

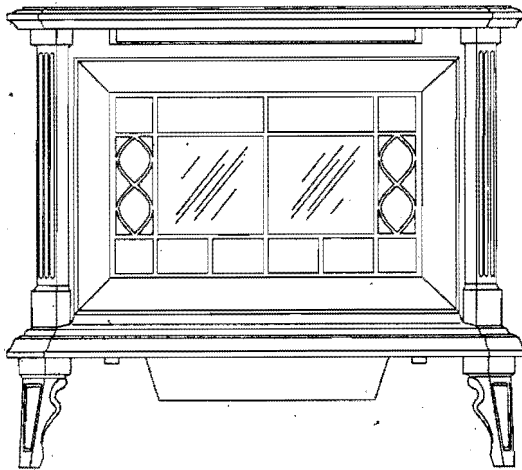
**WOOD HEAT STOVES & SOLAR**  
12426 N. Bloomfield Road  
Nevada City, CA 95959  
(530) 265-8618  
[www.woodheatstoves.com](http://www.woodheatstoves.com)

# Wonderfire™

Model 2570  
Direct Vent Gas Heater

## Owner's Guide

For use in North America



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**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.

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

### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.  
Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.



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# Table of Contents

<b>Installation .....</b>	<b>2</b>
<b>Assembly .....</b>	<b>6</b>
<b>Operation .....</b>	<b>13</b>
<b>Maintenance .....</b>	<b>15</b>
<b>Specifications .....</b>	<b>18</b>
<b>Parts List .....</b>	<b>19</b>
<b>Wiring Diagram .....</b>	<b>20</b>
<b>Appendix A .....</b>	<b>21</b>
<b>Warranty .....</b>	<b>Back Cover</b>

**Save these instructions for future reference.**

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# Installation

The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 - latest edition. (EXCEPTION: Do not derate this appliance for altitude. Maintain the manifold pressure at 3.5 inches W.C. and 10 inches W.C. for Propane).

In Canada, installation must be in accordance with the current CAN 1 B1-149.1 and .2 Installation Codes and/or local codes.

**The installation should be done by a qualified service person who is familiar with the building codes and installation techniques appropriate for your area to accomplish a safe and effective installation.**

**Your Wonderfire dealer or your local gas supplier will be able to refer a qualified service person.**

**WARNING: DUE TO HIGH TEMPERATURES, THE WONDERFIRE DIRECT VENT GAS HEATER SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.**

**THE SURFACE OF THE WONDERFIRE IS HOT WHEN IT IS IN USE. YOUNG CHILDREN SHOULD BE WATCHED CAREFULLY WHEN THEY ARE IN THE SAME ROOM WHEN THE WONDERFIRE IS IN USE, AND THEY SHOULD BE TAUGHT TO AVOID THE HOT SURFACE. KEEP ANY OBJECTS THAT CAN BURN WELL AWAY FROM THE WONDERFIRE, AND OBSERVE THE RECOMMENDED CLEARANCES THAT FOLLOW.**

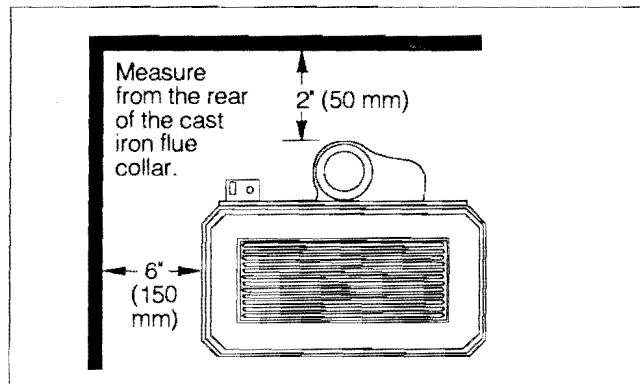
## Hearth Requirements

The Wonderfire must be installed on rigid flooring. Any carpeting under the unit must be removed. When the Wonderfire is installed directly on any combustible surface other than wood flooring, a metal or wood panel extending the full width and depth of the unit must be used as the hearth. There are no other hearth requirements.

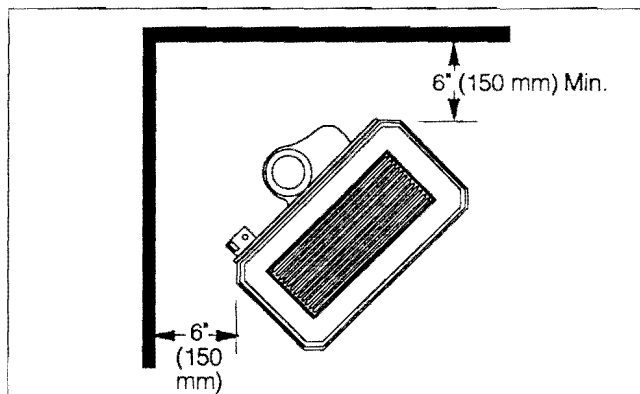
## Keep the Stove a Safe Distance from Surrounding Materials

The Wonderfire will heat nearby surfaces when operating. A safe installation requires that adequate *clearance* be maintained between the stove and nearby combustible materials to ensure that such materials do not overheat. The diagrams that follow illustrate the minimum clearances for the Wonderfire Direct Vent Gas Heater in parallel, corner, and alcove installations.

## Stove Clearances



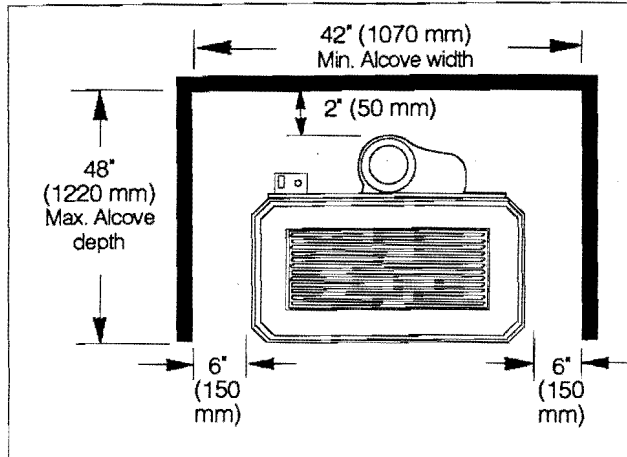
*Minimum Clearances: Parallel Installation.  
See Page 10 for specific installation procedures.*



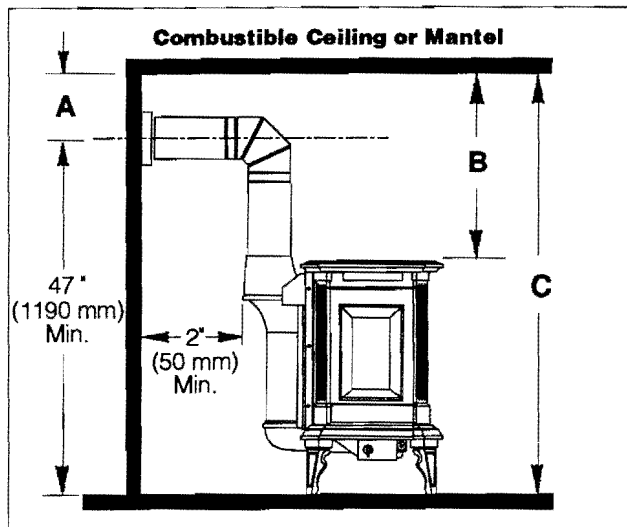
*Minimum Clearances; Corner Installation.*

### Alcove Installation

The Wonderfire Direct Vent Gas Heater is approved for installation into alcove construction composed of combustible materials.



*Minimum Alcove Clearances.*  
See Page 10 for specific installation procedures.

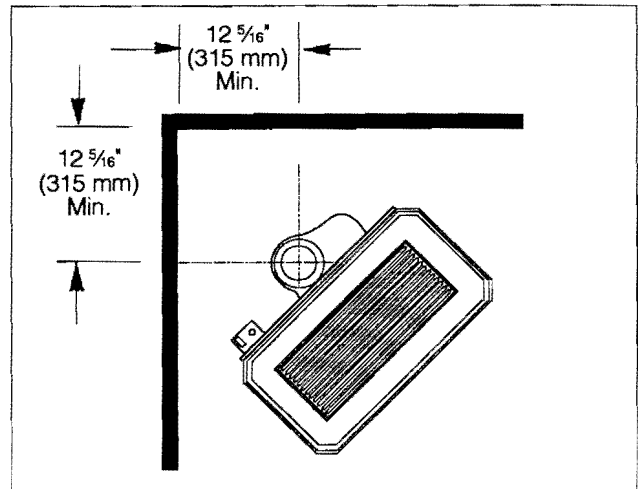


*Minimum Clearances to Ceiling or Mantel.*

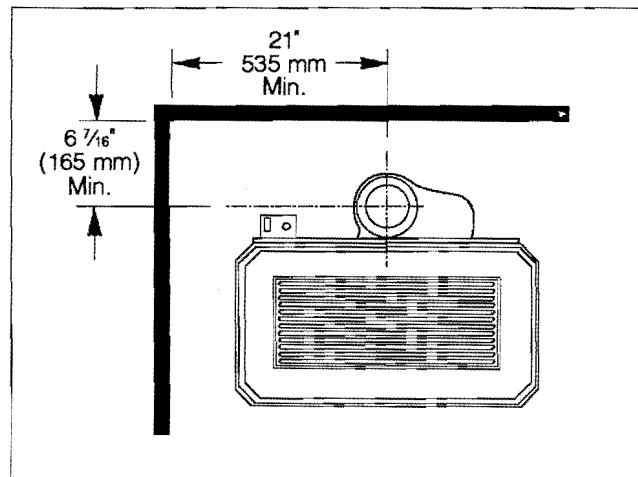
	A	B	C
Min. Approved:	4" 100mm	22 3/4" 580mm	51" 1275mm
Effective Min. w/ Wall Thimble:	6 1/2" 165mm	25 1/4" 630mm	53 1/2" 1340mm
Effective Min. w/ Wall Thimble and 2" Rear Clearance:	9 1/2" 235mm	28 1/4" 710mm	56 1/2" 1420mm

See Page 10 for details.

