INSTALLER: THESE INSTRUCTIONS MUST BE CONVEYED TO AND REMAIN WITH THE HOMEOWNER.

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

NAPOLEON®

FIREPLACES & GRILLS

Award Winning Products

DIRECT VENT MILLIVOLT SYSTEM

INSTALLATION AND OPERATION INSTRUCTIONS FOR VENTED GAS FIREPLACE HEATER

NATURAL GAS *MODEL* ***BGD42N***
PROPANE GAS *MODEL* ***BGD42P***

CERTIFIED FOR CANADA AND UNITED STATES USING ANSI / CSA METHODS

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapours 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 neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

R-2000 · Environmentally Friendly · HPBA Hearth, Patio & Barbecue Association · ISO 9001:2000 QMI Registered Quality System · Warnock Hersey C US

Wolf Steel Ltd., 24 Napoleon Rd., Barrie, ON L4M 4Y8 Canada • (705)721-1212 • fax(705)722-6031
www.napoleonfireplaces.com • ask@napoleon.on.ca

W415-0381 / E / 02.09.06

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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.**
- **Due to high temperatures, the fireplace should be located out of traffic and away from furniture and draperies.**
- **Clothing or other flammable material should not be placed on or near the fireplace.**
- **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. Use only with a glass door certified with the fireplace.**
- **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.**

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. Once assembled the complete fireplace is 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, ceramic glass (thermal breakage only), gold plated parts against tarnishing, porcelainized enamelled 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 licenced, 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.

W415-0381 / E / 02.09.06

GENERAL INSTRUCTIONS

THIS GAS FIREPLACE SHOULD BE INSTALLED AND SERVICED BY A QUALIFIED INSTALLER to conform with local codes. In absence of local codes, install the **BGD42** to the current National Fuel Gas Code, ANSI Z223.1, or the current CAN/CGA B149, Installation 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.
- The appliance off valve must be a "T" handle gas cock.
- The flexible connector must not be longer than 36 inches.
- 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 Mas sachusetts.

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 shutoff 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 shutoff 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.

GENERAL INFORMATION

FOR YOUR SATISFACTION, THIS FIREPLACE HAS BEEN TEST-FIRED TO ASSURE ITS OPERATION AND QUALITY! Maximum input is 28,500 BTU/hr for natural gas and 24,000 BTU/hr for 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.

Maximum output for natural gas is 19,500 BTU/hr at an efficiency of 68.5% with the fan on, and 16,000 BTU/hr for propane at an efficiency of 67% with the fan on. The maximum A.F.U.E. (annual fuel utilization efficiency) rating is 64% for natural gas and 61.5% for propane.

Minimum inlet gas supply pressure is 4.5 inches water column for natural gas and 11 inches water column for propane. Maximum inlet gas pressure is 7 inches water column for natural gas and 13 inches water column for propane. Manifold pressure under flow conditions is 3.5 inches water column for natural gas and 10 inches water column for propane.

This fireplace is approved for bathroom, bedroom and bedsitting 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.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We suggest that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

CARE OF GLASS, AND PLATED PARTS

Do not use abrasive cleaners to clean plated parts. Buff lightly with a clean dry cloth. The BGD42 is factory equipped with tempered glass. The glass thickness is 3/16". 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 discolouration and / or blemishes may result.

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.

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.

In order to avoid the possibility of exposed insulation or vapour barrier coming in contact with the fireplace body, it is recommended that the walls of the fireplace enclosure be 'finished', (i.e. drywall/sheetrock) as would any other outside wall of the home. This will ensure that clearance to combustibles is maintained within the cavity.

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.

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

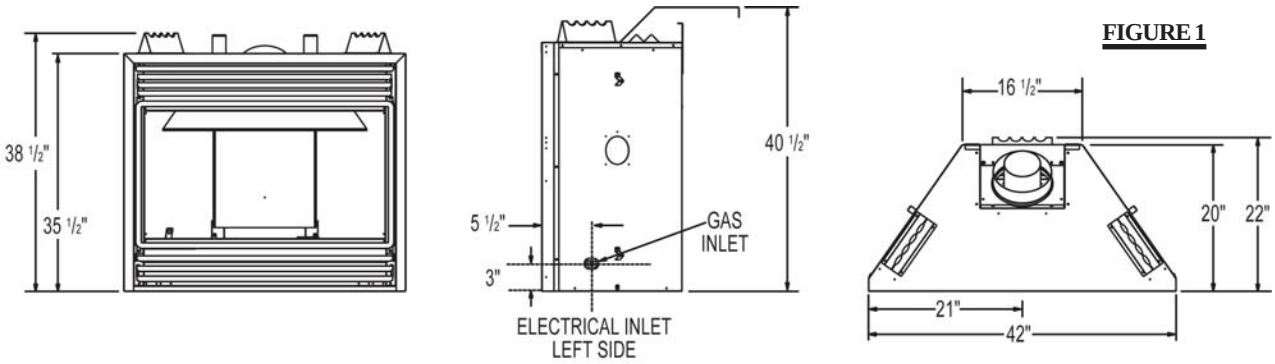


FIGURE 1

VENTING

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.
All outer pipe joints of these venting systems must be sealed using Red RTV Hight Temperature Sealant.

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

A starter adaptor must be used and may be purchased from the corresponding supplier:

Supplier	4&7 ZC	5&8 ZC	GAS STOVE
Dura-Vent	W175-0053	W175-0170	GDS924N
Amerivent	4DSC-N2	5DSC-N	4DSCB-N1
Direct Temp	4DT-AAN	5DT-AA	4DT-AAN

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 maybe 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.
When using Wolf Steel venting components, use only approved Wolf Steel rigid / 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**.

These vent kits allow for either horizontal or vertical venting of the fireplace. **FIGURES 3 & 5.** The maximum allowable horizontal run is 20 feet. The maximum allowable vertical vent length is 40 feet. The maximum number of 5" vent connections is two horizontally or three vertically (excluding the fireplace and the air terminal connections) when using aluminum flexible venting.

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

The air terminal must remain unobstructed at all times. Examine the air terminal at least once a year to verify that it is unobstructed and undamaged.

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

Under extreme vent configurations, allow several minutes (5-15) for the flame to stabilize after ignition.

Eight (8") inches is the minimum bend radius allowed for the 8" diameter flexible liner.

For optimum performance it is recommended that all horizontal runs have a 1 inch rise per foot when using Napoleon flexible vent components.

A terminal shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings. Local codes or regulations may require different clearances.

Do not allow the inside liner to bunch up on horizontal or vertical runs and elbows. Keep it pulled tight. A 1¼" air gap all around between the inner liner and outer liner is required for safe operation. Use a firestop when penetrating interior walls, floor or ceiling.

Minimum clearance to combustible construction from fireplace and vent surfaces:

sides, back, bottom and top of the unit	0 inch
recessed depth	22 inches
top, sides and bottom of the vent pipe	1 inch
vent heat shield	1 inch

Horizontal runs may have a 0 inch rise per foot in all cases using SIMPSON DURA-VENT or NAPOLEON RIGID OR FLEXIBLE venting components when venting as illustrated in Figures 3, and 4.

Only a clearance to combustibles of 1" all around the vent pipe is required.

AIR TERMINAL INSTALLATIONS

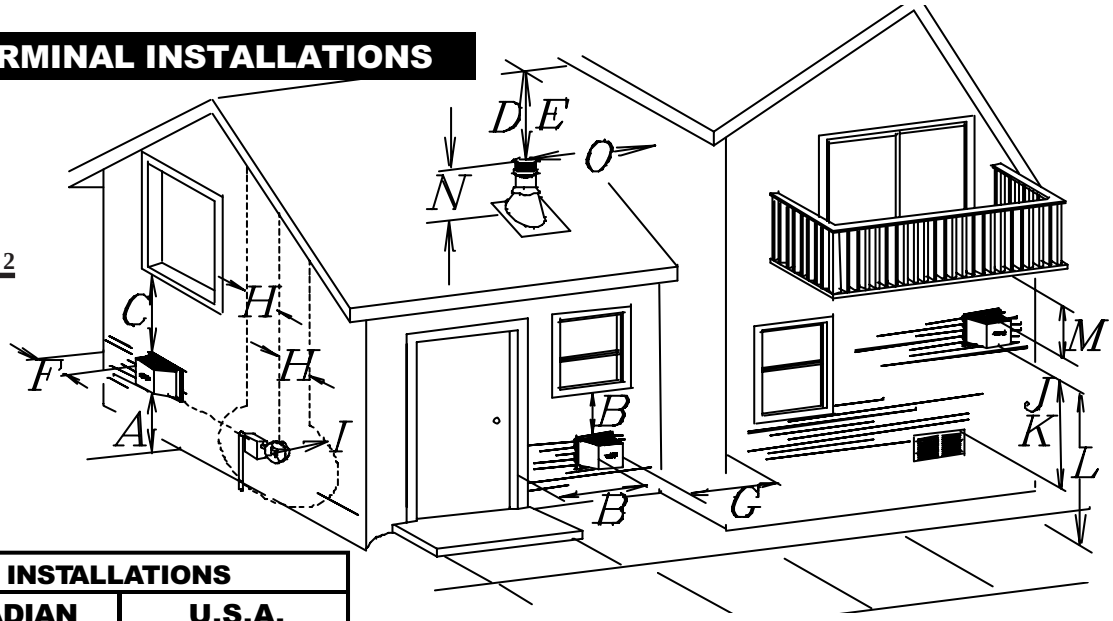


FIGURE 2

	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	32 INCHES**	32 INCHES**	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet from the centerline of the terminal.
E	32 INCHES**	32 INCHES**	Clearance to unventilated soffit.
F	0 INCHES	0 INCHES	Clearance to an outside corner wall.
G	0 INCHES***	0 INCHES***	Clearance to an inside ***non***-combustible corner wall or protruding ***non***-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	32 INCHES††	32 INCHES****	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**

** **Using a Napoleon soffit heat shield, W585-0096, or equivalent, the distance may be reduced to a minimum of 18". It is recommended to maximize the distance to vinyl clad soffits.**

*** **The periscope GD-401 requires a minimum 18 inches clearance from an inside corner.**

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

† **Three 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.**

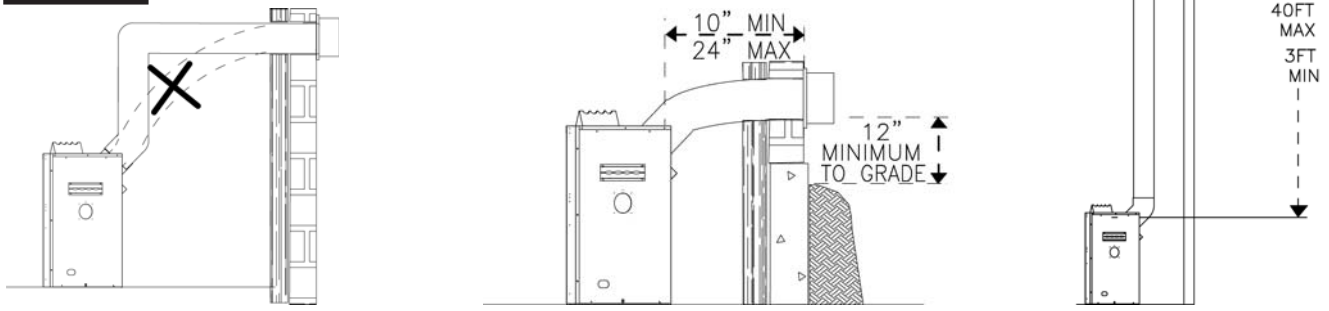
†* **Recommenced to prevent recirculation of exhaust products. For additional requirements check local codes.**

TYPICAL VENT INSTALLATIONS

NOTE:

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

FIGURES 3 a-c



SPECIAL VENT INSTALLATIONS

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 inches above grade. The maximum allowable vent length depends on the fireplace, as illustrated.

