

R1200GS ADVENTURE LightBar (not for the standard R1200GS)

The R1200GS ADVENTURE LightBar provides a sturdy mounting platform for an auxiliary lighting system. It will also mount the BMW fog lights. 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:

10mm box or open-end wrench
10mm socket
T27 torx wrench
19mm box or open wrench

Your parts package should contain:

1 – Adventure LightBar
2 – Extender plates (large flat pieces)
2 – Upper brackets (angled)
2 – Fog light mounting clips (u-shaped)
2 – Black plastic spacers

7 – M6x16 bolts
1 – flat washer (large)
5 – lock washers (small)
9 – flat washers (small)
2 – M6 flat nuts
5 – M6 nylon locknuts

2 – M10 bolts
2 – M10 nuts
4 – lock washers (large)
4 – nylon zip ties



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.

It's very important to use the hardware we provide and carefully follow these instructions for the proper application of that hardware. Each nut, bolt, and washer has a specific application and cannot be substituted for another use. We really mean this!

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

1. If your bike has the BMW fog lights, disconnect the wiring connector from the rear of the light assembly. Pinch the connector to release the locking lugs, then wiggle the connector downward until it comes free.



2. Remove the bolts that hold the fog lights onto the mounting tabs.



3. Remove the screws that hold the fog light bar to the crash bars. In the above photo above remove the screws that attach the fog light bar to the crash bar. In the photo below, remove the screw in the middle of the fog light bar.



4. Remove the cable ties that hold the electrical wires onto the BMW fog light bar. Protect the wires from damage.

If you plan to re-mount the BMW fog lights, follow Step 5.

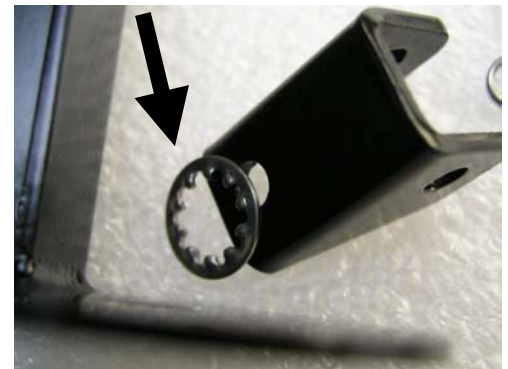
If you're not mounting the BMW fog lights, skip ahead to Step 6.

5. To prevent the clips from rotating due to vibration, you must follow these steps very carefully.

a. Place a lock washer on an M6x16 bolt, then put the bolt thru the hole in the next photo.



b. Place a large locking washer over the end of the bolt, then fit the clip over the end of the bolt.



c. Finally, place a small lock washer and flat nut onto the end of the bolt. DON'T use a nylon locknut; you'll need it for a later step.



d. Align the clips so they face toward the front of the LightBar (at right in this photo), then tighten the nut and bolt securely.



The large serrated locking washer will prevent the clip from rotating on the LightBar.

6. Fit the LightBar up underneath the fender. Attach it to the crash bar using an M6x16 bolt, with a locking washer and a large flat washer. **LEAVE THE BOLT LOOSE**



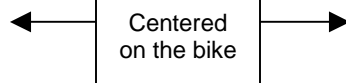
7. Mount the upper brackets as shown in these next photos. Use M6x16 bolts, flat washers, and nylon locknuts. The brackets are mirror images of each other; it will be apparent which one goes on which side. This is the left side, front of bike to the left.

First remove the screw that holds the crash bar to the frame, and replace it with the bolt and nut we provide



LEAVE THE BOLTS LOOSE FOR NOW !!!

8. The LightBar is designed with elongated assembly holes so it can accommodate variations between the crash bar and the frame. Adjust the bar so it's centered left-and-right.



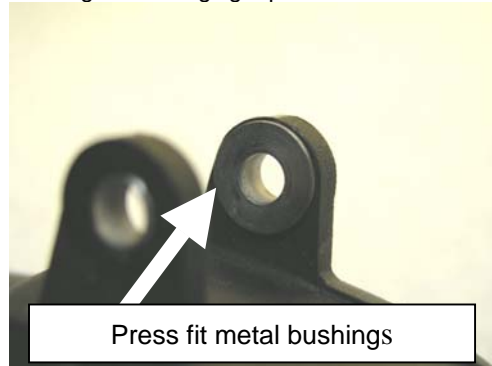
The brackets go on TOP of the tabs on the LightBar, not underneath

9. Wiggle the LightBar back and forth a bit so that the brackets and hardware work out any stress points.

10. Now go back and tighten all the nuts and bolts. Use common sense and don't over-tighten. "Snug but gently firm" works for us.

