

WHELEN[®]

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Installation Guide:
Responder[®] LP
P/N: 01-0686608-01

Automotive: Lightbars

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

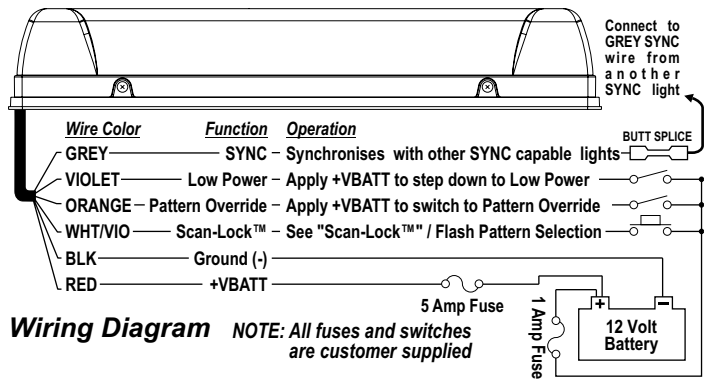
IMPORTANT! The lightbar should be a minimum of 16" from any radio antennas!

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 grommets wire passage hole to prevent water from entering these openings.



Wiring Diagram NOTE: All fuses and switches are customer supplied

BLACK / Ground	Extend to Chassis Ground.
RED / Main Power	Extend to an ignition controlled circuit capable of accommodating an additional 5 AMP current draw. Fuse at 5 amps.
VIOLET / Low Power	Extend wire to a switch and then extend to +VBATT. Fuse at 1 amp. See "Hi Low Power" for switch type.
WHT/VIO / Scan-Lock™	Extend this wire to a momentary switch and then to +VBATT. Fuse at 1 Amp.
GRAY / SYNC	Extend this wire to the SYNC wire of another SYNC capable lightbar.
ORANGE / Pattern Override	Extend this wire to a user supplied switch then extend to +VBATT. Fuse at 1 amp.

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!**

GRAY / Sync:

To SYNC two lightbars, configure both lightbars to display the same flash pattern. With the power off, connect the GRAY wire from each lightbar together. When the lightbars are activated, their patterns will be synchronized. Only the flash patterns designated for SYNC in the flash pattern list may be used.

WHITE/VIOLET / Scan-Lock™:

To operate Scan-Lock, switch the lightbar on. The WHITE/VIOLET wire is the Scan-Lock™ control wire.

TO CHANGE PATTERNS: To cycle forward to the next pattern 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 lighthouse 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 WHT/VIO, turn the lightbar on. The factory default pattern will be displayed.

A Normally Open momentary switch can be used to control Scan-Lock™. See flash pattern list below for available flash patterns.

VIOLET / Hi/Low Power:

Allows user to step the unit down to low power for nighttime use.

Latching Mode: By applying +VBAT to the VIOLET wire for less than 1 second, the lightbar is "latched" into low power. The unit must be turned off and then back on to restore normal high power operation (Momentary switch).

Level Mode: Applying +VBAT to the VIOLET wire for more than 1 second holds the lightbar in low power mode until voltage is removed (Toggle switch).

ORANGE / Pattern Override:

