

Pingel® Speed Shifter Kit for 1996-2000 GSXR 600/750

Designed for Street Use

#77203 Installation Instructions

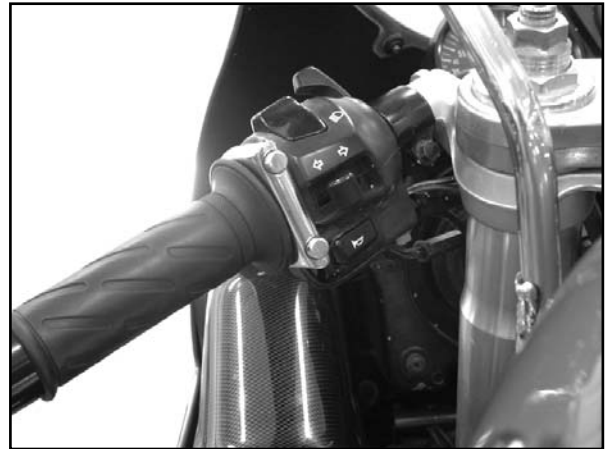
Read all instructions thoroughly, look at photos and all components before attempting installation. This product is not designed or intended to be used as an assistive device for any particular disability.

All the components of this Electric Speed Shift™ Kit have been assembled and tested as a unit before leaving our factory and have been found to be in working order at the time of shipping. Installation of this kit requires detailed knowledge of the motorcycle model, its electronics and mechanics. It is assumed that the installer has access to the proper tools and a working knowledge of them, test equipment (such as a volt meter), and factory service manuals. The following instructions must be read in their entirety and any questions should be answered prior to attempting installation. Incorrect installation will result in damage to Electric Speed Shift components. If after reading the instructions you do not feel comfortable installing the kit, please find a qualified technician to do the installation. Installation time is 2-3 hours.

Disconnect negative battery cable before attempting any work on motorcycle.

INSTALLATION OF DUAL BUTTON HANDLEBAR CONTROL:

Loosen the clutch master cylinder perch and slide it toward the forks 7/16". Retighten the clutch master cylinder perch. Take a measurement from the newly positioned clutch master cylinder perch to the turn signal switch housing. Record this dimension. Disassemble the turn signal switch housing. Looking at the inside of the turn signal housing you will notice a raised portion in the housing that fits into a hole in the handlebar. Using the dimension recorded earlier, you will now redrill the hole closer to the fork on the handlebar. Drill the new hole the same diameter as the original hole.



Reassemble turn signal switch housing moved to the newly drilled location. Install the dual button handlebar control on to the handlebar as shown in photo and tighten screws located on the backside of the control assembly.

This handlebar control bracket is set up to route the wires externally, but may also have its wires routed internally through the handlebars. This is accomplished by feeding the black cable up through the hole on the center of the bracket and then through a hole in the handlebars.

Route the wires from the dual button control neatly along the handlebar and down under the fuel tank following the clutch hydraulic line. Be sure to secure the wires along the route with the provided wire ties. Loosening and lifting the fuel tank will aid in wire routing. The final location of this wire assembly will be under the front seat.

INSTALLATION OF CONTROL MODULE AND WIRE HARNESS:

The mounting location of the control module is under the front seat. The control module is supplied with Velcro to install on the bottom of the box to secure it. The wire assembly previously run from the handlebar control will now be connected to the control module. The handlebar connector has 4 pins and should be connected to the appropriate receptacle from the control module.



The large 4-pin connector coming from the control module should be connected to the large 4-pin connector from the fused wire harness. The small 3-pin connector on the fused harness is used for the electronic engine kill module. There are 3 loose wires coming from the fused wire harness; the black (negative) and large red (positive) go directly to the battery, the small red is for switched 12v power. The small red lead can be connected to any 12v+ switched wire. Cut the small red wire to proper length and use the blue quick tab connector provided to make this connection (soldering is preferred). The large red and black battery wires can also be cut to proper length and then solder on the ring terminals provided. Attach the soldered on ring terminals to the battery posts, black to the negative and large red to the positive.

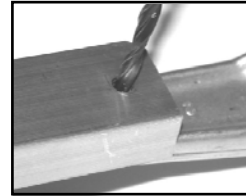


Fig.3



Fig.4

The electronic engine kill module is also mounted under the front seat. See instruction sheet included with the electronic engine kill module.

INSTALLATION OF ELECTRIC SHIFT CYLINDER:

Remove the 2 bolts that hold on the left foot peg/shift lever bracket. Remove the bolt holding the foot peg/shift lever onto the bracket. Loosen the jam nut at the shift lever rod end and turn the shift lever off the rod. Place the Pingel shift lever bracket over the backside of the stock shift lever, as shown in Figure 3. Use a #25 drill (9/64", if #25 is not available) to make 2 small point marks on the back of the stock shift lever by twisting the drill bit with your fingers, as shown in Figure 3.

