

VST
STROBE LIGHT
-NOT A FIRE LISTED PRODUCT-

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.

Selection of mounting location for this device, its controls and routing of wiring should be made by the Facilities Engineer and the Safety Engineer. Listed below are some other important safety instructions and precautions you should follow.

- This unit must be installed and maintained 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.
- Do not connect this unit to system wiring when circuits are energized.
- After installation be sure that all threaded joints are securely tightened.
- After installation and completion of initial system test, a program for periodic testing of this device must be established. Refer to NFPA 72, local Fire Codes and the authority having jurisdiction for this information.
- After installation and completion of initial system test, provide a copy of this instruction sheet to all personnel responsible for operation, periodic 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.

I. GENERAL.

CPG strobe models are available factory assembled to an Underwriters Laboratories listed sounding device, or as a stand alone unit. The factory assembled units have a different current draw than the stand alone units (since the strobe is wired into some devices). The factory assembled units' current ratings (without adding the attached strobe's current draw) are shown in table 1.

CPG Model VST strobes (series AB2 and HB1) are rated for 18/20 to 31Vdc when filtered or unfiltered full-wave rectified power is supplied to the strobe. All Model VST's are listed by Underwriter's Laboratories as "Visual Signalling Appliance" (category UEES) for indoor use. The units are available with clear, amber, red, or blue high-impact polycarbonate lenses. See table 2 for ratings.

WARNING

The Model VST series AB2 and HB1 strobes are NOT fire listed devices, due to the colored nature of the lens. Improper application of this strobe may result in property damage, serious injury, or death to yourself and others. Prior to installation, refer to the authority having jurisdiction over the premises to insure that the proper regulations/requirements are met with this device.

II. INSTALLATION.

CAUTION

Failing to provide suitable Electro Static Discharge (ESD) protection while handling products containing sensitive electronic components can result in total destruction of the components or a shortening of their useful life. The product covered by these instructions contains static sensitive components. Use static dissipative equipment and procedures when handling, servicing, and mounting this equipment.

A. Unpacking.

After unpacking the device, examine it for damage that may have occurred in transit. If equipment has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier stating the extent of the damage. Carefully check all envelopes, shipping labels and tags before removing or destroying them.

B. Mounting Arrangements.

WARNING

Property damage, serious injury, or death to you and others

CPG Sounding Device	Voltage Range of Device (all within strobe ranges)	Nominal Voltage of Device (Vdc)	Current (mA) at Nominal Vdc (without Strobe)	NOTE	
450D Electronic Horn (Instruction Sheet # 256A485)	18 - 31.2	24	38.0	For the following CPG models, refer to the appropriate instruction sheet for the device's current draw. (The strobe is wired independently from unit; the strobe's current draw can be found in table 1 of this instruction sheet.) ASLP 256968 ASHP 256880 MPV 256969 MSDP, MSHP, MSLP 256954 SPA 256856 SPHP 256882 SPL 2561121	
450E Piezo Electronic Horn (Instruction Sheet # 2561042)	High Setting	9 - 31	24		18.8
	Low Setting	9 - 31	24		13.7
460 Wallplate Sounder (Instruction Sheet # 256955)	9 - 33.5	24	22.0		

Table 1. Current Draw for CPG Sounding Devices wired to Strobes.

Model VST		Series AB2	Series HB1
Avg. Candelas @ 18V 0° Horiz. & Vert.	Clear	64.60	103.80
	Amber	33.70	76.87
	Red	10.00	23.27
	Blue	1.35	2.44
Flashes/minute		60	20
Vdc Range		18-31	18-31
Amps (24Vdc)		0.148	0.103
Ave. Current (Vdc)		0.246-0.136	0.154-0.097
Peak Current (Vdc)		0.670-0.550	0.536-0.476
Inrush Current (Vdc)		0.940-1.630	1.030-1.860
RMS Current (FWR)		0.356-0.220	0.235-0.172
Peak Current (FWR)		0.770-0.588	0.640-0.744
Inrush Current (FWR)		1.130-2.040	1.310-2.220

Table 2. Model VST Ratings.

may occur in the protected premises if a strobe unit is mounted outdoors.

