

# PIAA

## Installation Manual for PIAA 600 and 610 H.I.D.

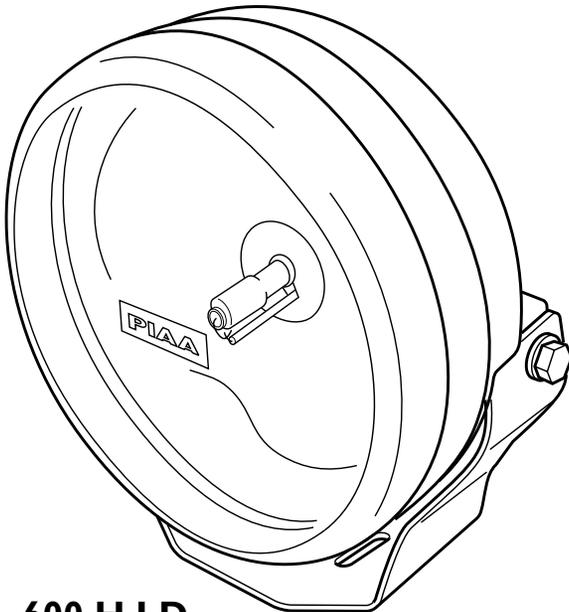
Thank you very much for purchasing PIAA product.  
Please read this entire manual carefully before installation.  
Keep this manual for reference after installation.

### To Customers

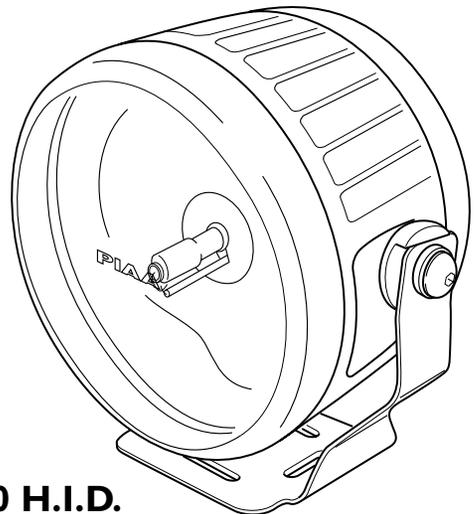
This product emits very high voltage. Please have installation and maintenance done at a PIAA certified shop for your safety.

### For PIAA Dealers

Please return this manual to the customer after installation.



**600 H.I.D.**



**610 H.I.D.**

*[www.piaa.com](http://www.piaa.com)*

**PIAA** Corporation was established in 1963 with the commitment to manufacture world-class products that our customers could use with pride and confidence. Today, **PIAA** upholds that commitment by combining market driven concepts with the latest technology to make night and inclement weather driving as safe as possible.

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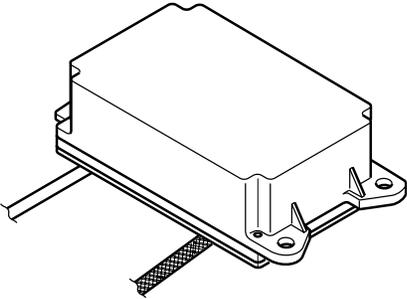
### CAUTION

1. Have a certified PIAA shop perform the installation and aiming of these lights.
2. Have the PIAA certified shop inform you of the features, proper use, and maintenance of the PIAA 600 and 610 H.I.D. lamp system.
3. Due to the 20,000 volts generated by the ballast, caution must be taken when handling the system. Rubber gloves are recommended.
4. Do not attempt to repair the PIAA H.I.D. system yourself, as the chance of electric shock is high if the system is damaged. If the lamp or ballast have been opened or tampered with the warranty will be void!
5. Do not place flammable objects near the 600 and 610 H.I.D. system because the heat during operation may start a fire.
6. This PIAA lamp system is for 12 volt automotive use only. Use only as intended.

