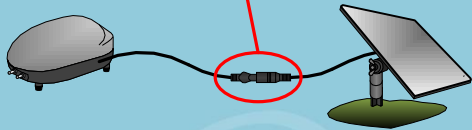
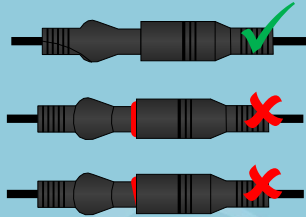
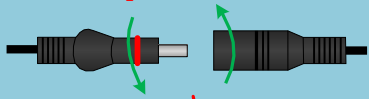


Connection

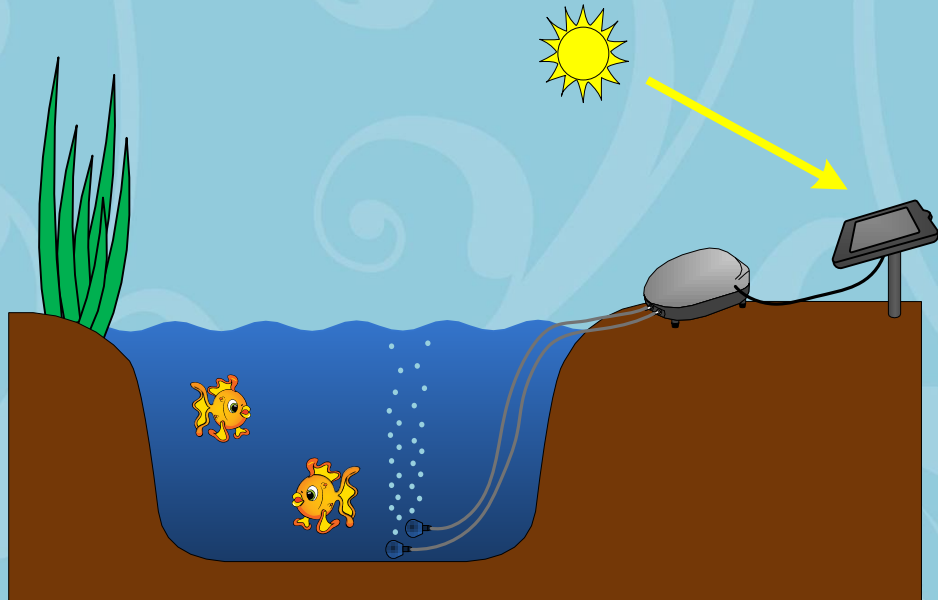
Important!



Connect the pump to the solar panel as shown. Slightly twist the connectors when pushing together, ensure the red sealing ring remains in its groove and is not displaced.

Operation

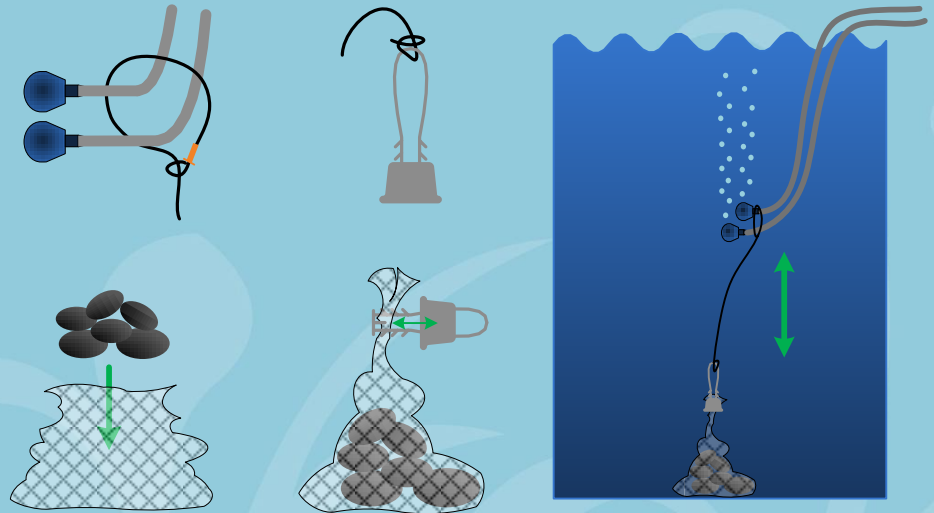
This air pump can be used to oxygenate any pond or water reservoir providing the solar panel receives direct sunlight. Oxygen depletion mainly occurs during summer months, as water gets hotter its ability to hold oxygen is reduced. The pump is ideal for providing supplementary oxygenation when it is needed most as its performance is directly related to the amount and strength of sunlight received. The solar panel converts sunlight into electricity which is then used to power the pump. Air is pumped down the tubing and is released into the water through the porous air stones. If a cloud covers the sun the amount of electricity produced will reduce and the pump will stop working or slow down. The pump will speed up or restart as the sun reappears from behind the cloud.



