

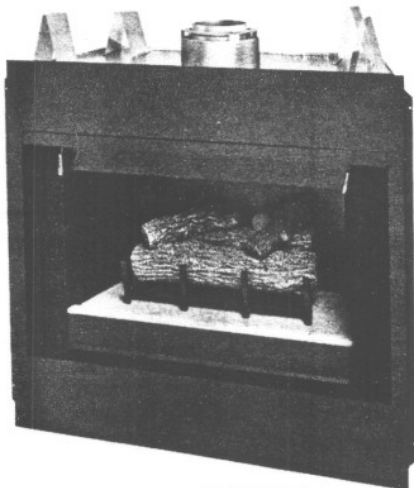
SUPERIOR.

The Fireplace Company

**"INSTALLER - THESE
INSTRUCTIONS MUST BE
CONVEYED TO HOMEOWNER"**

Installation And Operating Instructions

*For Superior's
Vented Type
Decorative
Gas Appliance
Natural Gas Models
GRD-5000N
GHC-5000N
Propane Gas Models
GRD-5000L
GHC-5000L*



GRD-5000N, L



GHC-5000N, L

M48988

This installation manual will help you obtain a safe, efficient, dependable installation for your fireplace and vent system. Please read and understand these installation instructions before beginning your installation.

WARNING: THE GRD AND GHC SERIES FIREPLACES ARE VENTED DECORATIVE GAS APPLIANCES. DO NOT BURN WOOD OR OTHER MATERIAL IN THESE APPLIANCES.

Do not attempt to alter or modify the construction of the fireplace or its components. Any modification or alteration of construction may void the warranty, certification and approvals of these units.

FOR YOUR SAFETY

If you smell gas:

- 1. Open windows.**
- 2. Don't touch electrical switches.**
- 3. Extinguish any open flame.**
- 4. Immediately call your gas supplier.**

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE OR DRAPERIES.

DO NOT PLACE CLOTHING OR OTHER MATERIALS ON OR NEAR THE APPLIANCE.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE



GENERAL INFORMATION

This appliance complies with National Safety Standards and is tested and listed by Underwriters Laboratories, Inc. to ANSI Z21.50-1986 as a vented decorative gas appliance.

Installation must conform to local codes. In the absence of local codes installation must conform with the current National Fuel Gas Code, ANSI Z223.1. The appliance, when installed, must be electrically grounded in accordance with local codes, with the National Electrical Code, ANSI/NFPA No. 70-1984.

Note: Installation and repair should be done by a qualified service person. The appliance should be inspected annually by a professional service person. More frequent inspections/cleanings may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that the control compartment, burners and circulating air passage ways of the appliance be kept clean.

Provide for adequate ventilation.

Provide adequate clearances around air openings and adequate accessibility clearance for service and proper operation. Never obstruct the front opening of the fireplace.

Minimum clearances to combustibles are:

Sides 1/2", Floor 0", Back 1/2", Ceiling 41 1/2", Sidewall 0", Vent Surfaces 1".

Minimum inlet gas pressure is 4.5 inches water column for natural gas and 11 inches water column propane for the purpose of input adjustment.

Maximum inlet gas supply pressure is 7.0 inches water column for natural gas and 13.0 inches water column for propane.

Input is 18,000 BTU/HR

A 1/8" N.P.T. plugged tapping is provided on the gas control along side of the outlet to the main burner for a test gage connection.

This appliance must not be connected to a chimney flue servicing a solid fuel burning appliance.

The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or more than 1/2 psig.

INTRODUCTION

The GHC-5000 is a heat circulating system that utilizing a millivolt gas control valve and a piezo ignition system. Glass doors, trim kits and a forced air fan assembly are optional equipment.

The GRD-5000 is a radiant heat system that utilizing a millivolt gas control valve and a piezo ignition system. Glass doors are optional equipment.

ASSEMBLY STEPS

1. Position appliance prior to framing or into prepared framing.
2. Route gas line to firebox compartment and install millivolt wall switch.
3. Install vent system.
4. Field wire main power supply to appliance junction box (only if optional fan assembly is to be installed at a later time).
5. Complete finished wall material and trim.
6. Install controls and burner assembly. Connect to gas supply.
7. Wire remote millivolt wall switch to control valve.
8. Attach horizontal louvers and/or optional trim pieces.
9. Install the optional glass doors.

INSTALLATION

Step 1. Frame fireplace enclosures as illustrated in Figures 1, 2, 3 and 4.

Note: The framed depth (15 1/2" for a flat wall, 29" for a corner) must always be measured from a finished surface. If a wall covering such as drywall is to be attached to the rear wall, then the 15 1/2" or 29" must be measured from the drywall surface.

