### DESA. UNVENTED (VENT-FREE) GAS OMPACT CLASSIC HEARTH® FIREPLACE OWNER'S OPERATION AND INSTALLATION MANUAL

### For more information, visit www.desatech.com



Thermostat Models: VMH10TPB, VMH10TNB, EFS10TP and EFS10TN

Remote-Ready Models: VMH26PRA, VMH26NRA, EFS26PR, EFS26NR, FMH26PR and FMH26NR

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.

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.

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

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.

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

Save this manual for future reference.



2

# **TABLE OF CONTENTS**

SAFETY INFORMATION	2
PRODUCT IDENTIFICATION	3
OPTIONAL REMOTE CONTROL ACCESSORIES	4
LOCAL CODES	4
PRODUCT FEATURES	4
UNPACKING	4
ASSEMBLY	5
AIR FOR COMBUSTION AND VENTILATION	6
INSTALLATION	8
OPERATING FIREPLACE	23
INSPECTING BURNERS	27

CLEANING AND MAINTENANCE	28
TROUBLESHOOTING	29
SPECIFICATIONS	32
SERVICE HINTS	32
TECHNICAL SERVICE	32
REPLACEMENT PARTS	33
WIRING DIAGRAM	33
ILLUSTRATED PARTS BREAKDOWN AND PARTS	LIST 34
ACCESSORIES	38
OWNER'S REGISTRATION FORM	41
WARRANTY INFORMATION	Back Cover

# SAFETY INFORMATION

# A WARNINGS

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

# **A** 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 fireplace 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 heater.

Fireplace front and screen become very hot when running heater. 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. When using the hand-held remote accessory (Remote-Ready Models Only), keep selector switch in the OFF position to prevent children from turning on burners with remote.

You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is closed before running fireplace.

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

# SAFETY INFORMATION

### Continued

- 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.
- 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
- 4. This fireplace shall not be installed in a bathroom. Remote-Ready Models shall not be installed in a bedroom.
- 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 sooting. Do not add lava rock around base. Rock and debris could fall into the control area of fireplace.
- This fireplace is designed to be smokeless. 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 and Maintenance*, page 28.
- 9. Before using furniture polish, wax, carpet cleaner, or similar products, turn fireplace 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 fireplace if not enough fresh air is available. See *Air for Combustion and Ventilation*, pages 6 through 8. If fireplace keeps shutting off, see *Troubleshooting*, pages 29 through 31.
- 11. Do not run fireplacewhere 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. Never place any objects in the fireplace or on logs.
- 14. Do not use fireplace if any part has been under water. Immediately call a qualified service technician to inspect the room fireplace and to replace any part of the control system and any gas control which has been under water.
- 15. Turn off and unplug fireplace 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. Do not operate fireplace if any log is broken. Do not operate fireplace if a log is chipped (dime-sized or larger).
- 18. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
- 19. Provide adequate clearances around air openings.

# **PRODUCT IDENTIFICATION**



Figure 1 - Vent-Free Compact Classic Hearth® Fireplace

# OPTIONAL REMOTE CONTROL ACCESSORIES

(For Remote-Ready Models Only)

There are four optional remote controls that can be purchased separately for Remote-Ready Models only:

- wall switch hand-held ON/OFF remote
- wall thermostat hand-held thermostat remote

See Accessories, pages 38 and 39.

# 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

# **PRODUCT FEATURES**

### SAFETY PILOT

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 fireplaces. The ODS/pilot 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.

### THERMOSTATIC HEAT CONTROL FOR THERMOSTAT-CONTROLLED MODELS

Thermostat-Controlled models have a thermostat sensing bulb and a control valve. The thermostat will automatically modulate the heat output to maintain a consistent room temperature. This results in greater fireplace comfort. This can also result in lower gas bills.

# UNPACKING

- 1. Remove log box and fireplace from carton. *IMPORTANT:* The fireplace hood is inside the cardboard protective end wrap on the left side of fireplace (as viewed from front). A decal is on the outside of the cardboard end wrap stating hood is enclosed (see Figure 2).
- 2. Remove hood from cardboard protective end wrap as shown in Figure 2.
- 3. Remove all protective packaging applied to fireplace for shipment.
- 4. Make sure your fireplace includes one hardware packet.
- 5. Check fireplace for any shipping damage. If fireplace is damaged, promptly inform dealer where you bought fireplace.



Figure 2 - Removing Fireplace Hood

# ASSEMBLY

WARNING: Always have branch support and screen in place before operating fireplace. This prevents excessive temperatures on fireplace surfaces.

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

### ASSEMBLING FIREPLACE

**Tools Required:** 

- Phillips screwdriver
- 5/16" hex wrench
- slotted screwdriver
- scissors
- 1. Remove two screws that hold fireplace screen in place for shipping. These screws are located near top of screen. Discard screws. Lift fireplace screen up and pull out to remove. Set screen aside until installation has been completed.
- 2. Cut two plastic straps to remove the log from the firebox cavity.
- An optional blower is available. See *Accessories*, pages 38 and 39. Install optional blower now. Follow installation instructions provided with blower. See page 12 for Remote-Ready Models or page 14 for Thermostat-Controlled Models.



- 4. Locate four black phillips sheet metal screws from the hardware packet.
- 5. Rotate hood as shown in Figure 4. Make sure hood tabs point toward fireplace.
- 6. Insert hood tabs between baffle and louvers (see Figure 4).
- 7. Gently rotate hood to upright position. Make sure hood tabs are behind louvers and hood is resting on firebox top (see Figure 4).
- 8. Align screw holes on hood with screw holes on firebox top.
- 9. Insert screws as shown in Figure 4. Tighten screws firmly.





Figure 3 - Removing Screen

# AIR FOR COMBUSTION AND VENTILATION

WARNING: This fireplace shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air. 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, fireplaces, 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, Section 5.3, 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 8 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 x 10<sup>-11</sup> kg per pa-sec-m<sup>2</sup>) or less with openings gasketed or sealed <u>and</u>
- b. weather stripping has been added on openable windows and doors <u>and</u>

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 these three criteria, 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 Fireplace Location*, below.

### **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 per hour (4.8 m<sup>3</sup> 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 per hour (4.8 m<sup>3</sup> 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.

### DETERMINING FRESH-AIR FLOW FOR FIREPLACE 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 fireplace 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 16 ft. (length) x 14 ft. (width) x 8 ft. (ceiling height) = 1792 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:* 1792 cu. ft. (volume of space) x 20 = 35,840 (maximum Btu/Hr the space can support)

### AIR FOR COMBUSTION AND VENTILATION Continued

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		30,000	Btu/Hr
Vent-free fireplace	+	10,000	Btu/Hr
Total	=	40,000	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:* 35,840 Btu/Hr (maximum the space can support) 40,000 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*.
- B. Vent room directly to the outdoors. See *Ventilation Air From Out- doors*, 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 fireplace may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the *National Fuel Gas Code, ANSI Z223.1/NFPA 54 Section 5.3* or applicable local codes.

### **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 5). You can also remove door into adjoining room (see option 3, Figure 5). Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Section 5.3, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.



Figure 5 - Ventilation Air from Inside Building

# AIR FOR COMBUSTION AND VENTILATION

### **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, Section 5.3, 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 6 - 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 bathroom
- in a recreational vehicle
- where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the fireplace
- · as a fireplace insert
- in high traffic areas
- in windy or drafty areas

WARNING: Never install the Remote-Ready Models in this manual in a bedroom. Any heating product with a Btu/hr rating over 10,000 cannot be used in a bedroom.

A 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 fireplace 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.

*IMPORTANT:* Vent-free fireplaces 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*, pages 6 through 8.

*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.

*Note:* When installing fireplace directly on carpeting, tile or other combustible material, other than wood flooring, the fireplace shall be installed on a metal or wood panel extending the full width and depth of the fireplace.

# **Continued** Use the dimensions shown for rough openings to create the easiest installation (see *Built-In Fireplace Installation*, page 10).

INSTALLATION

### CHECK GAS TYPE

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

### INSTALLATION ITEMS

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

- external regulator (supplied by installer, for propane/LP units only)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- equipment shutoff valve \*
- test gauge connection\*
- ground joint union
- sediment trap
- tee joint
- pipe wrench

\* 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. See *Accessories*, pages 38 and 39.

*Note:* If desired, purchase a four-sided brass trim kit for built-in installations. See *Accessories*, pages 38 and 39.

