

## Ignition Testing, Engine Won't Start by Keith Blackburn

Also, a test light is much preferable to a meter for this kind of troubleshooting...note that you don't have to have a 6-volt test light, a 12 volt one will work fine, just won't be as bright.

Here's kind of a quick compilation of some of the previous suggestions, plus a couple of my own. Start with testing in this order:

1. Verify whether you do or don't have spark at the spark plugs. One simple check is to unscrew one of the plugs, lay it on top of the engine with it connected to the distributor, and crank the engine with the key on. You should have a nice bright blue spark. A dim yellow spark is often, but not always, indicative of a failed or failing condenser.
2. Assuming you have verified you have spark, check the timing. It doesn't have to be exact for the engine to start, so a simple visual check that the points are just starting to open at top dead center should be sufficient for troubleshooting purposes. If you have a good spark and the timing is close, the problem lies somewhere other than with the ignition system. It might also be worthwhile to verify that the timing notch in the cam gear actually lines up with the number one cylinder at top dead center...
3. If you don't have spark at the plug cranking with the ignition switch on, remove the high tension cable from the center of the distributor, hold it a 1/4 inch or so away from the block (use something non-conductive, take it from someone who's been bit a few times, a good spark hurts), crank the engine, and see if you have spark between the end of the wire and the block. Spark here but not at the plug indicates a problem with the distributor cap or rotor.
4. If no spark at the output of the coil, start at the points and work backwards through the primary circuit. A quick check is to put a test light on the side of the coil that connects to the points, turn on the ignition, and crank the engine. (Make sure the test light has a good ground

connection, check by putting the probe on the battery cable at the starter) If the light pulses, the circuit through the coil and points is good. If the circuit is good and the points are opening and closing as indicated by the test light pulsing, but there's no spark, you most likely have a bad coil.

5. If the light stays on solid on the point side of the coil, there's an open circuit between the coil and points, i.e, broken wire or bad ignition switch, or the points aren't closing. Remember, on a Model A, there is power to the coil all the time...the ignition switch simply opens the circuit between the coil and points.

6. If there's no light on the point side of the coil, verify that there is power to the other terminal. If there's power to the battery side of the coil but no light on the point side, either the primary winding on the coil is open, there's a short circuit between the coil and points which is holding the point side of the coil at ground potential, or the points aren't opening at all.

7. If there's no power to the coil, there's an open circuit between the battery and the coil.

Let us know what your find. Keith

*From Ford Barn:*

*He opened the distributor and found no power.* If the points are closed and ignition switch is on, there will be no power. Check on the hot side of the coil, should be full battery voltage there all of the time. Check the point side of the coil, when points are open should be full battery, when points are closed and ignition switch is on, should be ground on most cars, not all. Use a good voltmeter instead of a test light, it'll give you more accurate readings.