## **Greenfire GF40-2 Freestanding Pellet Stove**

Model	GF40-2	
Heat Output BTUs	6,881 - 23,892 BTUs	
Emissions (grams/hr) EPA Certified	0.54 grams/hr	
Efficiency (EPA HHV)*/**	80.2%	
Efficiency (EPA LHV)**	87.4%	
Flue Size	3" (76mm)	
US Biomass Tax Rebate Eligible**	Yes	

\*US Biomass Tax Rebate eligibility is based on the HHV value being greater than or equal to 75%.

\*\*When using optional top vent adaptor kit (GF40-920) and 3" to 6" flue adptor (3PVP-X6). See manual for further information.

#### UNIT DIMENSIONS





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Weight (with full hopper): 280 lb (127 Kg) Hopper Capacity: up to 67 lb (28 Kg) Voltage: 110 - 120 V Max Current: 4.1 Amps Note: Consumption will vary with the type of fuel used.







## **CLEARANCES TO COMBUSTIBLES**

**IMPORTANT:** The GF40-2 must have a Hearth Pad when installing the unit on a combustible floor. The included hearth pad meet all the requirement of a proper hearth pad. If you do not use the included hearth pad a certified non combustible Hearth Pad with a minimum R Value of at least 0.84 must be placed underneath the unit and extend six inches in front of the unit measured from the glass. If the GF40-2 is installed on carpet the use of a solid non combustible Hearth Pad must be used under leveling legs.



These dimensions are minimum clearances but it is recommended that you ensure sufficient room for servicing, routine cleaning and maintenance.

- A. Side wall to unit
- B. Back wall to unit
- C. Back wall to Chimney Connector
- D. Corner to unit
- E. Glass to Hearth Pad
- 5.5 inches (140 mm) 4 inches (100 mm) 3 inches (75 mm)

8 inches (200 mm)

6 inches (150 mm)

ALCOVE CLEARANCES

The unit may be installed in an alcove if desired. These minimum clearances to combustibles must be maintained at all times. Be sure to leave room for servicing, routine cleaning, and maintenance. These are inside dimensions.

Minimum Alcove Width	36 inches (915 mm)
Minimum Alcove Height	48 inches (1220 mm)
Minimum Alcove Depth	30 inches (762 mm)



## **VENT TERMINATION REQUIREMENTS**

#### IT IS HIGHLY RECOMMENDED THAT YOUR PELLET STOVE BE INSTALLED BY AN AUTHORIZED DEALER/INSTALLER.

Letter	Minimum Clearance	Description
А	24 in (61 cm)	Above grass, top of plants, wood, or any other combustible materials.
В	48 in (122 cm)	Beside/below any door or window that may be opened. (18" (46 cm) if outside fresh air installed.)
С	12 in (30 cm)	Above any door or window that may be opened. (9" (23 cm) if outside fresh air installed.)
D	24 in (61 cm)	To any adjacent building, fences and protruding parts of the structure.
Е	24 in (61 cm)	Below any eave or roof overhang
F	12 in (30 cm)	To outside corner.
G	12 in (30 cm)	To inside corner, combustible wall (vertical and horizontal terminations).
Н	3 ft (91 cm) within a height of 15 ft (4.5 m) above the meter/ regulator assembly	To each side of center line extended above natural gas or propane meter/regulator assembly or mechanical vent.
Ι	3 ft (91 cm)	From any forced air intake of other appliance
J	12 in (30 cm)	Clearance to non-mechanical air supply inlet to building, or the combustion air inlet to any appliance.
К	24 in (61 cm)	Clearance above roof line for vertical terminations.
L	7 ft (2.13 m)	Clearance above paved sidewalk or paved driveway located on public property.

#### Table 1: Use in conjunction with Figure 6 for allowable exterior vent termination locations.

- Do not terminate the vent in any enclosed or semi-enclosed areas such as a carport, garage, attic, crawl space, narrow walkway, closely fenced area, under a sun deck or porch, or any location that can build up a concentration of fumes such as stairwells, covered breezeway, etc.
- Vent surfaces can become hot enough to cause burns if touched by children. Noncombustible shielding or guards may be required.



#### Use in conjunction with Table 1 for allowable exterior vent termination locations.

- 3. Termination must exhaust above the inlet elevation. It is recommended that at least five feet of vertical pipe be installed outside when the appliance is vented directly through a wall, to create some natural draft to prevent the possibility of smoke or odor during appliance shut down or power failure. This will keep exhaust from causing a nuisance or hazard from exposing people or shrubs to high temperatures. In any case, the safest and preferred venting method is to extend the vent through the roof vertically.
- 4. Distance from the bottom of the termination and grade is 12" (30 cm) minimum. This is conditional upon the plants and nature of grade surface. The exhaust gases are hot enough to ignite grass, plants and shrubs located in the vicinity of termination. The grade surface must not be lawn.
- 5. If the unit is incorrectly vented or the air to fuel mixture is out of balance, a slight discoloration of the exterior of the house might occur. Since these factors are beyond the control of FPI, we grant no guarantee against such incidents.

#### NOTE: Venting terminals shall not be recessed into walls or siding.



## **MOBILE HOME INSTALLATION**

- Secure the heater to the floor using the two holes in the base.
- Ensure the unit is electrically grounded to the chassis of your home (permanently).
- Do not install in a room people sleep in.
- Outside fresh air is mandatory. Secure outside air connections directly to fresh air intake pipe and secure with three screws evenly spaced.
- <u>CAUTION</u>: THE STRUCTURAL INTEGRITY OF THE MANUFACTURED HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED.



