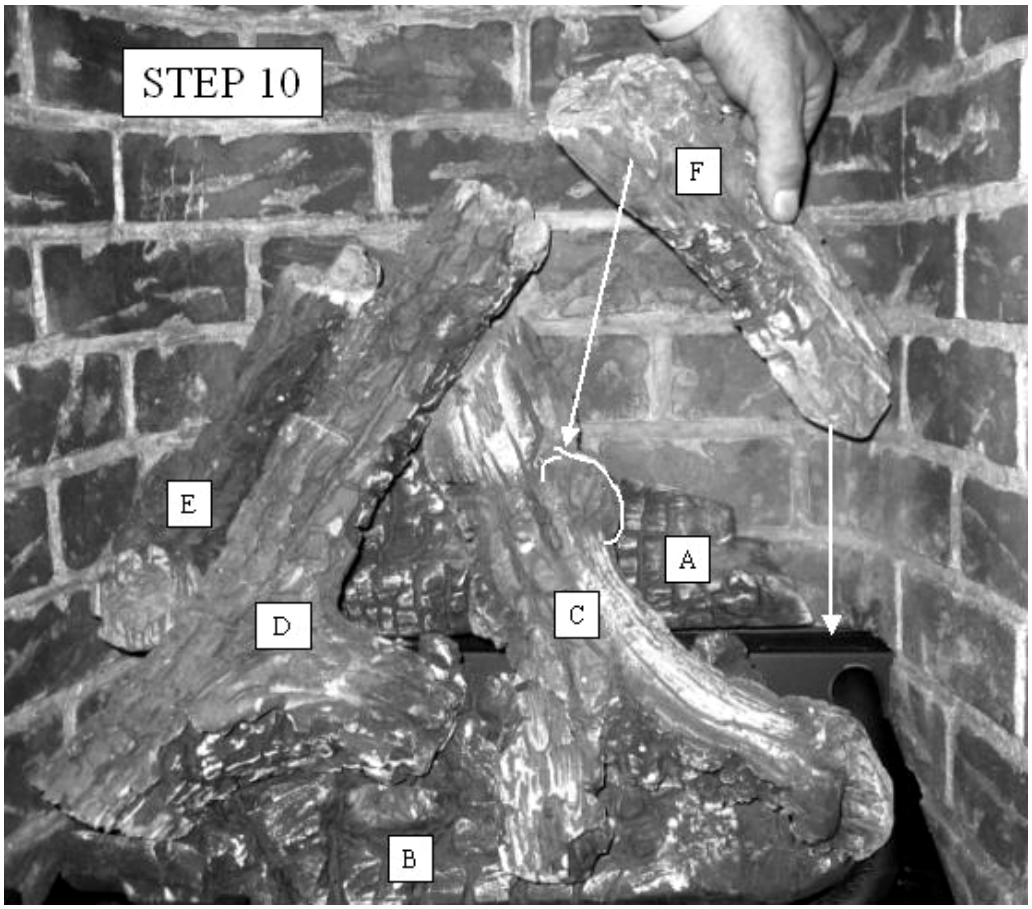
STEP 10
F
E
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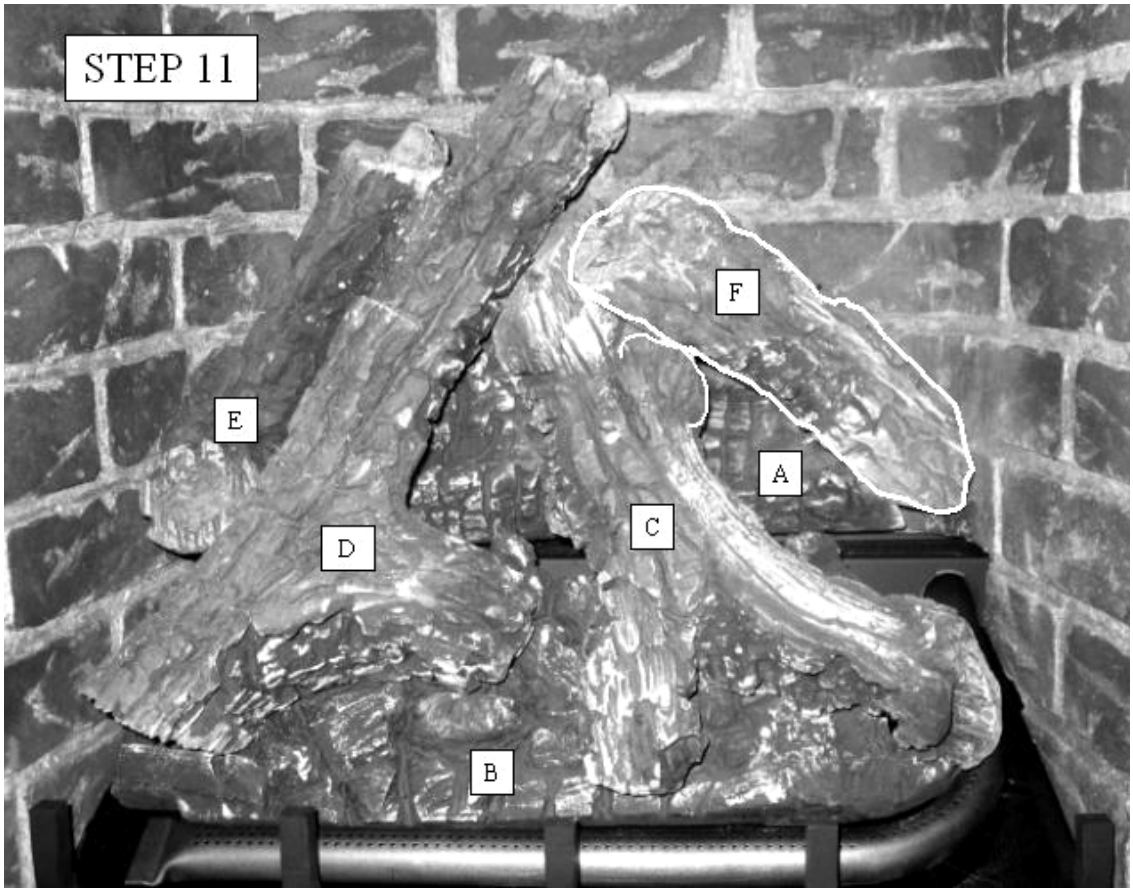
STEP 11
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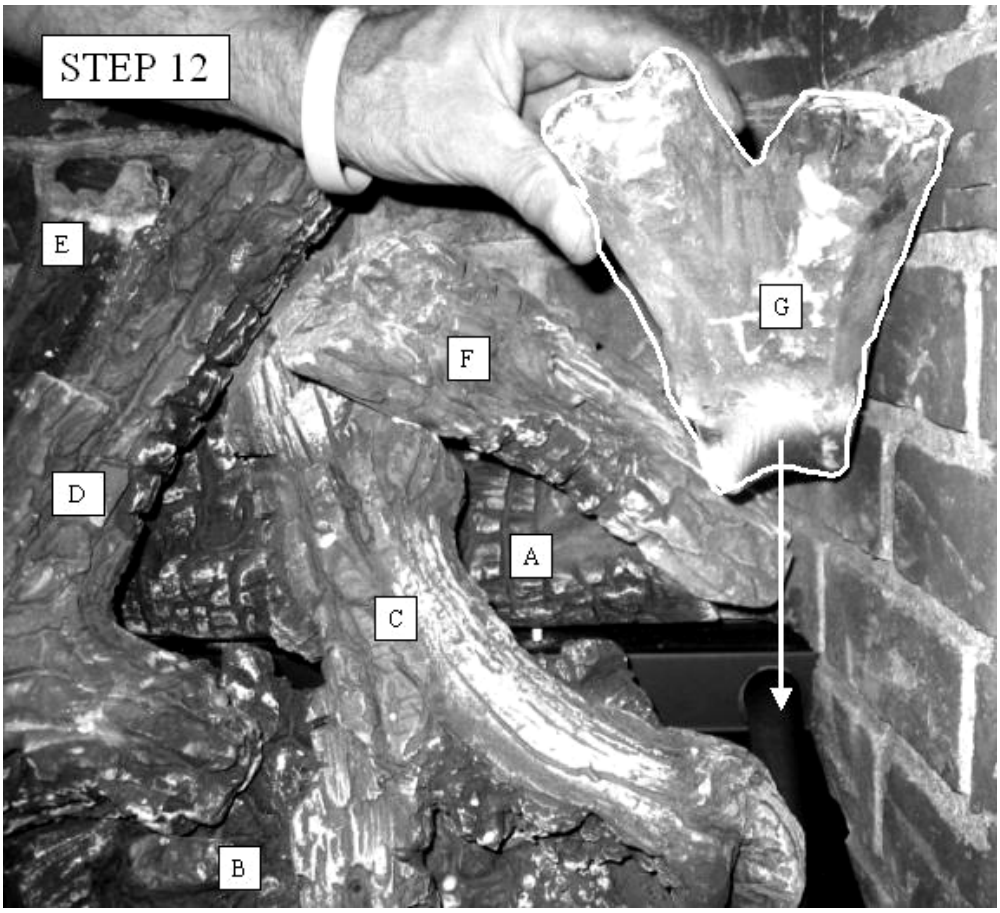
STEP 12
E
G
F
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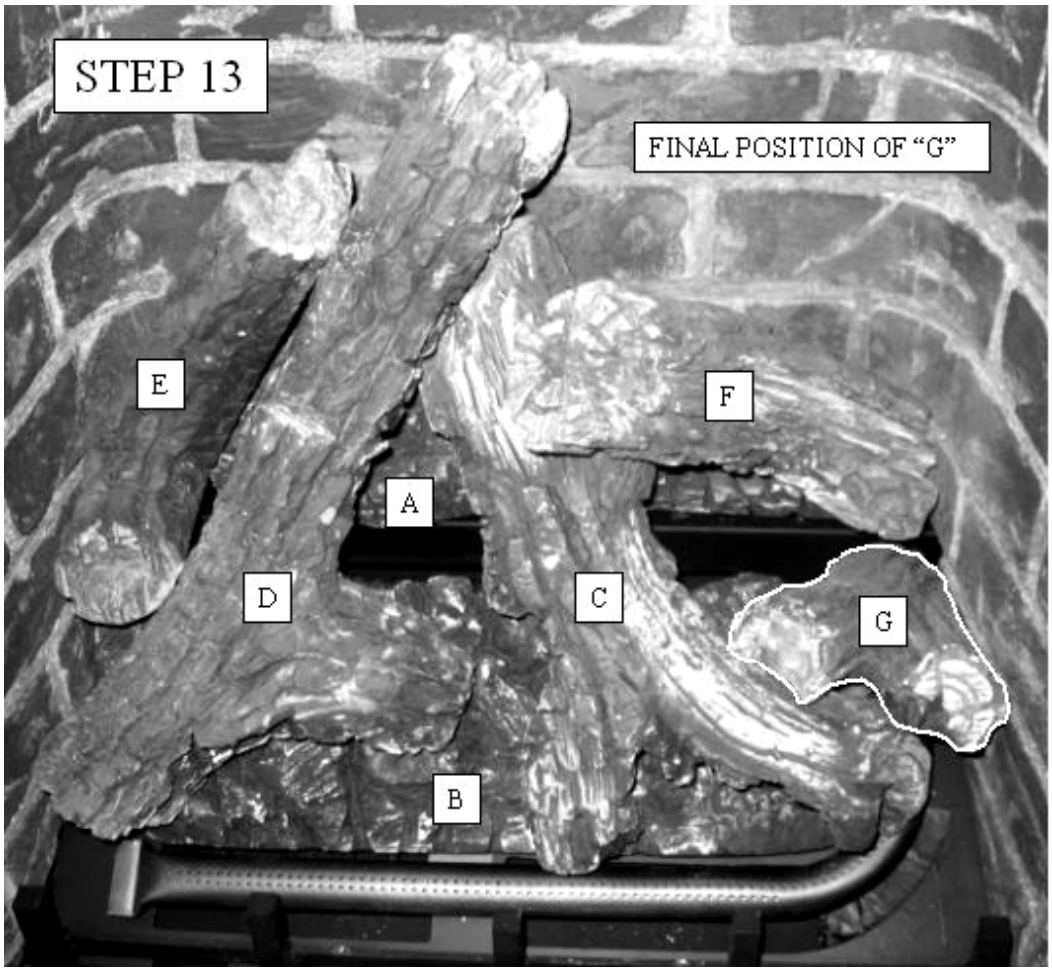
STEP 13
FINAL POSITION OF "G"
E
F
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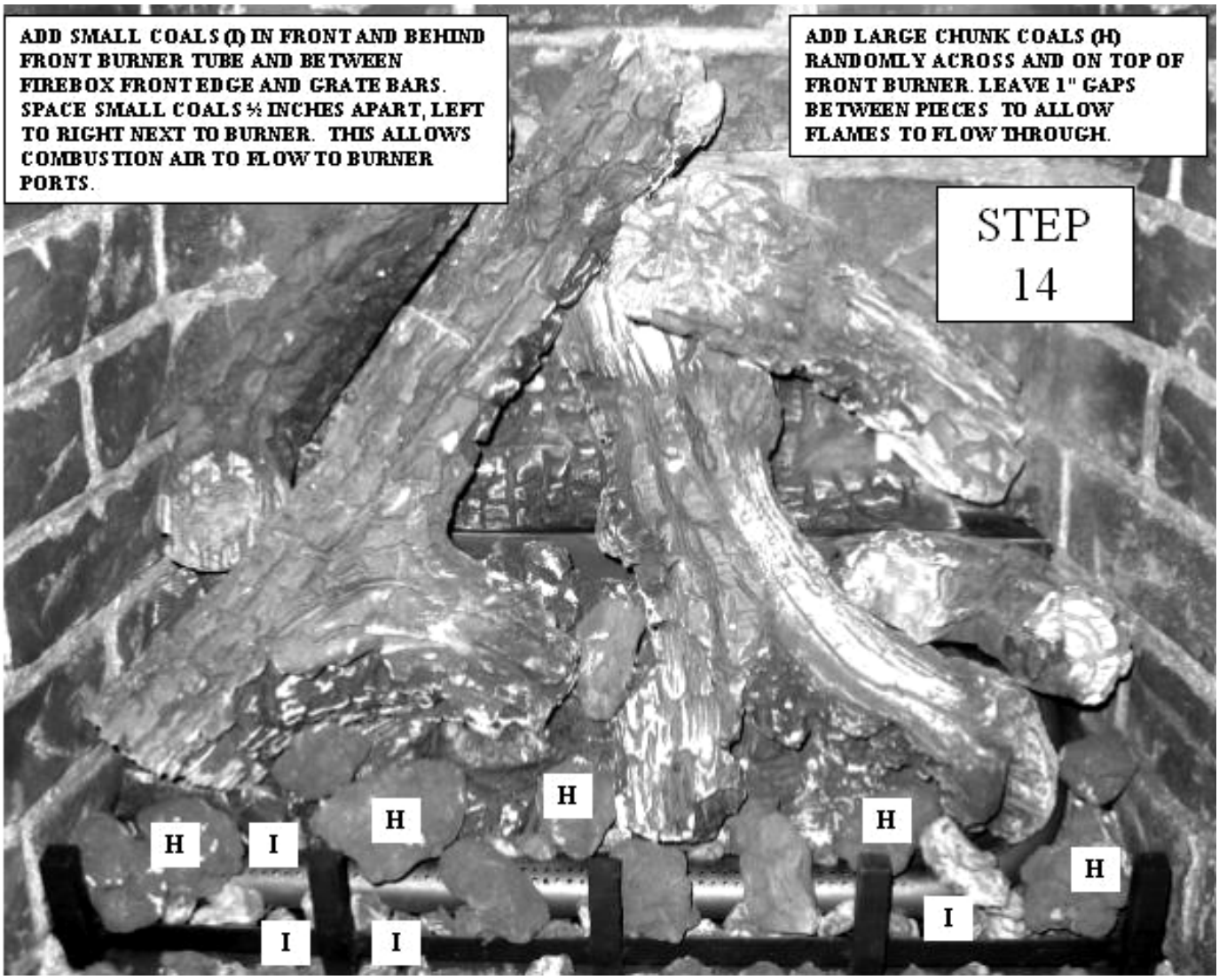
D
C
G
B



