

# MSHP, MSLP, MSDP

## POWERTONE® MINISPEAKERS

### SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with this product. In addition, listed below are some other important safety instructions and precautions you should follow:

- This unit should be installed by a qualified electrician in accordance with NFPA 72, and national and local Electrical and Fire Codes, under the direction of the authority having jurisdiction.
- If the unit is not installed in a supervisory system, it must be tested at regular intervals. Refer to NFPA 72 and the local Fire Codes for this information.
- After installation and testing are complete, provide a copy of this instruction sheet to all personnel responsible for routine testing and maintenance of this equipment.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you and others.

#### A. GENERAL.

The Models MSHP, MSLP, and MSDP minispeakers are Underwriters Laboratories listed for "Fire Protective Signalling Use" (category designation UUMW). These minispeakers are designed to reproduce electronically generated fire alarm warning tones and other emergency alerting signals, using an external 25 VRMS AC signal source at a frequency range of 800Hz to 4000Hz. The overall sound levels are shown in table 1. In addition, this minispeaker can reproduce full range voice communication. An in-line capacitor (supplied) provides the isolation necessary for circuit supervision.

The minispeakers are installed at the factory on decorative, high-impact, thermoplastic, wall plates (red, beige, or white) and include color coordinated mounting screws. An optional vandal-resistant version with stainless steel protective screening between the grill and speaker is also available. Single gang (2" x 4") or standard 4" x 4" electrical backbox mounting is utilized. Two #6-32 protective saddle clamp-type terminals for easy in/out wiring are factory installed (see figure 1).

The speaker/strobe models (on duplex wallplate) are available with a 24VDC strobe unit. For additional information regarding the attached strobe, refer to Model V1971 strobe instruction sheet (CPG Part No. 2561090) or Model VST strobe instruction sheet (CPG Part No. 2561310).

#### B. INSTALLATION.

##### 1. Unpacking.

After unpacking the minispeaker unit, examine it for damage that may have occurred in transit. If the unit has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier stating the extent of the damage. Ensure that the parts listed in the KIT CONTENTS LIST are contained in the packing carton.

#### WARNING

To avoid electrical shock, do not attempt to install wires when power is on.

##### 2. Model MSDP Power Setting.

#### WARNING

To avoid electrical shock and damage to the minispeaker, ensure that power to the minispeaker is disconnected before attempting to perform the power setting modification.

This model is supplied with a 1-watt power setting. To change to a 0.6-watt power setting, cut and remove the upper insulated wire from the minispeaker assembly as shown in figure 2. This modification lowers the power draw to .6-watt and reduces the audio output level (see table 1).

##### 3. Electrical Connections.

Use 14 AWG (maximum) wiring for all minispeaker(s).

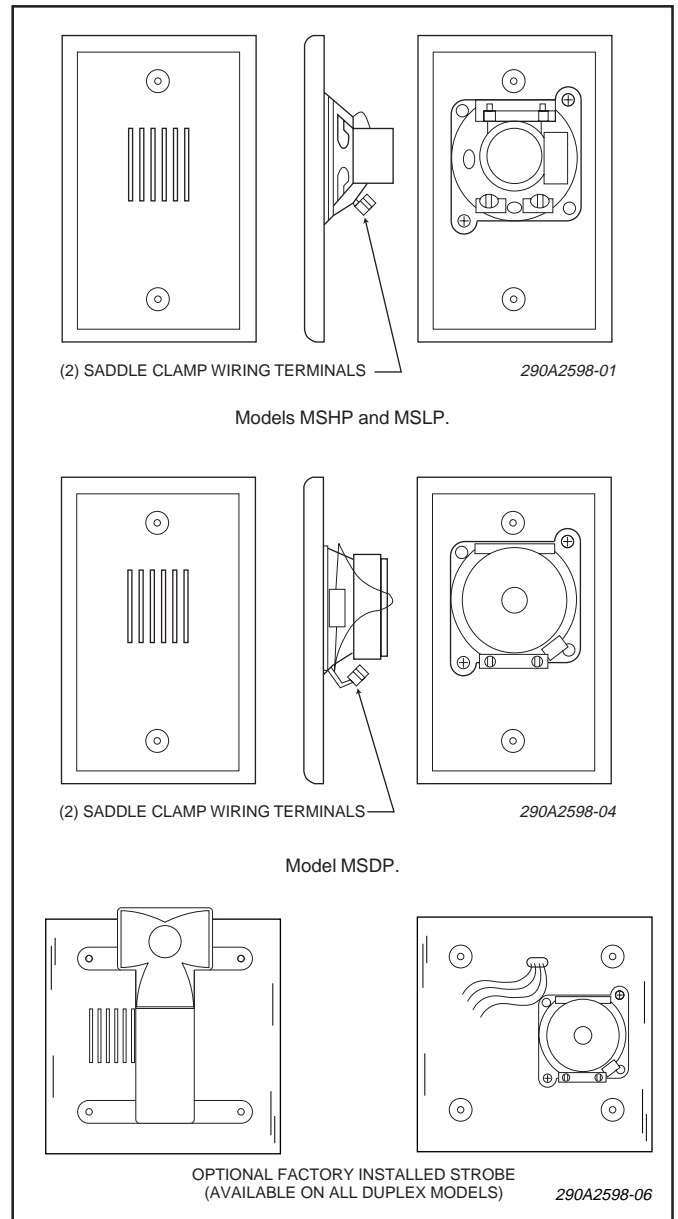


Figure 1. Minispeaker Configurations.