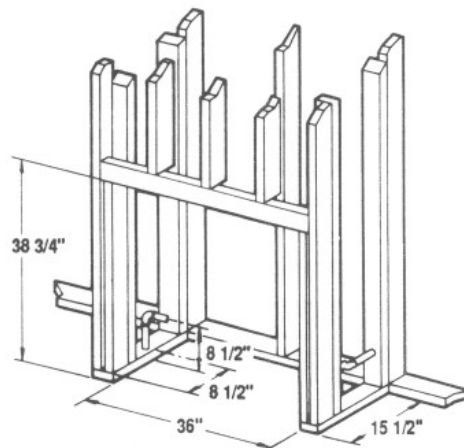


Figure 1

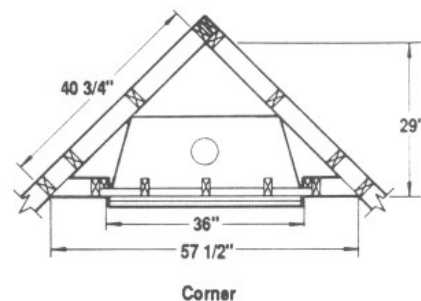


Figure 2

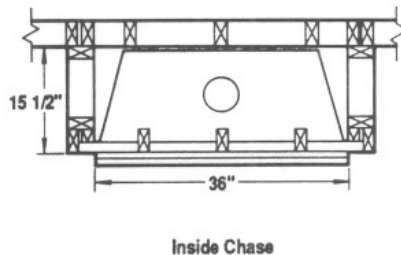


Figure 3

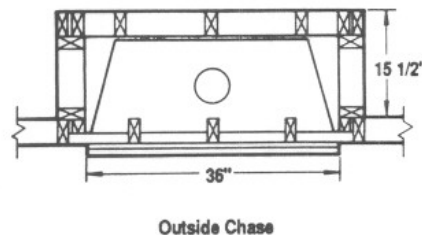


Figure 4

Step 2. Route a 1/2" NPT black iron gas line 8 1/2" above the floor surface (if fireplace will be resting on the floor) and 8 1/2" behind the face at the rough framing (Figure 5).

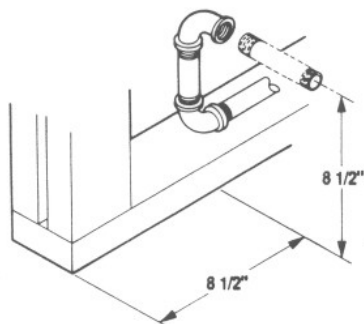


Figure 5

Note: It is preferred to route the gas line on the right side of the fireplace, however, the gas line may be routed to either side. This gas line should extend at least 2" into the control compartment (Figure 6).

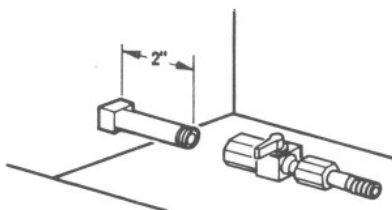


Figure 6

Step 3. Position the appliance into prepared framing, nailing with 6d nails through the nailing flange holes.

Note: The nailing flange and the area directly behind the nailing flange are exempt from the clearances described on the clearance label.

Step 4. Install the remote wall switch in a convenient location and route the 18 gage millivolt wire through the opposite gas line access hole into the control compartment. At least 15" of wire is required in the control compartment.

Connect a 5" type B-vent system to the fireplace flue outer collar with two (2) No. 8 sheet metal screws and install the remainder of this type B-vent to the outside. Minimum height of the vent and fireplace should be 12 feet.

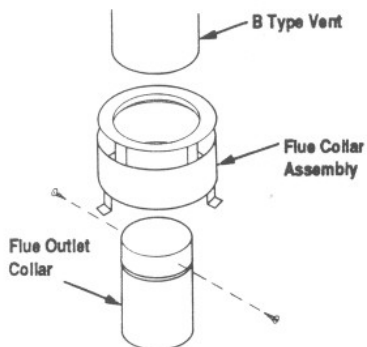


Figure 7

Note: Refer to the vent manufacturers installation instructions for variations of venting techniques. If common venting of several units is contemplated, it should be discussed with an architect and the local Building Department.

Step 6. If an optional forced air fan is to be installed now or at sometime in the future, the fireplace must be connected to the main power supply at this time. Route a 3 wire 120V 60Hz power supply line through a wall switch and to the junction box (located in the lower right side of the fireplace) and ground. Refer to Figure 8 and the installation instructions packed with the FAK-1500 forced air kit.

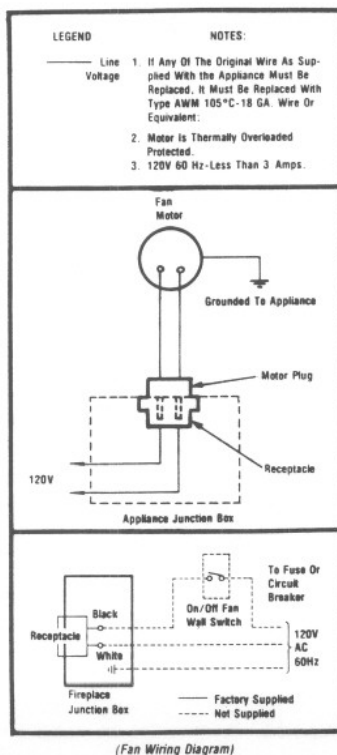


Figure 8

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

Step 7. Complete finished wall material and trim.

Step 8. The logs, burner and control tray assembly are packed separately. When ready for final hook-up, position the control tray and burner assembly into the firebox chamber behind the front ledge.

Step 9. Attach a 3/8" flex connector (12" length; 24" length if gas supply line is installed on the left side) with a shut off valve and a 3/8" adapter to the 1/2" gas supply stub, using a wrench and pipe joint compound. Tighten screws securely (Figure 9).

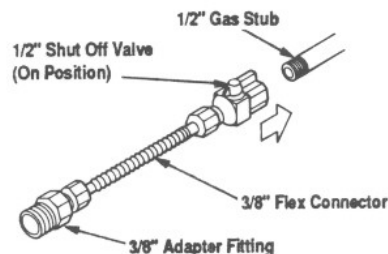


Figure 9

Note: Do not damage or kink the flex connector.

