

INSTRUCTION SHEET

Buell
AMERICAN MOTORCYCLES

-J02695

Kit Number Y0199.K

REV. 05-15-2003

SPEED SENSOR REWIRING KIT

General

This kit fits **1999 through 2002** Buell M2, S3 and X1 models, and **2003** XB9R model motorcycles.

NOTE

This instruction sheet references Service Manual information. A Service Manual for your model motorcycle is required for this installation and is available from your Buell Dealer.

NOTE

Special tools are required to install this kit. If the procedure is not within your capabilities or you do not have the correct tools, have your Buell dealer perform the installation.

See the Service Parts list for kit contents.

Installation

⚠ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

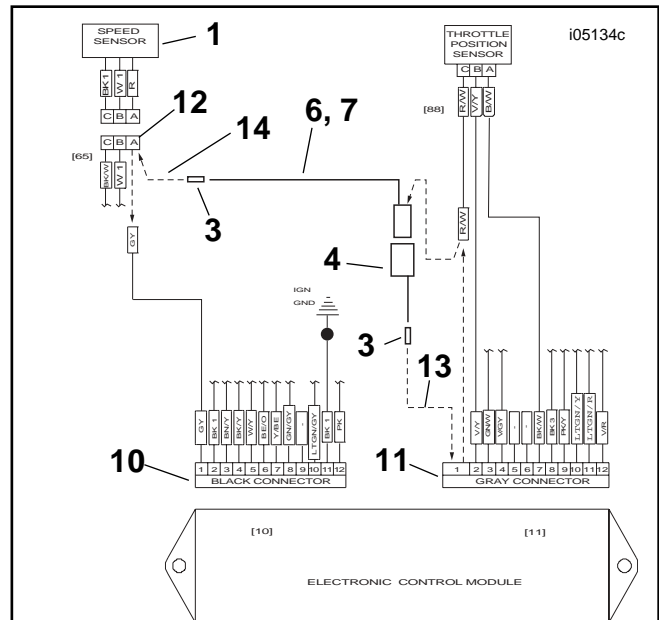
1. Refer to the Service Manual and follow the instructions given to remove the seat and disconnect the negative battery cable. Retain all seat mounting hardware.
2. See the Service Parts illustration, and the diagram in Figure 1 or Figure 2 for your model. Separate connector [65] (item 12) from the speed sensor (1). Remove the Gray wire and pin terminal from cavity "A" of the connector. Wrap the exposed pin terminal with several layers of electrical tape, then bend the loose wire back and tape it to the harness.

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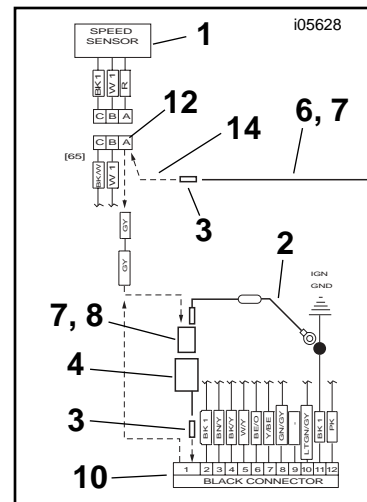
3. Remove the speed sensor from the vehicle, and replace with the vehicle speed sensor (1) from the kit.

For All Models Except 1999-2000 M2

4. Separate the gray ECM connector [11] (Item 11) from the ECM module. Remove the Red/White wire and the attached socket terminal from cavity "1".



For 1999-2002 X1 & S3, and 2001-2002 M2 Models



For 2003 XB9R Models

1. Vehicle speed sensor
2. Grounded resistor wire
3. Terminal, socket (3)
4. Pin housing assembly (2 for XB9R, 1 all others)
5. Terminal, pin (not used)
6. Socket housing assembly
7. Locking wedge (2 for XB9R, 1 all others)
8. Socket housing (XB9R only)
9. Wire tie (4) (not shown)
10. Black ECM connector
11. Gray ECM connector
12. Speedometer sensor connector
13. Socket wire into cavity "1" of connector [11]
14. Plug wire into cavity "A", connector [65]

Figure 1. Speed Sensor Rewiring Schematics: for 1999-2002 X1 & S3, 2001-2002 M2, and 2003 XB9R Models

NOTE

See the Service Manual for Deutsch contact crimping instructions.

