

WHELEN[®]

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Installation Guide: L11 Series LED[®] Beacons

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

Mounting:

This beacon uses a base that may be mounted one of three ways. It is designed to be mounted in a normal dome-up position.

Permanent Surface Mount:

CAUTION: 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. Position the beacon in its proposed mounting location (refer to safety warnings on page 1).
2. Locate the 3, mounting holes on the base. Using the base as a template, mark the location of the these holes onto the mounting surface. Remove the beacon and make a mark in the center of the beacons mounted position for a wire passage hole.
3. Using an appropriately sized drill bit (based on the mounting hardware used and the thickness of the mounting surface), drill the three mounting holes marked in step 2. The wire access hole should be drilled using a 3/8" drill bit. Deburr all holes and install a rubber grommet (customer supplied) to protect the wires.
4. Feed the wires first through the wire passage hole in the supplied mounting gasket and then through the grommetted wire access hole in the mounting surface. Be sure to feed all the wire through this hole so that no excess remains between the base and the mounting surface.
5. Align base and mounting holes. Secure with 3 sheet metal screws.

The beacon wires function as outlined below:

Color	Function	Connect to:	Switch Type	Fuse @
RED	Power	+VBAT	SP/ST	5 Amp
BLK	Ground	Chassis Ground	n/a	N/A
VIO	Low Power	+VBAT	SP/ST	1 Amp
GRY	Sync	See text	n/a	N/A
WHT/VIO	Scan-Lock™	+VBAT	MOM (N.Open)	1 Amp
WHT/ORN	Cruise Light	+VBAT	SP/ST	1 Amp

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!

Refer to the "Operation" section for wire function information.

Temporary Mount (Magnetic, Suction Cup)

WARNING: The use of any magnetically mounted warning device on the outside of a vehicle in motion is not recommended and is at the sole risk and responsibility of the user.

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.

For magnetic mounting, simply place the beacon onto the mounting surface and plug it into the vehicle cigar lighter.

NOTE: The magnetic mount model does not offer Scan-Lock™, Cruise Light, Low Power or SYNC.

Operation:

This beacon features variable intensity cruise light operation, low power operation, Scan-Lock™ pattern control and SYNC capabilities. These functions operate as outlined here.

IMPORTANT WARNING!

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

NOTE: THE TWO BRIGHTEST CRUISE LIGHT DISPLAYS WILL BE TEMPORARILY DISABLED WHILE FLASHING PATTERNS ARE ACTIVE!

Cruise Light - Activate the WHT/ORN wire to turn on the cruise light. There are 4 intensity levels that are selected by momentarily activating the WHT/VIO wire.

Low Power - Activate the VIO wire to put the beacon into low power operation. Disable this wire to restore normal, high power operation.

Scan-Lock™ - Turn on the beacon (RED wire). Activate the WHT/VIO wire for less than 1 second and release to cycle forward through patterns. Activating the WHT/VIO wire for more than 1 second will cause the beacon to cycle backward through patterns. When the desired pattern is displayed, allow it to run for more than 5 seconds. The beacon will now display this pattern when active. To reset to the factory default pattern, turn off power, activate the WHT/VIO wire, then turn power back on.

See below for pattern information:

Beacon 1 Beacon 2

SYNC Example 1:
Beacon 1 - Phase 1
Beacon 2 - Phase 1

Pattern Style:
Simultaneous (Sim.)
(Front + Rear lights fire simultaneously)

SYNC Example 2:
Beacon 1 - Phase 1
Beacon 2 - Phase 2

Pattern Style:
Simultaneous (Sim.)
(Front + Rear lights fire simultaneously)

Flash Patterns:
SYNC-capable Patterns

- 1 - SignalAlert™ 75 Phase 1 (Sim.)
- 2 - SignalAlert™ 75 Phase 2 (Sim.)
- 3 - CometFlash™ 75 Phase 1 (Sim.)
- 4 - CometFlash® 75 Phase 2 (Sim.)
- 5 - DoubleFlash 150 Phase 1 (Sim.)
- 6 - DoubleFlash 150 Phase 2 (Sim.)
- 7 - DoubleFlash 75 Phase 1 (Sim.)
- 8 - DoubleFlash 75 Phase 2 (Sim.)
- 9 - SingleFlash 375 Phase 1 (Sim.)
- 10 - SingleFlash 375 Phase 2 (Sim.)
- 11 - SingleFlash 150 Phase 1 (Sim.)
- 12 - SingleFlash 150 Phase 2 (Sim.)
- 13 - SingleFlash 75 Phase 1 (Sim.)
- 14 - SingleFlash 75 Phase 2 (Sim.)
- 15 - SignalAlert™ 75.....(Alt.)
- 16 - CometFlash® 75.....(Alt.)
- 17 - DoubleFlash 150.....(Alt.)
- 18 - DoubleFlash 75.....(Alt.)
- 19 - SingleFlash 375.....(Alt.)
- 20 - SingleFlash 150.....(Alt.)
- 21 - SingleFlash 75.....(Alt.)

