WHELEN®

ENGINEERING COMPANY INC.

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Automotive: Lightbars

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 they can operate the system without taking their 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.

⚠ **WARNING:** This product can expose you to chemicals including Methylene Chloride which is known to the State of California to cause cancer, and Bisphenol A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture.**
- **Any holes, either created or utilized by this product, should be made both air- and watertight using a sealant recommended by your vehicle manufacturer.**
- **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!**

For warranty information regarding this product, visit **www.whelen.com/warranty**
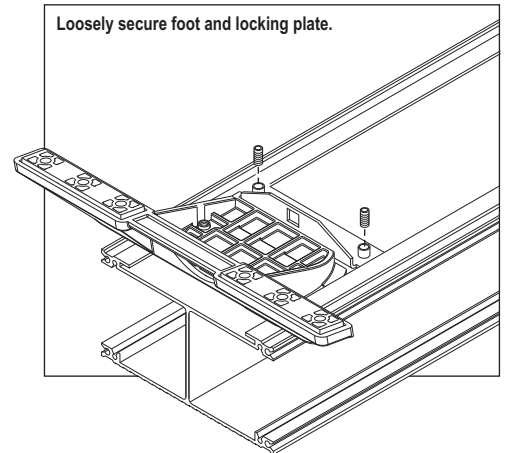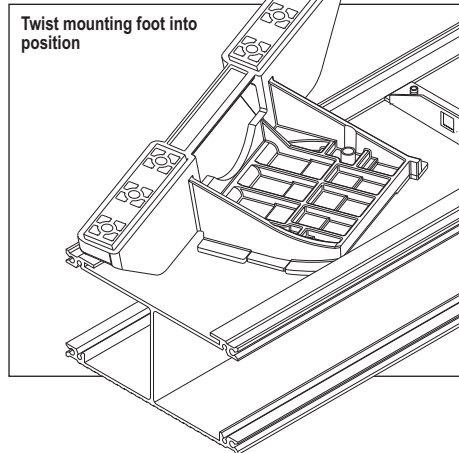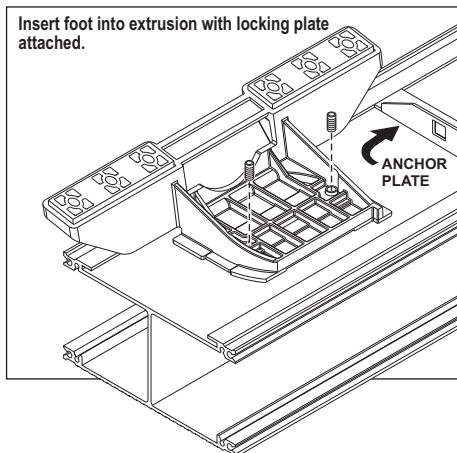
Permanent Mounting:

