Installation Instructions

Listed Certified for USA. and Canada
Certified to: ANSI Z21.44a-1992, Can1-2.19-M81, CGA I.R.#41, CGA I.R.#55, CAN/CGA 2.17-1991
CGA P.4.1-1996
Model Number ZDV1001
Stock #'s: ZDV 360, 960, 1160, 1560, 1760, 1960, 2360, 2560

WARNOCK HERSEY

"Zero Clearance" Direct Vent Gas Fireplace

Read this complete manual before beginning installation.
These instructions must be kept with the unit for future reference.

FOR YOUR SAFETY

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.
Extinguish any open flame.
Do not touch any electrical switch.
Do not use any phone in your building.
Immediately call your gas supplier from a neighbour's phone.
If you can not reach your gas supplier, call the fire department.

KINGSMAN INDUSTRIES

KINGSMAN INDUSTRIES
A Division of R-Co. Inc.
3 Winfield Way
Winnipeg, Manitoba, Canada R2R 1V8
Phone (204)-632-1962

Warning: Improper installation, alteration, service or maintenance can cause property damage, personal injury or losses of life. Refer to this manual. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

Printed in Canada 02/97 Part # 1000-P920CP Revision 3 SIT

Table of Contents

Installation Regulations

This gas appliance must be installed by a qualified installer in accordance with local building codes, or in the absence of local codes, with the current CAN/CGA-B149.1 or .2 Installation Code (in Canada) or the current National Fuel Gas Code Z223.1 when installed in the United States.

This appliance, when installed, must be electrically connected and grounded in accordance with local codes, or in the absence of local codes, with the current CSA C22.1 Canadian Electrical Code or with the national Electrical Code; ANSI/NFPA 70-1987 when installed in the United States.

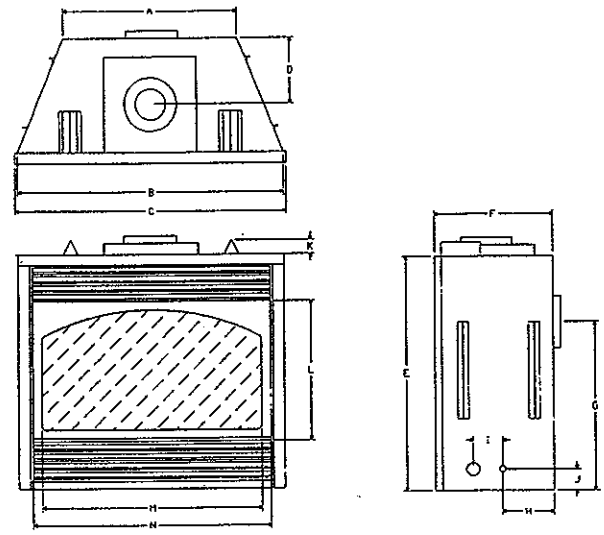
Unit is certified for installation in a bedroom or bed sitting room, the unit must be installed with listed thermostat.

In Canada the Liquid Propane Model ZDV1001 product numbers ZDV2560, ZDV1960, ZDV1760, ZDV2360 are acceptable for mobile homes (manufactured) home installations after first sale. Though it would be very beneficial to also check with your local building codes, in respect to each province or jurisdiction.

In the USA both Natural gas and Liquid Propane fireplaces are acceptable for mobile homes (manufactured) home installations after first sale. Though it would be very beneficial to also check with your local building codes, in respect to each county, state, or jurisdiction.

FOR SAFE INSTALLATION AND OPERATION OF YOUR GAS FIREPLACE PLEASE NOTE THE FOLLOWING:

1. This appliance gives off high temperatures and should be located out of heavy traffic areas and away from furniture and draperies.
2. Children and adults should be alerted to the hazards of the high surface temperatures of this appliance and should stay away to avoid burns or ignition of clothing.
3. Children should be carefully supervised when they are in the same room as your fireplace appliance.
4. Under no circumstances should this appliance be modified. Any parts that have to be removed for servicing should be replaced prior to operating this appliance.
5. Installation and any repairs to this appliance should be done by a qualified service person. A professional service person should be called to inspect this appliance annually. Make it a practice to have all your gas appliances checked annually.
6. Control compartments, burners and air passages in this appliance should be kept clean and free of dust and lint. Make sure that the gas valve and pilot light are turned off before you attempt to clean this unit.
7. The venting system (chimney) of this appliance should be inspected at least once a year and if needed, your venting system should be cleaned.
8. Keep the area around your appliance clear of combustible materials, gasoline and other flammable vapors and liquids. This appliance should not be used as a drying rack for clothing nor should Christmas stockings or decorations be hung from it.
9. Under no circumstances should any solid fuels wood, paper) be used in this appliance.
10. For safe operation, glass doors must be closed.
11. Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.
12. Do not operate appliance unless completely installed as per installation instructions.



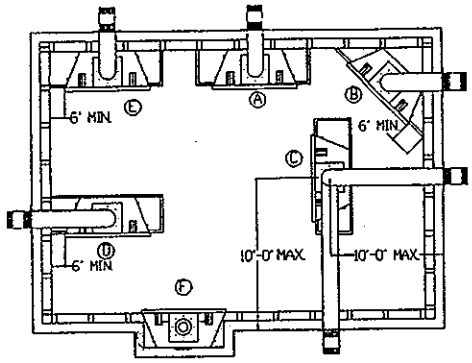
Dimension	Top Vent	Back Vent
A	23 1/2"	23 1/2"
B	36"	36"
C	36 3/4"	36 3/4"
D	7 1/4"	Top Vent only
E	31 3/4"	31 3/4"
F	15"	15 1/4"
G	Back Vent Only	22 7/8"
H	5 7/8"	5 7/8"
I	5 1/8"	5 1/8"
J	2 7/8"	2 7/8"
K	2"	1/2"
L	19 1/8"	19 1/8"
M	29 3/4"	29 3/4"
N	32 1/4"	32 1/4"

Note: Pipe diameters for both the back vent and top vent are 4" for the inner pipe 7" for the outer pipe.

Locating your Appliance

(above or below grade)

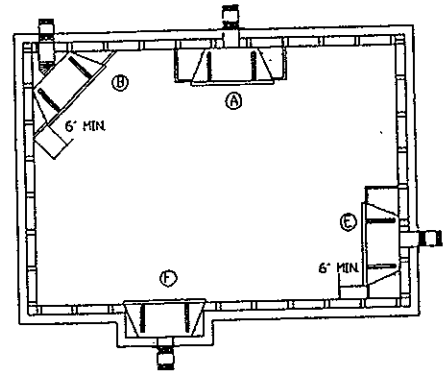
Installing with Top Vent Option



Island installation with a top vent is possible as long as the horizontal portion of the vent system does not exceed 10 feet (305cm). When you install your fireplace as in position 'B', 'D' or 'E', a minimum of 6 inches (153mm) clearance must be maintained from the perpendicular wall and the front of the appliance.

