

WNW3 - Check High-Voltage Battery and Replace if Necessary (Stop Delivery)

Revision: This bulletin replaces bulletin Group 2 90/23 WNW3, dated July 14, 2023.

Model Year: **As of 2021 up to 2023**

Model Line: **Taycan (Y1A / Y1B / Y1C)**

Concerns: **High-voltage battery**

Cause: **In order to verify the results of the WNT8 test campaign on the long-term quality of the high-voltage battery, the high-voltage battery must be checked and, if necessary, evaluated by the Porsche AG Development Department.**

Action: Check high-voltage battery and replace it depending on the test result.



Information

Every vehicle is assigned **exactly one** campaign scope.

⇒ To find out which scope is assigned to the relevant vehicle, see PCSS Vehicle Information.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information).

Required parts



Information

If other parts are required to carry out the action, refer to the corresponding workshop manuals in the PCSS and PET Parts Catalogue. Any costs incurred must then be invoiced using a reimbursement claim for the original campaign claim for this action.



Information

A new pressure release valve must only be installed if the high-voltage battery is not replaced.

If a new high-voltage battery is installed as part of this campaign, it is not necessary to replace the pressure release valve.

Parts Info:	Part No.	Designation – Location	Number
	9J1915754	⇒ Pressure valve	1 piece
	N 10700201	⇒ Internal hexagon round-head bolt – Pressure valve	4 pieces
	Also required for vehicles with PDCC:		
	N 91006202	⇒ Hexagon-head bolt (combination) – Anti-roll bar PDCC, front	4 pieces

Required tools

- Tool:
- **T40262 - Locking cap**
 - **VAS 6558A - High-voltage testing module**
 - **VAS 6558A - /9-6A high-voltage test adapter**
 - **VAS 6883A - Insulated tool set**
 - **VAS 5581A - Diagnostic Box**
 - **VAS 6884 - High-voltage cordon**
 - **VAS 6911/3B - Test plug set**
 - **9925 - Leak-tightness test set**
 - **9925/1 - Adapter cable**
 - **V.A.G 1274B - Cooling system tester**
 - **V.A.G 1397B - Pressure sensor**
 - **9900 - PIWIS Tester 4**
 - Battery charger with a current rating of at least 90 A, e.g. **VAS 5908 - battery charger 90 A**
 - **VAS 6931 - Transmission and gearbox jack**
 - 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.)**



Information

Auto-ship WNW3 campaign tool

Special test adapters (one adapter plate and one adapter plug each) are required to check the high-voltage battery for leaks.

One **PNAWNW3KIT** kit will be auto-shipped to every dealer and service center by PCNA. Additional kits are available to order through Polaris.

Required WNW3 test adapter - Set (PNAWNW3KIT):

- **Adapter plate**



Adapter plate

- **Adapter plug**



Adapter plug

Preparatory work



Incorrect handling of high-voltage components

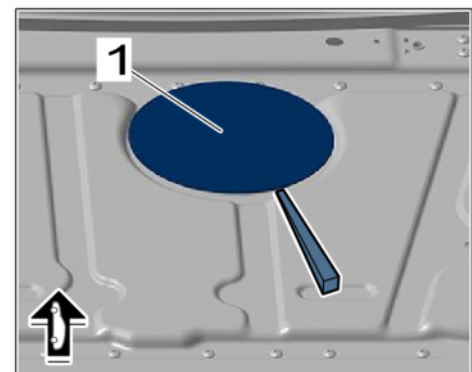
- Electric shock
 - Short circuit
 - Fire
 - Explosion
- ⇒ Only appropriately trained and authorized persons are permitted to work on high-voltage vehicles and components.
- ⇒ Required qualification: High voltage technician or high voltage expert.

