GL1800 TRAILER HITCH - INSTALLATION INSTRUCTIONS #GL18007-20

Read through these instructions completely before attempting installation, lay out all pieces including the numbered hardware bags to familiarize yourself with all parts-see photo #1.

1. Place the motorcycle on its centerstand; remove the seat, side covers, and gray plastic frame covers surrounding the rear crash bars and passenger floorboards. Remove the rear fender. On 2001-2005 models: there are five screws - one is located behind the license plate. On 2006 - 2010 models: there are four screws-none behind the license plate.

2. Remove the rear crash bars and lower sub-frame (black) mounting bolts. (See photo #2) Next drill out the threads of the sub-frame mounting bolt hole on the right side **ONLY** using a 5/16" drill. (This is required due to the limited space between the hitch and rear suspension. The new bolt supplied for this hole is longer and will now screw into the threaded hole on the right side of the hitches frame.)

3. Install the frame reinforcement plates. (See photo #2 (right side)). Note: left = "G" and right = "F" Start the M8 x 25mm bolts from bag #1; do not tighten. Install the longer of the two remaining bolts M8 X 50mm in the remaining hole on the left hand side; tighten securely. (26-28 ft lbs.)

4. Remove the upper sub-frame (Black) from mainframe mounting bolts at the rear of the seat. (See photo #3) Install the struts, (Note: left = "B" ((has double offset bends)) and right = "C") by sliding them up from below between the inner fender and saddlebag starting in a nearly vertical position. (See photo #4) It will take a little "twisting" to get them into position. Take caution not to pinch or cut any of the wire looms near the mounting holes (See photo #5). It will help if you unplug the small wires and re-route them over the top of the frame. On 2001-2005 models only; on the left side of the main wire harness there is a large lump; this is an unused plug. Using a knife carefully cut the tape off and uncover the plug. This will give you some room to move the plug and harness around the strut as you install it. Once in place install the 5/16" X 2 ¼" long bolts, washers, and nuts from bag #2 thru the frame, sub-frame, and struts. Snug only do not tighten. Angle the bottom of the struts to the rear as far as possible. On 2006 and newer models there is a heat shield on the right muffler to help keep the rear brake caliper cooler. Remove the 10mm Acorn nut at the top of the heat shield and replace it with the regular 10mm nut supplied.
5. Install the hitch main frame ("A") by placing it around the rear wheel and below the mufflers. Angle the right side up and over the right muffler. (See photo #6) Push the left side up over the left muffler. Note: this will require some force and slight flexing of mufflers. (See photo #7). Slide the left side of the hitch over the end of the M8 x 50mm bolt installed earlier in step #3. Locate the remaining M8 x 40mm bolt from bag #1. Apply a small amount of Loc-Tite or similar thread locking compound (not included) to the bolt. Align the right side of the hitch and install the bolt. Tighten securely. (26-28 ft lbs.) Install the 8mm nut from bag #1 on the left side and tighten to (20-22 ft lbs.) while holding the bolt head with a wrench. Re-install the rear crash bars and plastic frame covers.

6. Align lower strut holes with the mating holes in the main hitch. Note: the struts mount outward of the tabs on the main frame. Install the 3/8"x1 ¼ long bolts, washers, and nuts from bag #2. Do not tighten; snug only.

7. Install the receiver block ("E") onto the main hitch frame using the 1/4" X 1 ¾" long bolts, washers, and nuts from bag #3. Do not tighten; snug only. Install the tongue ("D") and hitch pin into the receiver, now tighten the bolts securely. (12-14 ft lbs.) Next remove the hitch pin and adjust the setscrews on the top and side of the receiver block so that the tongue slides in and out but does not rattle. These can be adjusted periodically as needed.

8. Lay the rear fender painted side down on a soft cloth or towel. Remove the reflector. Cut out the template from the instruction sheet. Lay the template over the reflector hole in the fender; align it with the reflector outline on the fender. Scribe or mark a line around the template. Next cut out to the line. This is best done using a small grinder or Dremel type moto-tool with a 1/8-router bit. Do not worry if you go slightly over the line or your lines are not perfectly straight. The trim will cover slight imperfections. Fit the trim into the opening with the seam centered at the bottom. Cut to length using a razor blade or sharp knife. (See photo #8) Carefully use a small amount of super glue under the edge of the trim both inside and out as well as the seam, being careful not to get it on the paint! Install the remaining four 1/4" washers from bag #3 and the clip onto the reflector. (See photo #8) Align the clip and tighten using the original nut. Lubricating the trim with Armor All or WD-40 will allow the reflector to slide in and out easily.

