



21-15-06 - Engine Lacks Performance, DTCs P2562, P2563, P2564, P2565, P2566, P0299, P20D8 or P00AF

Release date: 9/30/2019

Condition

Applicable Vehicles					
Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
Jetta, Jetta Wagon	2009	2.0L TDI (CBEA)	All	All	All
Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2010	2.0L TDI (CJAA)	All	All	All
Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2011-2014	2.0L TDI (CJAA)	All	All	All

Revision Table			
Instance Number	Published Date	Version Number	Reason For Update
2026771/6	9/30/2019	21-15-06	To change labor operation number 21010135 to 21010199 per SAGA updates.
2026771/5	8/14/2015	V211506	To remove engine cover labor operation contained in labor operation 21295533.
2026771/1	11/16/2011	V211108	Original publication.

Engine does not have any power and the engine warning light may be ON. One of the following DTC entries is stored in the engine control module.



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DTC	Description
09570, P2562	Turbocharger Boost Control Position Sensor "A" Circuit
09571, P2563	Position Sensor for Boost Pressure Controller has an Implausible Signal
09572, P2564	Signal is too Low of the Position Sensor for Boost Pressure Controller
09573, P2565	Turbocharger Boost Control Position Sensor "A" Circuit High
09574, P2566	Turbocharger Boost Control Position Sensor Circuit Intermittent
00665, P0299	Boost Pressure Control, Values are Below Control Limit
08408, P20D8	Exhaust Monitoring, Following Injection Regulation Limit Exceeded
00175, P00AF	Turbocharger/Supercharger Boost Control "A" Module Performance

Technical Background

1. Vacuum Hose kinked, twisted or leaks.
2. Stud with clamp nut on Turbocharger broken/missing, or rotated Turbocharger housing. As a result the Turbine Adjustment Travel is outside the tolerance.
3. Vacuum Diaphragm on Turbocharger leaks.
4. Plastic Boost Pipe from Intake side of Turbo to Intercooler cracked/leaking.
5. Boost Hose connection to Intercooler leaking.
6. Check ECM Software level.

Production Solution

Optimized assembly process to avoid twisted vacuum line.

Increase Compressor Housing washer thickness.

Change of material for Min. Flow Adjustment Screw.

Improved Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -**G581**-.



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Service

Step 1

- Check the Vacuum System for any leaks according to the workshop manual, repair group 21.



Tip:

When checking, observe the following points in particular (Figures 1, 2, and 3):



Hose not inserted into the Vacuum Container.

Figure 1



Vacuum Hose at the Solenoid Valve, or in the pipe system, is kinked.

- Re-position Hoses to avoid pinching. It is not necessary to replace the Hoses.

Figure 2



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Figure 3

Vacuum Hose at the Solenoid Valve, or in the pipe system, is twisted.

- Re-position Hoses to avoid pinching. It is not necessary to replace the Hoses.

Step 2

Turbocharger inspection may require the use of an inspection mirror

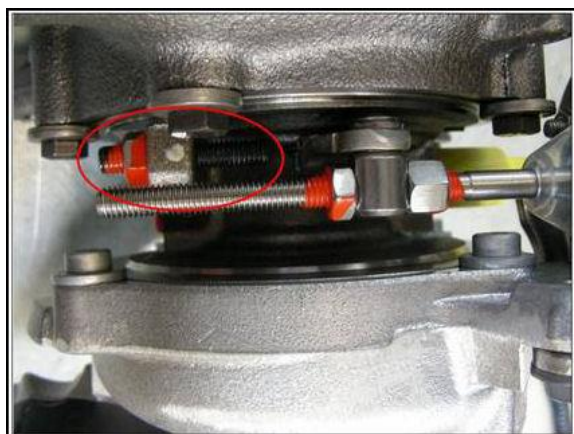


Figure 4

- Inspect the Turbocharger stud with clamp nut (min. flow adjustment screw) (Figure 4).



