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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 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 any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.
- 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.
- **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!**

Installation

1. Using the dimensions below, mark the mounting and wire hole locations onto the proposed mounting surface. Drill two, .250" diameter mounting holes and a .625" (minimum) wire access hole into the mounting surface.
2. Place the appropriate gasket into position on the rear of the M9 assembly (see Gasket Note). **NOTE: On the back of the gasket, the word "BOTTOM" shows the correct orientation.** Insert the slotted hole screw grommet through the mounting holes on the M9/Gasket assembly. Feed the M9 wires through the wire access hole in the mounting surface. Press the M9/Gasket/Grommet assembly onto its mounting location so that it is flat against the mounting surface.
3. With the assembly in position and using the hardware provided, tighten the mounting screws until the lighthouse assembly is drawn firmly against the mounting surface. **DO NOT OVERTIGHTEN!**
4. Using appropriately sized wires (minimum 18 AWG), extend the M9 wires to their designated connections. Refer to the diagram below for wiring and fusing information.

Wiring...

Back-Up Model

Connect the **WHITE** wire to the **POSITIVE** output wire of the back-up light circuit. Connect the **BLACK (12V)** or **BLK/WHT (24V)** wire to **GROUND**.

B/T/T Model

Connect the **YELLOW** wire to the **POSITIVE** output wire of brake light circuit. Connect the **BROWN** wire to the **POSITIVE** output wire of the tail light circuit. Connect the **WHITE (12V)** or **WHT/BLK (24V)** wire to **GROUND**. The **WHT/VIO** wire is used to configure the brake light display. See below.

Arrow Model

Connect the **LED Color** wire to **+VBAT**. Fuse this wire @ **3Amps**. Connect the **BLACK (12V)** or **BLK/WHT (24V)** wire to **GROUND**. The **WHT/VIO** wire is used to change patterns. See below.

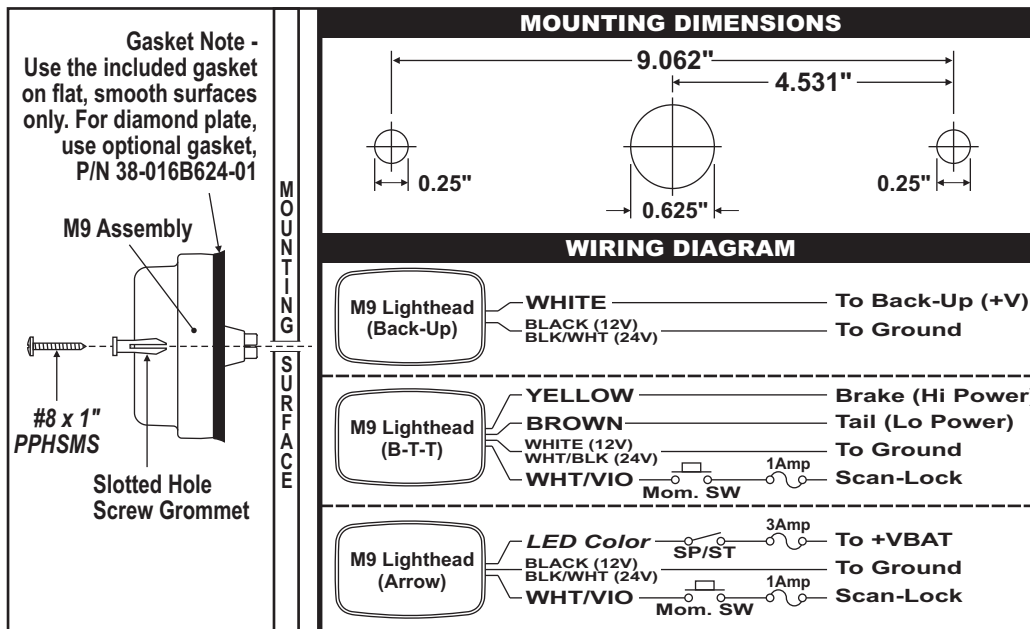
WHITE/VIO - Scan-Lock™ Pattern Selection: This feature allows the user to select between the available patterns. Note that the Lighthouse must be on in order for Scan-Lock to work. Momentarily apply **+VBAT** to the **WHT/VIO** wire to change patterns:

Arrow Model

1. Steady On
2. Sequence (150 fpm) to Solid
3. Sequence (80 fpm) to Solid
4. Sequence (Fast) to Solid-Steady On
5. Sequence (Slow) to Solid-Steady On
6. SingleFlash 75
7. ModuFlash™
8. Signal-Alert™ to Steady On

B/T/T Model

1. Steady
2. SignalAlert™ Steady



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