Non-SYNC Patterns

- 22 - ActionFlash™.....(Sim.)
- 23 - ModuFlash™.....(Sim.)
- 24 - Rotator 50
- 25 - Rotator 75
- 26 - Rotator 125
- 27 - Rotator 250
- 28 - ActionScan™

Remember....
Phase 1 always alternates with Phase 2

Beacons configured to display the Phase 1 mode of a given pattern will flash simultaneously. Beacons configured to display the Phase 2 mode of a pattern, will alternate with any Phase 1 beacons with the same pattern.

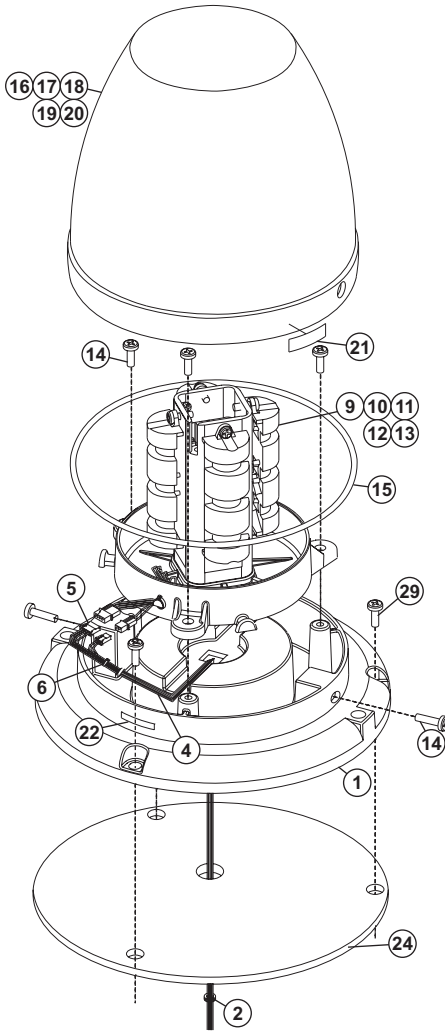
Sync - To sync two beacons, configure both beacons to display the same Phase 1 pattern. With the power off, connect the GREY wires from each beacon together. When the lighthoods are activated, their patterns will be synchronized. To configure two beacons to alternate their patterns, advance the pattern of either, to the Phase 2 mode of the current pattern.

To configure, for example, the passenger side beacons to alternate with the driver side beacons, change the flash patterns for either the passenger or driver side beacons to Phase 2 mode of the same pattern. **Do not SYNC more than 8 (eight) beacons!**

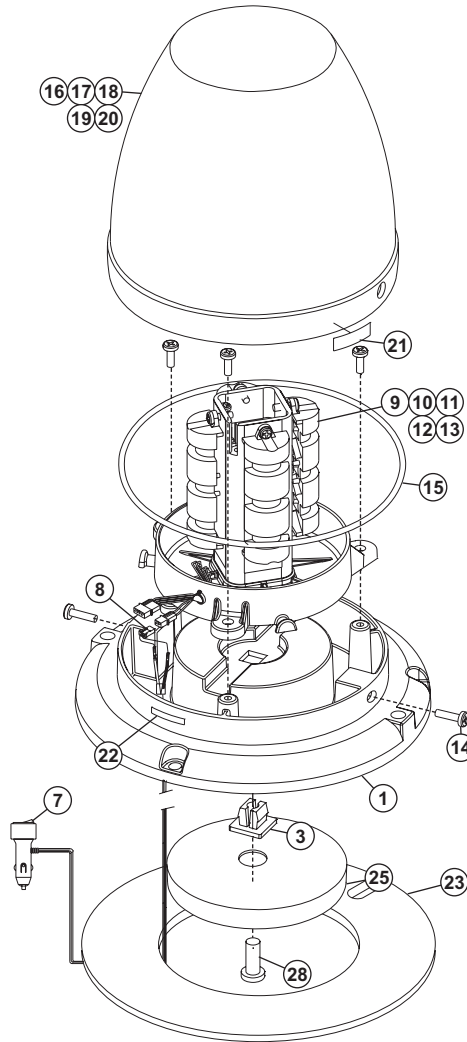
IMPORTANT! It is the responsibility of the installation technician to make sure that the installation and operation of this product will not interfere with or compromise the operation or efficiency of any vehicle equipment!

