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R1200GS LightBar

The R1200GS LightBar provides a sturdy mounting platform for your auxiliary lighting system. We recommend installing high quality IPF lighting systems available through BestRest, but you can also mount other light systems of your choosing.

Thank you for purchasing a BestRest LightBar. We appreciate every order. If you have problems with installation please call us at the number above or send us an email. May the Lord God bless you, watch over you, and keep you safe as you travel the world on your motorcycling adventures.

David & Judy Petersen

Tools needed for installation:
8mm box or open-end wrench
11mm box or open-end wrench
17mm box or open-end wrench
Torx wrenches from your toolkit

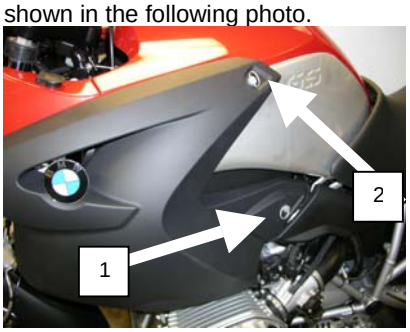
Your parts package should contain:
1 - LightBar
4 - U-bolts
2 - clamping plates for U-bolts
4 - nuts for U-bolts
4 - large flat washers for U-bolts
4 - large lock washers for U-bolts
2 - M5x25mm hex head screws
4 - small flat washers
2 - 5mm nylon locknuts
2 - nylon spacing bushings
2 - Extenders 2" x 4"
2 - M10x20 bolts for Extenders
4 - M10 lock washers for Extenders
2 - M10 nuts for Extenders

Installation

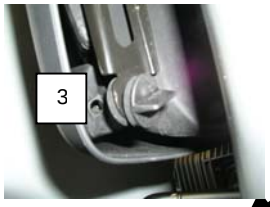
Read and follow these instructions carefully. Improper installation may result in damage to your motorcycle or personal injury. Do not attempt installation unless you can perform it in a safe and professional fashion.

BestRest recommends use of a semi-permanent thread-locking compound (blue Loctite) on all fasteners, nuts and bolts.

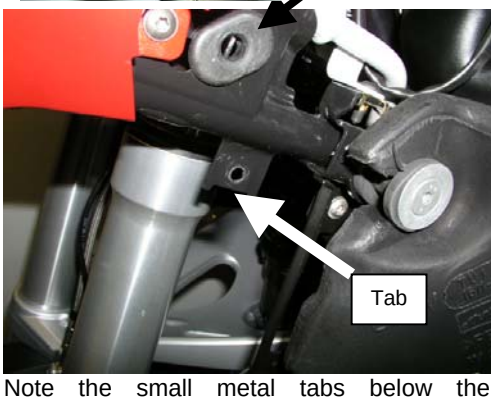
Remove the left and right side two panels by loosening the two quick release rings as shown in the following photo.



Release the hidden latch on the inside front of each panel, as shown in next photo.



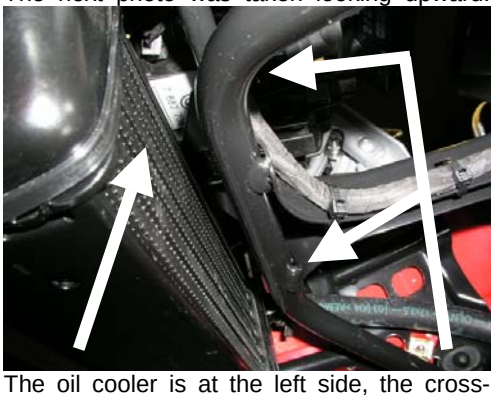
Once all 3 latches are released, pull the panels straight off the rubber grommets.



Note the small metal tabs below the grommets and just in front of the gas tank. These will be used as a mounting point for the LightBar.

The next photo shows the cross-tube frame located just behind the oil cooler.

The next photo was taken looking upward.

