NATURAL GAS MODELS: HD81NT-1

PROPANE GAS MODELS: HD81PT-1

ENGLISH

FRENCH PG. 57

INSTALLATION AND OPERATION MANUAL

High Definition 81

SAFETY INFORMATION

⚠ WARNING

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death, or property damage.

- 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**:

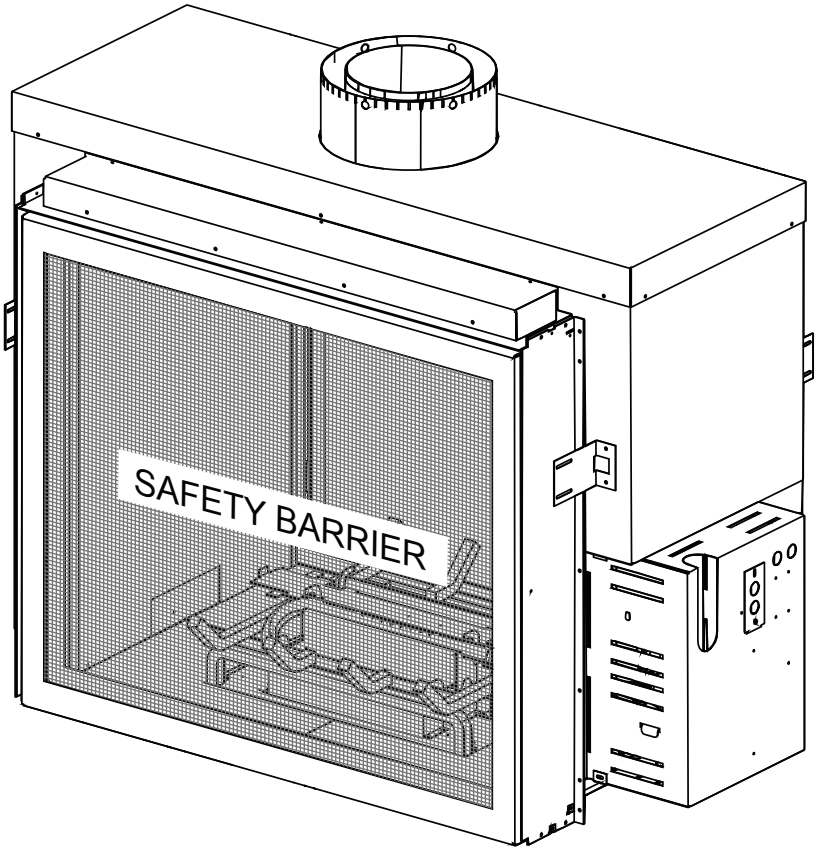
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

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

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

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

INSTALLER:
Leave this manual with the appliance
CONSUMER:
Retain this manual for future reference



FOR INDOOR USE ONLY

CERTIFIED TO THE CANADIAN AND AMERICAN NATIONAL STANDARDS: CSA 2.22 AND ANSI Z21.50 FOR VENTED DECORATIVE GAS APPLIANCES

APPLY SERIAL NUMBER LABEL FROM CARTON

Serial No. XXXXXX000000
MODEL NO.

BARRIER

HPBA Hearth, Patio & Barbecue Association

Quality System Certified To ISO 9001:2015

C SA US

GO GREEN ECO-FRIENDLY TECHNOLOGY

Wolf Steel Ltd., 24 Napoleon Rd., Barrie, ON, L4M 0G8 Canada / 103 Miller Drive, Crittenden, Kentucky, USA, 41030
Phone 1 (866) 820-8686 • www.napoleon.com • hearth@napoleon.com

safety information

⚠ WARNING

- **This appliance is hot when operated and can cause severe burns if contacted.**
- **Any changes or alterations to this appliance or its controls can be dangerous and is prohibited.**
- Do not operate appliance before reading and understanding operating instructions. Failure to operate appliance according to operating instructions could cause fire or injury.
- Ensure the glass door is opened or removed when lighting the pilot for the first time and when the gas supply has run out.
- Risk of fire or asphyxiation, do not operate appliance with fixed glass removed and never obstruct the front opening of the appliance.
- Do not connect 110 volts to the control valve, with the exception of models; GSST8 and GT8.

⚠ DANGER

HOT GLASS WILL CAUSE BURNS.

DO NOT TOUCH GLASS UNTIL COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS.

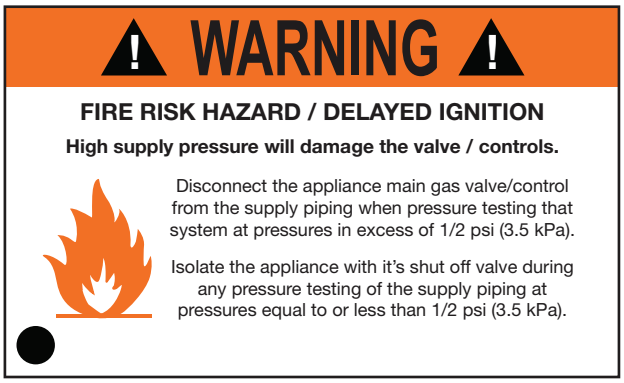
A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed for the protection of children and other at-risk individuals.

- Risk of burns. The appliance should be turned off and cooled before servicing.
- Do not install damaged, incomplete or substitute components.
- Risk of cuts and abrasions. Wear protective gloves, protective footwear, and safety glasses during installation. Sheet metal edges may be sharp.
- Do not burn wood or other materials in this appliance.
- Provide adequate ventilation and combustion air. Provide adequate accessibility clearance for servicing and operating the appliance.
- High pressure will damage valve. Disconnect gas supply piping before pressure testing gas line at test pressures above 1/2 psig. Close the manual shut-off valve before pressure testing gas line at test pressures equal to or less than 1/2 psig (35mb).
- The appliance must not be operated at temperatures below freezing (32°F / 0°C). Allow the appliance to warm to above freezing prior to operation, with the exception of models; GSS36, GSS42; these appliances are suitable for 0°F / -18°C.
- **Children and adults should be alerted to hazards of high surface temperature and should stay away to avoid burns or clothing ignition.**
- **Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at risk individuals in the house. To restrict access to an appliance or stove, install an adjustable safety gate to keep toddlers, young children and other at risk individuals out of the room and away from hot surfaces.**
- **Clothing or other flammable material should not be placed on or near the appliance.**
- **Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**
- Furniture or other objects must be kept a minimum of 4 feet (1.22m) away from the front of the appliance.
- Ensure you have incorporated adequate safety measure to protect infants/toddlers from touching hot surfaces.
- Even after the appliance is off, it 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, guard or barrier removed for servicing the appliance, must be replaced prior to operating the appliance.**
- It is imperative that the control compartments, burners and circulating blower and its passageway in the appliance and venting system are kept clean. The appliance 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 appliance area must be kept clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- If the appliance shuts off, do not re-light until you provide fresh air. If appliance keeps shutting off, have it serviced. Keep burner and control compartment clean.
- Under no circumstances should this appliance be modified.
- Do not allow wind or fans to blow directly into the appliance. Avoid any drafts that alter burner flame patterns.

⚠ WARNING

- Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this appliance.
- This appliance must not be connected to a chimney flue pipe serving a separate solid fuel burning appliance.
- Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
- Do not operate the appliance with the glass door removed, cracked or broken. Replacement of the glass should be done by a licensed or qualified service person, if equipped.
- Do not strike or slam shut the appliance glass door, if equipped.
- **Only doors / optional fronts certified with the appliance are to be installed on the appliance.**
- Keep the packaging material out of reach of children and dispose of the material in a safe manner. As with all plastic bags, these are not toys and should be kept away from children and infants.
- Carbon or soot should not occur in a vent free appliance as it can distribute into the living area of your home. If you notice any signs of carbon or soot, immediately turn off your appliance and arrange to have it serviced by a qualified technician before operating it again.
- If equipped, the screen must be in place (closed) when the appliance is in operation.
- When equipped with pressure relief doors, they must be kept closed while the appliance 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.
- Carbon monoxide poisoning may lead to death; early signs of carbon monoxide poisoning resemble the flu, with headache, dizziness and/or nausea. If you have these signs, the appliance may not be working properly. Get fresh air at once! Have appliance serviced. Some people; pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol, those at high altitudes are more affected by carbon monoxide than others. Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.
- As with any combustion appliance, we recommend having your appliance regularly inspected and serviced as well as having a Carbon Monoxide Detector installed in the same area to defend you and your family against Carbon Monoxide (not applicable for outdoor appliances).
- Ensure clearances to combustibles are maintained when building a mantel or shelves above the appliance. Elevated temperatures on the wall or in the air above the appliance can cause melting, discolouration or damage to decorations, a TV or other electronic components.
- **For appliances equipped with a safety barrier; if the barrier becomes damaged, the barrier shall be replaced with the manufacturer's barrier for this appliance.**
- **Installation and repair should be done by a qualified service person. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.**
- For outdoor products only: this appliance must not be installed indoors or within any structure that prevents or inhibits the exhaust gases from dissipating in the outside atmosphere.
- If applicable, the millivolt version of this appliance uses and requires a fast acting thermocouple. Replace only with a fast acting thermocouple supplied by Wolf Steel Ltd.

⚠ WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer, and chemicals including carbon monoxide, which are known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



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note:

The information throughout this manual is believed to be correct at the time of printing. Wolf Steel Ltd. reserves the right to change or modify any information within this manual at any time without notice. Changes, other than editorial are denoted by a vertical line in the margin.

Installer, please fill out the following information:

Customer: _____
Address: _____
Date of Installation: _____
Location of appliance: _____
Installer: _____
Dealer/Distributor contact number: _____
Serial #: _____

Model:

Natural Gas: ☐ HD81NT-1 **Propane:** ☐ HD81PT-1

1.0 general information

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

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

When the appliance is installed at elevations above 4,500ft (1371m), 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 (305m).

The switch on the battery holder must be placed in the middle position. If this switch is not in this position the appliance will not operate using the remote, see "REMOTE RECEIVER INSTALLATION" and "CONTROL MODULE REMOVAL" section.

Expansion / contraction noises during heating up and cooling down cycles are normal and are to be expected. Change in flame appearance from "HI" to "LO" is more evident in natural gas than in propane.

NOTE: The protective wrap on plated parts is best removed when the assembly is at room temperature but this can be improved if the assembly is warmed, using a hair dryer or similar heat source.

This appliance is equipped with a remote control system, which requires batteries (supplied) to be installed. The transmitter takes 3 "AAA" batteries and in the case of a power failure the battery back-up takes four "AA" batteries.

1.1 rates

HD81-1		
	NG	**P**
Altitude (FT)	0-4,500	
Max. Input (BTU/HR)	60,000	50,000
Max. Output Steady State (BTU/HR)	38,753	33,677
Min. Inlet Gas Supply Pressure	4.5" w.c. (11mb)	11" w.c. (27mb)
Max. Inlet Gas Supply Pressure	13" w.c. (32mb)	13" w.c. (32mb)
Manifold Pressure (Under Flow Conditions)	3.5" w.c. (9mb)	10" w.c. (25mb)

Batteries must be disposed of according to the local laws and regulations. Some batteries may be recycled, and may be accepted for disposal at your local recycling center. Check with your municipality for recycling instructions.

general information

⚠ WARNING

- Always light the pilot - whether for the first time or if the gas supply has run out - with the glass door opened or removed.
- Provide adequate clearance for servicing and operating the appliance.
- Provide adequate ventilation.
- Never obstruct the front opening of the appliance.
- Objects placed in front of the appliance must be kept a minimum of 48" (121.9cm) from the front face of the appliance.
- Surfaces around and especially above the appliance can become hot. Avoid contact when the appliance is operating.
- Fire risk. Explosion hazard.
- High pressure will damage valve. Disconnect gas supply piping before pressure testing gas line at test pressures above 1/2psig. Close the manual shut-off valve before pressure testing gas line at test pressures equal to or less than 1/2psig (35mb).
- Use only Wolf Steel-approved optional accessories and replacement parts with this appliance. Using non-listed accessories (blowers, doors, louvres, trims, gas components, venting components, etc.) could result in a safety hazard and will void the warranty and certification.

THIS GAS APPLIANCE MUST 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 the state of Massachusetts:

- This product must be installed by a licensed plumber or gas fitter when installed within the commonwealth of Massachusetts.
- The appliance damper must be removed or welded in the open position prior to installation of an appliance 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 (0.9m).
- A carbon monoxide detector is required in all rooms containing gas fired appliances.
- The appliance is not approved for installation in a bedroom or bathroom unless the unit is a direct vent sealed combustion product.

The installation must conform with local codes or, in absence of local codes, the National Gas and Propane Installation Code CSA B149.1 in Canada, or the National Fuel Gas Code, ANSI Z223.1 / NFPA 54 in the United States. Suitable for mobile home installation if installed in accordance with the current standard CAN/CSA Z240MH Series, for gas equipped mobile homes, in Canada or ANSI Z223.1 and NFPA 54 in the United States.

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

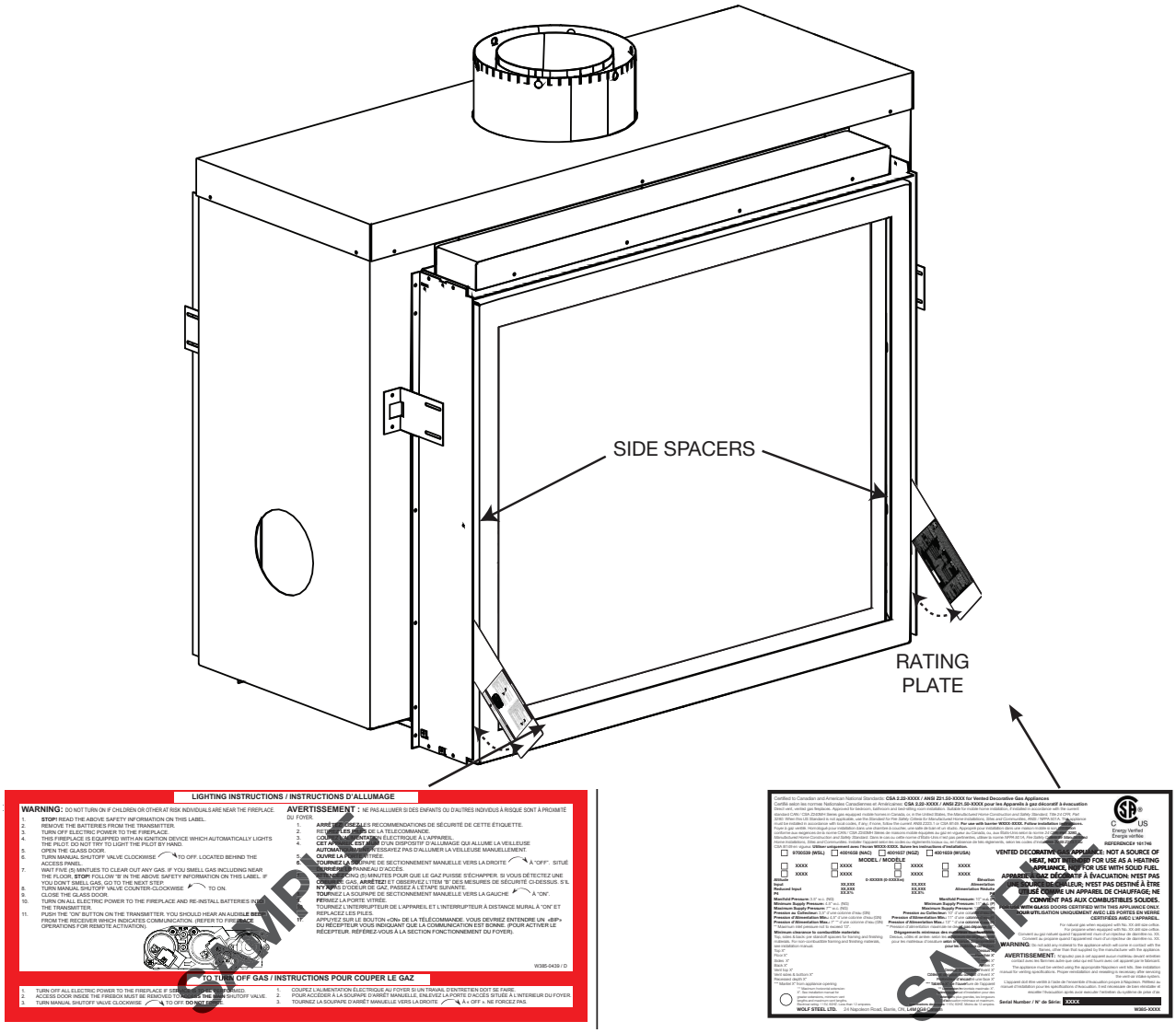
The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (35 mb).
The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (35 mb). When installed with a blower or fan, 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 Electric Code in the United States. In the case where the blower is equipped with a power cord, it must be connected into a properly grounded receptacle. The grounding prong must not be removed from the cord plug.

The following does not apply to inserts; as long as the required clearance to combustibles is maintained, the most desirable and beneficial location for an appliance is in the center of a building, thereby allowing the most efficient use of the heat created. The location of windows, doors and, the traffic flow in the room where the appliance is to be located should be considered. If possible, you should choose a location where the vent will pass through the house without cutting a floor or roof joist. If the appliance is installed directly on carpeting, vinyl tile or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth, unless otherwise tested.

The optional heat circulating blower is supplied with a cord.
This appliance is equipped with a power back up control system. Therefore four 1.5 volt “AA” batteries are required for the battery holder. Use alkaline batteries only. See “in the event of a power failure” section.

1.2 rating plate information

Both the rating plate and operating instructions are riveted to the bottom of the side spacers. There is a hole in the bottom of each mounting plate to help with rotating the plate up.



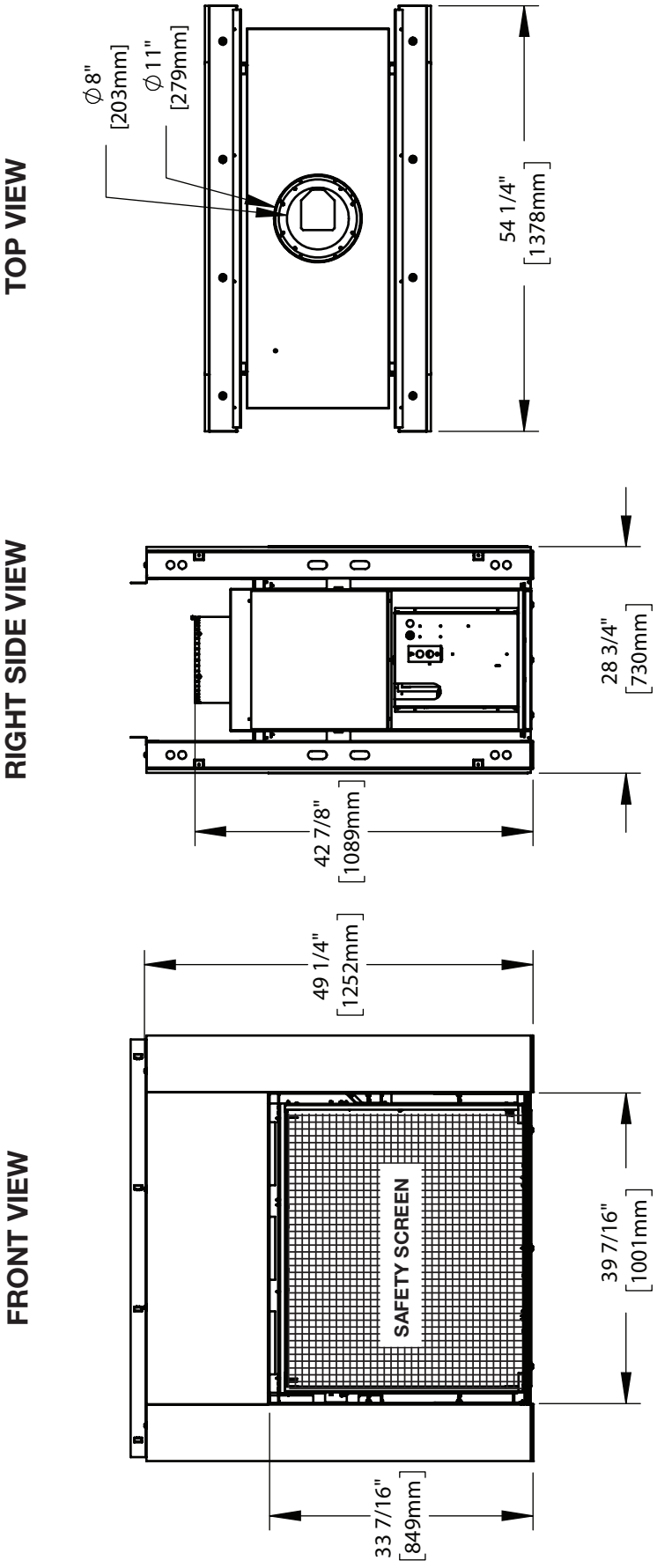
The illustration is for reference only. Refer to the rating plate on the appliance for accurate information.

