

# WHELEN<sup>®</sup>

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## Installation Guide: Pioneer™ Series LED Floodlight Horizontal Mount Vertical Mount

### 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](http://www.whelen.com/warranty)**

## Mounting...

### Tools Required -

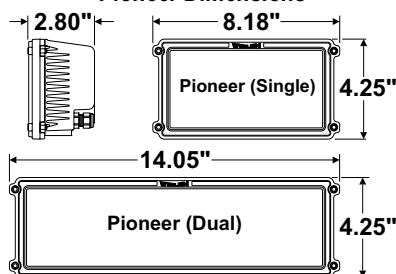
1/8", 7/16", 1/4" Allen Wrench 17/32" (.531") Drill Bit Rivnut™ Installation Tool  
Torque Wrench (in./lbs.) LocTite® 242® Threadlocker or equivalent product

1. Position the appropriate mounting bracket (Item #7 or #8) onto the proposed mounting surface. Mark the areas where the mounting holes are to be drilled.
2. Drill the mounting holes required using an appropriately sized drill bit (refer to the Mounting Hole Specifications shown below).

**IMPORTANT NOTE! This installation uses Rivnuts to secure the brackets to the vehicle. This type of hardware requires the use of a specialized installation tool. Refer to the owners manual included with this tool for proper installation techniques. Be sure to follow the mounting hole specifications precisely!**

3. With the Rivnuts properly installed, position the appropriate seal (#9 or #10) over the mounting holes and position the mounting bracket onto the seal. The floodlight can now be mounted onto the vehicle using the appropriate hardware (Items #4, #5 & #6). Insert the bolts into their holes with the hardware shown.
4. Apply a drop of LocTite 242 to each of the four mounting bolts and insert them into their Rivnut. Tighten each bolt to 50 in/lbs.
5. Secure the appropriate Pioneer mounting bracket (Item #12 or #13) to the Pioneer assembly using Item #14 (apply a drop of LocTite® 242 to the threads). Insert the floodlight brackets (Item #16) into the mounting bracket as shown. Secure these brackets using the hardware provided (#15).
6. Using the appropriate hardware (Items #1, #2 & #3), install the floodlight assembly onto the mounting bracket.
7. Adjust the floodlight to the desired angle and tighten the hardware firmly to maintain that angle.

### Pioneer Dimensions



### Sample Part Number Key

01-0686136 \_ \_ \_

-00 = 12V / White  
-01 = 12V / White (15' (Dual Only))  
-02 = 12V / Black (15' (Dual Only))  
-07 = 12V / Black  
-24 = 24V / White  
-27 = 24V / Black  
D27= 24V / Desert Sand (Pioneer Plus-only)

				PART NUMBER	DESCRIPTION
				01-0686487 _ _ _	Pioneer™ Series LED Floodlight (Single)
				01-0686489 _ _ _	Pioneer Series LED Floodlight (Dual)
				01-0686448 _ _ _	Pioneer Series PLUS LED Floodlight (Single)
				01-0686449 _ _ _	Pioneer Series PLUS LED Floodlight (Dual)
QTY	QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*			01-046B090-00	Pioneer™ (Single) Mounting Kit - Horizontal Mount
	*			01-0486084-00	Pioneer™ (Dual) Mounting Kit - Horizontal Mount
	*			01-0486082-00	Pioneer™ (Dual) Mounting Kit - Vertical Mount
4	4	4	1	14-156B36-120	Soc. Button Head Screw, 3/8-16 X 3/4 S.S.
4	4	4	2	16-1532220-10	3/8 Washer, Split-Lok S.S.
4	4	4	3	16-1503220-60	3/8 Flat Washer, S.S.
4	4	3	4	14-148B26-180	Soc. Button Head Screw, 5/16-18 X 1 1/8 S.S.
4	4	3	5	16-1431920-08	5/16 Washer, Split-Lok S.S.
4	4	3	6	16-1402420-05	5/16 Flat Washer, S.S.
-	-	1	7	07-26B090-001	Horizontal Mounting Bracket (Single)
-	1	-	8	07-286084-001	Horizontal Mounting Bracket (Dual)
1	-	-	9	07-286082-001	Vertical Mounting Bracket (Dual)
-	-	1	10	38-0243736-00	Seal (Single)
1	1	-	11	38-0243669-00	Seal (Dual)
4	4	3	12	13-148F18-000	Rivnut 5/16-18
-	-	1	13	07-243901-001	Pioneer Mounting Bracket, Single
1	1	-	14	07-26B854-001	Pioneer Mounting Bracket, Dual
4	4	3	15	14-104116-060	Screw, #10- 24 X 3/8 PFHMS, S.S.
4	4	4	16	14-130536-04M	Screw, 1/4-20 X 1/4 Socket set S.S. w/Cup Point
2	2	2	17	07-243735-000	Light Bracket , Floodlight

