clearwater LIGHTS™

Installation Manual

Yamaha FJR

Krista, Erica, Sevina LED Light Kit

Dimmable

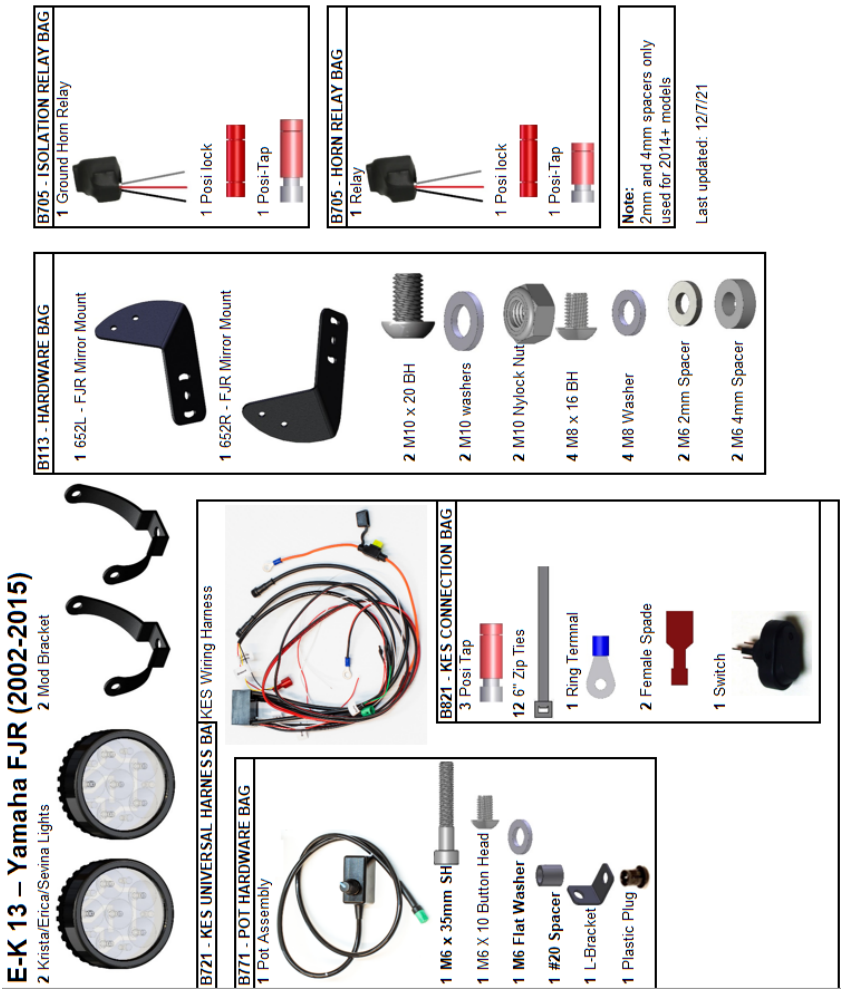
Patent Pending

Made in USA

Parts List and Bike Preparation (2002-2015)

Please be sure to read our instructions thoroughly before attempting installation.

- Check Parts list supplied with your kit to be sure all parts are handy. If something is missing, please call us at (916) 852-7029.



Clearwater lights include a simple and high quality means of connecting to the motorcycle's electrical system."Posi" devices made by Posi-Products are used to securely and safely make electrical connections on the bike. You can view instructions on the proper installation of the Posi-Products on the manuals page of our website or on Posi-Product's web site at http://www.posi-lock.com. They simply screw together and mate the wires.

