NORRIS INC

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RESURGAM CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 06/10/16

# *SUBMITTAL PACKAGE*

**Project:** **Loring House**

**System:** **Fire Alarm Fit up**

**Submitted By:**
**Norris Inc.**
**2257 West Broadway**
**South Portland, Maine 04106**
**Telephone: (800) 370-3473**

**Date:** **May 13th, 2016**

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# 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 products 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.

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NORRIS INC
Advancing security, life safety and communications

# 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 infrastructures 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.

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# 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 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 &/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.

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**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 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 will allow fast and efficient troubleshooting 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 or 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 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.**

**Norris Inc**
**2257 West Broadway**
**South Portland, ME 04106**
**1-800-370-3473**

**322521SP**
**Equipment List**

Reviewed for Code Compliance
Inspections Division
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Date: 06/10/16

**CASCO BAY ELECTRIC LLC**
ATTN: ACCOUNTS PAYABLE
91 J AUBURN ST #1196
PORTLAND, ME 04103
Phone: 207-221-3331

## Loring House

**Description**

Wheelock-STR, Strobe, Wall, Red
NOTIFIER-FCPS-24S8, 8.0 amps, 120 VAC remote charger PS.
IM-1270, 12V 7AH Battery

# Wheelock® Exceder™ Series

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 06/10/16

## Strobe, Horn Strobe, and Horn Notification Appliances

***Description:***

The Wheelock® Exceder™ Series of notification appliances feature a sleek modern design that will please building owners with reduced total cost of ownership. Installers will benefit from its comprehensive feature list, including the most candela options in one appliance, low current draw, no tools needed for setting changes, voltage test points, 12/24 VDC operation, universal mounting base and multiple mounting options for both new and retrofit construction.

The Wheelock® Exceder™ Series incorporates high reliability and high efficiency optics to minimize current draw allowing for a greater number of appliances on the notification appliance circuit. All strobe models feature an industry first of 8 candela settings on a single appliance. Models with an audible feature 3 sound settings (90, 95, 99 dB). All switches to change settings, can be set without the use of a tool and are located behind the appliance to prevent tampering. Wall models feature voltage test points to take readings with a voltage meter for troubleshooting and AHJ inspection.

The Wheelock® Exceder™ Series of wall and ceiling notification appliances feature a Universal Mounting Base (UMB) designed to simplify the installation and testing of horns, strobes, and combination horn strobes. The separate universal mounting base can be pre-wired to allow full testing of circuit wiring before the appliance is installed and the surface is finished. It comes complete with a Contact Cover for protection against dirt, dust, paint and damage to the contacts. The Contact Cover also acts as a shunting device to allow pre-wire testing for common wiring issues. The Contact Cover is polarized to prevent it from being installed incorrectly and prevents the appliance from being installed while it is on the UMB. When the Contact Cover is removed the circuit will show an open until the appliance is installed. The UMB allows for consistent installation and easy replacement of appliances if required. Wall models provide an optional locking screw for extra secure installation, while the ceiling models provide a captivated screw to prevent the screw from falling during installation.

- Save up to 48% in current draw*
- Up to 9 models now in 1 appliance
- Save up to 14% cost of installation**

**Sleek Modern Aesthetics**

**Finger Slide Switches**

**Voltage Test Points**

**Multiple Voltages**

**3 Audible Settings**
90, 95, 99 dB

**8 Candela Settings** ***
Wall - 15/1575/30/75/95/110/135/185
Ceiling - 15/30/60/75/95/115/150/177

**Universal Mounting Base** ***
Ceiling and Wall
Mounts to 5 Backbox Types

**Environmentally Friendly**
Low Current Draw

Compatibility and Requirements
- Synchronize using the Wheelock® Sync Modules or panels with built-in Wheelock® Patented Sync Protocol
- Compatible with UL "Regulated Voltage" using filtered VDC or unfiltered VRMS input voltage
- Strobes produce 1 flash per second over the "Regulated Voltage" range

* Compared to competitive models
** Compared to previous models
*** Patented

**NOTE: All CAUTIONS and WARNINGS are identified by the symbol ⚠. All warnings are printed in bold capital lett**

**⚠ WARNING: PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFOR OR APPLYING THIS PRODUCT. VISIT WWW.COOPERNOTIFICATION.COM OR CONTACT COOPER NOTIFICATION FOR THE CURR INSTRUCTIONS. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS OR WARNINGS COULD RESULT IN IMP INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPER SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.**

