

The logo consists of a stylized sun or heat symbol in red and orange, composed of curved lines radiating from a central point.

HeatMiser II

Solar thermal collector for swimming pools

Installation Manual

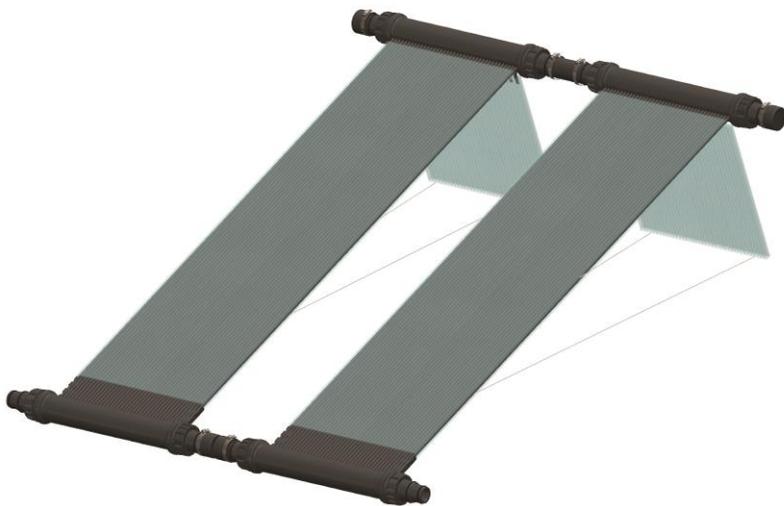


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PREFACE

HeatMiser II has been engineered and manufactured according to the highest standards for reliability, durability, ease of installation, operation and safety. With proper care, HeatMiser II will heat your pool and water during your swimming season for many years to come. Thank you for purchasing HeatMiser II.

BEFORE assembling and installing the collector, please take the time to read the following instructions to ensure a smooth and successful installation and operation. Retain this installation manual for future use.



Read all safety and operation guidelines. Failure to do so could result in serious personal injury or damage to the pool and/or collector.

SAFETY PRECAUTIONS AND REGULATIONS



Warning! Position the solar collector so that it cannot be used by children to obtain access to the pool.



Warning! Check with local and state codes and regulations regarding installation of Solar Pool Heating Systems.



Avoid stepping on the panels.



Do not allow children to operate the solar collector.



Always turn the filter system off when installing, working on, or servicing the solar collector.



Do not use any petroleum based lubricant to clean the product as it may damage it.



Be sure to place your pool cover on at night and whenever the pool is not in use to prevent heat loss and to retain the heat generated by the solar collector during the day.



Circulating the water through the collector at inappropriate climate conditions might cool the pool water, therefore at cooler climates or at night make sure pool pump is turned off.

GENERAL INFORMATION

This manual provides information relating to the installation, operation and maintenance of the HeatMiser II solar collector. We recommend you read this manual thoroughly and keep it for future reference.

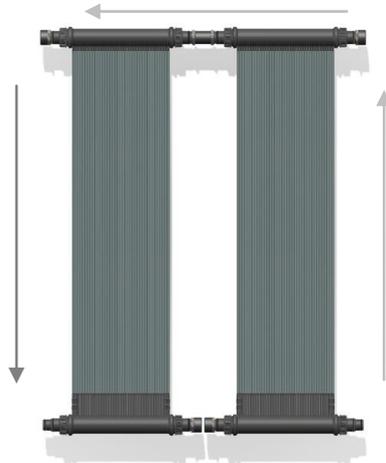
HeatMiser II, solar collector for swimming pools, is simple to install and easy to operate. The installation instructions described in this manual are based on the following assumptions:

1. You already have a pool that is completely set up and filled with water.
2. Your pool is equipped with a pump and operational water filtering system.
3. You have the necessary hoses needed to feed water in and out of your pool and filter system.

Once installed, HeatMiser II will completely be dependent on the existing pool's filter pump to push water in and through the solar collector.

HOW DOES IT WORK?

When properly installed, HeatMiser II will be connected to your filter and your pool by two hoses: One will feed cold, filtered pool water from your pump into the collector. The other, will feed water warmed by the sun to your pool via the pool return inlet. As cold water is fed into the HeatMiser II, it flows through the individual riser tubes in the incased glazing. The sun radiation is harvested by the collector and heats the water in the tubes which is carried back into the pool.



