Aqua-Gen 3D INSTRUCTIONS

The Aqua-Gen 3D is a micro-processor based solar controller used to heat your pool/spa from your solar collector. The controller does this by sensing the temperature on the roof and the temperature of the pool. If the roof temperature rises 7°C above the pool temperature and the pool temperature is below the set point then the controller will switch power to the solar pump which in turn will cycle the pool water through the collector to heat the water and then return it to the pool. If the pool temperature rises to the set point or the roof temperature falls to within 2°C of the pool water the controller will switch power off to the solar pump.

FEATURES

- Sample and hold temperature display
- Simple one touch control buttons
- Pool, set point and roof temperature display
- Winter mode
- Manual mode
- Heating and Heating/Cooling Mode
- Temperature sensor error indication

OPERATION

For normal operation the controller should be in AUTO mode (indicated by green light).

To test pump press the MODE button once (manual is indicated by light).

To change desired pool temperature press the SELECT button once. The set (yellow) light should be on and the display will indicate the set point, The UP/DOWN buttons may now be pressed to change the set point. The display will revert back to the pool temperature about 8 seconds after the last button was pressed.

To display roof temperature press the SELECT button twice. The roof (red) light should be on and the display will indicate the roof temperature. The display will revert back to the pool temperature about 8 seconds after the last button was pressed.

To activate winter mode press the MODE button twice if in AUTO or once if in MANUAL (indicated by red light). In this mode the pump will turn on for approximately 10 minutes every day at the time the winter mode was activated. If there is a power failure this will reset the 24 hour timer so the pump will come on at the time the power is restored.

MINIMUM ROOF SETTING (SAMPLING)

To prevent the unit from sampling at night an adjustable setting has been provided. The **roof** temperature needs to be above this value for the unit to sample. To adjust this value:

1. Press the **SELECT** button until the roof temperature is displayed
2. Press the **UP/DOWN** once to see the value

3. Press or hold **UP/DOWN** to change value
4. Press **SELECT** again or wait 3 seconds to exit this setting

Note If during the summer period you find the unit running late or early, increasing this value will prevent the unit from sampling at these times. The default value is 20°C.

HEATING AND COOLING

To provide cooling ability for those living in tropical areas, a cooling mode has been provided. To change the controller from heating only to heating and cooling:

1. Press the **SELECT** button until the roof temperature is displayed
2. Hold the **SELECT** button for 5 seconds until a flashing “H “ or “HC” is displayed
3. “H“ = Heating only. “HC” = heating and cooling.
4. Use the **UP/DOWN** to change value
5. Press **SELECT** to exit

Note With cooling mode activated, the unit will operate at night and the minimum roof setting is no longer available.

CALIBRATION

To adjust the displayed temperature:

1. While displaying the pool temperature hold the SELECT for 5 seconds
2. The display will flash the current temperature.
3. Use the **UP/DOWN** to adjust the value
4. Press the **SELECT** button to exit the setting

Note The adjustment will not exceed +/- 3 degrees

TEMPERATURE SENSOR ERROR INDICATION

If one of the sensor leads is damaged or the sensor is faulty, the appropriate light will flash to indicate there is a fault.

POOL sensor fault **Pool** light (green) will flash.
ROOF sensor fault **Roof** light (red) will flash.

The display will flash (If selected):

“OC” = Open circuit (Broken wire)
“SC” = Short Circuit

MOUNTING INSTRUCTIONS

The control unit should be mounted on a wall or other vertical surface taking care to protect it from rain and direct sunlight.

SPECIFICATIONS

INPUT: 230/240V 10A 50Hz
MAX TOTAL LOAD: 10A
IP23

WARRANTY - Aqua-Gen 3D

All products manufactured by Space Age Electronics are warranted against defects in materials and workmanship for a period of one year from the date of original purchase. Space Age Electronics will repair or replace, at its option, any product returned to us by the Purchaser during the warranty period without charge provided that: (a) Space Age Electronics is promptly notified upon discovery of the defect by the Purchaser, (b) the defective product is returned to Space Age Electronics, P.O. Box 4382, Homebush South, New South Wales, 2140, with all shipping, forwarding charges, duties insurance and taxes prepaid by the Purchaser, (c) examination of such product by Space Age Electronics discloses that such defects have not been caused by misuse, neglect, alteration, or repair, and (d) the Purchaser provides proof of original purchase date. Space Age Electronics reserves the right to discontinue particular models without notice and to make modification in design at any time without incurring obligations to make such modifications to units previously delivered.

The warranty set forth above is the exclusive express warranty.

ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE ARE LIMITED IN DURATION TO TWO YEARS FROM THE DATE OF ORIGINAL PURCHASE. SPACE AGE ELECTRONICS SHALL NOT BE LIABLE FOR ANCILLARY, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE, INCLUDING, BUT NOT LIMITED TO LOSS OF REVENUES OR PROFIT RESULTING FROM THE USE OF THIS PRODUCT OR FROM ANY BREACH OF ANY WARRANTY APPLICABLE TO THIS PRODUCT.

Aqua-Gen 3D TROUBLESHOOTING

TEMPERATURE SENSOR ERROR INDICATION

If one of the sensor leads is damaged or the sensor is faulty, the appropriate light will flash to indicate there is a fault.

POOL sensor fault **Pool** light (green) will flash.
ROOF sensor fault **Roof** light (red) will flash.

The display will flash (If selected):

“OC” = Open circuit (Broken wire)
“SC” = Short Circuit