



# **Race Tools Installation Guide**

**Honda 2018-2023 CBR650R**

**Honda 2018-2023 CB650R**

**Honda Quickshifter Type 4 & 5**





## 1) Introduction

This Quickshifter product is a plug-and-play solution and therefore does not require the ECU to be flashed for activation. The Quickshifter is controlled directly by the stock ECU as it is a replacement of the stock Quickshifter. Once installed, the Quickshifter will automatically be activated on the bike and will work the same as the stock Quickshifter.

This guide describes the steps required to install the Honda Quickshifter Type 4 or Type 5 2018-2023 CBR650R or CB650R. Honda Quickshifter Type 4/5 comes as a package which includes a single wiring harness which is labelled as either 'HRT4' or 'HRT5'. The kit also includes a Woolich Strain Gauge GP Switch (Quickshifter), shift rods and some other hardware.

The installation of Honda Quickshifter Type 4/5 requires you to fit the Quickshifter, shift rod and connect the Race Tools harness. This is a relatively simple procedure that involves:

- 1) Removing the motorcycle seats and tank
- 2) Removing the stock shift rod
- 3) Installing the Quickshifter and shift rod
- 4) Connecting the Race Tools harness

The above procedure is described in detail in this guide and should take approximately 30-40 minutes to complete. No cutting or splicing of the wiring harness is required for this install.



## 2) Hardware

To install the Quickshifter package you should have the following hardware as supplied by Woolich Racing:

- 1) Woolich Racing Quickshifter and associated hardware
- 2) Shift rod appropriate to your specific bike
- 3) Honda Race Tools Harness Type 4 or Type 5 ('Race Tools harness')

## 3) Installation of Quickshifter

The following steps describe the installation of the Quickshifter:

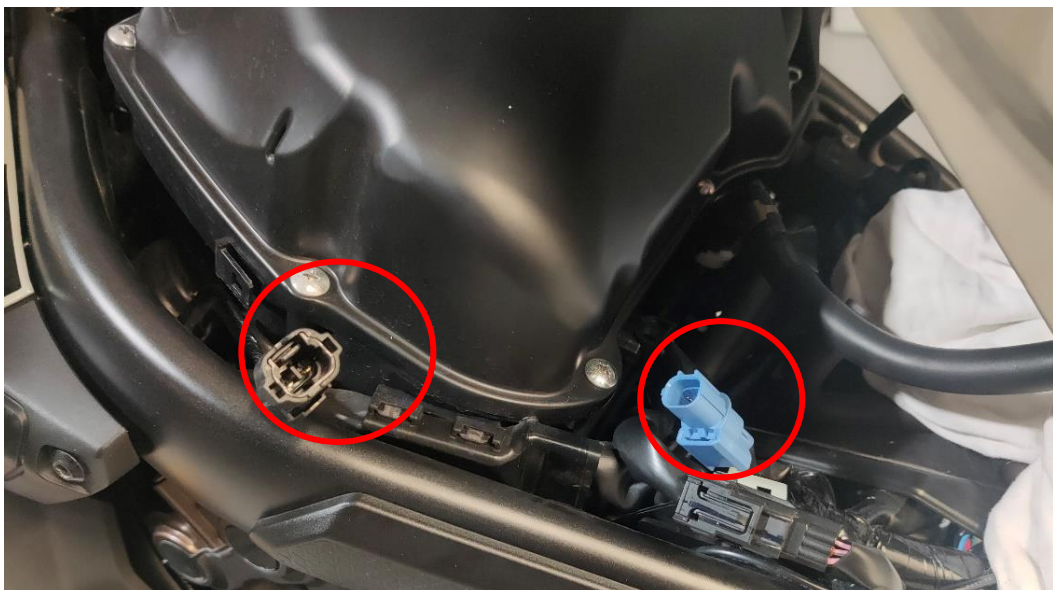
- 1) Remove the rider and pillions seats



- 2) Remove the plastic side shrouds (located at the thighs), upper tank shroud and plastic ignition barrel cover as shown below.

