



SERVICE BULLETIN

Classification: TE02-028e	Reference: NTB02-120e	Date: December 15, 2010
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ESSENTIAL TOOL J-45741 ABS/VDC ACTIVE WHEEL SPEED SENSOR CHECKER

This bulletin has been amended. Changes have been made to all sections.
Please discard previous versions of this bulletin.

APPLIED VEHICLES:	2003 – 2009 350Z (Z33)	2003 – 2007 Murano (Z50)
	2009 – 2010 370Z (Z34)	2009 – 2010 Murano (Z51)
	2002 – 2006 Altima (L31)	2004 – 2009 Quest (V42)
	2007 – 2010 Altima (L32)	2004 – 2010 Titan (A60)
	2004 – 2010 Armada (TA60)	2008 – 2010 Rogue (S35)
	2009 – 2010 Cube (Z12)	2007 – 2010 Sentra (B16)
	2001 – 2004 Frontier (D22) - 4WD	2007 – 2010 Versa (C11)
	2003 – 2004 Frontier (D22) - 2WD	2001 – 2004 Xterra (WD22)
	2005 – 2010 Frontier (D40)	2005 – 2010 Xterra (N50)
	2002 – 2003 Maxima (A33) - with A/T ONLY	
	2004 – 2008 Maxima (A34)	
	2009 – 2010 Maxima (A35)	
	2003 – 2004 Pathfinder (R50) - with VDC	
	2005 – 2010 Pathfinder (R51)	

SERVICE INFORMATION

Use "Essential" tool **J-45741** Active Wheel Speed Sensor Checker along with the appropriate Jumper Harness to power up ABS/VDC wheel sensors and perform a component test.

NOTE:

- Active-type wheel speed sensors that are installed in Applied Vehicles cannot be checked with a standard ohm meter (DVOM) test. These type sensors require a power supply to operate and produce a signal.
- Refer to NTB10-102 (ABS/VDC Wheel Speed Sensor Diagnosis) for ABS/VDC wheel sensor diagnosis information.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

TOOL INFORMATION:

- Special tool J-45741-BOX is “Essential” and was shipped along with jumper harnesses 1 through 4, to all Nissan dealers in 2002.
- Essential tool Jumper harnesses J-45741-5 through J-45741-8 were shipped to all Nissan dealers when they were released in 2002, 2003, and 2005.
- Essential tool Jumper harnesses J-45741-9, J-45741-10, and J-45741-11 were released and shipped to all Nissan dealers in December 2010.
- Additional tools can be ordered from TECH-MATE (1-800-662-2001).
- Purchase of J-45741 kit will now include jumper harnesses J-45741-1 through J-45741-11.
- Refer to “Nissan Essential Tool Flyers” in ASIST for additional information.

