

#### **FIRE ALARM SYSTEMS**

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

#### Description

The 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 includes 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 candela settings of: 15, 30, 75 or 110cd.

These versatile Horn Strobe Appliances may be synchronized when used in conjunction with the Wheelock SM or DSM Sync Module(s). Additionally, the audible may be silenced while maintaining strobe activation.

All models of the Series NS are designed for maximum performance, reliability and cost effectiveness while meeting or exceeding the latest requirements of CAN/ULC-S526-02 for Visual Signaling Appliances and CAN/ULC-S525-99 for Audible Signaling Appliances.

Wheelock's patented 2-Wire Series NS Horn Strobes and Series NH Horns offer more features with less current draw.

#### Your Choice

- NS models are available in 2-Wire, 24 VDC
- NS models are available with Wheelock's patented Multi-Candela Strobe that offers field selectable candela settings of: 15, 30, 75 or 110 cd





Series NH

Series NS



Multi-Candela Indicator (bottom of Strobe Lens)

#### **Features**

- Approvals include: CAN/ULC-S526-02 for Visual Signaling Appliances and CAN/ULC-S525-99 for Audible Signaling Appliances
- 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
- Patented Universal Mounting Plate
- Filtered DC or unfiltered VRMS input voltage
- Wall Mount
- Synchronize with Wheelock SM or DSM Sync Module(s)
- 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 A. 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.

▲WARNING: FOR ULC VERSIONS THESE APPLIANCES WERE TESTED TO THE OPERATING VOLTAGE OF 20.0 - 31.0 VOLTS FOR 24V MODELS AND 10.5 - 15.6 VDC FOR 12 V MODELS USING FILTERED (DC) OR UNFILTERED FULL-WAVE RECTIFIED (FWR). APPLY 80% AND 110% OF THESE VOLTAGE VALUES FOR SYSTEM OPERATIONS.

#### General Notes:

- Strobes are designed to flash at 1 flash per second minimum over their Voltage Range.
- All candela ratings represent minimum effective Strobe intensity.
- Series NS Strobe products are listed for indoor use with a temperature range of 0°C to 49°C (32°F to 120°F) and maximum humidity of 93% (± 2%).
- Series NH horns are listed for audible signal appliances (Indoor use only).
- All Canadian Installations should be in accordance with the Canadian Standard for the Installation of Fire Alarm Systems - CAN/ULC-S524-01 and Canadian Electrical Code, Part 1.

Table 1: Ratings Per CAN/ULC 5526-02 & CAN/ULC S525-99						
Model	Model Input ULC Voltage Voltage Range VDC VDC/VRMS		Strobe Candela (CD)			
NS-24MCW	24	20.0 - 31.0	15/30/75/110			

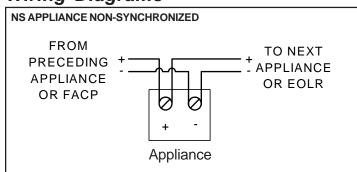
Table 2: *ULC Current Ratings (AMPS) NS-24MCW with High (95 dBA) Setting						
Voltage	15cd	30cd	75cd	110cd		
20.0 VDC	.074	.107	.184	.244		
24.0 VDC	.061	.085	.129	.167		
31.0 VDC	.060	.075	.110	.130		
NS-24MCW with Low (90 dBA) Setting						
Voltage	15cd	30cd	75cd	110cd		
20.0 VDC	.066	.101	.177	.232		
24.0 VDC	.049	.072	.117	.154		
31.0 VDC	.045	.060	.093	.114		

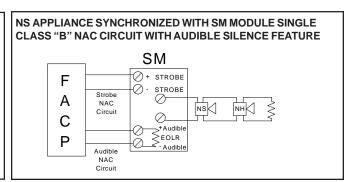
Table 3: dBA Ratings for Series NS/NH Horn						
Description	Volume	Anechoic dBA @ 10 ft Per CAN/ULC-S525-99				
		12VDC	24VDC			
Continuous	High	89	92			
Horn	Low	84	89			
Code 3 Horn	High	89	92			
	Low	84	89			

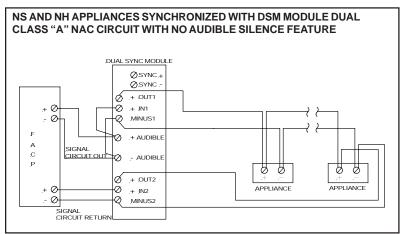
▲ WARNING: CONTACT WHEELOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS (P83983) SERIES NS-24MCW, (P84030) SERIES NS 24 VDC SINGLE CANDELA MODELS, (P83984) SERIES NH (P83600) AND "GENERAL INFORMATION" SHEET (P82380) ON THESE PRODUCTS. THESE DOCUMENTS UNDERGO PERIODIC CHANGES. IT IS IMPORTANT THAT YOU HAVE 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 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 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#







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).

\* For detail using SM or DSM Sync Module refer to Data Sheet S3000C or Installation Instructions P83123 for SM and P83177 for DSM.

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), Canadian Standard for the Installation of Fire Alarm Systems - CAN/ULC-S524-01 and Canadian Electrical Code, Part 1, 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 Horn Strobe appliances and Series NH Horn appliances or approved equals. The Series NS appliances shall meet and be ULC Listed under Standard

CAN/ULC-S526-02 for Visual Signaling Appliances and CAN/ULC-S525-99 for Audible Signaling Appliances. The Series NH Horn shall be ULC Listed under Standard CAN/ULC-S525-99 for Audible Signaling Appliances. 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 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 have four (4) field selectable settings and shall be rated 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 or DSM Sync Module(s). The strobes shall not drift out of synchronization at any time during operation. If the sync module 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 shall incorporate a Patented Universal Mounting Plate that shall allow mounting to a 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.

All notification appliances shall be backward compatible.

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.

#### SPECIFICATION & ORDERING INFORMATION

Model	Order Code	Strobe Candela	Non- Sync	Sync w/ SM, DSM	24 VDC	12 VDC	2 WIRE	4 Wire	Mounting Options **
NS-24MCW-FR	9404	15/30/75/110	Χ	X	Х		Х		B,D,E,F,G,H,J,N,O,R,X
NS-24MCW-FW	9405	15/30/75/110	Х	Х	Х		Х		B,D,E,F,G,H,J,N,O,R,X
NH-12/24-R	7449	-	Χ	X	Х	Х	Х		B,D,E,F,G,H,J,N,O,R,X
NH-12/24-W	7500	-	Х	X	Х	Х	Х		B,D,E,F,G,H,J,N,O,R,X
NS-241575W-FR	7806	24	Х	X	Х	-			B,D,E,F,G,H,J,N,O,R,X
NS-241575W-FW	7811	24	Х	X	Х	-			B,D,E,F,G,H,J,N,O,R,X

## WE ENCOURAGE AND SUPPORT NICET CERTIFICATION 3 YEAR WARRANTY Assembled in the USA

National Sales Office
Canada 800-397-5777
E-Mail: Info@wheelockinc.com
http://www.wheelockinc.com



Distributed By	:	