

WHELEN[®]

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Installation Guide: 900-series Dual Super-LED[®] Lighthead

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 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 owners 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

Installation:

WARNING! The LED models designated “external flasher” must be connected to an electronic flasher. Allowing the LED to steady burn will damage the lighthead and void the warranty.

External Flasher Models: This product draws significantly less current than a standard incandescent automotive bulb. If your flasher does not operate properly, it may be necessary to replace your existing flasher module with a Whelen 3TERM flasher module. Contact your sales representative for specific vehicle application.

Note: Make sure lighthead will not interfere with existing equipment or any items on the opposite side of the mounting surface.

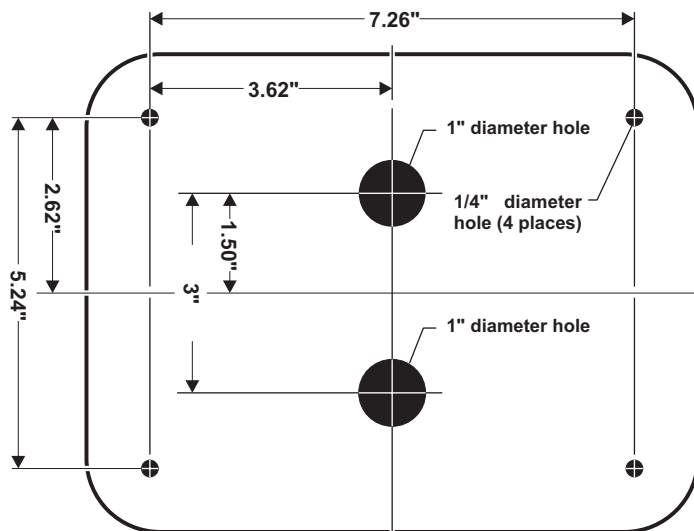
- Using the dimensions shown, mark off and drill the four 1/4 inch diameter mounting holes and two 1 inch wire holes into the mounting surface. Check measurements before drilling.
- Install the 4 supplied plastic grommets into the mounting holes then install rubber grommets (customer supplied) into the wire holes.
- Using appropriately sized wires (Minimum wire size / 18 AWG), extend the lighthead wires to their connections. Fuse the positive connections at 3 Amps and test operation of lighthead before securing it to vehicle.
- Position the lighthead onto the mounting surface and secure to the vehicle using the four #8 x 1-1/2" sheet metal screws.

Flasher Models:

Scan-Lock™: White-Violet Wire / This feature allows the user to select from several available flash patterns

TO CYCLE THROUGH ALL PATTERNS: Apply positive voltage to the WHITE-VIOLET wire for less than 1 second and release to cycle forward. Apply positive voltage to the WHITE-VIOLET wire for more than 1 second and release to cycle backward.

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

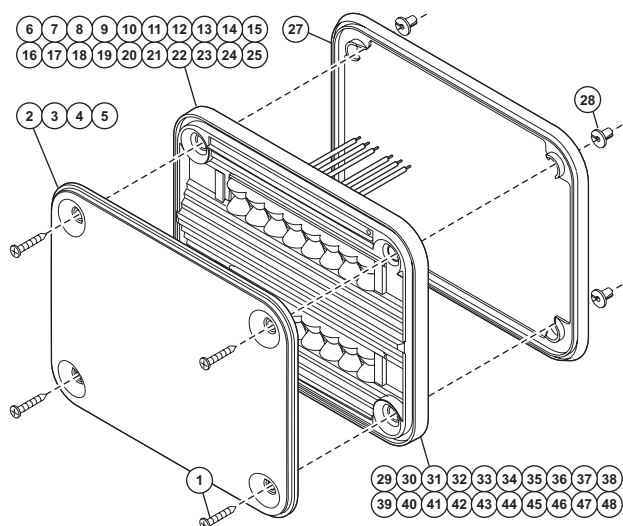


TO RESET TO THE FACTORY DEFAULT PATTERN: Turn off power, apply positive voltage to the WHITE-VIOLET wire, then turn power on.

