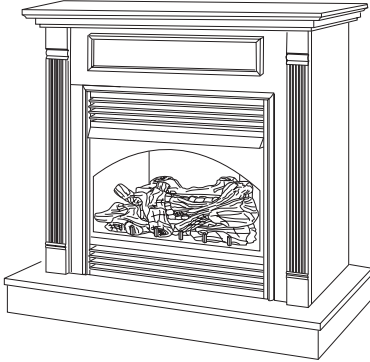


# DESA™

HEARTH PRODUCTS

## UNVENTED (VENT-FREE) GAS FIREPLACE SYSTEM OWNER'S OPERATION AND INSTALLATION MANUAL



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)

### THERMOSTATICALLY-CONTROLLED MODELS VSGF28NTF AND VSGF28PTF

**⚠ 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.

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## SAFETY

**⚠ 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.**

**⚠ WARNING:** This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to *Air for Combustion and Ventilation* section on page 6 of this manual.

**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.**

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

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

## SAFETY

*Continued*

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

**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 gases 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 heater or its controls can be dangerous.**

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

**⚠ WARNING: Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.**

**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 fireplace.**

**Fireplace front and screen become very hot when running fireplace. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.**

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

**You must operate this fireplace with the fireplace screen and hood in place. Make sure fireplace screen and hood are in place before running fireplace.**

**Keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.**

1. 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.
2. Do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors (propane/LP units only).
3. 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

# SAFETY

## Continued

4. This fireplace shall not be installed in a bedroom or bathroom.
5. Do not use this fireplace as a wood-burning fireplace. Use only the logs provided with the fireplace.
6. Do not add extra logs or ornaments such as pine cones, vermiculite or rock wool. Using these added items can cause soot-ing. Do not add lava rock around base. Rock and debris could fall into the control area of fireplace.
7. This fireplace is designed to be smoke-less. If logs ever appear to smoke, turn off fireplace and call a qualified service person. *Note: During initial operation, slight smoking could occur due to log curing and fireplace burning manufacturing residues.*
8. To prevent the creation of soot, follow the instructions in *Cleaning*, page 21.
9. Before using furniture polish, wax, carpet cleaner or similar products, turn heater off. If heated, the vapors from these products may create a white powder residue within burner box or on adjacent walls or furniture.
10. This fireplace needs fresh air ventilation to run properly. This fireplace has an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS shuts down the fire-place if enough fresh air is not available. See *Air for Combustion and Ventilation*, page 6. If fireplace keeps shutting off, see *Troubleshooting*, page 23.
11. Do not run fireplace
  - where flammable liquids or vapors are used or stored
  - under dusty conditions
12. Do not use this fireplace to cook food or burn paper or other objects.
13. Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the fireplace and to replace any part of the control system and any gas control which has been under water.
14. Do not operate fireplace if any log is broken. Do not operate fireplace if a log is chipped (dime-sized or larger).
15. Turn fireplace off and let cool before servicing. Only a qualified service person should service and repair fireplace.
16. Operating fireplace above elevations of 4,500 feet could cause pilot outage.
17. To prevent performance problems in propane/LP units, do not use propane/LP fuel tanks of less than 100 lbs. capacity (propane/LP units only).
18. Provide adequate clearances around air openings.

## LOCAL CODES

Install and use fireplace with care. Follow all local codes. In the absence of local codes, use the latest edition of *The National Fuel Gas Code ANSI Z223.1/NFPA 54\**.

\*Available from:

American National Standards Institute, Inc.  
1430 Broadway  
New York, NY 10018  
National Fire Protection Association, Inc.  
Batterymarch Park  
Quincy, MA 02269

*Note: Where listed vented decorative logs are required, thermostat operation is not permitted.*

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

Sellers of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

Vent-free gas products are prohibited for bedroom and bathroom installation in the Commonwealth of Massachusetts.

## PRODUCT IDENTIFICATION

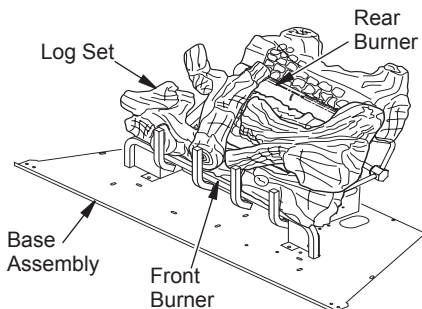


Figure 1 - Log Base Assembly

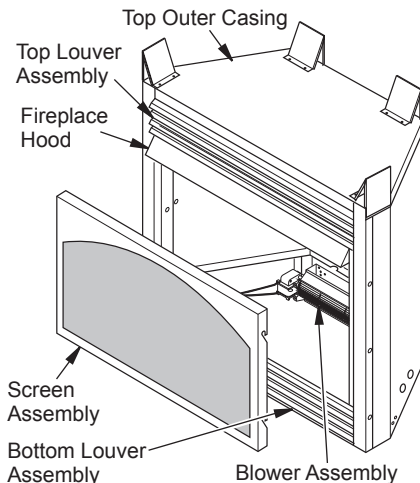


Figure 2 - Fireplace

## UNPACKING

**CAUTION:** Do not remove the data plates attached to the heater base assembly. The data plates contain important warranty and safety information.

1. With utility knife, cut carton all the way around above staples on bottom tray. Lift carton off of heater. Remove packing.  
*Note: Hood is located in packing on right hand side of heater front. Lift heater off bottom tray.*

2. Locate two screws above top corners of the fireplace screen. Remove and discard these screws. Lift fireplace screen up and pull out to remove.
3. Remove protective packaging applied to logs, log base assembly, and fireplace.
4. Remove fireplace hood from carton insert.
5. Check all items for any shipping damage. If damaged, promptly inform dealer where you bought fireplace.

## PRODUCT FEATURES

### OPERATION

This vent-free fireplace is clean burning. It requires no outside venting. There is no heat loss out a vent or up a chimney. Heat is generated by both realistic flames and glowing embers. When used without the blower, the fireplace requires no electricity making it ideal for emergency backup heat.

### SAFETY DEVICE

This fireplace has a pilot with an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS/pilot is a required feature for vent-free room heaters. The ODS/pilot system shuts off the fireplace if there is not enough fresh air.

### PIEZO IGNITION SYSTEM

This fireplace has a piezo ignitor. This system requires no matches, batteries or other sources to light fireplace.

### BLOWER ASSEMBLY

This fireplace has a blower assembly. The blower operates thermostatically and has a variable speed control. The blower circulates heated air from the fireplace into the room. Use of blower is optional.

### THERMOSTAT CONTROL

This fireplace has a thermostat sensing bulb and control valve. The thermostat controls the heat output and flame height. This maintains a consistent room temperature. Even the lowest setting provides realistic flames and glowing embers from two burners. Selecting higher comfort settings allows fireplace to run longer, producing greater heat output. At lower comfort settings, the fireplace will run less. This results in increased heating comfort. This can also result in lower gas results.

## AIR FOR COMBUSTION AND VENTILATION

**⚠ WARNING: This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code, or applicable local codes. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.***

Today's homes are built more energy efficient than ever. New materials, increased insulation and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireboxes, clothes dryers and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

### PROVIDING ADEQUATE VENTILATION

The following are excerpts from *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation*.

All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction
2. Unconfined Space
3. Confined Space

The information on pages 6 through 9 will help you classify your space and provide adequate ventilation.

### Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm ( $6 \times 10^{-11}$  kg per pa-sec- $m^2$ ) or less with openings gasketed or sealed and
- b. weather stripping has been added on openable windows and doors and
- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See [Ventilation Air From Outdoors](#), page 8.

If your home does not meet all of the three criteria above, proceed to [Determining Fresh-Air Flow for Heater Location](#), page 7.

### Confined and Unconfined Space

The National Fuel Gas Code, ANSI Z223.1/NFPA 54 defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu/hr (4.8  $m^3$  per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu/hr (4.8  $m^3$  per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed\*, through openings not furnished with doors, are considered a part of the unconfined space.

\* Adjoining rooms are communicating only if there are doorless passageways or ventilation grills between them.

# AIR FOR COMBUSTION AND VENTILATION

Continued

## DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION

### Determining if You Have a Confined or Unconfined Space

Use this work sheet to determine if you have a confined or unconfined space.

**Space:** Includes the room in which you will install heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space (length x width x height).

Length x Width x Height = \_\_\_\_\_ cu. ft.  
(volume of space)

*Example:* Space size 22 ft. (length) x 18 ft. (width) x 8 ft. (ceiling height) = 3168 cu. ft. (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Multiply the space volume by 20 to determine the maximum Btu/Hr the space can support.