9. Installing tongue and hitch pin: Before mounting the rear fender practice installing the hitch pin into the receiver and tongue as described by the following procedure; refer to photo #9, this will help you to better visualize how to install the tongue and pin when the fender is installed. Place one hand on the backside of the receiver slot, with the tongue in the other hand push the tongue into the receiver until it is flush with the back of the slot. Insert the supplied pin thru the receiver and tongue from the bottom up to align the holes in the receiver with the hole in the tongue, remove the pin. Now install the pin from the top down by holding the pin in one hand with two fingers and guiding it to the hole with two fingers from your other hand as shown in photo #9. Install the bowtie clip into the hole at the bottom of the pin being sure the clip is fully engaged to its locking position.

10. Reposition the rear fender and snap it into place temporarily. Install the tongue thru the hole. Adjust the hitch receiver height to center the tongue in the opening. Carefully remove the tongue and rear fender, and tighten the lower strut bolts securely. (35-38 ft lbs.) Next tighten the upper strut to frame mounting bolts securely. (25-28 ft lbs.). Remove the fender and proceed to the next step.

11. Refer to the supplied wiring diagram for installation of the plug in sub harness, electronic trailer isolator unit and 5 to 4 wire convertor (if needed) all sold separately.

Wiring components required for plug in wiring to trailer

Rivco pt# GL18007-28 Sub harness
Rivco pt# GL17007-IU Wiring Isolator
Rivco pt# EC07664 5 to 4 wire system convertor (if trailer uses a 4 wire system)

NOTE: Unless you have all LED lighting on your trailer it is STRONGLY recommended to use an electronic trailer wiring isolator (not supplied) RIVCO pt# GL18007-IU. It is designed to draw the additional 7-10 amps of power needed for the trailer's lighting directly from the battery, not thru the brake, tail or turn signal circuits of the motorcycle. The isolator senses when power is applied to these circuits and activates the trailer lighting accordingly. It is a solid-state electronic device that will protect the motorcycle's advanced electrical systems. It will supply up to 10 amps per circuit to the trailer. NOTE! The isolator is designed for trailers with a five-wire system, which, like the motorcycle will have separate turn signal bulbs. If the trailer you will be towing has a four-wire system (combined brake and stop lights) you will also need to add a five-to-four wire convertor in line before the isolator (not supplied) RIVCO pt# EC07664. They can also be purchased at most auto parts stores but will not have our plug in connector and will need to be spliced in line. You will also need our plug in wiring sub harness Rivco pt# GL18007-28 to connect the motorcycles wiring to the isolator and or the 5 to 4 wire convertor.

12. Facing the rear wheel where the fender was removed earlier above the hitch there is a ledge or shelf, on this shelf there is a bundle of wires cable tied to the frame. Remove the cable tie securing the bundle; slide back the rubber boot exposing the connectors.

13. Remove the sub harness from its package and familiarize yourself with its connectors and wire colors and the supplied wiring diagram. Locate the red three pin connector with an orange wire on the bike. Unplug this connector and plug in the connector from the sub harness with the brown wire in line. Next locate the blue three pin connector on the bike. Unplug this connector and plug in the connector from the sub harness with the Green and Yellow wires in line. Locate either of the remaining two pin connectors on the bike with a Green and Green with a Red stripe. Unplug one of these connectors and plug in the remaining two pin connector from the sub harness with the Blue wire.

14. Plug the remaining connector from the sub harness into the mating connector on the five to four convertor (if you are using one, Rivco pt# EC07664) then the connector on the isolator (Rivco pt# GL18007-IU described above) or from the sub harness to the isolator directly if not using a 5 to 4 wire convertor. Place the connectors back into the rubber boot and cable-tie it back in place. Place the isolator (and 5 to 4 wire convertor if used) on the ledge with the other connector and secure in place using the double-sided tape provided or cable ties.

15. On 2001-2005 models mount the isolator to the floor of this wiring compartment using the adhesive strips on the bottom of the isolator. On 2006 & newer models the stereo amplifier is mounted in a large plastic box directly below the wire connectors. The isolator can also be mounted inside this box as follows. Unhook & lift the rubber cover. Remove the two 8mm bolts from the rear of the box. Lower the box and mount the isolator inside the amplifier box. (Clean the surface with rubbing alcohol to ensure good adhesion). Replace the bolts and rubber cover.

