



# Fire Alarm Permit

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

Installation address: 50 Industrial Way CBL: \_\_\_\_\_

Exact location: (within structure) New addition on East end of building

Type of occupancy(s) (NFPA & ICC): Factory / Industrial

Building owner: Allagash Brewing Company

System Designer (point of contact): <sup>Must be</sup> Corey Chapman (Norris, Inc.)

Designer phone: 1-800-370-3473 x1109 E-mail: coreyc@norrisinc.com

Installing contractor: E.S.Boulos Company Certificate of Fitness No: T1026

Contractor phone: 1-207-272-6986 E-mail: jklmaytis@esboulos.com

This is a new application: YES  NO  New AES Master Box: YES  NO   
(Include Master Box approval form)

Amendment to an existing permit: YES  NO  Permit no: \_\_\_\_\_

The following documents shall be provided with this application:

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

COST OF WORK: <u>\$3,200</u>
PERMIT FEE: <u>\$52.00</u>
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

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

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

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

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

Applicant signature: \_\_\_\_\_ Date: \_\_\_\_\_

This  
Certificate of Fitness  
for  
**Fire Alarm Installation and Servicing Company**  
is awarded to



**E.S. BOULOS CO**  
45 Bradley Dr.  
Westbrook, ME 04092  
(207)464-3706



CF # T1026

*B. Gaudin*

Authority Having Jurisdiction

12/31/2010

Expiration Date

**THIS CERTIFICATE IS NOT AN ENDORSEMENT OF THIS COMPANY BY THE  
AUTHORITY HAVING JURISDICTION.**

**TERMS AND CONDITIONS OF THIS CERTIFICATE OF FITNESS SHALL BE AS  
FOLLOWS.**

**THIS CERTIFICATE REMAINS THE PROPERTY OF THE PORTLAND FIRE  
DEPARTMENT AND SHALL BE RETURNED UPON DEMAND.**

**THIS CERTIFICATE OF FITNESS IS NON-TRANSFERABLE.**

**THIS CERTIFICATE OF FITNESS SHALL REMAIN IN EFFECT IN SO FAR AS THE  
BEARER OF SAID INSTRUMENT SHALL COMPLY WITH RULES AND  
REGULATIONS ESTABLISHED BY THE AUTHORITY HAVING JURISDICTION.**

**FAILURE TO COMPLY WITH ALL RULES AND REGULATIONS OF THE  
AUTHORITY HAVING JURISDICTION WILL RESULT IN THE FOLLOWING:**

**FIRST OFFENCE: PLAN OF ACTION TO ADDRESS DEFICIENCIES**

**SECOND OFFENCE: PROBATION OF SERVICE COMPANY**

**THIRD OFFENCE: TERMINATION OF CERTIFICATE OF FITNESS**

# ELECTRICAL PERMIT

## City of Portland, Me.



To the Chief Electrical Inspector, Portland Maine:

The undersigned hereby applies for a permit to make electrical installations in accordance with the laws of Maine, the City of Portland Electrical Ordinance, National Electrical Code and the following specifications:

