Omitec

OmiDetect 100

TPM Sensor Tester

User's Manual

The information, specifications and illustrations in this manual are based on the latest information available at the time of publication. The manufacturer reserves the right to make equipment changes at any time without notice.

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OmiDetect 100

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1. Introduction

Congratulations on your purchase of the OmiDetect 100 Tire Pressure Monitoring (TPM) sensor tester. To enjoy safe and the best performance from your OmiDetect 100, please read and follow all instructions, recommendations and warnings.

Understanding the basics of tire pressure monitoring systems is essential to using the OmiDetect effectively, so be sure to review the following sections thoroughly.

OmiDetect is a state-of-the-art tester designed especially for automated and manual testing of TPM valve sensors for proper operation. Used correctly, it will allow you to quickly:

- Confirm that the vehicle's TPM sensors are working properly before you start tire/wheel service work (including rotating, changing or balancing tires/wheels). This will reduce the risk of your having to replace a sensor that was defective prior to your starting the work.
- Confirm that the vehicles TPM sensors are working properly after you complete tire/wheel service work.
- After rotating the vehicle's wheels, activate their TPM sensors to allow the vehicle control unit monitoring the TPM sensors to identify their new location.
- Diagnose problems with TPM sensors and other TPM system components.
- Confirm that a TPM sensor you replaced is working properly.
- Confirm that you installed the correct type of sensor.

History of TPM Systems

In the wake of tire safety issues involving SUVs in the late '90s, Congress passed the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act in 2000. The TREAD Act mandated that automotive manufacturers start phasing TPM systems into all their new light vehicles with a GVWR of 10,000 pounds or less beginning in November 2003. By 2006, 90% of all light vehicles are to comply, and by Sept. 1, 2007, all new light vehicles must comply. The total population of vehicles with TPM systems will grow from approximately 4 million units in 2003 to close to 50 million units by the end of the decade.

The NHTSA, which is responsible for establishing and enforcing vehicle safety standards, published a mandate requiring that the TPM system must be capable of monitoring all four tires and alerting the driver if a tire is under inflated by 25% or more of the OEM's recommended tire pressure. Testing showed that proper tire inflation significantly improves vehicle handling safety, decreases tread wear, improves fuel economy, and decreases stopping distances. Underinflated tires are dangerous because they build up internal heat that can damage the tire structure, potentially resulting in fatal blowouts.

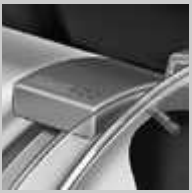
Direct Versus Indirect Systems

The NHTSA's mandate on TPM systems allows two system architectures. The first, called the "direct" system, uses a direct RF link from each wheel to a central receiving control unit, and the second, called the "indirect" system, works in conjunction with the vehicle's antilock-braking (ABS) system.

- **Direct Systems**. Wireless sensor in or on each wheel that measures internal tire air pressure and temperature separately and communicates the readings by RF signals to a receiver/controller control unit at regular intervals. The sensors have an integral low frequency transmitter and are typically built into or mounted on the valve stem. The end of the valve stem serves as the sensor's antenna. Most direct systems share the receiver control unit with the vehicle's keyless entry system.
- **Indirect Systems**. Monitors rotation of tires via the vehicle's antilock braking system (ABS) to calculate whether they are properly inflated. Does not measure tire pressure or temperature. The system measures the wheel speed of all four tires and calculates a "rolling circumference" for each one. In the event of a tire pressure loss, the rolling circumference of that tire is reduced, producing a change in the tire's rotational speed.

  The NHTSA found that direct TPM systems are preferred because they are better able to detect under- or over-inflation and are quicker to provide alerts. Virtually all vehicle manufacturers today have moved to direct systems.

Examples of TPM sensors used in today's direct TPM systems.

			
Beru	**Siemens**	**TRW**	**Pacifica**
▪ Audi ▪ Volkswagen ▪ Bentley ▪ Bugatti ▪ BMW ▪ Ferrari ▪ Kia ▪ Land Rover ▪ Maserati ▪ Mercedes-Benz ▪ Porsche	▪ Chrysler ▪ Dodge ▪ Jeep ▪ Mazda ▪ Suzuki	▪ GM ▪ Honda ▪ Acura ▪ Hyundai ▪ Kia	▪ Lexus ▪ Toyota

About Sensors

TPM sensors are micromechanical devices (a silicon-based vacuum cell) powered by a lithium battery with a minimum life expectancy of up to 10 years. Using their piezoresistive technology, they monitor tire pressure via measuring the deformation of an internal diaphragm.

