

## U104D

### Fault code description

VTG turbo charger actuator learning - Incorrect

### Possible cause

1. Turbo stuck (due to ice or soot, for example)
2. Actuator gear worn
3. Turbo selector gear worn
4. Faulty actuator

### Additional information

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### Set condition of fault code

-

### Reset condition of fault code

This fault code will change to inactive immediately after the diagnostic runs and passes.

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## U104D, Diagnostic information

Technical data

["Actuator, rotary speed \(L037\)"](#)

Location of component(s)

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

Electrical diagram(s)

["PMCI-2"](#)

Description of component(s)

["Actuator, rotary speed \(L037\)"](#)

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.
- Exit the '**active errors**' screen in DAVIE and run the diagnostic test again to identify a 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

Check if the fault status has changed with a key off/on cycle (maximum of three repeats).

Has the fault status changed to inactive?

- **Yes** – Proceed to verification procedure.
- **No** – Proceed to step 2

## Step 2

Use the sector span tool to check the range of travel for the turbo sector gear. Follow the job instructions 'Replace VGT turbocharger actuator' in Engine Rapido.

Is the turbo sector gear able to reach both span zones (regardless of the effort needed to move it)?

- **Yes** – Proceed to step 3.
- **No** – Turbo will need to be replaced.

## Step 3

Check turbo selector gear teeth. Are damaged turbo selector gear teeth found?

- **Yes** – Contact the Engine Support Center for further instruction on replacement of the turbo (VTG).
- **No** – Proceed to step 4.

## Step 4

Check the actuator output gear for damage. Is the actuator output gear damaged?

- **Yes** – Contact the Engine Support Center for further instruction on replacement of the actuator.
- **No** – Proceed to step 5

## Step 5

Check the actuator output gear for adequate rotation (minimum of one complete rotation). Is the actuator output rotation adequate?

- **Yes** – Proceed to step 6
- **No** – Contact the Engine Support Center for further instruction on replacement of the actuator

## Step 6

Contact the Engine Support Center for further

instruction.

### 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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