NOTE: The rating plate must remain with the appliance at all times. It must not be removed.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with the appliance and must be installed.

general information

1.3 dimensions



⚠ WARNING

- Risk of fire! Maintain specified air space clearances to vent pipe and appliance.
- The vent system must be supported every 3ft (0.9m) for both vertical and horizontal runs. Use supports or equivalent non-combustible strapping to maintain the required clearance from combustibles. Spacers are attached to the inner pipe at pre-determined intervals to maintain an even air gap to the outer pipe. This gap is required for safe operation. A spacer is required at the start, middle, and end of each elbow to ensure this gap is maintained. These spacers must not be removed.

THIS APPLIANCE USES A 8" (203.2mm) EXHAUST / 11" (279mm) AIR INTAKE VENT PIPE SYSTEM. Refer to the section applicable to your installation.

For safe and proper operation of the appliance, follow the venting instruction exactly. Deviation from the minimum vertical vent length can create difficulty in burner start-up and/or carboning. Under extreme vent configurations, allow several minutes (5-15) for the flame to stabilize after ignition. Provide a means for visually checking the vent connection to the appliance after the appliance is installed. Use a firestop, vent pipe shield or attic insulation shield when penetrating interior walls, floor or ceiling.Although not a requirement, it is recommended for vent lengths that pass through unheated spaces (attics, garages, crawl spaces) be insulated with the insulation wrapped in a protective sleeve to minimize condensation.

The vent terminal may be painted with a high temperature paint to match exterior colours. Use an outdoor paint suitable for 400°F (200°C). Application and performance of paint is the consumer's responsibility. Spot testing is recommended.

note:

If for any reason the vent air intake system is disassembled, re-install per the instructions provided for the initial installation.

note:

This appliance must be installed with a continuous connection of exhaust and air intake vent pipes. Utilizing alternate constructions such as a chimney as part of the vent system is not permitted.

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 appliance 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 flexible components with the following termination kits: wall terminal kit **GD822R**, or 1/12 to 7/12 pitch roof terminal kit **GD810**, 8/12 to 12/12 roof terminal kit **GD811** or flat roof terminal kit **GD812**. With flexible venting, in conjunction with the various terminations, use either the 5 foot (1.5m) vent kit **GD820** or the 10 foot (3m) vent kit **GD830**.

For optimum flame appearance and appliance 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.

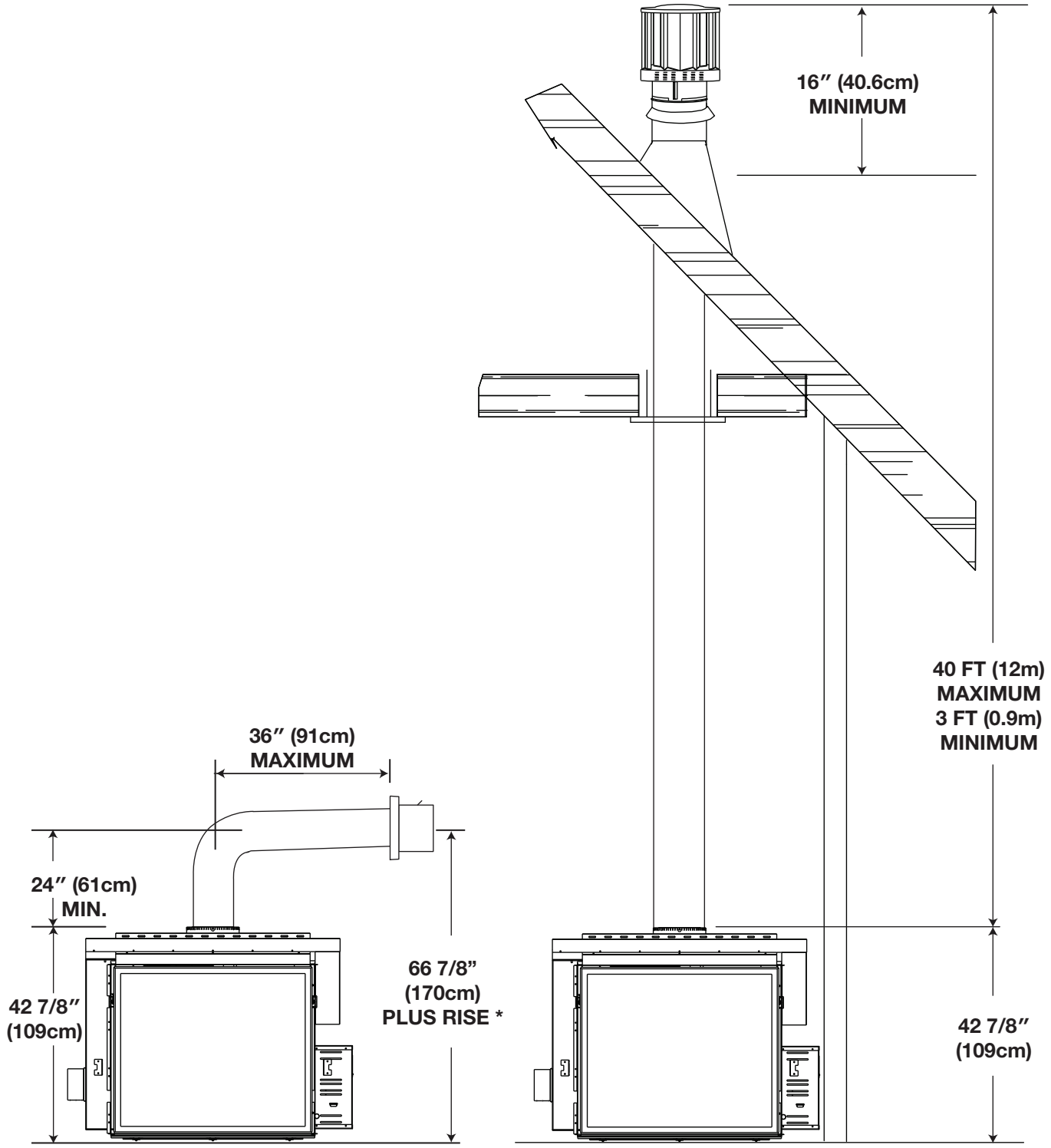
The minimum allowable vertical vent length is 3 feet (0.9m) maximum allowable vertical vent length is 40 feet (12m). The maximum number of allowable 8" (203mm) vent connections is three horizontally or vertically (excluding the appliance and the air terminal connections).

When venting, the horizontal run must be kept to a minimum of 36" (914mm) or a maximum of 20 feet (6m). If a 20 foot (6m) horizontal run is required, the appliance must have a minimum vertical rise immediately off the appliance of 57" (1448mm). When terminating vertically, the vertical rise is a minimum 36" (914mm) and a maximum 40 feet (12m) above the appliance.

For optimum performance, it is recommended that all horizontal runs have a minimum 1/4" (6mm) rise per foot/meter. Provide a means for visually checking the vent connection to the appliance after the appliance is installed. Do not allow the inside liner to bunch up on horizontal or vertical runs and elbows. Keep it pulled tight. A 3/4" (19mm) air gap between the inner and outer liner all around is required for safe operation. Use a firestop when penetrating interior walls, floor or ceiling.

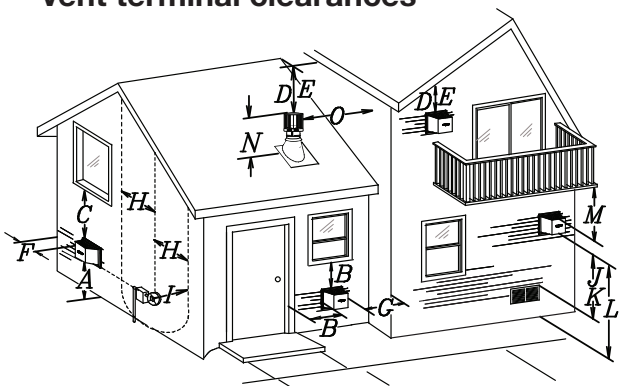
venting

2.1 typical vent installation

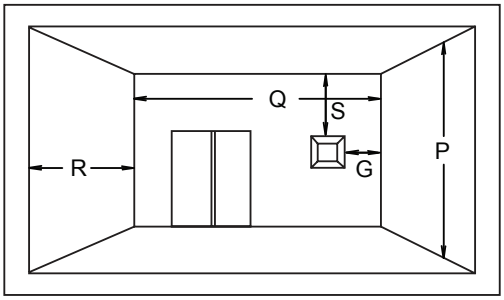


Refer to “VENTING” section.

2.2 vent terminal clearances



Covered balcony applications ††*



Q_{MIN} = 3 feet (0.9m)	$R_{MAX} = 2 \times Q_{ACTUAL}$	$R_{MAX} \leq$ 15 feet (4.6m)

note:
Wall terminals are for illustration purposes only. Size and shapes may vary.

	INSTALLATIONS		
	CANADA	**U.S.A.**	
A	12” (30.5cm)	12” (30.5cm)	Clearance above grade, veranda porch, deck or balcony.
B	12” (30.5cm)Δ	9” (229mm) Δ	Clearance to windows or doors that open.
C	12” (30.5cm)*	12” (30.5cm)*	Clearance to permanently closed windows.
D	18” (45.7cm)**	18” (45.7cm)**	Vertical clearance to ventilated soffits located above the terminal within a horizontal distance of 2’ (0.6m) from the center line of the terminal.
E	12” (30.5cm)**	12” (30.5cm)**	Clearance to unventilated soffit.
F	0” (0mm)	0” (0mm)	Clearance to an outside corner wall.
G	0” (0mm)***	0” (0mm)***	Clearance to an inside **non**-combustible corner wall or protruding **non**-combustible obstructions (chimney, etc.).
	2” (51mm)***	2” (51mm)***	Clearance to an inside combustible corner wall or protruding combustible obstructions (vent chase, etc.).
H	3’(0.9m)	3’(0.9m)****	Clearance to each side of the center line extended above the meter / regulator assembly to a maximum vertical distance of 15’ (4.6m).
I	3’ (0.9m)	3’ (0.9m)****	Clearance to a service regulator vent outlet.
J	12” (30.5cm)	9” (229mm)	Clearance to a non-mechanical air supply inlet to the building or a combustion air inlet to any other appliance.
K	6’ (1.8m)	3’ (0.9m) †	Clearance to a mechanical air supply inlet.
L	7’ (2.1m) ‡	7’ (2.1m) ****	Clearance above a paved sidewalk or paved driveway located on public property.
M	12” (30.5cm)††	12” (30.5cm)****	Clearance under a veranda, porch or deck.
N	16” (40.6cm)	16” (40.6cm)	Clearance above the roof.
O	2’ (0.6m)†*	2’ (0.6m) †*	Clearance from an adjacent wall including neighbouring buildings.
P	8’ (2.4m)	8’ (2.4m)	Roof must be **non**-combustible without openings.
Q	3’ (0.9m)	3’ (0.9m)	See chart for wider wall dimensions.
R	6’ (1.8m)	6’ (1.8m)	See chart for deeper wall dimensions. The terminal shall not be installed on any wall that has an opening between the terminal and the open side of the structure.
S	12” (30.5cm)	12” (30.5cm)	Clearance under a covered balcony

Δ The terminal shall not be located less than 6 feet under a window that opens on a horizontal plane in a structure with three walls and a roof.

* 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 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 where it may cause hazardous frost or ice accumulations on adjacent property surfaces.

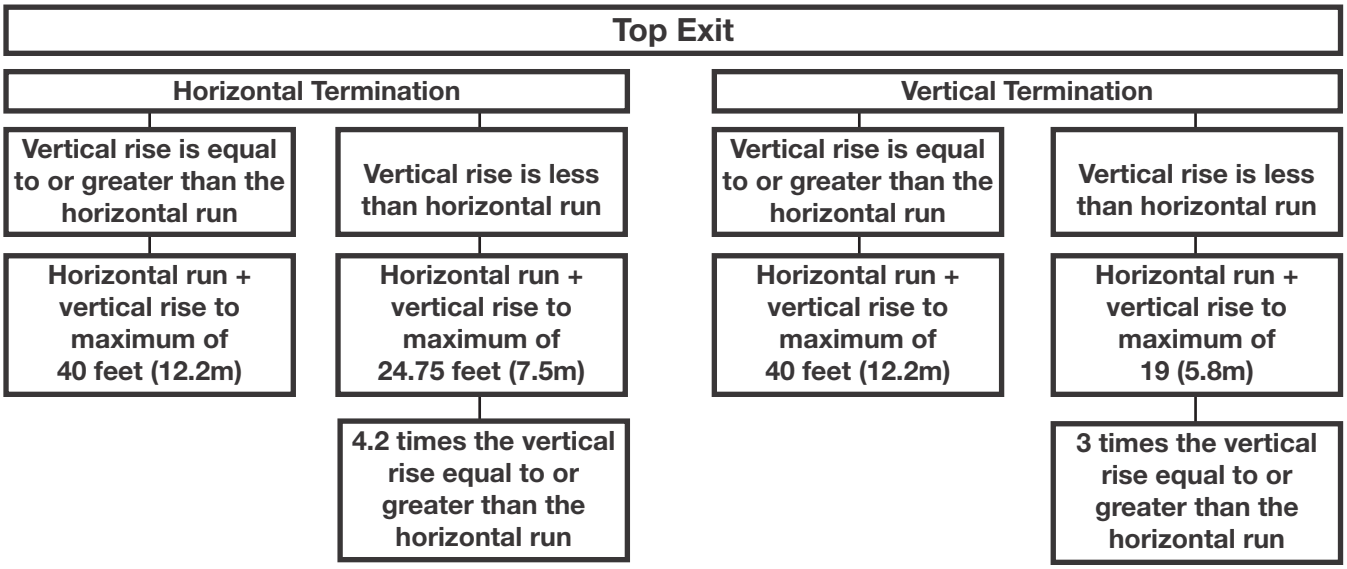
†† Permitted only if the veranda, porch, or deck is fully open on a minimum of two sides beneath the floor.

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

††* Permitted only if the balcony is fully open on a minimum of one side.

note:
Clearances are to be in accordance with local installation codes and the requirements of the gas supplier. In their absence, clearances are to be as listed above and are based on national codes.

2.3 vent application flow chart



2.4 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 (Hr) and offsets (Ho) in feet
H_R - combined horizontal vent lengths in feet
H_O - offset factor: .03 (total degrees of offset - 90°*) in feet
H_O - offset factor: .03 (total degrees of offset - 135°*) in feet
V_T - combined vertical vent lengths in feet

2.5 elbow vent length values

	Feet	Inches	Millimeters
1°	0.03	0.5	12.7
15°	0.45	6.0	152.4
30°	0.9	11.0	279.4
45°	1.35	16.0	406.4
90°*	2.7	32.0	812.8

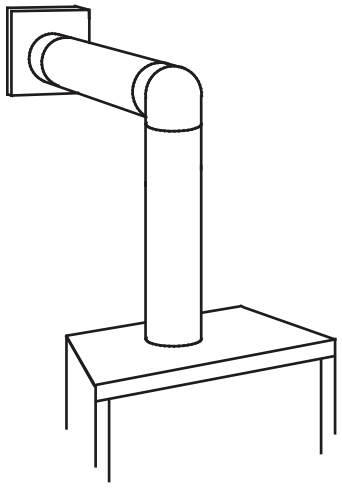
* The first 90° offset has a zero value and is shown in the formula as - 90°

* The first 45° and° offset have a zero value and is shown in the formula as -45° and -90° respectively or -135° when combined **(for 45° exit only).**

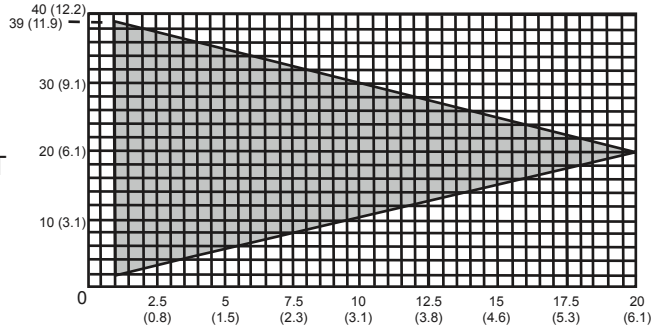
2.6 horizontal termination

(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.



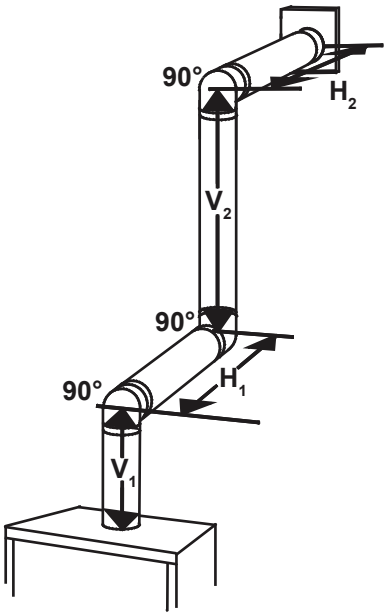
HORIZONTAL VENT RUN PLUS OFFSET IN FEET (METERS) H_T

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: $H_T \leq V_T$

Formula 2: $H_T + V_T \leq$ 40 feet (12.2m)



Example:

V_1 = 3 FT (0.9m)

V_2 = 8 FT (2.4m)

$V_T = V_1 + V_2$ = 3 FT (0.9m) + 8 FT (2.4m) = 11 FT (3.4m)

H_1 = 2.5 FT (0.8m)

H_2 = 2 FT (0.6m)

$H_R = H_1 + H_2$ = 2.5 FT (0.8m) + 2 FT (0.6m) = 4.5 FT (1.4m)

H_O = .03 (three 90° elbows - 90°) = .03 (270° - 90°) = 5.4 FT (1.7m)

$H_T = H_R + H_O$ = 4.5 FT (1.4m) + 5.4 FT (1.6m) = 9.9 FT (3m)

$H_T + V_T$ = 9.9 FT (3m) + 11 FT (3.4m) = 20.9 FT (6.4m)

Formula 1: $H_T \leq V_T$

9.9 FT (3m) ≤ 11 FT (3.4m)

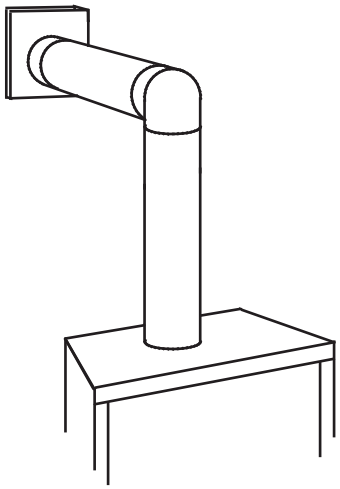
Formula 2: **$H_T + V_T \leq$ 40 FT (12.2m)**

20.9 FT (6.4m) ≤ 40 FT (12.2m)

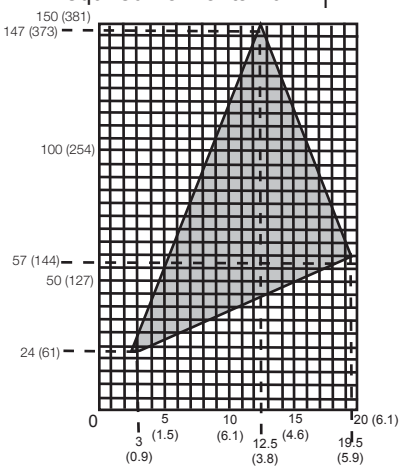
Since both formulas are met, this vent configuration is acceptable.

$(H_T) > (V_T)$

Simple venting configuration (only one 90° elbow)



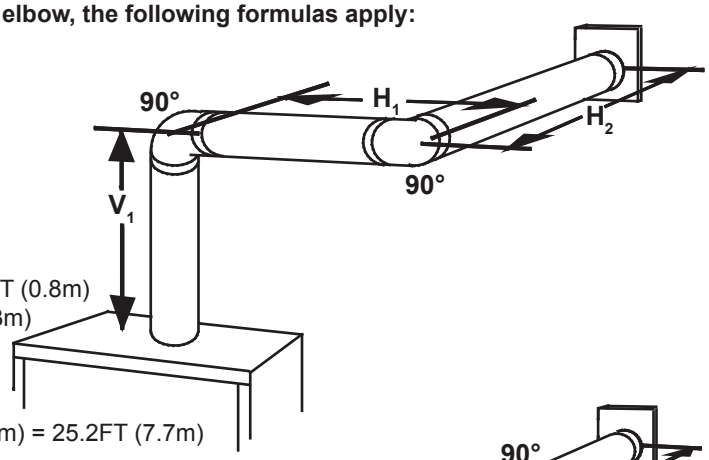
See graph to determine the required vertical rise V_T for the required horizontal run H_T.



