

DESCRIPTION:

The SL8 RR 2PUMP is a swimming pool controller that heats a swimming pool by pumping pool water through solar collector panels.

If solar gain is available the solar system will heat the pool to the solar limit (sol limit). Solar has a time lockout that prevents heating outside of the time set (default 09:00 – 19:00, see note 5).

CONTROLLER MOUNTING:

The controller enclosure must be firmly attached to a nearby solid fixture by either the two mounting lugs or direct attachment through the controller. If mounting through the controller ensure the power cord is disconnected from the mains supply then remove the enclosure front cover by turning the four corner locks so each arrow points to the 'O' marked on the front cover. Insert two mounting screws diagonally through the oval holes in the enclosure, refit front cover and turn the four corner locks to the 'I' position.

The power cable is 1.8m long and should be plugged directly into a general power outlet, not into an extension lead.

CIRCULATING PUMP(S):

The solar circulating pump plugs into the right hand 240Vac socket marked as SOLAR PUMP. The left hand 240Vac socket marked as AUXILIARY will control the second pump which starts 3 seconds after the SOLAR PUMP. The maximum combined current is 10 AMPS 2400W.

FLOW SWITCH:

This controller is not fitted with a flow switch, instead its hard wired internally to have permanent flow, be aware that a message will appear for 30 seconds indicating that it is waiting for prime 30 before solar start-up.

TEMPERATURE SENSORS:

The pool sensor must be fitted into the suction line of the solar boost pump, preferably in a position out of direct sunlight. For retro-fit systems the pool sensor must be fitted in the suction line before the take off Tee fitting for the solar boost pump. It is recommended that a 14.5mm hole be drilled in the PVC pipe, this can be carried out using a Dontek PD01 grinding drill or a small pilot hole can be drilled and a 14.0mm drill-bit used spinning in a counter clockwise direction to minimize the chance of shattering pipe. Insert the grommet into the pipe and gently push in the black sensor barb. The green sensor plug is to be fitted to the plug socket marked POOL.

This unit has been designed to eliminate the need to run a temperature sensor cable from the solar controller to the roof, this is replaced by a Solar Powered roof temperature transmitter that only transmits when in direct sunlight, and a receiver that calculates the roof and pool temperature turning on the solar pump when required.

As the unit operates in a UHF radio band, reflections and moving objects can cause a transmission to be corrupted with a subsequent indication "ROOF SIGNAL NOT RECEIVED" on the display. Up to 10 transmissions can be missed (and last valid reading is kept for 10 minutes) before pump action will occur and the solar pump will turn off. If this occurs, and if the solar conditions are still favorable, the solar pump will not turn on again and resume normal operation unless it has received a valid transmission.

The remote roof transceiver obtains its operating power from a solar panel, it will not operate if there is no sun or if there is significant cloud cover. Obviously solar heating would not occur in such conditions.

Due to the possibility of reception ghosting and electrical interference the Transmitter may be required to be moved to an alternative position, this may be as little as two meters and keep in mind that the roof sensor cable may be extended 20 meters if required. The main controller should be mounted away from other electrical appliances as far as possible to reduce the chance of interference. If the unit is to be installed in a metal shed there may be reception issues and the controller may need to be optioned with a remote antenna or moved outside. A Power substitute cable is supplied for installation testing on cloudy days – Simply clip a 9Volt Transistor Battery onto the Battery Snap supplied and substitute the left hand green plug marked PV. Remember to refit original plug when testing is over.

