

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: L22 LED Beacon

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 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

The L22 Beacon features Scan-Lock™ which allows you to choose between 15 available flash patterns. You have 5 mounting options permanent, pipe, J-hook, magnetic and magnetic suction mount. Magnetic mount models do not include Scan-Lock.

Wiring:

Note: All beacons in this manual should be fused at 5 AMPS.

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 the load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT

Listed below are the wire designations for the L22 beacon. To extend the beacons wires, use the wire gauge indicated.

WIRE COLOR	WIRE GAUGE	FUNCTION
RED	18 AWG	Positive
BLACK	18 AWG	Ground
WHITE-VIOLET	18 or 22 AWG	Scan-Lock

Mounting:

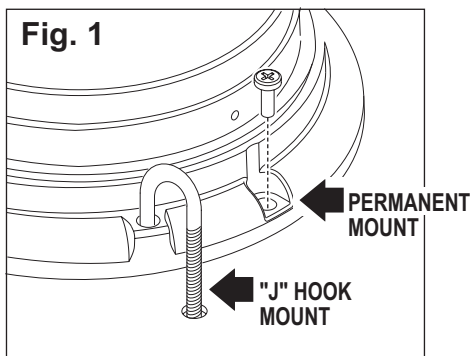
1 Inch (NPT) Pipe Mount:

Threading for a 1 inch (NPT) pipe mounting is precast in the base.

1. Feed power cable through the 1 inch pipe and connect the cable to the wires of the beacon.
2. Screw the beacon into the threads on the 1" pipe, taking precaution not to damage the connected power wires. Do not tighten base too hard as not to damage threads on base.

Permanent Mount:

1. Use the base as a template and mark off the three mounting holes onto the mounting surface. After removing the base, in the center between the three mounting holes, mark the location of the wire access hole.
2. Drill mounting holes into the mounting surface with a drill sized for the #10 mounting screws supplied. Drill the wire access hole using a 3/8" drill (.375 inch). Remove any burrs from the wire access hole as not to damage wires. It is also recommended that you install a rubber grommet (customer supplied) into the wire hole to further protect the wires.
3. The base seal (ITEM 14) will be used between the LED beacon base and the mounting surface.
4. Feed the wires first through the base seal and then through the cable access hole and place the base (with seal) on the mounting surface (while lining up the mounting holes in the base with the mounting holes you drilled into the mounting surface). Secure the beacon firmly to the mounting surface with the supplied mounting screws (ITEM 8).



"J" Hook Mount:

This beacon is equipped to handle the "J" hook mount available on some beacons. Be sure to use the correct "J" hook mounting holes (Fig. 1).

Temporary Mount (Magnetic, Suction Cup, etc.)

With the magnetic or magnetic/suction cup mounting options you will be able to mount your strobe so that you can remove it if necessary and avoid drilling.

Magnetic/suction: Thoroughly clean the proposed mounting surface prior to mounting. For suction cup mounting, wipe the suction cup clean, place the beacon onto its mounting surface and apply gentle pressure to ensure a good seal has been achieved. The Magnetic/Suction Cups mount the same way as standard suction cups but are best suited to a flat, steel surface.

Magnetic: Simply place the beacon onto the mounting surface and plug it into the vehicle cigar lighter.

WARNING! Beacons equipped with cigar cords are intended for short duration, intermittent operation only! Prolonged operation requires the beacon to be wired to the vehicle.

WARNING! The presence of any temporarily mounted warning light on the outside of a vehicle in motion is not recommended and is at the sole discretion and liability of the user!

Note: The magnetic mount model does not offer Scan-Lock and comes with SignalAlert™ 75.

Programming / Scan-Lock™ / White-Violet:

When the lighthouse is turned on, the default pattern is displayed.

TO CHANGE PATTERNS: Apply +12 volts to the WHT-VIO wire for less than 1 second and release to cycle forward to the next available pattern. Apply +12 volts to the WHT-VIO wire for more than 1 second and release to cycle back to the previous pattern.

TO CHANGE THE DEFAULT PATTERN: When the desired pattern is displayed, allow it to run for more than 5 seconds. The lighthouse will now display this pattern when initially activated.

TO RESTORE THE FACTORY DEFAULT PATTERN: With the power to the lighthouse off, apply +12 volts to the WHT-VIO wire. Now turn power to the lighthouse on. The factory default pattern should now be displayed.

A Normally Open momentary switch can be used to control Scan-Lock operation.