### FIREPLACE CLEARANCES

**WARNING:** Maintain the minimum clearances shown in Figure 7. If you can, provide greater clearances from floor, ceiling, and joining wall.

NOTICE: If you install the fireplace in a bedroom (Thermostat-Controlled Models only), some building codes require that the fireplace/mantel system be secured to (or within) a wall. You can position fireplace in an optional cabinet or corner mantel. You can also recess fireplace into the wall.

If your fireplace is to be used with an optional mantel, the installation instructions included with your mantel shows an CSA approved method of attaching the fireplace/mantel system to a wall. *IMPORTANT:* Only use optional cabinet or corner mantels specified in this manual. Purchase the optional mantel from your dealer (see *Accessories*, pages 38 and 39).

If your fireplace is to be recessed into the wall, see *Built-In Fireplace Installation* on page 10 to secure your fireplace into the wall.

# **A** CAUTION: If you install the fireplace in a home garage

- fireplace pilot and burner must be at least 18 inches above floor.
- locate fireplace where moving vehicle will not hit it.

For convenience and efficiency, install fireplace

- · where there is easy access for operation, inspection, and service
- in coldest part of room

An optional blower kit is available from your dealer. See *Accessories*, pages 38 and 39. If planning to use blower, follow instructions provided with blower for power source.

# 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 7.

*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 7).

- B. Clearances from the top of the fireplace opening to the ceiling should not be less than 36 inches.
- C. For mantel clearances, see Figure 11 on page 11.



Figure 7 - Minimum Clearance for Combustible to Wall

Continued

10

### **BUILT-IN FIREPLACE INSTALLATION**

Built-in installation of this fireplace involves installing fireplace into a framed-in enclosure. This makes the front of fireplace flush with wall. An optional brass trim kit accessory is available (see *Accessories*, pages 38 and 39). Brass trim will extend past sides of fireplace approximately 1/2 inch. This will cover the rough edges of the wall opening. If installing a built-in mantel above the fireplace, you must follow the clearances shown in Figure 11, page 11. Follow the instructions below to install the fireplace in this manner.

	Actual	Framing
Height	26"	26 <sup>7</sup> /8"
Front Width	26 <sup>3</sup> /4"	26 <sup>7</sup> /8"
Depth	9 <sup>1</sup> /2"	10 <sup>1</sup> /2"
Bottom	3/4"	3/4"

- Frame in rough opening. Use dimensions shown in Figure 8 for the rough opening. If installing in a corner, use dimensions shown in Figure 9 for the rough opening. The height is 26 <sup>7</sup>/<sub>8</sub>" which is the same as the wall opening above.
- 2. If installing GA3450T blower accessory, do so at this time. Follow instructions included with blower accessory.

*Note:* If not installing blower accessory, you may wish to run electrical wiring to your fireplace for future blower installation (see *Accessories*, pages 38 and 39). Use only approved three-wire electrical wiring.



Figure 8 - Rough Opening for Installing in Wall



Figure 9 - Rough Opening for Installing in Corner

WARNING: If pre-wiring, do not connect wiring to any electrical source at this time.

Install fireplace electrical outlet and connect wiring to outlet before connecting to electrical source. The fireplace electrical outlet is included with the GA3450T blower accessory.

Only use the fireplace electrical outlet supplied with the GA3450T blower accessory.

Note: A qualified installer should make all electrical connections.

- 3. 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.
- 4. If you have not assembled firebox, follow instructions on page 5.
- 5. Carefully set fireplace in front of rough opening with back of fireplace inside wall opening.
- 6. Attach flexible gas line to fireplace gas regulator. See *Connecting Fireplace to Gas Supply*, page 18.
- 7. Bend four nailing flanges on outer casing with pliers (see Figure 10).
- 8. Attach fireplace to wall studs using nails or wood screws through holes in nailing flange.
- 9. Check all gas connections for leaks. See *Checking Gas Connections*, page 19.
- 10. If using optional brass trim kit, install the trim after final finishing and/or painting of wall. See instructions included with brass trim accessory for attaching brass trim.

*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 edge of the firebox. Combustible materials should never overlap the firebox front facing.



Figure 10 - Attaching Fireplace to Wall Studs

Continued

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

*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:** Never modify or cover the louvered slots on the front of the firebox.

**WARNING:** Use only noncombustible 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: 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.

Mantel Shelf 10" Note: All vertical 8" measurements 6" are from top of 2<sup>1</sup>/2" fireplace opening to bottom of mantel shelf. All measurements are in inches. ω ē 6 2

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

### **OPTIONAL MANTEL INSTALLATION**

*Note:* Refer to instructions provided with the mantel for assembly instructions. Refer to the following instructions for system installation. Refer to instructions on page 5 for fireplace assembly. Blower accessory should be installed if it is being used (see *Installing Blower Accessory GA3450T*, pages 12 through 16).

- 1. Unscrew four brass screws that attach top louver to fireplace. Remove louver from fireplace and set aside.
- 2. Place fireplace on wood base.
- 3. Place mantel around fireplace/base assembly.
- 4. Assemble brass trim kit. See Assembling Brass Trim, page 12.
- 5. Firmly snap brass trim kit on shoulder screws. Shoulder screws are located on fireplace cabinet (see Figure 12).
- 6. Align brass trim kit for flush fit around opening.
- 7. Use two 3" wood screws provided and attach fireplace base to wooden base (see Figure 12).
- 8. Place base assembly next to wall at installation location.
- 9. Remove brass trim kit and mantel. Be careful not to damage wall or mantel.



Figure 12 - Attaching Brass Trim to Fireplace

Figure 11 - Minimum Mantel Clearances for Built-In Installation

Side of Firebox

### Continued

12

- 10. Attach wood base to floor with two 1 <sup>3</sup>/<sub>4</sub>" black screws provided (see Figure 13). If the floor is concrete use anchor method (see *Attaching Wood Base to Solid Floor*, page 17).
- 11. Install gas line. See Connecting To Gas Supply, pages 17 and 18.
- 12. Check for leaks. See Checking Gas Connections, page 19.
- 13. Place mantel around fireplace. Be careful not to damage wall or mantel.
- 14. Place brass trim kit on the shoulder screws located on the side and top of the fireplace. Firmly snap the brass trim over the shoulder screws on fireplace (see Figure 12, page 11).
- 15. Adjust assembly to remove any gaps. Attach remaining two 3" wood screws from hardware pack through openings inside of fireplace sides into the mantel. The openings are located at top behind the area for the brass louvers (see Figure 12, page 11).
- 16. Reinstall top brass louvers.



Figure 13 - Attaching Wood Base to Floor

# Assembling Brass Trim (Brass trim shipped with mantel)

- 1. Remove packaging from three remaining pieces of brass trim.
- 2. Locate two adjusting plates with set screws, and two shims in the hardware packet.
- 3. Align shim under adjusting plate as shown in Figure 14.
- 4. Slide one end of adjusting plate/shim in slot on mitered edge of top brass trim (see Figure 14).
- 5. Slide other end of adjusting plate/shim in slot on mitered edge of side brass trim (see Figure 14).
- 6. While firmly holding edges of brass trim together, tighten both set screws on the adjusting plate with slotted screwdriver.
- 7. Repeat steps 1 through 6 for other corner.
- 8. Set brass assembly aside for later installation.



#### Figure 14 - Assembling Brass Trim

### INSTALLING OPTIONAL BLOWER ACCESSORY GA3450T IN REMOTE-READY MODELS

# Removing Upper Louver Assembly and Branch Support

To install the blower accessory, you must first remove the upper louver assembly.

- 1. Lift screen off fireplace and remove log set if installed.
- 2. Remove 2 screws from each side of branch support and pull branch support out (see Figure 15).
- 3. Remove 4 brass-plated screws from upper louver assembly (see Figure 15). Save these screws.
- 4. Pull upper louver assembly straight out from the cabinet. Be careful not to scratch the paint. Set louver assembly and screws aside.
- 5. Open lower louver door by swinging door down (see Figure 16, page 13).



Figure 15 - Removing Upper Louver Assembly and Branch Support

### Installing Blower Accessory

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

### A CAUTION: Verify proper operation after servicing.

*Note:* If you are using a mantel with your fireplace, use the following instructions. If your fireplace is built-in, see *For Built-In Installation* on pages 13 and 14.

- 1. Install snap bushings found in hardware kit into both holes in rear of valve cover shield.
- 2. Make sure the wire harness is firmly connected to the terminals on the blower bracket assembly.