A nomex fibreboard insulator is also supplied with Model VST units for mounting arrangements that require the strobe against a metal surface. This insulator must be installed between the strobe and the metal plate to insure that no electrical shorting occurs under operating conditions. Failure to do so may result in property damage, serious injury, or death within the protected premises.

1. MPV, SFL Adapter Plates (see figure 1).

Insert the supplied bushing into either the BCL or SFL plate. Route the strobe unit's wire leads through the bushing in the adapter plate. Attach the light to the plate, using two of the supplied #8-32 screws and nuts. Perform the electrical connections described in paragraph II.C. Electrical Connections, and then secure the adapter plate to the 4-inch electrical box with two #8-32 screws.

2. TP, TPSF Trim Plates (see figure 2).

The TP or TPSF trim plate is an accessory device mounted between the strobe unit and a listed horn or speaker for flush wall mounting applications.

Route the strobe unit's wire leads through the trim plate and horn or speaker. Secure the assembly together using the two #10-32 x 5/8 thread-forming screws (supplied) as shown in figure 2. Perform the electrical connections described in paragraph II.C. Electrical Connections, and then secure the assembly to an approved backbox using

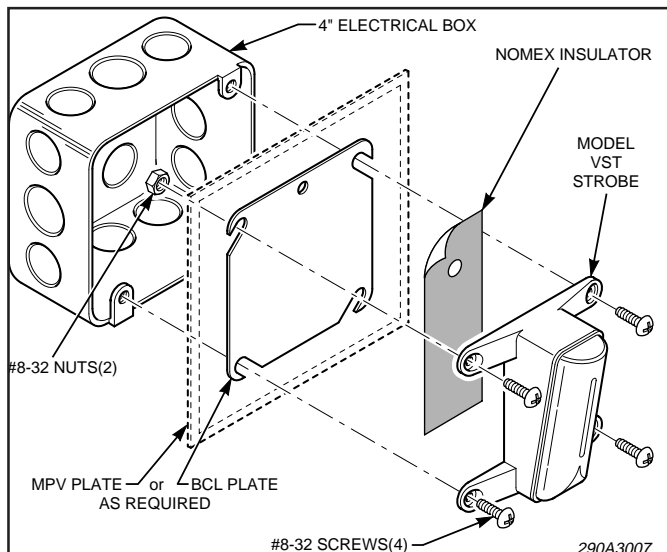


Figure 1. MPV or BCL Adapter Plate Mounting.

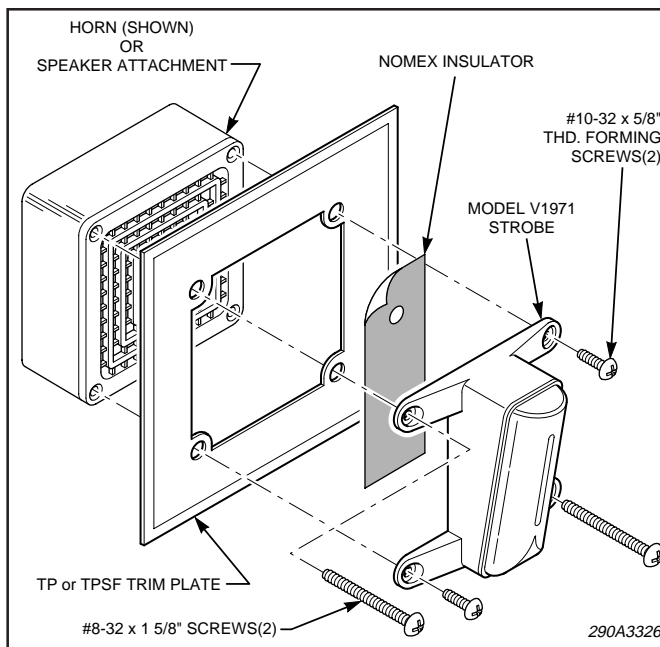


Figure 2. TP or TPSF Trim Plate Mounting.

the supplied #8-32 x 1-5/8 screws (or the screws supplied with the approved CPG horn or speaker).

