

WHELEN[®]

ENGINEERING COMPANY INC.

51 Winthrop Road
Chester, Connecticut 06412-0684
Phone: (860) 526-9504
Fax: (860) 526-4078
Internet: www.whelen.com
Sales e-mail: autosale@whelen.com
Canadian Sales e-mail: autocan@whelen.com
Customer Service e-mail: custserv@whelen.com

Installation Guide: 700 Series Super-LED[®] Lighthouse

Safety First

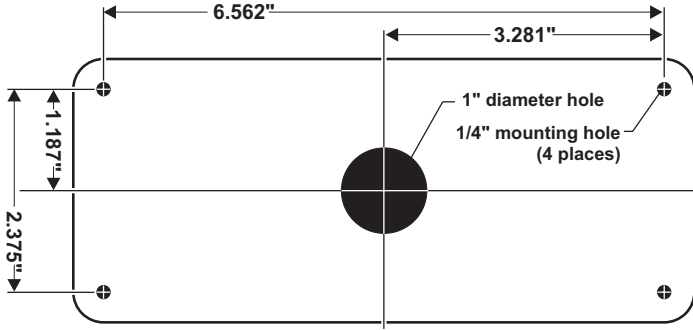
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained 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

Installation:

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!



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.

- Using the dimensions shown, mark off and drill the four 1/4" diameter mounting holes and the 1" wire hole into the mounting surface. Check measurements before drilling.
- Install the 4 supplied plastic grommets into the mounting holes then install a rubber grommet (customer supplied) into the wire hole.
- Using appropriately sized wires (minimum 18 AWG wire), extend the lighthouse wires to their appropriate connections. Fuse the positive connections at 3 Amps and test operation of lighthouse before securing it to vehicle.
- Position the lighthouse onto the mounting surface and secure to the vehicle using the four #6 x 1-1/2" sheet metal screws.

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 that load. **DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!**

The 700 Series lighthouse offers the user various features depending on the model. These features and their usage are as follows:

Scan-Lock™ (White/Violet):

Note that the lighthouse must be on to use the Scan-Lock feature except where noted.

To advance to the next flash pattern - Apply +12VDC to the WHT/VIO wire for less than 1 second and release.

To cycle backwards through the flash patterns - Apply +12VDC to the WHT/VIO wire for more than 1 second and release.

To reset to the factory default flash pattern - Turn off power to the lighthouse. While applying +12VDC to the WHT/VIO wire, turn power to the lighthouse on. Continue to apply voltage to the WHT/VIO wire for 5 seconds. The default pattern will now be active.

NOTE: A Normally Open momentary switch is suggested to activate the Scan-Lock™ wire.

SYNC (Grey) - To SYNC two lighthouses, configure both lighthouses to display the same Phase 1 pattern. With the power off, connect the Grey wires from each lighthouse. When the lighthouses are activated, their patterns will be synchronized. To configure the two lighthouses to alternate their patterns, advance the pattern of either lighthouse to the Phase 2 mode of the current pattern. **Remember, Phase 1 patterns ALWAYS alternate with Phase 2 patterns!**

Hi/Low Intensity (Violet) - 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 lighthouse into low power. Remove the voltage from the VIOLET wire to restore normal high power operation.

The table below provides wiring information for the 700 Series lighthouse. Refer to the appropriate flash pattern list as determined by the lighthouse style:

WARNING! The LED models designated "Steady" must be connected to an electronic flasher. Allowing the LED to steady burn will damage the lighthouse and void the warranty. 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.

700 Series Lighthouse Wiring

Style	Wiring	Pattern Table
Steady (12V)	- LED Color (Power)	N/A (see "WARNING" above)
	- BLK (Ground)	
Steady (24V)	- LED Color (Power)	N/A (see "WARNING" above)
	- BLK/WHT (Ground)	
SYNC	- LED Color (Power)	SYNC Pattern Table
	- BLK (Ground)	
	- GRY (SYNC)	
	- WHT/VIO (Scan-Lock™)	
Split	- LED-1 Color (Power)	Split Pattern Table
	- LED-2 Color (Power)	
	- BLK (Ground)	
	- WHT/VIO (Scan-Lock)	
Hi/Low (12V)	- LED Color (Power)	Standard Pattern Table
	- BLK (Ground)	
	- VIO (Hi/Low Power)	
	- WHT/VIO (Scan-Lock)	
Hi/Low (24V)	- LED Color (Power)	Standard Pattern Table
	- BLK/WHT (Ground)	
	- VIO (Hi/Low Power)	
	- WHT/VIO (Scan-Lock)	