Model (25 VRMS)	Power (Watts) ±10%	UL Sound Pressure @ 10' dB(A)		Sound Power dB(A)	
		Std.	Vandal Resistant	Std.	Vandal Resistant
MSHP	1.08	78	78	95.6	93.0
MSLP	0.75	75	75	91.3	90.5
MSDP (Dual Power)	0.60	75	n/a	89.8	n/a
	1.00	78	78	94.7	93.9

Table 1. Output Ratings.

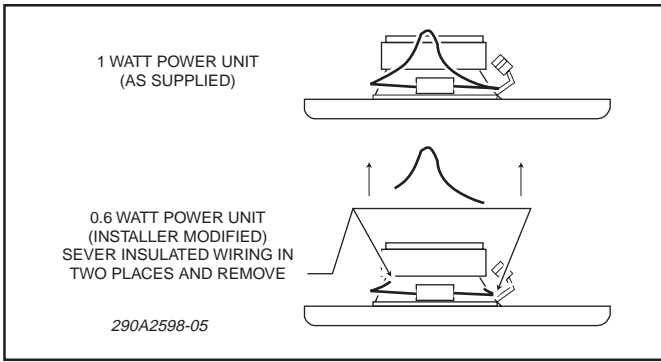


Figure 2. Model MSDP Power Configurations.

**WARNING**

Property damage, serious injury, or death in the protected premises may occur if wiring is improperly terminated. For proper warning system operation, ensure that the wires to the minispeaker and strobe, if used, are properly terminated.

In addition, an uninsulated section of a single conductor must NOT be looped around a terminal and used as two separate connections. NFPA 72 requires that the wire is severed to provide electrical supervision of the connection.

a. Non-strobe units

See figure 3. Two U-shaped saddle clamp-type terminals are supplied on the minispeaker for electrical connections. Strip 3/8" of insulation from all wiring leads. Attach the appropriate wires to the corresponding terminals on the back of the minispeaker. The red terminal indicates the positive lead. Securely tighten both of the binding screws to firmly capture the wires within the saddle clamps.

b. Strobe units

**WARNING**

Serious injury may occur due to a potential shock hazard. High voltages may be present inside the light assembly even though power is not connected. It is recommended that the strobe unit not be opened. If the strobe is damaged in a way that exposes internal components, it must be removed. If a replacement strobe is not immediately available, the electrician must provide suitable protection for the wires that are exposed by removing the strobe light. Disconnect the minispeaker unit from the power source and wait 5 minutes. Then the capacitor must be discharged by touching the ends of an insulated wire to both ends of the flashtube. Do not attempt to touch or move the assembly until the capacitor has been discharged by this method.

See figure 4. Connect the strobe light's red (+) lead to the power source positive (+) lead. Connect the strobe light's black (-) lead to the power source negative (-) lead. Connect the minispeaker wiring as described in B.3.a above.

**WARNING**

Property damage, serious injury or death may occur if independent strobe conductor wires are terminated together; both wires of the same polarity must be used as two separate connections. NFPA 72 requires that the wires be terminated independently to provide electrical supervision of the connection.

4. Mounting Arrangements (see figure 4).

**WARNING**

Property damage, serious injury or death may occur in the protected premises if a minispeaker is outdoor mounted. The minispeaker must be installed indoors.

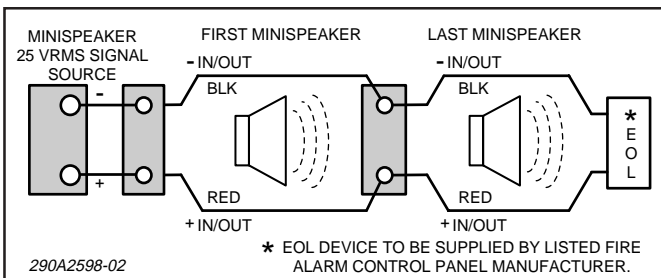


Figure 3. Minispeaker Wiring Diagram (Non-strobe Unit).

