



POOLTEK

POOL AUTOMATION

INSTALLATION AND OPERATION MANUAL



DESCRIPTION

Owning a swimming pool and spa has never been easier or more enjoyable thanks to Waterco Pooltek Pool Automation, one of the most versatile and easy to use controllers on the market. Control Pooltek through the app allowing full remote control of your pools single and multispeed pumps, sanitiser, heater, solar heating, lights, water features, pool/spa valve actuators and all spa equipment requirements. Modular and expandable to meet the needs of new and existing pools, the system is easily retrofitted to existing pool / spa equipment and has an option for ORP and pH monitoring and dosing.

IMPORTANT SAFETY INSTRUCTIONS

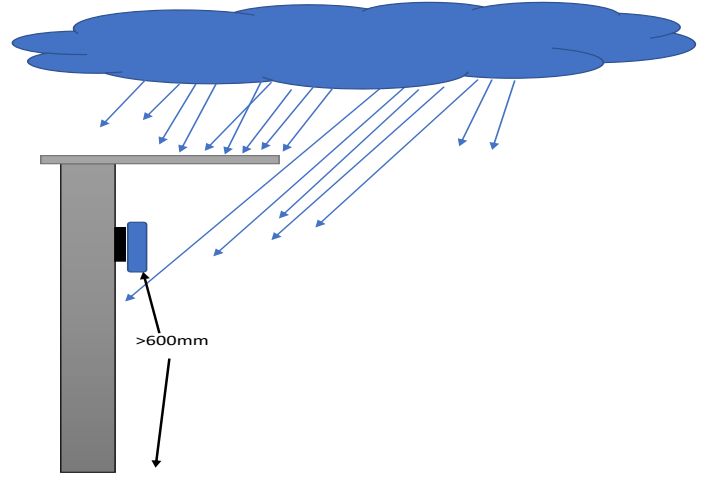
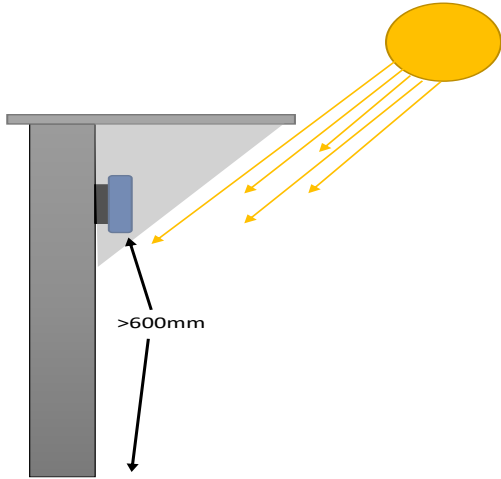
 **WHEN USING THIS ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:**

READ AND FOLLOW ALL INSTRUCTIONS

- ! WARNING: DISCONNECT ALL AC POWER DURING INSTALLATION.
- ! WARNING: IN ORDER TO AVOID THE POSSIBILITY OF HYPERTHERMIA (HEAT STRESS) OCCURRING IT IS RECOMMENDED THAT THE AVERAGE TEMPERATURE OF THE SPA - POOL WATER DOES NOT EXCEED 40°C.
- ! WARNING: POOLTEK IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN PROVIDED SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY. CHILDREN SHOULD BE SUPERVISED TO ENSURE THEY DO NOT PLAY WITH THE APPLIANCE.
- IN CERTAIN SITUATIONS, UNEXPECTED START UP MAY OCCUR WHEN THE APPLIANCE IS IN AUTOMATIC MODE. THE INSTALLER SHOULD ASSESS THE RISK ASSOCIATED WITH UNEXPECTED START UP OF ANY CONNECTED DEVICE WHICH, IN ANY CIRCUMSTANCE SHOULD HAVE NO HAZARDOUS EFFECT.
- POOLTEK IS NOT MEANT TO PROVIDE SAFETY PROTECTION FOR CONNECTED DEVICES. ALL CONNECTED DEVICES SHOULD HAVE THEIR OWN PROTECTION FOR SAFE OPERATION.
- POOLTEK SHOULD BE DEACTIVATED IF THE POOL OR SPA HAS BEEN DRAINED.
- POOLTEK POOL AND SPA AUTOMATION PRODUCTS OPERATE WITH 240 VOLTS AND MUST BE INSTALLED BY A SUITABLY QUALIFIED PERSON IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS, THE AUSTRALIAN WIRING RULES (AS3000) AND LOCAL STATUTORY AUTHORITY REGULATIONS.
- PARTS CONTAINING LIVE PARTS, EXCEPT PARTS SUPPLIED WITH SAFETY EXTRA-LOW VOLTAGE NOT EXCEEDING 12V, MUST BE INACCESSIBLE TO A PERSON IN THE SPA – POOL.
- PARTS INCORPORATING ELECTRICAL COMPONENTS, EXCEPT REMOTE CONTROL DEVICES, MUST BE LOCATED OR FIXED SO THAT THEY CANNOT FALL INTO THE SPA – POOL.
- THE APPLIANCE SHOULD BE SUPPLIED THROUGH A RESIDUAL CURRENT DEVICE (RCD) HAVING A RATED RESIDUAL OPERATING CURRENT NOT EXCEEDING 30MA.
- TO REDUCE THE RISK OF ELECTRIC SHOCK, THE POOLTEK MUST BE CONNECTED TO THE GROUNDING MEANS PROVIDED IN THE ELECTRIC SUPPLY CORD AND PLUG WITH COPPER WIRE SIZED TO COMPLY WITH CURRENT STANDARDS AND LOCAL STATUTORY AUTHORITIES IN RELATION TO THE CONDUCTORS SUPPLYING THE EQUIPMENT. THE EARTING CONTACT OF THE SOCKET OUTLET SUPPLYING THE UNIT SHALL BE EARTHED.
- SAVE THESE INSTRUCTIONS. AN ELECTRONIC VERSION OF THESE INSTRUCTIONS MAY BE OBTAINED FROM THE WATERCO WEBSITE AT THE FOLLOWING URL: -
- [HTTPS://WWW.WATERCO.COM.AU/POOL-SPA/CONTROLLERS-AND-AUTOMATION/POOLTEK](https://www.waterco.com.au/pool-spa/controllers-and-automation/pooltek)

INSTALLATION INSTRUCTIONS

Ideally, as with all pool equipment, the controller should be installed out of direct weather.



CONTROLLER MOUNTING

Find a suitable location to mount the control box.

The controller should be no closer than 3 metres from the water's edge, at a minimum 600mm above ground level. The power cable is 1.8m long and should be plugged directly into a general socket outlet, **not into an extension lead**.

Fix the mounting bracket to a solid structure with the screw and wall plug kit provided. Slide the controller on, locking it into place. Adjust the screws on the back of unit to ensure a snug fit.

To remove unit, lift and gently pull away from mounting bracket.

Mount the pump and Sanitiser according to the manufacturer's instructions.

HEATER CONTROL

Set the heaters temperature limit to maximum (40°C). The heaters internal control will be interrupted, to turn off heating. The heater interlock cable connects to the green socket marked INT which switches on (closes) the voltage free NO/C relay contacts when the heater is to be turned on. The heater end of the interlock cable connects in series with the heater's pressure/flow or fireman's switch. Contact the heater manufacturer for the best location to connect to.

The heater interlock is for extra low-voltage (MAX 24V at 1Amp) switching only.

Note: *If the heater's flow or pressure switch circuit is 240Vac, an external relay (KIT10) which can be purchased separately, is to be **connected by a licensed electrician**.*

If the heat pump/gas heater is equipped with a "**Demand Heat**" function, the heater interlock cable will be connected into the socket labelled as "Pump Call". The controller will over-ride the filter pump when flow is called for by the heat pump which monitors the temperature within its own defined run times. Connect the heater cable from the controller output to the heater's connection point. Check with heater manufacturer for correct interlocking procedure.

Note: *If the heater's flow or pressure switch circuit is 240Vac, an external relay (KIT11) which can be purchased separately, is to be **connected by a licensed electrician**.*

<p>VALVES</p>	<p>The POOLTEK has 4 valve actuator sockets for the controlling of solar heating, water features, pool/spa water flow, and In Floor cleaning.</p> <p>Note: If wiring your own supplied valve, ensure the wires are as follows: (from left to right) White, Red then Black. The red and white are for direction control and black is the common. Ensure the switch on the valve actuator is switched to an ON position.</p> <p>Refer the valve instructions for mounting requirements, cam adjustments etc.</p> <p>Maximum power for the VALVE output is 24VA.</p>
<p>POWER OUTPUT CONNECTIONS</p>	<p>The 240VAC Output Sockets are for equipment to be controlled via the POOLTEK controller. Each socket can be assigned via the menu and/or app.</p> <p>The Maximum combined load for both sockets on the master controller, is 9.9 AMPS at 2370W.</p>

SENSORS

<p>POOL SENSOR</p>	<p>The pool sensor (Part No. 8519124 (TS02P)) must be fitted into the heating circuit, upstream of the heater, preferably on the suction side of the pump and in a position out of direct sunlight.</p> <p>It is recommended that a 14 or 14.5mm hole be drilled in the side of the PVC pipe (not the top of the pipe where water will collect), this can be carried out using a Dontek PD01 grinding drill or a hole can be drilled, with the 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.</p> <p>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.</p> <p>The blue sensor plug is to be fitted to either Sensor 1 or 2 port located beneath the controller.</p>
<p>ROOF SENSOR</p>	<p>If a roof sensor (Part No. 8519123 (TS01P, purchased separately)) is installed, it must be fitted into a small piece of collector material away from the main collector but on the same aspect, preferably no more than 50cm from the roof gutter (for ease of sensor replacement). If required, the roof sensor can be on a different roof as the solar collector as long as the alignment to the sun is similar to the solar collector.</p> <p>For encapsulated collector panels use the manufacturer's instructions for roof sensor placement. The red sensor plug is to be fitted to either Sensor 1 or 2 port located beneath the controller.</p>
<p>SENSOR NOTES:</p>	<p>All excess cable must be removed; coils of cable are not permitted under any circumstances and must not be tied to 240V wiring. If the cable is to be extended with non-genuine cable a size of 14/020 should be used.</p> <p>Note: Any cable joins should be soldered. Heat shrink is to be used over soldered joints to eliminate moisture ingress.</p>

