



SunPoolSolar Heating

Pool Solar is supplied in a 4 or 5m kit boxes and contains all the necessary components for you to install a solar collector. In addition to this you will require pool plumbing, roof adhesive and roof supports angles.

THE 4m² BOX CONTAINS

- 4 units of solar collectors, each 33cm x 3m (4 m²) (and o-rings)
- 8 metre nylon band to attach the headers and the absorber
- repair set and lubricant
- two adaptors 50 mm in black ABS (C6 and C13)
- two threaded adaptors 1 ½" in black ABS (C8 and C9)
- two reducing sockets (C12) in black ABS
- one threaded stop 1 ½" in black ABS
- tie-wraps
- installation guide

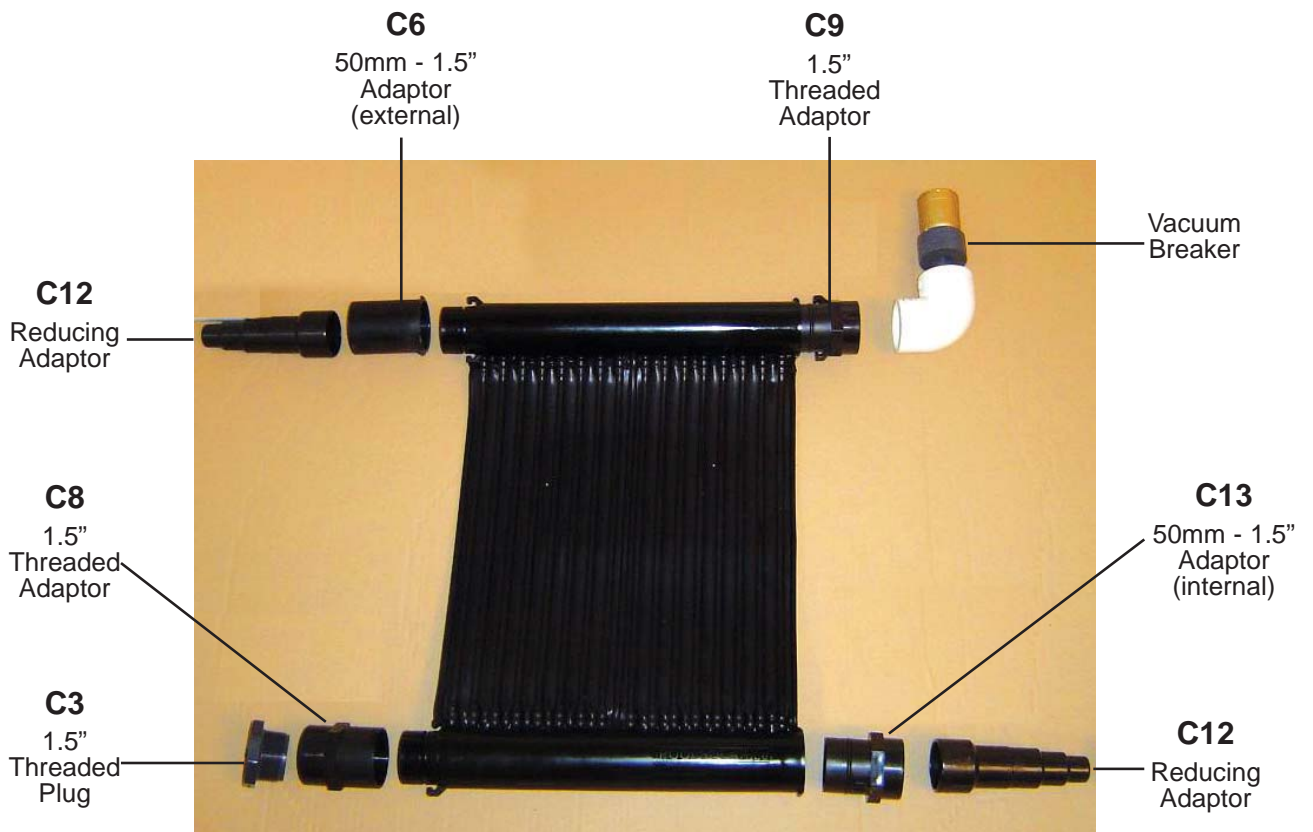
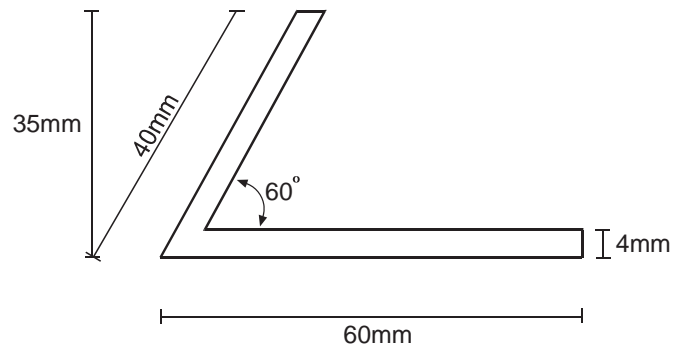
THE 5 m² BOX CONTAINS

