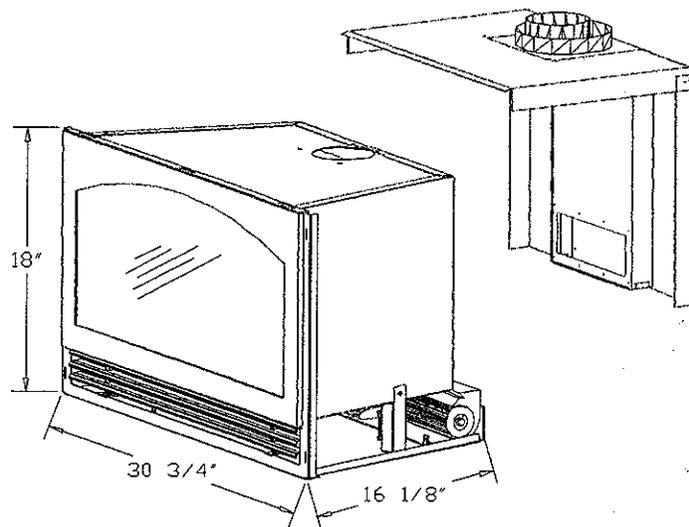


K O Z Y H E A T

Quality Fireplaces For Life

INSTALLATION AND OPERATING MANUAL

MODEL #811 DIRECT VENT INSERT



PATENT PENDING

IMPORTANT:
READ ALL INSTRUCTIONS CAREFULLY BEFORE
INSTALLATION. FAILURE TO INSTALL THIS
FIREPLACE INSERT CORRECTLY CAN CAUSE SERIOUS
STRUCTURAL AND FIRE HAZARDS AND
MAY VOID YOUR WARRANTY.



January 1998

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**MODEL #811 DV
DIRECT VENT GAS BURNING FIREPLACE INSERT**

INSTALLATION & OPERATING INSTRUCTIONS

**IMPORTANT:
READ THIS MANUAL BEFORE INSTALLING AND USING THIS FIREPLACE**

This fireplace has been tested to and complies with ANSI Z21.44 "GAS-FIRED DIRECT VENT WALL FURNACES". Installation must conform with local building codes or in the absence of local building codes, with the National Fuel Gas code, ANSI Z223.1 NFPA 54.

THIS FIREPLACE MAY BE INSTALLED IN A PERMANENTLY LOCATED MOBILE (MANUFACTURED) HOME AFTER THE FIRST SALE.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

FOR YOUR SAFETY

WHAT TO DO IF YOU SMELL GAS:

- ▶ Do not touch electrical switches.
- ▶ Do not try to light any appliance.
- ▶ 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.

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

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.

WARNING: DO NOT REPLACE THIS BURNER UNIT WITH ANY OTHER SIZED BURNER. REPLACEMENT WITH AN UNAUTHORIZED BURNER CAN RESULT IN TEMPERATURES EXCEEDING THE LIMITS FOR THIS UNIT AND VOID YOUR WARRANTY.

DUE TO HIGH TEMPERATURES, THIS FIREPLACE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES

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

YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THIS FIREPLACE.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.

The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

THIS UNIT IS APPROVED FOR INSTALLATION IN FACTORY-BUILT ZERO-CLEARANCE SOLID FUEL AND MASONRY FIREPLACES.

The existing fireplace must meet the following requirements:

1. A gas line must be able to be installed to the insert.
2. Existing Chimney:
 - Class "A" metal chimney: Co-axial 4" x 6" venting - 7" minimum inside diameter.
Co-linear 3" x 4" venting - 8" minimum inside diameter.
 - Masonry Chimney: Co-linear 3" x 4" venting - 6" x 8" minimum inside diameter.
3. The inside dimensions of the fireplace with the firebrick and smoke baffle **REMOVED** must be at least:

Height:	19"	Front Width:	31"
Depth:	16 1/4"	Width at minimum depth location:	21"

4. The height the of existing chimney must be a minimum of 12 ft. and not exceeding 40 ft.

To Determine the length of your existing chimney:

- A) Remove the chimney cap.

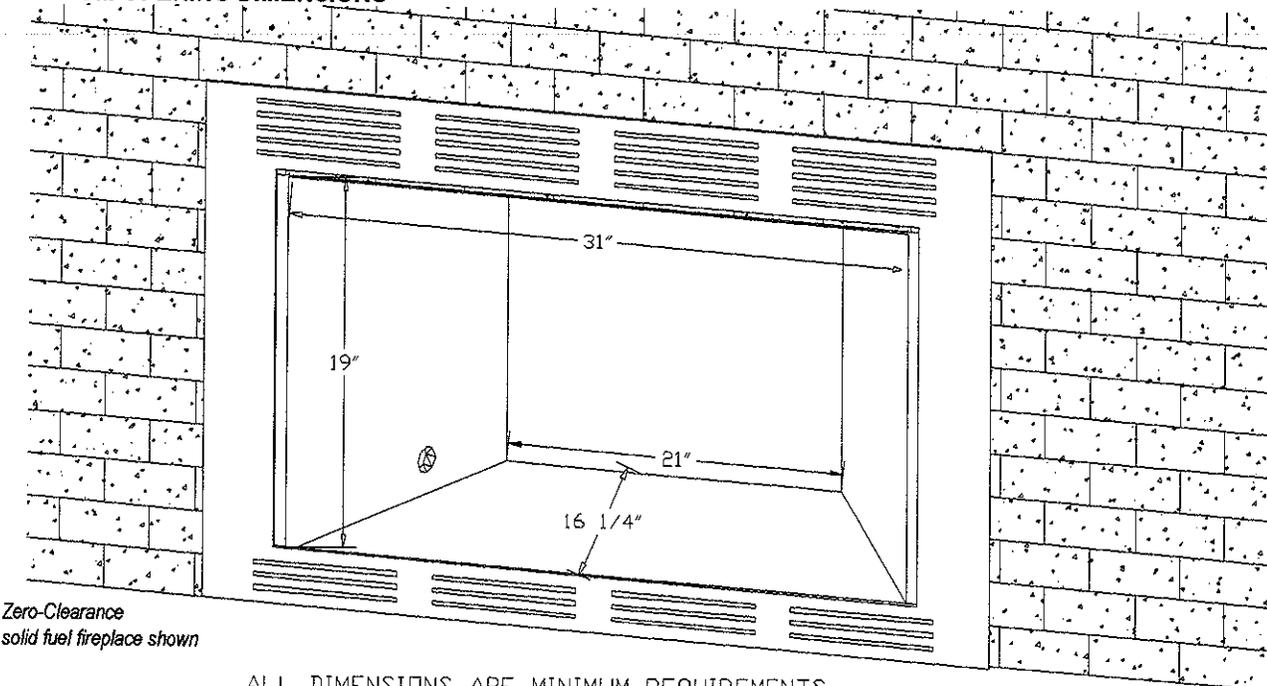
NOTE: It is helpful to have two people complete the next step in determining chimney height:

- B) With one person at the fireplace and the other person at the top of the chimney, measure from the base of the fireplace to the top of the chimney. Subtract 24" for the height of the #811 insert. This is the total length of vent system you will require.

MEASUREMENT FROM BASE OF FIREPLACE TO TOP OF CHIMNEY:	_____
LESS:	-24"
TOTAL CHIMNEY LENGTH REQ.:	_____

5. Minimum clearance from outlet grill on the insert to a combustible mantel: 12"
Minimum clearance from the side of the insert glass (glazing) to side wall: 10"

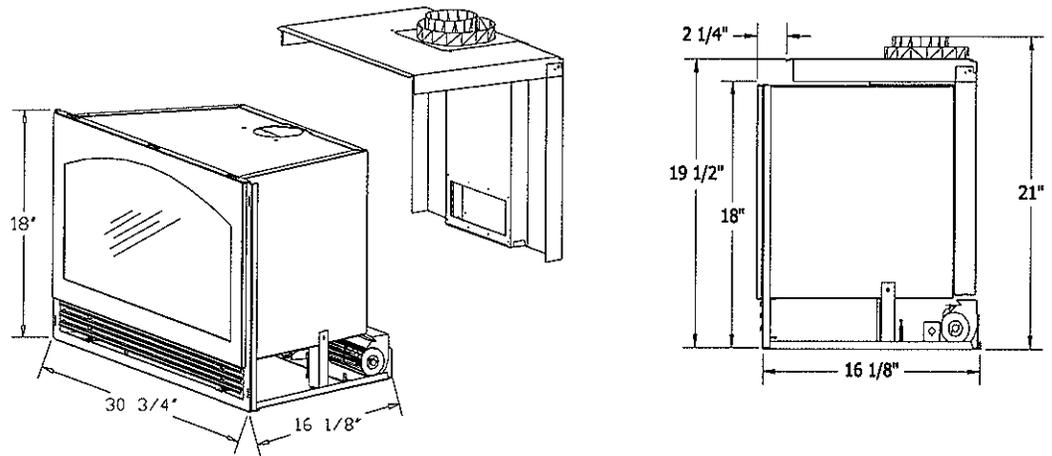
MINIMUM OPENING DIMENSIONS



ALL DIMENSIONS ARE MINIMUM REQUIREMENTS

SPECIFICATIONS:

