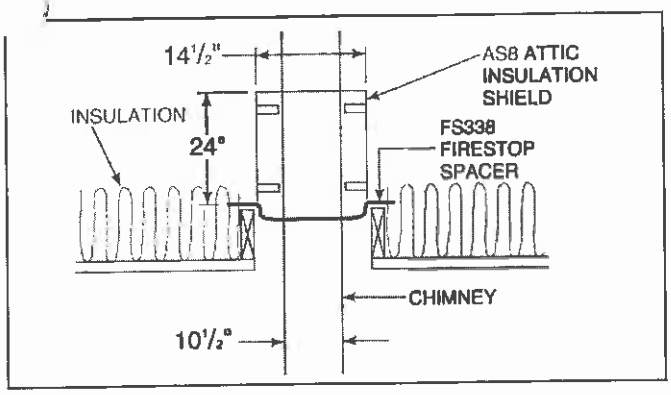

Figure 14
Installing an AS8

8. Double-checking the Chimney Assembly

Continue assembling the chimney sections up through the firestop spacers as needed. While doing so, be aware of the height and unsupported chimney length limitations that are given on page 12 under "Chimney Requirements".

Check each section by pulling up slightly from the top to ensure proper engagement before installing the succeeding sections. If they have been connected correctly, they will not disengage when tested.

9. Securing the Chimney System

When offsets and returns are joined to straight pipe sections, they must be locked into position with the screws provided, using the predrilled holes. To prevent gravity from pulling the chimney sections apart the returns and the chimney stabilizers have straps for securing these parts to joists or rafters. See Figure 15.

Note: Be sure to provide support for the pipe during construction and check to be sure inadvertent loading has not dislodged the chimney section from the fireplace or at any chimney joint.

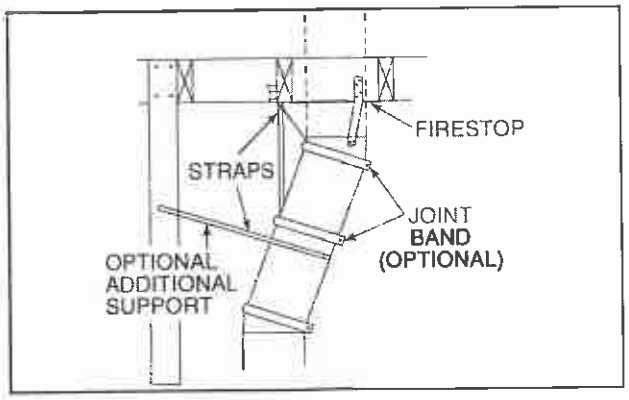

Figure 15
Offset/Return with Stabilizer

WARNING!
When chimney sections exceeding six feet in length are installed between an offset and return, structural support must be provided to reduce off-center loading and prevent chimney sections from separating at the chimney joints.

10. Marking the Exit Point of the Roof

Locate the point where the chimney will exit the roof by plumbing down to the center of the chimney. Drive a nail up through the roof to mark the center. See Figure 16.

11. Cutting out the Hole in the Roof

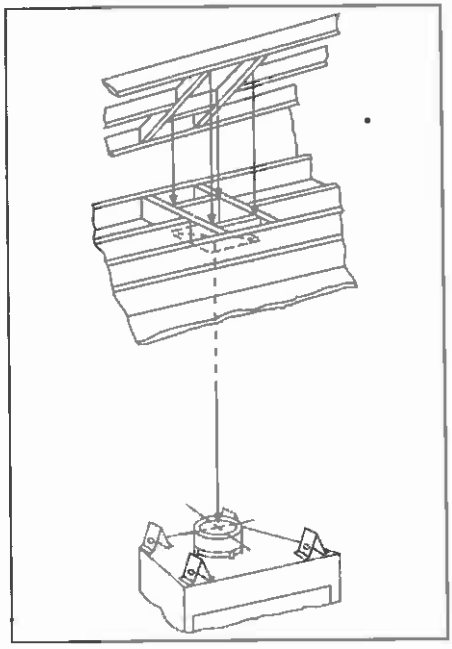

Figure 16
Ceiling and Attic Construction

Measure to either side of the nail and mark the 14-1/2" x 14-1/2" opening required. This is measured on the horizontal; actual length may be larger depending on the pitch of the roof. Cut out and frame the opening. See Chapter 25 of the Uniform Building Code for Roof Framing details. **Be sure to maintain a 2" minimum air space between the chimney section and the roof.**

12. Assembling the Chimney Sections

Continue to add chimney sections through the roof opening, maintaining at least a 2" air space.

