

Technical Service Bulletin

| | |
|------------------------|--|
| Topic | DTC P0B2500 logged within address 0021 (Battery Energy Control Module 2) - Dynamic ride system warning visible |
| Market area | Bentley: worldwide (2WBE) |
| Brand | Bentley |
| Transaction No. | 2068946/9 |
| Level | EH |
| Status | Released for publishing |
| Release date | Feb 21, 2025 |

Diagnostic trouble codes

| Diagnostic address | Diagnostic trouble code | Fault symptom | Storage state |
|-----------------------------|--|---------------|---------------|
| 0021 - Battery management 2 | P0B2500: Hybrid/EV Battery "A" Voltage Low | | Intermittent |
| 0021 - Battery management 2 | P0B2500: Hybrid/EV Battery "A" Voltage Low | | static |

New customer code

| Object of complaint | Complaint type | Position |
|---|---|----------|
| chassis -> damping\suspension regulation -> roll compensation | functionality -> operation sequence incorrect | |
| chassis -> level control system, pitch and roll compensation | functionality | |
| information, navigation, communication, entertainment -> indicator display symbols -> driving dynamics regulation (ESC) indicator display | functionality -> activates | |

Vehicle data

Bentayga Series/New Continental GT/C and New Flying Spur

Sales types

| Type | MY | Brand | Designation | Engine code | Gearbox code | Final drive code |
|--------|------|-------|-------------|-------------|--------------|------------------|
| 3S31AB | 2018 | E | | * | * | * |
| 3S31BB | 2018 | E | | * | * | * |
| 3S31BB | 2019 | E | | * | * | * |
| 3S31BB | 2020 | E | | * | * | * |
| 3S31BB | 2021 | E | | * | * | * |
| 3S31BB | 2022 | E | | * | * | * |
| 3S31EB | 2021 | E | | * | * | * |
| 3S31EB | 2022 | E | | * | * | * |
| 3S31EB | 2023 | E | | * | * | * |
| 3S31EB | 2024 | E | | * | * | * |
| 3S32CB | 2020 | E | | * | * | * |
| 3S32CB | 2021 | E | | * | * | * |
| 3S32CB | 2022 | E | | * | * | * |
| 3S32CB | 2023 | E | | * | * | * |
| 3S32CB | 2024 | E | | * | * | * |
| 3S34CB | 2023 | E | | * | * | * |
| 3S34CB | 2024 | E | | * | * | * |
| 3S41BB | 2019 | E | | * | * | * |
| 3S41BB | 2020 | E | | * | * | * |
| 3S41BB | 2021 | E | | * | * | * |
| 3S41BB | 2022 | E | | * | * | * |
| 3S41EB | 2021 | E | | * | * | * |
| 3S41EB | 2022 | E | | * | * | * |
| 3S41EB | 2023 | E | | * | * | * |
| 3S41EB | 2024 | E | | * | * | * |
| 3S42CB | 2020 | E | | * | * | * |
| 3S42CB | 2021 | E | | * | * | * |
| 3S42CB | 2022 | E | | * | * | * |
| 3S42CB | 2023 | E | | * | * | * |
| 3S42CB | 2024 | E | | * | * | * |

| | | | | | | |
|--------|------|---|--|---|---|---|
| 3S44CB | 2023 | E | | * | * | * |
| 3S44CB | 2024 | E | | * | * | * |
| 4V14A9 | 2017 | E | | * | * | * |
| 4V14A9 | 2018 | E | | * | * | * |
| 4V14A9 | 2019 | E | | * | * | * |
| 4V14A9 | 2020 | E | | * | * | * |
| 4V14A9 | 2021 | E | | * | * | * |
| 4V14B9 | 2018 | E | | * | * | * |
| 4V14B9 | 2019 | E | | * | * | * |
| 4V14B9 | 2020 | E | | * | * | * |
| 4V14C9 | 2018 | E | | * | * | * |
| 4V14C9 | 2019 | E | | * | * | * |
| 4V14C9 | 2020 | E | | * | * | * |
| 4V14D9 | 2018 | E | | * | * | * |
| 4V14D9 | 2019 | E | | * | * | * |
| 4V14D9 | 2020 | E | | * | * | * |
| 4V14D9 | 2021 | E | | * | * | * |
| 4V14D9 | 2022 | E | | * | * | * |
| 4V14D9 | 2023 | E | | * | * | * |
| 4V14D9 | 2024 | E | | * | * | * |
| 4V14D9 | 2025 | E | | * | * | * |
| 4V14F9 | 2025 | E | | * | * | * |
| 4V15D9 | 2024 | E | | * | * | * |
| 4V15D9 | 2025 | E | | * | * | * |
| 4V15F9 | 2025 | E | | * | * | * |
| Z232AB | 2025 | E | | * | * | * |
| Z233BB | 2025 | E | | * | * | * |
| Z234BB | 2025 | E | | * | * | * |
| Z242AB | 2025 | E | | * | * | * |
| Z243BB | 2025 | E | | * | * | * |
| Z244BB | 2025 | E | | * | * | * |
| Z322AB | 2025 | E | | * | * | * |
| Z323BB | 2025 | E | | * | * | * |
| Z324BB | 2025 | E | | * | * | * |
| ZG21BB | 2020 | E | | * | * | * |
| ZG21BB | 2021 | E | | * | * | * |
| ZG21BB | 2022 | E | | * | * | * |
| ZG21BB | 2023 | E | | * | * | * |
| ZG21BB | 2024 | E | | * | * | * |
| ZG22CB | 2021 | E | | * | * | * |
| ZG22CB | 2022 | E | | * | * | * |
| ZG22CB | 2023 | E | | * | * | * |
| ZG22CB | 2024 | E | | * | * | * |
| ZG26BB | 2023 | E | | * | * | * |
| ZG26BB | 2024 | E | | * | * | * |
| ZV14D9 | 2023 | E | | * | * | * |
| ZV14D9 | 2024 | E | | * | * | * |
| ZV14D9 | 2025 | E | | * | * | * |

