

# Wheelock E50H & E60H High Fidelity Speakers & Speaker Strobes



## Description

The Wheelock E50H Wall and E60H 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 EH product line features leading intelligibility with crisp, clear voice messages and tone signaling, ideal for emergency communications, mass notification, and voice evacuation.

Providing a sleek aesthetic appearance, the wall and ceiling appliances feature dual voltage (25/70 VRMS) capability and field-selectable taps from 1/8 to 2 watts. For faster and easier installation, the low profile design incorporates a speaker mounting plate, and each model has a built-in level adjustment feature and snap-on cover with no visible mounting screws.

For visible signaling to meet the hearing impaired, the Series EH Speaker Strobe models incorporate the low current draw of the RSS Strobes.

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 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.

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## Features

- High Fidelity Sound Output
  - Efficient design for high intelligibility at minimum wattage across a frequency range of 300 to 8000 HZ
- 6 Field Selectable Settings in 1 Device
  - 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)
- Field Selectable Taps
  - 1/8 watt up to 2 watts
  - 25 or 70 VRMS operation
- Easy-to-Install
  - Low profile design incorporates speaker mounting plate for faster and easier installation
  - Snap on grille cover with no visible mounting screws
  - Quick installation with IN/OUT screw terminals using #12 to #18 AWG wires
  - 4" square backbox prevents wire damage
  - Series E50H- No extension ring required
  - Series E60H- Optional Extender (E60 Ext) is available for mounting to 4" square backboxes
- Strobe Synchronization Components
  - Meet synchronizing standards with Wheelock's DSM Sync Modules, PS-6/8 Power Supplies or SAFEPATH products
- Compliance
  - UL 1971, UL 1480, ULC-S526, ULC-S541
  - Low frequency requirements of UL 464 (520 Hz) to meet NFPA's 520 Hz tone requirements for sleeping areas
  - California State Fire Marshal (CSFM)
  - ADA/NFPA/ANSI/OSHA
  - FCC Part 15, ICES

