

# Variable Speed Omni Control

## VS Omni: General Overview & Features



TTP-VSO100d

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# Product Overview

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# Product Overview: VS Omni



**HUB**



**Smart Relay  
(HVR)**



**Touch Screen  
Display**



**VS OMNI Pump**

# Product Overview: VS Omni

- The Hayward VS Omni line of pump controllers are ideal for retrofit and replacement pump markets. They are ideal for adding control to pool and/or spa application.
- The VS Omni features an internal Wi-Fi chip, capable of connecting to a home network broadcasting 2.4ghz Wi-Fi signals.
- VS Omni features a touch screen display that provides easy navigation in virtually any lighting condition.
- Each VS Omni unit supports up to 3 smart relays, up to 3 VSPs, 2 valves, 1 heater, and 3 sensors.
- Its USB port supports the ability to upgrade the system firmware as well as backup and restore configuration files.



# Product Overview: Terminology

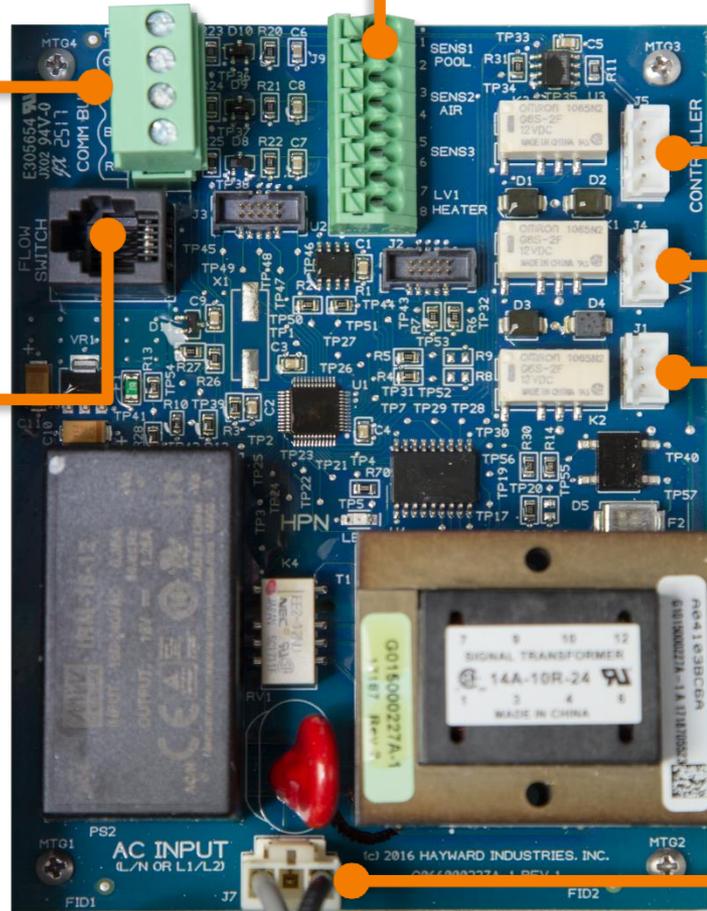
<b>LVR</b>	Low Voltage Relay (typically for controlling a heater).
<b>HVR</b>	High Voltage Relay (this is represented by the Smart Relay(s) or SRs).
<b>LVA</b>	Low Voltage Actuator (Valve Actuator).
<b>Smart Component</b>	Any VS Omni device or accessory that contains a microcontroller / microprocessor and that can communicate with the MSP via one or more of the system busses.
<b>HUA</b>	Hayward Unique Address. Works similarly to a MAC address but will be specific to genuine Hayward Products capable of communicating with the VS Omni system.
<b>Controller</b>	The touch screen display.
<b>HUB</b>	The junction point for all communication wires, sensors, LVR, HVR(s) and LVA.

# Product Overview: HUB

Sensors & LVR  
(low voltage relay  
for heater).

Comm Bus  
(RS485)

Flow switch  
port



Controller Power

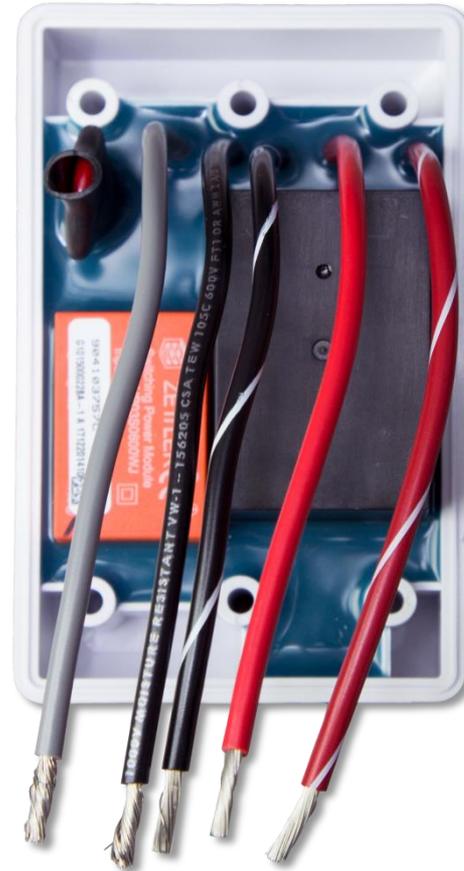
LVA's  
(Low Voltage  
Actuators)

AC Input Power  
(120VAC or 240VAC)

# Product Overview: Smart Relay

Color	120VAC	240VAC
Grey	Neutral	Connect to Red
Black	Line In	Line 1 In
Black/White	Load out	Load 1 Out
Red	No Connection	Line 2 In
Red/White	No Connection	Load 2 Out

Back



Front



**\*NOTE:** In 120VAC applications, a neutral will be required to operate the Smart Relay. If no neutral is supplied, a new one will have to be pulled.

# Product Overview: Touch Screen Display

Pool Status features such as time, temperature and local forecast

Icon based Touch Screen LCD

Factory installed 15' Comm tail expedites installation

Features both Normal and Daylight modes (to accommodate harsh glare situations)

USB Port (for thumb drive)

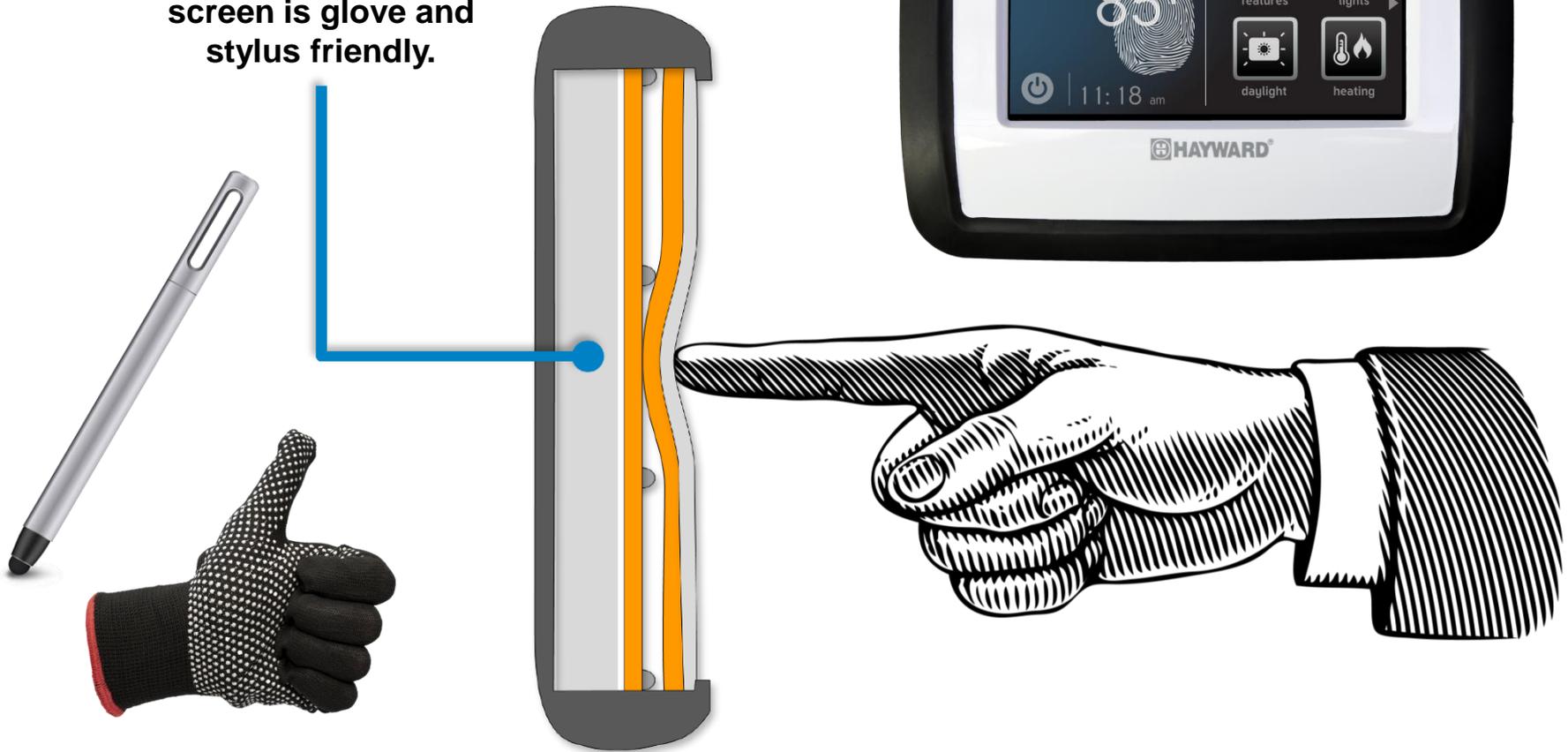
Ethernet port for Direct Network Connection



# Product Overview: Touch Screen Display (Cont.)

## Resistive Touch Screen Display

Unlike a capacitive screen, the resistive screen is glove and stylus friendly.