13. Installing the Roof Flashing

If a roof flashing is to be used, install the roof flashing appropriate to the roof pitch and install a round termination cap following the instructions shipped with the cap.

For chase installations you can use a round termination cap (TR344), a round telescoping termination cap (TR342), or a square termination cap (ST375, TS345, TS345P). A chase installation must use a chase top. Chase tops are available from you Hearth Technologies Inc. distributor. See page 19 for building a chase.

14. Installing the Chimney Air Kit

When installing a CAK4A chimney air kit, follow the instructions provided with this accessory. Use of a CAK4A is required in Canada.

15. Installing an Outside Combustion Air Kit

The outside air damper assembly is factory installed on the left hand side of the fireplace assembly. While its use is optional, it is highly recommended to minimize the effects of negative pressure within the structure. Figure 17 illustrates two of many possible methods that can be used to supply outside air to the fireplace system. To complete the outside air system, install the AK22 outside air kit according to the installation instructions supplied with the components. To operate air kit damper, move the handle left to open, right to close.

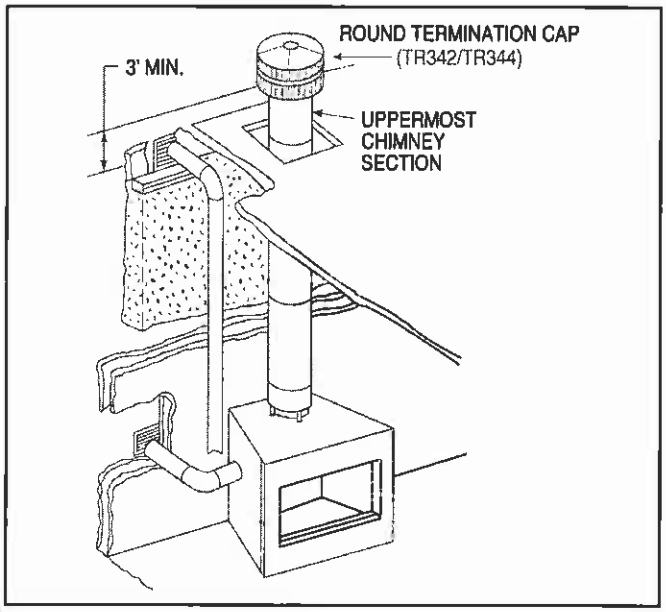

Figure 17 - Outside Air Location

16. Completion of the Fireplace Enclosure

Complete the fireplace enclosure, allowing space for outside air ducts and gas piping if desired. Electrical wiring should not come in contact with the fireplace. **A minimum clearance of ¾" must be maintained between the fireplace sides and the enclosure as well as the fireplace back and the enclosure.** See Figure 4, page 10 for framing details.

Note: The outside air kit can terminate at any level with the exception that it must terminate at least three feet below the chimney termination cap as shown in Figure 17.

CAUTION:
When using a gas log set, the fireplace damper must be set in the fully open position. This ensures a proper venting of combustion products.

17. Installing the Firescreen

Attach the firescreen to the fireplace side, using the two hairpin clips from the enclosed fastener package. Use pliers to insert the clip through the last strand of screen wire and into the hole at the midpoint of the fireplace side.

18. Installing the Glass Doors

If desired, or required by local building codes, install the glass doors using the instructions supplied with the particular set of doors you have chosen.

19. Positioning the Hearth Extension

Position and secure the hearth extension over the protective metal strips that have been placed partially under the front of the fireplace. See Figure 18. The strips should be protruding approximately two inc from under the front of the fireplace. Seal the crack between the hearth extension and fireplace with a noncombustible sealant.

