



**HAYWARD®**

092767 RevD

# OmniPL Retrofit Kit

Automation and Chlorination

## Installation Manual



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HLPROUPG

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## IMPORTANT SAFETY INSTRUCTIONS

When using this electrical equipment, basic safety precautions should always be followed, including the following:



### READ AND FOLLOW ALL INSTRUCTIONS

**⚠ WARNING** – Read and follow all instructions in this owner's manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.

**⚠ WARNING – Suction Entrapment Hazard.** Suction in suction outlets and/or suction outlet covers which are damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:



**Hair Entrapment** - Hair can become entangled in suction outlet cover.



**Limb Entrapment** - A limb inserted into an opening of a suction outlet sump or suction cover that is damaged, broken, cracked, missing, or unsecured can result in a mechanical bind or swelling of the limb.



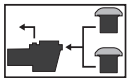
**Body Suction Entrapment** - A negative pressure applied to a large portion of the body or limbs can result in an entrapment.



**Evisceration/Disembowelment** - A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is damaged, broken, cracked, missing, or unsecured can result in evisceration/disembowelment.

**Mechanical Entrapment** - There is potential for jewelry, swimsuit, hair decorations, fingers, toes, or knuckles to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

**⚠ WARNING** – To Reduce the risk of Entrapment Hazards:



- When outlets are small enough to be blocked by a person, a minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (1 meter) apart, as measured from near point to near point.
- Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
- Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- The maximum system flow rate shall not exceed the flow rating.
- Never use Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or unsecured.
- Replace damaged, broken, cracked, missing, or unsecured suction outlet components immediately.
- In addition, two or more suction outlets per pump installed in accordance with latest ASME, APSP Standards and CPSC guidelines, follow all applicable National, State, and Local codes.



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- Installation of a vacuum release or vent system, which relieves entrapping suction, is recommended.

**⚠ WARNING** – Failure to remove pressure test plugs and/or plugs used in winterization of the pool/spa from suction outlets can result in an increased potential for suction entrapment as described above.

**⚠ WARNING** – Failure to keep suction outlet components clear of debris such as leaves, dirt, hair, paper, and other material can result in an increased potential for suction entrapment as described above.

**⚠ WARNING** – Suction outlet components have a finite life. The cover/grate should be inspected frequently and replaced at least every 10 years or if found to be damaged, broken, cracked, missing, or unsecured.

**⚠ CAUTION** – Components such as the filtration system, pumps, and heater must be positioned so as to prevent their being used as means of access to the pool by young children. To reduce the risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times.



**⚠ WARNING – Hazardous Pressure.** Pool and spa water circulation systems operate under hazardous pressure during start up, normal operation, and after pump shut off. Stand clear of circulation system equipment during pump start up. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover, and/or filter housing and clamp due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool and spa water circulation system, all systems and pump controls must be in the off position and filter manual air relief valve must be in open position. Before starting system pump, all system valves must be in a position to allow system water to return back to the pool. Do not change filter control valve position while system pump is running. Before starting system pump, fully open filter manual air relief valve. Do not close filter manual air relief valve until a steady stream of water (not air or air and water) is discharged.



**⚠ WARNING – Separation Hazard.** Failure to follow safety and operation instructions could result in violent separation of pump and/or filter components. Strainer cover must be properly secured to pump housing with strainer cover lock ring. Before servicing pool and spa circulation system, filter manual air relief valve must be in open position. Do not operate pool and spa circulation system if a system component is not assembled properly, damaged, or missing. Do not operate pool and spa circulation system unless filter manual air relief valve body is in locked position in filter upper body. **Never operate or test the circulation system at more than 50 PSI.**



**⚠ WARNING – Risk of Electric Shock.** All electrical wiring MUST be in conformance with applicable local codes, regulations, and the National Electric Code (NEC). Hazardous voltage can shock, burn, and cause death or serious property damage. To reduce the risk of electric shock, do NOT use an extension cord to connect unit to electric supply. Provide



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a properly located electrical receptacle. Before working on any electrical equipment, turn off power supply to the equipment. To reduce the risk of electric shock, replace damaged wiring immediately. Locate conduit to prevent abuse from lawn mowers, hedge trimmers, and other equipment. Do NOT ground to a gas supply line.



**⚠ WARNING – Risk of Electric Shock.** Failure to ground all electrical equipment can cause serious or fatal electrical shock hazard. Ground all electrical equipment before connecting to electrical power supply.



**⚠ WARNING – Risk of Electric Shock.** Failure to bond all electrical equipment to pool structure will increase risk of electrocution and could result in injury or death. To reduce the risk of electric shock, see installation instructions and consult a professional electrician on how to bond all electrical equipment. Also, contact a licensed electrician for information on local electrical codes for bonding requirements.

**Notes to electrician:** Use a solid copper conductor, size 8 or larger. Run a continuous wire from external bonding lug to reinforcing rod or mesh. Connect a No. 8 AWG (8.4 mm<sup>2</sup>) [No. 6 AWG (13.3 mm<sup>2</sup>) for Canada] solid copper bonding wire to the pressure wire connector provided on the electrical equipment and to all metal parts of swimming pool, spa, or hot tub, and metal piping (except gas piping), and conduit within 5 ft. (1.5 m) of inside walls of swimming pool, spa, or hot tub.

**IMPORTANT** - Reference NEC codes for all wiring standards including, but not limited to, grounding, bonding, and other general wiring procedures.



**⚠ WARNING – Risk of Electric Shock.** The electrical equipment must be connected only to a supply circuit that is protected by a ground-fault circuit-interruptor (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the electrical equipment without the test button being pushed, a ground circuit is flowing, indicating the possibility of an electrical shock. Do not use this electrical equipment. Disconnect the electrical equipment and have the problem corrected by a qualified service representative before using.

**⚠ CAUTION** – HAYWARD® pumps are intended for use with permanently-installed pools and may be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently-installed pool is constructed in or on the ground in a building such that it cannot be readily disassembled for storage. A storable pool can be readily disassembled for storage and reassembled to its original integrity.

## SAVE THESE INSTRUCTIONS



## FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Hayward could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

## Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

The term "IC" before the certification / registration number only signifies that the Industry Canada technical specifications were met.

# Before You Begin

## Compatibility

The Hayward OmniPL Retrofit Kit is designed to convert your old ECOMMAND, ProLogic, AquaLogic or AquaPlus into a web enabled pool automation control with convenient touchscreen interface. The conversion offers the next generation of technology to manage pool/spa equipment, allowing communication to web connected computers and mobile devices. You can now conveniently monitor your pool/spa and change settings anytime and from anywhere.

This OmniPL Retrofit Kit is compatible with all "P-4", "PS-4", and "PS-8" units. The HLPROUPG is not compatible with "PS-16" although two kits could be installed (one in PS-16, one in the Expansion unit) to manage one pool. For this operation, separate the control into two sites in the mobile app.



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The current control's configured equipment, timers and settings will be lost after replacing the main printed circuit board (mainboard) with the OmniPL Retrofit Kit mainboard. It's important to capture all of this information before starting the installation. A worksheet is provided on the following pages to record all current settings.

This upgrade will convert the current control to the Omni family of products and will require Omni specific accessories. Some ProLogic, AquaLogic or AquaPlus accessories will no longer work with the OmniPL after upgrading. If you are currently using a wired or wireless remote control or an AQL-CHEM Sense and Dispense Kit with your control, be aware that those items will not work after the upgrade. A list of Omni compatible accessories are listed below.

HLWALLMOUNT	Wired Wall Mount Remote Terminal
HLWIRELESS	Portable Wireless Remote Terminal
HLSPASIDE	Wired Spa Remote
HL-CHEM	ORP & pH Sensing Kit for monitoring and controlling pool chemistry

NOTE: For systems using a Hayward Ecostar VSP running firmware version less than R3.0.5 (pumps built before 2014), a Hayward SPX3400LCD display must be purchased and installed on the EcoStar pump if variable speed operation is desired with the OmniPL. If single speed control is desired, no changes are necessary.

NOTE: If the control is using networked ColorLogic Lights, the lights must be put into "Standalone" (default) mode before disconnecting the control. The OmniPL can only control ColorLogic lights in "Standalone" mode.

## Overview

The procedure to install the OmniPL Retrofit Kit is as follows:

1. Record Configuration, Settings and Timers Information: Record all programming information on the enclosed worksheet.
2. Record and identify all Wiring Connections: Make sure that ALL circuit breakers are OFF prior to mainboard replacement and the unit power is disconnected. Remove the deadfront panel and identify all current wiring connections to the ProLogic, AquaLogic or AquaPlus mainboard. You'll need to be familiar with each connection to properly wire the new OmniPL mainboard.
3. If using networked ColorLogic Lights: Networked ColorLogic lights must be put into "Standalone" (default) mode before removing the current mainboard. The OmniPL can only control ColorLogic lights in "Standalone" mode.
4. Swap Mainboards, mount Controller and Program: Remove all wiring connections to the mainboard. Remove the mainboard from the enclosure. Install the new OmniPL mainboard. Mount Controller and connect all wiring to the OmniPL mainboard. Configure the OmniPL using all of the programming information previously recorded on the worksheet (Configuration, Timers, and Settings menus). Check that all functions are operating properly.



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## OmniPL Controller

The Controller is weather resistant and comes with a 15 ft cord. Its resistive touchscreen with flip down cover is designed to function year round directly in the elements. Because it plugs into the OmniPL mainboard, it should be mounted close by, but in a location that is convenient for the user to periodically view and change pool/spa settings. Lastly, the Controller contains the Wifi radio and its location should be considered if planning to use a wireless connection to the home router or access point. A wireless mobile device (phone, tablet, etc.) could be used to test the signal strength at the intended mounting location. The Controller features a USB connector for firmware updates and logging feature as well as an Ethernet connector for optional direct wire connection to your router (if wifi won't or can't be used).

## What's Included

Check that the following components have been included in your package:

- OmniPL Mainboard
- Controller
- 4 conductor transformer secondary cable
- 2 conductor transformer primary cable
- 2 conductor power input cable

## Tools Needed




Acquire the following items for installation:

- Phillips and flat screwdrivers
- Wire cutters and strippers
- Drill and drill bits for mounting Controller
- Anchors and fasteners for mounting Controller

## Record Configuration, Settings and Timer Information

Before installation, fill out the worksheets on page 7 and 8 by navigating through the various menu screens on your ProLogic, AquaLogic or AquaPlus. Most of the information can be found within the Configuration Menu.

To access the Configuration Menu:

<div>Configuration Menu-Locked</div>		Press repeatedly until "Configuration Menu" is displayed
		Press BOTH buttons SIMULTANEOUSLY for 5 seconds to unlock
<div>Configuration Menu-Unlocked</div>		Move to configuration menu items

*NOTE: The configuration menu automatically "locks" after 2 minutes of no buttons being pressed to prevent unauthorized people from changing the control logic inadvertently and possibly damaging the pool equipment or causing a "call back" to fix the configuration.*

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## SYSTEM WORKSHEET

### Configuration Menu

<b>Chlorinator</b>	<input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Filter Config</b>	Pump Speed — <input type="checkbox"/> 1 Speed	<input type="checkbox"/> 2 Speed <input type="checkbox"/> Variable
	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Heater1 Config</b>	Heater — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
	Heater Cooldown — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Heater Extend — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Heater2 Config</b>	Heater — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
	Heater Cooldown — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Heater Extend — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Solar Config</b>	Solar — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
	Solar Extend — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
	Solar Priority — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Pool/Spa Config</b>	Function — <input type="checkbox"/> Pool Only	<input type="checkbox"/> Spa Only <input type="checkbox"/> Pool & Spa
	Spillover — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
	Filter operation — <input type="checkbox"/> Pool only	<input type="checkbox"/> Spa Spillover
<b>Lights Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
name _____		
<b>Aux1 Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
	<input type="checkbox"/> Solar	<input type="checkbox"/> Low Speed (2 speed filter pump)
	Interlock — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Aux2 Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
	<input type="checkbox"/> Solar	<input type="checkbox"/> Low Speed (2 speed filter pump)
	Interlock — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Aux3 Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
	<input type="checkbox"/> Solar	<input type="checkbox"/> Low Speed (2 speed filter pump)
	Interlock — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Aux4 Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
	<input type="checkbox"/> Solar	<input type="checkbox"/> Low Speed (2 speed filter pump)
	Interlock — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Aux5 Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
	<input type="checkbox"/> Solar	<input type="checkbox"/> Low Speed (2 speed filter pump)
	Interlock — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
<b>Aux6 Config</b>	Function — <input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock <input type="checkbox"/> Countdown Timer
	<input type="checkbox"/> Solar	<input type="checkbox"/> Low Speed (2 speed filter pump)
	Interlock — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled
name _____	Freeze Protection — <input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled



