

Fuel System

Symptom Chart(s)

Symptom Chart: Fuel System

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).
for information regarding Ford-specific diagnostic practices.

NOTE: *The following procedure diagnoses a slow to fill concern only. For all other concerns, refer to Refer to Powertrain Control/Emissions Diagnosis (PC/ED) manual.*

Symptom Chart

Condition	Possible Sources	Actions
Slow to fill	- Fuel tank filler pipe - Fuel tank filler pipe vent tube, if equipped - EVAPsystem - Fuel tank inlet check valve (part of the fuel tank) - Fuel level vent valve (part of the fuel tank)	REFER to GO to Pinpoint Test A
All other fuel system concerns	Fuel system components	Refer to Powertrain Control/Emissions Diagnosis (PC/ED) manual.

Diagnostic Routine(s)

Slow to Fill

Normal Operation and Fault Conditions

Under normal operation, fuel should flow at a steady rate through the fuel tank filler pipe into the fuel tank. As fuel enters the fuel tank air is vented through the filler pipe or the ORVR system.

PINPOINT TEST A : SLOW TO FILL

A1 CHECK COMPONENTS FOR SIGNS OF DAMAGE	
- Visually inspect the following components for signs of damage: - Fuel tank filler pipe - Fuel tank filler pipe vent tube, if equipped - EVAP system - Fuel tank inlet check valve (part of the fuel tank) - Fuel level vent valve (part of the fuel tank)	
Was the cause of the concern found?	
Yes	REPAIR or INSTALL new components to correct the concern.
No	GO to A2
A2 CHECK THE SYSTEM FOR ANY EVAP (EVAPORATIVE EMISSION) DTC'S	
- Connect the scan tool. - Check the system for any EVAP DTC's.	
Are any DTC's present?	
Yes	Refer to Powertrain Control/Emissions Diagnosis (PC/ED) manual.
No	GO to A3

A3 MONITOR THE FTP WHILE FILLING THE FUEL TANK

- Monitor the Fuel Tank Pressure (FTP) reference value while filling the fuel tank. Refer to the Reference Values in the Powertrain Control/Emissions Diagnosis (PC/ED) manual. Refer to Powertrain Control/Emissions Diagnosis (PC/ED) manual.

Is FTP within specification?

Yes	GO to A5
No	GO to A4

A4 MONITOR THE FTP WHILE FILLING THE FUEL TANK WITH THE EVAP SYSTEM DISCONNECTED

- Disconnect the fuel tank-to-EVAP canister quick connect coupling at the EVAP canister.
- Monitor the FTP reference value while filling the fuel tank. Refer to Powertrain Control/Emissions Diagnosis (PC/ED) manual.

Is FTP within specification?

Yes	INSPECT the EVAP system for blockage or restrictions. REPAIR the blockage or restriction. If the blockage or restriction cannot be repaired, INSTALL new EVAP system components.
No	GO to A5

A5 CHECK THE FUEL TANK FILLER PIPE ASSEMBLY FOR BLOCKAGE OR RESTRICTION

- Remove the fuel tank filler pipe assembly.
REFER to: [Fuel Tank Filler Pipe](#) (310-01D Fuel Tank and Lines - 5.0L 32V Ti-VCT, Removal and Installation).
- Inspect the fuel tank filler pipe and fuel tank filler pipe vent tube (if equipped) for a blockage or restriction.

Is the fuel tank filler pipe or fuel tank filler pipe vent tube (if equipped) blocked or restricted?

Yes	If possible, REPAIR the blockage or restriction. If the blockage or restriction cannot be repaired, INSTALL a new fuel tank filler pipe or fuel tank filler pipe vent tube.
No	GO to A6

A6 CHECK THE FUEL TANK INLET CHECK VALVE

- Inspect the fuel tank inlet check valve for restriction or sticking.

Is the fuel tank inlet check valve restricted or sticking?

Yes	If possible, REPAIR the restriction. If the restriction cannot be repaired, INSTALL a new fuel tank. REFER to: Fuel Tank (310-01D Fuel Tank and Lines - 5.0L 32V Ti-VCT, Removal and Installation).
No	INSTALL a new fuel tank.

Information not available at this time.

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