



Fire Alarm Systems

Helping People Take Action™

SPEC1 FIRE™

A Family of Multi-Candela AppliancesSM

SERIES AS MULTI-CANDELA AUDIBLE STROBES & SERIES AH AUDIBLE APPLIANCES

Description:

Wheelock's patented 2-Wire Series AS Multi-Candela Audible Strobe Appliances offer a field selectable choice of four candela settings and a selectable choice of either continuous horn or temporal pattern (Code 3) tone when constant voltage from the Fire Alarm Control Panel (FACP) is applied. Each tone has 3 field selectable settings for dBA levels to choose from.

One Wheelock Multi-Candela Audible Strobe with field selectable settings of: 15, 30, 75 or 110 cd.

These versatile Audible Strobe Appliances will satisfy virtually all requirements for indoor, wall mount applications. The companion Series AH Audible also offers a selectable choice of either continuous horn or temporal pattern (Code 3).

All models may be synchronized when used in conjunction with the Wheelock SM, DSM Sync Modules or the PS-12/24-8 Power Supply with Wheelock's Patented Sync Protocol. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy. Additionally, the audible may be silenced while maintaining strobe activation. All of this, plus the ability to silence the audible is achieved by using only 2 WIRES.

Wheelock's patented 2-Wire, 24 VDC Series AS Multi-Candela Audible Strobe Appliances and Series AH Audibles offer more features with less current draw and Zero Inrush.

The Series AS Multi-Candela Audible Strobes and Series AH Audibles are designed for maximum performance, reliability and cost-effectiveness while meeting or exceeding the latest requirements of NFPA 72, ANSI 117.1, UL 1971, UL 464, as well as meeting ADA recommendations concerning photosensitive epilepsy.



SERIES AS MULTI CANDELA AUDIBLE STROBE (15, 30, 75 & 110CD)



SERIES AH (Indoor Only)



UNIVERSAL MOUNTING PLATE

Features:

- Approvals include: UL 1971, UL 464, New York City (MEA), California State Fire Marshal (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.
- Selectable Continuous Horn or Temporal (Code 3).
- 3 Selectable dBA settings in both tones.
- Patented 2-Wire Audible Strobe Appliance.
- Patented Universal Mounting Plate.
- Strobes produce 1 flash per second over the regulated input voltage range.
- 24 VDC with wide New UL "Regulated Input Voltage" of 16-33VDC using filtered (DC) or unfiltered FWR Voltage.
- Wall Mount.
- Synchronization with Wheelock SM, DSM Sync Modules or PS-12/24-8 Power Supply with Wheelock's built-in Patented sync protocol.
- ZERO Inrush above Peak.
- Compatible with all Wheelock 2-Wire products.
- Fast installation with IN / OUT screw terminals using #12 to #18 AWG wires.

Specifications and Ordering Information

Model Number	Order Code	Description	Mounting Options*
AS-24MCW-FR	9024	Multi-Candela Audible Strobe-24V-Wall Mount-Red	A,B,D,E,F,G,H,J,O,R,S,X
AS-24MCW-FW	9025	Multi-Candela Audible Strobe-24V-Wall Mount-White	A,B,D,E,F,G,H,J,O,R,S,X
AH-24-R	7892	Audible Horn-24V-Red	A,B,D,E,F,G,H,J,O,R,S,X
AH-24-W	7893	Audible Horn-24V-White	A,B,D,E,F,G,H,J,O,R,S,X
AH-24WP-R	7416	Weatherproof Audible Horn-24V-Red	K

*Refer to Data Sheet S7000 for Mounting Options.

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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 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.

General Notes:

- Strobes are designed to flash at 1 flash per second minimum over the “Regulated Input Voltage Range” of 16-33 VDC (for 24 VDC models). 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 AS Multi-Candela 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 AH-24 horns are listed under UL 464 for audible signal appliances (Indoor use only).
- Series AH-24WP audible appliances are listed under UL 464 for indoor/outdoor use with a temperature range of -31°F to 150°F (-35°C to 66°C) and maximum humidity of 95%.