- 3 units of solar collectors , each 33cm x 5m (5 m²) (and o-rings)
- 10 metre nylon band to attach the headers and the absorber
- repair set and lubricant
- two adaptors 50 mm in black ABS (C6 and C13)
- two threaded adaptors 1 ½" in black ABS (C8 and C9)
- two reducing sockets (C12) in black ABS
- one threaded stop 1 ½" in black ABS
- tie-wraps
- installation guide

To install Poolsolar onto a tiled roof you will need to attach L-shaped support angles to support the headers.

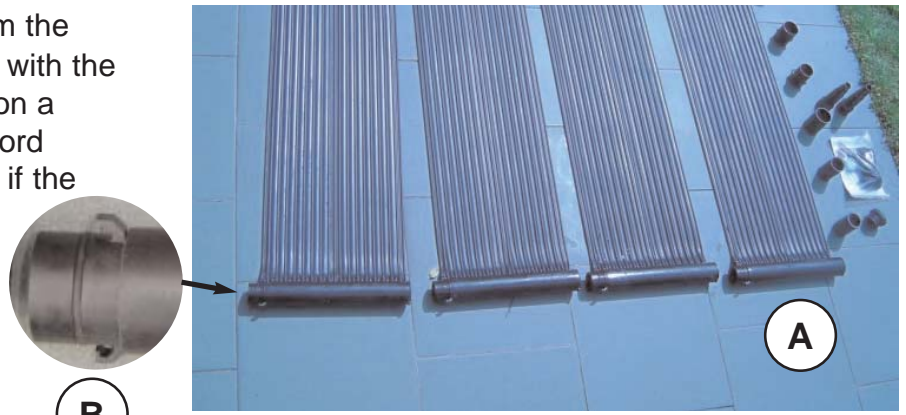
Plastic extrusion (H) are 2000 x 60 x 40 mm and are available from your pool dealer.

The L-shaped extrusion is supplied in 2.00 m lengths. Depending on the number of solar matts that you have purchased you will need to apply enough extrusion to support the entire length of the headers (manifolds) top and bottom.



INSTALLATION

STEP 1 Remove solar collectors (A) from the box and place side by side in front of you with the narrow part of the headers (B) to the left on a clean, flat surface. The header with the word "POOLSOLAR" must be visible. To check if the matting is the right way up, look at the rubber that connects the absorber tubes together; the material should arch upwards (C).



STEP 2 Join the polypropylene headers together applying a liberal amount of lubricant (provided) (D) to the header o-ring. Make sure that the o-ring doesn't bulge out after clicking the headers together. Do not attempt to glue headers together.



STEP 3 Push the rubber edges (E) together so the absorbers (EPDM matting) are united as a whole.

Tip - use a mini wallpaper roller to push the absorbers together!



STEP 4 Before applying to the roof, make sure that the Poolsolar is the right way up. Small holes (F) are located along the length of the absorbers to allow rain water to be drained. Make sure that the holes are not blocked especially on a flat roof. Do not use screws in these holes to fix the absorbers.



NOTE. Steps 5-10 are for instructions for a tiled pitched roof. If the application is for a flat roof, exactly the same fixing method is used but on a level platform!

STEP 5 Roll up the entire collector (G), starting with the headers showing "POOLSOLAR" (When they are unrolled on the roof you should be able to see the word Poolsolar on the bottom manifolds only - see page 6 (M)).



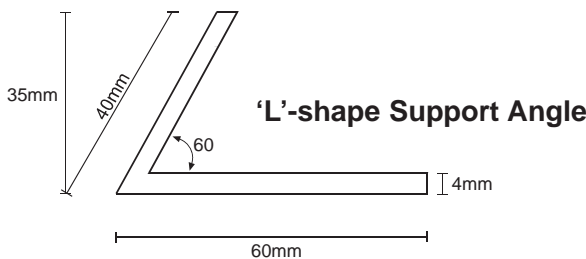
You are now ready to apply the Poolsolar onto roof structure.