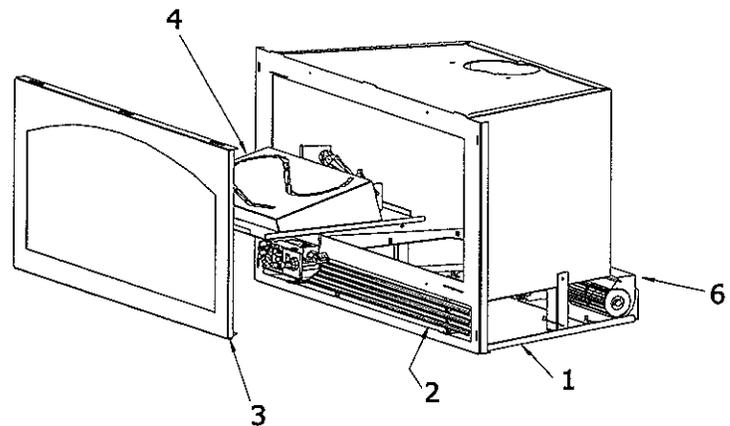
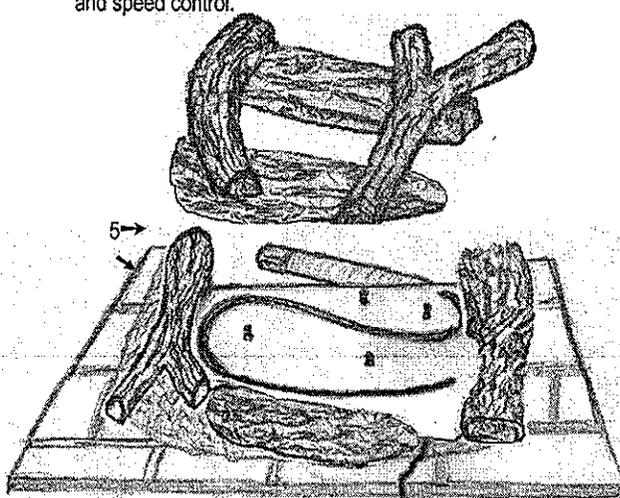
Height: 18"
Width: 30 3/4"
Depth: 16 1/8"



Check the assembly diagram below to ensure you have all the necessary components to properly install this fireplace insert.

This insert includes the following:

1. Unit.
2. Black lower grill.
3. Quick-latch glass assembly.
4. Millivolt board with magnifier plate.
5. Refractory base & log set.
6. 150 CFM fan with limit switch and speed control.



Additional components which are necessary for proper installation are:

1. Vent and air duct system:

Part #815-CA: For use with minimum 7" I.D. Class 'A' metal chimneys - Includes 12 ft. compressed expandable to 32 ft. co-axial 4" x 6" flexible chimney system, termination cap, and the appropriate air duct. If your chimney is higher than 32 ft. above the fireplace, an extension kit (Part #716-A) must be used to properly extend the flexible pipe chimney system up to a maximum of 40 ft..

Part #815-CL: For use with minimum 6" x 8" I.D. masonry or 8" I.D. Class 'A' metal chimneys - Includes 12 ft. compressed, expandable to 25 ft. co-linear 3" x 4" flexible chimney, termination cap, and the appropriate air duct. If your existing chimney is higher than 25 ft. above the fireplace, an extension kit (Part #510) must be used to properly extend the 3" intake and 4" exhaust up to a maximum of 30 ft..

2Shroud - 3 pc.. Three standard sizes are available and will fit most applications. Customer shrouds may be ordered on a non-returnable basis. When ordering a custom shroud, please specify the existing fireplace Manufacturer name, model number and front opening height and width.

A) PREPARE THE EXISTING FIREPLACE

- 1) Record the Manufacturer and Model number of your existing zero-clearance fireplace for future reference.
- 2) Remove the smoke baffle, the damper assembly and, if necessary - the firebrick on the sides and back of the existing fireplace to obtain at least the minimum opening requirements listed on page #2.
- 3) Remove any screens and glass doors on the fireplace.
- 4) Remove the existing chimney cap from the chimney.
- 5) Clean the chimney and inside of the fireplace to prevent creosote smell from entering the home.
- 6) Paint the existing inner box with high temp black paint so it is not visible when the insert is installed.
- 7) Place 'THIS UNIT HAS BEEN MODIFIED' label in the bottom of the firebox.

B) RUN THE GAS LINE

CAUTION: Installation of the gas line must only be done by a qualified person in accordance with local building codes.

This unit is equipped with a 3/8" flexible gas line connection 10" long.

CAUTION: The manual shut off valve and millivolt board flexible gas line must not extend outside the unit cavity. See the WARNING label affixed to the flexible gas line for additional installation instructions and warnings.

1. Run the gas line into the fireplace, preferably through the side or back, 2" from the bottom of the fireplace. See figure below.

IMPORTANT: This gas line should not extend through the existing fireplace more than 1 inch. A flexible connector should then be attached to the previously run gas line to the point where the manual shut off valve and millivolt board flexible gas line will connect.

IMPORTANT: An accessible shut off valve (included with the unit) must be installed up stream from the regulator.

IMPORTANT: DO NOT RUN THE GAS LINE IN A MANNER THAT WOULD OBSTRUCT THE OPERATION OF THE FAN OR POSITION OF THE SPEED CONTROL.

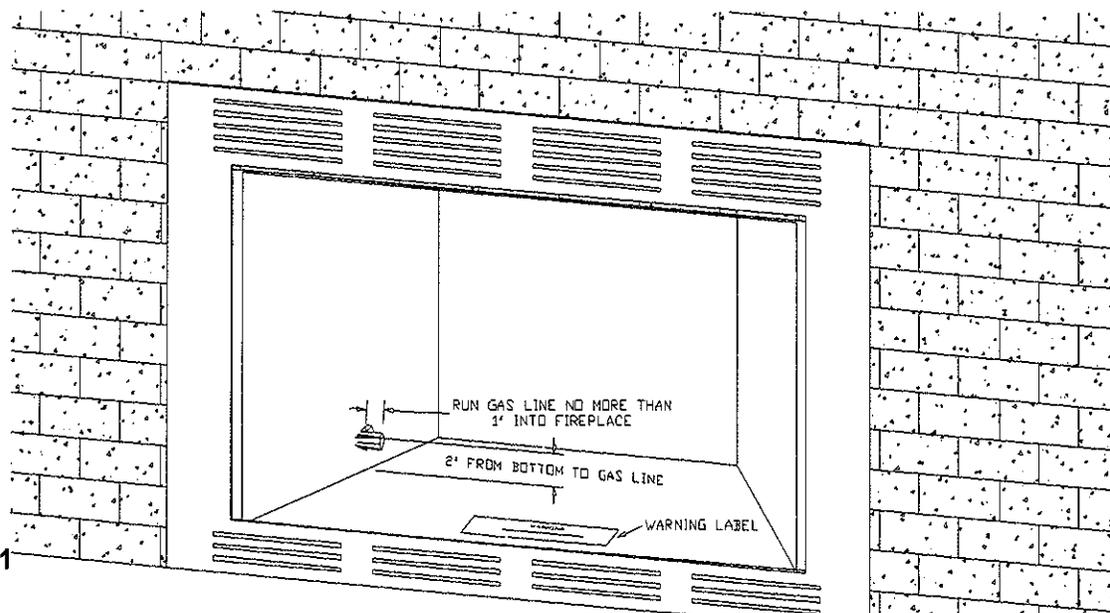


Figure 1

- This unit is designed to accept either a 3/8" or 1/2" gas line approved for gas appliances. Consult local building codes to properly size the gas supply line leading to a 3/8" reduction. Also, see the chart on below for proper supply line sizing.
- Connect the manual shut off valve to the previous run gas line.
- The gas line will be connected to the millivolt board later in this manual.

IMPORTANT:
ALL CONNECTIONS WHETHER FIELD OR FACTORY MADE MUST BE CHECKED FOR LEAKS.

NOTE: This appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi.

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

Pressure check taps for both the manifold (outgoing) and inlet (incoming) pressures are located in front of the gas valve. The top pressure tap is the manifold pressure and the bottom pressure tap is the incoming pressure. Follow instructions on page #19 for checking these pressures.

NATURAL GAS:

The minimum inlet gas supply pressure: 5.0 in. W.C.
 Recommended inlet gas supply pressure: 7.0 in. W.C.
 The maximum inlet gas supply pressure: 10.5 in. W.C.
 Manifold Pressure: 3.5 in. W.C.
 Manifold Pressure (lo setting): 1.7 in. W.C.

Orifice size (0-2000 ft): 29 Input rating: 40,000 BTU

LP GAS:

The minimum inlet gas supply pressure: 11.0 in. W.C.
 Recommended inlet gas supply pressure: 11.0 in. W.C.
 The maximum inlet gas supply pressure: 13.0 in. W.C.
 Manifold Pressure: 10.0 in. W.C.
 Manifold Pressure (lo setting): 5.4 in. W.C.

Orifice size (0-2000 ft): 50 Input rating: 30,000 BTU

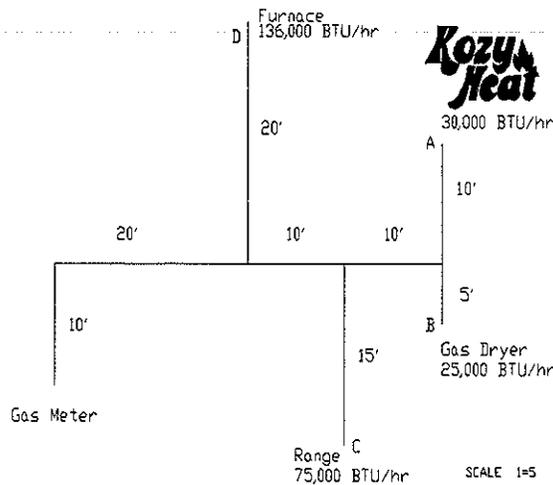
For high altitude installations, consult the local gas distributor or the authority having jurisdiction for proper rating methods.

Tubing size	Maximum run
3/8" I.D.	10'
1/2" I.D.	70'
5/8" I.D.	100'
3/4" I.D.	125'

SOLUTION TO EXAMPLE

- Maximum demand for outlet "A" 30 CFH
 Maximum demand for outlet "B" 25 CFH
 Maximum demand for outlet "C" 75 CFH
 Maximum demand for outlet "D" 136 CFH

TOTAL DEMAND 266 CFH



- The length of pipe from the gas meter to the most remote outlet (outlet "A") is 60'. **THIS IS THE ONLY DISTANCE USED.**
- Using horizontal line marked 60', outlet "A" supplying 30 cubic feet an hour requires 1/2 inch pipe. Outlet "B" supplying 25 cubic feet an hour requires 1/2 inch pipe. Section 1 supplying outlets "A" & "B", 55 cubic feet an hour requires 1/2 inch pipe.

