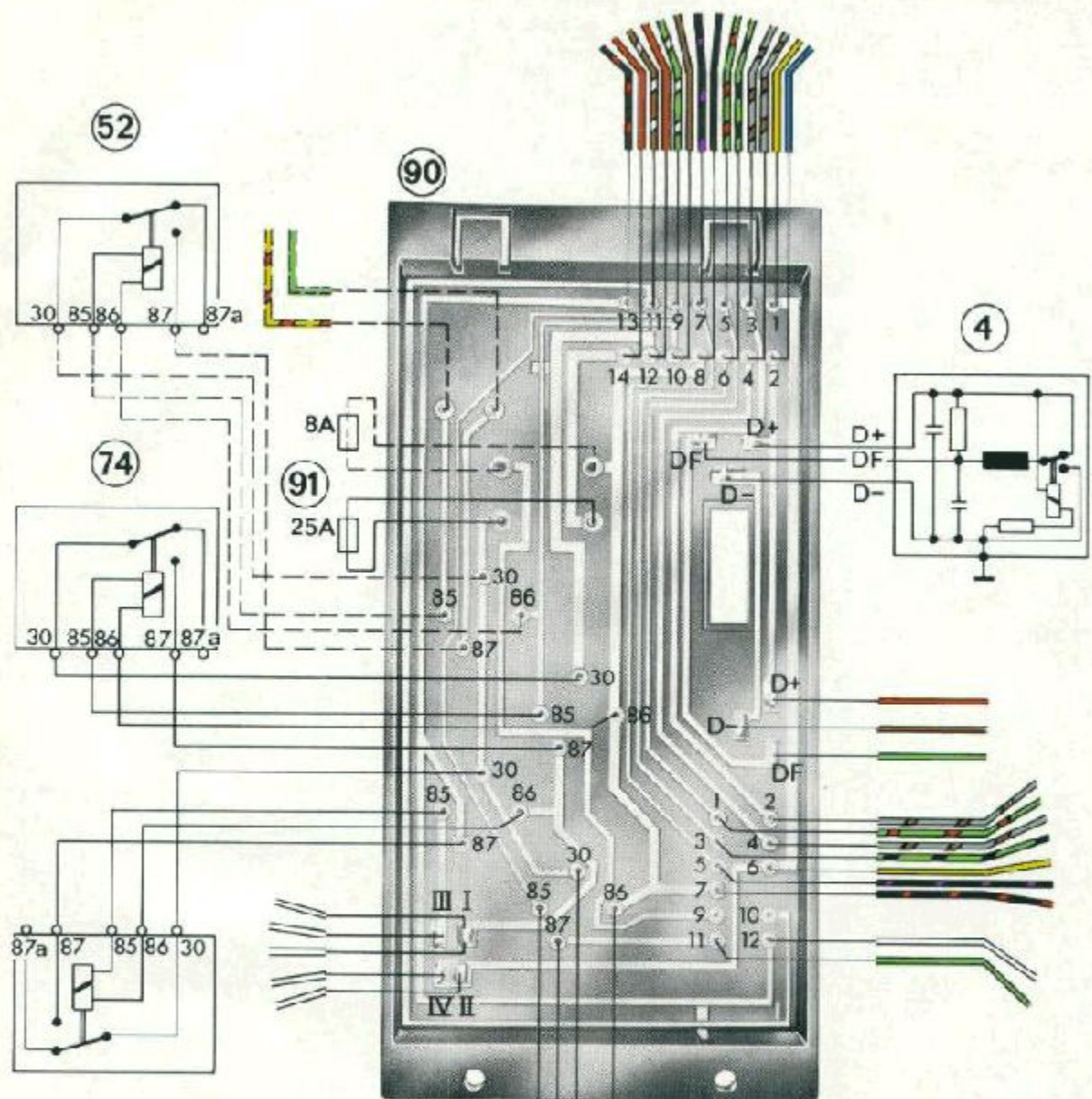


# Fuel Pump Circuit Troubleshooting Flow Charts

Author: Paul B. Anders  
email: paul.b.anders@intel.com  
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There are five flowcharts in this troubleshooting checklist that cover all of the circuits that control the operation of the fuel pump. A diagram of the relay board is included to assist in identifying the relays, board traces, connectors and wiring. Start at the "Problem Isolation" chart and work your way through. The navigation tool at the bottom will let you move from chart to chart. Clicking on the red or green termination ovals will either take you to the next flowchart or to the fault descriptions.



