

Electronic Cruise Control for **TRIUMPH THUNDERBIRD – FROM 2009**



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 0.20 amp (2.5 watts). Current draw while the cruise is engaged is nominally 0.50~1 amp (6~12 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).

NOTE: - In order to supply a cruise control for this model, there are two differences in the motorcycle that vary with different models and years of manufacture. Questions about these items are at the end of this document and must be answered before we are able to supply a cruise control kit.

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, under the side cover.



The **Electric Throttle Servo (2)** is mounted in front of the engine, mounted on the bolts that mount the cam chain tensioner at the bottom and on to the frame at the top.



The **CIU (3)** is located on the right side of the bike beside the throttle bodies. A new **cable (4)** connects it to the throttles. The CIU shown is as supplied in the standard kit without any decorative cover.

An **OPTIONAL** finished finish decorative stainless steel cover (5) is available for the CIU at extra cost if desired. This item is part number MCSU400 'G'.



The **Control Switch (6a)** is mounted to the left hand (clutch) master cylinder handlebar clamp. The bracket mounts between the upper faces of the clamp. The clamp must have about 1~1.5mm (0.040"~0.060") filed from the upper face of the clamp to allow for the thickness of the switch bracket. This is the 'standard' mounting arrangement.



If you wish to mount the **Control Switch (6b)** below the handlebar, an replacement control switch bracket can be supplied in the kit at no extra cost. This bracket may also be purchased as a separate item if desired. The part number of this alternate bracket is MCS830C.



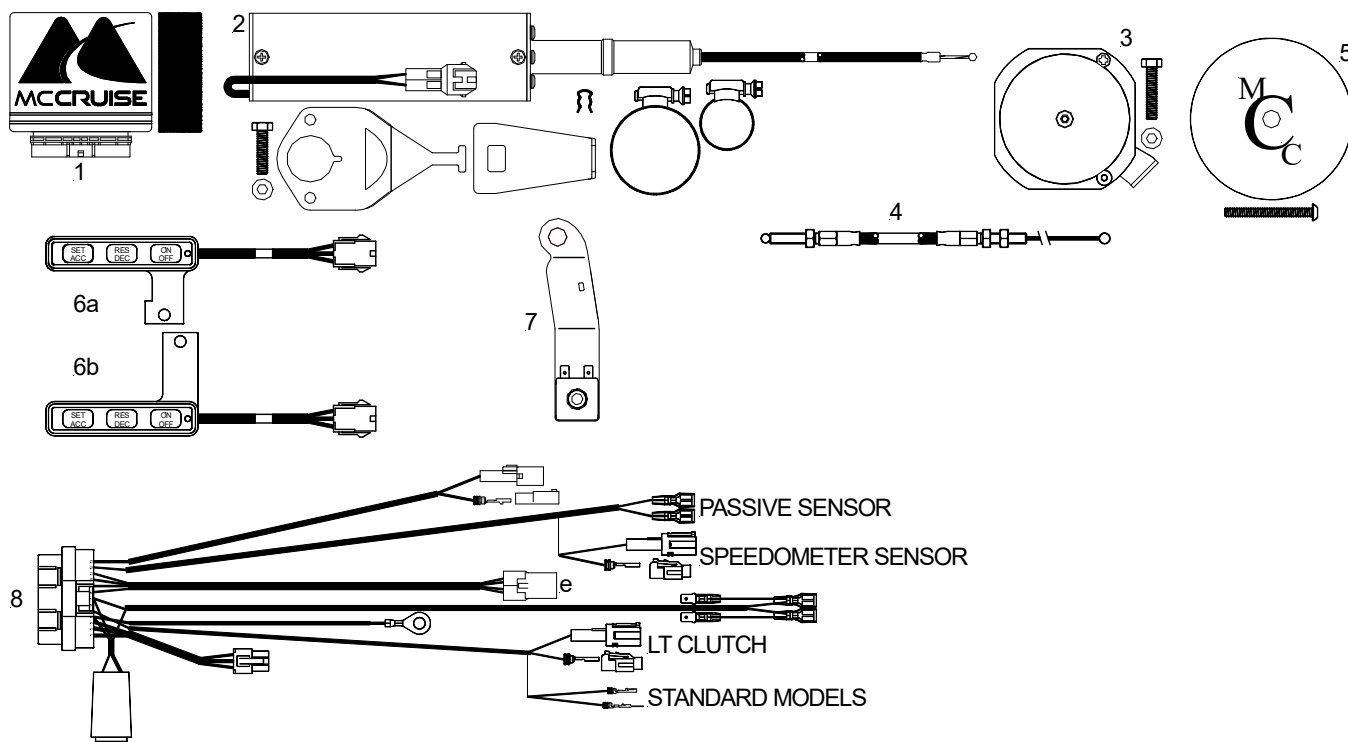
On later models, with ABS brakes, a **Speed Sensor (7)** mounts to the right front forks using one of the brake caliper mounting bolts. Magnets are placed in the heads of the bolts that mount the brake disc.

