

H3RO CONTROLLER

Instruction Manual



DESCRIPTION

The H3RO Controller is designed to switch a 240Vac pump rated to 10 Amps 2400 watts*⁶ 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 plug pack connected to the switch input. When the chlorinator output is turned on then the H3RO switches on the pump, the heater is turned on dependant on the heating times and temperature limits as set on the H3RO. When the chlorinator turns off then the H3RO continues to operate to meet its own heating times & temperature limits. If the temperature limit is reached or if outside of heating times then the heater is switched off, a heater cool-down continues to operate the pump for an adjustable period then if the chlorinator is not currently active the unit will stop the pump and start an adjustable sample wait period. The H3RO 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.

INSTALLATION INSTRUCTIONS

CONTROLLER

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 water's 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

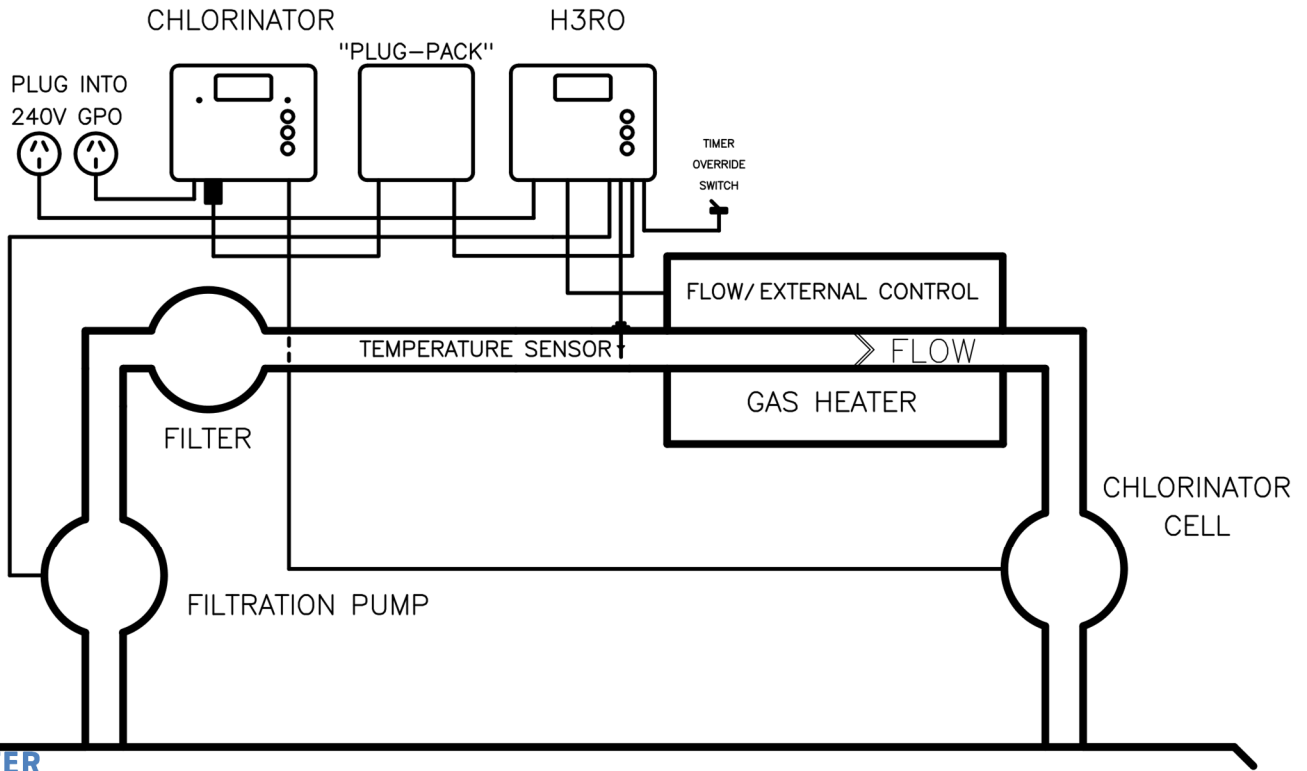
The filtration pump plugs into the 240V outlet beneath the controller [marked PUMP on the controller face plate].

POOL SENSOR

The pool sensor must be fitted into the suction line of the pump, 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 in the PVC pipe, this can be carried out using a Dontek PDO1 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 sensor barb. The blue sensor plug is to be fitted to the plug socket marked POOL. DO NOT cable-tie or tape sensor wires to mains power, in some cases there is some benefit to cable tie 100mm of wire from the sensor to the pipe and insulate this section [some ambient differences can travel up the copper wire and affect the sensor reading].