Available Flash Patterns: SignalAlert™ 75 / SignalAlert™ 150 / SingleFlash 375 / SingleFlash 150 / SingleFlash 75 / DoubleFlash 150 / DoubleFlash 75 / CometFlash® 75 / ActionFlash™ / ModuFlash™ / ComAlert™ / ActionScan™ / SignalAlert™ Steady / Steady (Brake)

Hi-Lo Intensity: Violet Wire / This feature allows the user to step the unit down to low power operation for nighttime use.

Apply positive voltage to the VIOLET wire to put the lighthead into low power. Remove the voltage from the VIOLET wire to restore high power operation.



Wire Functions / On-Board Flasher / 12V
LED COLOR Power
BLACK Ground
VIOLET HI/LO Power
WHITE-VIOLET Scan-Lock™

Wire Functions / On-Board Flasher / 24V
LED COLOR Power
BLACK-WHITE Ground
VIOLET HI/LO Power
WHITE-VIOLET Scan-Lock™

Wire Functions / External Flasher / 24V
LED COLOR Power
BLACK-WHITE Ground
VIOLET HI/LO Power
WHITE-VIOLET Scan-Lock™

Wire Functions / External Flasher / 12V
LED COLOR Power
BLACK Ground
VIOLET HI/LO Power
WHITE-VIOLET Scan-Lock™

PART NUMBER KEY:

01-0684137

Upper / Lower LED Colors
Lens Color
Flasher / Connector / Voltage

LED COLORS

A = AMBER-AMBER F = AMBER-WHITE
B = BLUE-BLUE K = AMBER-RED
W = WHITE-WHITE E = BLUE-WHITE
R = RED-RED J = BLUE-RED
M = AMBER-BLUE D = WHITE-RED

LENS COLOR FLASHER-CONNECTOR-VOLTAGE

A = AMBER 6 = EXTERNAL / NONE / 12V
B = BLUE 8 = ON BOARD / NONE / 12V
C = CLEAR 1 = EXTERNAL / NONE / 24V
R = RED 3 = ON-BOARD / NONE / 24V

