

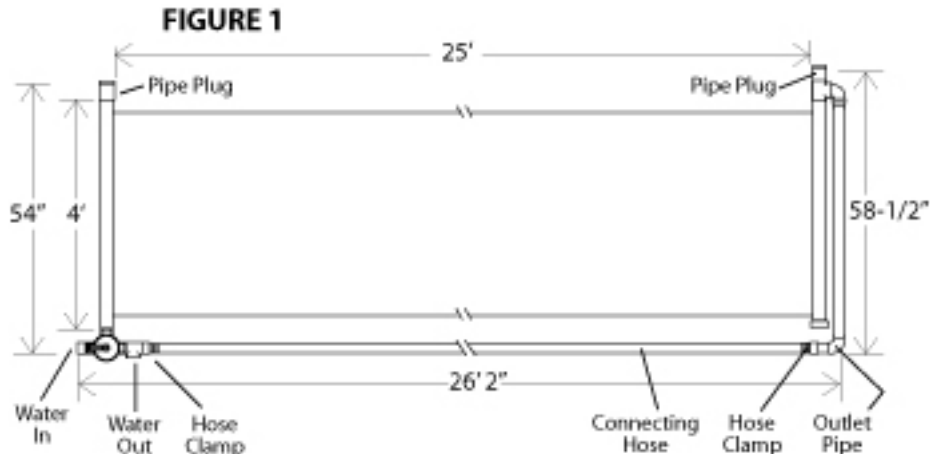


**Deluxe**

## **Installation Manual**

READ THIS MANUAL BEFORE INSTALLATION

1. Select a flat area for your EZ HEAT Deluxe system. The system may be laid flat on the ground or on either a sloping roof or rack. Performance will be best with the system sloped at an angle 20 degrees less than latitude, facing between southwest and southeast. The side of the solar collector where the valve is located 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. **Figure 1** shows the overall dimensions of the system after it is unrolled and assembled.

