



**Fireplace  
Manufacturers  
Incorporated**

## ELITE Series

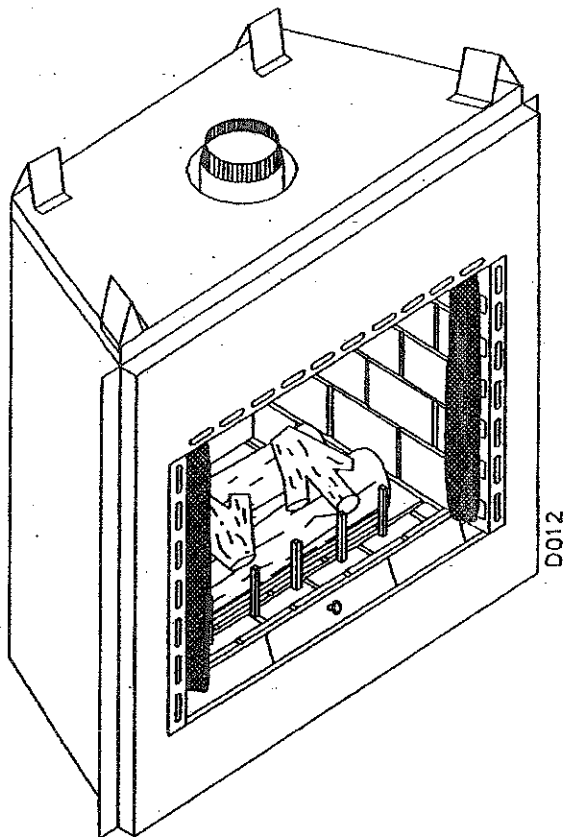
GL-850/P

GL-850E/EP

### VENTED DECORATIVE GAS APPLIANCE 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 DECORATIVE GAS APPLIANCE SERIES IS INTENDED FOR USE WITH NATURAL OR PROPANE GAS ONLY ! (DEPENDING ON THE TYPE OF GAS YOUR PARTICULAR MODEL IS APPROVED FOR.) DO NOT ATTEMPT TO BURN ANY SOLID FUELS IN THESE APPLIANCES.



THIS SYMBOL ON THE PRODUCT  
MEANS IT IS LISTED BY  
UNDERWRITER'S LABORATORIES, INC.

UL FILE NO. MH15659

D937

#### 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 furniture 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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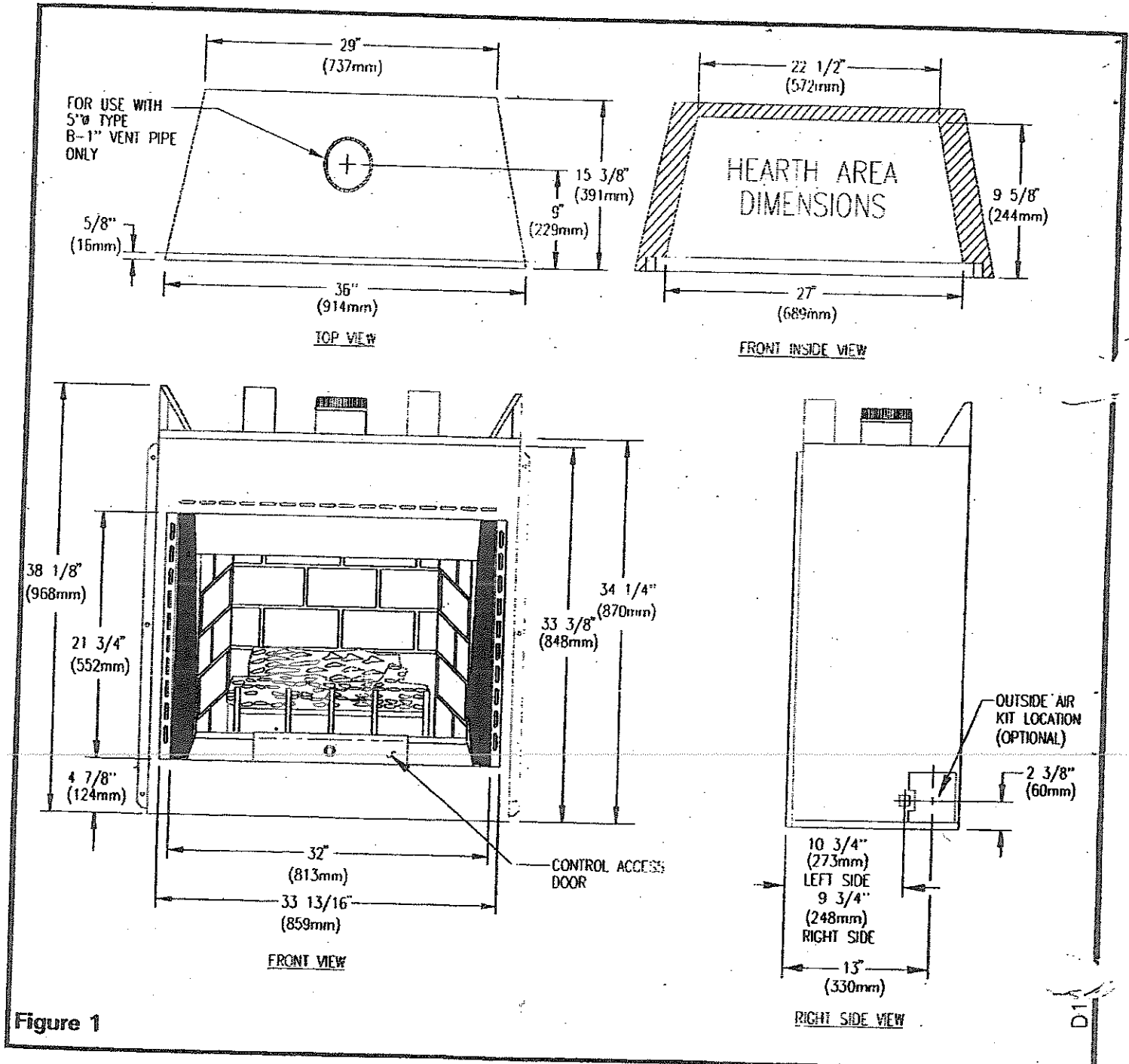


