

Subject: TPMS WARNING LIGHT ON	Bulletin No: 02-001/12
	Last Issued: 01/11/2012

APPLICABLE MODEL(S)/VINS

Vehicles produced between March 1, 2007 and May 25, 2010

- 2007-2009 Mazda3 and Mazdaspeed3: From JM1BK****7*725423 to end
- 2010 Mazda3 and Mazdaspeed3: From JM1BL*****100001 to 333787
- 2007-2010 Mazda5: From JM1CR*****153483 to 384510
- 2007-2010 Mazda6
- 2007-2010 MX-5: From JM1NC*****136430 to 212792
- 2007-2010 RX-8: From JM1FE*****213060 to 404862
- 2007-2010 CX-7: From JM3ER*****163727 to 337427
- 2007-2010 CX-9: From JM3TB*****114327 to 228756

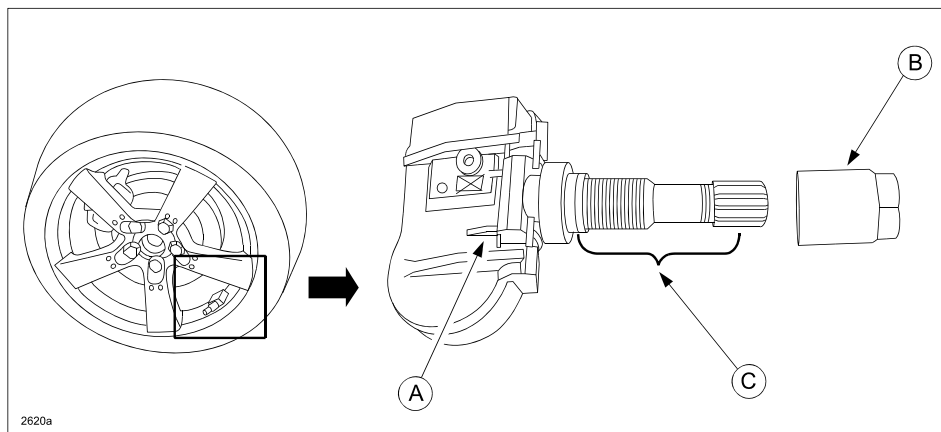
DESCRIPTION

Some vehicles may experience reduced tire air pressure and the Tire Pressure Monitoring System (TPMS) warning light on. This may be caused by damage to the valve nut and/or valve stem of the wheel unit. To prevent the problem, the material of the valve nut and valve stem has now been changed.

Customers having this concern should have their vehicle repaired using the following repair procedure.

REPAIR PROCEDURE

1. Verify customer concern.
2. Check if any of the valve stems (C) have neck breakage/hairline crack or the valve nuts (B) have breakage.
 - If any have breakage or cracks, go to step 3.
 - If they DO NOT have breakage or cracks, troubleshoot the TPMS using MS3 online instructions or Workshop Manual section 02.



