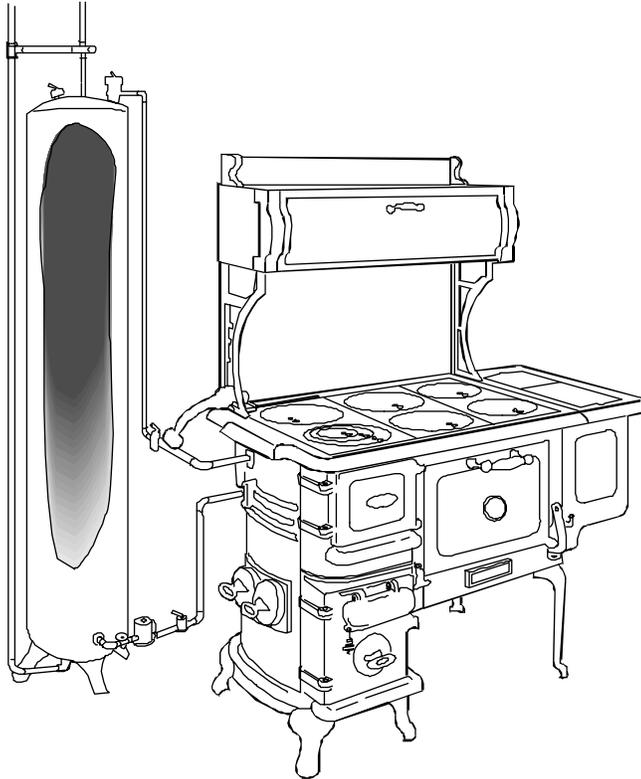




HEARTLAND[®] APPLIANCES INC.

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Toll Free Phone: 1-800-361-1517 Toll Free Fax: 1-800-327-5609



Water Jackets

Assembly Instructions

for

Oval and SweetHeart Wood Cookstoves

Other Kits Available for your Woodstove:

- Coal Burning Kit
- Heat Shield Kit
- Fresh Air Kit

For more information call your dealer or contact Heartland Appliances

Phone (519) 650-5501 Fax (519) 650-3773

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A Thermosyphon or Convection Water Circulating System

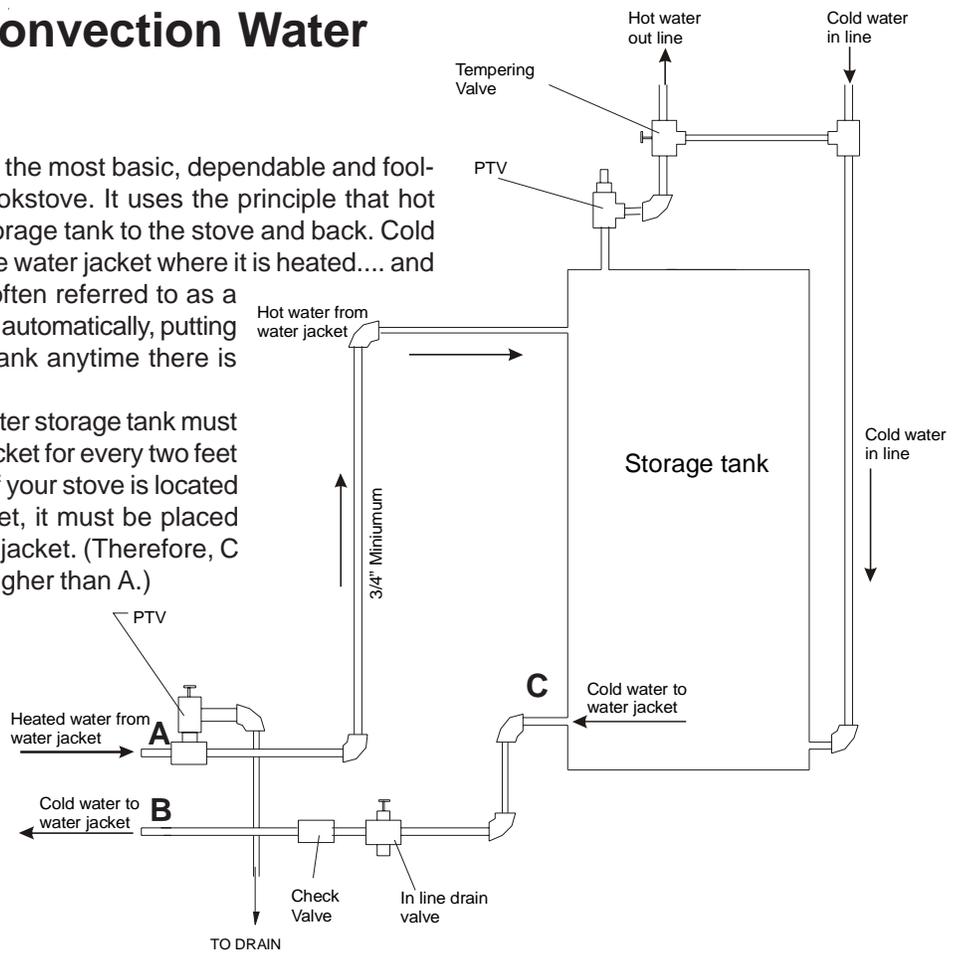
The thermosyphon or Convection system is the most basic, dependable and fool-proof method of heating water with you cookstove. It uses the principle that hot water rises and circulates water from the storage tank to the stove and back. Cold water from the bottom of the tank falls into the water jacket 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 HOT WATER storage tank anytime there is heat in your stove.