\_\_\_\_\_ (volume of space) x 20 = (Maximum Btu/Hr the space can support)

*Example:* 3168 cu. ft. (volume of space) x 20 = 63,360 (maximum Btu/Hr the space can support)

3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free fireplace	_____ Btu/Hr
Gas water heater*	_____ Btu/Hr
Gas furnace	_____ Btu/Hr
Vented gas heater	_____ Btu/Hr
Gas fireplace logs	_____ Btu/Hr
Other gas appliances*+	_____ Btu/Hr
Total	= _____ Btu/Hr

\* Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

*Example:*

Gas water heater	_____	Btu/Hr
Vent-free fireplace	+ 39,000	Btu/Hr
Total	= 79,000	Btu/Hr

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

\_\_\_\_\_ Btu/Hr (maximum the space can support)

\_\_\_\_\_ Btu/Hr (actual amount of Btu/Hr used)

*Example:* 63,360 Btu/Hr (maximum the space can support)

79,000 Btu/Hr (actual amount of Btu/Hr used)

The space in the above example is a confined space because the actual Btu/Hr used is more than the maximum Btu/Hr the space can support. You must provide additional fresh air. Your options are as follows:

- A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See Ventilation Air From Inside Building, page 8.
- B. Vent room directly to the outdoors. See Ventilation Air From Outdoors, page 8.
- C. Install a lower Btu/Hr fireplace, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

**⚠ WARNING: If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54*, the *International Fuel Gas Code*, or applicable local codes.**



# AIR FOR COMBUSTION AND VENTILATION

Continued

## VENTILATION AIR

### Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 3). You can also remove door into adjoining room (see option 3, Figure 3). Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

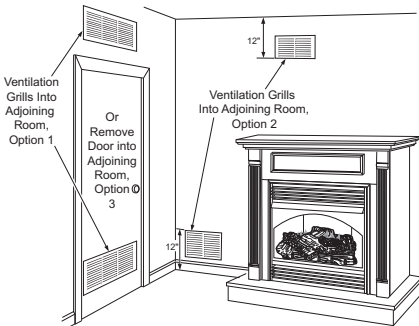


Figure 3 - Ventilation Air from Inside Building

### Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

**IMPORTANT:** Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

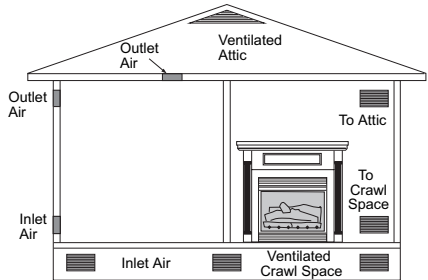


Figure 4 - Ventilation Air from Outdoors

## INSTALLATION

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

**WARNING:** A qualified service person must install fireplace. Follow all local codes.

**WARNING:** Never install the fireplace

- in a bedroom or bathroom
- in a recreational vehicle
- where curtains, furniture, clothing or other flammable objects are less than 36" from front and 42" from top of fireplace. For side clearances see Figure 8, page 10
- in high traffic areas
- in windy or drafty areas



# INSTALLATION

Continued

**⚠ WARNING:** These models have a three-prong, grounded electrical plug. This plug helps protect you against electrical shock. Only connect plug to a properly grounded, three-prong receptacle. Do not cut or remove the grounding prong from this plug.

**⚠ CAUTION:** This fireplace creates warm air currents. These currents move heat to wall surfaces next to fireplace. Installing fireplace next to vinyl or cloth wall coverings or operating heater where impurities (such as, but not limited, to tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may discolor walls or cause odors.

*Note: Your fireplace is designed to be used in zero clearance installations. Wall or framing material can be placed directly against any exterior surface on the rear, sides or top of your fireplace, except where standoff spacers are integrally attached. If standoff spacers are attached to your fireplace, these spacers can be placed directly against wall or framing materials.*

Use the dimensions shown for rough openings to create the easiest installation. See [Built-In Fireplace Installation](#), page 12.

**IMPORTANT:** Vent-free heaters add moisture to the air. Although this is beneficial, installing fireplace in rooms without enough ventilation air may cause mildew to form from too much moisture. See [Air for Combustion and Ventilation](#), page 6.

**IMPORTANT:** Make sure the fireplace is level. If fireplace is not level, log set will not work properly.

## CHECK GAS TYPE

Use the correct gas type (natural or propane/LP) for your fireplace. If your gas supply is not correct, do not install fireplace. Call dealer where you bought fireplace for proper type fireplace.

**⚠ WARNING:** This appliance is equipped for either natural gas or propane/LP gas but not both. Gas type is indicated on the rating plate. Field conversion is not permitted.

## ELECTRICAL HOOKUP

This fireplace has a blower assembly with an electrical cord. The electrical cord is five feet in length. You must locate fireplace within reach of 120-volt grounded electrical outlet. If not, you must install an electrical outlet within reach of fireplace power cord. The GA3555 outlet accessory may be used for built-in installation when a blower is installed.

## INSTALLING HOOD

Install hood to rail already installed in fireplace as shown in Figure 5. Use 3 Phillips screws provided.

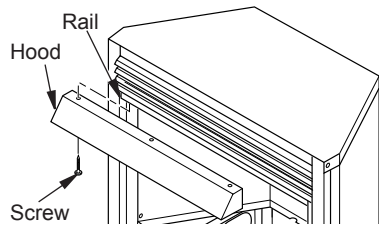


Figure 5 - Installing Hood

## ASSEMBLING AND ATTACHING OPTIONAL PERIMETER TRIM (Included with Mantel Accessory)

**IMPORTANT:** If you are recessing the firebox in a wall, do not attach trim at this time. See [Built-In Fireplace Installation](#), page 12.

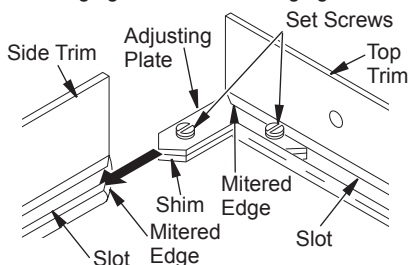
*Note:* These instructions are for assembling and attaching trim to fireplace.

1. Remove packaging from three pieces of trim.
2. Locate four screws, two adjusting plates with set screws, and two shims in the hardware packet.
3. Align shim under adjusting plate as shown in Figure 6, page 10.
4. Slide one end of adjusting plate/shim in slot on mitered edge of top trim (see Figure 6, page 10).

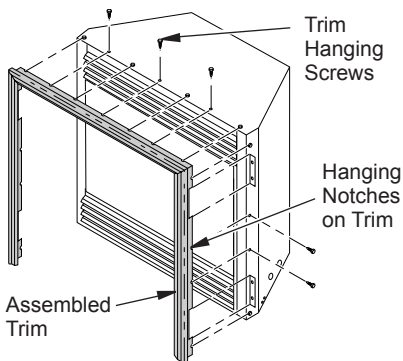
# INSTALLATION

*Continued*

- Slide other end of adjusting plate/shim in slot on mitered edge of side trim (see Figure 6).
- While firmly holding edges of trim together, tighten both set screws on the adjusting plate with slotted screwdriver.
- Repeat steps 1 through 6 for other side.
- Tighten trim hanging screws (#10 x 6.25 shoulder) into holes in cabinets. Place the assembled trim onto fireplace cabinet. Align hanging notches on trim with hanging screws on side of fireplace (see Figure 7). Push trim firmly into place, sliding hanging notches over hanging screws.



**Figure 6 - Assembling Perimeter Trim**



**Figure 7 - Attaching Perimeter Trim to Fireplace**

## INSTALLATION CLEARANCES

**⚠ WARNING: Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling, and adjoining wall.**

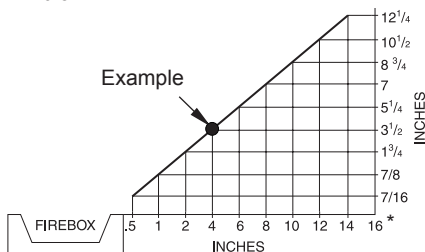
Carefully follow these instructions. This will ensure safe installation.

## Minimum Clearances For Side Combustible Material, Side Wall, and Ceiling

A. Clearances from the side of the fireplace cabinet to any combustible material and wall should follow diagram in Figure 8.

*Example:* The face of a mantel, bookshelf, etc. is made of combustible material and protrudes 3 1/2" from the wall. This combustible material must be 4" from the side of the fireplace opening (see Figure 8).

B. Clearances from the top of the fireplace opening to the ceiling should not be less than 42".



\*Minimum 16" from Side Wall

**Figure 8 - Minimum Clearance for Combustible to Wall**

## CONVENTIONAL FIREPLACE INSTALLATION

Conventional installation of this fireplace involves installing fireplace along with the corner, face, or cabinet mantel with hearth base accessories against a wall in your home. Follow the instructions in this section to install the fireplace in this manner.

- Assemble cabinet mantel, hearth base, and trim accessories. Assembly instructions are included with each accessory.
- When installing blower, install a properly grounded, 120 volt three-prong electrical outlet at fireplace location if an outlet is not there. If possible, locate outlet so cabinet mantel will cover it when installed (see Figure 9, page 11).
- Install gas piping to fireplace location. This installation includes an approved flexible gas line (if allowed by local codes) after the equipment shutoff valve. The flexible gas line must be the last item installed on the gas piping. See *Installing Gas Piping to Fireplace Location*, page 13.