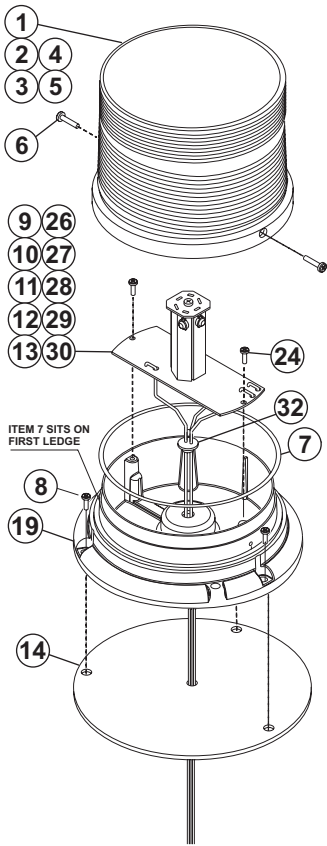
Available Scan-Lock Patterns:

- SignalAlert™ 75 > SignalAlert™ 150 > SingleFlash 375 > SingleFlash 150 > SingleFlash 75 > DoubleFlash 150 > DoubleFlash 75 > CometFlash® 75 > ActionFlash™ > ModuFlash™ 70 > ComAlert™ > ActionScan™ > SignalAlert™ Steady > Steady Brake > Steady

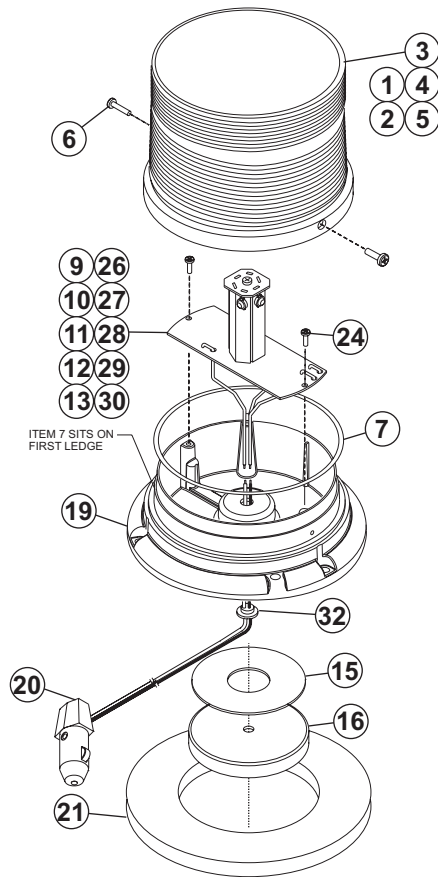
IMPORTANT! Before returning this vehicle to active service, visually confirm the proper operation of this product, as well as all vehicle components/equipment.