20. Applying Finishing Materials on the Hearth Extension

Apply the noncombustible finishing material of your choice to the hearth extension. **Do not install combustible materials over the black face of the fireplace. This poses a safety hazard and may start a fire.** You may only use noncombustible material over the black face of the fireplace. Refer to Page 10 for combustible material information.

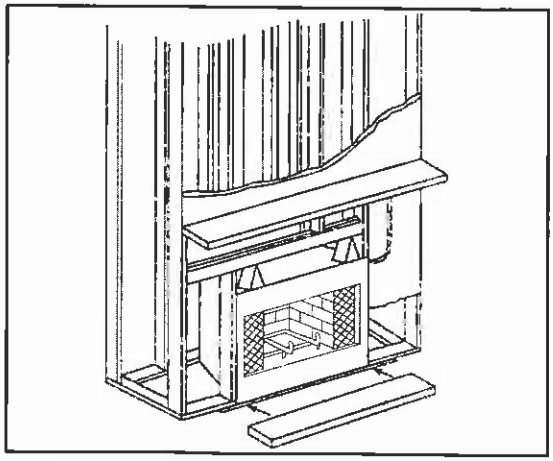

Figure 18
Positioning the Hearth Extension

G. CONSTRUCTING A CHASE

A chase is a vertical boxlike enclosure built around the chimney and fireplace. A chase may be constructed for the fireplace and chimney or for the chimney only. It is most commonly constructed on an outside wall.

In cold climates, it is recommended that the chase floor be insulated using batt type insulation between the floor joists.

Three examples of chase applications are shown in Figure 19.

1. Fireplace and chimney enclosed in an exterior chase.
2. Chimney offset through exterior wall and enclosed in chase.
3. Chase constructed on roof.

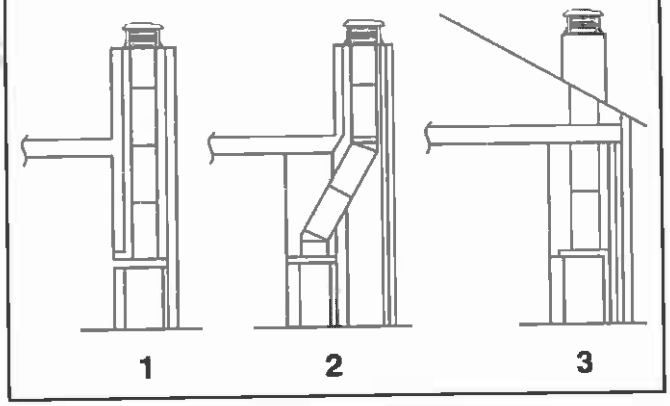

Figure 19
Chase Constructions

1. Materials for the Chase

The chase is constructed using framing materials much the same as the walls in your home. A variety of materials may be used including brick, stone, veneer brick or standard siding materials.

In constructing the chase, several factors must be considered:

a. Maintain a 3/4" minimum air space around the fireplace.

b. Maintain a 2" air space around the chimney.

c. The chase top must be constructed of a noncombustible material.

d. In cold climates a firestop spacer should be installed in an insulated false ceiling at the 8-foot level above the fireplace assembly. This prevents heat loss through the fireplace.

e. In cold climates, the walls of the chase should be insulated to the level of the false ceiling as shown in Figure 20. This will help prevent heat loss from the home around and through the fireplace.