(above grade)

Installing with Back Vent Option

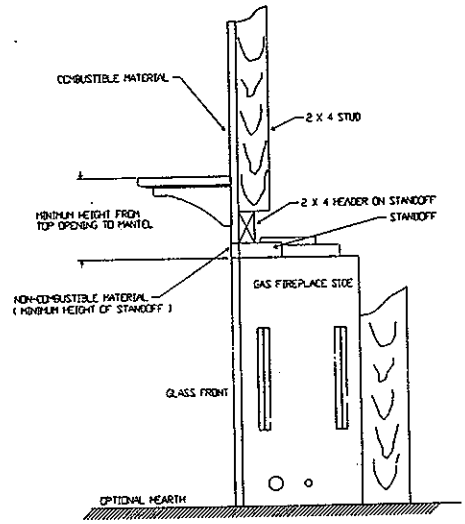


A - Flat on a wall
B - Across the corner
C - As an island
D - As a room divider
E - Flat on wall corner
F - Exterior wall

Framing for your Gas Fireplace

Framing Specifications

1. Choose fireplace location and frame in accordance with the fireplace dimensions specified on page one of this manual. When using a wide 3.5 in. surround the fireplace must be 1/2" (13mm) ahead of the wall. Also allowances must be made for drywall tile or any other facing used around the unit. When using Slim Line Brass surround or no surround fireplace face maybe built out from the framing specification using non combustible materials such as brick or stone, giving a reset appearance.
2. Place fireplace into position and secure to floor with 1 1/2" screws or nails. Nailing tab located left and right lower side of fireplace.
3. Cold climate installation recommendation: when installing this fireplace against non-insulated exterior wall or chase, it is recommended that the outer walls be insulated to conform to applicable insulation codes. Drywall should be installed around the unit to prevent insulation from contacting the body.
4. Drywall can extend flush with the appliance on the bottom and sides of the fireplace. A non-combustible material must be used to extend flush with the top of the fireplace and must have a vertical length equivalent to the height of the standoffs.
5. If you are installing the top vent unit with a 90° bend, the minimum clearance to combustibles directly above the 90° bend is 4" (102mm).
6. Non-combustible materials such as brick and tile can be extended across the face of the fireplace. If wide 3.5" brass trim kit is going to be installed, brick and tile will have to be installed flush with the front of this appliance. If slim line brass trim kit is used, brick or tile may extend past the front of unit.



Hearth

A hearth is not mandatory but is recommended for aesthetic purposes. We recommend a non-combustible hearth projecting out 12" (305mm) or more in front of the fireplace.

Clearance to Combustibles

Back (from Standoffs)	0 inches/0 mm
Side (from standoffs)	0 inches/0 mm
Floor	0 inches/0 mm
Top (from standoffs)	0 inches/0 mm
Top of 90 Bend	4 inches/102 mm
Top of Horizontal Pipe	2.5 inches/64 mm

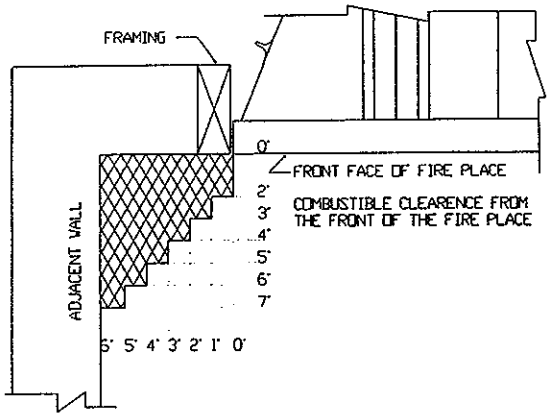
Note: See Mantel Chart

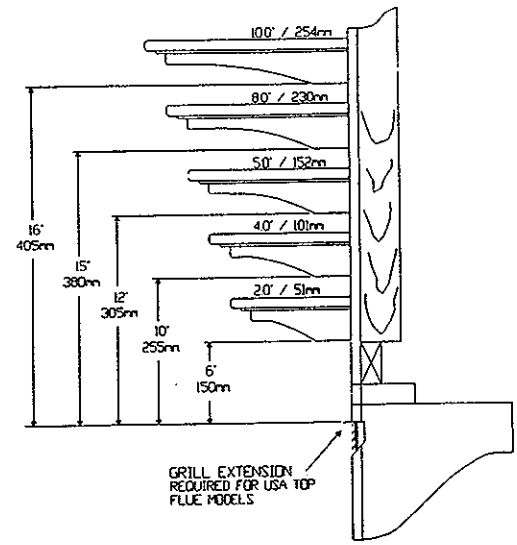
Mantles

Depending on the width of the fireplace mantle, it may be installed higher of lower from the top of the fireplace opening. See drawing and chart below for proper installation height of your combustible mantelpiece. Non-combustible mantles may be installed at any height above the fireplace opening.

When installing the top vented unit in the United States, a grill extension must be used. The grill extension should extend 1" (25mm) from the front face.

Note: When using paint or lacquer to finish the mantle, such paint or lacquer must be heat resistant (250°F) to prevent discoloration.





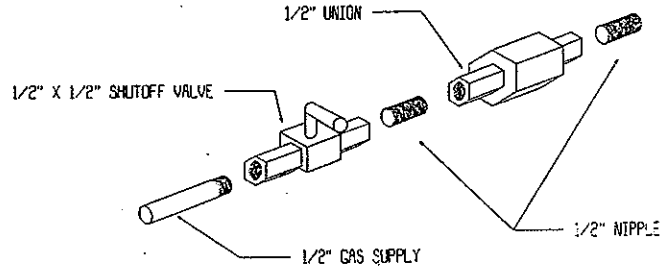
Warning: Combustible objects must not be placed on a non-combustible mantle unless the non-combustible mantle meets the minimum height and width requirements for a combustible mantle.

Gas Line Installation

This gas appliance should be installed by a qualified installer in accordance with local building codes and with current CAN/CGA - B149.1 or .2 installation codes for Gas Burning appliances and equipment in Canada and the National Fuel Gas Code ANSI Z223 in the U.S.A.

1. The gas pipeline can be brought in through either the right or the left side of the appliance. A knockout is provided at either location to allow for the gas pipe installation and testing of any gas connection.
2. The gas control inlet is 1/2" NPT. Typical installation layout for rigid pipe is shown at right.
3. When using copper or flex connector, use only approved fittings. Always provide a union so that gas line can be easily disconnected for burner or fan servicing. See gas specification for pressure details and ratings.
4. When a vertical section of gas pipe is required for the installation, a condensation trap is needed. See CAN/CGA-B149.1 or .2 for code details.
5. For natural gas, a minimum of 3/8" iron pipe with gas minimum pressure of 4.5 w.c. must be used for supply from the gas meter. Consult with the local gas utility if any questions arise concerning pipe sizes.
6. A 1/8" NPT plugged tappings are accessible for test gauge connection both on the inlet and outlet of the gas valve.
7. Turn the gas supply ON and check for leaks. DO NOT USE OPEN FLAME FOR THIS PURPOSE. Use an approved leak testing solution.
8. The appliance and its individual 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 PSIG (3.5 KPa).
9. The appliance must be isolated from the gas supply piping system by closing its individual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSIG (3.5 KPa).

Note: The gas line connection may be made of 1/2" rigid pipe, 1/2" copper pipe or an approved flex connector. Since some municipalities have additional local codes, it is always best to consult your local authorities and the current CAN/CGA - B149.1 or .2 installation code in Canada or the National Fuel Gas code ANSI Z223.1 in the U.S.A.



Important: Always check for gas leaks with a soap and water solution. Do not use open flame for leak testing.

