

Fire Alarm Systems

Helping People Take Action™

FEATURING

SPEC1 FIRE™

A Family of Multi-Candela AppliancesSM

Description:

The Series NS and NS4 Horn Strobe Appliances will satisfy virtually all requirements for indoor, wall mount applications.

Features include a selectable continuous horn tone or temporal pattern (Code 3) with selectable dBA settings of 90 or 95 dBA.

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

These versatile Horn Strobe Appliances may be synchronized when used in conjunction with the Wheelock SM, DSM Sync Modules or the PS-12/24-8 Power Supply with patented sync protocol. Additionally, the audible may be silenced while maintaining strobe activation.

All models of the Series NS and NS4 are designed for maximum performance, reliability and cost-effectiveness while meeting or exceeding the latest requirements of NFPA 72, ANSI 117.1 and UL Standards 1971 and 464 as well as meeting ADA requirements concerning photosensitive epilepsy.

Wheelock's patented 2-Wire and True 4-Wire Series NS/NS4 Horn Strobes and Series NH Horns offer more features with less current draw and Zero Inrush.

Your Choice:

- Models are available in either 2-wire, 12 or 24 VDC or True 4-wire, 12 or 24 VDC.
- **Both 2-wire and 4-wire, 24 VDC models are available with Wheelock's Patented Multi-Candela Strobe that offers field selectable candela settings of: 15, 30, 75 or 110cd.**
- Also available are 15/75 candela models in either 2-Wire, 4-Wire, 12 or 24 VDC.
- Wheelock's 4-wire Series NS4 Horn Strobe Appliances allow for separate operation of the horn and strobe circuits and meet the requirements of NFPA 72 (1999) 1-5.8.4.

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SERIES NS/NS4 SINGLE & MULTI-CANDELA HORN STROBE APPLIANCES SERIES NH HORNS



Series NH




Series NS/NS4



Multi-Candela Indicator
(bottom of Strobe Lens)

Features:

- Approvals include: UL 1971, UL 464, New York City (MEA), California State Fire Marshall (CSFM) Pending: Factory Mutual (FM) and Chicago (BFP).
- ADA / NFPA / ANSI compliant.
- Meets OSHA 29 Part 1910.165.
- Field Selectable Candela Settings: 15, 30, 75 or 110 cd. (Multi-Candela models).
- Selectable Continuous Horn or Temporal (Code 3).
- 2 Selectable dBA settings of 90 and 95 dBA in both tones.
- 4-Wire Horn Strobe Appliance allows for separate operation of the horn and strobe circuits.
- Patented Universal Mounting Plate.
- 24 VDC with wide rated voltage range using filtered DC or unfiltered VRMS input voltage.
- Wall Mount.
- Synchronize with Wheelock SM, DSM Sync Module or PS-12/24-8 Power Supply with built-in sync protocol.
- ZERO Inrush above Peak.
- Fast installation with IN / OUT screw terminals using #12 to #18 AWG wires.
- Backward compatible with other Wheelock Appliances.

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

WARNING: PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS OR 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.

General Notes:

- Strobes are designed to flash at 1 flash per second minimum over their “Regulated Input Voltage Range”. Note that NFPA-72 (1999) 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 1971.
- Series NS and NS4 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 85%.
- Series NH horns are listed under UL 464 for audible signal appliances (Indoor use only).
- **“Regulated Input 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”.**

Model	Input Voltage	VDC Regulated Input Voltage Range VDC/FWR	Strobe Candela (cd)
NS-24MCW	24	16.0 - 33.0	15/30/75/110
NS-2415W	24	20.0 - 31.0	15
NS-241575W	24	20.0 - 31.0	15 (75 On Axis)
NS-2430W	24	20.0 - 31.0	30
NS-2475W	24	20.0 - 31.0	75
NS-24110W	24	20.0 - 31.0	110
NS-1215W	12	10.5 - 15.6	15
NS-121575W	12	10.5 - 15.6	15 (75 on Axis)
NS4-24MCW	24	16.0 - 33.0	15/30/75/110
NS4-241575W	24	16.0 - 33.0	15 (75 on Axis)
NS4-1215W	12	10.5 - 15.6	15
NS4-121575W	12	10.5 - 15.6	15 (75 on Axis)

Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.076	.122	.240	.312
24.0 VDC	.052	.079	.148	.178
33.0VDC	.043	.065	.110	.134

Voltage	15/75
16.0 VDC	.100
24.0 VDC	.069
33.0VDC	.052

Voltage	15cd	15/75
10.5 VDC	.148	.189
12.0 VDC	.126	.162
15.6 VDC	.102	.130

Voltage	High (95) dBA	Low (90) dBA
16.0 VDC	.019	.012
20.0 VDC	.020	.016
24.0 VDC	.027	.014
31.0 VDC	.034	.026
33.0 VDC	.038	.018

Voltage	High (95) dBA	Low (90) dBA
10.5 VDC	.013	.008
12.0 VDC	.014	.009
15.6 VDC	.020	.011

* Average Current per actual Wheelock Production Testing at listed VDC. For rated average and Peak current across the UL listed voltage range for both filtered DC and unfiltered VRMS, see Installation Instructions.

Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.080	.128	.226	.304
24.0 VDC	.072	.094	.153	.183
33.0 VDC	.068	.092	.148	.166

Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.078	.123	.219	.287
24.0 VDC	.058	.082	.140	.174
33.0 VDC	.052	.075	.128	.161

Voltage	15cd	15/75cd	30cd	75cd	110cd
20.0 VDC	.078	.094	.108	.177	.219
24.0 VDC	.072	.086	.097	.155	.185
31.0 VDC	.070	.081	.088	.129	.153

Voltage	15cd	15/75cd	30cd	75cd	110cd
20.0 VDC	.071	.089	.100	.173	.210
24.0 VDC	.065	.080	.087	.145	.174
31.0 VDC	.059	.068	.077	.118	.141

Voltage	High Setting		Low Setting	
	15cd	15/75cd	15cd	15/75cd
10.5 VDC	.158	.204	.156	.199
12.0 VDC	.137	.175	.133	.170
15.6 VDC	.109	.133	.104	.128

Note: For Total Current Draw of Series NS4 Multi-Candela, 15/75 or 12 Volt, Add the appropriate Current Draw from Table 2 to the appropriate Current Draw from Table 3.

Description	Volume	Reverberant dBA @10ft. per UL 464		Anechoic dBA @ 10ft.	
		12 VDC	24 VDC	12 VDC	24 VDC
Continuous Horn	High	82	87	89	95
	Low	76	81	84	90
Code 3 Horn	High	76	82	89	95
	Low	70***	76	84	90

*** 12 VDC Model set on Code 3-Low does not meet the minimum UL Reverberant Sound level required for Public Mode Fire Protection Service.

Model Number	Order Code	Input Voltage (VDC)	Average Current (AMPS) @ 24 VDC	Mounting Options**
SM-12/24-R	6369	24	.025	W
DSM-24-R	6374	24	.038	W
PS-12/24-8	8114	120 VAC		

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).

