



MANUFACTURERS OF EMERGENCY
AND COMMERCIAL VEHICLE LIGHTING

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NEBULA™ STROBE POWER SUPPLY (ETN660)

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	10-30 Vdc
Current	5.3 Amps @ 12.8 Vdc
Power	60 Watts
Fuse	15 Amp
Number of Heads	6

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 (matches exactly the Whelen UPS Series).
2. Install the strobe light heads in the preferred locations.
3. String the 3 conductor cables between the lights 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.

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.

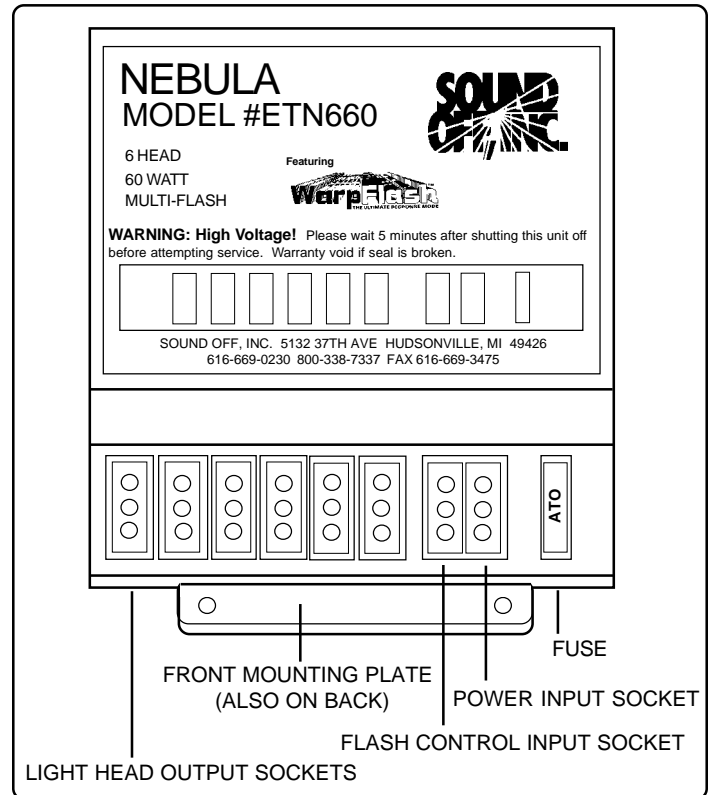


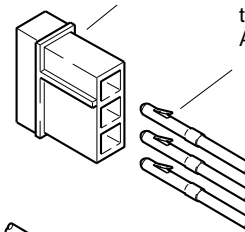
Figure A.

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:

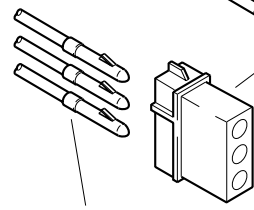
RED WIRE - HOLE #1
BLACK WIRE - HOLE #2
WHITE WIRE - HOLE #3



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.

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.

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 the 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 three wires: yellow, green and blue, see Figure C. The blue wire controls the light head outlets 1-4 and the green wire controls the light head outlets 5 and 6. The yellow wire is used for pattern selection.

NOTE

If the special flash options (Double, 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.

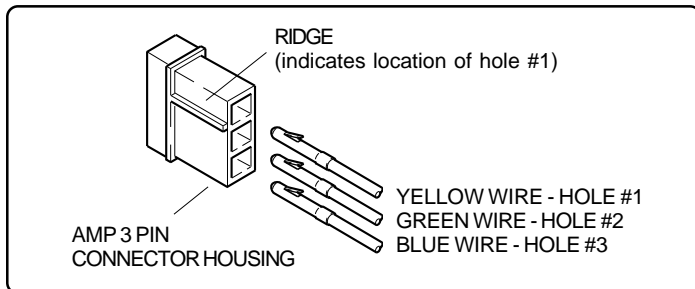


Figure C.

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 to select different patterns, see Figure D.

NOTE

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

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 18AWG wire
- 10 to 20 ft. use 16AWG wire
- 20 to 30 ft. use 14AWG wire
- 30 to 50 ft. use 12AWG wire

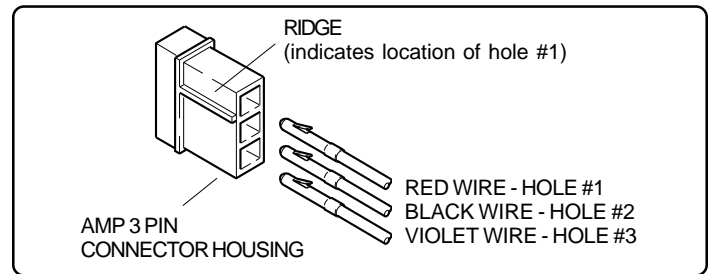


Figure D.

