

Motor
Cycle
Cruise

**Motorcycle
Electronic Cruise Control
Installation Manual Supplement©**

**For
BMW K1200RS & GT with Integral ABS (ABS 3)**

23 November 2005

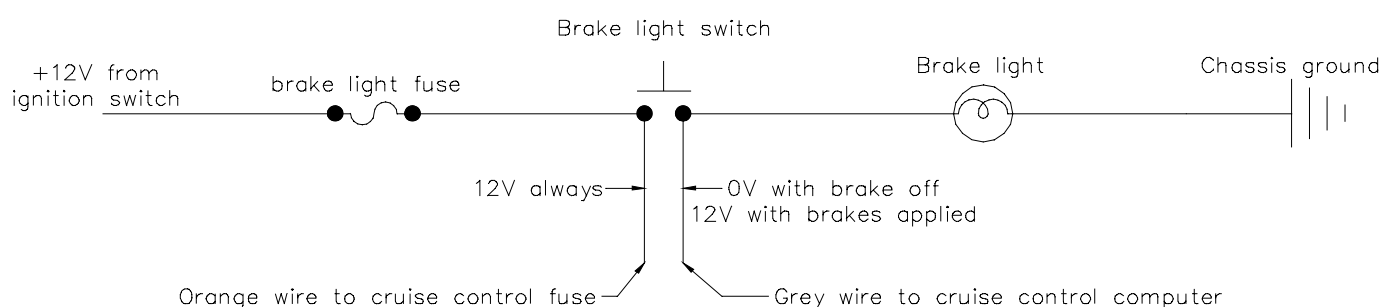
MotorCycle Cruise Controls

Supplement to the installation instructions for cruise control Part No. MCS1590 for BMW K1200RS to allow fitment to later model K1200RS/GT fitted with Integral ABS 3.

All of the mechanical installation of the cruise control is the same for all years of the BMW K1200RS, and the installation instructions can be followed.

The wiring harness installation is mostly the same as the installation instructions with one exception, the connections for brake sensing and power supply to the cruise control. The loom supplied in the kit does not have any connecting plugs on the wires for brake sensing and power.

On earlier model bikes fitted with ABS 1 or 2 it was possible to wire the brake and power connection 'normally' to the rear brake light switch connection, sourcing power and brake sensing for the cruise control from the brake system, as shown in the diagram below.



If power is lost to the brake system or if the brake light globe fails, the cruise control will not engage.

The grey wire is part of the brake signal sensing circuit, the orange wire supplies power to the cruise control and senses power to the brake circuit.

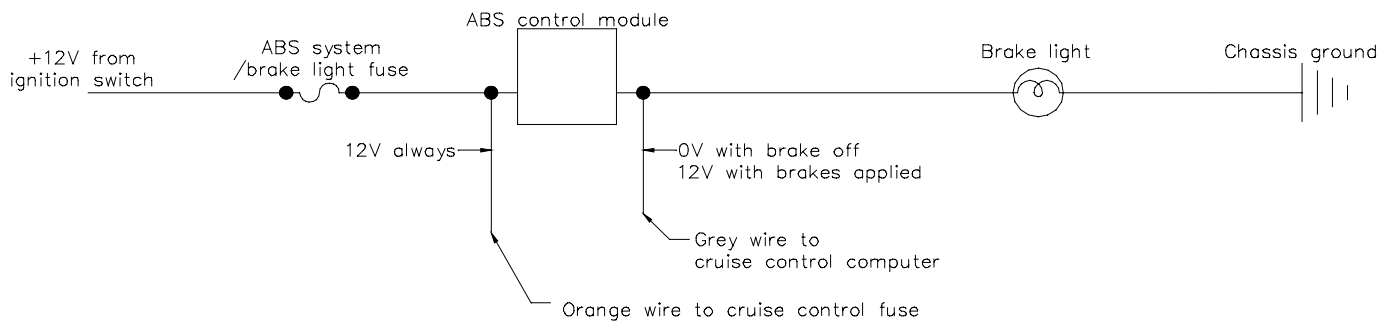
Because the late model K1200RS with Integral ABS 3 does not have conventional brake light switches it is not possible to connect the cruise control in this way. The brake light switches on this bike are connected directly to the ABS control unit, and this then operates the brakes and also turns the brake light on.

