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High Efficiency Gas Quick Guide to Hot Water

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Read and follow the printed Installation Instructions that came with your water heater for model-specific information, important warnings and safety notices. 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® 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.

This high-efficiency gas water heater requires a 120VAC, 60 Hz electrical supply. A 10-foot cord with three-pronged plug is supplied (**no extension cords are permitted**) and the outlet must be properly grounded. Follow local codes. See Installation Instructions for details.

2



Turn off the gas supply to the water heater at the manual shut-off valve. Turn gas control knob to the OFF position. 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.

Open a nearby hot water faucet and let the water run until it is cool. Then shut off the cold water supply to the water heater. (Leaving the water faucet open will help the tank drain.) Drain the tank by attaching a hose to the drain valve. Place the other end of the hose in a drain or to the outside of the home. (You could also use buckets.) Open the water heater's drain valve. While the water heater is draining, read the Installation Instructions that came with your new water heater. Disconnect the water lines from the water heater.

Be certain that the vent has cooled before handling. Disconnect the vent pipe from the draft hood. Inspect the old vent piping 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.

3



Almost all homes have check valves in the plumbing system and homes 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 temperature or pressure if the water temperature or pressure is too high. Use the new T&P 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 local codes. Read the Instruction Manual for important details. **Warning:** Do not plug or cap the T&P discharge pipe.

4



Install the hot and cold water lines. If using quick connect fittings, pipe compound or Teflon® tape is not required. If using flexible or solid connections, the threaded fittings would require pipe compound approved for potable water or Teflon® tape on the threaded fittings. Turn the cold water supply back on and check for leaks. Do not solder pipes while they are connected to the water heater. Use threaded adapters.

While the tank is filling, it is important to open a hot water faucet and let the water run full for at least three minutes to ensure all the air is out and the tank is completely full of water. Check all connections for water leaks. Almost all leaks are at connections, not a tank leak.

Connect the vent pipe to the water heater's unique draft hood (note that the flat sides of the draft hood face water pipes.) 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.

High Efficiency Gas Water Heater Installation



5



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.

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. **DO NOT** check with an open flame.

Follow the lighting instructions on the water heater's label. The Installation Instructions have a handy Check List. Review each item in the Installation Instructions Manual and on the Check List and make corrections or repairs as necessary. It's important that every step has been successfully completed before attempting to light the water heater. With the gas valve on/off switch in the OFF position, plug the water heater into a standard wall outlet that is properly grounded.

6



Set the On/Off switch on the Gas Control to the ON position. The electronic display will activate for a few seconds and will display the current temperature setting.

Press the Up and Down arrows at the same time and hold for one second. This will unlock the control. Press the down arrow (Cooler) and set the temperature to the lowest setting. Then turn the Gas Control switch to OFF. Wait five minutes before going to the next step.

Turn Gas Control ON again. Press the Up and Down arrows at the same time and hold for one second. This will unlock the control. Press the up (Hotter) or down (Cooler) arrow and set the temperature to the desired setting. We recommend a maximum temperature of 120°F. See the scald warning labels on the water heater and in the Installation Instructions Manual for important safety information about temperature settings and scalding. **The water heater will automatically light.** The display will show an error code if the water heater does not light.

TROUBLESHOOTING

7

Need help? Visit us on the web at 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.

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). Condensation is normal and is not a leaking tank. Condensation should go away when the water heater reaches normal operating temperature.

Check the water connections for leaks. Most actual leaks occur at the inlet or outlet water connections—not a tank leak.

Although the igniter on this water heater is automatic, because of air in the new gas line, it may take several attempts for the igniter to ignite the main burner. The water heater will try to light the burner three times (with a 3-minute delay between each trial). If the air is still not purged, the control will wait for one hour before automatically retrying. To manually reset the gas valve and restart the ignition sequence, turn the Gas Control valve switch to OFF, wait five minutes, then turn the switch back on.

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. **Warning:** Do not plug or cap the T&P discharge pipe.

The Installation Instructions has a list of Diagnostic Codes with instructions for each code should an Error Code be displayed on the "Electronic Display".

The Installation Instructions lists "Routine Preventative Maintenance" items that must be performed on this unit. The most common problem is an inadequate air supply or a dirty air intake chamber screen. Depending on the location, this screen may need to be cleaned from time to time. See the Installation Instructions for details.

For additional troubleshooting information, visit www.hotwater101.com or call the toll-free number listed on the water heater or in the Installation Instructions.

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