### Continued

- 3. Note the wire locations on back of AUTO/OFF/ON switch. The terminals on back of switch are numbered 1, 2, and 3. Carefully remove red wire from terminal 3 and blue wire from terminal 1. Black wire can remain on middle terminal 2 (see Figure 16).
- 4. Carefully disconnect green and white wires at their insulated connectors (see Figure 17).
- 5. In top of the fireplace cabinet, locate the four mounting holes on the outer casing. Align these four holes with those on the blower bracket assembly. Attach blower bracket assembly to the outer casing with 4 #10 screws provided (see Figure 16).
- 6. Route the wire harness through the hole in left side of baffle. Pull wire harness through lower opening on the side of the valve cover shield. (see Figure 16).
- 7. Insert the 4 wire harnesses into one of the round holes in the rear of the valve cover shield and through the rectangular hole in the front of shield (see Figure 16).
- 8. Reconnect red wire to switch position 3. Reconnect blue wire to switch position 1. Reconnect green and white wires.



Figure 16 - Installing Blower Bracket Assembly

9. Install the switch plate on the valve cover shield with 2 #10 screws provided (see Figure 18). Route power cord out of the cabinet by inserting it through the bushing on the outer casing (see Figure 16). Plug fan kit into 120-Volt grounded power supply and test operation. *Note:* When switch is in the AUTO position, the fan will start after the fireplace has run for a few moments. The fan will continue to run for several moments after the fireplace has been turned off. When switch is in the ON position, the fan will run until turned to OFF. Reinstall upper louver assembly (see Figure 15, page 12) and branch support. Close lower louver door.



Figure 17 - Wiring Diagram For Blower Accessory Standard Installation



Figure 18 - Installing Switch Plate to Valve Cover Shield

### For Built-In Installation

WARNING: A licensed electrician must connect the wiring harness to electrical supply following all local codes. Electrician must provide a clamp on the box cover to secure the wiring. Wiring should be routed through the bushing in the hole on the outer casing of fireplace.

- 1. Install a snap bushing found in hardware kit into one of the holes on rear of valve cover shield. The other hole is for a strain relief clamp (not supplied) to secure incoming electrical supply.
- 2. Follow steps 2 through 6 in *Installing Blower Accessory*, pages 12 and 13.

### Continued

14

- 3. A licensed electrician must follow the wiring diagram to connect incoming electrical supply to fan kit wiring harness (see Figure 19).
- 4. Plug power cord to the outlet receptacle (not provided) as shown in Figure 20. Wind the extra cable in power cord and and tie it up with the plastic wire strap (see Figure 20). Set the cable bundle between the burner bracket and outer casing, away from the burner.
- 5. Test to make sure the blower is working properly.
- 6. Reinstall upper louver assembly (see Figure 15, page 12) and close lower louver.



Figure 19 - Wiring Diagram For Blower Accessory Built-In Installation



Extension Cord

Use extension cord if needed. The cord must have a three-prong, grounding plug and a three-hole receptacle. Make sure cord is in good shape. It must be heavy enough to carry the current needed. An undersized cord will cause a drop in line voltage. This will result in loss of power and overheating. Use a No. 16 AWG cord for lengths less than 50 feet.

### INSTALLING OPTIONAL BLOWER ACCESSORY GA3450T IN THERMOSTAT-CONTROLLED MODELS

### **Removing Upper Louver Assembly**

To install the blower accessory, you must first remove the upper louver assembly.

- 1. Remove 4 screws from upper louver assembly (see Figure 21). Save these screws.
- 2. Pull upper louver assembly straight out from the cabinet. Be careful not to scratch the paint. Set louver assembly and screws aside.



Figure 21 - Removing Upper Louver Assembly

Figure 20 - Installing Blower Bracket Assembly

### Continued

### **Removing Valve Cover Shield**

- 1. Open bottom louver assembly by swinging the assembly down (see Figure 22).
- 2. Using short Phillips screwdriver, remove the screw under the center of the branch support. Rotate valve cover shield clockwise and slide out.

*IMPORTANT:* Do not remove shoulder screw on the left side of valve cover shield. Slide the valve cover shield off of the shoulder screw (see Figure 22).

*Note:* If you do not have a short Phillips screwdriver, the screen, logset, and branch support must be removed so a longer screwdriver may be used. See *Removing Upper Louver Assembly and Branch Support*, page 12.



Figure 22 - Removing Valve Cover Shield

### Installing Blower Assembly

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

### A CAUTION: Verify proper operation after servicing.

*Note:* If you are using a mantel with your fireplace, use the following instructions. If your fireplace is built-in, see *For Built-In Installation* on page 16.

- 1. Install snap bushings found in hardware kit into both holes in rear of valve cover shield.
- 2. Make sure the wire harness is firmly connected to the terminals on the blower bracket assembly.

- 3. Note the wire locations on back of AUTO/OFF/ON switch. The terminals on back of switch are numbered 1, 2, and 3. Carefully remove red wire from terminal 3 and blue wire from terminal 1. Black wire can remain on middle terminal 2 (see Figure 23).
- 4. Carefully disconnect green and white wires at their insulated connectors (see Figure 24).
- 5. In top of the fireplace cabinet, locate the four mounting holes on the outer casing. Align these four holes with those on the blower bracket assembly. Attach blower bracket assembly to the outer casing with 4 #10 screws provided (see Figure 23).
- 6. Route the wire harness through the hole in left side of baffle. Pull wire harness through lower opening above where the valve shield was removed. (see Figure 23).







Figure 24 - Wiring Diagram For Blower Accessory Standard Installation

### Continued

- 7. Insert the 4 wire harness into one of the round holes in the rear of the valve cover shield and through the rectangular hole in the front of shield (see Figure 23, page 15).
- 8. Reconnect red wire to switch position 3. Reconnect blue wire to switch position 1. Reconnect green and white wires.
- 9. Install the switch plate on the valve cover shield with 2 #10 screws provided (see Figure 25). Reinstall the valve cover shield. Route power cord out of the cabinet by inserting it through the bushing on the outer casing (see Figure 23, page 15). Plug fan kit into 120-Volt grounded power supply and test operation. *Note:* When switch is in the AUTO position, the fan will start after the fireplace has run for a few moments. The fan will continue to run for several moments after the fireplace has been turned off. When switch is in the ON position, the fan will run until turned to OFF. Reinstall upper louver assembly and hood if previously removed, (see Figure 21, page 14). Close lower louver door.



Figure 25- Installing Switch Plate to Valve Cover Shield

### For Built-In Installation

WARNING: A licensed electrician must connect the wiring harness to electrical supply following all local codes. Electrician must provide a clamp on the box cover to secure the wiring. Wiring should be routed through the bushing in the hole on the outer casing of heater.

Follow instructions Removing Valve Cover Shield (page 15), then

- 1. Install a snap bushing found in hardware kit into one of the holes on rear of valve cover shield. The other hole is for a strain relief clamp (not supplied) to secure incoming electrical supply.
- 2. Follow steps 2 through 6 in *Installing Blower Assembly*, page 15. Also remove black wire from middle switch terminal 2.
- 3. Remove black plastic strain relief and power cord from switch plate. The power cord supplied will not be used in built-in installations. Pop in the plastic snap bushing found in hardware kit into the hole left by supply cord/strain relief.

- 4. A licensed electrician must follow the wiring diagram to connect incoming electrical supply to fan kit wiring harness (see Figure 26).
- 5. Plug power cord to the outlet receptacle (not provided) as shown in Figure 27. Wind the extra cable in power cord and and tie it up with the plastic wire strap (see Figure 27). Set the cable bundle between the burner bracket and outer casing, away from the burner.
- 6. Reinstall valve cover shield.
- 7. Test to make sure the blower is working properly.
- 8. Reinstall upper louver assembly and hood if previously removed, (see Figure 21, page 14). Close lower louver door.



Figure 26 - Wiring Diagram For Blower Accessory Built-In Installation



Figure 27 - Installing Blower Bracket Assembly

Continued

### **Extension Cord**

Use extension cord if needed. The cord must have a three-prong, grounding plug and a three-hole receptacle. Make sure cord is in good shape. It must be heavy enough to carry the current needed. An undersized cord will cause a drop in line voltage. This will result in loss of power and overheating. Use a No. 16 AWG cord for lengths less than 50 feet.

### ATTACHING WOOD BASE TO SOLID FLOOR

For attaching base to solid floors (concrete or masonry)

*Note:* Floor anchors and mounting screws are in hardware package. The hardware package is provided with fireplace.

