

INSTALLER: LEAVE THIS MANUAL WITH THE APPLIANCE  
CONSUMER: RETAIN THIS MANUAL FOR FUTURE REFERENCE

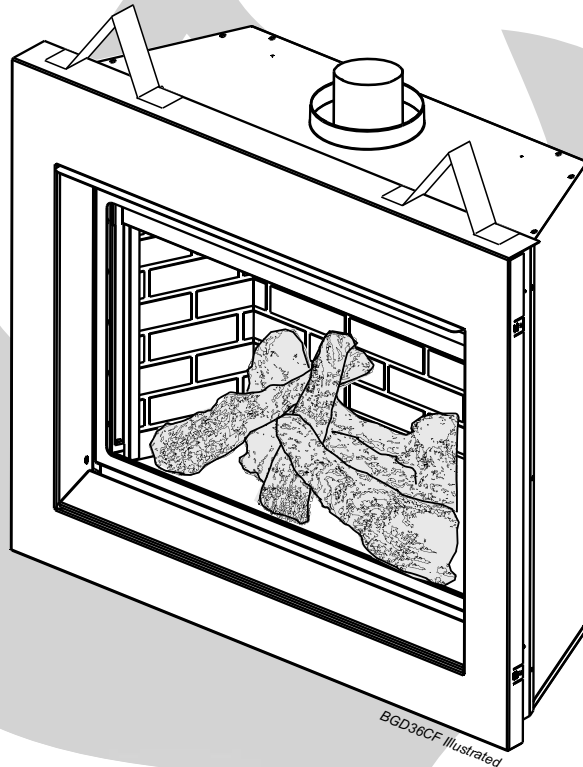


# INSTALLATION AND OPERATING INSTRUCTIONS

CERTIFIED UNDER CANADIAN AND AMERICAN NATIONAL STANDARDS: CSA 2.33, ANSI Z21.88 FOR VENTED GAS FIREPLACE HEATERS.

**BGD36CFGN,  
BGD36CFNTR & BGD42CFN**  
NATURAL GAS

**BGD36CFGP,  
BGD36CFPTR & BGD42CFP**  
PROPANE



CERTIFIED FOR CANADA AND UNITED STATES USING ANSI/CSA METHODS.

## SAFETY INFORMATION

### ! WARNING

If the information in these instructions are 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 supplier.



APPLY SERIAL NUMBER LABEL FROM CARTON



Serial No. XXXXXX000000  
MODEL NO.

**Wolf Steel Ltd., 24 Napoleon Rd., Barrie, ON, L4M 4Y8 Canada / 103 Miller Drive, Crittenden, Kentucky, USA, 41030  
(705)721-1212 · fax(705)722-6031 · www.napoleonfireplaces.com · ask@napoleon.on.ca**

# TABLE OF CONTENTS

<b>PG</b>	<b>4-5 INTRODUCTION</b>	<b>30-31</b>	<b>BGD42CF FINISHING</b>
	Warranty General Instructions General Information Care of Glass & Plated Parts Unit Dimensions Installation Overview		Door Installation / Removal Removing Valve Access Door Glass/Door Replacement Door Trim Grate Installation Log Placement
<b>6-19</b>	<b>VENTING</b>	<b>32</b>	<b>COMMON FINISHING</b>
	Venting Lengths Minimum Air Terminal Location Clearances Typical Minimum and Maximum Vent Lengths Special Vent Installations Venting Application Flow Chart Venting Specifications BGD36CF(G) Pre-Installation Preparation Removing the Valve Access Door Door Operation Rear Exit Top Exit		Glowing Embers Charcoal Embers Vermiculite Charcoal Lumps (BGD42CF Only) Logo Placement
<b>19-29</b>	<b>INSTALLATION</b>	<b>32</b>	<b>BGD36CFG FINISHING</b>
	Wall and Ceiling Protection Horizontal Installation Adjustable Firestop Installation Vertical Installation Using Flexible Vent Components Using Rigid Vent Components Restricting Vertical Vents ( <b>BGD42CF ONLY</b> ) Gas Installation Optional wall switch installation excluding BGD36CFG Mobile Home Installation Framing Installing Standoffs BGD36CF(G) Minimum Mantel and Enclosure Clearances Clean Face Surround Minimum Enclosure Clearances Optional Clean Face Surround Installation BGD36CF(G) only Finished Floor Installation Hearth Installation Optional Clean Face Trim Kit Installation BGD42CF Minimum Mantel and Enclosure Clearances	<b>32</b>	<b>BGD36CFG FINISHING</b>
		<b>33</b>	<b>OPTIONAL BLOWER INSTALLATION</b>
			BGD36CF Accessing the Blower BGD42CF Accessing the Blower Installing the Blower
		<b>34</b>	<b>OPTIONAL FAN INSTALLATION</b>
		<b>35</b>	<b>GD36 THERMOSTATIC SENSOR CONTROL</b>
		<b>36</b>	<b>BGD36CFG BURNER SWITCH/WIRING DIAGRAM</b>
		<b>37</b>	<b>BGD36CFG LIGHT SWITCH/WIRING DIAGRAM</b>
		<b>38</b>	<b>RECEPTACLE WIRING DIAGRAM</b>
			<b>OPERATION BGD36CF AND BGD42CF</b>
			Operating Instructions Maintenance
		<b>39</b>	<b>OPERATION / MAINTENANCE BGD36CFG</b>
		<b>40-41</b>	<b>ADJUSTMENTS</b>
			Pilot Burner Adjustment Venturi Adjustment BGD36CFG Venturi Adjustment Flame Adjustment
		<b>42-44</b>	<b>COMMON REPLACEMENTS</b>
			<b>BGD36CF(G) REPLACEMENTS</b>
			<b>BGD42CF REPLACEMENTS</b>
		<b>45-48</b>	<b>TROUBLE SHOOTING GUIDE</b>
		<b>47</b>	<b>SERVICE HISTORY</b>
		<b>48</b>	<b>NOTES</b>
<b>30</b>	<b>BGD36CF FINISHING</b>		
	Log Placement Glass/Door Replacement		

## PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE

### **WARNING**

- Do not burn wood or other materials in this fireplace.
- Adults and especially children should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition. Supervise young children when they are in the same room as the fireplace.
- Clothing or other flammable material should not be placed on or near the fireplace.
- Due to high temperatures, the fireplace should be located out of traffic and away from furniture and draperies.
- Ensure you have incorporated adequate safety measure to protect infants/toddlers from touching hot surfaces.
- Even after the fireplace is out, the glass and/or screen will remain hot for an extended period of time.
- Check with your local hearth specialty dealer for safety screens and hearth guards to protect children from hot surfaces. These screens and guards must be fastened to the floor.
- Any safety screen or guard removed for servicing must be replaced prior to operating the fireplace.
- It is imperative that the control compartments, burners and circulating blower and its passageway in the fireplace and venting system are kept clean. The fireplace and its venting system should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. The fireplace area must be kept clear and free from combustible materials, gasoline and other flammable vapours and liquids.
- Under no circumstances should this fireplace be modified.
- This fireplace must not be connected to a chimney flue pipe serving a separate solid fuel burning appliance.
- Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect the fireplace and to replace any part of the control system and any gas control which has been under water.
- Do not operate the fireplace with the glass door removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person.
- Do not strike or slam shut the fireplace glass door.
- This fireplace uses and requires a fast acting thermocouple. Replace only with a fast acting thermocouple supplied by Wolf Steel Ltd.
- Pressure relief doors must be kept closed while the fireplace is operating to prevent exhaust fumes containing carbon monoxide, from entering into the home. Temperatures of the exhaust escaping through these openings can also cause the surrounding combustible materials to overheat and catch fire.
- Only doors / optional fronts certified with the unit are to be installed on the appliance.

**NOTE:** CHANGES, OTHER THAN EDITORIAL, ARE DENOTED BY A VERTICAL LINE IN THE MARGIN.

*NAPOLEON® products are manufactured under the strict Standard of the world recognized  
ISO 9001 : 2000 Quality Assurance Certificate.*

*NAPOLEON® products are designed with superior components and materials, assembled by trained craftsmen who take great pride in their work. The burner and valve assembly are leak and test-fired at a quality test station. The complete fireplace is again thoroughly inspected by a qualified technician before packaging to ensure that you, the customer, receives the quality product that you expect from NAPOLEON.®*

## **NAPOLEON® GAS FIREPLACE PRESIDENT'S LIFETIME LIMITED WARRANTY**

*The following materials and workmanship in your new NAPOLEON® gas fireplace are warranted against defects for as long as you own the fireplace. This covers: combustion chamber, heat exchanger, stainless steel burner, phazer™ logs and embers, gold plated parts against tarnishing, porcelainized enameled components and aluminum extrusion trims.*

*Electrical (110V and millivolt) components and wearable parts such as blowers, gas valves, thermal switch, switches, wiring, remote controls, ignitor, gasketing, and pilot assembly are covered and NAPOLEON® will provide replacement parts free of charge during the first year of the limited warranty.*

*Labour related to warranty repair is covered free of charge during the first year. Repair work, however, requires the prior approval of an authorized company official. Labour costs to the account of NAPOLEON® are based on a predetermined rate schedule and any repair work must be done through an authorized NAPOLEON® dealer.*

## **CONDITIONS AND LIMITATIONS**

NAPOLEON® warrants its products against manufacturing defects to the original purchaser only -- i.e., the individual or legal entity (registered customer) whose name appears on the warranty registration card filed with NAPOLEON®-- provided that the purchase was made through an authorized NAPOLEON dealer and is subject to the following conditions and limitations:

This factory warranty is nontransferable and may not be extended whatsoever by any of our representatives.

The gas fireplace must be installed by a licensed, authorized service technician or contractor. Installation must be done in accordance with the installation instructions included with the product and all local and national building and fire codes.

This limited warranty does not cover damages caused by misuse, lack of maintenance, accident, alterations, abuse or neglect and parts installed from other manufacturers will nullify this warranty.

This limited warranty further does not cover any scratches, dents, corrosion or discolouring caused by excessive heat, abrasive and chemical cleaners nor chipping on porcelain enamel parts, mechanical breakage of PHAZER™ logs and embers, nor any venting components used in the installation of the fireplace.

NAPOLEON® warrants its stainless steel burners against defects in workmanship and material for life, subject to the following conditions: During the first 10 years NAPOLEON® will replace or repair the defective parts at our option free of charge. From 10 years to life, NAPOLEON® will provide replacement burners at 50% of the current retail price.

In the first year only, this warranty extends to the repair or replacement of warranted parts which are defective in material or workmanship provided that the product has been operated in accordance with the operation instructions and under normal conditions.

After the first year, with respect to this President's Limited Lifetime Warranty, NAPOLEON® may, at its discretion, fully discharge all obligations with respect to this warranty by refunding to the original warranted purchaser the wholesale price of any warranted but defective part(s).

After the first year, NAPOLEON® will not be responsible for installation, labour or any other costs or expenses related to the reinstallation of a warranted part, and such expenses are not covered by this warranty.

Notwithstanding any provisions contained in this President's Limited Lifetime Warranty, NAPOLEON'S responsibility under this warranty is defined as above and it shall not in any event extend to any incidental, consequential or indirect damages.

This warranty defines the obligations and liability of NAPOLEON® with respect to the NAPOLEON® gas fireplace and any other warranties expressed or implied with respect to this product its components or accessories are excluded.

NAPOLEON® neither assumes, nor authorizes any third party to assume, on its behalf, any other liabilities with respect to the sale of this product. NAPOLEON® will not be responsible for: over-firing, downdrafts, spillage caused by environmental conditions such as rooftops, buildings, nearby trees, hills, mountains, inadequate vents or ventilation, excessive venting configurations, insufficient makeup air, or negative air pressures which may or may not be caused by mechanical systems such as exhaust fans, furnaces, clothes dryers, etc.

Any damages to fireplace, combustion chamber, heat exchanger, brass trim or other component due to water, weather damage, long periods of dampness, condensation, damaging chemicals or cleaners will not be the responsibility of NAPOLEON®.

The bill of sale or copy will be required together with a serial number and a model number when making any warranty claims from your authorized dealer. The warranty registration card must be returned within fourteen days to register the warranty.

NAPOLEON® reserves the right to have its representative inspect any product or part thereof prior to honouring any warranty claim.

ALL SPECIFICATIONS AND DESIGNS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE DUE TO ON-GOING PRODUCT IMPROVEMENTS. NAPOLEON® IS A REGISTERED TRADEMARK OF WOLF STEEL LTD. PATENTS U.S. 5.303.693.801 - CAN. 2.073.411, 2.082.915. © WOLF STEEL LTD.

## GENERAL INSTRUCTIONS

*THIS GAS FIREPLACE SHOULD BE INSTALLED AND SERVICED BY A QUALIFIED INSTALLER* to conform with local codes. Installation practices vary from region to region and it is important to know the specifics that apply to your area, for example: in Massachusetts State:

- The fireplace damper must be removed or welded in the open position prior to installation of a fireplace insert or gas log.
- A carbon monoxide detector is required in all rooms containing gas fired appliances
- The appliance off valve must be a "T" handle gas cock.
- The flexible connector must not be longer than 36".
- The appliance is not approved for installation in a bedroom or bathroom unless the unit is a direct vent sealed combustion product.
- **WARNING:** This product must be installed by a licensed plumber or gas fitter when installed within the commonwealth of Massachusetts.

In absence of local codes, install the **BGD36CF(G)** and **BGD42CF** to the current National Fuel Gas Code, ANSI Z223.1, or the current CAN/CGA B149, Installation Codes. Mobile home installation must conform with local codes or in the absence of local codes, install to the current standard for gas equipped mobile housing CAN/CSA ZA240 MH Series in Canada or the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or the Fire Safety Criteria for Manufactured Home Installations, Sites and Communities Standard ANSI/NFPA 501A in the United States.

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

When the fireplace is installed directly on carpeting, vinyl 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.

If the optional fan or blower is installed, the junction box must be electrically connected and grounded in accordance with local codes. In the absence of local codes, use the current CSA C22.1 CANADIAN ELECTRICAL CODE in Canada or the ANSI/NFPA 70 NATIONAL ELECTRICAL CODE in the United States.

All sections with BGD36CF(G) are common to both the BGD36CF and the BGD36CFG.

## GENERAL INFORMATION

*FOR YOUR SATISFACTION, THIS FIREPLACE HAS BEEN TEST-FIRED TO ASSURE ITS OPERATION AND QUALITY!*

### **BGD36CF(G)**

Maximum input for the BGD36CF(G) is 17,000 BTU/h for natural gas and propane. Maximum output for natural gas and propane is 10,900 BTU/hr at an efficiency of 64% with the fan on. The A.F.U.E. (annual fuel utilization efficiency) rating is 53% for natural gas and propane.

### **BGD42CF**

Maximum input for the BGD42CF is 24,000 BTU/hr for natural gas and propane. Maximum output for natural gas and propane is 16,000 BTU/hr at an efficiency of 67% with the fan on. The A.F.U.E. (annual fuel utilization efficiency) rating is 61.5% for natural gas and propane.

When the fireplace is installed at elevations above 4,500ft, and in the absence of specific recommendations from the local authority having jurisdiction, the certified high altitude input rating shall be reduced at the rate of 4% for each additional 1,000ft.

Minimum inlet gas supply pressure is 4.5" water column for natural gas and 11" water column for propane.

Maximum inlet gas pressure is 7" water column for natural gas and 13" water column for propane. Manifold pressure under flow conditions is 3.5" water column for natural gas and 10" water column for propane.

This fireplace is approved for bathroom, bedroom and bed-sitting room installations and is suitable for mobile home installation.

**No external electricity (110 volts or 24 volts) is required for the gas system operation.**

**Expansion / contraction noises during heating up and cooling down cycles are normal and are to be expected.**



**Use only accessories designed for and listed with your specific fireplace.**

**Provide adequate ventilation air. Provide adequate accessibility clearance for servicing and operating the fireplace. Never obstruct the front opening of the fireplace.**

**Objects placed in front of the fireplace must be kept a minimum of 48" away from the front face of the unit.**

## CARE OF GLASS AND PLATED PARTS

Do not use abrasive cleaners to clean plated parts. Buff lightly with a clean dry cloth. The BGD36CF(G) and BGD42CF are factory equipped with tempered glass. The glass thickness is 3/16" for both models. Use only replacement glass available from your Napoleon® dealer. DO NOT SUBSTITUTE MATERIALS. Clean the glass after the first 10 hours of operation with a recommended gas fireplace glass cleaner. Thereafter clean as required. DO NOT CLEAN GLASS WHEN HOT! If the glass is not kept clean permanent discoloration and / or blemishes may result.

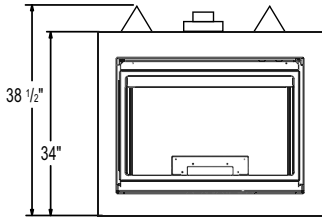


# UNIT DIMENSIONS

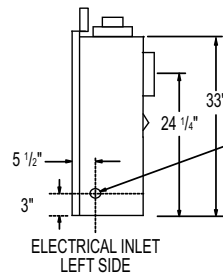
## BGD36CF(G)

## BGD42CF

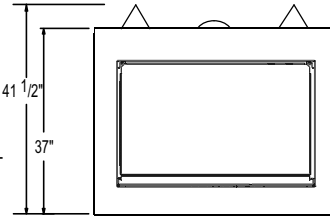
**FIGURE 1**



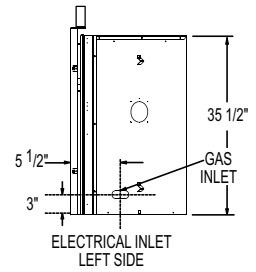
**FIGURE 2**



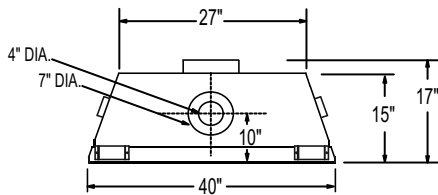
**FIGURE 4**



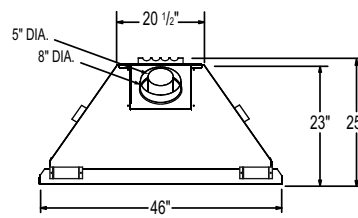
**FIGURE 5**



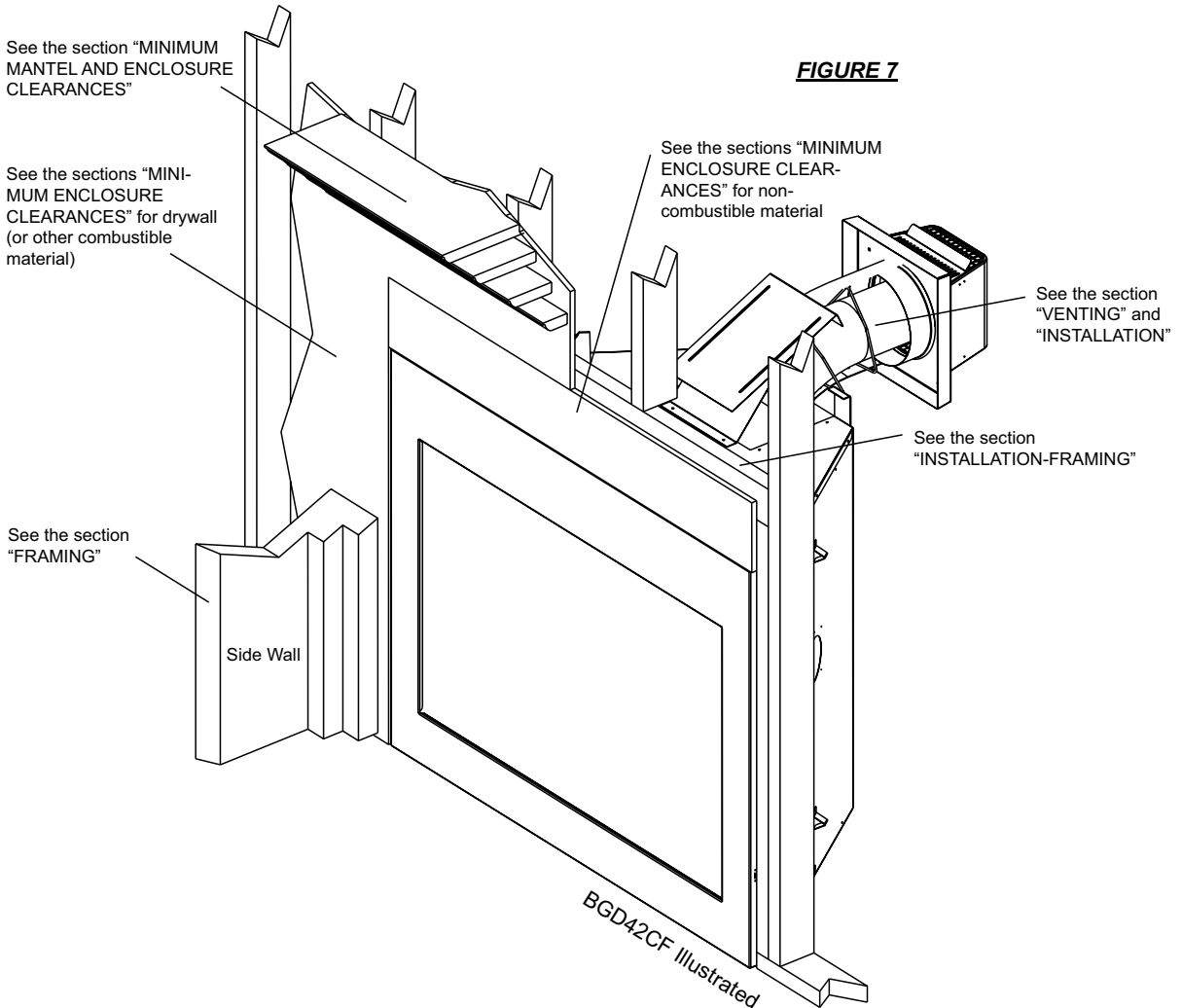
**FIGURE 3**



**FIGURE 6**



# INSTALLATION OVERVIEW



## VENTING

**THE BGD36CF(G) USES: 4" EXHAUST / 7" AIR INTAKE VENT PIPE**

**THE BGD42CF USES: 5" EXHAUST / 8" AIR INTAKE VENT PIPE**

**MODEL BGD36CF MAY BE VENTED EITHER AS A TOP VENT OR A REAR VENT.**

**REFER TO THE SECTION APPLICABLE TO YOUR INSTALLATION.**

**For safe and proper operation of the fireplace follow the venting instruction exactly. Deviation from the minimum vertical vent length can create difficulty in burner start-up and/or carboning. Provide a means for visually checking the vent connection to the fireplace after the fireplace is installed. Vent lengths that pass through unheated spaces (attics, garages, crawl spaces) should be insulated with the insulation wrapped in a protective sleeve to minimize condensation.**

### VENTING LENGTHS

Use only Wolf Steel, Simpson Dura-Vent, Selkirk Direct Temp or American Metal Amerivent venting components. Minimum and maximum vent lengths, for both horizontal and vertical installations, and air terminal locations for either system are set out in this manual and must be adhered to. For Simpson Dura-Vent, Selkirk Direct Temp and American Metal Amerivent, follow the installation procedure provided with the venting components.

A starter adaptor must be used with the following vent systems and may be purchased from the corresponding supplier:

PART	4"/7"	5"/8"	SUPPLIER
Duravent	W175-0053	W175-0170	Wolf Steel
Amerivent	4DSC-N2	5DSC-N	American Metal
Direct Temp	4DT-AAN	5DT-AA	Selkirk

For Simpson Dura-Vent, Selkirk Direct Temp and American Metal Amerivent, follow the installation procedure found on the website for your venting supplier.

#### **VENTING SUPPLIER**

	<b>WEBSITE</b>
Simpson Dura-Vent	<a href="http://www.duravent.com">www.duravent.com</a>
Selkirk Direct Temp	<a href="http://www.selkirkcorp.com">www.selkirkcorp.com</a>
American Metal Amerivent	<a href="http://www.americanmetalproducts.com">www.americanmetalproducts.com</a>

For vent systems that provide seals on the inner exhaust flue, only the outer air intake joints must be sealed using a red high temperature silicone (RTV). This same sealant may be used on both the inner exhaust and outer intake vent pipe joints of all other approved vent systems except for the exhaust vent pipe connection to the fireplace flue collar which must be sealed using the black high temperature sealant Mill Pac.

#### **BGD36CF(G)**

When using Wolf Steel venting components, use only approved Wolf Steel rigid / flexible components with the following termination kits: WALL TERMINAL KIT **GD222**, or 1/12 to 7/12 PITCH ROOF TERMINAL KIT **GD110**, 8/12 to 12/12 ROOF TERMINAL KIT **GD111**, FLAT ROOF TERMINAL KIT **GD112** or PERISCOPE KIT **GD201** (for wall penetration below grade). With flexible venting, in conjunction with the various terminations, use either the 5 FOOT VENT KIT **GD220** or the 10 FOOT VENT KIT **GD330**.

#### **BGD42CF**

When using Wolf Steel venting components, use only approved Wolf Steel flexible components with the following termination kits: WALL TERMINAL KIT **GD422**, or 1/12 to 7/12 PITCH ROOF TERMINAL KIT **GD410**, 8/12 to 12/12 ROOF TERMINAL KIT **GD411**, FLAT ROOF TERMINAL KIT **GD412** or PERISCOPE KIT **GD401** (for wall penetration below grade). With flexible venting, in conjunction with the various terminations, use either the 5 FOOT VENT KIT **GD420** or the 10 FOOT VENT KIT **GD430**.

**Wolf Steel, Simpson Dura-Vent, Selkirk Direct Temp or American Metal Amerivent venting systems must not be combined. Wolf Steel rigid and flexible venting systems must not be combined.**

These vent kits allow for either horizontal or vertical venting of the fireplace. The maximum allowable horizontal run is 20 feet. The maximum allowable vertical vent length is 40 feet. The maximum number of vent connections is two horizontally or three vertically (excluding the fireplace and the air terminal connections) when using flexible venting.

**For optimum flame appearance and fireplace performance, keep the vent length and number of elbows to a minimum.**

#### REQUIRED RISE ON HORIZONTAL VENTING

		BGD36CF(G)	BGD42CF
REAR VENT	RIGID VENTING	0" / FT	0" / FT
	FLEXIBLE VENTING	0" / FT	0" / FT
TOP VENT	RIGID VENTING	0" / FT	0" / FT
	FLEXIBLE VENTING	0" / FT	0" / FT
CORNER	RIGID VENTING	0"	0"
	FLEXIBLE VENTING	6"	0"

For optimum performance, it is recommended that all horizontal runs have a 1" rise per foot.

#### **BGD36CF(G)**

**HORIZONTAL VENT SECTIONS:** - A minimum clearance of 1" at the bottom and sides of the vent and 2" at the top on all horizontal runs to combustibles is required. The firestop spacer (W010-1774) supplied with the unit must be used to maintain this clearance.

**VERTICAL VENT SECTIONS:** - A minimum of 1" all around the vent pipe on all vertical runs to combustibles is required except for clearances in fireplace enclosures. See "**MINIMUM ENCLOSURE CLEARANCES**" section. Use firestop spacer W500-0096 (not supplied).