Figure 1

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## LOG SET PLACEMENT

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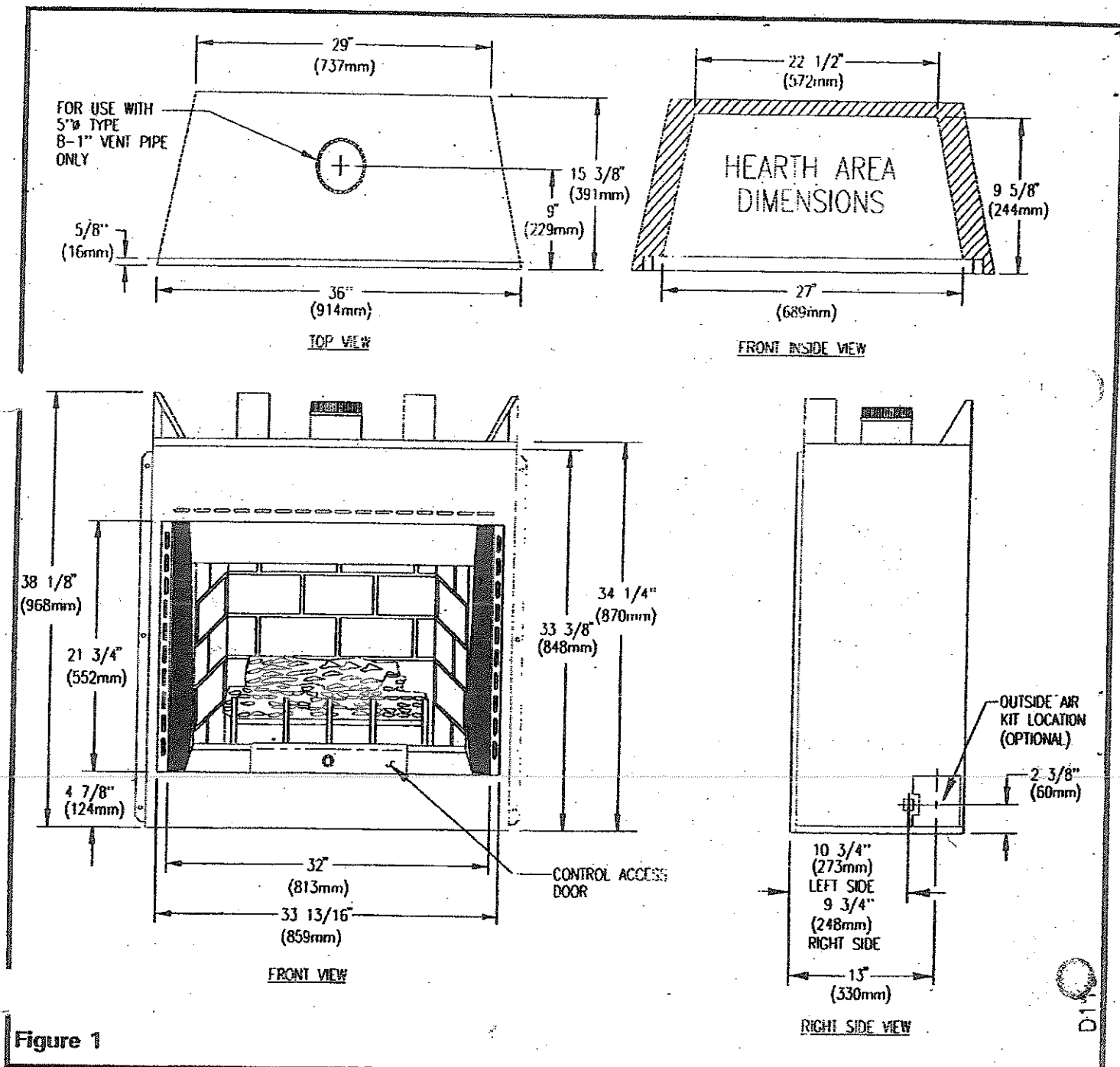


Figure 1

## INTRODUCTION

Models GL850/P and GL850E/EP series are radiant heat decorative gas appliances that use a millivolt gas control valve, with a millivolt ignition system or electronic gas control valve with electronic ignition system. They require the utilization of a 5" Type-B Venting System for operation.

5" Type-B Vent 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 color Trim Kits are available for this appliance as an option, refer to section on ACCESSORIES & REPLACEMENT PARTS near the end of this manual.

- Models GL-850 and GL850E are for use with Natural gas only.
- Models GL-850P and GL850EP are for use with Propane gas only.

If you have any doubts as to which gas your particular unit is approved and tested, please check the UL Rating Plate located behind the control access door (see figure 1).

### BEFORE YOU BEGIN

Before beginning the installation of your appliance, read the instructions through completely. This FMI appliance and its' approved components are safe when installed according to this installation manual and rated as recommended by FMI. Unless you use FMI approved components tested for this appliance, **YOU MAY CAUSE A FIRE HAZARD!**

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

- A) Modification of the appliance or any of the components.
- B) Use of any component part not approved by FMI in combination with this appliance.
- C) Installation and/or operation in a manner other than instructed in this manual.
- D) The burning of anything other than the type of gas approved for use of 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 70-1987

The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-1988.

This appliance complies with ANSI Z21.50b-1990 as a Listed Decorative Gas Appliance and is listed and tested by Underwriters Laboratories Inc. to the above standards.

**NOTE:** Installation of this appliance should be done by a qualified service person well trained in the installation of such appliances. You will also need a building permit from your local Building and Safety Commissioner before installing this appliance, otherwise your insurance co. may not cover this appliance.

**THIS APPLIANCE IS NOT INTENDED TO BE USED AS A PRIMARY SOURCE OF HEAT.**

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

The appliance and it's 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 ½ psig (3.5 kPa).

The 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 ½ psig (3.5 kPa).

GAS RATING			
TYPE OF GAS	NATURAL	L.P. (PROPANE)	
MAX. INPUT RATING:	21,000 Btu/hr	21,000 Btu/hr	
MANIFOLD PRESSURE:	3.5 in. WC(.87 kPa)	10.0 in. WC(2.49 kPa)	
MINIMUM SUPPLY PRESSURE:	4.5 in. WC(1.12 kPa)	11.0 in. WC(2.74 kPa)	
MAXIMUM SUPPLY PRESSURE:	7.0 in. WC(1.74 kPa)	13.0 in. WC(3.23 kPa)	
ORIFICE SIZE	# 44	#49	

For the purpose of input adjustment. Two 1/8" NPT plugged tappings (for IN and OUT pressures) are provided on the Gas Control Valve for test gauge connections immediately upstream of the gas supply connection to the appliance.

### SELECTING LOCATION

To determine the safest and most efficient location for your appliance, you should take into consideration the following guidelines:

1. The location must allow for proper clearances (see section on clearances).
2. Consider a location where heat output would not be affected by drafts, air conditioning ducts, windows or doors.
3. A location that avoids the cutting of joists or roof rafter will make installation easier. Figure 2 shows a plan view of a few common locations.
4. 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

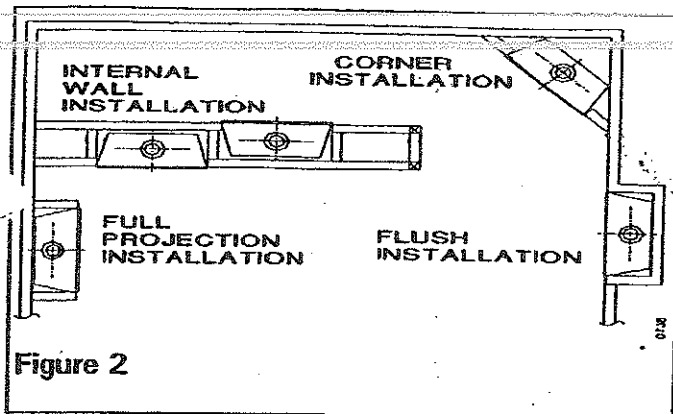


Figure 2

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 joists, roof rafters and such. 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 transference.

An internal wall installation provides a discreet 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 furniture 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. A hearth extension is not required with this appliance. If one is installed, it is for aesthetic purposes only and does not have to meet the standard requirements.

## CLEARANCES

**MINIMUM CLEARANCES TO COMBUSTIBLES ARE:**

- Back and sides of outer surround:.....1/2" min.
- Drywall to sides of front face:(nailing flanges) 0"
- "B" Vent surfaces:.....1" min.
- Ceiling to opening:.....41 1/2 min
- Floor:.....0

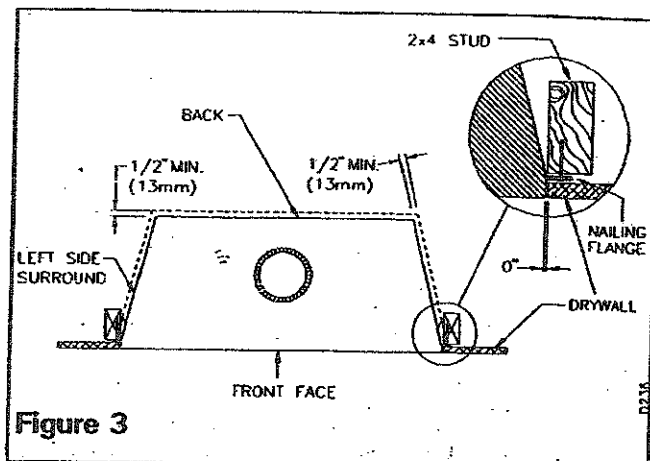


Figure 3

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

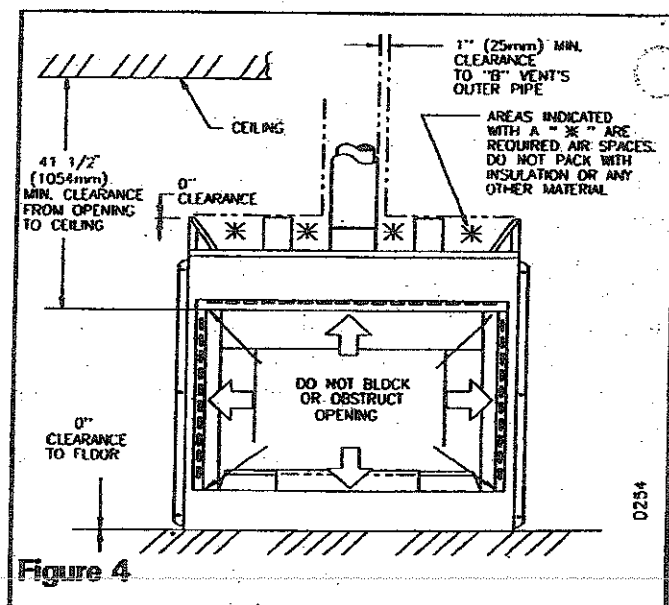


Figure 4

## MANTLE CLEARANCES & WALL DETAILS

A combustible mantle shelf maybe installed a maximum 9" (229mm) from the wall and must have a minimum distance of 18" (457mm) above the fireplace opening.

