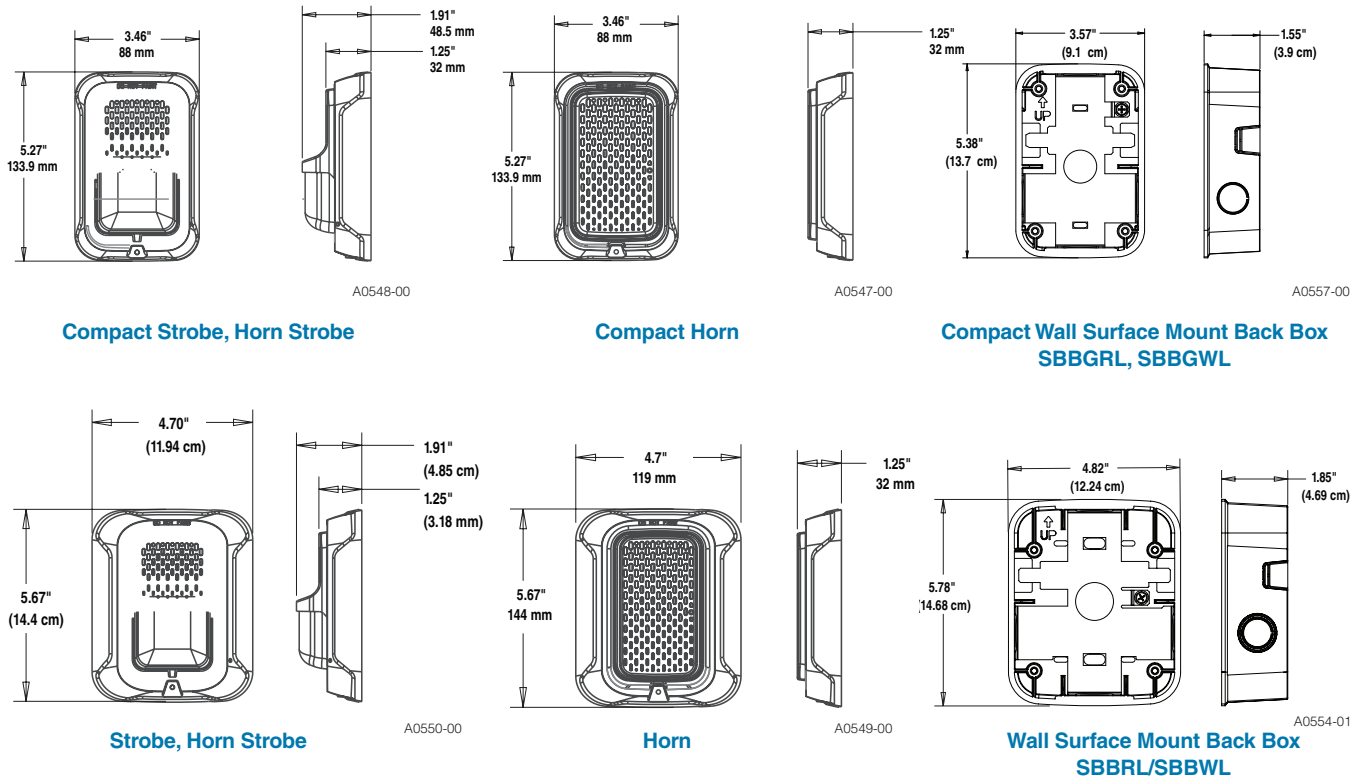
* Settings 9 and 10 are not available on 2-wire horn strobes. Temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output remains constantly on.