“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	Nominal Voltage VDC/VRMS	Regulated Input Voltage Range VDC/FWR#	Strobe Candela (CD)
AS-24MCW	24	16.0-33.0	15/30/75/110

Rated Average Current with High dBA Setting				
Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.095	.142	.242	.308
24.0 VDC	.088	.120	.174	.224
33.0 VDC	.099	.120	.152	.190
Rated Average Current with Medium dBA Setting				
16.0 VDC	.081	.128	.225	.296
24.0 VDC	.068	.105	.157	.207
33.0 VDC	.068	.090	.119	.157
Rated Average Current with Low dBA Setting				
16.0 VDC	.077	.119	.222	.294
24.0 VDC	.060	.090	.142	.200
33.0 VDC	.055	.081	.109	.147

Note: Inrush Current is less than Rated Peak Current
 *Average current based on actual Wheelock Production Testing @ 16, 24 & 33VDC.

	High	Medium	Low
20.0 VDC	.035	.020	.014
24.0 VDC	.041	.024	.017
31.0 VDC	.053	.030	.021

**Average current based on actual Wheelock Production Testing @ 20, 24 & 31VDC.

Note: Wall and Ceiling Mount Models are Compatible Series AS / AS Multi-Candela / AH / AHWP Quick Reference Guide

Model Number	Wall Mount	Ceiling Mount	Non-Sync	Sync w/ SM, DSM or PS-12/24-8	Strobe Candela	24 VDC	#Model Color RED	##Model Color White
AS-24MCW-FR	X		X	X	15/30/75/110	X	X	
AS-24MCW-FW	X		X	X	15/30/75/110	X		X
AS-2415C-FW		X	X	X	15	X		X
AS-2430C-FW		X	X	X	30	X		X
AS-2475C-FW		X	X	X	75	X		X
AS-24100C-FW		X	X	X	100	X		X
AH-24-R	X	X	X	X		X	X	
AH-24WP-R	X	X	X	X		X	X	

Model color is Red, can be ordered in White, call Customer Service for Order Code & Delivery.
 ## Model color is White, can be ordered in Red, call Customer Service for Order Code & Delivery.

Description	Volume	Reverberant dBA Per UL 464 @ 10 ft.	Anechoic dBA @ 10 ft.
Continuous Horn	High	91	99
	Medium	88	95
Code 3 Horn	Low	83	90
	High	87	99
	Medium	84	95
	Low	79	90