*** DO NOT ATTEMPT TO ROLL UP AND INSTALL MORE THAN ONE BOX AT A TIME (3 or 4 Collectors)**

Make sure that where the Poolsolar is to be sited that you are able to attach the supply and return plumbing pipes from the filtration (page 9). Adequate drainage is also required to remove rain water.

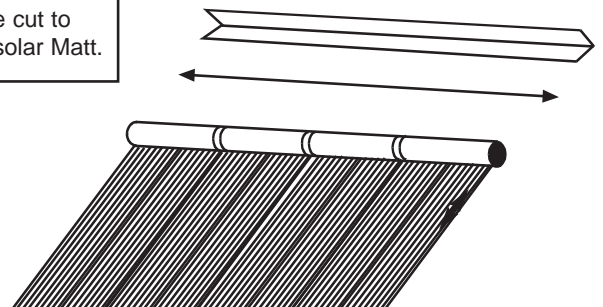
IMPORTANT SAFETY NOTICE - It is paramount that adequate safety precautions are taken when installing Poolsolar on a roof structure.

STEP 6 To install Poolsolar onto a tiled roof you will need to attach L-shaped support angles to support the headers see page 2



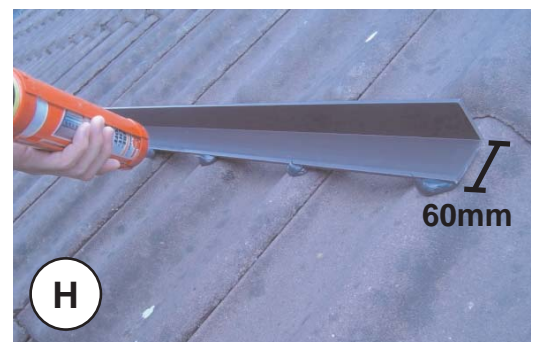
The L-shaped support angle is supplied in 2.00 m lengths. Depending on the number of solar matts that you have purchased, cut and prepare the number of support extrusion required to support 90-100% of the headers that will be located at the top of the roof structure.

Support Angle cut to width of Poolsolar Matt.



(H) Apply the support angles directly to the roof tiles using liberal amounts of 'roof fixing adhesive paste' (available from your dealer).

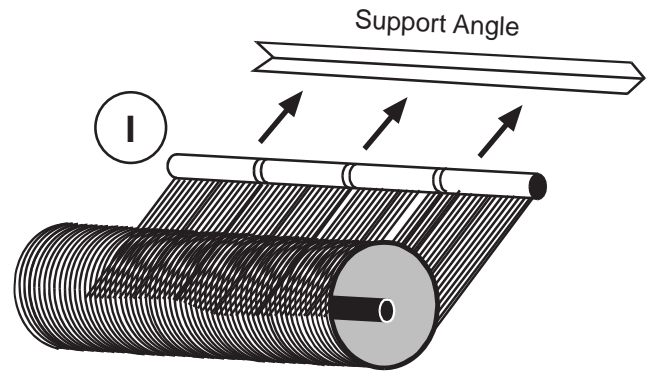
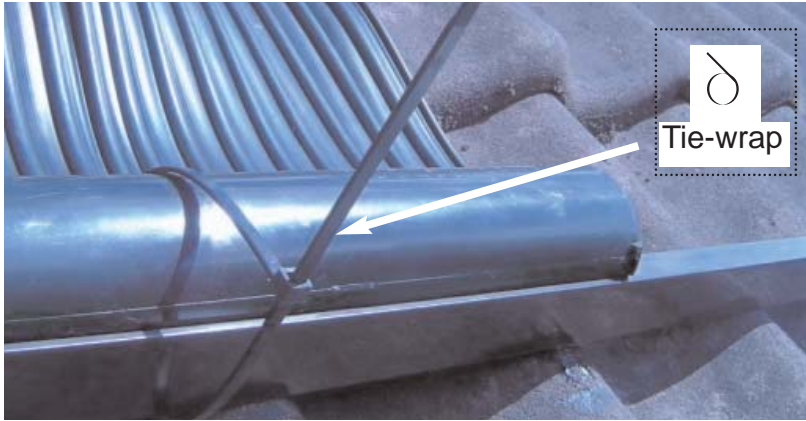
Apply the 60mm width of the support angle to the tiles. Prior to applying the adhesive make sure the tiles are dry, clean and dust free. Leave for 24 hours for adhesive to fully cure.