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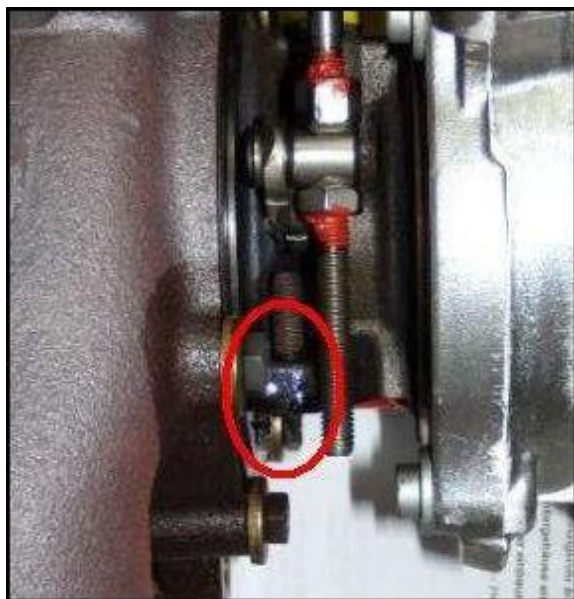


Figure 5

- Inspect the Turbocharger to see whether the stud with clamp nut is broken (Figure 5).

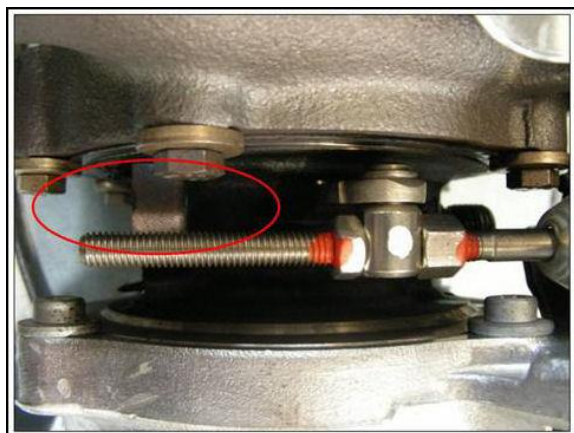


Figure 6

- Inspect the Turbocharger to see whether the stud with clamp nut is missing (Figure 6).
- If the stud or clamp nut are missing, replace Turbocharger.



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Figure 7

- Carefully inspect the Turbocharger Housing around the entire housing assembly for an alignment mark (Figure 7). If the alignment mark is misaligned, this indicates that the housing has rotated.
- If misaligned, replace Turbocharger.



Tip:

Not all Turbocharger Housings have alignment marks present.

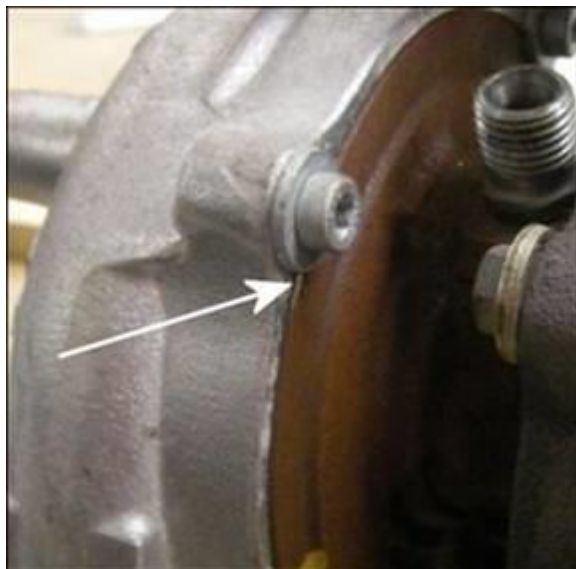


Figure 8

- Carefully inspect the Turbocharger Housing around the retaining bolts for witness marks (Figure 8), indicating that the housing has rotated.
- If witness marks are present from washers, replace Turbocharger.

Step 3

- Disconnect the Vacuum Hose on the Turbo Charger Vacuum Diaphragm.
- Connect a Hand Vacuum Pump to the Vacuum Diaphragm and create a vacuum of about 600 MilliBar.
- Observe whether the adjusted vacuum is retained.



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If the vacuum drops or cannot be achieved:

- Install Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -**G581**- part number **03L198716A** according to Repair Manual Group 21.