The completed log set shall look as depicted in the Step 14, above.

Add small coals (I), first, in the area between the firebox front edge and the grate bars. Also add small coals (I) in front and behind the front burner. When adding the small coals, space them ½ inches apart , left to right, to allow combustion air to flow to burner ports. Otherwise, place them randomly along the burner length and in any area on the firebox floor you desire.

Add Large Chunk Coals (H) on top of front burner. Space them apart about ¼ inches side to side and bridge coals that span across the burner ports across the burner tube to the main ember bed (B) so that the coals do not plug any burner ports. This also provides for a cove under each coal that will glow red and create an attractive ember bed effect. If you provide large gaps between the large chunk coals and leave the gaps open, the front burner flames will yield random yellow flames along the front edge and between the coal pieces.

Avoid packing small coals tightly. Doing so will only yield red glow effects.

Loosely spread Glowing embers over the coals and any other burner surfaces, lightly. Do not use large and dense amounts of glowing embers in any area over burner ports. If taller flames are desired along front burner or rear burner, add thin layers of glowing embers over burner ports in that area. If sooting occurs around areas where coals or glowing embers are located, remove and allow more room in that area for gas and air to mix together properly.

The following Check Off Lists must be completed prior to final operation of the Fireplace.

INSTALLATION CHECK OFF LIST

- ❑ Co-axial vent rigid pipe, wall vent cap or roof vent cap must be installed by a Mendota approved person in accordance with instructions. All joints must be secured, "twist-locked" and leak-proof. 1000°F sealant must be used on the inner pipe joints of all DuraVent pipe sections.
- ❑ Horizontal or vertical vent cap must be installed "**right-side-up**" and tightly sealed to structure per instructions. Vent Caps must be Mendota approved.
- ❑ Proper exterior and interior clearances for vent systems and locations for wall vent cap/roof vent cap must be maintained.
- ❑ Carefully check for correct gas pressure, proper size gas lines and for gas leaks.
- ❑ 115 V electrical service and gas supply must be installed in accordance with instructions and local and national codes.

LIGHTING CHECK OFF LIST

- ❑ All items on "Installation Check Off List" (see above) must be completed.
- ❑ Connect thermostat to speaker terminal panel next to gas valve.
- ❑ System millivolt readings must be taken by a qualified installer.
  CAUTION: Pilot flame must register a minimum of 325 millivolt.
- ❑ Check air shutter opening - 0" to 1/4" Nat. gas or 1/4” to 1/2” LP gas.
- ❑ Carefully follow all Lighting and Log Installation Instructions.
- ❑ Make certain that burner lights immediately and flame runs promptly around "curve" in burner and lights entire burner. DO NOT proceed with operation unless burner cycles "on/off" without delays.
- ❑ Make certain that the flame is "stable" and does not "lift" off burner. If flame lifts off burner, turn unit off and check that all vent pipes are "twist locked" and leak proof, the vent cap is "right side up" and that 1000° Sealant has been used on the inner pipe joints of all DuraVent pipe sections. DO NOT proceed with operation if flame is "lifting off" burner.

  Note: Do not separate telescoping sections. They must be used as complete assemblies.
- ❑ Make certain glass door is in proper closed position and "centered" in firebox opening.

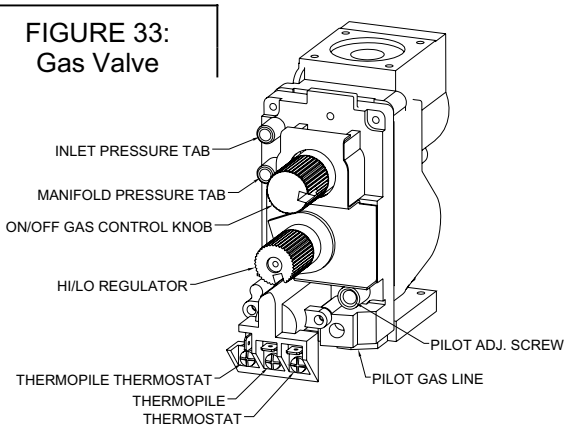
LIGHTING INSTRUCTIONS

IMPORTANT: Be sure all items on "INSTALLATION CHECK OFF LIST" (PG. 44) have been completed!

CAUTION: If the pilot goes out, be sure to wait a minimum of five minutes before relighting - be sure to always remove the glass before relighting the pilot.

1. Remove glass door - ALWAYS LIGHT PILOT WITH GLASS REMOVED!
2. Make sure any gas supply shut-off cocks are open and Thermostat is "OFF".
3. Push in Gas Cock Dial Slightly and turn clockwise to "OFF".
4. Wait five (5) minutes to allow gas which may have accumulated in main burner compartment to escape. If you smell gas, STOP.

FIGURE 33:
Gas Valve



NOTE: Dial cannot be turned from "PILOT" to "OFF" unless dial is pushed slightly. DO NOT FORCE!

5. Turn Gas Cock Dial Counterclockwise to "PILOT" position.
6. Depress Gas Cock Dial and push in red Piezo igniter button. Once pilot ignites, continue depressing dial for about ½ minute. If pilot does not remain ignited, repeat operation allowing a longer period before releasing Gas Cock Dial.

IMPORTANT: After pilot is lit, a qualified installer should take system millivolt readings and measure gas input and output pressures. **Pilot flame must register a minimum of 325 millivolts.**

7. After pilot is lit, turn Gas Dial to "ON".
8. Push Main Burner ON/OFF switch to “on” position. Burners should light immediately.
9. If Rear Burner does not light, Push Rear Burner ON/OFF switch to “on”.
10. Push MAIN BURNER ON/OFF SWITCH to ON then OFF to "cycle" the burner on/off to make certain it ignites promptly and that the flame runs smoothly around burner curves and promptly lights both burners.
11. With pilot operating, install log module and coals (see PG. 34). With logs/coals in place, "cycle" the burner again to make sure of prompt ignition of burner and that the flame runs smoothly around entire burner. **NOTE**: Logs will produce a strong, acrid odor on initial contact with flames.
12. Reinstall glass frame by lining up tabs on the bottom of glass frame over slots on glass clips, which are mounted to the firebox floor. Then "swing in" upper edge of glass frame. Carefully pull up and towards you the four (4) spring loaded clips located on the top and both sides of the firebox and guide into slots on glass frame.