- ⇒ **Observe national requirements and legislation for this work.**
- ⇒ **Always use insulated tools, e.g. VAS 6883 Insulated Tool Set when working on these components.**
- ⇒ **Observe general warning notes for working on the high-voltage system.** ⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage system'*

- Work Procedure: 1 Observe general warning notices for working on the high-voltage system.
⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage system'*
- 2 Classify lithium-ion battery.
⇒ *Workshop Manual '2X00IN Classification of lithium-ion battery'*
- 3 Open the door-window on the driver's side. Open vehicle front flap and rear luggage compartment and secure against unintentional closing.
- 4 Isolate the high-voltage system from the power supply.
⇒ *Workshop Manual '2X00IN Activating/Starting the high-voltage system'*
- 5 Remove (center) luggage compartment trim panel luggage compartment cover.
⇒ *Workshop Manual '70061900 Remove and install (centre) luggage compartment trim panel (luggage compartment cover)'*
- 6 Remove insulating mat.
- 6.1 Loosen plastic clips at the corners of the insulating mat.
- 6.2 Remove insulating mat.

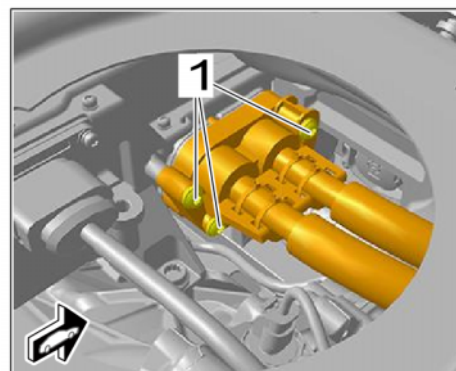
Check high-voltage battery

- Work Procedure: 1 Lift up body cover ⇒ *Removing body cover-1* in the luggage compartment to allow access to the high-voltage line for the electric machine at the rear using a plastic wedge and remove it.



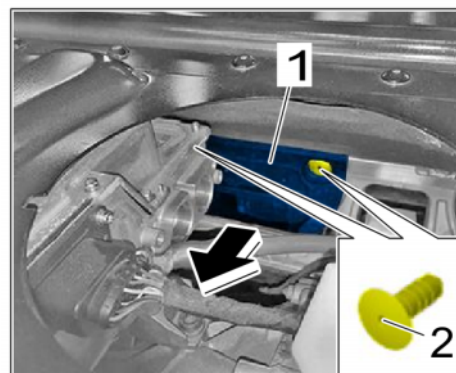
Removing body cover

- 2 Unscrew screws ⇒ *High-voltage line for rear electric machine-1-* for high-voltage line connection for electric machine at the rear and disconnect electric plug connection from electric machine at the rear.



High-voltage line for rear electric machine

- 3 Remove Styrofoam element ⇒ *Removing Styrofoam element-1-*.
 - 3.1 Undo clips ⇒ *Removing Styrofoam element-2-*.
 - 3.2 Carefully pull Styrofoam element ⇒ *Removing Styrofoam element-1-* upwards.



Removing Styrofoam element

CAUTION

Electrically moved components

- **Danger of limbs being trapped**
- ⇒ **Switch off electric power to drive motor.**
- ⇒ **Make sure it does not switch on again.**
- ⇒ **Check that there is no electric charge.**

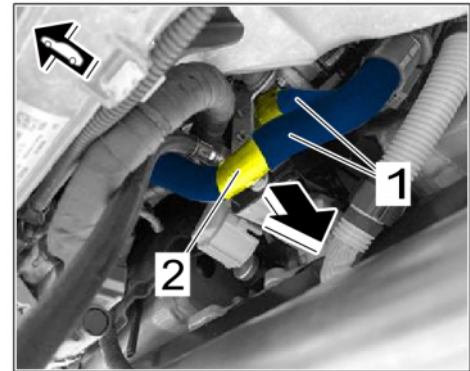


Information

The PDCC system can be active when operational readiness is established (even when the vehicle is stationary). To avoid injury/crushing, only work near the anti-roll bar, lower trailing arms and bellows of the steering gear when operational readiness is deactivated and always allow for the run-on time of 60 seconds.

