



**Associated Controls**

# Ascon Heater Thermostat

## Model C2080

(For system 23525-01)

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

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### **C2080 ASCON HEATER THERMOSTAT**

The C2080 unit is designed to give you year round automatic control of pool systems employing a pump and a heat-pump heater (that does not control a pump).

The unit will periodically turn the pump on and after allowing the system to prime determines if the pool is above the comfort temperature. If so, the unit turns off for a pre-set variable time period.

By following these simple installation and operating instructions you will enjoy trouble free operation for many years.

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

#### **CAUTION:**

**DO NOT OPEN THE CASE OF C2080 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 C2080 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 C2080 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 pump. Mounting points are provided on the back. One set of temperature sensor cable is supplied. This C2080 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 heat pump from the one power outlet. Power for the unit's pump comes from the socket on the bottom of the unit.

**Maximum pump rating - 1.5HP**

**NOTE: ONLY THE PUMP IS TO BE CONNECTED TO THE CONTROLLER OUTLET. MORE THAN THIS OR EQUIPMENT OTHER THAN A PUMP MAY DAMAGE THE ELECTRONICS OR THE ITEM CONNECTED TO THE CONTROLLER OUTLET AND WILL VOID YOUR WARRANTY.**

## OPERATION

**AUTOMATIC (summer) MODE.** Whenever the unit is first powered up, there will be a delay of 2 minutes before the 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 if the pool can be heated based on the sensor's temperature. When the pool has reached your preset "comfort" temperature, it turns everything off and waits a variable pre-set time (1, 2, 3 or 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 (ie C25). 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.

### **Delay Time Adjustment**

Adjustment of the delay time is achieved by pressing the "-" and "W" buttons together (displays "dEL") then pressing either the "+" or "-" buttons. The current delay is displayed then it can be adjusted. This delay will be stored permanently in memory, even with power off.

**DISPLAY MODE.** To read sensor temperatures and the comfort temperature settings, press the "display" button. The display will cycle through the settings showing an "P" for Pool, a "L" for the last true pool temperature and "C" for comfort.

### **DISPLAY MEANING.**

#### **P28**

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

#### **L28**

Last pool temperature when pump is off.  
Pool was 28  
When pump was turned off.

#### **C30**

Shows  
Comfort setting 30°C

#### **PPP**

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

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

#### **WINTER MODE .**

The C2080 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 pool heating by preventing pump seizure and drying of chemical build up.

**To select winter mode.** press the "winter" button. The display will show "W" and the unit will turn on the pump for six minutes. This sequence repeats every 24 hours. To resume normal operation, press the "winter" button again and the unit will begin automatic (summer) operation.

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

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

**To select "pump override on",** press the "+" and "-" buttons together. The display will alternate between "On1 " and the current pool temperature. The "override on" LED will be flashing, and the pump will operate for 1 hour before resuming automatic mode. To select 4 hour override on duration, press and hold the "+" and "-" buttons together for five seconds. The display will show "On4". To cancel override on operation, press the "+" and "-" buttons together again.

**To select "pump override off",** press the "+" and "display" buttons together. The display will alternate between "OFF " and the current pool temperature. The "override on" LED will be flashing, and the pump will turn off and stay off for 1 hour before resuming automatic mode or until these buttons are operated again.

**To select "Unit off",** press the "+" and "display" buttons together and hold for five seconds until the display shows "OFF". The unit is effectively off, although the "display" feature can still be used to check time and temperatures. To resume normal operations, press the "override off" button.

#### **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 pipe which can be much colder or hotter than the pool if the system has been off for some time.

Pool temperature sensor error may show in 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.