

# INSTALLATION INSTRUCTIONS

Horizon® ST Patented Multi Axis Adjustable Handlebar System for  
BMW K1600GTL 2012+

P/N: HST05149

***IMPORTANT:  
PLEASE GIVE CUSTOMER ENCLOSED INFORMATION!***

# WHEEL BARS



Patent No: US 8,230,758 B1

Thank you for your purchase of our HeliBars®. They are designed to increase your long distance comfort and improve the handling of your sport motorcycle, and we feel confident you will enjoy them.

Your HeliBars are designed to fit your motorcycle with little to no modifications needed to your stock cables and hydraulic lines. In order to achieve this fit, we do not simply increase the height at the fork tube/triple clamp area. If we were to mirror the angle of your stock handlebars, the HeliBars would not fit and clear your stock equipment, and lock to lock steering clearance would be impossible.

If you hold up the HeliBars and compare it to your stock handlebar, the difference may not be readily evident. One test we can suggest is to take your stock handlebar, and the corresponding HeliBars, and set them both on a flat surface. You can see the angle difference. Then install the left HeliBars, following the instructions. Walk around the front of your bike and look through the windshield. You should see a noticeable difference between your stock handlebar and the HeliBars. Finish the installation, and try them out. We think you'll like them!

### **HeliBars INSTALLATION**

**IMPROPER INSTALLATION COULD RESULT IN SERIOUS INJURY OR DEATH.  
HAVE A QUALIFIED MECHANIC INSTALL YOUR HeliBars.**

**IF WE HAVE NOT INCLUDED SPECIFIC INSTRUCTIONS FOR YOUR MOTORCYCLE, THEN THE INSTALLATION IS SIMPLY A REVERSAL OF THE DISASSEMBLY PROCESS. \*\*NOTE THE LOCATION OF LINES AND CABLES. BE SURE TO CLEAN THE FORK TUBES BEFORE INSTALLATION!!**

**!! CAUTION !! MAKE SURE THE HeliBars ARE FULLY SEATED. TIGHTEN BAR END DAMPER WEIGHTS FIRMLY. AFTER INSTALLATION, MOVE BARS LOCK TO LOCK AND CHECK CLEARANCE OF: 1.CABLES 2. HYDRAULIC LINES 3.WIRES 4.FAIRING 5.FUEL TANK. TORQUE ALL HARDWARE TO MANUFACTURER'S SPECIFICATIONS.**

**IF YOU HAVE INSTALLATION QUESTIONS, PLEASE CALL 1-800-859-4642.**

**HELI MODIFIED, INC. ASSUMES NO LIABILITY FOR ANY INJURY OR LOSS OF PROPERTY WHICH MAY RESULT FROM IMPROPER INSTALLATION OR USE OF ANY HeliBars.**



## **WARRANTY / RETURN POLICY**

**We make every effort to build a quality product so you can fully enjoy your riding experience. Thank you for your order.**

**HeliBars® may be returned for defects in materials and workmanship within one year from the date of shipment to the original purchaser, in which event the purchaser may receive a replacement set of HeliBars.**

**If within thirty (30) days of the shipping date you are not satisfied for any reason, you can return the HeliBars. Return policy is valid for original purchaser only. If HeliBars are purchased from a vendor other than Heli Modified, Inc., customer must contact vendor where purchased regarding returns. Refund will be extended to original purchaser only. There are no other warranties which extend beyond this.**

**Conditions of this 30 day return policy:**

- 1. Bars must not be used as a tie down point. (See attached ‘Trailer Instructions’).**
- 2. Bars cannot be damaged, dented, or altered in any way.**
- 3. Bars cannot be overtorqued.**
- 4. Refund will be for product purchase price only, and credited to original purchaser only.**
- 5. Product must be returned with all original equipment, documents and in original packaging. There must be no physical damage caused by the customer or by carrier.**
- 6. A Return Authorization Number must be obtained from us before you return the product.**

**We reserve the right to charge a re-stocking fee of up to 25% if the above criteria are not met.**

**THERE ARE NO FURTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. By accepting this product, the consumer agrees to arbitrate and litigate any controversy in the State of Maine, and under the laws of the State of Maine.**

**HELI MODIFIED INC. ASSUMES NO LIABILITY FOR ANY INJURY OR LOSS OF PROPERTY WHICH RESULT FROM IMPROPER INSTALLATION OR USE OF ANY HELI BARS. ALL HELI MODIFIED, INC. PRODUCTS SHOULD BE INSTALLED BY A QUALIFIED MECHANIC. IMPROPER INSTALLATION MAY CAUSE DEATH OR INJURY.**

**Ride Safe and Enjoy!**





**Horizon ST, Patented Multi Axis Adjustable Handlebar System for  
BMW K1600GTL 2012+  
Installation Instructions**

Height Adjustment: 0-2" ~ Rear Offset Adjustment: 0-4" ~ Width: 31"

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**IMPROPER INSTALLATION COULD RESULT IN SERIOUS INJURY OR DEATH.  
HAVE A QUALIFIED MECHANIC INSTALL YOUR HELIBARS.**

The Horizon ST system uses all factory hydraulic lines and cables with no modifications to any of the factory components.

