

Complaint – Warning Message "E-Power Not Available" Appears in the Instrument Cluster: Observe Specified Procedure (53/21)

Vehicle Type: **Cayenne E-Hybrid (9YA/9YB)**

Model Year: **As of 2019 up to 2020**

Concerns: **DME control unit**

Information: The message 'E-Power not available' is displayed in the instrument cluster. The entry '**P103A00 - Engine oil – fuel content too high**' is also stored in the fault memory of the DME control unit.

Action required: In the event of a customer complaint, proceed as follows:

- Change oil and oil filter
- Re-program engine electronics (DME) control unit
- Create vehicle analysis log (VAL)

This programming step resets the value "Total amount of petrol and alcohol in oil" to prevent possible subsequent repairs.



Information

The total time required for control unit programming is **approx. 12 minutes**.

Required tools



Information

The 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 '2706IN General information on the 12-volt lithium-ion battery'*
- ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

- Tools:
- 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**
 - 9900 - PIWIS Tester 3 with PIWIS Tester software version 40.100.010 (or higher) installed

Required parts and materials

Parts Info:

Part No.	Designation – Use	Qty.
PAF00072900	⇒ Hexagon socket head bolt – Front underbody cover	3 ea.
9A719840500	⇒ Oil filter element with sealing ring	1 ea.
PAF013849	⇒ Sealing ring, A14 x 20 – Oil drain plug	1 ea.

Materials:

Part No.	Designation	Qty.
00004321046	⇒ Exxon Mobil 1 ESP x2 0W-20 engine oil	20-liter/ 5.28 gal container ¹⁾
00004330501	⇒ Lubricant for O-ring	100 g/ 3.52 oz tube ²⁾

¹⁾ approx. 7.2 liter/ 1.9 gal required per vehicle

²⁾ approx. 2 grams/ 0.07 oz required per vehicle

Changing oil and filter

Work Procedure: 1 Change oil filter. ⇒ *Workshop Manual '173055 Changing oil filter'*

2 Change engine oil. ⇒ *Workshop Manual '170117 Draining and filling engine oil'*

Re-programming DME control unit**WARNING****Electrically moved side windows and rear spoiler**

- Danger of limbs being trapped or severed
 - Risk of damage to components
- ⇒ Do not reach into the danger area.
- ⇒ Keep third parties away from the danger area.
- ⇒ Do not move components or tools into the danger area.
- ⇒ Retract roll-up sun blinds on the rear side windows before starting programming or coding.

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 diagnostics.
- ⇒ 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 WiFi 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 the vehicle, control unit programming 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 with a current rating of **at least 90 A**, e.g. **Battery charger 90A**, to the jump-start terminals in the engine compartment and switch it on. ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

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 Switch on the ignition.

4 **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.

5 Re-program DME control unit.



Emergency start tray

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:	40.100.010 (or higher)
Type of control unit programming:	Control unit programming using the 'Automatic programming' function for the DME control unit: 'Engine electronics (DME)' control unit – 'Coding/programming' menu – 'Automatic programming' function.
Programming sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. During the programming sequence, the DME control unit is re-programmed and then re-coded automatically . Do not interrupt programming and coding. Once the control units have been programmed and coded, you will be prompted to switch the ignition off and then back on again after a certain waiting time. Backup documentation of the new software versions is then performed.
The programming sequence takes (approx.):	12 minutes
Procedure in the event of abnormal termination of control unit programming:	<ul style="list-style-type: none"> • Switch ignition off and then on again. • Read out and erase fault memories ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Subsequent work"</i>. • Repeat control unit programming by restarting programming.
Procedure in the event of other 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> .

**Information**

For the vehicles for which a complaint is received, the software version does not change because only the old application software is re-installed. This programming step resets the value "Total amount of petrol and alcohol in oil" and can prevent possible subsequent repairs.

Concluding work

Work Procedure: 1 Create a vehicle analysis log (VAL) and check it.

- 1.1 Create vehicle analysis log (VAL).
- 1.2 Select the **'Engine electronics (DME)'** control unit in the control unit selection screen (**'Overview'** menu) and press **•F12** ('Next') to confirm your selection.
- 1.3 Press **•F10** to open the **'Logs'** menu and select **'Vehicle analysis log'**.
- 1.4 Check whether the value 'Total amount of petrol and alcohol in oil' was reset.

2 Read out and erase the fault memory.

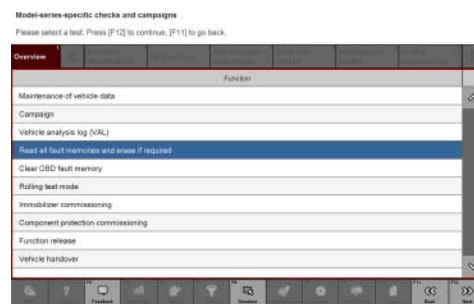
- 2.1 In the control unit selection screen (**'Overview'** menu), press **•F7** to call up the **'Additional menu'** (⇒ *Control unit selection*).
- 2.2 Select the function **'Read all fault memories and erase if required'** and press **•F12** ('Next') to confirm ⇒ *Erasing fault memories*.



Control unit selection

The fault memories of the control units are read out.

- 2.3 Once you have read out the fault memories, delete the fault memory entries by pressing **•F8**.
- 2.4 Press **•F12** ('Yes') in response to the question asking 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 there are still fault memory entries in individual control units, start the engine briefly and then switch it off again. Wait for approx. 10 seconds before switching the ignition on again and re-establish the connection between the PIWIS Tester and the vehicle. Then, read out and erase the fault memories of the affected control units again separately.

If the control units are found to have other faults, which cannot be erased and are **not caused by control unit programming**, these faults must be found and corrected.

3 Switch off ignition.

- 4 Disconnect the PIWIS Tester from the vehicle.
- 5 Switch off and disconnect the battery charger.

Invoicing

Invoicing: For documentation and warranty invoicing, enter the labor operations, PQIS coding and part numbers specified below in the warranty claim:

APOS	Labor operation	I No.
17305560	Changing oil filter	
17011760	Draining and filling engine oil	
24702540	Programming DME control units	

PQIS coding:

Location (FES5)	24700	DME control unit
Damage type (SA4)	1134	Programming error

Parts Info:	Part No.	Designation	Qty.
	PAF00072900	Hexagon socket head bolt	3 ea.
	9A719840500	Oil filter element with sealing ring	1 ea.
	PAF013849	Sealing ring, A14 x 20	1 ea.
	00004321046	Exxon Mobil 1 ESP x2 0W-20 engine oil	approx. 7.2 liter/ 1.9 gal
	00004330501	Lubricant for O-ring	approx. 2 grams/ 0.07 oz

References: ⇒ *Workshop Manual '173055 Changing oil filter'*
 ⇒ *Workshop Manual '170117 Draining and filling engine oil'*
 ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*
 ⇒ *Workshop Manual '27061N General information on the 12-volt lithium-ion battery'*
 ⇒ *Workshop Manual '9X001N Basic instructions and procedure for control unit programming using the PIWIS Tester'*

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