C) INSTALLING THE INSERT

IMPORTANT: ALL STEPS IN SECTION 'A) PREPARE THE EXISTING FIREPLACE' MUST BE COMPLETED BEFORE CONTINUING WITH THIS INSTALLATION.

IMPORTANT: FOR CO-LINEAR VENT SYSTEM INSTALLATIONS, REFER TO THE 'CO-LINEAR VENT SYSTEM' INSTRUCTIONS INCLUDED IN THE COMPONENTS PACKET FOR SECTIONS 'C', 'E', & 'G'.

#815 CO-AXIAL VENT SYSTEM:

1. Carefully extend the 4" and 6" flex pipes and extension kit (if used) to equal the total chimney length required.
2. If an extension kit is being used, it must be connected to the direct vent system:

EXHAUST CONNECTION: Apply a liberal bead of sealant (provided) around the 4" exhaust adaptor, the one with the external notches, on the extension kit and slide it into the female connector on the end of the 4" exhaust pipe. Secure with 3 self-tapping screws, (provided). To ensure an air-tight seal, additional sealant should be applied at the point of connection.

COMBUSTION INTAKE CONNECTION: Apply a liberal bead of sealant (provided) around the 6" combustion intake adaptor, the one with the external notches, on the extension kit and slide into the female end of the 6" combustion intake pipe. Secure with 3 self-tapping screws (provided). To ensure an air-tight seal, additional sealant should be applied at the point of connection.

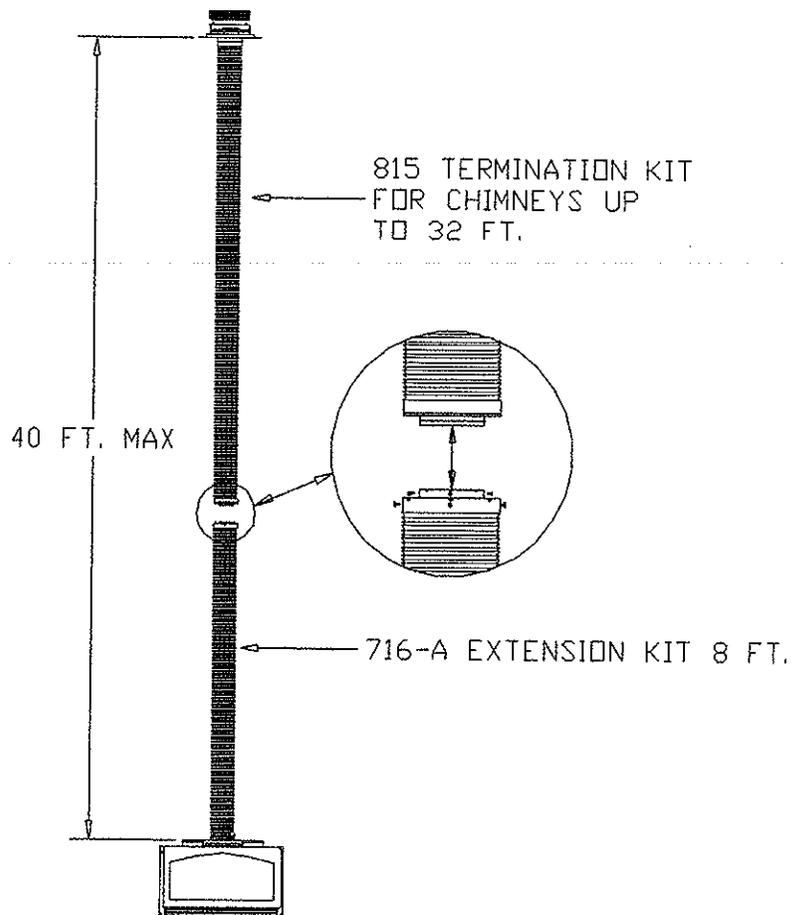
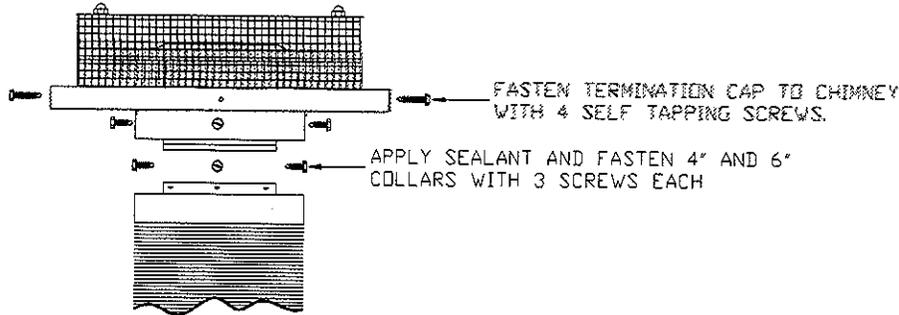


Figure 2

D) CONNECT THE TERMINATION VENT CAP TO THE FLEXIBLE CHIMNEY PIPES

1. Apply a liberal bead of sealant (provided) around the 4" exhaust adaptor, the one with the external notches and slide into the 4" collar on the vent cap. Secure by equally spacing 3 self-tapping screws through both sections. Apply additional sealant around the joint to ensure an air-tight seal.
2. Apply a liberal bead of sealant (provided) around the 6" combustion intake adaptor, the one with the external notches and slide into the 6" collar on the vent cap. Secure by equally spacing 3 self-tapping screws through both sections. Apply additional sealant around the joint to ensure an air-tight seal.

Figure 3



E) RUN THE VENT SYSTEM THROUGH EXISTING CHIMNEY

✳ **OPTIONAL:** We recommend wrapping the first 3 ft. of the vent system below the termination cap with non-faced fiberglass insulation (secure with wire) before running it through the existing chimney. This will prevent cold air from coming down the existing chimney.

NOTE: If there are offsets in the existing chimney, it may be easier to place a weighted rope around the end of the 4" flexible pipe and another weighted rope around the 6" flexible pipe to guide them through it.

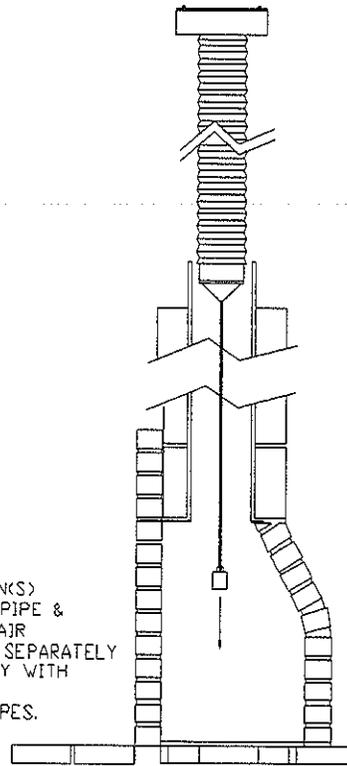
1. Guide the ropes, if used, and the flexible pipes down the existing chimney.

NOTE: Do not attempt to tie one rope around both pipes.

2. To secure the chimney termination cap to the existing chimney, apply a liberal bead of sealant around the top of the existing chimney. Set the termination cap into position and secure with the (4) 1-1/2" self-drilling screws (provided).

Figure 4

PULL SECTION(S) OF EXHAUST PIPE & COMBUSTION AIR INTAKE PIPE SEPARATELY DOWN CHIMNEY WITH THE AID OF WEIGHTED ROPES.



F) REMOVE THE FOLLOWING ITEMS FROM THE FIREPLACE INSERT:

1. LOWER GRILL (Optional, but not necessary):

- A) Grasp the center of the lower grill and pull down to open.
- B) Loosen and remove the nuts securing the grill to the hinges.
- C) Remove grill from the hinges and replace nuts.
- D) Set aside for re-installation later in this manual.

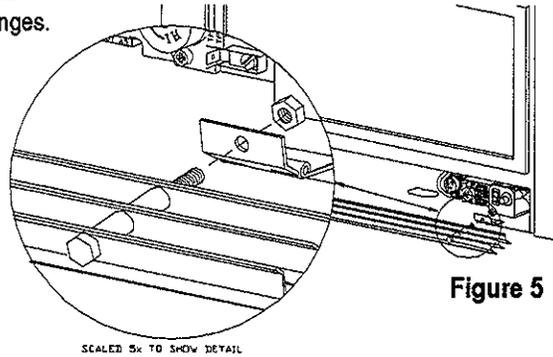


Figure 5

2. QUICK-LATCH GLASS ASSEMBLY:

- A) Locate the latches securing the glass assembly (under the firebox).
- B) Pull the latch handles down to loosen the glass assembly.
- C) Pull the bottom of the glass assembly out and lift up off of the tabs.
- D) Set aside where it will not be broken.