SYNC Pattern Table:

- Sync-Capable Flash Patterns:**
- SignalAlert™ 75 - Phase 1
 - SignalAlert 75 - Phase 2
 - CometFlash® 75 - Phase 1
 - CometFlash 75 - Phase 2
 - DoubleFlash 75 - Phase 1
 - DoubleFlash 75 - Phase 2
 - SingleFlash 75 - Phase 1
 - SingleFlash 75 - Phase 2
 - ComAlert™ 75 - Phase 1
 - ComAlert 75 - Phase 2
 - LongBurst™ 75 - Phase 1
 - LongBurst 75 - Phase 2
 - PingPong™ 75 - Phase 1
 - PingPong 75 - Phase 2

Non-Sync Flash Patterns:

- SingleFlash 60*
- SingleFlash 90*
- SingleFlash 120*
- SingleFlash 300
- DoubleFlash 150
- ComAlert 150
- ActionFlash™ 50
- ActionFlash 150
- ModuFlash™
- ActionScan™
- Steady

* = California Title XIII compliant

Split Pattern Table:

- | | | |
|--------------------------|---------------------------|------------------------|
| 1. SignalAlert 75 - Alt. | 8. DoubleFlash75 - Sim. | 15. ActionFlash - Alt. |
| 2. SignalAlert 75 - Sim. | 9. SingleFlash375 - Alt. | 16. ActionFlash - Sim. |
| 3. CometFlash - Alt. | 10. SingleFlash375 - Sim. | 17. ModuFlash - Alt. |
| 4. CometFlash - Sim. | 11. SingleFlash150 - Alt. | 18. ModuFlash - Sim. |
| 5. DoubleFlash150 - Alt. | 12. SingleFlash150 - Sim. | 19. ActionScan - Alt. |
| 6. DoubleFlash150 - Sim. | 13. SingleFlash75 - Alt. | 20. SSNF |
| 7. DoubleFlash75 - Alt. | 14. SingleFlash75 - Sim. | |

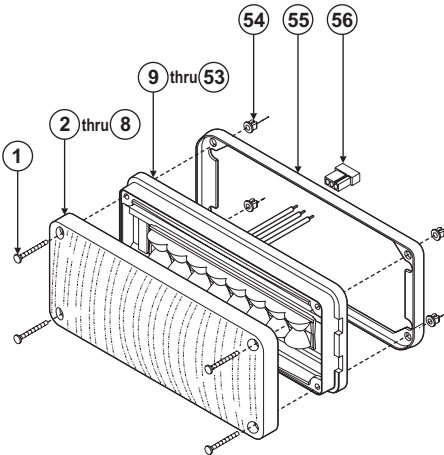
Standard Pattern Table:

- | | | |
|--------------------|--------------------|-----------------|
| 1. SignalAlert™75 | 6. DoubleFlash 150 | 11. ComAlert |
| 2. SignalAlert150 | 7. DoubleFlash 75 | 12. ActionScan |
| 3. SingleFlash 375 | 8. CometFlash®75 | 13. SignalAlert |
| 4. SingleFlash 150 | 9. ActionFlash | 14. Steady |
| 5. SingleFlash 75 | 10. ModuFlash | |

IMPORTANT! 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 LED'S WHILE THEY ARE ON. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!

QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
										*		01-06841272_0	LIGHTHEAD 700 LINEAR TIR - EXTERNAL FLASHER
										*		01-06841274_0	LIGHTHEAD 700 LINEAR TIR - ON-BOARD FLASHER
								*				01-06841271_0	LIGHTHEAD 700 LINEAR TIR 24V - EXTERNAL FLASHER
								*				01-06841273_0	LIGHTHEAD 700 LINEAR TIR 24V - ON-BOARD FLASHER
						*						01-06841272_1	LIGHTHEAD 700 LINEAR TIR - EXTERNAL FLASHER DEUTSCH
				*								01-06841274_1	LIGHTHEAD 700 LINEAR TIR - ON-BOARD FLASHER DEUTSCH
				*								01-06841272_2	LIGHTHEAD 700 LINEAR TIR - EXT FLASHER / AMP PINS
		*										01-06841274_2	LIGHTHEAD 700 LINEAR TIR-ON BOARD FLASHER / AMP PINS
		*										01-06841276_0	LIGHTHEAD 700 LINEAR 4 WIRE W/SYNC
	*											01-0684427__0	LIGHTHEAD 700 LINEAR TIR - EXTERNAL FLASHER / SPLIT
4	4	4	4	4	4	4	4	4	4	4	1	15-061416-240	SCREW / #6 X 1-1/2" PPHSMS
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	2	68-1183582-1S	LENS / OPTIC - AMBER
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	3	68-1183582-2S	LENS / OPTIC - BLUE
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	4	68-1183582-3S	LENS / OPTIC - CLEAR
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	5	68-1183582-5S	LENS / OPTIC - RED
-	A/R	A/R	A/R	A/R	A/R	A/R	A/R	-	A/R	-	6	68-1183582-4S	LENS / OPTIC - GREEN
-	-	-	-	-	-	-	-	-	A/R	-	7	02-0363417RBS	LENS / OPTIC RED/BLUE
-	-	-	-	-	-	-	-	-	A/R	-	8	02-0363417RCS	LENS / OPTIC RED/CLEAR
-	-	-	-	-	-	-	-	-	A/R	9	02-0363888210	SUB ASSY / 700 LINEAR TIR - AMBER / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	10	02-0363888220	SUB ASSY / 700 LINEAR TIR - BLUE / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	11	02-0363888230	SUB ASSY / 700 LINEAR TIR - WHITE / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	12	02-0363888250	SUB ASSY / 700 LINEAR TIR - RED / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	13	02-0363888410	SUB ASSY / 700 LINEAR TIR - AMBER / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	14	02-0363888420	SUB ASSY / 700 LINEAR TIR - BLUE / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	15	02-0363888430	SUB ASSY / 700 LINEAR TIR - WHITE / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	16	02-0363888450	SUB ASSY / 700 LINEAR TIR - RED / 4 WIRE	
-	-	-	-	-	-	A/R	A/R	-	A/R	17	02-0363888240	SUB ASSY / 700 LINEAR TIR - GREEN / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	18	02-03638884D0	SUB ASSY / 700 LINEAR TIR - WHT / RED SPLIT	
-	-	-	-	-	-	-	-	-	A/R	19	02-03638884E0	SUB ASSY / 700 LINEAR TIR - BLU / WHT SPLIT	
-	-	-	-	-	-	-	-	-	A/R	20	02-03638884F0	SUB ASSY / 700 LINEAR TIR - AMB / WHT SPLIT	
-	-	-	-	-	-	-	-	-	A/R	21	02-03638884J0	SUB ASSY / 700 LINEAR TIR - BLU / RED SPLIT	
-	-	-	-	-	-	-	-	-	A/R	22	02-03638884K0	SUB ASSY / 700 LINEAR TIR - AMB / RED SPLIT	
-	-	-	-	-	-	-	-	-	A/R	23	02-03638884M0	SUB ASSY / 700 LINEAR TIR - AMB / BLU SPLIT	
-	-	-	-	-	-	-	-	-	A/R	24	02-0363888110	SUB ASSY / 700 LINEAR TIR 24V - AMBER / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	25	02-0363888120	SUB ASSY / 700 LINEAR TIR 24V - BLUE / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	26	02-0363888130	SUB ASSY / 700 LINEAR TIR 24V - WHITE / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	27	02-0363888140	SUB ASSY / 700 LINEAR TIR 24V - GREEN / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	28	02-0363888150	SUB ASSY / 700 LINEAR TIR 24V - RED / 2 WIRE	
-	-	-	-	-	-	-	-	-	A/R	29	02-0363888310	SUB ASSY / 700 LINEAR TIR 24V - AMBER / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	30	02-0363888320	SUB ASSY / 700 LINEAR TIR 24V - BLUE / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	31	02-0363888330	SUB ASSY / 700 LINEAR TIR 24V - WHITE / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	32	02-0363888340	SUB ASSY / 700 LINEAR TIR 24V - GREENV4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	33	02-0363888350	SUB ASSY / 700 LINEAR TIR 24V - RED / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	34	02-0363888340	SUB ASSY / 700 LINEAR TIR - GREEN / 4 WIRE	
-	-	-	-	-	-	-	-	-	A/R	35	02-03638882_4	SUB ASSY / 700 LINEAR TIR - 2 WIRE DEUTSCH	
-	-	-	-	-	-	-	-	-	A/R	36	02-03638884_5	SUB ASSY / 700 LINEAR TIR - 4 WIRE DEUTSCH	
-	-	-	-	-	-	-	-	-	A/R	37	02-03638884B0	SUB ASSY / 700 LINEAR TIR - BLU/BLU SPLIT	
-	-	-	-	-	-	-	-	-	A/R	38	02-03638882_6	SUB ASSY / 700 LINEAR TIR - 2 WIRE/AMP PINS	
-	-	-	-	-	-	-	-	-	A/R	39	02-03638884_7	SUB ASSY / 700 LINEAR TIR - 4 WIRE/AMP PINS	
-	-	-	-	-	-	-	-	-	A/R	40	02-03638884_8	SUB ASSY / 700 LINEAR TIR 4-WIRE SPLIT DISCH	
-	-	-	-	-	-	-	-	-	A/R	41	02-03638884R0	SUB ASSY / 700 LINEAR TIR - RED/RED SPLIT	
-	A/R	-	-	-	-	-	-	-	-	-	42	02-0363888610	SUB ASSY / 700 LINEAR TIR W/SYNC AMBER
-	A/R	-	-	-	-	-	-	-	-	-	43	02-0363888620	SUB ASSY / 700 LINEAR TIR W/SYNC BLUE
-	A/R	-	-	-	-	-	-	-	-	-	44	02-0363888630	SUB ASSY / 700 LINEAR TIR W/SYNC WHITE
-	A/R	-	-	-	-	-	-	-	-	-	45	02-0363888640	SUB ASSY / 700 LINEAR TIR W/SYNC GREEN
-	A/R	-	-	-	-	-	-	-	-	-	46	02-0363888650	SUB ASSY / 700 LINEAR TIR W/SYNC RED
A/R	-	-	-	-	-	-	-	-	-	-	47	02-03638882A0	SUB ASSY / 700 LINEAR TIR - AMB / AMB SPLIT
A/R	-	-	-	-	-	-	-	-	-	-	48	02-03638882M0	SUB ASSY / 700 LINEAR TIR - AMB / BLU SPLIT
A/R	-	-	-	-	-	-	-	-	-	-	49	02-03638882K0	SUB ASSY / 700 LINEAR TIR - AMB / RED SPLIT
A/R	-	-	-	-	-	-	-	-	-	-	50	02-03638882B0	SUB ASSY / 700 LINEAR TIR - BLU / BLU SPLIT
A/R	-	-	-	-	-	-	-	-	-	-	51	02-03638882J0	SUB ASSY / 700 LINEAR TIR - BLU / RED SPLIT
A/R	-	-	-	-	-	-	-	-	-	-	52	02-03638882D0	SUB ASSY / 700 LINEAR TIR - WHT / RED SPLIT
A/R	-	-	-	-	-	-	-	-	-	-	53	02-03638882R0	SUB ASSY / 700 LINEAR TIR - RED / RED SPLIT
4	4	4	4	4	4	4	4	4	4	4	54	21-1708080603	SCREW GROMMET / ROUND HOLE
1	1	1	1	1	1	1	1	1	1	1	55	38-0463342-00	GASKET
-	-	1	1	-	-	-	-	-	-	-	56	39-0403013-04	HOUSING / 3 POS. PIN AMP