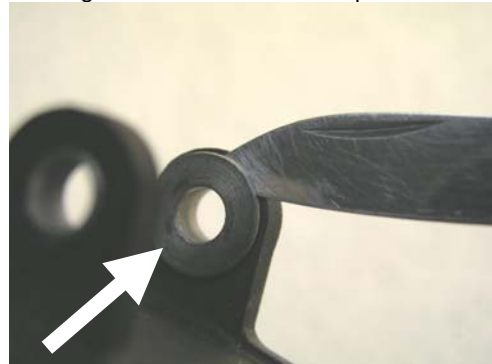
Remember to tighten the screw in the middle that holds the LightBar to the BMW crash bar. Be careful that you don't strip this screw – torque to 6 ft-lbs (8 Nm)

11. If you plan to mount the BMW fog lights you must reconfigure one of the metal bushings in the fog light plastic tabs.



Press fit metal bushings

12. Use a penknife to gently pry ONE of the bushings out of the inside of the plastic tab.



13. Replace the bushing so that it's on the outside of one of the tabs. In this position the

plastic tabs will easily fit over the fog light mounting clip. It's important that these tabs are not stressed when they're bolted onto the clips. "Test fit" the fog light onto the mounting clip and make any adjustments as needed.



14. Slip the plastic spacers into the clips. These spacers prevent the clips from bending inward when you're tightening the bolts that hold the fog lights onto the clips.



15. Fit the BMW fog lights onto the clips, and hold them in place with the screws that originally held the lights onto the BMW bar.



16. Reconnect the wiring harness by pushing the male fitting up into the socket.

17. Use the zip ties to secure the wiring harness to the LightBar.

18. Tighten the screws that hold the fog lights to the clips. Snug but firm.

This completes installation of the LightBar and the BMW fog lights.

Very Important Note: When making adjustments to the aiming point of the BMW fog lights, it may be necessary to loosen the bolt that holds the clip to the LightBar. Do not use the fog light body as a lever to twist the clip side-to-side, because the plastic tabs on the fog light will be damaged.

You can make adjustments to the fog light by slipping a screwdriver into clip, and using that as a lever to gently adjust the lateral aiming points of the fog lights.

Ready to mount a set of auxiliary lights? Depending on the size and type of lights you have several options.

We prefer reconfiguring the light assembly so that the stud projects from the side, that way it will neatly bolt into the large round flange of the LightBar.

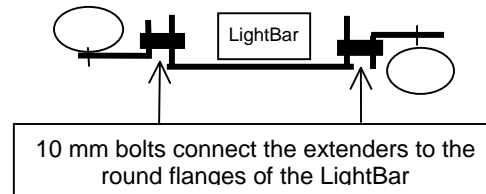


If this doesn't setup work for you, then you can use the extenders that came in your parts kit.

Extenders can be used 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.

Use the two large 10mm bolts, 2 large lock washers and 2 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 the extenders.



As these photos demonstrate, you can mount almost any lighting system on the BestRest LightBar. Use your imagination!

Safety & Other Notices

The BestRest Adventure LightBar is constructed from hot rolled 12-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 held 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, its 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 improperly 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.

Check with local authorities before operating a motorcycle with auxiliary lighting systems. Laws vary state to state, and what may be legal in our jurisdiction may get you a ticket in another jurisdiction. Usually during daylight hours the authorities turn a blind eye toward the operation of auxiliary lights, but your mileage may vary.

For safety reasons, make sure that auxiliary lights do not interfere with or block a motorist's view of your signals.

When bright auxiliary driving lights are activated it may be difficult for other drivers to see the front turn signal as it flashes.

For legal disclosures and a description of our warrantee, please refer to our website:

www.bestrestproducts.com

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Wiring Auxiliary Light Systems on a GS

The following information was taken from the instructions we prepared for the standard 1200GS. The same basic principles apply to the Adventure.

BestRest provides the following 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 R1200GS 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.

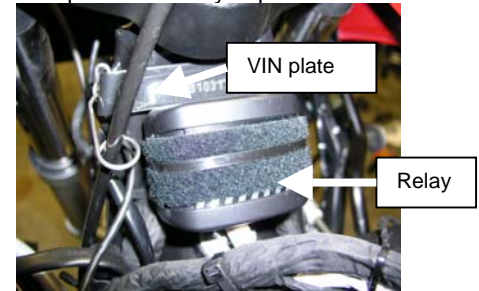
Fuse: For safety reasons we recommend that any auxiliary lighting system be connected thru a fuse. This is necessary in the event of a short circuit.

