

## FIREPLACES

Installation Instructions For

# NAPOLEON FIREPLACE INSERT NFI-D (DELUXE) and NFI-C (CLASSIC)

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## INTRODUCTION

Your new insert is a high efficient airtight heater that will give you many years of service and comfortable heat. To ensure safe, correct installation, proper operation and maintenance be sure to read these instructions before installing the insert. Failure to do so could result in serious fire hazard.

If you are in doubt about proper installation in your situation contact your dealer, local building inspector or fire official.

Your Napoleon fireplace insert is to be installed only in masonry fireplaces constructed in accordance with all national and local building code standards, and the standard of Chimney and Fireplaces, Vents and Solid Fuel Burning Appliances NFPA No. 211. It cannot be used in factory built or zero clearance fireplaces.

## PARTS INCLUDED WITH INSERT:

- firebricks on bottom, side and rear
- log retainer assembly
- one variable speed control knob
- two solid brass air control knobs with screws
- set of solid brass railing and bolts
- top faceplate
- set of side covers
- brass trim

## INSTALLATION

### Preparation of Fireplace

Clean out ashes from the inside of the fireplace. Make sure the chimney and fireplace are in a clean and sound condition. Do not remove bricks or mortar from masonry fireplace. If necessary have any repair work done by a qualified person before installing the insert. In case of an outside air inlet or an ash dump, fill with fiberglass insulation.

Remove the existing fireplace damper or lock in open position.

Do not use makeshift compromises during installation.

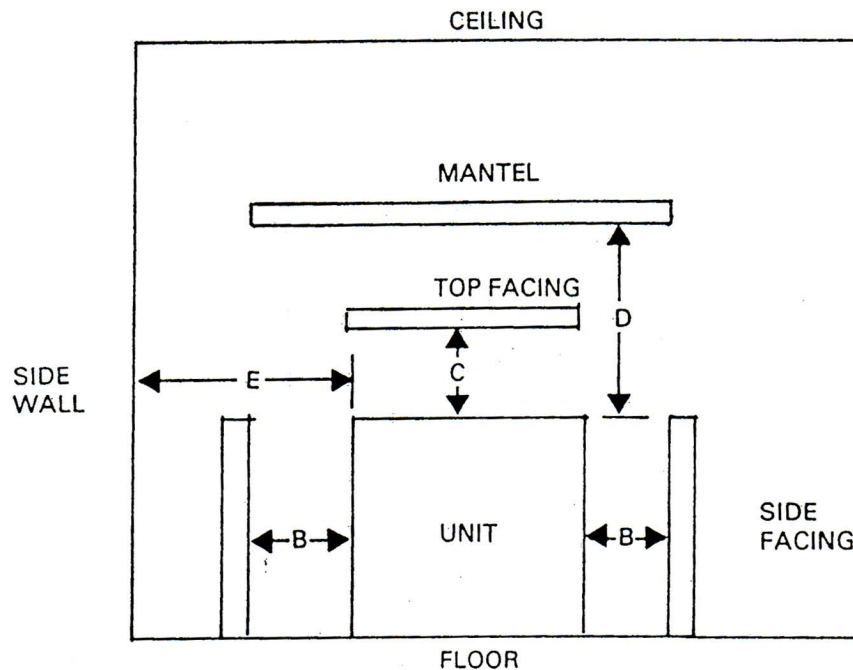
Do not place any combustibles materials (i.e. furniture, firewood, etc.) within 48 inches to the front and 36 inches to the sides of the insert.

A 2 inch (51 mm) thick hearthstone has to extend a minimum of 16 inches in front of the unit. Do not install in a masonry fireplace with a chimney diameter greater than three times the cross sectional area of the flue outlet of this appliance.

You need for the installation the following: tin snips, hammer, measuring tape, caulking cartridge, utility knife, caulking gun and pencil.

### Clearances

	Classic NFI-C	Deluxe NFI-D
Minimum sidewall clearance	E = 22" (559 mm)	E = 19" (482 mm)
Minimum top facing clearance	C = 20" (508 mm)	C = 21" (533 mm)
Minimum side facing clearance	B = 8" (200 mm)	B = 2" (51 mm)
Minimum mantle clearance	D = 29" (737 mm)	D = 26" (660 mm)



#### Option #1

For optimum performance, it is recommended that the entire chimney be re-lined by a qualified, certified technician using an approved stainless steel liner.