Gas Specifications

Model	Fuel	Gas Control	Maximum Input
ZDV1001	Natural	Millivolt (adjustable)	27500 BTU High 17500 BTU Low
ZDV1001	Propane	Millivolt (adjustable)	27000 BTU High 20000 BTL Low

Gas Inlet	SIT (3/8" NPT) or White Rogers (1/2" NPT)		
Gas Supply Pressure	Minimum	Normal (inches water column)	Maximum
Natural Gas	4.5	7.0	9.0
Propane Gas	10.8	11.0	12.0
Manifold Pressure	Natural Gas	3.5 inches water column	
	Propane Gas	10.5 inches water column	
Orifice Size	Natural Gas (0-4500 ft)	Front 50, Rear 46	
	Liquid Propane (0-4500 ft)	Front 66, Rear 54	

Operating and Maintenance Instructions

This gas appliance should be installed by a qualified installer in accordance with local building codes and with current CAN/CGA - B149 (.1 or .2) installation codes for Gas Burning Appliances and Equipment.

Warning: When purging the gas line, the glass front must be removed.

For safe installation and operation note the following:

This appliance gives off high temperatures and should be located out of heavy traffic areas and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures of this appliance and should stay away to avoid burns or ignition of clothing.

Under no circumstances should this appliance be modified. Parts that have to be removed for servicing should be replaced prior to operating this appliance again.

Installation and any repairs to this appliance should be done by a qualified service person. A professional service person should be called to inspect this appliance annually. Make it a practice to have all of your gas appliances checked annually.

Never use your gas fireplace as a cooking device.

The Burner/Log Assembly has been engineered and permanently adjusted for proper flame control.

Do not alter gas orifice.

Periodically remove the logs from the grate assembly and vacuum any loose particles from the grate and burner areas.

Control compartments, burners and air passages in this appliance should be kept clean and free of dust and lint. Make sure that the gas valve and pilot light are turned off before you attempt to clean this unit.

The venting system (chimney) of this appliance should be inspected at least once a year and if needed, your venting system should be cleaned.

Keep the area around your appliance clear of combustible materials, gasoline and other flammable vapors and liquids.

This appliance should not be used as drying rack for clothing, nor should Christmas stockings or decorations be hung near it.

Under no circumstances should any solid fuels (wood, paper, cardboard, coal) be used in this appliance.

Note: It is normal for your gas fireplace to give off some odor the first time it is burned. This is due to the curing of the paint and any undetected oil from the manufacturing process.

Please ensure that your room is well ventilated - open all windows.

It is recommended that you burn your gas fireplace for at least four (4) hours the first time you use it without the fan on.

General Glass Information

Glass Cleaning

It will be necessary to clean the glass periodically. During start-up, condensation, which is normal, forms on the inside of the glass and causes dust, lint etc. to cling to the glass surface. Also, initial paint curing can deposit a slight film on the glass. It is therefore recommended that initially the glass be cleaned two or three times with non-abrasive common household glass cleansers and warm water. After that, the glass should be cleaned two or three times a season depending on the circumstances.

Cautions and Warnings

- Do not clean when the glass is hot.
- The use of substitute glass will void all product warranties.
- Care must be taken to avoid breakage of the glass.
- Do not operate this fireplace without the glass front or with a broken glass front.
- Do not strike or abuse glass.

Glass Replacement

REPLACEMENT GLASS FOR BOTH DIRECT VENT UNITS

Only Robax ceramic or coated Neaoceram glass may be used for replacement. Must be minimum 5mm thick.

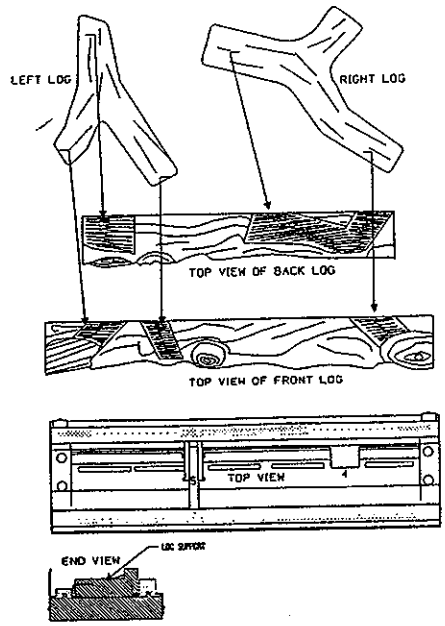
Removal of the Glass Door

1. Remove the two screws located behind upper grill.
2. To remove, pull frame forward and lift from bottom door retainer.
3. To replace glass, clean all materials from door frame. Using a high heat silicone (temperature-resistant to 500°F (260°C) apply a bead of approximately 1/4" to all four sides of frame and insert glass with new gasket. Frame should be on flat surface, with a small amount of weight pressing glass into silicone. Let dry approximately 15 to 20 minutes. The door can be re-installed by reversing Steps 1 & 2.

Log Assembly & Fan Kit

Log Assembly

1. Remove glass door by removing two (2) screws behind upper grills and lifting door off bottom door retainer.
2. Remove logs from carton (4) and inspect.
3. Rear log should be installed onto rear log holder attached to back of firebox above and to the rear of the burner pan.
4. Front log should be centered on the log supports between the front and rear burners. Push log against the back of the supports.
5. Top logs can then be placed across the front and back logs in the slots provided.
6. Purge lines and test pilot operation.
7. Spread supplied rocks evenly on front burner, being careful not to get rock in the crossover tube opening below the front log. Next, tear ember wool into small, thin, irregular pieces and place it evenly over rocks.
8. Replace glass door. The door must be installed before operating the fireplace.



Fan Kit Installation

Automatic On/Off Thermostat Controlled Fan Kit (Part # ZIFK)

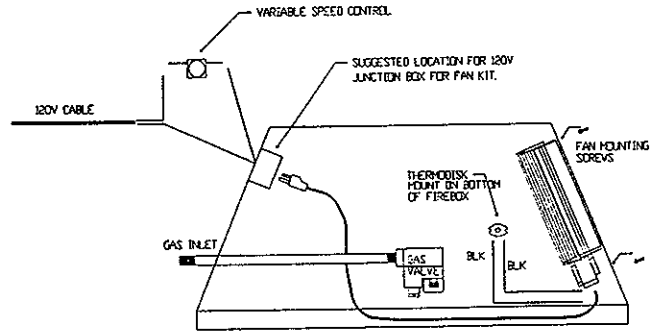
1. Open the lower front access cover.
2. Remove the two (2) sensor mounting screws located to the right of the control valve in the access area on the bottom side of the fire box. Secure the sensor unit under the fire box being sure to tighten the screws so the sensor is in contact with the fire box bottom.
3. Insert the two (2) #8x1/2 screws provided with the fan into the holes in the side of the fireplace opposite the gas line entry. Mount the fan using the keyhole slots in the fan body.
4. Install a junction box (type to except three prong plug) on the inside wall of the access area opposite the fan. Large holes are provided to allow wiring to enter the access area on the left of the unit. Connect the power, sensor and variable speed wall switch as shown in the wiring diagram.

Note: If the fan has been installed on the left of the unit it will be necessary to lengthen the sensor unit leads to reach the sensor. Install as per diagram.

5. Close lower access cover.
6. Turn the wall switch on (clockwise). Turn the fireplace on. Once the sensor unit reaches operating temperature in approximately 10 to 15 minutes the fall will turn on. The fan can be switched off, if desired, by turning the wall switch fully counter-clockwise.
7. To set the minimum fan speed if desired. Remove the variable speed switch from the wall mount. Turn the variable speed wall controller to its minimum setting (fully clockwise). Use the set screw on the side of the variable speed controller to increase or decrease the minimum fan speed. (It may be desirable to lower minimum fan speed to decrease the sound level created by the fan.) Reinstall switch into wall mount and cover with face plate.