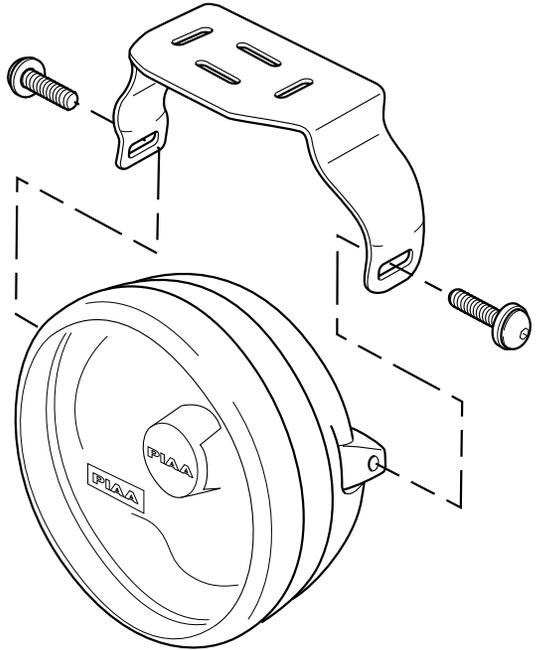
# CONTENTS I

Please check that all the following items are contained in this package.  
If any are missing, please contact the store where you purchased it.

Ballast (2)



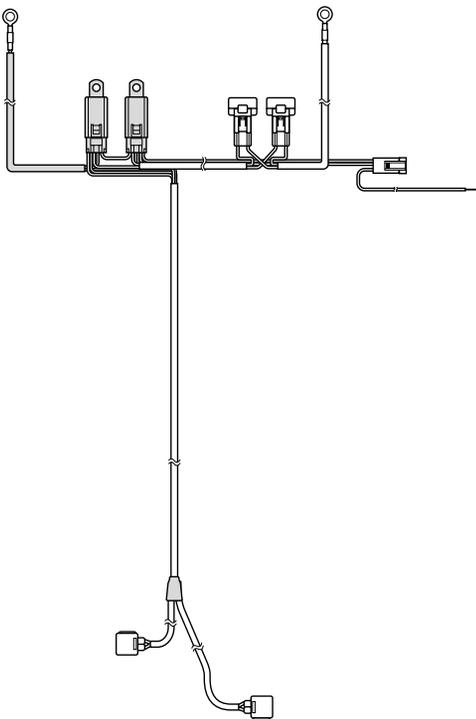
600 or 610 H.I.D. Lamp Assembly (2)  
(600 H.I.D. shown 610 H.I.D. is similar)



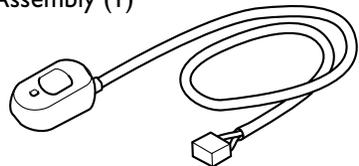
Ballast Brackets (6)



Relay Harness (1)



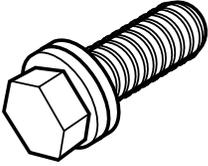
Switch Assembly (1)



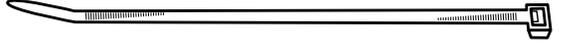
## CONTENTS 2

Please check that all the following items are contained in this package.  
If any are missing, please contact the store where you purchased it.

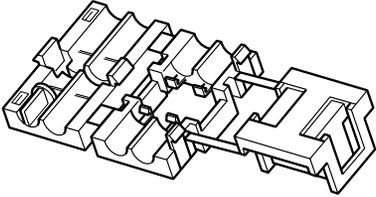
Bolts-M6 (14)



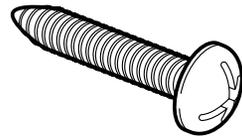
Wire Ties (10)



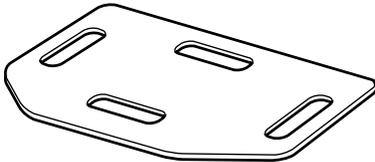
One Touch Connector (1)



