

# VENTILATION AIR

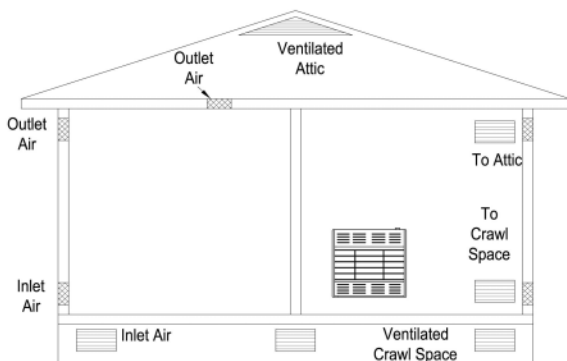


Figure 3 - Ventilation Air from Outdoors

## Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts: You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor.

Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National Fuel Gas Code NFPA 54/ANS Z223.1, Section 5.3. Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

**IMPORTANT:** Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

## INSTALLATION

**NOTICE:** This heater is intended for use as supplemental heat. Use this heater along with your primary heating system. Do not install this heater as your primary heat source. If you have a central heating system, you may run system's circulating blower while using heater. This will help circulate the heat throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

**WARNING:** A qualified service person must install heater. Follow all local codes.

## INSTALLATION NEEDS

Before installing heater, make sure you have the items listed below.

- piping (check local codes)
- sealant (resistant to natural gas)
- equipment shutoff valve\*
- ground joint union
- test gauge connection\*
- sediment trap
- tee joint
- pipe wrench

\*A CSA/AGA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA/AGA design certified equipment shutoff valve from your dealer.

**WARNING:** Never install the heater

- in a bathroom (Models HR10MN and HR10TN, only HR06MN is allowed in a bathroom. Check local codes.)
- in a recreational vehicle.
- where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the heater.
- as a fireplace insert.
- in high traffic areas.
- in windy or drafty areas.

When the HR06MN is installed in bathrooms, do not use flammable products such as aerosol hair spray, foot spray or any product that contains flammable vapors and keep towels away from heater. (only HR06MN is allowed in a bathroom.)

**CAUTION:** This heater creates warm air currents. These currents move heat to wall surfaces next to heater. Installing heater next to vinyl or cloth wall coverings or operating heater where impurities (such as tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist may discolor walls.

## CHECK GAS TYPE

Use only natural gas. If your gas supply is not natural, do not install heater. Call dealer where you bought heater for proper type heater.

## LOCATING HEATER

This heater is designed to be mounted on a wall.

For convenience and efficiency, install heater

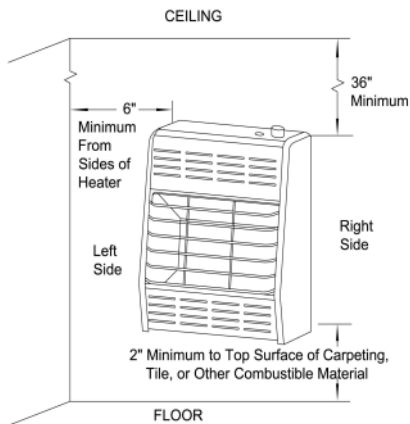
- where there is easy access for operation, inspection, and service.
- in coldest part of room.

**CAUTION:** If you install the heater in a home garage

- heater pilot and burner must be at least 18 inches above floor.
- locate heater where moving vehicle will not hit it.

# INSTALLATION

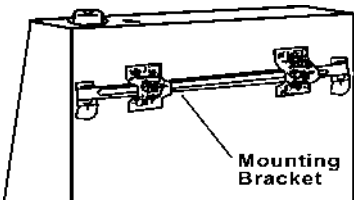
**WARNING:** Maintain the minimum clearances shown in Figure 4. If you can, provide greater clearances from floor, ceiling, and joining wall.



**Figure 4 - Mounting Clearances As Viewed From Front Of Heater**

## FASTENING HEATER TO WALL Mounting Bracket

The mounting bracket is located on back panel of heater (see Figure 5). It has been taped there for shipping. Remove mounting bracket from back panel.



