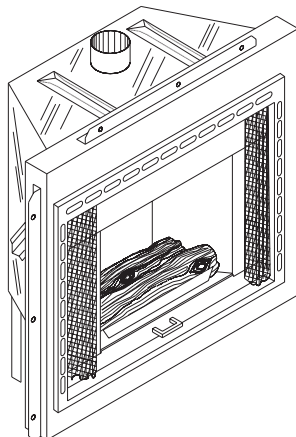


# VANGUARD®

## B-VENT DECORATIVE GAS FIREPLACE OWNER'S OPERATION AND INSTALLATION MANUAL



VGL450N (NATURAL) AND VGL450P (PROPANE/LP)

### FOR YOUR SAFETY

- Do not store or use gasoline or any other flammable vapors or liquids in the vicinity of this or any other appliance.
- 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 materials on or near the appliance.
- NEVER leave children unattended when a fire is burning in the 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.

### SAVE THIS BOOK

This book is valuable. In addition to instructing you on how to install and maintain your appliance, it also contains information that will enable you to obtain replacement parts or optional accessory items when needed. Keep it with your other important papers.

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

**WARNING: THE DECORATIVE GAS APPLIANCE SERIES IS INTENDED FOR USE WITH NATURAL OR PROPANE GAS ONLY! (DEPENDING ON THE TYPE OF GAS YOUR PARTICULAR MODEL IS APPROVED FOR). DO NOT ATTEMPT TO BURN ANY SOLID FUELS IN THESE APPLIANCES.**

**CHECK LOCAL CODES PRIOR TO INSTALLATION**

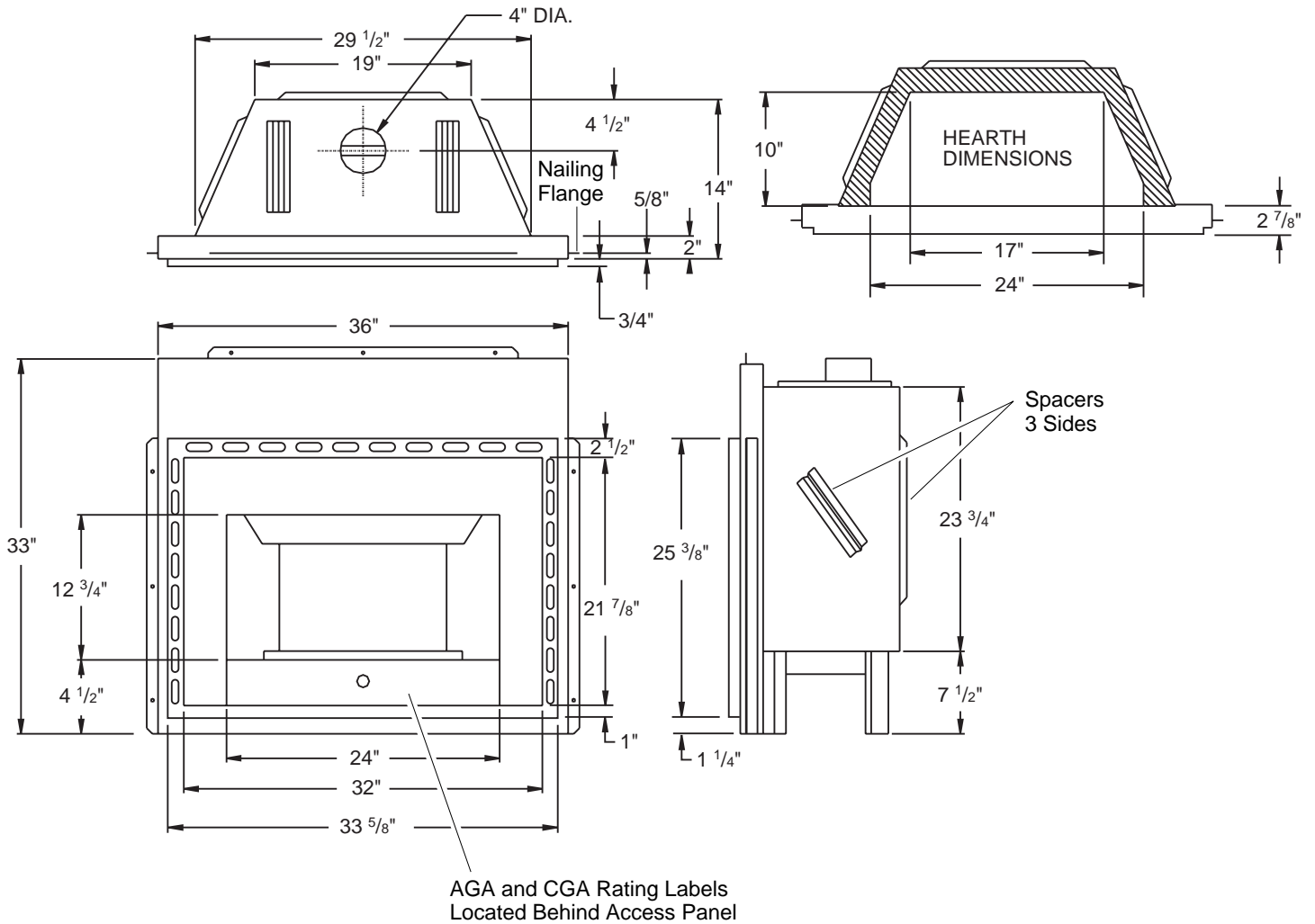
This appliance may be installed in an aftermarket\* manufactured (mobile) home, where not prohibited by state or local codes.