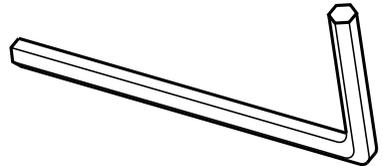
Screws (4)



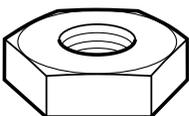
Double-Sided Tape (3)



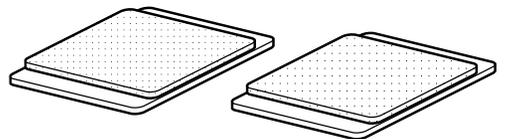
Hex Wrench (1)



Nuts-M6 (14)



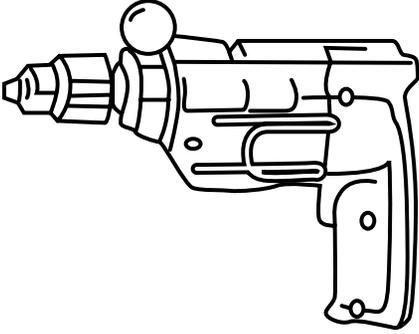
Adhesive Strips (1 set)



# REQUIRED TOOLS

Prepare the following tools:

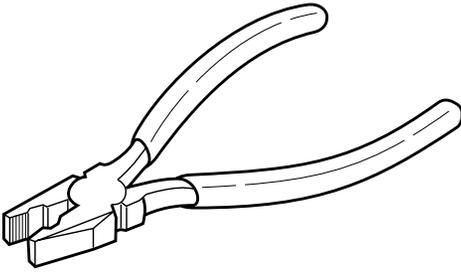
Drill



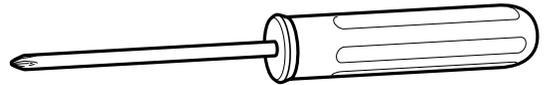
Drill Bits (6mm, 10mm)



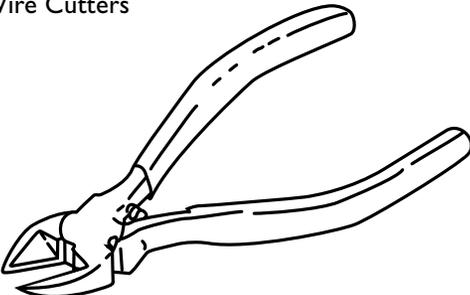
Pliers



Philips Head Screwdriver



Wire Cutters



Wrench (8mm)



Other tools may be necessary for your installation.

**When connecting the wires on the harness, follow the wiring diagram and the sequence below.**

1. Disconnect the positive (+) and negative (-) battery terminals before installation begins.

**Note:** When running the wires through the engine compartment sure to keep them securely away from moving parts such as the fan and the throttle cable and away from hot parts such as the exhaust manifold.

2. Find a power (+) source to connect the switch power wire to. For legal operation of fog lights the switch power source must be one that is only powered when the low beam of the headlamp is on. For legal operation of driving lights, the power source must be one that is only powered when the high beam of the headlamps is on. To make this connection use the supplied connector or any connector that is suitable for this application. **Do not** make this connection to turn signals or to lights that flash with an automotive alarm.

3. Run switch wires into driver's compartment. If wires pass through the fire wall a rubber grommet must be used. Connect switch to switch wires and mount switch in desired location.

