

WC43 - Replacing Electric Change-over Valves (Workshop Campaign)

Vehicle Type: **911 Carrera (991)/911 Carrera S (991)**

Model Year: **As of 2012 up to 2013**

Revisions: **Revision 1** – November 2, 2012;
 1. Amends the table on Page 2, i.e., items 7 and 8 have been reversed.
 2. Amends text for Items 7 and 8 by reversing their order.
Revision 2 – November 29, 2012 Additional information note added to page 4 with illustration “Change-over valve new/old”.

Concerns: **Electric change-over valves**

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. There is the possibility that electric change-over valves, which may be susceptible to the ingress of moisture due to insufficient sealing, were installed in the affected vehicles. This can cause the change-over valves to malfunction over time.

As a result, control over the closing valves in the clutch cooling system (PDK) and gear wheel set (PDK and manual transmission) may be impaired.

In extreme driving situations (e.g. race starts, high ambient temperature, frequent gear changes), the transmission or clutch could overheat.

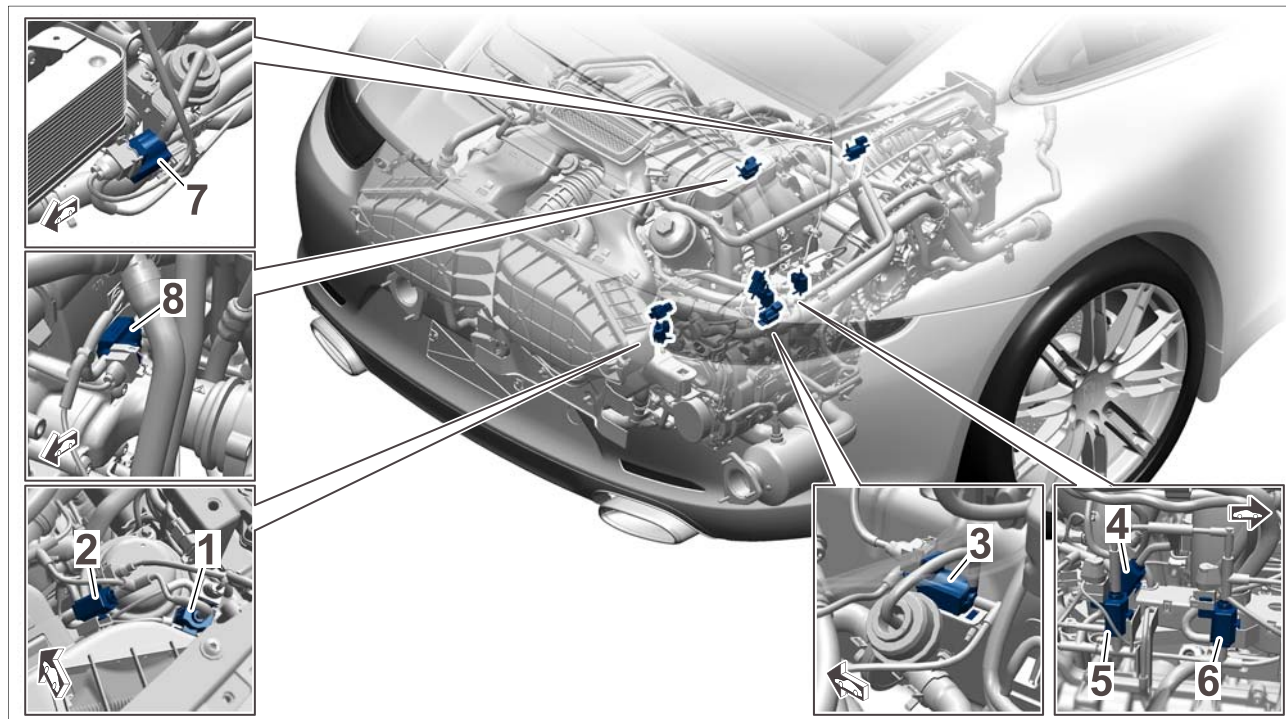
Action Required: **Replace the electric change-over valves** for the gear wheel set heat exchanger and the change-over valve for the clutch fluid heat exchanger.
 Additionally, all thermal management change-over valves of the same design must be replaced in order to ensure that all valves within the vehicle are of the same type.

Affected Vehicles: The VIN(s) can be checked by using PIWIS Vehicle Information link to verify if the campaign affects the vehicle. This campaign is scope specific to the VIN! Failure to verify in PIWIS may result in an improper repair. This campaign affects 3,718 vehicles in North America.

