

## Series CH Chimes and Chime Strobes



**SERIES CH70  
CHIME STROBE**

**SERIES CH90  
CHIME STROBE**

**SERIES CH90  
CHIME**

**SERIES CH70  
CHIME**

### Description

The Wheelock Series CH Chimes and Chime Strobes minimize alarm system power supply requirements and wiring costs with a low current draw and a patented chime mounting plate for fast, easy installation. Each model has a built-in level adjustment feature and an aesthetic two (2) screw grille cover.

These unique solid-state chime appliances provide field selectable single-stroke or vibrating operation with Anechoic sound levels adjustable up to 83 dB and tone adjustable from 800 to 1200 Hz.

Strobe options for wall mount models include 1575cd or Wheelock patented MCW multi-candela strobe with field selectable candela settings of 15/30/75/110cd or the high intensity MCWH strobe with field selectable 135/185cd.

Ceiling mount models are available in Wheelock 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.

The strobe portion of all Series CH Chime Strobes may be synchronized when used in conjunction with the Wheelock SM, DSM Sync Modules or the Wheelock PS-24-8MC Power Supply with patented Sync Protocol. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy as well as meeting the requirements of NFPA 72 and UFC.

The Series CH Chime Strobes are UL Listed for indoor, wall or ceiling mount applications under Standard 1971 for Signaling Devices for the Hearing-Impaired and under Standard 464 for Private Mode Audible Signal Appliances. They are available in two attractive package styles for flush mounting to standard electrical boxes or convenient surface mounting. All models include IN/OUT wiring terminations that accept two #12 to #18 AWG wires at each terminal. Inputs are polarized for compatibility with industry standard reverse polarity supervision.

### Features

- Approvals include: UL Standard 1971, UL Standard 464, New York City (MEA), and California State Fire Marshal (CSFM) and Chicago (BFP) See approvals by model in Specifications and Ordering Information
- ADA/NFPA/UFC/ANSI compliant
- Complies with OSHA 29 Part 1910.165
- Wall mount models are available with Field Selectable Candela Settings of 15/30/75/110cd or 135/185cd (Multi-Candela models) or 1575cd (single candela model)
- Ceiling mount models are available with field selectable candela settings of 15/30/75/95cd or 115/177cd (Multi-candela models)
- Low current draw with temperature compensation to reduce power consumption and wiring costs
- Strobes produce 1 flash per second over the regulated voltage range
- 24 VDC with wide UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage
- Synchronize with Wheelock SM, DSM or the Wheelock PS-24-8MC Power Supply with built-in sync protocol
- Adjustable Volume and Tone Control
- Single Stroke or Vibrating Operation
- Fast Installation with IN/OUT screw terminals using #12 to #18 AWG wires

**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. VISIT WWW.COOPERWHEELLOCK.COM OR CONTACT COOPER WHEELLOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS. 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 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).
- **“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”.**

**Table 1: Average RMS Current**

CH70/ CH90 Chimes	Chime current	CH70 Strobe current - Wall Mount							CH90 Strobe current - Ceiling Mount					
		241575W	24MCW				24MCWH		24MCC				24MCCH	
		1575cd	15cd	30cd	75cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	115cd	177cd
24 vdc	0.022	0.060	0.041	0.063	0.109	0.140	0.195	0.270	0.045	0.070	0.119	0.159	0.195	0.270
UL max*	0.022	0.090	0.060	0.092	0.165	0.220	0.300	0.420	0.065	0.105	0.189	0.249	0.300	0.420

**Table 2: Chime dBA ratings**

CH70/CH90 sound level	Peak dBA @ 10 ft. anechoic	dBA @ 10 ft reverberant	
		Min	Max
	83	52	58

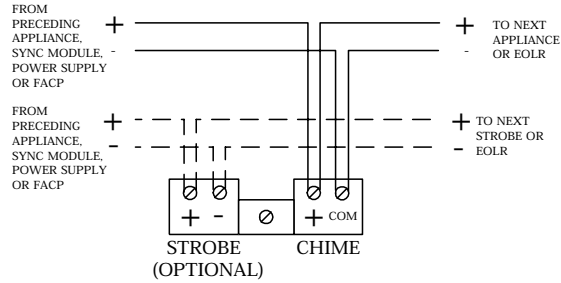
\* RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

**Application**

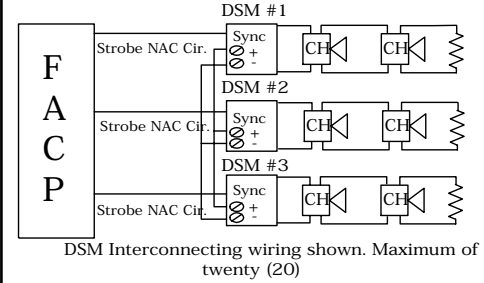
1. The chimes are factory set in single stroke (SS) mode. They can be changed to vibrating (VIB) mode with jumper on PC Board. SINGLE STROKE OPERATION: The minimum input pulse duration must be at least 160 ms “on” time and 160 ms “off” time. The chime will only operate once each time it is pulsed. This mode is recommended for coded systems. VIBRATING OPERATION: Continuous input voltage applied to the chime will activate the chime at one-second intervals.
2. The volume and tone controls have been adjusted at the factory to insure maximum dBA output. However, once the mode is selected, the installer may want to fine-tune the signal to better suit the application.
3. Anechoic dBA is measured in an anechoic chamber with peak meter response. Reverberant dBA is rated per UL Standard 464.
4. Chime inrush current is 0.100 amps maximum with filtered DC input (0.140 amps with VRMS input voltage) with a time duration of 100 milliseconds.