Step 10. Remove the 3/8" adapter fitting from the flex connector and attach the adapter to the gas control valve using a wrench and pipe joint compound. Tighten securely (Figure 10).

Step 11. Carefully bend and shape the flex gas connector so that a connection can be made to the adapter just mounted on the gas valve. Caution should be used so as not to kink the gas connection (Figure 10).

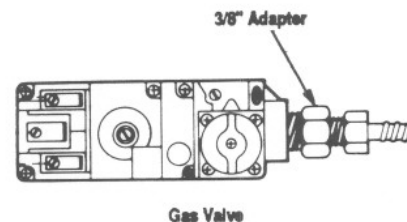


Figure 10

Note: Check for gas leaks with soap and water solution. **DO NOT USE OPEN FLAME FOR LEAK TESTING.**

After gas line installation is complete, use insulation (not provided) to pack space where gas line penetrates the appliance. Pack insulation tightly from outside the appliance to completely seal this space.

Step 12. Remote Millivolt Wall Switch Wiring - Attach one wire from the remote millivolt wall switch to the "TH" terminal on the gas control valve. Connect the other wire from the remote millivolt wall switch to "TH TP" terminal at the gas control valve (Figure 11).

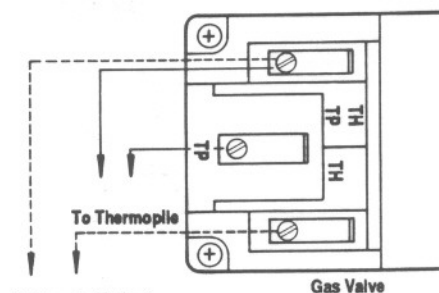


Figure 11

CAUTION: DO NOT WIRE REMOTE WALL SWITCH TO A MAIN POWER SUPPLY.

Step 13. Carefully position and center the lower logs onto the burner with the larger log in front. These logs will "surround" the colorization rod located on the burner. Place the two smaller logs across the two lower logs in the manner illustrated and position log set against back wall (Figures 12 and 13).

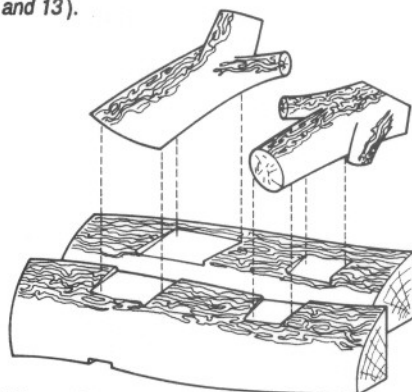


Figure 12

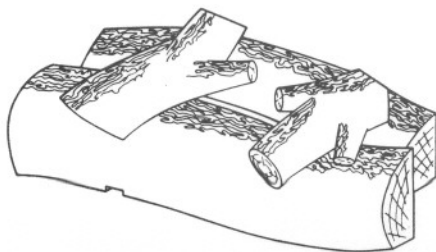


Figure 13

HORIZONTAL TRIM INSTALLATION

On the GHC Model, remove the four (4) black louvers and the two (2) antique brass cover pieces from the protective container and fasten onto the face of the fireplace. The louver strips snap onto the louver pegs without the need for tools. To assemble the louver strips, tilt the strip on top of the pegs and snap lower edge to lock in place. The antique brass cover pieces are mounted over the support bars directly over and below the fireplace opening. They also snap into place. Keep the locking dimples on the bottom side of the covers when installing.

FLAME COLORIZATION DEVICES

The burner assembly is equipped with a special flame enhancement rod located between the lower logs and a mineral fiber flame enhancement strip across from the (lower) burner parts. These devices colorize the gas flame and produce the "ember effect".

In normal operation, these devices will provide many hours of satisfactory performance. Over time, the orange color will diminish in intensity and it will be necessary to purchase a replacement rod and/or mineral fiber flame enhancement device. These devices are available at nominal charge from your local distributor/dealer or directly from Superior.

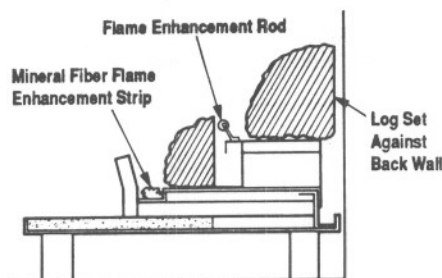


Figure 14

COLD CLIMATE INSULATION

If you live in a cold climate, seal all cracks around your fireplace with non-combustible material and wherever cold air could enter the room. It is especially important to insulate outside chase cavity between studs and under floor on which rests, if floor is above ground level.

Surround material must be caulked where it meets the black metal facing of the fireplace to avoid air intrusion. Use non-combustible caulking material only on fireplace facing to seal.

Do not place insulation materials in the 1" gas vent system clearance space.

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

HIGH ELEVATION DERATING

When installing these fireplaces above 4,000 feet level, it is recommended that the fireplace burner be derated by changing the existing orifice to a smaller one. Order and install appropriate high altitude orifice kit (Figure 15).

