

INSTALLER:

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

CERTIFIED UNDER U.S. ENVIRONMENTAL
PROTECTION AGENCY (E.P.A.) JULY 1990
AND THE OREGON DEPARTMENT OF
ENVIRONMENTAL QUALITY (D.E.Q.) PARTI-
CULATE EMISSION STANDARDS.



INSTALLATION AND OPERATION

INSTRUCTIONS FOR HI-TECH NAPOLEON WOODSTOVES

MODELS 1000, 1500 AND 2000

PLEASE READ AND SAVE THESE INSTRUCTIONS

SAFETY NOTICE:

If this stove is not properly installed, a house fire may result. For your safety, follow the installation directions. This stove can be very hot when burning. Combustible materials such as firewood, wet clothing, etc. placed too close can catch fire. Children and pets must be kept from touching the stove when it is hot. The chimney must be sound and free of cracks. Before installing this unit, contact the local building or fire authority and follow their guidelines.

Operate only with door tightly closed. Burn wood directly on firebricks. Do not use a grate or elevate the fire. At least 14 square inches (90 sq. cm.) of outside air must be admitted to the room or directly to the stove through a 4 inch (10cm.) diameter pipe. This stove is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods. Do not start a fire with chemicals or fluids such as gasoline, engine oil, etc. Do not burn treated wood, coal, charcoal, coloured paper, cardboard, solvents or garbage which tend to produce more pollution than wood. Do not let the stove become hot enough for any part to become red hot.

WARNING: KEEP THE STOVE TOP TEMPERATURE BELOW 700 F.

MANUFACTURED BY: WOLF STEEL LTD., R.R. # 1 BARRIE, ONTARIO,
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WS-415-6/6.6.90

IMPORTANT OPERATING INSTRUCTIONS FOR THE HOMEOWNER

WARNING: REMOVE ALL SOURCES OF GASOLINE OR OTHER FLAMMABLE VAPOURS AND LIQUIDS IN THE VICINITY OF THIS OR OTHER APPLIANCES BEFORE LIGHTING.

Your Napoleon E.P.A. listed stove is a Hi-Tech unit, designed with the most advanced technology. The unit is extremely airtight and has an exclusive direct outside air supply (optional kit), a safety feature designed to prevent spillage, and to keep your house free of carbon monoxide, in case of a downdrafting chimney or an internal negative pressure.

When first installed, the chimney, the fireplace and the steel are cold and must become hot before the stove will function well. During the break-in period (the first 2 or 3 fires) create only small, hot fires using kindling; this will allow the firebrick to cure. Do not be alarmed if small hairline cracks develop in the firebrick. This is a normal occurrence and does not pose a safety hazard. The paint may also smell a little for the first few fires as it cures and you may wish to open a door or window to alleviate the smell.

To start, a brisk fire is required. To build a brisk fire, place loosely crumpled paper on the floor of the stove and cover with dry kindling. Open the draft control fully by pulling the lever forward. Draft is the force which moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of chimney, local geography, nearby obstructions, and other factors.

Light the paper and leave the door slightly ajar (one or two inches) until all kindling is burning. To maintain a brisk fire, a hot coal bed must be established and maintained.

Slowly add larger wood (2x4 size pieces). Lay the pieces lengthwise from side to side in the hot coal bed with a shallow trench between, so that the primary air can flow directly into this trench and ignite the fuel above. When the fire seems to be at its peak, medium sized logs may be added. Once these logs have caught fire, carefully close the door. (Closing the door too quickly after re-fueling will reduce the firebox temperature and result in an unsatisfactory burn.) Remember it is more efficient to burn medium sized wood, briskly, and re-fuel frequently than to load the fireplace with large logs that result in a smouldering, inefficient fire and dirty glass.

As soon as the door is closed, you will observe a change in the flame pattern. The flames will get smaller and lazier because less oxygen is getting into the combustion chamber. The flames, however, are more efficient. The flames will remain lazy but become larger again as soon as the firebricks have been heated thoroughly and the chimney becomes heated and provides a good draft. At this point, the roaring fire that you see when the door is opened is wastefully drawing heated room air up the chimney -- certainly not desirable. So always operate with the door fully closed once the medium sized logs have caught fire.

You can now add larger pieces of wood and operate the stove normally. Once the stove is entirely hot, it will burn very efficiently with little smoke from the chimney. There will be a bed of orange coals in the firebox and secondary flames flickering just below the top firebrick. You can safely fill the firebox with wood to the top of the door and will get best burns, if you keep the stove top temperatures between 250 degrees Fahrenheit (120 degrees Celsius) and 450 degrees Fahrenheit (270 degrees Celsius).

