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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 electronic wiring, systems and procedures.**
- **Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connection could be exposed to moisture.**
- **Failure to use specified installation parts and/or hardware will void the product warranty!**
- **The installer MUST be sure that no 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.**
- **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.**
- **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 high-intensity LEDs. 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.**
- **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!**
- **Failure to follow these precautions and instructions could result in damage to the product or vehicle and/or serious injury to you and your passengers!**

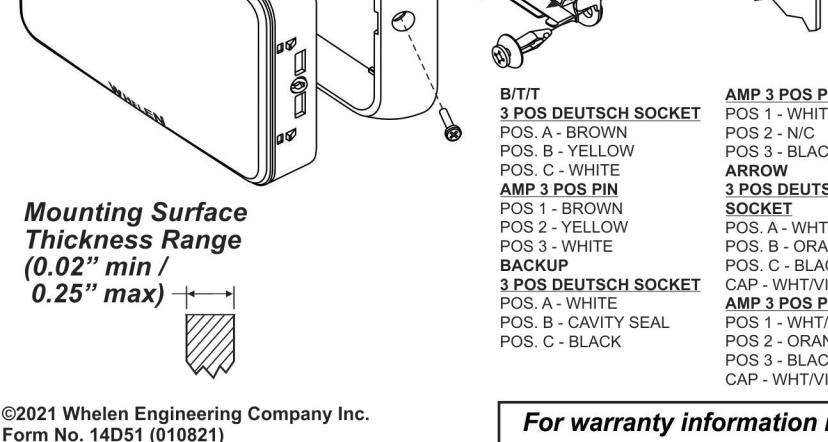
Mounting:

1. Using the mounting diagram shown, mark the locations for the mounting holes and the wire passage hole. Drill the 4 mounting holes using a .250" bit. Using a hole saw, create a 1" wire passage hole in the area marked. Be sure to de-burr all 5 holes.
2. Install the seal (#1) onto the mounting frame (#2). Make sure that each of the seal's alignment pins are fully inserted through the appropriate holes in the frame.
3. Position the frame/seal assembly onto the mounting surface so that the mounting holes are aligned. While holding the assembly firmly against the mounting surface, install the 4 clip retainers (#3). While continuing to hold the assembly firmly, seat the clip retainers in the corner mounting holes and using a Philips screwdriver, press the clip retainer button on each clip until they are firmly seated.
4. Locate the wire seal (#4). With the "MFG IN USA" text facing outward, install the seal onto the mounting frame in the area provided.
5. Snap the flange (#5) (optional) onto the lighthead (#6) from the rear as shown. Route wires from the lighthead through the wire passage hole and through the mounting surface. The lighthead and flange can now be 'snapped' into position on the mounting frame and secured using the included hardware (#7).

IMPORTANT WARNING!

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

Important Note! Mounting onto diamond plate requires the user to seal all holes with RTV.



Mounting Surface Thickness Range (0.02" min / 0.25" max)

B/T/T
3 POS DEUTSCH SOCKET
POS. A - BROWN
POS. B - YELLOW
POS. C - WHITE
AMP 3 POS PIN
POS 1 - BROWN
POS 2 - YELLOW
POS 3 - WHITE
BACKUP
3 POS DEUTSCH SOCKET
POS. A - WHITE
POS. B - CAVITY SEAL
POS. C - BLACK

AMP 3 POS PIN
POS 1 - WHITE
POS 2 - N/C
POS 3 - BLACK
ARROW
3 POS DEUTSCH SOCKET
POS. A - WHT/ORG
POS. B - ORANGE
POS. C - BLACK
CAP - WHT/VIO
AMP 3 POS PIN
POS 1 - WHT/ORG
POS 2 - ORANGE
POS 3 - BLACK
CAP - WHT/VIO

Wiring:

Back-Up Model
Connect WHT wire to (+) 10-30V output wire of the back-up light circuit.
Connect BLK wire to GROUND.

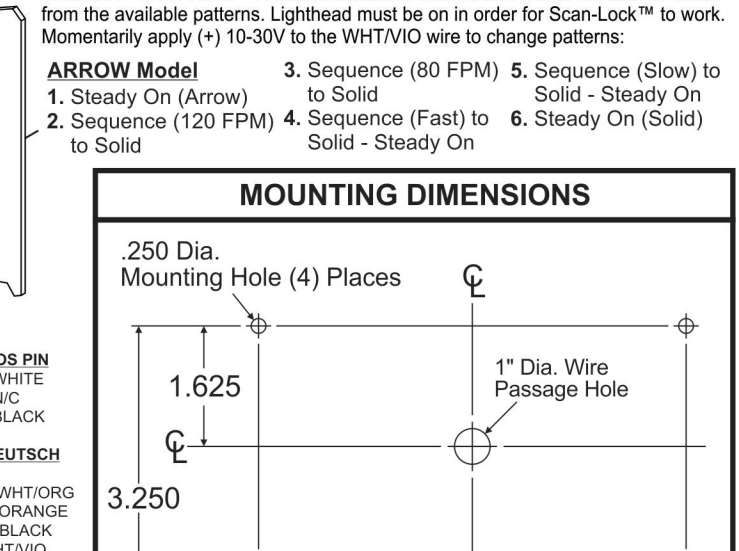
B/T/T Model
Connect YEL wire to (+) 10-30V output wire of brake light circuit.
Connect BRN wire to (+) 10-30V output wire of the taillight circuit.
Connect WHT wire to GROUND.

Arrow Model
Connect ORG or WHT/ORG wire to (+)10-30V output wire of the turn signal circuit.
Connect BLK wire to GROUND.
Connect WHT/VIO wire to to a momentary switch and extend the wire to (+)10-30V.
Fuse wire @ 1 Amp.

NOTE: Connecting the ORG wire will put the Arrow in front intensity when activated and connecting the WHT/ORG wire will put the Arrow in rear intensity when activated. Do not connect both wires at once or the lighthead will not function.

WIRING DIAGRAM

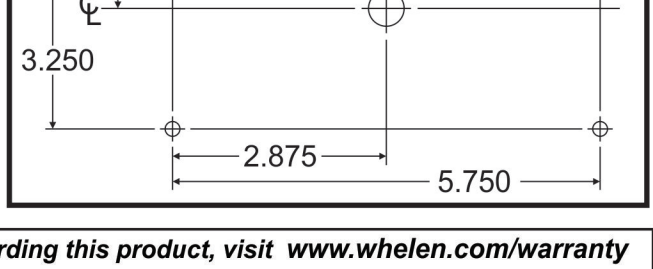
IMPORTANT! Ensure that Back-Up, B/T/T and Arrow Lightheads are fused at 3 AMPS either through OEM fusing or customer supplied fuse.



WHT/VIO - Scan-Lock™ Pattern Selection: This feature allows the user to select from the available patterns. Lighthead must be on in order for Scan-Lock™ to work. Momentarily apply (+) 10-30V to the WHT/VIO wire to change patterns:

ARROW Model
1. Steady On (Arrow)
2. Sequence (120 FPM) to Solid
3. Sequence (80 FPM) to Solid
4. Sequence (Fast) to Solid - Steady On
5. Sequence (Slow) to Solid - Steady On
6. Steady On (Solid)

MOUNTING DIMENSIONS



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Form No. 14D51 (010821)

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