Component Procedures: Tire Monitoring System

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Component Procedures: Tire Monitoring System

Parts and Labor (itype_189)

Parts

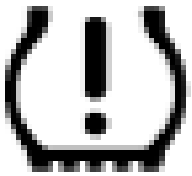
Qualifier	Part #	Name	Price	Note
Tire Pressuring Monitoring	52933F2000	Tire Pressure Sensor	177.47	

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Tire Pressuring Monitoring > Tire Pressure Se?	B	0.6	0.0

Tire Pressure Monitoring System - Description and Operation (Article 44294)

- Description
TREAD Lamp
- Tire Under Inflation / Leak Warning.



- Turn on condition When tire pressure is below allowed threshold When rapid leak is detected by the sensor. Indicates that tire needs to be re-inflated to placard pressure / repaired.
- When tire pressure is below allowed threshold
- When rapid leak is detected by the sensor.
- Indicates that tire needs to be re-inflated to placard pressure / repaired.
- Turn off condition Under-inflation ; When tire pressure is above (warning threshold + hysteresis). Rapid Leak ; When tire pressure is above (leak warning threshold).
- Under-inflation ; When tire pressure is above (warning threshold + hysteresis).
- Rapid Leak ; When tire pressure is above (leak warning threshold).
DTC Warning
- Turn on condition When the system detects a fault that is external to the receiver/ sensor. When the system detects a receiver fault. When the system detects a sensor fault.
- When the system detects a fault that is external to the receiver/ sensor.
- When the system detects a receiver fault.
- When the system detects a sensor fault.
- Turn off condition If the fault is considered as 'critical', then the lamp is held on throughout the current Ignition cycle (even if the DTC has been demoted). This is because it is important to bring the problem to the drivers attention. On the following Ignition cycle, the demotion conditions will be re-checked. If the demotion conditions occur, the lamp will be turned off. It will be held on until DTC demotion checking is completed. 'Non critical' faults are those that can occur temporarily e.g. vehicle battery under voltage. The lamp is therefore turned off when the DTC demotion condition occurs. If the vehicle starts within 19 minutes after the replacement of the wheel of the stopped vehicle, the TPMS Malfunction Indicator on the instrument cluster illuminates. The above symptom is due to communication failure between the BCM and the replaced TPMS ID. This communication failure indicator turns off in 19 minutes after the vehicle stops through the BCM’s automatic learning process of TPMS ID. (When driving the vehicle after stopping for over 19 minutes, the indicator turns off automatically.)
- If the fault is considered as 'critical', then the lamp is held on throughout the current Ignition cycle (even if the DTC has been demoted). This is because it is important to bring the problem to the drivers attention. On the following Ignition cycle, the demotion conditions will be re-checked. If the demotion conditions occur, the lamp will be turned off. It will be held on until DTC demotion checking is completed.
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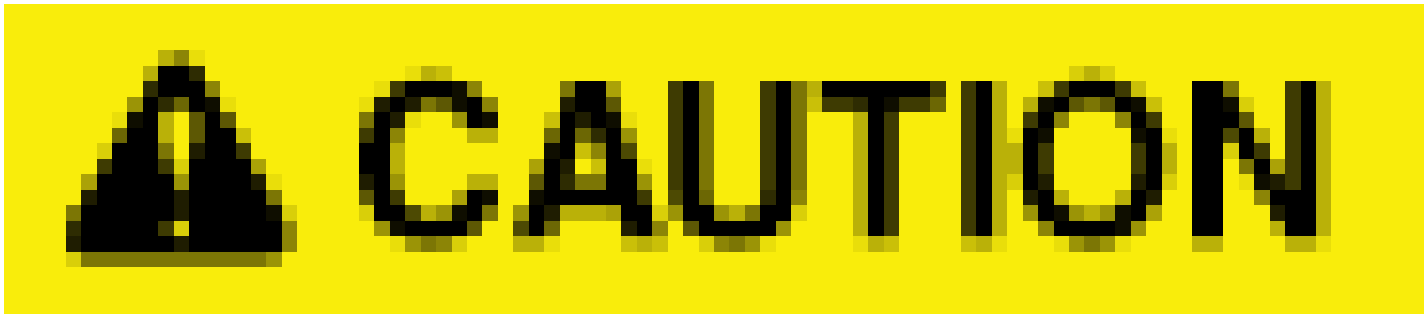

- The above symptom is due to communication failure between the BCM and the replaced TPMS ID.
- This communication failure indicator turns off in 19 minutes after the vehicle stops through the BCM's automatic learning process of TPMS ID. (When driving the vehicle after stopping for over 19 minutes, the indicator turns off automatically.)

System Fault

- General Function The system monitors a number of inputs across time in order to determine that a fault exists. Faults are prioritized according to which has the most likely cause. Maximum fault store is equal to 15. Certain faults are not covered through DTC. The main ones are : Sensor thermal shutdown (over 257 °F/ 125 °C). Ignition Line stuck ; requires observation of lamps at Ignition ON to diagnose.
- The system monitors a number of inputs across time in order to determine that a fault exists.
- Faults are prioritized according to which has the most likely cause.
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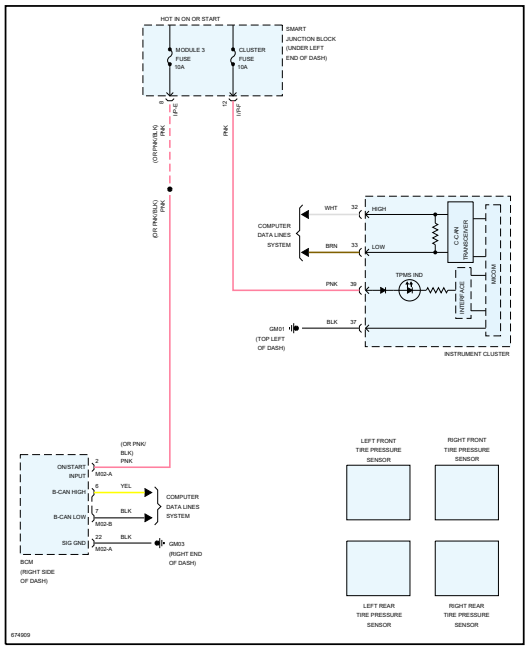
- Sensor thermal shutdown (over 257 °F/ 125 °C).
- Ignition Line stuck ; requires observation of lamps at Ignition ON to diagnose.

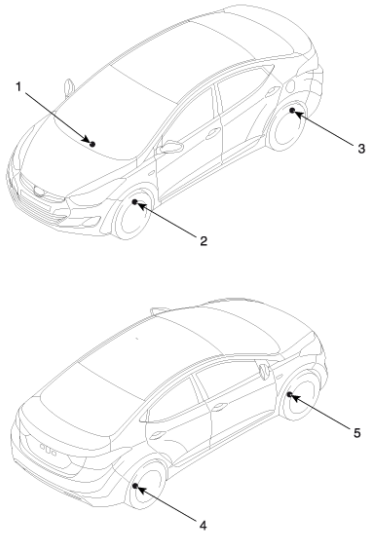
Tire Pressure Monitoring Circuit (Article 12514)

Tire Pressure Monitor ing Circuit



Tire Pressure Monitoring System - Components and Components Location (Article 44293)

- Components



1. Body control module(BCM) 2. TPMS sensor (FL) 3. TPMS sensor (RL) 4. TPMS sensor (FR) 5. TPMS sensor (RR)