Regulate the temperature by adjusting the draft control. The draft can be adjusted from a low burn rate with the handle fully in, to a fast burn rate with the handle fully out. See Fig. 1. Inadequate draft may cause backpuffing into the room through the stove and chimney connector points and may cause Plugging of the chimney. Too much draft may cause an excessive temperature in the appliance and glowing red stove parts or chimney connectors.

Burn only dry seasoned wood. It produces more heat and less soot or creosote. Do not burn ocean beach wood. Its salt content can produce a metal eating acid. When re-fuelling open the door slowly to prevent smoke spillage. Keep a small steel shovel nearby to use as a poker and to remove ashes. Do not store wood within 3 feet (1 m) of the stove.

DO'S

1. Build a hot fire.
2. Use only dry wood.
3. Several pieces of medium sized wood are better than a few big pieces.
4. Clean chimney regularly.
Refuel frequently using medium sized wood.
6. "Fine Tune" the air settings for optimum performance.

DON'TS

1. Take ash out immediately. Let it accumulate to a depth of at least one inch. A good ash layer provides for a longer lasting and better burning fire.
2. Burn wet wood.
3. Close the door too soon or damper down too quickly.
4. Burn one large log rather than two or three smaller, more reasonably sized logs.
5. Burn at continually 'low setting', if glass door is constantly blackened. This means the firebox temperature is too low.

REMOVING ASHES:

If you let the ashes accumulate two or three inches on the stove floor, they tend to burn themselves up. When necessary, shovel some out through the door into a metal container with a tight fitting lid but leave an ash bed approximately 1 inch deep on the firebox bottom to help maintain a hot charcoal bed. Keep the closed container on a noncombustible floor or the ground well away from all combustible materials. The ashes should be retained in the closed container until all cinders have thoroughly cooled. Cold wood ashes can be used on the garden or compost.

CLEAN GLASS:

These Napoleon stoves are easy to burn and have the glass stay clean. The most common reasons for dirty glass include: not using sufficient fuel to get the stove thoroughly hot, using green or wet wood, closing the draft so far that there is insufficient air for complete combustion. If it is necessary to clean the glass, use soft cloths with no abrasive and clean only when cold.

REPLACING GLASS:

The glass is very strong but do not let burning fuel rest on it and always close the door gently. If the glass should ever crack when the fire is burning, do not open the door until the fire is out and do not operate the stove again until the glass has been replaced with a new 9.25" x 13.25" (235mm x 337mm), 5mm thick plate of ceramic glass, preferably by your dealer. Do not use a substitute glass. To remove the door, open and lift; remove the 4 screws holding the steel keeper in place and remove all broken glass.

Wrap the edges of the new glass with a 47" long x 3/4" wide, #3, U-shaped strip of fiberglass gasket, covering 1/4" on each side. Place this gasketed glass in position and replace the steel keeper. When finished, you should be able to move the glass slightly, horizontally and vertically.

FIRE EXTINGUISHER AND SMOKE DETECTOR:

All homes with a solid fuel burning stove should have at least one fire extinguisher in a central location known to all, and at least one smoke detector in the room containing the stove. If it sounds an alarm, correct the cause but do not de-activate or relocate the smoke detector.

CREOSOTE - ITS FORMATION AND REMOVAL:

When wood is burned slowly, it produces tar and other organic vapours which combine with expelled moisture to form creosote.

These vapours condense in the relatively cooler chimney flue of a slow burning fire and when ignited, make an extremely hot fire. So, the smoke pipe and chimney should be inspected monthly during the heating season to determine if a build-up has occurred. If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

CHIMNEY OR RUN-AWAY FIRE:

- 1. Close the draft fully**
- 2. Call the local fire department**
- 3. Examine fluepipes, chimney, attic, and roof of the house, to see if any part has become hot enough to catch fire. If necessary, spray with fire extinguisher or water from a garden hose.**
- 4. Do not operate the stove again until you are certain the chimney and its lining have not been damaged.**

MAINTENANCE: At the end of each heating season clean the chimney and the smokepipe. Clean above the stove's top baffle with a vacuum cleaner. Replace the shield below the secondary air tube if it is badly eroded. It is held to the tube above with two sheet metal screws. Replace worn gaskets or broken bricks if necessary. Door gasket is 1/2" (12mm) fibreglass.

SMOKING:

A properly installed Napoleon stove should not smoke. If yours does, check the following: Has the chimney had time to get hot? Is the smoke passage blocked anywhere in the stove, smokepipe or chimney? Is the room too airtight and the air intake not connected to the outside? Try with a window partly open. Is the smoke flow impeded by too long a horizontal pipe or too many bends? Is it a weak draft perhaps caused by a leaky chimney, a cold outside chimney, too short a chimney, or a chimney too close to trees or a higher roof?

