

APA1 - Replacing Additional Pump (Stop Delivery / Recall Campaign)

Model Line: **Panamera (971)**

Model Year: **As of 2017 up to 2021**

Concerns: **Additional pump for air conditioning control**

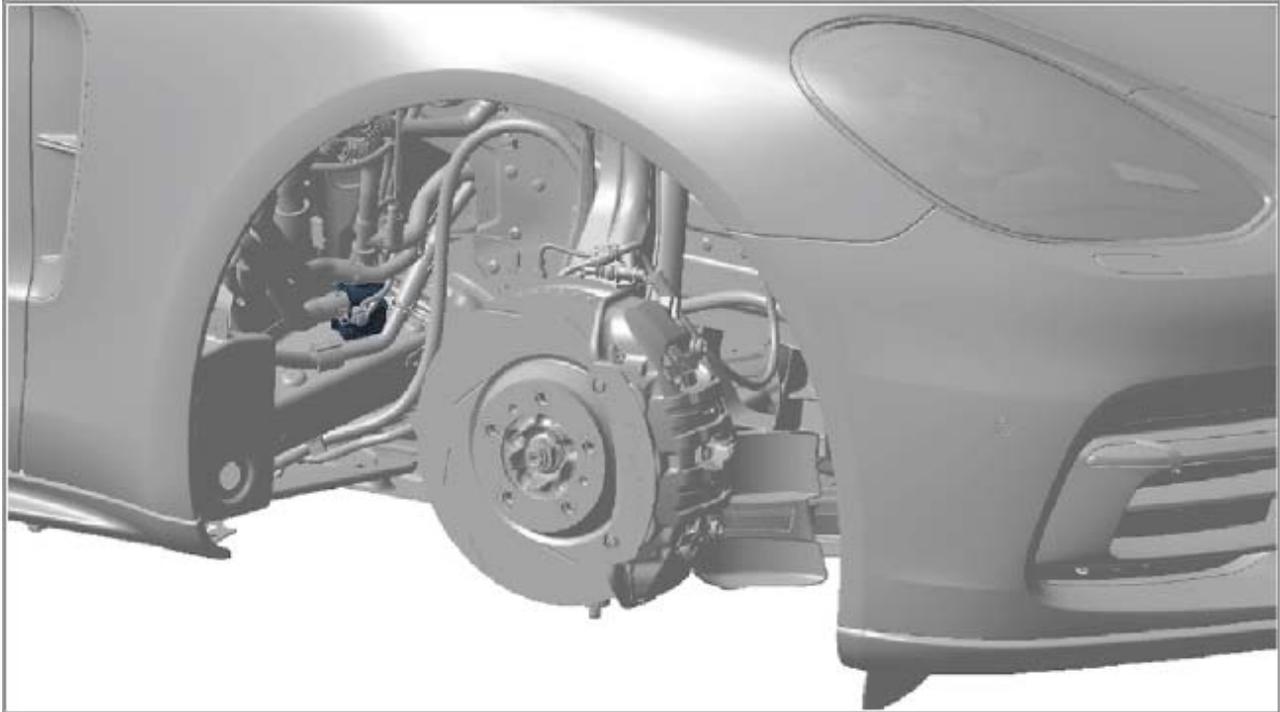
Information: **On the affected vehicles, there is a possibility of moisture getting into the control unit for the additional pump of the climate control system and causing malfunctions in the temperature control of the interior and when the engine residual heat function is activated.**

Over the service life of the vehicles, such malfunctions can lead to short circuits and promote visible damage to the additional pump successively to the plug connection of the wiring harness. As damage progresses, an unnoticed short circuit can lead to an increased risk of scorching and even fire. Activating the AUTO-REST button in the center console can cause fire damage even longer after stopping the vehicle.

Action required: Replace additional pump for air conditioning control and check plug connection and replace if necessary.

