

Installing and setting up the Windbender Electric Option

Thank you for purchasing the Firecreek Accessories Electric Adjustment Option for your Windbender. You should probably sit down with a cup of coffee, or a cold drink, and read through these instructions completely before you start.

Pre-Installation Settings

Windbender shields allow for a wide range of vertical adjustment that allow a wide variety of comfort zones for low and high speed riding. We **highly** recommend that you first mount your Windbender on your motor-cycle and use the manual adjustment for multiple test rides. This will allow you to find your sweet spots in vertical adjustment before drilling the top shield.



Cautions

Before you drill a hole in your top shield, mount your Windbender on your motorcycle and first use manual adjustment to find your sweet spots.

Do not forget to stuff some rags in the black holes behind the mirrors before removing the mounting hardware for the windshield garnish.

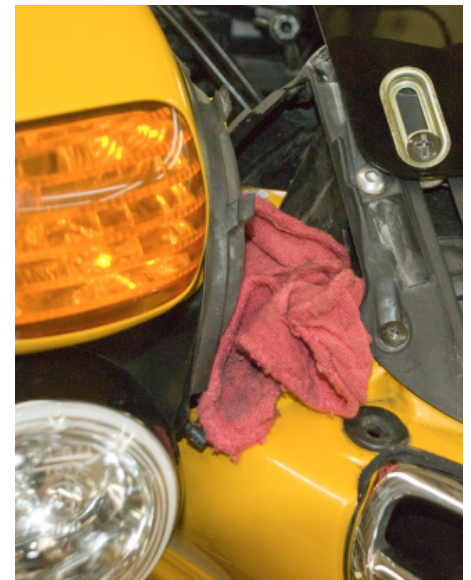
Do not apply excess tension to the bonded-pair of wires coming from the actuator or try to lift the base shield with insufficient slack in the wires: It is possible to break the wires or destroy the actuator.

*A power harness is included for the GL1500 that you will need to connect to the auxiliary terminals on the fuse block. Otherwise the installation is the same.

Installation Instructions

Follow the instructions that came with your Windbender and mount your new shield on your motorcycle. Stop when you are ready to put the windshield garnish back on. If you have your Windbender mounted:

1. Remove the windshield garnish. Push the mirrors forward peel back the boots to expose the two 6mm garnish mounting bolts, washers and rubber grommets.
2. Stuff some rags in the openings around the mirrors below the bolts. If you don't stuff those rags in place your hardware can get sucked down into the black hole and you may never see it again.



3. Remove the mounting hardware with a 10mm wrench and spread the painted mounting tabs off of the windshield clamp bosses. Pull the garnish from the four grommets and set it aside.

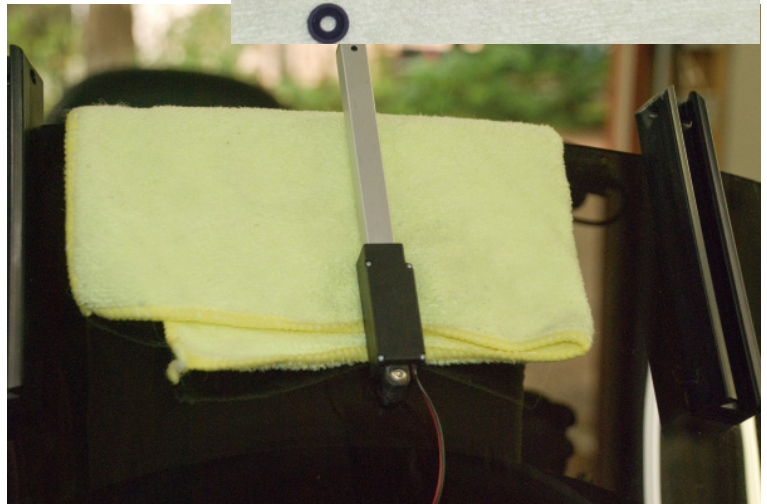
4. Raise the Windbender base to its highest position.