3. CPG Model 450D Horn Mounting (see figure 3).

WARNING

To avoid electrical shock, read and understand the installation instructions packed with the horn before attaching the strobe unit. Ensure that power to the horn is turned off.

Turn off power to the horn and detach the horn from its mounting location by removing the #8-32 screws. Disconnect all electrical connections to the horn.

See figure 3. Using a small blunt tool, such as a pin punch or screwdriver, knock out the slot in the horn housing from the rear. Insert the supplied nylon bushing into the slot from the front of the horn, as shown in figure 3.

NOTE

In order to properly seat the bushing, any burrs must be removed from the slot area.

Remove and retain the two #8-32 screws from the front of the horn. Route the light power leads through the bushing in front of the horn. If the horn is to be flush mounted, attach the optional TP or TPSF accessory trim plate at this time.

Position the light so that its wires feed directly into the nylon bushing and so that the wires will not be visible after the light is attached. Secure the light to the horn using the two supplied #10-32 x 5/8 thread-forming screws. Perform the electrical connections de-

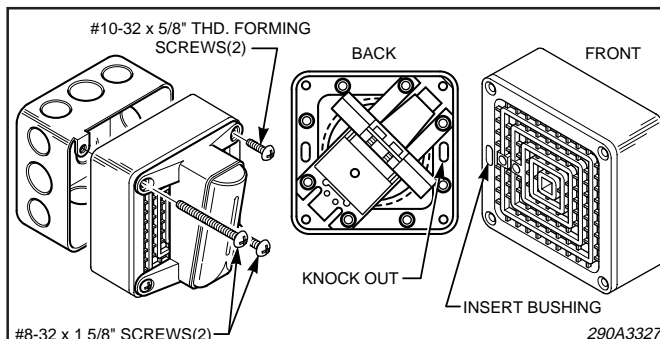


Figure 3. 450D Series D Horn Mounting.

scribed in paragraph II.C. Electrical Connections, and then secure the horn/strobe assembly to the electrical backbox with the previously removed #8-32 screws.

4. Installation on 4-Inch Speakers.

WARNING

Refer to the "Safety Message to Installers". Also, refer to the General paragraph and Installation instructions in this instruction sheet before installing device.

a. Remove the two phillips head screws from the front of the speaker. Retain the screws.

b. See figure 4. Using a small pin punch or similar blunt tool, knock out hole "B" from the rear of the speaker, if a two wire light is being installed. If a four wire light is being installed, knock out both holes "A" and "B" from the rear of the speaker. If the speaker is housed in a metal enclosure, use a round file to remove any burrs that may be present. Figure 4 shows a basic 4-inch speaker enclosure containing no parts other than the speaker. However, some 4-inch speaker units do include components in addition to the speaker. DO NOT remove any parts before knocking out the holes indicated in figure 4.

C. Electrical Connections.

DANGER

You may be seriously injured or killed if you touch live wires. To avoid electrical shock, do not attempt to connect wires when power is on.

WARNING

Property damage, serious injury, or death to you and others may occur if wiring is improperly terminated. For proper warning system operation, ensure that the wires to the strobe unit(s) are properly terminated. NFPA72 requires that the two sets be terminated separately in order to provide electrical supervision of the connections (see figure 5).

The strobe light has two red and two black wire leads. One set (one red wire and one black wire) is used for the incoming power and the other set for the outgoing power.