WARNING: Permanent mounting of this product will require drilling. It is absolutely necessary to make sure that no other vehicle components could be damaged by this process. Check both sides of the mounting surface before starting. If damage is likely, select a different mounting location.
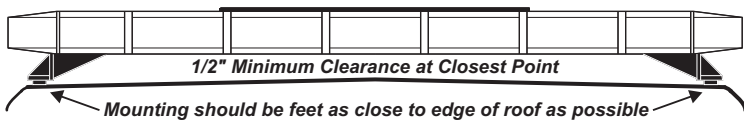
1. Locate the mounting foot and locking plate included with your lightbar. If not already present, install the locking plate onto the mounting foot using the supplied set screws. This plate should be centered from side to side on the mounting foot.
2. Flip lightbar upside-down to expose bottom of extrusion and place mounting foot onto extrusion.
3. Rotate the mounting foot 90° in a counter-clockwise direction. Make sure that the edges of the foot swing into position under the extrusion mounting lip.
4. Repeat procedure for remaining foot and return lightbar to its right side-up position.
5. Position the lightbar onto the vehicle roof in the desired mounting location. One often selected location is directly above the B-pillars. This area is the strongest part of the roof. Refer to your lightbar manual for your lightbars cable exit location, so that the lightbar is facing the proper direction.
6. Adjust the two mounting feet outwards as close to the edge of the roof as possible. Make sure that both mounting feet are in full contact with the roof (See below). There should be no less than 1/2" clearance between the roof and the lightbar at their closest point. When the mounting feet are in the proper position, lightly tighten the allen head set screws.
7. Turn the lightbar upside down and firmly tighten all of the set screws from step 6 (2 or 4 per side).
8. On both the standard foot or the adjustable foot, use the hole in the pad as a guide to drill the two holes into the mounting foot.
9. Place the lightbar in its final mounting position on the vehicle and mark the mounting hole locations off onto the mounting surface. Remove lightbar and drill the mounting holes.
10. Place the lightbar back onto the vehicle lined up with the mounting holes and secure the mounting feet to the vehicle using the supplied hardware.
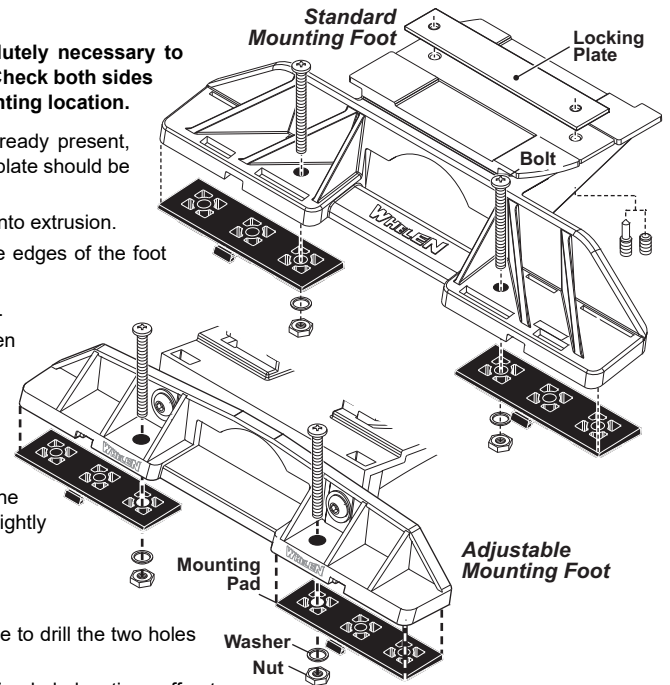
Strap Mounting:

1. Locate the mounting foot, locking plate, anchor plate and tinnerman nut supplied with the lightbar. If not already present, install the locking plate onto the mounting foot. Center this plate from side to side on the foot.

2. Flip the lightbar upside-down to expose the bottom of the extrusion. First slide the anchor plate into the extrusion, then place the mounting foot onto the extrusion.

3. Rotate the mounting foot counter-clockwise 90°. The edges of the mounting foot must swing into position under the extrusion mounting lip.

4. Repeat this procedure for the remaining mounting foot and return the lightbar to its right side-up position.

5. Position the lightbar onto the vehicle roof in the desired mounting location. One often selected location is directly above the B-pillars. This area is the strongest part of the roof. Refer to your lightbar manual for cable exit location, to be sure that the lightbar is facing the proper direction.

6. Adjust the two mounting feet outwards so that they are as close to the edge of the roof as possible. Both mounting feet must be in full contact with the roof. Be sure that there is no less than 1/2" clearance between the roof and the lightbar at their closest point. When both mounting feet are in their proper position, lightly tighten the allen head set screws.

7. Return the lightbar to an upside down position. Slide each anchor plate outwards until it is fully engaged with its corresponding mounting foot. With the mounting foot and anchor plate in their proper positions firmly tighten all of the set screws (2 or 4 per side). Flip the lightbar right side-up and return it to its mounting position.

8. Open both drivers side doors. In the area directly below the mounting foot, carefully pull the drivers side weather-strip away from the vehicle. Remove enough so that the area where the mounting strap will be secured to the vehicle is exposed. Repeat for passenger side.

9. Insert the mounting strap through the mounting foot. Be sure that the strap fits flush against the area where it will be secured onto the vehicle. Insert the tension bolt through the mounting strap and into the anchor plate and secure it with the tinnerman nut. Tighten slightly with a long shafted, Phillips screwdriver. Repeat procedure for passenger side.

10. If your mounting strap has mounting holes in the end, use these holes as a template to drill holes through the strap and into the vehicle and secure it with sheet metal screws. Repeat passenger side.