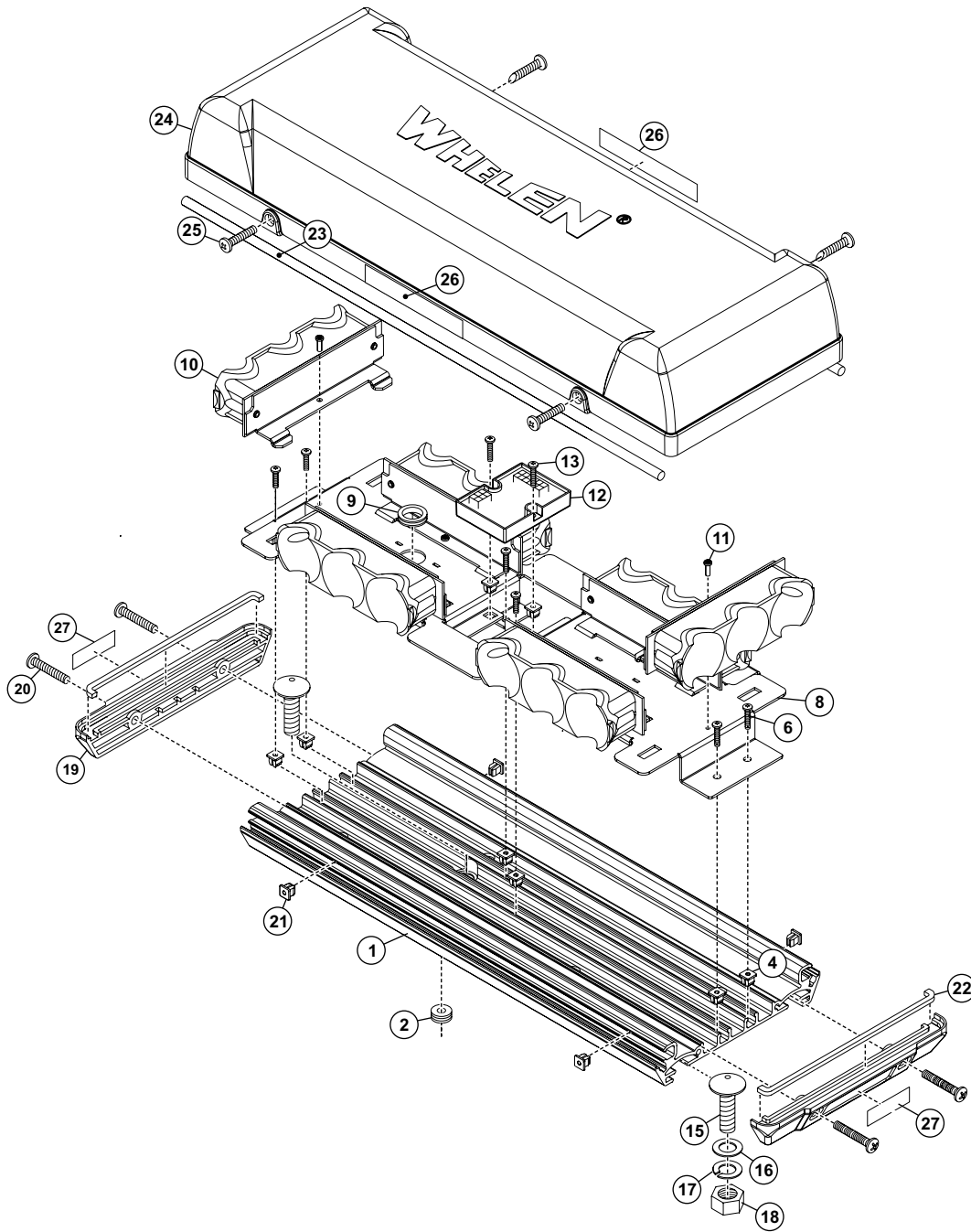
Applying +VBAT to the ORANGE wire while lighthoods are activated, will change the flash pattern to whatever pattern override is programmed for. To program the flash pattern activate the lightbar then activate pattern override by applying +VBAT to the ORANGE wire and select a flash pattern using Scan-Lock™.