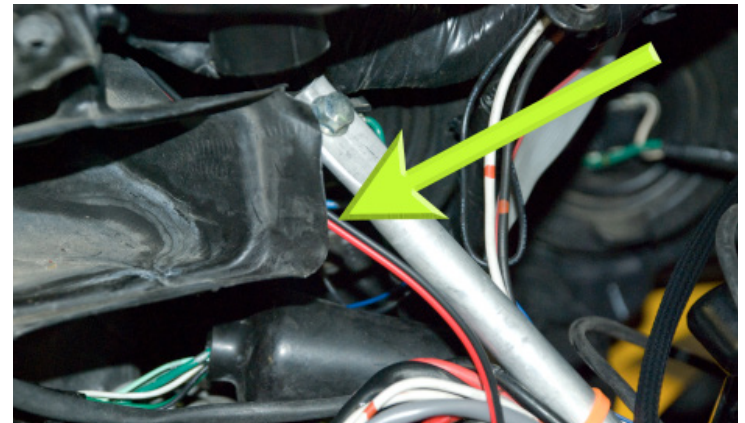
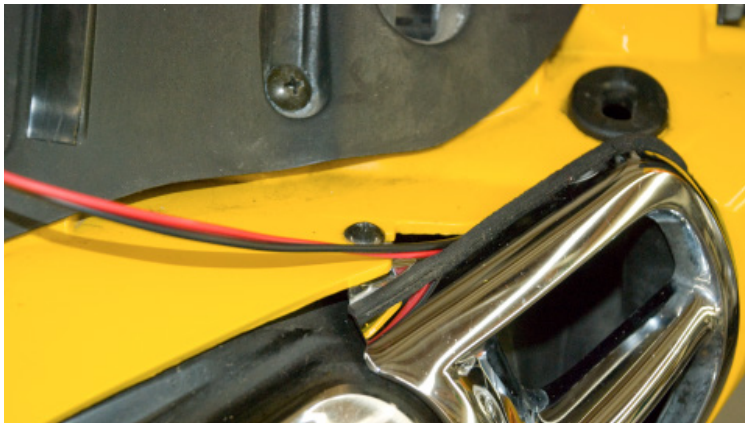
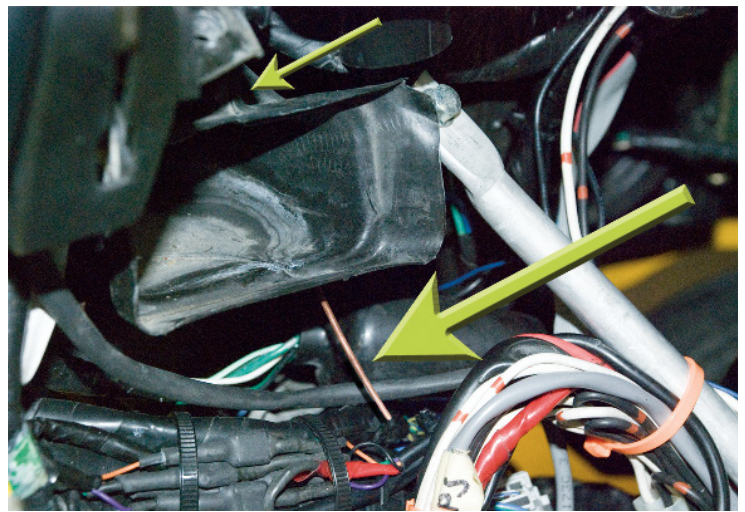
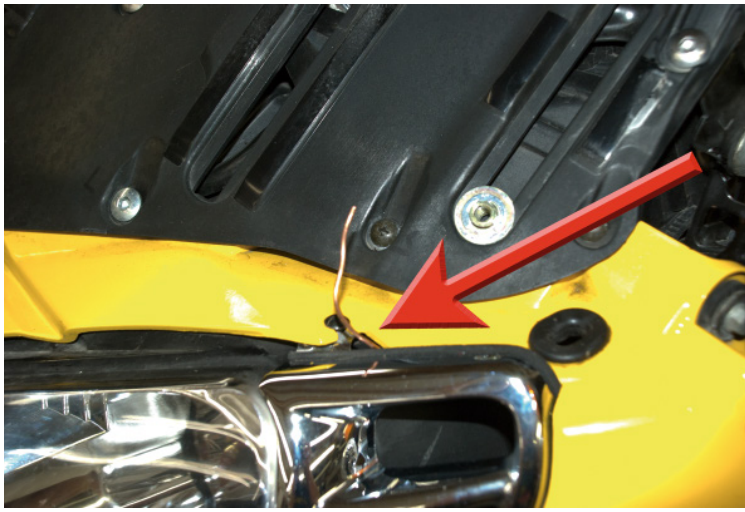
5. Mount the actuator to the base shield. Make a mark on the base shield centered between the rails 5" down from the top of the base shield. You may want to cover the area with masking tape and use a straight edge across the rail bottoms to find center. The lower mounting position should be as close to center as possible, but the vertical position of the hole is not critical. Simply make sure the lower actuator mounting hardware clears the dash when the base shield is in its lowest position. If you are using an HP11, make sure the top of the actuator will mount below the recurve. Using the supplied spade bit, drill a 5/16" hole in the base shield on your mark.

