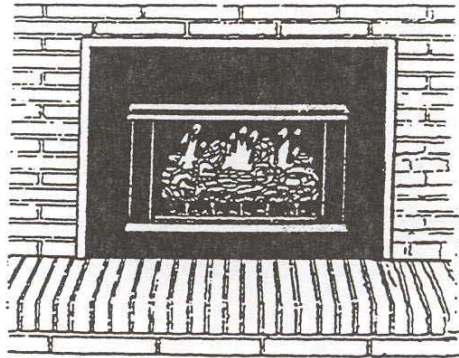


**This appliance has been retired.  
Service parts pages within have been removed.  
For replacement parts, please refer to the individual  
service parts list located on the brand websites.**



U.S. PATENTS 4,875,464 and 5,000,162

**MODEL R-4INS  
MODEL 4000INS  
INSTALLATION AND OPERATION  
INSTRUCTIONS**

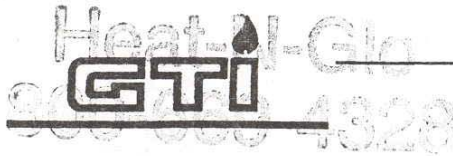


**A.G.A. Design Certified  
and  
CGA Certified**



**THIS MANUAL MUST BE USED FOR INSTALLATION AND RETAINED BY HOMEOWNER FOR  
OPERATION AND MAINTENANCE.**





## INSTALLATION AND OPERATION INSTRUCTIONS

PLEASE READ THIS MANUAL BEFORE INSTALLING AND USING THE FIREPLACE

MODELS 4000INS AND R-4INS ARE A.G.A. DESIGN CERTIFIED AND CGA CERTIFIED FOR NATURAL GAS AND PROPANE.

### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### FOR YOUR SAFETY

#### What to do if you smell gas:

- Extinguish any open flame.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone 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.

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

DO NOT PLACE CLOTHING OR OTHER FLAMMABLE MATERIAL ON OR NEAR THE APPLIANCE. CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.

**WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. REFER TO MANUAL FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.**

**IMPORTANT:** Read all instructions carefully before starting installation. Failure to follow these installation instructions may result in a possible fire hazard and will void the warranty.

Save this Manual for future reference.

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PRINTED IN THE U.S.A.



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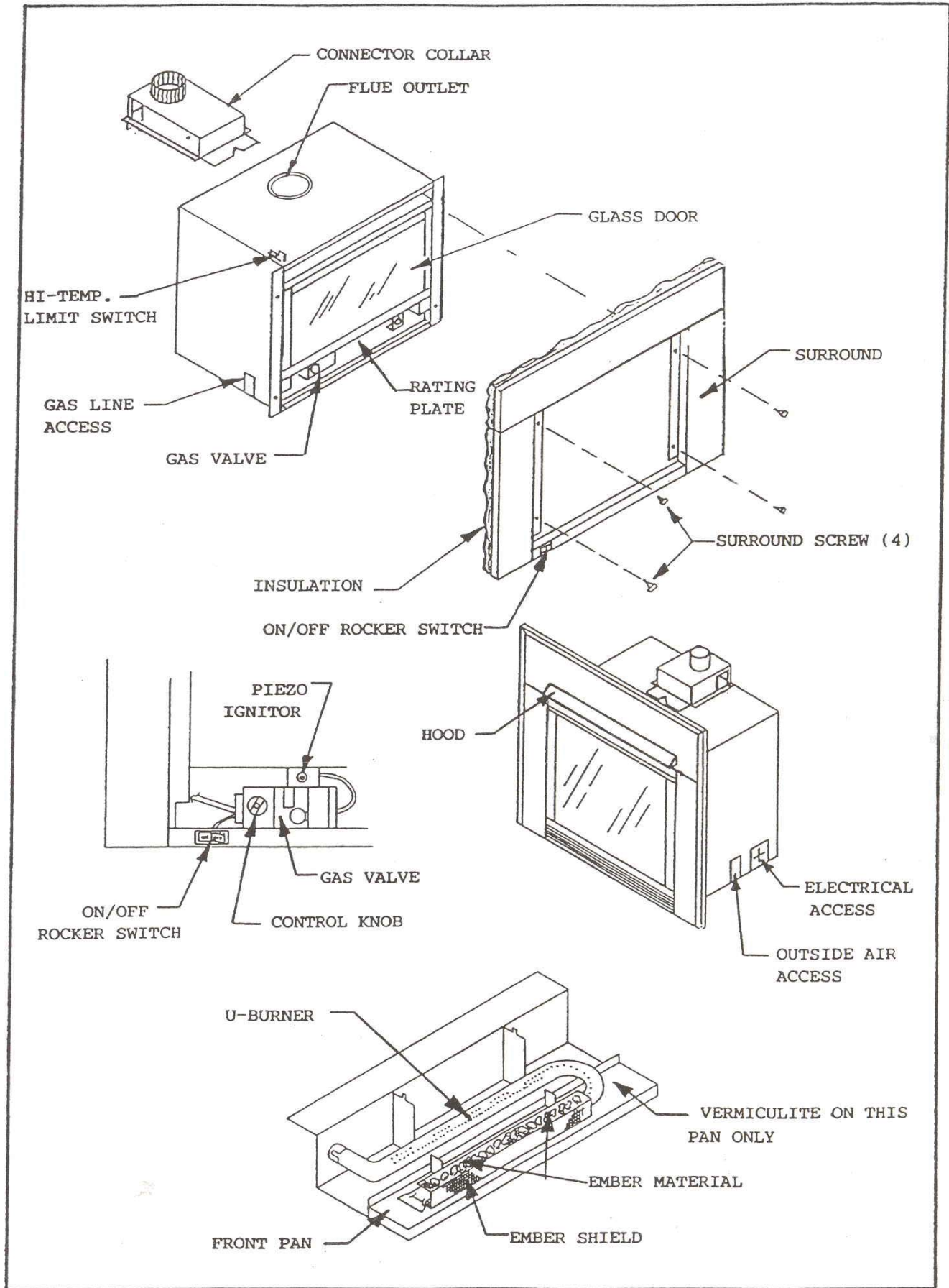


FIGURE 1

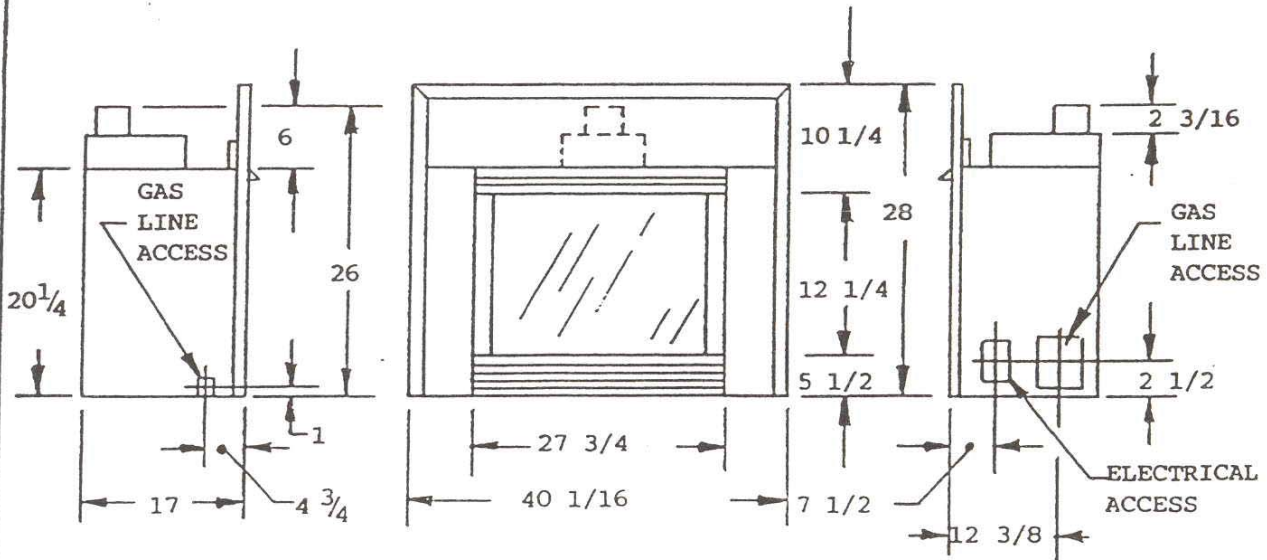
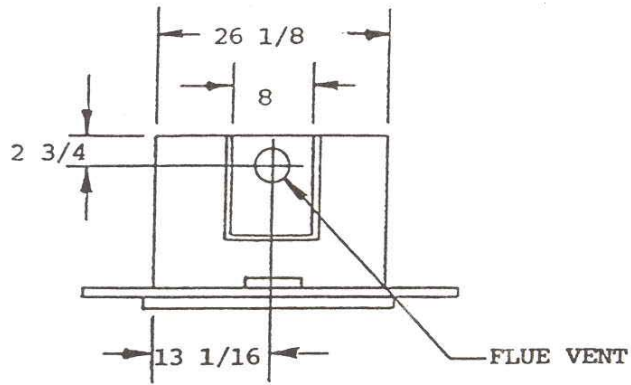


FIGURE 2



## 1.0 INTRODUCTION

This Insert is a Vented Decorative Gas Appliance for Installation in a Vented Fireplace (minimum fireplace size: height 22", width 27", depth 16 1/2"). **THIS INSERT CANNOT BE INSTALLED WITHIN COMBUSTIBLE CONSTRUCTION.**

**WARNING: THIS UNIT IS NOT FOR USE WITH SOLID FUEL.**

**NOTE: FOR PROPER OPERATING BENEFITS, THIS INSERT MUST BE CONNECTED TO FOUR (4) INCH B-TYPE VENT OR AN APPROVED FOUR (4) INCH DIAMETER FLEXIBLE STAINLESS STEEL OR ALUMINUM CHIMNEY LINER WITH A TOP TERMINATION. CONSULT LOCAL BUILDING CODES FOR REQUIREMENTS.**

The control system for this Model is a millivolt type. It consists of a gas control valve/adjustable regulator, a standing pilot assembly, a thermopile, a piezo ignitor, a high temperature limit switch, and an ON/OFF rocker switch. The controls are located in the lower compartment behind the lower hinged grille of the fireplace. Access to this compartment is gained by pulling the top of the grille forward and down.

