NIPPA

Sauna Stoves and Room Heaters

Since 1930

the **Energy Maid**

INSTALLATION and OPERATING GUIDE for HEATER MODELS WB 2400 WB 3000

Nippa Sauna Stoves
Beulah, Michigan 49617
Phone (231) 882-7707 www.nippa.com

Congratulations

On your purchase of a NIPPA wood burning sauna heater

Undoubtedly, you have given much consideration into your decision to buy a NIPPA heater and everyone at NIPPA is proud to have a part in your family's future comfort. Pride in craftsmanship and engineering have made your sauna heater the finest product available today.

As fossil fuels become more expensive and less abundant, natures only renewable, stored solar energy, (wood) will remain a viable alternative to dependence on convenience fuels.

The NIPPA dealer in your community knows there is no substitute for quality, and you can place your confidence in his recommendation for the type of installation that will best serve your heating needs now, and in the many years to come.

We suggest you read through the Installation and Operating Guide and recommend a policy of SAFETY FIRST, before installing or operating your NIPPA wood burning heater.

Thank you for choosing a NIPPA heater manufactured by Nippa Sauna Stoves, where old-fashioned quality is still our highest priority.

Nippa Sauna Stoves
8862 N US 31
Beulah, Michigan 49617
Phone (231) 882-7707

For further information on using your heater safely, contact the
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101

or on the web at: http://www.nfpa.org/

CHIMNEYS-GENERAL

The chimney is one of the most important parts of your installation. Great care should be taken to assure that the chimney you use is adequate for the job.

No other appliances may vent into the same flue as your furnace. There are several reasons for this.

1. Air leaking into the flue through other appliances will tend to reduce chimney draft and result in poor combustion.

2. Air leaking into the flue will also tend to cool the chimney and encourage greater creosote production.

3. Creosote production may begin to block the flue to the point that adequate draft for other appliances is not provided thereby allowing poisonous gases to enter the living quarters.

4. In the event of a chimney fire, the connection of other gas or oil fired appliances will prohibit shutting down the supply of oxygen to the fire, thus letting the fire burn out of control.

- The chimney must be a tile-lined masonry (brick or block) or metal, laboratory approved, Class “A” all fuel chimney.

- The minimum net flue size must be a least 7” diameter or 7” x 7” square.

- The exterior clearance from the chimney to any combustibles such as wood framing must be a least 2” or in accordance with local codes.

- To provide adequate draft, a minimum chimney height of at least 20’ is suggested. A draft of .02” of water should be sufficient.

- The chimney must extend at least 3’ above the highest point where it passes through the roof, and at least 2’ higher than any part of the roof within 10’ of it. *See Figure 1*.

Required Chimney Height Above Roof

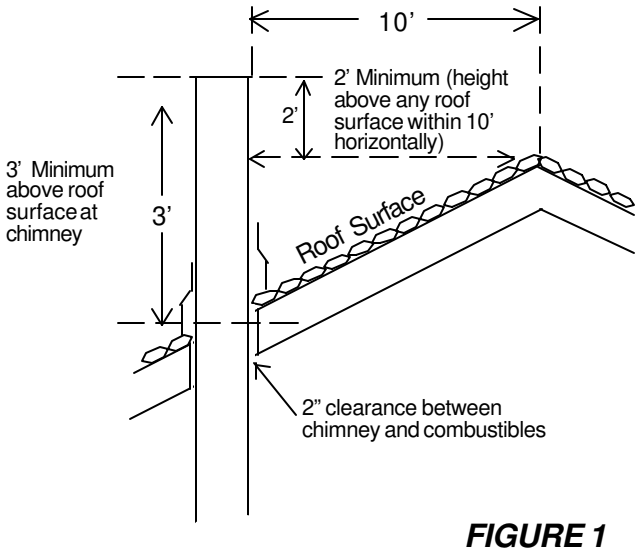


FIGURE 1

EXISTING CHIMNEYS

If you choose to use an existing chimney, besides meeting the criteria in chimneys-general, have a professional inspect the chimney for such problems as:
1. Leaks
2. Unsafe breeching from previous installation
3. Broken liner and
4. Obstructions

Remember, a chimney in poor condition is an extremely dangerous fire hazard. Have any problems properly repaired before attempting to use the chimney.