# INSTALLATION

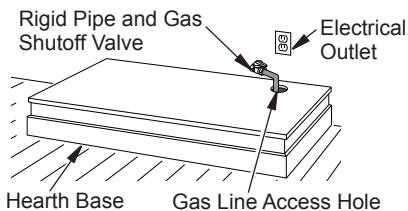
## Continued

- Place hearth base accessory against wall at installation location. Cut an access hole in hearth top to run flexible gas line to fireplace (see Figure 9). Make sure to locate access hole so cabinet mantel will cover it when installed.

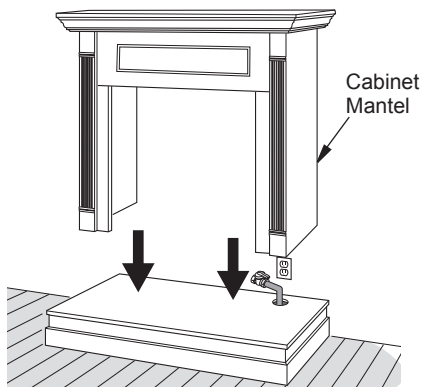
*Note: You can secure base to floor using wood screws. Countersink screw heads and putty over.*

- Route flexible gas line through access hole in hearth base.
- Center cabinet mantel on hearth base (see Figure 10). Make sure mantel is flush against wall.
- Break off nailing flanges (see Figure 11) with hammer or pliers.
- Place cardboard or other protective material on top of hearth base. Carefully set fireplace on protective material, with back of fireplace inside mantel opening.
- If blower is installed, route blower electrical cord through access holes in either side of fireplace.

*Note: Bushing may be moved if necessary. Plug electrical cord into electrical outlet.*



**Figure 9 - Placing Hearth Base Accessory Against Wall**

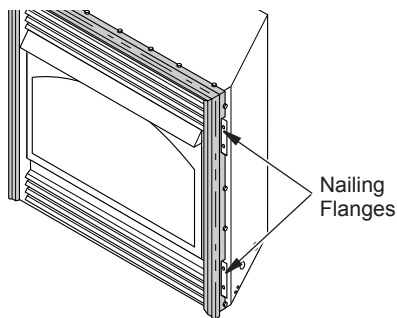


**Figure 10 - Installing Cabinet Mantel**

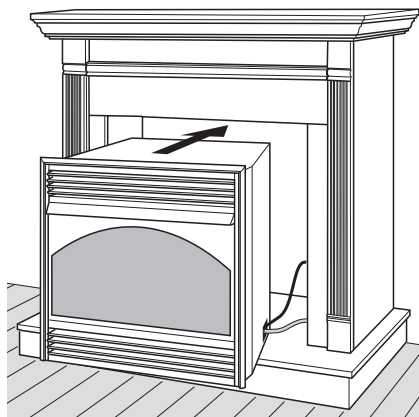
- Carefully insert fireplace into cabinet mantel. Be careful not to scratch or damage hearth base, cabinet mantel, or any laminate trim on hearth base. Remove protective material from top of hearth base and from front of fireplace (if any).

*Note: You can secure fireplace to hearth or floor. Open lower louver. Locate screw holes in bottom of base. Tighten wood screws through these holes and into hearth or floor.*

- Attach flexible gas line from fireplace gas regulator to gas supply. See [Connecting Fireplace to Gas Supply](#), page 15.
- Check all gas connections for leaks. See [Checking Gas Connections](#), page 16.



**Figure 11 - Location of Nailing Flanges**



**Figure 12 - Inserting Fireplace into Cabinet Mantel**

# INSTALLATION

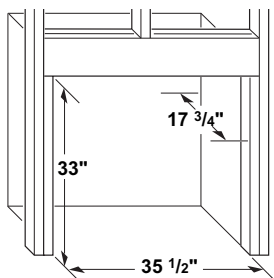
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## BUILT-IN FIREBOX INSTALLATION

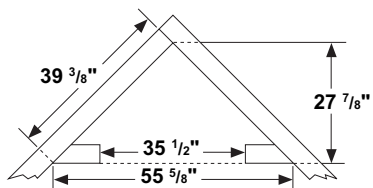
Built-in installation of this firebox involves installing firebox into a framed-in enclosure. This makes the front of firebox flush with wall. Optional brass trim accessories are available (see *Accessories*, page 27). The brass trim will extend past sides of firebox approximately 1/2". This will cover the rough edges of the wall opening. If installing a mantel above the firebox, you must follow the clearances shown in Figure 8, page 10. Use the following instructions to install the firebox in this manner.

1. Frame in rough opening. Use dimensions shown in Figure 13 for the rough opening. If installing in a corner, use dimensions shown in Figure 14 for the rough opening. The height is 33" which is the same as the wall opening above.
2. If using blower, install and properly ground GA3555, three-prong 120 volt electrical outlet, in fireplace. Follow instructions included in kit.

	Actual	Framing
Height	32 3/8"	33"
Front Width	34 5/16"	35 1/2"
Depth	16 11/16"	17 3/4"



**Figure 13 - Rough Opening for Installing in Wall**

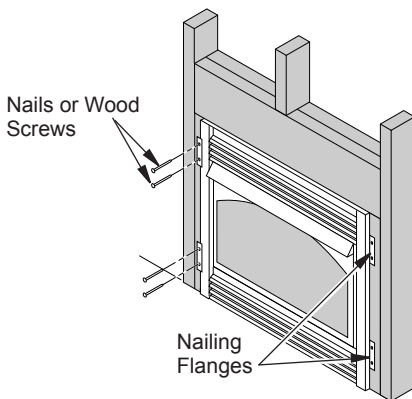


**Figure 14 - Rough Opening for Installing in Corner**

3. Install gas piping into fireplace location. This installation includes an approved flexible gas line (if allowed by local codes) after the equipment shutoff valve. The flexible gas line must be the last item installed on the gas piping. See *Installing Gas Piping to Fireplace Location*, page 13.
4. Carefully set fireplace in front of rough opening with back of fireplace inside wall opening.
5. Carefully insert fireplace into rough opening.
6. Attach flexible gas line to gas supply. See *Connecting Fireplace to Gas Supply*, page 15.
7. Attach fireplace to wall studs using nails or wood screws through holes in nailing flange (see Figure 15).
8. Check all gas connections for leaks. See *Checking Gas Connections*, page 16.
9. Plug electrical cord into electrical outlet installed in step 2.
10. Install trim after final finishing and/or painting of wall (see Figure 7, page 10).

**IMPORTANT:** When finishing your firebox, combustible materials such as wall board, gypsum board, sheet rock, drywall, plywood, etc. may be butted up next to the sides and top of the firebox. Combustible materials should never overlap the firebox front facing.

**WARNING:** Do not allow any combustible materials to overlap the firebox front facing.



**Figure 15 - Attaching Fireplace to Wall Studs**

# INSTALLATION

*Continued*

**IMPORTANT:** Noncombustible materials such as brick, tile, etc. may overlap the front facing, but should never cover any necessary openings like louvered slots.

**WARNING:** Do not allow noncombustible materials to cover any necessary openings like louvered slots.

**WARNING:** Use only non-combustible mortar or adhesives when overlapping the front facing with noncombustible facing material.

## Mantel Clearances for Built-In Installation

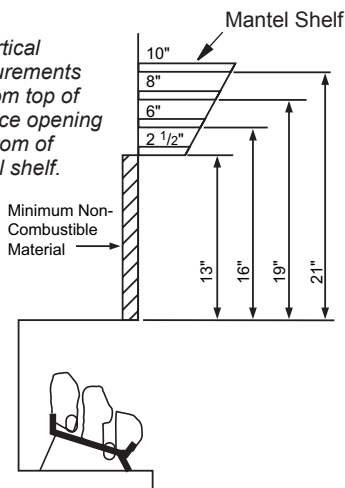
If placing mantel above built-in fireplace, you must meet minimum clearance between mantel shelf and top of fireplace opening.

**NOTICE:** If your installation does not meet the minimum clearances shown, you must do one of the following:

- raise the mantel to an acceptable height
- remove the mantel

*Note:*

*All Vertical measurements are from top of fireplace opening to bottom of mantel shelf.*



**Figure 16 - Minimum Mantel Clearances for Built-In Installation**

**NOTICE:** Surface temperatures of adjacent walls and mantels become hot during operation. Walls and mantels above the firebox may become hot to the touch. If installed properly, these temperatures meet the requirement of the national product standard. Follow all minimum clearances shown in this manual.

## INSTALLING GAS PIPING TO FIREPLACE LOCATION

**WARNING:** This appliance requires a 1/2" NPT (National Pipe Thread) inlet connection to the pressure regulator.

**WARNING:** A qualified service person must connect fireplace to gas supply. Follow all local codes.

**CAUTION:** Never connect propane/LP fireplace directly to the propane/LP supply. This fireplace requires an external regulator (not supplied). Install the external regulator between the fireplace and propane/LP supply.

**WARNING:** Never connect natural gas fireplace to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

# INSTALLATION

*Continued*

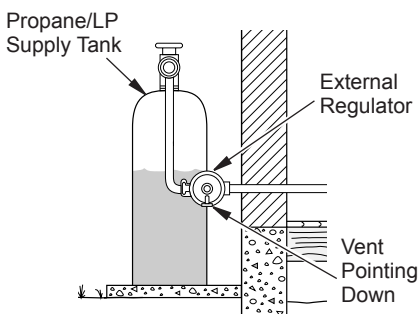
## Installation Items Needed

Before installing fireplace, make sure you have the items listed below.