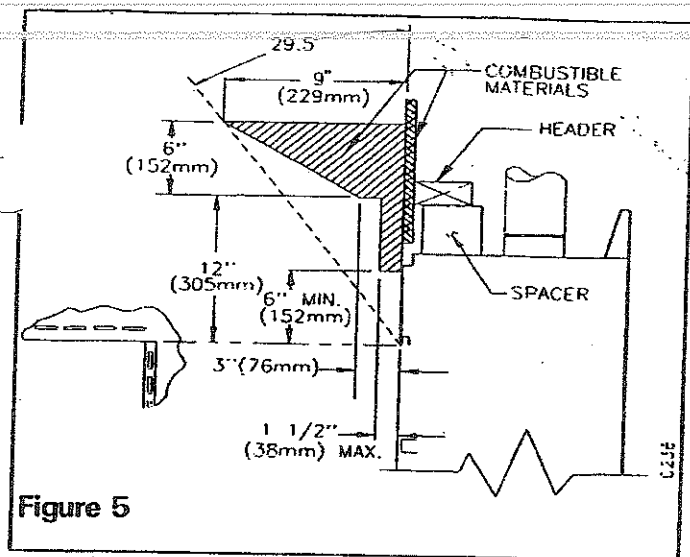


Figure 5

**NOTE:** If 1/2" NPT black iron pipe does not coincide with fitting at the end of flexible gas line, remove fitting and replace with a 37 deg. Flare 3/4"-12, 1/2" NPT (female) fitting.

5. Connect a 5" Type-B-vent to the outside. The minimum height of vent and fireplace should be 12".

**NOTE:** Refer to vent manufacturer's installation instructions for variations of venting techniques. If common venting of several units is contemplated, it should be discussed with an architect and the Local Building Department.

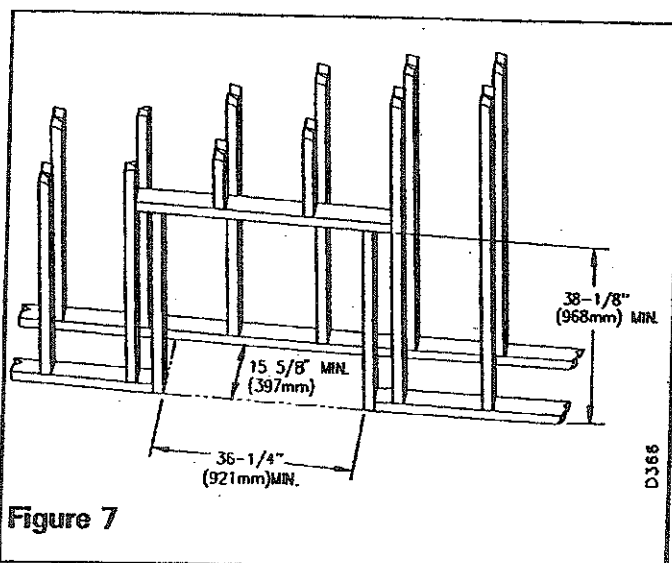


Figure 7

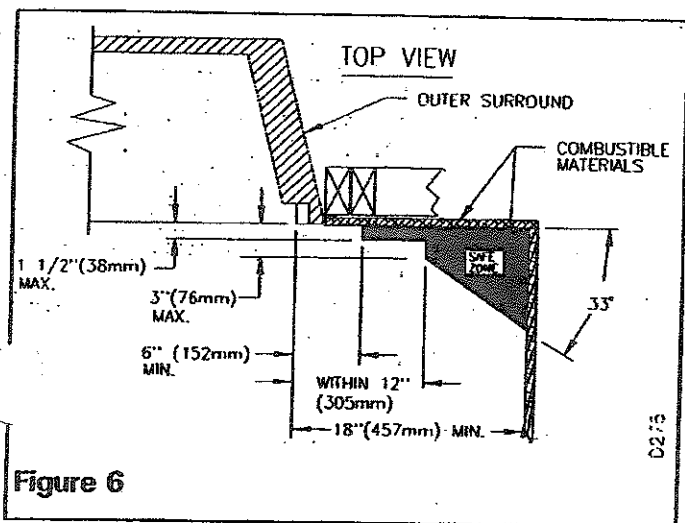


Figure 6

## FRAMING

1. Frame appliance enclosure as illustrated in Figures 7 to 9.

**NOTE:** If a wall covering is used to line the enclosure, then all measurements must be from the surface of the covering.

2. Place the appliance into the framing and secure it.  
**NOTE:** If appliance is to be raised above floor level, a platform must be built to support the appliance.

3. Install the line to the appliance using a 1/2" NPT black iron gas line terminating 2-5/16" above the bottom of the appliance. The gas line may be installed from either side or from the rear of the appliance (see Figure 10).

Feed flexible gas line through gas line conduit sleeve and repack insulation to cover any openings.

Prepare incoming gas line with teflon tape or pipe joint compound. Hook up incoming gas line to flexible gas line.

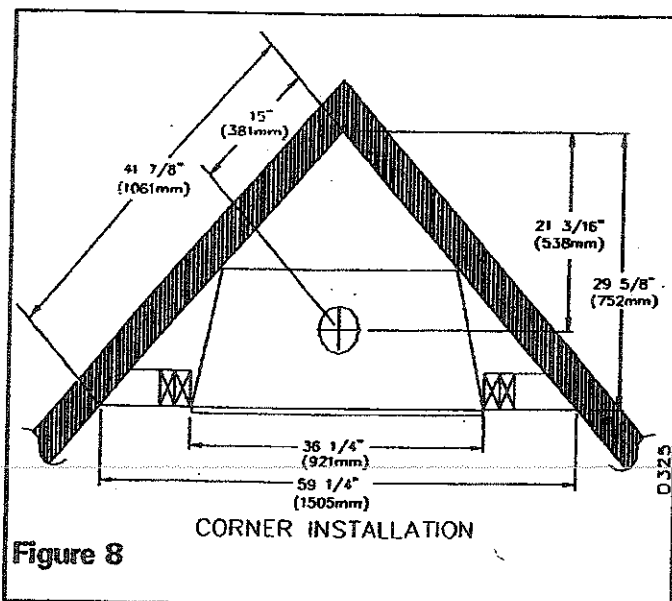


Figure 8

**NOTE:** When finishing appliance, DO NOT OVERLAP COMBUSTIBLE MATERIAL ONTO THE BLACK FRONT FACE. Brick, tile, or other non-combustible materials may be applied to the face provided that any gap is between the material used and the face is caulked with a non-combustible caulking.

## GAS LINE HOOK-UP

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

**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. You may consider installing an extra gas shut-off valve outside the appliance's enclosure (check with local codes) where it can be accessed more conveniently with a key through a wall as shown in Figure 9.