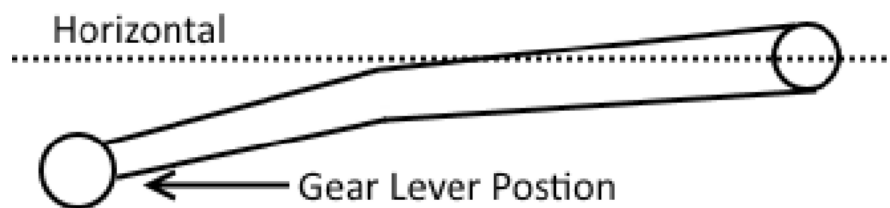


- 3) Lift the tank and remove the blanking plugs on the two connectors shown below.

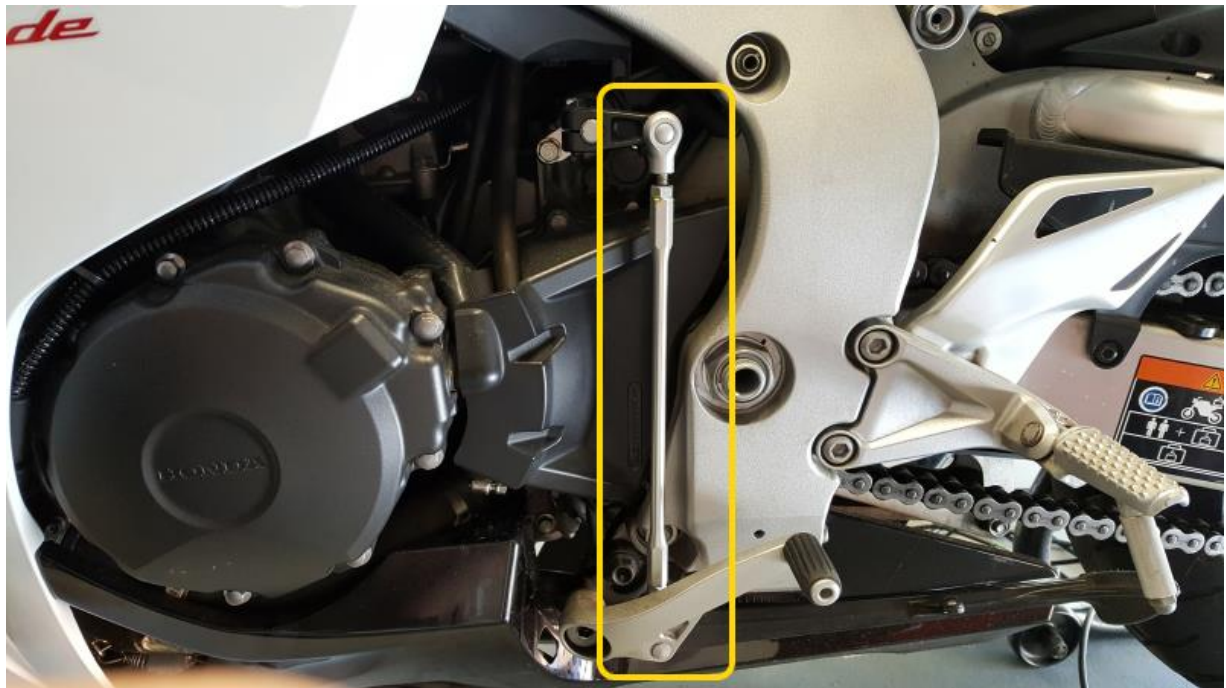




- 4) Take note of the current height and position of the gear shift lever, this will allow you to adjust the new shift rod so the gear shift lever is in the same position after installation.



- 5) Remove the stock shift rod.

