

Thank you for choosing **Suntrek Industries** as your solar heating company. Your Suntrek system will provide you with years of warm, comfortable pool temperatures.

## Start Up

Your new system will go through a conditioning process over the course of the next two weeks. Your time clock, solar valve and control system have been set to operate the solar system during the daytime hours. Please do not change your time clock or solar control settings during this start up period. It is important that you do not shut your solar system off during the daytime hours. Depending on your pool chemistry or lack of chlorine, it is possible to see the water discolor. Do not be alarmed. During the curing process of the solar collectors, a salt is sometimes discharged into the pool. If this condition exists, please make sure you have proper levels of conditioner and chlorine in your pool and the discoloration will disappear.

## General Operating and Maintenance

- If you have automatic controls, check that the power light is on and the thermostat is set in a “high” position. (you will need to find your ideal setting after the pool warms up.)
- Set your filter-pump time clock to turn on at the time that the sun directly hits the collectors in the morning (10:00 AM), and to turn off when the sun stops hitting the collectors (5:00 PM). Make day light saving adjustments accordingly.
- Your automatic controller will come with an owners manual for operation settings.

*If the solar collectors are operated when the sun is not shining directly on them (at night or a rainy day), it will cool off the pool. If you have automatic controls, a solar sensor will keep this from happening.*

- Turn solar system OFF before back washing the filter. (Do not turn solar back on until filter system has run for at least 20 minutes after back washing has been completed.)
- Turn solar system off while manually vacuuming pool.
- Do not walk on collector unit when possible.
- For swimming during long-night/cooler weather months, it is recommended that a pool blanket be floated on the surface of the pool to help prevent overnight heat loss.
- In areas that are subject to freezing conditions, the solar system MUST be shut off and drained during freezing periods to protect all components parts of the solar system. See “ To freeze-protect system”.
- Never let water remain stagnant in the collectors (be certain system is gravity-drained when off).
- In general, your **Suntrek** system will require little maintenance. However, to obtain the best possible performance, it is recommended that the collectors be kept free of dust and debris by simply turning a hose on them occasionally. It is advised that the system be inspected once a year and that the attachments between the collectors and the roof be examined on a regular basis to avoid damage from severe winds. Depending on the area, the recommended winterizing procedures may have to be performed.

Winterizing (in areas subject to freezing):

- Position automatic control switch to "OFF" (if automatic control system), OR turn solar valve to by-pass position (if manual system).
- Wait 10-15 minutes to be sure the system has drained completely.
- Open hose bib on roof to drain any remaining water from collectors. You can hook up an air compressor to the hose bib to blow collectors empty if there is any doubt that they are not completely drained.
- Leave system like this until after freeze conditions are over.

\*Commercial Pools Drain Down Procedure:

Commercial pools that currently run filtration 24/7 must set a drain down period for the solar energy system. Set the time clock to turn all the pool filtration off for a period of ½ hour every day. The recommended time for this to occur is between 5pm-7pm. This will allow the solar system to drain every day when there is no longer any pressure in the system due to the filtration cycle. This will prevent the solar system from freezing in the winter and from long term stagnation year round. When the solar system starts up the following day, air bubbles will be seen entering the pool until the solar system has flushed all the air from the system.

## Troubleshooting

If the pool is not getting warm enough in sunny conditions:

- The filter may be dirty or clogged-check flow strength at pool outlets.
- The time clock may not be set for best sunshine times of the day.
- The thermostat may be set too low (if automatic system).
- Valve may be turned off. Check water routing.
- Pump may be weak and not be pumping a sufficient volume of water.
- Off-season months may require floating cover on pool to prevent night-time heat loss.
- Additional collectors may be necessary.

In general, it takes three days of consistent sunny weather in order for the pool to reach up to seasonal solar heated temperature.

Constant bubble in the pool when the solar on:

Every time the solar system turns on, the pump purges all the air from the system producing a large amount of bubbles in the pool, which should completely subside within two minutes. However, if you see a constant stream of bubbles throughout the day, this indicates a problem not necessarily related to the solar.

Insufficient flow through the solar collectors will draw air into the system through the vacuum breaker, as the water falls from the collector's quicker than the water is being pumped to the roof.

- Check the filter pressure with the solar off then check the pressure with the solar on. It is common for the filter pressure to raise 8-10 pounds when pumping water to the collectors.
- If the pressure is high (30 pounds or more) and does not increase with the solar on, this indicates the filter needs cleaning.
- If the filter pressure is abnormally low (10 pounds or less) and does not rise when the solar is activated, check the pool skimmer and pump basket for debris. If there is not restrictions your pump may be too weak and may need to be replaced.
- If the filter pressure is normal with the solar off and increases 15 pounds or more with the solar activated, this indicates that the solar collectors may be clogged with debris due to a break in a filter grid. If this is the case, first have your filter dismantled and repaired then contact your installer or Suntrek Industries for servicing a clogged system.

