

\* This manual is to remain with the owner

94



## INSTALLATION AND OPERATING INSTRUCTIONS



### MODEL EFG BAY FIREPLACE INSERT AND FREESTANDING VENTED ROOM HEATER

FOR USE WITH NATURAL GAS OR PROPANE

**WARNING:** 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.

#### FOR YOUR SAFETY

- **DO NOT** store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance
- **WHAT TO DO IF YOU SMELL GAS**
  - \* Open windows.
  - \* Do not try to light any appliance.
  - \* Do not touch any electrical switch.
  - \* Do not use any phone in your building.
  - \* Extinguish any open flame.
  - \* 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.

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

**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

## TABLE OF CONTENTS

	Page
Caution.....	3
Specifications .....	4
Appliance Certification.....	4
Dimensions .....	5
Heater Installation Clearances .....	6
Description of Heater.....	7
Control Functions .....	9
Deciding Where to Locate Your Freestanding Heater.....	10
Installation Precautions.....	11
Installation Instructions.....	12
Gas Connections .....	14
Venting .....	15
Removal and Replacement of Glass Door.....	17
Logs, Twigs and Ember Placement .....	18
Fireplace Insert Faceplate Installation .....	20
Operation .....	21
Thermostat and Remote Control .....	23
Maintenance .....	24
Servicing .....	26
Electrical Connections.....	27
Trouble Shooting the Heater.....	28
Appendix A.....	31
Warranty .....	32
Installation Data Sheet.....	33

JUNE 1994

Congratulations and thank you for selecting the Envirogas model EFG BAY gas heater.

Please carefully read these instructions prior to installation and operation of the heater. If properly installed and operated, this heater will provide you with years of safe, trouble-free service and enjoyment.

If you have any questions please contact your dealer.

### CAUTION

Due to high temperatures, the heater should be located out of traffic and away from furniture and draperies .

Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the heater.

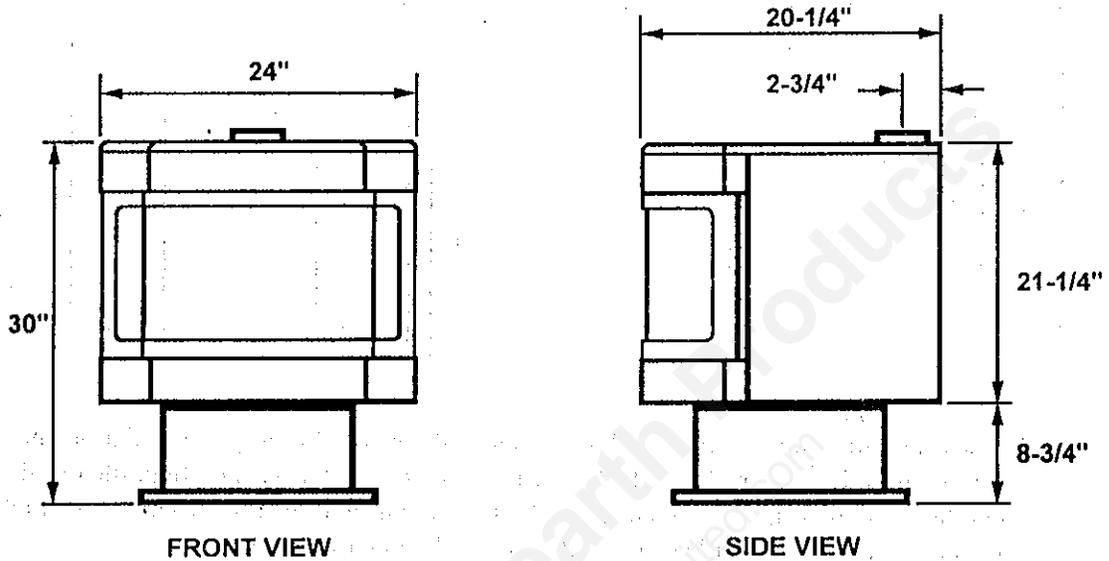
Clothing or other flammable material should not be placed on or near the room heater.

Any grill, panel, log or glass door removed or open for servicing of the heater must be properly replaced prior to operating the heater.