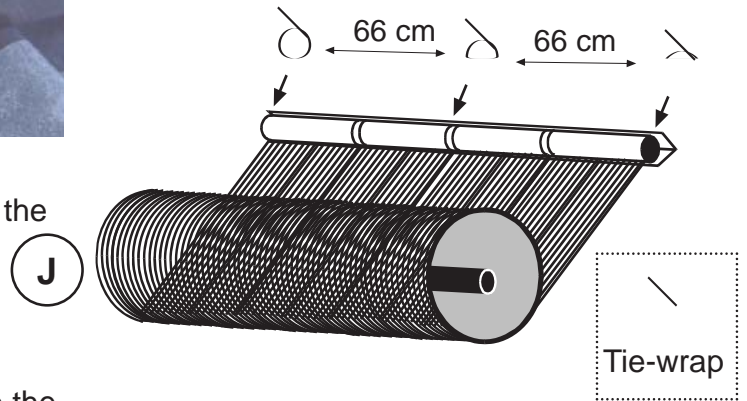
Note: the adhesive is only as good as the surface it is applied to, therefore ensure the surface is free of any loose foreign material.

IF FOR ANY REASON YOU ARE NOT UNABLE TO USE AN ADHESIVE OR THE SUPPORT ANGLE - PLEASE GO TO PAGE 7 FOR ALTERNATIVE FIXING METHOD

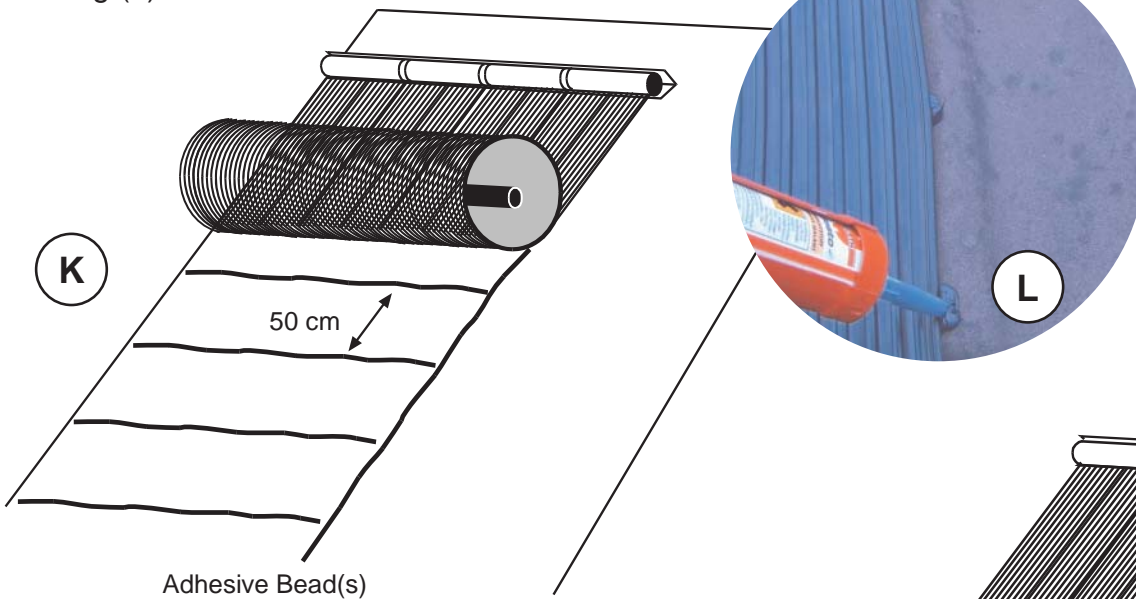
STEP 7 Position Poolsolar headers onto support angle (I). When the solar collectors are unrolled you should see the word 'POOLSOLAR' on the bottom manifolds (M).



Using the electrical a tie-wraps provided (J) connect the header to support angle every 66 cm.