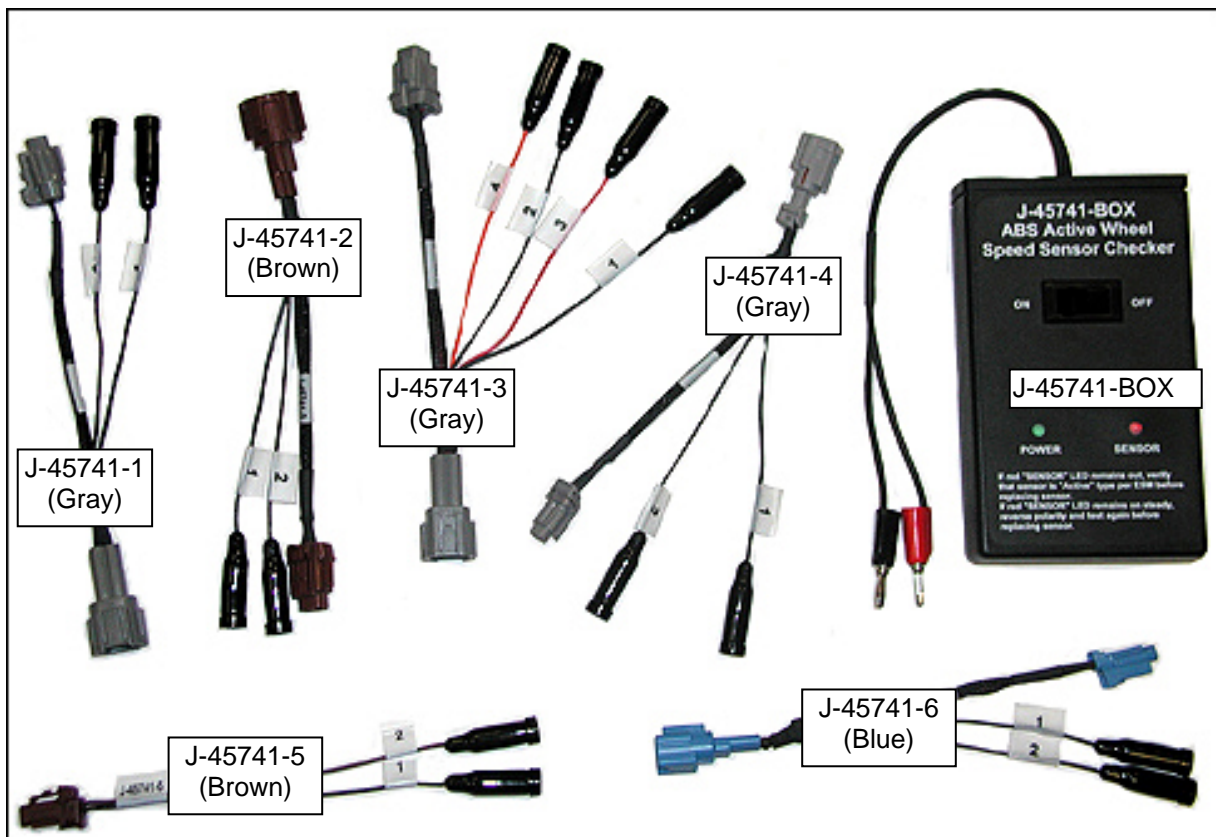


Figure 1

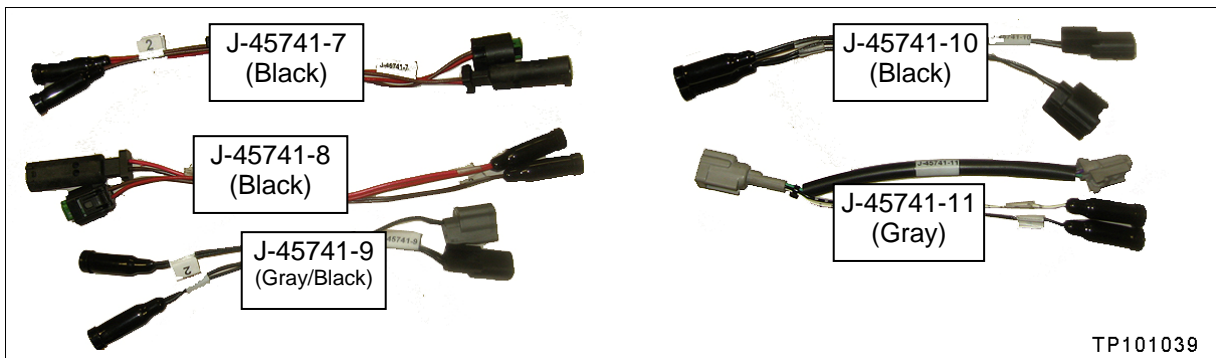


Figure 2

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Checking an ABS/VDC “Active” Wheel Sensor with the Checker Box:

1. Turn the ignition OFF.
2. Select the correct Jumper Harness for the vehicle and sensor you are working on. Refer to Chart A (below).

Chart A.

Vehicle	Use Jumper Harness			
	Right		Left	
	Front	Rear	Front	Rear
2001 – 2004 Xterra (4WD)	J45741-1	J45741-3	J45741-2	J45741-3
2001 – 2004 Frontier (4WD)		J45741-5		J45741-5
2001 – 2004 Xterra (2WD)		J45741-1		J45741-2
2003 – 2004 Frontier (2WD)		J45741-8		J45741-7
2002 – 2004 Altima		J45741-3		J45741-3
2005 – 2006 Altima	J45741-4	J45741-3	J45741-4	J45741-3
2007 – 2008 Altima		J45741-9		J45741-10
2009 – 2010 Altima		J45741-2		J45741-2
2009 – 2010 Maxima	J45741-4	J45741-4	J45741-6	J45741-6
2003 – 2004 Pathfinder with VDC		J45741-3		J45741-3
2002 – 2003 Maxima with A/T		J45741-1		J45741-1
2004 – 2008 Maxima		J45741-2		J45741-2
2003 – 2006 Murano		J45741-3		J45741-3
2004 – 2009 Quest	J45741-1	J45741-1	J45741-1	J45741-2
2004 – 2009 350Z		J45741-1		J45741-2
2003 – 2009 350Z	J45741-1	J45741-2	J45741-1	J45741-2
2004 - 2010 Titan		J45741-3		J45741-3
2005 – 2010 Xterra/Frontier	J45741-7	J45741-7	J45741-7	J45741-7
2004 - 2010 Armada	J45741-4	J45741-6	J45741-6	J45741-4
2004 – 2010 Pathfinder	J45741-11	J45741-11	J45741-11	J45741-11
2007 – 2010 Versa	J45741-7	J45741-7	J45741-7	J45741-7
2007 – 2010 Sentra	J45741-10	J45741-09	J45741-10	J45741-10
2008 – 2010 Rogue	J45741-11	J45741-11	J45741-6	J45741-6
2009 – 2010 Cube	J45741-7	J45741-8	J45741-7	J45741-7
2009 – 2010 Murano	J45741-7	J45741-8	J45741-7	J45741-7
2007 Murano	J45741-7	J45741-8	J45741-7	J45741-7
2009 – 2010 370Z	J45741-7	J45741-8	J45741-7	J45741-8