#### Option #2

If not re-lining the chimney, a "direct flue connection" must be made. To achieve this, the following components are required: (follow steps 1 to 9)

- one ceiling plate (approx. 26 ga. steel 18 x 36).
  - one 45 degree elbow.
  - one 12" or 18" flue pipe section.
  - six 3/4" cement nails.
  - one 10" x 5/16" rod.
- Measure the fireplace throat (depth and width) approximately 6" below damper opening. Make a cardboard template to above measurements and make sure it will fit properly. (see figure 1)
  - From front to back draw a centre line (figure 2). You get the centre line for the depth (dimension c) as follows: A - B = c (depth of facing) (figure 1). Mark center line. At the crossing of lines, cut out 8-1/8" diameter flue hole (for classic: 6-1/8") (figure 2).



3. Place the template on the metal ceiling plate lining up holes and tape onto it. Trace template size onto metal ceiling plate (figure 3) and remove. Add 1" bending allowance on all sides for lip. (Leave corners notched.) Cut to shape. Bend lips down to required angles. (You can bend it by clamping it between two pieces of wood.)
4. Check if ceiling plate fits properly. Remove again, spread silicone seal on the 4 lips, then position it in the throat of the fireplace. Fasten the plate securely onto the masonry with cement nails.
5. Drill two 3/8" diameter holes 3" from the crimped end of the pipe, insert 5/16" rod into the holes and use as a handle. Push pipe up through ceiling plate (figure 4) to allow insert to be installed.
6. Remove any loose parts from inside of insert. Connect top faceplate to the insert. Push the elbow with crimped end down into the flue collar (figure 4). Place insert onto the hearth and move into the fireplace opening leaving approximately 4" space between the insert and facing of fireplace. Place fiberglass strips between insert faceplate and fireplace facing and push insert tight against fireplace facing. Make sure any air spaces are filled with insulation.
7. Reach through the flue pipe and pull pipe tightly into insert using the rod as handle. NOTE: It is important that the insert flue lines up with the hole of the ceiling plate.
8. Install baffle frame and firebricks before pushing into position.
9. Place log retainer assembly onto brackets inside the combustion chamber. Mount control knob onto shaft.

## **MAINTENANCE**

### **Chimney**

Check your chimney frequently for creosote and soot buildup. If accumulation is excessive, remove the insert and clean the chimney. You might want to call a professional chimney sweep and let him do it. The chimney has to be cleaned once a year or as often as necessary.

### **Stove**

Inspect the fiberglass rope on the door and around the ceramic glass from time to time for proper seal. Air leakage resulting from poorly sealing gaskets decrease the efficiency of your stove. 3/8" door gasket material and u-gasket is available from your local wood stove dealer.

If you want to refinish your stove to its original looks, use a quality Hi-Heat aerosol paint also available from your wood stove dealer. Before spray painting the stove, remove any parts you do not want painted, then rough up the existing paint with fine sandpaper or steel wool, then follow the directions on the spray paint can. Do not paint the insert when hot.

### **Disposal of Ashes**

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

### **Glass Care**

Pyroceram by Corning is used as fire viewing window in your Napoleon Insert. Pyroceram has well established and recognized heat resistance and strength characteristics. It can only be broken through improper use and impact. Do not slam stove door or otherwise impact the glass. When closing the door, make sure that no logs or other objects protrude to impact against the glass.



Do not clean the glass with materials which may scratch it (or otherwise damage the glass). Scratches on the glass can develop into cracks and breaks. Non abrasive cleaner is available from your dealer. Never attempt to clean the glass while hot. Never put substances which can ignite explosively in the stove since even small explosions in confined areas can blow out the glass.

Inspect glass regularly for cracks and breaks. If you find any, extinguish the fire immediately and return the door (door unhinges easily) to your stove dealer for glass replacement before further use. Tempered or ordinary glass will not withstand the high temperatures. Use only 5 mm Pyroceram glass for replacement.

### **Brass and 24 Karat Gold Plated Parts**

Your cast iron door may be highlighted by brass or gold plating. A high temperature lacquer is protection for the finish of the brass. Do not use abrasive cleaners to clean plated parts.

## **OPERATION**

### **Caution**

- Burn wood only.
- Build fire on hearth and behind grate bar only.
- Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire. Keep all such liquids well away from the fireplace insert while it is in use.
- Always provide a SOURCE OF FRESH AIR FOR THE INSERT.
- Keep door of insert closed during operation. With doors ajar unit may overheat.
- Combustible materials are not to be stored within 48" of insert.
- Protect chimney from moisture with a raincap on top of chimney.
- Contact with radiant surfaces may cause skin burns.

### **The Napoleon Deluxe Baffle System**

Your fireplace insert has an advanced refractory tunnel combustion system with a bypass damper. The bypass damper must be opened before you can open the door (safety catch). When starting the fire leave the bypass damper open for about 30 to 60 min. With the bypass damper closed smoke and wood gases are forced to the front of the combustion chamber where a refractory tunnel combustor is installed (or a catalytic combustor which is optional on your fireplace insert). Either combustor is easily removed by just lifting and pulling it back. (Two holes in the combustor plate sit on a rivet head.)

