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QUANTUM™ Q450 POWER SUPPLY

(ETQ450)

Included with the Quantum Q450 power supply:

1. One wire harness for Power Input Socket. This consists of one AMP 3 pin connector with three wires: red(+), black (-) and violet (high/low switching).

2. One wire harness for Control Socket. This consists of one AMP 3 pin connector with three wires: yellow, green and blue.

WARNING

This power supply is NOT waterproof.

The Model Q450 Strobe Power supply is a four head unit which must be mounted in an area protected from the weather and water.

MODEL Q450 STROBE POWER SUPPLY SPECIFICATIONS

Voltage	10-30 Vdc
Current	4.3 Amps @ 12.8 Vdc
Power	50 Watts
Fuse	10 Amp
Number of Heads	4, 2 Alternating w/ 2

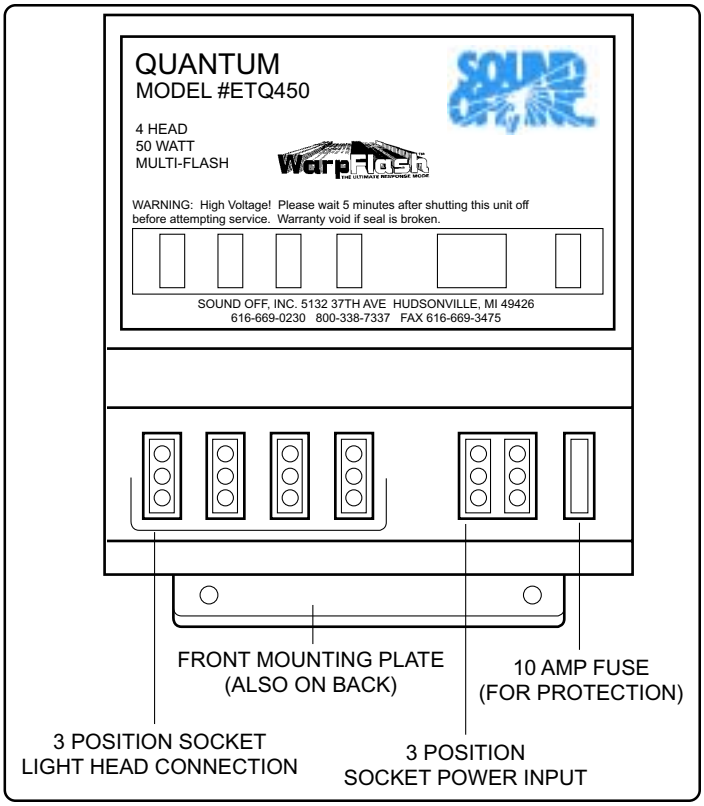

Figure A

INSTALLATION

1. First, install the Q450 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 3 position socket 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.

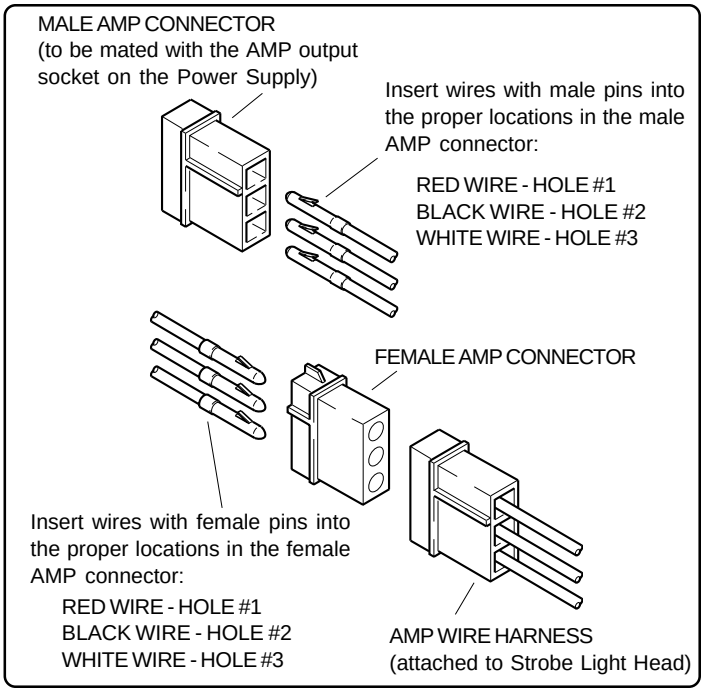

Figure B

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.