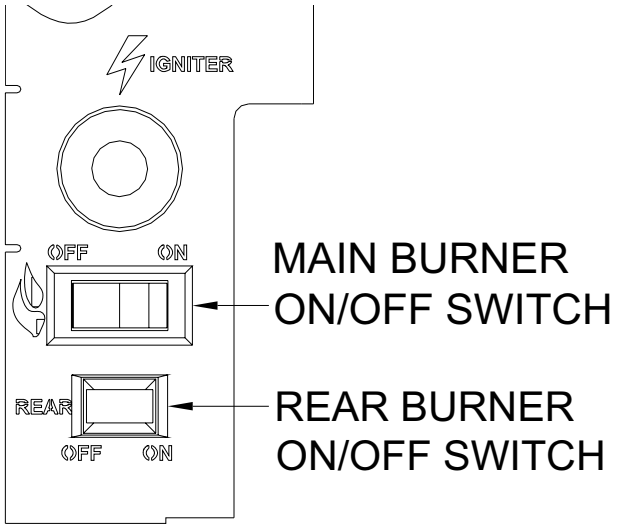


Figure 34

13. NOTE: Be sure doorframe is "centered" in firebox opening.
14. Turn Gas Dial counterclockwise to "ON" then set Thermostat or push Main Burner ON/OFF switch to turn on burners. Main burner should now light IMMEDIATELY and flame should not "lift" off burner. If there is any delay in ignition or if flame is "lifting off" burner, turn off burner and carefully check for proper installation of logs/coals, vent system and proper pilot flame impingement on burner and thermopile. Logs or coals must not block pilot flame or main burner flame. Vent system must be leak proof.
    DO NOT PROCEED WITH OPERATION UNLESS BURNER "CYCLES" ON/OFF WITHOUT DELAYS!
15. To reduce heat output, turn Hi/Lo Knob counterclockwise to desired temperature (see FIGURE 33).
16. Heat output can be reduced to 6,750 BTUH using the Hi-Lo Control. NEVER “over fire" by increasing BTUH above nameplate specifications. NEVER turn down (reduce) pilot flame to yield thermopile voltage below the minimum 325 millivolts.
17. To reduce the flame and heat down to 6,750 BTUH use the Rear Burner On/OFF Switch to turn off rear burner.

NOTE: The rear burner is controlled by a 9 Volt DC solenoid valve. One 9 Volt cell battery (located behind the control panel) provides power for this unique feature. Replace with a new high quality 9 Volt battery annually.

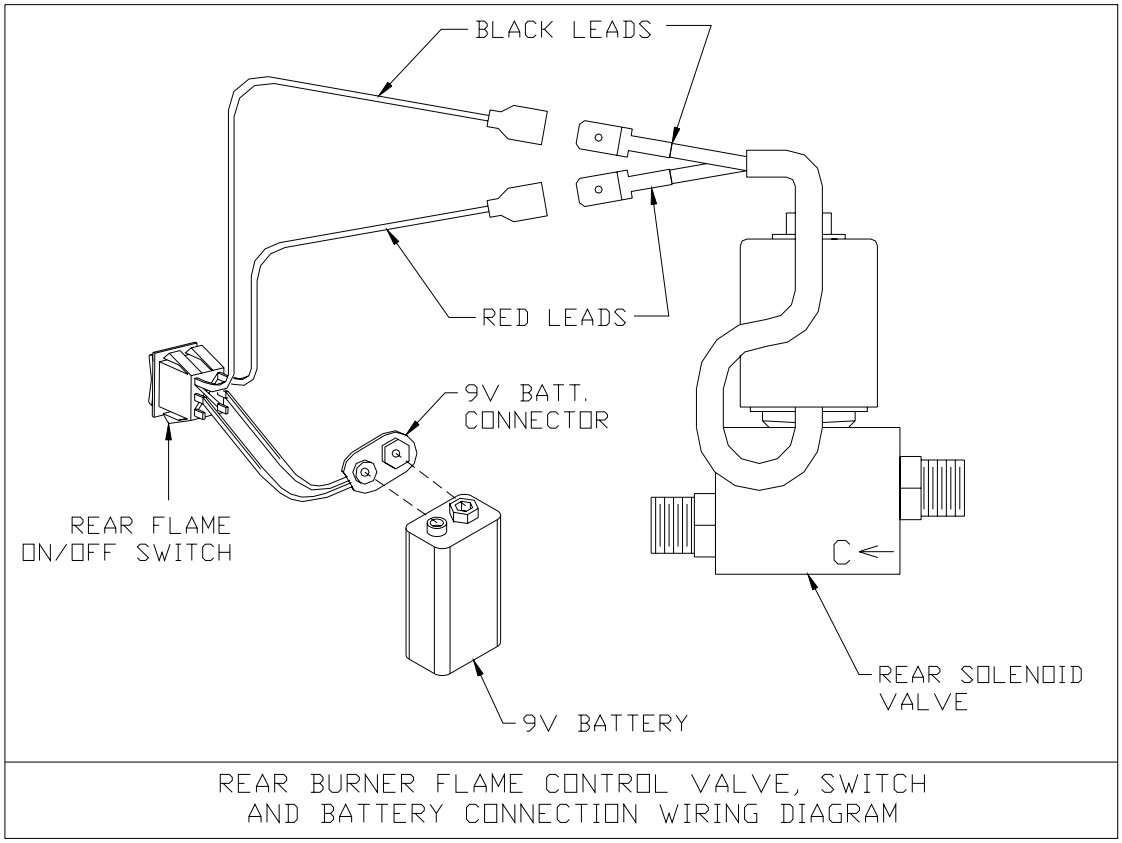
18. Open windows for first four hours of operation.

NOTICE: Initial heater start-up will cause some NON TOXIC "off gassing" of adhesives, gasket binders, paint and other materials. Most nuisance odors will be eliminated after the first two hours of operation; however, slight amounts may be present during first 24 hours of initial operation. To eliminate all nuisance odors, continuously operate this fireplace on the HIGH setting for 6 to 8 hours.

SHUT DOWN PROCEDURE:

1. Turn Remote Control, Thermostat and Main Burner ON/OFF Switch to "OFF". Pilot will remain lit for return to normal service.
2. For complete shutdown turn Gas Cock Dial to "OFF".

WARNING: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.



REAR BURNER FLAME CONTROL VALVE, SWITCH AND BATTERY CONNECTION WIRING DIAGRAM

Figure 35

THERMOSTAT OPERATION

A millivolt rated wall thermostat is supplied with this fireplace. The thermostat should be placed in the same room as the fireplace, approx. 4-5 ft. off the floor (out of reach of children). DO NOT place thermostat within 8 feet of this fireplace or on an outside wall.

CAUTION: Burner should light immediately after turning thermostat "on". If burner does not come **on** immediately, turn the thermostat **off** and wait 60 seconds before turning on again. If burner does not come **on** immediately after second try recheck complete installation of logs, pilot, vent system, etc. To insure proper pilot flame impingement on the thermopile, log and coals positioning and prompt burner ignition. Do not operate fireplace if burner does not light immediately. Call service technician.

NEVER TURN BURNER ON & OFF "QUICKLY" - ALWAYS WAIT 60 SECONDS!

When using remote control, be sure to hold in button firmly until unit lights. DO NOT push button and release quickly before burner lights. Burner should light IMMEDIATELY and then button can be released. If unit does not light immediately, release button, wait 60 seconds and repeat lighting procedure. If burner does not come on immediately after second try recheck complete installation. If necessary, contact your Mendota dealer.

CAUTION: THIS CONTROL IS A MILLIVOLT SYSTEM. NO ADDITIONAL POWER SUPPLY CAN OR SHOULD BE USED.

NOTE: If thermostat is located over 25 ft. from fireplace the pilot flame may need to be increased to provide thermopile output up to 750 millivolt.

Use two-wire, solid copper lead wires per chart and install as shown in the diagram below.

NOTE: Thermostat Must Be 460-750 Millivolt Rated

CAUTION: THIS CONTROL IS A MILLIVOLT SYSTEM. NO ADDITIONAL POWER SUPPLY CAN OR SHOULD BE USED.

RECOMMENDED MAXIMUM LEAD LENGTH (TWO-WIRE) WHEN USING WALL THERMOSTAT (CP-2 SYSTEM)

WIRE SIZE	MAX. LENGTH
14 GA.	100 FT.
16 GA.	64 FT.
18 GA.	40 FT.
20 GA.	25 FT.
22 GA.	18 FT.

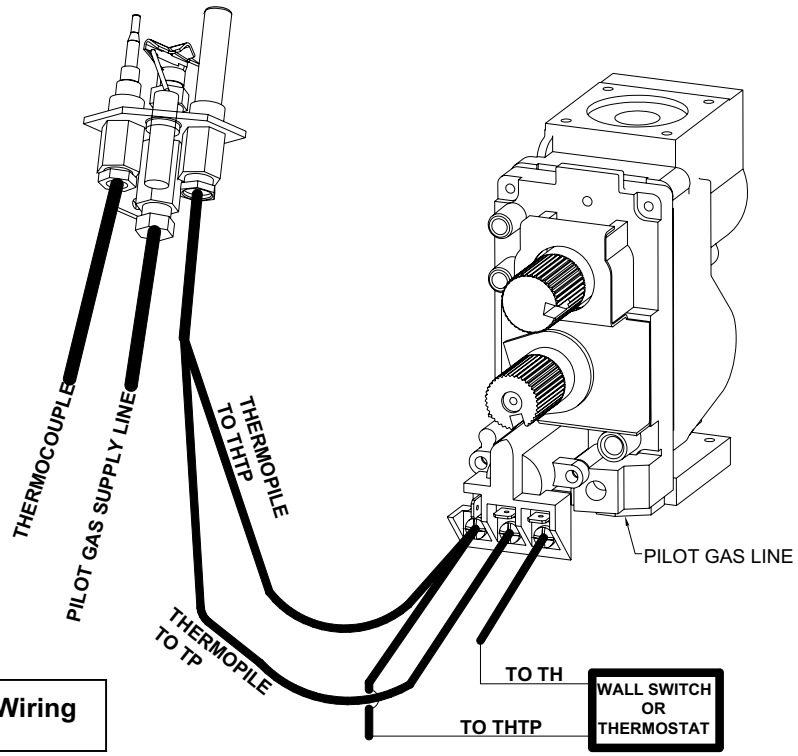


Figure 36: Thermostat Wiring

BLOWER SYSTEM INFORMATION

WARNING: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

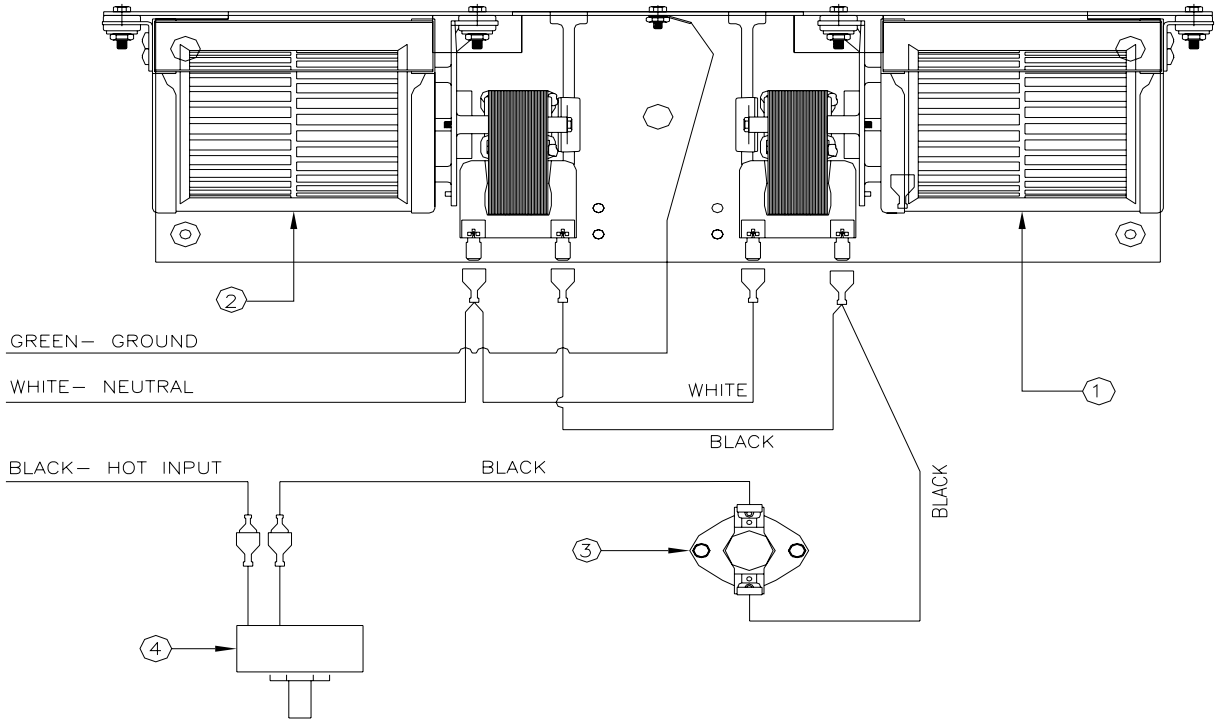
Dual blowers are provided as standard equipment with this M-27 fireplace. The dual blowers have an air output rating of 210 CFM (in free air). This fireplace is designed to operate with the blowers turned OFF or ON. Turning the blower on increases the overall efficiency of this fireplace and aids in distributing and circulating heat to the room this fireplace is installed in.