Because of these issues, to ensure that the installation is as safe as possible we suggest that the following guide lines are followed.

The cruise control connections for the brake detection should be as close as possible to the 'switch' that operates the brakes. On conventional arrangements we connect directly to the rear brake light switch. Because bikes with ABS 3 don't have a brake light switch as such, we suggest the following connection points.

Ideally the orange and grey wires should be connected as close to the ABS module as possible as shown below (next page) in the diagram, however this assumes that the ABS supply line is fused, and on the K1200RS using ABS 3 the ABS supply is NOT fused, and it is not advisable to connect the cruise control to an un-fused circuit due to the potential for fire if any wires are shorted to ground. Also because the wiring is all enclosed, getting to these wires to make this connection is very difficult.

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As a result, we suggest the following connection points.

Brake power wire connection.

We recommend that you take power from a non-critical circuit such as the heated grip circuit. Any power supply wire that is green with a black trace (stripe) is a fused, switched 12V supply. That is, there is a fuse in the line, and the ignition switch turns the power to the wire on and off, and it is NOT powered when the ignition switch is in the 'park' position (side lights turned on). Because the ignition switch also powers the ABS system, if the heated grip circuit is live, in theory the ABS system, and therefore the brake light system, will also be live.

- On the bikes that we have fitted the cruise control to, there is a three way plug behind the headlight, that goes to the heated hand grip switch (on the right side handlebar). This plug has one green/black wire, a black wire and an orange wire. This photo is taken looking down below the bike's instruments on the right side. The plug is circled.



- This photo is taken from the front of the bike looking back through the head light cavity, under the bikes instruments. The plug is circled.
- This is a convenient and accessible location to pick up power for the cruise control. The cruise control orange power wire should be connected to the green/black power wire for the heated grips.

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- Route the orange cruise control brake power wire to the front of the bike with the other cruise control wires (actuator, speed sensor and tach sensor).



- Route the orange brake power wire to the bike's heated grip plug.



- Cut the cable ties holding the plug to the frame. Disconnect the plug and reveal as much of the wires as possible (about 10cm or 4").



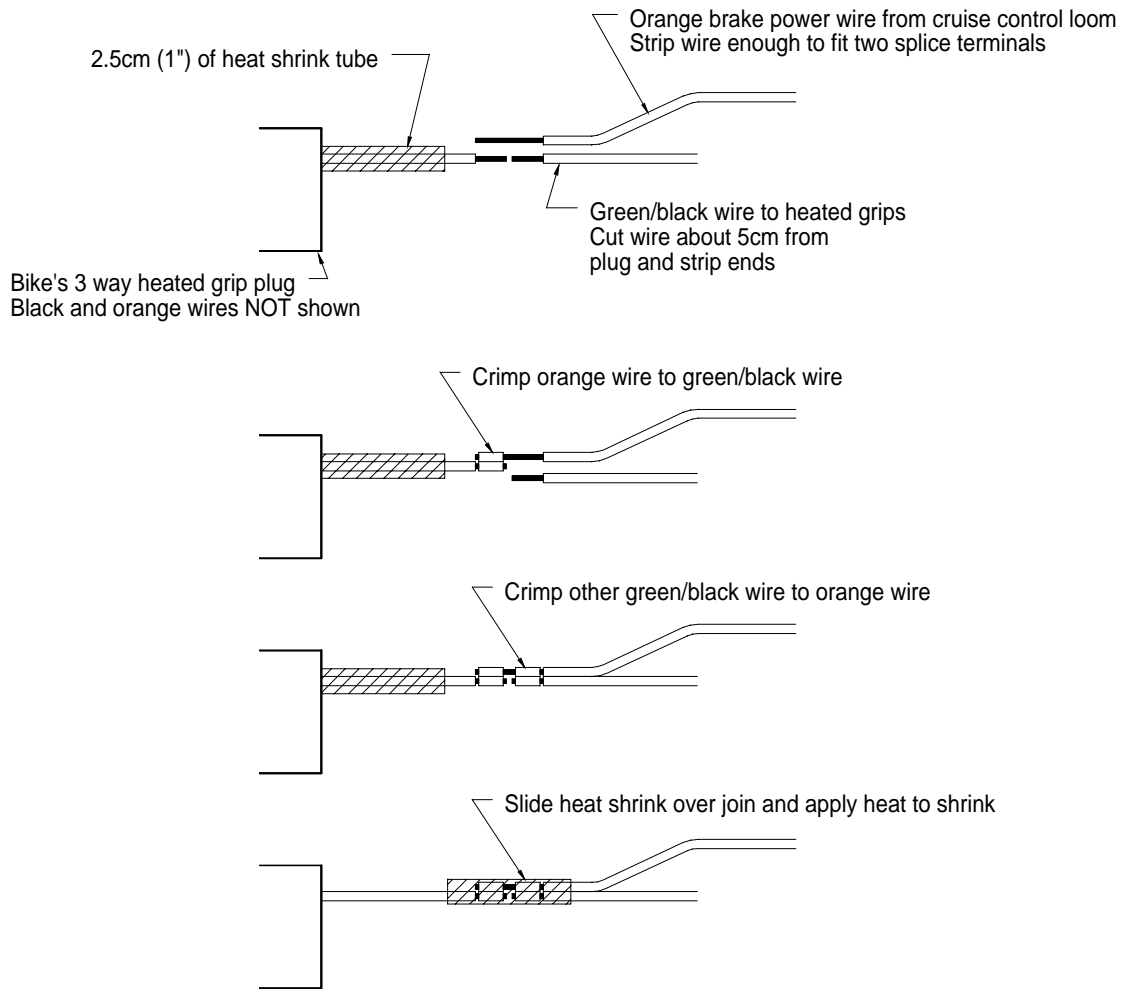
- Strip off about 10cm (4") of the loom tape covering the wires back from the plug.