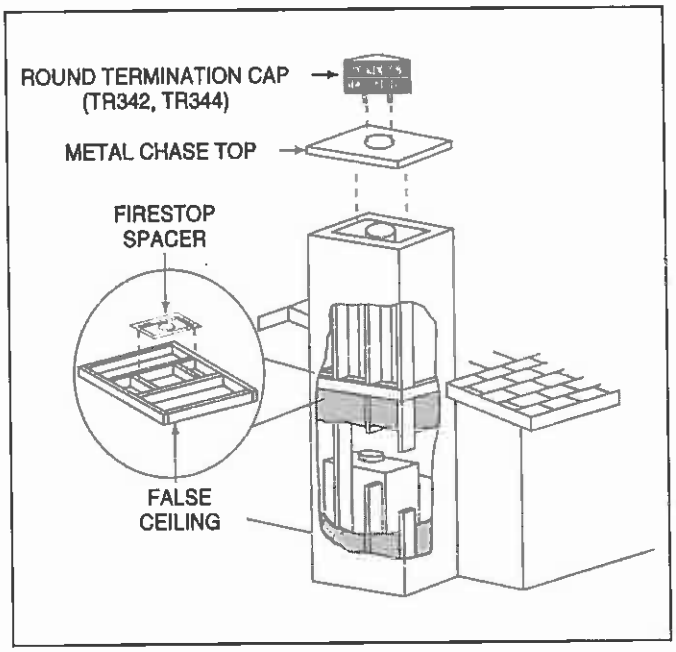

Figure 20
Chase Assembly

2. Installing a Termination Cap on a Chase Enclosed Chimney

Construct a chase of desired materials maintaining a minimum 2" air space around the chimney.

WARNING!
Detailed instructions for installation of the chase top, storm collar and termination cap are packaged with these parts. To avoid danger of fire, all instructions must be strictly followed, including the provision of air space clearance between chimney system and enclosure. To protect against the effects of corrosion on those parts exposed to the weather, we recommend that the chase top and termination cap be painted with a rust-resistant paint.

WARNING!
Never install a single wall slip section or smokepipe in a chase structure. The higher temperature of this single wall pipe may radiate sufficient heat to combustible chase materials to cause a fire.

Install the chimney sections up through the chase enclosure. When using a round termination cap (TR344), the uppermost top flashing section of pipe must extend above the top of the chase collar to allow installation of the storm collar and termination cap.

For installations utilizing a telescoping round termination cap (TR342), the uppermost chimney section must be below the top of the chase top, but not more than 14½" below the top of the chase top flashing collar. See Figure 21.

For installations utilizing a square termination cap (ST375), the last chimney section must not be more than 4¾" below the chase top.

When installing a TS345 square termination, the uppermost chimney section must be no less than 3" below the top of the chase top or more than 2" above the top of the chase top.

Attach the chase top (CT35) to the top of the chase.

Install the termination cap, using the instructions provided with it.

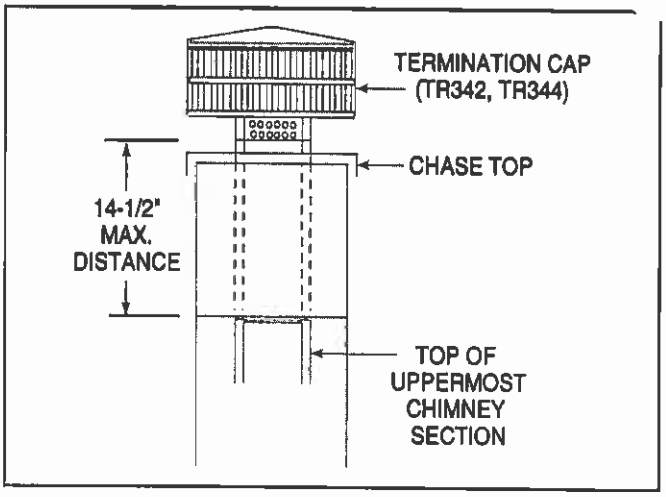

Figure 21
Installing a Termination Cap

WARNING!
Do not operate this fireplace with the flue damper in the closed position. Combustion products must vent up the chimney system to prevent carbon monoxide poisoning, and to prevent hot combustion gases from contacting and overheating combustible surfaces. Failure to operate this fireplace with the damper in the open position may result in asphyxiation or a structure fire.

