# HAYWARD<sup>®</sup>

# **OmniLogic**<sup>®</sup> Automation and Chlorination

# **Operation Manual**



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HLBASE

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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: Disconnect all AC power during installation.
- WARNING: Water in excess of 100 degrees Fahrenheit may be hazardous to your health.
- WARNING: To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
- WARNING: Do not use the OmniLogic to control fire pits or related equipment.
- A green colored terminal marked "Grounding" is located inside the wiring compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
- One bonding lug for US models (two for Canadian models) is provided on the external surface. To reduce the risk of electric shock, connect the local common bonding grid in the area of the swimming pool, spa, or hot tub to these terminals with an insulated or bare copper conductor not smaller than 8 AWG US / 6 AWG Canada.
- All field installed metal components such as rails, ladders, drains, or other similar hardware within 3 meters of the pool, spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than 8 AWG US / 6 AWG Canada.
- SAVE THESE INSTRUCTIONS

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## Introduction

This manual assumes that the OmniLogic has been installed and configured according to the Installation Manual and is using the latest firmware version available from Hayward. The OmniLogic can now be programmed with user desired settings such as schedules, themes, and favorites. This manual will also explain how to manually turn pool equipment on/off, program settings for specific equipment, view pool equipment status and conditions, and more.

Now that the initial configuration has been completed, the OmniLogic will automatically go to the Home Screen or Idle Screen. All settings and operation functions can be accessed from the Home Screen. Note that if the OmniLogic local terminal is not touched for more than two minutes, the Idle Screen will be displayed.

### Using the Local Touchscreen Terminal

The OmniLogic uses a local touchscreen terminal as the main interface with the device. Once configured, the OmniLogic can be controlled remotely using various Hayward remote terminals or, when connected to the home's network, by Internet enabled devices such as computers, tablets and phones. The local terminal must be used to access the Configuration Wizard. The Configuration Wizard is used for initial configuration (completed during the installation process) and for any changes to existing configuration.

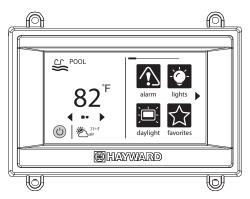
### Idle Screen

The OmniLogic Local Terminal will display the idle screen after two minutes of user inactivity. When the filter pump is on, the Idle Screen will display the current temperature of the Body of Water shown in the upper left corner. If the OmniLogic is configured to control two Bodies of Water, the idle screen will toggle between both. On the right side of the screen, the air temperature will toggle with the date.



### Home Screen

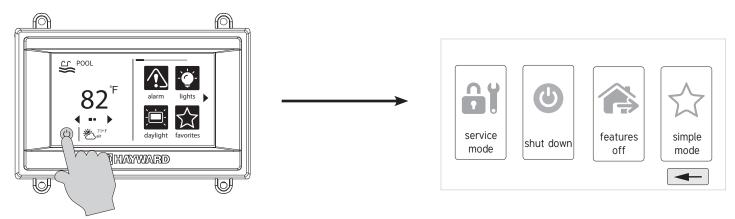
When the idle screen is touched, the OmniLogic will display the Home Screen. This screen will give the user access to all functions, settings and configuration options.





### Power Button

The power button is displayed at all times when the OmniLogic is not idle. When touched, it offers the following 4 functions:



**Shut Down** - When Shut Down is selected, the OmniLogic will turn off all pool equipment and report when it is safe to remove power. When this message is displayed, you can either power off the unit or restart the OmniLogic by touching the large power button displayed on the left side of the screen.

Service Mode - Service Mode will turn off all pool equipment and disable all remote controls including networked devices. Service Mode is useful to prevent scheduled operation and disable remote operation while servicing the pool. After selecting Service Mode, there are two options:

Service Mode (Standard): The OmniLogic will remain in Service Mode until you manually exit. To exit Service Mode, touch the power button and select the Service Mode button again.

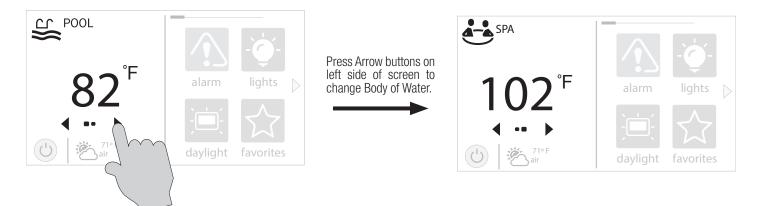
*Service Mode Timed:* Before entering Service Mode, you will select a Service Mode timeout. This is the amount of time that the OmniLogic will stay in Service Mode before automatically exiting. The timeout can be set between 1-96 hours. There is no need to exit Service Mode manually.

Features Off - Features Off offers a quick way to turn off all equipment (except the filter pump, heater, lights and chlorination if running because of a schedule) with a single touch of a button.

Simple Mode - Simple Mode is a customizable screen that can be set up for quick access to your Favorites (page 21). You can set up only the Favorites that you want shown while in Simple Mode. Because it's customizable, Simple Mode can provide a convenient way to access the most common functions for owners as well as a handy solution to limit access to other users. For information on how to create and delete Simple Mode functions, refer to the "Favorites" section in this manual as well as page 33. The MSP ID number is needed when entering and exiting Simple Mode.

### Selecting a Body of Water - Left Side of Home Screen

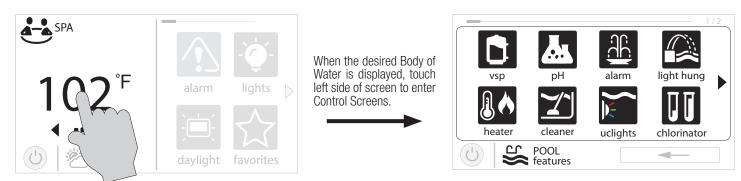
The left side of the Home Screen allows you to select and control a Body of Water. If more than one Body of Water is used (typically a pool and spa), pressing the left and right arrows in the middle of the screen will toggle between the Bodies of Water. If just a pool is configured, there will be no arrows shown.





### Features Screen - Controlling a Body of Water

When the desired Body of Water is displayed, touch the left side of the screen to advance to the Body of Water Features Screens. The items shown on the Features Screen relate to that Body of Water ONLY. To control a different Body of Water, select the desired Body of Water at the Home Screen first, then go to the Features Screens.

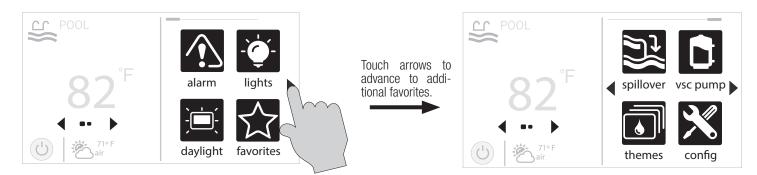


The various buttons shown in the Body of Water Features Screens are related to initial configuration. For example, if you configured a gas heater to heat the Spa Body of Water, the heater setting for the gas heater will be found in the Spa Features Screens.

### Favorites - Right Side of Home Screen

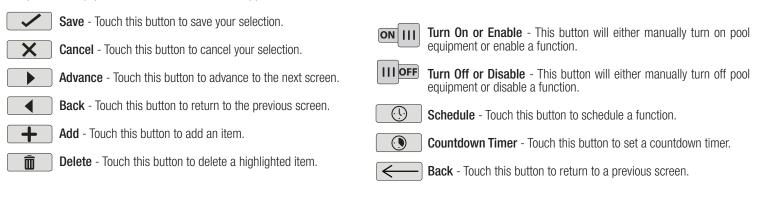
The right side of the Home Screen is Favorites. These buttons offer universal control for Backyard equipment and all Bodies of Water regardless of which one is displayed. Up to four Favorite buttons will be shown on the home screen. To access more Favorites, touch the arrows to the left or right of the Favorite buttons.

Note that some default buttons will appear on the Favorites Screen. These buttons are related to your initial configuration settings and are automatically created. In addition, custom "Favorite" buttons can also be added. The OmniLogic supports up to 50 Favorites for quick easy access to commonly used functions.



### Navigation

The OmniLogic has been designed to be intuitive allowing most users the ability to navigate with little instruction. Below, a list of commonly used buttons are explained. As you navigate through the various screens, these buttons will likely be displayed. Some sections of this manual may refer to buttons that are specific to certain types of pool equipment. You'll find more information about those buttons under their corresponding section. If your installation does not include that particular equipment, those sections can be skipped.

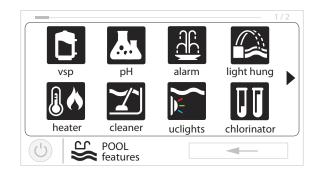


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# Body of Water Features and Control Screens

As previously stated, the Body of Water Features Screens allow you to control functions and equipment for a particular Body of Water. Making a change will not affect other Bodies of Water. For example, if the Pool is being displayed when entering the Features Screens, only the pool will be affected by any changes or settings that you make. The contents of the Features Screen is a result of how the OmniLogic was configured using the Configuration Wizard. If equipment is missing or does not belong in the Body of Water Features Screen, you may have to go back to the Configuration Wizard and correct the configuration of that equipment.

