

# PIAA Quad Series Installation Instructions

Thank you very much for purchasing PIAA product. Please read this instruction manual thoroughly for proper use of the product. After completing your installation, keep this manual for future reference.

## **CAUTION**    **WARNING**

The \*\*\*\* marks indicated in this manual are cautionary points related to the installation of the product.

To ensure safe and secure installation of the product, please follow these points closely.

To user

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Please keep this manual and a receipt with the name of the shop where you bought it. When giving this product to a third party, always include this manual together with the product.

To shop owners installing the product

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After installation of the product, make sure the customer is provided with this owner's manual.

Please read the cautionary points before installation to ensure safe utilization of the product.

## **WARNING**

- \*\* The lamp becomes hot when turned on. When parking your car near flammable items such as dried leaves, turn off the lamp as it may cause a fire.
- \*\* Do not look directly into the light for long periods. Doing so may cause eye irritation or visual impairment.

## **CAUTION**

- \*\* The lamp and the switch harness are intended for motorized vehicle use only. Do not use for any other purpose.
- \*\* This lamp is intended for use in rain (day or night), during foggy or snowy conditions where visibility is hampered. Do not use during normal driving conditions.
- \*\* Do not operate the switch while driving, unless local laws allow you to do so.
- \*\* If the lamp is kept on when the engine is not running, it will drain the battery.
- \*\* Make sure the lamp is installed securely before driving the vehicle. If a problem is found, fix it immediately.
- \*\* Check for any loose screws that hold the lamp in place before driving. If you find any loose screws or bolts (if a bracket is used), tighten them securely. If you notice a loose part while driving, inspect the section immediately and make the necessary adjustments.
- \*\* Avoid repeatedly turning the lamp off and on as it may reduce the overall life of the LED.
- \*\* Some vehicles produce a high voltage electric charge when the engine is started. Avoid loading extra voltage to lamps by turning the switch off when you start engine.
- \*\* Avoid needless disassembly of the lamp or the switch harness as it may cause it to fail.
- \*\* If the lamp and/or the switch harness is removed and set aside for safekeeping, wipe away all dust or grime and store in a place free of moisture.
- \*\* If the lens is cracked or damaged in any way, verify whether there is any damage to the harness. If there is any damage to the cord covering, replace it immediately.
- \*\* Avoid injury when replacing the harness and the switch. Please dispose of it as a non-combustible item.

Please read the installation procedures thoroughly beforehand.

## CAUTION

- \*\* In order for the lamp to perform at its full potential, use the relay harnesses that comes with your PIAA light kit.
- \*\* All work procedures should be carried out in a location with adequate space. Place the vehicle in the parked position. Turn off the engine and set the parking brake.
- \*\* Make sure the engine compartment is adequately cool before starting work. Do not begin work if engine parts such as radiator, oil-cooler or turbo parts are still hot.
- \*\* Do not add additional holes to the main body of the lamp. Also, do not apply adhesives or stickers to the lamp parts.
- \*\* Do not modify the lamp harness or the switch harness in any way. Such modifications may cause it to overheat or short. In some cases, it may cause the vehicle to catch fire. PIAA will not be liable for damage caused by such modifications.
- \*\* When removing the battery terminals, do not touch the (-) and (+) terminals simultaneously. An electrical shock may occur. Wear rubber gloves when carrying out such work procedures.
- \*\* Make sure the (-) and (+) terminals do not make contact with metal. It can be extremely dangerous if a short occurs.
- \*\* Make sure all bolts are tightly secure. If there are any loose bolts tighten them accordingly.
- \*\* After installing the lamp, adjust the lamp so the beam shines at least 40m in front of the vehicle. Also, adjust the lamp a little toward the right so that it does not shine directly into the eyes of the opposing driver of a vehicle. (as traffic laws stipulate - refer to p.6 for adjustment procedures)
- \*\* When the battery terminal is removed, memory related to the clock, radio, audio system etc, will be affected. After all work procedures are completed, reset to the original settings. (For adjustment procedures refer to your car's instruction manual)

Caution Regarding Wiring / Please read thoroughly

## WARNING

- \*\* When installing the wiring harness, strictly follow the cautionary points mentioned below. Incorrect or faulty wiring may cause the lamp to operate incorrectly. In some cases, it may cause the vehicle to catch fire.

