PORSCHE

Advanced Technical Information

**Bulletin #: 2319.2**
Part ID: 2470
2

# G2.II PHEV (V6 Variants Only) – Misfires during Engine Warm-up

## Vehicles Affected

| Models | Model Year | Model Type | VIN Range | Vehicle-Specific Equipment |
|---|---|---|---|---|
| Panamera | As of 2021 | 97ABX1<br>97ADZ1<br>97ANX1<br>97BBX1<br>97BDZ1<br>97BNX1 | N/A | E-Hybrid |

## Revision History

| Revision | Release Date | Changes |
|---|---|---|
| 0 | September 5, 2023 | Original document |
| 1 | August 20, 2024 | Update of rpm under Condition<br>Update of Technical Background<br>Addition of note under Service Information |
| 2 | January 30, 2025 | Update of Technical Background<br>Update of Service Information<br>Update of Warranty |

## Condition

The presence of DME misfire faults P030X00 occurring during catalytic warm-up (or low engine temperatures), under low relative load for the internal combustion engine (ICE), at low ICE rpm (1400 - 3000 rpm). If there is a customer complaint for the check engine light (CEL), then it is likely the Instrument Cluster Fault P162400 ('Engine control indicator light switched on') results from the misfire fault(s).

If these conditions are present, it is therefore often possible to reproduce such misfires during catalytic warming of a cold engine as the drivetrain load supported by the electrical motor shifts to the ICE. A CEL requires two sequential drive-cycles with entered misfire faults; nonetheless, even when the misfire fault sets for the first time, operation of the electric motor (in E-Power or Hybrid Auto mode) suspends indefinitely for that drive cycle.

## Technical Background

The misfire diagnostic is sensitive, yet accurate. In some instances, the engine operating conditions during catalytic warming may trigger misfire faults.

**NOTE:** Misfire faults can arise for numerous reasons. If the above conditions in the environmental fault data do NOT exist, then the misfire cause requires further root cause diagnosis and remedy.

## Service Information

1. Please create a VAL to document any fault codes stored in the DME.

2. Inspect the environmental data within any of the stored misfire fault codes and observe the engine speed, relative load, and measured engine torque at which the faults occurred. If the three values match the criteria below, then the specific engine operating conditions may be contributing to the misfires:
   --> Engine speed 1300-3000 rpm
   --> Relative load 45-60%
   --> Measured torque 85-90 Nm

| | |
|---|---|
| 20_Fault occurrence: Engine speed | 2157.00 rpm |
| 20_Fault occurrence: Calculated engine load | 15.7 % |
| 20_Fault occurrence: Vehicle speed | 25 km/h |
| 20_Fault occurrence: Coolant temperature | 21 °C |
| 20_Fault occurrence: Intake air temperature | 13 °C |
| 20_Fault occurrence: Ambient air pressure | 1020 mbar |
| 20_Fault occurrence: Control unit supply voltage (see F1 Help) | 14.100 V |
| Data set ID | 71 |
| 20_Fault occurrence – measured values: Unlearning counter according OBD | 40 |
| 20_Fault occurrence – measured values: Engine status | COENG_RUNNING |
| 20_Fault occurrence – measured values: Engine oil temperature | 18.2 °C |
| 20_Fault occurrence – measured values | Teillast |
| 20_Fault occurrence – measured values | 8 |
| 20_Fault occurrence – measured values: Relative load value | 50.13 % |
| 20_Fault occurrence – measured values: Current system status | SYC_DRIVE |
| 20_Fault occurrence – measured values: Engine torque | 88.5 Nm |

3. If the misfire faults are determined to be caused by the above specific operating conditions during catalytic heating, and no rough running condition is observed, do not replace any parts. A software solution is currently being developed to improve engine performance during catalytic heating.

4. If the misfire faults occur within the above specific operating conditions during catalytic heating, but rough running conditions are observed, please continue with other misfire diagnosis to ensure that there are no other factors contributing to the diagnosed misfires.

## Warranty

As always, please document the repair completely in PCSS.

For this repair, please code the "cause" as follows:

| | | |
|---|---|---|
| Cause location: | 24700 | DME control unit |
| Cause symptom: | 1134 | Programming error |

Use the following labor operations (additional labor operations may be claimed only as appropriate):

| | |
|---|---|
| 03350050 | On board diagnostic |

## Search Items

G2.II PHEV, Misfires, V6