For a thermosyphon system to work, your water storage tank must be raised at least one foot above the water jacket for every two feet it is located away from the stove. Example - if your stove is located six feet away from your water storage jacket, it must be placed three feet higher than the outlet of the water jacket. (Therefore, C on the diagram must be located three feet higher than A.)

Use at least 3/4" pip in the loop from the tank to the stove and back. A 150 lb. pressure temperature/relieve valve should be used on the top storage tank. All pressure temperature/relief valves should be piped to a drain. If entering the top of the tank with hot water from the jacket, install a 150 p.s.i. air vent at the highest point in that line.

Use a check valve in the cold water line leading from the tank to the stove between points C and B. (The arrow on the check valve must face the direction of the flow.) Install a tempering valve in the hot water line above the pressure relief valve. Install a drain valve at the lowest point in the system.

Be sure there are no ups and downs in the cold water line to the jacket. 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 anywhere in the system because if closed, it will cause serious damage to the system. Caution: installations should be performed by a qualified plumbing contractor.



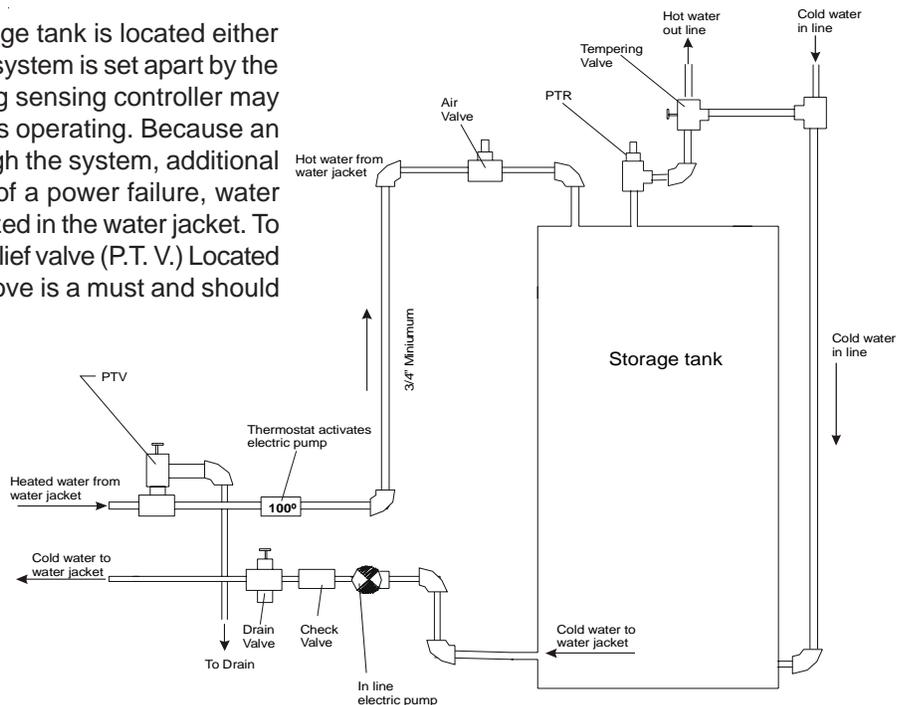
The Active (Pumped) System

This is the system to be used when your storage tank is located either below the stove or a great distance away. This system is set apart by the use of a pump to circulate water, and a heating sensing controller may be used to activate the pump when the stove is operating. Because an electric pump is used to move the water through the system, additional safety precautions are required. In the event of a power failure, water could stop moving and become highly pressurized in the water jacket. To release this pressure, a pressure temperature/relief valve (P.T. V.) Located in the hot water line about two feet from the stove is a must and should be safety piped away according to local code.

Do not install any gate valves anywhere in the system because if closed, it will cause serious damage to the system.

Caution: all installations should be done by a qualified plumbing contractor.

P.T.V. should be tested at least once a year. PTV should be replaced if spontaneously activated more than four times.