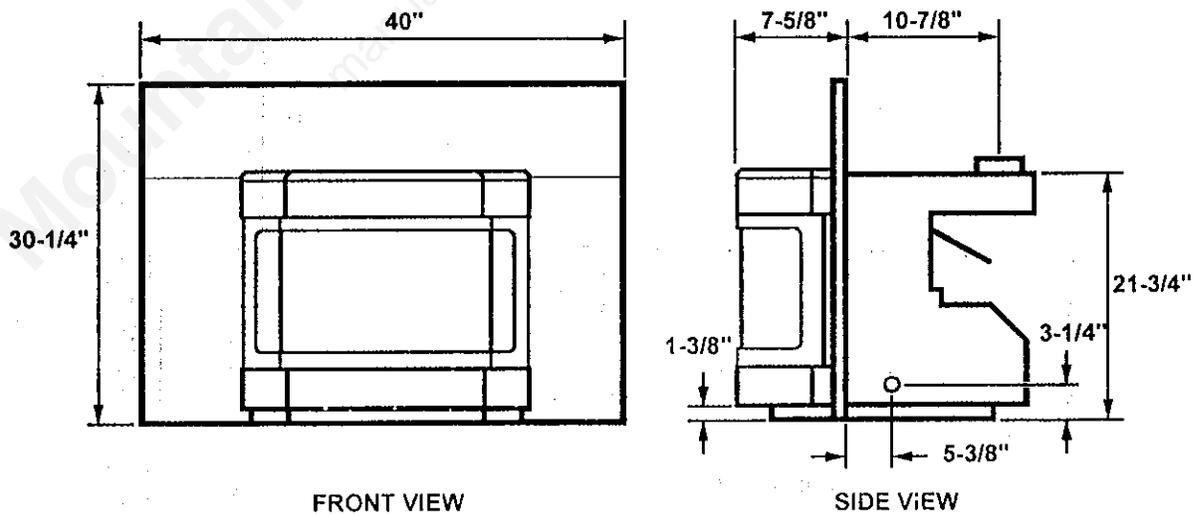
Installation and repair should be done by a qualified service person. The heater should be inspected before use and at least annually by a qualified service person. More frequent cleaning maybe required due to excessive lint from carpeting, bedding material, etc. It is imperative that the control compartments, burners and circulating air passageways of the heater be kept clean.

# DIMENSIONS

## FREESTANDING ROOM HEATER

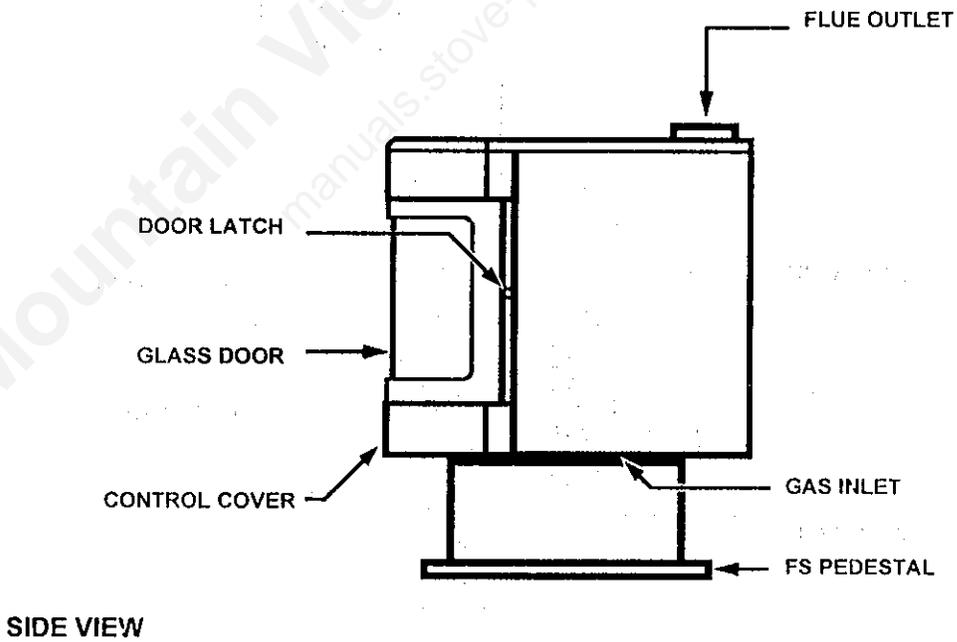
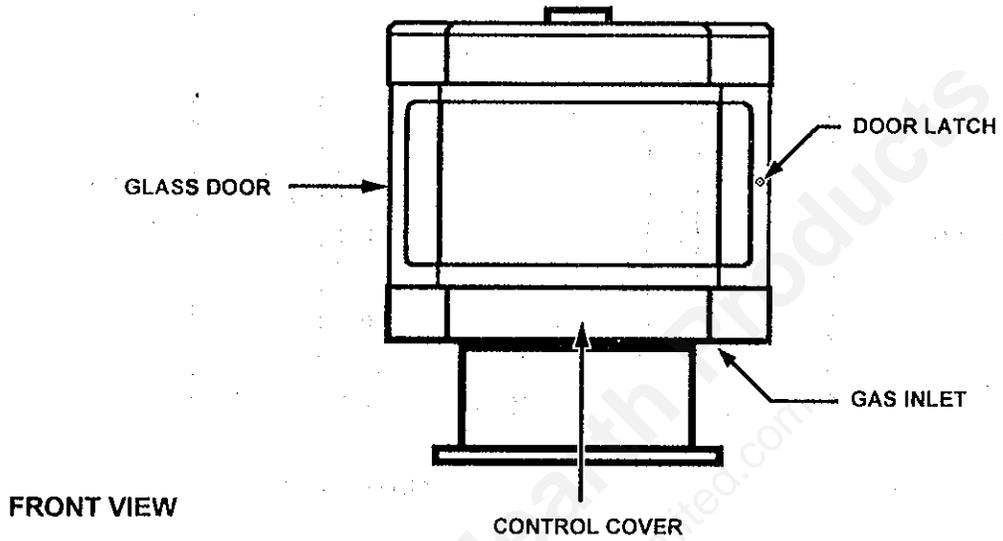


