



PARTS LIST

- 1 Quickshifter Stand Alone
- 1 Installation Guide
- 2 Dynojet Decal
- 2 Cable Tie
- 2 Velcro
- 1 Alcohol Swab

Read this instruction manual before fitting and operating your product

PRECAUTIONS:

When installing this product it is advisable to position the motorcycle/vehicle so it cannot cause injury or damage by falling over/rolling forwards or backwards. The use of a paddock stand is ideal or if necessary chock the wheels.

Ensure that the ignition supply is switched off at all times unless instructed otherwise within this manual.

When removing or adding electrical cables to the vehicle battery or wiring harness always remove the negative earth cable/terminal before the positive cable/terminal. Replace the negative earth cable/terminal last to avoid shorting the electrical system.

When mounting the components ensure that the units are protected from excessive vibration and the environmental elements, and that they are securely mounted.

Be careful not to bend or pull the wires exiting the module as this could compromise the weather proofing causing water to enter the module.

When routing electrical cables ensure the cables cannot become trapped or pinched which could result in malfunction and secure with cable ties where necessary.

TROUBLESHOOTING

1. **No power-up** - Check for incorrect battery terminal connections, blown fuses, poor negative battery terminal connections. Check for severed or trapped wires.

2. **No quickshifter interrupt** - Check the Quickshifter is being operated above approximately 3000RPM. Check for correct connection of the Quickshifter harness connectors with the yellow dots and their associated grey link wire alignment. Verify the Quickshifter sensor output. Check for severed or trapped wires. Check that the Quickshifter harness connectors have not been greased as this will cause a poor electrical connection!

3. **Engine misfire** - Verify the control unit mounting position and check for isolation from vibration. Check plug and play connections. Verify ignition coil type and suitability and correct connection of the Quickshifter harness connectors with the yellow dots and their associated grey link wire alignment. Verify the Quickshifter sensor output.

4. For further troubleshooting contact Dynojet.

PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

Fitting the Control Unit

The Ignition Quickshifter control unit should be positioned so it does not exceed an operating temperature of 160°F and must be installed where it is protected from excessive vibration and harsh environmental elements. Under the seat area or passenger seat is an ideal position.

- 1 Locate a suitable flat surface for the control unit to adhere to.

Note: Do not actually fix the control unit into position until you have installed the rest of the components and have routed the relevant cables.

- 2 Once you have completed the rest of the installation you can then finally fix the control unit into position using the supplied Velcro mounting pads.

Make sure you de-grease and warm up the mounting surfaces prior to peeling the backing off of the Velcro pads and securing into position. Cold surfaces result in poor adhesion.

No part of the Ignition Quickshifter housing is permitted to touch any other object such as the chassis, bodywork, etc.

Connecting the Quickshifter Harness

If your vehicle has stick coils they could be either Denso or Mitsubishi type. These ignition coils may require you to remove the blue and white wires along with the grey link wire in the Quickshifter harness connector #1 and swap the wire positions in the connectors as shown, refer to Figure 1. This enables the Ignition Quickshifter to obtain 12v from the stock harness.

Note: The RED wire and GREY link wire in the Quickshifter harness connector #1 must align with the +12Volt supply wire in the OEM ignition coil connector. Only the BLUE and WHITE wired connector needs to have the wires swapped and the GREY link wire aligned as shown. It is crucial that if you need to swap the wires that you swap both the male AND female connector.

We have found that most Kawasaki and Yamaha models need to be swapped.

Typically there will be two wires in each OEM ignition coil connector. The wire which is the same color in each OEM ignition coil connector will be the +12Volt supply wire. In the example shown in Figure 1, the +12Volt wire is PURPLE although it might be a different color with each installation. You can double check this by using a digital volt meter.

If your vehicle does not feature these particular ignition stick coils see Figure 2.