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 (7.5 meters)

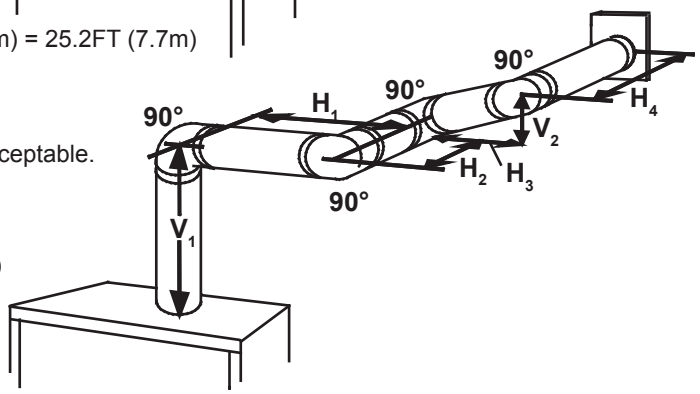


Example 2:
$V_1 = V_T$ = 6 FT (1.8m)
H_1 = 3 FT (0.9m)
H_2 = 5 FT (1.5m)
$H_R = H_1 + H_2$ = 3 FT (0.9m) + 5 FT (1.5m) = 8 FT (2.4m)
H_O = .03 (two 90° elbows - 90°) = .03 (180° - 90°) = 2.7FT (0.8m)
$H_T = H_R + H_O$ = 8FT (2.4m) + 2.7FT (0.8m) = 10.7FT (3.3m)
$H_T + V_T$ = 10.7FT (3.3m) + 6FT (1.8m) = 16.7FT (5.1m)

Formula 1: $H_T \leq 4.2\ V_T$
$4.2\ V_T$ = 4.2FT (1.3m) x 6FT (1.8m) = 25.2FT (7.7m)
10.7FT (3.3m) $\leq$ 25.2FT (7.7m)

Formula 2: $H_T + V_T \leq$ **24.75 FT (7.5m)**
16.7 FT (5.1m) $\leq$ 24.75 FT (7.5m)

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



Example 3:
V_1 = 4 FT (1.2m)
V_2 = 1.5 FT (0.5m)
$V_T = V_1 + V_2$ = 4FT (1.2m) + 1.5FT (0.5m) = 5.5FT (1.7m)
H_1 = 2 FT (0.6m)
H_2 = 1 FT (0.3m)
H_3 = 1 FT (0.3m)
H_4 = 1.5 FT (0.5m)
$H_R = H_1 + H_2 + H_3 + H_4$ = 2FT (0.6m) + 1FT (0.3m) + 1FT (0.3m) + 1.5FT (0.5m) = 5.5 FTFT (1.7m)
H_O = .03 (four 90° elbows - 90°) = .03 (360° - 90°) = 8.1 FT (2.5m)
$H_T = H_R + H_O$ = 5.5 FT (1.7m) + 8.1 FT (2.5m) = 13.6 FT (4.2m)
$H_T + V_T$ = 13.6 FT (4.2m) + 5.5 FT (1.7m) = 19.1 FT (5.8m)

Formula 1: $H_T \leq 4.2\ V_T$
$4.2\ V_T$ = 4.2FT (1.3m) x 5.5FT (1.7m) = 23.1FT (7m)
13.6FT (4.2m) $\leq$ 23.1FT (7m)

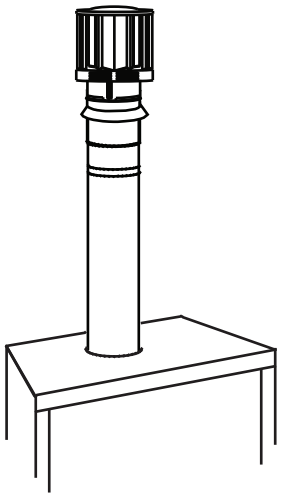
Formula 2: $H_T + V_T \leq$ **24.75 FT (7.5m)**
19.1FT (5.8m) $\leq$ 24.75 (7.5m)

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

2.7 vertical termination

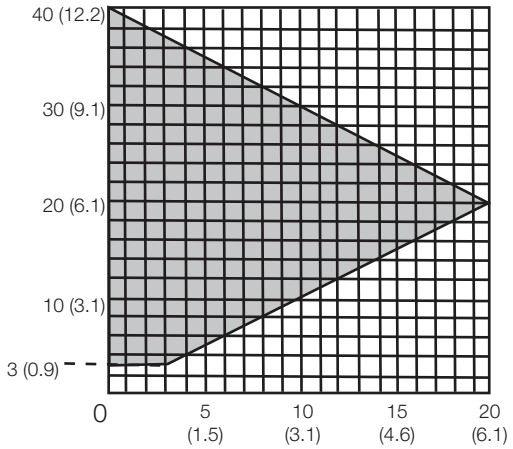
$(H_T) \leq (V_T)$

Simple venting configurations.



Required vertical rise in feet (meters) V_T

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



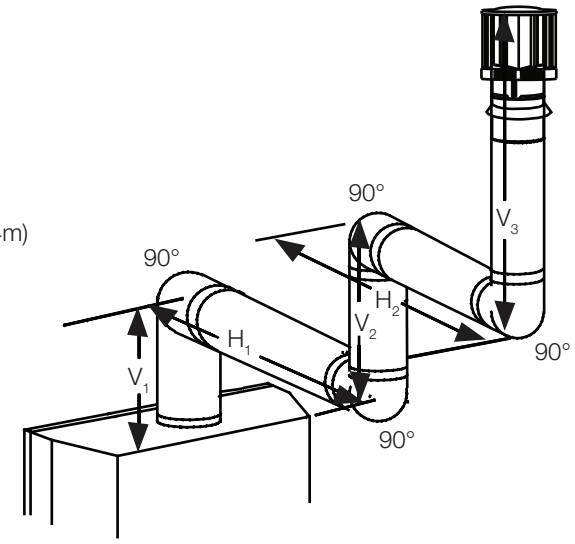
Horizontal vent run plus offset in feet (meters) H_T

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

For vent configurations requiring one or more 90° elbows the following formulas apply:

Formula 1: $H_T \leq V_T$
Formula 2: $H_T + V_T \leq 40$ feet (12.2m)

Example:
V_1 = 5 ft (1.5m)
V_2 = 6 ft (1.8m)
V_3 = 10 ft (3.1m)
$V_T = V_1 + V_2 + V_3$ = 5 ft (1.5m) + 6 ft (1.8m) + 10 ft (3.1m) = 21 ft (6.4m)
H_1 = 8 ft (2.4m)
H_2 = 2.5 ft (0.8m)
$H_R = H_1 + H_2$ = 8 ft (2.4m) + 2.5 ft (0.8m) = 10.5 ft (3.2m)
H_O = .03 (four 90° elbows - 90°)
= .03 (360° - 90°) = 8.1 ft (2.5m)
$H_T = H_R + H_O$ = 10.5 ft (3.2m) + 8.1 ft (2.5m) = 18.6 ft (5.7m)
$H_T + V_T$ = 18.6 ft (5.7m) + 21 ft (6.4m) = 39.6 ft (12.1m)

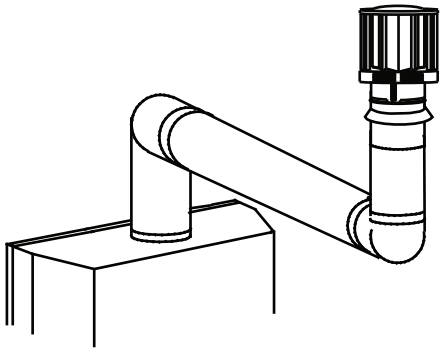


Formula 1: $H_T \leq V_T$
18.6 ft (5.7m) $\leq$ 21 ft (6.4m)
Formula 2: $H_T + V_T \leq$ 40 ft (12.19m)
39.6 ft (12.1m) $\leq$ 40 ft (12.2m)

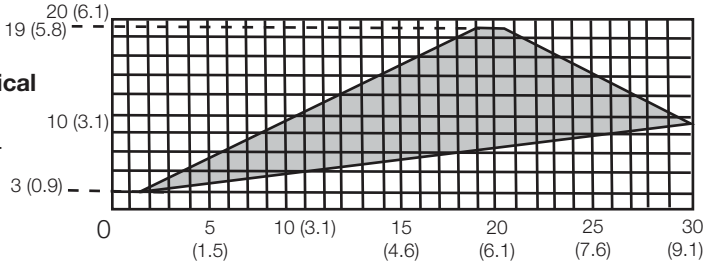
Since both formulas are met, this vent configuration is acceptable.

$(H_T) > (V_T)$

Simple venting configurations.



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

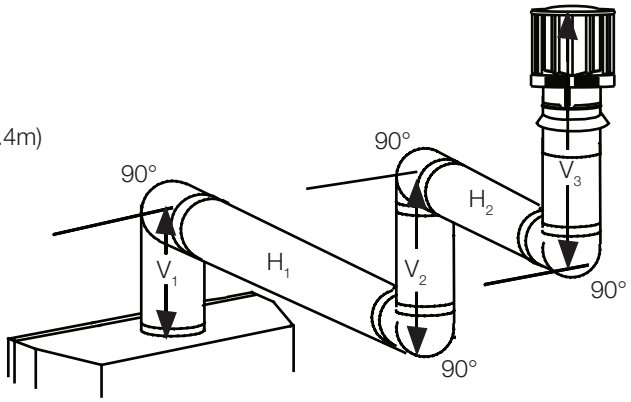


The shaded area within the lines represents acceptable values for H_T and V_T

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

Formula 1: $H_T \leq 3V_T$
Formula 2: $H_T + V_T \leq 40$ feet (12.2m)

Example:
V_1 = 2 ft (0.6m)
V_2 = 1 ft (0.3m)
V_3 = 1.5 ft (0.5m)
$V_T = V_1+V_2+V_3$= 2 ft (0.6m) + 1 ft (0.3m) + 1.5 ft (0.5m) = 4.5 ft (1.4m)
H_1 = 6 ft (1.8m)
H_2 = 2 ft (0.6m)
$H_R = H_1 + H_2$ = 6 ft (1.8m) + 2 ft (0.6m) = 8 ft (2.4m)
H_O = .03 (four 90° elbows - 90°)
= .03 (360° - 90°) = 8.1 ft (2.5m)
$H_T = H_R + H_O$ = 8 ft (2.4m) + 8.1 ft (2.5m) = 16.1 ft (4.9m)
$H_T + V_T$ = 16.1ft (4.9m) + 4.5 ft (1.4m) = 20.6 ft (6.3m)



Formula 1: $H_T \leq 3V_T$
$3V_T$ = 3 ft (0.9m) x 4.5 ft (1.4m) = 13.5 ft (4.1m)
16.1 ft (4.9m) > 13.5 ft (4.1m)
Since this formula is not met, this vent configuration is unacceptable.
Formula 2: $H_T + V_T \leq 40$ ft (12.2m)
20.6 ft (6.3m) ≤ 40 ft (12.2m)

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

⚠ WARNING

- Ensure to unpack all loose materials from inside the firebox prior to connecting the gas and electrical supply
- **If your appliance is supplied with a remote, ensure the remote receiver is in the "OFF" position prior to connecting the gas and electrical supply to the appliance.**
- For safe and proper operation of the appliance, follow the venting instructions exactly.
- **The appliance exhaust flue collar must be sealed using Mill Pac**. All exhaust and intake vent pipe joints must be sealed using red RTV high temp silicone sealant (W573-0002) (not supplied) or black high temp Mill Pac (W573-0007) (not supplied).
- If using pipe clamps to connect rigid vent components, a minimum of 3 screws must also be used to ensure the connection cannot slip off.
- Do not clamp the flexible vent pipe.
- Risk of fire, explosion, or asphyxiation. Improper support of the entire venting system may allow vent to sag and separate. Use vent run supports and connect vent sections per installation instructions.
- Risk of fire, do not allow loose materials or insulation to touch the vent pipe. Remove insulation to allow for the installation of the attic shield and to maintain clearances to combustibles.
- Do not fill the space between the vent pipe and enclosure with any type of material. Do not pack insulation or combustibles between ceiling firestops. Always maintain specified clearances around venting and firestop systems. Install wall shields and firestops as specified. Failure to keep insulation or other materials away from vent pipe may cause fire.
- **For gas stoves only:** If the appliance is installed directly on carpeting, vinyl tile, or other combustible material other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth, unless otherwise tested.

For optimum performance it is recommended that all horizontal runs have a minimum of 1/4" (6.4mm) rise per foot (0.9m) using flexible venting. For safe and proper operation of the appliance, follow the venting instructions exactly.

For clearance to combustible materials from the vent pipe, see "framing" section.

installation

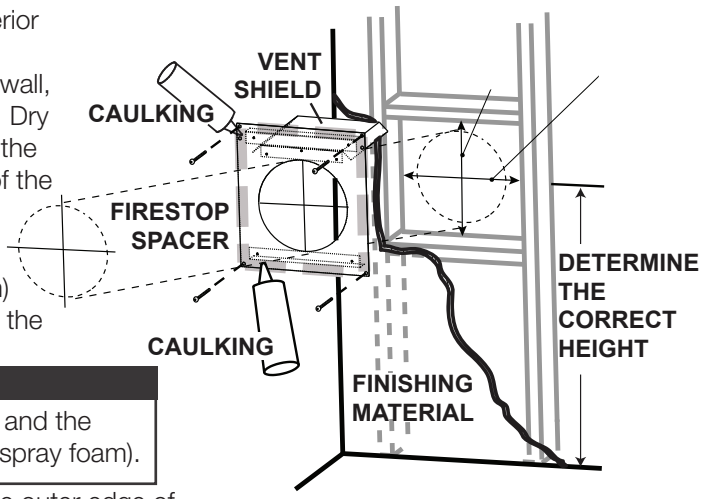
3.1 horizontal installation

⚠ WARNING

- The firestop assembly must be installed with the vent shield to the top.
- Terminals must not be recessed into a wall or siding more than the depth of the return flange of the mounting plate.

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, as illustrated, to accommodate the firestop assembly. Dry fit the firestop assembly before proceeding to ensure the brackets on the rear surface fit to the inside surface of the horizontal framing.

The length of the vent shield may be cut shorter for combustible walls that are less than 8 1/2" (215.9mm) thick but the vent shield must extend the full depth of the combustible wall.



note:
Do not fill the air space between the firestop spacer and the exterior wall with any type of insulating material (i.e. spray foam).

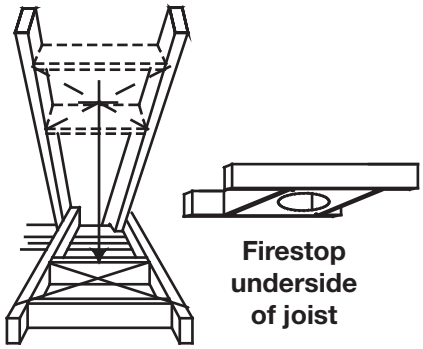
note:
The above is for illustration purposes only. Vents do not always pass through center of frame.

A. Apply a bead of caulking (not supplied) around the outer edge of the hole of the firestop assembly, fit the firestop assembly to the hole and secure using 4 screws.

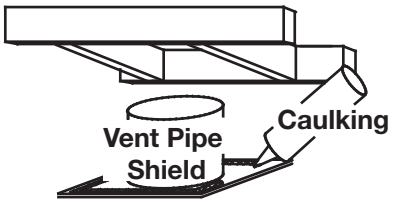
B. Once the vent pipe is installed in its final position, apply red RTV silicone (W573-0002) (not supplied) between the pipe and the firestop.

3.2 vertical installation

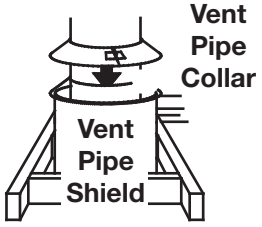
This application occurs when venting through a roof. Installation kits for various roof pitches are available from your authorized dealer / distributor. See the "accessories" section to order specific kits required.



A. Determine the air terminal location, cut and frame a square opening, as illustrated, in the ceiling and the roof to provide the minimum 1" (25mm) clearance between the vent pipe and any combustible material. Try to center the vent pipe location midway between two joists to prevent having to cut them. Use a plumb bob to line up the center of the openings. A vent pipe shield will prevent any materials such as insulation, from filling up the 1" (25mm) air space around the pipe. Nail headers between the joist for extra support.



B. 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. 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 red RTV silicone (W573-0002) (not supplied) between the pipe and the firestop assembly.

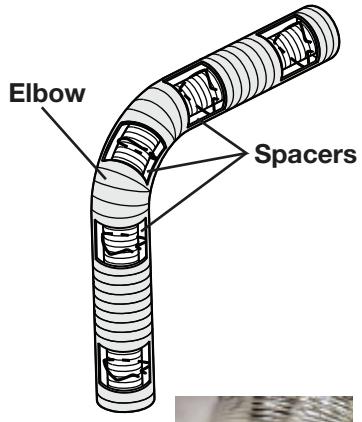


C. In the attic, slide the vent pipe collar down to cover up the open end of the shield and tighten. This will prevent any materials, such as insulation, from filling up the 1" (25mm) air space around the pipe.

3.3 using flexible vent components

⚠ WARNING

- Do not allow the inner flex pipe to bunch up on horizontal or vertical runs and elbows. Keep it pulled tight.
- Spacers are attached to the inner flex pipe at predetermined intervals to maintain an even air gap to the outer flex pipe. This gap is required for safe operation. A spacer is required at the start, middle, and end of each elbow to ensure this gap is maintained. These spacers must not be removed.



For safe and proper operation of the appliance, follow the venting instructions exactly.
The vent system must be supported approximately every 3 feet (0.9m) for both vertical and horizontal runs. Use Wolf Steel Ltd. support ring assembly or equivalent noncombustible strapping to maintain the minimum clearance to combustibles for both vertical and horizontal runs.
All inner flex pipe and outer flex pipe joints may be sealed using high temperature red RTV silicone W573-0002 (not supplied) or the high temperature sealant W573-0007 Mill Pac (not supplied). However, the high temperature sealant W573-0007 Mill Pac (not supplied) must be used on the joint connecting the inner flex pipe and the exhaust flue collar.

Use only approved flexible vent pipe kits marked:

"Wolf Steel Approved Venting" or "E2" as identified by the stamp only on the flex pipes.

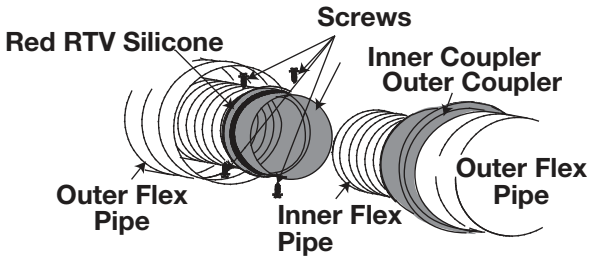
3.3.1 horizontal air terminal installation

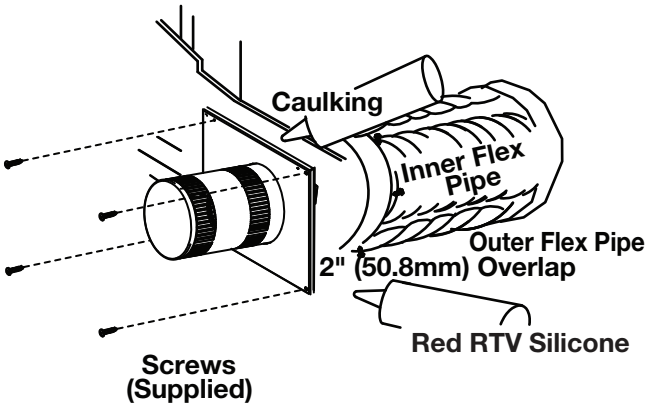
A. Stretch the inner flex pipe to the required length taking into account the additional length needed for the finished wall surface. Apply a heavy bead of the red RTV silicone (W573-0002) (not supplied) to the inner sleeve of the air terminal. Slip the vent pipe a minimum of 2" (50.8mm) over the inner sleeve of the air terminal and secure with a minimum of 3 screws.

B. Using the outer flex pipe, slide over the outer combustion air sleeve of the air terminal and secure with a minimum of 3 screws. Seal using red RTV silicone (W573-0002) (not supplied).

C. Insert the vent pipes 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).

D. 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 (0.9m) for both vertical and horizontal runs. Use non-combustible strapping to maintain the minimum clearance to combustibles.





E. **Stove Appliances Only:** From inside the house, using Red RTV Silicone (W573-0002) (not supplied), seal between the vent pipe and the firestop. Then slide the black trim collar over the vent pipe up to the firestop.

The air terminal mounting plate may be recessed into the exterior wall or siding no greater than the depth of its return flange.

installation

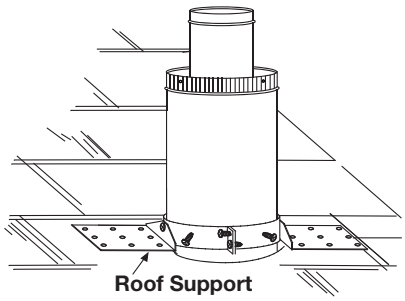
3.3.2 vertical air terminal installation

⚠ WARNING

- Maintain a minimum 2” (51mm) space between the air inlet base and the storm collar.

