Electronic Cruise Control for

Harley Davidson FLS & FXS Softail range Twin Cam 96 motor with EFI (2007-2012) Pre-CANBUS only

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 2.0kg.

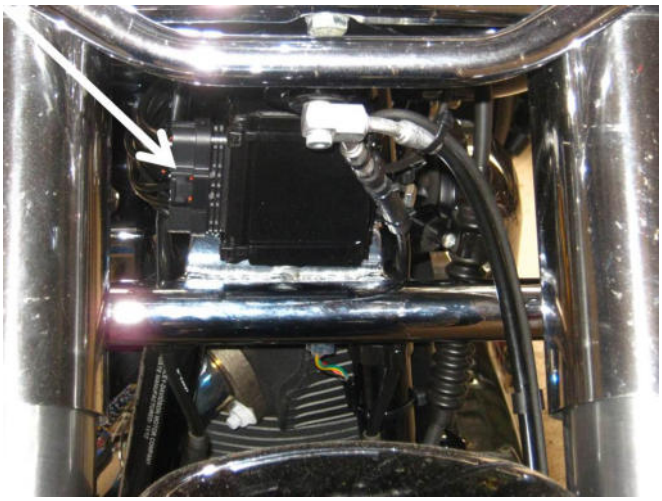
Current draw while the cruise is switched on, but not engaged, is approximately 0.250 amp (3 watts). Current draw while the cruise is engaged is nominally 0.5~1 amp (6~12 Watts).

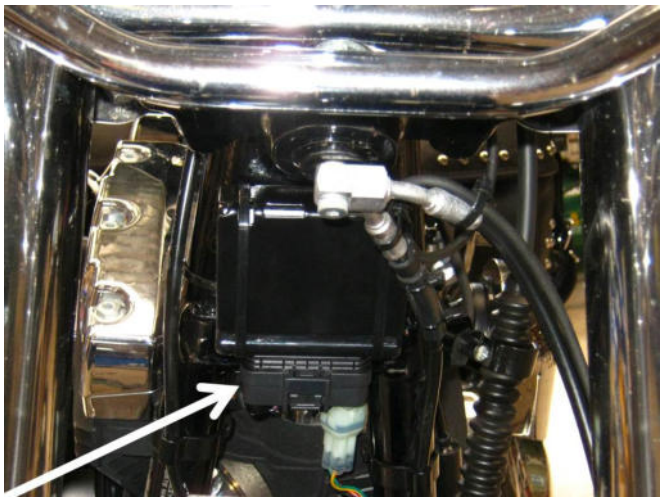
By comparison, a head light bulb typically draws about 4 amps (55 Watts), and a tail light bulb (running light) draws about 0.4 amp (5 Watts).

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

The **Computer (1)** is our newly released 'compact' computer, mounted on the front of the bike, bolted to the frame below the steering head. The computer fits inside a stainless steel mounting bracket/enclosure finished in black powder coat. The computer is fully 'potted' in urethane compound to provide complete protection from water ingress and the electrical wiring harness connector is sealed.

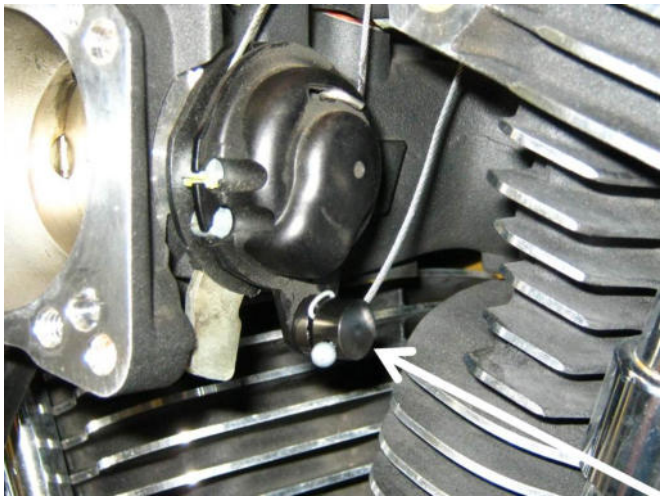
The two photos below show the computer and mounting bracket for bikes WITH engine protection bars (below left) and WITHOUT protection bars (below right). The photo below left shows the computer and **mounting bracket (2)** on a bike fitted with protection bars, the wiring for the computer exits on the right side of the bike (arrowed). This is also shown in the photo above. The photo below right shows the computer and **mounting bracket (3)** on a bike that does not have protection bars fitted, the wiring from the computer points downwards and is a bit more 'discrete.'





You need to specify if your bike has engine protection bars or if you intend to fit them or not so we can supply the appropriate computer mounting bracket. The bracket for bikes WITH engine protection bars will fit all bikes, the bracket for bikes without engine protection bars will NOT fit if bars are fitted.

The **Electric Throttle Servo (4)** is our new 'compact' motorcycle throttle servo. It is mounted to the left side frame down tube, in front of the motor.



A cable runs from the throttle servo to the bike's EFI throttle body. The throttle body has a small shouldered nipple on it. This is on the side of the throttle body, where the bike's throttle cables attach to the throttle spindle. It moves with the throttle spindle when the twist grip is operated.

