

# Electronic Cruise Control for Yamaha FJR1300 to 2005

Cruise kit: MCS 4660 for model years to 2002

Cruise kit: MCS 4670 for model years 2003~2005 no ABS

Cruise kit: MCS 4680 for model years 2003~2005 with ABS



NOTE: - These kits were unavailable for some time because the cruise control computer (electronic module) we used was made obsolete by our supplier. Due to demand, we have re-introduced them using our new cruise control computer. We have NOT fitted a cruise control to these models using our new computer, but we have had several customers who have. All of the other components in the cruise control are essentially the same as the previous model, except the computer. As a result there is some minor differences in the mounting of the new computer (it is a different shape to the old one) and while we can provide the computer with a basic set up that will work, the performance of the cruise control will benefit from some 'fine tuning' by the operator. Full instructions are provided in the kit to enable the owner to do this.

The following provides a brief description of the power consumption and component locations of the MotorCycle Setup electronic cruise control.

Installed weight of the cruise control is approximately 2.0kg.

Current draw while the cruise is switched on, but not engaged, is approximately 0.250 amp (3 watts). Current draw while the cruise is engaged is nominally 0.50~0.80 amp (6~10 Watts).

By comparison, a head light bulb typically draws about 4 amps (55 Watts), and a tail light bulb (running light) draws about 0.4 amp (5 Watts).

Refer to the line drawing on the back of this sheet to identify the components from the numbers in the text.

The **Computer (1)** mounts under the passenger seat. NOTE: - This photo shows our old computer. The new computer does fit, but must be rotated so the plug for the wiring harness exits towards the side of the bike, instead of to the rear.



On bikes without ABS brakes the **Actuator (2)** (throttle servo) is bolted to the frame behind the right side cover. A **vacuum hose assembly (4)** is provided to connect the actuator to the engine.

On bikes with ABS brakes the space under the right side cover is filled with ABS hardware so the **Actuator (3)** (throttle servo) is bolted to the frame using the left side footrest/exhaust mount bolts and the passenger footrest bolt. Aluminium covers finished in metallic silver powder coat are provided to protect the actuator and enhance its appearance. A **vacuum hose assembly (4)** is provided to connect the actuator to the engine.

If the location of the actuator behind the riders left foot is not desirable for any reason, we provide a suitable mounting bracket in the kit to allow the installer to fit the actuator under the riders seat, in the tool compartment. Note that this may not be possible on early models with ABS brakes, because some of them had an electronic 'black box' mounted in this location. On later models there is enough room to mount the actuator under the seat.



The **Cable Interface Unit (5)** is located inside the left side fairing panel, behind the radiator and has a new **cable (6)** running from it to the fuel injection throttles.



The **Speed sensor (7)** is mounted on the end of the right hand side of the swing arm under the axle pinch bolt. Nickel plated magnets are placed in the heads of the bolts that mount the brake disc.

The **Control Switch (8)** is mounted to the left hand (clutch) master cylinder handlebar clamp. The bracket mounts between the bottom faces of the clamp and the master cylinder. The clamp must have about 1~1.5mm (0.040"~0.060") filed from the bottom face to allow for the thickness of the switch bracket.



If the mounting of the control switch under the handlebar limits the use of tank bags, an alternative bracket to mount the control switch above the handle bar is available. This is part number MCS830I.

The **Wiring Loom (9)** has the same type of plugs or terminals that are already used on the motorcycle. Power for the cruise control and brake sensing is taken off the brake light switches by unplugging the rear brake light switch. Matching connectors on the cruise control loom are plugged in to the switch and the bike's loom. Tach (engine speed) sensing is detected from the bike's ignition coils. This is used to disengage the cruise if the clutch is operated. The bike's clutch switch is also connected to the cruise control to disengage the cruise control. The cruise control is grounded on the negative battery terminal

## ***MotorCycle Cruise Controls***

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**Web Site:** <http://www.mccruise.com>

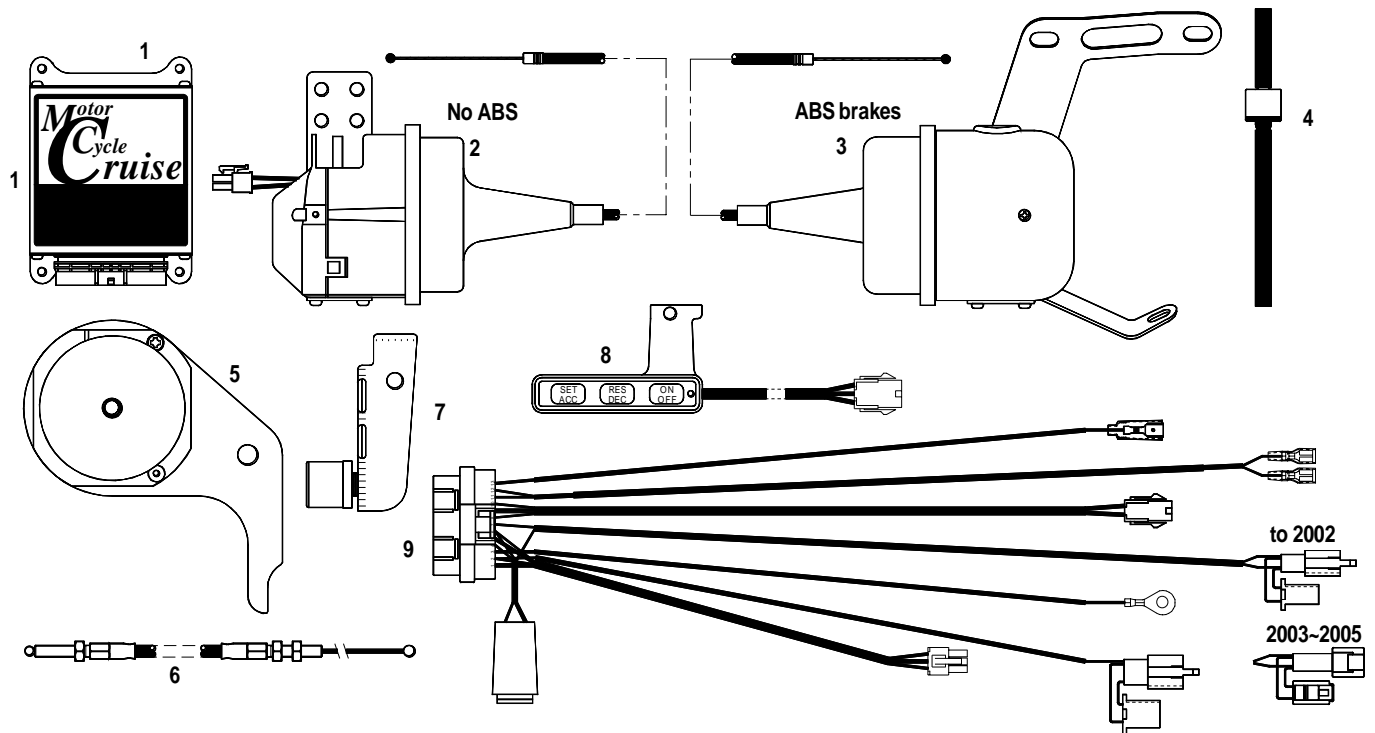
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## How to determine the brake light switch plug type.