- 4 Governor
- 52 Rear window heater relay (optional)
- 55 Relay for heater blower
- 74 Relay for power supply
- 75 Relay for gasoline pump
- 90 Regulator plate
- 91 Fuse for rear window heater, heater blower, gasoline pump

55

**Isolate Problem Area**

Remove relay 74, wrap a test wire around pin 87 and plug it back in

Connect a DMM to the test wire, turn ignition key "on"

+12V?

Turn key "off"

Go to FP Pwr and ECU Ct!

Fuel pump runs for 1.5 sec?

Fuel pump system OK!!

Go to ECU Pwr - Gnd Conn

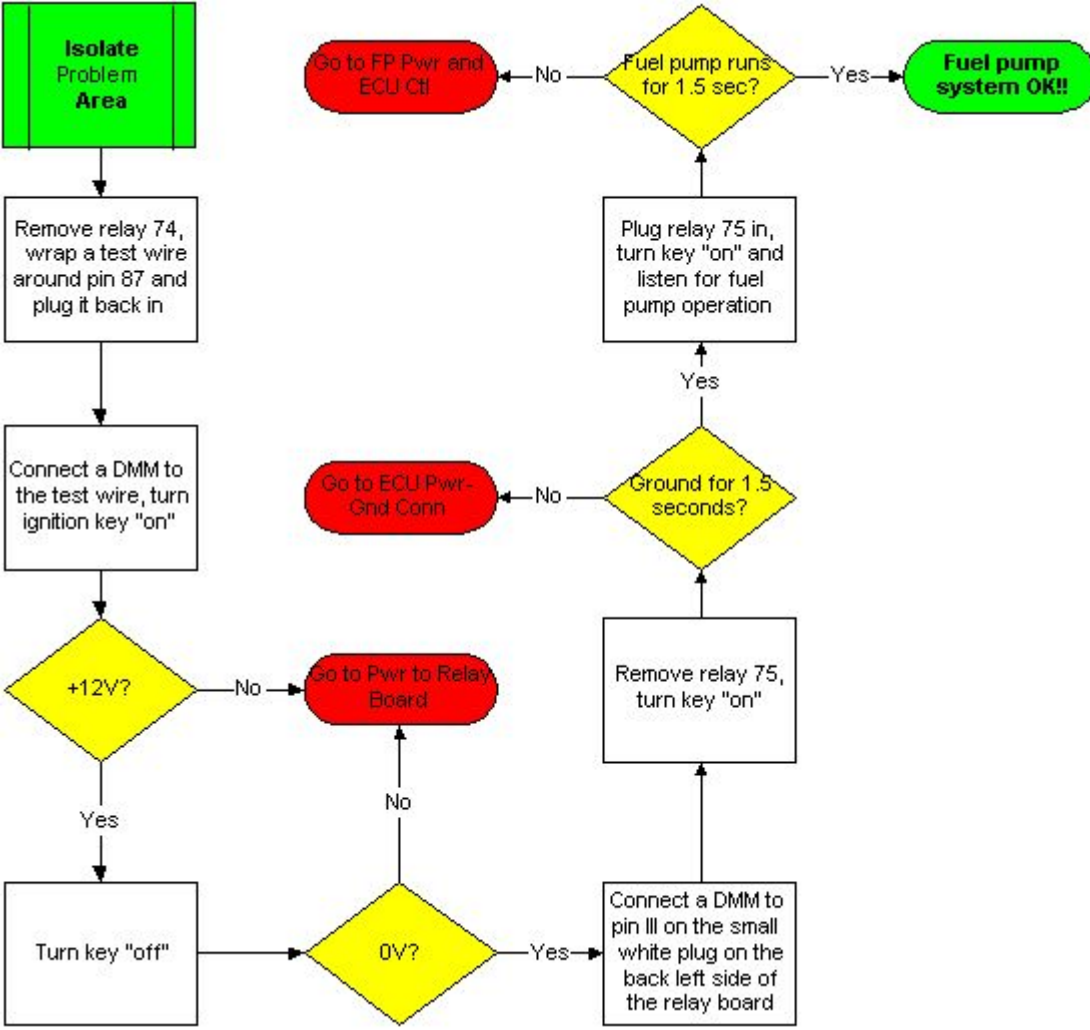
Ground for 1.5 seconds?