Documents

| |
|----------------------------|
| Document name |
| master.xml |

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Condition

Customer statement:

Bentley dynamic ride system fault is displayed within the Drivers Instrument Panel (DIP)

Workshop findings:

DTC P0B2500 - Hybrid/EV Battery "A" Voltage low is stored within address 21- Battery Energy Control Module 2

Technical Background

Possible internal fault with the super capacitor

- In the event that DTC P0B2500 is evident the operative must follow the steps within the Measure section to completion

NOTICE

Note for vehicles with DTC P0B2500 evident:

The instructions within the Measure section must be conducted to completion regardless of vehicle status (PDI or post vehicle handover) Do Not erase the DTC and handover the vehicle back to the customer as DTC P0B2500 could return

Revision history - 2068946/8

- Warranty data has been amended

Production Solution

Not applicable

Service

WARNING

This vehicle uses a 48 volt system, please refer to "48 volt system - safety precautions" before working on the 48 volt system

- 1) Referring to Rep.Gr 27 - Deactivate the 48 volt system - Refer to 48 volt system - To activate and deactivate
- 2) Referring to Rep.Gr 27 - Check the security of the super capacitor positive and negative terminals (Figure 1) as follows:
 - Remove the caps (A) from the terminals
 - Check the security of the positive and negative terminals (B) are as described within Rep.Gr 27
 - In the event that one or both terminals were not tightened to the correct torque as Rep.Gr 27, the operative must tighten the terminal(s) to the correct torque as detailed within Rep.Gr 27 - Super capacitor

NOTICE

In the event one or both terminals required tightening to the correct torque (found to be not initially secure) the operative must feedback the findings via DISS

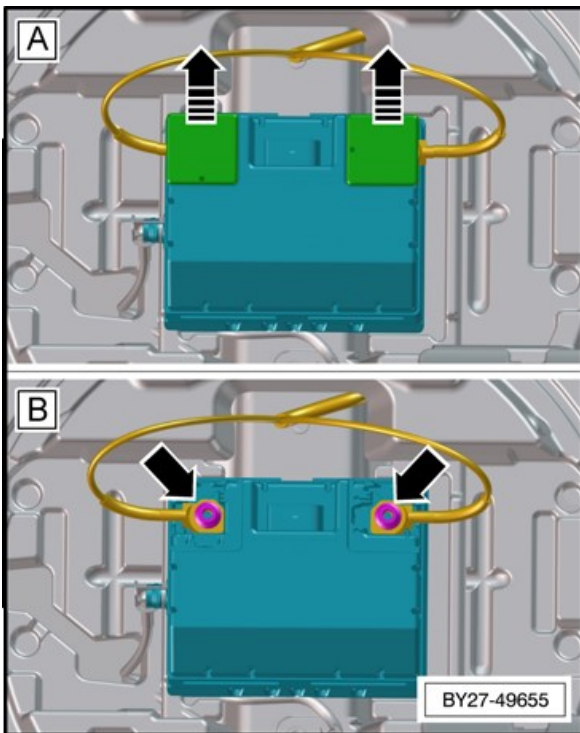


Figure 1

3) Referring to Figure 2 - Check the security of the harness connector

- In the event the harness connector is not secure the operative must secure the connector

NOTICE

Should an issue be identified with the connector or super capacitor which doesn't allow the connector to be secured the operative must feedback via DISS

