

# Technical Service Bulletin



## 21 MIL on (DTC P0299 - negative pressure deviation); turbocharger excessive wastegate play

21 14 18 2031245/7 June 6, 2014. Supersedes Technical Service Bulletin Group 21 number 13-16 dated July 9, 2013 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A4	2009 - 2012	All	Not Applicable
A5	2009 - 2012	All	Not Applicable
A5 Cabriolet	2009 - 2012	All	Not Applicable
Q5	2011 - 2012	All	Not Applicable

## Condition

REVISION HISTORY		
Revision	Date	Purpose
7	-	Revised header data (Added model years) Revised <i>Service</i> (Corrected TSB reference number) Revised <i>Warranty</i> (Updated Claim Type and Damage Code)
6	7/9/2013	Revised header data (Updated applicable vehicles) Revised <i>Service</i> (Added Tip and new step) Revised <i>Required Parts and Tools</i> (Removed parts; added line about necessary parts shown in ElsaWeb for turbocharger replacement)
5	6/7/2013	Revised header data
4	4/4/2013	Revised header data
3	4/1/2013	Revised header data
2	3/6/13	Revised <i>Warranty</i> (SRT times)
1	10/25/12	Original publication

All of the following conditions apply:

- MIL on.

**DTC P029900** (Negative Pressure Deviation) is stored as a static fault in the engine control module (ECM), J623 (address word 01).

## Technical Background

Under certain driving conditions, the linkage for the waste gate actuation can encounter excessive wear which leads to play at the waste gate flap. This leads to boost escaping through a loose flap, which sets **DTC P029900** (Negative Pressure Deviation).

## Production Solution

Not applicable.

## Service

### 1. Before beginning service:

- Address all other conditions, such as leaks/blockage in the intake system or additional DTCs
  - For sporadic, single occurrences of **DTC P029900** (Negative Pressure Deviation), delete the DTC and check if it reappears during road test.
  - If **DTC P023400** (Positive Pressure Deviation) is present, review TSB 2027082.
- After addressing these other conditions, check to see if the conditions listed in the *Condition* section of this TSB still apply. If the conditions do not apply, this bulletin does not apply.
- Do not replace turbo unless instructed to do so by GFF.
- Claims are subject to review or audit by Audi Warranty. Repairs performed when all conditions do not apply will not be reimbursed.
- Verify the condition by confirming that **DTC P029900** is stored in the ECM, and that the wastegate link plate has visible play in the direction of the actuating rod (Figure 1). Review the attached video clip for an example.



**Figure 1.** Worn eye on wastegate link plate allowing excessive play.

2. Remove turbocharger according to the instructions in ElsaWeb: *Repair Manual >> Engine / Engine Mechanical >> 21 Turbocharger, G-Charger >> Removal and Installation >> Turbocharger.*
3. Install clip **06J145220B** on a new, replacement turbocharger's link plate and actuating rod joint as illustrated (Figures 2 and 3).

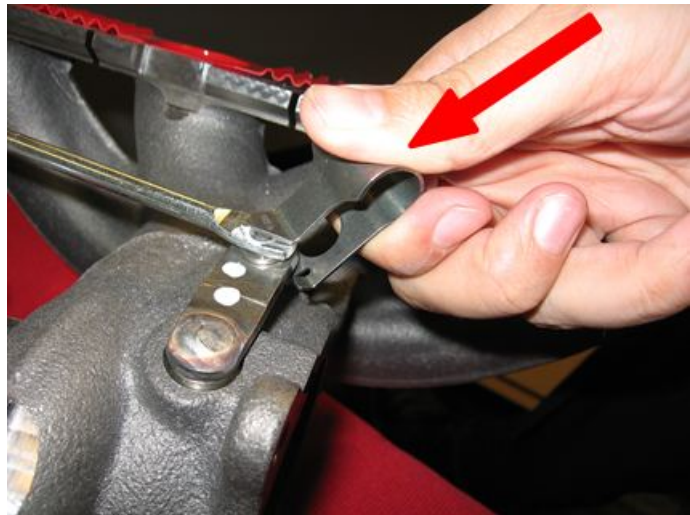


**Tip:**

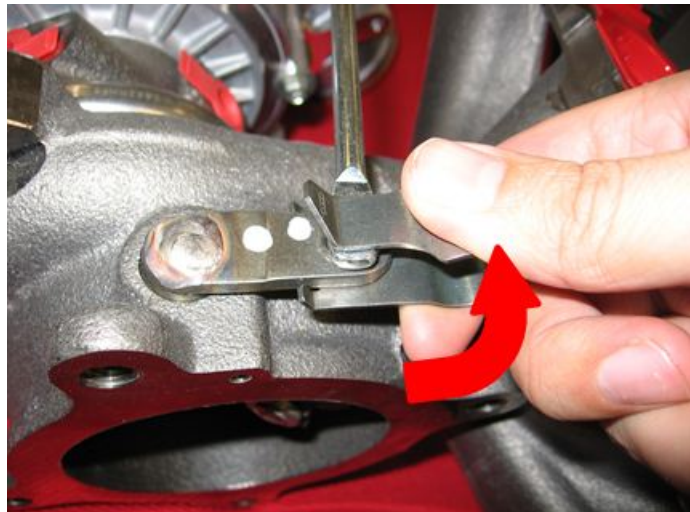
- The spring clip must not be overstretched. The maximum opening of the spring clip is 14 mm (Figure 4, 1).
- The spring clip must be replaced after every removal.



