

WHELEN[®]

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Installation Guide: 800E-series Strobe Beacon

Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **If mounting this product requires drilling holes, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr the holes and remove any metal shards or remnants. Install grommets into all wire passage holes.**
- **If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro™, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.**
- **Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owners manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.**
- **For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the NEGATIVE (-) battery post (this does not include products that use cigar power cords).**
- **If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device to be operated safely in any driving condition.**
- **Do not attempt to activate or control this device in a hazardous driving situation.**
- **This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.**
- **Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.**
- **It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.**
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

For warranty information regarding this product, visit www.whelen.com/warranty

The 800E Series Beacon has fully encapsulated electronics that are impervious to damage from moisture and vibration. The LED diagnostic indicator displays the operational state of the electronic power supply and flash tube. The unit has an automatic photocell "High Power Over-Ride", a feature which can be overridden to maintain high intensity during nighttime operation. This beacon also features Scan-Lock™ which allows you to choose between 7 available flash patterns. You have 3 mounting options, permanent mount, pipe mount and J-hook mount. The beacon features an easily replaceable snap-in flash tube and is SAE certified.

Specifications:

Model 800E Series: SAE class 1 (all colors) 12-24 VDC
Input Power: 37 watts
Output Power: 26 watts / 22 joules
Input Current: 2.9 amps / 12 VDC
1.5 amps / 24 VDC

Note: All beacons in this manual should be fused at 5 AMPS.

WARNING!The strobe light power supply is a high voltage device. Do not touch or remove the strobe tube or assembly. Wait 10 minutes after disconnecting the unit from power before starting any work or trouble shooting on the power supply or system.

Note: The power readings listed above were taken with the beacon operating in CometFlash®.

Wiring:

Listed below are the wire designations for the 800E beacon. Use the wire gauge indicated below to extend the beacons wires.

WIRE COLOR	WIRE GAUGE	FUNCTION
RED	18 AWG	Positive
BLACK	18 AWG	Ground
VIOLET	18 or 22 AWG	High Power Over-ride
WHITE-VIOLET	18 or 22 AWG	Scan-Lock™

Mounting:

1 INCH (NPT) PIPE MOUNT:

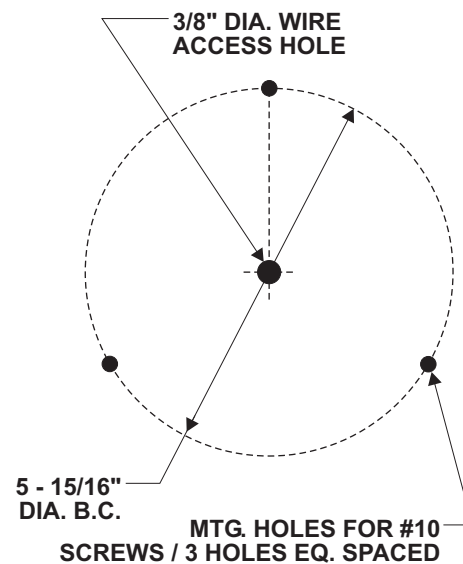
Threading for a 1 inch (NPT) pipe mounting is precast in the base.

1. Feed power cable through the 1 inch pipe and connect the cable to the wires of the beacon.
2. Screw the beacon into the threads on the 1" pipe, taking precaution not to damage the connected power wires. Do not tighten base too hard as not to damage threads on base.

PERMANENT MOUNT:

1. Use the base as a template and mark the three mounting holes off onto the mounting surface. After removing the base, in the center between the three mounting holes, mark the location of the wire access hole.
2. Drill mounting holes into the mounting surface with a drill sized for the #10 mounting screws supplied. Drill the wire access hole using a 3/8" drill (.375 inch). Remove any burrs from the wire access hole as not to damage wires. It is also recommended that you install a rubber grommet (customer supplied) into the wire hole to further protect the wires.
3. The base seal (ITEM 12) will be used between the strobe beacon base and the mounting surface.