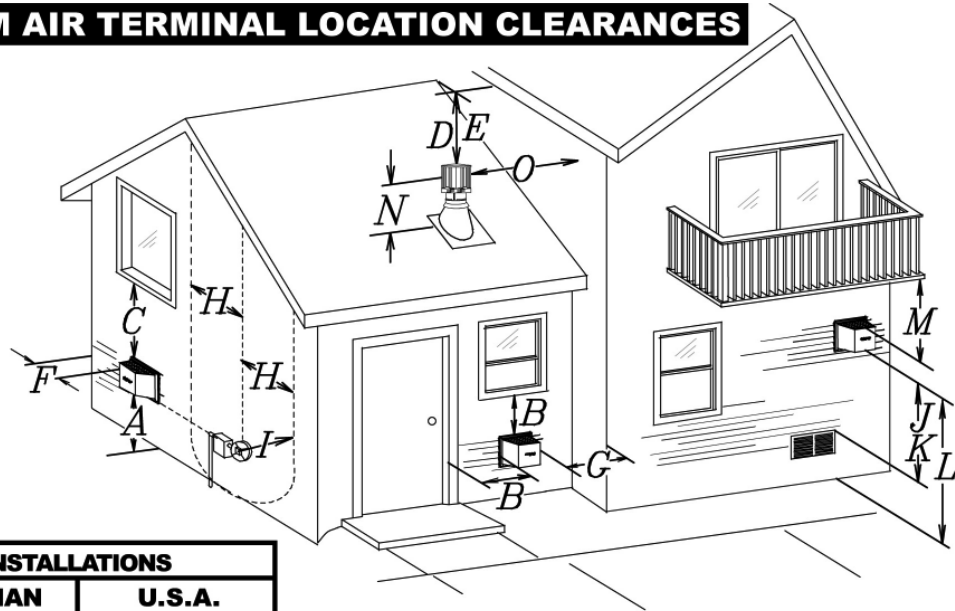
#### **BGD42CF**

**HORIZONTAL VENT SECTIONS:** A minimum clearance of 2" all around the vent pipe on all horizontal runs to combustibles is required. Use firestop spacer W010-1778 (supplied).

**VERTICAL VENT SECTIONS:** A minimum of 1" all around the vent pipe on all vertical runs to combustibles is required. Use firestop spacer W500-0028 (not supplied).

## MINIMUM AIR TERMINAL LOCATION CLEARANCES

FIGURE 8



INSTALLATIONS			
	CANADIAN	U.S.A.	
A	12 INCHES	12 INCHES	Clearance above grade, veranda porch, deck or balcony.
B	12 INCHES	9 INCHES	Clearance to windows or doors that open.
C	12 INCHES*	12 INCHES*	Clearance to permanently closed windows.
D	18 INCHES** (32 INCHES BGD42CF)	18 INCHES** (32 INCHES BGD42CF)	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet from the centerline of the terminal.
E	12 INCHES** (18 INCHES BGD42CF)	12 INCHES** (18 INCHES BGD42CF)	Clearance to unventilated soffit.
F	0 INCHES	0 INCHES	Clearance to an outside corner wall.
G	0 INCHES***	0 INCHES***	Clearance to an inside <i>non</i> -combustible corner wall or protruding <i>non</i> -combustible obstructions (chimney, etc.).
	2 INCHES***	2 INCHES***	Clearance to an inside combustible corner wall or protruding combustible obstructions ( vent chase, etc.).
H	3 FEET	3 FEET****	Clearance to each side of the centerline extended above the meter / regulator assembly to a maximum vertical distance of 15ft.
I	3 FEET	3 FEET****	Clearance to a service regulator vent outlet.
J	12 INCHES	9 INCHES	Clearance to a non-mechanical air supply inlet to the building or a combustion air inlet to any other appliance.
K	6 FEET	3 FEET†	Clearance to a mechanical air supply inlet.
L	7 FEET‡	7 FEET****	Clearance above a paved sidewalk or paved driveway located on public property unless fitted with a heat shield kit GD-301.
M	12 INCHES†† (32 INCHES BGD42CF)	12 INCHES**** (32 INCHES BGD42CF)	Clearance under a veranda, porch, deck or balcony.
N	16 INCHES	16 INCHES	Clearance above the roof.
O	2 FEET†*	2 FEET†*	Clearance from an adjacent wall including neighbouring buildings.

\* Recommended to prevent condensation on windows and thermal breakage

\*\* It is recommended to use a heat shield and to maximize the distance to vinyl clad soffits.

\*\*\* The periscope kits GD-201 and GD401 requires a minimum 18 inches clearance from an inside corner.

\*\*\*\* This is a recommended distance. For additional requirements check local codes.

† 3 feet above if within 10 feet horizontally.

‡ A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

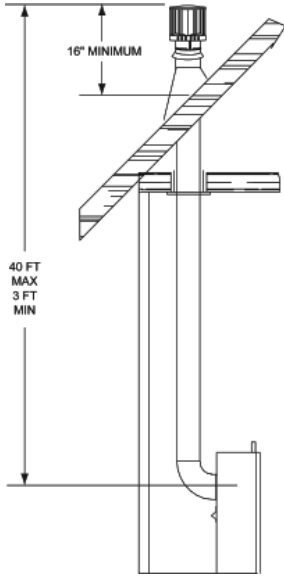
†† Permitted only if the veranda, porch, or deck is fully open on a minimum of two sides beneath the floor.

†\* Recommended to prevent recirculation of exhaust products. For additional requirements check local codes.

# TYPICAL MINIMUM AND MAXIMUM VENT LENGTHS

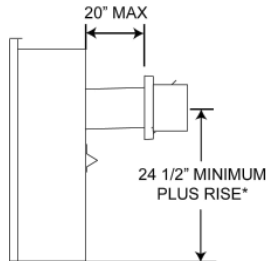
## BGD36CF(G)

### REAR EXIT

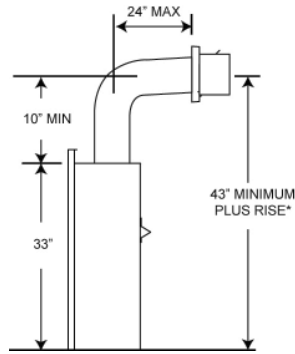


**FIGURE 9**

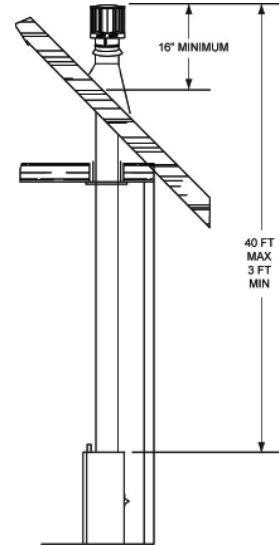
### TOP EXIT



**FIGURE 10**



**FIGURE 11**



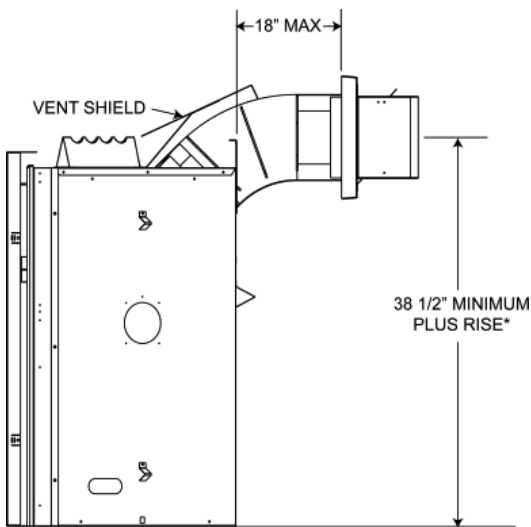
**FIGURE 12**

For optimum performance, it is recommended that all horizontal runs have a 1" rise per foot.

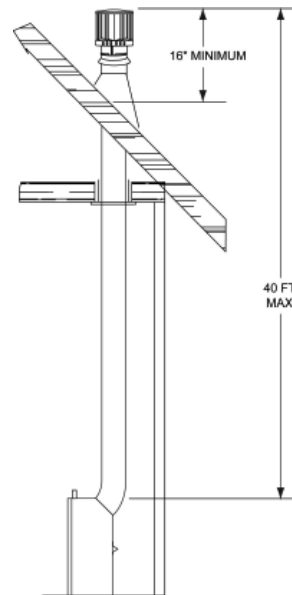
When terminating vertically, the vertical rise is a minimum 3 feet and a maximum 40 feet from the centre of the fireplace flue outlet.

## BGD42CF

**NOTE:** When terminating vertically, the restrictor plate W500-0205 must be installed. Refer to Restricting Vertical Vents.



**FIGURE 13**



**FIGURE 14**

\* See Venting Section



# SPECIAL VENT INSTALLATIONS

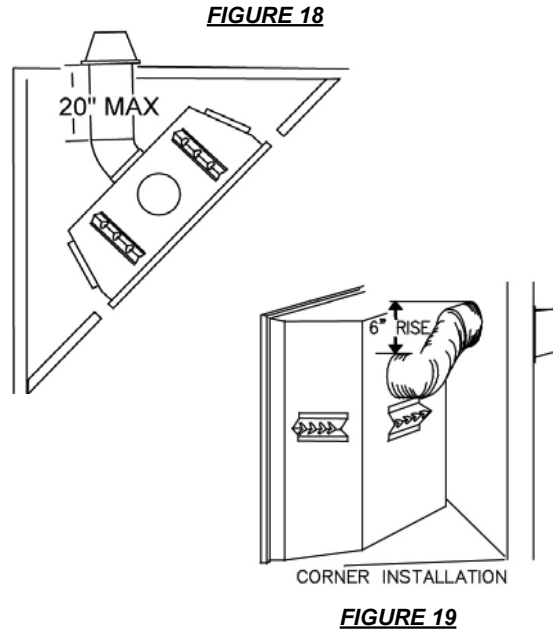
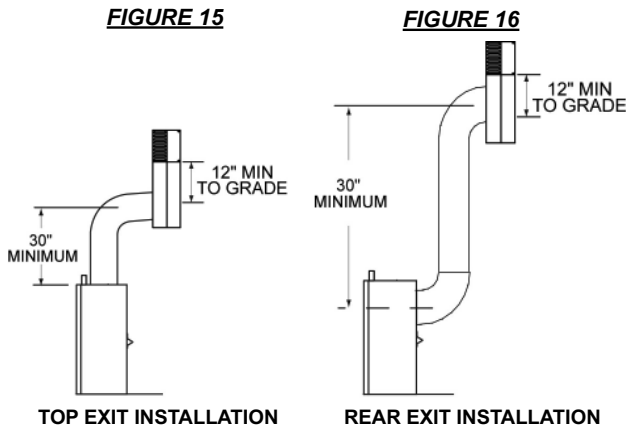
**BGD36CF(G)**

## PERISCOPE TERMINATION

Use the GD201 periscope kit to locate the air termination above grade. The periscope must be installed so that when final grading is completed, the bottom air slot is located a minimum of 12" above grade. The maximum allowable vent length is 10'.

## CORNER TERMINATION

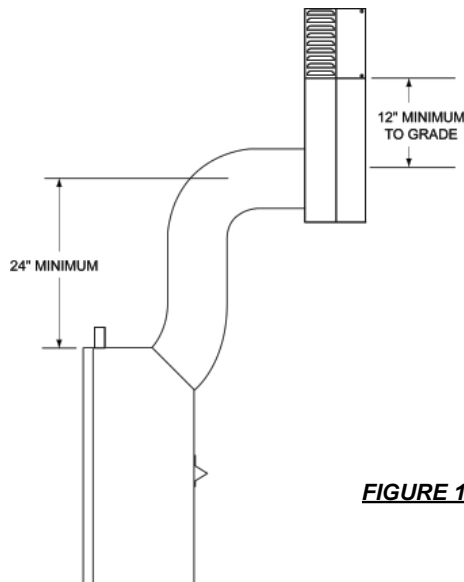
The maximum vent length for a corner installation is 20" of horizontal run, in addition to the 45° offset. In this case zero rise is acceptable when using rigid. See **FIGURE 18**. Flexible venting must maintain a 6" rise. See **FIGURE 19**.



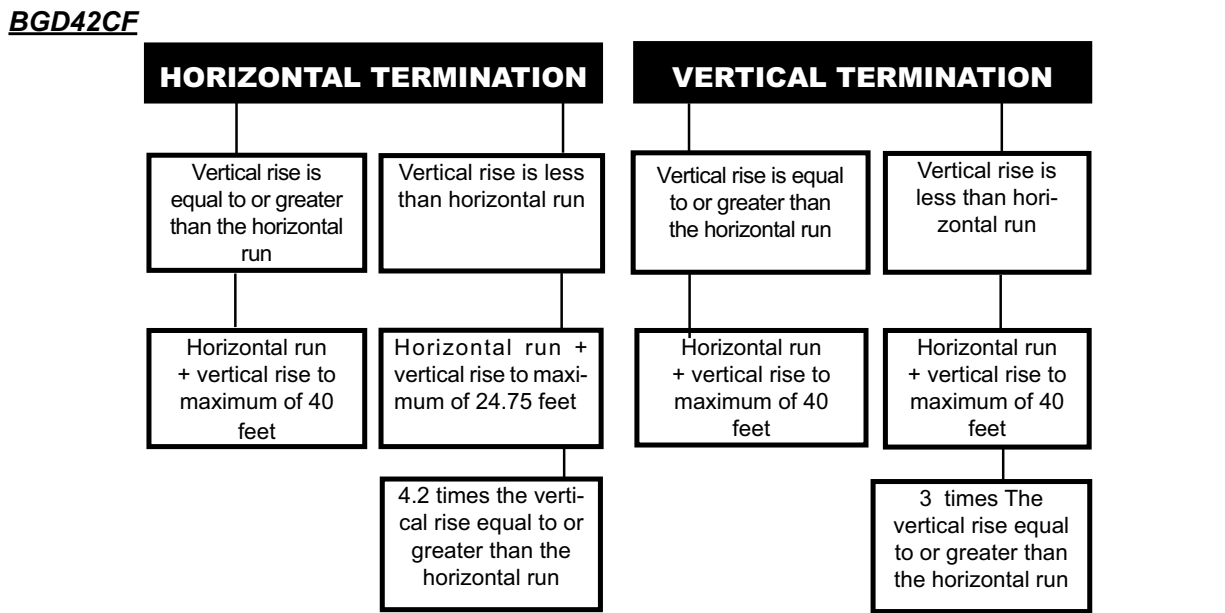
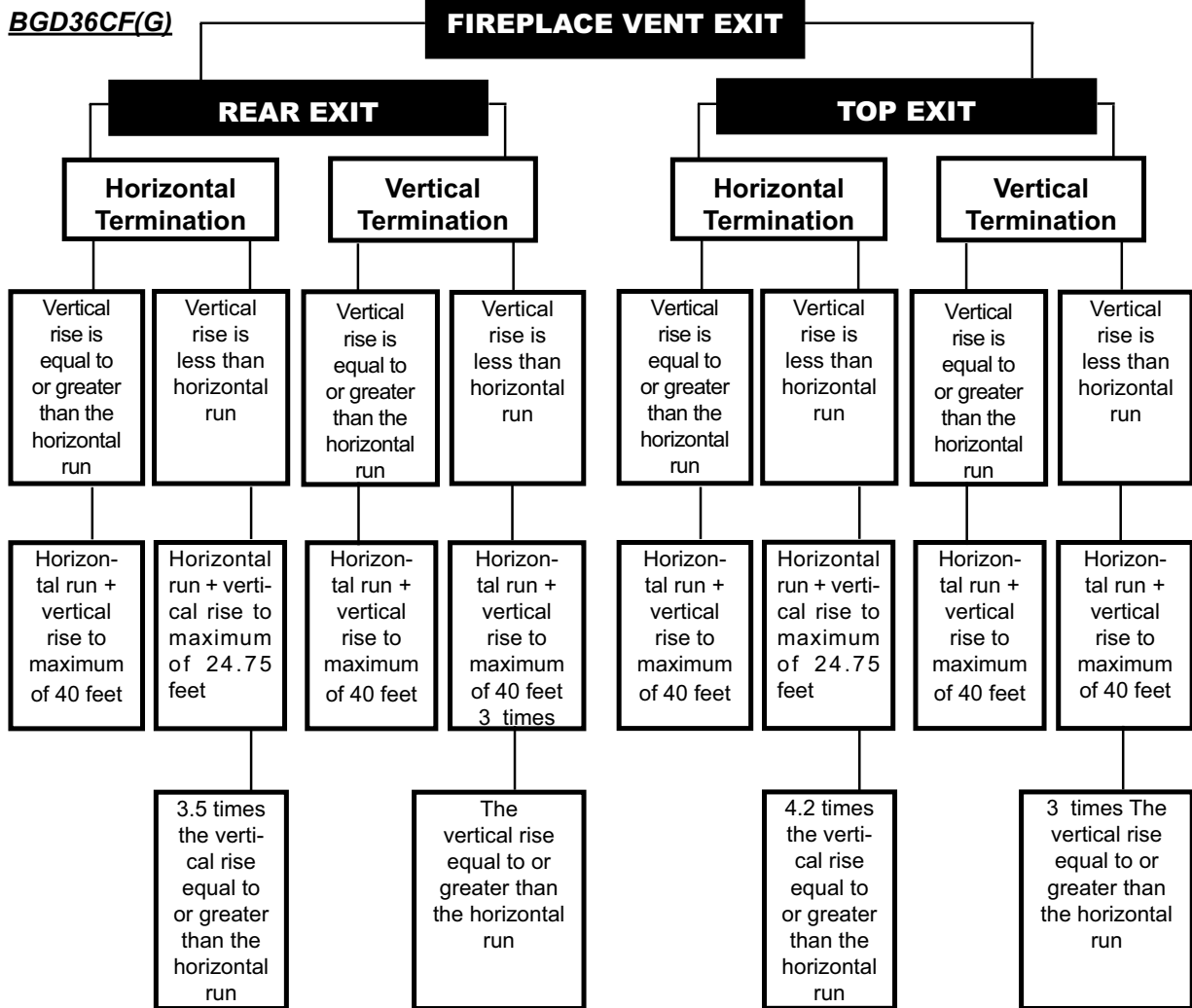
**BGD42CF**

## PERISCOPE TERMINATION

Use the GD401 periscope kit to locate the air termination above grade. The periscope must be installed so that when final grading is completed, the bottom air slot is located a minimum of 12" above grade. The maximum allowable vent length is 10'.



# VENTING APPLICATION FLOW CHART



**DEFINITIONS**

for the following symbols used in the venting calculations and examples are:

- > - greater than
- ≥ - equal to or greater than
- < - less than
- ≤ - equal to or less than
- H<sub>T</sub>** - total of both horizontal vent lengths (**H<sub>R</sub>**) and offsets (**H<sub>O</sub>**) in feet
- H<sub>R</sub>** - combined horizontal vent lengths in feet
- H<sub>O</sub>** - offset factor: .03 (total degrees of offset - 90°\*) in feet
- V<sub>T</sub>** - combined vertical vent lengths in feet

**ELBOW VENT LENGTH VALUES**

	feet	inches
1°	0.03	0.5
15°	0.45	6.0
30°	0.9	11.0
45°*	1.35	16.0
90°*	2.7	32.0

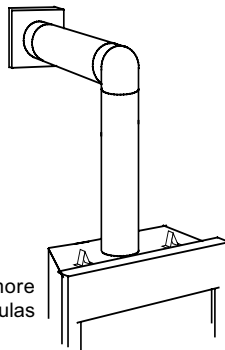
\* BGD36CF the first 90° offset has a zero value and is shown in the formula as - 90°

\* BGD42CF the first 45° and 90° offset has a zero value and is shown in the formula as -45° and - 90° respectively or -135° combined.

**BGD36CF(G) TOP EXIT / HORIZONTAL TERMINATION**

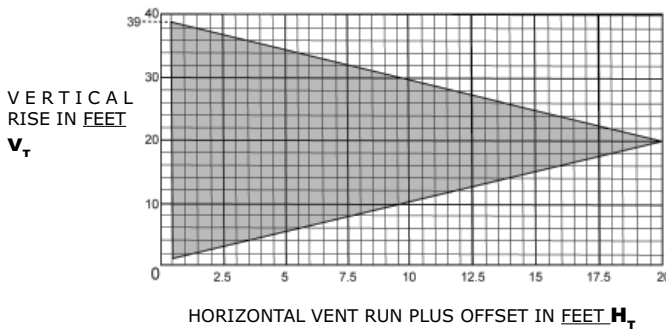
when (**H<sub>T</sub>**) ≤ (**V<sub>T</sub>**)

Simple venting configuration (only one 90° elbow)  
See graph to determine the required vertical rise **V<sub>T</sub>** for the required horizontal run **H<sub>T</sub>**.



**FIGURE 20**

For vent configurations requiring more than one 90° elbow, the following formulas apply:

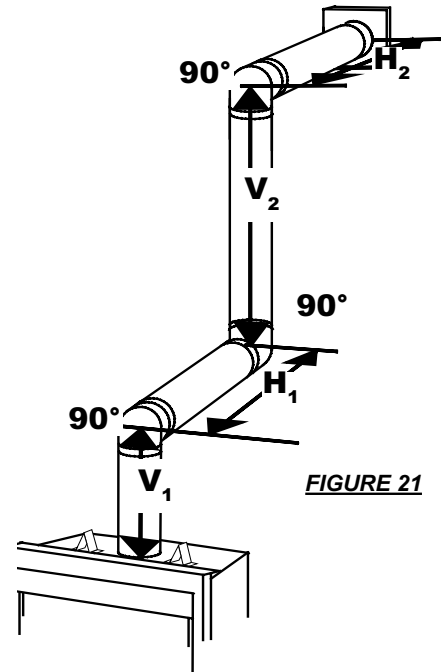


The shaded area within the lines represents acceptable values for **H<sub>T</sub>** and **V<sub>T</sub>**.

**Formula 1:** **H<sub>T</sub>** ≤ **V<sub>T</sub>**

**Formula 2:** **H<sub>T</sub>** + **V<sub>T</sub>** ≤ 40 feet

**Example 1:**



**FIGURE 21**

**V<sub>1</sub>** = 3 ft  
**V<sub>2</sub>** = 8 ft  
**V<sub>T</sub>** = **V<sub>1</sub>** + **V<sub>2</sub>** = 3 + 8 = 11 ft  
**H<sub>1</sub>** = 2.5 ft  
**H<sub>2</sub>** = 2 ft  
**H<sub>R</sub>** = **H<sub>1</sub>** + **H<sub>2</sub>** = 2.5 + 2 = 4.5 ft  
**H<sub>O</sub>** = .03 (three 90° elbows - 90°) = .03(270° - 90°) = 5.4 ft  
**H<sub>T</sub>** = **H<sub>R</sub>** + **H<sub>O</sub>** = 4.5 + 5.4 = 9.9 ft

**H<sub>T</sub>** + **V<sub>T</sub>** = 9.9 + 11 = 20.9 ft

Formula 1: **H<sub>T</sub>** ≤ **V<sub>T</sub>**  
 9.9 ≤ 11

Formula 2: **H<sub>T</sub>** + **V<sub>T</sub>** ≤ 40 feet  
 20.9 ≤ 40

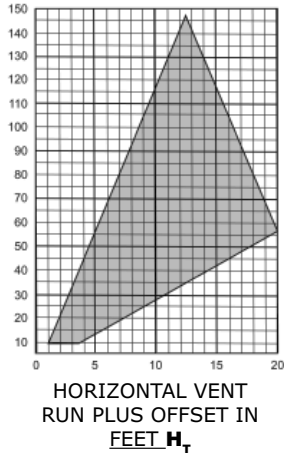
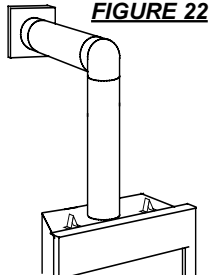
Since both formulas are met, this vent configuration is acceptable.

# BGD36CF(G) TOP EXIT / HORIZONTAL TERMINATION

when  $(H_T) > (V_T)$

Simple venting configuration (only one 90° elbow)

See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$ .



REQUIRED VERTICAL RISE IN INCHES  $V_T$

HORIZONTAL VENT RUN PLUS OFFSET IN FEET  $H_T$

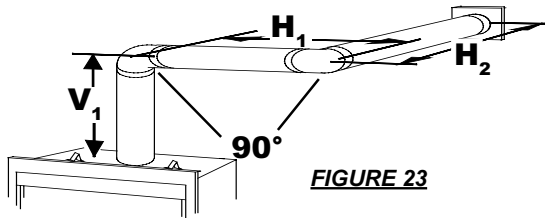
The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than one 90° elbow the following formulas apply:

Formula 1:  $H_T \leq 4.2 V_T$

Formula 2:  $H_T + V_T \leq 24.75$  feet

**Example 2:**



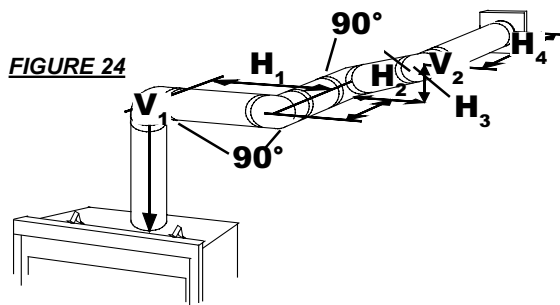
$V_1 = V_T = 6$  ft  
 $H_1 = 3$  ft  
 $H_2 = 5$  ft  
 $H_R = H_1 + H_2 = 3 + 5 = 8$  ft  
 $H_o = .03$  (two 90° elbows - 90°) =  $.03(180° - 90°) = 2.7$  ft  
 $H_T = H_R + H_o = 8 + 2.7 = 10.7$  ft  
 $H_T + V_T = 10.7 + 6 = 16.7$

Formula 1:  $H_T \leq 4.2 V_T$   
 $4.2 V_T = 4.2 \times 6 = 25.2$  ft  
 $10.7 \leq 25.2$

Formula 2:  $H_T + V_T \leq 24.75$  feet  
 $16.7 \leq 24.75$

Since both formulas are met, this vent configuration is acceptable.

**Example 3:**



$V_1 = 4$  ft  
 $V_2 = 1.5$  ft  
 $V_T = V_1 + V_2 = 4 + 1.5 = 5.5$  ft  
 $H_1 = 2$  ft  
 $H_2 = 1$  ft  
 $H_3 = 1$  ft  
 $H_4 = 1.5$  ft  
 $H_R = H_1 + H_2 + H_3 + H_4 = 2 + 1 + 1 + 1.5 = 5.5$  ft  
 $H_o = .03$  (four 90° elbows - 90°) =  $.03(360° - 90°) = 8.1$  ft  
 $H_T = H_R + H_o = 5.5 + 8.1 = 13.6$  ft  
 $H_T + V_T = 13.6 + 5.5 = 19.1$  ft

Formula 1:  $H_T \leq 4.2 V_T$   
 $4.2 V_T = 4.2 \times 5.5 = 23.1$

$13.6 \leq 23.1$

Formula 2:  $H_T + V_T \leq 24.75$  feet  
 $19.1 \leq 24.75$

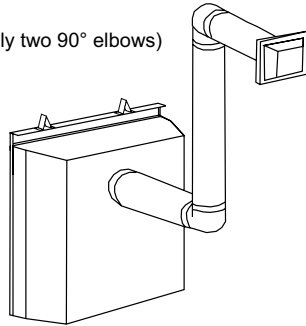
Since both formulas are met, this vent configuration is acceptable.