EXPANSION UNITS

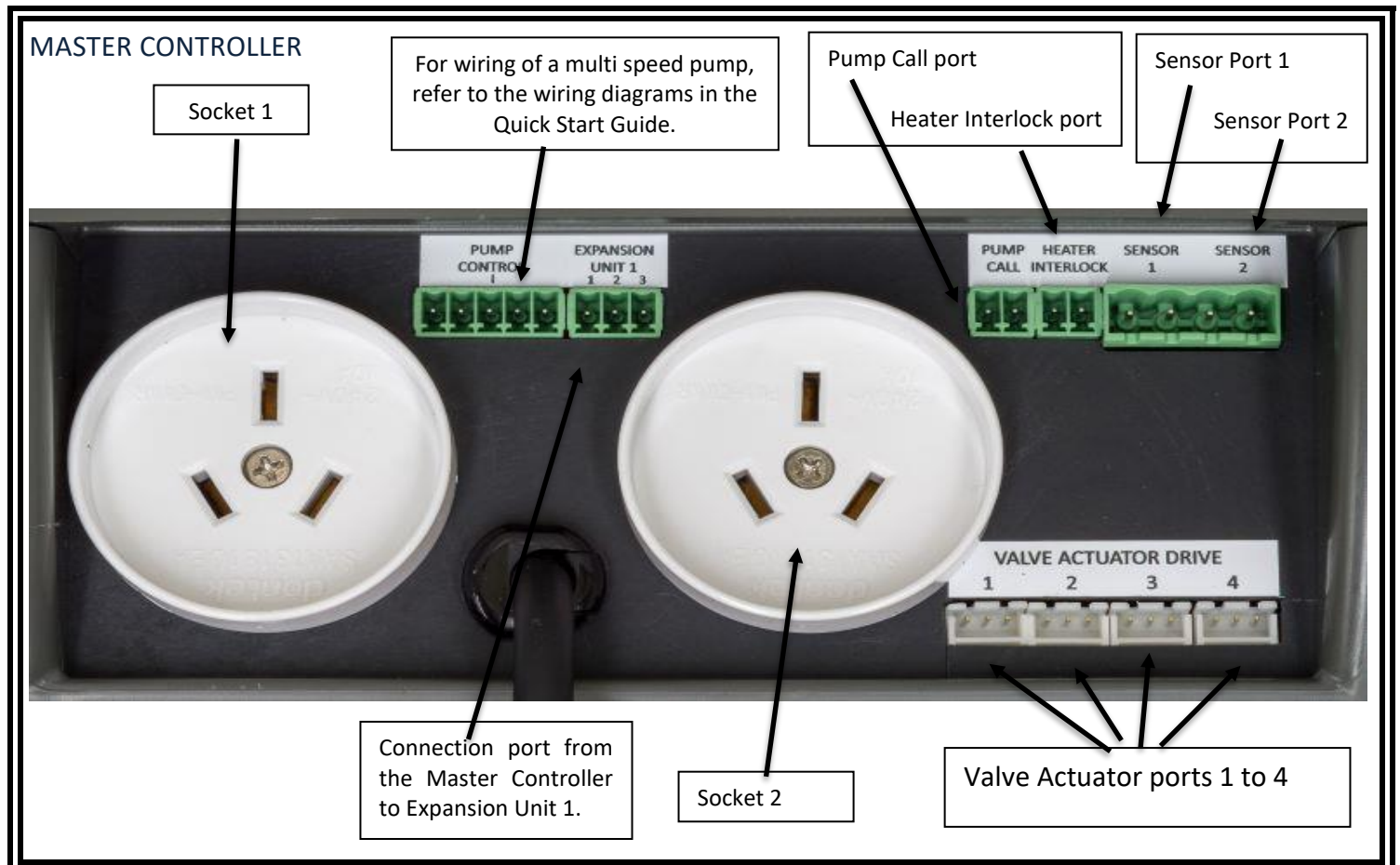
The POOLTEK has the capacity to have an additional 2 expansion units connected to it. Each Expansion Unit has an additional 3, 240VAC Output sockets that are controlled via the POOLTEK controller. Up to an additional 6 power sockets can be utilised and controlled by the POOLTEK master controller.

The Expansion Units are INPUT rated at either 10Amps or 15Amps. All 3 sockets of the Expansion Units (10A & 15 A) are rated the same, all 3 sockets at 10Amps

<p>EXPANSION UNIT MOUNTING</p>	<p>Ideally, as with all pool equipment, the Expansion Unit/s should be installed out of direct weather.</p> <p>Find a suitable location to mount the Expansion Unit/s, no closer than 3 metres from the water's edge, at a minimum 600mm above ground.</p> <p>The power cable is 1.8m long and should be plugged directly into a general power outlet, not into an extension lead.</p> <p>Mount as per main controller.</p>
<p>POWER OUTPUT CONNECTIONS</p>	<p>The 240VAC Output Sockets are for equipment to be controlled via the POOLTEK. Each socket can be assigned via the menu and/or app.</p> <p>The maximum combined load for all three sockets of the module is either, 9.9 Amps / 2370 Watts, or, 14.9 Amps / 3570 Watts. Please refer to the unit's rating label.</p> <p><i>The 15Amp rated expansion unit must be plugged into a 15Amp rated GPO.</i></p>

INSTALLATION DIAGRAMS

The POOLTEK'S Master Controller and an Expansion Unit.

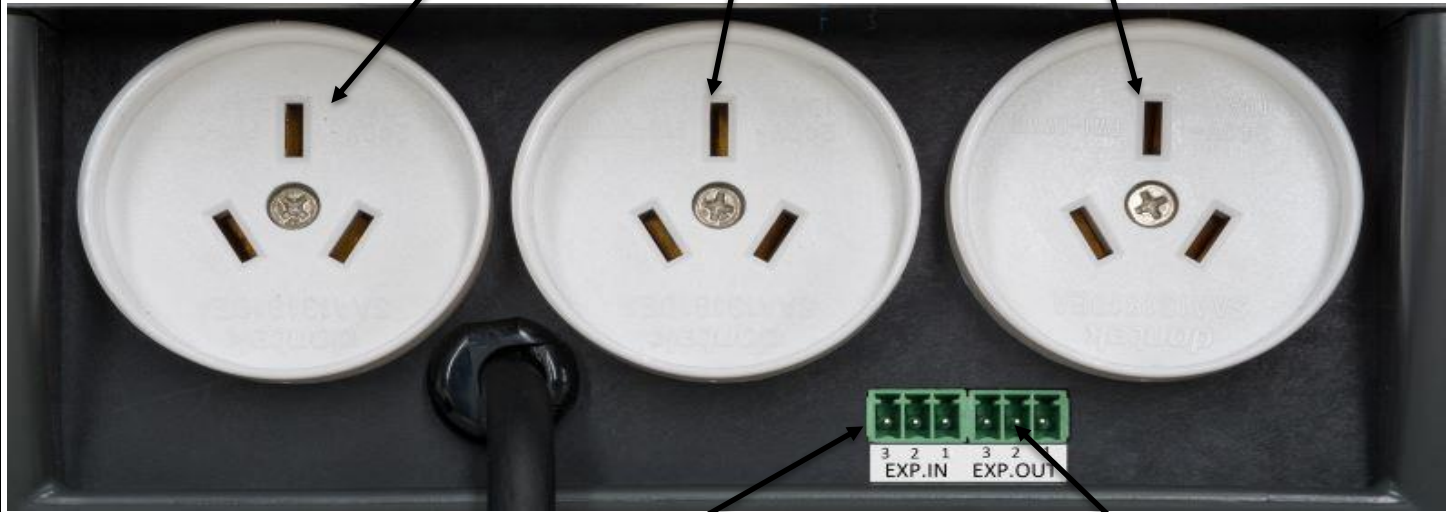


EXPANSION UNIT/S
10 & 15AMP

Expansion Unit 1
Socket 3
OR
Expansion Unit 2
Socket 6

Expansion Unit 1
Socket 4
OR
Expansion Unit 2
Socket 7

Expansion Unit 1
Socket 5
OR
Expansion Unit 2
Socket 8



If Expansion Unit 1, the connection cable from the master controller will plug in here. If Expansion Unit 2, the connection cable runs from here to Expansion unit 1 EXP OUT.

If Expansion Unit 1, the connection cable to Expansion Unit 2 EXP IN will plug in here. It will be unused if there is no Expansion Unit 2. If Expansion unit 2 connection port is unused.

EXPANSION PLUS UNIT
10 & 15AMP

Expansion Unit 1
Socket 3
OR
Expansion Unit 2
Socket 6

Expansion Unit 1
Socket 4
OR
Expansion Unit 2
Socket 7

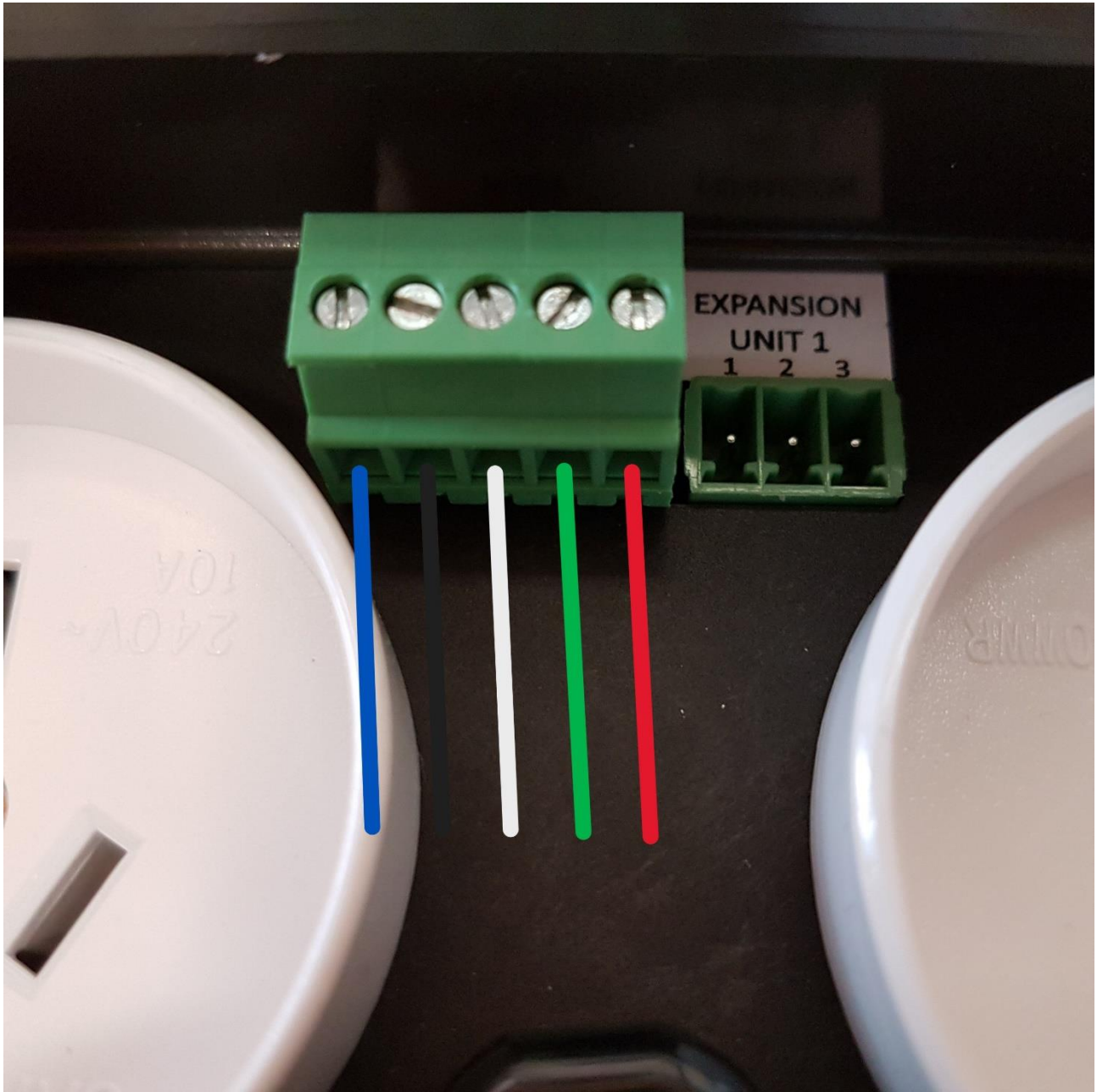
Expansion Unit 1
Socket 5
OR
Expansion Unit 2
Socket 8



If Expansion Unit 1, the connection cable from the master controller will plug in here. If Expansion Unit 2, the connection cable runs from here to Expansion unit 1 EXP OUT.

If Expansion Unit 1, the connection cable to Expansion Unit 2 EXP IN will plug in here. It will be unused if there is no Expansion Unit 2. If Expansion unit 2 connection port is unused.

CONNECTION TO WATERCO ECO-V VARIABLE SPEED PUMPS



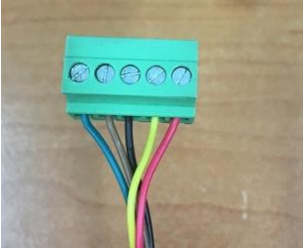




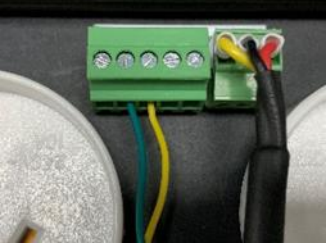



WATERCO ECO-V VARIABLE SPEED PUMPS MAY BE CONTROLLED VIA THE POOLTEK SPEED CONTROL FUNCTION BY INSERTING THE CONTROL CABLE WIRES INTO THE PUMP CONTROL TERMINAL BLOCK. THE WATERCO PUMP CONTROL CABLE SHOULD BE USED AND THE PLUG SOCKET REMOVED TO ALLOW WIRE TERMINATION INTO THE FIVE WAY SCREW TERMINAL AS PER THE ABOVE PICTURE.