Date 12/9/10

Permit # \_\_\_\_\_

CBL# 326 B000

LOCATION: 50 INDUSTRIAL WAY PORTLAND, ME 04103

METER MAKE & # ASEA BRN ROBERT

CMP ACCOUNT # 441-179-1340-001

OWNER ALLAGASH BREWING COMPANY

TENANT ALLAGASH BREWERY

PHONE # 207-878-5385

TOTAL EACH FEE \$4.60

OUTLETS	19	Receptacles	6	Switches		Smoke Detector	.20	\$3.80
FIXTURES		Incandescent	10	Fluorescent		Strips	.20	\$2.00
SERVICES		Overhead		Underground		TTL AMPS <800	15.00	
		Overhead		Underground		>800	25.00	
Temporary Service		Overhead		Underground		TTL AMPS	25.00	
							25.00	
METERS		(number of)					1.00	
MOTORS		(number of)					2.00	
*RESID/COM		Electric units					1.00	
HEATING	2	oil/gas units		Interior		Exterior	5.00	\$10.00
APPLIANCES		Ranges		Cook Tops		Wall Ovens	2.00	
		Insta-Hot		Water heaters		Fans	2.00	
		Dryers		Disposals		Dishwasher	2.00	
		Compactors		Spa		Washing Machine	2.00	
		Others (denote)					2.00	
		Air Cond/win					3.00	
		Air Cond/cent				Pools	10.00	
MISC. (number of)	1	HVAC		EMS		Thermostat	5.00	\$5.00
		Signs					10.00	
		Alarms/res					5.00	
		Alarms/com					15.00	
		Heavy Duty(CRKT)					2.00	\$2.00
		Circus/Carnv					25.00	
		Alterations					5.00	
		Fire Repairs					15.00	
		E Lights		4			1.00	\$4.00
		E Generators					20.00	
PANELS		Service	1	Remote		Main	4.00	\$4.00
TRANSFORMER		0-25 Kva					5.00	
		25-200 Kva					8.00	
		Over 200 Kva					10.00	
						TOTAL AMOUNT DUE		331.60
		MINIMUM FEE/COMMERCIAL 55.00	X			MINIMUM FEE	45.00	\$55.00

CONTRACTORS NAME E.S. BOULOS COMPANY

MASTER LIC. # MC60016185

ADDRESS 45 BRADLEY DRIVE WESTBROOK, ME 04092

LIMITED LIC. # \_\_\_\_\_

TELEPHONE 207-464-3706

SIGNATURE OF CONTRACTOR

# E.S. Boulos Company

## Integrated Power and Building Technologies

### Corporate Office

45 Bradley Drive  
Westbrook, ME 04092  
Tele: (207)464-3706  
Fax: (207)464-1833

### Utility/Industrial Office

70 Commercial Street  
Lewiston, ME 04240  
Tele: (207)784-0906  
Fax: (207)784-9426

### Letter of Transmittal

To: Cindy Gowell  
Langford & Low Inc.  
PO Box 662  
248 Warren Ave  
Portland, ME 04104-0662  
Ph: (207)797-5141 Fax: (207)797-0919

Transmittal #: 10  
Date: 11/9/2010  
Job: PORT10-126 Allagash Brewery

Subject: Submittal

WE ARE SENDING YOU  Attached  Under separate cover via the following items:  
 Shop drawings  Prints  Plans  Samples  
 Copy of letter  Change order  Specifications  Submittal

Document Type	Copies	Date	No.	Description
Submittal	1		283100-1 Rev 0	Fire Alarm System

#### THESE ARE TRANSMITTED as checked below:

- For approval  Approved as submitted  Resubmit \_\_\_ copies for approval  
 For your use  Approved as noted  Submit \_\_\_ copies for distribution  
 As requested  Returned for corrections  Return \_\_\_ corrected prints  
 For review and comment  Other  
 FOR BIDS DUE  PRINTS RETURNED AFTER LOAN TO US

#### Remarks:

Copy To: File, Gabrielle Russell (Langford & Low Inc.), Butch Campbell (Langford & Low Inc.)

From: Jesse Klimaytis (E. S. Boulos Company)

Signature: \_\_\_\_\_

Jesse Klimaytis  
Digitally signed by Jesse Klimaytis  
DN: cn=Jesse Klimaytis, o=E.S.Boulos Company,  
ou, email=jklimaytis@esboulos.com, c=US  
Date: 2010.11.09 21:44:59 -05'00'

# E.S. Boulos Company

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Lewiston, ME 04240  
Tele: (207)784-0906  
Fax: (207)784-9426

## Submittal

**Job:** PORT10-126

Allagash Brewery  
50 Industrial Way  
Portland, ME 04103

**Spec Section No:** 283100

**Submittal No:** 1

**Revision No:** 0

**Sent Date:** 11/9/2010

**Submittal Title:** Fire Alarm System

Langford & Low Inc.  
Cindy Gowell  
PO Box 662  
248 Warren Ave  
Portland, ME 04104-0662  
Ph: (207)797-5141

Contractor's Stamp

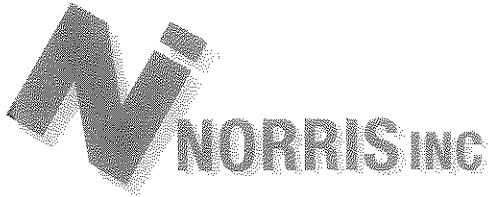
**Architect**

Architect's Stamp

**Engineer**

Engineer's Stamp

E.S. Boulos Company has checked this shop drawing submission for accuracy and for conformance with contract requirements.



