

WHELEN[®]

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Installation Guide:
Inner Edge[®] XLP Interior Lightbar
10 light (with take-downs)
12 light (without take-downs)
2013 Ford Fusion

Warnings to Installers

Whelen's emergency vehicle warning devices must be properly mounted and wired in order to be effective and safe. Read and follow all of Whelen's written instructions when installing or using this device. Emergency vehicles are often operated under high speed stressful conditions which must be accounted for when installing all emergency warning devices. Controls should be placed within convenient reach of the operator so that he can operate the system without taking his eyes off the roadway. Emergency warning devices can require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or vehicle damage, including fire. Many electronic devices used in emergency vehicles can create or be affected by electromagnetic interference. Therefore, after installation of any electronic device it is necessary to test all electronic equipment simultaneously to insure that they operate free of interference from other components within the vehicle. Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment. All devices should be mounted in accordance with the manufacturer's instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device. Driver and/or passenger air bags (SRS) will affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving; sudden braking or collision. Failure to follow instructions can result in personal injury. Whelen assumes no liability for any loss resulting from the use of this warning device. **PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.**

Warnings to Users

Whelen's emergency vehicle warning devices are intended to alert other operators and pedestrians to the presence and operation of emergency vehicles and personnel. However, the use of this or any other Whelen emergency warning device does not guarantee that you will have the right-of-way or that other drivers and pedestrians will properly heed an emergency warning signal. Never assume you have the right-of-way. It is your responsibility to proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes. Emergency vehicle warning devices should be tested on a daily basis to ensure that they operate properly. When in actual use, the operator must ensure that both visual and audible warnings are not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should be familiar with all applicable laws and regulations prior to the use of any emergency vehicle warning device. Whelen's audible warning devices are designed to project sound in a forward direction away from the vehicle occupants. However, because sustained periodic exposure to loud sounds can cause hearing loss, all audible warning devices should be installed and operated in accordance with the standards established by the National Fire Protection Association.

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.**
- **Whelen Engineering recommends the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture.**
- **Failure to use specified installation parts and/or hardware will void the product warranty.**
- **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 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 (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!**

Installation 2013 Ford Fusion:

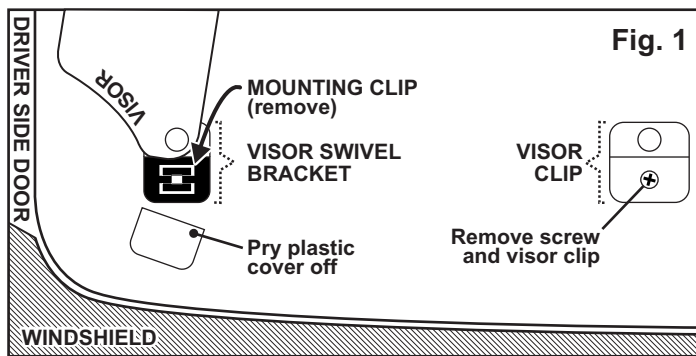
IMPORTANT AIR BAG WARNING! Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. 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.

IMPORTANT! The lightbar should be located a minimum of 16" from any radio antennas!

Note: When routing the wires, it is important to choose a path that will keep the wires away from excessive heat or any vehicle equipment that could compromise the integrity of the wires (ex. trunk lids, door jams, etc.)

Figures 1 thru 3 show the driver side of the interior of the vehicle, shown looking up at the roof.