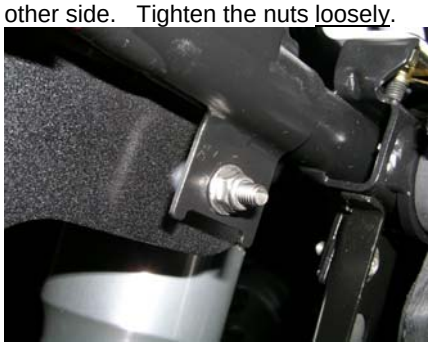


The oil cooler is at the left side, the cross-tube is at the right side. The front of motorcycle is to the left. The LightBar will be mounted to the underside of this cross-tube.

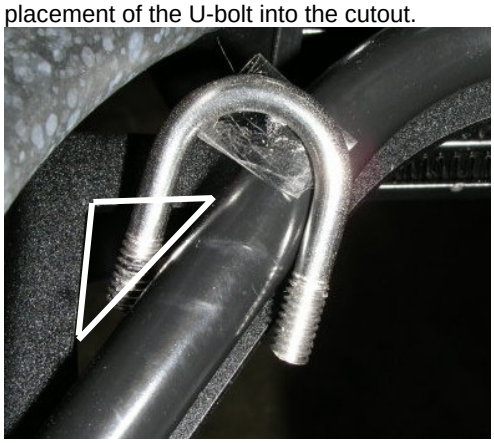
Photo at left shows one half of the LightBar and one half of the mounting hardware. The other side is identical.

Before you mount any screws or nuts, hold the LightBar up underneath the motorcycle and see how it matches the profile of the cross-tube. The small holes at the rear of the light bar will align with the holes in the tabs of the frame. The LightBar should fit between the two tabs with the nylon bushings acting as spacers.

Place a small washer on a small bolt and pass the bolt OUTWARD thru the small hole of the LightBar. Then place a nylon bushing on the bolt and pass the bolt thru the hole of the frame tab. Put a flat washer and a locknut on the end of the bolt. Repeat on the other side. Tighten the nuts loosely.



From the topside, drop one of the U-bolts over the cross-tube, into the triangular cutout of the LightBar. The next photo shows the placement of the U-bolt into the cutout.



Place a flat clamping plate on the underside of the U-bolt, then place a flat washer, lock washer, and nut on each stud and tighten by hand. Repeat this process on the other side.

Slide the U-bolt and clamping plate as far forward as possible in the triangular cutout, and obtain an even match with the U-bolt on the opposite side. You'll be looking down at these bolts so try to get them symmetrical.

Don't worry, the clamping plates of the U-bolts won't make contact your fork tubes or interfere with your control cables.

When everything is positioned to your satisfaction, tighten the nuts and bolts. Use

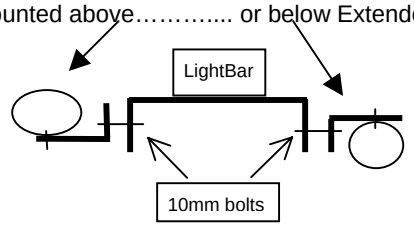
common sense and tighten snugly, but don't get too enthusiastic or you might snap the bolts or strip the threads. Tighten all 4 nuts on the U-bolt until the LightBar is firmly clamped to the underside of the cross- tube.

Check your work to make sure all the nuts and bolts are secure and tight. Check to make sure the LightBar did not shift during installation. Installation of the R1200GS LightBar is complete!

To mount your lights, place the large bolt of the light system thru the large hole in the LightBar and tighten securely. Additional holes can be drilled in the round flange of the LightBar if necessary.

Use Extenders to mount large diameter lights, or lights that have a vertical stud mount system, or lights that require a flat horizontal surface. For really large lights you can order oversized 2" longer Super Extenders from BestRest. $25.00 per set.

