

# Gas Heating Systems – Owner's Information

*Congratulations on the purchase of your new gas heating system. Your gas heating system is designed to perform all winter long, year after year.*

*For heating comfort adjustments, your system's comfort control (thermostat) is used. Refer to the comfort control user guide for operation details.*

**Important:** *For gas heating system operation, follow the information in this document for inspection, start-up, shut down, and maintenance.*

\*\*\*\*\* FOR YOUR SAFETY \*\*\*\*\*

**Read this entire document before proceeding and keep for future reference.**

Understand the signal words **WARNING** and **CAUTION**. These words are safety alert words.

- a. **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- b. **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It is also used to alert against unsafe practices and hazards involving only property damage.

## **WARNING**

### **FIRE OR EXPLOSION HAZARD**

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

— Do NOT store or use gasoline or other flammable vapors and liquids or combustible materials in the vicinity of this or any other appliance.

#### **WHAT TO DO IF YOU SMELL GAS**

- Do not try to light any appliance.
- Do not touch any electrical 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.

— **DO NOT RELY ON SMELL ALONE TO DETECT LEAKS. DUE TO VARIOUS FACTORS, YOU MAY NOT BE ABLE TO SMELL FUEL GASES.**

- U.L. recognized fuel gas and CO detectors are recommended in all applications, and their installation should be in accordance with the manufacturer's recommendations and/or local laws, rules, regulations, or customs.

— Installation and service must be performed by a qualified installer, service agency or the gas supplier.

**Important Fact:** The U.S. Consumer Product Safety Commission recommends that users of gas-burning appliances install carbon monoxide detectors as well as fire and smoke detectors, listed by a nationally recognized agency (e.g. Underwriters Laboratories or International Approval Services) to help alert dwelling occupants of the presence of fire, smoke, or unsafe levels of carbon monoxide.

## **WARNING**

### **EXPLOSION HAZARD**

TO PREVENT INJURY, DEATH, OR PROPERTY DAMAGE, READ AND FOLLOW ALL INSTRUCTIONS AND WARNINGS, INCLUDING LABELS SHIPPED WITH OR ATTACHED TO THE UNIT BEFORE OPERATING YOUR NEW GAS HEATING SYSTEM.

## **WARNING**

### **EXPLOSION HAZARD**

PROPANE GAS IS HEAVIER THAN AIR AND MAY COLLECT IN ANY LOW AREAS OR CONFINED SPACES. IN ADDITION, ODORANT FADE MAY MAKE THE GAS UNDETECTABLE EXCEPT WITH A WARNING DEVICE. IF THE GAS HEATING SYSTEM IS INSTALLED IN A BASEMENT, AN EXCAVATED AREA OR A CONFINED SPACE, IT IS STRONGLY RECOMMENDED TO CONTACT A GAS SUPPLIER TO INSTALL A GAS DETECTING WARNING DEVICE IN CASE OF A GAS LEAK. THE MANUFACTURER OF YOUR GAS HEATING SYSTEM DOES NOT TEST ANY DETECTORS AND MAKES NO REPRESENTATIONS REGARDING ANY BRAND OR TYPE OF DETECTOR.

## **WARNING**

### **EXPLOSION HAZARD**

DO NOT USE THIS UNIT IF ANY PART HAS BEEN UNDER WATER. A FLOOD DAMAGED UNIT IS EXTREMELY DANGEROUS. ATTEMPTS TO USE THE GAS HEATING SYSTEM CAN RESULT IN FIRE OR EXPLOSION. A QUALIFIED SERVICE AGENCY SHOULD BE CONTACTED TO INSPECT THE GAS HEATING SYSTEM AND TO REPLACE ALL GAS CONTROLS, CONTROL SYSTEM PARTS, ELECTRICAL PARTS THAT HAVE BEEN WET OR THE GAS HEATING SYSTEM IF DEEMED NECESSARY. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

## **WARNING**

### **WARNING!**

THIS PRODUCT CAN EXPOSE YOU TO CHEMICALS, INCLUDING LEAD, WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM. FOR MORE INFORMATION GO TO [WWW.P65WARNINGS.CA.GOV](http://WWW.P65WARNINGS.CA.GOV).