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## *General Notes:*

General Notes:

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range".
- All candela ratings represent minimum effective strobe intensity based on UL Standard 1971.
- Series Exceder Strobe products are Listed under UL Standards 1971 and 464 for indoor use with a temperature range of 32°F to 120°F (0 maximum humidity of 93% (± 2%) UL 464 (85% UL 1971).
- Series Exceder horns are under UL Standard 464 for audible signal appliances (Indoor use only).

## Low Current Draw = Fewer Power Supplies

Strobe Ratings per UL Standard 1971

| | | UL Max Current* | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 VDC / 24 FWR | | | | | | | | | | | | 12 VDC | |
| Model | Regulated Voltage Range VDC | 15 | 15/75 | 30 | 60 | 75 | 95 | 110 | 115 | 135 | 150 | 177 | 185 | 15 | 15/75 |
| ST | 8.0-33.0 | 0.057 | 0.070 | 0.085 | | 0.135 | 0.163 | 0.182 | | 0.205 | | | 0.253 | 0.110 | 0.140 |
| STC | 8.0-33.0 | 0.061 | | 0.085 | 0.103 | 0.135 | 0.163 | | 0.182 | | 0.205 | 0.253 | | 0.110 | |

Horn Strobe Ratings per UL 1971 & Anechoic at 24 VDC

| | | UL Max Current* at Anechoic 99 dBA | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 24 VDC | | | | | | | | | | | | 12 VDC | |
| Model | Regulated Voltage Range VDC | 15 | 15/75 | 30 | 60 | 75 | 95 | 110 | 115 | 135 | 150 | 177 | 185 | 15 | 15/75 |
| HS | 8.0-33.0 | 0.082 | 0.095 | 0.102 | | 0.148 | 0.176 | 0.197 | | 0.242 | | | 0.282 | 0.125 | 0.159 |
| HSC | 8.0-33.0 | 0.082 | | 0.102 | 0.141 | 0.148 | 0.176 | | 0.197 | | 0.242 | 0.282 | | 0.125 | |
| | | UL Max Current* at Anechoic 95 dBA | | | | | | | | | | | | | |
| | | 24 VDC | | | | | | | | | | | | 12 VDC | |
| Model | Regulated Voltage Range VDC | 15 | 15/75 | 30 | 60 | 75 | 95 | 110 | 115 | 135 | 150 | 177 | 185 | 15 | 15/75 |
| HS | 8.0-33.0 | 0.073 | 0.083 | 0.087 | | 0.139 | 0.163 | 0.186 | | 0.230 | | | 0.272 | 0.122 | 0.153 |
| HSC | 8.0-33.0 | 0.073 | | 0.087 | 0.128 | 0.139 | 0.163 | | 0.186 | | 0.230 | 0.272 | | 0.122 | |
| | | UL Max Current* at Anechoic 90 dBA | | | | | | | | | | | | | |
| | | 24 VDC | | | | | | | | | | | | 12 VDC | |
| Model | Regulated Voltage Range VDC | 15 | 15/75 | 30 | 60 | 75 | 95 | 110 | 115 | 135 | 150 | 177 | 185 | 15 | 15/75 |
| HS | 8.0-33.0 | 0.065 | 0.075 | 0.084 | | 0.136 | 0.157 | 0.184 | | 0.226 | | | 0.267 | 0.120 | 0.148 |
| HSC | 8.0-33.0 | 0.065 | | 0.084 | 0.120 | 0.136 | 0.157 | | 0.184 | | 0.226 | 0.267 | | 0.120 | |

Horn Ratings per UL Anechoic

| Model | Regulated Voltage Range VDC | 99 dB | 95 dB | 90 dB |
|---|---|---|---|---|
| HN | 16-33.0 | 0.064 | 0.044 | 0.022 |
| HNC | 16-33.0 | 0.084 | 0.044 | 0.022 |
| HN | 8.0-17.5 | 0.047 | 0.026 | 0.017 |
| HNC | 8.0-17.5 | 0.047 | 0.026 | 0.017 |

* UL max current rating is the maximum RMS current within the listed voltage range (16-33 VDC for 24 VDC units). For strobes the UL max current is usually at the minimum listed voltage (16 VDC for 24 VDC units). For audibles the max current is usually at the maximum listed voltage (33 VDC for 24 VDC units). For unfiltered ratings, see installation instructions.

