



Helping People Take Action™

SPEC1FIRE™

A Family of Multi-Candela AppliancesSM

Description:

Wheelock's Series CH70 Multi-Candela Chime Strobes and Series CH Chimes 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. 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 standard reverse polarity type supervision.

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

The Series CH70 Multi-Candela Chime Strobes incorporate the low current, zero inrush, Series RSS Multi-Candela Strobe with field selectable settings of: 15, 30, 75 or 110 cd.

The Series CH70 Multi-Candela Chime Strobes are UL Listed for indoor, wall mount applications under Standard 1971 (Signaling Devices for the Hearing Impaired) and Standard 464 (Audible Signal Appliances).

The strobe portion of the Multi-Candela Chime Strobes may be synchronized when used in conjunction with the SM, DSM Sync Modules or the PS-12/24-8 Power Supply with Wheelock's Patented Sync Protocol.

SERIES CH70 MULTI-CANDELA CHIME STROBE APPLIANCES & SERIES CH CHIMES



SERIES CH70 Chime Strobe w/ COVER ATTACHED



SERIES CH70 Chime w/ COVER ATTACHED



SERIES CH70 Chime Strobe COVER PLATE



SERIES CH70 Chime Strobe Mounting PLATE

Features:

- Approvals include:UL 1971, UL 464, New York City (MEA) California State Fire Marshall (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 (Chime Strobe Models).
- Low current draw with temperature compensation to reduce power consumption and wiring costs.
- Strobes produce 1 flash per second over the regulated input voltage range.
- Strobes operate at 24 VDC with wide New UL "Regulated Input Voltage" of 16-33VDC using filtered (DC) or unfiltered FWR voltage.
- Wall Mount
- Strobe Synchronization with Wheelock SM, DSM Sync Modules or PS-12/24-8 Power Supply with Wheelock's built-in Patented sync protocol.
- Adjustable Volume and Tone Control
- Single Stroke or Vibrating Operation
- Compatible with Series CH90 Ceiling Mount Chimes, Chime Strobes and all Wheelock products.
- Fast Installation with IN / OUT screw terminals using #12 to #18 AWG wires.
- ZERO Inrush above Peak

Specifications and Ordering Information

Model Number	Order Code	Description	Mounting Options*
CH70-24MCW-FR	9018	Multi-Candela Chime Strobe / 24V / Wall Mount / Red	L,O,P,Q,V,Y
CH70-24MCW-FW	9019	Multi-Candela Chime Strobe / 24V / Wall Mount / White	L,O,P,Q,V,Y
CH70-24-R	7825	Chime / Square / Red	L,O,P,Q,V,Y
CH90-24-W	7826	Chime / Round / White	L,O,P,Q,V,Y

*Refer to Data Sheet S7000 for Mounting Options.

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 CH-70 Multi-Candela Chime 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 CH Chimes are listed under UL 464 for audible signal appliances.

“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 VoltageRange”

Model	Nominal Voltage VDC/VRMS	Regulated Input Voltage Range VDC/FWR#	Strobe Candela (CD)
CH70-24MCW	24	16.0-33.0	15 / 30 / 75 / 110

Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.067/.087	.108/.128	.209/.229	.275/.295
24.0 VDC	.047/.067	.081/.101	.128/.148	.166/.186
33.0 VDC	.040/.060	.062/.082	.092/.112	.128/.148

Note: Inrush current is less than Rated Peak Current
 *Current Ratings per actual Wheelock Production Testing @ 16, 24 and 33 VDC

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		

CH Series	Model Number	Anechoic Peak dBA @ 10 ft.	dBA @ 10 ft. Reverberant	
			Min.	Max.
24 VDC Chime Strobe	CH70-24MCW-FR	83	52	58
	CH90-2475C-FW	83	52	58
	CH90-24100C-FW	83	52	58
	CH70-24-R	83	52	58
	CH90-24-W	83	52	58

##Series SM and DSM Sync Module circuits are rated for 3.0 amperes each at @ 24 VDC.

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.

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 160ms “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 appliance 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.