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## Configuration Menu (continued)

<b>Valve3 Config</b>		Function	<input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock	<input type="checkbox"/> Countdown Timer
			<input type="checkbox"/> Solar	<input type="checkbox"/> In-Floor Cleaner	
		Interlock	<input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled	
name _____		Freeze Protection	<input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled	
<b>Valve4 Config</b>		Function	<input type="checkbox"/> Manual On/Off	<input type="checkbox"/> Timeclock	<input type="checkbox"/> Countdown Timer
			<input type="checkbox"/> Solar	<input type="checkbox"/> In-Floor Cleaner	
		Interlock	<input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled	
name _____		Freeze Protection	<input type="checkbox"/> Enabled	<input type="checkbox"/> Disabled	
<b>All Timeclocks</b>		<input type="checkbox"/> 7-Day	<input type="checkbox"/> 2/5 Day		
<b>Time Format</b>		<input type="checkbox"/> 12 hour	<input type="checkbox"/> 24 Hour		
<b>Units</b>		<input type="checkbox"/> English	<input type="checkbox"/> Metric		

## Settings Menu

Spa Heater1 Temperature _____	Spa Chlorinator Setting _____%
Pool Heater1 Temperature _____	Pool Chlorinator Setting _____%
Spa Heater2 Temperature _____	VSP Speed 1 _____
Pool Heater2 Temperature _____	VSP Speed 2 _____
Spa Solar Temperature _____	VSP Speed 3 _____
Pool Solar Temperature _____	VSP Speed 4 _____

## Timers Menu

<b>Filter Pump</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	Speed _____
<b>Filter Pump2</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	Speed _____
<b>Filter Pump3</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	Speed _____
<b>Filter Pump4</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	Speed _____
<b>Lights</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Aux1</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Aux2</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Aux3</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Aux4</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Aux5</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Aux6</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Valve3</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	
<b>Valve4</b>	All Days/Weekends _____ to _____	Weekdays _____ to _____	



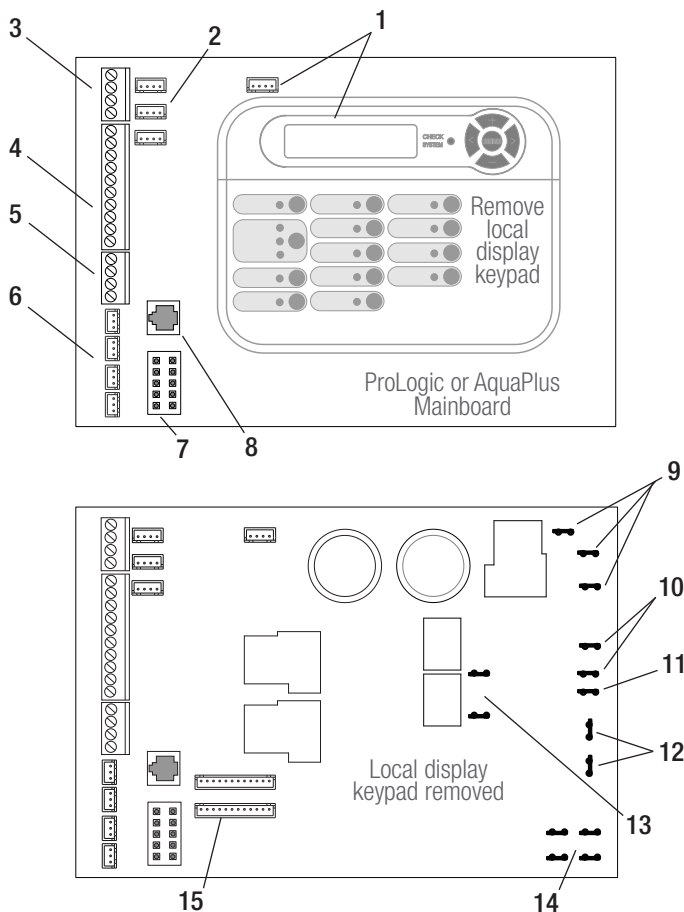
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## Installation

### Identify and Remove Wiring Connections

**NOTE:** The following instructions are for ProLogic and AquaPlus upgrades. For Aqua Logic and ECOMMAND upgrades, refer to the instructions starting on page 11.

COMPLETELY DISCONNECT POWER TO THE CONTROL AND ITS ELECTRICAL PANEL. With power disconnected, remove the deadfront panel to expose the mainboard. You may want to take photos or mark the wiring with tape to identify connections. Most of these wires will be connected to the new OmniPL mainboard included in the kit. A general description of the connectors is shown on the following page but if there is any question about a connection, trace back the individual wiring to the equipment. Note that the sensor/interlock and heater output screw terminal blocks will fit on the new OmniPL mainboard. After removing connections, proceed to the bottom of page 11.





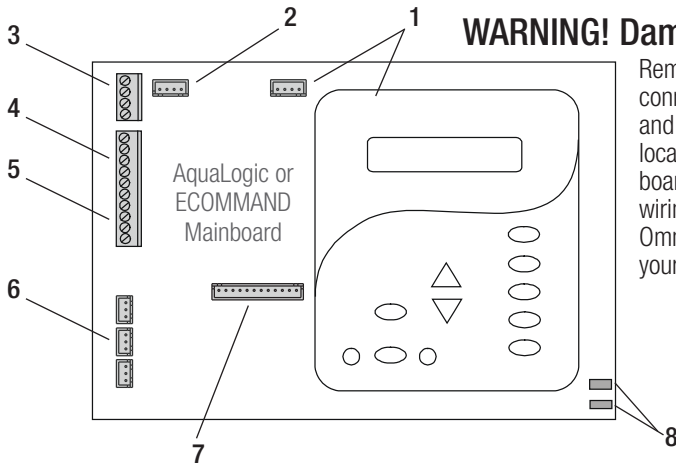
## ProLogic or AquaPlus only

ITEM	DESCRIPTION
1	Remove local display keypad by pulling straight up (away from mainboard) and disconnecting the connector.
2	Wireless base receiver and AQL-CHEM Sense and Dispense connection
3	Optional remote displays and VSPs (terminal block)
4	Four sensor inputs and external input interlock (terminal block)
5	Two heater outputs (terminal block)
6	Valve outputs
7	Turbo cell
8	Flow switch
9	<b>Rectifier wiring</b> - these red, black, and orange wires must be removed from both ends (mainboard and rectifiers) and discarded. This wiring will not be used with the OmniPL mainboard. To maintain enclosure integrity, do not remove rectifiers.
10	<b>Transformer wiring</b> - These two yellow wires secondary transformer wires will be connected to Wago lever connectors on a wiring harness that plugs into the OmniPL mainboard.
11	<b>Rectifier wiring</b> - This orange wire must be removed from both ends (mainboard and rectifier) and discarded. This wiring will not be used with the OmniPL mainboard. To maintain enclosure integrity, do not remove rectifiers.
12	<b>Input power wiring</b> - These black and white wires will be connected to Wago lever connectors on a wiring harness that plugs into the OmniPL mainboard.
13	<b>pH pump output wiring</b> - These two connections go to an acid pump used to control pH. If this pump connection is used, it will need to be wired to a high voltage relay after the OmniPL mainboard swap. There is no pH pump output on the OmniPL mainboard.
14	<b>Transformer wiring</b> - These blue, purple, white and gray primary transformer wires will be connected to a wiring harness that plugs into the OmniPL mainboard.
15	<b>Relay wiring</b> - this wiring will plug into an identical connector on the OmniPL mainboard.



## AquaLogic and ECOMMANT Upgrade Instructions

COMPLETELY DISCONNECT POWER TO THE CONTROL AND ITS ELECTRICAL PANEL. With power disconnected, remove the deadfront panel to expose the mainboard. You may want to take photos or mark the wiring with tape to identify connections. Most of these wires will be connected to the new OmniPL mainboard included in the kit. A general description of the connectors is shown below but if there is any question about a connection, trace back the individual wiring to the equipment.



### AquaLogic or ECOMMANT only

ITEM	DESCRIPTION
1	Remove local display keypad by pulling straight up (away from mainboard) and disconnecting the connector.
2	Wireless base receiver connection
3	Optional remote display and VSPs
4	Three sensor inputs (Pool/Spa, Air, Solar)
5	Two heater outputs (See Warning above)
6	Three valve outputs
7	<b>Relay wiring</b> - this wiring will plug into an identical connector on the OmniPL mainboard.
8	<b>Input power wiring</b> - These black and white wires will be connected to Wago lever connectors on a wiring harness that plugs into the OmniPL mainboard.

## Remove old Mainboard and install new OmniPL Retrofit Kit Mainboard

With all the wires disconnected from the old mainboard, unscrew the two fasteners located at the bottom of the mainboard and then remove. Position the new OmniPL mainboard in its place. The

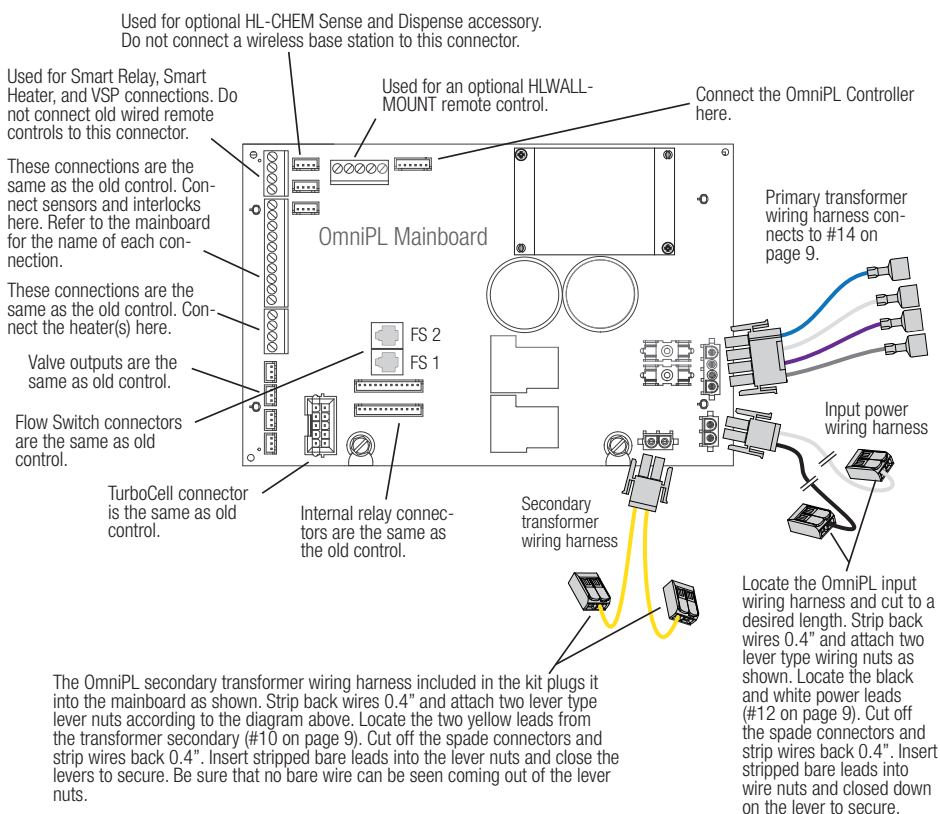


new mainboard uses the same type of plastic standoffs as the old and will attach in the same manner. Tighten the two screws to secure the OmniPL mainboard. The local display will not be reused.

## Wiring the OmniPL Mainboard

**ECOMMAND:** Because the ECOMMAND did not require a transformer, a Hayward GLXS3PLXFMR transformer must be purchased separately to power the OmniPL mainboard. Refer to the mounting instructions included with the GLXS3PLXFMR. After installation, refer to the wiring instruction below but note that the GLXS3PLXFMR provides its own primary and secondary wiring harnesses that are ready to connect to the OmniPL mainboard and will not use the harnesses that come with this kit. Only the input wiring harness will be used.

Some old accessories won't be connected as they are not compatible with the OmniPL. Do not connect any of the wired remote controls, AQL-CHEM Sense and Dispense Kit, or AQL2-BASE-RF wireless base station. Also, some of the transformer connections won't be made to the new OmniPL mainboard. That information is shown in the callouts to the diagram on the bottom of page 9.