An example of a Features Screen is shown below. In this example, we are looking at the Pool (shown in lower left of screen). The arrow button on the right means that there are more Features Screens if we advance.



Depending on the equipment that has been configured in your system, your screens will likely be different. The purpose of this section is to explain how Features and Control Screens work as well as show some common equipment examples which will help familiarize you with the interface. Even though some of your equipment may be different, you should see similarities in the following examples that will help you create and change settings for all the equipment in your Features Screens.

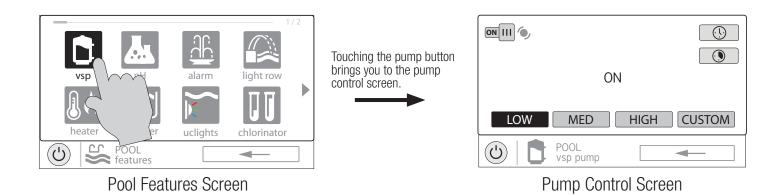
The following examples will be shown for the Pool only. All of the equipment shown in the Features Screens have been initially configured in the Configuration Wizard to operate with the Pool. You may have also configured the same type of equipment to operate with a different body of water. For example, you may have a heater for the pool and a second heater for the spa. The following information should help you understand how to control all of your equipment, regardless of which Body of Water is selected.

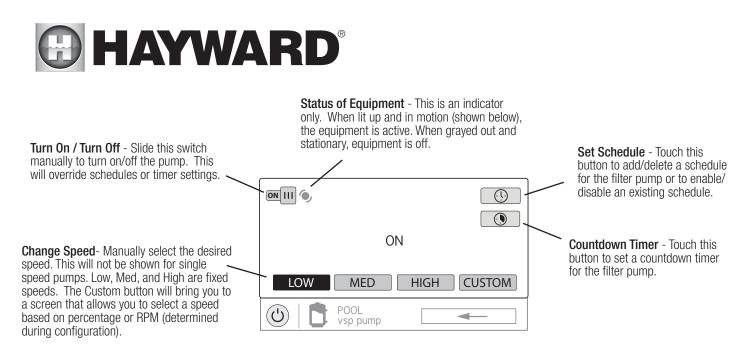
### **Control Screens**

After an item has been selected in the Features Screen, you'll be brought to a Control Screen. Control Screens are where you will actually make changes to the pool's equipment settings. To change a setting, you'll first select the Body of Water, then select the feature you'd like to change in the Features Screen, then make your change in that feature's Control Screen.

### Filter Pump

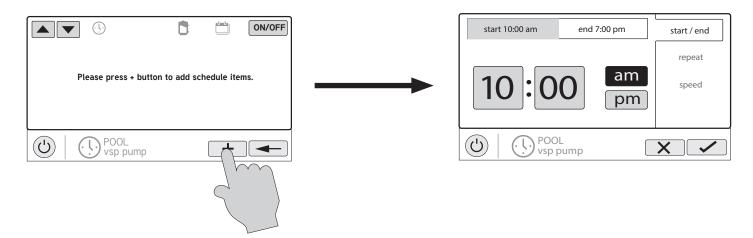
In the example below, a variable speed pump which was named "vsp" has been configured to be used with the Pool in the Configuration Wizard. Touching the "vsp" button in the Features Screen will bring you to a pump Control Screen which will let you manually turn on/off the pump, set a schedule, set a speed, apply a countdown timer and view the status. Single speed and two speed pumps will have a similar Control Screen.





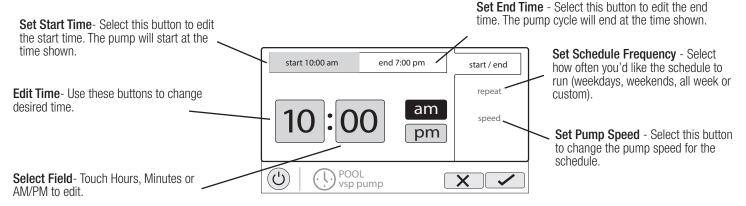
### Add a Schedule

If the "Set Schedule" button is touched, you'll be brought to the pump schedule screen below. Here you can add, delete, edit, enable and disable schedules. Because there have been no schedules set up, the screen is blank. Touch the Add button (+) to add a schedule for the pool pump.



### Set Schedule Time

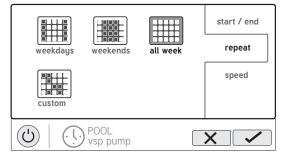
Refer to the screen below to set the start and stop times. When finished, touch "repeat".





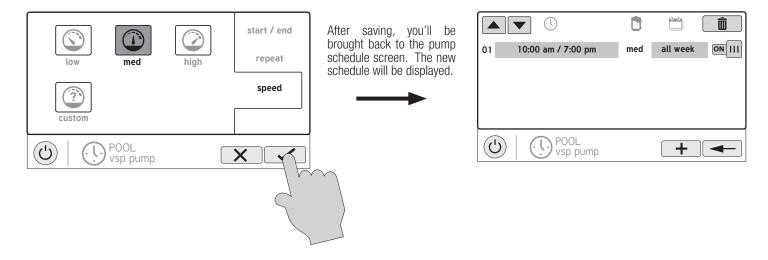
### Set Schedule Frequency

Refer to the screen below to select how often you'd like the schedule to run. If "custom" is selected, you'll be asked which day(s) of the week you would like the pump to run. Touch "speed" when finished.



### Set Pump Speed

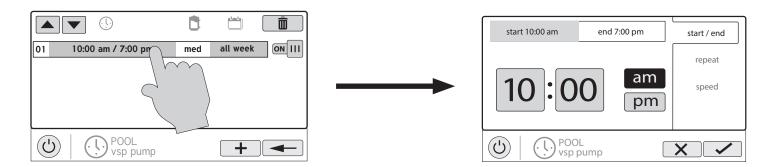
Refer to the screen below to select the pump speed during the schedule. If custom is selected, you'll be asked to set the % pump speed or RPM depending on the setting. When finished, touch the Save button to save the schedule.



NOTE: If you intend to run the pump at different speeds throughout the day, create additional schedules. You can start a new schedule on the same minute that the previous one ends. If schedules overlap, the newest schedule's start time will take priority by ending the previous schedule early. You can create up to 20 schedules per device.

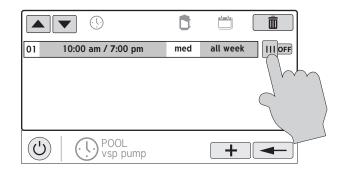
### Edit a Schedule

To edit a schedule, touch the schedule as shown below. You'll be brought back to the screen which will allow you to set times, speed and frequency.

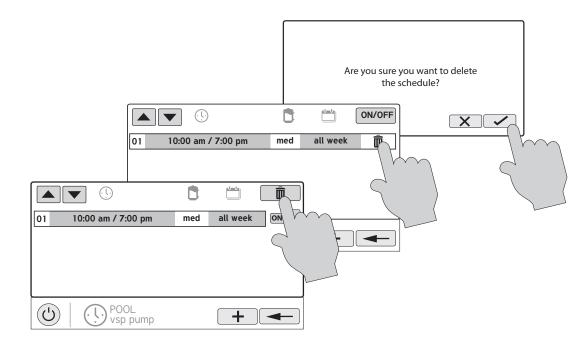




Turning a Schedule Off There may be circumstances when you will want to turn off a schedule temporarily. To do this, slide the On/Off button to "Off". The schedule will remain off until you go back to this screen and turn it on.



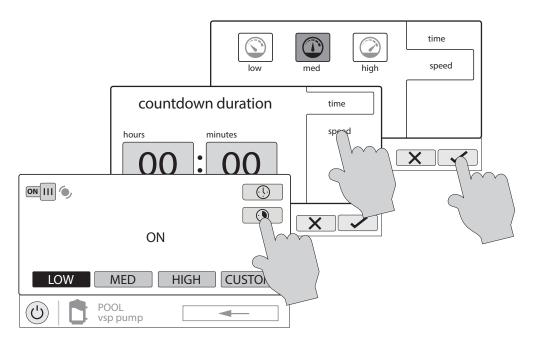
Deleting a Schedule Schedules can be deleted when they are no longer necessary. To delete a schedule, select the schedule and touch Delete as shown below. A Delete button should appear on the side of the schedule. Touch this Delete button to remove the schedule.





