1. Install a readily accessible manual shut-off valve in the gas supply line as recommended by the local utility. The owner/operator must be shown the location of this valve and be given instructions on how to use it to shut off the gas to the heater.

2. Install a drip leg (if not already incorporated as part of the water heater) as shown. The drip leg must be no less than 76mm (3 in.) long for the accumulation of dirt, foreign material, and water droplets.

3. Install a ground joint union between the gas control /thermostat and the manual shut-off valve. This is to allow easy removal of the gas control/thermostat.

4. Turn the gas supply on and check for leaks. Use a chloride-free soap and water solution (bubbles forming indicate a leak) or other approved method.

Gas Pressure

**WARNING**

Exposure to a higher gas supply pressure may cause damage to the control, resulting in explosion or fire. Consult your local gas supplier and gas authorities. **DO NOT PUT INTO SERVICE IF OVER-PRESSURIZATION HAS OCCURRED.**

**Important:** The gas supply pressure must not exceed the maximum supply pressure as stated on the water heater’s data plate.

**Gas Pressure Testing**

**Important:** This water heater and its gas connection must be leak tested before placing the appliance in operation.

- If the code requires the gas lines to be tested at a pressure exceeding 14 in. w.c. (3.5 kPa), the water heater and its manual shut-off valve must be disconnected from the gas supply piping system and the line capped.
- If the gas lines are to be tested at a pressure less than 14 in. w.c. (3.5 kPa), the water heater must be isolated from the gas supply piping system by closing its manual shut-off valve.

**U.L. recognized fuel gas and (CO) detectors are recommended in all applications and should be installed using the manufacturer’s instructions and local codes, rules, or regulations.**

**Note:** Air may be present in the gas lines and could prevent the burner from lighting on initial start-up. The gas lines should be purged of air by a qualified service technician after installation of the gas piping system.

### Venting

This water heater has a direct vent system in which all air for combustion is taken from the outside atmosphere and all combustion products are discharged to the outdoors.

This water heater must be properly vented for removal of exhaust gases to the outside atmosphere. Correct installation of the vent pipe system is mandatory for the safe and efficient operation of this water heater and is an important factor in the life of the unit.

A Vent Kit included with this water heater consists of:

1. Two (2) 45° Vent Termination Elbows,
2. Two (2) more restrictive Vent Termination Screens,
3. Two (2) less restrictive Vent Termination Screens,
4. Air intake adapter (3 in. to 2 in. ABS reducer),
5. Blower outlet adapter (rubber coupling and gear clamps).

Vent pipe must be installed in accordance with all local and provincial or state codes or, in the absence of such, the latest edition of “Natural Gas and Propane Installation Code” CSA-B149.1 (Canada), or “National Fuel Gas Code” ANSI Z223.1 (NFPA 54) (U.S.A.).

**Important:** Check to make sure the vent pipe is not blocked in any way.

**Note:** Do not common vent this water heater with any other appliance. Do not install in the same chase or chimney with a metal or high-temperature plastic from another gas or fuel burning appliance.

**DANGER**

**Carbon Monoxide Warning**

- Follow all vent system requirements by the local authorities having jurisdiction over your installation.
- Failure to do so can result in death, explosion or carbon monoxide poisoning.

### Vent Pipe Material

The following plastic materials may be used for both the combustion air intake and exhaust vent system subject to local and provincial or state codes:

- This heater is certified to be installed using Schedule 40 PVC or CPVC or polypropylene plastic vent material for the exhaust. In Canada, the exhaust vent material must be approved to ULC S636. ULC S636 mandates that components from different systems must not be mixed in the same vent runs. The combustion air intake material may be PVC, ABS, CPVC or polypropylene. Check local codes to determine which materials are allowed in your area and only use approved material. All venting material and components must be joined with the approved primer/cleaner and solvent cement. Do not cement the venting system to the heater.

**Note:** Use only solid (not foam core) piping. Plastic pipe and fittings are available through most plumbing suppliers. Always check the marking on the pipe to make sure you are using the correct material.