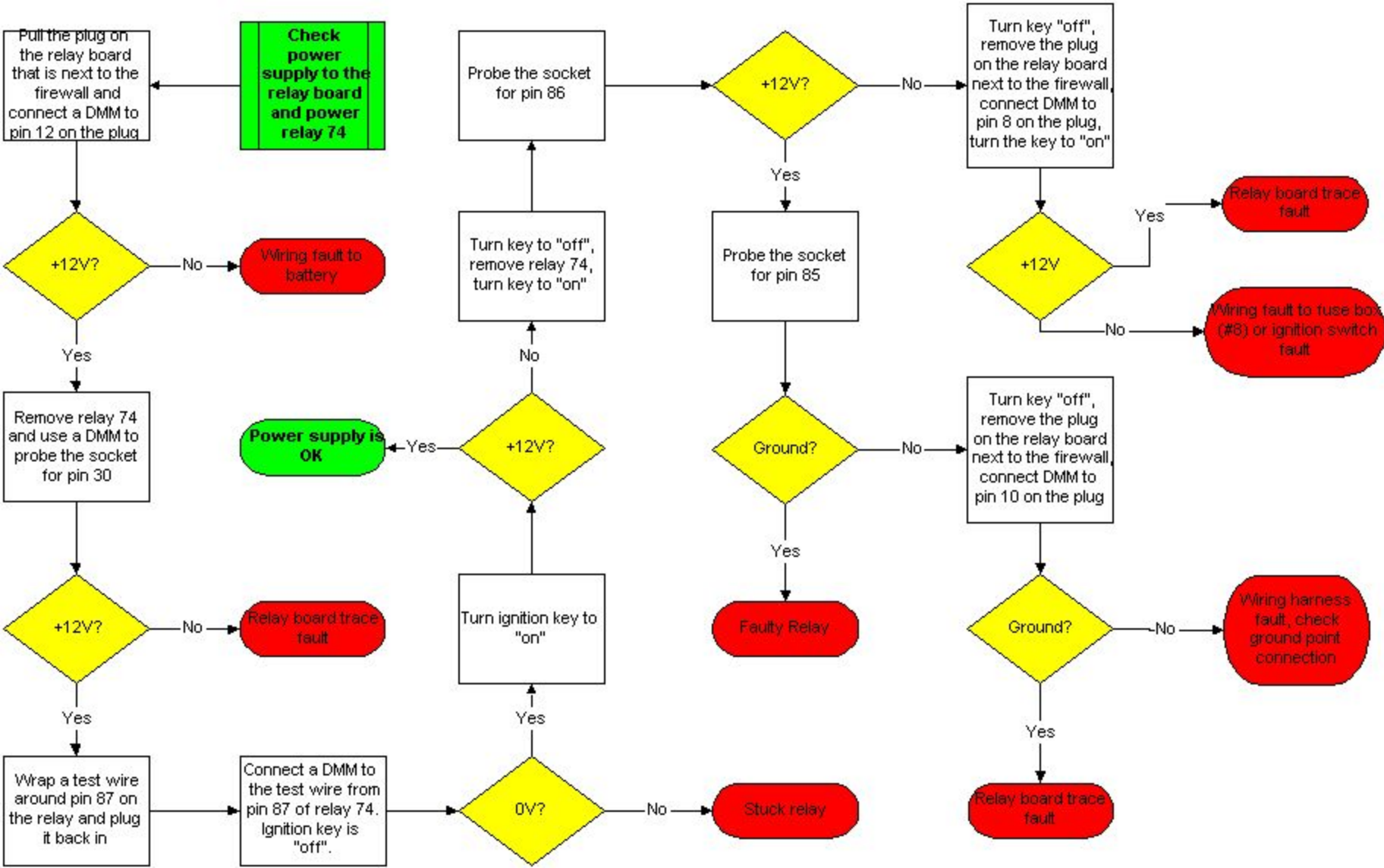
Go to Pwr to Relay Board

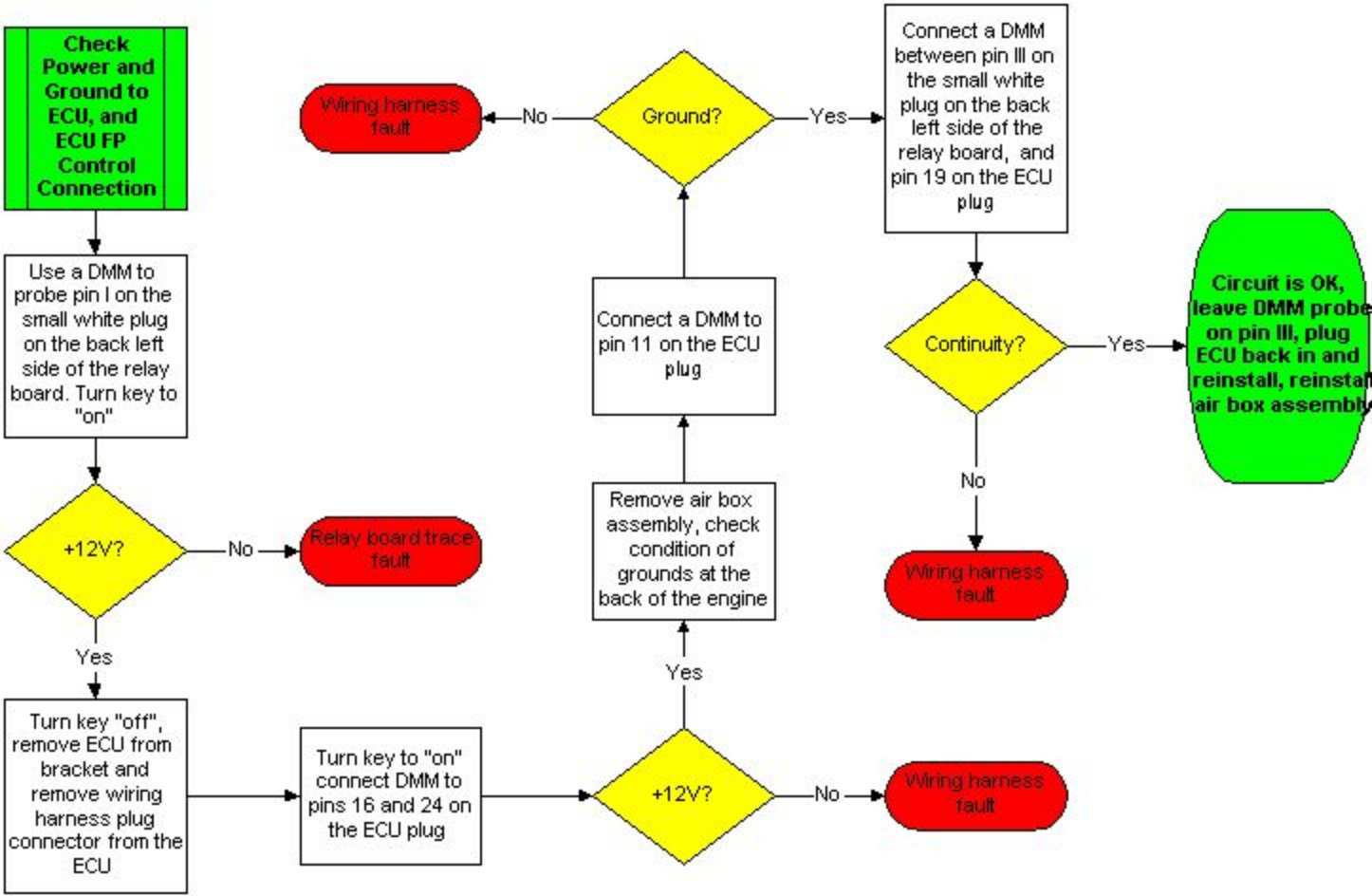
Remove relay 75, turn key "on"

0V?

Connect a DMM to pin III on the small white plug on the back left side of the relay board







**Check the  
ECU FP  
Control  
Circuit**

Remove relay 75,  
turn the key "on"  
(the DMM is still  
on pin III)

Ground for 1.5  
seconds?

No

**ECU FP control  
circuit faulty**

Yes

**ECU FP control  
circuit OK, plug  
relay back in**





Wiring fault to battery

Check the two red wires connected to the battery positive terminal clamp.

Relay board trace fault

Remove the tarry backing material with a solvent, and solder-through all of the crimped connections. Jumper any broken paths. Use a DMM to verify all conductor paths. Re-coat backside with a rubberized sealant.

Faulty Relay

Replace with part 911.615.109.01 - Keep a spare relay in the unused spot for the rear window defogger on your relay board, plus a couple more spares in your glove box.

Stuck relay

Replace with part 911.615.109.01 - Keep a spare relay in the unused spot for the rear window defogger on your relay board, plus a couple more spares in your glove box.

Wiring fault to fuse box (#8) or ignition switch fault

Check the end connectors of the failed wire for corrosion or broken conductors. Check the ignition switch terminal #15.

Wiring harness fault

Check the end connectors of the failed wire for corrosion or broken conductors. If the wire is broken inside of the harness, replace harness or jumper the broken wire.

ECU/FP control circuit faulty

The ECU is not user-serviceable. Replace the ECU with a rebuilt unit.

Wiring harness fault, check ground point connection

Follow instructions for "wiring harness fault". Check the ground point connection in front of the relay board. Remove bolt and clean all connectors with a wire brush, reconnect and tighten firmly.

Short in either relay board trace, auxiliary air regulator, or FP wiring

A shorted aux air regulator is a common problem. Disconnect the sensor to test, if failed, these units are NLA and you will have to rebuild it yourself.

Faulty fuel pump

Replace with new a new pump