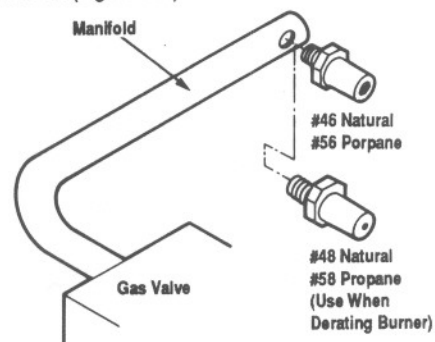


Figure 15

ACCESSORIES

Optional Fan Kit

If the optional fan kit, Model FAK-1500 is to be installed on the GHC-5000N or GHC-5000L gas fireplace, refer to the installation instructions packed with the fan assembly. The GHC-5000N and GHC-5000L gas fireplace has been prewired at the factory to accept the forced air kit at some later time. The fireplace, must, however, be connected to main power supply at time of installation if the FAK-1500 forced air kit is to be installed later.

Horizontal Trim Installation

There are three optional horizontal trim kits, Models 35HTK-SPS, HTK-PB and HTK-AB and two optional vertical trim kits, Models VTK-ABR and VTK-GDE available for use with the GHC-5000 gas fireplace. Refer to the specific installation instructions packed with each trim kit for their proper usage.

Optional Glass Doors

Several models of optional glass doors are available for installation on these gas fireplaces. Use glass door Models 35G-PB, 33BF-AB, 33GDD-AB, 33GBF-PB, 33GBF-SPB, 33GBFT-SPB, 33GBF-ABR and 35GT-SPS with Model GHC-5000N,L. For Model GRD-5000N,L gas fireplaces, use glass door Models 33R-PB, 33BF-AB, 33GDD-AB, 33GBF-SPB, 33GBFT-SPB, 33GBF-ABR and 33GBF-PB. Refer to the specific installation instructions packed with each glass door assembly for installation details.

GLASS DOOR OPERATING PRECAUTIONS AND INSTRUCTIONS

- Keep wire mesh screens closed during fireplace use.
- Never clean glass when doors are hot. Avoid over-spray of cleaner on brass pieces.
- Glass and metal frames get hot. Use only the wooden handles to open and close doors.

CAUTION: THE FIREPLACE SHOULD ONLY BE OPERATED WITH THE GLASS DOORS FULLY OPEN OR FULLY CLOSED.

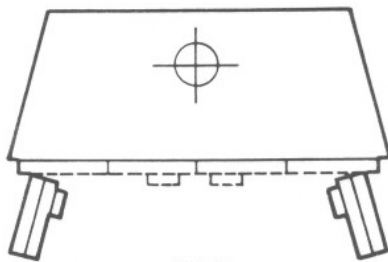


Figure 16

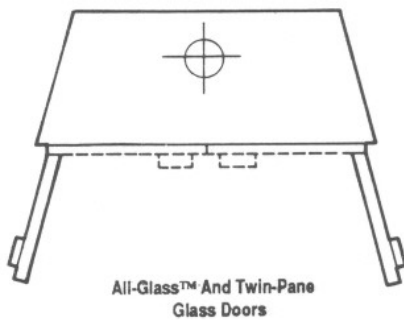
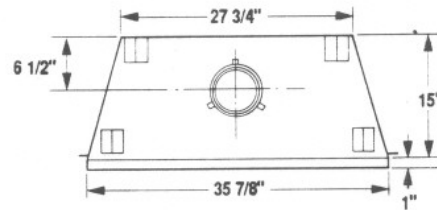


