

Re-programming PASM Control Unit (Warning message "Chassis system failure" in instrument cluster/SY2716)

Vehicle Type: **Cayenne (92A)**

Model Year: **As of 2010 up to 2016**

Equipment: Air suspension with Porsche Active Suspension Management (I-no. 1BK)

Subject: **Control unit for Porsche Active Suspension Management (PASM)**

Concern: **There is increased friction in the air spring compressor valves at temperatures below -13° F (-25° C).**

This can result in a situation in which the maximum control current is not sufficient to actuate the valves. As a result, a warning message will be displayed in the instrument cluster and Porsche Active Suspension Management (PASM) will stop working temporarily.

Remedial Action: Re-program PASM control unit using the PIWIS Tester with test software version **33.010.030** (PIWIS Tester 3) or version **17.100.030** (PIWIS Tester II) or a higher software version installed.

NOTICE

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

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

- Tools:
- Battery Charger/Power Supply - Suitable for AGM Type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V.
 - **9900 - PIWIS Tester 3** with PIWIS Tester software version **33.010.030** (or higher) installed
- or
- **9818 - PIWIS Tester II** with PIWIS Tester software version **17.100.030** (or higher) installed.

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 battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V.

NOTICE

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

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

NOTICE

Control unit programming will be aborted if the vehicle key is not recognized

- If the vehicle 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 vehicle key. To do this, replace the original vehicle key in the ignition lock with the plastic key fob if it was previously removed at the start of this procedure.

Work Procedure: 1 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'*.

Re-programming PASM control unit

**Information**

Due to an allocation error involving the various vehicle-dependent data records for the PASM control unit, **programming can be aborted** in some cases when using the specified **PIWIS Tester test software versions**.

This allocation error is corrected with the **updated test software version 33.700.010** or **version 17.700.010** (which should be available from week 29/16).

Given this, if programming is **aborted repeatedly** on the affected vehicle, the control unit programming measure described here **cannot be carried out** using the currently available PIWIS Tester test software versions. In this case, control unit programming must be carried out **again at a later time** using the **updated** test software versions specified above.



Information

The procedure described here is based on the PIWIS Tester II software version **17.100.030**.

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-program PASM control unit.**

The basic procedure for control unit programming is described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

For specific information on control unit programming during this campaign, see table below.

NOTICE

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

- **Measure is ineffective**

⇒ **Always use the prescribed version or a higher version of the PIWIS Tester software for control unit programming.**

Required PIWIS Tester software version:	<ul style="list-style-type: none"> • PIWIS Tester 3: 33.010.030 (or higher) • PIWIS Tester II: 17.100.030 (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:	Q1X9X
Programming sequence:	<p>Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence.</p> <p>During the programming sequence, the PASM control unit is re-programmed and then re-coded automatically.</p> <p>Do not interrupt programming and coding.</p>
Programming time (approx):	5 minutes

Data record (Porsche part number) programmed during this measure:	<ul style="list-style-type: none"> • 7P0907553AH • 7P0907553AJ • 7P0907553AK <p>The Porsche part number of the programmed data record is vehicle-dependent and can be read out of the PASM control unit in the ⇒ 'Extended identification' menu using the PIWIS Tester following control unit programming.</p> <p>The Porsche part numbers specified above are the currently valid part numbers.</p>
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 entering the programming code again. If programming is aborted repeatedly, see information below.

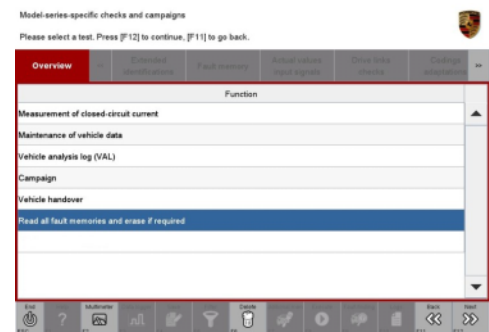
Reading out and erasing fault memory

Work Procedure: 1 Press •F7" in the control unit selection screen ('Overview' menu) to call up the Additional menu.

- 2 Select the function "Read all fault memories and erase if required" and press •F12" ('Next') to confirm your selection ⇒ *Erasing fault memories*.

The fault memories of the control units are read out.

- 3 Once you have read out the fault memories, erase the fault memory entries by pressing •F8" .
- 4 Press •F12" ('Yes') in response to the question as to whether you really want to delete all fault memory entries.



Erasing fault memories

The faults stored in the fault memories of the various control units are deleted.



Information

If fault memory entries for individual control units cannot be deleted, proceed as follows:

- Switch off the ignition.
- Disconnect the PIWIS Tester diagnostic connector from the diagnostic socket.
- Lock the vehicle using the driver's key.
- Wait approx. 1 minute before unlocking the vehicle again.
- Start the engine, leave it running for a short time and then stop it again.
- Switch off the ignition and wait approx. 10 seconds before switching it back on again.
- Plug the PIWIS Tester diagnostic connector into the diagnostic socket again and restore communication with the vehicle.
- Read out the fault memory again and delete any fault memory entries that are stored.

If the control units still have faults that cannot be deleted and are not caused by control unit programming, these faults must be found and corrected. This work **cannot** be invoiced under the workshop campaign number.