## FIREPLACE INSERT ROOM HEATER



# DESCRIPTION OF HEATER

## FREESTANDING HEATER

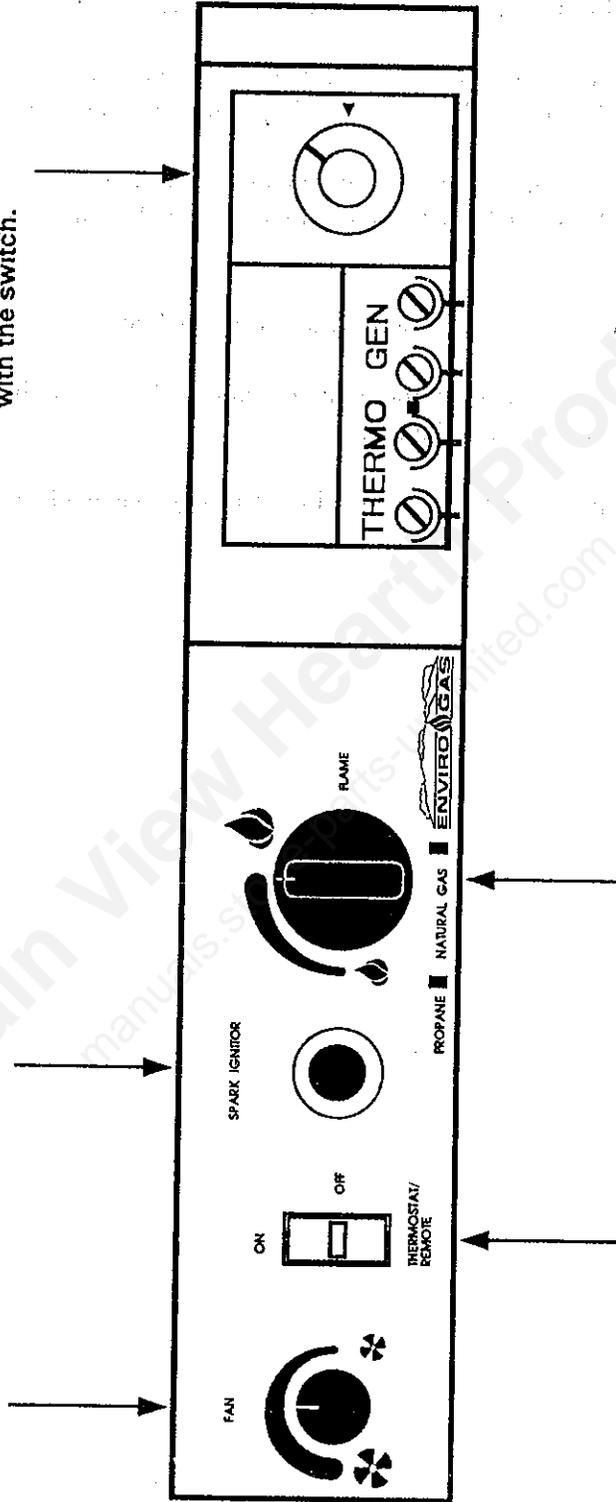


## CONTROL FUNCTIONS

The main gas control of the heater. It controls gas to the pilot and the burners. This control is used only during initial start-up and complete shut-down of the heater. Once the pilot is set, the heater is operated with the switch.

The blower control is used to adjust the convection air output.

The spark ignitor is used to generate sparks for lighting the pilot.



After the pilot is lit and the main gas control is set to ON, the switch is used to turn the heater on, off and thermostat/remote control.

The flame control is used to adjust the size of the flame. It may be used for aesthetic reasons, or to adjust the heat output of the heater.

## INSTALLATION PRECAUTIONS

The installation should be done by a qualified installer.

**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life.

The installation must conform with local codes or, in the absence of local codes, with the current National Fuel Gas Code, ANSI Z223.1 in the US and CAN1-B149 Installation Code in Canada.

This appliance needs fresh air for safe operation and must be installed so there are provisions for adequate combustion and ventilation air.

This heater must be properly connected to a venting system.

The convection blower is equipped with a flexible service cord with a three prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug. Do not run the cord under the heater or position it in any way that might damage the insulation of the cord.

Select a suitable venting configuration for the heater. Some basic venting configurations are provided in VENTING. Please check the local codes for the suitability of these configurations. The venting configuration must be in accordance with local, state/provincial or national codes. Purchase the required parts and follow the vent manufacturer's installation and assembly instructions.

9. Connect the gas supply line to the heater as shown in GAS CONNECTIONS.

10. Freestanding:

Securely fasten the heater to the floor after installing the venting system and the gas connection. Two holes located at the back of the pedestal is provided for this purpose. The heater maybe screwed down or bolted down, depending on the floor material.

Fireplace insert:

The bottom of the insert pedestal must be level with the front of the hearth so convection air intake through the pedestal is not obstructed. The shimming of the heater maybe required.

11. Prepare the heater for operation.

- Remove any packaging material, tape or loose notices from the outside of the heater.
- Unlatch the glass door and carefully open the glass door. See REMOVAL AND REPLACEMENT OF GLASS DOOR.
- Remove the packaged logs, twigs and embers from the firebox. Remove any packing material or debris from the firebox. Vacuum or clean the pilot and the burners.
- Carefully unpack the logs, twigs and embers and position them according to LOGS, TWIGS AND EMBER PLACEMENT.
- If required, clean the glass on the interior side of the door.
- Replace and re-latch the door.

