

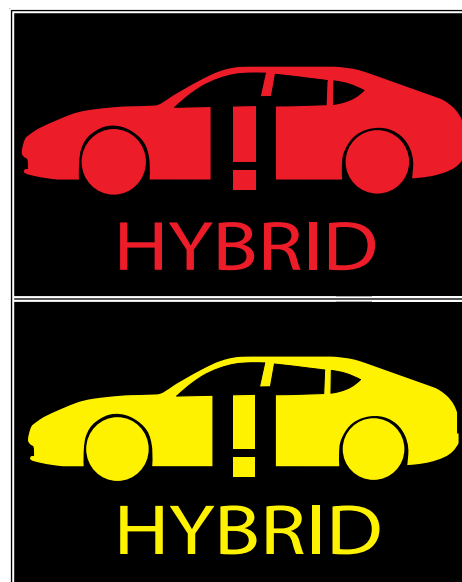
Symptom in Vehicle Interior - Red or Yellow Hybrid Warning Message Appears in the Instrument Cluster: Re-programming control unit for high-voltage power electronics (SY 66/19)

Vehicle Type: **Panamera S E-Hybrid (970)**

Model Year: **As of 2014 up to 2016**

Subject: **High-voltage power electronics**

- Symptom:
- The red warning message "**Hybrid system failure**" or the yellow warning message "**Hybrid system fault**" appears in the instrument cluster. ⇒ *Hybrid system warning messages*
 - The vehicle no longer starts the engine from Start Stop mode; it can only start driving after the ignition has been switched off and on again.



Hybrid system warning messages

- Cause:
- Due to a software error in the high-voltage power electronics, a fault memory entry (POA1B00 - High-voltage power electronics – function restriction) can be set at times in the control unit for high-voltage power electronics, resulting in the symptoms described here. The fault memory entry is deleted by switching the ignition off and on again.
 - A highly discharged high-voltage battery increases the probability that the fault memory entry will be set.

Remedial Action: In the event of a customer complaint and if a software version lower than "P630" is installed in the control unit for high-voltage power electronics, re-program the control unit for high-voltage power electronics.

**Information**

The total time required for control unit programming is **approx. 5 minutes**.

- Tools:
- **9900 - PIWIS Tester 3** with installed PIWIS Tester software **version 38.600.000** (or higher)
 - **Battery charger** with a current rating of **at least 90 A**.

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 abnormal termination of the programming process.**
- ⇒ **Before commencing work, connect a suitable battery charger with a charging current of at least 90 A to the jump-start terminals in the engine compartment.**
- ⇒ **Disconnect electric plug connection for the fan blower to prevent the blower from coming on during control unit programming.**

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 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"*.

Carrying out control unit programming

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:	38.600.000 (or higher)
Type of control unit programming:	Control unit programming using the 'Campaign' function in the Additional menu on the PIWIS Tester by entering a programming code.
Programming code:	Q1L4F
Programming sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. The control unit for high-voltage power electronics is re-programmed during the programming sequence. Do not interrupt programming.
Programming time (approx.):	5 minutes
Software version programmed during this campaign:	P630 Following control unit programming, the software version can be read out of the control unit for high-voltage power electronics in the ⇒ 'Extended identifications' menu using the PIWIS Tester.
Procedure in the event of error messages 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> .
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

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: The work involved is invoiced under the labor operation:

APOS	Labor operation	I No.
27912565	Programming power electronics	

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

Location (FES5)	27910	High-voltage power electronics
Damage type (SA4)	4022	No signal

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

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