

WHELEN[®]

ENGINEERING COMPANY INC.

51 Winthrop Road
Chester, Connecticut 06412-0684
Phone: (860) 526-9504
Fax: (860) 526-4078
Internet: www.whelen.com
Sales e-mail: autosale@whelen.com
Canadian Sales e-mail: autocan@whelen.com
Customer Service e-mail: custserv@whelen.com

Installation Guide:
Mirror-Beam™
**2000-present Silverado Pickup &
Suburban
2002 Avalanche**

Safety First

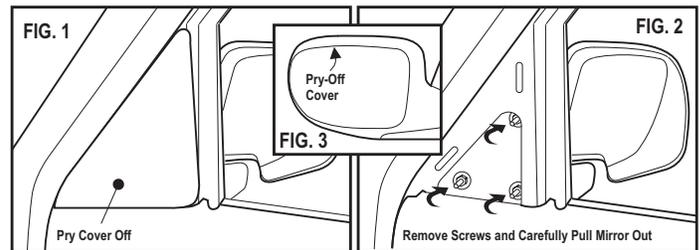
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained 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 any 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 owner's 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.**
- **If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control 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

Remove the Side Mirror:

1. Remove the door panel from vehicle.
2. Remove the hex nuts that secure the mirror assembly to the vehicle. Unplug the mirror's harness cable from the door's power harness (Figs. 1 & 2).
3. Carefully remove the mirror assembly from the vehicle.

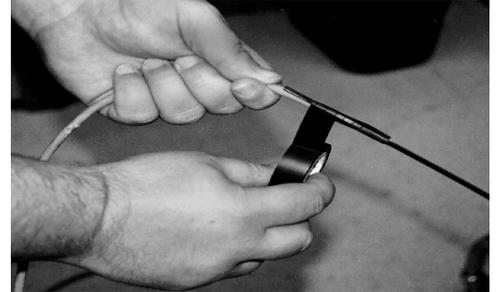


Prepare the Mirror Assembly:

1. Pry the cover off the mirror assembly as shown in figure 3. Be sure to remove any pieces of the back cover's retaining clips that may have broken off.
2. Remove the gasket covering the inside of the mirror base, snap the wire guide loose (Fig. 4) and slide the guide off the wire.

Prepare the Wire Harness:

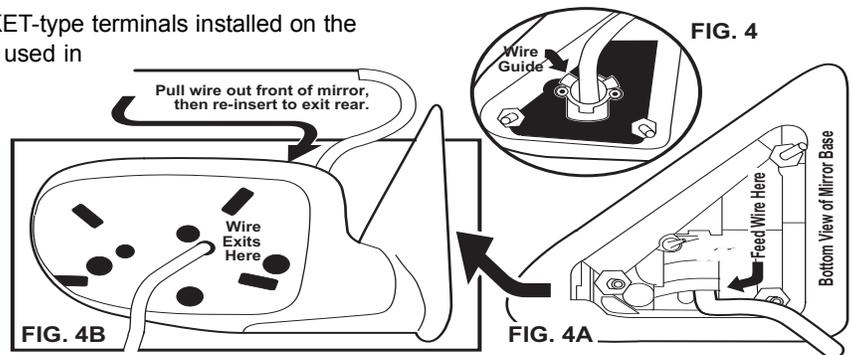
Because the wire harness must be routed through a specific, narrow and twisting path within the mirror assembly, it is necessary to temporarily extend the length of the harness with a temporary "snake."



1. Locate the ty-wrap included with your mirror beam and cut the fastener-end off.
2. Locate the end of the wire harness that has SOCKET-type terminals installed on the free wires. Cut off the non-insulated wire (it is not used in this application).
3. Strongly secure the ty-wrap to the wire harness with electrical or similar tape as shown in the photo on the right. It is important to have a sufficient length of the tie-wrap secured to the harness (2" minimum).