CHLORINATOR

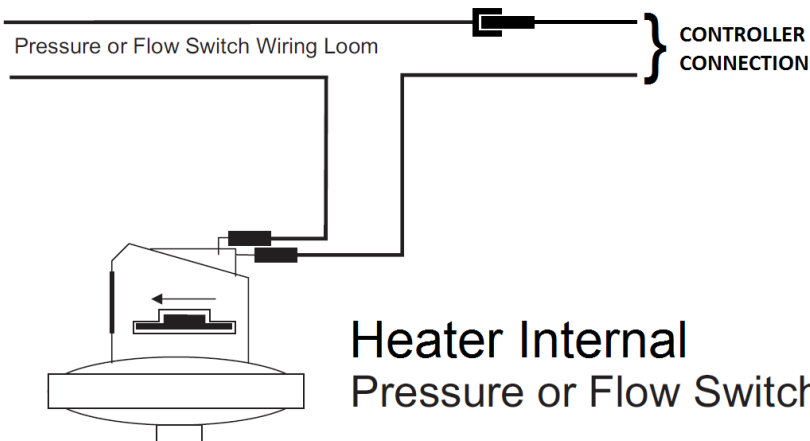
The supplied plug pack connects from the right hand mini input of the controller marked CONTROL to the pump output of the chlorinator. [The plug pack output should be 3 to 5.5V].



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.

POOL/SPA



Internal connection to pool heater [check with heater manufacturer].
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NOTES

1. If a sensor fault is detected the controller will display the reason for the failure.
2. Should power be interrupted for any reason, the controller will resume normal operation when power is restored, all information will have been kept.
3. Temperature sensor used with this unit is digital and is accurate to 0.5°Celsius, 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 [as viewed from the screw side], incorrect polarity will be displayed as a short circuit.
5. 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.
6. Maximum rated output load for the 240V socket is either, 10 Amps / 2400 Watts, or, 15 Amps / 3600 Watts. Please refer to the unit's rating label.
7. The AUX socket is may be connected to a switch to over-ride the built in timer.
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.

H3RO OPERATING INSTRUCTIONS:

For filtration time-clock operation refer to the operating instructions of the chlorinator. The settings of this controller control heating only.

TEMPERATURE LIMIT

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

SETTINGS MENU

To select the SETTINGS MENU press the SELECT button and the following will be displayed;

1)CLOCK

Press the UP or DOWN buttons to scroll to the option you wish to change. Press the SELECT button to select the sub-menu of the currently displayed menu item.

Available Settings Menu items are shown below:

- 1)CLOCK
- 2)RUNHRS
- 3)MODE
- 3)EXIT

The settable items in the sub-menus will be flashing, to change these values use the UP or DOWN button to adjust the value, if the value is correct press the SELECT button to move to the next value, once all setting have been set you will return to the settings menu, press the UP or DOWN button to scroll to EXIT and press the SELECT button to save your adjustments.

1)CLOCK

Set the time of day in 24 hour format, note there is an AM/PM indication to avoid incorrect settings. Seconds are automatically set to zero.

2)RUNHRS

When selecting this menu you are prompted to set the number of automatic heating cycles per day to run, CYCLES 0 to 2

Note 0 = off, 1 = heat once per day & 2 = heat twice per day.

If 0 is selected [no automatic heating] then the following menus are skipped to set the heater run-on [cool down] time.

If 1 or 2 heating cycles per day is selected then 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.

Limit Sampling:

Once the start and end time are set you are prompted to set temperature limit sample time [S xx MIN], this stops the pump for the selected time period once the temperature limit has been achieved, for 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.

If the temperature sensor is placed directly in the water [i.e. in a continuous filtration pipe] then a sample time of 0 minutes can be selected, the pump will then turn on as soon as the temperature sensor drops 0.5°C below the desired temperature limit or will turn the pump off if the temperature is 0.5°C above the desired temperature limit.

NOTE: if a 24 hour continuous run time is required then set the start time and end time to the same value. [E.g. cycle = 1 & S1 12:00, E1 12:00]

Run-On time [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 1 to 30 minutes.

3)MODE

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

Heating mode performs heating during the runtime.

Away mode does not perform heating but a three minute maintenance flush occurs every day at noon [12:00].

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].

4)EXIT

When this menu is selected press the SELECT button to save ALL settings, the unit will then return to automatic operation.

Note: 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.

WARRANTY – H3RO CONTROLLER

This range of product is covered by a limited 2 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.

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 1300 130 693



Dontek Electronics Pty Ltd

PO Box 239, Bayswater VIC 3153 Australia

Phone: +613 9762 8800 Email: sales@dontek.com.au