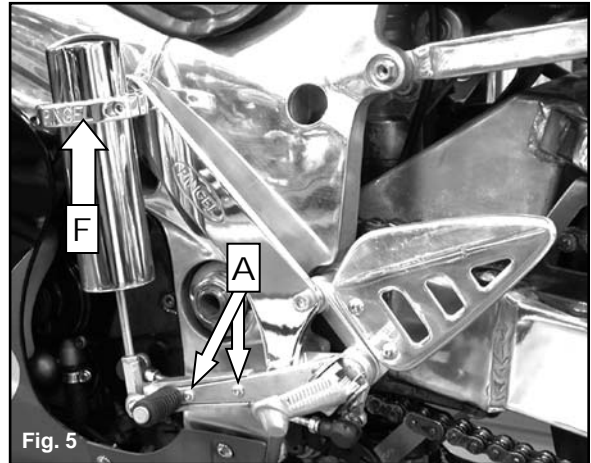


Fig. 5

Using the top back of a vise, an anvil or other stable surface, center punch the two small points marked on the backside of the stock shift lever, as shown in Figure 4. Use a 3/16" drill bit and drill the 2 points that were center punched.

Bolt the Pingel shift lever bracket onto the stock shift lever using the two 10-24 x 1/2" button head socket cap screws with thread locker applied, as shown in figure 5. Reattach the shift linkage rod to the shift lever, slide the shift lever back onto the foot peg bracket and install the bolt to hold the shift lever on. Tighten the jam nut to factory specifications.

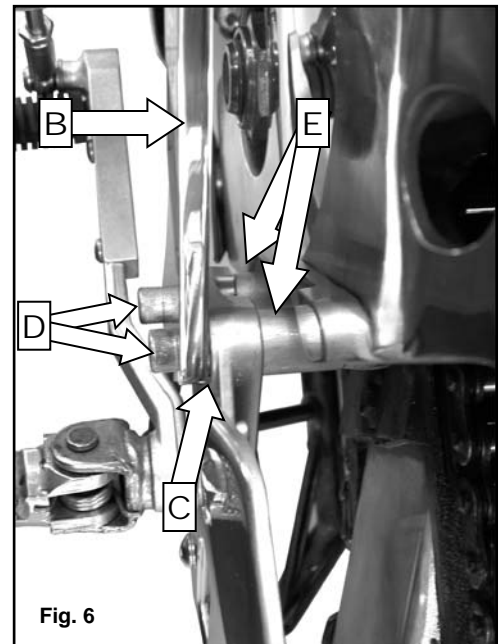


Fig. 6

Install the Pingel shift cylinder support bracket and the bracket that holds the foot peg/shift lever onto the motorcycle using the 8mm x 70mm socket head cap screws, (D) figure 6, through the shift cylinder support bracket, (B) figure 6, through the 0.405" long support bracket spacer (C) figure 6, which has a step turned into it (the step should face towards the inside of the motorcycle), through the 0.960" long spacers (E) figure 6 and into the original mounting locations, use thread locker on all bolts and tighten.

Install the shift cylinder onto the shift cylinder support bracket using the Pingel clamp, (F) figure 5, and (2) 1/4-20 x 3/4" socket head cap screws. Just snug these bolts for now, as adjustment will be needed later. The rod end on the shift cylinder should be able to go past the point of mounting in each direction sidewise. The point of mounting is that flat surface upon which the rod end bolts to the shift lever bracket. Install the supplied 1/4-20 x 1" button head socket cap screw through the rod end of the shift cylinder and through the (2) 1/4" washers, applying thread locker and tightening into the shift lever bracket.

- A: 10-24 x 1/2" BHSCS
- B: Shift cylinder support bracket
- C: 0.405 support bracket spacer
- D: 8mm X 70mm HHCS and washer
- E: 0.960 support bracket spacer
- F: Pingel shift cylinder clamp
- G: 1/4-20 X 1 BHSCS

Before adjusting the shift cylinder up and down make certain the motorcycle transmission is in neutral. While holding the shift cylinder housing, loosen the two screws on the clamp. Find the groove in the center of the cylinder shaft. Adjust the cylinder housing up or down so the groove in the shaft is even with the plastic bushing located on the bottom of the cylinder housing, as shown in (A) Figure 4. With the shift cylinder in the correct position, tighten the two bolts of the Pingel clamp.



A: Center groove on cylinder shaft located at bottom of cylinder housing.

Route the cable from the shift cylinder to the control module located under the front seat.

