

WHELEN[®]

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Installation Guide:
LED Mirror-Beam™
Models: MBLC98, MBPC98 & MBTC98**
1998-2006 Ford Crown Victoria

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!**

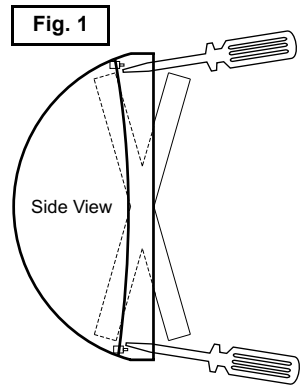
For warranty information regarding this product, visit www.whelen.com/warranty

To Remove the Side Mirror Assembly:

1. Remove the driver side door panel from the vehicle.
2. Remove the three hex nuts that secure the mirror assembly to the vehicle. Unplug the mirror assembly harness cable from the door's power harness and carefully remove the mirror assembly from the vehicle.

To Remove the Glamour Cap from the Mirror Assembly:

1. To remove the glamour cap from the mirror assembly, the glamour caps three retaining tabs must be carefully lifted off the rear housing retaining pins. This is accomplished with a small flatblade screwdriver or other suitable device.
2. To gain access to the glamour caps upper retaining tabs, the mirror must be gently positioned so that it's lower edge is pressed inwards as far as it will travel. This will allow the two, upper retaining tabs to be accessed with the screwdriver (Fig. 1).
3. Position the screwdriver blade under either of the upper retaining tabs and pry tab upwards and off its retaining pin. Repeat for remaining upper retaining tab.
4. To gain access to the glamour cap's lower retaining tab, the mirror must be gently positioned so that it's upper edge is pressed inwards as far as it will travel. This will allow the lower retaining tab to be accessed with the screwdriver.
5. Position the screwdriver blade over the retaining tab and pry tab downwards and off its retaining pin. With all three retaining tabs free, pull glamour cap and its guide pin away from the mirror assembly.



To Prepare the Mirror Assembly:

1. With the glamour cover removed, look at the rear of the mirror assembly. Locate the upper retaining tab slot indicated. Draw a perpendicular line that extends 1 inch from the middle of the bottom of the slot (Fig. 2).
2. At the end of this perpendicular line, carefully drill a 1" hole into the mirror assembly (Fig. 3).
3. Now fold the lower section of the triangular foam mounting gasket so that access to the lower section of the mirror assembly's mounting surface is gained.
4. Locate the area along the bottom of the mirror assembly's mounting surface where the mirror harness has been routed from inside the assembly. The adjacent passage (closer to the rear of the assembly) will also be drilled using a 3/8" drill bit. As shown in Fig. 4, make sure that as the hole is drilled, the bit stays parallel with walls of the passage.

Note: The location of these holes are critical. Be sure that the indicated distances are measured accurately. Failure to do so may result in damage to the mirror's motor and/or wiring components.

To Prepare the Wiring Harness:

Note: Because the 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 make-shift "snake".

1. Locate the tie-wrap included with your MirrorBeam and cut the fastener-end off.
2. Locate the end of the harness that has SOCKET-type terminals installed on the free wires. If present, cut off the non-insulated wire (not used).
3. Strongly secure the tie-wrap to the harness with electrical or similar tape. It is important to have at least 2" of the tie-wrap secured to the harness jacket.
4. Route the harness through the mirror assembly.

Fig. 2 Left (Driver) Side Mirror
(Rear view with Glamour Cap removed)

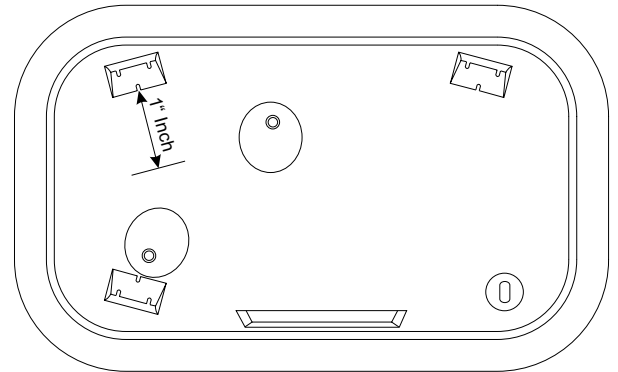
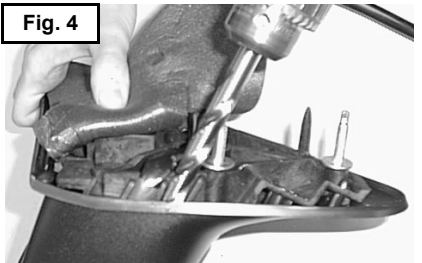


