Troubleshooting Porsche NACS DC Adapter

Vehicles Affected

Models	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
Taycan	As of 2020 up to 2026	All	N/A	N/A
Macan EV	As of 2024 up to 2026	All	N/A	N/A

Revision History

Revision	Release Date	Changes
0	October 30, 2023	Original document

Condition

Customer complains of public charging issues at NACS DC charging stations using their Porsche NACS DC Adapter.

Technical Background

The Porsche NACS DC Adapter can become faulty due to physical damage or misuse.

In the event of a customer complaint of a public charging issue while using the Porsche NACS DC Adapter, the adapter should be diagnosed first in order to eliminate its possible contribution to any public charging issues.

Service Information

Please visually inspect the adapter for damage. Any physical damage is expected to be obvious to the naked eye.

Figure 1 - Broken Pin Tip Inside Housing

Procedure:

1. Visual Inspection
    a. Verify that the adapter is the Porsche branded, official Porsche NACS DC Adapter
    b. Check for any cracks in the housing.
    c. Check the CCS outlet for any broken or burnt pins or melted plastic around the pins.
    d. Check the NACS inlet for any broken or burnt pins or melted plastic around the pins.
    e. Check that the microswitch buttons (S2 and S1 shown in *Figure 2*) can be heard as actuating when pressed on the top and bottom of the adapter respectively.

If the adapter passes the visual inspection, please check the resistance of the pins from one side of the adapter to the other with a multimeter.

Notes:

- A multimeter with a measuring accuracy 1.2% must be used.
    - Fluke 179/175 true RMS multimeter or an alternative multimeter with same accuracy may be used.
    - Snap-On Enhanced Multimeter EEDM535F (minimum required tool) is also acceptable.
- Pins 4 and 5 require two resistance measurements due to their dynamic nature when the respective microswitch is pressed or not.

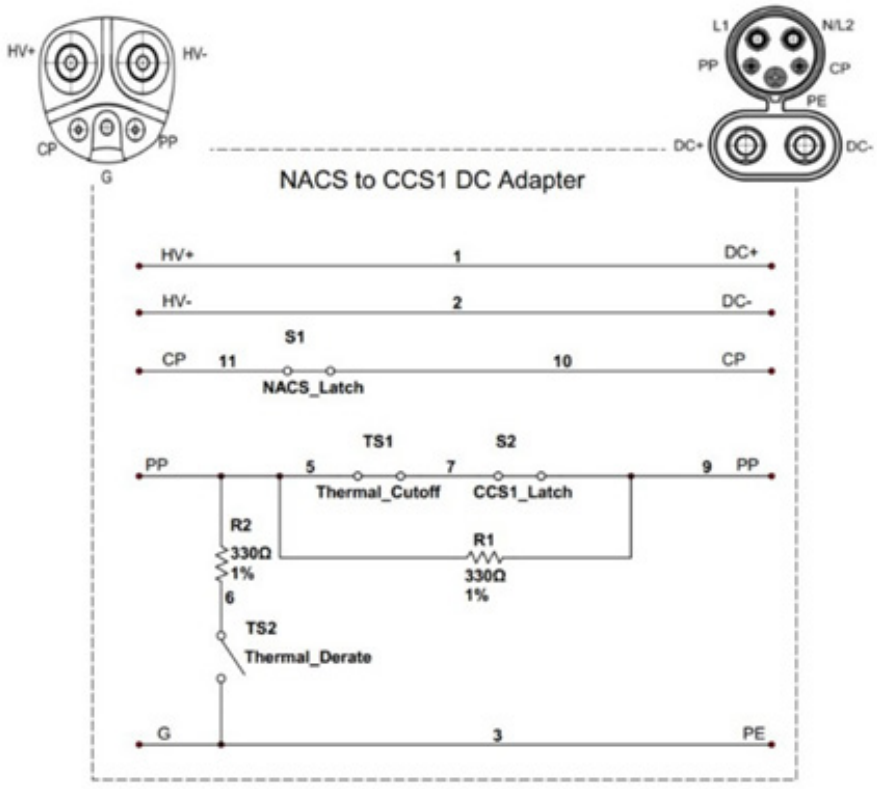

Figure 2 - NACS to CCS1 Electrical

2. Resistance Check
    a. Set multimeter to resistance measurement setting and use pin reference numbers (*Figure 3*) to measure the resistance across each pin pairing.
    b. Record resistance measurements on the *Porsche NACS DC Adapter Measurement Sheet*, which can be found on PPN page for this bulletin.

3. Compare the resistance measurements to the chart below (*Table 1*).

Figure 3 - Reference Pin Numbers

Pin Number	NACS Pin Description	CCS Pin Description	Test Requirements
1	NACS - HV+	CCS1 - DC+	Continuity (Resistance ≤ 0.5 Ω)
2	NACS - HV-	CCS1 - DC-	Continuity (Resistance ≤ 0.5 Ω)
3	NACS - PE	CCS1 - PE	Continuity (Resistance ≤ 0.5 Ω)
4	NACS - CP	CCS1 - CP	First Step - Continuity (Resistance ≤ 80 Ω) Second Step - press S1 (bottom switch): CP Cutoff (Open Circuit)
5	NACS - PP	CCS1 - PP	First Step - Continuity (Resistance ≤ 100 Ω) Second Step - press S2 (top switch): PP Resistance is 330 Ω ± 1.5%

Table 1: Reference Resistance Values for each pin

4. Replace any adapter that fails the visual inspection or electrical checks.
5. If the adapter passes all tests, follow the usual procedures to continue diagnosis of the DC public charging complaint.

Warranty

For warranty processing, Porsche Centers should encode the PCSS cause to 9984G – NACS DC Adapter. The serial number of the defective component must be entered in PCSS under Documentation → Serial Number, as shown in *Figure 4*.

Figure 4: Porsche NACS DC Adapter Serial Number

PCSS encryption:

Location (FES5)	**9984G**	**DC adapter NACS**
Damage type (SA4)	1611	No function

Search Items

Taycan, J1, J1PA, J1.1, J1.2, H2, Macan, Macan EV, Public Charging, DC Charging, NACS, NACS Adapter, Adapter, Charging Adapter, Porsche DC NACS Adapter