- external regulator for propane/LP unit only (supplied by installer)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- equipment shutoff valve \*
- test gauge connection \*
- sediment trap (optional)
- tee joint
- pipe wrench
- approved flexible gas line with gas connector (if allowed by local codes) (not provided)

\* A CSA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional CSA design-certified equipment shutoff valve from your dealer.

For propane/LP units, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11" and 14" of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 17. Pointing the vent down protects it from freezing rain or sleet.



**Figure 17 - External Regulator With Vent Pointing Down**

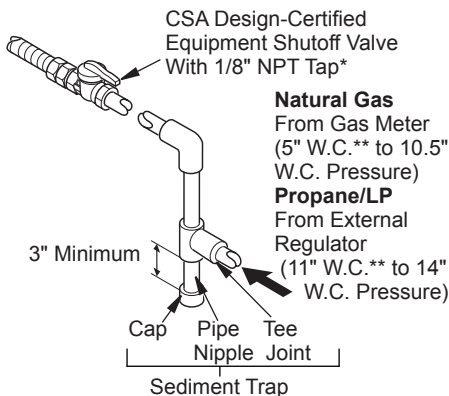
**⚠ CAUTION: Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to fireplace. If pipe is too small, undue loss of volume will occur.**

Installation must include an equipment shutoff valve, union and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from fireplace (see Figure 18).

**IMPORTANT:** Install equipment shutoff valve in an accessible location. The equipment shutoff valve is for turning on or shutting off the gas to the appliance.

Check your building codes for any special requirements for locating equipment shutoff valve to fireplaces.

Apply pipe joint sealant lightly to male NPT threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged fireplace valves.



**Figure 18 - Gas Connection**

\* Purchase the optional CSA design-certified equipment shutoff valve from your dealer.

\*\* Minimum inlet pressure for purpose of input adjustment.

# INSTALLATION

Continued

**⚠ WARNING:** Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

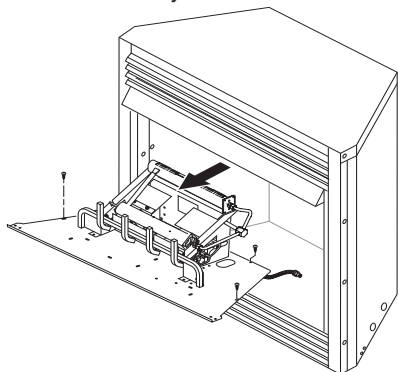
We recommend that you install a sediment trap in supply line as shown in Figure 18. Locate sediment trap where it is within reach for cleaning. Install in piping system between fuel supply and fireplace. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into fireplace gas controls. If sediment trap is not installed or is installed wrong, fireplace may not run properly.

## CONNECTING FIREPLACE TO GAS SUPPLY

### Installation Items Needed

- 5/16" hex socket wrench or nut-driver
  - Phillips screwdriver
  - sealant (resistant to propane/LP gas, not provided)
1. Remove fireplace screen. Remove one screw that holds fireplace screen in place for shipping. This screw is located near top left side of screen. Discard screw. Lift fireplace screen up and pull out to remove.
  2. Remove screws that attach log base assembly to fireplace (see Figure 19). Carefully lift up log base assembly and remove from fireplace (see Figure 19).

*Note: If adding the G8000 series brick liner accessory, install it now. Follow instructions in G8000 accessory kit.*



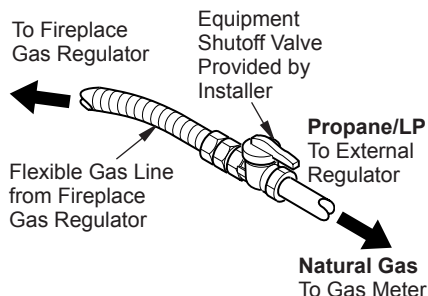
**Figure 19 - Removing Log Base Assembly From Fireplace**

**⚠ CAUTION:** Do not pick up log base assembly by burner. This could damage burner. Only handle base by grates.

3. Route gas line (provided by installer) from equipment shutoff valve to fireplace. Route flexible gas supply line through one of the access holes.

**NOTICE:** Most building codes do not permit concealed gas connections. A flexible gas line is provided to allow accessibility from the fireplace (see Figure 20). The flexible gas supply line connection to the equipment shutoff valve should be accessible.

4. Attach the flexible gas line to gas supply (see Figure 20). Check tightness of flexible gas line attached to gas regulator of fireplace (see Figure 20).
5. Check all gas connections for leaks. See Checking Gas Connections, page 16.
6. Replace log base assembly back into fireplace. Feed flexible gas line into fireplace base area while replacing log base assembly. Make sure the entire flexible gas line is in fireplace base area. Reattach log base assembly to fireplace with screws removed in step 2.



**Figure 20 - Attaching Flexible Gas Lines**



# INSTALLATION

*Continued*

## CHECKING GAS CONNECTIONS

**⚠ WARNING: Test all gas piping and connections, internal and external to unit, for leaks after installing or servicing. Correct all leaks at once.**

**⚠ WARNING: Never use an open flame to check for a leak. Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak. Correct all leaks at once.**

### PRESSURE TESTING GAS SUPPLY PIPING SYSTEM

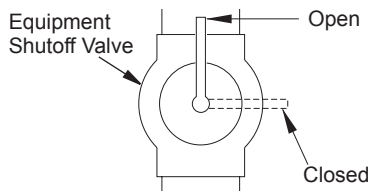
#### Test Pressures In Excess Of 1/2 PSIG (3.5 kPa)

1. Disconnect fireplace with its main gas valve and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig will damage fireplace regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter for natural gas or using compressed air.
4. Check all joints of gas supply piping system. Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Reconnect fireplace and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

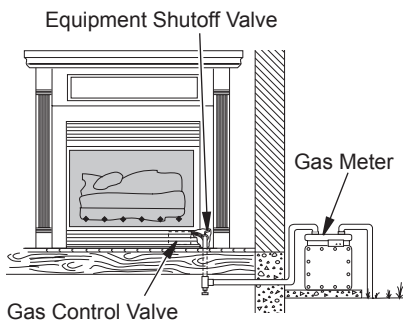
#### Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)

1. Close equipment shutoff valve (see Figure 21).
2. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas or opening main gas valve located on or near gas meter for natural gas or using compressed air.

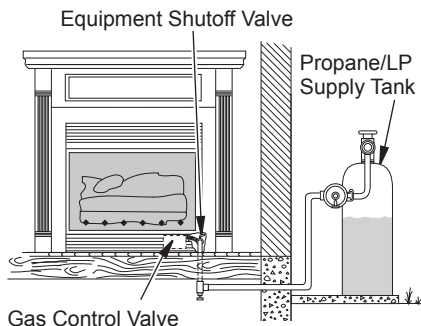
3. Check all joints from gas meter to equipment shutoff valve for natural gas or propane/LP supply to equipment shutoff valve for propane/LP (see Figures 22 and 23). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.



**Figure 21 - Equipment Shutoff Valve**



**Figure 22 - Checking Gas Joints for Natural Gas**



**Figure 23 - Checking Gas Joints for Propane/LP Gas**

# INSTALLATION

*Continued*

## PRESSURE TESTING FIREPLACE GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 21, page 16).
2. Open main gas valve located on or near gas meter for natural gas or open propane/LP supply tank valve.
3. Make sure control knob of fireplace is in the OFF position.
4. Check all joints from equipment shutoff valve to gas control valve (see Figures 22 or 23, page 16). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light fireplace (see *Operation*, page 18). Check all other internal joints for leaks.
7. Turn off fireplace (see *To Turn Off Gas to Appliance*, page 19, depending on your model).

## INSTALLING LOGS

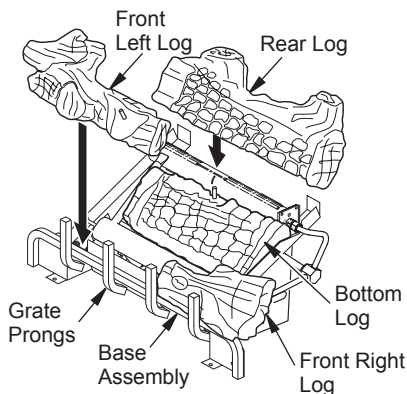
**⚠ WARNING:** Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

**⚠ CAUTION:** Do not remove the data plates attached to the heater base assembly. The data plates contain important safety and warranty information.

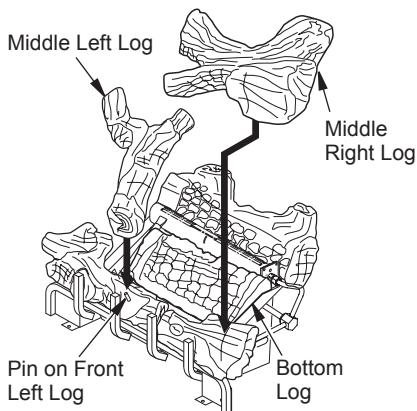
It is very important to install these logs exactly as instructed. Do not modify logs. Only use logs supplied with heater.

