

# PIAA 540

## Installation Instructions

Thank you very much for purchasing PIAA product.  
Please read this entire manual before installation and use of this product.

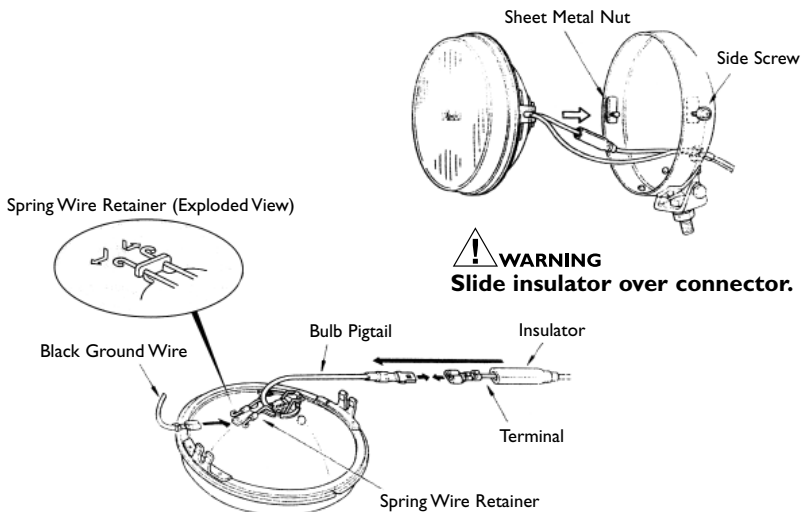
### For Installers

Please give this Installation Manual to customer after installing.



- Lighting laws vary state to state, check your local laws before use.
- The lamps get very hot when they have been in use. Do not touch them as they may cause burns.
- After the lights have been on do not place them near flammable objects.
- Do not splash water directly on the hot lamps, as this may cause cracking of the lens due to dramatic change in temperature.
- Do not look directly into the light of the lamps as the bright light may cause eye damage.
- This light system may be used only as high beam auxiliary lighting.
- The lamps and relay harness are to be used only with 12 volt automotive electrical systems.
- Using this light system while the engine is not running will drain the battery.
- Do not repeatedly turn the light system on and off as it will shorten the life of the system.
- Some automobiles generate high voltage at start up and when it is turned off, do not have lights on as you start or turn off your vehicle.
- Using the wrong bulbs may cause a malfunction, use only specified PIAA bulbs.
- When changing bulbs or lenses follow the lamp assembly/disassembly diagram.
- Leave at least 1/8" clearance between the lamps and the front spoiler, as the heat may damage the spoiler.

## LAMP ASSEMBLY/DISASSEMBLY DIAGRAM



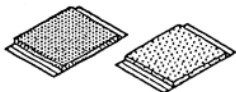
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This kit should contain the following:

Two (2) PIAA 540 lamps with stamped steel, black powder coated housing



One (1) piece of Velcro.



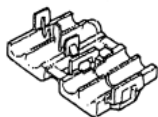
Two (2) PIAA mesh covers

One (1) PIAA preassembled relay harness with fuse and switch.

Five (5) wire ties.



One (1) PIAA one touch wire connector.



## TOOLS

Vinyl electrical tape



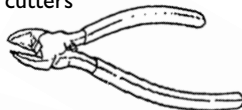
Pliers



Phillips driver (medium)