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

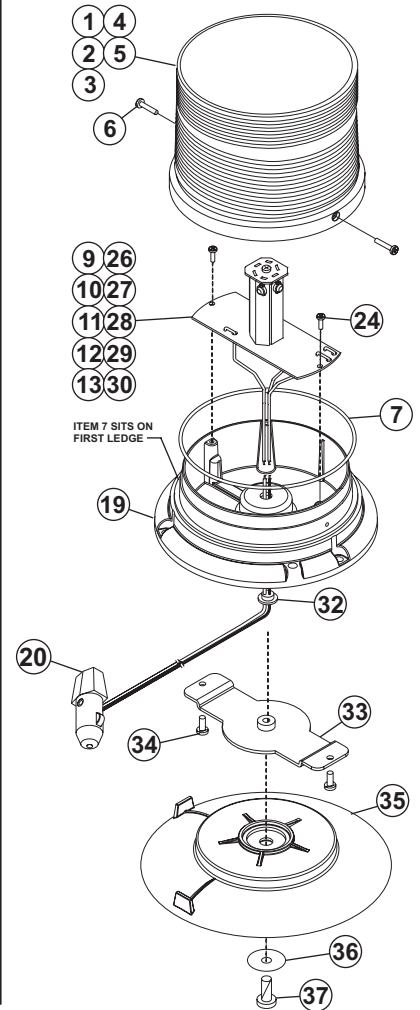
COMBO MOUNT ASSEMBLY



MAG MOUNT ASSEMBLY



VACUUM MOUNT ASSEMBLY



QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*			01-0684243__1	LED BEACON / L22 SERIES / PLASTIC
	*			01-0684243__2	LED BEACON / L22 SERIES / MAGNET
	*			01-0684243__3	LED BEACON / L22 SERIES / VACUUM
A/R	A/R	A/R	1	68-2180483-10	DOME / AMBER 1079
A/R	A/R	A/R	2	68-2180483-20	DOME / BLUE 1079
A/R	A/R	A/R	3	68-2180483-30	DOME / CLEAR 1079
A/R	A/R	A/R	4	68-2180483-40	DOME / GREEN 1079
A/R	A/R	A/R	5	68-2180483-50	DOME / RED 1079
2	2	2	6	15-065419-080	SCREW / 6 X 1/2 PPH PLASTI SS
1	1	1	7	38-0443007-00	O RING / 4.724 ID X .079 THK 70 DUROMETER BLK
-	-	3	8	15-101416-100	SCREW / 10 X 5/8 PPHSMS
A/R	A/R	A/R	9	02-0169964-10	PCB BALLAST 12V 6LED AMB L22 SER. SMT
A/R	A/R	A/R	10	02-0169964-20	PCB BALLAST 12V 6LED BLU L22 SER. SMT
A/R	A/R	A/R	11	02-0169964-30	PCB BALLAST 12V 6LED WHT L22 SER. SMT
A/R	A/R	A/R	12	02-0169964-40	PCB BALLAST 12V 6LED GRN L22 SER. SMT
A/R	A/R	A/R	13	02-0169964-50	PCB BALLAST 12V 6LED RED L22 SER. SMT
-	-	1	14	38-0143340-00	SEAL / BASE MODEL 2000 SERIES
-	1	-	15	66-0423038-00	TAPE / DISC 3.00 OD X 1.13 ID .062 THK
-	1	-	16	65-0010192-00	MAGNET / X-80 NEW DMS / RB80 / NICKLE PLATED
2	2	-	17	25-0910223-03	BUTT TAIL / 22-14 GA, INS
1	1	-	18	10-0322783-02	LABEL / AIRBAG & MAG MT WARNING not shown
1	1	1	19	11-483963-000	HOUSING / BASE ENCAPSULATED 2500 SER. STROBE
-	1	-	20	69-1317241-00	CORD / CIGAR PLUG STRGHT 10' with ON-OFF SWITCH
-	1	-	21	38-0143340-00	PAD / MOUNTING MODEL 2000 SERIES B MAG/MT
1	1	1	23	10-0321846-00	LABEL / WARNING not shown
2	2	2	24	15-M1721B-100	SCREW / M3 X 10mm PPH DELTA PT
1	1	1	25	10-0546515_____	LABEL / PN-MN-SN L22 SERIES not shown
A/R	A/R	A/R	26	02-0169965-10	ASSY / PCB BALLAST 24V 6LED AMB L22 SER. SMT
A/R	A/R	A/R	27	02-0169965-20	ASSY / PCB BALLAST 24V 6LED BLU L22 SER. SMT
A/R	A/R	A/R	28	02-0169965-30	ASSY / PCB BALLAST 24V 6LED WHT L22 SER. SMT
A/R	A/R	A/R	29	02-0169965-40	ASSY / PCB BALLAST 24V 6LED GRN L22 SER. SMT
A/R	A/R	A/R	30	02-0169965-50	ASSY / PCB BALLAST 24V 6LED RED L22 SER. SMT
A/R	A/R	A/R	31	10-0323189-00	LABEL / NASCAR® BAR LOGO not shown
1	1	1	32	21-1142757-00	GROMMET / MULTI HOLE 4 WIRE 11/32 HOLE 18 GA
1	-	-	33	07-764648-023	PLATE / ADAPTER MAG/SUCTION CUP
2	-	-	34	15-081416-080	SCREW / 8 X 1/2 PPHSMS
1	-	-	35	08-1583927-05	SUCTION CUP / MAGNET MOUNT
1	-	-	36	16-1302820-06	WASHER / FLAT 1/4" 7/8 OD SS
1	-	-	37	14-130216-120	SCREW / 1/4-20 X 3/4 PPHMS SS

VOLTAGE & LED COLOR & HOUSING & NO. OF LEDS & DOME COLOR & MOUNT

PART NO. KEY: 01-0684243

VOLTAGE & NUMBER OF LEDS LED COLOR / DOME COLOR HOUSING / MOUNT

1 - 12V / 6LED A - AMBER/AMBER G - GREEN/GREEN 2 - BLUE/CLEAR 1 - PLASTIC-COMBO MOUNT

2 - 24V / 6LED B - BLUE/BLUE R - RED/RED 4 - GREEN/CLEAR 2 - PLASTIC-MAG MOUNT

 C - WHITE/CLEAR 1 - AMBER/CLEAR 5 - RED/CLEAR 3 - PLASTIC VACUUM MOUNT

Mounting Plan / Combo Mount