Fig. 3



Fig. 4



Routing the Wiring Harness:

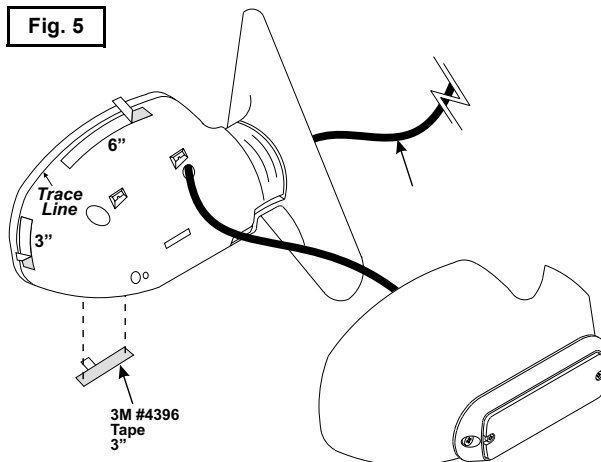
1. Insert the end of the tie-wrap through the 3/8" hole drilled in step 4 of "To prepare the mirror assembly".
2. Feed the tie-wrap through the mirror assembly until the tie-wrap can be pulled through the 1" hole drilled in step 2 of "To prepare the mirror assembly". There should not be more than 4 or 5 inches of harness sticking out of the hole. If the length is different from this, adjust harness length accordingly.

The tie-wrap is now removed from the harness and the wire terminals inserted into their 2 or 3 position connectors (see wiring diagrams).

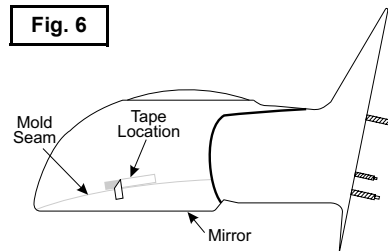
Affixing the MirrorBeam Housing to the Mirror Assembly:

Note: 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 MirrorBeam housing using a 50/50 mixture of isopropyl (not rubbing) alcohol and water. Dry completely.
2. Locate the 6" strips of double-sided adhesive tape included with your MirrorBeam. Cut one into two, 3" lengths.
3. Place the MirrorBeam housing onto the mirror assembly. When properly positioned, the leading edge of the housing will be approximately 3/16" behind the leading edge of the mirror assembly.
4. With the housing properly positioned, trace the outline of the housing onto the mirror assembly using a suitable marking device. Place the 6" tape piece on the top of the mirror assembly. Place a 3" tape piece on the end of the mirror assembly as shown in Fig. 5. **Be sure to place these pieces behind the trace line as shown.**



5. The remaining 3" length must be adhered in a specific location. On the bottom of the mirror assembly, locate the mold seam. Position the tape in the location 1/4" back away from this seam (Fig. 6).
6. Fold the protective backing strips on each tape strip so that 1/2" to 3/4" of backing is extended over the edge of the mirror assembly (or the mold seam, in the case of the bottom tape). Trim and remove the exposed tape.
7. Place the mirror assembly mirror-side down on the workbench. Mount the MirrorBeam housing onto the mirror assembly. *The housing must fully engage the mirror assembly.*
8. The protective backing strips must now be removed. To accomplish this, the housing must not be in contact with the backing strips. 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 5, and gently remove it completely from the tape strip. Do not allow the MirrorBeam housing to shift while removing the backing. Also, do not allow the strip to tear while being removed. Repeat process for remaining tape strip.
9. Apply pressure to the MirrorBeam 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 MirrorBeam/mirror assembly tightly with adhesive tape. See important adhesion information at the end of this manual.
10. Using a 1/8" drill bit and the MirrorBeam housing as a template, drill a hole into the mirror housing. Locate the #8 x 1/2" sheet metal screw (included) and secure the MirrorBeam housing to the mirror housing.

