

Electronic Cruise Control for **BMW F800ST ABS & no ABS**



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 2.5kg.

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 on the left side of the fuel tank under the seat fairing.



The **Actuator (2)** is mounted in front of the engine on the left side. Silver Pearl (shown) or Satin Black (optional) powder coated aluminium covers are supplied to prevent dirt and water ingress into the actuator and to improve the appearance of the actuator. A **vacuum hose assembly (3)** is provided to connect the actuator to the engine. The photo at right below shows the actuator with the fairing fitted.



The **CIU (4)** is located on the left side of the bike beside the cylinder head. It is fully covered by the fairing panel. A new **cable (5)** connects it to the throttles.



The **Speed sensor (6)** is mounted below the right hand front brake caliper. The original caliper mounting bolt is removed and a new bolt and spacer washers fitted to allow the speed sensor to be mounted. Nickel-plated magnets are placed in the heads of the bolts that mount the brake disc.

The **Control Switch (7)** is mounted on the left hand (clutch) lever clamp bolt. The switch is located just above the left switch block.



To ensure that the cruise control installation is as safe as possible, an additional **hydraulic pressure switch (8)** is fitted to the bike's front brake circuit. This is to provide a back up method of disengaging the cruise control in the event of failure of the bike's brake light circuit. Fitment of this switch involves replacing one of the brake line 'banjo' bolts with a new bolt that has a pressure switch built in to it. This switch is fitted to the right front brake caliper..

MotorCycle Cruise Controls

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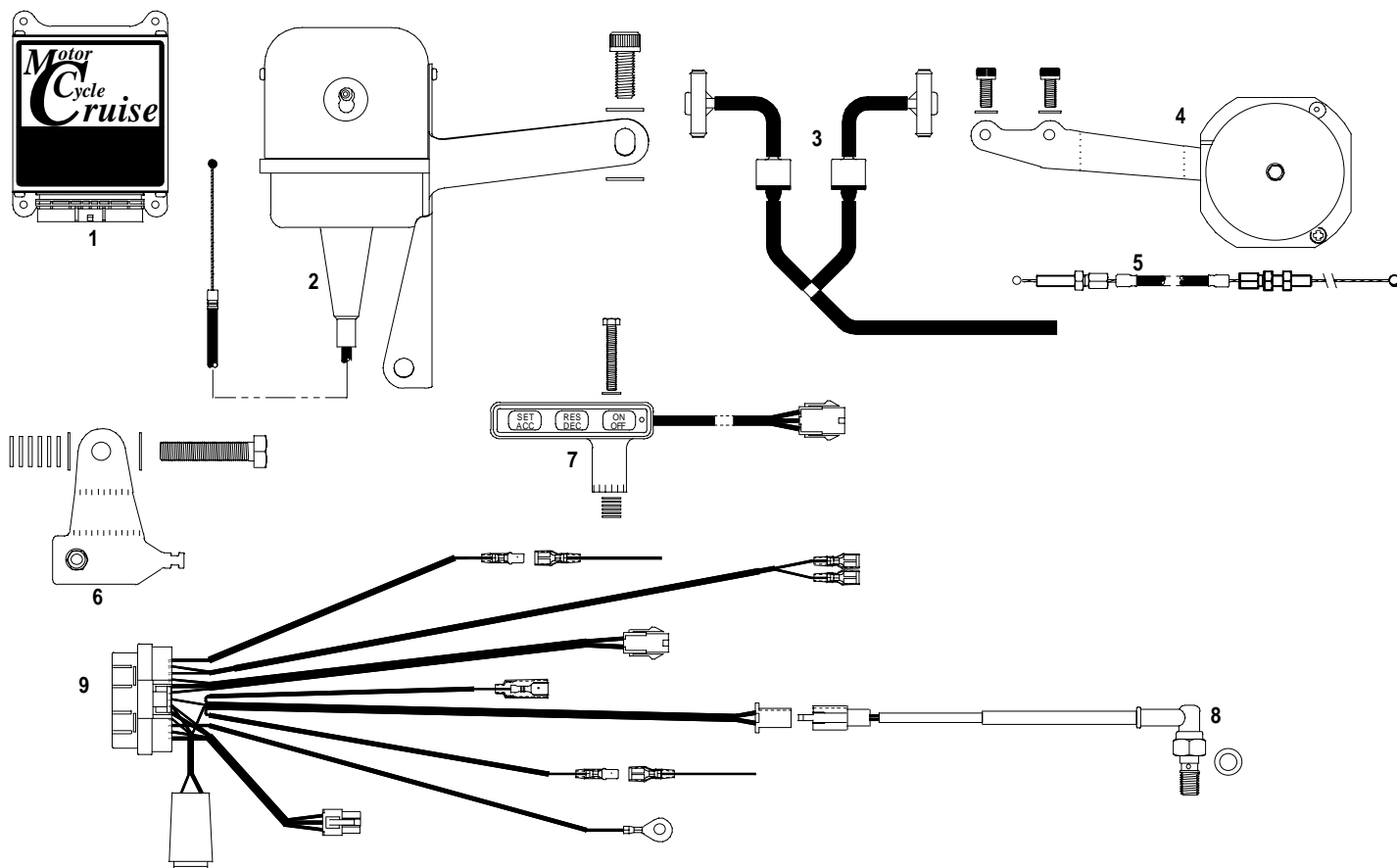
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The **Wiring Loom (9)** has the same type of plugs or terminals that are already used on the motorcycle, with two exceptions. Power for the cruise control is taken from the positive wire to the bike's accessory power plug. Tach (engine speed) sensing is detected from the bike's ignition primary circuit. These connections must be spliced. Splice terminals and heat shrink tube are supplied in the kit to make this connection. Brake sensing taken from a connection at the rear brake light. Matching connectors on the cruise control loom are plugged in to the light and the bike's loom. This is used to disengage the cruise if the clutch is operated. The cruise control is grounded on the negative battery terminal. The wiring loom is a 'custom' finished item, with all parts of the loom cut length and terminated appropriately.