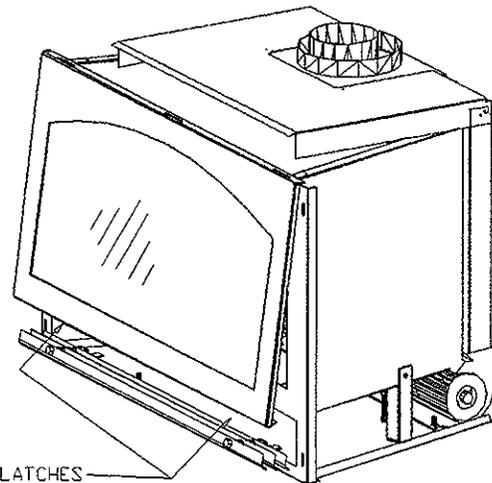


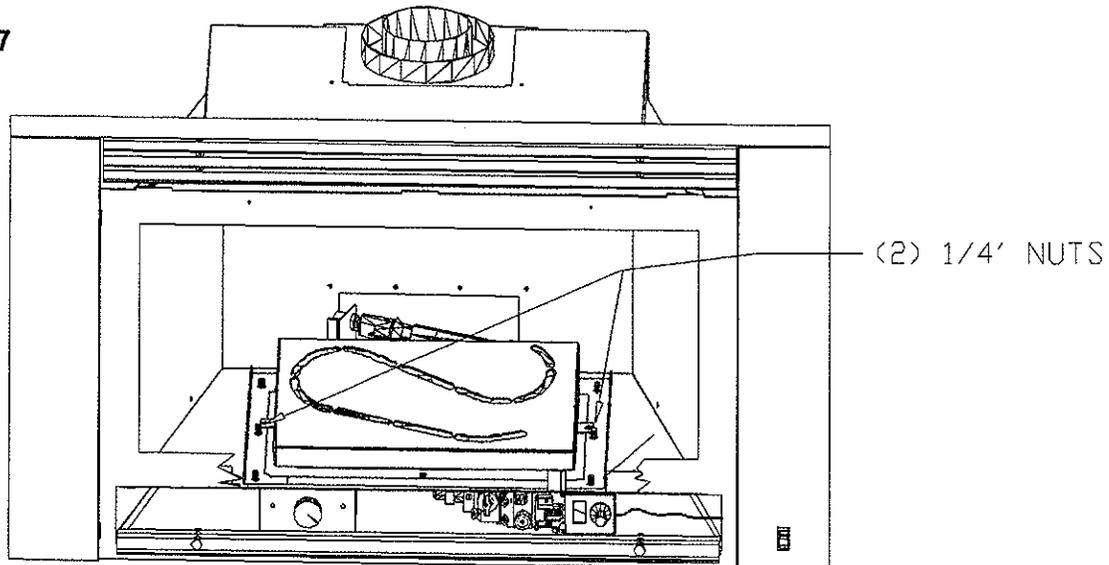
Figure 6

3. REFRACTORY BASE & MILLIVOLT BOARD.

- A) Remove refractory base covering millivolt board.
- B) Loosen and remove the (2) 1/4" nuts securing the millivolt board and lift it up and off the studs and remove from the fireplace.

IMPORTANT: BE CAREFUL NOT TO DAMAGE THE GASKET UNDER THE BOARD.

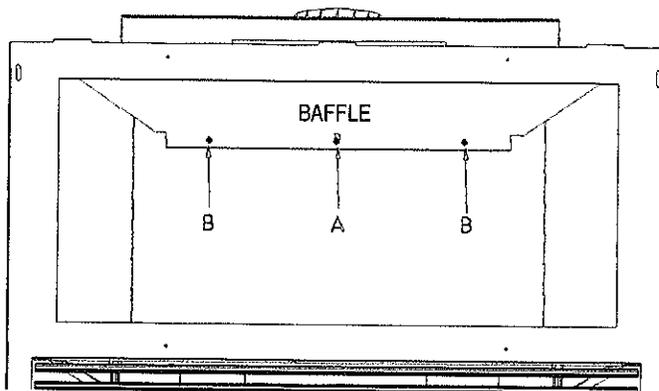
Figure 7



4. REMOVE THE BAFFLE

1. From inside the fireplace, loosen but do not remove the screw (A) on the backwall securing the baffle.
2. Lower the baffle and remove from the firebox. Set aside.

Figure 8



G. CONNECT THE #815-CA CO-AXIAL VENT SYSTEM TO THE AIR DUCT

IMPORTANT: For co-linear vent system installations, refer to CO-LINEAR VENT SYSTEM instructions included in components packet.

OPTIONAL: We recommend placing non-faced fiberglass batting insulation between the 6" pipe and existing chimney to prevent heat loss up the chimney.

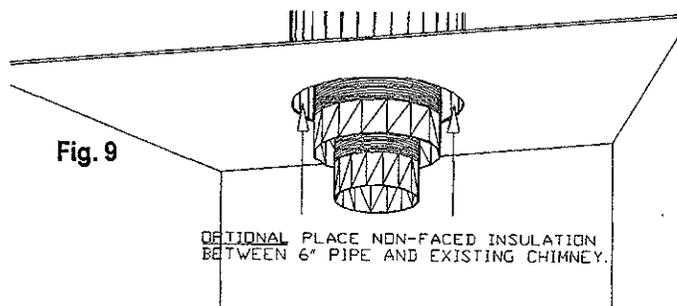
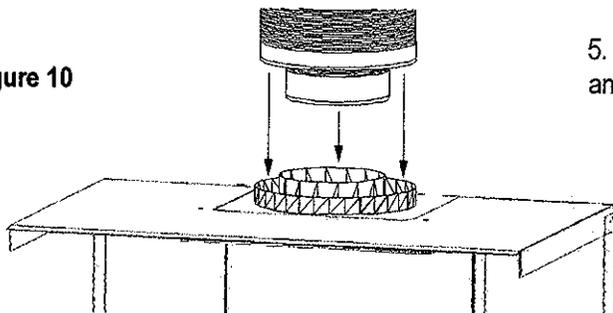


Fig. 9

OPTIONAL PLACE NON-FACED INSULATION BETWEEN 6" PIPE AND EXISTING CHIMNEY.

1. Place the air duct into the existing fireplace opening.
2. Place a bead of sealant (provided) around the 4" flex pipe and slide into the 4" collar on the duct. Pull the flex pipe back up until it 'locks' in place and secure with (2) self-tapping screws (provided).
3. Apply additional sealant around the joint to ensure an air-tight seal.
4. Apply a bead a sealant around the 6" collar on the flex pipe and slide into the 6" collar on the air duct. Secure with (1) self-tapping screw (provided) through the center front of this connection.
5. Apply additional sealant around the joint to ensure an air-tight seal.

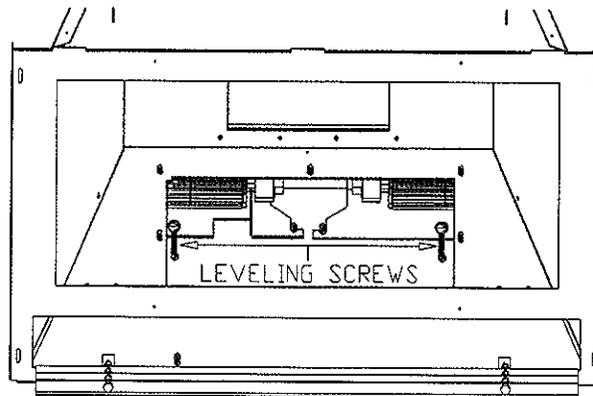
Figure 10



H. POSITION THE FIREPLACE INSERT:

1. Slide the insert in the fireplace opening.
2. If necessary level the unit by screwing the leveling screws (included in the components packet) into the nuts mounted in the bottom of the unit behind the lower grill. See figure 11.

Figure 11



3. Secure the air duct to the fireplace by aligning the two holes in the fireplace top to the studs on each side of the 4" exhaust duct. Secure with (2) 1/4" nuts. **IMPORTANT: Make sure the gasket is properly seated in place.**
4. Align the (8) holes around the rectangular hole in the air duct (8) holes around the rectangular combustion intake inside the fireplace and secure with the (8) self-tapping screws (provided). **IMPORTANT: Make sure the gasket is properly seated in place.**

Figure 12

Note: Co-axial air duct shown

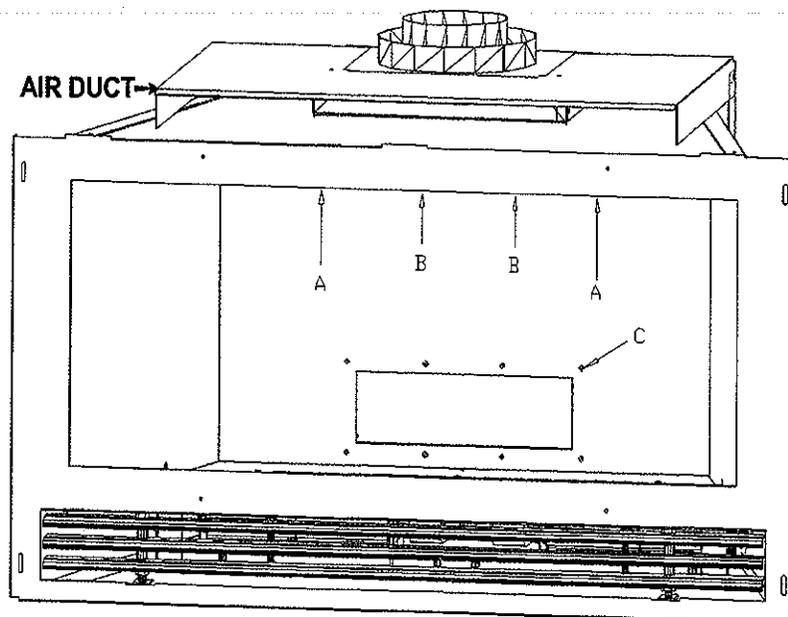
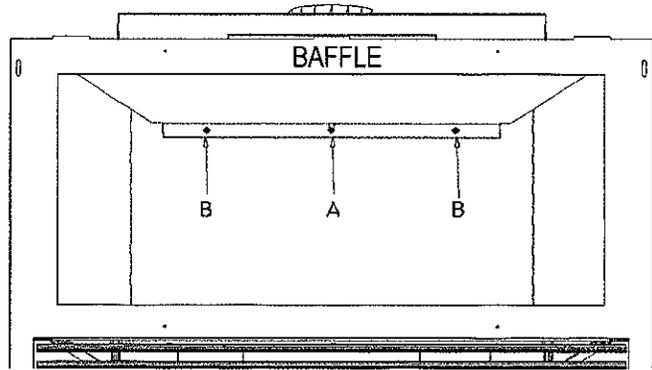


Figure 13

I. REPLACE THE BAFFLE. See fig 13.

1. Place the baffle inside the top of the firebox. Rest the front edge of the baffle on top of the extended lip and align the center slot on the back edge of the baffle to the hex head screw (A) in the firebox back and tighten.
2. Secure baffle to the firebox by aligning the left & right holes in the baffle (B) to the holes in the firebox and secure with the (2) hex head screws (included in components packet).