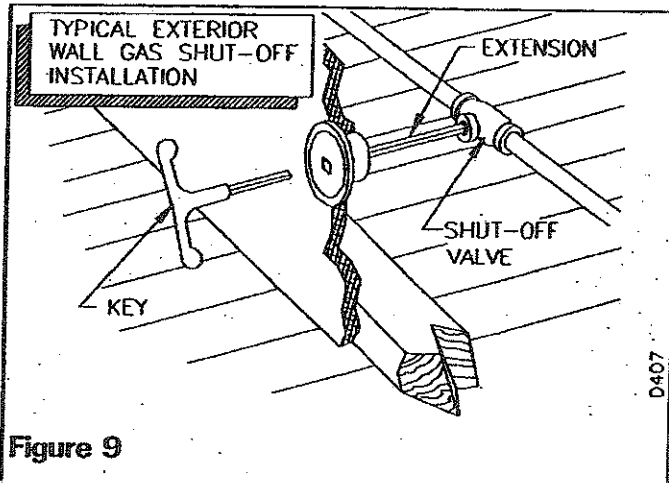


Figure 9

In conformance with local codes, route a 1/2" NPT GAS LINE towards the appliance coming in from any of the 3 directions shown in Figure 10.

**CAUTION: DO NOT KINK FLEXIBLE GAS LINE!!**

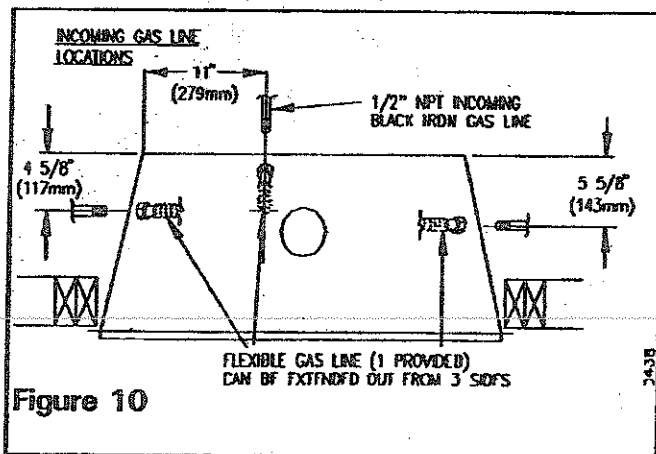


Figure 10

FMI recommends that a black iron gas line be routed from the gas source, through a sediment trap (shown in figure 11), and into the appliance. Once connected through the appliance, a flexible gas line may be used for ease of installation to gas control valve (See Figures 12 and 13).

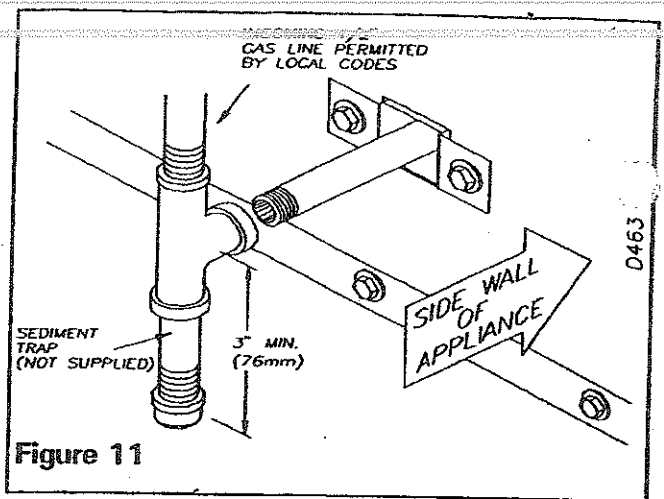


Figure 11

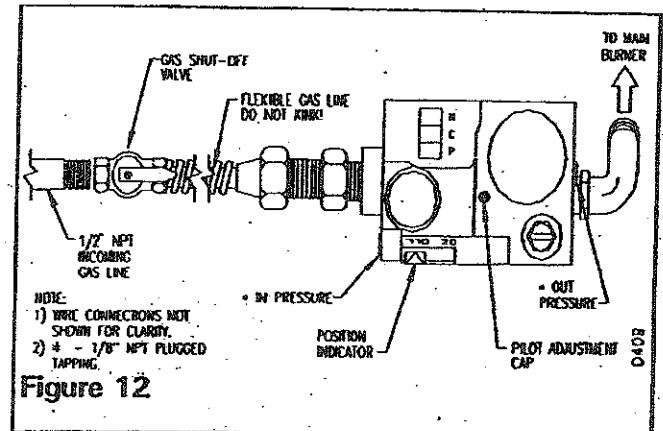


Figure 12

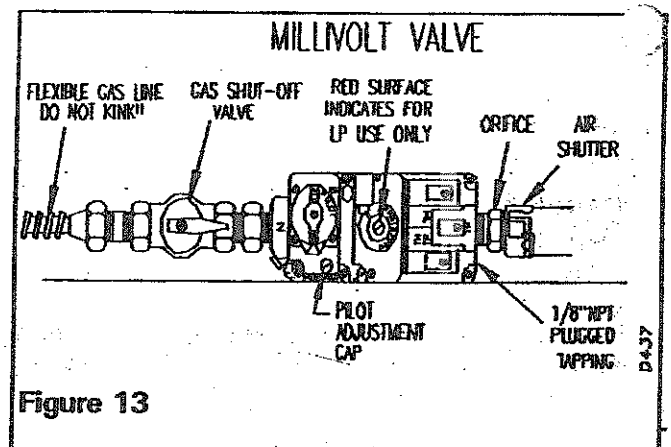


Figure 13

Before connecting the black iron gas line to the inside of the appliance a sediment trap must be included outside the appliance between the gas line and the gas shut-off valve. It must extend down three (3) inches beyond the center of the pipe. Prepare incoming black iron gas line with teflon tape or pipe joint compound (CHECK WITH LOCAL BUILDING CODES).

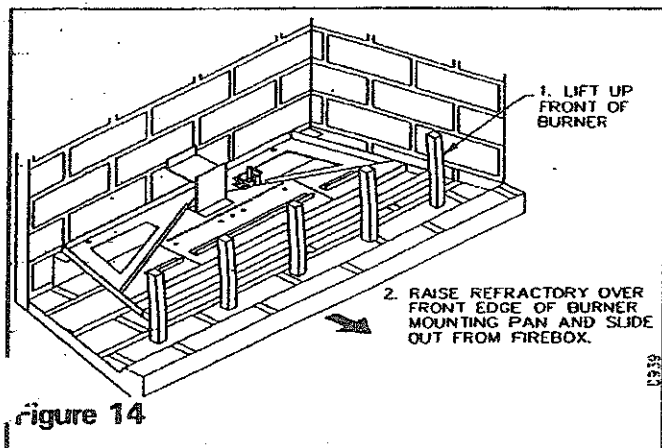
Compounds used on threaded joints of gas piping shall be resistant to the action of Liquefied Petroleum (LP or Propane), and should not be applied lightly to ensure excess sealant does not enter the gas line.

**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.**

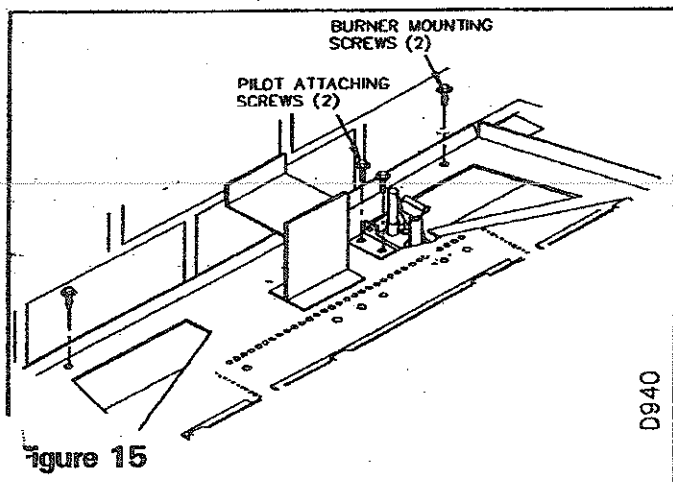
Complete your gas line installation by connecting incoming gas line to flexible gas line. Secure tightly with a wrench but **DO NOT OVER TIGHTEN.**

### GAS BURNER SUPPLY HOOK-UP

1. Lift burner at front edge slightly and remove bottom refractory by lifting and sliding out the front (see Figure 14).



2. Disconnect the pilot from the burner by removing two screws holding the pilot mounting bracket (See Figure 15).
3. Disconnect the burner from the burner mounting flange by removing two screws (See Figure 15).
4. Rotate the burner back end and lift out of the firebox.



