Engine Symptom - Rough-Running engine in Near-Idle Range: Re-Programming DME Control Unit (SY 55/20)

Change overview

Version	Date	Change
0	04/17/2020	First publication
1	01/08/2021	• Country/market differentiation • Remedial action adapted • APOS updated • Remedial action available for other markets
2	01/26/2021	Information update

Model Line: **Macan (95B)**

Model Year: **As of 2019 up to 2020**

Equipment: **2.0-litre 4-cylinder petrol engine (engine type: EA888)**

Subject: **DME control unit**

Symptom: A software issue in the DME Control unit, the engine on the affected vehicles may experience rough running while driving at engine speeds near the idle range at idle speed.

At least one of the following entries is stored in the fault memory of the control unit:

P001100 Intake camshaft adjustment, bank 1 – setpoint position not reached (003A16)
P001400 Exhaust camshaft adjustment, bank 1 – setpoint position not reached (003A15)

Cause: The adaptation values for camshaft control are out of tolerance.

Remedial Action: In the event of a customer complaint, re-program the DME control unit.

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 **39.900.040** (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 undervoltage.

- **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 vehicle 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"'*.

2 Switch on the ignition using the **original driver's key**.

For vehicles with 'Porsche Entry & Drive', do this by replacing the component in the ignition lock with the original vehicle key if necessary.

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 or coding.**

Work Procedure:

Information

It is imperative that the PIWIS Tester remains online during control unit programming so that backup documentation of the software versions installed on the control units **before and after programming** is sent to the Porsche After Sales systems.

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:	**39.900.040** (or higher)
Type of control unit programming:	Control unit programming using the **'Automatic programming'** function for the DME control unit. **'Engine electronics (DME)'** control unit – **'Coding / programming'** menu – **'Automatic programming'** function.
Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. The **DME control unit** and the **PDK control unit** are **re-programmed** and then **re-codedautomatically** during the programming sequence. **Do not interrupt programming and coding.** 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.
Programming time (approx.):	**13 minutes**
Data record (software part number and software version) programmed for the DME control unit during programming:	See ⇒ *Technical Information '9X00IN Overview of the programmed software versions'*.
Procedure in the event of error messages appearing during the programming sequence:	⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"'*.
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

Overview of the programmed software versions

Overview:

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 these may have changed in a higher version.

Model year 2019:

Exhaust emission standard	Control unit	Software part no.	Software version
C6B without RDE (I No. 7CM)	DME	95B906259G	0008
	PDK	95B927156GM	0004
EU 6 Plus (W) / EU 4 without EOBD (I no. 7MM) / (I no. 7GH)	DME	95B906259T	0001
	PDK	95B927156GL	0004
EU 6 AG/H/I (I no. 7CP)	DME	95B906259AB	0001
	PDK	95B927156GJ	0004
LEV3 / TIER3 70 (I no. 7CE)	DME	95B906259AA	0002
	PDK	95B927156GK	0004

Model year 2020:

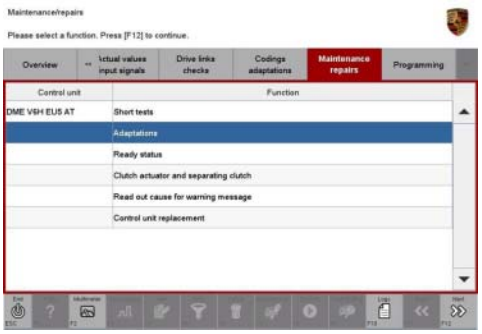
Exhaust emission standard	Control unit	Software part no.	Software version
C6B without RDE (I No. 7CM)	DME	95B906259G	0009
	PDK	95B927156GM	0004
EU 6 DG (I no. 4BF)	DME	95B906259F	0006
	PDK	95B927156GJ	0004
EU 6 Plus (W) / EU 4 without EOBD (I no. 7MM) / (I no. 7GH)	DME	95B906259J	0008
	PDK	95B927156GL	0004
LEV3 / TIER3 70 (I no. 7CE)	DME	95B906259H	0006
	PDK	95B927156GK	0004

Performing throttle valve adaptation

Work Procedure: 1 Select the **'DME'** control unit in the control unit selection screen ('Overview' menu) and press •F12 “ ('Next') to confirm your selection.