J. REINSTALL MILLIVOLT BOARD INSTALLATION. See Figure 14 .

NOTE: The millivolt board must be fitted with a gasket, (included) to seal the board. Make certain this gasket is properly placed around the opening before installing the millivolt board.

1. Grasp the millivolt board with both hands and place into the unit, lining up the eight 1/4" holes.

CAUTION: BEFORE SECURING THE BOARD INTO PLACE, MAKE CERTAIN THAT ALL OF THE WIRES (ATTACHED UNDER THE BOARD) ARE CLEAR AND UNOBSTRUCTED.

2. Attach the 1/4" nuts (included with the board assembly).
3. Connect the flexible gas line to the manual shut off valve.
4. Connect any remote control, wall switch or thermostat wires.
5. Place the refractory base panel over the millivolt board.

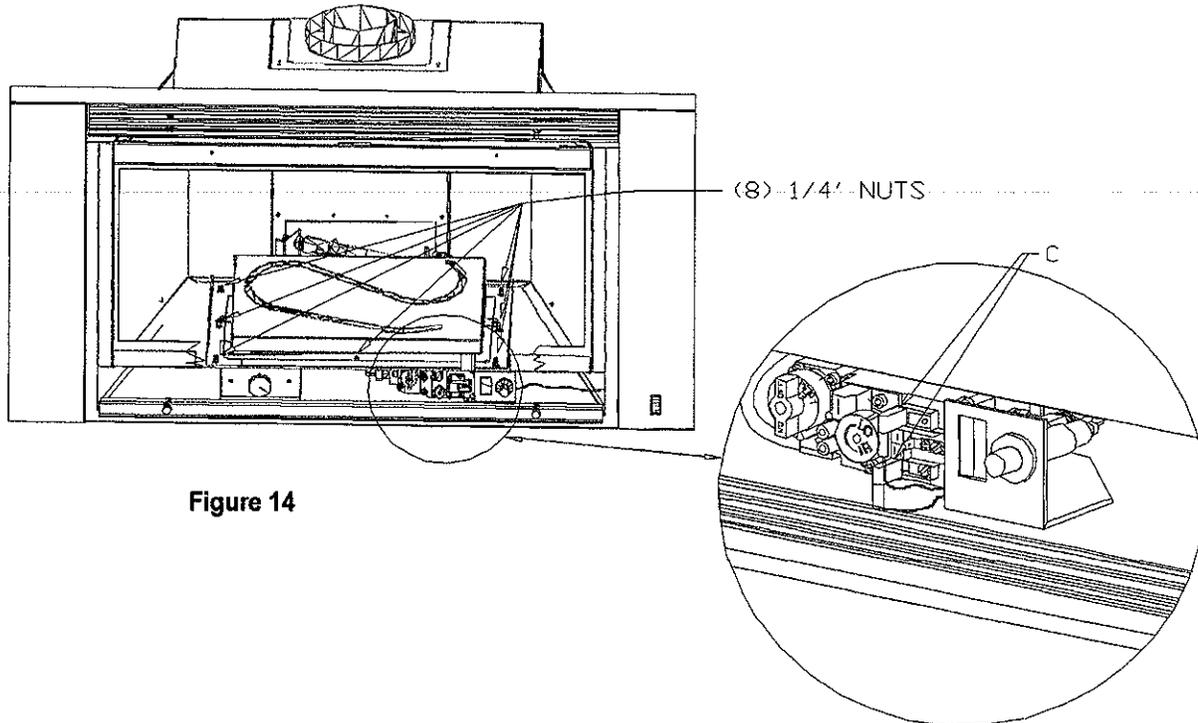


Figure 14

IMPORTANT: CHECK ALL CONNECTIONS, WHETHER FIELD OR FACTORY MADE, FOR LEAKS.

K) ATTACH THE SHROUD

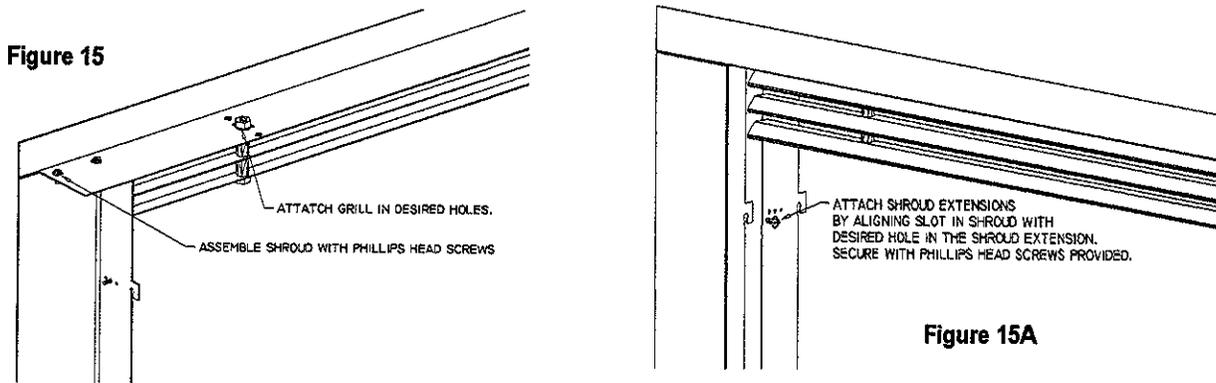
Shroud assembly includes: (1) Shroud top with upper grill installed (8) Phillips head screws
(1) Shroud left side (2) Shroud extensions
(1) Shroud right side with on/off rocker switch mounting hole

IMPORTANT: You will need the following items from the components packet included with the unit:

- (1) Rocker switch wires
- (1) On/Off Rocker switch
- A small phillips head screwdriver to assemble the shroud and shroud extensions.

ASSEMBLE THE SHROUD - Figures 15 & 15A

1. Secure the right and left shroud pieces to the top piece by aligning the 2) holes in the side pieces to the holes in the top piece. Secure with the phillips head screws (2 ea. side).
2. **OPTIONAL:** Attach shroud extensions by aligning the slots in the shroud with desired hole in shroud extension. Secure with phillips head screws. Recess upper grill, if necessary, by re-positioning in one of the three mounting holes.

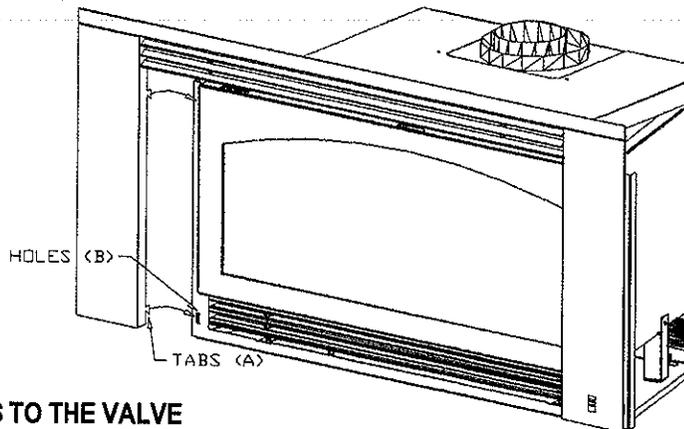


3. Snap the rocker switch in place on the shroud.
4. Connect the blue female connector on each rocker switch wire to the rocker switch.

ATTACH THE SHROUD

1. Attach the shroud to the insert by tabs on the left and right shroud pieces to the holes in the insert. The shroud will set into place.

Figure 16



CONNECT THE ROCKER SWITCH WIRES TO THE VALVE

Refer to figure 14 page 11.

1. Slide the right angle connectors on the rocker switch wires to the top and bottom terminals on the valve (C).

IMPORTANT: CHECK ALL CONNECTIONS, WHETHER FIELD OR FACTORY MADE, FOR LEAKS.

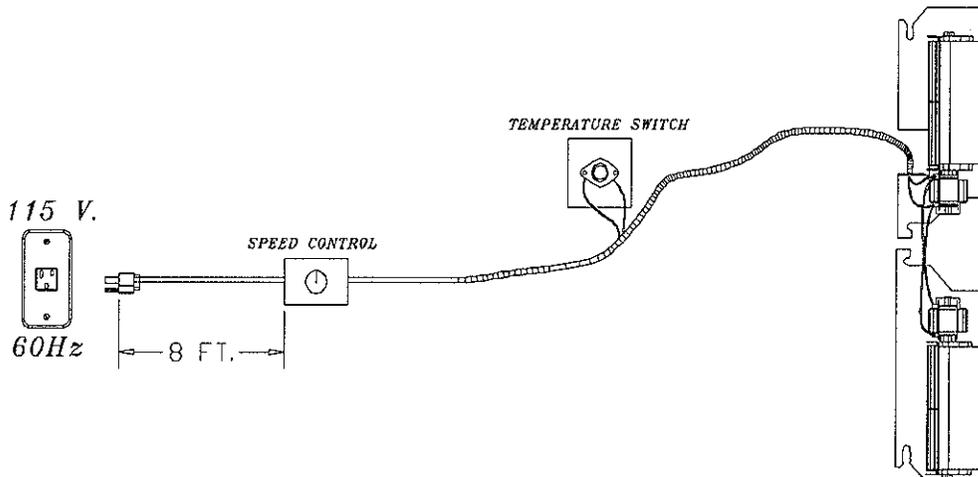
L. COMPLETE THE FAN INSTALLATION:

This unit comes complete with a fan, speed control and temperature limit switch assembly already installed. A three-prong (grounding) plug is attached to the end of the 8 ft. fan electrical cord for protection against shock hazard. Do not remove the grounding prong from the plug. Do not allow any excess fan cord to touch the firebox.