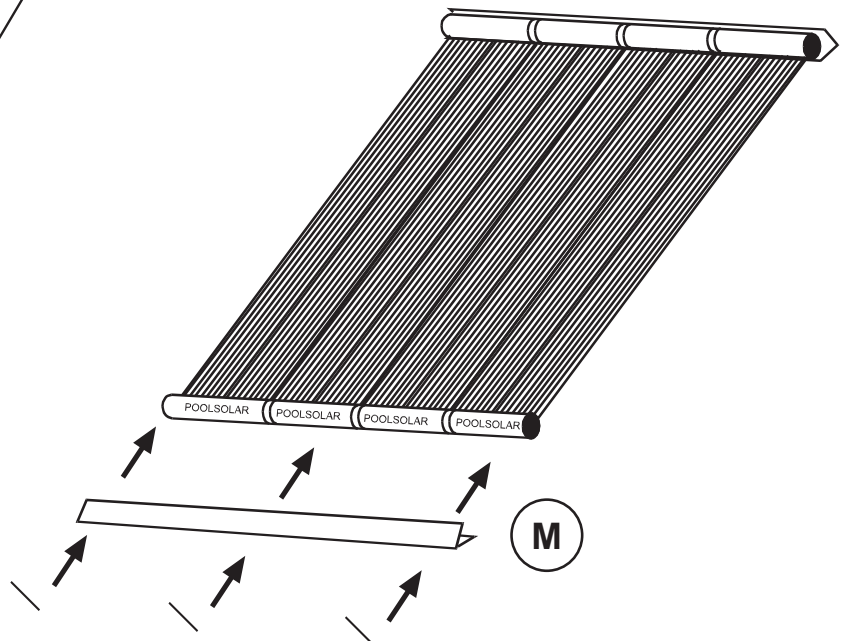
STEP 8 Apply an adhesive (K) bead every 50 cm to the roof structure and unroll the Poolsolar matting. It is also a good idea to apply adhesive down the very edge of the matting (L).



STEP 9 Apply a support (M) angle to roof structure to support the bottom headers. Secure headers to support angle with tie-wraps as per step 7.

STEP 10 Repeat above procedure to add additional Poolsolar Matting.

Proceed to Page 8 for plumbing connection.



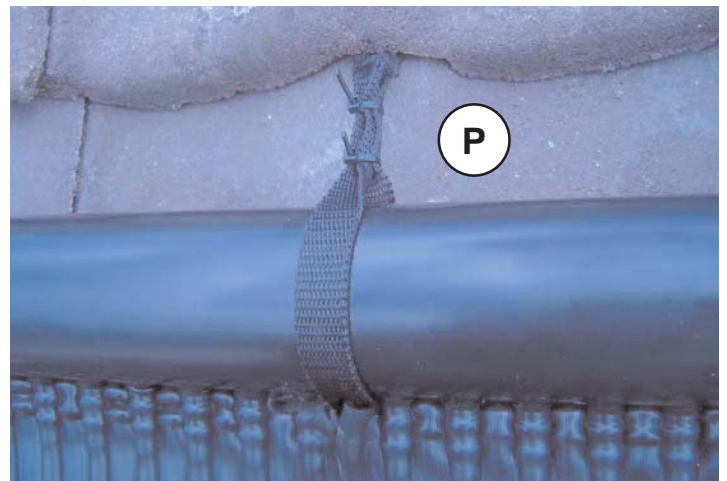
ALTERNATIVE FIXING METHOD FOR A TILED ROOF

In the event that you are unable to use an adhesive or support angle, nylon strapping (provided) can be used.

When the headers are to be positioned on the roof, you will need to remove certain roof tiles to obtain a fixing onto the wood battens that support the roof tiles (O).



Fix 50 cm long nylon strips on the roof support batten every 66 cm as per step 7 on page 6. Afterwards put the roof tiles back in place so the nylon strips stick out 30 cm. Attach the nylon strips that stick out of the roof around the collector. Attach 2 tie-wraps to every nylon strip.



Nylon strapping can also be used (horizontally) across the width of matting to secure it to the roof structure (Q). Place straps 1 metre apart.

We highly recommend that adhesive is used where possible in addition to the nylon straps especially in high wind situations.

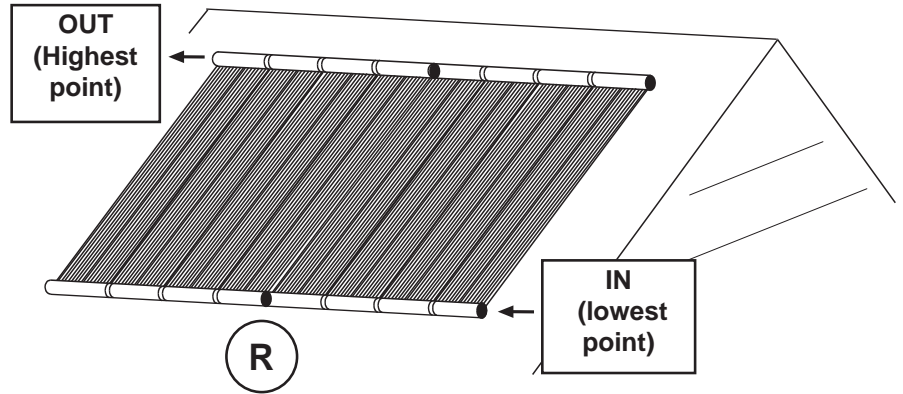


PLUMBING CONNECTION

Important Notes- Standard swimming pool plumbing in Europe is generally supplied in a metric dimension. However, in the UK all plumbing is supplied in an imperial measurement i.e. 1.5"

Poolsolar provide the correct plumbing adaptors that are enable you to connect to your existing pipework.

