WD67 - Replacing E-box for the High-voltage System (Stop Sale Campaign / Workshop Campaign)

Revisions: Revision 1: April 2, 2014; This revision EXTENSIVELY amends the original WD67 in that the technical document has gone from 6 pages to 34.

Model Year: **2014**

Vehicle Type: **Panamera S E-Hybrid**

Concerns: **E-box for the high-voltage system**

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. **An E-box for the high-voltage system that does not comply with current standards was installed in the affected vehicles.**

The new E-box is considerably more robust than the existing standard version.

Action Required: Replace E-box for the high-voltage system.

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 5 VINs in the United States.

Parts Info: **NOTE:** Parts will not be automatically shipped to your dealership. Please submit a PTEC/PAV for parts.

7PP.915.251.A	⇒ Battery relay carrier (BDU)	1 ea.
970.611.901.07	⇒ Set of screws for control unit	1 ea.
7PP.915.465.A	⇒ Battery cover plate, top	1 ea. [1]
7PP.915.151	⇒ Battery cover plate, side	1 ea.
970.611.901.02	⇒ Set of screws for cover plate	1 ea.
970.611.901.03	⇒ Battery fuse box cover	1 ea.
970.611.901.04	⇒ Set of screws for fuse	1 ea.
7PP.915.463	⇒ Fuse	1 ea.
N .906.661.01	⇒ Tie-wrap clip	5 ea.
970.555.643.01	⇒ Screw bolt for locking mechanism	2 ea.
999.507.584.02	⇒ Clamp	10 ea.
999.507.839.01	⇒ Clip	10 ea.
7PP.010.849.L	⇒ Indication sticker LI.ION HV BATTERY	1 ea. [2]

958.701.739.00	⇒ Warning sign for cover	2 ea. [2]
000.043.301.47	⇒ Antifreeze, 1-liter container	approx. 1 liter per vehicle (as much as required)

[1] Part number 7PP.915.151 has been changed to 000.043.209.34. Existing stocks of part number 7PP.915.151 can be used up.

Also required:

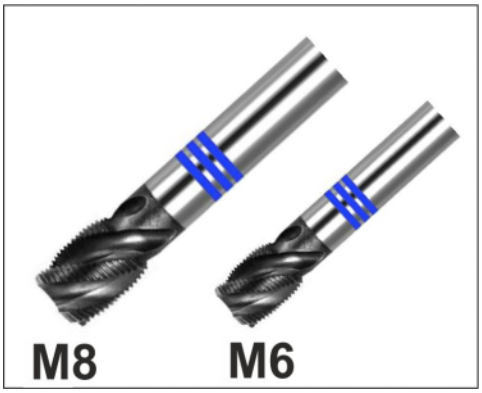
8R0.010.539	⇒ Warning sign, English	1 ea. [2]

[2] Since the cover plates for the high-voltage battery must be replaced while carrying out the work required for replacing the E-box, new stickers must also be affixed to the new cover plates. The required safety marking warning sign **8R0.010.539.x** must be selected according to the relevant language and country version.

Materials:	...	Tie-wrap, approx. 3.0 x 200 mm e.g. 999.513.075.40	5 ea. [3]

[3] WD670000001 should be entered manually as a sublet part.

...	Tap, M6 x 1.0 with spiral grooves	1 ea. [4]
...	Tap, M8 x 1.25 with spiral grooves	1 ea. [4]



Tap with spiral groove

Information

If the specified taps are **not** already **available in the workshop**, they **must be ordered once** specifically for carrying out this task.

During this repair measure, only use **taps with spiral grooves**, which guide the chips out of the hole in the opposite direction to the cutting direction.

Only one M6 x 1.0 tap and one M8 x 1.25 tap may be invoiced for each affected Porsche dealership.

4 WD670000002 should be entered manually as a sublet part.

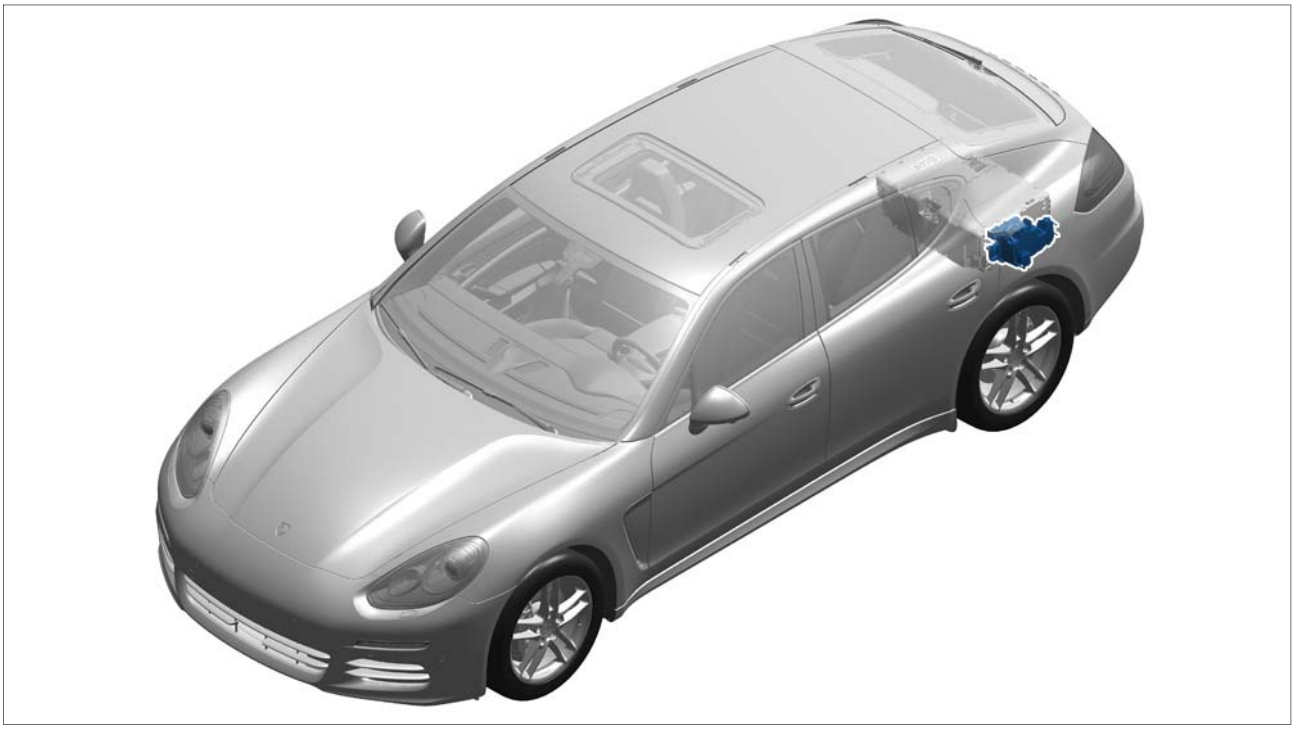
Special Tools:

- **VAS 6558/9-6 - High-voltage test adapter HVA 280**
- **VAS 6558/9-7 - High-voltage test adapter HVR 40**
- **VAS 6839 - Voltage tester**
- **VAS 6884 - High-voltage cordon**
- **VAS 6883 - Insulated tool set**
- **9860 - Adapter plate**
- **9874 - Assembly aid**
- **3033 - Lifting tackle**
- **VAS 6100 - Workshop crane**
- **T40262 - Locking cap**
- **9818 - PIWIS Tester II**
- **9696 - Filling device**
- **Nr.192 - Hose clamping pliers**
- **Nr.90 Pos.2 - Torque wrench**
- **Nr.90 Pos.6 - Torque wrench**

Work Procedure: See Attachment “A”.

Claim Submission: See Attachment “B”.

Installation position:



Installation position of E-box

Attachment "A": **Work Procedure**

Removing E-box (high-voltage battery) - Scope 1

Procedure:

WARNING

High voltage

- **Danger of electric shock from live parts**
- **Risk of serious burns or death**

⇒ **Work on the HV battery may only be carried out by a high-voltage technician.**

⇒ **Always use insulated tools VAS 6883 - Insulated tool set when working on the HV battery.**

⇒ **Observe general warning notes for working on the high-voltage vehicle electrical system. ⇒*Workshop Manual '2X00IN General warning notes for working on the high-voltage electrical system'***

Information

Before starting to work on the high-voltage system, a high-voltage technician must isolate the high-voltage system from the power supply.

The document ⇒*Workshop Manual '2X00IN Isolation from supply prior to performing maintenance tasks on hybrid vehicles'* describes the various types of work for which the high-voltage system must be isolated from the power supply.

The test log **Verifying absence of electric charge** and **Restarting high-voltage system** can be found under Standard forms in PIWIS.

Information

Always use insulated tools **VAS 6883 - Insulated tool set** when working on the high-voltage battery and a high-voltage cordon **VAS 6884 - High-voltage cordon** when working on a HV work bay.

Restricted area for HV battery

1 Observe warning notes ⇒*Workshop Manual '2X00IN General warning notes for working on the high-voltage electrical system'*.

2 The high-voltage system must be **isolated from the power supply** and the related documentation for isolating the high-voltage system and classification of the high-voltage battery must be completed.
⇒*Workshop Manual '2X00IN Isolating high-voltage electrical system from power supply/Starting high-voltage electrical system'*
⇒*Workshop Manual '2X00IN Classification of high-voltage battery'*

3 Remove high-voltage battery ⇒*Workshop Manual '270819 Removing and installing high-voltage battery - section on "Removing"'*.

4 Set up a high-voltage cordon **VAS 6884 - High-voltage cordon** around the high-voltage work-station.

5 Remove battery cross member ⇒*Workshop Manual '271119 Battery cross member - section on "Removing"'*.

NOTICE

Incorrect removal or fitting of safety-related screws for the high-voltage battery.