Parts Info: **NOTE: DO NOT ORDER PARTS FOR THIS CAMPAIGN. THEY WILL BE AUTOMATICALLY ALLOCATED TO YOUR DEALERSHIP.**

000.043.207.99 ⇒ Change-over valve

Qty. depends on equipment (5 to 8 valves)



Installation position of change-over valves

The number of change-over valves required depends on the vehicle equipment.

Item	Change-over valve (function)	991 (3.4 l)	991 S (3.8 l)	Note
1	Air cleaner housing flap	■	■	
2	Sound symposer	■	■	
3	Shut-off valve for heat exchanger	■	■	
4	Exhaust flaps	□	■	Only for 3.8-liter engine or sports exhaust system (I-no. 176)
5	Coolant shut-off valve on engine	■	■	Coolant bypass
6	Resonator flap		■	
7	Shut-off valve for clutch fluid heat exchanger	□	□	Only for PDK transmission (I-no. 250)
8	Shut-off valve for gear wheel set heat exchanger	■	■	

■ = Standard

□ = Optional

Special Tools: **Nr.89 Pos.5 - Torque screwdriver**
Part No. PNA OT6 494 (VAS 6494)

Work Procedure: See Attachment "A".

Claim Submission: See Attachment "B".

Attachment "A" **Work Procedure**

- 1 Remove rear spoiler ⇒ *Workshop Manual '66581905 Removing and installing rear spoiler - section on "Removing"*.
- 2 Remove DME control unit ⇒ *Workshop Manual '247019 Removing and installing DME control unit - section on "Removing"*.
- 3 Remove rear underbody panelling ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody - section on "Removing"*.

Replace change-over valves



Information

The procedure for replacing the change-over valves is described in detail using the change-over valve for the air cleaner flap as an example.

The work must be carried out in the same way for the other change-over valves.



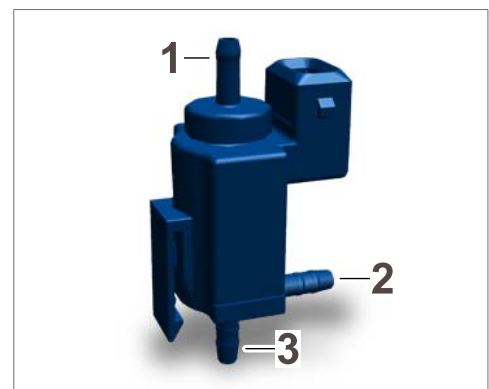
Information

Replace the change-over valves individually so as not to mix up the connecting lines and plug connections.

- 1 – Fresh-air connection
- 2 – Vacuum line for the actuator
- 3 – Vacuum connection

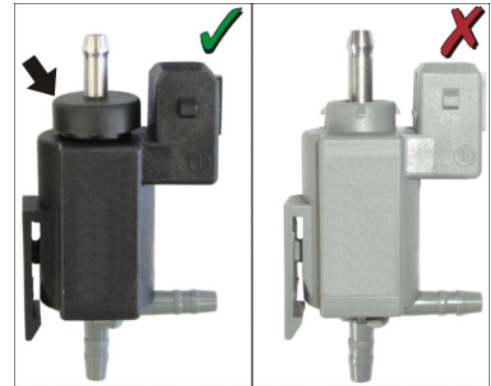


Information



Overview of change-over valve

The new change-over valve **must** have a protection cap, see arrow in illustration "Change-over valve new/old".



Change-over valve, new/old

1 Replace change-over valve for air cleaner housing flap.

1.1 Remove change-over valve.

1.1.1 Release electric plug connection ⇒ *Change-over valve for air cleaner housing flap -1-* and pull it off the change-over valve ⇒ *Change-over valve for air cleaner housing flap -2-*.

1.1.2 Pull fresh-air line ⇒ *Change-over valve for air cleaner housing flap -3-* off the change-over valve.

1.1.3 Pull vacuum line ⇒ *Change-over valve for air cleaner housing flap -4-* off the change-over valve.

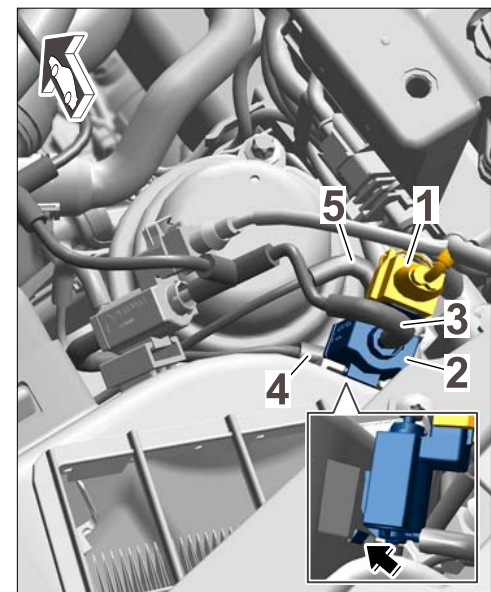
1.1.4 Pull vacuum line for the air cleaner housing flap ⇒ *Change-over valve for air cleaner housing flap -5-* off the change-over valve.