12. If a thermostat or remote control is be used, see THERMOSTATS and REMOTE CONTROLS, for installation procedures.

13. Clean the exterior of the heater. See MAINTENANCE.

**NOTE :** If finger prints and smudges are not removed prior to initial operation of the heater, they may be permanently baked on.

14. Have the installer fill-in the INSTALLATION DATA SHEET located at the back of this manual. This information is required for warranty and future reference.

## VENTING

This heater must be properly connected to a venting system. This heater is equipped with a vent safety shut-off system designed to protect against improper venting of combustion products.

The gas heater must not be connected to a chimney flue serving a separate solid fuel burning appliance.

**WARNING:** Operation of this heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

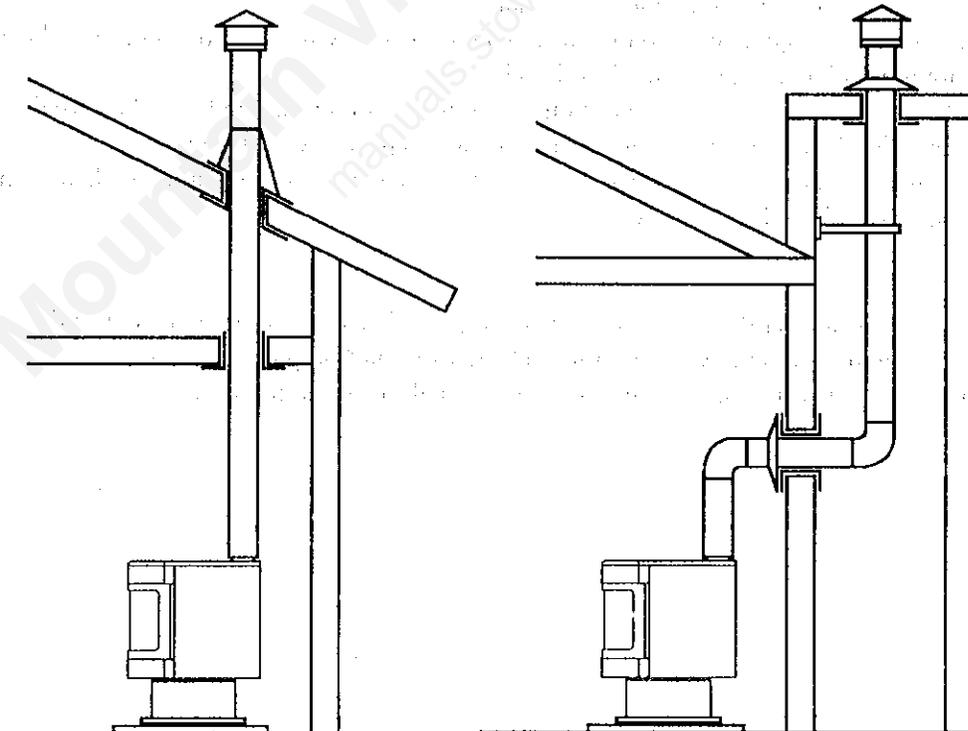
The freestanding heater should be vented by certified 4" Type B gas vents. If the freestanding heater is connected to a masonry chimney, the chimney should be lined with 4" aluminum or stainless steel flexible vent or 4" Type B gas vent.

The fireplace insert heater may be vented by 4" aluminum or stainless steel flexible gas vent, or a combination of flexible and 4" Type B gas vents.

The venting system should be assembled and installed according to the vent manufacturer's instructions and the local, state/provincial or national codes.

See vent manufacturer's instructions for vent system clearances to combustibles and vent terminal clearances from roof. See APPENDIX A for some of the manufacturer's general venting guidelines.

**Two basic freestanding venting configurations:**



## REMOVAL AND REPLACEMENT OF GLASS DOOR

### **To Open the Glass Door:**

1. Locate the latch bolt on the right side of the door between the door frame and the faceplate (fireplace insert model) or between the door frame and the side panel (freestanding model).
2. Place a 1/2" wrench on the latch bolt and rotate counterclockwise several times to loosen the bolt completely.
3. Open the control cover and support the door at the bottom.
4. Carefully swing open the door. Keep the bottom of the door supported to prevent the door from scratching the paint at the bottom of the door.