**NOTE: NATURAL GAS MODELS HAVE A VARIABLE GAS CONTROL VALVE REGULATOR. PROPANE MODELS HAVE A FIXED REGULATOR.**

**WARNING: DO NOT CONNECT 110-120 VAC TO THE GAS CONTROL VALVE OR CONTROL WIRING SYSTEM OF THIS UNIT.**

Installation must conform to local codes. In the absence of local codes installation must conform with the current National Fuel Gas Code ANSI Z223.1 (in the United States) or with the current Installation Code CAN/CGA-B149 (in Canada). The appliance when installed must be electrically grounded in accordance with local codes; in absence of local codes, with the current National Electric Code ANSI/NFPA NO. 70 (in the United States) or with the current CSA C 22.1 Canadian Electrical Code (in Canada).

**NOTE: INSTALLATION AND REPAIR SHOULD BE DONE BY A QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A PROFESSIONAL SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL ETC. IT IS IMPERATIVE THAT THE UNITS CONTROL COMPARTMENT, BURNERS, AND CIRCULATING AIR PASSAGE WAYS BE KEPT CLEAN TO PROVIDE FOR ADEQUATE COMBUSTION AND VENTILATION AIR.**

Provide adequate clearances around air openings into the combustion chamber and allow accessibility clearance for servicing and proper operation.

**NEVER OBSTRUCT THE FRONT OPENINGS OF THE FIREPLACE INSERT OR THE CHIMNEY TERMINATION ON THE EXTERIOR OF THE BUILDING.**

Minimum inlet gas supply pressure for purpose of input adjustment is 4.5 inches water column natural gas and 11.0 inches water column propane. Maximum inlet gas supply pressures is 10.5 inches w.c. natural gas and 13.0 inches w.c. propane. For the purpose of input adjustment, inlet gas supply pressure should be 7.0 inches w.c. natural gas and 11.0 inches w.c. propane.

Input rates for natural gas units can be adjusted between 20,000 BTUH and 30,000 BTUH. The manifold pressure is set at 1.7 inches w.c. and 3.5 inches w.c. respectively.

Manifold pressure for propane units should be set at 10.0 inches w.c.

A 1/8 inch N.P.T. plugged tapping is provided on the outlet side of the gas control for a test gauge connection to measure the manifold pressure. Provisions must be made to attach a test gauge tapping immediately upstream of the gas supply connection to the appliance to measure inlet pressure.

The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 1/2 psig (3.45 kPa).

This appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.45 kPa).

## 2.0 INSTALLATION PRECAUTIONS

This Fireplace Insert and its components are tested and safe when installed in accordance with this Installation Manual. Report to your dealer any parts damaged in shipment - specifically check glass condition. The gas logs are in a separate package. Read all instructions before starting installation and follow these instructions carefully during installation to insure maximum benefit and safety. Failure to follow them will void your warranty and may present a fire hazard.



The Gas Technologies® warranty will be voided by, and Gas Technologies® disclaims any responsibility for, the following actions:

- Installation of any damaged fireplace or chimney component,
- Modification of the fireplace or vent system,
- Installation other than as instructed by Gas Technologies®
- Improper positioning of the gas logs or the glass door,
- Installation and/or use of any component part not manufactured or approved by Gas Technologies®, notwithstanding any independent testing laboratory or other party approval of such component part or accessory.

**ANY SUCH ACTION MAY POSSIBLY CAUSE A FIRE HAZARD.**

Consult your local building codes.

The glass door assembly must be removed from the unit to install the gas logs, vermiculite and burner ember material.

To remove the glass door assembly, remove top glass retainer fasteners and remove the top retainer. Lift the glass up out of the bottom glass retainer and carefully set it aside.

To install the logs, place the bottom front logs on the fireplace grates - positioning them using the pre-drilled holes in the bottom of the logs and the tabs on the grates. Place the middle left and right logs in the flat cut-out areas on the top of the lower logs and the top right and left twigs in the flat cut-out areas of the middle logs. See Figure 3 for proper log placement.

**WARNING: THE GAS LOGS MUST BE POSITIONED SO THAT THERE IS NO FLAME IMPINGEMENT ON THEM. IF THE BURNER FLAME IMPINGES ON THE LOGS, REPOSITION THEM SO THAT NO IMPINGEMENT OCCURS.**

Open the bag of vermiculite and spread it evenly on the bottom of the firebox front pan making sure not to block the air hole at the base of the burner or the air holes of the lower glass retainer. **DO NOT COVER THE LOWER BURNER WITH VERMICULITE.**

**NOTE:** IT IS ESSENTIAL FOR PROPER UNIT OPERATION THAT THE VERMICULITE CONTAINED IN THE PLASTIC BAG BE SPREAD EVENLY ACROSS THE BOTTOM OF THE FIREBOX FRONT PAN **ONLY** (FIGURE 1).

**CAUTION: DO NOT BLOCK THE BASE OF THE BURNER WITH VERMICULITE OR PLACE VERMICULITE ON THE LOWER FIREBOX PAN OR BLOCK THE AIR HOLES OF THE LOWER GLASS RETAINER. DO NOT PLACE VERMICULITE ON THE LOWER BURNER EMBER SHIELD.**

Two separate bags of ember materials are shipped with this unit. One bag contains Golden Ember (GE-93) flame colorant material. The other bag contains standard glowing ember material, Glowing Ember (050-721).

Following is the recommended procedures for adding embers and replenishing the flame colorant material:

**INITIAL SET-UP**

Alternately place dime size and shape pieces of flame colorant material Golden Ember (GE-93) and Glowing Ember (050-721) material onto any open areas on the flat top of the lower burner.

Excess ember materials should be saved and used as replacement materials during servicing.

**FIREPLACE SERVICING**

Frequency of fireplace servicing will depend upon use and type of installation.

Carefully brush away or vacuum up any loose materials on the lower burner. Alternately place dime size and shape pieces of flame colorant replacement material Golden Ember (GE-93) and Glowing Ember (050-721) material onto any open areas on the flat top of the lower burner.

**NOTE:** It may be necessary to clean the glass door after burning flame colorant material. Film deposits on the inside of the glass door should be cleaned off using a household glass cleaner. **DO NOT** handle or attempt to clean the glass when it is **HOT**.

Install the glass door by placing bottom door pins into the slots in the bottom glass retainer. Push the top of the glass against the top gasket, and reinstall the top glass retainer.

**WARNING: THE GLASS DOOR ASSEMBLY MUST BE IN PLACE ON THE FIREPLACE INSERT BEFORE THE UNIT CAN BE PLACED INTO SAFE OPERATION. UNDER NO CONDITIONS SHOULD THE UNIT BE OPERATED WITHOUT THE GLASS IN PLACE.**

Prior to first firing, read Operations Instructions section of this manual.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the fireplace and to replace any part of the control system and any gas control which has been under water.