BLOWER OPERATION

The blower speed control (rheostat) supplied with this blower system can turn the blowers ON or OFF and infinitely regulate the speed of the blowers. The blower output can be regulated by turning the rheostat knob..

NOTE: There will be a time delay in blower operation during "heat-up" (approx. ½ hour) and extended blower operation during "cool-down" of unit (approximately ½ hour).

Figure 37: BLOWER WIRING DIAGRAM



M-27 BLOWER KIT REPLACEMENT PARTS LIST			
ITEM NO.	QT'Y	PART NUMBER	DESCRIPTION
1	1	15-02-00064	BLOWER, RIGHT HAND, J238-100-10101
2	1	15-02-00065	BLOWER, LEFT HAND, J238-100-10100
3	1	05-01-00135	SNAP DISC,TYPE 60T11,TBA313616
4	1	10-01-00046	RHEOSTAT w/ OFF

TROUBLE SHOOTING THE M-27 FIREPLACE

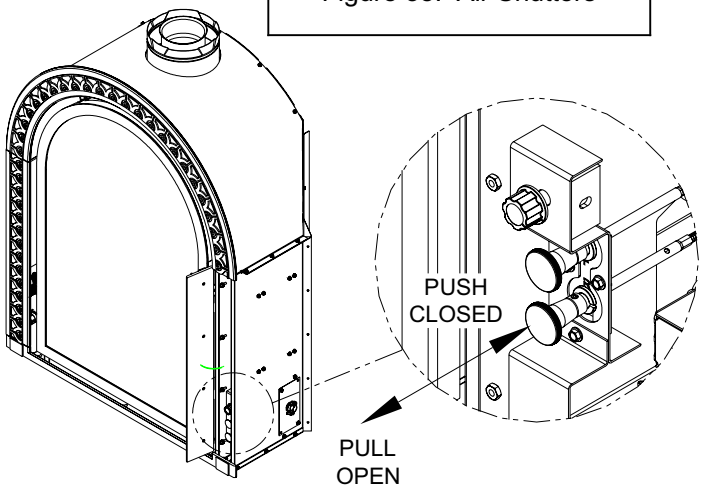
SYMPTOM	PROBABLE CAUSES	CORRECTIVE ACTION
1. Thin black coating (soot) forms on viewing glass.	A. Incorrect gas pressure B. Not enough combustion air	Have gas supplier check for correct gas inlet pressure (7" W.C. Nat. Gas; 11" W.C. LP Gas). If sooting continues, open air shutter on burner (see "Gas Flame Adjustment" below). If sooting still continues, shut off unit and call Mendota service person. **NOTE:** To clean glass - remove glass and wipe glass with cloth or paper towel.
2. Humming or whistling coming from Fireplace.	A. Normal operating noise.	Some noise is normal. It is caused by the gas supply flowing through the gas orifice. It is expected from any gas fireplace. Turning the Hi/Lo Knob on the control can reduce the noise. Turning down the flame will reduce the heat output of the unit.
3. A change in flame appearance or burner operation.	A. A change in gas pressure. B. Carbon dirt or lint.	Have your gas supplier check for correct gas 7" W.C. Nat. Gas; 11" W.C. LP Gas). If flame still needs adjustment see "Flame Adjustment" below. Clean out carbon, spider webs, lint, etc. from shutter area. Logs and burner. NEVER BLOCK AIR INTAKE OR OUTLET VENTS.

FLAME APPEARANCE ADJUSTMENT

Be sure burner and logs are properly installed (see M-27 Log Set Installation Section). After burner has been properly installed and operated for one hour, small additional adjustments to the air shutter may be necessary for final flame appearance. These small shutter adjustments can be made by the following procedure:

NOTE: Very small changes in shutter settings make major changes in flame appearance.

Figure 38: Air Shutters



1. Two Air Shutter Control Knobs are located behind the right side access door. The shutter control knob located on the top controls front burner flames. The shutter control knob located on the bottom controls the rear-most burner flames.
2. Light pilot; install logs and glass, and burn unit for 1/2 hour.
3. If flame is too "blue" push Air Shutter Control Knob inward until flame turns yellow.
4. If flame is too "orange" or is causing sooting pull out knob until flame begins to turn blue. NOTE: If sooting does not stop, turn off fireplace & call Mendota Service Person.
5. **IMPORTANT**: Try each new shutter setting approx. 1/2 hour before making additional changes.

NOTE: Changes in front burner flame can be made by re-arranging the coals. Densely packed coals will yield more glow and blue flames. Loosely packed coals will yield less glow and yellow flames.

CAUTION: Any changes in pilot flame must be made by qualified person and checked with voltmeter.

CUSTOMER INFORMATION

MAXIMUM ALLOWABLE SURFACE TEMPERATURE
Mendota Fireplaces comply with UL Standards for maximum surface temperatures on exposed combustible surfaces adjacent to the unit. The Maximum allowable surface temperature is 117° F. over ambient (room) temperature. Thus, if a room is 70° – 80° the exposed combustible surfaces immediately surrounding the Fireplace can have a surface temperature as high as 187° F. – 197° F. (Too hot to touch). This fireplace is certified to keep all adjacent surfaces close to this fireplace within the allowed temperature limits as long as all clearances to such surfaces are provided as required in this manual.

OVER FIRING OF BURNER
NEVER "over fire" units by adjusting gas pressure or drilling out the orifice to increase BTUH above nameplate specifications. Over firing can cause permanent damage to firebox and deterioration of parts and void warranty.

MAINTAINING CORRECT PILOT-FLAME -- PILOT OUTAGE & RELIGHTING
The pilot flame must be checked with millivolt meter and must always be a minimum of 325 millivolt.
Never lower (reduce) pilot flame below this minimum 325-millivolt setting. If pilot flame goes out, always wait 5 minutes before relighting. Always remove glass when lighting pilot.

CLEANING VIEWING GLASS
The viewing glass should be cleaned periodically. Exterior glass surface may be cleaned with cleaner as desired. To clean interior surface of glass - use soap and water. CAUTION: Do not use oven cleaner to clean glass.

NOTE: Additives that are put in gas (both natural and propane) to make it smell can be harmful to glass and can leave a white film deposit on the glass. This deposit can be removed with cleaners such as KEL KEM “Polish Plus” (part # 65-06-00455) or comparable product (contact your dealer).

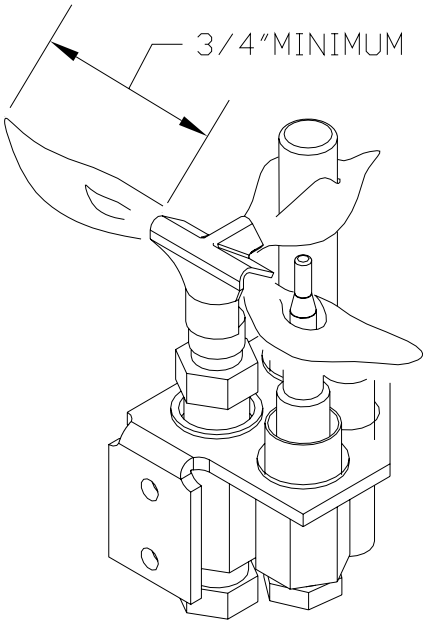
In some cases (especially propane) additives can cause “crazing” or etching on the glass. This is not a common occurrence and it is not covered under the warranty. The solution may be to change propane suppliers.

SOOTING
Sooting is caused by improper installation or air shutter operation. However, some small areas of soot deposits on log surfaces are deemed acceptable. If you observe large soot areas (larger than 1”x1”) on log surfaces or signs of sooting on the door glass (usually a thin black film on the Fireplace viewing glass or on the outside of the home around the vent cap), the unit must be immediately turned off and the local Mendota dealer promptly informed. Mendota dealers will correct "sooting" problems, but Mendota and their dealers are not responsible for damage caused by excessive sooting that has not been immediately brought to their attention.

OPERATION DURING POWER FAILURE
This fireplace is designed to operate during power outages. Blower will not function during power outages. However, all burners will continue to function normally. Heat output will be reduced slightly without the blower functioning (approximately 5% less).

MAINTENANCE

1. **ANNUAL MAINTENANCE OF MENDOTA UNITS IS REQUIRED**. The following procedures must be performed each year by a Mendota approved service person. NOTE: Any adjustments to burner, pilot or logs must be done by a qualified Mendota service person.



   A. Clean all lint and dust build-up around the control. Inspect the condition of any wiring under the burner for melting or damage.
   B. Remove logs & coals and clean away any foreign matter (lint, Carbon, etc.) on the burner and logs. Be sure the burner ports are "open". Clean the pilot and under side of the logs for any Carbon deposits. NOTE: Logs should be visually checked for Carbon "build-up". If carbon deposits are visible on logs, unit should be turned off and Mendota service person contacted. Be sure logs are re-installed per instructions on PAGE 34.
   C. Check condition of gaskets, gaskets must be tight, replace if necessary.
   D. Periodically check to verify that the vent system and vent cap are open and free of blockage.
   E. Before re-installing glass, have qualified service person check the operation of the pilot with millivolt meter and cycle the burner per LIGHTING INSTRUCTIONS (see PG. 43). Pilot must read a minimum of 460 millivolt. Be sure all items in LIGHTING and INSTALLATION "check off" lists are completed (see PG. 44).

2. **COMBUSTION SYSTEM MILLIVOLT READING:**
Millivolt readings must be taken by a qualified installer at the time of installation and after any interruption in burner operation. These readings will establish proper thermopile millivolt generation and assure trouble-free burner operation. Readings must be taken with: a.) Pilot ONLY operating. b.) Main Burner operating.

   A. **PILOT ONLY OPERATING - Thermostat** "OFF" - Minimum Millivolts 325
   Using a Millivolt Meter, a millivolt reading should be taken by attaching Meter leads to terminals #1 and #2 on the main gas valve. The Meter must read a minimum of 325 millivolts with the Pilot Light operating, Thermo-stat turned "OFF" and Main Burner "OFF". To increase or decrease millivolts (and pilot flame) adjust pilot screw on control (see Figure 39). Pilot Flame must be a minimum of ¾" long on all three branches.

