Technical product information

Topic	Customer reports the electric driving range is not as expected
Market area	Australia E04 Bentley rest Asia and Australia (6E04),China 796 VW Import Comp. Ltd (Vico), Beijing (6796),Germany E02 Bentley rest Europe (6E02),Japan E03 Bentley Japan (6E03),United Arab Emirates E06 Bentley Middle East and Africa (6E06),United Kingdom E01 Bentley UK (6E01),United States E05 Bentley USA and rest America (6E05)
Brand	Bentley
Transaction No.	2072732/1
Level	EH
Status	Approval
Release date	

New customer code

Object of complaint	Complaint type	Position
electrical power, electric system, data transfer -> battery management -> charging high-voltage battery	functionality -> defective function sequence	
whole vehicle -> performance / fuel consumption -> range	dimensional accuracy -> too low	
information, navigation, communication, entertainment -> driver information system (DIS, MFI, MMI) -> text message display -> text message: system fault in hybrid drive	functionality -> activates	

Vehicle data

Bentayga Hybrid and New Flying Spur Hybrid

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4V14F9	2021	E		*	*	*
4V14F9	2022	E		*	*	*
4V14F9	2023	E		*	*	*
4V14F9	2024	E		*	*	*
4V15F9	2024	E		*	*	*
ZG23GB	2022	E		*	*	*
ZG23GB	2023	E		*	*	*
ZG23GB	2024	E		*	*	*
ZG25GB	2023	E		*	*	*
ZG25GB	2024	E		*	*	*

Documents

Document name
master.xml

Customer statement / workshop findings

Customer reports the electric driving range is not as expected

Technical background

CAUTION

VERY IMPORTANT: Please ensure all guidelines within the repair manual are strictly followed before and whilst conducting any work on vehicles with a high voltage system

WARNING

VERY IMPORTANT: Only suitably qualified personal should work on vehicles specified with a high voltage system

NOTICE

IMPORTANT NOTICE: Electric range can depend on multiple factors for example:

- Driving style
- Road gradients
- Ambient temperature
- Use of heating / cooling functions and other electrical consumers on the vehicle

To confirm the vehicle is operating correctly and being driven efficiently, the guidelines within the Measure section should be followed (Subject to a genuine customer complaint)

By following the guidelines within the Measure section (depending on vehicle type) it should then be possible to determine if the vehicle is operating within specification

Hint: The operative should gain feedback from the customer to understand if the vehicle is being driven in a particular way which could have a significant impact on the electric driving range

Production change

Not applicable

Measure

New Flying Spur Hybrid

- Referring to Figure 1 - Confirm the Efficiency assist messages box is populated (ticked)
- In the event the box is not populated, the operative should tick the box and explain to the customer that the box shown should be populated to aid efficiency and also encourages efficient driving

