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Manufacturers  
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## **VICTORIA SERIES**

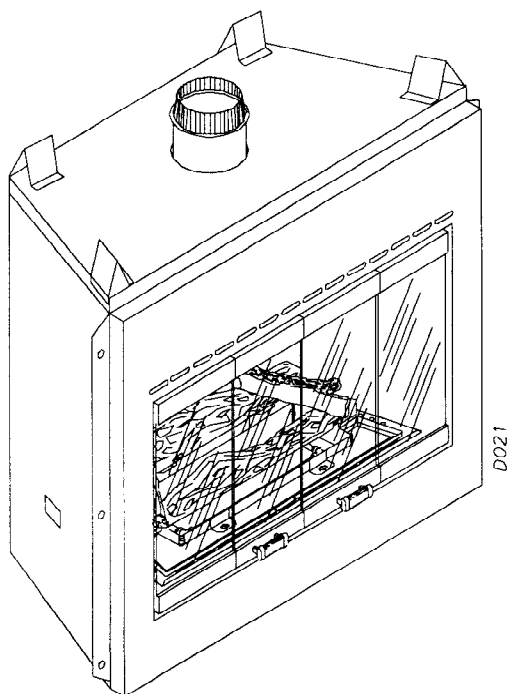
**GLS-650/GLS650E**

VENTED TYPE DECORATIVE GAS APPLIANCE  
WITH MILLIVOLT AND ELECTRONIC  
IGNITION

# **INSTALLATION AND OPERATING INSTRUCTIONS**

### **SAVE THIS BOOK**

This book is valuable. In addition to instructing you on how to install and maintain your appliance, it also contains information that will enable you to obtain replacement parts or optional accessory items when needed. Keep it with your other important papers.



**WARNING :** THE GRAVITY DIRECT VENT WALL FURNACE SERIES IS INTENDED FOR USE WITH NATURAL GAS ONLY! DO NOT ATTEMPT TO BURN ANY SOLID FUELS IN THESE APPLIANCES.

### **FOR YOUR SAFETY**

- Do not store or use gasoline or any other flammable vapors or liquids in the vicinity of this or any other appliance.
- Due to high temperatures, the appliance should be located out of traffic and away from furnitures and draperies.
- Do not place clothing or other flammable materials on or near the appliance.
- **NEVER** leave children unattended when a fire is burning in the appliance.

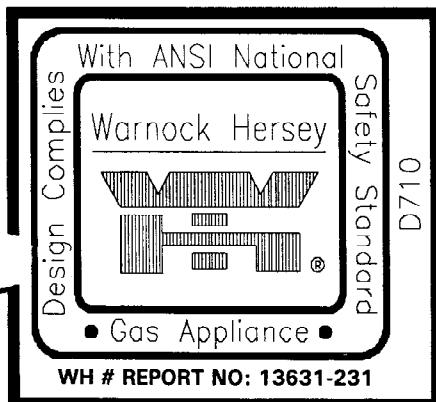
### **FOR YOUR SAFETY**

#### **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.

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

**CHECK LOCAL CODES PRIOR TO  
INSTALLATION**



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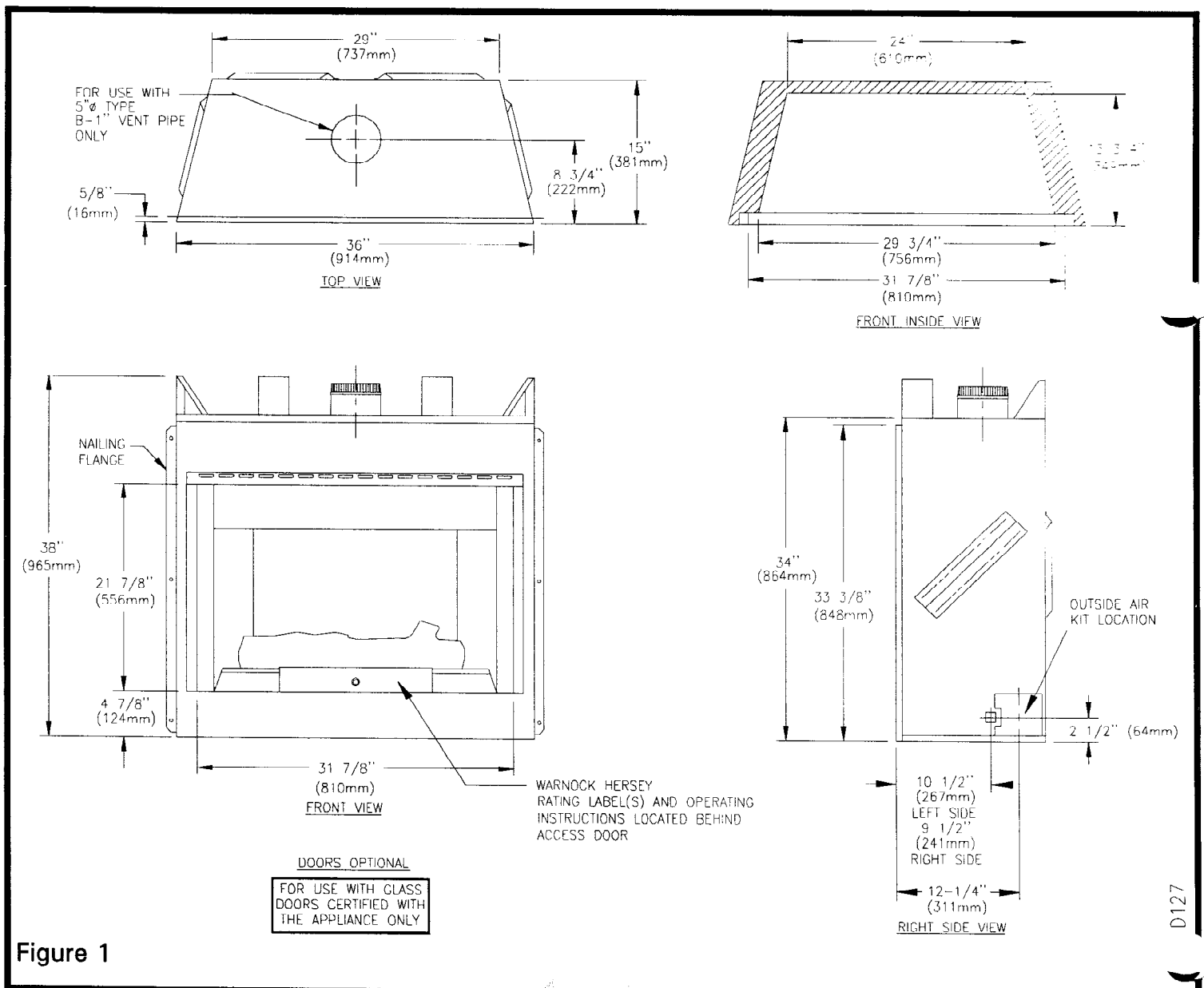


Figure 1

**NOTE: ALL DIMENSIONS IN THIS INSTALLATION MANUAL ARE IN INCHES UNLESS OTHERWISE SPECIFIED.**

## INTRODUCTION

Model GLS-650 series are radiant heat, vented decorative gas appliances that use a Millivolt Gas Control Valve and a Pilot Ignition System. Model GLS-650E series are radiant heat, vented decorative gas appliances that use an Electronic Gas Control Valve and an Electronic Ignition System. They both require the use of a 5", type B Vent System for operation.

5" Type B Vent is NOT supplied by FMI. Check with your "B" vent instructions for installation guidelines.

**WARNING** This gas appliance must not be connected to a chimney flue servicing a solid fuel burning appliance.

Bi-fold Glass Doors with matching trim kits are available as an option. Refer to the section on Accessories & Replacement Parts near the end of this manual.

- \* Models GLS-650 use **NATURAL GAS ONLY**.
- \* Models GLS-650E use **NATURAL GAS ONLY**.

If you have any doubts as to which gas your particular appliance is approved and tested, please check the **WARNOCK HERSEY rating plate** located at the interior of the appliance opening (Refer to Figure 1) or consult your local distributor.

### BEFORE YOU BEGIN:

Before beginning the installation of your appliance, read these instructions through completely. These FMI appliances and their approved components are safe when installed according to this installation manual and operated as recommended by FMI. Unless you use FMI approved components tested for the appliances, **YOU MAY CAUSE A SAFETY HAZARD !**

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

- Modification of the appliance or any of the components manufactured by FMI unless otherwise permitted in writing by FMI.
- The use of any components part not approved by FMI in combination with this FMI appliance.
- Installation and/or operation in a manner other than instructed in this manual.
- The burning of anything other than the type of gas approved for use in this gas appliance.

This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-1990 and CSA 22.1 Canadian Electrical Code for Canada. The installation must conform to local codes or in the absence of local codes, with the National Fuel Gas Codes, ANSI Z223.1-1992. When installed in Canada, follow the current CAN/CGA B149. This appliance complies with ANSI Z21.50b-1990 and CAN/CGA-2.22-M86 including IR#43 Standard as a "Vented Decorative Gas Appliance" and CAN/CGA-2.19-M91 "Gas Fired Appliance for Use at High Altitudes". This unit is tested and listed by the Warnock Hersey International, Inc. for both the U.S. and Canada.