### **To Close the Glass Door:**

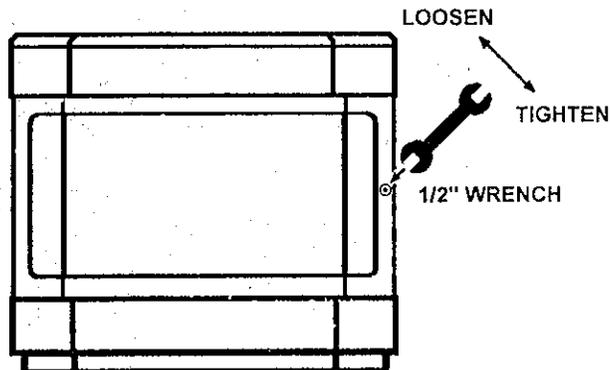
1. Open the control cover and support the door at the bottom.
2. Keep the bottom of the door supported to prevent the door from scratching the paint at the bottom of the door. Carefully swing the door closed.
3. Line-up the latch bolt on the right side of the door to the bolt hole on the faceplate (fireplace insert model) or on the side panel (freestanding model).
4. Start the latch bolt into the bolt hole with your fingers until finger tight.
5. Place a 1/2" wrench on the latch bolt and rotate clockwise several times to tighten the bolt.  
**DO NOT OVER TIGHTEN.**

### **To Remove the door:**

1. Open the door and swing the door completely open.
2. Support the door at the bottom and carefully lift the door up and away from the hinge.

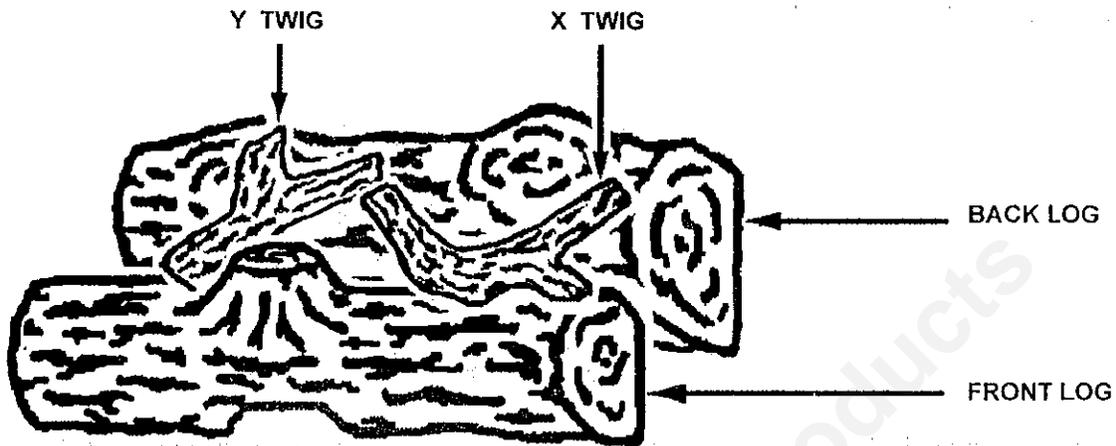
### **To Replace the door:**

1. Support the door at the bottom and position the door in the completely open position.
2. Line-up the two hinge pegs on the left side of the door frame with the two hinges on the left side of the stove.
3. Drop the hinge pegs into the hinges on the stove.



OPERATION OF DOOR LATCH BOLT

4. Place the Y twig on the left side of the logs.
5. Place the X twig on the right side of the logs.



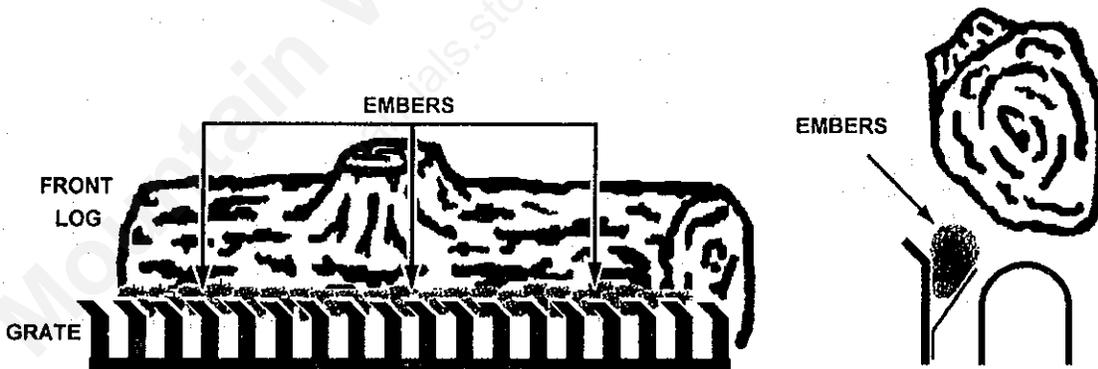
For best performance and to minimize carbon build up on the logs, place the twigs as shown.

**WARNING:** Do not allow the twigs to fall between the logs.

**Placement of Embers:**

1. Remove the simulated embers from the plastic bag provided.
2. Break the wade of embers into small pieces of approximately 3/4" in diameter.
3. Place the pieces between the grate and the metal shelf provided.

**WARNING:** Do not place embers on the burner.



## OPERATION

The logs, twigs and embers must be properly positioned as shown in LOGS, TWIGS AND EMBER PLACEMENT.

The glass door must be in place and properly latched.

**NOTE:** When new, the logs, twigs, embers and paint need to be "cured". Odor and fumes will be emitted by the heater during the first few times of operation. The room should be well ventilated. Open all windows. The logs and twigs may also darken or turn black during the first few times of operation.

**DO NOT** use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control that has been under water.

\*\*\*\*\* **FOR YOUR SAFETY READ BEFORE LIGHTING** \*\*\*\*\*

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

**BEFORE LIGHTING,** smell all around the heater for gas. Be sure to smell next to the floor, because some gas is heavier than air and will settle on the floor.

