

# *Electronic Cruise Control for* **Suzuki AN650 Burgman** **2<sup>nd</sup> Generation from 2013**



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 2.2kg.

Current draw while the cruise is switched on, but not engaged, is approximately 0.2 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 taillight bulb (running light) draws about 0.4 amp (5 Watts).

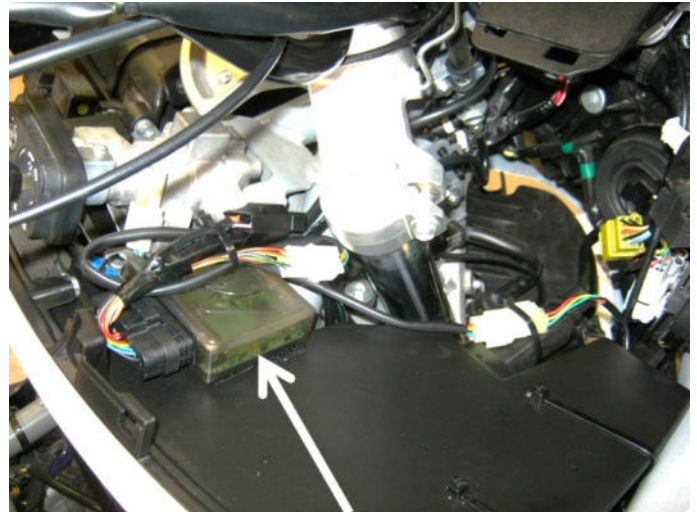
Refer to the line drawing at the end of this document to identify the components from the numbers in the text.

This photo shows the location of the components with the bike assembled.

The photos and descriptions below give more details about the mounting and locations.



The **ECU or Computer (1)** is fitted on top of the main fairing storage compartment 'roof'. It is mounted using Hook & Loop (Velcro) mounting tape. The photo shows the computer on top of the main storage compartment.



The **Electric Throttle Servo (2)** is mounted inside the main fairing storage compartment. It is attached to the right-side wall and the roof of the compartment using Hook & Loop (Velcro) mounting tape and two long cable ties. The compartment must be modified to take the servo. The front (far end) of the servo has a cable and electrical wire coming out it, the compartment must have a large (20mm – 3/4") hole drilled for the end of the servo and the electrical wire. In addition, four small holes must be drilled for the cable ties to pass through. The cable ties can be seen in the bottom right corner of the photo above on the roof of the compartment. Drilling templates and dimensions are provided in the installation instructions for making all these holes. More detail about these alterations are at the end of this document.



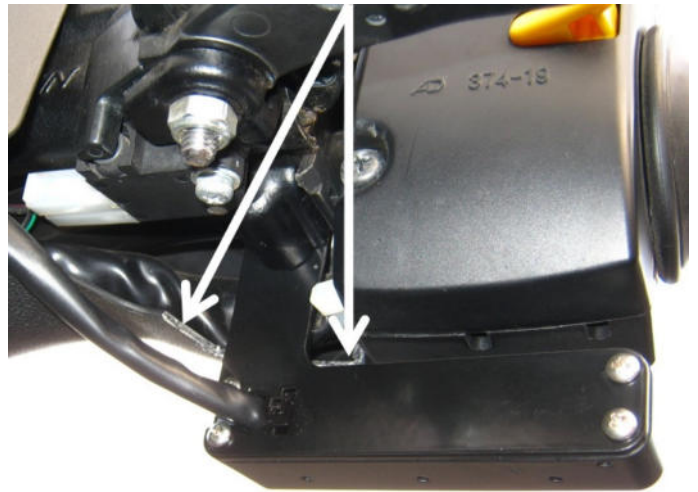
The **CIU or Cable Interface Unit (3)** is mounted under the handlebar cover, attached to the handlebar clamps.

The fairing upper trim cover that is below the CIU has a lip that must be trimmed down slightly to allow space for the CIU. More detail about this alteration is at the end of this document.

The CIU has a new **cable (4)** running from the twist grip to the CIU. The cable from the CIU to the bike's throttle bodies is the original throttle cable, unmodified.



The **Control Switch (6)** is mounted to the left-hand brake master cylinder handlebar clamp. The bracket mounts between the bottom faces of the clamp and the master cylinder. The clamp must have about 1~1.5mm (0.040"~0.060") filed from the bottom face to allow for the thickness of the switch bracket. The handlebar cover must have a small section cut out to allow for the switch mounting bracket, see the photos below. More detail about this alteration is at the end of this document.