Recommended Maximum Lead Length (Double Wire) When Using Wall Switch or Thermostat

Wire Size	Max. Length
14 GA.	100 FT.
16 GA.	64 FT.
18 GA.	40 FT.
20 GA.	25 FT.
22 GA.	16 FT.



Electrical Services

All optional fan kits are equipped with a 120V, 60Hz blower.

Note: All electric connections are to be made in accordance with CSA Standard C22.1 - Canadian Electrical Code part I or with the National Electrical Code, ANSI/NFPA 70 (latest addition) and/or in accordance with local codes.

Caution: Should this fan require servicing, the power supply must be disconnected.

Millivolt System, Lighting, & Burner Control

Lighting Instructions

1. Open access grill on bottom.
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.

3. Wait five (5) minutes to clear out any gas remaining in burner combustion chamber.
4. Turn knob on gas control counter-blockwise to "PILOT".
5. Push in control knob all the way and hold in. Immediately light the pilot with piezo-electric ignitor while continuing to push knob in for one (1) minute. Release knob. Pilot should remain lit. If it goes out, repeat steps 2 through 5 until pilot remains lit.
   - If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
   - If pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
6. Turn gas control knob counter-clockwise to "ON".
7. All models are supplied with a wall switch that turns the main burner on or off. If main burner does not light immediately when you turn the gas control valve to "ON" ensure that the wall switch is in the "ON" position.

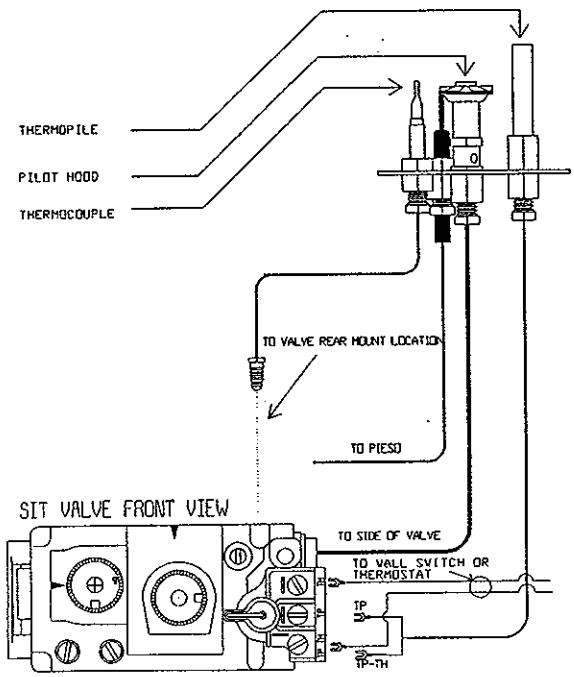
NOTE: The "On/Off" wall switch may be replaced with a wall thermostat allowing main burner to light and turn off automatically depending upon thermostat setting and room temperature.

8. Adjust the gas flow (flame height) with the HI/LOW gas control knob on valve.

NOTE: Standard gas control valve without HI/LOW is designed to be either fully on or fully off. It should never be used to vary flame height or adjust gas flow.

- LP valve is non-adjustable.
- NG valve is adjustable with HI/LOW control knob.

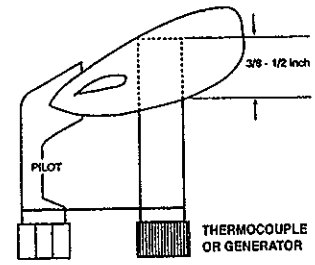
9. Close control access grill.



SIT

Pilot Burner Adjustment

1. Remove pilot adjustment cap.
2. Adjust pilot screw to provide proper sized flame.
3. Replace pilot adjustment cap.
4. Leak Test.

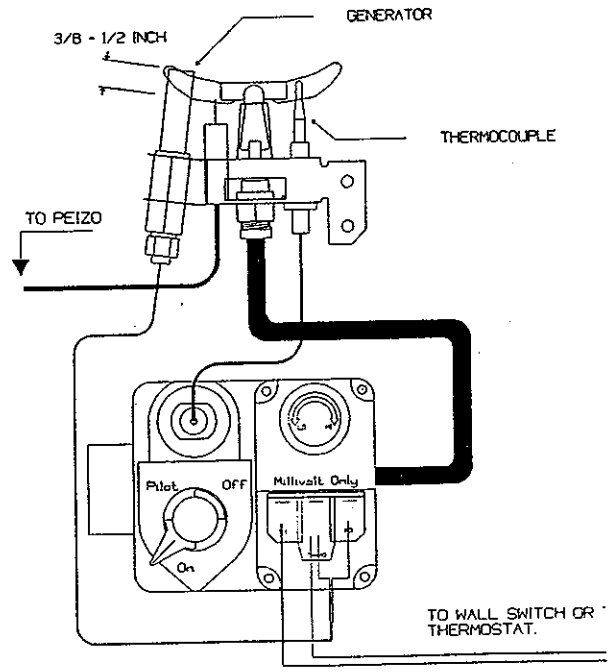


Caution: Do Not Wire 120 Volt Power To Millivolt Switches Or Thermostats.

To Turn Off Gas Appliance

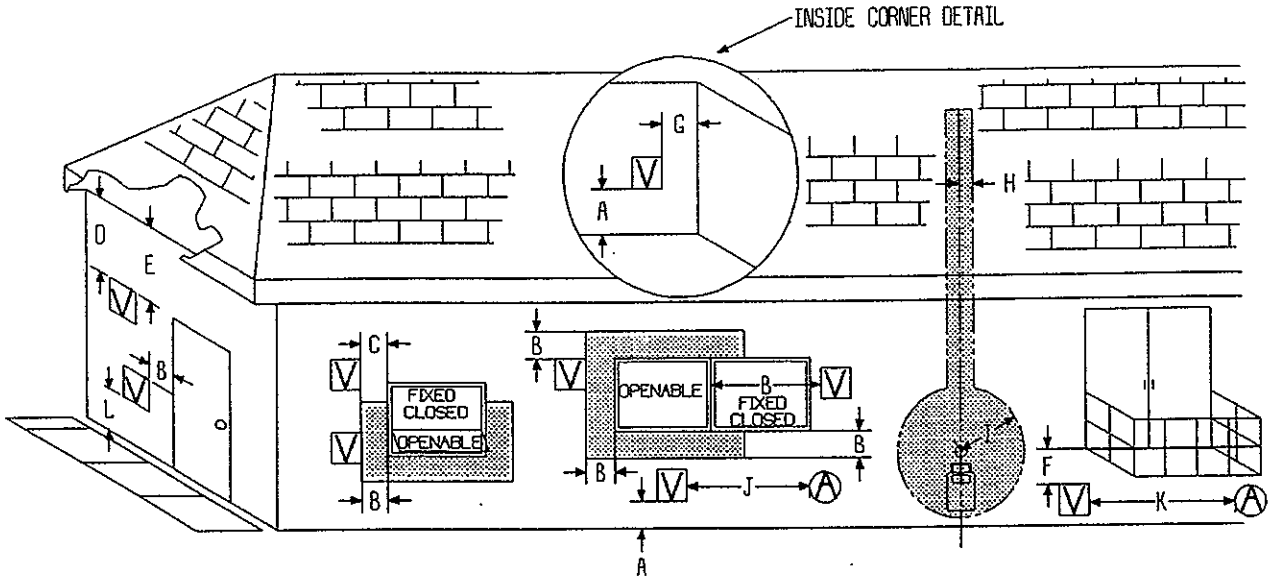
Turn off all electric power to the appliance if service is to be performed. Open control access grill.