1. Place bottom log in center of the base assembly as shown in Figure 24.
2. Rest rear log in back corner sections of base assembly as shown in Figure 24. Make sure log is completely vertical and not leaning in toward burner where the flame will touch the log.
3. Position front right log against right side of grate prongs (see Figure 24).

4. Position front left log against left side of grate prongs (see Figure 24).
5. Place middle right log over front right and bottom logs as shown in Figure 25. Be sure hole in middle right log seats over pin in bottom log.
6. Place middle left log over front left and bottom logs as show in Figure 25. Be sure hole in middle left log seats over pin in front left log.
7. Install fireplace screen by slipping notches of fireplace screen over screws on front of fireplace (see Figure 26, page 18).



**Figure 24 - Installing Bottom Logs**

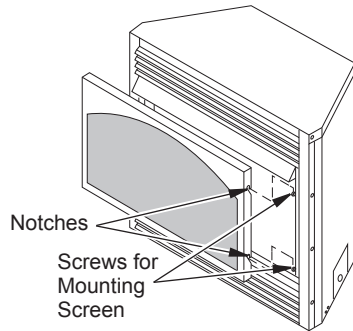


**Figure 25 - Installing Top Logs**

# INSTALLATION

*Continued*

**⚠ WARNING:** You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is in place before running fireplace.



*Figure 26 - Installing Fireplace Screen*

# OPERATION

## FOR YOUR SAFETY READ BEFORE LIGHTING

**⚠ WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **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.


- C. 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.

- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

## LIGHTING INSTRUCTIONS

**⚠ WARNING:** You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is installed before running fireplace.

**NOTICE:** During initial operation of new fireplace, burning logs will give off a paper-burning smell. Orange flame will also be present. Open window to vent smell. Operate fireplace on HI position to burn off odor. This will only last a few hours.

1. STOP! Read the safety information, column 1.
2. Make sure equipment shutoff valve is fully open.
3. Turn control knob clockwise  to the OFF position (see Figure 27, page 19).

## OPERATION

Continued

4. 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 18. If you don't smell gas, go to the next step.

5. Turn control knob counterclockwise ↶ to the PILOT position. Press in control knob for five (5) seconds (see Figure 27).

*Note: If running fireplace for first time, there will be air in gas line. You may need to press in control knob for 30 seconds or longer. This will allow air to bleed from the gas system.*

6. Continue pressing control knob in. Press and release ignitor button. This will light pilot. The pilot is attached to the front burner. If needed, keep pressing ignitor button until pilot lights.

*Note: If pilot does not stay lit, contact a qualified service person or gas supplier for repairs. Until repairs are made, light pilot with match. To light pilot with match, see [Manual Lighting Procedure](#).*

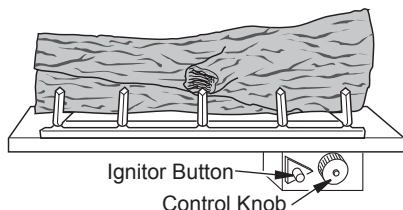
7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.

*Note: If pilot goes out, repeat steps 3 through 7. This fireplace has a safety interlock system. Wait one (1) minute for system to reset before lighting pilot again.*

• If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.

8. Turn control knob counterclockwise ↶ to desired heating level. The burners should light. Set control knob to any heat level between HI and LO.

9. To leave pilot lit and shut off burners only, turn control knob clockwise ↷ to the PILOT position.



**Figure 27 - Control Knob and Ignitor Button Location**

**⚠ CAUTION: Do not try to adjust heating levels by using the equipment shutoff valve.**

### TO TURN OFF GAS TO APPLIANCE

1. Turn control knob clockwise ↷ to the OFF position.
2. Close equipment shutoff valve (see Figure 21, page 16).

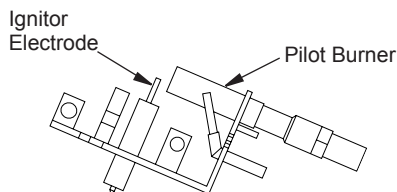
### THERMOSTAT CONTROL OPERATION

You can set the thermostat control knob to any comfort level between HI and LO. The thermostat will gradually modulate the heat output and flame height from higher to lower settings or pilot, in order to maintain the comfort level you select. The ideal comfort setting will vary by household depending upon the amount of space to be heated, the output of the central heating system, etc.

*Note: Selecting the HI setting will cause the burner to remain on without modulating down in most cases.*

### MANUAL LIGHTING PROCEDURE

1. Follow steps 1 through 5 under [Lighting Instructions](#), page 18.
2. Press control knob and light pilot with match.
3. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow step 8 under [Lighting Instructions](#), column 1.



**Figure 28 - Pilot**

# OPERATION

Continued

## BLOWER OPERATION

**⚠ WARNING:** This fireplace has a three-prong, grounded electrical plug. This plug helps protect you against electrical shock. Only connect plug to a properly grounded, three-prong receptacle. Do not cut or remove the grounding prong from this plug.

Locate the blower switch by opening lower louver on fireplace. Blower switch is located at lower left inside louver door.

This thermostat-controlled blower has a variable speed control with an ON/OFF switch. The blower will start when the thermostat senses a sufficient increase in firebox temperature.

*Note: It is safe to operate fireplace with blower turned off. However, the blower helps distribute heated air from the fireplace.*

*Note: Periodically check the louvers of the firebox and remove any dust, dirt or other obstructions.*

## INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

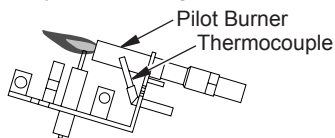
### PILOT FLAME PATTERN

Figure 29 shows a correct pilot flame pattern. Figure 30 shows an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the fireplace will shut down.

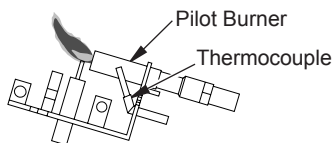
If pilot flame pattern is incorrect, as shown in Figure 30

- turn fireplace off (see [To Turn Off Gas to Appliance](#), page 19)
- see [Troubleshooting](#), page 23

*Note: The pilot flame on natural gas units will have a slight curve, but flame should be blue and have no yellow or orange color.*



**Figure 29 - Correct Pilot Flame Pattern (Propane/LP Shown)**



**Figure 30 - Incorrect Pilot Flame Pattern (Propane/LP Shown)**

### FRONT BURNER FLAME PATTERN

Figure 31 shows correct front burner flame pattern. Figure 32 shows incorrect front burner flame pattern. The incorrect burner

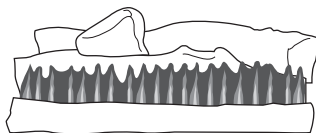
flame pattern shows yellow tipping at top of blue flame.

**⚠ WARNING:** If front burner flame pattern shows yellow tipping, your fireplace could produce increased levels of carbon monoxide. Follow instructions at bottom of this page. Yellow flame on rear burner is normal.

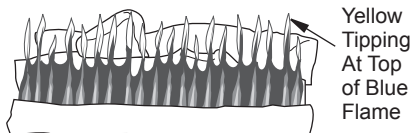
**NOTICE:** Do not mistake orange flames with yellow tipping. Dirt or other fine particles are burned by fireplace, causing brief patches of orange flame.

If front burner flame pattern is incorrect, as shown in Figure 32

- turn fireplace off (see [To Turn Off Gas to Appliance](#), page 19)
- see [Troubleshooting](#), page 23



**Figure 31 - Correct Front Burner Flame Pattern**



**Figure 32 - Incorrect Front Burner Flame Pattern**

Yellow Tipping At Top of Blue Flame

## CLEANING

**⚠ WARNING: Turn off fireplace and let cool before cleaning.**

**⚠ CAUTION: You must keep control areas, burner and circulating air passageways of fireplace clean. Inspect these areas of fireplace before each use. Have fireplace inspected yearly by a qualified service person. Fireplace may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.**

**⚠ WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.**

### BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

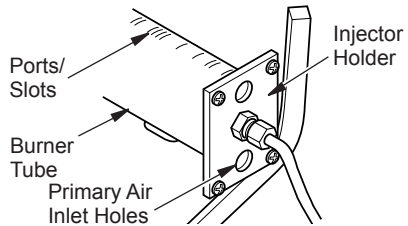
The primary air inlet holes allow the proper amount of air to mix with the gas. This provides a clean burning flame. Keep these holes clear of dust, dirt, lint and pet hair. Clean these air inlet holes prior to each heating season. Blocked air holes will create soot. We recommend that you clean the unit every three months during operation and have heater inspected yearly by a qualified service person.

We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store or home center may carry compressed air in a can. If using compressed air in a can, please follow the directions on the can. If you don't follow directions on the can, you could damage the pilot assembly.

