

Res Tech  
Support

## Gas - Standard Control Water Heaters

### No Hot Water / Pilot Frequently Goes Out

Dear Homeowner,

This article, the website, videos, and other documents contain *supplementary information* and are not intended to replace the printed Instructions. For complete details, read and follow the printed Installation Instructions that came with your water heater or parts kit. The printed Instructions and product labels contain model-specific information, important warnings, and safety notices.

Based on the symptoms you described during your call, we believe the following information may be helpful. If you need any additional help, go ahead and call the phone number on the side of your water heater.

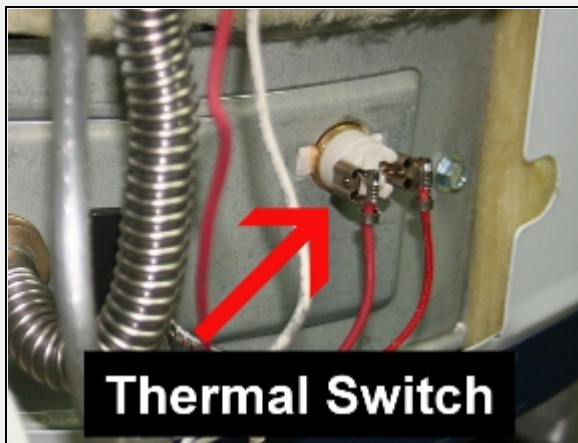
Please read the safety information in the Owner's Manual and the labels on the water heater before attempting any of these procedures.

The most likely reason for no hot water is the pilot on your water heater has gone out. There are several possible reasons why the pilot on your water heater would go out, but the most common reason is the water heater isn't getting enough air.

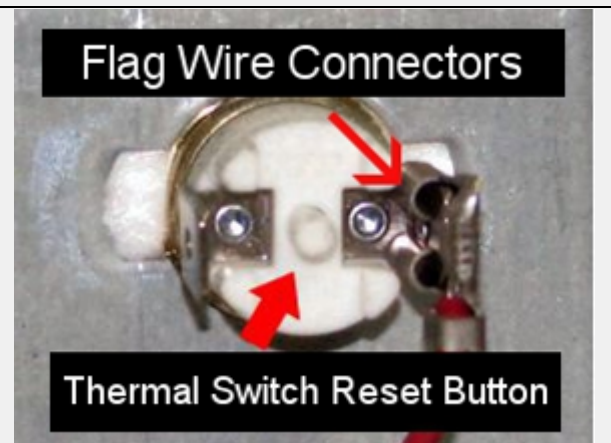
If your water heater has a white thermal switch on the manifold door, try resetting the thermal switch and cleaning any lint or dust from the Flammable Vapor Ignition Resistance (FVIR) filter screen and flame arrestor. If your water heater does not have a white thermal switch on the manifold door, skip down to the "Clean the FVIR Filter Screen and Flame Arrestor" section.

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### Reset Thermal Switch and Check Wiring



Thermal switch location on manifold door.



Make sure the flag wire connectors are securely attached to the thermal switch.

### **WARNING: BEFORE LIGHTING THE PILOT!**

**Fire and Explosion Risk.** Do not attempt to light the water heater if flammable vapors or liquids are present. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other gas appliance. Storage of or use of gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance can result in serious injury or death.

Locate the white thermal switch on the right side of the manifold door and make sure the connectors (on both red wires) are firmly attached to the thermal switch. Next, press the reset button in the middle of the switch. If the thermal

switch has tripped, the water heater's air supply may be restricted, there may be negative air pressure in the home, the vent system may be blocked, or there may be flammable vapors or liquids near the unit.

Thoroughly check the area near the water heater for any substances that may give off flammable vapors such as gasoline, paint, thinners, cleaning agents, solvents, or glue. If any flammable vapors or liquids are found near the water heater, remove them and do not light the unit. Have a service technician inspect the flame arrestor for discoloration.

If there are no flammable vapors or liquids near the water heater, go ahead and clean the filter screen and flame arrestor.

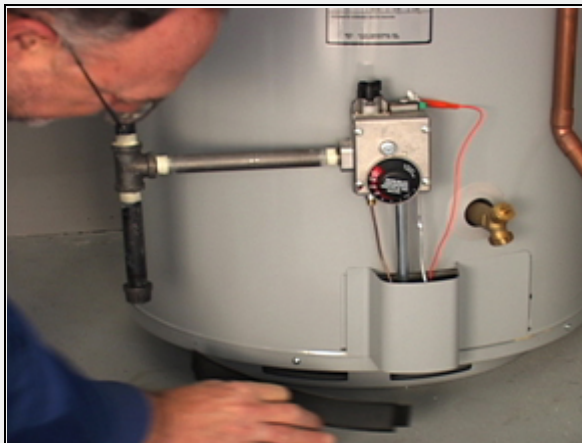
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## Clean the FVIR Filter Screen and Flame Arrestor

Cleaning the FVIR filter screen and flame arrestor is easier if you [watch this video](#). The pilot can sometimes go out due to a dirty filter screen or flame arrestor, and that dirt could be blocking air needed for combustion. Usually the filter screen or flame arrestor is blocked with dust or lint and can be cleaned with a common household brush and a vacuum cleaner.

To clean the filter screen and flame arrestor, follow these steps:

1. Turn the gas control knob OFF and allow the burner to cool for about 15 minutes.
2. Locate and remove the filter screen from the base of the water heater (some water heaters may have two screens).



