

W-HS Wall-mount Multi-candela Horn Strobes

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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	Regulatory compliance/quality marks	
USA	UL	UL 464, Audible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories
	UL	UL 1971, Signaling Devices for the Hearing Impaired
	FM	see the FM Approval Guide
	CSFM	see www.boschsecurity.com (the Bosch website)
Canada	ULC	ULC-S525, Audible Signal Devices for Fire Alarm Systems, Including Accessories
	ULC	ULC-S527, Control Units for Fire Alarm Systems

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

Category	Product ID
Control Panels	FPA-1000 ¹ Analog Addressable Fire Panels FPD-7024 Conventional or Addressable ² FACPs D10024A ³ Analog FACP D8024 ³ Analog FACP D9124 ³ Addressable FACP D7024 ³ Conventional or Addressable ² FACPs D7022 ³ Conventional FACP
Power Supplies	FPP-RNAC-8A-4C ¹ Remote Notification Appliance Circuit (RNAC) Power Supply PS-24-8MC ¹ Power supply with built-in synchronization protocol

¹ These products have built-in Cooper Notification synch protocol

² The FPD-7024 panels with an FPE-7039 Expansion module or the D7024 panels with the FPE-7039 or D7039 Expansion Module become addressable FACPs

³ indicates legacy products no longer available for purchase. For synchronization, use the DSM-12/24 Synchronization module 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 mm² and 0.75 mm²) at each terminal.

Technical specifications

Electrical

Horn and Strobe Current Draw¹

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
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12 VDC	8.0 V to 17.5 V
24 VDC or Vrms	16.0 V to 33.0 V

¹ 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 ² :	15 cd, 15/75 cd ³ , 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

² 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.

³ Although this product is UL Listed at 15 cd, it provides 75 cd on axis.

Audible Patterns and Ratings

Pattern	Volume Setting	Sound Output ⁴		
		8.0 V	12.0 V	17.5 V
Continuous:	High:	83 dBa	88 dBa	91 dBa
	Medium :	79 dBa	82 dBa	86 dBa
	Low:	72 dBa	76 dBa	79 dBa
Code 3 ⁵ :	High:	80 dBa	84 dBa	86 dBa
	Medium	74 dBa	78 dBa	82 dBa
	Low:	68 dBa	72 dBa	76 dBa
		16.0 V	24.0 V	30.0 V
Continuous:	High:	91 dBa	93 dBa	96 dBa

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Code 3 ⁵ :	Medium :	86 dBa	89 dBa	92 dBa
	Low:	78 dBa	82 dBa	85 dBa
	High:	86 dBa	89 dBa	91 dBa
Code 3 ⁵ :	Medium	81 dBa	85 dBa	84 dBa
	Low:	74 dBa	78 dBa	80 dBa

⁴ 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.

⁵ 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 strobe, 2-wire 15-185cd 12/24V, red

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

W-HSW Wall strobe 2-wire 15-185cd 12/24V 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 Synchronization module, Wheelock

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**