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 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 3 wires: green, blue and yellow (see Figure C or Figure E). The green wire controls the strobe light outlets 1 and 4. The blue wire controls the strobe light outlets 2 and 3. For a standard Quad flash installation, the yellow wire is not used and can be removed.

NOTE

If the special flash options (WarpFlash™, Quint, Double) are to be used, the yellow wire is needed and the blue and green wires take on different functions, see "Special Mode" section.

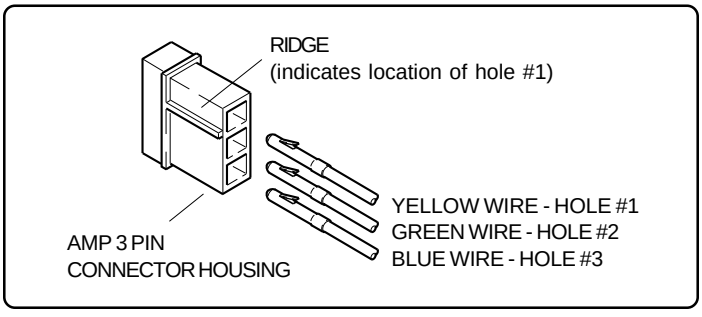

Figure C. Flash Control Wire Harness

The Flash Control Harness assembly must be connected to the control socket located on the Q450 Strobe Light power supply, see Figure E and Figure A. Use 18 gauge wire to extend the control harness wires to a customer supplied switch to complete the installation.

POWER WIRE HARNESS ASSEMBLY

The power wire harness is connected to the power input socket located on the Q450 Strobe Power supply, see Figure A and Figure E. The power wire harness assembly consists of red and black wires (see Figure D) that power the strobe power supply (see Figure A) and a violet wire that controls the day/night (high/low) intensity feature of the power supply (see Figure G).

The high/low intensity feature allows the strobe lights of the system to be switched into low power or reduced intensity. This feature is useful for night time use. When the violet wire is powered with (+) 12 volts, the power supply is switched to low intensity. When 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 Table for exception.

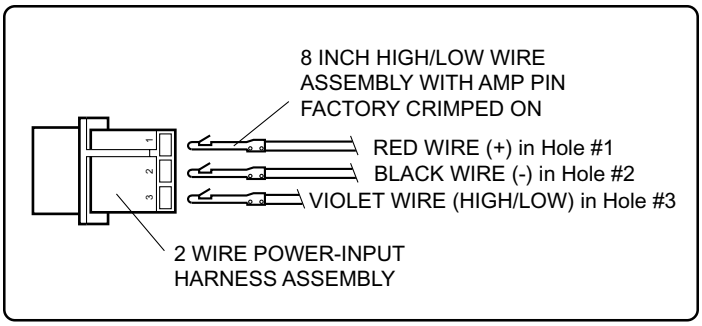

Figure D. Power Wire Harness

Use 18 gauge wire to extend the red and black wires and the violet high/low control wire (if used) to a customer supplied control switching system, see Figures F and G.