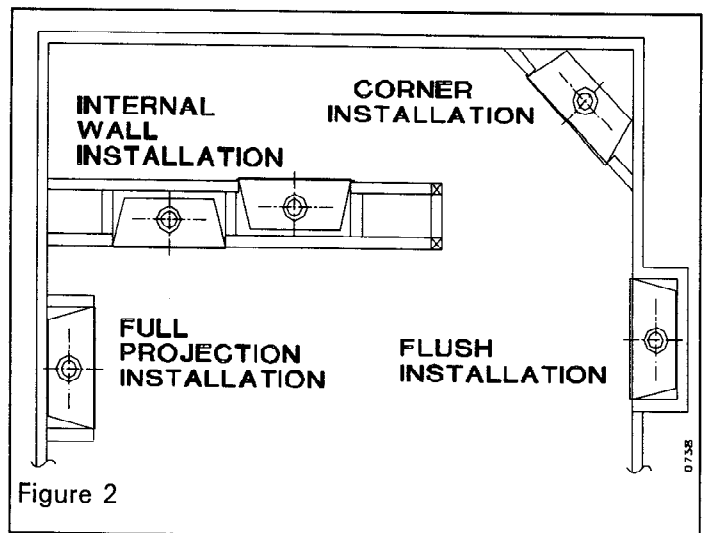
**THIS APPLIANCE IS INTENDED TO BE USED ONLY FOR SUPPLEMENTAL HEAT.**

**NOTE:** Installation and repair should be done by a qualified service technician. You will also need a building permit from your local Building and Safety Commissioner before installing this appliance, otherwise your insurance may not cover this appliance.

## SELECTING A LOCATION

To determine the safest and most efficient location for your appliance, consider the following guidelines:

- The location must allow for all proper clearances (See selection on Clearances).
- Consider a location where the heat output would not be affected by drafts, air conditioning ducts, windows, or doors.
- A location that avoids the cutting of joists or roof rafters makes installation easier. Figure 2 shows a plan view of common locations.



A flush installation is recommended where living space is limited or at a premium, and since the space required to enclose the appliance would be located beyond an outside wall. This would also reduce the cutting of joints roof rafters, etc. Check local codes for any restrictions.

Projected installations can extend any distance into the room. A projection may be ideal for a new addition on an existing, finished wall.

Corner installations make use of space that may not normally be used and provides a wider and more efficient range for radiant heat transfer.

An internal wall installation provides a discrete option for room separation and can also be ideal as an addition to an existing wall.

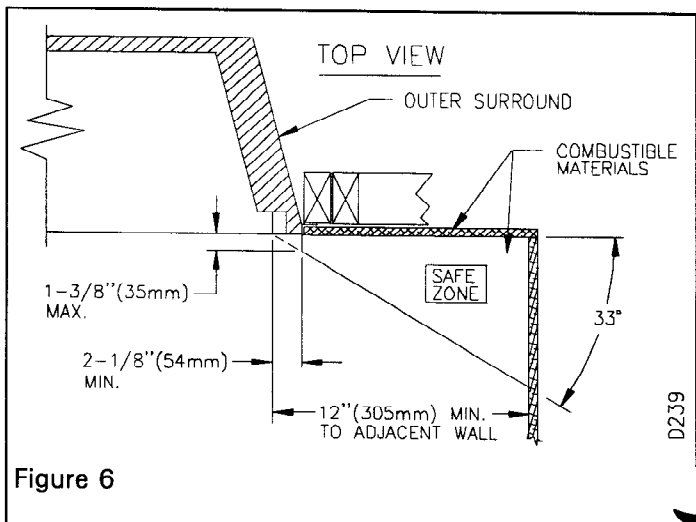
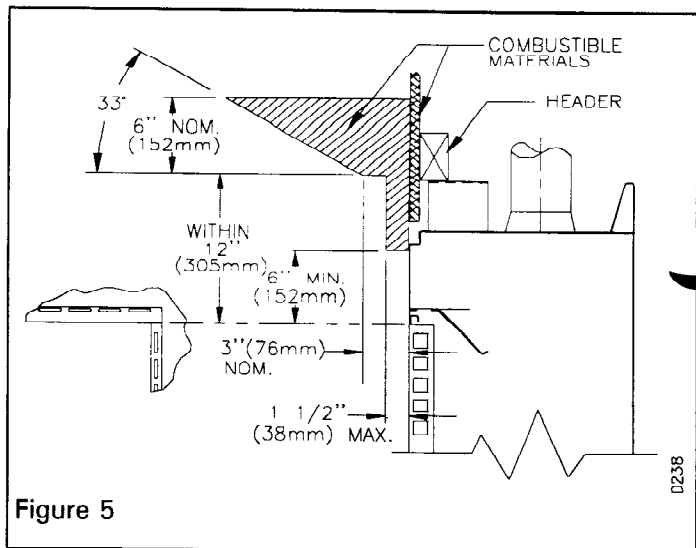
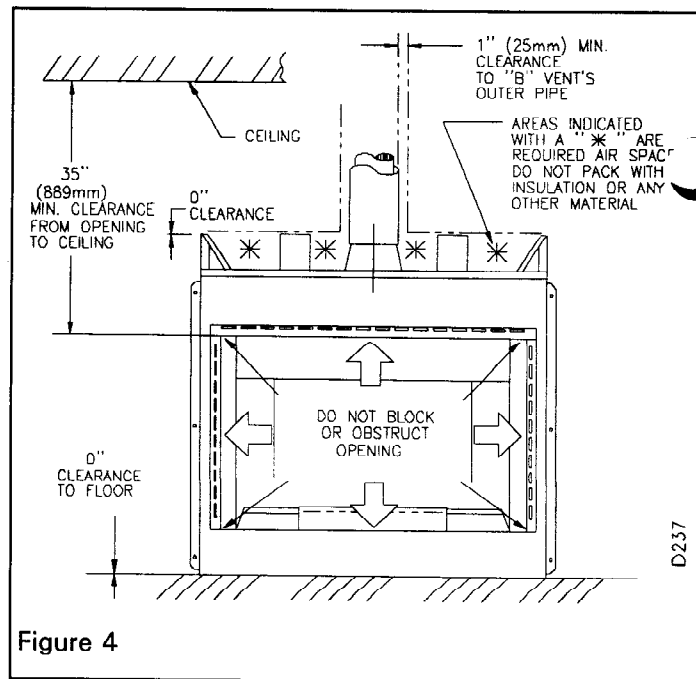
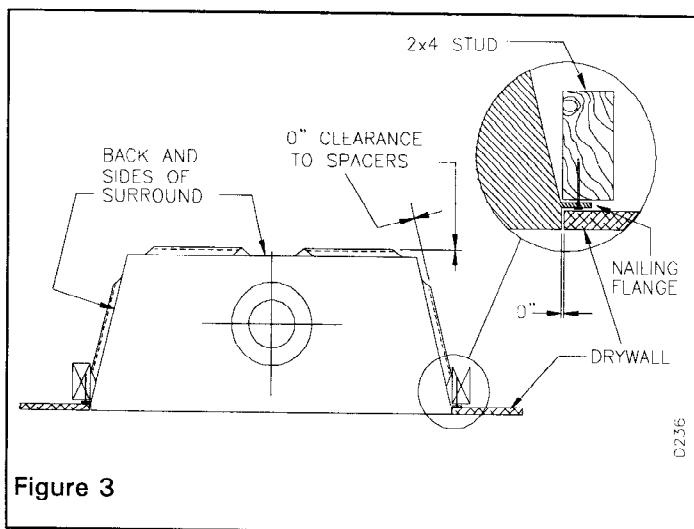
**ALSO, IN SELECTING A LOCATION, THE FOLLOWING PRECAUTIONS MUST BE OBSERVED.**

1. Do not connect this appliance to a chimney system used for a solid fuel burning fireplace.
2. Install in an area providing ventilation and adequate combustion air.
3. Due to high temperatures, the appliance should be located out of traffic and away from furnitures and draperies.
4. NEVER obstruct the front opening of the appliance or the flow of combustion and ventilation air. Keep control compartments accessible.
5. Do not locate in the vicinity where gasoline or other flammable liquids may be stored. The appliance area must be kept clear and free from these combustible materials.
6. Do not use this appliance if any part has been under water. Immediately contact a local service technician to examine the appliance and to replace any parts of the control ignition system and other related components that has been submerged under water.

## CLEARANCES

**MINIMUM CLEARANCES TO COMBUSTIBLES ARE:**

- \* Back and sides of outer surround:..... 0" MIN.
- \* Drywall to sides of frontface:.....0" MIN.
- \* "B" Vent surfaces: .....1"(25mm) MIN.
- \* Ceiling to opening:.....35"(889mm) MIN.
- \* Floor:.....0" MIN.



**CAUTION: DO NOT BLOCK REQUIRED AIR SPACES WITH INSULATION OR ANY OTHER MATERIAL. DO NOT OBSTRUCT THE EFFECTIVE OPENING OF THE APPLIANCE WITH ANY TYPE OF FACING MATERIAL.**

## MANTLE CLEARANCES :

Woodwork, such as wood trims, mantles, and other combustible materials, must not be placed within **6 inches (152mm)** of the appliance's opening. Combustible material projecting more than **1-1/2 inches (38mm)** from the appliance's front face must not be placed less than **12 inches (305mm)** from the opening of the appliance (Ref. NFPA Std. 211 Sec. 7-3.3.3). Figures 5 and 6 show limits on mantle locations.