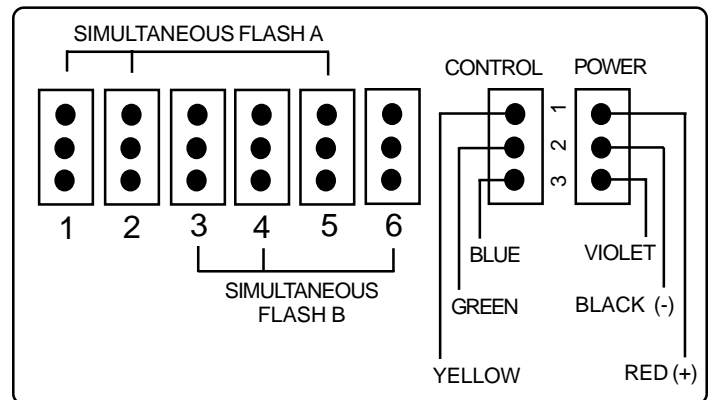


Figure E.

SWITCH CONTROL OPTIONS

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

Figure F shows an ON/OFF control system that quad flashes all heads.

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

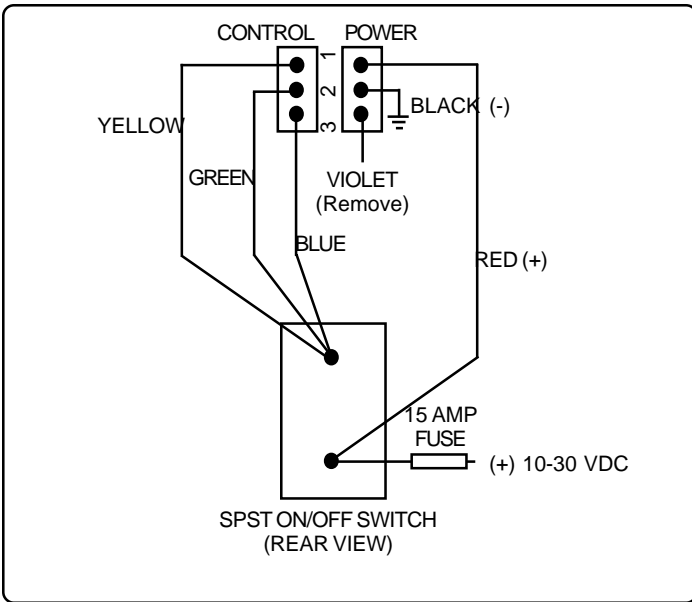


Figure F.
Standard Quad Flash All Heads ON/OFF Switching

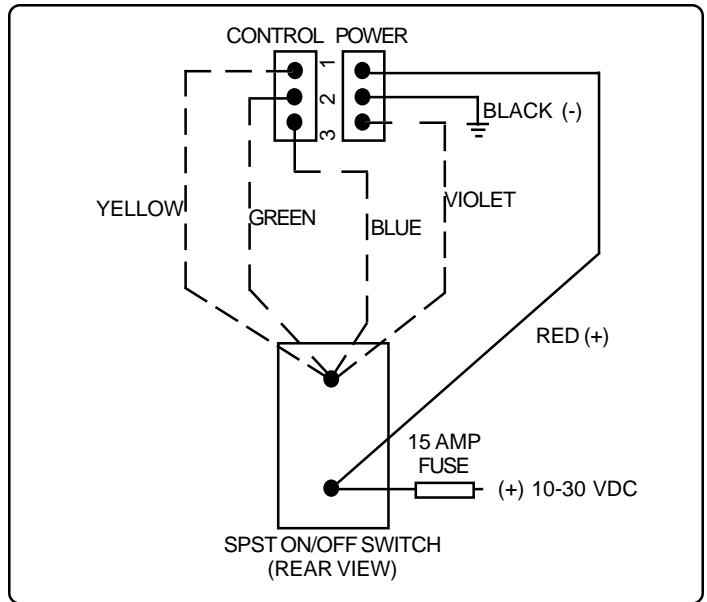


Figure G.
Special Pattern Options ON/OFF Switching

⚠ 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.

To Reduce EMI emissions, ONE end of the shield (drain wire) of the extension cable connecting the output of the power supply to the Lighthead 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.

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. ("POWER" = 10-30 Vdc and "NC/GND" = no connection or ground)

STEP 1:
 Select Pattern

VIOLET	YELLOW	PATTERN	FLASH RATE
NC/GND	NC/GND	Double Flash	(235 FPM)
NC/GND	POWER	Quad Flash	(140 FPM)
POWER	NC/GND	Quint Flash	(140 FPM)
POWER	POWER	WarpFlash™	(700 FPM)

STEP 2:
 Select Heads to Flash

GREEN	BLUE	PATTERN
NC/GND	NC/GND	All Heads OFF
NC/GND	POWER	1 and 2 Alt. 3 and 4
POWER	NC/GND	5 Alt. 6
POWER	POWER	1 and 2 and 5 Alt. 3 and 4 and 6

NOTE

Applying voltage to only the violet and/or the yellow wire(s) will not turn ON the power supply. Only the green and blue wire(s) will turn the power supply ON.