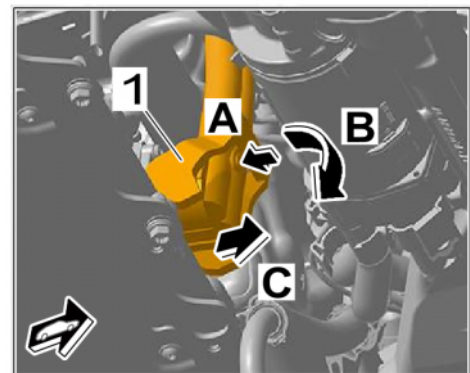
- 4 Release front anti-roll bar and secure it in place at a suitable position with tie-wraps. Do not loosen connecting links of the front anti-roll bar.
⇒ *Workshop Manual '407709 Loosening and securing front anti-roll bar (PDCC)'*

- 5 Unclip coolant pipes ⇒ *Loosening coolant pipes -1-* from bracket ⇒ *Loosening coolant pipes -2-* and ⇒ *Loosening coolant pipes -Arrow-* slide them to the side.



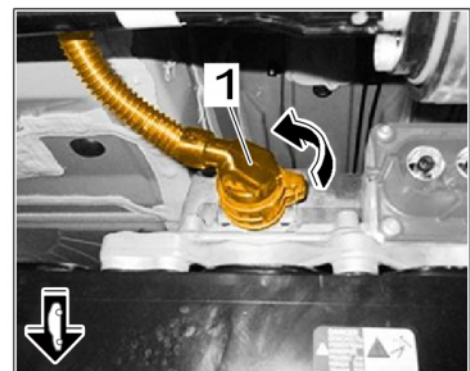
Loosening coolant pipes

- 6 Disconnect the high-voltage line (high-voltage distributor to the high-voltage battery) on the high-voltage battery. Release ⇒ *Disconnecting the high-voltage line at the high-voltage battery -A-*, open ⇒ *Disconnecting the high-voltage line at the high-voltage battery -B-* and disconnect ⇒ *Disconnecting the high-voltage line at the high-voltage battery -C-*.



Disconnecting the high-voltage line at the high-voltage battery

- 7 ⇒ *Electric plug connection E-box -1-* Release ⇒ *Electric plug connection E-box -Arrow-* electric plug connection for E-box and disconnect.



Electric plug connection E-box



Information

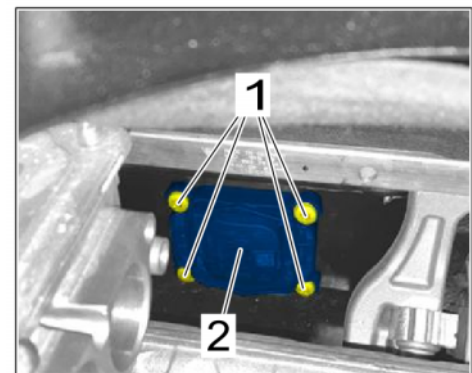
The pressure release valve and fastening screws cannot be reused and must be replaced.

Before assembling the adapter plate (before the pressure test) and before assembling the pressure valve (after performing the pressure test), the frame of the high-voltage battery must be cleaned with isopropanol in the contact surface area of the seal.



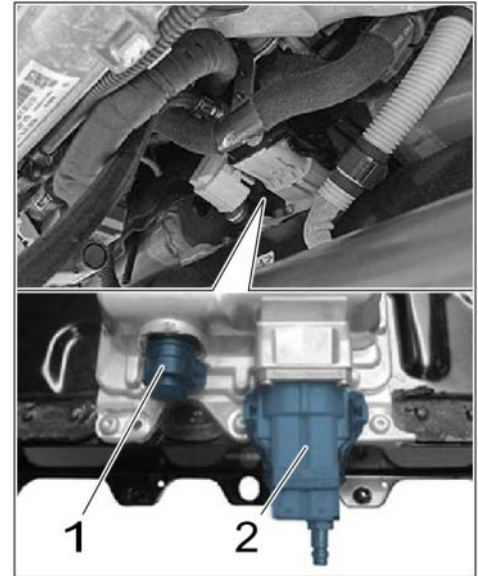
Pressure valve

- 8 Remove pressure valve ⇒ *Pressure valve -2-*.
 - 8.1 Unscrew screws ⇒ *Pressure valve -1-*.
 - 8.2 Disconnect pressure valve ⇒ *Pressure valve -2-*.