- **Risk of damage to rivet nuts**
- **Risk of damage to screw heads**

- **Risk of damage to high-voltage battery**

⇒ **Loosen and tighten fastening screws without using electric tools.**

⇒ **Only loosen and tighten fastening screws using special tool VAS 6883 Insulated tool set.**

⇒ **Be extremely careful when loosening fastening screws. See Note: ⇒ "Procedure for loosening micro-self-locking screws".**

⇒ **Clean the threaded bores before fitting the fastening screws. See Note: ⇒ "Procedure for cleaning threaded bores on the high-voltage battery".**

⇒ **Always use new fastening screws.**

⇒ **Observe specified tightening torques.**

Information

Procedure for loosening micro-self-locking screws.

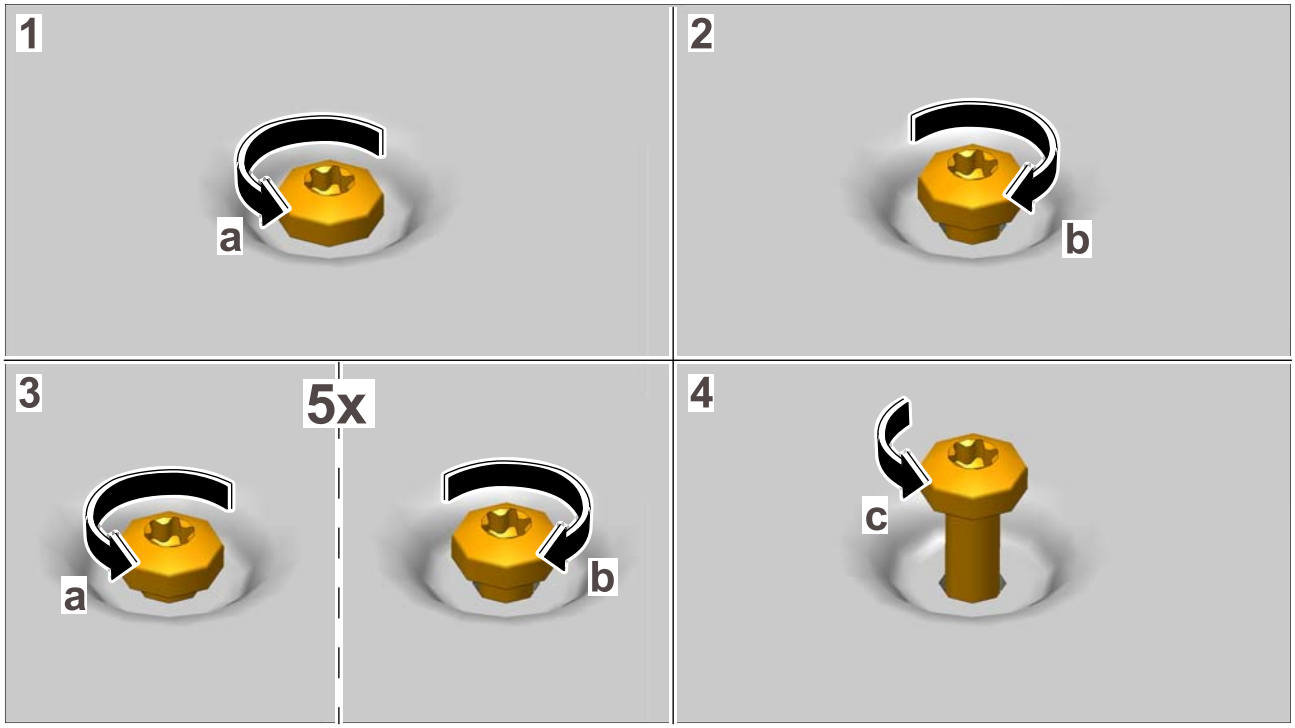
The covers on the high-voltage batteries are secured using fastening screws with high-strength screw locking agent. However, these can be difficult to loosen as a result of certain environmental conditions and depending on the service life of the vehicle.
To avoid breaking off or damaging fastening screws, always loosen the fastening screws as follows:

1.) Mark the fastening screw using a felt-tip pen and carefully loosen it by half (1/2) a turn ⇒*Loosening fastening screws* **-arrow a-**.

2.) Screw the fastening screw in again by half (1/2) a turn ⇒*Loosening fastening screws* **-arrow b-**.

3.) Repeat Steps 1 and 2 at least five times (5x) until the loosening torque of the fastening screw is reduced significantly. The fastening screw can then be turned easily.

4.) After Step 3, the torque should be much lower so that the fastening screw can be loosened completely ⇒*Loosening fastening screws* **-arrow c-**.



Loosening fastening screws

Information

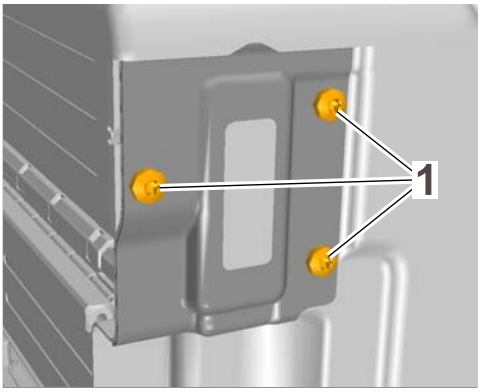
If the **cover on the fuse carrier** for the high-voltage battery **cannot be removed** because the screw heads or rivet nuts are damaged, for example, proceed as follows:

- **Stop working** on the high-voltage battery **immediately**.
- To find out what to do next,contact Technical Support.
- The work carried out up to this point, including replacing the high-voltage battery, must be invoiced under **Scope 2**. ⇒ **See Procedure: Replacing high-voltage battery - Scope 2**

6 Remove cover on fuse carrier.

6.1 Loosen fastening screws ⇒*Removing fuse carrier cover* **-1-** as described above.

6.2 Push fuse carrier cover down and remove it.



Removing fuse carrier cover

Information

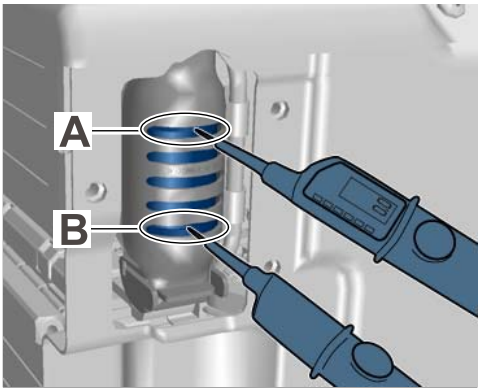
Perform function test on voltage tester at the vehicle jump-start terminals using a reference voltage.

7 Verify isolation from the power supply at the high-voltage battery fuse using a voltage tester **VAS 6839 - Voltage tester**.

7.1 Contact point ⇒*Verifying absence of electric charge* **-A-** to housing.

7.2 Contact point ⇒*Verifying absence of electric charge* **-B-** to housing.

The measurement also prevents voltages due to the build-up of static charge.



Verifying absence of electric charge

Information

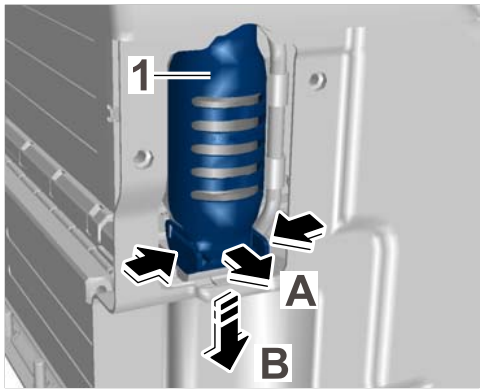
Further steps may only be carried out if the measured voltage is less than 1 V. If this is not the case, stop working on the system and contact Technical Support.

Information

Once absence of electric charge has been verified using the voltage tester, the fuse must be replaced without any interruption to work.

8 Remove high-voltage battery fuse.

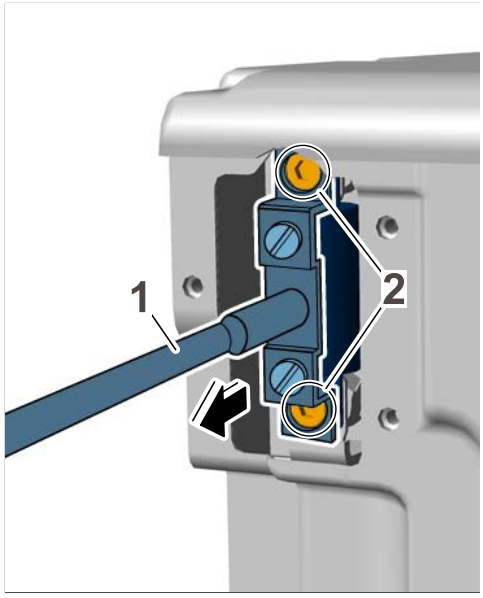
8.1 Press cap ⇒*Removing cap* **-1-** together ⇒*Removing cap* **-arrows-**, unscrew it ⇒ *Removing cap* **-A-** and pull it down and out ⇒ *Removing cap* **-B-**.



Removing cap

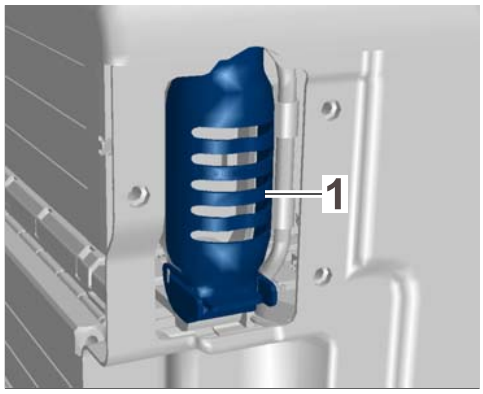
8.2 **9874 - Assembly aid**⇒*Removing fuse* **-1-** must now be fitted on the high-voltage battery fuse. Then loosen fastening screws ⇒*Removing fuse* **-2-**.