# Product Overview: Part Numbers

Part Numbers	Description:
<b>HL32950VSP</b>	PUMP W/ CONTROL, TRISTAR, 2.7 THP
<b>HL32900VSP</b>	PUMP W/ CONTROL, TRISTAR, 1.85 THP
<b>HL2670020VSP</b>	PUMP W/ CONTROL, SUPER PUMP
<b>HL2350020VSP</b>	PUMP W/ CONTROL, MAXFLO VS
<b>HLH485RELAY</b>	Hayward VS Omni RS485 Smart Relay
<b>HLHCONTROL</b>	Hayward VS Omni TS Display
<b>HLHHUB</b>	Hayward VS Omni Hub

# Product Overview: Replacement Parts

<b>Part Numbers</b>	<b>Description:</b>
<b>HLXDLCD</b>	Hayward LCD Disp Replacement
<b>HLXDCOVER</b>	Hayward Sun Cover Replacement
<b>HLXDSPCASE</b>	Hayward Display Housing Replacement
<b>HLX485100</b>	Hayward RS485 100ft Extension
<b>HLX485200</b>	Hayward RS485 200ft Extension
<b>HLXHIOPCB</b>	Hayward OmniHub PCB
<b>HLXHW5PK</b>	Hayward OmniHub Hardware 5pk
<b>HLXWHIP6</b>	Hayward Omni 6ft Whip
<b>HLX485RELAY</b>	Hayward Omni RS485 Smart Relay
<b>HLXJBOX</b>	Hayward Replacement Jbox
<b>HLXRLYLABL</b>	Hayward Replacement Relay Label

# Product Overview: iPad App and Web Control

**iPhone App Available**

**Android App Available**



**Quick look at what is active and single touch to activate most features**

**Alarms with email notification available**

**All features and priorities are downloaded from controller**

# Product Overview: Web Site Control

Shows all information related to the body of water

Dashboard includes Time, Weather Forecast & Sunset/Sunrise

Choose your Features

Shortcut to Favorites and Themes

Alerts appear at the bottom

Shortcut to Filter Pump and Heater SetPoint



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# Product Installation

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# Installation: 5 Step Process

## Step 1:

- Mount the Hub & TS Display.
- Disconnect power at the pump is run that power to the Hub.

## Step 2:

- Using one of the supplied whips, connect power between pump & hub.

## Step 3:

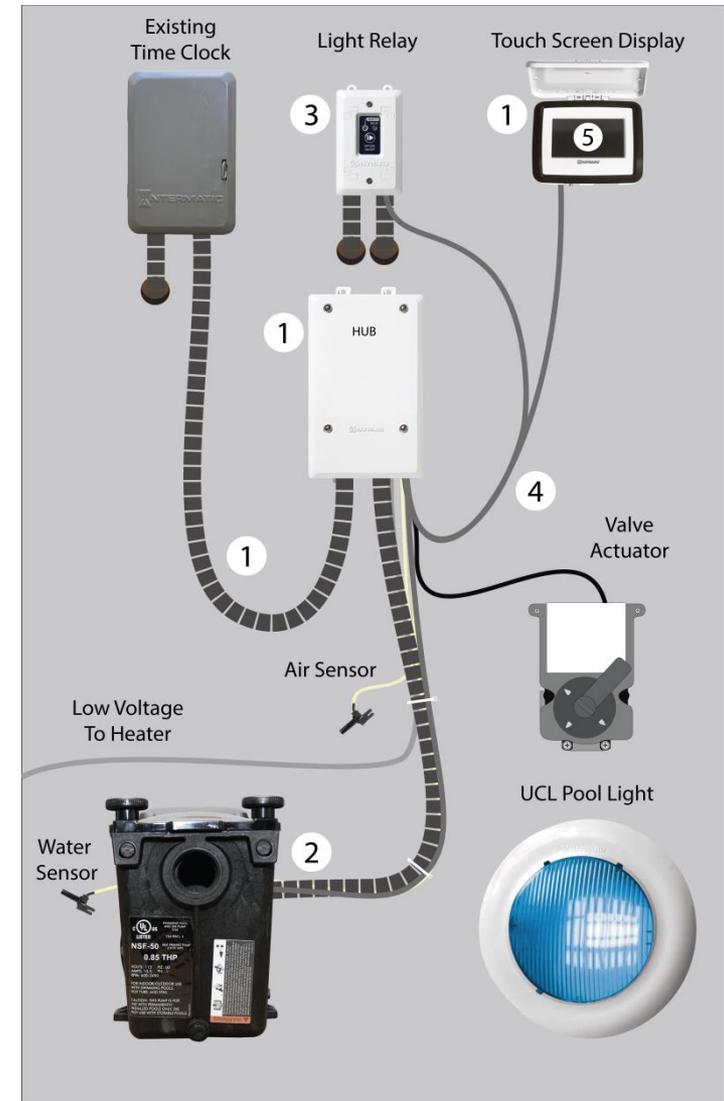
- Install the Smart relay(s) into existing single gang box(es) or mount and install supplied box.

## Step 4:

- Run all low voltage connections and sensors into the hub.

## Step 5:

- Program system through TS Display.



# Installation: S1: Mounting the Hardware

*The Hub and Smart Relays are contained in rain-tight enclosures that are suitable for outdoor mounting. They must be mounted a minimum of 6 ft. horizontal distance from the pool/spa (or more, if local codes require).*

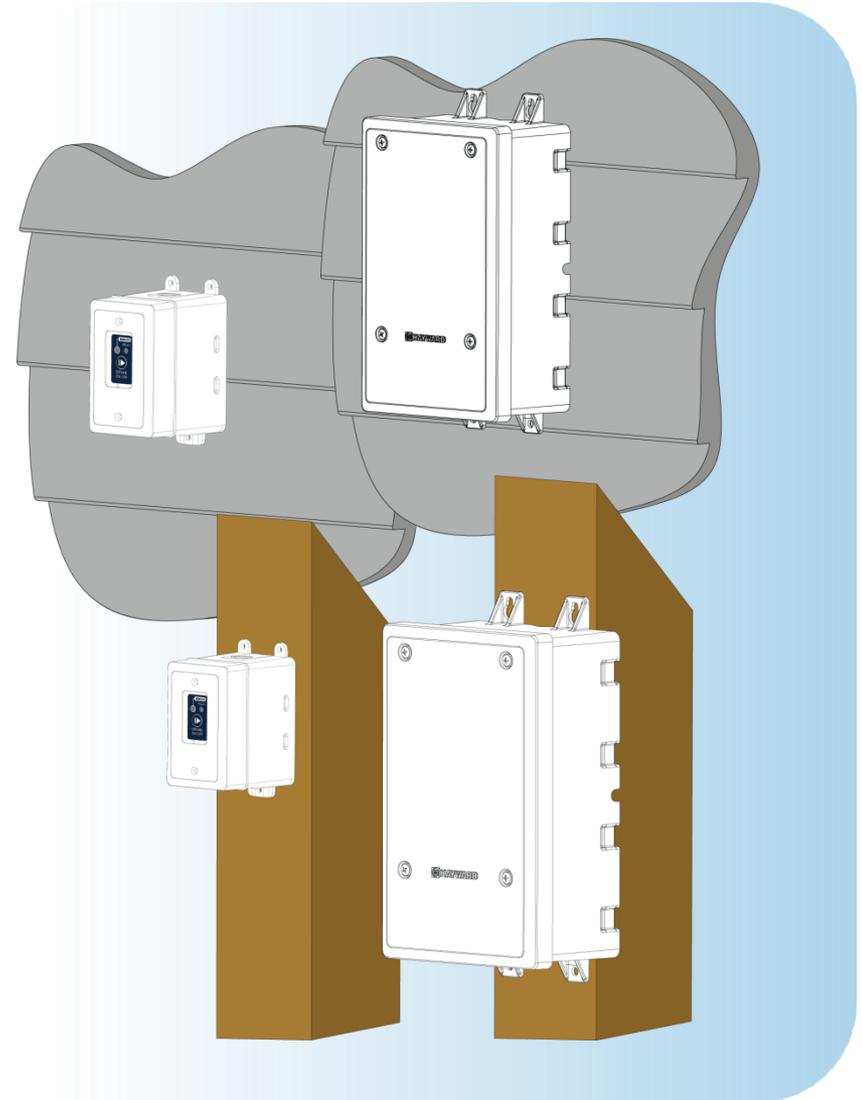
- The Hub & Smart Relay are designed to mount vertically with the knockouts facing downward. Do not mount the either inside a panel or tightly enclosed area.
- When selecting a location, note that the standard cables supplied with the optional flow switch, temperature sensors, and actuators are all 15 ft. long.



**Try to mount the Hub in a location where incoming/outgoing wiring will be easily accessible.**

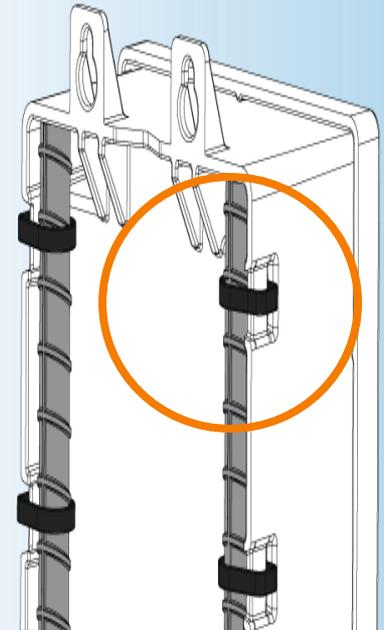
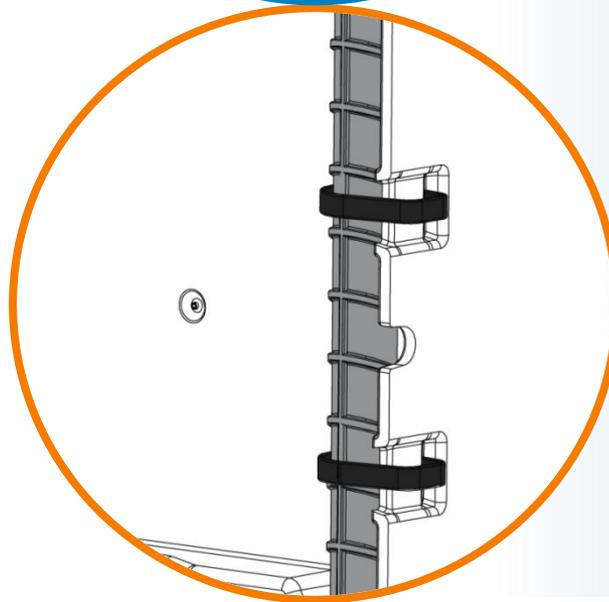
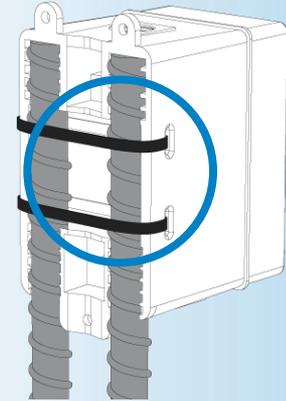
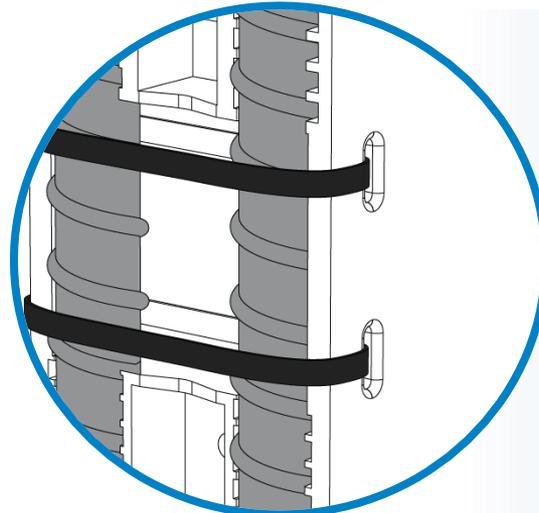
# Installation: S1: Mounting to a House or Post

- Select the appropriate surface mounting hardware.
- The Hub has two keyhole type mounting tabs on the top and two standard hole tabs on the bottom of the enclosure each supporting #10 screws.
- The Smart Relay has three standard hole tabs, supporting #8 screws.
- It is important to utilize all mounting holes to ensure the enclosures are secure.