Routing the Wire Harness:

1. Insert the end of the ty-wrap through the mirror base (Fig. 4A) and into the mirror assembly via the same pathway as the mirror's power cable. Push the ty-wrap through this opening until the end of the ty-wrap sticks out from the top, inboard corner of the mirror. Pull ty-wrap until the slack in the harness is gone.
2. Now push the ty-wrap back into the mirror cavity and out the existing hole in the back of the mirror as shown in Figure 4B. There should not be more than 4 or 5 inches of harness sticking out of the hole. If the length is different from this, adjust harness length.
3. Slide the wire guide onto the mirror's cable and then slide the lighthouse harness cable through this guide. Now snap the guide onto the mirror.
4. The ty-wrap is now removed from the harness and the wire terminals inserted into their 3-position connector (supplied) For detailed information, refer to the tag attached to the harness.

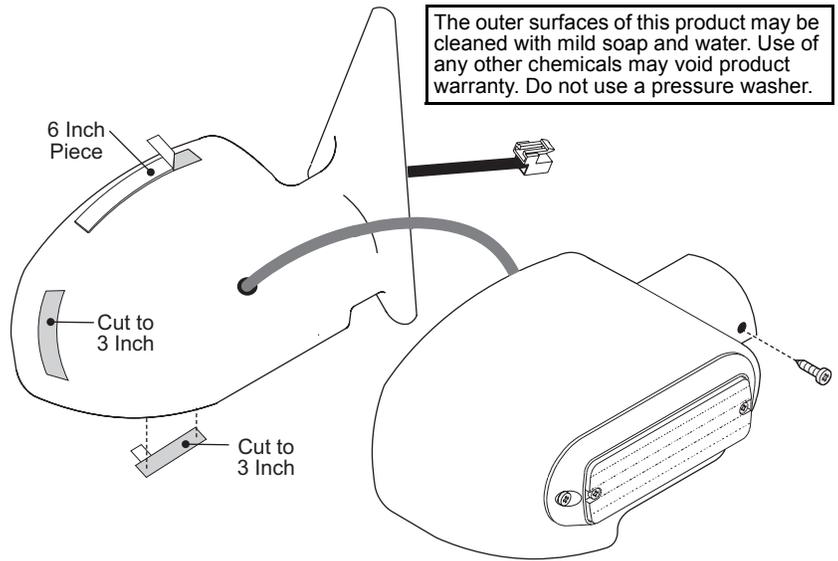


Affixing the Mirror-Beam™

Housing to the Mirror Assembly:

The following procedure requires that the mirror assembly be no colder than 60°F (18°C).

1. Thoroughly clean the plastic mirror assembly and the inside surface of the Mirror-Beam housing using a 50/50 mixture of isopropyl alcohol (do not use rubbing alcohol) and water. Dry completely.
2. Locate the two, 6" strips of double-sided adhesive tape included.
3. Position one 6" strip on the top of the mirror assembly. When properly positioned, the top piece will be centered between the inboard and outboard ends of the mirror assembly and the leading edge of the tape will be set back approximately 1/4" from the rear (mirror side) edge of the assembly. After the tape is positioned, it is important to apply pressure to the protective backing so that the tape adheres to the surface.
4. Cut the remaining 6" length of tape in half. Using the procedure outlined in the previous step, adhere one 3" length of tape to the outside end and the other 3" length to the bottom of the mirror assembly (Fig. 5).
5. Fold the protective backing strips on the top, bottom and outside tape strips so that 1/2" to 3/4" of backing is extended over the rear edge of the plastic mirror assembly. Trim and remove the exposed tape. Remove the protective backing from the tape strip on the "outside" of the mirror.
6. Mount the Mirror-Beam housing onto the mirror assembly as shown. **The housing must fully engage the mirror assembly.** Press the housing firmly onto the exposed tape on the "outside" of the mirror.
7. The remaining protective backing strips must now be removed. To accomplish this, the housing must not be in contact with the backing strips. Starting with the top strip, and using a small, flat blade screwdriver (or similar tool) gently pry the housing about 1/4" away from the mirror assembly. Carefully pull the protective strip "tab" created in step 6, and gently remove it completely from the tape strip. Do not allow the strip to tear while being removed. Repeat for the tape strip on the bottom of the assembly.
8. Apply pressure to the Mirror-Beam assembly at the tape locations. Maintain pressure for a minimum of 20 minutes to allow the tape to properly setup. This can be accomplished by wrapping the Mirror-Beam/mirror assembly tightly with adhesive tape. See important adhesion information at the end of this manual.
9. Locate the factory-drilled hole in the Mirror-Beam housing. Using a 1/8" drill bit and the Mirror-Beam housing as a template, drill a hole into the mirror housing. Locate the #8 x 1/2" sheet metal screw (included) and secure the Mirror-Beam housing to the mirror housing.



