

Complaint - Various Warning Messages Appear in the Instrument Cluster After the Vehicle Has Been Stationary for a Long Time With the Ignition Switched On: Observe specified procedure (65/19)

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

Model Year: **As of 2018**

Subject: **Brake electronics (PSM, incl. parking brake) control unit/speed sensor**

Information: **Various yellow and red warning messages (chassis, PSM, airbag, etc.) can be displayed in the instrument cluster after the vehicle has been stationary for a long time with the ignition switched on (longer than 30 minutes).**

The following fault memory entries can also be present in the brake electronics (PSM, incl. parking brake) control unit:

Fault code	Description
C051800	Front left speed sensor – mechanical fault
C051900	Front right speed sensor – mechanical fault
C051A00	Rear left speed sensor – mechanical fault
C051B00	Rear right speed sensor – mechanical fault

Date of Introduction: Updated software used from:

Date	February 27, 2019
VIN	WP1AA2AY8KDA13106

Remedial Action: **Before doing any other work, check the following preconditions and implement them if necessary:**

- If the vehicle is affected by campaign AKA0, carry out this campaign first. See ⇒ *Technical Information 'AKA0 Stop Delivery/Recall campaign - Re-programming instrument cluster and various other control units'*.
- If the vehicle is affected by campaign WKC6, carry out this campaign first. See ⇒ *Technical Information 'WKC6 Workshop campaign - Re-programming air-conditioning control unit and various other control units'*.
- If the vehicle is affected by campaign WKD6, carry out this campaign first. See ⇒ *Technical Information 'WKD6 Workshop campaign - Re-coding control unit for assistance systems and re-programming various other control units if necessary'*.
- Software version in the instrument cluster control unit is "712" or higher.

If all preconditions are met, carry out the following measures:

- Check whether the fault memory entries were entered while driving or while the vehicle was stationary. To do this, select the fault memory entry in the PIWIS Tester and press •F12" to

display the description of when the fault occurred. To see the vehicle speed value, look under "Fault occurrence - Measured values - Reference - Vehicle speed".

- If the fault memory entries were entered **while driving** (vehicle speed > 0.0 m/s), replace all front and rear speed sensors **and also** re-program the brake electronics (PSM, incl. parking brake) control unit by entering a programming code.
- If the fault memory entries were entered **while the vehicle was stationary, only re-program the brake electronics (PSM, incl. parking brake) control unit using a programming code.**



Information

The total time required for control unit programming is **approx. 4 minutes**.

Tools:

- **9900 - PIWIS Tester 3** with installed PIWIS Tester test software **version 38.300.010** (or higher)
- **Battery charger** with a current rating of **at least 90 A**, e.g. **VAS 5908 - Battery charger 90A**

Preparatory work

NOTICE

Fault entry in the fault memory and control unit programming aborted due to low-voltage.

- Increased current draw during diagnosis or control unit programming can cause a drop in voltage, which can result in one or more fault entries and the abnormal termination of the programming process.
- ⇒ Before starting control unit programming, connect a suitable battery charger with a current rating of at least 90 A to the vehicle.

NOTICE

Control unit programming will be aborted if the WLAN connection is unstable.

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

NOTICE

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

- If the driver's key is not recognized in vehicles with Porsche Entry & Drive, programming cannot be started or will be interrupted.
- ⇒ Switch on the ignition using the original driver's key. To do this, replace the control unit in the ignition lock with the original driver's key if necessary.

- Work Procedure: 1 If the vehicle is affected by one of the campaigns AKA0, WKC6 or WKD6, make sure that the campaign has been carried out. Carry out any open campaigns first.
- 2 Carry out general preliminary work for control unit programming as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Preliminary work"*.
- 3 Read out the software version from the instrument cluster control unit in the ⇒ 'Extended identifications' menu using the PIWIS Tester and check whether the software version in the instrument cluster control unit is "712" or higher.



Information

If the software version of the instrument cluster is lower, programming cannot be performed.

- 4 Check whether the fault memory entries for the speed sensors were entered while driving or while the vehicle was stationary. To do this, select the fault memory entry in the PIWIS Tester and press •F12" to display the description of when the fault occurred. To see the vehicle speed value, look under "Fault occurrence - Measured values - Reference - Vehicle speed".
- 4.1 If the fault memory entries were entered **while driving**:
- Replace all speed sensors (front and rear) as described in ⇒ *Workshop Manual '451119 Removing and installing front speed sensors'* and ⇒ *Workshop Manual '451519 Removing and installing rear speed sensors'*.
 - Carry out control unit programming.
- 4.2 If the fault memory entries were entered **while the vehicle was stationary**:
- Carry out control unit programming.

Carrying out control unit programming

- Work Procedure: 1 The basic procedure for programming a control unit is described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Programming"*.

Specific information on control unit programming in the context of this Technical Information:

Required PIWIS Tester software version:	38.300.010 (or higher)
Type of control unit programming:	Control unit programming using the "Campaign" function in the Additional menu on the PIWIS Tester by entering a programming code.
Programming code:	M1M2S

Programming sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. The brake electronics (PSM, incl. parking brake) control unit is re-programmed during the programming sequence. Do not interrupt programming.
Programming time (approx):	4 minutes
Software version programmed during this campaign:	0131/0136 (PHEV) Following control unit programming, the software version can be read out of the brake electronics (PSM, incl. parking brake) control unit in the ⇒ 'Extended identifications' menu using the PIWIS Tester.
Procedure in the event of error messages appearing during the programming sequence:	⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"</i> .
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

Concluding work

Work Procedure: 1 Carry out general subsequent work for control unit programming as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Subsequent work"*.

Invoicing

Invoicing: For warranty invoicing, the following labour operations, coding and parts must be used depending on which measure is carried out:

APOS	Labour operation	I No.
45302505	Programming hydraulic unit (20 TU)	
45152000	Removing and installing rear speed sensors (58 TU)	
45112000	Removing and installing front speed sensors (125 TU)	

For invoicing and documentation using PQIS, enter the following coding:

Location (FES5)	45110	Front speed sensor
Damage type (SA4)	4021	Incorrect signal

Parts Info:



Information

The following components are only needed if the speed sensors must be replaced.

For vehicles with I-no.	Part No.	Designation - Use	Qty.
Unrestricted	958.927.807	⇒ Speed sensor Front wheel carrier/rear wheel carrier	4
1ZG/1ZM/1ZH/1ZR/1ZS/1ZJ/1ZB (Front disc brake, 18-inch)	WHT.004.571	⇒ Collared cheese head bolt with multiple-tooth head Front brake calliper	4
1LC/1LI/1ZN/1ZL/1ZI/1ZU (Front disc brake, 19-inch) and (Front disc brake (PSCB), 20-inch)	WHT.004.572	⇒ Collared cheese head bolt with hexagon socket head Front brake calliper	4
1ZV/1ZW (Front disc brake (PCCB), 21-inch)	958.008.411.00	⇒ Cheese head bolt Front brake calliper	4

- References:
- ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*
 - ⇒ *Workshop Manual '451119 Removing and installing front speed sensor'*
 - ⇒ *Workshop Manual '451519 Removing and installing rear speed sensor'*

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