# BGD36CF(G) REAR EXIT / HORIZONTAL TERMINATION

when  $(H_T) \leq (V_T)$

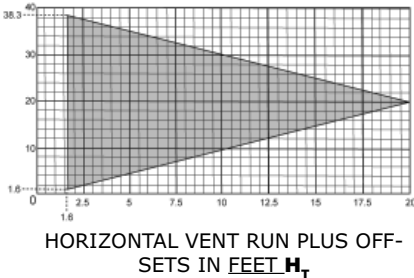
Simple venting configuration (only two 90° elbows)

**FIGURE 25**



See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$

REQUIRED VERTICAL RISE IN FEET  $V_T$

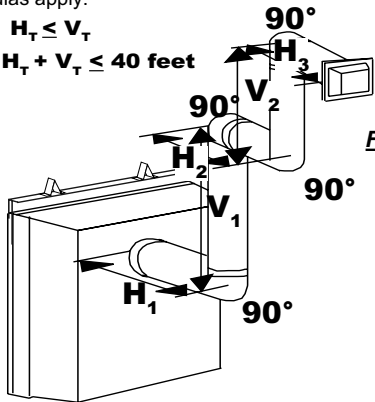


The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than two 90° elbows the following formulas apply:

Formula 1:  $H_T \leq V_T$

Formula 2:  $H_T + V_T \leq 40$  feet



**FIGURE 26**

**Example 4:**

$V_1 = 9$  ft  
 $V_2 = 6$  ft  
 $V_T = V_1 + V_2 = 9 + 6 = 15$  ft  
 $H_1 = 3$  ft  
 $H_2 = 2$  ft  
 $H_3 = 1.5$  ft  
 $H_R = H_1 + H_2 + H_3 = 3 + 2 + 1.5 = 6.5$  ft  
 $H_o = .03$  (four 90° elbows + 90°)  
 $= .03(90 + 90 + 90 + 90 - 90) = 8.1$  ft  
 $H_T = H_R + H_o = 6.5 + 8.1 = 14.6$  ft  
 $H_T + V_T = 14.6 + 15 = 29.6$  ft

Formula 1:  $H_T \leq V_T$   
 $14.6 \leq 15$

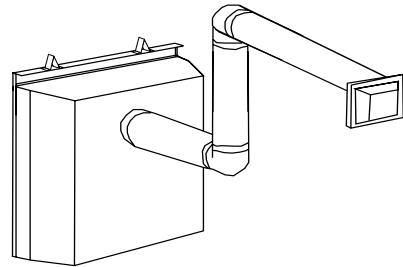
Formula 2:  $H_T + V_T \leq 40$  feet  
 $29.6 \leq 40$

Since both formulas are met, this vent configuration is acceptable.

when  $(H_T) > (V_T)$

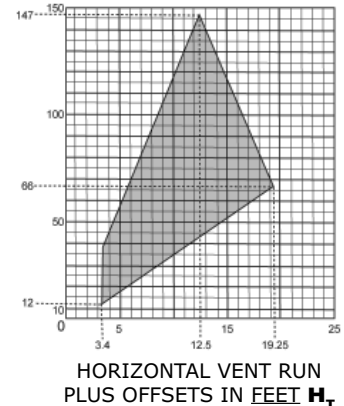
Simple venting configuration (only two 90° elbows)

**FIGURE 27**



See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$

REQUIRED VERTICAL RISE IN INCHES  $V_T$



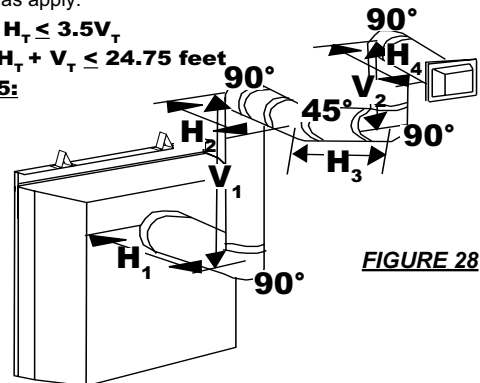
The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than two 90° elbows the following formulas apply:

Formula 1:  $H_T \leq 3.5V_T$

Formula 2:  $H_T + V_T \leq 24.75$  feet

**Example 5:**



**FIGURE 28**

$V_1 = 4$  ft  
 $V_2 = 1.5$  ft  
 $V_T = V_1 + V_2 = 4 + 1.5 = 5.5$  ft  
 $H_1 = 2$  ft  
 $H_2 = 1$  ft  
 $H_3 = 1$  ft  
 $H_4 = 1.5$  ft  
 $H_R = H_1 + H_2 + H_3 + H_4 = 2 + 1 + 1 + 1.5 = 5.5$  ft  
 $H_o = .03$  (four 90° elbows + one 45° elbow - 90°)  
 $= .03(90 + 90 + 90 + 90 + 45 - 90) = 9.45$  ft  
 $H_T = H_R + H_o = 5.5 + 9.45 = 14.95$  ft  
 $H_T + V_T = 14.95 + 5.5 = 20.45$  ft

Formula 1:  $H_T \leq 3.5V_T$   
 $3.5V_T = 3.5 \times 5.5 = 19.25$  ft  
 $14.95 \leq 19.25$

Formula 2:  $H_T + V_T \leq 24.75$  feet  
 $20.45 \leq 24.75$

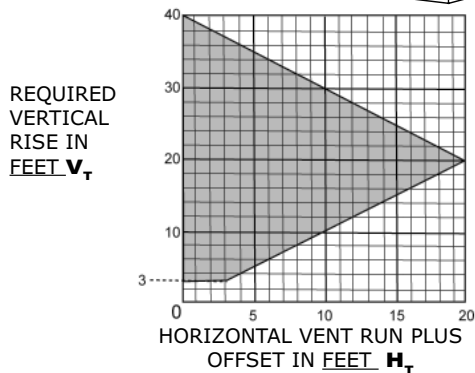
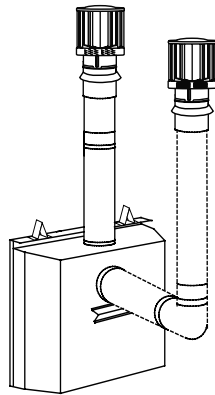
Since both formulas are met, this vent configuration is acceptable.

# BGD36CF(G) TOP OR REAR EXIT VERTICAL TERMINATION

when  $(H_T) \leq (V_T)$

Simple venting configuration (only two 90° elbows)

**FIGURE 29**



The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$ .

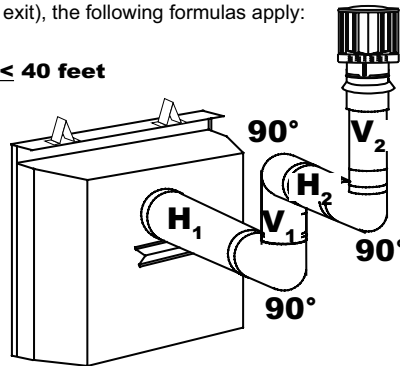
For vent configurations requiring more than zero 90° elbow (top exit) or one 90° elbow (rear exit), the following formulas apply:

Formula 1:  $H_T \leq V_T$

Formula 2:  $H_T + V_T \leq 40 \text{ feet}$

**Example 6:**

**FIGURE 30**



$V_1 = 5 \text{ ft}$   
 $V_2 = 10 \text{ ft}$   
 $V_T = V_1 + V_2 = 5 + 10 = 15 \text{ ft}$   
 $H_1 = 3 \text{ ft}$   
 $H_2 = 2.5 \text{ ft}$   
 $H_R = H_1 + H_2 = 3 + 2.5 = 5.5 \text{ ft}$   
 $H_o = .03$  (three 90° elbows - 90°)  
 $= .03(90 + 90 + 90 - 90) = 5.4 \text{ ft}$   
 $H_T = H_R + H_o = 5.5 + 5.4 = 10.9 \text{ ft}$   
 $H_T + V_T = 10.9 + 15 = 25.9 \text{ ft}$

Formula 1:  $H_T \leq V_T$   
 $10.9 \leq 15$

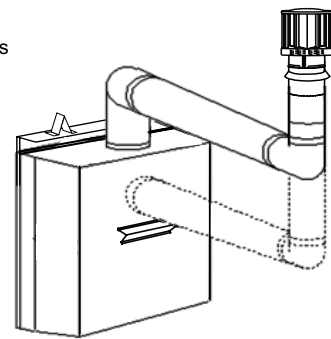
Formula 2:  $H_T + V_T \leq 40 \text{ feet}$   
 $25.9 \leq 40$

Since both formulas are met, this vent configuration is acceptable.

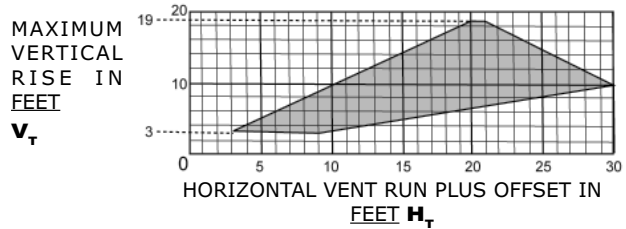
when  $(H_T) > (V_T)$

Simple venting configurations

**FIGURE 31**



See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$ .



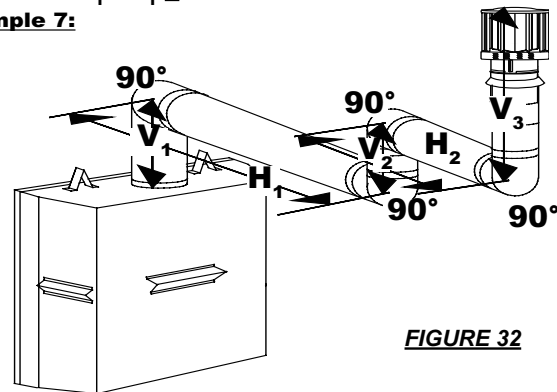
The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than two 90° elbows (top exit) or one 90° elbow (rear exit), the following formulas apply:

Formula 1:  $H_T \leq 3V_T$

Formula 2:  $H_T + V_T \leq 40 \text{ feet}$

**Example 7:**



**FIGURE 32**

$V_1 = 2 \text{ ft}$   
 $V_2 = 1 \text{ ft}$   
 $V_3 = 1.5 \text{ ft}$   
 $V_T = V_1 + V_2 + V_3 = 2 + 1 + 1.5 = 4.5 \text{ ft}$   
 $H_1 = 6 \text{ ft}$   
 $H_2 = 2 \text{ ft}$   
 $H_R = H_1 + H_2 = 6 + 2 = 8 \text{ ft}$   
 $H_o = .03$  (four 90° elbows - 90°)  
 $= .03(90 + 90 + 90 + 90 - 90) = 8.1 \text{ ft}$   
 $H_T = H_R + H_o = 8 + 8.1 = 16.1 \text{ ft}$   
 $H_T + V_T = 16.1 + 4.5 = 20.6 \text{ ft}$

Formula 1:  $H_T \leq 3V_T$   
 $3V_T = 3 \times 4.5 = 13.5 \text{ ft}$

Since this formula is not met, this vent configuration is unacceptable.

Formula 2:  $H_T + V_T \leq 40 \text{ feet}$   
 $20.6 \leq 40$

Since only formula 2 is met, this vent configuration is unacceptable and a new fireplace location or vent configuration will need to be established to satisfy both formulas.

## BGD36CF(G) TOP OR REAR EXIT VERTICAL TERMINATION

### Example 8:

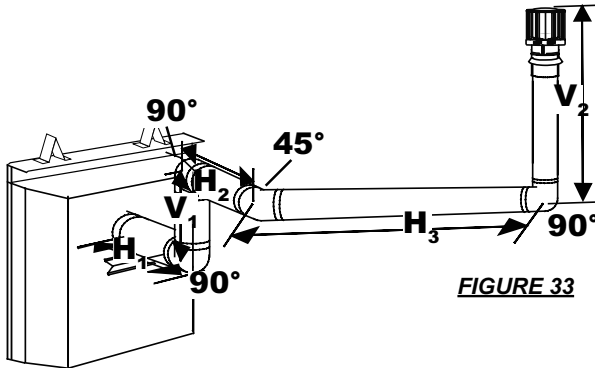


FIGURE 33

$$V_1 = 1.5 \text{ ft}$$

$$V_2 = 5 \text{ ft}$$

$$V_T = V_1 + V_2 = 1.5 + 5 = 6.5 \text{ ft}$$

$$H_1 = 1 \text{ ft}$$

$$H_2 = 1 \text{ ft}$$

$$H_3 = 10.75 \text{ ft}$$

$$H_R = H_1 + H_2 + H_3 = 1 + 1 + 10.75 = 12.75 \text{ ft}$$

$$H_0 = .03 \text{ (three } 90^\circ \text{ elbows + one } 45^\circ \text{ elbow - } 90^\circ)$$

$$= .03(90 + 90 + 90 + 45 - 90) = 6.75 \text{ ft}$$

$$H_T = H_R + H_0 = 12.75 + 6.75 = 19.5 \text{ ft}$$

$$H_T + V_T = 19.5 + 6.5 = 26 \text{ ft}$$

Formula 1:  $H_T \leq 3V_T$

$$3V_T = 3 \times 6.5 = 19.5 \text{ ft}$$

$$19.5 \leq 19.5$$

Formula 2:  $H_T + V_T \leq 40 \text{ feet}$

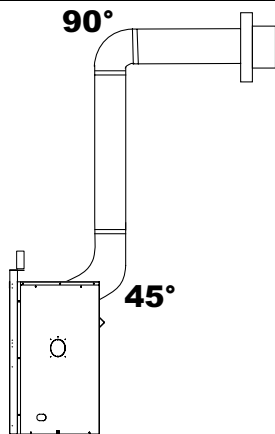
$$26 \leq 40$$

Since both formulas are met, this vent configuration is acceptable.

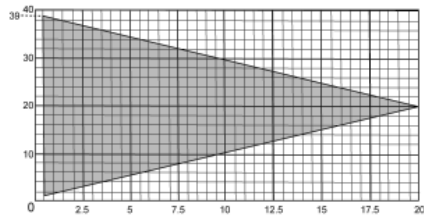
# BGD42CF HORIZONTAL TERMINATION

when  $(H_T) \leq (V_T)$   
Simple venting configuration (only one 45° and 90° elbow)

**FIGURE 34**



REQUIRED VERTICAL RISE IN FEET ( $V_T$ )



CALCULATED HORIZONTAL VENT RUN PLUS OFFSETS IN FEET ( $H_T$ )

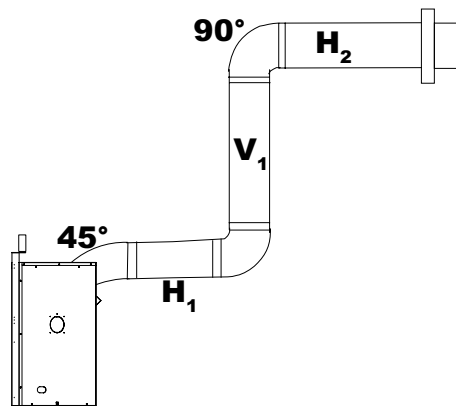
The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than one 45° and 90° elbow, the following formulas apply:

**Formula 1:**  $HT < VT$

**Formula 2:**  $HT + VT < 40$  feet

**Example 1:**



$V_1 = 8$  ft  
 $V_T = V_1 = 8$  ft  
 $H_1 = 2.5$  ft  
 $H_2 = 2$  ft  
 $H_R = H_1 + H_2 = 2.5 + 2 = 4.5$  ft  
 $H_O = .03$  (one 45° elbows + two 90° elbows - 135°)  
 $= .03(225 - 135) = 2.7$  ft  
 $H_T = H_R + H_O = 4.5 + 2.7 = 7.2$  ft  
 $H_T + V_T = 7.2 + 8 = 15.2$  ft

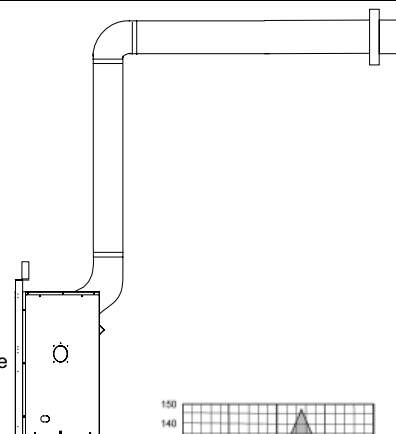
Formula 1:  $H_T \leq V_T$   
 $7.2 \leq 8$

Formula 2:  $H_T + V_T \leq 40$  feet  
 $15.2 \leq 40$

Since both formulas are met, this vent configuration is acceptable.

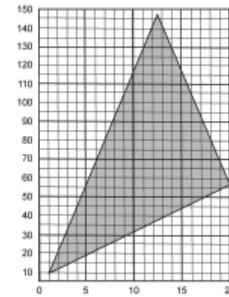
when  $(H_T) > (V_T)$   
Simple venting configuration (only one 45° and 90° elbow)

**FIGURE 36**



See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$ .

REQUIRED VERTICAL RISE IN INCHES  $V_T$



HORIZONTAL VENT RUN PLUS OFFSETS IN FEET ( $H_T$ )

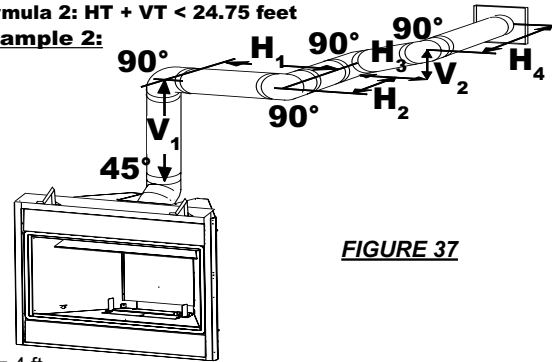
The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than one 45° and one 90° elbow the following formulas apply:

**Formula 1:**  $HT < 4.2 VT$

**Formula 2:**  $HT + VT < 24.75$  feet

**Example 2:**



$V_1 = 4$  ft  
 $V_2 = 1.5$  ft  
 $V_T = V_1 + V_2 = 4 + 1.5 = 5.5$  ft  
 $H_1 = 2$  ft  
 $H_2 = 1$  ft  
 $H_3 = 1$  ft  
 $H_4 = 1.5$  ft  
 $H_R = H_1 + H_2 + H_3 + H_4 = 2 + 1 + 1 + 1.5 = 5.5$  ft  
 $H_O = .03$  (one 45° elbow + four 90° elbows - 135°)  
 $= .03(405 - 135) = 8.1$  ft  
 $H_T = H_R + H_O = 5.5 + 8.1 = 13.6$  ft  
 $H_T + V_T = 13.6 + 5.5 = 19.1$  ft

Formula 1:  $H_T \leq 4.2 V_T$   
 $4.2 V_T = 4.2 \times 5.5 = 23.1$  ft  
 $13.6 \leq 23.1$

Formula 2:  $H_T + V_T \leq 24.75$  feet  
 $19.1 \leq 24.75$

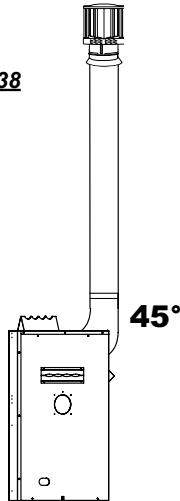
Since both formulas are met, this vent configuration is acceptable.



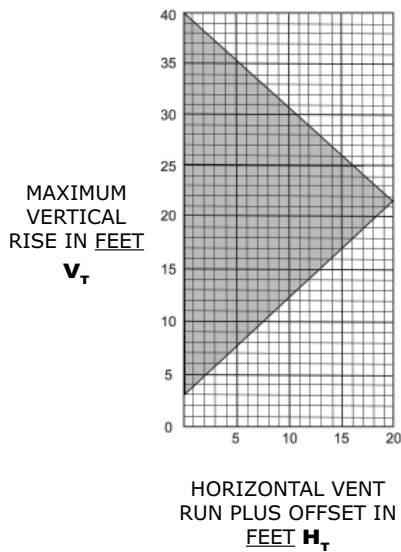
# BGD42CF VERTICAL TERMINATION

when  $(H_T) < (V_T)$   
Simple venting configurations

**FIGURE 38**



See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$ .



*The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .*

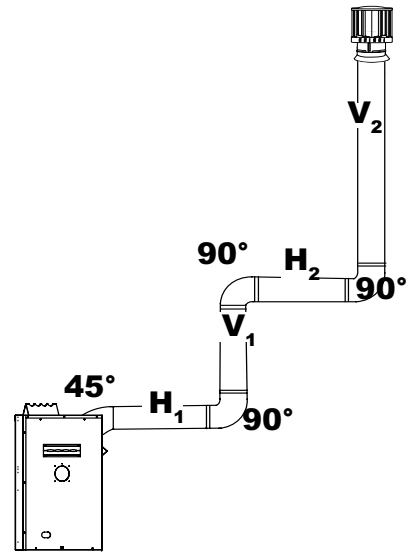
For vent configurations requiring more than one 45° and one 90° elbow the following formulas apply:

**Formula 1:  $H_T \leq V_T$**

**Formula 2:  $H_T + V_T \leq 40$  feet**

**Example 3:**

**FIGURE 39**



$$\begin{aligned}
 V_1 &= 5 \text{ ft} \\
 V_2 &= 10 \text{ ft} \\
 V_T &= V_1 + V_2 = 5 + 10 = 15 \text{ ft} \\
 H_1 &= 3 \text{ ft} \\
 H_2 &= 2.5 \text{ ft} \\
 H_R &= H_1 + H_2 = 3 + 2.5 = 5.5 \text{ ft} \\
 H_o &= .03 \text{ (one } 45^\circ \text{ elbow + three } 90^\circ \text{ elbows - } 135^\circ) \\
 &= .03 (45 + 90 + 90 + 90 - 135) = 5.4 \text{ ft} \\
 H_T &= H_R + H_o = 5.5 + 5.4 = 10.9 \text{ ft} \\
 H_T + V_T &= 10.9 + 15 = 25.9 \text{ ft}
 \end{aligned}$$

Formula 1:  $H_T \leq V_T$   
 $10.9 \leq 15$

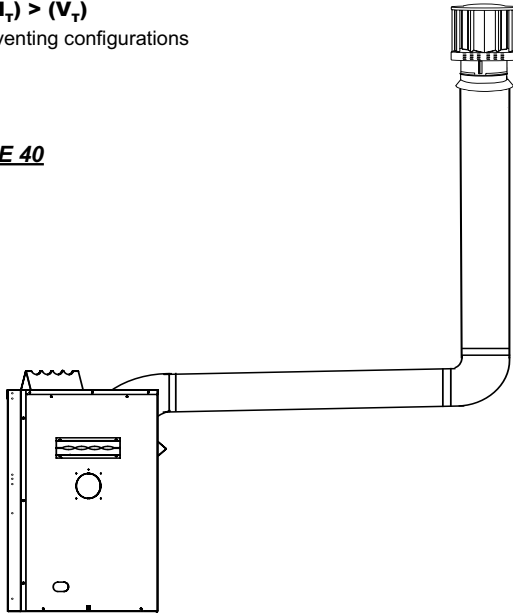
Formula 2:  $H_T + V_T \leq 40$  feet  
 $25.9 \leq 40$

Since both formulas are met, this vent configuration is acceptable.

## BGD42CF VERTICAL TERMINATION

when  $(H_T) > (V_T)$   
Simple venting configurations

FIGURE 40



$$\begin{aligned}
 V_1 &= 1 \text{ ft} \\
 V_2 &= 1.5 \text{ ft} \\
 V_T &= V_1 + V_2 = 1 + 1.5 = 2.5 \text{ ft} \\
 H_1 &= 6 \text{ ft} \\
 H_2 &= 2 \text{ ft} \\
 H_R &= H_1 + H_2 = 6 + 2 = 8 \text{ ft} \\
 H_O &= .03 \text{ (one } 45^\circ \text{ elbow + three } 90^\circ \text{ elbows - } 135^\circ) \\
 &= .03 (45 + 90 + 90 + 90 - 135) = 5.4 \text{ ft} \\
 H_T &= H_R + H_O = 8 + 5.4 = 13.4 \text{ ft} \\
 H_T + V_T &= 13.4 + 2.5 = 15.9 \text{ ft}
 \end{aligned}$$

Formula 1:  $H_T \leq V_T$   
 $3V_T = 3 \times 2.5 = 7.5$   
 $13.4 \leq 7.5$

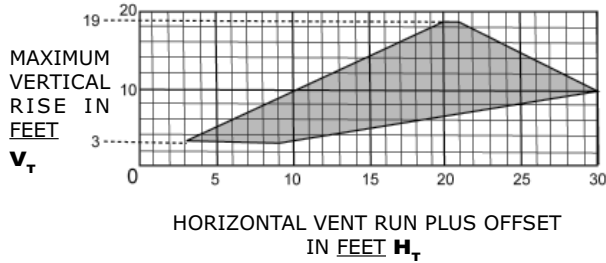
Since this formula is not met, this vent configuration is **unacceptable**.

Formula 2:  $H_T + V_T \leq 40 \text{ feet}$   
 $15.9 \leq 40$

Since only formula 2 is met, this vent configuration is unacceptable and a new fireplace location or vent configuration will need to be established to satisfy both formulas.

**Example 5:**

See graph to determine the required vertical rise  $V_T$  for the required horizontal run  $H_T$ .



The shaded area within the lines represents acceptable values for  $H_T$  and  $V_T$ .

For vent configurations requiring more than one 45° and one 90° elbow the following formulas apply:

Formula 1:  $HT \leq 3VT$   
 Formula 2:  $HT + VT \leq 40 \text{ feet}$

**Example 4:**

FIGURE 41

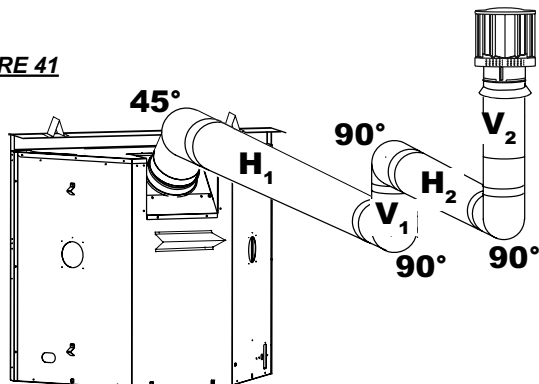
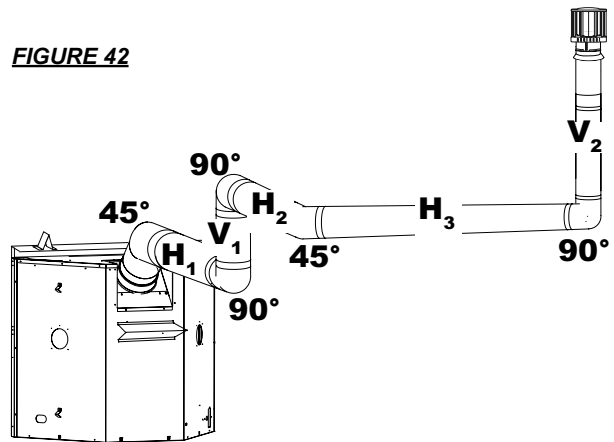


FIGURE 42



$$\begin{aligned}
 V_1 &= 1.5 \text{ ft} \\
 V_2 &= 8 \text{ ft} \\
 V_T &= V_1 + V_2 = 1.5 + 8 = 9.5 \text{ ft} \\
 H_1 &= 1 \text{ ft} \\
 H_2 &= 1 \text{ ft} \\
 H_3 &= 10.75 \text{ ft} \\
 H_R &= H_1 + H_2 + H_3 = 1 + 1 + 10.75 = 12.75 \text{ ft} \\
 H_O &= .03 \text{ (two } 45^\circ \text{ elbows + three } 90^\circ \text{ elbows - } 135^\circ) \\
 &= .03 (45 + 45 + 90 + 90 + 90 - 135) = 6.75 \text{ ft} \\
 H_T &= H_R + H_O = 12.75 + 6.75 = 19.5 \text{ ft} \\
 H_T + V_T &= 19.5 + 4.5 = 24 \text{ ft}
 \end{aligned}$$

Formula 1:  $H_T \leq V_T$   
 $3V_T = 3 \times 2.5 = 7.5$   
 $13.4 \leq 7.5$

Formula 2:  $H_T + V_T \leq 40 \text{ feet}$   
 $24 \leq 40$

Since both formulas are met, this vent configuration is acceptable.

