

WJ60 - Adapting Vehicle Order in the Instrument Cluster and Re-Coding PCM and Air-Conditioning Control Unit (Workshop Campaign)

Important: **CRITICAL WARNING** - This campaign includes steps where control unit(s) in the vehicle will be programmed with the PIWIS Tester. The vehicle voltage must be maintained between 13.5 volts and 14.5 volts during this programming. Failure to maintain this voltage could result in damaged control unit(s). Damage caused by inadequate voltage during programming is not a warrantable defect. The technician must verify the actual vehicle voltage in the PIWIS Tester before starting the campaign and also document the actual voltage on the repair order.

Model Year: **2019**

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

Subject: **Instrument cluster**

Information: **Due to a faulty Timer function for the internal clock in the instrument cluster, there is a possibility that the control unit system will be activated cyclically by the instrument cluster after stopping the vehicle.**

As a result, the control unit system will not be switched to energy-saving mode, resulting in increased closed-circuit current consumption. This can deplete the vehicle battery if the vehicle is idle for a long time.

Remedial Action: Adapt the vehicle order and re-code the PCM and air-conditioning control unit using the PIWIS Tester with software version **37.600.025** (or higher) installed.

NOTICE

Use of a PIWIS Tester test 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 test software for control unit coding.**

Important: **Please complete campaign repair during PDI for any affected vehicle.**

Affected Vehicles: Only the vehicles assigned to the campaign (see also PIWIS Vehicle information). This campaign affects 484 vehicles in North America.

Required tools

Tools: • **9900 - PIWIS Tester 3** with PIWIS Tester software version **37.600.025** (or higher) installed

- Battery charger with a current rating of **at least 90 A** and a **current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 - Battery charger 90A**



Information

The new Cayenne is equipped as standard with a **lithium starter battery**, which must only be charged using suitable battery chargers.

For further information about the battery chargers to be used, see:

- ⇒ *Workshop Manual '27061N General information on the 12-volt lithium-ion battery'*
- ⇒ *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 low-voltage.

- **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 WLAN 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.**
- ⇒ **Position the driver's key in the rear area of the left cupholder in the center console between the holding struts (emergency start tray) in order to guarantee a permanent radio link between the vehicle and driver's key.**

Work Procedure: 1 Connect a battery charger that is suitable for lithium starter batteries with a current rating of at least 90 A (e.g. **VAS 5908 - Battery charger 90A**) to the jump-start terminals in the engine compartment.
For instructions, see ⇒ *Workshop Manual '27061N External power connection, jump-lead starting'*.

- 2 Position the driver's key in the rear area of the left cupholder in the center console between the holding struts (emergency start tray) in order to guarantee a permanent radio link between the vehicle and driver's key ⇒ *Emergency start tray*.
- 3 **9900 - PIWIS Tester 3** must be connected 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 '**Diagnostics**' application. The vehicle type is then read out, the diagnostic application starts and the control unit selection screen is populated.



Emergency start tray

Reading out hardware version of the instrument cluster

Work Procedure: 1 Read out the hardware version from the instrument cluster.

- 1.1 Select the **Instrument cluster** control unit in the control unit selection screen ('**Overview**' menu) and confirm your selection by pressing •F12" ('Next').
 - 1.2 Once the instrument cluster control unit has been found and is displayed in the 'Overview', select the '**Extended identification**' menu.
- For hardware version **011**: Continue with ⇒ *Technical Information '2706IN Adapting vehicle order in the instrument cluster and re-coding PCM and air-conditioning control unit'*.
 - For any **other hardware version**, **do not carry out the campaign** ⇒ End of action required. For warranty processing, see Scope 1 under ⇒ *Technical Information '2706IN Warranty processing'*.

Adapting vehicle order in the instrument cluster and re-coding PCM and air-conditioning control unit



Information

The procedure described here is based on the PIWIS Tester test software version **37.600.025**.

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 In the control unit selection screen ('**Overview**' menu), press •F7" to call up the Additional menu.
- 2 When the question "Create Vehicle Analysis Log (VAL)?" appears, press •F12" ('Yes') to confirm that you want to create a VAL.

- 9 Select the '**CLIMATE**' menu on the PCM touch-screen.
- 10 Select the submenu '**HEATING**' ⇒ *PCM Climate menu -1-* and activate Timer 1 ⇒ *PCM Climate menu -2-*.
When the procedure is finished, set the vehicle back to its original status. To do this, continue with **Step 11**.



PCM Climate menu

- 11 In the control unit selection screen ('**Overview**' menu), press •F7" to call up the Additional menu.

- 12 Select '**Maintenance of vehicle data**' and press •F12" ('Next') to confirm your selection.

- 13 In the '**Family**' column under '**Auxiliary heating**', change the value **9M9 (Auxiliary water heater with timer and remote control)** to **9M0 (Without auxiliary heating/auxiliary heater)** (⇒ *Selecting auxiliary heating*).