1.1.5 Unclip change-over valve from the air cleaner housing using a screwdriver ⇒ *Change-over valve for air cleaner housing flap -arrow-* and pull it off in an upward direction.

1.2 Install new change-over valve, part no. **000.043.207.99**.

1.2.1 Press the change-over valve ⇒ *Change-over valve for air cleaner housing flap -2-* into the guide on the air cleaner housing until it engages securely.

1.2.2 Fit vacuum line for the air cleaner housing flap ⇒ *Change-over valve for air cleaner housing flap -5-* on the change-over valve.

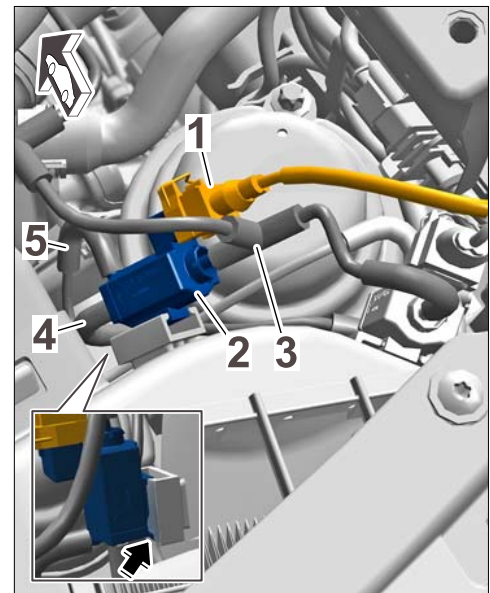


Change-over valve for air cleaner housing flap

- 1.2.3 Fit vacuum line (supply) ⇒ *Change-over valve for air cleaner housing flap -4-* on the change-over valve.
- 1.2.4 Fit fresh-air line ⇒ *Change-over valve for air cleaner housing flap -3-* on the change-over valve.
- 1.2.5 Plug in electric connector ⇒ *Change-over valve for air cleaner housing flap -1-* on the change-over valve ⇒ *Change-over valve for air cleaner housing flap -2-* until the connector engages securely.

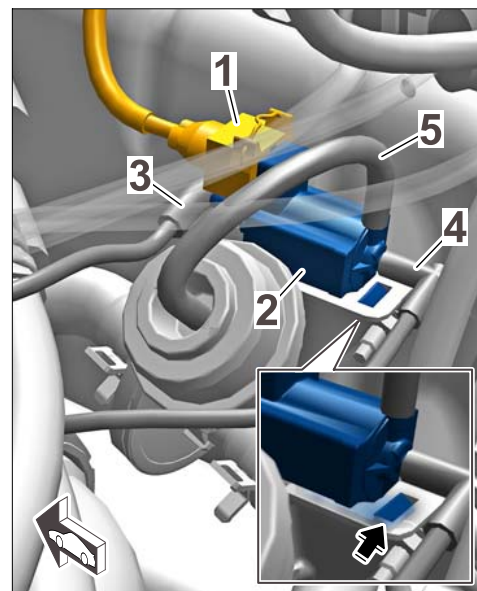
2 Replace change-over valve for sound symposer.

- 1 – Electric plug connection
- 2 – Change-over valve for sound symposer
- 3 – Fresh-air line
- 4 – Vacuum line (supply)
- 5 – Vacuum line for sound symposer



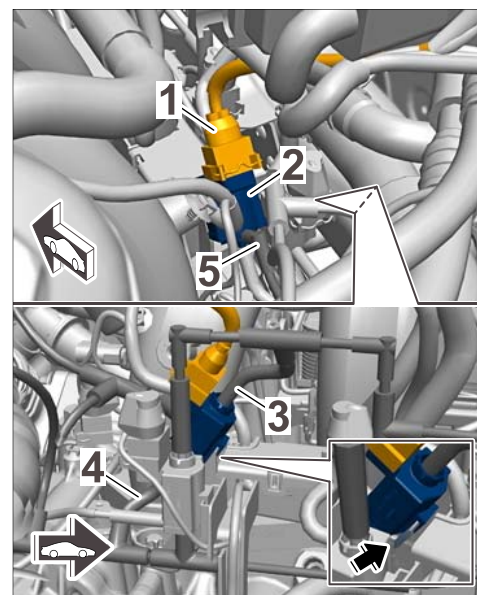
Change-over valve for sound symposer

- 3 Replace change-over valve for heat exchanger shut-off valve.
- 1 – Electric plug connection
 - 2 – Change-over valve for heat exchanger shut-off valve
 - 3 – Fresh-air line
 - 4 – Vacuum line (supply)
 - 5 – Vacuum line for heat exchanger shut-off valve



