



# Solar Domestic Hot Water Operating Instructions

## TO FILL COLLECTORS AND TURN SYSTEM ON:

Connect garden hose to drain valve 12B. (This is the line coming back from the collectors. It is not the line with the pump on it!) Place the other end of the hose outside of garage. Open drain valve 12B.

The handles on the isolation valves **14A** and **14B** will be in the horizontal position. Turn the handle on **14A** so that the handle is vertical. You will hear water running up to the collectors. In a minute or two, water will start coming back from the collectors and will start running out of the garden hose. Let water run out of the hose for about 20 seconds then shut drain valve **12B** and turn handle on isolation valve **14B** so that handle is vertical. Disconnect the garden hose from drain valve **12B** and plug the cord from Differential Temperature Control **3** into the power receptacle on the wall.

The system is now operational

### TO DRAIN SYSTEM AND SHUT DOWN SYSTEM:

Unplug cord from Differential Temperature Control 3 that is plugged into the wall from the power receptacle on the wall. Connect two garden hoses to the drain valves 12A and 12B and place other end of hoses outside garage.

Turn handles on isolation valves **14A** and **14B** so that both handles are horizontal. Open the drain valves **12A** and **12B** and let water drain out of collectors and piping. This will take about 5 minutes. Once you are sure that all the water has drained out of both lines, you may shut the drain valves **12A** and **12B** and disconnect the garden hoses.

The system is now drained and shut down.

#### **FREEZING CONDITIONS:**

Whenever you know that the temperature is going to be in the 30's or lower overnight, it is recommended that you drain and shut down the solar system.

There are other methods of freeze protection on your system as well. When the air temperature gets to 45° Fahrenheit, there is a freeze valve usually up on the collectors that opens and dumps cold water on to the roof. Warmer water from the tank rises to replace the cold water and eventually the valve shuts.

On systems that use a differential temperature control, there is also a sensor on the collector that turns the pump on when the temperature gets to 45° Fahrenheit. This circulates water to prevent freezing.

However, if you are home and you know that the air temperature will be in the 30's or lower overnight, then we suggest that you drain and shut down the solar system.

#### **LEAVING THE HOME FOR MORE THAN A COUPLE OF DAYS:**

Whenever you leave the house for more than a couple of days, we suggest that you drain and shut down the system.

## **MAINTENANCE:**

It is recommended that every 5 years Superior Solar inspects the system. Twice a year you should hook a garden hose to the drain valve at the bottom of the solar storage tank. Run the other end of the hose outside. Open the valve and let water run for about 15 seconds. This is to flush any sediment that may be in the bottom of the tank.