

**MANUFACTURERS OF EMERGENCY
AND COMMERCIAL VEHICLE LIGHTING**

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PULSAR™ STROBE POWER SUPPLY (ETP475-P)

WARNING

High Voltage! Please wait 5 minutes after shutting this unit off before attempting service. Warranty void if seal is broken.

Included with the power supply:

1. One Power Wire Harness consisting of one AMP 3 pin connector with three wires: red (+), black (-) and violet.
2. One Flash Control Wire Harness consisting of one AMP 3 pin connector with three wires: yellow, green and blue.

WARNING

This power supply is NOT waterproof. This Strobe Power Supply must be mounted in an area protected from the weather and water.

STROBE POWER SUPPLY SPECIFICATIONS

Voltage	8-30 Vdc
Current	7.5 Amps @ 12.8 Vdc
Power	75 Watts
Fuse	15 Amp
Number of Heads	4

INSTALLATION

1. First, install the Strobe Power Supply in a protected location using the power supply itself as a template. **THE POWER SUPPLY MUST BE MOUNTED TO A METAL SURFACE.** Make sure all connectors are easily accessible. The unit is mounted using the 4 mounting holes on a 6" x 2.5" rectangle.
2. Install the strobe light heads in the preferred locations.
3. String the 3 conductor cable between each individual light and the power supply. Make sure the cable is secure along the chosen routing inside the vehicle to prevent it from damage by chafing or binding. Be sure to keep the cable away from engine hot spots.
4. Insert the pins on each end of the conductor cables into the AMP connectors. Each end of these cables has a factory crimped pin on each of the three wires, see Figure B.

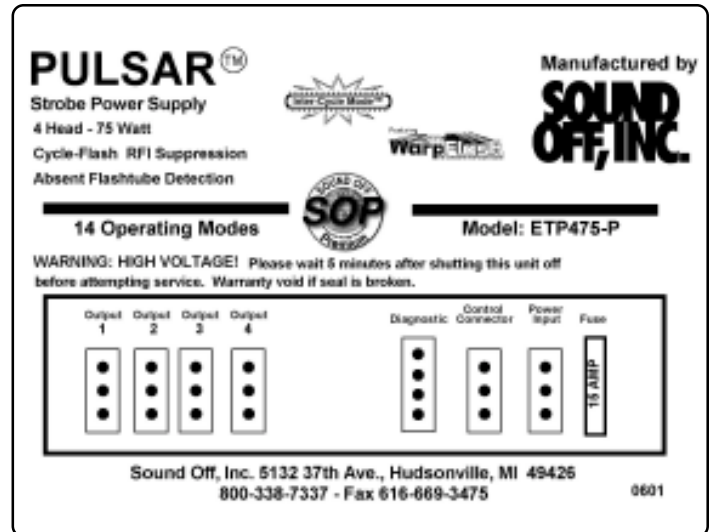


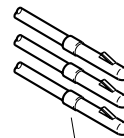
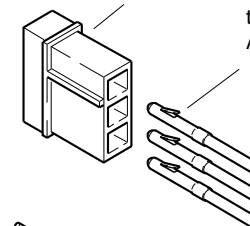
Figure A

MALE AMP CONNECTOR

(to be mated with the AMP output socket on the Power Supply)

Insert wires with male pins into the proper locations in the male AMP connector:

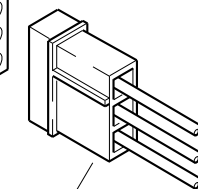
- RED WIRE - HOLE #1
- BLACK WIRE - HOLE #2
- WHITE WIRE - HOLE #3



FEMALE AMP CONNECTOR

Insert wires with female pins into the proper locations in the female AMP connector:

- RED WIRE - HOLE #1
- BLACK WIRE - HOLE #2
- WHITE WIRE - HOLE #3



AMP WIRE HARNESS
(attached to Strobe Light Head)

Figure B

NOTE

When routing the cable, make sure the end with the closed tip terminals (male pins) is toward the power supply and the end with the open tip terminals (female pins) is toward the light head.