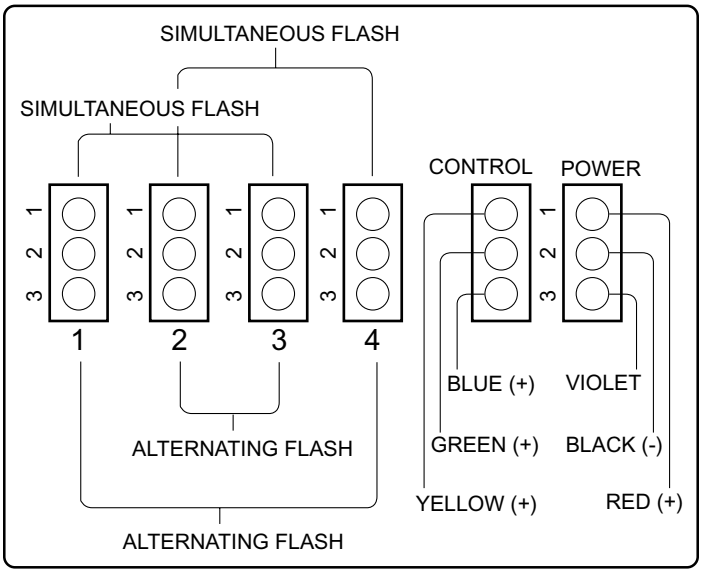

Figure E

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, ALL HEADS ON HIGH POWER ONLY. This wiring diagram shows an on/off control system that powers all four heads.

Figure G, ALL HEADS ON WITH HIGH AND LOW POWER CONTROL. This wiring diagram shows a high/low control system that powers all four heads.

