

April 28, 2011

Installation of Heated Grips, 2009 Kawasaki Versys

After spending many years riding a BMW with heated grips, I realize how important it is to keep the hands warm, whether it is just a rainy day, or truly cold. Many of us forget that much of the bikes control is with our hands, and with cold or numb hands, control is compromised.

Last year I installed "Hotgrips" on my 2009 Kawasaki Voyager, I did a lot of research on various heated grips, I chose the "Hot Grips" brand available at: www.hotgrips.com

Part of the reason why I decided on Hot Grips is because the company owner "Jim Hollander" was very quick to answer my questions and provided all the information that I needed. In other words, he gave me the "warm fuzzy feeling" about his product. (I wish other suppliers would follow his example).

Well I can happily report that after riding with Hotgrips on my Voyager for over a year, I am still very impressed with the product.



Last year my Son purchased a Versys, and for the sake of comfort and safety, "hot grips" were a priority.

We ordered model "475-875" with open ends and the 2 part epoxy (optional) Note: Hot Grips does have other optional items available such as a fuse holder, in our install we did not need it.

The grips in this kit are 4 3/4" overall length and meant for 7/8" handlebars.

The Kit contains:

- Left and right heated grip
- Resistor for the low temperature setting.
- High/Low toggle switch
- Instructions

Not shown is 2 part epoxy which I also bought from Hot Grips.

Below; I have detailed how my son & I installed the grips. Hopefully our experience will help others with their installation of the grips.

Please make sure that you follow the instructions provided by "Hot Grips".



Remove the Factory Grips

Before removing the factory grips, the bar end weights need to be removed. The bar end weights are fastened with a socket head bolt, which requires a 6 mm hex wrench to undo. Make sure to keep the socket head bolts and bar end weights, as these need to be reinstalled after the new grips are on.

Once we had the end weights off, we used a sharp utility knife to cut through and peel off the factory rubber grips. (They are only about 1/8" thick so it's easy to do, however be careful not to cut through the plastic throttle sleeve.)

Note: peeling the factory grips off is possible but yet arduous.

Prepare throttle sleeve for grip installation



The throttle sleeve is easy to prepare. First we cleaned any loose glue from the bar. Secondly we gave the sleeve a light sanding to roughen the surface so that the epoxy can bond to it.

After removal of the factory Grip the throttle sleeve, is pretty smooth, and is coated with glue.



As a final clean up we used a little paint thinner on a rag, then wiped off any dust and any left over glue residue.

Next it was time to gently test fit the throttle grip. Be very careful here as it needs to slide on easily.

Take a look at the inside of the 2 Hot grips, you will notice one has a larger inside diameter, that is the one to use on the throttle sleeve.

According to the instructions, "**Do not force the grip on with anything greater than gentle hand force**". In doing so you could crack the heated grip if it's too tight. (Remember after the test fit you need to take it off again.)



On the Versys, the heated grip slid onto the throttle sleeve with no effort.



At this point we reinstalled the bar end weight so that we could properly position the heated grip.

We moved the grip around until we were satisfied with its position.

We also decided that the best position for the power wire is pointing almost straight down. In this position we could leave the needed couple of inches slack in the wire, and also the wire would not cause any interference with any of the controls or handle bar movement.

After we identified the ideal position for the heated grip, we took the bar end weight off again.

The throttle side grip is now ready to epoxy, so it's time to prepare the left hand grip.

Prepare left handlebar for grip installation

The left side grip preparation is almost identical to the throttle side; the only real difference is the absence of the throttle sleeve;

- a) Clean any loose glue off the handle bar.
- b) Lightly sand the bar to roughen the surface to give the epoxy something to bond to.
- c) We used paint thinner to clean off any sanding dust and residual glue.
- d) Using the Hot grip with the smaller inside diameter, gently test fit it. And reinstall the bar end weight to identify the position that you want the grip to be when it's installed.

Epoxy on the new grips.

Following the instructions on the epoxy package we mixed the high heat 2 part epoxy.





We applied the epoxy using a Popsicle stick (about the size of a pencil) to the left handle bar covering the area of the handlebar where the heated grip will be installed.



Afterwards, we slowly slid on the left grip, cleaning up the excess epoxy as the grip slid on. (We made sure that the power wires ended up in the approximate 6 o-clock position.)

The epoxy is workable for about 20 minutes, so we needed to make all position adjustments & clean up fairly quickly.

