

# IGNITION QUICKSHIFTER

STAND ALONE UNIT

## UNIVERSAL

Installation Instructions

### PARTS LIST

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



PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION

**Dynojet**

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Quickshifter Installation Guide - 1

## 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 3. This enables the Ignition Quickshifter to run in Adaptive Shift Technology mode.

*Note: The 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.*

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 3, the +12Volt wire is black/white 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, then remove/cut the connectors from the end of the quickshifter harness and interrupt/connect directly to the signal side of each ignition coil as illustrated in Figure 4. Use the supplied crimp connectors or heatshrink found in the fitting kit.

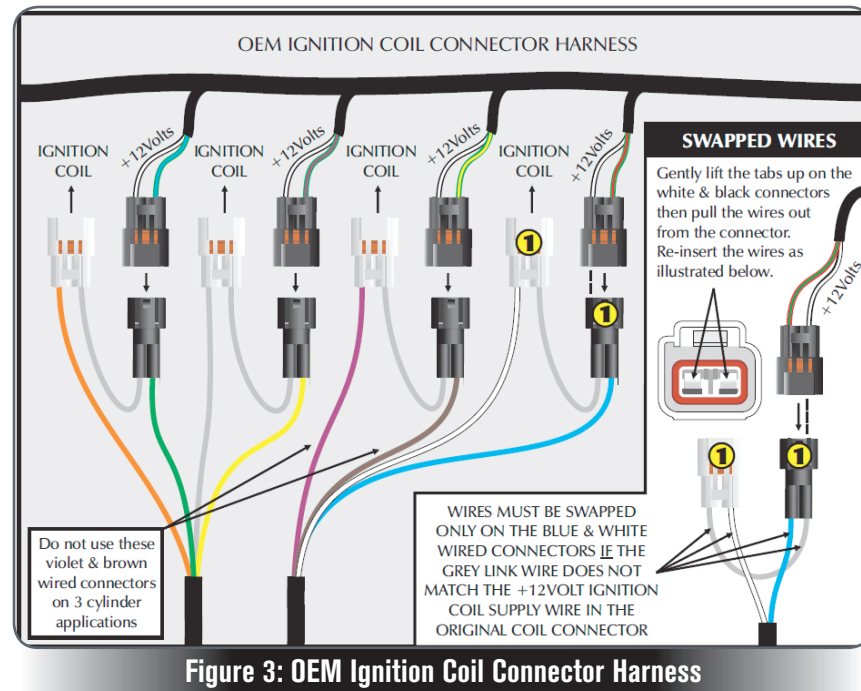


Figure 3: OEM Ignition Coil Connector Harness

- 1 Route the harness through the vehicle so the connectors from the Ignition Quickshifter end up in close proximity to the ignition coils.
- 2 One at a time, unplug the original connector on each ignition coil and plug the connectors from the Ignition Quickshifter in-line of the stick coil and the stock wiring harness.  
You will need to do this on each of the ignition coils.
- 3 Connect the black eyelet ring terminal wire to the negative battery terminal.
- 4 Connect the red eyelet ring terminal to the positive battery terminal.

On most models you can connect the long black clutch lock-out wire to the vehicle clutch switch signal wire situated at the left hand handlebar housing assembly. Only one of the two wires exiting the clutch switch will provide a ground signal when the clutch lever is pulled in. Connecting to this wire will disable the Ignition Quickshifter from operating whenever the clutch lever is pulled in. (May not function on every application).

This black clutch switch wire signal is used to enter Tuner Mode and if there is no clutch switch present on the vehicle then this black wire will have to be momentarily connected to ground/chassis to simulate the clutch switch action while entering Tuner Mode.