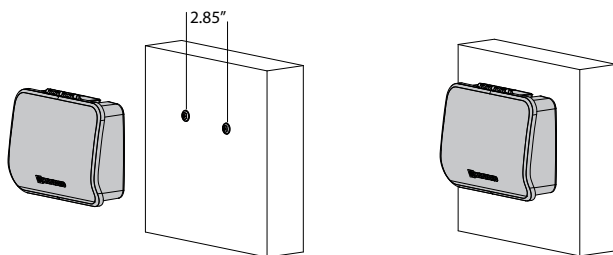
Most of the connections from the old mainboard will be made to an equivalent connector on the new OmniPL mainboard. The transformer and power input connections will use the supplied wiring harnesses using the colors as a reference for each connection; blue to blue, purple to purple, etc.

The yellow secondary transformer leads will connect to the supplied wiring harness shown on the previous page. The harness and the yellow transformer leads will need to be cut and stripped before inserting into the Wago lever connectors.

## Controller

The Controller comes with a 15 ft cord and plugs into the OmniPL mainboard. It should be mounted in a location that is convenient for the user to view and change pool/spa settings and within range of the home's wireless network access point. When considering the mounting location, make sure there is enough clearance above the enclosure so that the flip door will be able to be opened fully. Also be sure to allow enough clearance below the Controller to access the USB and Ethernet connectors. For best viewing results, position the Controller where it won't be subjected to direct sunlight.

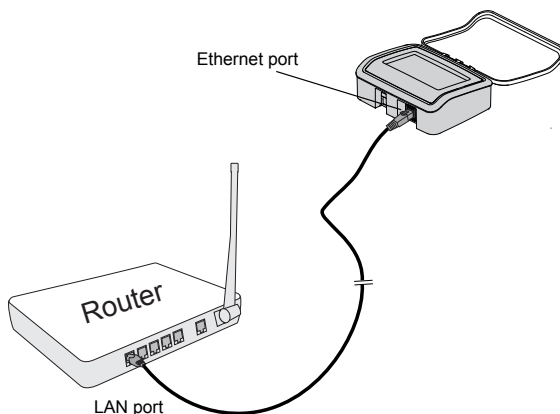
The Controller has two keyhole cutouts on the back of its enclosure. A mounting template is provided on page 48. To mount, screw two appropriate fasteners into the mounting surface at the desired location as shown



below. Tighten until the bottom of the screw heads are 1/8" off the mounting surface. Position the Controller cutouts over the screw and slide the unit downward. You may have to tighten or loosen the screws slightly to fully engage the screw heads to get a snug fit.

Run the Controller's 15 ft cable back to the OmniPL mainboard and plug it into the connector shown on page 10. There are rubber plugs covering the USB port and Ethernet port on the bottom of the Controller for protection from the elements.

The Ethernet port is available if a wired connection to the access point is desired over the built-in wifi. For Ethernet connections, use outdoor rated Cat5e or Cat6 Ethernet cable. Connect one end to the Controller and the other to an available LAN port (not WAN) on the home router or access point as shown. If using wireless, a 2.4GHz connection to the router is required.



## Connection Table

During configuration, the OmniPL will identify the pool equipment using the Connection ID shown on the table below. You'll be prompted to provide which pool equipment is connected to each Connection ID. Because the control was previously wired, take this time to go through each connection and fill out the table. Refer to the graphic below for the physical location of these connections.

Connection ID	Pool Equipment	Description
<b>High Voltage Relays</b>		
HVR1		
HVR2		
HVR3		
HVR4		
HVR5		
HVR6		
HVR7		
HVR8		
HVR9		
HVR10		

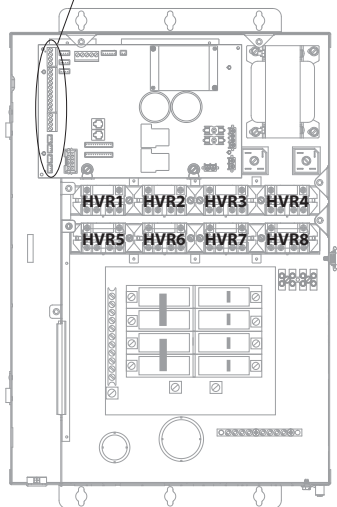
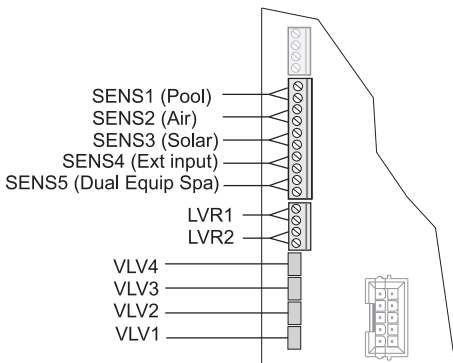
<b>Low Voltage Relays/Heaters</b>		
LVR1		
LVR2		

<b>Valve Actuators</b>		
VLV1		
VLV2		
VLV3		
VLV4		

<b>Temperature Sensors</b>		
SENS1 POOL		
SENS2 AIR		
SENS3 SOLAR		
SENSE4 EXT INP		
SENS5 DE SPA		



When using Optional Smart Relays

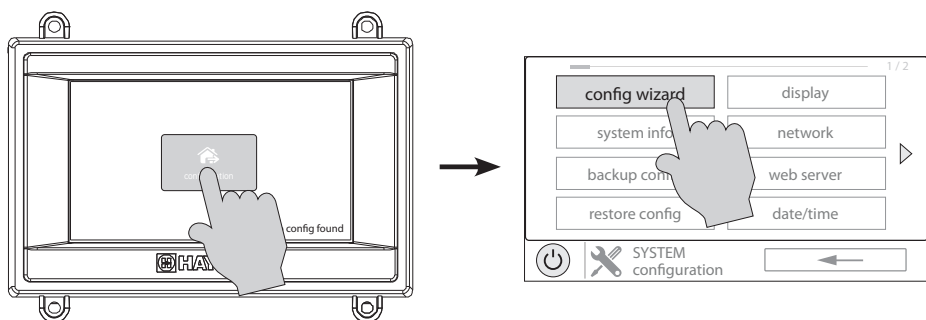




## Configuration

### Initial Configuration

With all connections complete, tuck back all the wiring to prepare for the deadfront installation. Locate the new deadfront and knockout all appropriate breaker locations. Install the new deadfront panel and reattach the door. The OmniPL can now be powered on for the first time. Apply power at the main panel and wait for the OmniPL to completely start. This may take a full minute or two. Because this is the first time that the OmniPL has been powered on, it will bring you directly to the initial configuration screen shown below. Note that the OmniPL uses a resistive touchscreen that is appropriate for a pool environment. It requires a deliberate push when selecting a button. At the initial configuration screen, touch the Configuration button in the center of the screen. On the following screen, touch the Configuration Wizard button as shown below.



### About the Configuration Wizard

The OmniPL uses a Configuration Wizard to assist in configuration. The Configuration Wizard will ask general questions relating to your pool/spa and specific questions about connected pool equipment. Because this process may take some time, do not begin to configure the OmniPL unless you can dedicate at least 15 minutes or more. Configuring the OmniPL requires knowledge of all of the connected pool equipment so have the Connection Table (page 12) handy while configuring the OmniPL.

If you are asked a question and don't know the answer, in many cases you'll be able to skip the question and proceed. In some cases the Configuration Wizard will require an answer. Answer the question to the best of your ability and take note as you'll be able to go back into the Configuration Wizard at a later time to make changes.

### Navigation

The Configuration Wizard has been designed to be intuitive allowing most users the ability to navigate with little instruction. On the following page, a list of commonly used buttons are explained.



**Done** - Touch this button to complete your selection.



**Cancel** - Touch this button to cancel your selection.



**Advance** - Touch this button to advance to the next screen.



**Back** - Touch this button to return to the previous screen.



**Add** - Touch this button to add an item

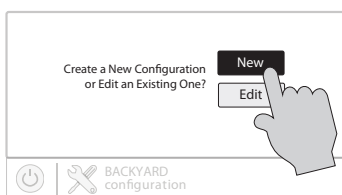


**Delete** - Touch this button to delete a highlighted item.

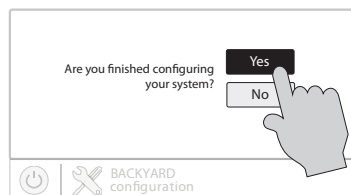
After being prompted to make a selection or answer a question, touch the Done button (if available) and then the Advance button to go to the next screen. To go back to a previous screen, touch the Back button. Many selections will require you to touch the Done button before allowing you to advance. If a wrong selection has been made, touch the Delete button or Cancel. Some settings can be made by sliding a bar left or right to decrease or increase a value. You may be required to assign names to equipment. In this case, a keyboard will be displayed and you'll be able to type the desired name. After naming the equipment, save then advance. This method is repeated throughout the Configuration Wizard.

## Begin the Configuration Wizard

In the Configuration Wizard, select "New" to create a new Configuration file for the OmniPL. Once underway, keep advancing until you have completed the Wizard. At the end of the Wizard, you'll have the opportunity to save your settings or exit without saving.



At the end of the Wizard, save your configuration by answering "Yes" to this screen.



If additional pool or backyard equipment is added after initial configuration, or you'd like to make a change to an existing configuration setting, re-enter the Configuration Wizard and select "Edit". The initial configuration settings will be retained and you'll have an opportunity to make changes or additions. Be sure to save your configuration when exiting. See page 36 for a Quick Edit Guide.



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## Configuration Wizard Guide

As you progress through the Configuration Wizard, refer to the following information to help answer questions and make selections.

**Would You Like To Set Up A Network Connection Now?** - You can select whether to connect to the internet through a wired connection or wireless (requires a 2.4GHz connection to the router). If no connection is desired or you will be setting up the connection later, select "not now".

**Enable Screen Color Changes For System Alerts?** - To alert the user of warning conditions (no flow, failed sensor, etc.), the OmniPL can change its screen color. The screen can display yellow or red depending on the severity of the condition.

**Time and Date** - "Automatically get time and date from internet" and "Automatically adjust for daylight savings time" are enabled by default. It is recommended that you leave them enabled if your OmniPL system has an internet connection. Disabling "Automatically get time and date from internet" will allow you to set the current date and time using a 12hr clock (AM/PM) or 24hr clock (military time). Save by touching the Done button when finished. NOTE: When registering the OmniPL and creating a web account, you'll be prompted to enter a Time Zone. Be sure to enter the same time zone as the physical location of the OmniPL, otherwise schedules and timers will be inaccurate.

**Select Desired Units of Measure** - If Standard is selected, temperatures will be displayed in Fahrenheit. If Metric is selected, temperatures will be displayed in Celsius.

**MSP ID** - The OmniPL MSP ID number will be displayed. This unique number is used to identify your OmniPL when setting up a web account. A web account is needed to access the OmniPL over the web by mobile devices. **IMPORTANT:** write down the MSP ID number for future use. The MSP ID number will be needed when entering the configuration wizard after initial configuration as well as entering and exiting Simple Mode. Simple Mode is a customizable screen that can be set up for quick access to pool/spa functions and features.

**How many Bodies of Water?** The OmniPL can support one or two bodies of water, typically a pool and spa. Select the number and advance. You'll be brought to a screen where you can add, delete or edit a Body of Water. When initially configuring the OmniPL, a "?" will appear in the Body of Water button. You will have to configure this body of water by selecting it and then touching the Advance button. When finished configuring bodies of water, you'll be returned to this same screen. Touch the Done button and advance to the next section of configuration.

**IMPORTANT:** The following instructions are for Body of Water 1 configuration. When finished with the first Body of Water, you'll follow the same instructions for the second Body of Water. When configuring the second Body of Water, you'll have the option of using "Shared Equipment". If Shared Equipment is enabled, the second Body of Water will use the filter pump as well as other equipment (heater, chlorinator, etc.) that has been assigned to the first Body of Water. Additionally, you will have the option for using "Shared Heaters". If you have dual equipment with shared heaters, this can be configured from the second Body of Water's configuration menu. See page 31 for more information regarding Shared Equipment in the second Body of Water configuration menu.



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**What is the Body of Water type?** Select the type of Body of Water that you would like to configure. The choices are Pool and Spa.

**Name of Body of Water** - Selecting the box will allow you to edit the name. During initial configuration, the box will be blank. Select the box and then use the keyboard to enter the desired name of the body of water.

**Size of Body of Water** - Enter the Body of Water size in gallons.

**How Many Filter Pumps?** - This question is for THIS BODY OF WATER ONLY. For example: If you have 2 pumps; one for the pool Body of Water and one for the spa Body of Water, you would answer "1" to this question.

