

Electronic Cruise Control for BMW R1100S



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).

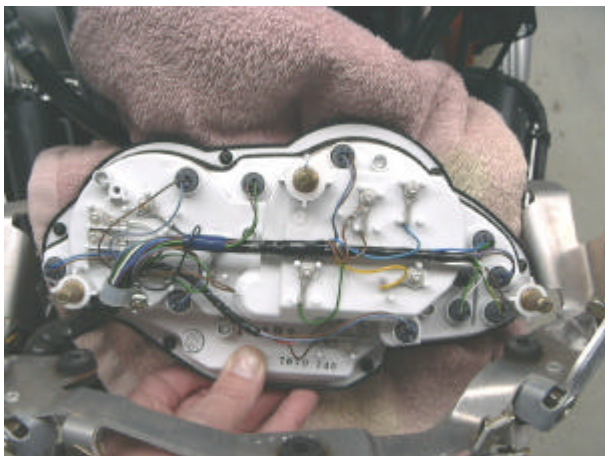
Refer to the line drawing on the back of this sheet to identify the components from the numbers in the text.

The **Computer (1)** mounts above and in front of the rear wheel on a stainless steel mounting plate supplied in the cruise kit.



The **Vacuum Actuator (3)** (throttle servo) is mounted on the left side of the bike inside the left rear footpeg mounting bracket. It attaches using a stainless steel mounting bracket under the footpeg mounting bolts and is not intrusive. A **vacuum hose assembly (4)** is provided to connect the actuator to the engine.

The **Cable Interface Unit (5)** is located under the fuel tank on the left hand side of the steering head and is inserted into the existing throttle cable mechanism.



The **Speed Signal** is taken from the bike's speed sender unit by attaching the cruise signal wire to the back of the instrument cluster.

The **Tachometer Signal** is taken from the bike's tachometer by attaching the cruise signal wire to the back of the instrument cluster.

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



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 front brake light switch. Matching connectors on the cruise control loom are plugged in to the switch and the bike's electrical 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 cruise control is grounded on the bike's battery negative terminal.

The computer incorporates our 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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