

POWER VENTER GAS FURNACE (HEATER)

USER'S INFORMATION MANUAL



WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS 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 (PETROL) OR OTHER FLAMMABLE VAPORS AND LIQUIDS 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 (BRIGADE).

- INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

Installer - Affix this manual adjacent to the appliance.

Owner - Read and keep all product literature in a safe place for future reference.



WARNING

HIGH VOLTAGE!

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

TO PREVENT POSSIBLE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK, THE FURNACE MUST BE LOCATED TO PROTECT THE ELECTRICAL COMPONENTS FROM WATER.



WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, TURN OFF THE MANUAL GAS SHUTOFF VALVE EXTERNAL TO THE FURNACE BEFORE TURNING OFF THE ELECTRICAL SUPPLY.



WARNING

IF THE GAS FURNACE IS INSTALLED IN AN ENCLOSED AREA, SUCH AS A GARAGE OR UTILITY ROOM, WITH ANY CARBON MONOXIDE PRODUCING ITEM SUCH AS AN AUTOMOBILE OR SPACE HEATER, ETC., ENSURE THAT THE AREA IS PROPERLY VENTILATED. THE CIRCULATING AIR DUCTS MUST BE COMPLETELY SEALED TO PREVENT PRODUCTS OF COMBUSTION FROM ENTERING THE LIVING AREA.



RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.

Due to policy of continual product improvement, the right is reserved to change specifications and design without notice.



IMPORTANT

If the gas FURNACE (HEATER) is installed in an enclosed area, such as a garage or utility room with any carbon monoxide producing item such as an automobile or space heater, etc., ensure that the area is properly ventilated. The circulating air ducts must be completely sealed to prevent products or combustion from entering the living area.

When installed in an insulated space, the FURNACE (HEATER) must be kept free and clear of insulating materials. If additional insulation is added, make sure the FURNACE (HEATER) is free and clear of this material, which may be flammable.

It is essential not to block or obstruct the following areas as improper combustion and ventilation may occur.

- a. The combustion air inlet on the FURNACE (HEATER).
- b. The air openings in the FURNACE (HEATER) room or FURNACE (HEATER) area.

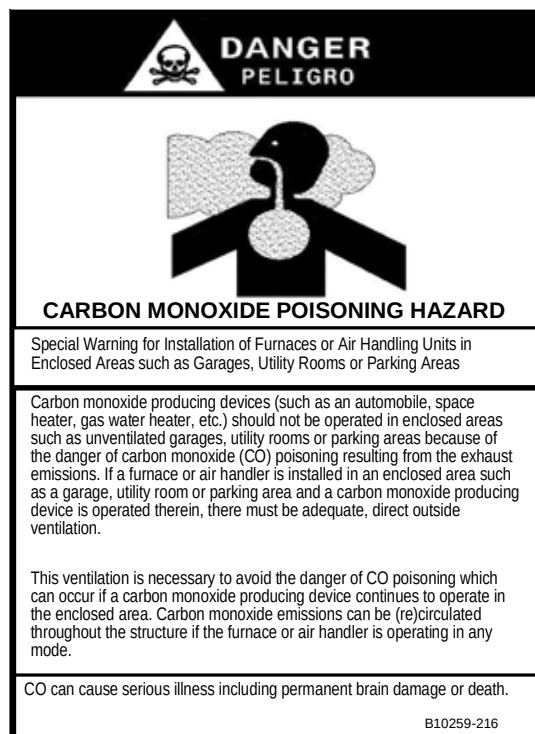
The FURNACE (HEATER) system should be inspected annually by a qualified service technician.

SAFETY FEATURES

All the safety switches on this FURNACE (HEATER) are designed to prevent a potentially hazardous situation from occurring. It is important not to by-pass or alter any of these devices.

1. The blower interlock switch insures the blower access door is in place. If the FURNACE (HEATER) is operating with this panel removed, it may result in CARBON MONOXIDE (CO) fumes being circulated throughout the structure.