- 1. Drill holes at marked locations using 5/16" drill bit. For solid floors (concrete or masonry), drill at least 1" deep.
- 2. Fold floor anchor as shown in Figure 28.
- 3. Insert floor anchor (wings first) into hole. Tap anchor flush to floor.
- 4. Insert mounting screws through base and into floor anchors.
- 5. Tighten screws until base is firmly fastened to floor.



Figure 28 - Folding Anchor

### CONNECTING TO GAS SUPPLY

WARNING: This appliance requires a 45° male flare fitting 5/8"-18 UNF (Unified National Fine Thread) inlet connection and the flexible gas line provided.

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

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

*IMPORTANT*: For natural gas, check gas line pressure before connecting fireplace to gas line. Gas line pressure must be no greater than 14 inches of water. If gas line pressure is higher, heater regulator damage could occur.

A 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.

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 inches of water. If you do not reduce incoming gas pressure, fireplace regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 29. Pointing the vent down protects it from freezing rain or sleet.



Figure 29 - External Regulator With Vent Pointing Down

Continued

A 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" or greater diameter 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 heater (see Figures 30).

*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.

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



#### Figure 30 - Gas Connection

\* Purchase the optional CSA design-certified equipment shutoff valve from your dealer. See *Accessories*, pages 38 and 39.

We recommend that you install a sediment trap in supply line as shown in Figure 30. Locate sediment trap where it is within reach for cleaning. Install in piping system between fuel supply and heater. 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 controls. If sediment trap is not installed or is installed wrong, fireplace may not run properly.

### CONNECTING EQUIPMENT SHUTOFF VALVE TO HEATER CONTROL

#### **Installation Items Needed**

- · Phillips screwdriver
- sealant (resistant to propane/LP gas, not provided)
- 1. Remove screws that attach branch support to fireplace (see Figure 31). Carefully lift up branch support and remove from fireplace (see Figure 31).

NOTICE: Most building codes do not permit concealed gas connections. A flexible gas line is provided to allow accessibility from the fireplace (see Figure 31). The flexible gas supply line connection to the equipment shutoff valve should be accessible.



Figure 31 - Removing Branch Support From Fireplace (Thermostat-Controlled Model Shown)

### Continued

- 2. Route flexible gas line, included, from fireplace control to equipment shutoff valve through side or rear access holes in outer casing.
- 3. Apply pipe joint sealant lightly to male threads of gas connector attached to flexible gas line/equipment shutoff valve (see Figure 32).

A CAUTION: Avoid damage to regulator. Hold gas regulator with wrench when connecting it to gas piping and/or fittings (Thermostat-Controlled Models Only).

A CAUTION: Avoid damage to gas control. Hold gas control with wrench when connecting it to gas piping and/or fittings (Remote-Ready Models Only).

- 4. Check all gas connections for leaks. See *Checking Gas Connections*.
- 5. Replace branch support back into fireplace. Feed flexible gas line into fireplace base area while replacing branch support. Make sure the entire flexible gas line is in fireplace base area. Reat-tach branch support to fireplace with screws removed in step 1.



Figure 32 - Attaching Flexible Gas Line to Equipment Shutoff Valve

### CHECKING GAS CONNECTIONS

**WARNING:** Test all gas piping and connections 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.

A CAUTION: Make sure external regulator has been installed between propane/LP supply and fireplace. See guidelines under *Connecting to Gas Supply*, pages 17 and 18.

### Pressure Testing gas Supply Piping system

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

- 1. Disconnect appliance with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig will damage heater 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 33).
- 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.



Figure 33 - Equipment Shutoff Valve

### Continued

20

- 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 34 or 35). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
- 4. Correct all leaks at once.

### **Pressure Testing Fireplace Gas Connections**

- 1. Open equipment shutoff valve (see Figure 33, page 19).
- 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 regulator (Thermostat-Controlled Models), or to gas control valve (Remote-Ready Models) (see Figures 34 or 35). Apply noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
- 5. Correct all leaks at once.
- 6. Light fireplace (see *Operating Fireplace*, pages 23 through 27). Check all other internal joints for leaks.
- 7. Turn off fireplace (see *To Turn Off Gas to Appliance*, page 24 for Thermostat-Controlled Models or page 25 for Remote-Ready Models).







Figure 35 - Checking Gas Joints (Natural Gas Only)

### OPTIONAL WIRELESS HAND-HELD REMOTE CONTROL ACCESSORIES Remote-Ready Models Only (GHRC Series & GHRCTA Series)

### Installing Receiver

- 1. Remove screws.
- 2. Disconnect switch wires from the control valve.
- 3. Remove switch plate (see Figure 36). Discard switch plate after removing. Save the screws.
- 4. Locate the battery clip mounted on the back of the receiver (see Figure 37).
- 5. Slide 9-volt battery (not included) through the clip.
- 6. Attach the terminal wires to the battery (see Figure 37).
- 7. Connect wires as shown in Figure 38, page 21.
- 8. Install remote receiver unit onto fireplace base using the two screws removed in step one (see Figure 38, page 21).



Black Wire





Figure 37 - Attaching Battery to Receiver

Continued



Figure 38 - Installing Remote Receiver

\* Wire harness provided in the fireplace hardware pack.

### 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.
- 3. Replace battery cover onto remote control unit.



Figure 39 - Installing Battery in Hand-Held Remote Control Unit (GHRC Series)



# Figure 40 - Installing Battery in Hand-Held Remote Control Unit (GHRCTA Series)

# OPTIONAL WALL MOUNTED THERMOSTAT - GWMT1

### (Remote-Ready Models Only)

WARNING: Read and follow installation instructions. Installation should be done by a qualified installer familiar with low-voltage wiring procedures.

WARNING: Do not connect this thermostat to any electrical source! Electrical shock and/or fire hazard will occur.

- 1. Connect one terminal of 25 ft. wire to bottom contact of switch (see Figure 41).
- 2. Connect remaining wire terminal to the "TH" terminal on the control valve. Make sure that wire terminals are in the positions on your unit as pictured in Figure 41. If wires are not "crossed" the thermostat will not work.
- 3. Route the 25 ft. wire to a convenient location to mount your thermostat (no outside wall). *IMPORTANT:* The wire may be shortened but must not be lengthened.

The thermostat should be mounted 54" above the floor in a location where there is good air circulation. Avoid heat sources such as lamps, direct sunlight, fireplace, or heat and air conditioning ducts.

- 4. Gently remove the cover of the thermostat from the base. Grasp the sides of the cover firmly and pull to separate from the base.
- 5. Feed the electrical wires through the rectangular slots on each side of the base (see Figure 42, page 22).

WARNING: Do not connect the thermostat to a power source. Electrical shock and/or a fire hazard will occur.



Figure 41 - Connecting Wire Terminals



21

### Continued

- 6. Connect one bare wire end to each terminal ("W" and "R") of the thermostat base (see Figure 43).
- 7. Install the base onto the wall with the provided screws.
- 8. Move the temperature adjustment back and forth to insure the bimetal is free from restrictions.
- 9. Replace the cover onto the base. (Upon installation, the thermostat must be allowed to stabilize at room temperature for a minimum of 30 minutes for proper operation).
- 10. Set switch on fireplace to Auto position.
- 11. Set the temperature adjustment to the desired setting. This thermostat has been electronically calibrated at the factory. No adjustment or leveling is necessary.

#### Feed wires through rectangular slots



#### Figure 42 - Back View of Thermostat Base



Figure 43 - Thermostat Base Terminals "W" and "R"

### OPTIONAL WALL SWITCH - GWMS2 (Remote-Ready Models Only)

**WARNING:** Read and follow installation instructions. Installation should be done by a qualified installer familiar with low-voltage wiring procedures.

# WARNING: Do not connect this switch to any electrical source! Electrical shock and/or fire hazard will occur.

- 1. Connect one terminal of 25 ft. wire to bottom contact of switch (see Figure 41, page 21).
- 2. Connect remaining wire terminal to the "TH" terminal on the control valve. Make sure that wire terminals are in the positions on your unit as pictured in Figure 41, page 21. If wires are not "crossed" the thermostat will not work.
- 3. Route the 25 ft. wire to a convenient location to mount your wall switch (no outside walls).

# WARNING: Do not connect the switch to a power source. Electrical shock and/or fire hazard will occur.

*IMPORTANT:* The wire may be shortened but must not be lengthened.

- 4. Connect one bare wire end to each of the terminals of the provided wall switch.
- 5. Install the wall switch and cover in the wall.

