Technical product information

Topic	Transmission communication DTC's (Numerous) - W12 engine
Market area	Bentley: worldwide (2WBE)
Brand	Bentley
Transaction No.	2059068/3
Level	EH
Status	Approval
Release date	

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 and New Continental GTC - 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		*	*	*
3S41BB	2018	E		*	*	*
3S41BB	2019	E		*	*	*
3S41BB	2020	E		*	*	*
3S41BB	2021	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

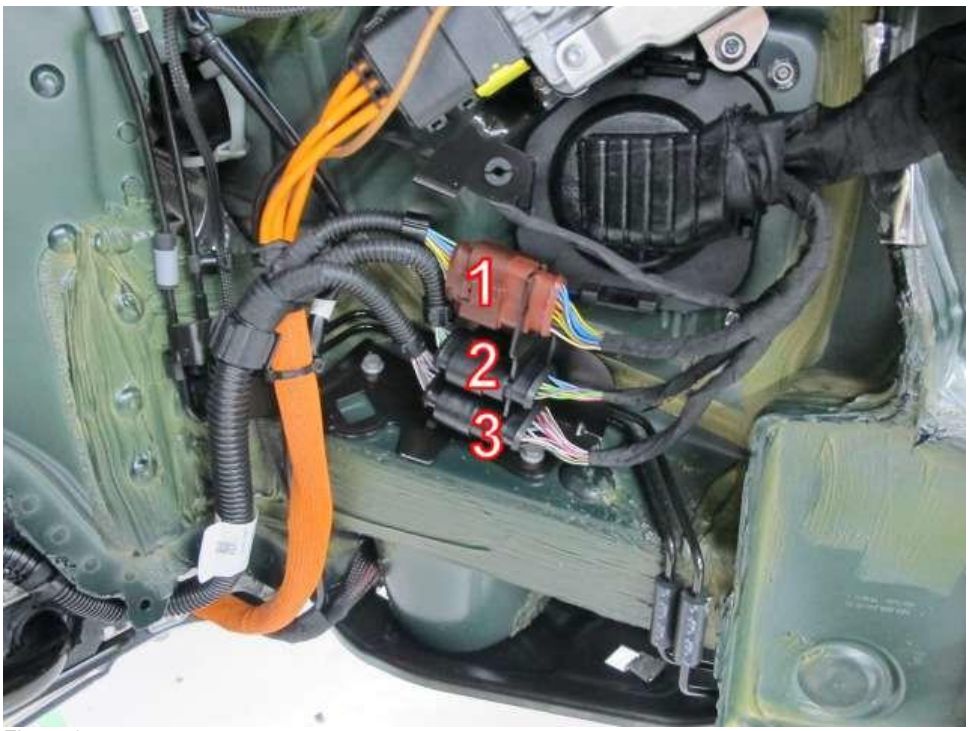

Figure 2

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

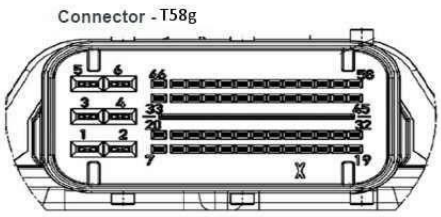

Figure 5

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

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

NOTE: Ensure correct fuse board is loctaed 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

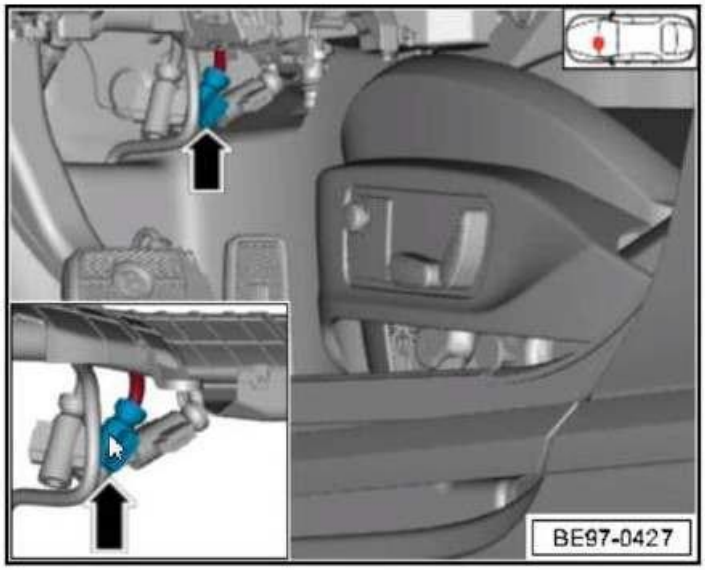

Figure 7

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 (T 58g) 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