

Electronic Cruise Control for **BMW R1200GS from 2008 to 2013 with ESA and LED tail lights**



NOTE: - This cruise control will fit '08 through to 2013 model bikes fitted with non-servo assisted Integral ABS brakes, with ESA (electronic suspension adjustment) and LED tail/brake lights.

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).

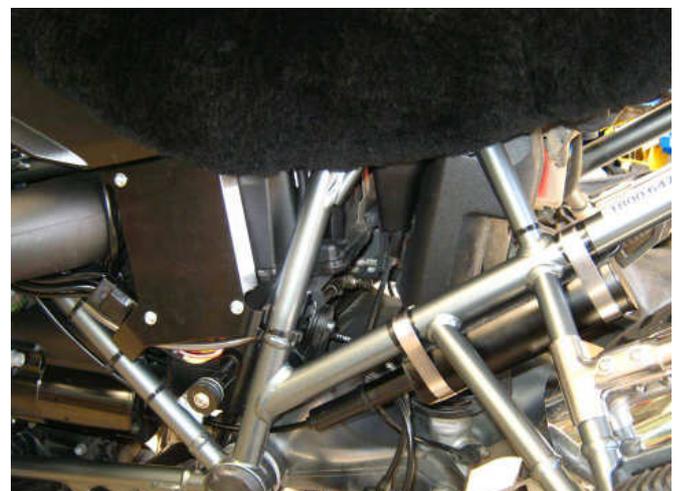
Refer to the line drawing on the back of this sheet to identify the components from the numbers in the text.

The **Computer (1)** mounts on the left side of the bike, beside the air box on a special mounting bracket. The bracket is powder coated satin black to improve the appearance. The computer is mounted on the back side of the bracket in the photo.

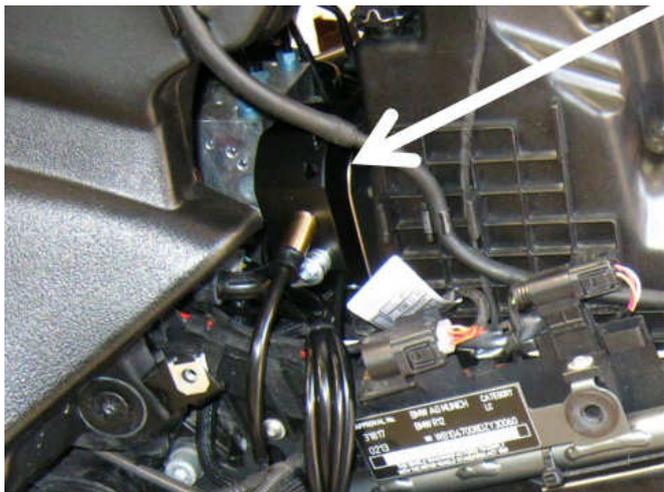


The **Electric Throttle Servo (2)** is clamped to the frame on the left side, next to the bike's rear suspension spring/damper (shock absorber).

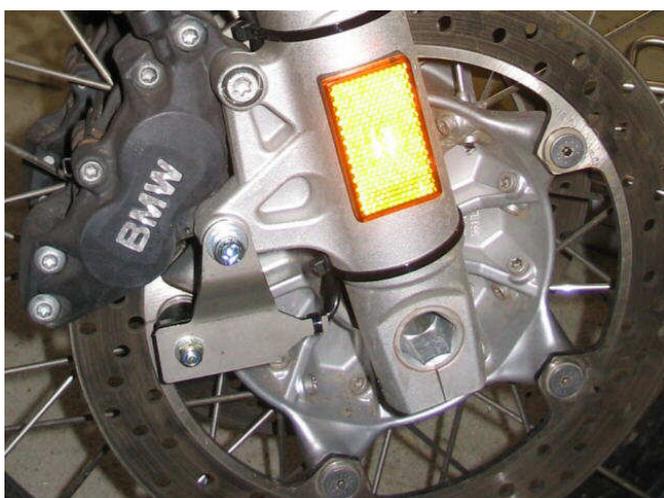
This photo shows the computer and throttle servo fitted to a late model bike.



