

INSTALLATION INSTRUCTIONS
MIZ-MINI HORNS

Use this product according to this instruction manual. Please keep this instruction manual for future reference.

GENERAL

Electronic MIZ-Mini Horns are designed to produce high sound output with minimal current requirements. They are UL-Listed under UL 464, Standard for Audible Signal Appliances and ULC Listed under Standard CAN/ULC-S525-07, Standard for Audible Signal Appliances For Fire Alarm Systems. All inputs are polarized for compatibility with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP). MIZ-Mini Horns are recommended for alarm signaling for individual rooms in apartments, motels, hotels and offices. They mount to standard backboxes to reduce the cost of installation. All models are listed for indoor use with the backboxes specified in these instructions (See Mounting Options).

They provide a selectable Continuous or Code 3 horn tone when connected directly to a Fire Alarm Control Panel (FACP). They can also provide a synchronized Code 3 horn tone when used in conjunction with a Sync Module (SM), Dual Sync Module (DSM) or Cooper Wheelock's Power Supplies.

MIZ-Mini Horns can be used on coded systems where the applied voltage is cycled on and off.

WARNING: Please read these instructions carefully. Failure to comply with any of the following 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.

WARNING: The MIZ appliance is a fire alarm device – DO NOT PAINT.

SPECIFICATIONS

Table 1: UL and ULC Listed Models and Ranges

Models	Regulated Voltage	Voltage Range Limit Per UL 464	Voltage Range Per CAN/ULC-S525-07
	(VDC/V _{RMS})	(VDCV _{RMS})	(VDC/V _{RMS})
MIZ-24S	24	16.0-33.0	16.0-33.0

Table 2: UL/ULC dBA Sound Output

Description	Reverberant Per UL 464 @ 10 Ft.			Anechoic dBA Per CAN/ULC-S525-07 @ 10 Ft.		
	16.0VDC	24.0VDC	33.0VDC	16.0VDC	24.0VDC	33.0VDC
Continuous Horn	79	83	85	86	87	90
Code 3 Horn	75	78	81	86	87	89

Table 3: U/ULC Current Ratings (AMPS)

Maximum RMS Current		
DC	16.0-33.0VDC	0.026
FWR	16.0-33.0V _{RMS}	0.043

Table 4: ULC Directional Characteristics

Axis	dBA	Angle
Horizontal	-3dBA	85 degrees right, 90+ degrees left
	-6dBA	88 degrees right, 90+ degrees left
Vertical	-3dBA	80 degrees up, 85 degrees down
	-6dBA	85 degrees up, 90 degrees down

NOTES

- Anechoic dBA is measured in anechoic chamber with fast meter response.
- Reverberant dBA is rated per UL 464, Standard for Audible Signal Appliances.

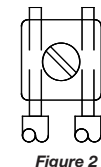
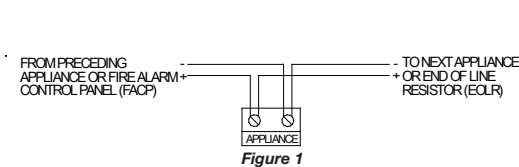
WARNING: For UL/ULC applications these appliances were tested to the operating voltage limits of 16.0-33.0 Volts for 24.0VDC models using filtered (DC) or unfiltered full-wave-rectified (FWR). Do not apply 80% and 110% of these voltage values for system operation.

WARNING: Verify the minimum and maximum output of the power supply and standby battery and subtract the voltage drop from the circuit wiring resistance to determine the applied voltage to the strobes.

WARNING: Ensure the current required by all appliances that are connected to the system's primary and secondary power sources, NAC circuits, SM, DSM sync modules or Cooper Wheelock's power supplies do not exceed the power sources' rated capacity or the current ratings of any fuses on the circuits to which these appliances are wired. Overloading power sources or exceeding fuse ratings could result in loss of power and failure to alert occupants during an emergency, which could result in property damage and serious injury or death to you and/or others.

When calculating the total current, use Table 3 to determine the highest value of RMS Current for an individual horn (across the expected operating voltage range of the device). Then, multiply this value by the total number of devices. Be sure to add the current for any other devices powered by the same source and include any required safety factors.

WIRING INFORMATION



- Appliances have in-out wiring terminals that accept two #12 to #18 American Wire Gauge (AWG) wires at each screw terminal. Strip leads 3/8 of an inch and connect to screw terminals.
- Break all in-out wire runs on supervised circuits to ensure the integrity of circuit supervision shown in Figure 1. The polarity shown in the wiring diagrams is for the operation of the appliances. The polarity is reversed by the FACP during supervision.

NOTE: Wiring method shall be in accordance with CSA C22.1, Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations, Section 32.