**\* IF YOU SMELL GAS, FOLLOW THE INSTRUCTIONS ON THE COVER OF THIS MANUAL.**

### **Lighting Instructions:**

1. Open the control cover located under the glass door. The cover can be opened by gripping the ends of the cover and flipping it forward toward you.
2. Turn off the blower by rotating the blower knob completely counterclockwise  until it clicks.
3. Set the switch to the OFF position.
4. Push in the gas control knob slightly and turn it clockwise  to OFF.

**NOTE:** The knob cannot be turned from PILOT to OFF unless it is pushed in slightly. Do not use excessive force.

5. Wait five (5) minutes to clear out any gas. If you smell gas, **STOP!** and follow the instructions on the cover of this manual. If you don't smell gas, go to the next step.
6. Push the gas control knob in slightly and turn it counterclockwise  to PILOT.
7. Push in the gas control all the way and hold it in. Immediately press the spark ignitor a few times. Repeat pressing the spark ignitor until the pilot is lit.

## THERMOSTAT AND REMOTE CONTROL

This heater may be used with a room thermostat. For best performance, we recommend the use of thermostats designed for millivolt systems.

**IMPORTANT:** The thermostatic control on this heater operates on its own millivolt system. Do not connect this heater to any higher voltage thermostat system or thermostats servicing any other appliance.

**Thermostat and Remote Control Connection:**

1. Open the glass door, see **REMOVAL AND REPLACEMENT OF GLASS DOOR**.
2. Remove the logs and the twigs.
3. Remove the burner tray, see **SERVICING**.
4. Locate the two purple wires on the right side of the control tray.
3. The ends of the wires are equipped with spade connector sets. Uncouple the loose spade connectors and crimp them to the ends of the thermostat, wall switch or remote control wires.
4. Run the ends of the thermostat wires through the hole on the left side of the firebox.
5. Reconnect the spade connectors.
6. Route and tie down the wires so as to prevent possible damage to the wires. Keep the wire down low on the control tray to prevent heat damage from the burner tray.

### **Fireplace insert faceplate remote switch:**

The fireplace insert heater is equipped with a remote switch located on the top left of the face plate. The switch is equipped with wires and connectors for connecting it to the purple wires of the heater. See instructions 1. to 6. above.

See **ELECTRICAL CONNECTION** for wiring diagram.

## SERVICING

**WARNING:** All servicing should be conducted by a qualified service technician. Improper adjustment, alteration or service can cause property damage, personal injury or loss of life.

### **Warranty Service**

Check the terms of the warranty located at the back of the manual. Contact your Envirogas dealer and provide him with the information on the INSTALLATION DATA SHEET located at the back of this manual.

### **THE FOLLOWING INSTRUCTIONS ARE FOR THE SERVICE TECHNICIAN.**

The heater is designed for ease of servicing. All gas controls, connections and accessories are mounted on a single control assembly tray which can be easily removed for exchange or servicing.

**CAUTION:** These procedures should be conducted with the heater cool to the touch.

#### **To Remove the Burner Assembly Tray:**

1. As the heater is equipped with convection blowers, unplug the power cord to the heater.
2. Shut off gas to the heater using the manual gas shut-off valve.
3. Disconnect the gas supply line to the heater.
4. Open the glass door.
5. Remove the twigs and logs.
6. Remove the log supports.
7. Loosen and remove the two 3/8" hex bolts holding the burner assembly tray. They are located at the left and right sides of the firebox, near the bottom front of the door opening.
8. Grab the sides of the simulated grate, lift up the front of the tray and pull forward until the tray is out of the firebox.

#### **To Replace the Burner Assembly Tray:**

The reverse of To Remove the Burner Assembly Tray.

Be sure the tab on end of the burner manifold lines up with the slot on the orifice mounting plate at the back of the firebox. Otherwise, the burner tray will not fit properly and cannot be bolted down at the front.

