

# Wheelock MT Multitone Horns and Horn Strobes



## Description

The Wheelock MT multitone horns and horn strobes offer a choice of eight (8) nationally and internationally recognized alerting sounds: Horn, Bell, March Time Horn, Code-3 Tone, Code-3 Horn, Slow Whoop, Siren or Hi/Lo Tone. The Code-3 Horn and tone patterns are engineered to comply with NFPA/ANSI Temporal Pattern specifications without requiring additional equipment. With MT horns and horn strobes, one alarm appliance meets most of your signaling needs. The MT strobes can be synchronized using the Wheelock DSM Sync Modules, Wheelock Power Supplies or other manufacturers panel incorporating the Wheelock Patented Sync Protocol.

The MT Strobes are designed for ADA applications while meeting or exceeding the latest requirements of NFPA 72, ANSI 117.1, UFC and UL Standard 1971 as well as meeting ADA requirements concerning photosensitive epilepsy.

Each MT appliance has two installer selective sound output levels: STANDARD dBA and HIGH dBA. Non-strobe versions provide selectable voltage capability in one unit, 12VDC or 24VDC. Strobe versions are specific for either 12VDC or 24VDC and all models may be used with filtered or unfiltered (full-wave-rectified) input voltages. Separate input terminals are available, shunt wires are provided to enable both tone and strobe to operate simultaneously from a single input.

The MT multitone strobe appliances are UL Listed for indoor wall mount applications under Standard 1971 for Signaling Devices for the Hearing Impaired and under Standard 464 for Audible Signaling Appliances.



*Powering Business Worldwide*

Features

- Approvals include: UL Standard 1971, UL Standard 464, California State Fire Marshal (CSFM), New York City (MEA), Factory Mutual (FM) and Chicago (BFP) See approvals by model in Specifications and Ordering Information
- Designed to meet or exceed ADA/NFPA/UFC/ANSI Standards and Accessibility Guidelines
- Complies with OSHA 29, Part 1910.165
- Series MT appliances have IN and OUT wiring terminations that accept two #12 to #18 American Wire Gauge (AWG) wires at each terminal. Inputs are polarized for compatibility with standard reverse polarity type supervision
- One alarm appliance with (8) eight selective signals to provide superior sound penetration for various ambient and wall conditions with two field selectable sound output levels
- Code-3 Horn and Tone meet ANSI/NFPA temporal pattern for standard emergency evacuation signaling
- Audible and strobe can operate from a single NAC circuit or from separate NAC circuits with any of the (8) eight audible sounds
- MT Strobe models are available with Wheelock patented MCW Multi- Candela strobes with field selectable candela settings at 15/30/75/110cd strobes. Synchronize using the Wheelock Sync Modules or panels with built-in Wheelock Patented Sync Protocol
- Selectable input voltage on non-strobe versions. Strobe versions are factory set for either 12 or 24VDC, with wide- Listed voltage range, filtered (DC) and FWR
- No additional trimplate required for flush mounting

**Note:** All CAUTIONS and WARNINGS are identified by the symbol ▲. All warnings are printed in bold capital letters.

▲ WARNING

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Alarm Tones

Tones	Alarm Tones Pattern Description
Horn	Broadband Horn (continuous)
Bell	1560 Hz Modulated (0.07 sec. On/Repeat)
March Time Horn	Horn (0.25 sec. ON/0.25 sec. Off/Repeat)
Code-3 Horn	Horn (ANSI S3.41 Temporal Pattern)
Code-3 Tone	500 Hz (ANSI S3.41 Temporal Pattern)
Slow Whoop	500-1200 Hz Sweep (4.0 sec. On/0.5 sec Off/Repeat)
Siren	600-1200 Hz (1.0 sec. On/Repeat)
HI/LO	1000/800 Hx (0.25 Sec. On/Alternate)

