

INSTRUCTIONS

The Pioneer Maid Airtight Cookstove

ASSEMBLY AND INSTALLATION INSTRUCTIONS

(The heater is not to be connected to any air distribution system).

- 1) Remove all wooden crating from around the stove, being careful not to wedge or pry against the stove, as damage to the enameled liner may result.
- 2) Inspect stove for possible shipping damage, and notify your freight carrier immediately if any damage has occurred.
- 3) Loosen the bolts at the base of the stove that hold it to the pallet, and lift stove from pallet.
- 4) Remove all parts from the ash pan.
- 5) Cut through the protective tape on the stove top & remove lid. But do not remove protective tape from stove top, or it may get scratched.

Remove the large poker and scraper from inside the stove. If stove is being lifted by hand, remove firebrick to decrease weight of stove and make it easier to move.

- 6) Move your **Pioneer Maid** to the desired position.
- 7) Install the high back and shelf to the stove body with the four bolts that are supplied. Bolts should be tightened until snug, but do not overtighten. (If your stove has the optional warming closet instead of shelf, see #25 for assembly instructions).
- 8) Install the handle on ash tray front and oven door. The longer of the two wooden handles is for the oven door. Two of the nickel-plated round spacers (1-1/2 inch length) fit between the wooden handle and the oven door, held in place by bolts screwed into the oven door.
Notice that the ash tray has a steel handle on one end, and two holes in the other end. The steel handle goes to the back of the stove, and the end with the holes to the front. Next the enameled ash tray front (11-1/2" x 5-1/4") fits to the ash tray, then the two nickel-plated spacers go between it and the shorter wooden handle.
- 9) Peel off the protective paper strip from the oblong thermometer in the oven door, and also any protective tape over the ledge running along bottom of stove.
- 0) Your stove may have been shipped to you with the firebrick not installed. Instead they were packed into the firebox. If you have not already done so, remove them all from the firebox, and then install them properly.

Description of firebrick:	Quantity
End Brick, rear of firebox, 5-1/2" x 14"	2
End Brick, front of firebox, 7" x 14"	2
Side Brick oven, 9" x 11"	2
Side Brick, at air intake, 9" x 7"	2
Bottom Brick, circle cut out	2

Put the end bricks into position first, then the side bricks. (Note that the ends of the side bricks are slightly tapered. The longer side should be toward the fire. This will cause the bricks to "hug" the sides, so that you will not have a problem with ashes getting behind the firebrick).

Place the bottom bricks into position last of all, locking the others in. When removing the bricks, reverse this order, taking the bottom bricks out first.

- 11) The removable flue opening at the rear accepts a 7-inch stove pipe, crimped end down. It is important that with an airtight stove, the crimped end of the stove pipe be turned down. We recommend that a stainless steel stove pipe be used if possible. If ordinary black pipe is used, it should be checked every three months or so to make sure the pipe is not being weakened by corrosion.

The removable flue has not been attached to the stove for shipment. After the stove has been moved into your house and put into place, this should be attached. Small angles and bolts and nuts are supplied to fasten it with. Nuts go on the outside of the removable flue.

- 12) Your **Pioneer Maid** cookstove does not require a damper in the stove pipe.
- 13) Read these instructions carefully before installing your new cookstove. Installation must comply with all local and national building codes.

- 14) Clearances to combustibles (measured from unit).

48" from front

25" from rear

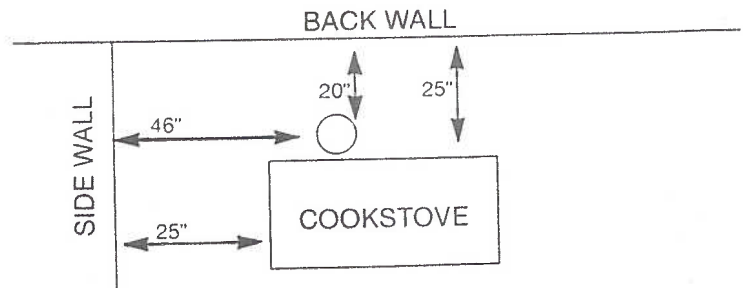
25" from side

18" from right side

Clearances to combustibles (measured from chimney connector).

20" from rear

46" from side



- 15) For reduced clearance and further information on using your wood stove safely, obtain a copy of the following booklet:

In United States: National Fire Protection Association publication, "Using Coal and Wood Safely," NFPA No. 115-8-1974. The address of NFPA is: 470 Atlantic Ave., Boston, MA 02210.