### Flue Collar Centerline from the Wall



*Flue collar centerline from wall: Corner Installation.*



*Flue collar centerline from wall: Parallel Installation.*

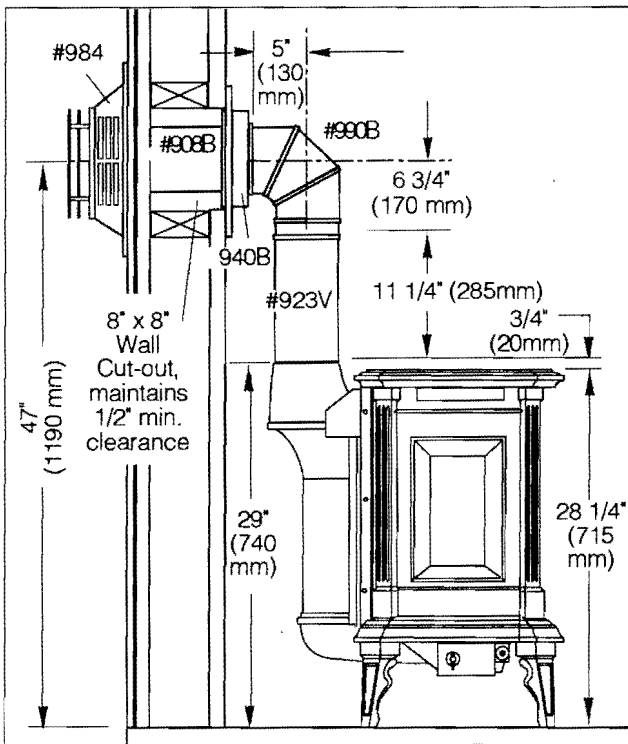
## Venting Requirements and Options

The Wonderfire Direct Vent Heater must be located to allow venting to the outside through a nearby wall. It may be installed parallel to the wall and vented to the rear or it may be installed in a corner and vented to either side. The Wonderfire Direct Vent Gas Heater is approved only for venting through a side wall with a horizontal termination.

The Wonderfire Direct Vent Gas Heater is approved for venting with use of the following components available from DuraVent Corporation or your Wonderfire dealer:

Appliance Adaptor*	923V
90° Elbow*	990 & 990B
45° Elbow	945 & 945B
6" Straight*	908B
9" Straight	907B
12" Straight	906 & 906B
24" Straight	904 & 904B
36" Straight	903 & 903B
48" Straight	902 & 902B
11 - 14 5/8" Straight	911B
Horizontal Vent Cap*	984 & 984B
Wall Thimble*	940 & 940B
Vinyl Siding Stand-off	950 & 950B
Snorkel Termination - 14"	982 & 982B

\*Included in Standard Vent System #5084



Common vent configuration through a combustible wall.

All Straight vent pipe sections have a net length 1-1/2" less than the nominal dimension; i.e., a 6" Straight pipe section has an effective length of 4-1/2".

The Appliance Adaptor 923V, when installed, terminates 12"(300 mm) above the stove.

## Vent Clearances

When planning your installation, the location of the vent terminal and clearances must be considered. Some of the most common clearances to keep in mind are shown on these pages.

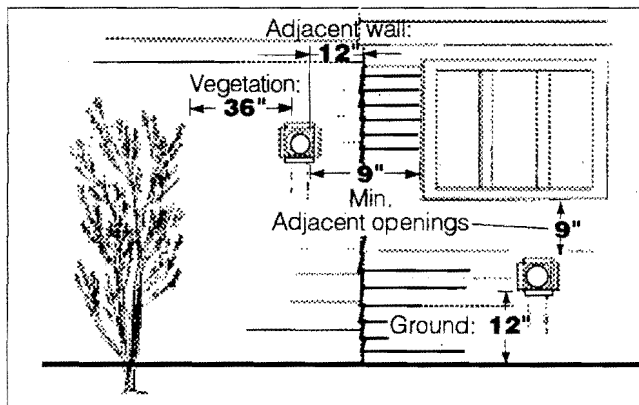
**IMPORTANT: ALL VENT CLEARANCES MUST BE MAINTAINED. CHECK YOUR VENT CLEARANCES AGAINST APPENDIX A, PAGE 21.**

The vent should be placed so that people cannot be burned by accidentally touching the vent surfaces when the stove is operating.

The vent termination should be located where it cannot be damaged by such things as automobile doors, lawnmowers or snowblowers and it should be located away from areas where it could become obstructed by snow, etc.

Some considerations are:

- Obstructions or impediments to venting.
- Nearby combustible materials that could come into contact with combustion exhaust gases.
- Other nearby openings (within 9") through which exhaust gas could re-enter the building.
- All vegetation within 3' that may interfere with the draft.
- **Vinyl siding requires protection from vented heat directly above the vent opening. Use Vinyl Siding Heat Shield Kit #950 or 950B.**



The location of the vent terminal must observe minimum clearances to these common outdoor fixtures. See Appendix A, Page 21 for complete information.

Several other factors will influence where the installation will be sited, including the location of outside walls, where additional heat may be desired in the home, where the family members gather most regularly, and perhaps most importantly, the distance limitations of the venting system.

**WARNING**

• ALWAYS MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO NEARBY COMBUSTIBLES TO PREVENT FIRE HAZARD. DO NOT FILL AIR SPACES WITH INSULATION. ALL VENTING COMPONENTS MUST MAINTAIN A 1/2" (13MM) CLEARANCE TO COMBUSTIBLE MATERIALS.

• THE GAS APPLIANCE AND VENT SYSTEM MUST BE VENTED DIRECTLY TO THE OUTSIDE OF THE BUILDING AND NEVER BE ATTACHED TO A CHIMNEY SERVING A SEPARATE SOLID FUEL OR GAS-BURNING APPLIANCE. EACH DIRECT VENT APPLIANCE MUST USE IT'S OWN SEPARATE VENT SYSTEM. COMMON VENTS ARE PROHIBITED.

**Refer to the manufacturer's instructions included with the venting system for complete installation procedures.**

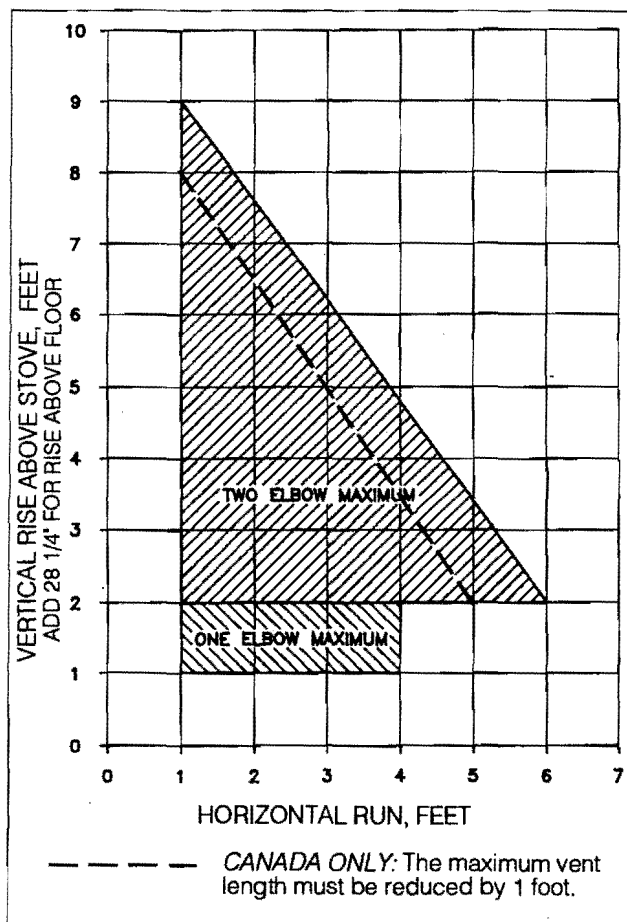


**It is important to note the following:**

- The horizontal termination must not be recessed into the exterior wall or siding.
- Horizontal vent runs must be level or rise 1/4" per foot toward the vent termination.
- Clearances around the vent termination must be maintained.
- Parallel installations with minimum wall clearance have restricted access for connecting the Horizontal Vent Cap straps to the vent pipe. See Page 10 of the Assembly section for recommended installation procedures.

**Maximum Vent Run**

The maximum permissible vertical rise of the venting system above the top of the Wonderfire Direct Vent Gas Heater is 9 feet. The maximum permissible horizontal run is 6 feet. Additional restrictions apply to the maximum total length and the number of elbows as shown in the chart below.



*Approved vent systems must terminate within the hatched area.*

# Assembly

## Install the Legs and Leg Levellers

The leg bolts have been installed in the mounting holes in the stove bottom at the factory. Washers and leg levellers are located in the bag with this manual. **Handle enamelled castings tenderly to avoid chipping!**

**If assistance is available, it is most easy to install the legs by tilting the stove forward to rest on its front.** The Front Panel of the stove must be removed before tilting the stove. Use the following procedure.

Prepare a padded surface, such as a thick carpet or a thick blanket folded two or three times, to protect the stove and the floor while the legs are installed.

**Step 1.** Remove the small retainer blocks that have been stapled to the pallet in front of the stove. Remove any staples from the pallet to prevent scratching the stove.

**Step 2.** Disengage the two compression latches on the stove bottom by pulling each latch down and forward. Fig. 1.

**Step 3.** Lift the Front Panel from the bottom and pull it up and forward away from the stove. Fig. 2.

**Step 4.** Carefully tilt the stove forward onto the padding.

**Step 5.** Remove each leg bolt from the holes in the bottom and attach the legs using the bolts and washers. Tighten the bolts firmly with a 9/16" wrench.

Use the leg levellers if the stove will be standing on an uneven surface. Screw a leveller all the way into the foot of each leg and adjust as necessary when the stove is in its final position.

**If no assistance is available,** the legs can be installed one corner at a time by gradually sliding the stove off of the shipping pallet as follows. You will need a 9/16" socket wrench and extension. Install the leg levellers before attaching the legs to the stove.

**Step 1.** Remove the small wood blocks stapled to the pallet in front of the stove. Be sure to remove all of the staples to prevent scratching the stove.

**Step 2.** Carefully pivot the stove until one front corner overhangs the pallet enough to attach a leg to the stove. Remove the hex head leg bolt from the stove bottom and use it together with a flat washer to attach the leg to the stove. Fig. 3.

**Step 3.** Slide the stove forward and swing the other front corner off of the pallet enough to secure the other front leg. Fig. 4.

**Step 4.** Carefully swing the stove out over a front corner of the pallet just enough to allow access to the rear corners. Be sure the stove bottom is adequately supported by the pallet. Attach both rear legs. Fig. 5.

**Step 5.** Walk the stove into the final position.

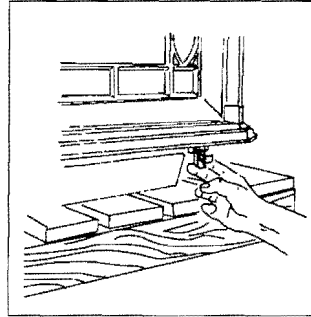


Figure 1.

