WKH9 - Checking Exhaust Gas Recirculation Cooler and Replacing it if Necessary (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: **As of 2013 up to 2014**

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

Equipment: Emissions concept ULEV2 (I-no. 7GB)

Subject: **Exhaust gas recirculation cooler**

Information: **Due to a component allocation error in the Porsche Parts Catalog (PET), there is a possibility that the wrong exhaust gas recirculation cooler was installed in the affected vehicles during previous repairs in the Porsche dealership.**

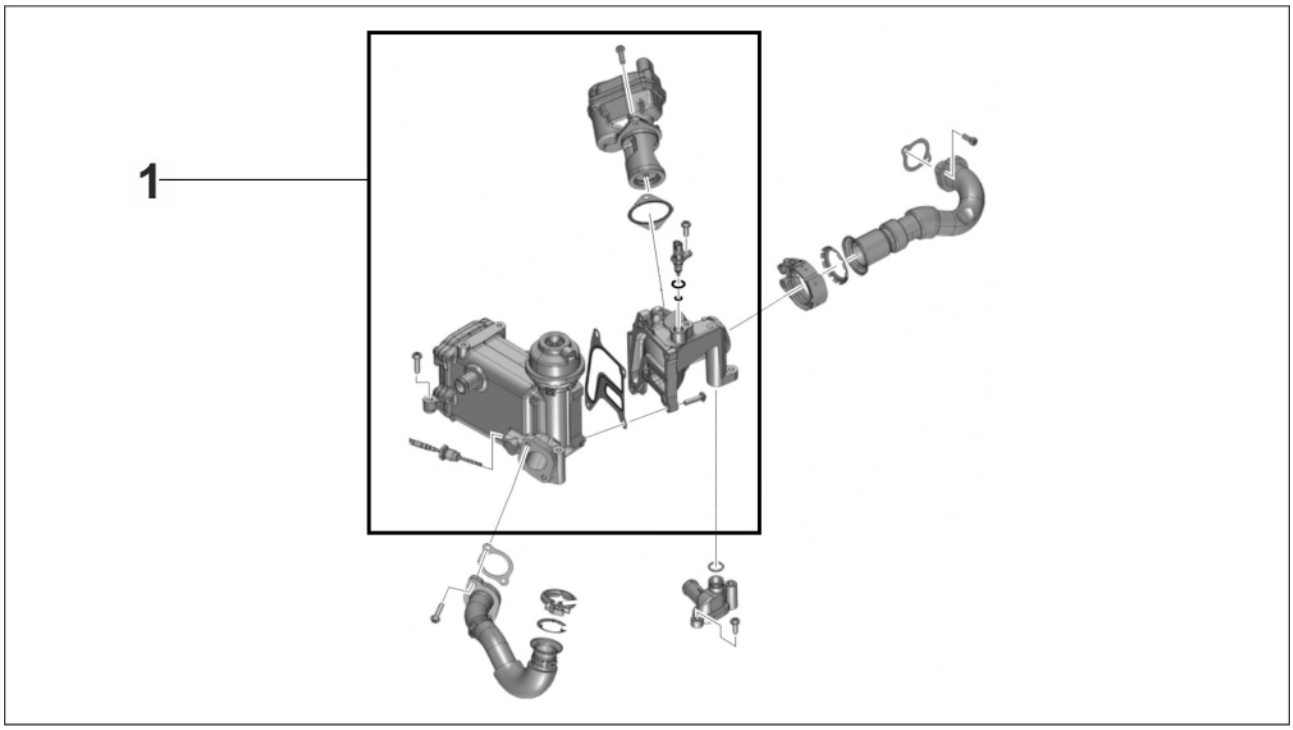
Remedial Action:
- Check the part number of the installed exhaust gas recirculation cooler
- Replace exhaust gas recirculation cooler if necessary

Information

The exhaust gas recirculation cooler **also** includes the **exhaust gas recirculation valve**, which must be **replaced together** with the exhaust gas recirculation cooler, if necessary.