COLOUR ORDER FROM LEFT TO RIGHT IS BLUE, BLACK, WHITE, GREEN, RED.

When setting up via the app select Waterco Hydrostorm ECO as the pump type.

5 PIN PUMP CONNECTION PLUG

<p> <u>- THERAFLO TVS</u> <u>- HENDEN</u> <u>- RELTECH</u> <u>- SPECK</u> </p> 	Yellow Wire	Green Wire	Brown Wire	Red Wire	Black Wire
<p> <u>- THERALUX TVS Pro 1 V2</u> <u>- HAYWARD 485</u> </p> 	Black Wire	Yellow Wire	Green Wire	Red Wire	Brown Wire
<p> <u>- RELTECH P 485</u> <u>- OASIS V SERIES</u> <u>- THERALUX TVS Pro 2 V3</u> <u>- THERALUX TVS Pro II V4</u> <u>- HAYWARD SUPER 2</u> <u>- LEGEND ULTRA VS</u> </p> 	Green Wire	Brown Wire	Black Wire	Yellow Wire	Red Wire
<p> <u>- HAYWARD MaxFlo VS</u> <u>- HAYWARD TriStar VS</u> </p> 	Grey Wire	Blue Wire	Yellow Wire	None	None
<p> <u>- DAVEY ProMaster VSD 400</u> <u>- HENDEN VSD 400</u> </p> 	<p>Cat6A Cable</p> <p>Blue/White Wire</p>	Orange/White Wire	Orange Wire	Brown/White Wire	Brown Wire
	<p>Cat6B Cable</p> <p>Blue/White Wire</p>	Green/White Wire	Green Wire	Brown/White Wire	Brown Wire

<p>- PENTAIR VS/F</p> 	None	Green Wire	Yellow Wire	None	None
<p>- PENTAIR ENVIROMAX 1500</p> 	Brown Wire	Orange Wire	Yellow Wire	Green Wire	Red Wire
	<u>Alternate</u> Brown Wire	Orange Wire	Blue Wire	White Wire	Red Wire
<p>- DAB</p> 	None	Brown Wire	Black Wire	None	Red Wire
<p>- INSNRG Qi - INSNRG Zi</p> 	<u>CAT5 Cable (Black)</u> None	White/Brown Stripe Wire	Brown Wire	None	None
	<u>Green Cable</u> None	White/Orange Stripe Wire	Orange Wire	None	None
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Pump Priming & Connection

Reltech P 485 / Oasis V Series / Theralux TVS Pro 2 V3/Insnrg Zi/
Theralux TVS Pro II V4/Legend Ultra VS, Hayward Super 2

Turning Off Priming

- Quickly press the 'stop' button three times.
- The display will show 'P Of' when priming is turned off.

Turning On 485 Communication

- Hold the 'stop' button for 10 secs.
- The display will show e.g. 'P 5' (to select priming time in minutes). Press 'set' button to move to next.
- The display will show e.g. '2400' (to select priming speed in RPM). Press 'set' button to move to next.
- The display will show 'Rb Of'. Press Up or Down button to change to 'Rb On'. Press 'set' button to confirm.
- When communication with Pooltek is successful, the display will show '- - - -'

Pentair enviroMAX 1500

Turning Off Priming

- Press the 'Start / Stop' button to start the pump.
- The display will alternate between 'Pri' and '2800' and '04:59' to show priming at 2800 RPM for 5mins.
- Press the '-' to turn the priming speed down; when it reaches below 1700, priming is turned off.
- The display will then alternate between 'Pri' and 'Off'.

Note: External control must be off.

Turning On External Control

- Stop the pump by pressing the 'Start / Stop' button.
- Hold the 'Start / Stop' button for ~5 seconds.
- The light next to 'Ext. Control Only' will be lit green.
- Press the 'Start / Stop' button.
- The light next to 'Start / Stop' will be lit green.

NOTE: In some instances, you may only be able to get speeds 3 & 4 working and not 1 & 2. If this is the case, use the alternate wiring schedule as described on page 7.

Pentair enviroMAX 800

1.1. Turning Off Priming

- Disconnect the pump communication cable from the pump
- Press and hold the Stop button for 10 seconds to remove the priming function.
- If required, adjust pump speeds (as per manufacturer's instructions) to suit then save prior to reconnecting the communication cable.

Turning On External Control

- Connect the pump control cable between the pump and the Pooltek controller and control is automatically instated.

Pentair VS/F

1.2. Turning Off Priming

- a) Disconnect the RS-485 communication cable from the pump.
- b) On the pump control module, press **Menu** and use the **Arrow** buttons to scroll and select “Priming”.
- c) Use the **Arrow** buttons to select “Disabled”, then press the **Back** button to exit the menu.
- d) Re-install the communication cable to the pump.

Turning On External Control

- a) Press the **Menu** button, use the **Up** or **Down** arrow to scroll to **Ext Ctrl** and press **Select**.
- b) “Program 1” will be displayed and press **Select** to enter.
- c) “Operation Mode” will be displayed, press **Select** and use the **Up** or **Down** buttons to choose between “Enabled” or “Pump Off”, press **Save**. *Note:* the program must be enabled to proceed further into the menu.
- d) Use the **Up** or **Down** arrow to scroll to “Set Type” and press **Select**.
- e) Use the **Up** or **Down** arrow to choose between “Speed” or “Flow” settings and press **Save**.
- f) Use the **Up** or **Down** arrow to scroll to “Set Speed/Flow” (depending on what was chosen in the previous step), press **Select** and then use the **Up & Down** arrows to adjust the speed/flow settings to what is required & press **Save**.
- g) There is no need to set a “Stop Delay” so press the **Save** button to save your settings and then press **Back**. This will allow you to set “Program 2”.
- h) Use the **Up** or **Down** arrow to scroll to “Program 2” and repeat steps b) to g) for programs 2 to 4.

Hayward 485 / Theralux TVS Pro 1 V2

Note: Theralux pump will be supplied with 485 communications already enabled. If it isn't, follow the steps below.

1.3. Turning Off Priming

- a) Priming is automatically taken off when the below connection process (4.2) is done.

Turning On 485 Communication

- a) Hold stop, press speed 2 to show “LOW”.
- b) Press speed 1 until the screen shows “IO”.
- c) Press speed 2 to show “485”.
- d) Press stop to save settings.

Once there is control over the pump, the pump will show “NBUS”.

Insnrg Qi

1.4. Turning Off Priming

- a) Press Enter, scroll to Priming.
- b) Set Minutes to 0

Turning On External Control

- a) Connect the pump control cable between the pump and the Pooltek controller and control is automatically instated.

Waterco ECO/Reltech/Theraflo TVS/Henden (with Fasco Motor)

1.5. Turning Off Priming

- a) Disconnect the pump communication cable from the pump
- b) Press and hold the Stop button for 10 seconds to remove the priming function.
- c) If required, adjust pump speeds (as per manufacturer's instructions) to suit then save prior to reconnecting the communication cable.

2. DAB E.Swim

2.1. Turning Off Priming

- Scroll to select the Settings Wheel (⚙️) Press Enter.
- Scroll to Priming and press Enter.
- Change Enable to NO.

Turning On External Control

- Scroll to select the Settings Wheel (⚙️). Press Enter.
- Scroll to External Control and press Enter.
- Scroll to Settings and press Enter.
- Change config to ENABLE.
- Change source speed to 4-20mA.
- If pump displays 'System Disabled', press the Run/Stop button.

Davey ProMaster VSD 400 / Henden VSD 400

Turning On External Control

- Set the pump Dial to Bluetooth position – the LED will turn on white and then blue.
- When the Pooltek is controlling the pump, the LED will flash green.

Hayward MaxFlo VS / Hayward TriStar VS

Configuring the pump

- Press the 'Run/Stop' button to halt the pump.
- Press and hold the 'Disp/Func' until the display shows 'Config'.
- The display will then show e.g 'Pr0.03' which stands for 'Prime for 3 minutes'.
- Keep pressing the 'Disp/Func' button until the display shows '485 n'. Press the ▼ button to set it to 'y'.
- The display will show 'r5485' and then 'Stop'.

Communication between Pooltek & pump

- Press the 'Run/Stop' button; if the display alternates between 'r5485' and 'FAIL' check the connection of the pump communication cable.
- Connect the pump to the Pooltek as per the cable connection diagram above; the pump display will show '□ 0' when communication with the Pooltek starts.
- The value 0 will change according to the speed set by the Pooltek and the display will alternate between this RPM value and the power value e.g. '□ 600' and 'P 14' for RPM=600 and Power=14W.

Note: The pump will display 'r5485' and 'FAIL' until the Pooltek sends it a command to turn on.

If there is no reason for the pump to be running, the 'FAIL' message may remain until the Pooltek sends the command to turn on the pump.

Speck (with Fasco Motor)

10.1. Turning Off Priming

- Disconnect the pump communication cable from the pump
- Turn the pump OFF (Display shows 'OFF')
- Press and hold the 'Set' button for 3 seconds until the speed is displayed.
- Press the 'OK' button until the time is displayed.
- Press the ↓ button until the value is '00'.
- Press the 'OK' button to confirm and save.
- If required, adjust pump speeds (as per manufacturer's instructions) to suit then save prior to reconnecting the communication cable.

OPERATING INSTRUCTIONS

LCD SCREEN

In Automatic (Pool) mode the LCD screen displays; the time of day, what time the current filtration cycle will finish/start at, if more than one filtration cycle is set, then the start time of the next filtration cycle is displayed, current pool and roof temperatures or any faults are displayed, current status of the pump (run/inactive), Heat Demand time (if active), and whether the WIFI is active or disabled.

In Spa mode the LCD screen will display; the time of day, SPA MODE on, pool temperature or sensor fault, Temperature – both current temperature and set temperature of the spa, pump status, and WIFI status.

LCD INDICATORS

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

CONTROLLER BUTTONS

AUTO	<p>Pressing the AUTO button will initiate the controller to run all connected Appliances in automatic mode, ie run to set timers.</p> <p>If the AUTO button is pressed while in the settings menu, the changed settings will be used but not saved. If there is a power failure the controller will retrieve the previously saved settings. On power-up the controller will start automatic pool operation.</p>
BACK	<p>Pressing the BACK button (while you are within a menu option) will allow you to go back to previous menu options.</p> <p>If the controller is scrolling through its status displays, pressing the Back button will take the display back to the previous status display.</p> <p>Press & hold the Back button to shortcut to the controller displaying its QR code.</p>
ENTER	<p>Pressing the ENTER button will turn on the LCD backlight or,</p> <p>Pressing the ENTER button will accept the currently displayed setting option.</p>
MENU	<p>After pressing the MENU button, a range of options can be selected from and changed. The selectable options in the MENU are as follows:</p> <ol style="list-style-type: none">1) FILTER TIMES2) TEMPERATURE3) CONTROL4) TIMERS5) LIGHTS6) INSTALLER MENU
UP & DOWN	<p>The UP & DOWN buttons allow you to scroll through different functions and or settings in the menus, as well as increasing or decreasing temperature settings.</p> <p>Note: When the Master controller is displaying its normal operations on the LCD screen, pressing the;</p> <p>Down Arrow button - will enable you to scroll through the displayed status operations quicker, instead of waiting for the controller to scroll through them in its allocated time.</p> <p>Up Arrow button – will enable you to hold a status operation to be displayed for a period of 60 seconds before the controller will then revert back to scrolling through the displayed operations.</p>

