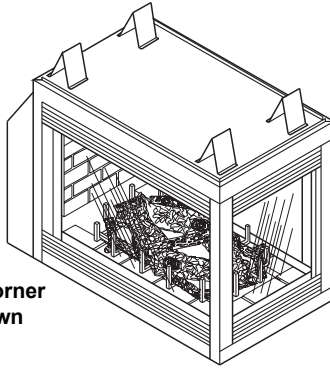




## DIRECT-VENT CORNER UNIT FIREPLACE OWNER'S OPERATION AND INSTALLATION MANUAL



Right Side Corner  
Model Shown



We recommend that our products be installed and serviced by professionals who are certified in the U.S. by NFI (National Fireplace Institute).  
[www.nficertified.org](http://www.nficertified.org)

### NATURAL GAS MODELS (V)DVF36TCR(E) AND (V)DVF36TCL(E) (V)DVF36TCR(-HA) AND (V)DVF36TCL(-HA) PROPANE/LP GAS MODELS (V)DVF36TCR(P)(E) AND (V)DVF36TCL(P)(E)

**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.

**INSTALLER:** Leave this manual with the appliance  
**CONSUMER:** Retain this manual for future reference.

For more information, visit [www.desatech.com](http://www.desatech.com)

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## SAFETY INFORMATION

**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency or the gas supplier.


This appliance may be installed in an aftermarket,\* permanently located, manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

\* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer

**This Direct-Vent Gas Fireplace Heater series is intended for use with natural or propane/LP gas only. Do not attempt to burn any solid fuels in these appliances.**

**State of Massachusetts:** The installation must be made by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.


 **WARNING:** This product contains and/or generates chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

**IMPORTANT:** Check local codes before installing this fireplace.

**IMPORTANT:** Read this owner's manual carefully and completely before trying to assemble, operate or service this fireplace. Improper use of this fireplace can cause serious injury or death from burns, fire, explosion, electrical shock and carbon monoxide poisoning.

## SAFETY INFORMATION

*Continued*

 **DANGER: Carbon monoxide poisoning may lead to death!**

Before beginning the installation of the fireplace, read these instructions through completely.

- This DESA fireplace and its components are safe when installed according to this installation manual. Unless you use DESA components, which have been designed and tested for the fireplace system, you may cause a fire hazard.
- The DESA warranty will be voided by and DESA disclaims any responsibility for the following actions:
  - a) Modification of the fireplace, components, doors, air inlet system and damper control.
  - b) Use of any component part not manufactured or approved by DESA in combination with a DESA fireplace system.
  - c) Installation and/or operation in a manner other than instructed in this manual.
  - d) Burning of anything other than the type of gas approved for use in this gas appliance.

This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70* or *CSA C22.1 Canadian Electrical Code for Canada*.

The installation must conform to local codes, or in the absence of local codes, with the *National Fuel Gas Code ANSI Z223.1 (CAN B149)* in CANADA)

This appliance complies with ANSI Z21.50, and CSA 2.22-2000 as a VENTED GAS FIREPLACE and is listed and tested by the Canadian Standards Association.

Proper installation is the most important step in ensuring safe and continuous operation of the fireplace. Consult the local building codes as to the particular requirements concerned with the installation of all factory built fireplaces.

This fireplace must be installed by a qualified (certified or licensed) service person. It has a sealed gas combustion chamber that uses a millivolt gas control valve with a millivolt ignition system.

Models (V)DVF36TCR, (V)DVF36TCRP, (V)DVF36TCL and (V)DVF36TCLP are direct-vent fireplaces with sealed combustion chambers that use a millivolt gas control valve with a millivolt ignition system.


Models (V)DVF36TCRE, (V)DVF36TCRPE, (V)DVF36TCLE and (V)DVF36TCLPE use a direct spark ignition with a 24 VAC control module. All models have HI/LO valve that controls the flame height.

Fan Kit models DVFFBK and DVFFBKT are available for these units as an option. If you are uncertain as to what gas your unit is equipped for, please check the rating plate located in the interior of the appliance opening or consult your local distributor of DESA products.


**Carbon Monoxide Poisoning:** Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness or nausea. If you have these signs, the fireplace may not be working properly. **Get fresh air at once!** Have fireplace serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol and those at high altitudes.

**Natural and Propane/LP Gas:** Natural and propane/LP gas are odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

 **WARNING: Any change to this fireplace or its controls can be dangerous. Do not modify this fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.**

 **WARNING: Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this fireplace.**

 **WARNING: This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.**

## SAFETY INFORMATION

*Continued*

**⚠ WARNING: Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.**

**Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**

**Do not place clothing or other flammable material on or near the appliance. Never place any objects on the appliance.**

**Do not use this fireplace to cook food or burn paper or other flammable material.**

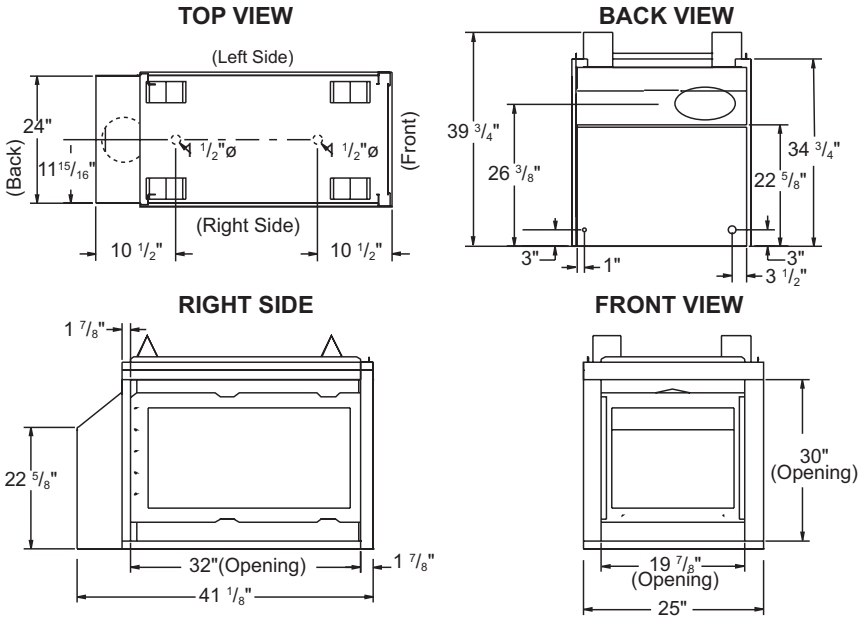
**This fireplace reaches high temperatures. Keep children and adults away from hot surface to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surface to cool before touching.**

**Carefully supervise young children when they are in the room with fireplace.**

**Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapor or liquids. Do not run fireplace where these are used or stored.**

- For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
- If you smell gas
  - shut off gas supply
  - 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.
- Never install the fireplace
  - in a recreational vehicle
  - in windy or drafty areas where curtains or other combustible (flammable) objects can make contact with the fireplace front
  - in high traffic areas
- Turn fireplace off and let cool before servicing, installing or repairing. Only a qualified service person should install, service or repair this fireplace. Have fireplace inspected annually by a qualified service person.
- You must keep control compartments, burners and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust from carpeting, bedding material, etc. Turn off the gas valve and pilot light before cleaning fireplace.
- Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. See *Operating Guidelines and Maintenance Instructions*, page 25.
- Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on fireplace nameplate.
- Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service person to arrange for replacement of the unit.
- Do not operate fireplace if any log is broken.
- Do not operate fireplace with glass door removed, cracked or broken.
- Provide adequate clearances around air openings.
- Fireplaces with the suffix of -HA have been designed to operate at altitudes of 4000 feet and above. For horizontal installations above 2,000 feet, it is recommended that a 12" extension pipe be added before starter elbow (see *High Altitude Installation*, page 17).

## DIMENSIONS



**Figure 1 - Dimensions for Left/Right Side Corner Unit**

## PRE-INSTALLATION PREPARATION

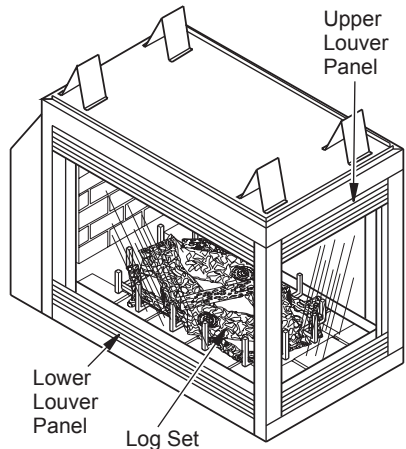
### LOCATION AND SPACE REQUIREMENTS

Determine the safest and most efficient location for your DESA direct-vent fireplace. Make sure that rafters and wall studs are not in the way of the venting system. Choose a location where the heat output is not affected by drafts, air conditioning ducts, windows or doors. Be aware of all restrictions and precautions before deciding the exact location for your fireplace and termination cap.

When deciding the location of your fireplace, follow these rules:

- A projection may be ideal for a new addition on an existing finished wall. Refer to horizontal termination configurations on page 13 or vertical configurations on page 15.
- Do not connect this fireplace venting to a chimney flue serving a separate solid-fuel burning fireplace or appliance.
- Due to high temperatures, do not locate this fireplace in high traffic areas, windy or drafty areas or near furniture or draperies.

- Never obstruct the front opening of the appliance or flow of combustion and ventilation air. Keep control compartments accessible.
- Do not locate close to where gasoline or other flammable liquids may be stored. The appliance must be kept clear and free from combustible materials.



**Figure 2 - Direct-Vent Fireplace**

# PRE-INSTALLATION PREPARATION

*Continued*

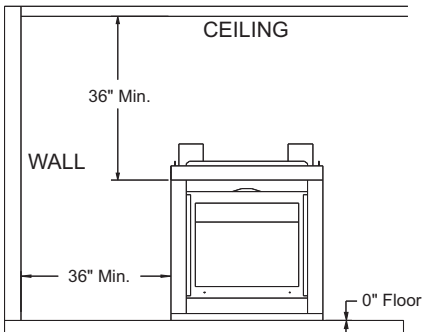
## CLEARANCES

Minimum clearances to combustibles for the fireplace are as follows:

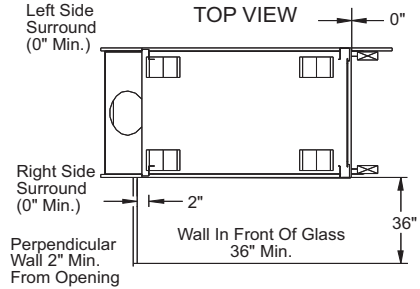
Back and Sides of Surround*	0"
Vent Surface (Side and Bottom)	1"
Top Vent Surface (Horizontal Run)	2"
Ceiling to Opening	36"
Floor	0"
Wall to Front of Glass	36"
Perpendicular Wall to Opening of Unit	2"
Top Spacer	0"

\* For back and sides of fireplace, do not pack with insulation or other materials. Zero inch clearance to combustible materials are for framing purpose only.

**NOTICE: This fireplace is intended for use as supplemental heat. Use this fireplace along with your primary heating system. Do not install this fireplace as your primary heat source. If you have a central heating system, you may run system's circulating blower while using fireplace. This will help circulate the heat throughout the house. In the event of a power outage, you can use this fireplace as a heat source.**



**Figure 3 - Minimum Clearances**

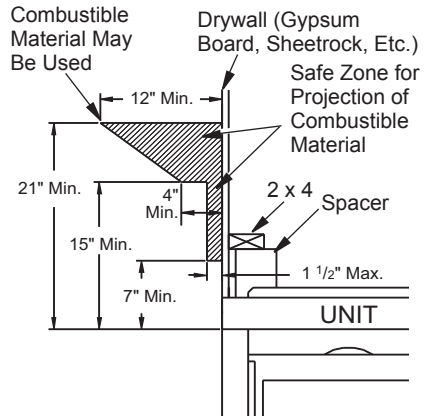


**Figure 4 - Minimum Clearances**

## MANTEL CLEARANCES

Woodwork, such as wood trims, mantels and other combustible materials should not be placed within 7" of the opening of this fireplace (see Figure 5).