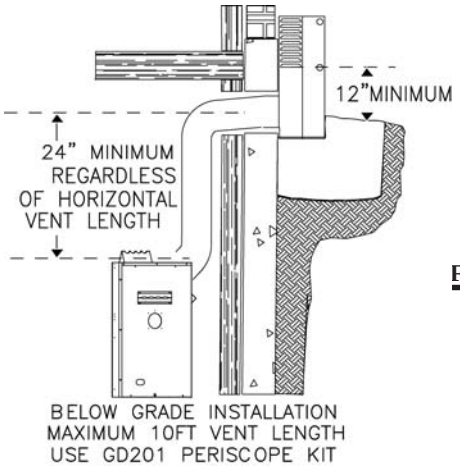
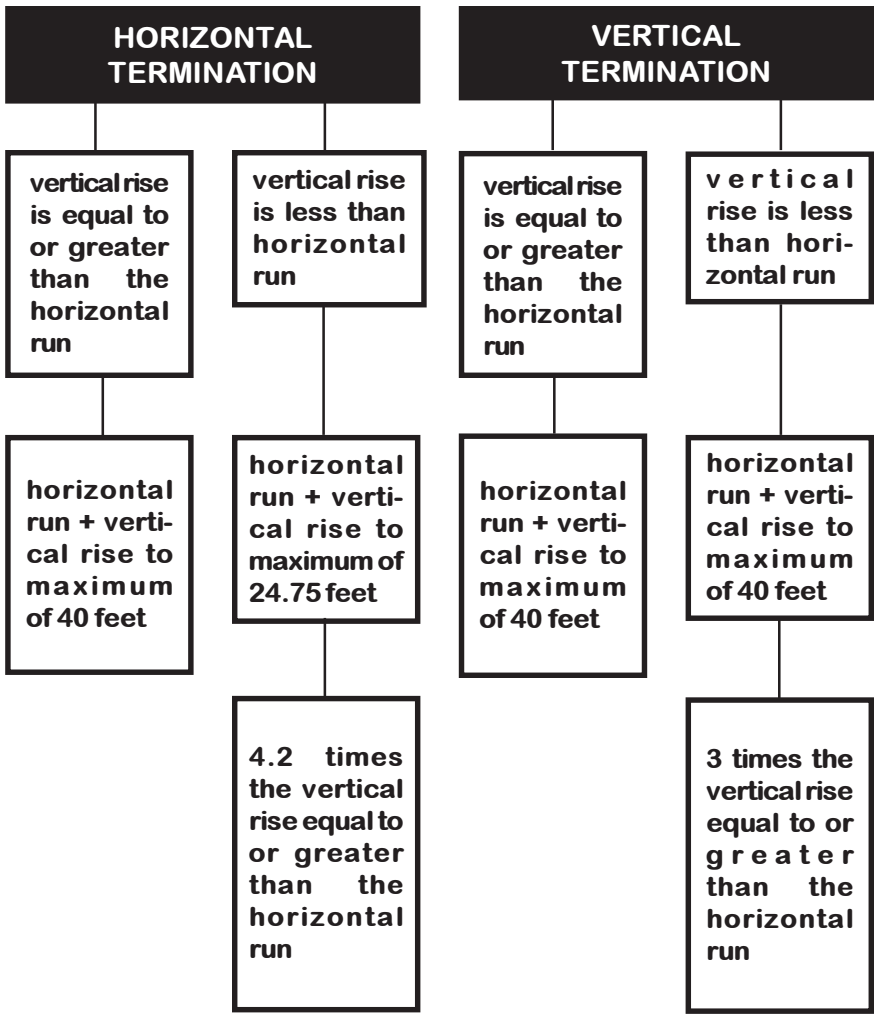


FIGURE 4

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_T - total of both horizontal vent lengths (H_R) and offsets (H_o) in feet
H_R - combined horizontal vent lengths in feet
H_o - offset factor: .03(total degrees of offset - 135°*) in feet
V_T - 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

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

HORIZONTAL TERMINATION

when $(H_T) \leq (V_T)$

Simple venting configuration (only one 45º and 90° elbow)

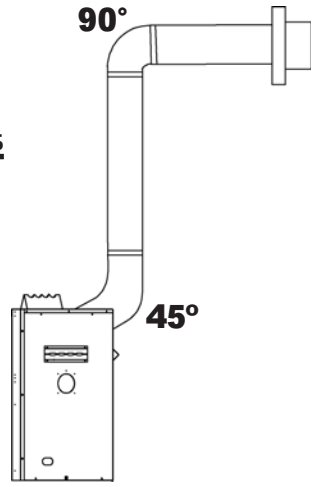
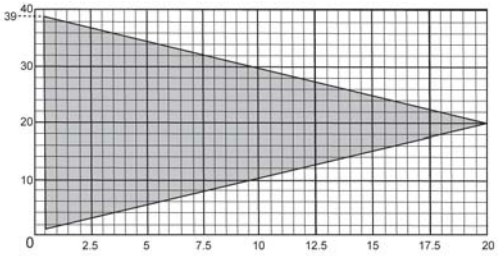


FIGURE 5



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 45º and 90° elbow, the following formulas apply:

Formula 1: $H_T \leq V_T$
Formula 2: $H_T + V_T \leq 40$ feet

Example 1:

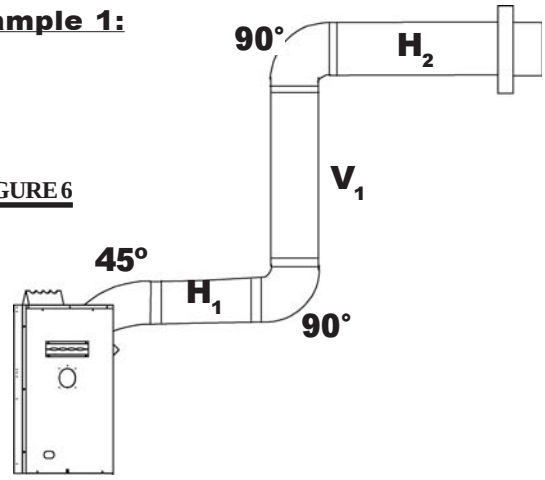


FIGURE 6

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 45º elbow + two 90º elbows - 135º)
=0.3(225-135º) = 2.7ft
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.

HORIZONTAL TERMINATION

when **(H_T) > (V_T)**

Simple venting configuration (only one 45º and 90° elbow)

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

FIGURE 7

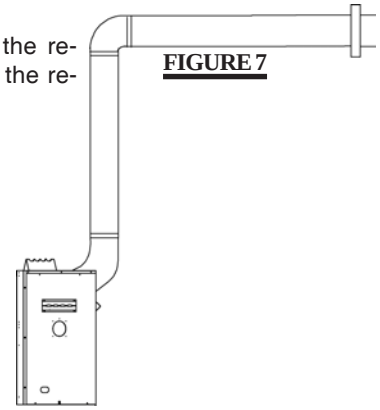
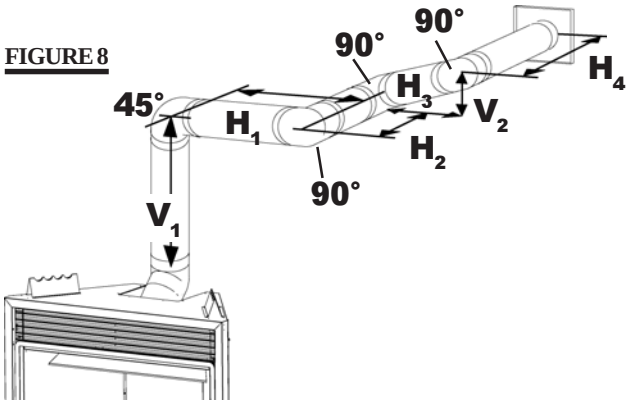
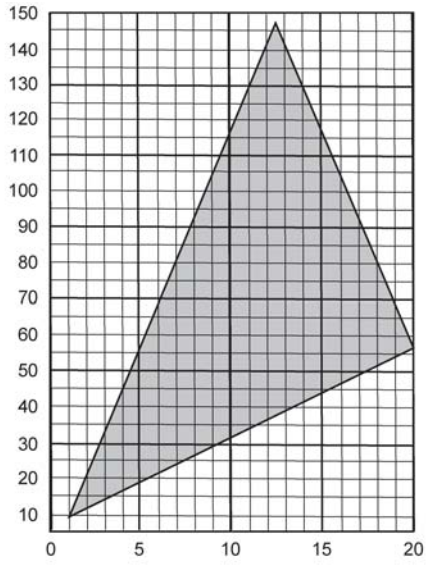


FIGURE 8





REQUIRED VERTICAL RISE IN INCHES (V_T)

HORIZONTAL VENT RUN PLUS OFFSETS IN FEET (HT)

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

For vent configurations requiring more than one 45º and 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 = 4 ft

V_2 = 1.5 ft

V_T = $V_1 + V_2$ = 4 ft + 1.5 ft = 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 45º elbow + three 90º elbow -135º)
=.03(315-135)=5.4ft

H_T = $H_R + H_O$ = 5.5 +5.4 = 10.9 ft

$H_T + V_T$ = 10.9 + 5.5 = 16.4 ft

Formula 1: **$H_T \leq 4.2\ V_T$**

$4.2\ V_T$ = 4.2 x 5.5 = 23.1 ft

$10.9 \leq 16.8$

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

$16.4 \leq 24.75$

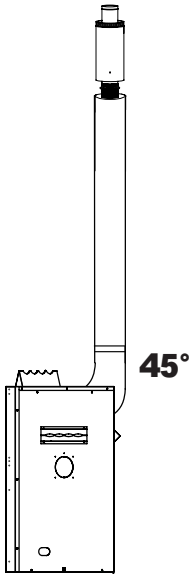
Since both formulas are met, this vent configuration is acceptable.