16. Attach the black ground wire with the ring terminal to the 10mm bolt on the left end of the horizontal cross brace tube between the saddlebags. Be sure to place the terminal under the head of the bolt and not between the brace and sub-frame to ensure a good ground.

17. Route the trailer wires down the left sub-frame tube to the bottom of the receiver or fender, secure with cable ties provided. The trailer connector is not provided as there are many different couplers used. Follow the color code/function label on the isolator to make the proper connections to your particular trailer connector.

18. Route the Red wire from the isolator forward to the battery positive (+) terminal. Using the fuse holder provided cut & strip the Red wire to the desired length. Crimp it to the fuse holder and attach it to the battery positive (+) terminal.

19. Using a test light or meter turn on the ignition and test the tail, brake and turn signal functions at the appropriate colored wires at the end of the isolator harness where you will be attaching your trailer plug. Connect your trailer plug to the harness to obtain the correct light functions. We recommend the use of a loose plug vs. a mounted receptacle leaving enough wire for the plug to be outside of the fender when in use. When not plugged into the trailer the connector can be stored securely by routing it thru the hitch pin clip.

20. Replace the side covers, rear fender, seat (be sure to connect heated seat cord if so equipped) and any other parts removed earlier.

21. . Safety chain hook holes are provided on the vertical flange of the main hitch frame just below the receiver block.

TRAILER TOWING GUIDELINES AND SAFETY

Remember: this is only a guide and should be supplemented with your own common sense for safe operation.

WARNING: TOWING A TRAILER BEHIND A MOTORCYCLE IS DONE SO AT YOUR OWN RISK AND INCREASES THE LIKELIHOOD OF INJURY OR DEATH TO BOTH OPERATOR AND PASSENGER DUE TO INCREASED RISK AND EXPOSURE. FAILURE TO OBSERVE THE FOLLOWING WILL FURTHER INCREASE THE RISK OF INJURY OR DEATH TO OPERATOR AND PASSENGER.

(A) ALL HIGHWAY SAFETY WARNINGS, RULES AND LAWS,
(B) MAINTENANCE AND OPERATION INSTRUCTIONS ASSOCIATED WITH THIS HITCH OR YOUR TRAILER,
(C) POSTED SPEED AND ROAD CONDITION WARNINGS,
(D) SAFE RIDING PRACTICES AND PROCEDURES

- We are aware of no current state or federal guidelines for pulling a trailer with a motorcycle.
- We suggest when pulling and loading a trailer that you do not exceed the manufacturers Gross Vehicle Weight and tongue weight limits.
- When pulling a trailer with a motorcycle, extra distance must be allowed for stopping.
- When cornering, use slower speeds and a wider angle of attack.
- Use extra caution at all times, particularly if the road surface is wet or slippery.
- Splitting lanes with a trailer is HIGHLY discouraged and is ILLEGAL in many states.

IMPORTANT: AS A SAFETY PRECAUTION CHECK THE FOLLOWING BEFORE EVERY TRIP:
*Visual Inspection of Hitch and Mounting Bolts. *Safety Chains are Attached Properly.
*Trailer Lights Function Properly. *Hitch Pin on & Clipped. *Check Air Pressure In Trailer Tires.

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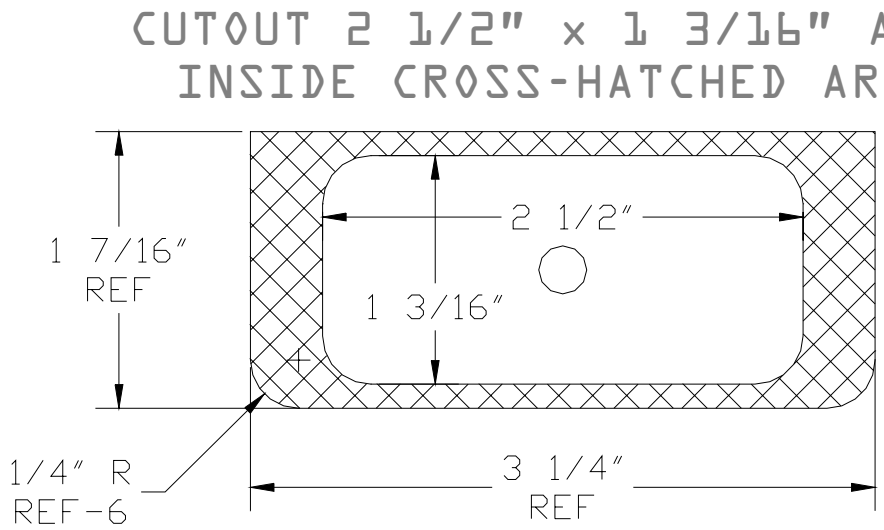
REFLECTOR TEMPLATE



PLEASE FAMILIARIZE YOURSELF WITH ALL PARTS IN PHOTO #1 BEFORE BEGINNING INSTALLATION.