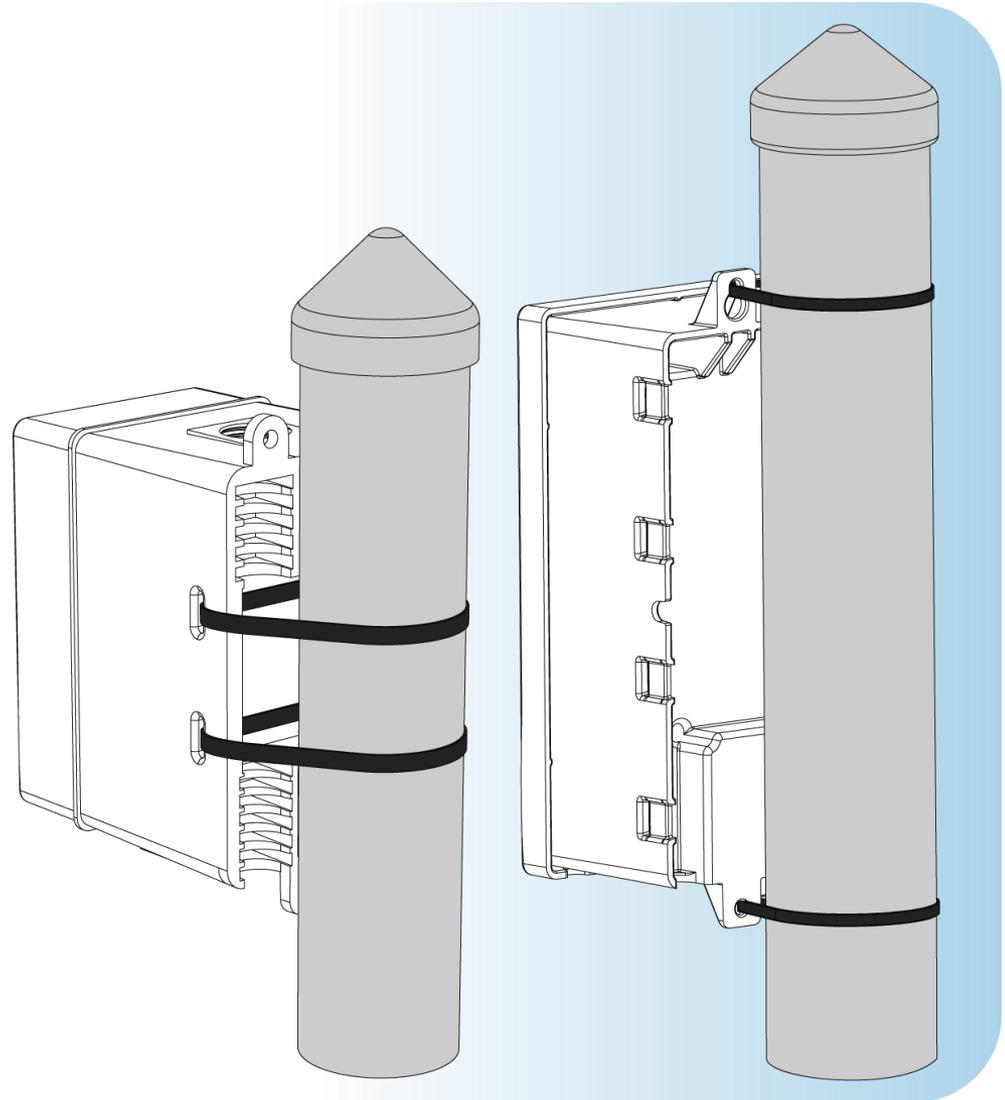
# Installation: S1: Mounting with Rebar

- When securing the Hub and Smart Relay with rebar supports, use outdoor rated ties to mount the equipment.
- Refer to NEC code for Installation height requirements.
- There are two sets of side holes on the Smart Relay and eight on the Hub. It is important to utilize all of these to ensure the enclosures are secure.



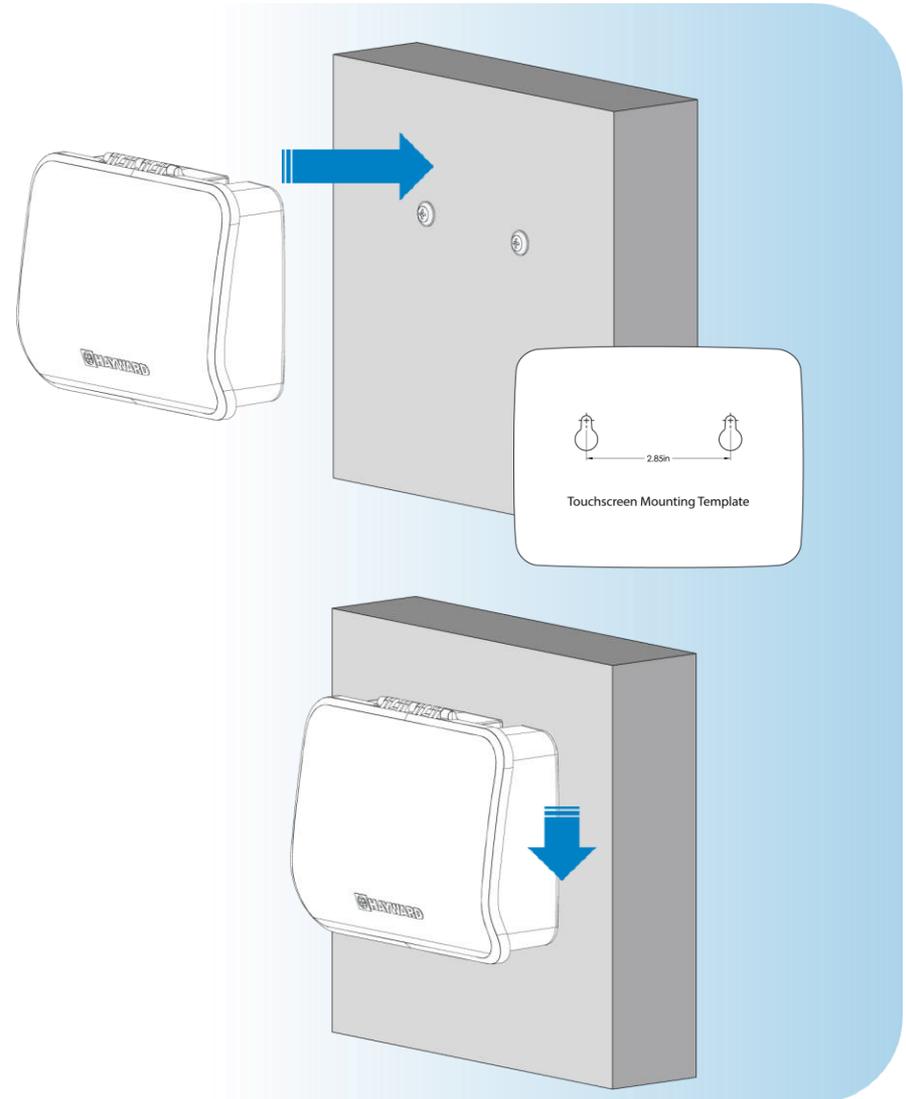
# Installation: S1: Mounting to a Pole

- When securing the Hub and Smart Relay to a post, use outdoor rated ties to mount the equipment.
- Refer to NEC code for Installation height requirements.
- There are two sets of side holes on the Smart Relay and eight on the Hub. It is important to utilize all of these to ensure the enclosures are secure.



# Installation: S1: Mounting the Controller

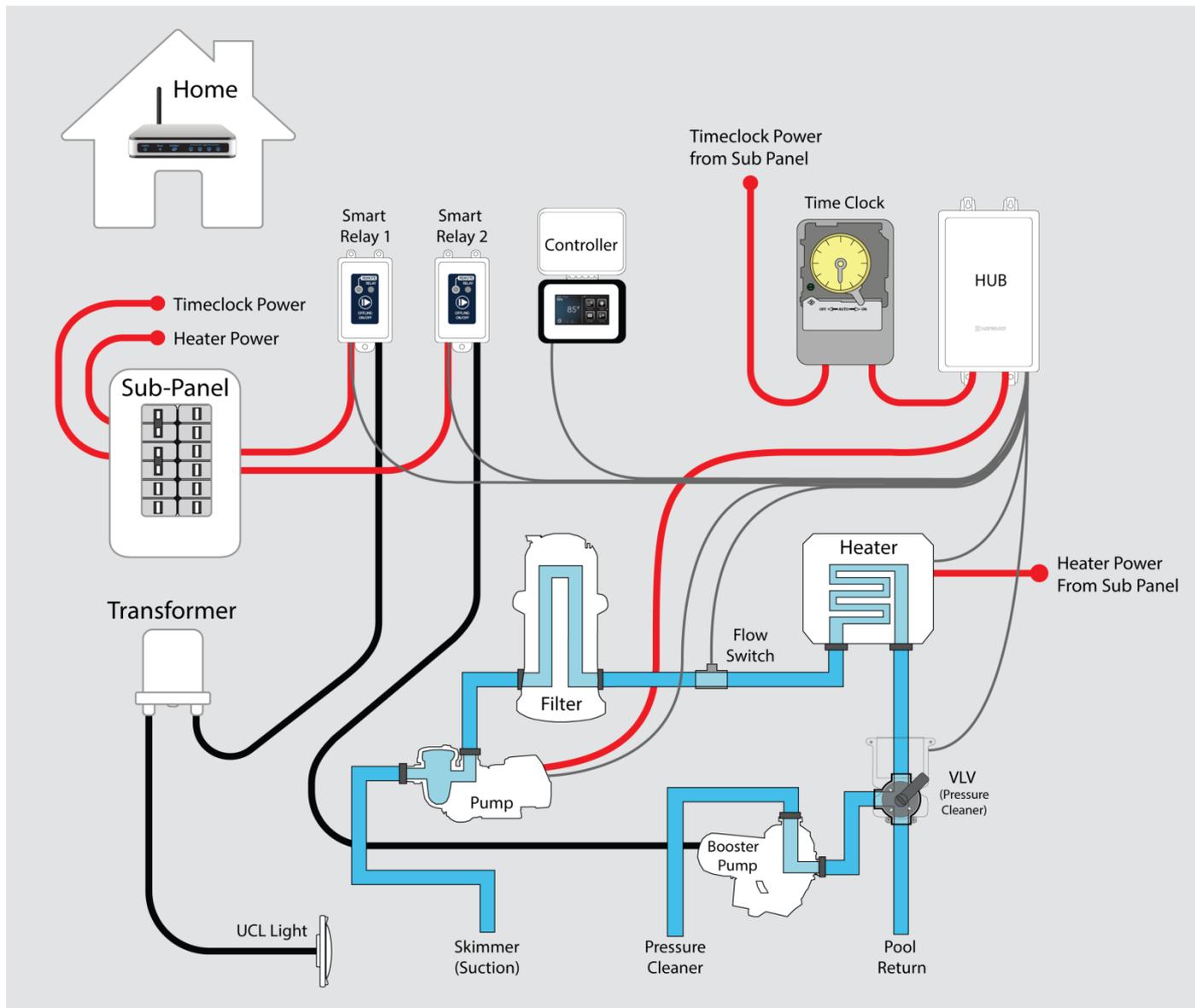
- The Controller comes with a 15ft cord which plugs into the Hub. It should be mounted in a location that is convenient for regular interaction.
- The Controller has two keyhole cutouts on the back of its enclosure.
- To mount the Controller, screw the two provided fasteners into the mounting surface at the desired location using the template provided in the Installation manual.