1. Attach the limit switch on the left side of the millivolt board under the firebox.
2. Plug fan cord into the nearest, properly grounded receptacle.

Note: The fan will not operate unless the speed control has been turned on. The fan will not turn on until sufficient heat is applied to the thermostatic control switch. The fan will then turn on and off automatically when the fireplace heat and cools. Adjust fan to desired speed while it is running.

NOTE: THIS FAN SYSTEM, WHEN INSTALLED, MUST BE ELECTRICALLY GROUNDED IN ACCORDANCE WITH LOCAL BUILDING CODES, OR IN THE ABSENCE OF LOCAL BUILDING CODES, WITH THE NATIONAL ELECTRICAL CODE, ANSI/NFPA 70.



M. LOG INSTALLATION. See Figures 17A & 17B.

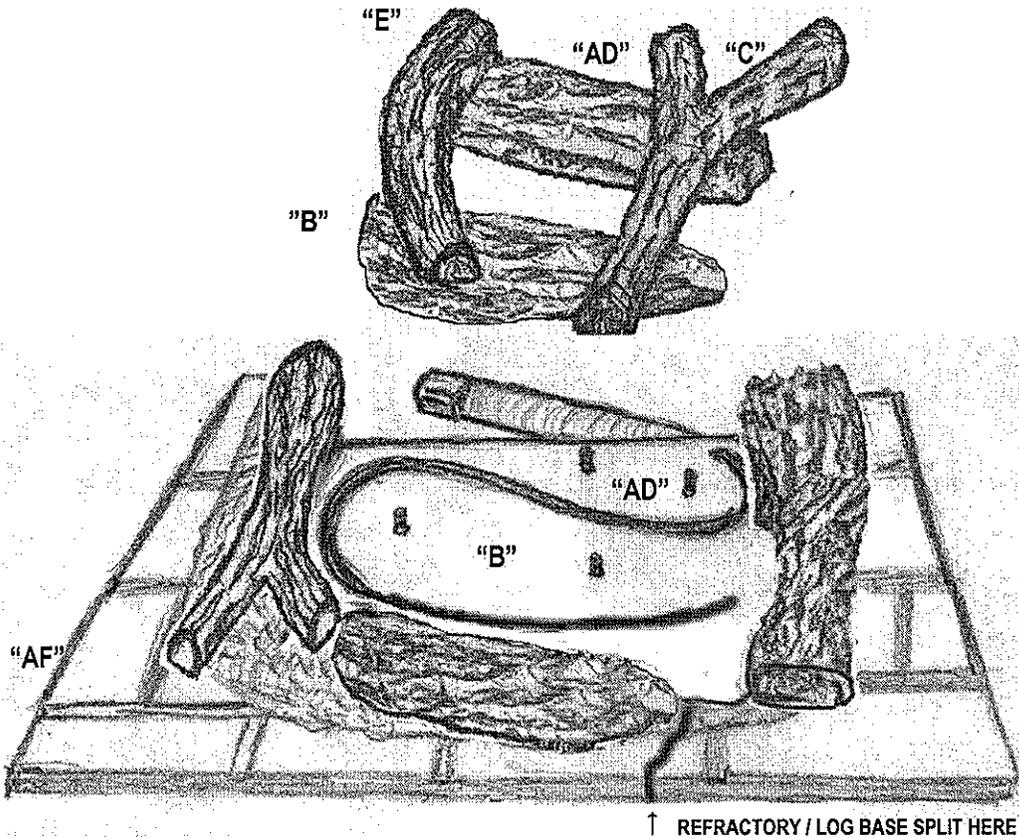
This log set includes:

1 - #811-AD Back Log	1 - #811-C 'Y' log
1 - #811-B Front Log	1 - #811-E Top Left log
1 - #811-AF Refractory / Log Base (2 pc.)	

1. Place the refractory / log base pieces (AF) onto the burner cover having the front edge of the pieces all the way to the front. NOTE: The fiber pads should be placed under the front corners of the refractory / log base to ensure proper support.
2. With white edge facing, position the back (AD) & front (B) logs onto the burner cover. The back log (AD) angles toward the left back corner. Both logs may be near the slots in the burner cover, but not covering the burner tube holes. Press the bottom of the logs onto the pins in the burner cover to secure them in place.
3. Place logs (C) and (E) over bottom logs (AD) & (B) as shown.

ATTENTION HOMEOWNER / INSTALLER

TO ACHIEVE OPTIMUM GLOW AND FLAME APPEARANCE, IT MAY BE NECESSARY TO SLIGHTLY ADJUST THE VENTURI SHUTTER AND / OR THE LOG POSITIONS.



REFRACTORY/ LOG BASE ON MILLIVOLT BOARD

INITIAL BURN PERIOD

DUE TO THE MAKEUP OF THE FIBER LOGS, THE CURING PROCESS MAY TAKE UP TO 4 HOURS OF BURN TIME. DURING THIS PERIOD, THE LOGS WILL DISCOLOR. ONCE THE CURING PROCESS IS COMPLETE, THE TRUE COLOR OF THE LOGS WILL RETURN. DO NOT BURN THIS FIREPLACE WITHOUT THE GLASS PROPERLY IN PLACE.

****MAKE SURE THE HOMEOWNER IS AWARE OF THIS****

N. COMPLETE THE INSTALLATION

1. THIS STEP SHOULD ONLY BE DONE BY A QUALIFIED INSTALLER OR SERVICE TECHNICIAN:

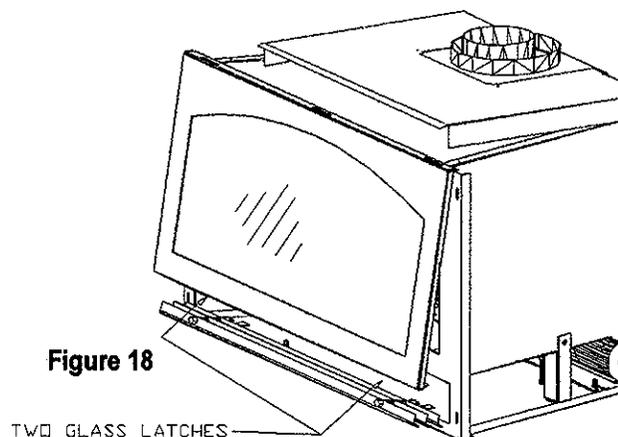
- A) Perform lighting and shutdown procedures as described on pages #17-18. This should be done prior to replacing the glass so that any necessary adjustments can be made and proper operation and log position verified.

2. Replace the glass / black frame assembly. Refer also to Figure 18

WARNING: DO NOT OPERATE THIS FIREPLACE WITH THE GLASS ASSEMBLY REMOVED, CRACKED, OR BROKEN. Replacement of the glass assembly should be done by a licensed or qualified service person.

- A. Align the 3 slots in the top of the glass assembly over the 3 tabs on the fireplace.
- B. Place the glass assembly so it is flush with the front of the fireplace.
- C. Secure the assembly to the fireplace by pushing the two latch handles (located under the firebox) up.

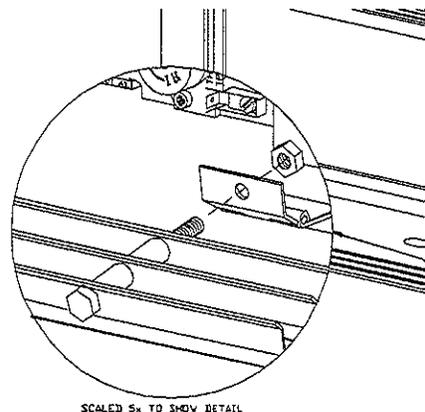
Figure 18



3. Replace the lower grill (if removed). Refer to Figure 19.

- A) Place the bolts through the hinges in the lower grill opening (A).
- B) Attach the 1/4" nuts (B).
- C) Tighten both 1/4" nuts.

Figure 19



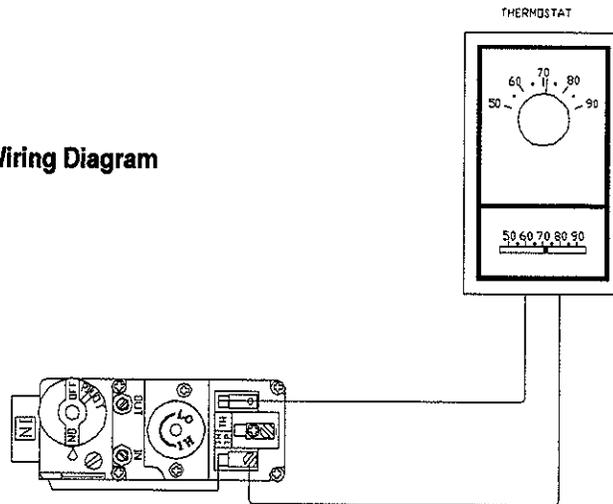
O. THERMOSTAT - WALL SWITCH - REMOTE CONTROL INSTALLATION (OPTIONAL).

CAUTION: DO NOT CONNECT HIGH VOLTAGE WIRE TO THE SWITCH.

1. If desired, a thermostat, wall switch or remote control may be used to turn the unit on and off. Only one of these may be installed. Follow instructions included with each kit.

Figure 20 A

Thermostat Wiring Diagram



NOTE: INSTALLATION OF A THERMOSTAT OR WALL SWITCH SHOULD ONLY BE DONE BY A QUALIFIED INSTALLER.