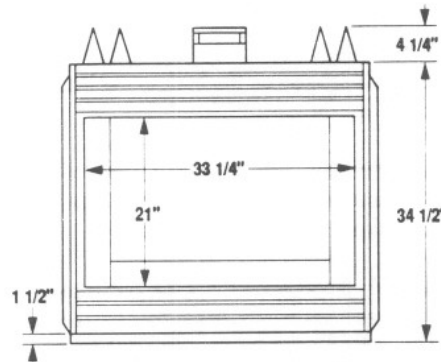
Figure 17

FIREPLACE SPECIFICATIONS GHC-5000N, L



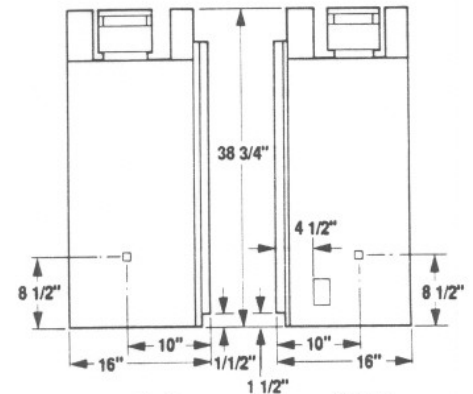
Top

Figure 18



Front

Figure 19

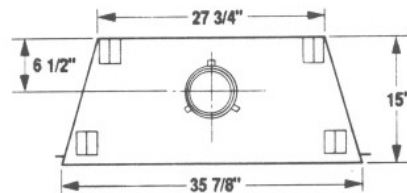


Left

Right

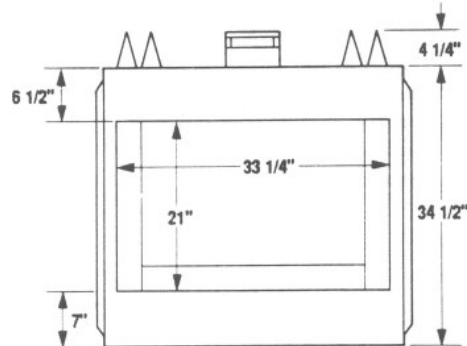
Figure 20

FIREPLACE SPECIFICATIONS GRD-5000N, L



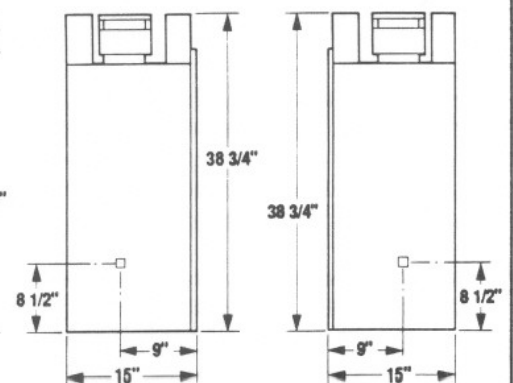
Top

Figure 21



Front

Figure 22



Left

Right

Figure 23

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

FINISHED WALL DETAILS

It is best to frame your fireplace after it is positioned. Frame with 2 x 4's or heavier lumber. Frame in accordance with local prevailing building codes.

Note: The header may rest on the top metal spacers but must not be notched to fit around them.

To install the fireplace facing flush with the finished wall position framework to accommodate the thickness of the finished wall (Figure 24, A and B).

Surround materials can be placed around the fireplace facing to provide a flush surface between the surround materials and the fireplace facing (Figure 24, C and D).

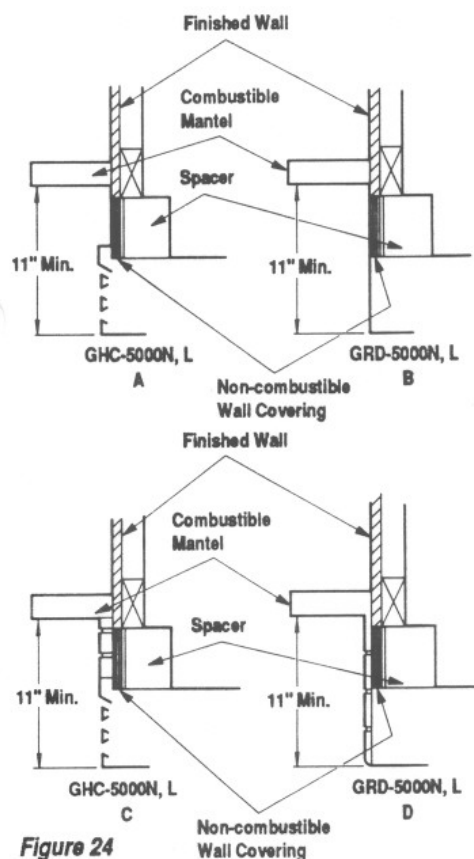


Figure 24

It is not necessary to install a hearth extension with this gas appliance. If a hearth extension is used, do not block the lower louvered area of the GHC-5000. Any hearth extension used is for appearance only and need not conform to normal specifications.

A combustible mantel shelf projecting a maximum of 8" from the wall may be installed a minimum distance of 11" above the GHC-5000 and GRD-5000 fireplace opening (Figure 25).

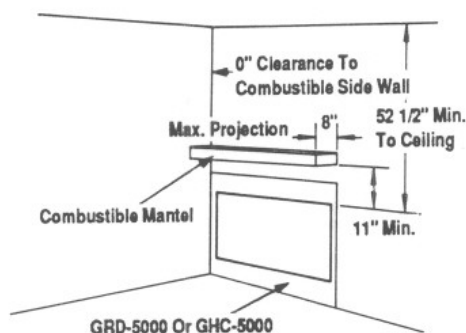


Figure 25

OPERATION

To operate the appliance, refer to the lighting instructions located on the back of the front cover assembly.

Your appliance control system is a millivolt type. It consists of a pilot burner, piezo ignition, a gas control valve and an ON/OFF switch.

To obtain proper operation, it is imperative that the pilot and main burner flame characteristics are steady, not lifting or floating, and be blue in color (Figure 26).

Note: For propane use, air shutter must be open 1/4 inch (Figure 30).

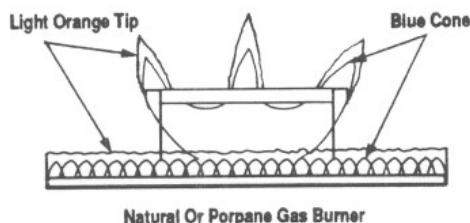


Figure 26

Approximately the top 3/8" at the pilot generator (thermopile) should be engulfed in the pilot flame (Figure 27).

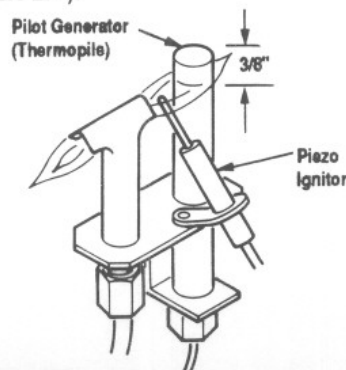


Figure 27

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

The air shutters on the venturi tube have been set at the proper position at the factory for both natural and propane gas units. The air shutter for natural gas has been set in a full open position (Figures 28 and 29).