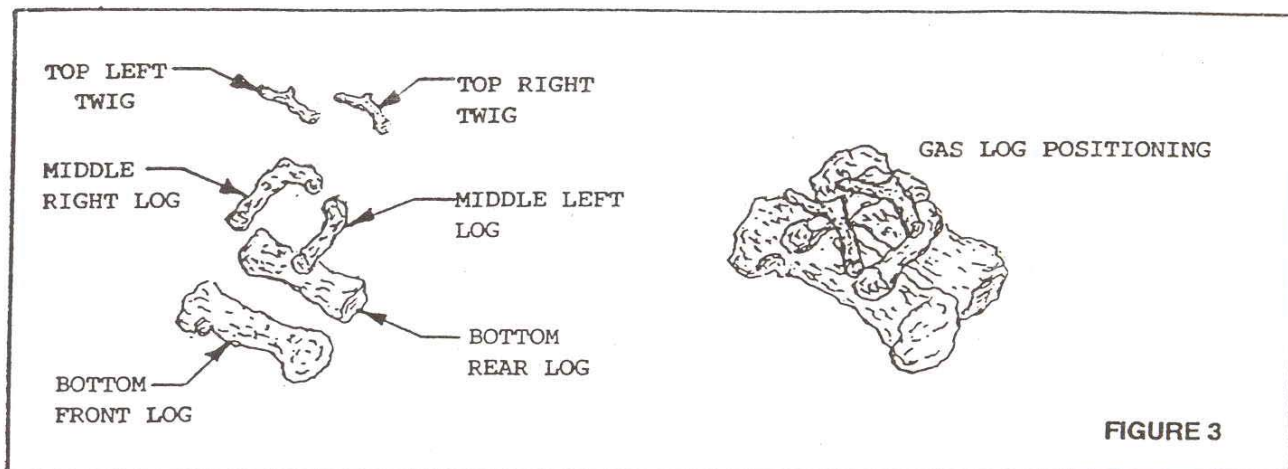


FIGURE 3

### 3.0 INSTALLATION INSTRUCTIONS

In planning the installation for the fireplace it is necessary to install certain components before the insert is completely positioned and installed. These include the vent system, gas piping for the fireplace, insulation for the front surround, and Optional Remote Control Accessory Kit (if desired). All installations require up venting.

This model (natural gas and propane) can be installed in a bedroom (in the United States) which has a total volume of unconfined space appropriate to the particular installation. Refer to the National Fuel Gas Code ANSI Z223.1/NFPA 54 - (current edition), The Uniform Mechanical Code - (current edition), and Local Building Officials for the options allowed in obtaining an effective bedroom volume of unconfined space.

This model (natural gas and propane) can be installed in a bedroom (in Canada) if a thermostat (Model WH-STAT) is installed with the unit. Consult local code authorities. Detailed installation instructions for Model WH-STAT are included with the kit.

This unit comes with a removable front surround to allow access for gas line hook-up and venting hook-up. To remove the front surround, loosen and remove the top glass retainer from the unit and carefully remove the glass door assembly. Remove the two (2) screws at the bottom corners of the front surround and CAREFULLY pull the surround out away from and lay it down in front of the unit. See Figure 4

**CAUTION:** When removing the front surround from the unit, CARE must be taken NOT to pull and disconnect the wiring connecting the valve and the ON/OFF rocker switch (mounted in the lower surround) - AND the grounded power chord (connected to the Junction Box) which exits the unit at the lower right front surround.

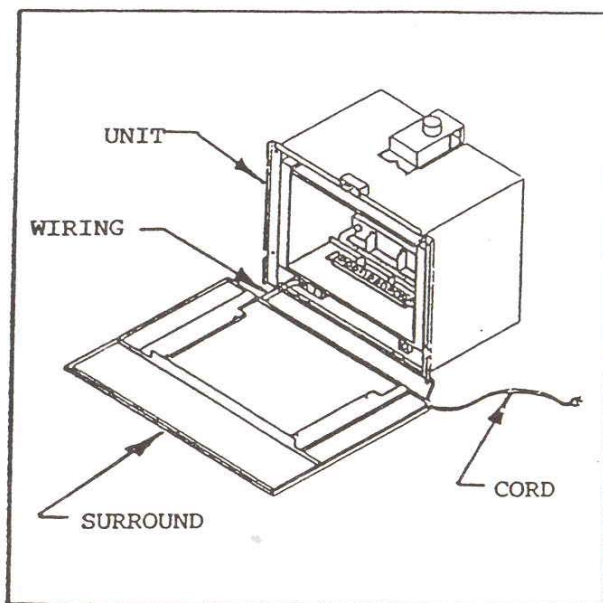


FIGURE 4

### 3.1 VENTING THE UNIT

This Model is a top venting fireplace insert. The unit must be installed only in a vented fireplace with a working flue and constructed of noncombustible material. **THIS MODEL MUST NEVER BE INSTALLED WITHIN COMBUSTIBLE CONSTRUCTION.**

This Model can be installed into a fireplace which has an approved chimney liner or into a fireplace without a chimney liner. For proper operating benefits, it is recommended that this unit be installed into a fireplace with an approved chimney liner with a top termination. Removal of the fireplace flue damper might be required for installation of the chimney liner and flue connector collar.

When installing into a fireplace with a chimney liner, this Insert **MUST BE** connected with the connector collar to an approved four (4) inch diameter stainless steel or aluminum chimney liner, which is installed inside the existing solid-fuel fireplace chimney.



When installing into a fireplace without a chimney liner, DO NOT use the connector collar. The chimney damper must be fixed in a manner which will maintain a minimum permanent vent opening of 20-square inches at all times. Means to accomplish this include placing a screw or bolt in the edge of the damper to prevent its closing, or by placing a hole or holes in the damper itself.

**NOTE: FOR BEDROOM INSTALLATION IN CANADA**

This Model **MUST NOT** be vented into a vent system installed exterior to a building. The part of the vent system above the roof line can be exterior to the building. A masonry chimney built on an outside exterior wall is **NOT** considered to be exterior to the building.

**3.1.1 INSTALLING THE CHIMNEY LINER**

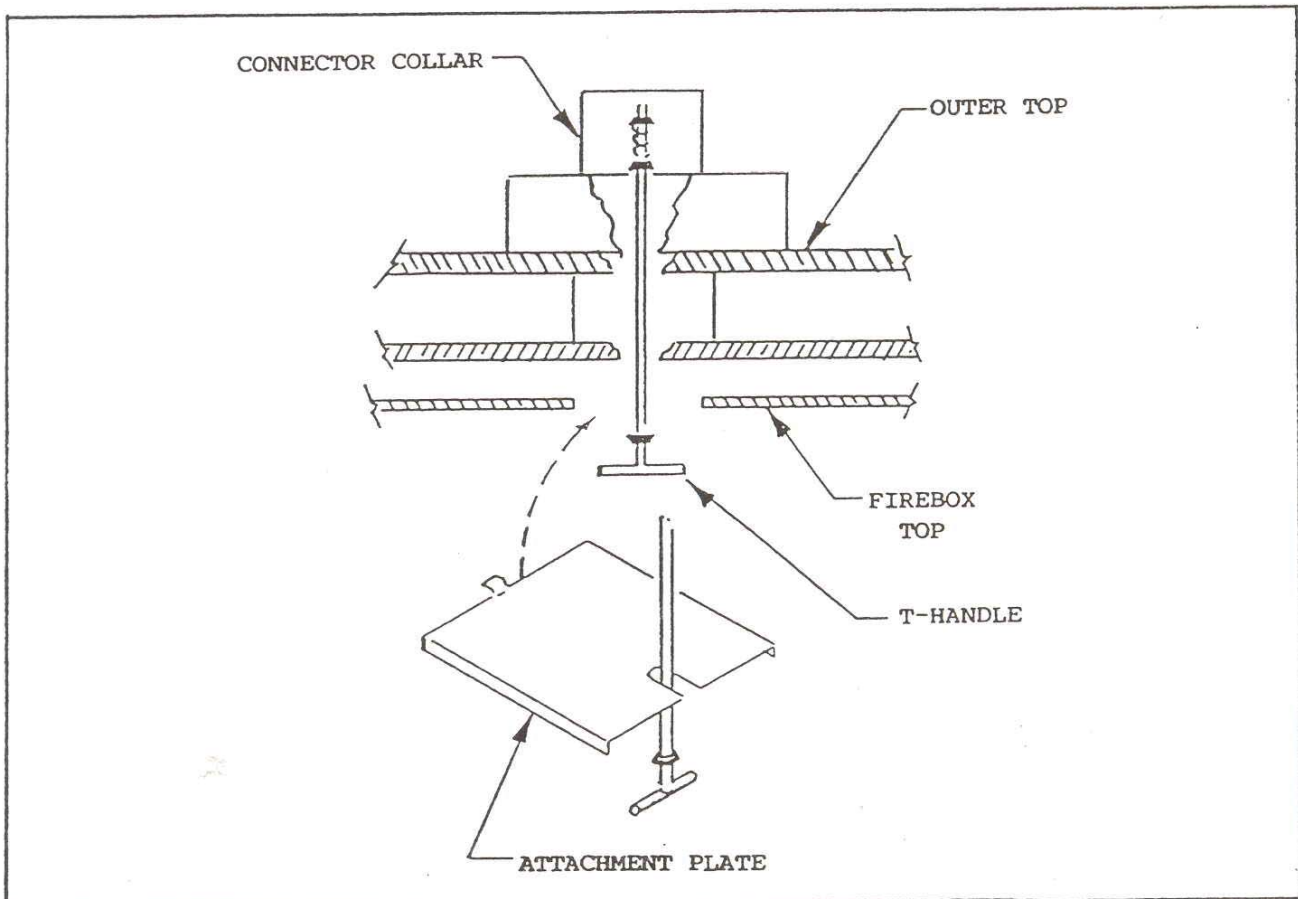
This Insert is designed to be connected to an approved 4-inch diameter, stainless steel or aluminum, flexible masonry chimney liner with a top termination. Refer to and follow the manufacturer's Installation Instructions provided with the flex-liner kit obtained. An approved flex-liner kit (Model FP1-04) is available from your Dealer.