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: 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



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.

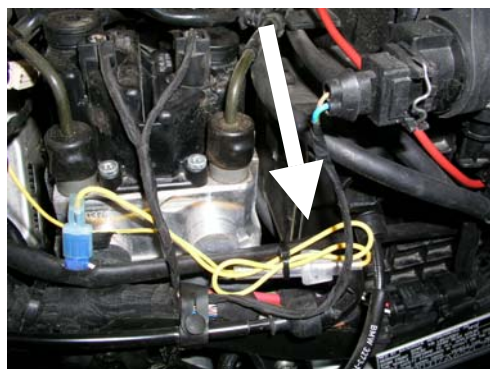


The harness has two separate power leads that go the lights. We ran a lead along each side of the frame to an IPF light. We zip-tied the lead to the LightBar and frame tubes.

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 on the Centec fuse panel to protect the wiring circuit.

The YELLOW wire on the IPF wiring harness is the relay command circuit.



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.

(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 and AP2 fuse panels are perfect for this application because they're capable of 8 different circuits and 5 independent fuse ratings. They're available from BestRest for about \$55.00



Refer to our website for a schematic of these fuse panels.

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 Centec. 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.



We picked our "hot lead" for 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.

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.

Following is information on removing the gas tank from a standard R1200GS.

These drawings differ from what you'll encounter on the Adventure, but the principles remain the same.

Refer to the official BMW service manual or CD for complete instructions.

Drain the tank before beginning this procedure, or at the very least ride the bike until it's nearly empty. A full Adventure gas tank weighs nearly 90 pounds, so you don't want to be lifting it off the bike while it's got gasoline in it !!!

Danger !!! 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. On the Adventure, there's one screw at the back of the tank, and one screw under the tank as shown in these arrows.

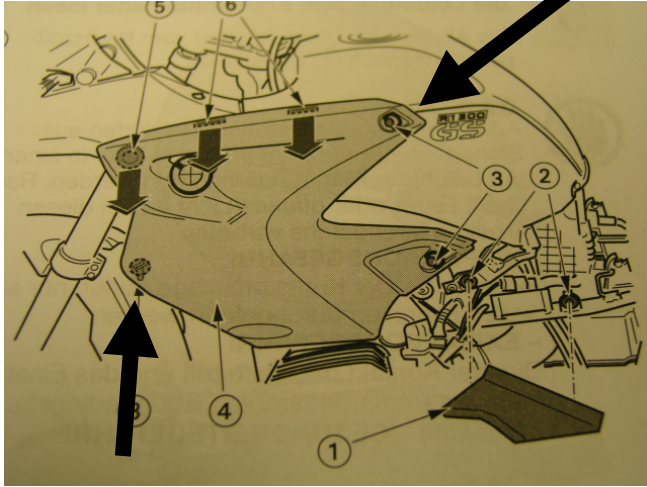


Fig 2. Remove protective cap #1. Remove quick release fuel line by pinching clamp #3. Remove electrical connections #4.

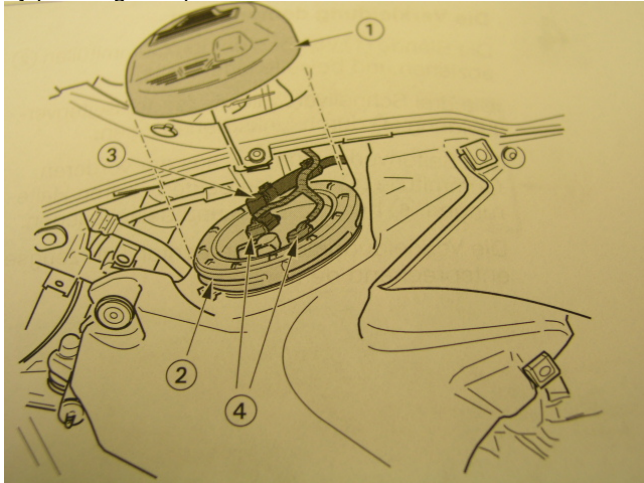


Fig 3. On right side of tank, remove quick release fuel hose #5. Remove vent lines #6. Mark them carefully so you don't mix them up. One line has white markings. On the Adventure these fitting are on the top-left of the gas tank.

