

Water Heater Installation Requirements

There are many rules for the proper installation of water heaters—probably more than almost any other single building component. Water heaters are very heavy and can be thrown for many feet during an earthquake, across a room, or even through a wall. Movement can break gas and water lines, causing a fire or substantial damage from water leakage. A temperature pressure relief (TPR) valve is required to prevent an explosion that could occur if the valve that controls the gas flow sticks in the open position. Hot water may occasionally drip or spray from the TPR valve discharge pipe, triggered by changes in water pressure. Leaky valves may fail from encrusted mineral residue, and should be replaced. Most TPR valve manufacturers recommend the valve be tested once a year.

Water heaters should be elevated at least 18 inches above the floor of a garage or attached room. The bottom 18 inches of a garage is considered a "hazardous zone." Any source of combustion, such as an open flame or electrical switch, is prohibited in this area, as gasoline, paints, and other flammable materials are often stored in garages. The 18-inch rule allows fumes from a spilled fluid to dilute with air. Water heaters, furnaces, clothes dryers, and other such appliances should be installed on platforms of sufficient height to provide adequate clearance.

Most water heater manufacturers now recommend blankets not be installed on new water heaters, because they are already insulated internally.

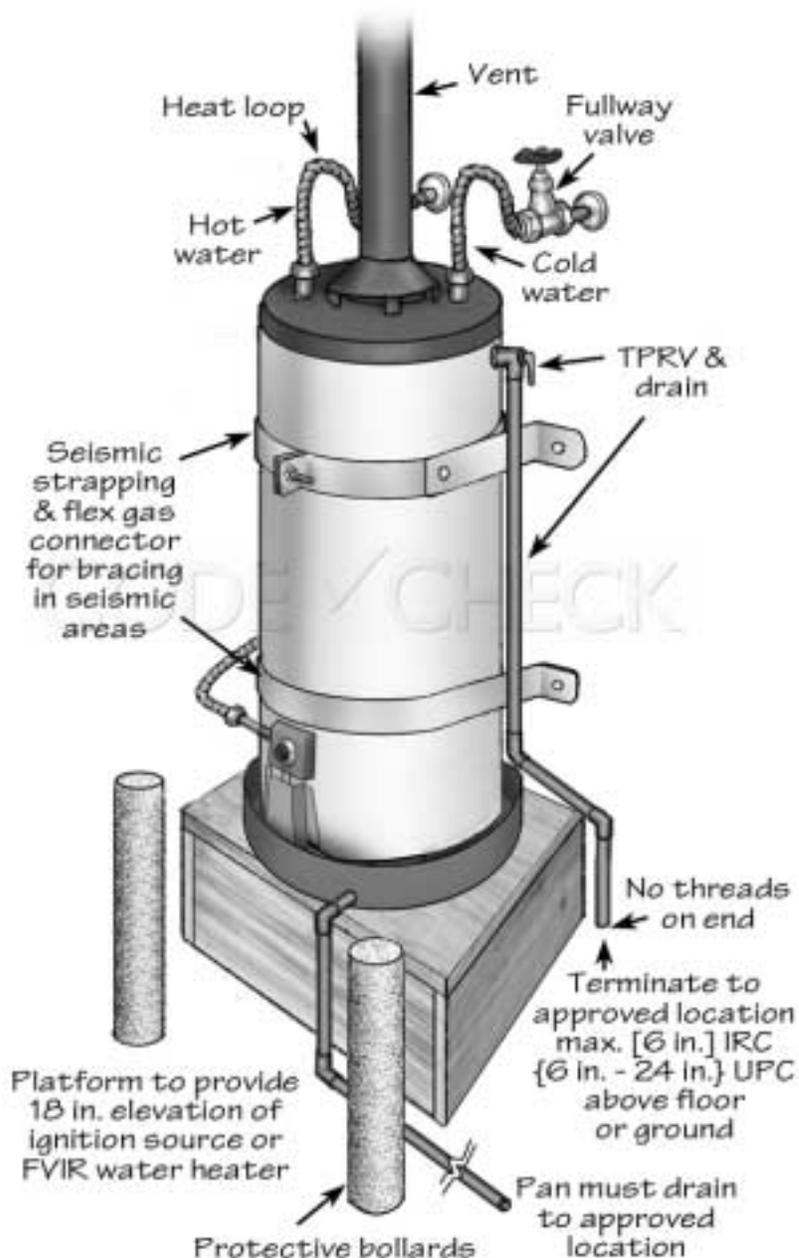
The best braces are rigid and support the water heater at both the top and bottom. "Plumber's tape" alone is no longer considered an adequate restraint

It is important to avoid storing combustible items near water heaters and other gas-fired appliances.

Vent piping in unconditioned spaces, such as garages and subfloor areas, should be a cooler, special, Type-B piping.

Bollards are now required by many jurisdictions to prevent damage from vehicle impact in a garage.

Water Heater in Garage



Provided for general information only. Home inspectors are not code officials. Consult your local building department for current requirements. UBC & UPC = Historical Codes in Western states. IRC = International Residential Code, new codes not yet widely adopted in California

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