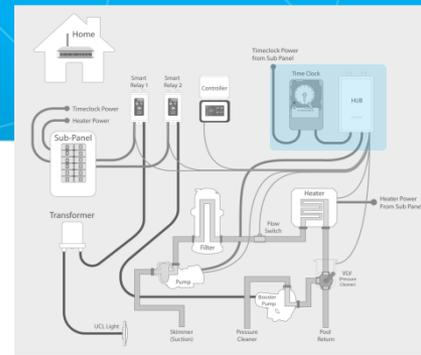
# Installation: Equipment Overview (240VAC HUB)

Equipment	Voltage
SMT Relay 1	120 VAC
SMT Relay 2	120 VAC
Controller	24VDC
Time Clock	240VAC
Hub	240 VAC
Heater	240 VAC
Transformer	120VAC
Pump	240 VAC
Booster Pump	120 VAC
Light	14VAC

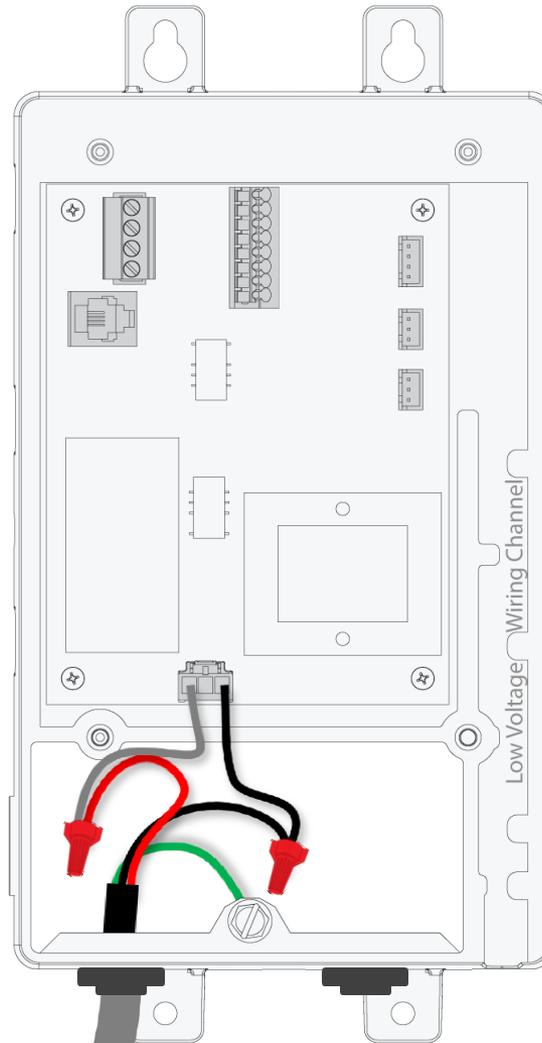
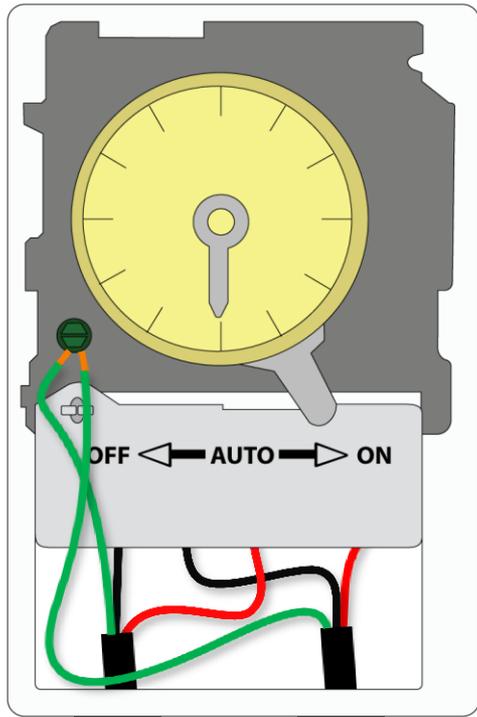
Circuit Color	Meaning
RED	Line Power
BLACK	Load Power
GREY	Comm



# Installation: S1 HUB Wiring 240VAC



240 VAC

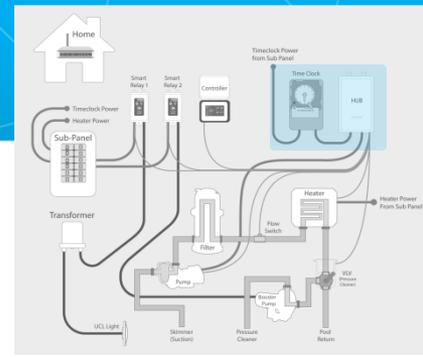


**Important:** When wiring the VSP through the Hub, the Hub input power **MUST** match the pump's power requirements.

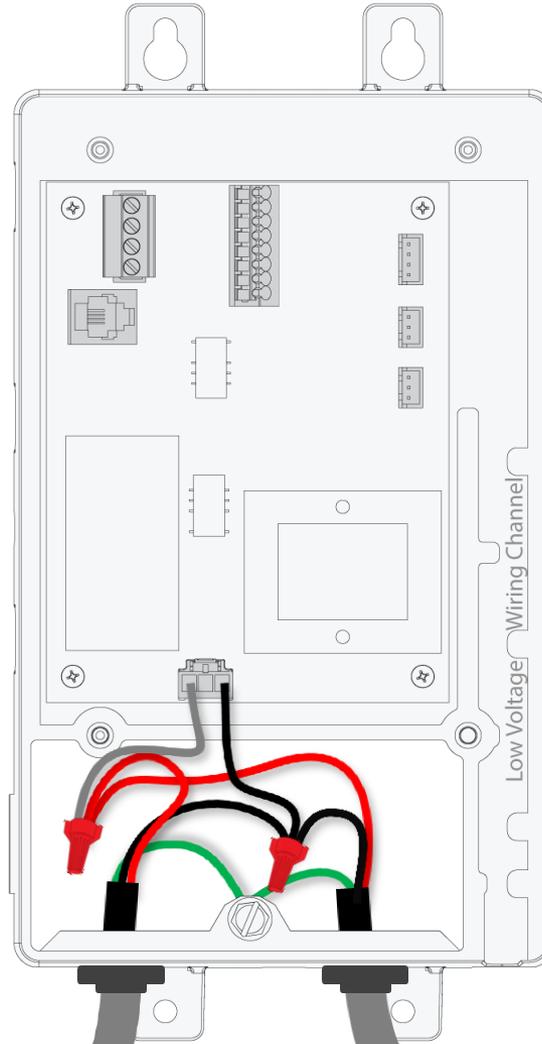
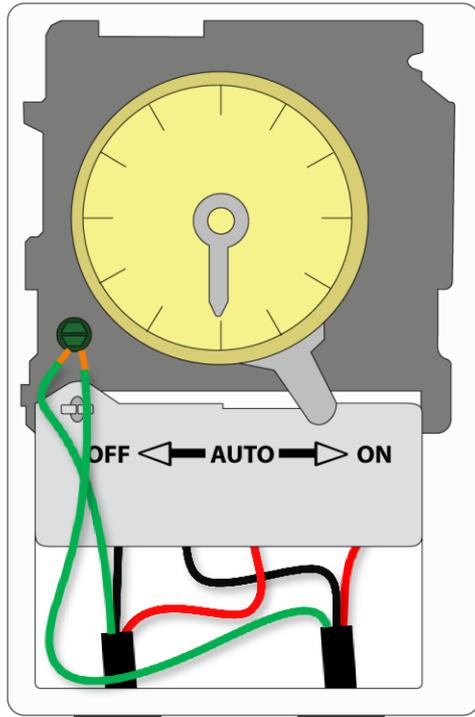
**For Example:** If the TriStar VS is being used then Hub power should be 240VAC.

**Step 1:** IF using a timeclock to power an existing pump, disconnect power from the pump and wire it into the Hub.

# Installation: S2: HUB Wiring 240VAC



240 VAC



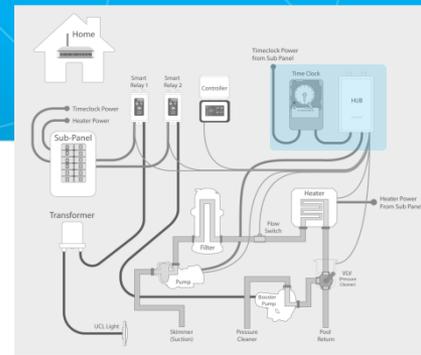
**Important:** When wiring the VSP through the Hub, the Hub input power **MUST** match the pump's power requirements.

**For Example:** If the TriStar VS is being used then Hub power should be 240VAC.

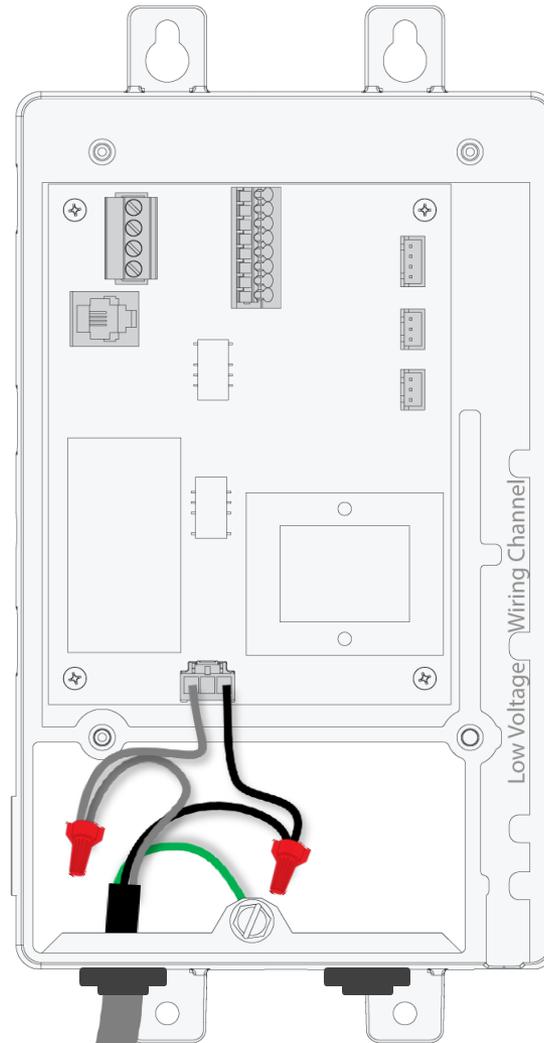
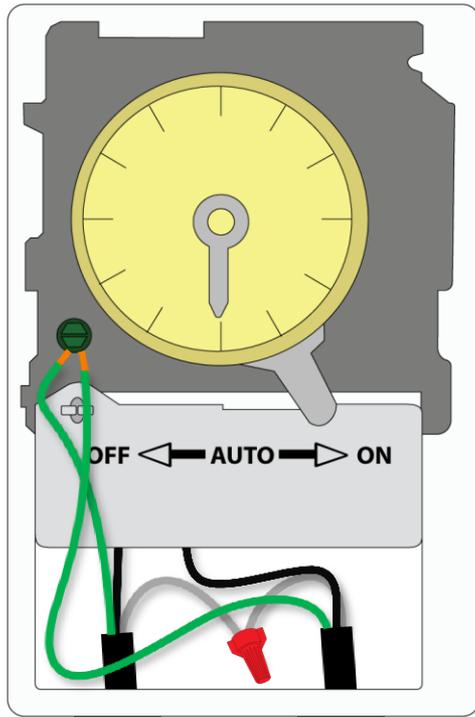
**Step 2:** Connect the Variable Speed Pump power to the Hub's incoming power.

