

V1971 & VW KIT

STROBE LIGHT AND OUTDOOR KIT

FOR USE WITH AUDIBLE DEVICES

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. Some 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 V1971 strobes (series DA1, JA1, MA1, WA1) are rated for 16 to 33Vdc (filtered or unfiltered full-wave rectified power). Models V1971 and VW outdoor kit are listed by Underwriter's Laboratories as "Visual Signaling Appliances for the Hearing Impaired" (category UUKC) and "Visual Signaling Appliances for Fire Protective Signaling Systems" (category UVAV). Refer to table 2 for the electrical ratings and figure 2

CPG Sounding Device (UL Listed)	Voltage Range (Vdc)	Current@24Vdc (without strobe)
450D Electronic Horn (Instr. Sheet #256A485)	18 - 31.2	38.0mA
450E Piezo Electronic Horn (Instruction Sheet #2561042)	High Setting: 9 - 31 Low Setting: 9 - 31	18.8mA 13.7mA
460 Wallplate Sounder (Instr. Sheet #256955)	9 - 33.5	15.0mA
For the following CPG models (UL Listed), 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 2 of this instruction sheet.)	ASLP ASHP MPV MSDP, MSHP, MSLP SPA SPHP SPL	256968 256880 256969 256954 256856 256882 2561121

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

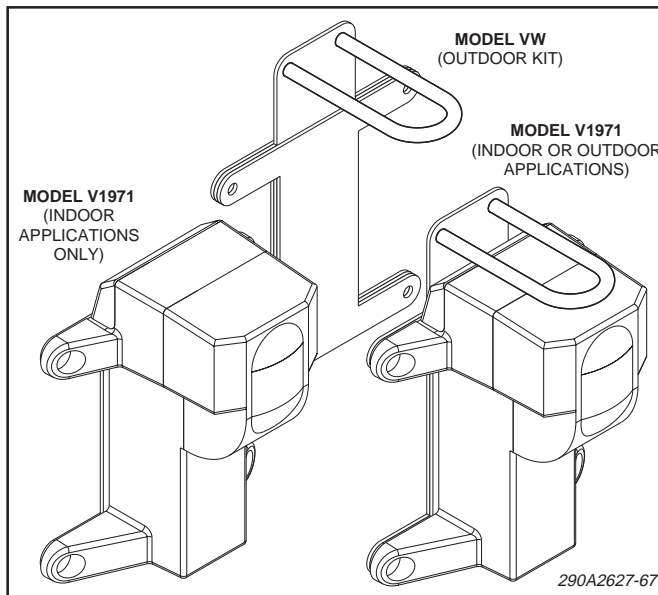


Figure 1. Models V1971 and VW

for the light dispersal pattern for the strobes.

CPG Model VW outdoor kit consists of a metal guard and two gaskets which may be installed on a Model V1971 strobe. Model V1971 strobes with Model VW outdoor kit installed may be used for indoor/outdoor applications. Models ASLP, ASHP, SPHP, 450D, 450E, and WPB may be used for indoor or outdoor applications with Models V1971 strobe and VW outdoor kit attached.

WARNING

Model V1971	DA1	JA1	MA1	WA1
Light Output (Candela)	15/75	30/75	75	110
Max strobes per synchronizer	??	??	??	??
Flash Rate (Hz)	1Hz with synchronizer, 1-2Hz without synchronizer			
Operating Range (VDC)	16V - 33V (DC and FWR)			
Current (Filtered DC)	(Amps)	(Amps)	(Amps)	(Amps)
Average	16V: 0.094 24V: 0.072 33V: 0.062	0.114 0.090 0.066	0.182 0.160 0.121	0.219 0.193 0.111
Peak	16V: 0.141 24V: 0.162 33V: 0.237	0.182 0.243 0.284	0.316 0.428 0.532	0.388 0.508 0.578
Inrush	16V: 0.214 24V: 0.220 33V: 0.232	0.256 0.274 0.288	0.330 0.380 0.460	0.462 0.664 0.832
Current (FWR)	(Amps)	(Amps)	(Amps)	(Amps)
Average	16V: 0.127 24V: 0.103 33V: 0.102	0.157 0.114 0.105	0.255 0.212 0.203	0.304 0.246 0.213
Peak	16V: 0.226 24V: 0.236 33V: 0.248	0.290 0.298 0.310	0.472 0.502 0.526	0.788 0.856 0.908
Inrush	16V: 0.216 24V: 0.228 33V: 0.246	0.268 0.280 0.298	0.462 0.488 0.518	0.594 0.808 0.900