   C. **MAIN BURNER OPERATING - Thermostat** "ON" - Minimum Millivolts 100
   Using a Millivolt Meter a millivolt reading should be taken by attaching Meter leads to terminals #2 and #3 on the millivolt panel on the main gas valve. The Meter must read a minimum of 100 millivolts with the Gas Cock Dial turned "ON", Thermostat "ON" and Main Burner operating. To increase or decrease millivolts (and pilot flame) adjust pilot screw on control (see Figure 39:).

CHECK TEST	TO TEST	CONNECT METER LEADS TO TERMINALS	THERMOSTAT CONTACTS	METER READING SHOULD BE
A	COMPLETE SYSTEM	2 & 3	CLOSED	100MV OR MORE
B	THERMO-PILE OUTPUT	1 & 2	OPEN	GREATER THAN 325 MV
C	SYSTEM RESISTANCE	1 & 3	CLOSED	LESS THAN 2.8 ohms
D	AUTO/ PILOT DROPOUT	1 & 2	OPEN	BETWEEN 120-30 MV

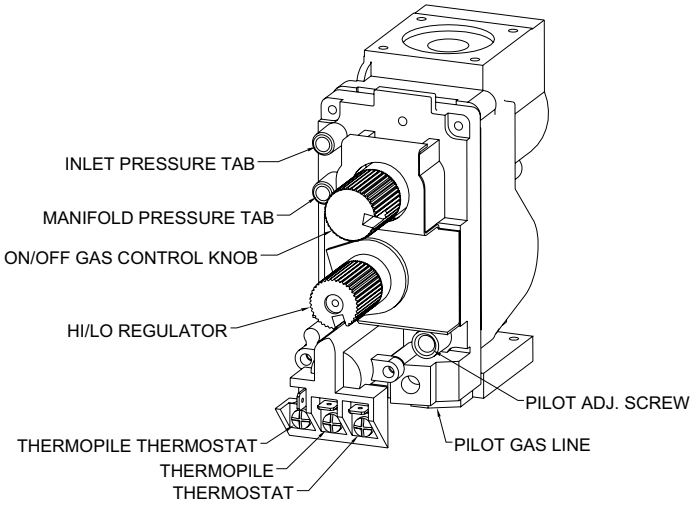


Figure 39: Millivolt Readings

1. The viewing glass should be cleaned periodically**.** Exterior glass may be cleaned with cleaner as desired. Interior glass - use kel kem "polish plus" (part # 65-06-00455) or comparable product. Do not use oven cleaner or abrasive cleaners to clean glass. Do not clean when glass is hot.
2. Periodic visual check of pilot flames is required**.**
3. Periodic visual check of main burner's rear and front flames is required.

BURNER FLAMES GENERAL HEIGHT DIAGRAM

NATURAL TO LP GAS CONVERSION

Kit #HA-48-00025 for Mendota Model M-27

This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the owner instructions supplied with the kit.

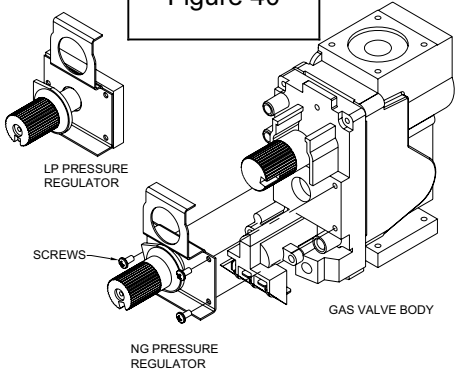
Caution: Before proceeding with the conversion; the gas supply must be shut off prior to disconnecting the electrical power.

ORIFICE SIZES REQUIREMENT:

A Natural Gas to LPG conversion kit #HA-48-00025 is included with the M-27 Fireplace. This conversion kit is located within the Ziploc bag containing this Installation and Operating Instructions Manual.

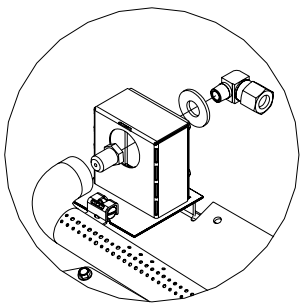
LP Conversion Kit #HA-48-00025 contains the following parts: One LP Pressure Regulator, One LP Pilot Orifice Thimble, One Cap Orifice **drill #56** (for rear burner) and One Cap Orifice **drill #59** (for front burner). Specifically, identify the Rear and Front Burner Cap Orifices. Use proper sized drill bits' shaft ends to verify orifice sizes.

Figure 40

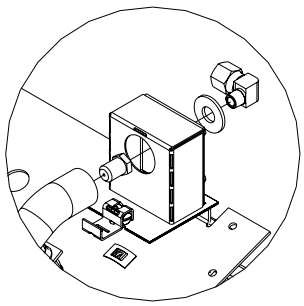


WARNING: IT IS OF THE UTMOST IMPORTANCE THAT THE CORRECT BURNER ORIFICE BE INSTALLED FOR BOTH THE REAR AND FRONT BURNERS.

1. Turn off gas supply at the appliance service valve. Identify the Pressure Regulator on the Valve Body; see Figure 13 on PAGE 45.
2. Using a ¼" flat blade screwdriver, remove 3 screws that secure the NG Pressure Regulator to the gas valve body and remove NG Pressure Regulator as shown on PAGE ?, below. Identify the pressure regulator spring that is located in the center of the black rubber gasket. Discard both the black rubber gasket and spring.
3. Install the new LP Pressure Regular onto the gas valve body in the same position and orientation as the NG Pressure Regulator you removed in Step 2, above. The LP Pressure Regulator can only be mounted in one position. Secure the LP Pressure Regulator in place using the 3 screws you removed in Step 2. Tighten down using a ¼" flat blade screwdriver.
4. Remove both Rear and Front Burners. Locate and Identify the Rear Burner Orifice Spud and the Front Burner Orifice Spud. Both Front and Rear Orifice Spuds are removed and installed using a ½" deep well socket and ratchet.
5. Install Rear Burner Orifice #65-14-00056 (#56 drill) for the Rear Burner. Tighten down securely.
6. Install Front Burner Orifice #65-14-00059 (#59 drill) for the Front Burner. Tighten down securely.
7. Install pilot orifice thimble #05-04-00036 (.014") see Figure 15 for location. Remove and install pilot hood with 7/16" open-end wrench. (Pilot orifice thimble is located inside pilot hood base).
8. Re-assemble pilot hood. Tighten down until pilot flame hood that is directed towards thermocouple is aligned properly with thermocouple.



REAR BURNER [LEFT SIDE]



FRONT BURNER [RIGHT SIDE]

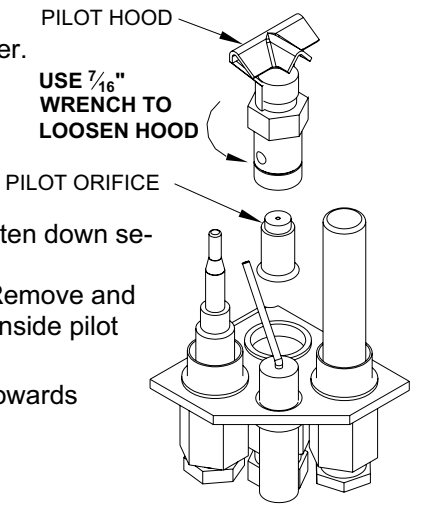


Figure 41

LP GAS PRESSURE REQUIREMENTS

Inlet and manifold gas pressure checking taps are located on gas valve. A qualified installer shall take pressure measurements at these ports to verify and set the correct gas pressures during the LP Kit installation. Manifold pressure must be taken at the “MANIFOLD PRESSURE" tap and inlet pressure at the "INLET PRESSURE" tap **with the burner operating** by a qualified installer.

	DESIRED INLET PRESSURE	MINIMUM INLET PRESSURE	MAXIMUM INLET PRESSURE	MANIFOLD OUTLET PRESSURE	AIR SHUTTER POSITION
L.P. GAS	**11.0" W.C.** (2.75 kPa)	11" W.C. (2.75 kPa)	13.0" W.C. (3.24 kPa)	10.0" W.C. (2.5 kPa)	1/4" OPEN MIN. (5 mm)

TURN GAS VALVE HI-LO KNOB TO "HIGH" POSITION. OUTLET GAS PRESSURES MAY VARY PLUS OR MINUS 5%.

LPG PROPER INPUT RATES:

With the proper orifices installed, as specified above, this fireplace utilizing LP Gas will have a maximum input rate of 25,000 Btu/Hr.

LEAK TESTING REQUIREMENTS

Prior to completing the conversion process , check for gas leaks with soap and water solution at all plumbing joints prior to placing this appliance into operation. It is recommended that all gas-plumbing joints, factory installed and field installed are checked for leaks.

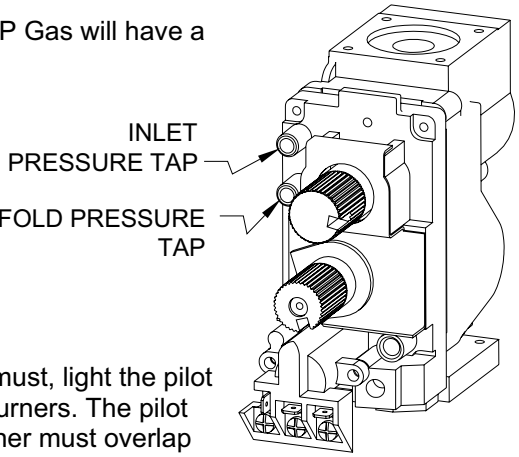


Figure 42: Pressure Test Port

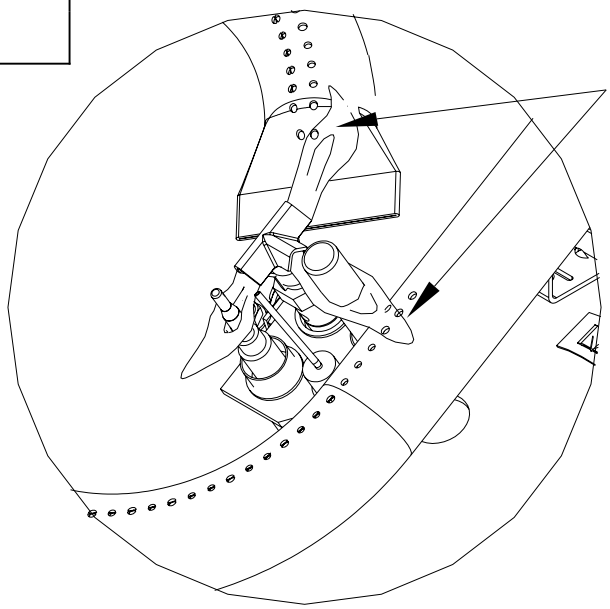
PILOT FLAME AND MAIN BURNER RELATIONSHIP VERIFICATION

Prior to completing the conversion process, the qualified service technician must, light the pilot light and verify the relationship between the pilot light flames and the main burners. The pilot light flames directed towards the propagation ports on the rear and front burner must overlap the propagation ports on the burners. The pilot light flames must be a minimum of ¾” long and must overlap the propagation ports on both the rear and front burners as shown in Figure 43. Verify that the burner tubes ignite quickly and the burner flames propagate smoothly along the entire length of the burners.

