Better Pumps. Better Coverage.

FUEL DELIVERY SYSTEM Diagnostics

Airtex Fuel Pumps are 100% tested before they leave the factory. That's why it's a good idea to check out everything else first before suspecting the fuel pump. In fact, 50% of all fuel pumps returned for warranty consideration meet all manufacturer's specifications when tested.

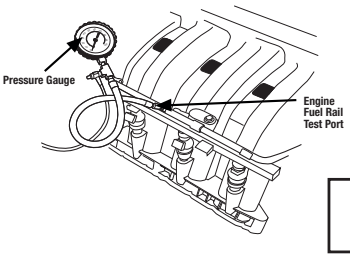
Nearly 75% of all aftermarket fuel pump failures are caused by:

- Misdiagnosis
- Vehicle related electrical wiring or connector issues
- Contaminated vehicle fuel systems

Begin Fuel Pump Testing Here

Check for low fuel level in tank. Add 2 to 3 gallons fuel as needed.

- Engine runs. Fuel level in tank was low.
- Engine does not run.
  - Can you hear fuel pump run? Check vehicle service information to trigger pump.
    - Pump runs. → Go to: Fuel Pressure and Volume Tests
    - Pump does not run. → Go to: Electrical Tests
- Engine starts only after extended cranking.
  - Check fuel system rest pressure.
    - Rest pressure does not meet spec. Check for and repair as needed: Fuel leaks, leaking or stuck-open fuel pressure regulator, leaky injectors. → No leaks found. Replace fuel pump.
    - Rest pressure meets specs. → Go to: Fuel Pressure and Volume Tests



Fuel Pressure and Volume Tests

Install fuel pressure gauge and trigger fuel pump.

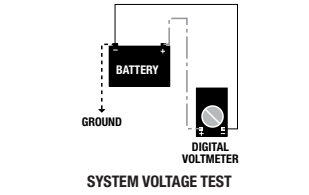
- Low or no fuel pressure.
  - Check for and repair as needed: Plugged inlet filter or strainer, restricted fuel supply, fuel leak, leaking or stuck-open fuel pressure regulator, wrong pump installed, fuel tank damaged.
    - Pressure does not meet specs. → Go to: Electrical Tests
- Fuel pressure meets specs.
  - Check fuel volume. Do not check volume at Schrader valve.
    - Volume meets specs. Pump is OK.
    - Volume does not meet specs. Check for and repair restrictions in fuel system. → Go to: Electrical Tests
- High fuel pressure.
  - Check for and repair as needed: Plugged fuel filter, restriction in return line, fuel pressure regulator stuck-closed, wrong pump installed.

OE SUPPLIER

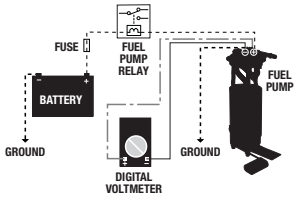
AIRTEX® Fuel Delivery Systems

Better Pumps. Better Coverage.

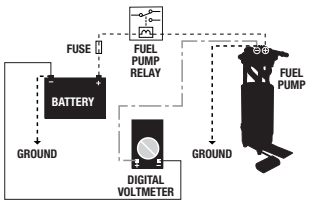
FUEL DELIVERY SYSTEM Diagnostics



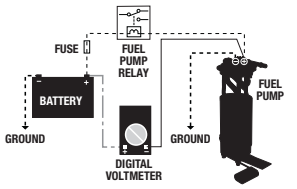
SYSTEM VOLTAGE TEST



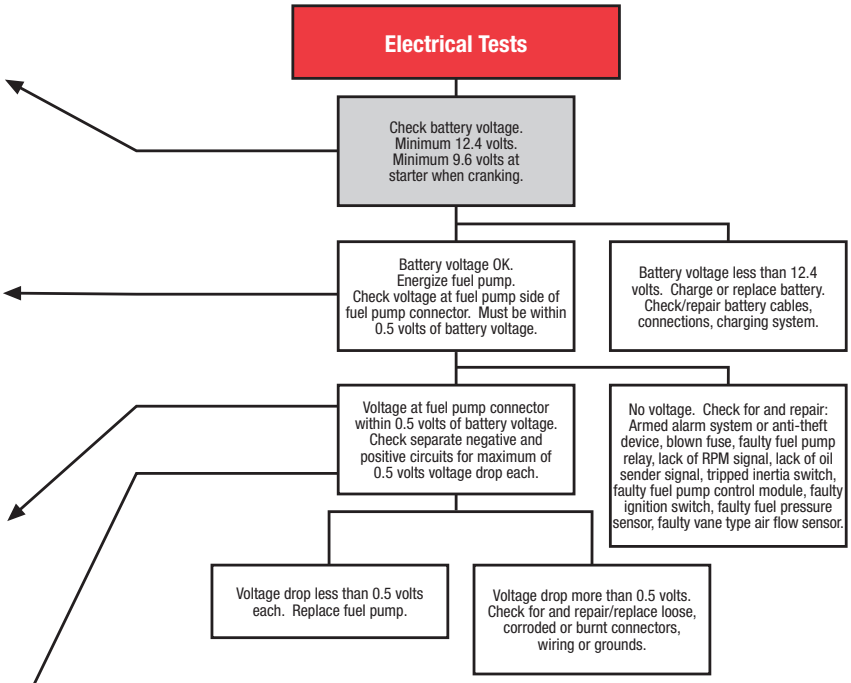
FUEL PUMP VOLTAGE TEST



VOLTAGE DROP TEST - NEGATIVE CIRCUIT (-)



VOLTAGE DROP TEST - POSITIVE CIRCUIT (+)



The most common reasons for repeat fuel pump failures are:

- Misdiagnosis
- Not measuring fuel volume
- Not replacing fuel filter and strainer(s)
- Fuel contamination
- Not properly cleaning and flushing inside of fuel tank
- Not correcting vehicle electrical connector, wiring and ground issues
- Not resetting a tripped inertia switch
- Not checking for oil pressure and RPM signals

An engine may not start or run properly for many reasons. Be sure to check:

- Adequate fuel in vehicle tank
- Fuel filter has been replaced
- Fuel system has no leaks
- Fuel is fresh and of good quality
- Fuel delivery electrical system checks OK
- Engine mechanical systems check OK
- Electrical systems check OK
- Ignition system checks OK
- Charging system checks OK
- Battery voltage is at least 12.4 volts
- Cranking voltage is at least 9.6 volts
- Inertia switch is reset (typical of Ford applications)
- Oil pressure and RPM signals are present (various applications)

See vehicle specific service information for fuel delivery system specs, detailed safety, diagnostic and repair information.

Safety Information: Repair procedures, tools, and parts to service motor vehicles, and the experience of the person performing the work make it impossible to describe all ways or conditions under which motor vehicles are or may be serviced, or to provide cautionary statements regarding hazards that may result.

Standard and accepted safety precautions and equipment should be used when handling toxic or flammable materials. Safety goggles, other protection, and appropriate clothing (long-sleeve shirt, trousers and safety shoes) are required. Make sure your work area is well ventilated and not exposed to heat, electricity, or open flames. No smoking! Clean up spills immediately and have a Class B or C fire extinguisher readily accessible. Consult appropriate repair manuals for any required special tools.

Not for use in marine or aircraft applications.

AIRTEX® Fuel Delivery Systems