H. UTILITIES

1. High Altitude Installation

For U.S. installation, fireplaces are tested and approved for elevations from 0-2000 feet. When installing this fireplace at an elevation above 2000 feet, National Fuel Gas Codes require a decrease of the input rating by changing the existing burner orifice to a smaller size. Input should be reduced 4% for each 1000 feet above sea level. Check with the local gas utility for proper orifice size identification. The correct orifice is available from your Heatilator distributor.

For Canada, fireplaces are certified for elevations from 0-4500 feet. When installing this fireplace at an elevation between 0-4500 feet in Canada, the input rating does not need to be reduced. When installing this fireplace at an elevation above 4500 feet in Canada, check with local authorities.

2. Gas Line Connection

Remove the control access cover as shown in Figures 22 and 23. The appliance is provided with a stainless steel flexible connector and manual shutoff valve. The incoming gas line should be piped into the valve compartment and connected to the 1/2" FIP connection provided on the manual shutoff valve. All connections must be tightened and checked for leaks with a soap and water solution or leak detector. Bleed the gas line to extract any air that may have been trapped inside the pipe. See Figure 24 to connect gas line. A gas access hole is provided on the right hand side of the fireplace. It is recommended that the piping be brought in from the right side. However, if it becomes necessary to plumb from the left, a gas knockout is provided. **It is also required that an manual shutoff valve for the fireplace be installed in an accessible area, no more than 6 feet from the fireplace. This manual shutoff valve is required in the event the appliance is ever converted to a solid fuel fired fireplace.**

All connections must be checked for leaks with a soap and water solution or leak detector.

Bleed the gas line to extract any air that may have been trapped inside the pipe.

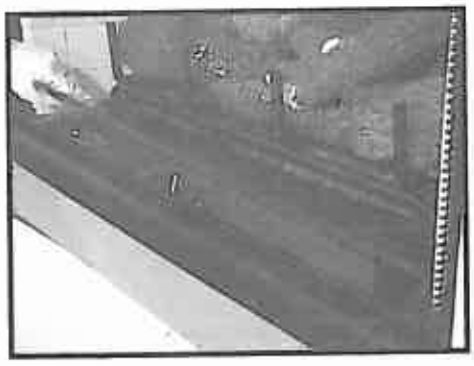

Figure 22 - Control Access Cover

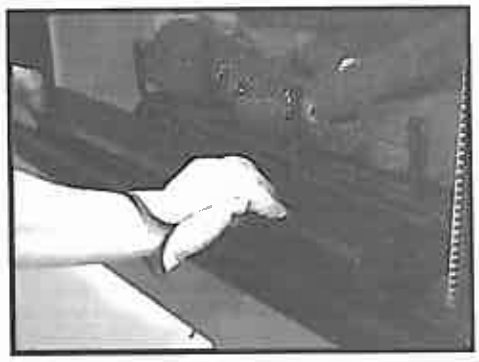

Figure 23 - Control Access Cover

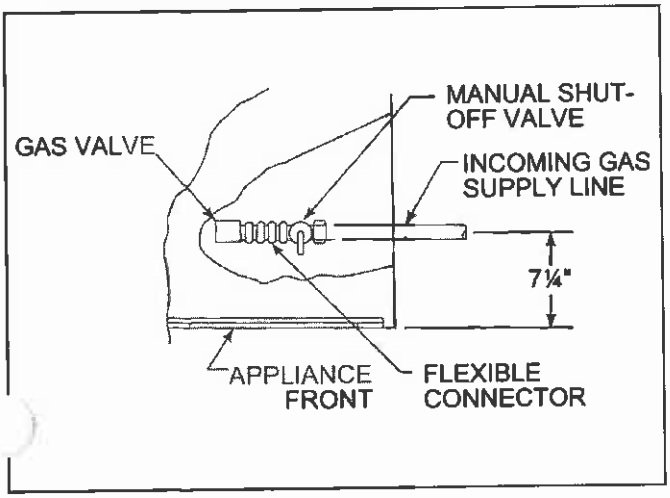

Figure 24 - Gas Line

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

3. Gas Pressure

Pressure taps are included on the front face of the gas control valve. Pressure taps are immediately upstream of the gas supply connection and accessible for test gauge connection.