- For 2003 XB9R Models only:** Using the ELECTRICAL TERMINAL CRIMP TOOL (Part Number H-D 39965), follow the instructions in the Service Manual to crimp a Deutsch socket terminal (3) from the kit onto the end of the grounded resistor wire (2) opposite the ring terminal.

Separate the black ECM connector [10] (Item 10) from the ECM module. Remove the Gray wire and the attached terminal from cavity "1".

Insert the socket terminal on the grounded resistor wire into one cavity in the socket housing (8) from the kit. Insert the Gray wire removed from cavity "1" of the black ECM connector into the remaining cavity. Insert an orange locking wedge (7) from the kit into the Deutsch socket housing.

- Crimp a Deutsch socket terminal (3) from the kit onto the wire on a short pin housing assembly (4) from the kit.

Insert the socket terminal and wire into cavity "1" of the gray ECM connector [11].

- Obtain the 60 inch (1.5 M) long socket housing assembly (6) from the kit. Determine the length of wire needed to connect to the speedometer sensor connector [65] (item 12), and cut off the excess wire.

- Crimp a Deutsch socket terminal (3) from the kit onto the end of the wire.

- Install the terminal and wire into cavity "A" of the speedometer sensor connector [65].

Plug connector [65] into the vehicle speed sensor installed in step 3

- Insert the socket terminal and Red/White wire removed in Step 4 into the open cavity of the socket housing assembly installed in Step 9.

Proceed to Step 11.

For 1999-2000 M2 Models Only

- Separate the connector [10] (item 10) from the electronic ignition module harness. Remove the Red/White wire from cavity "3".

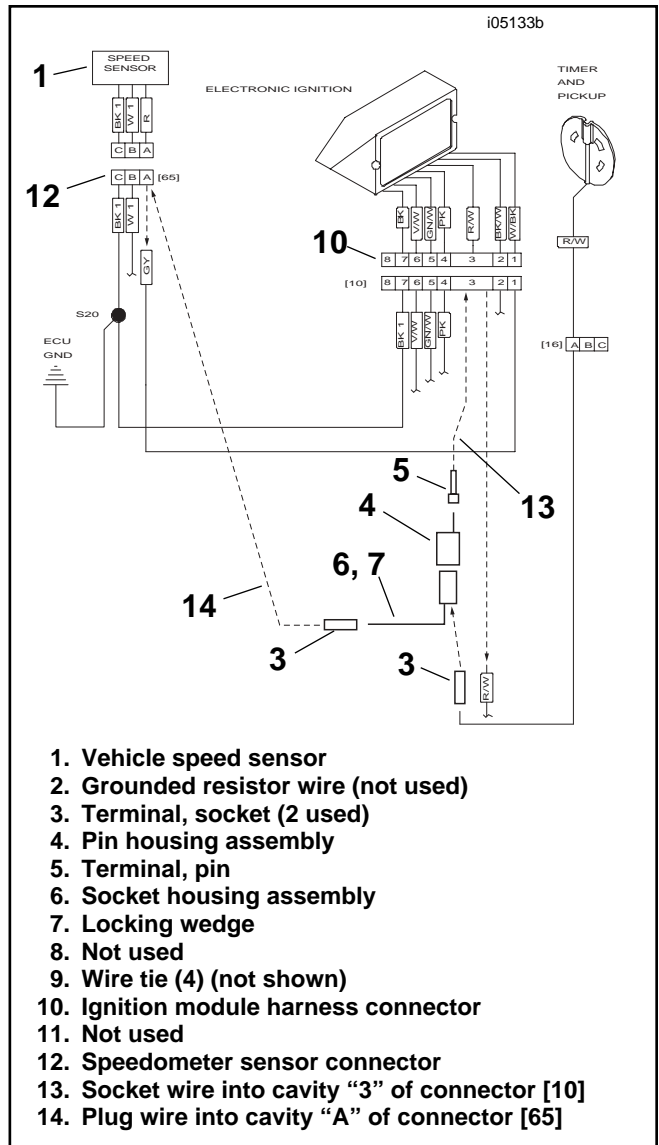
NOTE

See the Service Manual for Deutsch contact crimping instructions.