## Specification & Ordering Information

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 06/10/16

Easy to remember model codes

8 candelas on 1 device

1 gang, 2 gang, 4" sq, 3.5" octal & 4" octa

| Model | Strobe Candela | Sync w/ DSM or Wheelock Power Supplies | 12/24 VDC* | |
|---|---|---|---|---|
| Horn Strobes | | | | |
| HSR | 15/1575/30/75/95/110/135/185 | X | X | |
| HSW | 15/1575/30/75/95/110/135/185 | X | X | |
| HSRC | 15/30/60/75/95/115/150/177 | X | X | UMB** |
| HSWC | 15/30/60/75/95/115/150/177 | X | X | UMB** |
| Strobes | | | | |
| STR | 15/1575/30/75/95/110/135/185 | X | X | UMB** |
| STW | 15/1575/30/75/95/110/135/185 | X | X | UMB** |
| STRC | 15/30/60/75/95/115/150/177 | X | X | UMB** |
| STWC | 15/30/60/75/95/115/150/177 | X | X | UMB** |
| Horn | | | | |
| HNR | | X | X | UMB** |
| HNW | | X | X | UMB** |
| HNRC | | X | X | UMB** |
| HNWC | | X | X | UMB** |

*12 VDC models feature 15 & 15/75 settings

**UMB = Universal Mounting Base

Model Legend

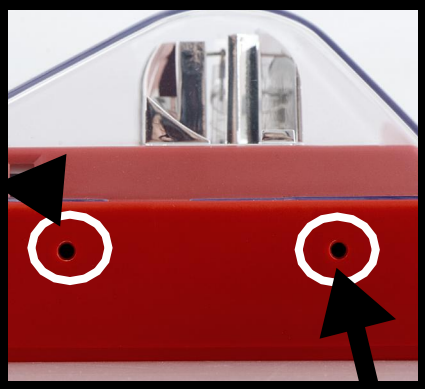
HN = Horn
ST = Strobe
HS = Horn Strobe
C = Ceiling Mount
W = White
R = Red

A = Agent Lettering (Strobes only)
AL = Alert Lettering (Strobes only)
N = No Lettering (Strobes only)

Example 1: STRC = Strobe, Red, Ceiling Mount
Example 2: HSR = Horn Strobe, Red, Wall Mount
Example 3: HSW = Horn Strobe, White, Wall Mount
Example 4: STW-AL = Strobe, White, Wall Mount, Alert Lettering

Example: HSR

Example: HSWC



Voltage test points for quick troubleshooting and easy spot checking (wall models only)

8 candela settings

*UMB

Contact Cover

Common base for wall and ceiling with 5 mounting options

**NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Cooper Wheelock Inc., dba Cooper Notification standard terms and conditions.**

## Architects and Engineers Specifications

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 06/10/16

The notification appliances shall be Wheelock® Exceder™ Series HS Audible Strobe appliances, Series ST Visu and Series HN Audible appliances or approved equals. The Series HS and ST Strobes shall be listed for UL Stand Devices for the Hearing-Impaired) for Indoor Fire Protection Service. The Series HS and HN Audibles shall be UL 464 (Fire Protective Signaling). All Series shall meet the requirements of FCC Part 15 Class B. All inputs sha standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP) with the ability to oper Indoor wall models shall incorporate voltage test points for easy voltage inspection.

The Series HS Audible Strobe and ST Strobe appliances shall produce a flash rate of one (1) flash per secon Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens. The Series shall be Where Multi-Candela appliances are specified, the strobe intensity shall have 8 field selectable settings at 15, 15/75, 30, 75, 95, 110, 135, 185 candela for wall mount and 15, 30, 60, 75, 95, 115, 150, 177 candela for ceiling mount. The selector switch for selecting the candela shall be tamper resistant. The 15/75 candela strobe shall be specified when 15 candela UL Standard 1971 Listing with 75 candela on-axis is required (e.g. ADA compliance). Appliances with candela settings shall show the candela selection in a visible location at all times when installed.

