

'Quad Cruise' Electronic Cruise & Spray Control for Polaris Sportsman 500 HO EFI 2005~2006

Quad Cruise

Quad Cruise is a new version of the MotorCycle Setup cruise control that is designed to operate at speeds from 4 km/h. It has also been designed to provide power to any crop spray system fitted to the bike - either manually, or only when the cruise control is engaged, via a 10 amp power outlet that is incorporated into the wiring loom. This means that spray operation occurs only when the bike's speed is held at the appropriate set speed on the cruise control.

The cruise control can be set to a specific speed to spray a row by pressing the SET button, turned off at the end of the row with either front or rear brake operation. The RES button can be used to set the bike's speed back to the previous speed. The spray system will turn on and off with the cruise control, when the spray switch is in the AUTO position.

Every effort has been made to make the cruise control waterproof. The new computer is fully sealed, as is the electric actuator. Wherever possible sealed connectors have been used on the wiring harness.

The following provides a brief description of the power consumption and component locations of the MotorCycle Setup electronic speed and spray control.

Current draw while the cruise control is switched on, but not engaged, is approximately 0.020 amp (0.28 watts). Current draw while the cruise control is engaged is nominally 0.5 amp (6 Watts) with peak draw at 2 amp (24 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).

Installed weight of the cruise control is approximately 3kg.

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

The **Computer (1)** and **Electric Actuator or throttle servo (2)** are mounted inside the rear storage compartment. An **Actuator Cable (3)** connects the actuator to the **CIU** (see below).



The '**Cable Interface Unit**' (CIU) (4) is located beside the fuel injection throttle body under the fuel tank and is mounted on the left side frame tube. A new **cable (5)** is provided to connect the CIU to the throttle body. The existing throttle cable is disconnected from the throttle body and is reconnected to the CIU. A cable from the actuator is also connected to the CIU.



The **Control Switch (6)** is mounted to the left hand brake lever handlebar clamp and is located above the left hand switch block. The bracket mounts between the faces of the lever mounting clamp.

The standard cruise control sources speed signal from the ATV speedometer, however this senses speed from the right front wheel, and may not be accurate enough in turns or on very rough terrain. An **optional Tone Wheel (7)** and **Speed Sensor (8)** is available that fits on the back axle and allows the cruise control to sense speed from the rear wheels. This results in more accurate speed control over rough ground and in turns.



The **Wiring Loom (9)** is dedicated to the bike. Brake sensing is sourced from the brake light switch. Power for the speed control is also sourced from the bike's brake light circuit. Neutral gear sensing is sourced from the bikes' gear indicator switch. Speed signal is sourced from the bikes' speedometer sender or the optional speed sensor kit. Earth (ground) is sourced from the battery negative terminal. Power for the spray system is sourced from the battery positive terminal and a two pin plug is provided at the rear of the motorcycle for connection to the spray. Matching plug and terminals are provided in the kit for connection to the spray unit.

