

Replacing Fireside Franklin Thermocouple (from inside the firebox)

This procedure should only be performed by a qualified gas technician. Please read all the instructions before beginning the procedure. Confirm that you have all the necessary tools and materials. If you have any questions technical support is available toll free at 1-800-866-4344, Monday- Saturday 9:00- 5:00 E.T.

Tools Needed:

- 5/32" allen wrench (6" T-handle preferable; regular "L" will work)
- 5/16" nut driver
- 3/8" wrench
- 10 mm socket and wrench, or, 7/16" socket and wrench
- Phillips screwdriver
- Wire cutters
- Needle nose or other pliers

Materials Needed:

- Cera-felt gasket material
- Replacement thermocouple: part# PSE-019A (for stoves equipped with a PSE pilot assembly) or part FF-tcouple (for stoves equipped with an SIT pilot assembly).

Note:

The easiest way to determine which pilot assembly is in your stove is to look at the pilot hood. The hood splits the pilot flame into three distinct flames. If the pilot hood is round your stove was built with an SIT pilot assembly.



SIT pilot

If the pilot hood appears to be bent over your stove was built with a PSE pilot assembly.



PSE pilot

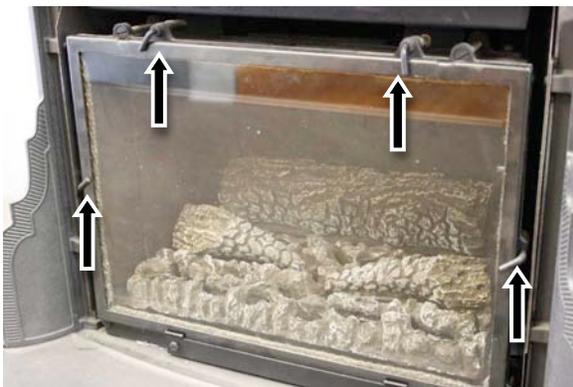
If you cannot determine which you have, call 1-800-866-4344 for assistance.

Make sure the stove is cool. Shut off the main gas supply to the stove.

1. Remove the front casting. Lift straight up under the two sets of star decorations and swing the bottom toward the front of the stove. Set aside.



2. Remove the glass front. Pull and twist the spring-loaded clips to release the glass.



3. Use a 7/16" socket or wrench to remove the glass retainer at the bottom front of the firebox. (NOTE: For each bolt, there are 2 spacer washers in between the retainer and the front casting. Be careful not to lose them!)



4. Remove the bolt that holds the burner in place. It is at the bottom center of the firebox and will be visible once the glass retainer is removed.



5. Very carefully remove the log set. It is very fragile and should be supported with two hands under the base. If the base of the log set is damaged the log set should be replaced.



