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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.
- 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.
- Do not attempt to activate or control this device in a hazardous driving situation.

Mounting

- 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 1.75" (minimum) wire access hole into the mounting surface.
- 2. Feed the M9V wires through the wire access hole in the mounting surface. Insert the molded grommet into their respective mounting holes. With the assembly in position and using the hardware provided, tighten the mounting screws until the lighthead assembly is drawn firmly against the mounting surface. A torque value of 12 in-lb. (max.) is typically required to achieve this. DO NOT OVER TIGHTEN!
- Using appropriately sized wires (minimum 18 AWG), extend the M9V wires to their designated connections. Refer to the diagram shown for wiring and fusing information.

RED - Warning Light: Apply +12VDC to the RED wire to activate the Warning light.

WHT/VIO - ScanLock™ Pattern Selection: This feature allows the user to select from several available flash patterns. Lighthead must be switched on for Scan-Lock to work.

Waterproof butt splices and/or connectors are required if that connection could be exposed to moisture. Any unused wires must be sealed (waterproofed) to prevent moisture infiltration.

WHT/BLK - Perimeter Light: Apply +12VDC to activate the Perimeter light.

VIOLET - Low Power : The type of switch used depends on how the operator wishes Low Power to function:

Latching Mode: By applying +12VDC to the VIO wire for less than 1 sec., the lighthead is "latched" into low power. The unit must be turned off and then back on to restore normal operation. For this mode, a momentary switch is preferred.

Level Mode: Applying +12VDC to the VIO wire for more than 1 sec. holds the lighthead in low power mode until voltage is removed. For this mode, a toggle switch is preferred.

TO CYCLE THROUGH ALL PATTERNS: Apply +12VDC to the WHT/ VIO wire for less than 1 second and release. To cycle backward through patterns apply +12VDC to the WHT/VIO wire for over 1 second and release.

TO SET A PATTERN AS DEFAULT: Allow the pattern to run for more than 5 seconds. The lighthead will now display this pattern when active.

TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off power. While applying +12VDC to the WHT/VIO wire, turn power on. The lighthead will reset to its default pattern.

GREY - SYNC: To SYNC 2 lightheads, configure both lightheads to display the same Phase 1 (Simultaneous) pattern. Turn power off and connect the GREY wire from each lighthead together. Activate the lightheads and their patterns will be synchronized. To configure 2 lightheads to alternate their patterns, advance either lighthead to Phase 2 (Alternating) of the current pattern. Cut and insulate this wire if not used.

BLACK - Ground: Connect this wire to Chassis Ground

- 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.
- 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 <u>FUSED</u> "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!



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21 22 23 24 25	ActionFlash™50 ActionFlash™150 ModuFlash™ ActionScan™ Steady	PH.1 PH.1 PH.1 PH.1 PH.1 PH.1	NO NO NO NO	NO NO NO YES

IMPORTANT WARNING!

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

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