SPA	<p>The SPA button allows you to toggle between Pool and Spa modes. Pressing the SPA button begins the process of heating the spa to the spa temperature limit. The pool/spa valves will move to the spa and prime the pump if required. Heating will occur to the displayed set temperature.</p> <p>To return to automatic pool operations press the AUTO button or press the SPA button to return to automatic pool operations.</p>		
PUMP	<p>If at any time the PUMP button is pressed the pump is switched on and the following will be displayed:</p> <p>3 MINS BACKWASH ENDS IN xx:xx:xx</p> <p>This function is used for a system back wash, pool vacuuming, manually running the system for a set amount of time, running the filtration system after adding chemicals, etc. It can also be used to stop the pump from running (if maintenance is required) for a set amount of time.</p> <p>Use the Up/Down buttons to increase or decrease the amount of time that the pump will run, or not run. The countdown timer lets you know how much time is left until the manual function ends.</p> <p>The timer amounts after the 3-minute backwash are:</p> <table border="0" data-bbox="288 981 1528 1496"> <tr> <td style="vertical-align: top;"> <p>PUMP ON: 30 MINS, PUMP ON: 1HR, PUMP ON: 2HR, PUMP ON: 3HR, PUMP ON: 5HR, PUMP ON: 9HR, PUMP ON: 10HR, PUMP ON: 15HR, PUMP ON: 20HR, and PUMP ON: 24HR.</p> </td> <td style="vertical-align: top; padding-left: 20px;"> <p>The timer amounts to stop the pump are displayed as follows:</p> <p>HOURS OFF: 01HR, HOURS OFF: 02HR, HOURS OFF: 03HR, HOURS OFF: 05HR, HOURS OFF: 09HR, HOURS OFF: 10HR, HOURS OFF: 15HR, HOURS OFF: 20HR, and HOURS OFF: 24HR.</p> </td> </tr> </table> <p>At any time during the count down, if you press the ENTER button, the timer will reset to the selected time, and start again.</p> <p>During the count down, if you press the PUMP button again, the controller will return to automatic operation.</p>	<p>PUMP ON: 30 MINS, PUMP ON: 1HR, PUMP ON: 2HR, PUMP ON: 3HR, PUMP ON: 5HR, PUMP ON: 9HR, PUMP ON: 10HR, PUMP ON: 15HR, PUMP ON: 20HR, and PUMP ON: 24HR.</p>	<p>The timer amounts to stop the pump are displayed as follows:</p> <p>HOURS OFF: 01HR, HOURS OFF: 02HR, HOURS OFF: 03HR, HOURS OFF: 05HR, HOURS OFF: 09HR, HOURS OFF: 10HR, HOURS OFF: 15HR, HOURS OFF: 20HR, and HOURS OFF: 24HR.</p>
<p>PUMP ON: 30 MINS, PUMP ON: 1HR, PUMP ON: 2HR, PUMP ON: 3HR, PUMP ON: 5HR, PUMP ON: 9HR, PUMP ON: 10HR, PUMP ON: 15HR, PUMP ON: 20HR, and PUMP ON: 24HR.</p>	<p>The timer amounts to stop the pump are displayed as follows:</p> <p>HOURS OFF: 01HR, HOURS OFF: 02HR, HOURS OFF: 03HR, HOURS OFF: 05HR, HOURS OFF: 09HR, HOURS OFF: 10HR, HOURS OFF: 15HR, HOURS OFF: 20HR, and HOURS OFF: 24HR.</p>		

NOTE

It is advisable to go into Installer Setup first and enter all equipment that will be utilised/allocated in the Menu functions.

MENU

The menu system can be navigated using the ↑ or ↓ buttons. All selectable and changeable values will be displayed on the LCD screen. Press the ENTER button to accept the currently displayed item.

All menu items are shown below:

- 1) FILTER TIMES
- 2) TEMPERATURE
- 3) CONTROL
- 4) TIMERS
- 5) LIGHTS
- 6) INSTALLER MENU

SANITISER

The Sanitiser must be set to operate 24hrs per day or manually On as the POOLTEK controller will control the number of hours per day the system will operate. Refer to the Sanitiser instructions for 24hr timer setup, dosing and mounting requirements.

You have the option to choose up to 4 different Filtration Times.

When you select the FILTER TIMES menu option, the screen will display:

FILTER ON
TIME 1 OFF

When you select ON and press ENTER the screen will display:

FILTER XX:XX
TIME 1 ON XX:XX

Adjust the start time and end time for the required filter cycle. The circulation pump will run between these times for filtration purposes.

Once you have set the first filter time, you will then be asked to select a pump speed for the first filter cycle.

Note: This will only be displayed if you have installed a Multi Speed Pump through the Installer Setup (6.2). You won't be asked for a pump speed if Single Speed pump was selected in the Installer Setup (6.2).

This will be displayed as:

FILTER TIME 1
SPEED 1, (2,3, or 4 can be selected, depending on pump).

Once you have selected a speed for the first Filter Cycle, the option for a second filter cycle will be displayed:

FILTER ON
TIME 2 OFF

Set and adjust as with Filter Time 1 or if not required then set the timer to OFF.

Repeat the above steps for Filter Time 3 and 4.

Note: You can run different pump speeds in the separate filter times.

- Filter cycle 1 may run at speed 4, filter cycle at speed 2, filter cycle 3 at speed 1, and filter cycle 4 at speed 4.
- For example:

Filter Time 1: 8.00 – 9.00 at speed 4.

Filter Time 2: 9.00 – 15.00 at speed 2.

Filter Time 3: 15.00 – 16.00 at speed 4.

1. FILTER TIMES

2.
TEMPERATURE

When you enter Temperature Settings, the first setting that will be displayed is:

POOL

TEMPERATURE 27°C

Range is OFF, 20°C to 40°C in .5°C increments. Default is 27°C.

This temperature is the minimum pool temperature that you would like the **Heater** to heat the pool to if a heater is utilised.

The temperature limit can be increased or decreased with the ↑ or ↓ buttons to a temperature of your choice.

Once you have selected a Pool Temperature, press Enter and the temperature will be set. The controller will then display:

SPA

TEMPERATURE 37°C.

Range is OFF, 20°C to 40°C in .5°C increments. Default is 37°C.

This is the temperature that you would like the SPA to be at when in use.

The temperature limit can be increased or decreased with the ↑ or ↓ buttons to a temperature of your choice.

Once you have selected a Pool Temperature, press Enter and the temperature will be set. The controller will then display:

SOLAR

TEMPERATURE 30°C.

Range is OFF, 20°C to 40°C in .5°C increments. Default is 30°C.

This is the temperature you would like the solar to heat the pool to, if it is utilised.

The temperature limit can be increased or decreased with the ↑ or ↓ buttons to a temperature of your choice. Once you have selected a Pool Temperature, press Enter and the temperature will be set.

The controller will then display:

RUN UNTIL ON

HEATED.....OFF

Use the ↑ or ↓ buttons to select which option you would like, and press Enter.

If you select ON, the system will utilise the Heat Pump or Gas Heater to continue to heat the pool until the temperature limit is reached while ignoring the set Heat Demand times set in Timers. Once the Pool Temperature limit is reached the controller will automatically return to the scheduled settings.

Note: *This may mean that the filtration pump and heater may be running for continuous extended periods of time, potentially longer than 24hrs straight.*

Note: *If the Temperature Setting (ie Limit) on any of the heat sources (ie; Pool, Spa, & Solar Temperatures) is set into the OFF position, then that heating source is turned Off and will not be activated to heat the body of water that it is allocated to. For example; If the Solar Temperature is set to Off (instead of a selected temperature of say 30 degrees), then no solar heating of the pool will occur.*

If you have a **Expansion Plus Unit** connected you will then also have the ability to set a temperature limit for the second installed heater;

Pool 2 temperature and also a Spa 2 temperature, and whether you would like to activate the second heater to Run Until Heated.

The controller will then return you to the Main Menu.

3.
CONTROL

In this menu setting you will be able to manually turn on any socket or valve that has been allocated an appliance.

Socket 1 through to 8, and valve 1 through to 4, if allocated.

Press Enter to open the setting and the controller will display:

S1: XXXXXXXXX
AUTO

Use the ↑ or ↓ buttons to move between the allocated sockets and valves.

If a socket or valve hasn't been allocated an appliance, then it won't be shown.

Press the Enter button to toggle between; AUTO, OFF, & ON.

Press the Auto Button to return all appliances to normal automatic operation.

Please remember that you will also need to turn the appliance back to Auto, otherwise it will continue to run.

Note 1: *If a socket has been set to ALWAYS ON, then you won't be able to turn it on manually.*

Note 2: *A valve allocated to Pool/Spa, will not be able to be turned using this menu option.*

4.
TIMERS

When you enter the TIMER menu, you can set a number of the allocated appliances on a timer. The appliance has to be allocated a socket or valve to be allowed a Timer setting. Each appliance has the choice of either; Off, 1 time, or 2 timer allocations.

****Note: Time periods for different appliances can overlap each other.****

The first available appliance to be set on a timer will be displayed as:

Socket #X
XXXXXXXXXXXXX.

Press the ENTER button to be able to adjust the time setting or use the ↑ or ↓ buttons to display the Appliance to be set.

You will see displayed:

XXXXXXXXXXXXX
TIME 1 ON.

Toggle the ↑ or ↓ buttons to either turn the appliance ON or OFF the timer.

If you select OFF the next allocated appliance will be shown.

If you select ON then the controller will display:

XXXXXXXXXXXXX
TIME 1 FRM XX.XX

Use the ↑ or ↓ buttons and the Enter button to allocate a start time. Once the time has been entered, the next display will be:

XXXXXXXXXXXXX
TIME 1 TO XX.XX

Use the ↑ or ↓ buttons and the Enter button to allocate an end time. Once the time has been entered, the next display will be:

XXXXXXXXXXXXX
TIME 2 ON/OFF

Adjust TIME 2 setting as with TIME 1.

Once the TIMER setting has been completed you can move onto the next allowable appliance. Adjust and set as above.

4.
TIMERS
CONTINUED

Notes:

- Socket type “**Sanitiser**” is not allowed on appliance timer, as it follows filter timer.
- Socket type “**Filter Timer**” is not allowed on appliance timer, it follows filter timer.
- Socket type “**Solar**” isn’t allowed on appliance timer, it follows solar configuration.
- Socket type “**Always On**” is not allowed on appliance timer.
- Socket type “**Blower**” is not allowed on appliance timer, used only in Spa mode.
- Socket type “**Jet Pump**” is not allowed on appliance timer, used only in Spa mode.
- Socket type “**Ind Heat Pump**” is not allowed on appliance timer, it follows heating configuration.
- Valve type “**Pool/Spa**” is not allowed on appliance timer, used in Pool/Spa mode.
- Valve type “**Solar**” is not allowed on appliance timer, as it follows solar configuration.
- Valve type “**Feature from Solar**” is not allowed on appliance timer as it is a manual function only and will only activate if a socket has been allocated to be an ‘Independent Solar Pump’.
- Valve Type “**Heater**” is not allowed on an appliance timer, it follows the heat demand timer.
- VF contact types “**Gas Heater & Heat Pump**” are not allowed on appliance timers.

Ensure when you set the timers for different appliances that the maximum combined load DOES NOT exceed either the controllers power rating, or the power rating of the expansion unit/s when the different appliances are activated at the same time.

5.
LIGHTS

In this menu setting, you can only change the colour of your allocated Pool and Spa light/s. Garden lights are not given the option of colour changing.

The socket number and the brand/type of light must have been allocated in the Installer Setup under Appliances (6.3) before you can change the colours through this menu option.

When you enter the Lights menu the controller will display the allocated socket number, allocated light type, and the brand/style of light. For example.

S6: POOL LIGHT
SINGLE COLOUR

The ↑ or ↓ buttons can be used to move between the allocated lights to the light you wish to change. Once the Light is displayed on the screen, press Enter and the controller will display:

S6: (Brand name)
(Current colour)

Use the ↑ or ↓ buttons to toggle through the range of colours (if any) associated with that brand of pool light. Press Enter to accept the colour you wish to choose.

If you so wish you can then move onto another allocated socket and change the colour settings of that socket.

Adjust the colour as described above.

Note:

- A maximum of 3 sockets can be allocated to lights, whether Pool, or Spa. Each socket/group of lights will be the same colour as chosen for that allocated socket.

6. INSTALLER MENU

The Installer Setup is where you will go to enter all the equipment that is installed on the Pool/Spa system and can have its settings changed in the Menu functions or via the App.