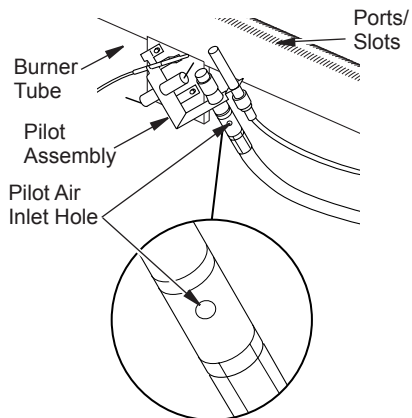
1. Shut off unit, including pilot. Allow unit to cool for at least thirty minutes.
2. Inspect burner, pilot and primary air inlet holes on injector holder for dust and dirt (see Figure 33).

3. Blow air through the ports/slots and holes in the burner.
4. Check injector holder located at the end of the burner tube again. Remove any large particles of dust, dirt, lint or pet hair with a soft cloth or vacuum cleaner nozzle.
5. Blow air into the primary air holes on the injector holder.
6. In case any large clumps of dust have now been pushed into the burner repeat steps 3 and 4.

Clean the pilot assembly also. A yellow tip on the pilot flame indicates dust and dirt in the pilot assembly. There is a small pilot air inlet hole about 2" from where the pilot flame comes out of the pilot assembly (see Figure 34). With unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.



**Figure 33 - Injector Holder On Outlet Burner Tube**



**Figure 34 - Pilot Inlet Air Hole**

## CLEANING

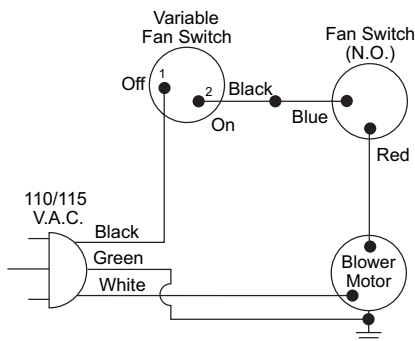
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### LOGS

- If you remove logs for cleaning, refer to *Installing Logs*, pages 17, to properly replace logs.
- Replace log(s) if broken or chipped (dime-sized or larger).

## WIRING DIAGRAM

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



## SPECIFICATIONS

### Model VSGF28NTF

- Rating (Variable): 21,000/28,000 Btu/Hr
- Type Gas: Natural Gas
- Ignition: Piezo
- Pressure Manifold: 3.4" W.C.
- Inlet Gas Pressure (in. of water): Maximum 10.5" W.C., Minimum\* 5" W.C.
- Shipping Weight: 100 lbs.

\* For input adjustment

### Model VSGF28PTF

- Rating (Variable): 23,000/28,000 Btu/Hr
- Type Gas: Propane/LP
- Ignition: Piezo
- Pressure Manifold: 7.9" W.C.
- Inlet Gas Pressure (in. of water): Maximum 14" W.C., Minimum\* 11" W.C.
- Shipping Weight: 100 lbs.

\* For input adjustment

## 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 Heating, LLC at 1-866-672-6040.

When calling DESA Heating, LLC, have ready:

- your name
- your address
- model and serial numbers of your heater
- how heater was malfunctioning
- 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 Heating, LLC at 1-866-672-6040 for referral information. A list of authorized dealers can be found by visiting [www.desatech.com](http://www.desatech.com).

When calling DESA Heating, LLC, have ready:

- model and serial numbers of your heater
- the replacement part number



## TROUBLESHOOTING

**⚠ WARNING: Turn off heater 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 ODS/pilot. This can damage ODS/pilot unit.**

*Note: All troubleshooting items are listed in order of operation.*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at ODS/pilot	<ol style="list-style-type: none"> <li>1. Ignitor electrode not connected to ignitor cable</li> <li>2. Ignitor cable pinched or wet</li> <li>3. Piezo ignitor nut is loose</li> <li>4. Broken ignitor cable</li> <li>5. Bad piezo ignitor</li> <li>6. Ignitor electrode broken</li> <li>7. Ignitor electrode positioned wrong</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect ignitor cable</li> <li>2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry</li> <li>3. Tighten nut holding piezo ignitor to base panel of log set. Nut is located behind base panel</li> <li>4. Replace ignitor cable</li> <li>5. Replace piezo ignitor</li> <li>6. Replace pilot assembly</li> <li>7. Replace pilot assembly</li> </ol>
When ignitor button is pressed, there is spark at ODS/pilot but no ignition	<ol style="list-style-type: none"> <li>1. Gas supply turned off or equipment shutoff valve closed</li> <li>2. Control knob not in PILOT position</li> <li>3. Control knob not pressed in while in PILOT position</li> <li>4. Air in gas lines when installed</li> <li>5. Depleted gas supply (propane/LP only)</li> <li>6. ODS/pilot is clogged</li> <li>7. Gas regulator setting is not correct</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on gas supply or open equipment shutoff valve</li> <li>2. Turn control knob to PILOT position</li> <li>3. Press in control knob while in PILOT position</li> <li>4. Continue holding down control knob. Repeat igniting operation until air is removed</li> <li>5. Contact local propane/LP gas company</li> <li>6. Clean ODS/pilot (see <i>Cleaning</i>, page 21) or replace ODS/pilot assembly</li> <li>7. Replace gas regulator</li> </ol>

# TROUBLESHOOTING

*Continued*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
<p>ODS/pilot lights but flame goes out when control knob is released</p>	<ol style="list-style-type: none"> <li>1. Control knob not fully pressed in</li> <li>2. Control knob not pressed in long enough</li> <li>3. Equipment shutoff valve not fully open</li> <li>4. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: A) Low gas pressure B) Dirty or partially clogged ODS/pilot</li> <li>5. Thermocouple connection loose at control valve</li> <li>6. Thermocouple damaged</li> <li>7. Control valve damaged</li> <li>8. Safety interlock system has been triggered</li> </ol>	<ol style="list-style-type: none"> <li>1. Press in control knob fully</li> <li>2. After ODS/pilot lights, keep control knob pressed in 30 seconds</li> <li>3. Fully open equipment shut-off valve</li> <li>4. A) Contact local natural or propane/LP gas company  B) Clean ODS/pilot (see <a href="#">Cleaning</a>, page 21) or replace ODS/pilot assembly</li> <li>5. Hand tighten until snug, then tighten 1/4 turn more</li> <li>6. Replace pilot assembly</li> <li>7. Replace control valve</li> <li>8. Wait one minute for safety interlock system to reset. Repeat ignition operation.</li> </ol>
<p>One or both burners do not light after ODS/pilot is lit</p>	<ol style="list-style-type: none"> <li>1. Inlet gas pressure is too low</li> <li>2. Burner orifice(s) clogged</li> <li>3. Mislocated crossover tube</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact local natural or propane/LP gas company</li> <li>2. Clean burner(s) (see <a href="#">Cleaning</a>, page 21) or replace burner orifice(s)</li> <li>3. Contact qualified service person</li> </ol>
<p>Delayed ignition of one or both burners</p>	<ol style="list-style-type: none"> <li>1. Manifold pressure is too low</li> <li>2. Burner orifice(s) clogged</li> <li>3. Mislocated crossover tube</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact local natural or propane/LP gas company</li> <li>2. Clean burner(s) (see <a href="#">Cleaning</a>, page 21) or replace burner orifice(s)</li> <li>3. Contact qualified service person</li> </ol>
<p>Burner backfiring during combustion</p>	<ol style="list-style-type: none"> <li>1. Burner orifice is clogged or damaged</li> <li>2. Damaged burner</li> <li>3. Gas regulator defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner (see <a href="#">Cleaning</a>, page 21) or replace burner orifice(s)</li> <li>2. Replace damaged burner</li> <li>3. Replace gas regulator</li> </ol>
<p>Yellow flame in front burner during burner combustion</p>	<ol style="list-style-type: none"> <li>1. Not enough air</li> <li>2. Gas regulator defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Check burner(s) for dirt and debris. If found, clean burner(s) (see <a href="#">Cleaning</a>, page 21)</li> <li>2. Replace gas regulator</li> </ol>

# TROUBLESHOOTING

*Continued*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Slight smoke or odor during initial operation	1. Residues from manufacturing processes and logs curing	1. Problem will stop after a few hours of operation
Moisture/condensation noticed on windows	1. Not enough combustion/ventilation air	1. Refer to <i>Air for Combustion and Ventilation</i> requirements (page 6)
Fireplace produces a whistling noise when burners are lit	1. Turning control knob to HI position when burners are cold 2. Air in gas line 3. Air passageways on heater blocked 4. Dirty or partially clogged burner orifice(s)	1. Turn control knob to LO position and let warm up for a minute 2. Operate burners until air is removed from line. Have gas line checked by local natural or propane/LP gas company 3. Observe minimum installation clearances (see page 10) 4. Clean burners (see <i>Cleaning</i> , page 21) or replace burner orifice(s)
White powder residue forming within burner box or on adjacent walls or furniture	1. When heated, vapors from furniture polish, wax, carpet cleaners, etc. may turn into white powder residue	1. Turn heater off when using furniture polish, wax, carpet cleaners or similar products
Dark residue on logs inside of their fireplace. <i>Note:</i> After removing all causes of residue deposits, completely clean fireplace and appliance off residue before reusing appliance	1. Improper log placement 2. Drafts or other air currents affecting flame pattern 3. Air holes at burner inlet blocked 4. Burner flame holes blocked	1. Properly locate logs (see <i>Installing Logs</i> , page 17) 2. Eliminate source of drafts around heater 3. Clean out air holes at burner inlet. Periodically repeat as needed 4. Remove blockage
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 normal with most heaters. If noise is excessive, contact qualified service person