If "1" or more is selected:

**Name Filter Pump** - Touch the box and use the keyboard to name the filter pump.

**What Type** - Depending on your answer, the OmniPL will use one relay (single speed pumps), two relays (two speed pumps) or the low speed communication bus (VSP pumps) for pump control. Select the type of pump and advance.

If one speed or two speed pump is selected:

**Which Relay is it Wired to?** If using a single speed or two speed pump, you'll be asked which relay(s) is wired to the pump and a box will be shown. Selecting the box will bring you to a table showing all detected relays. Select the proper relay(s) from the table and touch the Done button to proceed. The relay(s) should now be shown in the box(es) and you can advance to the next screen to continue the pump configuration.

**Filter Pump Off for Valve Change?** When Yes is selected, the pump will shut off for 35 seconds whenever the valve(s) change position.

**Flow Monitoring Enabled?** Requires use of a Hayward flow switch. This feature will help protect the filter pump from damage due to no flow. When Yes is selected, the OmniPL will monitor the state of water flow when the filter pump is on. If no flow is detected for more than 20 minutes, the OmniPL will shut down the pool pump and will indicate an error. The error will be cleared the next time the pump is turned on.

**Would You Like to Enable Priming?** Select whether you want the filter pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds. If Yes is selected, the following screen will allow you to choose the length of time the pump will prime. This option only appears if the filter pump is configured as a 2-Speed pump.

**Freeze Protection Enabled?** Freeze protection is used to protect the pool and plumbed equipment against freeze damage during cold temperatures. If freeze



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protection is enabled AND the air temperature falls below the freeze threshold, the OmniPL will turn on the filter pump to circulate the water. If two Bodies of Water are configured, the valves will also alternate between the pool and spa every 30 minutes and the filter pump will turn off while the valves are turning. The chlorinator will not operate if freeze protection is the only reason the pump is running.

If Yes is selected:

**Freeze Protection Temperature?** Select the temperature to be used for freeze protection. Temperature is adjustable from 33°F-42°F (1°C-6°C). 38°F (3°C) is default. This threshold will be used for all outputs that have freeze protection enabled.

If VSP is selected:

**Which Hayward Unique Address?** If using a VSP, you'll be asked what is the Hayward Unique Address (HUA). If a value is already shown in the box, advance to the next screen. If no value is shown, selecting the box will bring you to a table showing all detected devices. Select the proper HUA from the table and touch the Done button. If unsure of the HUA, refer to the pump's manual for instructions on how to determine the pump's HUA. Once selected, the address should now be shown in the box and you can advance to the next screen to continue the VSP configuration.

**Pump Capacity** - Set the minimum and maximum RPM of the pump. Refer to your pump manual for more information.

**Permitted User Setting** - The OmniPL will automatically calculate these values based on the minimum and maximum RPM that were previously entered. They can be changed as desired.

**Speed Presets** - Set the Low Pump Speed %, Medium Pump Speed %, and High Pump Speed %, presets. These presets will be used when setting schedules for your pump.

**Filter Pump Off for Valve Change?** When Yes is selected, the pump will shut off for 35 seconds whenever the valve(s) change position.

**Flow Monitoring Enabled?** Requires use of a Hayward flow switch. This feature will help protect the filter pump from damage due to no flow. When Yes is selected, the OmniPL will monitor the state of water flow when the filter pump is on. If no flow is detected for more than 15 minutes, the OmniPL will shut down the pool pump and will indicate an error. The error will be cleared the next time the pump is turned on.

**Would You Like to Enable Priming?** Select whether you want the filter pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated.



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after being off for at least 30 seconds. If Yes is selected, the following screen will allow you to choose the length of time the pump will prime.

**Freeze Protection Enabled?** Freeze protection is used to protect the pool and plumbed equipment against freeze damage during cold temperatures. If freeze protection is enabled AND the air temperature falls below the freeze threshold, the OmniPL will turn on the filter pump to circulate the water. If two Bodies of Water are configured, the valves will also alternate between the pool and spa every 30 minutes and the filter pump will turn off while the valves are turning. The chlorinator will not operate if freeze protection is the only reason the pump is running.

If Yes is selected:

**Freeze Protect Temperature?** Select the temperature to be used for freeze protection. Temperature is adjustable from 33°F-42°F (1°C-6°C). 38°F (3°C) is default. This threshold will be used for all outputs that have freeze protection enabled.

**Freeze Protect Speed?** This is the speed of the pump while freeze protection is active. Select the desired pump speed %.

**How many Heaters?** This question is for THIS BODY OF WATER ONLY. For example: If you have 2 heaters, one for the pool Body of Water and one for the spa Body of Water, you would answer "1" to this question. Note that you can have a maximum of 5 heaters/chillers per Body of Water.

If "1" or more is selected:

**Heater Coolsdown Enabled?** This feature ensures that the heater cools down before water circulation is stopped. When enabled, the OmniLogic will continue to run the filter pump for 5 minutes after the heater turns off.

**Heater Extend Enabled?** If "Enabled", the filter extend logic keeps the filter pump running beyond the normal turn-off time until the pool (or spa) is heated up to the desired temperature setting. Heater extend will NOT cause the filter pump to turn on, it will only delay the turn off time when the heater is operating.

**Settable Water Temperature Range?** This is the maximum and minimum allowed settings for heating and/or cooling.

**Select and Configure a Heater** At this screen, you can add, delete and configure your heater(s). Select the desired heater, then touch the Advance button. When finished configuring heater(s), you'll be returned to this same screen. Touch the Done button and advance to the next section of configuration. Refer to the following information when configuring heater(s):

**Do you want to configure a Smart Heater?** This option only appears if you have a heater with OmniLogic remote control capability connected to your OmniLogic and powered on. Select "Yes" if you would like to configure this heater now or "No" if you would like to configure a different heater.



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If Yes is selected:

**Which Hayward Unique Address?** Select the HUA of the Smart Heater that you would like to configure.

**Name Heater** Select the box, then type the desired name for your heater. This name will be used when referring to this particular heater.

**Does Heater Have a Valve?** Select whether or not the heater has an associated valve that will turn on when the heater is activated. If Yes is selected, the following screen will ask where the valve is wired (refer to Connection Table for this information).

**Minimum Allowed Air Temperature for Heater?** If the air temperature falls below this setting, the heater will be prevented from running, regardless of conditions. This feature is especially useful for heat pumps which become less efficient as the outdoor ambient temperature falls.

**Minimum Operation Speed?** For variable speed pumps, select the lowest pump speed that is allowed while heating. Set a speed that will ensure that there will be sufficient flow for the heater to operate properly. For two speed pumps, you can select if you want to allow the filter pump to run at low speed during heater operation.

**What Type?** Heater choices are Solar, Heat Pump, Gas, Geothermal, and Electric. Make your selection and advance.

If Gas or Electric Heater is selected:

**Name Heater** Select the box, then type the desired name for your heater. This name will be used when referring to this particular heater.

**Which Relay is it Wired to?** Selecting the box will bring you to a table showing all detected relays. Select the low voltage relay that is wired to the heater (refer to the Connection Table for this information), then advance. The relay should now be shown in the box. Advance to the next screen to continue gas heater configuration.

**Does Heater Have a Valve?** Select whether or not the heater has an associated valve that will turn on when the heater is activated. If Yes is selected, the following screen will ask where the valve is wired (refer to Connection Table for this information).

**Heater Priority Duration?** This question will appear of more than one heater is configured. Set the amount of time that you will allow the priority heater to heat before allowing the next heater to start. If the priority heater meets the demand within this time frame, the next heater will not be used. Note that a time interval setting of "0" will eliminate priority and always run both heaters at the same time. If a time interval setting of "24"



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is selected, the next priority heater will not turn on until the first priority heater becomes invalid to run.

**Minimum Operation Speed?** For variable speed pumps, select the lowest pump speed that is allowed while heating. Set a speed that will ensure that there will be sufficient flow for the heater to operate properly. For two speed pumps, you can select if you want to allow the filter pump to run at low speed during heater operation.

If Heat Pump or Geothermal is selected:

**Name Heater** Select the box, then type the desired name for your heater. This name will be used when referring to this particular heater.

**Which Relay is it Wired to?** Selecting the box will bring you to a table showing all detected relays. Select the low voltage relay that is wired to the heater (refer to the Connection Table for this information), then advance. The relay should now be shown in the box. Advance to the next screen to continue heat pump configuration.

**Does Heater Have a Valve?** Select whether or not the heater has an associated valve that will turn on when the heater is activated. If Yes is selected, the following screen will ask where the valve is wired (refer to Connection Table for this information).

**Does Heater Support Cooling?** If your Heat Pump or Geothermal Heater supports cooling and you would like to use it to chill your pool/spa water, select Yes to this question. If Yes is selected, the following screen will ask where the cooling relay is located (refer to Connection Table for this information).

**Heater Priority Duration?** This question will appear if more than one heater is configured. Set the amount of time that you will allow the priority heater to heat before allowing the next heater to start. If the priority heater meets the demand within this time frame, the next heater will not be used. Note that a time interval setting of "0" will eliminate priority and always run both heaters at the same time. If a time interval setting of "24" is selected, the next priority heater will not turn on until the first priority heater becomes invalid to run.

**Minimum Allowed Air Temperature for Heater? (Heat Pump Only)** If the air temperature falls below this setting, the heater will be prevented from running, regardless of conditions. This feature is especially useful for heat pumps which become less efficient as the outdoor ambient temperature falls.

**Minimum Operation Speed?** For variable speed pumps, select the lowest pump speed that is allowed while heating. Set a speed that will ensure that there will be sufficient flow for the heater to operate properly. For two speed



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pumps, you can select if you want to allow the filter pump to run at low speed during heater operation.

If Solar is selected:

**Name Heater** Select the box, then type the desired name for your heater. This name will be used when referring to this particular heater.

**Does the Solar Heater Have a Pump?** Select whether the solar heating system has a dedicated recirculation pump. If so, the OmniLogic will turn this pump on when the pool temperature is below the heater setting and there is solar heat available.

If Yes is selected:

**Which Relay is it Wired to?** Selecting the box will bring you to a table showing all detected relays. Select the high voltage relay that is wired to the heater (refer to the Connection Table in for this information), then advance. The relay should now be shown in the box. Advance to the next screen to continue solar heater configuration.

**Does the Solar Heater Have a Valve?** Select whether the solar heating system has a diverter valve to route pool/spa water through the solar collectors. If so, the OmniLogic will rotate this valve when the pool temperature is below the heater setting and there is solar heat available.

If Yes is selected:

**Where is the valve wired?** Selecting the box will bring you to a table showing all detected low voltage relays. Select the relay that is wired to the solar valve, then advance. The relay should now be shown in the box. Advance to the next screen to continue solar heater configuration.

**Where is the Solar Temperature Sensor Located?** Selecting the box will bring you to a table showing all detected sensors. Select the solar sensor (usually SENS3), then advance. The sensor should now be shown in the box. Advance to the next screen to continue solar heater configuration.

**Heater Priority Duration?** This question will appear if more than one heater is configured. Set the amount of time that you will allow the priority heater ("1") to heat before allowing the next heater to start. If the priority heater meets the demand within this time frame, the next heater will not be used. Note that a time interval setting of "0" will eliminate priority and always run both heaters at the same time. If a time interval setting of "24" is selected, the next priority heater will not turn on until the first priority heater becomes invalid to run.

**Does Solar Require the Filter Pump to Prime When it First Turns On?** If Yes is selected, the filter pump will turn on in high speed for 3 minutes to circulate water to the solar panels when the heater is activated.



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This setting is especially useful if you do not have a boost pump to push the pool/spa water to the roof.

**Minimum Operation Speed?** Select the lowest pump speed that is allowed while solar heating. Set a speed that will ensure that there will be sufficient flow for the solar heating system to operate properly. For two speed pumps, you can select if you want to allow the filter pump to run at low speed during heater operation.

**Would You Like To Prioritize The Use Of Solar Heating Over Any Other Types?** Select Yes if you would like your solar heater to always be the number 1 heater priority if multiple heaters are configured.

**How Many Chillers?** This question is for THIS BODY OF WATER ONLY. For example: If you have 2 chillers, one for the pool and one for the spa, you would answer "1" to this question. Note that you can have a maximum of 5 heaters/chillers per Body of Water.

If "1" or more is selected:

**Name Chiller** Select the box, then type the desired name for your chiller. This name will be used when referring to this particular chiller.

**Is Chiller Wired to a Relay?** Select whether or not the Chiller is wired to a relay. If Yes is selected, the following screen will ask you to select where the relay is wired (refer to Connection Table for this information).

