

WHELEN[®]

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Installation Guide: 400 Series LED Lighthouse

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.

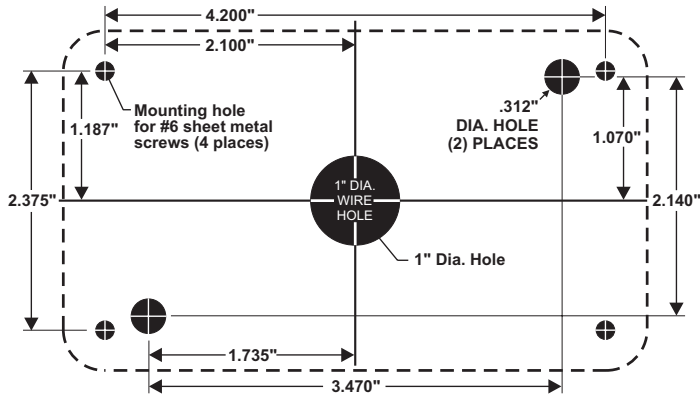
- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **If mounting this product requires drilling holes, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling 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 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.**
- **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!**

For warranty information regarding this product, visit www.whelen.com/warranty

Caution: This product is designed for improved visibility. Prior to installing this product on any vehicle, check your state motor vehicle codes to confirm that this product complies with any and all state statutes.

Mounting:

- Using the dimensions below, mark off and drill the two 5/16" diameter vent tube holes and the 1" center wire hole into the mounting surface. **Check measurements before drilling.**



Note: Make sure lighthouse will not interfere with existing equipment and be aware of any items on the opposite side of the mounting surface.

- Insert the 2 vent tubes extending from the rear of the lighthouse into their holes. With a scribe or similar tool, mark off the 4 mounting holes.
- Using a drill bit sized for a #6 sheet metal screw (and the thickness of the mounting surface), drill the four mounting holes. Install a grommet (customer supplied) into the 1" wire hole.
- Using appropriately sized wires (minimum 18 AWG wire size), run the lighthouse wires to their connections (see wire designations on pg. 3). Fuse the +VBAT connections at 3 Amps and test operation of lighthouse before securing it to vehicle.
- Position the lighthouse onto the mounting surface and secure to the vehicle using four #6 x 1-1/4" sheet metal screws.

Caution: 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!**

Caution: This product draws significantly less current than a standard incandescent automotive bulb. If your flasher does not operate properly, it may be necessary to replace your existing flasher module with a Whelen 3TERM flasher module. Contact your sales representative for specific vehicle application.

Scan-Lock™ (White/Violet)

WARNING: Pattern selection requires the LED to be turned on. Do not look directly at LEDs while the unit is in operation.

IMPORTANT: If you have a 24 volt lighthouse, you will apply 24 volts to the Scan-Lock wire for flash pattern selection.

TO CHANGE PATTERNS: Apply +12 volts to the WHITE/VIOLET wire for less than 1 second and release to cycle forward to the next available pattern. Apply +12 volts to the WHITE/VIOLET 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 WHITE/VIOLET wire. Now turn power to the lighthouse on. The factory default pattern should now be displayed.

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

Flash Patterns: SignalAlert™ 75 > SignalAlert™ 150 > SingleFlash 375 > SingleFlash 150 > SingleFlash 75 > SingleFlash 150 > DoubleFlash 150 > DoubleFlash 75 > CometFlash® 75 > ActionFlash™ > ModuFlash™ > ComAlert™ > ActionScan™ > SignalAlert™ Steady > Steady (Brake) **Available Brake Patterns:** SignalAlert™ Steady > Steady Brake