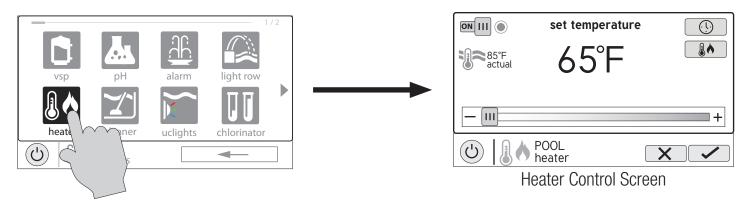
### Countdown Timer

A Countdown timer runs or enables equipment for the amount of time specified. You can initiate the Countdown timer at the equipment's control screen. At the countdown screen, set the desired countdown time. In this case, the timer will run the pump for the specified countdown time. If the equipment is already running due to a schedule, the countdown timer setting will override the schedule and turn off at the end of the countdown interval. If the equipment is off, the countdown timer will turn it on for the duration/speed that has been set.

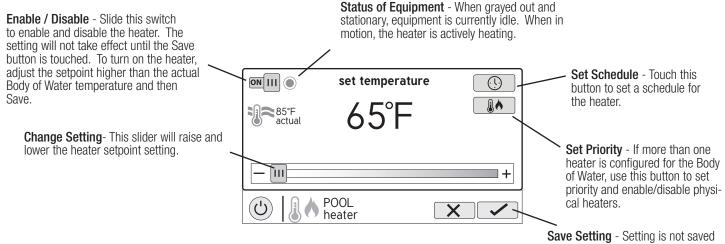


### Heater

Touching the Heater button in the Features Screen will let you enable/disable heaters, set priority, set temperature, set a schedule and view the status of the heater for the selected Body of Water. An example of the heater Control Screen is shown below:





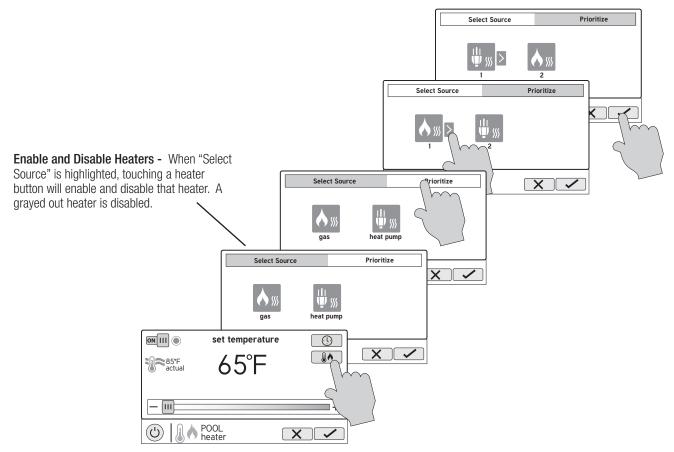


until this button is pushed.

### Setting and Changing Priority

If there is more than one heater configured for the body of water, the Set Priority button will appear in the Heater Control Screen. If the Priority heater can not meet the demand for heat, the next heater will be allowed to operate. Use Priority to maximize efficiency by allowing the most cost effective heater(s) to run first.

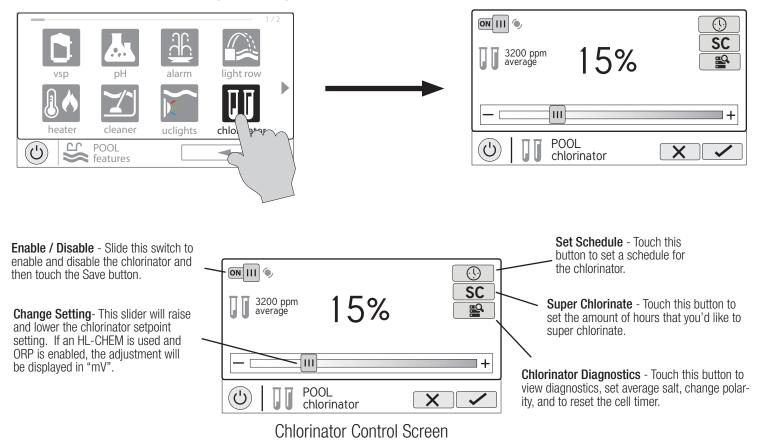
The example below shows how to change priority to run the heat pump first, then, if it can't meet the demand for heat, the gas heater will be allowed to operate. Note that the time interval used for heater priority can only be changed in the Configuration Wizard. Note that a time interval setting of "0" will eliminate priority and always run both heaters at the same time.





### Chlorinator

If a chlorinator has been configured in the Configuration Wizard, you will see it in the Features Screen. Touching the chlorinator button will bring you to the Chlorinator Control Screen that will allow you to enable/disable the chlorinator, set a schedule, super chlorinate and view/change diagnostics. A sample screen is shown below. For schedules, refer to the previous examples in this manual.



If using an HL-CHEM - The Hayward HL-CHEM Sense and Dispense accessory continuously tests the pool's sanitization and pH levels allowing the OmniLogic to automatically generate the correct amount of chlorine and dispense the proper amount of pH reducer. If using the HL-CHEM and ORP has been enabled in the Configuration Wizard, the OmniLogic will display chlorinator readings and settings in "mV" rather than "%". Refer to the information below as well as the HL-CHEM manual for configuration and operation instructions.

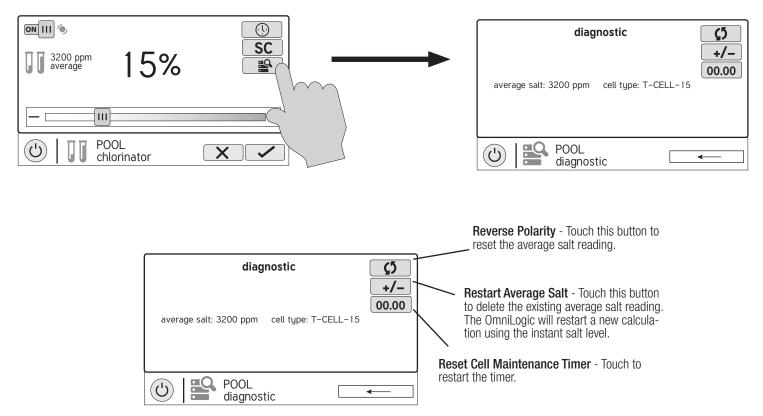
**Chlorinator Setting** - The OmniLogic can only generate chlorine while the filter pump is operating. Set the percentage of run time that you desire chlorine generation. Raise this value to generate more chlorine. Lower this value to generate less.

NOTE: After the initial setting, you may need to raise the setting when the pool water temperature increases significantly, when there is higher than normal bather load or when your chlorinator cell ages. You may need to lower the setting when the pool water temperature decreases significantly or there are long periods of inactivity.

**Super Chlorinate** - When you have an unusually high bather load, a large amount of rain, a cloudy water condition, or any other condition that requires a large amount of chlorine to be introduced to the pool, activate the OmniLogic Super Chlorinate function. The OmniLogic will turn on the filter pump (if not scheduled), set the pool/spa valves to the correct position, and set the chlorine generator to maximum output. The super chlorinate function will continue for the programmed number of hours overriding the normal filter pump schedule settings. At the end of the super chlorinate period, the pool will return to normal operation. If you manually turn off the filter pump, the super chlorinate function terminates.



### **Chlorinator Diagnostics**



For the chlorinator to be operating, several conditions must exist: the filter pump must be running, the flow switch must detect flow, the chlorinator setting must be greater than 0%, the water temperature at the cell must be between 50°F and 140°F (superchlorinate will run under 50° except during freeze protection), and the salt level must be within the operating range. If any of these conditions are not met, the diagnostic screen will show that the chlorinator is off. Also, depending on the chlorinator setting, the OmniLogic may be in between cycles and the chlorinator is at rest (cell current shows 0.00A). To force the start of the new cycle, you can touch the Reverse Polarity button.

NOTE: If a conventional or solar heater is operating, it is likely that the temperature of the water at the cell is higher than the pool/spa water temperature displayed on the OmniLogic default display.

**Restart Average Salt** - The OmniLogic monitors salt level while chlorinating. At any time, go to the chlorinator diagnostic screen to view the average salt based on an ongoing calculated average. If you restart average salt, the previous average is deleted and the OmniLogic begins calculating the new average from that moment. The OmniLogic will start with the instant salt reading and calculate an ongoing average.

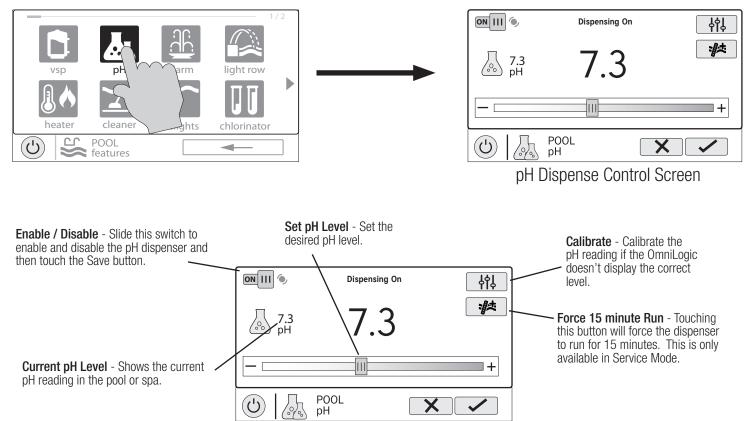
**Reverse Polarity** - The OmniLogic periodically reverses the polarity of the voltage applied to the chlorinator cell in order to automatically clean off any calcium deposits. To check operation in both polarities, touch this button. The chlorinator will turn off, wait for 15 seconds and then turn on in the opposite polarity.