- Cut the green/black power wire at about the mid point.

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- Use the following instructions and text to splice the orange cruise control power wire to the bike's green/black heated grip power wire.



- This photo shows the wires with the two splice terminals fitted.



- This photo shows the wires with the heat shrink fitted.

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- Re-tape the wires with loom tape.
- Reconnect the heated grip plug.
- Fit cable ties to clip the loom to the bike's frame and to the cruise control loom where necessary.

Brake sensor wire connection.

- The grey brake sensor wire on the cruise control loom should be connected to the grey/yellow brake light wire that goes into the multi-way connector for the rear of the bike. This is located on the right side of the bike, about half way between the back of the fuel tank and the rear light assembly. It is immediately behind the cruise control computer.
- Route the grey cruise control brake sensor wire to the bike's rear lights plug.



- Disconnect the plug.
- Remove the plug from its mount on the frame. This is done by twisting (rotating) the plug on the frame to release the square peg from the frame mounting hole. It must be twisted about 45 degrees to release the peg.

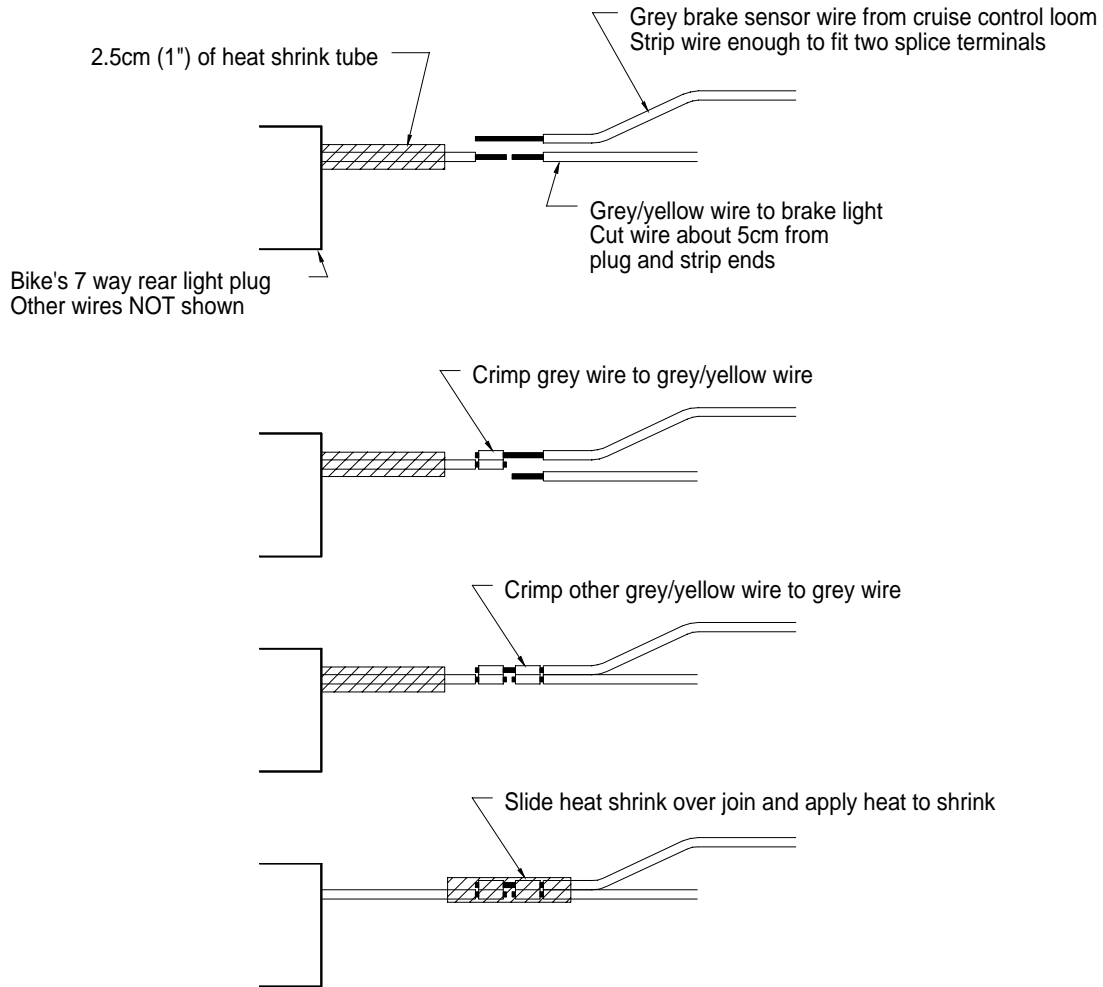
WARNING: - DO NOT connect the grey cruise control brake sensor wire to the other side of the plug that goes to the rear of the bike (the rear light sub loom). If the connection in the plug fails, the cruise control will not disengage when the brakes are applied. The cruise control MUST be connected to the bike's main loom as shown in the following instructions.