**NOTE:** Do not kink or damage the flex line connector.

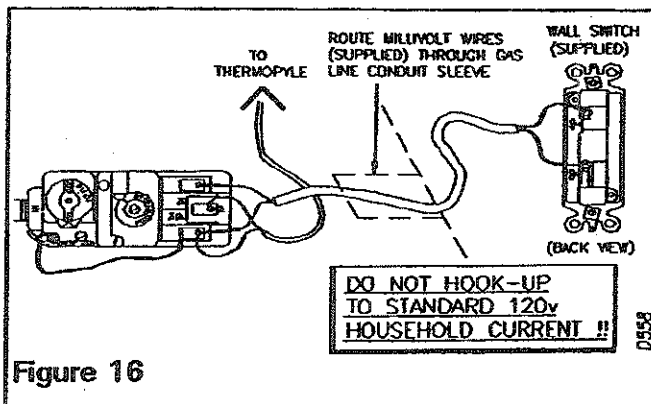
5. Follow steps 1, 2, 3, & 4 in reverse order to reinstall burner assembly.

### WALL SWITCH INSTALLATION (GL850/P)

The installation of a wall switch allows you to activate the gas control valve without the normal household electricity since the valve operates on millivolt current supplied by the heat generated by the thermopile

1. Remove the control access door panel. See figure 1.
2. Connect the 18 GA. wires (Provided with wall switch kit) from the gas control valve to the wall switch as shown in Figure 16.

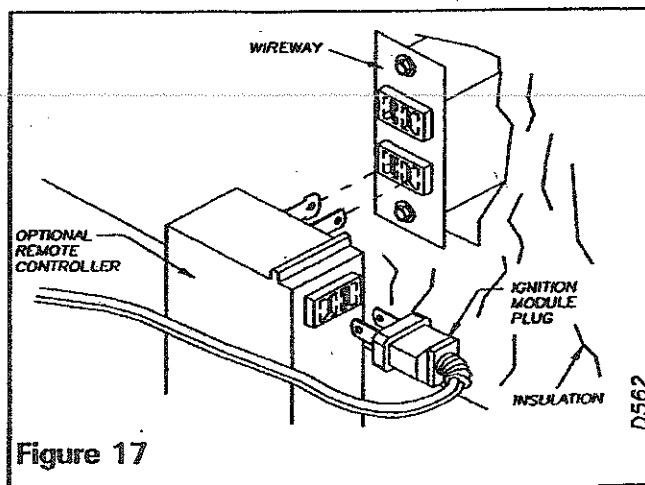
**NOTE:** If any of the original wire from the unit control must be replaced, use type AWM-105 deg. C or equivalent (25 ft. maximum length).



**CAUTION: DO NOT WIRE REMOTE WALL SWITCH TO MAIN POWER SUPPLY.**

### ELECTRICAL HOOK-UP (GL850E/EP)

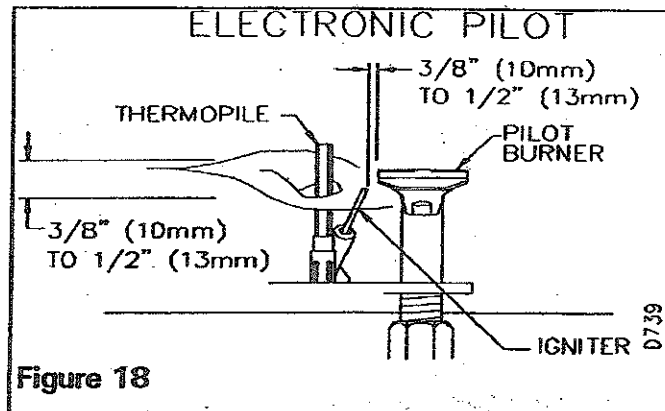
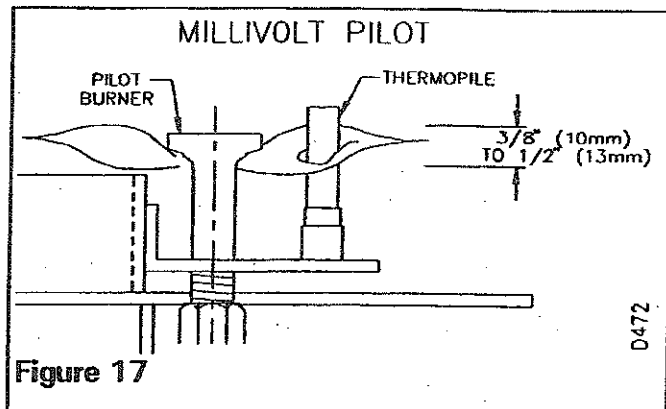
1. Remove the cover plate and locate the electrical wires.
2. Using 18ga. wires and the wall switch provided, proceed to connect to 120vac regular household current per Figure 17, and refer to the wiring diagram on page 13 of this manual.





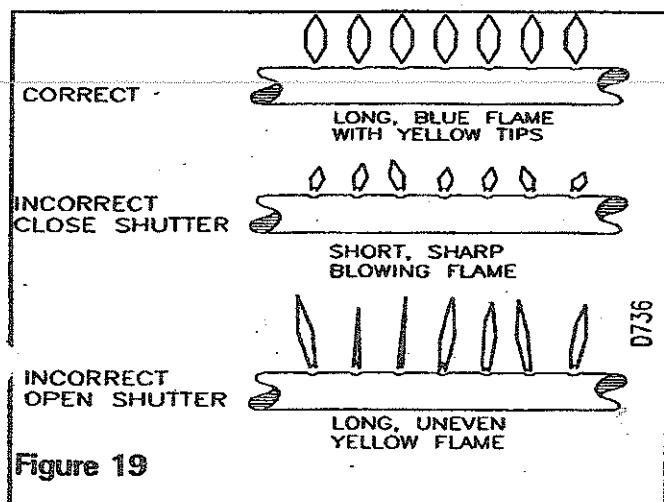
## PILOT BURNER ADJUSTMENT

1. Remove pilot adjustment screw cap.
2. Turn the small inner adjustment screw clockwise to decrease or counterclockwise to increase the flame.
3. Replace pilot adjustment screw cap.



## BURNER FLAME ADJUSTMENT

The main burner flame should be a blue flame somewhere between a long blue flame and a short, sharp flame that tends to blow off the ports. If flame is short, very sharp or blowing, the burner air shutter should be closed enough to obtain a long blue flame (see below). Long yellow flame produce excess carbon monoxide and could cause sooting.

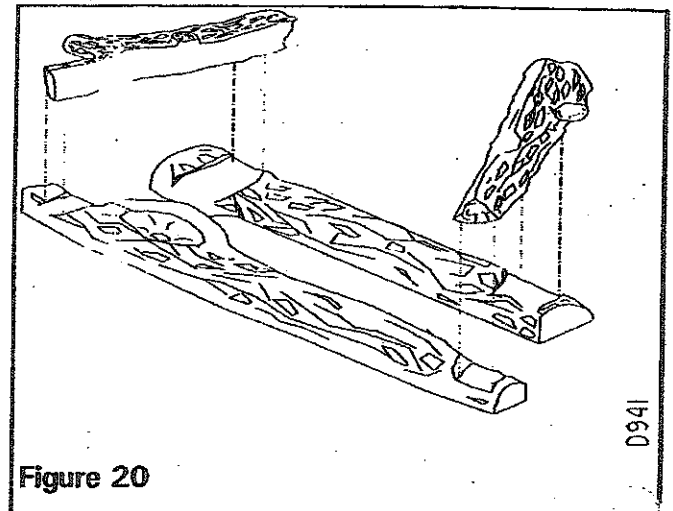


## TO SHUT OFF

1. For temporary shut-off, turn off remote control wall switch. Pilot burner will remain lit, ready for return to ON.
2. For long term shut-off, depress the gas valve cock valve, located under the firebox, turn clockwise the OFF position.

## LOG PLACEMENT

Position logs on the support bracket welded to the back of the burner. The one piece lower log is placed with the smaller section to the rear of the burner and resting onto the bracket. The two smaller logs are placed at an angle as shown in Figure 20.