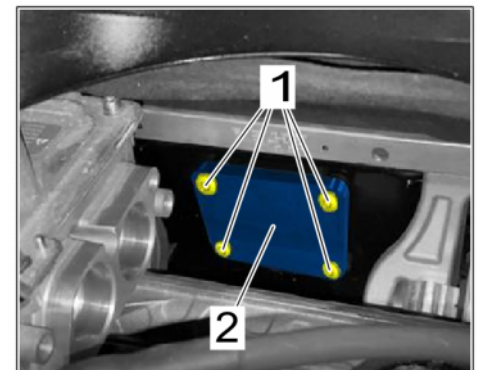
Pressure valve

- 9 Attach test connector and adapter plug from **9925 - leak test set** to CAN line connection ⇒ *Test plug and adapter plug -1-* and high-voltage connection for front E-box ⇒ *Test plug and adapter plug -2-*.



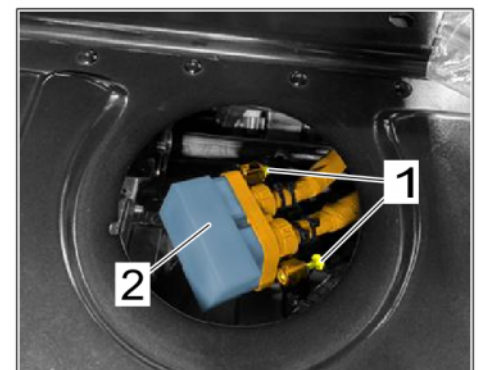
Test plug and adapter plug

- 10 Install adapter plate ⇒ *Adapter plate on high-voltage battery -2-*.
- 10.1 Clean sealing surface on high-voltage battery with isopropanol.
- 10.2 Attach adapter plate ⇒ *Adapter plate on high-voltage battery -2-*.
- 10.3 Screw in screws ⇒ *Adapter plate on high-voltage battery -1-* and tighten with **tightening torque 8 Nm (5.9 ftlb.)**.

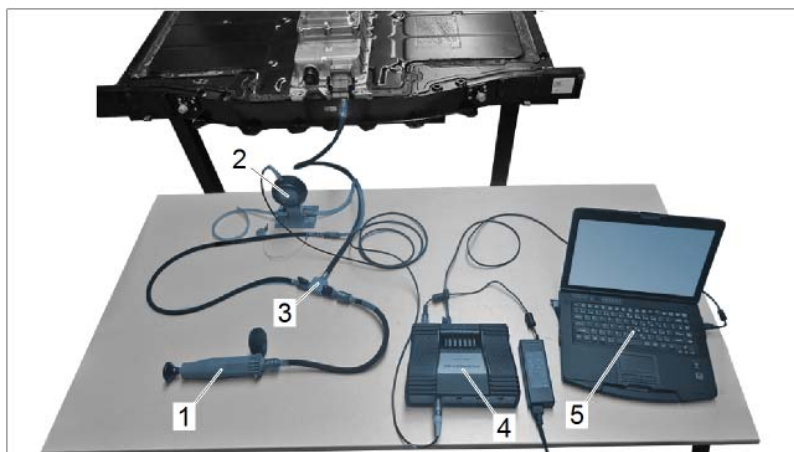


Adapter plate on high-voltage battery

- 11 Connect adapter plug ⇒ *Adapter plug on high-voltage line -2-*.
- 11.1 Connect adapter plug ⇒ *Adapter plug on high-voltage line -2-* to high-voltage line.
- 11.2 Screw in screws ⇒ *Adapter plug on high-voltage line -1-* by hand.
- 12 Set up the **9925 - leak test set, cooling system tester, 9925/1 - adapter cable, hose connector, measurement and test equipment for PIWIS Tester 3** and **9900 - PIWIS Tester 3**.