## Wiring Diagrams#

### SERIES CH CHIME & STROBE OPERATE INDEPENDENTLY (NON-SYNC OR SYNC)

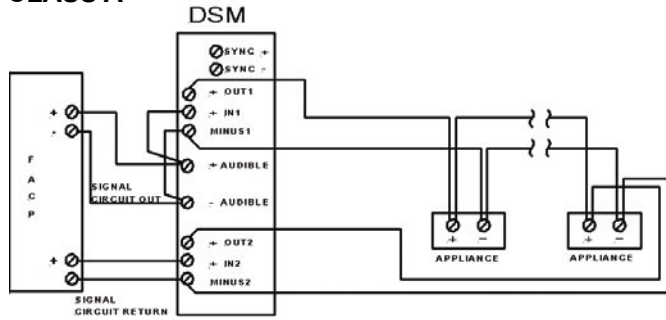


### SERIES CH CHIME STROBES SYNCHRONIZED W/ MULTIPLE DSM MODULES

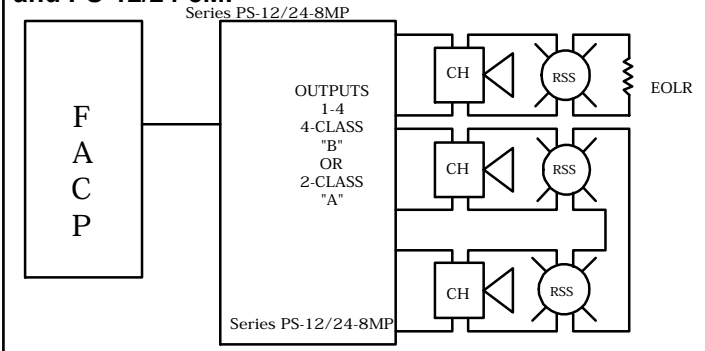


Note: Figure shows interconnection to strobe through sync module. Chime portion requires 2 separate conductors to FACP.

### SERIES CH CHIME STROBE APPLIANCES SYNCHRONIZED WITH DSM MODULE SINGLE "CLASS A"



### SERIES CH CHIME STROBE APPLIANCES & RSS STROBES SYNCHRONIZED WITH PS-12/24-8CP and PS-12/24-8MP



For wiring information on the PS-24-8MC Power Supply, please refer to Data Sheet #8900.

## Specifications and Ordering Information

Model Number	Order Code	Wall Mount	Ceiling Mount	Strobe Sync w/ SM, DSM or PS-24-8MC	Strobe Candela	24 VDC	Model Color RED	Model Color White	Mounting Options	Agency Approvals			
										UL	MEA	CSFM	BFP
CH70-24MCW-FR	9018	X		X	15/30/75/110	X	X	-	L,O,P,Q,R,U,Y	X	X	X	X
CH70-24MCW-FW	9019	X	-	X	15/30/75/110	X	-	X	L,O,P,Q,R,U,Y	X	X	X	X
CH70-24MCWH-FR	9083	X	-	X	135/185	X	X	-	L,O,P,Q,R,U,Y	X	X	X	*
CH70-24MCWH-FW	9084	X	-	X	135/185	X	-	X	L,O,P,Q,R,U,Y	X	X	X	*
CH70-241575W-FR	7830	X	-	X	15 (75 on Axis)	X	X	-	L,O,P,Q,R,U,Y	X	X	X	X
CH90-24MCC-FW	3168	-	X	X	15/30/75/95	X	-	X	Q,U,V	X	X	X	*
CH90-24MCCH-FW	3110	-	X	X	115/177	X	-	X	Q,U,V	X	X	X	*
CH70-24-R	7825	X	X	-	-	X	X	-	L,O,P,Q,R,U,Y	X	X	X	X
CH70-24-W	7827	X	X	-	-	X	-	X	L,O,P,Q,R,U,Y	X	X	X	X
CH90-24-W	7826	X	X	-	-	X	-	X	Q,U,V	X	X	X	X

Models are available in either Red or White. Call Customer Service for Order Code & Delivery.

\*PENDING

**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.**

## **Architects and Engineers Specifications**

The chime appliances shall be Wheelock Series CH Chimes and the chime strobe appliances shall be Wheelock Series CH Chime Strobes or approved equals. The chime shall be UL Listed under Standard 464 for Audible Signal Appliances and chimes equipped with strobes shall be listed under UL Standard 1971 for Emergency Devices for the Hearing-Impaired. In addition, the strobes shall be certified to meet the requirements of FCC Part 15, Class B and shall incorporate low temperature compensation to ensure the lowest possible current consumption.

All chimes shall use solid state components and shall provide field selectable single stroke or vibrating operation with volume control and tone control. All models shall have a peak Anechoic sound output of 83 dB at 10 feet and an adjustable frequency range of 800 to 1200 Hz. All inputs shall employ terminals that accept #12 to #18 AWG wire sizes.

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 strobe shall be of low current design. Where Multi-Candela Chime Strobes are specified, the strobe intensity shall have a minimum of four (4) 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 115/177cd for ceiling mount. The selector switch for selecting the candela shall be tamper resistant and not accessible from the front of the appliance. 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 strobe portion of the appliance shall be compatible with Wheelock SM, DSM sync modules or the Wheelock PS-24-8MC 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 chime and the chime strobe appliances shall be designed for indoor surface or flush mounting. The chime and chime strobe shall incorporate a chime mounting plate with a grille cover which is secured with two screws for a level, aesthetic finish and shall mount to standard electrical hardware requiring no additional trimplate or adapter.

All chime and chime strobe appliances shall be backward compatible.



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