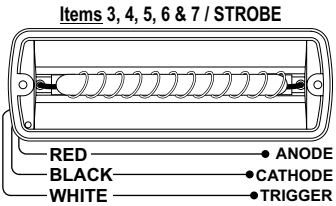
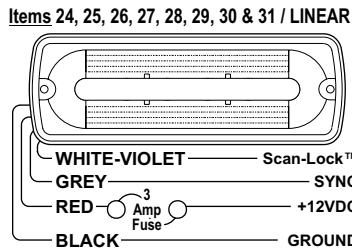
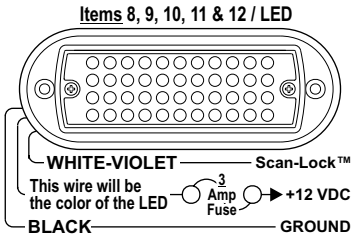


Re-assembling the MirrorBeam Assembly:

1. Re-connect the mirror assembly to its main power harness. Route the MirrorBeam harness through the door, along the same path as the vehicle's main power harness.
2. Cut the non-insulated wire off the wiring harness. Insert the PIN-type terminals into the provided connector as detailed in the "Routing the wiring harness" section of this manual. Select a connection style (see next page) and confirm proper operation.

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

WARNING! The outer surfaces of this product may be cleaned with mild soap and water. Use of any other chemicals may void the product warranty. Do not use a pressure washer.



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

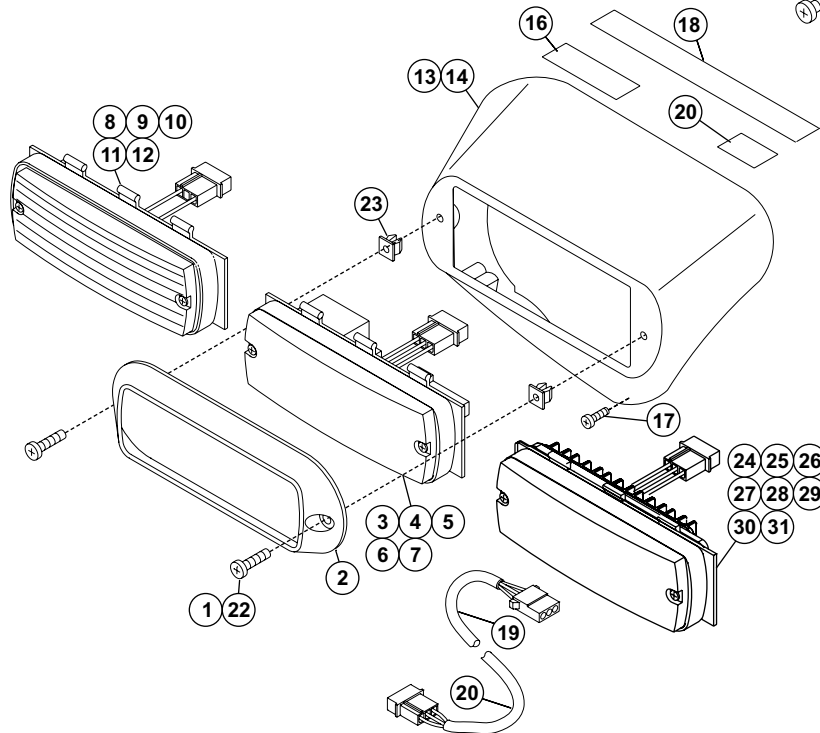
OPERATION:

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

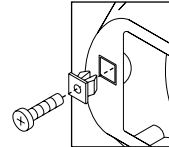
WARNING! All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and be FUSED at the battery to carry that load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!

IMPORTANT WARNING!