Adapter plug on high-voltage line



Battery housing leak test set-up

- 1 – Hand pump
- 2 – Pressure sensor
- 3 – Valve block
- 4 – Measurement and test equipment for PIWIS Tester
- 5 – PIWIS Tester



Information

Please note that the pressure test described in ⇒ *Workshop Manual '270803 leak tests on the high-voltage battery'* refers to a removed battery.

However, the pressure test must be carried out explicitly in the vehicle with a installed battery.

- 13 Perform leak test on the battery housing.
⇒ *Workshop Manual '270803 Carrying out leak tests on high-voltage battery'*

<p>Leak test OK</p> <p>(Test result according to protocol: leak-tight)</p> <p>↓</p>	<p>Leak test not OK</p> <p>Pressure drop value not OK</p> <p>(Pressure drop greater than 0.7 mbar in 10 minutes)</p> <p>↓</p>	<p>Leak test not OK</p> <p>(All causes except for pressure drop value)</p> <p>(Test result according to protocol: leak test not passed)</p> <p>↓</p>	
<p>Continue with Step 14</p> <p>Invoicing: Scope 1</p>	<p>Repeat leak test</p>		<p>Proceed as follows:</p> <p>If the result is not OK again:</p> <ul style="list-style-type: none"> • If the battery fails the leak test the
	<p>Repeat test OK</p> <p>↓</p>	<p>Repeat test not OK</p> <p>↓</p>	
	<p>Continue with Step 14</p>	<p>Proceed as follows:</p>	

Invoicing: Scope 2

If the result is not OK again:

- If the battery fails the leak test the second time then a **PRMS > Technical Support > Technical Request ticket must be submitted**
- In the “**Short problem description**” the Technician should enter **WNW3 – Failed leak test**
 - Specific instructions related to the necessary measures and precautions for the removal of the HVB with the failed leak test will be communicated via the **PRMS > Technical Support > Technical Request ticket**
- Parallel to this: Remove test setup and replace high-voltage battery (**No need to await feedback from Technical Support.**)
⇒ *Workshop Manual '270855*

second time then a **PRMS > Technical Support > Technical Request ticket must be submitted**

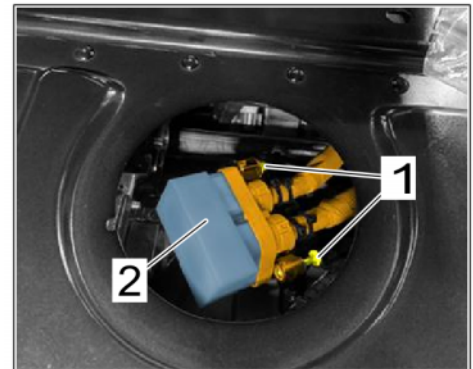
- In the “**Short problem description**” the Technician should enter **WNW3 – Failed leak test**
 - Specific instructions related to the necessary measures and precautions for the removal of the HVB with the failed leak test will be communicated via the **PRMS > Technical Support > Technical Request ticket**
- Parallel to this: Remove test setup and replace high-voltage battery (**No need to await feedback from Technical Support.**)
⇒ *Workshop Manual '270855 Replacing high-voltage battery'*
- **Store removed high-voltage**

		<p><i>Replacing high-voltage battery'</i></p> <ul style="list-style-type: none"> • Store removed high-voltage battery and coordinate further work procedure with Technical Support. <p>Invoicing: Scope 3 or 4</p>	<p>battery and coordinate further work procedure with Technical Support.</p> <p>Invoicing: Scope 3 or 4</p>
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14 Save test report, print it out and attach it to the upload of the PCCS quality line.