Your Electric Speed Shift Kit installation should now be complete. Reconnect negative battery cable. In the interest of safety this is the recommended starting procedure: To arm the electric shifter, make sure the motorcycle is in neutral and pull in the clutch lever, then start the engine. With the clutch lever pulled in, push either button on the handlebar control and hold it for five seconds; release the clutch lever slowly (in case the motorcycle is accidentally in gear). The system is now turned on and will shift when either button is pressed. When the key is turned off, the power to the control module is disengaged so this procedure must be performed every time the motorcycle is turned back on. Pull in the clutch lever and check shifter movement by pushing either button on the handlebar control.

Test ride motorcycle. If shifting up or down is not achieved, loosen the Pingel® clamp on the shift cylinder and adjust it up or down 1/16" to 1/8" at one time. Retighten the Pingel® clamp and test ride the motorcycle. This adjustment is fastidious and patience is required. When the final adjustment is made, remove each clamp bolt and apply thread locker to the end threads, but remove only one clamp bolt at a time so as not to lose your adjustment.

Be certain that all of the round connectors are properly coupled and tight. If the motorcycle is not shifting or the kill module is not working, check that these plugs are properly seated and that the internal connector pins are making good contact with their sockets (i.e. no pins are bent).

Note: in the wire harness we have installed one 40-amp fuse for constant power. A spare 40-amp fuse is also supplied.

Prolonged repeated operation of the shifter (actuating the shifter repeatedly in rapid succession beyond normal use) can discharge the motorcycle battery and damage the shift cylinder and/or the control module. The normal battery takes 30-60 minutes to recharge after starting the motorcycle so use the shifter sparingly in this time.

This unit is not waterproof. Do not subject it to pressure washing or extreme moisture.

Installation of the Electric Speed Shift Kit still maintains OEM Shifting.

If you have any questions please call 608-339-7999

Items Included: 1996-2000 GSXR 600/750 #77203

- 2 - .750 OD x .316 ID x .960 long aluminum spacer
- 2 - .625 OD x .316 ID x .405 long stepped aluminum spacer
- 1 - Shift cylinder support bracket with cylinder clamp (threaded)
- 1 - Cylinder clamp (thru-holes)
- 2 - 8mm x 1.25mm x 70mm short head SHCS
- 1 - Fused wiring harness
- 2 - 10-24 x ½" BHSCS
- 1 - Pingel shift lever bracket
- 1 - 7/8" handlebar two-piece dual button control assembly
- 1 - Control module
- 1 - ¼" - 20 x 1" BHSCS
- 3 - ¼" washer
- 1 - Shift cylinder
- 2 - Ring terminals
- 5 - Blue quick tab connector
- 10 - Wire ties
- 1 - Tube torque-thread locker
- 1 - Extra 40-amp fuse
- 1 - Electronic engine kill module
- 1 - Electronic engine kill module wire leads

Dear Valued Customer,

Pingel Enterprise, Inc. would like to take this opportunity to thank you for purchasing one of our Electric Speed Shift Kits.

We would also like to know what you think of the product and how your installation went. Your assistance can help us overcome any technical issues that other installers may experience. You can reach us toll free at 1-888-474-6435 or email us at info@pingelonline.com.

We are also requesting photos of your installation. Your photos may be selected for publication in the Pingel catalog or at www.pingelonline.com. Photos may be submitted by emailing them to info@pingelonline.com. When submitting a photo, please include the motorcycle model and year.

LIMITED WARRANTIES/LIABILITIES

Pingel Enterprise, Inc. assumes no responsibility or liability for damage or injury of any kind arising out of the use or misuse of any products. Pingel Enterprise, Inc.'s sole responsibilities with respect to products sold are to provide the following limited warranty:

Pingel Products: Pingel Enterprise, Inc. warrants to the original purchaser that the product shall be free from defects in parts and workmanship under normal use for 30 days from date of purchase. Pingel Enterprise, Inc.'s obligation under this warranty is limited to the repair or replacement of any part found to be defective when returned postpaid to the factory. The product must be returned with evidence of date and place of purchase, and detailed description of the problem. The warranty will not apply if the product has been installed incorrectly, repaired, or damaged by modification, misuse, negligence or accident. The repair or replacement of such part, as needed, is your sole and exclusive remedy. No refunds will be given. Pingel Enterprise, Inc. makes no other warranty, expressed or implied with respect to its products and specifically disclaims any implied warranties of merchantability or fitness of any product for a particular purpose and except as herewith stated assumes no liability with respect to the product.

Dispute Resolution: All disputes, claims or controversies of any kind that may arise between you and Pingel Enterprise, Inc. shall be brought in the state court located in Adams County, Wisconsin. You agree that the sole venue and jurisdiction for such disputes shall be the above named court and hereby submit to the jurisdiction of that court.

THANK YOU for purchasing a PINGEL ENTERPRISE, INC., product. View our entire product line at www.pingelonline.com

