

**WKK5 Workshop campaign - Re-programming air conditioning and high-voltage battery control units**

**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:** **As of 2014 up to 2016**

**Revision:** This bulletin replaces bulletin Group 8 17/20 WKK5, dated March 30, 2020.

**Vehicle type:** **Panamera S E-Hybrid (970)**

**Subject:** **Air conditioning and high-voltage battery control units**

**Information:** **New software has been developed to optimize the cooling of the high-voltage battery during the charging process. The new software helps to maintain the performance of the high-voltage battery and prevents overheating of the battery during charging at high outside temperatures.**

For this reason, the air conditioning and high-voltage battery control units on the affected vehicles are programmed with a new data record.

**Remedial Action:** Re-program the air-conditioning and high-voltage battery control units using the PIWIS Tester.



**Information**

During the campaign, the air conditioning and high-voltage battery control units are re-programmed and then re-coded **automatically**.

The total time required for **programming and coding** is **approx. 8 minutes**.



### Information

**This campaign is not** relevant for vehicles that were installed with a high-voltage battery from the Cayenne S E-Hybrid (92A) as part of the Technical Information ⇒ *Technical Information '270800 Spare parts requirements for high-voltage battery: Follow special instructions (88/19)'*. Different software was already installed on these Panamera S E-Hybrid (970) vehicles when TI 88/19 was implemented.

For this reason, the **repair history of the vehicle** must be **checked** before the workshop visit to determine whether TI 88/19 may have been carried out on this vehicle.

Alternatively, the vehicles can be identified using the M number 'ST1 - Installing E2 HV battery (28 Ah cells)' stored in the vehicle data, which was entered during the implementation of TI 88/19. It is important to note here that the M number may not yet have been transferred into the Porsche AG After Sales systems. As a result, this can only be read out of the vehicle data in the vehicle reliably using the PIWIS Tester.

Campaign WKK5 must be closed by performing a recall update (warranty claim with 0 time units and no parts claimed) for the affected vehicles.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information). There are 1,732 vehicles affected by this campaign in North America.

### Required tools

- Tools:
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **39.200.020** (or higher) installed
  - **Battery charger** with a current rating of **at least 90 A**, e.g. **VAS 5908/ Battery charger 90A**

### Preparatory work

#### NOTICE

**Fault entry in the fault memory and control unit programming aborted due to low-voltage.**

- **Increased current draw during diagnosis or control unit programming can cause a drop in voltage, which can result in one or more fault entries and the abnormal termination of the programming process.**
- ⇒ **Before starting control unit programming, connect a suitable battery charger with a current rating of at least 90 A to the vehicle.**

#### NOTICE

**Control unit programming will be aborted if the WLAN connection is unstable.**

- **An unstable WiFi connection can interrupt communication between the PIWIS Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.**
- ⇒ **During control unit programming, always connect the PIWIS Tester to the vehicle communication module (VCI) via the USB cable.**

**NOTICE**

**Control unit programming will be aborted if the driver's key is not recognized**

- If the driver's key is not recognized in vehicles with Porsche Entry & Drive, programming cannot be started or will be interrupted.
- ⇒ Switch on the ignition using the original driver's key. To do this, replace the dummy key in the ignition lock with the original driver's key if necessary.

Work Procedure: 1 Carry out general preliminary work for control unit programming as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Preliminary work"*.

**Re-programming air conditioning and high-voltage battery control units**

Work Procedure: 1 The basic procedure for programming a control unit is described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Programming"*.

**Specific information on control unit programming in the context of this Technical Information:**

Required PIWIS Tester software version:	<b>39.200.020</b> (or higher)
Type of control unit programming:	Control unit programming using the <b>"Campaign" function in the Additional menu</b> on the PIWIS Tester by entering a programming code.
Programming code:	<b>Q1K6M</b>
Programming sequence:	Read and follow the <b>information and instructions on the PIWIS Tester</b> during the guided programming sequence. During the programming sequence, the high-voltage battery and air conditioning control unit is <b>re-programmed</b> and then <b>re-coded automatically</b> . <b>Do not interrupt programming and coding.</b>
Programming time (approx):	<b>8 minutes</b>

Software version programmed during this campaign:	<p>Air conditioning <b>1040</b></p> <p>High-voltage battery <b>1103</b></p> <p>Following control unit programming, the software version can be read out of the air-conditioning or high-voltage battery control unit in the ⇒ 'Extended identification' menu using the PIWIS Tester.</p>
Procedure in the event of error messages appearing during the programming sequence:	⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"</i> .
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.



### Information

Once the high-voltage battery control unit has been re-programmed, a diagnosis of the high-voltage battery is performed the next time the BUS is idle (ignition is switched off and the vehicle is locked). **This process must not be interrupted.** If this diagnosis is aborted (e.g. if the vehicle is unlocked), a fault memory will be stored.

Invoice Scope 2 in this case. See warranty processing instructions under ⇒ *Technical Information '9X00IN Warranty processing'*.

## 2 Lock the vehicle to start on-board diagnosis of the high-voltage battery.

- 2.1 Disconnect the PIWIS Tester from the vehicle.
- 2.2 Switch off the ignition and lock the vehicle with the driver's key.  
Remove the driver's key and place outside the radio range of the vehicle at a distance of **at least 5 metres** from the vehicle.
- 2.3 Unlock the vehicle again after waiting **a minimum of 5 minutes**.
- 2.4 Switch on ignition.
- 2.5 Plug the PIWIS Tester diagnostic connector into the diagnostic socket again and restore communication with the vehicle.

## Concluding work

Work Procedure: 1 Carry out general subsequent work for control unit programming as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'* – section on "Subsequent work".

2 Enter the campaign in the Warranty and Maintenance booklet.

**Warranty processing**



**Information**

The following specified working time was determined specifically for carrying out this campaign and may differ from the working times published in the PCSS.

Scope 1: **Re-programming air conditioning and high-voltage battery control units**

**Working time:**

Re-programming control units for air conditioning and high-voltage battery	Labor time: <b>60 TU</b>
Includes:	
Connecting and disconnecting battery charger	
Connecting and disconnecting PIWIS Tester	
Reading out and erasing fault memory	
Calibrating electric motor	

⇒ **Damage Code WKK5 066 000 1**

Scope 2: **Re-programming air conditioning and high-voltage battery control units**

**Working time:**

Re-programming control units for air conditioning and high-voltage battery	Labor time: <b>70 TU</b>
Includes:	
Connecting and disconnecting battery charger	
Connecting and disconnecting PIWIS Tester	
Waiting for on-board diagnosis of the high-voltage battery to finish	
Reading out and erasing fault memory	
Calibrating electric motor	

⇒ **Damage Code WKK5 066 000 1**

**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.