**Does Chiller Have a Valve?** Select whether or not the Chiller has an associated valve. If Yes is selected, the following screen will ask you to select where the valve is wired (refer to Connection Table for this information).

**Chiller Priority Duration?** This question will appear if more than one chiller is configured. Set the amount of time that you will allow the priority chiller to cool before allowing the next chiller to start. If the priority chiller meets the demand within this time frame, the next chiller will not be used. Note that a time interval setting of "0" will eliminate priority and always run both chillers at the same time. If a time interval setting of "24" is selected, the next priority chiller will not turn on until the first priority chiller becomes invalid to run.

**Minimum Operation Speed?** Select the lowest pump speed that is allowed while solar heating. Set a speed that will ensure that there will be sufficient flow for the solar heating system to operate properly. For two speed pumps, you can select if you want to allow the filter pump to run at low speed during heater operation.

**Do you have a Sense & Dispense Module?** Select Yes if a Hayward HL-CHEM (sold separately) is connected to the OmniPL.

If Yes is selected:

The next few screens will configure the OmniPL to use Sense and Dispense. The OmniPL



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automatically detects smart components like the HL-CHEM, and assigns a Hayward Unique Address. If multiple components are detected, the OmniPL will show a table of devices and prompt you to select the proper device.

**Which Hayward Unique Address?** If a Hayward Unique Address (HUA) is already shown in the box, touch the Advance button. If no address is shown, selecting the box will bring you to a table showing all detected Sense and Dispense devices. Select the HL-CHEM from the table and touch the Done button to advance. The address should now be shown. Touch the Advance button to continue configuring the OmniPL for use with the HL-CHEM.

**Does ORP Control Chlorination?** If you say Yes to this, the HL-CHEM will constantly measure ORP and will adjust the pool's chlorine based on a predetermined setpoint that you will select. The system will monitor ORP and automatically generate/dispense the correct amount of chlorine to maintain a desired level. Alternatively, if you say No to this question and select a TurboCell, the HL-CHEM will monitor ORP, but the amount of chlorine generated will be based on a manual setting that you will select.

If Yes is selected:

**ORP Setpoint** - Set the desired ORP level which is measured in mV. 650mV is the default. The OmniPL will continuously measure ORP and generate/dispense the proper amount of chlorine to maintain this setpoint.

**ORP Timeout** - Select a timeout interval. If the OmniPL has been chlorinating for more than the selected ORP timeout without reaching the desired level, the chlorinator will turn off and display an alarm. The user must clear the alarm to resume chlorination.

**Type of Chlorinator?** Select the Hayward TurboCell model, liquid chlorinator or tablet feeder that is installed in your system. A flow switch must be installed when using a chlorinator.

If TurboCell model is selected (requires a connected Hayward TurboCell or AquaRite with HLAQRPCB communication board):

**Select Salt Monitoring Level** - Select Standard Salt or Low Salt. If running the system using a low salt level (1200 PPM-1800 PPM, 1500 PPM optimal) select Low Salt. If running the system using standard salt level (2700 PPM - 3400 PPM, 3200 PPM optimal), select Standard Salt.

**Where is the Cell Located?** If an entry is already shown in the box, touch the Advance button. If no entry is shown, selecting the box will bring you to a table showing the detected cells. The OmniPL will detect a directly connected TurboCell and/or a TurboCell that is connected to an AquaRite (requires HLAQRPCB communication board). The table will display "Main Panel" under device type for directly connected TurboCells and "AquaRite", if a AquaRite is used.



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If Liquid Chlorinator is selected:

**Select Relay** - Selecting the box will bring you to a table showing all HV relays. Find the relay that is connected to the Liquid Chlorinator. Select the relay and select Done.

If Tablet Feeder is selected:

**Where is the Valve Wired?** - Selecting the box will bring you to a table showing all valve outputs. Find the valve that is connected to the Tablet Feeder. Select the valve and select Done.

If No is selected:

**Do You Have a Salt Water Chlorine Generator?** (requires a connected Hayward TurboCell).

If Yes is selected:

**Type of Cell?** Select the type of Hayward TurboCell that is installed in your system.

**Where is the Cell Located?** If an entry is already shown in the box, touch the Advance button. If no entry is shown, selecting the box will bring you to a table showing the detected cells. The OmniPL will detect a directly connected TurboCell.

**Percentage of Output** - The OmniPL can only generate chlorine while the filter pump is operating. Set the percentage of run time that you desire chlorine generation. Raise this value to generate more chlorine. Lower this value to generate less.

**Is pH Reduction Enabled?** Select Yes if you have a dispenser to lower pH connected to the OmniPL.

If Yes is selected:

**Are you Using Acid or CO<sub>2</sub>?** Select one.

**How Many Acid/CO<sub>2</sub> Dispensers?** Select the number of Acid/CO<sub>2</sub> dispensers in your system.

**Which relay is it Wired to?** Select the box to advance to the High Voltage Table. This table lists all of the high voltage relays that are installed in the OmniPL. Select the relay that is wired to the pH dispense unit. Refer to the Connection Table for this information.

**pH Setpoint** - Selecting the box will allow you to change the setpoint (7.5 default). Touch the Advance button when finished.

**pH Dispensing Timeout** - Select a timeout interval. If the unit has been dispensing for more than the selected timeout without reaching the desired level, pH dispensing will turn off and an alarm will be displayed. Check the chemical supply and the feeder. If both are OK, the timeout may need to be increased.



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The user must clear the alarm to resume pH dispensing.

**pH Extend Enabled** - If enabled, the OmniPL will continue to run the filter pump regardless of schedule until the pH level in the pool has reached the setpoint.

**How Many Cleaners?** - This question is for THIS BODY OF WATER ONLY. For example: If you have 2 cleaners; one for the pool Body of Water and one for the spa Body of Water, you would answer "1" to this question.

If "1" or more is selected:

**Select and Configure a Cleaner** At this screen you can add, delete and configure your cleaner(s). Select the desired cleaner, then touch the Advance button. When finished configuring cleaner(s), you'll be returned to this same screen. Touch the Done button to advance to the next section of configuration. Refer to the following information when configuring cleaner(s):

**Type of Cleaner?** Touch the box and select the type of cleaner used. Choices are Pressure, Suction, Robotic and In-Floor.

**Name of Cleaner** - Touch the box and use the keyboard to name the cleaner.

**Does Cleaner Have a Pump?** Select whether the cleaner has a dedicated pump. If so, the OmniPL will turn this pump on when the cleaner is scheduled to run.

If Yes is selected:

**What Type?** Select the type of pump used. The choices are Single Speed, Two Speed and VSP.

If single speed or two speed pump is selected:

**Which Relay is it Wired to?** If using a single speed or two speed pump, you'll be asked which relay(s) is wired to the pump and a box will be shown. Selecting the box will bring you to a table showing all detected relays. Select the proper relay(s) from the table and touch the Done button. The relay should now be shown in the box(es) and you can advance to the next screen to continue the pump configuration.

**Would You Like to Enable Priming?** Select whether you want the pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds. This option only appears if the pump is configured as a 2-Speed pump.

If VSP is selected:

**Which Hayward Unique Address?** If using a VSP for your cleaner pump, you'll be asked what is the Hayward Unique Address (HUA). If a value is already shown in the box, advance to the next screen. If



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no value is shown, selecting the box will bring you to a table showing all detected devices. Select the proper HUA from the table and touch the Done button. The address should now be shown in the box and you can advance to the next screen to continue the VSP configuration.

**Pump Capacity** - Set the minimum and maximum RPM of the pump. Refer to your pump manual for more information.

**Permitted User Setting** - The OmniPL will automatically calculate these values based on the minimum and maximum RPM that were previously entered. They can be changed as desired.

**Speed Presets** - Set the Low Pump Speed %, Medium Pump Speed %, and High Pump Speed %, presets. These presets will be used when setting schedules for your pump.

**Would You Like to Enable Priming?** Select whether you want the pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds.

**Does Cleaner have a Valve?** Select whether the cleaner requires a valve to change position when in use.

If Yes is selected:

**How Many?** Select how many valves are used for the cleaner.

**Where is the Valve(s) Wired?** Selecting the box will bring you to a table showing all detected low voltage relays. Select the relay(s) that is wired to the cleaner valve(s), then advance. The valve(s) should now be shown in the box(es). Advance to the next screen to continue cleaner configuration.

**Would you like your valve(s) to cycle On and Off at a set interval?** If you would like the cleaner valve(s) to cycle to a set interval while cleaning, select Yes. Set the interval on the next screen.

**Freeze Protection Enabled?** Freeze protection is used to protect the pool and plumbed equipment against freeze damage during cold temperatures. If freeze protection is enabled AND the air temperature falls below the freeze threshold (refer to pump configuration), the OmniPL will turn on the cleaner pump to circulate the water.

**How Many Water Features?** - This question is for THIS BODY OF WATER ONLY. For example: If you have 2 water features; one for the pool Body of Water and one for the spa Body of Water, you would answer "1" to this question.

If "1" or more is selected:

**Select and Configure a Water Feature** At this screen you can add, delete and configure



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your water features. Select the desired water feature, then touch the Advance button. When finished configuring water features, you'll be returned to this same screen. Touch the Done button and advance to the next section of configuration. Refer to the following information when configuring water features:

**Type of Water Feature?** Touch the box and select the type of water feature used. Choices are Water Feature, Water Slide, Waterfall, and Fountain.

**Name of Water Feature** - Touch the box and use the keyboard to name the water feature.

**Does Water feature Have a Pump?** Select whether the water feature has a dedicated pump. If so, the OmniPL will turn this pump on when the water feature is scheduled to run.

If Yes is selected:

**What Type?** Select the type of pump used. The choices are Single Speed, Two Speed and VSP.

If single speed or two speed pump is selected:

**Which Relay is it Wired to?** If using a single speed or two speed pump, you'll be asked which relay(s) is wired to the pump. Selecting the box will bring you to a table showing all detected relays. Select the proper relay(s) from the table and touch the Done. The relay(s) should now be shown in the box(es) and you can advance to the next screen to continue the pump configuration.

**Would You Like to Enable Priming?** Select whether you want the pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds. This option only appears if the pump is configured as a 2-Speed pump.

If VSP is selected:

**Which Hayward Unique Address?** If using a VSP for your water feature pump, you'll be asked what is the Hayward Unique Address (HUA). If a value is already shown in the box, advance to the next screen. If no value is shown, selecting the box will bring you to a table showing all detected devices. Select the proper HUA from the table and touch the Done button. If unsure of the HUA, refer to the pump's manual for instructions on how to determine the pump's HUA. Once selected, the address should now be shown in the box and you can advance to the next screen to continue the VSP configuration.

**Pump Capacity** - Set the minimum and maximum RPM of the pump. Refer to your pump manual for more information.



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**Permitted User Setting** - The OmniPL will automatically calculate these values based on the minimum and maximum RPM that were previously entered. They can be changed as desired.

**Speed Presets** - Set the Low Pump Speed %, Medium Pump Speed %, and High Pump Speed %, presets. These presets will be used when setting schedules for your pump.

**Would You Like to Enable Priming?** Select whether you want the pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds.

**Water Feature Wired to a Relay?** Select whether the water feature requires the use of a high voltage relay.

If Yes is selected:

**Select Relay** - Touching the box will bring you to a table showing all detected relays. Select the relay(s) that is connected to the water feature and touch the Done button. The relay should now be shown in the box and you can advance to the next screen to continue water feature configuration.

**Does Water Feature have a Valve?** Select whether the water feature requires a valve to change position when in use.

If Yes is selected:

**How Many?** Select how many valves are used for the water feature.

**Where is the Valve(s) Wired?** Selecting the box will bring you to a table showing all detected low voltage relays. Select the relay(s) that is wired to the water feature valve(s), then advance. The valve(s) should now be shown in the box. Advance to the next screen to continue water feature configuration.

**Freeze Protection Enabled?** Freeze protection is used to protect the pool and plumbed equipment against freeze damage during cold temperatures. If freeze protection is enabled AND the air temperature falls below the freeze threshold (refer to pump configuration), the OmniPL will turn on the water feature pump to circulate the water.

If Yes is selected:

**Freeze Protect Speed?** This is the speed of the pump while freeze protection is active. Select the desired pump speed %. NOTE: this option only appears if the pump is a two speed pump or a variable speed pump.

**Would You Like To Configure A Default Startup Speed For Water Feature?** If the water feature has a valve and the system uses a VSP filter pump, the OmniPL allows you to set a startup pump speed for the water feature, regardless of the pump's schedule. The speed will change at the next scheduled interval.