6. Remove the 4mm locknut, nylon washer and shoulder washer from the 4mm bolt pre-attached to the actuator. Collect a 7mm open-end wrench and a 2.5mm hex wrench. Put the black shoulder washer in the hole you drilled in the base shield followed by the actuator. From the back of the base, put the large 4mm nylon washer and lock nut on the 4mm bolt. Hold the bolt with the Hex wrench and snug down the lock nut. Do not over tighten the lower mounting hardware. It only needs to be tight enough to push the top of the actuator towards the top shield to help the spring detent balls in the clevis pin to hold the actuator in place; the actuator should move with light pressure.

7. Routing the wiring harness will be easier and can be done more neatly with the top shelter removed, but it is not required.

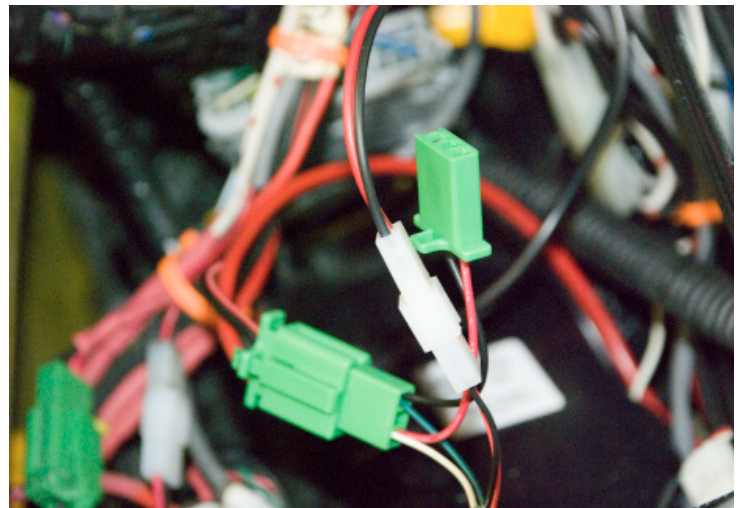
8. Remove the left fairing pocket from the top shelter. Four plastic push pins hold the pocket in place. Use a small pointy object to push down the button in the center of each pin. Lift them out with a fingernail. Set the pins and fairing pocket aside.





9. Locate the hole in the fairing next to the left intake grill mounting screw above the headlight. Push the pointy end of the large white zip-tie through the hole slightly towards the center of the motorcycle until you can find it in the fairing pocket hole. Pick the 24" red/black bonded wire extension harness from your kit and tape the white female socket (with male pins) to the square end of the zip-tie. Carefully pull the wire through the fairing, remove the tape and set the zip-tie aside.

10 Route the wires from the actuator behind the windshield clamp. Be sure the wire clears the rubber pads on the back of the clamp. Make sure to leave enough slack in the wire so you can raise the base shield when installation is complete. Raising the base with insufficient slack in the wire can break the wire or destroy the actuator. Optionally, you may slip a 2" piece of 3/8" heat shrink tubing over the bonded wire. Plug the actuator into the harness. Do not shrink the tubing yet.



11. Mount the switch housing on the left handle bar. It is necessary to slide the left grip out to make space for the housing. Squirt some electrical contact cleaner between the grip and bar. Then, use a grip removal tool or compressed air and a couple extra hands. If you have heated grips, turn them on high until the grips get warm and the glue softens. Then pull the grips off - Do Not twist electric grips. You might break the heating element. Mount the switch housing on the bar behind the grip. If you did not get the switch housing; find a suitable location for the switch, drill a 1/4" hole and mount the switch.

12. Route the cable from the switch along the handle bar, over the steering head and back along the frame following the clutch hose route. Ensure that the wires will not pinch or tear when the handlebars are turned full lock. Using your long zip-tie again, carefully pull the wiring harness under the top shelter to the fairing pocket hole.



