



## 1. Hard-Start Engine Problems Can Easily Be Solved While Saving Hundreds By Avoiding Replacing The Fuel Pump

### Typical PROBLEM

**Symptom:**

Vehicle is hard to start. The ignition key must be advanced multiple times in order to start. The engine runs properly once running but symptom consistently reoccurs after vehicle sits for an extended period of time.

**Cause:**

Electronic fuel pumps have internal check valves which often fail over time. When this happens, the fuel that is supposed to be supplied at the engine runs back into the gas tank. The result is residual fuel pressure drops after sitting for extended periods and hard-start problems occur.



### S.U.R.&R. SOLUTION

**Step 1:**

Verify hard-start problem: Fuel pressure drops after vehicle is turned off.

**Step 2:**

Release the fuel pressure from the system (per maintenance manual)

**Step 3:**

Install S.U.R.&R. Fuel Pressure Check Valve. Locate as close to the sending unit as possible.

**Important:** Make sure the arrow on the valve is pointing toward the front of vehicle.

**Step 4:**

Wrench tight, check to make sure there are no leaks and test drive.

**CKV5 & CKV7 Kits (5/16" & 3/8")**



- ✓ Avoid the labor & mess associated with dropping the fuel tank
- ✓ Eliminate the need to replace a costly fuel pump assembly
- ✓ Available in both 5/16" (CKV5) and 3/8" (CKV7) line sizes

**"Not For Use With Returnless System"**

## 2. How Do You Connect a Fuel Pressure Tester or Fuel Injection Cleaner Canister When The Vehicle Does Not Have An Available In-line Schrader® Valve?

**Problem:**

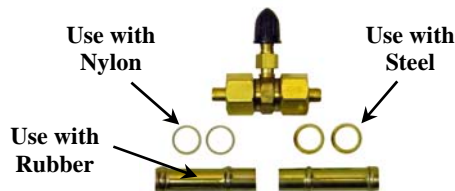
- You need to test fuel pressure or use a fuel injection cleaner canister. However, the vehicle does not have an in-line Schrader® valve (or the valve is extremely hard to access).
- Labor time is wasted, bay is tied up unnecessarily.
- Even if you can access the in-line valve, it adds valuable time to the repair.



**In-line Schrader® Valve Unavailable or Hard to Access**

**Solution:**

- Install a S.U.R.&R. in-line Schrader® valve. These valves can be used with virtually any vehicle and are easily installed in minutes.
- Kit includes fittings for nylon, steel & rubber fuel lines.
- Available in both 5/16" (SV516) and 3/8" (SV38) line sizes.



**Installed In-line Schrader® valve**



**Fuel pressure tester connected to valve**



**Fuel injection cleaner connected to valve**