Drawings

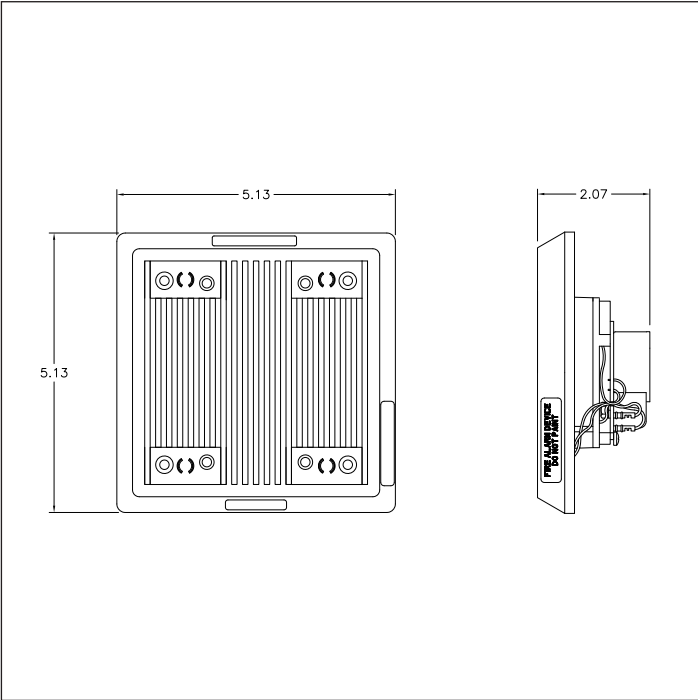


Figure 1. MT Horn - Front & Side Views

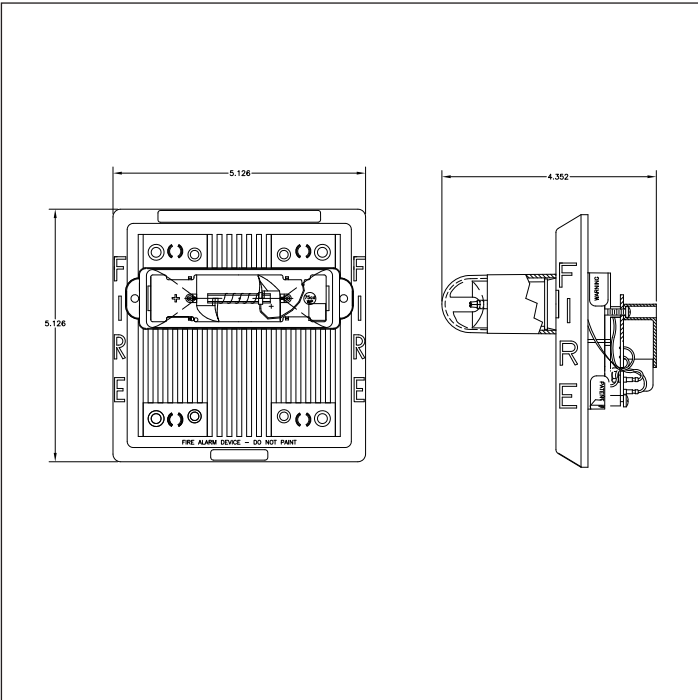


Figure 2. MT Horn Strobe - Front & Side Views

General Notes

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range." Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL 1971.

**Table 1. Maximum RMS Current**

		UL/ULC Max Current <sup>a</sup>					
MT Strobes		24VDC					
Model	Regulated Voltage Range VDC	15	30	75	110	180	1575
MT-121575	16.0-33.0						0.255
MTWP-2475	16.0-33.0					0.138	
MT24-MCW	16.0-33.0	0.060	0.092	0.165	0.220		

**Table 2. dBA Ratings**

Alarm Tones	24 VDC		12 VDC		120 VAC	
	HI Output	STD Output	HI Output	STD Output	HI Output	STD Output
	@ 24 VDC	UL Max <sup>a</sup>	@ 24 VDC	UL Max <sup>a</sup>	@ 24 VDC	UL Max <sup>a</sup>
Horn	0.074	0.108	0.033	0.044	0.145	0.176
Bell	0.040	0.053	0.018	0.024	0.077	0.095
March Time Horn	0.067	0.104	0.033	0.038	0.109	0.142
Code-3 Horn	0.069	0.091	0.026	0.035	0.100	0.142
Code-3 Tone	0.061	0.075	0.026	0.035	0.088	0.105
Slow Whoop	0.069	0.098	0.028	0.037	0.100	0.142
Siren	0.080	0.104	0.027	0.036	0.122	0.152
HI/LO	0.044	0.057	0.020	0.026	0.089	0.114

**Table 3. dBA for Multitone Audible Portion**

Alarm Tones	UL Reverberant dBA at 10 Feet					
	24 VDC		12 VDC		120 VAC	
	HI Output	STD Output	HI Output	STD Output	HI Output	STD Output
Horn	92	87	90	77	85	82
Bell	86	80	85	69	82	75
March Time Horn	89	84	89	74	85	79
Code-3 Horn	88	83	88	73	82	75
Code-3 Tone	85	80	84	70	79	75
Slow Whoop	90	89	89	75	85	82
Siren	89	84	89	75	85	82
HI/LO	86	81	86	71	82	79

