

# Wheelock E50 & E60 Speakers & Speaker Strobes



## Description

The Wheelock E50 Wall and E60 Ceiling Speakers and Speaker Strobes are designed for high efficiency sound output for indoor applications. The E product line features intelligible communications with crisp, clear voice messages and tone signaling, ideal for 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 E 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 E 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.

E Speaker Strobes are UL Listed for indoor use under Standard 1971 (Signaling Devices for the Hearing-Impaired) and Standard 1480 (Speaker Appliances). All inputs employ IN/OUT wiring terminals for fast installation using #12 to #18 AWG wiring.

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



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## Features

- Intelligible Communications
  - Efficient design for high intelligibility at minimum wattage across a frequency range of 400 to 4000 HZ
- Field Selectable Settings
  - Wall mount models are available with Field Selectable Candela Settings of 15/30/75/110cd or 135/185cd (Multi-Candela models)
  - 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
  - E50- No extension ring required
  - E60- Optional Extender (E60 Ext) is available for mounting to 4" square backboxes
- Strobe Synchronization Components
  - Meet synchronizing standards with Wheelock's DSM Sync Modules, Power Supplies or SAFEPATH products
- Compliance
  - UL 1971, UL 1480
  - 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

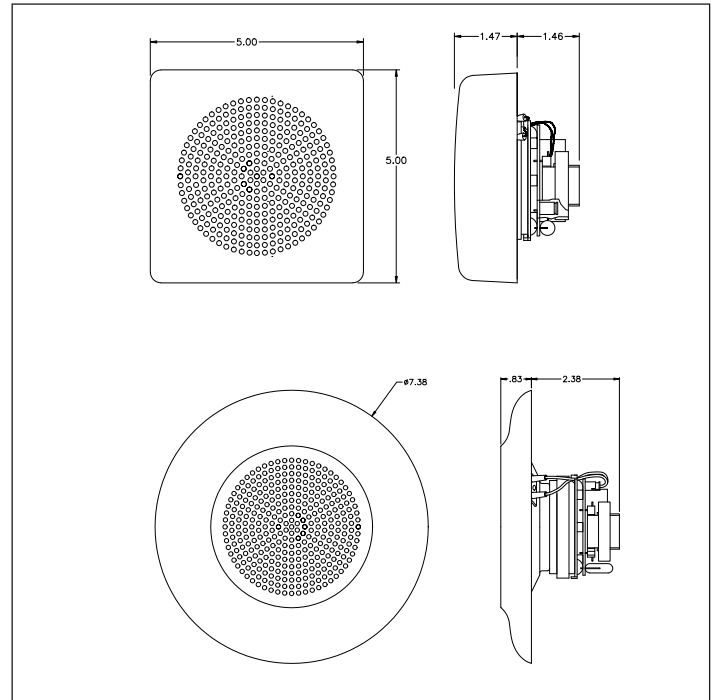


Figure 1. E50 (top) and E60 (bottom) Speakers - Front & Side Views

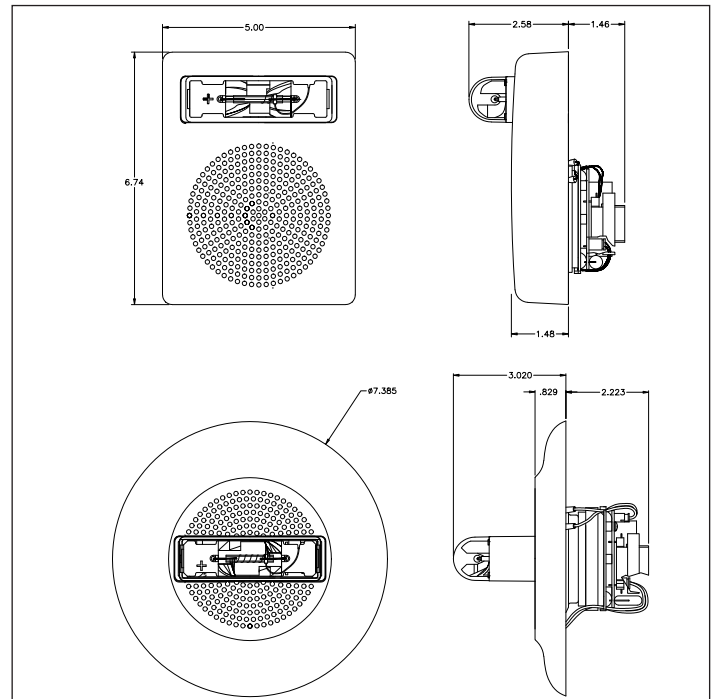


Figure 2. E50 (top) and E60 (bottom) Speaker Strobes - Front & Side Views

## 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 Max Current ①       |       |       |       |               |       |       |       |       |
|-------|-----------------------------|------------------------|-------|-------|-------|---------------|-------|-------|-------|-------|
|       |                             | 24MCW/24MCC<br>241575W |       |       |       | 24MCWH/24MCCH |       |       |       |       |
|       |                             | 15                     | 30    | 75    | 95    | 110           | 115   | 135   | 177   | 185   |
| E50   | 16.0-33.0                   | 0.060                  | 0.092 | 0.165 |       | 0.220         |       | 0.300 |       | 0.420 |
| E60   | 16.0-33.0                   | 0.065                  | 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<br>③                  | 1/4 watts | 1/2 watts | 1 watts | 2 watts |
| E50 Speaker Strobe | 77                              | 79.5      | 82.5      | 85      | 88      |
| E60 Speaker        | 77                              | 79.5      | 82.5      | 85      | 88      |
| E60 Speaker Strobe | 77                              | 79.5      | 82.5      | 85      | 88      |

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>        |         |                |     |       |              |      |         |                        |  |
| E50-R                  | 0222    |                | X   |       | No Lettering | X    | X       | E, O, P, Q, R, U, Y, A |  |
| E50-W                  | 0223    |                |     | X     | No Lettering | X    | X       | E, O, P, Q, R, U, Y, A |  |
| E60-R                  | 3746    |                | X   |       | No Lettering |      | X       | Q, U                   |  |