**Reset Cell Maintenance Timer** - To maintain maximum performance, it is recommended that you open and visually inspect the chlorinator cell every 3 months or after cleaning your filter. The OmniLogic will remind you to do this by displaying a message to clean and inspect the cell after approximately 500 hours of operation. You can restart the timer by touching this button.



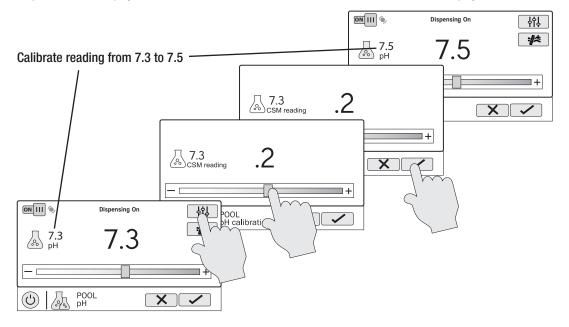
### pH Dispense

**If using an HL-CHEM:** The Hayward HL-CHEM Sense and Dispense accessory continuously tests the pool's sanitization and pH levels allowing the OmniLogic to automatically generate the correct amount of chlorine and dispense the proper amount of pH reducer. Refer to the information below as well as the HL-CHEM manual for configuration and operation instructions.



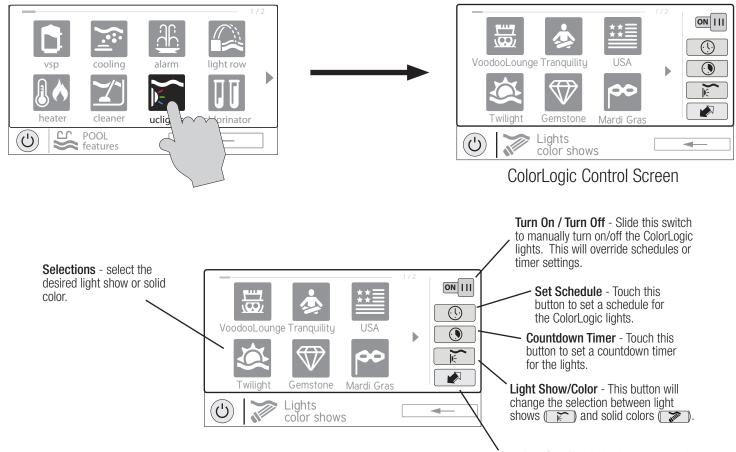
### pH Calibration

If the OmniLogic pH reading differs from independent water tests, you can adjust the reading by touching the Calibrate button and using procedure below. You'll be asked for the difference between the displayed pH level and the true pH level. You'll want to select the amount needed to go from the displayed level to the true level. In the example below, the displayed level is 7.3 and the true level is 7.5. You need to add .2 to the displayed level to arrive at the true pH level.





### ColorLogic Lights



You can set schedules for the ColorLogic light as well as a countdown timer. This procedure has been shown previously. Note that after the countdown interval, the lights will go off regardless of their previous state.

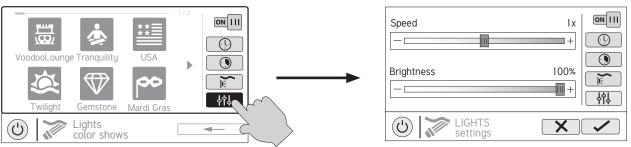
Synchronize- Touch this button to synchronize the ColorLogic lights. The ColorLogic lights will then default to Voodoo Lounge.

Light Show/Color - From the ColorLogic Control Screen, select the desired show or color. Use the Advance button to show all of the available selections. Use the Light Show/Color button to switch between all light shows and all solid colors.

**Synchronize** - Because changing colors and shows requires interrupting power to the ColorLogic lights, there is a chance that the lights could lose synchronization due to timing issues. If you find that the color or show does not correspond with the selection that you've made, the lights may be out of sync. Touch the Synchronize button to re-sync the ColorLogic lights.

### Omni Direct Mode (Universal ColorLogic Lights built after June 2018)

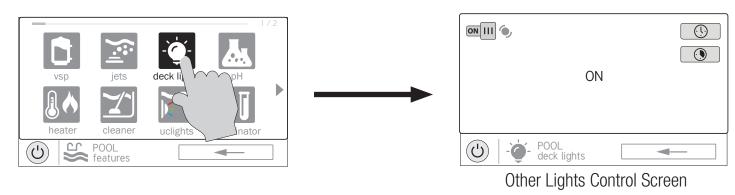
Universal ColorLogic lights built after June 2018 are capable of Omni Direct mode. To run in this mode, select Omni Direct mode when configuring your lights in the Configuration Wizard (see Installation Manual). The OmniLogic will test your lights during configuration to confirm that they support Omni Direct mode. If so, the ColorLogic Control Screen will display a Settings icon rather than a Synchronize button, which allows both Speed and Brightness control shown on the diagram below. Note that Settings will also be an option when setting up schedules and timers for lights running in Omni Direct mode. Refer to your Universal ColorLogic manual for more information about Omni Direct mode.





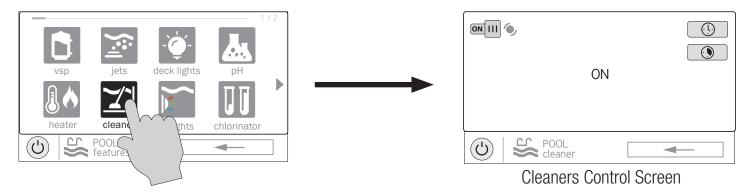
### Other Lights

You can turn other lights on/off, set schedules, and set a countdown timer at the Other Lights Control Screen shown above. These functions have been illustrated previously in this manual.



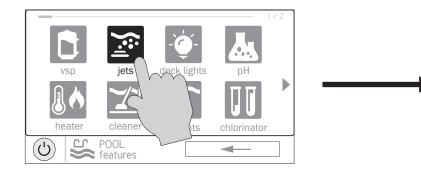
### Cleaners

You can turn the cleaner on/off, set schedules, and set a countdown timer at the Cleaners Control Screen shown below. You can also set pump speed if a twospeed or variable speed pump has been configured to be used with the cleaner. These functions have been illustrated previously in this manual.



### Water Features

You can turn the water feature on/off, set schedules, and set a countdown timer at the Water Features Control Screen shown below. You can also set pump speed if a two-speed or variable speed pump has been configured to be used with the water feature. These functions have been illustrated previously in this manual.



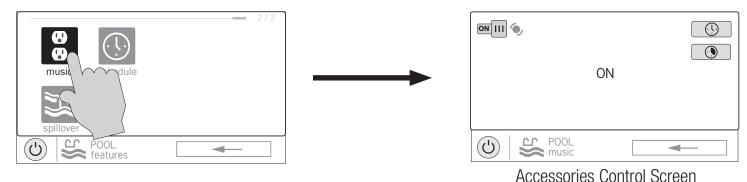
ON III (),	ON	
Der Pool		

### Water Features Control Screen



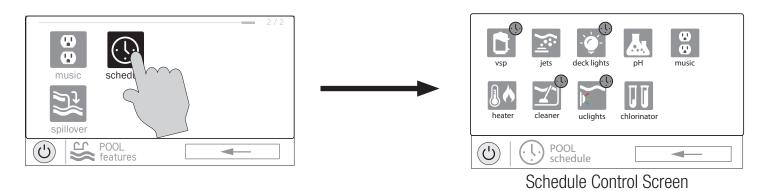
### Accessories

You can turn the accessories on/off, set schedules, and set a countdown timers at the Accessories Control Screen shown below. You can also set pump speed if a two-speed or variable speed pump has been configured to be used with the accessory. These functions have been illustrated previously in this manual.



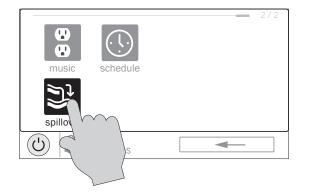
### Schedule

The Schedule button appears in the Features Screen for all Bodies of Water regardless of what equipment has been configured in the Configuration Wizard. It offers a convenient way to create and edit schedules. Any equipment that has been configured for this Body of Water, and has an option for schedules, will be shown in the Schedule Control Screen. Equipment that has been assigned a schedule will show a clock symbol in the upper right side of the button. Touching any of these buttons will bring you to the schedule screen for that equipment. Create and edit schedules as shown on page 8.



### Spillover

If spillover is configured, you can turn spillover on/off, set schedules, and set a countdown timer at the Spillover Control Screen. These functions have been illustrated previously in this manual.



