

WHELEN[®]

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Installation Guide: LFL Liberty Mini-Edge[®]

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 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.**
- **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!**

Mounting your Lightbar:

Refer to the "Lightbar Mounting Guide" included with your lightbar.

CAUTION: Permanent mounting will require drilling. The installer must be sure that no vehicle components or other vital parts will be damaged. Be aware of the location of any front, side or upper air bags.

CAUTION: There may be a roof support member that spans the distance between the driver's and passenger's side. Do not drill through this member. Adjust the location of the cable access hole until the hole can be drilled without contacting this support member.

IMPORTANT! It is the responsibility of the installation technician to make sure that the installation and operation of this product will not interfere with or compromise the operation or efficiency of any vehicle equipment!

CAUTION: Using a magnetic mounted light on the outside of a vehicle, while in motion, is not recommended and is at the sole risk of the user.

Installation:

1. To protect the headliner from damage caused by drilling the cable access hole through the vehicle roof, allow a 5" to 7" distance between roof and headliner by lowering the headliner before drilling.
2. Using a 1" hole saw, drill the cable access hole. Use a round file to smooth and de-burr the edges and insert a 1" grommet (user supplied).
3. Insert the cable(s) through the cable access hole into the vehicle. Use RTV silicone to weatherproof the access hole after the cable(s) are pulled into the vehicle.
4. When routing the cable(s), be sure to use a path that avoids any vehicle components or other vital parts that may be damaged. Also be careful not to interfere with any vehicle air bags (Front, side, etc.). Route the cable(s) towards your switch panel and refer to the instructions included with the switch panel for wiring information.

Wiring:

The cigarette plug model plugs it into your cigarette lighter and requires no further wiring.

If you have a lightbar that has an 11 conductor cable, refer to the chart below for important wiring information.

NOTE: For internal fuse replacement see information on next page.

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!**

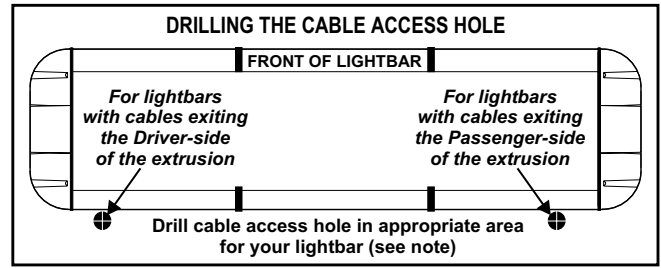
WIRE COLOR (VOLTAGE)	FUNCTION	FUSE @
RED (+12VDC)	LED Flasher (+) Positive	5 Amps
BLK / YEL (+12VDC)	Scan-Lock™	1 Amp
GRY (+12VDC)	Front Corner LEDs	1 Amp
WHT (+12VDC)	Halogen 1	5 Amps
WHT/BLK (+12VDC)	Inboard LEDs	5 Amps
YEL (+12VDC)	Halogen 2	5 Amps
WHT / BLU (+12VDC)	Rear Corner LEDs	1 Amp
BLK / WHT (-)	Halogen 1 & 2 Ground	N/A
WHT / VIO (+12VDC)	Endcap LEDs	1 Amp
VIO (+12VDC)	Low Power	1 Amp
BLK (-)	LED Flasher (-) Negative	N/A

Hi/Low Control:

The type of switch used is dependant on how the operator wishes the Hi/Low feature to function:

Option 1: Latching Mode: By applying +voltage to the VIOLET wire for less than 1 sec., the power supply is "latched" into Low power operation. The unit must be turned off and then back on to restore normal, Hi power operation. A momentary switch is best for this method.

Option 2: Level Mode: Applying +voltage to the VIOLET wire for more than 1 sec. holds the power supply in Low power mode until that voltage is removed. A toggle switch is best for this method.



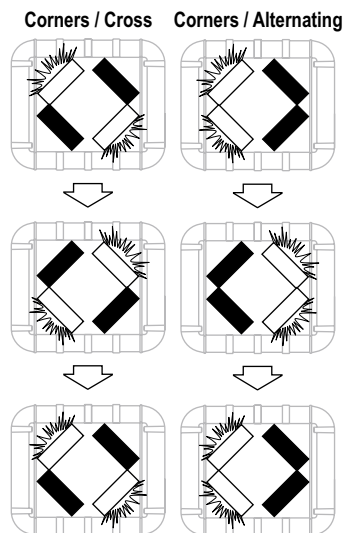
Scan-Lock™:

To cycle forward through all patterns: Apply power to the control wire of the function you want to change, then apply power to the BLACK-YELLOW (Scan-Lock™) wire for less than 1 second and release. This will change the pattern. Repeat for next pattern.