Push in gas control knob slightly and turn clockwise to "OFF". Do not force. Close control access grill.



White Rogers

Vent Termination



V Vent Terminal

◯ Air Supply

☐ Area Where Terminal Not Permitted.

A - Clearance above grade, veranda, porch, deck, or balcony 12 inches (30cm) minimum.[1]

B - Clearance to window or door that may be opened. 12 inches (30cm) minimum for appliances 100 000 Btuh (30 kW) and lower.

C - Clearance to permanently closed window minimum 12 inches (30cm) recommended to prevent condensation on window.

D - Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (60cm) from the center line of the terminal. 18 inches (46cm) minimum.

E - Clearance to unventilated soffit 12 inches (30cm) minimum.

F - Clearance under veranda, porch, deck or balcony 12 inches[1] (30cm) minimum.[2]

G - Clearance from a perpendicular inside wall to the edge of the vent terminal is 14" (35.5cm).

H - Not to be installed above a meter/regulator assembly within 3 feet (90cm) horizontally from the center line of the regulator.

I - Clearance to service regulator vent outlet 6 feet (1.8m) minimum.[1]

J - Clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other appliance 12 inches (30cm) minimum for appliances 10 000 Btuh (30kW) and lower, 36 inches (90cm) minimum for appliances greater than 100 000 Btuh (30kW).

K - Clearance to a mechanical air supply inlet 6 feet (1.8m) minimum.[1]

L - Clearance above paved sidewalk or a paved driveway located on public property 7 feet (2.1m) minimum.[3]

NOTE: Clearances are to the terminal center line. Add 6 inches to clearances not indicated as measured from center line.

NOTE: Local Codes or Regulations may require different clearances.

Termination

It is imperative that the vent termination be located observing the minimum clearances as shown. There must not be any obstruction such as bushes, garden sheds, fences, decks or utility buildings within 24" from the front of the termination.

Do not locate termination where excessive snow or ice build-up may occur. Be sure to check vent termination area after snow falls and clear to prevent accidental blockage of venting system. When using snow blowers, make sure snow is not directed towards vent termination area.

General Venting Information

The gas fireplace is approved to be vented either through the side wall or vertically through the roof.

ONLY VENTING COMPONENTS SPECIFICALLY APPROVED AND LABELLED FOR THIS FIREPLACE MAY BE USED.

Minimum clearance between vent pipes and combustible materials is 1 inch (25mm).

NOTE: Clearance between vent pipe and combustibles at the wall thimble is 2 inches (50mm).

Venting terminal shall not be recessed into a wall or siding.

1 - As specified in CGA B149 installation codes (1991).

2 - Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.[1]

3 - A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings.

* Clearance between two terminations 3.5 - 4 ft. when building has two fireplaces.

Venting Routes And Components

Since it is very important that the vent system maintain its balance between the combustion air intake and the flue gas exhaust, certain limitations as to vent configurations apply and must be strictly adhered to.

The table showing the relationship between vertical and horizontal side wall venting will help to determine the various vent lengths.

The maximum horizontal vent run with the 90 degree bend to the fireplace flue outlet is 3 feet (91cm) Figure 1. The maximum horizontal vent run is 10 feet (305cm) when the vertical rise is 8 feet (244cm) Figure 2. Note: 1/4" vertical rise is required for every 12" of horizontal run.

The maximum number of 90 degree bends per side wall installation is two (2).

The maximum number of 45 degree bends per side wall installation is two (2) in the horizontal run. You must reduce the length of the horizontal run by 18 inches for each 45 degree bend.

Maximum vertical rise is 30 feet (9.2 meters).

Special Note: For each 45 degree bend installed in the horizontal run, the length of the horizontal run must be reduced by 18" (45cm). This does not apply if the 45 degree bends are installed on the vertical part of the vent system.

Example: If according to the table, the length of the horizontal run is 10 feet, and two 45 degree bends are required, the horizontal run length must be reduced to 7 feet.

Important: Always locate the fireplace in such a way that a minimum of offsets and/or horizontal runs are required. 1/4" vertical rise is required for every 12" horizontal run.

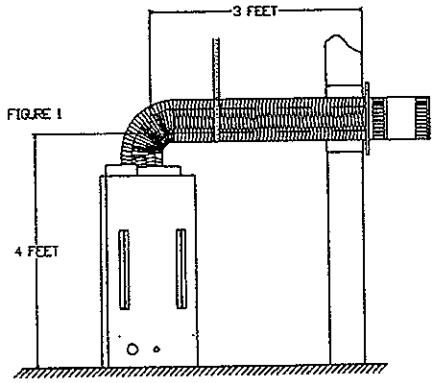


FIGURE 1

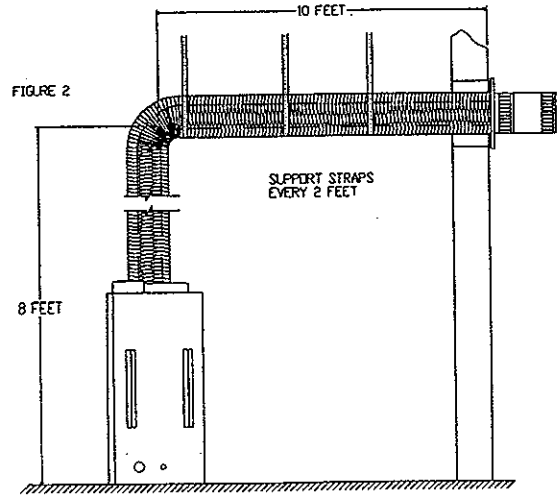


FIGURE 2

How To Use The Vent Table

1. Determine the height of the system and the number of bends required.
2. Having determined the vertical distance determine the maximum horizontal section allowed.
3. Vent table has been established for 90° horizontal/vertical runs. With use of flex pipe distance not having 90° bends will not fall into vent table standards. See Fig. B.

Venting Table For Top Vent Models

for venting to a maximum of 30 ft. (9.2meters)

Sidewall or Vertical Venting (See Fig. A & B)

Total Vertical		Max Total Horizontal	
Feet	Meters	Feet	Meters
4	1.2	3	0.9
5	1.5	4	1.2
6	1.8	8	2.4
7	2.1	13	4.0
8	2.4	15	4.6
9	2.7	15	4.6
10	3.0	15	4.6
11	3.4	15	4.6
12	3.7	15	4.6
13	4.0	15	4.6
14	4.3	15	4.6
15	4.6	15	4.6
16	4.9	14	4.3
17	5.2	13	4.0
18	5.5	12	3.7
19	5.8	11	3.4
20	6.1	10	3.0
25	7.5	5	1.5
30	9.0	0	0.0

Example A:

If the vertical dimension from the floor of the fireplace is 6.5ft, the horizontal run to the wall flange of the vent termination must not exceed 7.5ft.

NOTE: The final location of the fireplace must be such that the horizontal vent dimensions fall within those stated on the graph. The Maximum Vertical vent run is 30 feet (9.2meters).