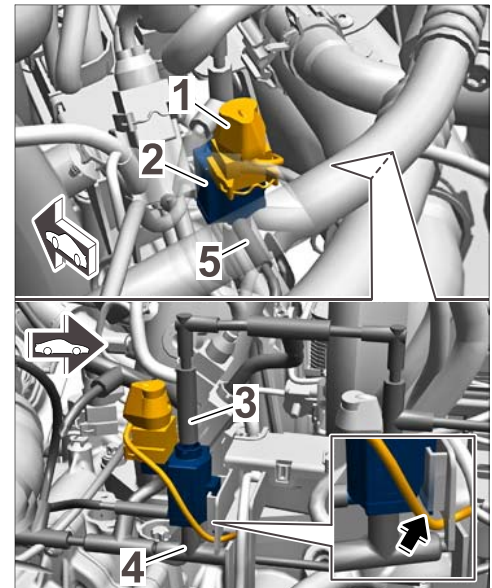
Change-over valve for heat exchanger

- 4 Replace change-over valve for exhaust flaps (**only for 3.8-liter engine or sports exhaust system, I-no. 176**).
- 1 – Electric plug connection
 - 2 – Change-over valve for exhaust flaps
 - 3 – Fresh-air line
 - 4 – Vacuum line (supply)
 - 5 – Vacuum line for the exhaust flaps



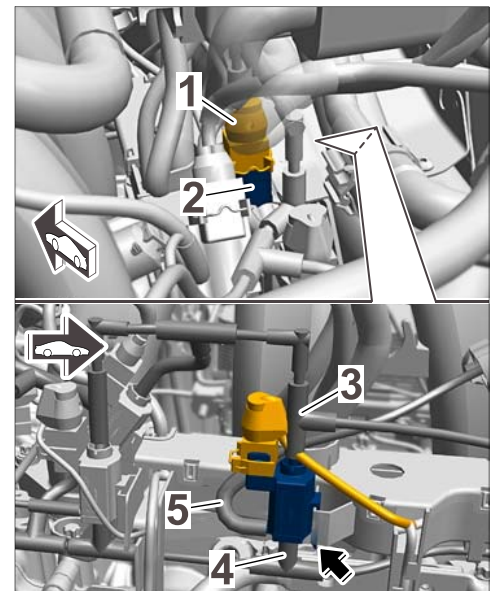
Change-over valve for exhaust flaps

- 5 Replace change-over valve for coolant shut-off valve for engine.
- 1 – Electric plug connection
 - 2 – Change-over valve for coolant shut-off valve for engine
 - 3 – Fresh-air line
 - 4 – Vacuum line (supply)
 - 5 – Vacuum line for coolant shut-off valve for engine



Change-over valve for coolant shut-off valve

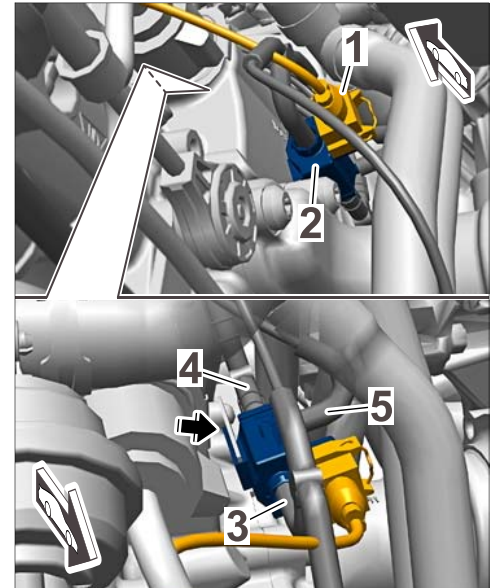
- 6 Replace change-over valve for resonator flap (**only for 3.8-liter engine**).
- 1 – Electric plug connection
 - 2 – Change-over valve for resonator flap
 - 3 – Fresh-air line
 - 4 – Vacuum line (supply)
 - 5 – Vacuum line for resonator flap



Change-over valve for resonator flap

- 7 Replace change-over valve for shut-off valve for gear wheel set heat exchanger.