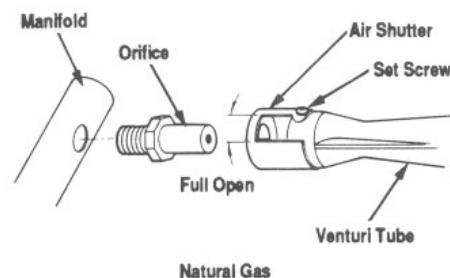
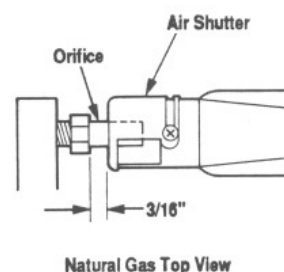


Figure 28



Natural Gas Top View

Figure 29

The air shutter for propane has been set in the half open, or 1/4" opening (Figures 30 and 31).

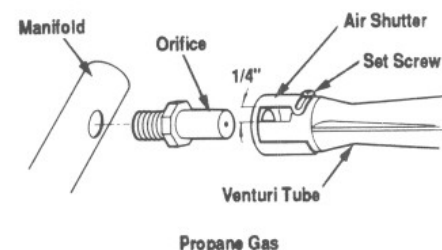
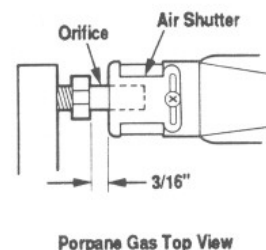


Figure 30



Propane Gas Top View

Figure 31

Any variation at these air shutters may result in an erratic flame and/or the possibility of sooting, distinguished by a bright yellow flame. Any adjustments to the air shutter different from that described above could cause the burner assembly to malfunction and could void the warranty.

OPERATION GUIDELINES AND MAINTENANCE INSTRUCTIONS

1. Upon completing your gas line connection, a small amount of air will be in the lines. When first lighting the appliance, it will take a few minutes for the lines to purge themselves of this air. Once purging is complete, the pilot and burner will light and operate as indicated in the instruction manual. Subsequent lightings of the appliance will not require such purging.

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

3. Keep control compartment, logs, burners and area surrounding the logs clean by vacuuming or brushing at least twice a year. Do not vacuum the mineral wool located in the front of the burner assembly.

CAUTION: THE LOGS CAN GET VERY HOT - HANDLE ONLY WHEN LOGS ARE COOL.

4. Always turn off gas to pilot before cleaning. Before re-lighting, refer to the lighting instructions.

5. The appliance and venting system should be inspected before use or at least annually by a qualified service person.

6. Always keep the appliance area clear and free from combustible materials, gasoline and other flammable liquids.

7. Never obstruct the flow of ventilation air. Keep the front of the appliance clear of all obstacles and materials.

WARNING: CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION. YOUNG CHILDREN SHOULD BE SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

MAINTENANCE

IMPORTANT: Turn off gas and electrical power before servicing appliance. It is recommended that a competent serviceman perform these checkups at the beginning of each heating season.

In order to properly clean the burner and pilot assembly, remove the glass enclosure, the logs and expose the burner and pilot assembly.

Cleaning Burner And Pilot

Clean all foreign materials from top of burner and from bottom panel below burner. Check to make sure that burner orifice is clean.

Visually inspect pilot. Brush or blow away any dust or lint accumulations. If pilot orifice is plugged, disassembly may be required to remove any foreign material from orifice or tubing. When appliance is put back in service, check pilot flame patterns with *Figure 27*.

WARRANTY

Your gas fireplace is covered by a one year limited warranty. You will find a copy of the warranty in this manual. Please read the warranty to be familiar with its valuable coverage and file it with others you save for future reference.

MILLIVOLT CONTROL LIGHTING INSTRUCTIONS

1. Turn remote wall switch to "Off". Turn gas valve knob to "pilot", depress and turn to "Off". Wait five minutes.

2. Turn gas valve knob to "pilot".

3. Hold in depressed position and light pilot by triggering the spark igniter (pushing red button) until pilot lights. Continue holding knob depressed for approximately 1 1/2 minutes until pilot remains lit when knob is released.

4. Turn gas valve knob to "On". Turn remote switch to "On". Burner will come on.

SHUTDOWN INSTRUCTIONS

1. The burner may be turned off by turning remote switch "Off". The pilot will remain lit for return to normal service.

2. For complete shutdown: Turn remote switch "Off". Depress and turn gas valve knob to "Off".

PILOT BURNER ADJUSTMENTS

1. Remove pilot adjustment cap on main valve.
2. Adjust pilot screw to provide properly sized flame (*Figure 27*).
3. Replace pilot adjustment screw.

TROUBLE SHOOTING

With proper installation and maintenance, your new gas fireplace should provide years of trouble free service. If you do experience a problem, trouble shooting guides are provided in this manual. These guides will assist you or a qualified service person in the diagnosis of problems and the corrective action to be taken.

REPLACEMENT PARTS

Contact the factory for questions concerning prices and policies covering replacement parts. Parts will be shipped at prevailing prices. Normally, all parts can be ordered through your Superior distributor or dealer.

When ordering repair parts, always give the following information:

1. The model number of the appliance
2. The part number
3. The description of the part.
4. The installation date of the appliance.