The cruise control throttle servo cable connects to this nipple using **throttle connection fittings (5)** supplied in the cruise control kit (arrowed).

The **Control Switch (6)** is mounted to the left hand (clutch) lever handlebar clamp. The bracket mounts between the bottom faces of the clamp and the lever bracket. 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 buttons on the switch are backlight for night use and the indicator light shows cruise control status (red for power on – yellow when engaged).

MotorCycle Cruise Controls

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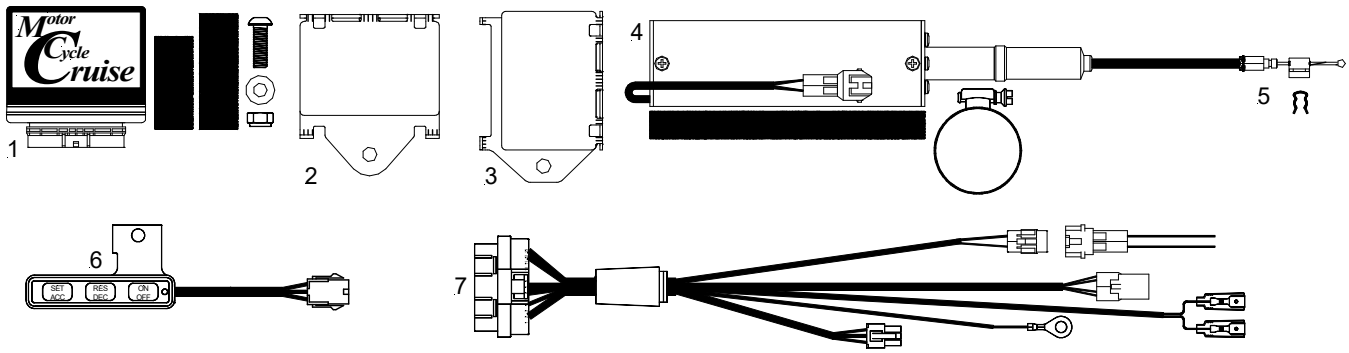
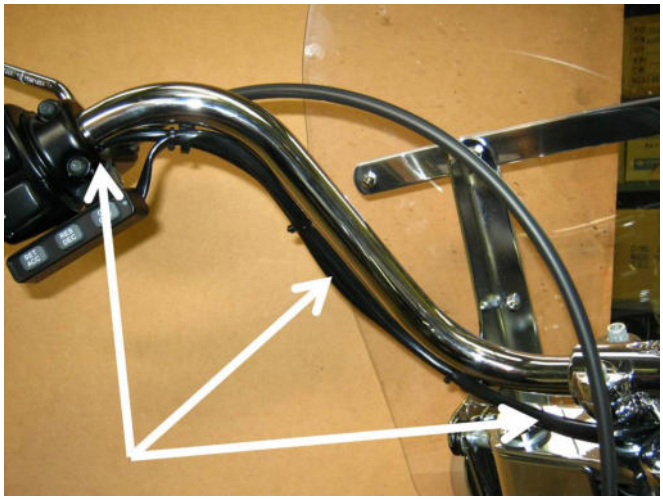
The **Wiring Harness (7)** has the same type of plugs or terminals that are already used on the motorcycle in most cases. Power for the cruise control and brake sensing is taken off the rear brake light switch. Matching connectors on the cruise control harness are plugged in to the bike's brake light switch. Road speed sensing is detected from the bike's speedometer sensor. 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. Both of these connections are done at the bike's ECM (Engine Control Module) connector. These connections must be spliced. Suitable terminals and head shrink tube are supplied in the kit to make these connections. The cruise control is grounded on the negative battery terminal. The wiring harness is a 'custom' finished item, with all parts of the harness cut length and terminated appropriately.



Measuring the length of the control switch wire.



Use a length of wire, string, rope, cord, whatever you have.

Lay the cord against the handle bar, starting at the mounting clamp for the clutch lever assembly on the left side handlebar (left arrow).

Lay the cord along the handlebar following the bike's wiring harness (arrowed).

Route the cord from the handlebar (left arrow) down through the hole in the top triple clamp or triple tree (right arrow).

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Draw the cord out to the right or left side of the bike, beside the steering head, stop near the front of the fuel tank (arrowed).

Be generous in allowing for curves in the cord, don't pull it tight. Make sure it follows the curves of the handlebars faithfully.

If you intend to put the switch wire INSIDE the handlebar tube (many customers do this) allow enough additional length of wire for it to enter the handlebar. This will probably use an extra 5 to 10cm (2" to 4") of wire length, depending on where the holes for the wires are in the handlebar.

Measure the length of the cord.

If this length is **less** than **74cm (29")**, select the **Short switch wire** option when ordering.

If the length is **greater** than **74cm (29")** select the **Long switch wire** option when ordering.

Ordering your cruise control.

When ordering your cruise control, you will have to select which computer mounting bracket you want, one for bikes with engine protection bars or one without.

You will have to select which control switch wire length you need, short or long.

You will have to select if you want terminal crimpers to connect two of the connections on the cruise control wiring harness to the bike that require a spliced connection.

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