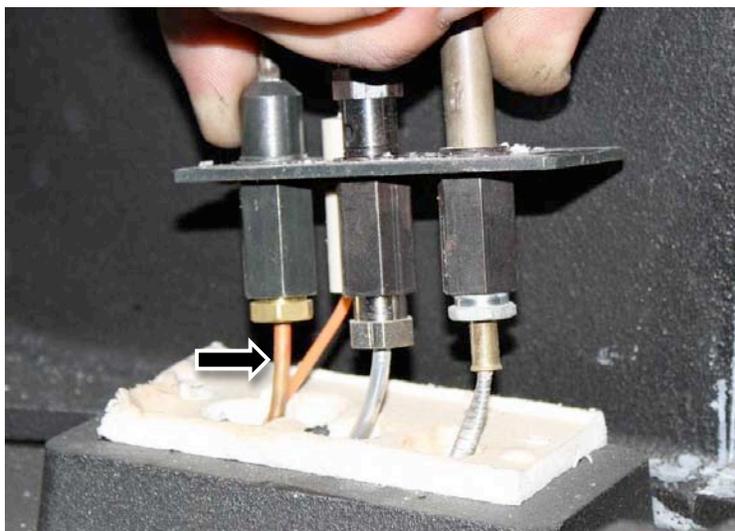
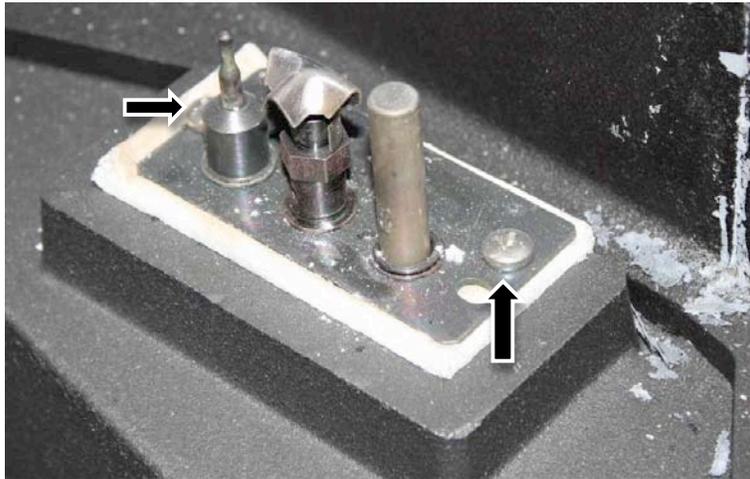
6. Lift the burner out of the firebox. Lift the front edge first then pull it up and out of the firebox. Natural gas stoves will have a narrow air shield attached to the burner.



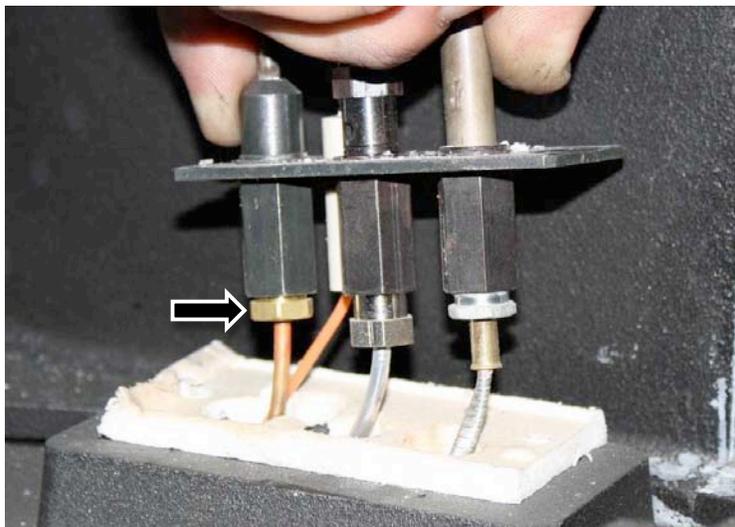
7. The thermocouple is located in the pilot assembly at the right side of the firebox. The thermocouple is at the back of the pilot assembly.



8. Remove the screws that hold the pilot assembly in place, and gently lift the assembly up. Lift it high enough to cut the copper lead to the thermocouple. **Do not cut any other lines to the pilot assembly.**