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L-Series Dimensions



L-Series Ordering Information

Model	Description
Wall Horn Strobes	
P2RL	2-Wire, Horn Strobe, Red
P2WL	2-Wire, Horn Strobe, White
P2GRL	2-Wire, Compact Horn Strobe, Red
P2GWL	2-Wire, Comp 2 fils act Horn Strobe, White
P2RL-P	2-Wire, Horn Strobe, Red, Plain
P2WL-P	2-Wire, Horn Strobe, White, Plain
P2RL-SP	2-Wire, Horn Strobe, Red, FUEGO
P2WL-SP	2-Wire, Horn Strobe, White, FUEGO
P4RL	4-Wire, Horn Strobe, Red
P4WL	4-Wire, Horn Strobe, White
Wall Strobes	
SRL	Strobe, Red
SWL	Strobe, White
SGRL	Compact Strobe, Red
SGWL	Compact Strobe, White
SRL-P	Strobe, Red, Plain
SWL-P	Strobe, White, Plain
SRL-SP	Strobe, Red, FUEGO
SWL-CLR-ALERT	Strobe, White, ALERT

Model	Description
Horns*	
HRL*	Horn, Red
HWL*	Horn, White
HGRL*	Compact Horn, Red
HGWL*	Compact Horn, White
Accessories	
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White

Notes:

- All -P models have a plain housing (no "FIRE" marking on cover).
- All -SP models have "FUEGO" marking on cover.
- All -ALERT models have "ALERT" marking on cover.
- *Horn-only models are listed for wall or ceiling use.



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AVDS865-05 • 2/22/2018

NFW2-100 Fire Alarm Control Panel

Protected Premises: <u>Life Storage Additions</u>	Date: <u>5/8/2020</u>
Address: <u>235 Presumpscot Street</u>	
City: <u>Portland</u> State: <u>Maine</u> Zip: <u>04103</u>	
Prepared By: <u>Norris Inc</u>	Phone: <u>207-274-3619</u>
Address: <u>2257 Broadway</u> Email: _____	
City: <u>South Portland</u> State: <u>Maine</u> Zip: <u>04106</u>	

AC Branch Current Requirements 3.00 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load 0.09 Amps

Current load on the primary power supply during non-alarm conditions.

Primary Alarm Load 0.53 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 6.33 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 0.217 A	x	Required Standby Time	
		24 hours	5.21
Secondary Alarm Load 0.802 A	x	Required Alarm Time (hours)	
		0.084 hours	0.07
Total Secondary Load			5.27
Derating factor			x 1.2
Secondary Load Requirements			6.33

AH

Battery Selection 7 Amp Hours

Select batteries from the list below.

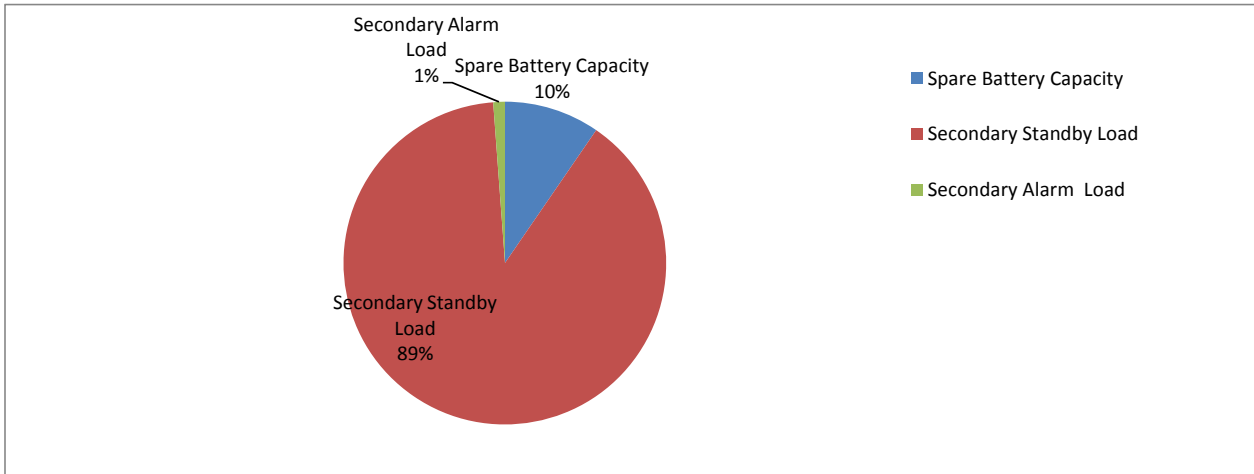
7 AH BAT-1270 Battery (12 volt)

- Two Four (two 12VDC sets in parallel)



Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (7AH) are within the charger range of this power supply (7-18AH).