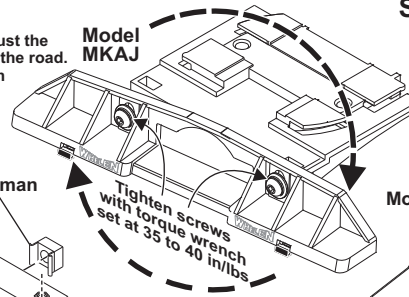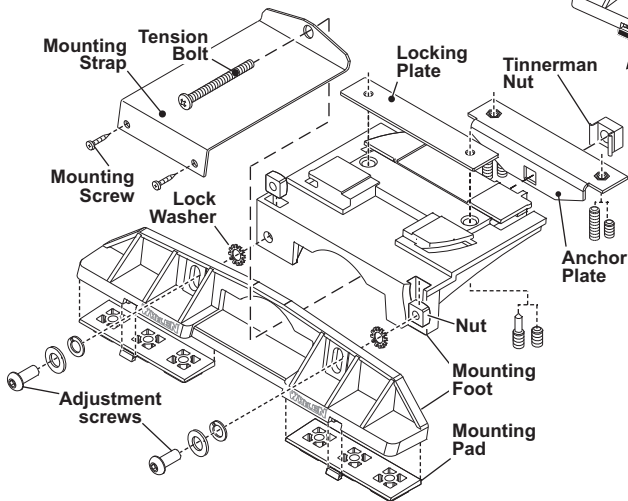11. Firmly tighten the tension bolts to secure the lightbar to the vehicle.

Insert foot into extrusion with locking plate attached.

ANCHOR PLATE

Twist mounting foot into position

Loosely secure foot and locking plate.

1/2" Minimum Clearance at Closest Point

Mounting should be feet as close to edge of roof as possible

Adjustable Mounting Foot / Model MKAJ

On this model you may loosen the screws on the rear of the foot and adjust the angle of the lightbar. This is used if the angle of the roof is not level with the road. **IMPORTANT:** To adjust the leveling screws you must use a torque wrench set at 35 to 40 ft. lbs

Model MKAJ

Tighten screws with torque wrench set at 35 to 40 in/lbs

Mounting Strap — Tension Bolt — Locking Plate — Tinnerman Nut — Mounting Screw — Lock Washer — Anchor Plate — Nut — Mounting Foot — Adjustment screws — Mounting Pad

Standard Mounting Foot / Model MKEZ

Anchor Plate — Tinnerman Nut — Locking Plate — Mounting Foot — Mounting Strap — Tension Bolt — Mounting Screw

5" Mounting Foot

Plate slides into lightbar extrusion

METAL SCREW — MOUNTING FOOT — SET SCREW — EXTENSION — TINNERMAN NUT — FOOT ANCHOR PLATE — BOLT — NUT — SPLIT LOCK WASHER — STRAP — VEHICLE ROOF — SHEET METAL SCREWS

NOTE: The mounting straps are made to fit the contours of individual vehicles. The strap shown here is for example only. The strap for your vehicle may look different.

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

Routing your Lightbar Cable(s)

1. To protect the headliner from damage, allow a 5" to 7" distance between roof and headliner by lowering the headliner before drilling.

WARNING! 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 until the hole can be drilled without contacting this support member.

2. Using a 1" hole saw, drill the cable access hole. Use a round file to smooth and de-burr the edges than insert a 1" grommet.

For cables exiting the Driver-side — For cables exiting the Passenger-side

REAR OF LIGHTBAR

Drill cable access hole in appropriate area

3. Insert cable(s) through cable access hole into the vehicle. Use RTV silicone to weatherproof access hole after the cable(s) are pulled completely into vehicle. Route the cable(s) following manufacturers recommendations.

WARNING: Many vehicles are now equipped with side curtain and B-pillar air bags. Alternate routing may be required.

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!

Control Cable:

Refer to the chart on the next page for wire function and fusing. Apply +12 VDC to a control wire to activate it's function. Extend the control wires to a customer supplied switch box and connect following the switch box instructions.

Power Cable:

1. Open the wire shield lid and route the power cable into the wire shield, towards the firewall. **Do not to pinch or crush any wires.**

2. Follow the factory wiring harness through the firewall. If you need to drill a hole in the firewall, be sure there are no components that could be damaged. After you drill the hole, insert a grommet to protect the cable.

3. Route the cable along the factory wiring harness to the battery.

4. Install a 30 amp fuse block (customer supplied) on the end of the RED wire in the power cable. Remove the fuse from the fuse block before connecting any wires to the battery.