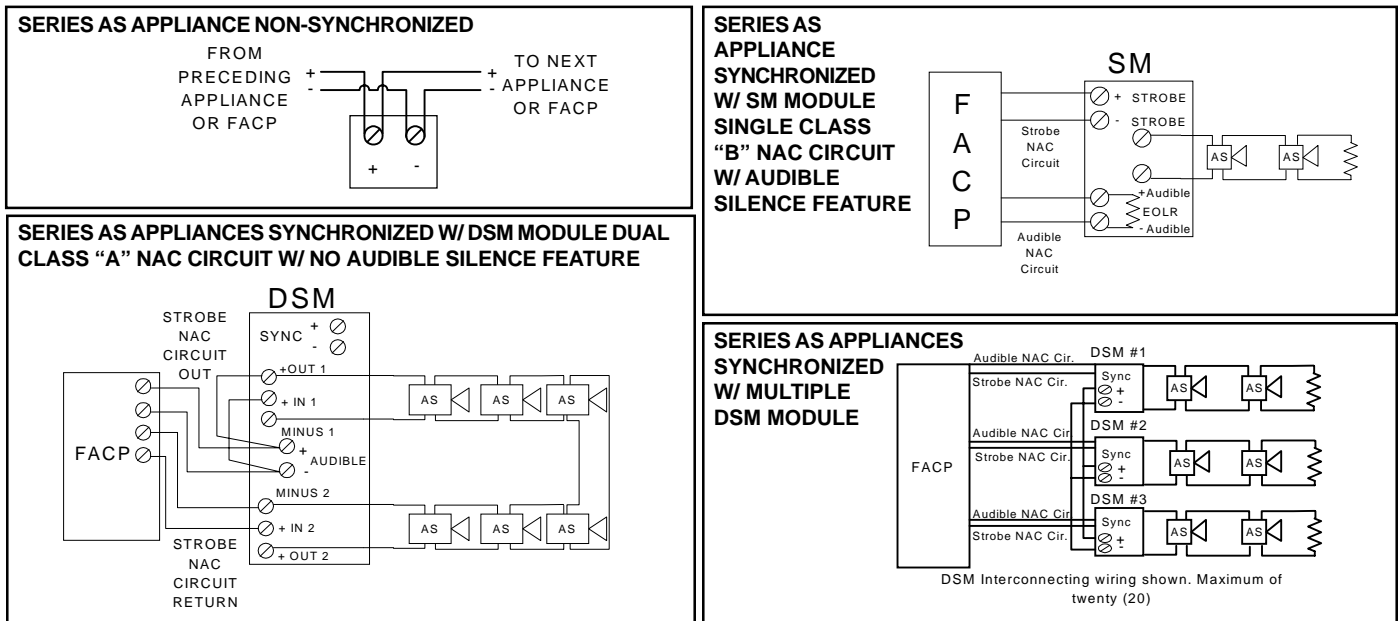
Model##	Order Code	Input Voltage VDC	Average Current (AMPS) @ 24 VDC	Mounting Options ***
SM-24-R	6369	24	.025	W
DSM-24-R	6374	24	.038	W
PS-12/24-8###	8114	120 VAC		

##Series SM and DSM Sync Module Circuits are rated for 3.0 amperes each at 24VDC. 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 WHEELOCK FOR THE CURRENT “INSTALLATION INSTRUCTIONS” (P83947) Series AS-24MCW, (P83519) Series AH, (P83641) Series AH-WP 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 SOURCE 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 AS-24MCW ONLY ON CIRCUITS WITH CONTINUOUSLY APPLIED OPERATING VOLTAGE. DO NOT USE SERIES AS-24MCW ON CODED OR INTERRUPTED CIRCUITS IN WHICH THE APPLIED VOLTAGE IS 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 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.**
- **WHEN REPLACING A WALL MOUNT SINGLE CANDELA SERIES AS AUDIBLE STROBE WITH A SERIES MULTI-CANDELA AUDIBLE STROBE, YOU MUST REPLACE THE UNIVERSAL MOUNTING PLATE WITH THE ONE SUPPLIED WITH THE MULTI CANDELA APPLIANCE.**

Wiring Diagrams#



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 notification appliances shall be Wheelock Series AS Multi-Candela Audible Strobe appliances and Series AH Audible appliances or approved equal. The Series AS Multi-Candela shall meet and be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired) for Indoor Fire Protection Service. The Series AH Audible shall be UL Listed under Standard 464 (Fire Protective Signaling). The audible/strobe shall be listed for indoor use and both 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).

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

The strobe portion of the appliance shall produce a flash rate of one (1) flash per second over the Regulated Input Voltage Range of 16 to 33 VDC for 24-VDC models and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens. The Series AS Multi-Candela shall be of low current design and shall have Zero Inrush. 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 (wall mount versions). The switch for selecting the candela setting shall be located on the rear of the appliance in order to prevent tampering from unauthorized persons.

The audible and audible strobe shall be designed for 24 VDC, 2-Wire operation and, when synchronization is required, 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 strobe 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 (when used with the Wheelock Sync Module, Dual Sync Module or Wheelock Power Supply).

The Series AS Multi-Candela Audible Strobe and Series AH Audible 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.

When replacing a wall mount single candela Series AS Audible Strobe with a Series AS Multi-Candela Audible Strobe, you shall replace the Universal Mounting Plate with the one supplied with the AS Multi-Candela Appliance.

All notification appliances shall be backward compatible.

WE SUPPORT AND ENCOURAGE NICET CERTIFICATION

MADE IN THE USA

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.

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