They typically transmit measurement values and sensor ID data at 433 MHz (for European systems) or 315 MHz (for U.S. systems) to the receiver control unit once per hour when the vehicle is parked (and only if the pressure changes), to preserve battery life, and every few seconds when the vehicle is traveling above a certain speed (typically about 20 mph). If the tire pressure rises or falls outside calibration limits, a warning light or message is displayed in real time on the vehicle's instrument panel, along with an audible warning, to alert the driver.

Activating Sensors

To activate, or "wake up," a TPM sensor to test its ability to sense and transmit tire pressure and sensor ID information to the TPM control module, you must use one of three different methods, depending on the type/brand of sensor:

- Send the sensor a 125 KHz "modulated" wave command signal (). (OmiDetect is capable of generating a variety of modulated waveforms.)
- Send the sensor a 125 KHz "continuous" wave command signal ().
- Position the magnetic tool specified by the OEM in close proximity to the sensor. The tool is provided with the vehicle or is available from the OEM.

Most of the current-generation sensors can be activated using either the first or the second method. The OmiDetect 100 uses only 'modulated' wave command signals to test valves.

Once a sensor is activated, OmiDetect 100 will listen for the appropriate response signal. If it detects a valid signal, it will provide both visual and audible confirmation and indicate its frequency (either 315 MHz or 434 MHz).

Note: Older generation sensors may not have the electronics required to activate them using these methods.

Reprogramming

Each TPM sensor has a unique internal identification code. With most current generation TPM systems, anytime you rotate a vehicle's tires or replace one or more TPM sensors, you must "reset" (reprogram) the TPM system's control module by placing it in the "learn" mode and activating each sensor so the control module can identify the new sensor locations. Refer to the *Omitec TPM System Quick Reference Guide* provided with your OmiDetect system for instructions on how to reset the TPM system of a specific vehicle make and model.

IMPORTANT: If you do not reprogram the control module, it will continue to report the correct tire pressures, but will assign them to the wrong wheel locations.

Other Cases Where You Will Need to Reprogram the TPM Control Module

If the vehicle's battery or the TPM control module is disconnected or the voltage to the TPM system drops below a certain value, the control module will loose all its sensor ID information and will set a DTC for a TPM fault. In this case, you will need to reprogram the control module and clear the DTC.

Figure 1. OmiDetect shown in use in testing a TPM sensor.

2. Safety Information

IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating your OmiDetect system. It is intended for use by properly trained professional automotive technicians. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise care when using it. Before using your OmiDetect system, always refer to and follow the safety messages and applicable service procedures provided by the manufacturer of the vehicle being serviced.

- **WARNING – Risk of injury**

  This device emits an electromagnetic field which may interfere with the safe operation of medial equipment such as a heart pacemaker. Individuals fitted with a pacemaker should never use this device.

- **WARNING – Risk of injury**

  Never contact the OmiDetect tester to moving components, drive belts and other moving components.

- **WARNING – Risk of electrical shock**

  To avoid possible serious injury from electrical shock, never contact OmiDetect to electrical components.

- **CAUTION – General Safety Precautions**

  1. Do not attempt to use the Tire Pressure Monitor System while adjusting tire pressures, since they do not function as a real-time tire pressure gauge.
  2. Tire pressure monitor equipment was calibrated for the original vehicle tire size. Use only original tire sizes to maintain system accuracy.
  3. Tire sealants should not be used on vehicles equipped with a Tire Pressure Monitor System. Those sealants can clog the sensors, rendering them ineffective.
  4. Do not attempt to install a tire pressure sensor in a steel or aftermarket wheel. Tire pressure monitor equipment is only to be used on original style factory wheels.
  5. Always replace a damaged or inoperative TPM sensor/transmitter.

