

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

## BUILDING INSPECTION

### PERMIT

Permit Number: 091230

# PERMIT ISSUED

Please Read Application And Notes, If Any, Attached

This is to certify that NEPTUNE PROPERTIES INC High Tech Protection

has permission to accommodate and adjust existing fire suppression system for new space arrangement

AT 1025 FOREST AVE City of Portland 142 C001001 **NOV 10 2009**

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lath or other work is set-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

#### OTHER REQUIRED APPROVALS

Fire Dept. CAPT. R. Gauthier

Health Dept. \_\_\_\_\_

Appeal Board \_\_\_\_\_

Other \_\_\_\_\_  
Department Name

*[Signature]* 11/10/09  
Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**

**City of Portland, Maine - Building or Use Permit Application**

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

Permit No: 09-1230	Issue Date:	CBL: 142 C001001
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Location of Construction: 1025 FOREST AVE	Owner Name: NEPTUNE PROPERTIES INC	Owner Address: 120 EXCHANGE ST	Phone:
Business Name:	Contractor Name: High Tech Fire Protection	Contractor Address: P.O. Box 156 Minot	Phone 2079982551
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: I-L

Past Use: Commercial Office Connected w/ permit#09-0909	Proposed Use: Commercial Office - accommodate and adjust existing fire suppression system for new space arrangement	Permit Fee: \$70.00	Cost of Work: \$4,300.00	CEO District: 4	CB-2
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Proposed Project Description: accommodate and adjust existing fire suppression system for new space arrangement	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <i>*See Conditions</i>	INSPECTION: Use Group: B Type: Sprinkler DBL-2003
	Signature: <i>(KG)</i>	Signature: <i>AMB 10/10/09</i>

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:		Date:

Permit Taken By: Ldobson	Date Applied For: 11/02/2009	<b>Zoning Approval</b>
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<ol style="list-style-type: none"> <li>This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</li> <li>Building permits do not include plumbing, septic or electrical work.</li> <li>Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</li> </ol>	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied
	Date: <i>10/3/09</i>	Date:	Date:

**PERMIT ISSUED**

NOV 10 2009

City of Portland

**CERTIFICATION**

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

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

**City of Portland, Maine - Building or Use Permit**

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

<b>Permit No:</b> 09-1230	<b>Date Applied For:</b> 11/02/2009	<b>CBL:</b> 142 C001001
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<b>Location of Construction:</b> 1025 FOREST AVE	<b>Owner Name:</b> NEPTUNE PROPERTIES INC	<b>Owner Address:</b> 120 EXCHANGE ST	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> High Tech Fire Protection	<b>Contractor Address:</b> P.O. Box 156 Minot	<b>Phone</b> (207) 998-2551
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Suppression System	

<b>Proposed Use:</b> Commercial Office - accommodate and adjust existing fire suppression system for new space arrangement	<b>Proposed Project Description:</b> accommodate and adjust existing fire suppression system for new space arrangement
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 11/03/2009

**Note:** **Ok to Issue:**

- 1) This property shall remain Back Offices as defined in the Zoning Ordinance. This is NOT approved as a general office use. Any change of use shall require a separate permit application for review and approval.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Jeanine Bourke      **Approval Date:** 11/10/2009

**Note:** **Ok to Issue:**

- 1) Sprinkler systems to be designed and installed per IBC 2003 standards Sec. 903.3.1

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 11/02/2009

**Note:** **Ok to Issue:**

- 1) Sprinkler protection shall be maintained.  
Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.
- 2) The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance.  
Compliance letters are required.
- 3) Any cutting or welding operations require a separate permit from the Fire dept.
- 4) The sprinkler system shall be installed in accordance with NFPA 13.
- 5) Application requires State Fire Marshal approval.
- 6) System acceptance and commissioning must be co-ordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.

**PERMIT ISSUED**

NOV 10 2009

City of Portland



# Fire Suppression System 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: 1037 Forest Ave CBL: \_\_\_\_\_

Exact location: (within structure) Office Renovation

Type of occupancy(s) (NFPA & ICC): NFPA 13 Light Hazard.

Building owner: Tim Albar

Managing Supervisor: Ed Poulin License No: 108534 / 515  
*nicet # / ME RMS #*

Supervisor phone: 207-998-2551 E-mail: epoulin@fairpoint.net.

Installing contractor: High Tech Fire Protection License No: 102

Contractor phone: 207-998-2551 E-mail: epoulin@fairpoint.net

The suppression work to be done will be: New:  Renovation:  Addition to existing system:

This is an amendment to an existing permit: Yes:  NO  Permit no: ME permit #8806

NFPA Standard will this system is designed to: 13 Edition: 2007

\*Non-NFPA systems are not approved for use within the City of Portland.

Download a new copy of this document from Inspection Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov) for every submittal. Attach all design information and complete approved submittals as may be required by the State Fire Marshal's Office on 11X17 copies or electronic PDF's in addition to full sized plans.

Contractor shall verify location and type of all FDCs shall be approved in writing by the Fire Prevention Bureau.

COST OF WORK: <u>\$ 4300.00</u>
PERMIT FEE: <u>\$ 70</u>
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

Submit all information to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

Prior to acceptance of any fire protection 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 NFPA and the Fire Department Technical Standard(s).

Applicant signature: Edward M Poulin Date: 9-25-09

**RECEIVED**

OCT 30 2009

Dept. of Building Inspections  
City of Portland Maine

# High Tech Fire Protection

Po Box 156 Minot, Maine 04258

Tel: 207-998-2551

Fax: 207-998-4187

# Letter of Transmittal

To: Buildings Inspections Department  
389 Congress Street, Room 315  
Portland, ME  
04101

Date: 10/05/09	Job No.
Attention: Buildings Inspections Department	
Re: 1037 Forest Ave. Office Renovation.	

We are sending you

Owners Manuals    Preliminary Plans    Asbuilt Plans    Hydraulic Calculations

Product Data    Permit Check    Permit Application Form

Copies	Date	No.	Description
1	10/05/09		Permit Application Form
1	10/05/09		State Permit for project.

These are Transmitted as checked below:

For Approval

For your use

Return 1 <sup>Permit</sup> ~~corrected~~ copy

As requested

For review and comment

\_\_\_\_\_

Comments: A summary of this project: We are reworking 60 existing heads to accommodate a revised ceiling layout. The building is an office space (light hazard) and all heads will be reworked in compliance with NFPA 13. 225 sq.ft per head max. This application does not require drawings per the State fire marshals office.