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

Save this manual for future reference.

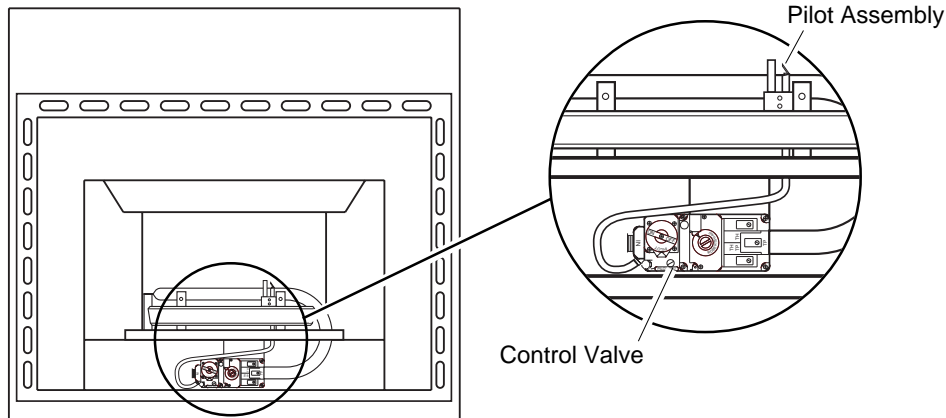
# VANGUARD VGL450 Series

## VENTED TYPE DECORATIVE APPLIANCE



**Figure 1 - Appliance Dimensions**

*Note:* All dimensions in this installation manual are in inches unless otherwise specified.



**Figure 2 - Location of Pilot Assembly and Control Valve (Access Panel and Logs Removed for Clarity)**

# OWNER'S MANUAL

## INTRODUCTION

Model VGL450 series is a radiant heat decorative gas appliance that uses a millivolt gas control valve and a pilot ignition system.

This appliance requires a 4" B-1 type venting system.

4" B-1 type vent NOT supplied by DESA. Check with your "B" vent instructions for installation guidelines.

**⚠ WARNING: This gas appliance must not be connected to a chimney flue servicing a solid fuel burning appliance.**

- Model VGL450N uses NATURAL GAS ONLY.
- Model VGL450P uses PROPANE GAS ONLY.

If you have any doubts as to which gas your particular unit is approved and tested for, please check the AGA/CGA rating plate located behind the access panel (Figure 1, page 2).

## BEFORE YOU BEGIN

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

This DESA appliance and its approved components are safe when installed according to this installation manual and are operated as recommended by DESA. Unless you use DESA approved components tested for this appliance, **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 appliance or any of the components manufactured by DESA unless otherwise permitted in writing by DESA.
- B) Use of any component part not approved by DESA in combination with this DESA appliance.
- C) Installation and/or operation in a manner other than instructed in this manual.
- D) The 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 the *CSA C22.1 CANADIAN ELECTRICAL CODE* for Canada.

The installation must conform with local codes or, in the absence of local codes, with the *National Fuel Gas Code ANSI Z223.1* or with the current *CAN/CGA-B149[.1 OR .2] Installation Codes* for Canada.

This appliance complies with *ANS Z21.50-1998* and *CAN/CGA 2.22-M98 Standard as a VENTED DECORATIVE GAS APPLIANCE* and is tested and listed by the *American Gas Association and Canadian Gas Association*.

**⚠ CAUTION: Installation and repair should be done by a qualified service person. The appliance should be inspected before use, and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, pet hair, etc. It is imperative that the control compartments, burners and circulating air passageways of the appliance be kept clean.**

**NOTICE: This appliance is not intended to be used as a primary source of heat.**

## SELECTING LOCATION

To determine the safest and most efficient location for your appliance, you must take into consideration the following guidelines:

1. The location must allow for proper clearances (see *Clearances*, page 4).
2. Consider a location where heat output would not be affected by drafts, air conditioning ducts, windows or doors.
3. A location that avoids the cutting of joists or roof rafters will make installation easier. Figure 3 shows a plan view of a few common locations.

**Flush installations** are recommended where living space is limited or at a premium, and since the space required to enclose the appliance would be located beyond an outside wall, this would also reduce the cutting of joists, roof rafters and such. Check local codes for any restrictions.

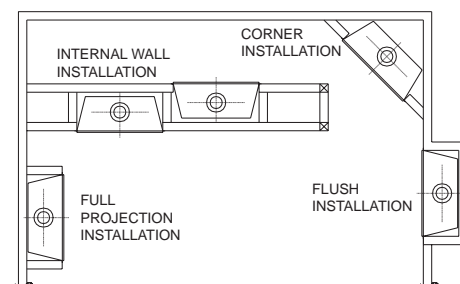
**Projected installations** can extend any distance into the room. A projection may be ideal for a new addition on an existing, finished wall.

**Corner installations** make use of space that may not normally be used and provides a wider and more efficient range for radiant heat transference.

**Internal wall installations** provide a discreet option for room separation and can also be ideal as an addition to an existing wall.

Also, in selecting a location, the following precautions must be observed:

1. Do not connect this appliance to a chimney system used for a solid fuel burning fireplace.
2. Install in an area providing ventilation and adequate combustion air.
3. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
4. NEVER obstruct the front opening of the appliance or the flow of combustion and ventilation air. Keep control compartments accessible.
5. Do not locate in the vicinity where gasoline or other flammable liquids may be stored. The appliance area must be kept clear and free from these combustible materials.



