

Technical Service Bulletin

Topic	Sporadic All-Wheel Drive Warning Continental GT/GTC and Flying Spur 25MY
Market area	Bentley: worldwide (2WBE), China 796 VW Import Comp. Ltd (Vico), Beijing (6796)
Brand	Bentley
Transaction No.	2077545/1
Level	EH
Status	Released for publishing
Release date	May 28, 2025

Diagnostic trouble codes

Diagnostic address	Diagnostic trouble code	Fault symptom	Storage state
0032 - Differential lock electronics	C12BB1D: Control motor current implausible		static
0032 - Differential lock electronics	C12B5F0: Differential lock control module PSM / ESC activation by differential lock		static
0032 - Differential lock electronics	C13AE1D: Actuator motor for differential lock current implausible		static

New customer code

Object of complaint	Complaint type	Position
chassis -> brakes, brake regulation -> electronic differential lock (EDS)	functionality -> operation sequence incorrect	

Vehicle data

Continental GT/GTC and Flying Spur

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
Z23*	2025	E		*	*	*
Z24*	2025	E		*	*	*
Z32*	2025	E		*	*	*

Documents

Document name
master.xml

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Condition

The message "Differential lock: fault. You may continue driving. Contact your Bentley retailer" is sporadically shown in the instrument cluster.

Workshop Findings:

The following DTC are logged in the Locking Electronics (address word 0032):

- **DTC C12BB1D:** Control motor current implausible

and/or

- **DTC C12B5F0:** Differential lock control module PSM / ESC activation by differential lock

and/or

- **C13AE1D:** Actuator motor for differential lock current implausible

and/or

- No communication with 0032.

Technical Background

Potential issue with the T16-way connector at J647, causing intermittent faults in the differential lock system due to:

- Poor electrical contact
- Corroded or loose terminals
- Defective terminals.

Production Solution

Not Applicable

Service

WARNING

Risk of Electric Shock: Disconnect the vehicle's 12V battery before working on electrical connectors to prevent accidental short circuits or injury.

CAUTION

Avoid Short Circuits: Do not bridge terminals or apply external voltage to control units as this can cause irreversible damage.

1. Inspect the T16-way connector at J647 for any defective terminals.



Figure 1

2. Perform a detailed check of the terminals within the T16-way connector at J647.
3. If any terminals are found to be defective as per the example in figure 1.

- Replace all all the defective individual terminals (part number P00293586).

and/or

- If required replace the entire 16-way connector at the J647 unit (part number (P00427711)).

NOTICE

Refer to the information below and ElsaPro Repair Group 97 Wiring harness repairs

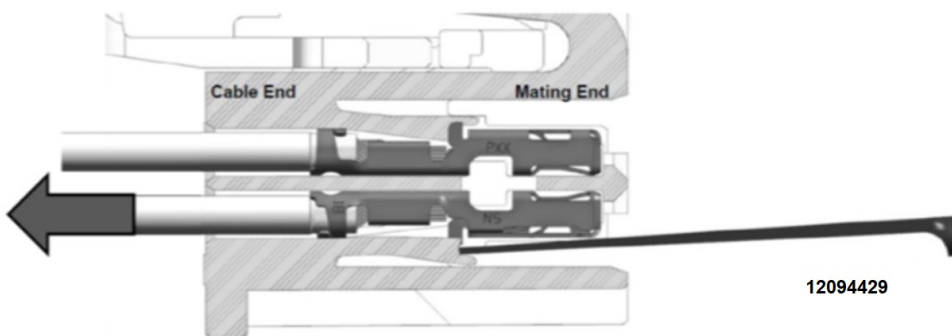


Figure 2

4. To remove a defective contact terminal, follow the steps below and see the diagram in figure 2:

- Locate the flex lock at the front end of the cavity.
- Insert Tool 12094429 straight into the cavity.
- Deflect the flex lock to unseat the terminal.
- Gently pull on the cable to remove the female terminal from the receptacle.

5. To install a new contact terminal follow the steps below:

- Remove insulation from cable end (6-7mm) using cable stripper.
- Insert the stripped end of the cable into your chosen terminal/connector and ensure they're properly aligned.
- Position the cable and the connectors onto the jaws/dies of the crimping tool.
- Apply pressure on the handles of the crimping tool to crimp the connector to the cable conductor.
- A clicking sound may be heard, and the tool will automatically release it once a crimping cycle is done.
- Feed in the repaired cable terminal back into the connector. The contact must click in audibly.

6. Reinstall connector at the J647 unit. Clear all fault codes and perform a test drive to confirm resolution of the issue.

Warranty

Warranty Type – 110 or 90

Damage Service Number – 97 09

Damage Code – 00 28

Labour

Time to check central wiring harness terminals

Labour Operation Code – 97 09 01 01

Time – 10 TU

Time to repair central wiring harness terminals x 1

Labour Operation Code – 97 09 41 51

Time – 30 TU

Time to repair central wiring harness terminals x 3

Labour Operation Code – 97 09 41 53

Time – 50 TU

Road Test

Labour operation code 01 21 00 01

Time – 30 TU

Required Parts and Tools

Part Number	Part Description	Quantity
See ETKA (P00293586)	Connector Terminal Contacts	As needed
See ETKA	Crimp connector tool (VAS 1978 B)	As needed
See ETKA (P00427711)	Housing connector for 16 way pin connector	As needed

Refer to ETKA parts catalogue