Signed: Ed Poulin *Ed Poulin*

*epoulin@fairpoint.net*



**State of Maine**  
**Department of Public Safety**  
**Fire Sprinkler System Permit**



# **8806**

**Department of Health and Human Services**

Located at: 1037 Forest Ave  
 In the Town of: Portland  
 Occupancy/Use: Offices  
 Type of System: NFPA 13

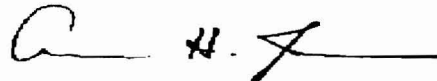
Permission is hereby given to:

**High Tech Fire Protection Co., Inc.**  
 PO Box 156  
 Minot, ME 042580156  
 Contractor License # **102**

according to plans submittal filed with the Licensing and Inspections Unit and are now approved. This application form/plans are filed under log # **2091371** , and no departure from application form/plans shall be made without prior approval in writing. This permit is issued under the provisions of Title 32, Chapter 20, Section 12004-I. Nothing herein shall excuse the holder of this permit for failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. Each permit issued shall be displayed/available at the site of construction.

This permit was issued on **10/4/2009** for a fee paid of **\$100.00**

*This permit will expire at midnight on Friday, April 02, 2010*



Anne H. Jordan  
 Commissioner

***Fire Department Connection Location/Type per Local Fire Department***

Within 30 days of the completion of a new fire sprinkler system or an addition to an existing fire sprinkler system, a fire sprinkler system contractor shall provide to the Licensing and Inspections Unit a copy of this permit signed and dated by the certified responsible managing supervisor representing that the fire sprinkler system has been installed according to specifications of the approved plan to the best of the supervisor's knowledge, information, and belief. This requirement is part of the sprinkler law, and neglect of this duty is grounds to not renew the contractor's license to do work in the State of Maine. All sprinkler licenses expire June 30th every year.

Job completed, tested and verified on date of \_\_\_\_\_

RMS for this job: Poulin Edward M.

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

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

BUILDING INSPECTION

## PERMIT

Permit Number: 091129

## PERMIT ISSUED

Please Read Application And Notes, if Any, Attached

This is to certify that NEPTUNE PROPERTIES INC Morris, Inc

has permission to install Fire Alarm NOV - 4 2009

AT 1025 FOREST AVE CBL 142 C001001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

City of Portland

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise red-in. 24 HOURS NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

### OTHER REQUIRED APPROVALS

Fire Dept. CAPT. R. Santillan

Health Dept. \_\_\_\_\_

Appeal Board \_\_\_\_\_

Other \_\_\_\_\_

Department Name

Director - Building & Inspection Services

### PENALTY FOR REMOVING THIS CARD

*Return to Sec...*

**City of Portland, Maine - Building or Use Permit Application**  
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-1129	Issue Date:	CBL: 142 C001001
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Location of Construction: 1025 FOREST AVE	Owner Name: NEPTUNE PROPERTIES INC	Owner Address: 120 EXCHANGE ST	Phone:
Business Name:	Contractor Name: Norris, Inc.	Contractor Address: 2257 W Broadway, PO Box 2551 Sout	Phone 2078833473
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	Zone: I-L

Past Use: Commercial - Office Suite11 - connected w/ permit#090909	Proposed Use: Commercial - Office Suite11 - install Fire Alarm	Permit Fee: \$40.00	Cost of Work: \$1,800.00	CEO District: 4
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied # See Conditions	INSPECTION: Use Group: U Type: Alarm NPPA	

Proposed Project Description: install Fire Alarm	Signature:	Signature:
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input checked="" type="checkbox"/> Denied		
Signature: _____ Date: _____		

Permit Taken By: Ldobson	Date Applied For: 10/08/2009	<b>Zoning Approval</b>
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- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input checked="" type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date:  10/19/09	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
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**PERMIT ISSUED**

NOV - 4 2009

City of Portland

**CERTIFICATION**

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

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



## BUILDING PERMIT INSPECTION PROCEDURES

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

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

  X   Final inspection required at completion of work performed by the Fire Department.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

Mike Floridano  
Signature of Applicant/Designee

11-4-09  
Date

\_\_\_\_\_  
Signature of Inspections Official

\_\_\_\_\_  
Date

PERMIT ISSUED  
NOV - 4 2009  
City of Portland

# City of Portland, Maine - Building or Use Permit

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

Permit No: 09-1129	Date Applied For: 10/08/2009	CBL: 142 C001001
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Location of Construction: 1025 FOREST AVE	Owner Name: NEPTUNE PROPERTIES INC	Owner Address: 120 EXCHANGE ST	Phone:
Business Name:	Contractor Name: Norris, Inc.	Contractor Address: 2257 W Broadway, PO Box 2551 Sout	Phone (207) 883-3473
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	

Proposed Use: Commercial - Office Suite 11 - install Fire Alarm	Proposed Project Description: install Fire Alarm
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Dept: Zoning      Status: Approved      Reviewer: Marge Schmuckal      Approval Date: 10/09/2009  
 Note:      Ok to Issue:

Dept: Building      Status: Approved with Conditions      Reviewer: Tammy Munson      Approval Date: 11/03/2009  
 Note:      Ok to Issue:   
 1) The fire alarm wiring must be metal sheathed if the building is of non-combustible construction.

Dept: Fire      Status: Approved with Conditions      Reviewer: Capt Keith Gautreau      Approval Date: 10/20/2009  
 Note:      Ok to Issue:   
 1) Fire Alarm system shall be maintained.  
 If system is to be off line over 4 hours a fire watch shall be in place.

**CITY OF PORTLAND, MAINE**  
 Department of Building Inspections



## Original Receipt

Received from \_\_\_\_\_ 2009

Location of Work \_\_\_\_\_

Cost of Construction \$ \_\_\_\_\_ Building Fee: \_\_\_\_\_

Permit Fee \$ \_\_\_\_\_ Site Fee: \_\_\_\_\_

Certificate of Occupancy Fee: \_\_\_\_\_

Total: \_\_\_\_\_

Building (IL) \_\_\_\_\_ Plumbing (15) \_\_\_\_\_ Electrical (12) \_\_\_\_\_ Site Plan (U2) \_\_\_\_\_

Other \_\_\_\_\_

CBL: \_\_\_\_\_

Check #: \_\_\_\_\_ Total Collected \$ \_\_\_\_\_

**No work is to be started until permit issued.  
 Please keep original receipt for your records.**

Taken by: \_\_\_\_\_

WHITE - Applicant's Copy  
 YELLOW - Office Copy  
 PINK - Permit Copy



# 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: 1025 Forest Ave CBL: 142 C001001

Exact location: (within structure) Suite 11

Type of occupancy(s) (NFPA & ICC): Business / Office

Building owner: A. Hausmann Assoc.