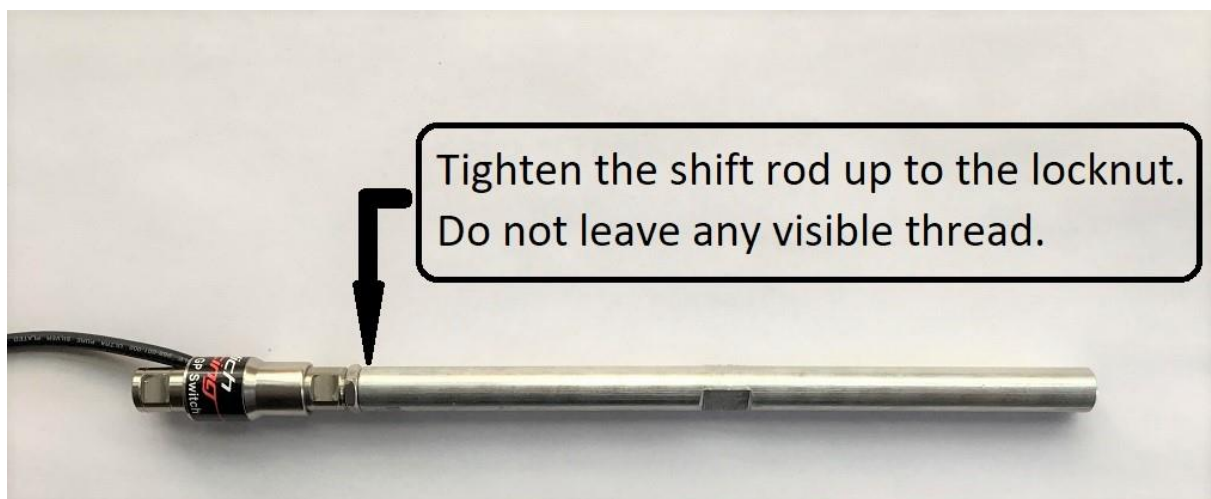
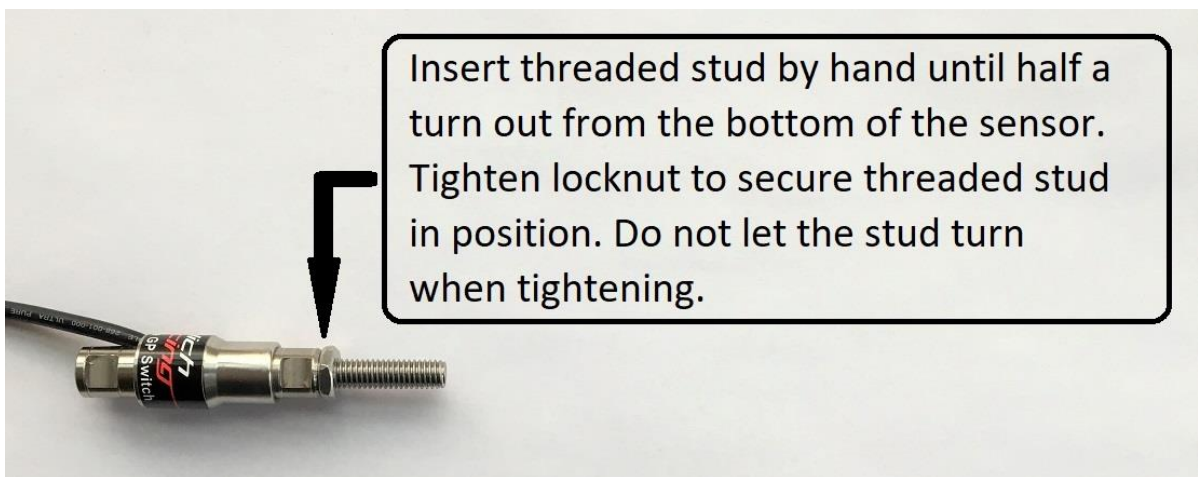




- 6) Pre-assemble the Woolich Racing Quickshifter and shift rod using the appropriate studs and lock nuts from the Race Tools kit. Carefully screw the threaded stud in by hand just until you start to feel some resistance.

**IMPORTANT: Do NOT bottom out the studs into the Quickshifter.**

Unscrew the threaded stud a half a turn and tighten the lock nut. You can now screw the shift rod right up to the locknut.