**Figure 3- Possible Locations for Installing Appliance**

# VANGUARD VGL450 Series

## VENTED TYPE DECORATIVE APPLIANCE

### PRE-INSTALLATION PREPARATION

#### CLEARANCES

Minimum clearances to combustibles are:

- Back and sides of outer surround: ..... 0" min.
- Drywall to sides of front face: ..... 0" min.
- "B" Vent surfaces: ..... 1" min.
- Ceiling to opening: ..... 30" min.
- Floor: ..... 0" min.
- Adjacent side wall: ..... 18" min

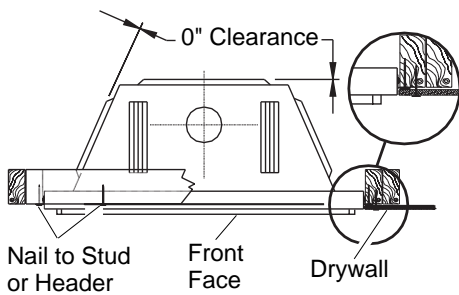


Figure 4 - Minimum Clearances (Top View)

**CAUTION :** Do not block required air spaces with insulation or any other material.

Do not obstruct effective opening of appliance with any type of facing material.

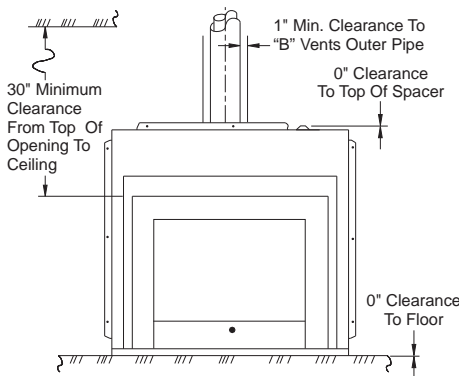


Figure 5 - Minimum Clearances (Front View)

#### MANTEL CLEARANCES

Woodwork, such as wood trims, mantels, and other combustible material, must not be placed within 7 inches of the appliance's opening. Combustible material projecting more than 1 1/2 inches from the appliance's front face must not be placed less than 12 inches from the opening of the appliance (ref. NFPA Standard 211 Section 7-3.3.3.). Figures 6 and 7 show limits on mantel locations.

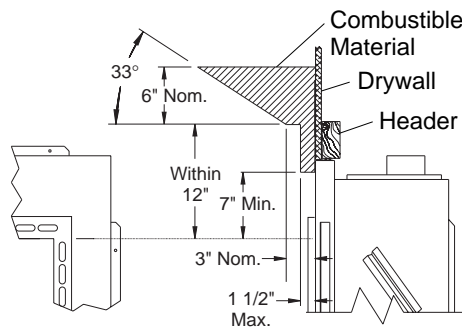


Figure 6 - Mantel Clearances - Side View (Cross Section)

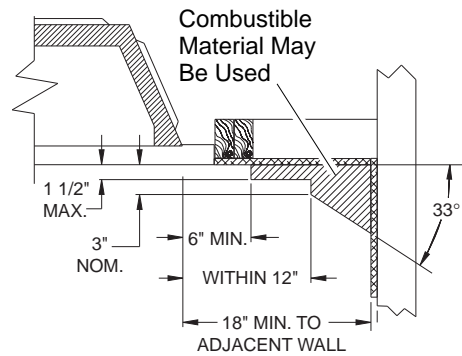


Figure 7 - Mantel Clearances - Top View (Cross Section)

#### FRAMING

Typical framing is shown in Figures 8 through 10, 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.

If a raised platform is to be constructed, ceiling clearance must be maintained (see Clearances).

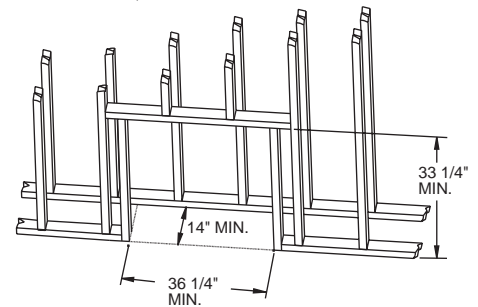
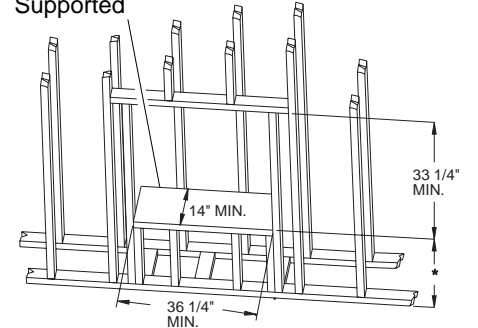


Figure 8 - Rough Opening for Installing in Wall

Platform Must Be Solid, Flat, and Fully Supported



\*As Required By Design, As Long As Ceiling Clearance Is Maintained

Figure 9 - Rough Opening for Installing on Raised Platform

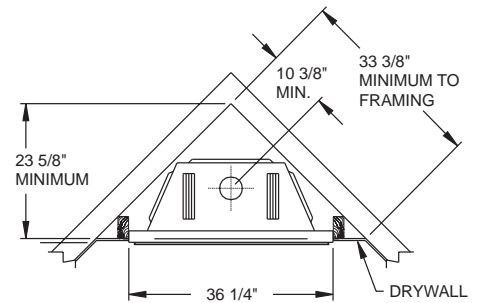
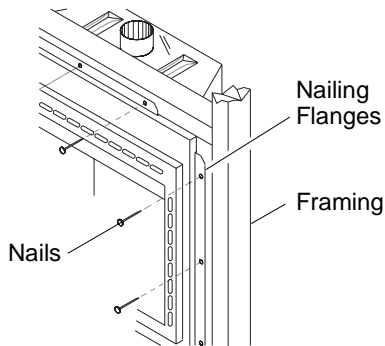


Figure 10 - Rough Opening for Corner Installation

## PRE-INSTALLATION PREPARATION

### *Continued*

Proceed to secure appliance to prepared framing at nailing flanges located at the sides of the appliance as shown in Figure 11.



