



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



- ▶ 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
- ▶ Environment-friendly low current draw

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

Region	Certification	
USA	UL	ULSZ: Audible-signal Appliances (ANSI/UL 464), UUKC: Signaling Appliances and Equipment for the Hearing Impaired (ANSI/UL 1971)
	CSFM	7125-0785:168
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)

Cooper Wheelock has also designed these horn strobes to comply with:

US	ADA	ADAAG Equivalent Facilitation Guidelines
	ANSI	ANSI 117.1
	FCC	Tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
	NEC	National Electrical Code
	NFPA	NFPA 72

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.

Note 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-UL ¹	Compact Fire Panel
	FPD-7024 ¹	Conventional or Addressable ² FACP
	D10024A ³	Analog FACP
	D8024 ³	Analog FACP
	D9124 ³	Addressable FACP
	D7024 ³	Conventional or Addressable ² FACP
Modules	D7022 ³	Conventional FACP
	SM-12/24-R	Synchronization module (red)
Power Supplies	DSM-12/24-R	Dual synchronization module (red)
	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 When used with a D7039 Multiplex Expansion Module, the FPD-7024 or the D7024 becomes an addressable FACP.

³ 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 (2.3 mm) and 18 AWG (1.2 mm) 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"> • Two pan head mounting screws • One securing screw
1	Literature – Installation Instructions

Technical Specifications

Audible Patterns and Ratings

Pattern	Volume Setting	Sound Output ¹		
		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 ² :	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
	Medium:	86 dBa	89 dBa	92 dBa
	Low:	78 dBa	82 dBa	85 dBa
Code 3 ² :	High:	86 dBa	89 dBa	91 dBa
	Medium:	81 dBa	85 dBa	84 dBa
	Low:	74 dBa	78 dBa	80 dBa

¹ 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.

² 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.

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

Environmental Considerations

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

Mechanical Properties

Candela Ratings ³ :	15 cd, 15/75 cd ⁴ , 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

³ 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.

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

Power Requirements

Horn and Strobe Current Draw⁵

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

Horn and Strobe Current Draw⁵

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

⁵ Current Draw is the same for the Continuous Horn and Code 3 Horn Settings.

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Ordering Information

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

Rectangular red two-wire horn strobe field-selectable for three volume options and eight candela options.

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

Rectangular white two-wire horn strobe field-selectable for three volume options and eight candela options.

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