System Designer: Norris Inc.

Designer phone: 800 370 3473 E-mail: \_\_\_\_\_

Installing contractor: Norris Inc. License No: \_\_\_\_\_

Contractor phone: 800 370 3473 E-mail: \_\_\_\_\_

This is a new application: YES  NO

This is an amendment to an existing permit: YES  NO  Permit no: \_\_\_\_\_

**The following documents have been provided with this application:**

Floor plans: YES  NO

Wiring diagram: YES  NO

Annunciator details: YES  NO

Bid specifications: YES  NO

Equipment data sheets: YES  NO

Battery & voltage drop calculations: YES  NO

Input/ Output Matrix: YES  NO

Designer/ personnel qualifications: YES  NO

COST OF WORK: <u>\$1800.-</u>
PERMIT FEE: <u>10</u>
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

Download a new copy of this document from Inspection Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov) for every submittal. Submit all plans on 11X17 copies or electronic PDF's in addition to full sized plans 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 NFPA 70, NFPA 72, and Fire Department Technical Standard (7)

**RECEIVED**

OCT 8 2009

Applicant signature: [Signature] Date: \_\_\_\_\_ Dept. of Building Inspections  
City of Portland Maine

# N-ANN-80

## 80-Character LCD Serial Annunciator



Annunciators

### 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. 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 FACPs with an ANN-BUS, such as the NFW-50.

### 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



7114c09.jpg

- Trouble
- Supervisory
- Alarm Silenced

### 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 (noncondensing) 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.

### 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: 7120-0028:240
- MEA: 442-06-E Vol. 2

### 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.

After calculating the total worst case current draw, the following table specifies the maximum distance the modules can be located from the FACP on a single wire run. The table ensures 6.0 volts of line drop maximum. In general, the wire length is limited by resistance, but for heavier wire gauges, capacitance is the limiting factor.

These cases are marked in the chart with an asterisk (\*). Maximum length can never be more than 6,000 feet (1,800 m), regardless of gauge used. See table below.

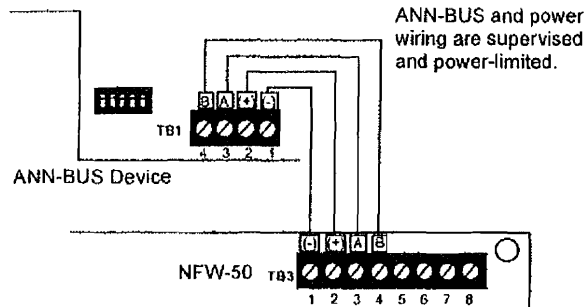
### WIRE REQUIREMENTS: POWER CIRCUIT

- 14 to 18 AWG (0.75 - 2.08 mm<sup>2</sup>) 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.

Communication Pair Wiring Distance: FACP to Last ANN-BUS Module				
Total Worst Case Current Draw (amps)	22 Gauge	18 Gauge	16 Gauge	14 Gauge
0.100	1,852 ft.	4,688 ft.	* 6,000 ft.	*6,000 ft.
0.200	926 ft.	2,344 ft.	3,731 ft.	5,906 ft.
0.300	617 ft.	1,563 ft.	2,488 ft.	3,937 ft.
0.400	463 ft.	1,172 ft.	1,866 ft.	2,953 ft.
0.500	370 ft.	938 ft.	1,493 ft.	2,362 ft.
0.600	309 ft.	781 ft.	1,244 ft.	1,969 ft.
0.700	265 ft.	670 ft.	1,066 ft.	1,687 ft.
0.800	231 ft.	586 ft.	933 ft.	1,476 ft.
0.900	206 ft.	521 ft.	829 ft.	1,312 ft.
1.000 (max.)	185 ft.	469 ft.	746 ft.	1,181 ft.

### WIRING CONFIGURATION

The following figure illustrates the wiring between the FACP and ANN-BUS devices.



FACP Wiring to ANN-BUS Device

### 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.

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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](http://www.notifier.com)

# NOT-BG12LX(A)

## Addressable Manual Pull Station For FireWarden Series Panels

 **NOTIFIER**<sup>®</sup>  
by Honeywell

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. 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 mm<sup>2</sup> 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 loop current:**  $\mu$ A.
- **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 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.

**NOT-BG12LXA:** *Canadian* Dual-action addressable pull station. Includes key locking feature.

**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 Listed:** S692 (listed for Canadian and non-Canadian applications)
- **MEA:** 67-02-E Vol. IV
- **CSFM:** 7150-0028:199
- **FM Approved**

**Patented:**

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

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

## Wheelock RSS & RSSP Series Single- and Multi-Candela Strobes and Strobe Plates

 **NOTIFIER**<sup>®</sup>  
by Honeywell

Audio/Visual Devices

### General

Wheelock's patented Series RSS Strobe Appliances and Series RSSP Strobe Plates have lower current draw while maintaining outstanding performance, reliability and cost effectiveness. These versatile appliances will satisfy virtually all requirements for indoor, wall or ceiling mount appliances.

Strobe options for wall mount models include 15/75 or Wheelock's patented MCW multi-candela strobe with field selectable candela settings of 15/30/75/110cd. Ceiling mount models include the patented MCC multi-candela ceiling strobe with field selectable intensities of 15/30/75/95cd or the high intensity MCCH strobe with field selectable 115/177cd.

All models may be synchronized when used in conjunction with the Wheelock SM or DSM Sync Modules or a power supply with Wheelock's patented Sync Protocol. Synchronized strobes can eliminate possible restrictions on the number of strobes in the field of view. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy as well as meetings the requirements of NFPA 72.

Wheelock's Series RSS Strobes employ a Patented Integral Strobe Mounting Plate that can be mounted to a single-gang, double gang, 4" square, 100mm European backboxes or the SHBB surface backbox. If the flush backbox has side or top space between it and the finished wall, the NATP (Notification Appliance Trimplate) may be used. It provides an additional .65" of trim for the appliance. An attractive cover plate is provided for a clean, finished appearance on all models.

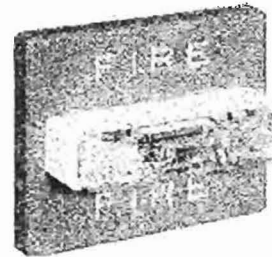
The Series RSSP Multi-Candela Strobe Plates are a cost effective way to retrofit required wall strobe appliances to bells, horns, chimes, multitones, or speakers and easily mounts to standard 4" backboxes or, for surface mount, use with Wheelock's SBL2 surface backbox.