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

Installation
Position:



Installation position of additional pump

Required parts and materials

Parts Info:	Part No.	Designation	Number
	V04015004AF	⇒ Additional coolant pump	1 piece
	V04015004AG	⇒ Holder	1 piece
	V04015004AH	⇒ Lens panel screw	3 pieces

Required parts if the **connector for the additional pump must be replaced:**

Part No.	Designation	Number
PNATKR000014	APA1 Connector repair kit	1 piece

The **APA1 Connector repair kit** repair kit includes the following individual parts:

- 1 – Connector housing
- 2 – Cable (0.5 mm²) with individual wire seal
- 3 – Crimp connector



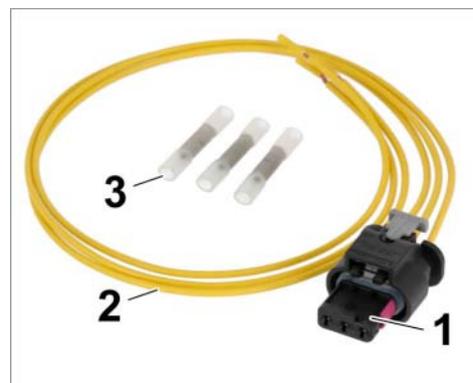
Information

Order rate:

Due to the expected failure rate of 10% of affected vehicles, please only order the connector kit after the inspection of the current connectors on the vehicle.

Warranty processing:

- Please note that you will need to claim 2 parts in order to be fully and properly reimbursed for the APA1 Connector Repair kit. Your dealer will need to invoice both part number APA10000004 for \$49.51 and part number APA10000005 for \$10.49.
- For warranty processing, the part number **APA10000004** with the designation “APA1 Connector repair kit” can be invoiced as an **additional part** in the warranty claim. Maximum amount possible for claiming APA10000004 is \$49.51.
- Please claim the part number **APA10000005** for the remaining cost of the APA1 connector kit that your dealer was charged, max amount \$10.49. Please use the designation "Price Difference" when claiming.



Overview of connector repair kit

Materials:

Required materials (usually already available at the Porsche dealer):

Part No.	Designation	Number
00004330516	⇒ Coolant additive, 20-liter/ 5.28 gal container	As required (a maximum of approx. 1 liter/ 33.8 fl oz is required per vehicle)
...	Insulating tape	1 piece*
	Fabric adhesive tape (fleece)	(for warranty invoicing only)
	Corrugated tube	

*For warranty processing, the **Part No. APA10000006** with the “Consumable material” designation can be invoiced as an **additional part** in the warranty claim. Maximum cost: \$3.75.

Required tools

Tools:

- **VAS 1978/1A - Crimping pliers**
- **V.A.G 1331A - Torque wrench 6-50 Nm (4.5-37 ftlb.)** or equivalent

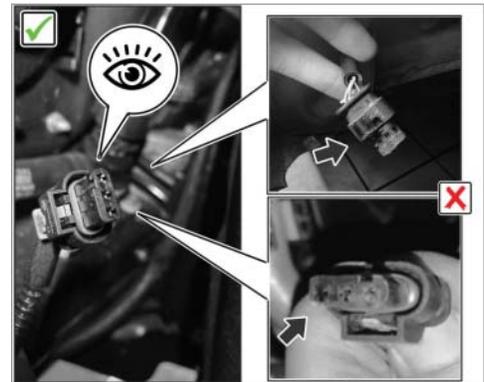
- V.A.G 1576 - Torque wrench, 80-400 Nm (59-296 ftlb.)
- 3093 - 3093 - Hose clamp
- VAS 1978/14A - Hot-air blower
- 9900 - 9900 - PIWIS Tester 3
- Battery charger with a current rating of **at least 90 A** and - if required - **also with a current and voltage controlled charge map** for lithium starter batteries, e.g. **VAS 5908 90 A battery charger**
- Suitable knife, e.g. scalpel or small Stanley knife

Replacing additional pump

Work Procedure: 1 Remove additional pump. ⇒ *Workshop Manual '803719 Removing and installing additional pump'*

2 Check connector connection for additional pump for visible thermal deformations.

- If no damage to the connector is visible, **continue with Step 3.**
- If damages to the connector are visible, document this with a digital camera and repair the connector. Please claim the part number APA10000005 for the remaining cost of the APA1 connector kit that your dealer was charged, max amount \$10.49. Please use designation "Shipping Costs" or "Price Difference" when claiming. To do this, **continue with** ⇒ *Technical Information '803719 repairing the plug connection for the additional pump'*.