6. Never clean a TPM sensor/transmitter with compressed air or steam. Damage to the sensor/transmitter may result.
7. The cap on the valve stem or a TPM sensor/transmitter frequently contains a O-ring to prevent contamination and moisture from entering. Be sure to retain this cap for reuse.
8. Strong radio waves may interfere with the proper operation of some TPM systems.
9. Snow, ice or mud in the wheel wells and tire chains mounted on the tires may cause a TPM system to malfunction.
10. Check that the vehicle's ignition is Off and that its parking brake is properly set.
11. Do all testing in a well-ventilated area.
12. Do not smoke or allow sparks or open flame near fuel system parts.
13. Do not smoke or allow open flame near a battery.
14. Do not wear watches, rings or loose-fitting clothing when working near operating equipment.
15. Wear safety goggles at all times while operating OmiDetect. Rotating equipment components or electrical equipment can cause flying particles.

- **CAUTION – General Operating Precautions**
  1. Keep OmiDetect away from metal objects, such as clamps, wheel alignment or other tire/wheel equipment, since they will impede OmiDetect's ability to receive a good RF signal from a TPM sensor.
  2. Keep OmiDetect away from any known RF transmitters, such as mobile phones and other RKE (Remote Keyless Entry) transmitters. Signals received from these devices could result in the incorrect RF signal being detected.

- **Caution – Misdiagnosis may lead to incorrect or improper adjustment and/or repair.**
  1. Do not rely on erratic, questionable or obviously erroneous test information or results. If test information or results are erratic, questionable or obviously erroneous, verify that the test procedure was performed correctly. If test information or results are still suspicious, do not use them for diagnosis.

     Improper adjustment or repair may cause equipment damage or unsafe operation.

3. Kit Contents

Your OmiDetect 100 kit includes:

- OmiDetect 100 TPM Sensor Tester
- 9V 6LR61 Battery
- OmiDetect 100 User's Manual

OmiDetect's internal 9 volt battery

Important: Your OmiDetect system's internal 9 volt alkaline battery must have sufficient charge for the system to work properly. If it drops below the minimum required, after you power the tester on, it will sound a constant tone and illuminate the Low Battery Indicator LED (see Sec. 4) for 5 seconds, then the system will automatically power Off. OmiDetect will not indicate a valid test result when the battery is low.

For optimum performance, the recommended batteries are PP3, IEC 6LR61 or 6F22. *Do not dispose of batteries in household refuge. Some communities offer recycling or collection of alkaline batteries. Contact your local government for disposal practices in your area.*

To replace the battery*:*

1. Remove battery compartment door from back of unit and check that the 9V alkaline battery is properly connected to the battery wiring harness connector.

2. Replace battery compartment door.

4. Controls and Indicators

OmiDetect's display has a series of 6 LEDs and a Low Battery Indicator LED.

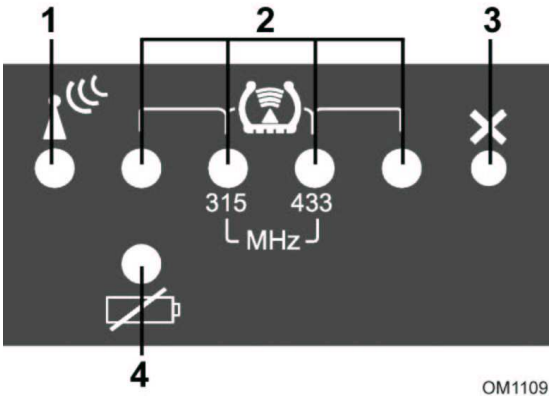
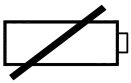


Figure 2. OmiDetect's LED Display.

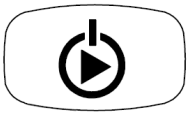
The 6 LEDs have three functions:

- The first LED (1) illuminates when the "Listen" mode is selected, letting you test a TPM sensor activated manually, rather than electronically using OmiDetect.
- The middle four LEDs (2) indicate the TPM sensor type currently selected for testing. For example, when the 2nd and 3rd LEDs are illuminated, the TRW sensor type is selected. Refer to Sec. 8, TPM Sensor Type Selection Chart, for the combination of LEDs to be illuminated for the sensor type you wish to test.
- The middle two LEDs (2) indicate the frequency of the response RF signal detected from the TPM sensor under test, either 315MHz or 433MHz.
- The next LED (3) illuminates to indicate a valid sensor signal was not detected during the test cycle.
- Note : On power On OmiDetect automatically reverts to the last test mode used.

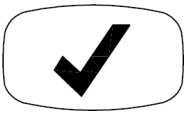


The Low Battery Indicator LED (4) illuminates to indicate OmiDetect's internal 9 volt battery is low and should be replaced (see preceding section).