5. Connect the fuse block to the POSITIVE (+) terminal on the battery. Leave no more than two feet of wire between the fuse block and the battery. The wire between the fuse block and the battery is "unprotected", do not allow this wire to touch any other wires.

6. Connect the BLACK wire to the factory chassis ground.

Operation:

Cruise Lights & AUX (WHITE/ORANGE):

Cruise lights have 3 modes. **MODE 1 (Default) -** Cruise Lights are activated in Low Power mode. **MODE 2 -** Cruise Lights are activated in a Lower power mode. **MODE 3 -** Off. Activate the WHITE/ORANGE wire and select a mode using Scan-Lock™. Only the COLOR 1 corner LEDs are on in cruise mode.

Hi/Low Power (VIOLET):

The type of switch used depends on how you wish the Hi/Low feature to function:

Latching Mode: Apply +12 VDC to the VIOLET wire for less than 1 second and the lightbar is "latched" into low power. Turn the unit off and then back on to restore normal, high power operation. *(momentary switch)*
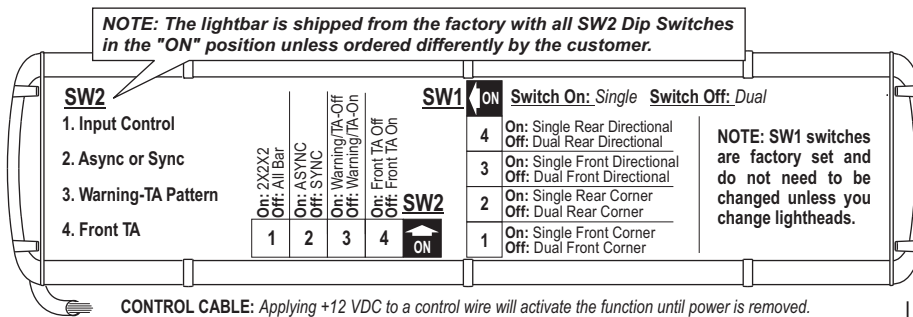
Level Mode: Applying +12 VDC to the VIOLET wire for over 1 second holds the lightbar in low power mode until voltage is removed. *(toggle switch)*

Photocell Hi/Low:

Photocell Hi/Low will automatically change to a lower intensity as it gets darker out.

Scan-Lock™ (WHITE/VIOLET):

TO CYCLE FORWARD THROUGH AVAILABLE PATTERNS: Activate **ONLY** the control wire of the function you wish to effect, then apply +12 volts to the WHT/VIO wire for less than 1 second and release. Repeat until the desired pattern is displayed.

TO CHOOSE A PATTERN: Allowing the desired pattern to run for more than 5 seconds will lock it in as the default pattern.

TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off all lightbar functions. Apply +12 volts to the Scan-lock™ wire and turn the appropriate function back on and it will now be restored to its factory default pattern.

A momentary switch is preferred. Refer to the chart for available flash patterns.

All Bar activates all lightheads except Alleys and Take-downs, which can be activated using the control wires. All Bar has 3 settings, each consisting of 12 to 16 flash patterns which run consecutively (See list). The phasing in All Bar will change depending on how many outlets are activated. With All Bar, you won't have to set individual lightheads since the lightheads are activated and programmed in groups.

2 X 2 X 2 In this mode you can program Front or Rear; Corners, Inboards, Outboards, Centers, Alleys or Traffic Advisor™ separately.

Warning/TA In WARNING/TA mode (with color 2 outlets active) the lightbar runs in TA mode for 4 cycles, warning mode for 2 cycles and then repeats.

Async-Sync: While In 2X2X2 mode, Corners and Directionals can be programmed to flash randomly (Asynchronous) or alternately (Synchronous) by setting dip switch SW2-2. Using the Corners as an example, set to Synchronous, they left corner will alternate with the right corner. In ASynchronous the corners will flash randomly.

California Steady RED: With the RED wire activated, use Scan-lock™ to choose between the Front Driver Side Outboards, Front Driver Side Inboards, Front Driver Side Centers, Front Driver/Passenger Outboards, Front Driver/Passenger Inboards or Front Driver/Passenger Centers. Whichever you select (using Scanlock™) will run in California Steady RED

NOTE: The lightbar is shipped from the factory with all SW2 Dip Switches in the "ON" position unless ordered differently by the customer.