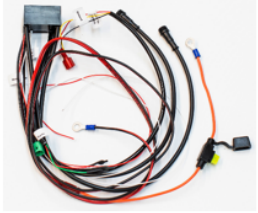
E-K 13B – Yamaha FJR (2016+) NON-ES

2 Krista/Erica/Sevina Lights

2 Mod Bracket

B721 - KES UNIVERSAL HARNESS BAG

KES Wiring Harness



B771 - POT HARDWARE BAG

1 Pot Assembly

1 M6 x 35mm SH

1 M6 X 10 Button Head

1 M6 Flat Washer

1 #20 Spacer

1 L-Bracket

1 Plastic Plu

B821 - KES CONNECTION BAG

3 Posi Tap

12 6" Zip Ties

1 Ring Termnal

2 Female Spade

1 Switch

B113b - HARDWARE BAG

1 652L - FJR Mirror Mount

1 652R - FJR Mirror Mount

2 M10 x 16 BH

2 M10 washers

2 M10 Nylock Nut

4 M8 x 12 BH

4 M8 Washer

2 M6 2mm Spacer

2 M6 4mm Spacer

Last updated: 12/7/21

B730 - FJR CONNECTOR BAG NON-ES

1 FJR Jumper Plug

2 Posi lock

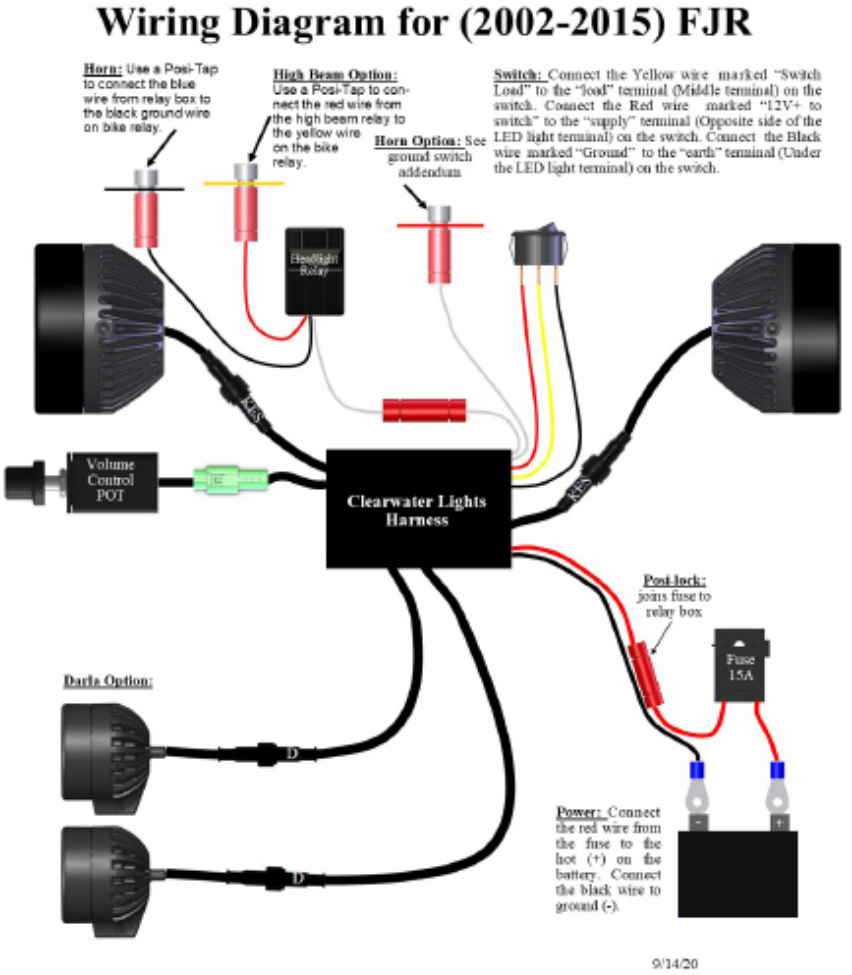
B705 - HORN RELAY BAG

1 Relay

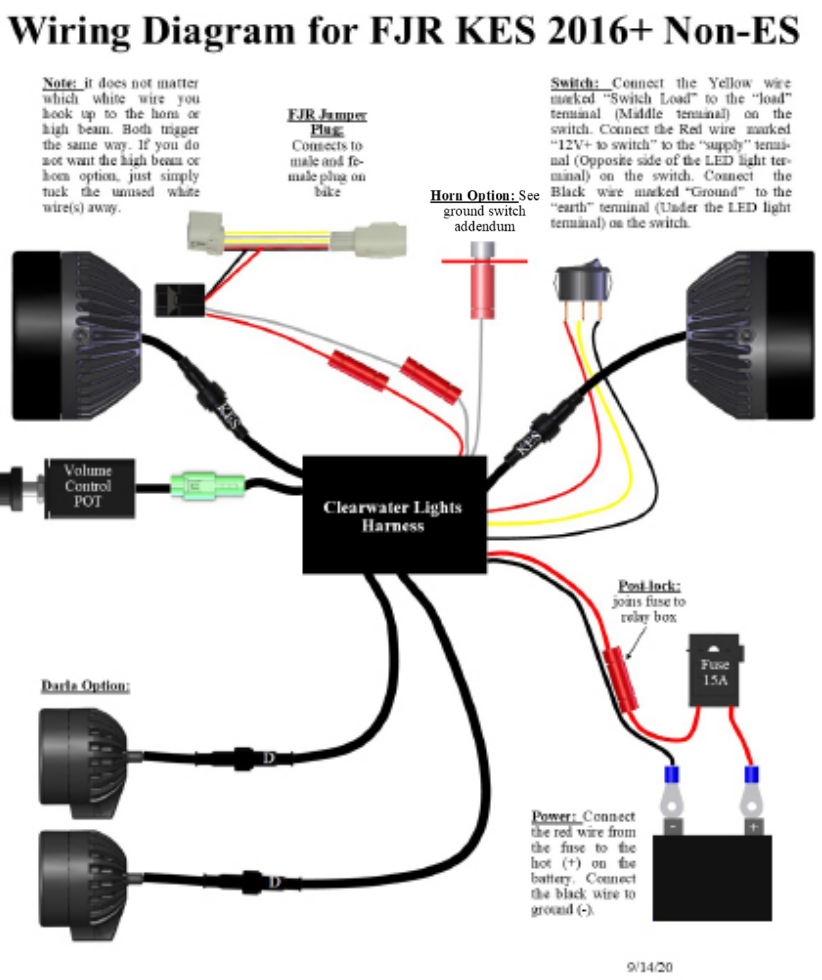
1 Posi lock

1 Posi-Tap

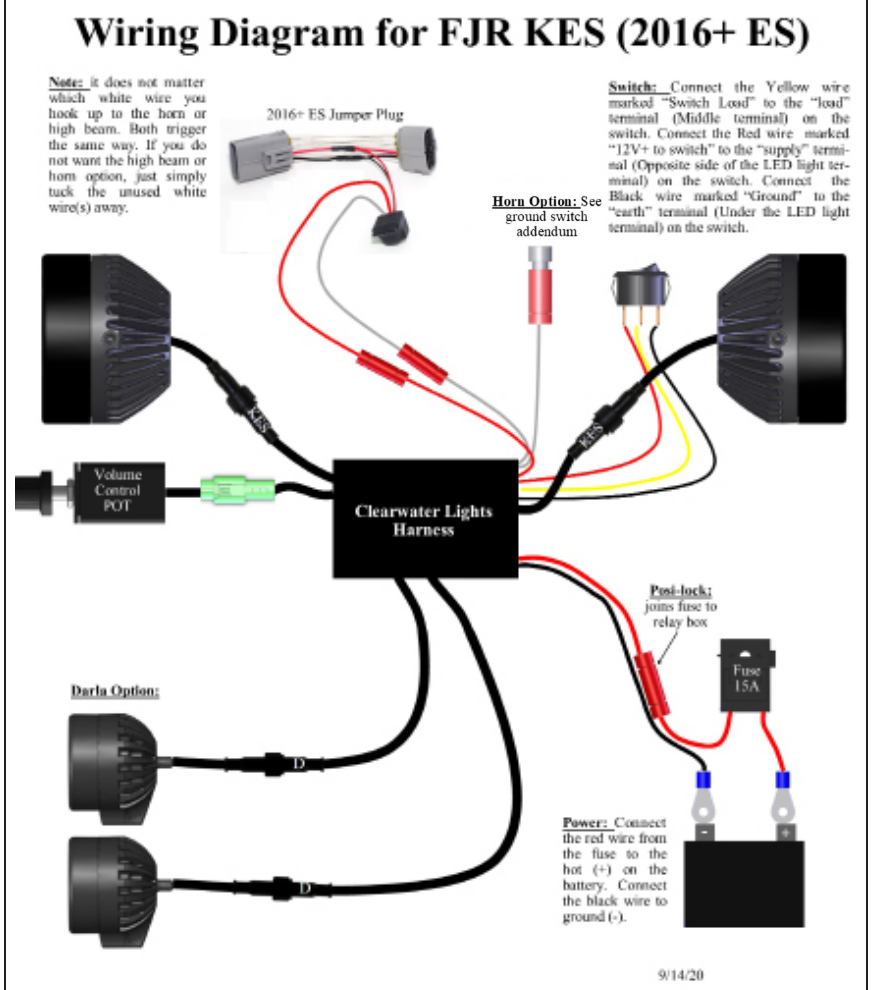
Wiring (2002-2015)



Wiring FJR1300A (2016+ Non-ES Model)



Wiring FJR1300ES (2016+ ES Model)



Bike Preparation

Bike Preparation:

- First, park the motorcycle on hard pavement or concrete to insure the bike will be stable during the installation. If you can mount the bike on a stand with tie-down straps, this will help secure the motorcycle.
- Follow the manufacturers guidelines for disconnecting the battery. This is important to prevent damage to the electrical system.
- Krista is a very bright LED auxiliary light. It uses advanced digital circuits to monitor and control light output. Do not use these with on coming traffic unless the dimmer is turned down all the way. Krista is designed as an off road only light due to it's light output and beam pattern. The wide circular pattern is very useful in mountain roads on a motorcycle as it keeps light on the road and in the tree canopy. As the bike leans, light is still focused on the road. Be certain to use the lights in a manner that does not blind oncoming traffic. Use these with caution and ride safe.