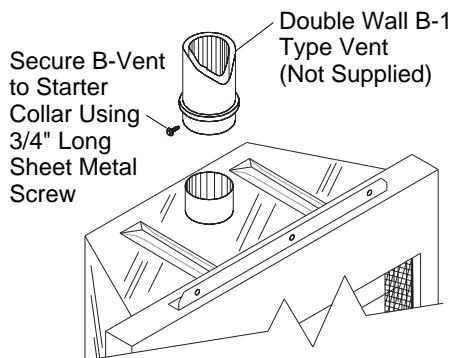
**Figure 11 - Attaching Fireplace to Wall Studs**

## VENTING INSTALLATION

A 4" B-1 Type Gas Vent Pipe is a double wall, unitized venting system (not supplied) which must be installed during the rough framing of the appliance. Any B-1 Type gas vent system may be used for proper venting as long as it is installed per the manufacturer's recommendations.

This appliance has been supplied with a 4" dia. starting collar for a snug fit. Slide B-1 vent pipe over starter pipe until fully seated.

Fasten this first section of "B" vent pipe by running a 3/4" long sheet metal screw through outer wall of pipe until secure. (see Figure 12).



**Figure 12 - Securing "B" Vent to Starter Collar**

The B-1 vent pipe must be properly terminated per manufacturer's instructions.

Check with your B-1 Vent installation instructions regarding multiple venting into a common flue.

**IMPORTANT:** Vent pipe **MUST NOT** terminate in an attic space.

Minimum height for complete system (vent termination and appliance) is 12 feet.

Maximum horizontal run of B-1 type vent pipe can be no greater than 75% of total vertical height of the vent.

# VANGUARD VGL450 Series

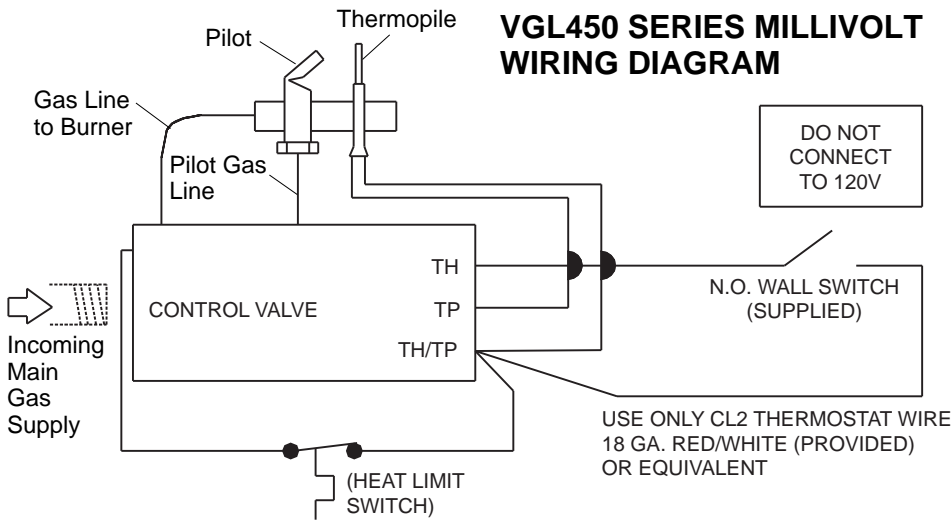
## VENTED TYPE DECORATIVE APPLIANCE

### INSTALLATION

#### WALL SWITCH INSTALLATION

The installation of a wall switch in this appliance allows you to activate the gas control valve without the use of normal current.

**CAUTION: Do not wire this millivolt system wall switch to a regular power supply.**



**Figure 13 - Wall Switch Wiring Diagram**

*Note:* If any of the original wire as supplied must be replaced, use 18 AWG TYPE CL2 (UL) 105 C (25 ft. length MAXIMUM) or equivalent.

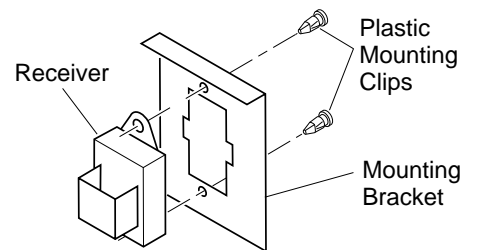
1. Remove access panel from lower front face.
2. Connect the millivolt wires from terminals TH and TH/TP to wall switch as shown in Figure 13 (both are supplied).

#### OPTIONAL WIRELESS HAND-HELD REMOTE CONTROL (GHRC) INSTALLATION

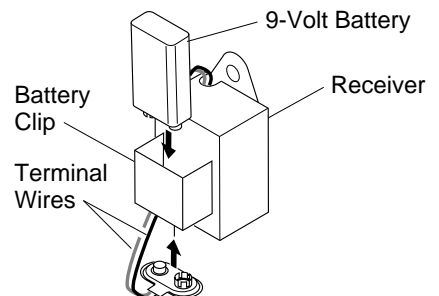
*Note:* If using optional wireless hand-held remote control, the wall switch is no longer operational.