**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.

## Drawings

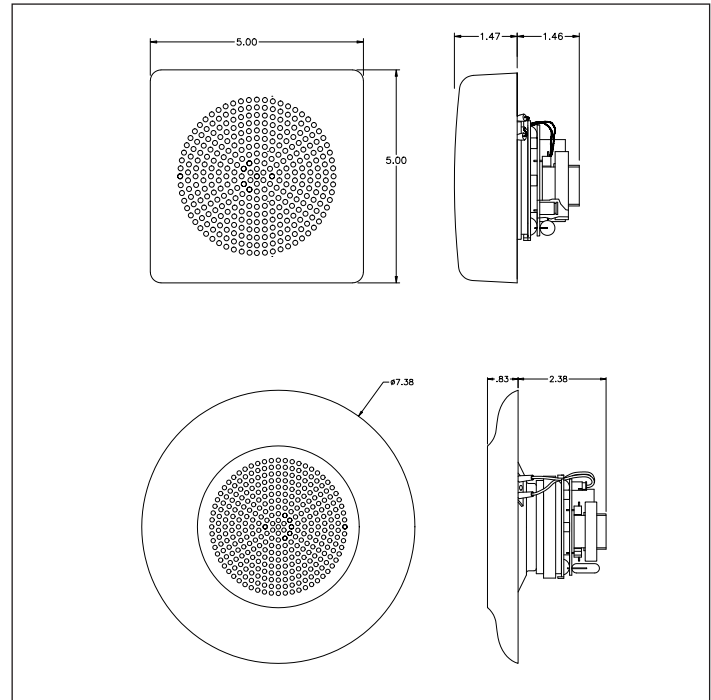


Figure 1. E50H (top) and E60H (bottom) Speakers - Front & Side Views

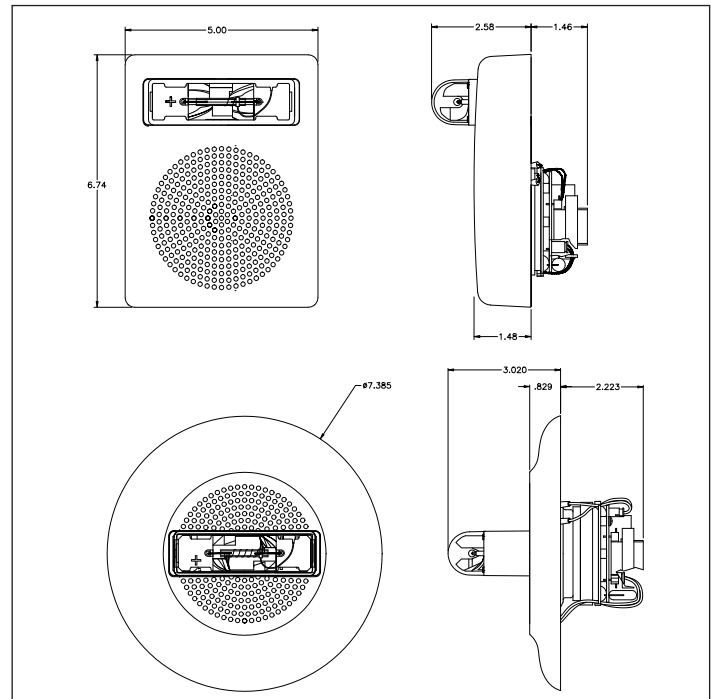


Figure 2. E50H (top) and E60H (bottom) Speaker Strobes - Front & Side Views

## 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

Model	Regulated Voltage Range VDC	UL/ULC Max Current ①								
		24MCW/24MCC 241575W				24MCWH/24MCCH				
		15	30	75	95	110	115	135	177	185
E50H	16.0-33.0	0.060	0.092	0.165		0.220		0.300		0.420
E60H	16.0-33.0	0.060	0.105	0.189	0.249		0.300		0.420	

Table 2. UL Listed Models and Ratings

Model	UL Reverberant dBA at 10 Feet ②				
	1/8 watts ③	1/4 watts	1/2 watts	1 watts	2 watts
E50H Speaker Strobe	73	76	79	82	84
E60H Speaker	74	77	80	83	85
E60H Speaker Strobe	74	77	80	82	85

Table 3. Specification & Ordering Information

Model	Order #	Strobe Candela	Red	White	Lettering	Wall	Ceiling	Mounting Options	Sync w/ DSM or Wheelock Power Supplies
<b>Speakers</b>									
E50H-R	9863		X		No Lettering	X		E, AA	
E50H-W	9864			X	No Lettering	X		E, AA	
E50H-ALW	3577			X	ALERT	X		E, AA	
E60H-R	9867		X		No Lettering		X	E	
E60H-W	9874			X	No Lettering		X	E	
E60H-ALW	3554			X	ALERT		X	E	
<b>Speaker Strobes</b>									
E50H-24MCW-FR	0092	15/30/75/110	X		FIRE	X		E, BB	X
E50H-24MCW-FW	0093	15/30/75/110		X	FIRE	X		E, BB	X
E50H-24MCW-ALR	3559	15/30/75/110	X		ALERT	X		E, BB	X
E50H-24MCW-ALW	3560	15/30/75/110		X	ALERT	X		E, BB	X
E50H-24MCW-NW	3575	15/30/75/110		X	No Lettering	X		E, BB	X
E50H-24MCWH-FR	0094	135/185	X		FIRE	X		E, BB	X
E50H-24MCWH-FW	0097	135/185		X	FIRE	X		E, BB	X
E50H-24MCWH-ALW	3561	135/185		X	ALERT	X		E, BB	X
E60H-24MCC-FR	0187	15/30/75/95	X		FIRE		X	E	X
E60H-24MCC-FW	0188	15/30/75/95		X	FIRE		X	E	X
E60H-24MCC-NW	0950	15/30/75/95		X	No Lettering		X	E	X
E60H-24MCC-ALW	3555	15/30/75/95		X	ALERT		X	E	X
E60H-24MCCH-FR	0189	115/177	X		FIRE		X	E	X
E60H-24MCCH-FW	0190	115/177		X	FIRE		X	E	X
<b>Extender Ring</b>									
E60EXT-R ④	3578		X						
E60EXT-W ④	3757			X					