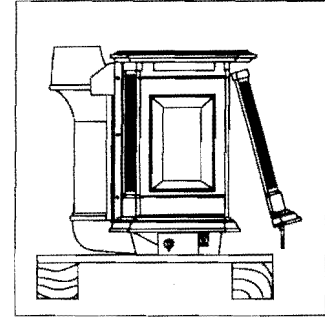


Figure 2.

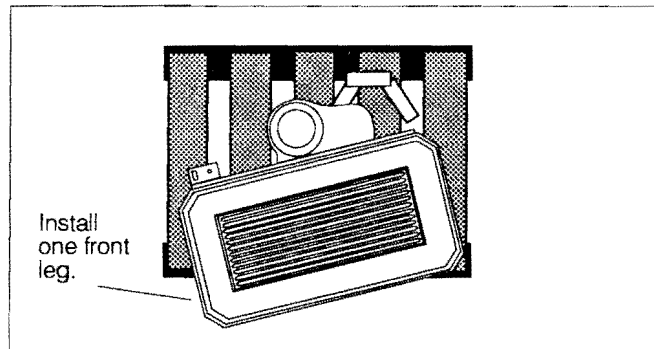


Figure 3.

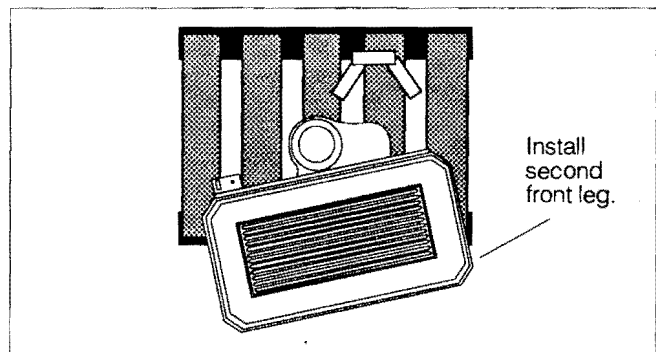


Figure 4.

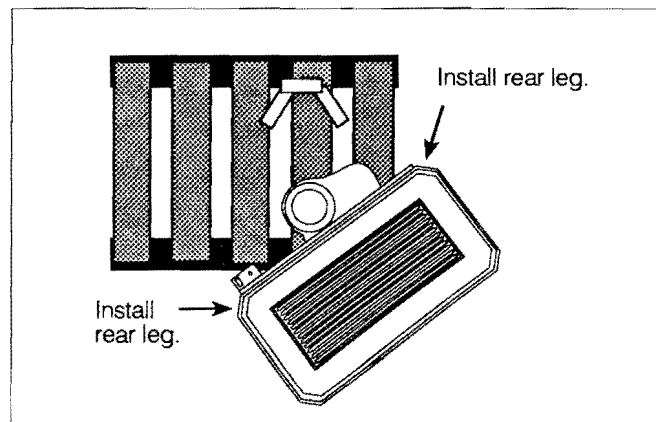
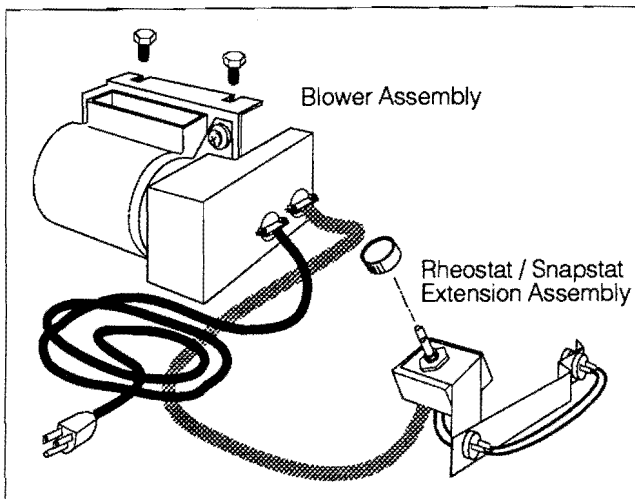


Figure 5.



## Install the Optional Convection Fan Kit, #5081

The fan kit consists of a Blower Assembly and a Rheostat Assembly that are joined by a cable. The Blower Assembly mounts to the rear bottom of the stove and the Rheostat mounts within the Remote Switch box on left rear corner of the stove.



Fan Kit Components.

**The Rheostat contains a "snapstat", a temperature-sensing switch that extends into the stove's heat exchanger and automatically turns the fans "On" or "Off", above or below approximately 109°F.**

The Rheostat also provides a range of fan speed settings from Off, (which over-rides the snapstat function), to High. Detailed installation/operation instructions are included in the kit.

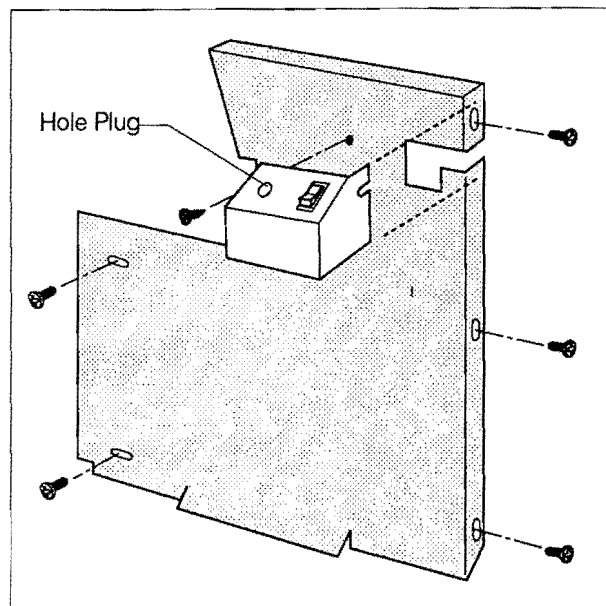
### Step 1. Inspect the blower assembly.

- Remove any packing debris that may have fallen into the housing. Make sure the fans spin freely.

### Step 2. Remove the Shroud and Switch Box.

- Facing the back of the stove, remove the three 1/4-20 phillips screws on the right side of the stove. Also, remove the two sheet metal screws near the center of the shroud next to the air intake pipe. Gently remove the shroud and set it down next to the right side of the stove.

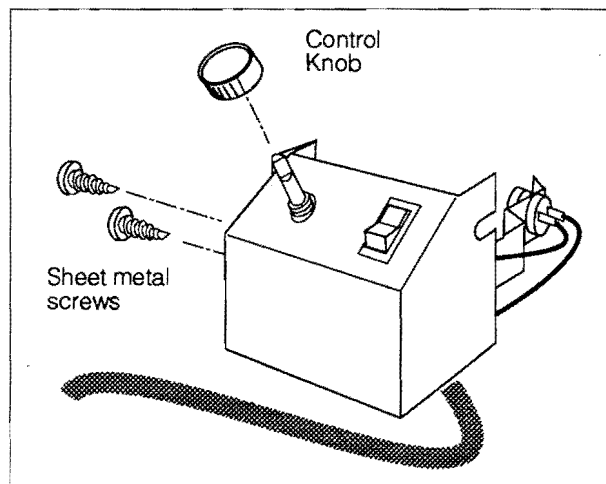
- Detach the Switch Box by removing the sheet metal screw on the left. Gently pull enough switch wiring through the shroud to provide slack. Remove the hole plug from the Switch Box.



Remove Shroud and Switch box.

### Step 3. Install the Rheostat Assembly.

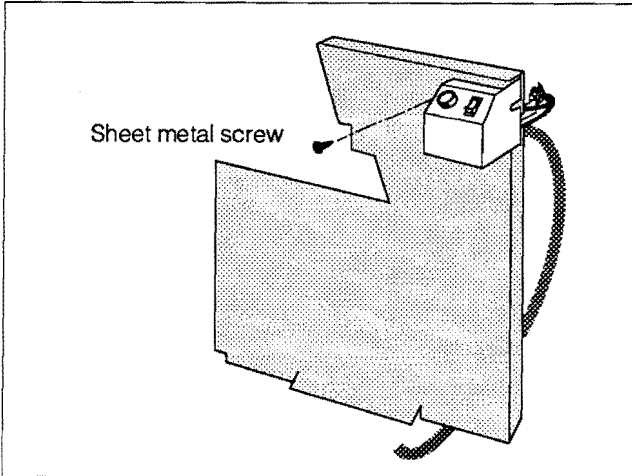
- Insert the Rheostat control knob shaft through the hole in the top of the switch box and secure the assembly to the left side of the box with the two sheet metal screws provided. Push the control knob on to the rheostat shaft.



Mount the Rheostat in the Switch box.

- Feed the rheostat cable through the slot in the shroud so that the entire cable will be hidden behind the shroud.

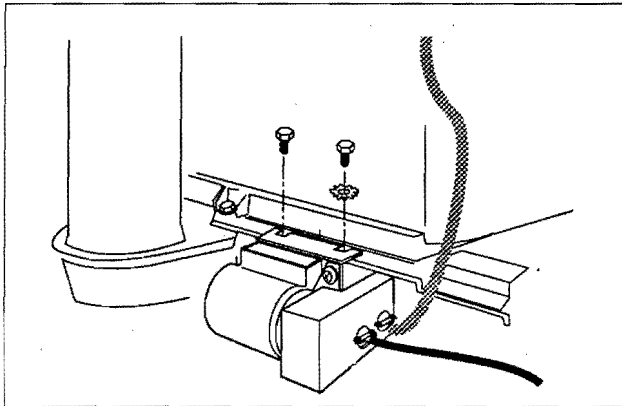
- Slide the snapstat extension through the hole in the shroud and re-attach the switch box to the shroud with the single sheet metal screw. The U-shaped slot on the right of the box should align with the upper hole in the side of the shroud.



Mount the Switch box to the Shroud.

**Step 4. Mount the Blower Assembly.**

- Start the two 1/4-20 hex head bolts provided into the tapped holes on the bottom casting. Slide the blower assembly under the bolts and tighten with a 7/16" wrench.

