



SOLAR OPERATING GUIDE

• Solar Controller

The solar controller controls the solar pump. It continuously monitors the temperature difference between the pool water & the Sunbather solar. Whenever the Sunbather solar is 7°C warmer than the pool water, the controller switches the pump on. The controller switches the pump off when the Sunbather solar has no heat to contribute to the pool. The desired pool temperature can be set by pressing the 'Set Temp' button and using the arrows to scroll through to the preferred temperature.

If the power to the solar controller is interrupted, eg. by time clock or power failure, the default setting when power is resumed is "ON" and "AUTO", this will of course enable the solar pump to run. Be sure that water is available to the pump at all times during which power might be interrupted, otherwise damage to the pump may result.

• Vacuum Break Valve

This is installed in the return pipe from the Sunbather solar and allows air to enter the system after the solar system turns off, protecting the solar pipework against vacuum damage during hot weather. The valve usually makes a hissing noise when operating and may lose a small amount of water during operation.

• Fine Tuning

The sound of cascading water on the solar return line would indicate the need to further restrict the opti valve referred to overleaf. Do not close it completely, but just sufficient to stop bubbles returning to the pool. Contact your nearest Sunbather office for assistance if required.

• Handy Hints

We recommend that a Sunbather Thermal Cover be used throughout the season to ensure maximum heat retention in the pool and a further extension of the effective swimming season.

• On the spot repairs

If the solar tubing is accidentally pierced and is leaking, it is easy to repair using the enclosed repair kit. Simply cut through the point of leakage with a sharp blade and repair with the plastic barb and sleeves as shown in the instructions included or contact your nearest Sunbather office for assistance.

• Water treatment

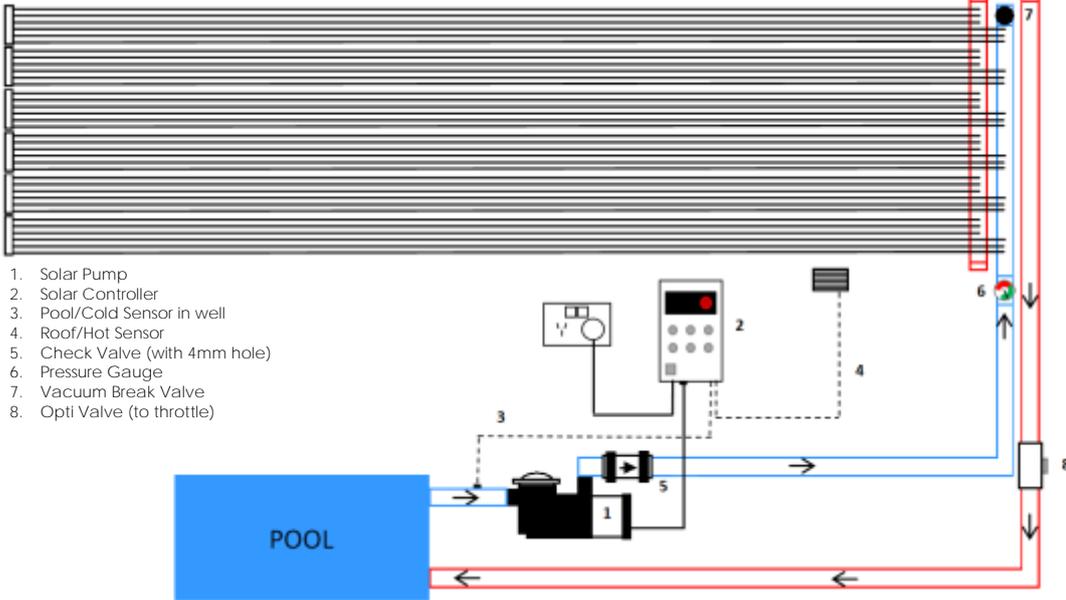
Once any form of heating is installed for a pool, the chemical treatment will change. With the water up to 10°C warmer, the Ph and chlorine levels of the pool water should be regularly checked. Water will shift out of adjustment with noticeable results, so it is important to change test kit chemicals at the start of each season as they do deteriorate.

• Filters

If your solar pump has a lint pot or there is a solar filter in your solar pipework, ensure they are cleaned regularly.