# BGD36CF(G) PRE-INSTALLATION PREPARATION

(THIS PROCEDURE IS NOT REQUIRED FOR THE BGD42CF)

For optimum performance, it is recommended that all horizontal runs have a 1" rise per foot.

## REMOVING THE VALVE ACCESS DOOR

1. The valve access door rotates on the pins attached to the side frame. Lift the valve access door off the pins to operate the main glass door.

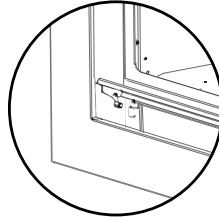


FIGURE 43

## DOOR OPERATION

FIGURE 44



To access the lower door latch, open the Valve Access Door as illustrated. Release the top and bottom door latches, located at the right side of the door.

## REAR EXIT:

Before attaching elbows to the collars on the back of the fireplace, 1½" will need to be trimmed off the 4" collar.

From inside the firebox, insert the 4" flue pipe / gasket assembly (provided) through the rear of the firebox.

Secure the gasket assembly to the rear and top of the unit using 4 #8 x 3/4" Hex Head Wildrill screws supplied.

Do not over tighten. The gasket needs only to be snug against the firebox. FIGURE 45.

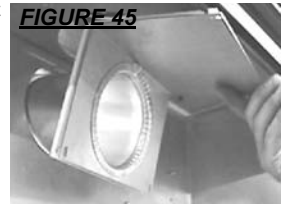


FIGURE 45

## TOP EXIT:

1. Remove the 7" diameter cap from the top of the fireplace and re-secure it over the 7" collar located at the rear of the unit. Press firmly on the cap while securing to ensure an airtight seal. Do not damage the gasket.

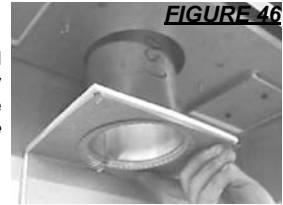


FIGURE 46

## ! WARNING

**FAILURE TO INSTALL THE CAP WILL CAUSE THE FIREPLACE TO FUNCTION IMPROPERLY AND CAN CAUSE INJURY OR PROPERTY DAMAGE.**

2. Remove the plate covering the 4" diameter flue opening (seen inside the top of the 7" diameter collar) and discard. Try not to disturb the retaining ring or the gasket beneath. Re-secure the ring and gasket using the screws removed from the plate.

3. From inside the firebox, insert the 4" flue pipe assembly through the heat shield and out through the retaining ring. Secure the assembly to the rear and top of the unit using 4 #8 x ¾" Hex Head Wildrill screws supplied. Do not over tighten. The gasket needs only to be snug against the firebox. FIGURE 46.

# INSTALLATION

## WALL AND CEILING PROTECTION

### BGD36CF(G)

**HORIZONTAL VENT SECTIONS:** - A minimum clearance of 1" at the bottom and sides of the vent and 2" at the top on all horizontal runs to combustibles is required. The firestop spacer (W010-1774) supplied with the unit must be used to maintain this clearance.

**VERTICAL VENT SECTIONS:** - A minimum of 1" all around the vent pipe on all vertical runs to combustibles is required except for clearances in fireplace enclosures. See "MINIMUM ENCLOSURE CLEARANCES" section. Use firestop spacer W500-0096 (not supplied).

### BGD42CF

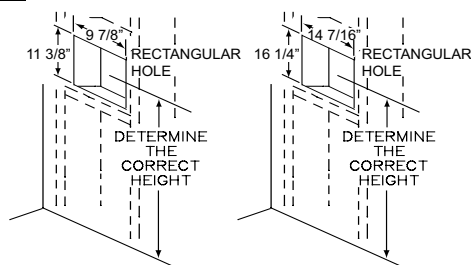
**HORIZONTAL VENT SECTIONS:** A minimum clearance of 2" all around the vent pipe on all horizontal runs to combustibles is required. Use firestop spacer W010-1778 (supplied).

**VERTICAL VENT SECTIONS:** A minimum of 1" all around the vent pipe on all vertical runs to combustibles is required. Use firestop spacer W500-0028 (not supplied).

## HORIZONTAL INSTALLATION

FIGURE 47 BGD36CF(G)

BGD42CF



### BGD36CF(G) ONLY

This application occurs when venting through an exterior wall.

Having determined the correct height for the air terminal location, cut and frame a hole in the exterior wall 9 7/8" wide by 11 3/8" high to accommodate the firestop assembly. Dry fit the firestop assembly before proceeding to ensure the brackets on the rear surface fit within the horizontal framing.

As an alternative to framing, the vent pipe can be enclosed in the wall using Napoleon® vent sleeve VS47KT.

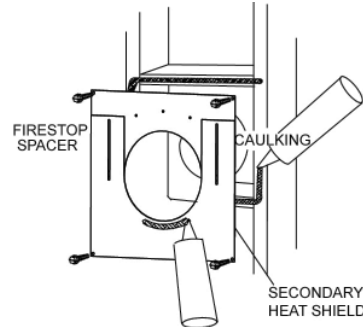
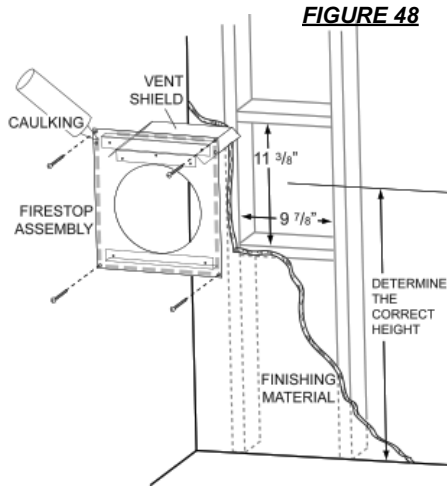
**NOTE: THE FIRESTOP ASSEMBLY MUST BE INSTALLED WITH THE VENT SHIELD TO THE TOP.**

The length of the vent shield may be cut shorter for combustible walls that are less than 8 1/2" thick but the vent shield must extend the full depth of the combustible wall.

1. Apply a bead of caulking (not supplied) around the outer edge of the inside surface of the firestop assembly, fit the firestop assembly to the hole and secure using the 4 screws (W415-0026) supplied in your manual baggy.

2. Once the vent pipe is installed in its final position, apply high temperature sealant W573-0002 (not supplied) between the pipe, and the firestop.

**NOTE: DO NOT FILL THE CAVITY BETWEEN THE VENT PIPE AND THE FIRESTOP SLEEVE WITH ANY TYPE OF MATERIAL.**

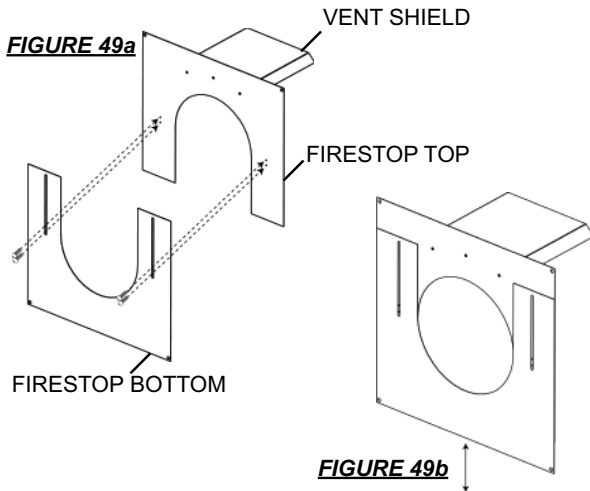


**FIGURE 49c**

Where the opening in the outside wall has been cut 13" tall to provide 2" clearance from the vent pipe, terminal extension plate W500-0206 must be used to cover the opening.

**BGD42CF ONLY**  
**ADJUSTABLE FIRESTOP INSTALLATION**

Apply a bead of caulking all around the edge of the opening and place the firestop top, so that the vent shield covers the top of the vent within the opening.  
 The length of the vent shield may be cut shorter for combustible walls that are less than 8 1/2" thick but the vent shield must extend the full depth of the combustible wall.  
 Place the firestop bottom against the firestop top and secure the two together. Adjust the assembly to ensure it is tight to the vent. Secure firestop to wall. Ensure that both spacer and shield maintain the required clearance to combustibles. Once the vent pipe is installed in its final position, apply sealant between the vent pipe and the firestop spacer. This restricts cold air from being drawn into the room or around the fireplace. See **Figures 49a-c**.

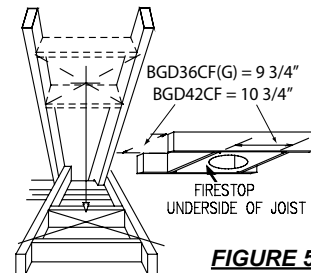


**VERTICAL INSTALLATION**

1. Determine the air terminal location, cut and frame 9 3/4" for the BGD36CF(G), or 10 3/4" for the BGD42CF square opening in the ceiling and an opening in the roof to provide the minimum 1" clearance between the fireplace vent pipe and any combustible material. Try to center the exhaust pipe location midway between two joists to prevent having to cut them. Use a plumb bob to line up the center of the openings.

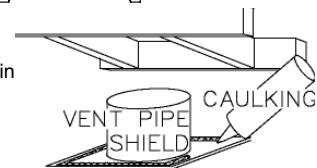
DO NOT FILL THIS SPACE WITH ANY TYPE OF MATERIAL.

A vent pipe shield will prevent any materials such as insulation, from filling up the 1" air space around the pipe. Nail headers between the joist for extra support.



**FIGURE 50**

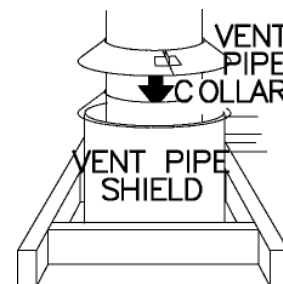
2. Apply a bead of caulking (not supplied) to the framework or to the Wolf Steel vent pipe shield plate or equivalent (in the case of a finished ceiling), and secure over the opening in the ceiling. A firestop must be placed on the bottom of each framed opening in a roof or ceiling that the venting system passes through.



**FIGURE 51**

Apply a bead of caulking all around and place a firestop spacer over the vent shield to restrict cold air from being drawn into the room or around the fireplace. Ensure that both spacer and shield maintain the required clearance to combustibles. Once the vent pipe is installed in its final position, apply high temperature sealant W573-0002 (not supplied) between the vent pipe and the firestop spacer.

3. In the attic, slide the vent pipe collar down to cover up the open end of the shield and tighten. This will prevent any materials, such as insulation, from filling up the 1" air space around the pipe.



**FIGURE 52**

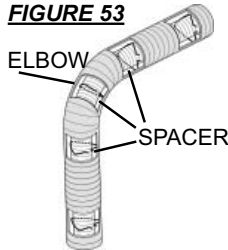
## USING FLEXIBLE VENT COMPONENTS

THE BGD36CF(G) USES: 4" EXHAUST / 7" AIR INTAKE VENT PIPE WITH A MINIMUM 6" BEND RADIUS  
THE BGD42CF USES: 5" EXHAUST / 8" AIR INTAKE VENT PIPE WITH A MINIMUM 8" BEND RADIUS

### ! WARNING

Do not allow the inside liner to bunch up on horizontal or vertical runs and elbows. Keep it pulled tight. A 1 1/4" air gap between the inner and outer flexible vent pipe all around is required for safe operation. A spacer is required at the start, middle and end of each elbow to ensure this gap is maintained. See Figure 53. Spacers are attached to the inner flex liner at predetermined intervals to maintain a 1 1/4" air gap to the outer flex liner. These spacers must not be removed.

FIGURE 53



For safe and proper operation of the fireplace, follow the venting instructions exactly. All inner exhaust and outer intake vent pipe joints may be sealed using either high temperature sealant W573-0002 or high temperature Mill Pac W573-0007 with the exception of the fireplace exhaust flue collar which must be sealed using Mill Pac (not supplied).

Use only approved flexible liner kits marked:



"Wolf Steel Approved Venting" as identified by the stamp only on the 7" outer vent pipe.

### HORIZONTAL AIR TERMINAL INSTALLATION

1. Stretch the exhaust vent pipe to the required length taking into account the additional length needed for the finished wall surface. Slip the vent pipe a minimum of 2" over the inner sleeve of the air terminal and secure with 3 #8 screws. Apply a heavy bead of the high temperature sealant W573-0002 (not supplied).
2. Using the air intake vent pipe, slide over the outer combustion air sleeve of the air terminal and secure with 3 #8 screws. Seal as before.

The air terminal mounting plate may be recessed into the exterior wall or siding by 1/2", the depth of the return flange.

3. Insert the flexible vent pipe through the firestop maintaining the required clearance to combustibles. Holding the air terminal (lettering in an upright, readable position), secure to the exterior wall and make weather tight by sealing with caulking (not supplied).

4. Apply a heavy bead of high temperature sealant W573-0007 (not supplied) to the outside of the 4" inner collar of the fireplace approximately 1" from the end. Slide the flexible vent pipe a minimum of 2" over the fireplace vent collar and secure with 3 #8 screws.

5. Using the air intake vent pipe, slide over the fireplace combustion air collar and secure with 3 #8 screws. Seal with high temperature sealant W573-0002 (not supplied).

6. If more flexible vent pipe needs to be used to reach the fireplace, coupler them together as illustrated in Figure 59. The vent system must be supported approximately every 3 feet for both vertical and horizontal runs. Use noncombustible strapping to maintain the minimum 1" clearance to combustibles.

7. **BGD42CF ONLY:** The vent heat shield must be installed only when terminating horizontally with no vertical rise. Remove the two screws nearest the vent collars on the top of the fireplace. Align the vent heat shield (supplied) and secure. Adjust the vent heat shield to touch the firestop spacer.

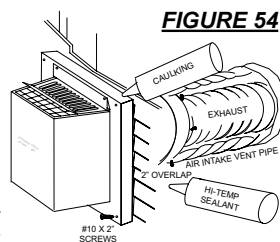


FIGURE 54

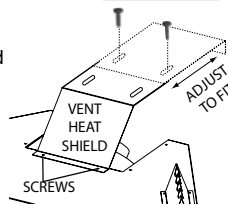
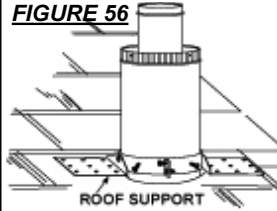


FIGURE 55

### VERTICAL AIR TERMINAL INSTALLATION

FIGURE 56



1. Fasten the roof support to the roof using the screws provided. The roof support is optional. In this case the venting is to be adequately supported using either an alternate method suitable to the authority having jurisdiction or the optional roof support.

2. Stretch the exhaust vent pipe to the

required length, slip it a minimum of 2" over the inner sleeve of the air terminal connector and secure with 3 #8 screws. Seal using a heavy bead of the high temperature sealant W573-0002 (not supplied).

3. Repeat using air intake vent pipe.
4. Thread the air terminal pipe assembly down through the roof. The air terminal must be located vertically and plumb. Attach the air terminal assembly to the roof support, ensuring that a minimum 16" of air terminal will penetrate the roof when fastened.

**DO NOT CLAMP THE FLEXIBLE VENT PIPE.**

5. Remove nails from the shingles, above and to the sides of the chimney. Place the flashing over the air terminal and slide it underneath the sides and upper edge of the shingles. Ensure that the air terminal is properly centered within the flashing, giving a 3/4" margin all around. Fasten to the roof. Do not nail through the lower portion of the flashing. Make weather-tight by sealing with caulking. Where possible, cover the sides and top edges of the flashing with roofing material.

6. Aligning the seams of the terminal and air terminal connector, place the terminal over the air terminal connector making sure the inner pipe goes into the hole in the terminal. Secure with screws provided.

7. Apply a heavy bead of weatherproof caulking 2" above the flashing. Note: Maintain a minimum of 2" space between the air inlet base and the storm collar. Install the storm collar around the air terminal and slide down to the caulking. Tighten to ensure that a weather-tight seal between the air terminal and the collar is achieved.

8. If more vent pipe needs to be used to reach the fireplace, couple them together as illustrated. The vent system must be supported approximately every 3 feet for both vertical and horizontal runs. Use noncombustible strapping to maintain a clearance to combustibles of 1".

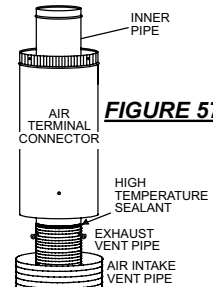


FIGURE 57

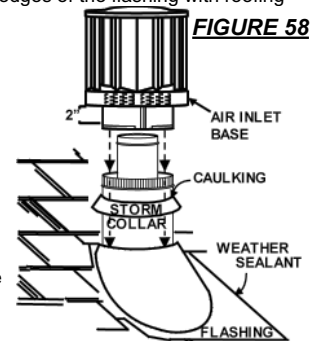


FIGURE 58

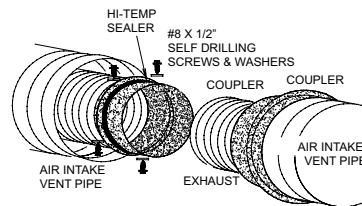


FIGURE 59

## USING RIGID VENT COMPONENTS

### HORIZONTAL AIR TERMINAL INSTALLATION

1. Move the fireplace into position. Measure the vent length required between terminal and fireplace taking into account the additional length needed for the finished wall surface and any 1/4" overlaps between venting components.
2. Apply high temperature sealant W573-0007 (not supplied) to the outer edge of the exhaust vent pipe of the fireplace. Attach the first vent component and secure using 3 self tapping screws. Repeat using air intake vent pipe and seal using high temperature sealant W573-0002 (not supplied).
3. Holding the air terminal (lettering in an upright, readable position), insert into both vent pipes with a twisting motion to ensure that both the terminal sleeves engage into the vent pipes and sealant. Secure the terminal to the exterior wall and make weather tight by sealing with caulking (not supplied).

The air terminal mounting plate may be recessed into the exterior wall or siding by 1/2", the depth of the return flange.

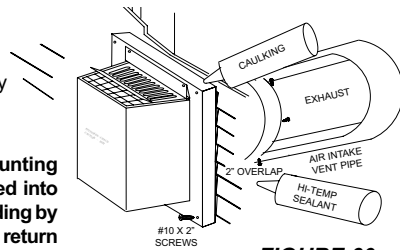


FIGURE 60

### EXTENDED HORIZONTAL AND CORNER AIR TERMINAL INSTALLATION

1. Follow the instructions for "Horizontal Air Terminal Installations", items 1 to 3.
2. Continue adding components alternating inner and outer venting. Ensure that all exhaust venting and elbows have sufficient vent spacers attached and each component is securely fastened to the one prior. Attach the exhaust telescopic sleeve to the vent run. Repeat using an air intake vent pipe telescopic sleeve. Secure and seal as before. To facilitate completion, attach exhaust and air intake vent pipe couplers to the air terminal.
3. Install the air terminal. See item 3 of the Horizontal Air Terminal Installation. Extend the exhaust telescopic sleeve; connect to the air terminal assembly. Fasten with self tapping screws and seal. Repeat using the air intake vent pipe telescopic sleeve.

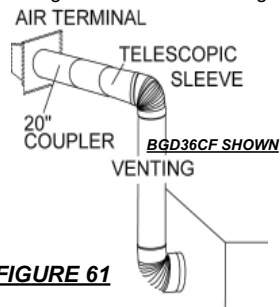


FIGURE 61

### VERTICAL VENTING INSTALLATION

For safe and proper operation of the fireplace, follow the venting instructions exactly.

All inner exhaust and outer intake vent pipe joints may be sealed using either high temperature sealant W573-0002 or high temperature Mill Pac W573-0007 with the exception of the fireplace exhaust flue collar which must be sealed using Mill Pac (not supplied).

1. Move the fireplace into position.
2. Fasten the roof support to the roof using the screws provided. FIGURE 56. The roof support is optional. In this case the venting is to be adequately supported using either an alternate method suitable to the authority having jurisdiction or the optional roof support.
3. Apply high temperature sealant W573-0002 (not supplied) to the outer edge of the inner end of the air terminal connector. Slip a coupler a minimum of 2" over the exhaust collar and secure using 3 screws.

4. Apply high temperature sealant to the outer edge of the of the outside pipe of the air terminal connector. Slip a coupler over the air intake collar and secure as before. Trim the air intake coupler even with the exhaust coupler end.

5. Thread the air terminal connector / pipe assembly down through the roof support and attach, ensuring that the air terminal will penetrate the roof a minimum 16" when fastened. **If the attic space is tight, we recommend threading the Wolf Steel vent pipe collar or equivalent loosely onto the air terminal assembly as it is passed through the attic.** The air terminal must be located vertically and plumb.

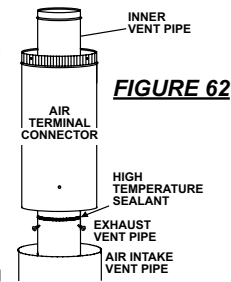


FIGURE 62

6. Remove nails from the shingles, above and to the sides of the chimney. Place the flashing over the air terminal and slide it underneath the sides and upper edge of the shingles. Ensure that the air terminal is properly centered within the flashing, giving a 3/4" margin all around. Fasten to the roof. Do NOT nail through the lower portion of the flashing. Make weather-tight by sealing with caulking. Where possible, cover the sides and top edges of the flashing with roofing material.

7. Align the seams of the terminal and air terminal connector, place the terminal over the air terminal connector making sure the inner pipe goes into the hole in the terminal. Secure with screws provided.

8. Apply a heavy bead of weatherproof caulking 2" above the flashing. Note: Maintain a minimum of 2" space between the air inlet base and the storm collar. Install the storm collar around the air terminal and slide down to the caulking. Tighten to ensure that a weather-tight seal between the air terminal and the collar is achieved.

9. Continue adding rigid venting sections, sealing and securing as above. Attach an exhaust telescopic sleeve to the last section of rigid piping. Secure with screws and seal. Repeat using an air intake telescopic sleeve.

10. **REAR VENT APPLICATION: (BGD36CF(G) ONLY: Before attaching elbows to the collars on the back of the fireplace, 1/2" will need to be trimmed off the exhaust pipe collar.)**

- Run a bead of high temperature sealant W573-0007 (not supplied) around the outside of the exhaust collar. Attach the exhaust elbow to the exhaust collar and secure with 3 screws. Run a bead of high temperature sealant W573-0002 (not supplied) around the outside of the air intake collar. Attach the air intake elbow to the air intake collar and secure with 3 screws. Pull the exhaust telescopic sleeve a minimum 2" onto the elbow. Secure with 3 screws. Repeat with the air intake telescopic sleeve.

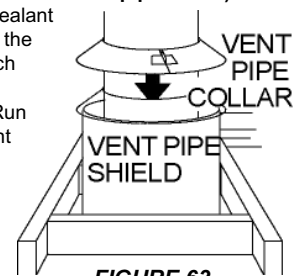


FIGURE 63

- Attach the air intake elbow to the air intake collar and secure with 3 screws. Pull the exhaust telescopic sleeve a minimum 2" onto the elbow. Secure with 3 screws. Repeat with the air intake telescopic sleeve.

- TOP VENT APPLICATION:** Run a bead of high temperature sealant W573-0007 (not supplied) around the outside of the exhaust on the fireplace. Pull the exhaust telescopic sleeve a minimum of 2" onto the collar. Secure with 3 screws. Repeat with the air intake telescopic sleeve.

11. In the attic, slide the vent pipe collar down to cover up the open end of the vent pipe shield and tighten. This will prevent any materials, such as insulation, from filling up the 1" air space around the pipe.

## RESTRICTING VERTICAL VENTS

**BGD42CF ONLY:** Vertical terminations may display a very active flame. As this appearance is not desirable, the vent exit must be restricted using restrictor plate, W500-0205. This reduces the velocity of the exhaust gases, slowing down the flame pattern and creating a more traditional appearance. The plate has a series of holes to allow for adjustment.

Remove the two screws on either side of the exhaust collar inside the firebox. Install the plate as shown. Install the plate on the desired set of holes then replace the screws.

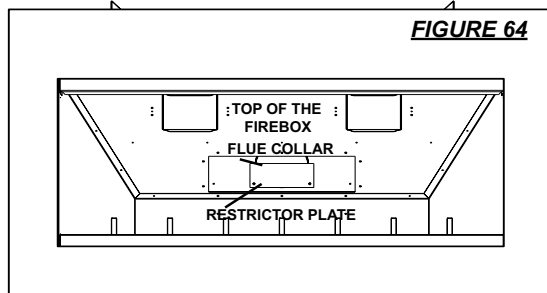


FIGURE 64

## GAS INSTALLATION

Proceed once the vent installation is complete.

**NOTE:** All gas connections must be contained within the fireplace when complete.

1. Move the fireplace into position and secure to the floor through the 1/4" holes located at either side of the base.
2. The fireplace is designed to accept 3/8" gas supply line. The fireplace is equipped with a 3/8" manual shut-off valve.
3. Connect the gas supply in accordance to local codes. In the absence thereof, install according to the National Installation Code.
4. When flexing any gas line, support the gas valve so that the lines are not bent or kinked.
5. Check for gas leaks by brushing on a soap and water solution.

**DO NOT USE OPEN FLAME.**

Purge all gas lines with the glass door of the stove removed. Assure that a continuous gas flow is at the burner before re-installing the door.

## OPTIONAL WALL SWITCH INSTALLATION EXCLUDING BGD36CFG

For remote wall switch and decorative light installations for the BGD-36CFG see section "BGD36CFG SWITCH/WIRING DIAGRAM".

For ease of accessibility, an optional remote wall switch may be installed in a convenient location. A 20ft length of millivolt wire is connected to the gas valve for the wall switch. However, if a greater length is required route 2-strand (solid core) millivolt wire through the electrical hole located at the bottom left side of the unit. The recommended maximum lead length depends on wire size:

WIRE SIZE	MAX. LENGTH
14 gauge	100 feet
16 gauge	60 feet
18 gauge	40 feet

Do not connect either the wall switch, thermostat or gas valve directly to 110 volt electricity.

Attach the two leads to terminals 1 and 3 located on the gas valve.

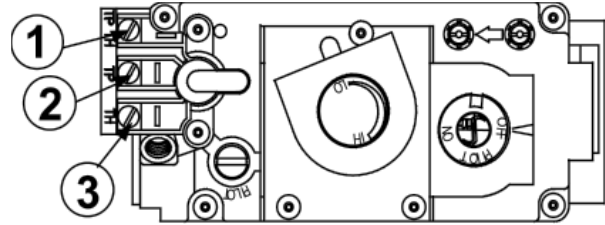


FIGURE 65

## MOBILE HOME INSTALLATION

This appliance may be installed as an OEM (Original Equipment Manufacturer) Installation in a manufactured home or mobile home and must be installed in accordance with the manufacturer's instructions and the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, in the United States or the Mobile Home Standard, CAN/CSA Z240 MH Series, in Canada. This appliance is only for use with the type(s) of gas indicated on the rating plate. A conversion kit is supplied with the mobile home appliance.

**This Mobile/Manufactured Home listed appliance comes factory equipped with means to secure the unit.**

The fireplace is equipped with two 1/4" diameter holes located in the front left and right corners of the base. For mobile home installations, the fireplace must be fastened in place. Use #10 screws, inserted through the holes in the base to secure.

Always turn off the pilot and the fuel supply at the source, prior to moving the mobile home.

After moving the mobile home and prior to lighting the fireplace, permanently ensure that the logs are positioned correctly.