Combustible material above projecting more than 1 1/2" from the appliance's front face must not be placed less than 15" from the opening of the appliance (ref. *NFPA Standard 211 Sec. 7-3.3.3*).



**Figure 5 - Mantel Clearances**

## FRAMING

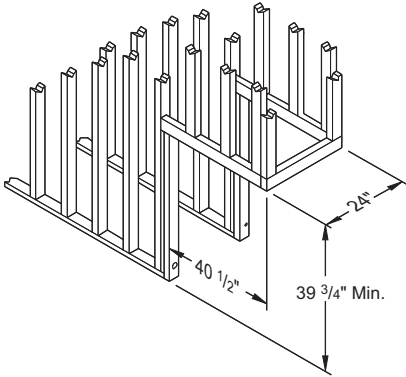
Once the final location has been determined, observing clearances for the vent termination, you may construct framing using dimensions shown in Figures 6 to 10 on page 7 depending on your particular installation

If the appliance is to be installed directly on carpeting, tile (other than ceramic), or any combustible material other than wood flooring, the appliance must be installed upon a metal or wood panel extending the full width and depth of the appliance. There are three holes on each side of the bottom of the unit where screws can be used to secure the unit to the floor.

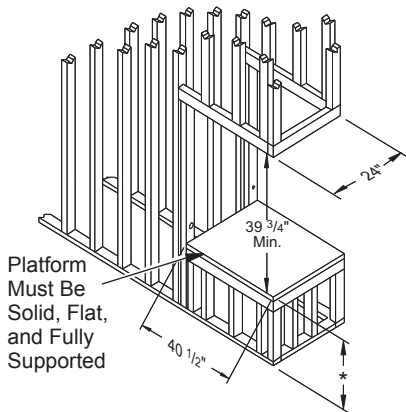
# PRE-INSTALLATION PREPARATION

## Continued

The gas supply line may be connected through the side framing or alternately through the lower sub-flooring or a platform base if provided (see Figures 8). Depending on installation, refer to appropriate illustrations.

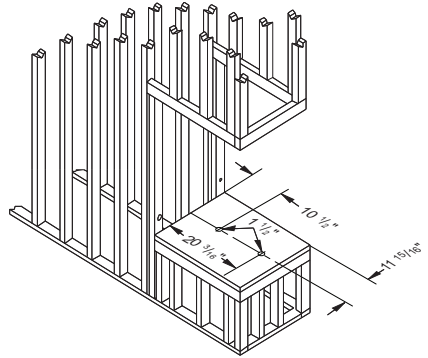


**Figure 6 - Rough Opening for Fireplace**

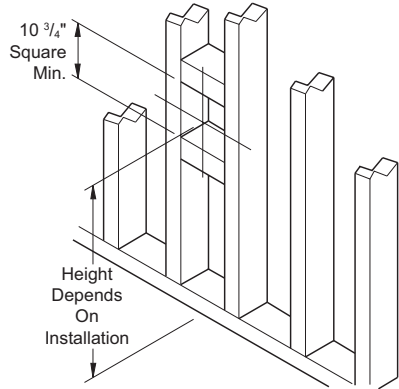


\* As required by design as long as ceiling clearance is maintained.

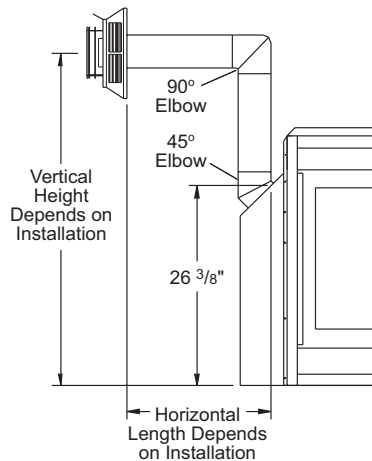
**Figure 7 - Rough Opening for Installing Fireplace on Platform**



**Figure 8 - Alternate Gas Supply Location**



**Figure 9 - Rough Opening for Installing Exterior Vent Terminal**



**Figure 10 - Vent Opening Height**

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## GENERAL VENTING

These models are approved for use with DESA 58 Series, rigid type direct vent pipe as supplied by DESA or with approved types of flexible vent pipe (not supplied) when appropriately sized for an 8" outer and 5" inner diameter application.

Your fireplace is approved to be vented either horizontally through a side wall, or vertically through a roofline using the following guidelines:

- Only use DESA supplied or approved types of venting components or kits. Do not mix different types of vent components, modify vent components or custom fabricate vent components for use in any one installation.
- Minimum clearance between vent pipes and combustible materials is 1", except where stated otherwise.
- Combustible material may be flush with the top front of fireplace with a maximum thickness of 3/4".
- Do not recess venting terminals into a wall or siding.
- Do not install vent terminals below grade level. Maintain a minimum height of 12" above snow line.
- Do not terminate venting system into an attic or garage.

- If using a venting configuration of only horizontal venting with no vertical run, a 1/4" rise for every 12" of run toward the termination is required.
- There must not be any obstruction such as bushes, garden sheds, fences, decks, or utility buildings within 24" from the front of the termination cap.
- Do not locate termination cap where excessive snow or ice build up may occur. Be sure to clear vent termination area after snow falls to prevent accidental blockage of venting system. When using snow blowers, do not direct snow towards vent termination area.

## VENT TERMINATION CLEARANCES

The final position of your appliance depends on the location of the vent termination in relation to the clearances that must be observed as shown in Figure 11, page 9.

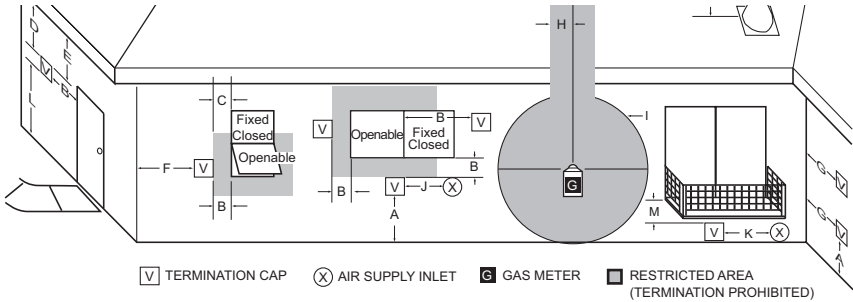
You may avoid extra framing by positioning your fireplace against an already existing framing member. The back of the fireplace may be positioned directly against a combustible wall.

\*Check with local codes or with the *CANCGA B149.1 or B149.2 Installation Codes* for Canada installations. In the USA, follow the current *National Fuel Gas Fuel Gas Code, ANS Z223.1* also known as *NFPA 54*.



# GENERAL VENTING

Continued



- A = clearance above grade, veranda, porch, deck, or balcony [\*12" (30.5 cm) minimum]
- B = clearance to window or door that may be opened [6" (15 cm) min. for 10,000 Btu or less; 9" (23 cm) in US if between 10,000 and 50,000; 12" (30 cm) in Canada if between 10,000 and 100,000; 12" (30 cm) in US if greater than 50,000, 36" (91 cm) in Canada if greater than 100,000]
- C = clearance to permanently closed window [minimum 12" (30.5 cm) recommended to prevent condensation on window]
- D = vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 24" (61 cm) from the center-line of the terminal [18" (45.7 cm) minimum]
- E = clearance to unventilated soffit [12" (30.5 cm) minimum]
- F = clearance to outside corner (see below)
- G = clearance to inside corner (see below)
- H = \*not to be installed above a meter/regulator assembly within 36" (91.4 cm) horizontally from the center line of the regulator
- I = clearance to service regulator vent outlet [\*72" (182.9 cm) minimum]
- J = clearance to non-mechanical air supply inlet to building or the combustion air inlet to any other fireplace [6" (15 cm) min. for 10,000 Btu or less; 9" (23 cm) in US if between 10,000 and 50,000; 12" (30 cm) in Canada if between 10,000 and 100,000; 12" (30 cm) in US if greater than 50,000, 36" (91 cm) in Canada if greater than 100,000]
- K = clearance to a mechanical air supply inlet [\*In Canada, 6 ft. (1.83m) minimum; In US 3 ft. (91 cm) above if within 10 ft. (3 m) horizontally]
- L = † clearance above paved side-walk or a paved driveway located on public property [\*84" (213.3 cm) minimum]
- M = clearance under veranda, porch, deck [\*12" (30.5 cm) minimum ‡]
- N = clearance above a roof shall extend a minimum of 24" (61 cm) above the highest point when it passes through the roof surface and any other obstruction within a horizontal distance of 18" (45.7 cm)
- † 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/CSA B149 (.1 or .2) Installation Codes (1991) for Canada and U.S.A.
- Note: Local codes or regulations may require different clearances

## Termination Clearances for Buildings with Combustible and Noncombustible Exteriors

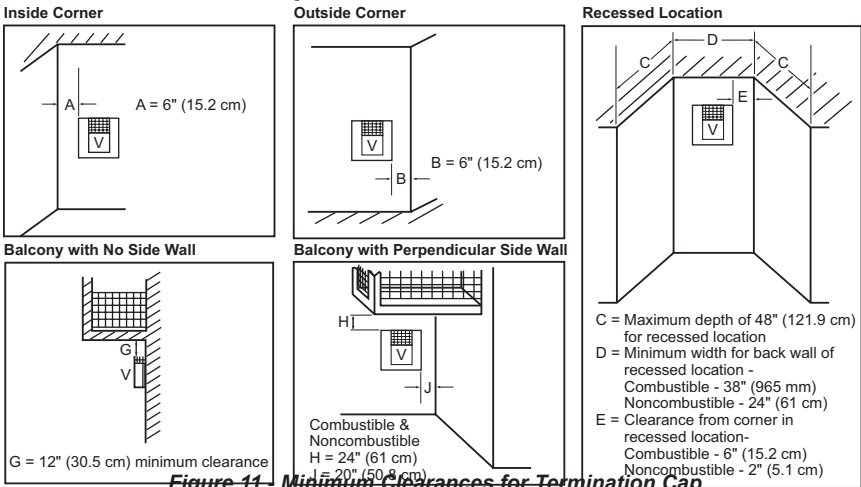


Figure 11 Minimum Clearances for Termination Cap

## VENTING INSTALLATION INSTRUCTIONS

**⚠ WARNING:** Read all instructions completely and thoroughly before attempting installation. Failure to do so could result in serious injury, property damage or loss of life.

**⚠ WARNING:** Seal all connections with high temperature silicone every time a vent connection is made. Before joining elbows or pipes, apply a bead of high temperature silicone sealant to the male end of the elbow or pipe. High temperature silicone must also be used to re-seal any connections after maintenance to venting system.

**NOTICE:** Failure to follow these instructions will void the warranty.

**NOTICE:** Do not seal termination cap to vent pipe. Cap must be removable for vent inspection and maintenance.

### INSTALLATION PRECAUTIONS

Consult local building codes before beginning the installation. The installer must make sure to select the proper vent system for installation. Before installing vent kit, the installer must read this fireplace manual and vent kit instructions.

Only a qualified service person should install venting system. The installer must follow these safety rules:

- Wear gloves and safety glasses for protection
- Use extreme caution when using ladders or when on roof tops
- Be aware of electrical wiring locations in walls and ceilings

The following actions will void the warranty on your venting system:

- Installation of any damaged venting component
- Unauthorized modification of the venting system (Do not cut or alter vent components)

- Installation of any component part not manufactured or approved by DESA
- Installation other than as instructed by these instructions

**⚠ WARNING:** This gas fireplace and vent assembly must be vented directly to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance. Each direct-vent gas appliance must use a separate vent system. Do not use common vent systems.

### INSTALLATION PLANNING

There are two basic types of direct-vent installation:

- Horizontal Termination
- Vertical Termination

It is important to select the proper length of vent pipe for the type of termination you choose. It is also important to note the wall thickness.

