MT-12/24-R Multitone Electronic Appliance

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BOSCH
Invented for life

- ▶ Field-selectable choice of eight nationally and internationally recognized alerting signals
- ▶ Two installer-selectable sound output levels
- ▶ NFPA and ANSI compliant
- ▶ UL Listed for indoor or outdoor use
- ▶ Low average current draw

The Wheelock MT-12/24-R appliance is an audible alarm-indicating device engineered to comply with temporal pattern specifications without requiring an additional code mechanism. It offers a selection of eight tone patterns and two sound output levels. 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.

Certifications and approvals

Cooper Wheelock, Inc. holds these Listings and Approvals:

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

Installation/configuration notes

Compatible Products
The following products are compatible with the MT-12/24-R Electronic Appliance:

Category	Product ID	Product Description
Control Panels	Compatible with all Bosch G Series, 6000 Series, 2000 Series, DS7400Xi and DS7400XiV4, DS7080iP-32, DS7200 Series, and DS7060 Series Control Panels[1]	
	D7022[2]	Conventional FACP
	D7024[3]	Addressable FACP
	D7024	Conventional FACP
	D8024[4]	Analog FACP
	D9124[4]	Addressable FACP
	D10024A[4]	Analog FACP
Modules	SM-12/24-R	Synchronization module (red)
	DSM-12/24-R	Dual synchronization module (red)
	RSSP-121575W-FR	Retrofit strobe plate (12 V)

RSSP-241575W-FR	Fixed-candela retrofit strobe plate (24 V)
RSSP-24MCW-FR	Multi-candela retrofit strobe plate (24 V)
RSSP-24MCWH-FR	High-candela retrofit strobe plate (24 V)

[1] For synchronization, use the SM or DSM modules with these control panels and set the appliances and synchronization module for 12 VDC operation.
[2] The D7022 can be used in either 12 VDC or 24 VDC mode, but the appliances and synchronization module must be set for the same operating voltage as the control panel.
[3] When used with a D7039 Multiplex Expansion Module, the D7024 becomes an addressable fire alarm control panel (FACP).
[4] For synchronization, use the SM or DSM modules with these control panels and set the appliances and synchronization module for 24 VDC operation.

> **ℹ Notice**
>
> The retrofit strobe plates are available in 12 V or 24 V models. Choose a model with the correct voltage for the control panel being used. Refer to *Use as Combination Appliance*.

Mounting Considerations
Outdoor or Severe Environment Applications
For an outdoor application or a severe environment (NEMA 3R) application, these multitone appliances in combination with an IOB Indoor or Outdoor 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
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.

Use as Combination Appliance
Where combination appliances are required, these multitone appliances can be used with the RSSP-121575W-FR (12 V, 15/75 cd), RSSP-241575W-FR (24 V, 15/75 cd), RSSP-24MCW-FR (24 V, 15 cd, 30 cd, 75 cd, or 110 cd), or RSSP-24MCWH-FR (24 V, 135 cd or 185 cd) Retrofit Strobe Plates that are designed to meet or exceed the latest requirements of NFPA 72, ANSI 117.0 and UL 1971. The multitone appliances and retrofit strobe plates are also compatible with the SBL2-R Retrofit Device Back Box.

Wiring

> **ℹ Notice**
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> These strobe units are not recommended for use in coded or pulsed signaling circuits.

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	Electronic appliance
1	Hardware pack
1	Literature pack

Technical specifications

Alarm Patterns and Ratings

Horn (continuous)

Current (maximum) at 12 V:	High output: 176 mA VDC, 172 mA FWR Standard output: 34 mA VDC, 39 mA VDC
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 12 V:	High output: 95 mA VDC, 98 mA FWR Standard output: 20 mA VDC, 23 mA FWR
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 12 V:	High output: 142 mA VDC, 172 mA FWR Standard output: 34 mA VDC, 39 mA FWR

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 12 V:	High output: 142 mA VDC, 172 mA FWR Standard output: 34 mA VDC, 39 mA FWR
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 10 ft (3 m):	High output: 88 dBA Standard output: 83 dBA

Tone (Code 3)

Current (maximum) at 12 V:	High output: 105 mA VDC, 103 mA FWR Standard output: 21 mA VDC, 23 mA FWR
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 12 V:	High output: 142 mA VDC and FWR Standard output: 35 mA VDC, 38 mA FWR
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 Standard output: 85 dBA

Siren

Current (maximum) at 12 V:	High output: 152 mA VDC, 153 mA FWR Standard output: 30 mA VDC, 34 mA FWR
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 12 V:	High output: 114 mA VDC, 116 mA FWR Standard output:26 mA VDC, 29 mA FWR
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.

ℹ 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.

Electrical

Input Voltage (nominal):	12 VDC or FWR or24 VDC or FWR
Voltage Range:	12 V: 8.0 V to 17.5 V 24 V: 16.0 V to 33.0 V

Environmental

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

Mechanincal

Dimensions (H x W x D):	5.125 in. x 5.125 in. x 2.0 in. (13 cm x 13 cm x 5.1 cm)
Material:	High-impact thermoplastic

Ordering information

MT-12/24-R Multitone Electronic Appliance
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Order number **MT-12/24-R**

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**

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 **SBB-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**