

FORD · POWERTRAIN

**P1139**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1139 · Ford

## Water In Fuel Indicator Circuit Malfunction

P1139 on Ford vehicles means the powertrain control module has detected an abnormal signal from the water-in-fuel sensor circuit, which monitors the fuel filter/water separator on diesel models. The computer expects a specific voltage or resistance from the sensor, and the reading falls outside that expected range, triggering the warning indicator.

SYSTEM

Powertrain

CODE TYPE

Ford specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air  
metering

### Symptoms you may notice

- Water-in-fuel warning light illuminated on the dashboard
- Often no symptoms besides the warning light
- Rough running or misfire if actual water is present in the fuel
- Reduced engine power or limp mode in some Ford diesel applications
- Hard starting or stalling shortly after refueling
- Fuel filter restriction warning appearing alongside the water-in-fuel light

### Common causes, most likely first

- 1 Water-in-fuel sensor connector unplugged, corroded, or damaged
- 2 Failed water-in-fuel sensor itself (internal short or open circuit)
- 3 Chafed or broken wiring between the sensor and the powertrain control module
- 4 Water actually present in the fuel filter housing, keeping the sensor triggered
- 5 Fuel filter housing not properly reseated after a filter change, disturbing the sensor
- 6 Corrosion inside the sensor probe from prolonged water contact
- 7 Powertrain control module software or internal fault (rare)



## How to diagnose and fix it

- 1 Inspect the water-in-fuel sensor connector and wiring for corrosion, looseness, or damage, and clean or repair as needed
- 2 Drain the water from the fuel filter/water separator housing using the drain valve and recheck the warning
- 3 Test the sensor resistance or voltage against Ford specifications with a multimeter and replace the sensor if out of range
- 4 Check continuity of the sensor circuit from the sensor connector to the powertrain control module pins
- 5 Replace the fuel filter and reseal the sensor and housing carefully, ensuring the sensor is fully seated
- 6 Clear the code and perform a road test to confirm the warning does not return
- 7 If the circuit tests good and the sensor is new, diagnose the powertrain control module or have it reflashed by a dealer

## What the water-in-fuel light really means

- A P1139 code frequently sets after a fuel filter service because the sensor connector was left loose or the sensor was not fully seated in the filter housing.
- The water-in-fuel sensor on many Ford diesels is a simple conductivity probe, so a sensor that has been exposed to water for a long period can corrode and set the code even after the water is drained.
- Drivers often replace the sensor when the real problem is water still sitting in the filter housing, so always drain the separator before condemning the sensor.
- This code does not always mean the engine is ingesting water; a wiring fault or a failed sensor will trigger the same warning with no water present.
- On some Ford models, the water-in-fuel circuit shares a connector or ground path with the fuel heater, so a fuel heater fault can set P1139 as a companion code.

## Can I keep driving with P1139?

If the truck runs normally and only the warning light is on, you can drive cautiously to a service location, but avoid hard acceleration and long trips. If the engine runs rough, misfires, or loses power, stop driving and have the fuel system inspected immediately because water in the high-pressure fuel system can cause expensive damage.

## Tools that help

- OBD-II scan tool
- Digital multimeter
- Ford service information for sensor specifications
- Fuel filter drain tool or wrench
- Basic hand tools for connector and filter access



## Reading P1139

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 1** Fuel and air metering.
- 39** The exact fault within that area.

## Often seen with

**P1140** Bank 2 Sensor 2 Resistance Too High · **P1138** Long Term Fuel Trim Add Fuel Bank 2 System Too Lean · **P1140** Intake Valve Timing Control Position Sensor Bank 1 · **P1138** HO2S Bank 1 Sensor 2 Signal Above 0.45v AF Ratio Too Rich · **P1140** Load Calculation Cross Check · **P1138** Lack Of HO2S12 Switches Sensor Indicates Rich · **P1138** O2 Sensor High Voltage During Decel Fuel Cutoff · **P1140** O2 Sensor Sluggish (Bank 1 Sensor 2) · **P1138** Lack of Downstream Heated Oxygen Sensor Switch Sensor Indica · **P1140** Water In Fuel Condition · **P1138** HO2S Bank 1 Sensor 2 Rich Or High Voltage · **P1140** HO2S Transition Time Ratio Bank 1 Sensor 2 · **P1138** O2 Sensor Heater Circuit Low Voltage Bank 1 Sensor 2 · **P1140** Mass Or Volume Air Flow Circuit Range Performance Problem · **P0087** Fuel Rail/System Pressure - Too Low · **P0093** Fuel System Leak Detected - Large Leak · **P0088** Fuel Rail/System Pressure - Too High

## See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1139/>