### Features

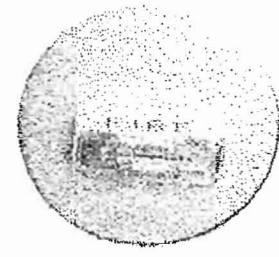
- Wall mount multi-candela models are available with field selectable candela settings of 15/30/75/110cd or 135/185cd. Single candela models are available in 15/75cd.
- Ceiling mount multi-candela models are available with field selectable candela settings of 15/30/75/95cd or 115/177cd.
- Strobes produce 1 flash per second over the regulated voltage range.
- 12 and 24 VDC models with wide UL "Regulated Voltage" using filtered (DC) or unfiltered VRMS input voltage.
- Synchronize with Wheelock SM or DSM Sync Modules or power supplies with built-in Sync Protocol.
- ADA/NFPA/UFC/ANSI compliant. Meets OSHA 29 Part 1910.165.

### General Notes

- RSS/RSSP Series strobe products are listed under UL 1971 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%).
- "Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change, UL used the terminology "Listed Voltage Range."



Series RSS



RSS Round



Multi-Candela  
(bottom of strobe lens)



Series RSSP

5765cwl.jpg, 5765cv2.jpg, 5765cv3.jpg, 6601ph03.jpg



**WARNING: PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THE FOLLOWING INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.**

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

**Table 1: Audibles/Speakers for RSSP Strobe Plate**

Product	Series
Multitone Appliances	AMT, MT
Horns	AH, NH, HS
Motor Bells	MB-G6/G10
Speakers	ET-1010/1080, E70, ET70
Chimes	CH70



**Table 2: UL Maximum Current\***

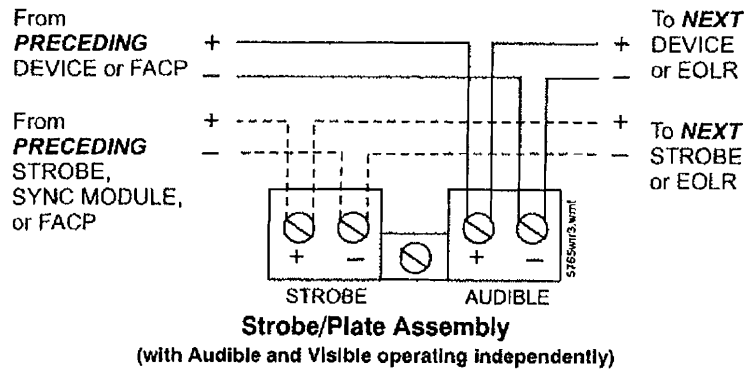
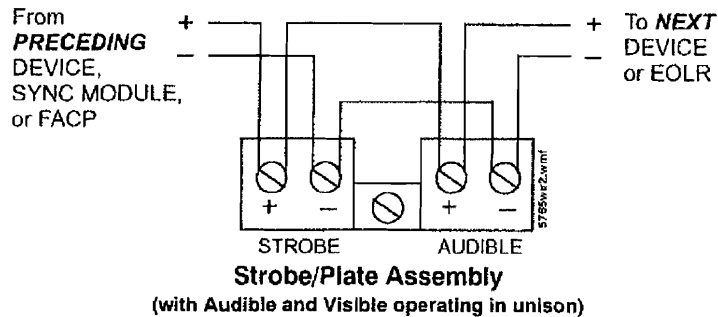
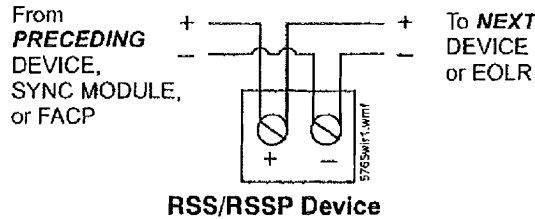
RSS/RSSP 24 VDC Models	RSS/RSSP - Wall Mount						Ceiling Mount						
	241575W	24MCW			24MCWH		24MCC			24MCCH			
	1575cd	15cd	30cd	75cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	115cd	177cd
UL max*	.090	.060	.092	.165	.220	.300	.420	.065	.105	.189	.249	.300	.420
RSS/RSSP 24 VDC Models	RSS/RSSP Wall Mount 121575W	* RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33V for 24V units). For strobes, the UL max current is usually at the minimum listed voltage (16V for 24V units). For audibles, the max current is usually at the listed voltage (33V for 24V units). For unfiltered FWR ratings, see installation instructions.											
12VDC	.152												
UL max*	.255												

**Table 3: Sync Modules/Power Supplies**

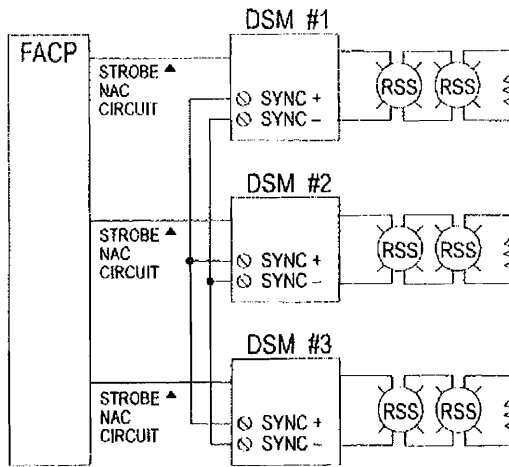
Model Number	Order Code	Input Voltage (VDC)	Average Mean Current @ 24VDC	Mounting Options
SM-12/24-R	6369	24	.028	W
DSM-12/24-R	6374	24	.035	W

*NOTE: SM Sync Module is rated for 3.0 amperes 24VDC.  
DSM Sync Module is rated for 3.0 amperes per circuit.  
The maximum number of interconnected DSM modules is twenty (20).*