VERTICAL TERMINATION

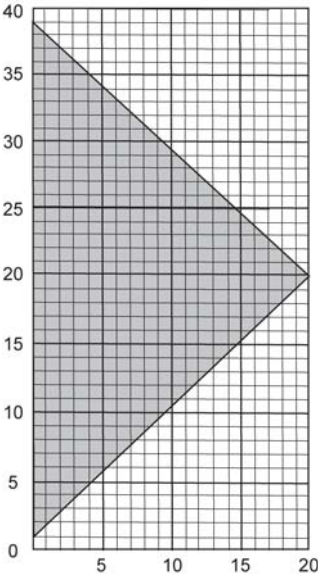
when $(H_T) \leq (V_T)$

Simple venting configurations

FIGURE 9



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.

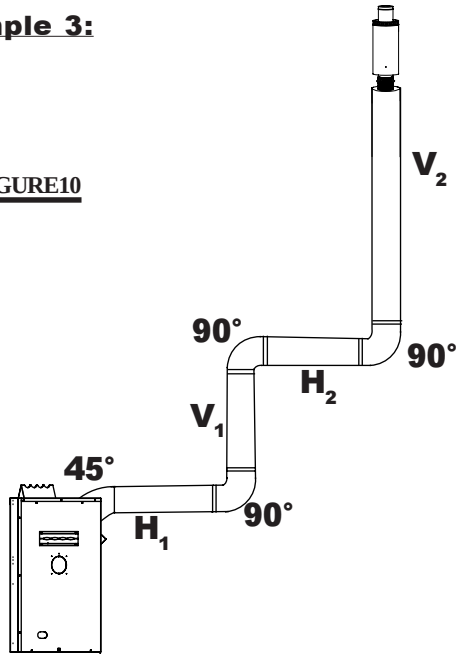
For vent configurations requiring more than one 45º and one 90° elbow , the following formulas apply:

Formula 1: $H_T \leq V_T$

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

Example 3:

FIGURE10



V_1 = 5 ft

V_2 = 10 ft

V_T = $V_1 + V_2$ = 5 + 10 = 15 ft

H_1 = 3 ft

H_2 = 2.5 ft

H_R = $H_1 + H_2$ = 3 + 2.5 = 5.5 ft

H_o = .03(one 45º elbow + three 90º elbows - 135º)

= .03(45+90+90+90-135)=5.4

H_T = $H_R + H_o$ = 5.5 + 5.4 = 10.9 ft

$H_T + V_T$ = 10.9 + 15 = 25.9 ft

Formula 1: $H_T \leq V_T$

$10.9 \leq 15$

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

$25.9 \leq 40$

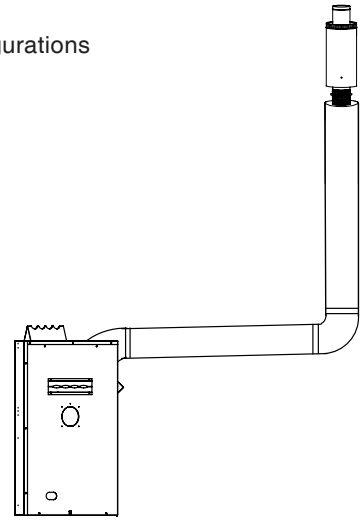
Since both formulas are met, this vent configuration is acceptable.

VERTICAL TERMINATION

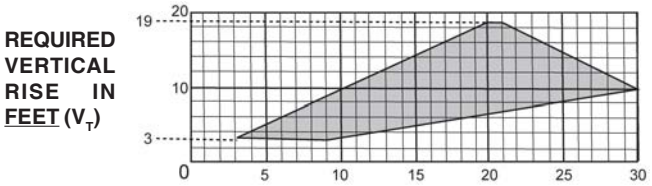
when **(H_T) > (V_T)**

Simple venting configurations

FIGURE 11



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 45º and one 90° elbow , the following formulas apply:

Formula 1: $H_T \leq 3V_T$

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

Example 4:

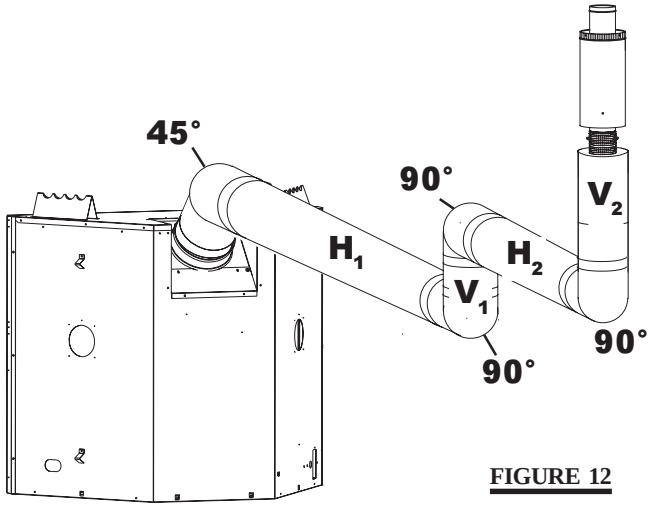


FIGURE 12

V_1 = 1 ft
V_2 = 1.5 ft
V_T = V_1 + V_2 = 1 + 1.5 = 2.5 ft
H_1 = 6 ft
H_2 = 2 ft
H_R = H_1 + H_2 = 6 + 2 = 8 ft
H_O = .03(one 45º elbow + three 90º elbow - 135º)
= .03(45 + 90 + 90 + 90 - 135) = 5.4 ft
H_T = H_R + H_O = 8 + 5.4 = 13.4 ft
H_T + V_T = 13.4 + 2.5 = 15.9 ft

Formula 1: **$H_T \leq 3V_T$**
$3V_T$ = 3 x 2.5 = 7.5 ft
13.4 > 7.5

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

Formula 2: **$H_T + V_T \leq 40$ feet**
15.9 ≤ 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:

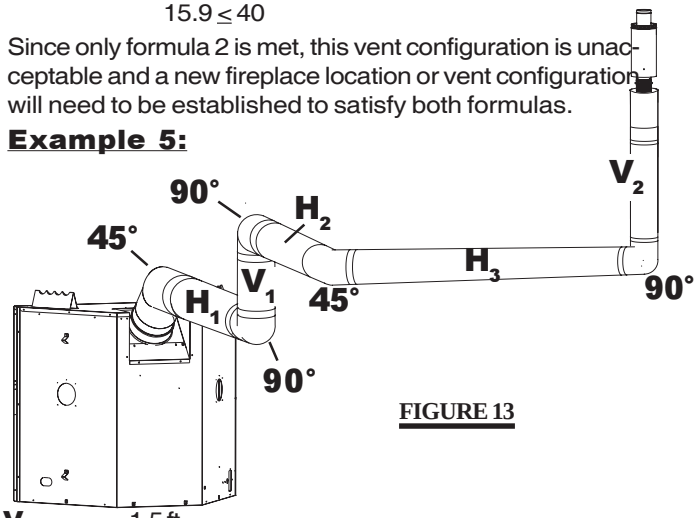


FIGURE 13

V_1 = 1.5 ft
V_2 = 8 ft
V_T = V_1 + V_2 = 1.5 + 8= 9.5 ft
H_1 = 1 ft
H_2 = 1 ft
H_3 = 10.75 ft
H_R = H_1 + H_2 + H_3 = 1 + 1 + 10.75 = 12.75 ft
H_O = .03(three 90° elbows + two 45° elbow - 135°)
= .03(90 + 90 + 90 + 45 + 45 - 135) = 6.75 ft
H_T = H_R + H_O = 12.75 + 6.75 = 19.5 ft
H_T + V_T = 19.5 + 4.5= 29 ft

Formula 1: **$H_T \leq 3V_T$**
$3V_T$ = 3 x 9.5 = 28.5 ft
19.5 ≤ 28.5

Formula 2: **$H_T + V_T \leq 40$ feet**
29 ≤ 40

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

INSTALLATION

WALL AND CEILING PROTECTION

FOR SAFE AND PROPER OPERATION OF THE FIREPLACE, FOLLOW THE VENTING INSTRUCTIONS EXACTLY.

NOTE: Only a clearance to combustibles of 1" all around the vent pipe is required.

HORIZONTAL INSTALLATION

This application occurs when venting through an exterior wall. Having determined the air terminal location, cut and frame a hole in an exterior wall with a minimum opening as required. **See Note above.** (As an alternative to framing, a vent pipe shield may be installed, ensuring a 1" clearance to combustibles. *See Figure 16.)*

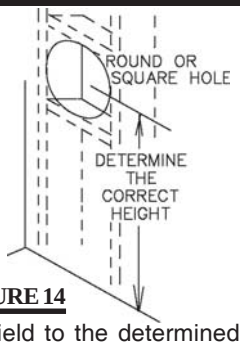


FIGURE 14

1. Mark and cut the vent pipe shield to the determined depth of the combustible wall. Apply a bead of caulking (not supplied) to the framework or to the shield plate (in the case of a finished wall) and secure the shield through the opening to the interior wall. *The final location of the vent pipe shield should maintain the required clearance to the 8" vent pipe / liner. (See note above). Do not fill this cavity with any type of material.* 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 / liner is installed in its final position, apply sealant between the pipe / liner and the firestop spacer.

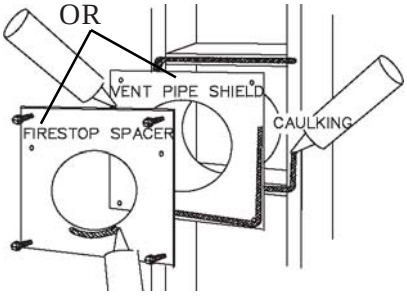


FIGURE 15

VERTICAL INSTALLATION

This application occurs when venting through a roof. Installation kits for various roof pitches are available from your Napoleon dealer. See Accessories to order the specific kit required.

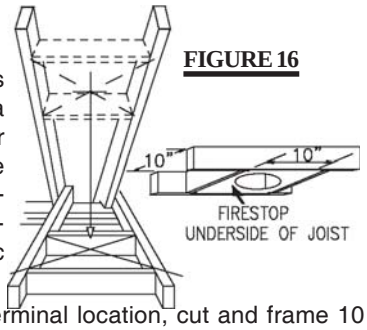


FIGURE 16

1. Determine the air terminal location, cut and frame 10 inch openings in the ceiling and the roof to provide the minimum 1 inch clearance between the fireplace pipe / liner and any combustible material. Try to center the exhaust pipe location midway between two joist 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.

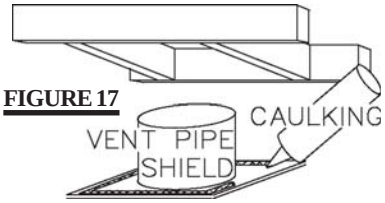


FIGURE 17

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. **FIGURE 18.** A firestop must be placed on the bottom of each framed opening in a roof or ceiling that the venting system passes through. 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 / liner is installed in its final position, apply sealant between the pipe / liner and the firestop spacer.

