

# W-HS Wall-mount Multi-candela Horn Strobes

www.boschsecurity.com



**BOSCH**  
Invented for life



- ▶ Sleek modern aesthetics
- ▶ Multiple voltages (12 VDC or 24 VDC)
- ▶ Voltage test points
- ▶ Eight strobe candela options and three horn volume options
- ▶ Universal mounting base

The Cooper Wheelock Exceder Series Horn Strobes feature a sleek modern design that incorporates high reliability and high-efficiency optics to minimize current draw. The reduced current draw allows for a greater number of devices on the two-wire notification appliance circuit. This, in combination with eight candela options in one appliance, no tools needed for changing settings, voltage test points, 12 V or 24 V DC operation, the universal mounting base, and multiple mounting options results in a reduced cost of ownership.

These horn strobes provide eight candela settings and three sound settings on each appliance. All the switches to change these settings can be set without a tool and are located behind the appliance to prevent tampering.

The separate universal mounting base can be easily mounted to five industry-standard back box types. They can also be pre-wired to allow full testing of the circuit wiring before the appliance is installed and the surface finished. These wall-mounting horn strobes also feature voltage test points for taking readings with a volt meter for troubleshooting or AHJ inspection.

## Certifications and approvals

Cooper Wheelock holds these Listings and Approvals:

| Region | Certification |  |
|--------|---------------|--|
| USA    | UL            | ULSZ: Audible-signal Appliances (ANSI/UL 464), UUKC: Signaling Appliances and Equipment for the Hearing Impaired (ANSI/UL 1971)  |
|        | CSFM          | see our website  |
| Canada | ULC           | UEESC: Visual and Visual-audible Signal Appliances, Fire Alarm (CAN/ULC-S525, CAN/ULC-S541, CAN/ULC-S526, ULC-S527), ULSZC: Audible Signal Appliances and Accessories, Fire Alarm (CAN/ULC-S525, ULC-S527) |

## Installation/configuration notes

### Compatibility Horn:

These horns provide a selectable Continuous or Code 3 horn tone when connected directly to the Fire Alarm Control Panel (FACP). They can also provide a synchronized Code 3 Horn tone when used in

in conjunction with an FACP that incorporates the Cooper Notification sync protocol, a Cooper Notification Sync Module, or the Cooper Notification Power Supply. The Horn Appliances can be field set for High (HI), Medium (MED), or Low (LO) dBA sound output.

**Strobe:**

These strobes provide a non-synchronized strobe appliance when connected directly to a Fire Alarm Control Panel (FACP), or provide a synchronized strobe appliance when used in conjunction with an FACP that incorporates the Cooper Notification sync protocol, a Cooper Notification Sync Module, or the Cooper Notification Power Supply. They are designed to flash at 1 flash per second minimum over their Regulated Voltage Range.



**Notice**

Strobes are not designed to be used on coded systems in which the applied voltage is cycled on and off.

**Compatible Products**

The following Bosch Security Systems, Inc. products are compatible with the Cooper Wheelock Exceder Series Horn Strobes:

| Category       | Product ID                  | Product Description                                       |
|----------------|-----------------------------|---|
| Control Panels | FPA-1000 <sup>1</sup>       | Analog Addressable Fire Panels                            |
|                | FPD-7024 <sup>1</sup>       | Conventional or Addressable <sup>2</sup> FACP             |
|                | D10024A <sup>3</sup>        | Analog FACP   |
|                | D8024 <sup>3</sup>          | Analog FACP   |
|                | D9124 <sup>3</sup>          | Addressable FACP  |
|                | D7024 <sup>3</sup>          | Conventional or Addressable <sup>2</sup> FACP             |
| Modules        | D7022 <sup>3</sup>          | Conventional FACP   |
|                | SM-12/24-R                  | Synchronization module (red)                              |
|                | DSM-12/24-R                 | Dual synchronization module (red)                         |
| Power Supplies | FPP-RNAC-8A-4C <sup>1</sup> | Remote Notification Appliance Circuit (RNAC) Power Supply |
|                | PS-24-8MC <sup>1</sup>      | Power supply with built-in synchronization protocol       |

<sup>1</sup> These products have built-in Cooper Notification synch protocol.

<sup>2</sup> When used with a D7039 Multiplex Expansion Module, the FPD-7024 or the D7024 become addressable FACP's.

