

Please read the installation instructions carefully before using your shifter. Make sure you agree with disclaimer before you install the shifter.

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For Yamaha R6 and other motorcycles with + 12v from the ECU. Check R6 note and separate wiring diagram.

### **CORDONA RACING SHIFTER SBK.**

Thank you for selecting a Cordona Racing Shifter to make your bike stand out in competition. The Cordona Racing Shifter is developed by racers for racers, it is smaller and lighter than other shifters, it will perform on the racetrack, providing smooth and lightning fast up shifts. The Cordona Racing Shifter is intended for use on a closed circuit only.

### **Instructions how to install a Cordona Racing Shifter SBK.**

Your kit should include:

1. Killbox
1. Pullswitch. (not incl. with Combo kits)
1. On/Off flip switch
1. Piece of Velcro
2. Stainless steel pieces (one bracket and one "pull arm") (not incl. with Combo kits)
4. Pcs. of heatshrink.
5. Zip ties.

### **Tools needed to install the shifter**

Soldering iron  
Solder  
Testlight or Amp. meter  
Adjustable wrench  
Drill

**It is recommended that you solder all connections and keep all wiring as short as possible to enable a trouble free, smooth operation of the shifter.**

Mount the pullswitch to the frame, a crank case bolt or other solid object nearby the gearlever of your bike. Attach the pullswitch spring to a hole drilled in the gear lever, or bolt the "pull" arm to the gearlever and attach the spring to it ( depending on if you have a "push" or "pull" type linkage). If the spring supplied in the kit is too short for installation on your bike it can be extended with a piece of piano wire, or replaced with a longer spring (not supplied in the kit)

Mount the On/Off flip switch to a suitable position on your bike.  
Fit the Killbox with zip ties and the included velcro to a suitable position on the bike. The killbox should be located where it is protected from direct spray of water and dirt, engine heat and vibrations. Please note that the adjustment dial on the killbox preferably should be accessible for adjustment while installed on the Motorcycle.

Connect the red wire from the On/Off switch to +12V (usually available at several locations on a motorcycle, and off course, at the battery). Connect the other end of the red On/Off switch wire to Killbox red.



Connect the looped blue wire to killbox connector, any of the two vacant cavities are ok, then cut blue loop and pullswitch blue loop and connect together to correct length to fit your bike.

For GP Switch Installation insert the correct combination of two wires in the vacant cavities. For correct color of the 2 wires please refer to your GP Switch instructions.

In case you have upgraded your shifter with a GP Switch and the cavities are occupied by the blue wires, the easiest way is to cut the blues and the GP Switch wires and splice them together. The blues' pins can be removed but it is easy to damage the connector housing.

#### Connect the Killbox to the ignition system.

Locate all feeder +12v going to coils, usually in the same color, **one to each coil**, can be checked with a testlight or with an amp. meter with the ignition on, engine off. Cut the +12v wire to one coil and connect the cut +12v part of the wire to Killbox Yellow. Connect the remaining cut wire (the one attached to the coil ) to the other Killbox Yellow.

Now repeat the same action with the other coil, cut the +12v wire and connect to Killbox Green, connect the other end of the cut wire (the one attached to the coil) to the other Killbox Green .

**If you have a bike with more than 2 coils, i.e. 4 coils:** Cut the +12v wire to each coil and twist the cut wires together in pairs and connect to killbox in pairs in the same order and color codes as mentioned above. Our favorite installation is to trace all +12v wires upstream until they become one and cut and install there.

**If you have a single engine motorcycle:** use the 2 Yellows only. Seal off the Greens and with electrical tape.

**If you have a Yamaha R6 with carburetors or an engine with +12v from the CDI.** Locate the 2 black (gnd) wires and cut one of them. Connect the gnd. part of one cut wire to Killbox Green, connect the other end of the wire (the one still attached to the coil) to the other Killbox Green. Now repeat the same action with the other black gnd. wire. Cut and connect the gnd. part of the wire to Killbox Yellow and connect the other end of the cut wire (the one still attached to the coil) to the other Killbox Yellow.

