

2 Installing The System

2A: Installing the Sunward Solar Storage Tank and Heat Exchanger

1. Place the Sunward Solar Storage Tank in a basement or utility room as close as possible to your existing water heater with the Lower Drain facing forward (**Figure 2**).
2. Look at the top of your new Solar Storage Tank. It should have two (2) Threaded Ports with pre-installed Dielectric Nipples, the Hot marked with an H and the Cold with a C.
3. Remove the Plug from the Pressure Relief Valve Port at the top of the Storage Tank using a 1/2" square drive. Apply sealant tape to the threads of the Pressure Relief Valve. Re-Install the Valve into the Port and carefully tighten to avoid damaging the Valve.
4. Remove the Sunward Heat Exchanger from its shipping carton by carefully removing the packing material, then cut the carton away to expose the Heat Exchanger.

NOTE: DO NOT lift the Heat Exchanger from the carton by using the copper tubing as a handle.

NOTE: Place the Heat Exchanger within 18" of the Sunward Storage Tank. It must be at the same level or below the base of the Sunward Solar Storage Tank.

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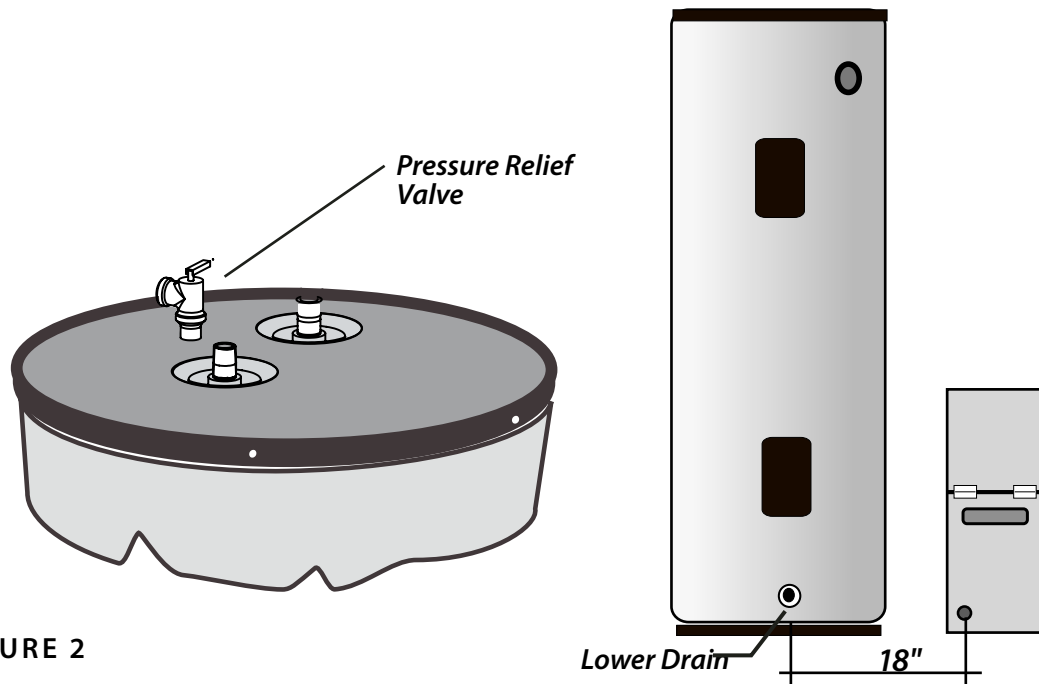
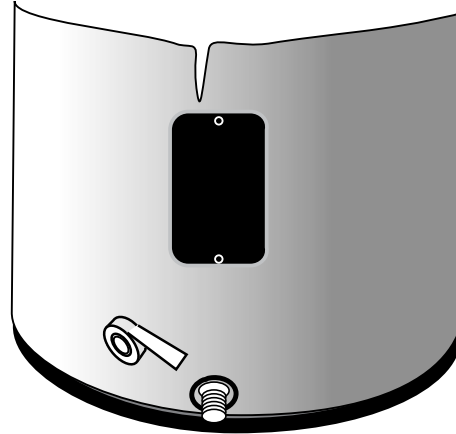