Tables 3 and 4 show optimum gas pressure information. Consult your local gas company for assistance in determining the proper orifice for your altitude or refer to ANSI Z223.1-latest edition, Appendix F.

4. Gas Conversions

A natural or propane gas conversion kit is not available for the Odyssey Series fireplace.

⚠ WARNING

THIS VALVE HAS BEEN PRESET AT THE FACTORY. ALTERING SETTINGS MAY RESULT IN FIRE HAZARD OR BODILY INJURY.

Table 3

ODYSSEY 42"	
Inlet Gas Supply Pressure (N.G.)	4.5 (min.) - 7.0 (max.) in. w.c.
Optimal Manifold Pressure (N.G.)	3.5 in. w.c.
Inlet Gas Supply Pressure (L.P.)	11.0 (min.) - 14.0 (max.) in. w.c.
Optimum Manifold Pressure (L.P.)	10 in. w.c.

Table 4

ODYSSEY 42"		
	High	Low
Input Rate (N.G.)	75,000 BTU/hr.	50,000 BTU/hr.
Input Rate (L.P.)	75,000 BTU/hr.	62,000 BTU/hr.
Orifice Size (N.G.)	.177 in.	
Orifice Size (L.P.)	.070 (front burner) .078 (rear burner)	

5. Junction Box Installation

a. Remove the junction box assembly from the valve compartment.

b. If the box is being wired from the OUTSIDE of the appliance;

1) Loosen two screws on the Romex connector, feed the necessary length of wire through the connector and tighten the screws.

2) Make all necessary wire connections to the receptacle and assemble the receptacle and cover to the junction box.

3) Attach the junction box assembly to the outside of the appliance with the two screws provided.

c. If the box is being wired from the INSIDE of the appliance;

1) Pull the electrical wires from outside the appliance through this opening into the valve compartment.

2) Loosen the two screws on the Romex connector, feed the necessary length of wire through the connector and tighten the screws.

3) Make all necessary wire connections to the receptacle and assemble the receptacle and cover to the junction box.

4) Attach the junction box assembly to the inside of the appliance with the two screws provided.

d. If the box is not to be wired at the time of appliance installation, assemble the receptacle and cover to the box and install on the inside of the appliance.

WARNING!

The standing pilot appliance does NOT require a 110V AC supply for operation. Connecting the appliance/wall switch to a 110V AC supply will cause the appliance to malfunction and destroy the valve and thermopile.

Note: This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with National Electric Code ANSI/NFPA 70-latest edition or the Canadian Electric Code, CSA C22.1.

6. Standing Pilot Ignition

a. **Appliance Requirements.** A wiring diagram is shown in Figure 25.

b. **Optional Accessories Requirements.** Wiring for optional accessories should be done now to avoid reconstruction. To install junction box, please refer to the installation instructions supplied with the junction box kit.