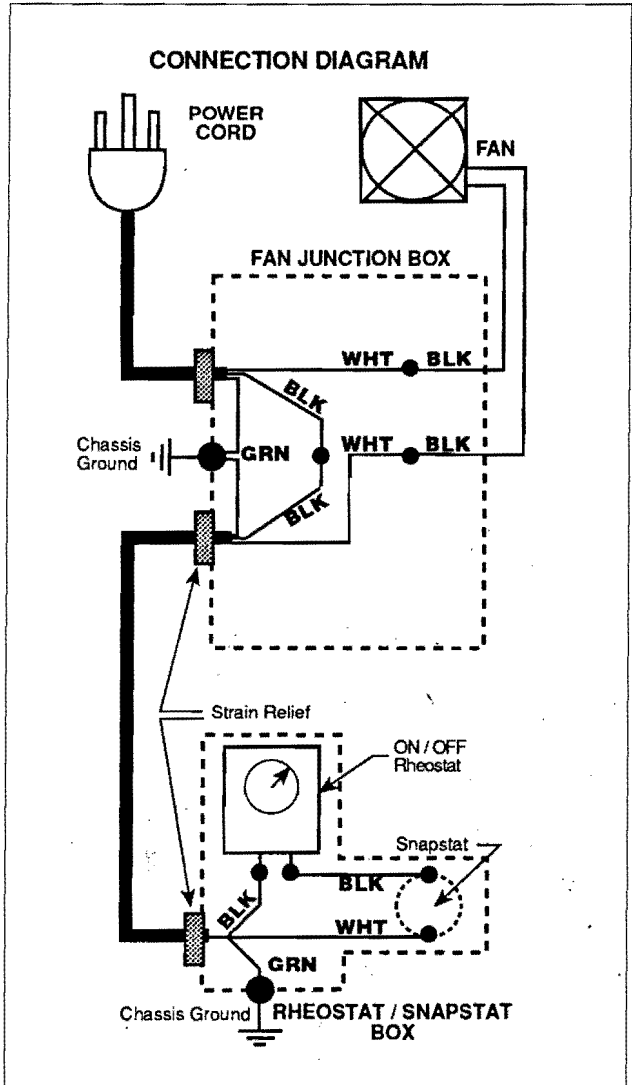


Mount the Blower assembly to the stove.

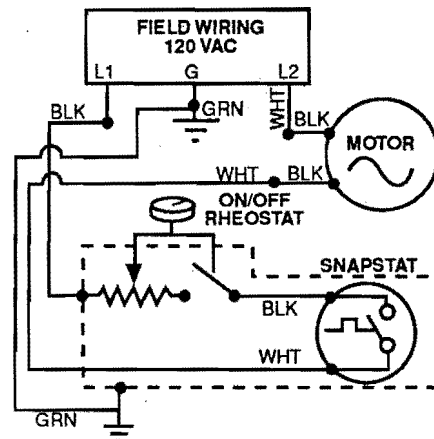
- Re-attach the shroud to the stove, positioning the snapstat extension in contact with the firebox within the stove. Replace and loosely tighten the three 1/4-20 phillips screws in the right side of the shroud. Align the two sheet metal pilot holes near the center of the shroud and replace the two sheet metal screws. Tighten all screws.
- Plug the power cord into a properly grounded electrical outlet. This completes installation of the Fan Kit.

**WARNING:**

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.



### SCHEMATIC DIAGRAM



**NOTE:** IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THE APPLIANCE, MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE SF-2, 200°C WIRE OR ITS EQUIVALENT.

## Attach the Venting

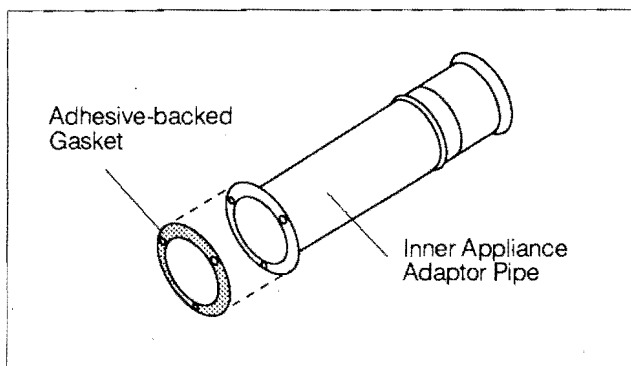
The Wonderfire Direct Vent Gas Heater is approved for installation only with the vent components listed on Page 4. Follow the manufacturer's instructions exactly.

### Paint Option - Porcelain Enamel Stoves

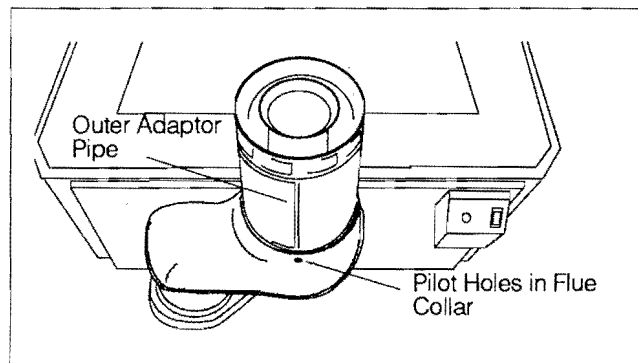
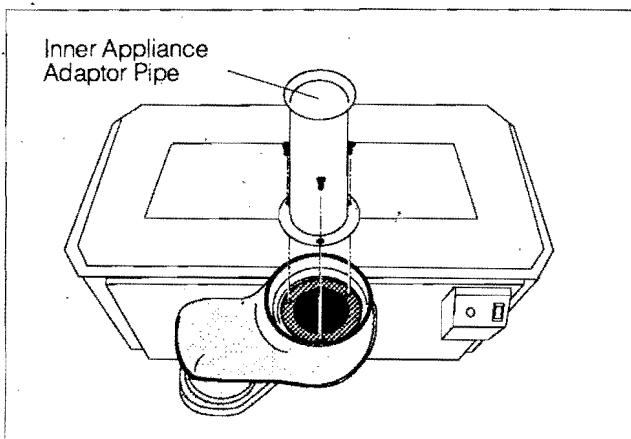
You may wish to use the Medium-temperature paint provided to paint the vent components to match your stove before assembling the system.

### Appliance Adaptor Connection

**Step 1.** Attach the adhesive-backed gasket, (located in the parts bag), to the flat flange of the Inner Adaptor Pipe.



**Step 2.** Attach the Inner Adaptor Pipe to the stove with three 1/4-20 phillips screws, (parts bag).



**Step 3.** Bottom the Outer Adaptor Pipe into the flue collar.

**Step 4.** Orient the pipe so that its seam is facing back and the next elbow, when attached, will be pointing in the appropriate direction. Drill .140 dia. pilot holes through the existing flue collar holes into the pipe. **Take care to not drill through the Inner Adaptor Pipe.**

**Step 5.** Attach the pipe to the flue collar using three #10 sheet metal screws, (parts bag).

## Complete the Vent System

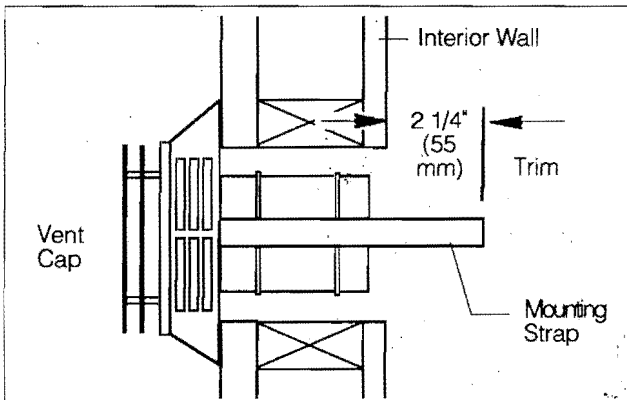
Install the rest of the vent system according to the manufacturer's instructions included with the components.

**NOTE:** If the stove will be installed parallel to the wall with minimum rear clearance, (2"), use the following procedure, in conjunction with the vent manufacturer's instructions, to complete the vent connection. Be sure to follow the venting guidelines in the Installation section and Appendix A of this manual as well as those specified by the vent manufacturer.

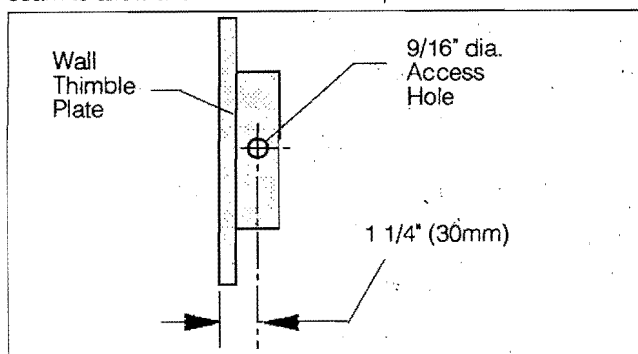
### Standard Parallel Installation (min. rear clearance)

**1. Cut the opening.** Determine the location, cut and frame an 8" x 8" square hole in the wall. **Be sure that the exterior and interior cut-outs are level with each other.**

**2. Trim the Straps.** Install the Vinyl Siding Stand-off if applicable. Position the Horizontal Vent Cap within the opening on the outside wall and temporarily secure it in place with one of the woodscrews provided. Mark and trim each of the mounting straps to extend no more than 2 1/4" (55mm) beyond the interior wall. Remove the Vent Cap from the outside wall.



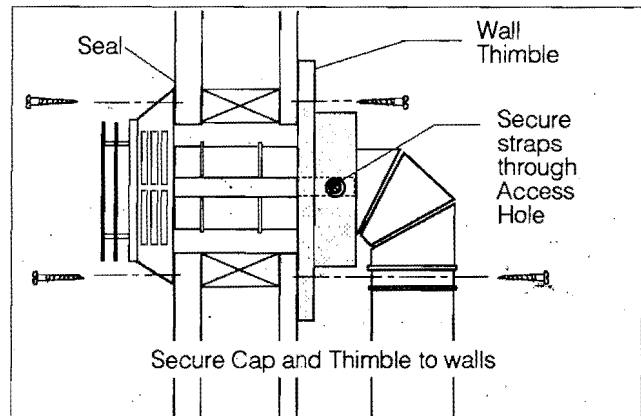
**3. Drill Wall Thimble.** With the stove installed at minimum clearance, insufficient room exists to back the wall thimble away from the cut-out to allow access for attaching the vent cap mounting straps. Before assembly, drill a 9/16" dia. access hole through the side of the thimble near the seam to allow attachment of the straps.



**4. Locate the Stove.** Position the stove with vent assembly, (including appliance adaptor, elbow, straight section, and wall thimble), in the final location. Be sure to center the straight pipe section within the wall cut-out.

**5. Install the Vent Cap.** Run a bead of non-hardening mastic around the outside edge of the Horizontal Vent Cap. The arrow on the vent cap should point UP. Position the cap in the center of the hole on the outside wall, making certain that the cap and pipe mate properly. Also, be sure that the mounting straps are visible through the wall thimble access hole. Secure the Vent Cap to the wall with the woodscrews provided.