Spare Battery Capacity	0.67	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	6.25	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.08	Secondary Alarm Load (AH) * Derating Factor





Device Current Draw

NFW2-100 Fire Alarm Control Panel

Quantity x [device current draw] = total current draw per device (in amps)

Part Number	Qty	Primary Non-Alarm	Primary Alarm	Secondary Non-Alarm
Main Circuit Board	1	x [0.00000] = 0.00000	x [0.00000] = 0.00000	x [0.14500] = 0.14500
N-ANN-80	1	x [0.03700] = 0.03700	x [0.04000] = 0.04000	x [0.01500] = 0.01500
UDACT-2 Communicator	1	x [0.05200] = 0.05200	x [0.08700] = 0.08700	x [0.05200] = 0.05200
NP-100 (NP-200)	6	x [0.00030] = 0.00180	x [0.00000] = 0.00000	x [0.00030] = 0.00180
NH-100	2	x [0.00030] = 0.00060	x [0.00000] = 0.00000	x [0.00030] = 0.00060
NMM-100P	4	x [0.00038] = 0.00150	x [0.00000] = 0.00000	x [0.00038] = 0.00150
NC-100R	4	x [0.00027] = 0.00108	x [0.00000] = 0.00000	x [0.00027] = 0.00108
Max Alarm Draw - All Addressable Devic	1	x [0.00000] = 0.00000	x [0.40000] = 0.40000	x [0.00000] = 0.00000
Total (Amperes):		0.0940 A	0.5270 A	0.2170 A

Part Number	Qty	Secondary Alarm
Total Primary Alarm Load - C2	1	x [0.52700] = 0.52700
Main Circuit Board	1	x [0.27500] = 0.27500
Total (Amperes):		0.8020 A





AC Branch Current

Select devices using the "Qty" column.
 Use yellow cells to enter quantities and current values.
 To show only selected devices, select "Show Selected Devices".
 To clear selected devices, select "Clear Selections".

Note: These selections only determine the AC branch current. If these devices will affect the battery requirements, you need to select them on the System Current Draw sheet.

120 VAC 220/240 VAC

Device	Qty		Current	Total
AA-30	0	x	1.00 A	
AA-120	0	x	1.85 A	
ACPS-2406	0	x	2.70 A	
APS-6R	0	x	2.50 A	
AVPS-24	0	x	1.00 A	
CHG-120	0	x	2.00 A	
FCPS-24	0	x	2.00 A	
FCPS-24S8	1	x	3.20 A	3.20 A
MPS-24A	0	x	1.80 A	
MPS-24B	0	x	2.40 A	
XPIQ	0	x	3.50 A	
XRM-24	0	x	1.00 A	
APS2-6R	0	x	2.90 A	
ACPS-610	0	x	5.00 A	
[]	0	x	0.00 A	
[]	0	x	0.00 A	
			AC Branch Required:	3.20 A





System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>Life Storage Additions</u>	Date: <u>5/8/2020</u>
Address: <u>235 Presumpscot Street</u>	
City: <u>Portland</u> State: <u>Maine</u>	Zip: <u>04103</u>
Prepared By: <u>Norris Inc.</u>	Phone: <u>1-800-370-3473</u>
Address: <u>2257 West Broadway</u>	Email: jbridges@norrisinc.com
City: <u>South Portland</u> State: <u>Maine</u>	Zip: <u>04106</u>

AC Branch Current Requirements 3.20 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load 0.09 Amps

Current load on the primary power supply during non-alarm conditions.

