

Series MT and MT Strobe Multitone Electronic Appliances



SERIES MT STROBE



MT4-115-WH



SERIES MT-12/24

Description:

The Wheelock Series MT and MT Strobe Multitone electronic appliances 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 and MT Strobe appliances, one alarm appliance meets most of your signaling needs. The MT strobes can be synchronized using the Wheelock SM, DSM Sync Modules or the PS-24-8MC Power Supply with 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 and MT Strobe 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 Series 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.

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 or with single candela 1575cd strobes. The strobes can be synchronized using Wheelock sync modules or power supplies with built in 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

For Weatherproof MTWP See Data Sheet S9004



7135-0785:118 (MT4)
7125-0785:155 (MT)
7125-0758:156 (MTWP)

NOTE: All CAUTIONS and WARNINGS are identified by the symbol . All warnings are printed in bold capital letters .
⚠ WARNING: PLEASE READ THESE SPECIFICATIONS AND INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

General Notes:

- Strobes are designed to flash at 1 flash per second minimum over their “Regulated Voltage Range” (16-33v for 24VDC units and 8-17.5v for 12VDC units). Regulated Voltage Range is the newest terminology used by UL to identify the listed voltage range.
- All candela ratings represent minimum effective Multitone Strobe intensity based on UL Standard 1971.
- MT Strobe models are UL Standard 1971 Listed for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% ±2%. The MT-12/24, MTWP and MT4 models and listed for outdoor use at -31°F to 150°F (-35°C to 66°C) and maximum humidity of 95% (See Data Sheet S9004 or Installation Instruction Sheet P84150 for more detail on MTWP).
- MTWP and MT4 strobes are listed under UL 1638.
- MT Audible is UL Standard 464 Listed.

Alarm Tones

tone	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 SWEEP (1.0 sec. ON/Repeat)
HI/LO	1000/800 Hz (0.25 sec. ON/Alternate)

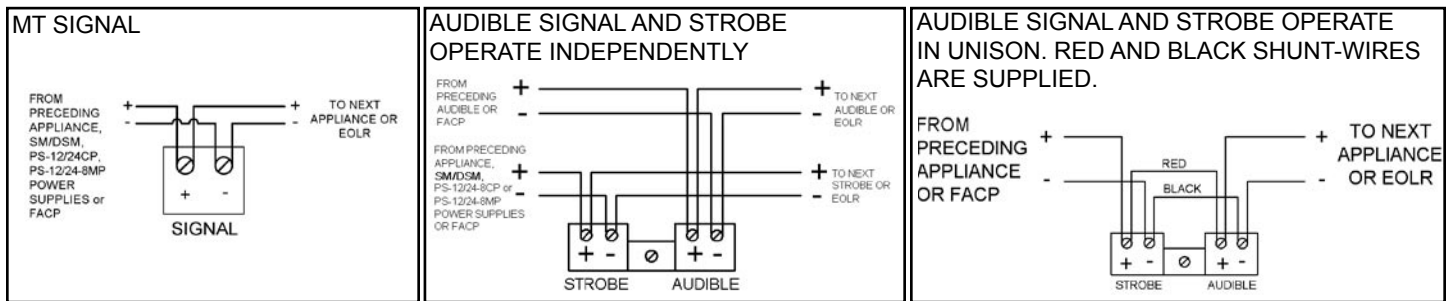
	Table 1: dBA and Current Ratings for Multitone Audible Portion																	
	RMS Current (amps)										dBA @ 10ft (UL Reverberant)				dBA @ 10ft (anechoic) dBA @ 10ft (UL Reverberant)			
	24 VDC				12 VDC				120 VAC		24 VDC		12 VDC		12 and 24 VDC		120 VAC	
	HI Output		STD Output		HI Output		STD Output		HI Output	STD Output	HI Output	STD Output	HI Output	STD Output	HI Output	STD Output	HI Output	STD Output
	@ 24 VDC	UL max*	@ 24 VDC	UL max*	@ 24 VDC	UL max*	@ 24 VDC	UL max*	UL max*	UL max*								
Horn	0.074	0.108	0.033	0.044	0.145	0.176	0.023	0.034	0.050	0.042	92	87	90	77	99	93	88	82
Bell	0.040	0.053	0.018	0.024	0.077	0.095	0.014	0.020	0.041	0.039	86	80	85	69	92	87	82	75
March Time Horn	0.067	0.104	0.033	0.038	0.109	0.142	0.023	0.034	0.050	0.040	89	84	89	74	99	93	85	79
Code-3 Horn	0.069	0.091	0.026	0.035	0.100	0.142	0.023	0.034	0.050	0.042	88	83	88	73	99	93	85	75
Code-3 Tone	0.061	0.075	0.026	0.035	0.088	0.105	0.015	0.021	0.042	0.040	85	80	84	70	95	90	79	75
Slow Whoop	0.069	0.098	0.028	0.037	0.100	0.142	0.025	0.035	0.050	0.042	90	89	89	75	99	94	88	82
Siren	0.080	0.104	0.027	0.036	0.122	0.152	0.021	0.030	0.045	0.041	89	84	89	75	98	93	85	82
HI/LO	0.044	0.057	0.020	0.026	0.089	0.114	0.018	0.026	0.042	0.039	86	81	86	71	93	88	82	79

Table 2: Strobe Current Ratings							
RMS Current (amps)							
Model	MT-121575	MT-241575	MTWP-2475	MT-24MCW			
Candela	1575cd	1575cd	180cd	15cd	30cd	75cd	110cd
@ 24VDC	0.152	0.060	0.094	0.041	0.063	0.109	0.140
UL max*	0.255	0.090	0.138	0.060	0.092	0.165	0.220

Note: If the strobe and audible operate on the same circuit, add the strobe current from Table 2 to the audible current from Table 1.

