

Electrical Bypass

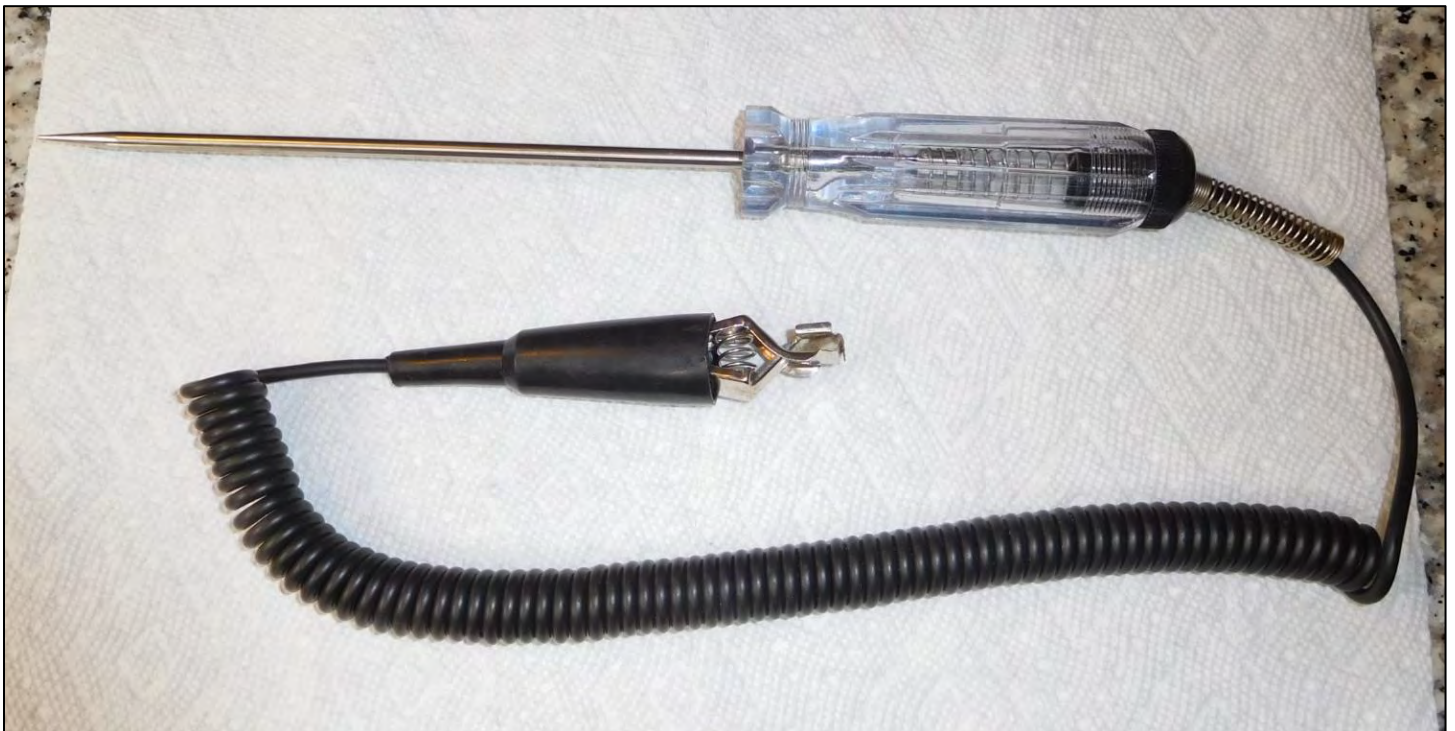
by Tom Endy 2022

Quite often a Model A will quit running, or not even start. Ninety percent of the time the problem is electrical. With a trouble light it is an easy process to locate an electrical problem. Usually it is a situation of battery voltage not reaching the ignition points. The trick then is to locate where it lost its way.

The trouble light is attached to ground at one end and the other end is a probe. When the probe is touched to a voltage point the handle will light, indicating there is voltage present there. The first effort should be to check the fuse on top the starter, if you have one installed. Touch each end of the fuse with the trouble light probe and both should light the trouble light. Next touch the probe to the two wingnuts on the terminal block on the firewall, they both should light the trouble light. With the ignition key switched off, touch the trouble light to both terminals on the coil, they both should also light the trouble light.

The final check is to see if voltage is reaching the moveable arm of the ignition points, To do this remove the top of the distributor and place a business card or piece of paper between the points to isolate them. Turn the ignition key on and place the probe on the moveable arm of the points. You will probably find there is no voltage there and it is the reason the car won't start. If there is voltage there the car should start.

The loss of voltage to the ignition points can occur in numerous places between the coil and the points. It could be an open circuit or a short circuit starting with the ignition switch. It could also be in the pop-out cable or in the distributor itself. Inside the distributor are numerous places where the fault may occur. The wire that connects the upper and lower plates together is notorious for failing. If you are on the road, the immediate effort should be to get the car running again. This is where an electrical bypass cable and a spare distributor is a prudent thing to have along under the seat. The spare distributor should already be timed for the car and have been previously run on the car.



A trouble light can be obtained from most auto parts suppliers. They work on both 6 volts and 12 volts.

The electrical bypass cable screws into the spare distributor. Remove the existing distributor and replace it with the spare. There is no need to time it as it should already be timed for the car. Remove the red wire on the coil. The red wire should lead to the ignition switch and if the switch is shorted you want it removed from the coil circuit. Clip the bypass cable to the coil terminal where the red wire was removed. The existing pop-out cable should be tied off out of the way. The coil is now directly connected to a known good distributor and the car should now start. There is no need to turn the ignition key on. In order to shut the engine off the bypass cable has to be removed from the coil. The actual fault can be determined later when the car is safely back in the garage.

If you use your spare distributor on someone else's car you will need to reset the timing for that car.



The threaded end of the bypass cable screws into the distributor, the clip end is attached to the coil where the red wire was removed. A bypass cable can be fabricated using the threaded end of a discarded pop-out cable. Some Model A suppliers also carry factory made versions. Bratton's Antique Auto offers them under part number 16360, \$18.35.