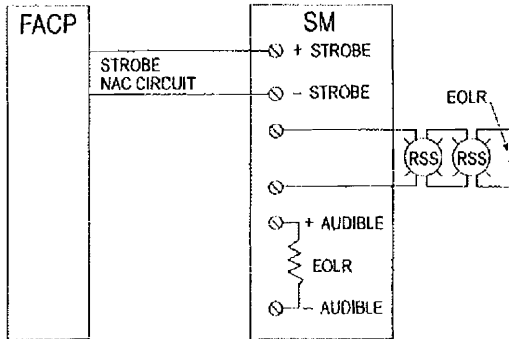
**Wiring Diagrams**



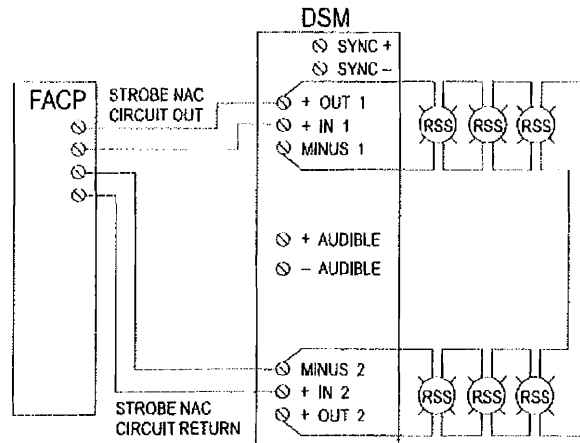
**Wiring Diagrams (continued)**



**RSS/RSSP Devices**  
(synchronized with DSM module; single Class "A" NAC circuit)



**RSS/RSSP Devices**  
(synchronized with SM module; single Class "B" NAC circuit)



**RSS/RSSP Devices**  
(synchronized with multiple DSM modules)  
(NOTE: INTERCONNECTING WIRING SHOWN. MAXIMUM OF 20 DSM MODULES)

For details on using the SM or DSM Sync Modules see installation instructions #P83123 (for SM) or #P83177 (for DSM).



**WARNING: CONTACT WHEELLOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS AND GENERAL INFORMATION SHEET (P82380) ON THESE PRODUCTS. THESE DOCUMENTS UNDERGO PERIODIC CHANGES. IT IS IMPORTANT THAT YOU HAVE CURRENT INFORMATION ON THE PRODUCTS. THESE MATERIALS CONTAIN IMPORTANT INFORMATION THAT SHOULD BE READ PRIOR TO SPECIFYING OR INSTALLING THESE PRODUCTS, INCLUDING:**

- TOTAL CURRENT REQUIRED BY ALL APPLIANCES CONNECTED TO SYSTEM SECONDARY POWER SOURCES.
- FUSE RATINGS ON NOTIFICATION APPLIANCE CIRCUITS TO HANDLE PEAK CURRENTS FROM ALL APPLIANCES ON THOSE CIRCUITS.
- COMPOSITE FLASH RATE FROM MULTIPLE STROBES WITHIN A PERSON'S FIELD OF VIEW.
- ADDING, REPLACING OR CHANGING APPLIANCES OR CHANGING CANDELLA SETTINGS WILL AFFECT CURRENT DRAW. RECALCULATE CURRENT DRAW TO INSURE THAT THE TOTAL AVERAGE CURRENT AND TOTAL PEAK REQUIRED BY ALL APPLIANCES DO NOT EXCEED THE RATED CAPACITY OF THE POWER SOURCES OR FUSES.
- THE VOLTAGE APPLIED TO THE PRODUCTS MUST BE WITHIN THEIR "REGULATED VOLTAGE RANGE."
- INSTALLATION OF 110 CANDELA STROBE PRODUCTS IN SLEEPING AREAS.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.
- USE STROBES ONLY ON CIRCUITS WITH CONTINUOUSLY APPLIED OPERATING VOLTAGE. DO NOT USE STROBES ON CODED OR INTERRUPTED CIRCUITS IN WHICH THE APPLIED VOLTAGE CYCLED ON AND OFF AS THE STROBE MAY NOT FLASH.
- FAILURE TO COMPLY WITH THE INSTALLATION INSTRUCTIONS OR GENERAL INFORMATION SHEETS COULD RESULT IN IMPROPER INSTALLATION, APPLICATION, AND/OR PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.
- CONDUCTOR SIZE (AWG), LENGTH AND AMPACITY SHOULD BE TAKEN INTO CONSIDERATION PRIOR TO DESIGN AND INSTALLATION OF THESE PRODUCTS, PARTICULARLY IN RETROFIT INSTALLATIONS.

## **Architectural/Engineering Specifications**

The visual notification appliances shall be Wheelock Series RSS Strobe Appliances or approved equals. The Series RSS shall meet and be listed for UL Standard 1971 (Emergency Devices for the Hearing Impaired) for indoor Fire Protection Service. The strobe shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. The strobe appliances shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP). When Strobe Plates are to be installed, they shall be the Wheelock Series RSSP Strobe Plate and shall have the same electronic circuitry as the Wheelock Series RSS.

The Series RSS Strobe shall be of low current design. Where Multi-Candela appliances are specified, the strobe intensity shall have field selectable settings and shall be rated per UL Standard 1971 at 15/30/75/110cd or 135/185cd for wall mount and 15/30/75/95cd or 115/175cd for ceiling mount. The selector switch for selecting the candela shall be tamper resistant. The 1575 candela strobe shall be specified when 15 candela UL Standard 1971 Listing with 75 candela on axis is required (e.g. ADA compliance).

When synchronization is required, the appliance shall be compatible with Wheelock's SM or DSM Sync Modules or a power supply with built-in Patented Wheelock Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the Sync Module or power supply fail to operate (i.e. contacts remain closed), the strobe shall revert to a non-synchronized flash rate. The strobes shall be designed for indoor surface or flush mounting.

The Series RSS Strobe Appliances shall incorporate a Patented, Integral Strobe Mounting Plate that shall allow mounting to single-gang, double-gang, 4-inch square, 100mm European type backboxes, or the SHBB Surface Backbox. If required, an NATP (Notification Appliance Trimplate) shall be provided. An attaching cover plate shall be provided to give the appliance an attractive appearance. The appliance shall not have any mounting holes or screw heads visible when the installation is completed.

The Series RSSP Multi-Candela or single candela Strobe Plate shall mount to either a standard 4-inch square backbox for flush mounting, or the Wheelock SBL2 backbox for surface mounting.