PILOT FLAME LENGTH ADJUSTMENT

If the pilot light flame length is too short or the required minimum thermopile voltage cannot be achieved using the factory default setting of the pilot light flame length, a qualified installer may adjust the length of the pilot light flames to meet the two requirements: **Minimum Thermopile output voltage shall be 325mV and the pilot light flames must be long enough to overlap the burner ports as shown in Figure 43**.

Figure 43: PILOT FLAMES AND BURNER PORTS ALIGNMENT



COMBUSTION SYSTEM MILLIVOLT READING

Millivolt readings must be taken by a qualified installer once the LPG conversion kit parts have been installed. These readings will establish proper thermopile millivolt generation and assure trouble-free burner operation. Readings must be taken with: a.) Pilot ONLY operating. b.) Main Burner operating.

A. **PILOT ONLY OPERATING - Thermostat** "OFF" - Minimum Millivolts 325
Using a Millivolt Meter, a millivolt reading should be taken by attaching Meter leads to terminals #1 and #2 on the main gas valve. The Meter must read a minimum of 325 millivolts with the Pilot Light operating, Thermo-stat turned "OFF" and Main Burner "OFF". To increase or decrease millivolts (and pilot flame) adjust pilot screw on control (see Figure 39). Pilot Flame must be a minimum of ¾" long on all three branches.

B. **MAIN BURNER OPERATING - Thermostat** "ON" - Minimum Millivolts 100
Using a Millivolt Meter a millivolt reading should be taken by attaching Meter leads to terminals #2 and #3 on the millivolt panel on the main gas valve. The Meter must read a minimum of 100 millivolts with the Gas Cock Dial turned "ON", Thermostat "ON" and Main Burner operating. To increase or decrease millivolts (and pilot flame) adjust pilot screw on control (see Figure 39: Millivolt Readings).

CHECK TEST	TO TEST	CONNECT METER LEADS TO TERMINALS	THERMOSTAT CONTACTS	METER READING SHOULD BE
A	COMPLETE SYSTEM	2 & 3	CLOSED	100MV OR MORE
B	THERMO-PILE OUTPUT	1 & 2	OPEN	GREATER THAN 325 MV
C	SYSTEM RESISTANCE	1 & 3	CLOSED	LESS THAN 2.8 ohms
D	AUTO/ PILOT DROPOUT	1 & 2	OPEN	BETWEEN 120-30 MV

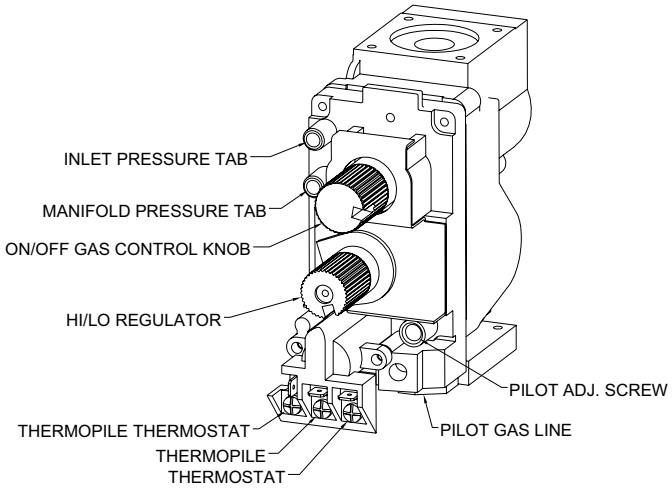


Figure 44: Millivolt Readings

CHECKING FOR NORMAL BURNER (S) IGNITION CHARACTERISTICS

Once the conversion to LPG and all the above steps have been completed, light the main burners.

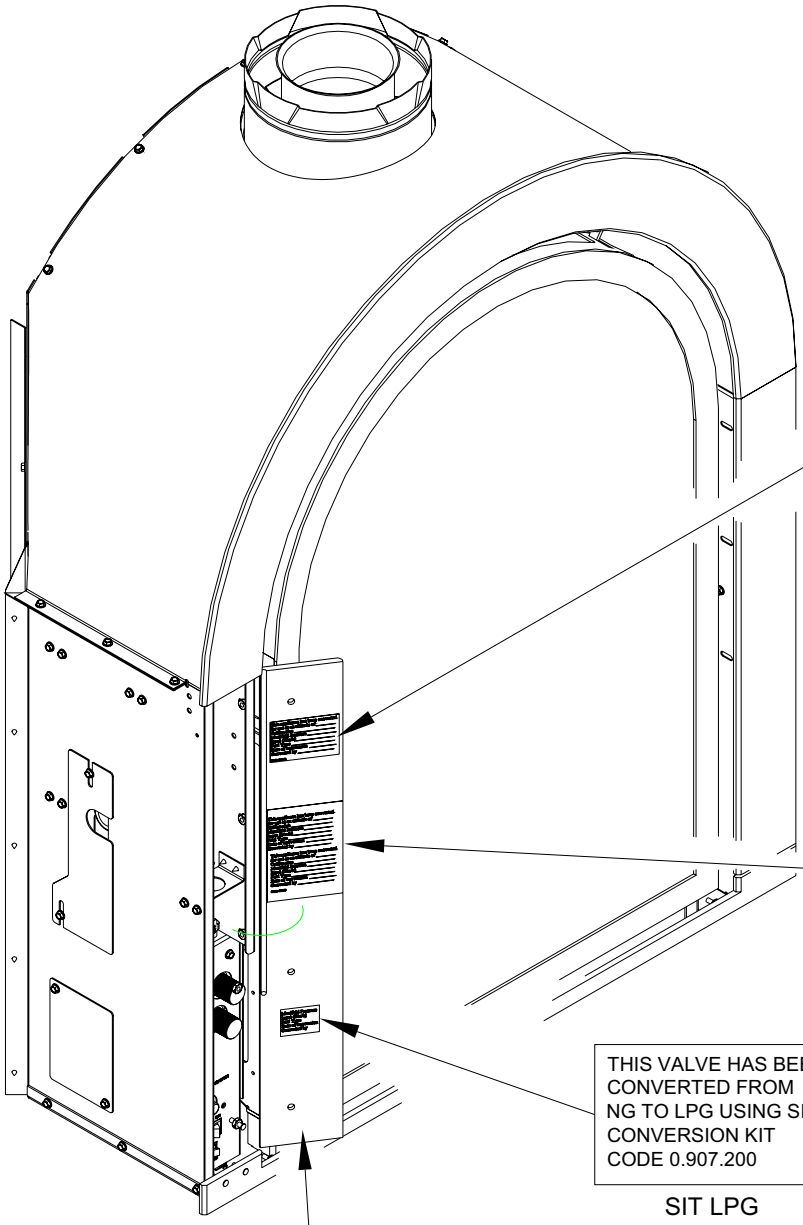
Turn Gas Dial counterclockwise to "ON" then set Thermostat or push Main Burner ON/OFF switch to turn on burners. Main burner should now light IMMEDIATELY and flame should not "lift" off burner. If there is any delay in ignition or if flame is "lifting off" burner, turn off burner and carefully check for proper installation of logs/coals, vent system and proper pilot flame impingement on burner and thermopile. Logs or coals must not block pilot flame or main burner flame. Vent system must be leak proof.

WARNING
DO NOT PROCEED WITH OPERATION OF THIS FIREPLACE
UNLESS BURNER "CYCLES" ON/OFF WITHOUT DELAYS!

ATTACHING LPG CONVERSION LABELS

Two printed informational labels are included with the LPG Conversion Kit. Attach these two labels to inner surface of the left side controls access door. If you are derating this appliance at a high altitude, also attach the High Altitude Deration Label, supplied in the Owner's Manual Packet, to this same surface.

Prior to attaching the labels, fill in all the information that is requested in these labels.



HIGH ALTITUDE
DERATION LABEL

This appliance has been converted
for use at an altitude of _____
Orifice size _____
Manifold Pressure _____
Input (Btu/h)_____
Fuel Type _____
Date of conversion _____
Converted by _____

This appliance has been converted for use with LP GAS
M-27 ZC Gas Fireplace
LP KIT #HA-48-00025
EFFECTIVE ALTITUDE_____

INLET PRESSURE (MAX./ MIN): 13"WC / 11.0" WC

Orifice Sizes: # F_____R_____

Manifold Pressure_____

Input (BTU/H)_____

Date of Conversion _____

This appliance was converted on _____
to LP Gas with Kit No. HA-48-00025 by

_____
(name & address of organization making this conversion which accepts the responsibility that this conversion has been properly made)
Cet appareil était converti sur le jour - mois - année à LPgaz avec L'équipement No HA-48-00025 par

_____
(nom & adresse d'organisation faisant cette conversion qui accepte la responsabilité que cette conversion a été faite correctement)
Label # 65-01-311

LPG CONVERSION LABEL

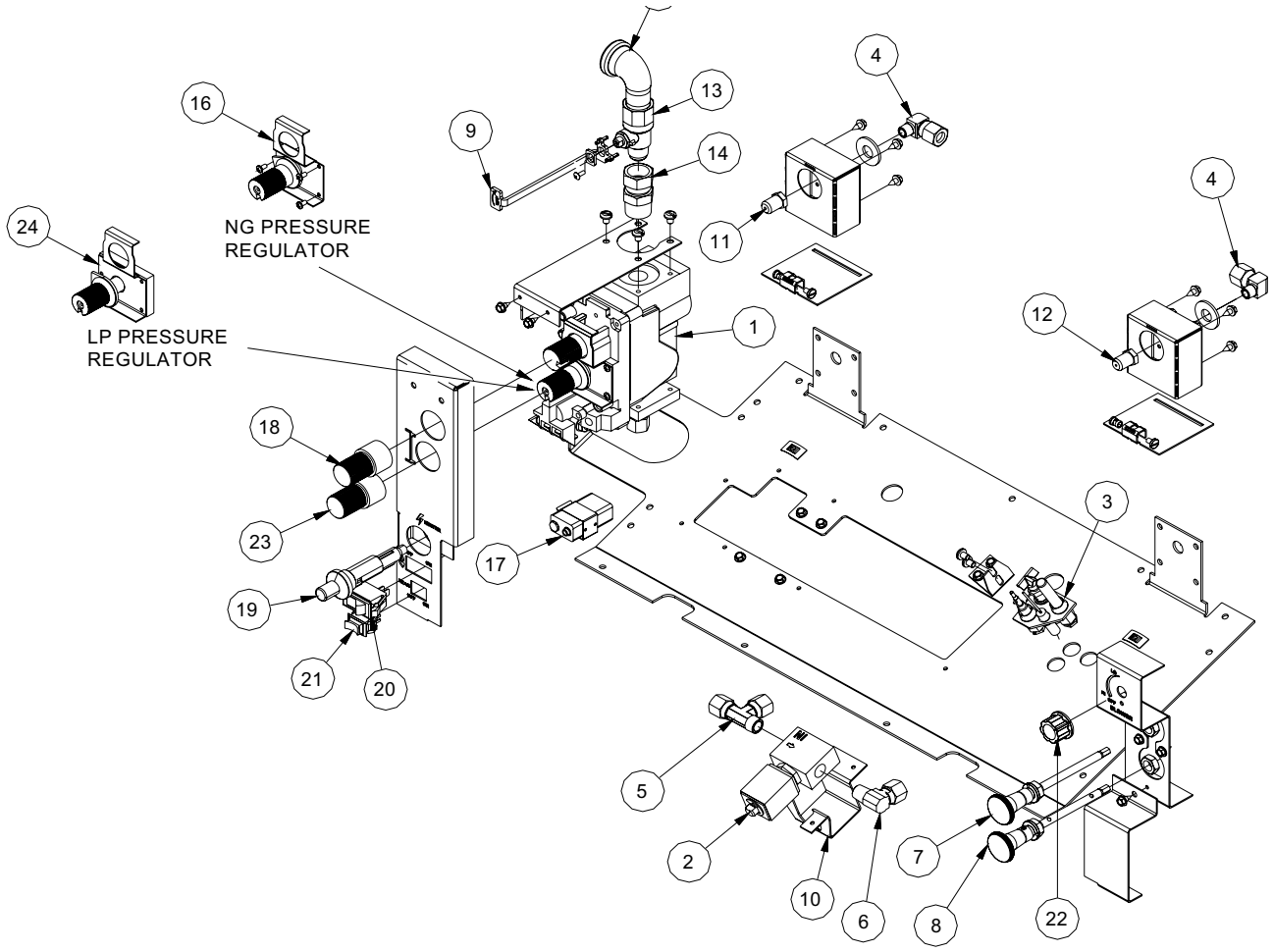
THIS VALVE HAS BEEN
CONVERTED FROM
NG TO LPG USING SIT
CONVERSION KIT
CODE 0.907.200

