

## **JET Accu-Speed Installation Instructions**

### **Information about your JET Accu-Speed.....**

The JET Accu-Speed interacts with the vehicle speed sensor (VSS) on your Truck. In these vehicles, the speed sensor sends pulses to the computer to indicate vehicle speed. The computer uses these signals to set speedometer calibration and transmission shift points based on the number of pulses per revolution being sent to it from the VSS.

By changing the tire size and/or gear ratio the number of pulses to the computer are changed. Changing these pulses results in the computer reading that the vehicle is at a different speed than it really is. As a result the Speedometer calibration is not correct and the transmission shift points are not calibrated correctly.

The Accu-Speed corrects these problems by intercepting the pulses from the VSS and recalibrating them to proper values and sending the corrected signal to the computer.

### **BEFORE YOU START THE INSTALLATION READ THIS.....**

#### **What you will need to perform the installation of the Accu Speed:**

The Accu-Speed installation requires the following tools and materials not supplied with the kit, have these on hand before you start the installation.

1. Wire Crimping pliers
2. Wire Cutters
3. Phillips Screwdriver
4. Small Flat Blade screwdriver
5. ¼ inch nut driver or equivalent
6. Factory Service Manual for Reference
7. Voltmeter or 12v test light

#### **Notes on the installation of the JET Accu-Speed:**

1. JET recommends that the Accu-Speed be mounted inside the passenger compartment of the vehicle, this will protect the unit from the elements and the heat of the engine.
2. Mount the unit where you can get to the adjusting screw easily.
3. Route all the wires away from anything hot under the hood.
4. ALWAYS disconnect the negative battery cable when installing electrical parts.

### ***Detailed Installation Procedures: ALL DODGE and FORD Trucks***

1. Mount the Accu-Speed in the passenger compartment of the vehicle in a location that is accessible so you can adjust it later. Use either the supplied sheet metal screws or the supplied Velcro for mounting the unit. Make sure the unit is not attached to anything that gets hot.
2. Connect the BLACK wire coming out of the Accu-Speed to a good ground point using the supplied round terminal. Cut the wire to the correct length, strip the wire about ¼ inch and crimp the terminal onto the stripped wire. Attach the terminal to the ground using an existing screw or one of the supplied sheet metal screws in the kit. (TIP: It's much easier to find an existing screw to attach the terminal to than drilling a new hole.)
3. Locate the factory fuse block, usually located under the dash on the driver's side or on the side of the dash on the drivers side. (Applications do vary and the correct location of the fuse box can be found in the factory service manual and/or the owners manual for the vehicle)
4. Find a fuse circuit in the fuse box that has a 12volt signal any time the ignition switch is in the start or run position (only in these positions, NOT 12volts all time). Use a voltmeter or test light to determine which circuit to use in the fuse block and remove the fuse from that circuit. Insert the correct fuse tap (there are two different sizes supplied in the kit) into the circuit and replace the fuse.
5. Disconnect the Negative Battery Cable.
6. Cut the RED wire from the Accu-Speed to the correct length to reach the fuse box, strip the wire about ¼ inch and crimp the supplied female spade terminal to the wire. Attach the spade terminal to the fuse tap in the fuse box.
7. See CHART "W" to locate the Vehicle Speed Sensor Input wire that you will connect to the remaining two wires on the Accu-Speed. On some vehicles you will be connecting to wires on the transmission or transfer case and on others you will be connecting to the ABS unit, read the chart carefully to determine the correct location for your vehicle and proceed to pages 3 or 4 for the correct instructions for your application.

## **Connecting the Accu-Speed to the Vehicle Speed Sensor:**

1. Refer to CHART “W” for the location of the Vehicle Speed Sensor(VSS), or ABS unit and the wire color for your application.
2. Route the remaining two wires (Purple and Light Green) from the Accu-Speed to the VSS or ABS unit, keep the wires away from anything hot under the hood.
3. Cut the wire in half about 3-4 inches away from the factory connector and strip the wires about ¼ inch on each end. Using the supplied crimp connectors connect one to each end of the wires that you just stripped.
- 4. THIS PART IS CRITICAL, IF YOU HOOK THE REMAINING TWO WIRES UP BACKWARDS YOU COULD CAUSE DAMAGE TO THE ACCU-SPEED AND/OR YOUR VEHICLE SO READ THIS CAREFULLY!!**
5. Connect the Light Green wire from the Accu-Speed to the wire still connected to the vehicle speed sensor or the ABS unit using the crimp connector you already installed.
6. Connect the Purple wire from the Accu-Speed to the remaining wire on the harness side using the crimp connector you already installed.

