

**Reading time: 8min**

Installation manual MAGNUM Quickshifter Part № M-KY and M-HS

[Installation and demo video link – click here.](#)

Please read carefully before attempting any use of this product!

To install MAGNUM Quickshifter you will have to:

1. Gain access to the ignition coils (for best results refer to your motorcycle service manual). Plug in the control box female connectors to the ignition coils and the male connectors to the bike's harness. **You must connect each male and female connector pair to the same corresponding cylinder no matter starting left to right or right to left!**

Stick type coils view



**IMPORTANT NOTE:** Make sure when plugging the connectors that you press them well enough to lock, this will provide sealed and reliable electrical connection, important for the function of the system. Find appropriate place for the control box and route the cables, they are high quality, automotive class cables however you must: Avoid moving parts as they might damage them, the best way is to follow other cables from the bike's harness, use cable ties to fasten them. Make sure the place for the control box is **away from heavy vibrations**, heat, and it is not constantly exposed to rain and water.

**NOTE:** The control box must connect directly to the ignition coils, if you use another product(s) for altering or modifying the ignition coil signals (that needs to be connected to the ignition coils as well) please contact us to confirm if they can work along each other!

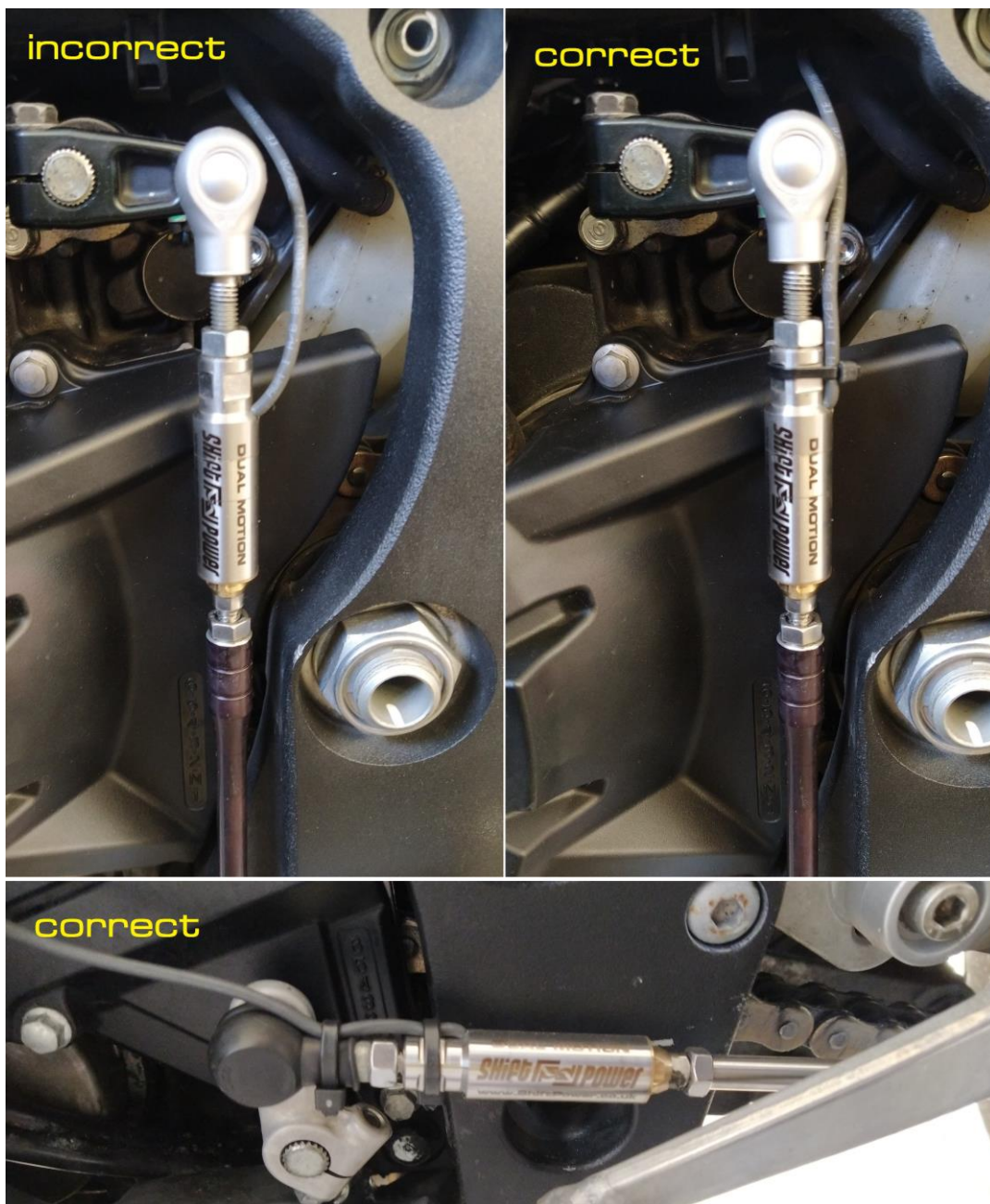
The control box requires negative (ground) connection to power up, connect the control box single black wire with ring terminal to the battery **NEGATIVE [-] lead !** **NOTE: You must never run or even crank the engine when the control box is connected to the ignition coils without the single black wire connected to the battery negative lead! Do not use bolts from the chassis or engine to connect the control box single black wire!**