A custom designed handlebar mounting adapter replaces the stock bars and uses their mounting holes and torx head screws for attachment to the front fork top plate. Basic mechanics tools are required including Torx drives T8-T50 range and a torque wrench. The use of the factory service manual would be helpful in removing body panels. Removing body panels is time consuming, but increases access to the removal the handlebar mounting screws. Another option is to remove the center stem nut to gain access to the mounting screws but that is not covered in our instructions. The handlebar mounting screws can be removed with out removing any body panels with the correct tool.

- 1.) Remove fuel tank body panels to aid handlebar mounting screw access.
  - a. Remove seat
  - b. Loosen and remove 5 Torx head screws from rear of tank panels. There are two types of screws here, make note of proper placement. (Photo 1)
  - c. Remove small Left & Right side panels with single screw located in board of the side mounted adjustable wind deflectors. (Photo 2)
  - d. Remove larger Left & Right panels by removing two Torx screw and releasing tabs from the center (top) panel. (Photo 3, 4, 5)
  - e. Remove center panel by removing 4 Torx screws (Photo 6)

2.) Remove switch gear and stock handlebars.

- a. Place shop rags over the fuel tank, the sides of the fairing and under top plate.
- b. Remove both damper weights from the ends of the stock bars. (Photo 8)
- c. Remove the two Torx head cap screws and cap from the front brake master cylinder, carefully move wire loom and remove from handlebar tube. Let it rest on the side of the fairing. (Photo 8)
- d. Remove the T8 Torx head screw from the right switch gear housing lower half. DO NOT disassemble or remove the throttle housing cover. (Photo 9)
- e. Remove the lower half of the switch gear housing (Photo 10). Remove the second screw located forward of the handlebar tube (Photo 11). Remove right control housing from bar tube.
- f. Loosen and remove the throttle mounting screw (Photo 12).
- g. Remove right handlebar from the fork top mounting plate, slide throttle grip assembly off tube and let the throttle rest on the right side of the fairing. Locate the 3 Torx head screws that mount the stock handlebar. It is a tight squeeze to access this hardware and (Photo 13) shows the best combination for removal. Use a T40 Torx bit and a box wrench to access the screw head. For best results use Gorilla super glue to fix torx bit to 8mm angle box wrench. **Place a rag under the fork top plate to catch screws or bits that could fall.** Hold the bit with one hand and the wrench in the other, engage the Torx bit with the screw head and loosen and remove all 3 screws. You will need to rotate the forks to the LEFT and RIGHT to gain the best access.
- h. Remove clutch master cylinder from left bar and set on a rag.
- i. Fold back the left grip flare, push the switch wheel in and access the single mounting screw that holds the left side control housing in place. The entire grip/switch gear will slide off in one piece after the bars 3 mounting screws are removed. Rest the switch gear on a shop rag on the side of the fairing.

3.) Install the Horizon handlebar mounting adapter

- a. Clean the surface of the top mounting plate and install the Left & Right side adapters using the 6 hex head screws provided. DO NOT TIGHTEN YET (Photo 15)
- b. Install the cover with the 4 screws provided and just lightly tighten. (Photo 16) This will align the Left & Right adapter pieces. Firmly tighten the adapter mounting screws then remove the top cover and 4 screws and set aside for a minute. Double check adapter mounting screws for tightness. (Photo 17)
- c. Install the riser system of the Horizon into the mounting adapter as shown in (Photo 18). Put the top cover in place and hand tighten the 4 cover mounting screws after adjusting the lower mounting bar Left or Right so the lower mounting bar is centered in the mount. Adjust the riser tubes back towards the rider at roughly a 45 degree angle. This is a good starting point. Tighten the forward screws lightly, followed by the rear two.
- d. Make sure top cover screws are tight enough to keep riser assembly from rotating but do not torque them yet.
- e. Adjust left and right handlebar pivot 1's so they are slanting back as shown in (Photo 18). Loosen the riser pinch bolt to rotate the pivots and tighten lightly with an 8mm hex.

