

OBD3[®]

Solutions
Diagnostic Automobile

TPMS Sensor Diagnosis

1. Check all Tires Pressure including spare if equip with TPMS, 2 PSI below spec. could turn ON TPMS light:

Note: Some car maker can program the light to turn ON with 15 to 20 PSI above recommended tire pressure.



TIRE INFORMATION/INFORMATIONS SUR LES PNEUS				S9AA-CO
GVWR PNBV	1960KG	GAWR PNBE	FRONT/AVANT 980KG	REAR/ARRIERE 1020KG
TIRE SIZE/DIMENSIONS DES PNEUS		P205/70R15 95S		
RIM SIZE/DIMENSIONS DES JANTE		15×6JJ		
COLD TIRE INFLATION PRESSURE PRESSION DES PNEUS A FROID		180 kPa, 26 psi UP TO GAWR / JUSQU'AU PNBE		

●SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION.
●POUR LES INFORMATIONS VOIR LE MANUAL DU CONDUCTEUR.

2. Check all Tires Pressure Sensor Reading transmit to TPMS module or TPMS Tool Including Spare if equip with TPMS, if pressure transmit doesn't match actual pressure within 2 PSI replace sensor



3. Check all tire pressure sensor temperature reading transmit if available to TPMS module or TPMS tool including spare tire if equip with TPMS.

4. If some TPMS sensor doesn't communicate with TPMS module or TPMS tool after replacing one or more sensors check TPMS communication Protocol, Coding, Transmission Baud Rate, Frequency compare to original sensor. Even if sensors are physically identical it doesn't mean they use the same program.



Radio transmission can change according to car maker, model or year.

- ASK (Amplitude shift Keying)
- FSK (frequency Shift Keying)
- MSK (minimum shift keying)
- PSK (Phase Shift Keying)
- PAM (pusle Amplitude Modulation)
- QAM (Quadrature Amplitude Modulation)

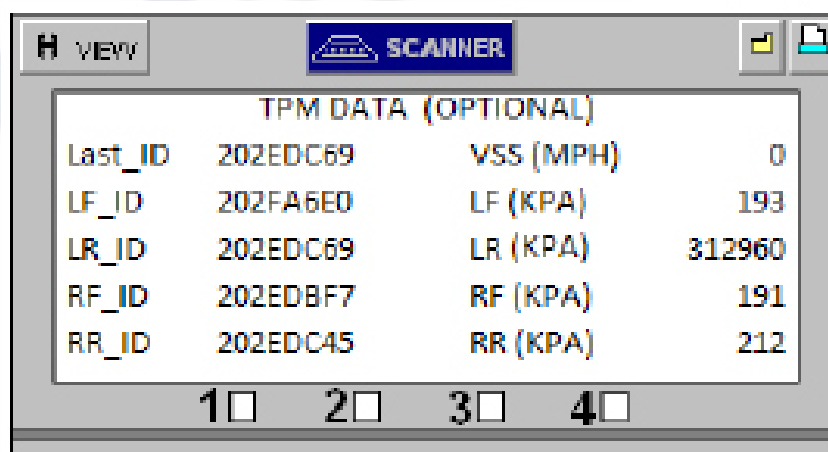
TPM Type	Reads	ID Hex	ID Dec	Battery State	Pressure	Temperature	Cat. No
PACIFIC 315 MHz FSK	1	0C7720A0	209133728	Pass	0.7 PSI	75°F	N/A
TPM Type	Reads	ID Hex	ID Dec	Battery State	Pressure	Temperature	Cat. No
Siemens 315 MHz FSK	1	8106D94C	2164709708	Pass	0.6 PSI	73°F	20066
TPM Type	Reads	ID Hex	ID Dec	Battery State	Pressure	Temperature	Cat. No
Ford Banded 315 MHz ASK	1	2071E3D2	544334802	Normal	0.0 PSI	71°F	N/A

The coding can also change from different car maker, model or year..

- PWM
- Manchester
- Biphase
- Manchester inversé

TPM Type	Reads	ID Hex	ID Dec	Battery State	Pressure	Temperature	Cat. No
Schrader 4096 Manchester 315 MHz ASK	1	00964939	9849145	N/A	0.8 PSI	N/A	20153
Schrader 4096 Manchester 315 MHz ASK	1	000F4C7F	1002623	N/A	18.8 PSI	N/A	20153
Schrader 4200 315 MHz ASK	1	007627BE	7743422	N/A	0.0 PSI	77°F	20153
Schrader 1820 PWM 315 MHz ASK	1	00BAE3B5	12247989	N/A	0.0 PSI	N/A	20153
Schrader 1820 Manchester 315 MHz ASK	1	00140C87	1313927	N/A	0.0 PSI	N/A	20153

5. If some sensor have faulty reading on TPMS module and good reading on TPMS tool;
 - a. Check for TPMS code with scan tool
 - b. Rotate tires to see if problem change position
 - c. Reprogram vehicle
 - d. Retest to find out if problem coming from TPMS sensor or TPMS module



1. A visual inspection can give good information on sensor condition.



Sensor damage after tire replacement

TPMS WORK SHEET

Check all Tires Pressure including spare if equip with TPMS, 2 PSI below spec could turn ON TPMS light:

Note: Some car maker can program the light to turn ON with 15 to 20 PSI above recommended tire pressure.

		left	Right
Tire pressure gauge reading	Front	PSI	PSI
	Rear	PSI	PSI
	Spare tire	PSI	(Spec.) PSI

Check all Tires Pressure Sensor Reading transmit to TPMS module or TPMS Tool Including Spare if equip with TPMS, If pressure transmit doesn't match actual pressure within 2 PSI replace sensor

Tire Pressure sensor reading	Front	PSI	PSI
	Rear	PSI	PSI
	Spare tire	PSI	
Tire Pressure sensor ID	Front	ID:	ID:
	Rear	ID:	ID:
	Spare tire	ID:	

If some sensors doesn't communicate with TPMS Module or TPMS tool since they had been replace; Check Sensor communication Protocol, coding, baud rate and Frequency response compare to old sensor:

Protocol:	ASK - FSK - MSK - PSK - PAM - QAM	
Coding:	PWM - Manchester - Invert Manchester - Biphase	
Baud rate:	1820 - 4096 - 4200 - 9600	
Frequency:	309MHz 315MHz 434MHz	
Battery Condition		
TPMS Temperature		

If some sensor have a faulty reading with the TPMS module but good reading with TPMS tool look for TPMS code, rotate wheel and re-test: sensors

TPMS Store code:	
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NOTE:	