

MB Motor Bells

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Invented for life



- ▶ High sound output for improved alerting capabilities
- ▶ High efficiency, low current motor
- ▶ Low starting voltage
- ▶ Fully-enclosed mechanism
- ▶ Durable keyed steel gong and striker

These Wheelock motor bells use a high-quality, micro-motor operating mechanism. This provides long-term reliability, low starting voltage, and extremely low current consumption. These features enable the use of more bells per circuit and greater alarm signal distribution than conventional bells. The low starting voltage provides a stronger signal on marginal circuits. These motor bells eliminate the coils and contacts found in conventional vibratory bells. They contain a highly-efficient DC motor drive system to produce high sound pressure levels at lower current requirements. As a result, they reduce EMI generation problems. The operating mechanism is enclosed in a die-cast aluminum housing, making the bells suitable for both interior and exterior applications. The steel gong and striker last longer and produce a louder sound output.

Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

Region	Certification	
USA	UL	ULSZ: Audible Signal Appliances (UL464)
	FM	MB Family

Region	Certification	
	CSFM	see our website
Canada	ULC	ULSZC: Audible Signal Appliances and Accessories, Fire Alarm
Hong Kong	HKFSD	J-005/C/035 & J-005/C/038

Installation/configuration notes

Compatible Products

The following products are compatible with the MB Motor Bells:

Category	Product ID	Product Description
Control Panels		Compatible with all Bosch G Series, 6000 Series, 2000 Series, DS7400Xi and DS7400XiV4, DS7080iP-32, DS7200 Series, and DS7060 Series Control Panels ¹
	D7022 ²	Conventional FACP
	D7024 ³	Addressable FACP
	D7024	Conventional FACP
	D8024 ⁴	Analog FACP
	D9124 ⁴	Addressable FACP

	D10024A ⁴	Analog FACP
	FPD-7024 ^{3,5}	Addressable FACP
	FPD-7024 ⁵	Conventional FACP
	FPA-1000 ⁵	Analog Addressable FACPs
Modules	SM-12/24-R	Synchronization module (red)
	DSM-12/24-R	Dual synchronization module (red)
Strobes	RSSP-241575W-FR	Fixed-candela retrofit strobe plate
	RSSP-24MCW-FR	Multi-candela retrofit strobe plate
	RSSP-24MCWH-FR	High-candela retrofit strobe plate

¹ For synchronization, use the SM or DSM modules with these control panels and set the horns and synchronization module for 12 VDC operation.
² The D7022 can be used in either 12 VDC or 24 VDC mode, but the synchronization module must be set for the same operating voltage as the control panel, and the bells must operate at the voltage supplied by the control panel.
³ When used with a D7039 Multiplex Expansion Module, the FPD-7024 and D7024 become addressable fire alarm control panels (FACPs).
⁴ For synchronization, use the SM or DSM modules with these control panels and set the synchronization module for 24 VDC operation, and use 24 VDC bells.
⁵ 24 V motor bells only.

Current Rating

The peak current of all these motor bells is approximately four times the rated current. This peak current surge exists for about 6 ms and must be supplied by the system power supply to ensure start-up of all devices. If the system power supply does not have sufficient surge capability (generally provided by large filter capacitors), base loading of the supply on the DC bell peak requirements rather than their rated current.

Mounting Considerations

Outdoor or Severe Environment Applications

For an outdoor application or a severe environment (NEMA 3R) application, these motor bells in combination with a WBB-R Weather Resistant Back Box must be mounted on a flat wall such that the wall covers the entire rear surface of the back box. The back box must have its drain holes pointed toward the ground. The knockouts in the rear surface of the back box must remain intact.

The knockout hole on top of the back box is sized for a half-inch. conduit and matching connector. Use a proper watertight conduit fitting.