USING FLEXIBLE VENT COMPONENTS

Use only approved aluminum flexible liner kits marked:

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

HORIZONTAL AIR TERMINAL INSTALLATION

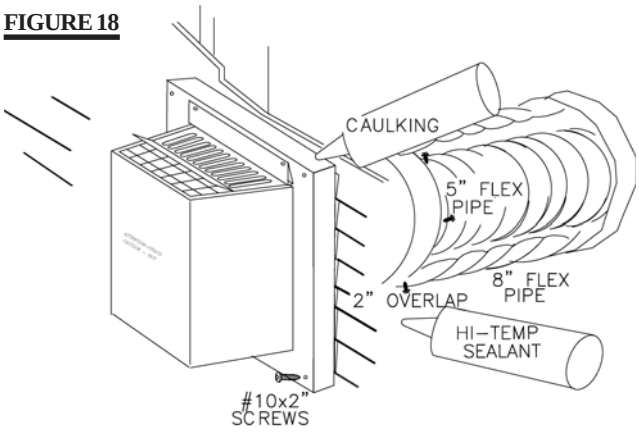
A VENT SHIELD MUST BE USED IF THE WALL TERMINAL IS INSTALLED ON COMBUSTIBLE, EXTERIOR SURFACES.

1. Cut or frame a hole in an exterior wall with a minimum round or square opening of 10½ inches. Secure the firestop spacer over the opening to the interior wall.

2. Stretch the 5" diameter aluminum flexible liner to the required length taking into account the additional length needed for the finished wall surface. Slip the liner 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.

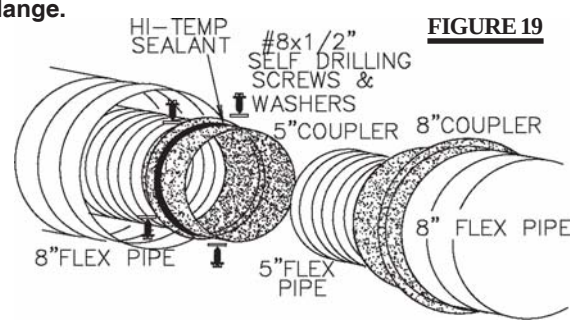
3. Using the 8" diameter flexible aluminum liner, slide over the outer combustion air sleeve of the air terminal and secure with 3 #8 screws. Seal as before.

FIGURE 18



The air terminal mounting plate may be recessed into the exterior wall or siding by 1½", the depth of the return flange.

FIGURE 19



4. Insert the liners 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).

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 Red RTV high temp silicone sealant or Black high temp Mill Pac with the exception of the fireplace exhaust flue collar which must be sealed using Mill Pac (not supplied).

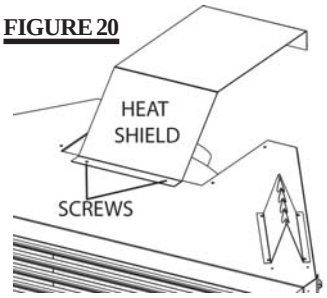
5. Apply a heavy bead of the high temperature sealant, Mill Pac, to the inside of the 5" liner approximately 1" from the end. Slip the liner a minimum of 2" over the fireplace vent collar and secure with 3 #8 screws.

6. Using the 8" diameter flexible aluminium liner, apply sealant, slide a minimum of 2" over the fireplace combustion air collar and secure with 3 #8 screws.

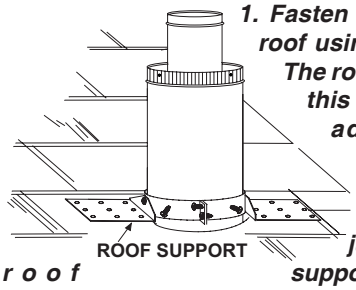
7. If more liner needs to be used to reach the fireplace, couple them together as illustrated. The vent system must be supported approximately every 3 feet for both vertical and horizontal runs. Use noncombustible strapping to maintain the minimum 1" clearance to combustibles.

8. The 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 shield (supplied) and secure.

FIGURE 20

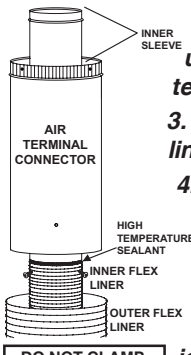


VERTICAL AIR TERMINAL INSTALLATION



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.

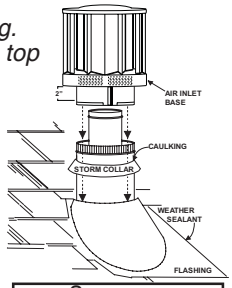
2. Stretch the inner aluminum flex liner to the required length. Slip the liner a minimum of 2" over the inner sleeve of the air terminal connector and secure with 3 #8 screws. Seal using a heavy bead of the high temperature sealant.



3. Repeat using the outer aluminum flex liner.

4. Thread the air terminal connector / liner assembly down through the roof. The air terminal must be located vertically and plumb. Attach the air terminal connector to the roof support, ensuring that the top of the air terminal is 16" above the highest point that it penetrates the roof.

5. Remove nails from the shingles, above and to the sides of the chimney. Place the flashing over the air terminal connector leaving a min. 3/4" of the air terminal connector showing above the top of the flashing. Slide the flashing underneath the sides and upper edge of the shingles. Ensure that the air terminal connector is properly centred 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 liner goes into the hole in the terminal. Secure with the three screws provided.

7. Apply a heavy bead of weatherproof caulking 2 inches above the flashing. Note: Maintain a minimum 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.

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.

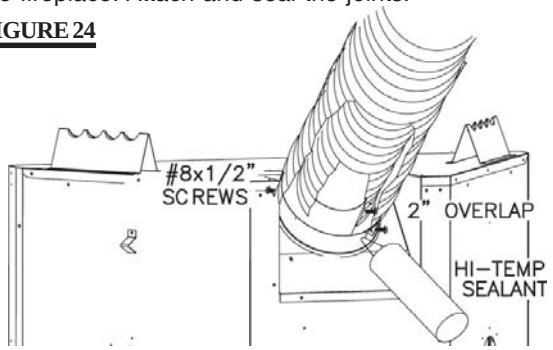
7. If more liner needs to be used to reach the fireplace, couple them together as illustrated. The vent system must be supported approximately every 3 feet for both vertical and horizontal runs. Use noncombustible strapping to maintain a clearance to combustibles of 1".

FIREPLACE VENT CONNECTION

1. Install the 5 inch diameter aluminium flexible liner to the fireplace. Secure with 3 screws and flat washers. Seal the joint and screw holes using the high temperature sealant Mill Pac.

2. Install the 8 inch diameter aluminium flexible liner to the fireplace. Attach and seal the joints.

FIGURE 24



USING RIGID VENT COMPONENTS

The vent system must be supported approximately every 3 feet for both vertical and horizontal runs. Use Wolf Steel vent spacers every 3 feet and either side of each elbow to maintain the minimum 1¼" clearance between the outer and inner vent pipes. Use Wolf Steel support ring assembly or equivalent noncombustible strapping to maintain the minimum clearance to combustibles for both vertical and horizontal runs.

All inner exhaust and outer intake vent pipe joists may be sealed using either Red RTV high temp silicone sealant or Black high temp Mill Pac with the exception of the fireplace exhaust flue collar which must be sealed using Mill Pac (not supplied).

HORIZONTAL AIR TERMINAL INSTALLATION

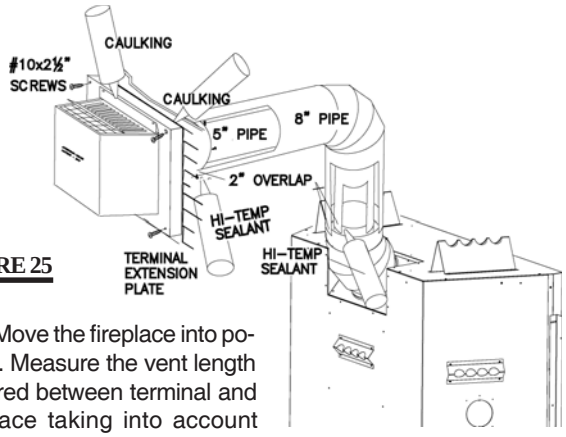


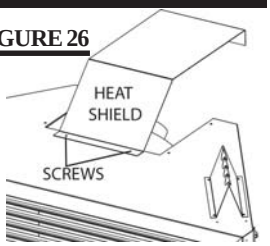
FIGURE 25

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 1¼" overlaps between venting components.

2. Apply high temperature sealant Mill Pac to the outer edge of the 5" inner collar of the fireplace. Attach the first vent component and secure using 3 self tapping screws. Repeat using 8" piping.

3. The 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 shield (supplied) and secure.

FIGURE 26



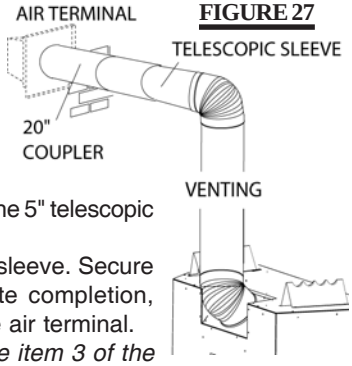
4. Holding the air terminal (with the air deflectors to the top), insert into both vent pipes with a twisting motion to ensure that both the terminal sleeves engage into the vent pipes and sealant. Secure the terminal to the exterior wall and make weather tight by sealing with caulking (not supplied).

The air terminal mounting plate may be recessed into the exterior wall or siding by 1½", the depth of the return flange.

EXTENDED HORIZONTAL AIR TERMINAL INSTALLATION

1. Follow the instructions for "Horizontal Air Terminal Installations", items 1 to 3.

FIGURE 27



2. Continue adding components alternating inner and outer venting. Ensure that all 5" venting and elbows have sufficient vent spacers attached and each component is securely fastened to the one prior. Attach the 5" telescopic sleeve to the vent run.

Repeat using a 8" telescopic sleeve. Secure and seal as before. To facilitate completion, attach 5" and 8" couplers to the air terminal.

3. Install the air terminal. *See item 3 of the Horizontal Air Terminal Installation.* Extend the 5" telescopic sleeve; connect to the air terminal assembly. Fasten with self tapping screws and seal. Repeat using the 8" telescopic sleeve.

VERTICAL VENTING INSTALLATION

1. Move the fireplace into position.

2. Fasten the roof support to the roof using the screws provided. **FIGURE 21.** 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 to the outer edge of the inner sleeve of the air terminal. Slip a 5" diameter coupler a minimum of 2" over the sleeve and secure using 3 screws.

4. Apply high temperature sealant to the outer edge of the of the outside sleeve of the air terminal. Slip a 8" diameter coupler over the sleeve and secure as before. **FIGURE 25**. Trim the 8" coupler even with the 5" coupler end.

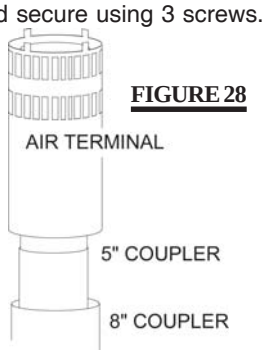


FIGURE 28

5. Thread the air terminal pipe assembly down through the roof support and attach, ensuring that a minimum 16" of air terminal will penetrate the roof when fastened. **FIGURE 23. If the attic space is tight, we recommend threading the Wolf Steel vent pipe collar or equivalent <u>loosely</u> onto the air terminal assembly as it is passed through the attic. FIGURE 29.** The air terminal must be located vertically and plumb.

