



**SERIES S  
8" CEILING SPEAKERS &  
SPEAKER STROBES**

**Description**

Wheelock's Series S 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 8 watts.

The Series S Speaker Strobe models incorporate the Low Current draw Series RSS Strobes.

Strobe options for ceiling mount models include 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 8 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 S Speaker Strobes may be synchronized when used in conjunction with the Wheelock SM, DSM Sync Modules or Wheelock's PS-12/24-8CP and PS-12/24-8MP Power Supplies with Patented Sync Protocol. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy.

Series S 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.

The Series S, 8" Ceiling Speakers and Speaker Strobes are available in three configurations:

- S8-70/25** - Dual Voltage, multi-tap speaker
- S8-24MCC** - Speaker strobe with field selectable settings of 15/30/75/95cd
- S8-24MCCH** - Speaker strobe with field selectable candela settings of 115/177cd



**SERIES S-24MCC  
Speaker Strobe**



**SERIES S  
Speaker**

**Features**

- Approvals include: UL Standard 1971, UL Standard 1480, California State Fire Marshal (CSFM) and MEA (See approvals by model number under Specification and Ordering Information)
- ADA/NFPA/ANSI compliant
- Complies with OSHA 29 Part 1910.165
- **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 Wheelock PS-12/24-8CP and PS-12/24-8MP Power Supply with built-in sync protocol
- Field selectable taps for 25 or 70 VRMS operation from 1/8 watt up to 8 watts
- High efficiency design for maximum output at minimum wattage across a frequency range of 400 to 4000 HZ
- Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires
- Frequency Response: 200Hz - 15kHz  
400Hz - 4kHz (UL)
- Magnet weight: 9.5 oz.
- Speaker impedance: 8 ohms
- Round metal 12" grille, with white powder coated finish
- Compatible with DC circuit supervision

**Applications:**

- Use with SP40/2 Multi-Function Audio Supervised System
- Provides for audio quality background music

**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 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 Standard 1971.
- Series S Speaker Strobes 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”.

## Specification and Ordering Information

| Model Number | Order Code | Speaker                                    |                             |     |     |    |    |    |    | Strobe |                           |                       | Strobe                                     |                     |       |       |       |       |        |  |
|--------------|------------|--|-----------------------------|-----|-----|----|----|----|----|--------|---------------------------|-----------------------|--|---------------------|-------|-------|-------|-------|--------|--|
|              |            | Voltage (VRMS)                             | dBA @ 10 Feet (Rated Watts) |     |     |    |    |    |    |        | Regulated Voltage VDC/FWR | Voltage Range VDC/RMS | Candela                                    | Average RMS Current | 24MCC |       |       |       | 24MCCH |  |
|              |            |  | 1/8                         | 1/4 | 1/2 | 1  | 2  | 4  | 8  | 15cd   |                           |                       |  |                     | 30cd  | 75cd  | 95cd  | 115cd | 177cd  |  |
| S8-70/25     | 0052       | 25/70                                      | 75                          | 78  | 81  | 84 | 87 | 90 | 93 | -      | -                         | -                     | 24 VDC                                     | 0.045               | 0.070 | 0.119 | 0.159 | 0.195 | 0.270  |  |
| S8-24MCC     | 0054       | 25/70                                      | 75                          | 78  | 81  | 84 | 87 | 90 | 93 | 24     | 16.0-33.0                 | 115/30/75/95          | UL Max*                                    | 0.065               | 0.105 | 0.189 | 0.249 | 0.300 | 0.420  |  |
| S8-24MCCH    | 0056       | 25/70                                      | 75                          | 78  | 81  | 84 | 87 | 90 | 93 | 24     | 16.0-33.0                 | 115/177               | UL Listed Circular Backbox for 8" Speakers |                     |       |       |       |       |        |  |
| CBB-8        | 3314       | UL Listed Circular Backbox for 8" Speakers |                             |     |     |    |    |    |    |        |                           |                       |  |                     |       |       |       |       |        |  |

| Approvals | UL 1480 | UL 1971 | CSFM    | MEA     |
|-----------|---------|---------|---------|---------|
| S8-70/25  | X       | N/A     | X       | X       |
| S8-24MCC  | X       | X       | X       | X       |
| S8-24MCCH | X       | X       | X       | X       |
| CBB-8     | X       | N/A     | Pending | Pending |