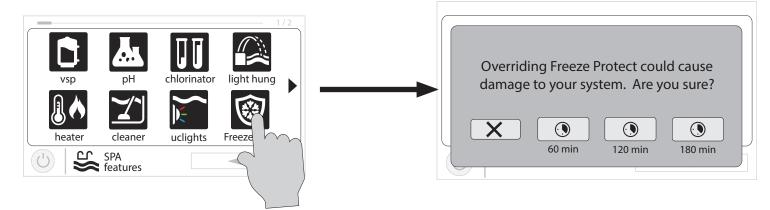


Spillover Control Screen



### Freeze Protect Override

If freeze protection is enabled AND the air temperature falls below the freeze threshold, the OmniLogic 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. Freeze protection can be overridden for 60 minutes by touching the Freeze Prot. button found in the Features Screen for the Body of Water with the highest heating priority (see below). IMPORTANT: Ensure that equipment is protected from a freeze condition before overriding this feature. To resume normal freeze protection, simply touch the Freeze Prot. button again.



## Favorites

Favorites can be found on the right side of the Home Screen and offer control for equipment regardless of which Body of Water is being displayed. Favorites are also used to control equipment that has been configured for the "Backyard". Favorites offer quick easy access to frequently used functions and most Favorites can be added to Simple Mode (page 5).

The OmniLogic will automatically create some Favorites based on your system's configuration. You can also create your own Favorites. Once Favorites have been created, you can change the location in which they appear on the Home Screen. In addition, if you no longer require a Favorite, it can be deleted. The OmniLogic supports up to a total of 50 Favorites.

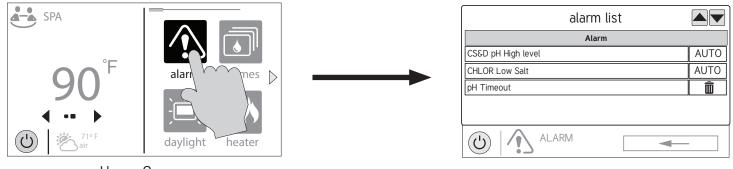
In most cases, touching a Favorite button on the Home Screen will bring you to the same screens that have been covered in the Control Screens section of this manual. Refer to these screens if necessary.

### Alarms

An alarm condition will change the mood color of the entire touchscreen and display a "!" symbol in the upper right side of the associated button as shown:



For more detail, use the Alarm button found in Favorites. Alarms are automatically generated when the OmniLogic detects a condition outside of the normal operating parameters. The Alarm button found in Favorites will bring you to a screen that displays any active alarms. Some alarms can be manually deleted; others will remain until the alarm condition is corrected.



Home Screen



Deleting Alarms For Alarms that can be manually deleted, follow the procedure below.

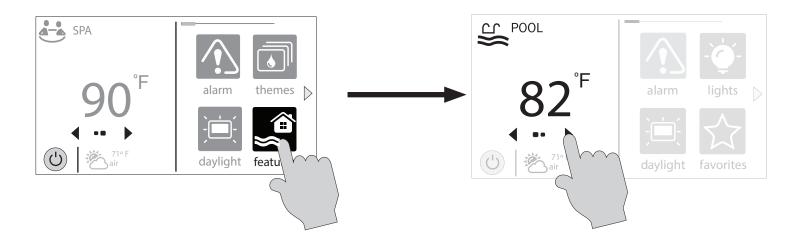
alarm list	
Alarm	
CS&D pH High level	AUTO
CHLOR Low Salt	AUTO
pH Timeout	<u> </u>

### Daylight

Daylight is another button that will appear in Favorites by default. This button is used to change the screen contrast for better viewing in bright sunshine. Touching this button will toggle Daylight viewing on and off.

### Features/Lights/Heaters/Backyard

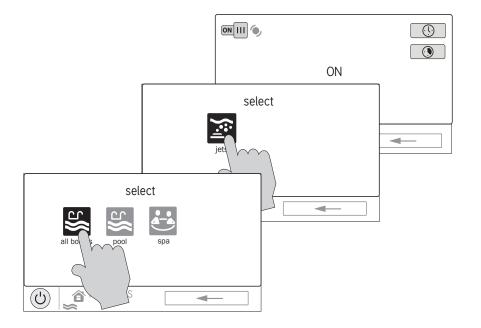
These four buttons function similarly. If any water feature, light, heater or backyard accessory has been configured in the Configuration Wizard, a Features, Lights, Heaters and/or Backyard button will appear in Favorites. These buttons give you quick access to the Control Screens for all related pool equipment. These are the same Control Screens that you've used in the Body of Water Features and Controls Screen section of this manual. For Features, Lights and Heaters you can display the equipment based on a particular Body of Water or from all Bodies of Water as shown below.





### Edit Features/Lights/Heaters

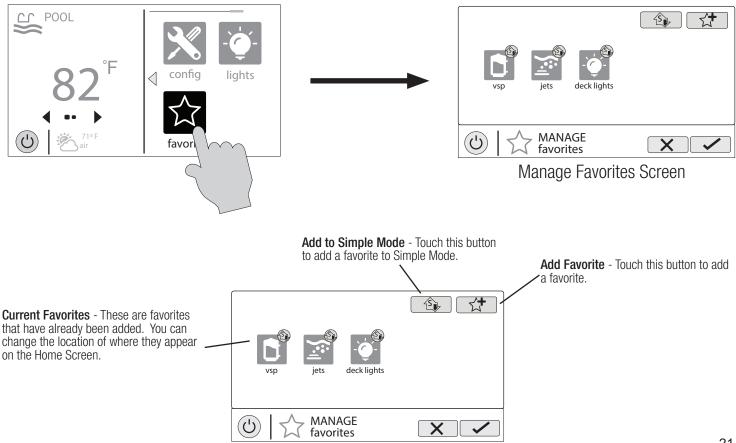
When a feature, light or backyard accessory is selected, you'll advance to the related Control Screen.



Control Screen

### **Favorites Screen**

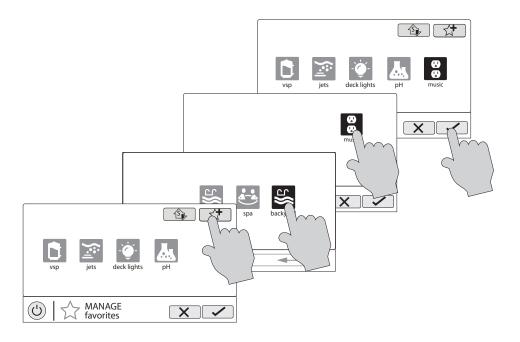
All of the buttons on the right side of the Home Screen are referred to as "Favorites" but there is also a Favorites button. Using this button, you can create and manage all of your Favorites.





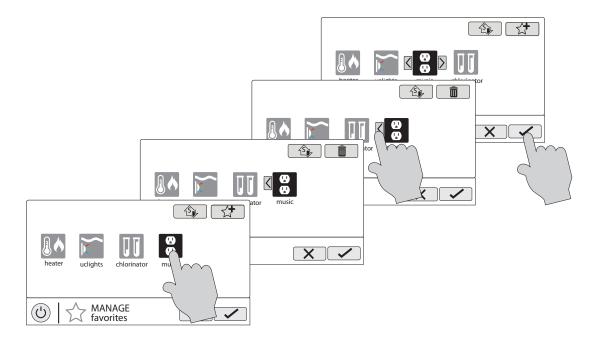
### **Creating Favorites**

Follow the procedure below for adding Favorites. This example shows how to create a Favorite for equipment that was configured as a Backyard Accessory. In this case, "Music". To find "Music" in our Add Favorites screen, we have to select "Backyard" when prompted. The next screen will show all equipment configured for the Backyard; in this case, just Music. Selecting Music and saving will add Music to the Favorites screen. We can now move the Music button if desired.



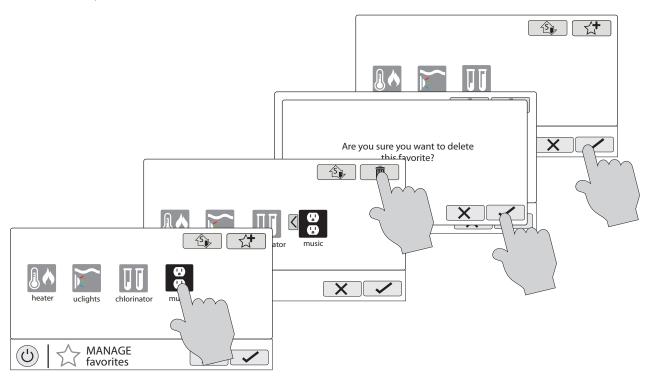
### **Moving Favorites**

Favorites will be displayed on the Home Screen in the order that they are shown on the Favorites Screen, from left to right. The default Favorites can not be moved. To move Favorites, follow the procedure below.

