

Technical product information

Topic	Transmission communication DTC's (Numerous) - W12 engine
Market area	Australia E04 Bentley rest Asia and Australia (6E04),China 723 Volkswagen (Anhui) Automotive CO (6723),China 796 VW Import Comp. Ltd (Vico), Beijing (6796),Germany E02 Bentley rest Europe (6E02),Japan E03 Bentley Japan (6E03),Korea, (South) E08 Bentley South Korea (6E08),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.	2059068/6
Level	EH
Status	Released for publishing
Release date	03-Oct-2023

New customer code

Object of complaint	Complaint type	Position
vehicle service -> vehicle diagnosis -> guided fault finding	control units, services -> with event log entry	
electrical power, electric system, data transfer -> data bus systems	component / consumables	
power transmission -> power distribution, power flow -> power flow	functionality -> without function / defect	
electrical power, electric system, data transfer -> power supply	functionality	

Vehicle data

New Continental GT/C and New Flying Spur - W12 engine

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
3S31BB	2018	E		*	*	*
3S31BB	2019	E		*	*	*
3S31BB	2020	E		*	*	*
3S31BB	2021	E		*	*	*
3S31BB	2022	E		*	*	*
3S31BB	2023	E		*	*	*
3S31BB	2024	E		*	*	*
3S31EB	2021	E		*	*	*
3S31EB	2022	E		*	*	*
3S31EB	2023	E		*	*	*
3S31EB	2024	E		*	*	*
3S41BB	2019	E		*	*	*
3S41BB	2020	E		*	*	*
3S41BB	2021	E		*	*	*
3S41BB	2022	E		*	*	*
3S41BB	2023	E		*	*	*
3S41BB	2024	E		*	*	*
3S41EB	2021	E		*	*	*
3S41EB	2022	E		*	*	*
3S41EB	2023	E		*	*	*
3S41EB	2024	E		*	*	*
ZG21BB	2020	E		*	*	*
ZG21BB	2021	E		*	*	*
ZG21BB	2022	E		*	*	*
ZG21BB	2023	E		*	*	*
ZG21BB	2024	E		*	*	*
ZG26BB	2023	E		*	*	*
ZG26BB	2024	E		*	*	*

Documents

Document name
master.xml



Customer statement / workshop findings

Customer statement

Drive system fault active on DIP (Figure 1)



Figure 1

Workshop findings

Various and/or numerous Transmission control module (TCM) communication DTC's logged

Technical background

Loose pins within the transmission link harness to the Mechatronic unit for dual clutch gearbox -J743- connections can lead to various transmission communication and hardware based DTC's

Production change

Not applicable

Measure



Ensure the ignition is switched off for the duration of this procedure

1) Remove the left hand front wheel arch liner - Refer to Repair manual Rep.Gr 66

- Referring to Figure 2 - Disconnect the three connectors shown



Extreme care MUST be taken when conducting pin/terminal grab checks and resistance checks as damage can easily be caused to the pins/terminals

2) Once disconnected carry out pin/terminal grab checks on all three male and female connections

NOTE: All resistance values shown within this TPI are approximate, tolerances may vary depending on the quality/type and age of the multi-meter and or leads used

- In the event the main vehicle harness pins are not to specification the applicable pins should be replaced
- Should any issues be found with the transmission link harness and/or pins – the harness should be replaced
- In the event the pins are to specification or the applicable repairs have been done (for example – Harness replacement or pin replacement)
 - Reconnect all three connectors

