

Motorcycle Electronic Cruise Control



The Electronic Cruise Control uses an electronics module or 'computer' to maintain any 'set' speed over 30kph (20mph) and up to 180kph (110mph). The computer monitors brake light operation and instantly disengages the cruise control through either front or rear brake application. On most models the computer also monitors engine revs and is connected directly to the bike's clutch switch. These connections are used to disengage the cruise control if the clutch is disengaged inadvertently while the cruise control is engaged.

To engage the cruise control the rider can turn the cruise control 'ON', accelerate the bike to the desired speed and press the 'SET' button. The cruise control will engage and hold the current speed.

The rider can accelerate the bike above the set speed, if desired, by using the throttle. When the throttle is released the cruise control will take over again at the previous set speed.

To increase the cruise control set speed, the 'SET' key may be pressed and held. The speed will gradually increase until the key is released. The cruise control will then maintain the new speed. Alternatively, the 'tap up' feature allows the rider to increase the speed by about 2kph (~1.5mph) each time the 'SET' key is momentarily pressed.

To decrease the cruise control set speed the 'RES' key may be used in the same way as the 'SET' key, but this will reduce the speed instead of increasing it.

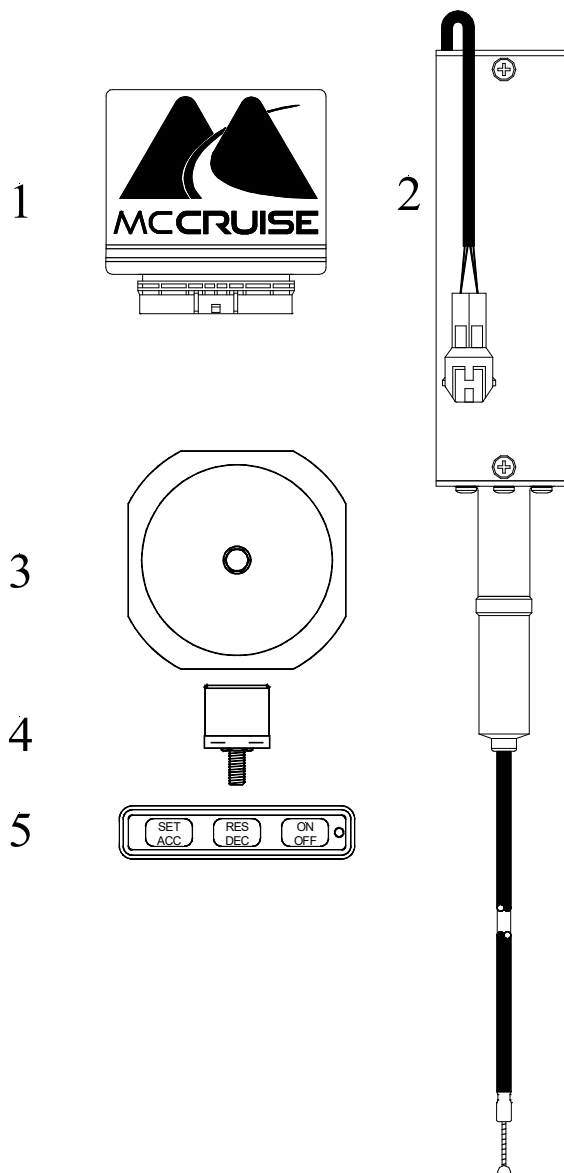
If the rider uses the brakes (or clutch) to disengage the cruise control, the cruise control may be resumed by pressing the 'RES' key. The bike will gradually return to the previous set speed.

The principles behind the cruise control are very simple:

- The computer monitors the frequency or electrical impulses generated by magnets passing a sensor or impulses from the motorcycle's electronic speedometer sender.
- When the 'SET' key is pressed, the computer stores the pulse frequency at the time in memory and then continuously adjusts the vacuum actuator (servo), which controls the throttle, to maintain the pulse frequency at the same figure to which it was set. If the frequency drops below the set frequency, the computer applies more throttle. If the frequency is above the set frequency, the computer backs the throttle off. The computer monitors and reacts to changes very quickly and smoothly so that the set speed effectively remains nearly constant.

There are six major components in most kits; the computer, the electric throttle servo, the cable interface unit (CIU), the speed sensor (on models where speed signal cannot be accessed), the control switch and the wiring harness. The functions of each are described over the page.

1. The computer – monitors road speed, adjusts the throttle by controlling the vacuum actuator and monitors the control switch, brake system and clutch or ignition system for instruction;
2. The electric throttle servo – controls the throttle by pulling or releasing a cable which attaches to the throttle via the cable interface unit (CIU);
3. The CIU – translates the motion from the throttle grip and the vacuum actuator to the throttle via a new cable supplied in the kit;
4. The speed sensor – generates electrical pulses when the bike is in motion;
5. The control switch – sends instructions from the rider to the computer;
6. The wiring harness – connects the computer, throttle servo, speed sensor and the control switch to each other and the motorcycle's electrical system.



Mounting brackets and other components are made to suit specific motorcycle models. Most brackets supplied with the cruise control are laser cut from '304' grade stainless steel. The calibration of the computer and ratios in the CIU are also set up to suit the specific model of motorcycle, as is the wiring loom. Covers are provided for components if needed for protection or to enhance the appearance of the cruise control.

All control cables (throttle cables) supplied in the kit are O.E. quality lined cables to ensure the longest life and low friction.

Alterations to the motorcycle are minimal and generally easy, if required. Electrical connection is simply a matter of plugging the cruise control loom into the motorcycle loom in most cases, as we have used the same type of electrical connectors as those used on the motorcycle.

The cable interface unit is a new component developed by MotorCycle Setup and is the key to safe cruise control operation on many motorcycles.

See your dealer, our web site or phone our representatives or us, for full details of models and prices.

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