SIT LPG
CONVERSION LABEL

LEFT SIDE CONTROLS
ACCESS DOOR

VALVE ASSEMBLY REPLACEMENT PARTS

Figure 45: VALVE ASSEMBLY



ITEM	PART NO	DESCRIPTION	ITEM	PART NO	DESCRIPTION
1	05-02-00313	VALVE, SIT, NATURAL GAS, 225F, 3.5-1.3	14	65-07-00748	SWIVEL CONNECTOR, SAE-F SWIVEL TO NPT-M, 6-6 F6X-S
2	05-02-00310	VALVE, SOLENOID			
3	05-04-00039	PILOT ASSEMBLY, M27	15	60-05-00049	ELBOW, STREET, 1/2 MPT/ 1/2 FPT, BLACK
4	65-07-00010	BCF, 3/8 TBE X 1/8MPT COMP ELBOW-AF	16	05-02-00289	NG PRESSURE REGULATOR (3.5-1.3"WC)
5	65-07-00060	BCF, 3/8" X 3/8" X 1/4" MALE	17	65-06-00987	BATTERY, 9V ALKALINE
6	65-07-00009	BCF, 3/8 TUBE X 1/4 MPT COMP	18	05-02-00283	EXTENSION, SHORT KNOB, ON/OFF
7	65-06-01062	CABLE, AIR SHUTTER W/SET COLLAR, 30in	19	65-06-01064	SPARK IGNITER, PIEZO
8	65-06-00954	CABLE, AIR SHUTTER W/SET COLLAR	20	10-10-00104	SWITCH, ROCKER #1A822 BLK.
9	HA-48-00021	EXTENSION, SHUTOFF, ASSEMBLY, M27	21	10-03-00072	SKYTECH WIRE HARNESS W/ SWITCH
10			22	10-01-00047	KNOB, BLACK #1260331
11	65-14-00045	ORIFICE, #45 NAT [#56 LPG]	23	05-02-00284	EXTENSION, SHORT KNOB, HI/LO
12	65-14-00051	ORIFICE, #51 [#59 LPG]	24	05-02-00315	LP PRESSURE REGULATOR (10"-3.3"WC)
13	65-07-00744	VALVE, BALL 1/2FPT X 3/8 FLARE			

GLASS FRAME ASSEMBLY REPAIR AND REPLACEMENT

DO NOT substitute other manufacturer's materials or components.

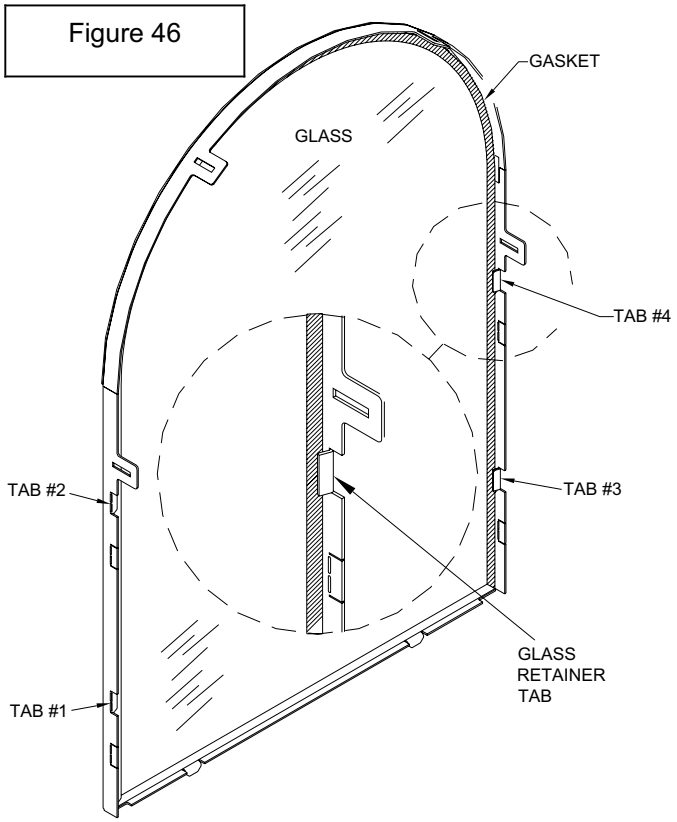
DO NOT operate unit with cracked, broken or missing glass.

DO NOT abuse the glass door by striking the glass, slamming the door shut. etc

WARNING
Use only authorized parts and materials obtained from Johnson Gas Appliance Company when replacing defective or damaged glass.

WARNING
Do not operate this appliance with the glass removed, cracked or broken. Glass should be replace by a licensed or qualified person.

Figure 46



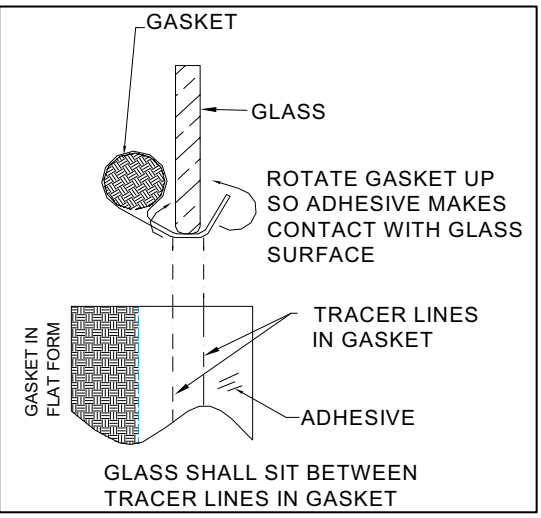
TO REPLACE DAMAGED GLASS

1. Bend Glass Retainer Tabs (Figure 46) up 90 degrees. Four tabs hold down the glass and gasket assembly.
2. Remove the damaged glass and gasket material. Clean the inner surface of the glass frame.
3. Assemble new gasket on glass edge starting with the bottom left corner. The adhesive on the gasket should make contact with the glass surface. Use tracer lines in gasket to determine where the glass should sit on the gasket surface. See Figure 47.
4. Place glass and gasket assembly in glass frame and carefully bend down glass retainer tabs (Figure 48). Extra glass retainer tabs are provided should any originally used tabs break off.

The glass frame assembly and its individual components are available through Johnson Gas Appliance Company. Contact your dealer for more detailed ordering information.

GLASS FRAME ASSEMBLY # HA-48-00103 REPLACEMENT PARTS LIST		
ITEM	**PART NUMBER**	**DESCRIPTION**
1	HA-48-00002	FRAME, WELDMENT, GLASS, M27
2	65-02-00103	GASKET, TADPOLE, 3/8"BULB, 3/4" TAIL
3	65-06-01063	GLASS, CERAMIC, M27

Figure 47



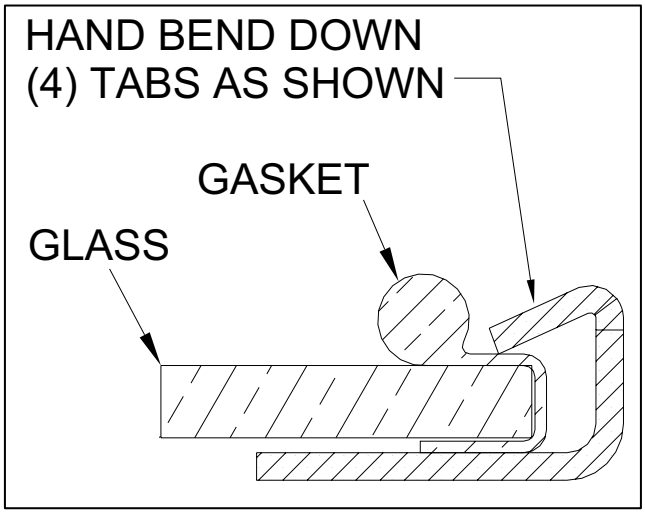


Figure 48

LISTING LABEL INFORMATION

The model information regarding your specific appliance can be found on the rating plate, which is located inside the right side controls access door. When contacting your dealer for any cleaning service or warranty service, always provide the Model Number, Serial Number and Manufactured Date. This information will expedite the warranty verification process.

LISTED DIRECT VENT GAS FIREPLACE HEATER
(POELE AU GAZ HOMOLOGUÉ, À AÉRATION DIRECTE)
NOT FOR USE WITH SOLID FUEL
(NE DOIT PASÉ UTILISÉ AVEC UN COMBUSIBLE SOLIDE)

MANUFACTURED BY (FABRIQUÉ PAR):
JOHNSON GAS APPLIANCE CO. CEDAR RAPIDS, IOWA
CERTIFIED FOR CANADA HOMOLOGUE POUR LE CANADA
TESTED TO (TESTÉ AUX NORMES)
ANSI Z21.88-2002 * CSA 2.33-2002

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY, OR LOSS OF LIFE. REFER TO THE OWNER'S INFORMATION MANUAL PROVIDED WITH THIS APPLIANCE. INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER. DO NOT OPERATE WITH GLASS DOOR REMOVED, CRACKED, OR BROKEN. THIS VENTED GAS FIREPLACE HEATER IS NOT FOR USE WITH AIR FILTERS. REGISTER KIT MAY BE USED.

MISE EN GARDE: INSTALLATION, RÉGLAGE, MODIFICATION, ENTRETIEN OU DÉPANNAGE NON APPROPRIÉS POURRONT CAUSER DES BLESSURES OU DES DOMMAGES MATÉRIELS. RÉFÉREZ-VOUS AU MANUEL DU PROPRIÉTAIRE FOURNI AVAC CET APPARIEL. POUR ASSISTANCE OU RENSEIGNEMENTS COMPLÉMENTAIRES, VEUILLEZ CONSULTER UN INSTALLATEUR EXPÉRIMENTÉ, UNE AGENCE DÉ DÉPANNAGE/ENTRETIEN OU COTRE COMPAGNIE GAZIERE, POUR UTILISATION AVEC LES PORTES EN VERRE CERTIFIÉE L'APPAREIL SEULEMENT. NE PAS OPÉRER AVEC LE VERRIÉRE ENLEVER, CRAQUELURE, BRISÉ.