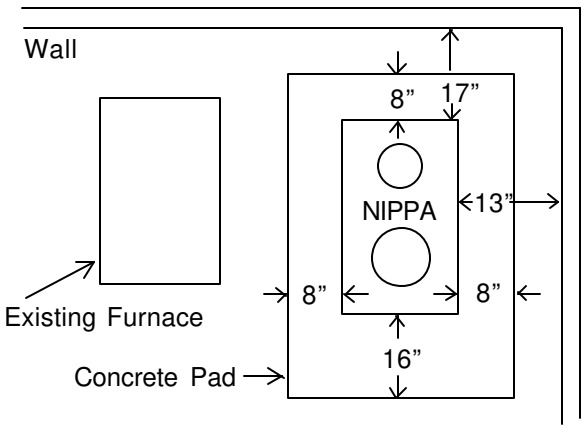
NEW CHIMNEYS

If you decide to install a new chimney, we suggest that you attempt to locate the chimney within the house structure. A chimney located outside of the house structure is exposed to cold temperatures which encourages creosote build up and poor chimney draft.

A new chimney must meet the criteria of Chimneys-General.

FURNACE CLEARANCES

Your furnace has been tested to determine the safe clearances to combustible material. Combustible material includes wood stud walls, whether they are covered with wallpaper, paneling, gypsum board, plaster or brick. Safe clearances are detailed in *Figure 2*.



Minimum Furnace Clearances to wall and Minimum Concrete Pad Clearance

FIGURE 2

FLOOR PROTECTION

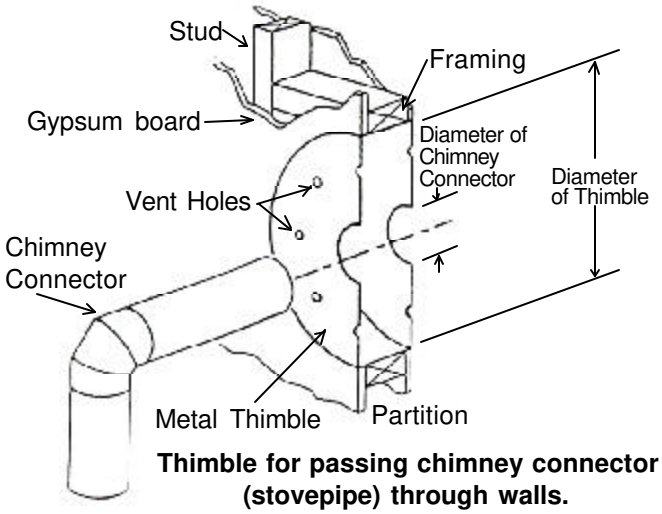
The furnace must sit on a non-combustible surface such as a 3" think concrete pad. The area of the concrete pad must be large enough to protect the clearances shown in *Figure 2*. In addition, floor protection such as the concrete pad or 3/8" thick asbestos millboard shall be provided under the chimney connector (stovepipe) and 2" to either side of the chimney connector.

CHIMNEY CONNECTOR (Stovepipe)

The stovepipe is not a chimney. The function of your stovepipe is to "connect" the furnace with the chimney, hence "chimney connector". The stovepipe you use should not be less that 7" diameter, 24-gauge steel. We recommend placing the furnace as close as possible to the chimney, using the least amount of pipe and elbows possible. The furnace should also be located in proximity with the existing furnace.