To VSP

# Installation: HUB Wiring 120VAC (S1)



120 VAC

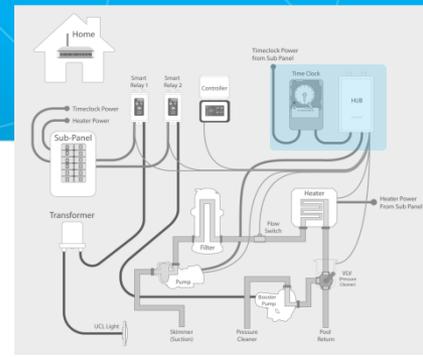


**Important:** The incoming Hub power **MUST** match the main filtration pump power.

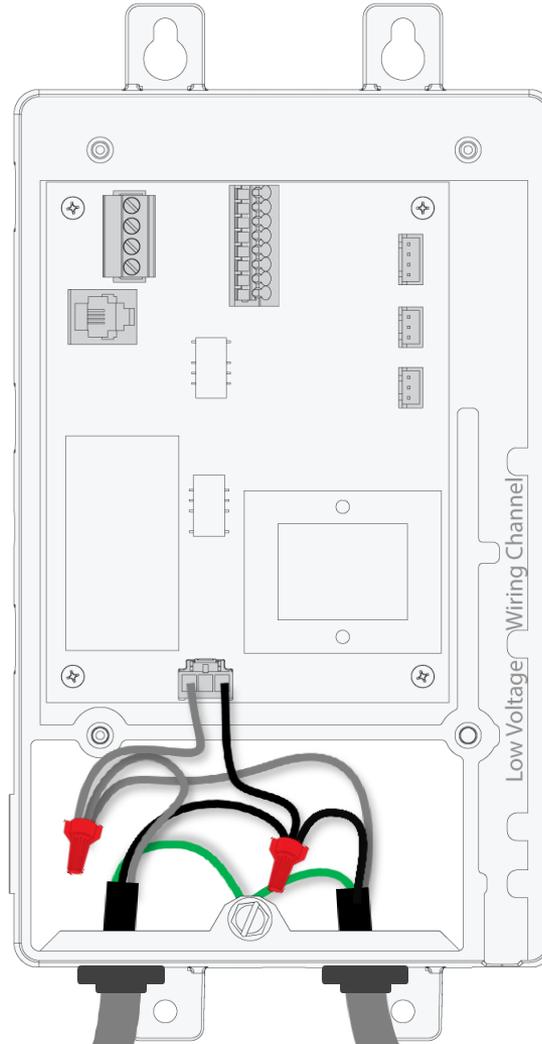
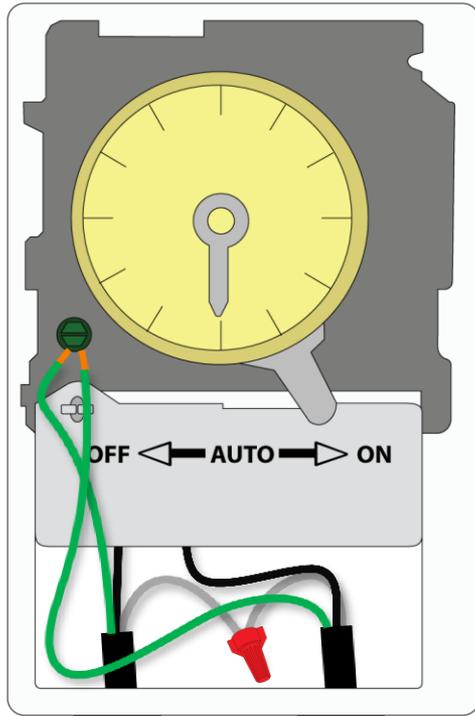
For Example: If the Super Pump VS 115V is being used then Hub power should be 115VAC.

**Step 2:** Connect the Variable Speed Pump power to the Hub's incoming power.

# Installation: HUB Wiring 120VAC (S2)



120 VAC



**Important:** The incoming Hub power **MUST** match the main filtration pump power.

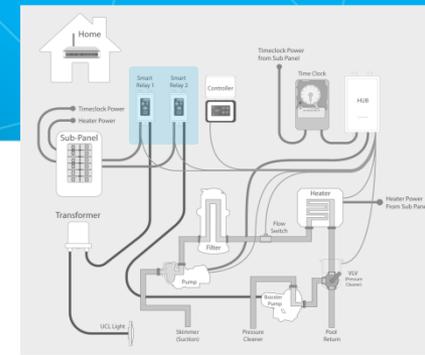
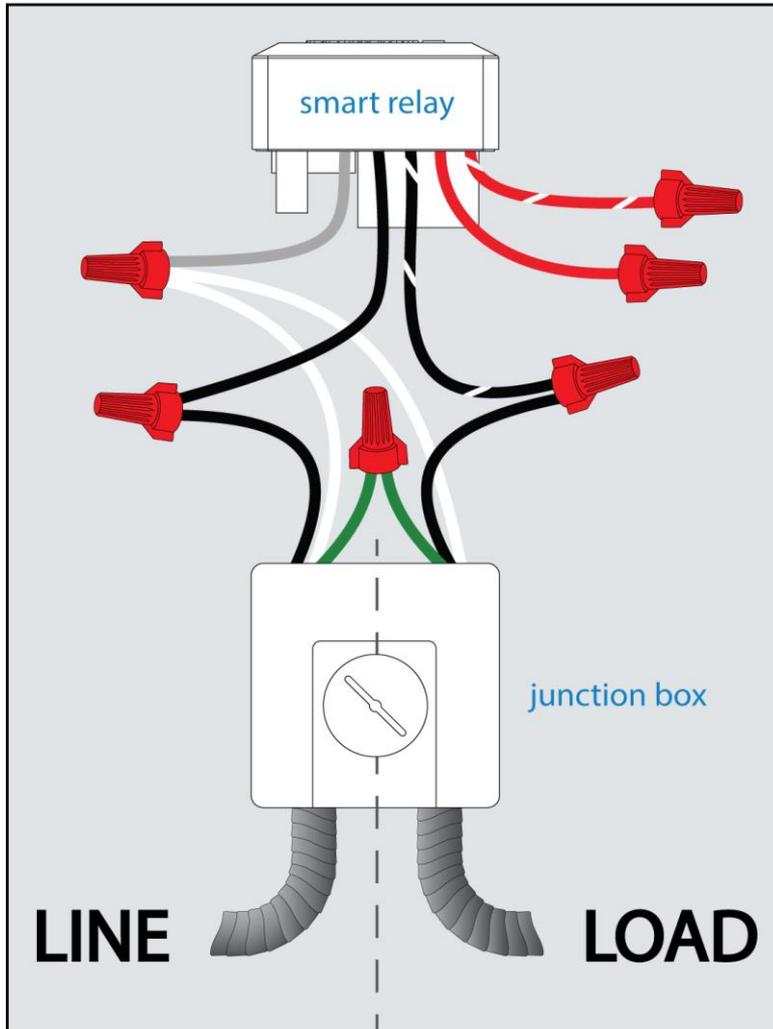
For Example: If the Super Pump VS 115V is being used then Hub power should be 115VAC.

**Step 2:** Connect the Variable Speed Pump power to the Hub's incoming power.

To VSP

# Installation: S3: SR Wiring 120VAC

## 120VAC



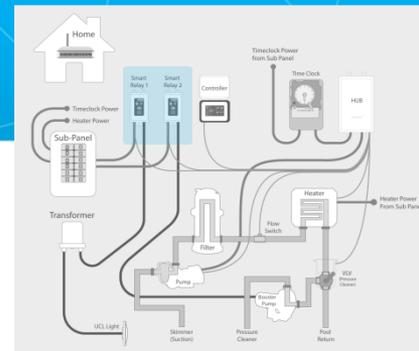
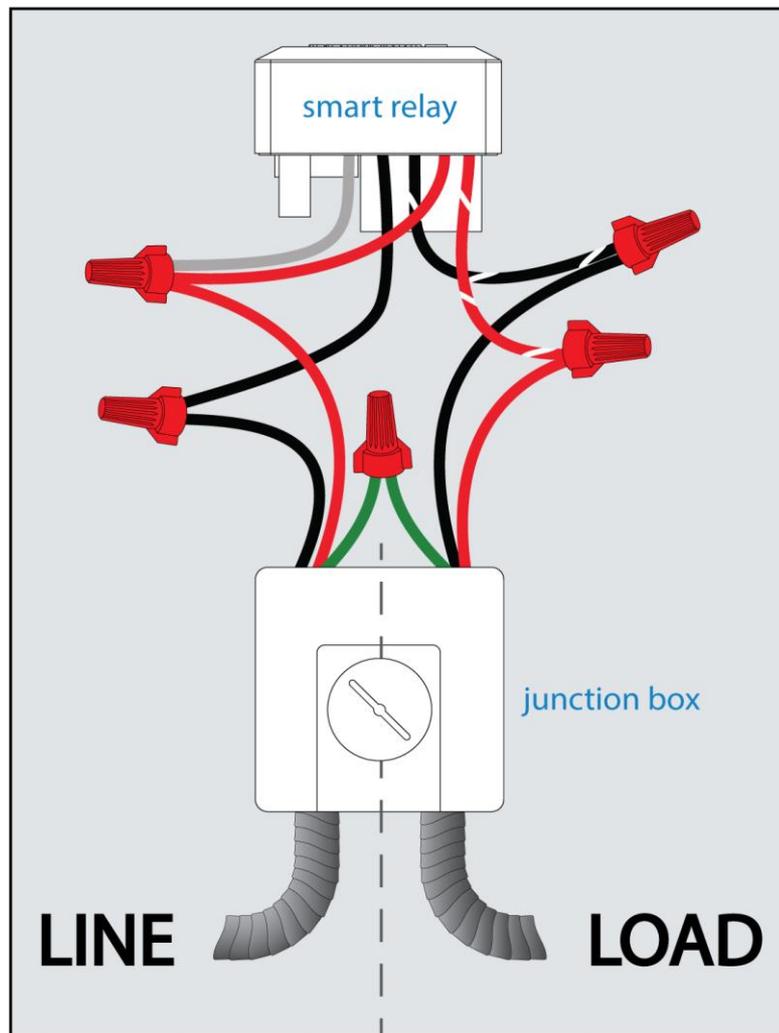
**Important:** Follow the appropriate wiring diagram when wiring the smart relay.