## OPERATING GUIDELINES AND MAINTENANCE INSTRUCTIONS

1. Upon completing your gas line connection, a small amount of air will be in the lines. When first lighting the appliance it will take the appliance a few minutes to purge the air. Once 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.
2. When lit for the first time, the appliance will emit a slight odor for an hour or two. This is due to the "curing" of the logs and "burn-in" of internal paints and lubricants used in the manufacturing process.
3. Keep control compartment, logs burners, and area surrounding the logs clean by vacuuming or brushing at least twice a year. Do not vacuum the mineral wool located in the front of the burner assembly.
4. Always turn off gas to pilot before cleaning. For example relighting, refer to the lighting instructions.
5. The appliance and venting system should be inspected before use or at least annually by a qualified field service technician.

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

6. Always keep the appliance area clean and free from combustible materials, gasoline and other flammable vapors and liquids.
7. Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of all obstacles and materials.

## **MAINTENANCE**

**IMPORTANT:** Turn off gas and electrical power before servicing appliance. It is recommended that a qualified serviceman perform these checkups at the beginning of each heating season.

In order to properly clean the burner and pilot assembly remove the logs exposing the burner and pilot assembly.

## **CLEANING BURNER AND PILOT**

Clean all foreign materials from the top of burner and from bottom panel below. Check to make sure that burner orifice is clean. Visually inspect pilot. Brush or blow away any dust and lint accumulations. If pilot orifice is plugged, disassembly maybe required to remove any foreign materials from orifice and/or tubing. When appliance is put back in service, check pilot flame patterns (Figure 17,18).

## **OPTIONAL EQUIPMENT'S COMBUSTION AIR KIT MODEL AK-GL**

An outside air kit maybe installed on the right side of fireplace only. The vent can be installed through the 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 21). Pull the handle to open or push to close.

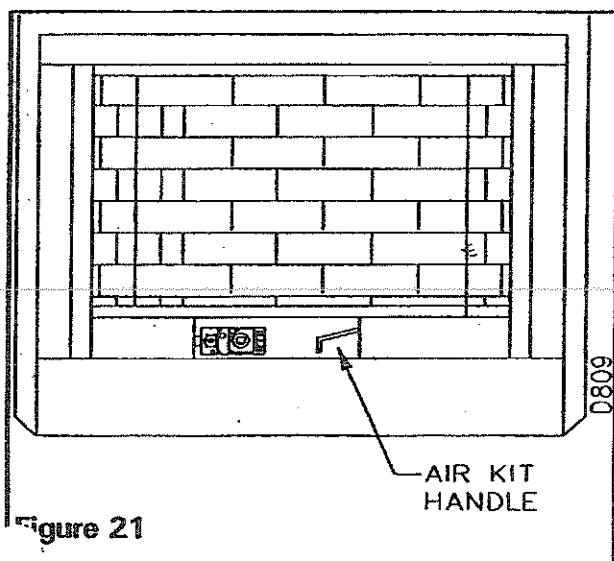


Figure 21

**CAUTION: AIR INLET DUCTS ARE NOT TO TERMINATE IN ATTIC SPACE.**

## **APPLIANCE ENCLOSURE**

Before finishing the enclosure around the appliance, inspect all joints around the outer surround. Any gaps between the nailing flanges and the framing should be sealed with non-combustible insulation or caulking. If the appliance is mounted on a raised platform, it must be a continuous surface and not on blocks without a solid surface. This will prevent the entry of cold air by means of conduction through the total bottom of the appliance. (See Figure 22).

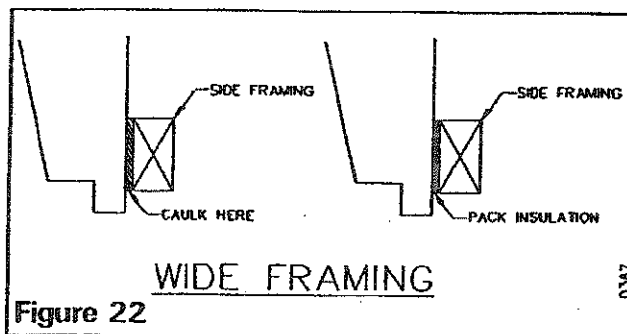


Figure 22

## **GLASS DOORS**

FMI glass door models PGGL850 and GGL850 are available for use with FMI models GL850 and GL850P decorative gas appliances. Instructions for the installation of the gas kit are included with the glass door packaging. Use of any other glass door assembly not tested with the GL850 series models may constitute a fire hazard and will void the FMI warranty. Read and follow the maintenance instructions for your glass doors as outlined below:

- \* Never use an abrasive material to clean the glass. Use a rag and a liquid cleaner.
- \* Never clean the glass while they are hot.
- \* Never operate the glass in a partially opened position (see Figure 23 for caution). Glass doors when left in a partially open position can cause a "chimney affect" and allow hot combustion gas to enter the room.
- \* Keep the glass doors closed at night to reduce the loss of heated room air from escaping through the chimney.

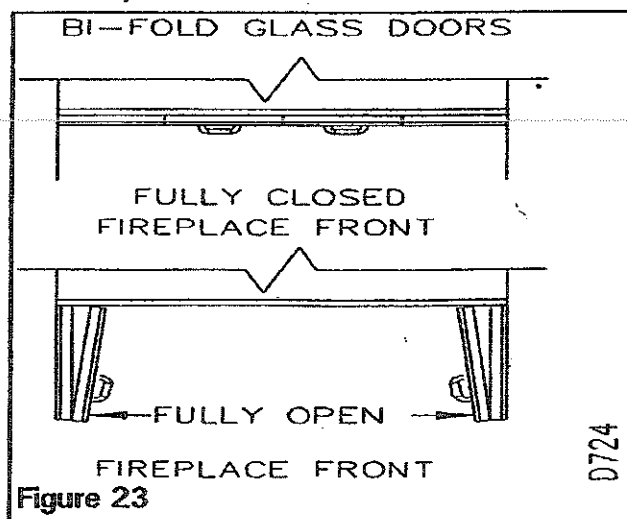


Figure 23

**CAUTION: THE GLASS DOORS SHOULD BE EITHER FULLY OPEN OR FULLY CLOSED WHEN BURNING.**

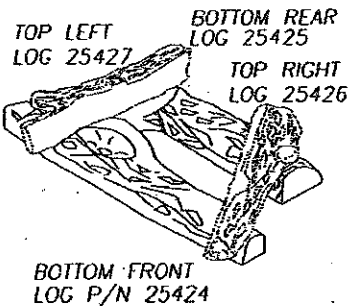
**NOTE:** Installation and repair should be done by a qualified service person. The appliance should be inspected before each use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding, etc. It is imperative that the control compartments, burners, and circulating air system be kept clean.

**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 SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.**

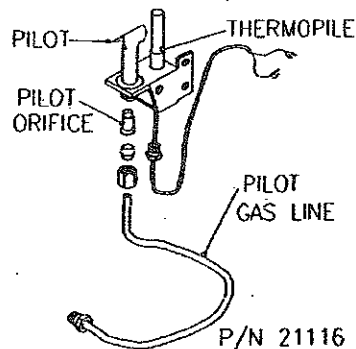
- \* When ordering replacement or accessory items please have your appliance's model name or number and the part number of the item (s) you are ordering ready. The model name or number for your particular appliance may be found on the rating plate located inside the appliance
- \* Refer to the parts list and diagrams when ordering replacement parts for your appliance.
- \* Repair parts or accessory items may be bought from your local representative.
- \* All product specifications are subject to change without notice.