4. Mount and connect both ballasts. (See Ballast and Lamp Installation on page 8)

5. Mount and connect both lamps. (see Lamp Installation on page 9)

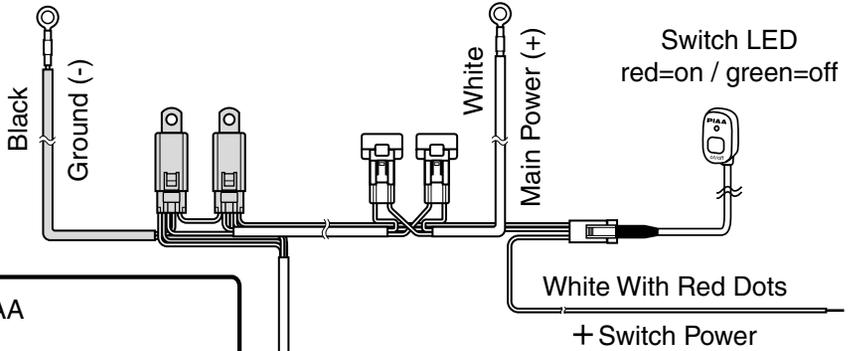
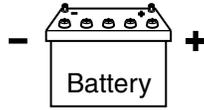
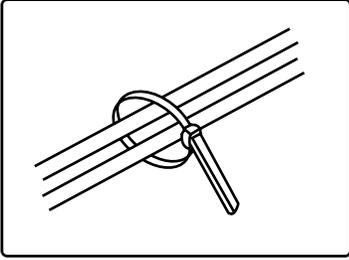
6. Connect the main power cables. it is recommended that both the power (+) and ground (-) wires go directly to the corresponding battery terminals. Do not take power directly off the alternator.

7. When wiring is complete, test the system for operation. Do this by turning the system on, if the system works, securely fasten the relay boxes and fuse holders or tie them out of the way with wire ties. if the system does not come on please contact your PIAA dealer or the PIAA Corporation Customer Service Department.

8. Aim lamps according to Light Aiming instructions on page 11.

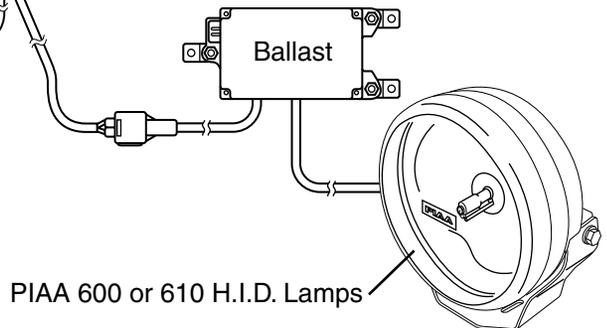
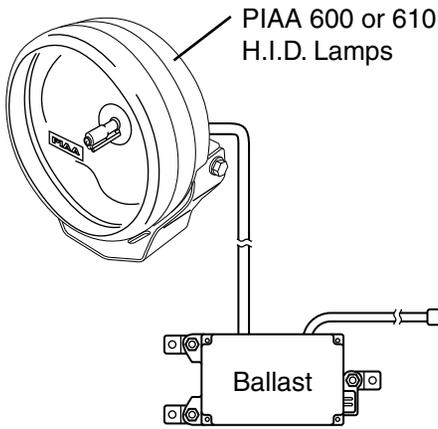
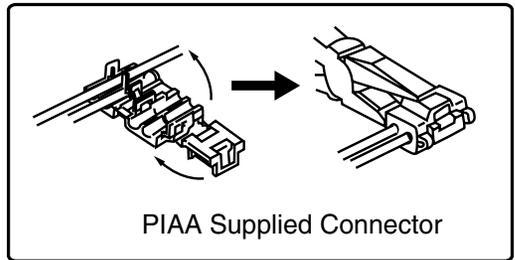
9. Tighten all fasteners.