**CAUTION:** TO AVOID DOWNDRAFTS AND/OR COLD AIR PROBLEMS, IT IS RECOMMENDED TO SEAL OFF THE AREA BETWEEN THE CHIMNEY LINER AND THE TOP OF THE SOLID-FUEL CHIMNEY OPENING INTO WHICH THE LINER HAS BEEN INSTALLED.

Consult your local building codes and code officials for proper installation.

**3.1.2 CONNECTING THE VENT SYSTEM COMPONENTS**

Remove the connector collar from the top of the unit. Pull down on the spring-loaded T-handle (found at the top of the inside of the firebox chamber) and remove the attachment plate from the inside top of the firebox. The attachment plate is slotted to allow access for the T-handle. See Figure 5.



**FIGURE 5**

Slide the connector collar (removed from the unit) into the bottom of the previously installed chimney flex-liner and fasten the collar to the liner with a minimum of three (3) sheetmetal screws. See Figure 6.

Carefully slide the insert unit into the fireplace opening. Reach up through the hole on the inside firebox top and pull the connector collar down and forward onto the top of the unit. When the connector collar has been positioned on the top of the insert, pull down on the T-handle and re-install the slotted attachment plate. Release the T-handle and the connector collar will be held in place.

**WARNING: THE CONNECTOR COLLAR MUST BE PULLED ALL THE WAY FORWARD TO POSITION IT PROPERLY.**

Carefully replace the surround, top glass retainer, and glass door assembly to the front of the unit with the attachment screws previously removed and adjust the unit to its final position inside the masonry fireplace. To insure that a good seal is made between the surround and the existing fireplace, be certain that the surround insulation is in place and the insert is pushed tightly against the fireplace face.

**CAUTION: Prior to re-attaching the front surround and adjusting the unit to its final position, please read the next four (4) sections of this manual - 3.2 CONNECTING THE GAS LINE; 3.3 LEVELING THE UNIT; 3.4 MAKE-UP AIR FEATURE; 3.5 BLOWER AND OPTIONAL REMOTE CONTROL; AND 3.6 OPTIONAL WALL SWITCH.**

### 3.1.3 CHECKING VENTING OPERATION

Venting operation for this Model can be observed by holding a small flame at the relief opening to the room - the center hole at the top face of the unit (See Figure 7).

SAVE THIS INSTRUCTION WITH THE UNIT FOR FUTURE REFERENCE.

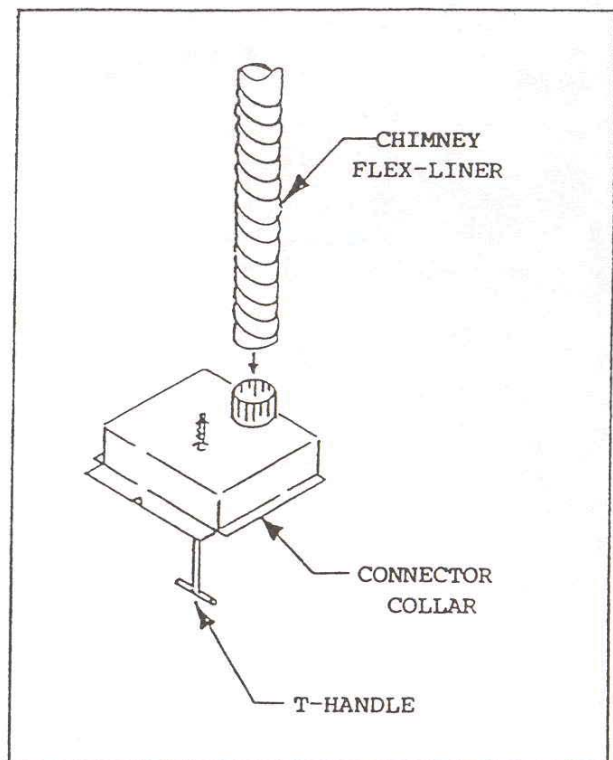


FIGURE 6

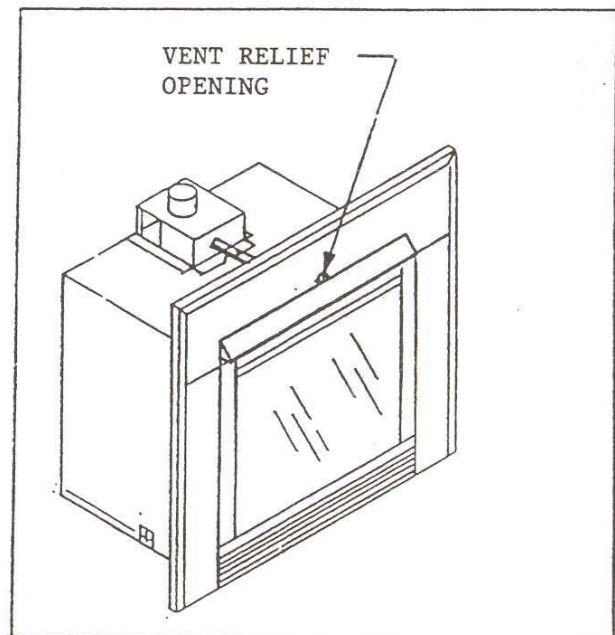


FIGURE 7



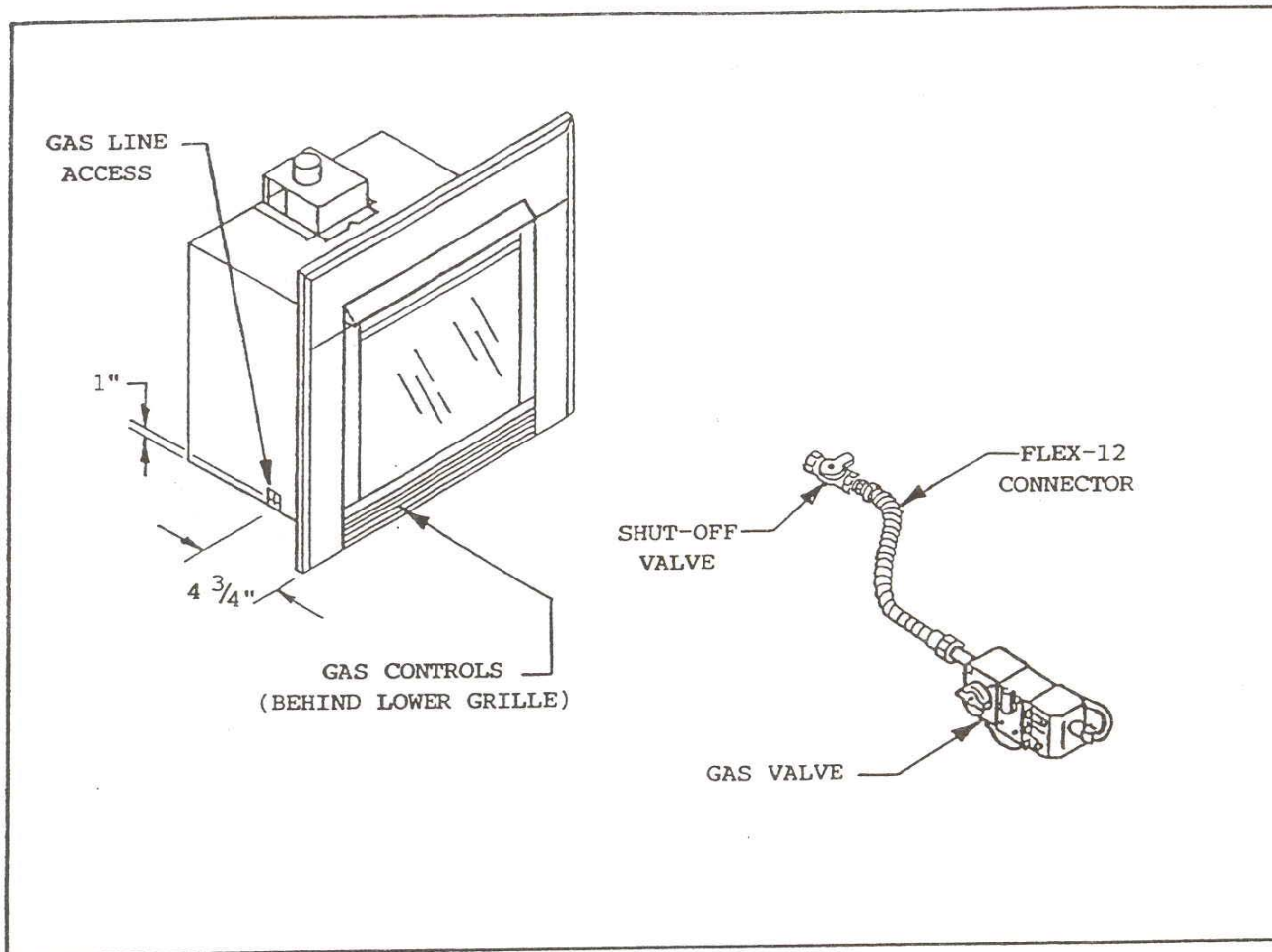
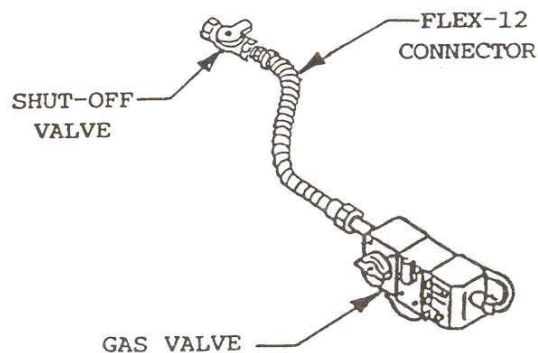