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



QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*			01-068360_0_S	MIRROR BEAM / STROBE - CROWN VICTORIA
	*			01-068360_0_L	MIRROR BEAM / LED - CROWN VICTORIA
	*			01-068360_0_P	MIRROR BEAM / PASSIVE LINEAR - CROWN VICTORIA
2	2	2	1	14-104216-120	SCREW, #10-24 X 3/4" PPHMS
1	1	1	2	11-763226-000	FLANGE, BLACK
-	-	A/R	3	01-0683565-A0	LINEAR STROBE - AMBER/AMP
-	-	A/R	4	01-0683565-B0	LINEAR STROBE - BLUE/AMP
-	-	A/R	5	01-0683565-C0	LINEAR STROBE - CLEAR/AMP
-	-	A/R	6	01-0683565-G0	LINEAR STROBE - GREEN/AMP
-	-	A/R	7	01-0683565-R0	LINEAR STROBE - RED/AMP
-	A/R	-	8	02-0383558513	LED FLASHER - AMBER/CLEAR 3 POS
-	A/R	-	9	02-0383558523	LED FLASHER - BLUE/CLEAR 3 POS
-	A/R	-	10	02-03835585C3	LED FLASHER - WHITE/CLEAR 3 POS
-	A/R	-	11	02-0383558543	LED FLASHER - GREEN/CLEAR 3 POS
-	A/R	-	12	02-0383558553	LED FLASHER - RED/CLEAR 3 POS
A/R	A/R	A/R	13	11-484229-L00	HOUSING, DRIVER SIDE - CROWN VICTORIA
A/R	A/R	A/R	14	11-484229-R00	HOUSING, PASS. SIDE - CROWN VICTORIA
1	1	1	15	10-0320776-00	LABEL, MADE IN USA FLAG
1	1	1	16	10-0522838-**	LABEL, P/N MIRROR BEAM (DRIVER)
1	1	1	17	15-08121B-082	SCREW, #8 X 1/2" PPHMS SS BLACK ZINC
2	2	2	18	66-0416642-00	TAPE, MOUNTING
1	1	1	19	46-0742172-15	CABLE ASSEMBLY, 3/C
1	1	1	20	01-0415532-00	KIT, CABLE INSTALLATION 3/C
1	1	1	21	26-0315001-14	TY-WRAP, 14 1/2" BLACK / not shown
2	2	2	22	15-081416-100	SCREW, 8 X 5/8 PPHMS SS
2	2	2	23	21-12080905-1	SCREW GROMMET #8
A/R	-	-	24	01-066C289110	LINEAR LED - AMBER-CLEAR-AMP
A/R	-	-	25	01-066C289120	LINEAR LED - BLUE-CLEAR-AMP
A/R	-	-	26	01-066C289130	LINEAR LED - WHITE-CLEAR-AMP
A/R	-	-	27	01-066C289140	LINEAR LED - GREEN-CLEAR-AMP
A/R	-	-	28	01-066C289150	LINEAR LED - RED-CLEAR-AMP
A/R	-	-	29	01-066C290-D0	LINEAR LED - RED/WHT-CLEAR-AMP
A/R	-	-	30	01-066C290-E0	LINEAR LED - BLU/WHT-CLEAR-AMP
A/R	-	-	31	01-066C290-J0	LINEAR LED - RED/BLU-CLEAR-AMP



NOTE: If your Mirror-Beam™ housing does not have a metal insert where the lighthouse mounts to the housing, ITEMS 22 and 23 secure the lighthouse.

If your Mirror-Beam™ has a metal insert, ITEM 1 secures the lighthouse.

PART NUMBER KEY:		MODEL	
01-0683608	Driver side	0 = CROWN VIC	4 = GRN/CLR
OR	Passenger side		5 = RED/CLR
01-0683609		COLOR	D = RED-WHT/CLR
		A = AMB/AMBR	E = BLU-WHT/CLR
		B = BLU/BLU	J = RED/BLU/CLR
		C = CLR/WHT	LIGHTHEAD
		G = GRN/GRN	S = STROBE
		R = RED/RED	L = 5mm LED
		1 = AMB/CLR	P = LINEAR LED
		2 = BLU/CLR	