## FRAMING

Construct framing using dimensions shown in either Figure 7 and 9, depending on your particular installation. If the appliance is to be installed directly on carpeting, tile (other than ceramic), or any combustible material other than wood flooring, the appliance must be installed upon a metal or wood panel extending the full width and depth of the appliance.

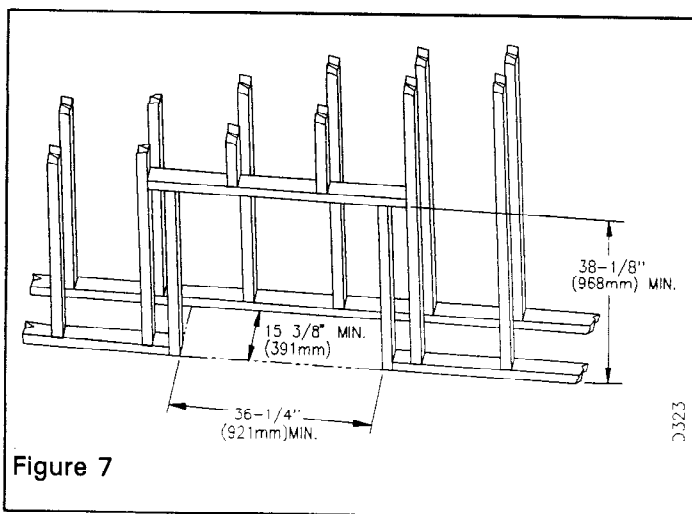


Figure 7

If a raised platform is to be constructed, ceiling clearances must be maintained (Refer to section on Clearances).

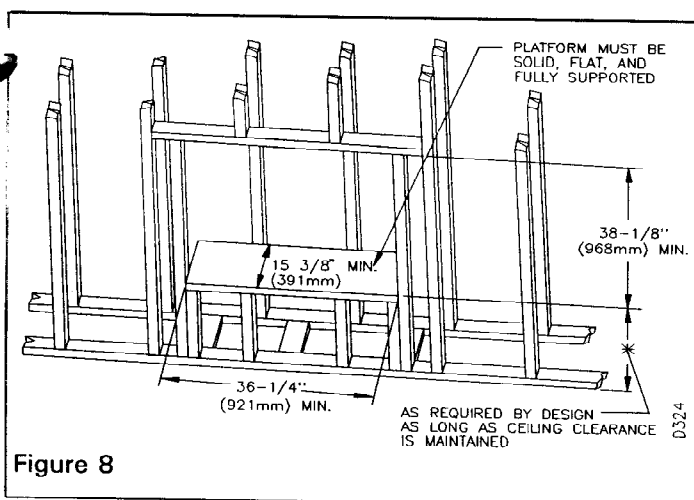


Figure 8

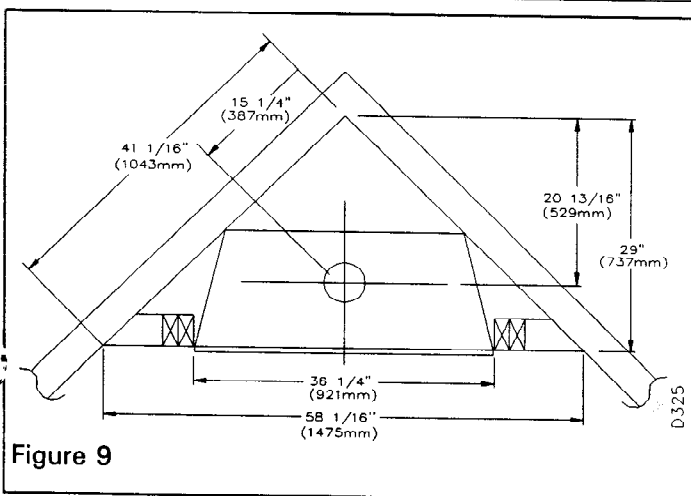


Figure 9

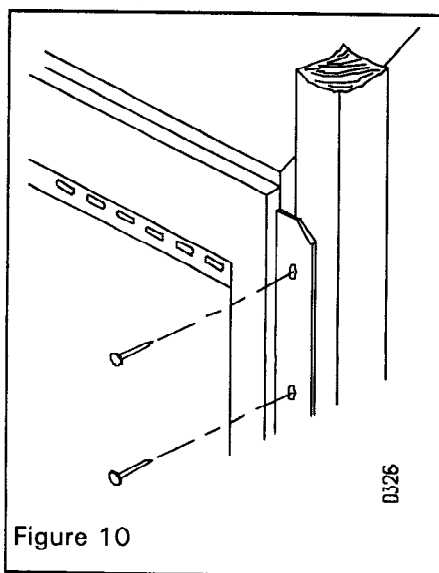


Figure 10

Proceed to secure the appliance to the prepared framing at the nailing flanges located at the sides of the appliance as shown in Figure 10.

## VENT PIPE INSTALLATION

A "5" Type B Gas Vent Pipe is a double wall, unitized venting system (not supplied) which must be installed during the rough framing of the appliance. Any listed Type B vent gas system may be used for proper venting as long as it is installed per the manufacturer's recommendations.

This appliance has been supplied with a tapered starting pipe for a snug fit. Slide Type B vent pipe over the starter pipe until fully seated. Fasten this first section by running a 5/8" long sheet metal screw through the outer wall of the pipe until it is secure (Figure 11).

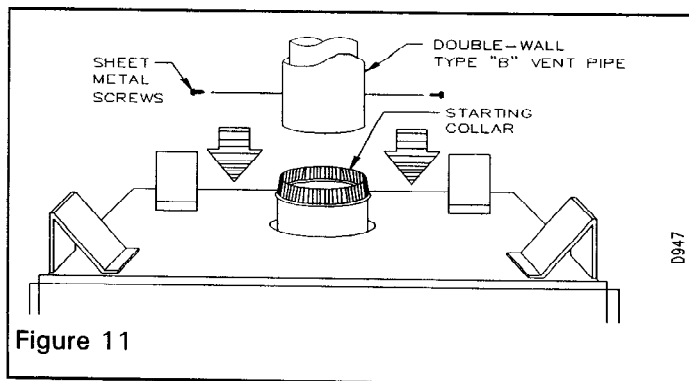


Figure 11

The Type B vent pipe must be properly terminated per B-vent manufacturer's instructions.

**Vent pipe must NOT terminate in attic space.**

**Minimum height for complete system is 12 feet (305mm). (Distance from appliance bottom to vent termination).**

**Maximum horizontal run of 5" Type B vent pipe can be greater than 75% of the vertical height of the vent.**

To inspect for proper vent pipe connection, simply look at the inside top portion of the appliance and visually check the connection. If the connection does not appear to be correct, contact your local service technician.

## GAS SUPPLY TESTING

**NOTE:** This section is intended as a guide for qualified technicians installing gas to the appliance.

**DO NOT CONNECT APPLIANCE BEFORE PRESSURE TESTING GAS PIPING. DAMAGE TO THE GAS VALVE MAY RESULT AND AN UNSAFE CONDITION MAY OCCUR.**

The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve. Pressures during testing should equal to or less than 1/2 psig (3.5 kPa).

### GAS RATING

TYPE OF GAS:	NATURAL
MAX. INPUT RATING:	
0 - 2000 FT.	28,000 Btu/Hr.
2000 - 4500 FT.	25,200 Btu/Hr.
MANIFOLD PRESSURE:	3.5 in. W.C. (0.87 kPa)
MIN. SUPPLY PRESSURE:	4.5 in. W.C. (1.12 kPa)
MAX. SUPPLY PRESSURE:	11.0 in. W.C. (2.74 kPa)
ORIFICE SIZE:	
0 - 2000 FT.	#39 (0.0995)
2000 - 4500 FT.	#41 (0.0960)

The gas control valve is secured to the burner pan assembly underneath the front ledge. A 1/8" NPT plugged tapping is provided on the valve for a test gauge connection immediately upstream of the gas supply connection to the appliance (Figure 12). Figure 13 shows the valve for the electronic unit GLS-650E.

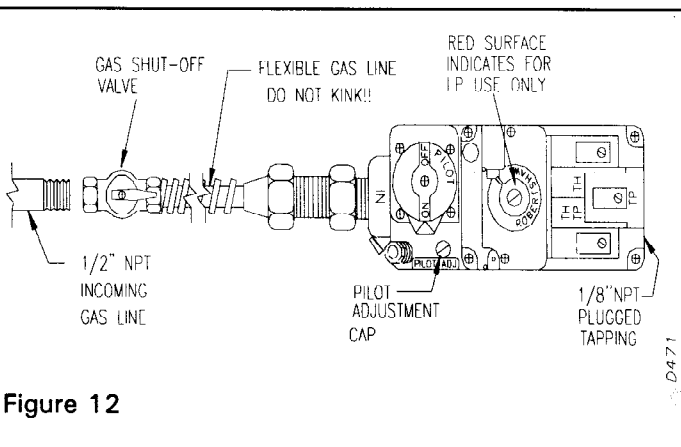


Figure 12

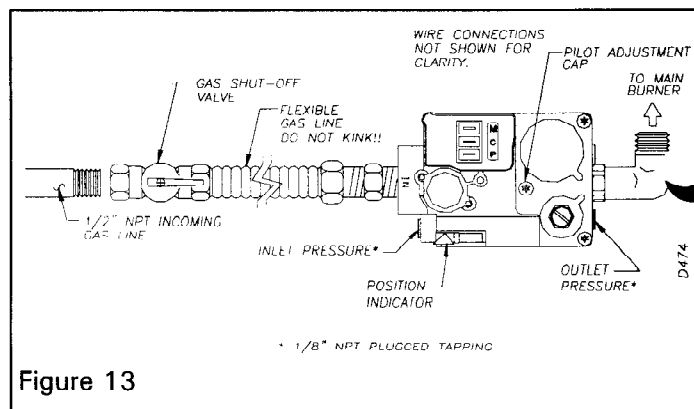


Figure 13

## GAS LINE HOOK UP

**GAS LINE HOOK-UP SHOULD BE DONE BY YOUR GAS SUPPLIER OR A QUALIFIED SERVICE TECHNICIAN.**

**NOTE: BEFORE YOU PROCEED, MAKE SURE YOUR GAS SUPPLY IS OFF!**

A manual shut-off valve has been included in the appliance's gas supply system along with a flexible gas line for your convenience. Both can be found inside the appliance. It may be desirable to install an additional shut-off valve outside the appliance's enclosure where it can be accessed with a key through a wall as shown in Figure 14.