Keypad Buttons



Press to power On/Off the tester and to select the type of TPM sensor to be tested. Also lets you select the "Listen" mode to test sensors activated manually, rather than electronically using OmiDetect.



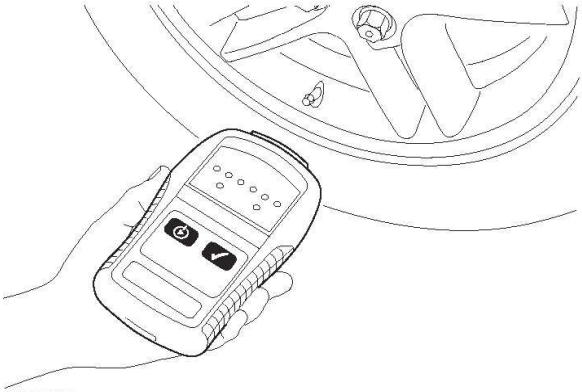
Press to start testing, causing OmiDetect to activate the TPM sensor and listen for a valid response RF signal from it.

5. Operating Instructions

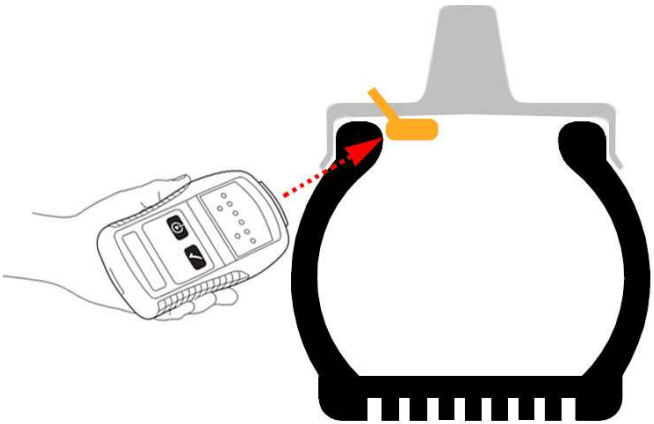
When operating OmiDetect to test a TPM sensor for proper operation, you will always perform these steps:

1. Identify the vehicle's TPM sensor type. (Refer to the *Omitec TPM Sensor Vehicle Application Guide* or to the vehicle manufacturer's appropriate service information to identify the type of sensor installed on the vehicle.)

2. Hold the front end of OmiDetect on or close to the tirewall, where it meets the wheel rim, directly below the sensor.



Important: Do not aim directly at the valve stem. Since it is metal, it will impede receiving a good RF signal from the sensor. With low-profile tires, since the area for the RF signal to penetrate the sidewall is small, carefully aim OmiDetect halfway between the tire rim and the tire tread.



3. Power On the OmiDetect tester, by pressing and holding down the Power On/Off button for 2 or 3 seconds. You will hear a beep and the LED array will illuminate and display the last test mode used.
4. Select the appropriate type of sensor to be tested by pressing the power On/Off button repeatedly until the required

combination of LEDs illuminates. Refer to the TPM Sensor Type Selection Chart (Sec. 8) for the combination of LEDs to be illuminated. With each press of the Power On/Off button, you will hear a beep and a different combination of LEDs will illuminate.

Important: As a battery life saving feature, if you do not select a sensor type within 30 seconds of powering On OmiDetect, it will assume no testing is required and automatically power itself Off.

If the sensor you are testing is not currently supported by OmiDetect, refer to Sec. 6 for information on how you can activate the sensor manually.

5. Press the ✔ button to test the sensor. The LEDs illuminated will begin to flash to indicate OmiDetect is activating the sensor and listening for the appropriate RF signal from it.

Important: The test may take up to 65 seconds or longer, depending on the type of sensor being tested.

Once OmiDetect detects the appropriate response signal, it will beep 3 times, the LEDs will stop flashing, and the LED for the frequency of the response signal it detected (either 315MHz or 433MHz) will illuminate for 5 seconds to indicate the sensor is operating properly. If it does not detect the appropriate signal, you will hear a continuous beep and the X LED will illuminate for 5 seconds, indicating the sensor is not operating properly. OmiDetect will then automatically reset back to the same test mode ready for the next test.