## Wiring...

**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!**

### Pioneer Single...

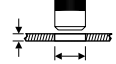
1. Extend the RED wire to the customer supplied SP/ST switch. From the switch, extend an appropriately sized wire to the POS battery terminal. Fuse this wire using the text shown in the graphic below (customer supplied fuse).
2. Extend the BLACK wire to chassis ground

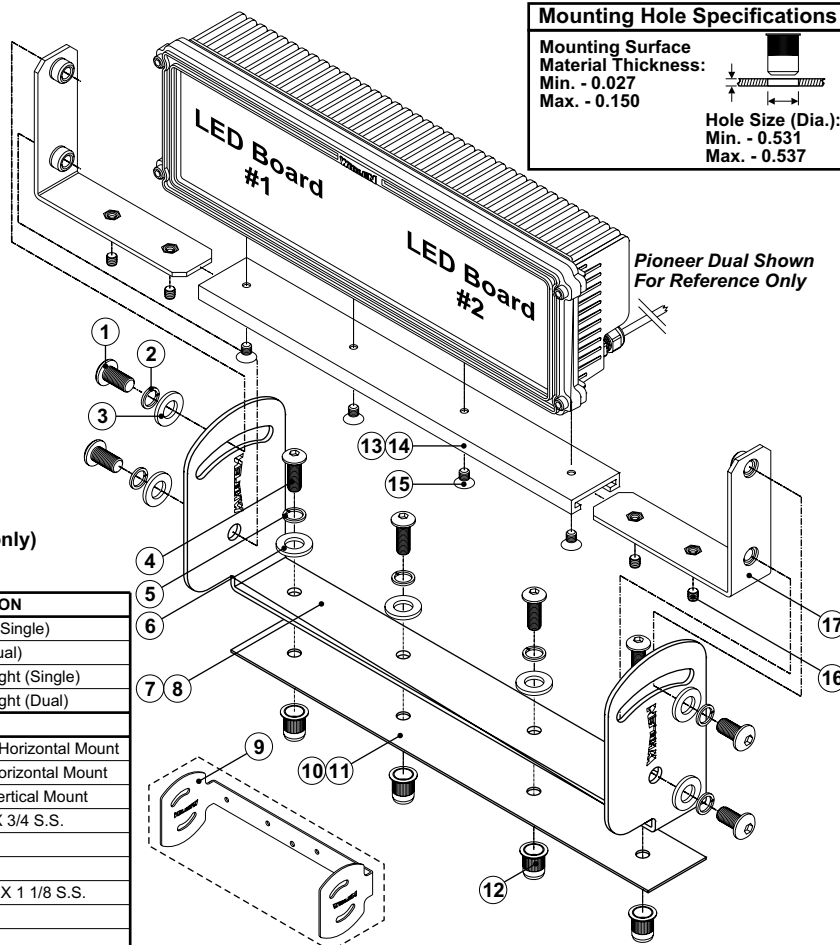
### Pioneer Dual...

1. Extend the WHT wire to the customer supplied SP/ST switch designated to control LED Board #1. From this switch, extend an appropriately sized wire to the POS battery terminal. Fuse this wire using the text shown in the graphic below (customer supplied fuse).
2. Extend the RED wire to the customer supplied SP/ST switch designated to control LED Board #2. From this switch, extend an appropriately sized wire to the POS battery terminal. Fuse this wire using the text shown in the graphic below (customer supplied fuse).
3. Extend and connect the BLK and GRN wires to chassis ground.

**NOTE:** If the user chooses, a single switch of sufficient capacity may be used to activate both LED boards simultaneously. If wired as such, double the fuse value shown.

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

Mounting Hole Specifications	
Mounting Surface Material Thickness: Min. - 0.027 Max. - 0.150	
	Hole Size (Dia.): Min. - 0.531 Max. - 0.537



### Wiring: Pioneer Single

RED - +VBAT\*  
BLK - GROUND

### Wiring: Pioneer Dual

WHT - LED Board #1 / +VBAT\*  
BLK - LED Board #1 / GROUND  
RED - LED Board #2 / +VBAT\*  
GRN - LED Board #2 / GROUND

\*see text at right for appropriate fuse values for your application.

### Fusing (12 Volt):

Pioneer Single - 5A  
Pioneer Dual - 10A  
Pioneer PLUS Single - 10A  
Pioneer PLUS Dual - 15A

### Fusing (24 Volt):

Pioneer Single - 3A  
Pioneer Dual - 5A  
Pioneer PLUS Single - 5A  
Pioneer PLUS Dual - 10A