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

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

## CONVERSION KITS

The mobile home appliance is field convertible between Natural Gas (NG) and Propane (LP).

To convert from one gas to another consult your Napoleon® dealer/distributor.

**FRAMING**

**BGD36CF(G)**

**MINIMUM CLEARANCE TO COMBUSTIBLE CONSTRUCTION FROM FIREPLACE AND VENT SURFACES:**

<u>Non-Combustible framing:</u>	
Top	0" to stand-offs if using optional clean face surround
<u>Combustible framing:</u>	
Sides, back, and bottom of the unit	0" to stand-offs
Top	3 1/2" to stand-offs if using optional clean face surround
<u>Non-combustible finishing:</u>	
Top	6 1/2" if using optional clean face surround
<u>Combustible fireplace finishing:</u>	
Sides, bottom and top	0" to fireplace edge
Enclosure top	8 1/4" to top of fireplace
Recessed depth	17 1/4"
Sides and bottom of the vent pipe	1"
Top of vent pipe	2"
Ceiling	72" from bottom of unit

**HORIZONTAL VENT SECTIONS:** - A minimum clearance of 1" at the bottom and sides of the vent and 2" at the top on all horizontal runs to combustibles is required. Use firestop spacer W010-1774 (supplied).  
**VERTICAL VENT SECTIONS:** - A minimum of 1" all around the vent pipe on all vertical runs to combustibles is required except for clearances in fireplace enclosures\*. See "MINIMUM ENCLOSURE CLEARANCES" section. Use firestop spacer W500-0096 (not supplied).

\* Vertical vent sections in fireplace enclosures require a minimum of 1 1/2" all around the vent pipe.

**BGD42CF**

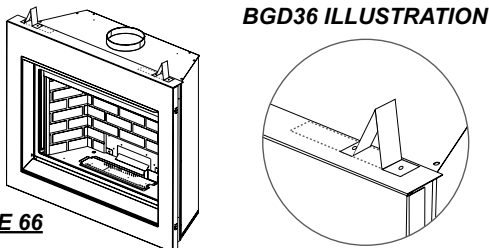
**MINIMUM CLEARANCE TO COMBUSTIBLE CONSTRUCTION FROM FIREPLACE AND VENT SURFACES:**

<u>Combustible framing:</u>	
Top, sides, back and bottom of the unit	0" to stand-offs
<u>Non-combustible finishing:</u>	
Top	6 1/2" to fireplace edge
<u>Combustible fireplace finishing:</u>	
Sides and bottom	0" to fireplace edge
Enclosure top	13 1/2" to top of fireplace
Recessed depth	25"
Top, sides and bottom of vent pipe	2"
Ceiling	72" from bottom of unit

**HORIZONTAL VENT SECTIONS:** A minimum clearance of 2" all around the vent pipe on all horizontal runs to combustibles is required. Use firestop spacer W010-1778 (supplied).  
**VERTICAL VENT SECTIONS:** A minimum of 1" all around the vent pipe on all vertical runs to combustibles is required. Use firestop spacer W500-0028 (not supplied).

**INSTALLING STANDOFFS**

Both the BGD36CF(G) and BGD42CF are supplied with two standoffs. For convenience, the standoffs have been shipped flat and located on the top at the front. Before framing ensure the standoffs are bent up and screwed into place ensuring a height of 4.5".



**FIGURE 66**

**NOTE:** The information and dimensions in this section represent the minimum clearances to combustible material.

It is best to frame your fireplace after it is positioned and the vent system is installed. Use 2x4's and frame to local building codes.

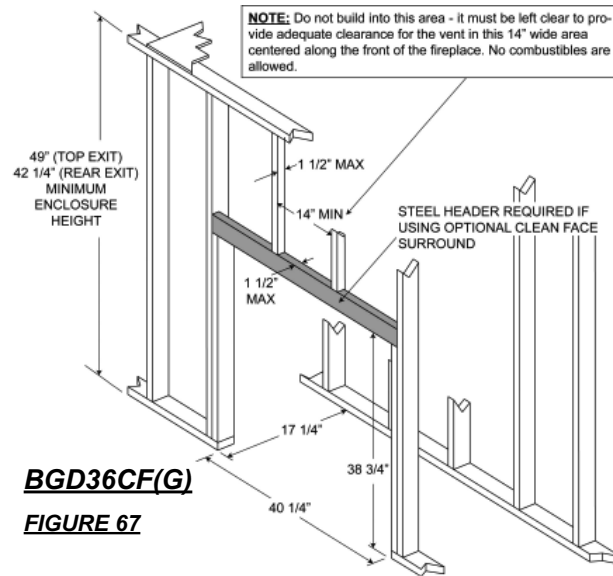
**BGD36CF(G) ONLY:** A steel header is required if using optional clean face surround.

It is not necessary to install a hearth extension with this fireplace system. Objects placed in front of the fireplace should be kept a minimum of 48" away from the front face.

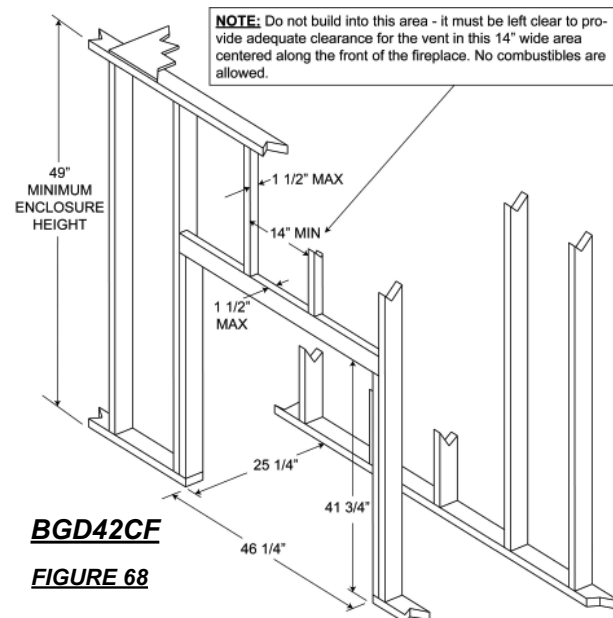
When roughing in the fireplace, raise the fireplace to accommodate for the thickness of the finished floor materials, i.e. tile, carpeting, hard wood, which if not planned for will interfere with the opening of the lower access door and the installation of many decorative flashing accessories.

**Note:** In order to avoid the possibility of exposed insulation or vapor barrier coming in contact with the fireplace body, it is recommended that the walls of the fireplace enclosure be "finished" (ie: drywall/ sheetrock), as you would finish any other outside wall of a home. This will ensure that clearance to combustibles is maintained within the cavity.

Combustible materials may be installed flush with the front of the fireplace but must not cover any of the black face-areas of the fireplace. Non-combustible material (brick, stone or ceramic tile) may protrude in these areas but must not restrict glass door removal.



**BGD36CF(G)**  
**FIGURE 67**

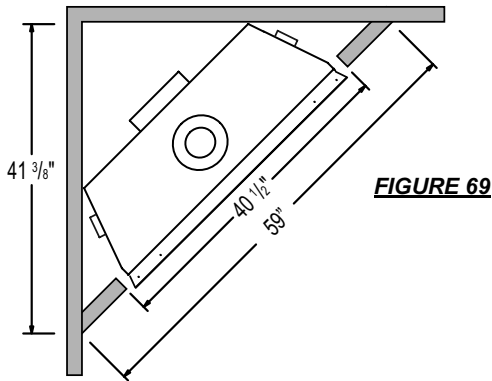


**BGD42CF**  
**FIGURE 68**

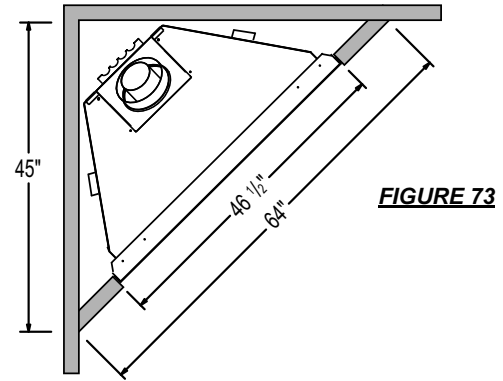


**BGD36CF(G)**

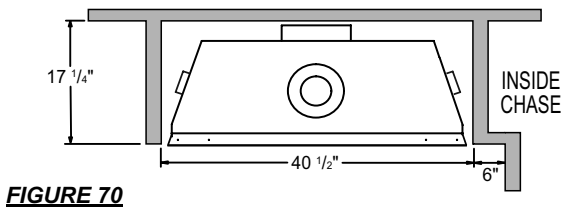
**BGD42CF**



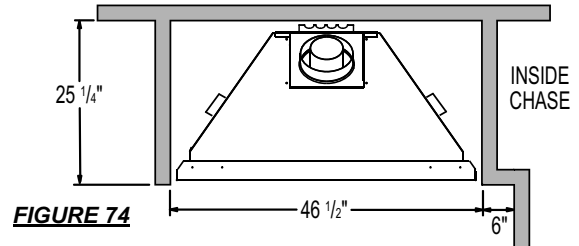
**FIGURE 69**



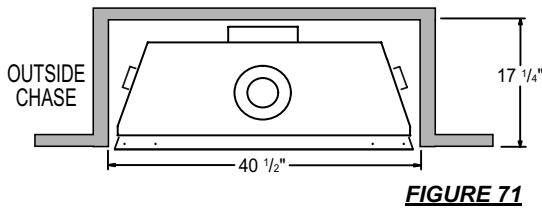
**FIGURE 73**



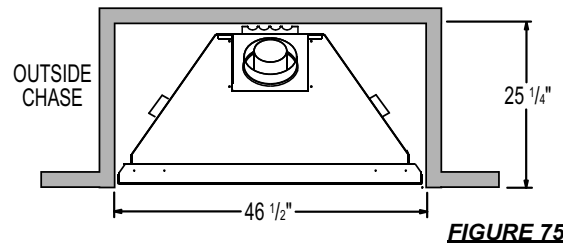
**FIGURE 70**



**FIGURE 74**



**FIGURE 71**



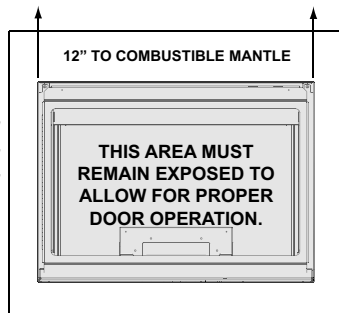
**FIGURE 75**

**Warning: Non-combustible Finishing Materials Required**

*Non-combustible materials such as brick and tile can be extended over the black face of the unit.*

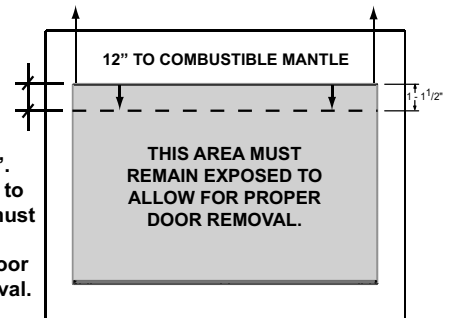
**FIGURE 72**

**IMPORTANT:**  
Encroaching in this area with finishing material will interfere with the opening of the door.



**FIGURE 76**

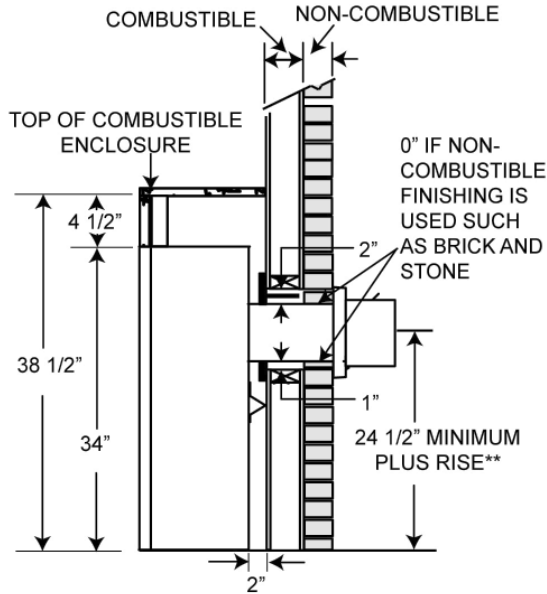
The finishing material can be installed below the top opening a maximum of 1 1/2". Enough clearance to the door latches must be maintained to allow for proper door installation / removal.



## BGD36CF(G) MINIMUM MANTEL AND ENCLOSURE CLEARANCES

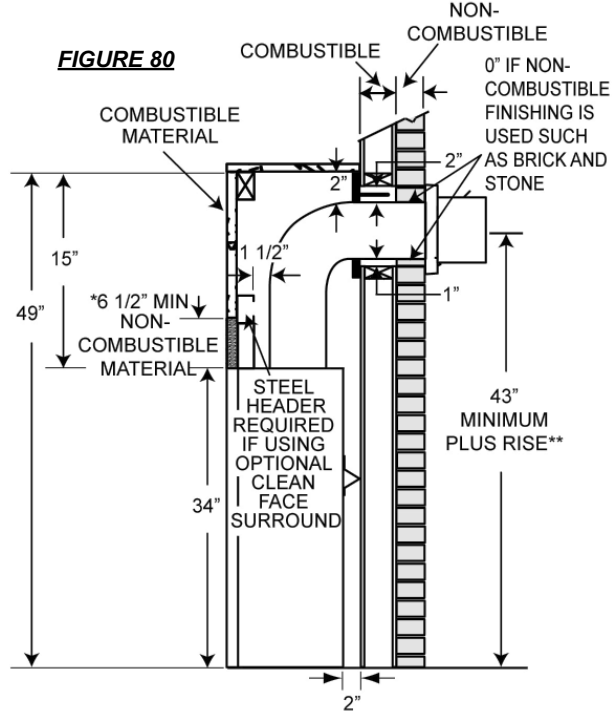
Combustible mantel clearance can vary according to the mantel depth. Use the graph to help evaluate the clearance needed.

**FIGURE 77**



The fireplace requires a minimum enclosure height of 38 1/2" (REAR VENT) 49" (TOP VENT). For temperature requirements, the enclosure space around and above the fireplace must be left unobstructed.

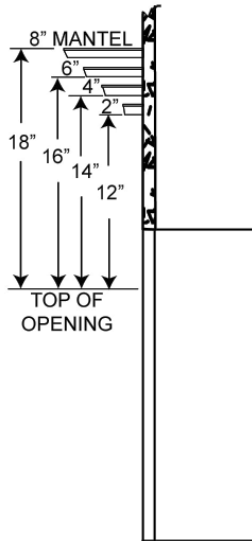
**FIGURE 80**



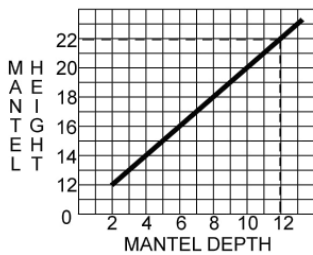
\* If this unit is installed flush to the finishing material and optional clean face surround is to be installed then a minimum of 6 1/2" of cement board or non-combustible equivalent must be used on the top only of the front face. See Figure 80.

\*\* See Venting Section

**FIGURE 78**

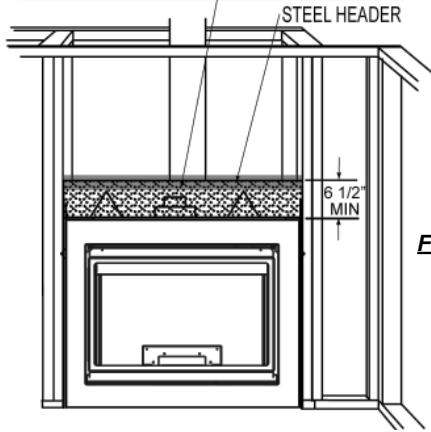


**FIGURE 79**

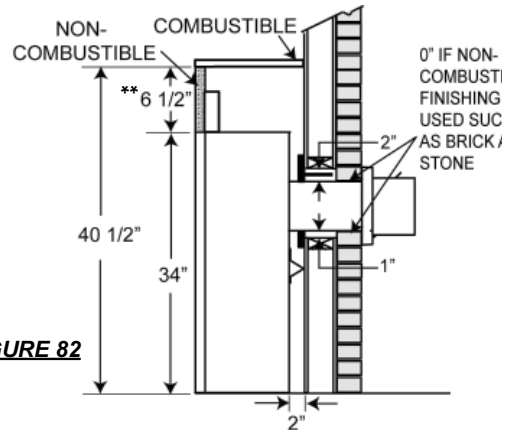


**CLEAN FACE SURROUND MINIMUM ENCLOSURE CLEARANCES**

**WARNING**  
 Use only non-combustible material such as cement board, ceramic tile, marble, etc. when finishing to the fireplace. **DO NOT USE WOOD OR DRYWALL.**



**FIGURE 81**

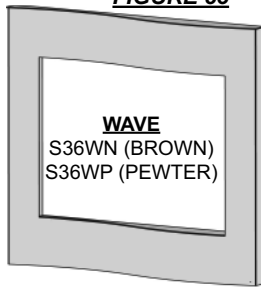


**FIGURE 82**

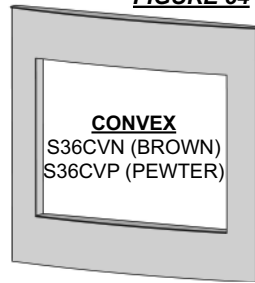
**NOTE:**  
 \*\* Installation requires a minimum 6 1/2" of non-combustible facing above the top of the fireplace.

**OPTIONAL CLEAN FACE SURROUND INSTALLATION BGD36CF(G) ONLY**

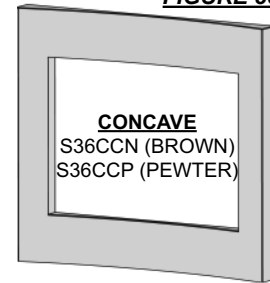
**FIGURE 83**



**FIGURE 84**



**FIGURE 85**

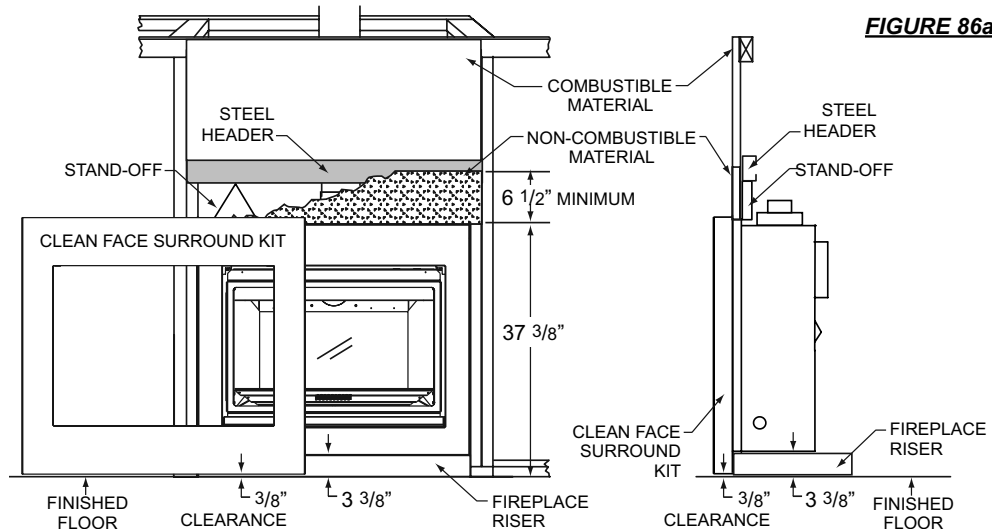


Installation requires a minimum of 6 1/2" non-combustible facing material at the top of the fireplace. Refer to either **Figure 86a** or **Figure 86b** (depending on your installation) to ensure your fireplace has been installed with the proper requirements for this kit.

Whether installing to a finished floor or a hearth, a 3/8" clearance must be maintained at the bottom of the clean face surround kit. To obtain this clearance a fireplace riser is required.

**FINISHED FLOOR INSTALLATION**

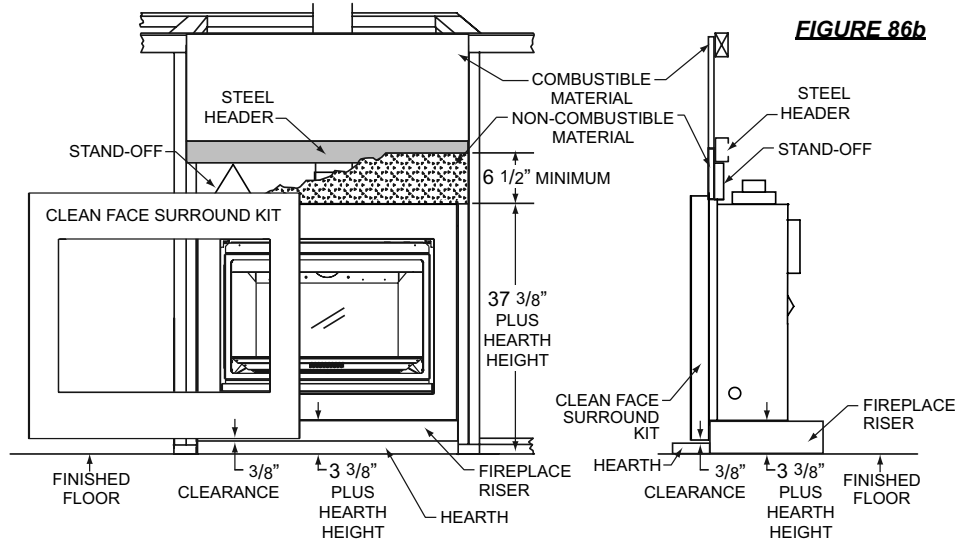
When installing to a finished floor the fireplace riser must create a minimum clearance of 3 3/8" from the finished floor to the bottom of the fireplace.



**FIGURE 86a**

## HEARTH INSTALLATION

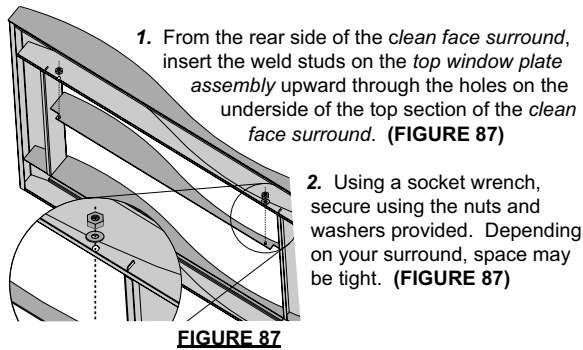
When installing to a hearth the fireplace riser must create a minimum clearance of 3 3/8" PLUS the height of the hearth from the finished floor to the bottom of the fireplace.



## OPTIONAL CLEAN FACE TRIM KIT INSTALLATION

The "wave" clean face surround kit is shown in all illustrations.

**NOTE: THE OPTIONAL CLEAN FACE TRIM KIT MUST BE INSTALLED BEFORE PROCEEDING.**



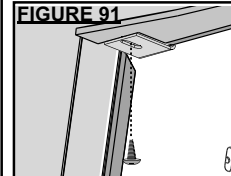
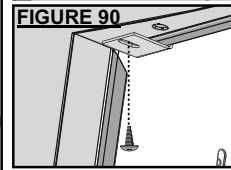
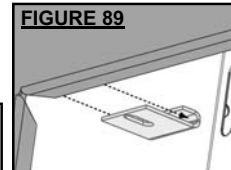
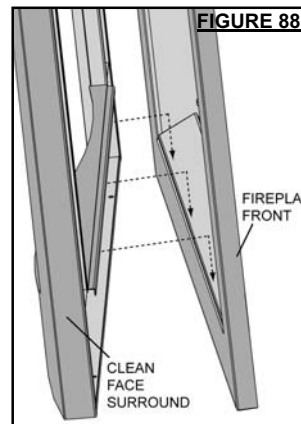
1. From the rear side of the *clean face surround*, insert the weld studs on the *top window plate assembly* upward through the holes on the underside of the top section of the *clean face surround*. (FIGURE 87)

2. Using a socket wrench, secure using the nuts and washers provided. Depending on your surround, space may be tight. (FIGURE 87)

FIGURE 87

3. First secure the *clean face surround* to the fireplace front by hooking the ledge that runs horizontally on the rear surface of the *clean face surround* over the bottom edge of the fireplace front opening. (FIGURE 89)

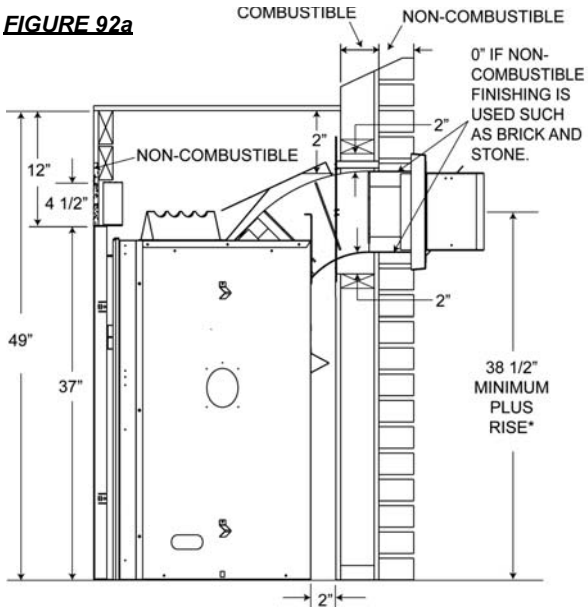
4. With the *clean face surround* against the fireplace front, hook the surround *clips* in behind the top lip of the fireplace front opening (FIGURE 89) and secure using the screws provided through the slot in the surround *clip* and into the pre-drilled hole in the *clean face surround*. (FIGURE 89) If the *optional clean face trim kit* was installed, the surround *clip* fits into the cut out and is secured in the same fashion. (FIGURE 90)



## BGD42CF MINIMUM MANTEL AND ENCLOSURE CLEARANCES

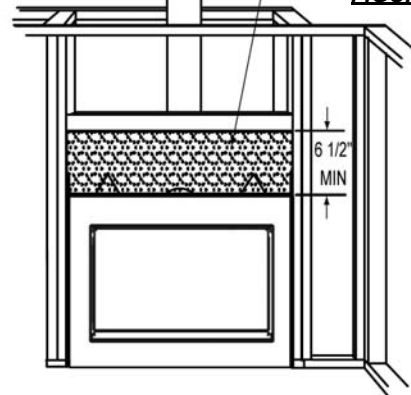
Combustible mantel clearance can vary according to the mantel depth. **Figure 92.** Use the graph to help evaluate the clearance needed. These same requirements apply to any combustibles protruding on either side of the fireplace.

**FIGURE 92a**



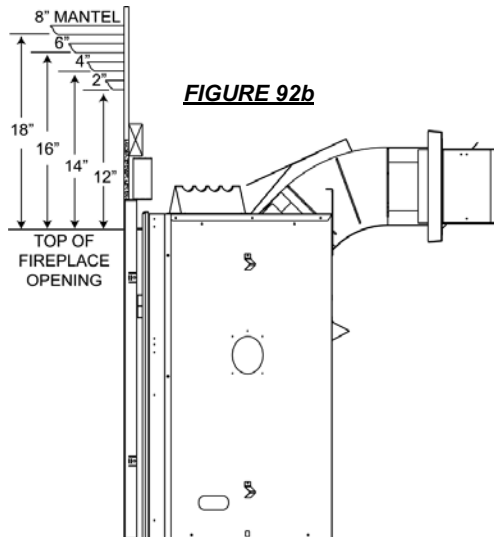
**! WARNING**  
 Use only non-combustible material such as cement board, ceramic tile, marble, etc. when finishing to the fireplace. **DO NOT USE WOOD OR DRYWALL.**

**FIGURE 92d**

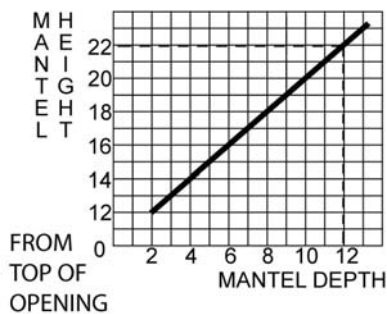


The fireplace requires a minimum enclosure height of 49". For temperature requirements, the enclosure space around and above the fireplace must be left unobstructed.