If OmiDetect is unable to activate the sensor, be sure to confirm that you selected the correct sensor type for testing. Also, remember that some sensors cannot be activated electronically and must be activated magnetically. (Refer to the *Omitec TPM System Quick Reference* Guide for information on whether the sensor must be activated magnetically.) Since the vehicle manufacturers are constantly adding new sensor protocols, the sensor may have a new signal protocol not yet supported by OmiDetect. (With the optional update kit, you can update the signal protocols supported by OmiDetect using a desktop PC to keep the tool current.)

If necessary, you can activate a sensor manually using one of the techniques outlined in the following section.

To cancel a test once it has started, simply press and hold down the Power On/Off button for 3 seconds. OmiDetect will then automatically power itself Off.

Important: If the wheel service work you are performing on the vehicle includes rotating the tires or replacing a TPM sensor, with most TPM systems you must reprogram the TPM control module so it can identify the new TPM sensor locations, covered in Section 7.

6. What to Do If OmiDetect Cannot Activate the TPM Sensor

If OmiDetect is unable to activate a TPM sensor, you can use either of the two following techniques to manually activate it to allow you to test it for proper operation.

Technique A

1. Depress the tire's valve stem to release air pressure for about 5 to 8 seconds. The TPM sensor will detect the loss of tire pressure, causing it to transmit a signal to the vehicle's TPM control module.
2. Power On the OmiDetect tester (if necessary, repeatedly press the power On/Off button until the first LED is illuminated). Then press the ✓ button to put OmiDetect in the "listening" mode for manual testing. The LED will begin to flash, indicating OmiDetect is listening for an RF transmission signal from the TPM sensor.

   If OmiDetect detects a valid signal, it will beep 3 times and illuminate the appropriate signal frequency LED for 5 seconds.

Technique B

1. Using a tire/wheel balancer, spin the tire/wheel at the speed required to cause the TPM sensor to start transmitting tire pressure measurement signals to the vehicle's TPM control module.

   Note: Recall that all TPM systems automatically start transmitting pressure measurement and sensor ID data every few seconds when the tire is rotating above a certain speed, typically about 20 mph.
2. Power On the OmiDetect tester (if necessary repeatedly press the Power On/Off Button until the first LED is illuminated). Then press the ✓ button to put OmiDetect in the "listening" mode for manual testing. The LED will begin to flash, indicating OmiDetect is listening for an RF transmission signal from the TPM sensor.

If OmiDetect detects a valid signal, it will beep 3 times and illuminate the appropriate signal frequency LED for 5 seconds.

7. Reprogramming the TPM Control Module

With most current generation TPM systems you will need to reprogram, or reset, the vehicle's TPM control module any time:

- You rotate a vehicle's tires
- You replace one or more TPM sensors, you must "reset" (reprogram) the TPM system's control module by placing it in the "learn" mode and activating each sensor so the control module can identify the new sensor locations.
- The vehicle's battery or the control module is disconnected or the voltage to the TPM system drops below a certain value, causing the control module to loose all its sensor ID information. (This will set a DTC for a TPM fault. In addition to reprogramming the control module, you also will need to clear the DTC.)

IMPORTANT: If you do not reprogram the control module, it will continue to report the correct tire pressures, but will assign them to the wrong wheel locations.

To reprogram the TPM control module:

1. Place the vehicle's TPM control module in the "learn" mode. (The procedure required varies with vehicle makes and models. Refer to the *Omitec TPM System Quick Reference Guide* provided with your OmiDetect system for the procedure required for the vehicle you are servicing.)
2. Activate each TPM sensor (see Section 5), following the vehicle manufacturer's requirements for the order in which the sensors are to be activated. With most vehicle makes/models you will be required to start with the front left wheel, followed by the right front, right rear, left rear, and spare tire, working clockwise around the vehicle.

   Typically, the vehicle will sound a series of two or more horn beeps to confirm its TPM control module was able to communicate with the TPM sensor and identify the sensor's location.

When finished activating all the TPM sensors, you may be required to drive the vehicle a specified distance and speed in order for the TPM control module to store the current tire pressures as new setpoints to be monitored. Refer to your *Omitec TPM System Quick Reference Guide* for more information.

8. TPM Sensor Type Selection Chart

Refer to this chart for the combination of LEDs to be illuminated to activate the type of TPM sensor under test. (A lightened circle indicates the LED is illuminated.)