**Figure 5 - Mounting Bracket Location**

## Removing Lower Front Panel Of Heater

1. Remove two screws near bottom corners of lower front panel.
2. Pull bottom of lower front panel forward, then down (see Figure 6).



**Figure 6 - Removing Lower Front Panel Of Heater**

## Methods For Attaching Mounting Bracket To Wall

Only use last hole on each end of mounting bracket to attach bracket to wall. Attach mounting bracket to wall only in one of two ways:

1. Attaching to wall stud
2. Attaching to wall anchor

**Attaching to Wall Stud:** This method provides the strongest hold. Insert mounting screws through mounting bracket and into wall studs.

**Attaching to Wall Anchor:** This method allows you to attach mounting bracket to hollow walls (wall areas between studs) or to solid walls (concrete or masonry). Decide which method better suits your needs. Either method will provide a secure hold for the mounting bracket.

## Marking Screw Locations

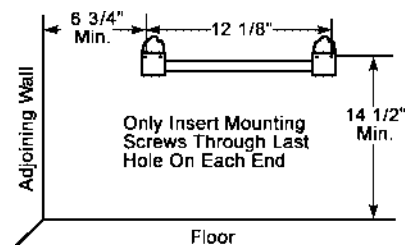
1. Tape mounting bracket to wall where heater will be located. Make sure mounting bracket is level.

**WARNING:** Maintain minimum clearances shown in Figure 4. If you can, provide greater clearances from floor and joining wall.

2. Mark screw locations on wall. (see Figure 7)

**Note:** Only mark last hole on each end of mounting bracket. Insert mounting screws through these holes only.

3. Remove tape and mounting bracket from wall.



**Figure 7 - Mounting Bracket Clearances**

# INSTALLATION

## Attaching Mounting Bracket To Wall

*Note:* Wall anchors, mounting screws, and spacers are in hardware package. The hardware package is provided with heater.

### Attaching to Wall Stud Method For attaching mounting bracket to wall studs

1. Drill holes at marked locations using 9/64" drill bit.
2. Place mounting bracket onto wall. Line up last hole on each end of bracket with holes drilled in wall.
3. Insert mounting screws through bracket and into wall studs.
4. Tighten screws until mounting bracket is firmly fastened to wall studs.

### Attaching to Wall Anchor Method

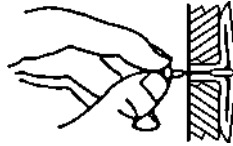
*For attaching mounting bracket to hollow walls (wall areas between studs) or solid walls (concrete or masonry)*

1. Drill holes at marked locations using 5/16" drill bit. For solid walls (concrete or masonry), drill at least 1" deep.
2. Fold wall anchor as shown in Figure 8 below.



**Figure 8 - Folding Anchor**

3. Insert wall anchor (wings first) into hole. Tap anchor flush to wall.
4. For thin walls (1/2" or less), insert red key into wall anchor. Push red key to "pop" open anchor wings. (see Figure 9).



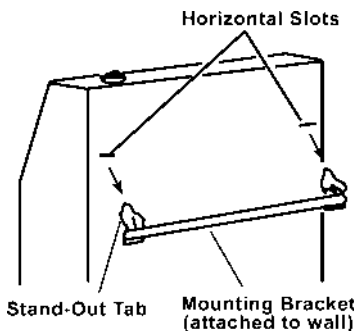
**Figure 9 - Popping Open Anchor Wing For Thin Walls**

5. Place mounting bracket onto wall. Line up last hole on each end of bracket with wall anchors.
6. Insert mounting screws through bracket and into wall anchors.
7. Tighten screws until mounting bracket is firmly fastened to wall.