4.) Install switch gear and handlebar to riser assembly

- a. Locate the left bar.
- b. Slide the left grip/switch gear assembly onto the left bar. Install the mounting screw after aligning the mounting hole and tighten. Refer back to (Photo 14).



- c. Position the handlebar tube into the bore of the pivot clamp and insert. You will need to loosen both screws and remove the inner screw. Make sure tube is flush with the inner end of bore. Rotate bar so control buttons are at optimal angles and tighten pinch bolts to 12 ft lbs. (See Photos 19 & 20). Adjust bar somewhere in the middle of it's forward/back rotation range and tighten pinch bolt to 16 ft. lbs. (See Photos 21 & 22)
  - d. Install clutch master cylinder being careful not to damage control housing wire loom. Install cover and screws and keep the master cylinder close to the control housing. (Photo 23) Earlier models have caps that attach vertically, later models have Horizontal caps and reverse switches over them.
  - e. Install left bar end damper weight and tighten (Photo 7)
  - f. Slide the throttle assembly over the right handlebar tube, align the mounting hole, insert screw and tighten. (Photo 12)
  - g. Install Right bar tube into it's clamping bore, as per the left side, install inner screw, tighten. Adjust bar to similar angle as left side and torque pinch bolt to 12 ft. lbs..
  - h. Install right switch gear into position and install forward screw. Do not over tighten as the screw threads are in plastic. Refer back to (Photo 11).
  - i. Install lower right switch housing cover and rear mounting screw. Make sure wire loom grommets are in their proper position. Carefully tighten (Photo 9). Install right damper weight and tighten.
- 5.)
- a. Re-install all body panels in reverse order of disassembly starting with the top tank cover panel.
  - b. Re-install saddle.
- 6.) Adjusting the Horizon ST on the K1600GTL
- a. First adjustment should be height and set back which is achieved by loosening the four cover screws on the mounting adapter. Rotate the bar assembly forward or back for the desired position. Using a 6mm hex drive and foot pound torque wrench, torque the four socket head cap screws evenly to 16-18 ft. lbs.
  - b. Refer to our YouTube video at [www.youtube.com/user/HeliBars](http://www.youtube.com/user/HeliBars) for more details on adjustment index marks and torque values. Loosen the handlebar pivot clamps and adjust bars forward or back to desired position. To mirror Left & Right sides, use index marks. With a 6mm hex torque the pinch bolts to 16 ft. lbs. (Refer to Photo 21 & 22)
  - c. Adjust up and down wrist angle adjustment by loosening the riser pivot pinch bolts. Use an 8mm hex drive. When the desired angle is found, torque the riser pinch bolts to 22 ft. lbs. (See Photo #24)
  - d. To raise or lower control housing buttons, loosen pinch bolts, rotate bar tube forward or back then torque pinch bolts (6mm hex) to 12 ft. lbs. (See Photo 25) Check and adjust brake and clutch lever angles, if necessary and retighten.

Due to the vast amount of angle changes the Horizon ST provides, it may take multiple adjustments and several long distance rides to find your best overall sweet spot. If you make adjustments on the road, bring your 6mm and 8mm Hex drives and your torque wrench with you. Although the Horizon ST has many safety features, never hand tighten pinch bolts! Always use a torque wrench.



**!! CAUTION!! BARS MUST BE TORQUED TO  
SPECIFIED VALUES.  
THEY MUST NOT BE OVERTORQUED.  
OVERTIGHTENED HARDWARE CAN LOSE INTEGRITY.**