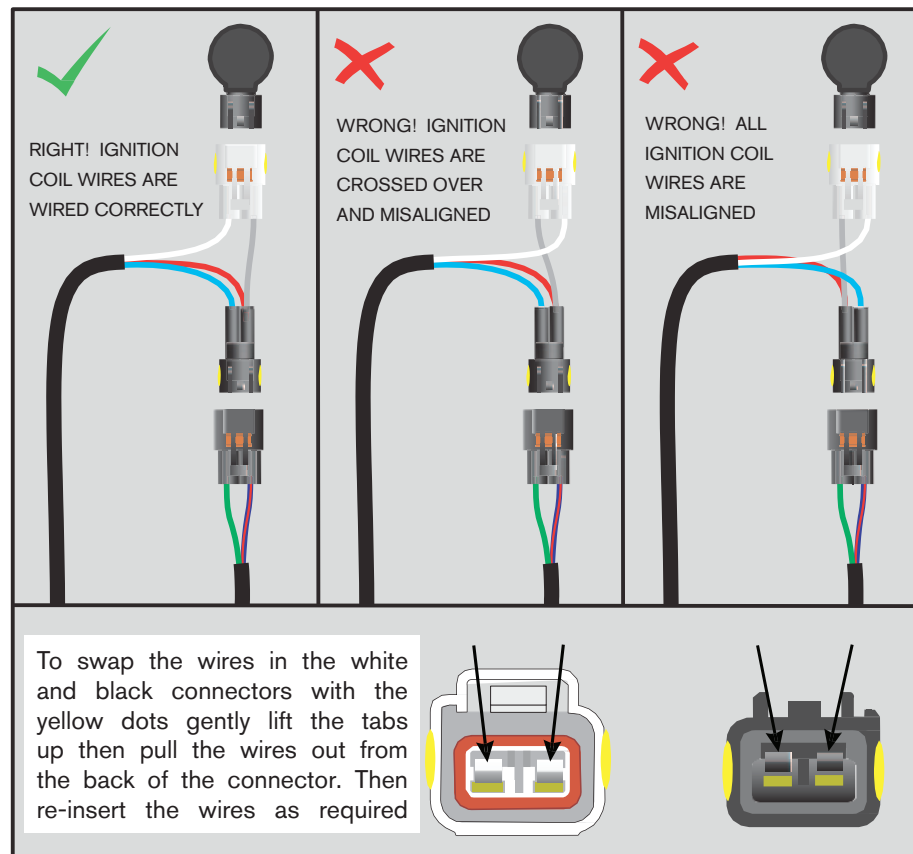


Figure 1: OEM Ignition Coil Connector Harness

1. Route the harness through the motorcycle/vehicle so the WHITE and BLACK Quickshifter connectors end up in close proximity to the ignition coils. Do not run the Quickshifter harness next to the OEM vehicle harness. One at a time unplug the original connector on each ignition coil and connect one male and female Quickshifter harness connector to the ignition coil and its original connector. You will need to do this on each of the ignition coils.
2. Connect the black eyelet ring terminal wire to the negative battery terminal only.
3. Plug the quickshifter sensor into the 2 pin, GREY connector of the Intellishift Quickshifter harness.

If you are using this on a 3 cylinder model do not use the YELLOW and GREY colored leads.