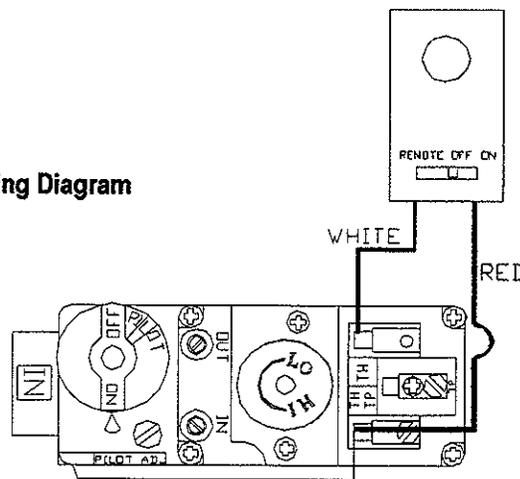
2. Run low voltage (thermostat) wire from the valve terminals to the desired location of the thermostat or wall switch. Do not run the wire more than 30'.

NOTE: If too heavy of wire is used or run more than 30', the electricity generated by the unit's generator will not be sufficient to make the regulator work properly. The pilot may light, but will go out when the burner is turned on.

IMPORTANT: No high voltage is required to operate any of these systems.

Figure 20B

Remote Control Wiring Diagram



The on/off rocker switch on the shroud must be in the 'off' position if any of the above systems are installed on the unit.

If the unit is turned on with a remote, wall switch or thermostat, it must be turned off by the same method.

P. LIGHTING & SHUTDOWN

NOTE: Prior to lighting, check all fittings for leakage. This is accomplished by lightly spraying soapy water on all connections made. If there is any leakage, bubbles will appear at the point of connection. If bubbles occur, tighten the fittings until the bubbles no longer appear.

IMPORTANT: TEST ALL CONNECTIONS WHETHER FIELD OR FACTORY MADE.

NOTE: The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psi.

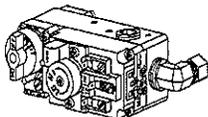
NOTE: The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas line at test pressures equal to or less than 1/2 psig (3.5 kPa).

Pressure check taps for the manifold (outgoing) and inlet (incoming) pressures are located in front of the gas valve. The top pressure tap is the manifold pressure and the bottom pressure tap is the incoming pressure. Follow instructions on page 19 for checking these pressures.

NOTE: Read 1-8 before lighting the unit for the first time.

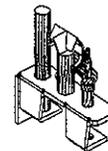
1. Open the lower grill by grasping the center of the top louver, and pull out and down.
2. Set the thermostat, if used, to the lowest setting
3. Turn off all electric power to the appliance.
4. Push in control knob (A) slightly and turn clockwise to "OFF"

Gas control knob
shown in "on" position



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

5. Wait five (5) minutes to clear out any gas. If you then smell gas, **STOP!** Follow the safety information on page 1 of this installation manual. If you don't smell gas, go to the next step.



6. Find the pilot - follow metal tube from gas control. The pilot is behind the burner tube.
7. Turn the black knob on gas control counterclockwise to "PILOT".
8. Push in the black control knob all the way and hold in. Press the **RED** igniter button (C). The pilot will generally light with two or three pushes on the igniter. Hold the knob in for about one (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 4 through 8.

* 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".
10. Flip the on/off switch (B) to the "on" position.
11. Set thermostat, if used, to desired setting.

NOTE: When the unit is initially lit, condensation will appear on the glass, this is normal in all gas fireplaces, and will disappear in one to three minutes.

12. If you wish to turn the burner off, flip the on/off switch (B). If a wall switch has been installed, simply turn it off. If a thermostat has been installed, simply adjust temperature setting.

NOTE: The pilot will stay lit.

13. To turn off the pilot, push in control knob (A) and turn to the "off" position.

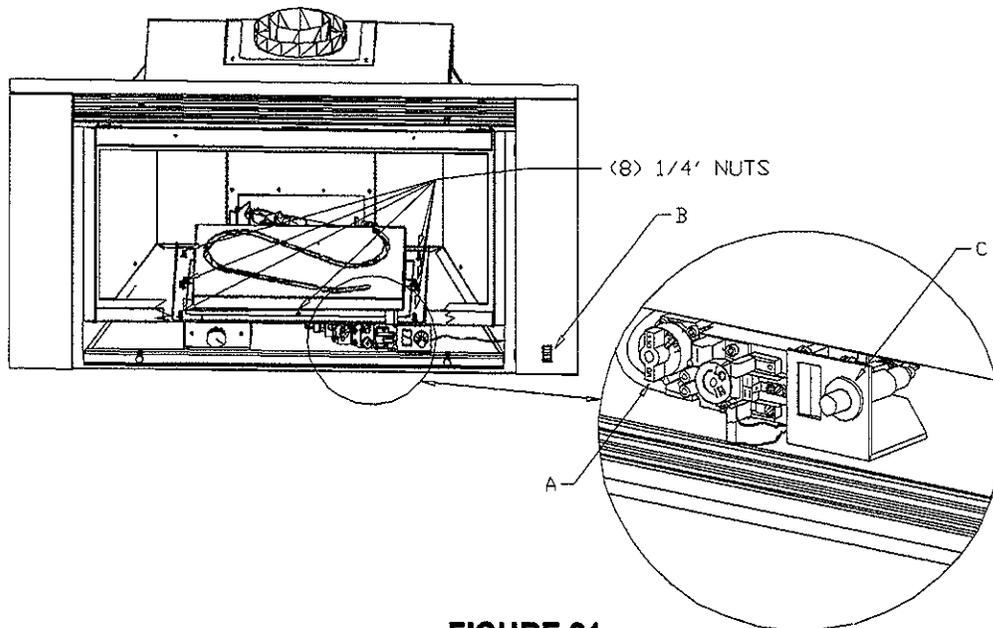


FIGURE 21

INITIAL BURN PERIOD

DURING THE INITIAL BURN PERIOD, THE LOGS WILL DISCOLOR AND A PAINT SMELL WILL OCCUR. THIS IS NORMAL. ONCE THE CURING PROCESS IS COMPLETE, THE TRUE COLOR OF THE LOGS WILL RETURN AND THE SMELL WILL NOT RETURN. IT IS RECOMMENDED TO LEAVE THE FAN (IF INSTALLED) OFF DURING THIS PERIOD AS THIS WILL SPEED UP THE PAINT CURING PROCESS. DO NOT BURN THIS FIREPLACE WITHOUT THE GLASS PROPERLY IN PLACE.

****MAKE SURE THE HOMEOWNER IS AWARE OF THIS****

NOTE: Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition. Young children should be carefully supervised when they are in the same room as the appliance.

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

PRESSURE TESTING MANIFOLD & INLET PRESSURE

IMPORTANT NOTICE: A pressure check tap for both the manifold (outgoing) and inlet (incoming) pressure has been incorporated into the valve by Robertshaw. The top pressure tap is the manifold pressure and the bottom pressure tap measures the incoming pressure. Follow the instructions below for proper pressure testing procedures.

TO CHECK THE MANIFOLD PRESSURE:

1. Light pilot .
2. Loosen the manifold pressure tap [C] by turning the screw counter-clockwise.
3. Attach manometer to pressure tap using a 5/16" I.D. hose [E].
4. Turn black control knob [A] to the 'on' position.
5. Turn the burner on by depressing the rocker switch [B] to expose the 'red' and note manometer reading.
5. Turn the rocker switch [B] to the 'off' position.
6. Disconnect manometer hose and tighten screw (clockwise).

Screw should be snug, do not over tighten.

7. Attach manometer to manifold pressure tap to verify that it is completely sealed.

Manometer should read no pressure when the rocker switch is turned on.

NOTE: If manifold pressure reading is within the normal range, an incoming pressure check is not necessary. A too high or too low pressure reading warrants an inlet (incoming) gas pressure check.

TO CHECK THE INLET PRESSURE:

1. Loosen Inlet pressure tap screw [D] by turning screw counter-clockwise.
2. Attach manometer using a 5/16" I.D. hose [E].
3. Light the pilot.
4. Turn the black control knob [A] to the 'on' position. (Burner should not come on) and note manometer reading.
5. Turn the rocker switch [B] to the 'on' position and check the pressure to ensure that it stays near the maximum inlet pressure.
6. Turn the rocker switch [B] to the 'off' position.
7. Turn the pilot to the 'off' position.
8. Disconnect hose and tighten screw (clockwise). Screw should be snug, do not over tighten.
9. Relight pilot and turn the control knob [A] to the 'on' position. Attach manometer to the inlet pressure tap to verify that it is completely sealed. Manometer should read no pressure.

NOTE: If Inlet pressure reading is too high or too low, contact the gas company. Only a qualified gas service technician should adjust the incoming gas pressure.

CAUTION: A LOW PRESSURE READING CAN CAUSE DELAYED IGNITION.

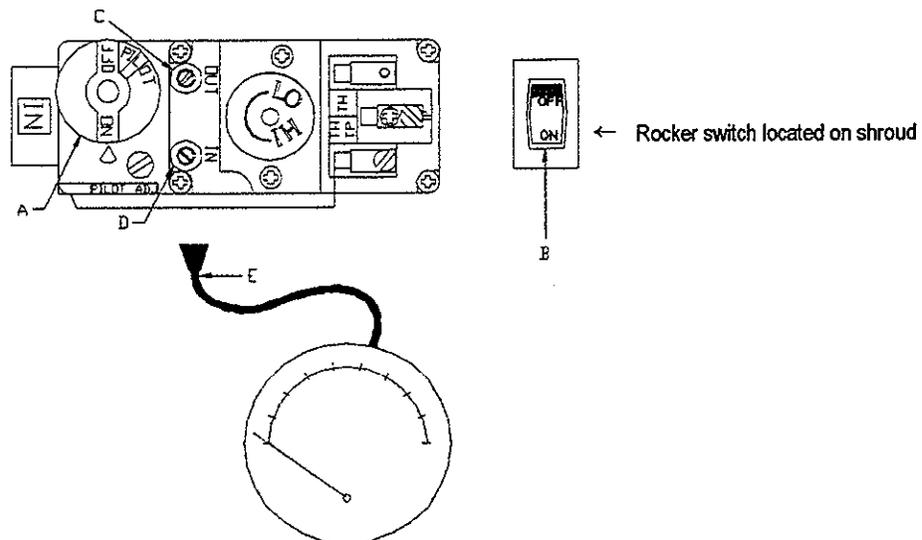


FIGURE 22

Q. MAINTENANCE REQUIREMENTS

1. The appliance should be inspected at least once a year by a professional service person.

NOTE: INSTALLATION AND REPAIR SHOULD BE DONE ONLY BY A QUALIFIED SERVICE PERSON. THE APPLIANCE SHOULD BE INSPECTED BEFORE USE AND AT LEAST ANNUALLY BY A QUALIFIED SERVICE PERSON. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL, ETC. IT IS IMPERATIVE THAT CONTROL COMPARTMENTS, BURNERS AND CIRCULATION AIR PASSAGEWAYS OF THE APPLIANCE BE KEPT CLEAN.