- 7) Once pre-assembly is completed the length should be the same as the stock shift rod to within +/- 10mm or 3/8" as shown below.



- 8) Install the assembled Quickshifter onto the bike. Adjust the rod so the gear position lever is in the same position as noted in step 4) above.





- 9) Route the Quickshifter plug to the space under the rider's seat and connect the 3-pin Quickshifter plug to the matching plug on the Race Tools harness (HRT4 or HRT5).







- 10) Connect the two plugs of the Race Tools harness to the two matching connectors that were identified in in step 3) above.



- 11) Re-assemble the tank and seats back onto the bike and zip-any loose or hanging cables as necessary.



## 4) Quickshifter Hardware Configuration

Once you have installed the Quickshifter and Race Tools harness you need to configure the Quickshifter hardware.

- 1) Ensure that the engine is NOT running and put the bike into 2<sup>nd</sup> gear.
- 2) Hold down both buttons on the Quickshifter module while turning on the ignition. Do not start the bike, just switch the ignition on.
- 3) The LED display of the Quickshifter will display/flash “UP” as shown below.



- 4) Whilst still holding both buttons push on the gear shift lever in the upshift direction, towards 3<sup>rd</sup> gear. Hold the pressure for approximately 5 seconds then release the buttons on the Quickshifter module.
- 5) The Quickshifter should now be configured for the correct “UP” shift direction. You can test the activation by applying pressure to the gear shift lever, a small dot on the Quickshifter LED display will light up when the pressure applied initiates a shift.



## 5) Shift Pressure Adjustment

The amount of pressure on the gear shift lever required to initiate a shift can be changed to suit rider preference. This can be set by the user as follows:

- 1) Switch the ignition on.
- 2) Hold down the right button on the Quickshifter module until the current shift pressure setting is displayed. This will show the shift pressure as a number between 1 and 15.
- 3) Continue to hold down the right button while also pressing the left button for approximately 5 seconds until the shift pressure display begins to flash.
- 4) Use the buttons to adjust the shift pressure up or down. A higher value requires more pressure to trigger the shifter, while a lower value requires less pressure to trigger the shifter.
- 5) The default pressure setting is 15 but please use 12 to begin with.
- 6) To store the setting, hold down both buttons until the display stops flashing.

## 6) Final Installation

Ensure that the Race Tools and Quickshifter harnesses are clear of any moving parts and adequately secured to the bike with zip ties or similar.

Re-assemble any components or parts you may have taken off the bike during the installation. Your Quickshifter package is now ready to use.



## Warranty

Woolich Racing Warranty obligations are limited to the terms set forth below. Woolich Racing warrants this product against defects in material and workmanship for the period of one (1) year. The warranty period begins with the date of original retail purchase.

This limited warranty is made only to the original end user purchaser ("you") of the product and does not extend to any subsequent purchasers or owners of the product. The "original end user" is the first user to put the product into service in any fashion. It is your responsibility to establish the warranty period by verifying the original purchase date. If you discover a defect, Woolich Racing will, at its option, repair or replace this product with a new or reconditioned product at no charge to you, provided you return it during the warranty period, with transportation charges prepaid, to Woolich Racing. Please attach your name, address, telephone number, and a copy of the receipt from PayPal as proof of date of original purchase, as well as a detailed description of the problem for which service is requested. You are responsible for packing the product to be returned. If the repairs are covered by the Limited Warranty and if the product was properly shipped to Woolich Racing, Woolich Racing will pay the return shipping charges. This warranty applies only to Woolich Racing products. This warranty does not cover damaged resulting from accident, misuse, abuse, or neglect and/or damage during any type of transportation resulting from improper packaging; damage to any product which has been altered in any fashion, including damage resulting from causes other than product defects, including and not by way of limitation, lack of technical skill, competence, or experience of the user, and/or failure to use the product in accordance with the instructions provided in the User's Manual or Installation Manual; and service performance by an unauthorized person or entity. Any implied warranties including fitness for use and merchantability are limited to the period of the expressed warranty set forth above. The remedies provided under this warranty are exclusive and in lieu of all others.

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