Values in parenthesis are self flash values if different than synchronized values.
All devices meet or exceed ADA requirements for light output.
Maximum wire impedance between strobe appliances is 8 ohms to remain synchronous.
Inrush current duration is less than 1/4 (0.25) millisecond which is effectively zero for NAC calculations.
These strobes were only tested to the operation voltage limits of 16V - 33V (DC & FWR)
Do not apply 80% undervoltage or 110% overvoltage to these values for system operation.

Table 2. Electrical Ratings (Model V1971).

To avoid the hazards associated with the improper application of the device when used as a visual signaling device for the hearing impaired, do not deviate from the required minimum 24" spacing to ceiling level and do not mount the device on surfaces other than a vertical wall. Any deviation may result in diminished effectiveness of the strobe. Alternate installation locations or orientations for hearing impaired applications should only be done with the approval of the authority having jurisdiction.

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 may occur if a strobe unit not rated for outdoor use is mounted outdoors.

1. MPV, SFL, BCL Adapter Plates (see figure 3).

Insert the supplied bushing into a BCL, SFL, or MPV plate. Route the strobe unit's wire leads through the bushing in the

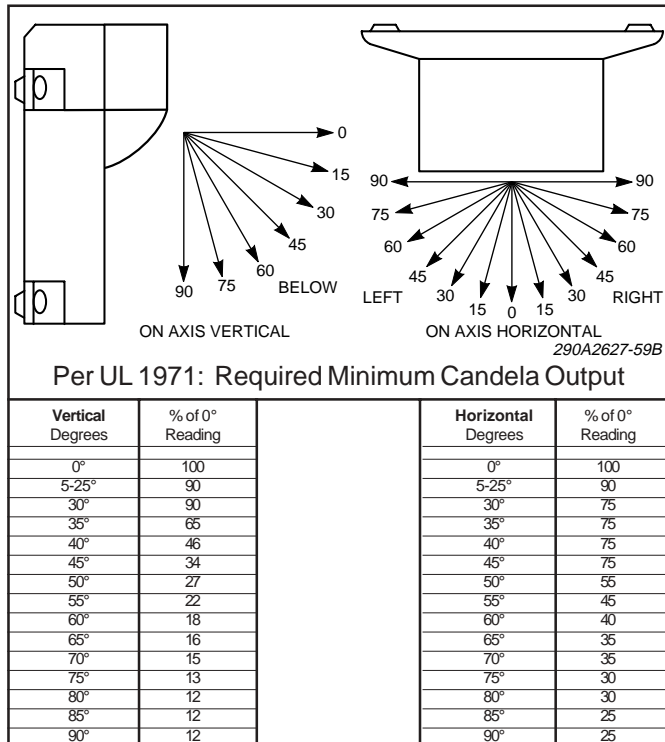


Figure 2. Light Dispersal for Model V1971.