The speed sensor is **NOT** needed on earlier models that have a speedometer sender on the bike.



The **Wiring Harness (8)** 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 front brake light switch. Matching connectors on the cruise control loom are plugged in to the switch and the bike's harness. Speed sensing is either sourced from the bike's speedometer speed sender or from a speed sensor supplied in the kit. Tach (engine speed) sensing is detected from the bike's primary ignition circuit. 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 battery negative terminal.

See over page for a line drawing of the cruise control components.



Information required to order the cruise control.

What model is the bike (Thunderbird, Storm, Commander, LT etc)?

What is the year of manufacture?

Does the bike have a speedometer sender unit (see photo on the next page)?.

Does the bike have ABS (Anti-lock) brakes?

Does the bike have plug behind a chrome cover on the fork leg (Commander and LT models only usually) with the connector for the clutch switch (starter lockout switch) inside (see photos on the next page)?

Speed sensing.

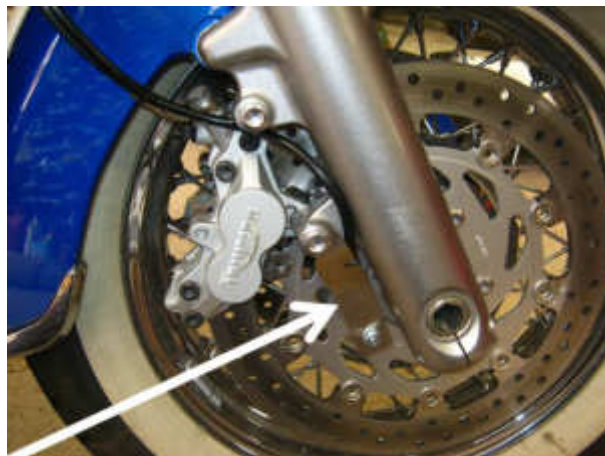
The earlier (pre ABS models only?) have a speedometer sender unit fitted to the gear box. The sender has a plug under the right side cover, indicated in the photo at below left, below the fuse box.

This plug has three wires, pink, pink/black and pink/yellow.

If your bike has this plug, the cruise control can be connected to it to detect road speed.

If it does NOT have this plug, a speed sensor must be supplied with the kit and fitted to the front wheel.

If you don't know if your bike has this plug or not, and the bike has ABS brakes, we recommend selecting the speed sensor option, as this will fit all models.



Clutch switch connection.

All earlier model Thunderbirds have a multi-way plug under the fuel tank, that is from the left side switch block, and this also includes the connection for the clutch switch (starter lockout switch).

Later models, probably only those with the chrome cover behind the headlight that also covers the upper fork legs (LT and Commander), have a 4-way plug behind the chrome cover. The four way connector has one wire that is black with a yellow trace or stripe.



The cruise control uses this connection to detect clutch operation, however it is not essential, as the cruise also monitors engine rpm and will disengage if the rpm increases or decreases relative to road speed.

It should be safe to assume that if you can't find the connection under the chrome cover, it is under the fuel tank. If it turns out your bike does not have the connection to match the cruise control it is not critical, the cruise will work perfectly without it.