

Technical Bulletin



Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
Touareg 2	2008-2009	All	All	All	All

Condition

Tire Pressure Monitoring System (TPMS) GEN II, Overview

44 08 02 Nov 18, 2008 **2015230**, supersedes T.B. Group 44 number 07-04 dated June 13, 2007 due to additional explanation of DTC 02214 000 in "Technical Background" section 2 under "Warnings".

New Generation II TPMS is entirely different from Generation I systems in Touareg models before MY 2008, and also different from the Passat / Jetta system.

Components may look similar, but they are not compatible between systems.

Installation of a wrong part number will trigger a "no communication" fault.



Note:

Older Touareg models cannot be retrofitted with this new system as their instrument cluster is not compatible.

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Concept: A trigger antenna in each wheelhouse sends a signal to the wheel sensor, which in turn then sends a signal to the central antenna. This central antenna is used for TPMS only, and is not the same as the antenna for the convenience system. The interpretation of this signal is done by the control module as in the previous generation. Advantage is that this communication starts, as soon as the driver door is opened.

Initialization: Nominal tire pressures (same as on the door sticker) are permanently recorded in the control module, a manual initialization (learn drive) is not necessary any longer. The system recognizes its own wheel sensors within seconds and can immediately display location and pressure for each wheel. Only after installation of a new sensor is a "learn drive" of max. 1 minute at a speed of above 5 mph necessary.

Warnings: In all cases, the TPMS symbol will be ON.

1. Display "Flat Tire" in MFI and a buzzer indicates a sudden loss of pressure of more than 0.2 bar/min (2.9 psi/min).
After the bus enters an inactive state, the message 2 is displayed when it becomes active again.
2. Display "Tire Pressure too Low" in MFI and a "gong" indicates one or more wheels are 0.5 bar (7.3 psi) or more below nominal pressure, DTC 02214 is recorded for any low pressure condition.
Warnings are cancelled and DTC resets by itself from static to sporadic, when pressure is back to within 0.15 bar (2.2 psi) of the nominal pressure. Even a sporadic fault will eventually erase itself after enough drive cycles with the correct pressure.
As the pressure is perhaps 3 psi higher in a warm tire, the value to turn off the warning light must be higher than nominal by the same amount.

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System Faults: Only faults that will affect the ability to warn will be displayed to the driver. All other system faults will only cause an entry in the fault log.

Display of System Faults: After ignition cycle, the warning lamp -K230- will blink for 65 seconds before staying on solid.

By selecting the TPMS menu in the MFI, the system will display which wheel or wheels triggered the fault.

Reason for System Faults: Wheel sensor is defective, not installed, or a Gen 1 sensor is installed.

If there is no signal from one or more wheel sensors for 10 minutes or more while driving above 5 mph, a fault is triggered.

Control module, antenna or trigger unit are defective.

Signal transmission error primarily because of interference from items inside the vehicle (example: wireless headset, garage door opener or children's toys).

Diagnosis: When a component malfunction triggers a system fault, all components linked by the LIN-bus, and also the wheel sensors, will record a DTC.

To localize the cause, the easiest checks should be done first.

Possible order:

- Check wheel sensors and erase DTC after completion.
If diagnosis is inconclusive:
- Check antenna and erase DTC after completion.
If diagnosis is inconclusive:
- Check trigger units and erase DTC after completion.

Fault Codes										
DTC	Description	No Display	Upper Limit Exceeded	Lower Limit Not Reached	No Signal / No Comm	No or Wrong Basic Settings / Adaptation	Electrical Fault in System	Review Fault Log	Defect	TPMS Light
00003	Control Module								X	X
00455	Access start module - J518-				X					
00532	Operating voltage		X	X						

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01024	Control Module Not Coded	X								X
01299	Diagnosis interface for databus - J533-				X	X				
01312	Powertrain databus							X		
01336	Comfort databus				X				X	
01467	Sensor for tire pressure, front left - G222-				X				X	X
01468	Sensor for tire pressure, front right- G223-				X				X	X
01469	Sensor for tire pressure, left rear - G224-				X				X	X
01470	Sensor for tire pressure, right rear - G225-				X				X	X
01477	System switched OFF	X								
01840	Antenna for TPM				X	X	X		X	X
02214	TPM warning	X								

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02421	Trigger unit in wheel house, front left				X	X	X		X	X
02422	Trigger unit in wheel house, front right				X	X	X		X	X
02423	Trigger unit in wheel house, rear left				X	X	X		X	X
02424	Trigger unit in wheel house, rear right				X	X	X		X	X
02807	Radio signal interruption	X								X



Note:

If no warning light is ON and DTC 02214 is the only DTC recorded in the TPMS control module, the system works as designed. A low tire pressure situation was corrected in the past and the DTC is simply the remaining evidence. This condition DOES NOT allow for any repairs or for filing a warranty claim related to this DTC.

Measuring Value Blocks

MVB 1-8: Wheel sensor information

MVB 16: Latest wheel sensor signal received

MVB 17: Calculated median ambient temperature

MVB 18: Load condition monitored

MVB 19: Pressure combination monitored

MVB 20-25: Nominal pressure valves recorded in the control module

MVB 30: Input signal from the powertrain CAN

MVB 31: Supply voltage, monitoring of the comfort CAN

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Production Solution

No production change required.

Service



Note:

The customer can now observe actual tire pressures while driving. He will become more aware of pressure differences as a result of temperature, such as one side of the vehicle being exposed to the sun or an increase of pressure during operation of the vehicle.

These are normal and expected results. There is no warning for pressures above the nominal.

Warranty

Information only.

Required Parts and Tools

No Special Parts required

No Special Tools required.

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.