NAPOLEON PRINCIPLES:

Except for their different depths, models 1000, 1500 and 2000 are identical with the same burning principles. They were specifically designed over many months of research to meet the 1990 U.S.A. EPA particulate emission standards and have been extensively tested in Canadian and American laboratories. This system is the most efficient, simple and trouble free we know and works as follows:

The combustion air enters through two holes in the double bottom covered by a single draft control. Primary air from the front hole goes up two tubes on each side of the door into a top preheating manifold and then down the window to feed the fire. Secondary air from the rear hole goes up the double back into the secondary air tube and shoots out laterally to oxidize the gases below the baffle and smoke exit.

The combustion chamber is lined with high-temperature firebrick on all sides, and in the top baffle, which extends close to the front. Firebrick maintains a high temperature in the chamber so that the gasses mixing with the preheated air from the secondary air tube just below the baffle are easily ignited and burned. Indeed, it is fascinating to watch blue flames flickering much of the time just below this baffle.

The stove sides and back are shielded to direct the heat upwards and forwards into the room.

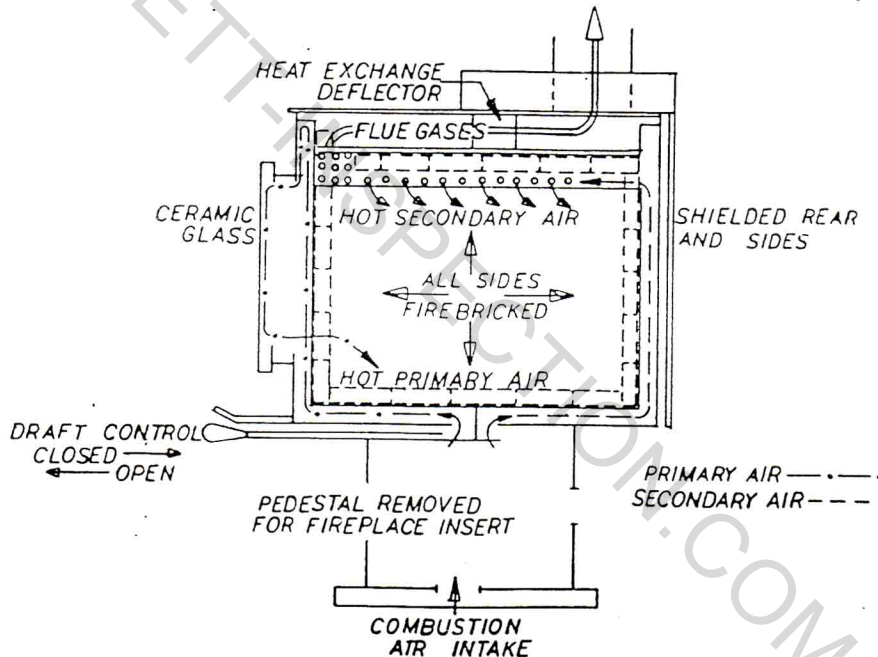


FIGURE 1

BRICK INSTALLATION:

Complete the stove and smokepipe installation before placing bricks into place. Then work in the following order and as illustrated in the diagrams below:

EPA 1000

	QTY	SIZE
①	22	4½ x 9 x 1½
②	2	3 x 9 x 1½
③	2	4½ x 4½ x 1½
④	2	4½ x 9 x 1½
⑤	1	3 x 14 x 2½
⑥	2	3 x 15 x 1½