In Canada: Canada Mortgage and Housing Corp. publication, "Heating With Wood Safely." It is available through any C.M.H.C. office.

**NEVER LET THE TOP OF YOUR STOVE GET RED HOT.
STEEL EXPOSED TO THAT AMOUNT OF HEAT WILL CRACK!**

- 16) Floor Protection: When installing this stove on a combustible floor, a floor protection of 3/4" thick asbestos mill board or equivalent must be used under the unit. This protector must extend 18" to front and 18" to sides of the stove.
- 17) Your cookstove must be connected to a masonry chimney or a type "A" ULC (Canada) or ULI (United States) listed factory-built chimney at least 7" in diameter. A chimney height of at least 15 feet, measured from the floor on which the cookstove stands, is required.
The chimney must be in good condition, and installed in accordance with the manufacturers instructions.
- 18) Keep the use of stove pipe to a minimum, especially elbows, as every turn in your pipe cuts down on the draft. Be sure all horizontal stretches of pipe slope slightly back toward the stove.
- 19) Do not insert flue pipe into masonry chimney further than the wall of the flue tile. Also, single wall stove pipe must not penetrate combustible ceilings or walls. Stove pipe clearances must be at least 18" from combustibles.
- 20) Do not connect the unit to a chimney serving another appliance.
- 21) Make sure your chimney is high enough to give a good draft. Trees, hills, overhangs or other houses, etc. near your chimney can cause a downdraft resulting in a smoke-filled room.
- 22) Remove the protective sticker paper from the cooking surface of the stove.
- 23) Your stove is supplied with a nickel-plated 5/8 inch tube to serve as a protective railing along the front of the stove at the level of the cooking surface. You will notice two chrome spacers (one end of spacer cut at an angle). These two spacers fit between the railing and the top of the stove. The railing is fastened by means of bolts supplied.
- 24) Makeshift compromise during installation may result in a fire hazard.

25) **Directions for Assembling of Warming Closet for Pioneer Maid**

Description of pieces:	Quantity	Reservoir	Non-reservoir
Highback end piece	2	4 x 17-1/2"	4 x 15"
Highback	1	17-1/2 x 50-1/4"	15-1/4 x 41-1/4"
Bottom of warming closet	1	10 x 50-1/4"	10 x 41-1/4"
Back of warming closet	1	10-1/2 x 50-1/4"	10-1/2 x 41-1/4"
Ends of warming closet	2	10 x 10"	10 x 10"
Door of warming closet	1	10-1/2 x 47"	10-1/2 x 41-1/4"
Top of warming closet	1	4 x 9-1/2 x 50-1/4"	4 x 9-1/2 x 41-1/4"

Your First Fire

1. Open the flue damper slide (by pulling the handle out so that your smoke and gases can travel directly into the flue, without being circled around the oven. This will increase the draft to your firebox, and reduce the stove's tendency to smoke while the chimney is still cold.
2. Open the two air intake knobs at the left side of the stove. These knobs should be opened about two complete turns or more.
3. Place kindling and crumbled newspaper into the firebox. Light with a match at a point close to the air intake side. Do not overheat your stove during your first burn. A small fire is best to break in your stove when it is new.
If your fire becomes too hot, adjust the air intake knobs as necessary.

Follow these steps one by one in the order they are given. Do not tighten bolts and nuts until you are finished, so you can shift and rack pieces to get them into place.

- 1) Attach highback end pieces to highback, with open sides of end pieces facing inward.
- 2) Position the three pieces you have assembled on stove, and bolt to stove top.
- 3) Place warming closet bottom (with lip forward and down) on top of highback assembly, but do not bolt.
- 4) Place warming closet ends on top of w.c. bottom (open ends inward), and fasten with bolts. (Bolts pass through w.c. ends, w.c. bottom, and highback ends.)
- 5) Fasten warming closet back, lip down and inward.
- 6) Fasten warming closet top.
- 7) Fasten warming closet hinges. (They go on upside down, or opposite from the hinges on the oven door.)
- 8) Attach warming closet door.
- 9) Fasten the two eye bolts, one at each lower outer corner of warming closet back. Eye bolt projects out the back; not inside the warming closet.
- 10) Attach chain to the warming closet door. There are two lengths of chain. One end of each chain fastens to the hole at each upper end of warming closet door. Chain is fastened via bolt through the lock washer.
- 11) Put chain through the pulley and down through the eye bolt.
- 12) Attach weight to end of each chain.
- 13) Adjust weight on the chain so that the warming closet door is held open at a level position when weight is pulled up tight against the eye bolt. Eye bolt acts as stop to support the door when it is in an open position.
- 14) Fasten the two handles to warming closet door. Use finish nuts on inside of warming closet door.