# WIRING DIAGRAM



Not Supplied By PIAA

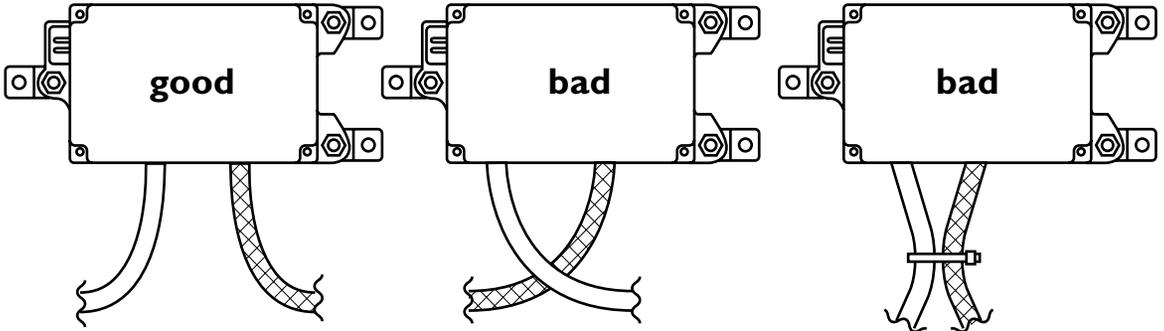
When mounting relay box and fuse box make sure wires are facing down.



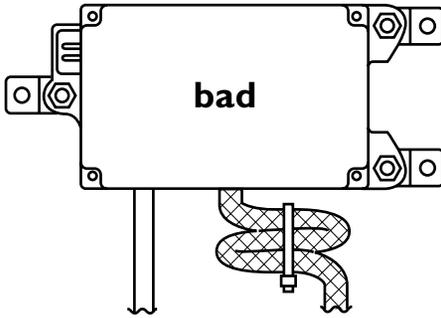
# BALLAST AND LAMP INSTALLATION

## ! CAUTION

Leave as much distance as possible between the wiring from ballast to lamp and relay harness. Do not tie them together or place them on top of each other.



Do not fold to make the wire between ballast and lamp compact.

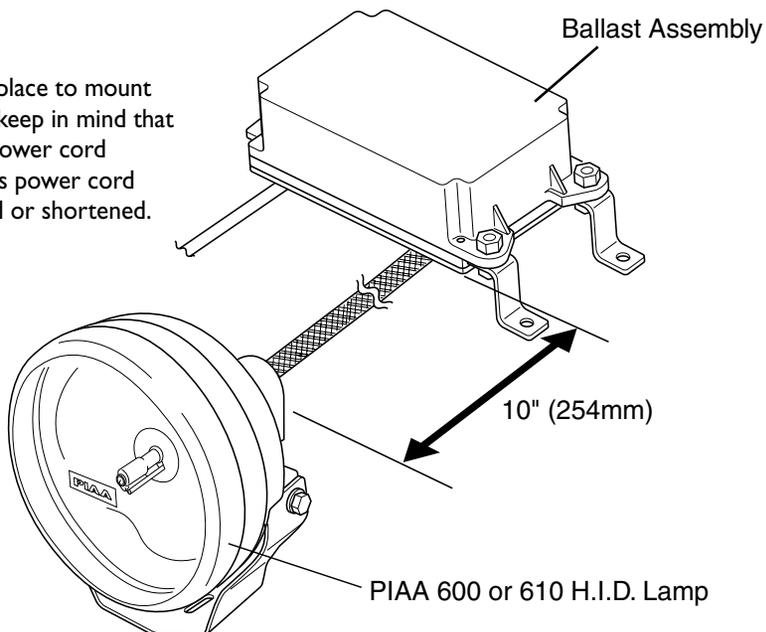


Mount the ballast in a place that gets air circulation.

Do not mount next to or on hot items such as turbos or manifolds. Do not mount the ballast in a place that will obstruct other automotive functions.