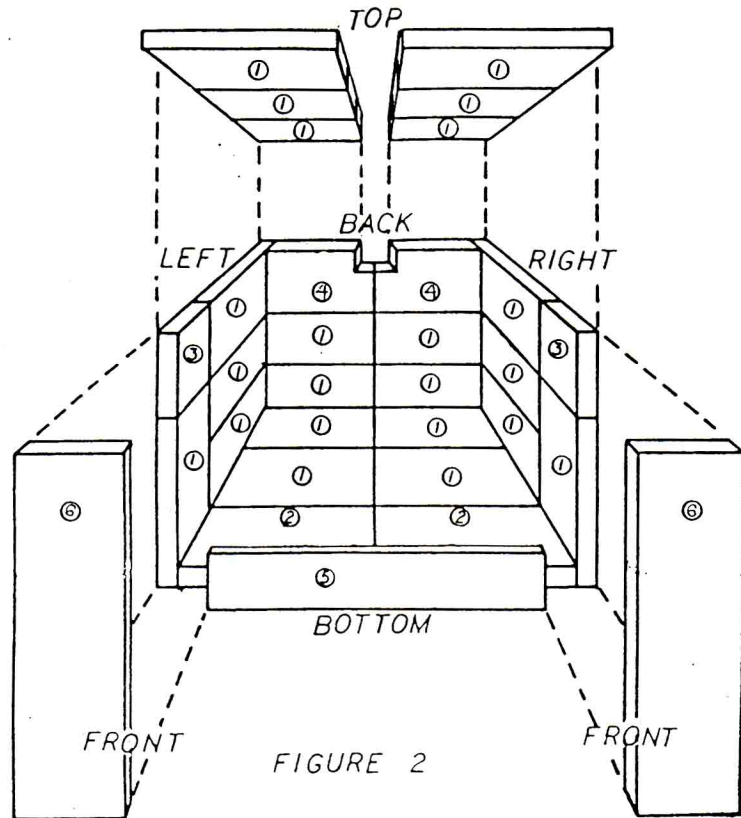


FIGURE 2

MODEL 1000 (Figure 2):

1. Install the two front bricks (2 of type {6}).
2. Install 2 courses of brick on the left and right sides and the back of the stove (10 of type {1}).
3. Install the top bricks, slipping the inside edge above the brick support and the outside edge above the top left and right side courses of brick which must now be installed simultaneously with the top bricks to hold these in place. See Figure 3 (8 of type {1} and 2 of type {3}).
4. Install the final course of brick on the back wall (2 of type {4}).
5. Install the bottom bricks (4 of type {1}, 2 of type {2}, and 1 of type {5}).

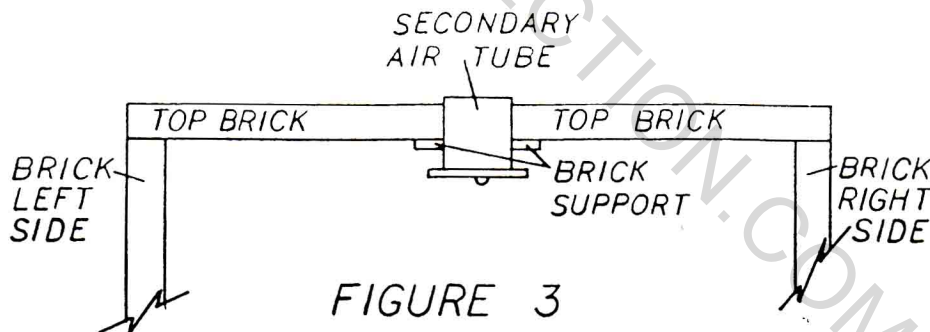


FIGURE 3

EPA 1500

QTY	SIZE
① 30	4½ x 9 x 1½
② 2	3 x 9 x 1½
④ 2	4½ x 9 x 1½
⑤ 1	3 x 14 x 2½
⑥ 2	3 x 15 x 1½

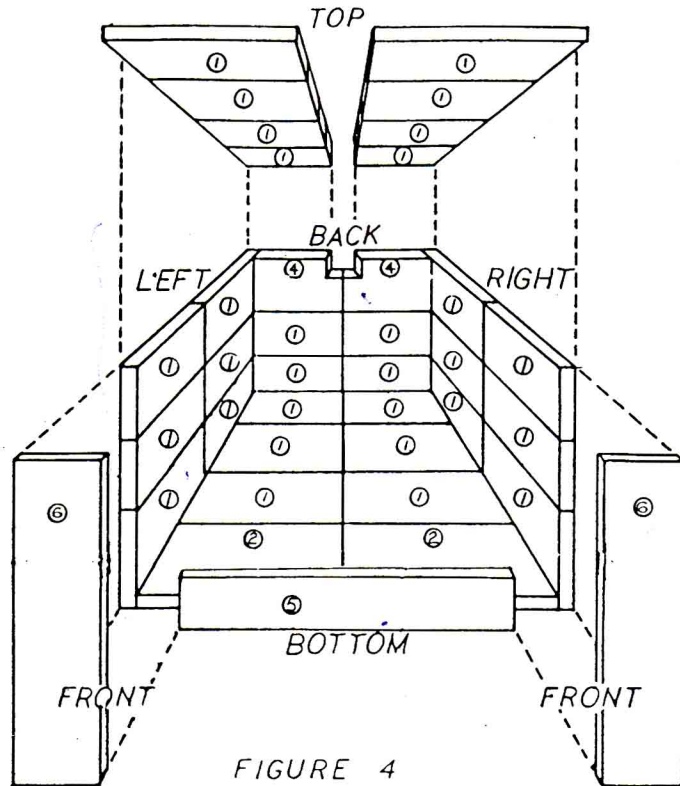


FIGURE 4

MODEL 1500 (Figure 4):

1. Repeat Step 1 above (2 of type {6}).
2. Repeat Step 2 above (12 of type {1}).
3. Repeat Step 3 above (12 of type {1}).
4. Repeat Step 4 above (2 of type {4}).
5. Repeat Step 5 above (6 of type {1}, 2 of type {2} and 1 of type {5}).