**For 120:** make sure the solid red and red striped wires, coming out of the SR, are capped individually. Also verify the line and load neutrals connect with the SR's grey wire.

**\*NOTE:** In 120VAC applications, a neutral will be required to operate the Smart Relay. If no neutral is supplied, a new one will have to be pulled.

# Installation: S3: SR Wiring 240VAC

## 240VAC

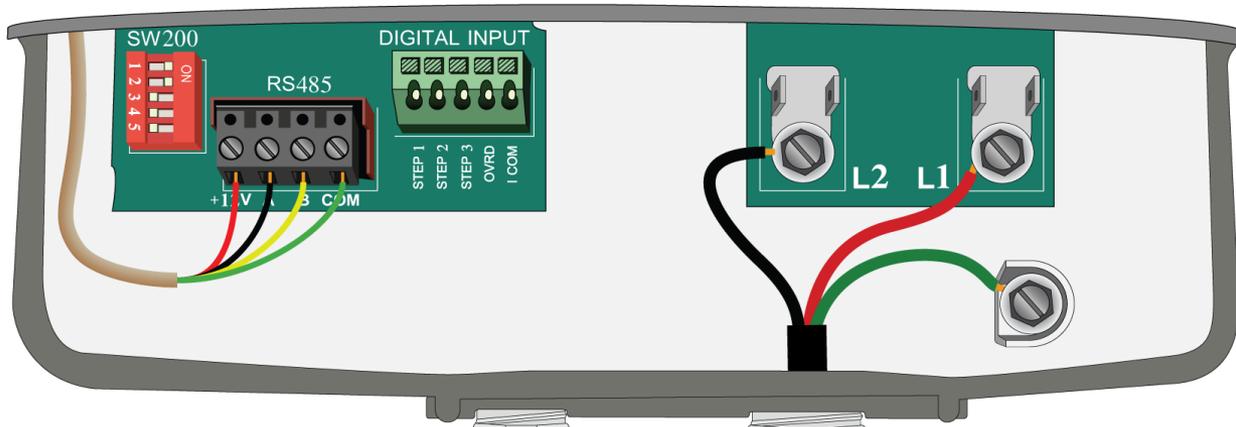
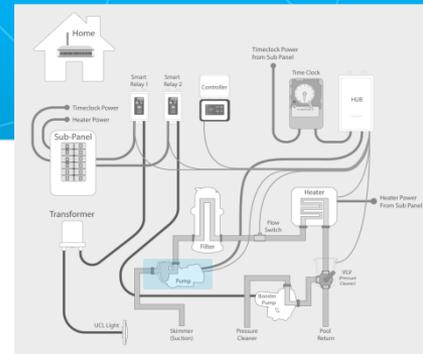


**Important:** Follow the appropriate wiring diagram when wiring the smart relay.

**For 240VAC:** make sure the solid red and grey, coming out of the SR are wire nuted together.

# Installation: S2: VSP Wiring

The following instructions are for TriStar 900, MaxFlo VS and Super Pump VS ONLY.



COMM

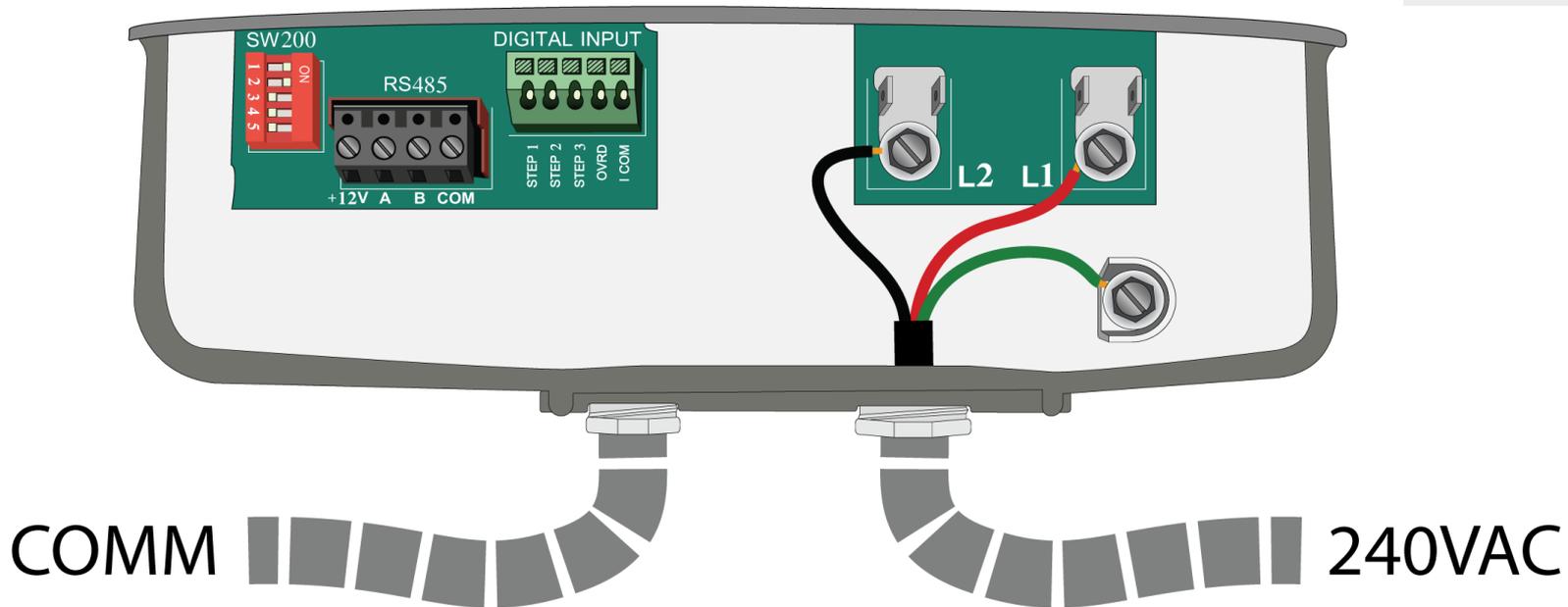
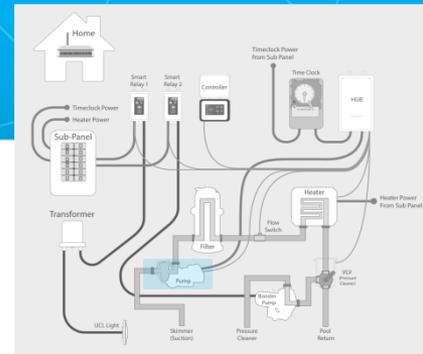
240VAC

**With Power OFF:**

**Step 1:** Wire the pump for 240VAC (line power)

# Installation: S2: VSP Wiring

The following instructions are for TriStar 900, MaxFlo VS and Super Pump VS ONLY.

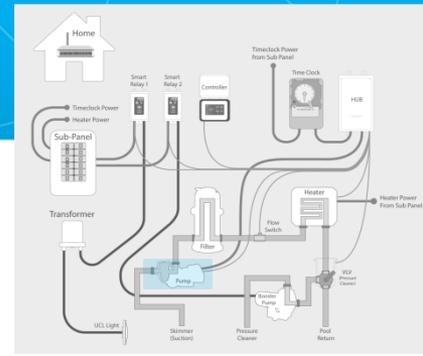


## With Power OFF:

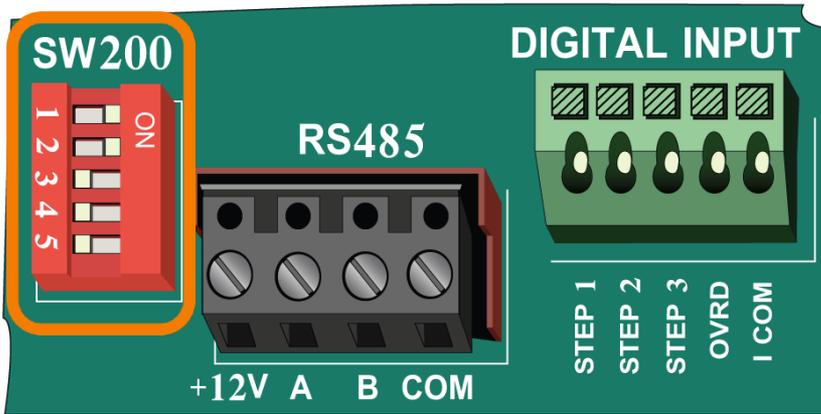
**Step 2:** Disconnect and remove the VSP display (if applicable), then cap the top, where the display would normally mount.

# Installation: S4: VSP Wiring

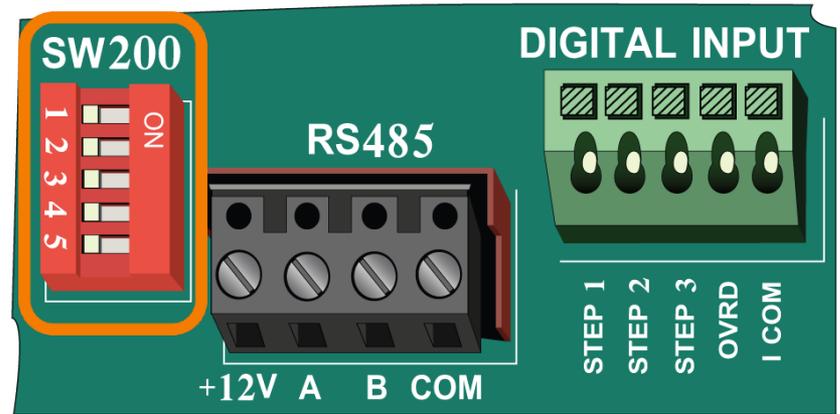
The following instructions are for TriStar 900, MaxFlo VS and Super Pump VS ONLY.



