Technical Service Bulletin

01 MIL on, loss of performance (DTCs P0234, P0235, P0299, and/or P100D stored) (TDI Only)

01 15 12 2024344/3 March 3, 2015. Supersedes Technical Service Bulletin Group 01 number 13-80 dated March 25, 2013 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q7	2009 - 2015	All	TDI clean diesel

Condition

REVISION HISTORY				
Revision	Date	Purpose		
3	-	Revised title Revised header data (Added models and model years) Revised <i>Service</i> (Updated to ODIS instructions)		
2	3/25/2013	Revised header data (Added MY and applicable models)		
1	5/17/2010	Original publication		

MIL on.

- Vehicle has reduced performance (in "limp mode").
- Various entries may be logged in the engine control module (ECM), J623 (address word 01):
 - DTC P0234 (Turbo/Super Charger Overboost Condition)
 - DTC P0235 (Turbo/Super Charger Boost Sensor A Circ.)
 - DTC P0299 (Turbo/Super Charger Underboost)
 - DTC P100D (Turbocharger adjustment difficulty of movement or blocked)

Technical Background

After recognizing that the boost pressure is too low or too high, the engine control module switches to emergency operation and the engine performance is reduced via the injected fuel quantity ("limp mode").

Variances in boost pressure can be caused by:

- Dirty or clogged air intake.
- Leak in charge air pipes (boost air hoses, intercooler) caused by physical damage or a loose connection.
- Exhaust manifold or compensator pipe (the pipe between turbo charger and exhaust manifold) is damaged. The inner pipe of these components may be broken, allowing particles to get to the turbine adjustment.

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Production Solution

Not applicable.

Service

- 1. Try to reproduce the customer complaint so that it can be clearly assigned to this bulletin.
- 2. Check air filter and snow mesh for dirt.
- 3. Perform pressure test on boost air system. If a boost leak is found, repair the leak and proceed to Step 4. Otherwise, proceed to Step 5.
- 4. Using the test tool, select OBD >> 01 Engine Control Module 1 >> Basic Setting >> Service regeneration of particle filter. Follow the steps given by the test tool to burn off excess soot trapped by the filter due to the boost leak. The regeneration may cancel automatically if the prerequisite conditions are not met or the regeneration is not necessary.

Tip: A leak will increase the amount of soot produced. This can cause the diesel particle filter to be filled much quicker than normal.

- 5. Perform visual check for leaks on connections and damage through animal bites.
- 6. Check the turbine adjustment of the turbocharger via final control diagnosis.
- 7. The rods for the turbine adjustment must move freely; otherwise, perform a visual check of the turbo charger or remove it for a check.

If the adjustment is stiff, remove and carefully check the exhaust manifold (cylinder bank 1 and 2) with the compensator pipe.

Tip: If rust particles or metal parts enter the turbine fan of the turbo charger, the adjustment mechanism of the turbine blades becomes damaged and material on the turbine dislodges.

- 8. If the exhaust manifolds or compensator pipes are damaged, replace them.
- 9. To avoid repeat damage, replace the turbocharger, exhaust manifolds, and compensator pipes.

Tip: With repeat damage on the turbocharger, it is possible that foreign bodies entered the turbine of the turbocharger.

Warranty

This TSB is informational only and not applicable to any Audi warranty.

Additional Information

All parts and service references provided in this TSB (2024344) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.

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