Primary Alarm Load 0.44 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 1.92 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 0.065 A	x	Required Standby Time	
		24 hours	1.56
Secondary Alarm Load 0.437 A	x	Required Alarm Time (hours)	
		0.084 hours	0.04
Total Secondary Load			1.60
Derating factor			x 1.2
Secondary Load Requirements			1.92

AH

Battery Selection 7 Amp Hours

Select batteries from the list below.

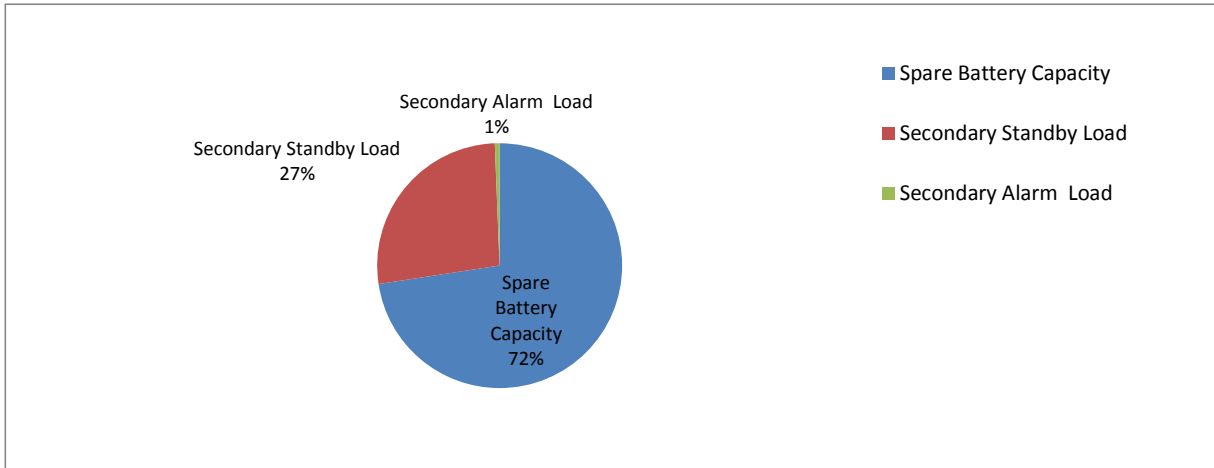
7 AH BAT-1270 Battery (12 volt)

- Two Four (two 12VDC sets in parallel)



Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (7AH) are within the charger range of this power supply (7-18AH).

Spare Battery Capacity	5.08	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.04	Secondary Alarm Load (AH) * Derating Factor





Device Current Draw

FCPS-24s8 Power Supply

Quantity x [device current draw] = total current draw per device (in amps)

Part Number	Qty	Primary Non-Alarm	Primary Alarm	Secondary Non-Alarm
FCPS-24S8 Main Circuit Board	1	x [0.09100] = 0.09100	x [0.14500] = 0.14500	x [0.06500] = 0.06500
P2RL15	4	x [0.00000] = 0.00000	x [0.07300] = 0.29200	x [0.00000] = 0.00000
Total (Amperes):		0.0910 A	0.4370 A	0.0650 A





Reviewed for Code Compliance
Permitting and Inspections Department
Approved with Conditions

05/20/2020

SYMBOL LEGEND

DEVICES

	SMOKE DETECTOR (R NOTES ELEVATOR RECALL)		SPRINKLER FLOW SWITCH (BY OTHERS)
	HEAT DETECTOR (R NOTES ELEVATOR RECALL)		SPRINKLER TAMPER SWITCH (BY OTHERS)
	MONITOR MODULE		SPRINKLER PRESSURE SWITCH (BY OTHERS)
	RELAY MODULE		

NOTIFICATION

	HORN STROBE	XX = CANDELA RATING
	STROBE	

WIRE LEGEND

	2 COND 16 AWG TWISTED PAIR FPL CABLE
	CAT-6 CABLE
	2 COND 14 AWG FPL CABLE

DEVICE ADDRESSES:

EACH DEVICE MUST BE LABELED WITH THE LOOP AND SLC ADDRESS.
DEVICE EXAMPLE: L1D001 MODULE EXAMPLE: L1M001
IMPORTANT! DUPLICATE ADDRESSES BETWEEN DEVICES AND MODULES ARE NOT AN ERROR. NOTE: PULL STATIONS ARE IDENTIFIED AS MODULES BY THE FIRE ALARM CONTROL PANEL.