EPA 2000

QTY	SIZE
① 38	4½ x 9 x 1½
② 4	3 x 9 x 1½
③ 2	4½ x 4½ x 1½
④ 4	4½ x 9 x 1½
⑤ 1	3 x 14 x 2½
⑥ 2	3 x 15 x 1½

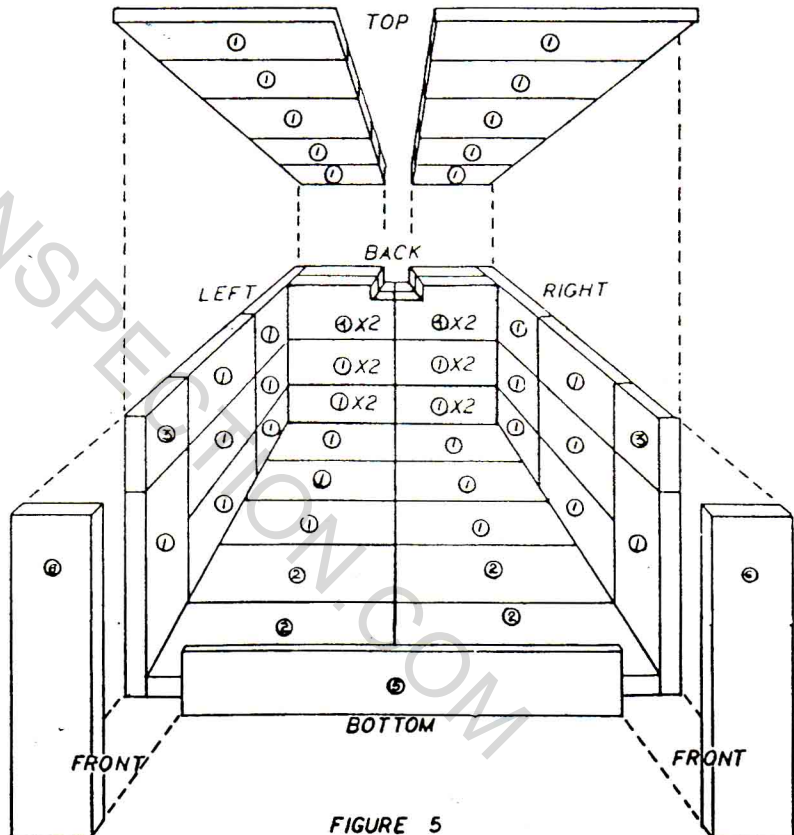


FIGURE 5

MODEL 2000 (Figure 5):

1. Repeat Step 1 above (2 of type {6}).
2. Install 2 courses of brick on the left and right sides and the back of the stove. Install a double thickness of brick across the back (18 of type {1}).
3. Install the top bricks, slipping the inside edge above the brick support and the outside edge above the top left and right side courses of brick which must now be installed simultaneously with the top bricks to hold them in place (See Fig. 5) (14 of type {1}, and 2 of type {3}).
4. Install the final course of brick on the back wall, (4 of type {4}).
5. Repeat Step 5 above (6 of type {1}, 4 of type {2}, and 1 of type {5}).

FREESTANDING INSTALLATION

CHIMNEY CONNECTION:

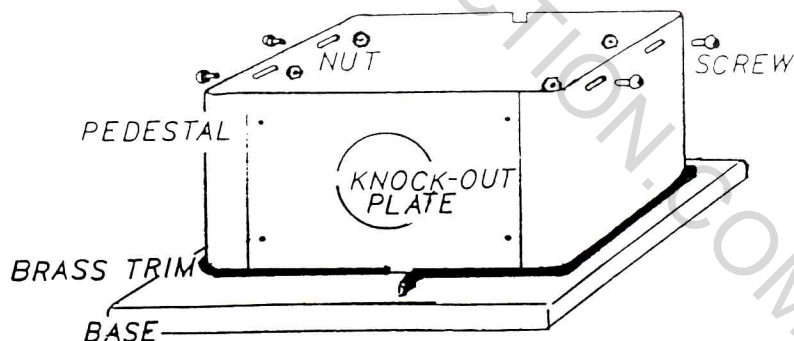
Vent the stove into a masonry chimney or an approved, insulated solid-fuel stainless-steel chimney with as short and straight a length of six-inch (150mm) diameter smokepipe as possible. Connection to a masonry chimney must be by a metal or masonry thimble cemented in place. An insulated stainless steel chimney must be supported at the ceiling or roof and its installation must comply with its manufacturer's instructions. The total smokepipe length should not exceed 40% of the chimney height above the stove. All smokepipe must slope slightly upwards 1/4" per foot (6 mm/ .3m) and all connections must be tight and secured by three sheet metal screws equally spaced.