### **INSTALLING LOG SET AND SCREEN**

- 1. Remove log packaging material and discard packaging. Gently place log on burner support (see Figure 44). The log should fit flat against top of burner support and log locator tabs fit into the slots under the log. Do not allow log to contact flame. If flame contacts log, soot will be created.
- 2. Reattach screen by placing the notches in the screen frame over the shoulder screws and pushing down.



Figure 44 - Installing Log and Screen

### For more information, visit www.desatech.com

22

### THERMOSTAT-CONTROLLED MODELS

### 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 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. 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 above.
- 2. Make sure equipment shutoff valve is fully open.
- 3. Turn control knob clockwise / to the OFF position.
- 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 above. If you don't smell gas, go to the next step.

5. Turn control knob counterclockwise k to the PI-LOT position. Press in control knob for five (5) seconds (see Figure 45).

*Note:* You may be running this fireplace for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds or more. This will allow air to bleed from the gas system.

- If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.
- 6. With control knob pressed 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, refer to *Troubleshooting*, pages 29 through 31. Also, 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* on page 25.

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.

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

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



Figure 45 - Control Knob In The OFF Position

Thermocouple



Figure 46 - Natural Gas Pilot

Figure 47 -Propane/LP Gas Pilot



### Continued

### TO TURN OFF GAS TO APPLIANCE

### **Shutting Off Fireplace**

- 1. Turn control knob clockwise / to the OFF position.
- 2. Turn off all electric power to the appliance (if applicable) if service is to be performed.

### Shutting Off Burners Only (pilot stays lit)

Turn control knob clockwise / to the PILOT position.



### THERMOSTAT CONTROL OPERATION

The thermostat used on this fireplace senses the room temperature. At times the room may exceed the set temperature. If so, the burner will shut off. The burner will cycle back on when room temperature drops below the set temperature.

The control knob can be set to any heat level between HI and LO.

*Note:* The thermostat sensing bulb measures the air near the fireplace cabinet. This may not always agree with room temperature (depending on housing construction, installation location, room size, open air temperatures, etc.). Frequent use of your fireplace will let you determine your own comfort levels.

### MANUAL LIGHTING PROCEDURE

- 1. Follow steps 1 through 5 under Lighting Instructions, page 23.
- 2. With control knob pressed in, strike match. Hold match to pilot until pilot lights.
- 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*, page 23.

### **OPERATING BLOWER**

This blower has three settings: ON, OFF, and AUTO. In the ON position, the blower will operate constantly. In the OFF position, the blower will not operate. In the AUTO position, the blower will start when the thermostat senses a sufficient increase in firebox temperature.

*Note:* Your fireplace and thermostat blower will not turn on and off at the same time. The fireplace may run for several minutes before the blower turns on. After the heater modulates to the pilot position, the blower will continue to run. The blower will shut off after the firebox temperature decreases.

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



Figure 48 - AUTO/OFF/ON Blower Switch

### **REMOTE-READY MODELS**

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.

Continued

### 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. Open window to vent smell. This will only last a few hours.

- 1. STOP! Read the safety information in column 2, page 24.
- 2. Make sure equipment shutoff valve is fully open.
- 3. Set switch in the OFF position.

**WARNING:** Burner will come on automatically within one minute when the selector switch is in the ON position after the pilot is lit.

- 5. 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, column 2, page 24. If you don't smell gas, go to the next step.
- 6. Press in and turn control knob counterclockwise to the PILOT position. Press in control knob for five (5) seconds (see Figure 49).

*Note:* You may be running this fireplace for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds or less. This will allow air to bleed from the gas system.

7. With control knob pressed 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*.



Ignitor Button Flame Adjustment Knob Figure 49 - Control Knob and Ignitor Button Location (Shown as Supplied - No Control Options)

- 8. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
  - If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs. *Note:* If pilot goes out, repeat steps 4 through 8.
- 9. Slightly push in and turn control knob counterclockwise to the ON position.
- 10. Wait one minute and switch selector switch to the ON position to light burner.
- 11. Set flame adjustment knob to any level between HI and LO.

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

WARNING: Make sure the selector switch is in the OFF position when you are away from home for long periods of time. Fireplace will come on automatically with selector switch in the ON position.



Figure 50 - Propane/LP Gas Pilot Figure 51 - Natural Gas Pilot

### TO TURN OFF GAS TO APPLIANCE

### **Shutting Off Fireplace**

- 1. Turn control knob clockwise **A** to the OFF position.
- 2a. Set selector switch in the OFF position.
- 2b. If Using Optional Hand-Held Remote: Set selector switch in the OFF position to prevent draining battery.

### Shutting Off Burners Only (pilot stays lit)

You may shut off the burners and keep the pilot lit by doing one of the following:

- 1. Turn control knob clockwise **A** to the PILOT position.
- 2. Use remote control manual OFF button.
- 3. Set selector switch in the OFF position.

### MANUAL LIGHTING PROCEDURE

- 1. Follow steps 1 through 6 under *Lighting Instructions*.
- 2. Depress 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 steps 9 through 11, *Lighting Instructions*.

Continued

### **OPTIONAL REMOTE OPERATION**

*Note:* All remote control accessories must be purchased separately (see *Accessories*, pages 38 and 39). Follow instructions included with the remote control.

### **Thermostat Control Operation**

(Optional GHRCTA Series Only) The thermostat control setting on the remote control unit can be set to any comfort level between WARMER and COOLER. The burners will turn on and off automatically 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.

For wall thermostat operation, follow instruction supplied with thermostat accessory GWMT1. For wall switch operation follow instructions supplied with GWMS2.

NOTICE: You must light the pilot before using the remote control unit. See *Lighting Instructions* on page 25.

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 RE-MOTE or ON 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.

### **GHRC Series Operation:**

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



Flame Adjustment Knob



### **GHRCTA Series Operation:**

- 2b. Press the AUTO/ON/OFF button on the hand-held remote control (see Figure 53). The lights to the left of the button will show AUTO, ON, or OFF.
  - In the ON mode, the burners will ignite. The fireplace is in manual mode when ON is lit.
  - In the AUTO mode, the thermostat in the hand-held remote unit controls the room temperature. To increase the room temperature, press the top arrow of the TEMP button. To lower the room temperature, press the bottom arrow of the TEMP button. At higher settings the fireplace will run longer.

*IMPORTANT:* This remote control has been specially engineered to take an air temperature sample every 5.5 minutes in the auto mode. It will not respond immediately to the temperature setting being turned up or down.

*IMPORTANT:* The hand-held remote control unit must be near the fireplace. Do not keep the hand-held remote control unit too close to the fireplace. The thermostat on the hand-held remote control unit will heat up too quickly and turn the fireplace off.

3. To turn the burner off, press the AUTO/ON/OFF button until OFF lights. The pilot will remain lit.

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



Figure 53 - Thermostat Hand-Held Remote Control Unit Selections (GHRCTA Only)

### GWMT1 WALL MOUNTED THERMOSTAT (OPTIONAL)

Make sure the heater switch is on AUTO and set the temperature adjustment on wall thermostat to the desired setting. The thermostat has been electronically calibrated at the factory and requires no adjustment or leveling.

Upon installation, the thermostat must be allowed to stabilize at room temperature for a minimum of 30 minutes for proper operation. See installation instructions on page 21 of this manual.

### Continued



### GWMS2 WALL MOUNTED SWITCH (OPTIONAL)

Make sure the heater switch is on AUTO. This wall switch works just like the conventional light switch. Flip the switch up for on and down for off.

*Note:* Make sure that this switch is not in a position to be mistaken for a light switch. This may result in the fireplace being inadvertently turned on without the proper precautions being taken. See installation instructions on page 22 of this manual.



This blower has three settings: ON, OFF, and AUTO. In the ON position, the blower will operate constantly. In the OFF position, the blower will not operate. In the AUTO position, the blower will start when the thermostat senses a sufficient increase in firebox temperature.

*Note:* Your fireplace and thermostat blower will not turn on and off at the same time. The fireplace may run for several minutes before the blower turns on. After the heater modulates to the pilot position, the blower will continue to run. The blower will shut off after the firebox temperature decreases.

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



Figure 54 - AUTO/OFF/ON Blower Switch

# **INSPECTING BURNERS**

Check pilot flame pattern and burner flame patterns often.