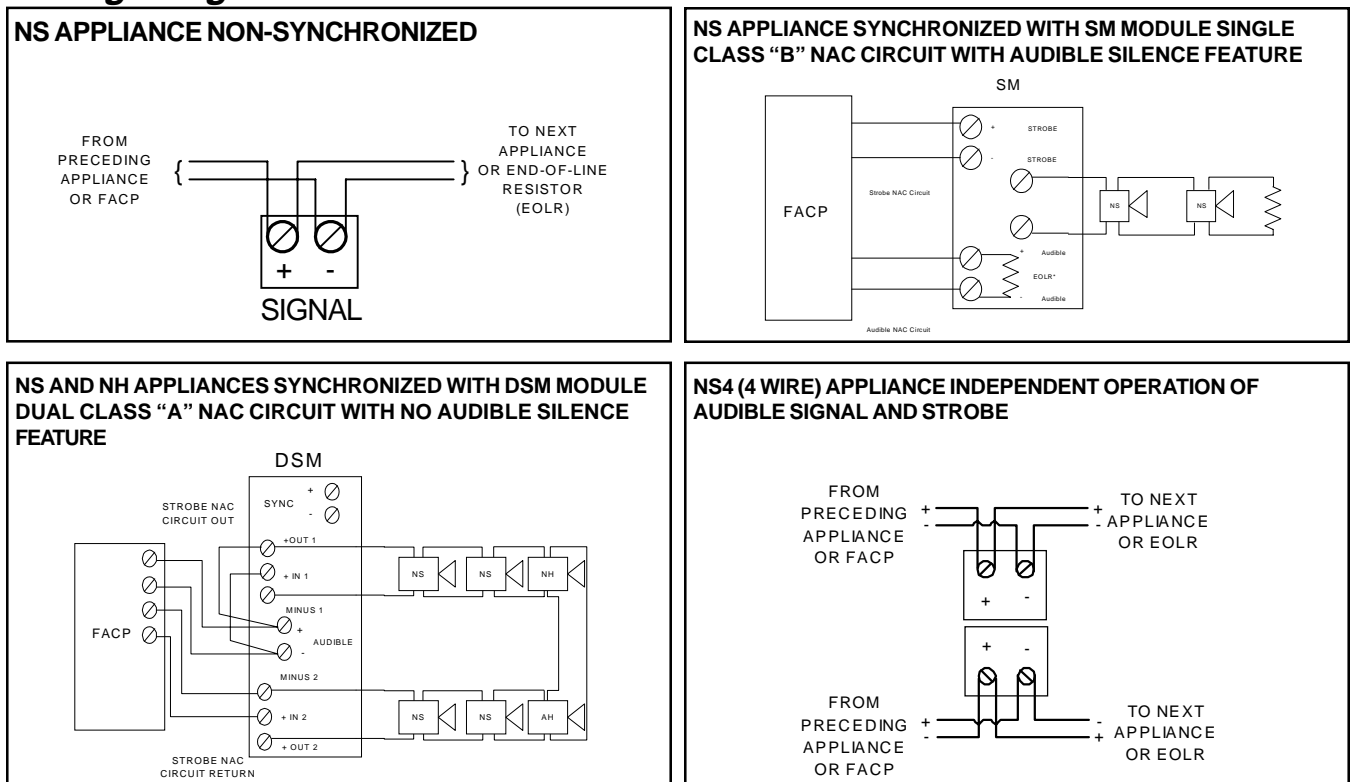
Refer to Data Sheet S3000 or Installation Instructions (P83123 for SM and P83177 for DSM). Refer to Data Sheet S9001 or Installation Instructions P83862 for PS-12/24-8 Power Supply.

**Refer to Data Sheet S7000 for Mounting Options.

⚠ WARNING: CONTACT WHELOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS (P83983) Series NS-24MCW, (P83518) Series NS-12 and 24 VDC Single Candela models, (P83894) NS4-24MCW, (P84020) Series NS4-241575W, (P83601) Series NS4-12 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 THESE 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 CANDELA SETTINGS WILL EFFECT 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 THESE PRODUCTS MUST BE WITHIN THEIR “REGULATED INPUT VOLTAGE RANGE”.
- INSTALLATION OF 110 CANDELA STROBE PRODUCTS IN SLEEPING AREAS.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.
- USE SERIES NS / NS4 / NH ONLY ON CIRCUITS WITH CONTINUOUSLY APPLIED OPERATING VOLTAGE. DO NOT USE STROBES ON CODED OR INTERRUPTED CIRCUITS IN WHICH THE APPLIED VOLTAGE IS CYCLED ON AND OFF AS THE STROBES MAY NOT FLASH.
- FAILURE TO COMPLY WITH THE INSTALLATION INSTRUCTIONS OR GENERAL INFORMATION SHEETS COULD RESULT IN IMPROPER INSTALLATION, APPLICATION, 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.
- 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#