OPERATING YOUR STOVE

- 1) A good build-up of ashes and live coals in your **Pioneer Maid** is to be desired. Do not remove ashes too frequently – it should never be necessary more often than every six weeks, and during the summer you can often go from four to six weeks. Allow fire to die down at least overnight before attempting to remove ashes.
- 2) To remove ashes, take a poker and scrape the live coals that remain to the back of the stove. Then open the ash pull-out slide (knob at the lower end of stove). Take the large poker and scrape ashes into the hole at the center. Scrape all the ashes from the front half of the firebox.
- 3) Now close the ash removal slide, and empty the contents of the ash pan if necessary. (Be careful to empty the ashes only where they cannot ignite a building or anything combustible. Even ashes that appear to be dead, can become alive when exposed to air.)
- 4) With the emptied ash pan in place again, take your poker and scrape all the live coals inside the firebox to the front of the stove into the area where you have removed ashes from. Then open ash removal slide, and remove the dead ashes from the back of the firebox. Close slide when finished, and empty ash pan again.

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.

- 5) To get the fire going again, stir the live coals to the surface, and turn the air intake knobs open. Put a bit of dry wood or kindling onto the live coals, and it should take off.
- 6) When you want to use your oven, be sure the flue damper slide is closed (when the handle is pushed in, forcing the gases around the oven. If your stove is hot, but the oven is slow to heat, you probably have a poor chimney draft. Check for obstructions that may be reducing your draft.
- 7) About every other time you remove ashes, you should check the build-up of soot and creosote around and beneath the oven. Open the small plate immediately below oven door. Use the scraper provided to clean out this area, being sure to clean out on both sides of the baffle that intersects the clean-out opening.

When cleaning beneath the oven, be sure to clean the deposits in the flue itself that projects to the rear of the stove.

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

The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if a creosote build-up has occurred.

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

- 8) To clean the cooking surface, use fine (000) steel wool, soap and warm water. Dry with a clean damp towel. Rub cooking surface with paraffin wax or light cooking oil, and polish with a soft cloth. When stove is not in use for longer than one week, coat surface with light oil.
- 9) Heat will darken the cooking surface; the hottest sections turning dark first. This is normal on any new stove, and nothing to worry about.
- 10) If you have a reservoir model, be sure there is water in the reservoir at all times, a minimum of at least three inches. Never put anything except water into the reservoir.
- 11) Do not sit or stand on the open oven door, or in other ways subject it to excessive weight. To do so, may cause enamel to chip, or the door to bend out of shape.
- 12) Burn only wood. Never pour flammable liquids such as gasoline or kerosene into the stove. To do so may result in a dangerous explosion. Do not burn garbage.
- 13) You will notice that the oven bottom of your stove is not stainless steel. This is enamelled steel for easier cleaning and better, more even baking. It is possible, that with time, your oven bottom may show signs of corrosion, depending on how much creosote your chimney is producing. When this happens, let us know. We will send you another oven bottom, free of charge. It is not a difficult procedure to take out the old oven bottom and install a new one.

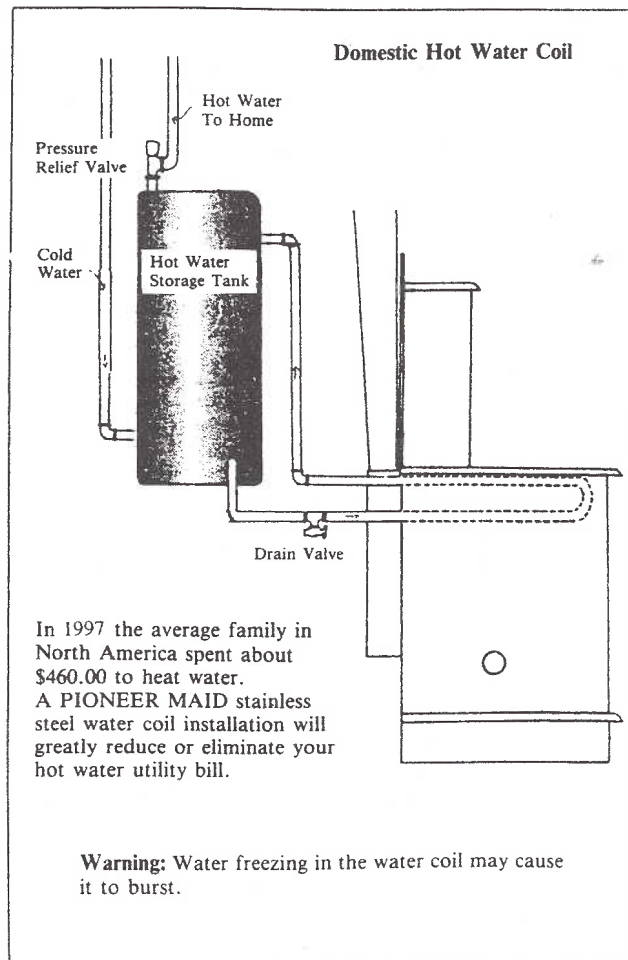
NOTE: The Pioneer Maid has been thoroughly tested for safety; but remember that the main responsibility for safety rests with the user. Become familiar with your stove and the operating instructions before starting a fire. Common sense is the key to safe and trouble-free long-term performance.