Krista / Erica Technical:

- Erica / Krista are very bright LED auxiliary light. Do not use these with on coming traffic unless the dimmer is turned down all the way. Krista/ Erica are designed as off road only light due to it's light output and beam pattern. The wide circular pattern is very useful in mountain roads on a motorcycle as it keeps light on the road and in the tree canopy. As the bike leans, lights are still focused on the road. Be certain to use the lights in a manner that does not blind oncoming traffic.
- Erica / Krista can also be used in a "low" beam mode and a "high" beam mode. The factory handlebar high beam switch is used to select the two different Erica / Krista modes. Krista light output is about 2400 lumens each light while only using 35 watts of power. Erica light output is about 6000 lumens each light while using about 60 watts of power. Erica / Krista are easy to install and has many, many uses.

Step 1: Disassembly

Note:

To install the wiring harness, the panels below (Fig. 1) will have to be removed. Follow the panel removal process in the next several figures.

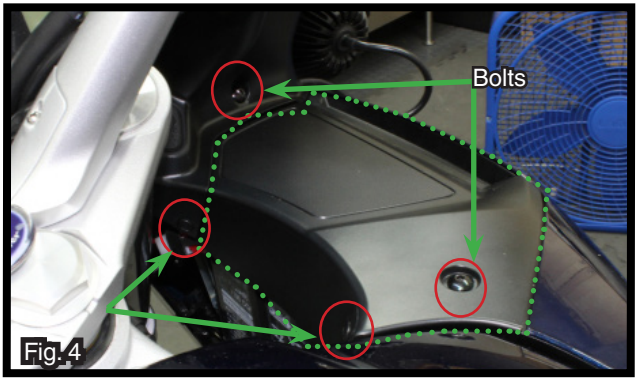
Fig. 1


Fig. 2

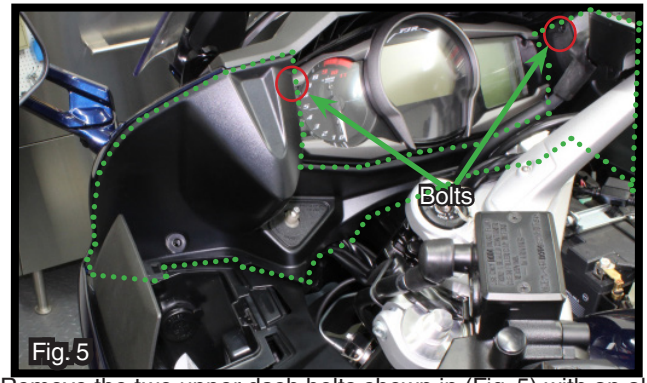
Start by removing the screw holding down the knob on the right and left side of the bike using a Phillips screwdriver. (Fig. 2) above shows the knob on the right side

Step 1: Disassembly

To remove the panel covering the battery, the side panel shown above (Fig. 3) must be removed. Unscrew the hand bolt shown and gently remove the panel. This process might be slightly different on older models

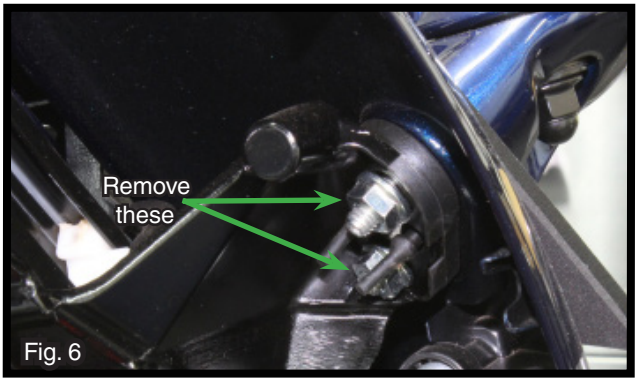


To remove the panel outlined above, the (2) circled pins, and (2) circled bolts will have to be removed (Fig 4). Use an allen key for the bolts. Remove the same panel on the left side of



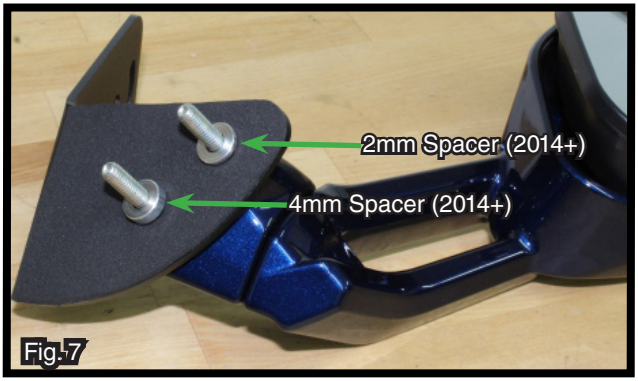
Remove the two upper dash bolts shown in (Fig. 5) with an allen key. The dash panel can then be carefully pulled out.

