

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

.....

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

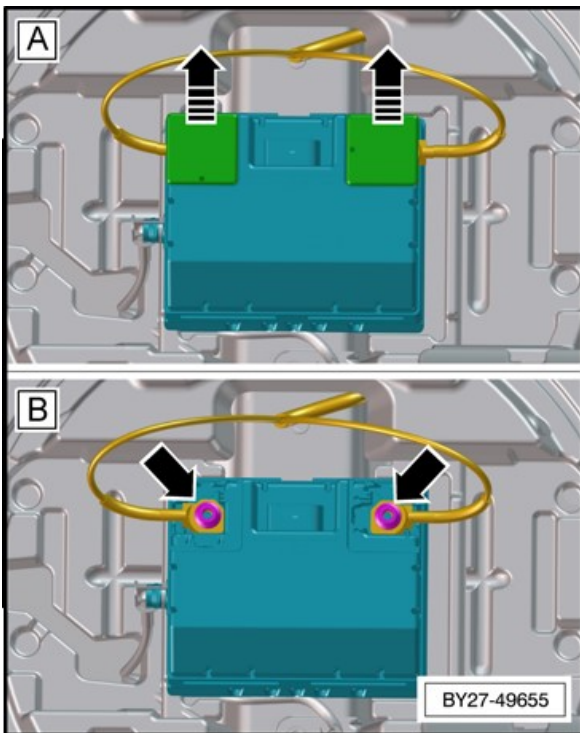


Figure 1

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

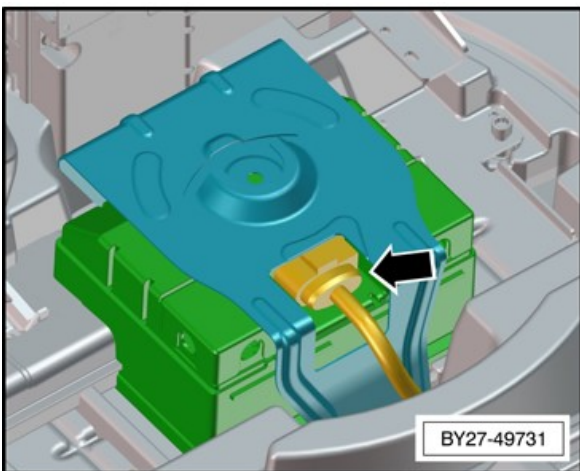


Figure 2

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

Read measured values		
Measured value name	ID	Value
• maximum voltage for battery cells	IDE08217	
• value	MAS02085	
• [I_O]_Formula		
[I_O]_Test_Program_Cell_voltage		1.851 V
[I_O]_Cell_voltage_Textual		numerical value, no text
+ Index 1	MAS01234	
[I_O]_Cell_Index_Textual		numerical value, no text
• minimum voltage for battery cells	IDE08218	
• value	MAS02085	
• [I_O]_Formula		
[I_O]_Test_Program_Cell_voltage		1.78 V
[I_O]_Cell_voltage_Textual		numerical value, no text
+ Index 1	MAS01234	
[I_O]_Cell_Index_Textual		numerical value, no text

8) If there is a difference of **0.5v** or more between the **highest** cell voltage and **lowest** cell voltage **and** the fault code '**P0B2500: 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 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

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