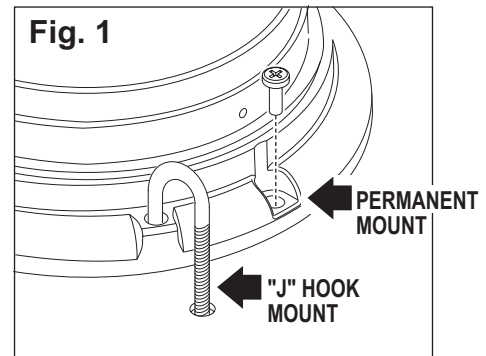
Mounting Plan / Permanent Mount



4. Feed the wires first through the base seal and then through the cable access hole and place the base (with seal) on the mounting surface (while lining up the mounting holes in the base with the mounting holes you drilled into the mounting surface). Secure the beacon firmly to the mounting surface with the supplied mounting screws (ITEM 10).

"J" HOOK MOUNT:

This beacon is equipped to handle the "J" hook mount available on some beacons. Be sure to use the correct "J" hook mounting holes (Fig. 1).



Operation:

Programming / Scan-Lock™ / White-Violet:

To cycle through all patterns: Apply Positive (+) voltage to the WHITE-VIOLET wire for less than 1 second and release to cycle forward. Apply Positive (+) voltage for more than 1 second and release to cycle backward.

To set a pattern as default: When the desired pattern is displayed, allow it to run for more than 5 seconds. The beacon will now display this pattern when activated.

To reset to the factory default pattern: Turn off power. Now, while applying Positive (+) voltage to the WHITE-VIOLET wire, turn power back on.

Available Scan-Lock™ Patterns:

Comet Flash® (Default Pattern)	70 FPM
Triple Flash™	80 FPM
Double Flash	90 FPM
Single Flash	120 FPM
ModuFlash™	60-120-60 FPM
Action Flash™	Comet-Single
ScanFlash™	Comet-Single-Triple-Single-Double-Single-Repeat

High Power Over-ride: Violet

This beacon is equipped with photocell Hi-Lo. This means the beacon will automatically step down to low power at night. If you wish to keep the beacon in high power at night, ground the VIOLET wire. This will cause the beacon to stay in high power until you remove the ground. In applications requiring SAE compliance, this line should be permanently grounded.

LED Diagnostic Indicator:

This strobe beacon comes equipped with an LED diagnostic indicator. If the flash tube does not light and the LED is blinking, replace the flash tube. If the flash tube does not light and the LED is not blinking, check the power wires, fuse or strobe power supply. The LED is located under the lens (Fig. 2).

Replacing the Flashtube:

1. Remove the lens screws and remove the lens.
2. While pinching the 2 clips on the sides of the flashtube together, pull the old flash tube out of the beacon.

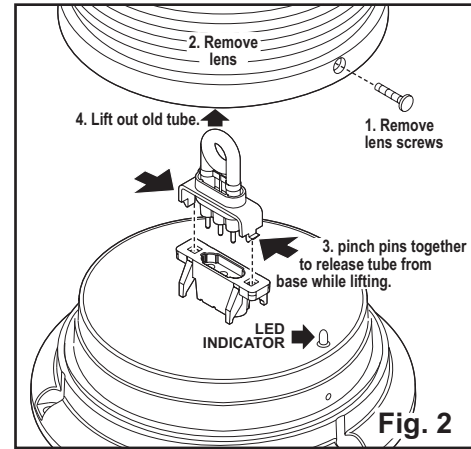


Fig. 2

3. Plug the new flash tube into the base and replace the lens.

QTY	ITEM	PART NUMBER	DESCRIPTION
*		01-0663937-__0	ASSY / STROBE BEACON 800E SERIES
A/R	1	68-2161803-A0	ASSY / LENS - AMBER
A/R	2	68-2161803-B0	ASSY / LENS - BLUE
A/R	3	68-2161803-C0	ASSY / LENS - CLEAR
A/R	4	68-2161803-G0	ASSY / LENS - GREEN
A/R	5	68-2161803-R0	ASSY / LENS - RED
A/R	6	68-2161803-V0	ASSY / LENS - VIOLET
2	7	15-065419-080	SCREW / #6 X 1/2 PPH PLASTI SS
1	8	38-0443007-00	O-RING
1	9	36-0343008-00	ASSY / FLASHTUBE
3	10	15-101416-100	SCREW / #10 X 5/8 PPHSMS
1	11	01-0263736-62	ASSY / BASE 26W CAST
1	12	38-0241596-00	SEAL / BASE
2	13	13-062C40-16J	SCREW GROMMET

0 1 - 0 6 6 3 9 9 7 - __ 0
 LENS COLOR A = AMBER C = CLEAR R = RED
 B = BLUE G = GREEN V = VIOLET