A) MAIN FRAME

B) LEFT STRUT (has double offset bends)

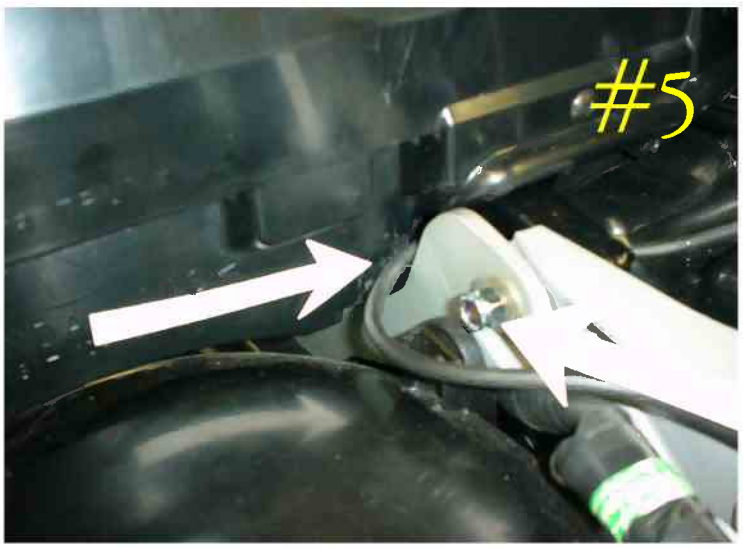
C) RIGHT STRUT

D) TONGUE & BALL

E) RECEIVER BLOCK

F) RIGHT REINFORCING PLATE

G) LEFT REINFORCING PLATE



THANK YOU FOR
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RIVCO PRODUCT!