CAUTION: An uninsulated smoke pipe shall not pass through an attic, roof space, closet or similar concealed space, or through a floor, ceiling, wall or partition, or any combustible construction. Do not use any makeshift materials during installation.

PEDESTAL AND BRASS TRIM INSTALLATION:

On free standing models connect the pedestal to the stove using four 1/4-20 x 3/4 inch long screws and nuts. Mount the stove on the pedestal so that the removable plate of the pedestal is to the back of the stove. If air intake for the stove is through the back of the pedestal, remove the knock-out plate at this time.

Attach the brass trim to the pedestal at the base. Make sure the surfaces are clean and dry. Peel the protective backing off the adhesive and pressing firmly attach the trim to the pedestal. Start at the back and proceed around the pedestal.



OUTSIDE AIR:

If possible connect the air intake at the pedestal's back or bottom to the outside with a 4 inch (100 mm diameter fresh air adaptor (Fig. 7).

MAINTAIN THESE MINIMUM CLEARANCES* TO COMBUSTIBLES:

With Double Wall Pipe. With Single Wall use C Vent Pipe.

	<u>MODEL 1000</u>	<u>MODEL 1500</u>	<u>ALL MODELS</u>
A. Side shield:	12" (300mm)	14" (355mm)	14" (355mm)
B. Rear shield:	5" (130mm)	8" (205mm)	8" (205mm)
C. Rear corner:	4" (100mm)	9" (230mm)	9" (230mm)

* These clearances can be reduced with shielding acceptable to the local authority.

ALCOVE INSTALLATION:

Model 1000 or 1500 may be installed in an alcove at least 7 ft. (2.13m) high, at least 45" (115mm) wide, and no more than 4 ft. (1.22mm) deep, with double wall pipe.

FIREPROOF HEARTH PAD:

If a stove is installed on a combustible floor, it must have its pedestal attached and be placed on an approved non-combustible hearth pad. This pad must extend 8" (200mm) to the sides and back and 18" (455mm) to the front (Figure 6).

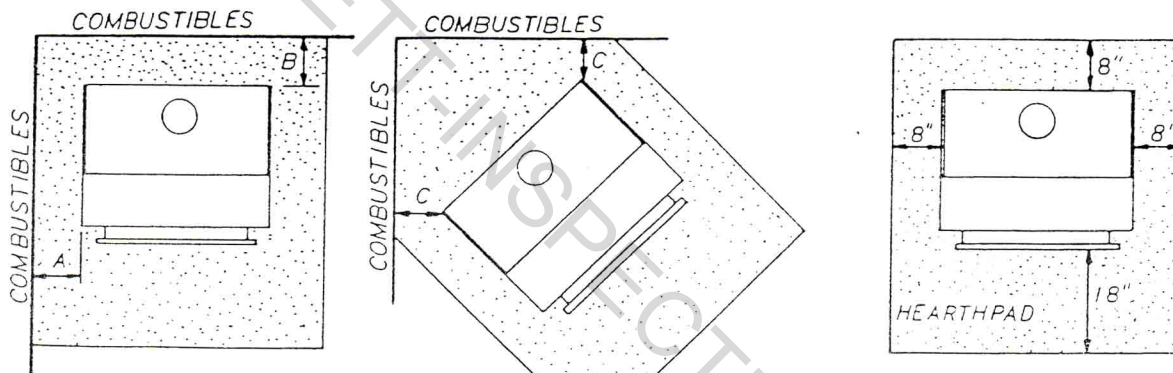


FIGURE 6

MOBILE HOME INSTALLATION

SPECIAL REQUIREMENTS:

Pedestal models 1000 & 1500 are approved for mobile homes. Do not install in a room used for sleeping. All freestanding installation requirements on the preceding page must be met plus the following:

VENTING:

Connect the stove to the chimney system using approved double wall stove pipe such as Security In Canada or Dura Vent Plus In U.S.A. Use a listed 2100 chimney system in Canada or a Dura Vent Plus chimney system in U.S.A. These must be installed in accordance with the manufacturer's instructions. Use only specified components with no substitutions. The chimney and pipe must extend at least 8 feet (2.4m) above the stove and 3 feet (900mm) above the highest point of the roof. Install a rain cap at the top which will not impede the smoke exhaust. The chimney must be supported at the ceiling or roof so that its weight does not rest on the stove.