6. INSTALLER MENU	Under the Installer Menu there is a range of options to choose from. These are:	
	1. Appliances	Page 20 - 21
	2. Pump	Page 22 - 23
	3. Lights	Page 24
	4. Heating	Page 25 to 29
	5. Spa	Page 30 to 32
	6. Heat Demand	Page 33
	7. Pump Call	Page 34
	8. Water Feature	Page 35
	9. Temperature Sensor	Page 36
	10. Expansion Unit	Page 37 - 38
	11. Set Time	Page 39
	12. WIFI	Page 40 - 42
	13. Chemical Balance	Page 43 to 45
	14. Reset Passcode	Page 46
	15. Factory	Page 46
16. About	Page 46	
Use the ↑ or ↓ buttons to toggle through the list of menu options. When the option you want is displayed on the screen, press the Enter button.		

Appliances can be allocated on up 8 power sockets, 4 valves and 1 VF contact.

Socket 1-2, Valves 1-4, and the VF Contact are all located on the master controller.

Sockets 3, 4, & 5 are located on Expansion Unit 1.

These sockets are only available for selection if the expansion unit is there and has been enabled.

Sockets 6, 7, & 8 are located on Expansion Unit 2.

These sockets are only available for selection if the expansion unit is there and has been enabled.

The list of appliances available to choose from are listed below:

Sockets

- | | |
|-----------------|------------------------------|
| • Sanitiser | • Water Feature |
| • Filter Pump | • Solar Pump |
| • Cleaning Pump | • Other |
| • Blower | • Always On |
| • Pool Light | • Jet Pump |
| • Spa Light | • Heating Pump (independent) |
| • Garden Light | • None |

Valves

- | | |
|-----------------|----------------------|
| • Pool/Spa | • Feature from Solar |
| • Solar | • Other |
| • Water Feature | • Heater |
| • In Floor | • None |

VF Contact 1

- None
- Gas Heater
- Heat Pump

VF Contact 2

- None
- Gas Heater
- Heat Pump

When you enter the Appliance Menu, the first thing that will be displayed is:

SOCKET #1

(currently allocated appliance)

The ↑ or ↓ buttons are used to toggle between the Sockets of the Master Controller then Expansion Unit 1, then Expansion Unit 2, then the Valves and VF Contact of the Master Controller. Once the Appliance you want to change is displayed on the screen, press Enter.

This will move the cursor next to the allocated appliance. Use the ↑ or ↓ buttons to toggle through the range of Appliances that can be selected for that output. Once the Appliance you want to select is displayed, press Enter. The Appliance will have been selected and the controller will then display the next socket/valve/VF contact:

SOCKET #2

(currently allocated appliance)

Note: *When you move to the next appliance the cursor will still be next to the allocated appliance.*

If you wish to change this appliance, simply use the ↑ or ↓ buttons to toggle through the range of allowable appliances. Press Enter to select.

Keep pressing Enter to scroll through the allocated appliances (if there is another socket, valve, or VF contact you wish to change) until the appliance you wish to change is displayed. Use the ↑ or ↓ buttons to toggle through the range of allowable appliances. Press Enter to select.

Alternatively, if you don't want to change any more appliances, press MENU to exit.

When changing the Valve appliances, the controller will display:

VALVE #1
(currently allocated appliance)

The Valve appliance is changed the same way as the Socket appliances.

Note: The Pooltek Controller will only turn 2 valves at the same time, ie Pool/Spa valves. There will be a 40 second delay before a third or fourth valve will be turned.

When changing the VF Contact, the controller will display:

VF CONTACT
(currently allocated appliance)

The VF Contact is changed the same way as the Socket & Valve appliances.

If you have a Expansion Plus unit fitted, then you will have the ability to set a second VF contact.

SANITISER

The Sanitiser must be set to operate 24hrs per day or manually ON as the POOLTEK controller will control the number of hours per day the system will operate. Refer to the Sanitisers instructions for 24hr timer setup and dosing requirements.

Feature from Solar

This feature gives you the ability to be able to utilise an **independent solar heating system** for a water feature, such as a water slide.

A socket needs to be allocated under Appliances as a solar pump and a valve socket allocated as a Feature from Solar.

A 3 way valve with actuator needs to be plumbed in after the solar pump but before the water goes up to the roof.

The Feature from Solar needs to be turned to ON under the Control menu. This will ensure the valve is turned to divert water to the water feature and the solar pump is turned on.

No solar heating is allowed when the feature is utilised.

No Timer can be set for this feature, so it will need to be turned to OFF or AUTO in the Control menu.

Once the feature is turned to OFF or AUTO the solar pump may turn back on again to sample the water temperature and resume solar heating of the system if solar gain is available.

Other

This is a Timer based feature for a valve output. When the feature is within its Timer range (or manually turned On or Off) it will turn the Valve output on. This output can be utilised to turn a valve, or switch on a contactor point for an additional heater.

Note: This option will not instigate turning a filtration/circulation pump on.

Heating by Valve

This feature gives you the ability to turn a motorised actuator valve to send water onto a roof (or to any other location) where a heat pump or gas heater is installed.

The valve actuator will be installed in the filtration line and the valve will be opened when the heater interlock circuit is activated, or closed when the heater interlock circuit is de-activated.

This valve feature is locked to the VF contact and the Heat Demand timer. No additional timer can be set for this option.

6.2
PUMP

In this menu option, you will be able to select which type and brand of filtration pump your system is running and what its default speed will be.

When you Enter this sub menu option, the controller will display the option to choose either a Single Speed Pump or Multi Speed Pump:

PUMP TYPE
MULTI-SPEED

Use the ↑ or ↓ buttons to switch between the 2 options, press Enter to accept.

If you Enter SINGLE SPEED, the controller will accept the option and return you to the Installer Setup Menu.

Note: *If you have set the Pump Type to be a Single Speed, ensure that a socket has been allocated to Filter Pump in 6-1 Appliances.*

If you Enter MULTI SPEED, then the controller will display:

PUMP BRAND
NONE

Use the ↑ or ↓ buttons to scroll through the range of allowable pump brands. Press Enter on the brand you wish to select when you see it displayed.

The options for brands of Multi Speed Pumps are:

None

Theraflo TVS 1.0 & 1.5hp

Theralux TVS Pro 1 V2 1.0 & 1.5hp

Theralux TVS Pro 2 V3 1.25 & 1.75hp

Theralux TVS Pro II V4 1.0 & 1.5hp

Reltech

Reltech (485)

Reltech P 485

Hayward (485)

Hayward MaxFlo/TriStar

Hayward P 485 – Super 2

Pentair VS/VF

Pentair EM1500

Pentair EM800

Insnrq Qi or Insnrq Zi

DAB

Henden 3 Speed

Speck

Oasis V Series

Davey VSD400 (2021 model onwards)

Legend Ultra VS

Henden VSD400 (2021 model onwards)

Waterco Hydrostorm ECO 1HP & 1.5HP

Once the pump model is entered, the controller will ask you to set, up to 4 pump speeds.

- In the case of a Theralux TVS Pro 1 V2, Theralux TVS Pro 2 V3, Theralux TVS Pro II V4, Reltech 485, Hayward 485, Reltech P 485, Davey VSD 400, Pentair EM1500, Henden VSD 400, Oasis V Series, Legend Ultra VS, Hayward P 485 & Insnrg Qi & Zi pumps, you will be asked to set the speeds in RPM.
- In the case of the Pentair VS/F, Theraflo TVS, Reltech, Henden 3 Speed, Pentair EM800 and Speck pumps, you will be asked to set the default speed only as the pump has pre-set speeds.
- In the case of the DAB, Hayward MaxFlo & TriStar pumps, you will be asked to set the 4 speeds as a percentage.

Note: The Waterco, Theraflo, Speck, Henden, Pentair EM800 and Reltech pumps only have 3 speeds to choose from and need to be set via the manufacturer's instructions. The Pentair VS/F will need to have 4 pump speeds set via the manufacturer's instructions.

Once the speed/percentage has been set for the following; Theralux TVS Pro 1 V2, Theralux TVS Pro 2 V3, Theralux TVS Pro II V4, Reltech 485, Hayward 485, Reltech P 485, Davey VSD 400, Pentair EM1500, Henden VSD 400, Oasis V Series, Legend Ultra VS, Hayward P 485, Insnrg Qi & Zi, DAB, Hayward MaxFlo, and Hayward TriStar pump, the Pooltek will ask what Default speed you want the pump set at.

This is displayed as:

PUMP DEFAULT
SPEED X

Use the ↑ or ↓ buttons to scroll through the range of pump speeds (1, 2, 3, & 4) that you have just set. Once you have adjusted the default speed, press Enter to accept.

The controller will accept the default speed and return to the Installer Setup Menu.

Note: If you have a variable speed pump, go to pages 6 to 10 of this manual, to see the required Wiring diagrams, Priming and Connection instructions for each of the brand/series of pumps being used.

If the pump installed is one of the following, Reltech, Reltech P 485, Reltech 485, Theraflo TVS, Theralux TVS Pro 1 V2, Theralux TVS Pro 2 V3, Theralux TVS Pro 2 V4, Hayward 485, Hayward P 485, Henden 3 Speed, Speck, Insnrg Qi, Insnrg Zi, Sunlover Oasis V Series, Henden VSD 400, Davey ProMaster VSD 400, Legend Ultra VS, or a Pentair EnviroMax 800, a comms cable needs to be purchased separately.

If the pump installed is a Waterco, Pentair IntelliFlo, Pentair EnviroMax 1500, Hayward TriStar, Hayward MaxFlo VS, or a DAB VS pump, the pump communication cable needs to be purchased through the respective pump manufacturer or a distributor.

In this menu option, you will be able to select which type and brand of Pool & Spa lights that you have installed.

- *A maximum of 3 sockets can be allocated to lights, whether Pool, or Spa. Each of the 3 sockets will run a Light Transformer. Each socket/group of lights will be the same colour as chosen.*
- *Before any pool or spa lights can be setup in this menu option, 1, 2, or 3 sockets need to have been allocated in appliances to either the pool or spa light.*

When you enter this menu option, the first socket that has been allocated will be displayed along with the allocated appliance. The controller will display:

S2: SPA

SINGLE COLOUR

Use the ↑ or ↓ buttons to scroll through the allocated sockets, press Enter to change the displayed socket.

After you press Enter, the cursor will be located on the second line. Use the ↑ or ↓ buttons to scroll through the allowable brands of lights.

The allowable brands and types are as follows:

Single Colour

AquaQuip

AquaQuip Instatouch

Aquatight

Aquatight Supa Nova

Astral Pool

Spa Electrics

Spa Electrics Multi Plus

ModLite

Jandy

Press Enter to select the light brand installed.

The controller will now display: (For Example)

“LIGHT BRAND”

PURE RED

Use the ↑ or ↓ buttons to scroll through the colours that are available to the brand of light.

Once the colour you want is displayed on the screen, press Enter to accept the colour.

- If there is only one socket that is allocated to a light, the controller will return you to the Installer Setup Menu.
- If there is more than one socket allocated to a light, the controller will keep you in this menu option. You can use the ↑ or ↓ buttons to scroll through the other allocated sockets. Press Enter when another allocated socket is displayed in order to change that particular socket's setting. Change the settings as above.
- Once you have finished, press the Back Button to return you to the Installer Setup Menu or press the Menu Button to return the controller to normal operations.

6.4
HEATING

In this Menu option, you will be setting up the type/s of heating that is installed.

The options are:

Solar

Heat Pump

Gas Heater

When you enter this menu option the first thing that is displayed is:

SOLAR

1. NONE

With Solar Heating, you have the options of:

1. NONE
2. SEPERATE (Independent plumbing)
3. VALVE
4. BOOSTED (Integrated plumbing)

Note: If you have no Solar Heating installed, press Enter to accept 1. None and the controller will move you onto the next option.

If you have an independent solar heating system, use ↑ or ↓ buttons to scroll down to 2. Separate and press Enter.

- If you have a system where a valve is turned to send water into the solar panels, select 3. Valve.
- If you have a Boosted (integrated) system, scroll to 4. Boosted and select.

Use the ↑ or ↓ buttons to select which option you would like, and press Enter.

Once you have selected one of the above options, the controller will display:

SOLAR ON
WINTER MODE OFF

Use the ↑ or ↓ buttons to select which option you would like, and press Enter.

Note: If you selected None for SOLAR, then the above option will not be displayed.

