

AJ11 - Replacing Brake System Components (Delivery Stop/Recall 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: 2018

Vehicle Type: Panamera 4 E-Hybrid (971)/Panamera Turbo S E-Hybrid (971)
 Panamera 4 E-Hybrid Executive (971)/Panamera Turbo S E-Hybrid Executive (971)
 Panamera 4 E-Hybrid Sport Turismo (971)/Panamera Turbo S E-Hybrid Sport Turismo (971)

Subject: Brake system components

Information: Due to a temporary manufacturing problem with a supplier, there is a possibility that corrosion can occur in the brake line between the hydraulic unit and brake master cylinder.

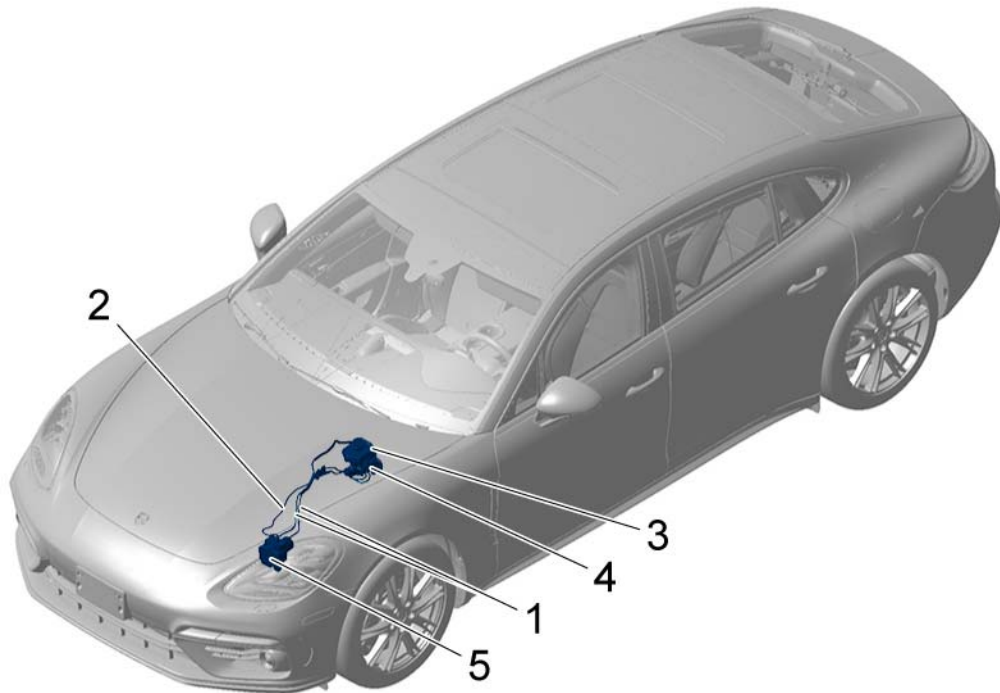
As a result, rust particles can be deposited in the filter elements inside the hydraulic unit and can block it. This can also cause the brake system to fail.

Remedial Action: Replace brake system components.
 The following measures are required for this:

- Replacing reservoir
- Replacing hydraulic unit with PSM control unit
- Replacing brake master cylinder
- Replacing brake lines and return line
- Bleeding the brake system

Affected Vehicles: Only the vehicles assigned to the campaign (see also PIWIS Vehicle information). This campaign affects 112 vehicles in North America.

Installation
Position:



Installation position of brake system components

- 1 – Brake lines
- 2 – Return line
- 3 – Reservoir
- 4 – Brake master cylinder
- 5 – Hydraulic unit

Required parts and materials

Parts Info: **Note: Parts for this recall can now be ordered as normal as needed. No PTEC/PAV or email required. Parts will NOT be automatically allocated to your dealership. In urgent cases parts can be PDX ordered.**

Part No.	Designation – Use	Qty.
00004330182	⇒ Reservoir	1 ea.
00004330183	⇒ Hydraulic unit	1 ea.
00004330184	⇒ Brake master cylinder	1 ea.
PAB611243	⇒ O-ring – between brake master cylinder and brake booster	1 ea.