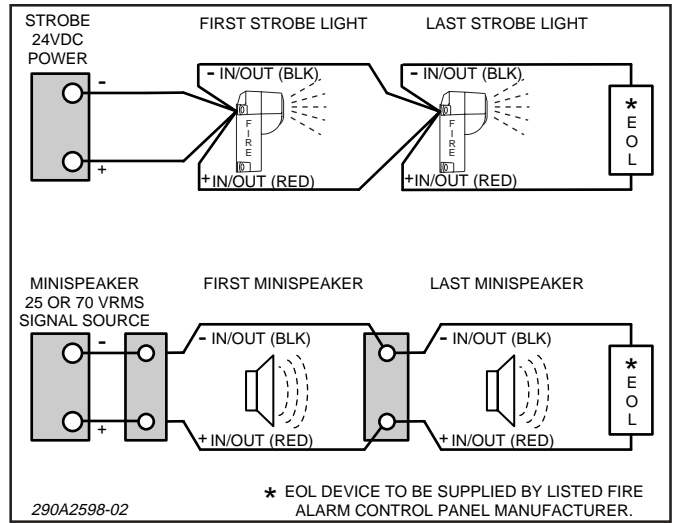


Figure 4. Minispeaker Wiring Diagram (Strobe Unit).

Single gang wallplate minispeaker models are designed for single-gang electrical box mounting, or for mounting on a standard 4" x 4" electrical box mounting with a single-gang raised plaster ring. For either mounting, use the two supplied #6-32 slotted machine head screws and secure the minispeaker to the electrical wall box.

Duplex wallplate minispeaker models are designed for 4" x 4" electrical box mounting, with or without a raised plaster ring. Use figures 5 and 6 as a guide for determining the mounting screw type and placement. Install the unit as shown in figure 5 or 6 as applicable.

**NOTE**

When attaching the unit to a 4" x 4" electrical box, punch out the appropriate holes (diagonally opposite) on the duplex plate. This will allow the #8-32 mounting screws to reach the electrical box. See figure 6.

C. TESTING/OPERATING.

**WARNING**

Under certain conditions these devices are capable of producing sounds loud enough to cause hearing damage. Adequate hearing protection should be worn if standing within close proximity to the device while testing. Recommendations in OSHA Sound Level Standard (29 CFR 1910) should not be exceeded.

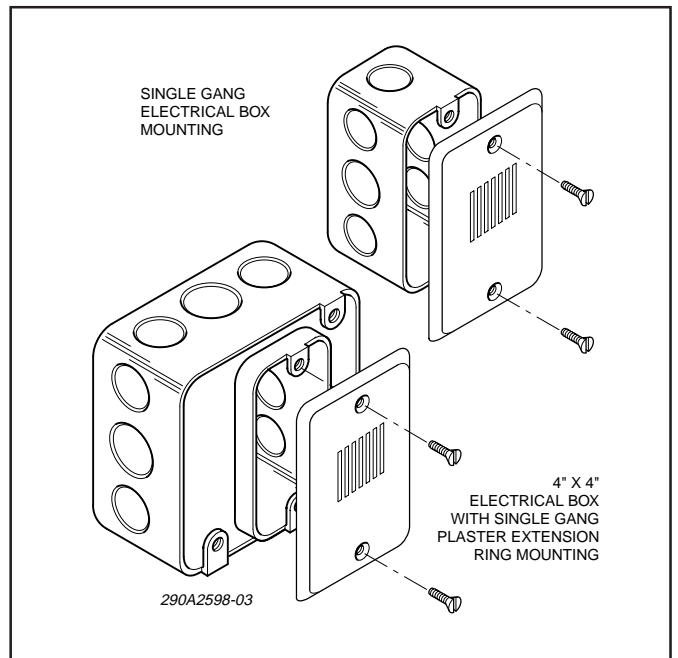


Figure 5. Minispeaker Mounting For Single Gang Units.

1. After completion of installation be sure to test the system to verify that each minispeaker unit operates satisfactorily.
2. After completion of initial system test, a program for periodic testing of this device should be established. Refer to NFPA 72G, local Fire Codes and the authority having jurisdiction for this information.
3. Provide a copy of these instructions for the Safety Engineer(s), System Operator(s) and maintenance personnel.

**SAFETY MESSAGE TO OPERATORS**

*Although your warning system is operating properly it may not be completely effective. People may not see, hear or heed your warning signal. You must recognize this fact and ensure that your warning signal achieves its intended effect through proper test/training sequences suitable for your specific application(s).*

**D. MAINTENANCE.**

**SAFETY MESSAGE TO MAINTENANCE PERSONNEL**

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

- Read and understand all instructions in all sections of this document before performing maintenance on this unit
- Do not perform maintenance on this unit when circuits are energized.
- Periodic checks should be made to ensure that effectiveness of this device has not been reduced because the front grille has become clogged with a foreign substance or because objects have been placed in front of the horn.
- Never alter this unit in any manner. Safety may be jeopardized if alterations are made to this device.