Step 1: Disassembly

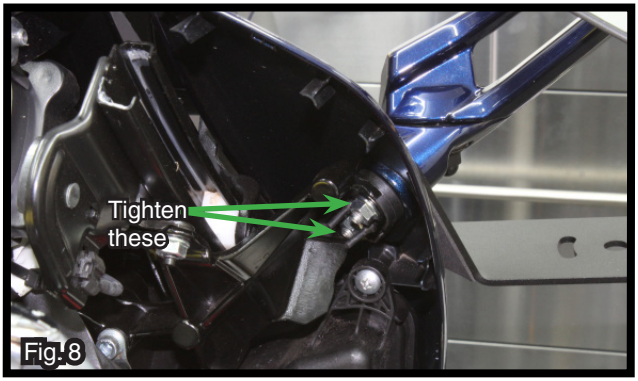


If installing lights to mirror bracket, remove the (2) nuts holding the mirror in place. Remove mirror from bike. (Fig. 6) Only do this for one side of the bike at a time so the other side can be used as reference.

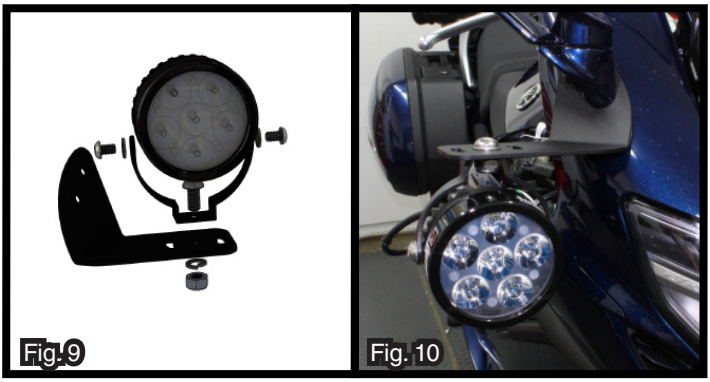
Step 2: Mounting The Lights



To mount the bracket to the mirror, place the bracket over the mirror bolts. 2014+ bikes will need the spacers seen in (Fig. 7) above (Left side shown). 2002-2013 bikes do not need these

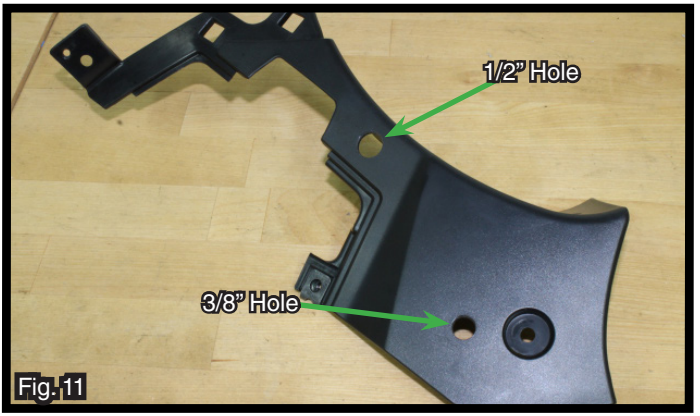


Reattach mirror assembly with light bracket to the bike. Secure assembly down with original bolts. (Fig. 8)

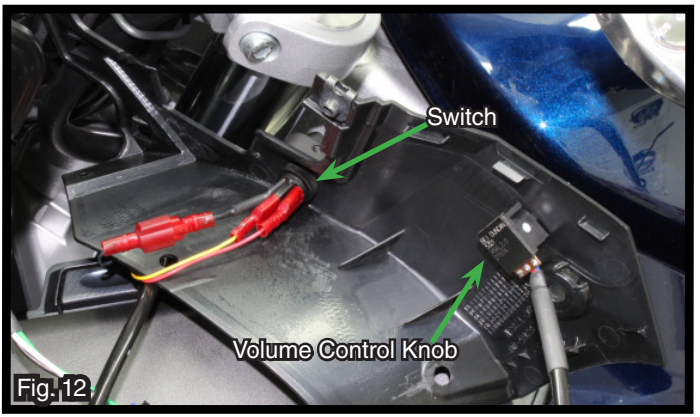


Mount the U-bracket and light to the bike mounted bracket with the included hardware. (Fig. 9) shows what the light will look like mounted above the bracket, and (Fig. 10) shows what the light will look like mounted below the bracket.

