

**Complaint - Check Engine Warning Light Comes On, Fault Memory Entry for Tank Ventilation/Tank Ventilation System: Observe Specified Procedure (179/20)**

Vehicle Type: **911 Carrera (991)/911 Carrera S (991)/911 Carrera GTS (991)/911 Carrera T (991)/911 Carrera Cabriolet (991)/911 Carrera S Cabriolet (991)/911 Carrera GTS Cabriolet (991)/911 Carrera 4 (991)/911 Carrera 4S (991)/911 Carrera 4 GTS (991)/911 Targa 4 (991)/911 Targa 4S (991)/911 Targa 4 GTS (991)/911 Carrera 4 Cabriolet (991)/911 Carrera 4S Cabriolet (991)/911 Carrera 4 GTS Cabriolet (991)**

Model Year: **As of 2017 up to 2018**

Concerns: **Tank vent valve**

Information: The Check Engine warning light comes on in the instrument cluster. One of the following entries is stored in the fault memory of the DME control unit:

- P24D6 Tank ventilation pressure sensor - sensor fault
- P04F0 Tank ventilation system - upper partial load range

This is caused by a stuck diaphragm in the check valve for the vacuum line.

Action required: Replace tank vent valve, see ⇒ *Workshop Manual '202319 Removing and installing tank vent valve'* and then re-program the DME control unit.



**Information**

The total time required for control unit programming is **approx. 10 minutes**.

**Required tools and parts**

- Tool:
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **34.700.030** (or higher) installed
  - **Battery charger** with a current rating of **at least 40 A**, e.g. **VAS 5908 Battery charger 90A**.

Parts Info:	Part No.	Designation	Qty.
		<b>- Use</b>	
	9A211009503	⇒ Vent line with tank vent valve	1 ea.
		<b>Additional parts required</b>	
	9A700875500	⇒ O-ring	2 ea.
		- Venturi nozzle for tank ventilation	
	99970769240	⇒ O-ring	1 ea.
		- Oil supply line for turbocharger	
	9P1129260A	⇒ Clamp	1 ea.
		- Intake pipe on turbocharger	

99907344301	⇒ Combination screw – diagonal brace	2 ea.
WHT008676	⇒ Hexagon-head bolt – Diagonal brace	2 ea.
PAF008735	⇒ Hexagon-head bolt – Rear-axle cross member	2 ea.
99907293101	⇒ Hexagon-head bolt – Rear-axle cross member	2 ea.

### 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 abortion of the diagnostic process.
- ⇒ Before starting control unit programming, connect a suitable battery charger with a current rating of at least 40 A to the vehicle.

#### NOTICE

Control unit programming will be aborted if the WiFi 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 control unit 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 DME control unit**

**NOTICE**

**Use of a PIWIS Tester software version that is older than the prescribed version**

- Measure is ineffective
- ⇒ **Always use the prescribed version or a higher version of the PIWIS Tester software for control unit programming and coding.**

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>34.700.030</b> (or higher)
Type of control unit programming:	Control unit programming using the <b>'Automatic programming'</b> function of the DME control unit: <b>'Engine electronics (DME)'</b> control unit – <b>'Coding/programming'</b> menu – <b>'Automatic programming'</b> function.
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 <b>DME control unit is re-programmed</b> and then <b>re-coded automatically</b> . <b>Do not interrupt programming and coding.</b> Once the control units have been programmed and coded, you will be prompted to switch the ignition off and then back on again after a certain waiting time. Backup documentation of the new software versions is then performed.
The programming sequence takes (approx.):	<b>10 minutes</b>

Procedure in the event of <b>abnormal termination</b> of control unit programming:	<ul style="list-style-type: none"> <li>• Switch ignition off and then on again.</li> <li>• Read out and erase fault memories ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Subsequent work"</i>.</li> <li>• Repeat control unit programming by restarting programming.</li> </ul>
Procedure in the event of <b>other error messages</b> 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> .

### 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"*.

### Invoicing

Invoicing: For documentation and warranty invoicing, enter the labor operations, PQIS coding and part numbers specified below in the warranty claim:

APOS	Labor operation	I No.
20235500	Replacing tank vent valve	

PQIS coding:

<b>Location (FES5)</b>	20170	Purge-air line
<b>Damage type (SA4)</b>	1616	Reacts too slowly

Parts Info:	Part No.	Designation	Qty.
		<b>- Use</b>	
	9A211009503	Vent line with tank vent valve	1 ea.
		<b>Additional parts required</b>	
	9A700875500	O-ring	2 ea.
		- Venturi nozzle for tank ventilation	
	99970769240	O-ring	1 ea.
		- Oil supply line for turbocharger	
	9P1129260A	Clamp	1 ea.
		- Intake pipe on turbocharger	
	99907344301	Combination screw	2 ea.
		- diagonal brace	

WHT008676	Hexagon-head bolt – Diagonal brace	2 ea.
PAF008735	Hexagon-head bolt – Rear-axle cross member	2 ea.
99907293101	Hexagon-head bolt – Rear-axle cross member	2 ea.

References: ⇒ *Workshop Manual '202319 Removing and installing tank vent valve'*

⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*

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