### **The Blower System**

Two high output (400 cfm) blowers with automatic thermostatic control are built into each side of the deluxe insert. The classic insert features one (200 cfm) blower with automatic thermostatic control. Plug power cord into receptacle (110 volts). Do not allow cord to touch the insert. The blower will automatically switch on after a fire has been started in the insert (in approximately 30 minutes) and will switch off when the fire goes out. Make sure there is no wood piled up on the side the thermostat is on. The wood may protect the side wall from heating up and activating the thermostat.

The airflow of the blowers can be controlled through a variable speed switch, which also is your on/off switch. Should there be a noise or drop in air flow, unplug power cord, remove control knob and screen. Carefully check fan blades for foreign objects (e.g. dust, grease, loose metal parts, etc.). Clean fan blades with a small paint brush and reassemble. Periodically lubricate bearings through a small hole in the bearing housing use W40 or equivalent. Do not use grease.



Deluxe model only: The blower system is also equipped with an override switch in order to operate the blowers manually if need arises.

### **Building a Fire**

Open both air controls located on each side of the stove door on bottom. Place a small amount of crumpled paper in the combustion chamber of the insert and cover with kindling and a few small pieces of dry wood. Light the paper with a match. When the kindling is burning, close the door and lock firmly in position. Add a larger piece of wood and continue as the fire progresses but be careful not to smother the fire.

**NOTE:** When first lighting a fire, if the smoke is not quickly drawn into the chimney it may be caused by a downdraft or cold air in the chimney. Roll newspaper, light and place into insert flue until chimney begins to draw. Before opening the stove door during a firing open air controls first, then open door slowly to avoid drawing smoke into the room. In order to cure your firebrick lining, build a small fire first.

### **Control Of Burning Rate**

Because your insert is airtight the only air intake will occur through the air inlets on both sides of the stove. The air inlets can be opened and closed by way of the two air control levers on either side of the stove door on the bottom. To open air control move levers away from the door, to close move towards the door. Once the fire is started and well underway, you can control the burning rate by either closing or opening the air control levers more or less. Opening will cause the fire to burn more vigorously, closing to burn slower.

### **Paint**

When you first use your stove, the high temperature paint that is used on the surface of the stove will smoke a little and give off an odour for several hours. This condition is temporary. Open doors and windows to ventilate the room(s) sufficiently.

### **Airwash**

The air intake directs air on both sides over the glass into the fire. This will keep the fire viewing window cleaner for longer. Buildup on the glass depends also on what kind of wood is used, on the burning rate and draft of chimney.

### **Wood**

Wet or green (unseasoned) wood is not recommended for use. It still contains a lot of moisture, therefore is heavier, hard to ignite, holds less energy, burns inefficiently, smokes more and adds to clogging your chimney system with creosote - a tar like, flammable substance.

For these reasons, only hardwood that has been seasoned for several months should be used as fuel. Ideally, firewood should be cut, split and piled one heating season ahead. All dry wood has the same BTU factor per pound of wood. Hardwood, however, (i.e. oak) is a denser wood and takes less space than softwood (i.e. pine). Therefore, one cord of oak is a higher energy value than one cord of pine. Hardwood burns longer and creates less creosote.

To store your wood stack it so that both ends of the logs are exposed to air, and cover woodpile with plastic, scrap plywood, etc. on the top. Also stack firewood on small pieces of wood or similar to allow air to circulate underneath.

### **Creosote Formation and Need for Removal**

When wood is burned slowly, it produces tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue

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lining. When ignited this creosote makes an extremely hot fire.

A slow burning or smouldering fire should not be maintained for any extended period of time. Periodically during the day have a hot fire increasing the flue temperature to reduce creosote accumulation. Deposits of creosote decreases the opening of the flue, interferes with your draft and can lead to a chimney fire.

In a case of a chimney fire (a roaring sound may be produced and sparks fly from the chimney) close the air controls immediately, let the fire go out and have your chimney inspected by someone knowledgeable for any structural damage.

The chimney should be inspected at least once every two months during the heating season to determine if a creosote buildup has occurred.

If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

Avoid the use of green, unseasoned wood or wood with more pitch content. Do not operate the stove in a choked down position over an extended period of time.

A hot fire is preferable to a smouldering one to reduce the amount of creosote.

### Smoking and Back-Puffing

If your stove smokes after the chimney is warmed it is caused by insufficient draft of the flue system. Check the following:

1. Closed damper (if one is installed).
2. Creosote buildup.
3. Clogged chimney system.
4. Clogged spark arrestor
5. Too many turns in flue system.
6. Chimney not high enough.
7. Downdraft created by
  - blockage of the chimney outlet.
  - chimney installed on leeward side of obstruction.
8. Chimney pipe on outside of house cools too fast and there is not sufficient draft.
9. Porous masonry chimney.
10. Wet or green wood.