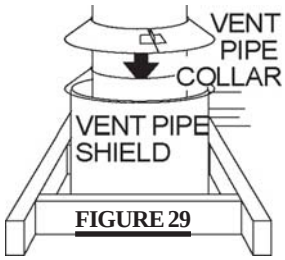


FIGURE 29

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. **FIGURE 23.**

7. Apply a heavy bead of waterproof caulking 2 inches above the flashing. Slide the storm collar around the air terminal and down to the caulking. Tighten to ensure that a weather-tight seal between the air terminal and the collar is achieved. Attach the other storm collar centered between the air intake and air exhaust slots onto the air terminal. Tighten securely. Attach the rain cap.

8. Continue adding rigid venting sections, sealing and securing as above. Attach a 5" collapsed telescopic pipe to the last section of rigid piping. Secure with screws and seal. Repeat using a 8" telescopic pipe.

9. Run a bead of high temperature sealant Mill Pac around the outside of the 5" collar on the fireplace. Pull the adjustable pipe a minimum of 2" onto the collar. Secure with 3 screws. Repeat with the 8" telescopic pipe.

10. 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.

RESTRICTING VERTICAL VENTS

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.

Remove the two screws on either side of the exhaust collar inside the firebox. Install the plate as shown. Replace the screws.

Proceed once the vent installation is complete.

1. Move the fireplace into position and secure using the nailing tabs and/or secure to the floor through the ¼"diameter holes located at either end of the base.

2. Route a 3/8" N.P.T. black iron gas line, 1/2" type-L copper tubing or equivalent to the fireplace.

3. For ease of accessibility, an optional remote wall switch or millivolt thermostat may be installed in a convenient location. 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:

<u>WIRE SIZE</u>	<u>MAX. LENGTH</u>
14 gauge	100 feet
16 gauge	60 feet
18 gauge	40 feet

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

GAS INSTALLATION

4. Install rigid black pipe, 1/2" type-L copper tubing or, if local codes permit, a 3/8" flex connector and shutoff valve to the gas line and the fireplace gas valve.

Seal and tighten securely. An adapter fitting is required between the gas valve and the copper tubing or flex connector.

Do not kink flex connector.

5. Check
solution.

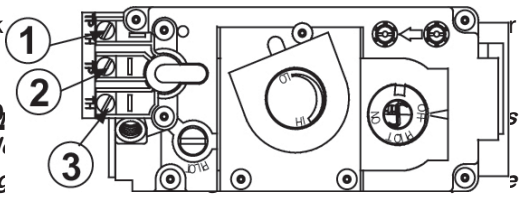


FIGURE 30

Do not con
valve to el
Purge all
removed. Assure that a continuous gas flow is at the burner before re-installing the door.

In Canada, mobile home installation may be vented horizontally or vertically. In the United States, it may only be in
Te
TI
lo
m

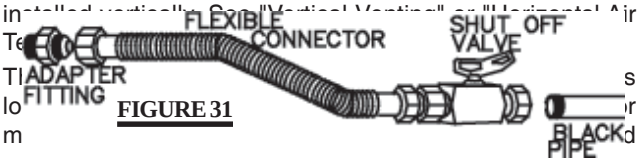


FIGURE 31

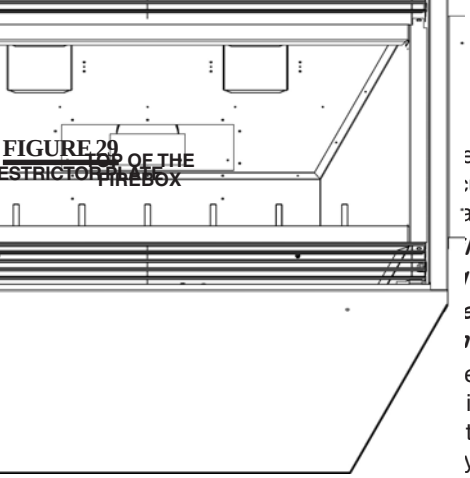


FIGURE 29

ESTRICTOR PLATE

ead screws, inserted through the
ure. It is recommended that the
all installations.

lot and the fuel supply at the
the mobile home.

e home and prior to lighting the
e logs are positioned correctly.

e possibility of exposed insulation
in contact with the fireplace body,
the walls of the fireplace enclo-
ywall/sheetrock), as you would fin-
ish any other outside wall of a home. This will ensure that

MOBILE HOME INSTALLATION

clearance to combustibles is maintained within the cavity.

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. **FIGURES 31-33.**

It is not necessary to install a hearth extension with this fireplace system.

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.

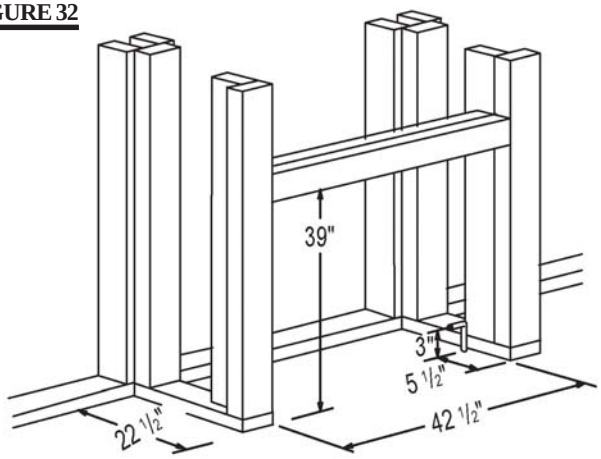
Objects placed in front of the fireplace should be kept a

FRAMING

minimum of 48" away from the front face.

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

FIGURE 32

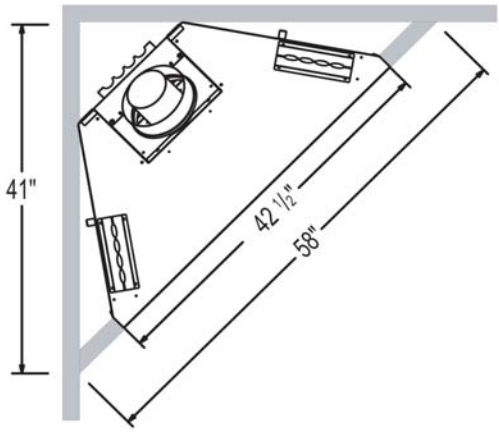


TO INSTALL THE UPPER LOUVRES: Insert the upper louvres into the slots on both brackets.

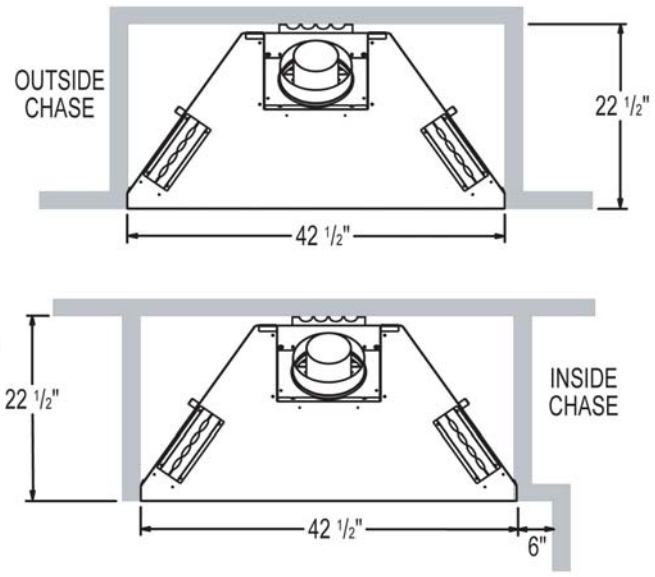
TO INSTALL THE LOWER LOUVRE ASSEMBLY: Attach each hinge to the firebox with 2 screws.

Position the hinge screen into place and with the control door open, secure to the firebox using three screws.

FIGURE 33



FIGURES 34



NAILING TAB INSTALLATION

1) Attach the nailing tabs to the corner posts using the 2 sheet metal screws supplied. Secure through the centre of the top and bottom slots in the nailing tab and then through the existing holes in the corner posts.

If there are no existing holes, follow these instructions:

Position the nailing tab so that the front face is offset with the front edge of the corner post (approx. ½"). Centre the nailing tab vertically on the corner post. **Figure 35 a.**

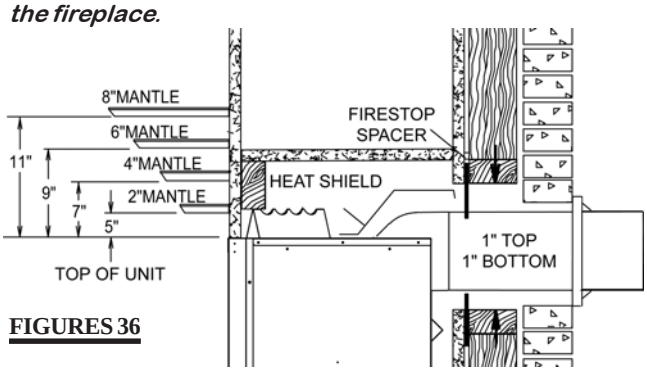
Drill through the centre of the top and bottom slots in the nailing tab. Secure using the two sheet metal screws supplied. This allows the nailing tab to slide back and forth for desired framing. **Figure 35b.**

2) To determine the final location of the nailing tab you must first determine the thickness of your finishing material (i.e. drywall). This will determine the dimension from the front edge of the corner post to the nailing tab. Once the nailing tab is in the desired location, drill through the centre hole of the nailing tab. Secure with a sheet metal screw*. **Figure 35c.**

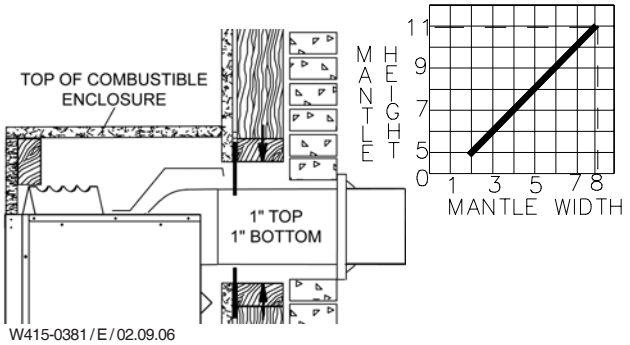
** Additional set screws may be installed.*