Use the two large 10mm bolts, washers and nuts to connect the Extenders to the LightBar. Rotate the Extenders to the desired configuration and tighten the bolts securely. Use adhesive pads or drill holes as required to mount your lights. Lights can be mounted above……..... or below Extenders.



Installing Lighting Systems

BestRest provides this information as a courtesy, free of charge. This information relates to our personal experiences involving installation of auxiliary lighting systems on our personal motorcycle.

Read and follow the installation instructions and wiring diagrams that came with your lighting system. If you're not sure how to wire the lights contact the manufacturer or seek professional installation assistance. If you don't understand 12 volt wiring systems, can't operate a voltmeter or ohmmeter, or if you can't crimp or solder wire connectors, then you shouldn't attempt the installation.

Note: The R12GS has a very sophisticated computer controlled electrical system. If you're not careful you could damage the entire computerized ignition system, resulting in expensive repairs and replacements. For this reason we recommend all accessory wiring be done directly from the battery terminals, independent of the BMW wiring harness.

Battery: Before you begin any work disconnect the battery. Reconnect when your work is complete.

Fuse: For safety reasons we recommend that any auxiliary lighting system be connected thru a fuse. This is necessary in the event of a short circuit.

Relay: We recommend using a relay. A relay is designed to handle and control the large amperage (current) draw needed by auxiliary lighting systems, without causing damage to your electrical system or switches.

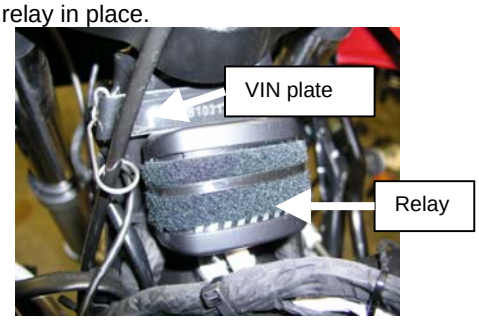
An exception to this rule is to establish a low-amp 12V relay command circuit that'll be used to turn on/off the high-amp lighting circuit within the relay. We tapped into the positive (+) wire that runs from the BMW accessory outlet. Because the current drain for the relay is low, the computer thinks it's just another accessory gadget plugged into the outlet. An added bonus of using this technique is that the outlet is on a timer. About 30 seconds after you turn off the ignition, the outlet is deactivated and your auxiliary lights will shut down, if you haven't already turned them off.

Gas Tank: You should remove the gas tank and other body panels in order to wire the lights. Refer to the attached sheet for helpful information on that process. Although you can route the wires without removing the tank, it makes the process much harder and give a less professional result. Once the body panels and tank are removed you can mount your relay and route your wires.

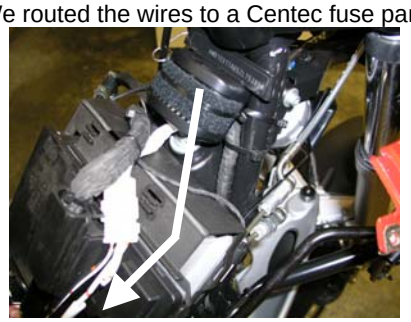
Piaa Lights

Piaa 520 lights can be reconfigured so the mounting bolt is to the side, if you choose not to use the Extenders. To do this you'll need to rotate the glass lens 90° within the metal housing. Drill 2 small holes in the outer metal housing so that you can rotate the lens within the bezel. Match the existing holes in size and location. If the lights don't clear the body panels, use a second nut or other spacer on the Piaa mounting bolt, so the light housing is offset far enough to clear the body panels.

For Piaa lights we mounted the relay below the VIN plate. We Velcro'd and zip-tied the relay in place.