	**TPM Sensor Type**
	Siemens 2005
	Beru
	TRW
	Pacifica

Helpful hints on valve types

OmiDetect is capable of activating various types of TPM sensors already fitted to tires/wheels. However, different types of sensors operate in different ways. For example, as part of a battery life saving measure, a new BERU valve may need to be fitted to a tire and subjected to a normal tire pressure for approximately 10 minutes before it will react to OmiDetect's command signal to wake up. But sensors such as Siemens can be 'excited' prior to fitting them to a tire/wheel without any preconditioning.

OmiDetect 100 TPMS Vehicle Coverage List			
Vehicle Manufacturer	**Model**	**Years**	**TPMS Sensor**
Acura	RL	2004 - 2006	TRW
	MDX	2004 - 2006	TRW
	RSTX	2004 - 2006	TRW
	TL	2004 - 2006	TRW
	TSX	2004 - 2006	TRW
Audi	A4	2004 - 2006	Beru
	S4	2004 - 2006	Beru
	A6	2004 - 2005	Beru
	A6 Allroad	2002 - 2005	Beru
	A8	2004 - 2006	Beru
	S8	2002 - 2006	Beru
	Q7	2005 - 2006	Beru
Bentley	Continental GT 614	2003 - 2006	Beru
	Continental 611	2005	Beru
	Continental Cabrio 615	2006	Beru
BMW	Series 3(E46)	1999 - 2003	Beru
	Series 3(E90-93)	2006	Beru
	M3	2000 - 2005	Beru
	Series 5(E39)	1996 - 2002	Beru
	Series 5(E60/61)	2003 - 2006	Beru
	M5	1996 - 2002	Beru
	Series 6(E63/64)	2003 - 2006	Beru
	Series 7(E38)	1994 - 2001	Beru
	Series 7(E65)	2001 - 2003	Beru
	Series 7(E65/66)	2006	Beru
	Series 7(E67)	2003 - 2006	Beru
	X5(E53)	1999 - 2006	Beru
	X4(E85)	2006	Beru
	Z4(E85)	2006	Beru
Bugatti	All	2005 - 2006	Beru

Chrysler	300	2005 - 2006	Siemens
	Pacifica	2004 - 2006	Siemens
	Town & Country	2004 - 2006	Siemens
	Caravan/Grand Caravan	2004 - 2006	Siemens
	Charger	2006	Siemens
	Magnum	2005 - 2006	Siemens
	Commander	2006	Siemens
	Liberty	2005 - 2006	Siemens
	Grand Cherokee	2005 - 2006	Siemens
	Dakota	2006	Siemens
	Durango	2006	Siemens
	Stratus	2006	Siemens
	Neon	2006	Siemens
	PT Cruiser	2006	Siemens
	Sebring	2006	Siemens
Ferrari	All	2001 - 2006	Beru
Honda	Accord	2004 - 2006	TRW
	Civic	2004 - 2006	TRW
	CR-V	2004 - 2006	TRW
	Element	2004 - 2006	TRW
	Odyssey	2004 - 2006	TRW
	Pilot	2004 - 2006	TRW
	Ridgeline	2004 - 2006	TRW
	S2000	2004 - 2006	TRW
Kia	Optima	2006	Beru
	Sedona	2006	Beru
	Amanti	2006	Beru
Land Rover	All	2002 - 2006	Beru
Lexus	ES300	2004 - 2006	Pacifica
	GS350	2004 - 2006	Pacifica
	GX470	2004 - 2006	Pacifica
	IS250	2004 - 2006	Pacifica
	RX330	2004 - 2006	Pacifica
Maserati	Quattroporte	2004-2006	Beru
	M145 Spider	2006	Beru
Mazda	RX8	2005 - 2006	Siemens
	CX7	2005 - 2006	Siemens

	MX5	2005 - 2006	Siemens
Mercedes-Benz	All	1999 - 2006	Beru
Porsche	Cayenne	2004 - 2006	Beru
	Carrera GT	2003 - 2006	Beru
	Boxter	2005 - 2006	Beru
	911 Series	2005 - 2006	Beru
Suzuki	XL7	2005 - 2006	Siemens
	Verona	2005 - 2006	Siemens
Toyota	4Runner	2005 - 2006	Pacifica
	Avalon	2005 - 2006	Pacifica
	Camry	2005 - 2006	Pacifica
	Sports Edition	2005 - 2006	Pacifica
	Highlander	2005 - 2006	Pacifica
	Land Cruiser	2005 - 2006	Pacifica
	Sequoia	2005 - 2006	Pacifica
	Tacoma	2005 - 2006	Pacifica
	Tundra	2005 - 2006	Pacifica
	FJ Cruiser	2005 - 2006	Pacifica
Volkswagen	Touareg	2002 - 2006	Beru
	Phaeton	2002 - 2006	Beru

