

Series E70H & E90H

High Fidelity Speakers and Speaker Strobes



E70H



E90H



E90H



E70H

Speaker Strobes

Speakers

Description

The Wheelock Series E70H Wall and E90H Ceiling Speakers and Speaker Strobes are designed for high fidelity sound output for indoor applications. With the widest frequency response range (300 to 8000 Hz) in the industry, the Series EH features leading intelligibility with crisp, clear voice messages and tone signaling, ideal for emergency communications, mass notification, voice evacuation and fire alarm.

Providing a sleek aesthetic appearance, the Wheelock Series EH High Fidelity Speakers and Speaker Strobes feature dual voltage (25/70 VRMS) capability and field selectable taps from 1/8 to 2 watts. The low profile design incorporates a speaker mounting plate for faster and easier installation. Each model has a built-in level adjustment feature and an aesthetic two (2) screw grille cover.

For visible signaling to meet the hearing impaired, the Series EH Speaker Strobe models incorporate the Low Current draw Series RSS Strobes.

Strobe options for wall mount models include 1575 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 EH Speaker 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. Wheelock synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy.

Series EH Speaker Strobes are UL Listed for indoor use under Standard 1971 (Signaling Devices for the Hearing-Impaired) and Standard 1480 (Speaker Appliances), and ULC listed under CAN/ULC-S526 (Visual-audible Signal Appliances, Fire Alarm) and under CAN/ULC-S541 (Speakers, Fire Alarm). All inputs employ IN/OUT wiring terminals for fast installation using #12 to #18 AWG wiring.

Color options for the Series EH Speakers and Speaker Strobes are red and white.

Features

- **Approvals and Compliance**
 - UL 1971, UL 1480, ULC-S526, ULC-S541
 - California State Fire Marshal (CSFM)
 - ADA/NFPA/ANSI compliant
 - Complies with OSHA 29 Part 1910.165
- **High Fidelity Sound Output**
 - Efficient design for high intelligibility at minimum wattage across a frequency range of 300 to 8000 HZ
- **Field Selectable Taps**
 - 25 or 70 VRMS operation
 - 1/8 watt up to 2 watts
- **6 Field Selectable Multi-candela Settings**
 - 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)
- **Mounting**
 - Low profile design incorporates speaker mounting plate for faster and easier installation
 - Built-in level adjustment feature and an aesthetic two (2) screw grille cover.
 - Quick installation with IN/OUT screw terminals using #12 to #18 AWG wires
 - 4" square backbox prevents wire damage and nicks
- **Compatibility and Requirements**
 - 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 DSM, Wheelock Power Supplies or other manufacturers panels, incorporating the Wheelock Patented Sync Protocol



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.COOPERNOTIFICATION.COM OR CONTACT COOPER NOTIFICATION 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 1971.

Table 1: Maximum RMS Current - Series E70H

E70H Speaker Strobes	E70H Strobe Current - Wall Mount						
	24MCW				24MCWH		241575W
	15cd	30cd	75cd	110cd	135cd	185cd	15/75cd
16-33 vdc	0.060	0.092	0.165	0.220	0.300	0.420	0.090

Table 2: Maximum RMS Current - Series E90H

E90H Speaker Strobes	E90H Strobe Current - Ceiling Mount					
	24MCC				24MCCH	
	15cd	30cd	75cd	95cd	115cd	177cd
16-33 vdc	0.065	0.105	0.189	0.249	0.300	0.420