## **CAUTION**

### **Safety Hazard**

Sharp Edge Hazard. Be careful of sharp edges on equipment or any cuts made on sheet metal while installing or servicing. Personal injury may result.

## Safety Features

Your gas heating system is equipped with an automatic reset safety limit control to prevent overheating. When this control opens, it shuts down the heating electrical circuit until the unit cools down sufficiently. Inadequate airflow may cause the unit to cycle on and off as the limit control trips and automatically resets. If you suspect that the unit is cycling on its limit control, immediately contact a qualified service technician for instructions.

### ⚠ WARNING

#### EXPLOSION HAZARD

SHOULD OVERHEATING OCCUR, OR THE GAS SUPPLY FAIL TO SHUT OFF, SHUT OFF THE MANUAL GAS VALVE TO THE GAS HEATING SYSTEM BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY.

FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

**IMPORTANT:** Have your installer or servicer show you the location of the manual gas valve.

If flames from the burner are not properly drawn into the heat exchanger, a Flame Rollout Protection Control will open causing the gas heating system to shut off. The cause must be investigated by a qualified service technician.

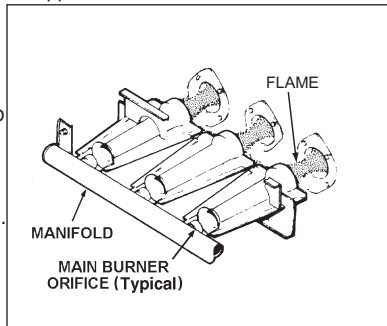
If the gas heating system is unable to exhaust combustion by-products properly, due to blocked flue hood or other blockage, a pressure switch safety device will prohibit the gas heating system from operating. The cause must be investigated by a qualified service technician.

## Heating System Inspection

A periodic inspection of your gas heating system should be made by qualified service agency at the start of each heating season. The gas heating system installation should be examined for the following items:

1. All flue product carrying areas external to the gas heating system (i.e. chimney, vent connector) are clear and free of obstruction.
2. The vent connector is in place, slopes upward and is physically sound without holes or excessive corrosion.
3. The return air duct connection(s) is physically sound, is sealed to the gas heating system and terminates outside the space containing the gas heating system.
4. The physical support of the gas heating system should be sound without sagging, cracks, gaps, etc., around the base so as to provide a seal between the support and the base.
5. There are no obvious signs of deterioration of the gas heating system.
6. Burner flames are in good condition without erratic flames. They should be bright blue flames extending up to the heat exchanger section. See illustration.

In order for this unit to operate properly and safely, the gas heating system needs air for both combustion and ventilation. Accordingly, observe the area in which the gas heating system is installed. Check to make sure that all the air openings are unobstructed. Likewise, insure that the spacing around the gas heating system itself is not blocked or obstructed.



### ⚠ WARNING

#### CARBON MONOXIDE HAZARD

THE SYSTEM'S VENTING INSTALLATION AND OPERATION INSTRUCTIONS MUST BE FOLLOWED. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, CARBON MONOXIDE POISONING, OR DEATH.

### ⚠ CAUTION

Insulating materials may be combustible. The gas heating system must be kept free and clear from insulating material. Examine the area around the gas heating system for insulation after installation or when servicing is needed.

## Heating System Start Up

Your unit does not use a continuously burning pilot flame. Therefore, manually lighting your gas heating system is not required. Your gas heating system has an automatic ignition system. This feature makes it easy to start the heating cycle at the beginning of the heating season.

### ⚠ WARNING

#### BURN HAZARD

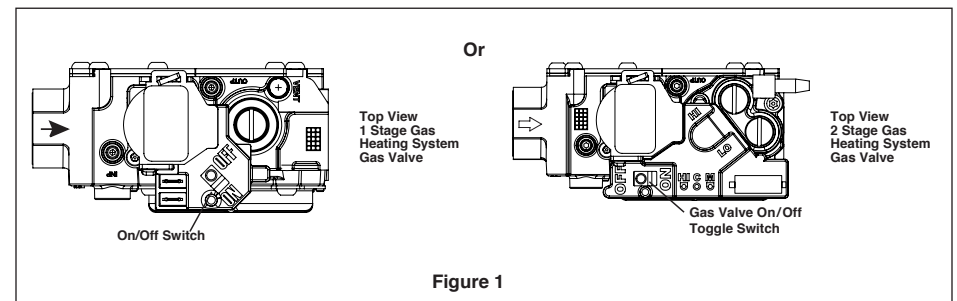
DO NOT ATTEMPT TO MANUALLY LIGHT THE GAS HEATING SYSTEM. DO NOT TOUCH IGNITER, IT IS EXTREMELY HOT. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