Available Flash Patterns:	19. SingleFl. 60 (Alt-Sim) CA	38. ModuFlash™ (Alt)
1. ActionScan™	20. SingleFlash 90 (Alt) CA	39. ModuFlash (Sim)
2. SignalAlert™ ALT	21. SingleFlash 90 (Sim) CA	40. Steady 5%
3. SignalAlert Sim	22. SingleFl. 90 (Alt-Sim) CA	41. Steady 1%
4. SignalAlert (Alt/Sim)	*23. SingleFlash 120 (Alt) CA	42. Steady 4%
5. CometFlash® (Alt)	*24. SingleFlash 120 (Sim) CA	43. Steady 8%
6. CometFlash (Sim)	25. SingleFl. 120(Alt-Sim) CA	44. Steady 12%
7. CometFlash (Alt-Sim)	*26. SingleFlash 300 (Alt)	45. Steady 40%
8. DoubleFlash 75 (Alt)	*27. SingleFlash 300 (Sim)	46. InOut
9. DoubleFlash 75 (Sim)	28. SingleFlash 300 (Alt-Sim)	47. Sweep
10. DoubleFlash 75 (Alt-Sim)	*29. MicroBurst™ (Alt)	48. LongBurst Sweep
11. SingleFlash 75 (Alt)	*30. MicroBurst (Sim)	49. InOut Blast
12. SingleFlash 75 (Sim)	31. MicroBurst (Alt-Sim)	50. Sequence On/Off
13. SingleFlash 75 (Alt-Sim)	*32. ActionFlash™ (Alt)	51. ZigZag
14. LongBurst™ (Alt)	*33. ActionFlash (Sim)	52. Rotator 90
15. LongBurst (Sim)	34. ActionFlash (Alt-Sim)	53. Rotator 120
16. LongBurst (Alt-Sim)	*35. PingPong™ (Alt)	54. Rotator 150
17. SingleFlash 60 (Alt) CA	*36. PingPong (Sim)	55. Rotator 250
18. SingleFlash. 60 (Sim) CA	37. FlimFlam (Alt.)	

CA = Calif. Title XIII Compliant Alt = Alternating Sim = Simultaneous Alt-Sim = Alternating-Simultaneous * = SYNC

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

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.



QTY	ITEM	PART NUMBER	DESCRIPTION
*		01-0686608-01	LP RESPONDER, WHELEN DOME
1	1	11-36 D 115-002	BASE, EXTRUDED 15.88" MACH. no RIVNUTS LP RESP.
1	2	21-11101610-0	GROMMET, 5/16 ID X 1/2 HOLE
1	3	46-076A219-00	ASSY, HARNESS INPUT RESPONDER LP
9	4	13-062C40-16J	SCREW GROMMET, #6/#8 FASTEX FASTEX
1	5	26-0115037-04	CABLE CLAMP, 1/4"D, 3/8"W, .203" MTG HOLE, BLACK
7	6	15-081416-060	SCREW, 8 X 3/8 PPHSMS 410 SS TYPE A
2	7	26-0215001-06	TY WRAP, 6" BLACK
1	8	11-386602-000	BASE, MTG LIGHTHEADS RESPONDER LP
1	9	21-11263204-0	GROMMET, 1" SLIM LINE
6	10	01-026B568-10	SUB ASSY, CON3 HINGE AMB AMP JUSTICE
6	11	14-040285-063	SCREW, 4-40 X 3/8 TORX PH TRILOBULAR 410 SS, BLK OX.
1	12	01-026A213-00	ASSY, PCB RESPONDER FLASHER 6 CHANNEL
2	13	15-081416-080	SCREW, 8 X 1/2 PPHSMS 410 SS
1	14	46-076A239-00	ASSY, HARNESS 6 OUTPUT RESPONDER LP
2	15	14-156040-20E	BOLT, 3/8-16 X 1 1/4 STEP MICRO THROW FINISH WEYCO
2	16	16-1503220-60	WASHER, 3/8" FLAT STAINLESS STEEL
2	17	16-1532220-10	WASHER, 3/8" SPLIT LOCK
2	18	13-156120-090	NUT, 3/8-16 HEX
2	19	11-282151-000	ENDCAP, COVER EXTRUSION ECONOMY LIGHTBAR
4	20	14-0023347-00	SCREW, 10-24 X 1.25" TX PHD SWEDGE FORM
4	21	21-1706090300	SCREW GROMMET, #6/#8 .265-.286 HOLE, .030 HD HT
2	22	38-0143763-000	GASKET, DOME ENDCAP RESPONDER LP
2.66	23	38-0541780-000	GASKET, .25 CORD EPDM SPONGE ECONOMY BAR
1	24	68-2986618-10	DOME, AMBER OPTIC RESPONDER LP W/O MTG DETAILS
4	25	15-061416-080	SCREW, 6 X 1/2 PPHSMS SS TYPE A
2	26	10-0523620-__	LABEL, MODEL, MONROE TRUCK, RESPONDER
2	27	10-0523621-__	LABEL, MONROE TRUCK, RESPONDER