00004330185	⇒ Return line – between hydraulic unit and reservoir	1 ea.
00004330186	⇒ Brake line – between hydraulic unit and brake master cylinder	1 ea.
00004330187	⇒ Brake line – between hydraulic unit and brake master cylinder	1 ea.
N 90440003	⇒ Hexagon-head bolt, M8 x 1.25 x 35 – A-strut to body	2 ea.
N 10261311	⇒ Hexagon nut, M10 – Spring strut with A-strut to body	2 ea.

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

Part No.	Designation – Use	Qty.
00004321086	⇒ Brake fluid, 30-liter container – Brake system	As much as required (approx. 5 liters required per vehicle)
00004330516	⇒ Coolant additive, 20-liter container – Cooling system	As much as required (approx. 1 liter required per vehicle)

Required tools

- Tools:
- **9900** – PIWIS Tester 3
 - Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 – Battery charger 90A**
 - Torque wrench, 2 – 10 Nm (1.5 – 7.5 ftlb.), e.g. **V.A.G. 1783 – Torque wrench 2-10 Nm (1.5-7.5 ftlb.)**
 - Torque wrench, 6 – 50 Nm (4.5 – 37 ftlb.), e.g. **V.A.G. 1331A - Torque wrench 6-50 Nm (4.5-37 ftlb.)**
 - Torque wrench, 40 – 200 Nm (30 – 148 ftlb.), e.g. **V.A.G. 1332 - Torque wrench 40-200 Nm (30-148 ftlb.)**
 - Torque wrench, digital, e.g. **VAS 6942 - Torque wrench, digital**
 - Plastic wedge
 - Puller, e.g. **VAS 6935 - Puller**
 - Spring band clamp pliers, e.g. **VAS 6890 - Spring band clamp pliers**
 - Hose clamping pliers, e.g. **No. 192 - Hose clamping pliers**

- Cooling system tester, e.g. **V.A.G 1274B - Cooling system tester**
- Porsche adapter set for cooling system tester, e.g. **VAS 6562 - Test adapter for cooling system tester**
- Vacuum pump, e.g. **VAS 6096/2 - Vacuum pump**
- Cooling system filling device, e.g. **9696 - Filling device**
- Brake fluid bleeding device

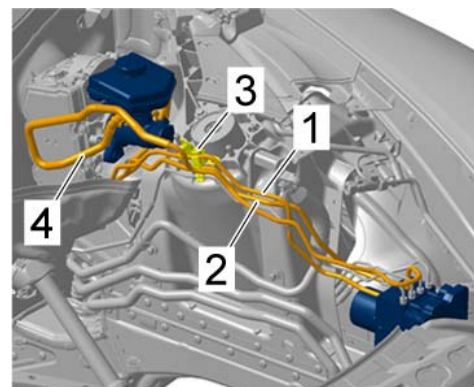
Preparatory work

- Work Procedure: 1 Observe warning notes for working on the high-voltage vehicle electrical system ⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage vehicle electrical system'*.
- 2 Isolate the high-voltage system from the power supply and complete the relevant documentation ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*.
- 3 Remove cowl panel cover ⇒ *Workshop Manual '508719 Removing and installing cowl panel cover'*.
- 4 Remove cross panel ⇒ *Workshop Manual '508119 Removing and installing cross panel'*.
- 5 Remove front section of front wheel housing liner at the left. For instructions, see ⇒ *Workshop Manual '505619 Removing and installing front wheel housing liner'*.
- 6 Remove front trim panel (engine compartment) at the left. For instructions, see ⇒ *Workshop Manual '700219 Removing and installing front trim panel (engine compartment)'*.
- 7 Remove electric passenger compartment heater ⇒ *Workshop Manual '828019 Removing and installing electric passenger compartment heater'*.

Replace brake system components

- Work Procedure: 1 Read out data from the PSM control unit. For instructions, see ⇒ *Workshop Manual '453055 Replacing PSM control unit'*.
- 2 Remove reservoir ⇒ *Workshop Manual '471019 Removing and installing brake fluid reservoir'*.
- 3 Remove brake master cylinder ⇒ *Workshop Manual '471519 Removing and installing brake master cylinder'*.
- 4 Remove hydraulic unit ⇒ *Workshop Manual '453019 Removing and installing hydraulic unit'*.