OVAL AND SWEETHEART

Water Jacket Installation Instructions

PLEASE READ INSTRUCTIONS THOROUGHLY BEFORE BEGINNING.
Tools Required: Pipe wrench, Soldering torch, Slot screwdriver, Pliers.

Oval Water Jacket Installation Instructions

1. Make sure that the stove is cooled down and firebox has been cleaned out.
2. Disassemble lift handle from key plate and remove key plates.
3. Remove retainer clips that hold on the cast liner (#1255), and remove the cast liner (take note of how clips hold cast liner)
4. Remove the two round metal plugs that cover the water jacket holes.
5. Install two 2" brass pipe nipples into the water jacket.
6. Set Water Jacket into position in firebox and carefully guide pipe nipples through water jacket holes.
7. Take the two clips supplied and fasten into firebox so that the clips hook over each end of the water jacket (opposite to the way the cast liner was held on).
8. Water Jacket is now ready for plumbing hook-ups. A qualified plumber is recommended to do the hook up.

Sweetheart Water Jacket Installation Instructions

1. Make sure that the stove is cooled down and firebox has been cleaned out.
2. Disassemble lift handle from key plate and remove key plate.
3. At the back of the firebox (the firebox extension -#2050), are two holes that are covered with a square plate on the inside and outside, held in place by a nut and screw.
4. Remove the cover plates, and store away. Inspect holes to make sure they are clean and clear of burrs.
5. Install two 2" sold brass pipe nipples into the water jacket.
6. Install water jacket into firebox extension and carefully guide pipe nipples thru water jacket holes.
7. Water jacket is now installed into firebox, and ready for plumbing hook up. A qualified plumber is recommended for hookup.

Sweetheart Water Jacket Output

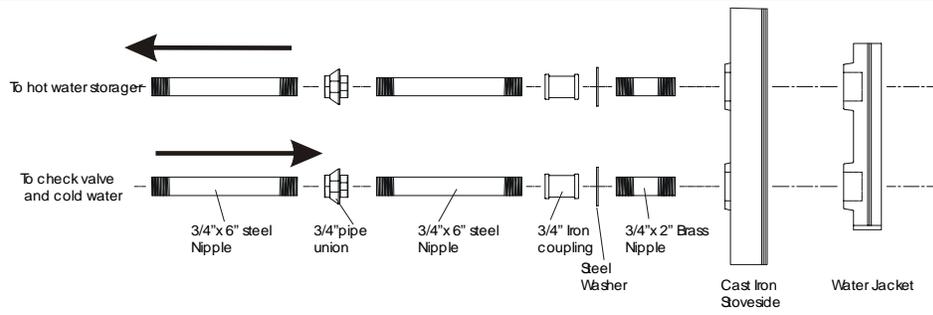
The Sweetheart water jacket will produce about 6,000 B.T.U.s of heat per hour if installed with the modifications noted below.

To increase hot water output, replace the two 3/4" x 2" nipples with two 3/4" x 6" nipples. (see plumbing diagram on back page) Two 3/4" lock nuts will also be required. The longer nipples extend the water jacket further into the firebox and will produce more hot water. However, the wood grate may only be used in the lower position.