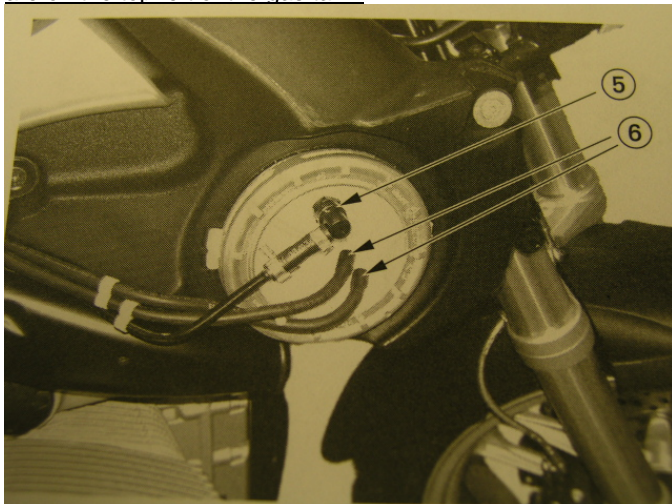


Fig 4. On the right side, remove Bolt #1 and bracket #2.

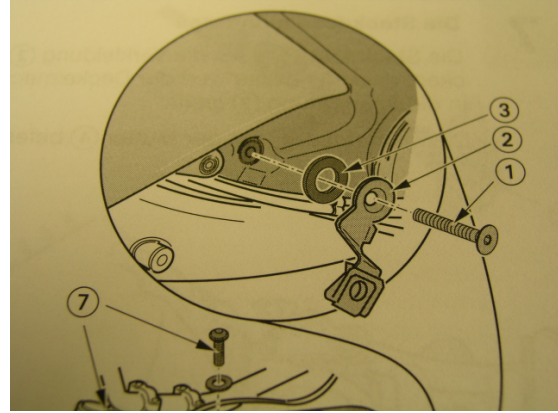


Fig 5. Remove two screws holding upper gas tank body panel to front gas tank cowling panel, as shown with the black arrow. There's one screw on each side at the top of the tank. On the left side of the tank remove bolt #4. The front of the tank is held by a rubber bushing #9, do not remove this bolt. 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.

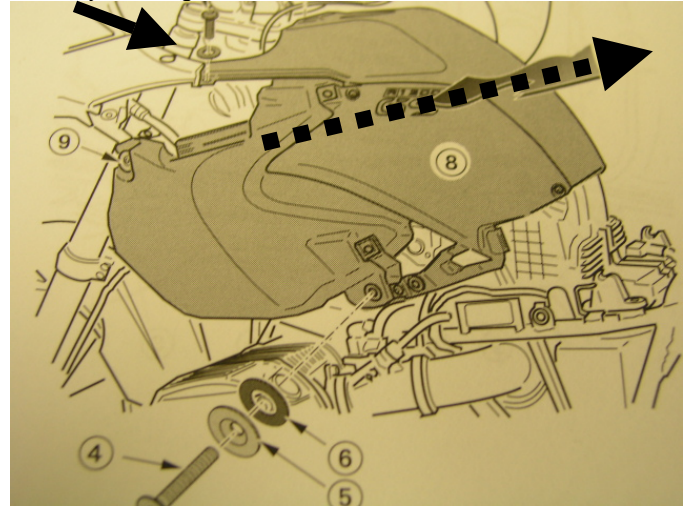
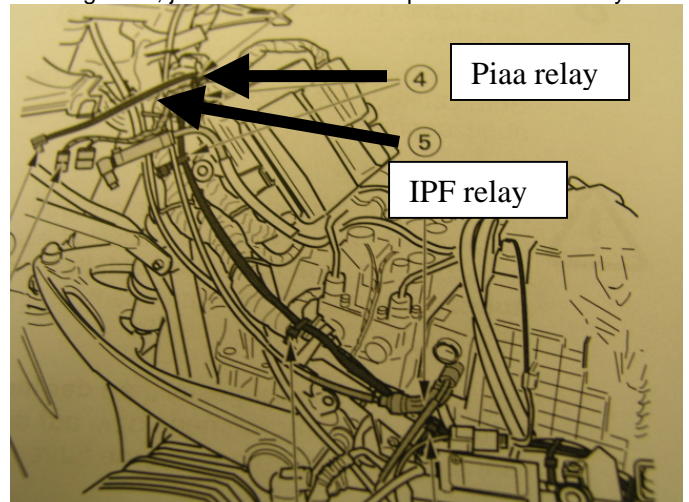


Fig 6. Once the tank is removed you can route the wiring harness for your lights. To mount a Piaa relay we used zip ties and Velcro and mounted it directly below the VIN plate, as indicated by #4. To mount an IPF relay we used the screw on the left side of the steering head, just in front of the VIN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



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