INSTALLATION NOTES:

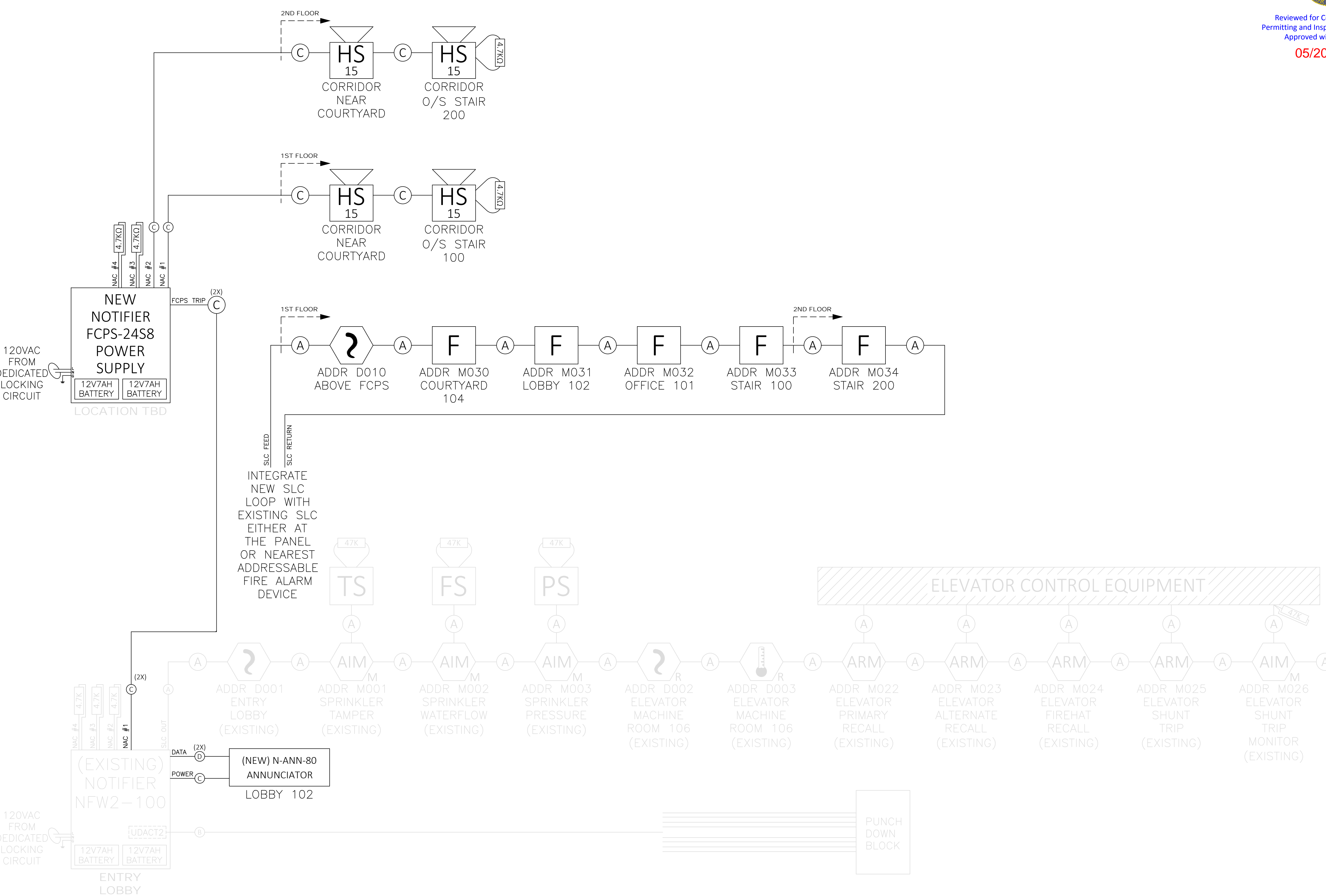
ALL FIELD WIRING SHALL BE INSTALLED IN CONDUIT.
FIELD WIRING SHALL BE INSTALLED FOLLOWING THE CURRENT EDITION OF NFPA 70: NATIONAL ELECTRIC CODE(2014), ALL APPLICABLE MUNICIPAL, COUNTY, & STATE CODES, REQUIREMENTS, AND REGULATIONS, AS WELL AS ALL MANUFACTURER GUIDELINES FOR INSTALLATION.
CONTROL PANELS, DEVICES, AND ALL OTHER SYSTEM COMPONENTS SHALL BE INSTALLED FOLLOWING THE CURRENT EDITION OF NFPA 72: NATIONAL FIRE ALARM AND SIGNALING CODE(2013), ALL APPLICABLE MUNICIPAL, COUNTY, & STATE CODES, REQUIREMENTS, AND REGULATIONS, AS WELL AS ALL MANUFACTURER GUIDELINES FOR INSTALLATION.
THE INSTALLER SHALL FOLLOW CORRECT CONDUCTOR POLARITY, INDICATED CIRCUIT DIVISIONS, PROPER GROUNDING AND SHIELDING WITHOUT EXCEPTION. IMPROPER INSTALLATION CAN RESULT IN INTERFERENCE, TRANSIENT VOLTAGE, OR SHORT CIRCUITS CAUSING UNDESIRABLE OPERATION OR DAMAGE TO THE CONTROL PANEL, DEVICES AND ANY OTHER INTEGRATED COMPONENTS.
IF EXCEEDING 4500 FEET, THE GAUGE OF WIRE USED FOR THE SLC LOOP (IDENTIFIED AS "A" ON THIS PRINT), SHALL BE DETERMINED BY THE INSTALLER FOLLOWING GUIDELINES AND LIMITATIONS SET FORTH BY THE MANUFACTURER(NOTIFIER DOCUMENT #51253, INTELLIGENT CONTROL PANEL SLC WIRING MANUAL). THE SLC WIRING RISER IS SHOWN DIAGRAMMATICALLY ONLY TO ALLOW FOR VARIANCES IN ACTUAL WIRE DISTANCE, DEVICE PLACEMENT AND STRUCTURAL OR ENVIRONMENTAL REQUIREMENTS.
WIRE FOR THE NOTIFICATION APPLIANCE CIRCUITS (IDENTIFIED AS "C" ON THIS PRINT), SHALL FOLLOW THE SPECIFIC REQUIREMENTS OF THE WIRING LEGEND.
THIS SYSTEM MEETS NFPA REQUIREMENTS FOR OPERATION AT 32-120°F AND A RELATIVE HUMIDITY OF 91-95% AT 87-89°F. HOWEVER, THE USEFUL LIFE OF THE SYSTEMS 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 60-80°F.