SETTINGS MENU

To enter the SETTINGS MENU push either the up or down buttons and the following will be displayed;

```
SETTINGS MENU
1) MANUAL MODE
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Use *Up/Down* buttons to scroll to the option you wish to change. Press the *Enter* button to select the currently displayed menu item.

All menu items are shown below;

```
SETTINGS MENU
1) MANUAL MODE
2) TEMPERATURE
3) MODE
4) CLOCK
5) SAVE & EXIT
```

1) MANUAL MODE

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MANUAL PUMP MODE
UP=ON DOWN=OFF
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MANUAL MODE allows you to manually set the aux pump to 'on' by pressing the *Up* button or 'off' by pressing the *Down* button.

Pressing *Enter* will return you to the SETTINGS MENU. You can also keep pressing *Enter* to toggle the filter pump from 'on' to 'off' and vice versa.

MANUAL MODE will time out, after 24 hours the SL8 will return to normal operation.

2) TEMPERATURE

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TEMPERATURE
SOL LIMIT XX.X°
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When you enter the TEMPERATURE menu you may change the solar heater temperature limit setting (SOL LIMIT) by pressing the *Up/Down* buttons, if no change is required simply push *Enter*.

Factory default is for SOL LIMIT is 30°C.

3) MODE

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MODE
SUMMER MODE/WINTER MODE/TROPICAL MODE
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You can use *Up/Down* to change the selected option, *Enter* to accept.

SUMMER MODE is the normal operation of heating the swimming pool.

TROPICAL MODE is selected if you wish to cool the swimming pool, the solar pump will run if the roof temperature is colder than the pool until SOL LIMIT is obtained; note that this is most likely to occur at night so therefore this feature is unsupported on RR models.

WINTER MODE, when selected you will be prompted to select the start month and end month of winter, this assists in the systems off-season maintenance and save energy as solar gain may be available but swimming temperature cannot be achieved. If heat demand is set to OFF a 3 minute flush of the solar matting occurs between 10:00 and 16:00 providing the roof temperature is equal or greater than the pool, but if that condition does not occur a solar system flush will be forced to occur at 16:00.

If heat demand is ON the system operates similar to normal mode but solar pump activity is monitored and will force a 3 minute flush if solar has not been active for seven days, note the unit may flush if winter mode is selected on the day of install.

4) CLOCK

This menu allows you to adjust the calendar date and time of day.

The flashing value is the adjustable value, use the *Up/Down* buttons to adjust the value and press *Enter* to accept the displayed value and move to the next setting until all values are set.

5) SAVE & EXIT

When this menu is selected, push *Enter* to save ALL settings, the unit will return to normal operation automatically.

Note: If any of the menu items are left unattended for 3-4 mins the menu will time out and automatically save all settings and return to operation.

The *Enter* button.

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FOR MANUAL MODE  
PRESS ENTER NOW
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Pressing the *Enter* button once will display the above message for ~3 seconds, simply wait and the unit will return to normal operation.

If you *Enter* is pressed for a second time within a 3 second period, the display will indicate you have entered Manual mode, operation is the same as manual mode in the menu with the only difference being the timeout value is 4 Hours.

NOTES:

1. If a sensor fault is detected the SL8 will display which sensor and what the fault is.
2. Should power be interrupted for any reason, the SL8 will resume normal operation when power is restored, all information will have been kept.
3. Temperature sensors used with this unit are Digital and are accurate to 0.5 Deg. C, no calibration is required.
4. The sensor cable with the thin trace is the positive and is usually fitted to the right hand side of the green plug, incorrect polarity will be displayed.
5. Solar start and end times may be changed by holding the up button while power is applied.

Return to Manufacturer for repair.

WARRANTY

This product is covered by a limited 3 year warranty against component failure or faulty workmanship from the date of installation.

A faulty unit should be returned in the first instance to the dealer from which the unit was purchased.

Damage to the unit due to misuse, power surges, lightning strikes or installation that is not in accordance with the manufacturer's instruction may void the warranty.

Warranty does not cover travel costs to or from installation site. Unit must be returned to manufacturer for repairs.

If the power cord is damaged, do not use the controller; return the unit to the supplier for repair.

Customer Record. (To be retained by the customer);

Dealer/Installer Name _____

Serial Number _____

Date Installed _____

For service assistance phone SUNLOVER HEATING

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