Anchor Sack

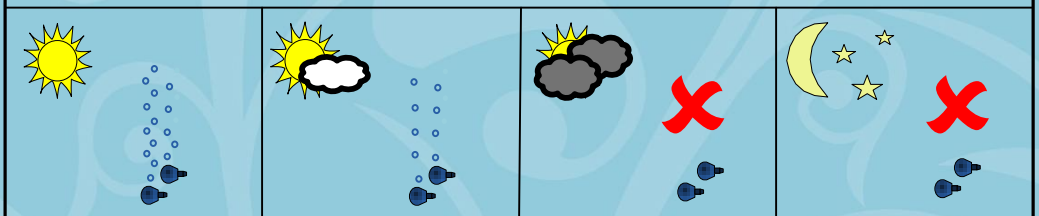
To keep the air stones at a fixed level under water you can use the anchor sack provided. Tie one end of the line around the air stones and the other end of the line to the bag catch. Fill the bag with stones and then feed the top of the bag through the catch and close it. Simply drop the bag into your pond or reservoir and let it sink to the bottom taking the air stones with it. The depth of the air stones can be altered by changing the length of the line.

Note: If the air stones are too deep they may not be able to release the air due to the higher water pressure. If this is the case simply alter the line length so that the stones are closer to the surface.

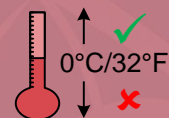


Performance

As stated previously performance is directly related to the strength of sunlight received. In bright sunlight the pump will work well and produce lots of air bubbles. If the sun is partially covered or the sun is not so bright the quantity of air bubbles will reduce. In cloudy conditions or at night the pump will not work and no bubbles will be produced.



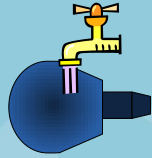
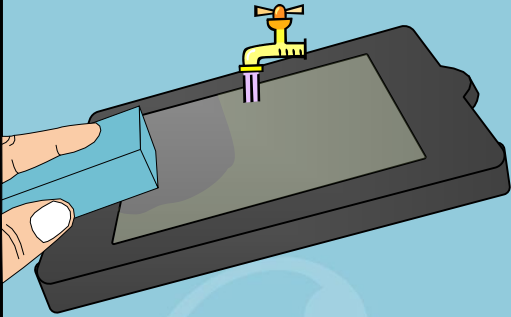
Frost



Freezing water can cause damage to the air stones. The whole product **MUST** be removed and stored in a frost proof environment if the water is likely to freeze.

Maintenance

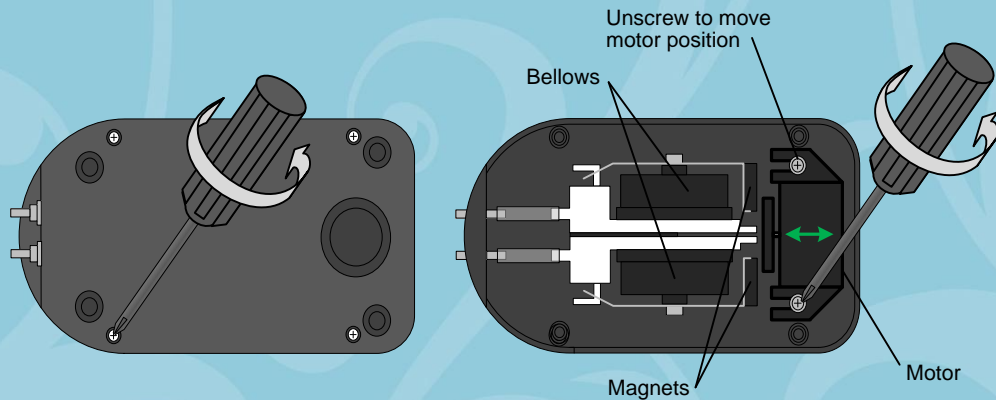
We recommend that you regularly carry out maintenance to ensure optimum performance of your fountain.



