

Building Your First Fire in Your Greenwood Furnace

Calibrating your Furnace

Pre-fire checks.

1. Make a mental note of the heating conditions – external temperature, thermostat setting, etc. These observations will be useful in understanding how much wood fuel your unit requires to satisfy the heating demand.
2. Check to see that the air intake damper (*located on the back of the furnace*) is open.
3. Perform a **Simple Draft Test**. (*If you do not pass the draft test, stop. Your system is not drafting appropriately. Consult the Troubleshooting Guide.*)

Simple Draft Test: In a cold furnace, take a small piece of newspaper and light it – stick it into the furnace and hold it up near the manifold – if smoke does not come back in your face, your draft is probably adequate. If smoke exits the firebox door, consult the Troubleshooting Guide.

Start a Kindling Fire.

4. Wad up newspaper and place it near the back of the firebox. Place kindling on top of the newspaper (*NOTE: Do not use any combustible fluids or catalysts, it may damage the firebox and void your warranty*). This is identical to starting a fire in your fireplace.
5. Light the fire.
6. Close the loading door and let it burn 5 to 15 minutes (*depending on kindling*)
7. Crack open the door an inch, wait a few seconds, than open it slowly and place 1-2 small to medium logs on the kindling fire, making sure that you do not block the air intake ports or smother the kindling fire.
8. Let the fire burn for 15-25 minutes.
9. At this point, the firebox should be up to a nominal operating temperature.
10. You can tell a fire is up to a nominal operating temperature by:
 - i. Look at the thermometer on the top of the furnace and it will read greater than 150° F, or
 - ii. Looking inside firebox (*or through air intake damper*) and you will see yellow and bright yellow flames, or
 - iii. Looking at the flue on the outside of your home and there will be very little opaque smoke while the furnace is operating. As the fire becomes hotter – the smoke will become clear.



From this point, we need to determine the appropriate size fire for the heating demands of your house.

NOTE: AT THIS TIME, **DO NOT COMPLETELY FILL THE FIREBOX WITH WOOD.** THIS MAY CREATE AN OVER-FIRING SITUATION IF THERE IS NOT ENOUGH HEAT DEMAND FROM YOUR HOME. A GREENWOOD FURNACE MORE COMPLETELY CONSUMES WOOD FUEL COMPARED TO OTHER WOOD BURNING APPLIANCES AND THEREFORE REQUIRES LESS WOOD TO PRODUCE SIMILAR HEAT OUTPUT.

See the Troubleshooting Guide to manage an over-firing situation.

Build a Primary Fire.

11. Crack open the door an inch, wait a few seconds, then open it completely and add a small armload of wood (*2- 3 medium pieces*) to the fire.
12. Wait 10 -15 minutes. During this time, periodically monitor the furnace.
 - i. Note the rising temperature on the thermometer on top of the unit – how quickly does it rise?
 - ii. Note the air intake damper – does it stay open or closed?
13. Assess the heating situation.
 - i. If the damper closes, the furnace is up to operating temperature and does not require any more wood fuel at this time. The thermometer will read approximately 180° F.
 - ii. If the damper has remained open **AND** the thermometer is still below 180° F, **AND** your home thermostat is not reaching temperature, add another small armload of wood.
14. Repeat steps 12 – 14 until the air intake damper closes and the furnace temperature has reached 180° F. (*NOTE: At no time should you load the furnace above the firebox door.*)

With time and experience loading your furnace, you will come to understand the amount of wood fuel that may be loaded into the furnace for a particular heating condition and begin to making adjustments to the amount of wood fuel loaded to maximize burn time.

NOTE: IF YOU ARE HEATING LESS THAN 2500 SQ FT, YOU MAY NEVER NEED TO LOAD THE FIREBOX MORE THAN HALFWAY TO THE LOADING DOOR.

Common Observations

The furnace temperature continues to rise after the air intake damper closes. Once the damper door closes, the fire is extinguished; the thermometer continues to rise to 190 – 200° F. It will stabilize at approximately 190° F and begin to fall. *(NOTE: If the temperature exceeds 210° F, you have overloaded the furnace and may have created an over-firing situation. Please see the Troubleshooting Guide for managing an over-fired furnace).*

The damper opens and closes at regular rates. This is a common occurrence; the furnace is modulating its internal temperature.

Key Operating Points

- A. Monitor the furnace temperature (*the thermometer on top of the furnace*) relative to the amount of wood you load into the furnace. Understanding this relationship is key to proper loading of the furnace for your heating situation.
- B. Make sure that the air intake damper is open when loading wood into the furnace or starting the fire.
- C. Ensure there is proper air flow into the furnace (i.e. do not block air intake ports at the back of the furnace).
- D. Do not overload the firebox with wood fuel.
- E. Keep in mind the heating conditions (e.g. house thermostat, outside temperature, etc) when considering the amount of wood fuel that will be loaded.
- F. Use only whole small logs or large splits. Do NOT burn wood chips, Dura flame logs, pallets, mill ends, railroad ties, or any wood fuel other than clean, dry firewood.

READ YOUR GREENWOOD OWNER'S MANUAL: This Quickstart Guide does not replace the manual.