

XJ-S V12 that has fuel at the rail, but no start.

This is to check why it wont run on fuel, but runs on Ether.

This running on Ether, indicates the Ignition system is supplying spark. That will be left as is for the sake of this write up.

So, here we go.

- 1) Ignition ON, engine OFF. Rotate the throttle capstan by hand, quickly, as if you are accelerating fast. You should hear the injectors “click”. If so, GOOD, and move on to the next step.
- 2) That click only indicates the injectors are working electrically, but there is still no proof they are squirting fuel. If they were, the beast would run. Simple.
- 3) Remove one of the front injectors, leaving the hose attached at both ends, insert the tip into a container, and with the Ignition ON, again, rotate that capstan, and observe the spray, or no spray, of that injector.
- 4) If you have spray, then the engine should be running.
- 5) If there is no spray, the injector is stuck, BUT, for all 12 to stick is rare (but it does happen).

Under the circumstances of the title, I reckon you will have NO spray.

If you have NO click when rotating that capstan:

You got electrickery problems, so here we go. Take a DEEP breath.

- 1) Look around inside the engine bay, at the rear of the RH headlamp panel, and you WILL see a Silver box, about the size of a cigarette packet, with a multi pin plug hanging out of the bottom. This is the Resistor Pack for the injectors, and that plug

needs to come out, and be cleaned, and re-plugged. This 99% returns the system to a go situation.

2) The TPS (Throttle Position Sensor) is dead, or flaky, or out of range.

You will need a Digital Volt Meter.

Probe the Red and Yellow wire (Yellow is memory, but you only have Green left), and turn the meter onto a DC volt as close to, but above, 5V. Turn ON the ignition, and note the reading.

You are looking for 0.32v – 0.36v. If its inside that range, OK for now.

Now, carefully open the throttle, and watch the numbers rise steadily to about 5v, or a tad short of that. What you are looking for is a steady rise in those numbers, without a drop and rise. I prefer an Old Style Analogue meter for this test, as the Digital Meters are dampened and that can confuse the readings, and a needle swinging on an Analogue is easy to see.

If the first reading is outside that range, adjust the TPS until it is. If the Analogue swing test is NOT a smooth rise in volts, and the needle bounces around, that TPS needs replacing.

The engine will not run anywhere near properly without the TPS being inside this fine range, and having a nice smooth rise in the volts as the throttle is opened from Idle (0.04v+/-) to WOT (Wide Open Throttle).

3) The CTS (Coolant Temp Sensor) is unplugged, flaky, or the wires are broken. All 3 are very common.

Unplug the CTS, bridge the terminals in the plug, this will fool the ECU to give a signal to allow the system to fire the injectors.

IF, and I mean IF, the wires inside that plug, or at the splice 6” up the loom, are damaged, broken, etc, then bridging those terminals will do nothing. You will need to pay attention in this area, and check the wires etc very thoroughly.

Example: A running V12, unplug that CTS = DEAD V12.

4), There is a shielded wire that runs from the Lucas Ignition Amp, that Black box on the LH inlet manifold, and goes to PIN #18 of the ECU. This wire is the pulse signal to inform the ECU that there is ignition activity, and to wake up the fueling circuit, and fire the injectors. This wire BREAKS easily, and if that pulse signal is lost, DEAD V12.

There is a by-Pass to this wire from terminal C1 of the starter relay to pin #8 of the ECU. So whilst the starter is cranking the engine that Pin #8 is waking up the EFI circuits and injecting fuel. As soon as the starter is released (the key is returned to the Ign ON position), that shielded wire pulse takes over, Simple again.

5) After all this, the only viable item still to blame is the injector loom itself. These fail, age related now, BUT the engines usually run, but run very poorly, and overfuel badly.

This is a separate issue, and making a new loom is easy, and explained in great detail on the Forum.