In addition, you will need to purchase a selection of ABS or PVC plumbing fittings (including a 3-way valve) and pipework from your pool dealer, together with the correct adhesive.



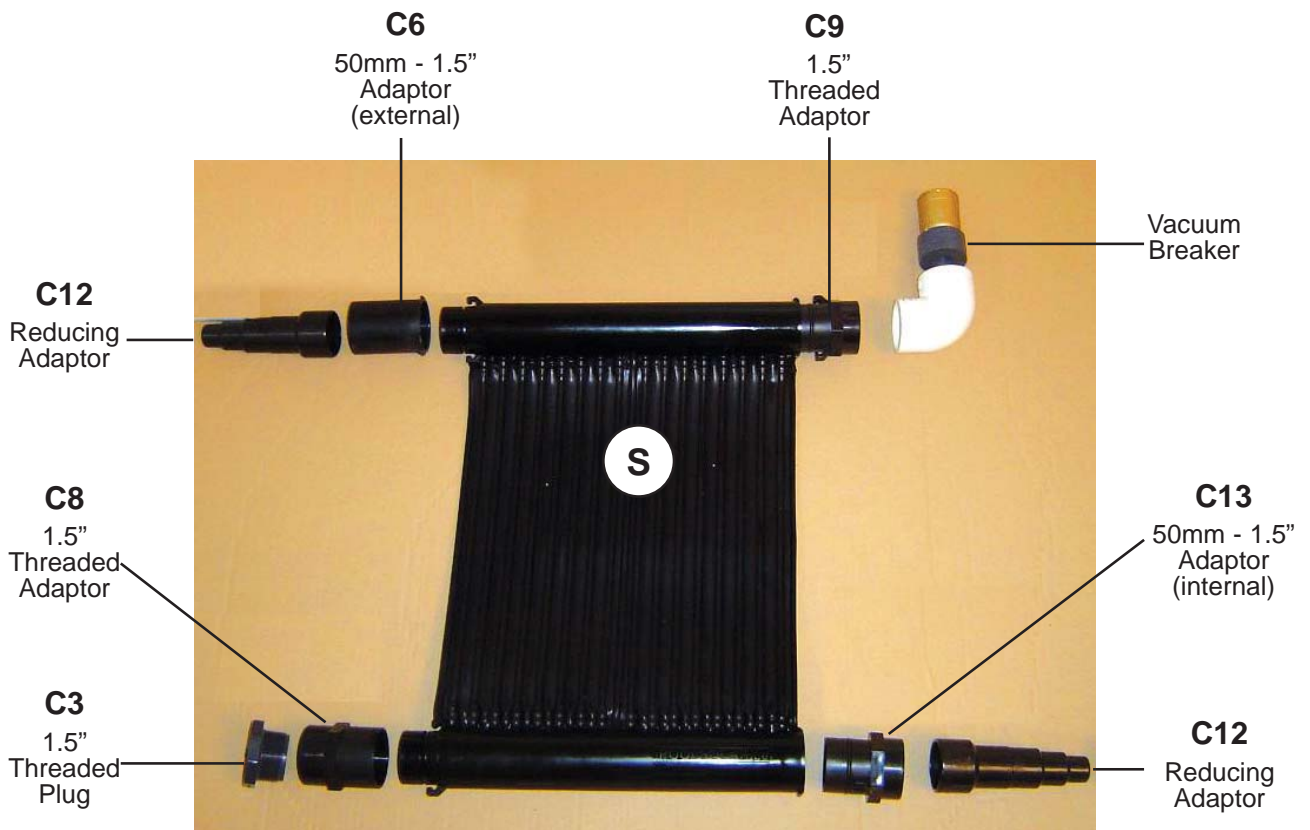
Do not be tempted to use domestic waste pipe, it has not been manufactured to accept the water pressure that is produced by your filtration. Never connect the Poolsolar to a mains water feed. Solar collectors have been designed to receive up to 1.5 bar. Pool filtration is typically +/- 1 bar.

The entire solar collector must be connected diagonally (R). The lowest point is where the water enters the collector, the highest point is where the water exits. In each Poolsolar kit you find extra connecting parts, so you can choose which method is suitable for your plumbing connection.