MANTLE INSTALLATION

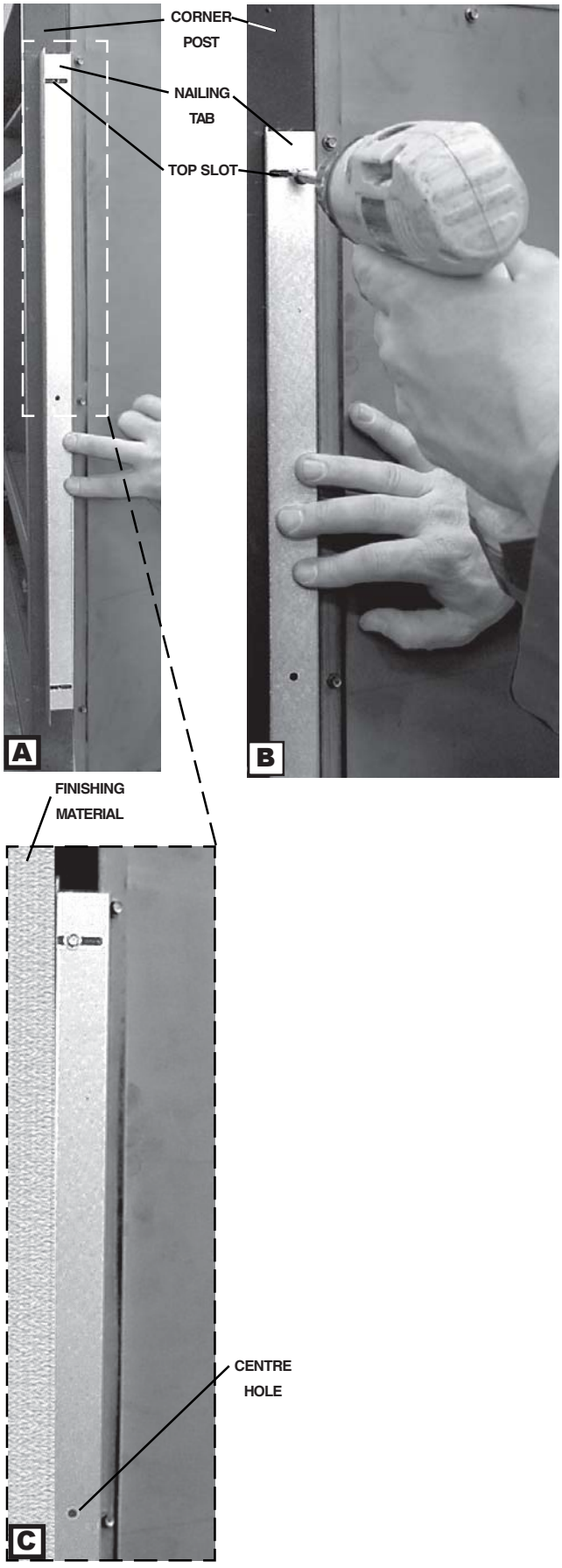
Combustible mantle clearance can vary according to the mantle depth. **FIGURE 36.** Use the graph to help evaluate the clearance needed. Curtains, above the fireplace, must not be positioned lower than the 5" distance required for the 2" combustible mantle. ***These same requirements apply to any combustibles protruding on either side of the fireplace.***



FIGURES 36

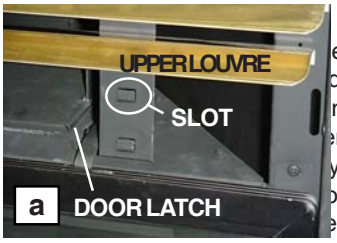


FIGURES 35a-c



FINISHING

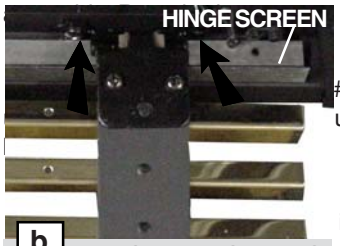
GDL42 LOUVRE INSTALLATION



embers, exclusive to Napo-
que and realistic glowing ef-
nstallation. Take the time to
embers for a maximum glow-
y. During the initial use of the
ome more uniform as colour
eat activated curing process.

FIGURES 37

1. Place the cutout in the bottom of log #1 behind the pilot



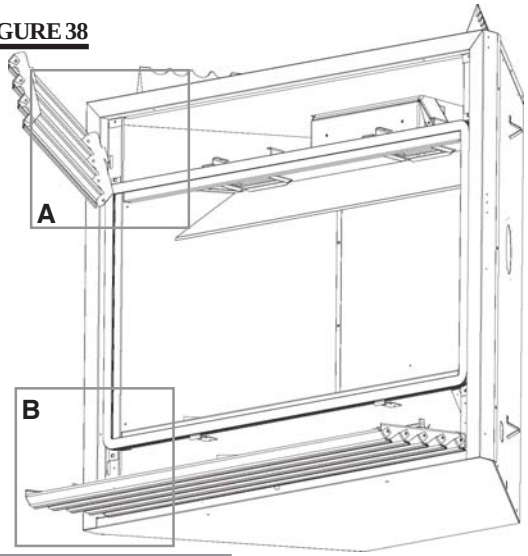
the back wall of the firebox.

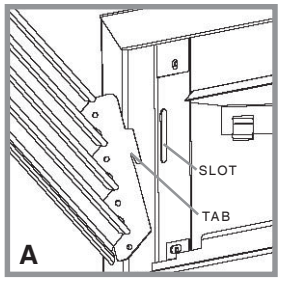
#2 & #3) into position, lining
urner with the holes on the

into pieces and place along

L42 LOUVRE INSTALLATION

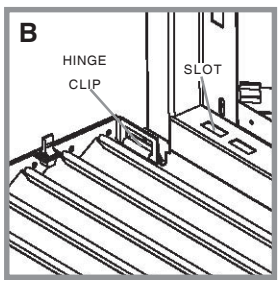
FIGURE 38





UPPER LOUVRES

Insert the louvre tabs into the slots located at the top left and right corners of the unit.



LOWER LOUVRES

Insert the hinge clips into the slots located at the bottom left and right corners of the unit.

To remove the louvres, pull the back tabs of the clips forward, while pushing the louvre assembly back. Lift the clip.

LOGO PLACEMENT

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

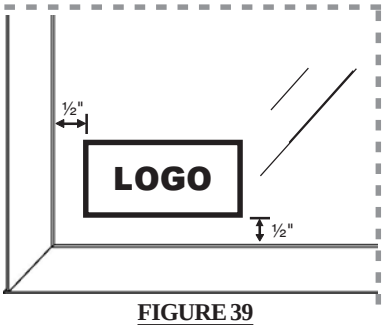
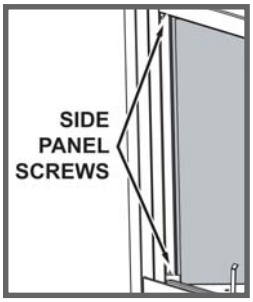


FIGURE 39

PORCELAIN REFLECTIVE PANELS

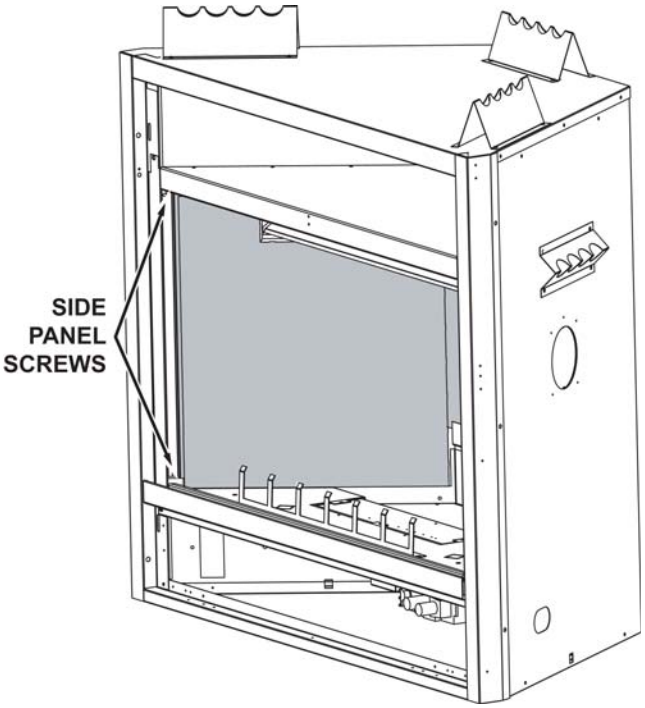
1. Remove the upper louvres, and open the glass door. Remove the logs.

2. Remove the two securing screws located on either firebox side.

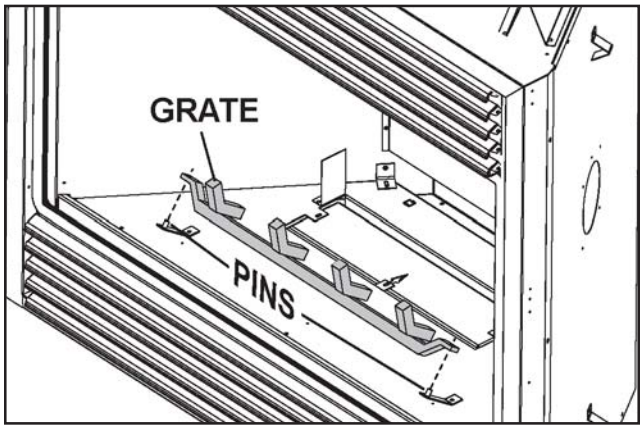


3. Place the left panel against the left side of the firebox, ensuring that it butts up to the rear panel. Secure in place using 2 of the screws previously removed. Repeat for the right side.

4. Replace the logs, glass door and louvres.



GRATE INSTALLATION



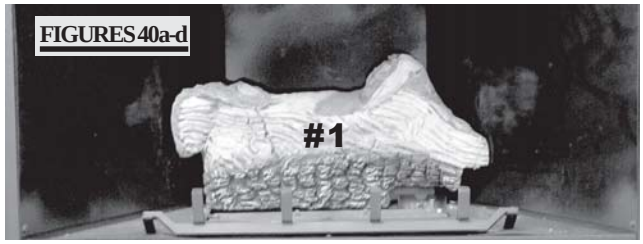
The grate for this fireplace has been removed for shipping purposes.

The grate must be installed before the logs are installed.

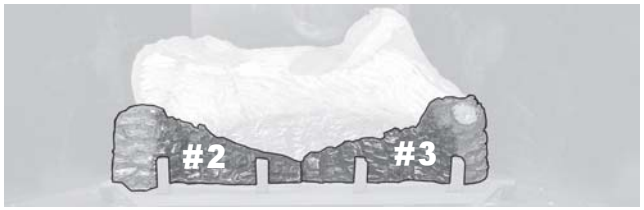
Remove the packaging from the grate and install onto the two pins as illustrated.

LOG PLACEMENT

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.