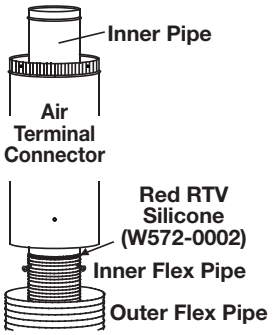
note:
Fastening hardware provided with appropriate roof terminal and liner kits.

A. Fasten the roof support to the roof using 6 screws. 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.



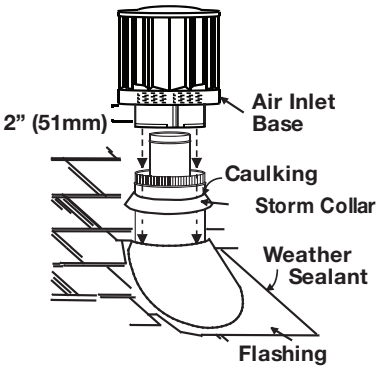
B. Stretch the inner flex pipe to the required length. Slip the inner flex pipe a minimum of 2” (51mm) over the inner pipe of the air terminal connector and secure with a minimum of three screws, when 4/7, 5/8 and 3/5 venting is used and a minimum of six screws when using 8/10 or 8/11 venting. Seal using a heavy bead of red RTV silicone sealant (W573-0002) (not supplied).

C. Repeat using the outer flex pipe, using a heavy bead of red RTV silicone sealant (W573-0002) (not supplied) and a minimum of three screws, when 4/7, 5/8 and 3/5 venting is used and a minimum of six screws when using 8/10 or 8/11 venting.



D. Thread the air terminal connector / vent pipe assembly down through the roof. The air terminal must be positioned vertically and plumb. Attach the air terminal connector to the roof support, ensuring that the top of the air terminal is 16” (40.6cm) above the highest point that it penetrates the roof.

E. Remove nails from the shingles, above and to the sides of the air terminal connector. Place the flashing over the air terminal connector leaving a min. 3/4” (19mm) 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 centered within the flashing, giving a 3/4” (19mm) 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.



F. Aligning the seams of the terminal and air terminal connector, place the terminal over the air terminal connector making sure the vent pipe goes into the hole in the terminal. Secure with a minimum of three screws, when 4/7, 5/8 and 3/5 venting is used and a minimum of six screws when using 8/10 or 8/11 venting.

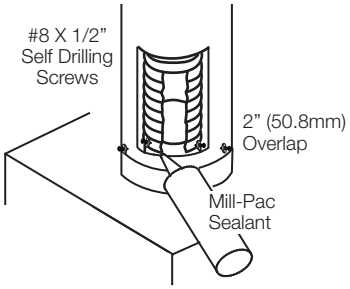
G. Apply a heavy bead of weatherproof caulking 2” (51mm) above the flashing. Install the storm collar around the air terminal and slide down to the caulking. Tighten to ensure that a weather-tight seal between the air terminal and the collar is achieved.

H. If more vent pipe needs to be used to reach the appliance, see “**horizontal air terminal installation**” section.

3.3.3 appliance vent connection

A. Install the inner flex pipe to the appliance. Secure with a minimum of three screws when installing 3”/5”, 4”/7” or 5”/8” venting, or six screws when installing 8”/10” or 8”/11” venting. Seal the joint and screw holes using Mill Pac sealant (W573-0007) (not supplied).

B. Install the outer flex pipe to the appliance. Secure with a minimum of three screws when installing 3”/5”, 4”/7” or 5”/”8 venting, or six screws when installing 8”/10” or 8”/11” venting. Seal the joints using high temperature red RTV silicone (W573-0002) (not supplied).



3.4 mobile home installation

This appliance 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.

This mobile/manufactured home listed appliance comes factory equipped with a means to secure the appliance. Built in appliances are equipped with 1/4" (6.4mm) diameter holes located in the front left and right corners of the base. Use appropriate fasteners, inserted through the holes in the base to secure. For free standing products contact your local authorized dealer / distributor for the appropriate securing kit. For mobile home installations, the appliance must be fastened in place. It is recommended that the appliance be secured in all installations. 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 appliance, ensure that the logs are positioned correctly.

This appliance is certified to be installed in an aftermarket permanently located, manufactured (mobile) home, where not prohibited by local codes.
This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

Conversion Kits
This appliance is field convertible between Natural Gas (NG) and Propane (P).
To convert from one gas to another, consult your Authorized dealer/distributor.

note:
Conversion kits are not available for Vent Free appliances.

3.5 gas installation

⚠ WARNING

- Risk of fire, explosion, or asphyxiation. Ensure there are no ignition sources such as sparks or open flames.
- Support gas control when attaching gas supply pipe to prevent damaging gas line.
- Always light the pilot whether for the first time or if the gas supply has run out with the glass door opened or removed. Purging of the gas supply line should be performed by a qualified service technician. Ensure that a continuous gas flow is at the burner before closing the door. Ensure adequate ventilation. For gas and electrical locations, see "dimensions" section.
- All gas connections must be contained within the appliance when complete **(gas fireplaces only)**.
- High pressure will damage valve. Disconnect gas supply piping before testing gas line at test pressures above 1/2 PSIG.
- Valve settings have been factory set, do not change.

Installation and servicing to be done by a qualified installer.

- Move the appliance into position and secure.
- If equipped with a flex connector, the appliance is designed to accept a 1/2" (13mm) gas supply. Without the connector, it is designed to accept a 3/8" (9.5mm) gas supply. The appliance is equipped with a manual shut off valve to turn off the gas supply to the appliance.
- Connect the gas supply in accordance to local codes. In the absence of local codes, install to the current CAN/CSA-B149.1 Installation Code in Canada or to the current National Fuel Gas Code, ANSI Z223.1 / NFPA 54 in the United States.
- When flexing any gas line, support the gas valve so that the lines are not bent or kinked.
- The gas line flex-connector should be installed to provide sufficient movement for shifting the burner assembly on its side to aid with servicing components.
- Check for gas leaks by brushing on a soap and water solution. **Do not use open flame.**

4.0 framing

note:

When using optional finishing accessories, the framing dimensions and finishing materials may differ from what is outlined in the section below; refer to the leaflet instructions supplied in the accessory kit for specific framing and finishing specifications.

⚠ WARNING

- Risk of fire!
- In order to avoid the possibility of exposed insulation or vapour barrier coming in contact with the appliance body, it is recommended that the walls of the appliance enclosure be “finished” (i.e. 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.
- Do not notch the framing around the appliance stand offs. Failure to maintain air space clearance may cause over heating and fire. Prevent contact with sagging or loose insulation or framing and other combustible materials. Block opening into the chase to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.
- When constructing the enclosure, allow for finishing material thickness to maintain clearances. Framing or finishing material closer than the minimums listed must be constructed entirely of non-combustible materials. Materials consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof are suitable. Materials that are reported as passing ASTM E136, standard test method for behaviour of materials in a vertical tube furnace at 1382ºF (750ºC) and UL763 shall be considered non-combustible materials.
- Minimum clearance to combusibles must be maintained or a serious fire hazard could result.
- The appliance requires a minimum enclosure height. Measure from the appliance base.
- If steel stud framing kits with cement board are provided, or specified in the installation instructions, they must be installed.
- If specified in the installation instruction, finishing must be done using a non-combustible board, ceramic tile, marble, etc. Do **NOT** use wood or drywall. Any fire rated drywall is **not** acceptable.

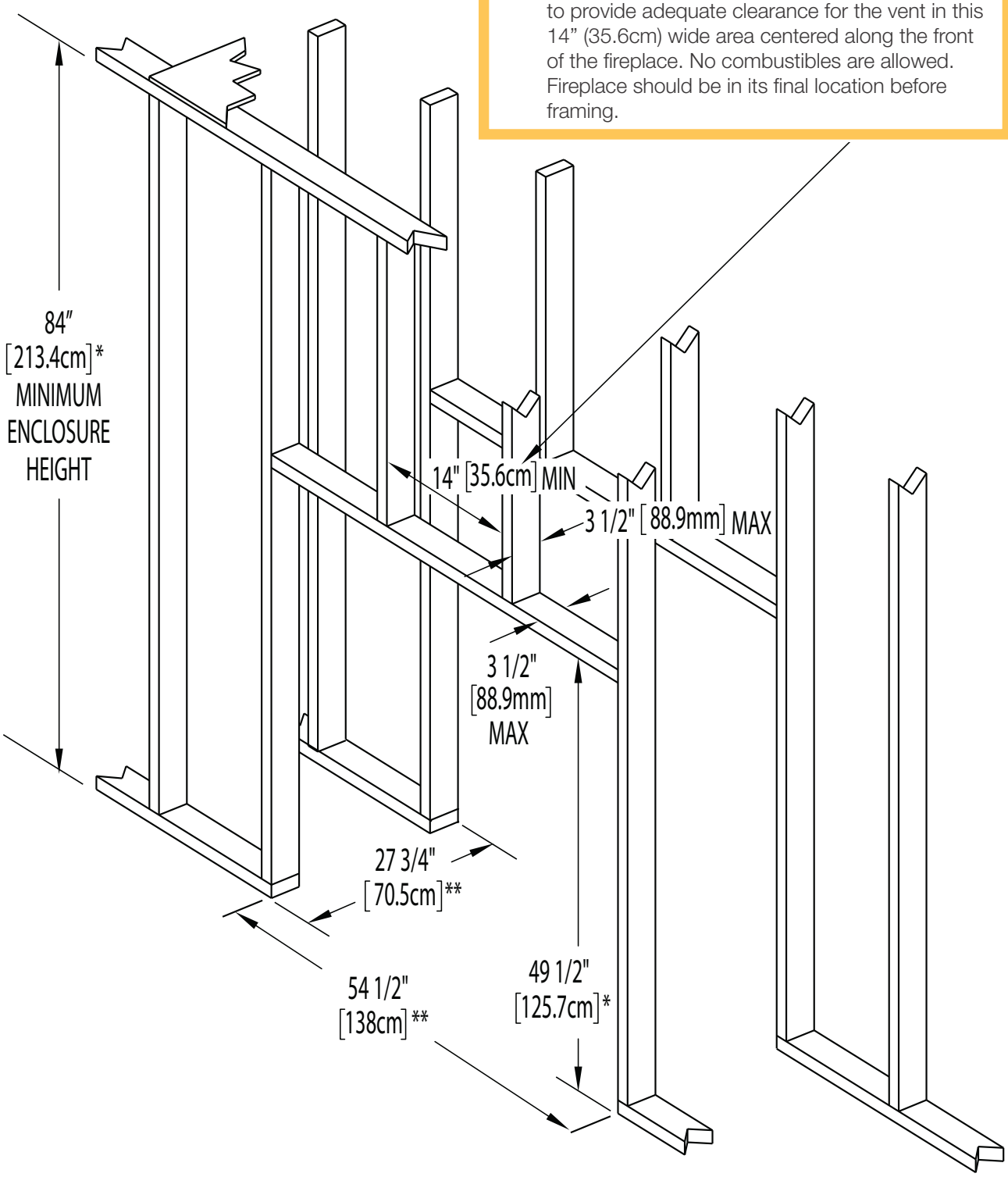
This appliance is installed into a rectangular opening.

It is best to frame your appliance after it is positioned and the vent system is installed. Use the two steel stud framing kits and cement board provided.

When roughing in the appliance, raise the appliance to accommodate for the thickness of the finished floor materials, i.e. tile, carpeting and hard wood.

⚠ WARNING

- Do not build into this area - it must be left clear to provide adequate clearance for the vent in this 14” (35.6cm) wide area centered along the front of the fireplace. No combustibles are allowed. Fireplace should be in its final location before framing.



* Allow for finished floor and hearth thickness when setting these dimensions
** When constructing the enclosure allow for finishing material thickness to maintain clearances.

4.1 minimum clearances to combustibles

Maintain these minimum clearances to combustibles from appliance and vent surfaces:
Appliance framing:
Use steel stud framing provided.

Non- Combustible Appliance finishing:
Front - 7 5/8" (194mm) to sides of appliance opening
- 16 1/16" (40.8cm) to top of appliance opening

Combustible Appliance finishing:
- 84" (213cm) from bottom of appliance to enclosure top
- 2" (50.8mm) to top, sides, and bottom of vent pipe*

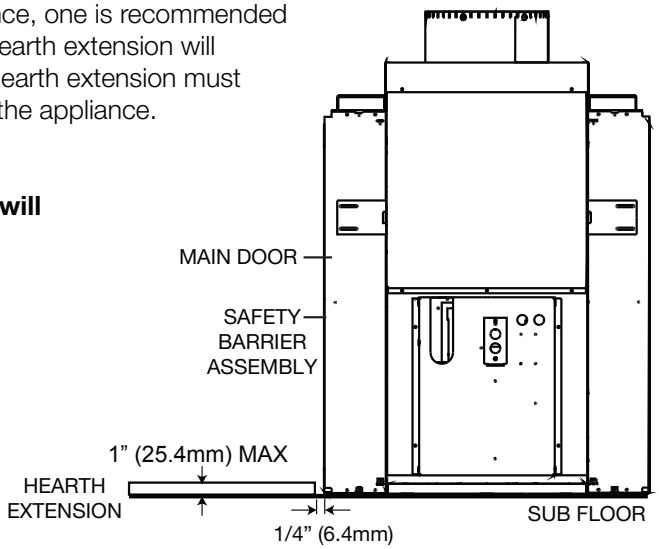
***HORIZONTAL VENT SECTIONS:** A minimum clearance of 2" (50.8mm) all around the vent pipe on all horizontal runs to combustibles is required except for clearances in appliance enclosures. Horizontal vent sections within the enclosure require a minimum clearance of 11 5/8" (29.5cm) from the top of the vent pipe, see "MINIMUM CLEARANCE TO COMBUSTIBLE ENCLOSURES" section. Use firestop spacer W010-3364 (supplied).

***VERTICAL VENT SECTIONS:** A minimum of 1" (25mm) all around the vent pipe on all vertical runs to combustibles is required except for clearances in appliance enclosures. Vertical vent sections within enclosures require a minimum clearance of 3" (76.2mm) around the vent pipe, see "MINIMUM CLEARANCES TO COMBUSTIBLE ENCLOSURES" section. Use firestop spacer W010-3364 (not supplied).

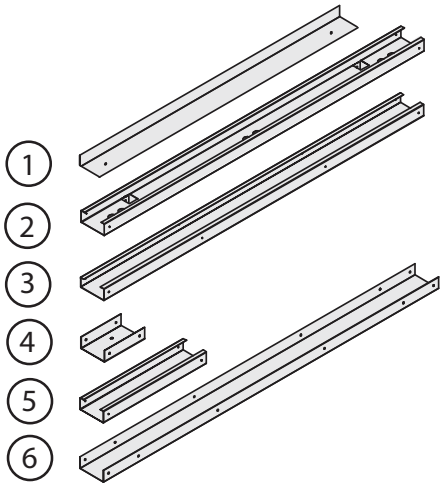
4.2 hearth extension

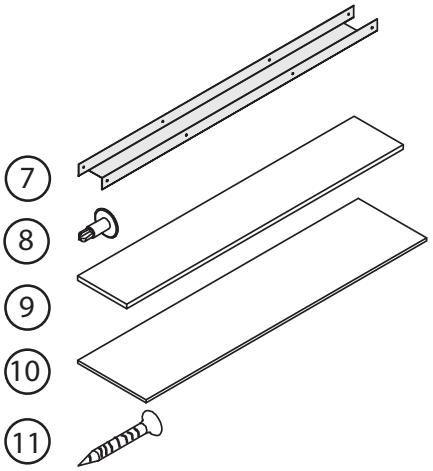
While a hearth extension is not required for this appliance, one is recommended for aesthetic reasons. The installation of a 1" (25mm) hearth extension will conceal the 1" (25mm) gap under the appliance. The hearth extension must not be any more than 1" (25mm) above the bottom of the appliance. If thicker, the appliance must be raised up accordingly.

NOTE: Hearth extensions thicker than 1" (25mm) will interfere with the safety barrier assembly.



4.3 steel stud framing kit





REF NO.	PART NO.	DESCRIPTION	DIMENSIONS	QTY
1	W585-0269	STUD SHIELD	1” x 2” x 4.4FT (25mm x 50.8mm x 1.35m)	2
2	W650-0017	STUD, OUTSIDE STEEL	1 1/2” x 3 1/2” x 4.1FT (38mm x 88.9mm x 1.24m)	4
3	W650-0041	STUD, INSIDE STEEL	1 1/2” x 3 1/2” x 4.1FT (38mm x 88.9mm x 1.24m)	4
4	W650-0028	STUD, BOTTOM STEEL	1 1/2” x 3 1/2” x 7 1/2” (38mm x 88.9mm x 190.5mm)	4
5	W650-0020	STUD, CENTER STEEL	1 1/2” x 3 1/2” x 13 3/8” (38mm x 88.9mm x 34cm)	4
6	W650-0026	STUD, TOP STEEL	1 1/2” x 3 1/2” x 4.5FT (38mm x 88.9mm x 1.4m)	2
7	W650-0027	STUD, HEADER PLATE	1 1/2” x 3 1/2” x 3.5FT (38mm x 88.9mm x 1.06m)	2
8	W570-0024	SCREW #8 x 1/2”		64
9	W475-0868	CEMENT BOARD SIDE PANEL	1/2” x 7 1/2” x 4.1FT (13mm x 19.1cm x 1.24m)	4
10	W475-0867	CEMENT BOARD CENTER PANEL	1/2” x 15 1/2” x 3.2FT (13mm x 39.4cm x 0.99m)	2
11	W570-0017	SCREW #6 x 1”		30

4.3.1 inside frame assembly

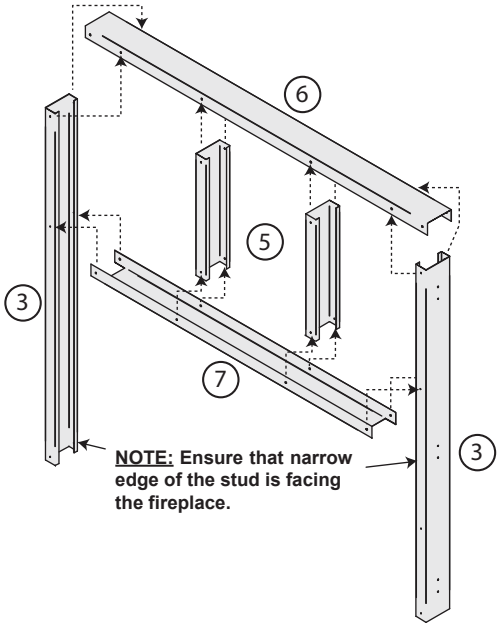
⚠ WARNING

- Edges are sharp, always wear gloves when working with sheet metal.

A. Lay out inside steel studs (3) and center steel studs (5) on a large flat surface.

B. Using the screws provided (8), attach the top steel header (6) to the inside steel studs (3) and to the center steel studs (5) on both edges.

C. Attach header plate stud (7) to the inside steel studs (3).

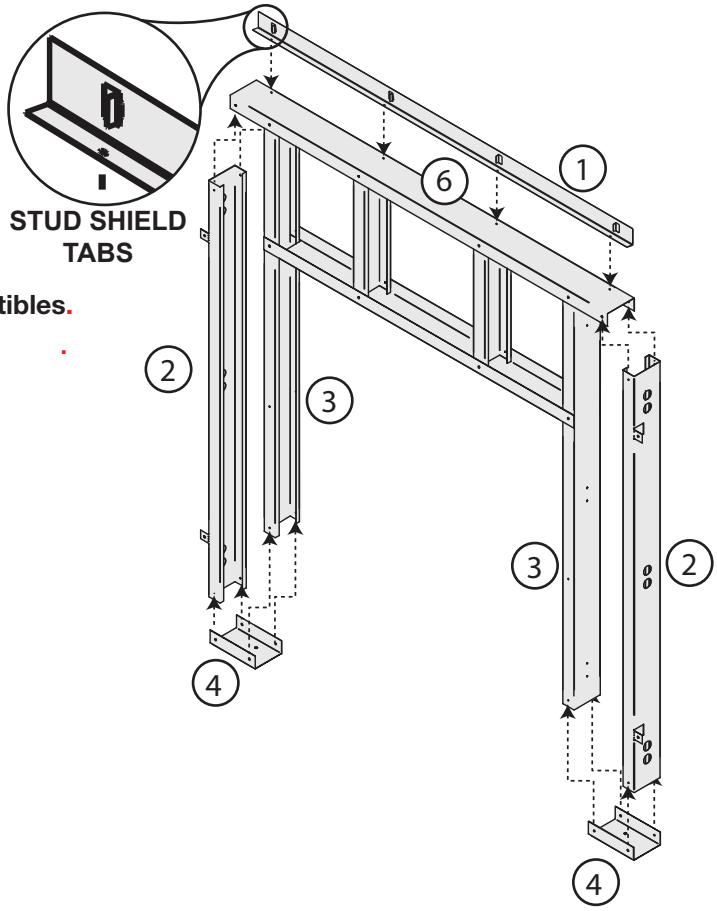


4.3.2 attach side studs (legs)

A. Attach the outside steel studs (2) to the top of the top steel stud (6).

B. Fasten the outside steel studs (2) and inside steel studs (3) to the bottom steel studs (4).

C. Attach the stud shield (1) to the top steel stud (6).
NOTE: Tabs on stud shield must be bent forward to maintain clearances to combustibles.