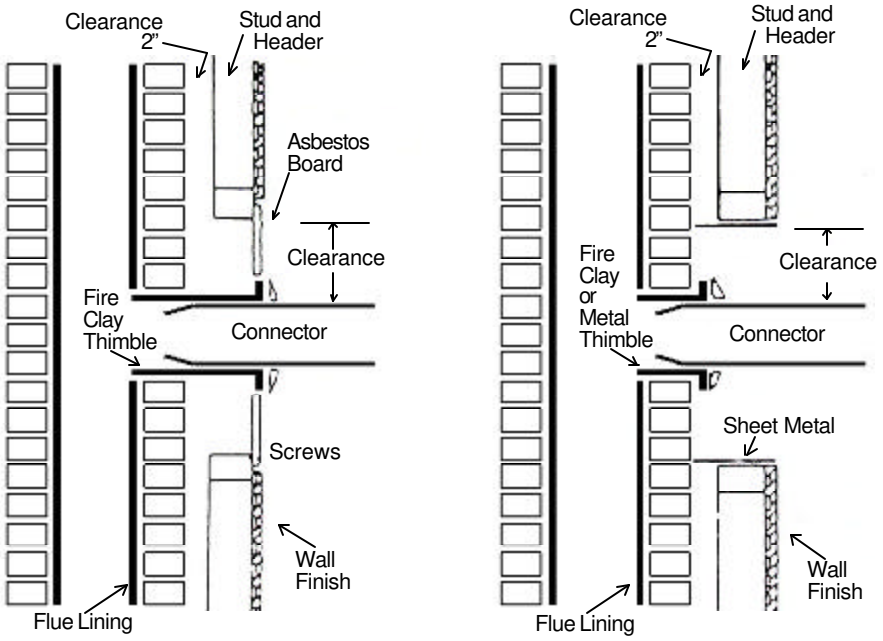
Install the stovepipe with the crimped end down to help prevent creosote from running out onto your furnace or floor. When attaching the stovepipe to the furnace, use a minimum of three sheet metal screws at each joint. This includes the stovepipe to furnace connection. The stovepipe's horizontal sections must rise ¼" for each foot of horizontal pipe, with the highest point being at the chimney inlet.

If the stovepipe must pass through an interior wall, it must be done with the use of a ventilating thimble. The diameter of the ventilation thimble must be at least 19" (7" diameter pipe). See *Figure 3*. In the event that you choose not to use a ventilated thimble, all combustible material with 18" of the sides of the stovepipe must be removed. This includes the ceiling. See *Figure 4*.



Thimble for passing chimney connector (stovepipe) through walls.

FIGURE 3



Methods for connecting chimney connector (stovepipe) to chimney through wall.

FIGURE 4

When the stovepipe is connected to a masonry chimney, the stovepipe must extend through the chimney wall to the inner face or liner but not beyond, and shall be firmly cemented to the masonry. To facilitate removal of the stovepipe for cleaning, we recommend permanently cementing a fire clay or metal thimble in place with high temperature cement. See *Figure 4*. Where the stovepipe is inserted in a thimble, though not cemented, the joint must be sufficiently tight to prevent dislodgment of the smoke pipe by the force of a "puff" from sudden ignition in the furnace's firebox.

When connecting stovepipe to a metal chimney, follow the instruction supplied with the metal chimney using the stovepipe connector supplied with the chimney.

MANUAL DAMPER IN THE STOVEPIPE

Your furnace has been tested and approved without the use of a damper, however to give you added control, we do recommend its installation. The damper should be located in the first full length of pipe.

We do not recommend the use of a barometric draft damper, unless it has been determined that your chimney draft is excessive. To measure chimney draft, use a manometer or draft gauge. A draft of .04 to .06 inches of water is excellent.

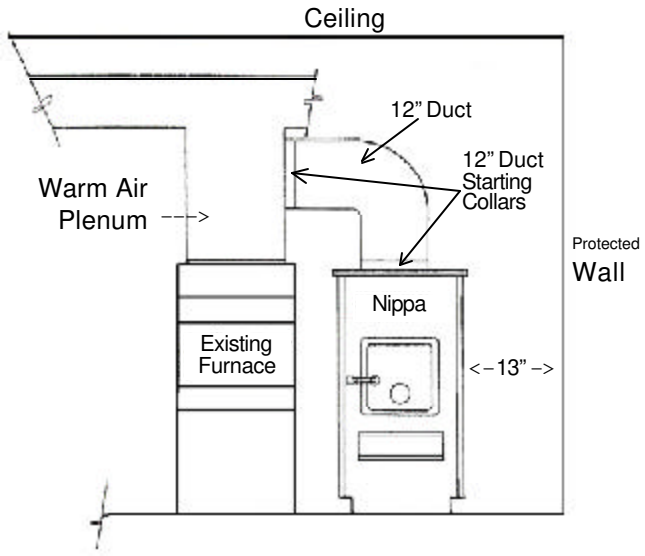


FIGURE 5

INSTALLATION-GENERAL

Note: *A qualified installer should only install this furnace.*

Except for the fan package, which is packed inside, you furnace has been completely assembled for your convenience.

Prior to installation, you should examine the rating plates on both your Nippa furnace and your existing furnace, to determine that the furnaces can operate in the same temperature and external static pressure ranges. A professional should test your installation to determine that external static pressure is within acceptable limits.