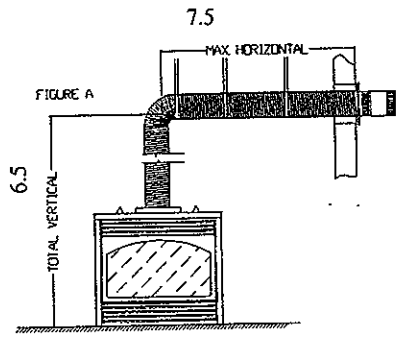


FIGURE A

Important: Minimum clearance between vent pipes and combustible materials is 1 inch (25mm).

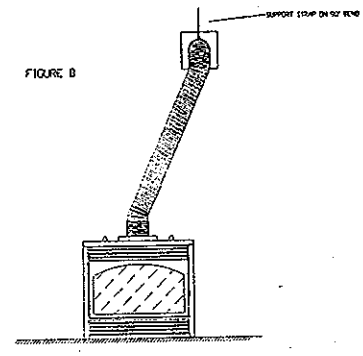


FIGURE B

General Vent Installation Information

Flex Pipe Venting

Flex pipe is shipped in unexpanded length. When installing pipe expand the lengths. Pipe can be expanded to twice their lengths e.g. 4ft. to 8ft.

Do not use more than 2 couplers to extend short pipes. Single sections are preferred in an installation attaching at the fireplace and termination.

Place the spring spaces provided approximately every two feet to stabilize 4" flex in the center of 7" flex. When forming bends place spring in bend or before and after. (See Fig. 1).

Horizontal runs require support metal straps every 2 feet. In off set installation support straps should be used to stabilize pipe.

Expand 4" and 7" flex pipe to the point that the 7" protrudes approximately 2 to 3 inches past outer wall and the 4" flex protrudes approximately 2 to 3 inches past the 7" flex. See Fig. 1. Attach the 4" pipe to the termination first and secure with sealant and clamp and screw then attach the 7" flex to the termination with caulking and clamp and screw. Termination may then be moved back to the other wall and attached to home screwing into the framing. Silicone around termination to waterproof. If siding shied is going to be used attach at this time using same attaching hole at tope of terminations after termination has been caulked for water proofing.

Use Term Hi Temp Sealant

Apply a bead of mill pack high temp caulking to all joints and clamp with screwtype clamps provided at fireplace, termination and any joint if joining any sections of pipe.

FRAMING DIMENSION

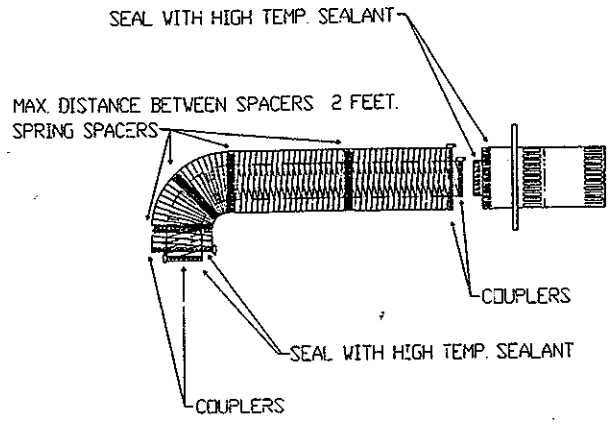
Combustible Wall

Cut a 11" hole through exterior wall and frame as shown below.

Non combustible Wall

Cut or drill 8.5" or 216mm diameter hole.

FIGURE 1



NOTE: It is critical to the proper and safe operation of this fireplace that on all connections the inner liner and the outer casing are both caulked with liberal amounts of sealant. Do not use any kind of tape or silicone other than that recommended in this manual. Mill Pac Sealant

Installation Of Top Flue Side Wall Venting

Step 1

Locate vent opening on the wall. Cut a hole through the exterior wall allowing for a 11" x 11" minimum inside framing or an 8 1/2" diameter hole if venting through a non-combustible wall. Center wall thimble over 11" x 11" framing to route vent pipes through thimble and wall. See Fig. 2.

Select the approximate vent length, precise measurement s are not needed as your flex pipe can expand to twice its shipped length for ease of installation.

Before joining pipes, apply a bead of high temperature sealant (Mill Pac) to end of pipe. Attach four inch (4") flue pipe to fireplace with sealant and clamp and screws first, then attach the seven inch (7") flange ring to fireplace with sealant and clamp and screws, and then attach the seven inch (7") pipe by the same method. Join pipes and secure joints with sealant and clamp.

Step 2

Mount vent termination and seal to wall using caulking around the wall thimble to weatherproof. After installing the vent termination, double check to make sure the pipe extends properly through wall thimble and into vent termination.

NOTE: Clearance to combustibles above an 90° bend is 4 inches (10.2cm)

Step 3

Support horizontal pipes every two (2) feet (61cm) with metal pipe straps. Re-check fireplace to make sure it is levelled and properly positioned, and nailed or screwed to the floor.

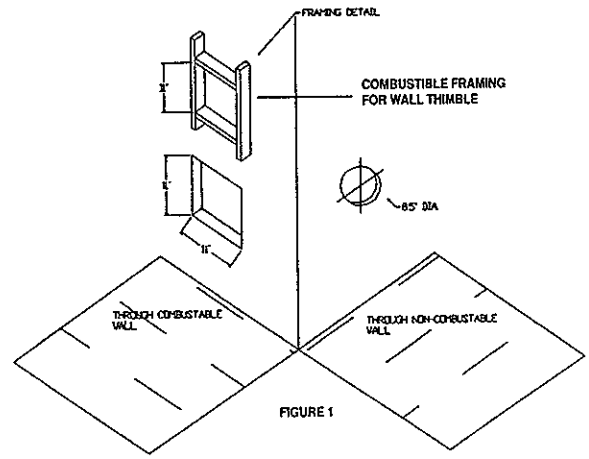


FIGURE 1

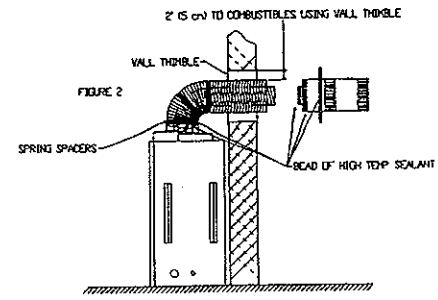
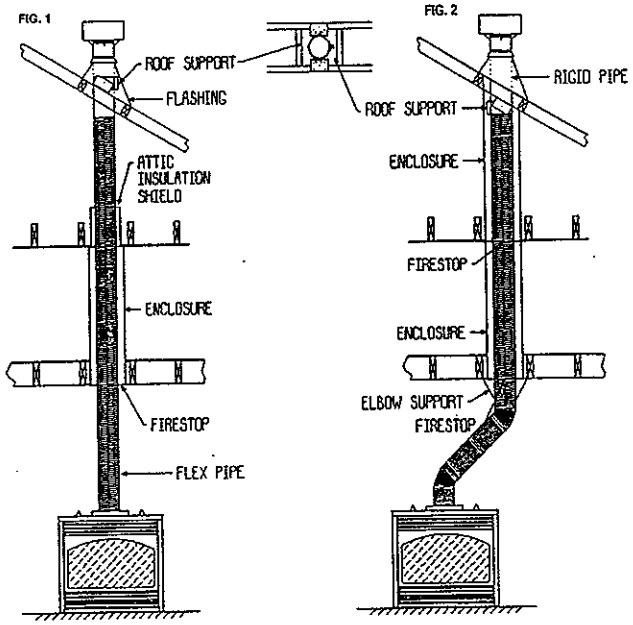
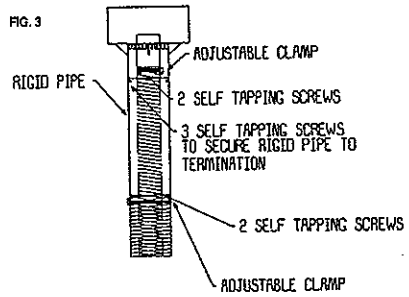


FIGURE 2

Venting Straight Up Through Roof

1. An Attic Insulation Shield must be installed where the vent passes from a lower living space into an attic space where the chimney is not enclosed. It is designed to keep insulation materials away from the chimney. See Fig. 1.
2. When installing the Attic Insulation Shield where the chimney passes from a living space to an attic space, install the shield from below and nail in place using 1" spiral nails.
3. A fire stop must be installed on the bottom side of the joists when passing through a ceiling or floor. If an attic insulation shield is to be used, a fire stop is not required.