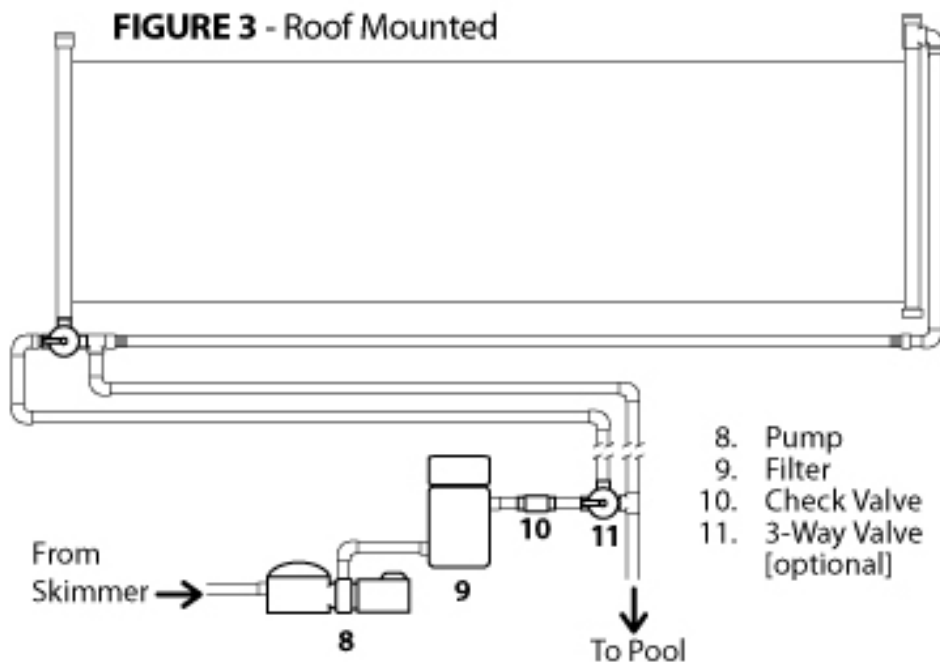
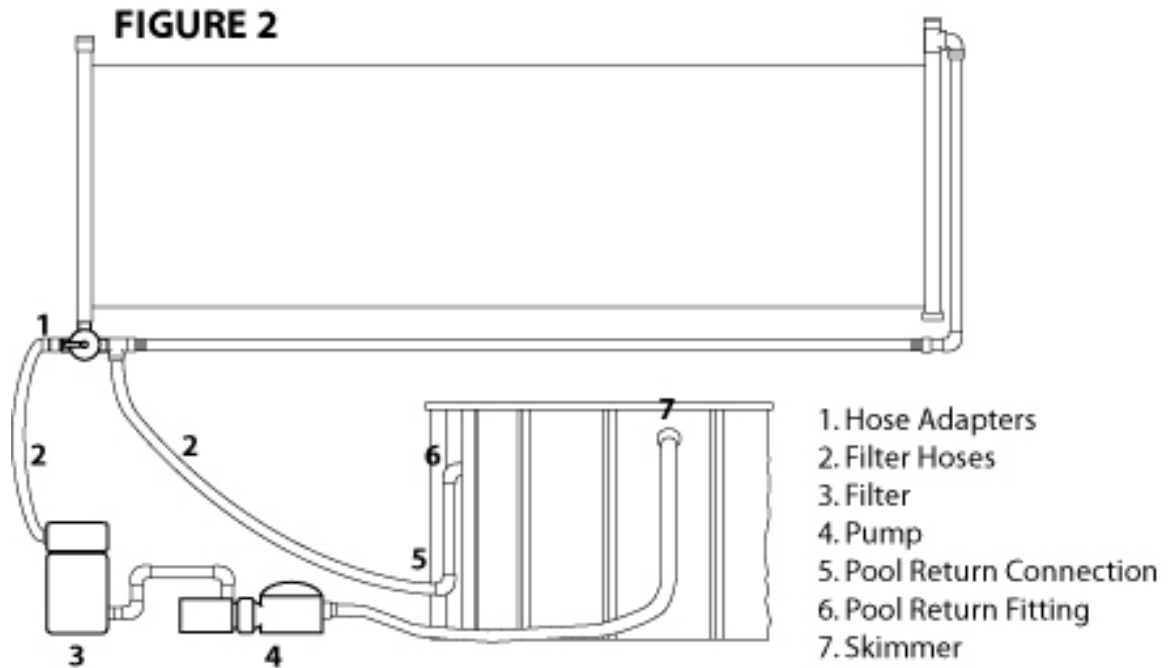


2. Unroll the EZ HEAT Deluxe system, keeping the sections straight and close together. Next, the Outlet Pipe must be connected to the outlet header fitting. Wrap the threads with a single layer of the supplied Pipe Thread Sealant tape. Start at the end of the threads and wrap in a clockwise direction. Thread the Outlet Pipe into the fitting. It should be tightened firmly but the plastic fitting can break if it is over tightened. The Connecting Hose is packed in a separate box. Connect it to the Outlet Pipe and the water outlet fittings, using the 2 supplied stainless steel hose clamps. Tighten the clamps securely with a screwdriver or 5/16" hex, nut driver.
3. Follow **Figure 2** in making the water connections to the pool. 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 EZ Heat Deluxe system and the second long enough to reach between the filter outlet fitting and the EZ Heat Deluxe system inlet fitting.
  - b. An EZ Heat Hose Connection kit or adapter fittings if using rigid pipe connections. Use part #1005 for connecting to 1 1/2" hoses, use Part #1013 for connecting to 1 1/4" 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 layer of the supplied pipe joint sealant tape around the threads, starting at the end and wrapping clockwise. Tighten the fitting firmly, but do not over tighten. Connect the hose from the outlet fitting on the filter to the EZ HEAT Deluxe fitting on the control valve. Connect the other hose from the other EZ HEAT Deluxe fitting at the pool. Use the stainless steel hose clamps in the hose Connection Kit and tighten them securely.