Route a 1/2" NPT black iron gas line towards the appliance coming in from any direction as shown in Figure 15 and at the height specified in Figure 16.

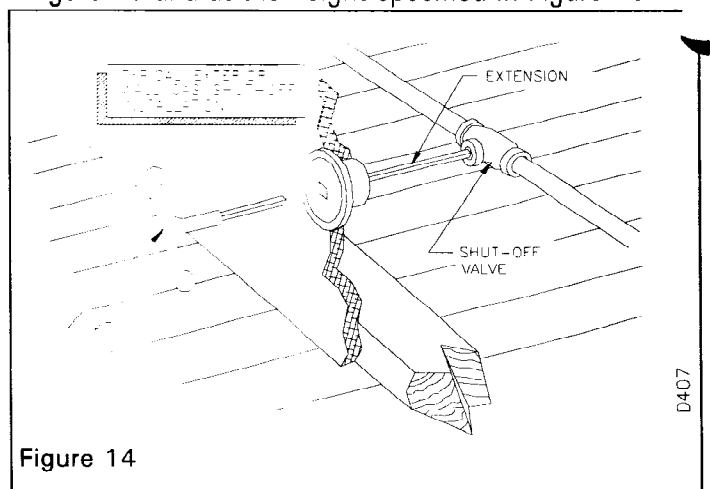


Figure 14

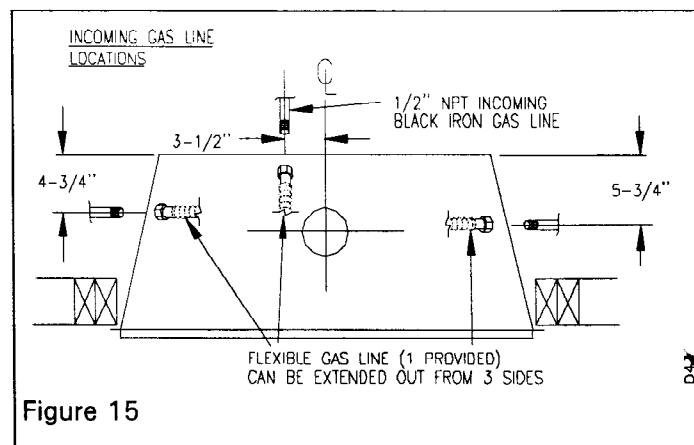
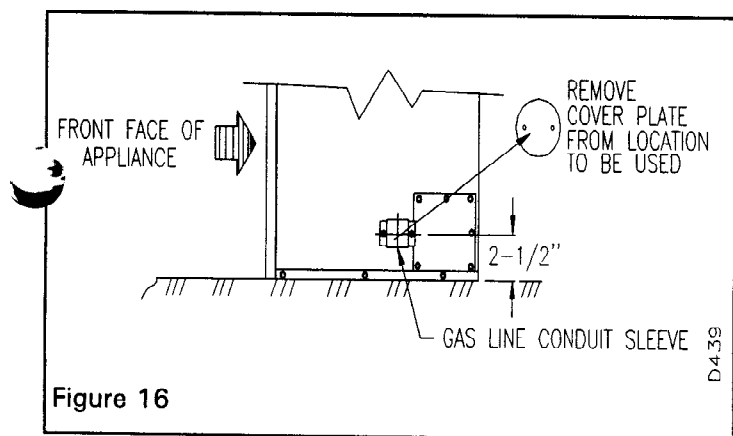


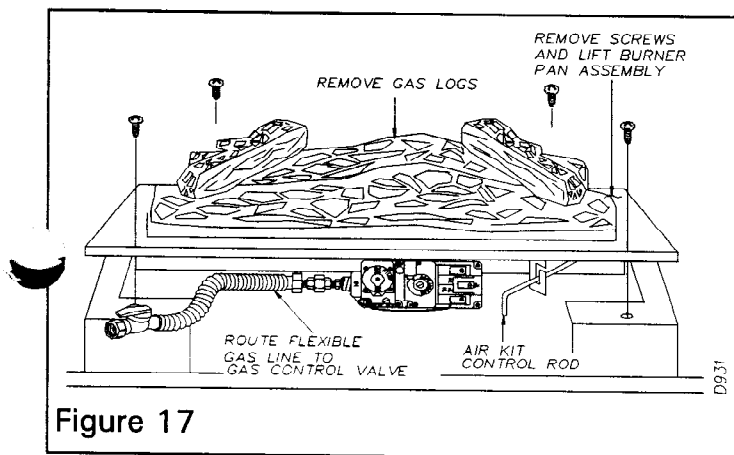
Figure 15



Remove the gas line cover plate from the appliance's outer surround at the location to be used.

**NOTE:** If you are routing your incoming gas line through the rear of the appliance, remove a gas line conduit sleeve from the right or left side, replace the cover, and reinstall the sleeve at the rear of the unit.

In order to route the flexible gas line through the opening chosen, the burner pan has to be raised. Remove the four screws securing the burner pan as shown in Figure 17. Millivolt system is shown.



**CAUTION:** All gas piping and connections must be tested for leaks after the installation is completed. After ensuring that the gas valve is on, apply a soap and water solution to all connections and joints. If bubbles appear, leaks can be detected and corrected. **DO NOT USE AN OPEN FLAME FOR LEAK TESTING AND DO NOT OPERATE ANY APPLIANCE IF A LEAK IS DETECTED.**

While raising the burner pan, route the flexible gas line through the gas line conduit sleeve at the opening chosen. Prepare incoming black iron gas line with Teflon tape or pipe joint compound (Check with local codes as to the use of Teflon tape). Complete your installation by connecting incoming gas line with flexible gas line. Secure tightly with a wrench but do not over-tighten. Replace the burner pan.

### COMBUSTION AIR KIT MODEL AK-GL (OPTIONAL)

The outside air kit is installed on the right side of the appliance only. The vent can be installed through and outside wall or a ventilated crawl space. The handle to operate the damper door for the outside air inlet will be located behind the burner valve access door when the kit is installed (See Figure 17). Pull the handle to open and push to close.

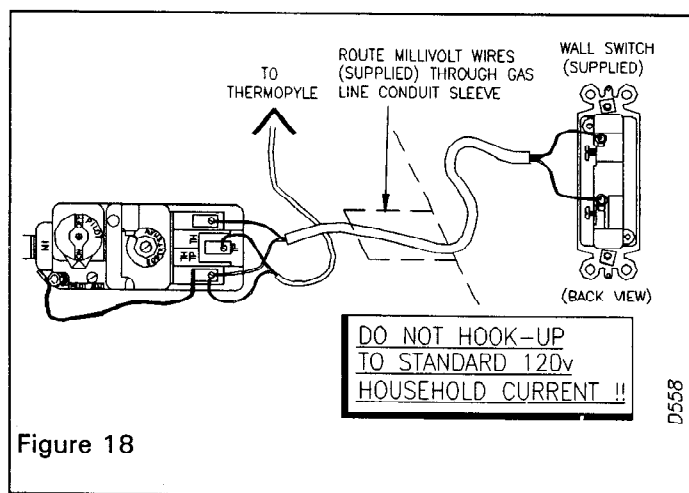
### WALL SWITCH INSTALLATION

The installation of a wall switch in this appliance allows you to activate the millivolt gas control valve without the use of normal current.

**WARNING : DO NOT CONNECT THIS MILLIVOLT SYSTEM TO A WALL SWITCH TO A REGULAR 120V POWER SOURCE!!!**

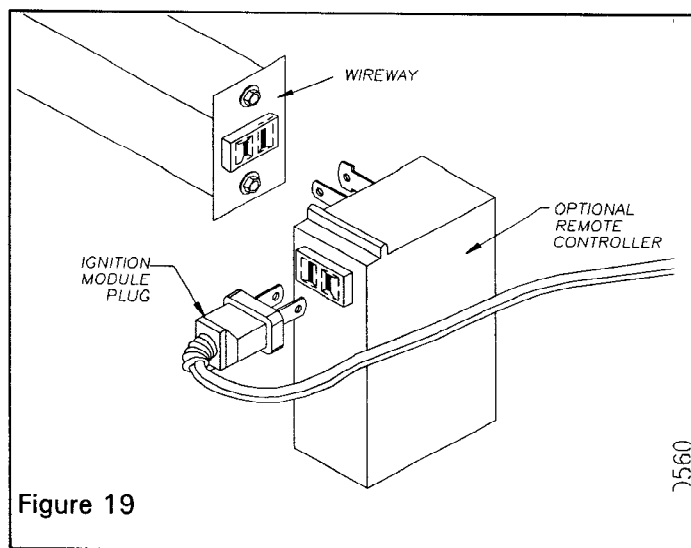
1. Remove the J-BOX Cover plate located on the left hand side of the appliance's outer surround.
2. Using the 18 ga. millivolt wire and the wall switch, both supplied with the appliance, proceed to connect per wiring diagram in Figure 18.