8.3 Carefully remove assembly aid together with fastening screws ⇒*Removing fuse* **-1-** and high-voltage battery fuse ⇒*Removing fuse* **-2-**.



Removing fuse

8.4 Re-insert cap ⇒*Installing cap* **-1-** on the high-voltage battery to protect exposed high-voltage contacts.

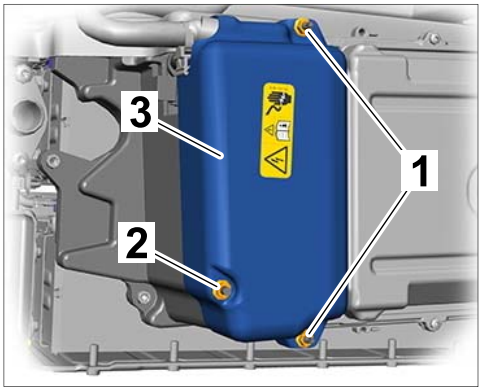


Installing cap

9 Remove high-voltage battery control unit.

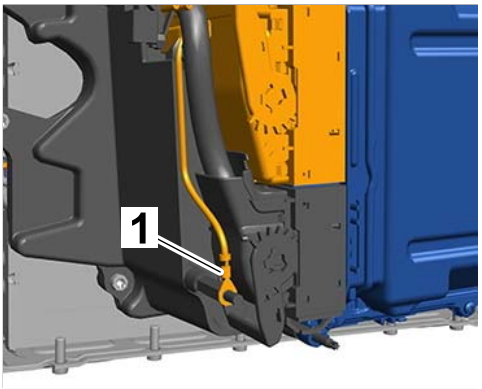
9.1 Loosen fastening nuts ⇒*Removing cover for high-voltage battery control unit* **-1, 2-** on the cover of the high-voltage battery control unit and remove cover ⇒*Removing cover for high-voltage battery control unit* **-3-**.

9.2 Remove spacers under the fastening nuts ⇒*Removing cover for high-voltage battery control unit* **-1-**.



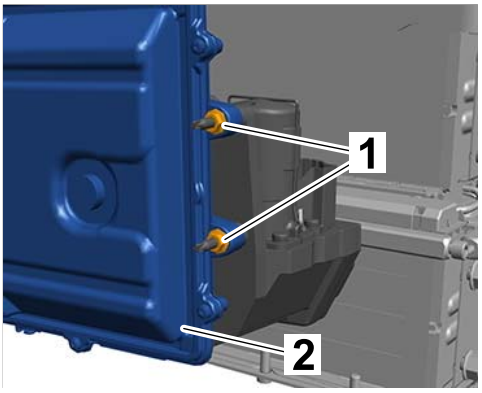
Removing cover for high-voltage battery control unit

9.3 Remove ground line ⇒*Removing ground line* **-1-** from the fastening bolt.



Removing ground line

9.4 Loosen fastening nuts ⇒*Removing high-voltage battery control unit* **-1-** on the high-voltage battery control unit and pull off high-voltage battery control unit ⇒*Removing high-voltage battery control unit* **-2-**.

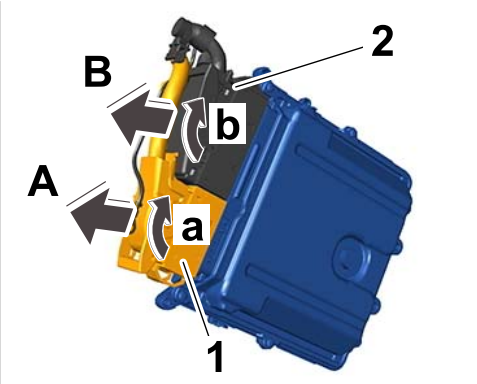


Removing high-voltage battery control unit

9.5 Release electric plug connection ⇒ *Releasing electric plug connections* **-1-** at the high-voltage battery control unit completely ⇒ *Releasing electric plug connections* **-arrows a-** and disconnect it ⇒ *Releasing electric plug connections* **-arrow A-**.

9.6 Release electric plug connection ⇒ *Releasing electric plug connections* **-2-** completely ⇒ *Releasing electric plug connections* **-arrow b-** and disconnect it ⇒ *Releasing electric plug connections* **-arrow B-**.

9.7 Remove high-voltage battery control unit.



Releasing electric plug connections

Information

Procedure for loosening micro-self-locking screws.

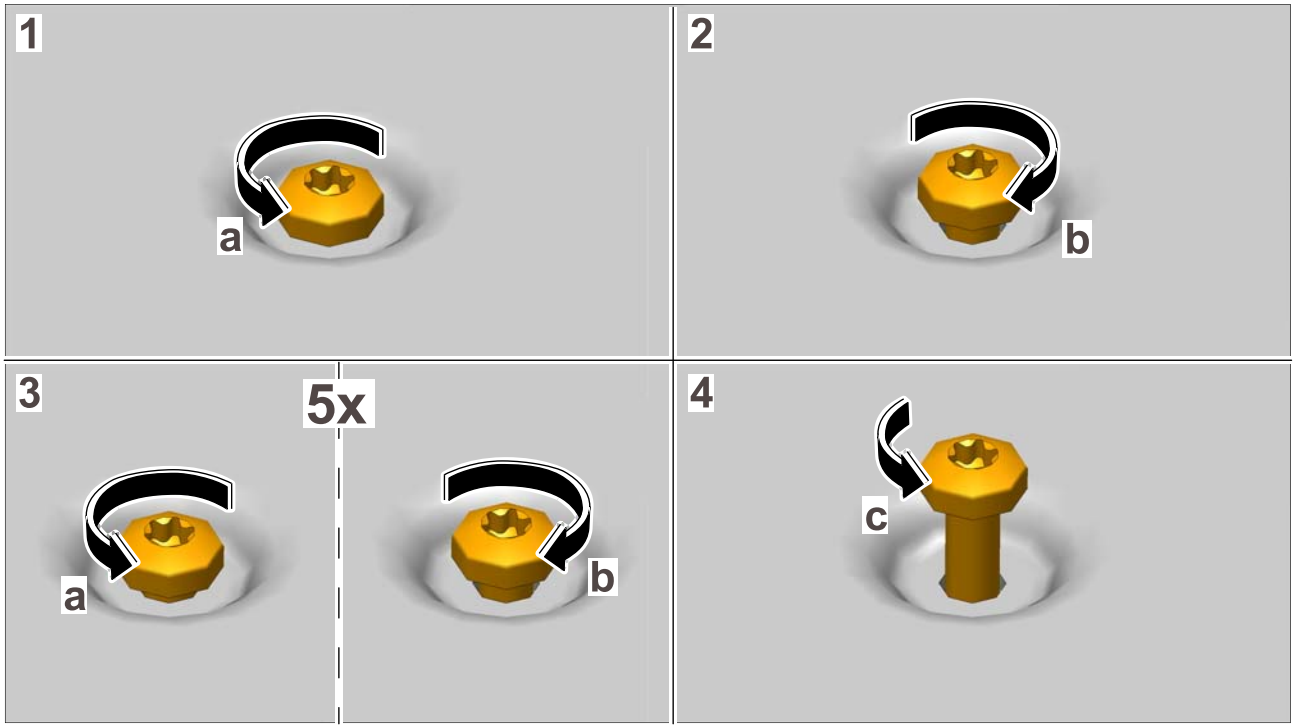
The covers on the high-voltage batteries are secured using fastening screws with high-strength screw locking agent. However, these can be difficult to loosen as a result of certain environmental conditions and depending on the service life of the vehicle.
To avoid breaking off or damaging fastening screws, always loosen the fastening screws as follows:

1.) Mark the fastening screw using a felt-tip pen and carefully loosen it by half (1/2) a turn ⇒ *Loosening fastening screws* **-arrow a-**.

2.) Screw the fastening screw in again by half (1/2) a turn ⇒ *Loosening fastening screws* **-arrow b-**.

3.) Repeat Steps 1 and 2 at least five times (5x) until the loosening torque of the fastening screw is reduced significantly. The fastening screw can then be turned easily.

4.) After Step 3, the torque should be much lower so that the fastening screw can be loosened completely ⇒ *Loosening fastening screws* **-arrow c-**.



Loosening fastening screws

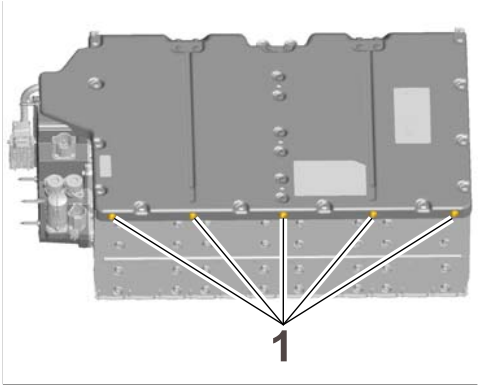
Information

If the **E-box** for the high-voltage battery **cannot be removed** because the screw heads or rivet nuts are damaged, for example, proceed as follows:

- **Stop working** on the high-voltage battery **immediately**.
- To find out what to do next, contact Technical Support.
- The work carried out up to this point, including replacing the high-voltage battery, must be invoiced under **Scope 3**. ⇒ **See Procedure: Replacing high-voltage battery - Scope 3**

10 Remove cover plates on the high-voltage battery.

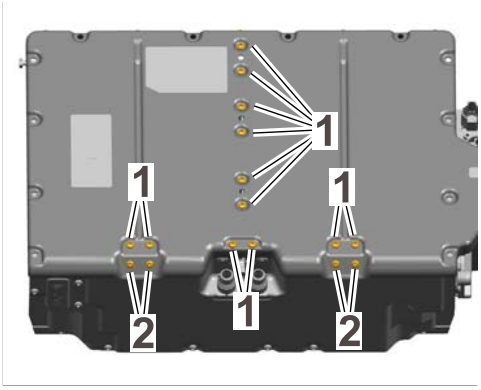
10.1 Loosen fastening screws at the side ⇒ *Removing top cover plate* **-1-** as described above.



