

# **IGNITION QUICKSHIFTER**

**STAND ALONE UNIT**

## **08-12 Kawasaki EX250**

(Carbureted Models Only)

Installation Instructions

### Parts List

- 1 Ignition Quickshifter Unit
- 1 Shift Sensor (push)
- 1 Shift Rod
- 1 Installation Guide
- 2 Dynojet Decal
- 4 Cable Ties
- 1 Velcro strip
- 1 Alcohol Swab
- 1 Posi-tap

**▪ PLEASE READ ALL DIRECTIONS BEFORE STARTING INSTALLATION**

**Dynojet**

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## 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.

- Remove the knee panels under both sides of the rider seat, both rider and passenger seats, and both side fairings.
- Using the supplied Velcro mount the control box in the tail section (Fig. A).
- Clean both surfaces with the supplied alcohol swab prior to applying the Velcro.



Figure A: Mounting Unit

- Route the wiring harness down the left side of the bike towards the ignition coils while following the stock wiring as closely as possible. Route the wiring harness branch with the GREY 2-pin connector towards the shift linkage (Fig. B).



Figure B: Harness Routing

- Connect the Ignition Quickshifter harness in-line of the stock wiring harness and the Left Ignition coil (Fig. C).
- ORANGE wire goes to the spade terminal of the coil that is marked BLACK
- GREEN wire goes to the stock BLACK coil wire.



Figure C: Left Coil Connection

- Connect the Ignition Quickshifter harness in-line of the stock wiring harness and the Right Ignition coil (Fig. D).
- WHITE wire goes to the spade terminal of the coil that is marked BLACK
- BLUE wire goes to the stock GREEN coil wire.

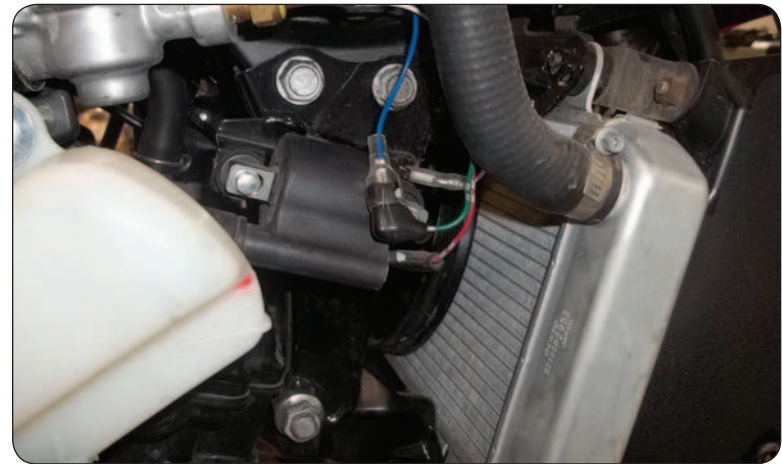


Figure D: Right Coil Connection

## Fitting the Control Unit (cont.)

- The BLACK wire from the control unit can be connected to the grounding side of the clutch safety switch. When this wire is connected the unit will not KILL while the clutch is pulled in.
- Route the single BLACK wire up to the bike's clutch switch.
- Use the supplied Posi-tap to attach the single BLACK wire to the BLACK wire of the clutch switch (Fig. E).

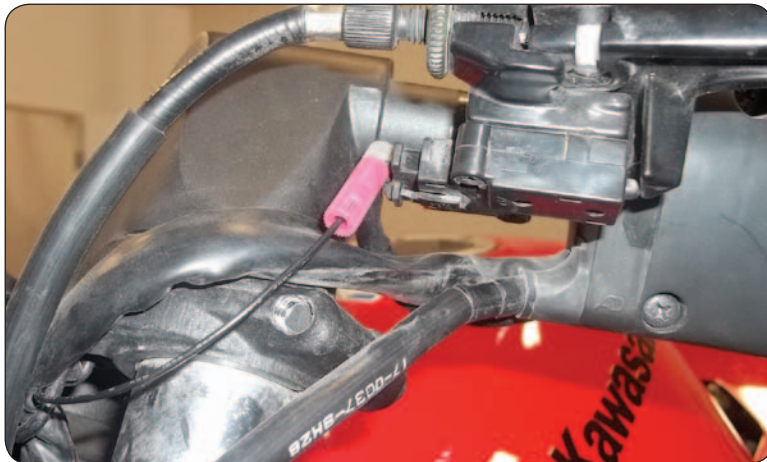
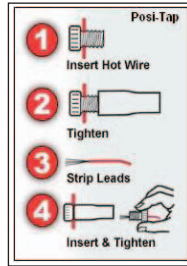


Figure E: Connecting Clutch Input

- Remove the plastic tray covering covering the top of the bike's battery.
- Connect the power supply harness of the Ignition Quickshifter to the bike's battery (Fig. F).
- RED wire goes to the Positive battery terminal.
- BLACK wire goes to the Negative battery terminal.

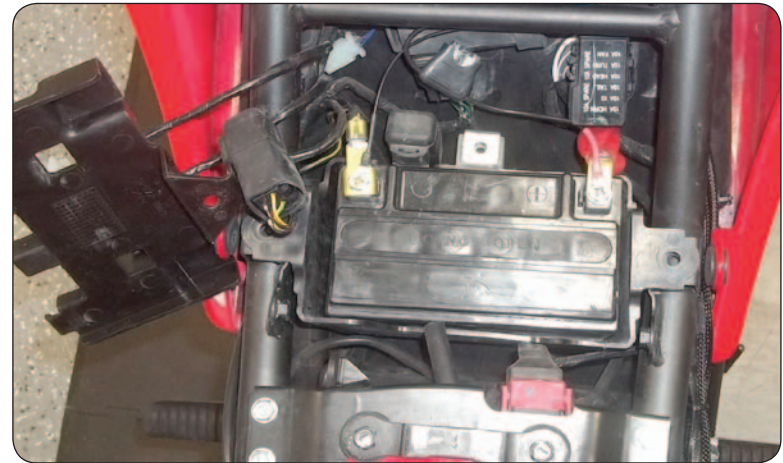


Figure F: Connecting the Power Supply

## Fitting the Shift Sensor

- Remove the stock shift rod from the shift linkage
- Screw the sensor all the way into the rear heim joint until it bottoms out.
- Install the supplied shift rod in between the sensor and front heim joint. Adjust lever position and then tighten the locknuts (Fig. G).
- Route the sensor wiring upwards and connect it to the GREY 2-pin connector of the Ignition Quickshifter harness.



Figure G: Sensor Mounting

- Reinstall the battery cover, the side fairings, the seats, and knee panels.

## Tuner Mode/Setting the Base Interrupt Duration

- To enter Tuner Mode, pull the clutch lever in or hold the black clutch switch lock-out wire to ground/chassis.
- 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.
- 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.
- 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.
- 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 illuminate solid green whenever the Quickshifter sensor is in the trigger position. This status LED will flash in unison with the engine whenever the engine is running and if there is an ignition coil/RPM signal which is required for running mode.

There will be no interrupt/quickshift below 2500 RPM.

The unit comes with a set shift kill interrupt time.

## Troubleshooting

No power up	Check for incorrect connections, blown fuses, poor battery terminal connections, and severed or trapped wires.
No quickshifter interrupt	Check for correct Ignition Quickshifter power supply. Verify the sensor output signal and the quickshifter parameters and programming has been carried out. 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. Verify sensor output signal.

## General Product Warranty and Servicing

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.