**WARNING**

*Unauthorized repair/servicing of the unit may result in degradation of performance and/or property damage, serious injury, or death to you or others. If a malfunctioning unit is encountered, do not attempt any field repair retrofit of parts. Refer to paragraph V. SERVICE for instructions regarding return/repair of the unit.*

**E. SERVICE.**

This product is covered by a 5 year limited warranty. See CPG terms and conditions for details.

The factory will service your equipment or provide technical assistance with any problem that cannot be handled locally with satisfaction or promptness.

If any unit is returned to the factory for repair, it can be accepted only if we are notified by mail or phone in advance of its arrival. Such notice should clearly indicate service requested and give all pertinent information regarding the nature of the problem, and if possible, its cause.

Communications and shipments should be addressed to:

Technical Service Department  
 Commercial Products Group  
 2519 - 4th Avenue  
 Moline, IL 61265  
 800.521.8219 • FAX 800.225.4109

**F. KIT CONTENTS LIST.**

Qty.	Description
1	Model MSHP, MSLP or MSDP
1	Mounting Screws Packet, color keyed to plate

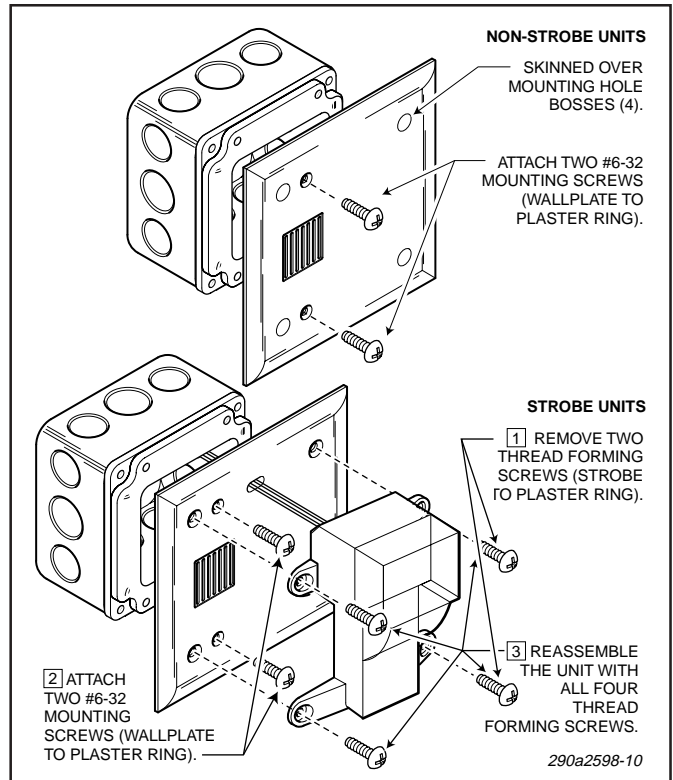


Figure 6. Minispeaker Mounting (Duplex unit on 4"x4" electrical box with plaster ring).

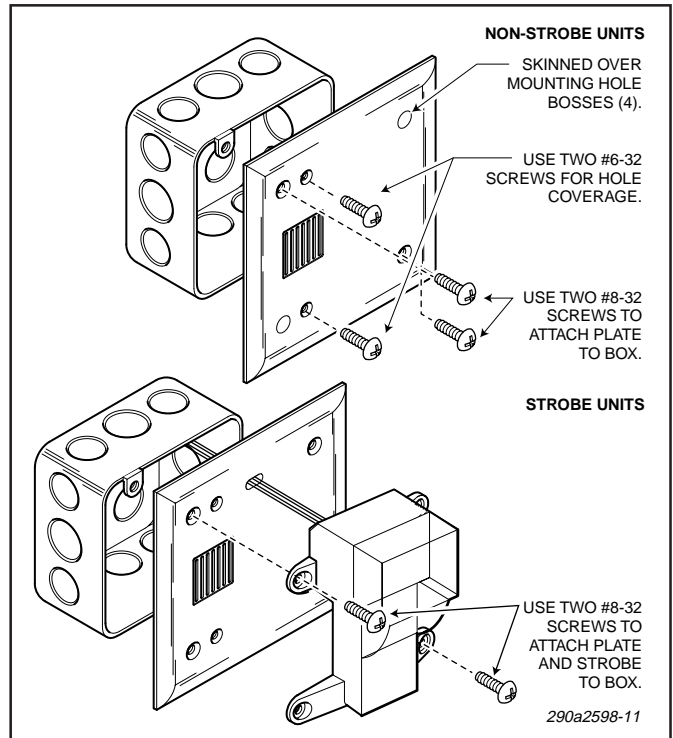


Figure 7. Minispeaker Mounting (Duplex unit on 4"x4" electrical box).