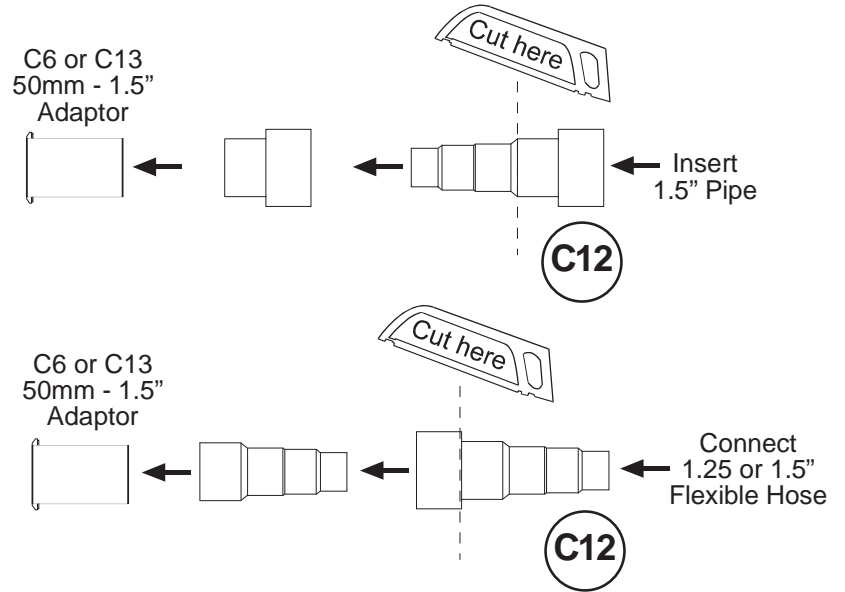
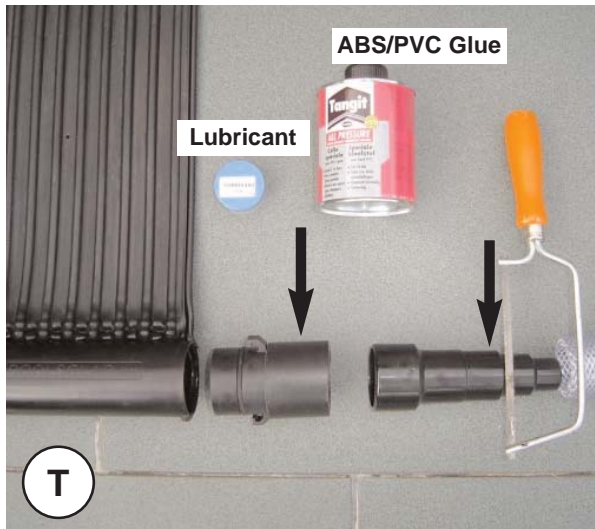
The extra supplied parts are made in ABS and can be glued with PVC-gluе. The headers (B) are made in PP (polypropylene) and CANNOT BE GLUED.

To connect pipework to the Poolsolar you need to apply the correct adaptors to each corner - C6/C8/C9/C13 see picture below (S).

IMPORTANT: The part of the adaptor(s) that is connected directly to the headers must be connected using a lubricant only (provided).