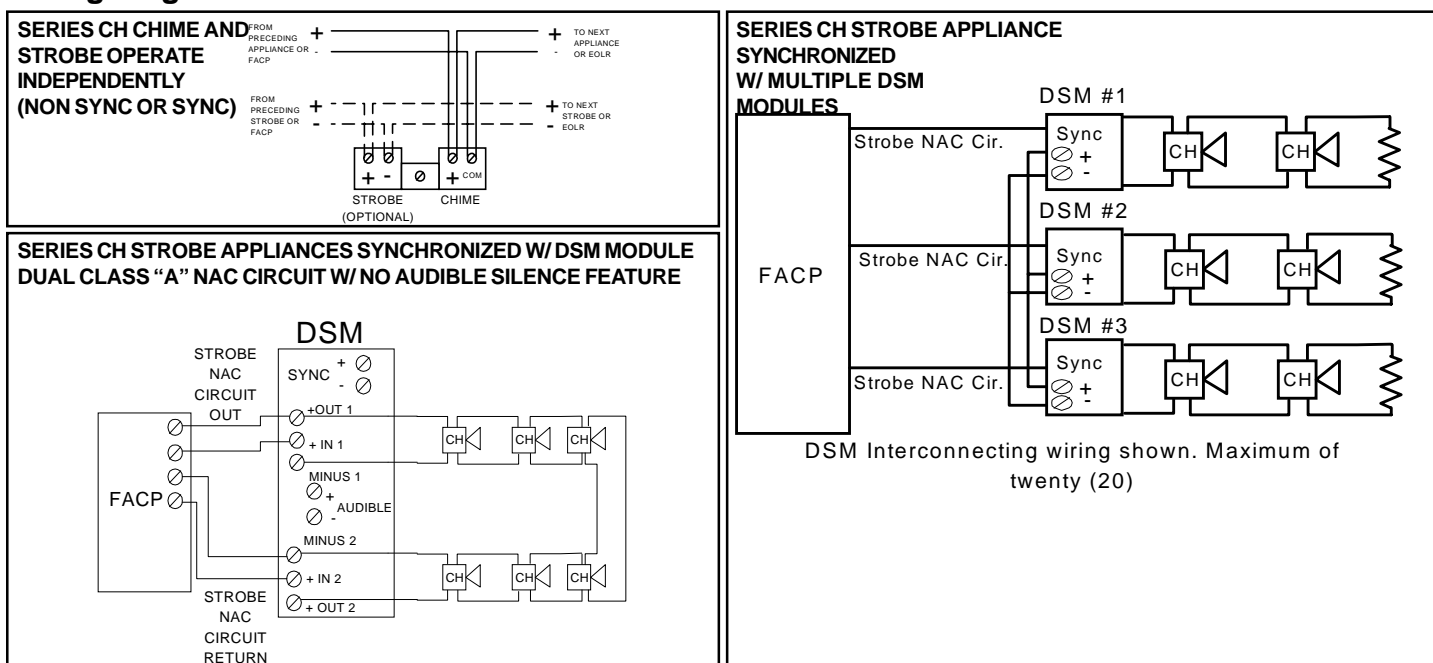
Series CH70 Multi-Candela / CH90 / CH70 Quick Reference Guide

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
CH70-24MCW-FR	X		X	X	15/30/75/110	X	X	
CH70-24MCW-FW	X		X	X	15/30/75/110	X		X
CH90-2475C-FW		X	X	X	75	X		X
CH90-24100C-FW		X	X	X	100	X		X
CH70-24-R	X	X	X				X	
CH90-24-W	X	X	X					X

▲ WARNING: CONTACT WHELOCK FOR THE CURRENT “INSTALLATION INSTRUCTIONS” (P83932) 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.**
- **THE VOLTAGE APPLIED TO THESE PRODUCTS MUST BE WITHIN THEIR REGULATED INPUT VOLTAGE RANGE.**
- **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.**
- **INSTALLATION OF 110 CANDELA STROBE PRODUCTS IN SLEEPING AREAS.**
- **INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.**
- **USE STROBES ONLY ON CIRCUITS WITH CONTINUOUSLY APPLIED OPERATING VOLTAGE. DO NOT USE STROBES 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.**
- **ALL CHIME AND CHIME STROBE APPLIANCES CONFORM TO UL 464 IN THE PRIVATE MODE ONLY. THESE APPLIANCES ARE NOT APPROVED FOR USE IN THE PUBLIC MODE PER NFPA-72.**

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 chime appliances shall be Wheelock Series CH Chimes and the Chime Strobe Appliances shall be Wheelock Series CH70 Multi-Candela 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 Signaling 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 sound output of 83 dBA at 10 feet and a listed frequency response rate 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 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 strobe 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. When synchronization is required, the strobe portion of the appliance shall be compatible with Wheelock's SM, DSM sync modules or 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 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.

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.

NATIONAL SALES OFFICE

800-631-2148

Canada **800-397-5777**

E-Mail: Info@wheelockinc.com

<http://www.wheelockinc.com>

3 YEAR WARRANTY



Distributed By:

273 BRANCHPORT AVENUE • LONG BRANCH, NJ 07740 • TEL: 732-222-6880 • FAX: 732-222-2588

S5001 11/00