SW2
1. Input Control
2. Async or Sync
3. Warning-TA Pattern
4. Front TA

	On: 2X2X2 / Off: All Bar	On: ASYNC / Off: SYNC	On: Warning/TA-Off / Off: Warning/TA-On	On: Front TA Off / Off: Front TA On
SW2	1	2	3	4

SW1 ON **Switch On:** *Single* **Switch Off:** *Dual*

4	**On:** Single Rear Directional **Off:** Dual Rear Directional
3	**On:** Single Front Directional **Off:** Dual Front Directional
2	**On:** Single Rear Corner **Off:** Dual Rear Corner
1	**On:** Single Front Corner **Off:** Dual Front Corner

NOTE: SW1 switches are factory set and do not need to be changed unless you change lightheads.

CONTROL CABLE: *Applying +12 VDC to a control wire will activate the function until power is removed.*

Dip Switch Settings:

There are 2 banks of Dip Switches inside the lightbar. **SW1** Controls Single or Dual operation for corners & directionals. **SW2** controls function.

SW1:
Switch 1 ON: **Single Front Corner** operation.
Switch 1 OFF: **Dual Front Corner** operation.

Switch 2 ON: **Single Rear Corner** operation.
Switch 2 OFF: **Dual Rear Corner** operation

Switch 3 ON: **Single Front Directional** operation.
Switch 3 OFF: **Dual Front Directional** operation.

Switch 4 ON: **Single Rear Directional** operation.
Switch 4 OFF: **Dual Rear Directional** operation.

SW2:
Switch 1 ON: Enables **2X2X2** operation.
Switch 1 OFF: Enables **All Bar** operation.

Switch 2 ON: Operates in **Asynchronous** mode
Switch 2 OFF: Operates in **Synchronous** mode

Switch 3 ON: Normal Operation
Switch 3 OFF: Activates **WARNING/TA**

Switch 4 ON: Normal operation.
Switch 4 OFF: Activates **FRONT TA**

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

POS	WIRE	2 X 2 X 2 Mode Wire Function	ALL BAR Mode Wire Function	Fuse @
1.	GREEN	Front Corners	Front Corners / Color 1	1 AMP
2.	BLUE	Rear Corners	Rear Corners / Color 1	1 AMP
3.	BLU/WHT	Rear Outboards	Rear Corners / Color 2	1 AMP
4.	GRN/WHT	Front Outboards	Front Corners / Color 2	1 AMP
5.	BLU/BLK	Rear Inboards	Rear Directionals / Color 1	1 AMP
6.	GRN/BLK	Front Inboards	Front Directionals / Color 1	1 AMP
7.	WHT/BRN	Rear Center	Rear Directionals / Color 2	1 AMP
8.	WHT/RED	Front Center	Front Directionals / Color 2	1 AMP
9.	YELLOW	Passenger Alley in steady mode	Passenger Alley in steady mode	1 AMP
10.	WHT/BLK	Take-downs in steady mode	Take-downs in steady mode	1 AMP
11.	WHITE	Driver Alley in steady mode	Driver Alley in steady mode	1 AMP
12.	WHT/BLU	Take-downs and Alleys in flash mode	Take-downs & Alleys in flash mode	1 AMP
13.	VIOLET	Low Power (See copy)	Low Power (See copy)	1 AMP
14.	WHT/ORG	"A" corner LEDs in cruise mode	Cruise - Aux	1 AMP
15.	RED	California Steady RED w/S/L	California Steady RED w/S/L	1 AMP
16.	WHT/VIO	Flash Pattern Selection (See copy)	Flash Pattern Selection (See copy)	.5 AMP
17.	WHT/YEL	Left Side TrafficAdvisor™	Left Side TrafficAdvisor™	1 AMP
18.	RED/WHT	Only "B" outlets	Not Used	1 AMP
19.	RED/BLK	Both "A" and "B" outlets	Front Directionals in steady mode	1 AMP
20.	WHT/GRN	Right Side TrafficAdvisor™	Right Side TrafficAdvisor™	1 AMP

ALT = *Alternating*   **CHEC** = *Checkerboard Pattern*   **IN/OUT** = *Flashes from inside to outside*   **SIM** = *Simultaneous*   **BOLD TYPE** = *California Title XIII compliant*