#### **To Remove the Control Assembly Tray:**

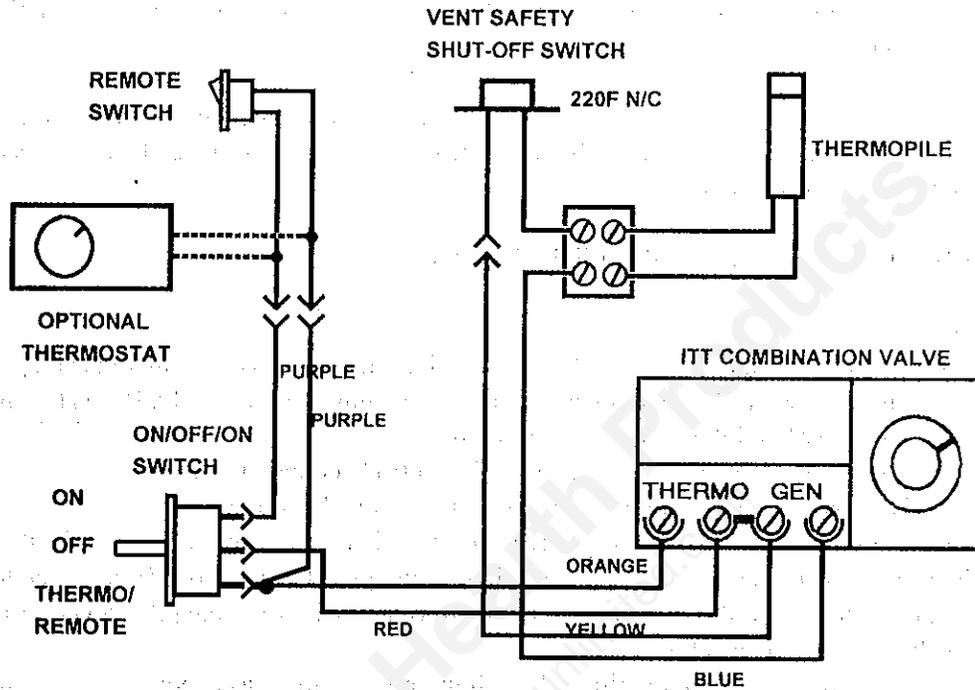
1. Locate the wire connections on the left side of the control assembly tray. See ELECTRICAL CONNECTIONS.
2. Disconnect the wire to the vent safety shut-off switch.
3. Disconnect the power cord connection to the control assembly tray.
4. Disconnect the connectors to the blower speed controller.
5. Disconnect the gas connection to the heater combination valve.
6. Loosen and remove the T20 TORX screw at the bottom center of the tray.
7. Lift the tray up and out of the tab located at the front center of the tray.
8. Tilt the left side the tray up and maneuver the tray out of the firebox.

#### **To Replace the Control Assembly Tray:**

The reverse of To Remove the Control Assembly Tray.

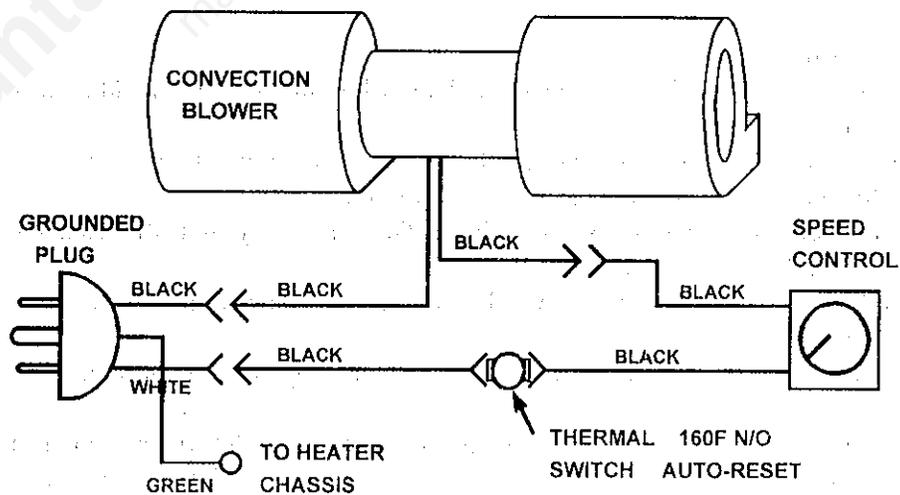
# ELECTRICAL CONNECTIONS

## GAS CONTROL CIRCUIT



**NOTE:** The fireplace insert heater is equipped with a remote switch on the faceplate. A remote wall switch can be added to the freestanding stove as an option. If both the remote switch and the thermostat are used, the remote switch must be off for the thermostat to function properly.

## CONVECTION BLOWER CIRCUIT



- a. The thermopile wires are short circuited together or to the heater chassis. Check for short circuits.
  - b. One of the gas control wires is short circuited to the heater chassis. Check all gas control wires for shorts.
  - c. The thermopile is defective.
6. Defective regulating valve.

**Problem:** The pilot goes out when the stove is warm or hot and can not be re-lit.

**Probable Solutions:**

1. Check to see if the vent safety shut-off switch is tripped.
  - Disconnect the connectors to the terminals on the valve labeled "GEN".
  - Check for a millivolt reading. If the reading is zero, the vent safety shut-off switch is tripped.

**WARNING:** If the vent safety shut-off switch continuously trips, there is a venting problem. Have a qualified inspector inspect the vent system. Failure to do so can cause personal injury or loss of life. Do not tamper with the vent safety shut-off switch. If it is defective, it must be properly replaced. Failure to do so can cause personal injury or loss of life.

- If the vent system is checked out to be OK and the vent safety shut-off switch continue to trip regularly, the switch is displaced or defective.

**Problem:** With the pilot lit, the burners will not turn on when the switch is set to the ON position.

**Probable Solutions:**

1. Check that the gas control knob is turned completely to the ON position.
3. Let the pilot heat up a bit longer. The thermopile may not be hot enough to generate the voltage needed to turn on the main valve.
4. With the switch set to OFF. Check output voltage between the thermopile wires. The voltage should be 400-500 mv. With the switch set to ON. Check output voltage between the thermopile wires. The voltage should be 200-250 mv.
5. Check for an open circuit in the wiring.
6. Check for a defective switch. Disconnect the red and orange wires from the switch and place a jumper wire between the wires. If the burners turn on, the switch is defective.