Affected Vehicles: Only the vehicles assigned to the campaign (see also PCSS Vehicle Information). This campaign affects 7,419 vehicles in North America.

Overview:



Overview of exhaust gas recirculation cooler

1 – Exhaust gas recirculation cooler with valve and valve housing (**check**, replace if necessary)

Parts required

Information
No parts are required for **checking** the cooler.

Parts Info: Parts required for **replacing the exhaust gas recirculation cooler**:

Part No.	Designation – Use	Qty.
PAB131515C	⇒ Exhaust gas recirculation cooler set Includes: – Exhaust gas recirculation valve	1 ea.
95811154710	⇒ Seal – Connecting tube to intake-air distributor	1 ea.
1K0253725F	⇒ Clip – Connecting tube to intake-air distributor	1 ea.

95810735810	⇒ Seal – Exhaust pipe to turbocharger	1 ea.
95811154720	⇒ Seal – Exhaust pipe to exhaust gas recirculation valve	1 ea.
95811154805	⇒ Clip – Exhaust pipe to exhaust gas recirculation valve	1 ea.
N 90809102	⇒ O-ring, 16 x 2 – Vacuum line to exhaust gas recirculation valve	1 ea.
99951265809	⇒ Hose clamp, 27 x 12 – Coolant line to exhaust gas recirculation cooler	1 ea.
95811014710	⇒ Round seal – Intake-air distributor to cylinder head	6 ea.
95811014800	⇒ Rectangular seal – Intake-air distributor to cylinder head	6 ea.

Materials: **Required materials** (usually already available in the Porsche dealership):

Part No.	**Designation – Use**	**Qty.**
00004330516	⇒ Coolant additive, 20-liter container – Cooling system	As much as required (approx. 2 liters required per vehicle)

Required tools

Tools: Tools required for **checking** the cooler:

- Shop light
- Digital camera, endoscope or similar aids

Additional tools required for **replacing** the exhaust gas recirculation cooler:

- **80-200 - Removal lever**
- **Nr.73-1 - Flexible screwdriver**
- Spring band clamp pliers, e.g. **VAS 6930 - Spring band clamp pliers**
- **9696 - Filling device** for cooling system
- **9900 - PIWIS Tester 3**
- 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 90 A or equivalent, e.g. **VAS 5907 - Battery charger 45A**
- Torque wrench, 2–10 Nm (1.5–7.5 ftlb.), e.g. **VAG 1783 Torque wrench**
- Torque wrench, 6–50 Nm (4.5–37 ftlb.), e.g. **VAG 1331A Torque wrench**

- Torque/torque angle screw tool, 20–400 Nm (15–296 ftlb.), e.g. **VAS 6942 Torque wrench, digital**

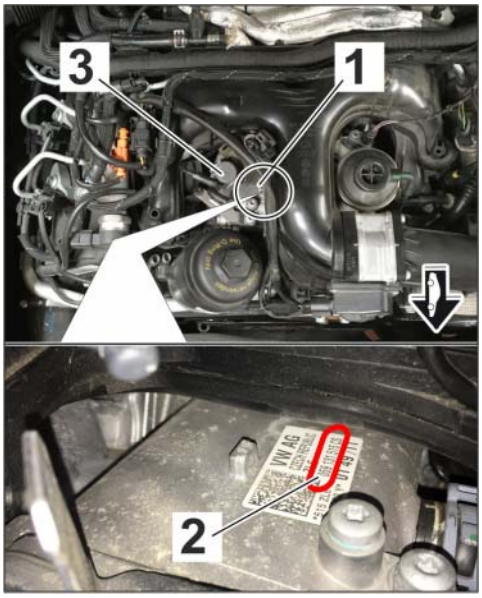
Checking exhaust gas recirculation cooler

Work Procedure: 1 Remove engine cover (design cover) ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover)'*.

2 Read off the part number of the exhaust gas recirculation cooler and check it using the table below. Due to the limited accessibility, use a shop light or torch as well as a digital camera, endoscope or similar aid to record and read off the part number completely.