We then repeated the process on the left bar. The throttle side was a looser fit, therefore it required more epoxy. To speed up the epoxy dry time the instructions mention connecting them up to a 12 volt power source. Due to the fairly loose fit we did apply power for about 20 minutes. We then reinstalled the bar end weights.



The installed throttle grip.

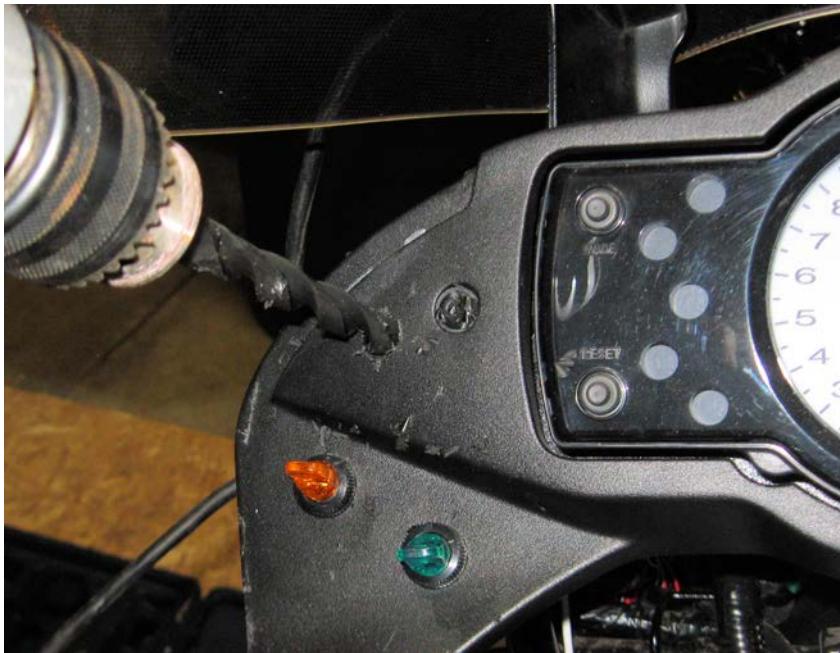
Wiring

Leaving a couple of inches slack at the throttle grip, we ran the wires from both grips along other wire/cable bundles to under the front cowling and neatly secured with cable zip ties.

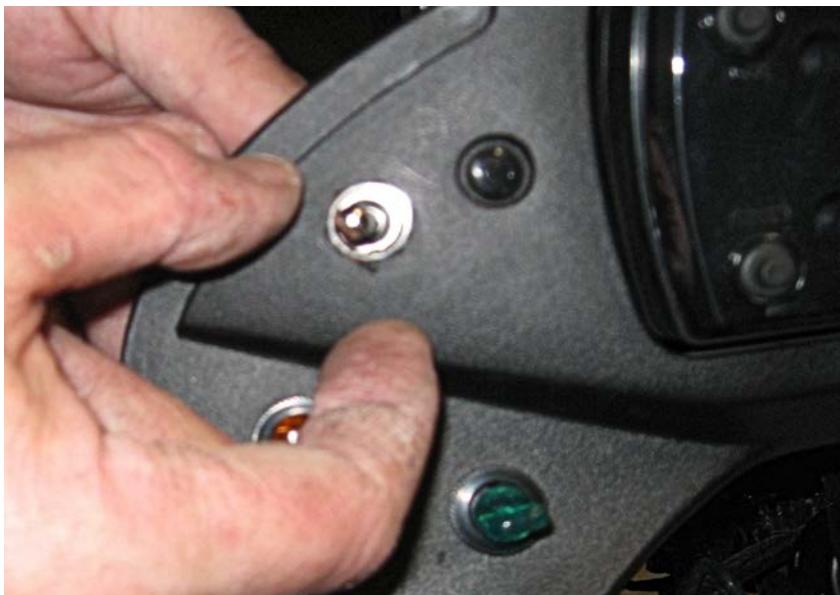


We found that we needed access to the area behind the headlight in order to install the switch and make all the appropriate wire connections. To do this we needed to remove the left side gas tank panel.