INSTALLATION INSTRUCTIONS FOR DOMESTIC HOT WATER COIL FOR THE PIONEER MAID

The Thermosyphon System

The thermosyphon or convection system is the most basic, dependable and fool-proof method of heating water with your cookstove. It uses the principle that hot water rises and circulates water from the storage tank to the stove and back. Cold water from the bottom of the tank falls into the water coil where it is heated, and rises back into the top of the tank. This is often referred to as a gravity system and if properly set up, will work automatically, putting hot water into your electric or gas water heater or storage tank any time there is heat in your stove.

In order for this system to work, your tank must be a minimum of one foot above the cold water inlet on your water coil for every two feet your tank is away from the stove. For this system to work properly, your tank should not be located further than eight feet from your water coil.



Use at least 3/4" pipe in the loop from the tank to the stove and back. A 150 lb. pressure and temperature relief valve must be used on the top of the storage tank. All pressure relief valves must be piped to a drain. If entering through the top of the tank with your hot water from the coil, a 150 P.S.I. air vent must be used at the highest point in that line.

Be sure there are not ups and downs in the cold water line to the water coil. It is a good idea to give all the pipes from the stove to the tank a slight uphill slant so no air will become trapped in the lines. Also watch that there are no gate valves between the coil and the storage tank for best performance.

Please read instructions carefully before beginning work.

1. Remove the bolts that hold the plugs into place that seal the holes at the rear of firebox designed for installation of coil.
2. The water coil must be placed inside the firebox, and the treaded ends pushed through the holes you have just unplugged.
3. Tighten the lock nuts with a pipe wrench until the coil is secure.

Parts Required:

1. Four 3/4" x 6" galvanized nipples.
2. Two 3/4" iron pipe unions (for ease in disconnecting).
3. One 3/4" galvanized tee.
4. One 3/4" brass drain valve.
5. One 3/4" x 2" galvanized nipple.
6. One 3/4" steel to 3/4" copper male adapter.
7. One 3/4" steel to 3/4" copper female adapter.
8. 3/4" copper pipe.
9. Two fittings required to connect copper pipe to storage tank.
10. One roll of teflon thread sealant tape.
11. Solder and flux.
12. One pressure relief valve.

Things To Do For Proper Installation:

1. Never use plastic pipe with a water coil.
2. Install pressure relief valves where recommended.
3. Never install a pressure relief valve that is not plumbed to a drain, or to the outdoors.
4. Never put gate valves or any potential blockage in the loop from the coil to the tank.
5. Use an air vent at the highest point in the system.
6. Always put a drain pan under a storage tank that is located above the living space.
7. Never cap the outlets on your water coil when not in use.
8. Always use a 50/50 solder when installing the water coil.
9. Use sandpaper and not steel wool when cleaning copper pipes for soldering.
10. Never use plumbing pipe as an electrical ground.
11. Use metal cover plates over pipes when installing in a wall which will be sheet-rocked or covered.
12. Never hesitate to ask a qualified plumber if you have questions.

Cleaning the Water Coil

Lime deposits should be cleaned from the interior of the water coil at least once a year, or when water heats up slower than normal.

1. Remove the water coil from the stove.
2. Fill the water coil with a 75% vinegar, 25% water solution.
3. Let stand for about six hours, or until the lime deposit has softened.
4. Flush out the solution and soft lime with a garden hose.
5. Either reinstall the water coil immediately, or store with the open ends of pipe down so water will drain out.



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