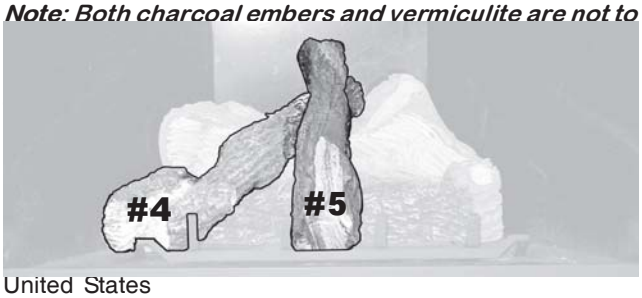
4. Cradle the notch on the bottom of the left crossover log (#4) around the left side of the grate and the top into the pocket provided on the back log. Place the end of the center log (#5) against the grate, as shown, with the other end of the log resting in the pocket of the left crossover log.

5. Place the bottom of the right crossover log (#6) against the right side of the grate. Place the top into the pocket provided on the center log (#5).

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.***

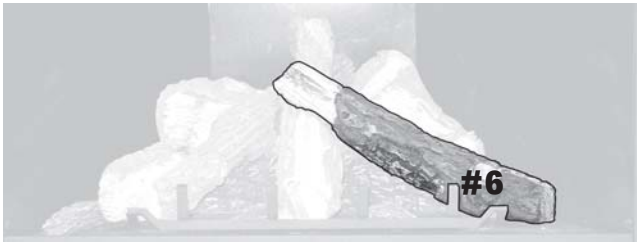
Sprinkle vermiculite around the charcoal embers.

Note: Both charcoal embers and vermiculite are not to



United States

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.



The three slots on the blower mounting

CHARCOAL EMBERS

bracket allow ease of adjustment when attaching the blower.

VERMICULITE

For a quiet running blower, do not allow the assembly to sit on the firebox base.

CHARCOAL LUMPS

Slide the vibration reducing pad **(A)** into the clip **(C)** and up

OPTIONAL BLOWER INSTALLATION

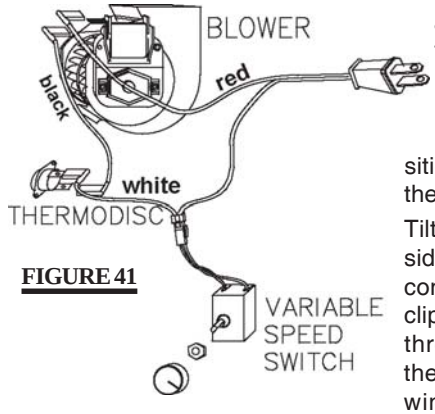


FIGURE 41

against the threaded stud **(B)** at the other end. The blower must be able to be positioned entirely onto the pad.

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.

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.

FIGURE 42

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.

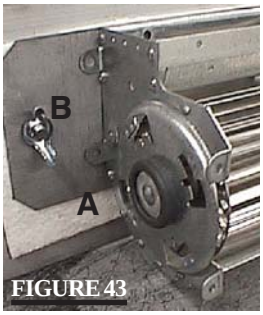


FIGURE 43

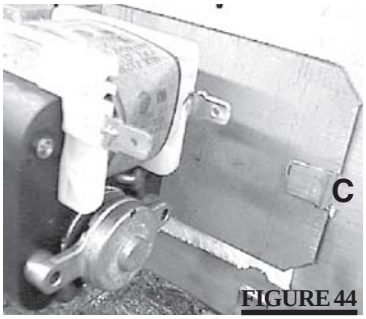


FIGURE 44

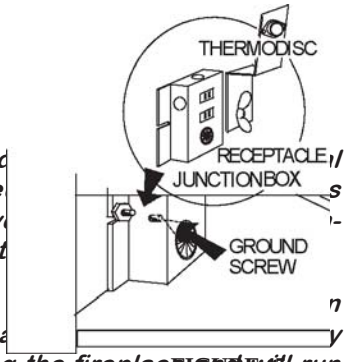


FIGURE 45

The wire harness provid... harness. When installe... wire is contained, prev... tact with moving or hot...

Because the blower is ... turned on, it will automa... 10 minutes after lighting the fireplace and will run for approximately 30-45 minutes after the fireplace has been turned off. Us... the output of heat.

Drywall dust will penetrate ... ings, causing irreparable da... taken to prevent drywall du... contact with the blower or i... damage resulting from this ... ered by the warranty policy.

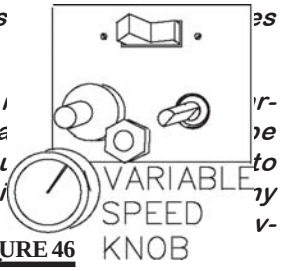


FIGURE 46

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.

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.

OPTIONAL FAN INSTALLATION

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.

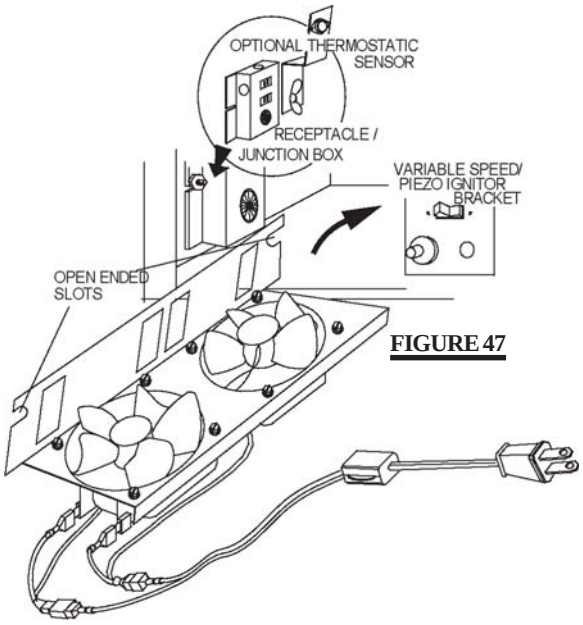


FIGURE 47

Plug the harness cord into the receptacle.

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.

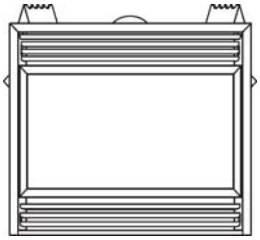


FIGURE 48

Use of the fan increases the output of heat.

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

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.

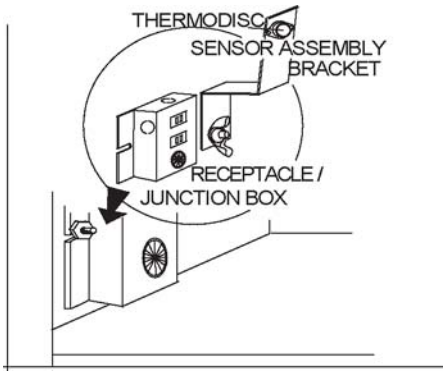
Plug the power cord back into the receptacle.

GD36 THERMOSTATIC SENSOR CONTROL

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

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 curing of the logs and the "burn-in" of internal paints and lubricants used in the manufacturing process and will not occur again.

FIGURE 49



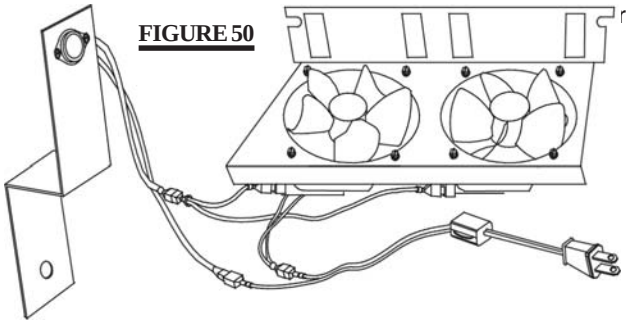
After extended periods of non-operation such as following a vacation or a warm weather season, the fireplace may emit a slight odour for a few hours. This is caused by dust particles in the heat exchanger burning off. In both cases, open a window to sufficiently ventilate the room.

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

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

FIGURE 50



OPERATION / MAINTENANCE

OPERATING INSTRUCTIONS

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.

- Turn off all gas to the fireplace.
- Open windows.
- Do not try to light any appliance.

FOR YOUR SAFETY READ BEFORE LIGHTING:

- 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.

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.**

WHAT TO DO IF YOU SMELL GAS

1. Stop! Read the above safety information on this label.

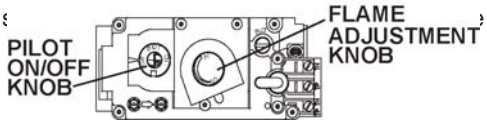
2. Turn off all electric power to the fireplace.

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



LIGHTING INSTRUCTIONS

pilot with the push button ignitor. 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-clockwise 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.

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

ADJUSTMENTS

PILOT BURNER ADJUSTMENT

Air shutters have been factory set open according to the chart below:

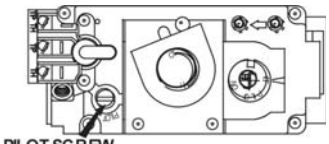


FIGURE 51

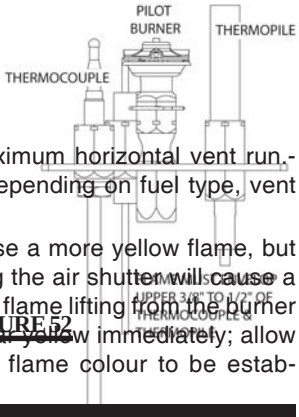


FIGURE 52

These settings are for the maximum horizontal vent run.- 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.

VENTURI ADJUSTMENT

	AIR SHUTTER
NG	1/4"
LP	7/16"

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

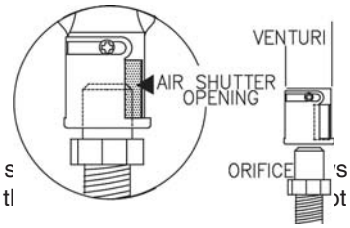


FIGURE 53

To access the air s s that secure the cover to t t to damage the gasket.

#	PART NO.	DESCRIPTION
1	W357-0001	PIEZO IGNITER
2	W680-0004	THERMOPILE
3	W455-0069	NATURAL GAS PILOT
4	W010-0801	PROPANE GAS PILOT ASSEMBLY
5	W455-0067	PROPANE GAS PILOT
6	W725-0025	NATURAL GAS VALVE
6	W725-0026	PROPANE VALVE
7*	W385-0245	NAPOLEON LOGO
8*	W750-0112	20FT OF WIRE
9	W010-0864	
10	GL-641	LOG SET
11*	W361-0016	GLOWING EMBERS
12*	W550-0001	CHARCOAL EMBERS
13*	W550-0002	CHARCOAL LUMPS
14	W135-0198	BACK LOG (#1)
15	W135-0201	LEFT CROSSOVER LOG (#4)
16	W135-0202	CENTER LOG (#5)

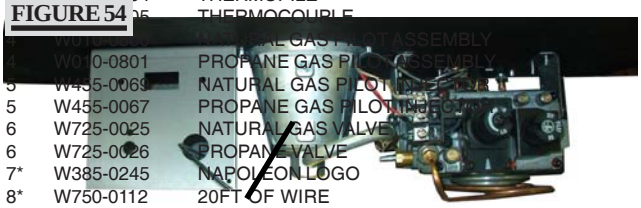


FIGURE 54

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.