## ! WARNING

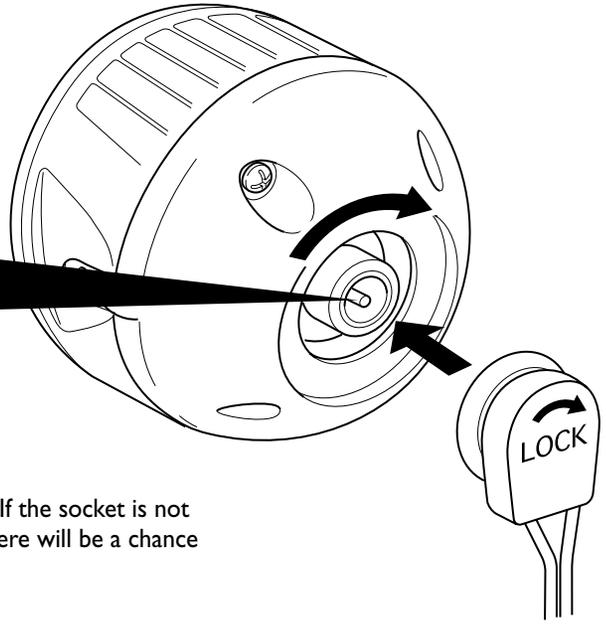
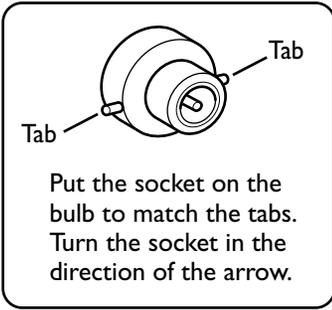
When deciding on a place to mount the lamp and ballast, keep in mind that there is only 10" of power cord between the two. This power cord cannot be lengthened or shortened.





**CAUTION**

## LAMP CONNECTION



Make sure the socket is connected correctly. If the socket is not connected properly arching will occur and there will be a chance of melting, fire or electric shock.

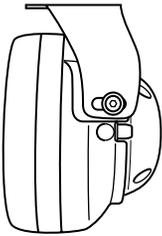
## LAMP INSTALLATION

The slotted lamp bracket-mounting holes allow you to adjust the mounting spot based on the size and shape of the opening where the lamp will be mounted. They also provide a method for aiming the lamp. (See Fog Light Aiming and Driving Light Aiming on page 8)

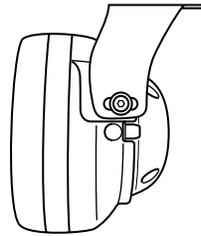
**The PIAA 600 and 610 H.I.D. lamps may be mounted one of four ways (see below).**

600 H.I.D. shown 610 H.I.D. is similar.

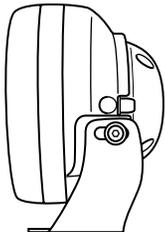
Hanging/Bracket Forward



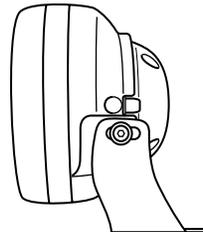
Hanging/Bracket Backward



Upright/Bracket Forward



Upright/Bracket Backward



**IMPORTANT:** The "PIAA" that is molded in the glass lens must read right side up.



## CAUTION

Only use the double-sided tape to position the bracket. When the final installation location is decided upon the included screws or other fasteners that are suitable for the application must be used to securely hold the lamp in place.