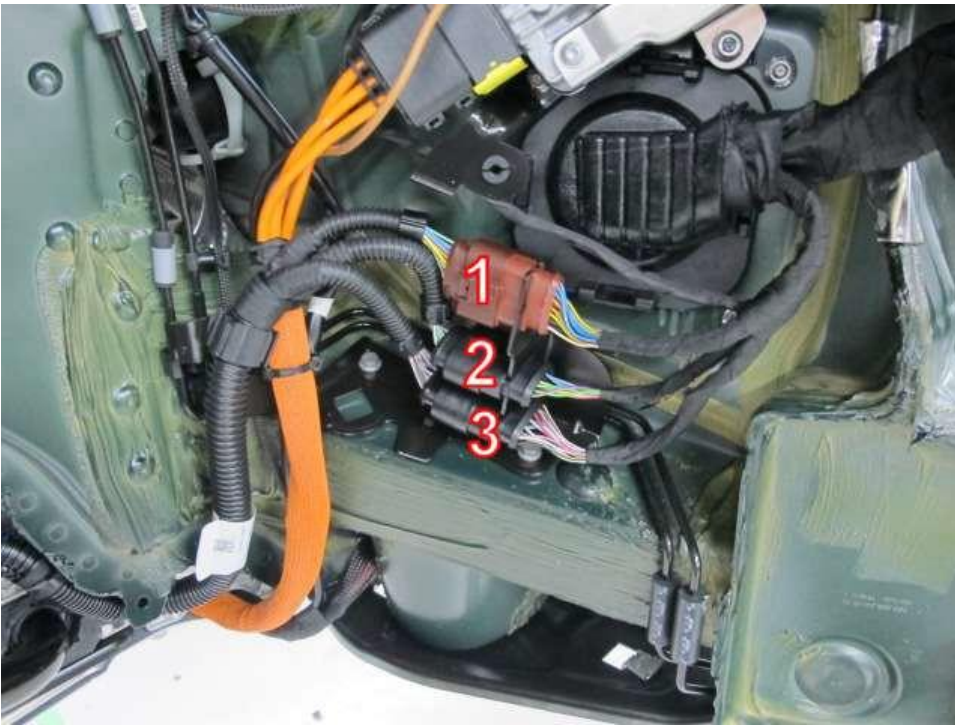


Figure 2

3) Remove the rear subframe support – Rep.Gr 40 (Figure 3)



Figure 3

4) Disconnect the connections (Figure 4 - Arrows) from the Mechatronic unit for dual clutch gearbox -J743-

5) Gain access and disconnect the transmission control module plug T58g - Refer to Repair manual Rep.Gr 37

- Referring to the applicable current flow diagram and Figure 5 and 6 - Carry out resistance and pin/terminal grab checks on all disconnected connections from the T58g connector to T20az and T20ay on the harness.



Figure 4

Check T58g to connector T20az

Connector T58g	Connector T20az	Resistance
PIN 1	PIN 4	0.4
PIN 3	PIN 2	0.2
PIN 4	PIN 3	0.5
PIN 6	PIN 1	0.4
PIN 9	PIN 8	0.4
PIN 10	PIN 6	0.1
PIN 11	PIN 10	0.3
PIN 12	PIN 20	0.3
PIN 13	PIN 13	0.5
PIN 16	PIN 17	0.4
PIN 22	PIN 5	0.4
PIN 23	PIN 7	0.4
PIN 24	PIN 9	0.4
PIN 25	PIN 11	0.4
PIN 26	PIN 12	0.4
PIN 27	PIN 14	0.4
PIN 29	PIN 16	0.5

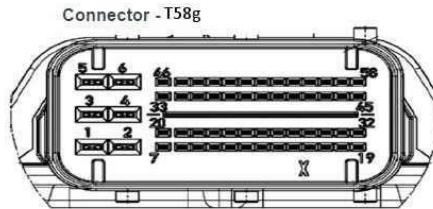
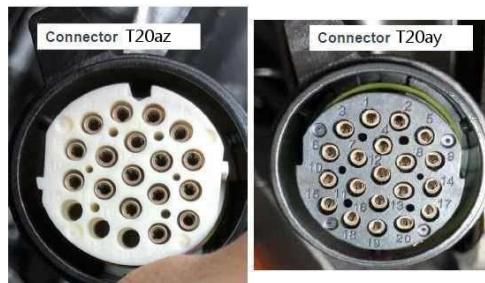