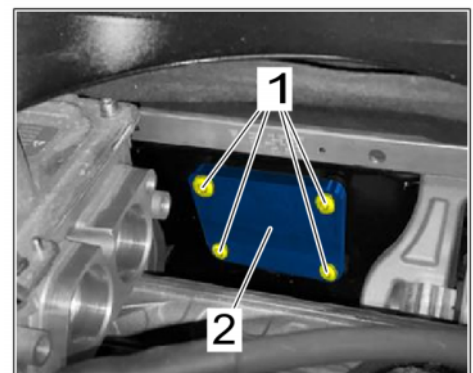
15 Remove test equipment for leak test.

16 Unscrew screws ⇒ *Adapter plug on high-voltage line-1-* and remove adapter plug ⇒ *Adapter plug on high-voltage line-2-*.



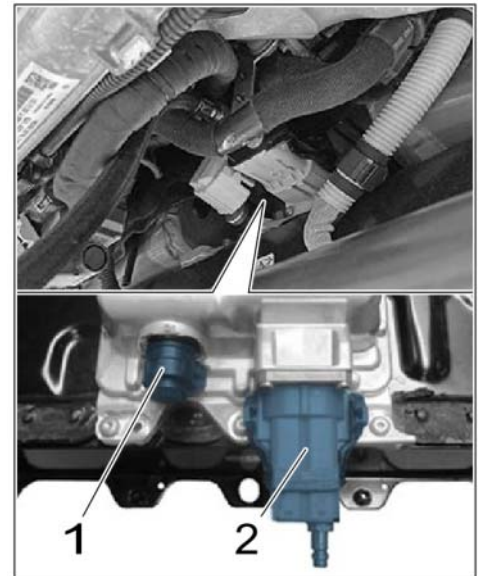
Adapter plug on high-voltage line

17 Unscrew screws ⇒ *Adapter plate on high-voltage battery-1-* and remove adapter plate ⇒ *Adapter plate on high-voltage battery-2-*.



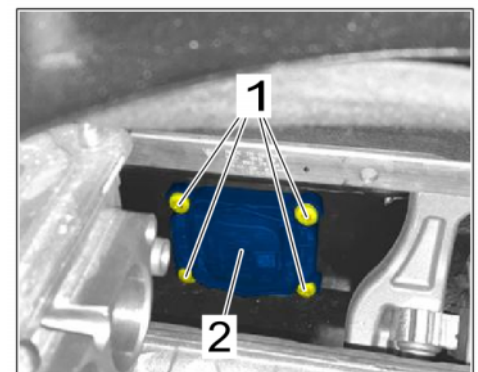
Adapter plate on high-voltage battery

- 18 Remove test plug and adapter plug from the box CAN line connection ⇒ *Test plug and adapter plug-1-* and front E-box high-voltage connection ⇒ *Test plug and adapter plug-2-*.



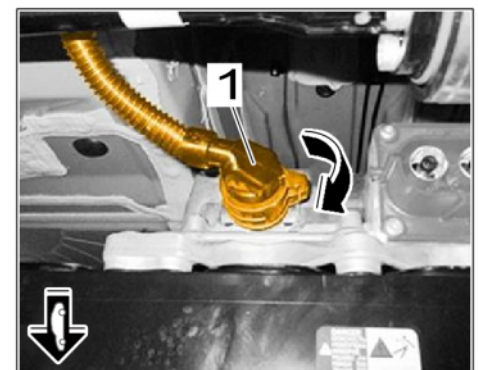
Test plug and adapter plug

- 19 Install new pressure valve ⇒ *Pressure valve-2-*.
- 19.1 Clean sealing surface on high-voltage battery with isopropanol.
- 19.2 Set pressure valve ⇒ *Pressure valve-2-*.
- 19.3 Screw in screws ⇒ *Pressure valve-1-* and tighten with **tightening torque 8 Nm (5.9 ftlb.)**.