- Cut the cable ties holding the plug and wires to the frame. Reveal as much of the wires as possible (about 10cm or 4”).
- Strip off about 10cm (4”) of the loom tape covering the wires back from the plug.



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- Cut the grey/yellow brake light wire at about the mid point.



- This photo shows the wires with the two splice terminals fitted.



- This photo shows the wires with the heat shrink fitted.

- Re-tape the wires with loom tape.



- Re-fit the plug to the frame and re-connect the plug to the rear lights plug.
- Fit cable ties to clip the loom to the bike's frame and to the cruise control loom where necessary

The main potential down side to using this method, is that if the ABS system loses power for any reason, the cruise control will not detect this because the cruise control power source is from another circuit. Because the ABS system would no longer illuminate the brake light, applying the brake will NOT disengage the cruise control. The likelihood of this happening is very small, particularly given that the ABS system is NOT fused. Also because the ABS also provided power assistance for braking, it would be VERY noticeable VERY quickly that you have lost power to the ABS system. We are sure that the bike would also have warning lights flashing all over the place in this event.

If you require any further information or assistance about this please contact us

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BMW K1200RS Integral ABS 3.

Parts list for MCS 1590ABS3 kit

Qty	Part Number	Description
1	MCS 1590A	K1200RS ABS 1 & 2 cruise control kit
1	MCS 1593	ABS 3 wiring loom (Modified MCS 1591 wiring loom)
6	H1527	Splice terminal
10cm	HST 3	3mm heat shrink tube