**6. Secure the Straps.** Rotate the Wall Thimble around the elbow to provide access to secure the two mounting straps to the straight vent pipe. Attach the straps with the sheet metal screws supplied with the Vent Cap.



**7. Secure the Wall Thimble.** Rotate the thimble to hide the access hole. Secure the thimble plate to the interior wall using the four screws provided.

## Install the Log Set

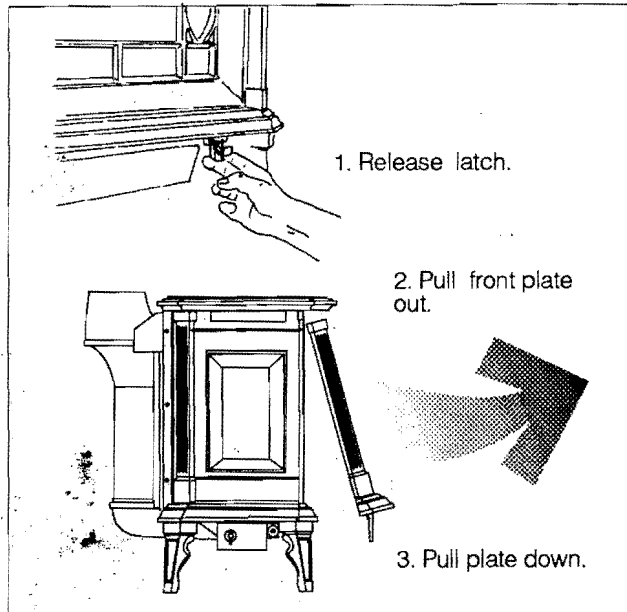
The Log Set has been packed inside the stove in a protective box for shipping. The Front Panel casting and glass panel must be removed to install the log set into the stove. Follow the procedure outlined below. If you have previously removed the Front begin at Step 3.

### Remove the Front and Glass

The front is held in place by two compression latches located under the stove bottom. Follow this procedure:

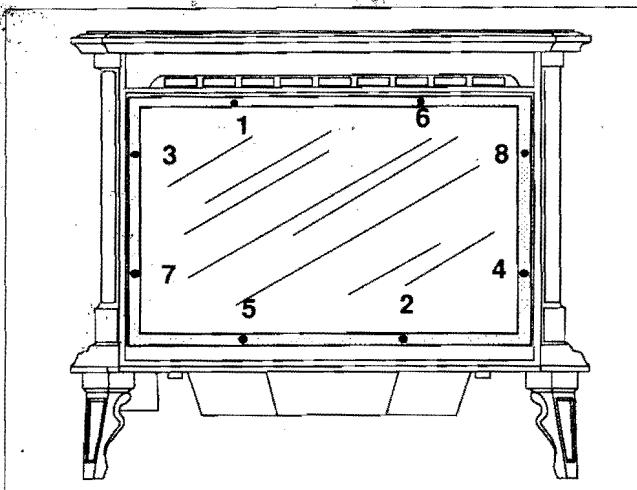
**Step 1.** Disengage the latches by pulling each lever down and forward.

**Step 2.** Grasp the sides of the front plate. Lift it up and forward to disengage, then down and away from the stove body. **Handle enamelled castings tenderly to avoid chipping!**



*Remove the front plate.*

**Step 3.** Use a Phillips screwdriver to first alternately loosen and then remove the eight screws that hold the frame to the stove. Follow the pattern shown below.



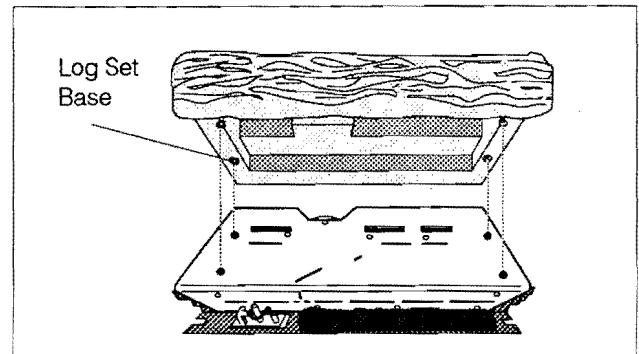
*Loosen the screws that secure the frame.*

**Step 4.** Carefully remove the glass and frame assembly and place it on a flat, padded surface such as a counter protected by a towel.

### Position the Log Set in the Firebox

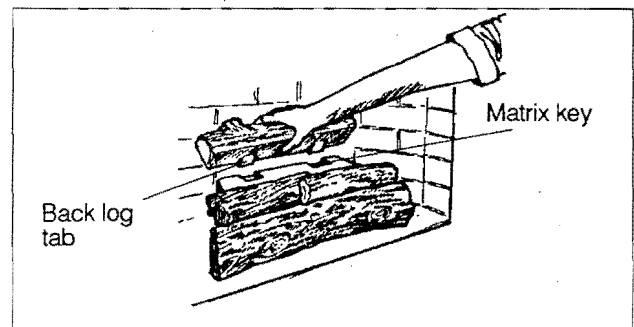
The matrix, front log and top log are pre-assembled and are installed as a unit.

**Step 1.** Place the matrix assembly on the burner, aligning the dimples in the underside with the screw heads that protrude from the burner plate. Push the assembly as far to the rear as possible.



*Align the matrix with the screws on the burner plate.*

**Step 2.** Place the back log on the matrix mating its tabs on the underside with the keys in the matrix. Push the back log to the rear so that it rests against the fireback.



*The tabs on the back log fit into keys on the matrix.*

### Replace the Glass and Front

**Step 1.** Position the glass and frame against the firebox and hold it in place with one hand against the top center of the frame. The bottom of the frame will be supported by the iron ledge. Adjust the glass as needed so that it contacts the gasket evenly all around and install the screws finger-tight.

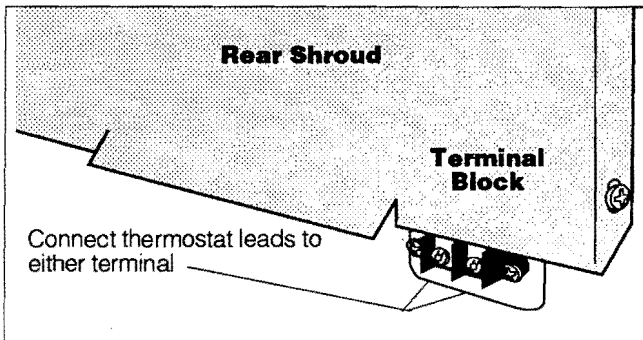
**Step 2.** To avoid uneven pressure on the glass when tightening the screws, tighten them alternately, one half-turn at a time, until they are all snug.

**Step 3.** Replace the front, holding its bottom edge slightly away from the stove while you seat the top into position. Then position the bottom against the stove and secure it with the compression latches.

## Thermostat Connection (optional)

Facing the rear of the stove, connect the millivolt wall thermostat leads to the double terminal block located under the shroud in the lower right area. Either wire may be connected to either terminal. Note in the table below the appropriate gauge thermostat wire to use for the length of lead required in your installation.

Wire Gauge	Maximum Run
14	100'
16	64'
18	40'
20	25'
22	16'



Thermostat Connection

## Burner Conversion

**A label on the front of the Wonderfire Direct Vent Stove indicates whether it is configured to burn Natural Gas or Propane Gas.**

**To convert a Natural Gas Wonderfire to burn propane, use only LP Conversion Kit #5080.**

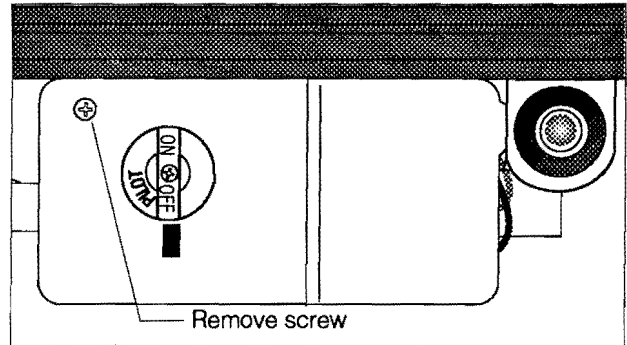
**To convert a Propane Gas Wonderfire to burn Natural Gas, use only Natural Gas Conversion Kit #5079.**

### WARNING

The 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 the 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 performing this work assumes responsibility for the proper conversion of this appliance with the kit.

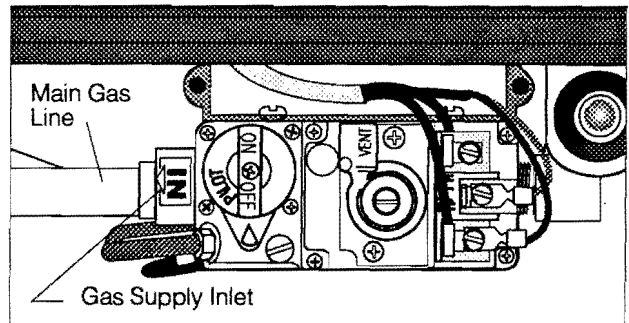
## Connect the Gas Supply

**Step 1.** Remove the Control Valve Coverplate.



Remove Control Valve

**Step 2.** Connect the main Gas Supply to the control valve inlet. A 1/8-inch N.P.T. plugged tapping, accessible for test gauge connection, should be installed on the inlet gas connection.



The gas supply line connects to the inlet to the left of the control valve.

### CAUTION

- The gas line should be connected only by qualified gas technician.
- There must be a gas shut-off between the stove and the supply.

**With natural gas,** use a 3/8" or 1/2" natural gas supply line with an input of 30,000 BTUs at a manifold pressure of 3.5" and minimum inlet supply for adjustment of 5.0" W.C.

**With propane,** use a 3/8" or 1/2" propane gas supply line with an input of 30,000 BTUs at a manifold pressure of 10.0" and minimum inlet supply for adjustment of 11.0" W.C.

**Step 3.** Test for leaks at all joints before operating.

**Step 4.** Re-install the Coverplate over the Control Valve.

This completes assembly procedures for the Wonderfire Direct Vent Gas Heater.

# Operation

## Lighting the Fire

**Step 1.** Turn the thermostat, if any, to its lowest setting.

**Step 2.** If the pilot is lit already, proceed to "Relighting the Fire" below.

Before lighting the pilot, make sure that the valve is in the OFF position by pushing in the gas control knob slightly and turning it clockwise to "OFF." Also, put the ON/OFF/T'STAT switch, located at the left rear of the stove, in the OFF position.

**Step 3.** Smell for gas. Inspect the unit for any obvious sign of damage or deterioration. If damaged, do not attempt to light.