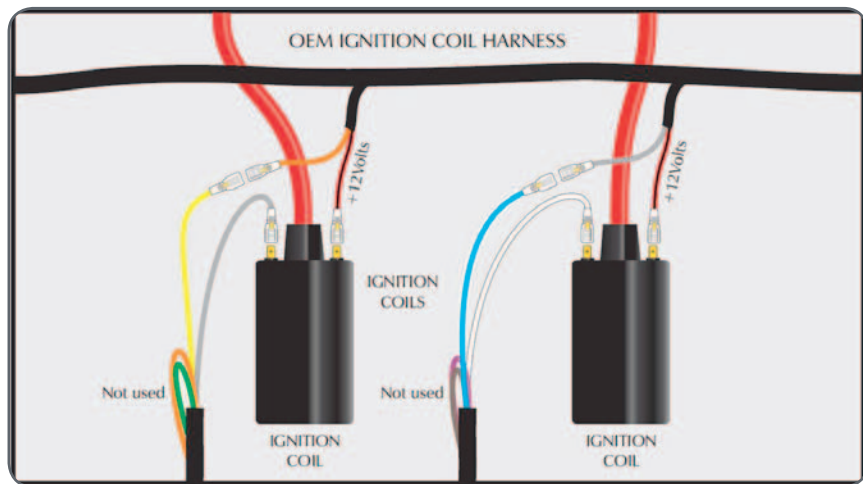


Figure 4: OEM Ignition Coil Harness

## Tuner Mode/Setting the Base Interrupt Duration

- 1 To enter Tuner Mode, pull the clutch lever in or hold the black clutch switch lock-out wire to ground/chassis.
  - 2 Move the gear lever into a trigger position where the status LED illuminates solid green and hold in this position for six seconds until the green status LED changes to red to indicate you have entered Tuner Mode.
  - 3 Release the clutch lever or black clutch switch lock-out wire from ground/chassis and release the gear lever.
- Once you have finished your setting, the black clutch switch lock-out wire should be taped up and secured if it is not able to be connected to the vehicle clutch switch itself.
- Factory Default Interrupt Duration is set to 66ms (milliseconds) and is equal to ten red status LED flashes. It should be noted that this is just the base setting and can be adjusted if desired. This advanced Quickshifter System will vary interrupt durations depending on engine parameters.
- 4 To alter/increase the base interrupt duration by 2ms, momentarily move the gear lever to the trigger position which can be seen by the flashing red status LED changing to lighting solid red while in the trigger position.

The flashing red status LED will now flash eleven times once the gear lever has been released to indicate the 2ms increase from 66ms to 68ms.

Each time the gear lever is momentarily moved to the trigger position the interrupt duration will increase by 2ms up to a maximum of 20 red status LED flashes or 86ms. After this point, further momentary triggers will take the interrupt time back down to one red status LED flash or 48ms interrupt duration. The interrupt duration can be increased again and so on until the desired base interrupt duration is reached.

- 5 To exit Tuner Mode, hold the gear lever in the trigger position for four seconds to save and authenticate the settings where the flashing red status LED will revert back to green.

## Quickshifter System Operation

To use the Ignition Quickshifter, make a full and positive gearshift with your foot in an upshift direction without using the clutch or rolling the throttle.

*Note: The gear lever must return fully to the rest position before the system resets itself for the next gear selection.*

The status LED will flash in unison with the engine whenever the engine is running providing there is an ignition coil/RPM signal which is required for AST (Adaptive Shift Technology) running mode.

The status LED will be off when the engine is not running. The status LED will illuminate solid green whenever the sensor is in the trigger position whether the engine is running or not.

There will be no interrupt/quickshift below 2500 RPM.

## Troubleshooting

No power up	Check for incorrect connections, blown fuses, poor negative battery terminal connections, and severed or trapped wires.
No quickshifter interrupt	Check for correct connection of the Quickshifter harness connector #1 and it's associated grey link wire alignment. . Verify the sensor output signal. Check for loss of tach/RPM signal. Check for severed or trapped wires.
No quickshifter operation	Verify the quickshifter parameters and programming have been carried out. Check for loss of tach/RPM signal. Check for severed or trapped wires.
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 if the ignition coil adapter connectors require fitting.

## **General Product Warranty and Servicing**

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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.