All Bar Setting 1

#	PATTERN	PHASING
1.	SignalAlert™ 75	ALT
2.	DoubleFlash 120	CHEC
3.	**SingleFlash 90**	IN/OUT
4.	SingleFlash 75	SIM
5.	**SingleFlash 120**	ALT
6.	TripleFlash™ 90	CHEC
7.	SignalAlert™ 120	IN/OUT
8.	SingleFlash 75	SIM
9.	DoubleFlash 75	ALT
10.	**SingleFlash 120**	CHEC
11.	TripleFlash™ 120	IN/OUT
12.	SingleFlash 75	SIM

All Bar Setting 2

1.	SingleFlash 75	ALT
2.	**SingleFlash 120**	**CHEC**

3.	SingleFlash 90	IN/OUT
4.	SingleFlash 75	SIM
5.	**SingleFlash 120**	ALT
6.	**SingleFlash 90**	CHEC
7.	**SingleFlash 120**	IN/OUT
8.	SingleFlash 75	SIM
9.	SingleFlash 75	ALT
10.	**SingleFlash 120**	CHEC
11.	**SingleFlash 120**	IN/OUT
12.	SingleFlash 75	SIM
13.	SingleFlash 75	ALT
14.	**SingleFlash 120**	CHEC
15.	**SingleFlash 120**	IN/OUT
16.	SingleFlash 75	SIM

All Bar Setting 3

1.	**SingleFlash 90**	ALT
2.	SignalAlert™ 90	IN/OUT

3.	**SingleFlash 120**	CHEC
4.	SingleFlash 75	SIM
5.	DoubleFlash 90	ALT
6.	SignalAlert™ 90	IN/OUT
7.	**SingleFlash 120**	CHEC
8.	SingleFlash 75	SIM
9.	TripleFlash™ 90	ALT
10.	SignalAlert™ 90	IN/OUT
11.	SignalAlert™ 120	CHEC
12.	SingleFlash 75	SIM

2 X 2 X 2

1.	SignalAlert™ 75
2.	CometFlash® 75
3.	DoubleFlash 150
4.	DoubleFlash 75
5.	SingleFlash 375
6.	SingleFlash 150

7.	SingleFlash 75
8.	ActionFlash™ 150
9.	ModuFlash™
10.	ActionScan™

Other Patterns

Take-downs and Alleys
1.	SingleFlash 240 ALT
2.	DoubleFlash 120 ALT
3.	SingleFlash 240 Sim
4.	DoubleFlash 120 Sim

