



TECHNICAL SERVICE DEPARTMENT

Technical Service Bulletin

1-800-432-8373

General Safety Precautions
Residential Gas Water Heaters



Be sure to read and understand the entire Use & Care Manual before attempting to install or operate this water heater. Pay particular attention to the following General Safety Precautions. Failure to follow these warnings could result in a fire or explosion, causing property damage, bodily injury or death. Should you have any problems understanding the instructions in this manual, STOP, and get help from a qualified installer or service technician or the gas supplier.

! WARNING

Gasoline, as well as other flammable materials and liquids (adhesives, solvents, etc.), and the vapors they produce, are extremely dangerous. DO NOT handle, use or store gasoline or other flammable or combustible materials anywhere near or in the vicinity of a water heater. Be sure to read and follow the warning label pictured below and other labels on the water heater, as well as the warnings printed in this manual. Failure to do so can result in property damage, bodily injury, or death.

Install gas water heater at least 18" off floor since gasoline vapors stay low to the ground. Turn off water heater when using solvent-base materials such as paints, stains lacquer

! DANGER

Failure to install the draft hood and properly vent the water heater to the outdoors as outlined in the Venting Section of this manual can result in unsafe operation of the water heater. To avoid the risk of fire, explosion, or asphyxiation from carbon monoxide, never operate this water heater unless it is properly vented and has an adequate air supply for proper operation. Be sure to inspect the vent system for proper installation at initial start-up; and at least annually thereafter. Refer to Maintenance section of this manual for more information regarding vent system inspections.

Install CO detector to detect odorless carbon monoxide gas. Test vent for upward draft by using match to see if smoke drafts immediately up the vent hood. Observe correct venting distances.

Observe correct venting distances. Read more about venting:

<http://waterheatertimer.org/How-to-troubleshoot-gas-water-heater.html#vent>

! DANGER

! Vapors from flammable liquids will explode and catch fire causing death or severe burns.
Do not use or store flammable products such as gasoline, solvents or adhesives in the same room or area near the water heater.
Keep flammable products:
1. far away from heater,
2. in approved containers,
3. tightly closed and
4. out of children's reach.

Water heater has a main burner and pilot flame.
The pilot flame:
1. is on all the time and
2. will ignite flammable vapors.
Vapors:
1. cannot be seen,
2. are heavier than air,
3. go a long way on the floor and
4. can be carried from other rooms to the pilot flame by air currents.

Installation:
Do not install water heater where flammable products will be stored or used unless the main burner and pilot flames are at least 18" above the floor. This will reduce, but not eliminate, the risk of vapors being ignited by the main burner or pilot flame.

Read and follow water heater warnings and instructions. If owners manual is missing, contact the retailer or manufacturer.

! DANGER

LIQUEFIED PETROLEUM MODELS - Propane, or LP gas, must be used with great caution.

- It is heavier than air and will collect first in lower areas making it hard to detect at nose level.
- Make sure to look and smell for LP leaks before attempting to light appliance. Use a soapy solution to check all gas fittings and connections. Bubbling at a connection indicates a leak that must be corrected. When smelling to detect an LP leak, be sure to sniff near the floor too.
- Gas detectors are recommended in LP applications and their installation should be in accordance with the manufacturer's recommendations and/or local laws, rules, regulations or customs.
- It is recommended that more than one method be used to detect leaks in LP applications.

! DANGER



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IF LP GAS IS PRESENT OR SUSPECTED:

- *DO NOT* attempt to find the cause yourself;
- *DO NOT* try to light any appliance;
- *DO NOT* touch any electrical switch;
- *DO NOT* use any phone in your building.
- Leave the house immediately and make sure your family and pets leave also.
- Leave the doors open for ventilation and contact the gas supplier, a qualified service agency or the fire department.
- Keep the area clear until the service call has been made, the leak is corrected, and a qualified agency has determined the area to be safe.



Both LP and natural gas have an odorant added to help detection. Some people may not physically be able to smell or recognize this odorant. If unsure or unfamiliar about the smell associated with LP or natural gas, ask the gas supplier. Other conditions, such as "Odorant Fade", which causes the odorant to "fade", or diminish in intensity can also hide or camouflage a gas leak.



Water heaters utilizing Liquefied Petroleum gas (LP) are different from natural gas models. A natural gas heater will not function safely on LP gas and vice versa. No attempt should ever be made to convert a heater from natural gas to LP gas. To avoid possible equipment damage, personal injury or fire: **DO NOT** connect this water heater to a fuel type not in accordance with unit data plate. Propane for propane units. Natural gas for natural gas units. These units are not certified for any other type fuel.



LP appliances should not be installed below-grade (for example, in a basement) if such installation is prohibited by federal, state and/or local laws, rules, regulations or customs.

WATER TEMPERATURE ADJUSTMENT - Safety and energy conservation are factors to be considered when selecting the water temperature setting of water heater's thermostat. Water temperatures above 125°F. can cause severe burns or death from scalding. Be sure to read and follow the warnings outlined on the label pictured below.


NOTE: Households with small children, disabled, or elderly persons may require a 120°F. or lower thermostat setting to prevent contact with "HOT" water.