\* See Venting Section



**FIGURE 92c**



This fireplace requires a minimum of 6 1/2" of cement board or non-combustible equivalent above the top of the fireplace.

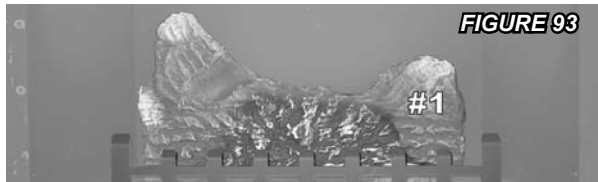
## FINISHING

### BGD36CF FINISHING

#### LOG PLACEMENT

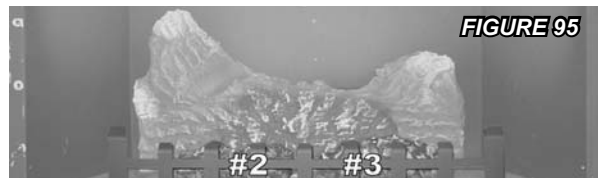
**PHAZER™** logs and glowing embers exclusive to Napoleon® Fireplaces, provide a unique and realistic glowing effect that is different in every installation. Take the time to carefully position the glowing embers for a maximum glowing effect.

Log colours may vary. During the initial use of the fireplace, Log colours may vary. During the initial use of the fireplace the colours will become more uniform as colour pigments burn in during the heat activated curing process.



1. Place the back log (#1) onto the log support tray and in front of the tabs. The tabs maintain an air space between the log and firebox back to facilitate combustion air flow. Ensure that the back of the log rests against the brackets on the back wall of the firebox.

FIGURE 94



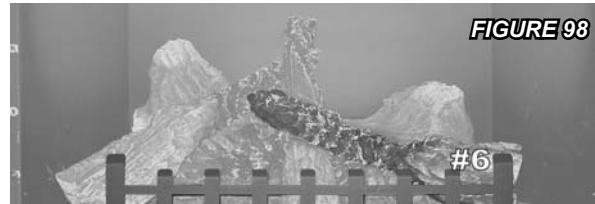
2. Move the two small logs (#2 & #3) into position, lining up the studs located on the burner with the holes on the bottom of the logs. Ensure that the small logs sit flat on the burner.



3. Place the bottom of the left crossover log (#4) against the left firebox side and pulled forward to the grate. The top of the log should rest in the pocket on the back log.



4. Position the base end of the center log (#5) against the middle grate post with the other end of the log resting in the pocket of the left crossover log.



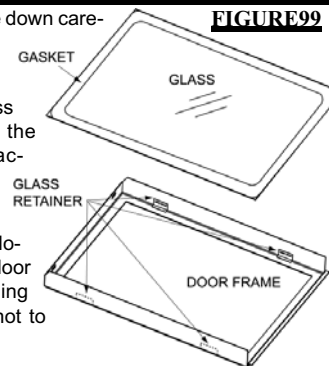
5. Place the bottom of the right crossover log (#6) against the right firebox side and pulled forward to the grate. The top of the log should rest in the pocket provided on the center log (#5).

#### BGD36CF(G) GLASS/DOOR REPLACEMENT

1. Place the door frame face down carefully not to scratch the paint.

2. Center the gasketed glass inside the door frame with the thick side of the gasket facing up.

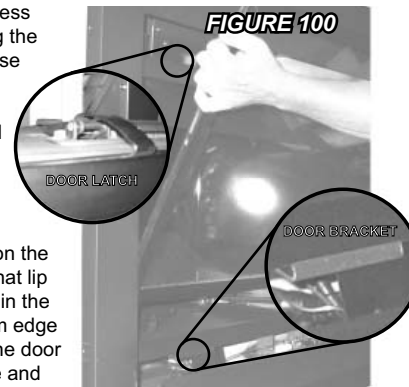
3. Bend the glass retainers located along the edge of the door frame over the gasket holding the glass in place. Careful not to break the glass.



## BGD42CF FINISHING

### DOOR INSTALLATION / REMOVAL

Open the Valve Access Door. While holding the door securely, release the 4 latches along the top of the door. Tilt the door forward and lift off of the two brackets at the bottom of the door. When replacing the door, rest the door on the brackets ensuring that lip of the brackets rest in the groove in the bottom edge of the door. Push the door backward into place and secure with the 4 latches.



#### REMOVING THE VALVE ACCESS DOOR

1. The valve access door rotates on the pins attached to the side frame. Lift the valve access door off the pins to operate the main glass door.

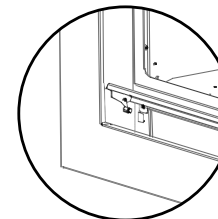


FIGURE 101

#### GLASS/DOOR REPLACEMENT

Only available as an assembly complete with frame W010-0770. Glass not available separately.

## DOOR TRIM

The BGD42CF comes complete with top door trim (W715-0729).

1. Guide the arms of the trim into the slots that are slightly hidden under the facing through the opening between the top of the door and the bottom edge of the facing as illustrated in the front view.

2. Slide the arm into the slot far enough to allow the front edge of the trim to go in behind the facing.

3. Let the bracket come forward towards the back of the facing and allow the trim to rest on the inside lip, this position will allow the notch on the arm of the trim to fall into place on the edge of the slot.

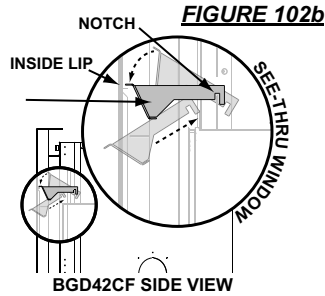
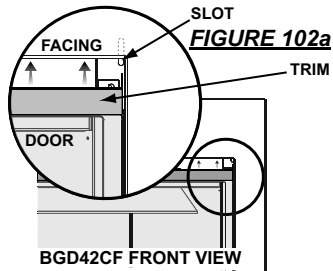
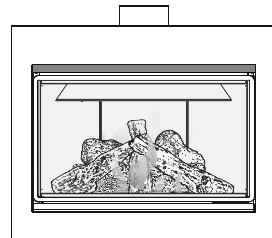


FIGURE 102c



BGD42CF WITH TOP DOOR TRIM INSTALLED

## GRATE INSTALLATION

The grate for this fireplace has been removed for shipping purposes. The grate must be installed before the logs are installed. Remove the packaging from the grate and install onto the two pins as illustrated.

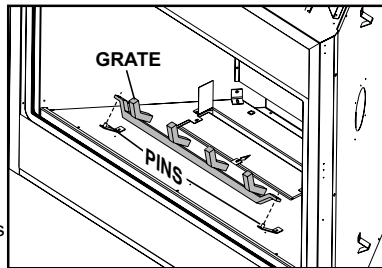


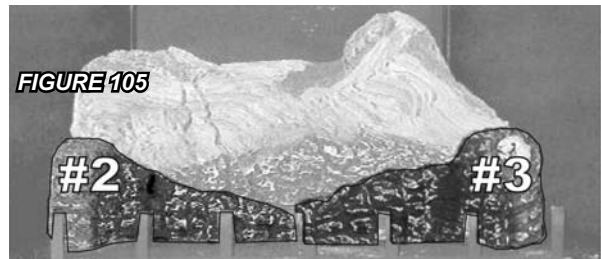
FIGURE 103

## LOG PLACEMENT

PHAZER™ logs and glowing embers, exclusive to Napoleon® Fireplaces, provide a unique and realistic glowing effect that is different in every installation. Take the time to carefully position the glowing embers for a maximum glowing effect. Log colours may vary. During the initial use of the fireplace, the colours will become more uniform as colour pigments burn in during the heat activated curing process.

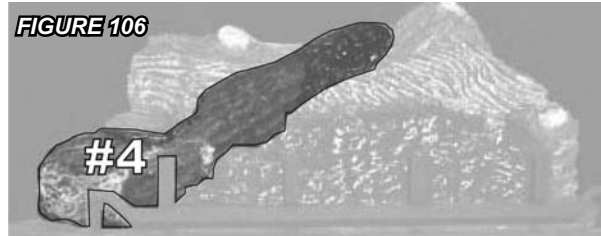


1. Place the cutout in the bottom of log #1 behind the pilot assembly. Rest the log against the back wall of the firebox.

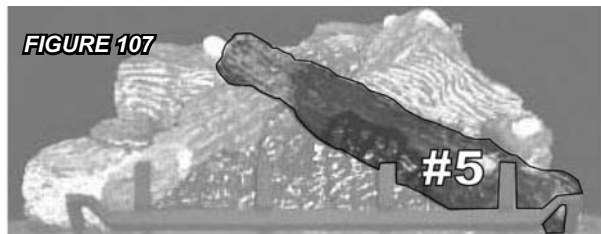


2. Move the two small logs (#2 & #3) into position, lining up the studs located on the burner with the holes on the bottom of the logs.

3. Tear the glowing embers into pieces and place along the front row of ports covering all of the burner area in front of the small logs (#2 & #3). Care should be taken to shred the embers into thin, small irregular pieces as only the exposed edges of the fibre hairs will glow. The ember material will only glow when exposed to direct flame; however, care should be taken to not block the burner ports. Blocked burner ports can cause an incorrect flame pattern, carbon deposits and delayed ignition. PHAZER™ logs glow when exposed to direct flame.



4. Place the bottom of the left crossover log (#4) onto the stud on the left side of the log support. The top of the log should rest in the pocket on the back log.



5. Place the bottom of the right crossover log (#5) onto the stud on the right side of the log support. The top of the log should rest in the pocket on the left crossover log (#4).

## COMMON FINISHING BGD36CF / BGD42CF

### GLOWING EMBERS

Tear the embers into pieces and place along the front row of ports covering all of the burner area in front of the small logs (#2 & #3). Care should be taken to shred the embers into thin, small irregular pieces as only the exposed edges of the fibre hairs will glow. **The ember material will only glow when exposed to direct flame; however, care should be taken to not block the burner ports.**

Blocked burner ports can cause an incorrect flame pattern, carbon deposits and delayed ignition. **PHAZER™** logs glow when exposed to direct flame. Use only certified "glowing embers" and **PHAZER™** logs available from your Napoleon® dealer.

### CHARCOAL EMBERS

Randomly place the charcoal embers along the front and sides of the log support tray in a realistic manner. **Fine dust found in the bottom of the bag should not be used.**

### VERMICULITE

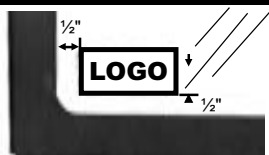
Sprinkle vermiculite around the charcoal embers.

**Note: Both charcoal embers and vermiculite are not to be placed on the burner.**

### CHARCOAL LUMPS (BGD42CF ONLY)

Place the lumps between the logs in a realistic manner taking care not to block any of the burner ports.

### LOGO PLACEMENT



Remove the backing of the logo supplied and place on the glass viewing door, as indicated.

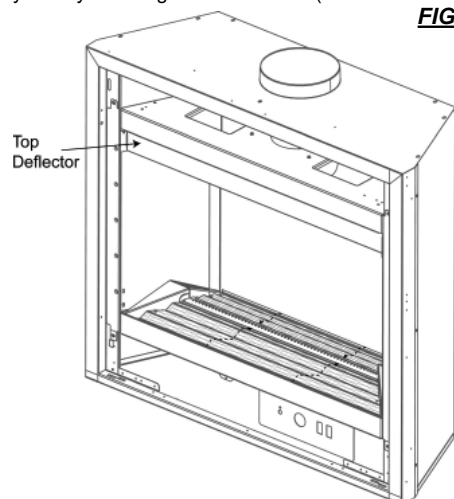
FIGURE 108

## BGD36CFG FINISHING

### GLASS BURNER INSTALLATION

Spread the clear glass embers (W300-0102) onto the glass ember tray evenly covering the burner tube (follow natural shape of tray).

FIGURE 109



**Note:** The distribution of clear glass embers over the burner tube will influence the flame height.

## BGD36CFG BULB REPLACEMENT

The BGD36CFG comes equipped with our "Night Light™". If in the event the lamp or lens needs to be replaced, follow these instructions.

1. Turn off all electrical supply.
2. Remove the glass and glass ember tray from the firebox.
3. Unscrew the lens cover making sure the gasket stays in place.

**Note:** Do not handle the lamp (bulb) with bare fingers, protect with a clean dry cloth.

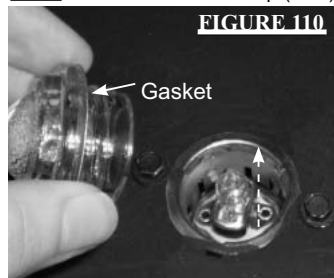


FIGURE 110

4. The lamp will pull straight out of the socket. Replace with Wolf Steel Ltd. parts only (W387-0006), as lamp and lens are special "high temperature" products.
5. Replace lens cover.

6. Replace glass and ember tray.

## BGD36CFG LENS ASSEMBLY REPLACEMENT

1. Remove the glass and glass ember tray.
2. Remove the burner base from the firebox.
3. Compress the retainer fins and lift out the lens assembly, disconnect the wires.
4. Replace lens assembly by aligning key hole and snap into place, re-connect wires.
5. Re-install burner base ensuring a good firebox seal.
6. Re-install glass ember tray and glass.



FIGURE 111

KEY HOLE

## ! WARNING

The front of the fireplace becomes very hot during operation. Let the fireplace cool completely before conducting service.

**NOTE:** When removing the glass ember tray make sure the glass embers are away from the center of the screen, exposing the burner, before lifting glass ember tray out.

When replacing burner, absolutely no glass embers can be in cup surrounding the orifice. **HINT:** If glass falls into cup and surrounds the orifice, insert a clean bag into a vacuum cleaner and vacuum out glass embers or replacement glass embers can be ordered from Wolf Steel Ltd.



## OPTIONAL BLOWER INSTALLATION

### BGD36CF(G) ACCESSING THE BLOWER

1. Remove the valve access door.
2. Open the main door.
3. Carefully remove the logs.
- 3a. (BGD36CFG) Carefully remove the glass and glass ember tray.
4. Remove the 7 screws illustrated in Fig. 112a and lift out the log support.
- 4a. (BGD36CFG) Remove the top deflector and porcelain panels from the firebox. (See Figure 109).

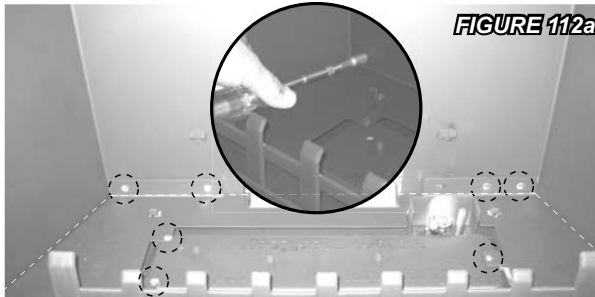


FIGURE 112a

5. Remove the 8 perimeter screws as illustrated in Fig. 112a and lift out the burner base. (The gas line flex-connector should provide sufficient movement to permit shifting the burner assembly to the side).

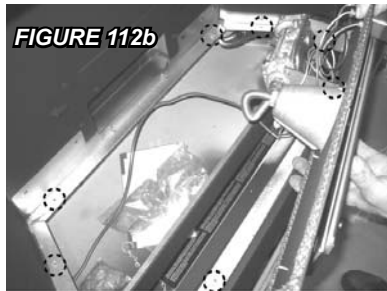


FIGURE 112b

6. Reverse procedure to re-assemble.

### BGD42CF ACCESSING THE BLOWER

1. Remove the main door using the instructions on Pg #29.
2. Carefully remove the logs.
3. Remove the grate by lifting it off of the two securing pins.
4. Remove the 6 screws illustrated in Fig. 112b and lift out the log support. Be careful not to lose the spacers for the screws indicated.

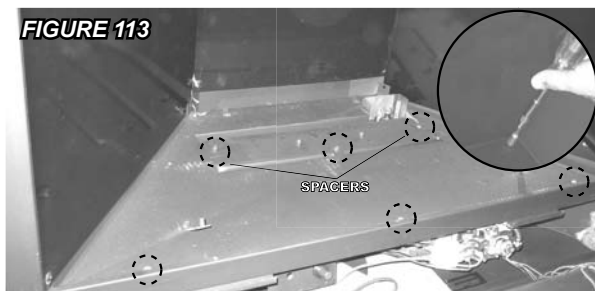


FIGURE 113

5. Remove the 7 perimeter screws as illustrated in Fig. 113 and lift out the burner base. (The gas line flex-connector should provide sufficient movement to permit shifting the burner assembly to the side).
6. Reverse procedure to re-assemble.

FIGURE 114



### INSTALLING THE BLOWER

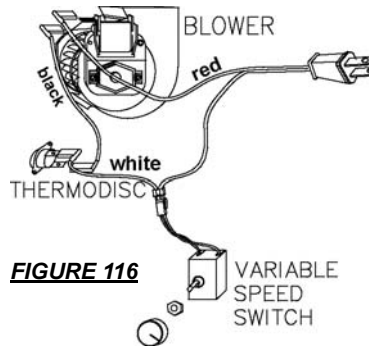


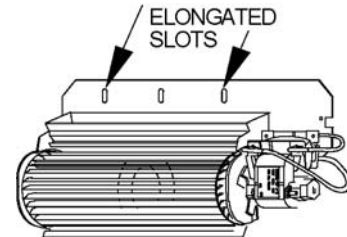
FIGURE 116

**INSTALLATION TO BE DONE BY A QUALIFIED INSTALLER** and must be electrically connected and grounded in accordance with local codes. In the absence of local codes, use the current CSA C22.1 CANADIAN ELECTRICAL CODE in Canada or the ANSI/NFPA 70 NATIONAL ELECTRICAL CODE in the United States

FIGURE 117

**If the fireplace was not previously equipped with a blower:** route a grounded 2-wire, 60hz power cable to the receptacle / junction box. At this point, it must be strain relieved and insulated.

**Because the blower is thermally activated, when turned on, it will automatically start approximately 10 minutes after lighting the fireplace and will run for approximately 30-45 minutes after the fireplace has been turned off. Use of the fan increases the output of heat.**



The three slots on the blower mounting bracket allow ease of adjustment when attaching the blower. For a quiet running blower, do not allow the assembly to sit on the firebox base.

Slide the vibration reducing pad (A) into the clip (C) and up against the threaded stud (B) at the other end. The blower must be able to be positioned entirely onto the pad.

To ease installation of the blower, remove the hinge screen and valve control door (lower louvres) from the base of the fireplace.

Tilt the blower onto its side. Slide it past the controls and into the clip (C). Secure to the threaded stud using the lock washer and wing nut provided. Ensure that the blower does not touch the fireplace base or the firebox.

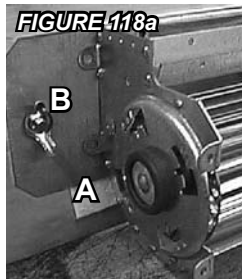


FIGURE 118a

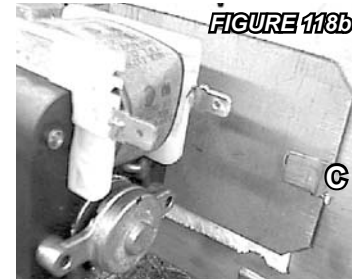


FIGURE 118b

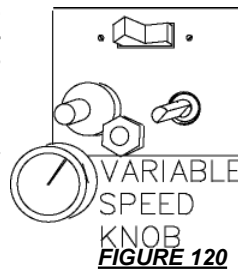
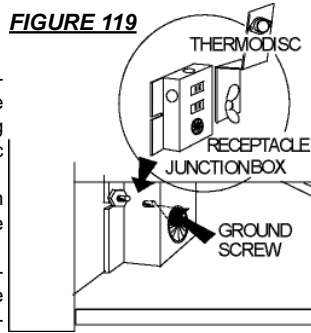
Attach the connectors from the black and white wires to the thermodisc and secure the thermodisc bracket to the securing stud at the bottom left of the unit using a lock washer and wing nut. Ensure that the thermodisc touches the firebox wall.

Attach the connectors from the black and red wires to the blower.

Attach and secure the variable speed switch using the nut provided. Plug the harness cord into the receptacle.

**Note:** To improve access to the variable speed control, we recommend bending the mounting bracket forward by approximately 10°. **The wire harness provided in this kit is a universal harness. When installed, ensure that any excess wire is contained, preventing it from making contact with moving or hot objects.**

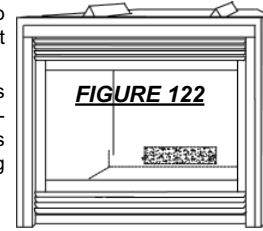
Drywall dust will penetrate into the blower bearings, causing irreparable damage. Care must be taken to prevent drywall dust from coming into contact with the blower or its compartment. Any damage resulting from this condition is not covered by the warranty policy.



To safely install the fan, turn off the electricity first.

**If the fireplace was not previously equipped with a fan:** route a grounded 2-wire, 60hz power cable to the junction box. At this point, it must be strain relieved and insulated.

The wire harness provided in this kit is a universal harness. When installed, ensure that any excess wire is contained, preventing it from making contact with moving or hot objects.



To ease installation of the fan, remove the hinge screen and valve control door (lower louvres) from the base of the fireplace.

Position the vibration reducing pad into the clip and onto the threaded stud at the other end, piercing a hole into the pad. The fan assembly must be able to be positioned entirely onto the pad.

Slide the fan assembly past the controls and into the clip. Secure using the lock washer and nut provided.

Plug the harness cord into the receptacle.

## GD36 THERMOSTATIC SENSOR CONTROL

This optional kit is meant to be used only in conjunction with the GD65 Fan Kit, shown above, which may be ordered from your Wolf Steel / Napoleon® dealer.

With the thermostatic sensor option, the fan, when turned on, becomes thermally activated, and will automatically run approximately 15-30 minutes after the fireplace has been lit and for approximately 30-45 minutes after the fireplace has been turned off.

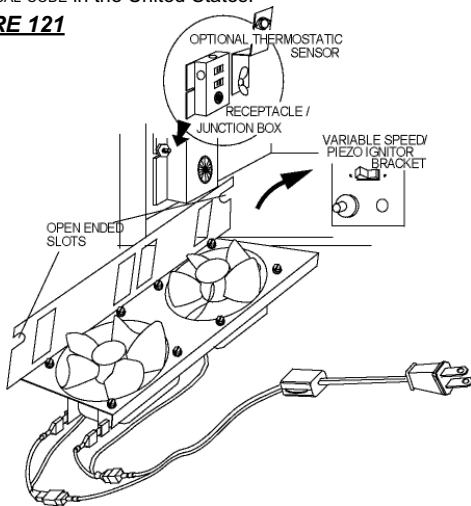
Use of the fan increases the output of heat.

Unplug the power cord from the receptacle. Connect all wires as shown.

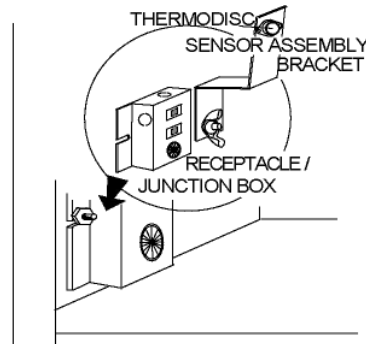
## OPTIONAL FAN INSTALLATION

**ELECTRICAL INSTALLATION TO BE DONE BY A QUALIFIED INSTALLER** and must be connected and grounded in accordance with local codes. In the absence of local codes, use the current CSA C22.1 CANADIAN ELECTRICAL CODE in Canada or the ANSI/NFPA 70 NATIONAL ELECTRICAL CODE in the United States.

**FIGURE 121**



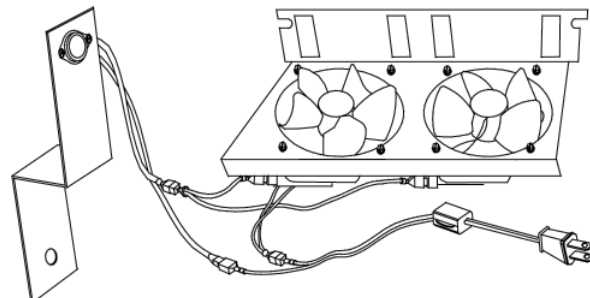
**FIGURE 123**



Attach and secure the sensor assembly bracket to the securing stud located next to the receptacle/junction box at the bottom left of the unit using the lock washer and wing nut. Ensure that the thermodisc touches the firebox wall.

Plug the power cord back into the receptacle.

When installed, ensure that any excess wire is contained, preventing it from making contact with moving or hot objects. **FIGURE 124**



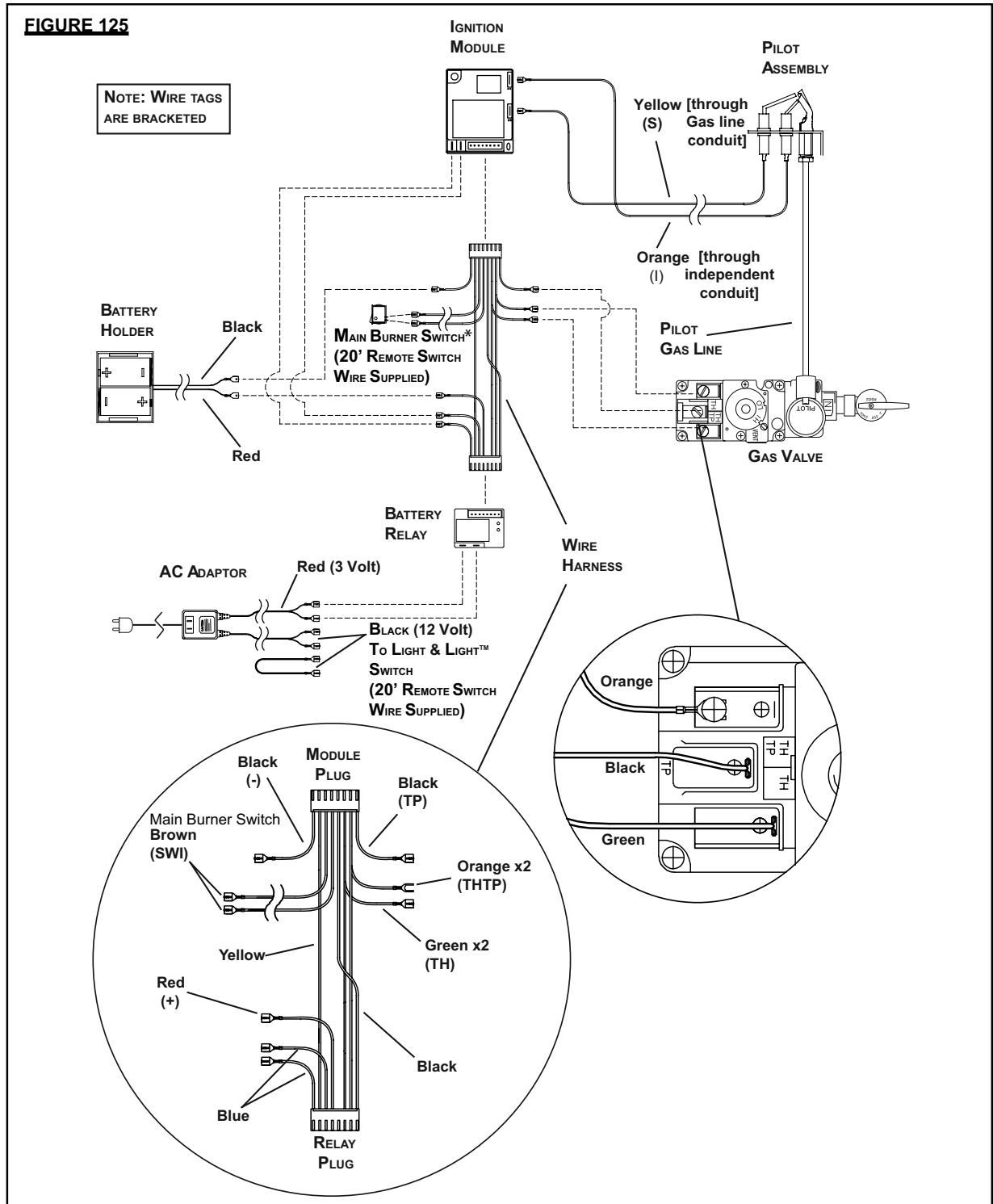
# BGD36CFG BURNER SWITCH / WIRING DIAGRAM

A wall switch must be installed in a convenient location for the burner operation.