**IMPORTANT:** Do not hammer key! For thick walls (over 1/2" thick) or solid walls, do not pop open wings.

### Placing Heater on Mounting Bracket

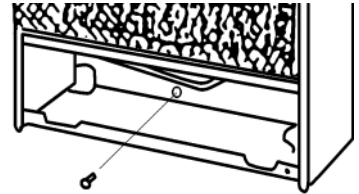
1. Locate two horizontal slots on back panel of heater (see Figure 10).
2. Place heater onto mounting bracket. Slide horizontal slots onto stand-out tabs on mounting bracket.



**Figure 10 - Mounting Heater Onto Mounting Bracket**

## Installing Bottom Mounting Screws

1. Locate bottom mounting hole. This hole is near bottom on back panel of heater (see Figure 11).
2. Mark screw locations on wall.
3. Remove heater from mounting bracket.



**Figure 11 - Installing Bottom Mounting Screw**

4. If installing bottom mounting screw into hollow or solid wall, install wall anchors. Follow steps 1 through 4 under *Attaching to Wall Anchor Method*. If installing bottom mounting screw into wall stud, drill holes at marked locations using 9/64" drill bit.
  5. Replace heater onto mounting bracket.
  6. Place spacers between bottom mounting holes and wall anchor or drilled hole.
  7. Hold spacer in place with one hand. With other hand, insert mounting screw through bottom mounting hole and spacer. Place tip of screw in opening of wall anchor or drilled hole.
  8. Tighten screw until heater is firmly secured to wall. Do not over tighten.
- **Note:** Do not replace lower front panel at this time. Replace lower front panel after making gas connections and checking for leaks (see page 9).

# INSTALLATION

## CONNECTING TO GAS SUPPLY

**WARNING:** A qualified service person must connect heater to gas supply. Follow all local codes.

**WARNING:** This appliance requires a 3/8" NPT (National Pipe Thread) inlet connection to the pressure regulator.

**WARNING:** Never connect heater to private (non-utility) gas well. This gas is commonly known as well-head gas.

**IMPORTANT:** Check your gas line pressure before connecting heater to gas line. Gas line pressure must be no greater than 10.5 inches of water. If gas line pressure is higher, heater regulator damage could occur.

**CAUTION:** Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of large enough diameter to allow proper gas volume to heater. If pipe is too small, undue loss of pressure will occur.

### Typical Inlet Pipe Diameters

All models up to 20,000 BTU's use 3/8" or greater pipe;  
All models 25,000 BTU's and higher, use 1/2" or greater pipe.

Installation must include an equipment shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from heater (see Figure 12).

In the State of Massachusetts the gas cock must be a T handle type. The State of Massachusetts requires that a flexible appliance connector cannot exceed three feet in length.