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Maximum water temperatures occur just after burner has shut off. To find hot water temperature being delivered, turn on a hot water faucet and place a thermometer in the hot water stream and read the thermometer.

⚠ DANGER



Water temperature over 125°F can cause severe burns instantly or death from scalds.
Children, disabled and elderly are at highest risk of being scalded.
See instruction manual before setting temperature at water heater.
Feel water before bathing or showering.
Temperature limiting valves are available, see manual.

The following chart may be used as a guide in determining the proper water temperature for your home.

TIME / TEMPERATURE RELATIONSHIPS IN SCALDS

125° F	1 1/2 to 2 minutes
130° F	About 30 seconds
135° F	About 10 seconds
140° F	Less than 5 seconds
145° F	Less than 3 seconds
150° F	About 1 1/2 seconds
155° F	About 1 second

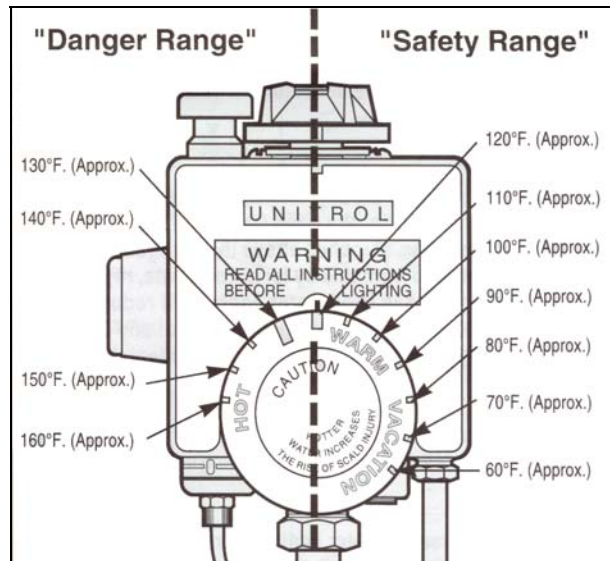
Table courtesy of Shriners Burn Institute

The temperature of the water in the heater can be regulated by setting the temperature dial on front of the thermostat. To comply with safety regulations the thermostat was set at its lowest setting before water heater was shipped from the factory. The illustration below details the approximate water temperature for each mark on the Thermostat Temperature Dial.

⚠ DANGER

There is a Hot Water SCALD Potential if the thermostat is set too high.


Mixing valves for reducing point of use water temperature by mixing hot and cold water in branch water lines are available. Contact a licensed plumber or the local plumbing authority for further information.





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OPERATION AND SAFETY

 **WARNING:** To avoid possible injury, fire and explosion, please read and follow these precautions and all instructions on the appliance. These instructions are intended as a guide to qualified servicemen installing or servicing ROBERTSHAW controls. Repair, adjustments and servicing should be limited to the operations listed in this guide or on the appliance. Controls are to be installed by licensed gas fitters/technicians only.

Installation Instructions

1. Follow shutdown and lighting instructions on appliance.
2. Shut off gas supply up-stream of control at line valve or L.P. tank before installation or servicing.
3. To install or remove control, use special body wrench or thread correctly sized pipe into inlet and use it to turn control. **DO NOT OVER TIGHTEN.** Do not use pipe wrench or vice to grip body. Damage may result, causing leaks.
4. Insert only correct size pipe or tubing into inlet or outlet of control. Insertion of any other object can cause internal damage.
5. Use only new controls as replacements. Do not reuse second hand controls.
6. Make sure gas piping is pressure tested before control is connected. High pressure can damage controls causing a hazardous condition. **DO NOT** subject control to more than 7kPa inlet pressure.
7. Make sure piping is clean and free from scales and burrs. Apply a small amount of good quality pipe thread compound to the gas inlet of the control. **DO NOT OVERTIGHTEN.** Use only AGA approved Teflon tape or Teflon pipe compound on gas inlet connection. Teflon tape and compounds should be used sparingly on male threads only, leaving the first two threads clean. Teflon tape or thread compound should never be used on female threads as it may be pushed into the control body, possibly causing the valve to stick or fail to close.
8. The thermocouple nut should be started and turned all the way in by hand. An additional quarter turn with a wrench will then be sufficient to seat the lock washer. **CAUTION:** Over tightening may damage thermocouple or magnet.
9. Do not tamper with the energy cut-off wiring or connections.
10. Make sure water heater is full of water before lighting pilot.
11. Make sure that no raw gas is present in the surrounding area before putting appliance into operation. *READ WARNING!*
12. Operate reset button, manual valve and temperature dial by hand only. If more force is required, replace control. Do not use pliers, wrenches or other tools to operate control.
13. Leak test after installation or servicing with main burner “OFF” and “ON”. Coat pipes and tubing joints, gaskets, etc. with a soap solution. Bubbles indicate leaks that must be corrected. **DO NOT TEST WITH FLAME.**
14. The manual valve must be in either the “OFF”, “PILOT” or full “ON” position. Do not use it to adjust the gas flow. An incorrect burner flame can result.
15. Keep combustible material away from gas appliance. Keep burner area clean and free of dust and lint.
16. If control has been exposed to water in any way, it must be replaced.
17. If control fails to turn off, shut off gas ahead of controls at line valve or tank. Replace control.

 **Warning: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.**