FIGURE 8

### 3.2 CONNECTING THE GAS LINE

The gas fireplace insert has a listed shut-off valve installed to the supply side of the gas control valve. The gas supply line should be installed and connected to the shut-off valve by a qualified service person in accordance with all prevailing building codes. Consult local building codes to properly size the gas supply line leading to the 1/2-inch shut-off valve. A 1/8-inch NPT plugged tapping, accessible for a test gauge connection, should also be provided for in the supply line. Figure 8 shows the exterior gas line access in the outer casing of the unit and the control valve and shut-off valve behind the lower grill, below the combustion box.

Insert the gas supply line through the access hole and support the connector when connecting the line to the shut-off valve. A coiled copper tubing (internally tinned) can be used as the supply line inside the masonry fireplace. Consult local codes. After the gas pipe installation is complete, check carefully all gas connec-



tions for leaks with a soap solution. **DO NOT USE AN OPEN FLAME.** Use insulation to repack the space around the pipe. This should be inserted from the outside of the unit and packed tightly to totally seal between the pipe and the outer casing.

**NOTE: THE GAS SUPPLY LINE SHOULD BE PURGED OF ANY TRAPPED AIR PRIOR TO THE FIRST FIRING OF THE UNIT.**

After testing the gas piping for leaks, the outer surround can be reattached to the unit. To help prevent air leakage, pack the insulation provided with unit, into the cavities at the back of the front surround.

### 3.3 LEVELING THE UNIT

Two (2) leveling nuts are attached to the base pan of the appliance (behind the lower grille). Insert two (2) 5/16 - 24 bolts through the bottom of the unit's base pan to level the unit as needed.

**NOTE:** If the leveling bolts are used to raise the back of the insert, it is recommended that an additional support piece be placed under the unit base pan.

### 3.4 MAKE-UP AIR FEATURE

This unit has a flexible duct connected to the firebox base and the lower front right hand side of the outer box. Remove the cover plate on the outside of the unit and move the air damper lever (found below the glass door) to the left to open the damper. See Figure 9.

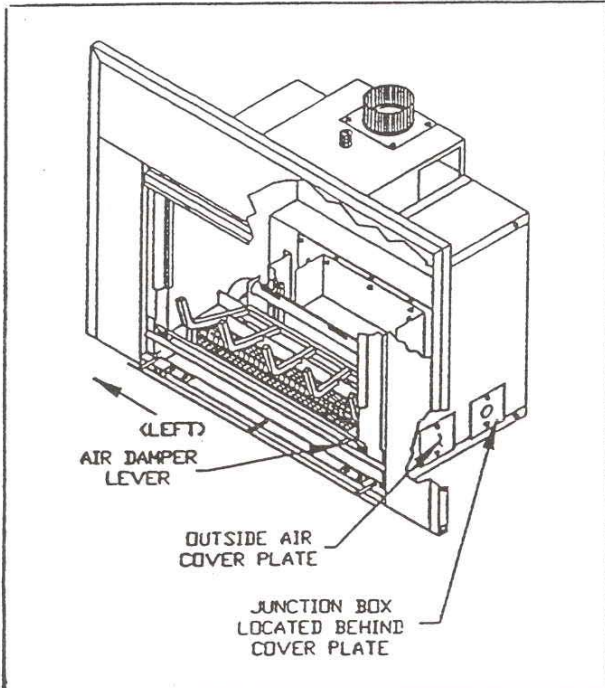


FIGURE 9

### 3.5 BLOWER AND OPTIONAL REMOTE CONTROL

This Model has a factory installed Blower, Junction Box, variable speed ON/OFF Rheostat Control Switch, and Temperature Sensor Switch for the Blower. To provide the 110-120 VAC, 60 HZ needed at the Junction Box, simply plug the 3-prong grounded cord into a 3-prong grounded 110-120 VAC, 60 HZ wall outlet. This cord exits the unit at the lower right hand front surround corner. To operate the Blower, turn the Rheostat Switch "ON" to a desired setting. The Temperature Sensor Switch will automatically turn the blower ON when the unit warms up. See Figure 10.

#### BLOWER ACCESS

1. Remove the glass door and log set from the unit.
2. Twist the locking tab on the pilot bracket and rotate the burner towards the combustion opening. See Figure 10.

3. Remove the top row of sheetmetal screws from the fan cover plate (the sheetmetal grate is attached to the plate). Carefully lift the access plate up and out of the unit to expose the blower junction box. The blower mounting bracket is held to the back with one sheetmetal screw located just above the center of the blower. The junction box is found at the bottom right rear corner of the insert.
4. After servicing the blower and re-installing it in the unit, be certain to plug the blower cord into the receptacle marked "FAN" on the junction box. The "FAN" receptacle is closest to the front of the unit.

An optional hand held Remote Control Kit (RCH-09A) for turning the unit ON/OFF, is also available. Detailed instructions for the optional Remote Control are included with the kit.

**WARNING: DO NOT CONNECT 110-120 VAC TO THE GAS CONTROL VALVE.**



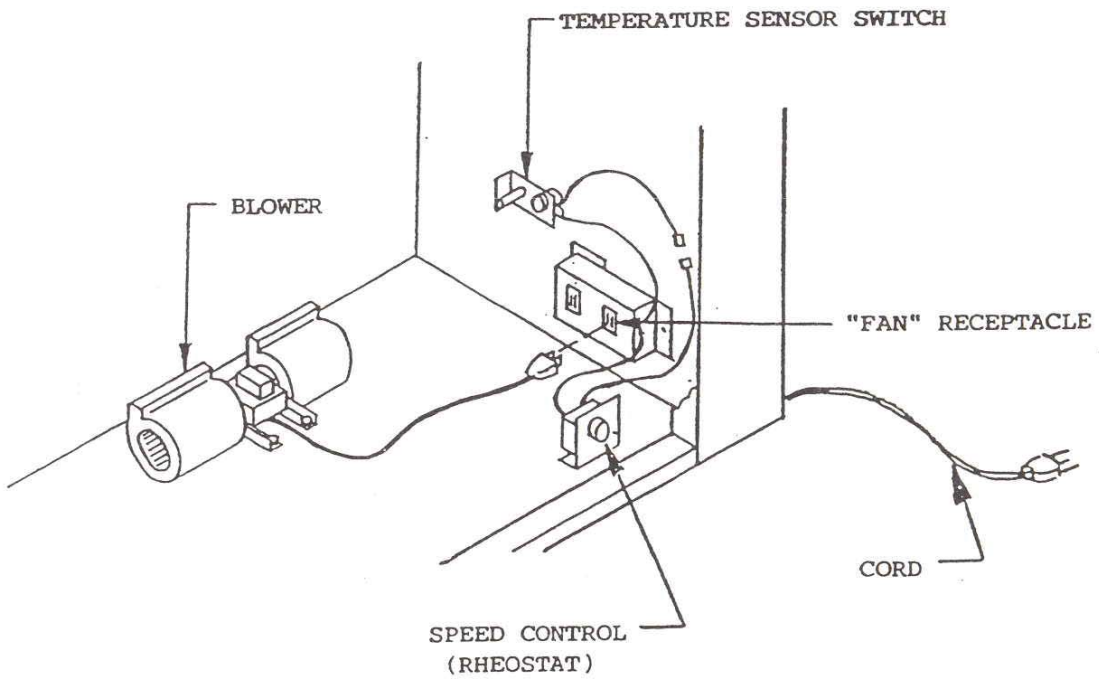
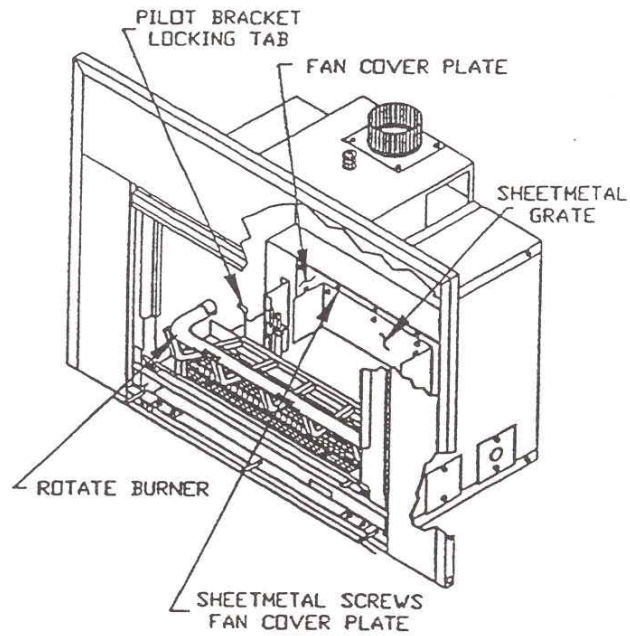