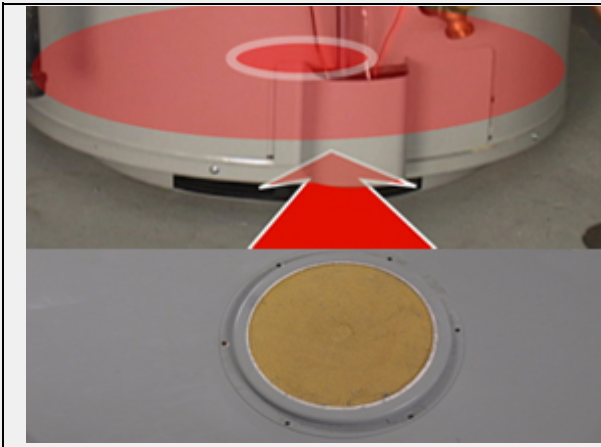
**Remove filter screen (this model has a small, clip-in filter screen).**



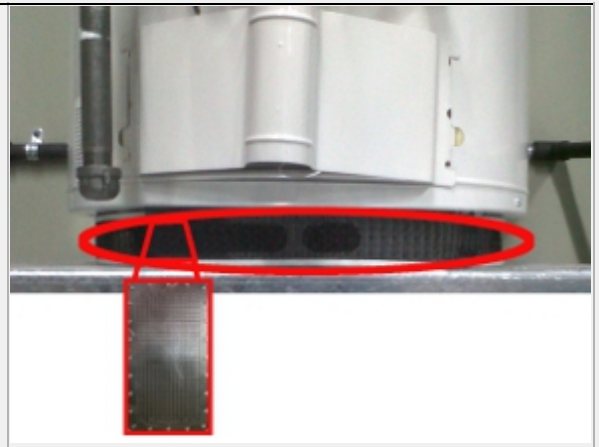
**This model has a long, slide-in filter screen that wraps around the entire base of the unit).**

3. Clean the filter screen with a soft brush or vacuum. You may need to wash the filter screen in hand dish washing soap and water to remove oily residue.

4. Locate the flame arrestor under the water heater's base. Use a household brush with plastic bristles to clean the flame arrestor with an in and out motion.



**The flame arrester is located under the water heater's base (this model has a circular, ceramic flame arrester).**



**This model has a rectangular, steel flame arrester.**

5. Vacuum any lint from the brush and repeat brushing and vacuuming until the brush is completely clean.
6. If the water heater is in a drain pan, use a brush with a flexible handle using an in and out motion and vacuum the brush. Repeat brushing and vacuuming until the brush is completely clean. You may have to clean the flame arrester several times to remove all the lint and dust.
7. Vacuum any remaining lint from the bottom of the water heater using the vacuum cleaner's crevice tool (if the wrap-around filter and/or flame-trap were dirty, you'll want to inspect and clean them often).
8. Once you've cleaned the flame arrester, replace the filter screen. Note the filter screen has arrows that should point up when reinstalling.

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## Relight the Pilot

After cleaning the flame arrester and filter screen, try relighting the pilot following the instructions on the water heater. Resetting the thermal switch and cleaning the filter screen and flame arrester should most likely solve your problem.

A replacement wrap-around filter and special flame arrester cleaning brush are available from us at no charge. The wrap-around filter, when properly maintained, can help prevent the pilot from going out due to clogged filters or a dirty flame arrester. Keeping the area near the water heater free from dust, lint, and oily vapor can also help prevent the pilot from going out in the future.

If the pilot still won't light after resetting the thermal switch and cleaning the filter screen and flame arrester, call the phone number on the side of your water heater for help in determining the cause.

Since the most common cause for the pilot going out is not enough air getting to the water heater, go ahead and do the following air supply and vent test.

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## Air Supply and Vent Test



**Smoke from the extinguished match is not being drawn into the draft hood's opening. This condition may be caused by negative pressure in the house or a blocked vent and must be corrected.**



**Smoke should be drawn into the draft hood's opening after five minutes of main burner operation. A good draft indicates the water heater is getting adequate air and the vent system is operating properly.**

First, close all windows and doors and turn on all exhaust fans including range hoods, bathroom exhaust fans, attic fans, clothes dryer, etc. in your home. Also, close any fireplace dampers.

Light the pilot. Once the pilot is lit, adjust the thermostat to HOT to light the main burner (look through the viewport to make sure the main burner is lit). Please refer to the "Adjusting the Temperature" section of the Owner's Manual for instructions on how to adjust the thermostat. Allow the main burner to run for exactly 5 minutes before performing the test.

Pass a newly extinguished match approximately 1" from the draft hood's opening. Smoke from the match should be steadily drawn into the draft hood's opening indicating the water heater is getting adequate air and the vent system is working.

### **WARNING!**

**Carbon Monoxide Risk. This water heater requires an adequate source of clean air for combustion and ventilation. Without sufficient air, this water heater may emit carbon monoxide that could result in death or carbon monoxide poisoning.**

If the match smoke hovers around or is blown away from the opening, there may be negative pressure in the house, the water heater may not be getting enough air, or the vent may be blocked. Turn the gas control knob OFF, shut the gas supply off, and do not operate the water heater. A service technician should make sure there isn't negative pressure in the house, the water heater has adequate access to air, and the vent is not blocked. [Click here](#) to find a service technician in your area.

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If you need any additional help, go ahead and call the phone number on the side of your water heater.

[Please take a moment to tell us how we did today.](#)

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