The audible shall have a minimum of three (3) field selectable settings for dBA levels and shall have a choice of continuous or temporal (Code 3) audible outputs.

The Series HS Audible Strobe, ST Strobe and Series HN Audible shall incorporate a patented Universal Mounting Base that shall allow mounting to a single-gang, double-gang, 4-inch square, 3.5-inch octal, 4-inch octal or 100mm European type back boxes. Two wire appliance wiring shall be capable of directly connecting to the mounting base. Continuity checking of the entire NAC circuit prior to attaching any notification appliances shall be allowed. Product shall come with Contact Cover to protect contact springs. Removal of an appliance shall result in a supervision fault condition by the Fire Alarm Control Panel (FACP). The mounting base shall be the same base among all horn, strobe, horn strobe, wall and ceiling models. All notification appliances shall be backwards compatible.

The Series HS and ST wall models shall have a low profile measuring 5.24” H x 4.58” W x 2.19” D. Series HN wall shall measure 5.24” H x 4.58” W x 1.6” D. The Series HSC and STC shall been round and have a low profile with a diameter of 6.68” x 2.63” D. Series HNC ceiling shall have a diameter of 6.68” x 1.50” D.

When synchronization is required, the appliance shall be compatible with Wheelock®’s DSM Sync Modules, Wheelock® Power Supplies or other manufacturer’s panels with built-in Wheelock® Patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync protocol fails to operate, the strobe shall revert to a non-synchronized flash-rate and still maintain (1) flash per second over its Regulated Voltage Range. The appliance shall also be designed so that the audible signal may be silenced while maintaining strobe activation when used with Wheelock® synchronization protocol.

**Wall Appliances** – UL Standard 1971, UL Standard 464, California State Fire Marshal (CSFM), ULC, FM
**Ceiling Appliances** – UL Standard 1971, UL Standard 464, California State Fire Marshal (CSFM), ULC, FM

NEMA Member

WE ENCOURAGE AND SUPPORT NICET CERTIFICATION
3 YEAR WARRANTY

**Exceder - Spec Sheet 6/11**

NJ Location
273 Branchport Ave.
Long Branch, NJ 07740
P: 800-631-2148
F: 732-222-8707
www.coopernotification.com

Cooper Notification is Wheelock® MEDC SAFEPATH® WAVES Roam Secure

COOPER Notification

# FCPS-24S6(C/E) & FCPS-24S8(C/E)

## 6- & 8-Amp 24-Volt Remote Power Supplies

NOTIFIER by Honeywell

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 06/10/16

## General

The FCPS-24S6E (6-amp) and FCPS-24S8E (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. FCPS-24S6C & FCPS-24S8C are ULC-listed.

***NOTE:*** *Unless otherwise specified, the terms FCPS-24S6 and FCPS-24S8 used in this document refers to the standard 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 "Commander$^2$" 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 (3.1mm$^2$) wire.

## Specifications

**Primary (AC) Power:**

- 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 (2.0mm$^2$) 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:** Specific 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 FACPs 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's NAC outputs track the strobe synchronization pulses present at the FCPS's 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's sync input terminals are not used. Rather, the FCPS is the originator of the strobe synchronization pulses on the FCPS's 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 co
standards:

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

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## Agency Listings and App

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:** 7315-0028:225
- **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).

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ISO 9001 CERTIFIED
ENGINEERING & MANUFACTURING QUALITY SYSTEMS

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.

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# BAT Series Batteries

## Sealed Lead-Acid or Gell Cell

NOTIF by Honey

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Approved with Conditions

Date: 06/10/16

## General

**BAT Series Batteries** feature a new part-numbering/listing system — providing an improved method of delivery for NOTIFIER-approved sealed lead-acid batteries for all your fire alarm system needs. Multiple brands of batteries are now offered under generic part numbers, reducing backorder situations and permitting us to deliver these products in a more timely fashion. NOTIFIER has approved the multiple brands listed below as possible product shipped for a given part number. Please note that any incoming orders for "PS Series" batteries will be converted to the equivalent BAT Series part numbers.