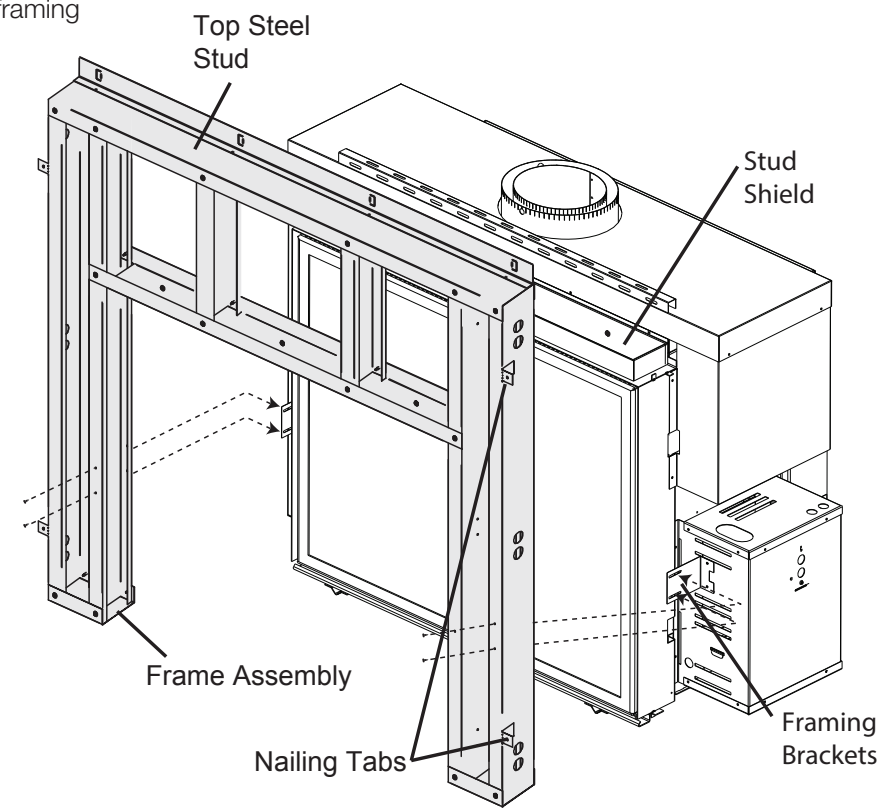


4.3.3 attach the assembled frame to the appliance

A. Align the frame assembly to the framing brackets and secure with screws provided. The frame assembly should be flush with the front of the stud shield.

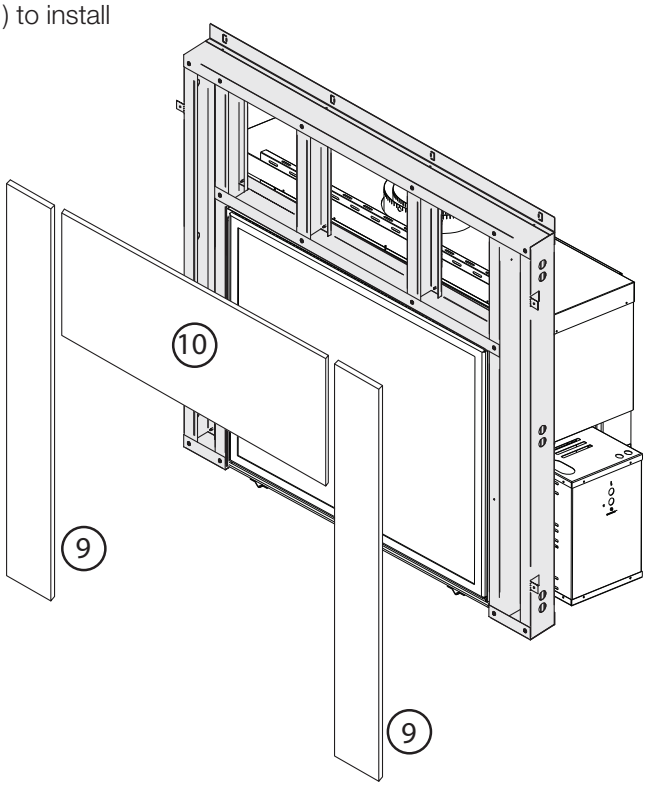
B. Secure the frame assembly to the stud shield.

C. Secure the frame assembly to the framed combustible enclosure by bending out the nailing tabs and securing.



4.3.4 install concrete board side and center panels

With the frame assembly in place use drywall screws (11) to install the concrete board center (10) and sides (9).



4.3.5 steel framing kit side two

Repeat sections “INSIDE FRAME ASSEMBLY” through “INSTALL CONCRETE BOARD SIDE AND CENTER PANELS “ for opposite side.

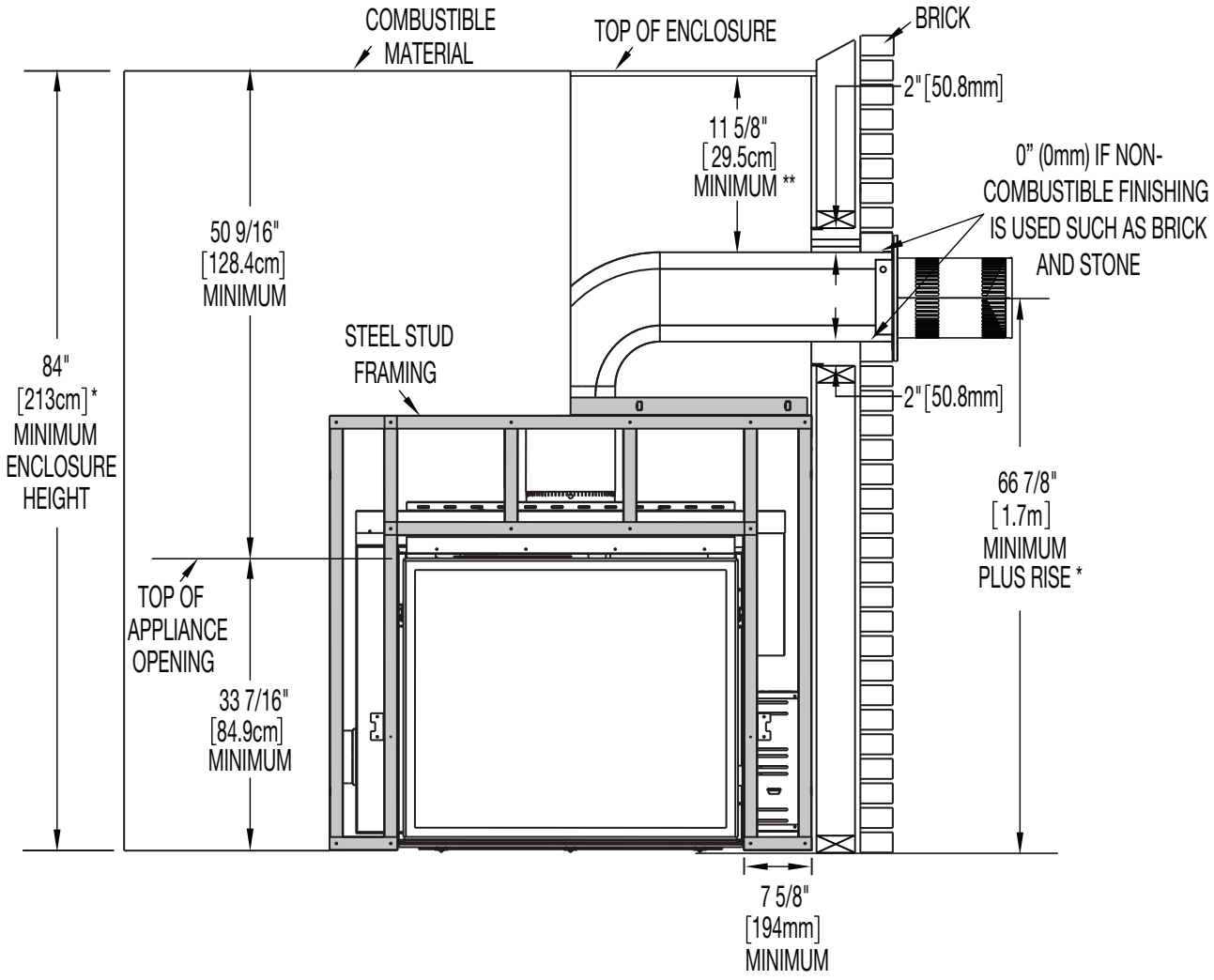
framing

4.4 minimum clearance to combustible enclosures

⚠ WARNING

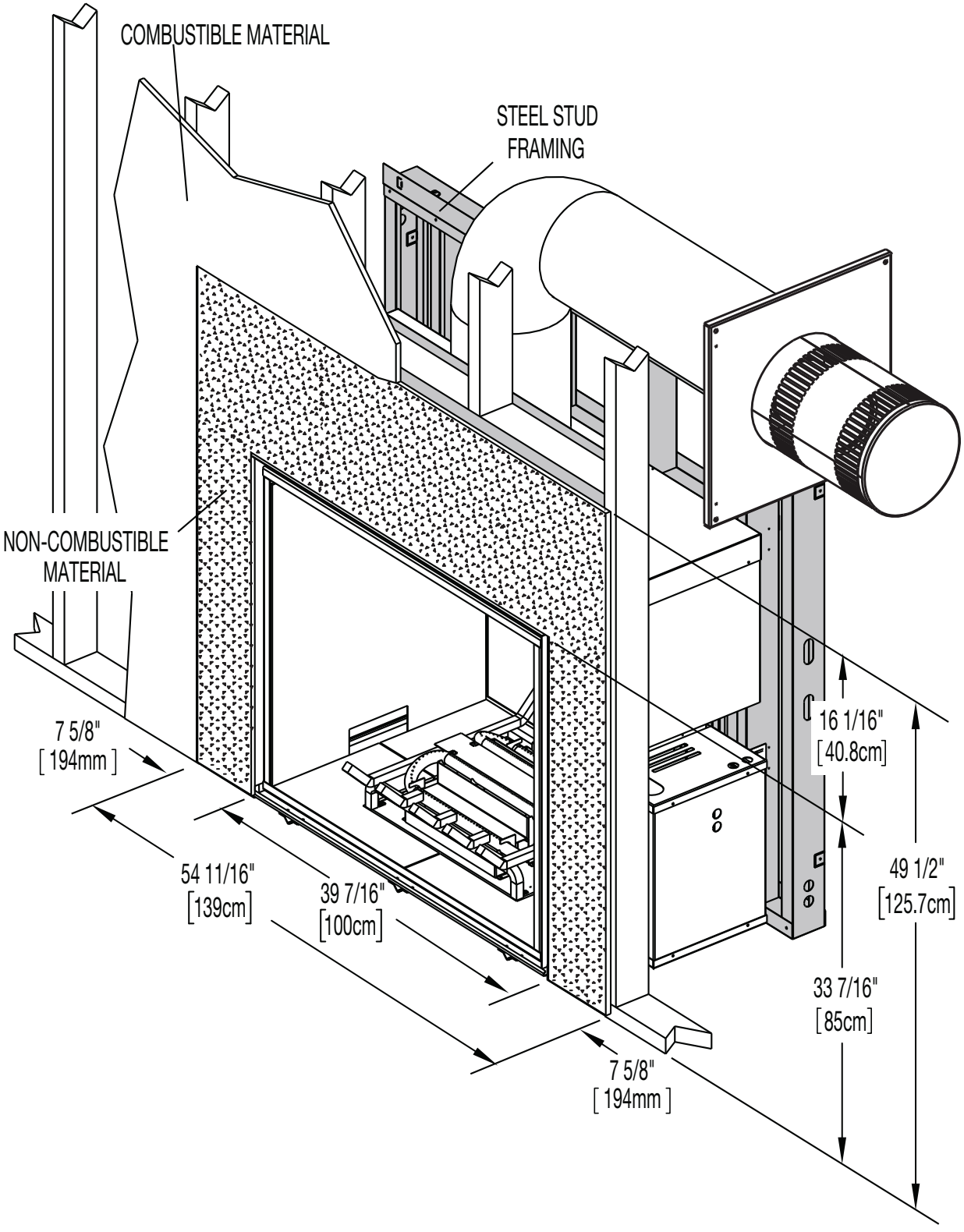
- Risk of fire!
- The front of the appliance must be finished with any non-combustible materials such as brick, marble, granite, etc. provided that these materials do not cover the appliance opening.
- The steel stud framing kits with cement board provided must be installed.

IMPORTANT: This appliance requires a minimum inside enclosure height of 84” (213cm), measured from the bottom of the appliance. For temperature requirements, this area must be left unobstructed. It is recommended that the enclosure be ventilated at the top and bottom to circulate the air.



*** Refer to “VENTING” section.**

**** NOTE: Within the appliance enclosure a 3” (76.2mm) clearance between the vertical vent run and the combustible materials on the front facing of the enclosure is required. Similarly, a 11 5/8” (29.5cm) clearance to combustible materials from the top of the horizontal vent run is required. All other clearances within the enclosure, including where the vent pipe exits the enclosure are subject to 2” (50.8mm) for horizontal and 1” (25.4mm) for vertical.**


COMBUSTIBLE MATERIAL
STEEL STUD FRAMING
NON-COMBUSTIBLE MATERIAL
7 5/8" [194mm]
54 11/16" [139cm]
39 7/16" [100cm]
16 1/16" [40.8cm]
49 1/2" [125.7cm]
33 7/16" [85cm]
7 5/8" [194mm]

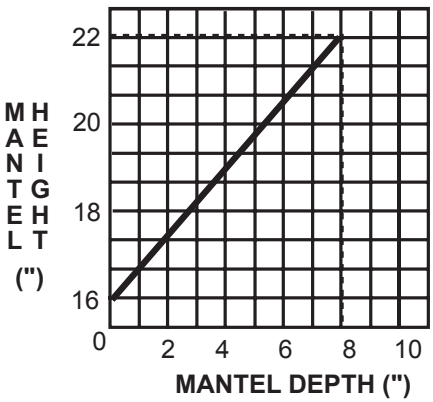
framing

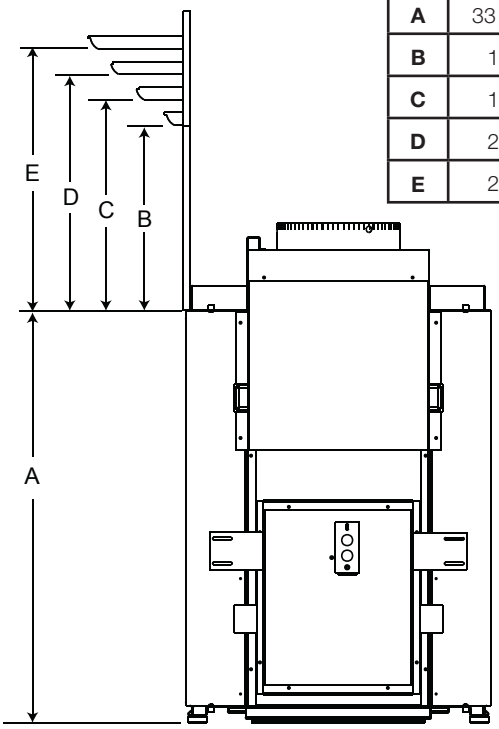
4.5 minimum mantel clearances

⚠ WARNING

- Risk of fire. Maintain all specified air space clearances to combustibles. Failure to comply with these instructions may cause a fire or cause the appliance to overheat. Ensure all clearances (i.e. back, side, top, vent, mantel, front, etc.) are clearly maintained.
- When using paint or lacquer to finish the mantel, the paint or lacquer must be heat resistant to prevent discolouration.

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





MANTEL DIMENSIONS		
Ref	**Height**	**Depth**
A	33 7/16” (85cm)	
B	16” (40.6cm)	2” (51mm)
C	18” (45.7cm)	4” (102mm)
D	20” (50.8cm)	6” (152mm)
E	22” (55.9cm)	8” (203mm)

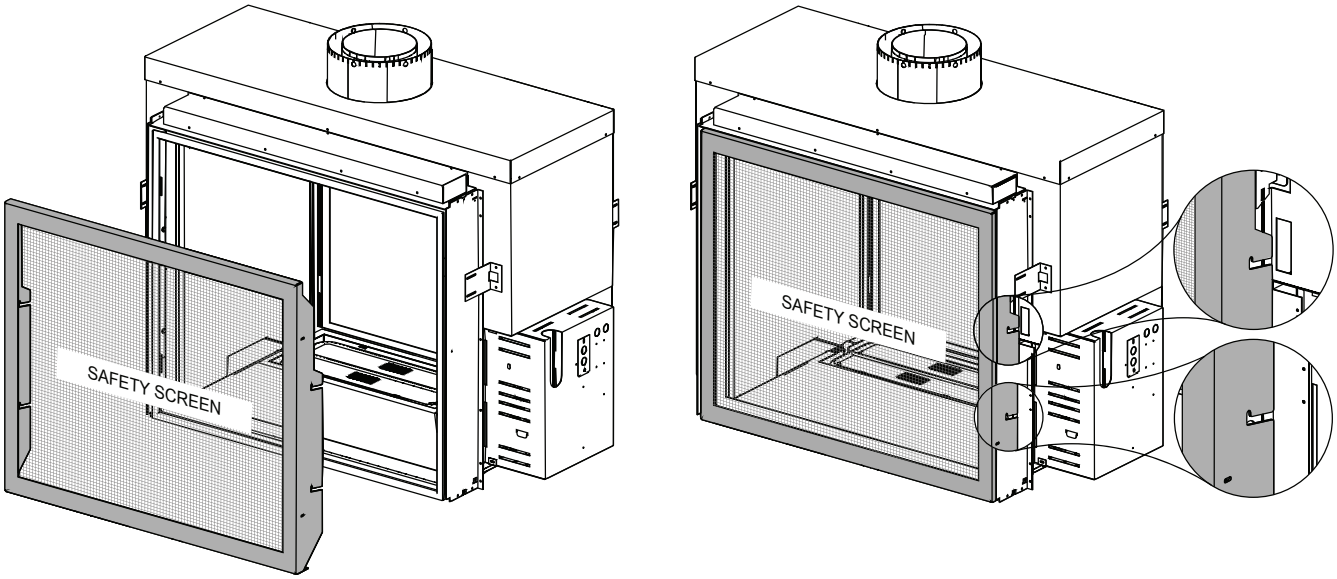
⚠ WARNING

- Risk of fire!
- Never obstruct the front opening of the appliance.
- The front of the appliance must be finished with any non-combustible materials such as brick, marble, granite, etc., provided that these materials do not go below the specified dimension, as illustrated.
- Do not strike, slam, or scratch. Do not operate appliance with glass removed, cracked, or scratched.
- Facing and/or finishing material must never overhang into the appliance opening.
- The glass door assembly is a safety device designed to pivot forward when relieving excess pressure that might occur. Finishing or other materials must not be located in the opening surrounding the door as this will interfere with the doors ability to relieve pressure.
- If applicable, 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.

5.1 safety barrier removal / installation

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with the appliance and must be installed.

Lift the safety barrier assembly off the four shoulder screws, pull up and out to remove from the appliance.



Reverse these instructions to re-install the trim with safety screen. Ensure the safety screen is installed correctly.

5.2 door removal / installation

⚠ WARNING

- Glass may be hot. Do not touch glass until cooled.
- If equipped with door latches that are part of a safety system, they must be properly engaged. Do not operate the appliance with latches disengaged.
- Facing and/or finishing materials must not interfere with air flow through air openings, louvre openings, operation of louvres, or doors/access for service. Observe all clearances when applying combustible materials.
- Before door is removed, turn the appliance off and wait until appliance is cool to the touch. Doors are heavy and fragile so handle with care.

Before the glass door can be removed the safety screen must be removed, refer to “safety barrier removal / installation” section.

⚠ WARNING

- Do not insert fingers in the gap between the door and the framing edge, there is a risk of injury due to the spring mechanism.