To choose a pattern: While cycling through the patterns, when you find the pattern you want let it run for more than 5 seconds and it will lock in and become the default pattern.

To reset to the factory default pattern: Turn off power, apply power to the Scan-Lock™ wire and the wire of the function you want to reset, then turn power back on.

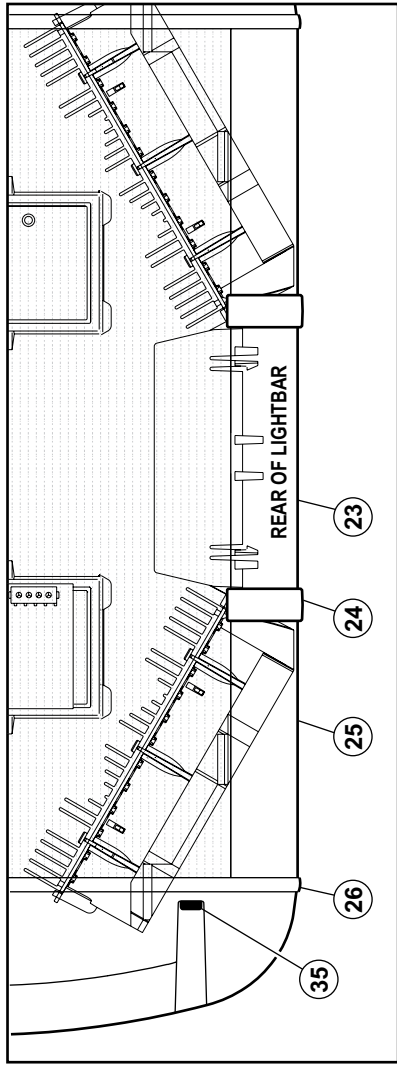
Scan-Lock™ can be connected to a customer supplied SPST switch.



NOTE: The available flash patterns are shown here. This will show how FRONT LED's (optional) and CORNER LED's react to Alternating and Cross flash patterns.

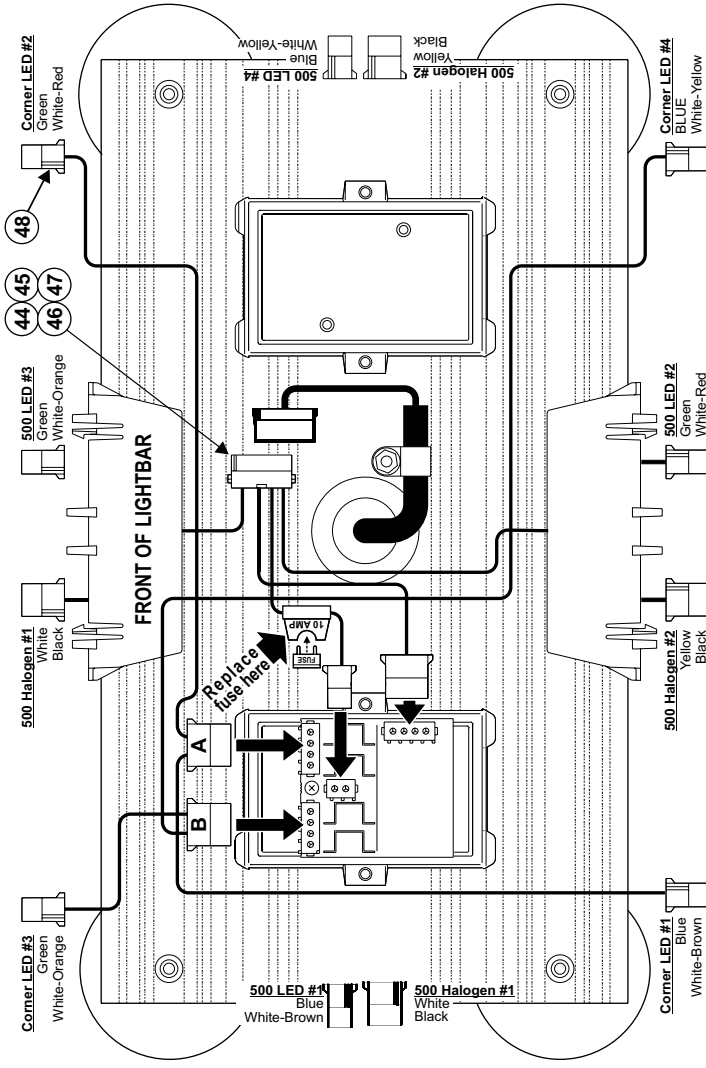
Available Flash Patterns:

- 1A SignalAlert™ Alternating
- 1B SignalAlert™ Cross
- 1C SignalAlert™ 3 cycles of 1A & 3 cycles of 1B
- 2A CometFlash® Alternating
- 2B CometFlash® Cross
- 2C CometFlash® 3 cycles of 1A & 3 cycles of 1B
- 3A DoubleFlash Alternating
- 3B DoubleFlash Cross
- 3C DoubleFlash 3 cycles of 1A & 3 cycles of 1B
- 4A SingleFlash Alternating
- 4B SingleFlash Cross
- 4C SingleFlash .. 3 cycles of 1A & 3 cycles of 1B
- 6 SteadyFlash 1 & 2 Steady 3 & 4 SingleFlash (SIM.)
- 7 Steady 1, 2, 3 & 4 Steady



Internal Fuse:

Your lightbar has reverse polarity protection. If the lightbar will not turn on, you may have blown the internal fuse. To replace it you have to disassemble the lightbar, then follow the diagram below.

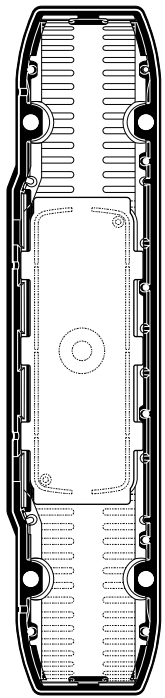


Maintenance:

If you need to add or replace any lighthoods or filler panels or service your lightbar, the diagrams on the following pages will show you how to gain access to the lightbar.

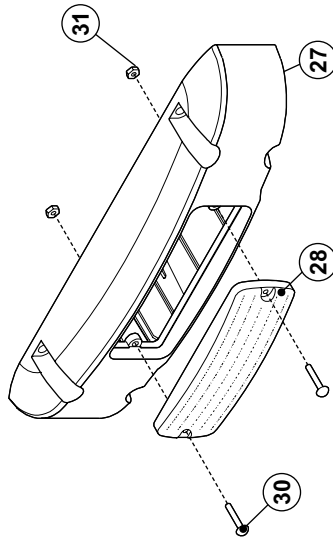
QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
*				01-06884207-()	PERM MOUNT / LIBERTY / 4 LED LIGHTHEADS
*				01-06884207-()	MAG MOUNT / LIBERTY / 4 LED LIGHTHEADS
*				01-06884207-()	PERM MOUNT / LIBERTY / 8 LED LIGHTHEADS
*				01-06884207-()	MAG MOUNT / LIBERTY / 8 LED LIGHTHEADS
1	1	1	1	11-363336-017	BASE EXTRUSION
4	-	4	-	08-0640834-01	MOUNTING PAD
4	-	4	-	65-0010192-00	MAGNET X-80
4	-	4	-	14-130216-100	1/4-20 x 5/8" PPHMS
A/R	-	A/R	-	66-0715403-00	THREADLOCKER / LOCITITE 242
-	1	-	1	46-0742901-00	INPUT CABLE ASSY. / 11C COMPOSITE
1	1	1	1	21-11245004-1	GROMMET / 1.562"
1	1	1	1	14-104216-080	#10-24 x 1/2" PPHMS
1	1	1	1	13-104111-063	#10-24 WHIZ NUT
-	1	-	1	26-0115037-06	3/8" CABLE CLAMP
-	1	-	1	11-483897-000	SUPPORT HOUSING
2	2	1	1	12-11-443158-000	LED FLASHER HOUSING
2	2	1	1	02-0169672-00	FLASHER / LIGHTBAR LED
2	2	2	2	11-483564-000	HOUSING / LIGHTHEAD / SNAP-IN
A/R	A/R	A/R	15	02-0383577-03	SUB-ASSY. / 500 HALOGEN with 3 POS.
A/R	A/R	A/R	17	01-0263927210	ASSY-CORNER LINEAR / 12 / LED / AMBER
A/R	A/R	A/R	16	01-0263927220	ASSY-CORNER LINEAR / 12 / LED / BLUE
A/R	A/R	A/R	18	01-0263927230	ASSY-CORNER LINEAR / 12 / LED / WHITE
A/R	A/R	A/R	19	01-0263927240	ASSY-CORNER LINEAR (12) LED / GREEN
A/R	A/R	A/R	20	01-0263927250	ASSY-CORNER LINEAR (12) LED / RED
1	1	1	1	11-263353-017	TOP EXTRUSION
2	2	2	2	15-105A76-168	#10 x 1" TX. 100° FH. PLASTI-LOC / with SEAL
2	2	2	2	68-1983818-30	LENS / 5-1/16" / CLEAR
4	4	4	4	02-0342791-30	ASSY. / LENS DIVIDER
4	4	4	4	68-1983819-30	ASSY. / 5-1/16" / CLEAR
2	2	2	2	38-0283572-00	GASKET / ENDCAP
2	2	2	2	68-1183566-3S	LENS / ENDCAP / CLEAR / with SEAL
A/R	A/R	A/R	28	68-1963237-30	LENS / 500 SERIES OPTIC / CLEAR
A/R	A/R	A/R	29	15-065410-100	#6 x 5/8" PPH PLAST-LOC
A/R	A/R	A/R	30	14-062216-100	#6-32 x 5/8" PPHMS
4	4	2	2	13-062120-052	#6-32 ELASTIC STOP NUT
1	-	1	-	32-26-0115037-04	1/4" CABLE CLAMP
1	-	1	-	02-0240837-01	INPUT CABLE ASSY. with CIGAR PLUG
8	8	8	8	14-104286-16J	LABEL / CAUTION-MAGNET.MTG.
1	1	1	1	10-0220700-02	#10-24 x 1-1/4" TX. PHD. W/SHOULDER
4	4	4	4	39-0416323-04	16 POS SOCKET
1	1	1	1	20-0042765-00	SPACER / CORNER RETENTION
1	1	1	1	10-0522960-00	LABEL / MODEL & SERIAL NO.
-	1	-	1	01-0483969007	MOUNTING KIT 7S
4	4	2	2	40-13-062111-053	NUT / 6-32 X 5/16 WHIZ LOCK
4	4	2	2	14-062116-120	SCREW / 6-32 X 3/4 PFMS
-	2	-	2	09-1363542-00	FILLER PANEL / 500 SERIES
2	2	1	1	43-20-0608089304	SPACER / 3/16 LG X 1/4 OD X .166 ID
-	-	-	-	46-0784200-02	HARNESS / 4 LED POWER/CONTROL / 11C
-	-	-	-	46-0784200-03	HARNESS / 4 LED POWER/CONTROL / CIG
-	-	-	-	46-0784200-00	HARNESS / 8 LED POWER/CONTROL / 11C
1	-	-	-	46-0784200-01	HARNESS / 8 LED POWER/CONTROL / CIG
2	2	1	1	48-46-0763985-01	HARNESS / 4 LED / 24"
A/R	A/R	A/R	49	01-0263925250	LINEAR 500 LED RED
A/R	A/R	A/R	50	01-0263925240	LINEAR 500 LED GREEN
A/R	A/R	A/R	51	01-0263925230	LINEAR 500 LED WHITE
A/R	A/R	A/R	52	01-0263925220	LINEAR 500 LED BLUE
A/R	A/R	A/R	53	01-0263925210	LINEAR 500 LED AMBER