Checking connector

3 Install additional pump. ⇒ *Workshop Manual '803719 Removing and installing additional pump'*

4 Enter the campaign in the Warranty and Maintenance booklet.

Repairing plug connection for additional pump



Sharp, pointed edge on the knife

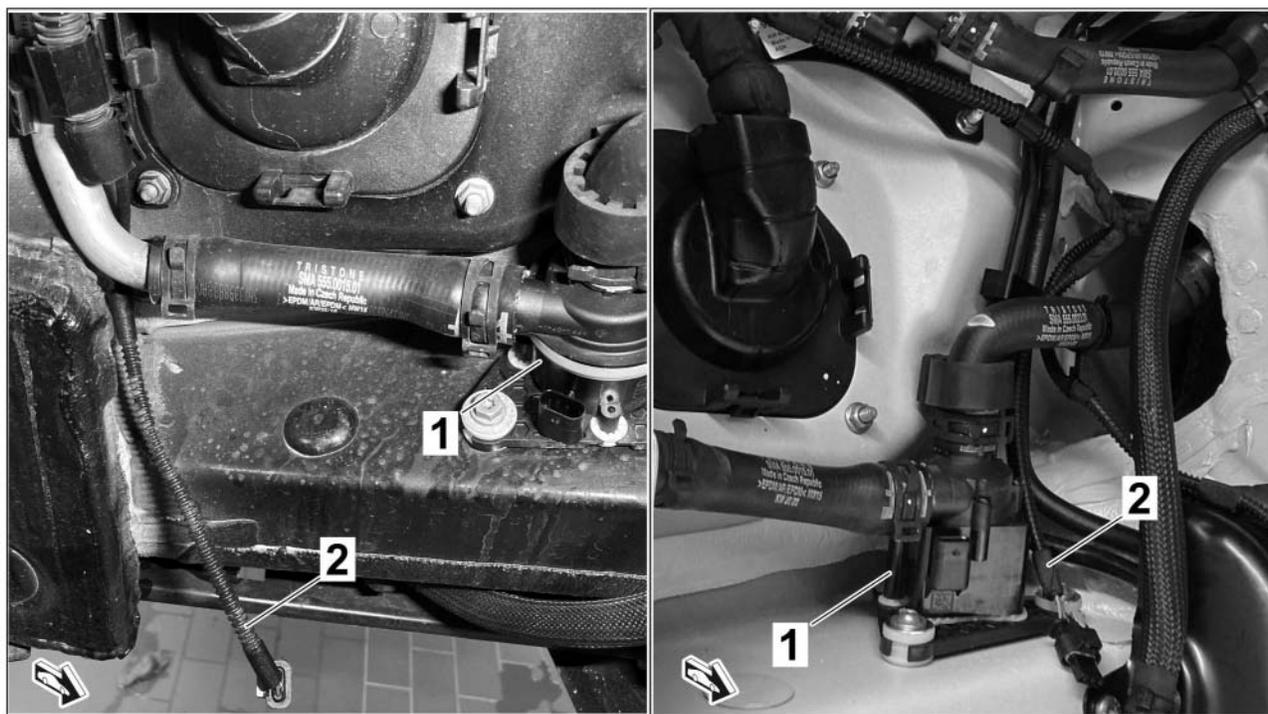
- Danger of pricks or cuts
- ⇒ Wear personal protective gear.
- ⇒ Handle knife with care.



Information

Depending on the model year and equipment variant, the wire harness for the additional pump ⇒ *Wire harness routing -2-* is routed ⇒ *Wire harness routing -1-* either at the left or right of the additional pump.

The procedure described below shows the work to be carried out on the wire harness, which is routed to the left of the additional pump. Work on the wire harness, which is routed to the right of the additional pump, must be carried out as a mirror.



Wire harness routing

Work Procedure: 5 Remove the front right wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*

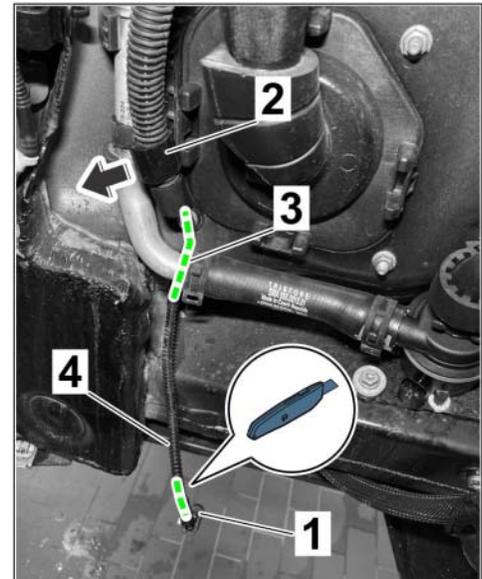
- 6 Expose wire harness for additional pump.
 - 6.1 Release retaining clips ⇒ *Expose wire harness -1-* on wire harness ⇒ *Expose wire harness -2-* ⇒ *Expose wire harness -Arrow-* and pull out the wire harness.
 - 6.2 Remove insulating tapes on the corrugated tube ⇒ *Expose wire harness -4-* at the top and bottom.
 - 6.3 Pull wire harness out of the corrugated tube up to the branch area of the wire harness.