1. STOP! Read all safety information within this document.
2. Set the thermostat to lowest setting.
3. Turn off all electric power to the gas heating system.
4. Remove the front panel to gain access to the main gas valve (See Figure 1).

### ⚠ WARNING

#### HAZARDOUS GASES HAZARD

UNIT MAY BE EQUIPPED WITH A BLOWER DOOR SWITCH WHICH CUTS POWER TO BLOWER AND GAS VALVE CAUSING SHUTDOWN WHEN DOOR IS REMOVED. UNIT MUST NOT BE ALTERED TO ALLOW OPERATION WITH THE BLOWER DOOR REMOVED. OPERATION WITH DOORS REMOVED OR AJAR CAN PERMIT THE ESCAPE OF DANGEROUS FUMES. ALL PANELS MUST BE SECURELY CLOSED AT ALL TIMES FOR SAFE OPERATION OF THE GAS HEATING SYSTEM. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



5. Turn gas valve off by moving the toggle switch to OFF.
6. Wait five (5) minutes to clear any gas. If you then smell gas, STOP!, for your safety follow the "What To Do If You Smell Gas" instructions on the front page. If you do not smell gas, go to next step.
7. Turn gas valve on by moving the toggle switch to ON.
8. Replace the panel that you removed in Step 4 and make sure all other unit panels are securely in place.
9. Turn on all electrical power to the gas heating system.
10. Set thermostat to desired temperature and the fan to AUTO. The gas heating system will now operate automatically.
11. If the gas heating system will not operate, perform the steps under Heating System Shutdown, "To Turn Off Gas To Unit" and call your service technician or gas supplier.

**IMPORTANT:** If the indoor air exceeds 60% relative humidity or simply feels uncomfortably humid, it is recommended that the indoor fan only be used in the AUTO mode.

### Proper Maintenance\*

Your gas heating system requires maintenance and repair by a properly trained service technician. "Do-it-yourself" repairs on an in-warranty unit may void your warranty.

Other than performing the simple maintenance recommended below, you should not attempt to make any adjustments or repairs to your gas heating system. Your dealer can assist you with questions or problems.

#### WARNING

##### SAFETY HAZARD

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

#### WARNING

##### SAFETY HAZARD

BODILY INJURY CAN RESULT FROM HIGH VOLTAGE ELECTRICAL COMPONENTS, FAST MOVING FANS, AND COMBUSTIBLE GAS. DURING INSTALLATION AND SERVICING, THE ELECTRICAL SUPPLY MUST BE DISCONNECTED AND THE MAIN GAS VALVE MUST BE TURNED OFF. NEVER REMOVE ANY PANEL(S) FROM THE UNIT WHILE IT IS OPERATING. FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

### 1) Replace the air filter(s)

A clean filter saves you money by helping ensure top system efficiency.

When replacing your filter(s), always use the same size and type that was originally supplied or consult with your dealer for recommendations. Be sure to replace it with the arrows pointing in the direction of the airflow.

Where disposable filters are used, they must be replaced every month with the same size as originally supplied. Clean or replace your filter twice a month during seasons when the unit runs more often.

#### CAUTION

Never operate your gas heating system for either heating or cooling with filters removed.

Ask your dealer where the filter is located in your system and how to service it.

### 2) Clean the finish

To keep your gas heating system cabinet looking new for years, clean the enamel finish with soap and water. For stubborn grease spots, use a household detergent. Do not use lacquer thinner or other synthetic solvents as they may damage the finish.

#### CAUTION

Never use combustible cleaning fluids on any part of the gas heating system.

### 3) Maintain Proper Storage Near the Gas Heating System

Never store gasoline, combustible materials, or other flammable liquids or vapors near your gas heating system.