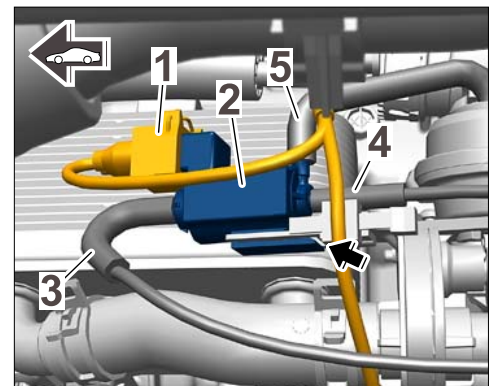
- 1 – Electric plug connection
- 2 – Change-over valve for shut-off valve for gear wheel set heat exchanger
- 3 – Fresh-air line
- 4 – Vacuum line (supply)
- 5 – Vacuum line for shut-off valve for gear wheel set heat exchanger



Change-over valve for gear wheel set heat exchanger

- 8 Replace change-over valve for shut-off valve for clutch fluid heat exchanger **(only for PDK transmission, I-no. 250)**.

- 1 – Electric plug connection
- 2 – Change-over valve for shut-off valve for clutch fluid heat exchanger
- 3 – Fresh-air line
- 4 – Vacuum line (supply)
- 5 – Vacuum line for shut-off valve for clutch fluid heat exchanger



Change-over valve for shut-off valve for clutch fluid heat exchanger

Subsequent work

- 1 Install cover for rear underbody ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody - section on "Installing"*.
- 2 Install DME control unit ⇒ *Workshop Manual '247019 Removing and installing DME control unit - section on "Installing"*.
- 3 Install rear spoiler ⇒ *Workshop Manual '66581905 Removing and installing rear spoiler - section on "Installing"*.
- 4 Enter the workshop campaign in the Warranty and Maintenance booklet.

Attachment "B"

Claim Submission - Workshop Campaign WC43

Warranty claims should be submitted via WWS/PQIS.

Open campaigns may be checked by using either the PIWIS Vehicle Information system or through PQIS Job Creation.

Labor, parts, and sublet will be automatically inserted when Technician is selected in WWS/PQIS. If necessary, the required part numbers will need to be manually entered into warranty system by the dealer administrator.

Scope 1:

Valid for:

- **911 Carrera (991) with manual transmission (I-no. 480) and standard exhaust system**

Working time:		
Replacing electric change-over valves		Labor time: 155 TU
Includes:	Removing and installing cover for rear underbody	
	Removing and installing DME control unit	
	Removing and installing rear spoiler	
Parts required:		
000.043.207.99	Change-over valve	5
⇒ Damage code WC43 066 000 2		

Scope 2:

Valid for:

- **911 Carrera (991) with manual transmission (I-no. 480) and sports exhaust system (I-no. 176)**
- **911 Carrera (991) with PDK transmission (I-no. 250) and standard exhaust system**

Working time:		
Replacing electric change-over valves		Labor time: 165 TU
Includes:	Removing and installing cover for rear underbody	
	Removing and installing DME control unit	
	Removing and installing rear spoiler	
Parts required:		
000.043.207.99	Change-over valve	6
⇒ Damage code WC43 066 000 2		

Scope 3:

Valid for:

- 911 Carrera (991) with PDK transmission (I-no. 250) and sports exhaust system (I-no. 176)
- 911 Carrera (991) with manual transmission (I-no. 480) and standard exhaust system
- 911 Carrera (991) with manual transmission (I-no. 480) and sports exhaust system (I-no. 176)

Working time:

Replacing electric change-over valves

Labor time: **171 TU**

Includes: Removing and installing cover for rear underbody
 Removing and installing DME control unit
 Removing and installing rear spoiler

Parts required:

000.043.207.99 Change-over valve 7

⇒ Damage code WC43 066 000 2

Scope 4:

Valid for:

- 911 Carrera (991) with PDK transmission (I-no. 250) and standard exhaust system
- 911 Carrera (991) with PDK transmission (I-no. 250) and sports exhaust system (I-no. 176)

Working time:

Replacing electric change-over valves

Labor time: **180 TU**

Includes: Removing and installing cover for rear underbody
 Removing and installing DME control unit
 Removing and installing rear spoiler

Parts required:

000.043.207.99 Change-over valve 8

⇒ Damage code WC43 066 000 2

References:

⇒ Workshop Manual '66581905 Removing and installing rear spoiler'

⇒ Workshop Manual '519419 Removing and installing cover for rear underbody'

⇒ *Workshop Manual '247019 Removing and installing DME control unit'*

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