- Using the ELECTRICAL TERMINAL CRIMP TOOL (Part Number H-D 39965), follow the instructions in the Service Manual to crimp the Deutsch pin terminal (5) from the kit onto the wire on a short pin housing assembly (4) from the kit.

Insert the pin terminal and wire into cavity "3" of the ignition module harness connector [10].

- Obtain the 60 inch (1.5 M) long socket housing assembly (6) from the kit. Determine the length of wire needed to connect to the speedometer sensor connector [65] (item 12), and cut off the excess wire.



**Figure 2. Speed Sensor Rewiring Schematics:
For 1999-2000 M2 Models Only**

7. Crimp a Deutsch socket terminal (3) from the kit onto the end of the wire.
8. Install the terminal and wire into cavity "A" of the speedometer sensor connector [65].

Plug connector [65] into the vehicle speed sensor installed in Step 3.

9. Cut the pin terminal off the Red/White wire removed in Step 4. Install a socket terminal (3) from the kit in its place.

Insert the socket terminal and Red/White wire into the open cavity of the socket housing assembly installed in Step 6.

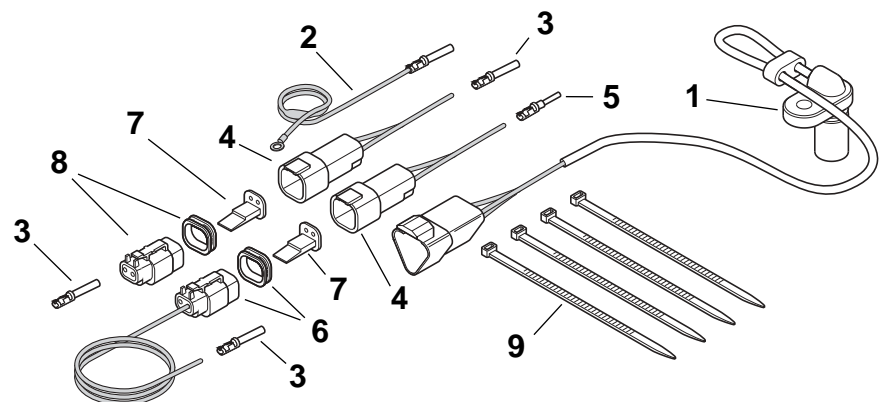
Proceed to Step 11.

For All Models

11. Insert an orange locking wedge (7) from the kit into the Deutsch socket housing of item (6).
12. Connect the Deutsch pin housing (4) and socket housing (6) together.
13. Re-assemble the speedometer sensor connector (12) halves separated in Step 2, and the ignition module (10) or ECM connectors (10 and 11) separated in Step 4.
14. Refer to the Service Manual and follow the instructions given to re-attach the negative battery cable and install the seat.

⚠ WARNING

After installing seat, pull upward on front of seat to be sure it is in locked position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070a)

Part No. Y0199.K	Date 05/03	Service Parts	Buell AMERICAN MOTORCYCLES		
Speed Sensor Rewiring Kit		i05132d			
					
Item	Description (Quantity)	Part No.	Item	Description (Quantity)	Part No.
1	Vehicle speed sensor	74431-01A	6	Socket housing assembly	Y0208.K
2	Resistor wire, grounded	Y0147.02A8	7	Locking wedge (Orange) (2)	Y0209.K
3	Terminal, socket (3)	Y0214.K	8	Socket housing	Y0208.02A8
4	Pin housing assembly (2)	Y0207.K	9	Wire tie (4)	Y0303.2B
5	Terminal, pin	Y0215.K			