A 20' length of millivolt wire is connected to the gas valve for the burner wall switch. However if a greater length is required route 2-strand (solid core) wire through the electrical hole located at the bottom left side of the unit.

The recommended maximum lead length depends on wire size:

WIRE SIZE	MAX. LENGTH
14 gauge	100 feet
16 gauge	60 feet
18 gauge	40 feet



# BGD36CFG LIGHT SWITCH / WIRING DIAGRAM

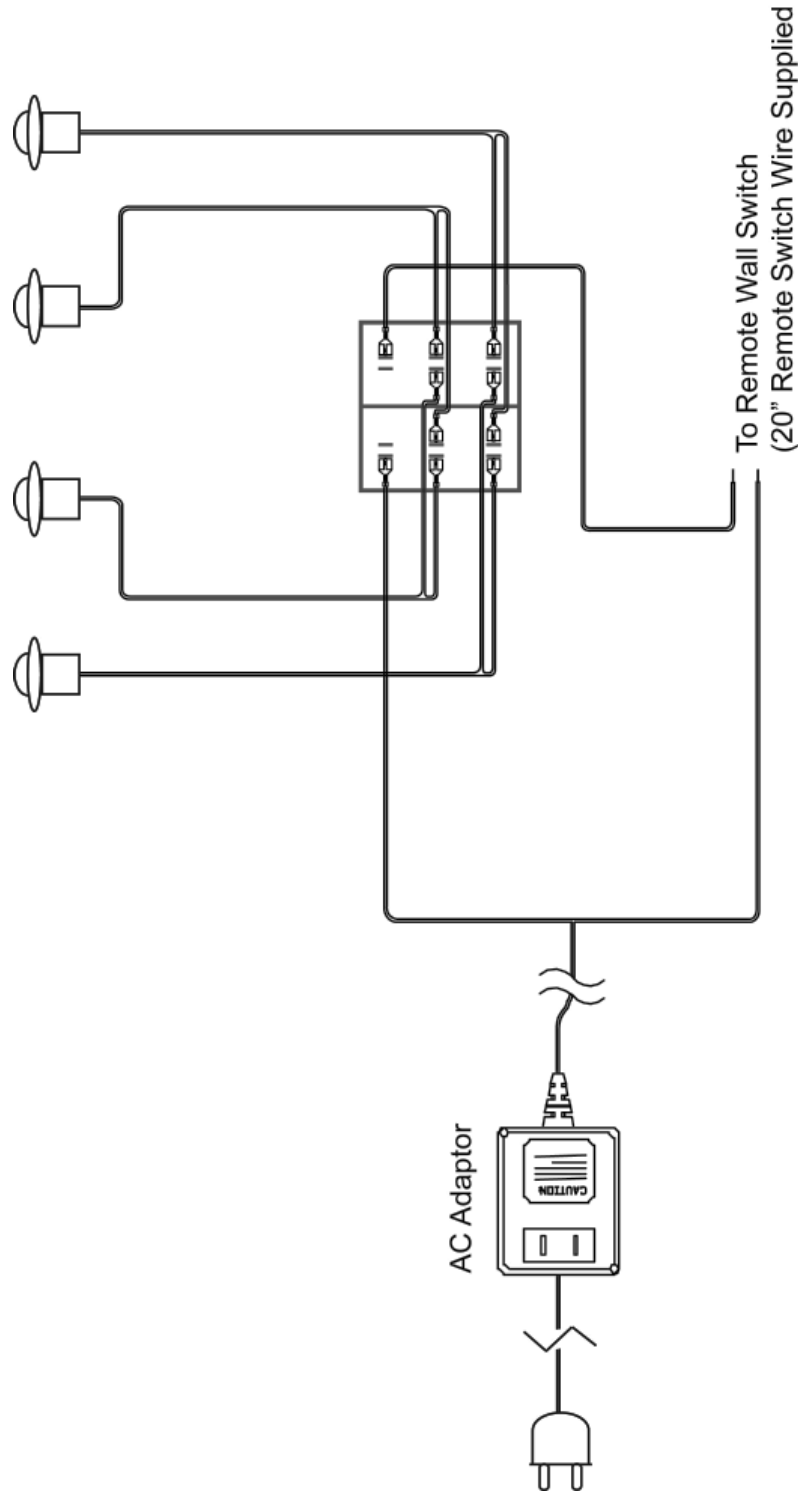
A wall switch must be installed in a convenient location for the light operation.

The recommended maximum lead length depends on wire size:

WIRE SIZE	MAX. LENGTH
14 gauge	100 feet
16 gauge	60 feet
18 gauge	40 feet

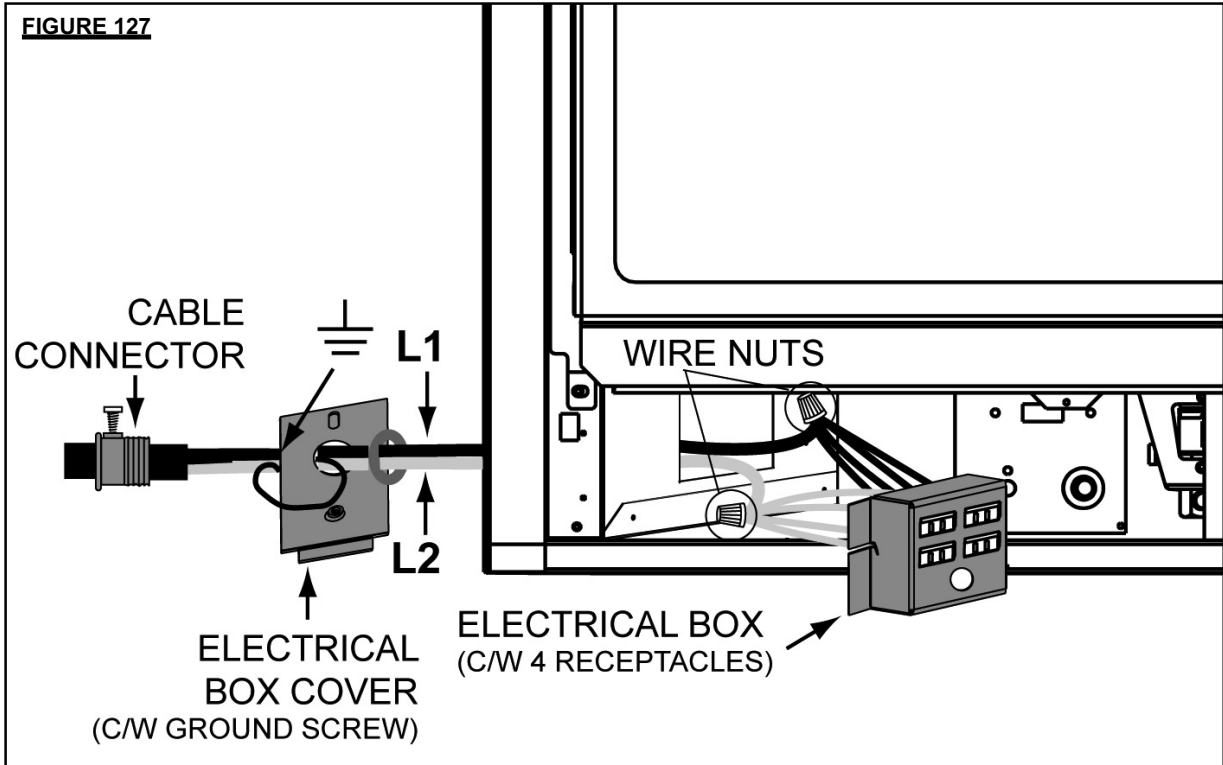
A 20' length of millivolt wire is connected to the gas valve for the light wall switch. However if a greater length is required route 2-strand (solid core) wire through the electrical hole located at the bottom left side of the unit.

**FIGURE 126**



# RECEPTACLE WIRING DIAGRAM

FIGURE 127



## OPERATION BGD36CF & BGD42CF

Purge all gas lines with the glass door of the fireplace removed or opened. Assure that a continuous gas flow is at the burner before installing the door.

When lit for the first time, the fireplace will emit a slight odour for a few hours. This is a normal temporary condition caused by the "burn-in" of internal paints and lubricants used in the manufacturing process and will not occur again.

After extended periods of non-operation such as following a vacation or a warm weather season, the fireplace may emit a slight odour for a few hours. This is caused by dust particles in the heat exchanger burning off. In both cases, open a window to sufficiently ventilate the room.

### FOR YOUR SAFETY READ BEFORE LIGHTING:

- A. This fireplace is equipped with a pilot which must be lit by hand while following these instructions exactly.
- B. Before operating smell all around the fireplace area for gas and next to the floor because some gas is heavier than air and will settle on the floor.
- C. Use only your hand to turn the gas control knob. Never use tools. If the knob will not turn by hand, do not try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect the fireplace and replace any part of the control system and any gas control which has been under water.

### WHAT TO DO IF YOU SMELL GAS:

- Turn off all gas to the fireplace.
- Open windows.
- 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 neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.



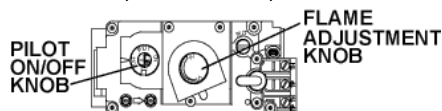
### LIGHTING INSTRUCTIONS

**WARNING:** The gas valve has an interlock device which will not allow the pilot burner to be lit until the thermocouple has cooled. Allow approximately 60 seconds for the thermocouple to cool.

When lighting and re-lighting, the gas knob cannot be turned from pilot to off unless the knob is **depressed slightly**.

1. Stop! Read the above safety information on this label.
2. Turn off all electric power to the fireplace.
3. Turn the gas knob clockwise to off.
4. Wait five (5) minutes to clear out any gas. If you smell gas including near the floor. Stop! Follow "B" in the above safety information on this label. If you don't smell gas go the next step.

5. Turn gas knob counter-clockwise to pilot.
6. Depress slightly and hold gas knob while lighting the pilot with the push button igniter. Keep knob depressed for one minute, then release. If pilot does not continue to burn, repeat steps 3 through 5.
7. With pilot lit, depress and turn gas knob counter-clock-wise to on.
8. If equipped with remote on-off switch/thermostat, main burner may not come on when you turn valve to on. Remote switch must be in the on position to ignite burner.
9. Turn on all electric power to the fireplace.



### TO TURN OFF GAS

1. Turn off all electric power to the fireplace if service is to be performed.
2. Push in gas control knob slightly and turn clockwise to off. Do not force.

**TURN THE CONTROL VALVE TO THE OFF POSITION WHEN HEATER IS NOT IN USE.**

# OPERATION BGD36CFG



FOR YOUR SAFETY READ BEFORE OPERATING

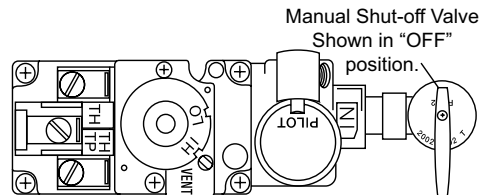
## ! WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.


- |  |   |
|--|---|
| <p>A. THIS FIREPLACE IS EQUIPPED WITH AN IGNITION DEVICE WHICH AUTOMATICALLY LIGHTS THE PILOT. DO NOT TRY TO LIGHT BY HAND.</p> <p>B. BEFORE OPERATING SMELL ALL AROUND THE FIREPLACE AREA FOR GAS AND NEXT TO THE FLOOR BECAUSE SOME GAS IS HEAVIER THAN AIR AND WILL SETTLE ON THE FLOOR.</p> <p>C. USE ONLY YOUR HAND TO TURN THE GAS CONTROL KNOB. NEVER USE TOOLS. IF THE KNOB WILL NOT TURN BY HAND, DO NOT TRY TO REPAIR IT. CALL A QUALIFIED SERVICE TECHNICIAN. FORCE OR ATTEMPTED REPAIR MAY RESULT IN A FIRE OR EXPLOSION.</p> <p>D. DO NOT USE THIS FIREPLACE IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE FIREPLACE AND</p> | <p>REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.</p> <p><b>WHAT TO DO IF YOU SMELL GAS:</b></p> <ul style="list-style-type: none"> <li>• TURN OFF ALL GAS TO THE FIREPLACE.</li> <li>• OPEN WINDOWS.</li> <li>• DO NOT TRY TO LIGHT ANY APPLIANCE.</li> <li>• DO NOT TOUCH ANY ELECTRIC SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.</li> <li>• IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOUR'S PHONE FOLLOW THE (GAS SUPPLIER'S) INSTRUCTIONS.</li> <li>• IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.</li> </ul> |
|--|---|

## OPERATING INSTRUCTIONS

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. <b>STOP!</b> READ THE ABOVE SAFETY INFORMATION ON THIS LABEL.</li> <li>2. TURN REMOTE WALL SWITCH TO OFF POSITION.</li> <li>3. TURN OFF ALL ELECTRIC POWER TO THE FIREPLACE AND REMOVE BATTERIES.</li> <li>4. THIS FIREPLACE IS EQUIPPED WITH AN IGNITION DEVICE WHICH AUTOMATICALLY LIGHTS THE PILOT. DO NOT TRY TO LIGHT THE PILOT BY HAND.</li> <li>5. TURN MANUAL SHUTOFF VALVE CLOCKWISE  TO OFF.</li> <li>6. OPEN THE GLASS DOOR.</li> <li>7. WAIT FIVE (5) MINUTES TO CLEAR OUT ANY GAS. IF YOU SMELL GAS INCLUDING NEAR THE FLOOR, <b>STOP!</b> FOLLOW "B" IN THE ABOVE SAFETY INFORMATION ON THIS LABEL. IF YOU DON'T SMELL GAS GO TO THE</li> </ol> | <p>NEXT STEP.</p> <ol style="list-style-type: none"> <li>8. CLOSE THE GLASS DOOR.</li> <li>9. TURN MANUAL SHUTOFF VALVE COUNTER-CLOCKWISE  TO ON.</li> <li>10. TURN ON ALL ELECTRIC POWER TO THE FIREPLACE AND RE-INSTALL BATTERIES.</li> <li>11. TURN ON REMOTE WALL SWITCH TO ON POSITION.</li> <li>12. IF FIREPLACE WILL NOT OPERATE, FOLLOW INSTRUCTIONS "TO TURN OFF GAS" AND CALL YOUR SERVICE TECHNICIAN OR GAS SUPPLIER.</li> </ol> |
|--|--|



## TO TURN OFF GAS

1. TURN OFF REMOTE WALL SWITCH TO THE FIREPLACE.
2. TURN OFF ALL ELECTRICAL POWER TO THE FIREPLACE IF SERVICE IS TO BE PERFORMED.
3. TURN MANUAL SHUTOFF VALVE CLOCKWISE  TO OFF. DO NOT FORCE.

## MAINTENANCE

### TURN OFF THE GAS AND ELECTRICAL POWER BEFORE SERVICING THE FIREPLACE.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing. This fireplace and its venting system should be inspected before use and at least annually by a qualified service person. The fireplace area must be kept clear and free of combustible materials, gasoline or other flammable vapours and liquids. The flow of combustion and ventilation air must not be obstructed.

1. In order to properly clean the burner and pilot assembly, remove the logs to expose both assemblies.
2. Keep the control compartment, logs, burner, air shutter

opening and the area surrounding the logs clean by vacuuming or brushing, *at least once a year.*

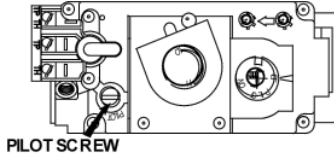
3. Check to see that all burner ports are burning. Clean out any of the ports which may not be burning or are not burning properly.
4. Check to see that the pilot flame is large enough to engulf the thermocouple and thermopile and reaches toward the burner with the third jet.
5. Replace the cleaned logs.
6. Check to see that the main burner ignites completely on all openings when the gas knob for the burner is turned on. A 5 to 10 second total light-up period is satisfactory. If ignition takes longer, consult your Napoleon® dealer / distributor.
7. Check that the gasketing on the sides, top and bottom of the door is not broken or missing. Replace if necessary.

# ADJUSTMENTS

## PILOT BURNER ADJUSTMENT EXCLUDING BGD36CFG

Adjust the pilot screw to provide properly sized flame. Turn in a clockwise direction to reduce the gas flow.

FIGURE 128



PILOT SCREW

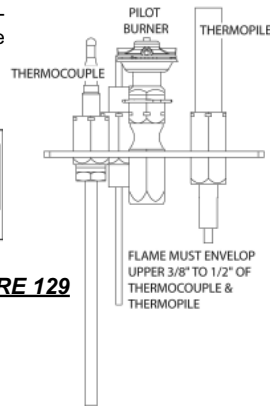


FIGURE 129

## BGD36CFG VENTURI ADJUSTMENT

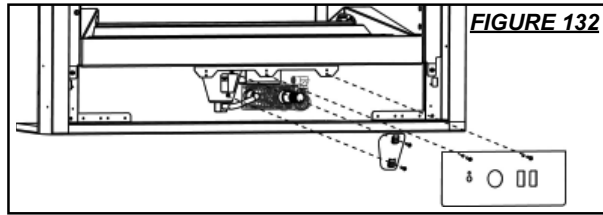


FIGURE 132

The alternate access is to remove the glass, glass ember tray and burner from the fireplace and then adjust the air shutter.

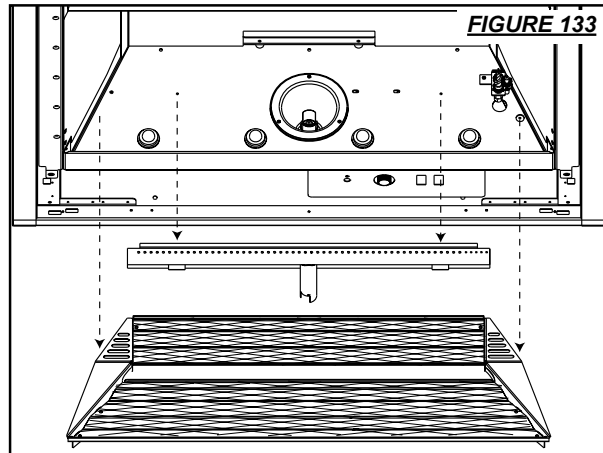


FIGURE 133

## VENTURI ADJUSTMENT

Both fireplace models have air shutters that have been factory set open according to the chart below:

	BGD36CF	BGD36CFG	BGD42CF
NG	1/16"	Ø	1/4"
LP	1/4"	Ø	7/16"

These settings are for (maximum) horizontal termination. Adjustment may be required depending on fuel type, vent configuration and altitude.

Closing the air shutter will cause a more yellow flame, but can lead to carboning. Opening the air shutter will cause a more blue flame, but can cause flame lifting from the burner ports. The flame may not appear yellow immediately; allow 15 to 30 minutes for the final flame colour to be established.

**Air shutter adjustment must only be done by a qualified installer!**

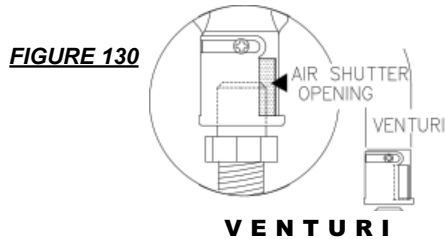


FIGURE 130

VENTURI

FIGURE 131



To access the air shutter, remove the control panel, remove the two screws that secure the cover to the air housing, loosen the set screw and adjust air shutter position.

## WARNING

The front of the fireplace becomes very hot during operation. Let the fireplace cool completely before conducting service.

**NOTE:** When removing the glass ember tray make sure the glass embers are away from the center of the screen, exposing the burner, before lifting glass ember tray out. When replacing burner, absolutely no glass can be in cup surrounding the orifice. **HINT:** If glass falls into cup and surrounds the orifice, insert a clean bag into a vacuum cleaner and vacuum out glass embers or replacement glass embers can be ordered from Wolf Steel Ltd.



**FLAME ADJUSTMENT**

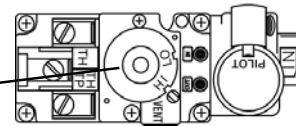


Turn clockwise to increase flame height

For BGD36CF and BGD42CF

**FIGURE 134**

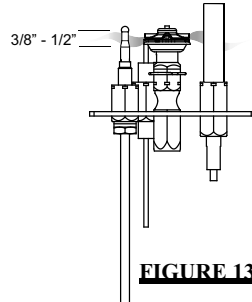
FLAME ADJUSTMENT KNOB



For BGD36CFG

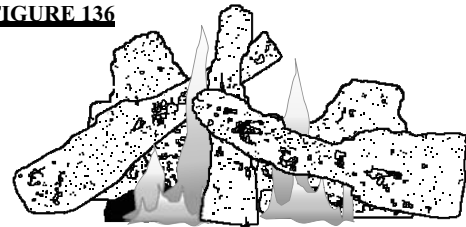
**BGD36CF FLAME CHARACTERISTICS**

It is important to periodically perform a visual check of the pilot and the burner flames. Compare them to the figures shown. If any flames appear abnormal call a service person.



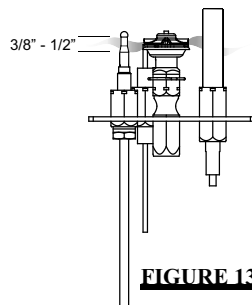
**FIGURE 135**

**FIGURE 136**



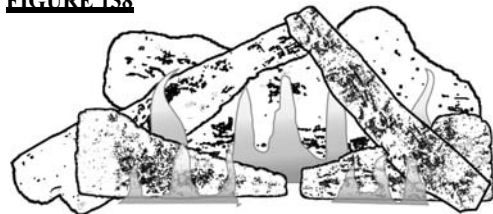
**BGD42CF FLAME CHARACTERISTICS**

It is important to periodically perform a visual check of the pilot and the burner flames. Compare them to the figures shown. If any flames appear abnormal call a service person.



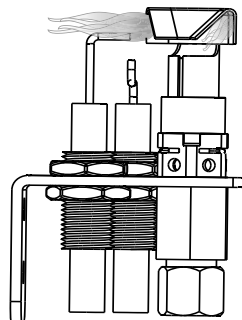
**FIGURE 137**

**FIGURE 138**

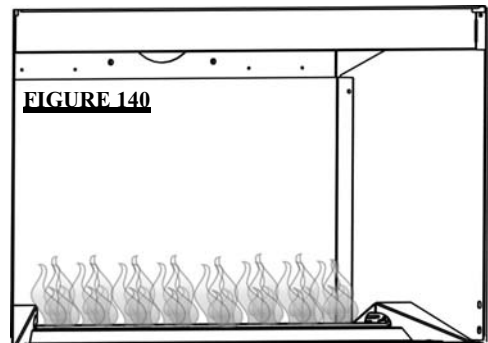


**BGD36CFG FLAME CHARACTERISTICS**

It is important to periodically perform a visual check of the pilot and the burner flames. Compare them to the figures shown. If any flames appear abnormal call a service person.



**FIGURE 139**



**FIGURE 140**

## COMMON REPLACEMENTS

Contact your dealer for questions concerning prices and availability of replacement parts. Normally all parts can be ordered through your Napoleon® dealer or distributor.

When ordering replacement parts always give the following information:

1. MODEL & SERIAL NUMBER OF FIREPLACE
2. INSTALLATION DATE OF FIREPLACE
3. PART NUMBER
4. DESCRIPTION OF PART
5. FINISH
6. TOP OR REAR VENT

### COMMON COMPONENTS:

#	PART NO.	DESCRIPTION
1	W357-0001	PIEZO IGNITER
2	W680-0004	THERMOPILE
3	W680-0005	THERMOCOUPLE**
4	W010-0800	PROPANE GAS PILOT ASSEMBLY
4	W010-0801	NATURAL GAS PILOT ASSEMBLY
5	W455-0069	NATURAL GAS PILOT INJECTOR
5	W455-0067	PROPANE GAS PILOT INJECTOR
6	W725-0025	NATURAL GAS VALVE
6	W725-0026	PROPANE GAS VALVE
7*	W385-0334	NAPOLEON® LOGO
8*	W750-0112	20FT OF WIRE
9*	W361-0016	GLOWING EMBERS
10*	W550-0001	CHARCOAL EMBERS



**WARNING**  
\*\*This is a fast acting thermocouple. It is an integral safety component. Replace only with a fast acting thermocouple supplied by Wolf Steel Ltd.



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

\* IDENTIFIES ITEMS WHICH ARE NOT ILLUSTRATED. FOR FURTHER INFORMATION, CONTACT YOUR NAPOLEON® DEALER.