6933cov.jpg

## Features

- Provide secondary power for control panels.
- Sealed and maintenance-free.
- Overcharge protected.
- Easy handling with leakproof construction.
- Ruggedly constructed, high-impact case (ABS, polystyrene, or polypropylene, depending on models).
- Long service life.
- Compact design.

## Agency Listings and Approvals

The listings and approvals below apply to BAT Series Batteries. 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 Recognized Components**: files MH19884 *(B & B Battery),* MH20567 *(UPG, previously Jolt),* MH20845 *(Power-Sonic).*

## Part Number Reference

| CURRENT Part Number | BATTERY DESCRIPTION | ALTERNATES APPROVED: manufacturers and P/Ns shipped under BAT P/Ns |
|---|---|---|
| BAT-1250 | 12 V, 5 AH, sealed. | BP5-12 (B&B Battery); PS-1250 (Power-Sonic); SA1250 (Jolt) to be replaced with UB1250 (UPG). |
| BAT-1250 | 12 V, 5 AH, sealed. | BP5-12 (B&B Battery); PS-1250 (Power-Sonic); SA1250 (Jolt) to be replaced with UB1250 (UPG). |
| BAT-1270 | 12 V, 7 AH, sealed. | BP7-12 (B&B Battery); PS-1270 (Power-Sonic); SA1272 (Jolt) to be replaced with UB1270 (UPG). |
| BAT-12120 | 12 V, 12 AH, sealed. | BP12-12 (B&B Battery); PS-12120 (Power-Sonic); SA12120 (Jolt) to be replaced with UB12120 (UPG). |
| BAT-12180 | 12 V, 18 AH, sealed. | PS-12180 (Power-Sonic); SA12180 (Jolt) to be replaced with UB12180 (UPG). |
| BAT-12180 | 12 V, 18 AH, sealed. | PS-12180 (Power-Sonic); SA12180 (Jolt) to be replaced with UB12180 (UPG). |
| BAT-12260 | 12 V, 26 AH, sealed. | BP26-12 (B&B Battery); PS-12260 (Power-Sonic); SA12260 (Jolt) to be replaced with UB12260 (UPG). |
| BAT-12550 | 12 V, 55 AH, sealed. | PS-12550 (Power-Sonic); XSA12550 (Jolt) to be replaced with UB12550 (UPG). |
| BAT-12550 | 12 V, 55 AH, sealed. | PS-12550 (Power-Sonic); XSA12550 (Jolt) to be replaced with UB12550 (UPG). |
| BAT-121000 | 12 V, 100 AH, gell cell. | PS-121000 (Power-Sonic); XSA121000A (Jolt) to be replaced with UB121000 (UPG). |