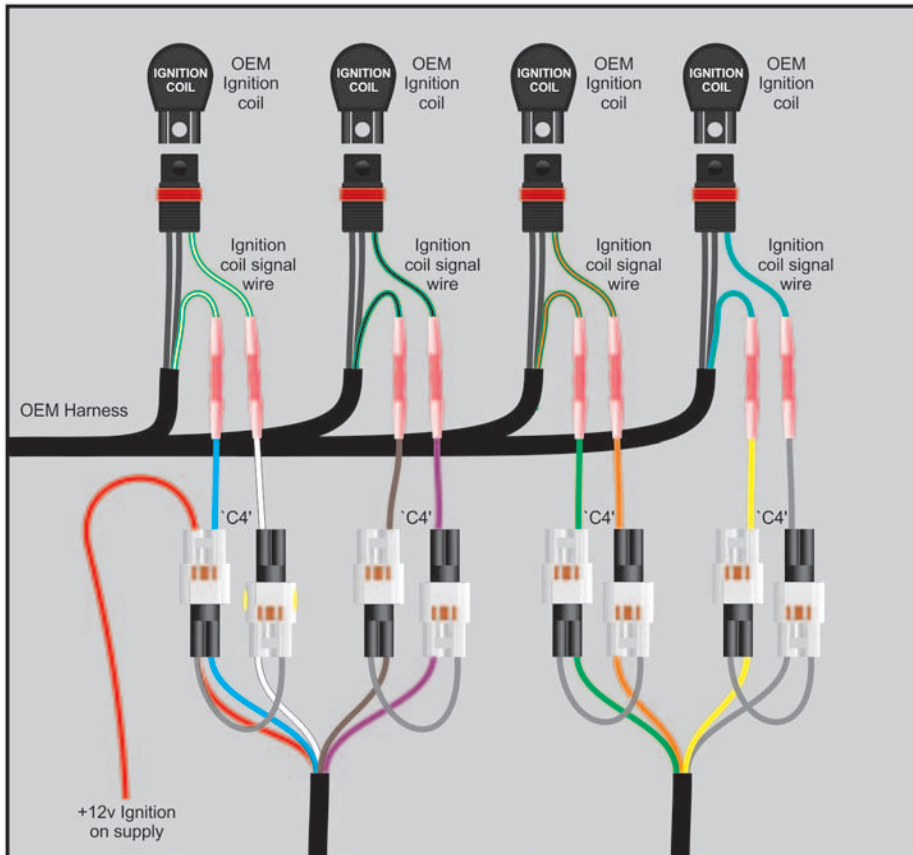


Figure 2: Splicing into the OEM harness

If your vehicle does not have the same connectors that correlates with this product you can splice into the OEM harness by using outsourced connectors.

Route the harness through the motorcycle/vehicle so the Quickshifter connectors end up in close proximity to each of the ignition coils. Do not run the Quickshifter harness next to the OEM harness on the vehicle. Typically there will be 2 or 3 wires on each of your OEM ignition coils. The wire which is the same color on each OEM ignition coil will probably be the +12Volt supply wire and possibly a common ground if your ignition coil has 3 wires.

The wire that is a different color on each ignition coil will be the signal wire. You can double check which wires carry +12v or ground using a Digital Volt Meter. In each example you will interrupt the 'signal wire' on each ignition coil or fuel injector as illustrated in Figure 2.

The RED wire of the Dynojet Quickshifter harness can be wired into the +12v wire of the coil harness or to any switched 12v source.

PRO-TUNER Mode Adjustments

It should not be necessary to enter Pro-Tuner-Mode unless you wish to experiment with the FACTORY DEFAULT SETTINGS. It may be possible to improve the 'feel' of the Intellishift Quickshifter System by incrementing and decrementing the BASE SETTINGS to suit a particular rider or vehicle transmission.

To enter 'Pro-Tuner-Mode' switch on the ignition and then within the first 20 seconds move the gear lever into a 'trigger' position where the status LED illuminates solid GREEN and hold in this position for 6 seconds until the GREEN status LED changes to RED then when you release the gear lever the status LED will change to flashing ORANGE to indicate you have entered 'Pro-Tuner-Mode'. You can now release the gear lever.

NOTE1: The 'primary' default interrupt duration is 66ms in each RPM band.

NOTE2: The status LED will flash ORANGE in the sensor trigger force section.

NOTE3: The status LED will flash GREEN to indicate what RPM band you are about to adjust,

There are 5 bands, 1 flash equals RPM Band #1, 2 flashes equals RPM Band #2 and so on.

NOTE4: The status LED will flash RED in each of the RPM bands to indicate the interrupt duration, each flash will increase or decrease the interrupt duration by 2ms (milliseconds).

Pro-Tuner-Mode tutorial

Go ahead and enter Pro-Tuner-Mode, the status LED will be flashing ORANGE 5 times (default setting) The feel of the sensor trigger force point is a personal thing to the rider. If you would like to feel a little more force on the gear lever before the quickshift happens you can increase the sensor trigger force by following example 1.

Example 1.



Move the gear lever to the trigger position once, you'll see the status LED momentarily change to GREEN when the sensor is in the trigger position, then release the gear lever. You'll now be able to count 6 ORANGE status LED flashes. You can repeat this action up to a maximum of 15 flashes and back to a minimum of 1flash. (15 flashes will increase the trigger force significantly, 1 flash will have reduced the trigger force).

To save the sensor trigger force setting and move onto the next section hold the gear lever in the sensor trigger position. You'll see the status LED change to GREEN while holding in the sensor trigger position, it will then change to RED after 3 seconds. Release the gear lever at this point and then you'll see the status LED flash GREEN once to indicate you are in 'Interrupt duration RPM Band#1'. You'll now see the status LED flash 10 times to indicate the default interrupt duration. See Example 2.

Interrupt RPM bands.

| RPM Band#1 | RPM Band#2 | RPM Band#3 | RPM Band#4 | RPM Band#5 |
|--------------|--------------|--------------|---------------|------------|
| 3000 to 5000 | 5000 to 7000 | 7000 to 9000 | 9000 to 11000 | 11000 + |

Imagine the interrupt duration in RPM Band#1 feels too long and the bike appears to come off power for too long as you quickshift, in this case we would decrease the interrupt duration from the default 10 RED status LED flashes. Let's go ahead and do that, reduce the interrupt duration down to 5 RED status LED flashes. See example 2.

Example 2.