Figure 5

Connector T58g	Connector T20ay	Resistance
PIN 1	PIN 5	0.4
PIN 14	PIN 1	0.4
PIN 21	PIN 20	0.4
PIN 34	PIN 18	0.3
PIN 36	PIN 3	0.3
PIN 37	PIN 2	0.4
PIN 38	PIN 4	0.4
PIN 41	PIN 9	0.4
PIN 42	PIN 13	0.5
PIN 43	PIN 10	0.4
PIN 44	PIN 15	0.4
PIN 46	PIN 17	0.4
PIN 48	PIN 19	0.5
PIN 49	PIN 16	0.4
PIN 50	PIN 6	0.4
PIN 51	PIN 7	0.4
PIN 52	PIN 8	0.4
PIN 54	PIN 11	0.4
PIN 56	PIN 12	0.4
PIN 58	PIN 14	0.4



Connector T58g	Power supply	Resistance
PIN 2	Ground	0.2
PIN 5	Fuse box SK or SP (20A)	0.2
PIN 55	TV48	0.3

NOTE: Ensure correct fuse board is located SK = LHD and SP = RHD

NOTE: TV48 MUST be disconnected when conducting resistance/wiring integrity checks

Figure 6



When conducting the T58g resistance checks from pin 5 to the relevant fuse (Refer to the applicable Wiring diagram) please ensure the correct fuse board is located

TIP: For best results the fuse should be removed and checked from the correct pin to T58g, once the check has been done refit the fuse

SK = LHD

SP = RHD

Connector TV48 (Figure 7) **MUST** also be disconnected when conducting the pin 55 to TV48 resistance check **TIP:** once the check has been done reconnect TV48

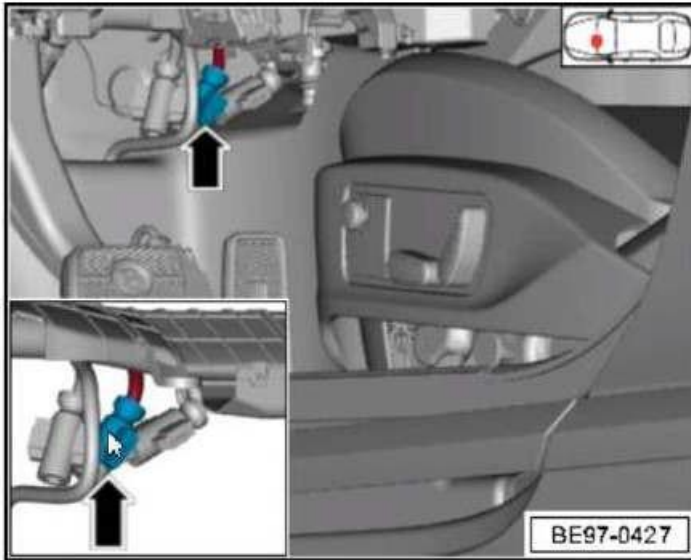


Figure 7

6) Should all the resistance checks be within specification – Reconnect T20az and T20ay and referring to Figure 8 (Connector T58g) carry out the requested pin resistance checks



NOTE: Referring to Figure 8 - The resistance value for checks on PIN's 29 to 16 (Transmission fluid temperature sensor) will vary depending on the actual transmission fluid temperature

Connector T58

PIN	Specification (Ohms)
6 to 22	5.1
6 to 23	5.3
3 to 10	5.2
3 to 12	5.3
4 to 9	5.3
4 to 24	5.3
4 to 11	5.3
4 to 26	10.9
4 to 13	11
4 to 27	11
1 to 25	5.3
29 to 16	1800

Figure 8



Should any issues be found with the Mechatronic unit for dual clutch gearbox -J743- pin connections/transmission control module plug (T58g) pin connections or resistance values - Please raise a DISS query and await feedback before carrying out any further work

Warranty accounting instructions

Warranty type: 910 or 110

Service ID number: 9797

Damage type: 0040

Labour

Time to conduct wiring checks

Labour operation code: 38 85 01 05

Time: 160 Time units

Time to replace link harness

Labour operation code: 38 85 55 55

Time 20 Time units

Parts information

Part number	Description	Quantity
Refer to ETKA	Link harness	1