If you selected Solar as **SEPARATE**, the controller will now display:

SOLAR
SENSOR: XX

You will able to select one of two options;

- 1) FILTER - *meaning that the Pool Sensor will be located in front of the Filter Pump. This is the best option if you have other heating sources (ie Heat Pump/Gas Heater). If the filtration pump isn't already running, then every hour we will turn the filter pump on to complete a 3 Minute temperature check of the pool water.*
- 2) SOLAR – *the Pool Sensor will be located in front of the solar pump. The Solar Pump will be turned on to do the 3 Minute temperature check at the Solar Start Time and every 3 hours after Solar Limit is achieved.*

Use the ↑ or ↓ buttons to select which option you would like, and press Enter.

Once you have pressed Enter to select, the controller will display:

SOLAR
SPEED X

The controller is asking what speed you would like the pump to run at when solar heating is asked for.

Note: This option will only appear if you've selected either Valve or Boosted SOLAR options.

Note: If you are running a single speed pump, this question will not appear.

Use the ↑ or ↓ buttons to select which pre-set speed you would like, and press Enter.

Once you have selected the pump speed, the controller will then display:

SOLAR START TIME XX.XX

Adjust as above.

Note: Solar Heating will finish at 7pm. This finish time is not adjustable.

Once you have adjusted and accepted the Solar Heating start time, the controller will display:

SOLAR ANTIFREEZE OFF

Use the ↑ or ↓ buttons to adjust the Antifreeze range from Off, 1 to 5 degrees and press Enter to accept.

Note: This option will be used in the instance that you have solar matting or panels on a flat roof or in the case of an installation that doesn't fully drain of water. This feature is to ensure the matting/panels on the roof don't get damaged by water freezing within them.

Once the roof temperature lowers to the Anti-Freeze set point, the controller will run the pump (filtration pump in the case of Boosted solar or Solar by Valve, Solar Pump in the case of an independent system) and flush water onto the roof for a period of 5 minutes, every 30 minutes until the roof temperature rises back above the selected temperature.

Note: This flush will most likely occur during the early to mid-morning hours where outside temperatures are at there lowest.

The controller will now move you onto the next option.

What will be displayed next will depend upon what was selected for VF Contact in Appliance Setup.

If nothing was selected under VF Contact then the controller will return you to the Installer Setup Menu.

If Heat Pump was selected under VF Contact, then the following will be displayed:

HEAT PUMP ON
OFF

Use the ↑ or ↓ buttons to move the cursor to either ON or OFF.

If you select OFF, the controller will return you too the Installer Setup Menu.

Select ON to enable the controller to run the Heat Pump, press Enter button to accept.

The controller will then display:

CHILL MODE ON
OFF

Use the ↑ or ↓ buttons to move the cursor to either ON or OFF, press Enter to accept.

6.4
HEATING

Note: *Chill Mode* can be used in a tropical area where natural sunlight is heating the pool to a temperature above the set point (Pool or Solar Temperature) the Heat Pump can be switched over to Cooling (must be physically done on the Heat Pump control panel) and the Pooltek will utilise this Cooling Function to keep your pool temperature at the Set Point by cooling your pool.

If you selected ON for Chilling Mode, the following will be displayed;

HYDROTHERAPY ON
MODE OFF

Use the ↑ or ↓ buttons to move the cursor to either ON or OFF, press Enter to accept.

Note: *In a Hydrotherapy (cold water) situation, water can be cooled to lower temperatures, down to 10 degrees. Again, the Heat Pump must be physically switched over to its Cooling Function.*

Note: *Pool Temp can only be set below 20 degrees if both Chilling Mode & Hydrotherapy Modes have been activated.*

When you select On or Off for Chilling/Hydrotherapy Mode, the controller will then display:

COOL DOWN TIME: XXMins

This is the controller asking how many minutes you would like the filtration pump to continue to run for once the Heater has stopped heating. Use the ↑ or ↓ buttons to increase or decrease the amount of time and press Enter for desired time.

The range of time for the Cool Down is 00Mins to 59Mins.

Note: *This function is here to help prolong the life of a Heater.*

What is displayed next will depend on other settings.

- a) Has an Appliance socket been allocated to Heating Pump (ind).
- b) Has a Multi Speed filtration pump been selected in Pump Setup.
- c) Neither of the above 2 options.

If a socket has been allocated to Heating Pump (ind), the following will be displayed;

1. FILTER
2. INDEPENDENT
3. INDEPENDENT WITH SENSOR

You will use the ↑ or ↓ arrows to select the option that best suits your installation, press Enter to accept and the controller will move you onto the next option.

- **Filter** – *Meaning that the heater is installed within the filtration plumbing.*
- **Independent** – *Meaning that the heater is plumbed in separately to the filtration system and will have its own circulating pump. The pool will be heated to a temperature designated in the Pooltek controller as Pool Temperature.*

Note: *In this scenario the pool sensor will be located in the Filtration Line on the suction side of the filter pump. The Filtration Pump will be turned on for 3 minutes to take a sample of the pool temperature if it is not already running. It will then shut off for an hour before turning on again for 3 minutes to sample the water temperature.*

- **Independent with Sensor** – *The heater is plumbed independently, but the Pooltek will still control the temperature and will need the pool sensor drilled into the pipe in front of the independent heaters circulation pump.*

6.4
HEATING
CONTINUED

If you select ON, the controller will utilise the “Water Sensor” and its temperature readings to control the heater allocated as VF2.

If you selected OFF, the controller will utilise the “Pool Sensor” and its temperature readings to control heater 2.

Note: It is highly recommended that the heat source which is plumbed into the Filtration Line be setup in 6-1 Appliances as VF1. It will make setup a lot easier.

This will in-turn mean that the secondary heat source is allocated as VF2 and will generally (but not always) have the Water Sensor assigned to it.

This next option will only appear if you have an Expansion Plus unit connected to your Pooltek system.

The controller will display:

TRACKS HEATER 1

OFF

*****Range is OFF, 00°c to 15°c lower in 1°c increments. Default is OFF.*****

What this does is allow a 2 heater system to maintain a minimum temperature level without using both heaters all the time.

An example of this is as follows;

The system has both a Heat Pump (Heater 1) and a Gas heater (Heater 2). The system is to be heated to 32°. The Tracking Temperature is set to -4°. This means that once the system temperature is over 28°, the gas heater won't be used, only the Heat Pump. If it is early/late in the season and the Heat Pump is struggling to maintain the system temperature of 28°, the gas heater will be utilised to heat the system to the Tracking Temperature.

In this menu option, you are able to turn ON or OFF Spa operation, and Spa options. It will be displayed as;

SPA.....ON
 OFF

Use the ↑ or ↓ buttons to highlight either ON or OFF. Press Enter to accept.

Note: *These Spa options can only be turned ON or OFF if they have been allocated a socket in the Appliances Menu.*

Select OFF, and the controller will turn off all spa options (including use of the SPA button on the front of the controller) and return you to the Installer Setup Menu.

If you select ON then the controller will display (only if allocated):

BLOWER ON
 OFF

If you select ON, the controller will display:

BLOWER SWITCH ON AT XX°

Use the ↑ or ↓ buttons to select what temperature you would like the Blower to turn on at and press Enter to accept.

Note: *The Temperature range is within a 10° offset from the set Spa temperature or Always On.*

If you select OFF, the controller will then display: (only if allocated in 6-1 Appliances)

JET PUMP ON
 OFF

If you select ON, the controller will display:

JET PUMP SWITCH ON AT XX°

Use the ↑ or ↓ buttons to select what temperature you would like the Jet Pump to turn on at and press Enter to accept.

Note: *The Temperature range is within a 10° offset from the set Spa temperature or Always On.*

Note 1: *If you have both a Blower and a Jet Pump allocated under Appliances, the controller will let you select ON for Blower but will wait until after you select ON or OFF for Jet Pump before asking you what temperature you want the Blower to turn on at.*

Note 2: *If you select ON for both the Blower and the Jet Pump, the message that is displayed is:*

*BLOWER + JET PUMP
SWITCH ON AT XX°*

Once you have adjusted the above, the controller will display:

SPA ON
CHLORINATOR OFF

If you select OFF to Spa Chlorinator, the controller will move you onto the next option.

If you select ON, the controller will display:

SPA CHLORINATOR DUTY CYCLE 10%

Use the ↑ or ↓ buttons to adjust the percentage of chlorination you would like, while the Spa is running. The percentage is adjustable in lots of 5% from 0% to 100%. Adjust and press Enter to accept. The controller will move you onto the next option.

Once you have selected the temperature for the Blower and/or Jet Pump, and you have adjusted the Chlorinator Duty Cycle, the controller will move to the next option, selecting the Spa Pump speed (if a Multi Speed pump is installed) and will display:

SPA PUMP SPEED X

Use the ↑ or ↓ buttons to select which pre-set speed you would like, and press Enter. The speed that you are able to allocated will depend on which pump you have and how many speeds it has.

Note: In the case of a Single Speed pump being installed, you won't be able to select a speed and the Spa Pump Speed question won't be displayed.

If you don't have Spa lights allocated, the controller will move to the next setting which is setting a Spa Timer.

If you have Spa Lights allocated, the controller will display:

S4: SPA LIGHT

When you press Enter you will be able to change the colour of the Spa light. This will be the colour that the Spa light will turn onto when the controller is switched into SPA MODE. It may be a different colour to what is set under the Timer menu.

Use the ↑ or ↓ buttons to scroll through the colours, press Enter to select.

Once you have selected the Spa Light colour, the controller will display:

SPA ON
TIMER OFF

Use the ↑ or ↓ buttons to highlight either ON or OFF. Press Enter to accept.

Note: *The Spa Timer gives you the ability to automatically switch your system into Spa Mode (including heating) for a set duration of time every day. This would allow a person to come home from work everyday to a hot Spa.*

The Spa Timer can also be used as an additional filtration time (no heating) for the Spa only. This could be very useful to a system where the Pool and the Spa are 2 separate bodies of water (ie no overflow from the Spa into the Pool).

If you select OFF, the controller will move onto the next option.

If you select ON the controller will display:

SPA 00.00
TIMER 00.00

A cursor will be flashing on the hours portion of the top line.

Use the ↑ or ↓ buttons to adjust the starting time that you would like the Pooltek to start running your system in Spa Mode, first selecting the start times hours (in 24hr time), press Enter and the cursor will move to allow adjustment of the minutes.

Once you have adjusted the Starting Time (hours and minutes) you will then be able to adjust the Finishing Time. This is the time that the Pooltek will take your system out of running in Spa Mode and return it running in Pool Mode.

When you have entered the finish time, the controller will display:

SPA HEATING ON
TIMER OFF

Use the ↑ or ↓ buttons to highlight either ON or OFF. Press Enter to accept.

If you would like your Spa to be heating during the set time then you would select ON.

If you would like the timer to be utilised as a Spa filtration timer (no heating), then you would select OFF.

The controller will display:

SPA ON
TIMER 2 OFF

You will have the ability to set a second timer for the Spa. Set as per above.

Note: *The second timer will only appear and be adjustable if Yes was selected for the first timer.*

You can set one timer to be for Filtration purposes only and the second to include heating.

Once you have pressed Enter to select, the controller will the display:

SPA TIMEOUT:
04 HOURS

Use the ↑ or ↓ arrows to increase or decrease the hours in hourly increments.

The range is OFF, 1 to 24hrs with 04 Hours being the default setting.

****This setting is here to ensure that the system will switch back over to filtration mode and to ensure that the spa isn't left running constantly. Especially useful if the property is being utilised as a rental or an Air b&b.**

Once the Spa Timeout hours have been selected the controller will return you to the Installer Setup menu.

6.6
HEAT
DEMAND

In this menu option you will be able to set the timeframe in which you would like your heater to run. When you enter the menu option, the controller will display:

HEAT ON
DEMAND OFF

If you select OFF, the controller will then exit you to the Installer Setup menu.

If you select ON, the controller will then display:

HEAT 06.00
DEMAND 22.00 (default times)

Use the ↑ or ↓ buttons and the Enter button to allocate a start and finish time. Once the time has been entered, the controller will then display:

SANITISER ON
 OFF

This Function is here mainly for pool or spa systems that utilise a Dosing system instead of an Ioniser or Chlorinator. If you are heating outside of filtration times you might as well let your dosing system continue to measure, test, and dose your system while the pool or spa system is being heated.