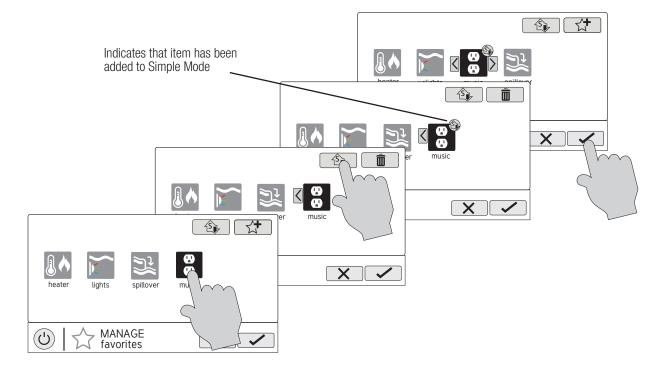




Deleting Favorites To delete Favorites, follow the procedure below. Default Favorites can not be deleted.



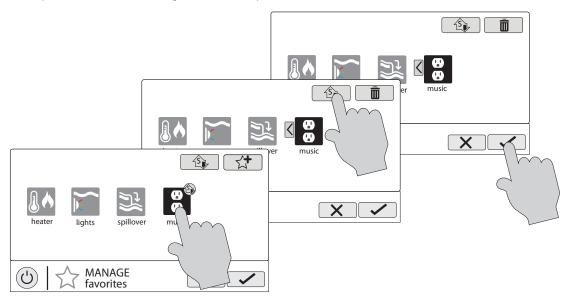
Adding Favorites to Simple Mode For more information on Simple Mode, refer to page 33. Note that most Favorites can be added to Simple Mode but not all. Follow the procedure below. Note: If the Favorite has been added to Simple Mode, moving the button location on the Favorites screen will affect its position on the Simple Mode screen.





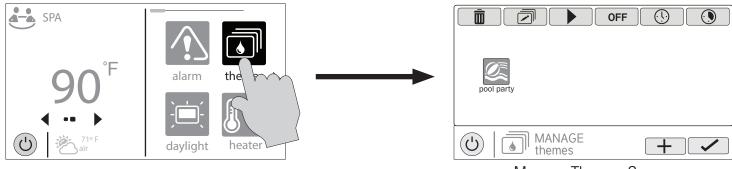
### Deleting Favorites from Simple Mode

Deleting Favorites from Simple Mode is similar to adding Favorites to Simple Mode.



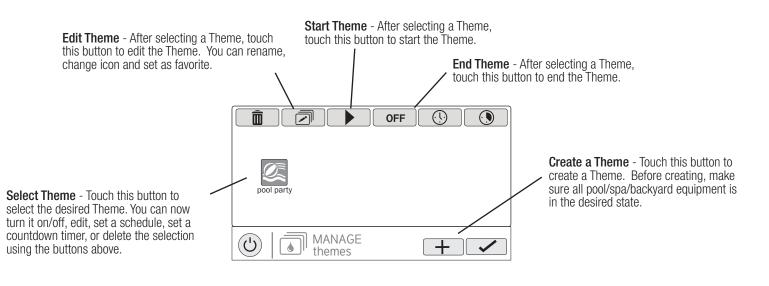
## Themes

Themes allow you to execute many pool functions with just one button. This can be handy for functions that require interaction with various pool equipment. For example, spending an evening in the spa might require you to turn on the spa jets, set the spa heater to 104°, turn on music and turn on the spa lighting. Rather than manually performing these functions, they can be saved as a theme and executed with just one button. To create a Theme, put all of the pool/spa/ backyard equipment into the desired state. In the example above, you would set all the equipment as described. When creating Themes, the OmniLogic takes a "snapshot" of the system state/settings. This snapshot is saved as a Theme. Refer to the following diagrams and information for creating and running Themes.



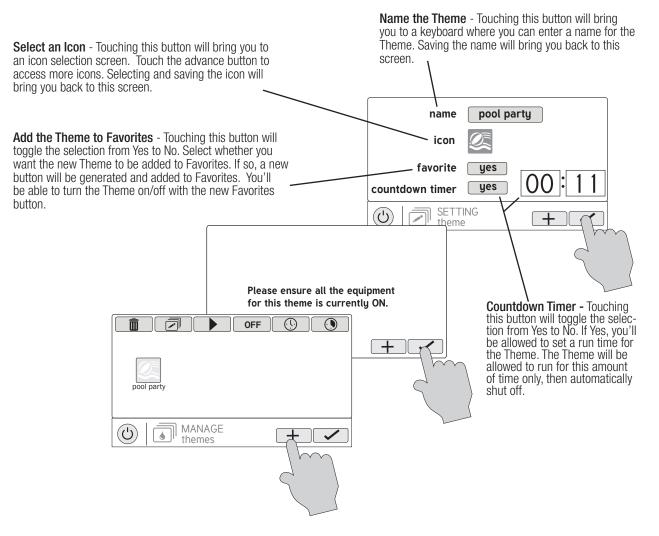
Manage Themes Screen





### Create a Theme

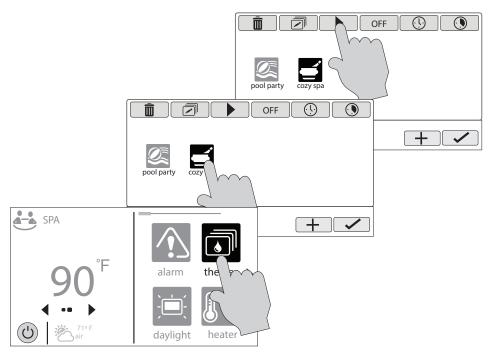
To create a Theme, put all of the pool/spa/backyard equipment into the desired state.



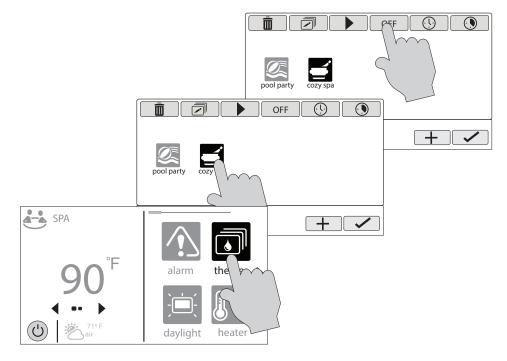


### Starting a Theme

If a Favorite was created for the Theme, run the Theme just as you would any other Favorite. To start a Theme within the "Manage Themes" screen follow the procedure below. Note that only one Theme can run at a time.



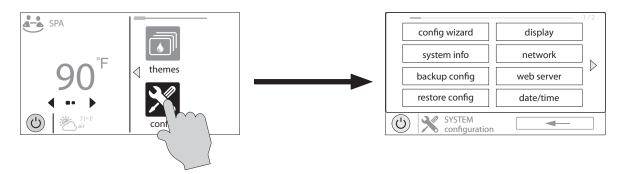
Stopping a Theme If a Favorite was created for the Theme, stop the Theme just as you would any other Favorite. To stop a Theme within the "Manage Themes" screen follow the procedure below. Note that when stopping a theme, all functions will turn off and the filter pump will return to any schedules that have been previously set.





# Config

The Config button offers many options related to the configuration and operation of the OmniLogic. You can view log files, backup configuration settings, restore configuration settings, modify display settings and more.



### Using a USB Thumb Drive

Some options require the use of a USB thumb drive (removable media) that will be inserted in the OmniLogic. If logging is desired (page 29), the thumb drive should be left in the OmniLogic during normal operation. The location of the USB port is shown in the Installation Manual. If a thumb drive will be used, follow the procedure below when inserting and removing.

**WARNING** - The deadfront must not be removed when the OmniLogic's subpanel is powered. The thumb drive will always be inserted and removed with the power off.

- 1. Turn off all pool equipment.
- 2. Remove power to the OmniLogic's electrical panel.
- 3. Remove the OmniLogic deadfront (front panel) to gain access to the local terminal display.
- 4. On the left side of the local terminal display, locate the USB port and insert the thumb drive.
- 5. Re-install the deadfront.
- 6. Apply power to the OmniLogic.
- 7. After the OmniLogic starts, perform the procedure which requires the thumb drive.
- 8. When procedure is finished, remove power to the OmniLogic.
- 9. Remove the OmniLogic deadfront.
- 10. Remove the thumb drive.
- 11. Re-install the deadfront.
- 12. Apply power to the OmniLogic and resume operation.

### Config Wizard

The Configuration Wizard is used to add, remove and configure pool equipment that is controlled by the OmniLogic. This has already been done at installation and should not be needed unless a change has been made to the system. If a new configuration is saved, it will overwrite the old configuration and may require you to change previous equipment settings.

If pool equipment is added or removed from your system you may edit the existing Configuration. Two types of editing are available; Full Edit and Quick Edit. A Full Edit will walk you through each step of the Configuration Wizard and allow you to save at the end. Refer to the Configuration Wizard Guide in the Installation Manual when using a Full Edit. A Quick Edit allows you to go directly to the equipment that you'd like to add/remove/configure. In most cases, Quick Edit will offer the most convenient way to make these changes. For more information, refer to the Quick Edit Guide section in the Installation Manual.