**Problem:** Convection blowers are not working (See OPERATION OF CONVECTION BLOWERS before solving problem.)

**Probable Solutions:**

1. Check to see if the power cord of the heater is plugged in.

**CAUTION:** High voltage! Use extreme care.

**IMPORTANT:** Unplug the power cord before conducting each of the following tests

2. Check the wall outlet with a suitable AC volt meter for 120 VAC.
3. Check circuit for positive connections.

## APPENDIX A

This information is compiled by the manufacturer as a very general rule for single appliance venting of the EFG BAY gas heater. Venting code and regulations may vary from area to area, so please check with the local, state/provincial codes regarding the suitability of your application. For other special venting requirements, please refer to the local, state/provincial or national codes.

### Manufacturer's General Venting Guidelines:

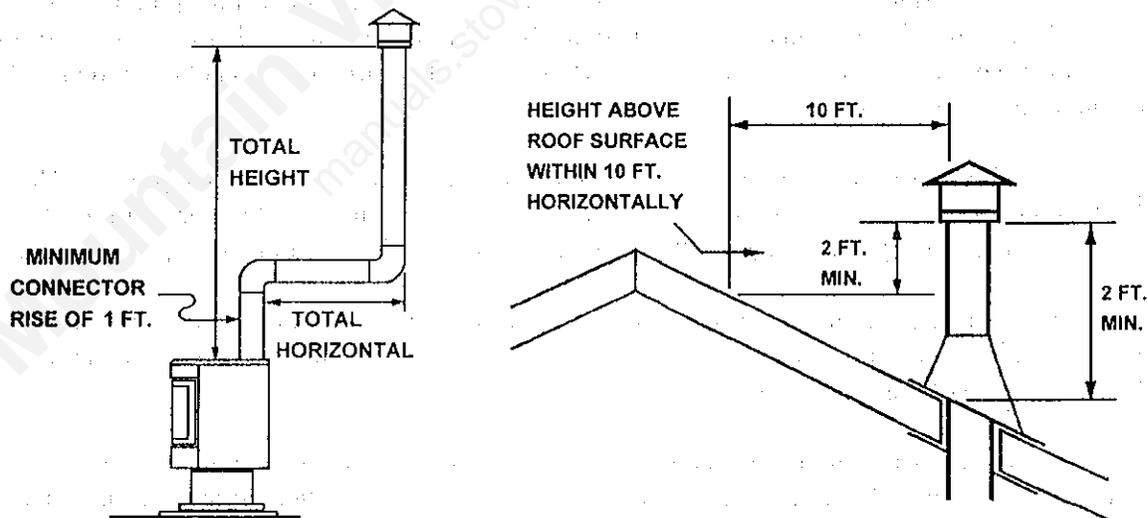
For best venting performance, we recommend total vent height of 10 ft. (3m) to 30 ft. (9m). Total horizontal length depends on the number of elbows used.

- two 90° elbow, maximum total horizontal length of 20 ft. ( 6 m ).
- three 90° elbow, maximum total horizontal length of 13 ft. ( 3.8 m ).
- four 90° elbow, maximum total horizontal length of 6 ft. ( 1.9 m ).
- five 90° elbow, maximum total horizontal length of 1 ft. ( 0.3 m ).

If 45° elbows are used, one 90° elbow is equivalent to two 45° elbows. If practical, it is best to locate the appliance to permit the use of shorter horizontals and fewer elbows.

Connector rise should be minimum of 1 ft. ( 0.3m ).

The bottom of the vent cap should extend at least 2 ft. ( 0.6 m ) above the highest point of the roof where it passes through and at least 2 ft. ( 0.6 m ) higher than any portion of the roof within a horizontal distance of 10 ft. ( 3 m ).



## INSTALLATION DATA SHEET

The following information must be recorded by the installer for warranty purposes and future reference.

ENVIROGAS MODEL: \_\_\_\_\_ EFG BAY FPI Fireplace Insert Heater  
\_\_\_\_\_ EFG BAY FS Freestanding Gas Heater

Serial Number: WH-\_\_\_\_\_

\_\_\_\_\_ Natural Gas (Nat.), \_\_\_\_\_ Propane (LPG).

Name of Owner: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Country: \_\_\_\_\_

Zip/Postal Code: \_\_\_\_\_

Phone: ( \_\_\_\_\_ )- \_\_\_\_\_ - \_\_\_\_\_

Name of Dealer: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: ( \_\_\_\_\_ )- \_\_\_\_\_ - \_\_\_\_\_

Date of Purchase: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Name of Installer: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: ( \_\_\_\_\_ )- \_\_\_\_\_ - \_\_\_\_\_

Date of Installation: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ Natural Gas (Nat ), \_\_\_\_\_ Propane (LPG).

Inlet Gas Supply Pressure: \_\_\_\_\_ in.w.c.

**If the regulator was adjusted by the installer.**

Manifold Gas Pressure: \_\_\_\_\_ in.w.c.

**If the orifices were changed by the installer.**

Burner Orifice # \_\_\_\_\_

Pilot Orifice # \_\_\_\_\_ or \_\_\_\_\_ in. Dia.

Installer's Signature: \_\_\_\_\_