

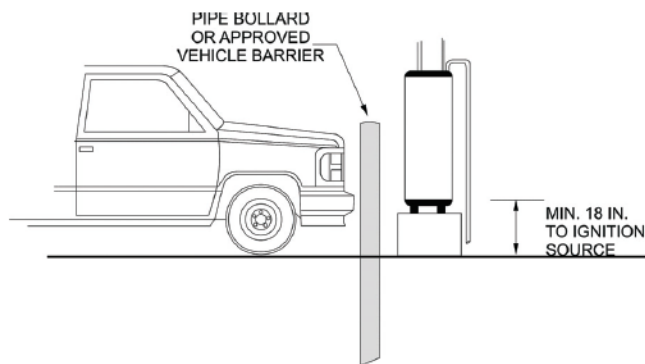
2009 International Residential Code Section 2801

P2801.6 Water heaters installed in garages. Water heaters having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the garage floor.

P2801.7 Water heater seismic bracing. In Seismic Design Categories D0, D1 and D2 and townhouses in Seismic Design Category C, water heaters shall be anchored or strapped in the upper one-third and in the lower one-third of the appliance to resist a horizontal force equal to one-third of the operating weight of the water heater, acting in any horizontal direction, or in accordance with the appliance manufacturer's recommendations.

Q: Is there a code requirement for vehicle protection for a water heater installed in a garage? Does the required elevation of the ignition source also provide adequate protection against physical damage?

A: The IRC plumbing provisions do not address physical protection of water heaters. However, Section M1307.3.1 of the IRC mechanical provisions requires physical protection for water heaters installed in locations subject to vehicle damage, which would include garages. Unless the water heater is installed in an alcove or elevated above the height of a vehicle, additional protection such as pipe bollards or curbs must be installed. An elevation of only 18 inches does not provide adequate protection from vehicle impact even if the elevated platform is concrete. It is typically not practical for maintenance and repair purposes to elevate a water heater above the height of the vehicle, where it would be considered in a location not subject to vehicle damage. See Figure 28-9. [28-9]



**ELEVATION AND PHYSICAL PROTECTION OF WATER HEATERS INSTALLED IN GARAGES
FIGURE 28-9**