<sup>3</sup> For synchronization, use the SM or DSM modules with these control panels.

**Mounting Considerations**

The Universal Mounting Base supplied with each horn strobe can be pre-wired. With the supplied Contact Cover in place, the pre-wired circuit can be checked for continuity before the horn strobes are mounted. The horn strobes snap onto the pre-installed Universal Mounting Bases with the Contact Covers removed and can be secured to the base with an optional securing screw. The Universal Mounting Base flush mounts on single-gang, double-gang, 4 in. square, 4 in. octal, 3.5 in. octal, and 100 mm European-type back boxes.

**Wiring Considerations**

The wiring terminals on the Universal Mounting Base accept two appliance wires with diameters between 12 AWG and 18 AWG (ISO 4 mm<sup>2</sup> and 0.75 mm<sup>2</sup>) at each terminal.

**Parts included**

| Quant. | Component  |
|--------|--|
| 1      | Horn Strobe appliance  |
| 1      | Universal mounting base  |
| 1      | Contact cover  |
| 1      | Hardware pack <ul style="list-style-type: none"> <li>• Two pan head mounting screws</li> <li>• One securing screw</li> </ul> |
| 1      | Literature – Installation Instructions   |

**Technical specifications**

**Electrical**

**Horn and Strobe Current Draw<sup>5</sup>**

**24 V nominal (16.0 V to 33.0 V range)**

| Voltage Type | Volume Setting | Current Draw   |
|--------------|----------------|--|
| DC:          | High:          | 15 cd: 82 mA, 15/75 cd: 95 mA, 30 cd: 102 mA, 75 cd: 148 mA, 95 cd: 176 mA, 110 cd: 197 mA, 135 cd: 242 mA, 185 cd: 282 mA   |
|              | Medium:        | 15 cd: 73 mA, 15/75 cd: 83 mA, 30 cd: 87 mA, 75 cd: 139 mA, 95 cd: 163 mA, 110 cd: 186 mA, 135 cd: 230 mA, 185 cd: 272 mA    |
|              | Low:           | 15 cd: 65 mA, 15/75 cd: 75 mA, 30 cd: 87 mA, 75 cd: 139 mA, 95 cd: 157 mA, 110 cd: 184 mA, 135 cd: 226 mA, 185 cd: 267 mA    |
| FWR:         | High:          | 15 cd: 133 mA, 15/75 cd: 138 mA, 30 cd: 138 mA, 75 cd: 216 mA, 95 cd: 258 mA, 110 cd: 289 mA, 135 cd: 357 mA, 185 cd: 384 mA |
|              | Medium:        | 15 cd: 112 mA, 15/75 cd: 126 mA, 30 cd: 126 mA, 75 cd: 201 mA, 95 cd: 247 mA, 110 cd: 272 mA, 135 cd: 340 mA, 185 cd: 378 mA |

|      |  |
|------|--|
| Low: | 15 cd: 106 mA, 15/75 cd: 120 mA, 30 cd: 120 mA, 75 cd: 196 mA, 95 cd: 235 mA, 110 cd: 265 mA, 135 cd: 331 mA, 185 cd: 375 mA |
|------|--|

**12 V nominal (8.0 V to 17.5 V range)**

| Voltage Type | Volume Setting | Current Draw                    |
|--------------|----------------|---------------------------------|
| DC:          | High:          | 15 cd: 125 mA, 15/75 cd: 159 mA |
|              | Medium:        | 15 cd: 122 mA, 15/75 cd: 153 mA |
|              | Low:           | 15 cd: 120 mA, 15/75 cd: 148 mA |

**Voltage (input)**

| Regulated      | Range            |
|----------------|------------------|
| 12 VDC         | 8.0 V to 17.5 V  |
| 24 VDC or Vrms | 16.0 V to 33.0 V |

<sup>5</sup> Current Draw is the same for the Continuous Horn and Code 3 Horn Settings.

**Environmental**

|                          |                                |
|--------------------------|--------------------------------|
| Environment:             | Indoor, dry                    |
| Relative Humidity:       | 93±2% maximum, non-condensing  |
| Temperature (operating): | +32°F to +120°F (0°C to +49°C) |

**Mechanical**

|                                |   |
|--------------------------------|---|
| Candela Ratings <sup>3</sup> : | 15 cd, 15/75 cd <sup>4</sup> , 30 cd, 75 cd, 95 cd, 110 cd, 135 cd, or 185 cd |
| Dimensions:                    | 5.24 in. x 4.58 in. x 2.19 in. (133.1 mm x 116.4 mm x 55.7 mm)                |
| Material:                      | Molded plastic enclosure incorporating a Xenon flashtube and Lexan lens.      |
| Volume Settings:               | 90 db, 95 db, or 99 db  |

<sup>3</sup> When set for 12 V operation, strobe devices are only approved by UL to be set at 15cd or 15/75 cd and only to be powered by DC not FWR.