**For Horizontal Termination:** Select the amount of vertical rise desired. The horizontal run of venting must have 1/4" rise for every 12" of run towards the termination.

**⚠ WARNING:** Never run the vent downward as this may cause excessive temperatures which could cause a fire.

You may use one or two 90° elbows in this vent configuration. See *Horizontal Termination Configurations* on page 13.

**For Vertical Termination:** Measure the distance from the fireplace flue outlet to the ceiling. Add the ceiling thickness, the vertical rise in an attic or second story, and allow for sufficient vent height above the roof line. You may use one or two 90° elbows in this vent configuration. See *Vertical Termination Configurations* on page 16.

**Note:** You may use two 45° elbows in place of a 90° elbow. You must follow rise to run ratios when using 45° elbows.

For two-story applications, firestops are required at each floor level. If an offset is needed in the attic, additional pipe and elbows will be required.

You may use a chase with a vent termination with exposed pipe on the exterior of the house. See *Installing Vent System in a Chase*, page 11.

# VENTING INSTALLATION INSTRUCTIONS

*Continued*

Your DESA direct-vent fireplace has been tested for a minimum 3' rise with a maximum 11" wall thickness. Any horizontal application longer than 12" must provide a minimum of 1 foot of vertical rise for every 3 feet of horizontal run. The maximum horizontal run is 20' with 8' vertical rise (see *Installation for Horizontal Termination*). The maximum vertical run is 30' (see *Installation for Vertical Termination*, page 114).

## Installing Vent System in a Chase

A chase is a vertical box-like structure built to enclose venting that runs along the outside of a building.

**NOTICE: Treatment of firestops and construction of the chase may vary from building type to building type. These instructions are not substitutes for the requirements of local building codes. You must follow all local building codes.**

*Note:* When installing in a chase, you should insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Minimum clearance between vent pipes and combustible materials such as insulation is 1".

After framing the chase (see *Framing* on page 6) install the vent system by following the installation instructions.

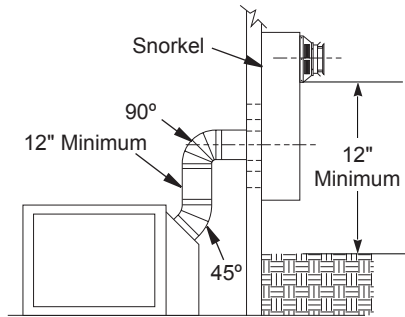
## INSTALLATION FOR HORIZONTAL TERMINATION

1. Determine the route your horizontal venting will take. *Note:* The location of the horizontal vent termination on the exterior wall must meet all local and national building codes and must not be blocked or obstructed.

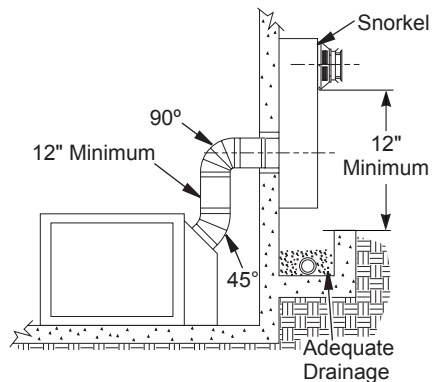
**WARNING: Do not recess vent terminal into a wall or siding. This is a fire hazard.**

Snorkel terminations are available for terminations requiring a vertical rise on the exterior of the building (see Figures 12 and 13). Snorkel kits are available for rigid pipe applications only to provide a 14" rise and a 36" rise (see page 17). Follow the same installation procedures used for standard horizontal terminations. If installing the snorkel termination to raise the vent termination from below grade level such as in a basement installation, you must provide proper drainage to prevent water from entering the snorkel termination (see Figure 13). Do not back fill around the snorkel termination.

2. Rigid vent pipes and fittings have special twist-lock connections. Assemble the desired combination of pipe and elbows to the appliance adaptor with pipe seams oriented towards the wall or floor.



**Figure 12 - Snorkel Termination**



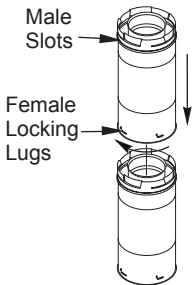
**Figure 13 - Snorkel Termination with Drainage Pipe**

# VENTING INSTALLATION INSTRUCTIONS

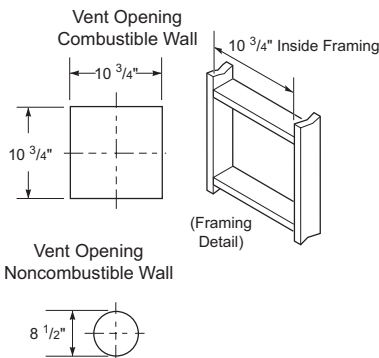
## Continued

**Twist-lock Procedure:** The female ends of the pipes and fittings have four locking lugs (indentations). These lugs will slide straight into matching slots on the male ends of adjacent pipes and fittings. (All connections must be sealed with high temperature silicone sealant as specified in the second warning statement on page 10.) Push the pipe sections together and twist one section clockwise approximately one-quarter turn until the sections are fully locked. See Figure 14. **Note:** Horizontal runs of vent must be supported every three feet. Use wall straps for this purpose.

- Attach vent pipe assembly to the fireplace using twist lock connections. Set fireplace in front of its permanent location to insure minimum clearances. Mark the wall for a  $10 \frac{3}{4}$ " square hole (for noncombustible material such as masonry block or concrete, a  $8 \frac{1}{2}$ " diameter hole is acceptable). See Figure 15. The center of the hole should line up with the centerline of the rigid vent pipe. Cut a  $10 \frac{3}{4}$ " x  $10 \frac{3}{4}$ " square hole through combustible exterior wall ( $8 \frac{1}{2}$ " diameter hole if noncombustible). Frame as necessary.



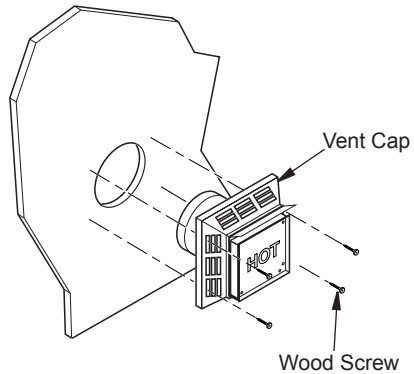
**Figure 14 - Vent Pipe Connections**



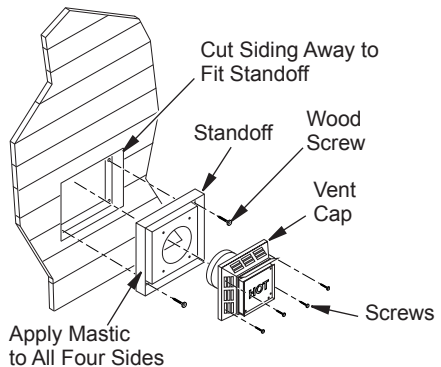
**Figure 15 - Vent Opening Requirements**

- Noncombustible Exterior Wall:** Apply a bead of non-hardening mastic around the outside edge of the vent cap. Position the vent cap in the center of the hole on the exterior wall with the arrow on the vent cap pointing up. Attach the vent cap with four wood screws provided (see Figure 16). **Note:** Replace the wood screws with appropriate fasteners for stucco, brick, concrete, or other types of siding.

**Combustible Exterior Wall:** For vinyl siding, stucco, or wood exteriors, a siding standoff must be installed between the vent cap and exterior wall. The siding standoff prevents excessive heat from damaging siding materials. Siding materials must be cut to accommodate standoff. Bolt the vent cap to the standoff. Apply non-hardening mastic around outside edge of the standoff. Position the standoff/cap assembly in the center of the square hole and attach to exterior wall with wood screws provided (see Figure 17). The siding standoff must sit flush against the exterior fascia material.



**Figure 16 - Installing Horizontal Vent Cap (Noncombustible Exterior)**

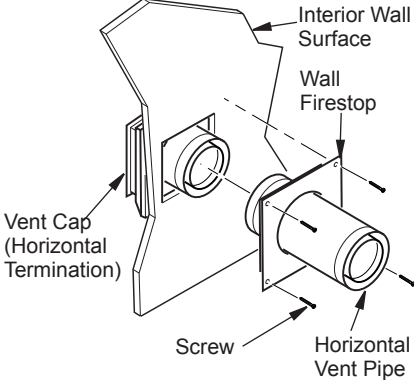


**Figure 17 - Installing Siding Standoff (Combustible Exterior Wall)**

# VENTING INSTALLATION INSTRUCTIONS

*Continued*

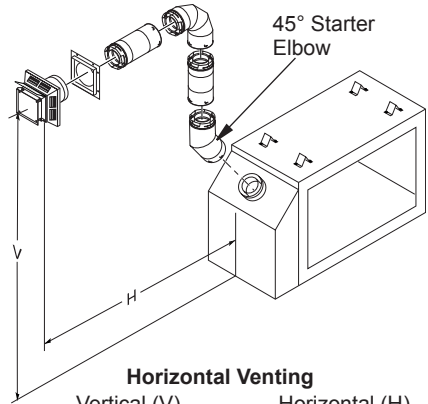
- Combustible Exterior Wall Only:** Slide interior wall firestop over vent pipe before connecting horizontal run to vent cap (see Figure 18).



**Figure 18 - Connecting Vent Cap with Horizontal Vent Pipe**

## Horizontal Termination Configurations

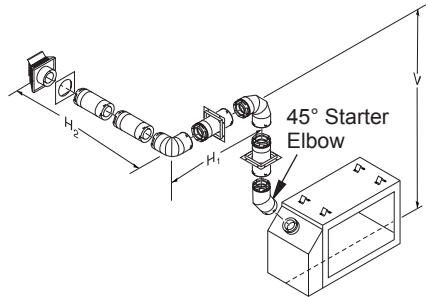
Figures 19 and 20 show different configurations for venting with horizontal termination. Each figure includes a chart with vertical minimum/maximum and horizontal maximum dimensions which must be met. All connections must be sealed with high temperature silicone sealant as specified in the second warning statement on page 11. All horizontal terminations require 1/4" rise per 12" of horizontal run. You must add 1/4" of vertical height (V) in the following tables for each foot of horizontal run (H).



<u>Vertical (V)</u>	<u>Horizontal (H)</u>
49.5" min.*	17" max.*
60" min.	77" max.
72" min.	101" max.
84" min.	125" max.
132" min.	149" max.

(45° elbow, 1' vertical pipe, 90° elbow)

**Figure 19 - Horizontal Termination Configuration for Rigid Venting Using One 90° Elbow**



## Venting with Two 90° Elbows

<u>Vertical (V)</u>	<u>Horizontal (H1) + Horizontal (H2)</u>
5' min.	4' max.
6' min.	8' max.
7' min.	10' max.
8' min.	15' max.
20' max.	20' max.

**Figure 20 - Horizontal Termination Configuration for Rigid Venting Using Two 90° Elbows with Termination at 90° with Fireplace**

# VENTING INSTALLATION INSTRUCTIONS

*Continued*

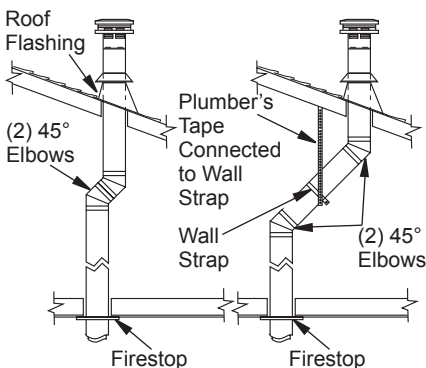
## INSTALLATION FOR VERTICAL TERMINATION

**NOTICE: Use rigid pipe only. Flex venting is not to be used with a vertical termination.**

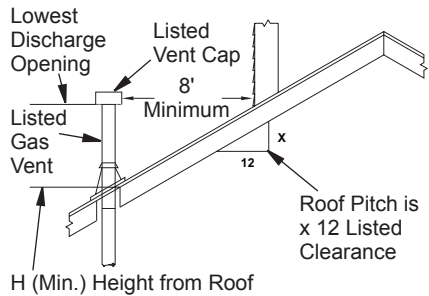
1. Determine the route your vertical venting will take. If ceiling joists, roof rafters, or other framing will obstruct the venting system, consider an offset (see Figure 21) to avoid cutting load bearing members.