UNPACKING THE SOLAR COLLECTOR

Carefully remove the collector and all its components from the box. Before you begin, make sure all parts detailed on page 7 are present.

TOOLS & EQUIPMENT REQUIRED

The following items are not included with the product, but are required for a proper assembly and operation:

- Flat head screwdriver
- Section of Hose to connect HeatMiser II to pool system

FAMILIARIZE YOURSELF WITH YOUR SURROUNDINGS

Before you begin assembling, it is a good idea to know certain specifications about your pool:

- How big is your pool?
- How many gallons of water does it hold?
- What type of connections does your pool require?
- What is the ideal location of the solar collector for the ultimate exposure to the sun?

CHOOSING THE IDEAL POSITION

Your solar collector is designed to be installed on the ground next to your existing pump and filter system. Locate a hard leveled surface. You will need to position the solar collector at a safe distance away from the pool so it cannot be used by children as a step to obtain access to the water. Make sure the place you have chosen is exposed to the sun at least 6 daily hours. Avoid areas that might be shaded at different intervals of the day. Use the supplied stand to angle the collector so it is facing the sun.



NOTE: HeatMiser II must be installed between the filter and the pool water inlet, AFTER the water is filtered to prevent dirt and debris from clogging the riser tubes.

PARTS LIST

Part name	Image	Function	Quantity in box
HeatMiser II solar panel		Solar absorbing surface	2
Metal Hose Clamp		Secures fitting	8
Rubber end cap		Seals outlet	4
Connector		Connects two panels together	2
Clasp (in a small plastic bag)		Stabilizes stand	6
String (in a small plastic bag)		Stabilizes stand	2
Repair plug (in a small plastic bag)		Disable a leaking riser tube	2

INSTALLATION INSTRUCTIONS

Please follow the instructions to ensure a safe and quick installation of the HeatMiser II panel to the existing pool/equipment. These instructions assume that the pool and filter system are already assembled and there is a hose attached to the pool return (pool water inlet).

POSITIONING THE SOLAR COLLECTOR

Carefully open the solar collector box and gently pull out the panels and all accessories. Make sure that all parts listed on page 7 are accounted for.

Locate a hard leveled surface that is exposed to the sun at least 6 hours per day. Avoid areas that might be shaded at different intervals of the day.

Lay the solar collector horizontally on the surface.



OPEN STAND

1. Open the small plastic bag containing two (2) pieces of string and 6 clasps.



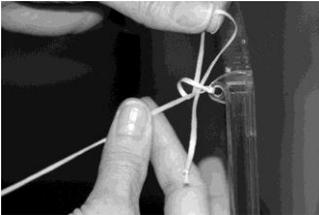
2. Erect the first panel and open the transparent stand.



3. Take 3 clasps; insert two into each end of the glazing at the bottom of the stand. **Note: do not insert the clasps into the outermost hole, but the one next to it.**



4. Insert the remaining clasp into the other end of the unit; positioning it in the center of the panel.



5. Thread and tie the string through the hole of one of the external clasps on the stand. Pull the string towards the other side of the panel and thread it through the clasp located there. Pull the string back to the final clasp (on the stand) and tie it firmly in place.

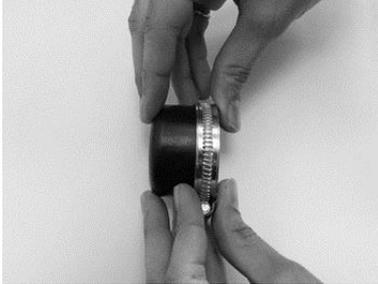
6. Repeat steps 2 through 5 on the other panel.
7. Turn the solar collector so it is facing the sun.



Make sure the stands are stable on the ground.

SET UP PANELS

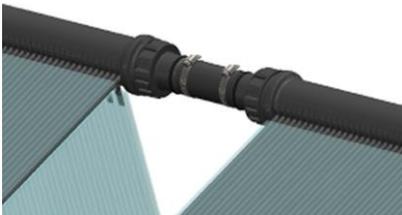
1. Position both panels next to one another.
2. Grab a rubber end cap and a Metal hose clamp. Slide the Metal hose clamp over the rubber end cap to it is as close to the edge as possible.