If vacuum holds:

- And all other vacuum system diagnosis is OK, but fault codes **P2563**, and/or **P2564** are stored in ECM fault memory, replace the Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -**G581**- part number **03L198716A** according to Repair Manual Group 21.

If vacuum holds:

And all other vacuum system diagnosis is OK, but fault codes **P0299**, is stored in ECM fault memory, continue with diagnosis.



Tip:

For the installation of the Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -**G581**- use the special tools T10422A socket and T10461 spanner.



Note:

DO NOT replace the complete turbo charger if the Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -**G581**- has failed.

Step 4

- Inspect the Plastic Boost Pipe that runs from the intake side of the Turbocharger to the Intercooler for cracks or leaks (Figures 9 and 10).



Tip:

These cracks can be difficult to see. It may be necessary to pressure test the Charge Air System according to Repair Manual Group 21.



Figure 9



Figure 10



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Step 5



- Inspect the Boost Pressure Hose connections to the Intercooler for leaks.
- Ensure that the Seals are in the proper position and not damaged (Figure 11).
- Damaged or missing Seals should be replaced. The Seals are available separately, it is not necessary to replace the entire hose.



Tip:

Pay close attention to this area if DTC P20D8 is recorded in ECM faults.

Figure 11

Step 6

- Ensure that any other Bulletins or Updates for ECM software have been performed. The software programming should be charged to the appropriate bulletin.



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Warranty



Note:

Multiple warranty tables may be claimed.

To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual ¹⁾					
Model(s)	Year(s)	Eng. Code(s)	Trans. Code(s)	VIN Range From	VIN Range To
Jetta, Jetta Wagon	2009	2.0L TDI (CBEA)	All	All	All
Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2010	2.0L TDI (CJAA)	All	All	All
Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2011-2014	2.0L TDI (CJAA)	All	All	All
SAGA Coding					
Claim Type:		Use applicable Claim Type ¹⁾			
Service Number:	Damage Code		HST	Damage Location (Depends on Service No.)	
2165	0010		--	Use applicable when indicated in Elsa (L/R)	
Parts Manufacturer		Golf		WWO ²⁾	
		Jetta, Jetta Sportwagen		3ME ²⁾	
Labor Operation ³⁾ : Remove and Install Engine Cover			10831900 = See Elsa for latest time units.		
Labor Operation ³⁾ : Inspect vacuum system (incl. route vacuum hoses correctly)			21650199 = 20 TU		
Causal Part: Select labor operation.			21650199		

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Diagnostic Time ⁴⁾		
GFF Time expenditure	01500000 = 10 TU max.	YES
Road Test	01210004 = 10 TU	YES
Technical Diagnosis	01320000 = 00 TU max.	NO
Claim Comment: Input "As per Technical Bulletin 2026771" in comment section of Warranty Claim.		
1) Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only.		
2) Code per warranty vendor code policy.		
3) Labor Time Units (TUs) are subject to change with ELSA updates.		
4) Documentation required per Warranty Policy Procedures Manual.		

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Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2011-2014	2.0L TDI (CJAA)	All	All	All
SAGA Coding					
Claim Type:		Use applicable Claim Type ¹⁾			
Service Number:	Damage Code	HST	Damage Location (Depends on Service No.)		
2130	0010	--	Use applicable when indicated in Elsa (L/R)		