NOTE

It is important to follow the correct color code when inserting the pins into the AMP connectors.

5. Connect the cables to the strobe light heads.
6. Next, plug the other end of the cable into the Light Head Output Socket on the Strobe Power Supply, see Figure A. The location of the connector for each light head attached to the unit will be determined by the flash pattern selected, see Figure E.
7. Plug the Flash Control Wire Harness assembly into the Flash Control Input Socket on the Strobe Power Supply. Connect the wires from Flash Control Wire Harness assembly to the switch control panel (see "Flash Control Wire Harness Assembly" section).
8. Plug the Power Wire Harness assembly into the Power Input Socket. Connect the Strobe Power Supply to the power source to complete the installation (see "Power Wire Harness Assembly" section).

FLASH CONTROL WIRE HARNESS ASSEMBLY

The Flash Control Wire Harness assembly consists of an AMP 3 pin connector with yellow, green and blue wires to control the light head outlets and flash patterns, see Figure C.

NOTE

If the special flash options (Inter-Cycle™, Quint, WarpFlash™) are to be used, see "Special Mode" section.

The Flash Control Harness assembly must be connected to the Flash Control Input Socket located on the Strobe Power Supply, see Figure A. Use 18 gauge wire to extend the proper Flash Control Harness wires to a customer supplied switching system.

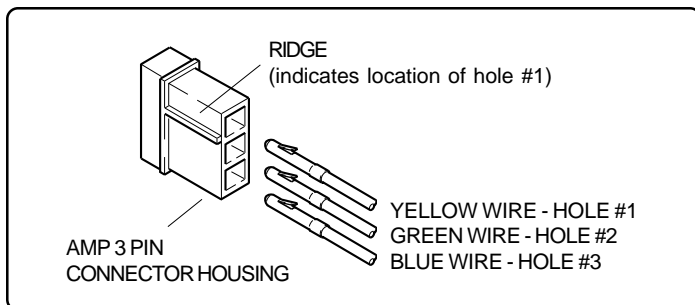


Figure C

POWER WIRE HARNESS ASSEMBLY

The Power Wire Harness assembly consists of an AMP 3 pin connector with red and black wires, to supply power and ground, and a violet wire that controls the day/night (high/low) intensity feature of the power supply, see Figure D. The high/low intensity feature allows the strobe lights to be switched into low power or reduced intensity. This feature is useful for night time use. When the violet wire is powered, the power supply

is switched to low intensity. When the power is removed, the power supply switches to high intensity mode. If the high/low feature is not wanted, simply do not install the violet wire. See pattern 16 in "Special Mode" section for exception.

The Power Wire Harness is connected to the Power Input Socket located on the Strobe Power Supply, see Figure A. If necessary, use 18 gauge wire to extend the violet wire to a customer supplied switching system, see Figure G. Connect the red wire to the positive (+) side of the battery making sure to place a customer supplied 15 Amp fuse at the battery. Connect the black wire to the negative (-) side of the battery or to vehicle chassis.

NOTE

To extend the power (+) and ground (-) wires, use the following as a guide.

- 1 to 10 ft. use 16 AWG wire
- 10 to 20 ft. use 14 AWG wire
- 20 to 30 ft. use 12 AWG wire
- 30 to 50 ft. use 10 AWG wire