**IMPORTANT:** Existing themes are affected when new equipment is added. To ensure proper operation, delete and then re-create any existing Themes after adding new equipment regardless of whether the new equipment is used within the Theme.

### System Info

System Info will show the Hayward Unique Address (HUA) and version for all smart components (components that communicate with the OmniLogic). This may be needed by Hayward Technical Service when troubleshooting or diagnosing system issues.

### Backup Config

You can back up your configuration settings, schedules, setpoints etc. to the OmniLogic's internal memory or to a USB thumb drive. If using a thumb drive, use the instructions for inserting and removing thumb explained above.



### **Restore Config**

You can overwrite the existing configuration with a backup that is stored internally or on a thumb drive. You will get the following options when selecting Restore Config:

### restore backup 1 - this is the last backup that was saved to internal memory.

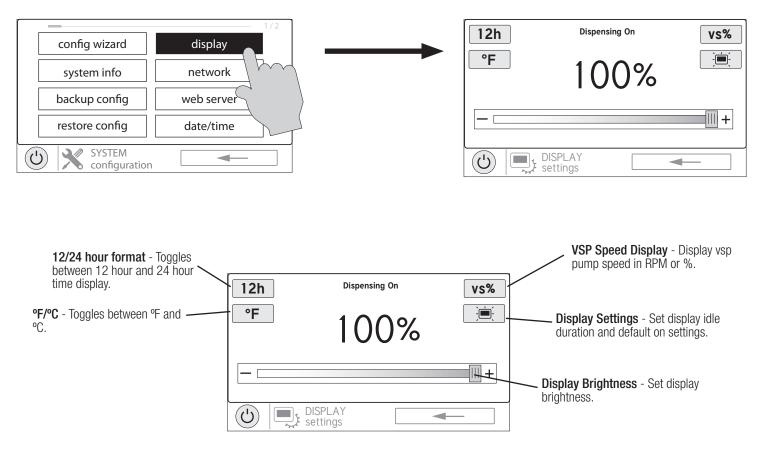
restore backup 2 - this is the second to last backup that was saved to internal memory.

**Restore from USB** - you can browse the USB drive and find available backups. Backup files will begin with "MSPCONFIGxxyyzz" where xx=month, yy=day, and zz=year (the date the file was created). The VS Omni will automatically create a backup file when a new configuration is saved. These files end with ".xml". Backup files that are created manually end with ".bak". Both types can be restored.

To restore a backup, make your selection from above and then touch Save.

### Display

The Display Settings screen offers options to customize the way the OmniLogic displays information.



### Network

You can view the OmniLogic ip address at this screen. This is the address that the router will use to connect the OmniLogic to the home network. You can also turn the connection to the router on and off using the On/Off toggle.

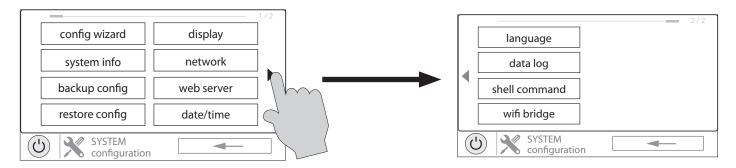
### Web Server

The OmniLogic connects to Hayward servers to enable remote control through the web using computers and mobile devices. This screen will display the ip address of this connection to the server. You can also turn the connection on and off using the On/Off toggle.

### Date/Time

Set the Date/Time on this screen. Date and time can be set manually or you can choose to have it updated automatically from the internet.





### Language

Select a language. If a desired language is not shown, it may be available from Hayward through their website at www.hayward.com/firmware. Refer to page 31 for information on installing new languages.

Data Log (requires Thumb Drive, page 27)

Use this feature if instructed by Hayward Technical Service. The data log shows a log of daily operation and can help Hayward Technical Service diagnose or troubleshoot problems. The Data Log options are:

Clear Log File- this will delete all data in the log file. Show Log File - this will display the log file. Restore Defaults - this will return the data log settings to the factory default. Set Level - you can change the amount of detail that is shown in the log file with this button.

You can also enable and disable data logging using the On/Off toggle.

### Shell Command

This screen is reserved for trained service personnel only.

### Wifi Bridge

Use Wifi Bridge if adding a HLWLAN wireless transceiver to the OmniLogic or making changes to the wireless connection of a HLWLAN that is already installed. Refer to the HLWLAN for detailed instructions.

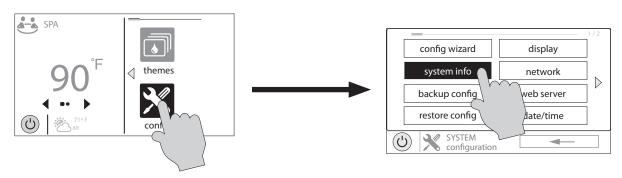
# Upgrade

Additional functions, features and languages may be available for your OmniLogic.

### Determine if Firmware Upgrade is Available

The OmniLogic's firmware is the basic operating system that runs the unit. The OmniLogic was shipped with the version of firmware that was available at the time of release. There may be a newer version available and if so, we encourage you to upgrade. Also, if you have experienced problems, Hayward Technical Support may advise you to upgrade your OmniLogic firmware. If this is the case, follow the instructions below.

1. Determine your current MSP firmware version.





	msp id:3233		current firmware version
component	HUA	version	
MSP	0-0-0-0 <	R2.0.0	ſ
MP	1-65-0-2a-d4	R.1.0.2	
Relays	3-10-0-0-1	R.1.0.2	
EcoStar pump	10-0-0-4e	R.3.0.4	
EcoStar pump	10-0-0-54	R.3.0.4	
	SYSTEM INFO	-	

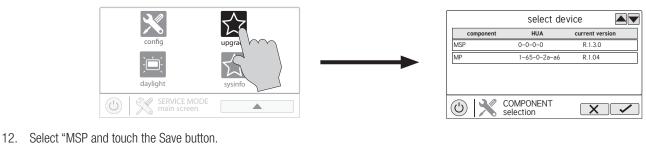
2. Using an ordinary web browser, go to www.hayward.com/firmware and compare the latest available version on the web to the current firmware version. If the firmware version on the web is greater (number is larger) than your current version, upgrade your OmniLogic. If not, periodically check the website and upgrade as newer firmware is released.

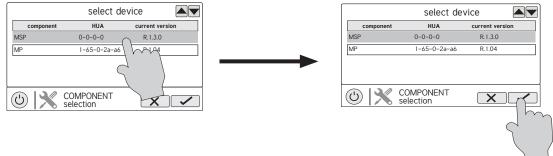
Upgrading Firmware (must be in Service Mode, page 5)

- 1. Insert your USB thumb drive into your computer.
- 2. Go to www.hayward.com/firmware.
- 3. Click on the link to download the latest firmware and save to the USB thumb drive.
- 4. Turn off all pool equipment.
- 5. Remove power to the OmniLogic's electrical panel.

**WARNING** - The OmniLogic deadfront must not be removed when the OmniLogic's subpanel is powered. The thumb drive will always be inserted and removed with the power off.

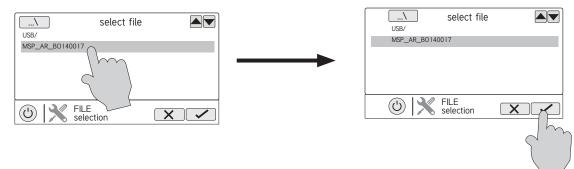
- 6. Remove the OmniLogic deadfront (front panel) to gain access to the local terminal display.
- 7. On the left side of the local terminal display, locate the USB port and insert the thumb drive.
- 8. Re-install the deadfront.
- 9. Apply power to the OmniLogic and allow enough time for the OmniLogic to fully start.
- 10. Enter Service Mode (page 5).
- 11. Touch the Upgrade button.



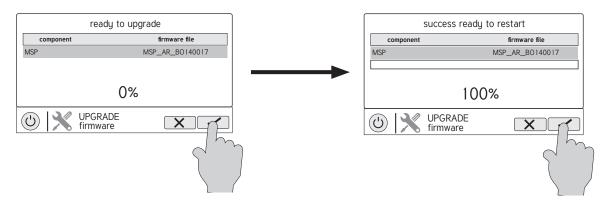




13. The OmniLogic will now look at your USB thumb drive. Select the firmware file that was saved from the website and then touch the Save button.



14. Touch Save to begin upgrade. After the upgrade is finished, touch Save to restart.



- 15. After the OmniLogic has fully started (wait 2 minutes to ensure that the unit is done starting), remove power to the OmniLogic.
- 16. Remove the deadfront.
- 17. Remove the thumb drive.
- 18. Re-install the deadfront.
- 19. Apply power to the OmniLogic and resume operation.

