

SUNLOVER HEATING WARRANTY – SL8 – RR

This product is covered by a limited three (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.

Temperature sensors, valves and actuators are covered by a twelve (12) month warranty at the discretion of their manufacturer.

Warranty does not cover travel costs to or from installation site.

Return to supplier for repair

Customer Record. (To be retained by the customer)

Dealer/Installer Name.....

Model Number.....

Serial Number.....

Date Installed.....

.....

For service assistance phone SUNLOVER HEATING

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MODEL SL8 RR - Digital Solar Controller

DESCRIPTION:

The SL8 RR is a swimming pool controller that heats a swimming pool by the use of solar 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 – 18:00).

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:

The solar circulating pump plugs into the right hand 240Vac socket marked as SOLAR PUMP. The left hand 240Vac socket marked as AUXILIARY will provide continuous power, the AUX ON. LED will also be lit.

The maximum combined current is 10 AMPS 2400W.

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.

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

Use *Up/Down* buttons to scroll to the option you wish to change, selectable options will be flashing on the display.

Press the *Enter* button to accept the currently selected menu item.

All menu items are shown below;

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

1) MANUAL MODE

MANUAL PUMP MODE
UP=ON DOWN=OFF

MANUAL MODE allows you to manually set the 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 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

TEMPERATURE
SOL LIMIT XX.X°

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

MODE
SUMMER MODE/AUTO WINTER MODE/TROPICAL MODE

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.

WINTER MODE, when selected you will be prompted to select the start month of winter and the start month of summer, this assists in the systems off-season maintenance and save energy as solar gain may be available but swimming temperature cannot be achieved.

A three 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.

4) SET CLOCK

TIME 17:00:PM
DATE 08/09/2010

When you enter the CLOCK menu you will be prompted to change the DATE setting first, adjust by pressing the *Up/Down* buttons, to accept the setting press the *Enter* button.

Repeat for Month, Year, Hour & minutes.

Note: time is in 24 hour format, there is also an AM/PM displayed to avoid clock setting errors, when setting the clock, seconds is set to 00 (zero)

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.

FOR MANUAL MODE
PRESS ENTER NOW

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.

FAULT DIAGNOSIS

In the event of a cable or sensor failure, the display will indicate the type of failure as follows;

ROOF SENSOR.

A display of 99 indicates a broken or disconnected sensor cable or open circuit sensor.

A display of 88 indicates wrong polarity connection or short-circuited cable or sensor.

A display of 89 indicates a high sensor reading out of normal operating range.

A display of 00/03 indicates an over extended or coiled sensor cable.

POOL SENSOR

A display of 77 indicates a broken or disconnected sensor cable.

A display of 66 indicates wrong polarity or short-circuited sensor cable.

A display of 67 indicates a sensor reading out of normal operating range.