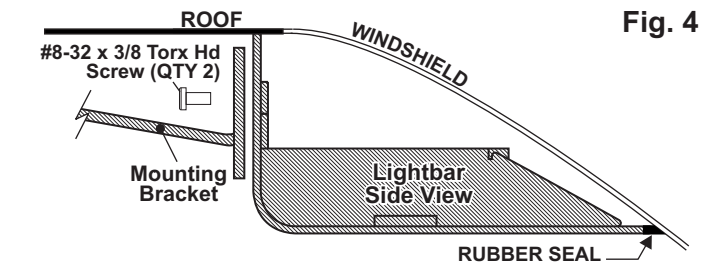
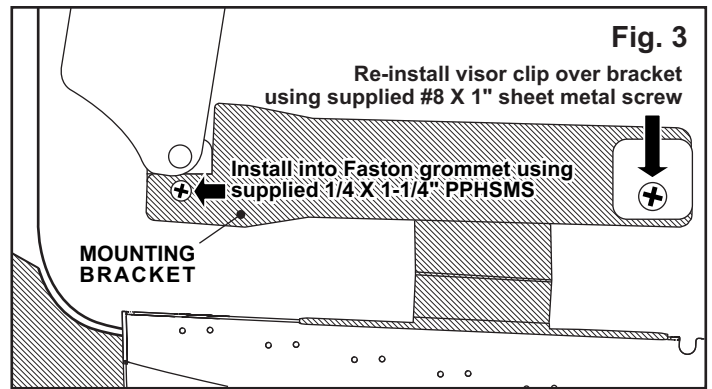
1. On the driver side visor swivel bracket, carefully pry the plastic cover off of the front of the bracket (Fig. 1). The lightbar mounting bracket will sit in the space that the cover occupied. **NOTE: Pry the cover off using two flat blade screwdrivers on each side to avoid braking the cover. The cover will not be used here but should be saved in case you wish to remove the lightbar in the future.**



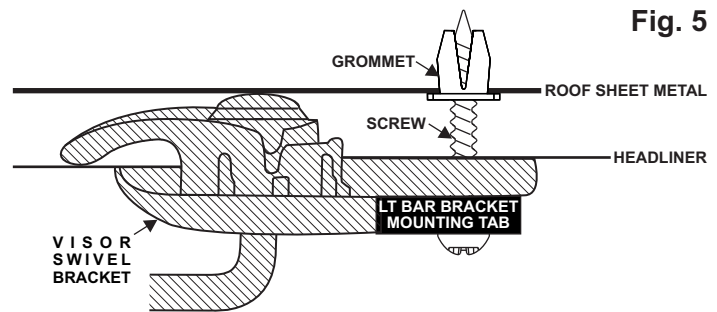
2. Remove the swivel bracket mounting clip (located under the cover you removed in step 1) and lift the swivel bracket assembly out. Install the supplied fastex grommet into the hole in the roof sheet metal which the clip snapped into. Reinsert the swivel bracket assembly (Figs. 1 & 2).



3. On the vehicle visor clip, remove the screw holding on the clip and remove the clip. The supplied #8 X 1" sheet metal screw will replace the screw you removed (Fig. 2).
4. Secure the mounting bracket to the lightbar and position the bracket where it will mount on the vehicle (Figs. 3 & 4).
5. Secure the lightbar bracket to the swivel mount using the supplied 1/4 X 1-1/4" Phillips Pan Head Sheet Metal Screw. This screw will thread into the fastex grommet you installed in step 2 and the bracket will sit where the cover was (Fig. 5).

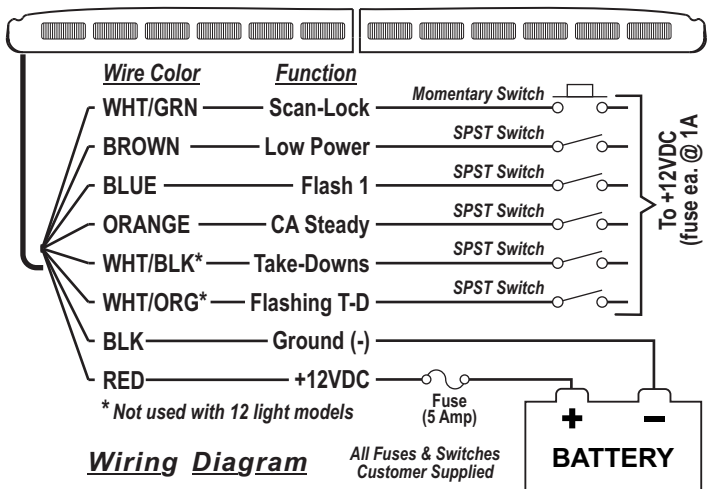


When properly mounted, the rubber seal should be in full contact with the vehicle windshield. The rear of the lightbar should be in contact with the roof. This is to prevent light from entering the passenger compartment. When this has been achieved, tighten mounting hardware firmly to maintain contact.