Information

The part number ⇒ *Part number of the exhaust gas recirculation cooler* **-2-** of the cooler is located on a sticker on the top of the cooler ⇒ *Part number of the exhaust gas recirculation cooler* **-1-**, below the front part of the intake-air distributor.
For better accessibility, loosen the electric change-over valve ⇒ *Part number of the exhaust gas recirculation cooler* **-3-** at the holder and set it aside with lines connected.



Part number of the exhaust gas recirculation cooler

Correct part numbers:	
059 131 515 **DD**	Exhaust gas recirculation cooler **Model year 2013–2014**
059 131 515 **DN**	
059 131 515 **EG**	
059 131 515 **EF**	
059 131 515 **FP**	

- The part number of the cooler **matches one of the part numbers specified above**: The installed cooler is **correct**. Continue with **Step 3**.

- If the part number of the installed cooler is **not listed**, the cooler must be replaced. For instructions, see ⇒ *Technical Information '108319 Replacing exhaust gas recirculation cooler'*.

3 Install engine cover (design cover) ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover)'*.

4 Enter the campaign in the Warranty and Maintenance booklet.

End of remedial action.
For warranty processing, see **Scope 1** under ⇒ *Technical Information '108319 Warranty processing'*.

Replace exhaust gas recirculation heat dissipator

Work Procedure:

1 Raise the vehicle on a lifting platform ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*.

2 Drain coolant.

2.1 Remove engine guard ⇒ *Workshop Manual '108019 Removing and installing engine guard'*.

2.2 Drain coolant ⇒ *Workshop Manual '193817 Draining and filling coolant'*.

3 Remove intake-air distributor ⇒ *Workshop Manual '244619 Removing and installing intake-air distributor'*.

4 Remove exhaust gas recirculation cooler together with the exhaust gas recirculation valve and install a new cooler and a new valve ⇒ *Workshop Manual '264319 Removing and installing exhaust gas recirculation cooler'*.

5 Install intake-air distributor ⇒ *Workshop Manual '244619 Removing and installing intake-air distributor'*.

6 Fill and bleed the cooling system.

6.1 Add coolant and bleed the cooling system ⇒ *Workshop Manual '193817 Draining and filling coolant (includes bleeding)'*.

6.2 Install engine guard ⇒ *Workshop Manual '108019 Removing and installing engine guard'*.

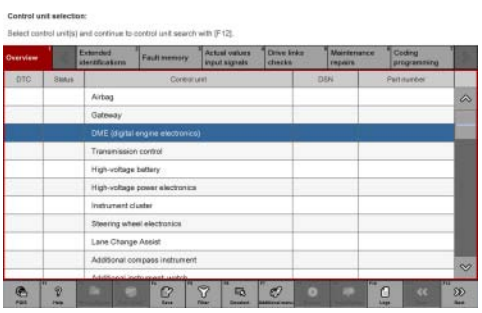
7 Install engine cover (design cover) ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover)'*.

8 Perform initialisation of the exhaust gas recirculation system.

8.1 Carry out general preliminary work as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

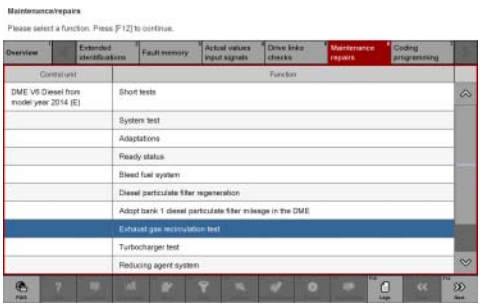
8.2 In the control unit selection screen ('Overview' menu), select the **'DME'** control unit and press • F12 " ('Next') to confirm ⇒ *DME control unit*.

8.3 Once the DME control unit has been found and is displayed in the overview, select the **'Maintenance / repairs'** menu.