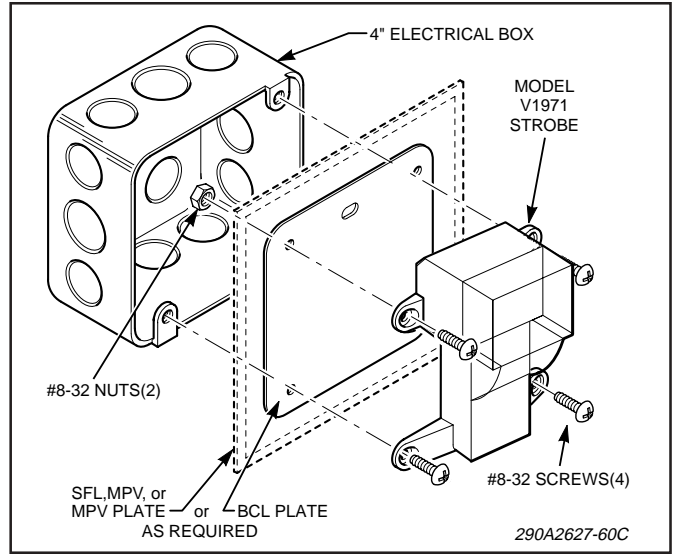


Figure 3. MPV, SFL, or BCL Adapter Plate Mounting.

adapter plate as shown in figure 3. 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 4).

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 4. Perform the electrical connections described in paragraph II.C. Electrical Connections, and then secure the assembly to an approved backbox using 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 5).

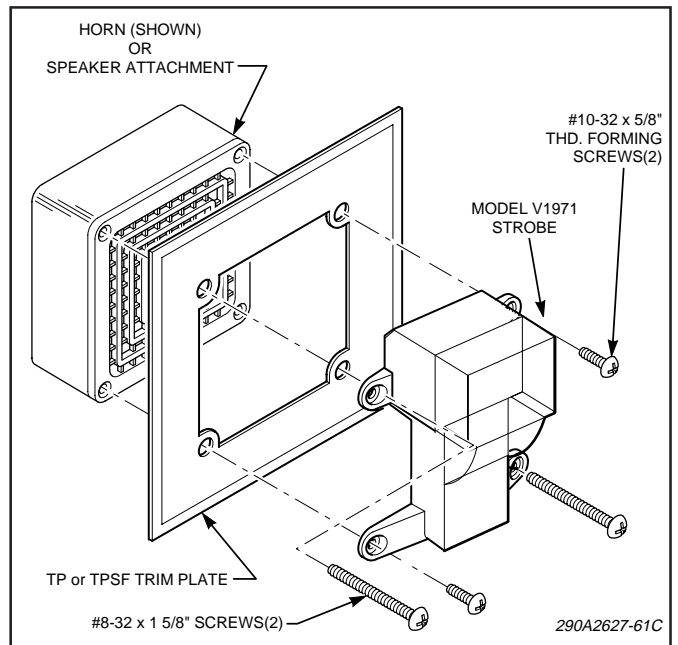


Figure 4. TP or TPSF Trim Plate Mounting.

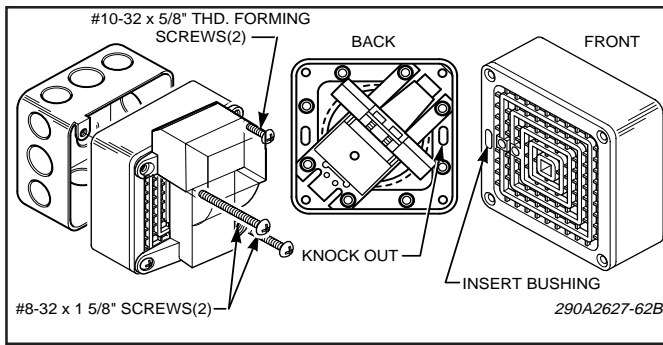


Figure 5. 450D Series D Horn Mounting.

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 5. 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.

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 described 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. WPB Outdoor Backbox (see figure 6).

The WPB backbox may be used for indoor or outdoor applications. Mount the backbox using two bolts or screws. Insert the

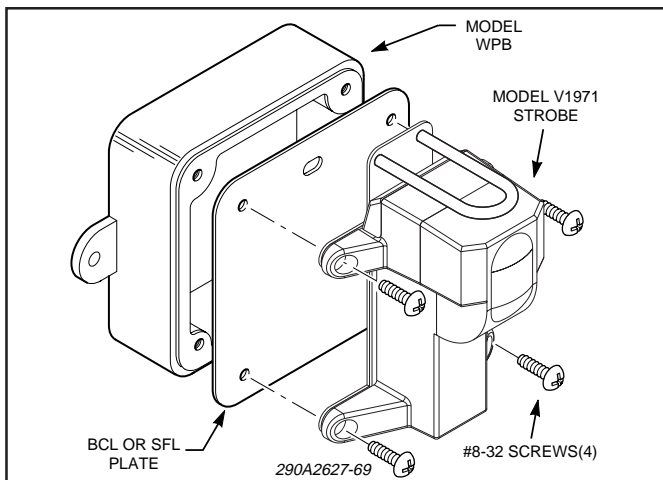


Figure 6. WPB Mounting.