Using Flex Bends

4. Avoid cutting joists by offsetting the flex pipe. See Fig. 2.
5. When using 45° bends an bend support is required directly above the highest bend.
6. Never install a bend in a joist area. Vent sections must pass vertically through framed joist areas.
7. Maximum vertical height of system should not exceed 30 feet.
8. Use roof support and 7" rigid pipe at roof level. Flex not permitted with in roof support. 7" pipe must be galvanized or stainless steel.
9. When penetrating the roof a rigid 7" pipe must be used. Attach the 7" flex to the 7" ridge with high temperature sealant, clamp security with adjustable clamp, and use two screws/washers either above or below camp assuring the flex and ridge pipe are secured. 4" flex pipe must be secured the same way with 2 screws and washers either above or below the clamp but must penetrate the 4" flex and 4" section of termination. Attach 7" ridge to 7" termination with sealant and screw with 3 sheet metal screws. (See Fig. 3).
10. Vertical termination clearance is 18" (inches) above the roof, measured from highest point of exit on the roof line.
11. Support vertical pipes to maintain minimum of one inch or greater clearances to combustibles.

Roof Flashing

Ensure that you have the proper roof flashing by checking your roof pitch using a level and two rulers, or by using a roof pitch card. See figure below.

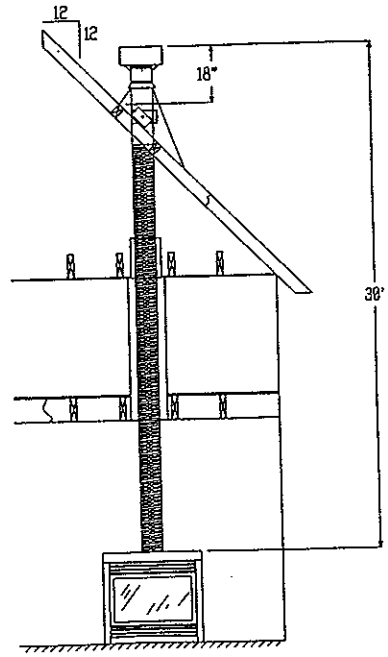
Slide a Roof Flashing suitable to your roof slope over the vent. Place the edge of the flashing plate that will be on the higher part of the roof slope under the shingles. Both the sides and the lower edge lay on top of the shingles.

NOTE: At the top edge of the flashing plate, lift the shingles and nail the plate to the roof deck, then cement the shingles to the plate with a suitable waterproof mastic.

Ensure that the chimney is plumb. Square up the flashing plate and nail in place to the roof deck. Use 12 nails with neoprene washers or cover the heads with a suitable waterproof mastic.

Wrap the storm collar around the vent above the flashing. Secure the ends together loosely with nut and bolt supplied. Slide the collar down the vent until it comes in contact with the flashing. Tighten the bolt and seal the Storm Collar to the vent with a suitable waterproof non-combustible mastic.

The flashing and storm collar should be painted to match the roof shingles. This will extend its life and improve the appearance. Clean, prime and paint the suitable painting products.



Installation of Back Vents

General Back Vent Installation and Specification

Straight Back max vent length 36" Vent Kit # ZDVHSK
45° Corner Max Number of 45° Bends One
Max Vent Length after 45° Bend 18"
See Fig. 1 & 2 Page 13

NOTE: Minimum clearance between vent pipes and combustible materials is one inch or 25mm.

Step 1

Locate vent opening on the wall. COMBUSTIBLE WALLS cut a 11" x 11" (280mm x 280mm) minimum hole and frame as shown. NON-COMBUSTIBLE WALL hole opening must be 8.5" (216mm) in diameter. Install wall thimble for vent pipe routing through wall. See Fig. 3.

Step 2

Place fireplace into place and attach vent pipes, four inch (4") first. Make sure pipes are pushed on securely. Champs, sealed and screwed.

Step 3

Straight Back Venting. Measure wall thickness. If wall is thinner than (1Ft.) then1 foot unexpanded length in ZDVHSK must be expanded add cut. 7" should extend post outer wall approximately 2" to 3" and 4" flex approximately 2" past the 7" flex then allows enough room to secure pipe to termination with high heat sealants, clamp and screw, the press termination back to outer wall and seal. Place spacer spring over 4" flex to stabilize it in the 7" flex if length is over a foot.

Step 4

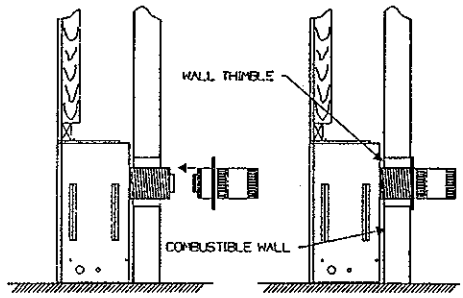


FIG. 3

Cover Back Venting. Only one - 45° bend per installation. Install as per above length. May not exceed Figure 1 page 13 and must be cut to comply.

Install wall thimble.Place fireplace into place and secure to floor with nailing tabs.

Step 5

Mount vent termination, make sure 4" and 7" pipes are siliconed. Caulk around wall thimble to weatherproof.

Corner Installation Location

NOTE: When the fireplace is installed cross corner it is necessary to bend. Use Kit ZDVHSK.

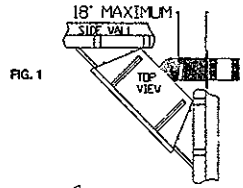


FIG. 1

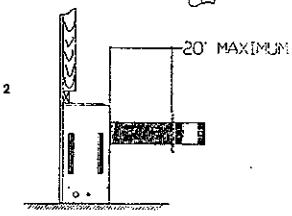


FIG. 2

Repair Parts List

Burner Assembly - Complete

1001 - BNGWR	NG Burner Assembly (with thermocouple wired directly to valve)
1001 - BLPWR	LP Burner Assembly (with thermocouple wired directly to valve)

Valve System Parts

S.I.T. Valve System

1001-P035SI	Electrode Sparker 915.035 SIT
1001-P129SI	Thermocouple 450M Unified SIT
1001-P157SI	Orifice Pilot NG 977.157 SIT
1001-P159SI	Orifice Pilot LP 977.159 SIT
1001-P188SI	Knob Ext. On/Off 916.188 SIT
1001-P189SI	Knob Ext. Hi-Lo 916.189 SIT
1001-P508SI	HT Cable 16~ 028.508 SIT
1001-P605SI	Pilot Burner LP 190.605 Unified, SIT
1001-P606SI	Pilot Burner NG 190.606 Unified, SIT
1001-P633SI	Valve Nova Liquid Propane Hi-Lo 0820633
1001-P634SI	Valve Nova Natural Gas Hi-Lo 0820634
1000-P136WR	Generator GO1A-524