Table 3: EH UL Reverberant dBA @ 10 Feet**

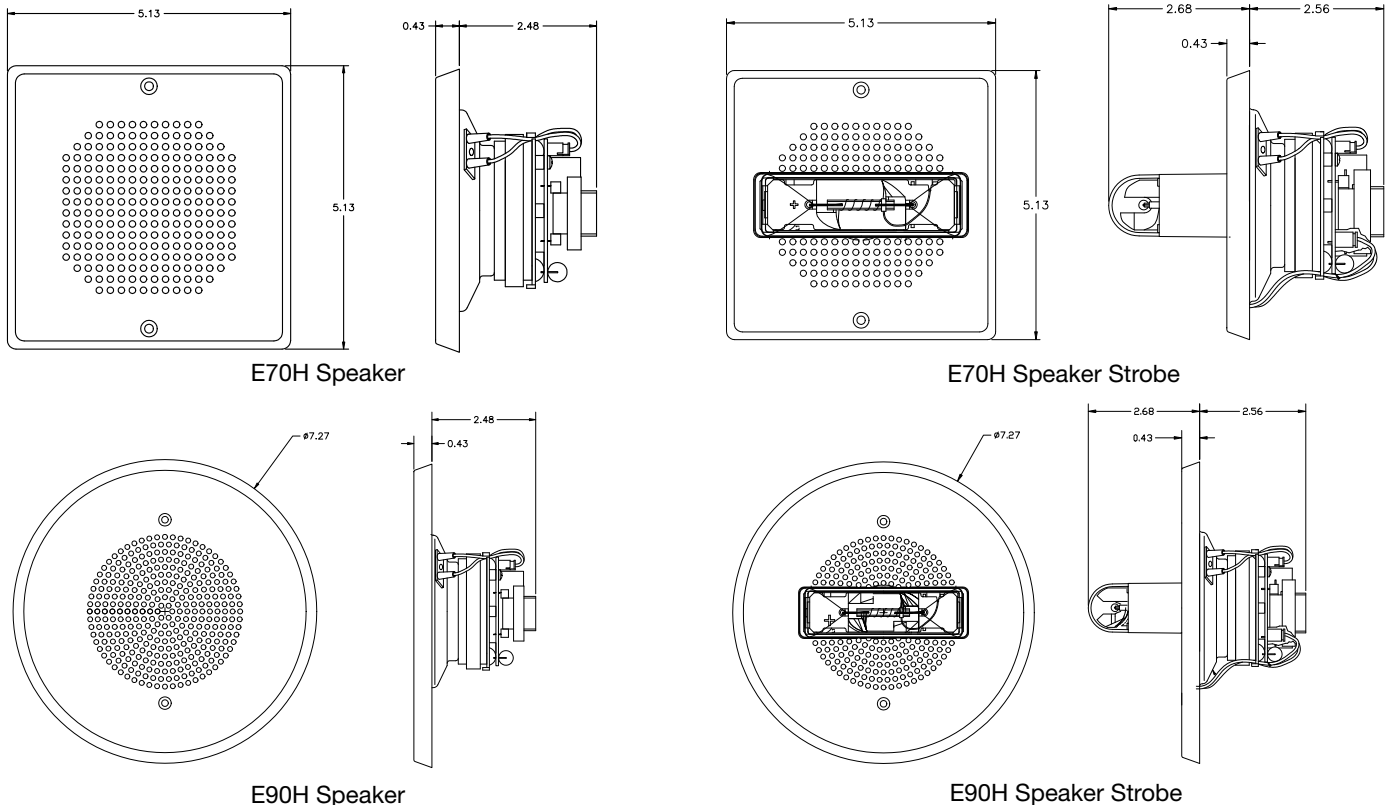
Watts	1/8***	1/4	1/2	1	2
E70H Speaker	72	75	78	81	83
E90H Speaker	72	75	78	81	82
E70H Speaker Strobe	71	75	78	81	83
E90H Speaker Strobe	74	77	80	82	85

* 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.

**dBA ratings are based on testing under UL Standard 1480.

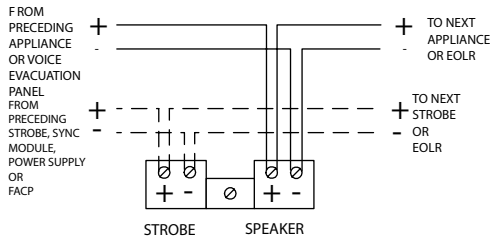
*** 1/8 watt tap is for private mode only.

Speaker/Speaker Strobe Diagrams with Dimensions

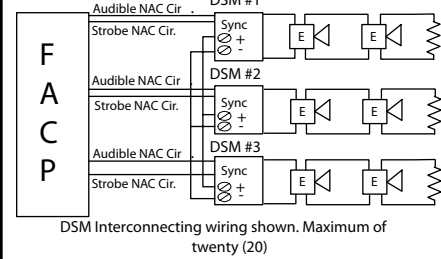


Wiring Diagrams#

SERIES EH SPEAKER & STROBE OPERATE INDEPENDENTLY (NON-SYNC OR SYNC)