##### Installing Receiver

1. Remove access panel from lower front face of firebox. Lift straight up on access panel until it stops. Pull bottom of access panel forward, then down.
2. Disconnect wall switch wires from TH and TH/TP terminals on control valve (see Figure 13).
3. Install remote receiver unit onto mounting bracket using the two plastic mounting clips (see Figure 14).
4. Connect wires to control valve. Connect white wire to terminal TH. Connect red wire to terminal TH/TP.
5. Locate the battery clip mounted on the back of the receiver (see Figure 15).
6. Slide 9-volt battery (not included) through the clip. *Note:* Only use alkaline battery.
7. Attach the terminal wires to the battery (see Figure 15).
8. Replace access panel. Place top of access panel into opening and slide up. Push bottom of access panel in and slide down to install.



**Figure 14 - Installing Remote Receiver (Shown from Rear of Mounting Bracket)**



**Figure 15 - Installing Battery in Receiver**



# OWNER'S MANUAL

## INSTALLATION

### Continued

#### Installing 9-Volt Battery in Hand-Held Remote Control Unit

1. Remove battery cover on back of remote control unit.
2. Attach terminal wires to the battery (not included). Place battery into the battery housing. *Note:* Only use alkaline battery.
3. Replace battery cover onto remote control unit.

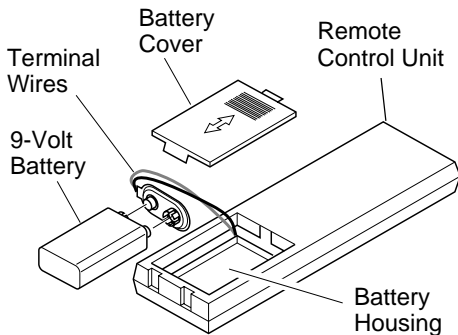


Figure 16 - Installing Battery in Hand-Held Remote Control Unit

## GAS SUPPLY TESTING

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

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

**IMPORTANT:** The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).

The Gas Control Valve is secured to the burner pan assembly underneath the front ledge.

A 1/8" NPT plugged tapping is provided on the Gas Control Valve for a test gauge connection immediately upstream of the gas supply connection to the appliance (see Figure 17).

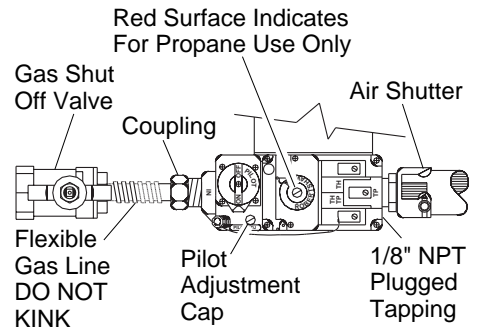


Figure 17 - 1/8" Plugged Tapping Location

GAS RATINGS		
TYPE OF GAS:	NATURAL	PROPANE/LP
MAX. INPUT RATING (Btu/hr):	12,000	12,000
MANIFOLD PRESSURE:	3.5 in. W.C.	10.0 in. W.C.
* MIN. SUPPLY PRESSURE:	4.5 in. W.C.	7.0 in. W.C.
MAX. SUPPLY PRESSURE:	10.5 in. W.C.	13.0 in. W.C.

\*For the purpose of input adjustment

Continued

# VANGUARD VGL450 Series

## VENTED TYPE DECORATIVE APPLIANCE

### INSTALLATION

#### Continued

#### GAS LINE HOOK-UP

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

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

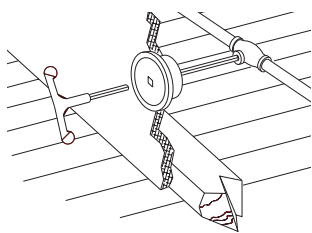
A manual shut-off valve must be included within (6') six feet of the appliance's gas supply system. For your convenience, it may be desirable to install the shut-off valve outside the appliance's enclosure where it can be accessed with a key through a wall as shown in Figure 18.

Route an approved gas line towards the appliance coming in from any direction (see Figure 19).

A flexible gas line long enough to connect the incoming approved gas line with the gas control valve will be required, along with a sediment trap.

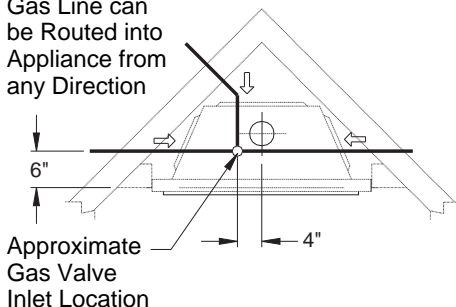
The approximate location of the gas control valve inlet is indicated in Figure 19.

*Note:* Do NOT kink flexible gas line.



**Figure 18 - Manual Shut-Off Valve Installation**

*Note:* Incoming Gas Line can be Routed into Appliance from any Direction



**Figure 19 - Routing Incoming Gas Line**

Before connecting the flexible gas line to the gas control valve, a sediment trap must be included between them. It must extend down 3 inches beyond the center of the pipe (See Figure 20).

Prepare incoming approved gas line with teflon tape or pipe joint compound (Check with local building codes).