# REPLACEMENT & ACCESSORIES PARTS

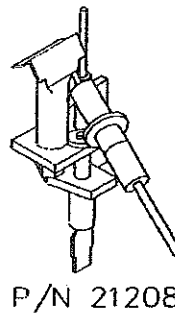
LOG SET ASSY. (FIBER)  
P/N 24586



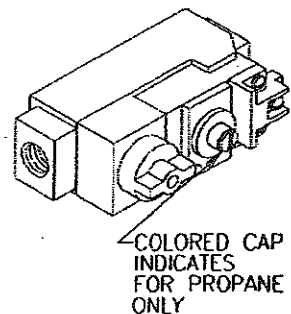
PILOT ASSEMBLY (MILLIVOLT)



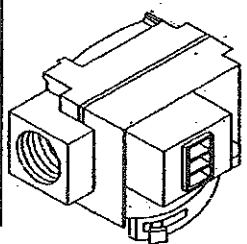
PILOT ASSEMBLY  
(ELECTRONIC)



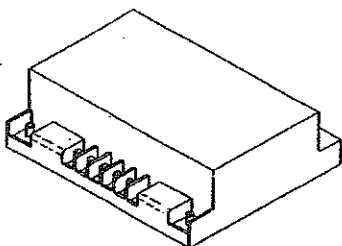
MILLIVOLT VALVE  
P/N 14201



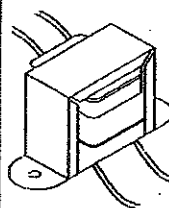
ELECTRONIC VALVE



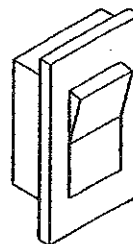
IGNITION MODULE  
SP745 P/N 14301



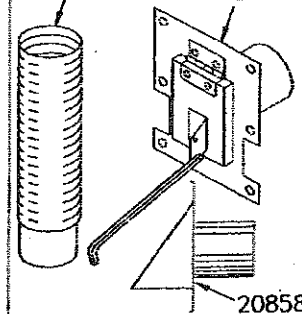
TRANSFORMER  
P/N 14129



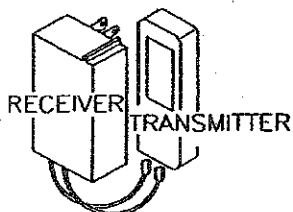
WALL SWITCH KIT  
P/N 22180



AIR KIT P/N 90325  
17343 21132

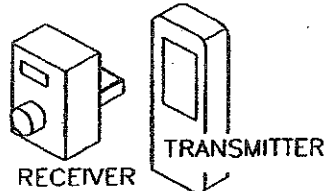


OPTIONAL REMOTE CONTROL  
(MILLIVOLT ONLY)  
BATTERY REQUIRED  
FOR TRANSMITTER.



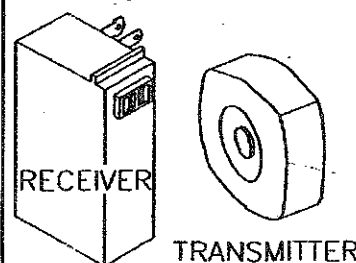
KIT P/N 01026

OPTIONAL REMOTE CONTROL  
(MILLIVOLT ONLY).  
BATTERIES REQUIRED FOR  
RECEIVER AND TRANSMITTER.



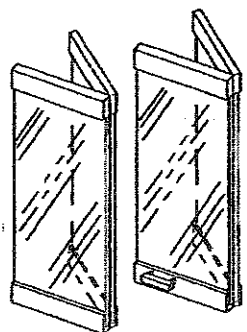
KIT P/N 00825

OPTIONAL REMOTE CONTROL



KIT P/N 00710

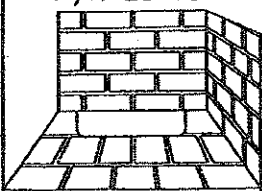
ORIFICE  
NAT. P/N 23101  
LP. P/N 23100



GLASS DOOR KITS  
(ALUMINUM EXTRUSION)

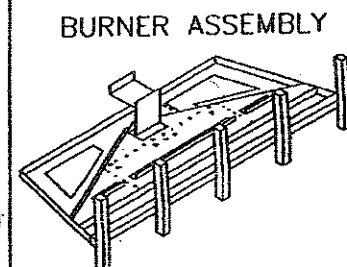
BRASS: 00622  
POLISHED: 00815  
BLACK: 00806  
CHROMED: 00824

BACK REFRACTORY  
P/N 20938



BOTTOM REFRACTORY  
P/N 20937

SIDE REFRACTORY  
P/N 20939  
(LEFT AND RIGHT)



P/N 23414

# MILLIVOLT SYSTEM

## 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.

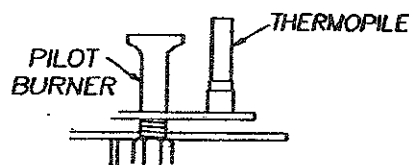
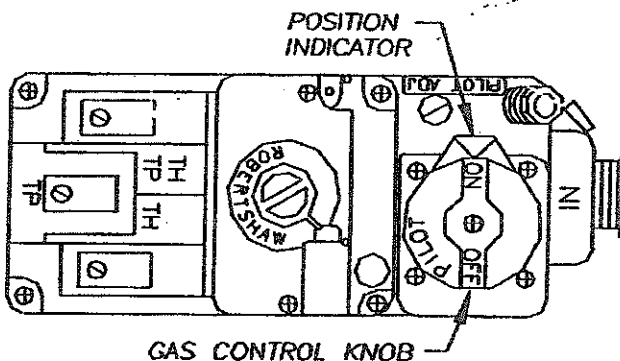
• If you cannot reach your supplier, call the

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

## 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".



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.

7. Turn knob on gas control counterclockwise to "PILOT".
8. 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.

9. Turn gas control knob counterclockwise to "ON". Knob can be turned to "ON" only if the control knob is popped out.

10. Close control access panel

11. 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.

# ELECTRONIC IGNITION SYSTEM

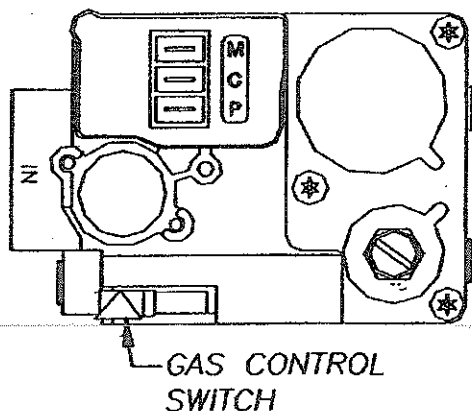
## FOR YOUR SAFETY READ BEFORE LIGHTING

**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 have 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 lights 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.