PO Box 2551  
2257 West Broadway  
South Portland, ME 04106

1.800.370.3473  
fax 207.879.0540

[www.norrisinc.com](http://www.norrisinc.com)

# ***SUBMITTAL PACKAGE***

**Project:** Allagash Brewery Adds

**System:** Fire Alarm

**Submitted** Norris Inc.

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

**Project  
Manager:** Corey Chapman

**Electrical** E S Boulos

**Contractor:**

**Date:** 11/5/10



PO Box 2551  
2257 West Broadway  
South Portland, ME 04106

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fax 207.879.0540

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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

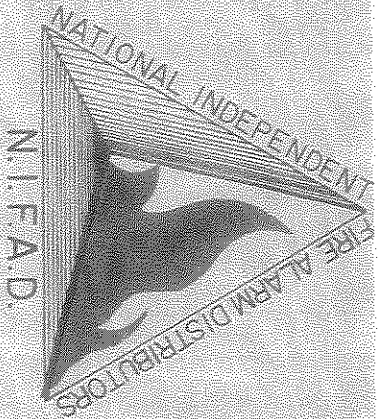
Provide quality engineered systems, exceptional service.

## 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.





# National Independent Fire Alarm Distributors Association

This is to Certify that

Morris Inc.

is a

Member in Good Standing

and is entitled to all rights and privileges of such membership

*David Palmer*

Secretary

*Bob Smith*

President



**NBFAA**

Electronic Life Safety, Security  
& Systems Professionals


# National Burglar & Fire Alarm Association

## Norris Inc

*is a member in good standing entitled to all rights  
& privileges of membership and subject to all conditions  
& objectives as defined in the association bylaws.*



**Merlin J. Guilbeau**  
Executive Director



**Michael A. Miller**  
President

# NSCA Membership Certificate

This is to certify that

**Norris Inc**

is an official member of the

**National Systems Contractors Association**

on this the

*First of December*

*Andrew M. Musci*

**Andrew M. Musci**  
President

*Chuck R. Wilson*

**Chuck Wilson**  
Executive Director



# Certificate of Membership

## AFAA

This is to Certify that  
*Norris, Inc.*

Has been duly elected to membership in this organization through  
*May 31, 1999*

and pledged to improve LIFE SAFETY IN AMERICA by striving to ensure  
fire protective signaling and automatic detection systems are properly designed, installed and maintained.

*James M. Mundy, Jr.*  
CHAIRMAN OF THE BOARD

*Dante Beck*  
SECRETARY

**AUTOMATIC FIRE ALARM ASSOCIATION, INC.**  
a non-profit organization



PO Box 2551  
2257 West Broadway  
South Portland, ME 04106

1.800.370.3473  
fax 207.879.0540

www.norrisinc.com

Please fax this information to the Administrative Sales Assistant at the So. Portland Office at (207)-879-0540.

## Building Owner Information Form

Job Name:	Project #:
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Electrical Contractor:
------------------------

# NFPA requires this information for proper documentation

*\*The contractor MUST provide all of the information with an asterisk below before ANY equipment can be released.*

*If building owner contact is unknown provide contact name/tel. of GC and check box*

Electrical Contractor Contact Name:	
Estimated Date Equip. Needed:	*Estimated Finals Date:

*Building Owner:
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*Job Site Address:
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*City:	State:	Zip:
--------	--------	------

*Contact Name:	Check here if GC
----------------	------------------

*Phone #:	Fax #:
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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 JOB-SITE

### 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 of your 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 (wrapped with tape) 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 apply if special arrangements were not made ahead. Call your customer service representative.**
- 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, then please turn to page 2.**





PO Box 2553  
2257 West Broadway  
South Portland, ME 04106

1.800.370.3473  
fax 207.879.0540

[www.norrisinc.com](http://www.norrisinc.com)

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

Included within your alarm system package is a digital communicator, which sends a coded message 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 customers, 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 costs 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 1-888-312-FIRE (3473) to make  
arrangements for central station monitoring services.**