**Note:** Pay special attention to these installation instructions for required clearances (air space) to combustibles when passing through ceilings, walls, roofs, enclosures, attic rafters, etc. Do not pack air spaces with insulation. Also note maximum vertical rise of the venting system and any maximum horizontal offset limitations. Offsets must fall within the parameters shown in Figure 22.

2. Set the fireplace in desired location. Drop a plumb line down from the ceiling to the position of the fireplace exit flue. Mark the center point where the vent will penetrate the ceiling. Drill a small locating hole at this point. Drop a plumb line from the inside of the roof to the locating hole in the ceiling. Mark the center point where the vent will penetrate the roof. Drill a small locating hole at this point.



**Figure 21 - Vertical Vent Pipe Offsets**



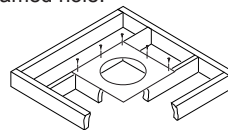
ROOF PITCH	H(Min.)
Flat to 6/12	1.0'
6/12 to 7/12	1.25'
Over 7/12 to 8/12	1.5'
Over 8/12 to 9/12	2.0'
Over 9/12 to 10/12	2.5'
Over 10/12 to 11/12	3.25'
Over 11/12 to 12/12	4.0'
Over 12/12 to 14/12	5.0'
Over 14/12 to 16/12	6.0'
Over 16/12 to 18/12	7.0'
Over 18/12 to 20/12	7.5'
Over 20/12 to 21/12	8.0'

**Figure 22 - Vertical Vent Termination Clearance**

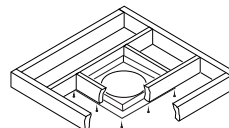
### Flat Ceiling Installation

1. Cut a 10 3/4" square hole in the ceiling using the locating hole as a center point. The opening should be framed to 10 3/4"x10 3/4" inside dimensions, as shown in Figure 18 on page 13 using framing lumber the same size as the ceiling joists. If the area above the ceiling is an insulated ceiling or an attic space, nail firestop from the top side. This prevents loose insulation from falling into the required clearance space. If the area above the ceiling is a living space, install firestop below the framed hole. The firestop should be installed with no less than three nails per side (see Figure 23).

If area above is an attic, install firestop above framed hole.



If area above is a living space, install firestop below framed hole.



**Figure 23 - Installing Firestop**

# VENTING INSTALLATION INSTRUCTIONS

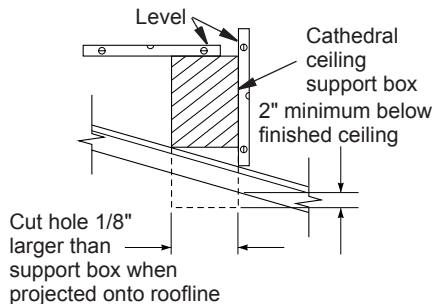
## Continued

2. Assemble the desired lengths of pipe and elbows necessary to reach from the fireplace flue up through the firestop. All connections must be sealed with high temperature silicone sealant as specified in the second warning statement on page 11. Be sure all pipe and elbow connections are fully twist-locked (see Figure 14, page 12).
3. Cut a hole in the roof using the locating hole as a center point. (Cover any exposed open vent pipes before cutting hole in roof.) The  $10 \frac{3}{4}'' \times 10 \frac{3}{4}''$  hole must be measured on the horizontal; actual length may be larger depending on the pitch of the roof. There must be a 1" clearance from the vent pipe to combustible materials. Frame the opening as shown in Figure 15 on page 12.
4. Connect a section of pipe and extend up through the hole. If an offset is needed to avoid obstructions, you must support the vent pipe every 3 feet. Use wall straps for this purpose (see Figure 21, page 14). Whenever possible, use  $45^\circ$  elbows instead of  $90^\circ$  elbows. The  $45^\circ$  elbow offers less restriction to the flow of the flue gases and intake air.
5. Place the flashing over the pipe section(s) extending through the roof. Apply a bead of silicone or roof sealer to the bottom flange of flashing and secure the base of the flashing to the roof and framing with roofing nails. Be sure roofing material overlaps the top edge of the flashing as shown in Figure 21, page 14. There must be a 1" clearance from the vent pipe to combustible materials.
6. Continue to add pipe sections until the height of the vent cap meets the minimum building code requirements described in Figure 11, page 9. **Note:** You must increase vent height for steep roof pitches. Nearby trees, adjoining rooflines, steep pitched roofs, and other similar factors may cause poor draft or down-draft condition (see Figure 22, page 14). Increasing the vent height may solve this problem.
7. Apply a bead of sealer to the upper edge of flashing collar. Slide storm collar over pipe and down to top edge of flashing. Apply a second bead of silicone or roof sealer around remaining seam of storm collar. Twist-lock vent cap onto last section of vent pipe and seal with high temperature silicone sealant as specified in the second warning statement on page 10. Finish sealing flange around roofing material with roofing sealer.

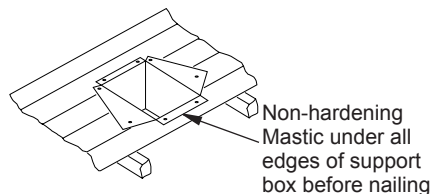
**Note:** If the vent pipe passes through any occupied areas above the first floor, including storage spaces and closets, you must enclose pipe. You may frame and sheetrock the enclosure with standard construction material. Make sure and meet the minimum allowable clearances to combustibles. Do not fill any of the required air spaces with insulation.

## Cathedral Ceiling Installation

1. Remove shingles or other roof covering as necessary to cut the rectangular hole for the support box. Mark the outline of the cathedral ceiling support box on the roof sheathing using the locating hole as a center point.
2. Cut the hole  $1/8''$  larger than the support box outline (see Figure 24).
3. Lower the support box through the hole in the roof until the bottom of the box extends at least 2" below the ceiling (see Figure 24). Align the support box vertically and horizontally using a level. Temporarily tack the support box in place through the inside walls and into the roof sheathing.
4. Using tin snips, cut the support box from the top corners down to the roofline and fold the resulting flaps over the roof sheathing (see Figure 25). Apply a bead of non-hardening mastic around the top edges of the support box to make a seal between the box and the roof. Nail in place with roofing nails. Remove any combustible material that might be inside of the support box.



**Figure 24 - Cathedral Ceiling Support Box Installation**



**Figure 25 - Installed Cathedral Ceiling Support Box**

# VENTING INSTALLATION INSTRUCTIONS

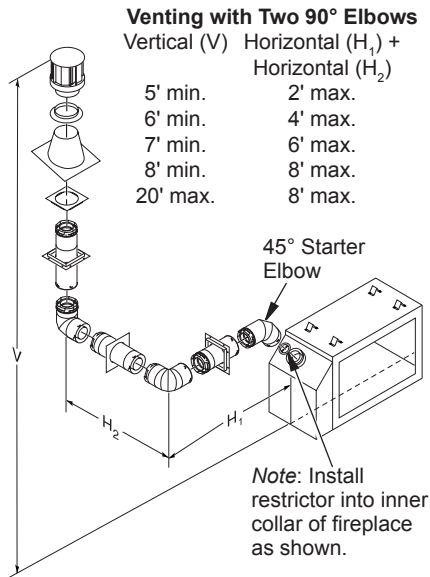
*Continued*

- Complete the cathedral ceiling installation by following the same procedures outlined in steps 2 through 7 for *Flat Ceiling Installation*, page 14.

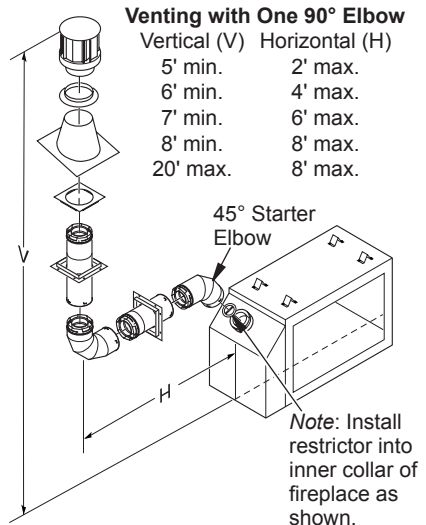
## Vertical Termination Configurations

Figures 26 through 29 show four different configurations for vertical termination. These minimum vertical rises are based on horizontal runs with a minimum of 1/4" upwards pitch per foot and do not reflect constraints on a vertical system with 45° or greater offset.

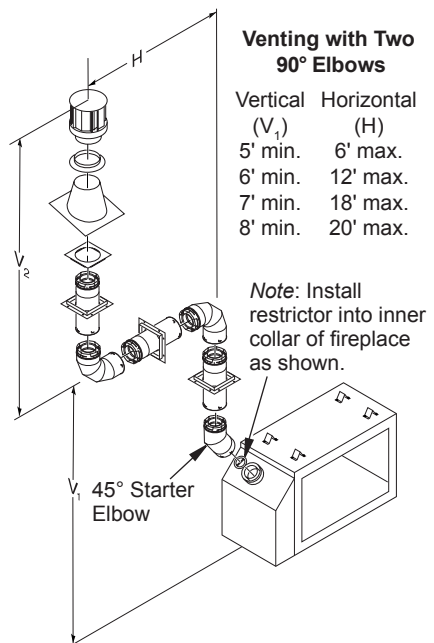
Any offset pitch of 45° or less must be considered horizontal and sized within the maximum allowable lengths listed in the following examples. All connections must be sealed with high temperature silicone sealant as specified in the second warning statement on page 10.



**Figure 26 - Vertical Rigid Venting Configuration Using Two 90° Elbows with Two Horizontal Runs**



**Figure 27 - Vertical Rigid Venting Configuration Using One 90° Elbow**

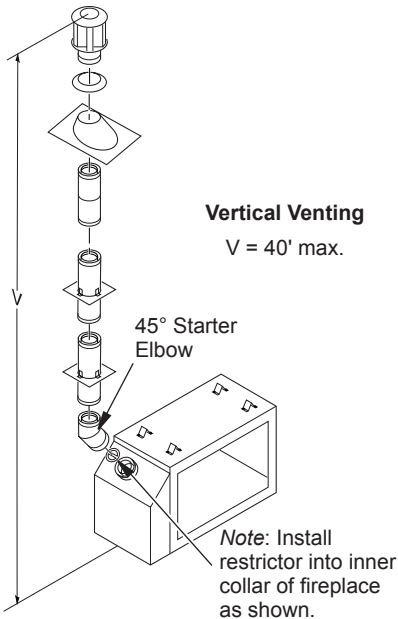


**Figure 28 - Vertical Rigid Venting Configuration Using Two 90° Elbows**



# VENTING INSTALLATION INSTRUCTIONS

*Continued*



**Figure 29 - Vertical Rigid Venting Configuration With No Horizontal Run**

## HIGH ALTITUDE INSTALLATION

Your DESA direct-vent fireplace has been tested and approved for elevations from 0-2,000 feet and certified for elevations from 0-5,000 feet.

Fireplaces for High Altitude (models ending in HA) are for installation above 4,000 feet only. These fireplaces are equipped with parts specific for higher altitudes. **IMPORTANT:** These fireplaces can NOT be converted to propane/LP gas.

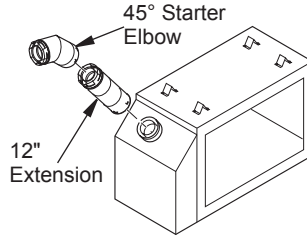
When installing a non-high altitude fireplace at an elevation above 2,000 feet (USA), you may need to decrease the input rating by changing the existing burner orifice to a smaller size. Reduce input 4% for each 1,000 feet above sea level. Check with your local gas company for proper orifice size identification.