All notification appliances shall be backward compatible. *NOTE: Due to continuous development of our products, specifications and offering are subject to change without notice in accordance with Wheelock, Inc. standard terms and conditions.*

## **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 progress. Consult factory for listing status.

- ULC Listed: E5391
- ULC Listed: CS 356
- CSFM: 7125-0785:141
- MEA: 151-92-E Vol. XIX, XX;  
Vol. XXIV (RSS-24MCW-FR/-FW)
- FM Approved

## Ordering Information

Model	Wall/ Ceiling Mount	Non- Sync	Sync w/ SM, DSM	Strobe Candela	12/24 VDC	Model Color	Model Shape	Agency Approvals
RSS-24MCW-FR	Wall	X	X	15/30/75/110	24	Red	Square	UL, MEA, CSFM, FM, BFP
RSS-24MCW-FW	Wall	X	X	15/30/75/110	24	White	Square	UL, MEA, CSFM, FM, BFP
RSS-241575W-FR	Wall	X	X	15 (75 on axis)	24	Red	Square	UL, MEA, CSFM, FM, BFP
RSS-24MCC-FW	Ceiling	X	X	15/30/75/95	24	White	Square	UL, MEA, CSFM, FM
RSS-24MCC-FR	Ceiling	X	X	15/30/75/95	24	Red	Square	UL, MEA, CSFM, FM
RSS-24MCCR-FW	Ceiling	X	X	15/30/75/95	24	White	Round	UL, MEA, CSFM, FM
RSS-24MCCHR-FW	Ceiling	X	X	115/177	24	White	Round	UL, MEA, CSFM, FM
RSSWP-2475W-FR	Wall	X	X	180 @ 77°F 75 @ -31°F	12/24	Red	Square	UL, MEA, CSFM, FM

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**ISO 9001**  
**CERTIFIED**  
ENGINEERING & MANUFACTURING  
QUALITY SYSTEMS

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# Wheelock NS/NH Series

## NS Series Horn Strobes NH Series Horns

 **NOTIFIER**<sup>®</sup>  
by Honeywell

Audio/Visual Devices

### General

The Wheelock Series NS Horn Strobe Appliances will satisfy virtually all requirements for indoor, wall mount applications.

The Series NH Horn and the horn portion of the Series NS include a selectable continuous horn tone or temporal pattern (Code 3) with selectable dBA settings of 90 or 95 dBA.

Strobe options include 1575cd or Wheelock's patented Multi-Candela strobe with field selectable candela settings of 15/30/75/110cd.

These versatile Horn Strobe Appliances may be synchronized when used in conjunction with the Wheelock SM or DSM Sync Modules or a Power Supply with the Wheelock patented Sync Protocol. Additionally, the audible may be silenced while maintaining strobe activation.

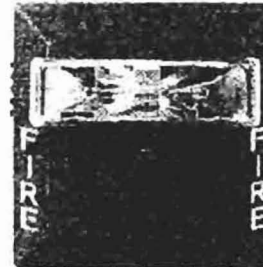
All models of the Series NS and NH are designed for maximum performance, reliability and cost-effectiveness while meeting or exceeding the latest requirements of NFPA 72/ANSI 117.1/UFC and UL Standards 1971 and 464 as well as meeting ADA requirements concerning photosensitive epilepsy.

### Features

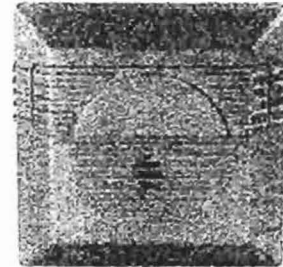
- Field selectable Candela settings 15/30/75/110cd (24 VDC Multi-Candela models) or 1575cd in 12 or 24 VDC.
- Selectable Continuous Horn or Temporal (Code 3).
- 2 selectable dBA settings of 90 and 95 dBA in both tones.
- 12 and 24 VDC models with UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage.
- Patented Universal Mounting Plate.
- Wall mount.
- ADA/NFPA/UFC/ANSI compliant.
- Complies with OSHA 29, Part 1910.165.
- NH Horn is selectable 12 or 24 VDC in 1 unit.
- Synchronize with Wheelock SM or DSM Sync Module or the Power Supply with built-in Sync Protocol.
- Patent Pending Universal Mounting Plate for single-gang, double-gang 4" (10.16c m) square, or 100 mm European backboxes, or Wheelock's SHBB shallow surface backbox.
- Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires.

### General Notes

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range." Note that NFPA 72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL Standard 1971.
- Series NS Strobe products are listed under UL Standard 1971 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%).
- Series NH Horns are listed under UL Standard 464 for audible signal appliances (indoor use only).



NS Horn Strobe



NH Horn



Multi-Candela Indicator  
(bottom of Strobe Lens)

6501pht1.jpg; 6501ph04.jpg; 6501pr03.jpg

- "Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change, UL used the terminology "Listed Voltage Range."



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Table 1: Ratings Per UL Standard 1971

Model	Input Voltage VDC	Regulated Voltage Range VDC/FWR	Strobe Candela (CD)
NS-24MCW	24	16.0-33.0	15/30/75/110
NS-241575W	24	16.0-33.0	15 (75 on axis)

Description	Volume	Reverberant dBA @ 10ft per UL 464		Anechoic dBA @ 10ft	
		12VDC	24VDC	12VDC	24VDC
		Continuous Horn	High	83	87
	Low	76	81	84	90
Code 3 Horn	High	79	82	89	95
	Low	72	76	84	90

NS-241575W		
Voltage	High (95) dBA	Low (90) dBA
16.0 VDC	.120	.116
24.0 VDC	.094	.093
33.0 VDC	.102	.078

NS-24MCW with High (95 dBA) Setting				
Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.077	.113	.195	.268
24.0 VDC	.065	.087	.134	.174
33.0 VDC	.069	.085	.117	.134
NS-24MCW with Low (90 dBA) Setting				
Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.070	.106	.188	.261
24.0 VDC	.052	.072	.126	.158
33.0 VDC	.045	.060	.097	.114

Voltage	High (95) dBA	Low (90) dBA
16.0 VDC	.019	.017
24.0 VDC	.028	.022
33.0 VDC	.039	.027

Model Number	Input Voltage (VDC)	Average Mean Current @ 24 VDC	Mounting Options
SM-12/24-R	24	.028	W
DSM-12/24-R	24	.035	W

*NOTE: SM Sync Module is rated for 3.0 amperes @ 24 VDC. DSM Sync Module is rated for 3.0 amperes per circuit. The maximum number of interconnected DSM Modules is twenty (20).*

\* Average RMS Current is per UL average RMS method and Average Mean Current is per UL average mean method. NH models use average mean current. For rated in Rush and Peak current across UL Listed voltage range for both filtered DC and VRMS (FWR), see installation instructions.