### COMMON ACCESSORIES:

11*	W573-0007	10.3OZ TUBE HIGH TEMP SEALANT
12*	W690-0001	MILLIVOLT THERMOSTAT
13*	W690-0010B	REMOTE CONTROL - Advantage
14*	W660-0011B	REMOTE CONTROL - ADVANTAGE PLUS
15*	GD65	FAN KIT
16	GZ550-1KT	BLOWER KIT
17*	B440-KT	BLOWER
18*	W500-0033	VARIABLE SPEED SWITCH WALL MOUNTING PLATE
19*	W690-0005	THERMOSTAT, 110 VOLT for use with ga-566
20*	W660-0026	PROGRAMMABLE TIMER
21	GA-566	HOT AIR KIT
22	GA-72	HOT AIR EXHAUST KIT
23	GA-70	EXTENSION KIT 5FT
24*	ANI-K	ANDIRONS - BLACK
25*	ANI-G	ANDIRONS - GOLD PLATED
26*	270	PAINT, BLACK - 13OZ
27*	W361-0014	VERMICULITE
28*	GD36	THERMOSTATIC SENSOR CONTROL KIT

FOR USE WITH GD65 ONLY

## BGD36CF(G) REPLACEMENTS

### BGD36CF(G) COMPONENTS:

29*	W225-0058	BLACK DOOR FRAME
30	W455-0048	#47 NATURAL GAS ORIFICE
30	W455-0047	#56 PROPANE GAS ORIFICE
31*	W010-0370	WALL SUPPORT ASSEMBLY
32	W010-0539	FLUE PIPE ASSEMBLY c/w GASKET
33*	W010-0538	FLUE CAP c/w GASKET
34	W010-0764	PAN BURNER
35	GL-639	LOG SET
36	W135-0183	BACK LOG (#1)
37	W135-0184	LEFT MIDDLE LOG (#2)
38	W135-0185	RIGHT MIDDLE LOG (#3)
39	W135-0186	LEFT CROSSOVER LOG (#4)
40	W135-0187	MIDDLE CROSSOVER LOG (#5)
41	W135-0188	RIGHT CROSSOVER LOG (#6)
42	W010-0454	GLASS c/w GASKET
43	W010-0516	BLACK DOOR C/W GLASS
44	W010-1774	FIRESTOP SPACER

### BGD36CFG COMPONENTS:

45	W100-0102	BURNER TUBE
46*	W300-0102	CLEAR GLASS EMBERS
47*	W010-1835	GLASS EMBER TRAY
48*	W387-0004	HIGH TEMPERATURE LIGHT ASSEMBLY
49*	W387-0009	HALOGEN BULB 5W
50*	W725-0032	DEXEN VALVE EI NATURAL GAS
51*	W725-0049	DEXEN VALVE 3V PROPANE
52	W455-0049	PILOT INJECTOR - LP
53	W455-0071	PILOT INJECTOR - NG
54	W720-0092	PILOT TUBE
55	W100-0069	PILOT ASSEMBLY - NG
56	W100-0093	PILOT ASSEMBLY - LP

### BGD36CF(G) FLEXIBLE VENT KITS:

	GD220 (5FT)	
57*	W010-0397	4" FLEXIBLE VENT PIPE - (5 FT) c/w SPACERS
58*	W410-0017	7" FLEXIBLE VENT PIPE - (5 FT)
	GD330 (10 FT)	
59*	W410-0018	7" FLEXIBLE VENT PIPE - (10 FT)
60*	W010-0300	4" FLEXIBLE VENT PIPE - (10 FT) c/w SPACERS
61*	W010-0370	WALL SUPPORT ASSEMBLY

### BGD36CF(G) TERMINAL KITS:

62	PERISCOPE	-	GD201
63	WALL TERMINAL KIT	-	GD222

### BGD36CF(G) ROOF TERMINAL KITS:

64*	1/12 TO 7/12 PITCH	-	GD110
65*	8/12 TO 12/12 PITCH	-	GD111
66*	FLAT ROOF	-	GD112
67*	W490-0073	4/7 INNER/OUTER SLEEVE	
68	W670-0006	4/7 TERMINAL	
69	W170-0063	STORM COLLAR	
70	W010-0453	ROOF SUPPORT	
71	W263-0054 / W263-0055 / W263-0056	ROOF FLASHING	

### BGD36CF(G) ACCESSORIES:

72*	W175-0001	4" COUPLER
73*	W175-0013	7" COUPLER
74*	W615-0044	FIRESTOP SPACER - FLEXIBLE VENTING
75*	W500-0103	TERMINAL EXTENSION PLATE
76	GD-301	HEAT GUARD
77*	W010-0370	WALL SUPPORT ASSEMBLY
78*	W175-0053	DURA-VENT ZERO CLEARANCE ADAPTOR
79	VS47KT	VENT SLEEVE
80	W170-0063	VENT PIPE COLLAR
81	W585-0072	VENT PIPE SHIELD
82*	W175-0159	CONVERSION KIT - NG TO LP
83*	W175-0164	CONVERSION KIT - LP TO NG
84*	GD831KT	DECORATIVE BRICK PANELS - SANDSTONE
85*	CDV202-PB	DOOR TRIM KIT
86*	GD-565-1KT	SAFETY SCREEN
87*	S36WN	WAVE SURROUND - BROWN
87*	S36WP	WAVE SURROUND - PEWTER
87*	S36CCN	CONCAVE SURROUND - BROWN
87*	S36CCP	CONCAVE SURROUND - PEWTER
87*	S36CVN	CONVEX SURROUND - BROWN
87*	S36CVP	CONVEX SURROUND - PEWTER
88*	CFT36W	UPPER TRIM FOR WAVE SURROUND
88*	CFT36CC	UPPER TRIM FOR CONCAVE SURROUND
88*	CFT36CV	UPPER TRIM FOR CONVEX SURROUND

## BGD42CF REPLACEMENTS

### BGD42CF COMPONENTS:

89	W455-0019	#43 NATURAL GAS ORIFICE
89	W455-0003	#54 PROPANE GAS ORIFICE
90	W010-0864	PAN BURNER
91	GL-641	LOG SET
92	W135-0198	BACK LOG (#1)
93	W135-0201	LEFT CROSSOVER LOG (#4)
94	W135-0203	RIGHT CROSSOVER LOG (#5)
95	W135-0199	SMALL LEFT LOG (#2)
96	W135-0200	SMALL RIGHT LOG (#3)
97	W010-1819	BLACK DOOR C/W GLASS
98	W010-1778	FIRESTOP SPACER
99*	W500-0205	RESTRICTOR PLATE
100	W585-0138	VENT HEAT SHIELD, TOP PIECE
100	W655-0222	VENT HEAT SHIELD, BOTTOM PIECE
101	W185-0020	GRATE
102*	W550-0002	CHARCOAL LUMPS

### BGD42CF FLEXIBLE VENT KITS:

#### GD420 (5 FT)

103*	W730-0010	5" FLEXIBLE VENT PIPE - (5.5 FT) C/W SPACERS
104*	W730-0012	8" FLEXIBLE VENT PIPE - (5.5 FT)

#### GD430 (10 FT)

105*	W730-0011	5" FLEXIBLE VENT PIPE -(11.5 FT)
106*	W730-0013	8" FLEXIBLE VENT PIPE -(11.5 FT) C/W SPACERS
107*	W010-0810	WALL SUPPORT ASSEMBLY

### BGD42CF TERMINAL KITS:

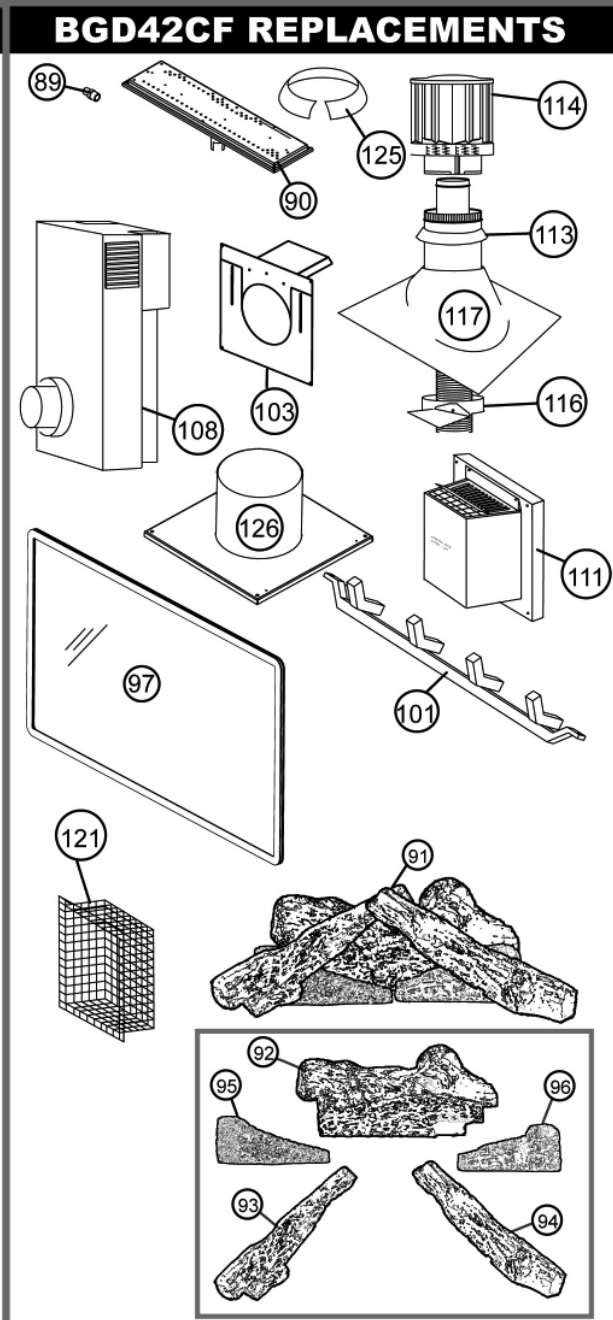
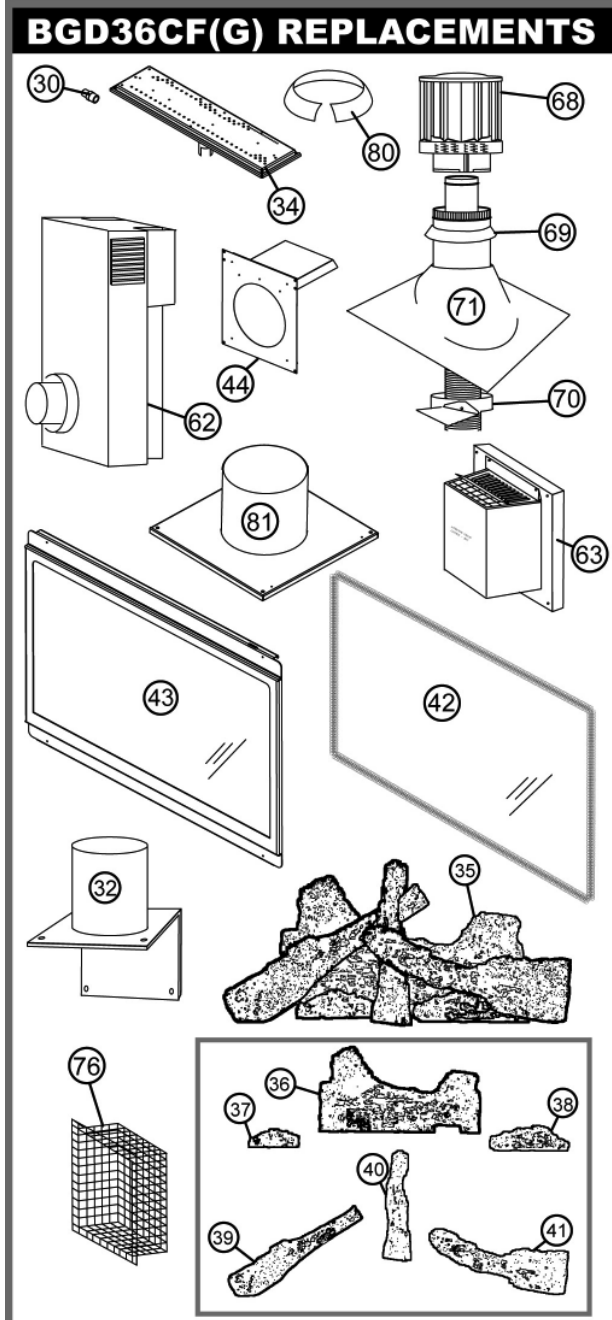
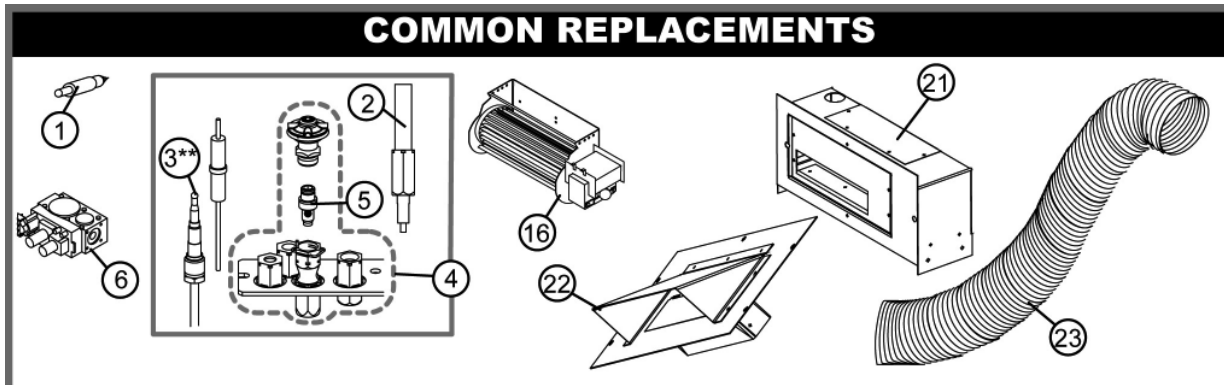
108	<b>PERISCOPE</b>	-	<b>GD401</b>
109	<b>WALL TERMINAL KIT</b>	-	<b>GD422</b>

### BGD42CF ROOF TERMINAL KITS:

110*	<b>1/12 TO 7/12 PITCH</b>	-	<b>GD410</b>
111*	<b>8/12 TO 12/12 PITCH</b>	-	<b>GD411</b>
112*	<b>FLAT ROOF</b>	-	<b>GD412</b>
113	W490-0074	5/8 INNER/OUTER SLEEVE	
114	W670-0007	5/8 TERMINAL	
115	W170-0086	STORM COLLAR	
116	W010-0453	ROOF SUPPORT	
117	W263-0065 /	ROOF FLASHING	
	W263-0066 /		
	W263-0055		

### BGD42CF ACCESSORIES:

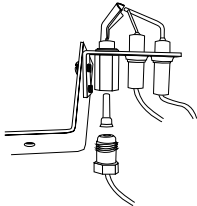
118*	W175-0166	5" COUPLER
119*	W175-0002	8" COUPLER
120*	W500-0206	TERMINAL EXTENSION PLATE
121	GD-501	HEAT GUARD
122*	W585-0096	SOFFIT HEAT SHIELD
123*	W010-0810	WALL SUPPORT ASSEMBLY
124*	W175-0170	DURA-VENT ZERO CLEARANCE ADAPTOR
125	W170-0086	VENT PIPE COLLAR
126	W585-0092	VENT PIPE SHIELD
127*	W175-0211	CONVERSION KIT - NG TO LP
128*	W175-0248	CONVERSION KIT - LP TO NG
129*	S42WN	WAVE SURROUND - BROWN
129*	S42WP	WAVE SURROUND - PEWTER
129*	S42CCN	CONCAVE SURROUND - BROWN
129*	S42CCP	CONCAVE SURROUND - PEWTER
129*	S42CVN	CONVEX SURROUND - BROWN
129*	S42CVP	CONVEX SURROUND - PEWTER
130*	CFT42W	UPPER TRIM FOR WAVE SURROUND
130*	CFT42CC	UPPER TRIM FOR CONCAVE SURROUND
130*	CFT42CV	UPPER TRIM FOR CONVEX SURROUND



# BGD36CFG TROUBLE SHOOTING GUIDE

BEFORE ATTEMPTING TO TROUBLESHOOT, PURGE YOUR UNIT AND INITIALLY LIGHT THE PILOT AND THE MAIN BURNER WITH THE GLASS DOOR REMOVED.

SYMPTOM	PROBLEM	TEST SOLUTION
Pilot will not light.	- Wiring	Verify the "S" wire for the sensor and the "I" wire for the ignitor are connected to the correct terminals (not reverse) on the module and pilot assembly.
Makes noise with no spark at pilot burner	- Loose connection	Verify no loose connections, electrical shorts in the wiring or ground out to any metal object.
	- Module	Turn the ON/OFF switch to the "OFF" position. Remove the igniter wire "I" from the module. Place the ON/OFF switch to the "ON" position. Hold a grounded wire about 3/16" away from the "I" terminal on the module. If no spark the "I" terminal module must be replaced. If there is a spark the "I" terminal is fine. Inspect pilot assembly for a shorted wire or cracked insulator around the electrode.
	- Igniter Spark gap is incorrect	- spark gap of the ignitor to the pilot should be .17" tor 1/8"
Pilot will not light.	- Transformer	Verify the transformer is installed and plugged into the module. Check voltage of the transformer under load at the spade connections on the module with the ON/OFF switch in the "ON" position. Acceptable readings of a good transformer are between 3.2 and 2.8 volts A.C.
	- A shorted or loose Connection	Remove and reinstall the wiring harness that plugs into the module. Remove and verify continuity of each wire in wiring harness.
	- Improper switch wiring	Troubleshoot the system with the simplest ON/OFF switch
	- Module is not grounded	Verify the value and pilot assemblies are properly grounded to the metal chassis of the fireplace or log set.
	- Faulty module	Turn the ON/OFF switch to the "OFF" position. Remove the igniter wire "I" from the module. Place the ON/OFF switch to the "ON" position. Hold a grounded wire about 3/16" away from the "I" terminal on the module. If no spark the "I" terminal module must be replaced. If there is a spark the "I" terminal is fine. Inspect pilot assembly for a shorted wire or cracked insulator around the electrode.
Pilot sparks but will not light	- Gas supply	Verify that the incoming gas line ball valve is "Open". Verify that the inlet pressure reading is within acceptable limits, inlet pressures must not exceed 14" W.C.
	- Module is not grounded	Verify the value and pilot assemblies are properly grounded to the metal chassis of the fireplace or log set.
	- Out of propane gas.	- fill the tank.
Continues to sparks and pilot lights, but main burner will not light	- Short or loose connection in sensor rod	Verify all connections. Verify the connections from the pilot assembly are tight; also verify these connections are not grounding out to any metal.
	- Poor flame rectification or contaminated sensor rod	Verify the flame is engulfing the sensor rod. This will increase the flame rectification. Verify correct pilot orifice is installed and inlet gas specifications to manual. <i>(Remember, the flame carries the rectification current, not the gas. If the flame lifts from pilot hood, the circuit is broken. A wrong orifice or too high of an inlet pressure can cause the pilot flame to lift.)</i> The sensor rod may need cleaning.
	- Poor grounding between pilot assembly and gas valve	Verify that the wire harness is firmly connected to module
	- Damaged pilot or dirty sensor rod	Verify that the ceramic insulator around the sensor rod is not cracked, damaged, or loose. Verify the connection from the sensor rod to the sensor wire. Clean sensor rod with an emery cloth to remove any contamination that may have accumulated on the sensor rod. Verify continuity with multimeter with ohms set at the lowest range.



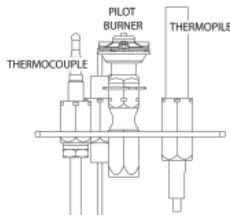
## BGD36CFG TROUBLE SHOOTING GUIDE

SYMPTOM	PROBLEM	TEST SOLUTION
Pilot lights Stops sparking / pilot remains lit but burner will not turn on	<ul style="list-style-type: none"> <li>- Wiring / Connection</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Wiring harness</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Module or Valve</li> </ul>	<p>Inspect all wires, ensure good tight connections. Verify that all wiring is installed exactly as specified.</p> <hr/> <p>Inspect the wiring harness, and verify the harness is tightly connected to the module. Verify that you have 7 wires and they are connected in the right order.</p> <hr/> <p>Conduct the following test to verify if the problem is the module or valve. To measure voltages, turn multimeter to "DC" place the red lead from multimeter on the screw on the terminal block for the wire you are checking, touch black lead to ground (valve body). Importantly, a "Zero" volts reading does not automatically indicate a bad module, there may be too little resistance in the valve solenoid. Check the Green wire disconnected from valve that the voltage output from the module should be between 2 and 3 volts</p>
Exhaust fumes smelled in room, headaches.	<ul style="list-style-type: none"> <li>- Fireplace is spilling.</li> </ul>	<p>Check all seals.</p>
Carbon is being deposited on glass, logs or combustion chamber surfaces.	<ul style="list-style-type: none"> <li>- Air shutter has become blocked</li> <li>- Flame is impinging on the logs or combustion chamber.</li> </ul>	<p>Ensure air shutter opening is free of lint or other obstructions. Check that the logs are correctly positioned. Open air shutter to increase the primary air. Check the input rate: check the manifold pressure and orifice size as specified by the rating plate values. Check that the door gasketing is not broken or missing and that the seal is tight. Check that both vent liners are free of holes and well sealed at all joints. Check that minimum rise per foot has been adhered to for any horizontal venting.</p>
Flames are very aggressive.	<ul style="list-style-type: none"> <li>- Door is ajar</li> <li>- Venting action is too great.</li> </ul>	<p>Tighten door clamps Restrict vent exit with restrictor plate. See Restricting Vents.</p>
Main burner flame is a blue, lazy, transparent flame.	<ul style="list-style-type: none"> <li>- Blockage in vent.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- Incorrect installation (vertical termination only).</li> </ul>	<p>Remove blockage. In really cold conditions, ice buildup may occur on the terminal and should be removed as required. Refer to Figure 24 to ensure correct location of storm collars.</p>
White / grey film forms.	<ul style="list-style-type: none"> <li>- Sulphur from fuel is being deposited on glass, logs or combustion chamber surfaces.</li> </ul>	<p>Clean the glass with a recommended gas fireplace glass cleaner. DO NOT CLEAN GLASS WHEN HOT. If deposits are not cleaned off regularly, the glass may become permanently marked.</p>

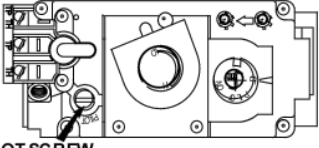
# BGD36CF / BGD42CF TROUBLE SHOOTING GUIDE

BEFORE ATTEMPTING TO TROUBLESHOOT, PURGE YOUR UNIT AND INITIALLY LIGHT THE PILOT AND THE MAIN BURNER WITH THE GLASS DOOR OPEN.

SYMPTOM	PROBLEM	TEST SOLUTION
Main burner goes out; pilot stays on.	Pilot flame is not large enough or not engulfing the thermopile	- turn up pilot flame. - replace pilot assembly.
	Thermopile shorting	- clean thermopile connection to the valve. Reconnect. - replace thermopile / valve.
	Remote wall switch wire is too long; too much resistance in the system.	- shorten wire to correct length or wire gauge.
	Faulty thermostat or switch.	- replace.
Main burner goes out; pilot goes out.	Refer to "MAIN BURNER GOES OUT; PILOT STAYS ON"	
	Vent is blocked	- check for vent blockage.
	Vent is re-circulating	- check joint seals and installation.
	4" flexible vent has become disconnected from fireplace.	- re-attach to fireplace. - 7"Ø cap was not replaced
Pilot goes out when the gas knob is released. <b>The gas valve has an interlock device which will not allow the pilot burner to be lit until the thermocouple has cooled. Allow approximately 60 seconds for the thermocouple to cool.</b>	System is not correctly purged.	- purge the gas line.
	Out of propane gas.	- fill the tank.
	Pilot flame is not large enough	- turn up the pilot flame.
	Pilot flame is not engulfing the thermocouple.	- gently twist the pilot head to improve the flame pattern around the thermocouple.
	Thermocouple shorting / faulty.	- loosen and tighten thermocouple. - clean thermocouple and valve connection. - replace thermocouple. - replace valve.
	Faulty valve.	- replace.
Pilot burning; no gas to main burner; gas knob is on 'HI'; wall switch / thermostat is on.	Thermostat or switch is defective.	- connect a jumper wire across the wall switch terminals; if main burner lights, replace switch / thermostat.
	Wall switch wiring is defective.	- disconnect the switch wires & connect a jumper wire across terminals 1 & 3; if the main burner lights, check the wires for defects and / or replace wires.
	Main burner orifice is plugged.	- remove stoppage in orifice.
	Faulty valve.	- replace.
Pilot will not light.	No spark at pilot burner	- check if pilot can be lit by a match
		- check that the wire is connected to the push button igniter.
		- check if the push button igniter needs tightening.
		- replace the wire if the wire insulation is broken or frayed.
		- replace the electrode if the ceramic insulator is cracked or broken.
	- replace the push button igniter.	
Out of propane gas	- fill the tank.	
Spark gap is incorrect	- spark gap should be 0.150" to 0.175" (5/32" to 11/64" approx.) from the electrode tip and the pilot burner. To ensure proper electrode location, tighten securing nut (finger tight plus 1/4 turn).	
No gas at the pilot burner	- check that the manual valve is turned on.	
	- check the pilot orifice for blockage.	
	- replace the valve. - call the gas distributor.	
Pilot goes out while standing; Main burner is in 'OFF' position.	Gas piping is undersized.	- turn on all gas appliances and see if pilot flame flutters, diminishes or extinguishes, especially when main burner ignites. Monitor appliance supply working pressure.
		- check if supply piping size is to code. Correct all undersized piping.



# BGD36CF / BGD42CF TROUBLE SHOOTING GUIDE

SYMPTOM	PROBLEM	TEST SOLUTION
Flames are consistently too large or too small. Carboning occurs.	Unit is over-fired or under-fired.	<ul style="list-style-type: none"> <li>- check pressure readings:</li> <li>Inlet pressure can be checked by turning screw (A) counter-clockwise 2 or 3 turns and then placing pressure gauge tubing over the test point. Gauge should read 7" (minimum 4.5") water column for natural gas or 13" (11" minimum) water column for propane. Check that main burner is operating on "HI".</li> <li>Outlet pressure can be checked the same as above using screw (B). Gauge should read 3.5" water column for natural gas or 10" water column for propane. Check that main burner is operating on "HI".</li> <li><b>AFTER TAKING PRESSURE READINGS, BE SURE TO TURN SCREWS CLOCKWISE FIRMLY TO RESEAL. DO NOT OVER TORQUE.</b></li> <li>Leak test with a soap and water solution.</li> </ul>
		
Flames are very aggressive.	Door is ajar <b>MODEL BGD42CF ONLY:</b> Aggressive venting action due to vent height.	<ul style="list-style-type: none"> <li>- tighten screws holding door in place</li> <li>- Restrict vent exit. See "<b>RESTRICTING VERTICAL VENTS</b>".</li> <li>- VENT HEIGHT MORE THAN 15 FEET: restrict vent exit using restrictor plate kit W500-0205</li> </ul>
Main burner flame is a blue, lazy, transparent flame.	Blockage in vent. Incorrect installation.	<ul style="list-style-type: none"> <li>- remove blockage. In really cold conditions, ice buildup may occur on the terminal and should be removed as required.</li> <li>- refer to Figure ## to ensure correct location of storm collars.</li> </ul>
Carbon is being deposited on glass, logs or combustion chamber surfaces.	Air shutter has become blocked Flame is impinging on the logs or combustion chamber.  <b>MODEL BGD36CF(G) ONLY:</b>	<ul style="list-style-type: none"> <li>- ensure air shutter opening is free of lint or other obstructions.</li> <li>- check that the logs are correctly positioned.</li> <li>- open air shutter to increase the primary air.</li> <li>- check the input rate: check the manifold pressure and orifice size as specified by the rating plate values.</li> <li>- check that the door gasketing is not broken or missing and that the seal is tight.</li> <li>- check that both 4"/5" and 7" vent liners are free of holes and well sealed at all joints.</li> <li>- check that minimum rise per foot has been adhered to for any horizontal venting.</li> </ul>
White / grey film forms.	Sulphur from fuel is being deposited on glass, logs or combustion chamber surfaces.	<ul style="list-style-type: none"> <li>- clean the glass with a recommended gas fireplace glass cleaner. <b>DO NOT CLEAN GLASS WHEN HOT.</b></li> <li>If deposits are not cleaned off regularly, the glass may become permanently marked.</li> </ul>
Exhaust fumes smelled in room, headaches.	Fireplace is spilling.	<ul style="list-style-type: none"> <li>- ensure exhaust bracket gasket seal</li> <li>- check door seal and relief flap seal.</li> <li>- check for chimney blockage</li> <li>- check that chimney is installed to building code.</li> <li>- room is in negative pressure; increase fresh air supply.</li> <li>- check 7"Ø cap gasket on the flue pipe assembly.</li> </ul>
Remote wall switch is in "OFF" position; main burner comes on when gas knob is turned to "ON" position.	Wall switch is mounted upside down Remote wall switch is grounding. Remote wall switch wire is grounding. Faulty valve.	<ul style="list-style-type: none"> <li>- reverse.</li> <li>- replace.</li> <li>- check for ground (short); repair ground or replace wire.</li> <li>- replace.</li> </ul>



## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>