

Engine Electronics (DME) Control Unit Needs to be Replaced - Observe Specified Procedure (204/20)

Model Line: **Taycan (Y1A)**

Model Year: **As of 2020**

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

Information: A new engine electronics (DME) control unit cannot be programmed following installation in the vehicle. The reason for this is an error during production of the control unit.

- Action Required:
- Reading out data from the old DME control unit using the PIWIS Tester
 - Replacing DME control unit and commissioning new control unit using a separate procedure

Required tools



Information

The Taycan (Y1A) is equipped as standard with a **lithium starter battery**.

Lithium starter batteries must only be charged using a **suitable battery charger** that has a current and voltage-controlled charge map.

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

- Tools:
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **39.900.000** (or higher) installed
 - Battery charger with a current rating of **at least 90 A** and a **current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 Battery charger 90 A**

Preparatory work



Electrically moved side windows and rear spoiler

- **Danger of limbs being trapped or severed**
 - **Risk of damage to components**
- ⇒ **Do not reach into the danger area.**
- ⇒ **Keep third parties away from the danger area.**
- ⇒ **Do not move components or tools into the danger area.**
- ⇒ **Retract roll-up sun blinds on the rear side windows before starting programming or coding.**

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 Internet connection is unstable.

- An unstable Internet 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 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 the vehicle, programming cannot be started or will be interrupted.
- ⇒ Place the driver's key with the back facing down into the front left storage compartment in the center console to guarantee a continuous radio link between the vehicle and the driver's key.

Work Procedure: 1 Connect a suitable battery charger, e.g. **Battery charger 90A**, to the jump-start terminals in the luggage compartment and switch it on.

2 Place the driver's key with the back facing down into the front left storage compartment in the center console (emergency start tray) to guarantee a continuous radio link between the vehicle and the driver's key ⇒ *Emergency start tray*.

3 Remove rear underbody cover, see ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody'*.

4 Connect **9900 - PIWIS Tester 3** to the vehicle communication module (VCI) via the **USB cable**. Then connect the communication module to the vehicle and switch on the PIWIS Tester.

5 Establish operational readiness (switch on ignition).



Emergency start tray

- 6 On the PIWIS Tester start screen, call up the '**Diagnostics**' application.

The vehicle type is then read out, the diagnostic application is started and the control unit selection screen is populated.

Reading out data from the old DME control unit using the PIWIS Tester

Work Procedure: 1 Select the '**Engine electronics (DME) control unit**' in the control unit selection screen.

- 2 Select the '**Maintenance/repairs**' tab and start the '**Replace control unit**' commissioning procedure.



Information

The control unit data is read out.

- 3 End operational readiness (switch off ignition).

Replacing DME control unit and commissioning new control unit using a separate procedure

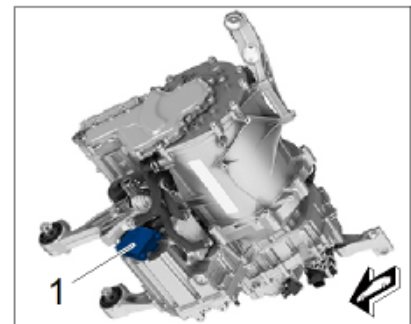
Work Procedure: 1 Remove old **engine electronics (DME) control unit** and install new control unit, but do not commission it yet. For instructions, see ⇒ *Workshop Manual '247019 Removing and installing DME control unit'*.

- 2 Release and disconnect electric plug connection for transmission-oil pump ⇒ *Transmission-oil pump -1-*.

- 3 Establish operational readiness (switch on ignition) and connect the **PIWIS Tester** to the **engine electronics (DME) control unit** again.

- 3.1 Select the '**Maintenance/repairs**' tab, start the '**Replace control unit**' commissioning procedure again and complete it.

- 3.2 Start the '**Teach component protection**' step during the guided procedure and press •F11" to cancel it immediately.



Transmission-oil pump



Information

Component protection must then be taught separately because it can only be taught when the electric plug connection for the transmission-oil pump is connected.

- 3.3 End operational readiness (switch off ignition).

- 4 Connect and lock electric plug connection for transmission-oil pump ⇒ *Transmission-oil pump -1-*.

- 5 Establish operational readiness (switch on ignition) and connect the **PIWIS Tester** to the vehicle again.
- 6 Press **•F7** to call up the **'Additional menu'** tab, start the **'Teach component protection'** function and teach the **engine electronics (DME) control unit** according to menu guidance.
- 7 Once the (DME) control unit has been taught successfully, read out and erase the fault memory of all control units.
- 8 End operational readiness (switch off ignition).

Concluding work

- Work Procedure: 1 Carry out general subsequent work for control unit programming as described under ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.
- 2 Install rear underbody cover, see ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody'*

Invoicing

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

APOS	Labour operation	I No.
51941900	Removing and installing rear cover	
24701900	Removing and installing DME control unit	
24702550	Programming DME control unit	

PQIS coding:

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

- References: ⇒ *Workshop Manual '519419 Removing and installing cover for rear underbody'*
 ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*
 ⇒ *Workshop Manual '247019 Removing and installing DME control unit'*

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