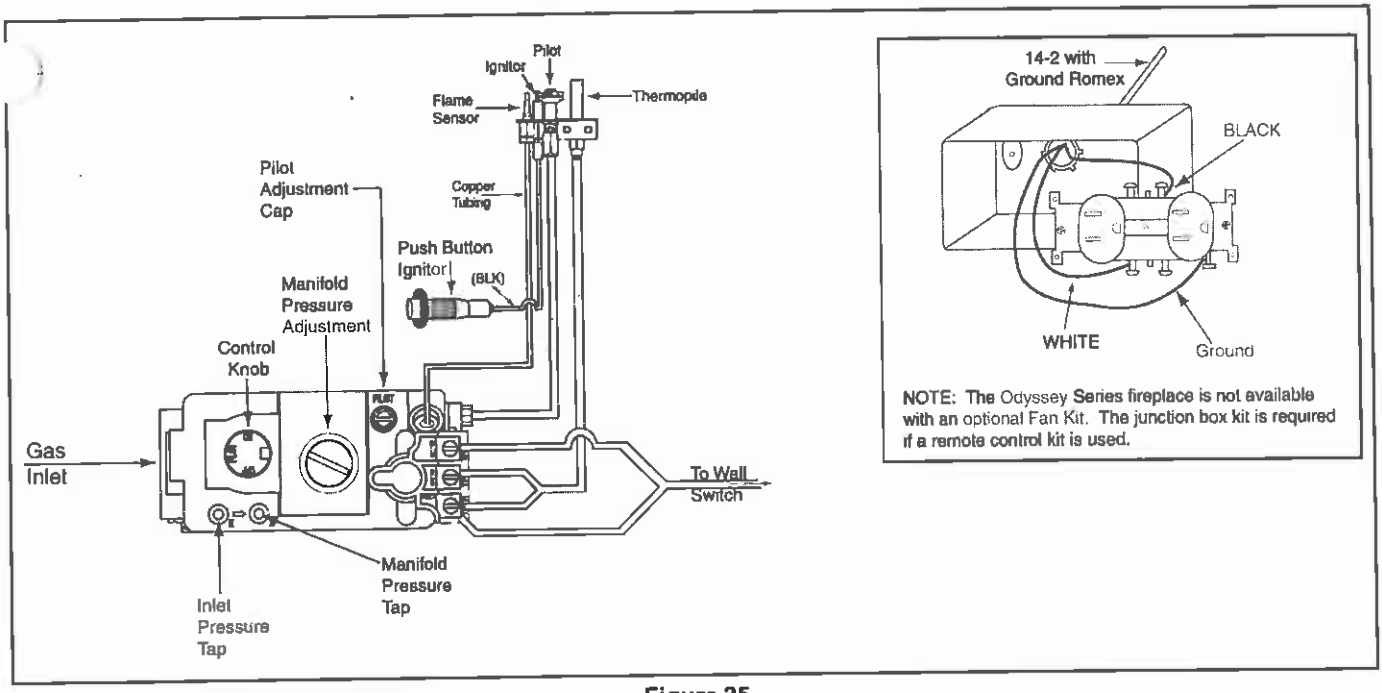

Figure 25
Standing Pilot Ignition Wiring Diagram

I. APPLIANCE PREPARATION

1. Log Set

Unwrap the top right log shipped inside the valve compartment and position over pins in proper location. See Figure 35. The log set should look similar to that in Figure 26.

2. Placing the Lava Rock and Vermiculite

Place lava rock on top of control access panel, in front of, under and around burner. See Figure 27. When placing vermiculite, sprinkle it evenly over the area covered by the lava rock. See Figure 28.

3. Placing the Rock Wool

Place approximately 1/2" diameter pieces of rock wool under the front logs, on the bottom hearth log. Place the rock wool the full length of the burner. Do not pack the wool tightly against the burner. This appliance is supplied with two bags of rock wool. It is not necessary to use all the wool. Save the remaining amount for future use. See Figure 29.

4. Placing the Fire Glow

Fire glow (Fire 98) is a flame colorant material that also adds to the realism of the gas fireplace flame. After placing the rock wool in the appliance, sprinkle some of the fire glow (Fire 98) on top of the hearth log and rock wool. As with the lava rock, vermiculite and rock wool, it is not necessary to use the entire bag. Save the remaining for future use. See Figure 30.

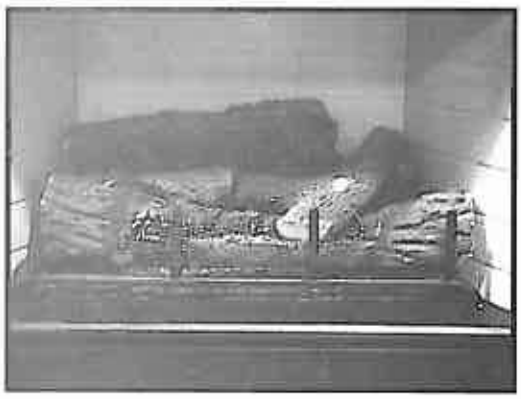

Figure 26 - ODY42 Log Set

Figure 27 - Placing Lava Rock

Figure 28 - Placing Vermiculite

Figure 29 - Placing the Rock Wool

Figure 30 - Placing the Fire Glow