

Technical product information

Topic	Turbo Charger Under-boost - DTC P029900 is evident in 0001 V8 Kovomo All Models
Market area	Bentley: worldwide (2WBE),China 796 VW Import Comp. Ltd (Vico), Beijing (6796)
Brand	Bentley
Transaction No.	2079115/2
Level	EH
Status	Released for publishing
Release date	March 27 2026

Event memory entries

Diagnostic address	Event memory entry	Fault type	Fault status
0001 - Engine electronics	P029900: Turbo/Super Charger Underboost		Intermittent
0001 - Engine electronics	P029900: Turbo/Super Charger Underboost		static

New customer code

Object of complaint	Complaint type	Position
engine -> induction system, charging systems, vacuum systems	leaks	

Vehicle data

V8 Kovomo Variants

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
3S3*	2018	E		*	*	*
3S3*	2019	E		*	*	*
3S3*	2020	E		*	*	*
3S3*	2021	E		*	*	*
3S3*	2022	E		*	*	*
3S3*	2023	E		*	*	*
3S3*	2024	E		*	*	*
3S4*	2019	E		*	*	*
3S4*	2020	E		*	*	*
3S4*	2021	E		*	*	*

3S4*	2022	E		*	*	*
3S4*	2023	E		*	*	*
3S4*	2024	E		*	*	*
4V1*	2018	E		*	*	*
4V1*	2019	E		*	*	*
4V1*	2020	E		*	*	*
4V1*	2021	E		*	*	*
4V1*	2022	E		*	*	*
4V1*	2023	E		*	*	*
4V1*	2024	E		*	*	*
4V1*	2025	E		*	*	*
4V1*	2026	E		*	*	*
ZG2*	2020	E		*	*	*
ZG2*	2021	E		*	*	*
ZG2*	2022	E		*	*	*
ZG2*	2023	E		*	*	*
ZG2*	2024	E		*	*	*
ZV1*	2023	E		*	*	*
ZV1*	2024	E		*	*	*
ZV1*	2025	E		*	*	*

Documents

Document name
master.xml



Connection offline

Transaction No.: **2079115**

Technical product information

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Customer statement / workshop findings

Customer Statement:

The engine warning light comes on and the vehicle loses power.

Workshop Findings:

Customer statement can be verified and the following entries may be logged within the engine control unit.

- P029900: Turbo/Super Charger Under-boost, passive/sporadic.

Technical background

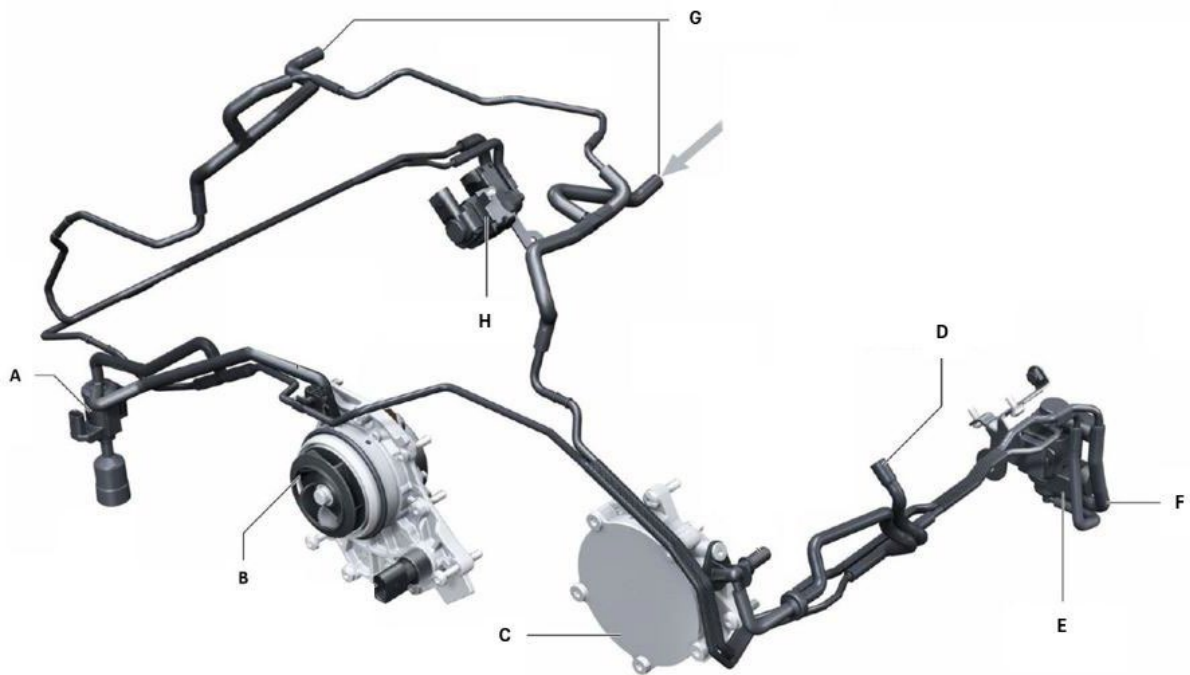
The wastegate actuator relies on vacuum pressure to regulate turbocharger boost. If vacuum is not maintained, the wastegate may remain open, preventing the turbocharger from generating full boost. This can trigger engine protection mode, limiting performance and displaying warnings in the DIP. Refer to the measure section for guided fault-finding steps.