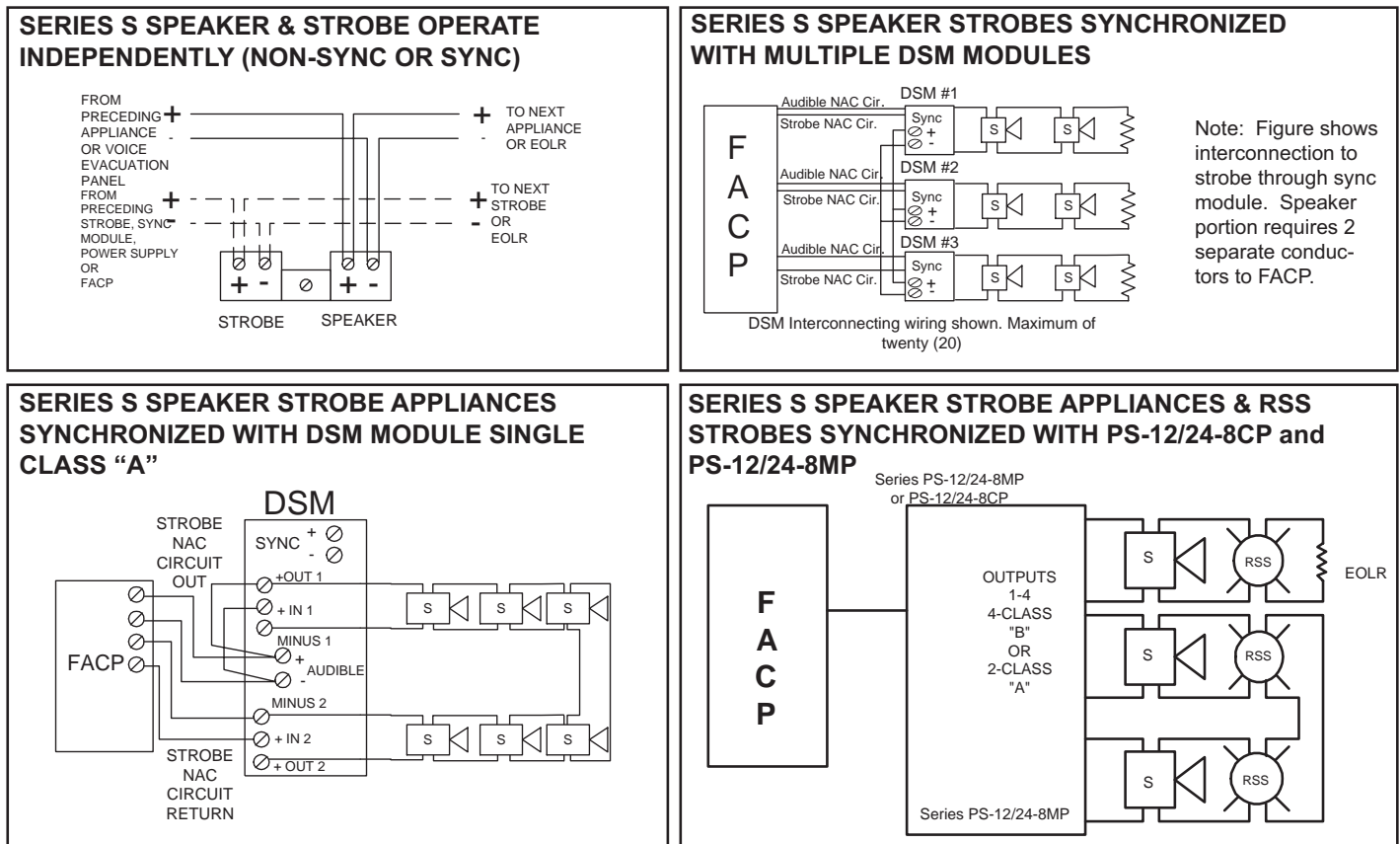
\* RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes, the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

Note: In order to maintain proper UL 1480 listing, the CBB-8 Speaker Back Box (available separately) or other UL approved back box must be installed.

**⚠ WARNING: CONTACT WHELOCK FOR THE CURRENT “INSTALLATION INSTRUCTIONS” 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.
- 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.

## Wiring Diagrams<sup>#</sup>



<sup>#</sup> For details on using SM or DSM Sync Modules refer to Data Sheet S3000 or Installation Instructions P83123 for SM and P83177 for DSM. For wiring information on the power supplies refer to Installation Instructions P84515 for PS-12/24-8CP and P84333 for PS-12/24-8MP.

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

Series S, 8" UL listed ceiling speakers and speaker strobes specifications:

The series S8 eight-inch supervised UL Standard 1480 Listed Ceiling speaker shall be mounted to round metal 12" grille, with a white powder coated finish, designed for indoor use. The speaker shall have a dual voltage transformer (25/70V) with jumper selectable 1/8, 1/4, 1/2, 1, 2, 4, 8 wattage taps. The frequency response shall be 200Hz 15kHz, per UL Standard 1480 shall be 400Hz 4kHz. The sensitivity shall be 93 dBA @ 10 feet with 8 watts of source power, 90 dBA @ 10 feet with 4 watts of source power, 87 dBA @ 10 feet with 2 watts of source power, 84 dBA @ 10 feet with 1 watts of source power, 81 dBA @ 10 feet with 1/2 watt of source power, 78 dBA @ 10 feet with 1/4 watt of source power, 75 dBA @ 10 feet with 1/8 watt of source power. The magnet weight shall be 9.5 ounces. The speaker impedance shall be 8 ohms.

The Speaker Strobe versions shall be Wheelock Series RSS Strobe Appliances or approved equals. The Series RSS shall meet and be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired) for Indoor Fire Protection Service. The strobe shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. The strobe appliances 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. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP).

The Series RSS Strobe shall be of low current design. The strobe intensity shall have field selectable settings and shall be rated per UL Standard 1971 at 15/30/75/95cd or 115/177cd.

When synchronization is required, the appliance shall be compatible with Wheelock's SM, DSM Sync Modules or Wheelock's PS-12/24-8CP and PS-12/24-8MP 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 strobes shall be designed for indoor surface of flush mounting.

**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.**

### WE ENCOURAGE AND SUPPORT NICET CERTIFICATION

**3 YEAR WARRANTY  
Assembled in America**



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