The bike's original throttle cable splitter box (throttle cable divider) is removed from the bike and our **Cable Interface Unit (3)** is fitted to the bike. No modifications to the bike's cables are required at all, it is a straight swap.



The **Speed sensor (4)** 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. **NOTE: - See the note at the end of this document regarding different magnet sizes in BMW brake disc mounting bolts.**



MotorCycle Cruise Controls

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The **Control Switch (5)** is mounted on the left hand (clutch) lever mirror mount. The switch is located just above the left switch block. There are three different switch brackets available. The **lowest height bracket** positions the control switch close above the left side switch block. Access is still reasonable to the INFO and ASC/ABS buttons, and even the auxiliary light switch (where fitted) is quite accessible over the top of the cruise control switch. It can be ordered either at the time of purchase of the cruise control kit in exchange for the standard bracket at no extra cost, or may be purchased later as a spare part (part number MCS830L)



This **medium height control switch bracket (6)** is the most common bracket purchased. This is 10mm (3/8") taller than the short bracket and positions the control switch higher above the left side switch block. Access to the INFO and ASC/ABS buttons is easier, but this places the cruise control buttons a bit further away from the rider's hand. If you would like this switch bracket the part number is MCS830W. It can be ordered either at the time of purchase of the cruise control kit, or may be purchased later as a spare part. This is the most popular bracket and is the best compromise between access to the bike's controls and the cruise control switch buttons.



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The **highest control switch bracket (7)** is 10mm (3/8") higher than the standard medium bracket positions the control switch higher above the left side switch block. Access is to the INFO and ASC/ABS buttons is very good and the auxiliary light switch (where fitted) is a bit more accessible. The down side of this bracket is that the reach to the cruise control buttons is longer, so using the cruise control is not as easy. If you would like this switch bracket the part number is MCS830U. It can be ordered either at the time of purchase of the cruise control kit in exchange for the standard bracket at no extra cost, or may be purchased later as a spare part.



To ensure that the cruise control installation is as safe as possible, an additional **hydraulic pressure switch (8)** is fitted to the bikes front brake circuit. This is to provide a back up method of disengaging the cruise control in the event of failure of the bikes 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. Depending on what ABS version the bike is fitted with, the switch may be fitted either at the handle end of the front brake lever hose (as shown), or at the other end of the front brake lever hose.