Table 4. Specifications

<b>Physical</b>	
Material	Red or white textured UV stabilized, colored impregnated engineered plastic. Exceeds 94V-0 UL flammability rating
Weight	E50H Speaker: x.xx lbs (xxg); E50H Speaker Strobe x.xx lbs (xxg); E60H Speaker: x.xx lbs (xxg); E60H Speaker Strobe x.xx lbs (xxg);
Dimensions	E50H Speaker: 5" W x 5" H x 1.47"D; E50H Speaker Strobe: 5" W x 6.74" H x 2.58"D; E60H Speaker: 7.38" Diameter x .83" D; E60H Speaker Strobe: 7.38" Diameter x 3.02" D
Operating Temperature	Indoor: 33.8°F to 120.2°F (0°C to 49°C) and maximum humidity of 93%
<b>Mounting &amp; Wire Connections</b>	
Mounting (indoor only)	4" square backbox prevents wire damage; Series E50H - No extension ring required; Series E60H - Optional Extender (E60 Ext) is available for mounting to 4" square backboxes
Wire Connections	#12 through #18 AWG
<b>Power &amp; General</b>	
Operating voltage	25/70 VRMS
Strobe Output Rating	UL 1971, ULC S526
Strobe Flash Rate	Strobes are designed to flash at 1 flash per second
Synchronization Models	Strobes can be synchronized with Wheelock's DSM Sync Modules, Power Supplies or SAFEPATH products, using Wheelock patented sync protocol
Frequency Range	300 Hz to 8000 Hz

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.

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

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

d E60 EXT is an attractive extender ring that mounts behind the speaker to permit mounting to a 4" square x 2 1/8" deep electrical box without need for an extension ring on the box.

## Architects and Engineers Specifications

**Wheelock E50H** - The speaker appliances shall be Wheelock E50H High Fidelity Speakers, and the High Fidelity Speaker Strobe appliances shall be Wheelock E50H 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 dBA at 10 feet and a listed frequency response of 300 to 8000 Hz. The speaker shall 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 and 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 mounting. The selector switch for selecting the candela shall be tamper resistant.

When synchronization is required, the strobe portion of the appliance shall be compatible with the Wheelock's DSM sync modules or Wheelock Power Supplies 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 speaker and speaker strobe appliances shall be designed for indoor flush mounting to 4" x 2-1/8" electrical boxes without need for an extension ring or surface mounting to Wheelock's E50SB or E50SSB surface boxes. The speaker and speaker strobe shall incorporate a speaker mounting plate with a snap-on grille cover. The finish of the Series E50H speakers and speakers strobes shall be white or red.

The speaker shall be listed to the low frequency requirements of UL 464 (520 Hz) to meet NFPA's 520 Hz tone requirements for sleeping areas.

**Wheelock E60H** - The speaker appliances shall be Wheelock E60H High Fidelity Speakers, and the High Fidelity Speaker Strobe appliances shall be Wheelock Series E60H 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 15/30/75/95cd or 115/177cd for ceiling mount. The selector switch for selecting the candela shall be tamper resistant. When synchronization is required, the strobe portion of the appliance shall be compatible with Wheelock DSM sync modules or the Wheelock Power Supplies 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 speaker and speaker strobe appliances shall be designed for indoor flush mounting. The speaker and speaker strobe shall incorporate a speaker mounting plate with a snap-on grille cover with no visible screws for a level, aesthetic finish and shall mount to standard electrical hardware. The finish of the Series E60H Speakers and Speaker Strobes shall be white or red. All speaker and speaker strobe appliances shall be backward compatible.

The speaker shall be listed to the low frequency requirements of UL 464 (520 Hz) to meet NFPA's 520 Hz tone requirements for sleeping areas.

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

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**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.



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