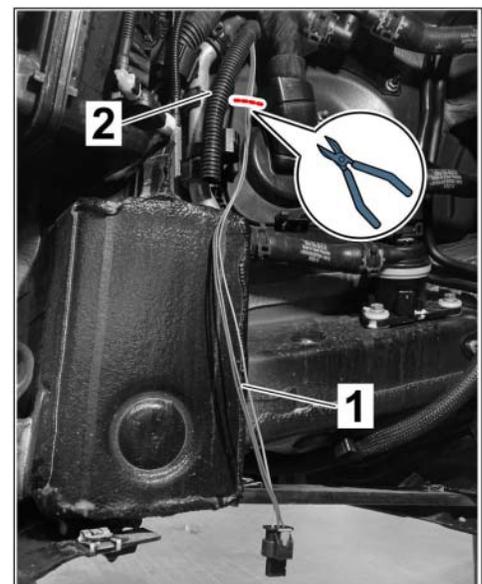
Information

- Select a place for the joint where there is enough space to join the individual lines.
 - Mark the electric lines if necessary.
 - If the wire harness is damaged to such an extent that it cannot be repaired using a repair kit, the complete wire harness must be replaced.
- 7 Repair wire harness.

- 7.1 Cut wire harness ⇒ *Repair wire harness -1-* individually using a side cutter or **stripping pliers VAS 1978/ 3** in the marked area (connection point approx. 280–300 mm from connector).
The connection point should be located at the top of the corrugated tube ⇒ *Repair wire harness -2-*.



Expose wire harness



Repair wire harness

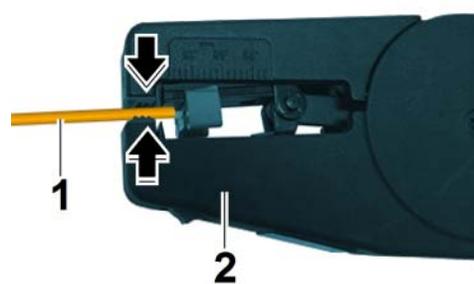


Information

Always exercise extreme care during the individual work steps for stripping insulation from, crimping and shrinking/insulating the electric lines.

The procedure for stripping insulation from, crimping, and shrinking/insulating the electric lines must be observed and complied with. The procedure is described in detail in the **Release Tool Set**.

- 7.2 Strip the ends of the line you have just cut
 ⇒ *Stripping the line -1-* using the **stripping pliers VAS 1978/3** ⇒ *Stripping the line -2-*.



Stripping the line

- 7.3 Connect lines individually according to pin assignment.

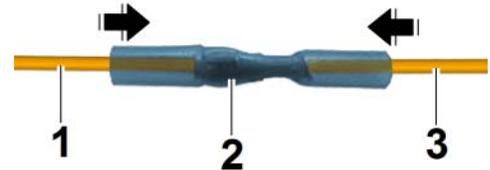


Pin assignment

Pin assignment for connector

PIN	Line color connector	Line color for wire harness
1	Yellow, 0.5 mm ²	Brown
2	Yellow, 0.5 mm ²	Red/purple
3	Yellow, 0.5 mm ²	Green/purple

- 7.4 Guide the stripped ends of the line \Rightarrow *Guiding lines into crimp connector -1-* into the corresponding crimp connector \Rightarrow *Guiding lines into crimp connector -2-*.