# 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. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Fireplace produces unwanted odors	<ol style="list-style-type: none"> <li>1. Heater burning vapors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See <i>IMPORTANT</i> statement above)</li> <li>2. Low fuel supply (propane/LP only)</li> <li>3. Gas leak. See <b>Warning statement at top of page</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Open window to ventilate room. Stop using odor causing products while heater is running</li> <li>2. Refill supply tank (propane/LP only)</li> <li>3. Locate and correct all leaks (see <u><i>Checking Gas Connections</i></u>, page 16)</li> </ol>
Fireplace shuts off in use (ODS operates)	<ol style="list-style-type: none"> <li>1. Not enough fresh air is available</li> <li>2. Low line pressure</li> <li>3. ODS/pilot is partially clogged</li> </ol>	<ol style="list-style-type: none"> <li>1. Open window and/or door for ventilation</li> <li>2. Contact local natural or propane/LP gas company</li> <li>3. Clean ODS/pilot (see <u><i>Cleaning</i></u>, page 21)</li> </ol>
Gas odor even when control knob is in OFF position	<ol style="list-style-type: none"> <li>1. Gas leak. See <b>Warning statement at top of page</b></li> <li>2. Control valve or gas control defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Locate and correct all leaks (see <u><i>Checking Gas Connections</i></u>, page 16)</li> <li>2. Replace control valve or gas control</li> </ol>
Gas odor during combustion	<ol style="list-style-type: none"> <li>1. Foreign matter between control valve and burner</li> <li>2. Gas leak. See <b>Warning statement at top of page</b></li> </ol>	<ol style="list-style-type: none"> <li>1. Take apart gas tubing and remove foreign matter</li> <li>2. Locate and correct all leaks (see <u><i>Checking Gas Connections</i></u>, page 16)</li> </ol>

## TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA Heating, LLC at 1-866-672-6040. When calling please have your model and serial numbers of your heater ready.

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

## SERVICE HINTS

### When Gas Pressure Is Too Low

- pilot will not stay lit
- burners will have delayed ignition
- heater will not produce specified heat
- propane/LP gas supply may be low for propane/LP unit

You may feel your gas pressure is too low. If so, contact your local gas supplier.

## ACCESSORIES

**NOTICE: All accessories may not be available for all fireplace models.**

Purchase these accessories from your local dealer. If they can not supply these accessories call DESA Heating, LLC at 1-866-672-6040 for information. You can also write to the address listed on the back page of this manual.

### FIREBOX BRICK LINER - G8005 SERIES

**All Models.** Ceramic fiber firebox liner adds the look of real brick.

#### PERIMETER TRIM

**PT32** - Black Finish

**PT32P** - Platinum Finish

**PT32PB** - Polished Brass Finish

**PT32B** - Brushed Brass Finish

#### PERIMETER TRIM ACCESSORY

**PT32** - Black Finish

**PT32P** - Platinum Finish

**PT32PB** - Polished Brass Finish

**PT32B** - Brushed Brass Finish

Included with accessory mantels

#### CLEANING KIT - CCK

**All Models.** Your vent-free gas appliance requires regular cleaning and maintenance to prevent performance problems. This kit gives you the tools and instructions to make it easy to clean all critical areas of your appliance.

### DUPLEX OUTLET KIT - GA3555

For built-in installation.

#### MANTELS

**W32TU** - 32" Wall Mantel, Unfinished, Traditional

**W32TO** - 32" Wall Mantel, Oak Stain, Traditional

**C32TU** - 32" Corner Mantel, Unfinished, Traditional

**C32TO** - 32" Corner Mantel, Oak Stain, Traditional

**W32CO** - 32" Wall Mantel, Oak Stain, Classic

**C32CO** - 32" Corner Mantel, Oak Stain, Classic

**W32DO** - 32" Wall Mantel, Oak Stain, Dentil

**W32GO** - 32" Wall Mantel, Oak Stain, Georgian

**C32GO** - 32" Corner Mantel, Oak Stain, Georgian

#### EXTRUDED LOUVER KIT

**GA9094** - Polished Brass

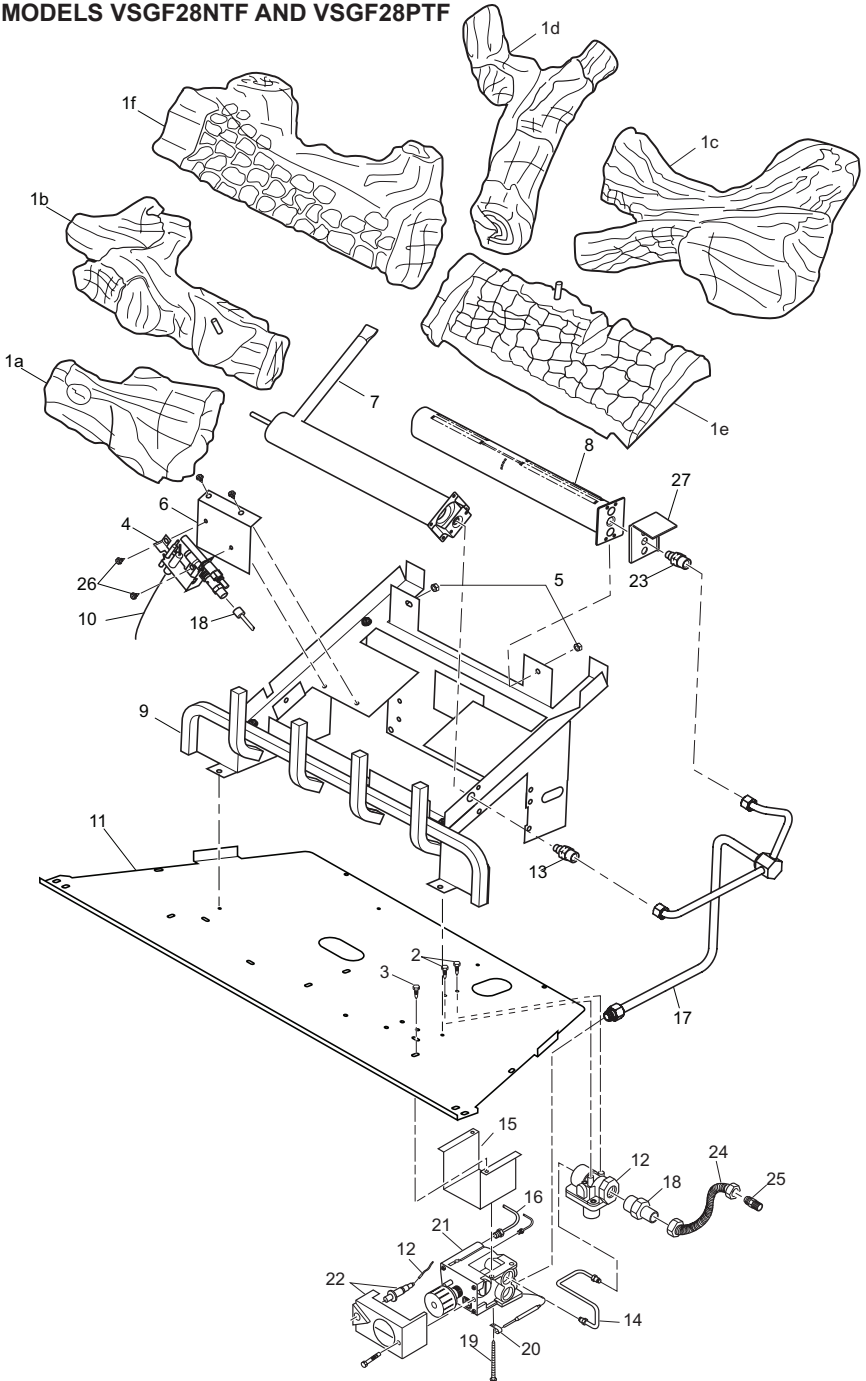
**GAP9094** - Platinum

**GABB9094** - Brushed Brass

**For all models.** Optional extruded louvers (kit includes 2 louvers).

# PARTS

MODELS VSGF28NTF AND VSGF28PTF



## PARTS

This list contains replaceable parts used in your firebox. When ordering parts, follow the instructions listed under Replacement Parts on page 22 of this manual.