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Parts Manufacturer	Jetta, Jetta Sportwagen, Golf	KKK ²⁾
Labor Operation ³⁾ : Inspect turbocharger MIN flow adjustment stud and position of compressor housing.	21300199 = 20 TU	
Labor Operation ³⁾ : Remove and Install Turbocharger (ONLY if stud or nut are missing or if compressor housing has rotated).	21301981 = see Elsa for latest time units.	
Labor Operation ³⁾ : Remove and Install Diesel Particulate Filter.	26741931 = see Elsa for latest time units.	
Causal Part:	03L253056	
Diagnostic Time ⁴⁾		
GFF Time expenditure	01500000 = 10 TU max.	YES
Road Test	01210002 = 10 TU 01210004 = 10 TU	YES
Technical Diagnosis	01320000 = 00 TU max.	NO
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Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2011-2014	2.0L TDI (CJAA)	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type ¹⁾				
Service Number:	Damage Code	HST	Damage Location (Depends on Service No.)		
2130	0010	--	Use applicable when indicated in Elsa (L/R)		
Parts Manufacturer	Jetta, Jetta Sportwagen, Golf		KKK ²⁾		
Labor Operation ³⁾ : Vacuum check Vacuum Diaphragm.		21290199 = 10 TU			
Labor Operation ³⁾ : Replace Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -G581-.		21295533 = see Elsa for latest time units.			
Causal Part:		03L198716A			
Diagnostic Time ⁴⁾					
GFF Time expenditure	01500000 = 10 TU max.		YES		
Road Test	01210004 = 10 TU		YES		
Technical Diagnosis	01320000 = 00 TU max.		NO		
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Claim Type:	Use applicable Claim Type ¹⁾				
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2141	0010	--		Use applicable when indicated in Elsa (L/R)	
Parts Manufacturer		Jetta, Jetta Sportwagen, Golf		SB6 ²⁾	
Labor Operation ³⁾ : Remove and Install Engine Cover.			10831900 = see Elsa for latest time units.		
Labor Operation ³⁾ : Check Charge Air System for cracks or seal leaks.			21010133 = see Elsa for latest time units. (2009 Only) 21010199 = 70 TU		
Labor Operation ³⁾ : Remove and Install Noise Dampening Pan.			10821900 = see Elsa for latest time units.		
Labor Operation ³⁾ : Remove and Install Pressure Pipe.			21411983 = see Elsa for latest time units.		
Causal Part:			1K0145840AB		



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GFF Time expenditure	01500000 = 10 TU max.	YES
Road Test	01210004 = 10 TU	YES
Technical Diagnosis	01320000 = 00 TU max.	NO
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Jetta Sedan, Golf, Golf Wagon, Jetta SportWagen	2011-2014	2.0L TDI (CJAA)	All	All	All
SAGA Coding					
Claim Type:	Use applicable Claim Type ¹⁾				
Service Number:	Damage Code	HST	Damage Location (Depends on Service No.)		
2141	0010	--	Use applicable when indicated in Elsa (L/R)		



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Parts Manufacturer	Golf	WVO ²⁾
	Jetta, Jetta Sportwagen	3ME ²⁾
Labor Operation ³⁾ : Remove and Install Engine Cover.	10831900 = see Elsa for latest time units.	
Labor Operation ³⁾ : Check Charge Air System for cracks or seal leaks.	21010133 = see Elsa for latest time units. (2009 Only) 21010199 = 70 TU	
Labor Operation ³⁾ : Remove and Install Noise Dampening Pan.	10821900 = see Elsa for latest time units.	
Labor Operation ³⁾ : Remove and install Pressure Pipes (includes inspecting and or replacing seals).	21411982 = see Elsa for latest time units.	
Causal Part: Seal, Pipe, or Select labor operation.	21411982	
Diagnostic Time ⁴⁾		
GFF Time expenditure	01500000 = 10 TU max.	YES
Road Test	01210004 = 10 TU	YES
Technical Diagnosis	01320000 = 00 TU max.	NO
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Required Parts and Tools



Note:

Not all parts will be required for each repair.

ONLY USE PARTS AS NECESSARY.

Part No:	Part Description	Quantity
Repair kit for Vacuum Diaphragm with Charge Pressure Actuator Position Sensor -G581-	03L 198 716 A	1
Exhaust Manifold with Turbocharger	03L 253 056-X	1
Pressure Pipe	1K0 145 840AB	1
Seal Ring	3C0 145 117H	1

Part numbers are accurate at time of publication. Always refer to ETKA for the latest part information.

Tool Description	Tool No:
Midtronics Battery Tester/Charger	InCharge 940 (INC-940) or GRX3000VAS
VAS Diagnostic Tool	VAS 6150/X & VAS 6160/X with ODIS Service with: current online updates
Socket	T10422A
Spanner	T10461

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.