Removing top cover plate

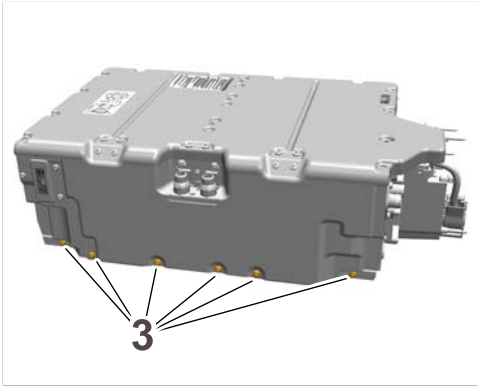
10.2 Loosen fastening screws at the top ⇒ *Removing top cover plate* **-1, 2-** as described above.

Do not remove the top cover plate.



Removing top cover plate

10.3 Loosen fastening screws at the bottom ⇒ *Removing side cover plate* **-3-** as described above.



Removing side cover plate

Information

Procedure for cleaning threaded bores (blind hole bore) on the high-voltage battery.

After loosening micro-self-locking fastening screws, it is important to remove the particles of screw locking agent from the threaded bores.

- All tasks that are necessary for cleaning the threaded bores must be carried out by hand and the required personal protective gear must always be used.
- Never use lubricant for cleaning the threaded bores.
- When cleaning the threaded bores, always make sure that no remaining pieces of the micro-encapsulated coating/metal chips get into the battery housing. Use a vacuum cleaner to do this.

Comparison of taps

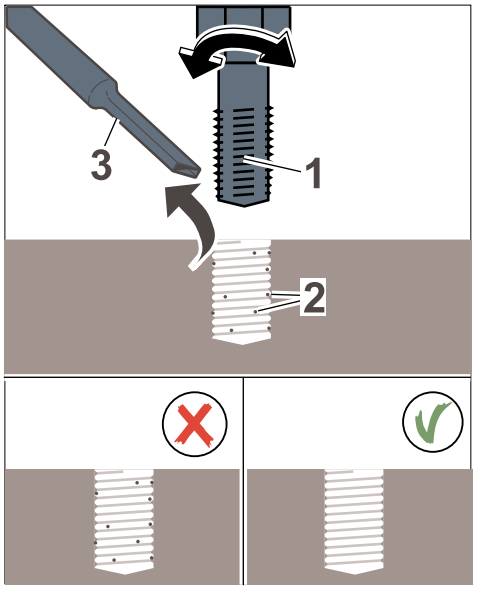
When cleaning the threaded bores (M6) on the high-voltage battery, always proceed as follows:

1.) Insert tap ⇒*Cleaning threaded bore* **-1-** (with spiral grooves) into the threaded bore.

2.) Hold a vacuum cleaner with a plastic nozzle ⇒*Cleaning threaded bore* **-3-** at the threaded bore in such a way that the remaining pieces of adhesive/metal chips will be removed.

3.) Turn the tap back and forth by a quarter (1/4) to a half (1/2) a turn several times ⇒*Cleaning threaded bore* **-arrow-** to extract the remaining adhesive/metal chips that are dislodged ⇒*Cleaning threaded bore* **-2-**.

4.) Repeat Step 3 several times until the threaded bore is completely cleaned.

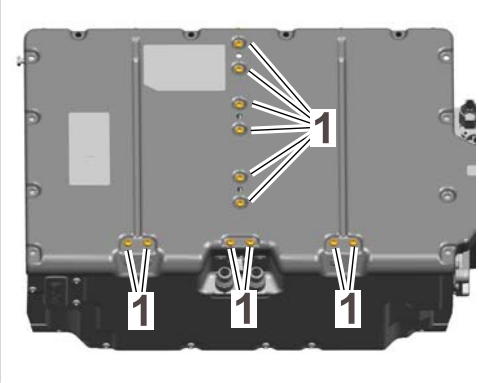


Cleaning threaded bore

10.4 Clean the threaded bores for the fastening points for the top cover plate as described above using an **M6 x 1.0 tap with spiral grooves**.

Information

Carefully remove/fit the cover to prevent damage to the wiring harness for the high-voltage battery.

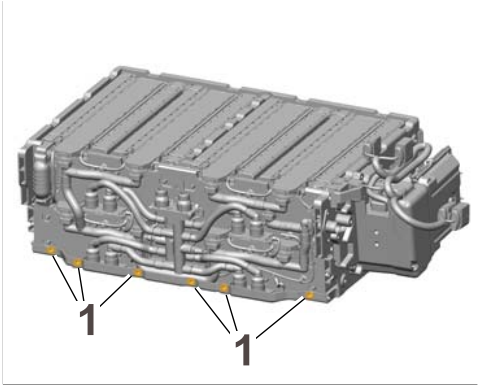


Cleaning threaded bores

10.5 Carefully lift up the top cover plate on the high-voltage battery and remove it.

10.6 Carefully remove side cover plate on the high-voltage battery by pulling it to the side.

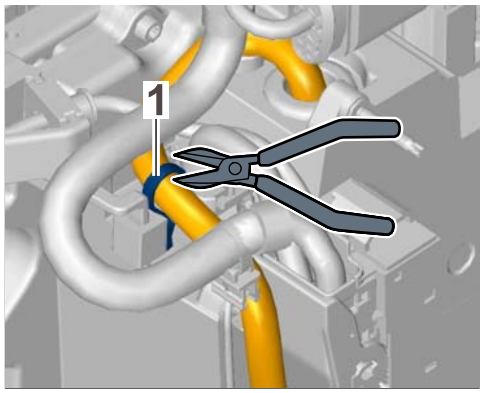
10.7 Clean the threaded bores for the fastening points for the side cover plate as described above using an **M6 x 1.0 tap with spiral grooves**.



Cleaning threaded bores

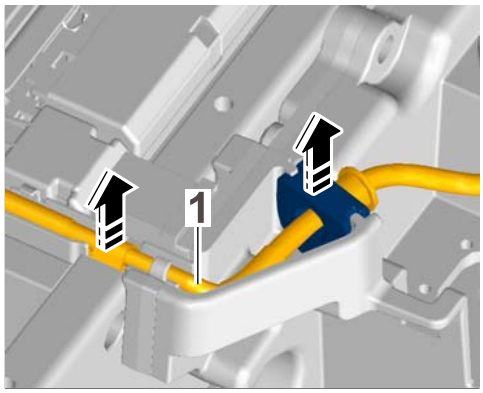
11 Remove E-box.

11.1 Loosen tie-wrap ⇒*Disconnecting HV line* **-1-** on HV line.



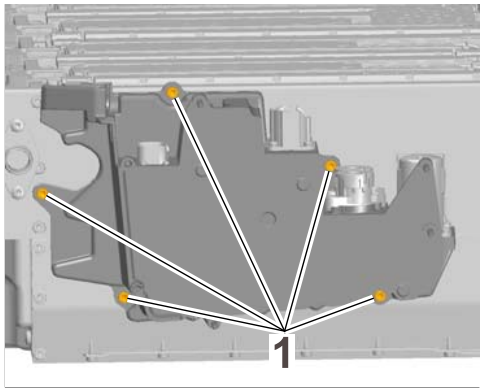
Disconnecting HV line

11.2 Remove wiring harness ⇒*Disconnecting wiring harness* **-1-** by pulling it up out of the guide ⇒*Disconnecting wiring harness* **-arrows-**.



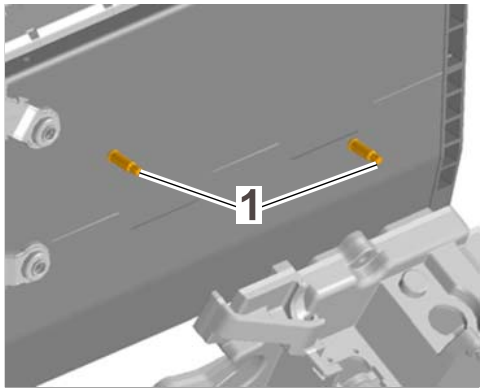
Disconnecting wiring harness

11.3 Loosen fastening screws ⇒*Loosening E-box* **-1-** for the E-box as described above.



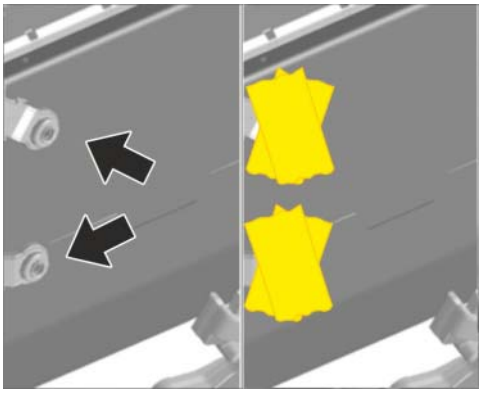
Loosening E-box

11.4 Carefully pull the E-box straight off the high-voltage battery and make sure not to tilt the E-box when pulling it off the guide pins ⇒ *Removing E-box* **-1-**.



