

## No Crank Issue - Need Help!!

Posted by robweber1 - 30 Nov 2013 18:26

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Hey all,

Recently replaced a blown motor in my '85 944. We got everything ready to crank it up today, turn the key, and nothing. All of the electronics work, lights come on, battery is fine, but we get nothing from the starter. We put the car up on the lift and jumped the starter solenoid - starter cranked fine, but still will not crank on key turn. We also noticed that you can only hear the fuel pump come on when the key is turned to "start" and turns off when you release the key back to "run" position. We figured the ignition switch was bad, so we swapped it with another....no effect, same problem. Next we tried swapping the DME with another....no effect, same problem. Lastly we thought the DME relay might have gone out, so we replaced it with another....no effect, same problem. Also double checked that all fuses are fine.

Does anyone have any ideas at what the issue may be? We're stumped at what may be wrong and what to try next. The only other thing we can think of is that our ground points aren't good. Any help would be appreciated!!

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## Re: No Crank Issue - Need Help!!

Posted by Brian Evans - 30 Nov 2013 20:57

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Rob, I'll double check the grounds tomorrow- it was disappointing given how well everything went up to that point.

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## Re: No Crank Issue - Need Help!!

Posted by norman#99 - 30 Nov 2013 21:23

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I know this is basic, but do you have two heavy wires connected to the 13mm nut on the starter? My first time connecting the starter, I only had the one heavy wire connected and missed the second one.

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good luck

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## Re: No Crank Issue - Need Help!!

Posted by robweber1 - 30 Nov 2013 21:35

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Yeah we checked for that also Norman. At first we thought we might only have 1 on there but both heavy wires are on the post with the 13mm nut.

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## Re: No Crank Issue - Need Help!!

Posted by AgRacer - 01 Dec 2013 13:16

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Find a separate, known good ground and try the following:

A: Run a test light on the ignition wire that sends the start signal to the solenoid. Try both at the solenoid and at the main engine bay firewall connection. Obviously you need to turn the key to start to get a light. If it doesn't light, then keep tracing it back until you find the fault.

B: Test the big wires connected to the big lug on the solenoid. It should always light depending on how you have your battery kill switch wired. If it doesn't, then a wire is bad, a connection is bad, or maybe your kill switch is bad if it's in the circuit between the battery and the starter.

C: If both A & B test out ok, then it sounds like a grounding issue. Pretty sure the starter grounds through its mount to the grounds on top of the motor by the reference sensors.

D: If the grounds check out, I would pull the big wire off the starter that goes between it and the alternator so you only have battery power going to the starter and then test that. Is it possible that the alternator is bad and is grounding out the starter via the other big wire?

As a final note, those wires that make the connection on the bottom of the car live in a nasty environment. That's why I am replacing mine with new. If you are still using the original wires, it's very likely that the insulation has been heat cycled so many times around the engine/exhaust that it's cracked and exposed the internals to moisture. If nothing else, it could have reduced the current conducted to the point where it may light a test light, but won't support running the starter.

I know it's long and some of it may be obvious, but that's how I would troubleshoot the situation.

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