For wiring information on the PS-12/24-8 Power Supply, please refer to Data Sheet #9001

NOTE: NS/NS4/NH must be set on Code 3 horn tone to achieve synchronized temporal (Code 3) tone. Refer to installation instruction (P83983, P83984, P83600 respectively).

For detail using SM or DSM Sync Module refer to Data Sheet S3000 or Installation Instructions (P83123 for SM and P83177 for DSM).

For wiring information on the PS-12/24-8 Power Supply refer to Installation Instructions P83862.

Wheelock products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with their installation instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriters' Laboratories (UL), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations, laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ).

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The audible/visual notification appliances shall be Wheelock Series NS/NS4 Horn Strobe appliances and Series NH Horn appliances or approved equals. The Series NS/NS4 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 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 Input Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan[®] lens. The Series NS/NS4 shall be of low current design and shall have Zero Inrush. Where wall mount, Multi-Candela appliances are specified, the strobe intensity shall have a minimum of four (4) field selectable settings and shall be rated per UL 1971 for: 15, 30, 75 or 110 candela. The selector switch for selecting the candela setting shall be tamper resistant and not accessible from the front of the appliance.

When synchronization is required, the appliance shall be compatible with Wheelock's SM, DSM Sync Modules or Wheelock's PS-12/24-8 Power Supply with 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/NS4 Horn Strobes shall incorporate a Patented Universal Mounting Plate that shall allow mounting to a single-gang, 4-inch square, 100mm European type backboxes, or the SHBB Surface Backbox. If required, an NATP (Notification Appliance Trimplate) shall be provided.

All notification appliances shall be backward compatible.

SPECIFICATION & ORDERING INFORMATION

MODEL	ORDER CODE	DESCRIPTION	MOUNTING OPTIONS*
NS-24MCW-FR	9404	Multi-Candela Horn Strobe/2-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-24MCW-FW	9405	Multi-Candela Horn Strobe/2-Wire/24V/Wall Mount/White	B,D,E,F,G,H,J,O,R,S,X
NS-2415W-FR	7805	15 Candela Horn Strobe/2-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-241575W-FR	7806	15/75Candela Horn Strobe/2-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-2430W-FR	7807	30 Candela Horn Strobe/2-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-2475W-FR	7808	75 Candela Horn Strobe/2-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-24110W-FR	7809	110 Candela Horn Strobe/2-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-1215W-FR	7815	15 Candela Horn Strobe/2-Wire/12V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS-121575W-FR	7816	15/75 Candela Horn Strobe/2-Wire/12V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS4-24MCW-FR	9406	Multi-Candela Horn Strobe/4-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS4-24MCW-FW	9407	Multi-Candela Horn Strobe/4-Wire/24V/Wall Mount/White	B,D,E,F,G,H,J,O,R,S,X
NS4-241575W-FW	7901	15/75 Candela Horn Strobe/4-Wire/24V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS4-1215W-FR	7910	15 Candela Horn Strobe/4-Wire/12V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NS4-121575W-FR	7911	15/75 Candela Horn Strobe/4-Wire/12V/Wall Mount/Red	B,D,E,F,G,H,J,O,R,S,X
NH-12/24-R	7449	Audible Horn/2-Wire/12 or 24V/Red	B,D,E,F,G,H,J,O,R,S,X

*Refer to Data Sheet S7000 for Mounting Options

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

WE ENCOURAGE AND SUPPORT NICET CERTIFICATION

3 YEAR WARRANTY

Made in USA

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Rev. S2100 11/00