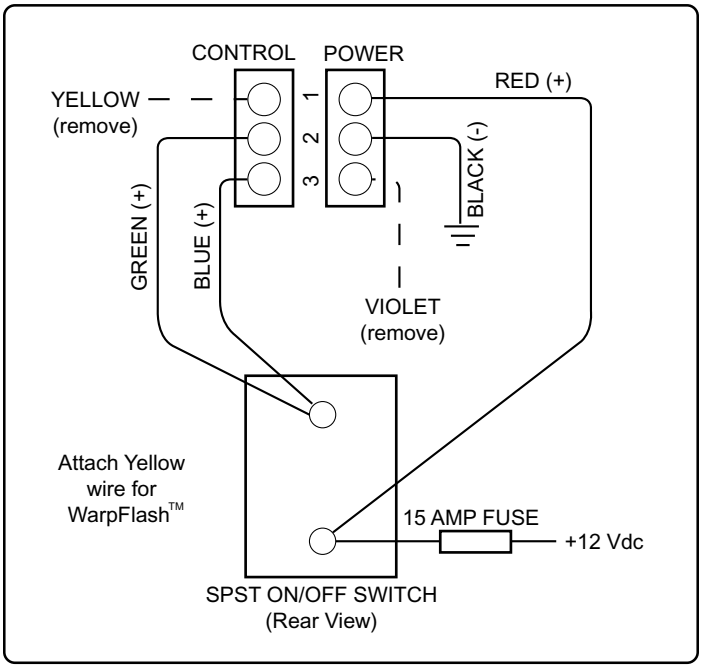

Figure F
Standard Quad Flash All Outlets High/Off Switching

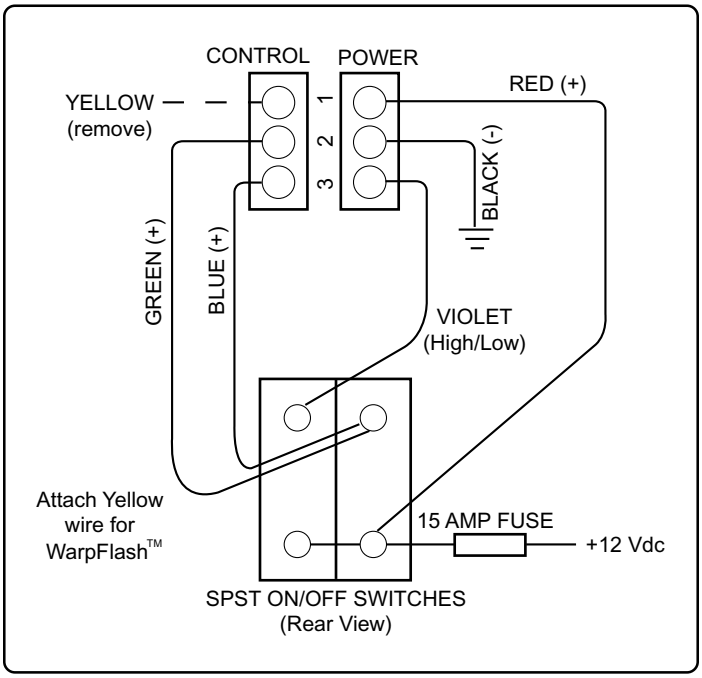

Figure G
Standard Quad Flash All Outlets With High/Low Switching

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 patter #16, can be easily selected with a single binary switch encoded rotary switch (Sound Off, Inc. part #PEPBE2).

DIRECT CONNECTION ———————
OPTIONAL CONNECTION — — — — —

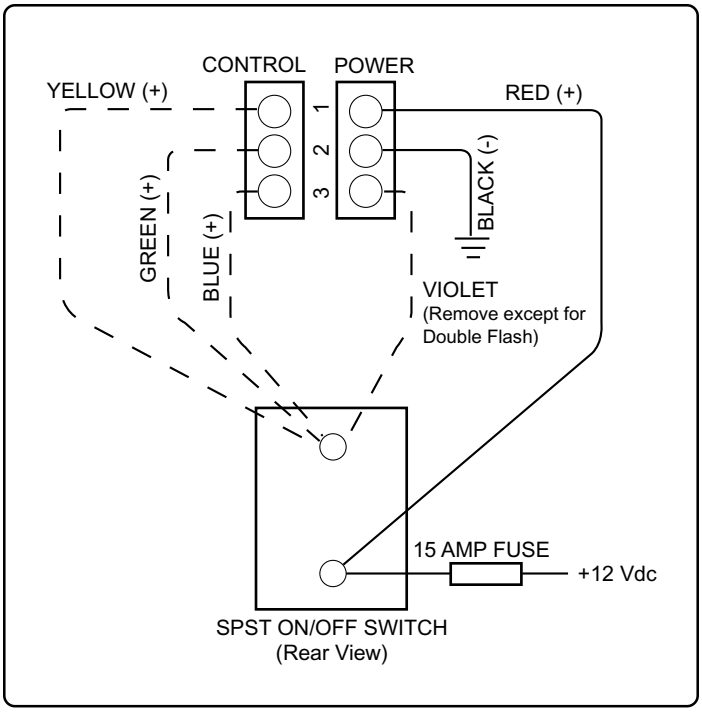

Figure H
Special Pattern Options High/Off Switching

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

⚠ 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.

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 to receive power when ON: (“1” = 12V and a “0” = no connection or ground).

Pattern	Yellow	Green	Blue	Violet	Function
1	0	0	0	0	All Heads OFF
2	0	0	1	0	Quad Flash Heads 2 & 3 High Power
3	0	1	0	0	Quad Flash Heads 1 & 4 High Power
4	0	1	1	0	Quad Flash All Heads High Power
5	1	0	0	0	WarpFlash™ Heads 2 & 3 High Power
6	1	1	0	0	WarpFlash™ Heads 1 & 4 High Power
7	1	0	1	0	WarpFlash™ All Heads High Power
8	1	1	1	0	Quint Flash All Heads High Power
9	0	0	0	1	All Heads OFF
10	0	0	1	1	Quad Flash Heads 2 & 3 Low Power
11	0	1	0	1	Quad Flash Heads 1 & 4 Low Power
12	0	1	1	1	Quad Flash All Heads Low Power
13	1	0	0	1	WarpFlash™ Heads 2 & 3 Low Power
14	1	1	0	1	WarpFlash™ Heads 1 & 4 Low Power
15	1	0	1	1	WarpFlash™ All Heads Low Power
16	1	1	1	1	Double Flash All Heads High Power

NOTE: Entries 1-4 & 9-12 in the table are the industry standard functions.