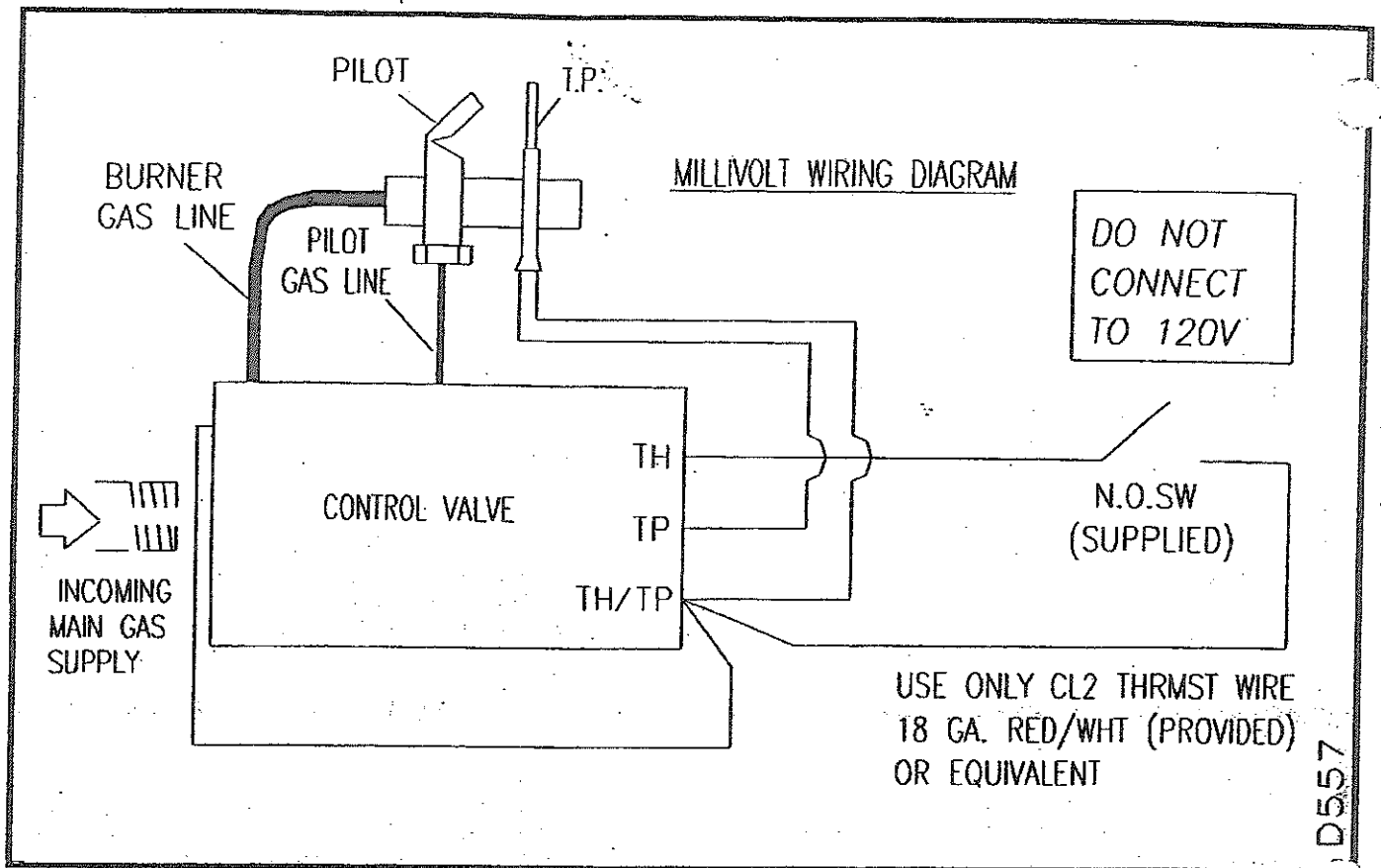
If remote control is installed, point transmitter at the appliance, press and hold down the button for three (3) seconds.

## TO TURN OFF GAS TO APPLIANCE

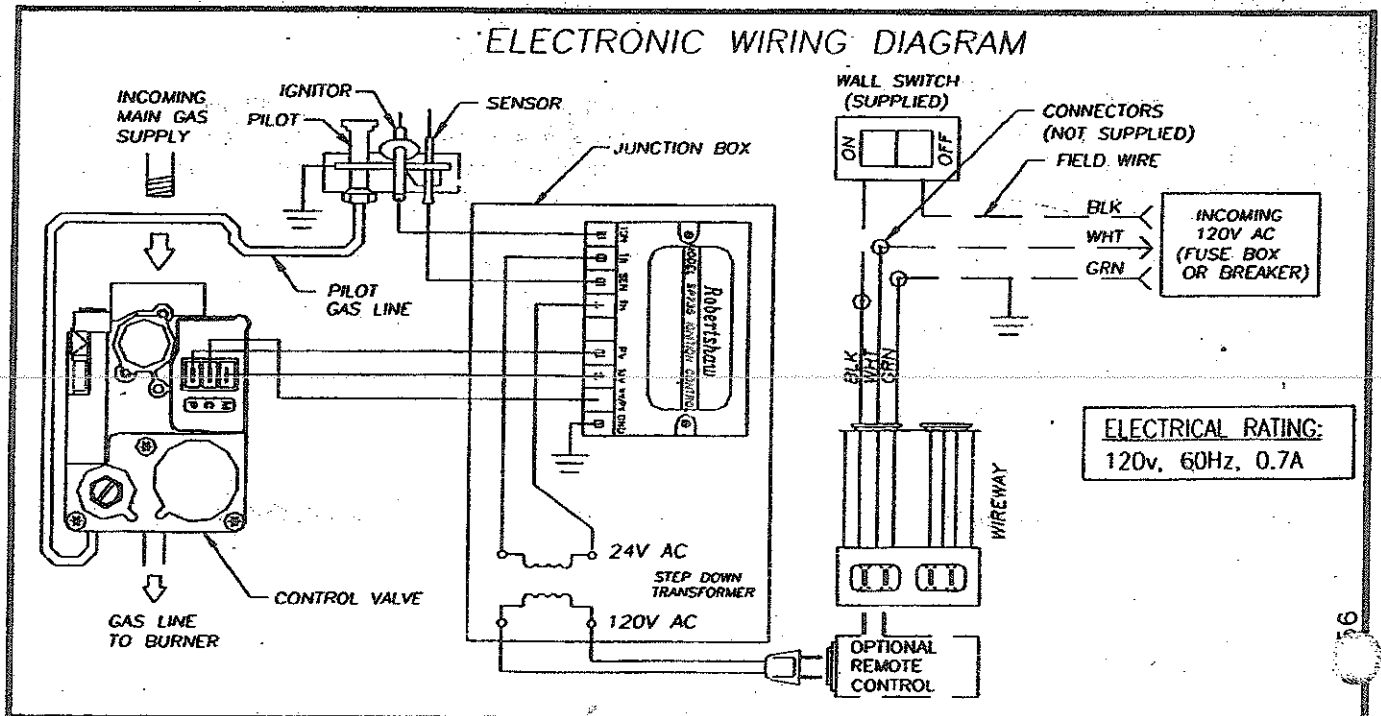
1. Turn off wall switch.
2. Turn off all electrical power to appliance if service is to be performed.
3. Remove control access panel or louver.
4. Turn gas control "ON/OFF" lever to the OFF position.

D933

# MILLIVOLT WIRING DIAGRAM



# ELECTRONIC WIRING DIAGRAM



# **MILLIVOLT SYSTEM TROUBLESHOOTING GUIDE**

## **FOR GL850/P 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.	1a. NO GAS SUPPLY, OR SHUT-OFF VALVE IS OFF.	A. CHECK TO SEE IF YOU HAVE GAS SUPPLY.
	1b. AIR IN GAS LINE.	B. HOLD REGULATOR CONTROL VALVE IN THE "PILOT" POSITION FOR 2 OR 3 MINUTES TO PURGE AIR. IF YOU SMELL GAS STOP AND WAIT FOR A FEW MINUTES BEFORE TRYING TO LIGHT THE FIREPLACE.
	1c. CONSTRUCTION DEBRIS CLOGGING PILOT ORIFICE.	C. REMOVE DEBRIS AND DIRT, INSPECT AND CLEAN ANY OTHER POSSIBLE OBSTRUCTIONS.
	1d. LOW GAS PRESSURE.	D. CONTACT YOUR GAS SUPPLIER.
	1e. CONTROL VALVE KNOB IS NOT ON THE "PILOT" POSITION.	E. REFER TO SECTION ON PILOT LIGHTING.
	1f. KINKED PILOT LINE	F. HAVE A QUALIFIED TECHNICIAN REPLACE PILOT LINE.
	1g. BAD VALVE.	G. REPLACE REGULATOR VALVE (REFER TO REPLACEMENT PARTS LIST).
	2a. LOOSE WIRING ON THERMOPILE TO REGULATOR VALVE - NO MILLIVOLT CURRENT IS BEING SENT BACK TO REGULATOR.	A. CHECK WIRING CONNECTIONS. REFER TO WIRING DIAGRAM
3. NO GAS TO BURNER, ALTHOUGH WALL SWITCH AND VALVE ARE SET TO THE "ON" POSITION.	2b. IF VALVE KNOB AND WALL SWITCH ARE IN THE "ON" POSITION-PROBABLE DEFECTIVE REGULATOR VALVE.	B. HAVE A QUALIFIED TECHNICIAN REPLACE VALVE.
	3a. WALL SWITCH WIRES DEFECTIVE.	A. CHECK ELECTRICAL CONNECTIONS.
4. FREQUENT PILOT OUTAGE.	3b. POWERPLYE.GENERATOR OR SENSOR NOT GENERATING SUFFICIENT VOLTAGE	B. RE-CHECK PROBLEM #2.
	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 GL850E/EP 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 STOP 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. POWERPYLE 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

**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. This 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.

Fireplace Manufacturers Incorporated  
2701 South Harbor Blvd., Santa Ana, Ca. 92704