## ***MotorCycle Cruise Controls***

6 Kingston Street  
Mount Waverley VIC 3149  
AUSTRALIA

Web Site: <http://www.mccruise.com>

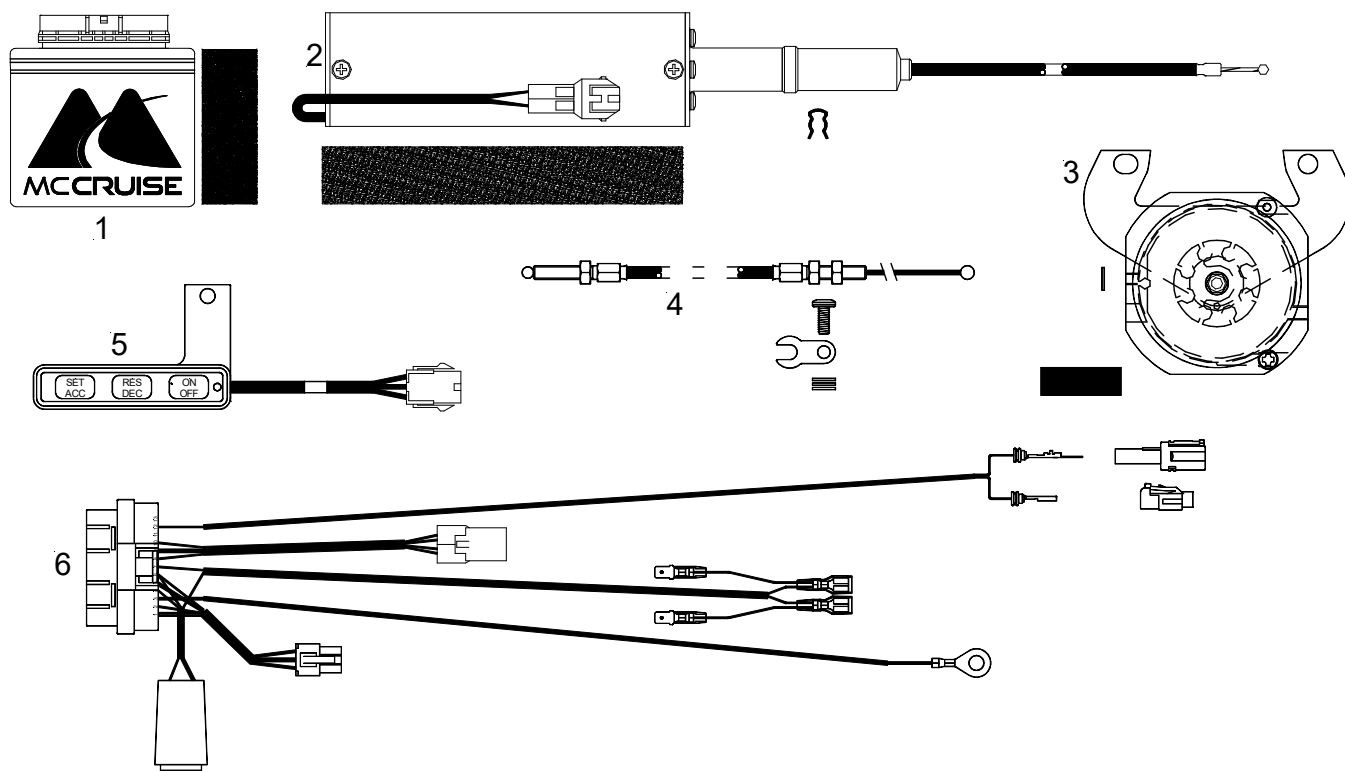
International: Phone (International Access Code) 61 3 9808 2804

Fax (International Access Code) 61 3 9808 2445

Australia: Phone (03) 9808 2804

E-mail: [sales@mccruise.com](mailto:sales@mccruise.com)

The **Wiring Harness (6)** 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 loom. Speed sensing is taken from the bike's speed signal to the ECU. The cruise control is grounded on the negative terminal of the battery. All these connections are "Plug & Play", no cutting of wires or splicing is required, but one terminal on the motorcycle does have to be backed out of housing (connector plug) for the speed sensor connection.



See over the page for details about the alterations required to the bike and the tools needed.

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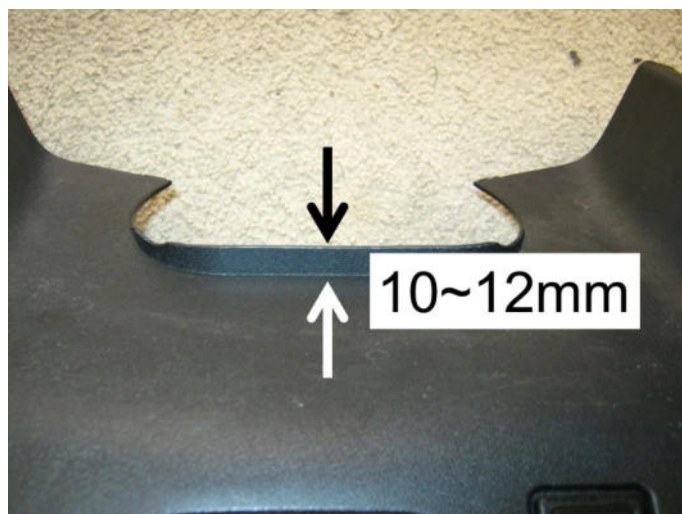
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E-mail: [sales@mccruise.com](mailto:sales@mccruise.com)