* RMS current ratings are per UL average 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.

Wiring Diagrams (for all models)



Specifications and Ordering Information

Model Number	Order Code	Input Voltage	Rated Candela	Mounting Options***	Agency Approvals				
					UL	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-241575W-FR#	8422	24	15 (75 on AXIS)	D,E,F,L,M,O,P,R	X	X	X	X	*
MT-24MCW-FR	3301	24	15/30/75/110	D,E,F,L,M,O,P,R	X	*	X	*	*
MT-24MCW-FW	3303	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**	8420	24	180 @ 77°F (25°C)	M	X	X	X	X	*
MTWP-2475W-NW**	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	X
MT4-115-S	6142	120 VAC	-	D,E,J,K,N,O,R	X	X	X	X	X
MT4-115-WH-VFR##	6224	120 VAC	15	D,E,J,K,N,O,R	X	X	X	X	X
MT4-12/24-R	5308	12/24	-	D,E,J,K,N,O,R	X	*	*	*	*
MT4-12/24-S	7997	12/24	-	D,E,J,K,N,O,R	X	*	*	*	*

NOTE: **MTWP-2475W is Weatherproof and rated for 180 cd @ 77°F (25°C). See Data Sheet S9004 or Installation Instruction P84150.

***For additional information on mounting please refer to Data Sheet S7000.

1575 strobes are UL Listed for 15cd with 75cd on AXIS.

Series WH Strobe is listed for UL Standard 1638 only. See Instruction Sheet P83160.

*Pending

⚠ WARNING: CONTACT WHELOCK FOR THE CURRENT "INSTALLATION INSTRUCTIONS" P82467 MT-12/24, P84155 MT w/Strobe P84150 MTWP WEATHERPROOF "GENERAL INFORMATION" SHEET (P82380) ON THESE PRODUCTS. THESE DOCUMENTS DO UNDERGO PERIODIC CHANGES. IT IS IMPORTANT THAT YOU HAVE CURRENT INFORMATION ON THESE PRODUCTS. THESE MATERIALS CONTAIN IMPORTANT INFORMATION THAT SHOULD BE READ PRIOR TO SPECIFYING OR INSTALLING THESE PRODUCTS, INCLUDING:

- TOTAL CURRENT REQUIRED BY ALL APPLIANCES CONNECTED TO SYSTEM SECONDARY POWER SOURCES.
- FUSE RATINGS ON NOTIFICATION APPLIANCE CIRCUITS TO HANDLE PEAK CURRENTS FROM ALL APPLIANCES ON THOSE CIRCUITS.
- COMPOSITE FLASH RATE FROM MULTIPLE STROBES WITHIN A PERSON'S FIELD OF VIEW.
- THE VOLTAGE APPLIED TO THESE PRODUCTS MUST BE WITHIN THEIR RATED INPUT VOLTAGE RANGE.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.
- USE STROBES ONLY ON CIRCUITS WITH CONTINUOUSLY APPLIED OPERATING VOLTAGE. DO NOT USE STROBE ON CODED OR INTERRUPTED CIRCUITS IN WHICH THE APPLIED VOLTAGE IS CYCLED ON AND OFF AS THE STROBE MAY NOT FLASH.
- FAILURE TO COMPLY WITH THE INSTALLATION INSTRUCTIONS OR GENERAL INFORMATION SHEETS COULD RESULT IN IMPROPER INSTALLATION, APPLICATION, AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.
- CONDUCTOR SIZE (AWG), LENGTH AND AMPACITY SHOULD BE TAKEN INTO CONSIDERATION PRIOR TO DESIGN AND INSTALLATION OF THESE PRODUCTS, PARTICULARLY IN RETROFIT INSTALLATIONS.

Wheelock products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with their installation instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriters' Laboratories (UL), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations, laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ).

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. The MT strobe intensity shall be rated per UL and Listed under Standard 1971 for Signaling Devices for the Hearing Impaired for 1575cd multi-candela with field selectable 15/30/75/110 candela settings. The 1575 candela strobe shall be specified when 15 candela or with 75 candela intensity on-axis is required. Strobe Models shall incorporate circuitry for synchronized strobe flash and shall be designed for compatibility with Wheelock SM and/or DSM Sync Modules or Wheelock's Power Supplies with 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 trimplate 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.

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



273 Branchport Avenue
Long Branch, NJ 07740
Phone: (800) 631-2148
Fax: (732) 222-2588
www.cooperwheelock.com



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