**NOTIFIER®**  
by Honeywell

*This is to certify that*

**NORRIS, INC.**

*is an authorized Engineered Systems Distributor for NOTIFIER*

*During the year of 2010*

*He Jankovic*

*Signed for and on behalf of NOTIFIER*

*Vice President Domestic Sales*



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

**\*\* SUBMITTAL \*\***

11/5/2010

Project Number: 308365SP

For:
ESB Allagash Brewery Adds Customer P.O.: X

Project Site:
ESB Jesse  45 Bradley Dr. Westbrook, ME 04092

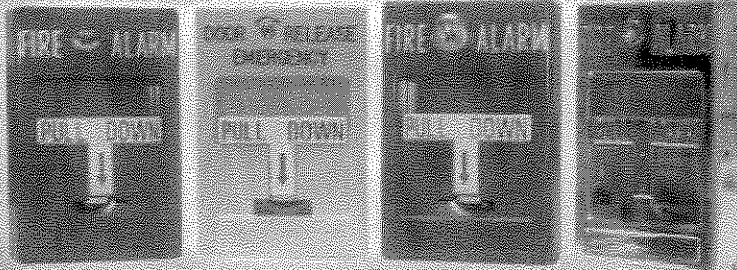
<b>** SUBMITTAL ** to:</b>	
E S BOULOS 45 BRADLEY DRIVE WESTBROOK, ME 04092-	
Tel: 207-464-3706	Fax: 207-464-1833

Mfr-Part No.	Qty	Description	Unit Price	Extended
		Notifier Fire Alarm Control (existing)		
	2	Pulstation, Red Die Cast (Notifier key)		
	4	Horn Strobe, Wall, Red		
	1	8.0 amps, 120 VAC remote charger power supply		
	2	12V 7AMP BATTERY		

Reliable Security Group P.O. Box 848 Lakewood CA, 90714  
 P 562-529-5100 F 562-529-5102



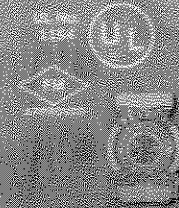
# MANUAL STATIONS



The RMS manual pull station is a high quality non-toxic die-cast manual pull station manufactured entirely in the U.S.A. Low profile design and smooth edges offer an attractive yet functional design. All components are prepared or have plated surfaces to inhibit corrosion. Electrically the RMS manual pull station is unbeatable with 10 amp snap action switch offered in all possible contact arrangements (including gold contacts). The RMS pull station can be used with or without a break glass rod with replacement requiring no special tools.

Other features include:

- Lift and pull
- Break glass cover
- Institutional key lock
- Weather and explosion proof versions
- All stations offer hex screw or key lock access
- Private labeling and special options also available



□ Represents switch type plus panel leads or terminal block connections





AMS II Shown

## CONSTRUCTION MATERIAL

- Painted Die Cast Housing
- 14 Ga Plated Steel Back Plate
- Corrosion Inhibited Surfaces
- Terminal Block (4 Position)
- Single Gang Mounting
- 10 AMP Snap Action Switch (S.P.S.T. S.P.D.T.)

### SPECIFICATIONS

Electrical

Switch	10 amp @ 120vac
Gold Contact	1.0 amp @ 120vac
Key Switch	0.5 amp @ 30vac
Phone Jack	0.1 amp @ 24vac

### Dimensions

Station	Width 3.200in
	Length 4.750in
	Depth 0.675in

Weight	15.5oz/420 grams
Mount	Single gang

AMS-CAH	Width 3.325in
	Length 4.750in
	Depth 1.525in

Weight	16.9oz/475g grams
--------	-------------------

AMS-LP and LPH	Width 3.325in
	Length 4.750in
	Depth 1.500in

Weight	16.4oz/460 grams
--------	------------------

### ORDERING INFORMATION

Manual Station Series \_\_\_\_\_  
 Switch type plus pigtail leads  
 or terminal block connections \_\_\_\_\_

Package options \_\_\_\_\_



Options (add to above):

- 1P S.P.S.T. with pigtail
- 1T S.P.S.T. with terminal block
- 2T D.P.S.T. with terminal block
- ET D.S.D.T. with terminal block
- PS Presignal key switch 0.5 amp @ 30vac
- LP Lift and pull over action adaptor
- LPH Lift and pull over helon adaptor
- LED Light emitting diode (red/green/white)
- CCS S.P.D.T. Gold Contact 1 amp @ 120vac
- GCD S.P.D.T. Gold Contact 1 amp @ 120vac
- PJ Phone Jack 0.1 amp @ 24vac
- K1 Key lock access (specify key type)
- BB Surface mounting back box
- EXC Exit alarm only sign

Note: Meets UL, FM, C/SEM and BSA requirements. Quality pricing/Private labeling available.