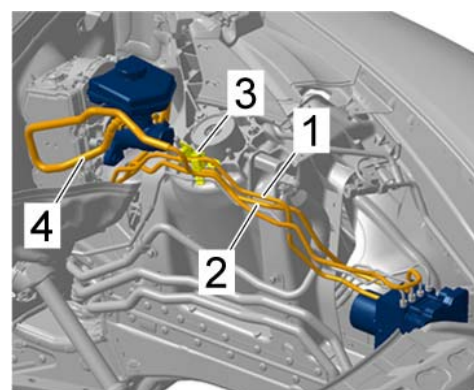
- 5 Unclip brake lines ⇒ *Brake lines and return line -1 and 2-* at the holder ⇒ *Brake lines and return line -3-* and guide out return line ⇒ *Brake lines and return line -4-*.
- 6 Install new hydraulic unit ⇒ *Workshop Manual '453019 Removing and installing hydraulic unit'*.



Brake lines and return line

Part No.	Designation	Qty.
00004330183	Hydraulic unit	1 ea.

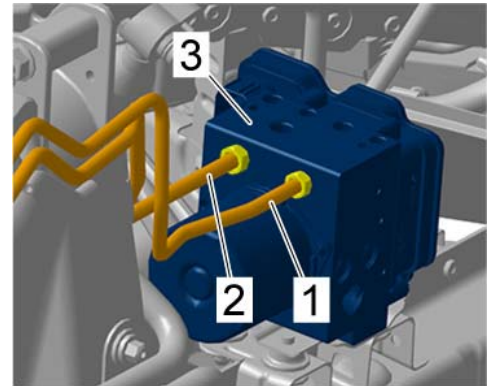
- 7 Route new brake lines ⇒ *Brake lines and return line -1 and 2-* and return line ⇒ *Brake lines and return line -4-* and clip them into the holders provided ⇒ *Brake lines and return line -3-*.



Brake lines and return line

Part No.	Designation	Qty.
00004330185	Return line	1 ea.
00004330186	Brake line	1 ea.
00004330187	Brake line	1 ea.

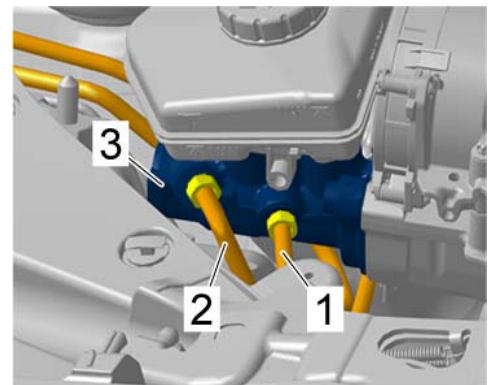
- 8 Fit brake lines ⇒ *Brake lines on hydraulic unit -1 and 2-* and return line on the hydraulic unit ⇒ *Brake lines on hydraulic unit -3-*. For instructions, see ⇒ *Workshop Manual '453019 Removing and installing hydraulic unit'*.
- 9 Install new brake master cylinder with a new O-ring ⇒ *Workshop Manual '471519 Removing and installing brake master cylinder'*.



Brake lines on hydraulic unit

Part No.	Designation	Qty.
00004330184	Brake master cylinder	1 ea.
PAB611243	O-ring	1 ea.

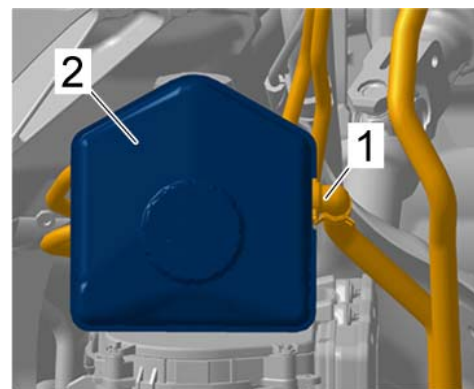
- 10 Fit new brake lines ⇒ *Brake lines on brake master cylinder -1 and 2-* on the brake master cylinder ⇒ *Brake lines on brake master cylinder -3-*. For instructions, see ⇒ *Workshop Manual '471519 Removing and installing brake master cylinder'*.
- 11 Install new reservoir ⇒ *Workshop Manual '471019 Removing and installing brake fluid reservoir'*.