This supplementary furnace must be connected in parallel and may not be connected in series with the central furnace. See *Figure 5*. With a series installation, a possibility exists of components of the central furnace overheating and causing the central furnace to operate other than as intended.

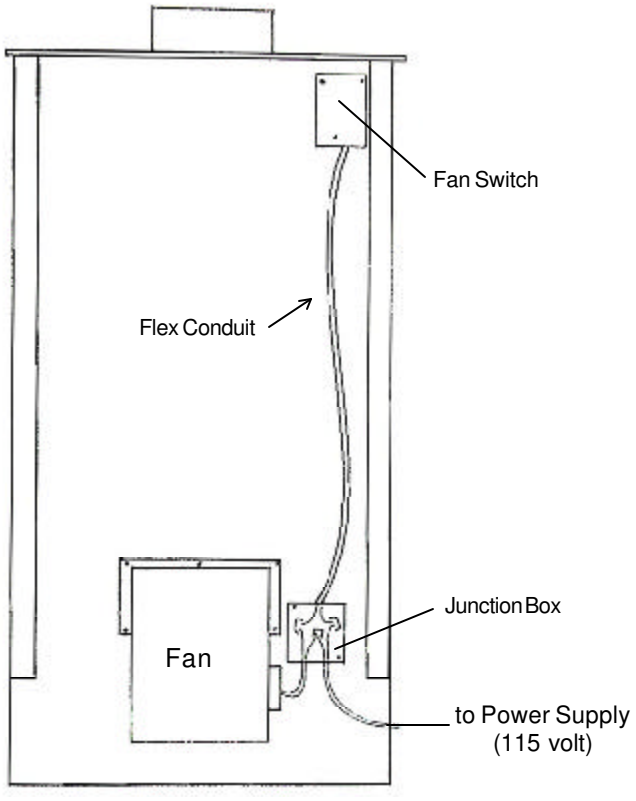
WARM-AIR DUCT INSTALLATION

Your Nippa furnace is provided with a 12" diameter-starting collar. Another 12" diameter starting collar should be installed in the warm air plenum of your existing furnace. See *Figure 5*. The 2 collars should be interconnected with 12" diameter galvanized ducting. This ducting must remain 18" away from combustible surfaces.

ELECTRICAL PACKAGE INSTALLATION

It is recommended that only persons skilled in electrical work make the actual wiring connections.

1. Remove the (five) 5 screws from the lower, center of the furnace. See *Figure 6*.
2. Mount the fan with the motor and cord on the right side of the furnace. Replace the screws.
3. Remove the (three) 3 screws in the upper, right corner. Mount the fan switch with the electrical knockouts facing down. Replace the screws.
4. Remove the (two) 2 screws to the right of the fan. Mount the junction box and replace the screws.
5. Remove an electrical knockout from the fan switch and the top of the junction box. Install the conduit connector. Fish the 2 wires supplied through the conduit.
6. Remove the 2 knockouts from the bottom of the junction box. Install romex connectors in each. Fish the fan motor wiring through the left connector. The right connector is for the power supply source. ***Note:*** Use care when routing the power supply to keep it out of traffic patterns and away from hot surfaces.
7. See *Figure 7* for the wiring diagram.
8. Replace the junction box cover.

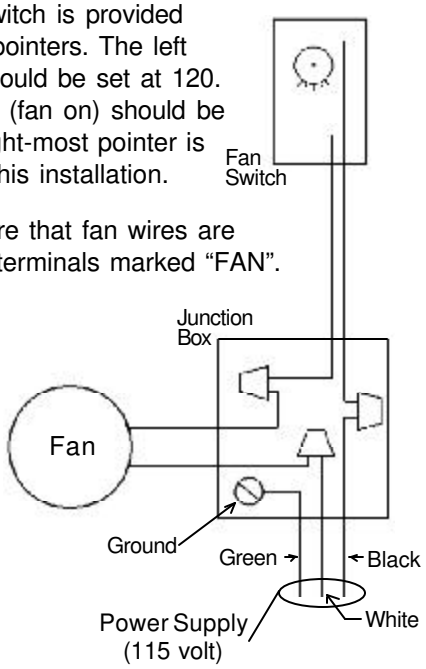


Electrical Component Mounting Detail

FIGURE 6

NOTE: The fan switch is provided with 3 adjustable pointers. The left pointer (fan off) should be set at 120. The center pointer (fan on) should be set at 150. The right-most pointer is not important for this installation.