<sup>a</sup> RMS current ratings are per UL maximum RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

**Table 3. Specification & Ordering Information**

Model	Order #	Input Voltage	Strobe Candela	Mounting Options	Agency UL	Approvals MEA	CSFM	FM	BFP
MT-12/24-R	5023	12/24		D,E,F,L,M,O,P,R	x	X	X	X	X
MT-12/24-W	5024	12/24		D,E,F,L,M,O,P,R	x	X	X	X	X
MT-24MCW-FR	3301	24	15/30/75/110	D,E,F,L,M,O,P,R	x		X	X	
MT-24MCW-FW	3303	24	15/30/75/110	D,E,F,L,M,O,P,R	x		X	X	
MT-24MCW-AR	3304	24	15/30/75/110	D,E,F,L,M,O,P,R	x		X		
MT-121575W-FR	8421	12	15(75 on AXIS)	D,E,F,L,M,O,P,R	x	X	X	X	
MT-121575W-NW	9747	12	15(75 on AXIS)	D,E,F,L,M,O,P,R	x	X	X	X	
MTWP-2475W-FR <sup>b</sup>	8420	24	180 @ 77 F (25 C)	M	x	X	X	X	
MTWP-2475W-NW <sup>b</sup>	9744	24	180 @ 77 F (25 C)	M	x	X	X	X	
MT4-115-R	6223	120 VAC		D,E,J,K,N,O,R	x	X	X		X
MT4-115S	6142	120 VAC		D,E,J,K,N,O,R	x	X	X		X
MT4-115-WH-VFR	6224	120 VAC	15	D,E,J,K,N,O,R	x	X	X		X
MT-12/24-R	5308	12/24		D,E,J,K,N,O,R	x	X	X	X	
MT4-12/24-S	7997	12/24		D,E,J,K,N,O,R	x	X	X	X	

<sup>b</sup> MTWP-2475W is Weatherproof and rated for 180 cd @ 77°F (25°C). See Data Sheet S9004 or Installation Instruction P84150.

## Architects and Engineers Specifications

The notification appliance shall be a Wheelock Series MT audible/visual appliance or equivalent. Notification appliance shall be electronic and use solid state components. Electromechanical alternatives are not approved. Each electronic appliance shall provide eight (8) field selectable alarm tones. The tones shall consist of: HORN, BELL, MARCH TIME HORN, CODE-3 HORN, CODE-3 TONE, SLOW WHOOP, SIREN and HI/LO. Tone selection shall be by durable dip switch assembly and not clips or jumpers. The Multitone Audible appliance shall be UL Listed under Standard 464 for Audible Signal Appliances. The audible and the strobe shall be able to operate from a single NAC circuit while producing any of these tones. The appliance shall provide two output sound levels: STANDARD and HIGH dBA. The HIGH dBA setting shall provide a minimum 5 dBA increase in sound output at nominal voltage. The HIGH anechoic dBA measurement at 10 feet at the alarm HORN SETTING shall be 99 dBA minimum. Operating voltages shall be either 12 VDC or 24 VDC using filtered power or unfiltered power supply (full-wave-rectified). All models shall have provisions for standard reverse polarity type supervision and IN/OUT field wiring using terminals that accept #12 to #18 AWG wiring.

Combination audible/visual appliances shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens or equivalent with solid state circuitry. Strobe shall produce a flash rate of one (1)

flash per second minimum over the voltage range. Strobe Models shall incorporate circuitry for synchronized strobe flash and shall be designed for compatibility with Wheelock DSM Sync Modules, Wheelock Power Supplies or other manufacturers panels with built-in Wheelock Patented Sync Protocol.

The strobes shall not drift out of synchronization at any time during operation. If the module fails to operate (i.e., contacts remain closed), the strobes shall revert to a non-synchronized default flash rate. Strobe activation shall be via independent input or from the same input circuit as the audible.

The combination audible/visual appliances shall be installed indoors and may be surface or flush mounted. They shall mount to standard electrical hardware requiring no additional trim plate or adapter. The aesthetic appearance shall not have any mounting holes or screw heads visible when the installation is completed. The appliance shall be finished in a textured red color.

The Series MT-12/24, MTWP and MT4 appliances may be installed indoor or outdoor with the proper back box.

UL, ULC, MEA, CSFM, FM, BFP, FCC

**Note:** Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Cooper Wheelock Inc., dba Eaton standard terms and conditions.



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