Endcap: Lighthouse and Gasket

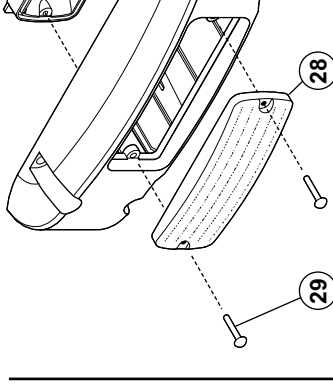


Place the endcap gasket onto the endcap matching up all the tabs and holes.

WITHOUT ALLEY LIGHT

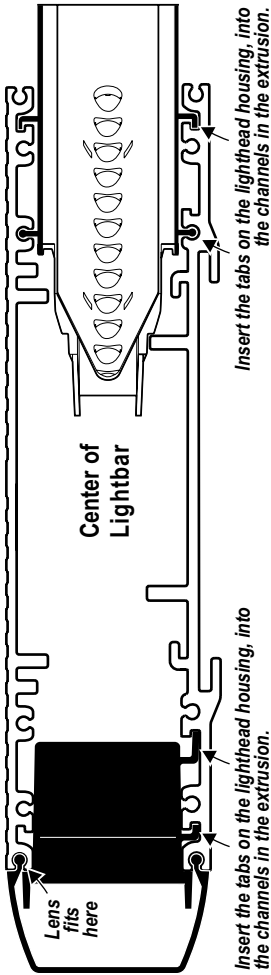


ENDCAP ASSEMBLY

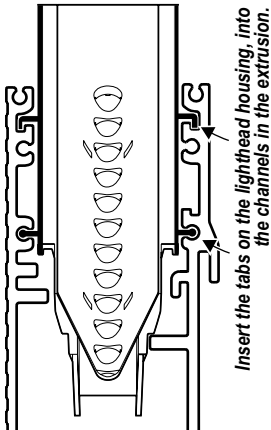


WITH ALLEY LIGHT

Side View / Installing lens and lighthouse housing into extrusion



Installing corner linear LED Lighthead into extrusion



LED Flasher or Dummy Ballast (spacer) Installation