**NOTE:** IF ANY OF THE ORIGINAL WIRE SUPPLIED MUST BE REPLACED, USE THERMOSTAT MILLIVOLT WIRE 18 AWG TYPE CL2-105 DEG. C. OR EQUIVALENT (25 FT. MAXIMUM LENGTH. TEN FEET ARE SUPPLIED WITH THE APPLIANCE).



### ELECTRICAL HOOK-UP FOR GLS-650E

Before appliance can be operated, it must be properly connected to a standard 120 V power source. Refer to the Wiring Diagram.



A wireway with a receptacle has been supplied. It is located on the lower right hand side of the appliance's inner wall (See Figure 19). An optional remote control may also be installed at any time between this connection (See Wiring Diagram).

Check to see that the plug from the junction box is properly connected to the wireway. Install a sediment trap between the incoming gas line and the gas control valve. Refer to Figure 20.

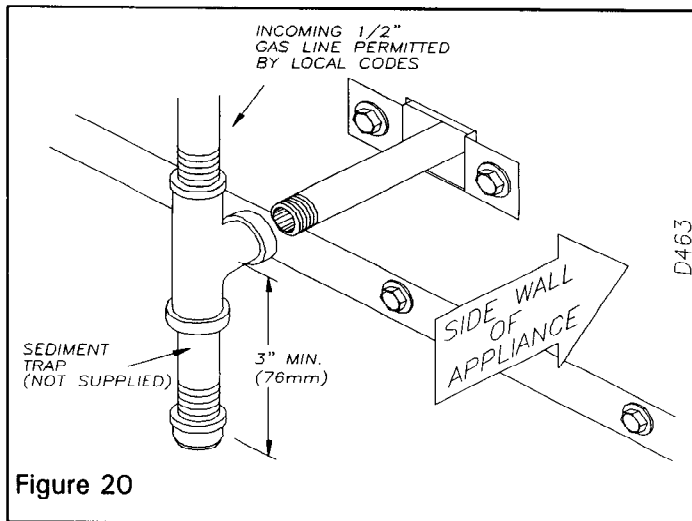


Figure 20

## PILOT ASSEMBLY ADJUSTMENT

The pilot assembly is factory preset for the proper flame height. Alterations to these settings may have occurred during shipping and handling. If this is the case, some minor readjustments may be necessary. The pilot assembly is located next to the burner tray on the right hand side. The thermopile height should be at a distance of 3/8" to 1/2" from the pilot flame (See Figure 21).

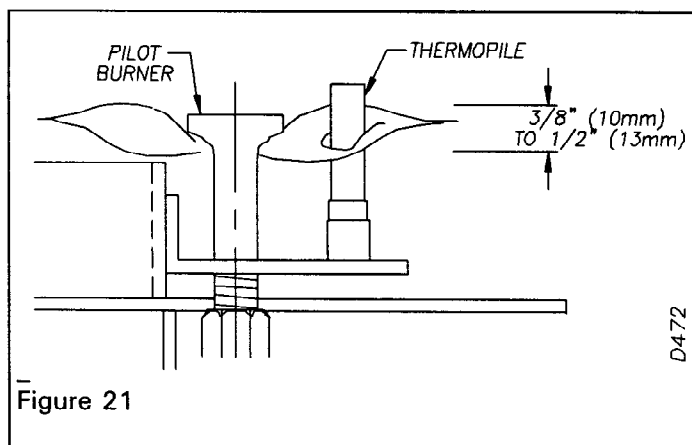


Figure 21

The ignition system for the GLS-650E is located next to the burner tray on the right hand side. The flame sensor height should be at a distance of 3/8" to 1/2" from the pilot flame. Refer to Figure 22.

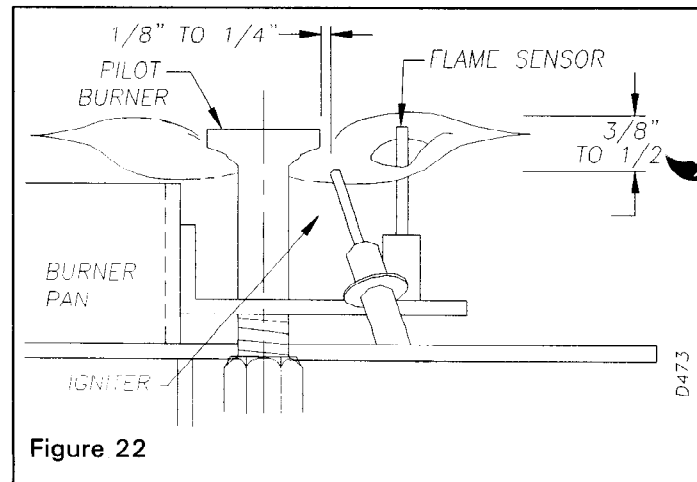


Figure 22

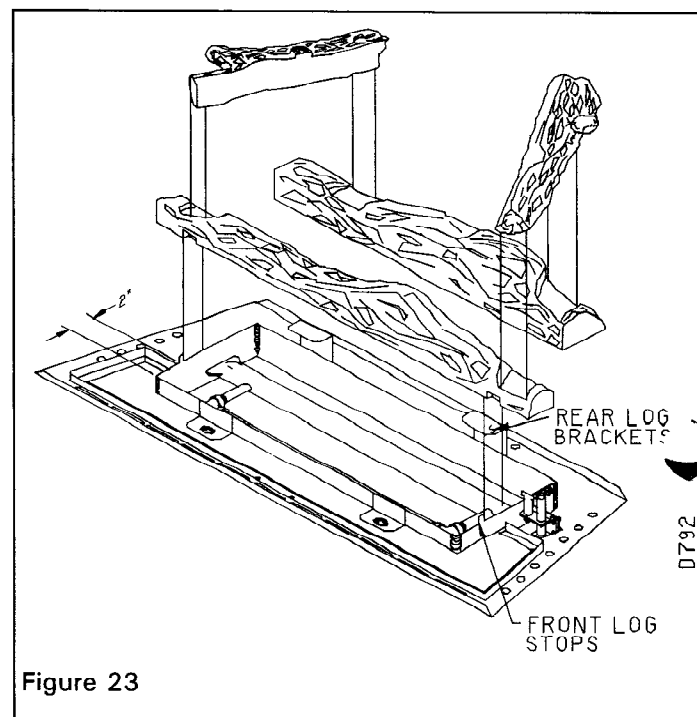


Figure 23

## LOGS, SAND, & EMBER INSTALLATION

1. Pour entire bag of sand into the burner box. Spread sand evenly across the burner box.
2. Rest the rear log on the two rear burner brackets.
3. Place the front log so that the log's notch rests on the stopper of the burner pan.
4. Place the two twigs on top of the front and rear logs. There are notches on the logs to indicate proper placement of the twigs.
5. Distribute ember material between the front log & front of the burner box.



## **OPERATING GUIDELINES & MAINTENANCE** **INSTRUCTIONS**

When lit for the first time, the appliance will emit a slight odor for about an hour or two. This is a normal occurrence which is due to the "curing" of logs and "burn-in" of internal paints and lubricants used in the manufacturing process.

Keep control compartments, logs, burners, and area surrounding the logs clean by vacuuming or brushing at least twice a year or as necessary. Temporary removal of the log set may ease the cleaning of the burner and pilot assembly. In cleaning, take care not to alter the settings on the pilot assembly.

FOR FURTHER OPERATING GUIDELINES, INSTRUCTIONS AND WARRANTY INFORMATION, PLEASE REFER TO YOUR OWNERS MANUAL OR CONTACT YOUR AUTHORIZED DEALER.

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

### **IMPORTANT**

Turn off gas and wall switch before servicing appliance. Any safety screen or guard removed for servicing this appliance must be replaced prior to operating.