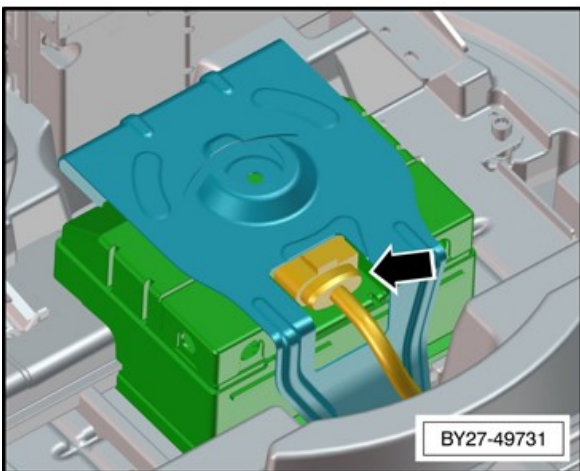


Figure 2

4) Referring to Rep.Gr 27 - Activate the 48 volt system. Refer to 48 volt system - To activate and deactivate

5) In the event the super capacitor positive and / or negative terminals **required tightening to the correct torque** the operative must conduct steps 6,7 and 8

However

In the event the super capacitor positive and / or negative terminals **were already at the correct torque** the operative must conduct steps 7 and 8

6) Conduct a short road test

NOTICE

A road test should only be conducted if the super capacitor positive and / or negative terminals required tightening to the correct torque

7) Read the following MVB's to check the difference between the **highest cell voltage** and the **lowest cell voltage** (Figure 3)

21-Battery Energy Control Module 2 --> MVB --> IDE08217 and IDE8218

| Measured value name | ID | Value |
|-----------------------------------|----------|--------------------------|
| maximum voltage for battery cells | IDE08217 | |
| value | MAS02985 | |
| [LO]_Formula | | |
| [LO]_Test_Program_Cell_voltage | | 1.851 V |
| [LO]_Cell_voltage_Textual | | numerical value, no text |
| Index 1 | MAS01234 | |
| [LO]_Cell_Index_Textual | | numerical value, no text |
| minimum voltage for battery cells | IDE08218 | |
| value | MAS02985 | |
| [LO]_Formula | | |
| [LO]_Test_Program_Cell_voltage | | 1.78 V |
| [LO]_Cell_voltage_Textual | | numerical value, no text |
| Index 1 | MAS01234 | |
| [LO]_Cell_Index_Textual | | numerical value, no text |

Figure 3

8) If there is a difference of 0.5v or more between the **highest** cell voltage and **lowest** cell voltage and the fault code '**POB2500: Hybrid/EV Battery "A" Voltage low**' is stored in address 21-Battery Energy Control Module 2 - Referring to the applicable Rep.Gr 27 - Replace the super capacitor

Warranty

Warranty type 110 or 910

Damage service number 93 03

Damage code 00 40

Bentayga

Activate and deactivate the 48 volt system (Step 1 and 4)

93 10 00 00 - 30 TU (Use 99 index until 25/07/24)

Time to conduct steps 2,3,5 and 7

93 50 19 00 - 20 TU

Diagnosis time

01 50 00 00 as per ODIS log (Must not exceed - 10 TU)

Time to conduct a short road test (Step 6)

Labour Operation Code 01 21 00 01 - 30 TU

Time to replace the super capacitor (if required - Step 8)

Labour Operation Code 93 50 19 00 - 20 TU

NOTICE

A road test should only be conducted if the super capacitor positive and / or negative terminals required tightening to the correct torque

New Flying Spur and New Continental GT

Activate and deactivate the 48 volt system (Step 1 and 4)

93 10 00 00 - 30 TU (Use 99 index until 25/07/24)

Time to conduct steps 2,3,5 and 7

93 50 19 00 - 40 TU

Diagnosis time

01 50 00 00 as per ODIS log (Must not exceed - 10 TU)

Time to conduct a short road test (Step 6)

Labour Operation Code 01 21 00 01 - 30 TU

Time to replace the super capacitor (if required - Step 8)

Labour Operation Code 93 50 19 00 - 40 TU

New Continental GTC

Activate and deactivate the 48 volt system (Step 1 and 4)

93 10 00 00 - 30 TU (Use 99 index until 25/07/24)

Time to conduct steps 2,3,5 and 7

93 50 19 00 - 40 TU

Diagnosis time

01 50 00 00 as per ODIS log (Must not exceed - 10 TU)

Time to conduct a short road test (Step 6)

Labour Operation Code 01 21 00 01 - 30 TU

Time to replace the super capacitor (if required - Step 8)

Labour Operation Code 93 50 19 00 - 50 TU

NOTICE

A road test should only be conducted if the super capacitor positive and / or negative terminals required tightening to the correct torque

Required Parts and Tools

Refer to the ETKA parts catalogue