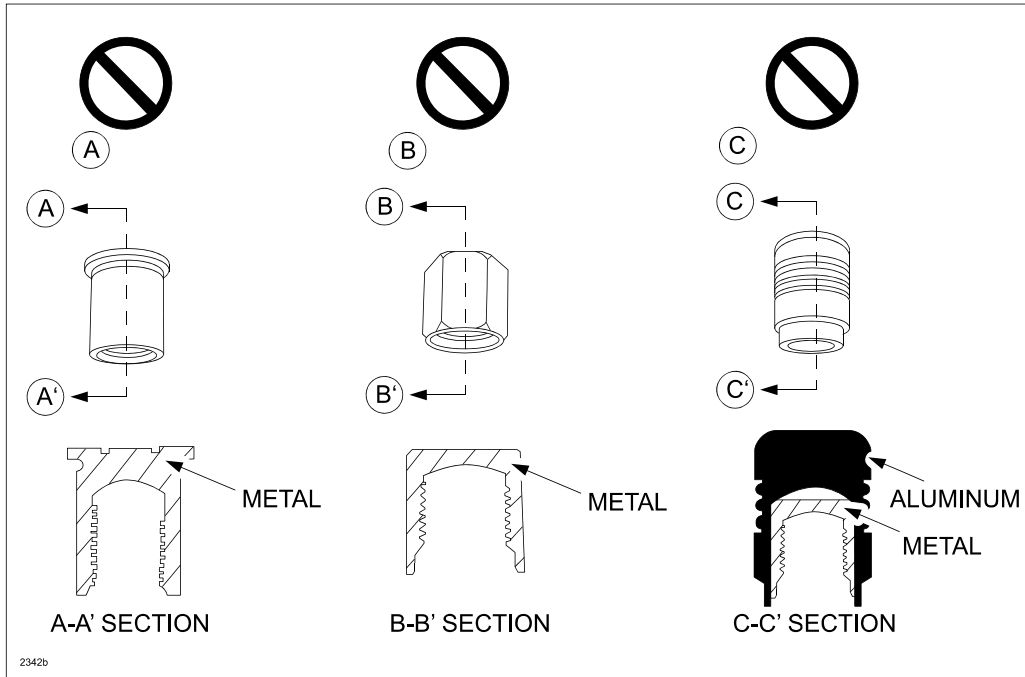
Wheel Unit Set = Wheel Unit (A) and Valve Nut (B).

3. Verify that all the valve caps are Mazda genuine or all plastic.
- If they are Mazda genuine or all plastic, go to step 4.
 - If they are NOT Mazda genuine and are NOT all plastic (and are aftermarket valve caps with metal), replace them with Mazda genuine ones (all plastic) at customer's expense and go to step 4. Explain to the customer that some aftermarket valve stem caps are made of metal or have thread inserts that are made of metal. When metal and aluminum are together in such a condition, galvanic corrosion occurs between the aluminum valve stem of the TPMS sensor unit and the metal threads of the valve stem cap. This corrosion can cause them to fuse together, becoming difficult to remove by hand. When more force is used to remove the valve stem cap, the aluminum valve stem of the TPMS sensor unit will break off and the TPMS sensor unit will need to be replaced.

NOTE: Damage to TPMS sensor units by installing aftermarket valve stem caps made of metal or with metal inserts is NOT covered by Mazda Warranty and claims where the sensor is found damaged in this manner will be denied or debited to the repairing dealer.

Examples of Aftermarket valve cap

(A): Metal; (B): Chrome; (C) Aluminum with metal insert

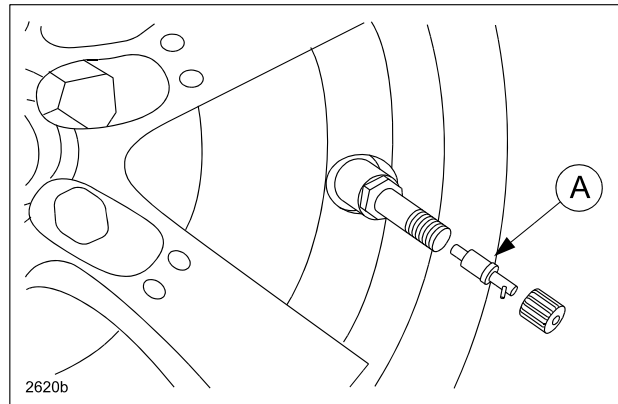


4. Check the valve stems. If any of the wheels have neck breakage/hair line cracks on its valve stem, replace all wheel unit sets (wheel unit and valve nut) with new ones. Refer to MS3 online instructions or Workshop Manual section 02-12.