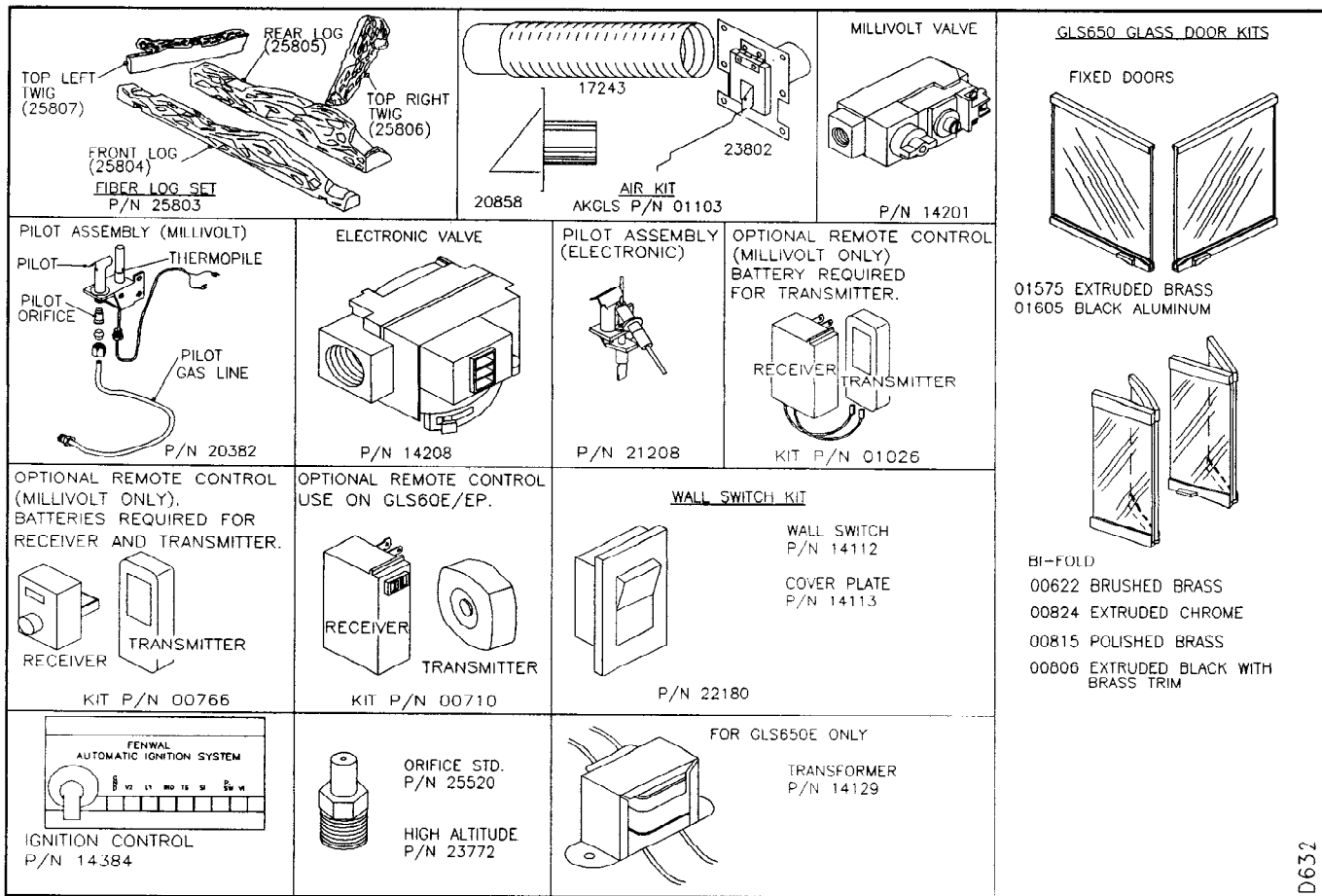
Clothing and other flammable material should not be placed on or near the appliance. Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of all obstacles and materials.

**WARNING:** Children and adults should be alerted to the hazards of high surface temperatures 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.

Have a qualified agency periodically inspect the vent system at the start of each heating season so as to be free of any obstructions which may hinder its normal operation. Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of any obstacles and combustible materials such as gasoline or other flammable vapors or liquids. It is also imperative that the control compartments, burners and circulating air passageways of the appliance be kept clean.

**WARNING: APPLIANCE WITH EQUIPPED WITH GLASS DOORS SHOULD BE OPERATED WITH THE DOORS FULLY OPENED OR FULLY CLOSED.**

## REPLACEMENT & ACCESSORY PARTS



**Type B Vent Pipe:** Any Type B 5" dia., gas vent pipe may be purchased from your local distributor or local hardware store.

**Log Set:** Fiber Log Sets come standard with all units.

**Pilot Assembly:** If in need of replacing, have a qualified technician replace it. Make sure proper pilot orifice is used.

**Gas Control Valve:** If in need of replacing the valve, have a qualified technician replace it.

**Glass Door Kit:** Optional FMI glass doors come in various styles and colors, check with your local representative.

**NOTE:** USE OF ANY OTHER GLASS DOOR ASSEMBLY NOT TESTED WITH THIS APPLIANCE MAY CONSTITUTE A FIRE HAZARD AND WILL VOID THE FMI WARRANTY.

**Outside Air Kit:** An optional outside air kit is available for installation. This kit must be installed during the initial framing of the appliance (Refer to instructions in kit)

**Wall Switch:** Wall switch and millivolt wires have been included with this appliance.

**Remote Control Kit:** An optional remote control kit may be installed to operate the appliance. The kit may be installed during or after installation is complete.

\* When ordering replacement or accessory items, please have your appliance's model name or number and the part number of the item(s) you are ordering ready.

\* The model name or number for your particular appliance may be found on the rating plate located inside the appliance (See Figure 1).

\* Refer to the parts list and pictures when ordering replacement parts for your appliance.

\* Repair parts or accessory items may be bought from your local distributor/dealer or directly from FMI.

\* All product specifications are subject to change without notice.

## 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.

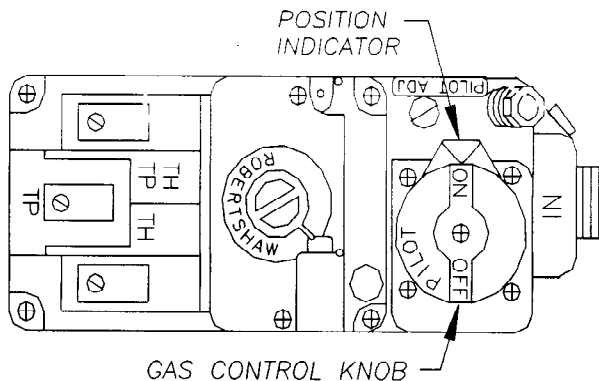
- A. This appliance has a pilot which must be lit by hand (manually). When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING**, smell all around the appliance area for gas. Be sure to smell next to the floor, for some gas is heavier than air and will settle on the floor.

### WHAT TO DO IF YOU SMELL GAS

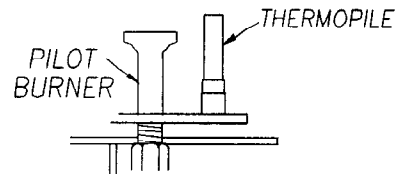
- \* Do not try to light any appliance.
  - \* Do not touch any electrical switch; do not use any phone in the building.
  - \* Immediately call your gas supplier from a neighbor's phone. Follow the supplier's instructions.
- \* If you cannot reach your supplier, call the fire department.
- C. Use only your hands to push in or turn 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 gas control which has been submerged.

## LIGHTING INSTRUCTIONS

1. **STOP!** Read the safety information above on this label before proceeding.
2. Turn wall switch to the "OFF" position.
3. Turn off all electrical power to the appliance.
4. Open control access panel.
5. Turn gas control knob clockwise to "OFF".



7. Find pilot—follow metal tube from gas control. The pilot is behind the burner tube.



6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, **STOP!** Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.

8. Turn knob on gas control counterclockwise to "PILOT".
9. Push in the control knob all the way and hold in. Immediately light the pilot manually. Continue to hold the control knob in for about (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
- If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
10. Turn gas control knob counterclockwise to "ON". Knob can be turned to "ON" only if the control knob is popped out.
11. Close control access panel.
12. Turn on all electric power to the appliance.

## TO TURN OFF GAS TO APPLIANCE

1. Turn off the wall switch.
2. Turn off all electric power to the appliance if service is to be performed.
3. Open control access panel.
4. Turn gas control knob clockwise to "OFF". Do not force.
5. Close control access panel.

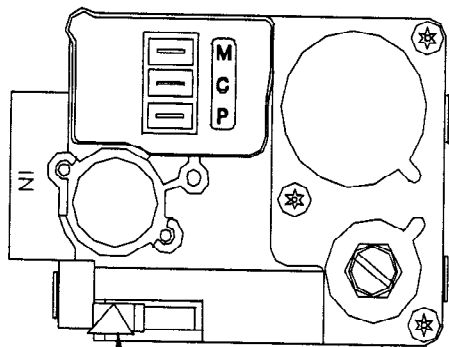
## FOR YOUR SAFETY READ BEFORE LIGHTING

**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. When lighting the pilot, follow these instructions exactly.
  - B. BEFORE turning "ON", smell around the appliance for gas. Be sure to smell next to the floor, some gases are 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 electrical switches. Do not use any phones in the building.
  - \* Immediately call your gas supplier from a neighbor's phone. Follow the supplier's instructions.
- \* If you cannot reach your supplier, call the fire department
  - C. Use only your hands to turn the "ON/OFF" lever. Never use tools. If the lever will not turn, don't try to repair. 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 gas controls which has been under water.

## LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label before proceeding.
2. Set the thermostat to lowest setting. (if applicable)
3. Turn off wall switch and all electrical power to the appliance.
4. This appliance is equipped with an ignition device which automatically light the pilot. DO NOT try to light the pilot by hand.
5. Open control access panel.
6. Turn gas control "ON/OFF" lever to the OFF position. Wait five (5) minutes to clear out any gas. If you smell gas, STOP! Follow "B" in the safety information above on this label.
7. Turn the "ON/OFF" lever to the ON position.
8. Turn the main burner wall switch to the ON position for ignition.
9. Close control access panel.
10. If the burner will not stay lit after several tries, turn the gas control lever to "OFF" and call your service technician or gas supplier.