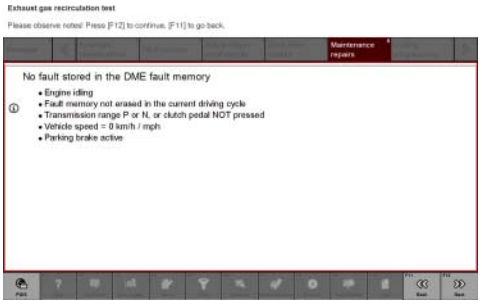
DME control unit

8.4 Select **'Exhaust gas recirculation test'** in the menu and press • F12 " ('Next') to confirm ⇒ *Exhaust gas recirculation test*.



Exhaust gas recirculation test

8.5 Read the instructions that are displayed and press • F12 " ('Next') to confirm ⇒ *Instructions for exhaust gas recirculation test*.

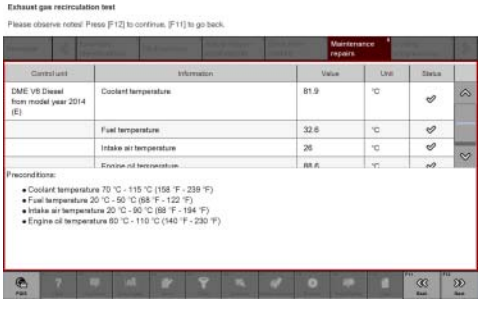


Instructions for exhaust gas recirculation test

8.6 Comply with the displayed preconditions and press • F12 " ('Next') to confirm ⇒ *Preconditions for exhaust gas recirculation test*.

8.7 In the overview that is then displayed, start the **'Exhaust gas recirculation'** test by pressing • F8 " ('Start').

8.8 Read and follow the instructions on the PIWIS Tester while the exhaust gas recirculation test and initialisation is being performed.



Preconditions for exhaust gas recirculation test

Once the test and initialisation is completed successfully, a tick will appear in the "Status" box on the PIWIS Tester display.

If the test and initialisation is **not** completed successfully, the process must be **repeated**.

8.9 Press • F8 " ('Stop') to stop the exhaust gas recirculation test.

8.10 Press • F11 " ('Back') to go back to the Start page of the **'Maintenance / repairs'** menu and return to the control unit selection screen.

8.11 Carry out general subsequent work as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

9 Enter the campaign in the Warranty and Maintenance booklet.

For warranty processing, see **Scope 2** under ⇒ *Technical Information '9X00IN Warranty processing'*.

Warranty processing

Information

The specified working times were determined specifically for carrying out this campaign and may differ from the working times published in the Labour Operation List in PCSS.

Scope 1: **Checking exhaust gas recirculation cooler** – the cooler does **not** need to be replaced

Working time:	
Checking exhaust gas recirculation cooler	Labor time: **32 TU**
Includes: Removing and installing engine cover (design cover)	
⇒ **Damage Code WKH9 066 000 1**	

Scope 2: **Checking and replacing exhaust gas recirculation cooler**

Working time:	
Replacing exhaust gas recirculation cooler	Labor time: **286 TU**
Includes: Removing and installing engine cover (design cover)	
Checking exhaust gas recirculation cooler	
Raising and lowering the vehicle	
Draining and filling coolant	
Removing and installing intake-air distributor	
Connecting and disconnecting battery charger	
Connecting and disconnecting PIWIS Tester	
Performing exhaust gas recirculation test using the PIWIS Tester	

Reading out and erasing fault memory

Parts required:

PAB131515C	Exhaust gas recirculation cooler	1 ea.
95811154710	Seal	1 ea.
1K0253725F	Clip	1 ea.
95810735810	Seal	1 ea.
95811154720	Seal	1 ea.
95811154805	Clip	1 ea.
N 90809102	O-ring	1 ea.
99951265809	Hose clamp	1 ea.
95811014710	Seal	6 ea.
95811014800	Seal	6 ea.

Required materials:

00004330516	Coolant additive, 20-liter container	0.1 ea. (= approx. 2 liters)

⇒ **Damage Code WKH9 066 000 2**