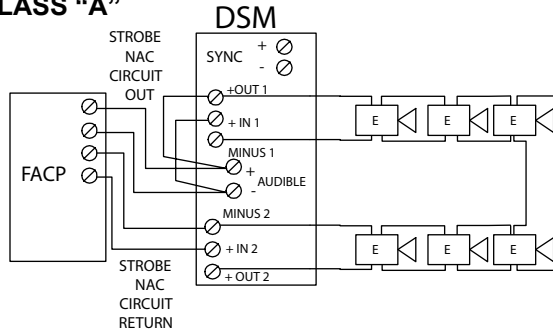


SERIES EH SPEAKER STROBES SYNCHRONIZED WITH MULTIPLE DSM MODULES

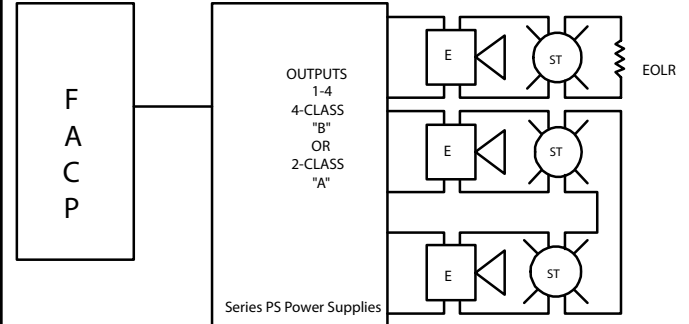


Note: Figure shows interconnection to strobe through sync module. Speaker portion requires 2 separate conductors to FACP.

SERIES EH SPEAKER STROBE APPLIANCES SYNCHRONIZED WITH DSM MODULE SINGLE CLASS "A"



SERIES EH SPEAKER STROBE APPLIANCES & RSS STROBES SYNCHRONIZED WITH WHEELLOCK POWER SUPPLIES



For wiring information on the Wheellock power supplies, please refer to Data Sheet #S9100.

For detail using DSM Sync Module refer to Data Sheet S3000 or Installation Instructions P83177 for DSM. For wiring information on the power supplies refer to Installation Instructions P84905.

Specifications and Ordering Information

Model	Order Code	Wall Mount	Ceiling Mount	Strobe Sync w/ DSM or Wheellock Power Supplies	Strobe Candela	Model Color RED	Model Color White	Mounting Options	Agency Approvals		
									UL	ULC	CSFM
E70H-R	9865	X	X	-	-	X	-	P, Q	X	X	X
E70H-W	9866	X	X	-	-	-	X	P, Q	X	X	X
E70H-24MCW-FR	0183	X	-	X	15/30/75/110	X	-	P, Q	X	X	X
E70H-24MCW-FW	0184	X	-	X	15/30/75/110	-	X	P, Q	X	X	X
E70H-24MCWH-FR	0185	X	-	X	135/185	X	-	P, Q	X	X	X
E70H-24MCWH-FW	0186	X	-	X	135/185	-	X	P, Q	X	X	X
E70H-241575W-FR		X		X	15/75	X		P, Q	X	X	X
E70H-241575W-FW		X		X	15/75		X	P, Q	X	X	X
E90H-24MCC-FW	0192	-	X	X	15/30/75/95	-	X	P, Q	X	X	X
E90H-24MCC-FR	0191	-	X	X	15/30/75/95	X	-	P, Q	X	X	X
E90H-W	9876	X	X	-	-	-	X	P, Q	X	X	X
E90H-R	9875	X	X	-	-	X	-	P, Q	X	X	X
E90H-24MCCH-FW	0193	-	X	X	115/177	-	X	P, Q	X	X	X
E90H-24MCCH-FR	0194	-	X	X	115/177	X	-	P, Q	X	X	X

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 speaker appliances shall be Wheelock Series EH High Fidelity Speakers and the High Fidelity Speaker Strobe appliances shall be Wheelock Series EH Speaker Strobes or approved equals. The speakers shall be UL Listed under UL 1480 for Fire Protective Service and speakers equipped with strobes shall be listed under UL 1971 for Emergency Devices for the Hearing-Impaired. In addition, the strobes shall be certified to meet the requirements of FCC Part 15, Class A.

All speakers shall be designed for a field selectable input of either 25 or 70 VRMS, with selectable power taps from 1/8 watt to 2 watts. All models shall have listed sound output of up to 87 dB at 10 feet and a listed frequency response of 300 to 8000 Hz. The speaker shall also incorporate a sealed back construction. 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. The strobe shall be of low current design. Where Multi-Candela Speaker Strobes are specified, the strobe intensity shall have field selectable settings and shall be rated per UL 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. Models with 1575 candela shall also be offered for wall-mount applications.

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 incorporating the 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 speaker and speaker strobe appliances shall be designed for indoor surface or flush mounting. The speaker and speaker strobe shall incorporate a speaker 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.

The finish of the Series EH speakers and strobe speakers shall be red or white.

All speaker and speaker strobe appliances shall be backward compatible.

UL 1971, UL 1480, ULC-S526, ULC-S541, CSFM, FCC.



WE ENCOURAGE AND SUPPORT NICET CERTIFICATION
3 YEAR WARRANTY
E70H/E90H 9/12

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