# Wheelock E Series

## Low-Profile Public Speakers and Speaker Strobes

NOTIFIER® by Honeywell

**Audio / Visual Devices**

## General

Wheelock Series E Low Profile Speakers and Speaker Strobes are designed for high efficiency sound output, with 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.

The Series E Speaker Strobe models incorporate the low current draw series RSS strobes.

Strobe options for wall mount models include 1575 or Wheelock's 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's 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.

Series E Speakers and Speaker Strobes provide high audio output with clear audibility and are designed to meet the critical needs of the life safety industry for effective emergency voice communications, tone signaling and visible signaling to alert the hearing impaired.

The strobe portion of all Series E Speaker Strobes may be synchronized when used in conjunction with the Wheelock SM, DSM Sync Modules or a power supply with patented Wheelock sync protocol. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy.

Series E Speaker Strobes are UL Listed for indoor use under Standard 1971 (Signaling Devices for the Hearing-Impaired) and Standard 1480 (Speaker Appliances), and use a Xenon flashtube with solid state circuitry enclosed in a rugged Lexan® lens to provide maximum reliability for effective visual signaling. All inputs are supervised and employ IN/OUT wiring terminals for fast installation using #12 to #18 AWG wiring.

Color options for the E Series Speakers and Speaker Strobes offered are colored red or white.

## Features

- ADA/NFPA/ANSI compliant
- Complies with OSHA 29 Part 1910.165
- 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)
- 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 SM, DSM or panels with built-in Wheelock patented synch protocol
- Field selectable taps for 25 or 70 VRMS operation from 1/8 watt up to 2 watts
- High efficiency design for maximum output at minimum wattage across a frequency range of 400 to 4000 HZ




**E70 Series Speaker Strobe**




**E90 Series Speaker Strobe**




**Multi-Candela Indicator(bottom of Strobe Lens)**

- Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires

## 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 Standard 1971.
- Series E Speaker Strobes and Series E Speakers are listed under UL Standard 1971 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 85%.
- "Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change UL used the terminology "Listed Voltage Range".

***NOTE:*** *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 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.*

## Specifications and Ordering Information

| MODEL | STROBE CANDELA | MODEL COLOR | WALL/ CEILING MOUNT | AGENCY APPROVALS | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | UL | MEA | CSFM | FM | BFP |
| E70-24MCW-FR | 15/30/75/110 | Red | Wall | X | X | X | * | X |
| E70-24MCW-FW | 15/30/75/110 | White | Wall | X | X | X | * | X |
| E70-241575W-FR | 15 (75 on Axis) | Red | Wall | X | X | X | * | X |
| E70-R | - | Red | Wall/Ceiling | X | X | X | * | X |
| E70-W | - | White | Wall/Ceiling | X | X | X | * | X |
| E70-24MCWH-FR | 135/185 | Red | Wall | X | * | * | * | * |
| E70-24MCWH-FW | 135/185 | White | Wall | X | * | * | * | * |
| E90-24MCC-FW | 15/30/75/95 | White | Ceiling | X | * | X | * | * |
| E90-W | - | White | Wall/Ceiling | X | X | X | * | X |
| E90-R | - | Red | Wall/Ceiling | X | X | X | * | X |
| E90-24MCCH-FW | 115/177 | White | Ceiling | X | * | * | * | * |

| E70/E90 Speaker Strobes | E-70 Strobe Current - Wall Mount | | | | | | | E90 Strobe Current - Ceiling Mount | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 241575W | 24MCW | | | | 24MCWH | | 24MCC | | | | 24MCCH | |
| | 1575cd | 15cd | 30cd | 75cd | 110cd | 135cd | 185cd | 15cd | 30cd | 75cd | 95cd | 115cd | 177cd |
| 16-33 VDC | 0.090 | 0.060 | 0.092 | 0.165 | 0.220 | 0.300 | 0.420 | 0.065 | 0.105 | 0.189 | 0.249 | 0.300 | 0.420 |

### UL Max Current*

*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.

| watts | 1/8 | 1/4 | 1/2 | 1 | 2 |
|---|---|---|---|---|---|
| E Speaker | 77 | 81 | 83 | 86 | 89 |
| E Speaker Strobe | 76 | 80 | 82 | 85 | 88 |

### E70/E90 UL Reverberant dBA @ 10 Feet **

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

## Architect and Engineer Specifications

The speaker appliances shall be Wheelock Series E Speakers and the speaker strobe appliances shall be Wheelock Series E Speaker Strobes or approved equals. The speakers shall be UL Listed under Standard 1480 for Fire Protective Service and speakers 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 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 and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens. 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 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. The 1575 candela strobe shall be specified when 15 candela UL Standard 1971 Listing with 75 candela on-axis is required (e.g. ADA compliance). When synchronization is required, the strobe portion of the appliance shall be compatible with Wheelock's SM, DSM sync modules or the power supply with built-in Patented Wheelock 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 E speakers and strobe speakers shall be white, red, or nickel plate.

All speaker and speaker strobe appliances shall be backward compatible.

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).

## Warning:

- 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.
- Adding, replacing or changing appliances or changing candela settings will affect 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 sources or fuses.
- The voltage applied to these products must be within their "regulated voltage range".
- 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 strobes 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.

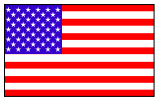
## Agency Listings and Approvals

- UL Listed: S2652 (Speakers); S2652 / S5391 (Strobe/Speakers)
- California State Fire Marshall: 7320-0785:134 (Speakers); 7125-0785:145 , 7125-0785:152 (Strob/Speakers)
- MEA: 151-92-E Vol. 21

FlashScan® is a registered trademark of Honeywell International Inc. Bayblend® is a registered trademark of Bayer Corporation.
©2009 by Honeywell International Inc. All rights reserved. Unauthorized use of this document is strictly prohibited.

ISO 9001 CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.



Made in the U.S. A.

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
www.notifier.com