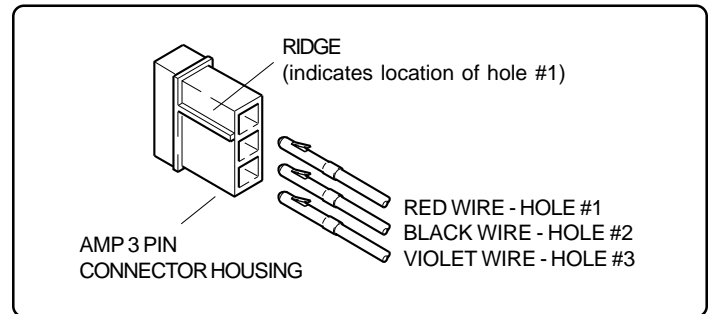


Figure D

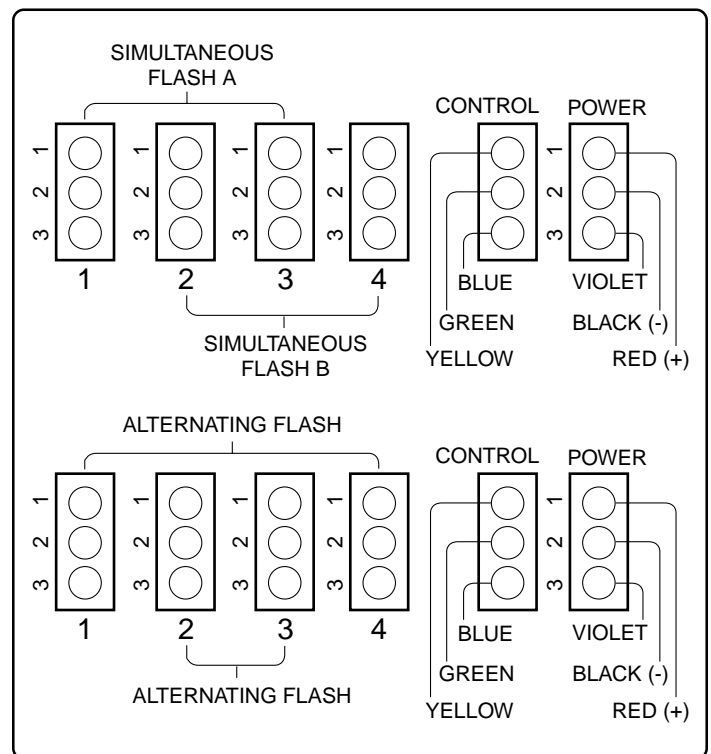


Figure E

SWITCH CONTROL OPTIONS

Figures F, G and H show some of the standard switch control options that can be easily wired to complete a strobe light system.

Figure F shows a high/off control system that quad flashes all heads.

Figure G shows a high/low control system that quad flashes all heads.

Figure H shows how any flash option could be installed depending on which control wire(s) are attached to the switch.



All high power flash patterns, with the exception of pattern 14, can be easily selected with a single Binary Encoded Rotary Switch available from Sound Off, Inc. (Part# PEPBE2-P).

Figure F

Standard Quad Flash
All Heads High/Off Switching

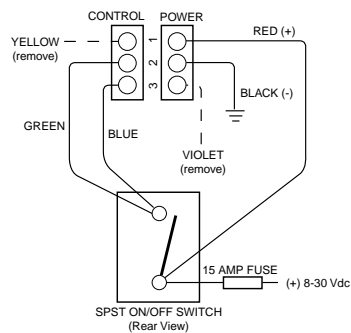


Figure G

Standard Quad Flash
All Heads High/Low Switching

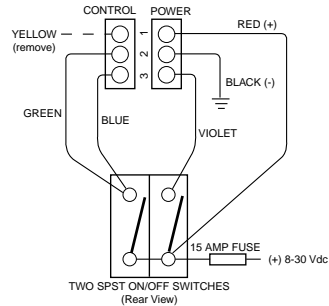
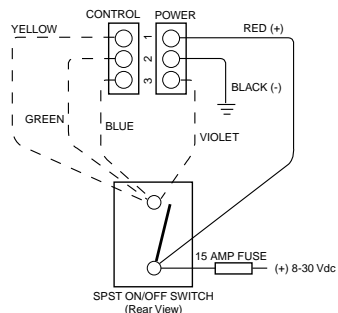


Figure H

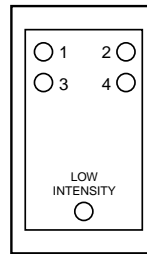
Special Pattern Options
On/Off Switching



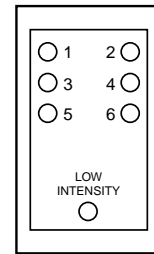
To Reduce EMI emissions, ONE end of the shield (drain wire) of the extension cable connecting the output of the power supply to the Lighthouse should be connected to ground. Make sure ONLY ONE END of the shield is tied to ground. The other end needs to be taped or cut.