## CAUTION

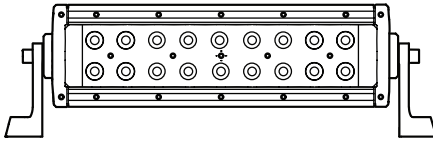
- \*\* Before you begin always remove the (-) and (+) terminals. Always remove the (-) terminal first and make sure a short does not occur.
- \*\* When removing the battery terminals, always turn the key to OFF and remove it. Turn all other electrical units off such as the light switch.
- \*\* When removing the battery terminals, if a cord (for an electrical unit) is connected, wind a length of vinyl tape around the (-) and (+) terminals to clearly identify them.
- \*\* Verify the (+) terminal (white) and earth (black) before connecting.
- \*\* Do not obtain (+) voltage from the alternator.
- \*\* Obtain the (+) current necessary for the switch from the (+) current used for the light switch. (Do not use the same current used for a computer, radio or audio system)
- \*\* Install the switch harness in a position where it will not make contact with high temperature surfaces such as the engine, radiator or engine compartment.
- \*\* Arrange the switch harness so that it does not make contact with moving parts.
- \*\* If the switch harness makes contact with a part of the engine, apply a length of ordinary cushioned tape around the harness.
- \*\* When connecting the connector, insert until you hear an audible "click"
- \*\* When removing the connector, hold the main body of the connector press the locking tab down and pull outwards. If excess force is used to pull the cord, it may damage the connection, which could cause it to overheat.
- \*\* Make sure the harness does not sag. Use a harness band of vinyl tape to secure it in place to wiring inside the engine compartment.
- \*\* Before connecting it to the battery, verify the wiring arrangement.
- \*\* When connecting the battery terminal and or other electrical units, do not mistake the (-) and (+) terminals. Always start with the (+) terminal.
- \*\* After all wiring is complete, confirm that it works properly. If it fails to activate, refer to "8 Troubleshooting" section of this manual.

## Product Details

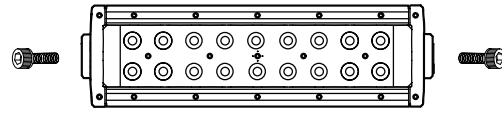
\*\* Verify all the parts are included. If a part is missing, please the place of purchase or PIAA directly.

\*\* Depending on mounting methods, some parts may not be used.

Mounting method A utilizing  
supplied L-bracket mounts

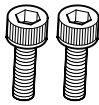


Mounting method B for aftermarket  
bumpers, grills, and other side  
mount applications.

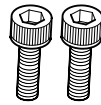


## Mounting Hardware

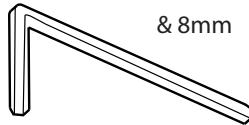
Two 6mm allen  
head bolts



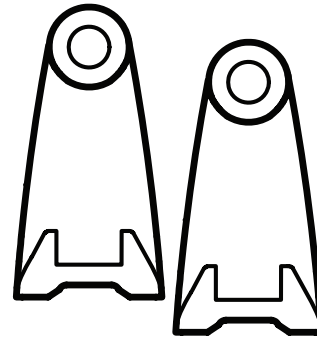
Two 8mm allen  
head bolts



Allen Wrenches 6mm  
& 8mm



Two "L" style side  
mounting brackets

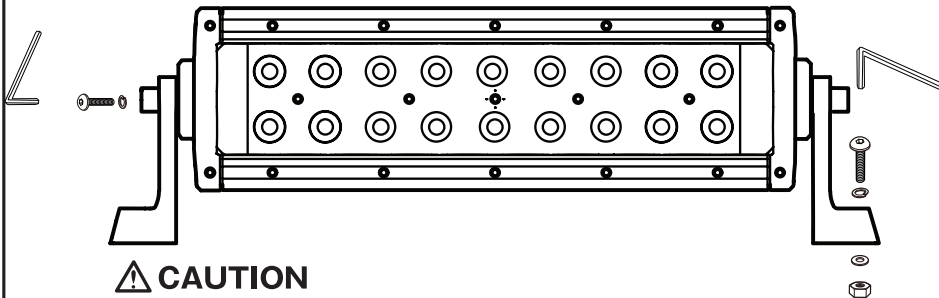


## Lamp installation

Use supplied allen  
wrench with 6mm  
bolts, washers to mount  
lamp mounting bases  
to lamp

For lamp installation, a hole with a diameter of  
8mm is required. Make necessary preparation  
such as installation of lamp bracket.

Use supplied allen  
wrench with 8mm  
bolts, washers and  
lock nuts to fix lamps  
to the vehicle



### ⚠ CAUTION

\*\*When using a commercially supplied lamp bracket, before removing the bolt that is already installed on the car body, make sure that it is safe to do so.

\*\*The lamp should be mounted in an area sufficient to support its size and weight.

\*\* Failure to do so may result in excess vibration leading to shorter life and or physical damage to the lamp or your vehicle.

\*\*Do not attempt to install the lamp directly to any plastic part of the car body.

\*\* If the lamp needs to be installed on the plastic reinforcement materials should be placed on both sides of the plastic part.

\*\*When installing, make sure the lamp body, lens and rim are not touching the bumper and other plastic parts. Such plastic parts might deform.

\*\*The lamps are designed to be mounted upright. But the mounting brackets can be rotated for hanging pendant mounting.

## Relay Harness Installation Sequence

The numbers shown in the figure below indicate the sequence the parts should be installed.