When installing this fireplace at an elevation above 4,500 feet (Canada), check with local authorities.

Consult with your local gas company to help determine the proper orifice size and identification for your location.

Components and parts must be ordered by part number through your local dealer or distributor.

**IMPORTANT:** For horizontal installations above 2,000 feet, it is recommended that a 12" extension pipe be added before starter elbow (see Figure 30).



**Figure 30 - Recommended 12" Extension for High Altitude Installation**

## PARTS LIST FOR DESA VENTING KITS AND COMPONENTS

### DESA (5"/8") Pipe & Vent Kits

Number	Description
VKR-58	Roof Vent Kit, Galvanized (Includes: 45° Elbow, 7"-12" Adjustable Pipe, Flue Restrictor, Vertical High Wind Termination, 2' Pipe, 4' Pipe, Wall Firestop, Storm Collar, Roof Flashing [0/12 - 6/12], 26 Screws)
VKB-58	Basement Vent Kit, Galvanized (Includes: 45° Elbow, 7"-12" Adjustable Pipe, Wall Firestop, Horizontal Square Termination, 4' Pipe, 90° Elbow, 20 Screws)
VKS-58	Snorkel Vent Kit, Galvanized (Includes: 45° Elbow, 7"-12" Adjustable Pipe, Wall Firestop, 36" Snorkel Termination, 4' Pipe, 1' Pipe, 90° Elbow, 26 Screws)
VKG-58	Ground Floor Vent Kit, Galvanized (Includes: 45° Elbow, 7"-12" Adjustable Pipe, Wall Firestop, Horizontal Square Termination, 16 Screws)
P58-48	48" Section Double Wall Pipe, Galvanized
P58-36	36" Section Double Wall Pipe, Galvanized
P58-24	24" Section Double Wall Pipe, Galvanized
P58-12	12" Section Double Wall Pipe, Galvanized
P58-6	6" Section Double Wall Pipe, Galvanized
PA58-712	Adjustable 7"-12" Section Double Wall Pipe, Galvanized
FPA58-6	6" Dura Vent Collar to FMI Pipe Adaptor

# VENTING INSTALLATION INSTRUCTIONS

*Continued*

Number	Description
E58-45	45° Elbow, Galvanized
E58-90	90° Elbow, Galvanized
FSE58-45	45° Starter Elbow (Dura Vent to FMI Pipe)
FP-58	Firestop Plate
WF-58	Wall Firestop, Galvanized
RF-58-6	Roof Flashing - 0 to 6/12 Pitch, Galvanized
RF-58-12	Roof Flashing - 6/12 to 12/12 Pitch, Galvanized
S-58	Vinyl Siding Standoff, Galvanized
VT-58	Vertical Round Termination, Galvanized
HHT-58	High Wind Round Horizontal Termination Kit, Galvanized
HTS-58	Square Horizontal Termination, Galvanized
HHTK-58	High Wind Round Horizontal Termination Kit (Includes Round Termination, Wall Firestop, 45° Elbow)
ST-58-14	14" Snorkel Termination, Galvanized
ST-58-36	36" Snorkel Termination, Galvanized
SF-58	Stucco Flashing - For use with HTS-58
VR-58	Vertical Restrictor, Galvanized
WS-58	Wall Strap
SC-58	Storm Collar, Galvanized
CS-58	Cathedral Ceiling Support

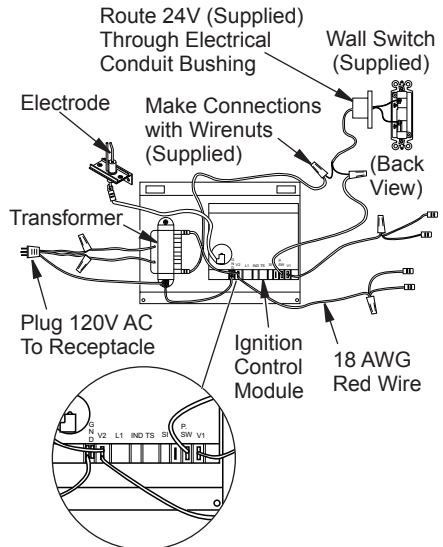
## INSTALLATION

### WALL SWITCH INSTALLATION

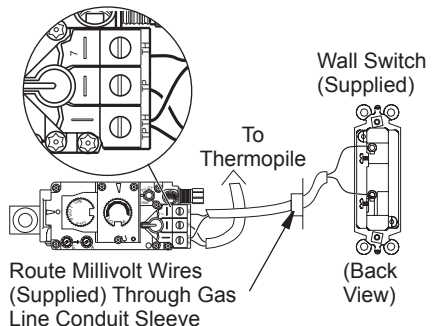
The electronic version uses a 24 VAC current supplied from a transformer mounted on the ignition module and is prewired for easy connection to a wall switch (see Figure 31). The millivolt version uses a self generated millivolt current that allows you to activate the gas control valve directly without the use of normal household electricity (see Figure 32). Both versions are supplied with a wall switch kit for ready connection and mounting.

**⚠ WARNING: Do not wire remote wall switch to main power supply (Standard 120V household current).**

- To remove the louvers, simultaneously pull both top end spring latches towards the center of the appliance until they are disengaged from locating holes. Repeat for bottom spring latches and pull louvers outward. Reverse the procedure to install louvers back onto the appliance (see Figure 33, page 19).
- Connect the 18 gauge wires from wall switch to the gas control valve terminals marked TH and TPTH or to the ignition module using the pigtails and wire nut connectors supplied with the appliance.



**Figure 31 - Wall Switch Wiring Diagram, Electronic Units**



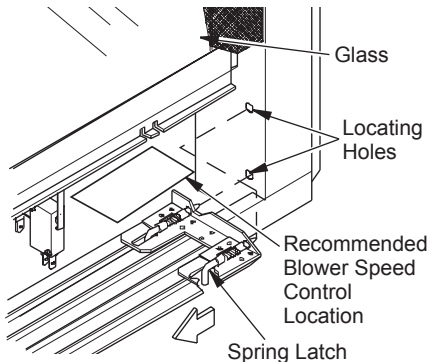
**Figure 32 - Wall Switch Wiring Diagram, Millivolt Units**

**Note:** If any of the original wire supplied must be replaced, use type 18 AWG-105° C (25 feet length maximum) or equivalent.

## INSTALLATION

*Continued*

**CAUTION:** Due to high temperatures, make sure wires are not touching upper firebox.



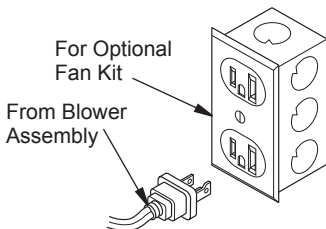
**Figure 33 - Removing Louver**

### ELECTRICAL HOOKUP FOR OPTIONAL BLOWER ACCESSORY

Before blower accessory can be operated, the appliance outlet box must be properly connected to a standard 120 VAC power source. This must be done when the appliance is originally installed. Refer to *Wiring Diagrams* on page 31.

An outlet box with two receptacles has been supplied for your convenience and is located on the lower right side of the appliance (see Figure 34). The variable speed controller is mounted on a magnetic base and may be positioned anywhere within an accessible distance behind the louvered opening (see Figure 33).

You may test the blower for operation by turning the control knob clockwise just until it clicks on which is the full on position. Adjust the fan speed to the lowest setting (this should be no more than 1/4 of a turn clockwise).



**Figure 34 - Connecting Blower Accessory to Power Supply**

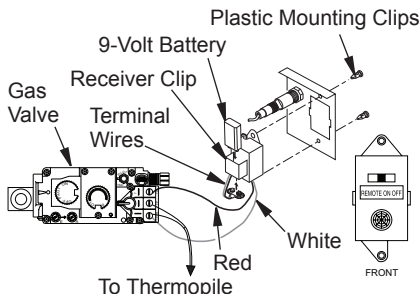
### OPTIONAL WIRELESS HAND-HELD REMOTE CONTROL INSTALLATION

*Note:* If using an optional wireless hand-held remote control, the wall switch is no longer operational.

**NOTICE:** Only use alkaline batteries (not included).

#### Installing HRC100 Model Remote Control (Millivolt Models Only)

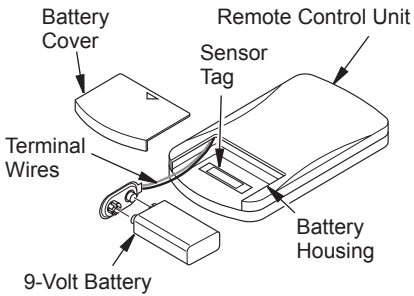
1. Remove lower louver access panel in place (see step 1 of *Wall Switch Installation*, page 18).
2. Disconnect wall switch wires from terminals marked TH and TPTH (see Figure 32, page 18).
3. Slide 9-volt battery into clip on back of remote receiver and connect battery terminals to battery. Mount receiver onto bracket with clips provided (see Figure 35).
4. Connect white wire to control valve terminal TH and red wire to TPTH. Move remote select switch to REMOTE position.
5. Replace louvered access panel by following reverse of step 1 under *Wall Switch Installation*, page 18.
6. Remove battery cover on back of hand-held remote (see Figure 36, page 20). Remove and discard sensor tag.
7. Attach terminal wires to 9-volt battery. Place battery into housing.
8. Replace battery cover onto hand-held remote.
9. Set selector switch on receiver to OFF position if you will be away from the unit for an extended period of time.



**Figure 35 - Installing Remote Receiver (HRC100)**

## INSTALLATION

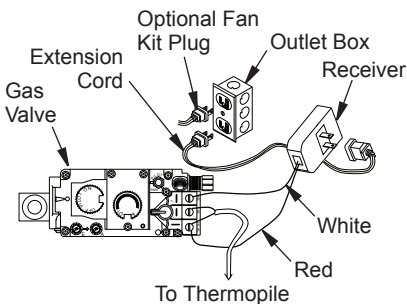
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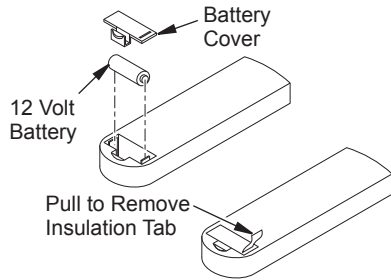
**Figure 36 - Installing Battery in Hand-Held Remote Control Unit (HRC100)**

### Installing SKYTECH/WRC Model Remote Control (Electronic Models Only)

1. Remove lower louver access panel in fireplace (see step 1 of *Wall Switch Installation*, page 18).
2. If a wall switch was installed, it must be removed from ignition control circuit for remote to work properly. Remove wire nuts from switch connection at ignition control module. Using wire nut, connect transformer (blue) wire to remaining wire connected to control terminal marked P.S.W (see Figure 36, page 18).
3. The receiver does not require a battery. To install, plug extension cord into one of the outlet receptacles on the outlet box. Plug receiver unit into extension cord and the ignition module into receiver unit (see Figure 37).
4. Replace louvered access panel by following reverse steps on page 18.
5. Activate handset battery by removing insulating tab on back (see Figure 38).



**Figure 37 - Installing Remote Receiver (SKYTECH Model)**



**Figure 38 - Installing Battery in Hand-Held Remote Control Unit (SKYTECH)**

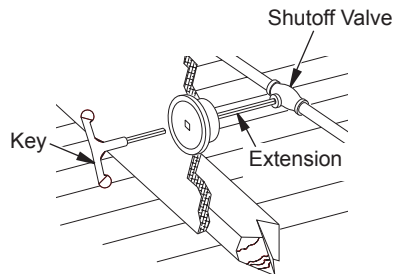
### GAS LINE HOOK-UP

**⚠ WARNING:** Before you proceed, make sure your gas supply is OFF.

**⚠ WARNING:** Gas line hookup should be done by your gas supplier or a qualified service person.

An equipment shutoff valve has been included in the appliance's gas supply system. You may consider installing an extra gas shutoff valve outside the appliance's enclosure (check with local codes) where it can be accessed more conveniently with a key through a wall as shown in Figure 39.