#### **CORNER THROUGH WALL INSTALLATION**

Minimum clearances must be maintained for a corner installation as shown in figure 9.





## HORIZONTAL EXHAUST THROUGH WALL INSTALLATION

#### Vent installation: install vent at clearances specified by the vent manufacturer.

A chimney connector shall not pass through an attic or roof space, closet or similar concealed spaces, or a floor, or ceiling. Where passage through a wall or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365 Installation Code for Solid-Fuel-Burning Appliances and Equipment. Only use venting of L or PL type with an inside diameter of 3 or 4 inches (7.6 or 10.1 cm).

- 1. Choose a location for your stove that meets the requirements stated in this manual and allows installation with the least amount of interference to house framing, plumbing, wiring, etc.
- 2. Install a non-combustible hearth pad (where necessary).
- 3. Place the appliance 15" (37.5 cm) away from the wall. If the stove is to be set on a hearth pad, set the unit on it, and adjust the leveling legs.
- 4. Locate the center of the exhaust pipe on the stove. Extend that line to the wall. Once you have located the center point on the wall, refer to pellet vent manufacturer installation instructions for correct hole size and clearance to combustibles.
- Install the wall thimble as per the instructions written on the thimble. Maintain an effective vapour barrier in accordance with local building codes.
- 6. Install a length of 3" (75 mm) or 4" (100 mm) vent pipe into the wall thimble. The pipe should install easily into the thimble.
- 7. Connect the exhaust vent pipe to the exhaust pipe on the stove. Seal the connection with high temperature silicone.
- 8. Push the stove straight back, leaving a minimum of 5.5" (14 cm) clearance from the back of the stove to the wall. Seal the vent pipe to the thimble with high temperature silicone.
- 9. The pipe must extend at least 12" (30 cm) away from the building. If necessary, bring another length of pipe (PL type) to the outside of the home to connect to the first section. Do not forget to place high temperature silicone around the pipe that passes through the thimble.
- \*\* Note :A termination cap is highly recommended however to keep rodents, small animals, etc away as this can be easily accessed with simply having a 45 degree elbow in place.
- 10. Install a vertical pipe, or if all requirements for direct venting are met, install vent termination. The stainless steel cap termination manufactured by the vent manufacturer is recommended. However, when the vent terminates several feet above ground level and there are no trees, plants, etc. within several feet, a 45° elbow can be used as termination. The elbow must be turned down to prevent rain from entering.





Venting to Use with Straight through Wall Installation

#### NOTE:

- It is recommended that horizontal through wall installations have 3 to 5 feet (91 to 152 cm) of vertical pipe in the system to help naturally draft the unit in the event of extreme weather or a power outage.
- Some horizontal through wall installations may require a "T" and 3 to 5 feet (91 to 152 cm) of vertical pipe outside the building to help draft the unit. This may be required if a proper burn cannot be maintained, after the stove has been tested and the airflow set. This is due to the back pressure in the exhaust caused by airflow around the structure.
- Follow vent manufacturer guidelines for installation of venting. High temp sealant must be used when connecting vent pipe to the unit's starter pipe. Improper seals at the vent joints may cause combustion by-products to leak into the room where installed **seal as required.**

# THROUGH WALL VERTICAL RISE HORIZONTAL TERMINATION INSTALLATION - FREESTANDING

A termination cap is always recommended for this type of install but a stainless steel termination hood or a 45° elbow may be used in place of the cap.

Figure 1 is the recommended installation set up, venting length is negligible.

Figure 2 is the installation to use if there is a concrete or retaining wall in line with exhaust vent on a pellet stove. The termination must be 12'' (30 cm) from the outside wall and 12'' (30 cm) above the ground.



Figure 2 - Venting with Concrete Wall Behind Unit



1. Choose a stove location that is ideal. See the section "DECIDING

3. Place the unit on the hearth pad (if installed on a combustible

5. Install the pellet vent upward from there. When you reach the ceiling, make sure that the vent goes through the ceiling fire stop. Maintain a 3" (7.5 cm) distance to combustibles and keep attic insulation away from the vent pipe. Maintain an

6. Finally, extend the pellet vent to go through the roof flashing. Ensure that the rain cap is approximately 24" (600 mm)

surface) and space the unit in a manner so when the pellet

vent is installed vertically, it will be 3" (7.5 cm) away from a

2. Place a non-combustible hearth pad where necessary.

WHERE TO LOCATE YOUR PELLET APPLIANCE."

combustible wall.

4. Install the tee with clean out.

effective vapor barrier.

above the roof.

7.

## **INSIDE VERTICAL INSTALLATIONS**

To accomplish a outside vertical pipe installation, follow steps 1 through 5 in the "Inside Vertical Installations - Freestanding" section and then finish it by performing the following (refer to Figure at the bottom of this page).



Inside Vertical Installation

#### **OUTSIDE VERTICAL INSTALLATIONS**

- 1. Install a tee with clean out on the outside of the house.
- Install PL vent upward from the tee. Make sure that you install support 2. brackets to keep the vent straight and secure.
- 3. Install ceiling thimble and secure the flashing as you go through the roof.
- 4. Ensure that the rain cap is approximately 24" (600 mm) above the roof.







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Freestanding Hearth Mount Installation



Refer to Figures 16 and 17.

- 1. Install the hearth pad.
- 2. Lock the fireplace damper in the open position.
- Install a positive flue connector at the fireplace dampers or seal the chimney at the top.
- 4. Connect a tee to the exhaust pipe.
- Install flexible stainless steel liner or listed pellet vent to the top of the chimney.

Freestanding Hearth Mount Installation Overview