**For questions regarding installation please call 1-800-859-4642.**

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Photo # 2



Photo # 4



Photo # 1



Photo # 3







Photo # 6



Photo # 8



Photo # 5



Photo # 7





Photo # 10



Photo # 12

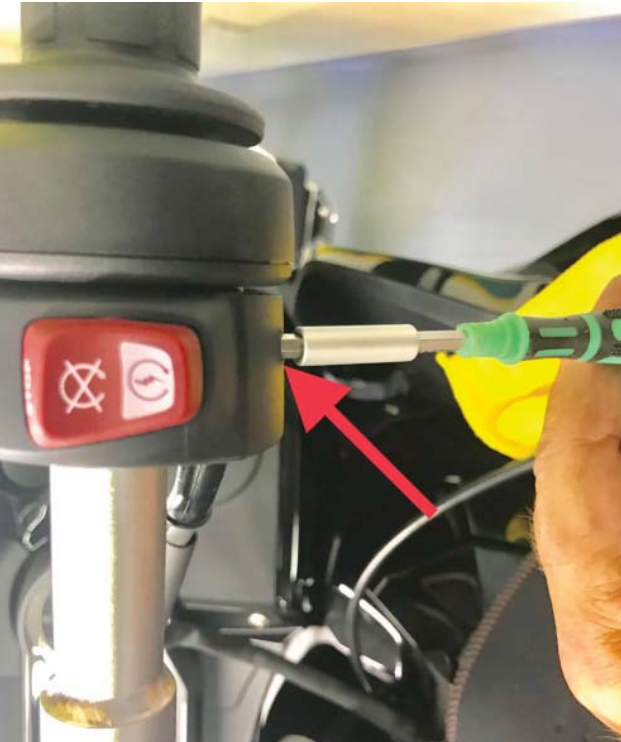


Photo # 9



Photo # 11







Photo # 14



Photo # 16



Photo # 13



Photo # 15







Photo # 18



Photo # 20



Photo # 17



Photo # 19





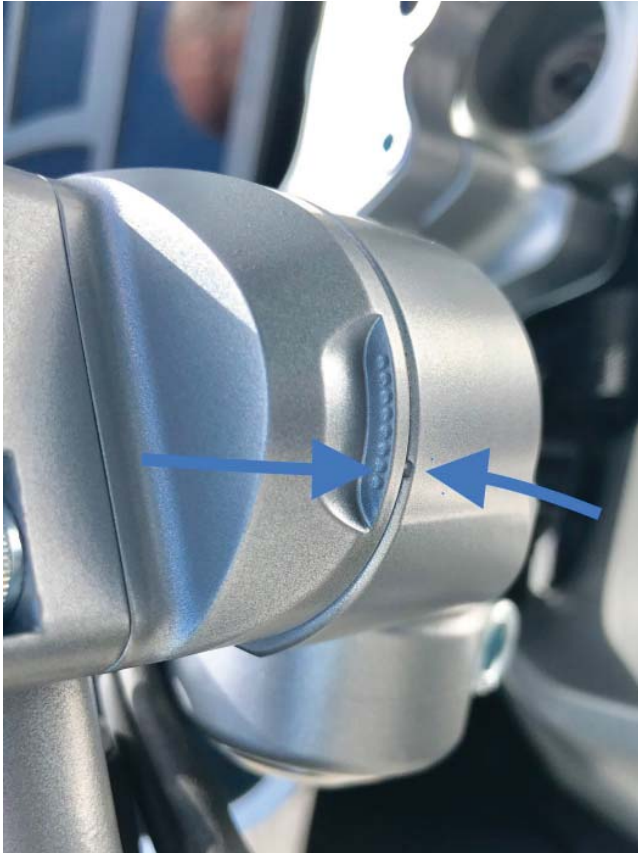


Photo # 22



Photo # 24



Photo # 21



Photo # 23







Photo # 25



## IMPORTANT INFORMATION ABOUT POWDER COATED HELIBARS

HeliBars® are finished with a polyester powder coating. The polyester is recommended for outdoor use because of its excellent UV resistant quality; if we were to use an epoxy it would tend to fade and chalk pretty quickly when exposed to sunlight and UV rays.

Care must be taken during installation because the finish can be scratched by the sharp surfaces of the controls and master cylinder clamps. When mounting the master cylinders to bars, do not let them move around the bars with the caps loose. Mount them in the proper position and hand tighten the screws until final adjustments are made; in this way you will lessen the possibility of scratching.

NOTE: Powder coat finish is not indestructible, there are chemicals which may react negatively when applied to finish. Brake fluid may cause deterioration of the finish. We do not recommend the use of acetone or similar chemicals for cleaning purposes. We would recommend the use of an over-the-counter adhesive remover (such as Goo Gone) for the removal of any extraneous material. Please read labels directions for any cleaning/polishing product before use. If you have any questions regarding the use of any over-counter-products with the HeliBars, please call us before applying them to the powder coated finish.

If care is taken during installation, your HeliBars will continue to look as good as when they were new. They will look great for years to come with a bit of wax and careful cleaning. Thank you for your purchase, ride safe and enjoy!

Sincerely,

Harry Eddy, President



## Trailing with HeliBars®

HeliBars clip ons and handlebars must not be used as the primary holding points for tie downs while trailering. *As with your stock bars* applying extreme force to the ends of the bars can bend the bars or rotate them on their mounts.

Use a wheel chock and pull the machine down and forward using soft ties or similar, attached to the lower triple clamp.

Bars should only be used as secondary attachment points to steady the motorcycle from lateral sway.

Failure to follow these guidelines can cause damage to the bars and the motorcycle, and may also void our warranty.