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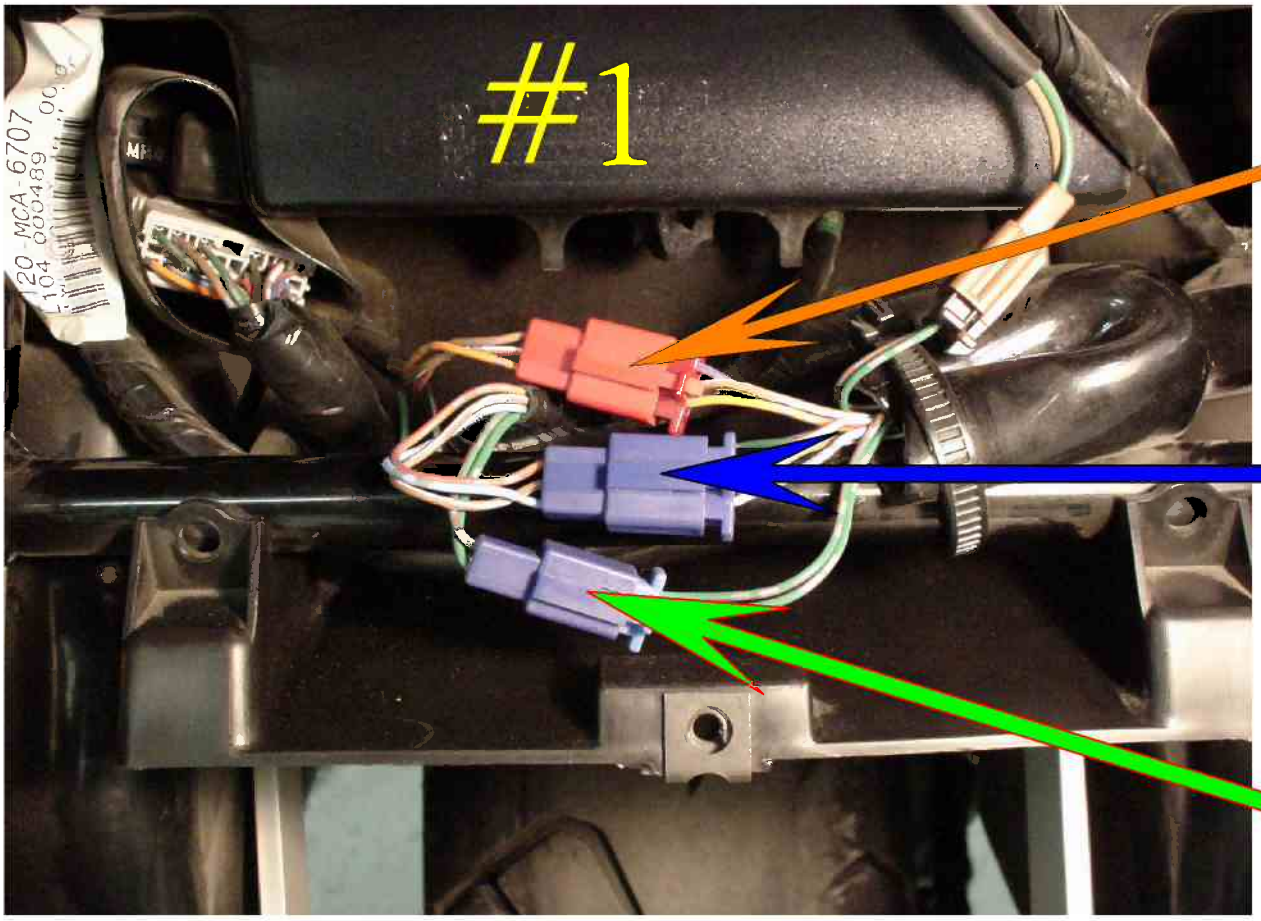
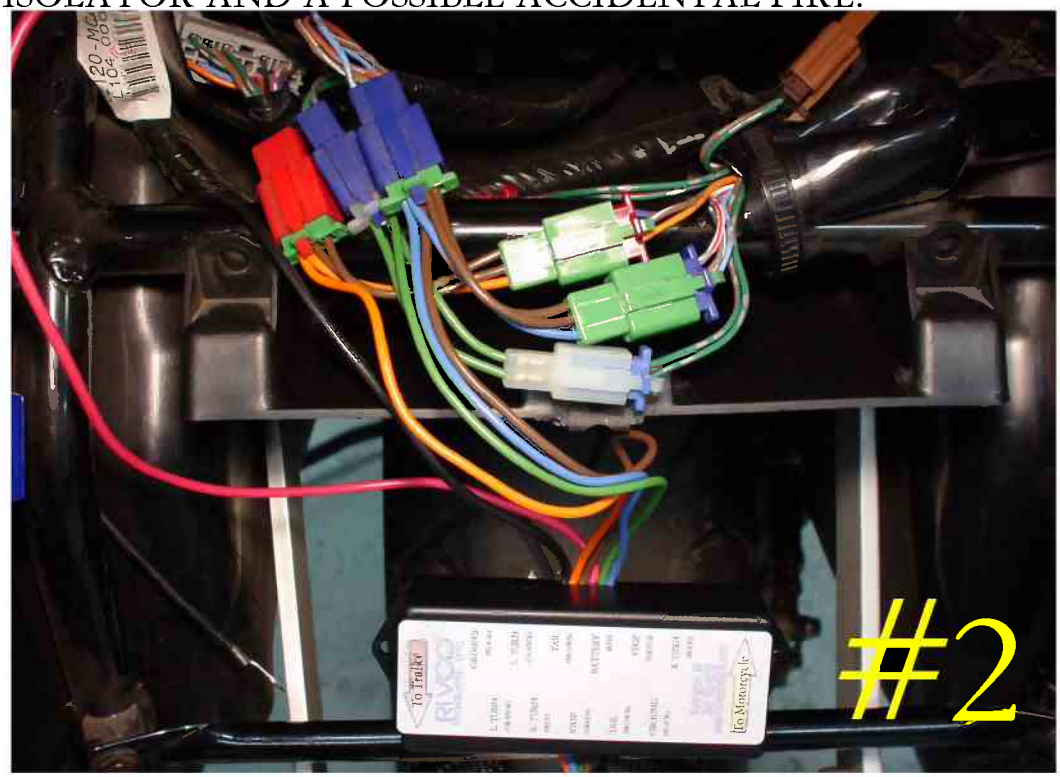


IMPORTANT NOTICE:

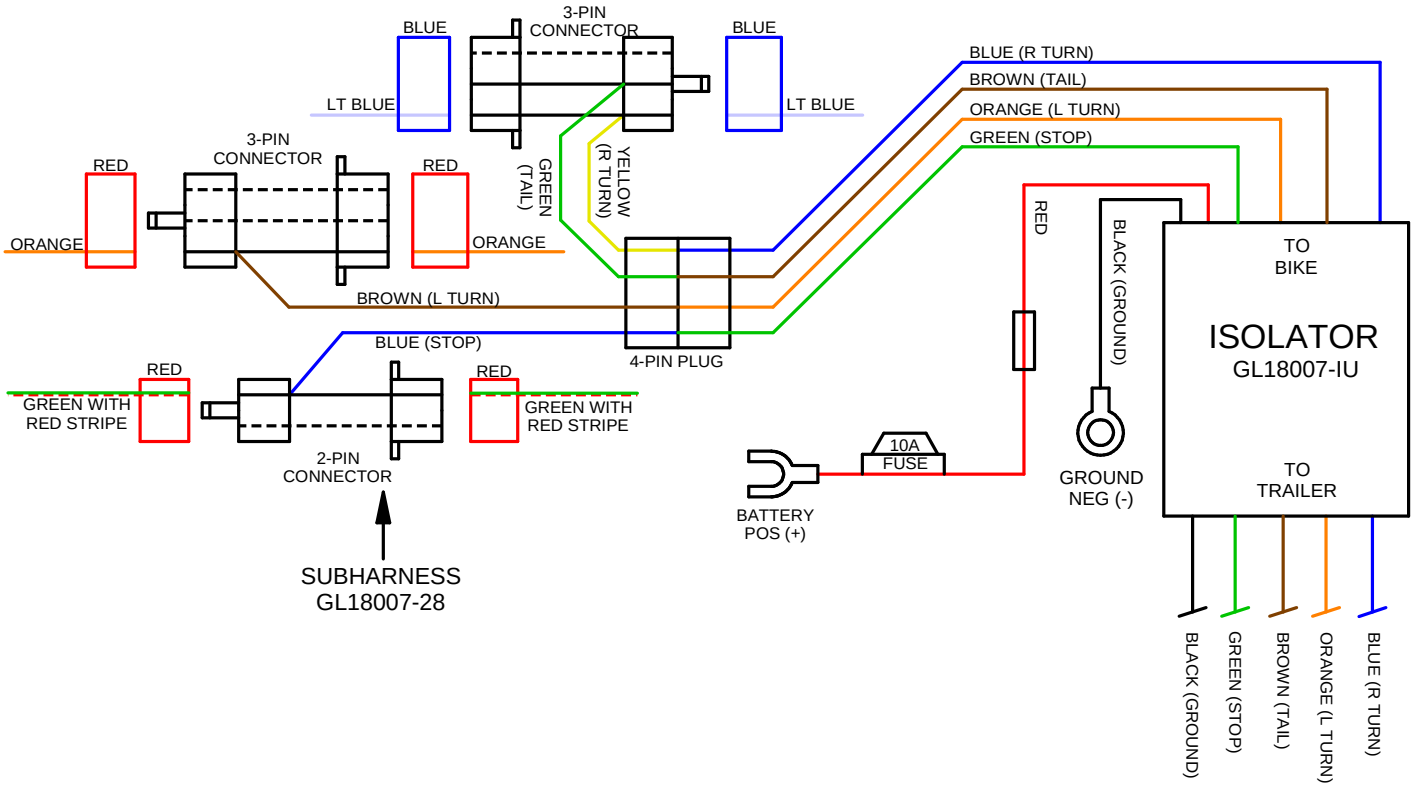
BE SURE TO INSTALL THE ISOLATOR FUSE AND HOLDER SUPPLIED TO THE BATTERY (+) TERMINAL. WHEN REPLACING THE FUSE USE ONLY A 10 AMP (RED) FUSE. USING A HIGHER AMPAGE FUSE OR BY-PASSING THE FUSE WILL CAUSE DAMAGE TO THE ISOLATOR AND A POSSIBLE ACCIDENTAL FIRE.

Isolator Output Wire Colors/Function

Color	*Function*
Black	Ground
Brown	Tail
Green	Brake
Orange	L Turn Signal
Blue	R Turn Signal



GL18007-28 (2001-2011 HONDA GL1800 GOLDWING)
ISOLATOR WIRING DIAGRAM



GL18007-28 (2001-2011 HONDA GL1800 GOLDWING)
WITH 5-TO-4 WIRE CONVERTER & ISOLATOR