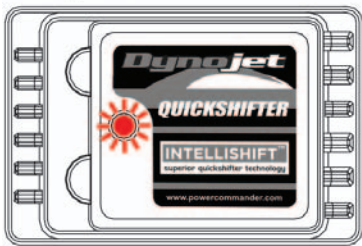


Move the gear lever to the trigger position 15 times, you'll see the status LED momentarily change to GREEN when the sensor is in the trigger position, then release the gear lever. Once you have moved the gear lever to the trigger point 15 times you'll now be able to count 5 RED status LED flashes. By doing this you'll have reduced the interrupt duration in RPM Band#1 by 10ms. (Remember, each RED status LED flash is worth 2ms)

To save the interrupt duration in RPM Band#1 and move onto the next section, Interrupt duration RPM Band#2, hold the gear lever in the sensor trigger position, you'll see the status LED change to GREEN while holding in the sensor trigger position, it will then change to RED after 3 seconds, release the gear lever at this point and then you'll see the status LED flash GREEN twice to indicate you are in 'Interrupt duration RPM Band#2'. You'll now see the status LED flash 10 times to indicate the default interrupt duration. See Example 3.

Imagine the interrupt duration in RPM Band#2 feels too short and the bike appears to snap too fast into the gear as you quickshift, in this case we would increase the interrupt duration from the default 10 RED status LED flashes. Let's go ahead and do that, increase the interrupt duration up to 14 RED status LED flashes. See example 3.

Example 3.



Move the gear lever to the trigger position 4 times, you'll see the status LED momentarily change to GREEN when the sensor is in the trigger position, then release the gear lever. Once you have moved the gear lever to the trigger point 4 times you'll now be able to count 14 RED status LED flashes. By doing this you'll have increased the interrupt duration in RPM Band#2 by 8ms. (Remember, each RED status LED flash is worth 2ms)

To save the interrupt duration in RPM Band#2 and move onto the next section, Interrupt duration RPM Band#3, hold the gear lever in the sensor trigger position, you'll see the status LED change to GREEN while holding in the sensor trigger position, it will then change to RED after 3 seconds, release the gear lever at this point and then you'll see the status LED flash GREEN twice to indicate you are in 'Interrupt duration RPM Band#3'. You'll now see the status LED flash 10 times to indicate the default interrupt duration.

Let's imagine you are happy with the interrupt durations in RPM Band#3 and the other remaining RPM bands now you have had a chance to use the Intellishift quickshifter. So let's now skip each of the other RPM bands and exit Pro-Tuner-Mode. See example 4.

Example 4.



Move and hold the gear lever in the sensor trigger position, you'll see the status LED change to GREEN while holding in the sensor trigger position, it will then change to RED after 3 seconds, release the gear lever then immediately repeat this action until you have saved the settings in RPM Band#5 and then you'll notice the status LED will go out completely, the Intellishift quickshifter is now ready for operation.

REMEMBER!

If the interrupt duration feels too long in any of the RPM bands then you can try and shorten the duration. Be aware that it might feel slightly longer but still have smooth gear shifts in the mid-range area of the engine, this is the Intellishift smoothing out the quickshifts in this difficult RPM range. If the interrupt duration feels too short and the engine snaps/tugs into the next gear then you'll need to lengthen the interrupt duration slightly.

NOTE: When you enter Pro-Tuner-Mode to make an adjustment you will need to go through each of the stages and exit RPM Band #5 to save the settings and changes made.

Warranty

As with any technical equipment of this nature it is strongly recommended that the exposed product items such as the Ignition Quickshifter and GP/LS sensors should be kept clean and checked regularly. These units should be cleaned by removing excess dust with a cloth or small nylon brush. **Avoid using a jet wash within the vicinity of these units.**

Products fitted to motocross, supermoto, kart, and off road buggy applications are not covered by the warranty.

- This Dynojet product is covered by a 12 month warranty from the date of purchase against any defects in materials or workmanship.
- If any defect should occur during the warranty period the product should be returned to Dynojet Research, or alternatively to the place of purchase along with proof of purchase. This warranty does not cover return shipping costs.
- Dynojet Research will examine the product and if it is found to be defective due to faulty materials or bad workmanship will, without charge, repair or replace the product at their discretion.
- If the product covered by this warranty is damaged due to accidents, misuse, modification or unauthorized repair, shortening of cables, broken weatherproof seals due to cable exit bending/pulling or incorrect electrical connections then this warranty becomes void.
- This warranty is personal to the purchaser and is not transferable.
- Products returned to Dynojet Research should be packed carefully to avoid damage in transit. Please include details of the fault together with your name, address and contact telephone numbers.