

**OVERRIDE MODES.** Before selecting these modes, remember that the unit is designed to work automatically. Overriding the automatic operation can result in overheating of your pool or spa or even cooling if the solar system continues to run when the sun is not shining.

**To select 'pump override on'**, press the 'override on' button. The display will alternate between 'Pu1' and the current pool temperature. The 'override on' LED will be on, and the pump will operate for 1 hour or until the button is pressed again or power is removed from the unit.

**To select 'solar override on'**, press the 'override on' and the '+' buttons together. The display will alternate between 'So1' and the current pool temperature. The 'override on' LED will be on, and the pump and solar valve will operate for 1 hour or until these buttons are operated again or power is removed from the unit.

**To select 'heater override on'**, press the 'override on' and the '-' buttons together. The display will alternate between 'Ho1' and the current pool temperature. The 'override on' LED will be on, and the pump and heater control will operate for 1 hour or until these buttons are operated again or power is removed from the unit.

**To select 'solar override off'**, press the 'override off' and the '+' buttons together. The display will alternate between 'SOF' and the current or last pool temperatures, or W. The override off LED will be on. The unit will heat or exercise automatically, but will not use the solar system. To resume normal operation, press the 'override on' and the '+' buttons together.

**To select 'heater override off'**, press the 'override off' and the '-' buttons together. The display will alternate between 'HOF' and the current or last pool temperatures, or W. The override off LED will be on. The unit will heat or exercise automatically, but will not use the auxiliary heating system. To resume normal operation, press the 'override on' and the '-' buttons together.

**To select 'off'**, press the 'override off' button for 5 seconds. The display will show 'OFF', and the unit's outputs will all be off, and all functions will be suspended except for DISPLAY. To resume normal operations, press the 'override off' button.

#### **PRO.**

The display may show 'Pro' at the end of heating cycles, when it is allowing the auxiliary heating system to cool, whilst pumping water through it. During this protection period, many of the unit's functions will not be accessible

#### **ERROR INDICATIONS**

NOTE: In extremes of temperature, the sensor fault displays may show although the unit is not faulty. Remember the pool temperature is sensed from the inlet pipe which can be much colder or hotter than the pool if the system has been off for some time.

When in automatic mode, the unit will run the pump for the 6 minute period even if the pool sensor's reading is in error, but will turn off, if, after the 6 minute time period, the pool sensor still reads as faulty. The unit will start again after 4 hours.

An indicated roof sensor error will prevent automatic operation, but will allow winter mode.

Roof and pool sensor errors may show in some override modes, but will not stop operation.

If the unit displays 'EEE', then it has a memory fault, and may not operate correctly. The unit requires servicing.



# **Associated Controls**

## Pool Heater Controller (Ascon Ultimate Heating Controller)

### Model C1080

**On The Web: [www.asconpool.com](http://www.asconpool.com)**

V1

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## C1080 POOL HEATER CONTROLLER

The C1080 unit is designed to give you year round automatic control of pool systems employing a pump and solar valve along with solar and auxiliary heating. The unit does not control the pool's filter pump. By following these simple installation and operating instructions you will enjoy trouble free operation for many years.

**THIS UNIT IS COVERED BY A 1 YEAR LIMITED WARRANTY. Please refer to web site for warranty details.**

### CAUTION:

**DO NOT OPEN THE CASE OF C1080 UNIT. IT IS NOT USER SERVICEABLE. IF THE POWER CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER OR AN AUTHORISED AGENT. OPENING THE CASE WILL VOID YOUR WARRANTY.**

### INSTALLATION

The C1080 unit is weather resistant, however it should be mounted in a sheltered position where it is not exposed to direct weather, splashing or spray from the pool or filtration equipment. **Electrical building regulations specify that the C1080 unit must not be mounted within 3 meters of the pool.**

Fix the unit to a wall or post, within 1.5 meters of a 240 volt outlet and within 2 meters of the solar pump and the auxiliary heater. Mounting points are provided on the back. Two sets of temperature sensor cables are supplied. One short (3m) for the pool and one long (24m) for the roof. This C1080 unit must be installed in the upright position. (Cables and mains sockets downwards).

**Avoid cutting the sensor leads (excess can be neatly coiled). If the cable is cut, it must be reconnected with the POSITIVE (stripe) to the POSITIVE, and the NEGATIVE (no stripe) to the NEGATIVE. Do not place any wire joins underground.**

### Power connection.

Power is supplied through a standard 240 volt lead. A piggyback socket is provided on the lead if you need to run the filter pump or it's timer, and the C1080 unit from the one power outlet. Power for the unit's pump comes from the left hand side socket on the bottom of the unit.

**Maximum pump rating - 1.5HP**

**NOTE:** The auxiliary heating system is **controlled** via the right hand side socket on the bottom of the unit – This is **not** to supply **power** to the auxiliary heating system.

**Maximum current 2A**

### Valve connection

The unit is designed to operate with a 24V AC 3 wire direction control valve that stops itself at the end of its travel.

**Maximum current 2A**

**ONLY THE SOLAR PUMP AND THE CONTROL OF THE AUXILIARY HEATING SYSTEM IS TO BE CONNECTED TO THE CONTROLLER'S OUTLETS.**

**MORE THAN THIS WILL DAMAGE THE ELECTRONICS AND VOID YOUR WARRANTY.**

## OPERATION

**AUTOMATIC MODE.** For full automatic operation, simply plug it in and switch on. Whenever the unit is powered up, there will be a delay of 2 minutes before the solar pump is activated. The unit will then run the pump for 6 minutes (during these times the decimal point after L or P will be flashing), then make a decision on how to heat the pool based on the sensor's temperatures, activating the solar valve and / or the auxiliary heating as required. When the pool has reached your preset 'comfort' temperature, it turns everything off and waits 4 hours before starting the process again

### Comfort Temperature Adjustment

Adjustment of the comfort level is achieved by pressing either the '+' or '-' buttons. The first operation will simply display the present comfort temperature. Any further operation of the buttons will increase or decrease the setting. The setting will automatically change if either button is pressed and held down.

This temperature will be stored permanently in memory, even with power off.

**DISPLAY MODE.** To read roof, pool and comfort temperature settings, press the 'display' button. The display will cycle through the settings showing an 'R' for roof, a 'P' for pool or 'L' for Last and a 'C' for comfort.

### DISPLAY MEANING.

#### P28

Pool temp when pump is on.  
Pool is 28°C

#### L28

Last pool temp when pump is off.  
Pool was 28 when pump was turned off.

#### C30

Shows Comfort setting 30°C

#### R48

Shows Roof temp 48°C

#### PPP

Flashing.  
Faulty pool sensor, or pool temp outside 3° - 50° range

#### rrr

Flashing.  
Faulty roof sensor, or Roof temp outside 3° - 98° range

**NOTE:** When pump is off, controller shows the L temperature as the pool sensor is no longer reading a valid temperature.

### WINTER MODE .

The C1080 unit is equipped with a unique 'Winter mode' facility which allows the user to exercise the system daily throughout the colder months. By using this facility you will extend the life of your solar heating by preventing pump and valve seizure and drying of chemical build up in the collector.

**To select winter mode,** press the 'winter' button. The display will show 'W' and the unit will turn on the solar pump, solar valve and the auxiliary heating for six minutes each day.

To resume normal operation, press the 'winter' button again and the unit will begin automatic operation.

**TEST MODE.** Pressing the '+', '-', 'override on' and 'override off' buttons together will initiate a short test routine that will exercise the display, LEDs and controlled outputs.