### Parts List For Napoleon Classic Fireplace Insert NFI-C

1604	Cast Iron Door Frame	1665	6" Fan Blade
1605	Cast Iron Door Plate	1617	Removable Faceplate on Top
1610	Ceramic Glass	1618	Air Control Knob with Bolt
1615	Spring Handle	1675	Baffle Frame
1620L	Side Cover Left	1660	Electrohome Motor
1620R	Side Cover Right	1669	Firebrick 4-1/2" x 9"
1616	Solid Brass Railing Set	1666	Variable Speed Control
1685	Log Retainer Bar Assembly	1656	Thermostat

### Parts List For Napoleon Deluxe Fireplace Insert NFI-D

1504	Cast Iron Door Frame	1518	Air Control Knob with Bolt
1510	Ceramic Glass	1505	Cast Iron Door Plate
1515	Spring Handle	1571	Refractory Tunnel Assembly
1520L	Side Cover Left	1520R	Side Cover Right
1516	Solid Brass Railing Set	1568	By-pass Damper
1569	Firebrick 4-1/2" x 9"	1567	By-pass Damper Rod
1560	Electrohome Motor	1566	Variable Speed Control
1565	6" Fan Blade	1556	On/Off Switch
1517	Removable Faceplate on Top	1585	Log Retainer Bar Assembly



**SAVE THESE INSTRUCTIONS**

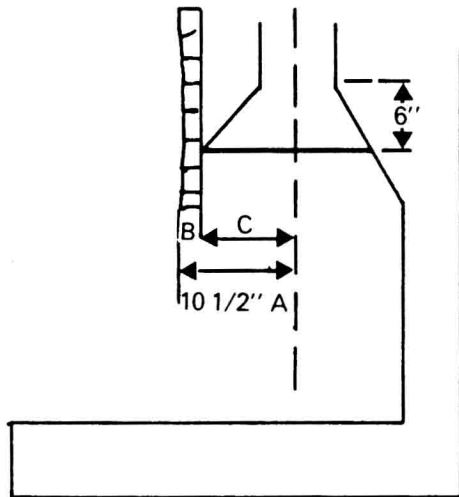


Fig. 1

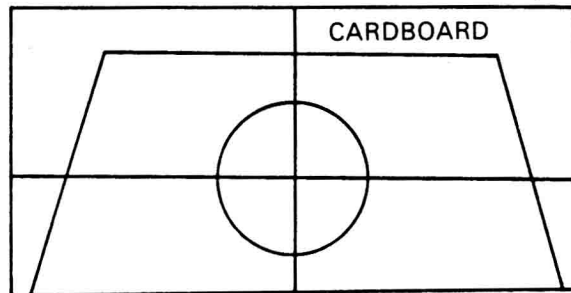


Fig. 2

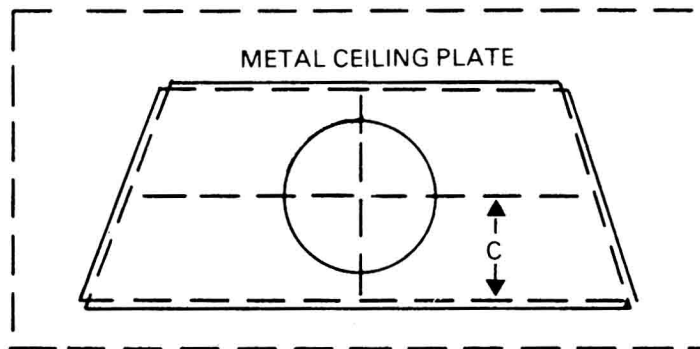


Fig. 3

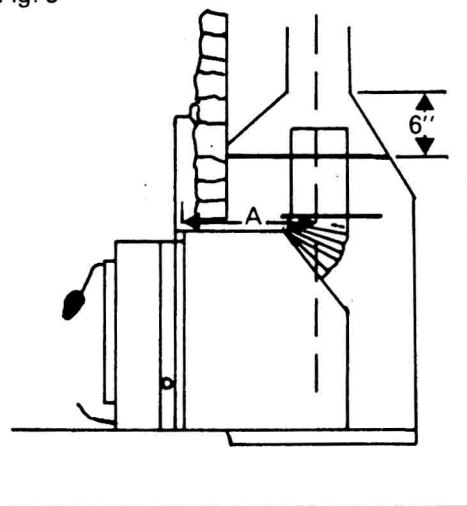


Fig. 4