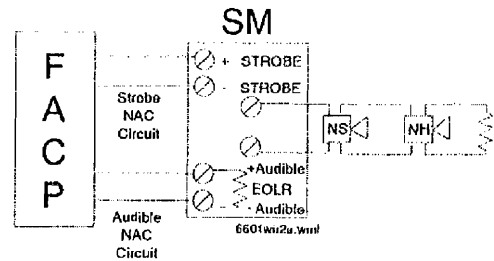
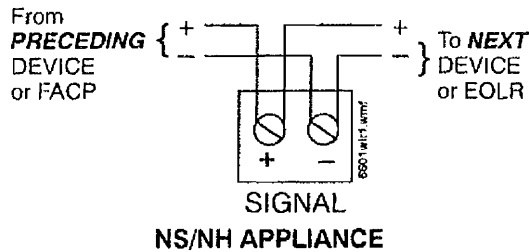
Series NS/NH 24 VDC		Audible	Wall Mount Strobe Models				
		NH-12/24	NS-241575W	NS-24MCW			
		@24VDC	15/75cd	15cd	30cd	75cd	110cd
High (95) dBA	24VDC	.044	.104	.074	.107	.184	.244
Low (90) dBA	24VDC	.018	.096	.066	.101	.177	.232
Series NS/NH 12 VDC		Audible	Wall Mount	** RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33V for 24V units). For strobes, the UL max current is usually at the minimum listed voltage (16V for 24V units). For audibles, the max current is usually at the listed voltage (33V for 24V units). For unfiltered FWR ratings, see installation instructions.			
		NH-12/24	Aud/Strobe				
		@12VDC	NS-121575W				
High (95) dBA	12VDC	.021	.220				
Low (90) dBA	12VDC	.012	.210				



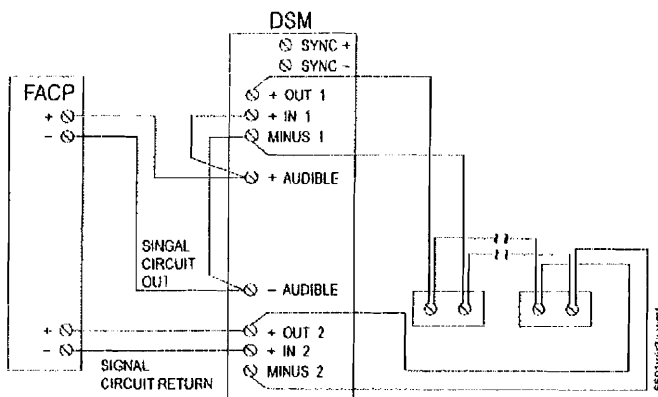
**WARNING: CONTACT WHEELLOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS (P83983) SERIES NS-24MCW, (P84234) SERIES NS-12 AND 24 VDC SINGLE CANDELA MODELS, (P83600) SERIES NH AND "GENERAL INFORMATION" SHEET (P82380) ON THESE PRODUCTS. THESE DOCUMENTS UNDERGO PERIODIC CHANGES. IT IS IMPORTANT THAT YOU HAVE CURRENT INFORMATION ON THE PRODUCTS. THESE MATERIALS CONTAIN IMPORTANT INFORMATION THAT SHOULD BE READ PRIOR TO SPECIFYING OR INSTALLING THESE PRODUCTS, INCLUDING:**

- TOTAL CURRENT REQUIRED BY ALL APPLIANCES CONNECTED TO SYSTEM SECONDARY POWER SOURCES.
- FUSE RATINGS ON NOTIFICATION APPLIANCE CIRCUITS TO HANDLE PEAK CURRENTS FROM ALL APPLIANCES ON THOSE CIRCUITS.
- COMPOSITE FLASH RATE FROM MULTIPLE STROBES WITHIN A PERSON'S FIELD OF VIEW.
- ADDING, REPLACING OR CHANGING APPLIANCES OR CHANGING CANDELLA SETTINGS WILL AFFECT CURRENT DRAW. RECALCULATE CURRENT DRAW TO INSURE THAT THE TOTAL AVERAGE CURRENT AND TOTAL PEAK REQUIRED BY ALL APPLIANCES DO NOT EXCEED THE RATED CAPACITY OF THE POWER SOURCES OR FUSES.
- THE VOLTAGE APPLIED TO THE PRODUCTS MUST BE WITHIN THEIR "REGULATED VOLTAGE RANGE."
- INSTALLATION OF 110 CANDELA STROBE PRODUCTS IN SLEEPING AREAS.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.
- THESE APPLIANCES ARE NOT DESIGNED TO BE USED ON CODED SYSTEMS IN WHICH THE APPLIED VOLTAGE IS CYCLED ON AND OFF.
- FAILURE TO COMPLY WITH THE INSTALLATION INSTRUCTIONS OR GENERAL INFORMATION SHEETS COULD RESULT IN IMPROPER INSTALLATION, APPLICATION, AND/OR PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.
- CONDUCTOR SIZE (AWG), LENGTH AND AMPACITY SHOULD BE TAKEN INTO CONSIDERATION PRIOR TO DESIGN AND INSTALLATION OF THESE PRODUCTS, PARTICULARLY IN RETROFIT INSTALLATIONS.

### Wiring Diagrams



**NS AND NH APPLIANCES SYNCHRONIZED WITH SM MODULE SINGLE CLASS "B" NAC CIRCUIT WITH AUDIBLE SILENCE FEATURE**



**NS AND NH APPLIANCES SYNCHRONIZED WITH DSM MODULE DUAL CLASS "A" NAC CIRCUIT WITH NO AUDIBLE SILENCE FEATURE**

*NOTE: NS/NH must be set on Code 3 horn tone to achieve synchronized temporal (Code 3) tone. Refer to installation instruction (P83983, P83600 respectively).*

*NOTE: For detail using SM or DSM Sync Module refer to data sheet S3000 or installation instructions P83123 for SM and P83177 for DSM.*



## Architectural/Engineering Specifications

The audible/visual notification appliances shall be Wheelock Series NS Horn Strobe appliances and Series NH Horn appliances or approved equals. The Series NS appliances shall meet and be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired for Indoor Fire Protection Service). The Series NH Horn shall be UL Listed under Standard 464 (Fire Protective Signaling). The horn strobe shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by the Fire Alarm Control Panel (FACP).

The audible portion of the appliance shall have a minimum of two (2) field selectable settings for dBA levels (90 and 05 dBA) and shall have a choice of continuous or temporal (Code 3) audible outputs.

The strobe portion of the appliance shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan lens. The Series NS shall be of low current design. Where wall mount, Multi-Candela appliances are specified, the strobe intensity shall never have field selectable settings and shall be rated per UL Standard 1971 for 15/30/75/110 candela. The selector switch for selecting the candela setting shall be tamper resistant. The 1575 candela strobe shall be specified when 15 candela UL Standard 1971 Listing with 75 candela on-axis is required (e.g. ADA compliance).