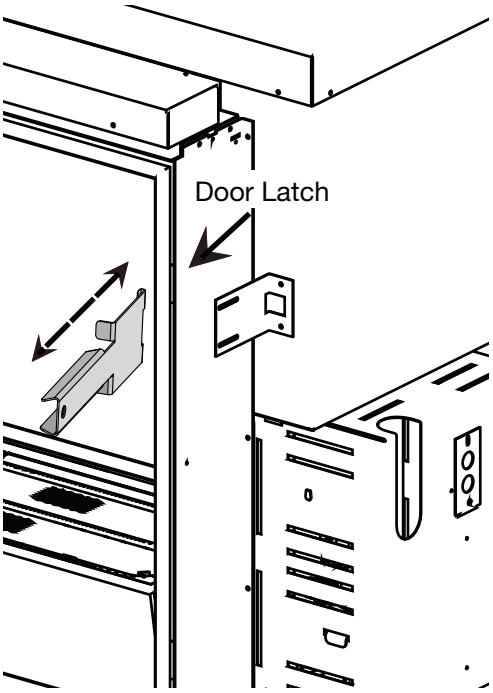
A. Locate the door latches: one at each the left and right side of the door between the main door and framing edge.

B. Place the latch key into slots of the door latch. Pull out and forward to disengage door latches.

C. Tilt the top of the door forward until you can grip the sides of the door. Lift up and out of the bottom door retainer.

D. To re-install the door, lift onto the bottom door retainer, pivot the top of the door into the closed position. Hold the door in place and re secure the latches. **NOTE: These latches make up the spring relief system for the appliance. Ensure they open freely and close sealed.**

Reverse these steps to re-install the door and trim with safety screen. Ensure the safety screen is installed correctly.



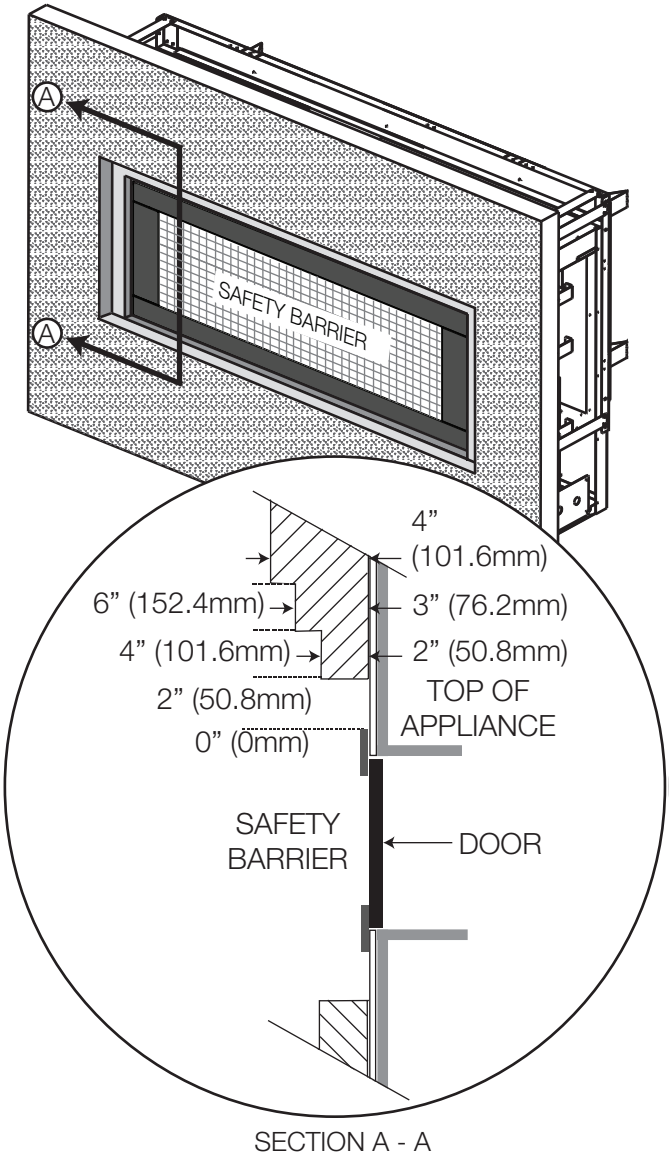
IMPORTANT: Once latches are engaged, test to make sure that the door is secure and will not fall forward.

5.3 burner installation

See separate instructions accompanying burner assembly (sold separately).

5.4 non-combustible facing material

WARNING: The appliance opening may be recessed in non-combustible facing material provided it does not project more than 2" (50.8mm) past the face of the appliance. If greater projections are desired, increase the clearance to the sides, bottom and top by 2" (50.8mm) for every additional 1" (25.4mm) of projection. If using an optional surround, then 2" (50.8mm) clearance from the surround is required before projecting out a maximum 2" (50.8mm). If greater projections are desired, increase the clearance from the surround by 2" (50.8mm) for every 1" (25.4mm) of additional projection.



SECTION A - A

6.0 electrical information

⚠ WARNING

- Do not use this appliance if any part has been under water. Call a qualified service technician immediately to have the appliance inspected for damage to the electrical circuit.
- Risk of electrical shock or explosion. Do not wire 110V to the valve or to the appliance wall switch. Incorrect wiring will damage controls.
- All wiring should be done by a qualified electrician and shall be in compliance with local codes. In the absence of local codes, use the current CSA22.1 Canadian Electric Code in Canada or the current National Electric Code ANSI/NFPA NO. 70 in the United States.
- Always light the pilot whether for the first time or if the gas supply has run out, with the glass door opened or removed.

If access to the control area is necessary AFTER INSTALLATION, remove the access panel or electrical box cover located inside the firebox. The access panel and gasket must be re-installed before operating the appliance.

6.1 hard wiring connection

It is necessary to hard wire this appliance.
Permanently framing the appliance with an enclosure, requires the appliance junction box to be hard wired.

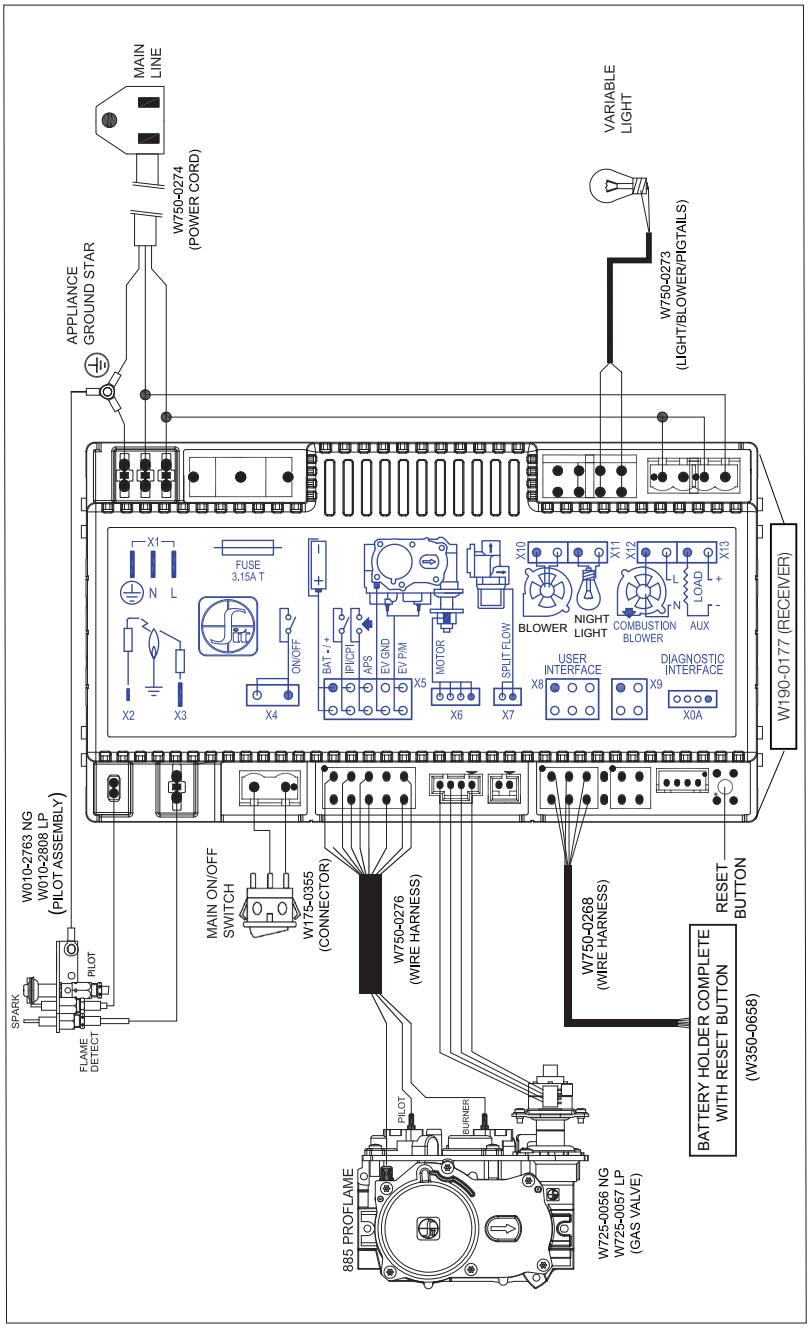
6.2 optional blower installation

See separate instructions accompanying the blower assembly.

6.3 wiring diagram

⚠ WARNING

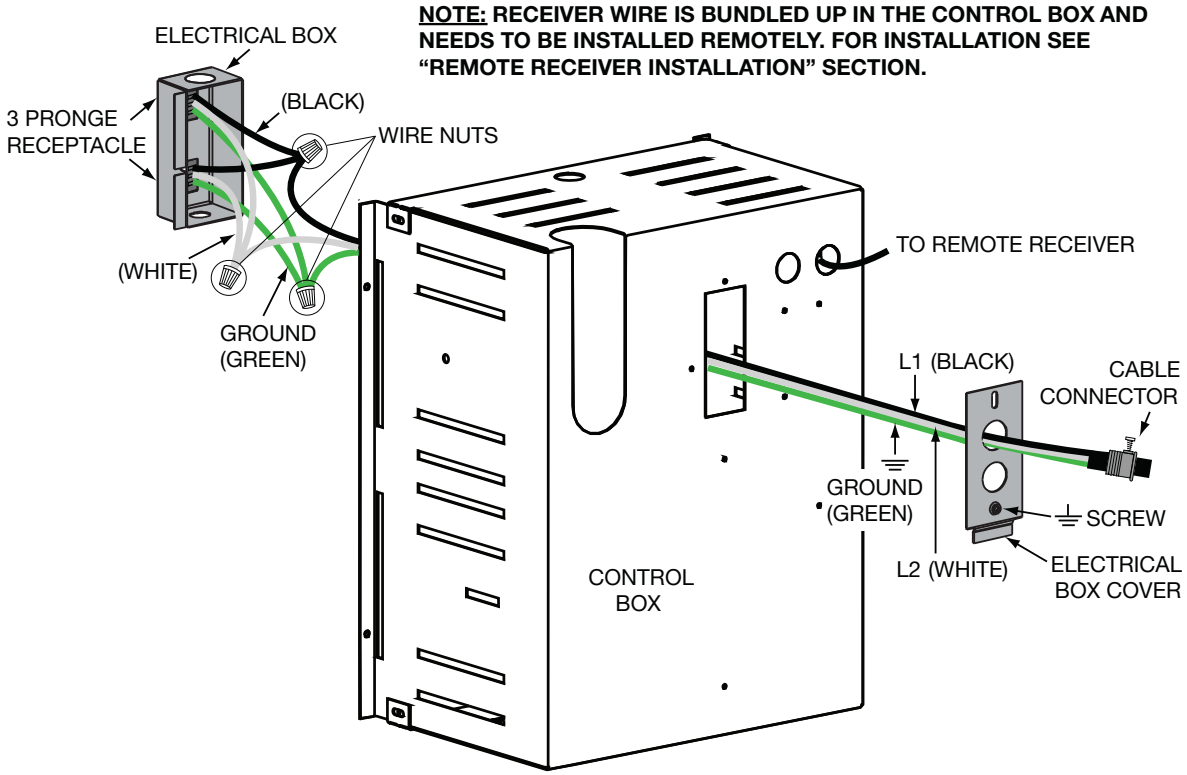
- Do not wire 110 volts to the valve or wall switch.



NOTE: This appliance is equipped with a three-prong (grounding) plug for protection against shock hazard and should be connected into a properly grounded circuit. Do not cut or remove the grounding prong from the plug.

electrical information

6.4 receptacle wiring diagram



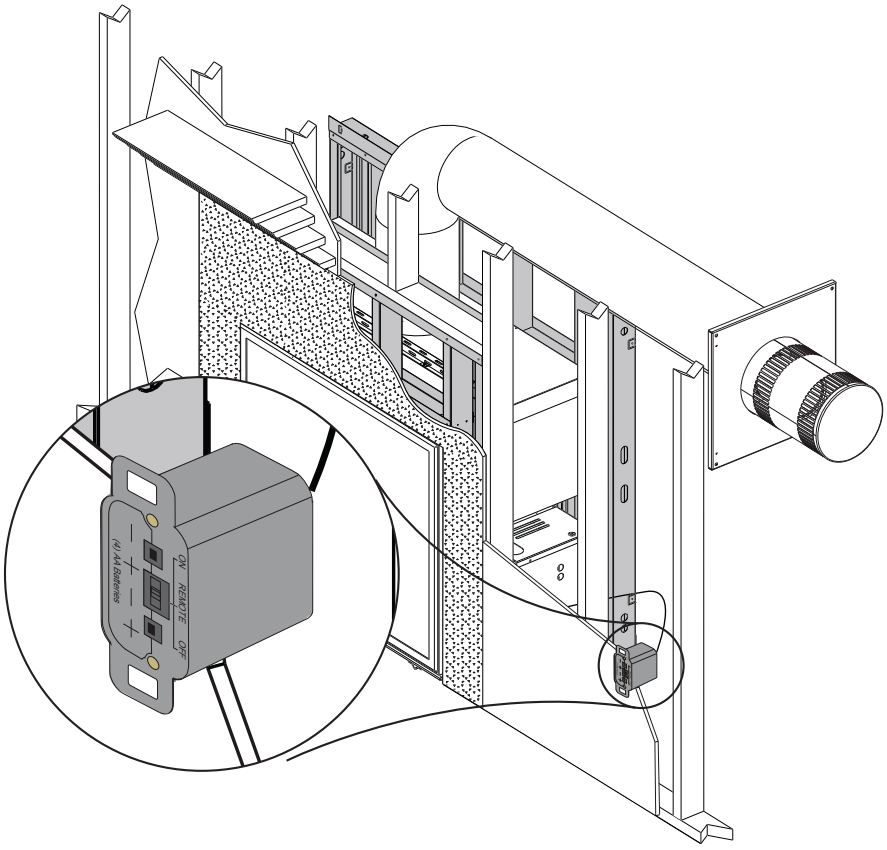
<u>NOTE:</u> RECEIVER WIRE IS BUNDLED UP IN THE CONTROL BOX AND NEEDS TO BE INSTALLED REMOTELY. FOR INSTALLATION SEE "REMOTE RECEIVER INSTALLATION" SECTION.

6.5 remote receiver installation

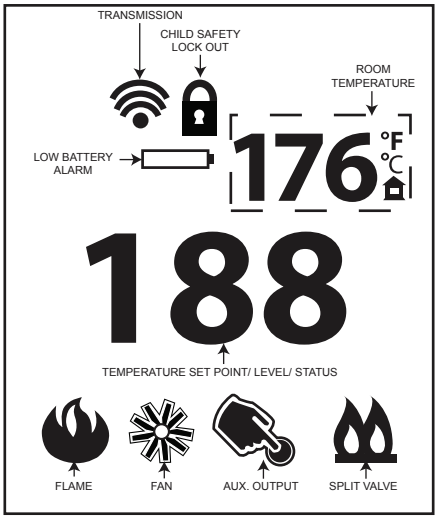
Receiver must be located within 8 feet (2.4m) of this side of the appliance and must be accessible for programming the remote.

Install the receiver into a standard electrical switch box. Determine an appropriate location and install the electrical box.

<u>NOTE:</u> Ensure the three position slider switch is in the "REMOTE" position (middle).



7.1 general transmitter layout



7.2 Initializing the transmitter/battery holder for the first time

A. Install the 4 AA batteries into the Proflame 2 battery holder, note the polarity of the batteries and insert as indicated on the cover (+/-).

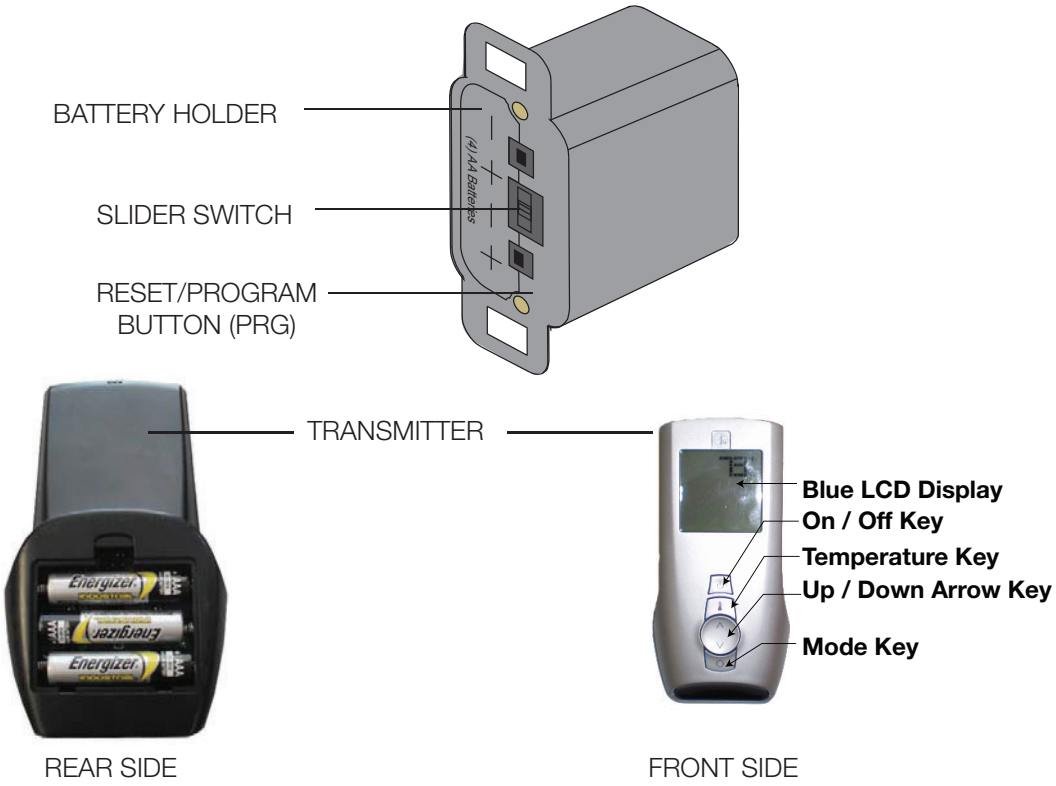
B. Ensure the 3 position slider switch is switched to the “REMOTE” position (middle position).

C. Press the reset/programming button, use a small object such as a paper clip in order to reach the button marked PRG, as shown in the illustration below.

D. The battery holder will beep 3 times to indicate that it’s ready to synchronize with the transmitter.

E. Install the 3 AAA batteries into the transmitter, as shown in the photograph below, then press the ON button, The battery holder will beep 4 times to indicate that the transmitter’s command is accepted.

NOTE: THE INITIALIZING PROCESS MUST BE COMPLETED WITHIN 10 SECONDS OF PRESSING THE RESET/ PROGRAM BUTTON (PRG).

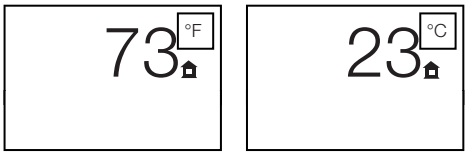


operation

7.3 temperature display

A. With the system in the **off** position, press the Temperature Key and the **mode key** at the same time to change from degrees F to C.

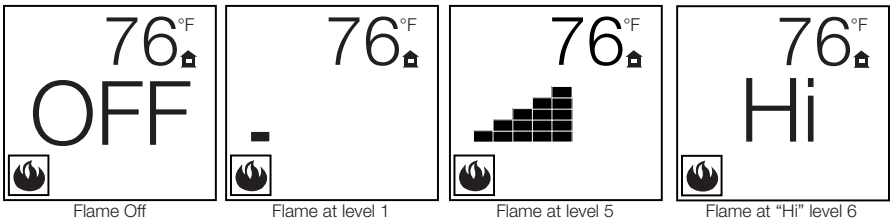
B. Look at the LCD screen on the transmitter to verify that a C or F is visible to the right of the Room Temperature display.



7.4 flame height

The remote control has six (6) flame levels. With the system on and the flame level at the maximum, press the **Down** arrow key once and it will reduce the flame height by one step until the flame is turned off.

The Up Arrow Key will increase the flame height each time it is pressed. If the **Up** arrow key is pressed while the system is on but the flame is off, the flame will come on at the high position. A single “beep” will confirm reception of the command.