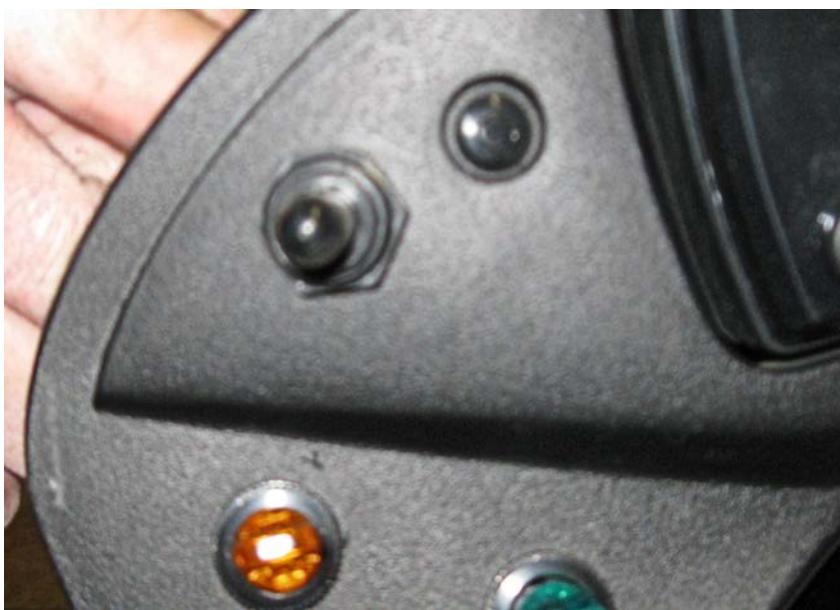
As shown by the red arrows we removed the (qty) six, 4 mm hex head bolts and then gently pulled the panel away from the gas tank.



Next we drilled a $\frac{1}{2}$ " hole in the black panel surrounding the speedometer, to accommodate the toggle switch.



We installed the toggle switch in the hole, and tightened the nut.



The switch does not come with a black rubber boot, but we had an extra one sitting around the garage. It not only helps to make the switch watertight, but it also helps the switch blend in.

Wiring connections are always a weak point. When making wire connections some people like to solder; however years ago, I found out that solder joints often break, due to the vibration on the rigid solder joint. The solution that I found to work better, is a good crimp connector filled with silicone. The silicone not only helps to seal out moisture, but also acts as a vibration dampener.



On a board we squeezed out a line of silicone, and then filled each connector by scooping it in the silicone.

Then we inserted the wire into the crimp connector and crimped.

Once the silicone dried, we have a moisture proof, vibration resistant connection.

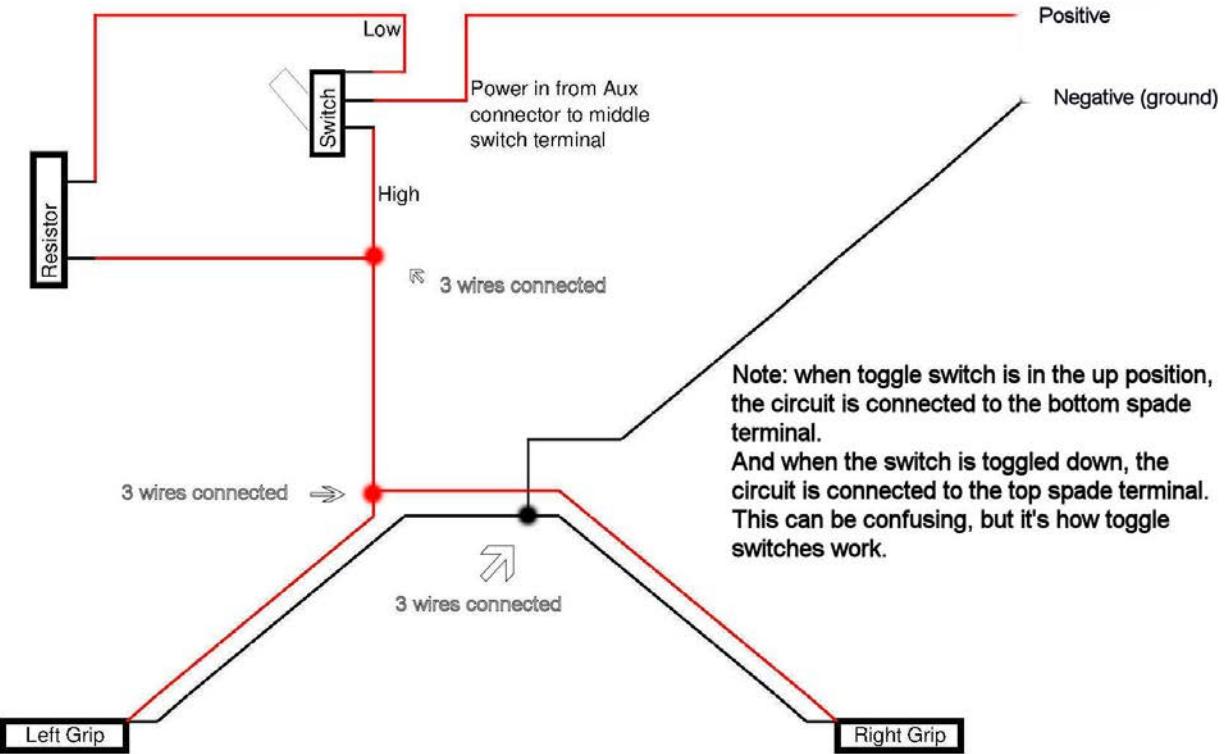
In order to **power the grips**, we need a power source that only operates when the key is in the "on" position. This could be done by finding a keyed power wire that has enough current to operate the grips. Then tap into it with the optional fuse holder.