Step 3: Wiring (All Models)



Before installing the light switch and volume control knob, a 1/2" and 3/8" hole must be drilled into the left panel. (Fig. 11) above shows hole locations on a 2016+ model. 2002-2015 models might need slightly different hole locations. **It's important to check that there are no components underneath the panel holes that will interfere with the volume control knob or switch. Check clearance before drilling mounting holes.**



Crimp spade plugs to red, yellow and black wires from relay box. Attach to corresponding tabs on switch. Attach switch to 1/2" hold and volume control knob to 3/8" hole. (Fig. 12)

• **Hint for High Vibration installations:** *To keep the Volume Control Knob from rotating itself under high vibration, put a dab of silicone adhesive under the knob and let it dry. Then push the rubber knob back on. The friction of the glue under the knob will keep it in place.*

Step 3: Wiring (All Models)

Wire Routing:

- Refer to the Wiring diagram on pg. 3-5.
- Be sure to route wires so that they cannot become tangled or caught in either a suspension part or steering part. Check movement of both steering and suspension before riding the bike.
- It is sometimes helpful to follow existing wire routing.

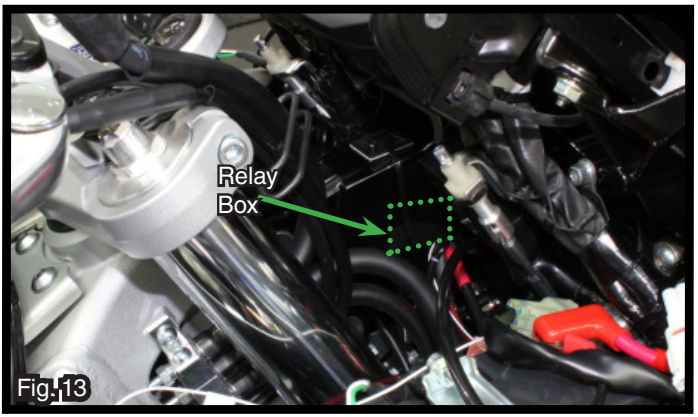


Fig. 13

Mount relay box from wiring harness under the center frame (Fig. 13). Secure box with Zip Tie.


Fig. 14

Run the red and black power wires directly to the battery. Make sure fuse is disconnected before attaching wires. (Fig. 14)

Step 3: Wiring (2002-2015)

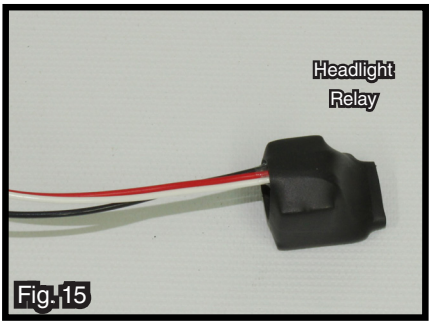


Fig. 15

Using a Posi-lock, connect the white wire from the headlight relay to the white wire on the Clearwater relay box. Refer to (Fig. 15), and the wiring diagram on page 3.

Fig. 16

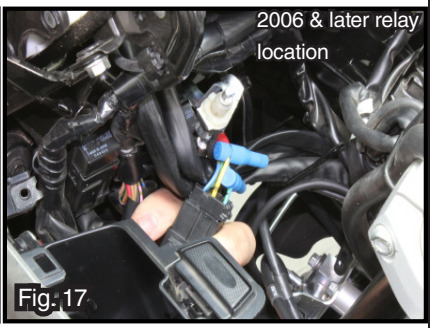


Fig. 17

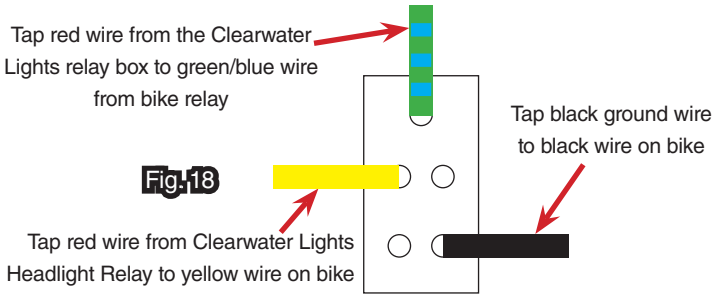


Fig. 18

TAPPING INTO BIKE RELAYS

- There are two bike relays located behind the speedometer cluster. Relay #1 has 5 wires , relay #2 has 4 wires. You want the relay with 5 wires. On 2006 and up bikes, the 5 wire relay is on the Left side. See (Fig. 16), (Fig. 17), and (Fig. 18)
- **Turn on Wire -** Use a Posi-tap to connect the red wire from the clearwater relay box to the green with a blue stripe wire (most models) or green with a yellow stripe wire (a few other models) wire on the bike relay.
- **High Beam Wire -** Use a Posi-tap to connect the red wire from the headlight relay to the yellow wire on the bike relay.
- **Ground Wire -** Use a Posi-tap to connect the black wire from the

Step 3: Wiring (1300A Non-ES model 2016+)

Wiring on 2016+ Non-Electronic Suspension models is easy. The wiring harness comes with a plug that attaches directly to

Fig. 19

Disconnect plug seen in (Fig.19), located near the battery. The FJR jumper will connect to both ends of this plug.

