

## Technical product information

<b>Topic</b>	Transmission communication DTC's (Numerous) - W12 engine
<b>Market area</b>	Bentley: worldwide (2WBE)
<b>Brand</b>	Bentley
<b>Transaction No.</b>	2059068/5
<b>Level</b>	EH
<b>Status</b>	Released for publishing
<b>Release date</b>	07-Nov-2022

### 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		*	*	*
3S31EB	2021	E		*	*	*
3S31EB	2022	E		*	*	*
3S31EB	2023	E		*	*	*
3S41BB	2019	E		*	*	*
3S41BB	2020	E		*	*	*
3S41BB	2021	E		*	*	*
3S41BB	2022	E		*	*	*
3S41BB	2023	E		*	*	*
3S41EB	2021	E		*	*	*
3S41EB	2022	E		*	*	*
3S41EB	2023	E		*	*	*
ZG21BB	2020	E		*	*	*
ZG21BB	2021	E		*	*	*
ZG21BB	2022	E		*	*	*
ZG21BB	2023	E		*	*	*
ZG26BB	2023	E		*	*	*

## Documents

<b>Document name</b>
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

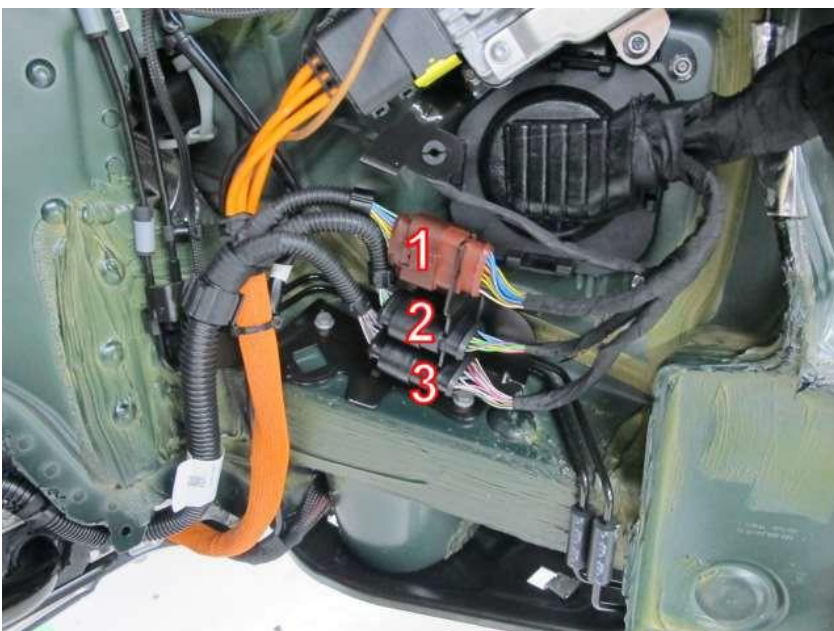


Figure 2

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

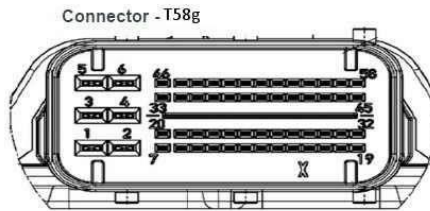
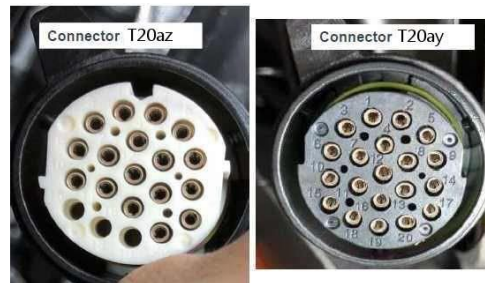


Figure 5

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



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

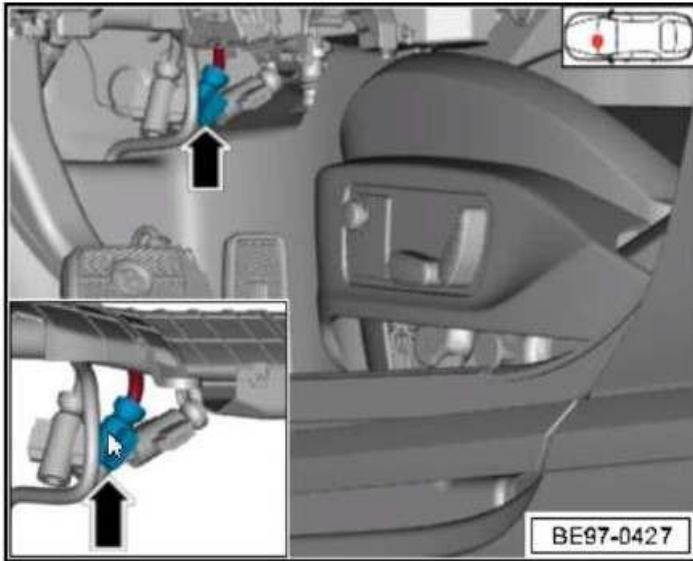


Figure 7

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

<b>PIN</b>	<b>Specification (Ohms)</b>
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: 38850105

Time: 160 Time units

Time to replace link harness

Labour operation code: 38855555

Time 20 Time units

## Parts information

Part number	Description	Quantity
Refer to ETKA	Link harness	1