CO can cause serious injury or death.



The label features a skull and crossbones icon with the text "DANGER PELIGRO" above it. Below this is a graphic of a person's head and shoulders with a cloud of smoke coming out of their mouth. Underneath the graphic is the text "CARBON MONOXIDE POISONING HAZARD". The label contains several paragraphs of text providing safety warnings and instructions for installation and ventilation.

DANGER PELIGRO

CARBON MONOXIDE POISONING HAZARD

Special Warning for Installation of Furnaces or Air Handling Units in Enclosed Areas such as Garages, Utility Rooms or Parking Areas

Carbon monoxide producing devices (such as an automobile, space heater, gas water heater, etc.) should not be operated in enclosed areas such as unventilated garages, utility rooms or parking areas because of the danger of carbon monoxide (CO) poisoning resulting from the exhaust emissions. If a furnace or air handler is installed in an enclosed area such as a garage, utility room or parking area and a carbon monoxide producing device is operated therein, there must be adequate, direct outside ventilation.

This ventilation is necessary to avoid the danger of CO poisoning which can occur if a carbon monoxide producing device continues to operate in the enclosed area. Carbon monoxide emissions can be (re)circulated throughout the structure if the furnace or air handler is operating in any mode.

CO can cause serious illness including permanent brain damage or death.

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2. If the vent pipe is restricted or should the venter fail to operate, a pressure switch will prevent, or extinguish, the burner operation.
3. The flame rollout switch mounted in the burner vestibule can be reset manually. This switch is designed to detect burner flames outside the heat exchanger.
4. The high limit switch prevents excessive heat exchanger temperatures. A common cause of this situation is inadequate return air due to dirty filters, placement of furniture over circulating air registers, or otherwise restricting the circulating air passageways. Prior to calling a service technician, make sure these conditions do not exist.
5. The manual high temperature limit switch, located in the burner vestibule, prevents excessive heat exchanger temperatures. This switch can be reset manually after the heat exchanger cools completely.



WARNING

IF ANY OF THE ABOVE SAFETY DEVICES SHOULD FUNCTION, DO NOT ATTEMPT TO RESET, REPAIR OR BY-PASS.

Contact a qualified service agency to inspect prior to recommissioning the FURNACE (HEATER). Failure to do so can cause personal and/or property damage or loss of life.

SEQUENCE OF OPERATION

1. The room thermostat calls for heat.
2. The vent blower is energized.
3. If the safety circuitry is in the normal position, power is supplied to the ignition module.
4. The electronic ignition device lights the burners.
5. The flame sensor detects the presence of flame and the main burners are allowed to remain lighted.
6. The circulating air blower is started at a predetermined time (approx. 30 secs.).

After the room thermostat is satisfied the heat will shut down in the following manner;

- a) Burners extinguish
- b) Venter blower is de-energized.
- c) The circulating air blower will shut down after a field selectable time.

AIR FILTERS

Ask your installing contractor where the circulating air filter(s) is located and the required size.

Inspect these filters monthly and replace, if necessary. A new home may require filters more frequently until construction dust is removed.

DO NOT OPERATE YOUR FURNACE (HEATER) WITHOUT FILTERS IN PLACE.

GENERAL FURNACE (HEATER) INSPECTION

The preceding sections cover specific areas of concern, however, the following inspections should be done on a regular basis.

1. The return air connections must be sealed to the FURNACE (HEATER) and terminate outside the FURNACE (HEATER) room.
2. The return air plenum must be free of holes and separations and show no signs of distortion.
3. The seal between the FURNACE (HEATER) and the base or flooring to which the FURNACE (HEATER) is mounted should show no signs of deterioration, sags, cracks or gaps and must provide a definite seal between the base or flooring and the FURNACE (HEATER).
4. The FURNACE (HEATER) casing and components should be sound.