It must be installed between ceiling joists, with radiation shield and roof flashing, so that the structural strength, insulation and waterproof qualities of the home are not lessened. Seal with silicone to maintain a vapour barrier at the chimney and outside air pipe penetrations (See Figure 7).

OUTSIDE AIR:

Connection from the stove's air intake to the outside is mandatory in mobile homes only, either through a hole in the wall to line up with the knockout in the pedestal back, or through a hole in the floor to line up with the hole in the pedestal base. Use a fresh air kit. Secure the 4 inch diameter aluminum liner by flaring the end once it is inserted through the 4 1/2 inch diameter hole in either the back or base of the pedestal. If the air intake is through the floor, the knockout in the pedestal back must not be removed. Avoid cutting away floor joists, wall studs, electrical wires or plumbing. Seal around the outside pipe with insulation to prevent drafts. The pedestal base must be firmly bolted to the floor with 1/4 inch lag bolts.

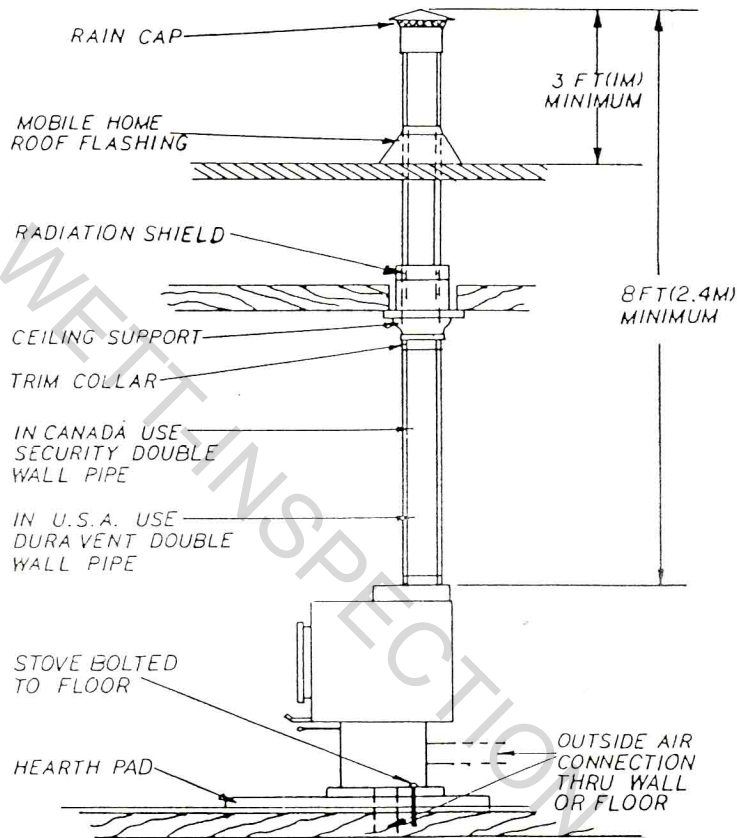


FIGURE 7
MOBILE HOME INSTALLATION

CAUTION: If room air starvation occurs because the fresh air intake is blocked with ice, leaves etc. or because the stove door was left open, or due to a strong exhaust fan operating, etc. dangerous fumes could be drawn into the room.

FIREPLACE INSTALLATION

Install only in a masonry fireplace at least 26" (660mm) wide, 22" (530mm) high and with a masonry chimney at least 15' (4.6m) high, both of which have been constructed in accordance with the building code. Do not remove bricks or mortar from the fireplace.

1. Remove the fireplace damper or fasten it permanently open.

2. Measure the throat of the fireplace and mark this shape on a piece of 24 gauge sheet metal (flue cover); cut a six-inch (150mm) hole to lie directly below the fireplace flue opening. Allow two inches of material for a flange on each side and cut on the outside. Bend down the flanges. If you have never done this before, it might be a good idea to make a cardboard pattern and test it first. Fasten this flue cover in position as high as possible with two masonry screws per side through the flanges onto the fireplace (See Figure 8A).

3. Run a listed flexible stainless steel liner from the top of the chimney to the stove top. Connect to the stove using three screws and flat washers. Secure the top of the liner to the chimney cap using a liner support and chimney flashing. Cap the top of the chimney liner assembly using an approved rain cap.