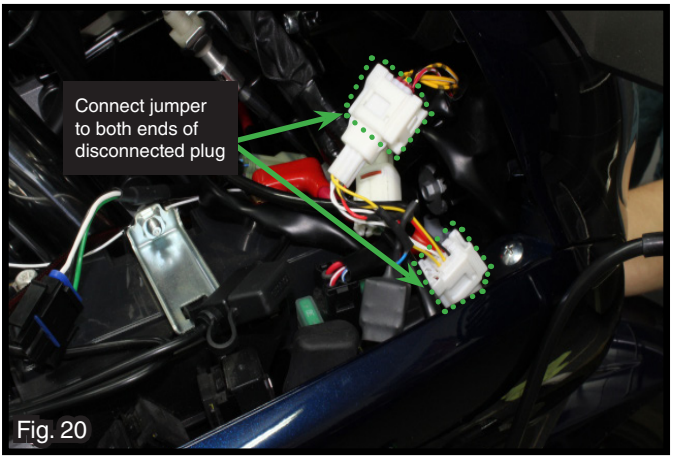
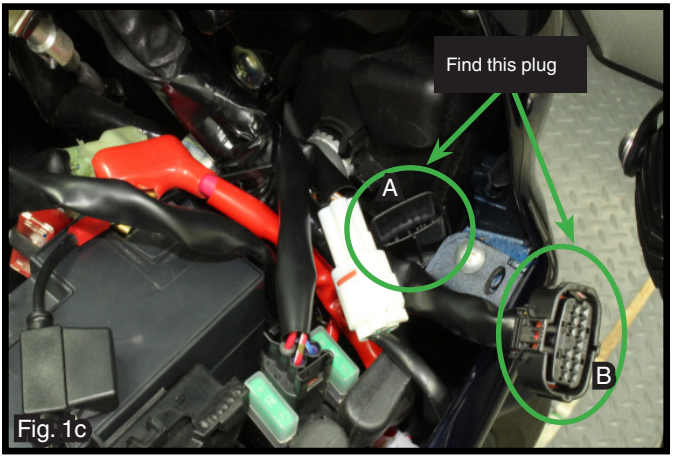


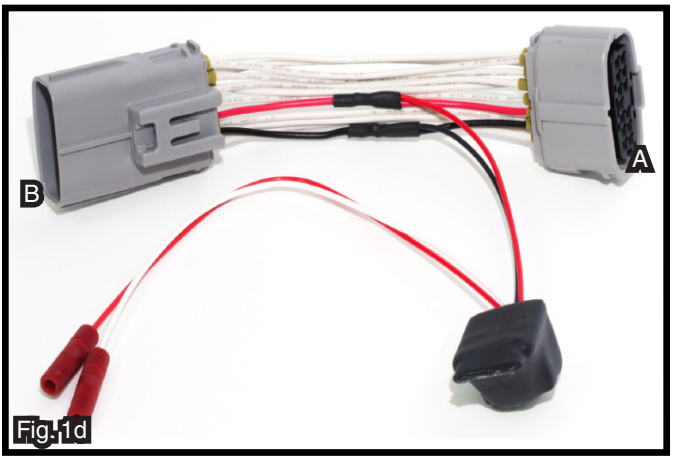
Fig. 20

Plug both ends of jumper connector into the male and female ends of the disconnected plug (Fig. 20). Refer to the wiring diagram on Pg. 4.

Step 3: Wiring (1300ES model 2016+)



Locate and disconnect the 13 pin connector shown above in (Fig. 1c). It will be buried under other wires in front of the battery. Following wires from the headlight assembly can be helpful in locating this connector.



Making reference to the wiring diagram on page 5, and (Fig. 1d) above, connect point A in (Fig. 1d) on the jumper plug to point A in (Fig. 1c). Connect point B in (Fig. 1d) to point B in (Fig. 1c).

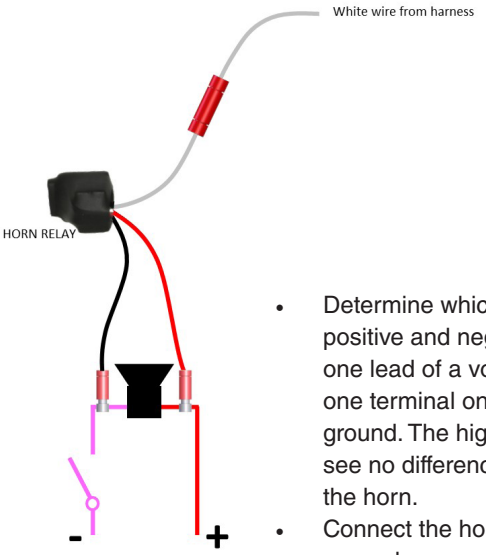
Step 3: Wiring

Horn (Optional) for Ground Switching Bikes

If the horn option is to be used for the bike, the white wire coming out of the dimmer knob will be used to connect to the horn via a diode pack. Because the horn is ground switched, an additional horn relay will have to be used. See the information below.