# POWER-SONIC

## Part Number Reference

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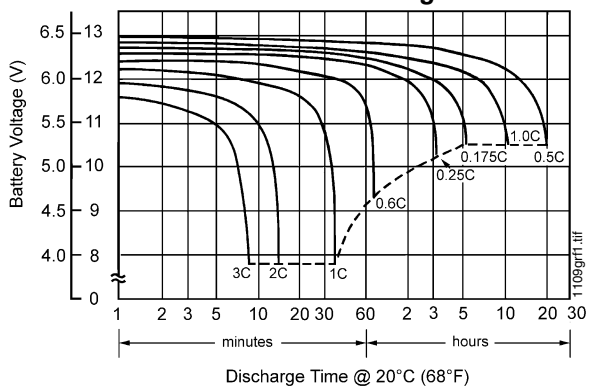
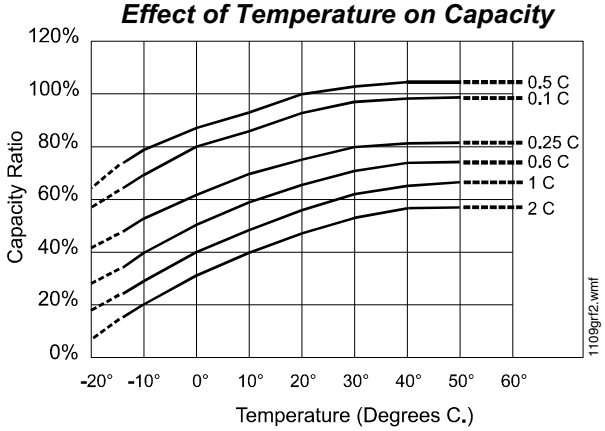
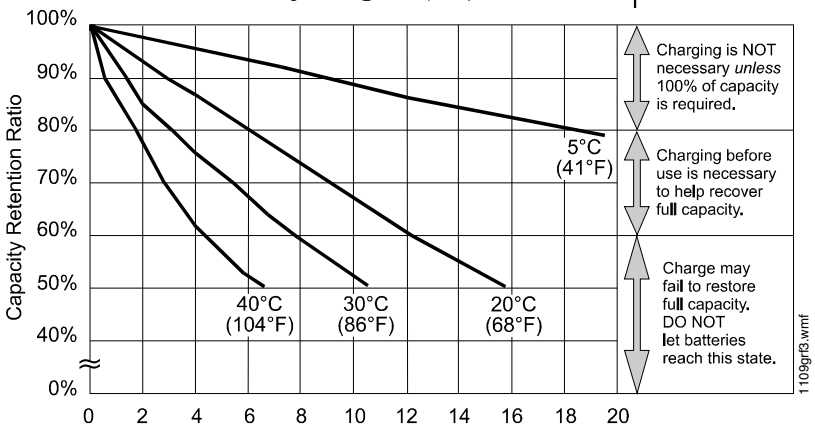
| MODEL | Nominal Voltage V | Nominal Capacity @ 20 hr. rate A.H. | Discharge Current @20 hr. rate mA | DIMENSIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Width | | Depth | | Height | | Height over terminal | | | |
| | | | | in. | mm | in. | mm | in. | mm | in. | mm | | |
| PS-1250 | 12 | 5 | 250 | 3.54 | 90 | 2.76 | 70 | 4.02 | 102 | 4.21 | 107 | 4.1 | 1.9 |
| PS-1270 | 12 | 7 | 325 | 5.94 | 151 | 2.56 | 65 | 3.7 | 94 | 3.86 | 98 | 5.7 | 2.6 |
| PS-12120 | 12 | 12 | 600 | 5.94 | 151 | 3.86 | 98 | 3.7 | 94 | 3.86 | 98 | 8.8 | 4 |
| PS-12180 | 12 | 18 | 875 | 7.13 | 181 | 2.99 | 76 | 6.57 | 167 | 6.57 | 167 | 12.8 | 5.8 |
| PS-12250 | 12 | 25 | 1300 | 6.89 | 175 | 6.54 | 166 | 4.92 | 125 | 4.92 | 125 | 18.7 | 8.5 |
| PS-12550 | 12 | 55 | 3000 | 10.25 | 260 | 6.6 | 168 | 8.2 | 208 | 9.45 | 240 | 39.7 | 18 |
| PS-121000 | 12 | 100 | 5000 | 12 | 305 | 6.6 | 168 | 8.2 | 208 | 9.45 | 240 | 65.7 | 29.8 |

### *Characteristic Discharge Curves*

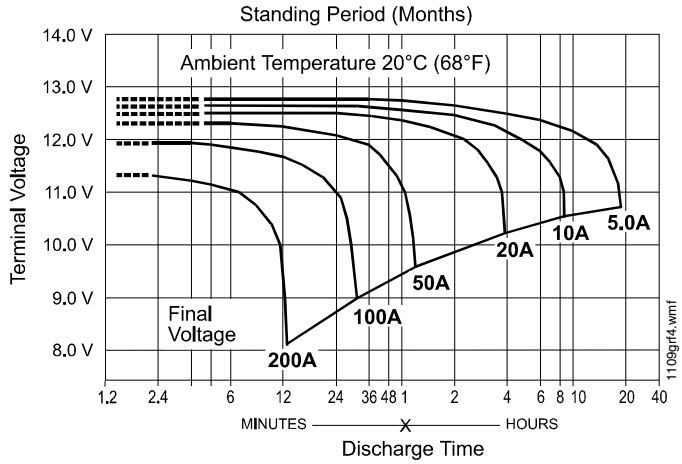



### *Effect of Temperature on Capacity*




***at left:***
***PS-121000***
***Shelf-Life***
***and Storage***




***at left:***
***PS-1210000***
***Discharge***
***Characteristics***