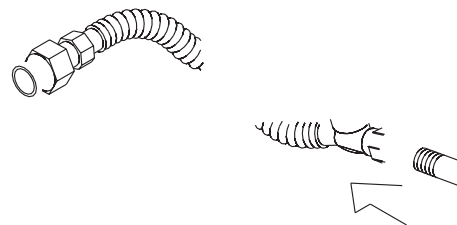
**CAUTION:** Compounds used on threaded joints of gas piping shall be resistant to the action of Liquefied Petroleum (LP or propane), and should be applied lightly to ensure excess sealant does not enter the gas line.

**WARNING:** All gas piping and connections must be tested for leaks after the installation is completed.

After ensuring that the gas valve is on, 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.

Complete your gas installation by connecting incoming gas line with flexible gas line. Secure tightly with wrench but do not over-tighten. Replace burner pan.



**Figure 20 - Gas Connection**



## INSTALLATION

### Continued

- Place log #2 (large front log) in groove on firebox floor in front of burner with log texture facing up and out (see Figure 22).
- Place lava rock along sides and front of inside of firebox bottom. It is not necessary to use all of the lava rock provided.

**NOTICE:** Do not put lava rock on burner or under burner. Placing lava rock on burner could cause performance problems.

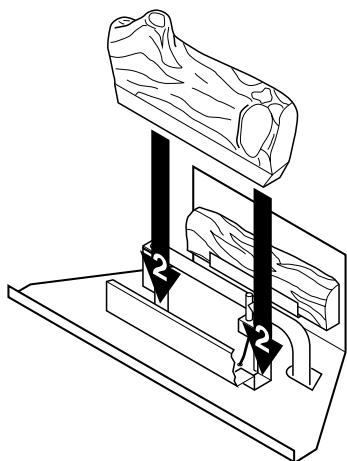


Figure 22 - Installing Log No. 2

## OPERATING FIREPLACE

### 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, above.
- Turn wall switch to the OFF position.
- Turn off all electric power to the appliance.
- Remove control access panel.
- Turn gas control knob clockwise  to the OFF position.
- Wait five (5) minutes to clear out any gas. If you smell gas, STOP! Follow "B" in the safety information. If you don't smell gas, go to the next step.
- Find pilot. Follow metal tube from gas control. The pilot is behind the burner tube.
- Turn control knob counterclockwise  to the PILOT position.
- Push in the knob all the way and hold in. Immediately light the pilot by pressing the red ignitor button. Continue to hold the control knob in for about (1) minute after the pilot is lit. Release button and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.
  - If button does not pop up when released, stop and immediately call your service technician or gas supplier.
  - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
- Turn gas control knob counterclockwise  to "ON". Knob can be turned to "ON" only if the control knob is popped out.
- Replace control access panel.
- Turn on all electric power to the appliance.

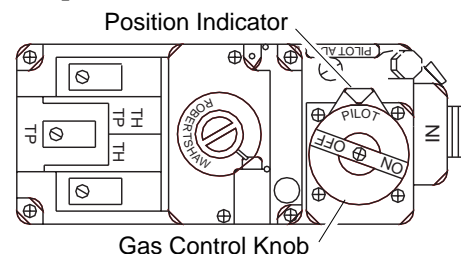


Figure 23 - Control Knob in the PILOT position

Continued

# VANGUARD VGL450 Series

## VENTED TYPE DECORATIVE APPLIANCE

### OPERATING FIREPLACE

*Continued*

#### TO TURN OFF GAS TO APPLIANCE

1. Turn off the wall switch.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove control access panel.
4. Turn gas control clockwise to "OFF". Do not force.
5. Replace control access panel.

#### OPTIONAL REMOTE OPERATION

**Note:** The GHRC receiver and hand-held remote control kit must be purchased separately (see *Accessories & Replacement Parts*, page 14). Follow installation instructions on pages 6 and 7 of this manual.

1. After lighting, let pilot flame burn for about one minute. Turn control knob to ON position. Adjust flame adjustment knob anywhere between HI and LO. Slide the selector switch to the REMOTE position. **NOTE:** The burner may light if hand-held remote ON button was on when selector switch was last turned off. You can now turn the burner on and off with the hand-held remote control unit.

**IMPORTANT:** Do not leave the selector switch in the REMOTE position when the pilot is not lit. This will drain the battery.

**IMPORTANT:** Be sure to press the ON/OFF buttons on the hand-held remote control unit for up to 3 seconds to assure proper operation.

2. Press the ON/OFF button to turn the burner on and off. When turning burner off, the pilot will remain lit.

**IMPORTANT:** To turn the pilot off, manually turn the control knob on the heater to the OFF position.

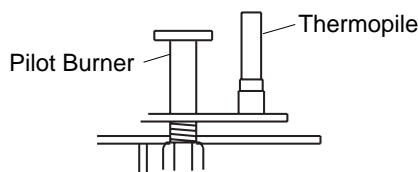


Figure 24 - Pilot

### PILOT ASSEMBLY ADJUSTMENT

The pilot assembly is factory preset for the proper flame height. Alterations to these settings may have occurred during shipping and handling, if this is the case, some minor readjustments may be necessary.

The pilot assembly is located behind the burner tube on the right hand side. The thermopile height should be at a distance of 3/8" to 1/2" from the pilot flame (see Figure 25).

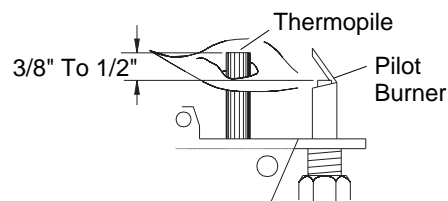


Figure 25 - Correct Pilot Flame Pattern

### BURNER FLAME ADJUSTMENT

The Air Shutter, located at the base of the Main Burner Tube has been factory preset to the proper air to gas ratio which results in a long, blue flame (see Figure 26).