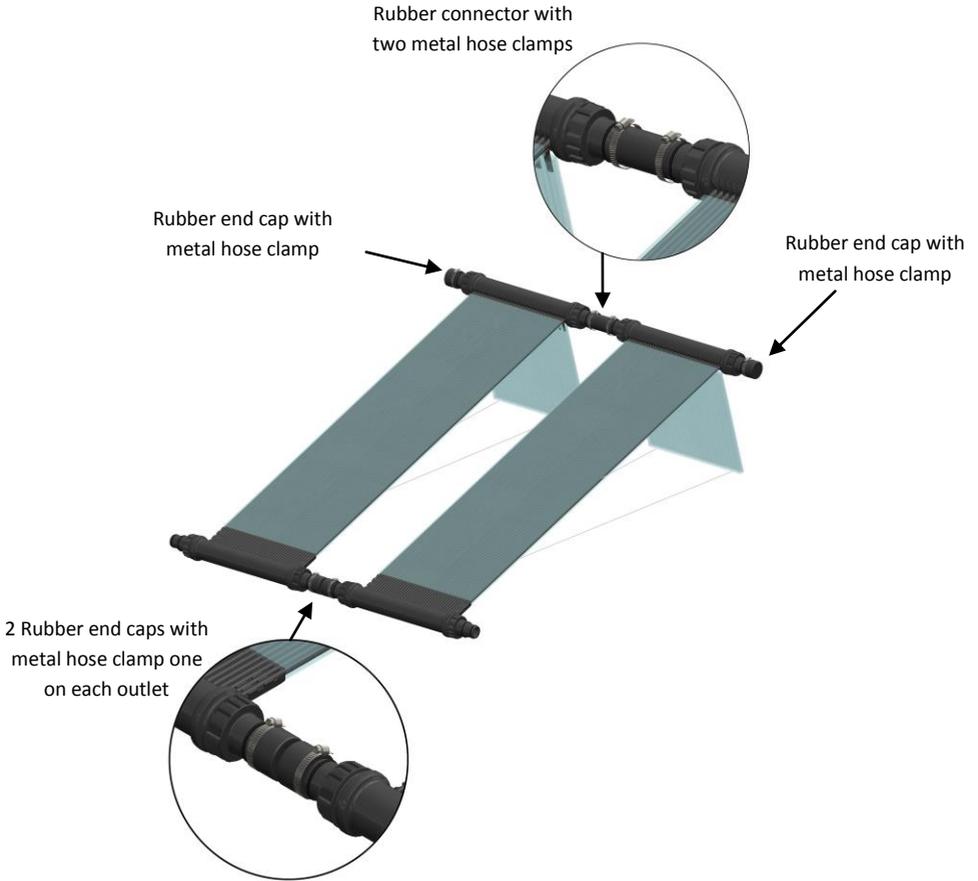


3. Push the rubber end cap firmly over the collector outlet and tighten the metal hose clamp with a screwdriver. You will require four (4) rubber end caps to block four outlets (see illustration on page 11).



4. Grab one of the rubber connectors and two metal hose clamps. Slide the two metal hose clamps over the connector. Push both ends of the connector over the top outlets of each panel. Slide the metal hose clamps over the outlet and tighten firmly with a screwdriver.





CONNECTING SOLAR COLLECTOR TO FILTER PUMP

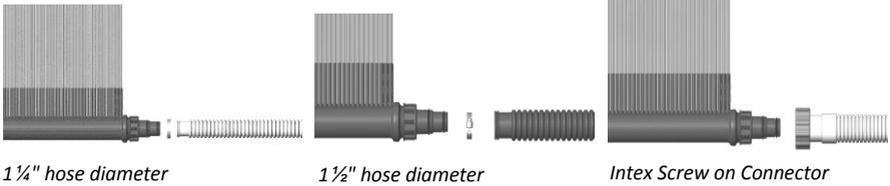
1. Turn off the filter pump.
2. Block water flow at both the pool inlet and outlet to prevent water from flowing through the hoses.
3. Detach the hose from your pool inlet.
4. Connect the detached hose to the hose adapter fitting of the solar collector, applying lubricant to the 'O ring', and secure hose with the supplied metal hose clamp. If you are using a pool with a special screw on connector (Intex style connector), apply a generous amount of Teflon tape (not supplied) to adapter threads and screw the hose directly to the adapter.



NOTE: When connecting the HeatMiser II, make sure the 'O ring' stays in place and doesn't get pinched.



