Some EGR valves (Like 5.0L Ford) have what I call a metered leak. In this EGR tech tip we will show you how to tell the difference between a good or bad EGR valve. Perform this test before making any changes to the system (Don’t block intake with yellow cap plugs)

- Attach the power leads to the battery. Red to (+) and Black to chassis ground.
- Insert the supply hose into a direct vacuum manifold source. (Brake booster hose or PCV)
- Push and hold remote control button.

Connect the supply hose to a direct manifold source. Don’t cap off any part of the engine, leave it the way that it came in. At this time the system can’t build much pressure. While pushing the remote button, watch for smoke to escape the EGR valve. If an abundance of smoke is present, the valve is suspect. No smoke, move on.

Now that we have tested the EGR valve with little pressure in the engine, cap off the intake with one of our cap plugs. Insert the exhaust cone in the tale pipe. Now that we have the system sealed off, pushing the remote button watch for smoke exiting. If a small amount of smoke is present don’t be alarmed this is to be expected.

- EGR SMOKES WITHOUT BLOCKING OFF ENGINE (SUSPECT)
- EGR SMOKES ONLY WITH ENGINE BLOCKED OFF (NOT SUSPECTED)

Remember that you are only testing the EGR pintle shaft NOT the diaphragm You can also use this technique to find other metered leaks, like – throttle shafts.

Using Diagnostic Smoke™ for Leak Detection !