P213A: EXHAUST GAS RECIRCULATION (EGR) THROTTLE CONTROL CIRCUIT "B" OPEN

OVERVIEW

Severity	:	Medium
DIY Difficulty Level	:	Intermediate
Repair Cost	:	**$200-$350**
Can I Still Drive?	:	**Yes** (Short-term only)

What Does The P213A Code Mean?

This generic powertrain/engine diagnostic trouble code typically applies to diesel engines built after 2004, including but not limited to certain Ford, Dodge, GM, Mercedes, Mitsubishi, Nissan, Suzuki and VW vehicles.

This valve is placed in between the intake manifold and the air filter, similar to a throttle body. It is used to create a small vacuum that will draw exhaust gases into the intake manifold.

The Powertrain Control Module (PCM) tells the Exhaust Gas Recirculation (EGR) throttle control valve where to position itself. This code is looking at the voltage signals from the EGR throttle control valve to determine if they are correct based on inputs to the PCM. This code is letting you know that there is an electrical circuit fault.

Troubleshooting steps may vary depending upon manufacturer, type of EGR throttle control valve and wire colors.

What Are The Symptoms Of The P213A Code?

Symptoms of a P213A engine code may include:

- Malfunction Indicator Lamp (MIL) illuminated

- Longer than normal active aftertreatment regeneration times (it will take longer for the exhaust system to get hot and burn off the soot that has built up inside the diesel particulate filter/catalytic converter)

What Are The Potential Causes Of The P213A Code?

Typically the causes for this code to set are:

- Open in the signal circuit between the EGR throttle control valve and the PCM
- Short to voltage in the signal circuit to the EGR throttle control valve
- Short to ground in the signal circuit to the EGR throttle control valve
- EGR throttle control valve faulty – internally shorted
- Failed PCM – unlikely

How Can You Fix The P213A Code?

Step 1

A good starting point is always to check for technical service bulletins (TSB) for your particular vehicle. Your issue may be a known issue with a known fix put out by the manufacturer and can save you time and money during diagnosis.

Step 2

Next, locate the EGR throttle control valve on your particular vehicle. This valve is found in between the intake manifold and the air filter, similar to a throttle body. Once located, visually inspect the connectors and wiring. Look for scraping, rubbing, bare wires, burn spots or melted plastic.

Pull the connectors apart and carefully inspect the terminals (the metal parts) inside the connectors. See if they look burned or have a green tint indicating corrosion. Use electrical contact cleaner and a plastic bristle brush if cleaning of the terminals is needed. Let dry and apply dielectric silicone grease where the terminals contact.

Step 3

If you have a scan tool, clear the diagnostic trouble codes from memory, and see if this code returns. If it does not, then the connections were most likely your problem.

If the P213A code does return, we will need to test the EGR throttle control valve and its associated circuits. Typically, there are either 3 or 4 wires at the EGR throttle control valve.

Disconnect the harness going to the EGR throttle control valve. With a Digital Volt Ohm Meter (DVOM), test the EGR throttle control valve signal circuit (Red lead to the valve's signal circuit, black lead to a good ground). If there is no 5 volts to the valve, or if you see 12 volts at the valve, repair

the wiring from the PCM to the valve, or possibly a bad PCM.

Step 4

If that's OK, check to make sure you have a good ground at the EGR throttle control valve. Connect a test light to 12V battery positive (red terminal) and touch the other end of the test light to the ground circuit going to the EGR throttle control valve circuit ground. If the test light does not light up, this would indicate the problem circuit. If it does light up, wiggle the wiring harness going to the EGR throttle control valve to see if the test light flickers, indicating an intermittent connection.

Step 5

If all prior tests have passed and you continue to get a P213A, this would most likely indicate a failed EGR throttle control valve, although a failed PCM could not be ruled out until the EGR throttle control valve had been replaced.

Reference Sources

P213A EGR Throttle Control Circuit B Open, OBD-Codes.