# Wheelock® Exceder™

## Horns and Strobes



Audio/Visual Devices

### General

The Wheelock® Exceder™ Series of notification appliances feature a sleek modern design and numerous features including eight candela options in one appliance, low current draw, no tools needed for setting changes, 12/24 VDC operation, universal mounting base and multiple mounting options.

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.

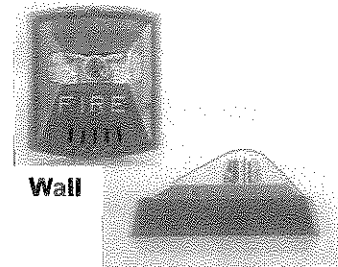
The contact cover is polarized to prevent it from being installed incorrectly and prevents the appliance from being installed while it is on the UMB. When the contact cover is removed the circuit will show an open until the appliance is installed. The UMB allows for consistent installation and easy replacement of appliances if required. Wall models provide an optional locking screw for extra secure installation, while the ceiling models provide a captive screw to prevent the screw from falling during installation.

### Features

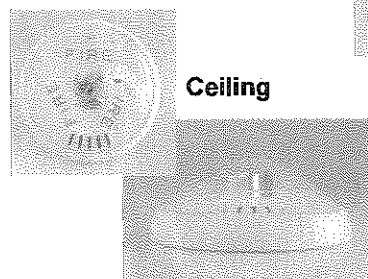
- Multiple voltages
- Voltage test points for quick troubleshooting and easy spot-checking (wall models only)
- 3 audible settings (90, 95, 99 dB)
- 8 Candela settings
  - Wall - 15/1575/30/75/95/110/135/185
  - Ceiling - 15, 30, 60, 75, 95, 115, 150, 177
- Finger-slide switches
- Sleek modern aesthetics
- Common base for wall and ceiling with 5 mounting options:
  - 1-gang
  - 2-gang
  - 4 inch square
  - 3.5 inch octagonal
  - 4 inch octagonal

### Compatibility and Requirements

- Synchronize using 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 one flash per second over the Regulated Voltage range.



Wall



Ceiling

### General Notes

- 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°C to 49°C) and 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).
- Product naming conventions: The Exceder line's model codes break down into easy-to-remember codes. HN = Horn, ST = Strobe, HS = Horn-strobe, C = Ceiling Mount, W = White, and R = Red. So “STRC” can be read as “Strobe, Red, Ceiling-mount.”, and “HSW” is “Horn-strobe, white, wall-mount.”
- Refer to your fire alarm panel or power supply manual when calculating the number of devices allowed per circuit.

### Architects/Engineers Specifications

The notification appliances shall be Wheelock Exceder Series HS Audible Strobe appliances, Series ST Visual Strobe appliances and Series HN Audible appliances or approved equals. The Series HS and ST Strobes shall be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired) for Indoor Fire Protection Service. The Series HS and HN Audibles shall be UL Listed under Standard 464 (Fire Protective Signaling). All Series shall meet the requirements of FCC Part 15 Class B. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP) with the ability to operate from 8 to 33 VDC. 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 flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens. The Series shall be of low current design. 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 field selectable settings for dBA levels and shall have a choice of continuous or temporal (Code 3) audible outputs.

**MOUNTING OPTIONS**

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" square, 3.5" octagonal, 4" octagonal 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.

**PHYSICAL SPECIFICATIONS**

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 be 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.

**SYNCHRONIZATION**

When synchronization is required, the appliance shall be compatible with Wheelock's SM, 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 one 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.

**Standards and Codes**

Modules in this series comply with UL Standard 1971, UL Standard 464, California State Fire Marshal (CSFM), and ULC.

**Agency Listings**

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.

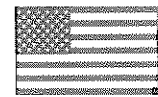
- UL Listed: S5391 (Strobes); E5946 (Horns, Horn/strobes).
- ULC Listed
- CSFM Listed: 7125-0785:168.