**2** Remove the (+) terminal from the battery

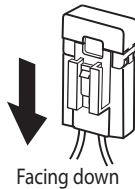
**1** Remove the (-) terminal from the battery.

**7** Take the (+) terminal cord (white) and attach it to the (+) terminal and connect to the battery

**8** First ground the terminal then take the (-) cord (black) and connect it to the (-) terminal.

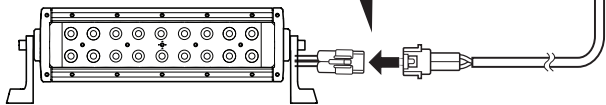
**4** Make sure to properly secure the relay unit using bolts or a harness. The harness must also be facing downward.

**3** Double-stick tape for switches Place in area that is easily accessible from driver's seat.



Relay

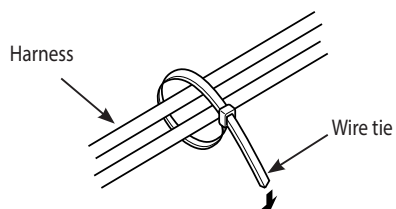
**6** Connect the lamp harness to the connector.



**5** The switch can be mounted anywhere in the vehicle that will be free of moisture or other electrical hazards. When you select a mounting location, check behind the panel to make sure there is no wires that will be damaged when drilling.

Using a drill bit, drill a hole so the switch will fit tightly in the mounting hole. Remove the wires from the back of the switch, noting the pin locations and fish the wires from the back side of the dash through the switch hole. Re-install the wires and push the switch into place of the previously drilled hole.

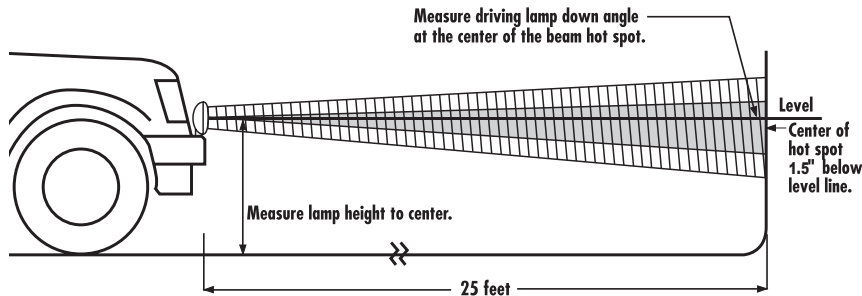
**9** After lamp has been installed, verify the relay harness does not make contact with the engine's moving parts or sections that emit extreme heat. Use wire ties to secure to harnesses inside engine compartment.



## DRIVING Light Aiming

Typically, driving lights are mounted above the front bumper about 30 inches from the ground to provide extra high beam illumination. Driving lights can be mounted below the bumper, although they will not be as effective because the light will hit the ground sooner and reduce the range of the light.

Visual aim is made with the center of the beam hot spot 1.5 inches below the lamp center at 25 feet with the lamp facing straight forward. (see below.)



## CAUTION

\*\* Do not use driving lights into oncoming traffic.  
Driving lights should never be the only forward light source.  
Driving lights should only be used with the headlamp high beams.

## Troubleshooting.....Verify each section according to the following.

### 1 After installation, if the lamp does not activate

\*\* Check the wiring and make sure there are no faulty or irregular connections .

#### \*\* If the switch illumination does not light up.

- \*\* Verify the (+) wire from the switch is properly connected. If it is not correctly connected it will not activate.
- \*\* Verify the fuse located on the vehicle's wiring system. (the switch's (+) wire should be connected to the fuse box). If it is burned out, connect it to another circuit.
- \*\* If the switch itself is faulty, the same symptoms may exist. We recommend that the entire switch unit be replaced.
- \*\* Check the fuse for the switch harness. If it is burned out, follow instructions indicated in [ 3 Fuse replacement Procedures].

#### \*\* The switch illumination lights up but when operating does not work.

- \*\* Check the connectors on the battery terminals
- \*\* There may be cases where each terminal related to specific sections may be incorrectly connected. Check for any loose or cut wires and also for dirt or grime.
- \*\* Check the switch operation. If an abnormality is found, replace it accordingly.

### 2 If the LED suddenly fails to light up ...

- \*\* Check the fuse located on the vehicle's wiring system. If it is burned out, replace accordingly.
- \*\* Check the fuse for the switch harness. If it is burned out, follow instructions indicated in [ 3 Fuse replacement Procedures].
- \*\* There may be cases where each terminal related to specific sections may be incorrectly connected. Check for any loose wires and also for dirt or grime.
- \*\* Check the switch operation if an abnormality is found, replace it accordingly.

### 3 Fuse replacement procedures

- \*\* A short circuit may have occurred. Check the wiring system. If any type of damage is found replace accordingly. (Non-replacement may pose a potential danger) (Short circuits are mainly caused when wires are caught in the assembly or when there is a gap in the sleeve connected to the lamp harness).