Press •F12" ('Next') twice to finish and then press •F8" to save the change.

The image shows a screen titled 'Maintenance of vehicle data' with the instruction 'Please select a value from the list.' Below this is a table with columns: 'Value group', 'Family', 'Value', and 'Changed'. The 'AUX. HEATING' row is highlighted in blue.

Value group	Family	Value	Changed
WINDSCREEN		A0P - WINDSHIELD HEAT. HEBSLAT. G...	
CENTRAL ELECTRICS		VH2 - 48 V VEHICLE ELECTRICAL SYSTEM	
INSTR. CLUSTER DIALS (VW INSTRUMENT LIGHTING)		7V0 - INSTRUMENT DIALS IN BLACK	
ADD. TANK FOR BOP		FKB - WITHOUT ADDITIONAL TANK FOR...	
ADDITIONAL TYRES		ZWA - WITHOUT ADDITIONAL TYRES	
ADDITIONAL CHILD SEAT ANCHOR		SA1 - ISOFIX CHILD SEAT ANCHOR RE...	
ADDITIONAL DUST SEALS		B00 - WITHOUT ADDITIONAL OUTER B...	
ADDITIONAL WARNING LIGHTS		9TF - EXTERIOR MIRROR LIGHT	
AUX. HEATING		9M0 - WITHOUT AUX. HEATING HEA...	
ADDITIONAL INSTRUMENTS		BL4 - SPORT CHRONO PACKAGE PLUS	

Selecting auxiliary heating

- 14 In the control unit selection screen ('**Overview**' menu), select the control units '**PCM 5.0**' and '**Air conditioning**' and select the '**Coding/programming**' menu.

- 15 Select the '**Automatic coding**' function and press •F12" ('Next') to start coding.

- 16 When coding is complete, the message "Coding has been completed successfully" is displayed and a tick appears in the 'Status' boxes.

If coding is not completed successfully (error message "Coding was not completed successfully"), coding must be **repeated**.

Concluding work

Work Procedure: 1 Read out and erase the fault memories of all control units.

- 1.1 Press •F7" in the control unit selection screen ('Overview' menu) to call up the Additional menu.

- 1.2 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.

- 1.3 Once you have read out the fault memories, check the fault memory entries.



Information

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

- 1.4 Press •F8" to delete fault memory entries.

- 1.5 Press •F12" ('Yes') in response to the question as to whether you really want to delete all fault memory entries.

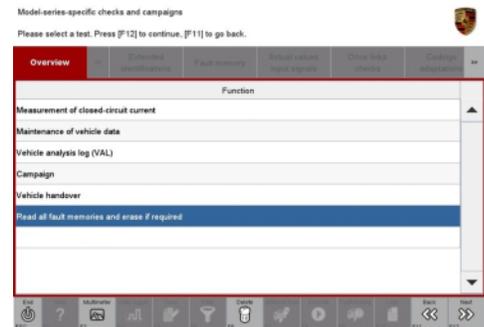
The faults stored in the fault memories of the various control units are deleted.



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.



Erasing fault memories

- 1.6 Once you have erased the fault memories, select the **'Overview'** menu to return to the control unit selection screen ⇒ *Control unit selection*.
- 2 Create Vehicle Analysis Log (VAL).
Return the VAL together with the VAL created when you started the work using the PIWIS Tester.
- 3 Switch off the ignition.
- 4 Disconnect the PIWIS Tester from the vehicle.
- 5 Switch off and disconnect the battery charger.
- 6 Enter the campaign in the Warranty and Maintenance booklet.



Control unit selection

End of action required.

For warranty processing, see Scope 2 under ⇒ *Technical Information '2706IN Warranty processing'*.

Warranty processing**Information**

The specified working time was determined specifically for carrying out this campaign and includes all necessary preliminary and subsequent work.

The working time may differ from the working times published in the Labor Operation List in PIWIS.

Scope 1: Reading out hardware version of the instrument cluster

- If the hardware version is **not 011**, no further action required

Working time:

Reading out hardware version from the instrument cluster

Labor time: **20 TU**

Includes: Connecting and disconnecting battery charger
Connecting and disconnecting PIWIS Tester

⇒ **Damage Code WJ60 066 000 1**

Scope 2: Adapting vehicle order and re-coding PCM and air-conditioning control unit

- Hardware version is **011**

Working time:

Adapting vehicle order and re-coding PCM and air-conditioning control unit

Labor time: **56 TU**

Includes: Connecting and disconnecting battery charger
Connecting and disconnecting PIWIS Tester
Reading out hardware version from the instrument cluster
Reading out and erasing fault memory
Creating VAL (2 x)

⇒ **Damage Code WJ60 066 000 1**

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