

WHELEN[®]

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Installation Guide: Responder[®] LP Duo Color Lightbar

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.

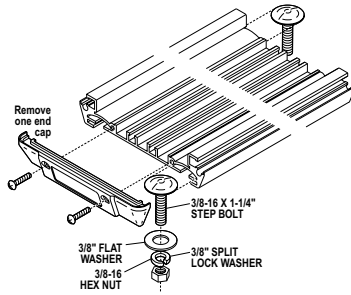
- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- If mounting this product requires drilling holes, the installer **MUST** be sure that no vehicle components or other vital parts could be damaged by the drilling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

IMPORTANT! The lightbar should be a minimum of 16" from any radio antennas!

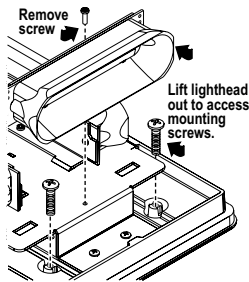
Permanent Mounting:

This mounting style requires removal of the headliner. There may be a roof support member that runs from the drivers to the passengers side of the vehicle. **Do not drill through this member.**



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. When the mounting location has been determined, slide the 2 mounting bolts into the lightbar extrusion, one bolt in each track. Position these bolts so that they are at opposite ends of the extrusion and as far apart as possible.
2. Place the lightbar on the vehicle in its proposed mounting location. Mark the location of the 2 mounting bolts onto the mounting surface. Also, mark the area for the wire passage hole. This hole should be located directly below where the wires exit the extrusion.
3. Remove the lightbar and drill two, 5/16" dia. mounting holes and a 5/16" dia. wire passage hole. De-burr all three holes and install a rubber grommet (customer supplied) into the wire passage hole.
4. Route the wires through the grommet and to the necessary switches and power source as shown in the diagram below.
5. Secure the Responder® to the vehicle using the hardware provided. From the underside of the mounting surface, apply RTV around each mounting hole and the grommeted wire passage hole to prevent water from entering these openings.

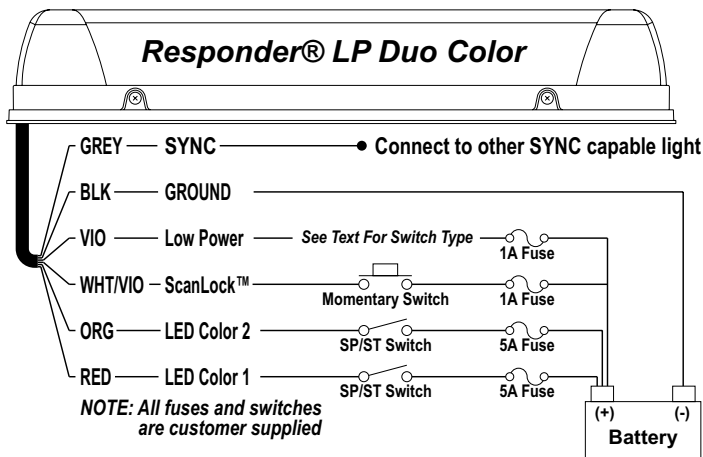


Permanent Mounting / Plastic Base:

1. Remove the outer dome and the screws that hold down the endcap lighthead (use a T-10 TORX bit) and lift the (2) lighthead out.
2. Install the #10 screws into the 4 mounting holes to open up the holes.
3. Remove the screws, position the base on the proposed mounting location then scribe the mounting surface where the mounting holes are to be drilled.
4. Remove the base and drill the 4 mounting holes using a #16 drill bit.
5. Install the lightbar. Replace the lighthead & dome.

Wiring:

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!



Operation: Scan-Lock™:

To operate Scan-Lock, activate the option you wish to program and follow the steps below. You may only program one option at a time.

TO CHANGE PATTERNS: To cycle forward to the next pattern apply +VBAT to the WHT/VIO wire for less than 1 second and release. To cycle back to the previous pattern apply +VBAT to the WHT/VIO wire for over 1 second and release.

TO CHANGE THE DEFAULT PATTERN: When the desired pattern is displayed, allow it to run for more than 5 seconds. The lighthead will now display this pattern when initially activated.

TO RESTORE THE FACTORY DEFAULT PATTERN: With power off, apply +VBAT to the WHT/VIO wire. While continuing to apply power to the WHT/VIO wire, turn the light on. The factory default pattern will be displayed.

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

Pattern List:

SYNC Patterns

1. SignalAlert™ 75 PH-1
2. SignalAlert™ 75 PH-2
3. CometFlash® 75 PH-1
4. CometFlash® 75 PH-2
5. DoubleFlash 75 PH-1 (CA)
6. DoubleFlash 75 PH-2 (CA)
7. SingleFlash 75 PH-1 (CA)
8. SingleFlash 75 PH-2 (CA)
9. ComAlert™ 75 PH-1
10. ComAlert™ 75 PH-2
11. LongBurst™ 75 PH-1
12. LongBurst™ 75 PH-2
13. PingPong™ 75 PH-1
14. PingPong™ 75 PH-2

17. SingleFlash 120 (CA)
18. SingleFlash 300
19. DoubleFlash 150
20. ComAlert™ 150
21. ActionFlash 50
22. ActionFlash 150
23. ModuFlash™
24. FlimFlam
25. DoubleFlash 120 (CA)
26. PingPong™ 120 (CA)
27. TripleFlash™ 75 (CA)
28. TripleFlash™ 120 (CA)
29. SignalAlert™ CAL (CA)
30. ActionFlash™ 60/120 (CA)
31. ActionFlash™ 120/75 (CA)
32. CalScan™ (CA)
33. 90 RPM
34. 118 RPM
35. 150 RPM
36. ActionScan™

Non-SYNC Patterns

15. SingleFlash 60 (CA)
16. SingleFlash 90 (CA)

(CA) = California Title XIII Compliant

Low Power:

Allows user to reduce light intensity for nighttime operation.

Latching Mode: Apply +12VDC to the VIOLET wire for less than 1 second. The lightbar is now 'latched' into low power. To restore high power apply +12VDC for more than 1 second. A Normally Open Momentary Switch is best for this mode.

Level Mode: Apply +12VDC to the VIOLET wire for more than 1 second. The lightbar is held in low power operation until the voltage is removed. A toggle switch (SP/ST) switch is best for this mode.

Sync:

Any SYNC capable lightbar (or light) programmed to PH-1 of a SYNC flash pattern will flash simultaneously with any other lightbar (or light) programmed to PH-1 of that same SYNC pattern (when you connect the GREY wire from each together).

If you wish the lightbar to flash alternately with another light, program the light to PH-2 of the same SYNC pattern.

SYNC will not work if COLOR 1 and COLOR 2 are activated at the same time.

Program the lights you wish to SYNC, then turn them off. Connect the GREY wires from each light. When you activate the lights they will be in sync.

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

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