**Step 4.** Locate the pilot under the front log in the lower left hand corner of the firebox. When lit, the pilot will produce a small but steady flame.

**Step 5.** Turn the knob on the gas control counterclockwise to "PILOT."

**Step 6.** Light the pilot by pushing the control knob all the way in and holding it there. Immediately push the red ignitor button; push it more than once if required to light the pilot. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Then, release the knob and it will pop back up. The pilot should remain lit.

**NOTE:** Once the pilot has been lit, it will remain lit continuously.

**Step 7.** Turn the gas control knob counterclockwise to "ON."

**Step 8.** Place the ON/OFF/T'STAT switch in the ON position and continue to watch the fire until the entire burner is lit. For thermostatic control, set your thermostat and then place the remote switch in the T'STAT position.

### CAUTION

**If the entire fire is not lit within five (5) seconds of turning the remote rocker switch ON, immediately push the remote rocker switch to OFF.** Allow five (5) minutes for the gas to clear from the firebox. Repeat from Step 2.

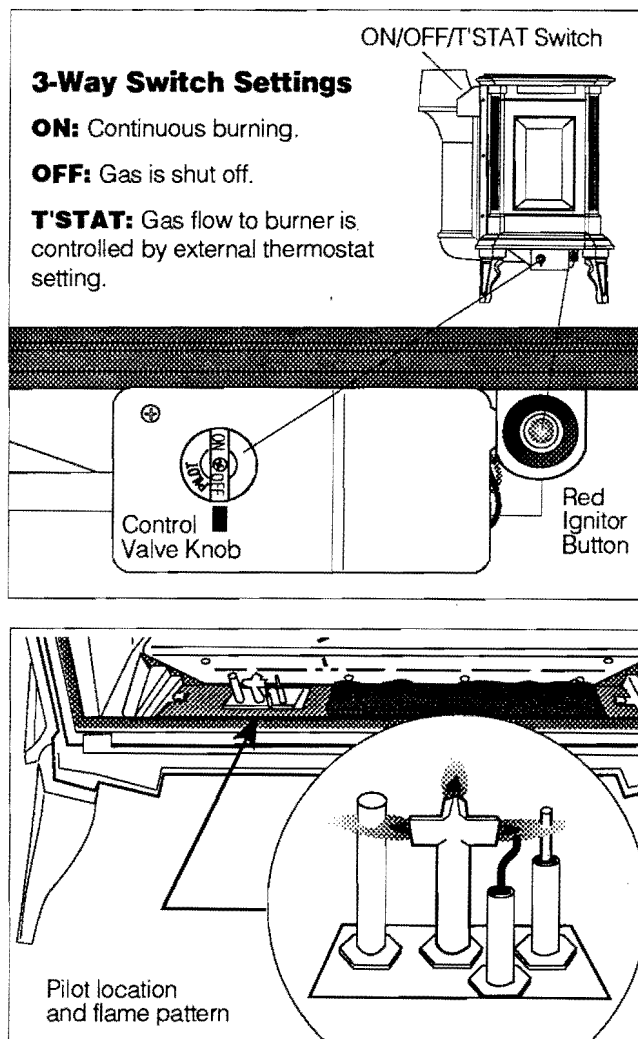
If again unsuccessful, completely turn off all gas to the stove. Call your local WonderfireDealer or gas service technician.

## Turning Off the Fire

**Step 1.** Simply push the remote rocker switch to OFF. The pilot will remain on. You can leave the pilot running. (It costs less than 1 cent an hour to run.)

You may hear a popping noise from within the firebox a few seconds after shutting the stove off. This is normal and does not indicate a problem.

**NOTE:** If you do not intend to operate the unit for an extended period of time, it is a good idea to turn the gas control knob to OFF and to turn the manual gas valve on the supply line to OFF as well.



## Re-lighting the Fire

**Step 1.** Check to see if the pilot is on.

**Step 2.** Turn on the remote rocker switch and watch to be sure the entire burner lights.

### WARNING

**Do not attempt to decrease the gas flow to the appliance by closing the manual gas supply valve.** A hazardous condition may result when operating or attempting to operate the stove if this valve is in a position other than fully open.

## FOR YOUR SAFETY READ BEFORE LIGHTING


**WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY, OR LOSS OF LIFE.**

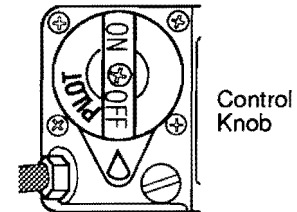
- A. This appliance has a pilot. When lighting the pilot, follow these instructions exactly.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

### WHAT TO DO IF YOU SMELL GAS



- Do not try to light any gas appliance.
  - Do not touch any electric switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to turn the gas control knob. Never use tools. If the knob will not turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
  - D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

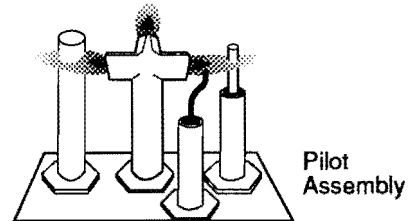
## LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn off all electric power to the appliance.
3. Turn the thermostat to the lowest setting, (if applicable).
4. Place the OFF/ON/T'STAT switch in the OFF position.
5. Push in gas control knob slightly and turn clockwise  to "OFF."




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

6. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
  7. Turn knob on gas control counterclockwise  to "PILOT."
  8. Find pilot. The pilot is located below the logset in the forward lower left area of the firebox.
  9. Push in control knob all the way and hold in. Immediately light the pilot by pushing the red ignitor button. Continue to hold the control 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 5 through 9.
- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
  - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
10. Turn gas control knob counterclockwise  to "ON."
  11. Place the OFF/ON/T'STAT switch in the ON or T'STAT position.
  12. Turn on all electric power to the appliance.



## TO TURN OFF GAS TO APPLIANCE

1. Turn off all electric power to the appliance if service is to be performed.
2. Push in gas control knob slightly and turn clockwise  to "OFF."

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



# Maintenance

## Cleaning Painted Cast Iron Surfaces

An occasional dusting with a dry rag will keep the painted surface of a Classic Black Wonderfire looking new.

The paint can be touched up as needed. Clean the areas to be painted with a wire brush. Cover controls or trim with masking tape.

Touch up the cast iron with high-temperature stove paint. Apply the paint sparingly; two light coats will give better results than a single heavy coat.

## Cleaning Porcelain Enamel

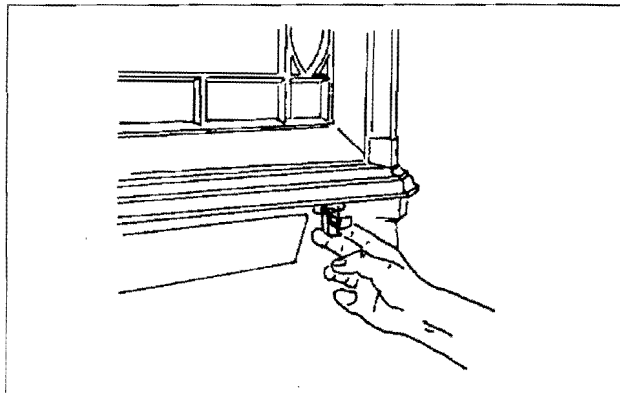
Use a dry or slightly damp rag or soft brush to clean porcelain enamel surfaces. Use only a kitchen appliance cleaner or polish recommended for use on enamel surfaces.

## How to Remove the Glass and Front

The Front cast iron panel and the glass panel must be removed for inspection and cleaning of the logs and burner. In the event that the glass panel needs to be replaced, **REPLACEMENT OF THE GLASS PANEL SHOULD BE DONE BY A LICENSED OR QUALIFIED SERVICE PERSON.** Use only the correct Wonderfire glass panel, Part #160-1290, available from a Wonderfire Dealer.

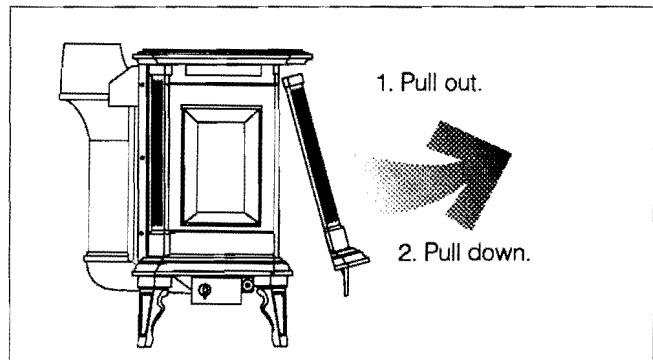
In order to remove the glass, it is first necessary to remove the front. The front is held in place by two compression latches located on the underside of the stove. Follow this procedure:

**Step 1.** Disengage the latches by pulling each lever down and forward.



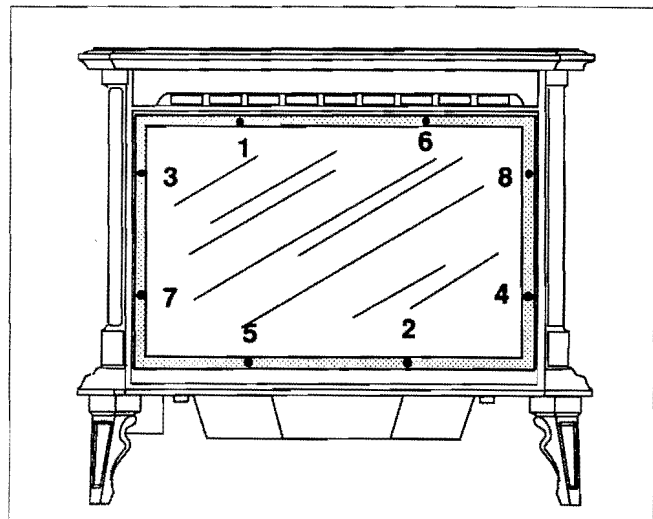
*Pull the latch down and forward to disengage the front plate from the stove.*

**Step 2.** Grasp the sides of the front plate. Lift it up and forward to disengage, then down and away from the stove body. **Handle the plate with care to avoid chipping enamelled surfaces!**



*Remove the Front plate.*

**Step 3.** Use a Phillips screwdriver to gradually loosen the eight screws that secure the glass and frame assembly to the stove. Loosen in an alternating pattern as shown below to evenly distribute pressure on the glass.



*Loosen the screws that secure the frame.*

**Step 4.** Remove the glass and frame assembly as a unit and place it on a flat, padded surface such as a counter protected by a towel.