FIGURE 10

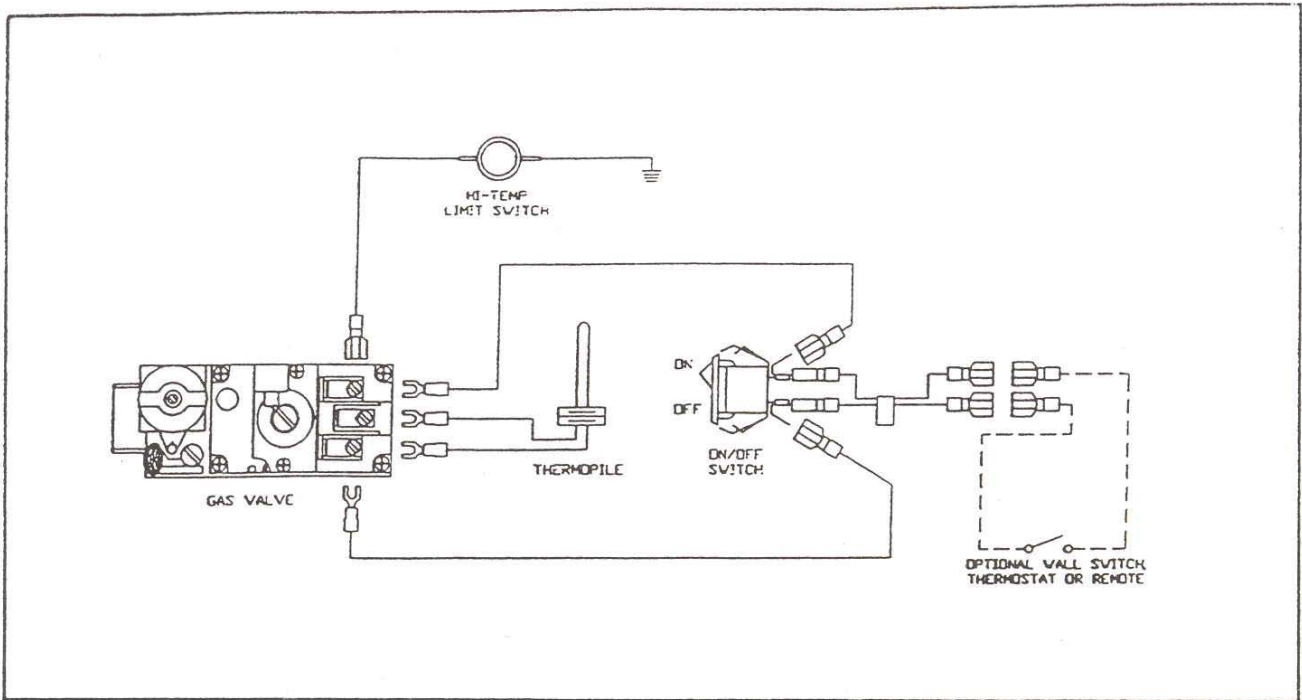


FIGURE 11

### 3.6 OPTIONAL WALL SWITCH

An optional wall switch kit (WSK-21) for turning the fireplace ON/OFF is also available. This kit does NOT require 110 VAC. Connect the low voltage wires from the wall switch to the red and brown pigtail wires from the ON/OFF rocker switch. These wires are labeled "FOR REMOTE OR WALL SWITCH ONLY". Turn the unit's ON/OFF rocker switch to the "OFF" position to use the wall switch. See Figure 11 - unit wiring diagram.

**NOTE: POSITION THE WALL SWITCH SO THAT A MAXIMUM OF 25 FEET OF WIRING FROM THE SWITCH TO THE FIREPLACE IS USED.**

### 3.7 FINISHING

You can install a combustible mantel or other combustible projection above the heat deflector hood as shown in Figure 12.

When finishing the fireplace NEVER OBSTRUCT OR MODIFY THE AIR INLET/OUTLET GRILLES OF THE INSERT IN ANY MANNER.

**CAUTION: ONLY NON-COMBUSTIBLE MATERIAL CAN BE APPLIED AS FACING TO THE INSERT SURROUND.**

**WARNING: THE HEAT DEFLECTOR HOOD MUST BE INSTALLED IN ALL APPLICATIONS.**

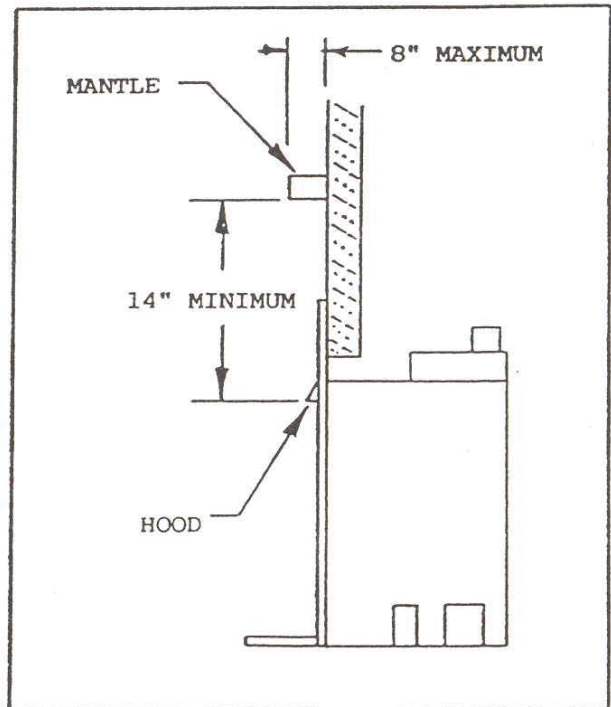


FIGURE 12

### 3.8 HEARTH EXTENSION

While a hearth extension may be desirable for aesthetic reasons, it is not required for decorative gas appliances per ANSI or CAN/CGA Testing Standards.



## 4.0 ELECTRICAL SAFETY SYSTEM

**WARNING: DO NOT CONNECT 110-120 VAC CURRENT TO THE GAS CONTROL VALVE OR CONTROL WIRING SYSTEM OF THIS UNIT.**

The gas control system is wired so the thermopile, when heated with the pilot light, will produce approximately 350-500 millivolts. This activates the gas control valve. Additionally, a high temperature limit switch is wired to ground and will shut off the pilot and burner should a high surface temperature condition occur. The pilot and main burner must be re-lit when the fire-place cools. See Figure 13 and Figure 11- unit wiring diagram.

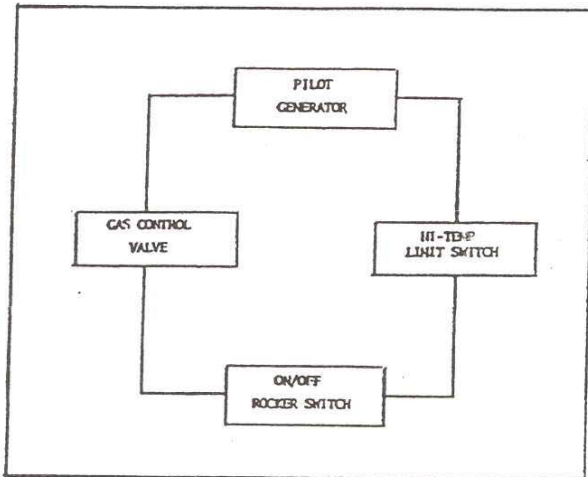


FIGURE 13

## 5.0 OPERATING GUIDELINES AND MAINTENANCE INSTRUCTIONS

Upon completing the gas line connection, a small amount of air will be in the lines. When first lighting the pilot light, it will take a few minutes for the lines to purge themselves of this air. Once the purging is complete, the pilot and burner will light and operate as indicated in the instruction manual. Subsequent lighting of the appliance will not require such purging.

**CAUTION: DURING THE INITIAL PURGING AND SUBSEQUENT LIGHTING, NEVER ALLOW THE GASVALVE CONTROL KNOB TO REMAIN DEPRESSED IN THE "PILOT" POSITION WITHOUT PUSHING THE RED IGNITOR BUTTON AT LEAST ONCE EVERY SECOND.**

When lit for the first time, the appliance will emit a slight odor for an hour or two. This is due to paint and lubricants used in the manufacturing process. Additionally, for the first few minutes after each lighting, vapor may condense and fog the glass, and the flames may be blue. After a few minutes this moisture will disappear and within 15-30 minutes the flames should become yellow.

