

## P2170

### Fault code description

BPV actuator - Short circuit to ground on ECU (D365) pin (C71)

### Possible cause

1. Faulty wiring
2. Faulty connector
3. Faulty injector

### Additional information

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### Set condition of fault code

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### Reset condition of fault code

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## P2170, Diagnostic information

Technical data

["BPV actuator \(L020\)"](#)

Location of component(s)

["Location information, PMCI-2"](#)

Electrical diagram(s)

["PMCI-2"](#)

Description of component(s)

["BPV actuator \(L020\)"](#)

Block diagram

["PMCI-2"](#)

### Step by step troubleshooting



Please perform the troubleshooting steps below by utilising the breakout harness if necessary to check electrical components such as sensors, electrical control units or harnesses. Back probing is not recommended as it could damage the harness. The ignition should always be in the **OFF** position when connecting or disconnecting electrical components to reduce the likelihood of damage to electrical components.



- This troubleshooting tree is based on the assumption that supply power and earth to the PMCI are functioning properly.
- Disconnecting the PMCI connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data in Rapido.
- It is necessary to exit the '**active errors**' screen in DAVIE and run the diagnostic test again to identify any change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive codes. Refer to the 'possible causes' section in Rapido.

### Step 1

**Visual inspection** - Visually inspect all applicable connectors and harnesses for corrosion, damage and rubbing during each step of the diagnostic procedure. Proceed to step 2.

## Step 2

Turn the key **OFF** and disconnect the BPV 2-wire connector at the BPV. Turn the key on. Check for voltage on the BPV power wire.

- If there is battery voltage, reconnect the harness and proceed to step 3.
- If there is no battery voltage, proceed to step 4.

## Step 3

With key **OFF**, disconnect the engine harness from the PMCI. Turn the key **ON**. Check the battery voltage at the PMCI connector for the BPV actuator circuit.

- If there is battery voltage at the harness terminal, check that the connectors are free from corrosion and are in good condition. If they are OK, call the Engine Support Center regarding a possible PMCI failure.
- If there is no battery voltage, replace the engine harness and proceed to the verification procedure.

## Step 4

With key **OFF**, disconnect the engine harness from the chassis harness. Turn the key **ON**. Check for battery voltage for BPV power on the chassis harness.

- If there is battery voltage, replace the engine harness and proceed to the verification procedure.
- If there is no battery voltage, refer to the OEM troubleshooting guide.

## Verification procedure

With DAVIE connected and key **ON**, clear the errors. Start the engine and let it idle to verify with DAVIE that the errors do not re-occur.

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