1. Place double-sided tape on lamp mounting bracket.

2. Locate mounting position.

3. Stick lamp in desired position with the double-sided tape.

4. Remove lamp from mounting bracket by removing bracket bolts.

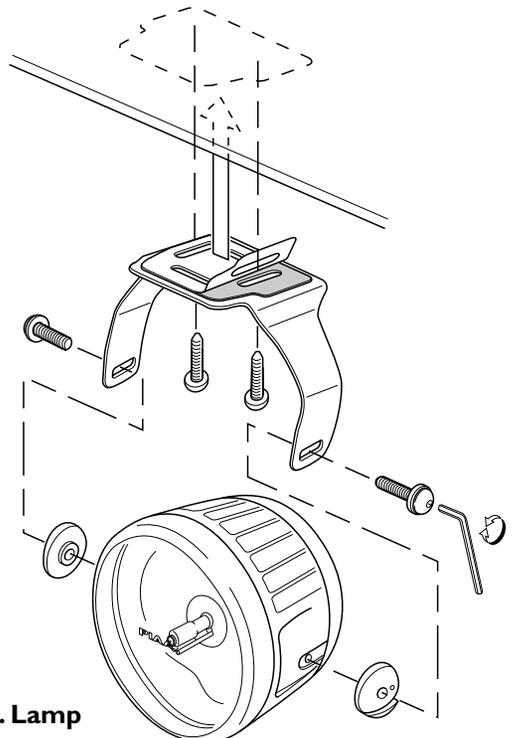
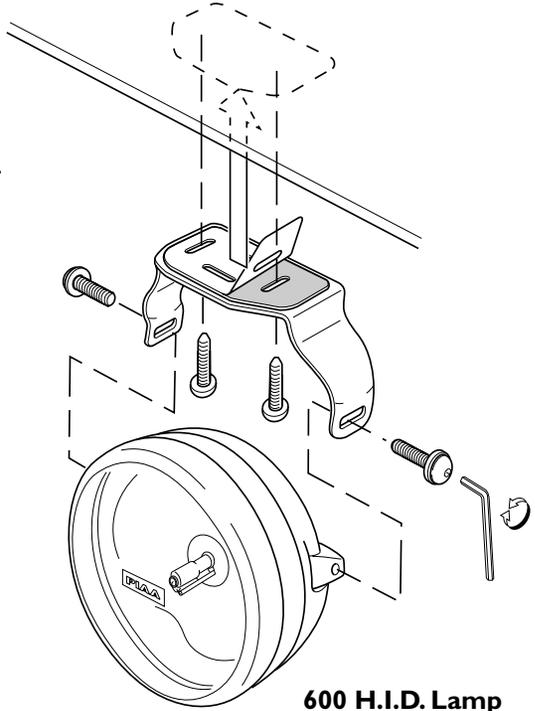
5. With the mounting bracket still stuck to the mounting location, fasten it down with the supplied screws or other suitable fasteners. A pilot hole may have to be drilled for the fasteners.

6. Remount the lamp to the mounting bracket. Leave the bracket bolts slightly loose for aiming. (See Light Aiming on page 11)

7. Repeat procedure for other lamp.

8. Aim lamps according to Light Aiming instructions on page 11.

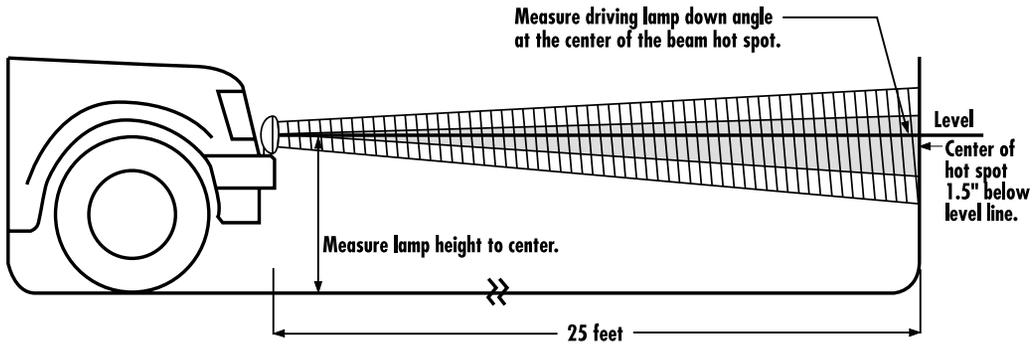
9. Tighten lamp mounting hardware.