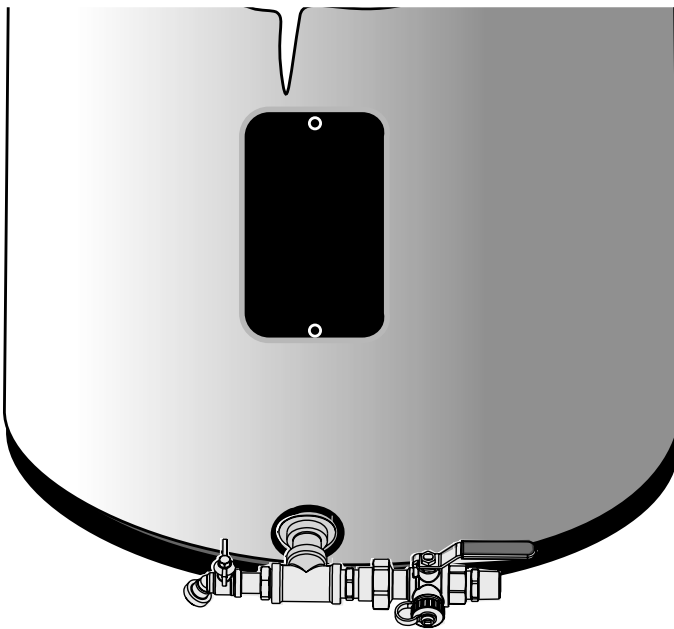
FIGURE 2

2B: Installing the Lower Drain Assembly

1. Install a Dielectric Nipple in the Lower Port of the Tank.
Apply Sealant Tape to the threads of the Nipple.
2. Install the Lower Drain Assembly to the Nipple. Orient the Drain Assembly as shown in Figure 3 and tighten firmly.



*Apply Sealant Tape and install
the Dielectric Nipple*



Install Lower Drain Assembly

FIGURE 3

2C: Connecting the Sunward Heat Exchanger to the Solar Storage Tank

1. Connect the 18" length of supplied Flex Hose to the Lower Drain Assembly of the Solar Storage Tank and the lower connection of the Heat Exchanger. Tighten these connections.

CAUTION When tightening the Flex Hose connections always hand tighten them first then apply one (1) turn with a wrench. DO NOT OVER TIGHTEN.

2. Apply sealant to the Dielectric Nipple on the upper face of the Tank as shown in Figure 4. Then install the 90° Stainless Elbow and rotate it 1/4 turn downward toward the Heat Exchanger.
3. Connect the 48" length of Flex Hose to the 90° Stainless Elbow on the Solar Storage Tank and to the Top Port on the rear of the Heat Exchanger. Tighten the connections.

NOTE: Make certain there are no dips or rises in the Flex Hoses. The hoses should be as straight as possible.

