

DESCRIPTION:

The SLH7 STD2 is a gas or heat pump controller that heats a swimming pool to a set temperature limit. Heating time is selected by setting the timer to start and stop heating during the day, the timer can also be set to run 2 heating periods per day so peak tariff periods can be avoided.

If the pool achieves temperature limit then the pump turns off and stays off until the sample wait time has elapsed, the pump then turns on for 3 minutes to take an accurate reading of the pool temperature, and will then proceed to heat the pool if needed or if heating is not required it will stop the pump and commence another sample wait, the last accurate pool reading will be displayed.

The water pump is controlled by the 240V socket marked 'PUMP' and the heater can be controlled by the 240V socket marked 'AUXILIARY' (optional) or with the supplied interlock cable on 'RELAY 1' (optional).

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) TEMPERATURE
3) HEAT DEMAND
4) CLOCK (24h)
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 filter pump from 'on' to 'off' and vice versa.

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

Note that manual mode will heat the pool to the heat pump or gas heaters thermostat setting if the heater interlock is not used. If you wish to manual heat to the set temperature limit is reached then read "The Enter/Manual button" section.

2) TEMPERATURE

```
TEMPERATURE
POOL LIMIT  XX.X°
```

When you enter the TEMPERATURE menu you may change the heater temperature limit setting by pressing the *Up/Down* buttons, if no change is required simply push *Enter*.

**Factory default is 27°C.

3) HEAT DEMAND

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 SINGLE OR DUAL CYCLE.

NUMBER OF CYCLES
SINGLE CYCLE

NUMBER OF CYCLES
DUAL CYCLE

Single cycle will prompt you for one heating cycle per day, dual cycle allows for 2 heating cycles per day. Modify values by using the *Up/Down* buttons, use *Enter* to accept the value.

Once the number of cycles has been selected you will be prompted to enter START and END time(s),

HEATING TIME 1:
START TIME X:XX

HEATING TIME 1:
END TIME X:XX

If dual heating cycles were selected then you will be prompted for the 2nd cycle time. modify values by using the *Up/Down* buttons, use *Enter* to accept the values.

HEATING TIME 2:
START TIME X:XX

HEATING TIME 2:
END TIME X:XX

NOTE: if a 24 hour continuous run time is required; select heat demand on, single cycle and set the start time and end time to the same value. (e.g. Start 12:00, End 12:00)

IF LIMIT ACTIVE
SAMPLE AT X:XX

Sets the sampling period once the pool has reached the temperature limit, options are LIVE, 30 minutes, 1 hour, 1:30, 2:00, 2:30, 3:00, 3:30 and 4 hours. Once the pool reaches the temperature limit the pump is turned off it will not be turned on until the sample period expires, the 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 pump will remain on to heat the pool. The LIVE setting is for commercial pools where the temperature sensor is in a pipe that has continuous water flow (sampling disabled).

**Factory default for HEAT DEMAND is ON, DUAL CYCLES, 06:00 to 14:00 & 20:00 to 22:00 sample @ 1 hour

4) CLOCK (24h)

TIME HH:MM AM/PM
DAY DD/MM/YYYY

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

The next value will be flashing, repeat till all values are set to correct calendar date & correct time of day.

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/Manual button.

```
FOR MANUAL HEAT  
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, This will also bypass any 3 minute sample or pump prime periods.

If you *Enter* is pressed for a second time within a 3 second period, the display will indicate you have enabled the run till hot feature; the following will be displayed;

```
RUN TILL HOT  
FEATURE ENABLED
```

The unit will then restart and will disregard the time-clock settings and will heat the pool until the temperature limit (as set in menu item 2) has been reached, the run till hot feature is then turned off and the unit will revert to timer operation.

If you wish to disable the run till hot feature press the enter button twice as described above and you should see confirmation that the run till hot feature is turned off;

```
RUN TILL HOT  
FEATURE DISABLED
```

INSTALATION:**Controller Mounting**

Find a suitable location to mount the control box. Ideally as with all pool equipment it should be installed out of direct weather and no closer than 3 meters from the waters edge. Lift up the two mounting tabs and use two appropriate screws to mount the control box to the wall, keeping in mind that the power cable is 1.8m long and should be plugged directly into a general power outlet, not into an extension lead.

Pump

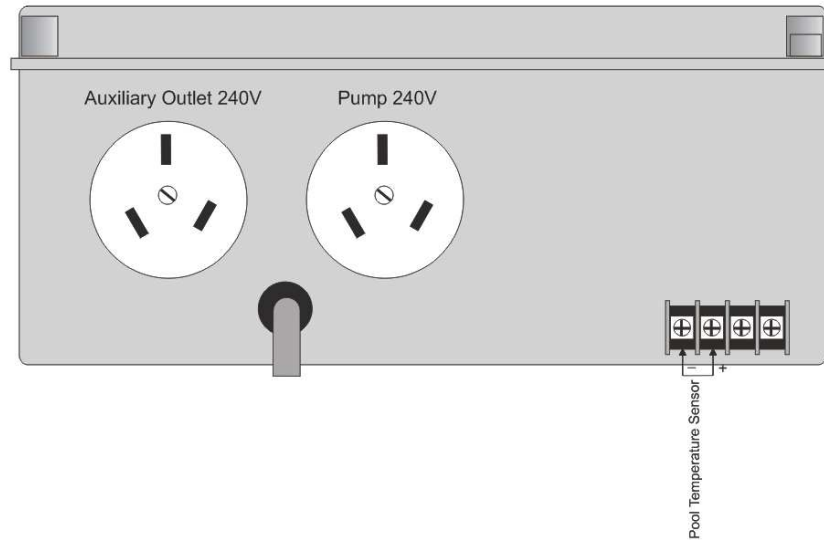
The Booster pump plugs into the right hand 240Vac socket marked as PUMP, the left hand socket marked as AUXILIARY is permanent 240Vac (unless optioned for a gas heater). The maximum combined current is 10 AMPS 2400W.

Pool Sensor

The water temperature sensor should be fitted into the suction line of the Filter pump, preferably in a position out of direct sunlight. 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 beneath the SLH7 control box marked POOL. **DO NOT** cable-tie or tape sensor wires to mains power.

NOTES.

1. If a sensor fault is detected the SLH7 will display which sensor and what the fault is.
2. Should power be interrupted for any reason, the SLH7 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. Auxiliary heater interlock relay has a maximum load of 5A at 32VAC max.
6. Maximum rated output load for both 240V sockets is 10 Amps 2400 Watt combined.



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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