| E60-W                  | 3745    |                |     | X     | No Lettering |      | X       | Q, U                   |  |
| <b>Speaker Strobes</b> |         |                |     |       |              |      |         |                        |  |
| E50-24MCW-FR           | 0092    | 15/30/75/110   | X   |       | FIRE         | X    |         | E, BB                  | X                                      |
| E50-24MCW-FW           | 0093    | 15/30/75/110   |     | X     | FIRE         | X    |         | E, BB                  | X                                      |
| E50-24MCWH-FR          | 0094    | 135/185        | X   |       | FIRE         | X    |         | E, BB                  | X                                      |
| E50-24MCWH-FW          | 0097    | 135/185        |     | X     | FIRE         | X    |         | E, BB                  | X                                      |
| E60-24MCC-FR           | 3748    | 15/30/75/95    | X   |       | FIRE         |      | X       | Q, U, V                | X                                      |
| E60-24MCC-FW           | 3747    | 15/30/75/95    |     | X     | FIRE         |      | X       | Q, U, V                | X                                      |
| E60-24MCCH-FR          | 3750    | 115/177        | X   |       | FIRE         |      | X       | Q, U, V                | X                                      |
| E60-24MCCH-FW          | 3749    | 115/177        |     | X     | FIRE         |      | X       | Q, U, V                | 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                                 | E50 Speaker: 1.5 lbs (0.68 kg); E50 Speaker Strobe 1.6 lbs (0.73 kg); E60 Speaker: 1.6 lbs (0.73 kg); E60 Speaker Strobe 1.7 lbs (0.77 kg);  |
| Dimensions                             | E50 Speaker: 5" W x 5" H x 1.7" D; E50 Speaker Strobe: 5" W x 6.74" H x 2.58" D; E60 Speaker: 7.38" Diameter x .83" D; E60 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%  |
| Lens (material type)                   | GE Lexan 943 A   |
| <b>Mounting &amp; Wire Connections</b> |  |
| Mounting (indoor only)                 | 4" square backbox prevents wire damage; Series E50 No extension ring required; Series E60 Optional Extender (E60 Ext) is available for mounting to 4" square backboxes, E50 SSB, E50 SB for surface mount of E50 |
| Wire Connections                       | #12 through #18 AWG  |
| <b>Power &amp; General</b>             |  |
| Operating voltage                      | 25/70 VRMS   |
| Strobe Output Rating                   | UL 1971  |
| 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                        | 400 Hz to 4000 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 E50**- The speaker appliances shall be Wheelock E50 Speakers, and the Speaker Strobe appliances shall be Wheelock E50 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 400 to 4000 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 E50 speakers and speakers strobes shall be white or red.

UL 1971, UL 1480, CSFM, FCC.

**Wheelock E60** - The speaker appliances shall be Wheelock E60 Speakers, and the Speaker Strobe appliances shall be Wheelock Series E60 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 400 to 4000 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 E60 Speakers and Speaker Strobes shall be white or red. All speaker and speaker strobe appliances shall be backward compatible.

UL 1971, UL 1480, CSFM, FCC.

**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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