

# E90-24MCC-FR Low-Profile Speaker Strobe (red)

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- ▶ 24 VDC, filtered or unfiltered
- ▶ Field-selectable candela settings (15 cd, 30 cd, 75 cd or 95 cd)
- ▶ ADA, NFPA, ANSI compliant
- ▶ Compatible with SM and DSM Synchronization Modules
- ▶ Low average current draw with zero inrush current

The E90-24MCC-FR Multi-Candela Speaker Strobe provides high audio output with clear audibility, and four field-selectable light intensity settings (15 cd, 30 cd, 75 cd or 95 cd). It is 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. This notification appliance provides a way to alert hearing impaired persons of an alarm condition, and are well-suited for areas of public gathering such as stores, schools, hospitals, nursing homes and offices. A speaker mounting plate with a built-in level adjustment allows for a faster and easier installation. The two-screw grill cover creates an attractive appearance.

The high-efficiency speakers are designed for maximum output at a minimum wattage across a frequency range of 400 Hz to 4 kHz.

When used with the SM (single) or DSM (dual) Synchronization Modules, the strobe produces a synchronized flash for compliance with ADA guidelines concerning photosensitive epilepsy. All strobe input is

compatible with standard reverse polarity type supervision of circuit wiring by a fire alarm control panel (FACP).

## Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

Region	Certification
USA	UL UUKC_S5391 - Signaling Appliances and Equipment for the Hearing Impaired
	UL UUMW_S2652 - Speakers and Amplifiers for Fire Protective Signaling Systems
	CSFM 7125-0785-0152
	CSFM 7125-1616-0111

## Installation/configuration notes

### Compatible Products

The following products are compatible with the E90 Speaker Strobes:

Category	Product ID	Product Description
Control Panels	D7022 <sup>1</sup>	Conventional FACP
	D7024 <sup>2</sup>	Conventional or Addressable FACP
	FPD-7024 <sup>2</sup>	Conventional or Addressable FACP
	FPA-1000	Analog Addressable Fire Panels
	D8024 <sup>1</sup>	Analog FACP
	D9124 <sup>1</sup>	Addressable FACP
	D10024A <sup>1</sup>	Analog FACP
Modules	SM-12/24-R	Synchronization module (red)
	DSM-12/24-R	Dual synchronization module (red)

These speakers are compatible with Wheelock SAFEPATH4 Facility Communication Systems and Bosch Voice Evacuation Systems.

<sup>1</sup> For synchronization, use the SM or DSM modules with these control panels. The synchronization module must be set for 24 V operation. When used, the D7022 must be set for 24 VDC operation.

<sup>2</sup> When used with a D7039 Multiplex Expansion Module, the D7024 or FPD-7024 becomes an addressable fire alarm control panel (FACP).

### Mounting

The low profile design of these notification appliances creates more wiring space in standard electrical back boxes. The speaker mounting plate incorporates a built-in level adjustment feature allowing for a faster and easier installation.

These speaker strobes ceiling mount on the indicated back boxes for the indicated applications:

	Conduit Applications	Surface Mounted	Flush Mounted
Four-inch square*			•
SBB Back Box	•	•	

\* Requires an SER extension ring.

### Wiring



#### Notice

Do not use the strobe unit in coded or pulsed signaling circuits.

The input terminals accept wires with diameters between 18 AWG and 12 AWG (ISO 0.75 mm<sup>2</sup> and 4 mm<sup>2</sup>).

### Parts included

Quant.	Component
1	Speaker Strobe
1	Mounting Plate
1	Hardware pack
1	Literature pack

### Technical specifications

#### Electrical

##### Strobe Current (RMS maximum)

VDC:	15 cd = 65 mA; 30 cd = 105 mA; 75 cd = 189 mA; 95 cd = 249 mA
VFWR:	15 cd = 110 mA; 30 cd = 170 mA; 75 cd = 280 mA; 95 cd = 375 mA

##### Voltage (input)

Nominal:	24 VDC
Range:	16 VDC or FWR to 33 VDC or FWR

#### Environmental

Relative Humidity:	Up to 85%, non-condensing
Temperature (Operating):	+32°F to +120°F (0° to +49°C)

#### Mechanical

Candela Selections:	15 cd, 30 cd, 75 cd, or 95 cd
Dimensions (diameter x D):	7.25 in. x 2.5 in. (18.4 cm x 6.4 cm)
Material:	Molded plastic enclosure incorporating a Xenon flashtube and Lexan lens.

#### Speaker Volume at 10 ft (3 m)

0.125 (1/8) W:	77.5 dBA
0.25 (1/4) W:	80.4 dBA
0.5 (1/2) W:	83.2 dBA
1 W:	85.7 dBA
2 W:	87.8 dBA

#### Trademarks

All hardware and software product names used in this document are likely to be registered trademarks and must be treated accordingly.

### Ordering information

#### E90-24MCC-FR Low-Profile Speaker Strobe (red)

Red, 24 VDC ceiling-mount device with high audio output with clear audibility, dual voltage capability (25 VRMS or 70 VRMS), field-selectable taps from 1/8 W to 2 W, and strobe intensities of 15 cd, 30 cd, 75 cd, or 95 cd.

Order number **E90-24MCC-FR**

#### Accessories

#### DSM-12/24-R Dual Synchronization Module (red)

A 12/24 VDC Cooper Wheelock module that synchronizes notification appliances on a single Class A or two Class B circuits.

Order number **DSM-12/24-R**

**SM-12/24-R Single Synchronization Module (red)**

A 12/24 VDC Cooper Wheelock module that synchronizes notification appliances on Class B alarm circuits.

**Not Available.**

Order number **SM-12/24-R**

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**SBB-R Surface-mount Back Box (red)**

14 cm (5.5 in.) x 14.2 cm (5.6 in.) x 9.1 cm (3.6 in.)

Order number **SBB-R**

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**SBB-W Surface-mount Back Box (white)**

14 cm (5.5 in.) x 14.2 cm (5.6 in.) x 9.1 cm (3.6 in.)

Order number **SBB-W**

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**SER-R Square Semi-flush Extension Ring (red)**

12.7 cm (5 in.) square by 4 cm (1.5625 in.) deep

Order number **SER-R**

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**SER-W Square Semi-flush Extension Ring (white)**

12.7 cm (5 in.) square by 4 cm (1.5625 in.) deep

Order number **SER-W**

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**SSB-4 Ceiling Support Bridge**

60.3 cm (23.75 in.) long by 16.5 cm (6.5 in.) wide

Order number **SSB-4**

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