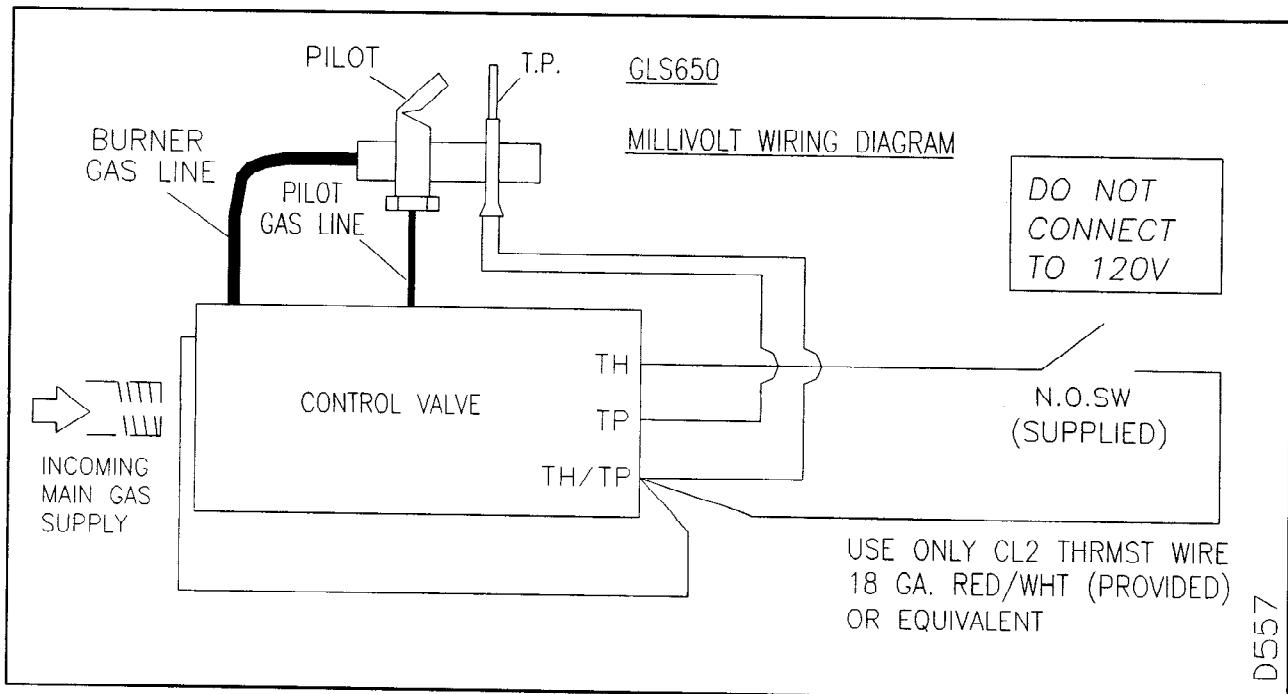
GAS CONTROL SWITCH

If remote control is installed, point transmitter at the appliance, press and hold down the button for three (3) seconds.

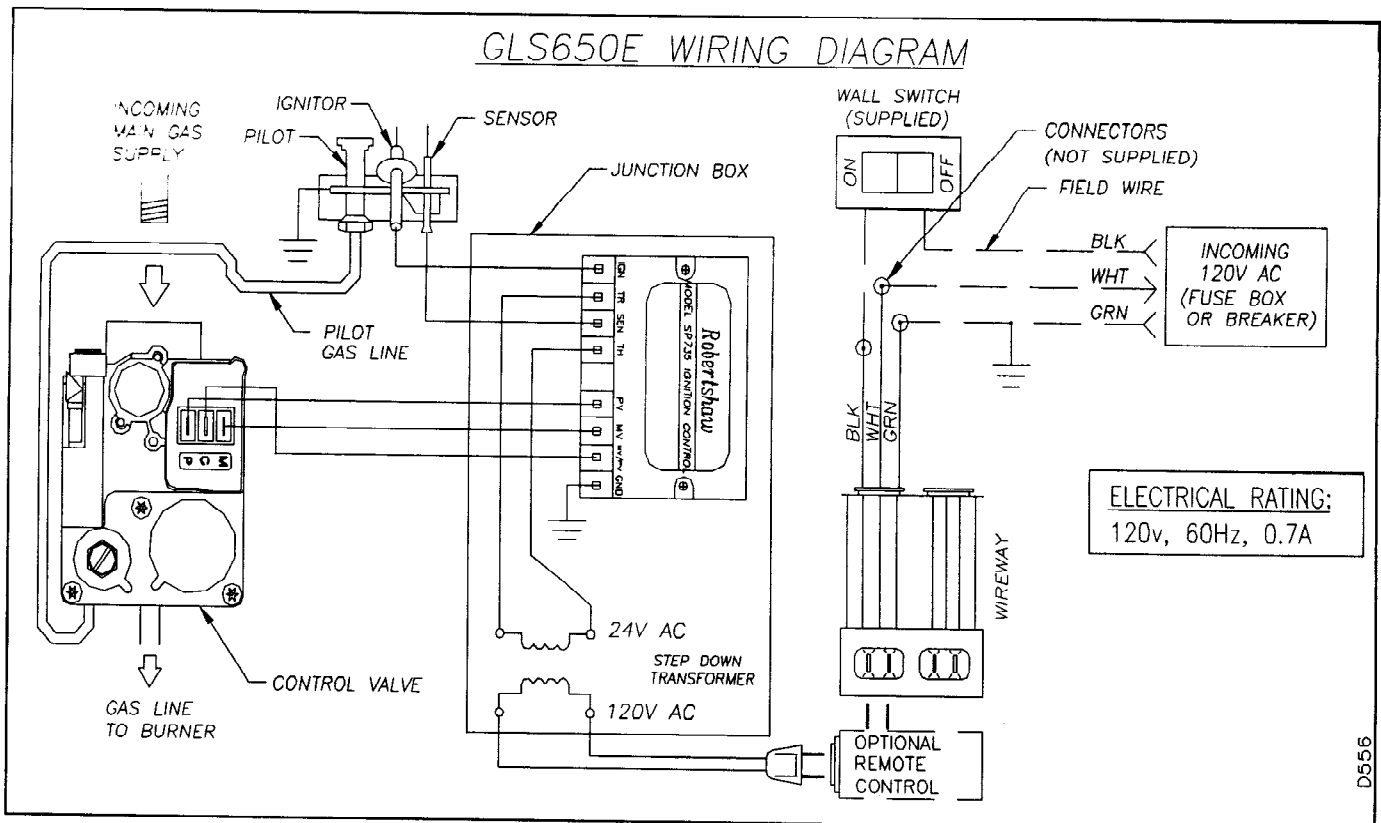
## TO TURN OFF GAS TO APPLIANCE

1. Turn off wall switch.
2. Turn off all electrical power to appliance if service is to be performed.
3. Remove control access panel or louver.
4. Turn gas control "ON/OFF" lever to the OFF position.

## WIRING DIAGRAM FOR GLS-650



## WIRING DIAGRAM FOR GLS-650E



# MILLIVOLT SYSTEM TROUBLESHOOTING GUIDE

## FOR GLS-650 VENTED DECORATIVE GAS APPLIANCE

THE TWO MOST COMMON CAUSES OF A MALFUNCTIONING GAS APPLIANCE ARE:

1. LOOSE WIRING CONNECTIONS
2. CONSTRUCTIONS DEBRIS CLOGGING THE PILOT AND/OR GAS CONTROL VALVE FILTER.

**NOTE:** BEFORE TROUBLESHOOTING THE SYSTEM, MAKE SURE THE GAS SHUT-OFF VALVE IS **OPEN**.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. PILOT WILL NOT LIGHT	<p>1a. NO GAS SUPPLY, OR SHUT-OFF VALVE IS OFF.</p> <p>1b. AIR IN GAS LINE.</p> <p>1c. CONSTRUCTION DEBRIS CLOGGING PILOT ORIFICE.</p> <p>1d. LOW GAS PRESSURE.</p> <p>1e. CONTROL VALVE KNOB IS NOT ON THE "PILOT" POSITION.</p> <p>1f. KINKED PILOT LINE</p> <p>1g. BAD VALVE.</p>	<p>A. CHECK TO SEE IF YOU HAVE GAS SUPPLY.</p> <p>B. HOLD REGULATOR CONTROL VALVE IN THE "PILOT" POSITION FOR 2 OR 3 MINUTES TO PURGE AIR. IF YOU SMELL GAS <b>STOP</b> AND WAIT FOR A FEW MINUTES BEFORE TRYING TO LIGHT THE FIREPLACE.</p> <p>C. REMOVE DEBRIS AND DIRT, INSPECT AND CLEAN ANY OTHER POSSIBLE OBSTRUCTIONS.</p> <p>D. CONTACT YOUR GAS SUPPLIER.</p> <p>E. REFER TO SECTION ON PILOT LIGHTING.</p> <p>F. HAVE A QUALIFIED TECHNICIAN REPLACE PILOT LINE.</p> <p>G. REPLACE REGULATOR VALVE (REFER TO REPLACEMENT PARTS LIST).</p>
2. PILOT WILL NOT STAY LIT	<p>2a. LOOSE WIRING ON THERMOPILE TO REGULATOR VALVE - NO MILLIVOLT CURRENT IS BEING SENT BACK TO REGULATOR.</p> <p>2b. IF VALVE KNOB AND WALL SWITCH ARE IN THE "ON" POSITION-PROBABLE DEFECTIVE REGULATOR VALVE.</p>	<p>A. CHECK WIRING CONNECTIONS. REFER TO WIRING DIAGRAM</p> <p>B. HAVE A QUALIFIED TECHNICIAN REPLACE VALVE.</p>
3. NO GAS TO BURNER, ALTHOUGH WALL SWITCH AND VALVE ARE SET TO THE "ON" POSITION.	<p>3a. WALL SWITCH WIRES DEFECTIVE.</p> <p>3b. POWERPLYE GENERATOR OR SENSOR NOT GENERATING SUFFICIENT VOLTAGE</p>	<p>A. CHECK ELECTRICAL CONNECTIONS.</p> <p>B. RE-CHECK PROBLEM #2.</p>
4. FREQUENT PILOT OUTAGE.	4a. PILOT FLAME MAY BE TOO LOW, CAUSING SAFETY PILOT TO "DROP OUT".	A. CLEAN AND ADJUST PILOT FLAME FOR MAXIMUM FLAME IMPINGEMENT ON THERMOCOUPLE.
5. PILOT GOES OUT WHEN WALL SWITCH IS ON.	5a. MILLIVOLT OUTPUT ON THERMOPILE TOO HIGH.	A. REPLACE THERMOPILE

