ASTRALPOOL®

INTELLI-HEAT AP – INTEGRATED SYSTEM

Instruction Manual

DESCRIPTION

The Intelli-Heat AP Controller is designed to switch a 240Vac pump and control a heater via a relay contact rated to 5A @ 24Vac. This unit is designed to be connected to a Chlorinator output via a secondary power lead (Black). When the chlorinator output is turned on, the Intelli-Heat AP switches on the pump and the heater is turned on. This is dependent on the heating times and temperature limits as set on the Intelli-Heat AP.

When the chlorinator turns off, the Intelli-Heat AP continues to operate to meet its own heating times & temperature limits. If the temperature limit is reached or if outside of heating times, the heater is switched off. A heater cool-down continues to operate the pump for an adjustable period and if the chlorinator is not currently active, the unit will stop the pump and start an adjustable sample wait period.

The Intelli-Heat AP is fitted with an LCD screen which displays whether the pump or heater is on or off, when it displays 'cooldown' the pump is running with the heater switched off.

NOTES:

1. If any of the menu items are left unattended for 3 minutes, the menu will time out and automatically save all settings and return to automatic operation.

2. If a sensor fault is detected the controller will display which sensor and what the fault is.

3. Should power be interrupted for any reason, the controller will resume normal operation when power is restored, all information will have been kept for 10 days.

4. If the controller has stopped pumping and is displaying a higher temperature than expected it may be caused by a pump which is failing to prime, check the pump and if necessary prime the pump as per the pump manufacturers' instructions then reset the controller by turning it off/on.

5. Maximum combined rated output load for the 240V socket(s) is 9.98 Amps / 2395 Watts.

6. Degree of protection against moisture: IP33.

7. Smaller bodies of water running a higher temperature limit (i.e. spa) the sample time should be set shorter than larger bodies of water that run lower temperature limits (i.e. pool). If the pump runs for 3 minutes and stops frequently, then increase the sample time as the body of water is not losing much heat.

8. On power-up there is a counter next to the revision number that displays the number of interrupted heater cool-down cycles. This number cannot be reset.

9. A voltage free switch can be wired into the righthand Red plug which will force heating out of demand times.

If the power cord is damaged, do not use the controller; return the unit to the supplier for repair.

For service assistance phone 1300 186 875

CUSTOMER RECORD (To be retained by the customer)

DEALER/INSTALLER NAME

SERIAL NUMBER

DATE INSTALLED

INSTALLATION INSTRUCTIONS

⚠ THIS APPLIANCE IS NOT INTENDED FOR USE BY YOUNG CHILDREN OR INFIRM PERSONS WITHOUT SUPERVISION. PLEASE ENSURE THAT YOUNG CHILDREN ARE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.

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 metres from the water's edge and a minimum 600mm above ground. The power cable is 1.8m long and should be plugged directly into a general power outlet, not into an extension lead.

Fix the mounting bracket to a solid structure via screws and wall plugs kit provided, and slide the controller on, locking into place. Adjusting screws on the back of unit to ensure snug fit. To remove unit, lift and gently pull away from structure.

PUMP CONNECTIONS

The pool circulating pump plugs into the 240V socket labelled PUMP.
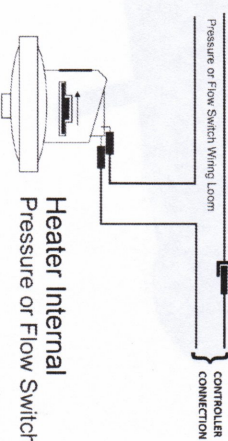
SANITISER CONNECTION

The sanitiser (Ioniser, Chlorinator or Ozoniser etc.) connects directly into a general power outlet, not into an extension lead. Plug the Black power lead from Intelli-Heat AP into the sanitiser. Set the sanitiser to operate for the required filtration and dosing requirements.

POOL/SPA

FILTRATION PUMP
FILTER
SWITCHING LEAD
CHLORINATOR
PLUG INTO 240V GPO
TEMPERATURE SENSOR
HEAT PUMP
GAS HEATER
FLOW
CHLORINATOR CELL