**Do You Want to Configure Any Lights?** Select yes if you are using any type of pool or spa lights.



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The options are Universal ColorLogic (UCL), ColorLogic 4.0 (CL4.0), ColorLogic 2.5 (CL2.5), WaterBowl, Pentair Color LED (P-COLOR), Jandy Color LED (Z-Color), Incandescent, and Other. Transformers powering Universal ColorLogic lights must all be connected to the same high voltage relay for synchronization to function properly. If using Omni Direct mode, you must use an internal relay, not an HLRELAYBANK.

If Yes is selected:

**What Kind of Lights?** Touch the box to select the type of lights that will be used. The options are UCL (14V), CL4.0 (115V), CL2.5 (14V), WaterBowl, P-Color, Z-Color, Incandescent, and Other.

**Name the Group of Lights** - Touch the box and use the keyboard to name the lights.

**How Many Relays are Lights Wired to?** Select the number of relays used by the lights.

**Which Relay is it Wired to?** Touching the box(es) will bring you to a table showing all detected relays. Select the relay(s) that are connected to the lights and touch the Done button. If the lights are connected to a Smart Power Transformer, select the zone(s) that the lights are wired to. The relay(s) should now be shown in the box(es) and you can advance to the next screen to continue the configuration.

If UCL was previously selected:

**Would you like to test for Omni Direct capability?** For UCL lights manufactured after June 2018, you can select Yes and the OmniPL will test your lights to confirm. If your lights blink white after the test, you can enable Omni Direct mode. If not, the UCL light will default to UCL Standalone mode. Note that if you are configuring a WaterBowl light, the Flicker feature will only be available if the light is set to OmniDirect mode.

**How Many Accessories?** Select the number of accessories that will be used for this Body of Water only. You'll have an opportunity to configure accessories for the spa and also the backyard at a later point.

If "1" or more is selected:

**Select and Configure Accessories** At this screen you can add, delete and configure your accessories. Select the desired accessory, then touch the Advance button. When finished configuring accessories, you'll be returned to this same screen. Touch the Done button and advance to the next section of configuration. Refer to the following information when configuring accessories:

**Type of Accessory?** Touch the box and select the type of accessory used. Choices are Laminars, Jets, Blower and Other.

**Name of Accessory** - Touch the box and use the keyboard to name the accessory.

**Does Accessory Have a Pump?** Select whether the accessory has a dedicated pump. If so, the OmniPL will turn this pump on when the accessory is scheduled to run.

If Yes is selected:

**What Type?** Select the type of pump used. The choices are Single Speed, Two Speed and VSP.



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If single speed or two speed pump is selected:

**Which Relay is it Wired to?** If using a single speed or two speed pump, you'll be asked which relay(s) is wired to the pump. Select the proper relay(s) from the table and touch the Done button. The relay(s) should now be shown in the box(es) and you can advance to the next screen to continue the pump configuration.

**Would You Like to Enable Priming?** Select whether you want the pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds. This option only appears if the pump is configured as a 2-Speed pump.

If VSP is selected:

**Which Hayward Unique Address?** If using a VSP for your accessory pump, you'll be asked what is the Hayward Unique Address (HUA). If a value is already shown in the box, advance to the next screen. If no value is shown, selecting the box will bring you to a table showing all detected devices. Select the proper HUA from the table and touch the Done button. The address should now be shown in the box and you can advance to the next screen to continue the VSP configuration.

**Pump Capacity** - Set the minimum and maximum RPM of the pump. Refer to your pump manual for more information.

**Permitted User Setting** - The OmniPL will automatically calculate these values based on the minimum and maximum RPM that were previously entered. They can be changed as desired.

**Speed Presets** - Set the Low Pump Speed %, Medium Pump Speed %, and High Pump Speed %, presets. These presets will be used when setting schedules for your pump.

**Would You Like to Enable Priming?** Select whether you want the pump to prime when turned on. This will turn the pump on at high speed for a set amount of time to establish normal water flow every time the pump is activated after being off for at least 30 seconds.

**Accessory Wired to Relay?** Select whether the accessory requires the use of a high voltage relay.

If Yes is selected:

**Select Relay** - Touching the box will bring you to a table showing all detected relays. Select the relay that is connected to the accessory and touch the Done button. The relay should now be shown in the box and you can advance to the



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next screen to continue the accessory configuration.

**Does Accessory have a Valve?** Select whether the accessory requires a valve to change position when in use.

If Yes is selected:

**How Many?** Select how many valves are used for the accessory.

**Where is the Valve(s) Wired?** Selecting the box will bring you to a table showing all detected low voltage relays. Select the relay(s) that is wired to the accessory valve(s), then advance. The valve(s) should now be shown in the box. Advance to the next screen to continue accessory configuration.

**Freeze Protection Enabled?** Freeze protection is used to protect the pool and plumbed equipment against freeze damage during cold temperatures. If freeze protection is enabled AND the air temperature falls below the freeze threshold (refer to pump configuration), the OmniPL will turn on the accessory pump to circulate the water.

If Yes is selected:

**Freeze Protect Speed?** This is the speed of the pump while freeze protection is active. Select the desired pump speed %. NOTE: this option only appears if the pump is a two speed pump or a variable speed pump.

**Would You Like To Configure A Default Startup Speed For the Accessory?** If the accessory has a valve and the system uses a VSP filter pump, the OmniPL allows you to set a startup pump speed for the accessory, regardless of the pump's schedule. The speed will change at the next scheduled interval.

NOTE: The following configuration settings are specific to the second Body of Water regarding Shared Equipment and Dual Equipment with shared heaters setup.

As you advance through the second Body of Water's configuration settings, note that most of the questions asked are the same as the first Body of Water with the exception of the following:

## **Does Body of Water 2 share its equipment with Body of Water 1?**

If Yes is selected:

Your system will be "fully shared" which means your filter pump/heaters/chemistry will be shared between both Bodies of Water. You can now set your filter pump and heater settings for this body of water.

If No is selected:

You will begin dual equipment setup for you second Body of Water. This means that your filter pump and chemistry will not be shared between both Bodies of Water, but you will still have the option of configuring shared heaters and spillover. You can now configure a filter pump and heaters for this body of water.

## **Are any of Body of Water 2's heaters shared with Body of Water 1?**

If Yes is selected:

**Which body of water is heated in the event that both are running?** Select the Body of



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Water that you would like to have heating priority if both Bodies of Water are running. This question only appears if you have a Pool/Pool or Spa/Spa setup. If you have a Pool/Spa setup, then the Spa Body of Water will automatically have heating priority.

**Select Shared Heater Valves** - Select Body of Water 1's return valve, Body of Water 2's return valve, and the Heater return valve in your system. The selections will also affect spillover operation.

**Select the heaters you wish to share** - Select the heaters that you configured in Body of Water 1 that you would like to be shared with Body of Water 2 and press advance.

**Does this body of water have any additional heaters?** Select whether you have any additional heaters in Body of Water 2 that you would like to configure that are not shared with Body of Water 1.

**Do you have Spillover?** Select yes to this question if you have Spillover in your system. If yes is selected, choose the valves that will operate Spillover from the following screen.

NOTE: The remaining configuration settings are not specific to a Body of Water.

**Do You Have an Air Temperature Sensor?** Select whether there is an air temperature sensor wired to the OmniPL.

If Yes is selected:

**Where is the Sensor Wired?**

Touching the box will bring you to a table showing all detected sensors connections. Select the sensor connection used for the air sensor (typically SENS2) and touch the Done button. The sensor connection should now be shown in the box and you can advance to the next screen to continue configuration.

**Do You Have a Water Temperature Sensor?** Select whether there is a water temperature sensor wired to the OmniPL.

If Yes is selected:

**Where is the Sensor Wired?**

Touching the box will bring you to a table showing all detected sensors connections. Select the sensor connection used for the water sensor (typically SENS1) and touch the Done button. The sensor connection should now be shown in the box and you can advance to the next screen to continue configuration.

**Do You Have a Flow Switch?** Select whether there is a flow switch wired to the OmniPL.

If Yes is selected:

**Where is the Sensor Wired?**

Touching the box will bring you to a table showing all detected sensors connections. Select the sensor connection used for the (typically FLOW SWITCH 1) and touch the Done button. The sensor connection should now be shown in the box and you can advance to the next screen to continue configuration.



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**Select and Configure Sensors** At this screen you can add, delete and configure your sensors. Select the desired sensor, then touch the Advance button. When finished configuring sensors, you'll be returned to this same screen. Touch the Done button and advance to the next section of configuration. Refer to the following information when configuring sensors:

**Where is the Sensor Located?** Touch the box and go to the table showing the Bodies of Water and the Backyard. Select the location where the sensor is installed.

**What Type of Sensor?** Select the type of sensor. Choices are Air, Water, Flow or Solar.

**Name Sensor** - Touch the box and use the keyboard to name the sensor.

**Where is the Sensor Wired?** Touching the box will bring you to a table showing all detected sensors connections. Select the sensor connection used for the sensor and touch the Done button. The sensor connection should now be shown in the box and you can advance to the next screen to continue configuration.

**Do You Want to Configure Any Backyard Lights?** Select yes if you are using any type of pool, spa or outdoor lights. The options are Universal ColorLogic (UCL), ColorLogic 4.0 (CL4.0), ColorLogic 2.5 (CL2.5), WaterBowl, Pentair Color LED (P-COLOR), Jandy Color LED (Z-Color), Incandescent, and Other. Transformers powering Universal ColorLogic lights must all be connected to the same high voltage relay for synchronization to function properly. If using Omni Direct mode, you must use an internal relay, not an HLRELAYBANK.

If Yes is selected:

**What Kind of Lights?** Touch the box to select the type of lights. The options are UCL (14V), CL4.0 (115V), CL2.5 (14V), WaterBowl, P-Color, Z-Color, Incandescent, and Other.

**Name the Group of Lights** - Touch the box and use the keyboard to name the lights.

**How Many Relays are Lights Wired to?** Select the number of relays used by the lights.

**Which Relay is it Wired to?** Touching the box(es) will bring you to a table showing all detected relays. Select the relay(s) that are connected to the lights and touch the Done button. If the lights are connected to a Smart Power Transformer, select the zone(s) that the lights are wired to. The relay(s) should now be shown in the box(es) and you can advance to the next screen to continue the configuration.

If UCL was previously selected:

**Would you like to test for Omni Direct capability?** For UCL lights manufactured after June 2018, you can select Yes and the OmniPL will test your lights to confirm. If your lights blink white after the test, you can enable Omni Direct mode. If not, the UCL light will default to UCL Standalone mode. Note that if you are configuring a WaterBowl light, the Flicker feature will only be available if the light is set to Omni-Direct mode.

**How Many Accessories are in the Backyard?** Select the number of accessories that will be used for the backyard.



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If "1" or more is selected:

**Select and Configure Accessories** At this screen you can add, delete and configure your accessories. Select the desired accessory, then touch the Advance button. When finished configuring accessories, you'll be returned to this same screen. Touch the Done button and advance to the next section of configuration. Refer to the following information when configuring accessories:

**Name of Accessory** - Touch the box and use the keyboard to name the accessory.

**Which Relay is it Wired to?** Touching the box will bring you to a table showing all detected relays. Select the relay that is connected to the accessory and touch the Done button. The relay should now be shown in the box and you can advance to the next screen to continue the accessory configuration.

**NOTE: Do not use the OmniPL to control fire pits or any other fire related equipment.**

**Would You Like to Add an Interlock?** An interlock will allow the OmniPL to turn on or off pool equipment (affected) based on the state of other pool equipment (monitored). An example of this is would be the desire to turn on walkway lighting (affected) every time the pool deck lights (monitored) are turned on. This equipment could have been wired together to accomplish the same function, but by interlocking the walkway lights to the deck lights, you'll maintain the ability to turn on the walkway lights independently. An interlock can also control pool equipment based on the state of a temperature sensor, flow switch or external input (normally open/closed switch). An example of this would be to turn on a cabana fan (affected) whenever the outside temperature sensor reads above 90°F. Or, turning on a bug lamp (affected) when a photo sensor (monitored) detects that it is dusk.

If Yes is selected:

**Select an Interlock Type** - From this screen, select the type of interlock that you would like to configure. The choices are: Equipment to Equipment, Equipment to Sensor, Equipment to Mode, Theme to Sensor, Spillover to External Input and Pool Cover Interlock. Note that interlocks are only selectable if the equipment/features used in that interlock are available. For example, if there are no Themes configured, the Theme to Sensor interlock is not selectable.