2. The compartment below the firebox (behind the lower grill) must be cleaned at least once a year, more frequent cleaning may be required due to excessive lint from carpeting, bedding materials or other fibrous materials. It is imperative that the burner be cleaned once a year.

FAN

The fan should be disconnected from electrical current, and cleaned (vacuumed) every six months. The bearings are sealed and require no oiling.

VENT SYSTEM

Annual examination of the venting system by a qualified agency is required.

1. Remove the glass on the front of the unit.
2. For easier access, remove the logs & refractory base.
3. Cover the millivolt board system.
4. Loosen the screws securing the baffle at the back of the firebox.
5. Examine proper sealing of vent system.
6. Replace baffle and secure the nuts.
7. Replace the refractory base, logs, and glass.

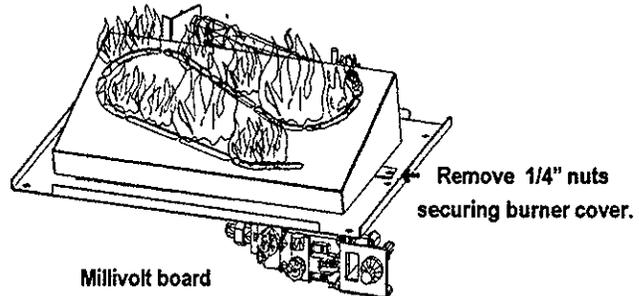
ANY SAFETY SCREEN OR GUARD REMOVED FOR SERVICING MUST BE REPLACED PRIOR TO OPERATING THE APPLIANCE.

CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING

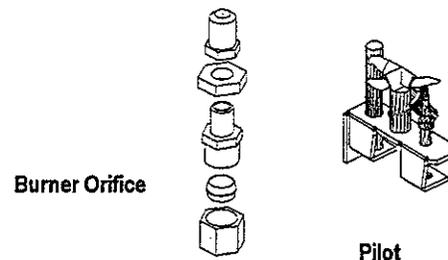
MILLIVOLT BOARD SYSTEM

1. Annual cleaning of the burner is required. The burner tube may be removed for easier access by removing the two nuts securing it on each side of the burner cover. See Figure below.

Visually check for blocked port holes, especially near the pilot. Blocked port holes may cause delayed ignition.



2. Visually check the pilot light and burner when they are burning. See Figures above and below. The flames should be steady, not lifting or floating.



GLASS CLEANING & REPLACEMENT

- Clean glass only when cool and only with non-abrasive cleansers.
- **Do not** operate this fireplace with the glass / frame assembly removed, cracked or broken.
- The glass / frame assembly **Part #70003D shall only be replaced as a complete unit**, as supplied by Hussong Mfg. Co., Inc..
- Replacement of the glass / frame assembly, Part #70003D, must only be performed by a licensed or qualified service person. **DO NOT SUBSTITUTE MATERIALS.**
- **Do not** strike or slam glass door assembly.

CAUTION: KEEP THE APPLIANCE AREA CLEAR OF COMBUSTIBLE MATERIALS, SUCH AS GASOLINE AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

R) TROUBLE SHOOTING GUIDE

NOTE: The millivolt board includes the following items: Regulator, generator, pilot, piezo, electrode, rocker switch, burner, orifice and orifice holder. If any of these items are defective, contact your dealer for the appropriate repair / replacement procedures to follow.

WARNING: DO NOT ATTEMPT TO SERVICE THIS UNIT IF YOU ARE NOT A QUALIFIED INSTALLER OR REPAIRMAN.

1. If the unit fails to ignite a qualified service person should check the unit installation.
2. It is imperative that the control compartment, burner and circulation air passageways of the unit be kept clean. This is necessary to provide adequate combustion and ventilation air.
3. All of the working parts of this unit can be removed at one time. Before removing regulator board, check for loose wires.

<u>PROBLEM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
Pilot won't light	Gas shut off	Turn Gas On
	Gas line not bled out	Hold valve knob in long enough to bleed out line.
	Not holding regulator valve in long enough	Hold in longer
Pilot won't stay lit	Not holding pilot button in long enough	Hold button in longer to heat generator
	Generator wires loose at regulator terminals	Reposition wire and tighten screws. See Figure 23 for wiring instructions.
	Generator wire grounded out due to pinching of wires	1/4" nuts on regulator board may need loosening to remove pinched wire. See Fig. 14.

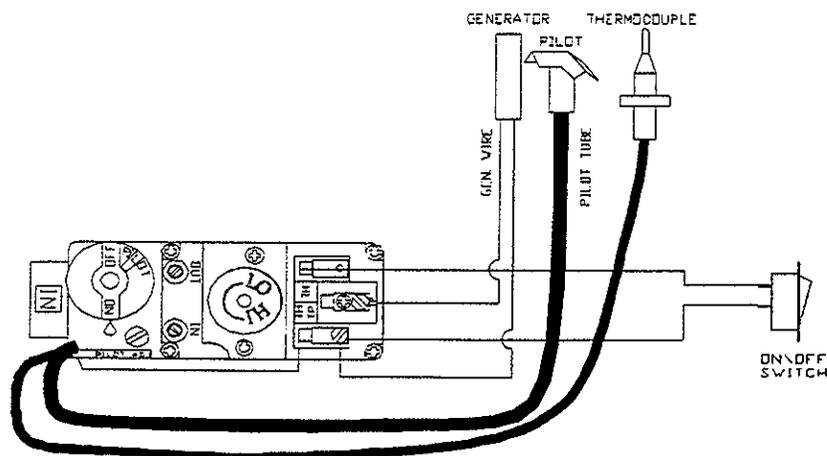


Figure 23

PROBLEM

CAUSE

SOLUTION

No spark when piezo button is depressed

The nut which holds the piezo in place is loose

Tighten nut.

Wire on back of piezo button is loose or off

Put wire back into place.

Wire from piezo to electrode is loose at electrode

Replace electrode assembly.

Electrode moved out of position

Realign electrode with 1/8" space between it and pilot.

Burner won't light

Pilot not lit

Relight pilot

Regulator valve not turned on

Turn valve to "on"

Rocker switch not turned on.

Press bottom of switch exposing the "Red" or "on" indicator.

Rocker switch wire not connected

Check wiring diagram Figure 23 and ensure that all wires are secure.

Remote control not connected properly or turned to wrong setting. See figure 20B.

Connect properly or disconnect and use on/off switch only.

Burner won't stay lit

Wall switch wire too thick or run more than 30 ft.

Disconnect wall switch wire. If burner stays lit, change location of wall switch or use on/off switch only.

REPLACEMENT PARTS

Replacement parts are available through your local dealer. Contact them for availability and pricing.

MILLIVOLT BOARD AND PARTS

811400	Millivolt Board - Natural Gas	700036	Millivolt Generator
811401	Millivolt Board - LP Gas	700060	Pilot Tube with fitting (valve to pilot)
700203	Manual Shut off Valve	700212	12" Flexible Gas Line (gas line connection)
700032	Piezo Ignitor	700224	3/8" Flexible Gas Line (valve to burner orifice)
700043	On / Off Rocker Switch	700229	Natural Gas Orifice - #29
		700250	LP Gas Orifice - #50
700039	Hi/Lo Adjustable regulator (Natural Gas)	700055	Pilot / Generator / Thermocouple Assembly - Nat. Gas
700040	Hi/Lo Adjustable regulator (LP Gas)	700056	Pilot / Generator / Thermocouple Assembly - LP Gas
811035	Burner Tube / Cover Assembly		
		OCK-329	Natural Gas Conversion Kit
		OCK-350	LP Gas Conversion Kit

FAN - REPLACEMENT ONLY

811028	Fan Kit with temperature limit switch & speed control
600085	Speed Control
404-4	Limit Switch

REMOTE CONTROLS / THERMOSTAT

796	Remote Control with Thermostat
797	Remote Control
700038	Wall-Mount Thermostat

GLASS

70003D	Replacement glass assembly - includes 14" x 29" glass, gasket and arched frame
300378	Glass latch

LOGS AND REFRACTORY BASE

81150A	Log Set
'AF' Log	Refractory / Log Base
'AD' Log	Back Log
'B' Log	Front Log
'C' Log	'Y' Log
'E' Log	Top Log

UPPER GRILL

811200	Black Upper Grill
811202	Brass Upper Grill

LOWER GRILL

884	Black Lower Grill
759	Brass Lower Grill

BRASS TRIM

500811	Arched Brass Glass Trim
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GASKETS

700077	Millivolt Board Gasket
761076	Combustion Intake Duct Gasket
811075	Exhaust Duct Gasket

PAINT

300624	12 oz. Aerosal Touch-up Paint - Satin Black
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PATENT PENDING

**Model #811 DV - US INSTALLATIONS ONLY
5/98**

**MANUFACTURED BY:
Hussong Manufacturing Company, Inc.
204 Industrial Park Drive
Lakefield, MN 56150**