If you have any questions or problems, contact your local distributor/dealer or:

Superior Fireplace Company
4325 Artesia Avenue
Fullerton, CA 92633
(714) 521-7302

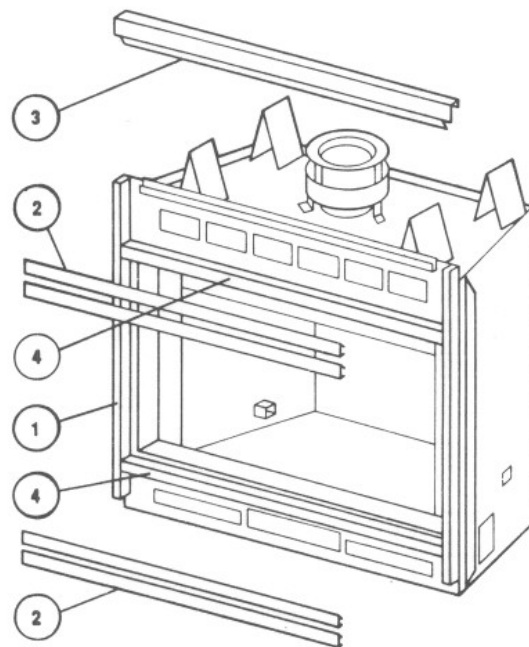
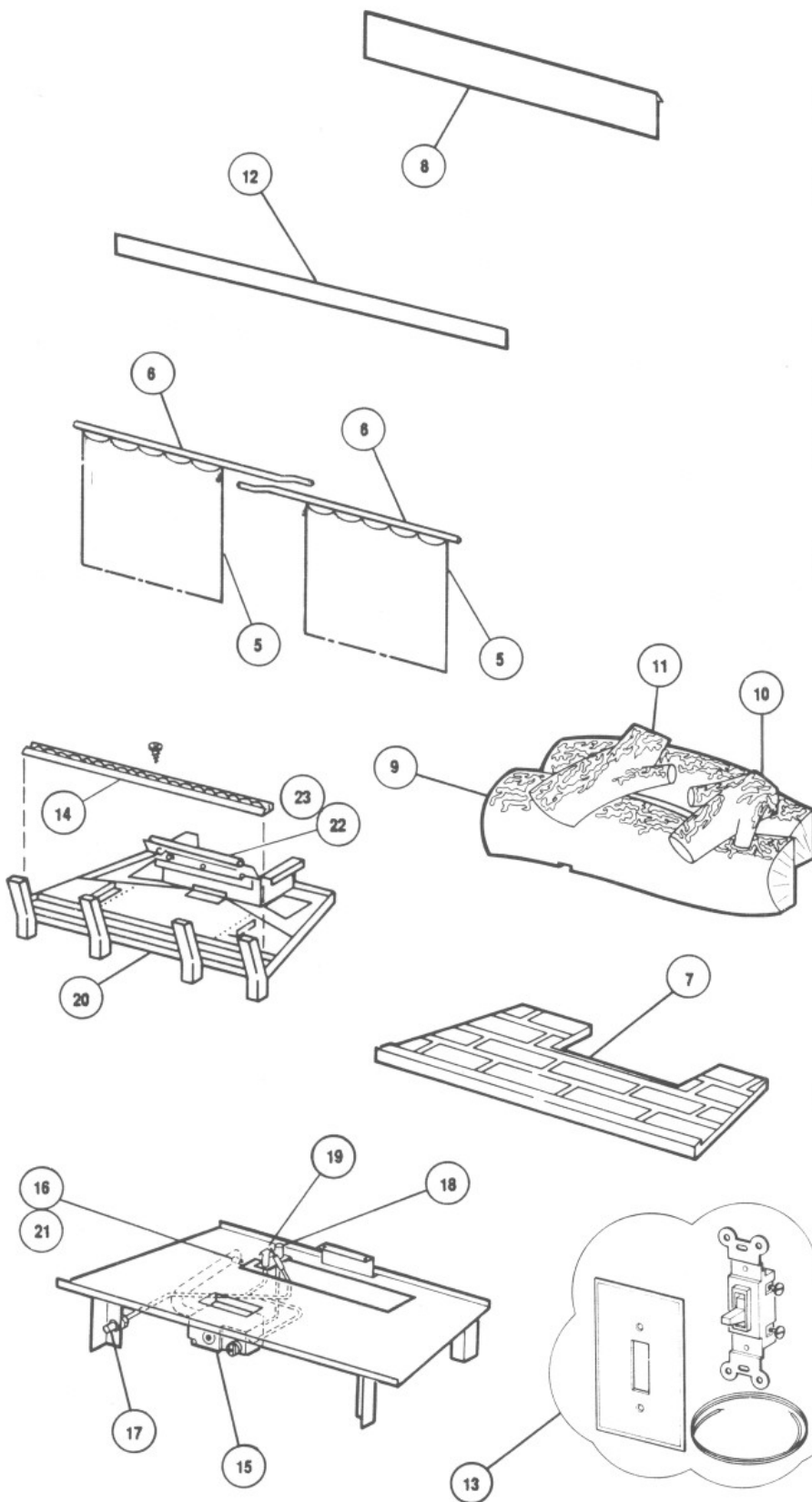
REPLACEMENT PARTS LIST