POOL SENSOR

The pool sensor must be fitted into the heating circuit, as close to the pool as practical, preferably in a position out of direct sunlight. It is recommended that a 14.5mm hole be drilled into the side of the PVC pipe (not the top of the pipe where water will collect). This can be carried out using a small pilot hole can be drilled with 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 sensor barb. Ideally ~30cm of the cable from the sensor should be tied to the shaded side of the pipe to prevent extreme ambient conditions leeching into the sensor via the copper in the cable. The blue sensor plug is to be fitted to the plug socket marked POOL.
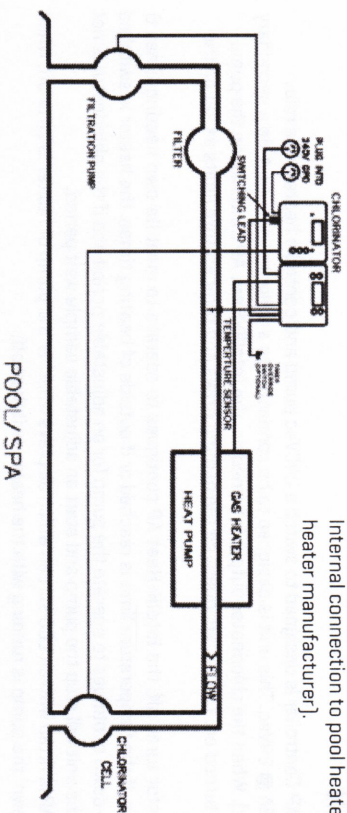
HEATER:

Connect the heater cable from the controller output marked HEATER to the heaters flow or pressure switch. Check with heater manufacturer for correct interlocking procedure. See picture for typical connection set-up. Note damage caused by incorrect connections will void warranties.

Pressure or Flow Switch Wiring Loom

Heater Internal
Pressure or Flow Switch

CONTROLLER CONNECTION

Internal connection to pool heater (check with heater manufacturer).

OPERATING INSTRUCTIONS

LCD SCREEN

In automatic mode, the LCD screen displays the pool and roof temperatures, solar temperature limit, on/off/locked-out status and the time of day & date (clock). In manual heating mode the controller displays the temperature and set temperature.

LCD INDICATORS

There are arrow icons on the LCD screen that point to text on the label.

MODE BUTTON

Three options are available, heating, 1st heat and standby.

HEATING MODE (AUTO) performs heating during the runtime.

1ST HEAT will ignore the run timer (RUNHRS) to run the pool until the desired temperature limit is achieved. Once the temperature limit is reached the controller revert back to heating mode to only run the heating during the set run times (RUNHRS).

STANDBY does not perform heating but a three minute maintenance flush occurs every day at noon (12:00).

COOLING use with heat pumps that have a cooling function performs cooling during the runtime.

↑ AND ↓ BUTTONS (TEMPERATURE SETTING)

To change the pool or spa temperature limit simply press the UP button to increase and the DOWN button will decrease.

ENTER BUTTON

Pressing the ENTER button will turn on the LCD backlight, pressing the ENTER button while the backlight is lit will enter the SETTINGS MENU; The following will be displayed: 1) EXIT. The menu system can be navigated using the ↑ or ↓ buttons, all selectable and changeable values will flash on the LCD screen. Press the ENTER button to accept the currently displayed (flashing) item. All menu items are shown below:

1) EXIT
2) CLOCK
3) RUNHRS
4) SYSTEM

1) EXIT

Press ENTER on this menu to return to automatic operation.

2) CLOCK

When selecting the clock, you will have to set the time of day

3) RUNHRS

When selecting this menu, you are prompted to set the number of automatic heating cycles per day to run. CYCLES OFF to 2. If OFF is selected (no automatic heating) then the following menus are skipped. If 1 or 2 heating cycles per day is selected, you will be prompted to set the start & end time(s); the heater (with pump) will only be allowed to run between these hours. Set the start time (S1 hh:mm) and end time (E1 hh:mm) in half hour steps (30 mins), repeat if a 2nd cycle is selected.

4) SYSTEM

Here is a sub-menu;

EXIT
SAMPLE
INSTALL
LCD TIME
DEFAULTS

EXIT – Press ENTER on this menu to return to automatic operation.

SAMPLE Temperature limit sample time (S xx MIN), this stops the pump for the selected time period once the temperature limit has been achieved *7

INSTALL:

CAL – Calibrate the TSQ2P sensor.

SET HEATER COOL– DOWN – When the heater switches off the pump is locked to run for a time period without heating, this is to cool down the heater and prevent damage to the heater (and pipes) from heat soak. Set run-on time (R XX MIN) is adjustable from HP, 1 to 30 minutes. (HP is For Heat Pump that require no cool down)

LCD TIME – Adjust the number of seconds the backlight remains on after the time a button was pressed. (Select NONE for always on.)

DEFAULT – Returns all setting the factory defaults.