

# Wheelock CH chimes and chime strobes, version 2



## Description

The Wheelock CH chimes and chime strobes by Eaton 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 1 Hz, 2 Hz, Coded, or Temporal 3 (T3) with Anechoic sound levels adjustable up to 80 dB and tone frequency of 890 Hz.

Strobe options for wall mount models include 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 the CH chime strobes may be synchronized when used in conjunction with the Wheelock, DSM Sync Modules, Wheelock Power Supplies or other manufacturers panels incorporating the Wheelock Patented Sync Protocol. The chime may also be synchronized, using the same equipment on the Temporal Code (T3) setting. 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 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.

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**Features**

- Approvals
  - UL Standard 1971, UL Standard 464, ULC-S525, ULC-S526, and California State Fire Marshal (CSFM). See approvals by model in Specifications and Ordering Information
  - ADA/NFPA/UFC/ANSI compliant
  - Complies with OSHA 29 Part 1910.165
- Field Selectable Candela
  - Wall mount models: Field selectable candela settings of 15/30/75/110 cd or 135/185 cd (multi-candela models)
  - Ceiling mount models: Field selectable candela settings of 15/30/75/95 cd or 115/177 cd (multi-candela models)
- Low current draw to reduce power consumption and wiring costs
- 24 VDC with wide UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage
- Synchronize using the Wheelock Sync Modules or panels with built-in Wheelock Patented Sync Protocol
- Adjustable Volume and 890 Hz preset tone
- Operation modes: 1 Hz, 2 Hz, Coded, or Temporal 3 (T3)
- Fast Installation with IN/OUT screw terminals using #12 to #18 AWG wires

**Note:** Please read these specifications and associated installation instructions, before using, specifying, or installing this product. Visit [Eaton.com/massnotification](http://Eaton.com/massnotification) for current installation instructions.

**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 1971.
- The chimes are factory set to Temporal 3 (T3). This can be changed to 1 Hz, 2 Hz, or Coded with switch 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 on 1 Hz, 2 Hz, or T3 setting. **SYNCHRONIZED OPERATION:** Chime may be synchronized using Temporal Code 3 (T3) setting and Wheelock Sync Protocol from DSM or panel.
- The volume control has 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.