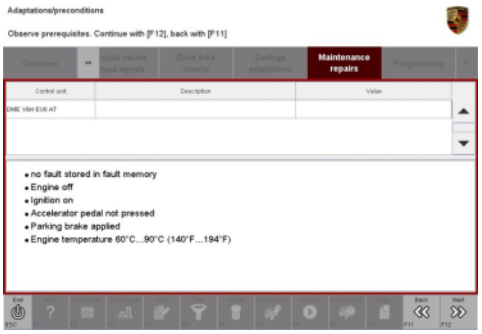
2 Once the DME control unit has been found and is displayed in the overview, select the ⇒ **'Maintenance / repairs'** menu.

3 Select menu item **'Adaptations'** and confirm your selection by pressing •F12 “ ('Next') ⇒*DME - Adaptations*.



DME - Adaptations

4 Comply with the displayed preconditions and press •F12 “ ('Next') to confirm ⇒*Adaptation preconditions*.



Adaptation preconditions

5 Select the ⇒ **'Throttle valve adaptation'** function so that the corresponding text line turns blue and press •F8 “ ('Start') to start throttle valve adaptation ⇒*Throttle valve adaptation*.

6 Follow the instructions on the PIWIS Tester while throttle valve adaptation is being performed.

Once throttle valve adaptation is complete, a tick will appear in the 'Value' field on the PIWIS Tester display.

If throttle valve adaptation is **not** completed successfully, adaptation must be repeated.

Throttle valve adaptation

7 Press •F8 “ ('Stop') to end throttle valve adaptation.

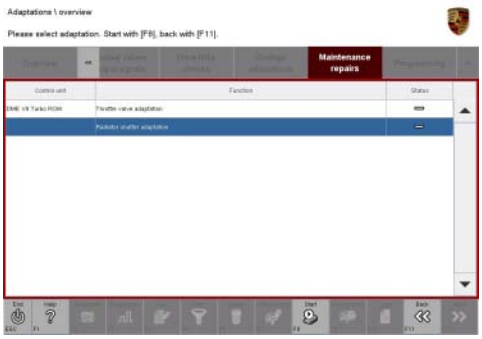
Performing radiator shutter adaptation

Work Procedure: 1 Select the ⇒ **'Radiator shutter adaptation'** function so that the corresponding text line turns blue and then press • F8 " ('Start') to start radiator shutter adaptation ⇒ *Radiator shutter adaptation*.

2 Follow the instructions on the PIWIS Tester while radiator shutter adaptation is being performed ⇒ *PIWIS instructions*.

Once adaptation is complete, a tick will appear in the 'Value' field on the PIWIS Tester display.

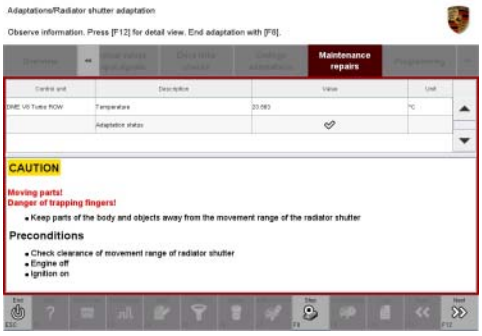
If radiator shutter adaptation is **not** completed successfully, the adaptation must be repeated.



Radiator shutter adaptation

3 End radiator shutter adaptation by pressing • F8 " ('Stop').

4 Press • F11 " ('Back') to return to the start page of the ⇒ **'Maintenance / repairs'** menu.



PIWIS instructions

5 Select the ⇒ **'Overview'** menu to return to the control unit selection screen ⇒ *Control unit selection*.

Control unit selection

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.
24702540	Programming DME control unit	

PQIS coding:

Location (FES5)	24700	DME control unit
Damage type (SA4)	9735	Repair in accordance with PAG instructions

References: ⇒ *Technical Information 'WLL100 WLL1 Workshop campaign - Re-programming DME control unit'*

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