



## Gas Quick Guide To Hot Water

Read and follow the printed Installation Instructions that came with your water heater for model-specific information, important warnings and safety notices. These instructions are not for mobile home units. Make sure your water heater is correct for the gas supply type (LP or natural). Follow all local codes. If you lack the necessary skills to install, troubleshoot or repair your water heater, get help from a qualified person.

# 1



You'll need common plumbing tools and pipe joint compound (or Teflon<sup>®</sup> tape) approved for fuel gas. You'll also need leak detection solution. You can use children's soap bubbles or hand dish-washing soap mixed with water. Most codes require the water heater to be installed in a metal drain pan. See the Installation Instructions for information about sizing the drain pan and other installation details.



If your house has copper pipes, consider an Installation Kit with compression fittings that don't require soldering. If your pipes are plastic, you'll need connectors/fittings for the specific type of plastic pipes used in your home. Read the instructions for the new connectors before cutting the existing water pipes.



Turn the main gas supply valve OFF. Also, turn the gas control knob on the old water heater off. Open a hot water faucet and let the hot water run until cool. Allow the old water heater and vent pipe to cool.

# 2



Connect a garden hose to the drain valve. Place the other end of the hose in a drain or outside (you could also use buckets). Shut off the cold water supply to the water heater and open a hot water faucet and the drain valve. While the water heater is draining, read the Installation Instructions that came with your water heater.



Disconnect the vent pipe from the draft hood. Inspect the old vent pipes for corrosion, obstructions, leaks or other damage, and repair or replace if necessary. Gas water heaters must have free access to adequate combustion air and must be properly vented. The Installation Instructions explain these requirements, and they must be followed for safe operation.



Disconnect the gas line at the union (you'll need two wrenches for that). Remove the gas pipe from the old water heater—you may be able to reuse it. Save the union, too. Next, remove the water lines and the old water heater. Install the new water heater (in a metal drain pan).

# 3



Almost all homes have check valves in the plumbing system and now need a thermal expansion tank installed near the water heater. The expansion tank is attached to the cold water inlet line. To operate properly, the expansion tank must be pressurized with air. Refer to the expansion tank's instructions for details.



The Temperature and Pressure Relief Valve (T&P) is an important safety device. It opens to relieve pressure if the water temperature or pressure is too high. Use the new one that came with your new water heater. Don't reuse the old T&P valve.



The Temperature and Pressure Relief Valve (T&P) discharge pipe should be terminated near a floor drain with an air gap of no more than 6 inches between the end of the discharge pipe and the drain. Some localities require terminating the T&P discharge pipe outside. In cold climates, we recommend using a floor drain. In all cases, follow the codes for your location. **Warning: Do not plug or cap the T&P discharge pipe.**

# 4



Install the hot and cold water lines. The water heater inlet and outlet connections contain non-metallic parts. Don't solder pipe directly to these connections. Instead, solder threaded adapters to short pieces of pipe so that soldering is done a foot or so from the water heater connections. Open the cold water supply valve and fill the tank.



Open a nearby hot water faucet. At first, you'll just get air from the faucet, then sputtering, and finally, a full flow. Then, let the "hot" water run full stream for three minutes to ensure the tank is completely full. The tank must be completely full before lighting the pilot.

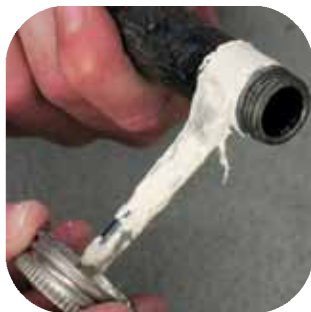


Gas water heaters produce condensation the first time they are started up. You may hear drips (or a sizzling sound as droplets hit the burner) or you may even see a small puddle. Condensation is normal and is not a leak. Condensation should go away when the water heater reaches its normal operating temperature. Check the water connections for leaks. Most actual leaks occur at the inlet or outlet water connections—not a tank leak.

# 5



Connect the vent pipe to the water heater's draft hood. Use sheet metal screws. Don't reuse the old draft hood—always use the new draft hood supplied with your new water heater. See the Installation Instructions for important safety information about venting and construction details.



Install the gas pipe using pipe joint compound (or Teflon® tape) approved for fuel gas on all threaded connections. Keep the pipe joint compound from getting inside the gas line or gas control valve. If you are using a flexible gas line connector, follow the instructions that came with the flexible connector (most don't need pipe joint compound). Reconnect the gas line union.



To check for gas leaks, use children's soap bubbles or hand dishwashing soap (mix one part soap to 15 parts water) or a commercial gas leak detection solution. Do not use an open flame to check for gas leaks!

# 6



Turn the gas supply valve ON. Brush soap solution on all gas line connections and look for bubbles. Use plenty of soap solution. Gas is under low pressure, and it may take some time for bubbles to appear.



If you see any bubbles, correct the leak and re-test.



The Installation Instructions have a handy Check List. Review each item on the Check List and make corrections or repairs as necessary. It's important that every step has been successfully completed before lighting the pilot.

# 7



Follow the lighting instructions on the water heater's label. Because the water heater is new and there is air in the gas line, it may take several attempts to light the pilot.



Your new water heater is more energy efficient than older models and has a smaller pilot light which can sometimes be hard to see. You may have to darken the room and look carefully through the sight glass in order to see the pilot light.



Adjust the temperature to 120°F. Higher temperatures increase the risk of scalding. See the Installation Instructions and the water heater's labels for important safety information about scalding.

# 8

## TROUBLESHOOTING

Need help? Visit us on the web at [www.hotwater101.com](http://www.hotwater101.com) for more installation and troubleshooting help. Carefully review the Check List found in the Installation Instructions and make sure each step was followed correctly. If you need assistance, call the toll-free number which can be found in the Installation Instructions or on the water heater's label.

The most common installation problem with gas water heaters is lighting the pilot. Because of air in the gas line, it may take several attempts to light the pilot. Energy efficient pilot lights are smaller and can be hard to see. You may have to darken the room and look carefully through the sight glass to see the pilot light.

Gas water heaters produce condensation the first time they are started up. You may hear drips coming from the water heater (or a sizzling sound as droplets hit the burner). You may even see a small puddle in the drain pan. Condensation is normal and is not a leak. Condensation should go away when the water heater reaches its normal operating temperature.

Most leaks are from the inlet and outlet water connections (not a tank leak). If the water heater only "leaks" when the burner is on, it's probably condensation or a connection.

Drips from the Temperature and Pressure (T&P) relief valve discharge pipe usually mean you need a thermal expansion tank or your home's water pressure is too high (see Step 3). **Warning: Do not plug or cap the T&P discharge pipe.**

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