6. Line the rectangular hole in the other end of the lightbar bracket, up with the visor clip and install the visor clip over the lightbar bracket using the supplied #8 X 1" Sheet Metal Screw (Fig. 3).
7. Make sure all mounting hardware is tightened firmly and repeat procedure for the passenger side of the vehicle.
8. Extend the cables and connect to power. Refer to the lightbar manual for wiring and fusing information.

Wiring:



Wiring Diagram

All Fuses & Switches Customer Supplied

Operation:

This lightbar is powered and controlled by an 8-conductor cable exiting the lightbar. All functions listed here are not present in all lightbars.

White/Green - Scan-Lock™

The WHITE/GREEN wire allows you to choose from the available flash patterns. First you must activate the lighthouse(s) you wish to change:

TO CYCLE THROUGH ALL PATTERNS: To cycle forward apply +12 VDC to the WHT/GRN wire for less than 1 second and release. To cycle backward apply +12 VDC to the WHT/GRN wire for more than 1 second and release.

TO SET A PATTERN AS DEFAULT: When the pattern is displayed, allow it to run for over 5 seconds. The lighthouse will now display this pattern when active.

TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off power and apply +12 VDC to the WHT/GRN wire while turning power on.

A normally open momentary switch is best used for Scan-Lock operation.

Available Flash Patterns:

- | | |
|---------------------------------------|------------------------------------|
| 1. ActionScan™ | 21. DoubleFlash 120.....Multi |
| 2. SignalAlert™ 75Alternating | 22. ActionFlash™ 75 ...Alternating |
| 3. SignalAlert™ 75Multi | 23. ActionFlash™ 75Multi |
| 4. CometFlash® 75.....Alternating | 24. ActionFlash™ 150 .Alternating |
| 5. CometFlash® 75.....Multi | 25. ActionFlash™ 150Multi |
| 6. DoubleFlash 75Alternating | 26. MicroBurst™Alternating |
| 7. DoubleFlash 75Multi | 27. MicroBurst™Multi |
| 8. SingleFlash 75..... Alternating | 28. PingPong..... Alternating |
| 9. SingleFlash 75.....Multi | 29. PingPong.....Multi |
| 10. LongBurst 75..... Alternating | 30. FlimFlam..... Alternating |
| 11. LongBurst 75.....Multi | 31. FlimFlam.....Multi |
| 12. SingleFlash 60..... Alternating | 32. ModuFlash..... Alternating |
| 13. SingleFlash 60.....Multi | 33. ModuFlash.....Multi |
| 14. SingleFlash 90..... Alternating | 34. Cylon 1 |
| 15. SingleFlash 90.....Multi | 35. Cylon 2 |
| 16. SingleFlash 120..... Alternating | 36. Cylon Chaser |
| 17. SingleFlash 120.....Multi | 37. Eyeballs Sync |
| 18. SingleFlash 240..... Alternating | 38. Eyeballs In/Out |
| 19. SingleFlash 240.....Multi | 39. 2 Eyeballs In/Out |
| 20. DoubleFlash 120 Alternating | 40. Eyeballs Crazy |

Blue: Flash 1

Apply +12 VDC to the BLU wire to activate the warning lights. Fuse this wire @ 1 Amp.

Brown: Hi/Low Power

The low power feature allows you to step the lightbar down to run in low power for night time use. Fuse this wire @ 1 Amp. An SPST switch can be used to control Hi/Low power. To activate Low power operation: Apply +12 VDC to the BRN wire. To restore regular power: Remove voltage from the BRN wire.

White/Black: Take-Downs

Apply +12 VDC to the WHT/BLK wire to activate the take-downs. Fuse this wire @ 1 Amp. NOTE: Not used with 12 Light models.