Notes for connecting Jumper Harness for use with the Checker Box:

- **J-45741-1, J-45741-2, J-45741-4, J-45741-6, J-45741-7, J-45741-8, J-45741-9, J-45741-10, and J-45741-11** are “configured” as shown in Figure 3.
- Test leads 1 and 2 are for connection to the Checker Box Red and Black leads.
- Depending on the model and year of the vehicle you’re working on, test leads 1 or 2 may be connected to either the Red or Black lead.
- You may need to swap leads 1 and 2 to get the correct connection (polarity). See step 8 on page 6.

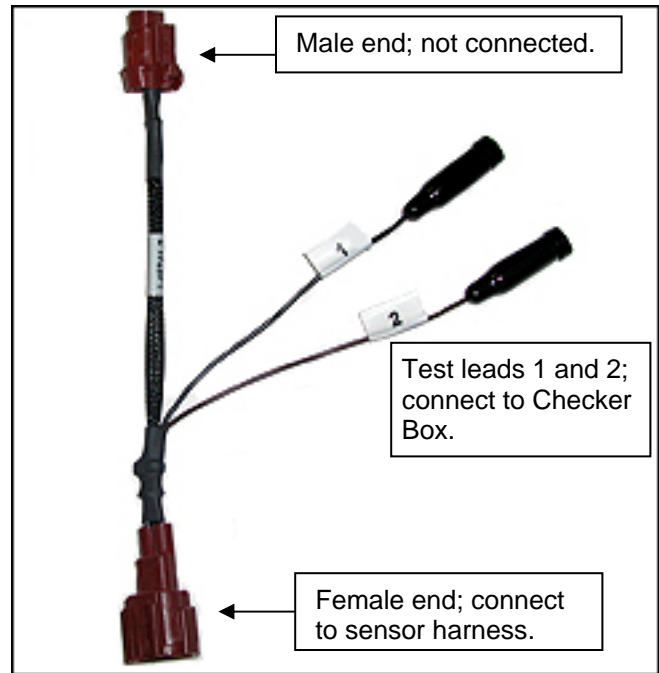


Figure 3

- **J-45741-5** does not have a female end.
- Test leads 1 and 2 are connected to the Checker Box Red and Black leads.
- Depending on the model and year of the vehicle you’re working on, test leads 1 or 2 may be connected to either the Red or Black lead.
- You may need to swap leads 1 and 2 to get the correct connection (polarity). See step 8 on page 6.

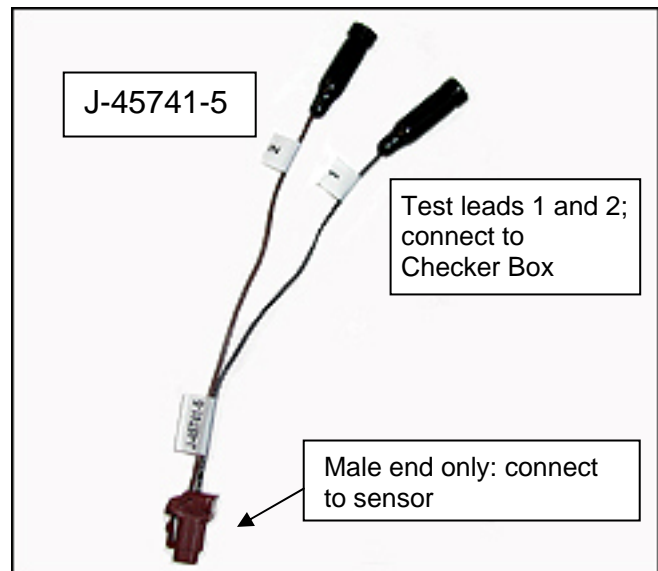


Figure 3

- **J-45741-3** is used when connecting to the rear wheel sensors on some models.
- Because this harness connection is for two sensors, there are four leads that can be connected to the Checker Box.
- Pair leads 1 and 2 for one of the sensors.
- Pair leads 3 and 4 for the other sensor.
- Depending on the model and year of the vehicle you're working on, test leads 1 through 4 may be connected to either the Red or Black leads on the Checker Box.
- You may need to swap leads to get the correct connection (polarity). See step 8 on page 6.