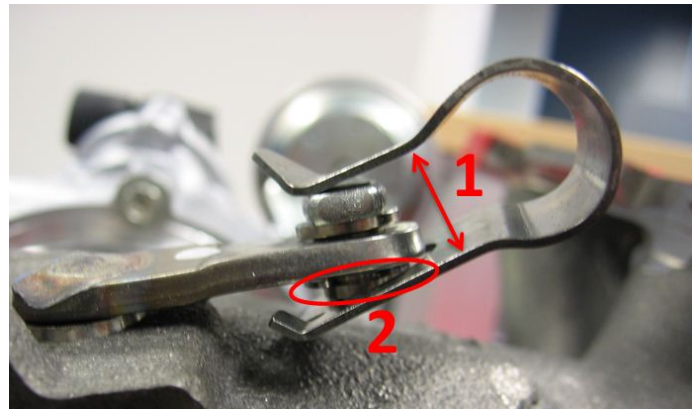
**Note:** Do not install clip on a used or pre-damaged turbocharger, as the same level of improvement as on a new part is not achieved.



**Figure 2.** Fit the clip from the side.

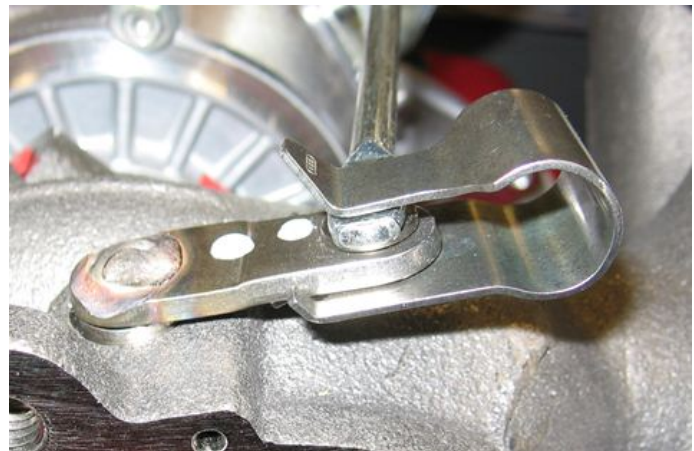


**Figure 3.** Turn the clip counter clockwise till the lugs slot in.



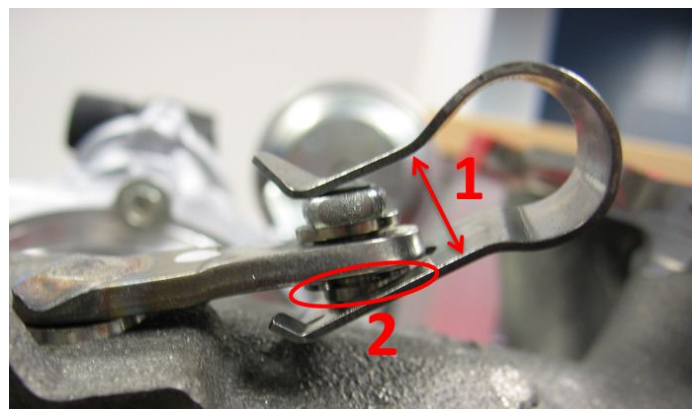
**Figure 4.** (1) Maximum opening of clip, (2) Position of original circlip

5. After fitting the spring clip, check for correct fit (Figure 5).



**Figure 5.** Correctly-fitted clip.

6. After fitting the spring clip, check the position of the original circlip (Figure 6, 2) and correct it if necessary.



**Figure 6.** (1) Maximum opening of clip, (2) Position of original circlip

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7. Install the new turbocharger according to the instructions in ElsaWeb: *Repair Manual >> Engine >> Engine Mechanical >> 21 Turbocharger, G-Charger >> Removal and Installation >> Turbocharger.*

The part numbers of the new turbocharger and the turbocharger that is being replaced should match unless otherwise noted in ETKA.

8. Clear DTC.

## Warranty

<b>Claim Type:</b>	110 (Warr Ext Key U23 present and active) or 1E2 (Warr Ext Key U23 present and active <u>AND</u> US1/US2 also present and active)		
<b>Service Number:</b>	2130		
<b>Damage Code:</b>	0010 (For Claim Type 110) 0016 (For Claim Type 1E2)		
<b>Labor Operations:</b>	Turbocharger remove + reinstall (Q5 only)	2130 1913	420 TU
	Turbocharger remove + reinstall (All others)	2130 1913	370 TU
	Turbocharger replace	2130 5563	30 TU
	Install clip on turbocharger	2130 2199	10 TU
<b>Diagnostic Time:</b>	GFF – Checking and clearing fault codes included in existing labor operations	0150 0000	Time stated on diagnostic protocol (Max 40 TU)
	Road test prior to service procedure	0121 0002	10 TU
	Road test after service procedure	0121 0004	10 TU
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
<b>Claim Comment:</b>	As per TSB #2031245/7		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.



## Required Parts and Tools

Part Number	Part Description	Quantity
06J145220B	Clip	1
06H145702S	Turbocharger	1
	Necessary parts for turbocharger replacement per Elsa	

## Additional Information

All parts and service references provided in this TSB (2031245) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.