Regularly clean the solar panel using water or glass cleaner in conjunction with a non abrasive sponge or cloth. If the air stones or tubing become blocked clean and rinse them through with water.

Problem Solving

1. Check the solar panel is positioned correctly, receiving sunlight and not in shade. The pump should vibrate if it is working properly and receiving sufficient sunlight.
2. Check connections between the pump and panel.
3. Check that the air stones and tubing are not blocked, clean if necessary.
4. Check that the air stones are not too deep in the water, move them closer to the surface if necessary.
5. If the pump is vibrating but no air bubbles are being produced the internal motor may have moved preventing the internal air pumps from working properly. If the motor moves too far away from the magnets the internal air bellows may not move, if too close the bellows may move too quickly and pump insufficient air. The unit can be opened and the motor position can be altered until air flows properly (see details below).
6. If problems persist or you require assistance contact customer services (refer to contact sheet or website).

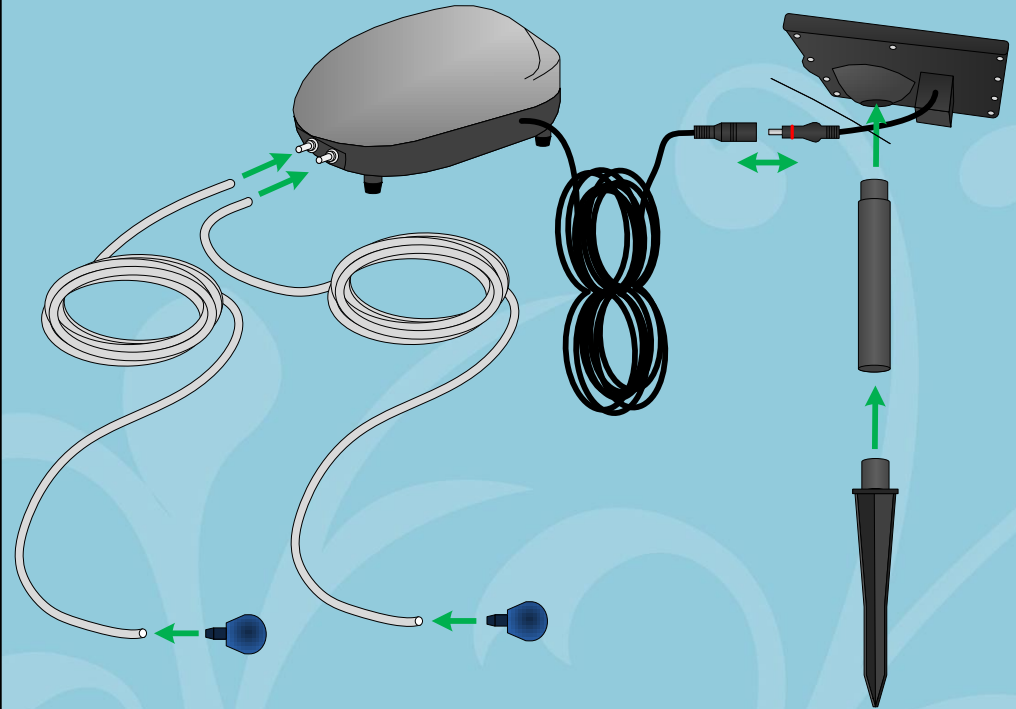


www.smartsolar.com

Oxygenator

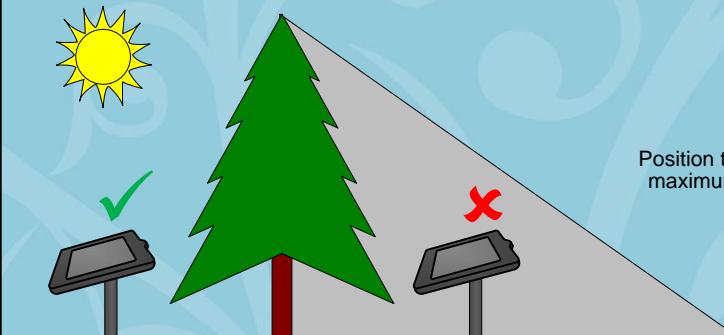


Assembly



Uncoil the tubing, connect the air stones at one end and connect the other ends to the main unit.

Solar Panel Position



Position the solar panel to receive the maximum amount of direct sunlight.