Flame Off | Flame at level 1 | Flame at level 5 | Flame at “Hi” level 6

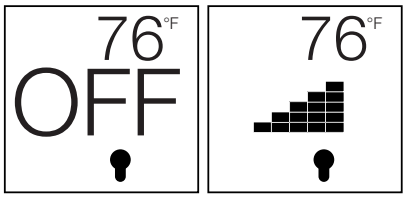
7.5 night light dimmer control

The auxiliary function controls the Night Light ™ with dimmable control.

A. Use the Mode Key to guide you to the Night Light icon.

B. The intensity of the output can be adjusted through 6 levels. Use the UP/DOWN arrow keys to adjust the output level. single beep will confirm reception of the command.

A

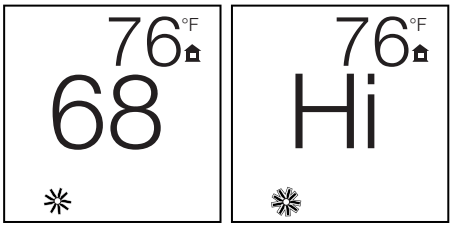


7.6 fan speed

If the appliance is equipped with a hot air circulating fan, the speed of the fan can be controlled by the remote system. The fan speed can be adjusted through six (6) speeds.

A. Use the **mode key** to guide you to the fan control icon.

B. Use the **mode key** to turn **on**/**off** or adjust the fan speed. A single “beep” will confirm reception of the command.



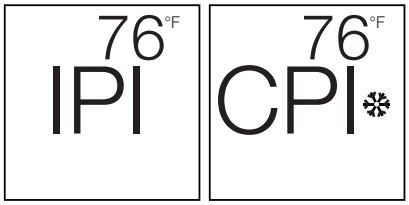
note:

When the desired blower speed is selected, the blower will automatically come on 5 minutes after the main burner has been turned on and remain on twelve minutes after it has been turned off.

7.7 continuous pilot / intermittent pilot (CPI / IPI) selection

A. When the transmitter is in the “OFF” position, use the Mode Key to guide you to the CPI mode icon.

B. Press the UP/DOWN to switch between IPI and CPI modes. A single BEEP will confirm reception of the command.



note:

If the appliance is equipped with a CPI/IPI toggle switch, set the switch to CPI position to enable remote CPI operation. If the switch is set to IPI then it will only work in IPI regardless of what is set on the remote control handset.

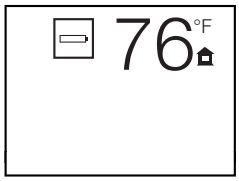
7.8 child proof function / key lock

This function will lock the keys to avoid unsupervised operation.

A. Press the MODE and UP keys at the same time.

B. To de-activate this function, press the MODE and UP keys at the same time.

7.9 low battery / manual bypass



The life span of the remote batteries depends on various factors: quality of the batteries, the number of ignitions, etc.

When the transmitter batteries are low, a battery icon will appear on the LCD display before all battery power is lost. When the batteries are replaced, this icon will disappear.

When the receiver batteries are low, no “beep” will be emitted from the receiver when it receives an **on/off** command. This in an alert for the receiver that there’s low battery. When the batteries are replaced the “beep” will be emitted from the receiver when the **on/off key** is pressed.

If the batteries of the receiver or transmitter are low, the appliance can be turned on manually by sliding the three position slider switch on the receiver to the **on** position. This will bypass the remote control feature and the appliance main burner will come on if the gas valve is in the **on** position.

7.10 split flow

The split flow function controls the ability to turn ON/OFF a second burner.

A. Use the mode key to guide you to the split flow function.

B. Pressing the up arrow key will activate the second burner.

C. Pressing the down arrow key will deactivate the second burner. A single “beep” will confirm the reception of the command.

NOTE: There is no way to modulate the flame heights separately.

8.0 operating instructions

⚠ WARNING

- If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.
- If applicable, always light the pilot whether for the first time or if the gas supply has run out with the glass door opened or removed.

Ensure that a continuous gas flow is at the burner before installing the door. When lit for the first time, the appliance will emit an odor for a few hours. This is a normal temporary condition caused by the “burn-in” of 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 warm weather season, the appliance may emit a slight odor for a few hours. This is caused by dust particules in the heat exchanger burning off. In both cases, open a window to sufficiently ventilate the room.

FOR YOUR SAFETY READ BEFORE LIGHTING

- Do not turn on if children or other at risk individuals are near the appliance.
- This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- Before operating, smell all around the appliance area for gas and next to the floor because some gas is heavier than air and will settle on the floor.
- Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control which has been underwater.

WHAT TO DO IF YOU SMELL GAS

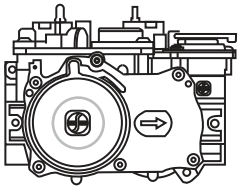
- Turn off all gas to the appliance.
- Open windows.
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building
- Immediately call your gas supplier from a neighbour’s phone. Follow the gas supplier’s instructions.
- If you cannot reach your gas supplier, call the fire department.

LIGHTING INSTRUCTIONS

note:

This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.

A. Stop! Read the above safety information on this label.
B. Remove batteries from the transmitter and set thermostat to lowest setting, if equipped.
C. Turn off all electrical power to the appliance.
D. Open the glass door, if equipped.
E. Turn the manual shut-off valve clockwise to the “OFF” position. (Shut-off valve is located on the flex connector).
F. Wait five (5) minutes to clear out any gas. If you smell gas including near the floor, **STOP!** Follow the instructions above in the “WHAT TO DO IF YOU SMELL GAS” section. If you don’t smell gas; close the glass door and go to the next step.
G. Turn the manual shut-off valve counter clockwise to the “ON” position.
H. Turn on all electrical power to the appliance and re-install the batteries into the transmitter. Set thermostat to desired setting, if equipped.
I. Turn on the remote wall switch to the appliance.
J. If the appliance will not operate, follow instructions “TO TURN OFF GAS” and call your service technician or gas supplier.



TO TURN OFF GAS

A. Set thermostat to lowest setting, if equipped.
B. Turn off the remote wall switch to the appliance.
C. Turn off all electric power to the appliance if service is to be performed.
D. Turn manual shutoff valve clockwise to the “OFF” positon. Do not force.

8.1 pilot on demand

This appliance is equipped with an “On Demand” intermittent pilot ignition system (IPI) which also includes a continuous pilot ignition (CPI) mode with an integrated seven day timer. This system minimizes your appliance’s carbon footprint as well as reducing its annual fuel consumption and operating costs.

In IPI operation, the pilot will ignite prior to the main burner, when the appliance is turned on using a switch, remote or from a call for heat with the thermostat (if equipped). Once the appliance is turned off (or the call for heat is satisfied), the main burner and pilot flame will shut down.

The continuous (CPI) mode is intended to enhance the performance of the appliance during the startup phase in colder climates and extreme weather by keeping the system warm when the main burner is not in use. However, the timer feature provides the convenience that the appliance automatically switches off the pilot when the appliance has not been used for seven days to save unnecessary fuel consumption.

When the CPI function is turned on, the pilot will remain on after the main burner is turned off. A timer will then begin the countdown for approximately seven days before shutting off the pilot if the appliance is not used. This countdown will reset anytime the appliance main burner is used. Therefore, if the appliance is regularly used day to day, the pilot will remain on. However, this system does not require the user to remember to turn the pilot off as summer approaches and avoids unnecessary fuel consumption while still readily turned back on when the cold weather returns.

Your appliance may be equipped with an ACS or remote control device which enables you to select IPI or CPI modes.

If your appliance is equipped with an ACS switch, it has the option to change modes. If installed with the blue wire facing up, flipping the switch UP turns on the continuous pilot with timer and flipping the switch DOWN turns on the intermittent pilot ignition. If installed with the white wire facing up, the opposite is true.

If your appliance is equipped with a remote control device capable of selecting IPI / CPI modes, refer to remote operating instructions.

In order to start your pilot, turning the main burner on with the switch, remote or thermostat and then turning it off will reactivate the continuous pilot mode and reset the seven day timer.

For further information, refer to www.napoleon.com/pilotondemand.

9.0 adjustments

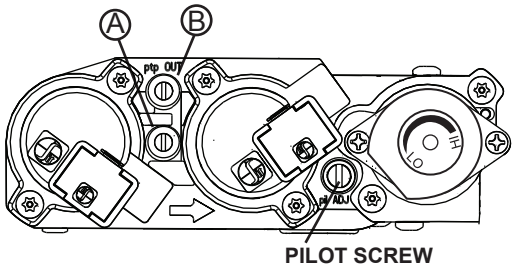
9.1 pilot burner adjustment

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

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 as described on the chart below. Check pressure with main burner operating on "HI".

Outlet pressure can be checked the same as above using screw (B). Gauge should read as described on the chart below. Check pressure with main burner 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.

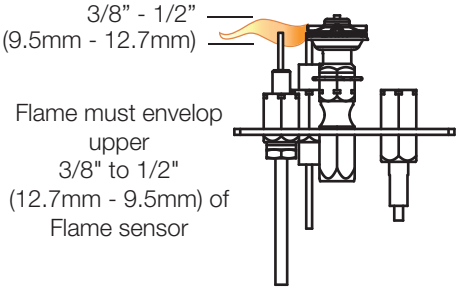
Prior to pilot adjustment, ensure that the pilot assembly has not been painted. If overspray or painting of the pilot assembly has occurred remove the paint from the pilot assembly, or replace. Fine emery cloth or a synthetic scrub pad (such as Scotch-Brite™) can be used to remove the paint from the pilot hood, electrode and flame sensor.

Pressure	Natural Gas (inches)	Natural Gas (millibars)	Propane (inches)	Propane (millibars)
Inlet	*7" (minimum 4.5")	17.4mb (minimum 11.2mb)	13" (minimum 11")	32.4mb (minimum 27.4mb)
Outlet	3.5"	8.7mb	10"	24.9mb

***Maximum inlet pressure not to exceed 13"**

9.2 flame characteristics

It's important to periodically perform a visual check of the pilot and burner flames. Compare them to the illustration provided. If any flames appear abnormal, call a service person.



9.3 restricting vertical vents

Vertical installations may display a very active flame. If this appearance is not desirable, the vent exit must be restricted using a restrictor vent kit. Refer to the "**replacement parts**" section of the owner's manual for the appropriate kit. This will reduce the velocity of the exhaust gases, slowing down the flame pattern and creating a more traditional gentle flame appearance. Specific instructions are included with the kit.

⚠ WARNING

- Turn off the gas and electrical power before servicing the appliance.
- Appliance may be hot. Do not service until appliance has cooled.
- Do not use abrasive cleaners on glass.
- Do not paint the pilot assembly.

This appliance and its venting system should be inspected before use and at least annually by a qualified service person. The following suggested checks should be performed by a qualified technician. The appliance area must be kept clear and free of combustible materials, gasoline, or other flammable vapors and liquids. The flow of combustion and ventilation air must not be obstructed.

note:

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

1. In order to properly clean the burner and pilot assembly, remove the logs, rocks and/or glass to expose both assemblies.
2. Keep the control compartment, media, burner, air shutter opening and the area surrounding the appliance 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 flame sensor and/or thermocouple / thermopile as well as it reaches the burner.
5. If your appliance is equipped with a safety barrier, cleaning may be necessary due to excessive lint / dust from carpeting, pets, etc. simply vacuum using the brush attachment.
6. If your appliance is equipped with relief doors, ensure the system performs effectively. Check that the gasket is not worn or damaged. Replace if necessary.
7. Replace the cleaned logs, rocks or glass. Failure to properly position the media may cause carboning which can be distributed in the surrounding living area, inside the firebox and on exterior surfaces surrounding vent termination.
8. Check to see that the main burner ignites completely on all ports when turned on. A 5 to 10 second total light-up period is satisfactory. If ignition takes longer, consult your local authorized dealer / distributor.
9. Visually inspect the appliance for carbon build up. Using a small whisk or brush, brush off the carbon and vacuum up or sweep into garbage.
10. **This step is not applicable for Vent Free appliances:** Check to see that the appliance is venting correctly. Ensure chimney system is safe and unobstructed. (If for any reason the vent air intake system is disassembled, re-install and re-seal per the instructions provided for the initial installation).

maintenance

10.1 annual maintenance

⚠ WARNING

- Annual maintenance should be performed by a qualified service technician
- The firebox becomes very hot during operation. Let the appliance cool completely or wear heat resistant gloves before conducting service.
- Never vacuum hot embers.
- Do not paint the pilot assembly

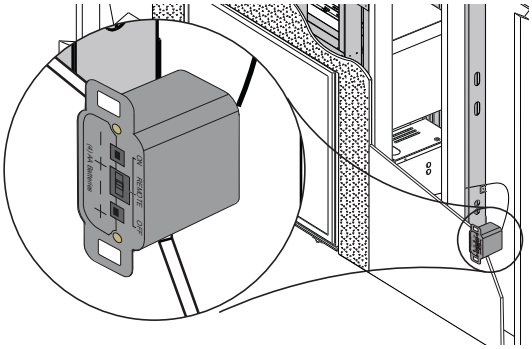
- This appliance will require maintenance which should be planned on an annual basis.
- Service should include cleaning, battery replacement, venting inspection and inspection of the burner, media, and firebox. Refer to the door removal section and remove the door as instructed.
- Carefully remove media if necessary (logs, glass, brick panels, etc.).
- Using a vacuum with soft brush attachment, gently remove any dirt, debris, or carbon build up from the logs, firebox, and burner. For glass media, follow the installation instructions for pre-cleaning.
- Gently remove any build-up on the pilot assembly including thermopile, thermocouple, flame sensor, and igniter (if equipped).

note:

Clean flame sensor using a fine emery cloth or a synthetic scrub pad (such as Scotch-Brite™) to remove any oxides. Clean the pilot assembly using a vacuum with a soft brush attachment. It is important that the pilot assembly is not painted.

- Inspect all accessible gaskets and replace as required.
- If equipped with a blower, access the blower and clean using a soft brush and vacuum.
- Re-assemble the various components in reverse order.
- Inspect the relief system. The appliance relieves through the main glass door or through the flaps on the firebox top. Ensure they open freely, and close sealed.
- Check the gas control valve pilot and Hi / Lo knobs move freely, if equipped. Replace if any stiffness in movement is experienced.
- Check for gas leaks on all gas connections up and downstream from the gas valve including pilot tube connections.

<u>NOTE:</u> To install batteries in the case of a power outage you must access the battery back-up. Remove the receiver cover plate and install the 4 “AA” batteries. Ensure the 3 position slider switch is in the “REMOTE” position (middle).

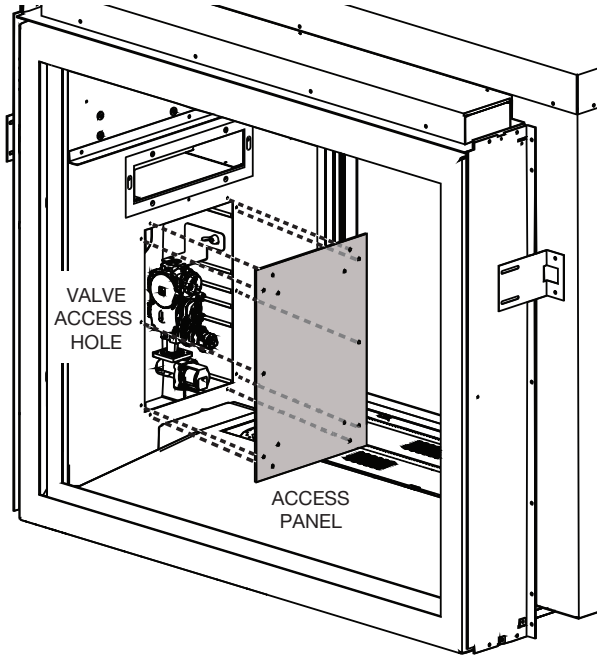


10.2 control access

10.2.1 inner access panel

NOTE: A new gasket will be required, when re-installing the access panel (see "HD81-1 OVERVIEW" in the "REPLACEMENTS" section).

Remove one of the main doors, see "DOOR REMOVAL / INSTALLATION" section. Remove either the optional brick or porcelain panel from the side where the control box is located. Remove the eight screws from the access panel.



10.3 valve removal

The valve on this appliance is piped with three flex connectors (one inlet, two outlets). It can be removed and pulled forward for service.

A. Remove the optional panels.

B. Remove the air manifold, refer to Figure 1.

C. Remove inner access panel, see "INNER ACCESS PANEL" section.

D. Remove the wing nut and pivot the valve out from the slot at the bottom of the valve, refer to Figure 2.

E. Slowly pull the valve through the control door being careful not to kink the gas lines or wires. Disconnect flex connectors.

F. Replace all components before returning the appliance to service.

G. Check for gas leaks by brushing on a soap and water solution.

FIGURE 1

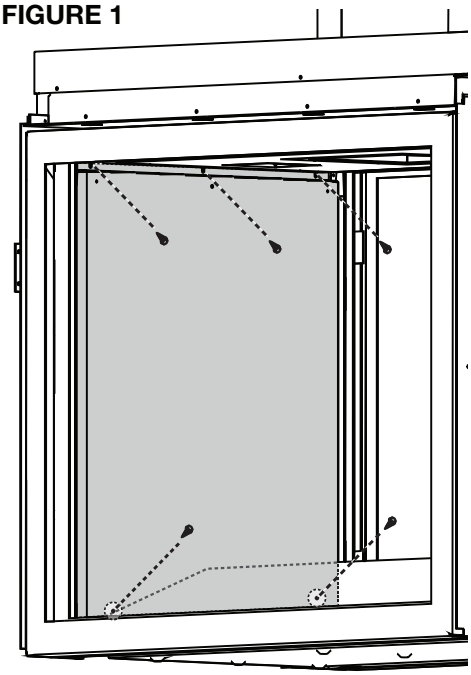
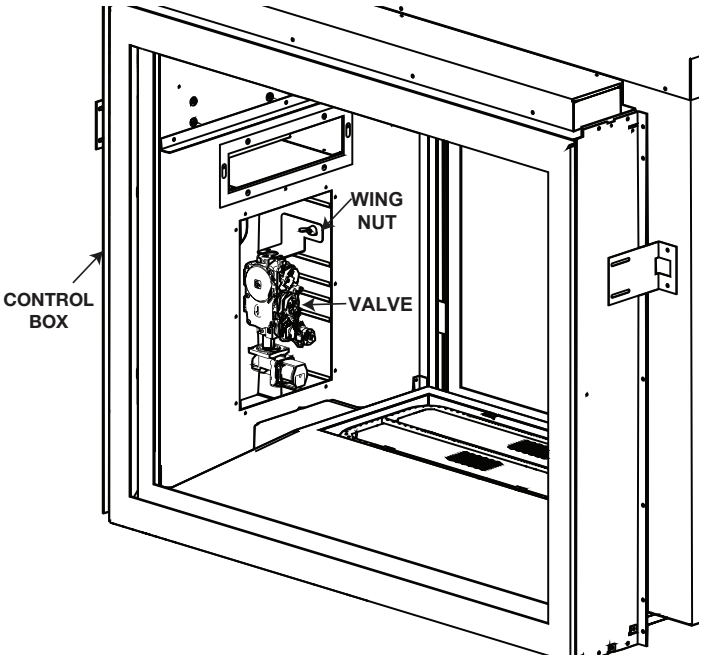


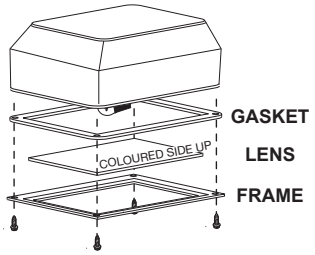
FIGURE 2



maintenance

10.4 night light™

This appliance comes equipped with two “Night Lights™”. The lights have been pre-wired and are controlled from the remote control.



If in the event the lamps or lens need replacing, follow the instructions below:

A. Shut off breaker at main power supply

B. Remove the four screws that secure the lens frame to the firebox sides. This frame retains the glass lens.

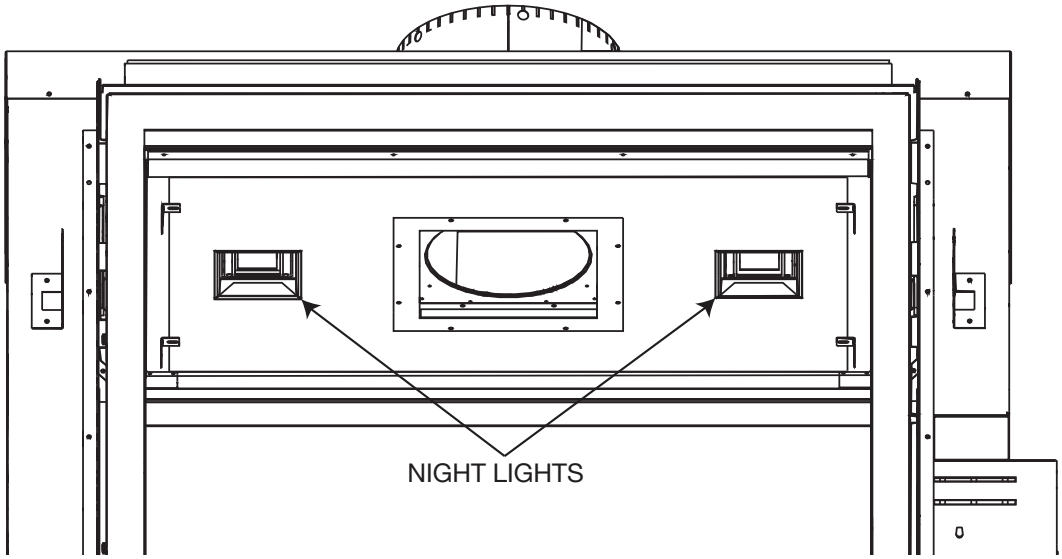
C. The lamp can now be accessed.

