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:

<table>
<thead>
<tr>
<th>Region</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>UL ULSZ: Audible Signal Appliances (UL464)</td>
</tr>
<tr>
<td></td>
<td>FM MB Family</td>
</tr>
</tbody>
</table>

**Installation/configuration notes**

**Compatible Products**

The following products are compatible with the MB Motor Bells:

<table>
<thead>
<tr>
<th>Category</th>
<th>Product ID</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Panels</td>
<td>D7022</td>
<td>Conventional FACP</td>
</tr>
<tr>
<td></td>
<td>D7024</td>
<td>Addressable FACP</td>
</tr>
<tr>
<td></td>
<td>D7024³</td>
<td>Conventional FACP</td>
</tr>
<tr>
<td></td>
<td>D8024⁴</td>
<td>Analog FACP</td>
</tr>
<tr>
<td></td>
<td>D9124⁴</td>
<td>Addressable FACP</td>
</tr>
</tbody>
</table>
**D10024A** Analog FACP

**FPD-7024** Addressable FACP

**FPD-7024** Conventional FACP

**FPA-1000** Analog Addressable FACPs

**SM‑12/24‑R** Synchronization module (red)

**DSM‑12/24‑R** Dual synchronization module (red)

**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:

<table>
<thead>
<tr>
<th>Conduit Applications</th>
<th>Surface Mounted</th>
<th>Semi-Flush Mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-inch square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHBB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Quant.</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motor bell</td>
</tr>
<tr>
<td>1</td>
<td>Hardware pack</td>
</tr>
<tr>
<td>1</td>
<td>Literature pack</td>
</tr>
</tbody>
</table>

**Technical specifications**

**Electrical**

<table>
<thead>
<tr>
<th>Current (maximum) at 8 VDC to 17.5 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDC:</td>
</tr>
<tr>
<td>90 mA</td>
</tr>
<tr>
<td>VFWR:</td>
</tr>
<tr>
<td>110 mA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current (maximum) at 16 VDC to 33 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDC:</td>
</tr>
<tr>
<td>40 mA</td>
</tr>
<tr>
<td>VFWR:</td>
</tr>
<tr>
<td>56 mA</td>
</tr>
</tbody>
</table>

**Environmental**

<table>
<thead>
<tr>
<th>Relative Humidity:</th>
<th>Up to 85%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (Operating):</td>
<td>-31°F to +151°F (-35°C to +66°C)</td>
</tr>
</tbody>
</table>
Mechanical

<table>
<thead>
<tr>
<th>Color:</th>
<th>High-gloss, red enamel</th>
</tr>
</thead>
</table>
| Material: | Base: die-cast aluminum  
Gong: steel |

UL dB Rating

| Spherical: | 92 dB at 10 ft. (3 m) |

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
Represented by:

**Americas:**
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Fax: +1 585 233 9180
security.sales@us.bosch.com
www.boschsecurity.us

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www.boschsecurity.asia

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