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Disc brake mounting bolts on current BMW motorcycles.

We are aware of three different type heads in disc brake mounting bolts on current model BMW motorcycles.

All models that we are aware of from mid '90's to 2007 use this 'button' (rounded) head bolt. The recess in the head of this bolt is a T-40 'Torx' fitting and the magnets we have to fit this are 4.75mm diameter x 4.75mm long. We have seen this bolt in various models, R1100RT, R1150RT, R1150GS, R1100S, K1100RS, K1100LT, R1200GS, R1200S, K1200S, F800ST.

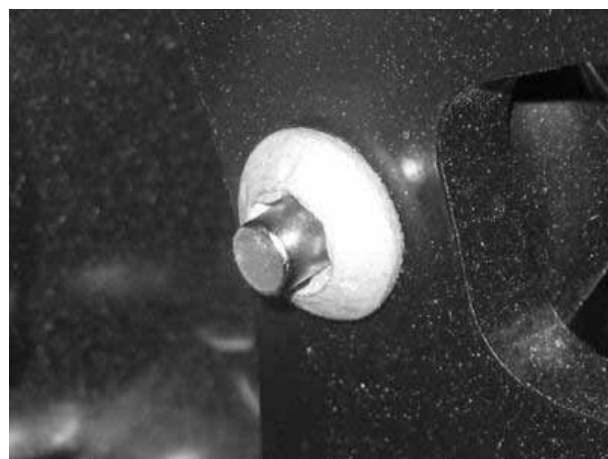
Note that these bolts are used in earlier designs that bolt a disc carrier to the wheel and the discs then are allowed to 'float' on the carrier and also later models as shown here with the disc bolted to the wheel without a carrier, but there are spring washers on the bolt to allow the disc to 'float'.



Some current (2008) bikes have flat head bolts. The recess in the head of this bolt is a T-30 'Torx' fitting and the magnets we have to fit this are 4mm diameter x 5mm long. We have seen this bolt on the new (late 2008) R1200GS.



We have recently seen this new bolt, also a T-30 'Torx' fitting and uses the 4mm diameter x 5mm long magnet. We have seen this on a new (2009) F800GS. This design has gone back to the earlier practice of having a disc carrier bolted to the wheel and then the disc 'floats' on the carrier.



This kit for this model F800ST comes with magnets to fit the first bolts (round head T-40). If your bike has different size bolts, please let us know.

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