In our case this was not required, as a few months ago we installed an auxiliary fuse panel under the seat of the Versys. We did this so that we would have plenty of individually fused power lines, to accommodate the various electrical installs we wanted to do.

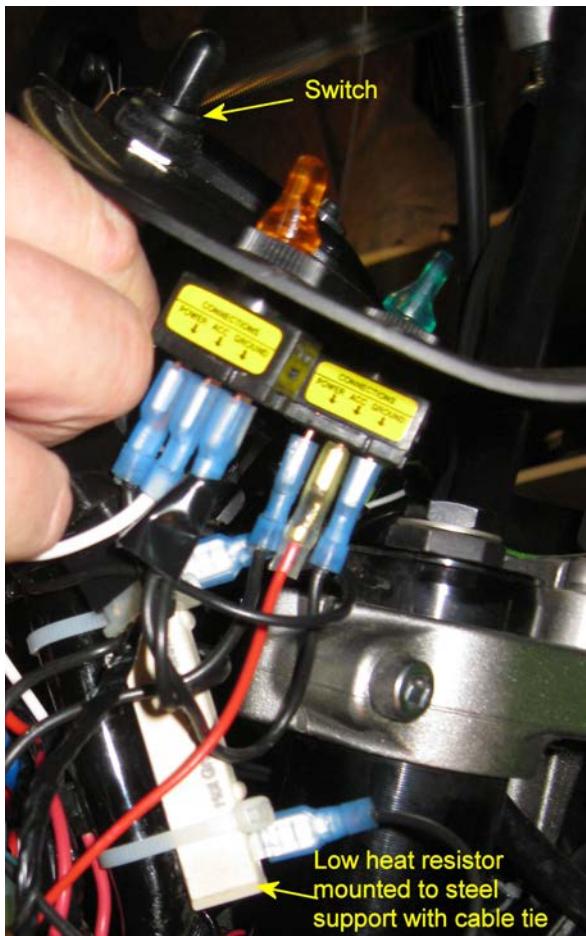
Without going into too much detail we tapped into the tail light power, which only operates when the key is in the on position. We connected it to a 30 amp relay; the relay then controls a power wire running directly from the battery to the auxiliary fuse panel.

We left fuse "five" in the auxiliary panel open for installing the heated grips. From there we ran our heated grip positive power wire under the gas tank to the center spade connection on the toggle switch for the heated grips.



Above is the wiring diagram we used to connect the grips.

We connected one wire from each grip to a bolt at the back of the headlight. This gave us our the negative(ground) connection.



As shown in the picture to the left, using the cable ties, we mounted the low heat resistor to a steel support behind the headlight.

From the top spade connector on the resistor we ran a wire to the top spade connector on the toggle switch. From the bottom resistor spade connector and from the bottom switch spade connection, we ran 2 wires and spliced them together along with the positive power wires from each grip.

With all our electrical connections complete, we then tidied up all the loose wires with cable ties.

Now it was time to test the grips; the switch center position is off, down is low heat and up is high heat.

After we determined the grips worked, we reinstalled the left side tank body panel.

Now it's time for Adam to enjoy the "heat".

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