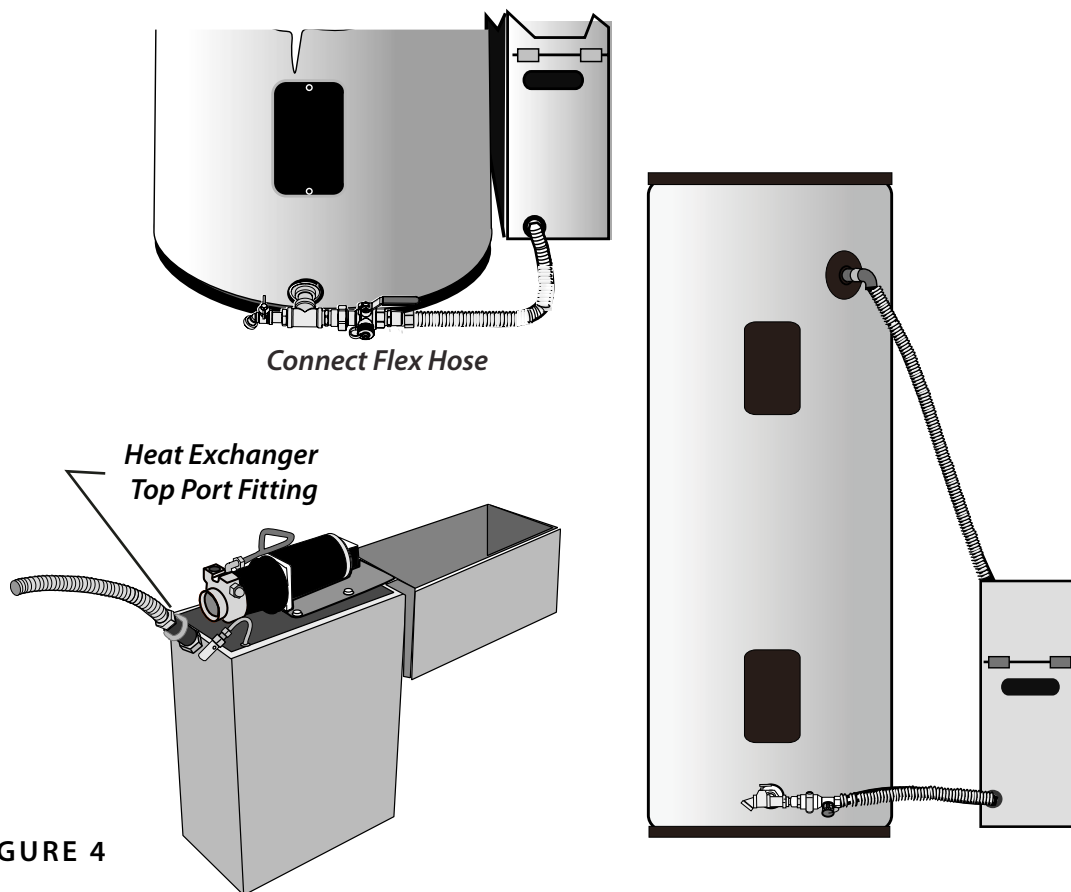


FIGURE 4

2D: Installing the Sunward Solar Manifold

Sunward Solar Hot Water System includes Solar Manifold (**Figure 5**) that mounts to the upper face of the Solar Storage Tank .

This assembly will divert cold incoming water from the water supply into the Solar Storage Tank. The preheated water from the Solar Storage Tank will then be tempered to a safe temperature and sent to the existing water heater.