*** If you are running an Ioniser or Chlorinator, you will be best leaving this function turned OFF, to stop the system being over Ionised or Chlorinated.*

Use the ↑ or ↓ arrows and press Enter to choose whether you would like sanitisation to occur while heating is active. This function is here to allow sanitisation to occur during heat demand times that are outside of normal filtration times.

Once you have selected the option you would like, the controller will then display:

SOLAR ON
PRIORITY OFF

Note: By utilising Solar Priority, the system can be made to run more efficiently and more cost effectively. By turning Solar Priority on and setting a minimum roof temperature, the Pooltek will only utilise the heat pump or gas heater when the roof temperature is below what the minimum roof temperature is set to.

Use the ↑ or ↓ arrows and press Enter to select the option you would like.

If you select Yes, the controller will then display:

MIN ROOF TEMPERATURE 40°C

Use the ↑ or ↓ buttons to adjust the minimum roof temperature up or down to the point where you would like the Heat Pump or Gas Heating to shut off and the solar heating to take over the heating of the pool.

Once you have selected the option you would like, the controller will exit you to the Installer Setup menu.

If you have an Expansion Plus unit fitted and VF 2 allocated to a heating source, then you will have ability to set the same functions for the second heat source;

The controller will display;

HEAT 2 ON
DEMAND OFF

If you select On, you will be able to run through the same settings as above for the second heat source.

If you select No, the controller will exit you to the Installer Setup Menu.

The PUMP CALL option can be used for a Heat Pump telling the Pooltek system to turn the pump on for heating purposes.

Alternatively, a **voltage free switch** (ie; Spa Side Switch) can be connected to the Pump Call plug at the base of the Master Controller to turn on selected Appliances when the switch is turned On.

When you enter this menu option, the controller will display:

```
PUMP      ON
CALL      OFF
```

Use the ↑ or ↓ arrows and press Enter to select the option you would like.

If you select OFF, the controller will return you to the Installer Setup menu.

If you select ON, the controller will then display:

```
PUMP CALL RUN
TIME:      00 MINS
```

Use the ↑ or ↓ buttons to adjust the length of time that you would like the Pump Call function to run for, and press Enter. If you just want to turn the functions On & Off manually, leave the Run Time as 00 Mins.

Once you press Enter (if a Multi Speed pump is installed) the following will be displayed:

```
PUMP CALL SPEED X
```

Use the ↑ or ↓ buttons to select which pre-set speed you would like and press Enter.

The controller will then display:

```
PUMP CALL FOR APPLIANCE X    YES
```

Use the ↑ or ↓ buttons to select Yes or No for the displayed Appliance to be turned on via the voltage freed switch, and press Enter.

Once you pressed Enter, the controller will then display the next Appliance listed. Again, use the ↑ or ↓ buttons to select Yes or No for the displayed, and press Enter.

Multiple Appliances can be selected to activate via a single switch (eg; Blower & Jet Pump)

Note: There will be a 5 second delay between multiple Appliances being switched on.

When you have gone through all the Appliances that are installed/connected to the Pooltek system and selected Yes or No for the final Appliance, the controller will return you to the Installer Setup menu.

Note: There may also be other situations where this function can be utilised. An example of this would be if a pool has an overflow trough, wet edge, negative edge, etc, where pool water needs to be pumped back into the main system.

This can be done by plugging a float level switch (purchased separately) into the pump call port beneath the controller. When the float rises/drops to a set point, it will turn the filtration pump on to start pumping water back into the pool/spa system.

There may be other situations where this feature can be utilised to turn the pump on.

Note: Any Heater or Switch connected to the Pump Call port at the base of the Pooltek Master Controller, must be a **Voltage Free Circuit.**

6.8
WATER
FEATURE

It is under this menu option that you will be able to set what type of water feature you have installed. When you enter the Water Feature menu, the controller will display:

WATER FEATURE

1. NONE

The other options are:

2. PUMP

3. VALVE

4. PUMP & VALVE

Note: Options 2 and 3 will only appear if a socket or a valve has been allocated for a Water Feature in 6.1, Appliances menu.

Note: Option 4 will only appear if a **Socket & a Valve** have been allocated for a Water Feature in 6.1, Appliances menu.

If neither have been allocated, then you will not be able to set a type in this menu option.

Note: Option 4 is for an independent Water Feature pump with a valve to stop drain down.

Use the ↑ or ↓ buttons to scroll through the options available and press Enter to accept the option you wish to set.

If you select 2. PUMP, the controller will accept and return to the Installer Setup menu.

If you select 3. VALVE, the controller will then display:

WATER FEATURE

SPEED 1

You are being asked to select a filter pump speed while the system is running the Water Feature. (If multi speed filter pump is used)

Use the ↑ or ↓ buttons to select which pre-set speed you would like, and press Enter.

When you select a pump speed, the controller will return to the Installer Setup menu.

6.9
TEMPERATURE
SENSOR

In this menu option, you are able to decide which sensor port gets allocated to which type of sensor, Pool or Roof or Water.

When you enter the menu, the controller will display:

TEMPERATURE
SENSOR 1.

Use the ↑ or ↓ buttons to scroll between SENSOR 1. 2. And 3. Press Enter when the sensor you want to change is displayed.

When you press Enter the controller will display:

SENSOR 1 or 2 or 3 TYPE
NOT USED

Using the ↑ or ↓ buttons, you have the option to select, NOT USED, POOL, ROOF & WATER.

Scroll up or down to select the option you want, and press Enter to accept.
Repeat to change the other Sensor type.

When you choose a Sensor to be a Pool Sensor the controller will display:

SENSOR 1 or 2 OFFSET
0.0

This option allows you to adjust the offset temperature of the pool sensor in a range of -5.0° to 5.0°, in .5° increments. Default is 0.0°.

Note: The controller will not allow both the sensor types to be the same.

Note: Sensor Type Water will only selectable if an Expansion Plus is fitted to the system.

If you chose SENSOR 1. To be a Pool Sensor, then you will only be allowed to select between Roof, and Not Used for SENSOR 2.

Initial Installation.

When you initially install the Master Controller with either 1 or 2 Expansion Units, **DO NOT TURN THE POWER ON TO ALL 3 UNITS AT ONCE.**

Once the Master Controller has started, turn the power on for the Expansion Unit that will be allocated as Unit 1.

Allow a period of about 10seconds to pass before you turn the power on for the Expansion Unit that will be allocated as Unit 2.

In the first 2 minutes after startup, the Master Controller will scan to see if any Expansion Units are connected and will automatically assign them.

Note 1: *If you don't leave a time period between turning the Expansion Units on, you may end up with Expansion Unit 2 being assigned as Unit 1.*

Note 2: *If you don't have a second Expansion Unit the time frame doesn't matter.*

You will still need to enter 6.10 Expansion Unit menu function in order to increase the amount of Expansion Units that can have Appliances allocated to it.

The process is described below.

Secondary Installation.

If at a later stage you add an Expansion Unit, (whether first or second) you need to ensure that the signal cable is connected (as per diagram on page 4). Once the signal cable is connected, plug the Expansion Unit into a power point and turn it on.

The Master Controller will detect that the Expansion Unit is there and assign it to either EXP:1 (if first unit) or EXP:2 (if second unit) and will be displayed as below.

Enter 6.10 Expansion Unit menu function to increase the amount of Expansion Units that can have Appliances allocated to it. The process is detailed below.

When you first enter this menu option the controller will display whether any expansion units are configured and which version if so. For example:

```
EXP:1      1.00B03      *          (1.01B01# if an Expansion Plus is connected)
EXP:2      NONE
```

Note: *A blinking dot in the top right-hand corner of the screen, indicates that auto-configuration is in progress.*

Pressing the Enter button will move you into the next option which is to choose how many expansion units can have Appliances allocated to it. This is displayed as:

```
NUMBER EXP
UNITS 0
```

Use the ↑ or ↓ buttons to change the number of Expansion Units required: 0, 1, or 2.

Once the amount you require is displayed, press Enter to accept.

If none (0) is selected, the controller will return you to the Installer Setup menu and you will be unable to allocate any Appliances beyond Sockets 1 & 2.

If 1 or 2 is selected, the controller will display a message to reset all addresses:

```
RESET ALL
ADDRESSES NO
```

If you DON'T want to reset the Expansion Unit address, press Enter and the controller will return you to the Installer Setup menu.

Note: *You will only need to reset the Expansion Unit address if you want to change Units 1 and 2 around or if an Expansion Unit is being added to the system after.*

6.10
EXPANSION
UNIT
CONTINUED

If you DO want to reset the Expansion Unit address, use the ↑ or ↓ buttons to change the NO to YES, press Enter. Once you press the Enter button the controller will display:

EXP UNITS
RESET ADDRESSES. . . .

Before then displaying

EXP UNITS RESET DONE !

Press Enter and the Following will be displayed:

SCAN FOR EXP UNITS NOW? NO

Make sure that the Expansion Unit/s are turned off at the power.

Use the ↑ or ↓ buttons to change the NO to a YES, press the Enter button to scan for Expansion Units. Turn the power onto the first Expansion Unit, when the controller connects to it, turn the power onto the second unit (if fitted).

Note: You will only need to scan for Expansion Units if you have Reset the Expansion Units addresses. Use the **Reset** function if having difficulty connecting Expansion Units.

If you select NO the controller will move you onto the next option.

POOLTEK CHEMICAL DOSER

V1.00B07 (If already received, otherwise this line will be blank)

- If you don't have an Pooltek Chemical Doser installed, you can press the Menu button to exit this menu option.
- If the version number is already displayed then the Pooltek Chemical Doser is now active to be utilised through the App (go to page???? Of this guide) and you can exit the menu by pressing the Menu button, or if you need to reset the Pooltek Chemical Doser unit press Enter and see below for further instructions.
- If the lower line was blank, press Enter and the controller will display:

RESET

POOLTEK CHEMICAL DOSER NO

- If you would like to Reset the Pooltek Chemical Doser or install another unit, use the ↑ or ↓ buttons to change from NO to YES and press Enter. The controller will then display that the "Reset Done", press Enter to move to the next function.
- If you are setting up the Pooltek Chemical Doser for the first time, make sure the controller has NO displayed and press Enter. The controller will display:

SCAN POOLTEK CHEMICAL DOSER NOW NO

- If you don't want to scan for an Pooltek Chemical Doser, make sure the controller is displaying NO and press Enter and the controller will exit you to the Installer Menu.
- If you have Reset the Pooltek Chemical Doser or are setting it up for the first time you will use the ↑ or ↓ buttons to change from NO to YES and press Enter. After a few seconds of searching, the controller will then display:

POOLTEK CHEMICAL DOSER

V1.00B07

Once it does, the Pooltek Chemical Doser is now active and can be utilised through the App and you can exit the Expansion menu by pressing the Menu button on the controller.

The controller will return you to the Installer Setup Menu.

6.11
SET
TIME

When you first set up the controller, it is in this menu option, that you are able to set the time. When you enter this menu option the controller will display:

AUTO SET TIME? YES

Use the ↑ or ↓ buttons to alternate between YES or NO. Press Enter to accept.

If you select Yes, the controller will ask for your location and display:

LOCATION ACT

Use the ↑ or ↓ buttons to scroll through the options available and press Enter to accept the option you wish to set. The controller will then display:

AUTO ADJUST DST YES

The controller is asking if you would like its time clock to be automatically adjusted at Day Light Savings time.

Use the ↑ or ↓ buttons to alternate between YES or NO. Press Enter to accept.

Once you have pressed Enter to select either option, the controller will return you to the Installer Setup menu.

Once the time is set, the controller will automatically update from internet time when the controller connects to Wifi.

If you selected NO at the AUTO SET option, you will then be able to set the time manually.

When you enter this menu, the controller will display:

SET TIME XX.XX

Use the ↑ or ↓ buttons to scroll through the hours and press Enter when correct hour time is displayed.

Once you press Enter, you will then be able to adjust the minutes as above.

When you press Enter to accept the minutes, the controller will return you to the Installer Setup menu.

Note: Controller time is set in 24hr time, 6pm is 18.00.

