

### 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 2022 | Y1A        | 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                          |

#### 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.

### 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.

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.

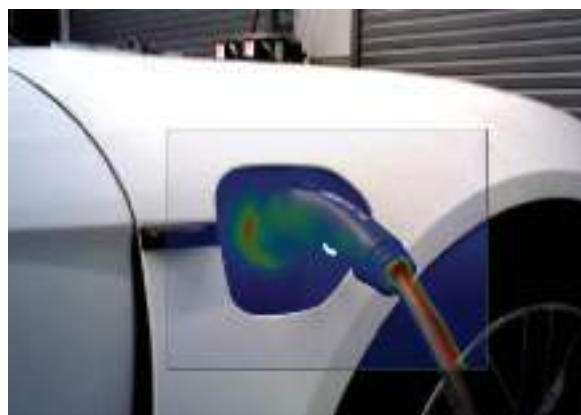


Figure 2

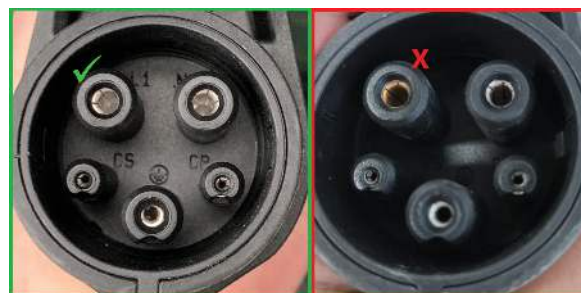


Figure 3

**Please advise customers to reduce charging current to maximum 30A (Mobile Charger Connect) or 50% (Mobile Charger Plus).**

This topic remains under investigation. This document will be updated with additional information when available.

### 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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