## **Calibration procedures for the JET Accu-Speed:**

The following information contains the details on how to calibrate the Accu-Speed. There are multiple ways that the unit can be calibrated, please review the following procedures to determine which one is best for your application.

### **1. Calibration for TIRE size change ONLY:**

Use this method if the ONLY change to the vehicle is a tire size change. Determine the original factory tire size by either using the chart on page 6 or by measuring the actual tire diameter. The original tire size is usually located inside the driver's door jamb.

2. Using the stock tire size and the new tire size refer to CHART "T" to determine the number of turns for the correct setting on the Accu-Speed. (Note: One turn means 360 degrees, a full turn. If for any reason you need to start over, lost count etc, turn the adjusting screw 20 turns counterclockwise to put the Accu-Speed back to its zero position and start over.)
3. Remove the rubber plug on the side of the Accu-Speed and turn the screw that is inside clockwise for the number of turns indicated in the chart.
4. Calibration is now complete reinstall the plug in the side of the Accu-Speed, Recheck all wiring and connections to make sure they all have good contact and make sure all the wires are away from anything hot.
5. Reconnect the negative battery cable.
6. Test drive the vehicle to verify that the speedometer is functioning correctly. The Accu-Speed is accurate to within 1-2%, there are many ways to verify the calibration of the speedometer including Dynamometer testing, checking mile markers, comparing to a vehicle with a known correct speedometer or a GPS system. If the calibration seems to be off drastically use one of these methods to verify the calibration of the Accu-Speed. For reference every  $\frac{1}{4}$  turn of the adjusting screw is equal to a 1% change. Turning the screw counter clockwise will increase the speedometer reading and clockwise will decrease it.

### **Calibration for GEAR Change Only:**

1. Use this method if the ONLY change to the vehicle is a gear change.  
Determine the original gear ratio by referring to the build codes located on the inside of the glove box or your original paperwork such as the window sticker from the vehicle.
2. Using the stock gear ratio and the new gear ratio refer to CHART “G” to determine the number of turns for the correct setting on the Accu-Speed.  
(Note: One turn means 360 degrees, a full turn. If for any reason you need to start over, lost count etc., turn the adjusting screw 20 turns counterclockwise to put the Accu-Speed back to its zero position and start over)
3. Remove the rubber plug on the side of the Accu-Speed and turn the screw that is inside clockwise for the number of turns indicated in the chart.
4. Calibration is now complete, reinstall the rubber plug in the side of the Accu-Speed, Recheck all the wiring connections to make sure they all have good contact and make sure all the wires are away from anything hot.
5. Reconnect the negative battery cable.
6. Test drive the vehicle to verify that the speedometer is functioning correctly. The Accu-Speed is accurate to within 1-2%, there are many ways to verify the calibration of the speedometer including Dynamometer testing, checking mile markers, comparing to a vehicle with a known correct speedometer or a GPS system. If the calibration seems to be off drastically use one of these methods to verify the calibration of the Accu-Speed. For reference every ¼ turn of the adjusting screw is equal to a 1% change. Turning the screw counter clockwise will increase the speedometer reading and clockwise will decrease it.

### **Calibration for BOTH Tire Size AND Gear Ratio Change:**

1. Using CHART “T” determine the correct number of turns for the new tire size.
2. Using CHART “W” determine the correct number of turns for the new gear ratio.

3. Use the following calculation to determine the correct number of turns;

# of turns for tire size change + # of turns for gear ratio change – 8 = correct # of turns.

Set the Accu-Speed to the number of turns determined by the above calculation and refer to steps 4 thru 6 above to complete the installation.

**CHART "W"****P/N 50109/50110****Dodge Trucks**

<b>YEAR</b>	<b>MODEL</b>	<b>Sensor Locations</b>	<b>WIRE COLOR</b>
1992-1997	Dakota	Transfer case/transmission	White/Orange
1998-2004	Dakota/Durango	ABS controller pin #12	White/Orange
2007	Dakota	VSS sensor on left rear of transmission	Yellow/Pink
2008-2009	Dakota	VSS sensor on left rear of transmission	Yellow/Black
1992-1997	Ram Truck	Transfer case/transmission	White/Orange
1998-2002	Ram Truck	ABS controller pin #12	White/Orange
2003-2005	Ram Truck 3.7, 4.7 L	ABS controller pin #12	White/Orange
2003-2005	Ram Truck 5.7 L	ABS controller pin #12	Dk Grn/Yellow
2006	Ram Truck 3.7L	ABS controller pin #21	Dk Blu/Orange
2007-2010	Ram Truck 3.7L	VSS sensor on left rear of transmission	Dk Grn/Brown
2006-2010	Ram Truck 4.7,5.7 L	VSS sensor on left rear of transmission	Dk Grn/Brown