Route a 1/2" NPT black iron gas line towards the appliance coming in from the left. It is recommended to route the pipe between the stand of the firebox and the surround of the fireplace (see Figure 40, page 21).



**Figure 39 - Typical Exterior Wall Gas Shutoff Installation**

# INSTALLATION

## Continued

**IMPORTANT:** 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). The appliance must be isolated from the gas supply piping system by closing its individual equipment 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).

**CAUTION:** Do not kink flexible gas line.

**CAUTION:** Compounds used on threaded joints of gas piping shall be resistant to the action of Liquefied Petroleum (LP or propane), and should be applied lightly to ensure excess sealant does not enter the gas line.

1. Install a sediment trap between the incoming gas line and the gas control valve (see Figure 40). The sediment trap should extend down the center of the pipe. Refer to your local codes.
2. Prepare incoming gas line and check with local codes regarding the use of teflon tape. Complete your gas line installation by connecting incoming gas line with flexible gas line. Secure tightly with a wrench, but **DO NOT OVERTIGHTEN.**

Incoming 1/2" Gas Line Permitted by Local Codes

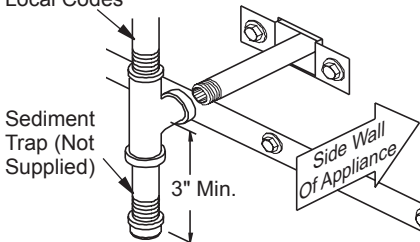


Figure 40 - Sediment Trap

**WARNING:** All gas piping and connections must be tested for leaks after the installation is completed. After ensuring that the gas valve is open, apply a soap and water solution to all connections and joints. If bubbles appear, leaks can be detected and corrected. Do not use an open flame for leak testing and do not operate any appliance if a leak is detected.

**WARNING:** Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or gas supplier.

## GAS SUPPLY TESTING

**Note:** This section is intended as a guide for qualified service technicians installing gas to the appliance.

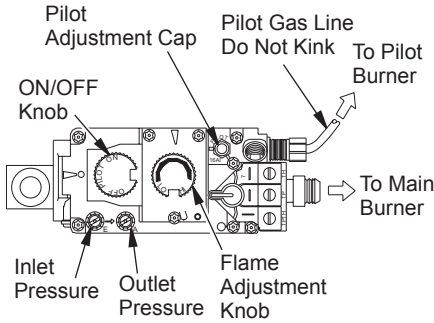
**CAUTION:** Do not connect appliance before pressure testing gas piping. Damage to the gas valve may result and an unsafe condition may be caused.

The millivolt system with a manual HI/LO applies only to the DVF36TCR, DVF36TCRP, DVF36TCL and DVF36TCLP models. The gas control valve is accessible from the lower control compartment. Two pressure taps are provided on the gas control valve for a pressure gauge connection (see Figure 41, page 22).

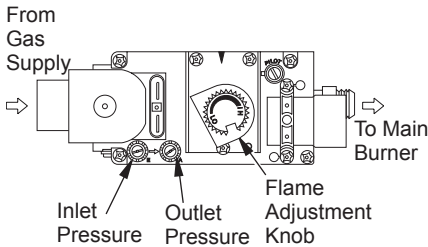
The electronic system applies to the DVF36TCRE, DVF36TCRPE, DVF36TCLE and DVF36TCLPE models (see Figure 42, page 22).

# INSTALLATION

*Continued*



**Figure 41 - Millivolt Control Valve**



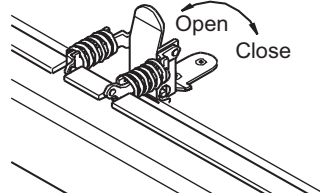
**Figure 42 - Electronic Control Valve**

## INSTALLING LOG SET

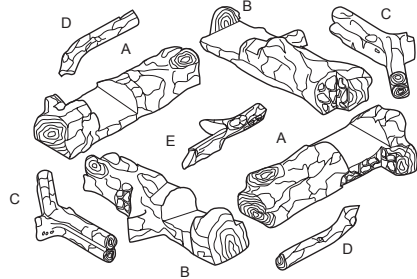
Before proceeding, make sure the gas control valve is in the OFF position. Logs have been shrink wrapped on a cardboard backing to prevent breakage during shipping. Cut around perimeter of each log and pull gently on shrink-wrap to expose log. Do not pull on log to release it from the shrink-wrap as this may damage logs.

1. Remove lower louver access panel in fireplace (see step 1 of *Wall Switch Installation*, page 18).
2. Remove screen rod by sliding it either to the left or right of fireplace until one of the rod ends is free. Remove screen from fireplace.
3. To open glass door, undo latches located on the top and bottom of firebox (see Figure 43). **Note:** Use caution when opening these latches. Carefully open door by swinging it to the left. The glass door is mounted to the firebox with 5 screws.
4. Figure 44 shows the log set. Logs "A" have a knot at the end of the log. Logs "B" have a knot at the middle of the log. Twigs "C" have the shape of a "Y". Twigs "D" have the shape of bent twigs. Twig "E" is a straight twig which is placed across top of logs "B".

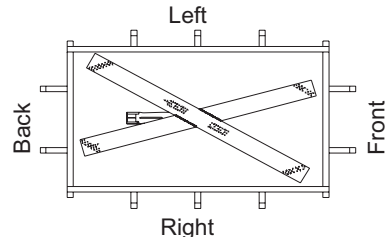
5. Figure 45 shows top view of burner and grate.
6. Place logs "A" as shown in Figure 46.
7. Place logs "B" as shown in Figure 47, page 23. Lift end of log "A" that will be propped up and place log "B" under it. At the same time, the other side of log "B" is placed over other log "A". Repeat procedure for other log "B".



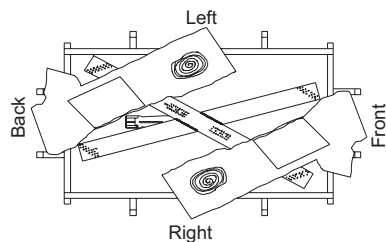
**Figure 43 - Opening Door Latches**



**Figure 44 - Log Set (9 Pieces)**



**Figure 45 - Burner and Grate (Top View)**



**Figure 46 - Installing Logs "A" (Top View)**

## INSTALLATION

### Continued

- Take twigs "C" (shaped like a "Y") and place them as shown in Figure 48.
- Take twigs "D" (bent twig) and place them as shown in Figure 48.
- Place twig "E" across the top of logs "B" as shown in Figure 48.
- When finished installing logs, close glass door. Make certain safety door switch is fully depressed by door frame before securing four (4) spring loaded latches.
- Replace louvers in reverse order with grilles pointing in down position.

**⚠ WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or gas supplier.**

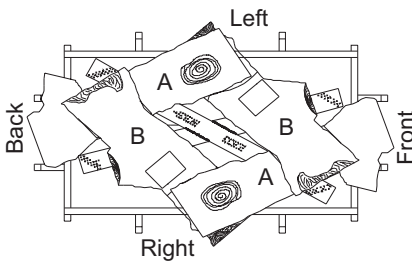


Figure 47 - Installing Logs "B" (Top View)

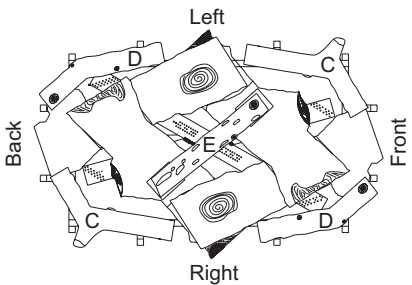


Figure 48 - Installing Twigs "C, D, E" (Top View)

## DECORATIVE FACING

Any noncombustible material may be used for facing (glass, tile, brick, etc.) as long as proper clearances are observed (see *Clearances*, page 6). **IMPORTANT:** Louvered openings must not be obstructed, and upper and lower panels must remain removable for servicing. Use only heat-resistant, noncombustible mortar or adhesive when securing facing material.

**Note:** Combustible material, such as wood, that has been fireproofed is not considered noncombustible.

## PILOT/ELECTRODE ASSEMBLY ADJUSTMENT

Pilot assembly is factory preset for proper flame height. Alteration to these settings may have occurred during shipping and handling. If this is the case, some minor adjustment may be necessary and should be done by a qualified technician. To access pilot assembly, glass door must be opened. Proper settings for thermopile height should be at a distance of 1/2" to 3/8" from pilot flame as shown in Figure 49.

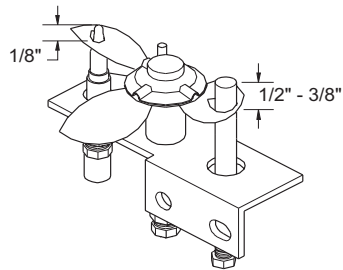
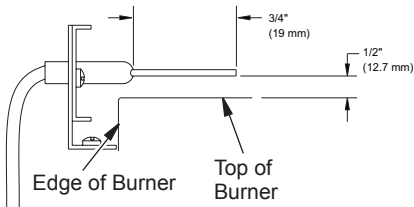


Figure 49 - Correct Pilot Flame Pattern

# PILOT/ELECTRODE ASSEMBLY ADJUSTMENT

*Continued*

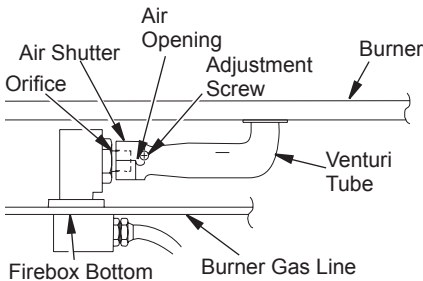
The electrode is installed at the factory for proper positioning. However, alterations to the position may have occurred due to shipping and handling. These settings may need adjustment and must be done by a qualified technician. The correct position and height is as shown in Figure 50.



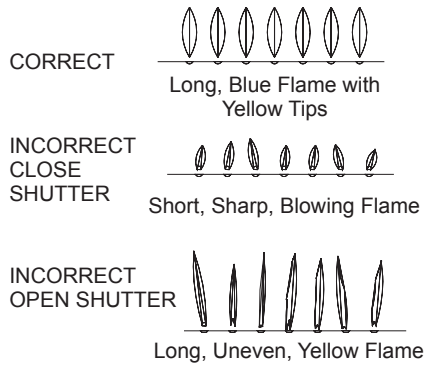
**Figure 50 - Correct Ignitor Location (Side View)**

## BURNER FLAME ADJUSTMENT

The air shutter, located at the base of the main burner (see Figure 51), has been factory preset to the proper air-to-gas ratio which results in an even, clean burning flame across burner (see Figure 52). If readjustment is necessary, you can restore the proper air-to-gas ratio by loosening the air shutter screw and rotating the air shutter until the proper flame setting is achieved (the shutter's normal setting is fully open). Do not forget to retighten air shutter screw.



**Figure 51 - Air Shutter Adjustment**

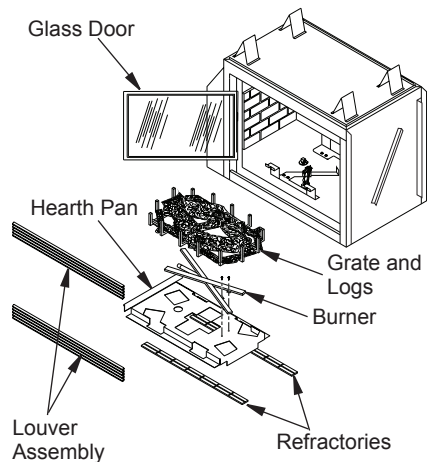


**Figure 52 - Burner Flame Patterns**

## BURNER REMOVAL

**CAUTION:** Before proceeding to open glass door or handle logs, make sure the entire unit is cool.

1. Remove top and bottom louvers and screen assembly. Undo 4 latches and open glass door.
2. Carefully remove log set intact and set aside (see Figure 53).
3. Remove 2 screws holding burner to hearth pan.
4. Slide burner forward off orifice and turn to one side to clear opening in hearth pan. Be careful not to bend or damage pilot or ignitor element.



