

**DESCRIPTION:**

The V7 RSI-C is a swimming pool controller that heats a swimming pool by the use of solar panels or an auxilliary heater (if fitted). It will also run a chlorinator during filter times via the RELAY2 contact and an external switch box.

The auxilliary heater (gas or heat pump) has a temperature limit setting (aux limit), the pool will be heated to this limit by the auxiliary heater via the RELAY1 interlock.

The auxiliary heater run time is controlled by heat demand settings, which can be set to on/off and set to run between start and end times, note that if the start & end time are set to the same values the auxilliary heater will run for 24 hours to achieve temperature limit.

If solar gain is available the solar system will heat the pool to the solar limit (sol limit), if large solar gain is detected the auxilliary heater will be switched off to save energy. Solar has a time lockout that prevents heating outside of the time set (default 09:00 – 18:00). If the system is fitted with an Auto Divert Valve it will turn when there is solar gain and switch on the booster pump if fitted.

**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. Press the *Enter* button to select the currently displayed menu item.

All menu items are shown below;

SETTINGS MENU  
1) MANUAL MODE  
2) FILTER TIMER  
3) TEMPERATURE  
4) HEAT DEMAND  
5) MODE  
6) CLOCK  
7) SAVE & EXIT

**1) MANUAL MODE**

MANUAL PUMP MODE  
UP=ON DOWN=OFF

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 V7 will return to normal operation.

**2) FILTER TIMER**

FILTER TIMER  
(ON or OFF/V7STD)

FILTER TIMER can be set to ON or OFF/V7STD, this controls the power out of the left hand socket, if OFF/V7STD is selected the left hand socket will be permanently powered and the right hand socket will control the solar pump, when the FILTER TIMER is set to ON the left hand power socket runs a filter pump on a timer with the following settings;

SINGLE CYCLE  
DUAL CYCLE

Single cycle sub menu

|                 |               |
|-----------------|---------------|
| SINGLE CYCLE    | SINGLE CYCLE  |
| START TIME X:XX | END TIME X:XX |

Dual cycle sub menus

|                 |               |                 |               |
|-----------------|---------------|-----------------|---------------|
| FIRST CYCLE     | FIRST CYCLE   | SECOND CYCLE    | SECOND CYCLE  |
| START TIME X:XX | END TIME X:XX | START TIME X:XX | END TIME X:XX |

When you enter the FILTER SETUP menu you will need to select SINGLE CYCLE or DUAL CYCLE, the selected option will be flashing, you can use the *Up/Down* buttons to change to the selected option, once you select the required cycle by pressing *Select* you will be prompted to set the cycle START TIME and END TIME, modify these by pressing the *Up/Down* buttons, press *Select* to accept the setting.

SINGLE CYCLE will run the filter pump once per day. DUAL CYCLE will run the filter pump twice per day. When DUAL CYCLE is selected, the 2nd cycle start and end times will be preset not to conflict with the 1st cycle time, you are also prevented from setting the cycle 2 times to conflict with the 1st cycle, this means you cannot view previously set times for cycle 2.

Factory Default is ON, DUAL CYCLE from 09:00 to 13:00 and 16:00 to 20:00

*NOTE: Note that the maximum combined rated current is 10 Amps ( 2400W at 240VAC.)*

**3) 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.

TEMPERATURE  
AUX LIMIT XX.X°

AUX LIMIT sets the temperature the auxilliary heater will heat the swimming pool to you can use *Up/Down* to change the selected temperature, press *Enter* to accept. (default is 25°C)

NOTE 1: AUX LIMIT setting will only be shown if heat demand is turned on.

NOTE 2: For maximum efficiency it is advisable that the solar limit (SOL LIMIT) be set higher than the auxilliary limit (AUX LIMIT)

**4) HEAT DEMAND (only set ON if auxiliary heating fitted)**

HEAT DEMAND  
ON/OFF

When you enter the HEAT DEMAND you will need to select ON or OFF, the selected option will be flashing, you can use *Up/Down* to change the selected option, *Enter* to accept.

If OFF is selected you will return to the menu, If ON is selected you will be prompted for START and END time, modify values by using the *Up/Down* buttons, use *Enter* to accept the values. Factory default is 'heat demand off'

HEAT DEMAND TIME                      HEAT DEMAND TIME  
START TIME X:XX                      END TIME X:XX

NOTE: if a 24 hour continuous run time is required then set the start time and end time to the same value. (e.g. Start 12:00, End 12:00)

IF LIMIT ACTIVE  
SAMPLE AT XXXX

Sets the sampling period once the pool has reached the auxilliary temperature limit, options are 15 min, 30 min, 1 hour, 2 hours. Once the pool reaches the aux temperature limit and the filter pump is turned off it will not be turned on until the sample period expires, the filter pump will then run for a minimum period of 3 mins so that water can flow past the pool temperature sensor and obtain an accurate reading. Should heating be required the filter pump will remain on to heat the pool.

Factory default for HEAT DEMAND is OFF (06:00 to 22:00, sample @ 1 hour)

**5) MODE**

MODE  
SUMMER MODE/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 and end month of winter (inclusive), the purpose of winter mode is not to use solar to heat the pool but to ensure the solar matting on the roof gets flushed otherwise the water in the matting becomes contaminated. 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.

## 6) CLOCK

TO CHANGE CLOCK SET MINS XX    TO CHANGE CLOCK SET HOURS XX    TO CHANGE CLOCK SET DATE XX    TO CHANGE CLOCK SET MONTH XX

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

You will then be prompted to change the HOURS, adjust by pressing the *Up/Down* buttons, to accept the setting press the *Enter* button.

You will then be prompted to change the DATE, adjust by pressing the *Up/Down* buttons, to accept the setting press the *Enter* button.

You will then be prompted to change the MONTH, adjust by pressing the *Up/Down* buttons, to accept the setting press the *Enter* button.

## 7) 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 V7 will display which sensor and what the fault is.
2. Should power be interrupted for any reason, the V7 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. If Auxiliary heater interlock switching is used the maximum load is 5A at 32VAC max.
6. Solar start and end times may be changed by holding the up button while power is applied.
7. The chlorinator switchbox maximum load is 10A at 240VAC max.
8. The chlorinator switchbox is controlled via the connectors marked SW.

Return to Manufacturer for repair.