

"Incorrect Fuel Level Display" Warning/Fault Memory Entry "B10581B" or Check Engine Light Comes On (165/21)

Model Line: **Cayenne (9YA/9YB)**

Model Year: **As of 2018 up to 2021**

Concerns: **Rear-end electronics (BCM2) control unit**

Information: The customer complains that the Check Engine light comes on or the warning "Incorrect fuel level display - Service necessary" appears. The fault "B10581B - Left fuel level sensor – resistance too high" is stored in the fault memory of the rear-end electronics control unit.

Action required: In the event of a customer complaint, re-code the rear-end electronics (BCM2) control unit using the PIWIS Tester with software version **40.600.010** (or higher) installed.



Information

The total time required for coding is approx. 2 minutes.

Required tools

- Tools:
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **40.600.010** (or higher) installed
 - Battery charger with a current rating of **at least 90 A** and - if required - **also with a current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 Battery charger, 90 A**

For further information about the battery chargers to be used, see ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*.

Preparatory work

NOTICE

Fault entry in the fault memory and/or control unit coding aborted due to undervoltage.

- **Increased current draw during diagnosis or control unit coding can cause a drop in voltage, which can result in one or more fault entries and the abnormal termination of the coding process.**

⇒ **Before starting control unit coding, connect a suitable battery charger with a current rating of at least 90 A to the vehicle.**

NOTICE

Coding will be aborted if the WiFi connection is unstable.

- An unstable WiFi connection can interrupt communication between the PIWIS Tester and the vehicle communication module (VCI). As a result, coding may be aborted.
- ⇒ During control unit coding, always connect the PIWIS Tester to the vehicle communication module (VCI) via the USB cable.

NOTICE

Control unit coding will be aborted if the driver's key is not recognized

- If the driver's key is not recognized in the vehicle, coding cannot be started or will be interrupted.
- ⇒ Place the driver's key with the back facing down in the area in front of the storage compartment under the armrest (emergency start tray) in order to guarantee a permanent radio link between the vehicle and driver's key.

Work Procedure: 1 Connect a suitable battery charger with a current rating of **at least 90 A**, e.g. **Battery charger 90A**, to the jump-start terminals in the luggage compartment and switch it on. ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

- 2 Place driver's key in emergency start tray.
- 3 Connect **9900 - PIWIS Tester 3** to the vehicle communication module (VCI) via the **USB cable**. Then connect the communication module to the vehicle and switch on the PIWIS Tester.
- 4 Switch on the ignition.
- 5 On the PIWIS Tester start screen, call up the '**Diagnos**tics' application.

The vehicle type is then read out, the diagnostic application is started and the control unit selection screen is populated.



Emergency start tray

Re-coding rear-end electronics (BCM2) control unit

NOTICE

Use of a PIWIS Tester software version that is older than the prescribed version.

- Measure is ineffective
- ⇒ Always use the specified version or a higher version of the PIWIS Tester software for control unit coding.



Information

The procedure described here is based on the PIWIS Tester 3 software version **40.600.010**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.

A discrepancy may arise with later software versions for example.

Work Procedure: 1 Re-code rear-end electronics (BCM2) control unit automatically.

Required PIWIS software version:	40.600.010 (or higher)
Type of control unit coding:	Control unit coding using the 'Automatic coding' function for the rear-end electronics (BCM2) control unit: 'Rear-end electronics (BCM2)' control unit – 'Coding/programming' menu – 'Automatic coding' function.
Coding sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided procedure. Do not interrupt coding. When coding is complete, the message “Coding has been completed successfully” is displayed and a tick appears in the 'Status' box.
Procedure if control unit coding is not successful :	Repeat control unit coding.

Concluding work

Work Procedure: 1 Read out the fault memory and check any existing fault memory entries.



Information

If control units are found to have faults that are not caused by the fault described here, these must be **found** and **corrected**.

- 2 Delete the fault memory.
- 3 Switch off ignition.
- 4 Disconnect **9900 - PIWIS Tester 3** from the vehicle.
- 5 Remove the driver's key from the emergency start tray.
- 6 Disconnect the battery charger.

Invoicing

For documentation and warranty invoicing, enter the labor operation and PQIS coding specified below in the warranty claim:

APOS	Labor operation	I No.
57892500	Coding rear-end electronics control unit	

PQIS coding:

Location (FES5)	20150	Fuel level sensor
Damage type (SA4)	4021	Incorrect signal

References: ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

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