MTWP Weatherproof Multitone Electronic Appliances

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- ► Field-selectable choice of eight nationally and internationally recognized alerting signals
- ► Two installer-selectable sound output levels
- ► Strobe rated at 75 cd at -31°F (-35°C) and 180 cd at +77°F (+25°C)
- ▶ NFPA and ANSI compliant
- ▶ UL Listed for indoor or outdoor use

The Wheelock MTWP Series Weatherproof Appliances are four-wire appliances listed for indoor or outdoor use. They provide eight tone patterns, two sound output levels, and a strobe rated at 75 cd at -31°F (-35°C) and 180 cd at +77°F (+25°C). The temporal (Code 3) horn and tone patterns meet ANSI/NFPA/ISO requirements for standard emergency evacuation signaling. The extended temperature range satisfies all severe-weather outdoor applications.

The strobe portion can be synchronized using the SM (single) or DSM (dual) Synchronization modules or a compatible control panel. The audible portion cannot be synchronized, but it can be connected to a coded fire alarm system.



Notice

These products are **not** suitable for hearing-impaired applications.

Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals that apply to the wall mount models only:

NYC/ME A	151-93-E, Vol. 29
ADA	Complies with Americans with Disabilities Act
ANSI	Complies with American National Standards Institute ANSI 117.1
ISO	Complies with International Standards Organization
NFPA	Complies with National Fire Protection Association NFPA 72
OSHA	Complies with Occupational Safety and Health Administration OSHA 29

Region	Certification	
USA	UL	ULSZ: Audible Signal Appliances (UL464) MTWP-2475W models
	UL	ULSZ_E5946 - Audible Signal Appliances 2475C models
	CSFM	7135-0785:0156

Part 1910.165

Installation/configuration notes

Compatible Products

The following products are compatible with the MTWP Series Weatherproof Electronic Appliances:

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
Modules	SM-12/24-R	Synchronization module (red)
	DSM-12/24-R	Dual synchronization module (red)

¹ For synchronization, use the SM or DSM modules with these control panels. The synchronization module must be set for 24 V operation. When used, the D7022 must be set for 24 VDC operation.

Mounting Considerations

Outdoor or Severe Environment Applications

For an outdoor application or a severe environment (NEMA 3R) application, mount these multitone appliances with an IOB Indoor or Outdoor Back Box on a flat wall or ceiling so the entire rear surface of the back box is covered. The drain holes in the back box must point toward the ground. The knockouts on 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 multitone appliances on the indicated back boxes for the indicated applications:

	Conduit Applications	Surface Mounted	Semi-Flush or Flush Mount
Double-gang		•	• *
Four-inch square		•	• *
DBB		•	• *
IOB	•	•	
SBB		•	•

^{*} For semi-flush applications use an ISP2 Surface Adapter.

All models have an attractive cover plate for a clean, finished appearance.

Indoor Retrofit Applications

Where an oversize electrical box is already installed, the MTWP Series appliances can be installed with the RP-R Retrofit Plate that measures 8 in. (20.3 cm) high by 5.875 in. (14.9 cm) wide.

Wiring



Notice

These strobe units are not recommended for use in coded or pulsed signaling circuits.

The input terminals accept wires with diameters between 18 AWG (1.2 mm) and 12 AWG (2.3 mm).

Parts included

Quant.	Component
1	Weatherproof electronic appliance
1	Cover plate
1	Hardware pack
1	Literature pack

Technical specifications

10 ft (3 m):

Audible Alarm Patterns and Ratings

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Horn (continuous)		
Current (maximum) at 24 V:	High output: 108 mA VDC, 87 mA FWR Standard output:44 mA VDC, 45 mA FWR	
Pattern Description:	Broadband continuous horn	
Sound output* at 10 ft (3 m):	High output: 92 dBA Standard output: 87 dBA	
Bell		
Current (maximum) at 24 V:	High output: 53 mA VDC and 51 mA FWR Standard output: 24 mA VDC, 28 mA FWR	
Pattern Description:	1560 Hz modulated (0.7 sec on, repeat)	
Sound output* at 10 ft (3 m):	High output: 86 dBA Standard output: 80 dBA	
Horn (march-time)		
Current (maximum) at 24 V:	High output: 104 mA VDC, 87 mA FWR Standard output: 38 mA VDC, 45 mA FWR	
Pattern Description:	Horn (0.25 sec on, 0.25 sec off, repeat)	
Sound output* at 10 ft (3 m):	High output: 89 dBA Standard output: 84 dBA	
Horn (Code 3)		
Current (maximum) at 24 V:	High output: 91 mA VDC, 87 mA FWR Standard output: 35 mA VDC, 45 mA FWR	
Pattern Description:	Horn (ANSI S3.41 temporal pattern)	
Sound output* at	High output: 88 dBA	

Standard output: 83 dBA

² When used with a D7039 Multiplex Expansion Module, the D7024 becomes an addressable fire alarm control panel (FACP).