MOTOR LUBRICATION AND CLEANING

The circulating air blower and the venter motor are prelubricated by the motor manufacturer and have no provisions for oiling.

**WARNING**

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IGNITION SYSTEM

This device is not field serviceable.

VENT AND COMBUSTION AIR INSPECTION

This FURNACE (HEATER) employs a power venter to discharge the flue products to the outdoors and a vent pressure switch to insure the venter is working properly. The pressure produced by the venter blower will not allow the FURNACE (HEATER) to operate should a restriction occur in the vent system. In the event that this situation does occur, contact a qualified service technician to inspect and repair or replace the vent system. The vent/combustion air system should be inspected annually, paying particular attention to the following;

- 1). The vent and vent connector should be securely attached to the FURNACE (HEATER) and show no signs of sagging, deterioration or separation.
- 2). There are no obvious leaks or corrosion around the joints.

- 3). The horizontal portions of the vent are supported (about every 3 feet), with a slope of approximately $\frac{1}{4}$ " back toward the FURNACE (HEATER).

When performing the vent system inspection it is prudent to ensure that all combustion air inlets to the FURNACE (HEATER) area are free of obstructions.

ROOM THERMOSTAT

The room thermostat, which is provided by the installing contractor, is designed to keep the dwelling at the desired temperature. The thermostat communicates with the FURNACE (HEATER) in the heating mode and in the cooling mode if so equipped. For improved performance, do not constantly reset this control. To improve the thermostat's reliability avoid the placing of lamps, TV's or any other heat generating device close to the thermostat. Ensure the return air inlet is not restricted in any manner.

DRAIN SYSTEM

(CONDENSING FURNACE (HEATER) ONLY)

Inspect the drain system during the monthly filter change. Should a blockage occur, contact a qualified service technician to inspect and remove the blockage.

IMPORTANT DO'S AND DON'TS

DO – Read this manual completely

DO – have the FURNACE (HEATER) inspected ANNUALLY

DO – inspect the filters monthly and replace when necessary.

DON'T – Tamper with any safety devices

DON'T – Store combustibles or flammables in the vicinity of the FURNACE (HEATER)

DON'T – Use a broom closet

DON'T – Block any ventilation openings

DON'T – Place any heat generating items in the vicinity of the thermostat. Ensure the thermostat is not in the direct sunlight.

DON'T – Block or restrict any return air grilles.

DON'T – Store laundry detergents, solvents, fabric softeners or other cleaning agents in the vicinity of the FURNACE (HEATER). These items may cause corrosion or premature component failure.

SHOULD THE FURNACE (HEATER)

NOT OPERATE

If the FURNACE (HEATER) will not operate, check the following before calling a qualified service technician:

IS the power switch on?

IS the circuit breaker or fuse O.K.?

IS the thermostat in the correct mode (heat or cool)? Set the thermostat above the room temperature for heat and below for cool.

IS the gas supply turned on?

IS the gas valve control knob turned on?

IS the blower door properly secured?



WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO TURN OFF, SHUT OFF THE MANUAL GAS SUPPLY TO THE FURNACE (HEATER) BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY.



WARNING

Do **NOT** USE THIS FURNACE (HEATER) IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE FURNACE (HEATER) AND REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.

Follow these instructions carefully, since improper installation and/or failure to perform annual inspections increase the risk of carbon monoxide (CO) poisoning, which can result in injury or death.

CONSUMER INFORMATION LINE TOLL FREE

1-877-254-4729 (U.S. only)

email us at: customerservice@goodmanmfg.com

fax us at: (731) 856-1821

(Not a technical assistance line for dealers.)

Outside the U.S., call 1-713-861-2500.

(Not a technical assistance line for dealers.)

Your telephone company will bill you for the call.

To obtain the proper labels, the Model Number and Serial Number of the unit must be supplied. These numbers are recorded on the nameplate of the furnace. For convenience, record this information here:

MODEL NUMBER: _ _ _ _ _