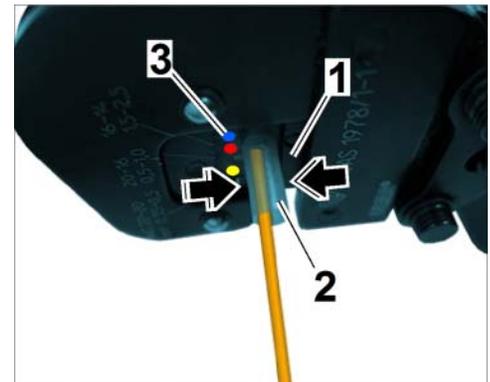


Guiding lines into crimp connector

- 7.5 Crimp on the line using **crimping pliers VAS 1978/1-1**.

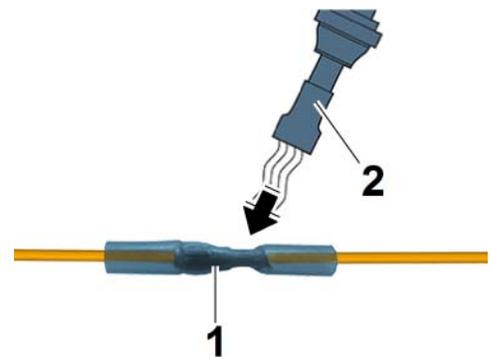
- 7.5.1 Install crimping pliers insert \Rightarrow *Crimping on line -1-* according to the color marking \Rightarrow *Crimping on line -3-* on the crimp connector \Rightarrow *Crimping on line -2-* into the **crimping pliers VAS 1978/1-1**.

- 7.5.2 Crimp on the crimp connector \Rightarrow *Crimping on line -2-* using **crimping pliers VAS 1978/1-1**.



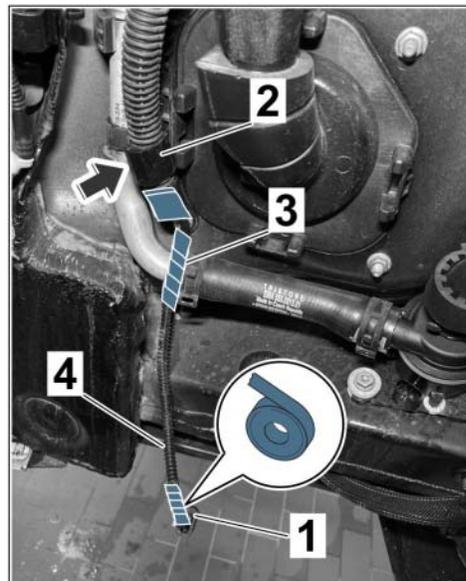
Crimping on line

- 7.6 Seal shrink-fit hose on the crimp connection \Rightarrow *Sealing crimp connection -1-* using **hot-air blower VAS 1978/14A** \Rightarrow *Sealing crimp connection -2-*.



Sealing crimp connection

- 8 Route wire harness for additional pump.
 - 8.1 Press wire harness ⇒ *Wrapping tape around wire harness -1-* into the corrugated pipes ⇒ *Wrapping tape around wire harness -4-*.
 - 8.2 Wrap insulating tape ⇒ *Wrapping tape around wire harness -3-* around the lines in the connector in the usual way.
 - 8.3 Route wire harness around the water line again.
 - 8.4 Fasten ⇒ *Wrapping tape around wire harness -2-* wire harness to the retaining clip ⇒ *Wrapping tape around wire harness -Arrow-*.
- 9 Plug in connector on the additional pump and check wire harness for correct routing and clearance.



Wrapping tape around wire harness

- 10 Complete the vehicle. To do this, **continue with** replacing ⇒ *Technical Information '440519 additional pump', step Step 3.*
- 11 Install the front right wheel. ⇒ *Workshop Manual '440519 Removing and installing wheel'*

Warranty processing



Information

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

Scope 1:

Labor time:			
Replacing additional pump without replacing connector			Labor time: 107 TU
Includes:	Remove front wheel housing liner at the right (rear section)		
	Fill with coolant and bleed the cooling system		
Parts required:			
V04015004AF	Additional coolant pump	1 piece	
V04015004AG	Holder	1 piece	
V04015004AH	Lens panel screw	3 pieces	
Required materials:			

00004330516	Coolant additive, 20-liter/ 5.28 gal container	0.05 piece (approx. 1 liter/ 33.8 fl oz)
Additional costs:		
APA10000001*	Transporting the vehicle	As required (for warranty invoicing only)
APA10000002**	Vehicle storage	As required (for warranty invoicing only)
APA10000003***	Customer mobility	As required (for warranty invoicing only)