## Replace the Glass and Front

**Step 1.** Position the glass and frame against the firebox and install the screws finger-tight.

**Step 2.** Alternately tighten the screws, one half-turn each to avoid uneven pressure on the glass, until they are snug. Follow the pattern as described in the removal procedure.

**Step 3.** Replace the Front, holding the bottom slightly away from the stove while you seat the top properly. Then, seat the bottom in position against the sides of the stove and secure the two compression latches.

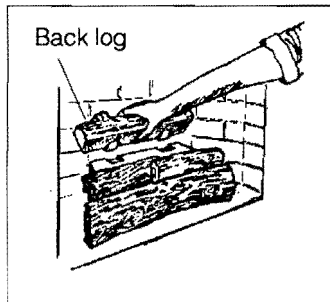
## Clean the Log Assembly Annually

Before you begin, shut off the gas supply according to the directions on Page 13 and allow the stove to cool. Spread newspapers or a drop cloth in front of the stove.

The logs and the matrix are extremely fragile and must be handled carefully and brushed gently. Support them evenly while handling. Use only a soft-bristled brush to clean them. Do not use a vacuum cleaner.

**Step 1.** Remove the front and the glass as described on Page 15.

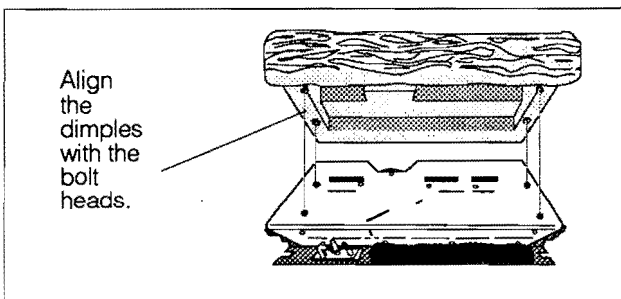
**Step 2.** Reach into the firebox and carefully remove the back log. Clean it gently with a soft brush.



**Step 3.** The matrix, front log, and top log are assembled and installed as a unit. Remove this unit and gently brush the surfaces of the three components.

**Step 4.** Clean the burner by gently brushing the top surface.

**Step 5.** Replace the assembly on the burner, aligning the dimples on the underside of the matrix with the screw heads on the burner plate. Place it as far to the rear as possible.



**Step 6.** Replace the back log on the matrix so that the tabs on the bottom fit into the keys in the matrix. Push the back log as far back as possible. It should rest against the fireback.

**Step 7.** Replace the glass and the front as described previously.

## Inspect the Vent System Annually

The vent system must be inspected annually by a qualified technician. Both the inner exhaust pipe and the outer combustion supply pipe must be checked to confirm that they are unobstructed and in good condition. Inspect for dust build-up, corrosion, or any sign of deterioration or deposits. Refer to the vent manufacturer's instructions. Re-assemble and re-seal venting components as required.

## Gasket Replacement

The Radiance uses 5/16" rope-type fiberglass gaskets to seal between the glass panel and the firebox. In time, this gasket can become brittle and compressed and should be replaced. New gasket is available from your Wonderfire Dealer.

Shut off the gas supply according to the directions on Page 13 and allow the stove to cool. Wear safety goggles and a dust mask.

**Step 1.** Remove the old gasket. Use a wire brush to clean the channel of any remaining cement or bits of gasket. Use a cold chisel if necessary.

**Step 2.** Determine the correct length of gasket by laying it out in the channel. Allow an extra 1-2" (25-50 mm), and mark the spot to be cut. Use a utility knife. Twist the ends slightly to prevent unraveling.

**Step 3.** Lay an unbroken 1/8" (3 mm) bead of gasket cement in the channel. Starting at one end, press the gasket into the channel. Ensure a good joint where the gasket ends meet before trimming excess. Do not overlap the gasket ends or leave ends with ragged edges.

**Step 4.** Press the glass frame firmly against the gasket to seat it evenly in its channel.

**Step 5.** Clean excess cement from around the channel. Allow the cement to dry for at least 24 hours before using your stove.

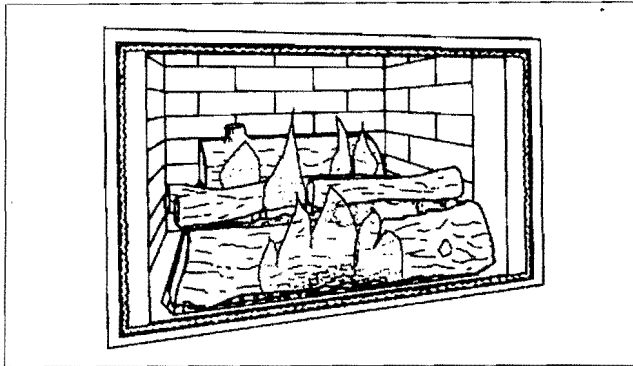
## The Safety Switch

The Wonderfire Direct Vent Heater is equipped with a safety switch which will render the appliance inoperable should a firebox over-pressure condition occur. The switch is not an owner-serviceable component.

**If your stove will not operate, call your Wonderfire Dealer.**

## Check the Gas Flame Regularly

To ensure that your Direct Vent Gas Heater is operating properly, check the flames periodically to confirm that they are consistent the illustration below. The flame pattern should be evenly distributed throughout the log set. The flames will be blue during the first few minutes, but should gradually change to yellow after about 15 minutes.



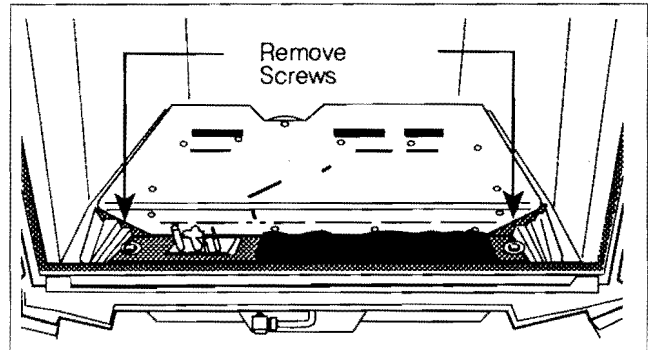
Do not operate your stove if the flame pattern differs from that shown here. Contact your Wonderfire Dealer or a qualified gas technician for assistance.

## Burner Adjustment

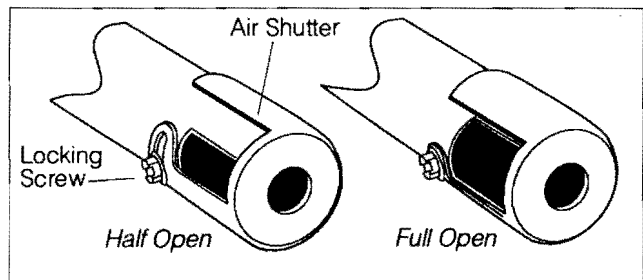
An air shutter, located on the burner, has been set at the factory for either Propane or Natural gas and should not require further adjustment. Installation characteristics vary, however, and adjustment may be necessary to improve flame picture or eliminate sooting. Generally, the shutter should be set fully open for Propane and half-open for Natural gas. Closing the shutter, (less air), produces a yellow flame, (more prone to sooting). Opening the shutter, (more air), produces a bluer flame. After adjusting the shutter, the stove should be burned for at least one hour to see the effect of the setting change. If soot appears on the glass, the air shutter must be opened to eliminate the condition. **Adjustment should be made only by a qualified gas technician.**

**Step 1.** Shut off the gas supply to the stove. Turn off all power to the stove. Remove the Front Panel, Glass, and Log Set as described on Pages 15-16.

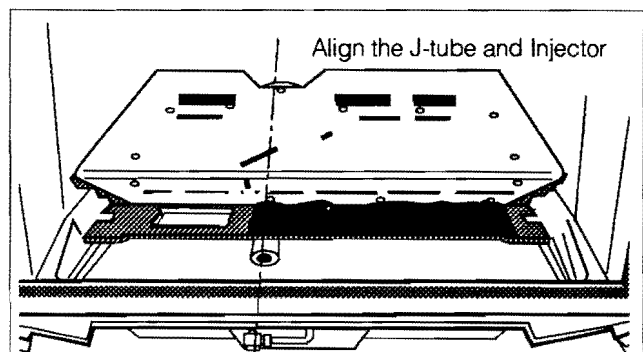
**Step 2.** Remove the two Burner retainer screws. Lifting the back of the Burner, slide it to the rear and lift it out of the firebox to access the air shutter on the end of the J-tube.



**Step 3.** Loosen the shutter locking screw enough to adjust the setting as needed and re-tighten.



**Step 4.** Set the burner back into the firebox taking care to ensure that the end of the J-tube fully engages and aligns with the injector.



**Step 5.** Replace the retainer screws, log set, glass, and Front Panel.

# Specifications

## Wonderfire Direct Vent Gas Heater Model 2570

### Fuel

Natural gas, or, Propane after conversion.

Manifold pressure, NG .....	3.5"
Manifold pressure, LP .....	10.0"
Minimum inlet supply pressure for the purpose of input adjustment, NG .....	5.0"
Minimum inlet supply pressure for the purpose of input adjustment, LP .....	11.0"
Maximum inlet supply pressure: NG ...	11.0"
Maximum inlet supply pressure: LP.....	13.0"
Input, Btu/hr., NG .....	30,000
Input, Btu/hr., LP .....	30,000
Output, Btu/hr., NG .....	24,000
Output, Btu/hr., LP .....	24,000
AFUE* .....	71.3%
Glass panel .....	Hi-temp ceramic
Weight.....	350 lbs./Shp. 375lbs.
Ignition .....	Standing pilot with Piezo ignition
*Seasonal efficiency, (NG - min. vent, no fan)	

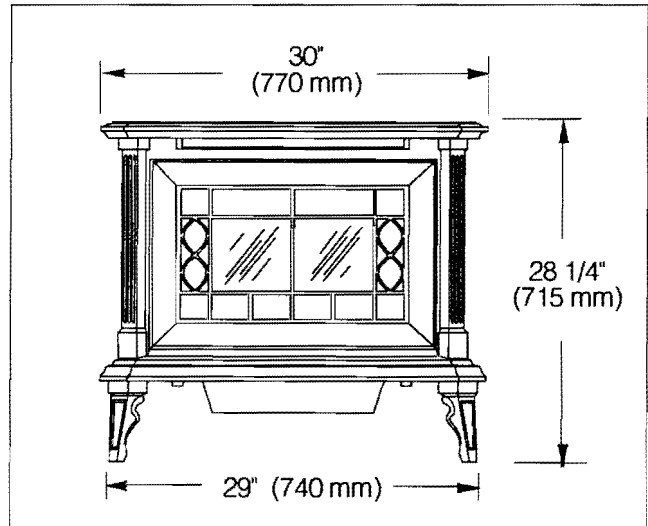
**AGA Design Certified to ANSI Z21.44a -1992 and CGA  
approved to CAN/CGA 2.19-M86 for Direct Vent Gas  
Fireplaces.**