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

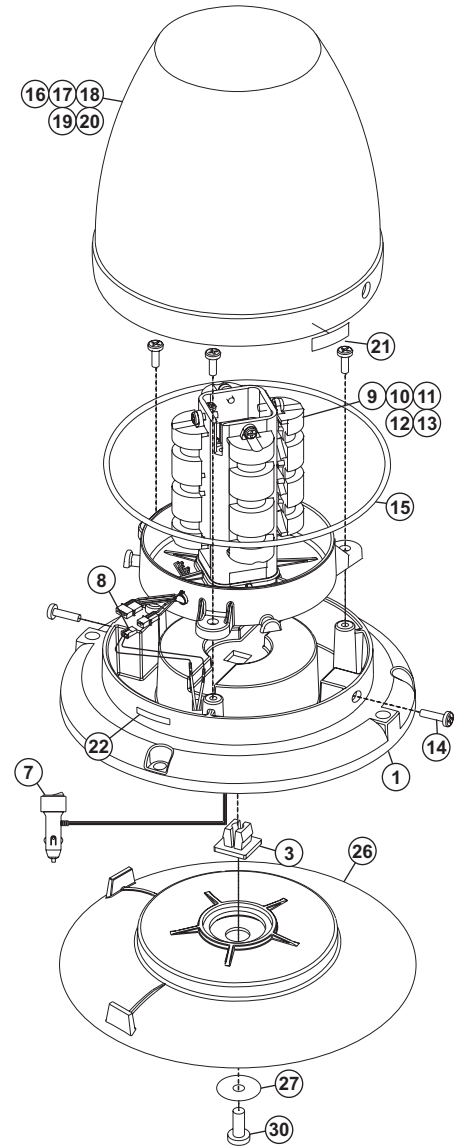
PERMANENT MOUNT ASSEMBLY



MAG MOUNT ASSEMBLY



VACUUM MOUNT ASSEMBLY



QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*			01-0684861- _F	TIR™ LED 360 BEACON SERIES / FLAT
	*			01-0684861- _M	TIR™ LED 360 BEACON SERIES / MAG
	*			01-0684861- _V	TIR™ LED 360 BEACON SERIES / VAC
1	1	1	1	11-484829-000	HOUS./ BASE 360 TIR LED BEAC. SERIES
-	-	1	2	21-11091202-0	3/8" GROMMET
1	1	-	3	21-12081205-3	SCREW GROMMET / FASTEX
-	-	1	4	46-0746483-00	PIGTAIL POWER
-	-	1	5	46-0746484-00	PIGTAIL CONTROL
1	1	1	6	26-0215001-03	TY WRAP / 3" BLACK
1	1	-	7	02-0246315-01	STRAIGHT CIGAR CORD W/SWITCH
1	1	-	8	39-0402023-04	HOUS. / 2 POS SOC. COMM MATE-N-LOK
1	1	1	9	01-0264917-10	ELEC TIR LED 360 BEACON AMB
A/R	A/R	A/R	10	01-0264917-20	ELEC TIR LED 360 BEACON BLU
A/R	A/R	A/R	11	01-0264917-30	ELEC TIR LED 360 BEACON WHT
A/R	A/R	A/R	12	01-0264917-40	ELEC TIR LED 360 BEACON GRN
A/R	A/R	A/R	13	01-0264917-50	ELEC TIR LED 360 BEACON RED
5	5	5	14	15-065419-080	SCREW / #6 x 1/2" PPH PLASTI / 410 SS
1	1	1	15	38-0417831-000	O RING / 4.750 ID X .104 THICK
A/R	A/R	A/R	16	68-2184830-10	DOME / AMB OPTIC 360 TIR LED BEACON
A/R	A/R	A/R	17	68-2184830-20	DOME / BLU OPTIC 360 TIR LED BEACON
A/R	A/R	A/R	18	68-2184830-30	DOME / CLR OPTIC 360 TIR LED BEACON
A/R	A/R	A/R	19	68-2184830-40	DOME / GRN OPTIC 360 TIR LED BEACON
A/R	A/R	A/R	20	68-2184830-50	DOME / RED OPTIC DUAL 360 TIR BEACON
1	1	1	21	10-0323283-__	LABEL / MODEL TIR 360 SERIES
1	1	1	22	10-0523402-__	LABEL / PN-MN-SN TIR 360 SERIES
-	1	-	23	38-0143340-000	PAD / MOUNTING MAGNET MOUNT
-	-	1	24	38-0241596-000	GASKET / SEAL BASE / 2000 SERIES B
-	1	-	25	65-0010192-000	MAG. / X-80 NEW DMS / RB80 / NIC. PLATE
1	-	-	26	08-1583927-05	SUCTION CUP
1	-	-	27	16-1302820-06	WASHER FLAT 1/4" 7/8 OD SS
-	1	-	28	15-131416-202	1/4 X 1 1/4 PPHSMS SS TYPE A SCREW
-	-	3	29	15-101416-100	#10 x 5/8" PPHSMS 410 SS SCREW
1	-	-	30	15-131416-242	1/4 X 1 1/2 PPHSMS SS TYPE A SCREW

Part Number Key:

01-0684861

- Mounting
- LED Color
- Voltage

LED/Lens Color

A = AMB/AMB
 B = BLU/BLU
 G = GRN/GRN
 R = RED/RED
 3 = WHT/CLR

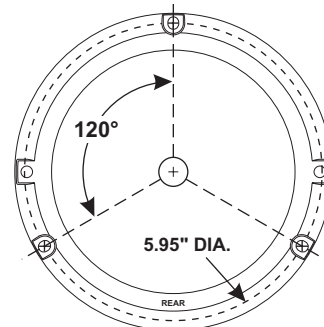
Mounting

F = Flat
 M = Magnet
 V = Vacuum

Voltage

- = 12 Volts

Permanent Mount Information



Mounting Holes = Qty. 3
 Diameter = *
 Wire Passage Hole = Qty. 1
 Diameter = .375"

*sized for #10 sheet metal screw and mounting surface thickness.