Tone (Code 3)	
Current (maximum) at 24 V:	High output: 75 mA VDC, 60 mA FWR Standard output: 35 mA VDC, 36 mA FWR
Pattern Description:	500 Hz (ANSI S3.41 temporal pattern)
Sound output* at 10 ft (3 m):	High output: 85 dBA Standard output: 80 dBA
Slow Whoop:	
Current (maximum) at 24 V:	High output: 98 mA VDC, 92 mA FWR Standard output: 37 mA VDC, 42 mA FWR
Pattern Description:	500 Hz to 1200 Hz sweep (4 sec on, 0.5 sec off, repeat)
Sound output* at 10 ft (3 m):	High output: 90 dBA Standard output: 85 dBA
Siren	
Current (maximum) at 24 V:	High output: 104 mA VDC, 92 mA FWR Standard output: 36 mA VDC, 40 mA FWR
Pattern Description:	600 Hz to 1200 Hz sweep (1.0 sec on, repeat)
Sound output* at 10 ft (3 m):	High output: 89 dBA Standard output: 84 dBA
High-Low	
Current (maximum) at 24 V:	High output: 57 mA VDC; 58 mA FWR Standard output: 26 mA VDC, 32 mA FWR
Pattern Description:	1000 Hz and 800 Hz (0.25 sec on, alternate)
Sound output* at 10 ft (3 m):	High output: 86 dBA Standard output: 81 dBA

^{*} Sound output is a minimum UL rating based on sound power measurements in a reverberant test room per UL464 and applies to both 12 V and 24 V filtered or unfiltered input voltages.

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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. While the horn is producing a tone in Temporal Code 3 mode, its sound pressure is the same as the Continuous mode.

Environmental Considerations

Relative Humidity:	Up to 95%, non-condensing
Temperature (Operating):	-31°F to +150°F (-35°C to +66°C)

Mechanical Properties

Dimensions (H x W x D):	5-1/8 in. x 5-1/8 in. x 4-3/8 in. (13 cm x 13 cm x 11.1 cm)
Material:	High-impact thermoplastic

Power Requirements

Current (maximum) strobe only at 75 cd		
VDC:	138 mA	
VFWR:	222 mA	
Voltage (input)		
Nominal:	24 VDC or FWR	
Range:	16.0 VDC or FWR to 33.0 VDC or FWR	
O: 1 D::		

Strobe Rating:

At -31°F (-35°C):	75 cd
At +77°F (+25°C):	180 cd

Ordering information

MTWP-2475W-FR Wall-mount Weatherproof Multitone Electronic Appliance (red)

Red, 24 VDC wall-mount, four-wire device with eight tone patterns, two sound output levels, and a strobe rated at 75 cd at -31°F (-35°C) and 180 cd at +77°F (+25°C)

Order number MTWP-2475W-FR

MTWP-2475C-FR Weatherproof Ceiling-mount Multitone Electronic Appliance (red)

Red, 24 VDC ceiling-mount, four-wire device with eight tone patterns, two sound output levels, and a strobe rated at 75 cd at -31°F (-35°C) and 180 cd at +77°F (+25°C)

Order number MTWP-2475C-FR

Accessories

DBB-R Steel Back Box (red)

8.6 cm (3.375 in.) square, 5.6 cm (2.1875 in.) deep Order number **DBB-R**

IOB-R Indoor or Outdoor Back Box (red)

13.3 cm (5.25 in.) square, 6.7 cm (2.625 in.) deep Order number **IOB-R**

ISP2-R Surface Adapter (red)

13.3 cm (5.25 in.) square, 3 cm (1.1875 in.) deep Order number ISP2-R

ISP2-W Surface Adapter (white)

13.3 cm (5.25 in.) square, 3 cm (1.1875 in.) deep Order number **ISP2-W**

RP-R Retrofit Plate (red)

 $20.3~\mathrm{cm}$ (8 in.) high, $14.9~\mathrm{cm}$ (5.875 in.) wide Order number RP-R

RP-W Retrofit Plate (white)

20.3 cm (8 in.) high by 14.9 cm (5.875 in.) wide Order number **RP-W**

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 ${\bf SBB-R}$

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