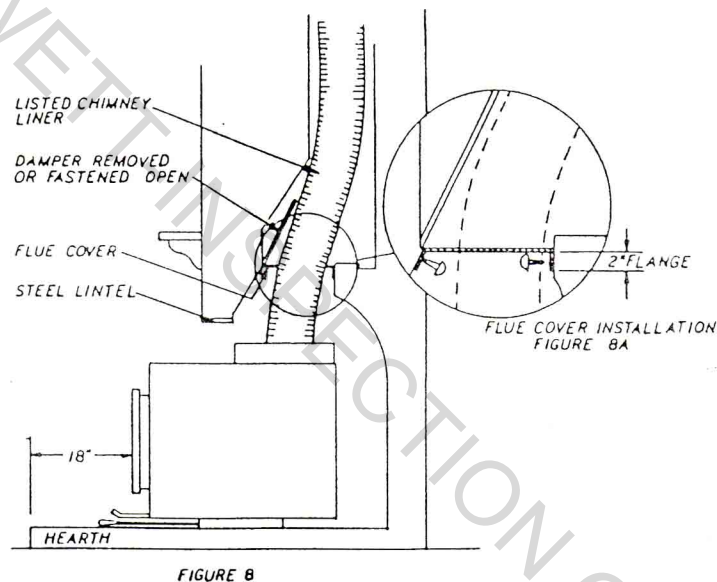
REQUIRED MINIMUM CLEARANCES TO COMBUSTIBLES FROM INSERT:

a) If the stove projects less than 3 1/2" (90mm) from the fireplace face, the clearances to combustibles are: 27 1/2" (700mm) to a combustible mantel or top facing; 9" (230mm) to a side facing and 12" (305mm) to a side wall.

b) If the unit projects more than 3 1/2" (90mm) from the fireplace face, there must be no combustible mantel or top facing and 14" (355mm) minimum clearance to a combustible side wall.

c) The hearth must extend at least 18" (405mm) from the stove front.

d) These clearances may be reduced with suitable shielding acceptable to the local authority.



CERTIFICATION

These Napoleon stoves have been tested and listed by Warnock Hersey Ltd. to standards: CSA B366.2, ULC S627, ULC S628, UL 1482, UL 907.

Models 1000 and 1500 have been tested and listed for mobile homes.

SPECIFICATIONS

	Model 1000	Model 1500	Model 2000
Width x Depth	24.5 x 21 in/ (.62 x .53m)	24.5 x 25.5 in/ (.62 x .65m)	24.5 x 30 in/ (.62 x .79m)
Height on Pedestal	32.5 in (.83m)	32.5 in (.83m)	32.5 in (.83m)
Basic Height	21 in (.53m)	21 in (.53m)	21 in (.53m)
Chamber (D.W.H.)	12x18x12 in/ (.30 x .46 x .3m)	16.5x18x12in/ (.42x.46x.3m)	20x18x12 in (.51x.46x.3m)
Capacity	1.8 c. ft. (.05 c. m.)	2.3 c. ft. (.07 c. m.)	2.7 c. ft. (.08 c. m.)
App. Area Heated*	600 - 1200 sq. ft./ (56 - 112 sq. m.)	1200 - 1800 sq. ft. (112 - 167 sq. m.)	1800 - 2000 sq. ft./ (167 - 186 sq. m.)
Heat Output (Highburn)	40,000 BTU	55,000 BTU	70,000 BTU
Duration Low Fire*	7 hours	9 hours	11 hours
Wt. without Bricks	208 lb (94 kg)	230 lb (104 kg)	257 lb (117 kg)
Wt. of Bricks	102 lb (46 kg)	125 lb (57 kg)	160 lb (73 kg)

* **Figures will vary considerably with individual conditions**

WARRANTY

The manufacturer warrants the wood stove against defective workmanship and metal components for a period of **five (5) years** from the date of purchase, while owned by the original purchaser. Any electrical components and blowers attached to the stove are warranted for a period of **one (1) year** from the date of purchase. The manufacturer who gives the limited warranty through its authorized dealers will only repair or replace this stove if there is evidence, during the limited warranty period, of a defect in workmanship or metal components, with the exception of the following:

This limited warranty does not include the paint on the surface of the stove, firebricking lining inside the stove, fiber seals, ceramic glass, ceramic tiles, brass or gold plated surfaces, components for installation such as smoke pipe, flue connection and chimney. Fireplace inserts are warranted only if protected from moisture with a raincap on top of the chimney. The manufacturer is not extending the limited warranty nor will he be responsible or liable in any way, to damages or losses caused by or arising from accident, improper installation, handling or operation, abuse, poor maintenance or unauthorized repairs or changes made to the original design of the wood stove in question.

If you have to make a claim under this limited warranty, contact the dealer from whom you bought this stove or the manufacturer. You have to pay for shipping and inspection charges of the stove. All spare parts are F.O.B. Barrie, Ontario.