Symptom In Vehicle Interior - Warning Message "TPM Fault Service Necessary" Appears In The Instrument Cluster: Re-programming control unit for Tire Pressure Monitoring (TPM) (SY 90/18)

Vehicle Type: **Panamera (971)**

Cayenne (9YA)

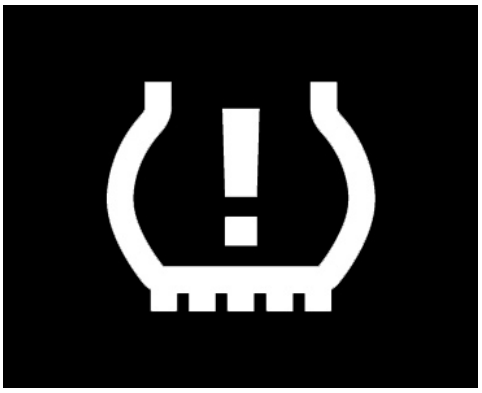
Model Year: **As of 2017**

Equipment: **Tire Pressure Monitoring (TPM) 433 MHz** (I-no. 7K3)

Subject: **Control unit for Tire Pressure Monitoring (TPM)**

Symptom: The warning message "TPM fault Service necessary" may appear in the instrument cluster.

⇒ *TPM warning message*



TPM warning message

Cause: The warning message can appear unnecessarily in the instrument cluster due to defective control unit software.

Remedial Action: In the event of a **customer complaint and if the software version in the control unit for Tire Pressure Monitoring (TPM) is "0630"**, re-program and code the control unit for Tire Pressure Monitoring (TPM) as described below.

Tools:

- **9900 - PIWIS Tester 3** with software **version 37.600.010** (or higher) installed
- **Battery charger** with a current rating of **at least 90 A**. We recommend **VAS 5908 - battery charger 90A**, for example

Work Procedure:

NOTICE

Voltage drop

- **Risk of irreparable damage to control unit**
- **Risk of damage to control unit**
- **Fault entries in the control unit**
- **Coding in the control unit is aborted**
- **Malfunctions in control unit, even during programming**

⇒ **Before disconnecting the control unit, switch off ignition and remove ignition key.**

⇒ **Make sure that the power supply is not interrupted during programming.**

⇒ **Connect battery charger/power supply - Suitable for AGM Type batteries, recommended current rating of 90A fixed voltage 13.5V to 14.5V.**

1 **Preliminary work:**

1.1 Connect a battery charger with a current rating of **at least 90 A**.

1.2 Switch on the ignition using the **original driver's key**. On vehicles with “Porsche Entry & Drive”, do this by replacing the control unit in the ignition lock with the original driver's key if necessary.

NOTICE

Coding will be aborted if the WLAN connection is unstable.

- **An unstable WLAN connection can interrupt communication between PIWIS Tester 3 and the vehicle communication module (VCI). As a result, coding/programming may be aborted.**

⇒ **During control unit coding/programming, always connect PIWIS Tester 3 to the vehicle communication module (VCI) via the USB cable.**

1.3 **9900 - PIWIS Tester 3** with software version **37.600.010** (or higher) installed must be connected to the vehicle communication module (VCI) via the **USB cable**. Then, connect the communication module to the vehicle and switch on the PIWIS Tester.

1.4 On the PIWIS Tester start screen, call up the ⇒ **'Diagnostics'** menu.

The diagnostic application is then started and the control unit selection screen is populated.

Information

The procedure described here is based on the **9900 - PIWIS Tester 3** software version **37.600.010**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.
A discrepancy may arise with later software versions for example.

2 **Re-code control unit for "Tire Pressure Monitoring (TPM)"**:

	Menu ⇒	**Control unit/Function** ⇒	**Action** ⇒	**confirm/execute**
	• **Instructions/information** or		• ⇒ **Result/consequence** of action	
2.1	Control units '**Overview**'	'**Additional menu**'	call up	•F7 “
2.2	⇒ **Follow instructions:** • Create Vehicle Analysis Log (VAL) if necessary and • carry out any campaigns that are available for the vehicle.			•Yes “ /•No “ / •F12 “
2.3		‘**Campaign**’	select	•F12 “
2.4	Campaign number	Value: 'For 971 => **E7P3S**' 'For 9YA => **W1R9X**'	enter	•F12 “
	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. Then press •>> “ to continue. During the programming sequence, the control unit is re-programmed and then re-coded automatically if necessary. **Do not interrupt programming and coding.** Once control unit programming - and coding if necessary - is complete, you will be prompted to switch the ignition off and then back on again after a specified waiting time.			
2.5	Control units '**Overview**'	**Tyre pressure monitoring**	select	•F12 “
2.6	'**Extended identifications**'		select	
	Software version programmed during this campaign		**0640**	
	If programming is not completed successfully (error message “Programming unsuccessful”), programming must be **repeated**.			

3 **Subsequent work:**

3.1 Read out and erase all fault memories.

3.2 Teach wheel IDs.

⇒ *Workshop Manual '443455 Replacing control unit for Tyre Pressure Monitoring (TPM)'*

Information

If there are still fault memory entries in individual control units, start the engine briefly and then switch it off again. Wait for approx. 10 seconds before switching the ignition on again and re-establish the connection between the PIWIS Tester and the vehicle. Then read out and erase the fault memories of the affected control units again separately.

3.3 Switch off ignition.

3.4 Disconnect the PIWIS Tester from the vehicle.

3.5 For vehicles with Porsche "Entry & Drive", replace the original vehicle key in the ignition lock with the control panel again.

3.6 Switch off and disconnect the battery charger.

End of action required.

Invoicing: The work involved is invoiced under the labor operation:

APOS	Labor operation	I No.
44342500	Programming control unit for Tire Pressure Monitoring (TPM)	

For invoicing and documentation using PQIS, enter the following coding:

Location (FES5)	44340	Control unit for Tyre Pressure Monitoring (TPM)
Damage type (SA4)	1134	Programming error

References: ⇒ *Workshop Manual '443455 Replacing control unit for Tyre Pressure Monitoring (TPM)'*