**Specification & Ordering Information**

Model	Strobe Candela	12/24 VDC	Mounting Options
<b>Horn Strobes</b>			
HSR	15, 15/75, 30, 75, 95, 110, 135, 185	X	Universal Mounting Base
HSW	15, 15/75, 30, 75, 95, 110, 135, 185	X	Universal Mounting Base
HSRC	15, 30, 60, 75, 95, 115, 150, 177	X	Universal Mounting Base
HSWC	15, 30, 60, 75, 95, 115, 150, 177	X	Universal Mounting Base
<b>Strobes</b>			
STR	15, 15/75, 30, 75, 95, 110, 135, 185	X	Universal Mounting Base
STW	15, 15/75, 30, 75, 95, 110, 135, 185	X	Universal Mounting Base
STRC	15, 30, 60, 75, 95, 115, 150, 177	X	Universal Mounting Base
STWC	15, 30, 60, 75, 95, 115, 150, 177	X	Universal Mounting Base
<b>Horns</b>			
HNR	—	X	Universal Mounting Base
HNW	—	X	Universal Mounting Base
HNRC	—	X	Universal Mounting Base
HNWC	—	X	Universal Mounting Base
*12 VDC models feature 15 and 15/75 settings			
<b>NOTE:</b> Due to continuous development of Cooper Wheelock products, specifications and offerings are subject to change without notice in accordance with Cooper Wheelock Inc., dba Cooper Notification standard terms and conditions.			

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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.



Made in the U.S. A.

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.  
[www.notifier.com](http://www.notifier.com)

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

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



Power Supplies

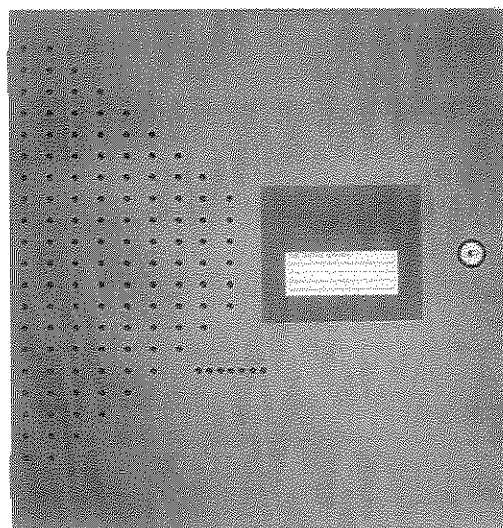
#### General

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 (bell) 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<sup>2</sup>" 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 bell 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).



6927pb04.jpg

- 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<sup>2</sup>) 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<sup>2</sup>) 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 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'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 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:** 7315-0028:225
- **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).

**PS-1270:** Battery, 12-volt, 7.0 AH (two required, see PS Series data sheet DN-1109)

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# BAT Series Batteries

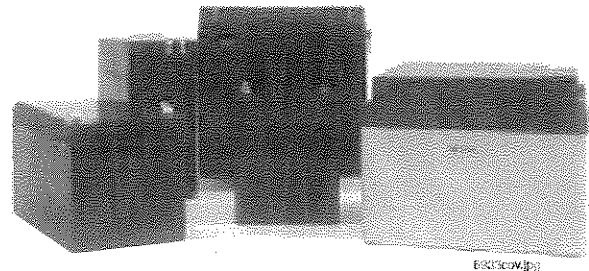
## Sealed Lead-Acid or Gell Cell



**Power Supplies**

### 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.



### 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).



## System Current Draw - FCPS-24s8

Total Current	
C1	0.091 A
C2	0.933 A
C3	0.065 A

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".

Device	C1 - Non-Alarm Current				C2 - Alarm Current				C3 - Standby Current					
	Qty		Draw	Non-Alarm	Qty		Draw	Alarm	Qty		Draw	Standby		
FCPS-24S8 Main Circuit Board	1	x	0.09100	0.09100	1	x	0.14500	0.14500	1	x	0.06500	0.06500		
HSR110	4	x	0.00000	0.00000	4	x	0.19700	0.78800	4	x	0.00000	0.00000		
Total Non-Alarm Load:				0.091	Total Alarm Load:				0.933	Total Standby Load:				0.065



# System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>Allagash Brewery Adds</u>	Date: <u>11/5/2010</u>
Address: _____	
City: <u>Portland</u>	State: <u>Maine</u> Zip: _____
Prepared By: <u>Norris Inc.</u> Phone: _____	
Address: <u>2257 West Broadway</u>	Email: _____
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** 0.93 Amps

Current load on the primary power supply during alarm conditions.