## Ordering Information

Model	Strobe Candela	Non-Sync	Sync w/ SM, DSM	24 VDC	12 VDC	2 Wire	Mounting Options	Agency Approvals				
								UL	MEA	CSFM	FM	BFP
NS-24MCW-FR	15/30/75/110	X	X	X	-	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X
NS-24MCW-FW	15/30/75/110	X	X	X	-	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X
NS-241575W-FR	15 (75 on axis)	X	X	X	-	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X
NH-12/24-R	12V, 24V	X	X	X	X	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X

When synchronization is required, the appliance shall be compatible with Wheelock's SM, DSM Sync Modules or a Power Supply with Wheelock's built-in patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the Sync Module or Power Supply fails to operate (i.e. contacts remain closed), the strobes shall revert to a non-synchronized flash-rate. The appliance shall also be designed so that the audible signal may be silenced while maintaining strobe activation.

The Series NS Horn Strobes and NH Horn shall incorporate a patented Universal Mounting Plate that shall allow mounting to a single-gang, double-gang, 4 inch square, and 100 mm European backboxes, or the SHBB Surface Backbox. If required, an NATP (Notification Appliance Trimplate) shall be provided.

All notification appliances shall be backward compatible.

## 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 progress. Consult factory for listing status.

- **ULC Listed:** E5946
- **ULC Listed:** CS 243, CS 356
- **CSFM:** 7125-0785:142
- **MEA:** 151-92-E
- **FM Approved**

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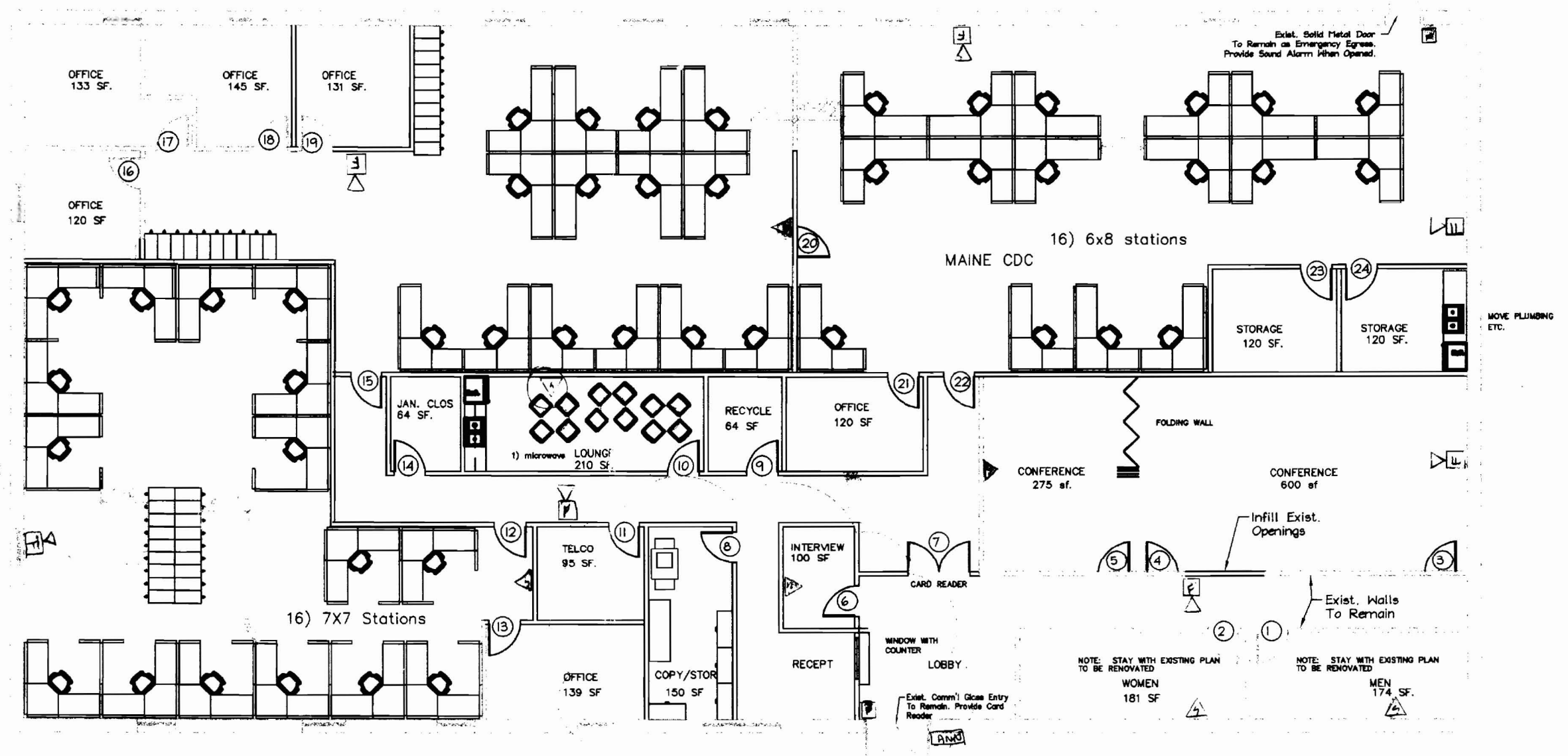


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We try to keep our product information up-to-date and accurate.  
We cannot cover all specific applications or anticipate all requirements.  
All specifications are subject to change without notice.



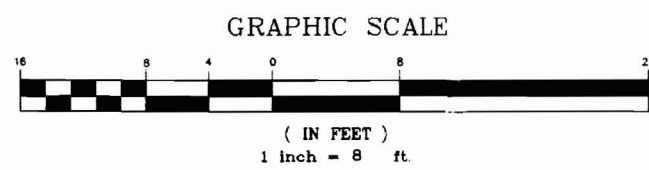
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www.notifier.com

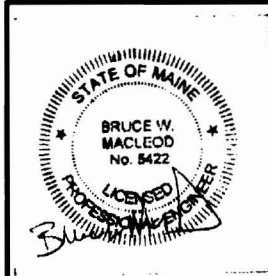


- 1- - Annunciator
- 2- - pull station
- 7- - horn Strobe
- 7- - Strobe

*Spinned  
Add 100 sq ft*



	8/27/09
	8/17/09
	8/01/09
	7/21/09



<b>MacLeod</b> Structural Engineers, PA 404 Main Street Gorham, Maine 04038 207.839.0960		
DEPARTMENT OF HEALTH AND HUMAN SERVICES FOREST AVE. PORTLAND, ME		
NEW OFFICE LAYOUT		
TITLE: Floor/Furniture Plan		
DATE: 7/13/09	DRAWN BY: BMM	DRAWING NUMBER:
SCALE: as noted	PROJ NO: 2009-216	A-1