If readjustment is necessary, you can restore proper flame setting by loosening the air shutter screw and rotating the air shutter until proper flame setting is achieved.

Tighten screw back (see Figure 17, page 7, for air shutter location).

Closing the Air Shutter reduces the air to gas mix resulting in a longer, yellow flame which could cause sooting.

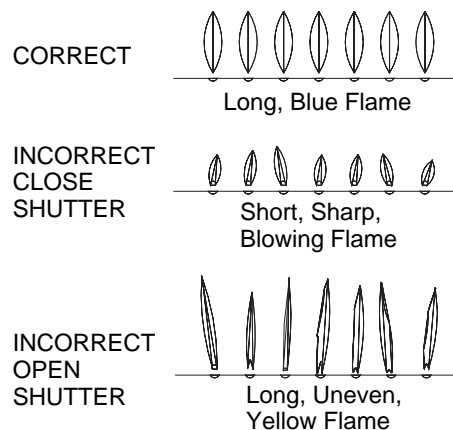


Figure 26 - Burner Flame Patterns

### OPERATING GUIDELINES AND MAINTENANCE INSTRUCTIONS

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.

When lit for the first time, the appliance will emit a slight odor for about an hour or two. This is a normal occurrence which is due to the "curing" of logs and "burn-in" of internal paints and lubricants used in the manufacturing process.

In cleaning, take care not to alter the settings on the pilot assembly.

**WARNING:** Have a qualified agency periodically inspect the vent system at the start of each heating season so as to be free of any obstructions which may hinder normal operation. Never obstruct the flow of combustion and ventilation air; keep the front of the appliance clear of all obstacles and combustible materials such as gasoline or other flammable vapors or liquids. It is also imperative that the control compartments, burners and circulating air passageways of the appliance be kept clean.

**CAUTION:** Keep control compartment, 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 (see *Installing Logs and Lava Rock*, pages 8 and 9).

**WARNING:** The logs can be hot. Handle only when cool.

# OWNER'S MANUAL

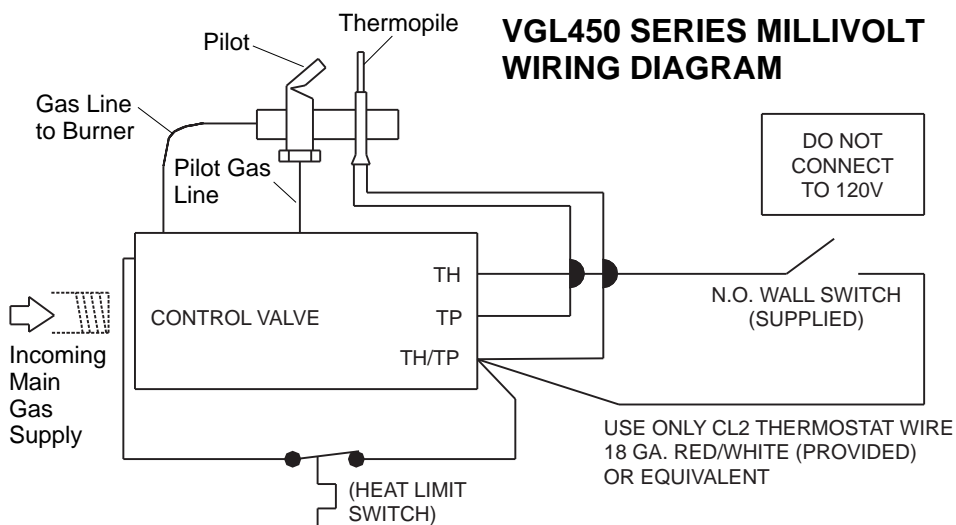
**⚠ WARNING:** Turn off gas and remote wall switch before servicing appliance. Any safety screen or guard removed for servicing this appliance must be replaced prior to operating.

Periodically inspect the vent system connections both inside and outside the appliance. Be sure that there are no obstructions which may hinder the appliance's normal operation. If the connection does not appear to be correct, contact your local service technician.

**⚠ WARNING:** CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURES AND TO STAY AWAY FROM THESE TO AVOID BURNS OR CLOTHING IGNITION.

**YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.**

## WIRING DIAGRAM



## 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

### When Gas Quality Is Bad

- pilot will not stay lit
- burner will produce flames and soot
- fireplace will backfire when lit

You may feel your gas pressure is too low or gas quality is bad. If so, contact your local propane/LP gas supplier.

## TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting.

If so, contact DESA International's Technical Service Department at 1-800-323-5190.

You can also visit DESA International'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 International's Technical Service Department at 1-800-323-5190 for referral information.

When calling DESA International, 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 defective 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 International's Parts Department at 1-800-972-7879 for referral information.

When calling DESA International, have ready

- model number of your fireplace
- the replacement part number

# VANGUARD VGL450 Series

## VENTED TYPE DECORATIVE APPLIANCE

### TROUBLESHOOTING

*Note:* For additional help, visit DESA International's Technical Service web site at [www.desatech.com](http://www.desatech.com).

*Note:* Before troubleshooting the system, make sure the gas shut-off valve is ON.