Installing a New Language (must be in Service Mode, page 5)

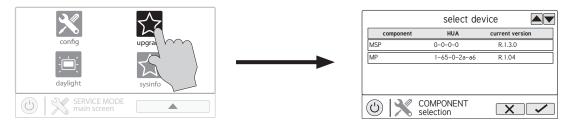
- 1. Insert your USB thumb drive into your computer.
- 2. Go to www.hayward.com/firmware.
- 3. Click on the link to download the desired language save to the USB thumb drive.
- 4. Turn off all pool equipment.
- 5. Remove power to the OmniLogic's electrical panel.

**WARNING** - The OmniLogic deadfront must not be removed when the OmniLogic's subpanel is powered. The thumb drive will always be inserted and removed with the power off.

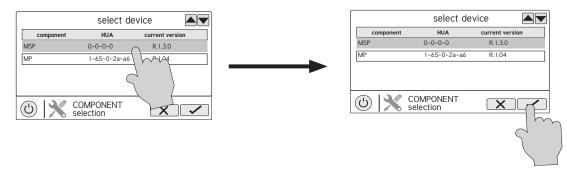
- 6. Remove the OmniLogic deadfront (front panel) to gain access to the local terminal display.
- 7. On the left side of the local terminal display, locate the USB port and insert the thumb drive.
- 8. Re-install the deadfront.
- 9. Apply power to the OmniLogic and allow enough time for the OmniLogic to fully start.
- 10. Enter Service Mode (page 5).



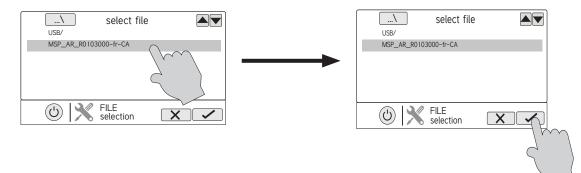
11. Touch the Upgrade button.



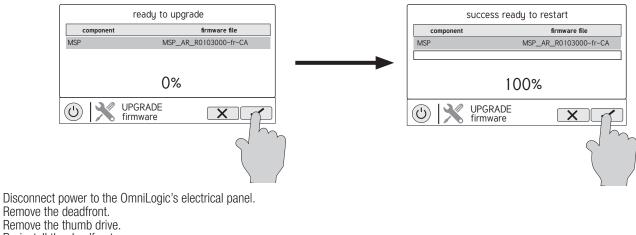
12. Select "MSP and touch the Save button.



13. The OmniLogic will now look at your USB thumb drive. Select the language file that was saved from the website and then touch the Save button.



14. Touch Save to begin upgrade. After the upgrade is finished, touch Save.



- 18. Re-install the deadfront.
- 19. Apply power to the OmniLogic and resume operation.

15.

16.

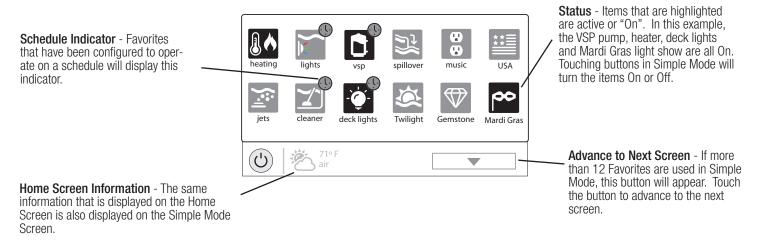
17.



# Simple Mode

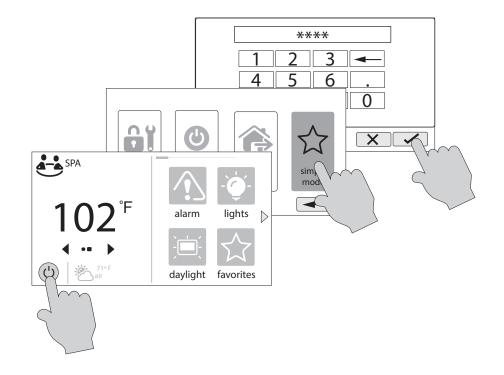
Up to this point, you've been shown how to view the Home Screen and access all of the pool's functions by using Body of Water Features (left side of Home Screen) and Favorites (right side of Home Screen). This method of access is called "Standard Mode" and offers the most information and control. An alternative to Standard Mode is "Simple Mode". Simple Mode eliminates the Home Screen and allows you to view and control only the Favorites that you specify. Simple Mode is customizable and may be preferred to Standard Mode depending on your needs. Simple Mode can provide a convenient way to access the most common functions for owners as well as a handy solution to limit access to other users. Up to 24 Favorites can be displayed in Simple Mode. Depending on the pool equipment that has been configured, some default Favorites may appear in Simple Mode. These default Favorites cannot be removed from Simple Mode. For information on how to add and delete Simple Mode Favorites, refer to the page 23 in manual.

### Simple Mode Screen



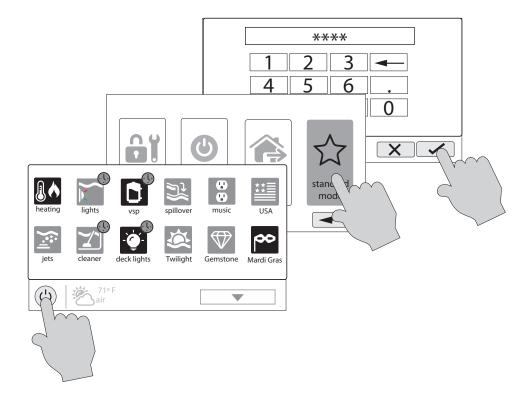
### Enter Simple Mode

To enter Simple Mode, go to the Home Screen and follow the procedure below. Entering and exiting Simple Mode will require your OmniLogic's MSP ID number. This number is used as a password. To find you unit's MSP ID, refer to page 35.





Exit Simple Mode To exit Simple Mode, follow the procedure below.

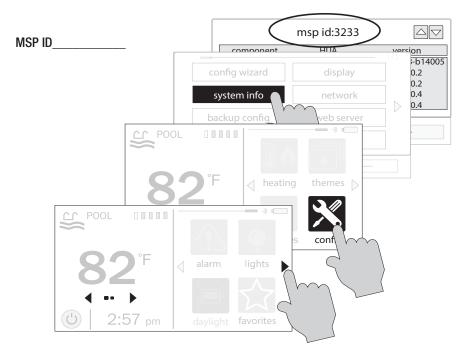




## Web Enabled Control

The OmniLogic should have already been configured for use with the home's router to allow for remote control through the web. This procedure is covered in the Configuration Wizard information found in the Installation Manual. After configuration, an account must be created to allow access to the OmniLogic from web enabled devices. If this has not already been done by the installer, follow the procedure below.

- 1) Using an ordinary web browser, go to www.haywardomnilogic.com. If you don't already have an account, select "Register New User" and set up a new account.
- 2) Log in to your account.
- 3) Register your OmniLogic. Registering will require you to answer a series of questions about your OmniLogic. When asked for your Time Zone, be sure to enter the same time zone as the physical location of the installed OmniLogic, otherwise schedules and timers will be inaccurate. You'll also be asked for an MSP System ID. This number can be found directly from the OmniLogic. To find your unit's MSP ID, follow the procedure below:



After the MSP is accepted, the OmniLogic will be linked to your account. You'll be able to access the OmniLogic at any time from your browser by logging into your account at haywardomnilogic.com. For mobile devices, an application must be downloaded from your device's app store. Go to www.hayward.com for more information on the availability and function of mobile apps.



# 

LIMITED WARRANTY Hayward warrants its OmniLogic, Pro Logic, OnCommand 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 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 date of purchase and only for products used exclusively on private residential swimming pools in the US and Canada. Such products for use on commercial pools in the US and Canada are covered for a period of one (1) year from date of purchase 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 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 purchase 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 website at www.hayward.com.

WARRANTY EXCLUSIONS:

- 1. Use of non-Hayward material or unauthorized workmanship during 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 owner's manual(s).
- 4. Problems resulting from failure to maintain pool water chemistry in accordance with the recommendations in the owner's manual(s).
- 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- Hayward replacement salt chlorination cell on any Hayward automation or chlorination 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, express 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.



# 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 outlet cover that is damaged, broken, cracked, missing, or not securely attached 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, finger, toe or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

### A WARNING - To Reduce the risk of Entrapment Hazards:

- o 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 (3') [1 meter] apart, as measured from near point to near point.
- o Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
- o Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- o The maximum system flow rate shall not exceed the flow rating of as listed on Table 1.
- o Never use Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- o Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- o In addition two or more suction outlets per pump installed in accordance with latest ASME, APSP Standards and CPSC guidelines, follow all National, State, and Local codes applicable.
- o 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 the suction outlets can result in an increase 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 increase 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 ten years or if found to be damaged, broken, cracked, missing, or not securely attached.

**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 risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times. Components such as the filtration system, pumps, and heaters must be positioned to prevent children from using them as a means of access to the pool.



**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 system and pump controls must be in off position and filter manual air relief valve must be in open position. Before starting system pump, all system valves must be set 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, filters 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 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. Electrical 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 for 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-interrupter (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 current 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 or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.

### SAVE THESE INSTRUCTIONS







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