	☐ NATURAL GAS (GAZ NATUREL)	☐ LP GAS (GAS DE PÉTROLE) LIQUÉFIÉ (GPL))
INPUT RATING (BTR/HR) 0-610m (ENTREÉ NOMINALE)	27,000	25,000
MIN. INPUT RATING (BTU/HR) 0-610m (MINIMALE ENTRÉE NOMINALE)	7,250	7,000
ORIFICE 0-610m (ORIFICE)	FRONT #51 REAR #45	FRONT #59 REAR #56
ORIFICE 610-1370m (ORIFICE)	FRONT #52 REAR #46	FRONT #60 REAR #57
INPUT RATING (BTU/HR) 610-1370m	26,200	23,800
MAXIMUM OUTPUT (BTU/HR) (SORTIE MAXIMALE)	21,060	19,500
MANIFOLD PRESSURE (in. w.c./kPa) (PRESSION AU COLLECTEUR)	3.5	10.0
MANIFOLD PRESSURE, LOW (in. w.c./kPa) (PRESSION D'ENTRÉE MINIMALE)	1.3	3.3
MINIMUM INLET PRESSURE (in. w.c./kPa) (PRESSION D'ENTRÉE MINIMALE)	5.0	11.0

THIS APPLIANCE IS ONLY FOR USE WITH THE TYPE OF GAS INDICATED ON THE RATING PLATE AND MAY BE INSTALLED IN AN AFTERMARKET, PERMANENTLY LOCATED MANUFACTURED (MOBILE) HOME WHERE NOT PROHIBITED BY LOCAL CODES. SEE OWNER'S MANUAL FOR DETAILS. THIS APPLIANCE IS SUPPLIED WITH A CONVERSION KIT.
CET APPAREIL SERA INSTALLÉ CONFORMÉMÉNT AVEC LES CODES LOCAUX, LE CAS ÉCHÉANT. SI AUCUN CODE N'EXISTÉ, SUIVEZ LA NORME ANSI Z223.1 OULA NORME CAN/CGA (ACNOR)-B149.

MINIMUM CLEARANCES TO COMBUSTIBLE CONSTRUCTION

UNIT TO FLOOR	0in. (0 mm)	GLASS EDGE TO ADJACENT SIDEWALL	12in. (305 mm)
UNIT TO ENCLOSURE SIDEWALL	0in. (0 mm)	VENT PIPE TOP TO COMBUSTIBLES	2in. (51 mm)
UNIT TO ENCLOSURE BACK WALL	1in. (25 mm)	VENT PIPE SIDES TO COMBUSTIBLES	1in. (0 mm)
UNIT TOP TO ENCLOSURE CEILING	1-1/2in. (38 mm)	VENT PIPE BOTTOM TO COMBUSTIBLES	1in. (0 mm)
UNIT TOP TO ROOM CEILING	27-1/2in. (699 mm)	7-1/2" MANTLE ABOVE DISCHARGE AIR OPENING	12in. (305 mm)

CAUTION: HOT WHILE IN OPERATION. DO NOT TOUCH. KEEP CHILDREN, CLOTHING, FURNITURE, AND FLAMMABLE LIQUIDS OR VAPORS AWAY.
ATTENTION: L'APPAREIL EST CHAUD LORSQU'IL FONCTIONNE. NE PASS TOUCHER L'APPAREIL. SURVIELLER LES ENFANTS. GARDER LES VÊTEMENTS, LES MEUBLES, L'ESSENCE OU AUTRES LIQUIDES À VAPEUR INFLAMMABLES LOIN DE L'APPAREIL.

ELECTRICAL RATING (COURANT NOMINAL): 120 VOLTS 60 HERTZ LESS THAN 1.5 AMPERES

DO NOT REMOVE OR COVER THIS LABEL
VEILLEZ A NE JAMES ENLEVER NI DISSIMULER CETTE ÉTIQUETTE

MFG. DATE: XXXXX MODEL: M-27 SERIAL NO. WH-M27- XXXXXX 65-01-000310

MANUFACTURED DATE **MODEL NUMBER** **SERIAL NUMBER**

Notes

Notes

MENDOTA WARRANTY QUALIFICATION & SERVICE REFERENCE FORM

As a part of Mendota's on-going program of customer satisfaction, this Form verifies proper installation and operation. It is important as a reference for future service. It insures long life and trouble-free operation of Mendota fireplaces & stoves and qualifies the owner for Mendota's lifetime limited warranty. Owner should sign Form when completed and mail a copy along with Warranty Registration to Mendota. OPTIONALLY, PLEASE REGISTER AT OUR WEBSITE AT:

WWW.JOHNSONGAS.COM/MENDOTA-REGISTRATION.ASP

HOME OWNER: _____ DEALER: _____

ADDRESS: _____ ADDRESS: _____

CITY/STATE/ZIP: _____ CITY/STATE/ZIP: _____

SIGNATURE: _____ PHONE: _____

MODEL #: M-27 _____ SERIAL #: _____ DATE INSTALLED: _____

Mendota direct vent fireplaces are sophisticated, hi-tech gas appliances. All installation and operating instructions must be carefully followed. This M-27 fireplace must be installed and serviced by a qualified Mendota approved service person.

REF: MENDOTA M-27 INSTALLATION MANUAL

- ❑ APPROVED VENT PIPES AND VENT CAP INSTALLED - Per Manual.
  - Vent pipes must be fully twist-locked and leak proof.
  - Check minimum and maximum vertical / horizontal and vent runs.
  - 1000° sealant must be used on inner joints at adjustable pipe sections.
- ❑ CHECK FOR PROPER CLEARANCES TO COMBUSTIBLES & VENT LOCATIONS - Per Manual
- ❑ INSTALL PROPER SIZE GAS LINES - CHECK FOR GAS LEAKS - Per Manual
- ❑ CHECK FOR CORRECT GAS PRESSURE AT MANIFOLD - Per Manual
  - a. 3.5 Inches Water Column Maximum - Nat. Gas
  - b. 10.5 Inches Water Column Maximum - L.P. Gas
- ❑ TAKE COMBUSTION SYSTEM MILLIVOLT READINGS [See Manual PG.. 42]
  - a. Pilot only - [Minimum Millivolts 325] Reading: _____
  - b. Main burner operating - [Minimum Millivolts 100] Reading: _____
- ❑ CYCLE BURNERS ON/OFF FOR PROMPT IGNITION - Per "LIGHTING INSTRUCTIONS"
  - Burner must light IMMEDIATELY - Flame must travel promptly around "curve" & light burner.
- ❑ INSTALL LOGS AND ADJUST FLAME - Per Manual
  - Proper pilot flame impingement on thermopile & burner - Air shutter opening: 1/8" Nat. Gas – 1/4-"-1/2" LP
  - Check that flame is "stable" and is not "lifting" off burner
- ❑ BRIEF OWNER ON OPERATION AND MAINTENANCE OF UNIT
  - ☐ Light Pilot ☐ Operate Burner ☐ Explain blower "delay" operation

WARRANTY REGISTRATION

Your Name _____

Address _____

City _____ State _____ Zip _____

Dealer (Place of Purchase) _____

City _____ State _____ Zip _____

Date of Purchase _____ Serial Number _____

Purchaser's Signature _____

☐ MENDOTA M-27 DIRECT VENT FIREPLACE

CUT OUT PAGE AND MAIL TO: JOHNSON GAS APPLIANCE CO., 520 E AVE. N.W., CEDAR RAPIDS, IOWA 52405

PLEASE REGISTER AT OUR WEBSITE AT: WWW.JOHNSONGAS.COM/MENDOTA-REGISTRATION.ASP

TAPE SHUT

POSTAGE
NEEDED

JOHNSON GAS APPLIANCE COMPANY
520 E AVENUE N.W.
CEDAR RAPIDS, IA 52405

MENDOTA EXTENDED LIFETIME PROTECTION AND LIMITED WARRANTY

MENDOTA M-27 DIRECT VENT FIREPLACE

Mendota Division of Johnson Gas Appliance Company, 520 E Avenue N.W. Cedar Rapids, Iowa 52405, extends this Extended Lifetime Protection and Limited Warranty to the original purchaser of a Mendota M-27 Fireplace, which is limited and used under normal home conditions.

STANDARD WARRANTY:

JOHNSON GAS APPLIANCE CO., MENDOTA DIVISION, WARRANTS THAT YOUR NEW MENDOTA FIREPLACE IS FREE FROM MANUFACTURING AND MATERIAL DEFECTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF INSTALLATION, SUBJECT TO THE FOLLOWING CONDITIONS AND LIMITATIONS:

EXTENDED LIFETIME WARRANTY:

THE HEAT EXCHANGER, BURNER TUBE COMBUSTION CHAMBER AND OUTER SHIELD OF THE MENDOTA M-27 FIREPLACE ARE WARRANTED FOR THE LIFETIME OF THE ORIGINAL OWNER, SUBJECT TO PROOF OF PURCHASE AND THE FOLLOWING CONDITIONS AND LIMITATIONS:

1) This new Mendota Fireplace must be installed & serviced by a competent, authorized service contractor. It must be installed and operated at all times in accordance with the installation and operating instructions furnished with the Fireplace. All adjustments to logs, coals or burner must be made by an authorized Mendota person. Any alteration, willful abuse, accident or misuse of the product shall nullify this warranty. This warranty does not cover glass or log breakage.

   This limited warranty does not cover the cost of service calls, the cost of labor to remove or install parts covered by this limited warranty, freight or other transportation expenses, which may be incurred in connection with obtaining performances under this limited warranty. The remedy for damages as the result of any defects in this product which have been warranted herein is limited to replacement parts and does not include any incidental, indirect or consequential damages or expenses sustained in connection with the product, including damages to property, except as provided by law.

2) This warranty is non-transferable and is made to the original retail purchaser, provided the purchase was made through an authorized Mendota dealer.

   Mendota is not responsible for any damage to or malfunction of the Fireplace unless caused by a defect in material or workmanship from normal home use. Damage caused by abuse, improper installation, improper servicing, and installation by unqualified personnel or breech of conditions of this limited warranty will excuse Mendota from performance of any part of this limited warranty. Mendota has the right to investigate and inspect the exact, original Fireplace and entire installation (without any alterations or tampering) in the event a claim is made to determine whether the claimed damage or malfunction was caused by abuse, improper installation or other cause outside this warranty. Mendota is not responsible for any repairs or material purchases that have not received prior written approval from Mendota.

NOTE: Minor warping of certain parts or discoloration is normal and is not a defect covered by this warranty. Major warping of parts can be caused by over-firing of your Mendota Fireplace. Over-firing above rated nameplate specification is as contrary to the manufacturer's instructions and may void this warranty.
This warranty may not be extended by our representatives or any third party in any manner. The company neither assumes, nor authorizes any third party to assume, on its behalf, any other liabilities with respect to the sale of this Mendota product.

3) Mendota may at its discretion, fully discharge all obligations of this warranty by refunding the wholesale price of the defective part(s).

4) All other warranties - expressed or implied - with respect to the product, its components and accessories, or any obligation/liabilities on the part of the company are hereby expressly excluded. Products made by other manufacturers, sold with the Fireplace or thereafter, are not covered by this limited warranty. The use of unauthorized components will make this warranty null and void.

This warranty shall be effective only if the original purchaser of the Mendota appliance is registered with Mendota Division within thirty (30) days of the date of purchase. Such registration or the failure to register shall not be deemed to create any obligation or liability by the manufacturer and this warranty with its conditions and limitations shall be the only procedure for obtaining any rights against the manufacturer and expresses the sole obligation and responsibilities of the manufacturer which are offered to the original purchaser and accepted upon purchase of the appliance.

Mendota Division, reserves the right to make changes at any time without notice, in design, material, specifications, prices and the right to discontinue styles and products.
Some states do not allow the exclusion of limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Johnson Gas Appliance Company
520 E Avenue N.W. - Cedar Rapids, IA 52405
Mendota Hearth Division

WEBPAGE: www.johnsongas.com or www.mendotahearth.com

Part #85-03-00702