SOLAR START-UP PROCEDURES

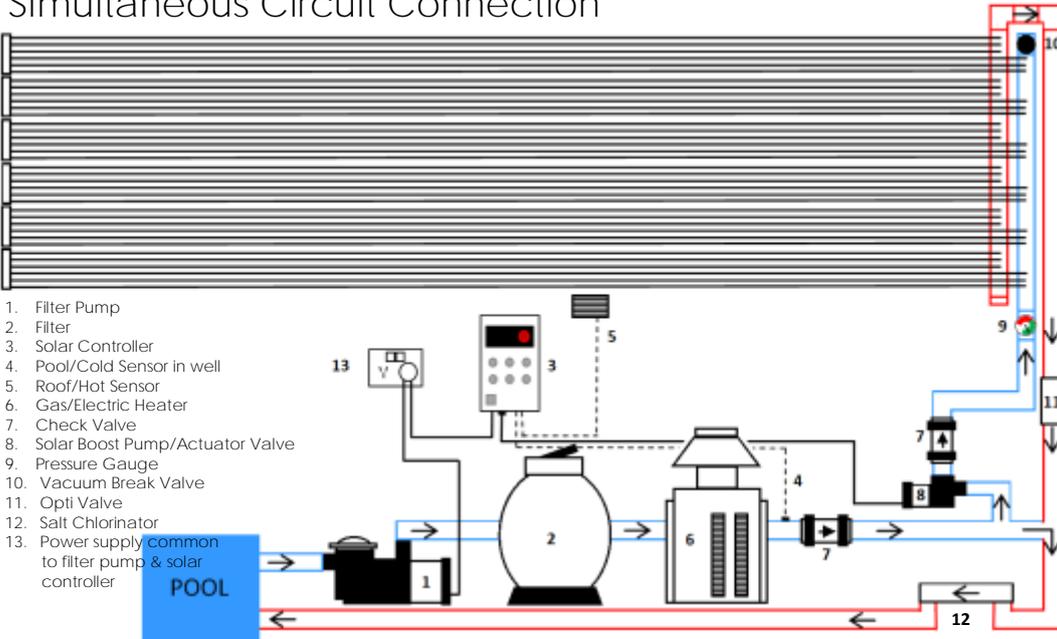
Separate Circuit Connection



1. Solar Pump
2. Solar Controller
3. Pool/Cold Sensor in well
4. Roof/Hot Sensor
5. Check Valve (with 4mm hole)
6. Pressure Gauge
7. Vacuum Break Valve
8. Opti Valve (to throttle)

Fill solar pump lint basket with water by removing the clear lid on top of the pump.
 Replace the lid tightly, but do not over tighten.
 Turn the pump on by turning on the solar controller.
 The pump should prime in 1-5 minutes depending on the length and gradient of the suction line back to the pool.
 If priming does not occur then repeat the above steps.
 Once primed, air will be purged from the system back to the pool.

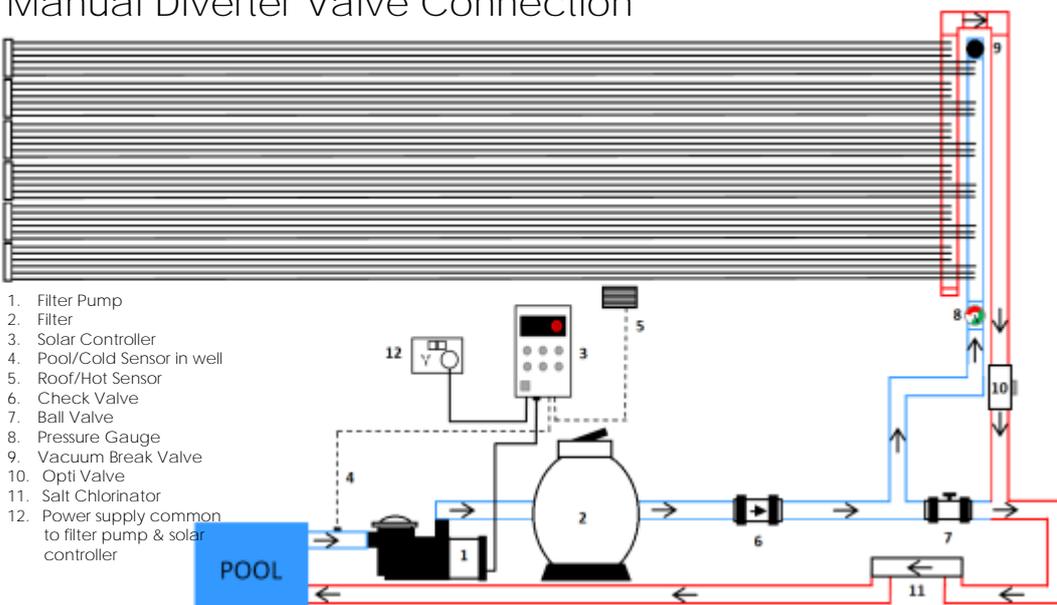
Simultaneous Circuit Connection



1. Filter Pump
2. Filter
3. Solar Controller
4. Pool/Cold Sensor in well
5. Roof/Hot Sensor
6. Gas/Electric Heater
7. Check Valve
8. Solar Boost Pump/Actuator Valve
9. Pressure Gauge
10. Vacuum Break Valve
11. Opti Valve
12. Salt Chlorinator
13. Power supply common to filter pump & solar controller

Run the filter pump in the normal way.
 Turn on the solar pump by turning on the solar controller.
 Air will be purged from the system back to the pool.
 It is essential that the solar pump runs only when the filter pump is also running.
 This is achieved by using the same power outlet for both filter pump and solar controller (which energises the solar pump).
 This power outlet would normally be time clock controlled with the time clock set to run between say 9am and 6pm.

Manual Diverter Valve Connection



1. Filter Pump
2. Filter
3. Solar Controller
4. Pool/Cold Sensor in well
5. Roof/Hot Sensor
6. Check Valve
7. Ball Valve
8. Pressure Gauge
9. Vacuum Break Valve
10. Opti Valve
11. Salt Chlorinator
12. Power supply common to filter pump & solar controller

Open the diverter valve and run the filter pump in the normal way.
 Close the diverter valve to send water through the solar system. Air will be purged from the solar back to the pool.
 If the filter pump has excess capacity then this valve need only be partially closed allowing sufficient water to pass through the solar and the rest of the pass direct into the pool.
 This eases the pressure imposed on the filter and increases filtration turnover.
 The position of the valve should be marked for future reference.
 Sufficient water for the solar is best assessed on a sunny day: the solar should run with an outlet temperature of a maximum of about 4°C above inlet temperature (pool temperature).