Natural Gas Valve System for White Rogers

(with thermocouple wired directly to valve)

1000 - P133WR	Valve NG Hi/Lo	(36D33U-100)
1000 - P134WR	Pilot Burner	(E39A1)
1000 - P135WR	Thermocouple	(H19E924)
1000 - P136WR	Generator	(GO1A-524)
1000 - 206	Pilot Orifice	(F069-2060)

LP Gas Valve System for White Rogers

(with thermocouple wired directly to valve)

1000 - P101WR	Valve LP Hi/Lo	(36D33U-101)
1000 - P134WR	Pilot Burner	(E39A1)
1000 - P135WR	Thermocouple	(H19E924)
1000 - P136WR	Generator	(GO1A-524)
1000 - P104WR	Pilot Orifice LP	(F069-2462)

Miscellaneous Parts

1000 - 134	Gasket for Explosion Disk
1000 - 214	Piezo Electric Spark Ignitor
1000 - 218	On/Off Switch (Wall Mount)
1000 - 227	On/Off Cover Plate
1000 - 255 - 46	Back Burner Orifice NG - (0-4500 ft)
1000 - 255 - 50	Front burner Orifice NG - (0-4500 ft)
1000 - 255 - 54	Rear Burner Orifice Lp - (0-4500 ft)
1000 - 255 - 66	Front Burner Orifice LP - (0-4500 ft)
1000 - 301	Straight Door Frame

1000 - 302	Arch Door Frame
1000 - 305	Glass - Robax or coated Neoceram
1000 - 306	Gasket - Door
1000 - EMBER	Ember Kit
1000 - 700	Log Set (4 Pieces)
1000 - 085	Variable Speed Wall Mount Switch
2000 - 080	Sensor for Auto On/Off Fan Kit

Kingsman Fireplace Part Numbers and Specifications Options

Product Number	Description
~~ZDV1160~~	Zero Clearance Fireplace (natural gas) Top Vent, Arch Door
ZDV2560	Zero Clearance Fireplace PROPANE Top Vent, Arch Door
ZDV360	Zero Clearance Fireplace (natural gas) Back Vent, Straight Door For Rellins Bay Window
~~ZDV960~~	Zero Clearance Fireplace (natural gas) Back Vent, Arch Door
ZDV1560	Zero Clearance Fireplace (natural gas) Top Vent, Straight Door
ZDV1960	Zero Clearance Fireplace PROPANE Top Vent, Straight Door
ZDV1760	Zero Clearance Fireplace PROPANE Back Vent, Straight Door
ZDV2360	Zero Clearance Fireplace PROPANE Back Vent, Arch Door

Kingsman Fireplace Accessories

Catalog Number	Description
ZIFK	Fan Kit (Thermostatic On/Off)
ZIRL	Refractory Kit
ZIRC	Cordless Remote Control
ZIMT	Thermostat Wall Mount Millivolt

Kingsman Fireplace Options

Catalog Number	Description
	Grills
ZIGBL	Grills - Black
ZIGAB	Grills - Antique Brass
ZIGPB	Grills - Polish Brass
	Surround Kits
ZISAB	Surround - Antique Brass
ZISPB	Surround - Polish Brass
ZISSAB	Surround (Slim Line) - Antique Brass
ZISSPB	Surround (Slim Line) - Polish Brass
	Arch Door Frame
ZIADAB	Arch Door Frame - Antique Brass
ZIADPB	Arch Door Frame - Polish Brass

Kingsman Fireplace Venting

Catalog Number	Description
ZDVHSK	Horizontal Vent Starter Kit - (Back Vent) Starter Kit Contains: Horizontal Vent Termination, Wall Thimble, 4"-7" Dia. x 36" Flex Pipe Clamps, Silicone.
FDVVT15	Vertical Vent Termination only (8' to 15')
FDVVT30	Vertical Vent Termination only (15' to 30')
FDVHT	Horizontal Vent Termination
ZDVAIS	Attic Insulation Shield
ZDVVOS	Offset Support
ZDVFS	Firestop Spacer
ZDVRS	Roof Support
ZDVSS	Siding Shield
ZDVWT	Wall Thimble (Horizontal Venting)
ZDVAAF	Flashing 0/12 - 6/12
ZDVAF2	Flashing 6/12 - 9/12
ZDVAF3	Flashing 9/12 - 12/12
ZDVFK4	Flex Kit (4" & 7" Dia.) x 2' (Unexpanded) 4' Expanded
ZDVFK8	Flex Kit (4" & 7" Dia.) x 4' (Unexpanded) 8' Expanded
ZDVFK20	Flex Kit (4" & 7" Dia.) x 10' (Unexpanded) 20' Expanded *Kits are complete with spring stand-offs, clamps, silicone.
ZDV4FC	Flex Connector 4" Diameter
ZDV7FC	Flex Connector 7" Diameter
ZDV4FCL	Flex Clamp 4"
ZDV7FCL	Flex Clamp 7"

Trouble Shooting The Gas Control System

WARNING: BEFORE DOING ANY GAS CONTROL SERVICE WORK, REMOVE THE GLASS FRONT.

NOTE: Before troubleshooting the gas control system, be sure external gas shut off is in the "On" position.

Problem	Possible Causes	Corrective Action
Spark igniter will not light.	Defective or misaligned electrode at pilot.	Check for spark at electrode and pilot: if no spark and electrode wire is properly connected, replace igniter.
	Defective igniter (push-button)	Using a match, light pilot. If pilot lights, turn off pilot and push the red button again. If pilot will not light - check gap at electrode and pilot should be 1/8" to 1/4" to have a strong spark.
Pilot will not stay lit after carefully following lighting instructions.	Defective pilot generator, remote wall switch, or thermocouple (flame switch where applicable)	Check pilot flame. Must impinge on generator and thermocouple. Clean and/or adjust pilot for maximum flame impingement on generator Be sure wire connections from generator at gas valve terminals are tight and generator is fully inserted into pilot bracket. One of the wall switch wires may be grounded. Remove all switch wired from valve terminals if pilot now stays lit, trace wall switch wiring for ground. May be grounded to appliance or gas supply. Check generator with millivolt meter. Take reading at generator terminals of gas valve. Should read 325 millivolts minimum while holding valve knob depressed in pilot position and wall switch "off" Replace faulty generator if reading is below specified minimum.
	Defective valve magnet.	Turn valve knob on "On", place wall switch on "On". Millivolt meter should read greater than 100mV. If the reading is okay and the burner does not come on, replace the gas valve.
Pilot burning, no gas to burner, Valve knob "ON", Wall Switch "ON"	Wall switch or wires defective.	Check wall switch and wires for proper connections. Jumper wire across terminals at wall switch. If burner comes on, replace defective wall switch. If okay, jumper wires, across wall switch wires at valve. If burner comes on, wires are faulty or connections are bad.
	Generator may not be generating sufficient voltage.	Re-check symptom #2.
	Plugged burner orifice.	Check burner orifice for stoppage and remove.
	Defective automatic valve operator.	Remove wall switch wires from gas valve. Install jumper wires from top bottom terminals of gas valve. Turn valve on "ON". If main burner does not light, replace valve.
Frequent Pilot outage problem.	Pilot flame may be too low or blowing (high) causing the pilot safety to drop out.	Clean and/or adjust pilot flame for maximum flame impingement on generator and thermocouple.