FACP NAC	MIZ-24S	Result
Continuous	Continuous	Continuous
Continuous	Temporal	Code 3
Code 3	Continuous	Code 3
Continuous with SM/DSM *	Temporal	Synchronized Code 3

* Requires use of SM, DSM, or Cooper Wheelock's Power Supplies in Wheelock Sync mode.

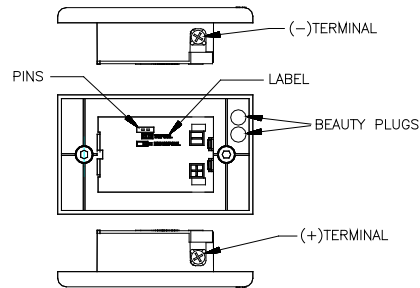


Figure 3: Temporal (Code 3) / Non-Temporal (Continuous) Select

NOTE: Temporal (shorted) Non-Temporal (open)

Unit is shipped from factory with Temporal (Code 3) selected (jumper to right). Installer can select Non-Temporal (Continuous) audible signal by moving the factory installed jumper to the left one position. The jumper is placed only on the left pin, leaving the circuit open to select Continuous. Detach Beauty Plugs from rear of the grille before installing unit.

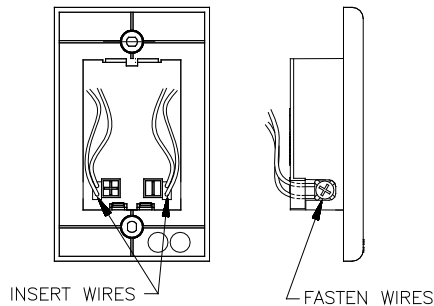


Figure 4

MOUNTING PROCEDURES

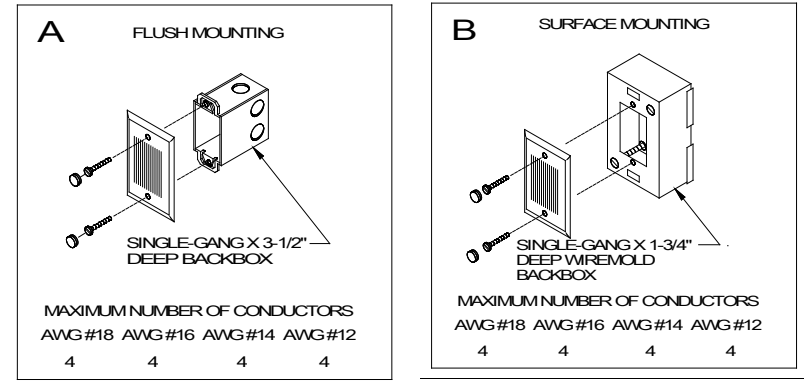
Use this mounting procedure to position the field wires in the backbox so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing.

- Connect the 2 field wires to each screw terminal (in-out wiring) and dress the 2 wires through the slot as shown in Figure 4 (polarity must be observed).
- Gently push the 4 field wires into the backbox by hand and screw the unit to the backbox.

MOUNTING OPTIONS

CAUTION: The following figures show the maximum number of field wires (conductors) that can enter the backbox used with each mounting option. If these limits are exceeded, there may be insufficient space in the backbox to accommodate the field wires and stresses from the wires could damage the product.

Although the limits shown for each mounting option comply with the National Electrical Code (NEC), Cooper Notification recommends use of the largest backbox option shown and the use of approved stranded field wires, whenever possible, to provide additional wiring room for easy installation and minimum stress on the product from wiring.



MOUNTING NOTES

CAUTION: Verify the installed product has sufficient clearance and wiring room prior to installing backboxes and conduit, especially if sheathed multi-conductor cable or 3/4-inch conduit fittings are used.

- Mounting hardware for each mounting option is supplied.
- When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the signaling appliance.
- Use care and proper techniques to position the field wires in the backbox so they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing.
- Do not pass additional wires (used for other than the signaling appliance) through the backbox. Such additional wires could result in insufficient wiring space for the signaling appliance.
- Place Beauty Plugs over screw heads after installation using the mounting hardware supplied.
- All models are UL Listed for indoor use with a temperature range of +32°F to +120°F (0°C to +49°C) and maximum humidity of 93% RH, ±2%.

If this appliance is required to produce a distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, 1999 Edition, the appliance must be used with a Fire Alarm Control unit that can generate the temporal pattern signal. Refer to manufacturer's installation manual for details.

CAUTION: Verify the installation instructions of the manufacturers of other equipment used in the system for any guidelines or restrictions on wiring and/or locating Notification Appliance Circuits (NAC) and notification appliances. Some system communication circuits and/or audio circuits, for example, may require special precautions to ensure electrical noise immunity (e.g., audio crosstalk).

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