AH-24 24 V Electronic Horns

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Invented for life

▶ Cost-effective two-wire design

▶ Selectable continuous tone or temporal (Code 3) sound pattern synchronization

▶ Three field-selectable sound levels

▶ Weatherproof model available

▶ Low average current draw

These Wheelock horns offer tone choices of either continuous horn or temporal pattern (Code 3) tone when constant voltage from the fire alarm control panel (FACP) is applied. Each tone has three field-selectable volume levels.

These horns can be synchronized when used with the SM (single) and DSM (dual) Synchronization Modules or a compatible control panel. If not synchronized, the temporal sound patterns might overlap and not be distinctive.

Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

Region	Certification	
USA	UL	ULSZ: Audible Signal Appliance (UL464)
	CSFM	see our website
Canada	ULC	All models: ULSZC: Audible Signal Appliances and Accessories, Fire Alarm

Installation/configuration notes

Compatible Products
The following products are compatible with the AH-24 Horns:

Category	Product ID	Product Description
Control Panels	D7022[1]	Conventional FACP
	D7024[2]	Addressable FACP
	D7024	Conventional FACP
	D8024[1]	Analog FACP
	D9124[1]	Addressable FACP
	D10024A[1]	Analog FACP
	FPD-7024[2]	Addressable FACP
	FPD-7024	Conventional FACP
	FPA-1000	Analog Addressable FACPs
Modules	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 Synchronization Modules. The synchronization module must be set for 24 VDC operation. When used, the D7022 must be set for 24 VDC operation.
[2] When used with a D7039 Multiplex Expansion Module, the FPD-7024 and D7024 become addressable fire alarm control panels (FACPs).

Mounting Considerations
Use as Combination Appliance
Where combination appliances are required, the AH-24-R Horn can be used with the RSSP-241575W-FR Fixed-candela, RSSP-24MCW-FR Multi-candela, or RSSP-24MCWH-FR High-candela Retrofit Strobe Plates that are designed to meet or exceed the latest requirements of NFPA 72, ANSI 117.0 and UL 1971. The horns and retrofit strobe plates are also compatible with the SBL2-R Retrofit Device Back Box.

Outdoor or Severe Environment Applications
For an outdoor application or a severe environment (NEMA 3R) application, the AH-24WP Weatherproof Horn in combination with a WBB-R Weatherproof 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. A proper watertight conduit fitting must be used.

Indoor Applications
The AH-24-R and AH-24-W Horns are equipped with a mounting plate that mounts on the indicated back boxes for the indicated applications:

	Conduit Applications	Surface Mounted	Flush Mounted
Single-gang			•
Double-gang		•	•
Four-inch square		•	•
100-mm European		•	•
SHBB-R	•	•	

The AH-24WP Weatherproof Horn can be indoor surface-mounted on a deep (>2.125 in. [5.4 cm]), four-inch square back box.

Wiring

ℹ️ **Notice**
Do not use these horns in coded systems in which the voltage is cycled on and off.

The input terminals accept wires with diameters between 18 AWG and 12 AWG (ISO 0.75 mm^2 and 4 mm^2).

Parts included

Quant.	Component
1	Horn
1	Mounting Plate
1	Hardware pack
1	Literature pack

Technical specifications

Environmental Considerations

Relative Humidity:	Up to 95%, non-condensing
Temperature (operating):	+32°F to +120°F (0°C to +49°C)

Horn Ratings at 24 VDC

Continuous Horn

Reverberant dBA at 10 ft (3 m) per UL464:	High: 91 dBA Medium: 88 dBA Low: 83 dBA

Temporal (Code 3) Horn

Reverberant dBA at 10 ft (3 m) per UL464:	High: 87 dBA Medium: 84 dBA Low: 79 dBA

ℹ️ **Notice**
The sound output for the Temporal (Code 3) mode is rated lower than in Continuous mode because the time that the horn is off is averaged into the sound output rating. When the horn produces a tone in Temporal mode, its sound pressure is the same as the Continuous mode.

Mechanical Properties

Dimensions (H x W x D):	4.125 in. x 4.125 in. x 1.25 in. (10.5 cm x 10.5 cm x 3.2 cm)
Material:	Molded plastic enclosure

Power Requirements

Current (maximum) VDC:	High dBA: 80 mA Medium dBA: 43 mA Low dBA: 21 mA
Current (maximum) VFWR:	High dBA: 90 mA Medium dBA: 51 mA Low dBA: 41 mA
Voltage (input)	24 VDC nominal; 16 VDC or FWR to 33 VDC or FWR

Ordering information

AH-24-R 24 VDC Electronic Horn (red)
Red, two-wire, 24 V electronic horns with three field-selectable sound levels and continuous tone or temporal (Code 3) sound patterns
Order number **AH-24-R**

AH-24-W 24 VDC Electronic Horn (white)
White, two-wire, 24 V electronic horns with three field-selectable sound levels and continuous tone or temporal (Code 3) sound patterns
Order number **AH-24-W**

AH-24WP-R 24 VDC Weatherproof Electronic Horn (red)
Weatherproof, white, two-wire, 24 V electronic horns with three field-selectable sound levels and continuous tone or temporal (Code 3) sound patterns
Order number **AH-24WP-R**

Accessories

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**

NATP-R Trim Plate (red)
13.3 cm (5.25 in.) square, 2.1 cm (0.8125 in.) thick.
Not Available.
Order number **NATP-R**

NATP-W Trim Plate (white)
13.3 cm (5.25 in.) square, 2.1 cm (0.8125 in.) thick
Order number **NATP-W**

RP-R Retrofit Plate (red)
20.3 cm (8 in.) high, 14.9 cm (5.875 in.) wide.
Not Available.
Order number **RP-R**

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.)
Not Available.
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**

SSB-4 Ceiling Support Bridge
60.3 cm (23.75 in.) long by 16.5 cm (6.5 in.) wide
Order number **SSB-4**

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**