

Electronic Cruise Control for Honda CBR1100XX Super Blackbird (EFI)



With the new MotorCycle Setup electronic cruise control computer, we now have the ability to tailor the cruise control performance to the bike to a much finer degree than was previously possible. This has improved the performance of the cruise over the old version, and has allowed us to customize the 'speed adjustment steps' of the accelerate (SET) and decelerate (RES) buttons. For bikes fitted with a KPH speedometer we calibrate the cruise control to change the speed by 2 kph for each press of the button. For bikes fitted with a MPH speedometer we calibrate the cruise control to change the speed by 1 mph for each press of the button. We usually calibrate the cruise depending on which sales area the cruise control is going to, but this can be specified WHEN the cruise control is ordered if the normal calibration is not wanted.

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

Current draw while the cruise is switched on, but not engaged, is approximately 0.020 amp (0.28 watts).

Current draw while the cruise is engaged is nominally 0.250~0.350 amp (3.5~5 Watts) with peak draw at 0.5 amp (7 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).

Installed weight of the cruise control is approximately 1.8kg.

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

Note: - Genuine Honda sealing washers are provided in the kit for the fuel injection hose and fuel tank service bolt to allow safe removal and refitting of the fuel tank.

The **Computer (1)** mounts in the rear luggage compartment above the rear light in a **foam block (2)**.



The **Actuator (3)** is located under the rear of the fuel tank. A **vacuum hose assembly (4)** is provided to connect the actuator to the engine. A vacuum fitting is provided to screw into the balance port to replace the original blanking screw.

The **CIU (5)** is mounted above the cylinder head to the left side and has a new **cable (6)** running from it to the throttle bodies.



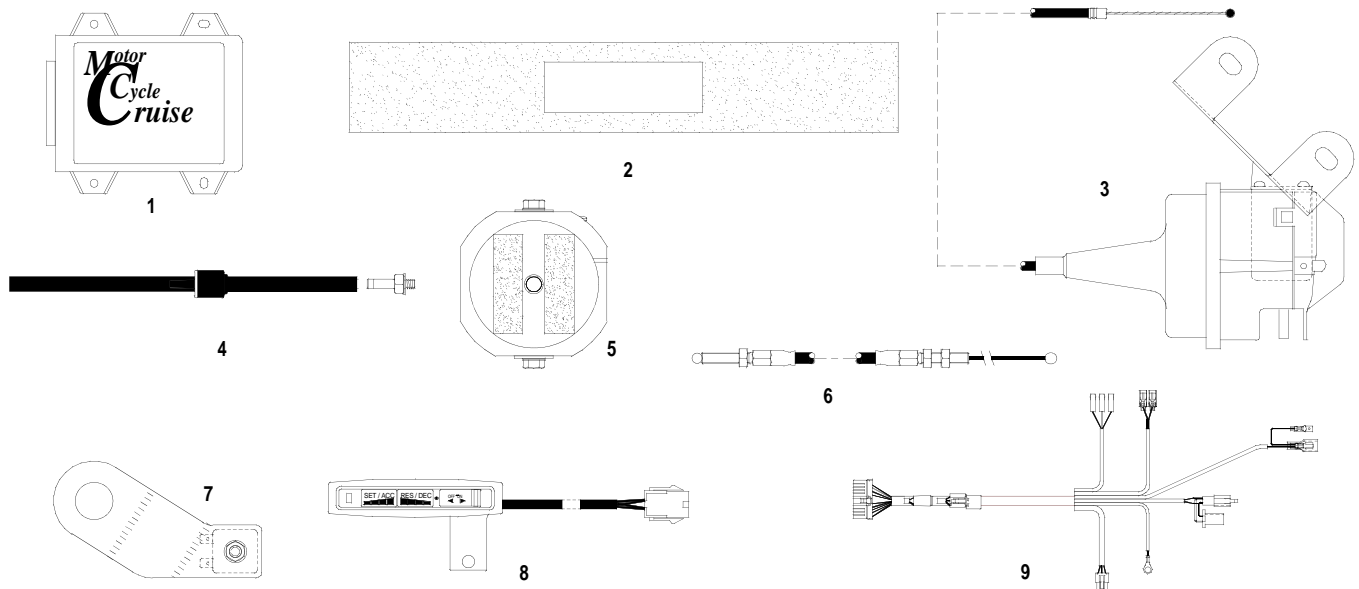
The **Speed Sensor (7)** is on the rear swing arm on the right side, and uses a bracket that is mounted on the rear axle. The magnets fit into the head of the bolts that mount the brake disc to the wheel.

The **Control Switch (8)** is mounted to the left hand (clutch) master cylinder handlebar clamp and is located above the left hand switch block. The bracket mounts between the top faces of the clamp. The clamp must have about 1.5~2mm (0.060"~ 0.080") filed from the top face of the clamp to allow for the thickness of the switch bracket. The photo shows the switch mounted on the bike. If risers are fitted to the handlebars and the switch contacts the fairing screen during steering movement, an alternate switch mount is available to allow the switch to be installed under the handlebar.



The **Wiring Loom (9)** uses the same type of plugs 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 bikes loom. Tach (engine speed) sensing is detected from the bikes ignition coils. This is used to disengage the cruise if the clutch is operated. The cruise control is grounded on the bikes chassis ground bolt.

The wiring loom incorporates a new safety device, the 'CruiseSafe' actuator power relay. This device is a simple relay that is operated by the brake light switches. If the cruise control should malfunction, either due to electrical interference or component failure, applying the brakes enough to turn the brake light on will instantly cut power to the cruise control actuator (servo). Releasing the brakes will restore power to the actuator. This device is fail-safe in all respects except one. The brake light switches must be operative for this device to work.



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