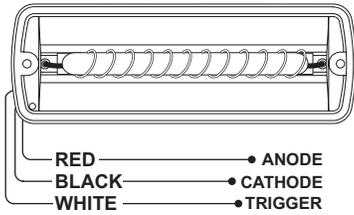
Reassembling the Mirror-Beam:

1. Reinstall the mirror assembly to the vehicle door using the factory hardware.
2. Reconnect the mirror assembly to its main power harness. Route the Mirror-Beam harness through the door, along the same path as the vehicle's main power harness and finally to the strobe power supply. For LED lightheads, refer to the diagrams on the following page. Cut the non-insulated wire off the strobe harness. Insert the PIN terminals into the provided connector (see "Routing the wire harness"). Insert plug into power supply and confirm proper lighthead operation.

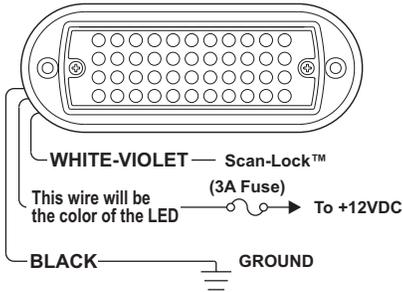
WARNING! The tape adhesive used in this procedure is fully bonded after 72 hours @ 70°F (21°C). During this period, do not expose the Mirror-Beam to any un-necessary force, such as the high-pressure water from a car wash.

WARNING! The strobe light power supply is a high voltage device. Do not remove the strobe tubes or dismantle the strobe lightheads while the unit is in operation. Wait 10 minutes after turning off power before starting any work or troubleshooting on the system.

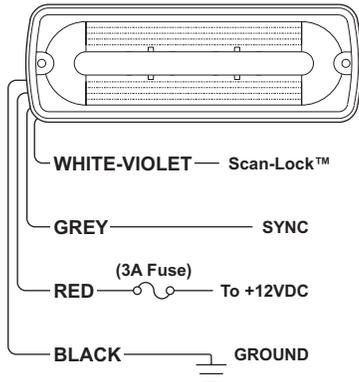
Items 4, 5, 6, 7 & 8 / STROBE



Items 9, 10, 11, 12 & 13 / LED



Items 17, 18, 19, 20 & 21 (LINEAR)



OPERATION:

Depending on which lighthouse is installed in your Mirror-Beam™, you may be able to change flash patterns or synchronize lighthouses to flash simultaneously or alternately. This manual gives you basic wiring and information. For information on the operation of your Mirror-Beam, refer to your lighthouse manual.

WARNING! All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and FUSED at the battery to carry that load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!

IMPORTANT WARNING!

CAUTION! DO NOT LOOK DIRECTLY AT THESE LEDs WHILE THEY ARE ON. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!

QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*			01-068360()6_S	MIRROR-BEAM, STROBE (SUBURBAN)
	*			01-068360()6_L	MIRROR-BEAM, LED (SUBURBAN)
*				01-068360()6_P	MIRROR-BEAM, LINEAR-LED, PASSIVE (SUBURBAN)
2	2	2	1		SCREW / #10-24 X 3/4" PPHMS
2	2	2	2		SCREW / #8 X 5/8" PPHMS SS
2	2	2	2A		#8 FASTEX GROMMET
1	1	1	3	11-763226-000	BLACK FLANGE
-	-	A/R	4	01-0683565-A0	ASSY / LINEAR STROBE / AMBER-AMP
-	-	A/R	5	01-0683565-B0	ASSY / LINEAR STROBE / BLUE-AMP
-	-	A/R	6	01-0683565-C0	ASSY / LINEAR STROBE / CLEAR-AMP
-	-	A/R	7	01-0683565-G0	ASSY / LINEAR STROBE / GREEN-AMP
-	-	A/R	8	01-0683565-R0	ASSY / LINEAR STROBE / RED-AMP
-	A/R	-	9	02-0383558513	ASSY / LED FLASHER / AMBER-CLEAR / 3 POS
-	A/R	-	10	02-0383558523	ASSY / LED FLASHER / BLUE-CLEAR / 3 POS
-	A/R	-	11	02-03835585C3	ASSY / LED FLASHER / WHITE-CLEAR / 3 POS
-	A/R	-	12	02-0383558543	ASSY / LED FLASHER / GREEN-CLEAR / 3 POS
-	A/R	-	13	02-0383558553	ASSY / LED FLASHER / RED-CLEAR / 3 POS
A/R	A/R	A/R	14	11-483562-L00	HOUSING / DRIVER SIDE - SUBURBAN
A/R	A/R	A/R	15	11-483562-R00	HOUSING / PASSENGER SIDE - SUBURBAN
1	1	1	16	15-08141A-080	SCREW / #8 X 1/2" PPHMS BLACK PHOS
A/R	-	-	17	01-0664633110	ASSY / 500 LINEAR-LED / SYNC / AMBER-AMP
A/R	-	-	18	01-0664633120	ASSY / 500 LINEAR-LED / SYNC / BLUE-AMP
A/R	-	-	19	01-0664633130	ASSY / 500 LINEAR-LED / SYNC / WHITE-AMP
A/R	-	-	20	01-0664633140	ASSY / 500 LINEAR-LED / SYNC / GREEN-AMP
A/R	-	-	21	01-0664633150	ASSY / 500 LINEAR-LED / SYNC / RED-AMP
1	1	1	22	01-0415532-00	3/C CABLE INSTALLATION KIT
1	1	1	23	46-0742172-15	3/C CABLE ASSEMBLY
2	2	2	24	66-0416642-00	MOUNTING TAPE (not shown)
1	1	1	25	26-0315001-14	TY-WRAP / 14 1/2" BLACK (not shown)

IMPORTANT NOTE: If your Mirror-Beam housing has metal inserts where the lighthouse mounts, you will use ITEM 1 to mount the lighthouse. If it has no metal insert you will use ITEMS 2 and 2A.

PART NUMBER KEY:



MODEL

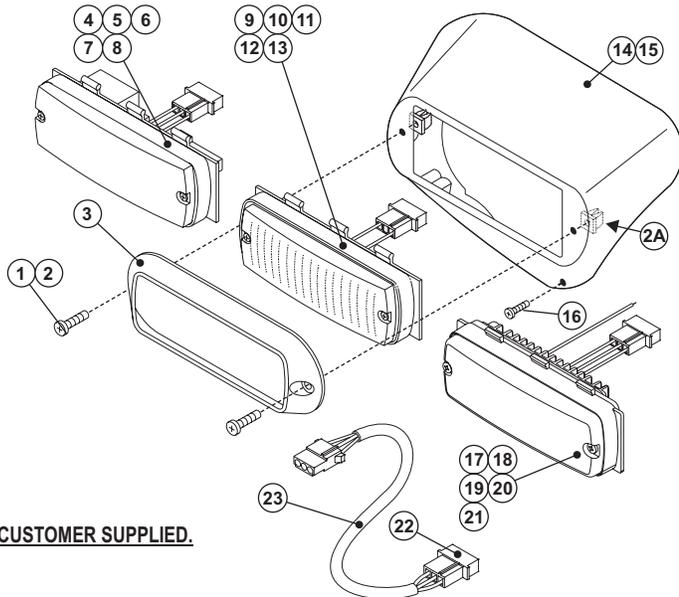
6 = SUBURBAN

COLOR

- A = AMBER-AMBER
- B = BLUE-BLUE
- C = CLEAR-WHITE
- G = GREEN-GREEN
- R = RED-RED
- 1 = AMBER-CLEAR
- 2 = BLUE-CLEAR
- 4 = GREEN-CLEAR
- 5 = RED-CLEAR

LIGHTHEAD

- S = STROBE
- L = LED (5mm)
- P = LINEAR-LED® (PASSIVE)



ALL FUSES ARE CUSTOMER SUPPLIED.