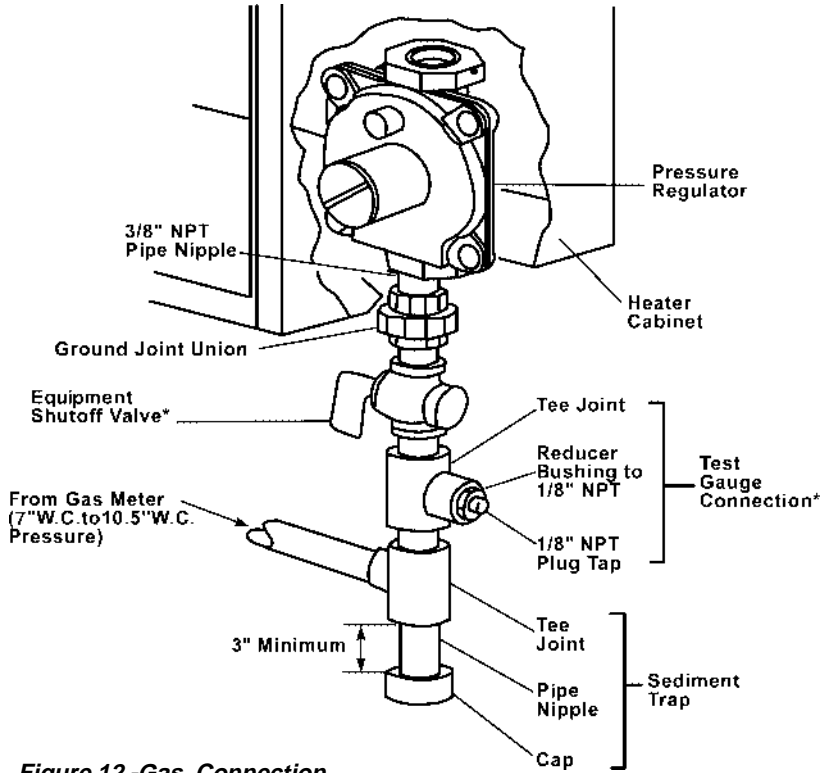


Figure 12 - Gas Connection

\*A CSA/AGA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA/AGA design-certified equipment shutoff valve from your dealer.

**IMPORTANT:** Install an equipment shutoff valve in an accessible location. The equipment shutoff valve is for turning on or shutting off the gas to the appliance. Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged heater valves.

Install sediment trap in supply line as shown in Figure 12. Locate sediment trap where it is within reach for cleaning. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into heater controls. If sediment trap is not installed or is installed wrong, heater may not run properly.

**CAUTION:** Use pipe joint sealant that is resistant to natural gas.

**IMPORTANT:** Hold pressure regulator with wrench when connecting it to gas piping and/or fittings.

# INSTALLATION

## CHECKING GAS CONNECTIONS

**⚠ WARNING:** Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

**⚠ WARNING:** Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak. Correct all leaks at once.

### Pressure Testing Gas Supply Piping System

#### Test Pressures In Excess Of 1/2 PSIG (3.5 K Pa)

1. Disconnect appliance with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig will damage heater regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either using compressed air or opening main gas valve located on or near gas meter.
4. Check all joints of gas supply piping system. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect heater and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

#### Test Pressures Equal To or Less Than 1/2 PSIG (3.5 K Pa)

1. Close equipment shutoff valve (see Figure 13).
2. Pressurize supply piping system by either using compressed air or opening main gas valve located on or near gas meter.
3. Check all joints from gas meter to equipment shutoff valve (see Figure 14). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
4. Correct all leaks at once.

### Pressure Testing Heater Gas Connections

1. Open equipment shutoff valve (see Figure 13).
2. Open main gas valve located on or near gas meter.
3. Make sure control knob of heater is in the OFF position.
4. Check all joints from equipment shutoff valve to control valve (see Figure 14). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light heater (see Operating Heater, pages 10,11 and 12) Check the rest of the internal joints for leaks.
7. Turn off heater (see To Turn Off Gas to Appliance, pages 11 and 12) .
8. Replace lower front panel.

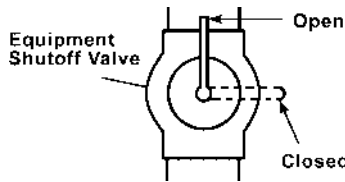


Figure 13-Equipment Shutoff Valve

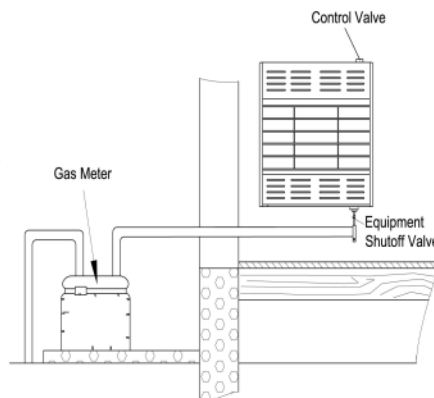


Figure 14 -Checking Gas Joints

# OPERATING YOUR HEATER

## ■FOR YOUR SAFETY■ READ BEFORE LIGHTING

**⚠ WARNING:** If you do not follow these instructions exactly, a fire or explosion may result in causing property damage personal injury or loss of life.

- A. When lighting the pilot, follow these instructions exactly.
- B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor .

### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
  - Do not touch any electric switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
  - D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.