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

The lamp will pull straight out of the socket. Replace with Wolf Steel parts only, as lamp and lens are special “high temperature” products. When re-installing, ensure integrity of gasket seal.

THE FIREBOX MUST BE SEALED.

Over tightening the screws could break the lens. “Light Leakage” from the holes in the housing lamp may be observed. The holes in the lamp housing are necessary for ventilation and must not be covered.



10.5 glass / door replacement

⚠ WARNING

- Do not use substitute materials.
- Glass may be hot. Do not touch glass until cooled.
- Care must be taken when removing and disposing of any broken door glass or damaged components. Be sure to vacuum up any broken glass from inside appliance before operation.
- Do not strike, slam, or scratch. Do not operate appliance with glass removed, cracked, broken, or scratched.

Replacement glass/frame assembly shall be replaced as a complete unit as supplied by the appliance manufacturer.

10.6 care of glass

⚠ WARNING

- Do not clean glass when hot! Do not use abrasive cleaners to clean glass.

Buff lightly with a clean dry soft cloth to remove accumulated dust or fingerprints. Clean both sides of the glass after the first 10 hours of operation with an ammonia-free glass cleaner.

note:

Vinegar-based glass cleaners have demonstrated an ability to provide a clean, streak free glass surface.

Thereafter, clean as required. If the glass is not kept clean permanent discoloration and / or blemishes may result. Contact you local authorized dealer / distributor for complete cleaning instructions.

Razor blades, steel wool, or other metallic objects must not be used on both surfaces of the glass. Doing so can remove a thin layer of metal from the razor blades, steel wool, or other metallic objects that may then be deposited onto the coating. This can result in a discoloured stain or scratch-like mark. More importantly, this can scratch the glass surface, thereby reducing its strength.

Do not operate the appliance with broken glass, as leakage of flue gases may result.

Contact your local authorized dealer / distributor for complete cleaning instructions.

If the glass should ever crack or break while the fire is burning, do not open the door until the fire is out. Do not operate the appliance until the glass has been replaced. Contact you local authorized dealer / distributor for replacement parts. **DO NOT SUBSTITUTE MATERIALS.**

This appliance is factory equipped with 5mm ceramic glass. Use only replacement parts as supplied by the appliance manufacturer. **DO NOT SUBSTITUTE MATERIALS.**

10.7 care of plated parts

If the appliance is equipped with plated parts, you must clean fingerprints or other marks from the plated surfaces before operating the appliance for the first time. Use an ammonia-free or vinegar-based cleaner and a towel to clean. If not cleaned properly before operating for the first time, the marks can cause permanent blemishes on the plating. After the plating is cured, the fingerprints and oils will not affect the finish and little maintenance is required, just wipe clean as needed. Prolonged high temperature burning with the door ajar may cause discolouration on plated parts.

note:

The protective wrap on plated parts is best removed when the assembly is at room temperature but this can be improved if the assembly is warmed (i.e. using a hair dryer or similar heat source).

11.0 replacement parts

⚠ WARNING

- Failure to position the parts in accordance with this manual or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

Contact your dealer for questions concerning prices and policies on replacement parts. Normally, all parts can be ordered through your Authorized dealer / distributor.

For warranty replacement parts, a photocopy of the original invoice will be required to honour the claim.

When ordering replacement parts always give the following information:

- Model & Serial Number of appliance
- Installation date of appliance
- Part number
- Description of part
- Finish

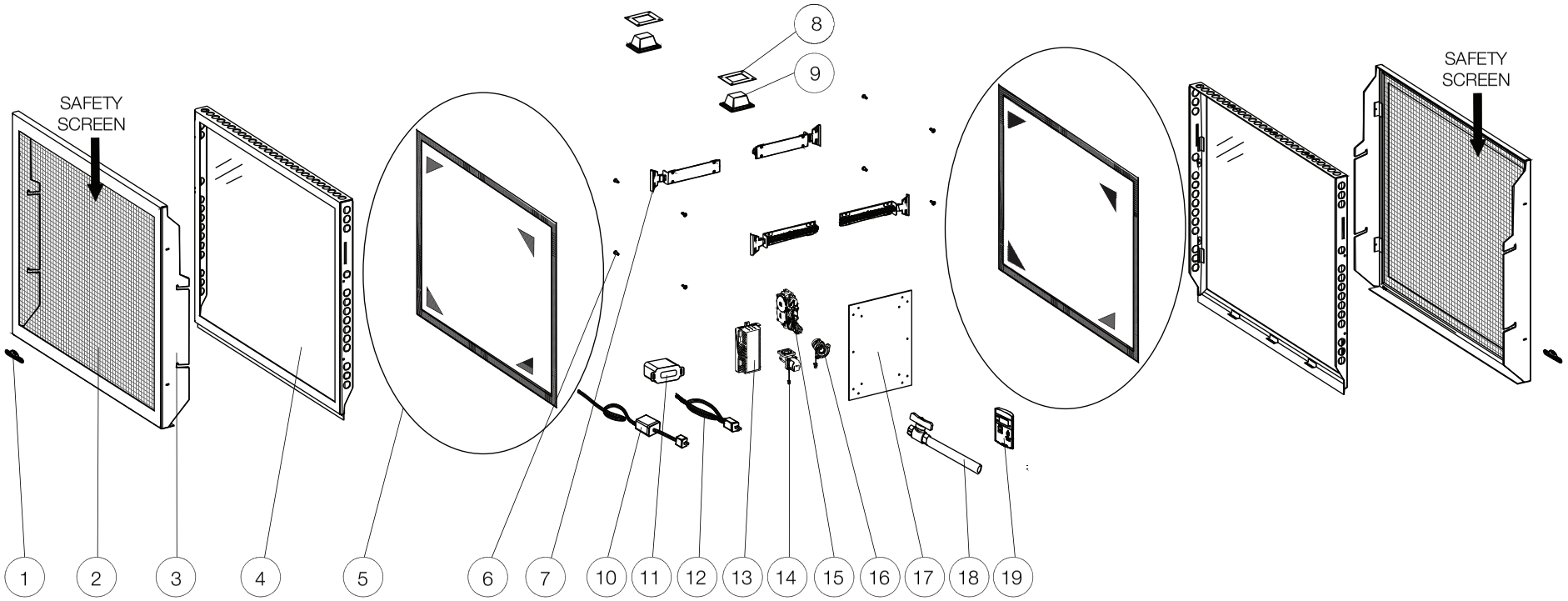
Parts, part numbers, and availability are subject to change without notice.

Parts identified as stocked will be delivered within 2 to 5 business days for most delivery destinations.

Parts not identified as stocked will be delivered within a 2 to 4 week period, for most cases.

Parts identified as 'SO' are special order and can take up to 90 days for delivery.

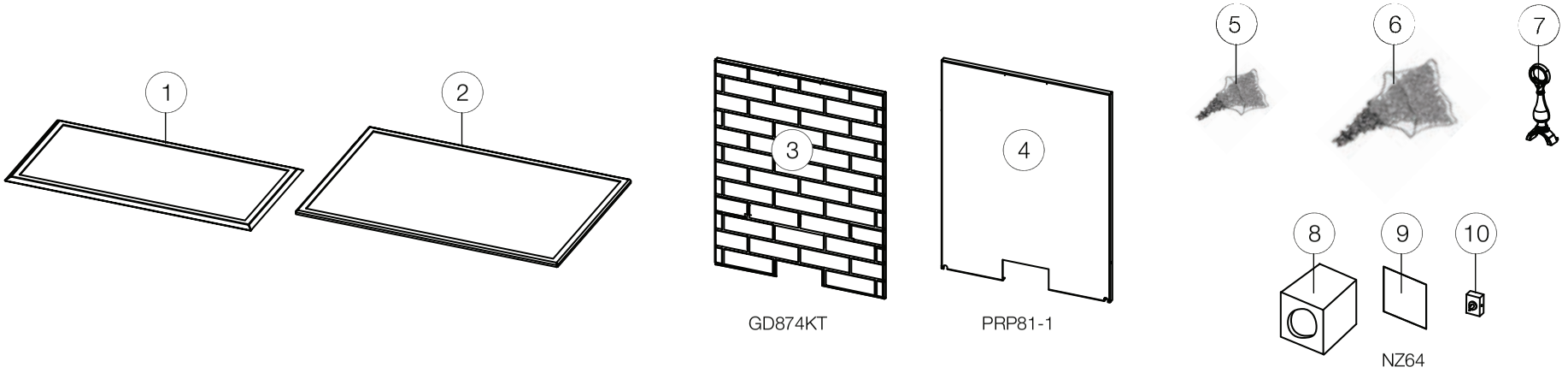
11.1 overview



Items may not appear exactly as illustrated.

REF. NO.	PART NUMBER	DESCRIPTION	STOCKED
1	W385-2010	Napoleon logo	Yes
2	W565-0270-SER	Safety screen	
3	W010-3841-SER	Safety barrier assembly	
4	W010-2967-SER	Door assembly	Yes
5	W562-0060	Door gasket kit	Yes
6	W065-0034	Shoulder bolt	
7	W010-4011	Door latch	
8	W290-0080	Night light gasket	Yes
9	N402-0001	Night light assembly	Yes
10	W707-0019	Transformer	Yes
11	W350-0655	Battery housing	Yes

REF. NO.	PART NUMBER	DESCRIPTION	STOCKED
12	W750-0294	Power cord	
13	W190-0177	Control module	Yes
14	W725-0058	Split flow valve	Yes
14	W725-0056	Valve (NG)	Yes
15	W725-0057	Valve (P)	Yes
15	W435-0011	Modulating regulator (NG)	Yes
16	W435-0010	Modulating regulator (P)	Yes
17	W290-0136	Control access gasket	Yes
18	W175-0217	Flex connector c/w shut off	Yes
19	W660-0203	Remote control	Yes



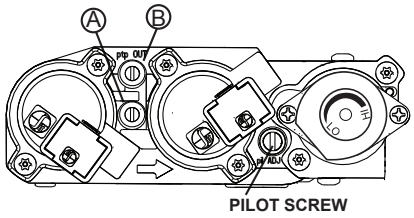
Items may not appear exactly as illustrated.

Ref.	Part Number	Description	Stocked
1	GBAT	Glass burner trim	
2	SBAT	Rock burner trim	
3	W475-1350-SER	Side brick panel (GD874KT)	
4	W500-0871-SER	Sisde porcelain panel (PRP81-1)	
5	MEGK	Black glass embers (1lb. bag)	
5	MEGB	Blue glass embers (1lb. bag)	
5	MEGR	Red glass embers (1lb. bag)	
5	MEGA	Amber glass embers (1lb. bag)	
5	MEGB	Blue glass embers (1lb. bag)	
5	MEGT	Topaz glass embers (1lb. bag)	

Ref.	Part Number	Description	Stocked
6	MKGK	Black glass embers (5lb. bag)	
6	MKGB	Blue glass embers (5lb. bag)	
6	MKGR	Red glass embers (5lb. bag)	
6	MKGA	Amber glass embers (5lb. bag)	
6	MKGC	Clear glass embers (5lb. bag)	
6	MKGT	Topaz glass embers (5lb. bag)	
7	W715-0629	Andiron (ANIH)	Yes
8	W062-0018	Blower (NZ64)	
9	W290-0092	Blower gasket (NZ64)	Yes
10	W660-0113	Variable speed switch (NZ64)	Yes

⚠ WARNING

- Always light the pilot whether for the first time or if the gas supply has run out, with the glass door open or removed.
- Turn off gas and electrical power before servicing the appliance.
- Appliance may be hot. Do not service until appliance has cooled.
- Do not use abrasive cleaners

symptom	problem		test solution
Main burner flame is a blue, lazy, transparent flame. (This is not applicable in outdoor appliances)	Blockage in vent.	-	Remove blockage. In really cold conditions, ice buildup may occur on the terminal and should be removed as required. (To minimize this from reoccuring, the vent lengths that pass through unheated spaces (attics, garages, crawl spaces) should be wrapped with an insulated mylar sleeve).
	Incorrect installation.	-	Refer to “venting” section to ensure correct installation.
Flames are consistently too large or too small. Carboning occurs.  	Appliance 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 as described on the chart below. Check that main burner is operating on ‘HI’. Outlet pressure can be checked the same as above using screw (B). Gauge should read as described on the chart below. Check that main burner is operating on ‘HI’. **After taking pressure readings, be sure to turn screws clockwise firmly to reseal. DO NOT OVER TORQUE.** Leak test with a soap and water solution.
	Air shutter improperly adjusted.	-	Return air shutter to specified opening, see “**venturi adjustments**” section in the installation manual.
Carbon is being deposited on glass, logs, rocks, media, or combustion chamber surfaces.	Air shutter is blocked.	-	Ensure air shutter opening is free of lint or other obstructions.
	Flame is impinging on the glass, logs, rocks, media or combustion chamber.	- - - - - -	Ensure the media is positioned correctly in the appliance. 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. Ensure door gaskets are not broken or missing and the seal is tight. Ensure vent liners are free of holes and well sealed at all joints. Check that minimum rise per foot (meters) 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.
Exhaust fumes smelled in room, headaches.	Appliance is spilling. (This is not applicable in outdoor appliances).	- - - -	Check door seal. Check for exhaust damage. Check that venting is installed correctly. Room is in negative pressure; increase fresh air supply.

Pressure	Natural Gas (inches)	Natural Gas (millibars)	Propane (inches)	Propane (millibars)
Inlet	*7” (minimum 4.5”)	17.4mb (minimum 11.2mb)	13” (minimum 11”)	32.4mb (minimum 27.4mb)
Outlet	3.5”	8.7mb	10”	24.9mb

***Maximum inlet pressure not to exceed 13” w.c.**

troubleshooting

symptom	problem	test solution
Pilot will not light. Makes noise with no spark at pilot burner.	Wiring: short, loose, or damaged connections (poor flame rectification).	- Verify the thermocouple/sensor is clean and the wiring is undamaged. - Verify the interrupter block is not damaged or too tight. Verify connections from pilot assembly are tight; also verify the connections are not grounding out to any metal. (Remember, the flame carries the rectification current, not the gas. If 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)*. The sensor rod may need cleaning.
	No signal from remote with no pilot ignition.	- Reprogram receiver code. - Replace receiver.
	Poor grounding.	- Verify the valve / pilot assembly are properly grounded
	Improper switch wiring.	- Troubleshoot the system with the simplest **on/off** switch.
	Dirty, painted, or damaged pilot and/or dirty sensor rod.	- Clean sensor rod with a green Scotch-Brite™ pad to remove any contamination that may have accumulated. Verify continuity with multimeter with ohms set at the lowest range.
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 13” W.C. (32.4mb).
	Out of propane gas.	- Fill the tank.
	Pilot supply line may contain air.	- Repeat ignition process several times or purge the pilot supply line.
	Incorrect wiring / grounding.	- Ensure correct polarity of wiring of thermocouple (if equipped). - Verify pilot assembly / valve are properly grounded.
	Receiver (if equipped).	- Reset program: hold reset button on receiver and wait for 2 beeps. Release after second beep. Press small flame button on remote within 20 seconds, you will hear an additional beep (this signals a successful reset). - Replace receiver.
	Valve.	- Check valve and replace if necessary (Do not to overtighten thermocouple).
Burner continues to spark and pilot lights but main burner does 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.
	Dirty, painted, or damaged pilot assembly components.	- Clean using a green Scotch-Brite™ pad to remove any contamination that may have accumulated on the sensor rod, pilot hood, ignitor, or flame sensor. Verify continuity with multimeter with ohms set at the lowest range.
Remote wall switch is in “**off**” position; burner comes on.	Wall switch mounted upside down.	- Reverse.
	Remote wall switch and/or wire is grounding.	- Replace. - Check for ground (short); repair ground or replace wire.
	Faulty wire	- Replace.
Remote and / or receiver is not functioning properly.	Remote controls lights but no spark or flame. (Remote is locked out).	- Reset by turning power source off then on. **note:** If back up batteries are installed, they must also be removed to re-program
	Receiver or remote has low battery.	- Replace batteries.
	Appliance functions but does not respond to receiver / remote	- Ensure appliance is being operated by the same device that turned it on. Remote controls function if appliance was turned on by remote. Receiver controls function if appliance was turned on by receiver.
	Error with synchronizing.	- Reset receiver and remote.
	Remote too far away from receiver.	- Refer to “wiring diagram” section.
	Wire connector pins are bent.	- Straighten pins.
	Valve wiring is damaged.	- Replace valve.

symptom	problem	test solution
Lights or blower won't function (if equipped).	Control module switch in wrong position.	- Verify ON/OFF switch is in the "I" position which denotes on.
	COM switch is unplugged.	- Verify "COM" switch is plugged into the front of the control module.
Flames are very aggressive.	Door is ajar.	- Ensure door is secured properly.
	Venting action is too great.	- Check to ensure venting is properly sealed or restrict vent exit with restrictor plate. (Not available in all appliances).
Appliance won't perform any functions.	No power to the system.	- Check breaker to verify it's in the "**on**" position.
	Receiver switch in wrong position (if equipped).	- Verify that the 3 position switch on the receiver is in the remote position (middle).
	Transmitter isn't operational.	- Check battery power and battery orientation.

14.0 warranty

Napoleon products are manufactured under the strict Standard of the world recognized ISO 9001 : 2015 Quality Management System.

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 appliance is again thoroughly inspected by a qualified technician before packaging to ensure that you, the customer, receive the quality product that you expect from Napoleon.

Napoleon Gas Appliance President's Lifetime Limited Warranty

The following materials and workmanship in your new Napoleon gas appliance are warranted against defects for as long as you own the appliance. This covers: combustion chamber, heat exchanger, stainless / steel burner, Phazer™ logs and embers, rocks, ceramic glass (thermal breakage only), gold plated parts against tarnishing, porcelainized enameled components and aluminum extrusion trims.*

Electrical (110V and millivolt) components and wearable parts are covered and Napoleon will provide replacement parts free of charge during the first year of the limited warranty. This covers: blowers, gas valves, thermal switches, switches, wiring, remote controls, ignitors, gaskets and pilot assemblies.*

Labour related to warranty repair is covered free of charge during the first year (labour warranty is not applicable for the Gas Log Sets). 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.

* Construction of models vary. Warranty applies only to components included with your specific appliance.

Conditions and Limitations

Napoleon warrants its products against manufacturing defects to the original purchaser only. Registering your warranty is not necessary. Simply provide your proof of purchase along with the model and serial number to make a warranty claim. Napoleon reserves the right to have its representative inspect any product or part thereof prior to honouring any warranty claim. Provided that the purchase was made through an authorized Napoleon dealer your appliance is subject to the following conditions and limitations:

Warranty coverage begins on the date of original installation. This factory warranty is non-transferable and may not be extended whatsoever by any of our representatives. The gas appliance must be installed by a licensed, authorized service technician or contractor qualified and authorized installer, service agency or supplier. 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 discoloring caused by excessive heat, abrasive and chemical cleaners nor chipping on porcelain enamel parts, mechanical breakage of Phazer™ logs and embers. 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 Lifetime Limited 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 expenses related to the reinstallation of a warranted part and such expenses are not covered by this warranty. Notwithstanding any provisions contained in the President's Lifetime Limited 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 appliance 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 the appliance, combustion chamber, heat exchanger, plated trim or other components due to water, weather damage, long periods of dampness, condensation, damaging chemicals or cleaners will not be the responsibility of Napoleon.

During the first 10 years Napoleon will replace or repair the defective parts covered by the lifetime warranty at our discretion free of charge. From 10 years to life, Napoleon will provide replacement parts at 50% of the current retail price. The manufacturer may require that defective parts or products be returned or that digital pictures be provided to support the claim. Returned products are to be shipped prepaid to the manufacturer for investigation. If a product is found to be defective, the manufacturer will repair or replace such defect. Before shipping your appliance or defective components, your dealer must obtain an authorization number. Any merchandise shipped without authorization will be refused and returned to sender. Shipping costs are not covered under this warranty. Additional service fees may apply if you are seeking warranty service from a dealer. Warranty labour allowance is only for the replacement of the warranted part. Travel, diagnostic tests, shipping and other related charges are not covered by this warranty.

NAPOLEON CELEBRATING OVER 40 YEARS OF HOME COMFORT PRODUCTS

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