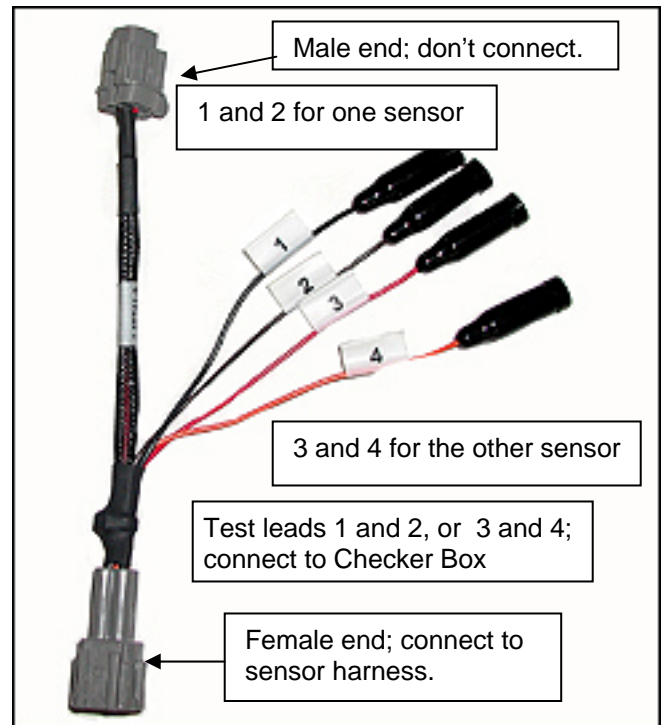


Figure 4

3. Disconnect harness connector for the wheel speed sensor that you're testing.

NOTE: Photo is for example only. Your actual connector location and type will depend on the model and model year you are working on.

4. Connect the appropriate jumper harness to the wheel sensor connector.

- **DO NOT** connect the male end of the jumper harness to the vehicle harness. You will get an incorrect reading. See Figure 6 as an example.

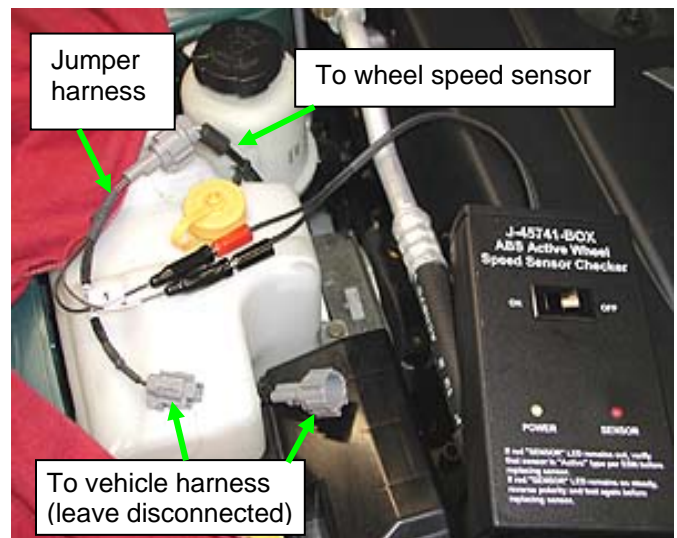


Figure 5

5. Make sure the J-45741 Checker Box 9V battery has full power (install a fresh 9V battery if you are not sure).

NOTE:

- The green LED on the Checker Box does not indicate the 9V battery has full power. The battery may be weak, but still light the green LED
- **A weak 9V battery may give a false NG result in step 8.**

6. Connect the J-45741 Checker Box to the jumper harness test leads.

- Which lead goes to black and which to red does not matter at this point.

NOTE: You may need to swap the red and black leads in step 8.

7. Turn the J-45741 Checker Box power switch ON.

- The green LED should light and remain ON steady.

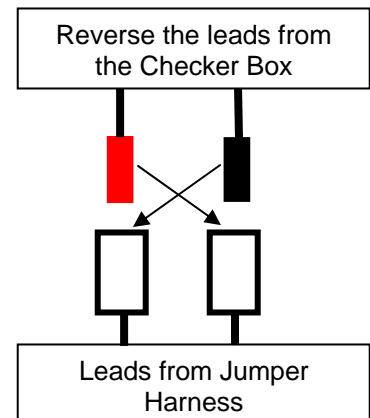
8. Spin the road wheel and watch the red LED:

- **Result OK:** The red LED should flash ON and OFF, which tells you the sensor is transmitting a signal.

NOTE: The flash rate will vary with how fast you spin the wheel.

- **Result NG:** If the red LED light remains ON or OFF steady:

- **Reverse the Checker Box Red and Black leads and then re-test.**
- If the result is still NG, further diagnosis will be needed to determine if the sensor, sensor rotor, or interference between the sensor and rotor, such as debris, is the cause.



CAUTION:

- DO NOT "back-probe" connectors on the vehicle.
- The connectors have a water-resistant seal.
- Probing from the backside of the connector may damage the seal.