5. Check the valve nuts. If any of the wheels have valve nut breakage:
- Concerned wheel: Replace the wheel unit set (wheel unit and valve nut) with new ones. Refer to MS3 online instructions or Workshop Manual section 02-12.
 - Other wheels: Check the valve nut torque according to “Valve Nut Torque Check Procedure.”
 - OK [Nut is less than 4 Nm (35.4 in-lb)]: Replace the valve nut with a new one.
 - NOT OK [Nut is 4 Nm (35.4 in-lb) or more]: Replace the wheel unit set (wheel unit and valve nut) with new ones. Refer to MS3 online instructions or Workshop Manual section 02-12.

NOTE: Excessive force applied on the wheel unit is the main cause of valve stem damage. Refer to TSB 02-003/11 “SERVICE CAUTION FOR TPMS” for proper handling of TPMS. Make sure to use the correct tightening torque when tightening the valve core (A).

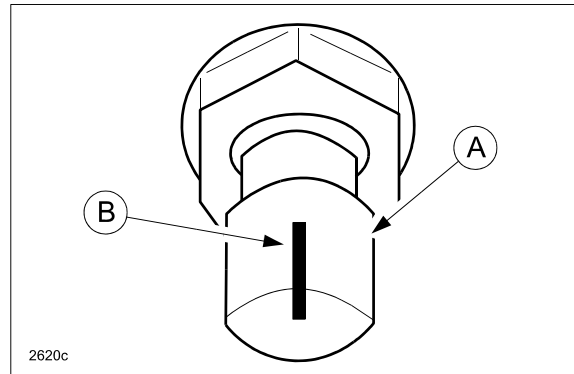
Tightening torque: 0.2 - 0.4 Nm (2.1 - 4.0 kgf cm, 1.8 - 3.5 in lbf)



6. Perform wheel unit ID registration according MS3 online instructions or Workshop Manual section 02-12.
7. Verify repair.

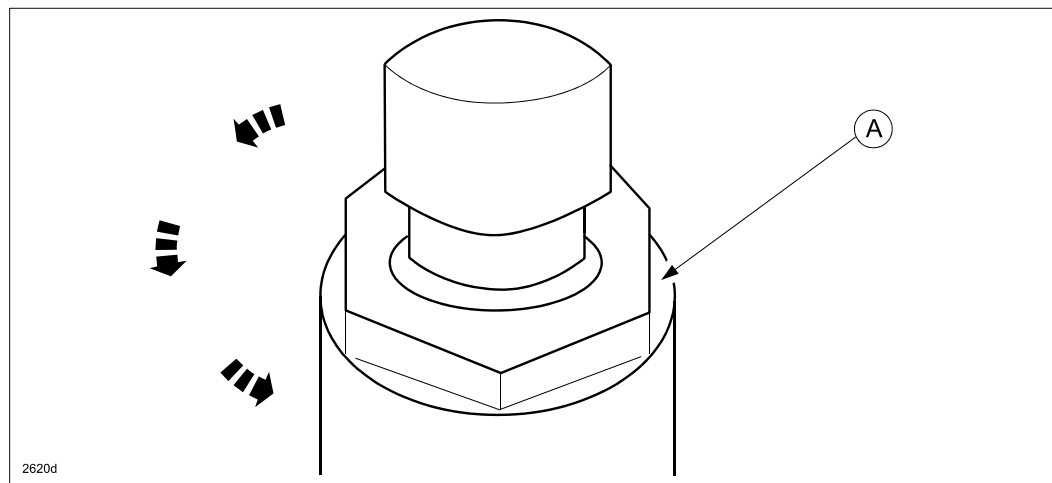
Valve Nut Torque Check Procedure

1. Tighten the valve cap (A), then put a mark (B) on the valve cap before loosening it.



2. Check the corrosion level by checking the valve nut (A) loosening torque. A corroded one will have a higher torque.

NOTE: Tire air pressure should be at specification while checking the torque.



Decision Criteria:

- **Nut is less than 4 Nm (35.4 in-lb):** Replace valve nut with a new one, then go to step 3.