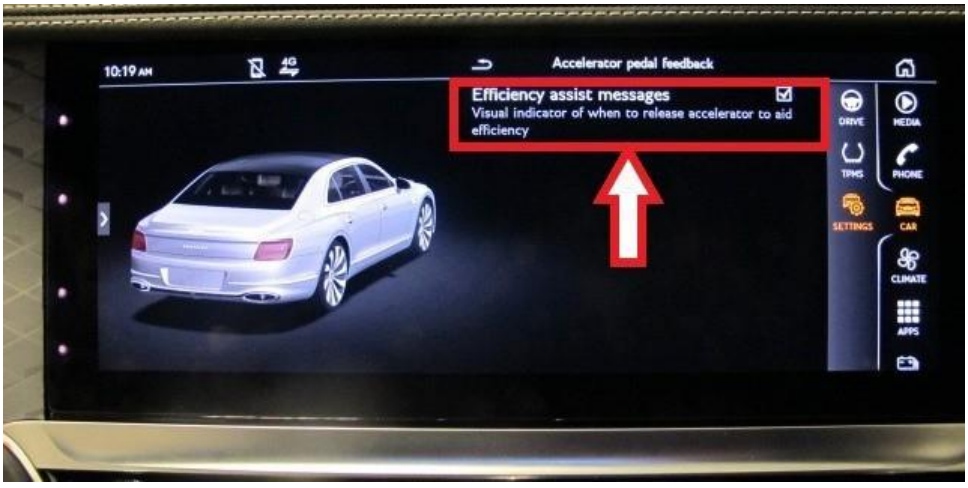

Figure 1

Bentayga Hybrid

- Referring to Figures 2 - Check the Efficiency assist messages boxes are populated (ticked)
- In the event the boxes are not populated, the operative should tick the box and explain to the customer that the boxes shown should be populated to aid efficiency and also encourages efficient driving

Figure 2

All Models continued

- Referring to Rep.Gr 27 - Connect a suitable 12 volt battery charger
- Using ODIS carry out a full Guided Fault Finding (GFF) sweep of all control modules
- Clear and resolve all applicable DTC's
- Check the customers home charging unit high and vehicle charging system is operating to specification (See Notice below)

NOTICE

The customer's home charging equipment should be used during the testing of the charging system

- Referring to Figure 3 - Read the measured values shown below within (address 0019) using ODIS

IDE09075: Calculation, basic average values

And

IDE09076: Calculated filtered remaining ranges internal

measured value	ID	Value
Calculation, basic average values	IDE09075	
- Average consumption,BMS electrical (prognosis limit)	MAS08266	33.0
- Range average consumption, combustion engine	MAS08267	10.0 l/100 km
- Range average consumption, electrical	MAS08268	27.0
- Calculated average speed, electrical trip	MAS08269	51.0 km/h
- medium forecast error performance air-conditioning interior	MAS09165	0 W
- Calculated power, component A/C	MAS08271	0 W
- Calculated power, low voltage basic consumer	MAS08272	810 W
- Range average consumption CNG	MAS10152	6.0
- Range average consumption LPG	MAS10153	0.0 l/100 km
Calculated filtered remaining ranges (internal)	IDE09076	
- Calculated and filtered remaining the range, combustion engine	MAS08273	329 km
- Calculated and filtered electrical remaining range	MAS08274	0 km
- Calculated and filtered remaining range, CNG	MAS10154	0 km
- Calculated and filtered remaining range, LPG	MAS10155	0 km
- Average current load profile provided by battery	MAS08275	66 A

Figure 3

- Referring to Figure 4 - The highlighted value of the 'Range average consumption, electrical is the average electrical range in miles, in this example the Value shown is 27 miles

Hint: A figure above 25 miles is expected

The highlighted value shown of the Average current load profile provided by battery' is used to predict the available energy of the battery and can vary depending on driving styles

measured value	ID	Value
Calculation, basic average values	IDE09075	
- Average consumption,BMS electrical (prognosis limit)	MAS08266	33.0
- Range average consumption, combustion engine	MAS08267	10.0 l/100 km
- Range average consumption, electrical	MAS08268	27.0
- Calculated average speed, electrical trip	MAS08269	51.0 km/h
- medium forecast error performance air-conditioning interior	MAS09165	0 W
- Calculated power, component A/C	MAS08271	0 W
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- Calculated and filtered electrical remaining range	MAS08274	0 km
- Calculated and filtered remaining range, CNG	MAS10154	0 km
- Calculated and filtered remaining range, LPG	MAS10155	0 km
- Average current load profile provided by battery	MAS08275	66 A

Figure 4

- Save the diagnostic log online ensuring the data shown in Figures 3 and 4 has been saved

NOTICE

Should an issue be suspected regarding the electric driving range, the operative should raise a technical DISS query ensuring the current ODIS log is attached with all required data attached

However

Should no issue be identified with the electric driving range and the vehicle is operating within specification no further action is required

Warranty accounting instructions

Warranty type 110 or 910

Damage Service Number 93 01

Damage Code 00 55

Labour Operation Code 01 50 00 00

Time As per ODIS log (must not exceed 10 TU)

Customer information

For further information regarding Bentley Hybrid vehicle performance and economy please refer to www.bentleymotors.com