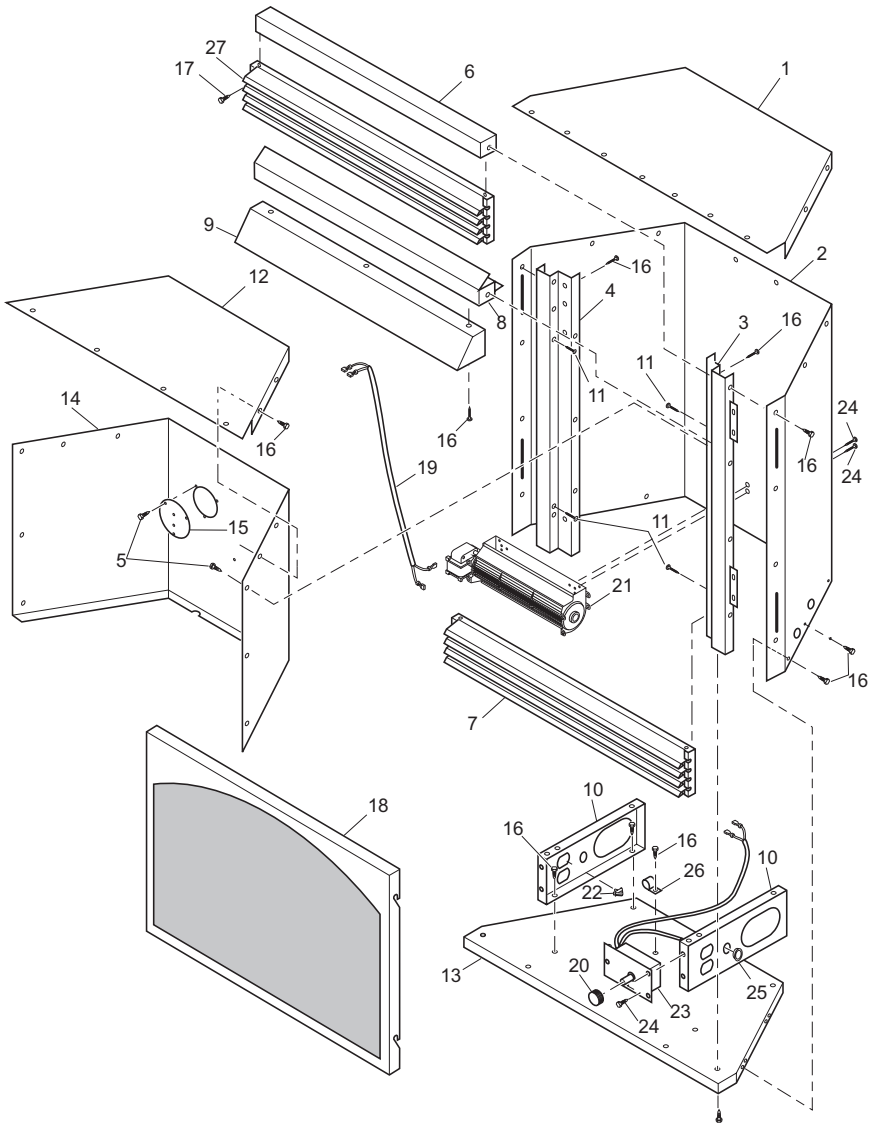
KEY NO.	PART NO.	DESCRIPTION	VSGF28PTF		QTY.
				VSGF28NTF	
1a	121699-11	Front Log Right	•	•	1
1b	121699-10	Front Log Left	•	•	1
1c	121699-08	Middle Right Log	•	•	1
1d	121699-09	Middle Left Log	•	•	1
1e	121699-07	Bottom Log	•	•	1
1f	121699-12	Back Log	•	•	1
2	M11084-38	Screw	•	•	2
3	098304-01	Screw, #10 Phillips, Black	•	•	8
4	107486-01	ODS Pilot	•	•	1
	107485-01	ODS Pilot	•	•	1
5	098249-01	Nut	•	•	2
6	112713-01	Pilot Bracket	•	•	1
7	112465-02	Front Burner Assembly	•	•	1
8	112466-02	Rear Burner Assembly	•	•	1
9	112705-03	Base Assembly	•	•	1
10	098271-10	Ignitor Cable	•	•	1
11	**	Firebox Bottom	•	•	1
12	098867-10	Gas Regulator	•	•	1
	098867-09	Gas Regulator	•	•	1
13	101004-01	Front Burner Injector	•	•	1
	101004-04	Front Burner Injector	•	•	1
14	102845-01	Inlet Tube	•	•	1
15	101382-01	Therموالve Bracket	•	•	1
16	099387-09	Pilot Tube	•	•	1
17	112708-06	Burner Tube	•	•	1
18	097809-02	Adapter	•	•	1
19	099211-01	Screw	•	•	2
20	098544-01	Thermostat Clamp	•	•	1
21	101329-14	Thermostat Gas Valve Assembly	•	•	1
	101329-16	Thermostat Gas Valve Assembly	•	•	1
22	101381-01	Cover and Piezo	•	•	1
23	101004-15	Rear Burner Injector	•	•	1
	101004-14	Rear Burner Injector	•	•	1
24	101628-03	Flex Hose	•	•	1
25	901063-01	3/8" Flare x 1/2" NPT	•	•	1
26	M11084	Screw	•	•	4
27	121005-01	Air Shield	•	•	1
<b>PARTS AVAILABLE — NOT SHOWN</b>					
	100563-01	Warning Plate	•	•	1
	101054-01	Lighting Instructions Plate	•	•	1
	100565-01	Warning Plate Fastener	•	•	1

\*\* Not a field replacement part



# PARTS

## MODELS VSGF28NTF AND VSGF28PTF



## PARTS

### MODELS VSGF28NTF AND VSGF28PTF

This list contains replaceable parts used in your firebox. When ordering parts, follow the instructions listed under Replacement Parts on page 22 of this manual.

<b>KEY</b>			
<b>NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
1	101357-03	Top Outer Casing	1
2	**	Outer Casing	1
3	102758-02CK	Right Front Side	1
4	102759-02CK	Left Front Side	1
5	098304-01	Phillips Pan Head Screw, #10	17
6	101351-01CK	Top Front	1
7	102455-18	Louver Extruded	1
8	101353-01CK	Middle Front Rail	1
9	101712-02	Firebox Hood	1
10	**	Firebox Support	2
11	099230-01	Shoulder Screw	4
12	101872-03	Firebox Top	1
13	101346-01	Outer Base	1
14	**	Firebox Wrapper	1
15	101614-02	Limit Switch (Thermal Disk) Assembly	1
16	M11084-26	Hex Screw, #10	57
17	098304-02	Phillips Pan Head Screw, #6-20 x 0.38"	4
18	101727-03	Screen Assembly	1
19	101398-03	Wire Harness	1
20	103650-01	Control Knob	1
21	119943-01	Blower Assembly	1
22	099123-01	Wire Clip	4
23	105649-01	Blower Speed Control	1
24	M11084-38	Hex Screw, #8-18 x 0.38"	4
25	101629-01	Plastic Bushing	2
26	098544-01	Clamp	1
27	102455-02	Extruded Louver	1
<b>PARTS AVAILABLE — NOT SHOWN</b>			
	099038-01	Strain Relief Bushing	1
	100639-01	Caution Decal	1
	104313-01	Pin Hinge	1
	104313-02	Pin Hinge	1
	M10908-2	Screw, Slotted Hex Head Tapping	4

\*\* Not a field replaceable part.

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# WARRANTY

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## KEEP THIS WARRANTY

Model (located on product or identification tag) \_\_\_\_\_

Serial No. (located on product or identification tag) \_\_\_\_\_

Date Purchased \_\_\_\_\_

Keep receipt for warranty verification.

## DESA HEATING, LLC LIMITED WARRANTIES

### New Products

**Standard Warranty:** DESA Heating, LLC warrants this new product and any parts thereof to be free from defects in material and workmanship for a period of four (4) years from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with DESA Heating, LLC's warnings and instructions.

For products purchased for commercial, industrial or rental usage, this warranty is limited to 90 days from the date of first purchase.

### Factory Reconditioned Products

**Limited Warranty:** DESA Heating, LLC warrants factory reconditioned products and any parts thereof to be free from defects in material and workmanship for 30 days from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with DESA Heating, LLC's warnings and instructions.

### Terms Common to All Warranties

The following terms apply to all of the above warranties:

Always specify model number and serial number when contacting the manufacturer. To make a claim under this warranty the bill of sale or other proof of purchase must be presented.

This warranty is extended only to the original retail purchaser when purchased from an authorized dealer, and only when installed by a qualified installer in accordance with all local codes and instructions furnished with this product.

This warranty covers the cost of part(s) required to restore this product to proper operating condition and an allowance for labor when provided by a DESA Heating, LLC Authorized Service Center or a provider approved by DESA Heating, LLC. Warranty parts must be obtained through authorized dealers of this product and/or DESA Heating, LLC who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty.

Travel, handling, transportation, diagnostic, material, labor and incidental costs associated with warranty repairs, unless expressly covered by this warranty, are not reimbursable under this warranty and are the responsibility of the owner.

Excluded from this warranty are products or parts that fail or become damaged due to misuse, accidents, improper installation, lack of proper maintenance, tampering, or alteration(s).

This is DESA Heating, LLC's exclusive warranty, and to the full extent allowed by law; this express warranty excludes any and all other warranties, express or implied, written or verbal 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 new products and 30 days on factory reconditioned products from the date of first purchase. DESA Heating, LLC makes no other warranties regarding this product.

DESA Heating, LLC's liability is limited to the purchase price of the product, and DESA Heating, LLC shall not be liable for any other damages whatsoever under any circumstances including indirect, incidental, or consequential damages.

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

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

For information about this warranty contact:



119303 01  
NOT A UPC



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1-866-672-6040

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