Removing E-box

11.5 Cover exposed terminals on the high-voltage battery ⇒*Covering battery terminals* **-arrows-** with adhesive tape immediately after removing the E-box.



Covering battery terminals

Information

Procedure for cleaning threaded bores (through-bore) on the side bar of the high-voltage battery.

After loosening micro-self-locking fastening screws, it is important to remove the particles of screw locking agent from the threaded bores.

- All tasks that are necessary for cleaning the threaded bores must be carried out by hand and the required personal protective gear must always be used.
- Never use lubricant for cleaning the threaded bores.

- When cleaning the threaded bores, always make sure that no remaining pieces of the micro-encapsulated coating/metal chips get into the battery housing. Use a vacuum cleaner to do this.

Comparison of taps

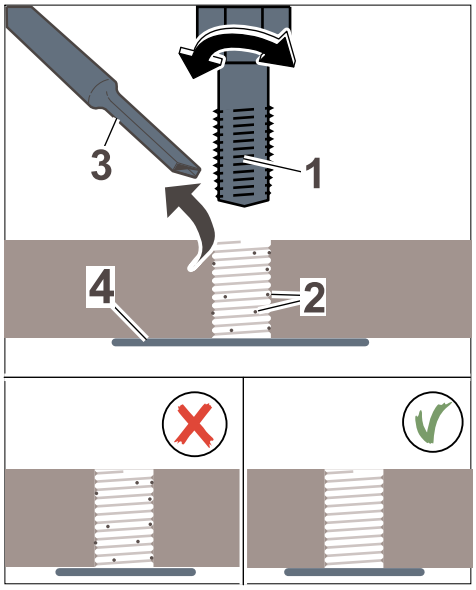
When cleaning the threaded bores (M6 and M8) on the high-voltage battery, always proceed as follows:

1.) Stick two strips (50 x 80 mm) of fabric adhesive tape ⇒*Cleaning threaded bore* **-4-** on the inside of the bar on the high-voltage battery using a plastic wedge. The bores must be completely sealed.

2.) Insert tap (with spiral grooves) ⇒*Cleaning threaded bore* **-1-** into the threaded bore.

3.) Hold a vacuum cleaner with a plastic nozzle ⇒ *Cleaning threaded bore* **-3-** at the threaded bore in such a way that the remaining pieces of adhesive/metal chips ⇒ *Cleaning threaded bore* **-2-** will be removed.

4.) Turn the tap back and forth by a quarter (1/4) to a half (1/2) a turn several times ⇒*Cleaning threaded bore* **-arrow-** to extract the remaining adhesive/metal chips that are dislodged.

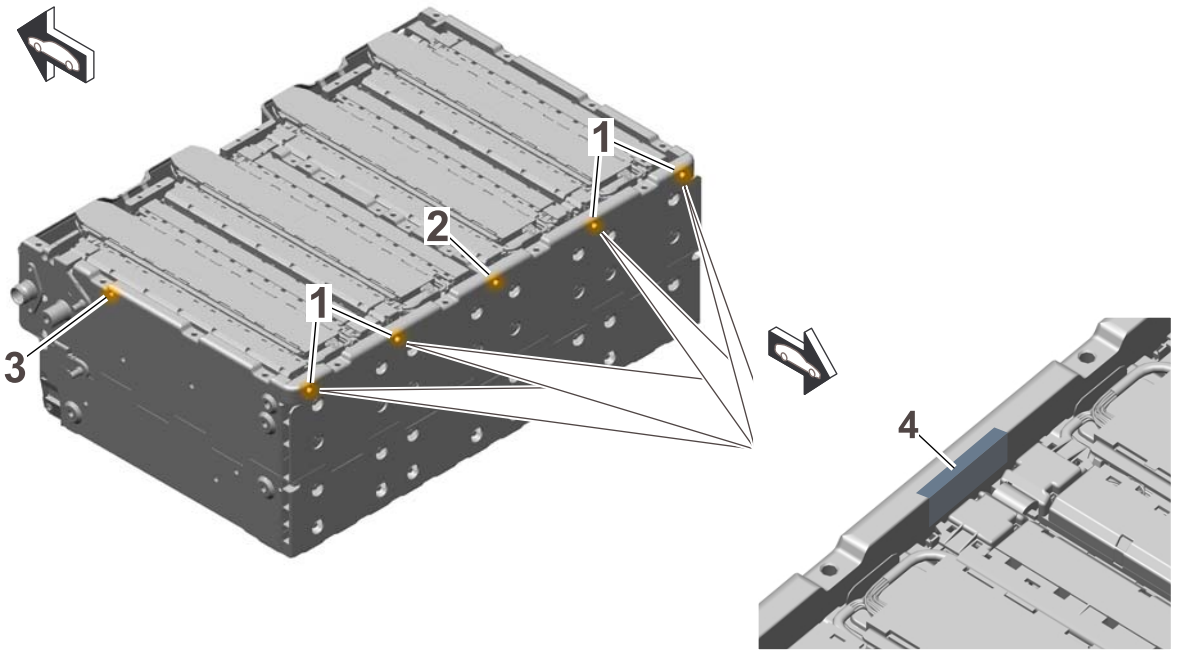


Cleaning threaded bore

5.) Repeat Step 3 several times until the threaded bore is completely cleaned. Make sure not to puncture the fabric adhesive tape.

6.) Carefully remove fabric adhesive tape and always use a vacuum cleaner to remove any loose particles at the same time.

12 Clean the threaded bores on the upper bar of the high-voltage battery as described above.



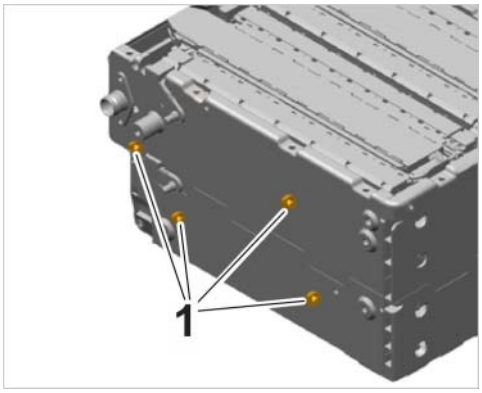
Cleaning threaded bore

1 – M8 through-bore
2 – M8 blind hole bore
3 – M6 through-bore
4 – Fabric adhesive tape

12.1 Clean the threaded bores for the fastening points of the top cover plate ⇒*Cleaning threaded bore* **-1, 2-** using an **M8 x 1.25 tap with spiral grooves**.

12.2 Clean the threaded bore for the upper fastening points of the E-box ⇒*Cleaning threaded bore* **-3-** using an **M6 x 1.0 tap with spiral grooves**.

13 Clean the threaded bores for the fastening points ⇒*Cleaning threaded bore* **-1-** of the E-box as described above.



Cleaning threaded bore

Installing E-box (high-voltage battery) - Scope 1

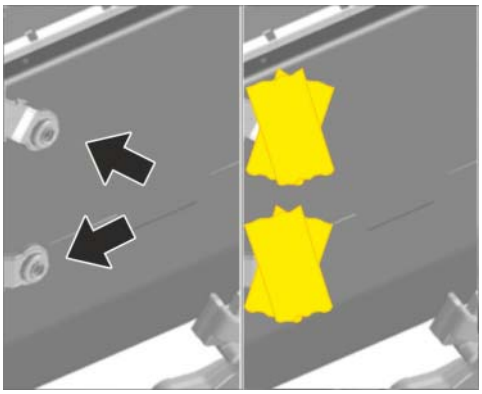
Information

Further steps may only be carried out if the measured voltage is less than 1 V. If this is not the case, stop working on the system and contact Technical Support.

Procedure:

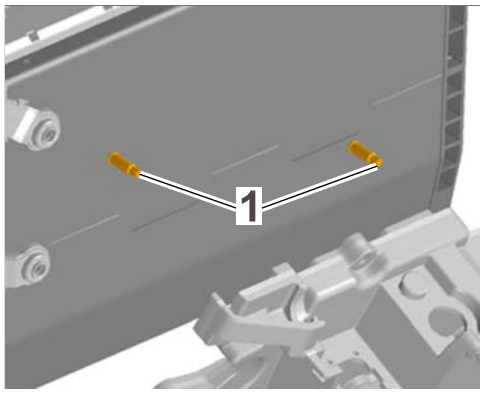
14 Install E-box.

14.1 Remove adhesive tape from the battery terminals ⇒*Exposing battery terminals* **-arrows-**.



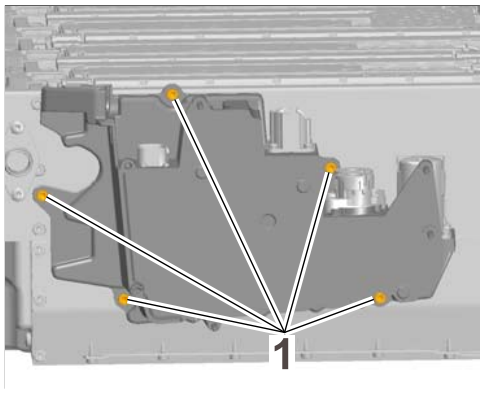
Exposing battery terminals

14.2 Push E-box onto the guide pins ⇒*Installing E-box* **-1-**, making sure not to tilt the E-box and position it flat on the high-voltage battery.