Production change

Not Applicable

Measure

Vacuum System Layout – Use for Illustration purposes only



A) Switch valve for mechanical coolant pump	B) Coolant Pump	C) Vacuum pump	D) Connection for vacuum reservoir
E) Boost pressure control solenoid 1	F) Outlet (Vacuum pressure input)	G) Connection for Vacuum unit/turbo charger	H) Boost pressure control solenoid 2

Step 1 – Wastegate Vacuum Test

Connect a vacuum hand pump with gauge directly to the wastegate actuator.

- Apply vacuum and monitor whether the actuator maintains pressure steadily.
- If vacuum drops: Suspect a leak in the actuator, replace actuator.

NOTICE

Provide video evidence via a full technical DISS query that the actuator does not hold vacuum prior to part replacement.

Step 2 – Boost Pressure Control Solenoid Check

Locate the boost pressure control solenoids.

Inspect the electrical connectors for:

- Corrosion

- Loose pins
- Incorrect positioning

Activate the solenoid using ODIS and listen for the activation click:

- If click is heard: Proceed to Step 3.

NOTICE

If no clear audible click is detected, record audio or video evidence for DISS and warranty submission, then proceed to Step 3.

Step 3 – Inspect the entire vacuum line system for coolant and/or oil contamination and potential blockages

- If no oil contamination and/or coolant is found continue to step 4.
- If oil contamination is found replace the vacuum pump and relevant vacuum system lines and solenoids.

NOTICE

If oil confirmation is present, record photographic evidence for DISS and warranty submission prior to part replacement.

Step 4 – Coolant Pump Vacuum Integrity Check

Verify the coolant pump holds vacuum using a vacuum gauge:

- Pull vacuum directly from the pump for a minimum of 5 minutes.
- If it does not hold vacuum, replace the coolant pump and solenoid.

If coolant is present:

Replace the affected vacuum lines and the relevant vacuum solenoids.

NOTICE

Provide video evidence via DISS that it the coolant pump does not hold vacuum prior to part replacement

Step 5 – System Reassembly and Road Test

- Reassemble all components.
- Clear Diagnostic Trouble Codes (DTCs) using ODIS.
- Conduct a road test under load conditions.
- Monitor boost pressure during the test.

- Check for any recurrence of fault codes or warning messages on the Driver Information Panel.
- If the fault reoccurs, include evidence of all checks completed on new or existing DISS query.
- Confirm that full boost is achieved and engine performance is fully restored.

Warranty accounting instructions

Warranty type - 110 or 910

Damage service number - 21 65

Damage code - 00 55

Diagnosis Time

Labour operation code - 21 65 01 95 (*Live on 26.02.2026, use 21 65 01 99 prior to this date*)

Time Must not exceed - 120 TU

Road Test

Labour operation code - 01 21 00 01

Time - 30 TU



If any parts need to be replaced, refer to the warranty accounting instructions in ElsaPro. This is required due to the wide range of vehicle specifications and symptom scenarios.



NOTICE

All claims will be checked by the Warranty team, any claims which are not deemed as applicable will be cancelled. In the event that parts are replaced parts without the required attachments or the parts are found to be not at fault warranty claims will be liable for rejection

Parts information

Refer to ETKA parts catalogue