The two most common causes of a malfunctioning gas appliance are:

1. Loose wiring connections
2. Construction debris clogging the pilot and/or gas control valve filter

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Cannot light pilot	<ol style="list-style-type: none"> <li>1. No gas supply, or shut-off 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> </ol>	<ol style="list-style-type: none"> <li>1. Check to see if you have gas supply</li> <li>2. Hold regulator control valve in the PILOT position for 3 to 4 minutes to purge air</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 regulator valve (see <i>Accessories &amp; Replacement Parts</i>, page 14)</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 is being sent back to regulator</li> <li>2. If valve knob and wall switch are in the ON position, probable defective regulator valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring connections. Refer to wiring diagram shown in <i>Wall Switch Installation</i>, page 6</li> <li>2. Have a qualified technician replace valve</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 or too long</li> <li>2. Pilot not generating sufficient millivoltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Check electrical connections</li> <li>2. See <i>Pilot will not stay lit</i>, above</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 pilot generator</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>

## TROUBLESHOOTING

*Continued*



**WARNING:** 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.

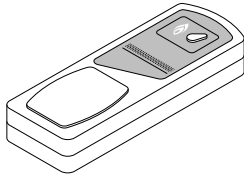
*IMPORTANT:* Operating fireplace where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Fireplace produces a clicking/ticking noise just after burner is lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is common with most fireplaces. If noise is excessive, contact qualified service person
Fireplace produces unwanted odors	1. Fireplace burning vapors from paint, hair spray, glues, etc. (See <i>IMPORTANT</i> statement above) 2. Low fuel supply 3. Gas leak. <b>See Warning statement at top of page</b>	1. Ventilate room. Stop using odor causing products while fireplace is running 2. Refill supply tank 3. Locate and correct all leaks (see <i>Gas Line Hook-Up</i> , page 8)
Gas odor even when control knob is in OFF position	1. Gas leak. <b>See Warning statement at top of page</b> 2. Control valve defective	1. Locate and correct all leaks (see <i>Gas Line Hook-Up</i> , page 8) 2. Replace control valve
Gas odor during combustion	1. Foreign matter between control valve and burner 2. Gas leak. <b>See Warning statement at top of page</b>	1. Take apart gas tubing and remove foreign matter 2. Locate and correct all leaks (see <i>Gas Line Hook-Up</i> , page 8)
Dark residue on logs or inside of fireplace	1. Improper log placement 2. Air holes at burner inlet blocked  3. Burner flame holes blocked	1. Properly locate logs 2. Clean out air holes at burner inlets. Periodically repeat as needed 3. Remove blockage or replace burner

# VANGUARD® VGL450 Series

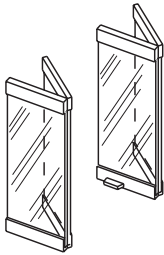
## VENTED TYPE DECORATIVE APPLIANCE

### ACCESSORIES AND REPLACEMENT PARTS



#### RECEIVER AND HAND-HELD REMOTE CONTROL KIT GHRC SERIES

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

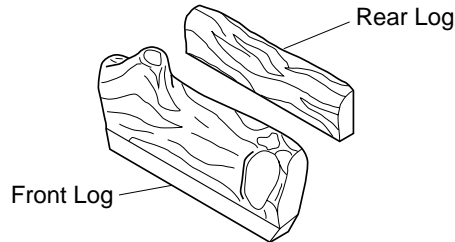


#### BI-FOLD GLASS DOORS Brushed Brass - VDGL450 Polished Brass - VDPL450

For all models. Bi-fold glass doors with extruded aluminum brushed or polished brass finish.

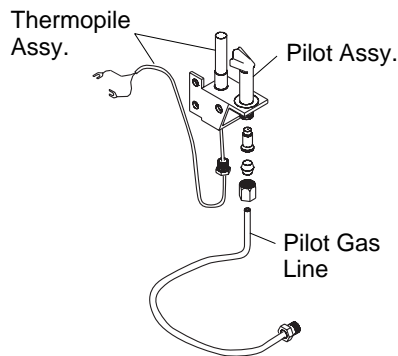
#### "B-1 TYPE" VENT PIPE (Not Shown)

Any B-1 type, 4" dia., gas vent pipe may be purchased from your local distributor or local hardware store.



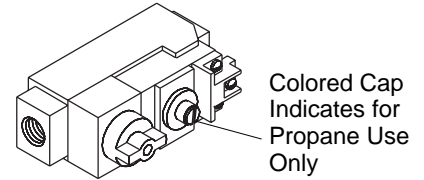
#### LOG SET - 25916 (105738-01)

Front and rear logs come standard with all units. Check with local representative for options.



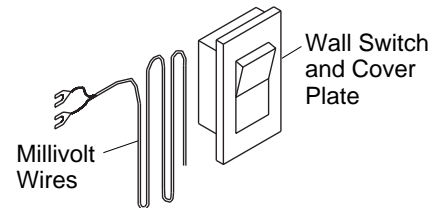
#### PILOT ASSEMBLY Natural - 20382 (105740-01) LP - 27085 (105740-02)

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



#### GAS CONTROL VALVE Natural - 14201 (105741-01) LP - 27086 (105741-02)

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



#### WALL SWITCH 22180 (105742-01)

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



#### HEAT LIMIT SWITCH 14116 (105739-01)

Should the limit switch need replacing, have a qualified technician replace it (see *Wiring Diagram*, page 11). The limit switch is located under the top door track on the right hand side.





# 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 B-VENT FIREPLACE

DESA International warrants this product to be free from defects in materials and components for four (4) 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 dealers of this product and/or DESA International 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 FOUR (4) YEARS ON ALL COMPONENTS FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL 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:

**DESA**  
**INTERNATIONAL**

2701 Industrial Drive  
P.O. Box 90004  
Bowling Green, KY 42102-9004  
www.desatech.com



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