If Equipment to Equipment is selected:

To configure the interlock, you'll be asked a series of questions. The questions will vary depending on the equipment that will be configured and cannot all be covered in this manual. In general, you'll select equipment that will be monitored and equipment that will be affected. The equipment could be pumps, valves, heaters, lights, etc. The affected equipment will activate/deactivate depending on the state of the monitored equipment. Advance through the configuration and when finished, a summary screen will be displayed. The summary will describe how the interlocked equipment will function. Read through the description and make sure the equipment will function as desired.

If Equipment to Sensor is selected:

This interlock is similar to above, but the monitored equipment will be a sensor. The monitored sensor can be any sensor, flow switch or external input that has been configured for use with the OmniPL. The affected equipment will activate/deactivate depending on the state of the monitored sensor. For flow switch sensors, affected



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equipment will turn on/off when the flow switch detects flow or no flow. For temperature sensors, affected equipment will activate/deactivate when the temperature is higher or lower than a desired setpoint. For external inputs, affected equipment will turn on/off when the switch is actuated. Advance through the configuration and when finished, a summary screen will be displayed. The summary will describe how the interlocked equipment will function. Read through the description and make sure the equipment will function as desired.

If Equipment to Mode is selected:

With Equipment to Mode interlock, affected equipment will activate/deactivate based on which mode the OmniPL is in; Pool, Spa or Spillover. You can configure this interlock to turn on/off equipment whenever the OmniPL goes into one of these available modes. Advance through the configuration and when finished, a summary screen will be displayed. The summary will describe how the interlocked equipment will function. Read through the description and make sure the equipment will function as desired.

If Theme to Sensor is selected (at least one Theme must be configured, see Operation Manual):

This interlock is similar to the Equipment to Sensor interlock but a Theme is affected instead. As explained in the Operation manual, Themes are created to execute many pool functions with a single button. With a Theme to Sensor interlock, the Theme will run or stop depending on the state of the monitored sensor. For flow switch sensors, the Theme will run or stop when the flow switch detects flow or no flow. For temperature sensors, the Theme will run or stop when the temperature is higher or lower than a desired setpoint. For external inputs, the Theme will run or stop when the switch is actuated. Advance through the configuration and when finished, a summary screen will be displayed. The summary will describe how the interlocked Theme will function. Read through the description and make sure the equipment will function as desired.

If Spillover to External Input is selected (requires that you have an external input configured):

This interlock prevents Spillover mode when an external input (most commonly a pool cover sensor) is actuated. By interlocking Spillover to the pool cover sensor, you'll ensure that water cannot spill into the pool when the cover is in the closed position. A summary screen will be displayed after configuring this interlock. Read through the description and make sure the interlock will function as desired.

If Pool Cover Interlock is selected (if using an automatic pool cover):

This interlock makes it easy to assign specific pool settings when the cover is closed. Pump speed, heater temperature and chlorination percentage can all be preset for periods when the pool cover sensor (external input) detects that the cover is closed. Some or all of these options may not appear if you don't have a variable speed pump, heater or if not using chlorination. An alternative to this interlock is using a Theme to Sensor interlock. Create a Theme using desired settings when the pool cover is



closed, then interlock the Theme to the pool cover sensor. A summary screen will be displayed after configuring this interlock. Read through the description and make sure the interlock will function as desired.

**Configuration Summary** The OmniPL displays all configured equipment in a table for you to view. Scroll through all configured devices and make sure they've been properly assigned.

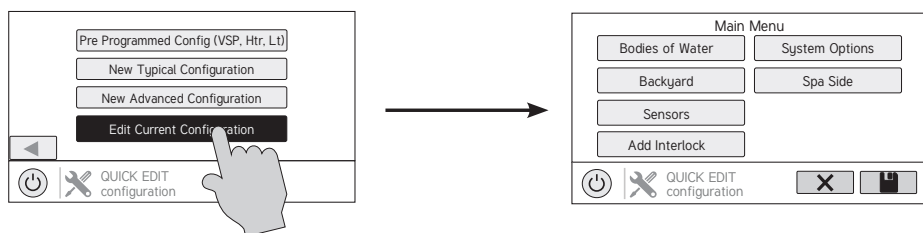
**Finished with Configuration** Now that all equipment has been configured, select the following:

**Customizing / Add Components** - use this selection to go back into Configuration and make changes.

**Save and Restart** - this selection will save your configuration settings and restart the OmniPL.

## Quick Edit Guide

If additional pool or backyard equipment is added after initial configuration, or you'd like to make a change to an existing configuration setting, re-enter the Configuration Wizard and select "Edit". After selecting "Edit", you will be brought to the Quick Edit Main Menu screen as shown below. Quick Edit allows you to go directly to the equipment that you'd like to add/remove/configure. When you have finished editing the configuration, you will return to this screen to save your changes.



## Navigation

There are a number of additional buttons that appear in Quick Edit that either have functions unique to Quick Edit or do not appear anywhere else in the system. These buttons are as follows:

 **Save** - Touch this button to save the configuration edit. This button only appears on the Quick Edit Home screen.

 **Cancel** - Touch this button to cancel any changes made to the configuration and exit Quick Edit. This button only appears on the Quick Edit Home Screen.

 **Home** - Touch this button to quickly jump back to the Quick Edit Main Menu Screen to save your changes. This button appears at the end of every configuration pathway.

 **Back** - Touch this button to go back to the previous set of configurable items.



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See page 14 for a full list of buttons that appear during configuration.

As you are using Quick Edit, you will notice that at the end of each pathway, a Home button and a back arrow will appear. If you are finished making changes, press the Home button and then press the Save button to save your configuration. If you would like to make more changes to the same device, press the back arrow. This will take you back to the last screen of configurable items for that device. If you would like to continue to make changes, but to a different device, press the Home button and then follow the pathway to the new device. The following pages will explain each configuration pathway.

## Begin Using Quick Edit

From the Quick Main Menu Screen, select one of the following buttons and follow the directions below to configure your equipment.

- Bodies of Water
- Backyard
- Sensors
- Interlocks/Add Interlock
- System Options
- Spa Side

If Bodies of Water is selected:

**Select the body of water** - Select the Body of Water that you would like to make changes to. Both bodies of water will have the same equipment options for Quick Edit.

Body of Water is selected:

**Select the Equipment that you would like to configure** - The options are as follows: Filter Pumps, Heaters, Chemistry, Cleaners, Water Features, Standalone Lights, Accessories, and Other Options. If the equipment is not already configured, then the buttons will appear as Add Heater, Add Chemistry, etc. When the button is pressed with the word "Add" before it, then you will be taken through the full configuration for that equipment as appears in the Configuration Wizard portion of this manual. Otherwise:

If Filter Pumps is selected:

**Select a Filter Pump** - Once you select a filter pump, all of the options for that filter pump will appear on the next screen. These options are as follows:

Name - Rename the Filter Pump to whatever name you desire.

Type - Change the type of Filter Pump that is configured (Single Speed, 2-Speed, or VSP)

HUA - Match the HUA (Hayward Unique Address) to the configured Filter Pump. This option only appears if the Filter Pump is configured as a Variable Speed Pump.

Speed - Change the Minimum and Maximum Allowed Speeds of the Filter Pump as well as the Low, Medium and High speed settings. This option only appears



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If the Filter Pump is configured as a Variable Speed Pump.

**Relay** - Select the relay(s) that the Filter Pump is wired to. This option only appears if the Filter Pump is configured as a single speed or 2-Speed pump.

**Off for Valve Change** - Select whether you want the Filter Pump to shut off while valves are turning.

**Flow Monitoring** - Select whether you want flow to be monitored in this Body of Water.

**Priming** - Select whether you want the Filter Pump to prime and the desired duration. This option only appears if the Filter Pump is configured as a 2-Speed or Variable Speed Pump.

**Freeze Protect** - Select whether you want the Filter Pump to turn on for Freeze Protection. Also set the Freeze Protect air temperature threshold from this menu. Freeze protect operation can be overridden for a 60 minute period. (See Operation manual for more information).

If Heating/Cooling is selected:

**Add a Heater** - Pressing "Add a Heater" from this screen will take you through the full configuration for adding a new heater. These steps are described in the Configuration Wizard portion of this manual.

**Add a Chiller** - Pressing "Add a Chiller" from this screen will take you through the full configuration for adding a new chiller. These steps are described in the Configuration Wizard portion of this manual.

**General Heater Options** - Pressing this button will take you to a screen with the following general options for heater operation:

**Extend** - Select whether you want Heater Extend enabled for this Body of Water.

**Cooldown** - Select whether you want Heater Cooldown enabled for this Body of Water.

**Max Temperature** - Select the Maximum Allowed Heater Setpoint Temperature for this Body of Water.

**Select a Heater/Chiller** - Once you select a heater/chiller, all of the options for that heater/chiller will appear on the next screen. These options are as follows:

**Name** - Rename the heater/chiller to whatever name you desire.

**HUA** - Select the HUA of the Smart Heater. This option only appears if a Smart



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Heater is configured.

Type - Select the type of heater that is configured (Solar, Heat Pump, Gas, Geothermal, Electric).

Relay - Select the relay that the heater/chiller is wired to. Option not available for Solar heaters.

Valve - Configure the heating/cooling valve, if used.

Min Filter Speed - Select the minimum speed that the Filter Pump will run while the heater/chiller is active.

Min Air Temperature - Select the minimum air temperature that the heater will be allowed to run at. This option is only available if the heater is configured as a Heat Pump.

Priority Duration - Select the number of hours that this heater/chiller will run before the next priority heater/chiller turns on.

Pump - Configure the boost pump for the heater. This option is only available if the heater is configured as a Solar heater.

Solar Sensor - Configure the solar sensor. This option is only available if the heater is configured as a Solar heater.

Require Priming - Configure whether or not the filter pump will turn on for 3 minutes to prime during solar heating.

**Delete a Heater/Chiller** - From this screen, if you wish to delete a heater/chiller that is currently configured, select the trash can on the right of the name of the heater/chiller that you wish to delete.

If Chemistry is selected:

**pH** - Once you select pH, all of the options for pH dispensing will appear on the next screen. These options are as follows:

Reduction ON - Select whether you want pH reduction to be enabled.

Chemical Type - Select the type of chemical that is being dispensed (acid or CO<sub>2</sub>).

pH Dispensers - Configure the pH dispense unit.

pH Timeout - Choose the pH timeout time.

pH Extend - Select whether you want pH extend enabled for this Body of Water.



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**Chem Sense Module** - Once you select Chem Sense Module, you will be able to select the HUA of your Chem Sense Module you are using from the next screen.

**Chlorination** - A flow switch must be installed for this function. Once you select Chlorination, all of the options for chlorination will appear on the next screen. These options are as follows:

Dispenser Type - Select the type of dispenser used (T-CELL model, liquid chlorinator or tablet feeder).

Dispenser Relay or Valve - Depending on your dispenser type, select the output that controls the dispenser.

ORP Timeout - Choose the ORP timeout time and desired ORP setpoint. This option is only available if ORP controls chlorination.

**Delete Chem Sense Module/Chlorination** - From this screen, if you wish to delete any currently configured chemistry options, select the trash can on the right of the name of the item that you wish to delete.

NOTE: If either pH dispensing or chlorination are not configured, then this screen will give you the option to "Add CSM" or "Add Chlorination." If either of those options are selected, then you will be taken through the full configuration for that equipment as appears in the Configuration Wizard portion of this manual.

If Cleaners is selected:

**Add Cleaner** - Pressing "Add Cleaner" from this screen will take you through the full configuration for adding a new cleaner. These steps are described in the Configuration Wizard portion of this manual.

**Select a Cleaner** - Once you select a cleaner, all of the options for that cleaner will appear on the next screen. These options are as follows:

Name - Rename the cleaner to whatever name you desire.

Type - Select the type of cleaner that is configured (Pressure, Suction, Robotic, In Floor).

Pump - Configure the cleaner pump, if used.

Relay - Select the relay that the cleaner is wired to. This option only appears if the cleaner does not have an associated pump configured.

Valve - Configure the cleaner valve, if used.



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**Freeze Protect** - Select whether you want the cleaner to turn on for Freeze Protection. Also set the Freeze Protect air temperature threshold from this menu.

**Valve Cycle** - Configure the valve cycling time period for the cleaner. This option is only available if the cleaner has an assigned valve.

**Speed** - Change the Minimum and Maximum Allowed Speeds of the cleaner as well as the Low, Medium and High speed settings. This option only appears if the cleaner pump is configured as a Variable Speed Pump.

**Priming** - Select whether you want the cleaner pump to prime and the desired duration. This option only appears if the cleaner pump is configured as a 2-Speed or Variable Speed Pump.

