



**Standard**

## **Installation Manual**

READ THIS MANUAL BEFORE INSTALLATION

## Caution

- If you plan to install your solar heater system on a roof be sure you are experienced in working on roofs and have the proper safety equipment. If not, you should hire an experienced person to install it for you. Failure to observe proper safety procedures when climbing ladders or working on a roof or raised structure may result in a fall with serious injury to you.
- Do not build a supporting rack against a pool fence or the side of an above ground pool in such a way that children can climb on it and fall into the pool.

1. Select a flat area for your solar system. It may be laid flat on the ground or on a sloping roof or a rack. Performance will be best with the system sloped at an angle 20 degrees less than latitude, facing between southwest and southeast. The inlet connection to the solar system must be at the bottom of the slope for best performance and to allow drainage. Be sure the system will be exposed to full sun most of the day. It should be as close to the pool as practical.

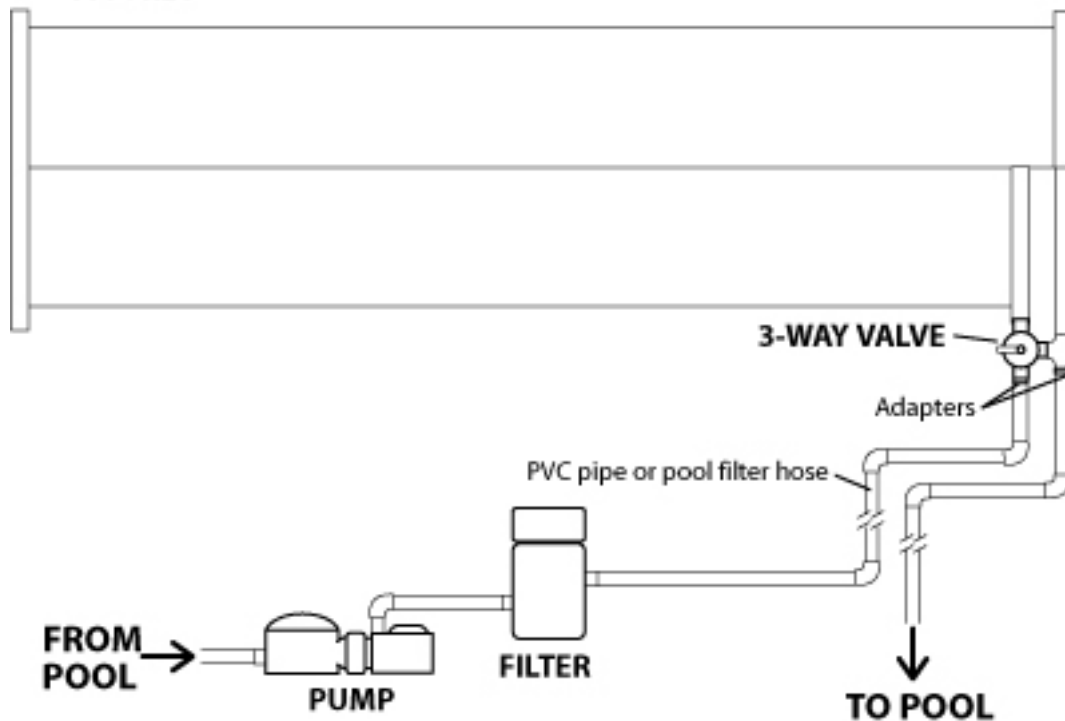
There are three EZ Heat solar water heater models. All are 4 feet wide. EZ Heat 12 is twelve feet long, EZ Heat 20 is twenty feet long and EZ Heat 25 is twenty-five feet long.

2. Unroll the solar system, keeping the sections straight and close together. If you are mounting your solar system flat on the ground or any flat surface it may be held down with stainless steel clamps. If on the ground, be sure to take steps to prevent weeds from growing up through it.

If you are mounting your solar system on a roof or a sloping rack, you will need a Roof or a Rack Hold-Down kit part #1019. It has the necessary clamps and adhesive to secure the system to a sloping surface. Follow the instructions enclosed with the kit.

3. Plan to make the water connections to the pool as shown in Figure 1.

**FIGURE 1**



Connections to the pool filter system may be made either with 1½ inch filter hoses or 1½ inch schedule 40 PVC pipe and fittings.

Before you start to install you EZ Heat solar heater, be sure you have the following:

- a. Two flexible filter hoses. One long enough to reach between the return fitting at the pool and the outlet fitting on the solar system. The second one long enough to reach between the filter outlet fitting the solar system fitting (or sufficient pipe and fittings).
- b. An EZ Heat Hose Connection kit or adapter fittings if using rigid pipe connections. Use part#1005 for connecting to 1 ½" hoses, use Part #1013 for connecting to 1 ¼" hoses.
- c. A plug for the pool return fitting.

Next, make a note for the pressure reading on the filter gauge with the pump running and a clean filter. Shut off the power to the pump and plug the return fitting at the pool to prevent loss of water

from the pool. Install the Hose Connection Kit. Wrap one or two layers pipe joint sealant tape around the threads, starting at the end and wrapping clockwise. Tighten the fittings finger tight plus one-half turn. Do not over tighten. Connect the hose from the outlet fitting on the filter to the EZ HEAT inlet fitting as shown on Figure 2. Connect the other hose from the other EZ HEAT outlet fitting to the return fitting at the pool. Use the stainless steel hose clamps in the Hose Connection Kit and tighten them securely.

4. When it is raining or the sky is dark with air temperature lower than the pool, water flowing through the solar system can actually cool the pool. Therefore, you should run the pump only during daylight hours and the solar system should be by-passed during inclement weather. EZ Heat has three-port control valve. You can use it to by-pass the solar heater in cold or rainy weather or when the pool is warm enough. Before turning the valve handle you must unlock it by turning the flat knob in the center ¼-turn counterclockwise.

When the handle is turned clockwise until the word "OFF" is over the connection between the inlet and outlet pipes, the solar heater is turned on and all of the water flows through the solar collector. The system is shipped with the valve in the turned off position.

5. Turn the valve to the on position. Check all connections and remove the plug from the return fitting. Start the pump. After bubbles stop coming from the return fitting compare the pressure on the filter gauge with the pressure reading you took before you installed the system. The pressure may be 5 to 8 pounds higher than it was before installation. If the pressure is too high, you may turn the valve slightly counterclockwise to allow some water to by-pass the heater.

The surface of the solar collector will feel cool to the touch when it is operating properly. If it feels warm, not enough water is flowing through the system and very little heat is reaching the pool. Check the valve setting.

6. The solar collector surface used on your solar system is made from a very tough and durable synthetic rubber. It is resistant to damage but can be cut or punctured with sharp objects. Repair Splice Part # 3013 is available from your dealer. Cut the tube at the point of damage and insert a splice between the two halves. Coat the splice with liquid soap to make it easier to insert.

7. At the end of the season the system piping must be drained to prevent freeze damage. The flexible absorber will not be damaged if water is left in it, but no water should be left in headers or system piping.

### **Increasing the Size of Your Solar Heater**

To increase the size of your EZ Heat solar heater you may add an EZ Heat Basic heater of the same size. That will double the size of the solar collector surface, nearly doubling the amount of heat the system delivers to the pool. Use Coupling Kit Part # 1006 and follow the instructions enclosed with the kit.

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