13. Locate the three-pole Hitachi accessory outlet buried in the large black wiring boot in front of the fairing pocket hole. Connect the white Hitachi socket from the new harness to the accessory plug. Connect the 2-pole AMP connector to the extension harness you routed earlier to the actuator. Our wiring harness has one open Hitachi plug available so you can add another low amperage accessory.

14. Turn the ignition switch to Accessory and test the system. If the piston goes up when you push the switch up, all is well. Our actuator has built in limit switches and will not strain if it is at the end of its travel (from full up it can only go down and vice-versa). You can shrink that little piece of tubing now.

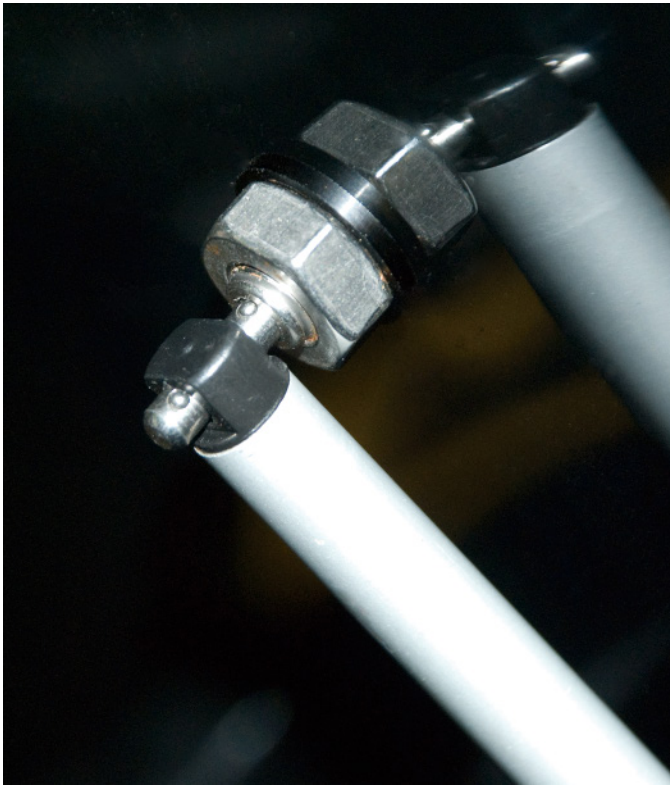
15. Secure the wiring harness in place with the provided zip-ties. You can replace the top shelter, fairing pocket and windshield garnish now, if you like.

16. Mount the actuator to the top-shield. Install your Windbender top shield in your chosen lowest position and release pin sets to hold the shield in place. For most riders the adjustment rails will be flush on top (lowest setting).

17. With the actuator in its lowest position, mark a spot on the top shield, horizontally centered, where the top clevis of the actuator meets. This is easily done from the front while looking through the shield at the hole in the top clevis. Rotate the actuator out of the way and drill a 5/16" hole at your mark with the spade bit.

18. Slide the 8mm hollow-bolt through the hole in the top-shield, without a washer. Put the black 8mm nylon washer on the hollow-bolt followed by the retaining nut. With a 14mm wrench and a 6mm hex wrench, tighten the hollow bolt. The washer will act as a lock washer to keep the hollow bolt tight.





19. Push the clevis pin through the hollow bolt and actuator clevis so the two detent balls are fully through the actuator clevis. You can remove the clevis pin without tools. You may order additional hollow bolts if you have additional top shields.

20. Remove the retaining pin sets and cap the holes with the supplied plugs. You can grip the hollow bolt and remove each assembly in whole or you can remove the knurled nut, remove the pin and spring out the front, then use an 8mm hex wrench to remove the hollow bolt.

Adjustments and Normal Operation

If the actuator strains while moving the shield you will need to loosen the top shield mounting rails (and sometimes the lower rails too) and re-center the rails per the instructions provided with your windshield. The actuator may chatter slightly during downward movement when the motorcycle is at rest even when the rails are adjusted properly, but when you are riding air pressure on the top shield will stop the chatter. If you are using a CB radio, you may hear actuator operation as static though your headset. You can adjust your squelch to completely eliminate the noise.

Your Windbender actuator is waterproof to spray from all angles (rain and gentle washing), but **DO NOT POWER-WASH THE ACTUATOR** (or ride underwater :-)

Enjoy your new switch!

Please contact us if you experience any difficulty with installation or experience any problems with your kit.