Traffic Advisor Sequence
1.	Sequence to Solid
2.	Sequence on Sequence off
3	One Lamp Triple
4.	Two Lamp Triple
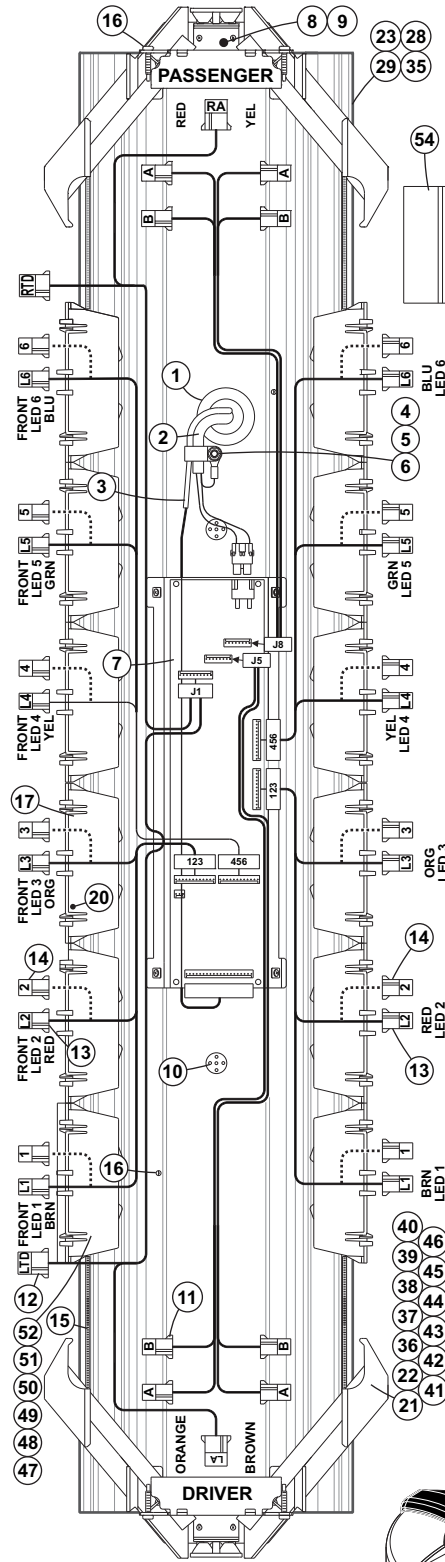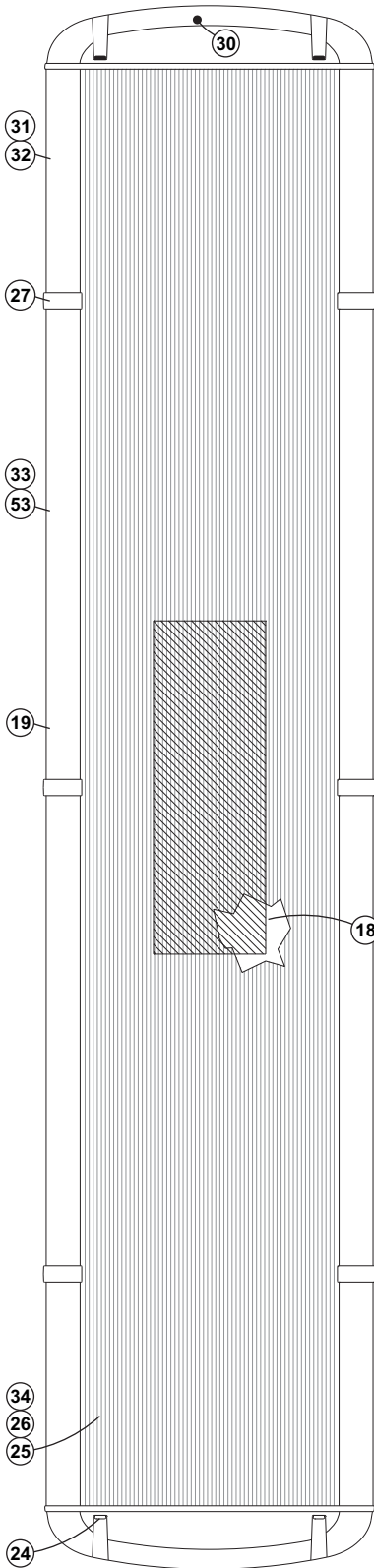
QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
		*		01-0686402-	LFL Liberty™ 48.50" LC 2010
	*			01-0686402-	LFL Liberty™ 54.00" LC 2010
*				01-0686402-	LFL Liberty™ 43.13" LC 2010
1	1	1	1	21-11245004-1	GROMMET, 1.562"
1	1	1	2	46-0743196-17	INPUT CABLE, (2C-10GA.) 17'
1	1	1	3	46-0743903-17	CABLE, 17/C 22GA (17')
1	1	1	4	13-104111-063	#10-24 WIZ NUT
1	1	1	5	26-0115663-10	CABLE CLAMP, 5/8"
1	1	1	6	14-0023347-00	SCREW, 10-24 x 1.25" TX PHD
1	1	1	7	01-026B873-00	ASS'Y, ELECTRONIC I/O
2	2	2	8	02-036B855-00	END SUPPORT BRACKET
A/R	A/R	A/R	9	01-026B855-30	LR11 ALLEY LIGHT (WHT)
2	2	2	10	21-7263998-00	PLUG, VENT (3/4")
1	1	1	11	46-0986417-00	HARNESS, CORNER LED
1	1	1	12	46-0786418-00	HARNESS, TD/WORK LIGHTS
REF	REF	REF	13	46-0986413-00	HARNESS, INBOARD SINGLE
2	2	2	14	46-0986421-00	HARNESS, INBOARD DUAL
-	4	-	15	07-243170-000	SPACER, CORNER
6	6	6	16	14-104216-06J	#10-24 X 3/8 PPH SCREW
10	12	12	17	11-483564-000	HOUSING, LT HEAD (SNAP-IN)
1	1	1	18	38-0142783-00	INSULATOR, FOAM PAD
1	1	1	19	10-0322935-00	LABEL, "FRONT" LTBAR ASS'Y.
10	12	12	20	09-1363542-00	PANEL, FILLER
A/R	A/R	A/R	21	01-026B6938D0	EXT CORNER 18LED W/R AMP
A/R	A/R	A/R	22	01-026B6938E0	EXT CORNER 18LED B/W AMP
1	1	1	23	10-0522960-00	LABEL, MODEL & SERIAL NO.
8	8	8	24	14-104286-16JB	#10-24 X 1-1/4" TX. PHD. W/SHLDR
-	-	1	25	11-26B607-044	TOP, EXTRUDED (44.00")
-	1	-	26	11-26B607-049	TOP, EXTRUDED (49.39")
8	6	6	27	02-0342791-30	ASS'Y., LENS DIVIDER (CLEAR)
-	-	1	28	11-363312-044	BASE, EXTRUDED (44.00")
-	1	-	29	11-363312-049	BASE, EXTRUDED (49.39")
2	2	2	30	02-036E683-30	OVERMOLD ENDCAP CLEAR
-	-	4	31	68-1983819-30	LENS, 5.687" LG. (CLEAR)
-	4	-	32	68-1963333C08	LENS, 8.375" LG. (CLEAR)