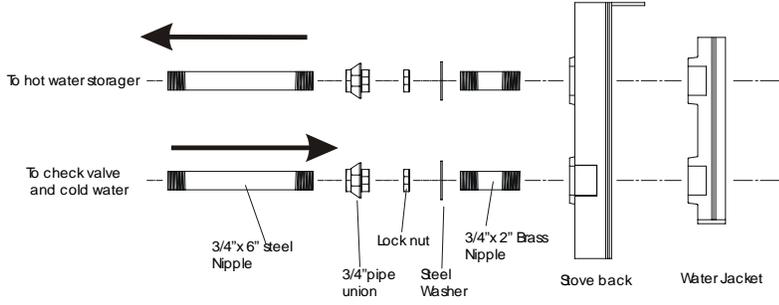
Do's and Don'ts for Proper Installation

1. Never use plastic pipe with a water jacket.
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 jacket to the tank.
5. Use an air vent at the highest point in the system where recommended.
6. Always use a check valve.
7. Always use a tempering valve in the hot water line to the tap.
8. Always put a drain pan under a storage tank that is located above the living space.
9. Never cap the outlets on your water jacket when not in use.
10. Always use 50/50 solder when installing copper pipe to the water jacket.
11. Use Teflon sealant tape on all threaded joints.
12. Use fine sandpaper and not steel wool when cleaning copper pipe for soldering.
13. Never use plumbing pipe as an electrical ground.
14. Use metal cover plates over pipes when installing in a wall which will be sheet rocked or covered.
15. When running pipes through walls, try not to touch the wall with the pipe. Drill the hole large enough to accommodate insulation. This will cut down on heat loss.
16. Wrap hot water pipes with insulation.
17. Never hesitate to ask a qualified plumber if you have questions.

Oval Waterjacket Plumbing Diagram



Julia / Sweetheart Waterjacket Plumbing Diagram



Care and Maintenance

- A) Lime deposits should be cleaned from the interior of the water jacket at least once a year or when water heats up slower than normal.
1. Remove the water jacket from the stove.
 2. Fill the water jacket with a 75% vinegar, 25% water solution.
 3. Let stand for about 6 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 jacket immediately, or dry the interior of the water jacket and store with the openings down in a dry place.
- B) Be careful not to expose the water jacket to freezing temperatures. Water freezing in the jacket may cause it to crack.
- C) Ensure that the Water Jacket has a continuous supply of running water. Failure to do so may cause steam to build up and crack or burst the Water Jacket.

Our Water Jacket is guaranteed against defects in material or workmanship for a period of 1 year. If the instructions above are followed, your Water Jacket will last for many years.
 Note: If you wish to remove the Water Jacket, it may be replaced with the original lining and plugs.

Glossary of Parts

Check Valve - Water can flow only one way through a check valve. Without such a valve in your system, warm water could flow backwards from the storage tank, and be cooled in the stove when not in use. The

check valve must be installed on a level plane, with water running horizontally and pointing in the direction of flow.

Pressure Temperature/Relief Valve - Activated by excessive pressure or temperature, this is the main safety valve in the hot water system. Pressure relief valves **MUST** be installed where recommended and should be plumbed to the outdoors.

Tempering Valve - Installed in the hot water line to the tap, and tied into the cold line from the street, prevents over heated water from being introduced to the tap.

Air Vent - This float-type air vent is designed to bleed unwanted air from your system automatically - a must for trouble-free operation.

TACO 006 - We recommend it exclusively for use with water jackets. The pump Sensor Control regulates pump for maximum hot water.

Lang 12V pump is recommended for low voltage applications. In Canada - GRUNDFOSS Pumps are available from EMCO Plumbing supplies (see your plumber for information.)

In U.S.A. - You may order pumps and controls from:
 HOLLY Solar Products;
 P.O. Box 864; PETALUMA, CA 94952,
 Phone: 707-763-6173
 or
 Lehman Hardware,
 4779 Kidron Road,
 Box 41, Kidron, OH
 Phone: 216-857-5441.

Location of waterjacket holes for rough-in calculations

