Gas Dryer Not Heating Prop

This is a lengthy document and may seem a little overwhelming. However, it is very complete and helpful in troubleshooting the majority of gas dryer heating problems. Not all information here will be applicable to you. Just use the parts that are helpful.

First, let's talk about pilot lights. Pilot lights are small flames that are always present for igniting the gas. Many people are familiar with pilot lights from older dryers, water heaters, furnaces, etc. However, gas dryers have used some form of electric ignition for the past 25 years or so. It's very rare to have a dryer with a pilot light these days. We will not cover pilot light systems in this message. If you are absolutely sure you have a pilot light system, please let us know and we'll try to help.

If your gas dryer is not heating or not heating properly, the first thing to inspect is the venting leading outside and the internal vents and ducts of the dryer itself. Lint build up or excessive vent length is the leading cause of poor performance in a gas dryer.

If all of venting is clear, and airflow is good, you need to determine if the dryer is trying to ignite the gas. On most units, there's an access door or plastic plug on the front of the dryer that you can remove to observe the ignition process. Set your dryer to heat, start it up and open the little access door. (They often open from the bottom and swing up. Sometimes they're kind of snapped closed.)

Here's what's supposed to happen:

First--when you close the dryer door, set the timer, and press or turn the Start button, the motor starts. When it reaches full speed, in about a second, the motor start switch closes a set of contacts, which allows electricity to flow through a series of thermostats until power reaches one side of the gas valve solenoid coil circuit.

Electricity flows through the gas valve and on to the igniter. The flow of electricity through the igniter causes it to glow bright orange/red.

As the igniter warms up, it radiates heat toward a sensor that's right next to the igniter. The sensor circuit then opens and supplies power to the other side of the gas valve. This completes the circuit and opens the valve.

Once the valve opens, gas rushes out and the igniter ignites it. As gas burns, it keeps the sensor warm, which keeps gas flowing.

When the dryer reaches the pre-set drying temperature, a simple thermostat turns off the flow of electricity to the gas valve and therefore turns off the gas.

When the temperature in the dryer falls about 20 to 30 degrees, the thermostat again allows electricity to flow through to the gas valve, and the cycle starts over.

That's how it's supposed to work. However, there are four common malfunctions:

1. There is no glow at all, even though the dryer is tumbling properly.

If there is no glow at all, you've lost power to the gas valve assembly, or the igniter is burned out, or the flame sensor has failed. Check the igniter for continuity. Unplug the dryer. Disconnect the wire leads from the igniter. Set the meter on the R X 1 scale. Touch each of the meter leads to the two terminals of the igniter. The meter should indicate zero ohms or continuity. Infinite ohms or no continuity indicates a bad igniter, and you should replace it. The flame sensor should have zero resistance when it's cool, or it should show continuity. If both of those are OK, use the electrical schematic with the dryer to troubleshoot the electrical circuits.

2. There is a glow, but the glow just stays on forever, never igniting any gas.

If this is the case, you have a bad flame sensor on the side of the burner housing, and you should replace it.

3. The igniter glows for a minute or two, then shuts off completely for a minute or two and does that repeatedly.

This indicates one or more defective coils on top of the gas valve. If this is happening, replace all the coils on the gas valve. This is an extremely common problem. (There are usually two or three coils, depending on the age of the unit.)

4. The igniter glows for a minute, the gas is ignited, then the flame goes out before the temperature of the dryer reaches 125 degrees or more.

This is almost always an indication of a restricted air vent system in either the vent leading to the outside or within the dryer. Be sure to clean all the ductwork thoroughly. If the ductwork is clear, you might have a bad drum felt seal, causing poor air suction through the dryer. You must replace the seal to correct this problem.

If you determine the thermal fuse is bad, replace the fuse and CHECK THE DRYER VENT. Poor airflow is almost always the cause of a bad thermal fuse. The dryer may have one or two thermal fuses. Use a volt/ohm meter to test the thermal fuse(s) and thermostat(s).

Warning! To avoid personal injury or even death, always disconnect your appliance from its power source--that is, unplug it or break the connection at the circuit breaker or fuse box--before you do any troubleshooting or repair work on your appliance. Also, because some components may have sharp edges, use caution while working on your appliance.

If this information does not answer your question, select Back to choose another topic, or Continue to contact the RepairGuru.