-	4	4	33	68-1983567-30	LENS, 15.800" LG. (CLEAR)
1	-	-	34	11-26B607-038	TOP, EXTRUDED (38.61")
1	-	-	35	11-363312-038	BASE, EXTRUDED (38.61")
A/R	A/R	A/R	36	01-026B6938J0	EXT CORNER 18LED B/R AMP
A/R	A/R	A/R	37	01-026B693850	EXT CORNER 18LED RED AMP
A/R	A/R	A/R	38	01-026B693840	EXT CORNER 18LED GRN AMP
A/R	A/R	A/R	39	01-026B693830	EXT CORNER 18LED WHT AMP
A/R	A/R	A/R	40	01-026B693820	EXT CORNER 18LED BLU AMP
A/R	A/R	A/R	41	01-026B693810	EXT CORNER 18LED AMB AMP
A/R	A/R	A/R	42	01-026B693250	EXT CORNER 12LED RED AMP
A/R	A/R	A/R	43	01-026B693240	EXT CORNER 12LED GRN AMP
A/R	A/R	A/R	44	01-026B693230	EXT CORNER 12LED WHT AMP
A/R	A/R	A/R	45	01-026B693220	EXT CORNER 12LED BLU AMP
A/R	A/R	A/R	46	01-026B693210	EXT CORNER 12LED AMB AMP
A/R	A/R	A/R	47	01-026B8272M0	SUB 500 12LED AMB/BLU
A/R	A/R	A/R	48	01-026B8272K0	SUB 500 12LED AMB/RED
A/R	A/R	A/R	49	01-026B8272J0	SUB 500 12LED RED/BLU
A/R	A/R	A/R	50	01-026B8272E0	SUB 500 12LED BLU/WHT
A/R	A/R	A/R	51	01-026B8272D0	SUB 500 12LED RED/WHT
A/R	A/R	A/R	52	01-026B8272A0	SUB 500 12LED AMB/AMB
4	-	-	53	68-1963333C03	LENS, 10.500" LG. (CLEAR)
2	-	-	54	68-1983818-30	LENS, 5.062" LG. (CLEAR)

RED   RA   YEL

RTD

FRONT LED 6 BLU
BLU LED 6

FRONT LED 5 GRN
GRN LED 5

FRONT LED 4 YEL
YEL LED 4

J8
J5
J1
456
123

FRONT LED 3 ORG
ORG LED 3

123   456

FRONT LED 2 RED
RED LED 2

FRONT LED 1 BRN
BRN LED 1

LTD

ORANGE   BROWN

DRIVER

Mounting Endcap

Accessing the Lightbar

Installing Lens and Lighthead Housing into extrusion

Lens fits here

Top and bottom of extrusion secure to Support Bracket.

SUPPORT BRACKET

Installing Corner Linear-LED® Lighthead into extrusion
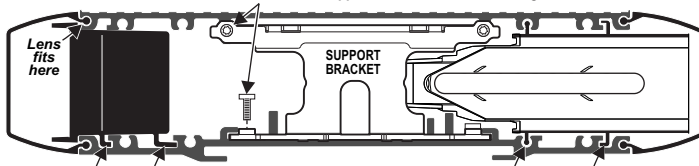
Insert the tabs on the lighthead housing, into the channels in the extrusion.

Insert the tabs on the lighthead housing, into the channels in the extrusion.

Lens Screw

WHELEN

Endcap