NO.	DESCRIPTION	GHC-5000N GHC-5000L		GRD-5000N GRD-5000L	
		PART NO.	QTY	PART NO.	QTY
1	Gas Fireplace Assembly	024711	1	024712	1
2	Bar, Louver	024501	4	————	—
3	Bar, Top	024491	1	————	—
4	Trim, Upper/Lower	024151	2	————	—
5	Panel, Screen/Pull	090083	2	090083	2
6	Rod, Screen	011381	2	011381	2
7	Refractory, Bottom	024931	1	024931	1
8	Front Cover Assy.	025831	1	025833	1
9	Log, Main	028121	1	028121	1
10	Log, Top Right	028141	1	028141	1
11	Log, Top Left	028151	1	028151	1
12	Cover, Screen Rod	011351	1	011351	1
13	Wall Switch Kit	025971	1	025971	1
14	Front Flame Enhancement Strip	032631	1	032631	1
22	Flame Colorization Rod	032351	1	032351	1
*23	Flame Enhancement Kit	033711	1	033711	1

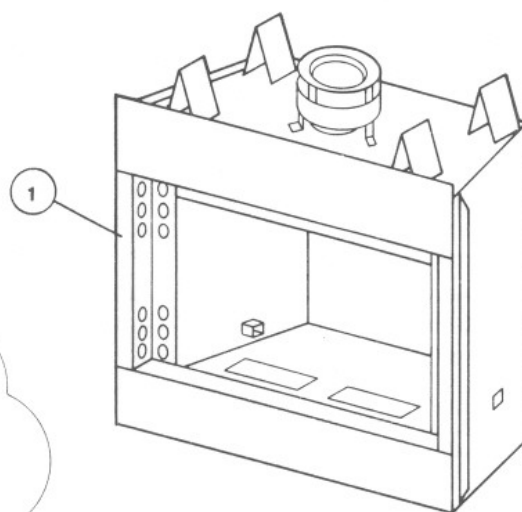
ROBERTSHAW CONTROLS

NO.	CONTROL DESCRIPTION	GHC-5000N GRD-5000N		GHC-5000L GRD-5000L	
		PART NO.	QTY	PART NO.	QTY
15	Valve, Gas Control (#7000 MVRLC)	009737	1	093771	1
16	Orifice, #46 (natural), #56 (propane)	092751	1	092752	1
17	Igniter, Mini	091301	1	091301	1
18	Pilot Generator (Thermopile-TP-75)	094699	1	094699	1
19	Pilot Assembly	093761	1	093762	1
20	Burner Assembly	024981	1	024981	1
*21	High Altitude Orifice Kit	027961	1	027962	1

***Note:** Item 21 intended for high altitude installation. Item 23 includes items 14 and 22 in a single kit.



GHC-5000N, L



GRD-5000N, L

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE

TROUBLE SHOOTING THE ELECTRIC PIEZO IGNITOR AND GAS CONTROL SYSTEM

MODELS GHC-5000N, GHC-5000L, GRD-5000N, GRD-5000L

Note: Before trouble shooting the electric piezo ignitor system, be sure external gas shut off valve, located at the gas supply inlet, is in the "ON" position.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
1. Spark ignitor will not light pilot after repeated triggering of red button.	<p>A. Defective ignitor (no spark at electrode).</p> <p>B. Defective or misaligned electrode at pilot (Spark at electrode).</p>	<p>1. Check for spark at electrode and pilot; if no spark and electrode wire is properly connected, replace the ignitor.</p> <p>1. Using a match, light pilot. If pilot lights, turn off pilot and trigger the red button again. If pilot lights an improper gas mixture caused the bad lighting and a longer purge period is recommended. If pilot will not light - check gap at electrode and pilot - should be 1/8 inch to have a strong spark. If OK, replace pilot assembly (Figure 27).</p>
2. Pilot will not stay lit after carefully following lighting instructions.	<p>A. Defective pilot generator (thermopile) or remote wall switch wiring.</p> <p>B. Defective automatic valve operator.</p>	<p>1. Check pilot flame. It must impinge on pilot generator (Figure 27). Clean and/or adjust pilot for maximum flame impingement on generator.</p> <p>2. Be sure wire connections from generator at gas valve terminals are tight and generator is fully inserted into pilot bracket.</p> <p>3. One of the wall switch wires may be grounded. Remove wall switch wires from valve terminals. If pilot now stays lit, trace wall switch wires for a ground. May be grounded to furnace or gas supply.</p> <p>4. Check pilot generator with millivolt meter. Take reading at generator terminals of gas valve. Should read 325 millivolts minimum while holding valve knob depressed in pilot position and wall switch "OFF". Replace faulty generator if reading is below specified minimum.</p> <p>1. Turn knob to "ON", place wall switch to "ON" millivolt meter should read greater than 100 MV. If the reading is OK and the burner does not come on, replace the gas valve.</p>
3. Pilot burning, no gas to burner, valve knob "ON", wall switch "ON".	<p>A. Wall switch or wires defective.</p> <p>B. Pilot generator may not be generating sufficient millivoltage.</p> <p>C. Plugged burner orifice.</p>	<p>1. Check wall switch and wires for proper connections. Jump wires for proper connections. Place jumper wire across terminals at wall switch. If burner comes on, replace defective wall switch. If OK, place jumper wires across wall switch wires at gas valve. If burner comes on, wires are defective or connections are bad.</p> <p>1. Re-check Symptom #2.</p> <p>1. Check burner orifice for blockage and remove.</p>
4. Frequent pilot outage problem.	A. Pilot flame may be too low or blowing (high) causing the pilot safety to drop out.	1. Clean/adjust pilot flame for maximum flame impingement on pilot generator (Figure 27).

NOTE: DIAGRAMS & ILLUSTRATIONS NOT TO SCALE