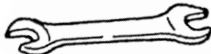
Diagonal cutters



10mm wrench



17mm wrench



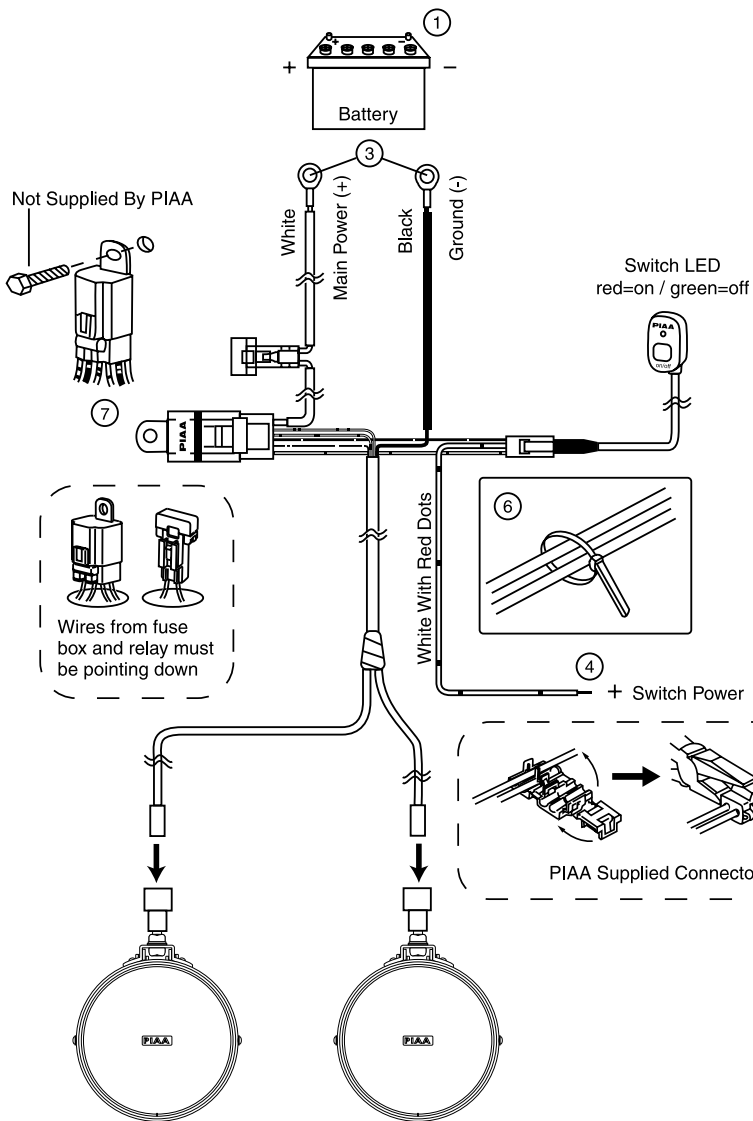
## LAMP INSTALLATION

- The installation area must be clean, and level with enough working space to do the job without distractions.
- The PIAA 540 lamps may be mounted upright or hanging down. It is very important that you make sure that the "PIAA" etched in the glass reads right side up. If it is not you must follow the "Lamp assembly/disassembly diagram" to flip the lens over.
- For the lamp system to function properly the supplied PIAA harness must be used.
- When mounting the lamps mount them in such a place that they are free of obstructions.
- Do not modify the lamp system in any way or it will void the warranty.
- Do not mount the lamp system in a place that may obstruct an existing automotive function.
- Do not mount the lamps in a place that they will come in contact with the road or curbs.
- When a mounting location is decided upon a 10mm hole will be needed to mount the lamp with the supplied mounting hardware. If a hole is not available one will have to be drilled. (Contact your local PIAA dealer for custom installation kits for many vehicles.)
- When lamp is mounted make sure to leave at least 1/8 inch clearance around the lamp to avoid heat damage to front spoilers and/or grills.

## HARNES INSTALLATION

1. Before connecting any wires, the negative (-) battery terminal should be disconnected.
2. When connecting the wires on the harness, follow the wiring diagram and connect them as in the diagram.
3. For proper lamp operation it is recommended that you connect the positive (+) and negative (-) power supply wires directly to the corresponding battery terminals. Do not take power directly from the alternator.
4. Find a power source to connect the switch power wire to. For legal operation of driving lights in most regions of North America this power source must be one that is only powered (+) when the high beam of the headlamps is on. For fog lights this power source must be one that is only powered (+) when the low beam of the headlamps is on. To make this connection use the supplied connector or any connector that is suitable for this application.
5. Do not connect lights to turn signals or to lights that flash with an automotive alarm.
6. When running the wires through the engine compartment be 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.
7. When the wiring is complete, test the system for operation. Do this by turning on the system. If the system works, securely fasten the relay box or tie it out of the way with wire ties. If the system does not come on, please contact your PIAA dealer.

# WIRING DIAGRAM

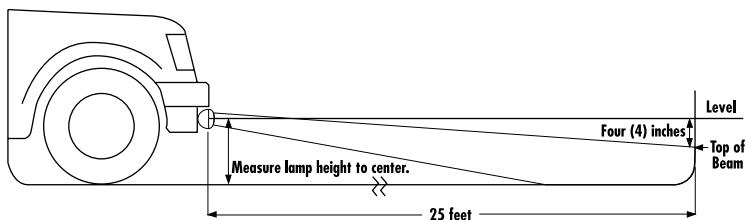


## FOG LIGHT AIMING

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.**

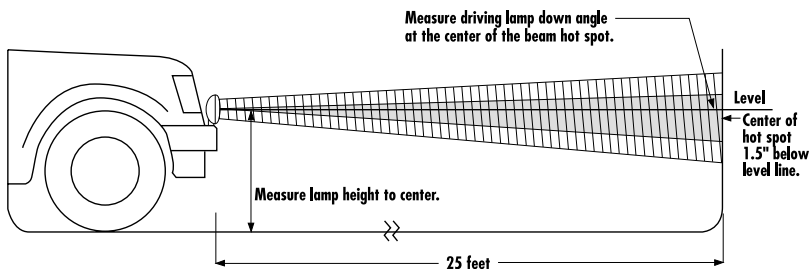
**Fog lights should never be the only forward light source.**

**Fog lights should be used with headlamp low beams.**

## 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.**

## 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. Bulbs are warranted from defects in workmanship and materials under normal use for one (1) year from the date of purchase.

### 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 expressed 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.

### 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.

### 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 of 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.

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