During development of the cruise control for the FJR1300 we became aware that there are two different types of brake light switch connecting plugs. It is thought that this change was made during the model year change from 2002 to 2003. The early model bikes don't have a fairing storage pocket; the later models have a lockable pocket in the left side of the fairing cockpit. We believe that the brake switch connector change occurred at the same time as the introduction of the fairing pocket, however we cannot be certain of that. To our knowledge, all bikes with ABS brakes have the later plugs.

In order to supply the correct wiring loom for the bike, we need to know what type of plug your bike has. This is fairly easy to determine by following the instructions below.

The connecting plug for the rear brake light switch is concealed inside the right side cover, near the rear brake fluid reservoir.

In order to determine which plug your bike has, you must remove the right side cover. This can be done as follows:

### Remove the seat.

- Release the key lock and remove the rider's seat. Remove the passenger seat.

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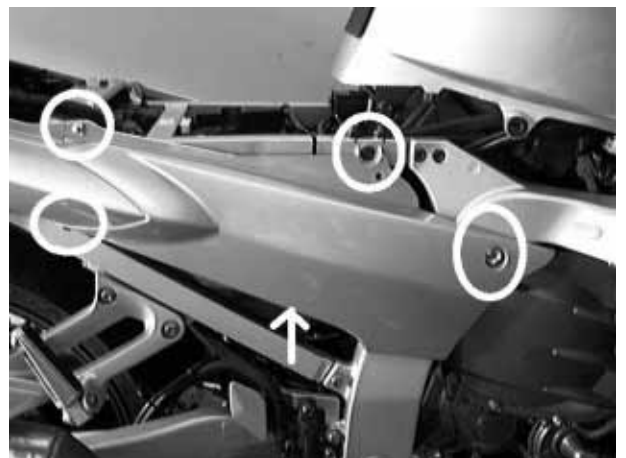
### Remove the right side fuel tank trim panel.

- Remove the covers at the bottom of the fuel tank on the right side. There is a screw at the front edge, a clip at the back and a plug and rubber grommet at the top centre of the panel.



### Remove the right side cover.

- Remove the right side cover. There is a screw at the front edge, a clip at the top front, another screw and nut at the rear top and a clip at the rear bottom edge and another clip about 3/4 of the way to the front on the bottom edge.
- Pull the cover forward to release the tabs at the back edge and remove the cover.



- Locate the bike's rear brake light switch plug. The brake light switch is behind the rear brake master cylinder. Follow the wire from the switch to the plug, which should be below the ABS actuator assembly (on bikes with ABS brakes).



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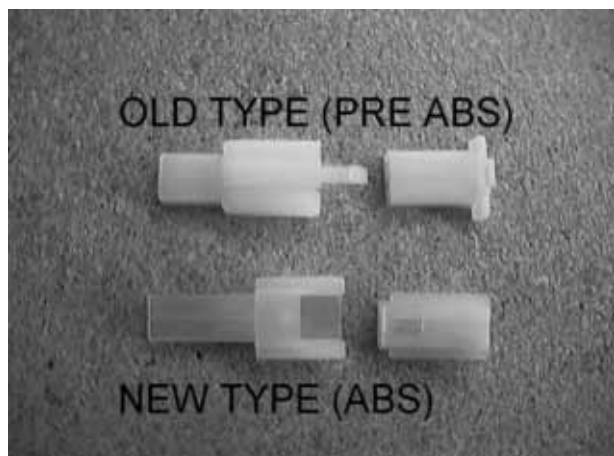
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These photos show both types of connector.



Both wires from the brake light switch are black. The wires from the bike's wiring harness are yellow and brown. These colours apply to all models.

Please determine what type of connectors are fitted to your bike and order the appropriate kit.

If you have the old type connector and do NOT have ABS brakes, order kit MCS 4660.

If you have the new type connector and do NOT have ABS brakes, order kit MCS 4670.

If you have ABS brakes, order kit MCS 4680. To our knowledge, all bikes with ABS brakes have the new type connector.

If you want to order a kit with the control switch above the handlebar instead of below, add a comment to the order to supply an MCS 830I (above handlebar) switch bracket.

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