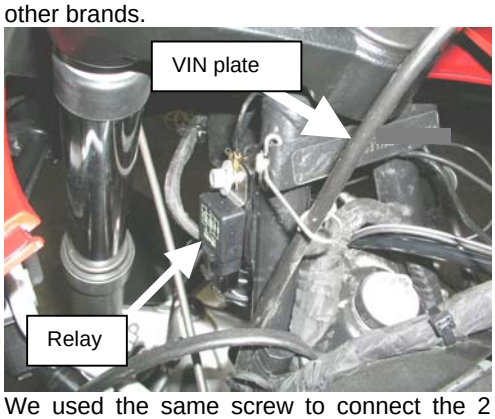
We routed the wires to a Centec fuse panel



which we mounted above the battery, on the back of the air box.

IPF Lights

For IPF lights we mounted the relay on the left side of the steering head. We prefer the IPF systems because of their compact relay & high quality wiring harness. We found the IPF harnesses much easier to install than other brands.

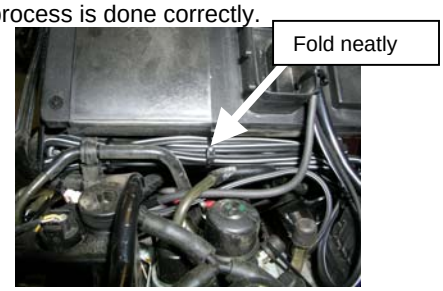


We used the same screw to connect the 2 grounding wire leads of the wiring harness.

The relay must be mounted with the screw hole up and the plug facing down.

We used corrugated wiring looms to keep our wires neat and orderly. We planned each wire's layout.

We folded any excess wire and neatly stored it just above the ABS system. Even though nobody would see our work once the tank was in place, we believe neatness counts and helps to insure that the entire wiring process is done correctly.



The harness has two separate power leads that go the lights. We ran a lead along each side of the frame to an IPF light. We zip-tied the lead to the LightBar and frame tubes.

We ran the power switch to the left handlebar and mounted it above the high beam switch, using the supplied adhesive pad. We zip-tied the wire to the handlebar at 4" intervals.

We then ran the wiring harness back toward the battery where we connected the main power lead to one circuit of a Centec fuse

panel. We eliminated the in-line, 25-amp fuse supplied by IPF, and relied instead on the Centec fuse panel to protect the wiring circuit.

The YELLOW wire on the IPF wiring harness is the relay command circuit. It's shown with the

We picked up power for our command circuit by tapping into the positive (+) lead that goes to the BMW accessory outlet. We tapped into the accessory line as it ran forward, near the ABS pump. We routed the small fuse on the yellow wire to a point where we could inspect or replace it without the need for removing the gas tank.

(Note: On our bike we have a second auxiliary power outlet that runs forward to the front fairing – if you don't have one of these you can tap into the power outlet under the rider's left leg.)

Centec Fuse Panel

Because we run auxiliary lights, electric clothing, radar detector, GPS, and a host of other accessories, we need a fuse panel that can handle all the circuits and still work independently from the BMW wiring system. The Centec AP1 fuse panel is perfect for this application because it's capable of 8 different circuits and 5 independent fuse ratings. It's available from BestRest for about $55.00

We mounted the Centec just above the battery, on the back of the plastic air box.

We drilled 4 small holes in the air box to mount the Centech. When we finished drilling the holes we removed the air filter and cleaned out any debris generated by the drilling process. This is a very important step, otherwise small plastic shavings can clog your fuel injection system, and that's NOT a good thing to have happen!

We picked up our "hot lead" for the Piaa and the IPF relay by tapping into the positive (+) side of the BMW accessory socket. This is described in the column to the left.

If you choose not to use a Centec fuse panel, you can connect your harness directly to the terminals of the battery, according to the instructions that came with your lights. Use a fuse in-line with the power circuit.

It's a relatively simple matter of routing the power cables to each light, and routing the on/off switch to the handlebar. Use zip-ties, work carefully, and be neat and orderly in your wiring. Check your work carefully before you hook up your circuits to the battery. You seldom get second chances when you make a mistake in a wiring system!

Replace the body panels. Make sure all mounting fittings are properly installed to keep the panels from coming loose.