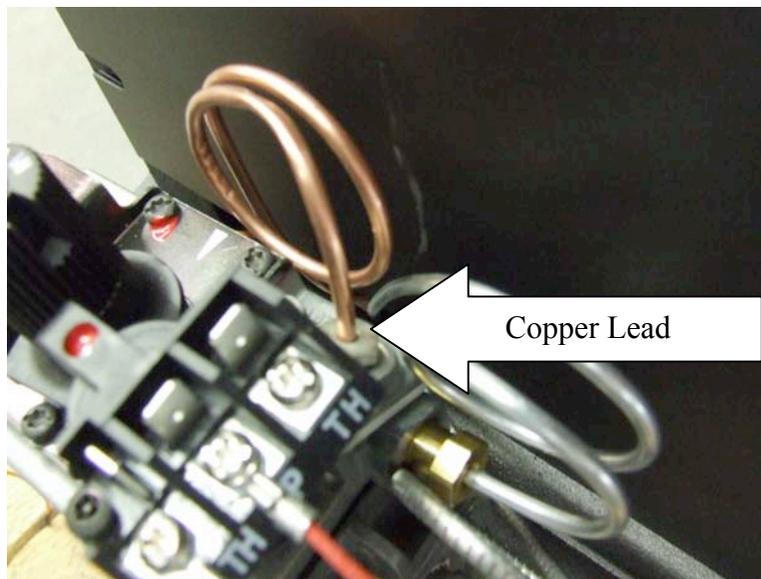
9. Using a 10MM socket or wrench for a SIT pilot (white, black, or clear igniter lead) or a 7/16" socket or wrench for a PSE pilot (orange igniter lead) disconnect the thermocouple from the bottom side of the pilot assembly bracket underneath the stove. Remove the thermocouple.



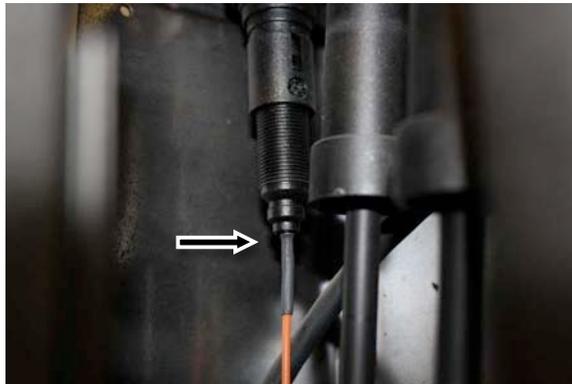
10. Discard the old gasket material from under the pilot assembly.
11. Remove the control cover at the rear of the stove using a 5/32" Allen wrench and a 5/16" nut driver.
12. Lift the cover upward away from the knobs and disconnect the wire from the underside of the igniter button. The on/off switch may remain connected.



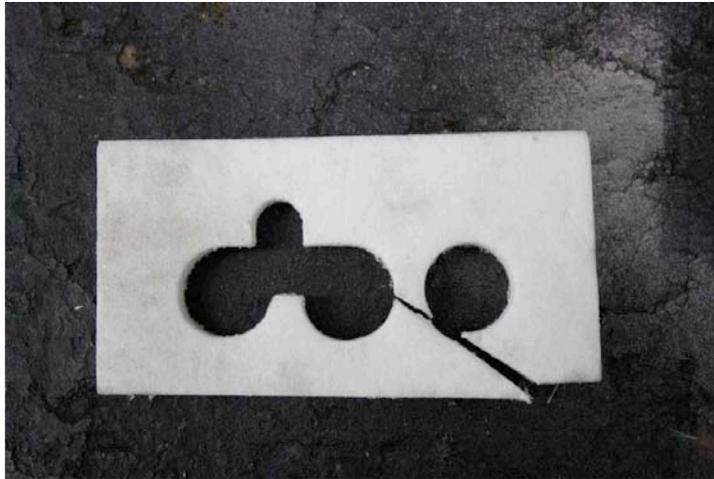
13. Set the cover aside.
14. Use a 3/8" wrench disconnect the brass fitting on the copper colored lead going into the control valve. Remove the copper wire.



