

# Mechanical Residential Gas Valve Troubleshooting



## 1 No Hot Water

Check for pilot. If pilot is not lit, try relighting the pilot using instructions on water heater. The pilot can be hard to see, so you may need to dim the room lights.



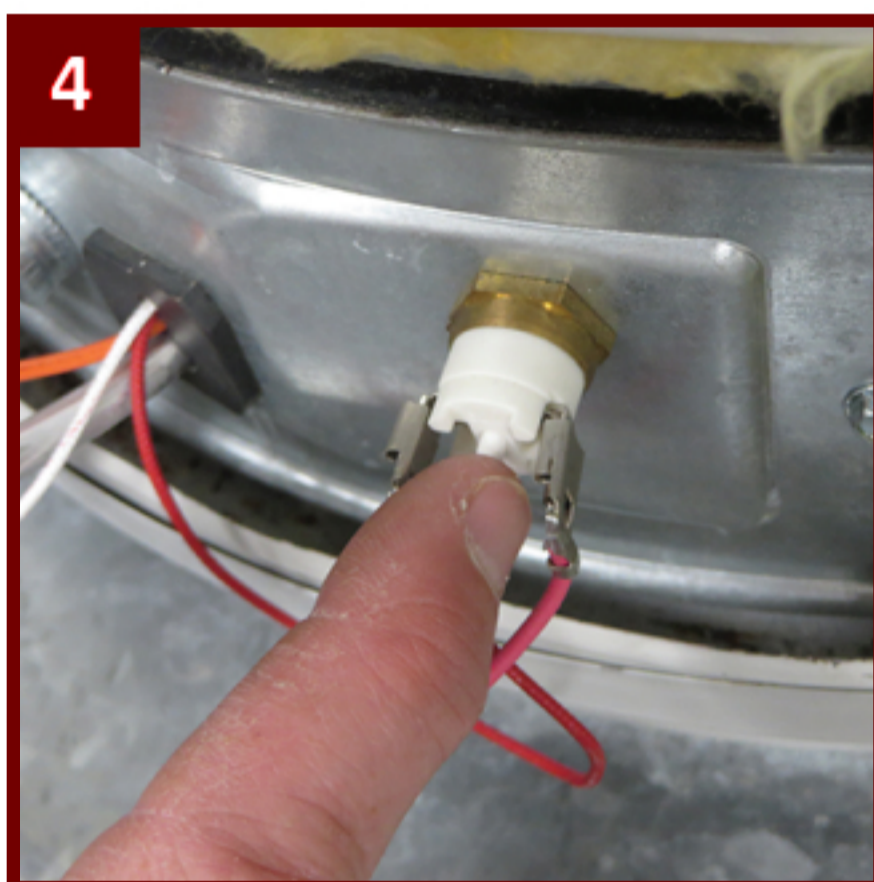
## 2 Pilot Won't Light (Gas Supply Problem)

If the pilot doesn't light, check igniter (look for spark). If no spark, check igniter wires. If igniter sparks, it's likely a gas supply problem. Make sure the main gas valve is on. Make sure the control knob is fully pushed in. Check the gas pressure using a manometer or gauge. If new installation, bleed air from the gas line.



## 3 Pilot Lights

After pilot lights, hold control knob in for 60 seconds. Release knob. If pilot stays lit, turn thermostat to desired temperature (main burner should light).



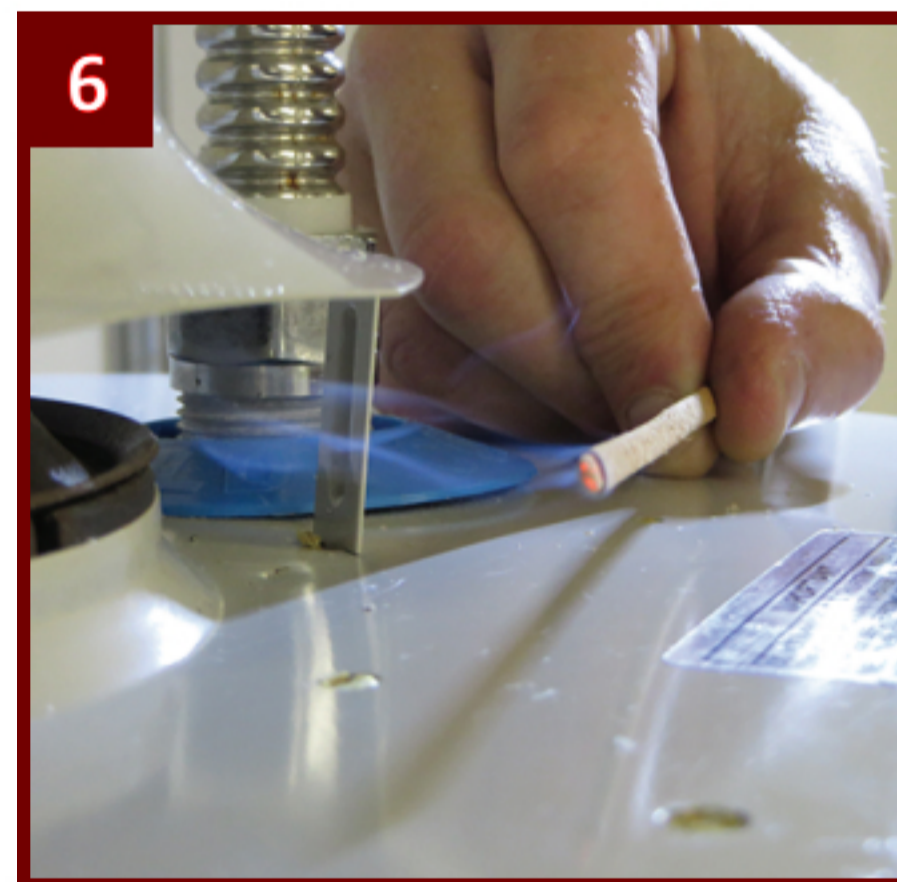
## 4 Pilot Won't Hold (Electrical Problem)

If pilot goes out as soon as control knob is released, there is likely an electrical problem. Press the reset button on the Thermal Switch. If Thermal Switch tripped, you should hear or feel a click.



## 5 Thermal Switch Didn't Trip

If the thermal switch didn't trip, check the thermocouple. Set meter to millivolts. Remove thermocouple from control valve. Pilot must be lit. Measure output of thermocouple. If the reading is below 10mV replace the thermocouple. If the reading is above 10mV, and all wiring connections are secure, replace the gas valve.



## 6 Thermal Switch Tripped (Air Supply Problem)

If the thermal switch tripped, it is likely an air supply problem. Clean air filter and flame arrester. Room must supply adequate air. Conduct "draft test." Turn main burner on. After five minutes of main burner operation, smoke source should be drawn into draft hood. If not, you have an air supply/venting problem.