6.12
WIFI

This menu option is used for setting up the WIFI connection to the controller and will only be used if you elected not to connect the controller to the Wifi network when the controller was first turned on or have changed Wifi network providers.

When you enter the menu option, the controller will display:

```
WIFI      ON
          OFF
```

If you select OFF, the controller will disable the use of the WIFI connectivity and return you to the Installer Setup menu.

If you select ON, the controller will display:

```
WIFI NETWORK
"NETWORK NAME"      XX%
```

The controller is displaying which Wifi network it is connected to and the percentage of reception that the controller is receiving.

Note: *The controller will display the network that it is picking up the strongest signal from. This may not necessarily be the network required. If the controller is displaying the incorrect network, then proceed to the next step (Search Wifi Network).*

If the controller is not receiving reception from a modem, then no network name will be displayed.

Press the Enter button and the controller will display:

```
SEARCH WIFI      YES
NETWORK         NO
```

Use the ↑ or ↓ buttons to alternate between YES or NO. Press Enter to accept.

If the controller IS displaying the correct Wifi network, select NO and the controller will move you onto the next option – Reset Wifi Settings.

If the controller IS NOT displaying the correct network, select YES and the controller will display:

```
SEARCHING FOR
WIFI NETWORK.....
```

The available networks will be listed in order of strongest signal strength to the weakest and are displayed as: (for example)

```
"NETWORK NAME"      OR      "NETWORK NAME"
-30dBm  WPA/2                -54dBm  WPA
```

The first line shows the network name, the second line shows the Wifi signal strength in dBm and the Wifi network security type.

Wifi signal strength ranges from -30dBm (being the strongest) to -100dBm (being the weakest).

The network security types that the Pooltek control system will support are listed below:

Type	Remarks	Type	Remarks
OPEN		WPA2	WPA2 PSK
WEP		WPA/2	WPA & WPA2 PSK
WPA	WPA PSK	WPA2E	WPA2 Enterprise

Wait for a few seconds, then use the ↑ or ↓ buttons to scroll through the available networks, press Enter to select the network you want to connect to.

When yes is selected the controller will display:

WIFI SETTINGS
RESET OK

Select Enter and the controller will then display:

RESTART YES
CONTROLLER NO

If you select No, the controller will return you to the Installer menu.

If you select Yes, the controller will display:

CONTROLLER
RESTARTING

The controller will restart and go into Wifi configuration mode after the reboot, the Wifi arrow will blink.

Note: Restarting the controller is a good option if your controller wasn't able to detect a Wifi network. Restarting the controller will enable the controller to detect Wifi networks in the surrounding area. Turn the controller off for 15 seconds before restarting it.

Situations where you may want to restart the controller is if the controller has lost complete connection (controller not displaying Wifi network name) with the Wifi network, was unable to detect a Wifi network to start with, if you have changed the Wifi network name or changed providers, if you have Reset the Wifi Settings, or if during the process of setting up the Wifi connection the Wifi indicator has stopped blinking.

If the Pooltek won't connect to Wifi or connection is un-reliable, there may be an issue with reception from the modem. It might be necessary to installed a Wifi range extender at the controllers mounted location.

If the Pooltek is mounted in a bunker below ground level or inside a shed, there may also be reception issues. The controller may need to be optioned with a 3 metre (KIT08) antenna extension kit (available separately) 8519133.

This power up sequence must be followed:

- Turn the controller on at the power, wait for 10 seconds before turning the power on to the first Expansion Unit, wait a further 10 seconds before turning the power on to the second Expansion Unit (if fitted).

Note: This sequence is to ensure that the Master Controller recognises the Expansion Units in the correct order. Do this within the first 2mins while the Master Controller is actively scanning. The Wi-Fi Indicator should be slowly FLASHING.

When you first start the Pooltek controller, you will be prompted to connect the controller to the Wifi network.

- You have the option to continue with connecting the controller to Wifi (Yes) or connect it at a later stage (No). Use the ↑ or ↓ arrow buttons to select your preferred option, and press Enter.
- If you selected Yes to continue with the connection process, it will ask you if you would like to connect the controller using either the App or to connect it Manually.

Note: You will need to ensure that the modem (that the Pooltek controller is being connected too), is only running on **2.4Ghz** band width only.

This menu option is used for setting up the Pooltek Chemical Doser connection to the controller.

When you enter the menu option, the controller will display:

pH SENSOR YES
CONNECTED NO

This option is asking you if you have the pH probe installed into your system.

Use the ↑ or ↓ buttons to alternate between YES or NO. Press Enter to accept.

If you select No, the controller will move you onto an ORP option.

If you select YES the controller will then display:

pH OFFSET
0.0

The Offset is the number of points (in differences of .1) the controller will display above or below what the pH probe is actually reading. You would normally adjust the Offset if you have had your pool water tested and the probe is reading slightly differently to what the test reading is, ie; the Pooltek Chemical Doser is reading pH as 7.5 but the test result was 7.4. You would adjust the Offset down to -0.1.

Note: *If the difference between the readings is significant, get another test done to authenticate the first test and the probe may need to be cleaned. Follow the cleaning procedure as outlined in the Pooltek Chemical Doser manual. Regular cleaning of the probe is recommended.*

Use the ↑ or ↓ buttons to increase or decrease the Offset. Press Enter to accept.

The controller will then display:

pH SET POINT
7.5

The pH Set Point is the pH level that you want the pool to be at.

Note: *Acid will only be dosed if the pH level is above the Set Point.*

Use the ↑ or ↓ buttons to increase or decrease the Set Point to the appropriate level that you desire. Press Enter to accept.

The next option that the controller will display is:

ORP SENSOR YES
CONNECTED NO

This option is asking you if you have the ORP probe installed into your system.

Use the ↑ or ↓ buttons to alternate between YES or NO. Press Enter to accept.

If you select No, the controller will move you onto a Dosing option.

If you select YES the controller will then display:

ORP OFFSET
0.0

The Offset is the number of points (in differences of 10) the controller will display above or below what the ORP probe is actually reading. You would normally adjust the Offset if you have had your pool water tested and the probe is reading slightly differently to what the test reading is, ie; the Pooltek Chemical Doser is reading ORP as 700 but the test result was 670. You would adjust the Offset down to -30.

Note: If the difference between the readings is significant, get another test done to authenticate the first test and the probe may need to be cleaned. Follow the cleaning procedure as outlined in the Pooltek Chemical Doser manual. Regular cleaning of the probe is recommended.

Use the ↑ or ↓ buttons to increase or decrease the Offset. Press Enter to accept.

The controller will then display:

ORP SET POINT
700

The pH Set Point is the pH level that you want the pool to be at.

Use the ↑ or ↓ buttons to increase or decrease the Set Point to the appropriate level that you desire. Press Enter to accept.

The next option that the controller will display is:

DOSING
1. OFF

This option is for indicating which dosing pump/s are to be utilised.

Use the ↑ or ↓ buttons to alternate between the different options. Press Enter to accept.

1. OFF indicates that no dosing will be done through the peristaltic pump/s. This option can be used if maintenance work is being done on the peristaltic pump eg squeeze tube is being replaced, or the peristaltic pump needs to be turned off for any other reason.

2. ACID indicates that dosing using the peristaltic pump on the side of the Pooltek Chemical Doser will be utilised for dosing acid and maintaining the pH level that has been set.

3. ACID & CHLORINE indicates that 2 peristaltic pumps will be utilised to maintain both pH levels and ORP levels (using liquid chlorine).

Note: The Pooltek Chemical Doser **may** be optioned with 2 peristaltic pumps in the future. Currently this option will only be utilised for systems that already have peristaltic pump for liquid Chlorine already installed with its own power source.

Once you have selected Enter to accept the option that best suits, the controller will display:

PROBE ON
SETTLE TIME OFF

If you select ON for this option, the Pooltek Chemical Doser will wait for the first 30 minutes of the system running before it administers the first dose.

If you select OFF for this option, the Pooltek Chemical Doser will administer the first dose after the system has finished priming and completed its temperature check (about 5 minutes after the pump starts).

Use the ↑ or ↓ buttons to alternate between the different options. Press Enter to accept.

6.13
CHEMICAL
BALANCE
CONTINUED

The controller will then display:

POOL SIZE
50000

Use the ↑ or ↓ buttons to increase or decrease the pool size to meet the size of your pool.

Note: *If the size of your pool is in-between 2 pool sizes, select the size that is closet.
For example; choose the Pool Size of 55,000L if your actual pool size is 53,500L.*

Press Enter to accept.

The controller will then display:

Note: *This will only be displayed if the Spa was set to the ON position in 6.5 SPA.*

SPA SIZE
2000

Use the ↑ or ↓ buttons to increase or decrease the Spa size to meet the size of your Spa.

Note: *If the size of your spa is in-between 2 spa sizes, select the size that is closet.
For example; choose the Spa Size of 2000L if your actual spa size is 1800L.*

Press Enter to accept.

When you press Enter to accept the Spa size, the controller will return you to the Installer Setup menu.

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 fault is detected the controller will display 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 up to 10 days.
4. If the controller has stopped the pump 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 9.9Amps / 2370 Watts or 14.9Amps / 3570Watts as described on the unit.
6. Degree of protection against moisture: IP33.
7. Store pool chemicals safely, at least 3 metres away from all pool equipment.
8. If the Pooltek won't connect to Wifi or connection is un-reliable, there may be an issue with reception from the modem. It might be necessary to install a Wifi range extender at the controllers mounted location.
9. If the Pooltek is mounted in a bunker below ground level or inside a shed, it would be advisable to attach an antennae extension. These are available to be purchased separately in 3M length.
10. Always check with heater manufacturer for correct interlocking procedure and connection location.

Note: *If the heater's flow, pressure switch, or connection circuit is 240Vac, an external relay (KIT10 which can be purchased separately), is to be **connected by a licensed electrician.***

POOLTEK CHEMICAL DOSER



The Pooltek Chemical Doser is designed to monitor and automatically adjust the pH and Chlorine (ORP) levels of all types of Pools & Spas while the filtration pump is running.

Once the pH and ORP levels have been set in the Aqutek App, the Pooltek Chemical Doser will automatically dose Pool acid (when it is required) to maintain the set pH level. The Pooltek Chemical Doser will also maintain the systems ORP by turning the Chlorinator On or Off to maintain the selected ORP level.

The Pooltek Chemical Doser can be used as a pH only system or an ORP probe can be added to your system also.

EXPANSION UNITS 10 & 15 Amp



The POOLTEK has the capacity to have an additional 2 expansion units connected to it. Each Expansion Unit has an additional 3, 240VAC Output sockets that are controlled via the POOLTEK controller. Up to an additional 6 power sockets can be utilised and controlled by the POOLTEK master controller.

The Expansion Units are INPUT rated at either 10Amps or 15Amps. All 3 sockets of the Expansion Unit are rated the same. 3 sockets at 10Amp Output. The 15Amp Expansion unit can be ordered with 1 socket at 15Amp output with the remaining 2 sockets at 10Amp output.

DUAL HEATER INTERFACE



The Kit 13 Dual Heater Interface (8519128) is designed to be connected to the Pooltek unit and switch between 2 heating sources (Gas Heater & Heat Pump) where the Heat Pump is utilised for heating the pool and the Gas Heater is utilised for heating the spa. The Gas Heater can also be over-ridden to heat the pool.

Both heat sources must be in the Filtration line.

WARRANTY

- This range of products is covered by a limited 3 year warranty against component failure or faulty workmanship from the date of installation.
- Faulty units should be returned in the first instance to the dealer from which the unit was purchased. (Return to Base)
- Damage to the unit due to misuse, power surges, corrosion from pool chemical fumes, lightning strikes and or installation that is not in accordance with the manufacturer's instruction may void the warranty.
- Warranty does not include on-site labour or travel costs to or from installation site.
- Valves and actuators are covered by a 12 month warranty at the discretion of their manufacturer.

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



OFFICES - AUSTRALIA

NSW - Sydney (Head Office)

Tel: +61 2 9898 8600

QLD - Brisbane

Tel: +61 7 3299 9900

VIC/TAS - Melbourne

Tel: +61 3 9764 1211

WA - Perth

Tel: +61 8 9273 1900

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