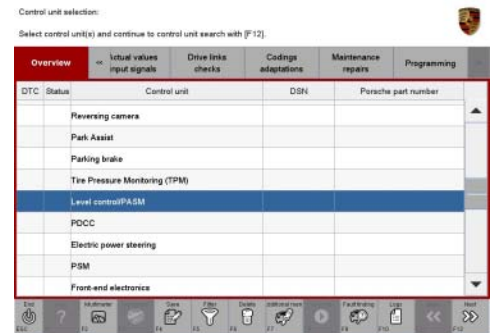
- 5 Once you have erased the fault memories, select the '**Overview**' menu to return to the control unit selection screen ⇒ *Control unit selection*.



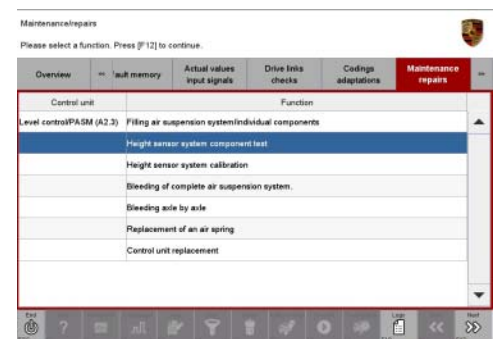
Control unit selection

Calibrating height sensors for the levelling system

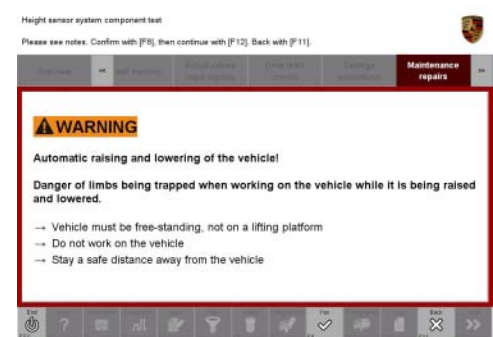
- Work Procedure: 1 Select the **'Levelling system/PASM'** control unit in the control unit selection screen ('Overview' menu) and press •F12" ('Next') to confirm your selection ⇒ *Selecting levelling system/PASM control unit.*
- 2 Once the levelling system/PASM control unit has been found and is displayed in the overview, select the **'Maintenance/repairs'** menu.
- 3 Select the **'Height sensor system component test'** menu item and confirm your selection by pressing •F12" ('Next') ⇒ *Height sensor system component test.*
- 4 Read the displayed warning message and confirm with •F8" ('Yes'). Then press •F12" ('Next') to continue ⇒ *Observing warning message.*



Selecting levelling system/PASM control unit



Height sensor system component test



Observing warning message

WARNING

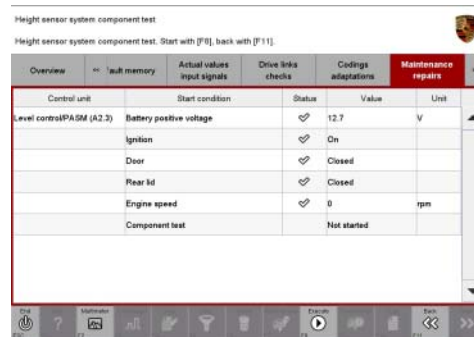
Automatic lifting and lowering of the vehicle

- Danger of limbs being trapped when working on the vehicle during the adjustment procedure.
- ⇒ The vehicle must stand freely and must not be jacked up.

- ⇒ Do not work on the vehicle.
- ⇒ Stay a safe distance away from the vehicle.

5 Observe the displayed preconditions. If these are met, a tick will appear in the relevant "Status" field on the PIWIS Tester display ⇒ *Starting component test.*

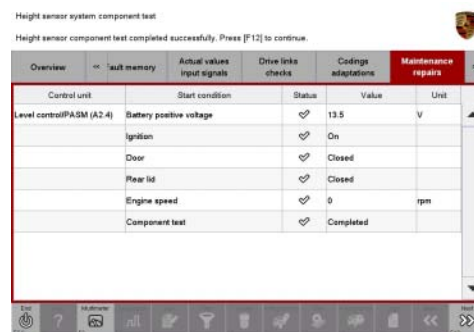
Then press •F8" ('Start') to start the component test.



Starting component test

Once the component test has been carried out successfully, a tick will appear in the "Status" field for the component test on the PIWIS Tester display ⇒ *Component test successful.*

If the component test is **not** completed successfully, the test must be **repeated**.



Component test successful

- 6 Press •F8" ('Stop') to exit the component test.
- 7 Calibrate the height sensors for the levelling system ⇒ *Workshop Manual '430115 Calibrating the levelling system'.*

Concluding work

- Work Procedure:
- 1 Switch off the ignition.
 - 2 Disconnect the PIWIS Tester from the vehicle.
 - 3 Switch off and disconnect the battery charger.
 - 4 On vehicles with Porsche Entry & Drive, replace the original vehicle key in the ignition lock with the control panel again.

Invoicing

The work involved is invoiced under the labor operation:

4

Service
4316 ENU 27/16

Technical Information

APOS	Labour operation	I No.
43162540	Programming PASM control unit	

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

Location (FES5)	43160	PASM control unit
Damage type (SA4)	9739	Software update for improved customer satisfaction

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