**Secondary Load Requirements** 2.15 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
<b>Secondary Standby Load</b> 0.065 A	x	Required Standby Time	
		24 hours	1.56
<b>Secondary Alarm Load</b> 0.933 A	x	Required Alarm Time (hours)	
		15 Minutes	
		0.250 hours	0.23
<b>Auxiliary Power Supply Load</b> 0.000 A	x	Required Alarm Time (hours)	
		0.250 hours	0.00
<b>Total Secondary Load</b>			1.79
Derating factor			x 1.2
<b>Secondary Load Requirements</b>			<b>2.15</b>

AH

**Battery Selection** 7 Amp Hours

Select batteries from the list below.

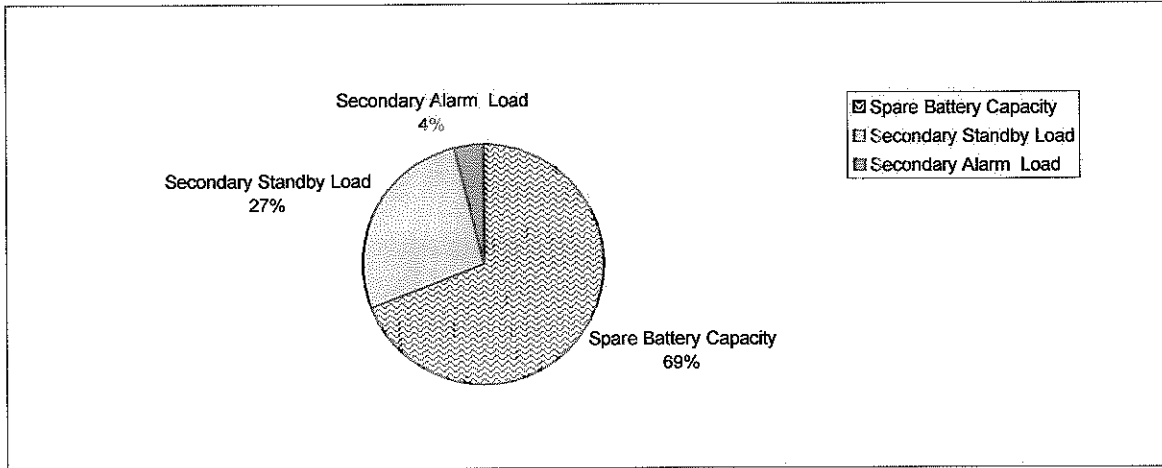
7.0 AH BAT-1270 Battery (12 volt)

- 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	4.85	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.28	Secondary Alarm Load (AH) * Derating Factor

LEGEND

INDICATING HEIGHT  
48 INCHES

- PS PULL STATION
- S SMOKE DETECTOR
- 4S SMOKE DETECTOR 4 wire device
- R HEAT DETECTOR RATE OF RISE
- E2 HEAT DETECTOR DUAL CONTACTS
- 120V RT REMOTE TEST/INDICATOR
- DS DUCT SMOKE DETECTOR
- VS VISUAL ONLY
- AV AUDIO / VISUAL
- AV AUDIO / VISUAL WEATHER PROOF
- DSM DUAL SYNC MODULE
- DH DUAL RELAY 120V AC
- KB KEY BOX W/ TAMPER SWITCH
- SFS SPARE FOR SWITCHES FLOW/STAIR
- EDLR END OF LINE RELAY

80 INCHES  
80 INCHES

This drawing is a typical device layout, wiring is shown diagrammatically only. Riser does not necessarily indicate riser location. Riser location and riser specifications for location and quantities. The purchaser needs to accurately layout the indicating and notification devices in their own premises. All riser and notification supply have 8.0 amp limitation equally divided 4 in circuits. (see chart below for current vs. candle ratings)

Room Size	Candle Rating	Lead (amps)
20' x 20'	15 cd	0.08 amps
30' x 30'	25 cd	0.15 amps
40' x 40'	75 cd	0.15 amps
50' x 50'	110 cd	0.20 amps