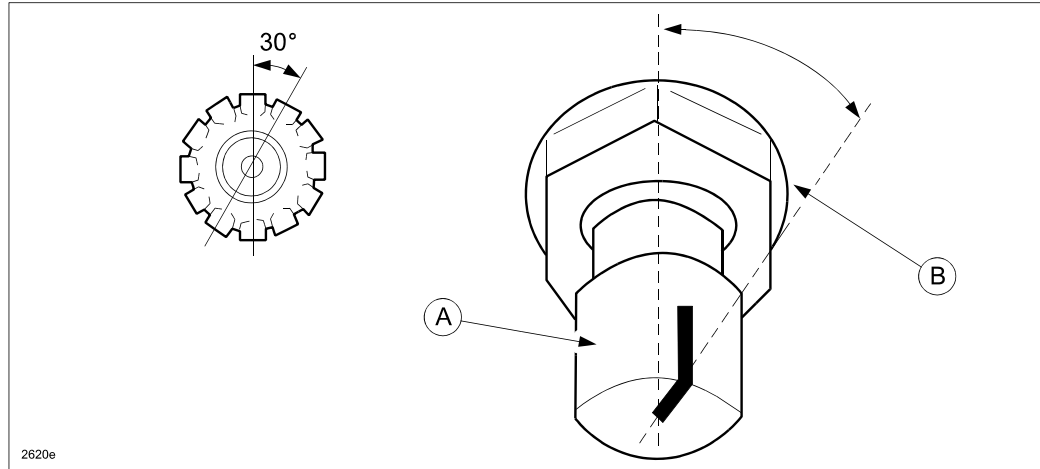
CAUTION:

- Check that the valve stem stays in the original position. If the valve stem is rotated approximately more than 30 degrees by torque checking, replace the wheel unit with a new one.
- Be careful not to push the valve too hard after removing the nut, otherwise the wheel unit seal may be dislocated from the wheel. If dislocated, replace the wheel unit with a new one (No warranty).
- **Nut is 4 Nm (35.4 in-lb) or more:** Replace the wheel unit set (wheel unit and valve nut) with new ones. Refer to MS3 online instructions or Workshop Manual section 02-12.

3. Install and tighten a new valve nut.

Tightening torque: 7.5 - 8.5 Nm (77 - 86 kgf cm, 67 - 75 in lbf)

CAUTION: If the marking on the cap (A) turns more than 30 degrees while tightening the valve nut (B), replace the wheel unit with a new one.



4. Adjust the tire pressure.

CAUTION: The valve stem is made of aluminum and can be damaged easily. DO NOT tilt or use excessive side force when checking air pressure or filling tire with air. Some tire pressure gauges and air filling nozzles have extended tips, which can provide enough leverage to easily bend or break the wheel unit.

5. Verify that there is no air leak around the valve.

PART(S) INFORMATION

Part Number	Description	Qty.	Notes
BBM2-37-140B	TPMS Wheel Unit	1-4	Without valve nut
GS1D-37-141A	Valve Nut	4	---

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

	Replacement of 1 Wheel Unit	Replacement of 2 Wheel Units
Warranty Type	A	A
Symptom Code	92	92
Damage Code	9Y	9Y
Part Number Main Cause and Quantity	BBM2-37-140B and 1	BBM2-37-140B and 2
Related Part Number and Quantity	GS1D-37-141A and 4	GS1D-37-141A and 4
Operation Number / Labor Hours:	XXG58XRX / 0.8 Hrs.	XXG58ARX / 1.0 Hrs.

	Replacement of 3 Wheel Units	Replacement of 4 Wheel Units
Warranty Type	A	A
Symptom Code	92	92
Damage Code	9Y	9Y
Part Number Main Cause and Quantity	BBM2-37-140B and 3	BBM2-37-140B and 4
Related Part Number and Quantity	GS1D-37-141A and 4	GS1D-37-141A and 4
Operation Number / Labor Hours:	XXG58BRX / 1.2 Hrs.	XXG58CRX / 1.4 Hrs.

NOTE: The times listed include Inspection and Replacement of valve nut(s).