STROBE POWER SUPPLY DIAGNOSTIC PANEL

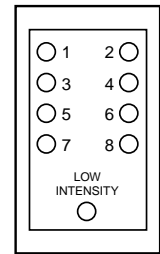
FOR USE WITH DIAGNOSTIC EQUIPPED POWER SUPPLIES ONLY



4 - HEAD



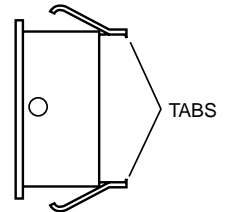
6 - HEAD



8 - HEAD

MOUNTING OPTIONS:

1. Display will snap into any existing panel with a 22.5mm x 40mm hole.
2. Remove tabs from the back of display and adhere to mounting surface using double sided tape.



INSTALLATION:

Plug the RJ11 end of the cable into the Diagnostic Display. Route the other end of the cable to the Power Supply and connect the 4-pin Amp Connector.

OPERATION:

Each numbered LED will flash with the corresponding numbered Strobe Tube showing everything is operational. If an LED light stay ON, instead of flashing, there is a problem with that particular Strobe Tube or Strobe Cable. Low Intensity LED will indicate when the Power Supply is low power.

⚠ WARNING

PERSONAL INJURY HAZARD

Mounting this device in an improper location may impair the designed safety characteristics of the vehicle in the event of a collision.

Consult the vehicle manufacturer before installing this or any other aftermarket device to determine its proper mounting location.

Failure to consult and follow the vehicle manufacturer's mounting recommendations may result in serious personal injury or death.

WARRANTY

Sound Off, Inc. warrants the Pulsar™ Strobe Power Supply for five (5) years from the date of purchase to the original purchaser against any manufactured defects or workmanship. This warranty is a 100% replacement value warranty. It applies only to units installed according to manufacturer's installation instructions and operated within the units specifications. Warranty is void if the unit was installed incorrectly or maliciously damaged. All warranty claims must be accompanied by a dated proof of purchase. Sound Off, Inc. retains the right to be the sole mediator of what constitutes defects in performance or manufacturing.

SPECIAL MODE

To select any one of the different flash modes, simply connect the Yellow, Violet, Blue and Green wires to a switch in the following combinations. Connect the wires marked "POWER" to (+) 10-30 Vdc and remove the unused wires or connect them to (-) ground.

Pattern	Yellow	Green	Blue	Violet	Function	Flash Rate
1			POWER		Quad Flash Heads 2 Alt. 3 High Power	140 FPM
2		POWER			Quad Flash Heads 1 Alt. 4 High Power	140 FPM
3		POWER	POWER		Quad Flash Heads 1,3 Alt. 2,4 High Power	140 FPM
4	POWER				Inter-Cycle™ Flash Heads 2 Alt. 3 High Power	-
5	POWER	POWER			Inter-Cycle™ Flash Heads 1 Alt. 4 High Power	-
6	POWER		POWER		Inter-Cycle™ Flash Heads 1,3 Alt. 2,4 High Power	-
7	POWER	POWER	POWER		Quint Flash Heads 1,3 Alt. 2,4 High Power	140 FPM
8			POWER	POWER	Quad Flash Heads 2 Alt. 3 Low Power	140 FPM
9		POWER		POWER	Quad Flash Heads 1 Alt. 4 Low Power	140 FPM
10		POWER	POWER	POWER	Quad Flash Heads 1,3 Alt. 2,4 Low Power	140 FPM
11	POWER			POWER	Inter-Cycle™ Flash Heads 2 Alt. 3 Low Power	-
12	POWER	POWER		POWER	Inter-Cycle™ Flash Heads 1 Alt. 4 Low Power	-
13	POWER		POWER	POWER	Inter-Cycle™ Flash Heads 1,3 Alt. 2,4 Low Power	-
14	POWER	POWER	POWER	POWER	WarpFlash™ Heads 1, 3 Alt. 2, 4 High Power	700 FPM

NOTE: Entries 1-3 & 8-10 in the table are the industry standard functions.