FOR WARRANTY REPLACEMENT PARTS, A PHOTOCOPY OF THE ORIGINAL INVOICE WILL BE REQUIRED TO HONOUR THE CLAIM.

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

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

REPLACEMENT PARTS

17	W135-0203	RIGHT CROSSOVER LOG (#6)
18	W135-0199	SMALL LEFT LOG (#2)
19	W135-0200	SMALL RIGHT LOG (#3)
20	W010-0770	BLACK DOOR c/w GLASS
21	W455-0026	#38 NATURAL GAS ORIFICE
21	W455-0003	#54 PROPANE GAS ORIFICE
22*	W361-0014	VERMICULITE
23	W500-0028	FIRESTOP SPACER (FLEX VENTING)
24*	W500-0205	RESTRICTOR PLATE
25	W585-0138	VENT HEAT SHIELD
26	W185-0020	GRATE

* GD420 (5 FT)

	PART NO.	DESCRIPTION
27	W010-0772	5" FLEXIBLE ALUMINIUM LINER - (5 ft) c/w SPACERS
27	W730-0012	8" FLEXIBLE ALUMINIUM LINER - (5 ft)

* GD430 (10 FT)

	PART NO.	DESCRIPTION
28	W730-0013	8" FLEXIBLE ALUMINIUM LINER - (10 ft)
28	W010-0773	5" FLEXIBLE ALUMINIUM LINER - (10 ft) c/w SPACERS
29	W010-0810	WALL SUPPORT ASSEMBLY

30	**PERISCOPE**	**- GD401**
31	**WALL TERMINAL KIT**	**- GD422**
32	**1/12 TO 7/12 PITCH**	**-GD410**
32	**8/12 TO 12/12 PITCH**	**-GD411**
32	**FLAT ROOF**	**-GD412**

#	PART NO.	DESCRIPTION
33	W010-0774	AIR TERMINAL
34	W120-0015	VERTICAL CAP
35	W170-0086	STORM COLLAR
36	W010-0453	ROOF SUPPORT
37	W263-0065 / W263-0066 / W263-0067	ROOF FLASHING

FLEXIBLE VENT KITS

#	PART NO.	DESCRIPTION
38*	W573-0007	10.3OZ TUBE HIGH TEMP SEALANT
39*	W175-0166	5" COUPLER
39*	W175-0002	8" COUPLER
40	GDL42K	LOUVRE KIT - upper & lower - black
40	GDL42PB	LOUVRE KIT - upper & lower - polished brass

TERMINAL KITS

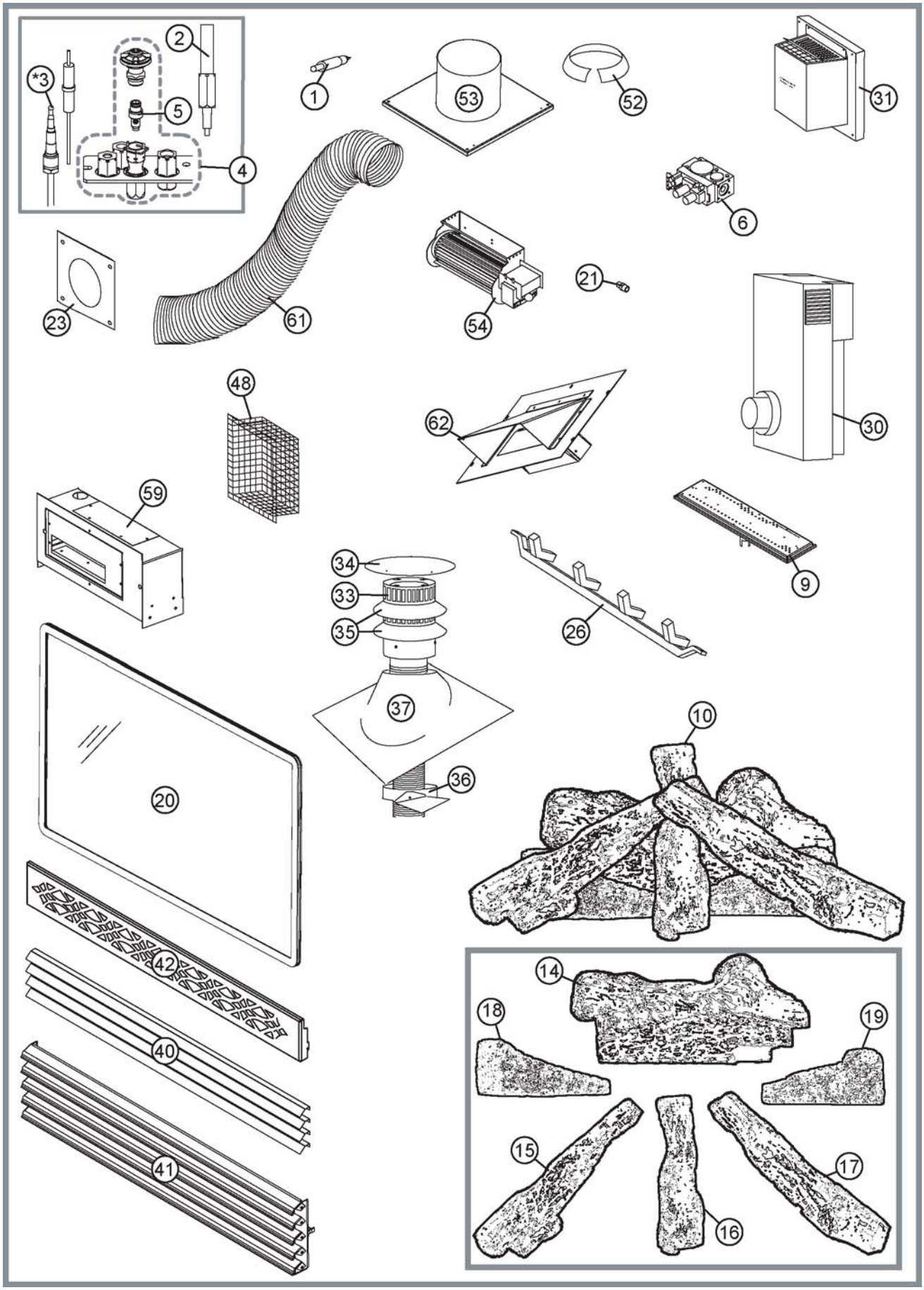
40	GDL42SS	LOUVRE KIT - upper & lower - brushed stainless steel
41	L42K	LOUVRE KIT - upper & lower - black

ROOF TERMINAL KITS

41	L42PB	LOUVRE KIT - upper & lower - polished brass
41	L42SS	LOUVRE KIT - upper & lower - brushed stainless steel
42	GDOI42BG	ORNAMENTAL INSET - brushed gold
42	GDOI42K	ORNAMENTAL INSET - black
42	GDOI42G	ORNAMENTAL INSET - gold
42	GDOI42SS	ORNAMENTAL INSET - stainless steel
43*	W690-0001	MILLIVOLT THERMOSTAT
44*	W660-0010B	REMOTE CONTROL - advantage
44*	W660-0011B	REMOTE CONTROL - advantage plus
45*	W660-0013	MODULATING THERMOSTATIC HAND HELD REMOTE
46*	GD825N	MODULATING VALVE REGULATOR for W660-0013 - ng
46*	GD825P	MODULATING VALVE REGULATOR for W660-0013 - p

ACCESSORIES

47	W500-0163	FIRESTOP SPACER (RIGID VENTING)
48	GD501	HEAT GUARD
49*	W585-0096	SOFFIT HEAT SHIELD
50*	W010-0810	WALL SUPPORT ASSEMBLY
51*	W175-0170	DURA-VENT ZERO CLEARANCE ADAPTOR
52	W170-0086	VENT PIPE COLLAR
53	W585-0092	VENT PIPE SHIELD
54	GZ550-1KT	BLOWER KIT
55*	GD65	FAN KIT
56*	GD36	THERMOSTATIC SENSOR CONTROL KIT for use with GD65 only
57*	W500-0033	VARIABLE SPEED SWITCH WALL MOUNTING PLATE
58*	KB35	VARIABLE SPEED SWITCH
59	GA-566	HOT AIR DISTRIBUTION KIT
60*	W690-0005	THERMOSTAT - 110V for use with GA-566 only
61*	GA-70	EXTENSION KIT - 5 ft
62	GA-72	HOT AIR EXHAUST KIT
63*	W175-0211	CONVERSION KIT - ng-lp
63*	W175-0212	CONVERSION KIT - lp-ng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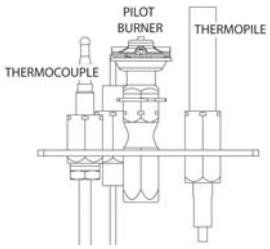
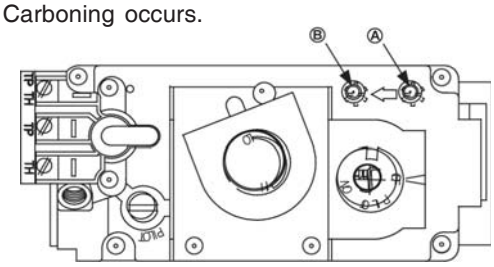
TROUBLE SHOOTING GUIDE

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
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.
	5" flexible vent has become disconnected from fireplace.	- re-attach to fireplace.
Pilot goes out when the gas knob is released. **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.**	System is not correctly purged.	- purge the gas line with the glass door removed.
	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.	Themostat 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 ignitor. - check if the push button ignitor 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 ignitor.
	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.



SYMPTOM	PROBLEM	TEST SOLUTION
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.
Flames are consistently too large or too small. Carboning occurs. 	Unit is over-fired or under-fired.	- check pressure readings: 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". 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". AFTER TAKING PRESSURE READINGS, BE SURE TO TURN SCREWS CLOCKWISE FIRMLY TO RESEAL. DO NOT OVERTORQUE. Leak test with a soap and water solution.
Flames are very aggressive.	Door is ajar	- fit door assembly into the lower support brackets and secure the four door latches.
	Venting action is too great.	-restrict vent exit with restrictor plate, W500-0205.
Main burner flame is a blue, lazy, transparent flame.	Blockage in vent.	- remove blockage. In extremely cold conditions, ice buildup may occur on the terminal and should be removed as required.
	Incorrect installation.	- refer to Figure 23 to ensure correct location of storm collars.
Carbon is being deposited on glass, logs or combustion chamber surfaces.	Air shutter has become blocked	- ensure air shutter opening is free of lint or other obstructions.
	Flame is impinging on the logs or combustion chamber.	- 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 5" and 8" vent liners are free of holes and well sealed at all joints. - check that minimum rise per foor has been adhered to for any horizontal venting.
White / grey film forms.	Sulphur from fuel is being deposited on glass, logs or combustion chamber surfaces.	- 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.
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	- reverse.
	Remote wall switch is grounding.	- replace.
	Remote wall switch wire is grounding.	- check for ground (short); repair ground or replace wire.
	Faulty valve.	- replace.