### Clearances

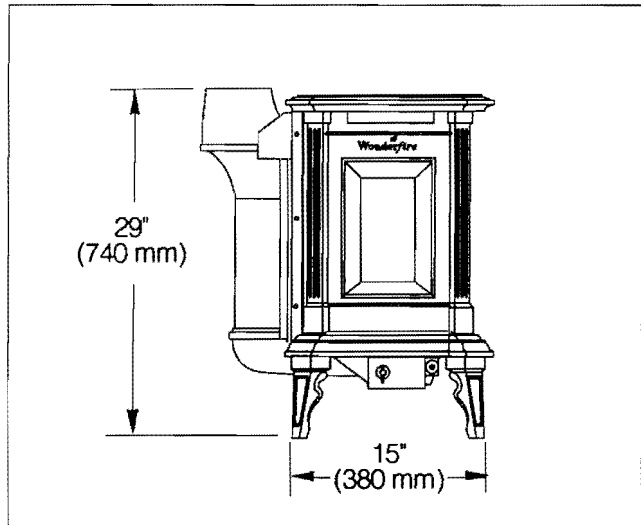
Side .....	6 inches (150 mm)
Rear .....	2 inches (50 mm)
Corner .....	6 inches (150 mm)

### Hearth Requirements

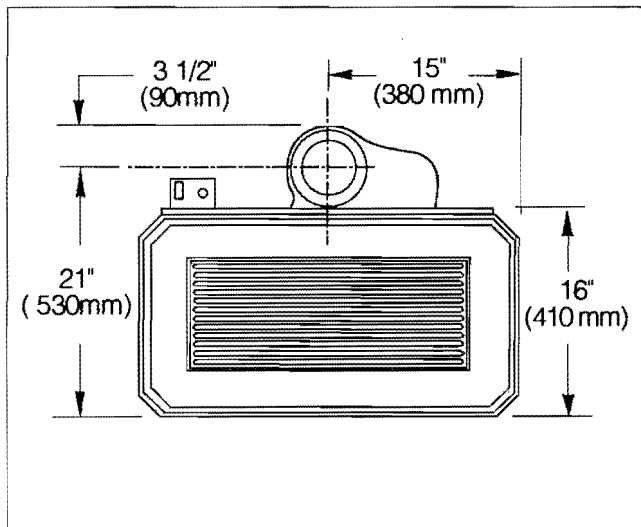
The Wonderfire Direct Vent Gas Heater must be installed on rigid flooring. Any carpeting under the unit must be removed. When the stove is installed directly on any combustible surface other than wood flooring, a metal or wood panel, the full width and depth of the unit, must be used as a hearth. There are no other hearth requirements.



Front View



Side View



Top View

# Parts List

## Wonderfire Direct Vent Gas Heater Model 2570

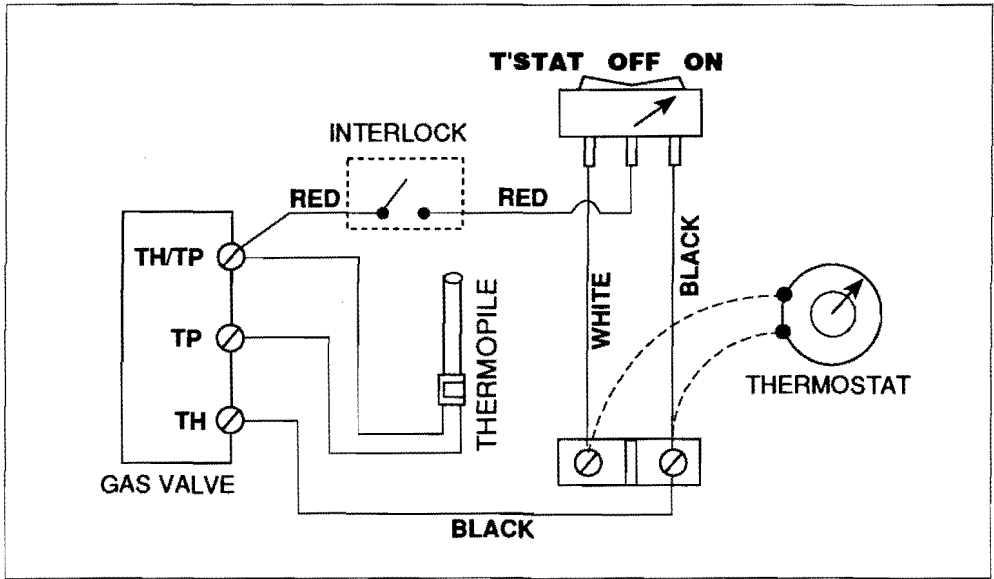
	<b>Part</b>	<b>Part No.</b>
	Top	130-1076
	Right End	130-0996
	Left End	130-0997
	Front	130-1073
	Bottom	130-1072
	Flue Collar	130-1069
	Front Latch	160-1509
	Air Tube, 4"	140-8780
	Left Rear Shroud	140-8782
	Right Rear Shroud	140-8783
	Switch Box	140-8791
	Gas Valve Cover Plate	140-8792
	Front Cover Plate	130-1070
	Bottom Air Cover	130-1066
	Heat Exchanger Top	130-1067
	Heat Exchanger Outlet	130-1068
	Heat Exchanger Doors	130-1071
	Heat Exchanger Door Gaskets	120-3787
	Heat Shield, Top	140-8793
	Convection Hood	130-1055
	Control Door	130-1013
	Leg	130-0994
	Firebox	130-1057
	Firebox Extension	130-1064
	Glass	160-1290
	Glass Frame	140-8788
	5/16" Gasket/Glass-to-Stove (5 feet)	120-3588
	3/4" Gasket/Glass-to-Frame (5 feet)	700-0909
	Flue Pipe Gasket	120-3686
	Gas Log Set	500-2933
	Re-set Switch/Wiring Assby.	500-2943
	On/Off Switch	160-1597
	Gas Valve Bracket	140-8779
	Pilot Assembly	160-1587
	Pilot Gasket	120-3685
	Gas Valve, NG	160-1586
	Piezo Ignitor	160-1304
	Thermopile	160-1311
	Injector, NG	160-1313
	Burner	500-2950
	LP Conversion Kit	000-5080

For replacement parts, or for information about parts or service, contact your local Wonderfire Dealer. For the name of the dealer nearest you, call or write:

**Wonderfire**

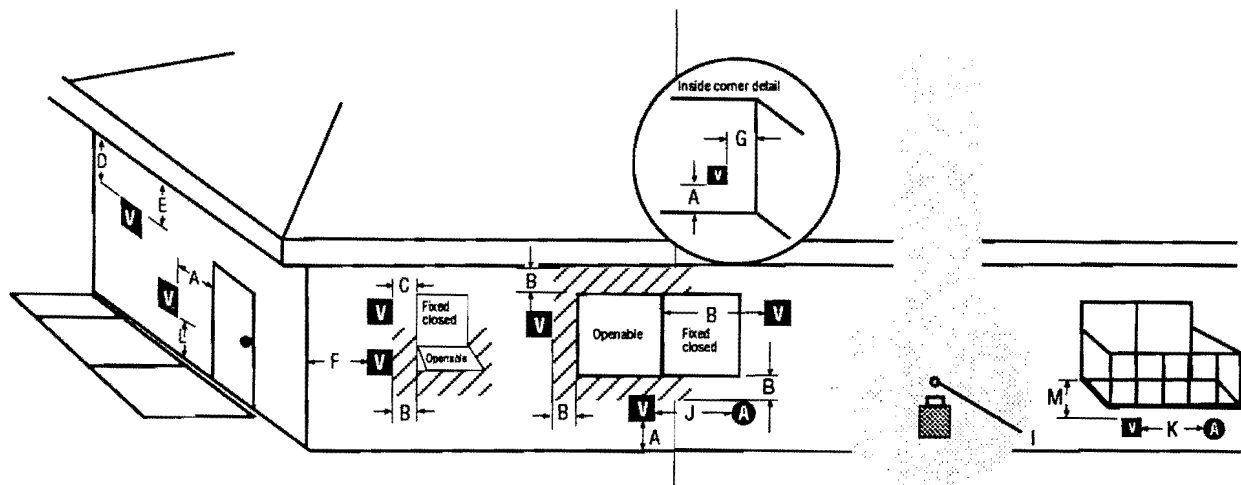
Route 107 • P.O. Box 501  
Bethel, Vermont 05032  
1-800-227-8683

# Wiring Diagram



*Wonderfire Direct Vent Wiring*

# Appendix A



**A** = clearance above grade, veranda, porch, deck or balcony:

[\* **12 Inches (30 cm) minimum**]

**B** = clearance to window or door that may be opened:

[\* **12 Inches (30 cm) minimum for appliances ≤ 100 000 Btuh (30 kW)**

**36 Inches (90 cm) minimum for appliances > 100 000 Btuh (30 kW)**]

**C** = clearance to permanently closed window: [**minimum 12 Inches (30 cm) recommended to prevent condensation on window**]

**D** = vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60 cm) .... from the centre-line of the terminal: [**18 Inches (46 cm) minimum**]

**E** = clearance to unventilated soffit: [**12 inches (30 cm) minimum**]

**F** = clearance to outside corner

**G** = clearance to inside corner

**H** = \*not to be installed above a meter/regulator assembly within 3 feet (90 cm) horizontally from the centre-line of the regulator

**I** = clearance to service regulator vent outlet : [**\*6 feet (1.8 m) minimum**]

**J** = clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance:

[\***12 Inches (30 cm) minimum for appliances ≤ 100 000 Btuh (30 kW)**

**36 inches (90 cm) minimum for appliances > 100 000 Btuh (30 kW)**]

**K** = clearance to a mechanical air supply inlet: [**\* 6 feet (1.8 m) minimum**]

**L** = + clearance above paved side-walk or a paved driveway located on public property: [**\* 7 feet (2.1 m) min.**]

**M** = clearance under veranda, porch, deck or balcony: [**\* 12 inches (30 cm) minimum ++**]

+ a vent shall not terminate directly above a side-walk or paved driveway which is located between two single ... family dwellings and serves both dwellings \*

++ only permitted if veranda, porch, deck, or balcony is fully open on a minimum of 2 sides beneath the floor \*

\* as specified in CAN 1 B1-149 Installation Codes (1991) Note: local codes or regulations may require different clearances.