Safety & Other Notices

The LightBar is constructed from hot rolled 10-gauge steel with a black powder coat finish. The design is extremely sturdy and under most conditions exceeds expected performance requirements.

Use caution when mounting any large or heavy auxiliary lighting system. Off-road travel or washboard surfaces places high stress loadings on the mounting system, as does an accident or collision. Off road travel can lead to premature metal fatigue and/or structural failure.

If structural failure occurs your lighting system could fall downward and interfere with the wheel, resulting in handling or control problems. It's very important to check the brackets on a daily basis for signs damage, metal fatigue, and/or loose or missing hardware. If these are discovered you should immediately remove the LightBar from service until repairs can be made.

Do not proceed with product installation unless you are qualified to complete the installation in a safe fashion and as described herein. Do not use these products unless you have read all instructions and understand how these products work and what limitations, if any, they may have.

BestRest shall not be responsible for any personal injury or damage caused by installation of an electrical component or auxiliary lighting system. In other words, don't blame us if these techniques didn't work for you!

It is the responsibility of the Consumer to evaluate the suitability of these products for personal use. Consumers must evaluate whether these products meet their needs and whether these products can be mounted and used in a safe fashion. The Consumer accepts full and complete responsibility for selection of products and for mounting and maintenance of these products. The Consumer agrees to follow and abide by all instructions, warnings, recommendations, or other information supplied or published by BestRest Products.

It is the Consumer's responsibility to inspect all screws, fasteners and fittings on a daily basis, tighten or replace them as necessary, and to regularly inspect the entire BestRest LightBar and mounting hardware for signs of missing parts, excessive wear, metal fatigue, or imminent failure. Should any of these be observed the assembly should be removed from the motorcycle and not used until inspected and repaired by BestRest.

BestRest Products, it's employees, agents, and owners assume no liability whatsoever for property damage, personal injury or other losses resulting from the Purchaser's failure to properly maintain the products, for unauthorized modifications of any kind, for use of unauthorized parts (including bushings, screws, pins, or other fasteners), or for use of any BestRest Product in a fashion not intended by BestRest or described as a suggested application in BestRest literature.

Because installation of these products is done by others outside our control, we cannot assume any liability or responsibility whatsoever for improper or unsafe installation, or installation which is contrary to published instructions, for products that are improperly secured or maintained, or that are improperly tightened or otherwise secured, or which are otherwise improper fitted to the motorcycle.

Only authorized, and approved replacement parts, assemblies, nuts, washers, screws, fasteners or fittings may be used when mounting, installing, or repairing any BestRest Product. Authorized replacement parts may be purchased only from BestRest Products. Parts from other sources or vendors are not covered under warrantee and will void any Consumer claims against BestRest or others. Any use, modifications, or applications of any BestRest Product, other than those authorized by us in writing, are specifically prohibited.

BestRest products are warrantee against defects in workmanship or materials for 90 days after purchase by the original retail customer. Products that have been modified by the consumer are not covered under warrantee.

IPF lights are covered under separate warrantee, offered by IPF. Details are contained in the light box.

Prices, specifications, and instructions subject to change without notice.

For full legal disclosures and a description of our warrantee, please refer to our website:
www.bestrestproducts.com

Revised 04-08-2008
Following is information on removing your gas tank

<u>Danger !!!</u> Fire Hazard, possibility of leaking gasoline, fire, or explosion. Extinguish all flames or remove all ignition sources before you begin. Do not attempt these procedures unless you follow proper safety procedures for handling flammable liquids.

Fig 1. Remove side panels. Remove knee covers #1 and side panel #4 by releasing the quick release fasteners #3.