### **PILOT FLAME PATTERN**

Figure 55 shows a correct pilot flame pattern. Figure 56 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 56

- turn fireplace off (see *To Turn Off Gas to Appliance*, page 24 for Thermostat-Controlled Models or page 25 for Remote-Ready Models)
- see Troubleshooting, pages 29 through 31

*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.





27

Thermocouple Figure 55 - Correct Pilot Flame Pattern (Propane/LP Remote-Ready Shown)

Figure 56 - Incorrect Pilot Flame Pattern (Propane/LP Remote-Ready Shown)

### **BURNER FLAME PATTERN**

Figure 57 shows a correct burner flame pattern. Figure 58 shows an incorrect burner flame pattern. The incorrect burner flame pattern shows sporadic, irregular flame tipping. The flame should not be dark or have an orange/reddish tinge.

*Note:* When using the fireplace the first time, the flame will be orange for approximately one hour until the log cures.

If burner flame pattern is incorrect, as shown in Figure 58

- turn fireplace off (see *To Turn Off Gas to Appliance*, page 24 for Thermostat-Controlled Models or page 25 for Remote-Ready Models)
- see Troubleshooting, pages 29 through 31

### 26,000 Btu/Hr Units

#### 10,000 Btu/Hr Units





Figure 57 - Correct Burner Flame Pattern

# 26,000 Btu/Hr Units 10,000 Btu/Hr Units

Figure 58 - Incorrect Burner Flame Pattern



### CLEANING AND MAINTENANCE

WARNING: Turn off fireplace and let cool before cleaning.

A 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, pet hair, bedding material, etc.

### CLEANING 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 fireplace 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. You can use a vacuum cleaner in the blow position. 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 the unit, including the pilot. Allow the 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 59).
- 3. Blow air through the ports/slots and holes in the burner.
- 4. Check the 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 two inches from where the pilot flame comes out of the pilot assembly (see Figures 60 or 61 depending on model). With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.



Figure 59 - Injector Holder On Outlet Burner Tube



Figure 60 - Pilot Inlet Air Hole (Propane/LP Gas)

Figure 61 - Pilot Inlet Air Hole (Natural Gas)

Wipe the cabinet to remove dust.

### LOG SET

- If you remove one-piece log set for cleaning, refer to *Installing Log Set and Screen*, page 22, for placement instructions.
- Replace log set if broken or chipped (dime-sized or larger).

### CABINET

### **Air Passageways**

• Use a vacuum cleaner or pressurized air to clean.

#### Exterior

• Use a soft cloth dampened with a mild soap and water mixture.

### TROUBLESHOOTING

*Note:* For additional help, visit DESA International's technical service web site at **www.desatech.com**.

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

### **OBSERVED PROBLEM**

WARNING: Turn off and unplug fireplace and let cool before servicing. Only a qualified service person should service and repair fireplace.

POSSIBLE CAUSE

A CAUTION: Never use a wire, needle, or similar object to clean ODS/pilot. This can damage ODS/ pilot unit.

DESA

REMEDY

OBSERVED PROBLEM	PUSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at ODS/pilot	1. Ignitor electrode not connected to igni- tor cable	1. Reconnect ignitor cable
	2. Ignitor cable pinched or wet	2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	3. Broken ignitor cable	3. Replace ignitor cable
	4. Bad piezo ignitor	4. Replace piezo ignitor
	5. Ignitor electrode positioned wrong	5. Replace pilot assembly
	6. Ignitor electrode broken	6. Replace pilot assembly
When ignitor button is pressed, there is spark at ODS/pilot but no ignition	1. Gas supply turned off or equipment shutoff valve closed	1. Turn on gas supply or open equipment shutoff valve
	2. Control knob not in PILOT position	2. Turn control knob to PILOT position
	3. Control knob not pressed in while in PILOT position	3. Press in control knob while in PILOT position
	4. Air in gas lines when installed	<ol> <li>Continue holding down control knob. Repeat igniting operation until air is removed</li> </ol>
	5. Depleted gas supply (propane/LP only)	5. Contact local propane/LP gas company
	6. ODS/pilot is clogged	6. Clean ODS/pilot (see <i>Cleaning and Maintenance</i> , page 28) or replace ODS/pilot assembly
	7. Gas regulator setting is not correct	7. Replace gas regulator
ODS/pilot lights but flame goes out when	1. Control knob not fully pressed in	1. Press in control knob fully
control knob is released	2. Control knob not pressed in long enough	2. After ODS/pilot lights, keep control knob pressed in 30 seconds
	3. Safety interlock system has been triggered	3. Wait one minute for safety interlock system to reset. Repeat ignition operation
	4. Equipment shutoff valve not fully open	4. Fully open equipment shutoff valve
	5. Pilot flame not touching thermocouple, which allows thermocouple to cool,	5. A) Contact local natural or propane/LP gas company
	causing pilot flame to go out. This prob- lem could be caused by one or both of the following:	B) Clean ODS/pilot (see <i>Cleaning and Maintenance</i> , page 28) or replace ODS/
	<ul><li>A) Low gas pressure</li><li>B) Dirty or partially clogged ODS/pilot</li></ul>	pilot assembly
	<ul><li>6. Thermocouple connection loose at con- trol valve</li></ul>	6. Hand tighten until snug, then tighten 1/4 turn more
	7. Thermocouple damaged	7. Replace pilot assembly
	8. Control valve damaged	8. Replace control valve

29

### Continued

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Burner does not light after ODS/pilot is lit	<ol> <li>Inlet gas pressure is too low</li> <li>Burner orifice is clogged</li> </ol>	<ol> <li>Contact local natural or propane/LP gas company</li> <li>Clean burner (see <i>Cleaning and Mainte-</i></li> </ol>
	<ol> <li>Dather office is elogged</li> <li>Thermopile leads disconnected or improperly connected (Remote-Ready Models Only)</li> </ol>	<ul> <li>ance, page 28) or replace burner orifice</li> <li>Reconnect leads (see <i>Wiring Diagram</i>, page 33)</li> </ul>
	<ol> <li>Burners will not come on in remote po- sition (Remote-Ready Models Only)</li> </ol>	4. Replace battery in transmitter and receiver
Delayed ignition of burner	1. Manifold pressure is too low	<ol> <li>Contact local natural or propane/LP gas company</li> </ol>
	2. Burner orifice is clogged	2. Clean burner (see <i>Cleaning and Maintenance</i> , page 28) or replace burner orifice
Burner backfiring during combustion	1. Burner orifice is clogged or damaged	1. Clean burner (see <i>Cleaning and Main-</i> <i>tenance</i> , page 28) or replace burner orifice
	2. Damaged burner	2. Replace damaged burner
	3. Gas regulator defective	3. Replace gas regulator
	4. Inlet gas pressure is too low	4. Contact local natural or propane/LP gas company
Slight smoke or odor during initial operation	1. Residues from manufacturing processes and log curing	1. Problem will stop after a few hours of operation
	2. Not enough air	2. Check burner for dirt and debris. If found, clean burner (see <i>Cleaning and</i> <i>Maintenance</i> , page 28)
	3. Gas regulator defective	3. Replace gas regulator
Fireplace produces a whistling noise when burner is lit	1. Turning control knob to HI position when burner is cold	1. Turn control knob to LO position and let warm up for a minute
	2. Air in gas line	2. Operate burner until air is removed from line. Have gas line checked by local
	3. Air passageways on fireplace blocked	<ul><li>natural gas company</li><li>3. Observe minimum installation clear-</li><li>cmass (see pages 0 through 11)</li></ul>
	4. Dirty or partially clogged burner orifice	<ul> <li>ances (see pages 9 through 11)</li> <li>4. Clean burner (see <i>Cleaning and Maintenance</i>, page 28) or replace burner orifice</li> </ul>
White powder residue forming within burner box or on adjacent walls or furniture	1. When heated, vapors from furniture pol- ish, wax, carpet cleaners, etc. may turn into white powder residue	1. Turn fireplace off when using furniture polish, wax, carpet cleaners, or similar products
Moisture/condensation noticed on windows	1. Not enough combustion/ventilation air	1. Refer to Air for <i>Combustion and Venti-</i> <i>lation</i> requirements (page 6)