DESIGN NOTES:

SYSTEM DESIGN PERFORMANCE AND COMPLIANCE WITH ALL APPLICABLE CODES AND REQUIREMENTS IS THE RESPONSIBILITY OF THE DESIGNING ENGINEER. PROPER INSTALLATION OF THIS SYSTEM AND ITS COMPONENTS IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR. ANY ALTERATIONS, CHANGES, OR DEFICIENCIES MUST BE BROUGHT TO THE ATTENTION OF THE DESIGNING ENGINEER.
NORRIS INC. ASSUMES NO RESPONSIBILITY FOR ERRORS IN SYSTEM DESIGN OR INSTALLATION, AS WELL AS ANY COSTS ASSOCIATED WITH CORRECTING THESE ERRORS, IF ANY EXIST, UNLESS SYSTEM DESIGN OR INSTALLATION WAS PERFORMED BY NORRIS INC.

RELAY & MONITOR MODULES:

CONNECTIONS FROM THE RELAY, AND MONITOR MODULES TO THE CONTROL EQUIPMENT, ALONG WITH ANY REQUIRED COMPONENTS SHALL BE FURNISHED BY THE INSTALLER.



INTEGRATE NEW SLC LOOP WITH EXISTING SLC EITHER AT THE PANEL OR NEAREST ADDRESSABLE FIRE ALARM DEVICE

ELEVATOR CONTROL EQUIPMENT

REVISION 0: SUBMITTAL	05/08/2020
FIRE ALARM WIRING RISER	
PROJECT NUMBER: 1793	SCALE: NONE
PROJECT:	DRAWN BY: JAB
LIFE STORAGE 235 PRESUMPCOT STREET PORTLAND, MAINE 04103	CHECKED BY: MP
2257 BROADWAY	SOUTH PORTLAND, MAINE
	SHEET: FA-01

SYSTEM INPUTS

SYSTEM OUTPUTS

CONTROL UNIT ACTIVATION

NOTIFICATION

FIRE SAFETY CONTROLS

- ACTIVATE COMMON ALARM SIGNAL INDICATOR
- ACTIVATE AUDIBLE ALARM SIGNAL
- ACTIVATE COMMON SUPERVISORY SIGNAL
- ACTIVATE AUDIBLE SUPERVISORY SIGNAL INDICATOR
- ACTIVATE COMMON TROUBLE SIGNAL
- DISPLAY ALPHA-NUMERIC COMMON TROUBLE SIGNAL
- RECORD EVENTS IN THE SYSTEM MEMORY
- ACTIVATE GENERAL EVACUATION SIGNALS & MESSAGE
- SEND FIREFIGHTERS WARNING SIGNAL TO REMOTE ALARM RECEIVING STATION
- TRANSMIT FIRE ALARM SIGNAL TO REMOTE ALARM RECEIVING STATION
- TRANSMIT SUPERVISORY SIGNAL TO REMOTE ALARM RECEIVING STATION
- RECALL ELEVATORS TO PRIMARY RECALL FLOOR
- RECALL ELEVATORS TO ALTERNATE RECALL FLOOR
- SHUTDOWN POWER TO ELEVATOR

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	MANUAL FIRE ALARM PULL STATION	●	●					●	●	●		●						1
2	AREA HEAT DETECTOR	●	●					●	●	●		●						2
3	AREA SMOKE DETECTOR	●	●					●	●	●		●						3
4	ELEVATOR LOBBY SMOKE DETECTOR - PRIMARY FLOOR	●	●					●	●	●		●				●		4
5	ELEVATOR LOBBY SMOKE DETECTOR - ALTERNATE FLOOR	●	●					●	●	●		●			●			5
6	ELEVATOR SMOKE DETECTOR	●	●					●	●	●	●	●			●			6
7	ELEVATOR HEAT DETECTOR	●	●					●	●	●	●	●			●		●	7
8	SPRINKLER WATERFLOW	●	●					●	●	●		●						8
9	SPRINKLER TAMPER VALVE			●	●			●	●				●					9
10	FIRE ALARM AC POWER FAILURE					●	●	●	●					●				10
11	FIRE ALARM SYSTEM LOW BATTERY					●	●	●	●					●				11
12	OPEN CIRCUIT					●	●	●	●					●				12
13	GROUND FAULT					●	●	●	●					●				13
14	NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●	●	●					●				14

REVISION 0: SUBMITTAL 05/08/2020

FIRE ALARM MATRIX

PROJECT NUMBER: 1793 SCALE: NONE

PROJECT: LIFE STORAGE
235 PRESUMPCOT STREET
PORTLAND, MAINE 04103

DRAWN BY: JAB

CHECKED BY: MP

SHEET: MX-01

N Norris Inc.
2257 BROADWAY SOUTH PORTLAND, MAINE