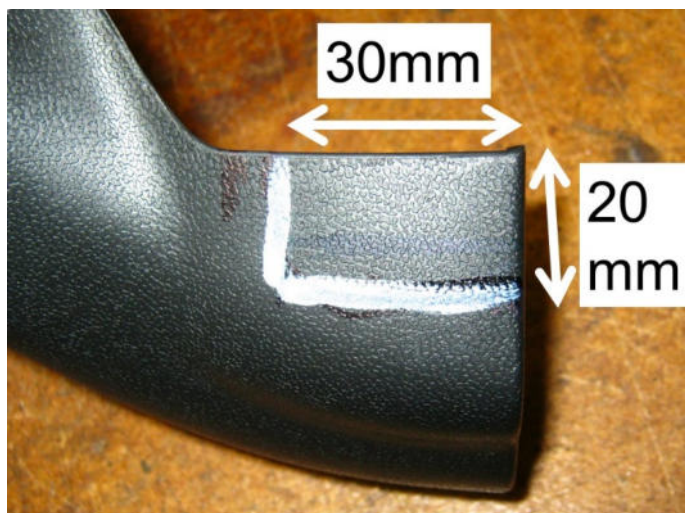
Apart from a normal tool set that most mechanically capable owners would have, a few more specialized tools will be needed to fit the cruise control.

A set of small (jeweller's) screwdrivers will be needed to assist in backing out one electrical terminal.

A sharp knife or sharp side cutters and a flat file will be needed to trim the lip on the inner fairing panel to clear the CIU.



The same tools will be needed to trim the handlebar cover to allow the control switch to be fitted.



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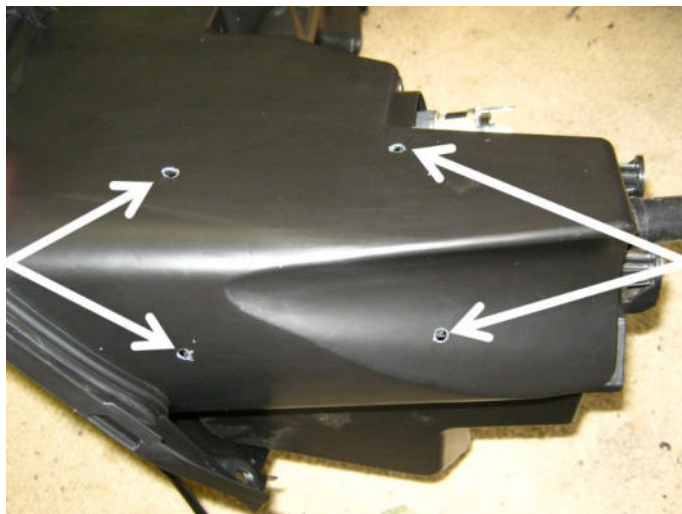
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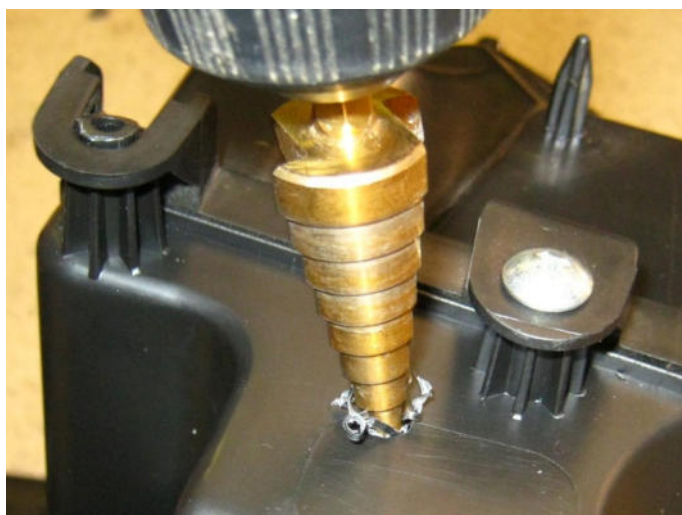
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A cordless drill with 5mm (13/64") drill bit and a 'step' drill bit that can enlarge a drilled hole up to 20mm (3/4") diameter and a small (6mm - 1/4" diameter) round file will make fitting the throttle servo much easier. Other methods to drill large diameter holes in plastic can be difficult to control, as a large normal drill bit will tend to 'catch' on plastic. A step drill is an easy way to make a large hole in plastic. The photo below left shows the hole needed for the end of the servo and the electrical cable. The round file is used to create the notched hole (arrowed). The photo below right shows the 5mm holes for the cables ties to mount the servo.



This photo shows a typical step drill that can be purchased for a few dollars from most hardware stores. This one has a maximum diameter of 20mm, which is what is required for this job. This tool makes making large holes in plastic very easy.

Templates and dimensions are provided in the installation instructions to assist with making these modifications to the bike.



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