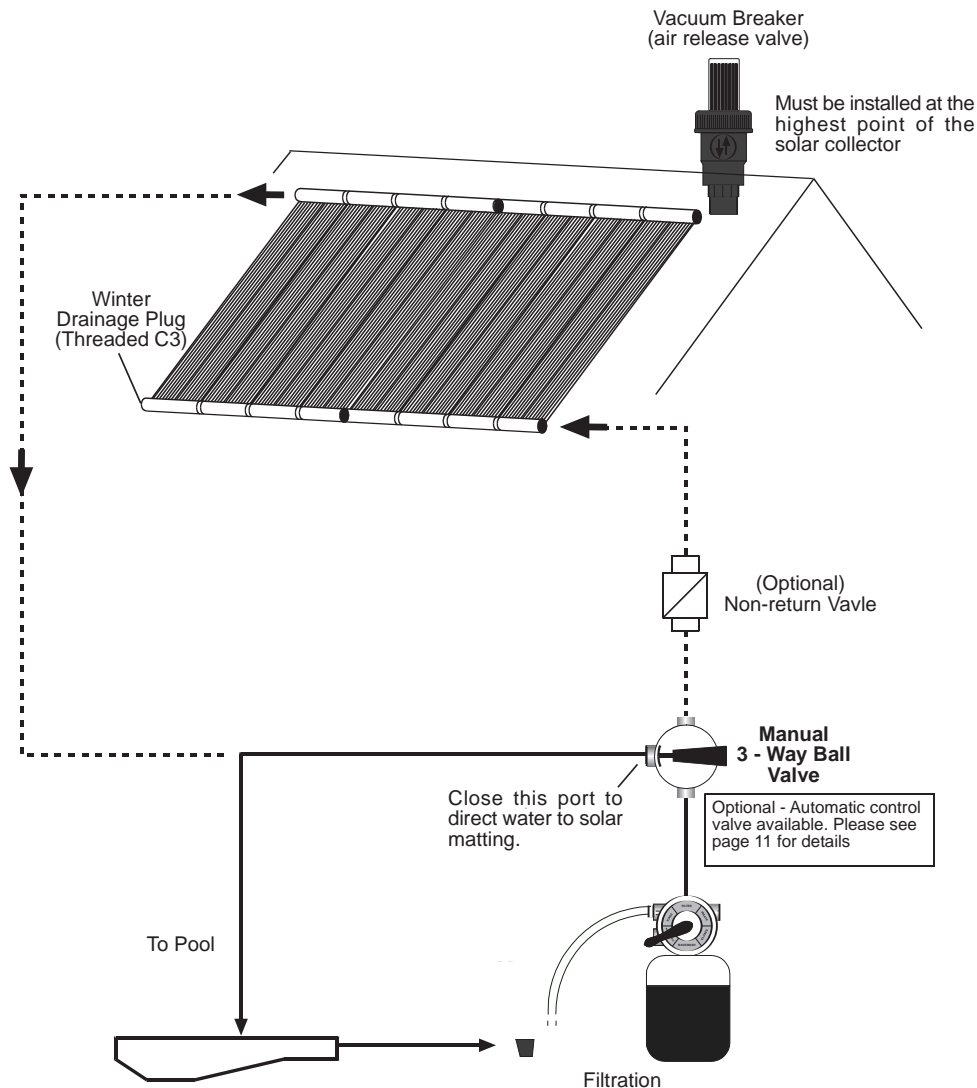


STEP 11 (T) Insert the correct plumbing adaptors to each corner C6-C8-C9-C13 (See page 8). Glue imperial reducing adaptors (C12) onto plumbing adaptor (C6 & C13) and cut to desired diameter. For all threaded fittings, apply PTFE. tape.



STEP 12 Connect ABS/PVC 1.5" plumbing to Poolsolar as per diagram below. You will need to install a 3-way valve, this will enable you to direct the water flow to the heater and back to the pool. A vacuum breaker will also be required on solar heating that is 4m or higher above ground level. Vacuum breakers are not required for low level installations. Once all of the plumbing connections have been made, proceed to step 13.

For other installation methods using an additional booster pump please go to page 13



SOLAR CONTROL SYSTEM with Automatic 3-Way Valve)

A Solar Control System will automatically turn the Poolsolar on and off depending on the weather conditions using an automatic 3-way valve.

When the sun is shining the valve will direct the water flow to the solar collector. When the temperature drops i.e. at night, the valve will direct the water flow back to the pool, bypassing the solar collector. Furthermore, it will stop the heating process when the desired temperature is reached.

Just as important, the valve will also prevent heated pool water from going to the collector when there is no sun i.e. cloudy/night conditions, thus preventing any heat loss.

To install the Solar Control System, please do the follow steps 1-5

STEP 1 Install Solar Controller (temperature adjustment) on a wall using the two screw holders on the back of the solar controller. Controller **MUST BE INSTALLED INDOORS**.



Solar Controller - front



Solar Controller - back

STEP 2 The 'Sun Temperature Sensor' should be placed on top of the solar collector header (manifold). Use a 'Tie-wrap' to secure into position. The 'Water Temperature Sensor' is already located within the motorised valve.



Tie-wrap

Note. Sun Sensor cable can be extended to a maximum distance of 25 metres. Use the same type cable i.e. 2 x core 0.34mm. Remove back plate on controller and insert desired cable length. Make water proof joint with the existing cable that was originally supplied.

Any electrical extension/adjustment should be carried out by a qualified electrician.



STEP 4 The 3- Way electronic motorised valve must be installed after the filter/pump (max bar 2.5). **DO NOT INSTALL MOTORISED VALVE OUTSIDE**.

It is recommended that three threaded socket unions & PT socket (available from your dealer) are used on two ports to enable easy removal for maintenance etc. Use PTFE tape to seal all threaded joints.

Please see diagram on page 12 for plumbing connection and position.



Use Threaded Socket Unions to join plumbing onto 3-way valve!