# ELECTRONIC IGNITION TROUBLESHOOTING GUIDE

## FOR GLS-650E VENTED DECORATIVE GAS APPLIANCE

THE TWO MOST COMMON CAUSES OF A MALFUNCTIONING GAS APPLIANCE ARE:

1. LOOSE WIRING CONNECTIONS

2. CONSTRUCTIONS DEBRIS CLOGGING THE PILOT AND/OR GAS CONTROL VALVE FILTER.

**NOTE:** BEFORE TROUBLESHOOTING THE SYSTEM, MAKE SURE THE GAS SHUT-OFF VALVE IS OPEN.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. PILOT WILL NOT LIGHT	<p>1a. NO GAS SUPPLY, OR SHUT-OFF VALVE IS OFF.</p> <p>1b. AIR IN GAS LINE.</p> <p>1c. CONSTRUCTION DEBRIS CLOGGING PILOT ORIFICE.</p> <p>1d. LOW GAS PRESSURE.</p> <p>1e. CONTROL VALVE KNOB IS NOT ON THE "PILOT" POSITION.</p> <p>1f. KINKED PILOT LINE</p> <p>1g. BAD VALVE.</p>	<p>A. CHECK TO SEE IF YOU HAVE GAS SUPPLY.</p> <p>B. HOLD REGULATOR CONTROL VALVE IN THE "PILOT" POSITION FOR 2 OR 3 MINUTES TO PURGE AIR. IF YOU SMELL GAS <b>STOP</b> AND WAIT FOR A FEW MINUTES BEFORE TRYING TO LIGHT THE FIREPLACE.</p> <p>C. REMOVE DEBRIS AND DIRT, INSPECT AND CLEAN ANY OTHER POSSIBLE OBSTRUCTIONS.</p> <p>D. CONTACT YOUR GAS SUPPLIER.</p> <p>E. REFER TO SECTION ON PILOT LIGHTING.</p> <p>F. HAVE A QUALIFIED TECHNICIAN REPLACE PILOT LINE.</p> <p>G. REPLACE REGULATOR VALVE (REFER TO REPLACEMENT PARTS LIST).</p>
2. PILOT WILL NOT STAY LIT	<p>2a. LOOSE WIRING ON THERMOPILE TO REGULATOR VALVE - NO MILLIVOLT CURRENT IS BEING SENT BACK TO REGULATOR.</p> <p>2b. IF VALVE KNOB AND WALL SWITCH ARE IN THE "ON" POSITION-PROBABLE DEFECTIVE REGULATOR VALVE.</p>	<p>A. CHECK WIRING CONNECTIONS. REFER TO WIRING DIAGRAM</p> <p>B. HAVE A QUALIFIED TECHNICIAN REPLACE VALVE.</p>
3. NO GAS TO BURNER, ALTHOUGH WALL SWITCH AND VALVE ARE SET TO THE "ON" POSITION.	<p>3a. WALL SWITCH WIRES DEFECTIVE.</p> <p>3b. POWERPLYE GENERATOR OR SENSOR NOT GENERATING SUFFICIENT VOLTAGE</p>	<p>A. CHECK ELECTRICAL CONNECTIONS.</p> <p>B. RE-CHECK PROBLEM #2.</p>
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5. PILOT GOES OUT WHEN WALL SWITCH IS ON.	5a. MILLIVOLT OUTPUT ON THERMOPILE TOO HIGH.	A. REPLACE THERMOPILE

**FIREPLACE MANUFACTURERS, INC.**  
**GAS APPLIANCE**  
**LIMITED 2 YEAR WARRANTY**

**THE WARRANTY**

Fireplace Manufacturers, Inc., (hereafter referred to as FMI), warrants the FMI Gas Appliance to be free from defects in materials and workmanship at the time of manufacture.

**REMEDY AND EXCLUSIONS**

The coverage of this Warranty is limited to all components of the gas appliance manufactured by FMI, with the exception of glass and refractory. The glass is warranted for 90 days. There will be no cost for replacement of glass within 90 days of installation, provided that breakage is due to heat from the appliance. We do not warranty breakage occurring during installation or transportation.

If the decorative gas appliance covered by this Warranty is found to be defective within one year from the date of installation, FMI will, at its option, replace or repair defective components of the decorative gas appliance manufactured by FMI at no charge, or will pay for reasonable costs incurred in replacing or repairing such components. These charges should be pre-approved by FMI before any work is done. During the second year of the Warranty, FMI shall supply replacement parts, if readily available, at the current minimum wholesale price. FMI will not be responsible for any other expense.

**REFRACTORY WARRANTY (IF APPLICABLE)**

**FIRST YEAR** FMI warrants the refractory (except for hairline cracks less than 1/16" in width), one year from the date of manufacture to be free from defect in material and workmanship. If the original owner of an FMI fireplace believes that any of the refractory parts have failed during the above one year period, he/she should notify the nearest (FMI) distributor or dealer. FMI will pay for the refractory replacement and reasonable labor charges. FMI will be responsible for the freight charges.

**SECOND YEAR** FMI will supply refractory replacement parts at the current list price that is in effect at time of replacement. FMI will assume no responsibility for any labor or freight charges incurred.

This Warranty covers only parts and labor as provided above. In no case shall FMI be responsible for materials, components, or construction which are not manufactured or supplied by FMI. FMI will not be responsible for any labor charges to remove such materials, components, or construction. All replacement parts will be shipped F.O.B., Santa Ana, to purchasers' address or the nearest FMI distributor.

**QUALIFICATIONS TO THE WARRANTY**

The decorative gas appliance Warranty outlined above is further subject to the following qualifications:

1. The gas appliance must be installed as per the FMI installation instructions and local building codes. The use of components manufactured by others with this FMI gas appliance, (except for the Type B venting system as outlined in the installation instructions, if applicable), could create serious safety hazards, may result in denial of certification by recognized national safety agencies, and could be in violation of local building codes. The Warranty does not cover any damages occurring from the use of any components not manufactured or supplied by FMI.

2. THE FMI APPLIANCE MUST BE SUBJECTED TO NORMAL USE. THE DECORATIVE GAS APPLIANCES ARE DESIGNED TO BURN EITHER NATURAL OR PROPANE GAS ONLY. BURNING CONVENTIONAL FIREPLACE FUELS SUCH AS WOOD, COAL, OR ANY OTHER SOLID FUEL WILL CAUSE DAMAGE TO THE DECORATIVE GAS APPLIANCE, WILL PRODUCE EXCESSIVE TEMPERATURES, AND WILL RESULT IN A FIRE HAZARD.

**LIMITATION OF LIABILITY**

It is expressly understood that FMI's sole obligation and purchaser's exclusive remedy under this Warranty, expressed or implied, or in contract, tort, or otherwise, shall be limited to replacement or repair as specified above. In no event shall FMI be responsible for any incidental or consequential damages caused by defects in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by FMI's negligence. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to this FMI decorative gas appliance is limited to the duration of the foregoing Warranty.

**INVESTIGATION OF CLAIMS AGAINST WARRANTY**

FMI reserves the right to investigate any and all claims against this Warranty and to decide upon method of settlement.

**FMI IS NOT RESPONSIBLE FOR WORK DONE WITHOUT WRITTEN CONSENT**

FMI shall in no event be responsible for any warranty work done without first obtaining FMI's written consent.

**HOW TO REGISTER A CLAIM AGAINST WARRANTY**

A (FMI) dealer or distributor should be contacted directly by the owner for any service, including service under these warranties. The repair and replacement of any defective part covered by these warranties is the responsibility of the nearest (FMI) dealer or distributor.

**OTHER RIGHTS**

This Warranty gives you specific rights, and you may also have other rights which vary from State to State.

THESE WARRANTIES ARE GIVEN IN LIEU OF ANY OTHER EXPRESSED WARRANTIES. FIREPLACE MANUFACTURERS, INC. (FMI) DOES NOT AUTHORIZE ANY PERSON OR REPRESENTATIVE TO MAKE REPRESENTATIONS TO THE CONTRARY IN CONNECTION WITH THE SALE OF A DECORATIVE GAS APPLIANCE.