

REMOVING & REPLACING HEAT EXCHANGER

MODELS: ALL MODELS



WARNING

LP & NG ARE EXTREMELY FLAMMABLE SO TAKE EXTRA PRECAUTIONS WHEN PERFORMING ANY WORK TO THE HEATER

Removing heat exchanger

1. Turn off cold water inlet to water heater and open a hot water faucet.
2. Drain heater by opening the drain screw at the underneath of the water valve. It's located in line with the cold water inlet connection. If little water drains from heater begin next step.
3. Remove both the left side and right side copper pipes running from the water valve up to the heat exchanger. This will thoroughly drain the heater and allow the heat exchanger to be removed. Save gasket at the bottom of each copper pipe.
4. Remove covering angle strip which runs horizontally at top of heat exchanger.
5. If unit is a Solar model (125BS) the thermostat probe will need to be removed from the right hand side of the heat exchanger. First remove bracket that holds thermostat wire on right side of frame, then undo 17 mm nut where thermostat attaches to heat exchanger and slide out the probe. *Do not crimp the thermostat wire.*
6. Remove heat exchanger from heater as shown in Figure 1.

Note: To descale heat exchanger, see page 2

Installing heat exchanger

1. Install new heat exchanger, follow by reconnecting copper pipes to heat exchanger and water valve. Then mount covering angle strip.
2. If model is a solar (125BS) reinsert thermostat.
3. Turn water on and check for leaks at connections.



FIGURE 1

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Descaling heat exchanger

1. Connect lengths of hose or plastic tubing to the inlet and outlet connections of the heat exchanger. Place a funnel into one tube for filling and have the other directed into a waste receptacle for overflow.
2. Into funnel, pour descalant. Straight white vinegar, muratic acid (with water 10:1) or a descaling product such as CLR® that is safe for potable water and copper. Avoid using hydrochloric acid.
3. Once filled let descaling product work for 10 - 15 minutes or as specified in products directions. If using vinegar let sit for at least 45 min.
4. Rinse with 1/4 cup of baking soda mixed with two gallons of water. Then follow with one gallon of water added through funnel and repeat until water is clear.
5. Before installing the heat exchanger wash its heating body if there is evidence of any debris. Check fin area carefully, this must be free of any blockage for heater to operate safely and correctly. See Figure 2.
6. Install heat exchange per procedure on page 1

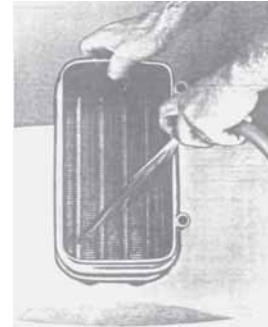


FIGURE 2