

Warning Message "Engine Control Fault" in Instrument Cluster/Fault Memory Entry "Bank 2 Mixture Formation Too Lean" (P017400) in DME Control Unit (23/22)

Vehicle Type: **Macan GTS (95B)**

Model Year: **As of 2020 up to 2021**

Concerns: **Engine electronics (DME) control unit**

- Information:
- Yellow engine indicator light '**Engine control fault**' is displayed in the instrument cluster.
 - Fault code '**P017400 – Mixture formation, bank 2 – too lean**' is stored in the fault memory of the DME control unit.

This may be caused by deficits in the software programming for mixture formation in the engine. The fault type frequently occurs at an altitude of 1,600 m (or higher).

Action required: In the event of a complaint, re-program the DME control unit using the PIWIS Tester with PIWIS Tester software version **40.785.090** (or higher) installed.



Information

The total time required for control unit programming is **approx. 13 minutes**.

Required tools

- Tool:
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **40.785.090** (or higher) installed.
 - **Battery charger** with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**.

For further information about the battery chargers to be used, see the corresponding Workshop Manual.
 ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

Preparatory work

NOTICE

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

- **Increased current draw during diagnostics 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 getting started, connect a suitable battery charger with a current rating of at least 90 A to the jump-start terminals.**

NOTICE

Control unit programming will be aborted if the Wi-Fi connection is unstable.

- An unstable Wi-Fi connection can interrupt communication between 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 - section on "Preliminary work"*.

Re-programming DME control unit**Information**

The procedure described here is based on the PIWIS Tester 3 software version **40.785.090**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.

Deviations may occur with later software versions, for example.

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:	40.785.090 (or higher)
Type of control unit programming:	Control unit programming using the ' Automatic programming ' function of the DME control unit: ' Engine electronics (DME) ' control unit – ' Coding/programming ' menu – ' Automatic programming ' function.

<p>Programming sequence:</p>	<p>Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence.</p> <p>During the programming sequence, the DME control unit is re-programmed and then automatically re-coded.</p> <p>Do not interrupt programming and coding.</p> <p>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.</p> <p>Backup documentation of the new software versions is then performed.</p>
<p>Programming time (approx):</p>	<p>13 minutes</p>
<p>Data record (software part number and software version) programmed for the DME control unit during programming:</p>	<p>See section ⇒ <i>Technical Information '9X00IN Overview of programmed software versions'</i>.</p> <p>The software part number and software version of the programmed data record are based on the specified PIWIS Tester software version. Please note that this may be different in a higher version.</p>
<p>Procedure in the event of abnormal termination of control unit programming:</p>	<ul style="list-style-type: none"> • Switch ignition off and then on again. • Reading out and erasing fault memories. ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Rework"</i> • Repeat control unit programming by restarting programming.
<p>Procedure in the event of error messages appearing during the programming sequence:</p>	<p>⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Troubleshooting"</i>.</p>

Overview of the programmed DME software versions



Information

The software part number and software version of the programmed data record are based on the specified PIWIS Tester software version. Please note that this may be different in a higher version.

Overview: **Macan GTS (95B)**

Exhaust emission standard	Model year	Software Part No.	Software version
LEV3 / Tier3 70 (M-no. 7CE)	2020	95B907551J	0007
LEV3 / Tier3 70 (M-no. 7CE)	2021	95B907551J	0008

Concluding work

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

Invoicing

For documentation and warranty invoicing, enter the working position and PCSS encryption specified below in the warranty claim:

APOS	Labor operation	I No.
24702510	Re-programming DME control unit	

PCSS encryption:

Location (FES5)	24700	DME control unit
Damage type (SA4)	1134	Programming error

References: ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*
⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming'*

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