White/Orange: Flashing Take-Down

Apply +12VDC to the WHT/ORG wire to activate flashing take-down mode. Fuse this wire @ 1 Amp. Note: The WHT/BLK wire overrides this display. NOTE: Not used with 12 Light models.

Orange: California Steady

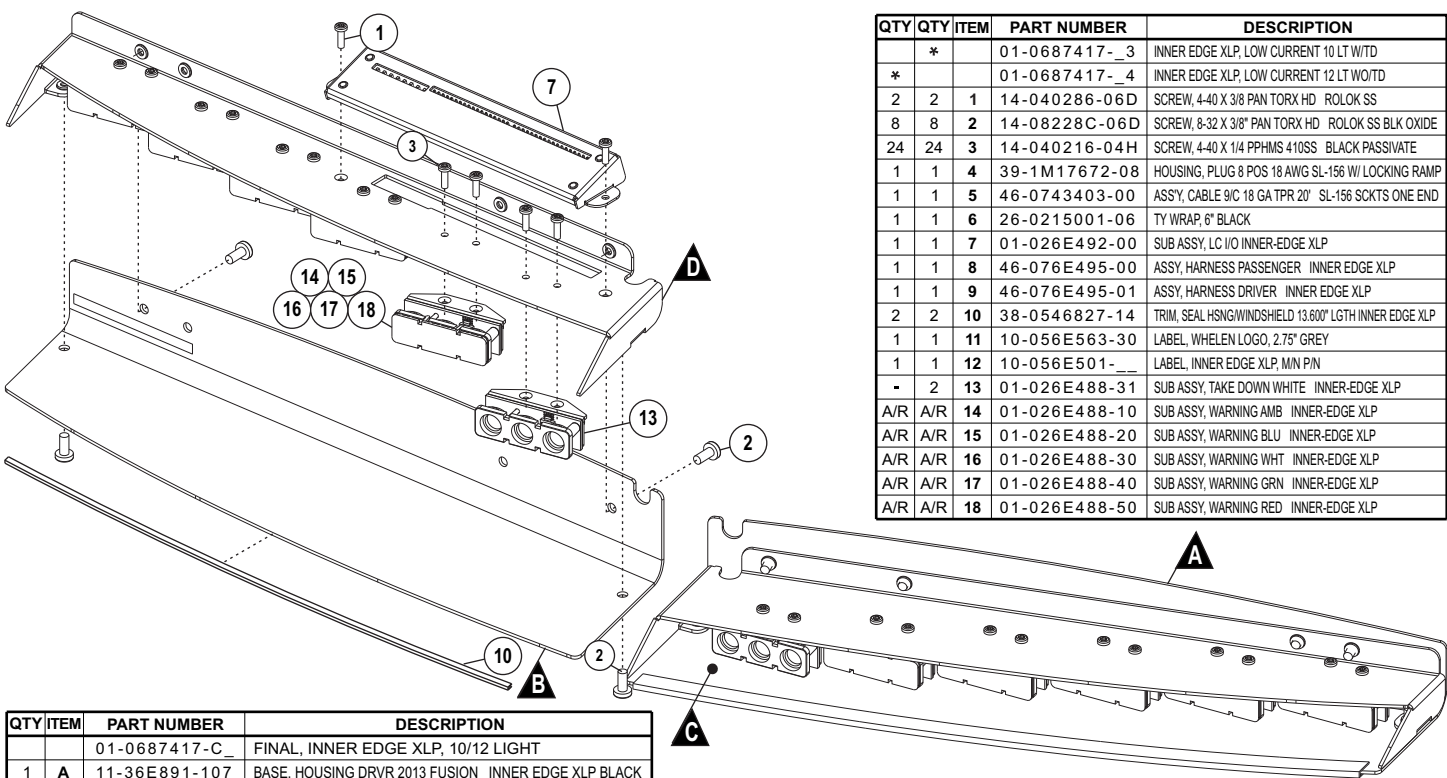
Apply +12 VDC to the ORG wire to activate lighthoods using the California Steady pattern table. Refer to the artwork on the following page for lighthouse identification. Fuse this wire @ 1 Amp.