**Figure 53 - Burner Removal**



## BURNER FLAME ADJUSTMENT

*Continued*

- To reinstall burner, follow reverse steps making sure air shutter on burner tube is completely seated over orifice mount.
- Replace log set. Close door and latch. Reattach screen and louvers.

**CAUTION:** Make certain orifice is fully inside venturi tube's air shutter and that air shutter is adjusted accordingly, see Figure 50, page 24.

## CLEANING AND MAINTENANCE

When lit for the first time, the appliance may emit a slight odor for about 16 - 24 hours. This is normal and is due to the "curing" of the logs and the "burn-in" of internal paints and lubricants used in the manufacturing process. Keep compartments, logs, burners, and area surrounding the logs clean by vacuuming or brushing at least twice a year. Temporary removal of the log set may ease the cleaning of the burner and pilot assembly. In cleaning, take care not to alter the pilot or burner location. Be sure appliance is cool before each maintenance session.

**CAUTION:** The appliance and logs can get very hot. Handle only when cool.

**WARNING:** Turn off gas and wall switch before servicing appliance. Any safety screen or guard removed for servicing the appliance must be replaced prior to operating the appliance.

**WARNING:** Make certain wires and gas lines are not touching the underside of the firebox.

**WARNING:** Make certain that wires and gas lines are not touching underside of firebox.

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

**WARNING:** Have a qualified agency periodically inspect the vent system at the start of each heating season, for any obstruction which may hinder its normal operation. Never obstruct the flow of combustion and ventilation air. Keep the front of the appliance clear of all obstacles and materials.

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

## CLEANING AND REPLACING GLASS DOOR

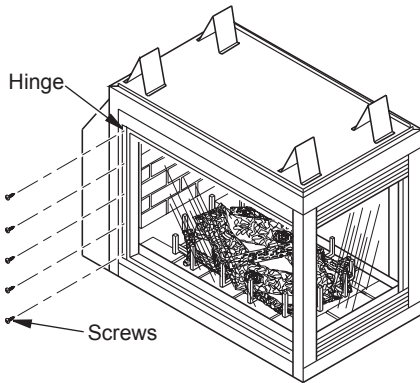
*Note:* Before proceeding, make sure unit is completely cool.

- Remove top and bottom louvers and screen assembly. Undo 4 latches and open glass door. The procedure is the same for the end louver panel but the entire frame must be removed as one assembly.
- To clean glass door, DO NOT remove glass from frame. Use any glass cleaner to clean glass. Do not use abrasive cleaners as this may damage glass.

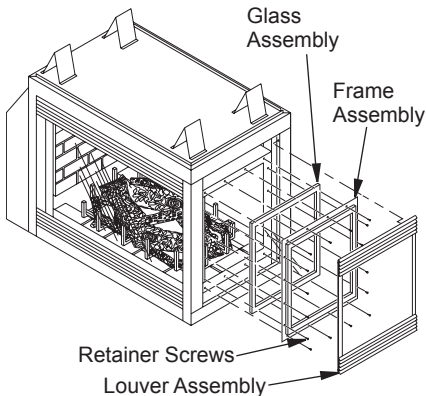
## CLEANING AND MAINTENANCE

*Continued*

- If replacement is necessary, the entire assembly (frame and glass) must be replaced. If glass is broken, wear gloves and tape remaining fragments onto the frame. Remove 5 screws located on end of firebox while holding frame assembly to prevent it from falling and causing injury (see Figure 54). Mount new frame at hinge with 5 new screws. Close and latch door. This will seat the gasket. If replacing end glass panel, remove 16 screws around frame (see Figure 55) To insure proper fit, when installing new glass panels make sure seam in gasket is placed in the down position.
- Replace screen assembly and top and bottom louvers.



**Figure 54 - Removing Glass Door**



**Figure 55 - End Panel Replacement**

## OPERATING FIREPLACE


### MILLIVOLT

**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.



- This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- BEFORE LIGHTING** 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 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.
- Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
- 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 which has been under water.

### LIGHTING INSTRUCTIONS

- STOP!** Read the safety information beginning above before proceeding.
- Set the HI-LO knob to the lowest setting.
- Turn off all electrical power to the appliance.
- Open control access panel.
- Push in gas control knob slightly and turn clockwise  to OFF.

## OPERATING FIREPLACE

*Continued*

- Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information, page 28. If you don't smell gas, go to the next step.
- Turn knob on gas control counterclockwise  to PILOT.
- Push in the control knob all the way and hold in. Immediately light the pilot by pressing the ignitor button until a flame appears 1 minute after the pilot is lit. The pilot is located by the main burner. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 8.
  - If knob does not pop out when released, stop and call gas supplier.
  - If the pilot will not stay lit after several tries, turn gas control knob to OFF and call your service technician or gas supplier.
- Turn gas control knob counterclockwise  to "N". Knob can be turned to ON only if the control knob is popped out.
- Set HI-LO knob to desired setting.
- Turn on all electric power to the appliance.

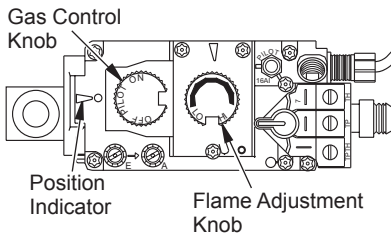


Figure 56 - Millivolt Control Valve

### TO TURN OFF GAS TO APPLIANCE

- Turn off the wall switch.
- Turn off all electric power to the appliance if service is to be performed.

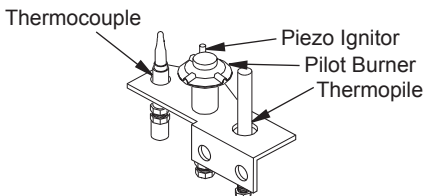



Figure 57 - Pilot

- Remove control access panel.
- Push in gas control knob slightly and turn clockwise  to OFF. Do not force.
- Replace control access panel.

## ELECTRONIC

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.

- This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- BEFORE LIGHTING 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 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.
- Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Force or attempted repair may result in a fire or explosion.
- 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 which has been under water.

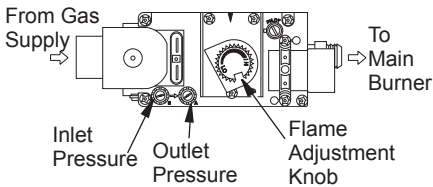
### LIGHTING INSTRUCTIONS

- STOP! Read the safety information before proceeding.
- Set thermostat to lowest setting (if applicable).
- Turn off wall switch.
- Open control access panel or louver.

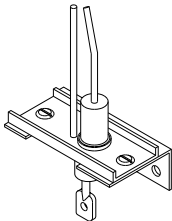
## OPERATING FIREPLACE

*Continued*

5. Smell for gas, including near the floor. If you smell gas, **STOP!** Follow “B” in the safety information, page 27. If you don’t smell gas, go to the next step.
6. Turn main burner wall switch to the **ON** position for ignition. There will be a spark at the electrode. The electrode is located by the main burner.
7. Replace control access panel or louver once there is a flame at the burner.
  - If burner will not stay lit after several tries, flip wall switch to **OFF** and call your service technician or gas supplier.



**Figure 58 - Electronic Control Valve**



**Figure 59 - Electrode**

### TO TURN OFF GAS TO APPLIANCE

1. Turn off all electrical power to appliance if service is to be performed.
2. Remove control access panel or louver.
3. Close gas valve.

## SPECIFICATIONS

Models (V)DVVF36TCR(E) and (V)DVVF36TCL(E)

- Input Rating: 35,000/23,300 Btu/Hr
- Fuel: Natural Gas
- Manifold Pressure: 3.5" W.C.
- Minimum Supply Pressure: 4.5 W.C. \*\*
- Maximum Supply Pressure: 10.5" W.C.
- Orifice Size (0-4500 ft.): #34 DMS

Models (V)DVVF36TCRP(E) and (V)DVVF36TCLP(E)

- Input Rating: 31,000/20,000 Btu/Hr
  - Fuel: Propane/LP Gas
  - Manifold Pressure: 10.0" W.C.
  - Minimum Supply Pressure: 11.0 W.C. \*\*
  - Maximum Supply Pressure: 13.0" W.C.
  - Orifice Size (0-4500 ft.): #51 DMS
- \*\*For purpose of input adjustment.

## SERVICE HINTS

**When Gas Pressure Is Too Low**

- pilot will not stay lit
  - burner will have delayed ignition
  - fireplace will not produce specified heat
  - propane/LP gas supply may be low
- You may feel your gas pressure is too low. If so, contact your local gas supplier.

## TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA's Technical Service Department at 1-866-672-6040. When calling, please have your model and serial numbers ready.

You can also visit DESA's Technical Services web site at [www.desatech.com](http://www.desatech.com).

## REPLACEMENT PARTS

**Note:** Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

### PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s) call DESA's Technical Service Department at 1-866-672-6040 for referral information.

When calling DESA, have ready

- your name
- your address
- model and serial numbers of your fireplace
- how fireplace was malfunctioning
- type of gas used (propane/LP or natural gas)
- purchase date

Usually, we will ask you to return the part to the factory.

### PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s) call DESA at 1-866-672-6040 for referral information.

When calling DESA, have ready

- model number of your fireplace
- the replacement part number

## TROUBLESHOOTING

**⚠ WARNING: Turn off heater, disconnect power if applicable and let cool before servicing. Only a qualified service person should service and repair heater.**

**⚠ CAUTION: Never use a wire, needle, or similar object to clean pilot. This can damage pilot unit.**

*Note:* The two most common causes of malfunctioning gas appliances are loose wiring connections and construction debris clogging pilot and/or control valve filter.

*Note:* Before troubleshooting the system make sure gas shut off valve is open.

<b>MILLIVOLT SYSTEM</b>		
<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>REMEDY</b>
Pilot will not light	<ol style="list-style-type: none"> <li>1. No gas supply, or shutoff valve is OFF</li> <li>2. Air in gas line</li> <li>3. Construction debris clogging pilot orifice</li> <li>4. Low gas pressure</li> <li>5. Control valve knob is not on the PILOT position</li> <li>6. Kinked pilot line</li> <li>7. Bad valve</li> <li>8. Bad thermocouple or loose connection</li> </ol>	<ol style="list-style-type: none"> <li>1. Check gas supply</li> <li>2. Hold control valve in the PILOT position for 2 to 3 minutes to purge air. If you smell gas stop and wait a few minutes before trying to light fireplace</li> <li>3. Remove debris and dirt, inspect and clean any other possible obstructions</li> <li>4. Contact your gas supplier</li> <li>5. Refer to section on pilot lighting</li> <li>6. Have a qualified technician replace pilot line</li> <li>7. Replace control valve</li> <li>8. Tighten thermocouple or replace</li> </ol>
Pilot will not stay lit	<ol style="list-style-type: none"> <li>1. Loose wiring on thermopile to regulator valve. No millivolt current being sent to regulator</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring connection. Refer to <i>Wiring Diagrams</i>, page 31</li> </ol>
No gas to burner, although wall switch and valve are set to the ON position	<ol style="list-style-type: none"> <li>1. Wall switch wires defective</li> <li>2. Thermopile generator or sensor not generating sufficient voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Check electrical connections</li> <li>2. Re-check problem "<i>Pilot Will Not Stay Lit</i>"</li> </ol>
Frequent pilot outage	<ol style="list-style-type: none"> <li>1. Pilot flame may be too low, causing safety pilot to "drop out"</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and adjust pilot flame for maximum flame impingement on thermopile</li> </ol>
Pilot goes out when wall switch is on	<ol style="list-style-type: none"> <li>1. Millivolt output on thermopile too high</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace thermopile</li> </ol>