The same method as for the black wires above can be used on the orange and gray wire too, if you believe they are easier to reach than the black ones.

**If you have a Yamaha R6 with FI:** Cut the 4 black stock gnd wires and twist together in pairs and treat each pair as one wire when viewing the diagram. Or trace the black stock gnd wires until they become one single wire and cut it there, then twist together a Yellow and Green (located on the same row in the white connector) and connect to the gnd side of the cut black stock gnd wire, then twist the other Yellow and Green together and connect to the coil side of the cut black stock gnd wire.

Late model R6; 2006 and on have red wire with gray squares and dots as common wires, trace them upstream until they become one and cut.

**Ducati:** late models: Cut 12v wire, Brown/white, changes to Yellow close to coil. Cut it and connect as per above. Connect Killbox red to ignition switched +12v( tail light or other). Connect killbox black wire to gnd near the location you chose for the Killbox.

**Please note:** Pulse wires are usually in different color, one to each coil too.

#### Adjust the shifter to fit your bike.

Start by adjusting the pullswitch, it should be activated (slide back rubber cover and check with an amp. meter or a test light, or just listen for the "click-click") when the gearlever has moved beyond its spring-loaded play and selector drum resistance is reached while performing an up shift (**WARNING**, should be done with the engine **NOT** running). When the Pullswitch is adjusted, start the engine and preferably prop the rear wheel off the ground, or pull the clutch lever in. Adjust the kill time dial on the Killbox, turn the adjustment dial counter clockwise to the stop for a preferred initial setting. Rev the engine to about 5000rpm, try to make simulated up shifts while holding the clutch lever in, or with the rear wheel propped up. While simulating up shifts the RPM should drop and then immediately pick up again. Turn the adjustment dial clockwise to decrease kill time.

Test ride the bike and perform up shifts at low RPM, adjust kill time as needed, then slowly increase the RPM used at up shifts. Adjust the kill time until you get smooth lightning fast up shifts without the use of

the clutch. Seal of the killtime adjustment hole with a piece of tape to prevent dirt from entering the killbox. **Please note** that the initial adjustment of the Pullswitch maybe have to be redone at this time to enable the shifter to work properly.

**WARNING, BE CAREFUL WHILE ADJUSTING KILL TIME!!!!**

Too short of a kill time might turn the ignition on too early and the gears may not be properly engaged, the result is a missed up shift. This could cause damage to the gearbox and engine.

Please note that the adjustment dial is highly sensitive and should be changed in small increments.

If you are experiencing problems with the shifter adjustment dial vibrating out of trim, use thick nail polish or a hot glue gun on the dial to lock it in position.

**FAQ:** *My bike is shifting fine on the stand and I can hear the box go click-click as it is supposed to, but it won't up shift when I ride the bike?.*

**A:** The switch is probably activated continuously from vibrations when the bike is rolling down the track and the SCD (single cut device) is preventing up shifts without a 0.5 sec gap in between. Readjust the compression preload of the GP Switch, it is too loose so tighten down the correct allen screw further to correct the problem.

**Q:** *Can I insert the two wires into any of the two cavities in the killbox connector or pc3 usb connector (shown on pc3 page) or do each wire have to go into a specific cavity?*

**A:** The two wires used are completely interchangeable, it does not matter which of the two cavities they go into.

**Q:** *My bike is cutting in and out as it accelerates but it works fine on the dyno.*

**A:** Preload is too loose, correct allen screw needs to be tightened.

**Please be careful and always wear a helmet and full protection motorcycle gear while riding your motorcycle.**

**The Cordona Racing Shifter should be used on a closed circuit only. The use of this product is at the sole discretion of the operator. The manufacturer of this product is not liable for any kind of damage or injury caused to the operator, motorcycle, or to third party. To put it simple, do not come to us if you bend yourself, third party, your bike or anything else.**

**Good luck, see you at the race track,**