## BEFORE



## AFTER

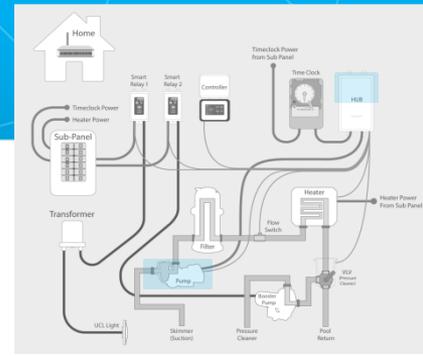


**With Power OFF:**

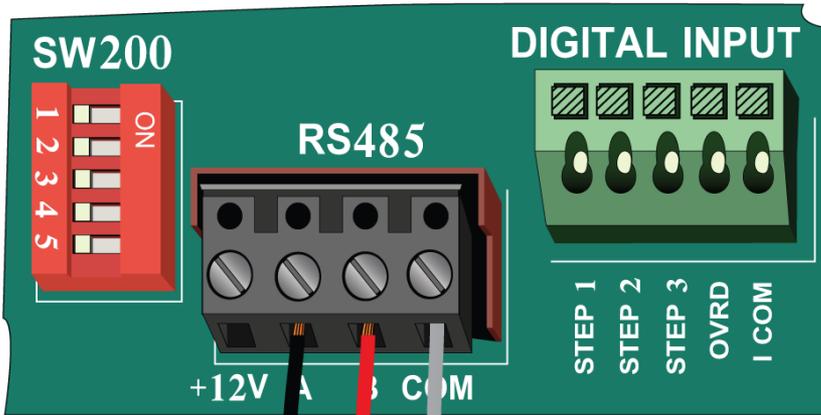
**Step 3:** Move all the dip switches to the OFF position

# Installation: S4: VSP Wiring

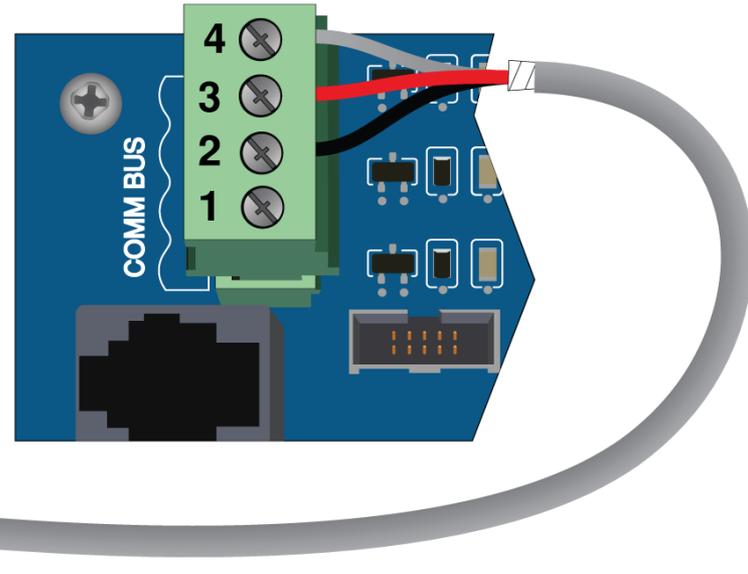
The following instructions are for TriStar 900, MaxFlo VS and Super Pump VS ONLY.



## PUMP



## VS Omni



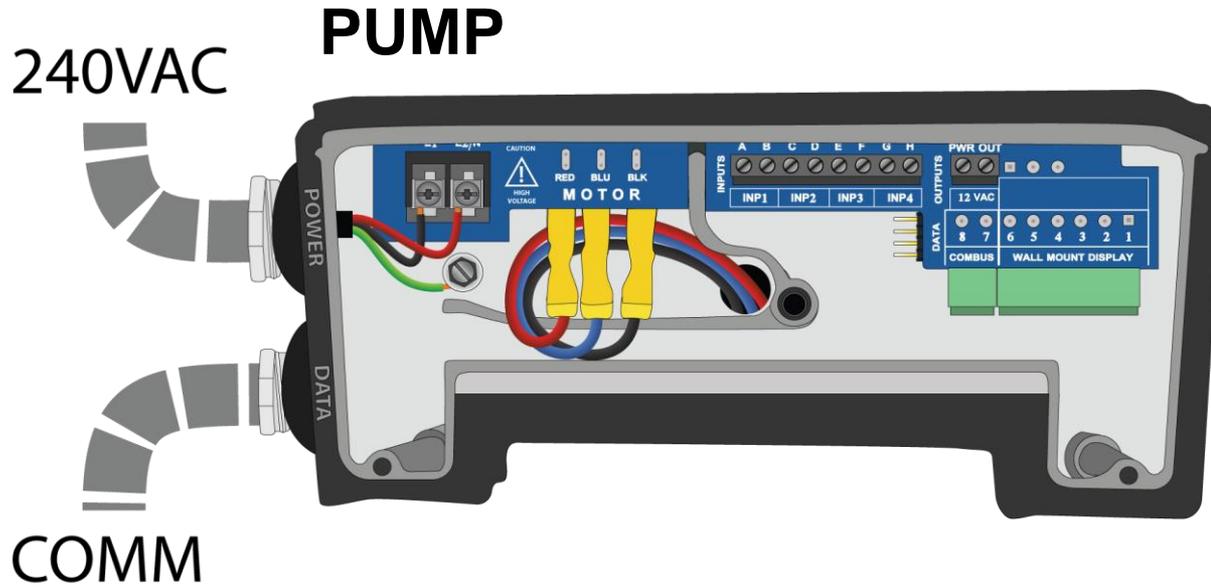
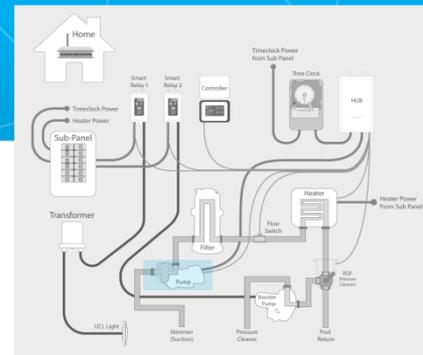
### With Power OFF:

**Step 4:** Connect the included 24AWG COMM wire from:

- **A (Pump) to 2 on the VS Omni**
- **B (Pump) to 3 on VS Omni**
- **COMM (Pump) to 4 on VS Omni**

# Installation: S2: VSP Wiring TriStar 950

The following instructions are for TriStar 950 ONLY.

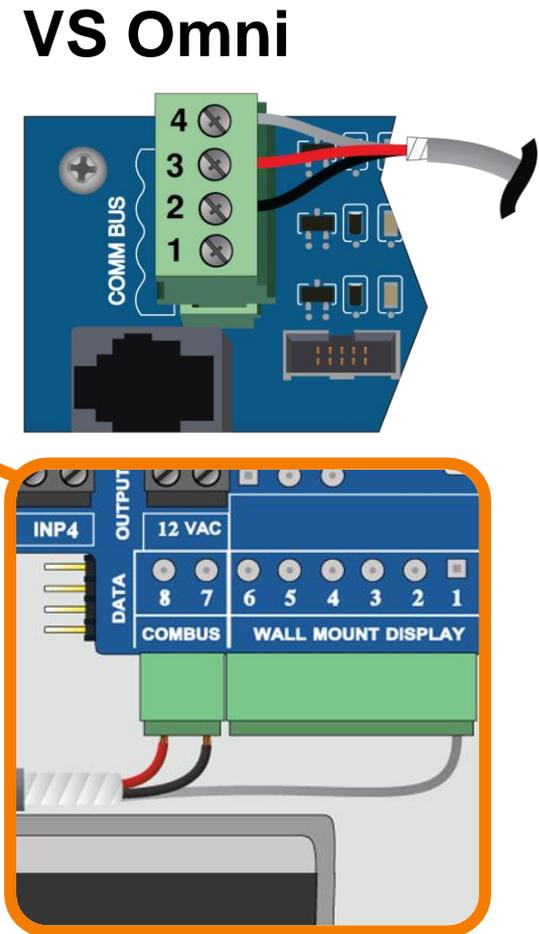
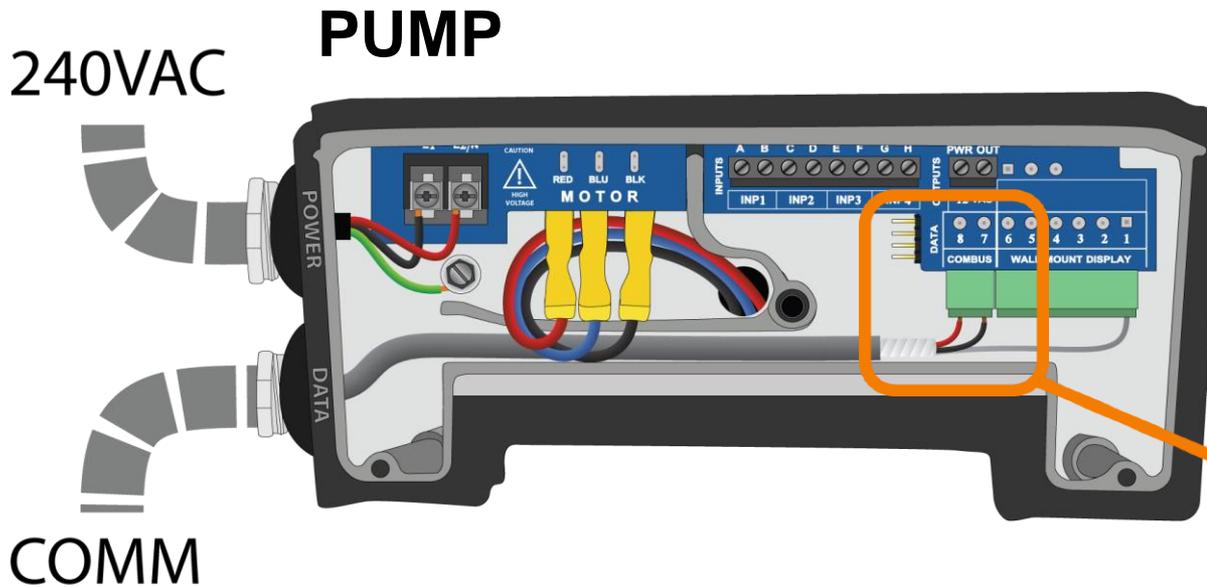
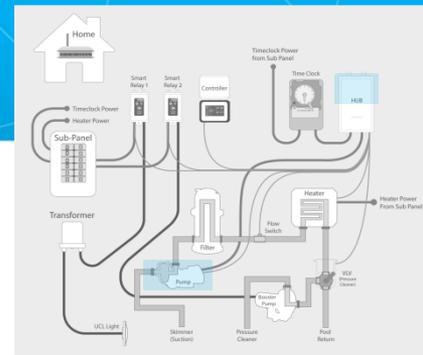


**With Power OFF:**

**Step 1:** Wire the pump for 240VAC (line power)

# Installation: S4: VSP Wiring TriStar 950

The following instructions are for TriStar 950 ONLY.