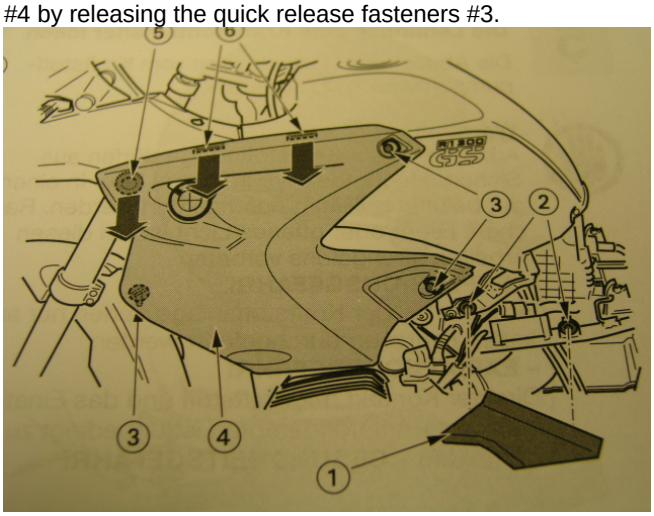


Fig 2. Remove protective cap #1. Remove quick release fuel line by pinching clamp #3. Remove electrical connections #4.

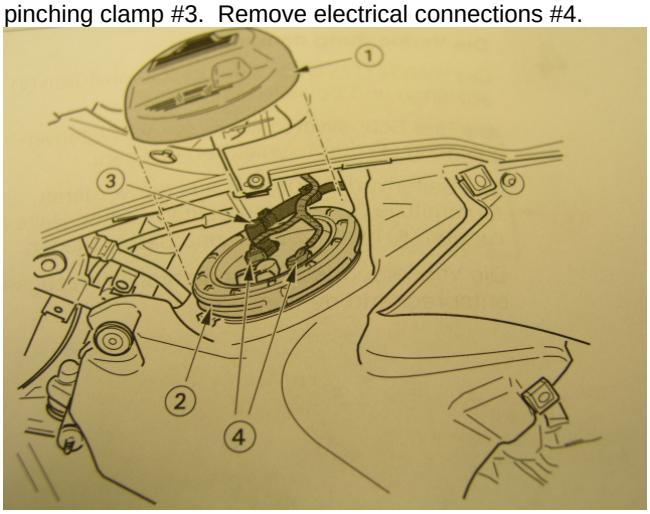


Fig 3. On right side of tank, remove quick release fuel hose #5. Remove vent lines #6. Mark them carefully so you don't mix them up. One line has white markings.

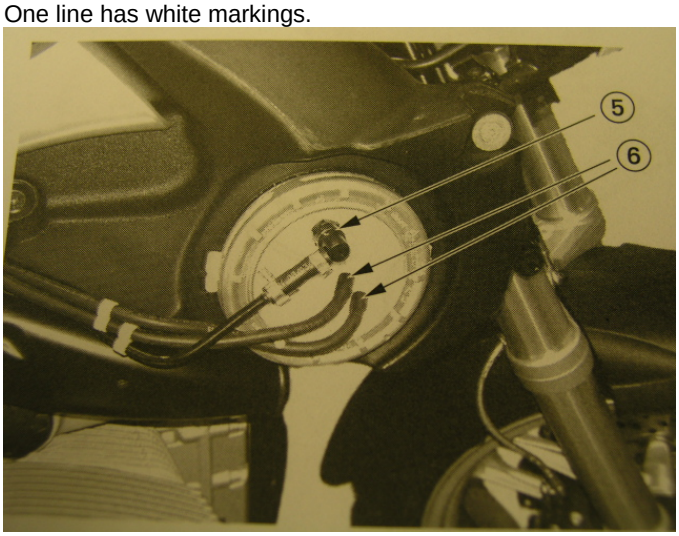


Fig 4. On the right side, remove Bolt #1 and bracket #2.