QTY	QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
		*			01-06841376	LIGHTHEAD 900 DUAL LINEAR - EXTERNAL FLASHER
		*			01-06841378	LIGHTHEAD 900 DUAL LINEAR - ON-BOARD FLASHER
		*			01-06841371	LIGHTHEAD 900 DUAL LINEAR 24V - EXTERNAL FLASHER
		*			01-06841373	LIGHTHEAD 900 DUAL LINEAR 24V - ON-BOARD FLASHER
4	4	4	4	1	15-081416-240	SCREW / #8 X 1-1/2" PPHSMS SS
A/R	A/R	A/R	A/R	2	68-1984100-10	LENS / OPTIC - AMBER
A/R	A/R	A/R	A/R	3	68-1984100-20	LENS / OPTIC - BLUE
A/R	A/R	A/R	A/R	4	68-1984100-30	LENS / OPTIC - CLEAR
A/R	A/R	A/R	A/R	5	68-1984100-50	LENS / OPTIC / RED
-	-	-	A/R	6	02-0384123611	SUB ASSY / 900 LINEAR - AMBER-AMBER / 2 WIRE
-	-	-	A/R	7	02-0384123622	SUB ASSY / 900 LINEAR - BLUE-BLUE / 2 WIRE
-	-	-	A/R	8	02-0384123633	SUB ASSY / 900 LINEAR - WHITE-WHITE / 2 WIRE
-	-	-	A/R	9	02-0384123655	SUB ASSY / 900 LINEAR - RED-RED / 2 WIRE
-	-	-	A/R	10	02-0384123612	SUB ASSY / 900 LINEAR - AMBER-BLUE / 2 WIRE
-	-	-	A/R	11	02-0384123613	SUB ASSY / 900 LINEAR - AMBER-WHITE / 2 WIRE
-	-	-	A/R	12	02-0384123615	SUB ASSY / 900 LINEAR - AMBER-RED / 2 WIRE
-	-	-	A/R	13	02-0384123623	SUB ASSY / 900 LINEAR - BLUE-WHITE / 2 WIRE
-	-	-	A/R	14	02-0384123625	SUB ASSY / 900 LINEAR - BLUE-RED / 2 WIRE
-	-	-	A/R	15	02-0384123635	SUB ASSY / 900 LINEAR - WHITE-RED / 2 WIRE
-	-	A/R	-	16	02-0384123811	SUB ASSY / 900 LINEAR - AMBER-AMBER / 4 WIRE
-	-	A/R	-	17	02-0384123822	SUB ASSY / 900 LINEAR - BLUE-BLUE / 4 WIRE
-	-	A/R	-	18	02-0384123833	SUB ASSY / 900 LINEAR - WHITE-WHITE / 4 WIRE
-	-	A/R	-	19	02-0384123855	SUB ASSY / 900 LINEAR - RED-RED / 4 WIRE
-	-	A/R	-	20	02-0384123812	SUB ASSY / 900 LINEAR - AMBER-BLUE / 4 WIRE
-	-	A/R	-	21	02-0384123813	SUB ASSY / 900 LINEAR - AMBER-WHITE / 4 WIRE
-	-	A/R	-	22	02-0384123815	SUB ASSY / 900 LINEAR - AMBER-RED / 4 WIRE
-	-	A/R	-	23	02-0384123823	SUB ASSY / 900 LINEAR - BLUE-WHITE / 4 WIRE
-	-	A/R	-	24	02-0384123825	SUB ASSY / 900 LINEAR - BLUE-RED / 4 WIRE
-	-	A/R	-	25	02-0384123835	SUB ASSY / 900 LINEAR - WHITE-RED / 4 WIRE
1	1	1	1	26	10-0523115	LABEL / Not shown
4	4	4	4	27	38-0481690-00	GASKET
4	4	4	4	28	21-1708080603	SCREW GROMMET / ROUND HOLE
-	A/R	-	-	29	02-0384123111	SUB ASSY / 900 LINEAR 24V - AMBER-AMBER / 2 WIRE
-	A/R	-	-	30	02-0384123122	SUB ASSY / 900 LINEAR 24V - BLUE-BLUE / 2 WIRE
-	A/R	-	-	31	02-0384123133	SUB ASSY / 900 LINEAR 24V - WHITE-WHITE / 2 WIRE
-	A/R	-	-	32	02-0384123155	SUB ASSY / 900 LINEAR 24V - RED-RED / 2 WIRE
-	A/R	-	-	33	02-0384123112	SUB ASSY / 900 LINEAR 24V - AMBER-BLUE / 2 WIRE
-	A/R	-	-	34	02-0384123113	SUB ASSY / 900 LINEAR 24V - AMBER-WHITE / 2 WIRE
-	A/R	-	-	35	02-0384123115	SUB ASSY / 900 LINEAR 24V - AMBER-RED / 2 WIRE
-	A/R	-	-	36	02-0384123123	SUB ASSY / 900 LINEAR 24V - BLUE-WHITE / 2 WIRE
-	A/R	-	-	37	02-0384123125	SUB ASSY / 900 LINEAR 24V - BLUE-RED / 2 WIRE
-	A/R	-	-	38	02-0384123135	SUB ASSY / 900 LINEAR 24V - WHITE-RED / 2 WIRE
A/R	-	-	-	39	02-0384123311	SUB ASSY / 900 LINEAR 24V - AMBER-AMBER / 4 WIRE
A/R	-	-	-	40	02-0384123322	SUB ASSY / 900 LINEAR 24V - BLUE-BLUE / 4 WIRE
A/R	-	-	-	41	02-0384123333	SUB ASSY / 900 LINEAR 24V - WHITE-WHITE / 4 WIRE
A/R	-	-	-	42	02-0384123355	SUB ASSY / 900 LINEAR 24V - RED-RED / 4 WIRE
A/R	-	-	-	43	02-0384123312	SUB ASSY / 900 LINEAR 24V - AMBER-BLUE / 4 WIRE
A/R	-	-	-	44	02-0384123313	SUB ASSY / 900 LINEAR 24V - AMBER-WHITE / 4 WIRE
A/R	-	-	-	45	02-0384123315	SUB ASSY / 900 LINEAR 24V - AMBER-RED / 4 WIRE
A/R	-	-	-	46	02-0384123323	SUB ASSY / 900 LINEAR 24V - BLUE-WHITE / 4 WIRE
A/R	-	-	-	47	02-0384123325	SUB ASSY / 900 LINEAR 24V - BLUE-RED / 4 WIRE
A/R	-	-	-	48	02-0384123335	SUB ASSY / 900 LINEAR 24V - WHITE-RED / 4 WIRE