Indoor Applications

For inside applications, mount these motor bells directly on the indicated back boxes for the indicated applications:

	Conduit Applications	Surface Mounted	Semi-Flush Mounted
Four-inch square		•	•
BB	•	•	•
DBB	•	•	•
SBB	•	•	
SHBB		•	

Use as Combination Appliance

Where combination appliances are required, these motor bells can be used with the RSSP-241575W-FR (15/75 cd), RSSP-24MCW-FR (15 cd, 30 cd, 75 cd, or 110 cd), or RSSP-24MCWH-FR (135 cd or 185 cd) Retrofit Strobe Plates that are designed to meet or exceed the latest requirements of NFPA 72, ANSI 117.0 and UL 1971. The bells and retrofit strobe plates are also compatible with the SBL2-R Retrofit Device Back Box.

Wiring

These motor bells are polarized for use on supervised notification appliance circuits (NAC). All units are provided with four 6 in. (15.2 cm), 18 AWG (ISO 0.75 mm²) color-coded leads to meet UL requirements and ensure correct polarity of notification appliance circuit wiring connections.

- Built-in EMI suppression
- Mounting options include surface, flush, semi-flush, and exterior
- Operates on filtered or unfiltered DC

Parts included

Quant.	Component
1	Motor bell
1	Hardware pack
1	Literature pack

Technical specifications

Electrical

Current (maximum) at 8 VDC to 17.5 VDC

VDC:	90 mA
VFWR:	110 mA

Current (maximum) at 16 VDC to 33 VDC

VDC:	40 mA
VFWR:	56 mA

Environmental

Relative Humidity:	Up to 85%
Temperature (Operating):	-31°F to +151°F (-35°C to +66°C)

Mechanical

Color:	High-gloss, red enamel
Material:	Base: die-cast aluminum Gong: steel

UL dB Rating

Spherical:	92 dB at 10 ft. (3 m)
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Ordering information**MB-G6-12-R 12 V Motor Bell (6 in. [15 cm])**

Red, 12 VDC bell with a high efficiency, low current motor providing high sound output for improved alerting capabilities

Order number **MB-G6-12-R**

MB-G6-24-R 24 V Motor Bell (6 in. [15 cm])

Red, 24 VDC bell with a high efficiency, low current motor providing high sound output for improved alerting capabilities

Order number **MB-G6-24-R**

MB-G10-12-R 12 V Motor Bell (10 in. [25.4 cm])

Red, 12 VDC bell with a high efficiency, low current motor providing high sound output for improved alerting capabilities

Order number **MB-G10-12-R**

MB-G10-24-R 24 V Motor Bell (10 in. [25.4 cm])

Red, 24 VDC bell with a high efficiency, low current motor providing high sound output for improved alerting capabilities

Order number **MB-G10-24-R**

Accessories**AP-R Adapter Plate**

Red, 15.2 cm (6 in.) square

Order number **AP-R**

BB-R Steel Back Box

Black, 10.2 cm (4 in.) square, 3.8 cm (1.5 in.) deep

Order number **BB-R**

DBB-R Steel Back Box (red)

8.6 cm (3.375 in.) square, 5.6 cm (2.1875 in.) deep

Order number **DBB-R**

RP-R Retrofit Plate (red)

20.3 cm (8 in.) high, 14.9 cm (5.875 in.) wide

Order number **RP-R**

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**

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**

SBL2-R Retrofit Device Back Box (red)

dimensions 27.8 cm (10.9 in.) x 15.5 cm (6.1 in.) x 4.3 cm (1.7 in.)

Order number **SBL2-R**

SFP-R Semi-flush Plate (red)

15.2 cm (6 in.) square by 0.8 cm (0.3125 in.) thick

Order number **SFP-R**

SHBB-R Shallow Surface Back Box (red)

12.7 cm (5 in.) square by 4 cm (1.56 in.) deep

Order number **SHBB-R**

WBB-R Weather-resistant Back Box (red)

10.5 cm (4.125 in.) square by 5.1 cm (2 in.) deep

Order number **WBB-R**

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