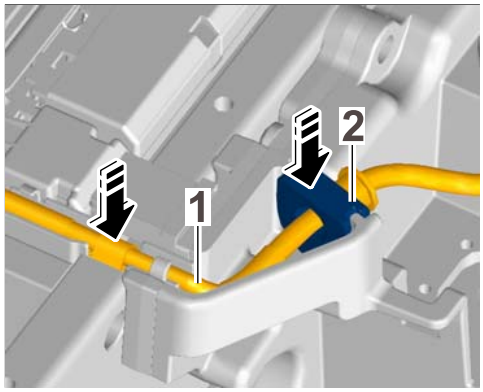
Installing E-box

14.3 Screw in and tighten fastening screws ⇒*Securing E-box* **-1-** on the E-box. **Tightening torque 10.1 Nm (7.5 ftlb.)**



Securing E-box

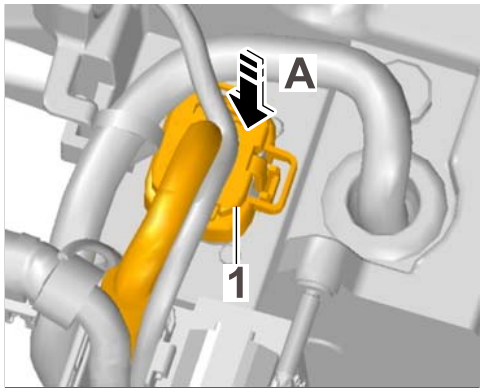
14.4 Position the wiring harness ⇒*Positioning wiring harness* **-1-** at the top of the guide ⇒*Positioning wiring harness* **-arrows-** and make sure that the seal ⇒*Positioning wiring harness* **-2-** is fitted correctly.



Positioning wiring harness

14.5 Connect electric plug connection ⇒*Connecting electric plug connection* **-1-** on the E-box ⇒*Connecting electric plug connection* **-A-** until it engages securely.

Check that the wiring harness is routed behind the plug connection ⇒*Connecting electric plug connection* **-1-** as shown.

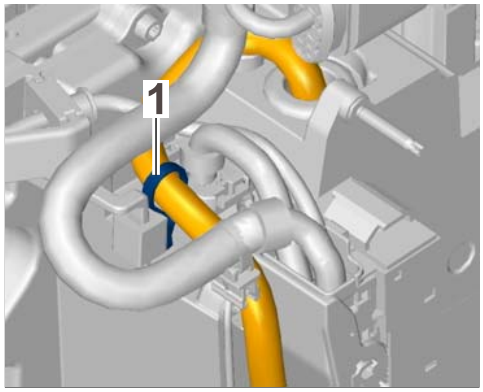


Connecting electric plug connection

14.6 Fasten tie-wrap ⇒*Securing HV line* **-1-** on HV line.

Information

When fitting the cover, check that the E-box wiring harness is positioned correctly and is not squashed.

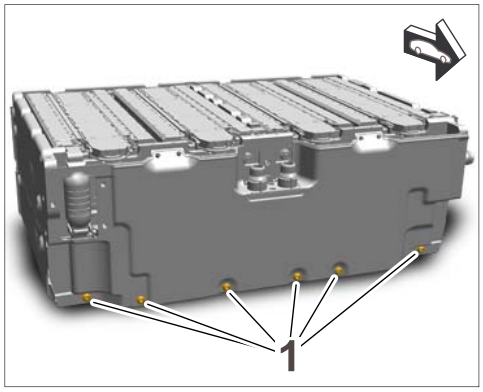


Securing HV line

15 Install cover plates on the high-voltage battery.

15.1 Position side plate cover carefully on the high-voltage battery.

15.2 Tighten fastening screws (M6 x 12) ⇒ *Installing side cover plate* **-1-**. **Tightening torque 10.1 Nm (7.5 ftlb.)**

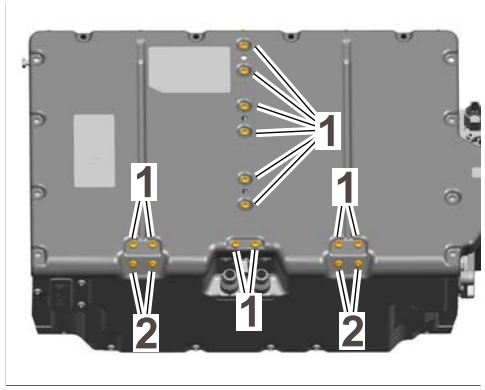


Installing side cover plate

15.3 Carefully position top cover plate on the high-voltage battery.

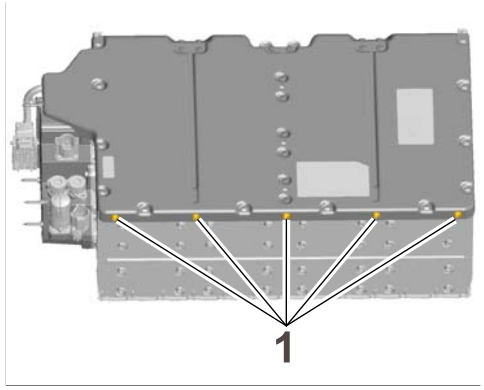
15.4 Tighten fastening screws (M6 x 16) ⇒ *Installing top cover plate* **-1-**. **Tightening torque 10.1 Nm (7.5 ftlb.)**

Tighten fastening screws (M6 x 12) ⇒ *Installing top cover plate* **-2-**. **Tightening torque 10.1 Nm (7.5 ftlb.)**



Installing top cover plate

15.5 Tighten fastening screws (M8 x 16) ⇒ *Installing top cover plate* **-1-**. **Tightening torque 13 Nm (9.5 ftlb.)**

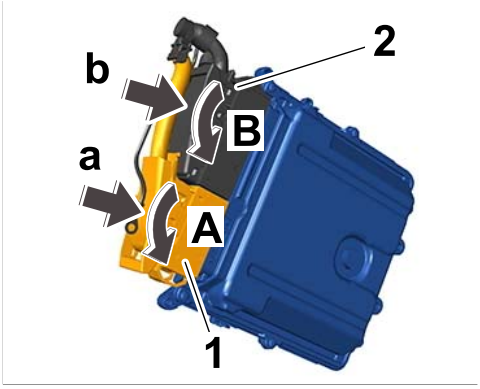


Installing top cover plate

16 Install high-voltage battery control unit.

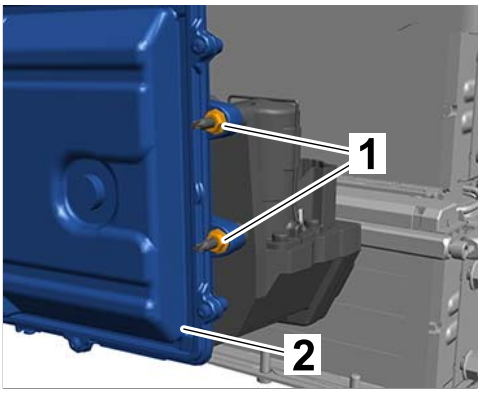
16.1 Connect electric plug connection ⇒ *Connecting electric plug connections* **-2-** on the high-voltage battery control unit ⇒ *Connecting electric plug connections* **-b-** and lock it ⇒ *Connecting electric plug connections* **-B-**.

16.2 Connect electric plug connection ⇒ *Connecting electric plug connections* **-1-** (⇒ *Connecting electric plug connections* **-a-**) and lock it ⇒ *Connecting electric plug connections* **-A-**.



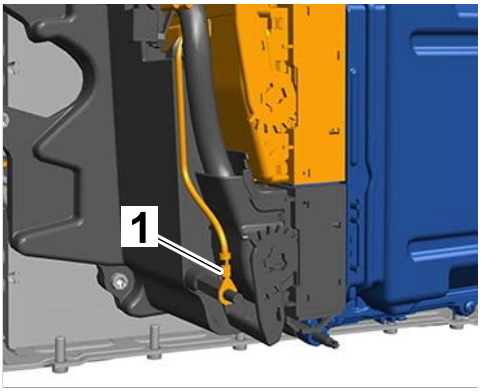
Connecting electric plug connections

16.3 Position control unit ⇒ *Installing high-voltage battery control unit* **-2-** on the E-box and tighten fastening nuts ⇒ *Installing high-voltage battery control unit* **-1-**.
Tightening torque 5.9 Nm (4.5 ftlb.)



Installing high-voltage battery control unit

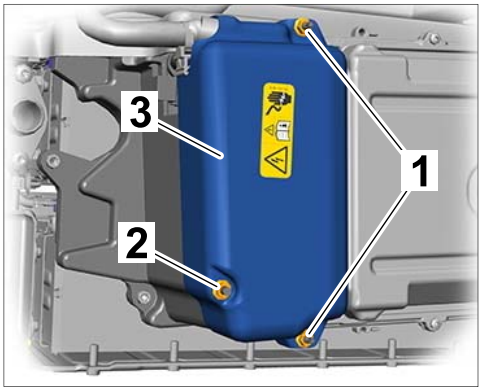
16.4 Push ground line ⇒ *Pushing on ground line* **-1-** onto the fastening bolts.



Pushing on ground line

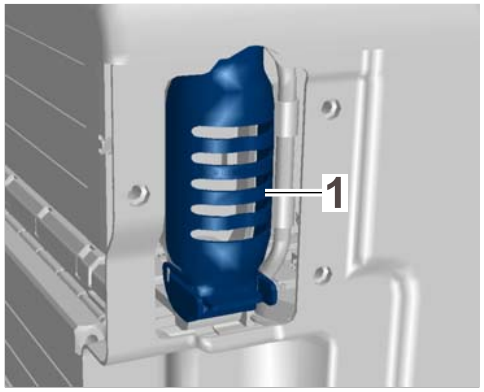
16.5 Position spacers on the bolts under fastening nuts ⇒*Installing cover for high-voltage battery control unit* **-2-**.