Horn Setup for Ground Switched Bikes

If the horn option is to be used on the bike, the white wire coming out wiring harness will be used with the horn relay seen below.

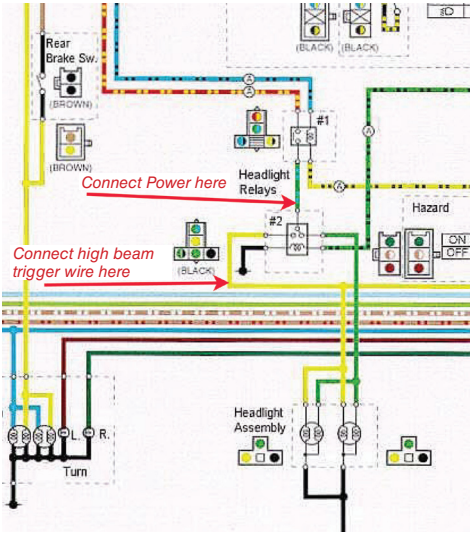


- Determine which wire on the horn is positive and negative. Do this by holding one lead of a volt meter or circuit tester to one terminal on the horn and the other to ground. The higher value is positive. If you see no difference, repeat while sounding the horn.
- Connect the horn relay and diode pack as seen above.
- Sound the horn and verify the relay clicks. If it doesn't, check your wiring.

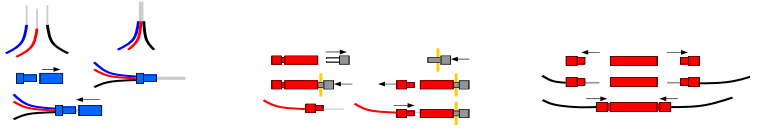
Step 3: Wiring (2002-2015)

Wiring Schematic

- This is a copy of the factory wiring schematic. It notes the wires on each of the two headlight relays.
- Relay #1 controls power to both high and low beam circuits.
- Relay #2 directs power to either high or low beam circuits. This is the high beam selector relay. Relay #2 is the 5 wire relay we want to use.



Posi-Products Installation Instructions:



A *B* *C*

Posi-Twist (A):

1. Strip all wires to be inserted 1/2".
2. **Twist all wires together before inserting into the Posi-twist.**
3. Completely unscrew the top from the Posi-twist.
4. Feed the twisted wires through the bottom portion of the Posi-twist.
5. Attach the top and tighten, while ensuring the wires do not slip out of the bottom of the Posi-twist.

Posi-Tap (B):

1. Unscrew the cap of the Posi-Tap (gray or large end).
2. Slide the wire you wish to tap into through the slot in the cap.
3. Re-attach the body of the Posi-Tap and tighten.
4. Attach the other wire to the bottom using the same method as a Posi-Twist.

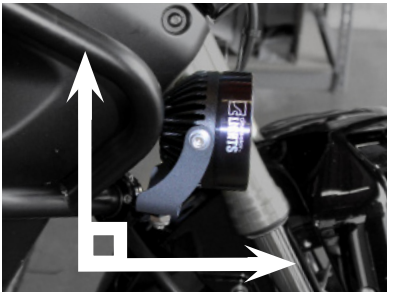
Posi-Lock (C):

1. Remove both ends from the Posi-lock.
2. Strip wire 1/2" and insert into bottom portion of the Posi-lock.
3. Hand tighten the Posi-lock onto bottom portion with wire, repeat for other side.

Step 4: Alignment

Aligning The Lights:

- As Erica and Krista are designed as auxiliary lights, adjustment is up to the user depending on his needs. Ask an assistant to help you with this procedure. Make sure the bike is on level ground and have an assistant sit on the bike. With a right angle board or object, position the board on the floor and slide it up to the light. The goal is to adjust the lights so that the light is level with the ground. Passengers and luggage may alter the alignment of the light, so further adjustments may be needed. You may find that a slight downward angle (5 degrees) is helpful. Often times it is helpful to angle the right side light toward the right side of the road. This helps with identifying road terrain and



Do Not Kink The Grommet

To maintain the integrity of the water sealling grommet, do not kink, deform or put pressure on the grommet when dressing the wires during install of Clearwater Lights.

Thank you for purchasing your Clearwater lights. We hope this product will help make you a safer rider. Please feel free to send us comments or suggestions at any time. We learn from you. Visit our website for more exciting products to help you see better at night.

Ride safe!

Sincerely,

Glenn and the team at Clearwater.

clearwater LIGHTS™

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