* For warranty processing, the **Part No. APA10000001** can be invoiced in the warranty claim as an **additional part** with the designation "vehicle transportation" and with the amount as per invoice. **Please document a copy of the invoice in WWS.**

** For warranty processing, the **Part No. APA10000002** can be invoiced in the warranty claim as an **additional part** with the designation "vehicle storage" and with the amount as per invoice. **Please document a copy of the invoice in WWS.**

*** For warranty processing, the **Part No. APA10000003** can be invoiced in the warranty claim as an **additional part** with the designation "customer mobility" and with the amount as per invoice. **Please document a copy of the invoice in WWS.**

⇒ **Damage Code APA1 99 000 2**

Scope 2:

Labor time:

Replacing additional pump and repairing connector Labor time: **143 TU**
 Includes: Remove front wheel housing liner at the right (rear section)
 Fill with coolant and bleed the cooling system
 Removing and installing front right wheel

Parts required:

V04015004AF	Additional coolant pump	1 piece
V04015004AG	Holder	1 piece
V04015004AH	Lens panel screw	3 pieces

Required materials:

00004330516	Coolant additive, 20-liter/ 5.28 gal container	0.05 piece (approx. 1 liter/ 33.8 fl oz)
APA10000004****	Repair kit for connector	1 piece (for warranty invoicing only)

APA10000005*****	Shipping costs	1 piece (for warranty invoicing only)
APA10000006*****	Expendable items	1 piece (for warranty invoicing only)
Additional costs:		
APA10000001*	Transporting the vehicle	As required (for warranty invoicing only)
APA10000002**	Vehicle storage	As required (for warranty invoicing only)
APA10000003***	Customer mobility	As required (for warranty invoicing only)
<p>* For warranty processing, the Part No. APA10000001 can be invoiced in the warranty claim as an additional part with the designation "vehicle transportation" and with the amount as per invoice. Please document a copy of the invoice in WWS.</p> <p>** For warranty processing, the Part No. APA10000002 can be invoiced in the warranty claim as an additional part with the designation "vehicle storage" and with the amount as per invoice. Please document a copy of the invoice in WWS.</p> <p>*** For warranty processing, the Part No. APA10000003 can be invoiced in the warranty claim as an additional part with the designation "customer mobility" and with the amount as per invoice. Please document a copy of the invoice in WWS.</p> <p>**** For warranty processing, the Part No. APA10000004 with the designation "APA1 Connector repair kit" can be invoiced as an additional part in the warranty claim. Cost: \$ 49.51.</p> <p>***** Please invoice the remaining amount for the total amount your dealer was charged for the connector kit PNATKR000014 using the Part No. APA10000005. Max amount allowable for APA10000005 is \$10.49.</p> <p>***** For warranty processing, the Part No. APA10000006 with the designation "Consumable material" can be invoiced as an additional part in the warranty claim. Maximum cost: \$ 3.75.</p> <p>⇒ Damage Code APA1 99 000 2</p>		

Invoicing of any additional costs incurred as part of APA1

Invoicing:

Costs for transporting the vehicle

If required, the vehicle can be collected from the customer and transported to the Porsche dealer or to a parking space used by the Porsche dealer. The costs incurred can be invoiced in the warranty claim for recall campaign APA1 under the **part number APA10000001** with the designation "vehicle transportation" (type: sublet) as an additional part. To this end, please document a copy of the invoice for this in the warranty claim.

Costs for vehicle storage

If third-party parking spaces are used for storing affected vehicles, the costs incurred can be invoiced as an additional part under "Parts" in the warranty claim for recall campaign APA1 using the **part number APA10000002**.

Up to \$ 12.50 per day can be invoiced for storing the vehicle. For this, please document a copy of the invoice for this in the warranty claim

Costs for customer mobility

If required, customer mobility services can be offered only until such a time that the campaign has been carried out. As a rule, the current rules governing the Customer Mobility Programme apply here. Depending on which vehicles are used to guarantee customer mobility, the costs incurred can be invoiced as follows:

- Utilization of Porsche vehicles via Mobility Account (standard process)

Costs are processed using the standard process in accordance with the currently applicable rules governing the Customer Mobility Programme.

The costs incurred in the warranty claim for recall campaign APA1 must be invoiced under the **Part No. APA10000003** with the designation "Customer Mobility" as an additional part.

To this end, please document a copy of the invoice for this in the warranty claim.

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