Caution: Make sure that fan wires are connected to the terminals marked "FAN".



Wiring Diagram

FIGURE 7

STARTING THE FIRST FIRE

Caution: Never use chemicals or fluids such as gasoline, charcoal lighter fluid, drain oil or kerosene to start or freshen a fire in your furnace. Keep all such liquids well away from the heater while it is in use.

Open the draft on the furnace and stovepipe. Place several pieces of paper and some small dry kindling directly on the grate. Ignite the paper and close the door and allow to burn for 15-20 minutes before adding more wood.

After the fire is burning well, regular the chimney damper to where you feel you a well-controlled fire. Remember that a roaring fire in not controlled. For best results and even temperatures, control the fire before it is burning too hard. All chimneys and hookups act differently. After a while however you will find out how your furnace works best for starting. Your furnace is capable of putting out a lot of heat so don't fully load your furnace or open the draft controls fully until you have become familiar with the furnace. Keep in mind; a full load will not always give you the best results for your needs. ***Note:*** with new metal, you may smell an odor. This is normal during the first operation and will dissipate shortly.

When loading a furnace that has existing hot coals, rake the hot coals evenly. Put a few smaller pieces of wood on the coals first, and then load up. Close the fuel door.

Use Caution when opening the fuel door. Avoid opening the door rapidly. This can cause flame to flash out the door. This occurs when there is unburnt fuel and a large amount of gases on top of the firebox. When the door is opened, oxygen is rapidly combined with the gases and ignites.

ELECTRICAL FAN OPERATION

Providing the fan is properly connected and adjusted, (See *Figure 7*.) it will turn on and off by itself. You do not need to concern yourself with its operation.

DISPOSAL OF ASHES

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be place 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.

Every week or so, depending on how much fuel you burn, ashes should be removed. Simply, pull out your ash pan and dump the ashes in the proper container. Remember not to let ashes build up to grate level. This will reduce the life span of your grate.

CREOSOTE-FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapors, which combines with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a low burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire.

The chimney connector (stovepipe) and chimney should be inspected at least twice monthly 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.

SUMMER MAINTENANCE

To insure a safe and long-lasting furnace installation, there are a number of maintenance duties you should perform annually.

Clean your chimney, flue passages and stovepipe. Replace stovepipe if necessary.

Clean out all ashes and coals. Damp weather combined with ashes makes them caustic and they can corrode steel.

Inspect for open seams and cracks in the firebox and repair if necessary.

Paint or polish your furnace if needed. Paint will give better protection if the stove will be in a humid place.

Oil the fan every six months.

Inspect and if necessary, adjust door latch to provide snug fit.
Inspect and if necessary, adjust ash pan to provide a tight seal. Very important.

OPERATION DURING POWER FAILURE

In the event of an electrical power loss while the furnace is fired, the following procedure should be followed to safely continue the operation of your furnace.

Remove the screws holding up the bottom panel (one on each side toward the middle of the furnace.)

The bottom panel will fall to the floor allowing airflow around the firebox through normal convection.

Do not load large amounts of wood.

Load the furnace cautiously until the wood consumption rate is established. Monitor the combustible surfaces within (five) 5 feet of the furnace and immediate ductwork.
Remember, the system is forced air and cannot dispose of large amounts of heat in a gravity manner. You cannot expect to heat your home to the comfort level obtained with normal operation. Extreme Caution must be used to

SPECIFICATIONS		
	WB-2400	**WB-3000**
Height	41"	41"
Length	28"	34"
Widt	26"	26"
Fire Door	11" x 11"	11" x 11"
Log Length Cap.	21"	25"
Approx. Weight	450 lbs.	500 lbs.
Flue	7"	7"
Heating Cap.	70 - 80%	70 - 80%
Blower	815 cfm	815 cfm
Plenum Size	12" x 18"	16" x 18"
Grates	Cast Iron	Cast Iron
Finish	Heat Resistant	Heat Resistant
Heating Range	1200-1500 sq. ft.	1500-2000 sq. ft.
Mfr. Warranty	1 Year	1 Year
Door & Frame	Cast Iron	Cast Iron