Remove the existing tie rod and install the shift sensor with the fitting rod(s) provided to its place. Route the wire to the control box and plug it in. When installing the sensor, make sure all counter nuts are locked and the sensor wire is not under tension when pressing the gear lever all the way up and down. The rod and sensor internal threads are made with **DUAL THREADS** (left and right hand at the same time) which makes fitting universal.

**NOTE:** Fasten the sensor cable using cable tie to the sensor body or tie rod to prevent it vibrating when bike is in motion, not doing so may result in long term damage to the cable core and shift sensor failure!

**NOTE:** Use the slotted end in top side and a 10mm open end wrench (spanner) to hold the sensor body when tightening counter locking nuts.

**NOTE:** The gearbox pivot arm must extend to 90 degrees with the shift rod in order to receive equal force in both directions, if not set correctly the gearbox may not react accordingly and miss gears when using the quickshifter!



**IMPORTANT: You must send a photo of your shift sensor installation along with your order ID or name to validate the full 1 year warranty on the shift sensor! Send the required photo using WhatsApp or to our official email.**

After this is done, turn the ignition key ON, make sure the engine kill switch is in RUN position and the gearbox is in neutral, at this time the control box must power up and enter normal operation displaying SP flashing.

**BEFORE USING THE QUICKSHIFTER YOU MUST ENSURE THE CORRECT SENSOR MOTION FOR YOUR SHIFT SETUP IS SELECTED, PLEASE REFER TO THE FOLLOWING TABLE - OPTION SS**

[C-type control box setting video link](#)

**- To enter setting mode:** Press and hold LB and RB together then power up the control box, hold down the buttons for 3 seconds until the countdown timer elapses.

**NOTE:** Depending on model to power up the control box you have to turn the ignition key on, engine kill switch in RUN position, gear in neutral if the control box lights up only while the fuel pump is priming you need to start the engine.

- To cycle through the main parameters press LB
- To enter a particular parameter press RB
- To exit one level up in the menu press and hold LB for 3 seconds.
- To exit the setting mode power down the control.

The following is a menu table for adjusting the control box parameters

Parameter	Description	Value		
<b>St</b>	Adjust the engine interrupt time for shifting gears UP(1-2-3-4-5-6)	45ms - 95ms (5ms increments) (default value = 60ms)		
<b>SS</b>	Sets the shift sensor motion for shifting gears UP(1-2-3-4-5-6)	PH = PUSH PL = PULL (default value = PH)		
<b>dG</b>	This parameter controls the magnum level by allowing controlled cylinder volumes to be ignited in the exhaust	<b>G1</b> 4 cylinder volumes are ignited in the exhaust	<b>G2</b> 8 cylinder volumes are ignited in the exhaust (default value)	<b>G3</b> 12 cylinder volumes are ignited in the exhaust
<b>Us</b>	Controls the ultra-smooth shift feature	<b>U0</b> Deactivated		<b>U1</b> Activated (default value)
<b>Ar</b>	Sets the Quickshifter active range	<b>r3</b> over 3000 RPM (default value)	<b>r6</b> over 6000 RPM	<b>r8</b> over 8000 RPM
<b>SC</b>	Shift sensor sensitivity control adjustable in 5 RPM ranges and 3 levels of force	1 = 3000 - 5000 RPM 2 = 5000 - 7000 RPM 3 = 7000 - 9000 RPM 4 = 9000 - 11000 RPM 5 = above 11000RPM		A = low force b = medium force C = high force default values (1A, 2b, 3c, 4c, 5c)

The following is shift sensor calibration procedure. Perform only if you are replacing a new shift sensor or you have reset the control box to factory settings.

