

Advanced Technical Information

Bulletin #: 2104.6

Part ID: 9981

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Y1A Taycan

On Board Charger (OBC) Fault P31D200 "Charging Socket – Overtemperature"

Vehicles Affected

Models	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
Taycan	As of 2020 up to 2024	Y1A, Y1B, Y1C	N/A	N/A

Revision History

Revision	Release Date	Changes
0	April 5, 2021	Original document
1	October 13, 2021	Extension of Model Year
2	January 24, 2022	Extension of equipment affected
3	May 13, 2022	Update of Technical Background and Service Information
4	July 25, 2022	Update of Service Information
5	November 3, 2022	Update of Service Information
6	November 17, 2023	Update of Service Information and new Parts Information

Condition

The customer reports that the vehicle intermittently stops charging while using the Porsche Mobile Charger Connect or Porsche Mobile Charger Plus and associated cables. The workshop is able to confirm this condition using the customer's charging hardware, and the OnBoard Charger (OBC) has stored fault code P31D200 DTC E1140x "Charging socket – overtemperature".

High-voltage AC charger (11 kW - 16 B)		fault code: P31D200
Fault codes		
P31D200 - Charging socket - overtemperature		
Fault	E1140C	
Hinweis_Prio	4	
Fault status	Passive	
12_Fault status – last test cycle	Passive	
16_Fault detected in current operating cycle	No	
Pending DTC	Malfunction in current or last driving cycle detected	
11_Fault status – current test cycle	active	
15_Diagnostics since fault memory was last cleared	locked	
17_Fault detected since fault memory was last cleared	Yes	
14_Diagnostics in current operating cycle	locked	
13_Fault display in the instrument cluster	Off	

Figure 1

Technical Background

The vehicle cable charge handle, pins, and conductors can reach high temperatures while charging. The OBC will stop charging if the NTC temperature sensor in either charge port reads $\geq 90^{\circ}\text{C}$ for >14 seconds. New vehicle cables with larger diameter conductors operate at a lower temperature, and are available to mitigate the condition described above.

Service Information

Obtain the vehicle cable used by the customer. In the case of the Mobile Charger Connect, the vehicle cable is a disconnectable 2.5 m or 7.5 m vehicle cable. In the case of the Mobile Charger Plus, a 4.5 m vehicle cable is permanently integrated into the Mobile Charger Plus control unit.

Visually inspect the pins in the vehicle cable connector for signs of overheating, paying particular attention to the L1 Pin. A vehicle cable and L1 Pin which was significantly or repeatedly overheated will show signs of discoloration (refer to Figure 3).

If no discernible discoloration is seen in the vehicle cable connector pins, then further diagnosis is recommended to verify the condition of the charging cable and the vehicle equipment.

Ask the customer if they are regularly charging at one particular charge port (driver's side or passenger's side), and focus testing on the side most used by the customer.

Measure temperatures around the vehicle cable after at least 1 hour of full-power AC charging (208-240V, 40A setting). Check the temperature of the cable sheath below the vehicle connector, at the vehicle cable handle, and at the charge port of the vehicle. Compare the measured temperatures to another known-good charging cable used in similar conditions and with similar settings.

Vehicle cables which have been severely or repeatedly overheated may lead to a stopped charging session without the OBC storing Fault Code P31D200. If no damage is visually apparent, and the fault code cannot be duplicated through testing, then it will be necessary to verify the problem follows the vehicle cable itself. Check if high temperatures at the vehicle cable charge handle and/or a stopped charging session follows the vehicle cable by charging another vehicle using the same hardware.

New vehicle cables are available with thicker wiring to prevent repeat occurrence of this condition.

Customers with a Mobile Charger Connect (PMCC) who experience the condition described above shall receive a new, thicker vehicle cable in exchange for the failed vehicle cable.



Figure 2

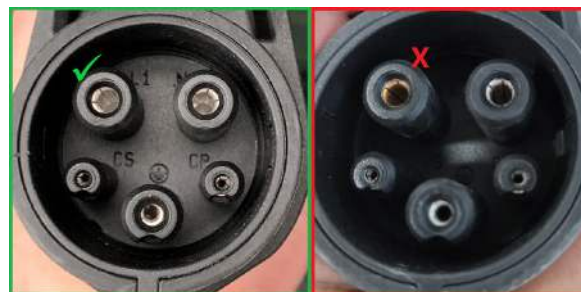


Figure 3

Customers with a Mobile Charger Plus (PMC+) who experience the condition described above shall receive a Mobile Charger Connect control unit along with the new, thicker vehicle cable in exchange for the failed vehicle cable which is permanently integrated into the Mobile Charger Plus control unit.

Note: A reduction in charging current, e.g. from 100% to 50% or from 40A to 30A, was previously recommended prior to availability of new vehicle cables with larger diameter conductors. New vehicle cables are designed to mitigate the subject condition.

However, in some circumstances it may still be necessary to reduce the charging current to cope with extremely hot environments and ambient conditions. Refer to the charging hardware operating manual for information on equipment specifications.

The subject of this ATI is unrelated to the 1-time current reduction included in Workshop Campaign WMP2, and both topics are unrelated to the software bug currently observed with PMCC software version 3014. Information on WMP2 and any charging equipment software is published separately.

Parts

Customers with a Mobile Charger Plus (PMC+) shall receive a Mobile Charger Connect Control Unit in conjunction with a new Vehicle Cable.

Customers with a Mobile Charger Connect (PMCC) shall receive a new Vehicle Cable to be used with their existing PMCC control unit.

9Y0.971.675.BL	Mobile Charger Connect control unit, ICCPD-High, 9.6 kW Type 1, NAR
7PP.971.676.BC	2.5 m Vehicle Cable, 9.6 kW Type 1, 1x40A, NAR (old)
7PP.971.676.CK	2.5 m Vehicle Cable, 9.6 kW Type 1, 1x50A, NAR (new)
7PP.971.676.BD	7.5 m Vehicle Cable, 9.6 kW Type 1, 1x40A, NAR (old)
7PP.971.676.CL	7.5 m Vehicle Cable, 9.6 kW Type 1, 1x50A, NAR (new)

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Warranty

with Mobile Charger Connect

Cause location: 9981C Vehicle connecting cable
Cause symptom: 4011 Loose contact, contact fault

with Mobile Charger Plus

Cause location: 9981G Mobile Charger Plus
Cause symptom: 4011 Loose contact, contact fault

Search Items

Mobile charger connect, PMCC, Mobile charger plus, PMCP, PMC+, EVSE, charger, on board charger, OBC, socket, temperature, P31D200

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