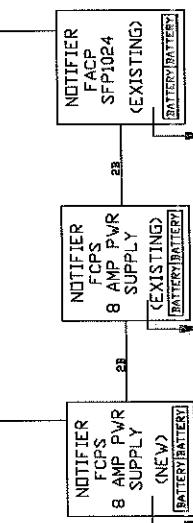
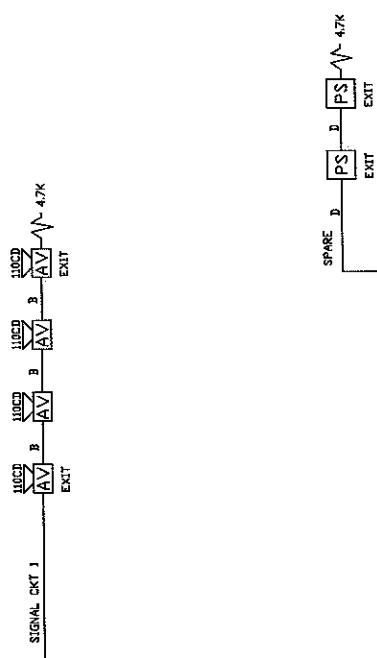
4.7K END OF LINE RESISTOR (Panel Circuits)

Panel Circuits	Lead (amps)
A 1 PR #14 TWISTED PAIR (under 4000 feet)	0.08
B 1 PR #12 TWISTED PAIR (over 4000 feet)	0.15
C 1 PR #16 AWG FPL CABLE	0.15
D 1 PR #16 AWG FPL CABLE	0.15
E 1 PR #14 AWG TWISTED SHIELDED CABLE	0.15
F 2C #12 AWG CABLE	0.15
G 2C #14 AWG CABLE	0.15
H 2C #16 AWG CABLE	0.15
I 2C #18 AWG CABLE	0.15
S 1 CAT 5 CABLE	0.15

REVISION 1	DATE:
REVISION 0	DATE: 11-5-10
SYSTEM WIRING RISER	


PROJECT NAME  
**ALLAGASH BREWING ADD**

SCALE: MTS  
BY: J.C.  
CK: B.V.  
**NORRIS INC.**  
P.O. BOX 2551, SOUTH PORTLAND, MAINE 04146  
257 W. BROADWAY, 3D PORTLAND, MAINE 04106



Do NOT bottom entry any conduit in system panels.

Important! All electronic devices MUST be placed in a heated room with temperature above 32 deg F.

REVISION 2	DATE:
REVISION 1	DATE:
REVISION 0	DATE: 11/05/11
SYSTEM WIRING RISER	
PROJECT NAME	
Allagash Brewery	
SCALE: NTS	
BY: CJC	
CK: BY:	
SAVED AS:	
 Prepared for: Insurance Underwriter Policy 2257 W. BROADWAY, SO. PORTLAND, MAINE, 04106	

SYSTEM INPUTS	CONTROL UNIT ACTIVATION													SYSTEM OUTPUTS													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	A	B	C	D	E	F	G	H	I	J	K	L	M
1 MANUAL FIRE ALARM PULL STATION	●	●																									
2 AREA SMOKE DETECTOR	●	●																									
3 SPRINKLER WATERFLOW	●	●																									
4 SPRINKLER TAMPER SWITCH	●	●																									
5 FIRE ALARM AC BATTERY FAILURE			●																								
6 FIRE ALARM SYSTEM LOW BATTERY			●																								
7 OPEN CIRCUIT			●																								
8 GROUND FAULT			●																								
9 NOTIFICATION APPLIANCE CIRCUIT SHORT			●																								
10																											
11																											
12																											
13																											
14																											
15																											
16																											
17																											
18																											
19																											
20																											
21																											

CONTROL UNIT ACTIVATION

ACTIVATE COMMON ALARM SIGNAL INDICATOR

ACTIVATE ALARM SIGNAL INDICATOR

ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR

ACTIVATE ALARM SUPERVISORY SIGNAL INDICATOR

ACTIVATE COMMON TROUBLE SIGNAL INDICATOR

ACTIVATE ALARM TROUBLE SIGNAL INDICATOR

ACTIVATE COMMON SYSTEM STATUS MESSAGE

ACTIVATE ALARM SYSTEM STATUS MESSAGE

ACTIVATE GENERAL EXCITATION SIGNALS

ACTIVATE SUPERVISORY SIGNALS

ACTIVATE ALARM SIGNAL TO RELAY TO ALARM RECEIVING STATION

ACTIVATE SUPERVISORY SIGNAL TO RELAY TO ALARM RECEIVING STATION

ACTIVATE EXTERIOR SPINKLER ALARM SIGNAL TO RELAY TO ALARM RECEIVING STATION

ACTIVATE EXTERIOR SPINKLER ALARM SIGNAL TO RELAY TO ALARM RECEIVING STATION

NOTIFICATION