**Drawings**

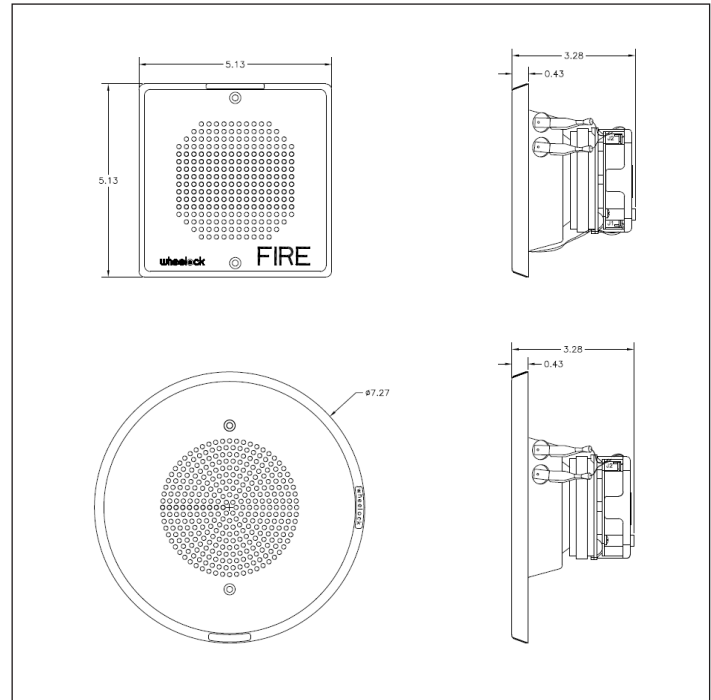


Figure 1. CH chimes - Front & Side Views

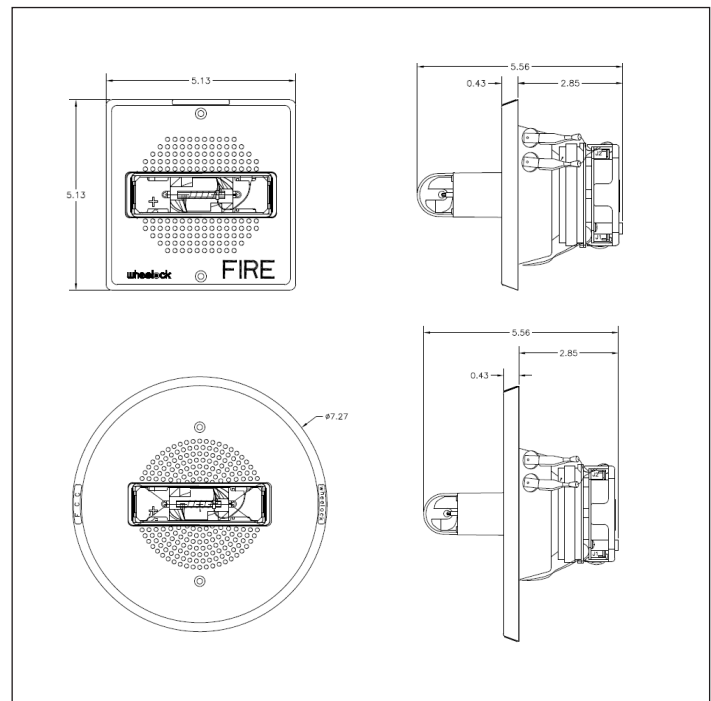


Figure 2. CH chime strobes - Front & Side Views

**Table 1. Maximum RMS Current (DC input voltage)**

Model	Chime Current	UL/ULC Max Current ①								
		15	30	75	95	110	115	135	177	185
CH70-24MCW	0.022	0.060	0.092	0.165		0.220		0.195		0.270
CH70-24MCWH	0.022							0.300		0.420
CH90-24MCW	0.022	0.065	0.105	0.189	0.249					
CH90-24MCWH	0.022						0.300		0.420	

**Table 2. Chime dBA Ratings**

Model	Sound Level	Peak dBA @ 10 ft. anechoic		dBA @ 10 ft reverberant	
		MIN	MAX	MIN	MAX
CH70 Chime	80	51	68		
CH90 Chime	80	51	68		
CH70 Chime Strobe	78	51	68		
CH90 Chime Strobe	78	51	68		

**Table 3. Specification & Ordering Information**

Model	Order #	Strobe Candela	Red	White	Strobe Sync w/DSM or Wheelock Power Supplies	Wall	Ceiling	Mounting Options ②	Approvals		
									UL	ULC	CSFM
Chime											
CH70-24-R	7825	-	X	-	-	X	X	L,O,P,Q,R,U,Y	X	X	X
CH70-24-W	7827	-	-	X	-	X	X	L,O,P,Q,R,U,Y	X	X	X
CH90-24-W	7826	-	-	X	-	X	X	Q,U,V	X	X	X
CH90-24-R	7828	-	X	-	-	X	X	Q,U,V	X	X	X
Chime Strobes											
CH70-24MCW-FR	9018	15/30/75/110	X	-	X	X	-	L,O,P,Q,R,U,Y	X	X	X
CH70-24MCW-FW	9019	15/30/75/110	-	X	X	X	-	L,O,P,Q,R,U,Y	X	X	X
CH70-24MCWH-FR	9083	135/185	X	-	X	X	-	L,O,P,Q,R,U,Y	X	X	X
CH70-24MCWH-FW	9084	135/185	-	X	X	X	-	L,O,P,Q,R,U,Y	X	X	X
CH90-24MCC-FW	3168	15/30/75/95	-	X	X	-	X	Q,U,V	X	X	X
CH90-24MCC-FR	3167	15/30/75/95	X	-	X	-	X	Q,U,V	X	X	X
CH90-24MCCH-FW	3110	115/177	-	X	X	-	X	Q,U,V	X	X	X

**Table 4. Specifications**

Physical	
Material	Red or white textured UV stabilized, colored impregnated engineered plastic. Exceeds 94V-0 UL flammability rating.
Weight	CH70 Chime: 1.37 lbs (0.62 kg); CH70 Chime Strobe 1.63 lbs (0.74 kg); CH90 Chime Strobe 1.77 lbs (0.08 kg)
Lens	Sabic Lexan 943A
Dimensions	CH70 Chime: 5.13" W x 5.13" H x 3.15"D; CH70 Chime Strobe: 5.13" W x 5.13" H x 5.24"D; CH90 Chime: 7.27" Diameter 0.43" D; CH90 Chime Strobe: 7.27", Diameter 2.68" D
Operating Temperature	Indoor: 33.8°F to 120.2°F (0°C to 49°C) and maximum humidity of 93%
Wire Connections	#12 through #18 AWG Wires
Power & General	
Operating voltage	16 - 33V (DC or FWR)
Strobe Output Rating	UL 1971
Strobe Flash Rate	Strobes are designed to flash at 1 flash per second
Synchronization Models	Strobes and T3 chime can be synchronized with Wheelock's DSM Sync Modules, Power Supplies or SAFEPATH products, using Wheelock patented sync protocol

① RMS current ratings are per UL maximum 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.

② For information on mounting options, refer to specification sheet TD450028EN.

## Architects and Engineers Specifications

The chime appliances shall be Wheelock CH Chimes and the chime strobe appliances shall be Wheelock 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.

All chimes shall use solid state components and shall provide field selectable 1 Hz, 2 Hz, Coded, or Temporal 3 (T3) with volume control. CH chimes models shall have a peak Anechoic sound output of 80 dB at 10 feet and a frequency range of 890 Hz. CH chime strobes shall have a peak Anechoic sound output of 78 dB at 10 feet. 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.

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

When synchronization is required, the strobe portion of the appliance shall be compatible with Wheelock DSM Sync Modules, Wheelock Power Supplies or other manufacturers panels with built-in Wheelock 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.

UL, ULC, CSFM, FCC.



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