9. Specifications

TPMS Valve Sensor Activation	Inductively Coupled RF at 125KHz
Activation Range	2” – 8” (50mm – 200mm) depending on sensor and wheel type
Activation Formats	Pulse Code Modulation
RF Detection Frequencies	315 MHz & 433.92 MHz
Power	9V Battery (Alkaline/Manganese) PP3, IEC 6LR61 or 6F22 Note: Do not use rechargeable batteries. Dispose of used batteries in accordance with local authority guidelines.
Approvals	**FCC** This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: • This device may cause harmful interference, and • This device must accept interference received, including interference that may cause undesired operation. **Industry Canada:** RSS210, RSSGEN

10. Troubleshooting

Problem: Unable to activate a TPM sensor.

Possible solution: Confirm that you selected the correct TPM sensor type for testing. Be sure to double-check the TPM Sensor Type Selection Chart (see Sec. 8) to ensure the correct combination of LEDs was illuminated when you pressed the ✓ button to start the test.

Possible solution: When aiming OmiDetect, be sure to hold it on or close to the tire wall where it meets the wheel rim, directly below the sensor. Do not aim directly at the valve stem, since it is metal and will impede receiving a good RF signal from the sensor.

Possible solution: If you are testing/activating a TPM sensor fitted to a low-profile tire/wheel, be sure to carefully aim OmiDetect at the tire sidewall area halfway between the tire rim and the tire tread.

Possible solution: If you are testing an older-generation sensor, you may have to activate it magnetically, rather than electronically using OmiDetect. Refer to the *Omitec TPM System Quick Reference Guide* or to the vehicle manufacturer's appropriate service information to confirm the type of sensor installed on the tire/wheel and how you activate it.

Possible solution: The sensor may have a new signal protocol not yet supported by OmiDetect. (You can update the signal protocols supported by OmiDetect with the optional update kit to keep the tool current.) If OmiDetect is unable to activate the sensor, you can manually activate it using either of two techniques covered in detail in Sec. 6.

Possible solution: The sensor may be defective and have to be replaced.

Problem: Inconsistent test results.

Possible solution: OmiDetect will not indicate a valid test result when the battery is low (see Sec. 3).

Problem: OmiDetect power's Off shortly after I power it On.

Possible solution: The tool's internal 9 volt alkaline battery may be low and need to be replaced. When the battery is low, after you power the tool On, it will sound a constant tone

and illuminate the Low Battery Indicator LED (see Sec. 3) for 5 seconds, then the system will automatically power Off.

Problem: OmiDetect will not power On.

Possible solution: If your OmiDetect system is brand new and does not power up after you press the Power On/Off button for 2 or 3 seconds, check whether its internal 9 volt alkaline battery was shipped disconnected from the battery wiring harness to preserve its battery life.

Possible solution: The tool's internal 9 volt alkaline battery may be low and need to be replaced (see above).

11. Care and Maintenance

- Your OmiDetect system should be cared for like any other piece of high-quality electrical equipment.
- To maintain the condition and serviceability of the system, you should periodically inspect and clean all the system components as necessary.
- Never spray any liquid directly on the system. Instead, moisten a soft cloth with water and a mild cleaning agent like window cleaning solution, then wipe the units clean.
- The system's internal 9 volt battery should be removed if the system is not used for extended periods.
- Use only a standard 9V alkaline battery when replacing it.
- The system does not need any adjustments or calibration.

12. Warranty

The OmiDetect 100 TPM Sensor Tester has a one-year warranty against defects in workmanship and materials (excluding batteries). Any defective item returned within this time showing signs of abuse, tampering, neglect or misuse will be repaired at normal time and material costs.

13. Technical Support

Technical support is available from Monday through Friday from 8:00 a.m. to 5:00 p.m. EDT by calling OmiDetect Technical Support toll-free at 1-800-434-6744 or by emailing techsupportusa@omitec.com.

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