# Electronic Cruise Control for BMW R nineT



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  $0.50 \sim 1$  amp  $(6 \sim 12 \text{ Watts})$ .

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.

The Computer (1) mounts under the rider's seat, at the rear of the fuel tank. The fuel tank has a flat 'ledge' under the bike's 'jump start' terminals. The computer sits on this flat 'ledge' and is mounted using Hook & Loop (Velcro) mounting tape. The photo below left shows the computer location under the jump start terminals. The photo below right shows the computer mounted on the back of the fuel tank with the jump start terminals moves out of the way.





NOTE: - There may be BMW accessories available that are fitted in this location, but we have not seen a bike with anything fitted in this location. If your bike does have something fitted here, contact us for information about the size of the cruise control computer so you can determine if it will fit in this position.

The **Electric Throttle Servo (2)** is mounted on the left side of the bike on the diagonal sub-frame tube. This frame tube also supports the passenger footrests and the exhaust.

NOTE: - Some variants of the R nineT may not have this frame tube. In these cases, it will be necessary to find another way to mount the throttle servo on the bike. We have a variety of mounting brackets available for the throttle servo, so contact us for assistance in these cases.



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 New Slim Control Switch (4a) mounts on the handlebar on the left side on the bikes' switch block. This switch also has back lit buttons for night use, and an indicator light for power (ON-OFF) and engage indication.



The standard **Control Switch (4b)** mounts above the handlebar on the left side on the mirror mount. This switch has back lit buttons for night use, and an indicator light for power (ON-OFF) and engage indication.

The control switch selection is a no cost option, either switch may be selected when purchasing the cruise control.



## MotorCycle Cruise Controls

6 Kingston Street

Mount Waverley VIC 3149

**AUSTRALIA** 

Web Site: <a href="http://www.mccruise.com">http://www.mccruise.com</a>

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

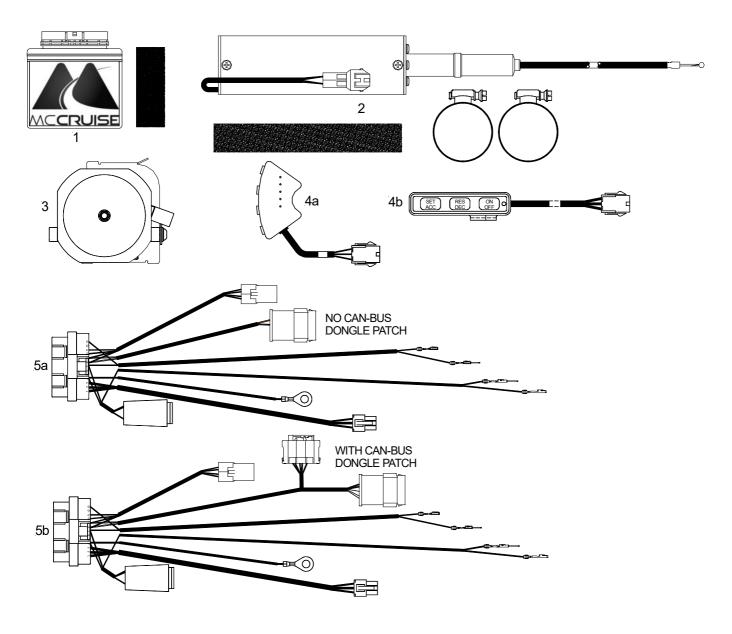
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The Wiring Harness (5a or 5b) has the same type of plugs or terminals that are already used on the motorcycle. Power for the cruise control is taken from the positive wire to the bike's accessory power plug. Brake sensing for the cruise control is sourced from the bikes rear light connector. Matching connectors on the cruise control harness are plugged in to the rear light multi-way connector. Brake operation is detected electrically from this connection. The cruise control is also connected to the bike's CAN-BUS system using the same connection method as the brake/power connection. The CAN-BUS signal is monitored to detect front & rear brake operation, clutch operation, Tach (engine speed) signal and road speed signal. Tach signal is used to disengage the cruise if the clutch is operated, as well as direct signal from clutch operation. The terminals used on this harness are the same type as used on the motorcycle's original connections to ensure that an OE quality connection is maintained. There is no cutting or splicing of wires required in any connections.

There are two options available for the cruise control harness. If the bike has an accessory fitted that is connected to the bike's accessory CAN-BUS plug, the cruise harness must have a CAN-BUS Dongle Patch built into it. The need for this patch must be determined before ordering the cruise control. See over the page for information about this.



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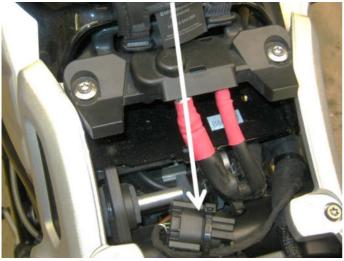
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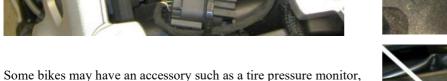
#### Devices connected to the bike's accessory CAN-BUS plug.

NOTE: - If the bike is fitted with a device connected to the accessory CAN-BUS plug, make sure you purchase the CAN-BUS dongle patch option with the cruise control kit. This will allow connection of the cruise control AND the other device connected to the bike's CAN-BUS plug. See below for information about this,

The R nineT we had in our workshop to prototype the cruise control did not have any accessories connected to the accessory CAN-BUS plug. The photo below left shows the location of the accessory CAN-BUS plug in the area under the rider's seat just behind the fuel tank. The photo below right shows the 'dummy' or termination plug fitted in this case.

If your bike has a connector like this connected to the CAN-BUS plug, you <u>MUST NOT</u> purchase the CAN-BUS dongle batch option.



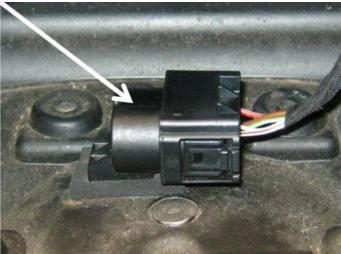


This photo, of another BMW model, is fitted with a tire pressure monitor. The photo shows the CAN-BUS plug connected to the tire pressure monitor.

or alarm system connected to the plug.

If your bike has a device connected to the bike's CAN-BUS plug like this, you <u>MUST</u> purchase the CAN-BUS Dongle Patch Option to be able to connect the cruise control to the bike.

NOTE: - If you purchase the dongle patch, and connect it to the bike's blanking plug, this may degrade the signal enough to prevent the cruise control operating. Leaving the plug disconnected is not recommended, as having an un-terminated (disconnected) plug on a CAN-BUS circuit can cause errors with the bike's communications systems.





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