**Delete a Cleaner** - From this screen, if you wish to delete a cleaner that is currently configured, select the trash can on the right of the name of the cleaner that you wish to delete.

If Water Features is selected:

**Add Water Feature** - Pressing "Add Water Feature" from this screen will take you through the full configuration for adding a new water feature. These steps are described in the Configuration Wizard portion of this manual.

**Select a Water Feature** - Once you select a water feature, all of the options for that water feature will appear on the next screen. These options are as follows:

**Name** - Rename the water feature to whatever name you desire.

**Type** - Change the type of water feature that is configured (Waterfall, Waterslide, etc.).

**Pump** - Configure the water feature pump, if used.

**Relay** - Select the relay that the water feature is wired to. This option appears only if the water feature does not have an associated pump configured.

**Valve** - Configure the water feature valve, if used.

**Speed** - Change the Minimum and Maximum Allowed Speeds of the water feature pump as well as the Low, Medium and High speed settings. This option only appears if the water feature pump is configured as a Variable Speed Pump.

**Priming** - Select whether you want the water feature pump to prime and the desired duration. This option is only available if the water feature pump is configured as a 2-Speed or Variable Speed Pump.



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**Freeze Protect** - Select whether you want the water feature to turn on for Freeze Protection. Also set the Freeze Protect air temperature threshold from this menu.

**Default Startup Speed** - Select the speed that the filter pump will run at when the water feature is turned on.

**Delete a Water Feature** - From this screen, if you wish to delete a water feature that is currently configured, select the trash can on the right of the name of the water feature that you wish to delete.

If Standalone Lights is selected:

**Add Standalone Light** - Pressing "Add Standalone Light" from this screen will take you through the full configuration for adding new lights. These steps are described in the Configuration Wizard portion of this manual.

**Select an Existing Group of Lights** - Once you select a group of existing lights, all of the options for those lights will appear on the next screen. These options are as follows:

**Name** - Rename the group of lights to whatever name is desired.

**Type** - Select the type of lights configured.

**Relay** - Select the relay(s) that the group of lights is wired to. If using a Smart Power Transformer, select the zone(s) that the lights are wired to.

**Set Mode** - Set the mode of the lights configured.

**Omni Direct** - If UCL was previously selected, this button will appear and allow you to test whether your UCL lights are Omni Direct compatible (lights built after June 2018). Note that if you are configuring a WaterBowl light, the Flicker feature will only be available if the light is set to OmniDirect mode.

**Delete an Existing Group of Lights** - From this screen, if you wish to delete a group of lights that is currently configured, select the group and then select the trash can button next to it.

If Accessories is selected:

**Add Accessory** - Pressing "Add Accessory" from this screen will take you through the full configuration for adding a new accessory. These steps are described in the Configuration Wizard portion of this manual.

**Select an Accessory** - Once you select an accessory, all of the options for that accessory will appear on the next screen. These options are as follows:



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Name - Rename the accessory to whatever name you desire.

Type - Select the type of accessory configured (Laminar, Dimmer, etc.).

Pump - Configure the accessory pump, if used.

Valve - Configure the accessory valve, if used.

Speed - Change the Minimum and Maximum Allowed Speeds of the accessory pump as well as the Low, Medium and High Speed settings. This option only appears if the accessory pump is configured as a Variable Speed Pump.

Priming - Select whether you want the accessory pump to prime and the desired duration. This option is only available if the accessory pump is configured as a 2-Speed or Variable Speed Pump.

Freeze Protect - Select whether you want the accessory to turn on for Freeze Protection. Also set the Freeze Protect air temperature threshold from this menu.

Relay - Select the relay that the accessory is wired to. This option only appears if the accessory does not have an associated pump configured.

Default Startup Speed - Select the speed that the filter pump will run at when the water feature is turned on.

**Delete an Accessory** - From this screen, if you wish to delete an accessory that is currently configured, select the trash can on the right of the name of the accessory that you wish to delete.

If Other Options is selected:

**Name** - This is where you will be allowed to rename the Body of Water that you are currently configuring to whatever name you desire.

If Backyard is selected:

**Select the Equipment that you would like to configure** - The options are Add Standalone Light and Add Accessory. The configuration for these are described in the Configuration Wizard portion of this manual.

If Standalone Light is selected:

**Add Standalone Light** - Pressing "Add Standalone Light" from this screen will take you through the full configuration for adding new lights. These steps are described in the Configuration Wizard portion of this manual.

**Select an Existing Group of Lights** - Once you select a group of existing lights, all of the options for those lights will appear on the next screen. These options are as follows:



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Name - Rename the group of lights to whatever name is desired.

Type - Select the type of lights configured.

Relay - Select the relay(s) that the group of lights is wired to. If using a Smart Power Transformer, select the zone(s) that the lights are wired to.

Set Mode - Set the mode of the lights configured.

Omni Direct - If UCL was previously selected, this button will appear and allow you to test whether your UCL lights are Omni Direct compatible (lights built after June 2018). Note that if you are configuring a WaterBowl light, the Flicker feature will only be available if the light is set to OmniDirect mode.

**Delete an Existing Group of Lights** - From this screen, if you wish to delete a group of lights that is currently configured, select the group and then select the trash can button next to it.

If Accessories is selected:

**Add Accessory** - Pressing "Add Accessory" from this screen will take you through the full configuration for adding a new accessory to the Backyard. These steps are described in the Configuration Wizard portion of this manual.

**Select an Accessory** - Once you select an accessory, all of the options for that Backyard accessory will appear on the next screen. These options are as follows:

Name - Rename the accessory to whatever name is desired.

Relay - Select the relay that the accessory is wired to.

**Delete an Accessory** - From this screen, if you wish to delete an accessory that is currently configured, select the trash can on the right of the name of the accessory that you wish to delete.

NOTE: The system does not allow you to configure a pump or a valve to accessory equipment in the Backyard.

If Sensors is selected:

**Add Sensor** - Pressing "Add Sensor" from this screen will take you through the full configuration for adding a new sensor. These steps are described in the Configuration Wizard portion of this manual.

**Select a Sensor** - Once you select a sensor, all of the options for that sensor will appear on the next screen. These options are as follows:

Name - Rename the sensor to whatever name is desired.

Location - Select the location that the sensor is wired to.



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**Delete a sensor** - From this screen, if you wish to delete a sensor that is currently configured, select the trash can on the right of the name of the sensor that you wish to delete.

If Interlocks is selected:

**Add Interlock** - Pressing "Add Interlock" from this screen will take you through the full configuration for adding a new interlock. These steps are described in the Configuration Wizard portion of this manual.

**Select an Interlock** - Selecting an interlock from this screen will allow you to view that interlock's configuration. However, you cannot edit a pre-existing interlock. In order to change an interlock's configuration, you have to delete the obsolete interlock and create a new one.

**Delete an Interlock** - From this screen, if you wish to delete an interlock that is currently configured, select the trash can on the right of the name of the interlock that you wish to delete.

NOTE: If there are currently no interlocks configured on your system, then the button will appear as "Add Interlock" instead of "Interlocks". In this case, pressing "Add Interlock" will take you through the full configuration for adding a new interlock. These steps are described in the Configuration Wizard portion of this manual. Once an interlock has been created, the button will say "Interlocks".

If System Options is selected:

**Modify Network Setup** - Press this button to modify or setup a wired, wireless or external wireless connection.

*Setup a Wireless Connection?* Select "Yes" for wireless and "No" for wired, external wireless (using Hayward HLWLAN) or to skip this step.

**If Yes is selected** - From the Network Connections screen that follows, select the desired access point. Note that a 2.4GHz connection to the router is required. You will then be prompted to input the password for that access point. Once you input the password and press the check mark to continue, a Network Diagnostic screen will appear and the OmniPL will run through a series of checks to verify connection to the access point. When the system is done running through the diagnostics, press the check mark to continue to the next section of the Configuration Wizard.

**If No is selected** - Choose an option below:

*External Wireless* - Make this selection when setting up a Hayward HLWLAN. Note that a 2.4GHz connection to the router is required. Once the system is done running through the diagnostics, press the check mark to continue to the next section of the Configuration Wizard.

*Wired* - For a wired connection, run an Ethernet cable from the Controller to the router (page 22). After selecting "Wired", the system will display the ip address and other network properties. Press the check mark and the OmniPL will verify the network connection. You can now exit back to the main menu and continue with the Configuration Wizard.

*Not Now* - Skip network setup and continue with Configuration Wizard.



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**Mood Color** - To alert the user of warning conditions (no flow, failed sensor, etc.), the OmniPL can change its screen color. The screen can display yellow or red depending on the severity of the condition.

**Simple Mode** - Use this selection to enable and disable icons to be displayed while in Simple Mode screen. For more information, refer to the Simple Mode section in the Operation manual.

If Spa Side is selected (requires HLSPASIDE):

**Spa Side** - Press this button to setup or modify a HLSPASIDE remote control.

**Select an Aux button to configure** - The 3 Aux buttons on the HLSPASIDE can be configured to run equipment, favorites or themes. In some cases, these buttons may be assigned to default functions. To change functions or assign a new function, select the button that you'd like to configure.

If an Aux button is selected:

**Select Function** - There are 4 options available.

**Equipment** - Pressing this button will bring you to a screen that shows all available equipment. Select the desired equipment that you want to assign to the Aux button.

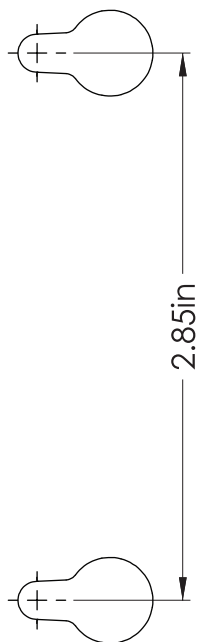
**Favorite** - Pressing this button will bring you to a screen that shows all available Favorites. These Favorites had to have been defined prior to configuring the Aux buttons. Select the desired Favorite that you want to assign to the Aux button.

**Theme** - Pressing this button will bring you to a screen that shows all available Themes. These Themes had to have been defined prior to configuring the Aux buttons. Select the desired Theme that you want to assign to the Aux button

**Unconfigured** - If set to "Unconfigured", the Aux button will have no function.



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Control Pad Mounting Template



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**LIMITED WARRANTY** (effective 03/01/12) Hayward warrants its OmniLogic, OmniHub, ProLogic, On-Command and E-Command pool automation products as well as its Aqua Rite, Aqua Rite Pro, Aqua Plus and SwimPure chlorination products to be free of defects in materials and workmanship, under normal use and service, for a period of three (3) years. Hayward also warrants its Aqua Trol chlorination products to be free of defects in materials and workmanship, under normal use and service for a period of one (1) year. These warranties are applicable from the initial date of purchase on private residential swimming pools in the US and Canada. Installations of product for use on commercial pools in the US and Canada is covered for a period of one (1) year for defects in materials and workmanship. Hayward warrants all accessories and replacement parts for the above-identified pool automation and chlorination products for a period of one (1) year. Accessories also include remotes, actuators, base stations, temperature sensors, flow switches and chemistry probes. Each of these warranties is not transferable and applies only to the original owner.

Hayward shall not be responsible for cartage, removal, repair or installation labor or any other such costs incurred in obtaining warranty replacements or repair.

Proof of purchase is required for warranty service. If written proof of purchase is not provided, the manufacturing date code will be the sole determinant of the date of installation of the product. To obtain warranty service or repair, please contact the place of purchase or the nearest Hayward authorized warranty service center. For more information on authorized service centers please contact the Hayward Technical Service Support Center (61 Whitecap Road, North Kingstown RI, 02852) or visit the Hayward web site at [www.hayward.com](http://www.hayward.com).

#### WARRANTY EXCLUSIONS:

1. Material supplied or workmanship performed by others in process of installation.
2. Damage resulting from improper installation including installation on pools larger than the product rating.
3. Problems resulting from failure to install, operate or maintain the product(s) in accordance with the recommendations contained in the owners manual(s).
4. Problems resulting from failure to maintain pool water chemistry in accordance with the recommendations in the owners manual(s).
5. Problems resulting from tampering, accident, abuse, negligence, unauthorized repairs or alternations, fire, flood, lightning, freezing, external water, degradation of natural stone used in or immediately adjacent to a pool or spa, war or acts of God.
6. Use of a non-genuine Hayward replacement salt chlorination cell on any Hayward automation or chlorination product will void the warranty for that product.

The express limited warranty above constitutes the entire warranty of Hayward Pool Products with respect to its products and is in lieu of all other warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose. In no event shall Hayward Pool products be responsible for any consequential, special or incidental damages of any nature. Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

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