California Steady Pattern Table:

#	Active Lighthoods	6.	D6 (12-Light Models Only)
1.	D1	7.	D1 + P1
2.	D2	8.	D2 + P2
3.	D3	9.	D3 + P3
4.	D4	10.	D4 + P4
5.	D5	11.	D5 + P5
		12.	D6 + P6 (12-Light Models Only)

IMPORTANT! Before returning this vehicle to active service, visually confirm the operation of this product, as well as all vehicle components/equipment.

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!



QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*		01-0687417-_3	INNER EDGE XLP, LOW CURRENT 10 LT W/TD
	*		01-0687417-_4	INNER EDGE XLP, LOW CURRENT 12 LT WO/TD
2	2	1	14-040286-06D	SCREW, 4-40 X 3/8 PAN TORX HD. ROLOK SS
8	8	2	14-08228C-06D	SCREW, 8-32 X 3/8" PAN TORX HD. ROLOK SS BLK OXIDE
24	24	3	14-040216-04H	SCREW, 4-40 X 1/4 PPHMS 410SS. BLACK PASSIVATE
1	1	4	39-1M17672-08	HOUSING, PLUG 8 POS 18 AWG SL-156 W/ LOCKING RAMP
1	1	5	46-0743403-00	ASSY, CABLE 9IC 18 GA TPR 20' SL-156 SCKTS ONE END
1	1	6	26-0215001-06	TY WRAP, 6" BLACK
1	1	7	01-026E492-00	SUB ASSY, LC I/O INNER-EDGE XLP
1	1	8	46-076E495-00	ASSY, HARNESS PASSENGER INNER-EDGE XLP
1	1	9	46-076E495-01	ASSY, HARNESS DRIVER INNER-EDGE XLP
2	2	10	38-0546827-14	TRIM, SEAL HSN/WINDSHIELD 13.600" LGTH INNER-EDGE XLP
1	1	11	10-056E563-30	LABEL, WHELEN LOGO, 2.75" GREY
1	1	12	10-056E501-__	LABEL, INNER-EDGE XLP, MIN P/N
-	2	13	01-026E488-31	SUB ASSY, TAKE DOWN WHITE INNER-EDGE XLP
A/R	A/R	14	01-026E488-10	SUB ASSY, WARNING AMB INNER-EDGE XLP
A/R	A/R	15	01-026E488-20	SUB ASSY, WARNING BLU INNER-EDGE XLP
A/R	A/R	16	01-026E488-30	SUB ASSY, WARNING WHT INNER-EDGE XLP
A/R	A/R	17	01-026E488-40	SUB ASSY, WARNING GRN INNER-EDGE XLP
A/R	A/R	18	01-026E488-50	SUB ASSY, WARNING RED INNER-EDGE XLP

QTY	ITEM	PART NUMBER	DESCRIPTION
		01-0687417-C	FINAL, INNER-EDGE XLP, 10/12 LIGHT
1	A	11-36E891-107	BASE, HOUSING DRVR 2013 FUSION INNER-EDGE XLP BLACK
1	B	11-36E891-007	BASE, HOUSING PASS 2013 FUSION INNER-EDGE XLP BLACK
1	C	11-26E890-107	COVER, TOP DRVR FORD FUSION DUO INNER-EDGE XLP BLK
1	D	11-26E890-007	COVER, TOP PASS FORD FUSION DUO INNER-EDGE XLP BLK
1	E	07-287529-123	BRACKET, VISOR MT DRVR FUSION INNER-EDGE XLP BLACK
1	F	07-287529-023	BRACKET, VISOR MT PASS FUSION INNER-EDGE XLP BLACK
2	G	21-12081205-3	SCREW GROMMET, FASTEX # 212-240602-040101
2	H	15-131416-202	SCREW, 1/4 X 1 1/4 PPHSMS SS TYPE A
2	I	15-081416-160	SCREW, 8 X 1 PPHSMS

NOT SHOWN

01-0687417- PART NUMBER KEY
 YEAR/MAKE C = 2013 FUSION
 VERSION 3 = 10 LT W/TD 4 = 12 LT WO/TD