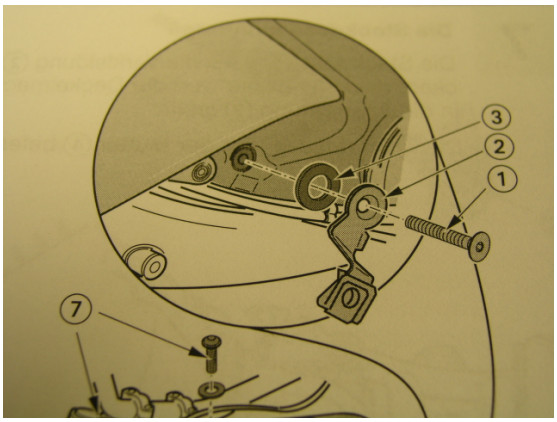


Fig. 5. Remove two screws holding upper gas tank body panel to front gas tank cowling panel, as shown with the black arrow. There's one screw on each side at the top of the tank. On the left side of the tank remove bolt #4. The front of the tank is held by a rubber bushing #9, <u>do not remove this bolt</u>. The entire tank assembly, along with the upper tank panels can be removed from the frame by gently pulling rearward and upward #8. Set the tank carefully on the ground.

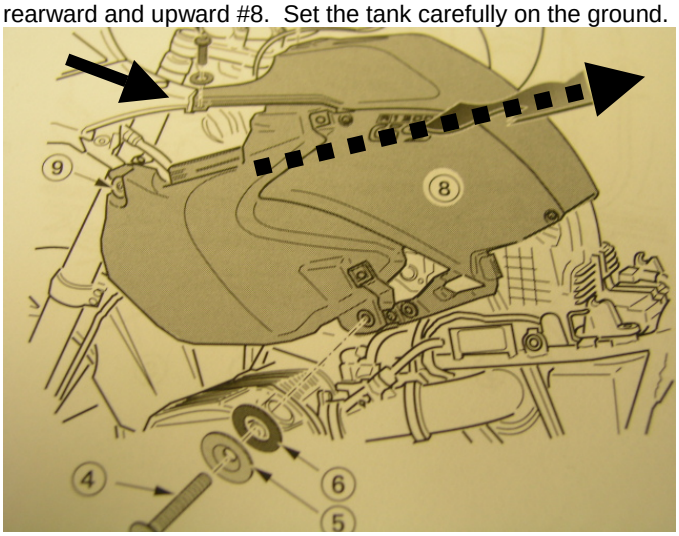
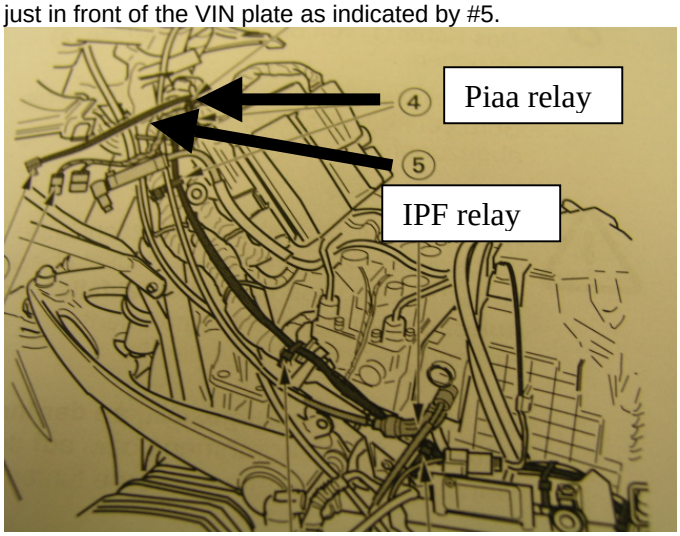


Fig 6. Once the tank is removed you can route the wiring harness for your lights. To mount a Piaa relay we used zip ties and Velcro and mounted it directly below the VIN plate, as indicated by #4. To mount an IPF relay we used the screw on the left side of the steering head, just in front of the VIN plate as indicated by #5.



When your work is complete, reverse the above steps to reinstall the gas tank and body panels.