

FIRE ALARM SYSTEMS

SERIES MT AND MT STROBE MULTITONE ELECTRONIC APPLIANCES

Description: Wheelock's 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. With MT and MT Strobe appliances, one alarm appliance meets most of your signaling needs. Strobe models can be synchronized using the Wheelock SM or DSM sync modules.

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, filtered or FWR. Strobe versions are specific for either 12VDC or 24VDC and 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 Multitone Strobe appliances are ULC Listed under Standard CAN/ULC-S526-02 for Visual Signaling Appliances and Standard CAN/ULC-S525-99 for Audible Signal Appliances, and use a Xenon flashtube with solid state circuitry enclosed in a rugged Lexan ® lens to provide maximum reliability for effective visible signaling.



SERIES MT w/o STROBE



SERIES MT STROBE w/IOB BACKBOX

Features:

 Approvals include: CAN/ULC-S526-02 for Visual Signaling Appliances and Standard CAN/ULC-S525-99 for Audible Signal Appliances

SERIES MT WITH STROBE

- Designed to meet or exceed NFPA/ANSI Standards and ADA Accessibility Guidelines. Meet 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 with any of the (8) eight audible sounds
- MT Strobe models available with 1575 candela ratings for independent or single input activations and can be synchronized using Wheelock's SM or DSM sync module(s)
- Selectable input voltage on non-strobe versions
- Mounts to either 4" square or double gang boxes (important for retrofit installations). Attractive flush or surface mounting
- No additional trimplate required for flush mounting

For Weatherproof MTWP See Data Sheet S9004C

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 voltage range.
- All candela ratings represent minimum effective Multitone Strobe intensity.
- MT Strobe models are Listed under Standard CAN/ULC-S526-02 for Visual Signaling and under Standard CAN/ULC-S525-99 for Audible Signal Devices for Fire Alarm Systems for indoor use with a temperature range of 0°C to 49°C (32°F to 120°F) and maximum humidity of 93% ± 2%.

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)
HVLO	1000/800 Hz (0.25 sec. ON/Alternate)

Specifications

UI C

12 and 24 VDC

Voltage Range

20.0 VDC

24.0 VDC

Table 1: dBA and Current Ratings for Multitone Audible Portion								
Tone	ULC Average Current Ratings				dBA Anechoic Ratings Per CAN/ULC-525-99			
	@ 24 VDC		@ 12 VDC		@ 12 and 24 VDC			
	HI	STD	НІ	STD	Н	STD		
Horn	0.040	0.023	0.100	0.020	99	93		
Bell	0.014	0.012	0.031	0.010	92	87		
March Time Horn	0.040	0.023	0.100	0.020	99	93		
Code-3 Horn	0.040	0.023	0.100	0.020	99	93		
Code-3 Tone	0.028	0.017	0.060	0.015	95	90		
Slow Whoop	0.048	0.026	0.100	0.025	99	94		
Siren	0.036	0.023	0.082	0.020	98	93		
H/LO	0.020	0.014	0.044	0.012	93	88		

Table 2: Strobe Current Ratings (AMPS) **ULC Rated Average Current** MT-241575W MT-2475W MT-121575W MTWP2475W .178 .090 .138 .060 .140 .094

31.0 VDC .045 .124 .067 10.5 VDC .231 12.0 VDC .179 15.6 VDC .161

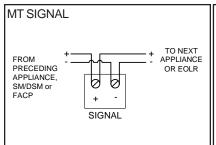
Note: If the strobe and audible operate on the same circuit, add the strobe current from Table 2 to the audible current from Table 1.

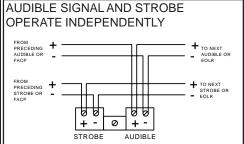
For Peak and Inrush current across the listed voltage range refer to Installation Instructions.

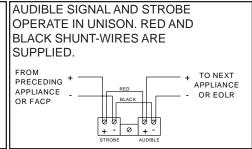
CAUTION: This setting is acceptable only for general signaling (non-fire alarm) use. Use the "high" dBA setting with this tone or use a different tone for public mode fire alarm service.

AWARNING: FOR ULC VERSIONS THESE APPLIANCES WERE TESTED TO THE OPERATING VOLTAGE OF 20.0 - 31.- VOLTS FOR 24V MODELS AND 10.5 - 15.6 **VOLTS FOR 12V MODELS USING FILTERED (DC) OR** UNFILTERED FULL-WAVE-RECTIFIED (FWR). APPLY 80% AND 110% OF THESE VOLTAGE VALUES FOR SYSTEM OPERATIONS.

Wiring Diagrams (for all models)







ORDERING INFORMATION

Model Number	Order Code	Input Voltage	ULC Rated Candela	Mounting Options***
MT-12/24-R*	5023	12/24	-	D, E, F, L, M, O, P, R
MT-12/24-W*	5024	12/24	-	D, E, F, L, M, O, P, R
MT-121575W-FW	9461	12	75	D, E, F, L, M, O, P, R
MT-121575W-NW	9747	12	75	D, E, F, L, M, O, P, R
MT-241575W-FR	8422	24	75	D, E, F, L, M, O, P, R
MT-241575W-FW	9460	24	75	D, E, F, L, M, O, P, R
MT-241575W-NW	9739	24	75	D, E, F, L, M, O, P, R
MT-241575W-UW	3156	24	75	D, E, F, L, M, O, P, R
MTWP-2475W-FR	8420	24	75**	М
MTWP-2475W-FW	3112	24	75**	М
MTWP-2475W-NW	9744	24	75**	М

NOTE:

*MT-12/24 Audible can be used with Wheelock's RSSP Multi-Candela for applications requiring 15, 30, 75, 110 cd Wall Strobes.

**MTWP-2475W is Weatherproof and rated for 75 cd @ -35°C. See Data Sheet S9004C or Installation Instruction P84150.

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

AWARNING: CONTACT WHEELOCK FOR THE CURRENT "INSTALLATION INSTRUCTIONS" (P82467 MT-12/24, P84155 MT w/ Strobe) "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 ELASH
- 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), Canadian Standard for Installation of Fire Alarm Systems, Canadian Electrical Code Part 1, 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 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 101 dBA minimum for MT and 99 dBA minimum for MT Strobes, at nominal voltage. 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 strobe intensity shall be rated per CAN/ULC-S525-99 for Candela. The 15/75 candela strobe shall be specified when 15 candela with 75 candela intensity on-axis is required. Series Strobe Models shall incorporate circuitry for synchronized strobe flash and shall be designed for compatibility with Wheelock: SM and/or DSM Sync Modules. 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.

The Sync Module shall be designed and available in two versions; the SM-12/24 for control of a Class B circuit; and a dual output version, the DSM-12/24 for control of either Class A or multiple Class B circuits. Rated average current requirement for the SM-12/24 shall be .017/.028 amperes; the DSM-12/24 shall be .020/.035 amperes. A single circuit SM Sync Module shall be capable of handling a 3 ampere load @ 12 or 24 VDC; dual circuit DSM Sync Modules shall be capable of handling a load of 3 amperes per circuit @ 12 or 24 VDC.

All Listed strobe appliances shall incorporate low temperature compensation to insure the lowest possible current consumption. Strobe activation shall be via independent input or from the same input circuit as the audible.

The combination audible/visual appliances may be installed indoors and 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 audible appliance 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.

WE SUPPORT AND ENCOURAGE NICET CERTIFICATION ASSEMBLED IN THE USA

3 YEAR WARRANTY

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