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

| WIRE COLOR | FUNCTION | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | QTY | ITEM | PART NUMBER | DESCRIPTION |
|---|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|---------------|--|
| BRAKE / TAIL / TURN | | | | | | | | | | | | | | | | | * | 01-06837592R0 | LIGHTHEAD 400 LED B/T/T, MIN, RED |
| Yellow | Stop, Turn / Positive (+) | | | | | | | | | | | | | | | | * | 01-06837595A0 | LIGHTHEAD 400 LED WIDE-ANGLE, AMBER |
| Brown | Taillight / Positive (+) | | | | | | | | | | | | | | | | * | 01-06837595B0 | LIGHTHEAD 400 LED WIDE-ANGLE, BLUE |
| White (12V) | Ground | | | | | | | | | | | | | | | | * | 01-06837595C0 | LIGHTHEAD 400 LED WIDE-ANGLE, WHITE |
| White/Black (24V) | Ground | | | | | | | | | | | | | | | | * | 01-06837595G0 | LIGHTHEAD 400 LED WIDE-ANGLE, GREEN |
| White/Violet | Scan-Lock™ | | | | | | | | | | | | | | | | * | 01-06837595R0 | LIGHTHEAD 400 LED WIDE-ANGLE, RED |
| WIDE ANGLE / FLOOD | | | | | | | | | | | | | | | | | * | 01-06837596C0 | LIGHTHEAD 400 LED FLOOD, WHITE |
| Colored Wire | Positive (+) | | | | | | | | | | | | | | | | * | 01-06837597C* | LIGHTHEAD 400 LED BACK-UP, WHITE |
| Wire color is whatever the color its LED is, when the light is switched on. | | | | | | | | | | | | | | | | | * | 01-06837599A0 | LIGHTHEAD 400 LED TURN/CLEARANCE, AMBER |
| Black (12V) | Ground | | | | | | | | | | | | | | | | * | 01-0683759BR0 | LIGHTHEAD 400 LED B/T/T, MAX, RED |
| Black/White (24V) | Ground | | | | | | | | | | | | | | | | * | 01-0683759BR1 | LIGHTHEAD 400 LED B/T/T, MAX, RED (DEUTSCH®) |
| White/Violet | Scan-Lock™ | | | | | | | | | | | | | | | | * | 01-06837596C1 | LIGHTHEAD 400 LED FLOOD, WHITE (DEUTSCH) |
| | | | | | | | | | | | | | | | | | * | 01-06837595*1 | LIGHTHEAD 400 LED WIDE-ANGLE (DEUTSCH) |
| | | | | | | | | | | | | | | | | | * | 01-0683759GC1 | LIGHTHEAD 400 LED BACK-UP, 24V, WHITE (DEUTSCH) |
| BACK-UP / TURN | | | | | | | | | | | | | | | | | * | 01-0683759ER1 | LIGHTHEAD 400 LED B/T/T, MAX, 24V, RED (DEUTSCH) |
| White | Positive (+) | * | | | | | | | | | | | | | | | * | 01-0683759ER1 | LIGHTHEAD 400 LED B/T/T, MAX, 24V, RED (DEUTSCH) |
| Black | Ground | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 15-061416-200 | SCREW, #6 X 1 1/4" PPHSMS |
| Black/White (24V) | Ground | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 2 | 68-3183725-1S | LENS, NON OPTIC, AMBER with SEAL |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 68-3183725-3S | LENS, NON OPTIC, CLEAR with SEAL |
| | | 1 | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | 4 | 68-3183725-5S | LENS, NON OPTIC, RED with SEAL |
| | | - | - | A/R | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 68-1183726-1S | LENS, OPTIC, AMBER with SEAL |
| | | - | - | A/R | - | - | - | - | - | - | - | - | - | - | - | - | 6 | 68-1183726-2S | LENS, OPTIC, BLUE with SEAL |
| | | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 7 | 68-1183726-3S | LENS, OPTIC, CLEAR with SEAL |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 | 68-1183726-4S | LENS, OPTIC, GREEN with SEAL |
| | | - | - | A/R | - | - | - | - | - | - | - | - | - | - | - | - | 9 | 68-1183726-5S | LENS, OPTIC, RED with SEAL |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 | 01-0283458-52 | SUB ASSY, LED B/T/T, MIN |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 | 01-0283458-15 | SUB ASSY, LED WIDE-ANGLE, AMBER |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 | 01-0283458-25 | SUB ASSY, LED WIDE-ANGLE, BLUE |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 | 01-0283458-35 | SUB ASSY, LED WIDE-ANGLE, WHITE |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14 | 01-0283458-45 | SUB ASSY, LED WIDE-ANGLE, GREEN |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 | 01-0283458-55 | SUB ASSY, LED WIDE-ANGLE, RED |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 | 01-0283458-36 | SUB ASSY, LED FLOOD, WHITE |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 | 01-0283458-37 | SUB ASSY, BACK-UP, WHITE |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 18 | 01-0283458-19 | SUB ASSY, TURN/CLEARANCE, AMBER |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 | 01-0283458-5B | SUB ASSY, B/T/T, MAX |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 20 | 10-0522905*** | LABEL |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 21 | 38-0262867-00 | GASKET |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 22 | 02-038345815B | SUB ASSY, B/T/T, MAX (DEUTSCH) |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 23 | 02-0383458136 | SUB ASSY, LED FLOOD, WHITE (DEUTSCH) |
| | | - | - | A/R | - | - | - | - | - | - | - | - | - | - | - | - | 24 | 02-0383458115 | SUB ASSY, LED WIDE-ANGLE, AMBER (DEUTSCH) |
| | | - | - | A/R | - | - | - | - | - | - | - | - | - | - | - | - | 25 | 02-0383458125 | SUB ASSY, LED WIDE-ANGLE, BLUE, (DEUTSCH) |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 26 | 02-0383458155 | SUB ASSY, LED WIDE-ANGLE, RED (DEUTSCH) |
| | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 27 | 02-0383458137 | SUB ASSY, BACK-UP, WHITE (DEUTSCH) |
| | | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 28 | 02-038345813G | SUB ASSY, BACK-UP, 24V, WHITE (DEUTSCH) |
| | | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 29 | 02-038345815E | SUB ASSY, B/T/T, MAX, 24V (DEUTSCH) |

ORDERING INFORMATION
01-0683759

TERMINATION
LED / LENS COLOR
STYLE

STYLE
2 = B/T/T (MIN)
5 = WIDE-ANGLE
6 = FLOOD
7 = BACK-UP
9 = TURN-CLEARANCE
B = B/T/T (MAX)
G = BACK-UP (24V)
E = B/T/T (MAX - 24V)

L.E.D. / LENS COLOR
A = AMBER / AMBER
B = BLUE / BLUE
C = WHITE / CLEAR
G = GREEN / GREEN
R = RED / RED
1 = AMBER / CLEAR
2 = BLUE / CLEAR
4 = GREEN / CLEAR
5 = RED / CLEAR

TERMINATION
0 = NONE
1 = DEUTSCH

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