16.6 Position cover on high-voltage battery control unit ⇒*Installing cover for high-voltage battery control unit* **-3-** and tighten fastening nuts ⇒*Installing cover for high-voltage battery control unit* **-1, 2-**. **Tightening torque 5.9 Nm (4.5 ftlb.)**



Installing cover for high-voltage battery control unit

17 Remove cap ⇒*Removing cap* **-1-**.



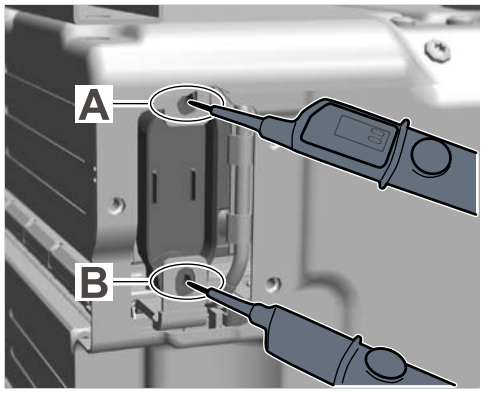
Removing cap

18 Verify absence of electric charge at the exposed high-voltage contacts of the high-voltage battery using a suitable voltage tester at contact points ⇒*Verifying absence of electric charge* **-A, B-**.

18.1 Contact point ⇒*Verifying absence of electric charge* **-A-** to housing.

18.2 Contact point ⇒*Verifying absence of electric charge* **-B-** to housing.

The measurement also prevents voltages due to the build-up of static charge.



Verifying absence of electric charge

Information

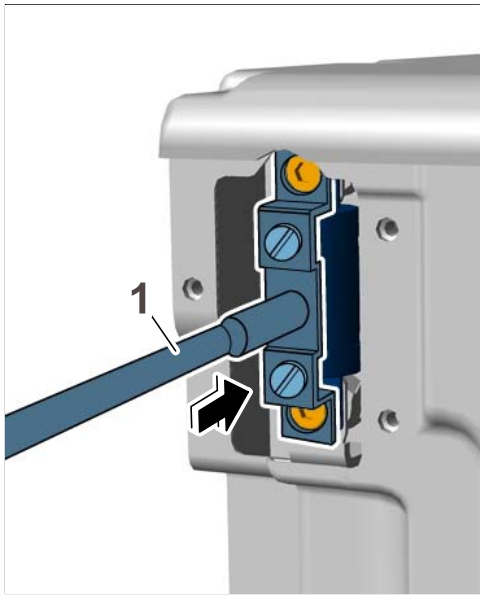
Insert fuse without causing any interruption to work in order to prevent an electrostatic charge.

19 Install high-voltage battery fuse.

19.1 Fit assembly aid ⇒*Installing fuse* **-1-** on the high-voltage battery fuse and on the high-voltage battery using fastening screws.

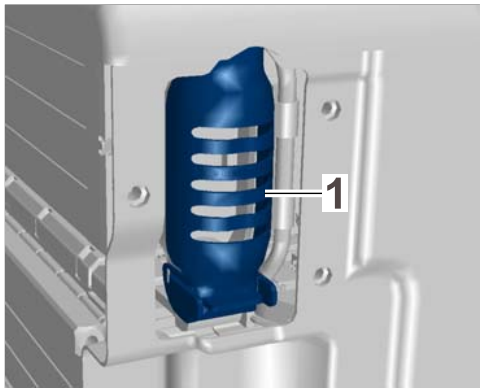
19.2 Tighten fastening screws. **Tightening torque 10 Nm (7.5 ftlb.)**

19.3 Pull assembly aid off the high-voltage battery fuse.



Installing fuse

19.4 Fit cap ⇒*Installing cap* **-1-** until it engages securely.



Installing cap

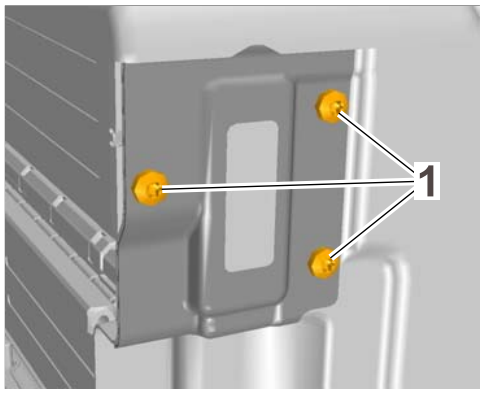
20 Position fuse carrier cover and tighten fastening screws ⇒*Installing fuse carrier cover* **-1-**. **Tightening torque 10.1 Nm (7.5 ftlb.)**

Information

Stickers (warning of dangerous electrical voltage)

The cover plates for the high-voltage battery must be replaced while carrying out the work required for replacing the E-box.

The identification and warning stickers affixed to the cover plates cannot be re-used.



Installing fuse carrier cover

Before re-installing the high-voltage battery, new stickers must therefore be affixed to the new cover plates at the same position and with the same text alignment as on the removed cover plates.

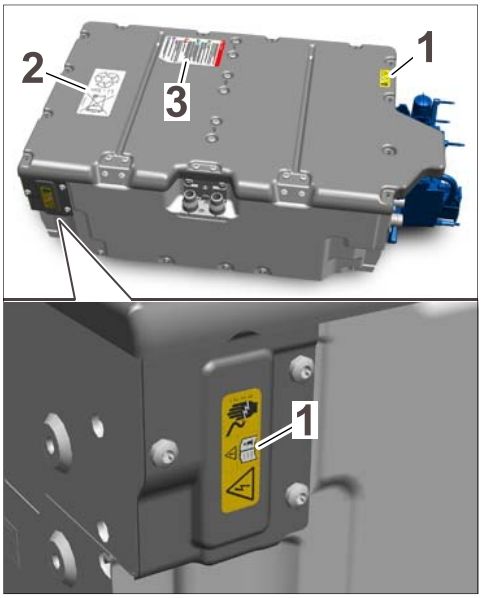
The required safety marking warning sign **8R0.010.539.x** must be selected according to the relevant language and country version.

21 Affix warning signs to the high-voltage battery.

1 Warning sign pictograms

2 Indication sticker for lithium-ion high-voltage battery

3 Safety marking warning sign



Arrangement of stickers

22 Install battery cross member ⇒ *Workshop Manual '271119 Battery cross member - section on "Installing"'*.

23 Install high-voltage battery ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery - section on "Installing"'*.

24 Restart the high-voltage system and complete the relevant documentation ⇒ *Workshop Manual '2X00IN Isolating high-voltage electrical system from power supply/Starting high-voltage electrical system'*.

25 Enter the campaign in the Warranty and Maintenance booklet.

Replacing high-voltage battery - Scope 2

Information

Returning high-voltage batteries to the Porsche.

Our parts manufacturers and suppliers have informed us that in most cases where queried high-voltage batteries were sent to Porsche, the coolant was not drained properly before packing them into the transport box.
Given this, we must point out that a small amount of coolant can cause internal faults in the high-voltage battery during transport and a subsequent analysis can no longer be carried out.

It is important, therefore, to point out the following:
If an analysis cannot be carried out because the high-voltage battery was not packaged correctly, we reserve the right to reject the warranty claim in this case.

Warranty parts are not scrap or worthless material. On the one hand, the parts will be requested due to possible recourse requirements (for the parts manufacturer or supplier), while on the other hand, the parts are used for quality assurance and monitoring purposes. To ensure that these parts are processed quickly, it is necessary therefore to send the high-voltage battery in accordance with the instructions in the Workshop Manual ⇒*Workshop Manual '2708IN Packaging instructions for high-voltage battery'*.

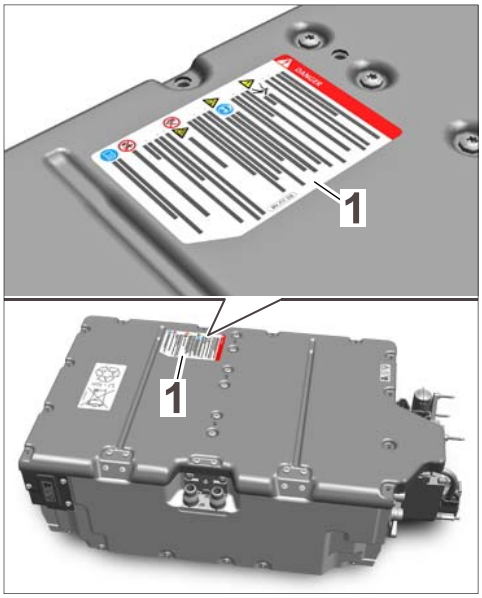
1 Pack the high-voltage battery in the transport box ⇒*Workshop Manual '2708IN Packaging instructions for high-voltage battery'*.

Information

Stickers (warning of dangerous electrical voltage)

As a rule, the high-voltage battery is delivered with a safety marking warning sign ⇒*Safety marking warning sign* **-1-** in English.
If this does not correspond to the language or country version assigned to the relevant vehicle, a warning sign in the required language or country version must be affixed over the existing warning sign before installing the high-voltage battery.

The required safety marking warning sign **8R0.010.539.x** must be selected according to the relevant language or country version.
When affixing the warning sign, make sure that the new warning sign is affixed at the same position and with the same text alignment as the previous warning sign.



Safety marking warning sign

2 Affix warning sign ⇒ *Safety marking warning sign* **-1-** to the high-voltage battery.

3 Install battery cross member ⇒ *Workshop Manual '271119 Battery cross member - section on "Installing"'*.

4 Install new high-voltage battery ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery - section on "Installing"'*.

5 Restart the high-voltage system and complete the relevant documentation ⇒ *Workshop Manual '2X00IN Isolating high-voltage electrical system from power supply/Starting high-voltage electrical system'*.