Brake lines on brake master cylinder

Part No.	Designation	Qty.
00004330182	Reservoir	1 ea.

- 12 Connect return line ⇒ *Reservoir -1-* to the reservoir ⇒ *Reservoir -2-* and lock it.
- 13 Write data that was previously read out of the old PSM control unit into the new PSM control unit. Then, re-code the PSM control unit automatically. For instructions, see ⇒ *Workshop Manual '453055 Replacing PSM control unit'*.
- 14 Flush the brake system **thoroughly** and bleed it ⇒ *Workshop Manual '470107 Bleeding the brake system'*.



Reservoir

Concluding work

- Work Procedure: 1 Install electric passenger compartment heater ⇒ *Workshop Manual '828019 Removing and installing electric passenger compartment heater'*.
- 2 Install front trim panel (engine compartment) at the left. For instructions, see ⇒ *Workshop Manual '700219 Removing and installing front trim panel (engine compartment)'*.
 - 3 Install front section of front wheel housing liner at the left. For instructions, see ⇒ *Workshop Manual '505619 Removing and installing front wheel housing liner'*.
 - 4 Install cross panel ⇒ *Workshop Manual '508119 Removing and installing cross panel'*.
 - 5 Install cowl panel cover ⇒ *Workshop Manual '508719 Removing and installing cowl panel cover'*.
 - 6 Start the high-voltage system and complete the relevant documentation ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*.
 - 7 Enter the campaign in the Warranty and Maintenance booklet.

Warranty processing

Scope 1:

Working time:		
Replacing brake system components		Labor time: 610 TU
Includes:	Isolating high-voltage system from power supply/Starting high-voltage system	
	Removing and installing cowl panel cover	
	Removing and installing cross panel	
	Removing and installing front section of front wheel housing liner at the left	

Removing and installing front trim panel (engine compartment) at the left
 Removing and installing electric passenger compartment heater
 Bleeding the brake system

Parts required:

00004330182	Reservoir	1 ea.
00004330183	Hydraulic unit	1 ea.
00004330184	Brake master cylinder	1 ea.
PAB611243	O-ring	1 ea.
00004330185	Return line	1 ea.
00004330186	Brake line	1 ea.
00004330187	Brake line	1 ea.
N 90440003	Hexagon-head bolt, M8 x 1.25 x 35	2 ea.
N 10261311	Hexagon nut, M10	2 ea.

Required materials:

00004321086	Brake fluid, 30-liter container	0.17 ea. (= approx. 5 liters)
00004330516	Coolant additive, 20-liter container	0.05 ea. (= approx. 1 liter)

⇒ Damage Code AJ11 099 000 2

Warranty processing

Information: Scope 1 is not relevant for this vehicle type.

Scope 2:

Working time:

Replacing brake system components

Labor time: **661 TU**

Includes: Isolating high-voltage system from power supply/Starting high-voltage system
 Removing and installing cowl panel cover
 Removing and installing cross panel
 Removing and installing front section of front wheel housing liner at the left

Removing and installing front trim panel (engine compartment) at the left
 Removing and installing electric passenger compartment heater
 Bleeding the brake system

Parts required:

00004330182	Reservoir	1 ea.
00004330183	Hydraulic unit	1 ea.
00004330184	Brake master cylinder	1 ea.
PAB611243	O-ring	1 ea.
00004330185	Return line	1 ea.
00004330186	Brake line	1 ea.
00004330187	Brake line	1 ea.
N 90440003	Hexagon-head bolt, M8 x 1.25 x 35	2 ea.
N 10261311	Hexagon nut, M10	2 ea.

Required materials:

00004321086	Brake fluid, 30-liter container	0.17 ea. (= approx. 5 liters)
00004330516	Coolant additive, 20-liter container	0.05 ea. (= approx. 1 liter)

⇒ **Damage Code AJ11 099 000 2**

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