The fireplace may produce a noise, caused from metal expansion and contraction as it heats up and cools down. This noise is similar to one that a furnace or heat duct may produce and does not affect the operation or longevity of the fireplace.

Keep the control compartment, logs and burner area surrounding the logs clean by vacuuming or brushing at least twice a year.

**CAUTION: THE LOGS CAN GET VERY HOT - HANDLE ONLY WHEN COOL.**

Always turn off gas to the pilot before cleaning. For relighting, refer to lighting instructions located behind the lower front grille assembly.

The appliance and venting system should be inspected before initial use and at least annually by a qualified field service person.

Always keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of all obstacles and materials.

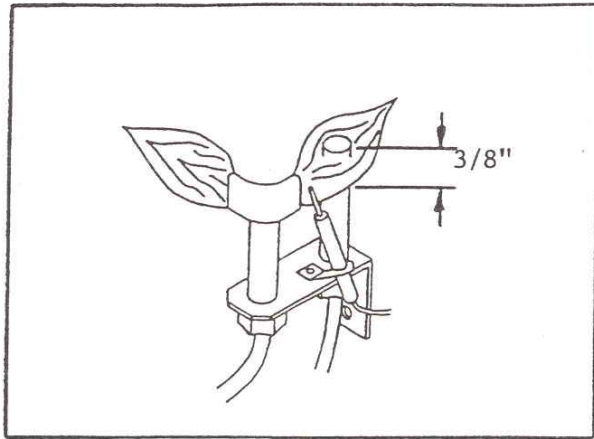


FIGURE 14

To obtain proper operation, it is imperative that the pilot and main burner flame characteristics are steady, not lifting or floating. Typically the top 3/8 inch at the pilot generator should be engulfed in the pilot flame. (Figure 14).

**WARNING: 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 APPLIANCE.**

**IMPORTANT: TURN OFF GAS BEFORE SERVICING APPLIANCE. IT IS RECOMMENDED THAT A COMPETENT SERVICE TECHNICIAN PERFORM THESE CHECKUPS AT THE BEGINNING OF EACH HEATING SEASON.**

Inspect the external vent opening on a regular basis to make sure that no debris is interfering with the air flow.

### 5.1 GLASS DOOR REMOVAL

1. To remove the glass door assembly, remove the top glass retainer fasteners and remove the top retainer.
2. Lift the glass up and out of the bottom glass retainer.

### 5.2 CLEANING BURNER AND PILOT

In order to properly clean the burner and pilot assembly, turn off the gas to the unit and remove the logs exposing the burner and pilot assembly. Clean all foreign materials from top of burner. Check to make sure that burner orifice is clean.

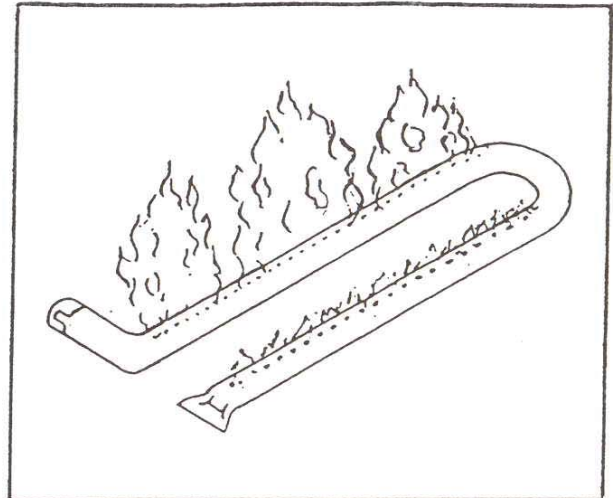


FIGURE 15

Visually inspect pilot periodically. Brush or blow away any dust or linen accumulations. If pilot orifice is plugged, disassembly may be required to remove any foreign material from orifice or tubing. When appliance is put back in service check burner flame patterns with Figure 15.

### 5.3 LOG REPLACEMENT

1. Remove the glass door assembly (see Section 5.1)
2. The Log(s) can now be removed as required. Replace the log(s) as previously shown in Figure 3, Gas Log Positioning. Replace the glass assembly.

### 5.4 GLASS DOOR REPLACEMENT

1. Before replacing the glass door make sure the vermiculite material is spread evenly over the bottom of the firebox and the logs are properly positioned.
2. Place the bottom door pins into the slots in the bottom glass retainer and push the top of the glass against the top gasket on the unit.
3. Re-install the top glass retainer.

**WARNING: THE GLASS DOOR ASSEMBLY MUST BE IN PLACE ON THE FIREPLACE INSERT BEFORE THE UNIT CAN BE PLACED INTO SAFE OPERATION.**



## 5.5 BURNER FLAME ADJUSTMENT

The gas control valve (Natural Gas models only) has a pressure regulator knob which can be rotated clockwise to "HI" to increase the burner flame height, and counter-clockwise to "LO" to decrease the flame height. See Figure 16.

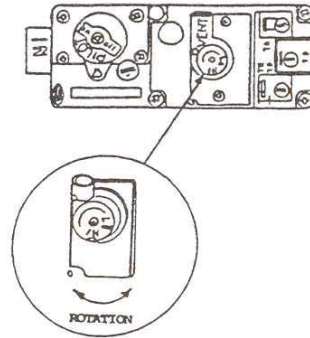


FIGURE 16

## 6.0 SAFETY INFORMATION

### 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.**

- A. This appliance has a pilot. 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

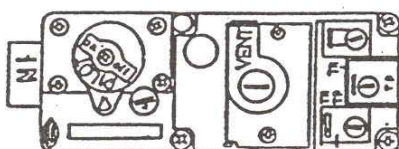
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- 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. Forced 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 gas control system which has been under water.

## 7.0 LIGHTING INSTRUCTIONS

### LIGHTING INSTRUCTIONS

1. "STOP!" Read the safety information on previous page.
2. To access controls, rotate the lower grill down.
3. Turn the valve control knob to the "OFF" position. To do this, you must turn the knob clockwise  to the "Pilot" position, and then press in and continue turning clockwise  to the "OFF" position.



GAS CONTROL VALVE



**NOTE:** Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.

4. WAIT FIVE (5) MINUTES TO CLEAR OUT ANY GAS. Then smell for gas, including near the floor. If you then smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to the next step.
5. The pilot should not require accessing for lighting purposes. The pilot is located inside the combustion chamber. If it is necessary to access the pilot, follow the instructions in Section 5.1 and 5.4 for glass door removal and replacement.


THERMOPILE



PILOT BURNER

6. To put the control in the "Pilot" position, turn the control knob counter-clockwise  to the "Pilot" position.
7. To light the pilot depress the control knob and then depress the red piezo button until it makes a clicking sound. It may be necessary to repeat this step. If the pilot does not light after 10 seconds, go back to step 3. The control knob should be held down for a MINUTE after pilot ignition.
  - If the control knob does not pop out when released, **STOP**-shut off the gas supply to the fireplace control valve, and **IMMEDIATELY** call your service technician or gas supplier.
  - If the pilot will not stay lit after two tries, turn the control knob to the "OFF" position and call your service technician or gas supplier.
8. After the pilot has been lit, the burner can be turned on by turning the knob counter-clockwise  to the "ON" position. Flip the ON/OFF switch to the "ON" position.
9. Close the lower grill.

### TO TURN OFF GAS APPLIANCE

1. Open the lower grill.
2. Turn the valve control knob clockwise  to the "Pilot" position, then depress knob and continue turning to "OFF" position.
3. Close the lower grill.



**NOTE: TO PREVENT OVERHEATING THE UNIT, THE TIPS OF THE FLAMES SHOULD NEVER HIT THE TOP OF THE FIREBOX. CONTACT YOUR DEALER OR A QUALIFIED SERVICE PERSON IF ADJUSTMENTS TO THE UNIT MUST BE MADE.**

### **LPG (PROPANE) INFORMATION**

**THE FOLLOWING WARNING APPLIES TO INSTALLATIONS USING L.P. (PROPANE) GAS:**

**WARNING:** To avoid possible injury, fire, and explosion, please read and follow these precautions and all instructions on this appliance before lighting the pilot. This appliance uses L.P. (Propane) gas which is heavier than air and will remain at floor level if there is a leak. Before lighting, **smell at floor level and/or use other means** (such as using a soap solution on all piping and connections, using a gas detector, etc.) **to check for gas leaks. NOTE:** L.P. (Propane) gas can become odorless and **CANNOT always be detected by smell.** If you smell gas, detect a gas leak, or suspect that a gas leak exists, follow these rules:

1. Get all people out of building.
2. **DO NOT** light matches. **DO NOT** turn electric lights or switches on or off in area. **DO NOT** use an electric fan to remove gas from area. **DO NOT** use a telephone inside the building.
3. Shut off gas at L.P. tank outside of building.
4. Telephone gas company and fire department and ask instructions.

Before hanging up, give your name, address, and phone number. **DO NOT** go back into building.