6 Enter the campaign in the Warranty and Maintenance booklet.

Replacing high-voltage battery - Scope 3

Information

Returning high-voltage batteries to the Porsche.

Our parts manufacturers and suppliers have informed us that in most cases where queried high-voltage batteries were sent to Porsche, the coolant was not drained properly before packing them into the transport box.
Given this, we must point out that a small amount of coolant can cause internal faults in the high-voltage battery during transport and a subsequent analysis can no longer be carried out.

It is important, therefore, to point out the following:
If an analysis cannot be carried out because the high-voltage battery was not packaged correctly, we reserve the right to reject the warranty claim in this case.

Warranty parts are not scrap or worthless material. On the one hand, the parts will be requested due to possible recourse requirements (for the parts manufacturer or supplier), while on the other hand, the parts are used for quality assurance and monitoring purposes. To ensure that these parts are processed quickly, it is necessary therefore to send the high-voltage battery in accordance with the instructions in the Workshop Manual ⇒ *Workshop Manual '2708IN Packaging instructions for high-voltage battery'*.

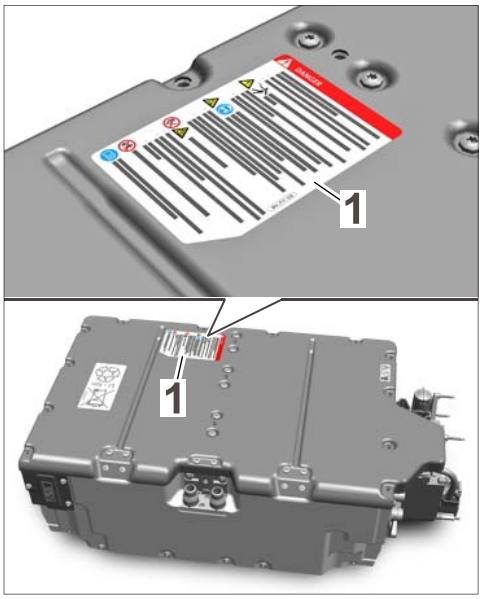
1 Pack the high-voltage battery in the transport box ⇒ *Workshop Manual '2708IN Packaging instructions for high-voltage battery'*.

Information

Stickers (warning of dangerous electrical voltage)

As a rule, the high-voltage battery is delivered with a safety marking warning sign ⇒ *Safety marking warning sign* **-1-** in English.
If this does not correspond to the language or country version assigned to the relevant vehicle, a warning sign in the required language or country version must be affixed over the existing warning sign before installing the high-voltage battery.

The required safety marking warning sign **8R0.010.539.x** must be selected according to the relevant language or country version.
When affixing the warning sign, make sure that the new warning sign is affixed at the same position and with the same text alignment as the previous warning sign.



Safety marking warning sign

2 Affix warning sign ⇒ *Safety marking warning sign* **-1-** to the high-voltage battery.

3 Install battery cross member ⇒ *Workshop Manual '271119 Battery cross member - section on "Installing"'*.

4 Install new high-voltage battery ⇒ *Workshop Manual '270819 Removing and installing high-voltage battery - section on "Installing"'*.

5 Restart the high-voltage system and complete the relevant documentation ⇒ *Workshop Manual '2X00IN Isolating high-voltage electrical system from power supply/Starting high-voltage electrical system'*.

6 Enter the campaign in the Warranty and Maintenance booklet.

Attachment "B": **Claim Submission** - Workshop Campaign WD67
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: **Replacing E-box for the high-voltage system**

Information

Scope 1 must be invoiced if the E-box for the high-voltage battery was replaced fully in accordance with the Technical Information.

Replacing E-box for the high-voltage system — Labor time: **689 TU**

Includes:
- Isolating high-voltage system from power supply and starting high-voltage system
- Classification of high-voltage battery
- Removing and installing subwoofer
- Removing and installing luggage compartment cover
- Removing and installing C-pillar trim panel
- Removing and installing side trim panel
- Removing and installing cover for lock support
- Removing and installing battery
- Removing and installing KESSY antenna
- Removing and installing high-voltage charger
- Removing and installing high-voltage battery
- Removing and installing battery cross member
- Removing and installing high-voltage battery control unit
- Removing and installing high-voltage battery fuse
- Filling coolant
- Bleeding low-temperature cooling system
- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester

Parts required:

7PP.915.251.A	Battery relay carrier (BDU)	1 ea.
970.611.901.07	Set of screws for control unit	1 ea.
7PP.915.465.A	Battery cover plate, top	1 ea.
7PP.915.151	Battery cover plate, side	1 ea.
970.611.901.02	Set of screws for cover plate	1 ea.
970.611.901.03	Battery fuse box cover	1 ea.
970.611.901.04	Set of screws for fuse	1 ea.
7PP.915.463	Fuse	1 ea.
N .906.661.01	Tie-wrap clip	5 ea.
970.555.643.01	Screw bolt for locking mechanism	2 ea.
999.507.584.02	Clamp	10 ea.
999.507.839.01	Clip	10 ea.

7PP.010.849.L	Indication sticker LI.ION HV BATTERY	1 ea.
958.701.739.00	Warning sign for cover	2 ea.
000.043.301.47	Antifreeze, 1-liter container	1 ea.

Also required:

8R0.010.539	Warning sign, English	1 ea.

Materials required:

WD670000001	Tie-wrap	1 ea. (i.e. 5 tie-wraps, approx. 3.0 x 200 mm e.g. 999.513.075.40; for warranty invoicing only)*

* WD670000001 should be entered manually as a sublet part.

Required tools:

WD670000002	Tap with spiral grooves – Tap, M6 x 1.0 – Tap, M8 x 1.25	1 ea. (= M6 and M8 taps, for warranty invoicing only)**

** WD670000002 should be entered manually as a sublet part.

The taps must only be invoiced **once** for the first vehicle during **warranty processing** in each Porsche cealership.
Only the required **parts and materials** must be invoiced in the campaign claim for the remaining vehicles on which work is carried out as part of this campaign in the Porsche cealership.

⇒ **Damage code WD67 066 000 2**

Scope 2: **Replacing high-voltage battery**

Information

Scope 2 must be invoiced if the campaign cannot be carried out fully because a **screw has broken off or rivet nuts are damaged** on the **fuse carrier cover** and the high-voltage battery must be replaced.

Replacing high-voltage battery — Labor time: **542 TU**

Includes:
- Isolating high-voltage system from power supply and starting high-voltage system
- Removing and installing subwoofer
- Removing and installing luggage compartment cover
- Removing and installing C-pillar trim panel
- Removing and installing side trim panel
- Removing and installing cover for lock support
- Removing and installing battery
- Removing and installing KESSY antenna
- Removing and installing high-voltage charger
- Removing and installing high-voltage battery
- Removing and installing battery cross member
- Filling coolant
- Bleeding low-temperature cooling system
- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester
- Packing high-voltage battery in transport box

Parts required:

000.043.989.06	Battery	1 ea.
N .906.661.01	Tie-wrap clip	5 ea.
970.555.643.01	Screw bolt for locking mechanism	2 ea.
999.507.584.02	Clamp	10 ea.
999.507.839.01	Clip	10 ea.
000.043.301.47	Antifreeze, 1-liter container	1 ea.

Materials required:

WD670000001	Tie-wrap	1 ea. (i.e. 5 tie-wraps, approx. 3.0 x 200 mm e.g. 999.513.075.40; for warranty invoicing only)*

*WD670000001 should be entered manually as a sublet part.

⇒ **Damage code WD67 066 000 2**

Scope 3: **Replacing high-voltage battery**

Information

Scope 3 must be invoiced if the campaign cannot be carried out fully because a **screw has broken off or rivet nuts are damaged** on the **cover plates of the high-voltage battery** and the high-voltage battery must be replaced.

Replacing high-voltage battery — Labor time: **620 TU**

Includes:
- Isolating high-voltage system from power supply and starting high-voltage system
- Classification of high-voltage battery
- Removing and installing subwoofer
- Removing and installing luggage compartment cover
- Removing and installing C-pillar trim panel
- Removing and installing side trim panel
- Removing and installing cover for lock support
- Removing and installing battery
- Removing and installing KESSY antenna
- Removing and installing high-voltage charger
- Removing and installing high-voltage battery
- Removing and installing battery cross member
- Removing and installing high-voltage battery control unit
- Removing and installing high-voltage battery fuse
- Filling coolant
- Bleeding low-temperature cooling system
- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester
- Packing high-voltage battery in transport box

Parts required:

000.043.989.06	Battery	1 ea.
N .906.661.01	Tie-wrap clip	5 ea.
970.555.643.01	Screw bolt for locking mechanism	2 ea.
999.507.584.02	Clamp	10 ea.
999.507.839.01	Clip	10 ea.
000.043.301.47	Antifreeze, 1-liter container	1 ea.

Materials required:

WD670000001	Tie-wrap	1 ea. (i.e. 5 tie-wraps, approx. 3.0 x 200 mm e.g. 999.513.075.40; for warranty invoicing only)*

* WD670000001 should be entered manually as a sublet part.

⇒ **Damage code WD67 066 000 2**

References: ⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage vehicle electrical system'*
⇒ *Workshop Manual '2X00IN Isolating high-voltage electrical system from power supply/Starting high-voltage electrical system'*
⇒ *Workshop Manual '2X00IN Classification of high-voltage battery'*
⇒ *Workshop Manual '270819 Removing and installing high-voltage battery'*
⇒ *Workshop Manual '271119 Battery cross member'*

Dealership Distribution Routing	Service Manager	_____	Shop Foreman	_____	Service Technician	_____	_____	_____	_____
	Asst. Manager	_____	Warranty Admin.	_____	Service Technician	_____	_____	_____	_____