

Series CH

Chimes and Chime Strobes



Audio/Visual Devices

General

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-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 15/75 candela or Wheelock patented MCW multi-candela strobe with field-selectable candela settings of 15/30/75/110 cd or the high-intensity MCWH strobe with field-selectable 135/185 cd.

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 AWG to 18 AWG wires at each terminal. Inputs are polarized for compatibility with industry standard reverse-polarity supervision.

Features

- Various models comply with UL Standards 1971 and 464. Check listings and approvals information.
- ADA/NFPA/UFC/ANSI compliant.
- Complies with OSHA 29 Part 1910.165.
- Wall-mount models are available with field-selectable candela settings of 15/30/75/110 cd or 135/185 cd (multi-candela models) or 1575 cd (single-candela model).
- Ceiling-mount models are available with field-selectable candela settings of 15/30/75/95 cd or 115/177 cd (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.

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**Series CH70
Chime**

3468ch90.jpg



**Series CH90
Chime**

3468ch70.jpg



**Series CH70
Chime Strobe**

3468ch90.jpg



**Series CH90
Chime Strobe**

- Adjustable volume and tone control.
- Single-stroke or vibrating operation.
- Fast installation with IN/OUT screw terminals using 12 AWG to 18 AWG wires.

Note that all CAUTIONS and WARNINGS are identified with a triangular exclamation point (!) 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.COOPERWHELOCK.COM OR CONTACT COOPER WHELOCK 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.”

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 A maximum with filtered DC input (0.140 A with V_{RMS} input voltage) with a time duration of 100 milliseconds.

Application Notes for Current Table

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

CHIME dBA RATINGS

Sound level for CH70/CH90 is 83 dBA @ 10 ft (3.048 m) anechoic room; dBA in a 10 ft (3.048 m) reverberant room is 52 dBA minimum to 58 dBA maximum.

Average RMS Current

CH70, CH90 Chimes	Chime Current	CH70 Strobe Current: Wall Mount							CH90 Strobe Current: Ceiling Mount					
		241575W	24MCW				24MCWH		24MCC				24MCCH	
cd:		1575	15	30	75	110	135	185	15	30	75	95	115	177
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

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

Specifications and Ordering Information

Model Number	Nom.V	Strobe Candela	Mount: Wall or Ceiling	Sync Strobe w/ SM, DSM, or PS-24-8MC	Mounting Options
CH70-24MCW-FR	24 VDC	15/30/75/110	W	yes	L, O, P, Q, R, U, Y
CH70-24MCW-FW	24 VDC	15/30/75/110	W	yes	L, O, P, Q, R, U, Y
CH70-241575W-FR	24 VDC	15 (75 on axis)	W	yes	L, O, P, Q, R, U, Y
CH90-24MCC-FW	24 VDC	15/30/75/95	C	yes	Q, U, V
CH70-24-R	24 VDC	N/A	W or C	no	L, O, P, Q, R, U, Y
CH90-24-W	24 VDC	N/A	W or C	no	Q, U, V

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 AWG to 18 AWG wire sizes.

The strobe portion of the appliance shall produce a flash rate of one 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 field-selectable settings and shall be rated per UL Standard 1971 at: 15/30/75/110 cd or 135/185 cd for wall-mount models and 15/30/75/95 cd or 115/177 cd for ceiling-mount models. 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 Stan-

dard 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.

Agency Listings and Approvals

The listings and approvals below apply to the Wheelock Series CH Chimes and Chime Strobes. 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** Listed: file S5391.
- **CSFM** approved: file 7125-10785:185.
- **FM** approved.
- **MEA** approved: file 151-92-E.
- **BFP** approved (*except CH90-24MCC-FW*).

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