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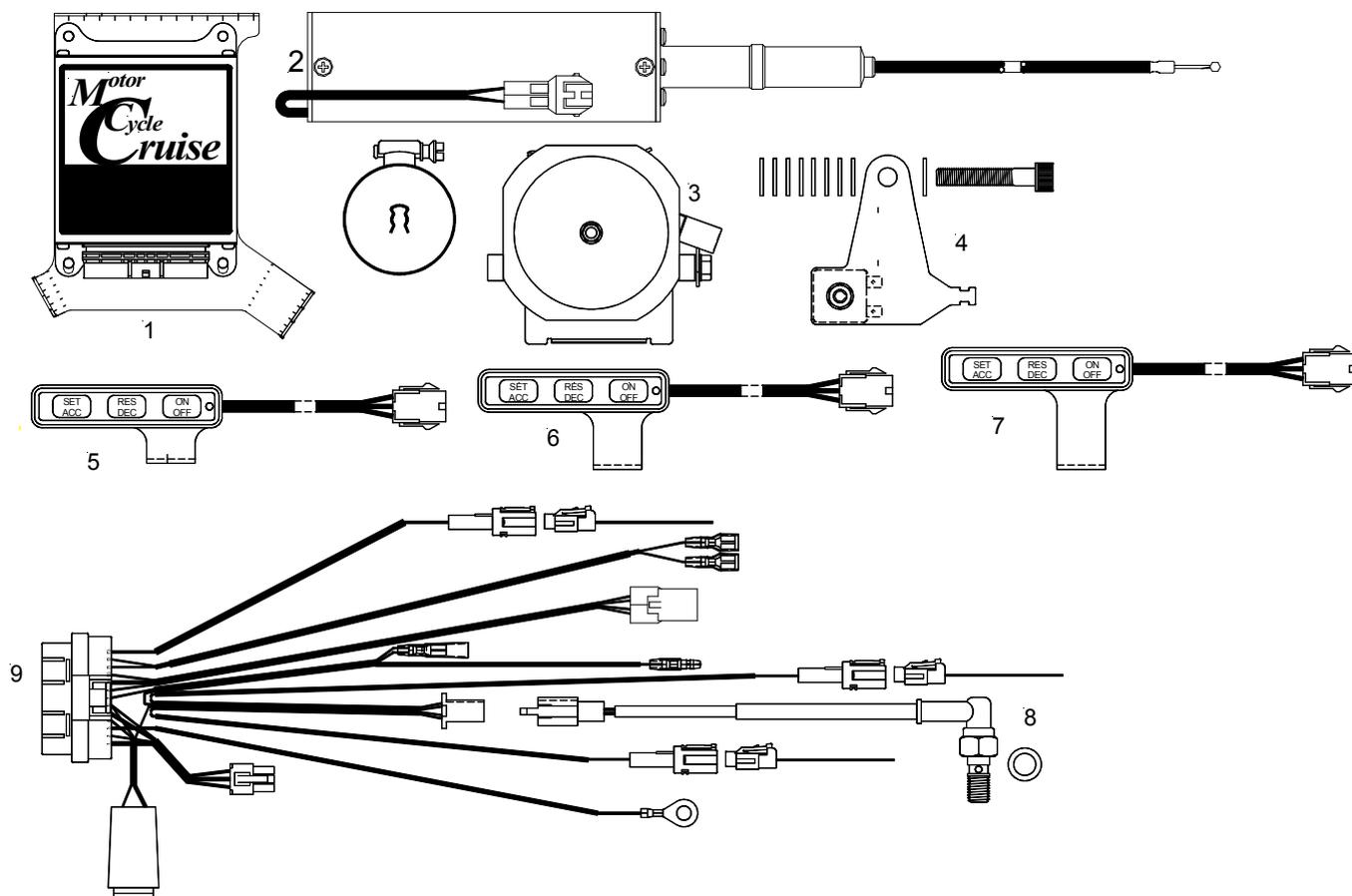
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The **Wiring Harness (9)** has the same type of plugs or terminals that are already used on the motorcycle, with three exceptions. Power for the cruise control is taken from the positive wire to the bike's accessory power plug. Brake application sensing is detected at the rear (brake) light. 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. 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.

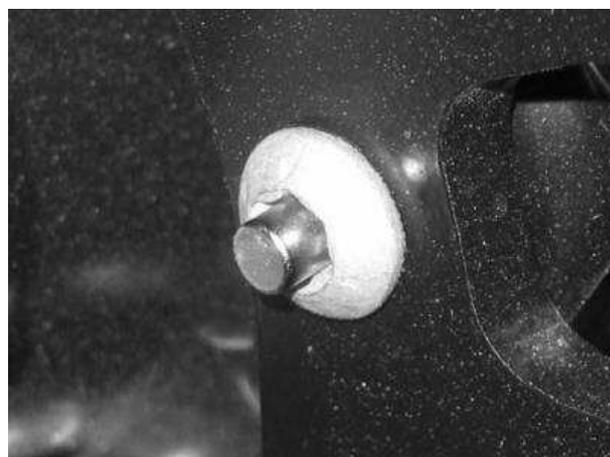
Note that these bolts are used in earlier designs that bolt a disc carrier to the wheel and the discs then are allowed to 'float' on the carrier and also later models as shown here with the disc bolted to the wheel without a carrier, but there are spring washers on the bolt to allow the disc to 'float'.



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 in new (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 the 2008 R1200GS comes with magnets to fit the second bolts (flat head T-30). If your bike has different size bolts, please let us know.

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