If your L.P. tank runs out of fuel, turn off gas at the appliance. After L.P. tank is refilled, appliance must be re-lit according to manufacturer's instructions. If the gas control has been exposed to WATER in any way, **DO NOT** try to use it. It must be replaced. **DO NOT** attempt repair on gas control or appliance.

Tampering is **DANGEROUS** and voids all warranties. Any component that is found to be faulty, must be replaced with an approved component.

### **8.0 HIGH ELEVATION INSTALLATION**

A.G.A. Design Certified units are tested and approved for elevations from 0-2000 feet. CGA approved units are certified for elevations from 0-4500 feet.

When installing this unit at an elevation above 2000 feet, (in United States) it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input should be reduced 4 percent for each 1000 feet above sea level. Check with the local gas utility for proper orifice size identification.

When installing this unit at an elevation between 0-4500 feet (in Canada) the input rating does not need to be reduced.

When installing this unit at an elevation above 4500 (in Canada), check with local authorities.

Consult your local gas company for assistance in determining the proper orifice for your location.

## 9.0 TROUBLE SHOOTING - MODEL 4000INS/R-4INS

With proper installation and maintenance, your new Gas Fireplace should provide years of trouble-free service. If you do experience a problem, refer to the Trouble Shooting Guide below. This guide will assist a qualified service person in the diagnosis of problems and the corrective action to be taken.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
<b>I. Spark Ignitor will not light pilot after repeated triggering of red button.</b>	A. Defective ignitor (no spark at electrode).	1. Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, replace ignitor.
	B. Defective pilot or misaligned electrode (spark at electrode).	1. Using a match, light pilot. If pilot lights, turn off pilot and trigger the red button again. If pilot lights, an improper gas/air mixture caused the bad lighting and a longer purge period is recommended. If pilot will not light - check gas at electrode and pilot - should be 1/8 inch (3.2mm) to have a strong spark. If OK, replace pilot.
	C. No gas or low gas pressure.	1. Check unit's shut-off valve and remote shut off valves from fireplace. Usually there is a valve near the main. There can be more than one (1) valve between the fireplace and main.  2. Low pressure can be caused by a variety of situations such as a bent line, too narrow diameter of pipe or even low line pressure. Check for kinked lines. If none, consult with plumber or gas supplier.
<b>II. Pilot will not stay lit after carefully following lighting instructions.</b>	A. Defective thermopile.	1. Check pilot flame. Must impinge on thermopile. Clean and or adjust pilot for maximum flame impingement on thermopile.  2. Be sure wire connections from thermopile at gas valve terminals are tight and thermopile is fully inserted into pilot bracket.



SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
<b>III. Pilot burning, no gas burner, valve knob "ON", thermostat "ON".</b>	B. Defective valve.	3. Check thermopile with millivolt meter. Take reading at "TH-TP&TP" terminals of gas valve. Should read 325 millivolts minimum while holding valve knob depressed in pilot position, pilot lit, and on/off switch "OFF". Replace faulty thermopile if reading is below specified minimum.  1. Connect the millivolt meter probes to the "TH TP" and "TP" terminals on gas valve. Turn green knob to pilot position, depress and light. If meter reading is greater than 325 m.v. after 30 seconds, the pilot generator is good. If pilot does not stay lit, the valve is defective. If the meter reading is less than 325 m.v. the thermopile is defective.
	C. Open wire connection in pilot circuit.	1. Check wire continuity and connection in pilot circuit.
	A. "ON/OFF" switch or wires defective.	1. Check "on-off" switch and wires for proper connections. Place jumper wires across terminals at switch-if burner comes on, replace defective switch. If OK, place jumper wires across switch wires at gas valve-if burner comes on, wires are faulty or connections are bad.
	B. Thermopile may not be generating sufficient millivoltage (325 m.v.).	1. Recheck Symptom #2. 2. Pilot flame not physically close enough to thermopile.
	C. Defective valve.	1. Turn valve knob to "ON", place on-off switch to "ON". Check with millivolt meter at thermopile terminals. Millivolt meter should read greater than 100 m.v. If the reading is okay and the burner does not come on, replace the gas valve.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
	D. Plugged burner orifice.	1. Check burner orifice for stoppage and remove.
	E. Wall switch or wires defective.	1. Follow corrective action in A.1 above; check switch and wiring. Replace where defective.
<b>IV. Frequent pilot outage problem.</b>	A. Pilot flame may be too low or blowing (high), causing the pilot safety to drop out.	1. Clean and adjust pilot flame for maximum flame impingement on thermopile.
<b>V. Pilot and main burner go out while being in operation.</b>	A. High limit switch is defective or has reached it's maximum temperature.	<p>1. Allow unit to cool. Then repeat lighting instructions.</p> <p>2. If 1 above does not allow for ignition, check high limit switch. Place jumper wires across high limit switch. If you can re-ignite the pilot, your high limit switch is defective. Do not use fire-place until the high limit switch is replaced, as this is an important safety feature. If the unit does not light with jumper wires in place, the wires may be defective or the connectors are bad.</p>
	B. Bad thermopile	1. Replace if necessary.
<b>VI. Glass soots.</b>	A. Flame impingement on logs.	1. Adjust the log set so that the flame does not impinge on it.
	B. Improper venturi setting.	1. Adjust the air shutter at the base of the burner.
	C. Vermiculite around base of burner or on the lower firebox pan.	1. Inspect the base of the burner. It is imperative that NO material be placed around the base of the burner or on the lower firebox pan.
<b>VII. Flame burns blue and lifts off burner.</b>	A. Insufficient oxygen being supplied.	<p>1. Check to make sure that the vermiculite has not been improperly placed at the burner base or lower firebox pan.</p> <p>2. Be certain flue connector collar is in place and properly positioned.</p>



## LIMITED 10 YEAR WARRANTY POLICY GAS TECHNOLOGIES® GAS APPLIANCE PRODUCTS

In order to presumptively establish the dates to which your GAS TECHNOLOGIES® Limited 10 Year Warranty runs, you must mail the completed warranty card to GAS TECHNOLOGIES® 800 West Jefferson Street, Lake City, MN 55041, within 60 days of the date of appliance installation. If you fail to do so, you may be required to prove the date of installation before warranty work can be performed.

The warranty exclusions and limitations of liability are effective upon installation of the appliance.

Subject to the conditions set forth herein, GAS TECHNOLOGIES® extends the following warranty with respect to GAS TECHNOLOGIES® Gas Appliance Products.

If GAS TECHNOLOGIES® is satisfied that any part or portion of the fireplace covered by this Limited Warranty is defective in material or workmanship under normal use and service as described in the Operating Instructions, GAS TECHNOLOGIES® will take the following actions:

1. If the defect is reported during the first year from the date of installation (stainless steel burners and fiber logs are covered for 3 years), GAS TECHNOLOGIES® will replace or repair the defective components at its sole expense. The decision whether to replace a component shall be made at GAS TECHNOLOGIES® sole discretion. This Limited Warranty does not cover components broken during shipping, misuse or careless handling. GAS TECHNOLOGIES® shall not be responsible for any indirect, incidental, or consequential damages or for any costs other than those incurred by GAS TECHNOLOGIES® to repair or replace the defective component. If components (including venting) other than factory approved components are used, all warranty and liability on the appliance is voided. **Defects reported after the first year will not be covered by warranty unless they fall within the purview of paragraph 2 or 3 below.**
2. If the following defects are reported during the second year after the date of installation, GAS TECHNOLOGIES® will supply replacement parts at the current wholesale price: defective electrical or manual components, optional components or accessories, and glass panels (not including glass panels broken during misuse or careless handling). GAS TECHNOLOGIES® shall not be responsible for any labor, transportation or other costs. Furthermore, it shall not be liable for any indirect, incidental or consequential damages.
3. GAS TECHNOLOGIES® will replace or repair a defective firebox or heat exchanger, at any time during the 10 years from the date of installation. The decision whether to replace the defective component shall be made at GAS TECHNOLOGIES® sole discretion. GAS TECHNOLOGIES® shall not be responsible for any indirect, incidental or consequential damages or for any costs other than those incurred by GAS TECHNOLOGIES® to repair or replace the defective component.

This Limited Warranty is the exclusive remedy available to you. If GAS TECHNOLOGIES® cannot effectively resolve a warranty problem in an expedient and cost-effective manner, it can discharge its entire warranty liability by refunding the price of the product to you.

Products made by other manufacturers, whether sold with the fireplace or added thereafter, are NOT covered by this Limited Warranty. The use of other unauthorized components will make this warranty null and void. This Limited Warranty will also be void if the appliance is not installed by a qualified installer in accordance with the Installation Instructions. Furthermore, the Limited Warranty will be void if the appliance is not operated, at all times, according to the Operating Instructions furnished with the appliance. Any service work must be performed by authorized service representatives.

EXCEPT TO THE EXTENT PROVIDED BY LAW, NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THE APPLIANCE PRODUCT. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damages, those limitations or exclusions may not apply to you. You may also have additional rights not covered in this Limited Warranty.

GAS TECHNOLOGIES® reserves the right to make changes at any time, without notice, in design, material, specifications, and prices. It also reserves the right to discontinue styles and products.