DESA

# 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
Remote does not function (Remote-Ready Models Only)	1. Battery is not install. Battery power is low	1. Replace 9-volt batteries in receiver and remote control
Fireplace produces a clicking/ticking noise just after burners are lit or shut off	1. Metal expanding while heating or con- tracting 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, cleaners, chemicals, new carpet, etc. (See <i>IMPORTANT</i> statement above)	1. Open window to ventilate room. Stop us- ing odor causing products while fire- place is running
	<ol> <li>Low fuel supply (propane/LP only)</li> <li>Gas leak. See Warning statement at top of page</li> </ol>	<ol> <li>Refill supply tank (propane/LP only)</li> <li>Locate and correct all leaks (see <i>Checking Gas Connections</i>, pages 19 and 20)</li> </ol>
Fireplace shuts off in use (ODS operates)	<ol> <li>Not enough fresh air is available</li> <li>Low line pressure</li> </ol>	<ol> <li>Open window and/or door for ventilation</li> <li>Contact local natural or propane/LP gas company</li> </ol>
	3. ODS/pilot is partially clogged	<ol> <li>Clean ODS/pilot (see <i>Cleaning and Maintenance</i>, page 28)</li> </ol>
Gas odor even when control knob is in OFF position	<ol> <li>Gas leak. See Warning statement at top of page</li> <li>Control valve defective</li> </ol>	<ol> <li>Locate and correct all leaks (see <i>Checking Gas Connections</i>, pages 19 and 20)</li> <li>Replace control valve</li> </ol>
Gas odor during combustion	<ol> <li>Foreign matter between control valve and burner</li> <li>Gas leak. See Warning statement at top of page</li> </ol>	<ol> <li>Take apart gas tubing and remove for- eign matter</li> <li>Locate and correct all leaks (see <i>Check- ing Gas Connections</i>, pages 19 and 20)</li> </ol>



### **SPECIFICATIONS**

	Thermostat Models: VMH10TPB, EFS10TP	Thermostat Models: VMH10TNB, EFS10TN	Remote-Ready Models: VMH26PRA, EFS26PR, FMH26PR	Remote-Ready Models: VMH26NRA, EFS26NR, FMH26NR
Btu/Hr	10,000	10,000	15,000/26,000	15,000/26,000
Type Gas	Propane/LP Gas Only	Natural Gas Only	Propane/LP Gas Only	Natural Gas Only
Ignition	Piezo	Piezo	Piezo	Piezo
Manifold Pressure	8.5" W.C.	3" W.C.	8" W.C.	3.5" W.C.
Inlet Gas Pressure (in. of water) Maximum Minimum*	14" 11"	10.5" 5"	14" 11"	10.5" 5"
Dimensions, inches	(HxWxD)			
Fireplace (including hood and screws)	25 <sup>7</sup> / <sub>8</sub> x 26 <sup>13</sup> / <sub>16</sub> x 9 <sup>3</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub> x 26 <sup>13</sup> / <sub>16</sub> x 9 <sup>3</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub> x 26 <sup>13</sup> / <sub>16</sub> x 9 <sup>3</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub> x 26 <sup>13</sup> / <sub>16</sub> x 9 <sup>3</sup> / <sub>8</sub>
Carton	32 <sup>5</sup> /8 x 27 <sup>13</sup> / <sub>16</sub> x 11 <sup>5</sup> / <sub>8</sub>	32 <sup>5</sup> /8 x 27 <sup>13</sup> / <sub>16</sub> x 11 <sup>5</sup> / <sub>8</sub>	32 5/8 x 27 13/16 x 11 5/8	32 <sup>5</sup> /8 x 27 <sup>13</sup> /16 x 11 <sup>5</sup> /8
Weight, pounds Fireplace Shipping	44 <sup>1</sup> / <sub>2</sub> lbs. 48 lbs.			

\* For purpose of input adjustment

# **SERVICE HINTS**

### When Gas Pressure Is Too Low

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

You may feel your gas pressure is too low. If so, contact your local natural or 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 1-866-672-6040. When calling, please have your model and serial numbers of your heater ready.

You can also visit DESA International's technical services web site at **www.desatech.com**.

33

ESA

# **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 1-866-672-6040.

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 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 at 1-866-672-6040 for referral information.

When calling DESA International, have ready

- model number of your fireplace
- the replacement part number

### **WIRING DIAGRAM**

### (Remote-Ready Models Only)



### ILLUSTRATED PARTS BREAKDOWN

34

THERMOSTAT-CONTROLLED MODELS: VMH10TPB, VMH10TNB, EFS10TP and EFS10TN



For more information, visit www.desatech.com

**DES**A

# PARTS LIST

### THERMOSTAT-CONTROLLED MODELS

This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 33 of this manual.

	PART NUI	MBERS		
KEY NO.	VMH10TPB EFS10TP	VMH10TNB EFS10TN	DESCRIPTION	QTY.
1	102633-02	102633-02	Outer Casing Top	1
2	102624-02	102624-02	Outer Casing	1
3	099230-02	099230-02	Shoulder Screw	14
4	098304-01	098304-01	Screw, #10 x 3/8"	16
5	103591-02	103591-01	Burner	1
6	103209-01	103209-01	Louvered Door	1
7	102635-02CK	102635-02CK	Left and Right Side Front	2
8	M11084-26	M11084-26	Hex Head Screw, #10 x 3/8"	31
9	103209-01	103209-01	Brass Top Louver	1
10	104281-01BR	104281-01BR	Firebox Hood	1
11	102638-01	102638-01	Firebox Top	1
12	104286-01	104285-01	ODS/Pilot Assembly	1
13	**	**	Firebox Wrapper	1
14	099211-01	099211-01	Control Bracket Screw	2
15	103963-01	103963-01	Inlet Tube	1
16	103671-01	103671-01	Outlet Tube	1
17	100587-01	100587-01	Brass Screw, #6 x 3/8	4
18	098303-02	098303-02	Regulator Screw	2
19	104335-01CK	104335-01CK	Outer Shell Base	1
20	104333-0101	102649-02	Branch Support	1
20	099415-04	099415-10	Gas Regulator	1
21	102875-01	102875-01	0	1
			Regulator Bracket Valve Cover and Piezo	1
23	101381-01	101381-01		-
24	099387-03	099387-03	Pilot Tube	1 1
25	098271-06	098271-06	Ignitor Cable	-
26	M11084-38	M11084-38	Screw #8 x 3/8	1
27	101004-13	101004-12	Injector	1
28	098522-22	098522-23	Gas Valve	1
29	102639-01	102639-01	Baffle	1
30	101628-01	101628-01	Flexible Connector	1
31	102869-01	102869-01	Control Bracket	1
32	102731-01	102731-01	Control Shield	1
33	103295-01CJ	103295-01CJ	Screen Assembly	1
34	107153-01	107153-01	Log Set	1
35	104313-01	104313-01	Hinge Pin (Right)	1
36	104313-02	104313-02	Hinge Pin (Left)	1
37	M10908-2	M10908-2	Hinge Screws	4
38	103734-01	103734-01	Burner Support	2
39	101006-01	101006-01	Pilot Bracket	1
40	097809-03	097809-03	3/8" NPT x 3/8" Flare Brass Fitting	1
41	098249-01	098249-01	Nut, M5	2
42	101629-02	101629-02	Bushing	1
		PARTS AVAILA	BLE — NOT SHOWN	
	101054-01	101054-01	Lighting Instructions Plate	1
	100563-01	100563-01	Warning Plate	1
	103470-01	103470-01	Hardware Package	1

\*\* Part not available for field replacement.

### ILLUSTRATED PARTS BREAKDOWN

36



For more information, visit www.desatech.com

# PARTS LIST

### **REMOTE-READY MODELS**

This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 33 of this manual.