15. Push the new thermocouple up through the hole in the stove base (from below) and into the pilot assembly. Fasten the fitting using the appropriate wrench. **Note:** *This step is a little difficult due to the position of the pilot assembly. You only need to supply a light tightening pressure to the thermocouple. Gas cannot leak from this fitting.*
16. Run the copper lead from the new thermocouple up along the underside of the base of the stove towards the control valve.
17. Wrap the lead around a D size battery, or something of similar circumference to coil the extra length (See picture, Step 14) and then attach it to the control valve using a 3/8" wrench. **Note:** *This connector is positioned at a difficult angle. DO NOT force it in as you could ruin the threads on the brass fitting. Tighten the fitting snug, but do not over tighten. Tip: Making this connection properly is imperative, but it can be frustrating. If you are ready to give up, walk away from the stove, then try again in a few minutes.*
18. Test the stove before replacing the control cover. Attach the igniter wire temporarily. Be sure that the pilot will light and stay lit once the thermocouple has been given 15-30 seconds to warm up. If it does not light then check all of the wiring connections and retest. Be sure main gas supply is open.
19. Place the control cover over the control knobs and reconnect the wire to the igniter button. **Note:** *The reason you place the cover over the knobs before you connect the wire is that the wire is too short to connect it first.*



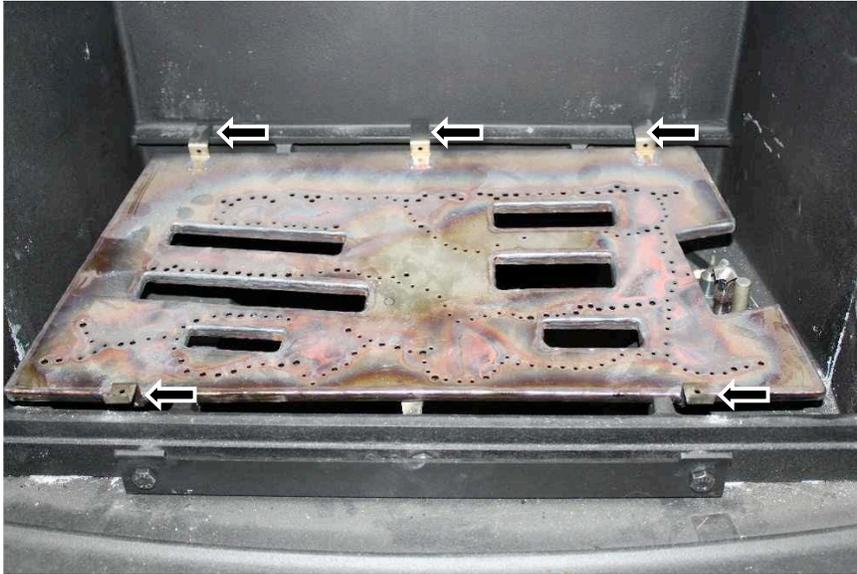
20. Fasten the control cover to the rear panel of the stove.
21. Replace the cera-felt gasket under the pilot assembly. It will be necessary to cut the gasket to slip it around the leads under the assembly. Cut at a 45 degree angle on the left side.



22. Re-install the pilot assembly. Be sure it is seated firmly on the gasket and the gasket has not shifted.
23. Return the burner to the firebox. The venturi tube must be centered on the orifice at the rear of the firebox. When the burner is properly located there should be no side to side or up and down movement at the back edge. It should be firmly seated on the cast iron tabs in the firebox. The tabs at the front of the firebox are notched and the burner should sit down in the notches. Once in place, secure it with the bolt through the front of the firebox.



24. Reinstall the glass retainer. Don't forget the washers!
25. Very carefully return the log set to the stove. It should rest above the surface of the burner on tabs at the front and rear.



26. Return the glass to the stove and secure it with the spring-loaded clips. It may be helpful to use pliers to grip the clips.
27. Return the front casting to the stove.
28. Please contact Woodstock Soapstone Co. for any assistance during this replacement process at 1-800-866-4344.

We need your help! Woodstock Soapstone Co. takes pride in providing the highest quality products as well as the best customer service in our industry. We welcome your suggestions and input to help us achieve these goals. If you have any comments to improve our products, service, and information provided in these instructions please contact us at (800) 866-4344 or info@woodstove.com. Thank you.

Revised 8/6/10