#### WARNING

##### FIRE OR EXPLOSION HAZARD

THE GAS HEATING SYSTEM AREA MUST BE KEPT CLEAR AND FREE OF COMBUSTIBLE MATERIALS, GASOLINE AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

FAILURE TO FOLLOW THIS WARNING COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

#### CAUTION

The combustion air for your gas heating system must be fresh uncontaminated air. Paints, varnishes, laundry bleaches, detergents, many household cleaners, water softening salts, adhesives, and all such products release fumes containing compounds which could lead to early heat exchanger and vent system deterioration. Do NOT store these types of products near your gas heating system.

### 4) Call your dealer for additional routine maintenance

Ask your dealer about economical service or preventative maintenance agreements that cover seasonal inspections. **Optional extended warranties may be available.**

### Heating System Shutdown

To shut down the heating system for brief periods of time, simply adjust the thermostat selector switch to the OFF position.

#### CAUTION

If the gas heating system is shut down during the cold weather months, provisions must be taken to prevent freeze-up of all water pipes and water receptacles. This is very important during times of vacancy.

If you need to turn the gas off to the unit, follow the steps below:

#### To Turn Off Gas To Unit

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the unit.
3. Remove the gas heating system front panel to gain access to the main gas valve (see Figure 1).
4. Turn gas control off by moving the toggle switch to OFF.
5. Replace the panel you removed in Step 3.

#### Before you call for service, check the following:

Problem	Possible Trouble	Possible Remedy
No Heating – Blower does not operate.	1. Thermostat set incorrectly. 2. Blown fuse or tripped circuit breaker 3. Defective component. 4. Burner does not ignite. 5. Main gas line turned off. 6. Blower door removed or ajar. 7. Lockout	1. Adjust thermostat. See operating instructions. 2. Replace or reset protective device or call for servicer. 3. Most controls are automatic and will recycle. If your unit still does not operate call for servicer. 4. Call servicer. 5. Have gas company check. 6. Close door securely to restore power to blower and gas valve. 7. Turn power on-off-on-off twice in 30 seconds.
Insufficient Heating – Blower operates continuously.	1. Dirty air filters. 2. Blocked supply or return registers.	1. Clean or replace filters. 2. Make sure registers are open and No obstacles blocking off the air.
No Heat – Vent motor is running.	1. Restricted or plugged gas heating system Condensate drain. 2. Restricted or plugged combustion gas venting system.	1. Call servicer. 2. Ensure vent terminals are not blocked.
Unusual Noise		Call your local servicer

#### WARNING

##### CARBON MONOXIDE POISONING HAZARD

FAILURE TO FOLLOW INSTRUCTIONS COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH DUE TO CARBON-MONOXIDE POISONING. IF COMBUSTION PRODUCTS INFILTRATE INTO THE BUILDING. CHECK THAT ALL OPENINGS IN THE OUTSIDE WALL AROUND THE VENT (AND AIR INTAKE) PIPE(S) ARE SEALED TO PREVENT INFILTRATION OF COMBUSTION PRODUCTS INTO THE BUILDING. CHECK THAT FURNACE VENT (AND AIR INTAKE) TERMINAL(S) ARE NOT OBSTRUCTED IN ANY WAY DURING ALL SEASONS.

## Product Registration

Registered Limited Warranty terms are available if the product is registered within 60 days of installation. If the product is not registered within 60 days of installation, the manufacturer's Base Limited Warranty terms will apply.

Registration can be completed either online at the manufacturer's website or by contacting your dealer. Please take a few moments to record the following information to ensure your product registration process is quick and easy:

Gas Heating System Serial Number \_\_\_\_\_

Gas Heating System Model Number \_\_\_\_\_

Thermostat Model Number \_\_\_\_\_

Installation/Startup Date \_\_\_\_\_

Dealer \_\_\_\_\_

Dealer Service Phone \_\_\_\_\_

### **\*Visit the manufacturer's website or ask your dealer for more information on:**

- System operation
- Troubleshooting/Maintenance
- Optimizing system performance\Energy savings
- Warranties and Product Registration

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## Notes:

### About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit [www.trane.com](http://www.trane.com) or [www.americanstandardair.com](http://www.americanstandardair.com)



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