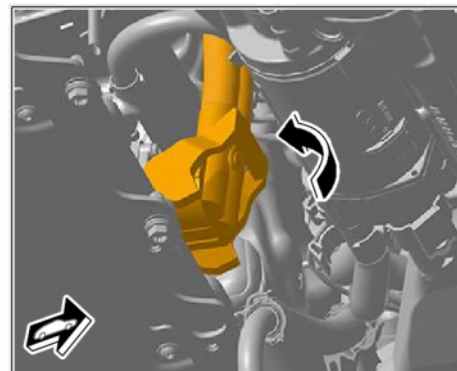
Pressure valve

- 20 Connect E-box electric plug connections ⇒ *Electric plug connection E-box-1-* and lock them.
- 21 Connect high-voltage line (high-voltage distributor to high-voltage battery) to the high-voltage battery and lock it.



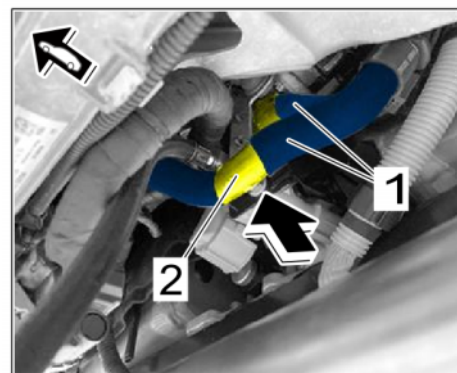
Electric plug connection E-box

The electric plug connection must engage perceptibly.



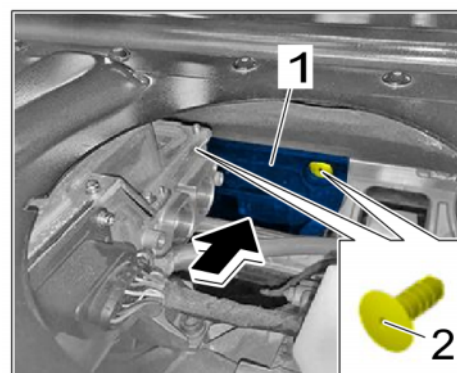
High-voltage line on high-voltage battery

- 22 Clip coolant tubes ⇒ *Securing coolant pipes -1-* into holder ⇒ *Securing coolant pipes -2-*.
- 23 Secure the anti-roll bar.
⇒ *Workshop Manual '407709 Loosening and securing front anti-roll bar (PDCC)'*



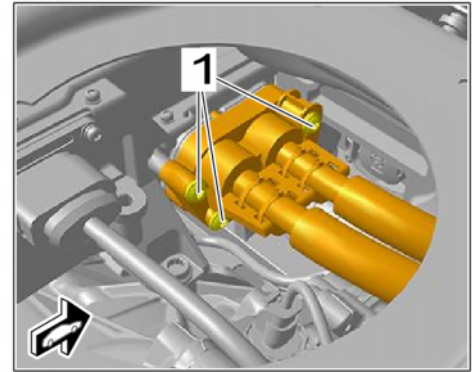
Securing coolant pipes

- 24 Install Styrofoam element ⇒ *Installing Styrofoam element -1-*.
 - 24.1 Carefully position Styrofoam element ⇒ *Installing Styrofoam element -1-* from above.
 - 24.2 Clip in clips ⇒ *Installing Styrofoam element -2-*.



Installing Styrofoam element

- 25 Connect electric plug connection to rear electric machine.
 - 25.1 Connect electric plug connection to rear electric machine.
 - 25.2 Screw in screws ⇒ *High-voltage line for rear electric machine -1-* and tighten with **tightening torque 8 Nm (5.9 ftlb.)**.
- 26 Insert body cover.



High-voltage line for rear electric machine

Follow-up actions

- Work Procedure: 27 Install insulating mat.
- 27.1 Insert insulating mat.
 - 27.2 Fasten plastic clips at the corners of the insulating mat.
- 28 Install (center) luggage compartment trim panel (luggage compartment cover).
⇒ *Workshop Manual '70061900 Remove and install (centre) luggage compartment trim panel (luggage compartment cover)'*
- 29 Start the high-voltage system.
⇒ *Workshop Manual '2X00IN Activating/Starting the high-voltage system'*
- 30 Close the door-window on the driver's side, vehicle front flap and rear luggage compartment.