<sup>4</sup> Although this product is UL Listed at 15 cd, it provides 75 cd on axis.

**Audible Patterns and Ratings**

| Pattern               | Volume Setting | Sound Output <sup>1</sup> |        |        |
|-----------------------|----------------|---------------------------|--------|--------|
|                       |                | 8.0V                      | 12.0V  | 17.5V  |
| Continuous:           | High:          | 83 dBa                    | 88 dBa | 91 dBa |
|                       | Medium :       | 79 dBa                    | 82 dBa | 86 dBa |
|                       | Low:           | 72 dBa                    | 76 dBa | 79 dBa |
| Code 3 <sup>2</sup> : | High:          | 80 dBa                    | 84 dBa | 86 dBa |
|                       | Medium         | 74 dBa                    | 78 dBa | 82 dBa |
|                       | Low:           | 68 dBa                    | 72 dBa | 76 dBa |

|                       |          | 16.0V  | 24.0V  | 30.0V  |
|-----------------------|----------|--------|--------|--------|
| Continuous:           | High:    | 91 dBa | 93 dBa | 96 dBa |
|                       | Medium : | 86 dBa | 89 dBa | 92 dBa |
|                       | Low:     | 78 dBa | 82 dBa | 85 dBa |
| Code 3 <sup>2</sup> : | High:    | 86 dBa | 89 dBa | 91 dBa |
|                       | Medium   | 81 dBa | 85 dBa | 84 dBa |
|                       | Low:     | 74 dBa | 78 dBa | 80 dBa |

<sup>1</sup> Sound output is a minimum UL rating based on sound power measurements at a distance of 10 ft (3 m) in a reverberant test room per UL464.

<sup>2</sup> The Code 3 temporal pattern (1/2 second on, 1/2 second off, 1/2 second on, 1/2 second off, 1/2 second on, 1-1/2 second off and repeat) is specified by ANSI and NFPA 72 for standard emergency evacuation signaling.



**Notice**

The Code 3 temporal pattern should be used only for fire evacuation signaling and not for any other purpose.

**Trademarks**

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

**Ordering information**

**W-HSR Wall-mount Multi-candela Horn Strobe (two-wire, 12/24 V, red)**

Rectangular red two-wire horn strobe field-selectable for three volume options and eight candela options. Order number **W-HSR**

**W-HSW Wall-mount Multi-candela Horn Strobe (two-wire, 12/24 V, white)**

Rectangular white two-wire horn strobe field-selectable for three volume options and eight candela options. Order number **W-HSW**

**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**

**Represented by:**

**Americas:**

Bosch Security Systems, Inc.  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
security.sales@us.bosch.com  
www.boschsecurity.us

**Europe, Middle East, Africa:**

Bosch Security Systems B.V.  
P.O. Box 80002  
5617 BA Eindhoven, The Netherlands  
Phone: + 31 40 2577 284  
Fax: +31 40 2577 330  
emea.securitysystems@bosch.com  
www.boschsecurity.com

**Asia-Pacific:**

Robert Bosch (SEA) Pte Ltd, Security  
Systems  
11 Bishan Street 21  
Singapore 573943  
Phone: +65 6571 2808  
Fax: +65 6571 2699  
apr.securitysystems@bosch.com  
www.boschsecurity.asia

**China:**

Bosch (Shanghai) Security Systems Ltd.  
201 Building, No. 333 Fuquan Road  
North IBP  
Changning District, Shanghai  
200335 China  
Phone +86 21 22181111  
Fax: +86 21 22182398  
www.boschsecurity.com.cn

**America Latina:**

Robert Bosch Ltda Security Systems Division  
Via Anhanguera, Km 98  
CEP 13065-900  
Campinas, Sao Paulo, Brazil  
Phone: +55 19 2103 2860  
Fax: +55 19 2103 2862  
latam.boschsecurity@bosch.com  
www.boschsecurity.com