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## TROUBLESHOOTING

*Continued*

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>REMEDY</b>
When ignitor button is pressed, there is no spark at pilot	<ol style="list-style-type: none"><li>1. Defective ignitor</li><li>2. Defective pilot or misaligned electrode at pilot</li><li>3. No or low gas pressure</li></ol>	<ol style="list-style-type: none"><li>1. Replace ignitor if wire is properly connected and you have no spark</li><li>2. Using a match, light pilot. If pilot lights turn off pilot and push piezo again. If pilot lights, an improper gas/air mixture cause improper lighting and a longer purge period is recommended. If pilot will not light, check gap at electrode and pilot. Gap should be 1/8" for strong spark. If electrode is okay, replace pilot</li><li>3. <b>LP only:</b> Check fuel supply and contact local propane/LP supplier if low. <b>LP and Natural:</b> Check for kinked or bent hoses. Consult pipe fitter or plumber.</li></ol>

### **ELECTRONIC IGNITION SYSTEM**

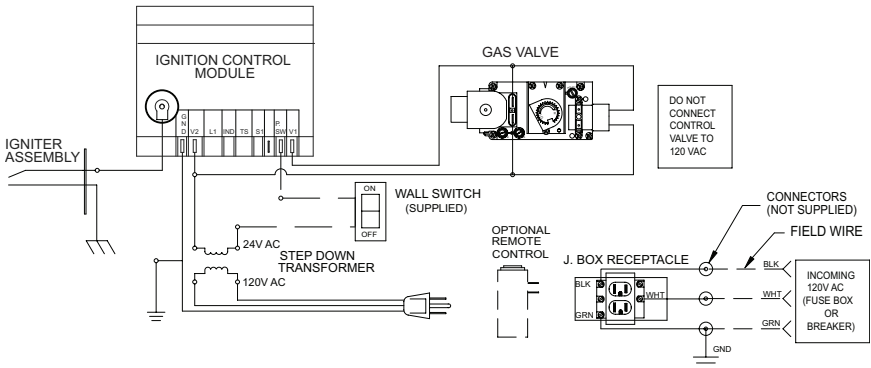
<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>REMEDY</b>
Ignitor will not spark or burner will not light	<ol style="list-style-type: none"><li>1. No or low gas pressure</li><li>2. Air in gas line</li><li>3. Construction debris clogging main orifice</li><li>4. Control valve knob not opening</li><li>5. Kinked pilot line</li><li>6. No power to unit or ignition module/power transformer is bad</li></ol>	<ol style="list-style-type: none"><li>1. <b>LP only:</b> Check fuel supply and contact local propane/LP supplier if low. <b>LP and Natural:</b> Check for kinked or bent hoses. Consult pipe fitter or plumber.</li><li>2. Repeat lighting procedure several times to purge air from lines. If unit will still not light, contact a qualified service and repair technician</li><li>3. Remove debris and dirt, inspect and clean other possible obstructions</li><li>4. Replace control valve</li><li>5. Contact a qualified technician to replace pilot line</li><li>6. Check that main power is on and all wire connections are made correctly to ignition module</li></ol>

# TROUBLESHOOTING

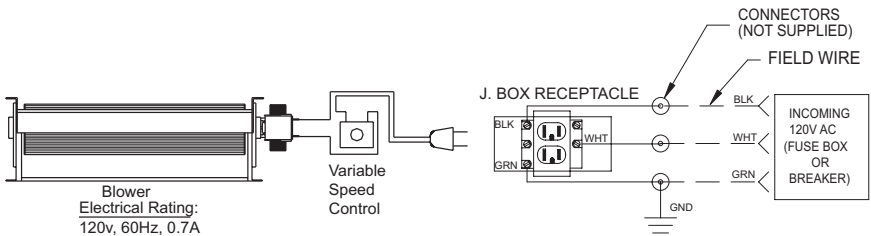
*Continued*

PROBLEM	POSSIBLE CAUSE	REMEDY
Burner will not stay lit	<ol style="list-style-type: none"> <li>1. Loose wiring on ignition module</li> <li>2. Poor ground to ignition module</li> <li>3. Main burner flame too low to sense</li> </ol>	<ol style="list-style-type: none"> <li>1. Check ignition wire connection (see <i>Wiring Diagrams</i>)</li> <li>2. Check ground wire connection (see <i>Wiring Diagrams</i>)</li> <li>3. Clean and adjust main burner; check gas supply and inlet pressure; replace ignition assembly if necessary</li> </ol>
No gas to main burner when wall switch and valve are set to ON position	<ol style="list-style-type: none"> <li>1. Wall switch wires defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Check electrical connections and replace wall switch</li> </ol>
Frequent main burner outage	<ol style="list-style-type: none"> <li>1. Burner flame is too low</li> <li>2. Igniter is misaligned causing safety burner to "drop out"</li> <li>3. Vent may be blocked or restricted</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and adjust main burner</li> <li>2. Adjust ignitor location for maximum flame impingement on sensor</li> <li>3. Have vent inspected for blockage or damage</li> </ol>

## WIRING DIAGRAMS

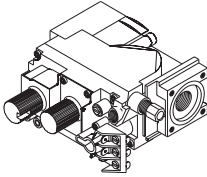


**Figure 60 - Electronic Wiring Diagram**



**Figure 61 - Optional Blower Wiring Diagram**

## PARTS AND ACCESSORIES



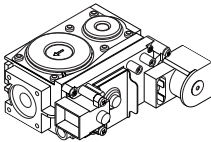
### MANUAL GAS CONTROL VALVE

Natural - 14389

Propane/LP - 14390

Natural, Hi Altitude - 117370-01

Contact a qualified technician if replacement is required.

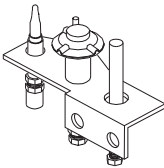


### ELECTRONIC GAS VALVE

Natural - 14428

Propane/LP - 14429

Contact a qualified technician if replacement is required.



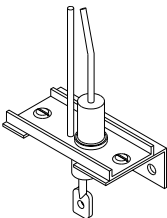
### PILOT ASSEMBLY

Natural - 108084-02

Propane/LP - 108084-03

Natural, Hi Altitude - 108084-05

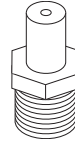
Contact a qualified technician if replacement is required.



### IGNITOR ASSEMBLY

Natural - 14385

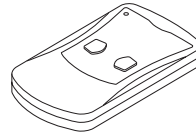
If in need of replacing, have a qualified technician replace it.



### ORIFICE

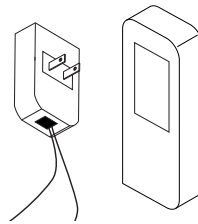
Natural - 23103

Propane/LP - 23104



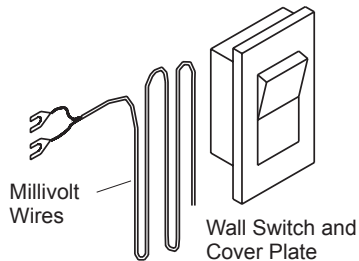
### RECEIVER AND HAND-HELD ON/OFF REMOTE CONTROL KIT HRC100

For millivolt models. Allows the gas log heater to be turned on and off by using a hand-held remote control.



### RECEIVER AND HAND-HELD ON/OFF SKYTECH REMOTE CONTROL KIT

For electronic models. Allows the gas log heater to be turned on and off by using a hand-held remote control.



### WALL SWITCH KIT - 22180

Wall Switch - 14112

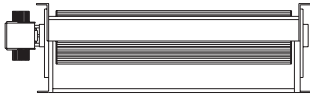
Cover Plate - 14113

Wall switch, cover plate, and millivolt wires are supplied with the appliance. If wires need replacing, use proper gauge.



## PARTS AND ACCESSORIES

*Continued*

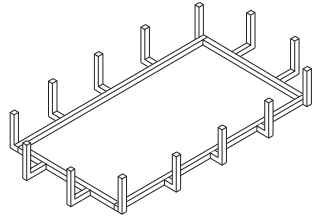


### BLOWER KIT

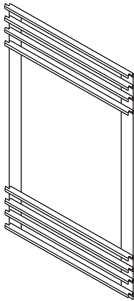
DVFFBK

DVFFBKT - Thermostat

For all models. Increases air circulation to maximize heat distribution.



### GRATE - 11184



### END LOUVER KIT (Peninsula Only)

Brass - 06138

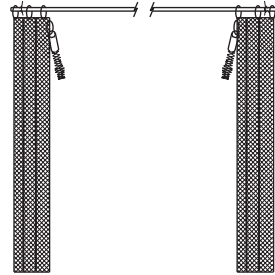
Black with Brass Trim - 01645



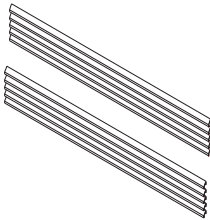
### END GLASS ASSEMBLY

(Peninsula Only)

26624 (Ceramic)



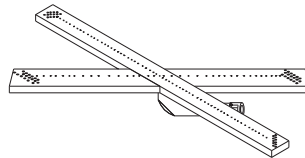
### SCREEN ASSEMBLY - 25903



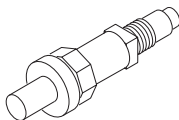
### LOUVER KIT

Brass - 01628

Black with Brass Trim - 01627



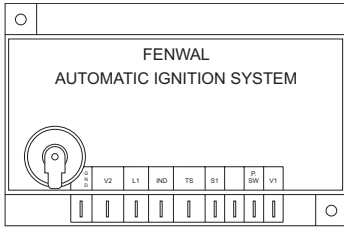
### BURNER ASSEMBLY - 27243



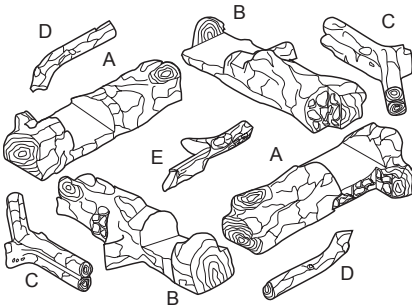
### PIEZO IGNITOR - 14261

# PARTS AND ACCESSORIES

*Continued*

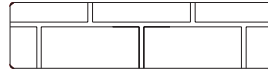


## IGNITION CONTROL - 14384



## LOG SET - 27237

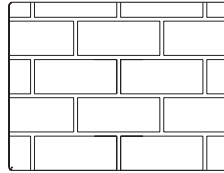
- Log Piece A - 27238
- Log Piece B - 27239
- Log Piece C - 27242
- Log Piece D - 27240
- Log Piece E - 27241



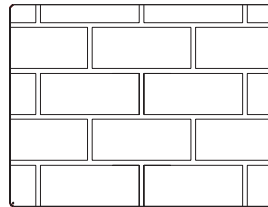
Front (Bottom)



Left/Right (Bottom)



Rear

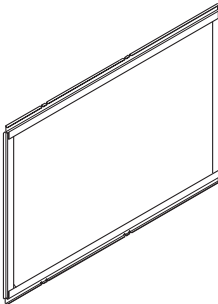


Face

## REFRACTORY PIECES

- Front (Bottom) - 25854
- Left/Right (Bottom) - 25856
- Rear - 25855
- Face - 112111-01

## HIGH VOLTAGE CABLE - 14386



## SIDE DOOR ASSEMBLY - 27200 (CERAMIC)



# WARRANTY INFORMATION

## KEEP THIS WARRANTY

Model _____
Serial No. _____
Date Purchased _____

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

### LIMITED WARRANTY

#### DIRECT-VENT FIREPLACE

DESA warrants this product to be free from defects in materials and components for two (2) years from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this heater to proper operating condition and an allowance for labor when provided by a DESA Authorized Service Center. Warranty part(s) MUST be obtained through authorized retailers of this product and/or DESA who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO TWO (2) YEARS ON ALL COMPONENTS FROM THE DATE OF FIRST PURCHASE; AND DESA'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

For information about this warranty write:

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Bowling Green, KY 42102-9004

[www.desatech.com](http://www.desatech.com)



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