Warranty processing



Information

The specified labor times were determined specifically for carrying out this campaign and include all necessary preliminary and subsequent rework. The labor times may differ from the labor times published in the Labor Operation List in PCSS.



Information

For this campaign, please always invoice for the Scope 1-3 using a regular campaign claim in WWS. This will ensure that the campaign is documented as Completed in the systems. Labor and material costs as well as all additional costs incurred can then be invoiced using a **reimbursement claim for the original campaign claim** for this action.

- **Scope 1 must be invoiced if the pressure test is OK**

Scope 1:

Labor time:		
Performing leak test on the high-voltage battery (installed)		Labor time: 339 TU
Includes:	Activating/Starting the high-voltage system	
	Remove and install (center) luggage compartment trim panel (luggage compartment cover)	
	Classify lithium-ion battery.	
Required parts:		
9J1915754	Pressure valve	1 piece
N 10700201	Internal hexagon round-head bolt – Pressure valve	2 pieces
Also required for vehicles with PDCC:		
N 91006202	Hexagon-head bolt (combination) – Anti-roll bar (PDCC), front	
⇒ Damage number WNW3 066 000 1		

- **Scope 2 must be invoiced if the pressure test was repeated and is then OK**

Scope 2:

Labor time:		
Performing leak test on the high-voltage battery (installed)		Labor time: 359 TU
Includes:	Performing leak test again on the high-voltage battery (installed)	
	Activating/Starting the high-voltage system	
	Remove and install (center) luggage compartment trim panel (luggage compartment cover)	
	Classify lithium-ion battery.	
Required parts:		
9J1915754	Pressure valve	1 piece

N 10700201	Internal hexagon round-head bolt – Pressure valve	2 pieces
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Also required for vehicles with PDCC:

N 91006202	Hexagon-head bolt (combination) – Anti-roll bar (PDCC), front	
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⇒ **Damage number WNW3 066 000 1**

- **Scope 3 must be invoiced if the high-voltage battery has been replaced, and no further requirements for quality analysis have been set by Technical Support**

Scope 3:

Labor time:

Replacing high-voltage battery

Labor time: **985 TU**

Includes: Performing leak test on the high-voltage battery (installed)
Activating/Starting the high-voltage system
Remove and install (center) luggage compartment trim panel (luggage compartment cover)
Classify lithium-ion battery.

Required parts:**Only required for vehicles with PDCC:**

N 91006202	Hexagon-head bolt (combination) – Anti-roll bar (PDCC), front	
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⇒ **Damage number WNW3 066 000 2**

- **Scope 4 must be invoiced if the high-voltage battery has been replaced, and further requirements for quality analysis have been set by Technical Support**

Scope 4:

Labor time:

Replacing high-voltage battery

Labor time: **985 TU**

Includes: Performing leak test on the high-voltage battery (installed)
Activating/Starting the high-voltage system
Remove and install (center) luggage compartment trim panel (luggage compartment cover)
Classify lithium-ion battery
Quality analyses on Technical Support instruction

Required parts:

Only required for vehicles with PDCC:

N 91006202 Hexagon-head bolt (combination)
– Anti-roll bar (PDCC), front

⇒ **Damage number WNW3 066 000 2**

Important Notice: Technical Bulletins issued by Porsche Cars North America, Inc. are intended only for use by professional automotive technicians who have attended Porsche service training courses. They are written to inform those technicians of conditions that may occur on some Porsche vehicles, or to provide information that could assist in the proper servicing of a vehicle. Porsche special tools may be necessary in order to perform certain operations identified in these bulletins. Use of tools and procedures other than those Porsche recommends in these bulletins may be detrimental to the safe operation of your vehicle, and may endanger the people working on it. Properly trained Porsche technicians have the equipment, tools, safety instructions, and know-how to do the job properly and safely. Part numbers listed in these bulletins are for reference only. The work procedures updated electronically in the Porsche PIWIS diagnostic and testing device take precedence and, in the event of a discrepancy, the work procedures in the PIWIS Tester are the ones that must be followed.

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