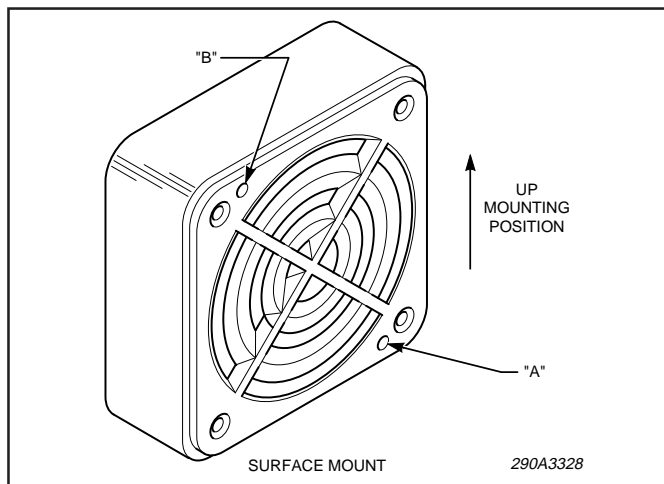


Figure 4. Re-Entrant Housing 4-inch Speaker Mounting.

See figure 5. Connect one of the strobe light's red leads (+) to the power source positive (+) lead. Connect one of the strobe light's black (-) lead to the power source negative (-) lead. Insulate all splices with the supplied wire nuts.

D. Message Label Attachment (see figure 6).

A message label may be attached by the installer. Select the appropriate label, as recommended by the local authority having jurisdiction, and attach the label to the strobe body so the orientation is applicable to the site and the model listed.

NOTE

Before attaching the message label to the chassis walls, ensure that the side walls are clean. Use isopropyl alcohol and a clean dust-free cloth to clean the unit.

III. TESTING/OPERATING.

WARNING

Under certain conditions these strobes are connected to horns or speakers 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.

A. After completion of installation, be sure to test the system to verify that each attached strobe light operates satisfactorily, along with the device it is attached to.

B. 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.

C. Provide a copy of these instructions for the Safety Engineer(s), System Operator(s) and maintenance personnel.

SAFETY MESSAGE TO OPERATORS

Although the warning system is operating properly, it may not be completely effective. People may not see 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).

IV. MAINTENANCE.

WARNING

Serious injury may occur due to a shock hazard. High voltages

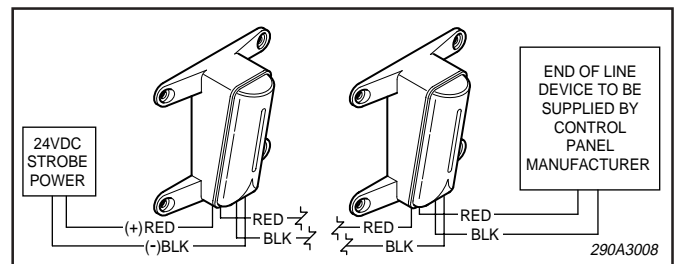


Figure 5. Typical Model VST Strobe Wiring.

may be present inside the strobe light assembly even though power is not connected. If the strobe is damaged exposing internal components, it must be removed and replaced. If a replacement strobe is not immediately available, the electrician must provide suitable protection for the wires that are exposed when the light is removed.

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 safety precautions and instructions in all sections of this publication 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 lens has become covered with a foreign substance or because objects have been placed in front of the strobe.
- Any maintenance to this unit MUST be performed by a trained electrician in accordance with NEC guidelines and local codes.
- Never alter this unit in any manner. Safety may be jeopardized if alterations are made to this device.
- The nameplate, which contains cautionary or other information of importance to maintenance personnel, should not be obscured by a foreign substance or by objects placed in front of the nameplate.

V. SERVICE.

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.

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

If this device 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

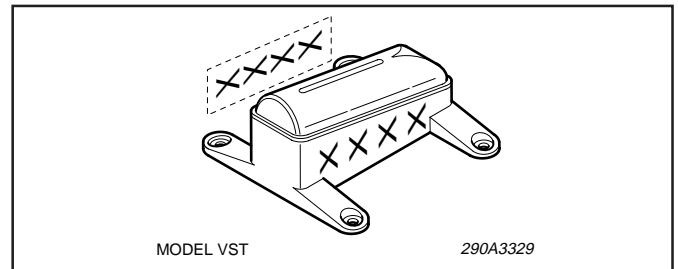


Figure 6. Message Label Attachment.