If the pool is piped with rigid PVC pipe you can make connections to the EZ HEAT Deluxe system with 1 1/2" male pipe thread to slip adapters, available from pool dealers or plumbing supply stores.

If EZ HEAT Deluxe system is mounted on a roof higher than the pool a Check Valve Part # 3039 must be as shown in **Figure 3** to prevent back washing of the filter when the system drains back to the pool. Also, if the control valve on the EZ HEAT Deluxe is inaccessible you can add a separate valve, Part # 5011 as shown in **Figure 3**.



If EZ HEAT Deluxe is to be mounted on a sloping roof or rack follow these steps to fasten it to the surface:

- a. After sweeping the roof surface to remove debris and loose particles unroll the EZ HEAT Deluxe and locate it with the valve as close to the eave as possible.
- b. Absorber sections are attached to the roof with **Solarbond** mastic adhesive Part # 4015. It is supplied in 29oz. cartridges that fit a quart size caulking gun.

- c. Starting with the top absorber section, turn it up and apply a bead of mastic one foot from the header pipe and 18 inches apart thereafter. Turn over the mat section with the mastic against the roof and firmly press the absorber into the mastic by pressing down hard against the webs between the tubes.

**Important:** Keep all beads in line down the roof to allow rain water to run under the collector surface so it is not be dammed by the mastic. If the roof is steep and the absorber sections slide down they may be held in place until the mastic sets with a staple gun using 5/16" staples every 3 to 4 feet. Be careful not to puncture the tubes. Hold the nose of the staple gun against the side of the tube, pressing down against the web between the tubes. The staples do not penetrate the shingles and will rust and disappear in a few weeks. On a steep roof you may need to use Header or Pipe Hold-Down Clamp Part # 2022 to prevent the system from sliding down the roof. The clamp assembly is held to the roof with 1 1/2" long 1/4" lag bolts. Drill a 3/16" pilot hole. If the holes penetrate the roof fill them and the space under the clamp with **Solarbond** to prevent roof leaks.

6. When it is raining or cloudy with the air temperature lower than the pool temperature, water flowing through the solar system will cool the pool. For this reason, you should only run the pool pump during daylight hours and the solar system should be by-passed during inclement weather. EZ HEAT Deluxe has a special 3-way control valve that lets you shut off the system when the pool is warm enough and during inclement weather. Hi-Temp offers an optional Automatic Control system, Part # 5014 that will maximize the amount of solar heat delivered to the pool. It does this by turning on the heat only when the pool is colder than the temperature you have chosen and when enough solar energy is available to heat it. The control package includes an electronic control panel, pool water temperature sensor, solar sensor and a low voltage electric motor drive for the control valve.

The EZ HEAT Deluxe valve control handle is shipped from the factory with the word "OFF" over the pipe leading to the pool return fitting. This is the position for full flow through the system. To move the handle, first release the lock, the small knob at the center. Turn it counterclockwise 1/4 turn to release it. To shut off the system turn the handle counterclockwise until it stops with the word "OFF" over the pipe leading to the solar collector.

7. Check all connections and remove the plug from the return fitting. Start the pump and 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 EZ HEAT Deluxe system. The pressure may be 1 to 4 pounds higher than it was before the installation.

The top 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.

8. The solar collector surface used on EZ HEAT Deluxe is made from a very tough and durable thermoplastic rubber. It is resistant to damage but can be cut or punctured with sharp objects. Repair Splice Part # 3013 is available from Hi-Temp. Cut the tube at the point of damage and insert a splice between the two halves. Coat the splice with liquid soap, if necessary, to make it easier to insert.

9. 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. Removing the Connecting Hose allows the system to drain and prevent freeze damage. This hose is similar to the filter hoses used on above ground pools and has limited life when exposed to the elements. Therefore, it is not warranted. It should be drained and stored indoors until the pool is reopened. A replacement hose, Part # 3052 is available.

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