NOTE: When installing HeatMiser II allow for removal of the collector for winterizing.

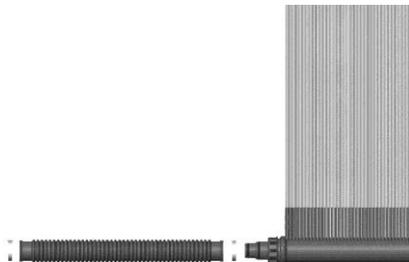


CONNECTING SOLAR COLLECTOR TO POOL

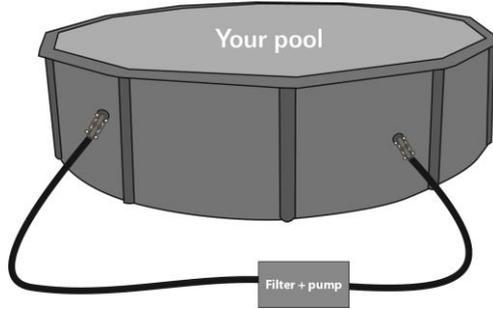
1. Connect the hose (not included) from the HeatMiser II to the return inlet on your pool and secure hose using the stainless steel hose clamps for best results.
2. Connect the other side of the hose to your pool.



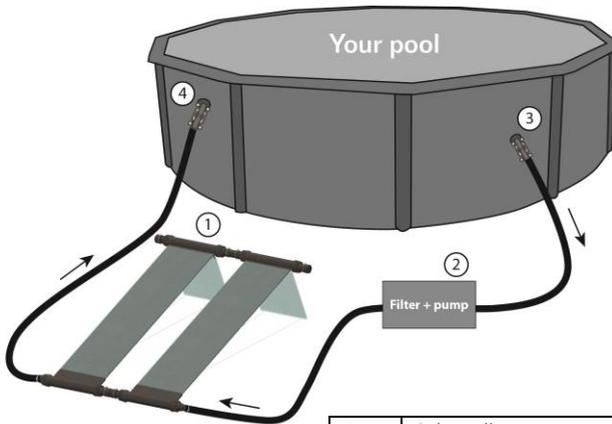
NOTE: When connecting the flex hose to the hose adapter fitting make sure the 'O ring' stays in place and doesn't get pinched.



Before installing the solar heater



After installing the solar heater



1	Solar collector
2	Filter and Pump
3	Pool outlet
4	Pool inlet

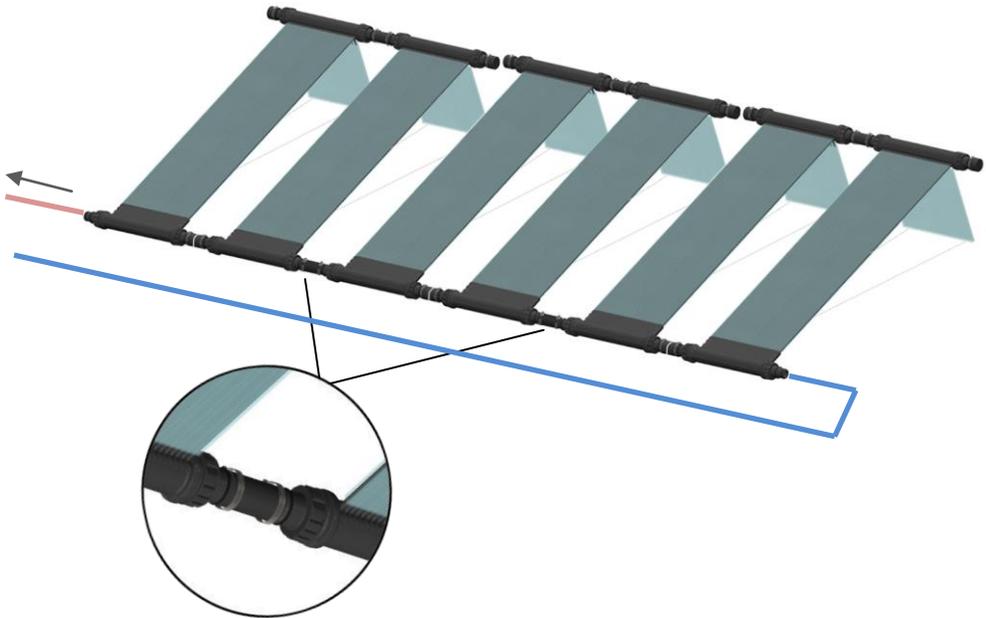
CONNECTING SEVERAL SOLAR COLLECTORS TOGETHER (OPTIONAL)

Connecting several units will offer a higher temperature. The HeatMiser II is a modular unit that can be connected to additional ones if required.