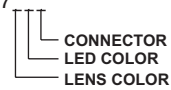
Part Number Key 01-0684127



- CONNECTOR**
LED/LENS COLOR
STYLE/VOLTAGE
- STYLE/VOLTAGE**
2 = Steady/12V
4 = Lo-Power/12V
1 = Steady/24V
3 = Lo-Power/24V
6 = Sync/12V
- LED/LENS COLOR**
1 = Amber/Clear
2 = Blue/Clear
3 = White/Clear
4 = Green/Clear
- 5 = Red/Clear
A = Amber/Amber
B = Blue/Blue
G = Green/Green
R = Red/Red
D = Wht/Red/Clear
E = Blu/Wht/Clear
F = Amb/Wht/Clear
J = Blu/Red/Clear
K = Amb/Red/Clear
M = Amb/Blu/Clear
- CONNECTOR**
0 = NONE
1 = DEUTSCH
2 = AMP PINS with
3 Pos. Connector
Shipped Separately

Part Number Key 01-0684427

*(Split for external
flasher only)*



- CONNECTOR**
LED COLOR
LENS COLOR
- LENS COLOR**
A = Amber
B = Blue
C = Clear
R = Red
- LED COLOR**
A = Amber/Amber
B = Blue/Blue
D = Wht/Red
J = Blu/Red
K = Amb/Red
M = Amb/Blu
R = Red/Red
- CONNECTOR**
0 = NONE