PART NUMBERS		MBERS		
	VMH26PRA	VMH26NRA		
KEY	EFS26PR	EFS26NR		
NO.	FMH26PR	FMH26NR	DESCRIPTION	QTY.
1	102633-02	102633-02	Outer Casing Top	1
2	102624-02	102624-02	Outer Casing	1
3	099230-02	099230-02	Shoulder Screw	14
4	098304-01	098304-01	Screw, #10 x 3/8"	17
5	107178-02	107178-01	Burner	1
6	103209-01	103209-01	Louvered Door	1
7	102635-02CK	102635-02CK	Left and Right Side Front	2
8	103209-01	103209-01	Brass Top Louver	1
9	104281-02BR	104281-02BR	Firebox Hood	1
10	102638-01	102638-01	Firebox Top	1
11	103778-01	103779-01	ODS/Pilot Assembly	1
12	**	**	Firebox Wrapper	1
13	104322-01	104322-01	Burner Tube	1
14	104335-01CK	104335-01CK	Outer Shell Base	1
15	102649-02	102649-02	Branch Support	1
16	102445-01	102445-01	Piezo Ignitor	1
17	—	099918-02	Regulator, Pilot	1
18	098271-10	098271-10	Ignitor Cable	1
19	107186-01	107186-02	Injector	1
20	M11084-26	M11084-26	Screw, Hex Head, #10 x 3/8"	25
21	098249-01	098249-01	Nut, M5	6
22	103781-02	103781-01	Gas Valve	1
23	102639-01	102639-01	Baffle	1
24	101628-01	101628-01	Flexible Connector	1
25	104305-01	104305-01	Control Shield	1
26	103295-03BR	103295-03BR	Screen Assembly	1
27	107153-01	107153-01	Log Set Assembly Kit	1
28	104313-01	104313-01	Right Hinge	1
29	104313-02	104313-02	Left Hinge	1
30	M10908-2	M10908-2	Hinge Screws	4
31	103734-01	103734-01	Burner Support	2
32	101006-02	101006-02	Pilot Bracket	1
33	097809-02	097809-02	Connector, Male	1
34	101629-01	101629-01	Bushing	1
35	101629-02	101629-02	Bushing	1
36	M12461-26	M12461-26	Gas Valve Screws	4
37	103587-02CK	103587-02CK	Plate, Switch	1
38	099998-01	099998-01	Switch, Fan	1
39	098264-02	098264-02	Connector, Male	1
40	103284-03	103284-03	Wire Harness	1
41	—	099387-14	Pilot Tube to Regulator	1
42	099387-13	099387-15	Pilot Tube to Control Valve	1
		PARTS AVAILA	BLE — NOT SHOWN	
	103877-01	103877-01	Lighting Instructions Plate	1
	100563-01	100563-01	Warning Plate	1
1	103470-02	103470-02	Hardware Package	1

\*\* Part not available for field replacement.



37

# ACCESSORIES

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

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

### EQUIPMENT SHUTOFF VALVE - GA5010

For all models. Equipment

shutoff valve with 1/8" NPT tap.

Fits 1/2" NPT pipe.



# BRASS TRIM KIT - GA6095

**For all models.** Optional four-sided brass trim kit for recessed built-in installations (when unit is raised off of the floor). Provides a finished appearance by covering rough edges of wall opening.



### BRASS TRIM KIT - GA6094 (Not Shown)

**For all models.** Optional three-sided brass trim kit for custom and recessed installations (when unit is on the floor). Provides a finished appearance by covering rough edges of wall opening. Included with all mantels.

### THERMOSTAT -CONTROLLED BLOWER KIT GA3450T

**For all models.** Provides better heat distribution. Makes fireplace more efficient. Automatically turns off and on as needed.





### CABINET MANTEL WITH BUILT-IN HEARTH BASE AND ROUNDED LEG STYLING GMC61U Series - Unfinished GMC60F Series - Oak Finished (Appearance May Differ by Model)

**For all models.** A mantel and hearth base offers compact styling and completes the fireplace look. Available in an oak stained or an unfinished birch, ready to stain or paint. Complete assembly instructions included. Three-sided brass trim kit included.



### CORNER MANTEL WITH FULL HEARTH BASE GMC63U Series - Unfinished GMC64F Series - Finished GMC65W Series - White Lacquer Finished

**For all models.** Space-saving mantel and hearth base corner design features clean, classic lines. Available in a stained oak, white lacquer or an unfinished hardwood, ready to stain or paint. Complete assembly instructions included. Three-sided brass trim kit included.

# ACCESSORIES

Continued

### CLEANING KIT - GCK (Not Shown)

**For 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.

### WALL-MOUNT THERMOSTAT SWITCH -GWMT1 (Not Shown)

**For all Remote-Ready Models.** The desired comfort setting can be selected on the wall thermostat and the fireplace will automatically cycle from pilot to the heat setting selected.

# WALL-MOUNT ON/OFF SWITCH - GWMS2 (Not Shown)

For all Remote-Ready Models. Allows the fireplace to be turned on and off with a wall switch.



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

**For all Remote-Ready Models.** Allows the fireplace to be turned on and off by using a hand-held remote control.

### **INFORMATION VIDEO - 108917-01**

For all models. A care and maintenance video is available by calling 1-866-672-6040.



### RECEIVER AND HAND-HELD THERMOSTAT REMOTE CONTROL KIT - GHRCTA

**For all Remote-Ready Models.** Allows the fireplace to be operated in a manually or thermostatically controlled mode. You can turn the fireplace on and off without ever leaving the comfort of your easy chair.

# NOTES



OWNER'S REGISTRATION FORM In order to provide better customer service for this and future purchases, we recommend that you register your product with us. You can register online at www.desatech.com. If access to our website is not available to you, please complete this Owner's Registration Form and mail to the address on the back of this owner's manual. Please provide the following product information: (Comfort Glow, Vanguard, etc.) Brand: Model: \_\_\_\_\_ (EFP33PR, VTGH33NR, etc.) Date Purchased: Note: Keep receipt for warranty verification. 7 or 9 digit number located on product or identification tag. Serial Number: First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Address: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Country: \_\_\_\_\_ City: Home Phone: \_\_(\_\_\_) -\_\_\_\_ E-Mail: Please answer the following questions to register your product with DESA International: 1. Where will the product be used? O Living/Family Room O Office/Warehouse O Utility Shed/Outbuilding O Garage O Bedroom O Bathroom O Other 2. If you bought this product yourself, did you plan to purchase this type of product before going into the store? O Yes O No 3. Who selected the product? O Male O Female O Both 4. What is the population of your area? O Under 10,000 O 10,000 to 25,000 O 25,000 to 50,000 O 50,000 to 100,000 O 100,000 to 250,000 O Over 250,000 5. What is your primary source of heat? O Propane (LP Gas) O Fuel Oil O Wood O Natural Gas O Electric O Other 6. How was the product installed? O Professional Installer O Self O Other 7. Cost of product excluding sales tax? \$\_\_\_\_ 8. Cost to install product? \$\_\_\_\_ 9. Type of store where product was purchased? O Hardware O Propane Dealer O Natural Gas/Utility Co. O Home Center/Builder's Supply O Fireplace or Hearth Shop O Farm Store O Other 10. What motivated you to buy this product? O Sudden Cold Weather O Replace Older Model O D.I.Y. Home Project O Emergency Back-Up Heat O Heater was on Sale O Energy Savings/High Efficiency O Construction Project O Other 11. How did you learn about this product brand? O Advertising O Relative or Friend O Store Display O Other \_ 12. Level of Education of Purchaser: O Some High School O Completed High School O Completed College O Completed Graduate School 13. Age of Purchaser: O Under 20 O 20 - 29 O 30 - 39 O 40 - 49 O 50 - 59 O 60 or Over 14. Buyer's total annual household income: O Under \$15,000 O \$15,000 to \$19,999 O \$20,000 to \$34,999 O \$35,000 to \$49,999 ○ \$50,000 to \$74,999 ○ \$75,000 to \$99,999 ○ \$100,000 and Over 15. Store where product was purchased: Name: \_\_\_\_ State: City: \_\_\_\_ 16. In choosing this product, how important were the following: Not Important Somewhat Important Very Important Availability 0  $\mathbf{O}$  $\mathbf{O}$ Price 0 Ο О Brand Name  $\mathbf{O}$ Ο О **Overall Quality** Ο О Ο Heat Output 0 0 0 Made in USA Ο Ο О Warranty 0 0 0

Ο

0

0

0

О

Ο

0

О

 $\mathbf{O}$ 

0

0

0

Ο

О

0

0

Ο

0

Ο

Ο

0

0

0

Ο

0

0

0

 $\mathbf{O}$ 

Ο

О

 $\mathbf{O}$ 

Ο

0

Local Service

Value for Price

Controls Location

Ease of Operation

Special Features

**Quiet Operation** 

Portability

Prior Brand Experience

Thermostat, Remote, or Manual Operation

Salesperson's Recommendation

Friend/Relative's Recommendation

Postage Required



P.O. Box 90004 Bowling Green, KY 42102-9004

DESA

43

# NOTES

·	 

# 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 VENT-FREE COMPACT CLASSIC HEARTH<sup>®</sup> FIREPLACE

DESA International warrants this product to be free from defects in materials and components for four (4) years and five (5) years on stainless steel burners 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 fireplace 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 fireplace 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 fireplace 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 AND FIVE (5) YEARS ON STAINLESS STEEL BURNERS 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:



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



NOT A UPC

107032-01 Rev. E 05/02