**FORD Trucks**

1992-1993	Bronco	Rear Axle Housing	Red/Pink
1994-1996	Bronco	Rear Axle Housing	Red/Pink Orange/Light Blue
1994-1996	Bronco w/ 4 wh. ABS	ABS controller pin # 99	Grey/Black
1997-1998	Expedition/Navigator	Left side of Transmission	Dark Blue/Yellow
1999-2006	Expedition./Navigator	Left side of Transmission	Grey/Black
1998-2001	Explorer/Mountaineer	ABS controller pin #19	Grey/Black
2002-2003	Explorer/Mountaineer	PCM Connector pin # 68	Grey/Black
2004-2005	Explorer/Mountaineer Explorer/Mountaineer	VSS sensor on left rear of transmission	Dk Blu/Yellow
2006-2007	4.0L	VSS sensor on left rear of transmission	Yellow/Orange
1995-1997	Explorer/Ranger	Left side of Transmission at Rear	Grey/Black
1992-1993	F-150, F-250,F-350	Rear Axle Housing	Red/Pink
1994-1996	F-150, F-250,F-350	Rear Axle Housing	Red/Pink
1997-1998	F-150, F-250 LD 4WD	Left side of Transmission at Rear	Grey/Black
1999-2001	F-150, F-250 LD 4WD	Left side of Transmission towards top	Dark Blue/Yellow
2002-2004	F-150, F-250 Classic LD	Rear Axle Housing	Lt Green/Blk
2005-2008	F-150, F250 LD	Left Side of Transmission at Rear	Dark Blue/Yellow
2009-2010	F-150, F250 LD F-250, F-350 HD 2W	Left Side of Transmission at Rear	Brown/Green
1997-1998	ABS	Rear Axle Housing	Red/Pink
1999-2001	F-250, F-350 SD/Excursion	ABS Controller Pin # 16	Grey/Black
2002-2004	F-250, F-350 SD/Excursio	ABS Controller Pin # 11	Grey/Black
2005-2007	F-250, F-350 SD	ABS Controller Pin # 21	Grey/Black
2008-2010	F-250, F-350 SD	ABS Controller Pin # 21	Yellow/Blue
1998-2000	Ranger	ABS Controller Pin # 10	Grey/Black
2001-2005	Ranger	GEM Module Conn. Pin #14	Grey/Black
2006	Ranger	PCM Connector pin # 68	Grey/Black
2007-2009	Ranger	ABS Controller Pin # 21	Wht/Brown

**Jeep**

1992-2001	Cherokee	Transmission/Tranfer case	White/Orange
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1993-1998	Grand Cherokee	Transmission/Transfer case	White/Orange
1999-2001	Grand Cherokee	ABS controller pin# 13	White/Orange
2003-2004	Grand Cherokee	ABS controller pin# 13	Dk Grn/Yellow
2005-2009	Grand Cherokee	Transmission/Transfer case	Dark Grn/ Brown
2002-2005	Liberty	ABS controller pin #13	Dk Grn/Orange
1992	Wrangler	Transfer case	Blue
1993-2004	Wrangler	Transfer case	White/Orange
2005-2006	Wrangler	Transfer case	DrkBlu/Orange
2007-2009	Wrangler	Transmission/Vehicle Speed Sensor	DkGrn/Brown

**Toyota Trucks**

1993-1994	4 Runner	Transmission	Grey/Blue
1995-2005	4 Runner	Transmission	Grey/Blue
2006-2009	4 Runner	Transmission	Red/Blue
1993-1997	Landcruiser	Transmission	Red/Green
1998-2004	Landcruiser	Transmission left side	Red/Green
2005-2008	Landcruiser	Transmission	Red
1992-1997	Tacoma	Transmission	Green/Red
1998-2005	Tacoma	Transmission	Green/Red
2006-2009	Tacoma	Transmission	Red
2000-2005	Tundra	Transmission	Blue/Yellow
2006	Tundra	Transmission	Yellow/Red

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