1. Unplug the shift sensor from the control box.
2. Power up the control box by turning the ignition key on and engine kill switch in RUN position.
3. Plug in the shift sensor to the control box.
4. Ph displays now compress the shift sensor all the way until solid at once without backing off! Release the shift sensor to normal position and the control box displays a number from 48 to 55 is normal operating value if different repeat the procedure from the beginning.
5. Pl displays now extent the shift sensor all the way until solid at once without backing off! Release the shift sensor in normal position and the control box displays a number from 14 to 18 is normal operating value if different repeat the procedure from the beginning.

**NOTE the above values are correct for DMU sensor if the sensor you're calibrating has no part number means its DMS and operating values are PH(55-59)/PL(34-38)**

### **What is the MAGNUM feature**

This option is unique to the MAGNUM control box and is capable of controlling the ignition timing which results in extremely fast and in the same time smooth shifts on the other hand it gives you a nice pop and flame spit on every shift.

**NOTE: MAGNUM feature levels G2 and G3 are recommended for use on straight exhaust systems as the OEM exhaust becomes very hot when arresting the flames.** MAGNUM feature can only be activated via the handlebar button provided in the kit, if the handlebar button is not connected or connected and not pressed the system will shift just like the SYNCROtech Quickshifter system.

### **What is the (Ultra Smooth) shift feature:**

This option will restore the power on the next gear when using the quickshifter by firing sequential cylinders allowing smooth transition between gears, particularly suitable for cruise and city riding. When this option is active and magnum feature off the Suzuki ECU's will trigger FI warning for detected no power to the coils – this is normal.

### **What is the (Ar) Quickshifter active range:**

This option allows you adjust at what RPM the quickshifter function becomes active and it's adjustable to the following ranges: r3 = (above 3000RPM); r6 = (above 6000RPM); r8 = (above 8000RPM). The control box will indicate letters "SH" on the display whenever it the quickshifter function is active and you can check this by revving the engine past the set RPM threshold, the factory pre-set value is r3 or above 3000RPM.

### **What is the (SC) shift sensor sensitivity control:**

This option allows you to adjust the force required by the shift sensor to initiate a shift depending on engine RPM. You can adjust 3-levels of force represented by letters (A = Low, b = Med, c = High) in 5 RPM ranges represented by numbers: 1 = (3k to 5k); 2 = (5k to 7k); 3 = (7k to 9k); 4 = (9k to 11k); 5 = (11k to red line). This option has been pre-set from factory we recommend you to test ride before changing the parameters.

### **Force reset of the control box** □

With everything connected turn the ignition key on with the engine kill switch in RUN position, side-stand lifted, engine must not be running then press and hold the shift lever in the direction of Up-shifting all the way in – at this point the control box will display a counting timer, wait until "r t" start flashing. Module is now reset to the factory pre-set values, refer to the above table.

### **Tips on adjusting your Quickshifter!**

The MAGNUM Quickshifter arrives with best overall setting to your motorcycle make and model. We strongly recommend you to test ride it before changing the St settings. Use the following as a general guide when adjusting your Quickshifter:

If when using the Quickshifter the gearbox seems to push back the shift lever, the shift feels rough and you have experienced missed gears - this means that the gearbox needs more time to react – increase the St shift time.

If when using the Quickshifter the motorcycle front dives for too long and the shift seems slow - this means that you have to lower the shift time – decrease the St shift time. Best results for most motorcycles are achieved with the following time settings - (60ms-70ms).

If for some reason you're experiencing difficulties adjusting your Shift Power product, you think it is not functioning as expected or you would like to share your opinion please feel free to contact us to support you with a professional help.

This product is covered by one year warranty against malfunctions from the original date of purchase under the following conditions – [link click here.](#)

**Warranty disclaimer:**

Shift Power Ltd shall not under any circumstances, be liable for any special, incidental or consequential damaged including, person, party or property, but not limited to, damage loss of cost of purchased or replacement goods or service, claims of customers of the purchaser, which may arise and/or result from sale or use of these parts. Installation of these parts could adversely affect the engine manufacturer warranty coverage.

**Thank you for choosing the Quickshifter MAGNUM  
enjoy!**