## DRIVING LIGHT AIMING

Typically, driving lights are mounted above the front bumper about 14-30 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

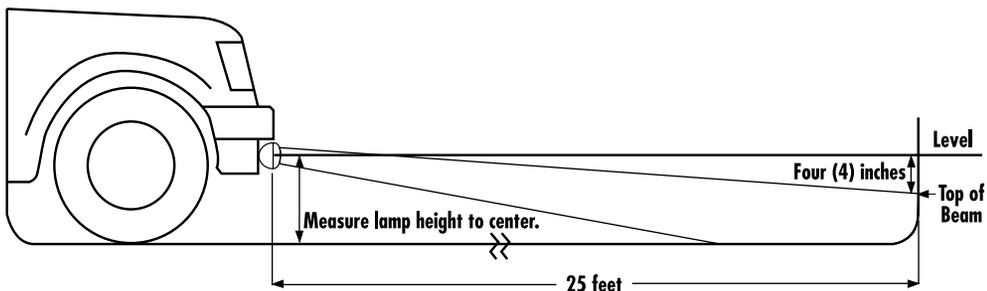
Do not use driving lights into oncoming traffic.  
Driving lights should never be the only forward light source.  
Driving lights should only be used with the headlamp high beams.

## FOG LIGHT AIMING

There are two important issues to address when installing fog lights, the first is to minimize the amount of return glare into the drivers eyes, and the other is to minimize glare into oncoming eyes. Both of those issues must be accomplished while putting as much light as possible on the road.

These fog/foul weather light aiming instructions are suggestions taken from common practice and the S.A.E. standard J583. Some modifications to these instructions may be necessary to minimize glare.

Visual aim is made with the top of the beam 4 inches below the lamp center at 25 feet with the lamp facing straight forward. (See below.)



### CAUTION

Only use fog lights if they are aimed properly.  
Fog lights should never be the only forward light source.  
Fog lights should be used with headlamp low beams.

## **PIAA LIMITED WARRANTY**

With the exception of bulbs, PIAA Corporation, USA ("PIAA") warrants its products to be free from defects in workmanship and materials under normal use for as long as the original purchaser owns them.

### **EXCLUSIONS**

This Limited Warranty specifically excludes defects resulting from misuse, abuse, neglect, alteration, modification, improper installation, unauthorized repairs, submersion, theft, vehicle crash, or by any other type of impact. Except for the Limited Warranty stated above, there are no warranties of PIAA products or any part thereof, whether express or implied. Any implied warranty of merchantability or any warranty of fitness for a particular purpose is expressly disclaimed. Some states do not permit the disclaimer of implied warranties.

### **LENS CRACKS**

Crash or impact damage is not covered. This can be determined by a chip or scrape on the lens or the housing. Stress cracks sometimes occur when the lens is subjected to sudden and extreme temperature changes. A stress crack has no chip or other sign of impact. Stress cracks are covered under warranty.

### **EXCLUSION OF DAMAGES**

In no event shall PIAA be liable for any damages whatsoever (including, without limitation, consequential damages, incidental damages, or damages for loss of use, loss of business profits, business interruption, loss of business information, loss of time, inconvenience, or other losses) arising out of the use, misuse, or inability to use a PIAA product. PIAA reserves the right to change the design its products without any obligation to modify any previous product. This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

### **REPAIR AND REPLACEMENT**

If a PIAA product is suspected of being defective, it must be submitted freight prepaid, to either an authorized dealer or distributor for warranty inspection. The receipt or other proof of purchase and a description of the problem must be included. The returned product will be inspected. If the product is found to be defective and covered by this Limited Warranty, the sole remedy is repair or replacement, at PIAA's option. A repaired or replacement product will be shipped back at no charge, and will be warranted to be free from defects in workmanship and materials under normal use for as long as the original purchaser owns it. Removal, installation, or reinstallation costs are not covered by this Limited Warranty.

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**PRIDE AND CONFIDENCE IN PEOPLE AND PRODUCTS**

# PIAA

For the dealer nearest you call 1-503-643-7422 or visit our web site [www.piaa.com](http://www.piaa.com).