supplied bushing into the BCL or SFL plate. Route the strobe wires through the plate and perform the electrical connections described in paragraph II.C. Electrical Connections. Attach the strobe and plate to the backbox using four #8-32 screws.

5. Installation of Model VW outdoor kit on Model V1971.

Install the Model VW outdoor kit before mounting the strobe to the audible device or wallplate. Figure 7 shows the sequence for assembling the gaskets and the metal guard plate on the back of the strobe.

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 8).

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.

See figure 8. 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.

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 72, local Fire

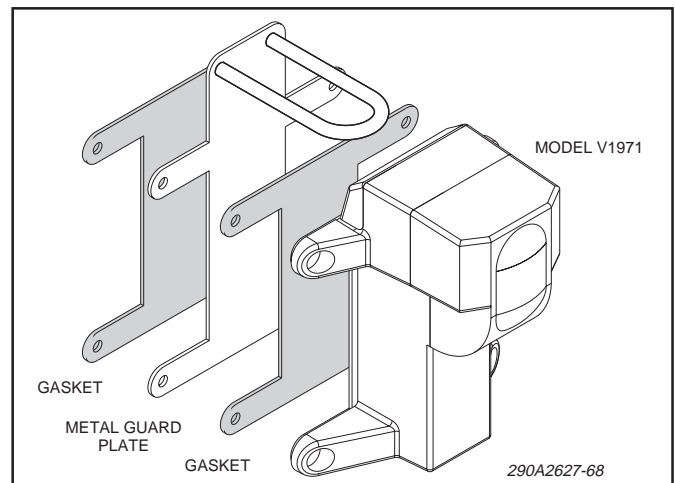


Figure 7. Assembly of Models VW and V1971.

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 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.

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 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

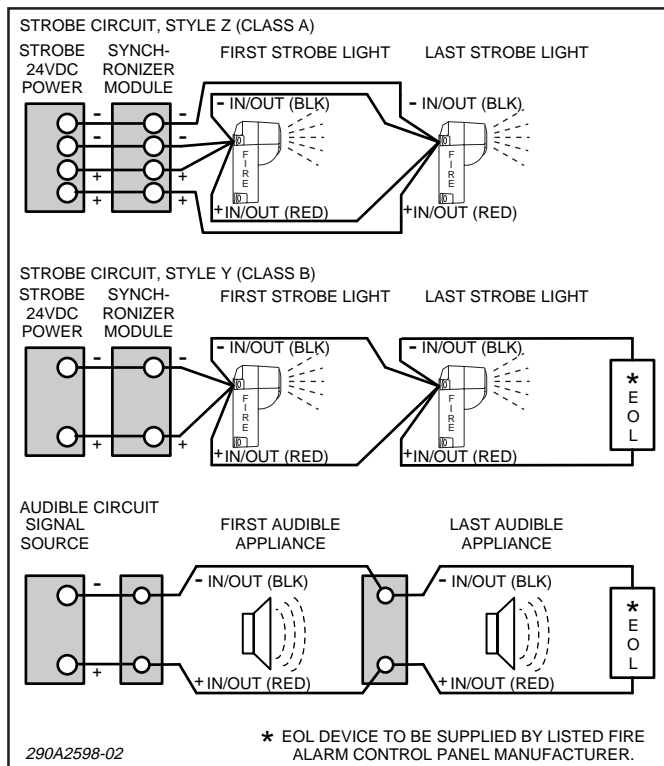


Figure 8. Typical Model V1971 Strobe Wiring.