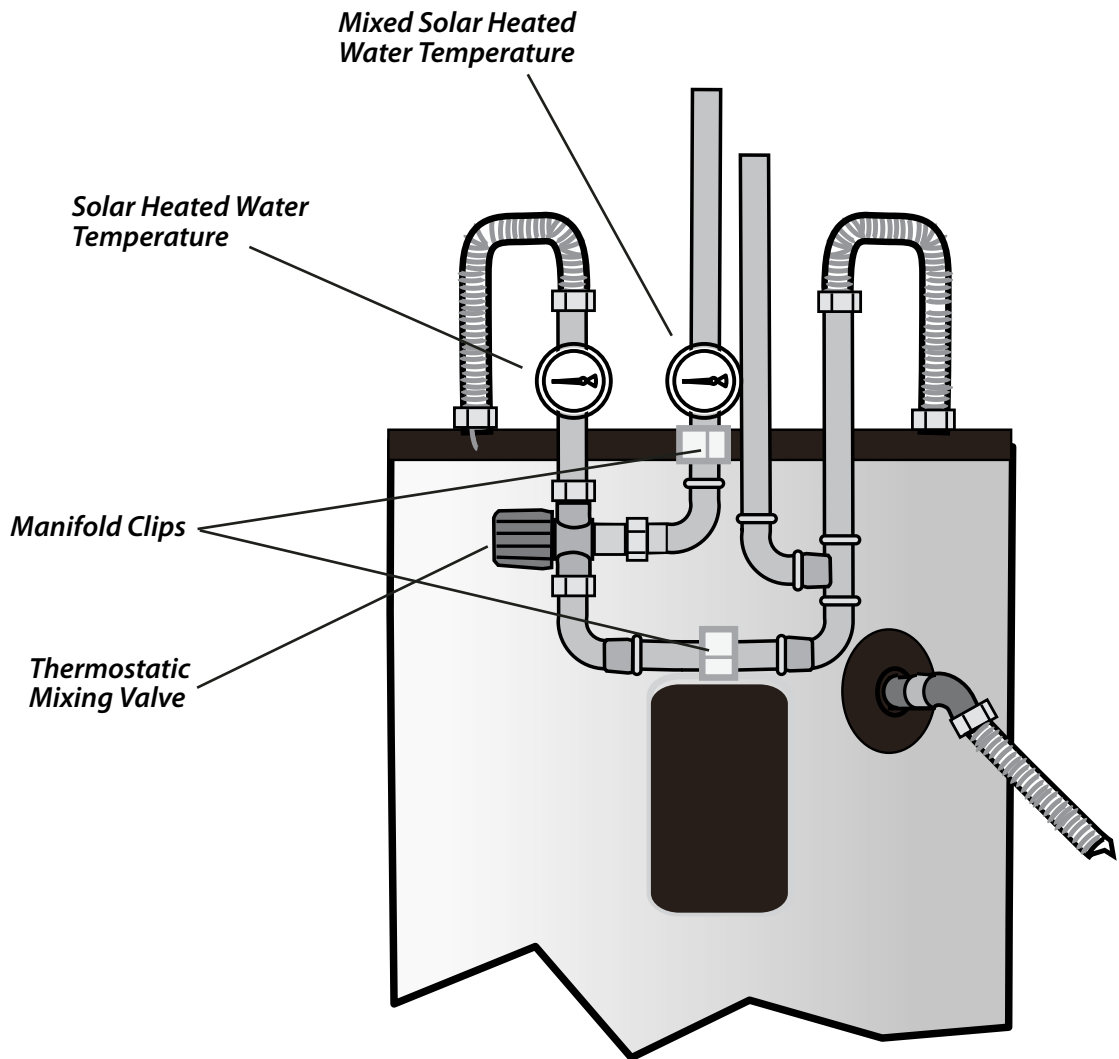


FIGURE 5

2D Manifold Installation...(contined)

1. Apply sealant tape to the threads of the pre-installed Dielectric Nipples located on the top of the Sunward Tank.
2. Pre-bend each 22" Flex Hose as shown using a bend radius of approximately 1-1/2" to 2". Install the bent Flex Hose in the position shown.

⚠ CAUTION

When tightening the Flex Hose connections always hand tighten them first then apply 3/4 turn with the wrench. DO NOT OVER TIGHTEN.

3. Using the supplied Self Tapping Screws, install the two (2) Manifold Clips as shown in Figure 5.
4. Orient the Solar Manifold as shown in Figure 5, and place it into the Manifold Clip. Adjust as necessary and close the Clip.
5. Connect the Flex Hoses to the Manifold. Hand tighten.
6. Tighten all connections securely.
7. Install the two (2) supplied thermometers by inserting them into the wells on the Manifolds.

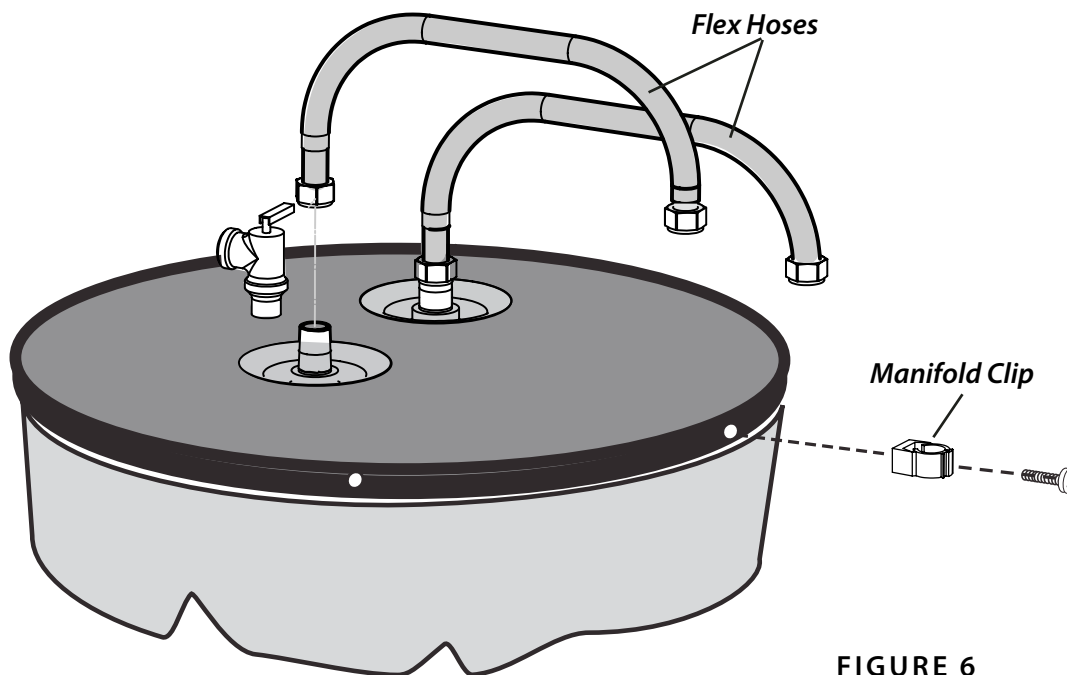


FIGURE 6

2D Manifold Installation...(continued)

With the Hot Water System now in place, installing the Solar Collectors and running the Mini-Tubing is the next step.

Refer to the Table of Contents at the beginning of this manual to find the section for your particular type of mounting i.e. Roof Mount, Timber Frame, or Steel Solar Rack.