When the solar collectors are positioned and standing, use the rubber connector and metal hose clamp (supplied) to connect one unit to another as shown below.



Attention: When connecting several units together, consider the pressure drop as 0.75 psi for each solar panel. Make sure the pump power is adequate for such a pressure drop.



INITIAL OPERATION

Once the solar heater has been assembled and the hoses are connected to the filter pump and pool return, unblock the flow of water into the pool return hose and turn on the pump and filter system. Bubbles will shoot out of the return nozzle into the pool initially while air is pushed out of the solar collector. If this persists for longer than 2 or 3 minutes, check for and repair any leaks in the hoses or connections.



Be sure to place your pool cover on at night and whenever pool is not in use to retain the heat generated by the solar collector during the day.

MAINTENANCE

The solar collector should not require servicing or maintenance other than winterizing. Prior to the first frost, or at the end of your swim season, the solar collector MUST be removed from its connections to the pool and stored in a frost free location.

Before storing and prior to the beginning of the season, glazing should be cleaned with a soft sponge or cloth made from 100% cotton using lukewarm water and a mild dishwashing detergent. Glazing should then be rinsed with cold water.



Avoid other cleaners, gasoline or petroleum based solvents, sharp objects or any dry cleaning as it may damage the glazing!

WINTERIZING

Drain all the water from the solar collector by disconnecting all pipes. Store in a location protected from frost.



Do not allow standing water inside the solar collector to freeze. Water expands as it freezes and can rupture the riser tubes of the collector.

TROUBLESHOOTING

Problem:	What to do:
The pool is not hot enough	<ul style="list-style-type: none"> • Make sure that the pump is circulating appropriately and that pool water is flowing through the solar collector. • Make sure that the pump is shut off during night or cold weather. • Check that the solar collector meets your pool volume heating demand. • Put your pool cover on at night and whenever the pool is not in use to prevent heat loss. • Make sure the collector is exposed to the sun at least 6 hours per day.
Bubbles flow continuously out of the pool water inlet.	<ul style="list-style-type: none"> • Check all connections for leaks and air suction. • Check and make sure that water flows continuously through the pump and the solar collector.
Leaking solar collector	<ul style="list-style-type: none"> • Fittings leaks - Check the 'O ring', make sure it is in its place and not pinched. Strengthen the Metal Hose Clamp around the Hose Adapter Fitting. • Absorber leaks - disable the leaking riser tube according to the instructions on page 17.

DISABLING A DAMAGED RISER TUBE

In the event of a riser getting damaged and leaking, it can easily be disabled, the leak repaired, and the disabled riser attached to maintain the uniform appearance of the panel. A damaged riser is disabled using the repair kit in the box and the broken riser itself.



Note: water does not run through the disabled riser. The purpose of the disabled riser is once the leak is blocked by the repair pin to maintain the uniform appearance of the panel.



Remove the two repair pins and rubber sleeves from the plastic bag.



1 Remove the stoppers from the panel and keep them nearby.



2 Using a ¼ inch chisel, and holding the flat side of the chisel towards the header, cut through the damaged riser, as close as possible to the header. A round hole is created in the manifold header.



Important: Do not use a wider chisel than ¼ inch, as you might damage the adjacent risers as you remove the damaged one.



3 Spray the rubber sleeve with lubricant and pull it over a 5/64" Allen Key.

Stretch and relax the rubber sleeve a number of times over the 5/64" Allen key.



4 Gently push the rubber sleeve into the hole created by the removal of the riser, until only the head is showing.



5 Push the plastic repair plug firmly, all the way down into the repair sleeve.

The hole is now plugged and will not leak.



6 Cut the riser tube so it fits exactly between the broad heads of the plastic pins. Fit the riser onto the stub of the repair plug.

7 Move the glazing to expose the risers on the other side of the panel.

8 Repeat steps 2 to 6 for the other end of the panel you just exposed.

9 Move back the glazing to its original position and re-attach the stoppers.

10 The panel is now leak free while its uniform appearance is restored.