## With Power OFF:

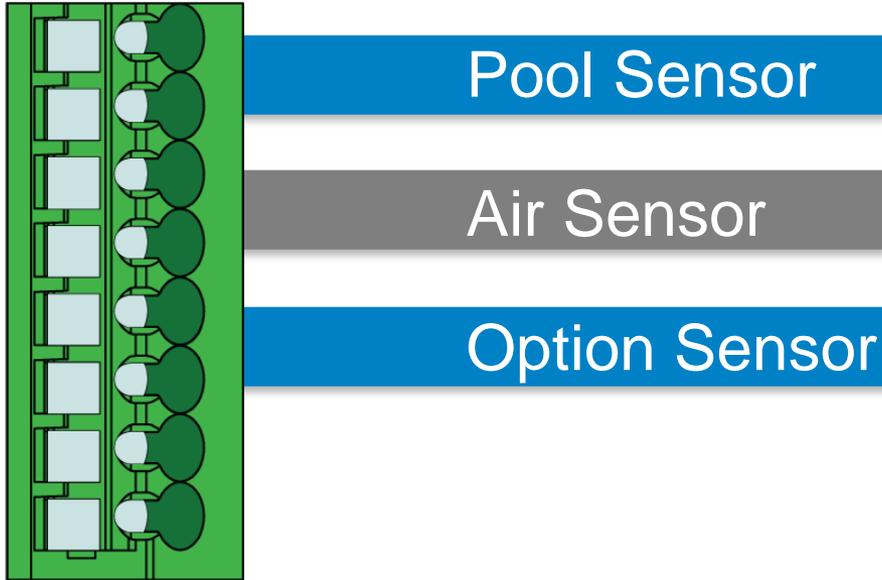
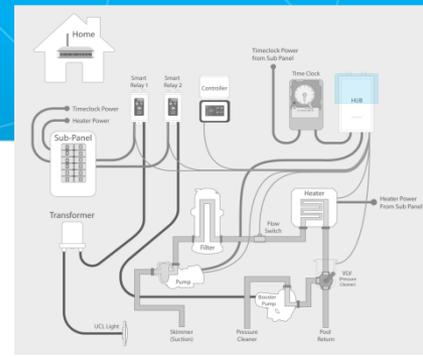
**Step 2:** Connect the included 24AWG COMM wire from:

- 1 (Pump) to 4 on the VS Omni
- 7 (Pump) to 2 on the VS Omni
- 8 (Pump) to 3 on VS Omni

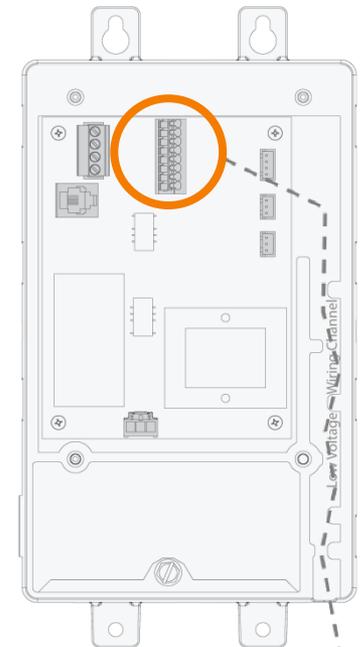


# Installation: S4: Temperature Sensors

The following diagram outlines the temperature sensor hookups:



**HUB**



Sensor  
wire x3

## Purposes:

- **Pool Sensor** – primary water sensor (required for heating).
- **Air Sensor** – general use and freeze protection.
- **Option Sensor** – can be used for various interlocks or solar control.

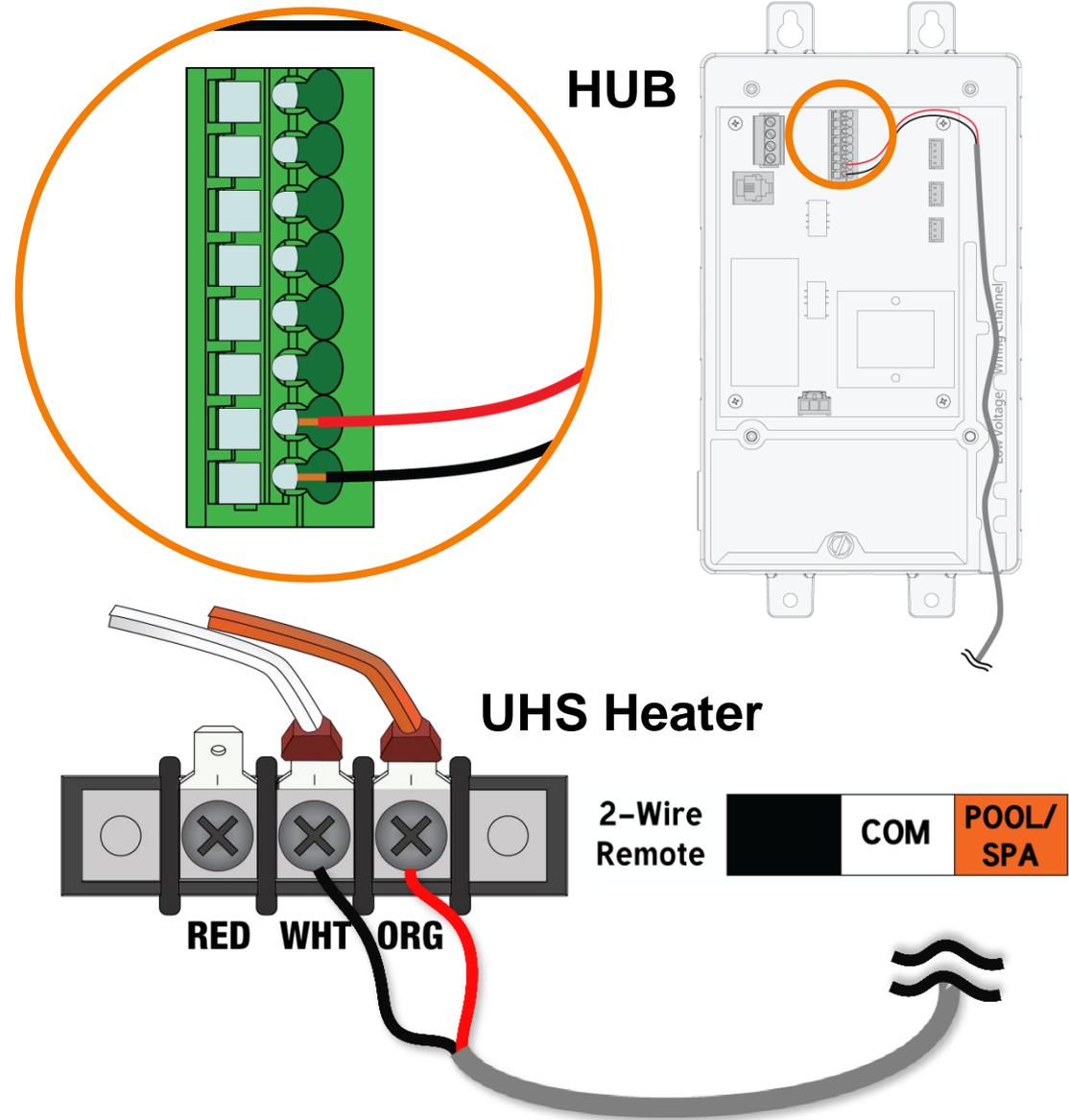
# Installation: S4: Hayward Heater Bypass

## Hayward Universal H-Series Heater:

(a) On the heater, wire the low voltage, 2-wire connection into the terminals under White and Orange.

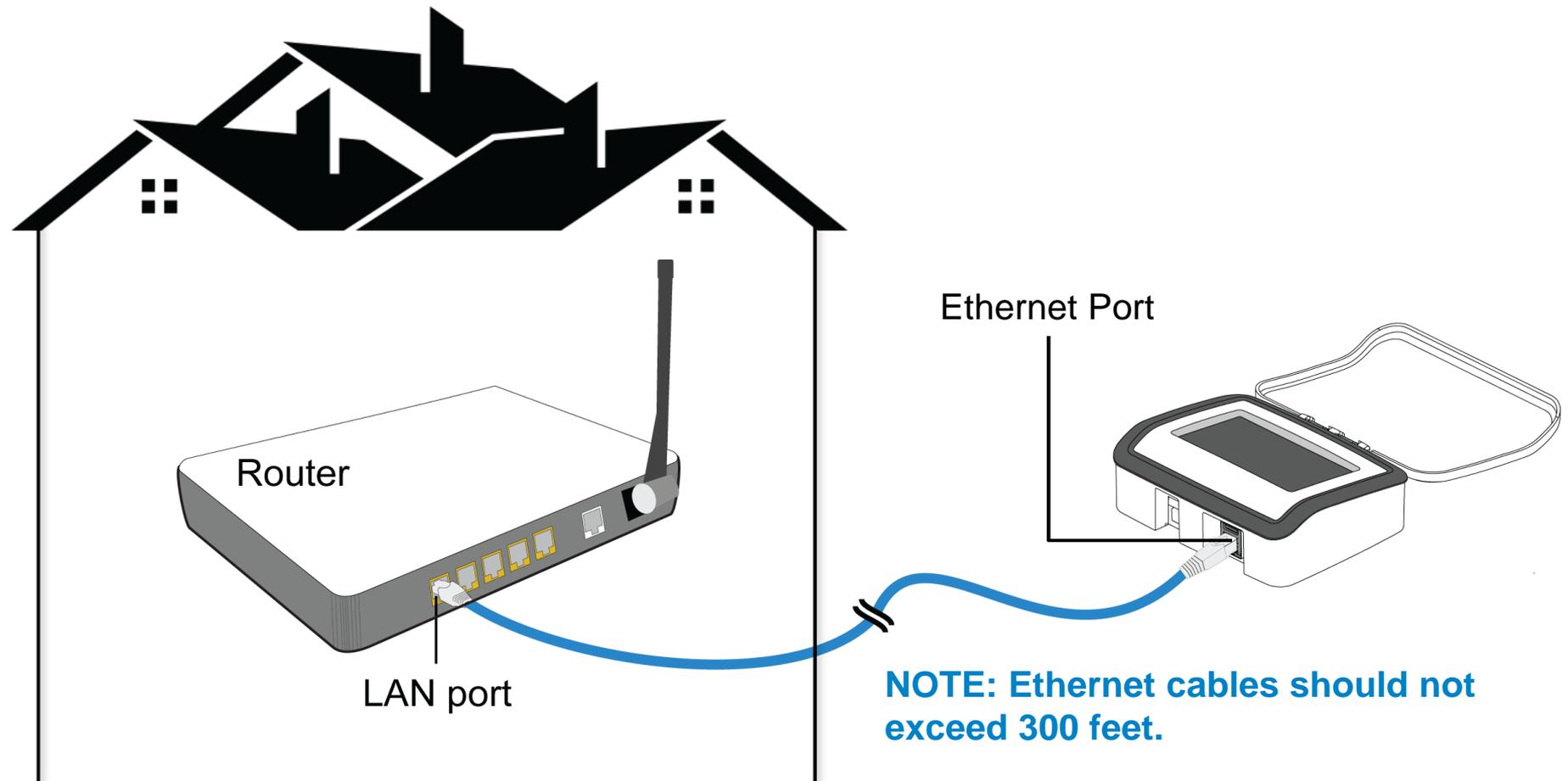
(b) Set the heater to bypass operation (bo).

(c) Finally, wire those two wires into the Hub, connecting them to the bottom two terminals.



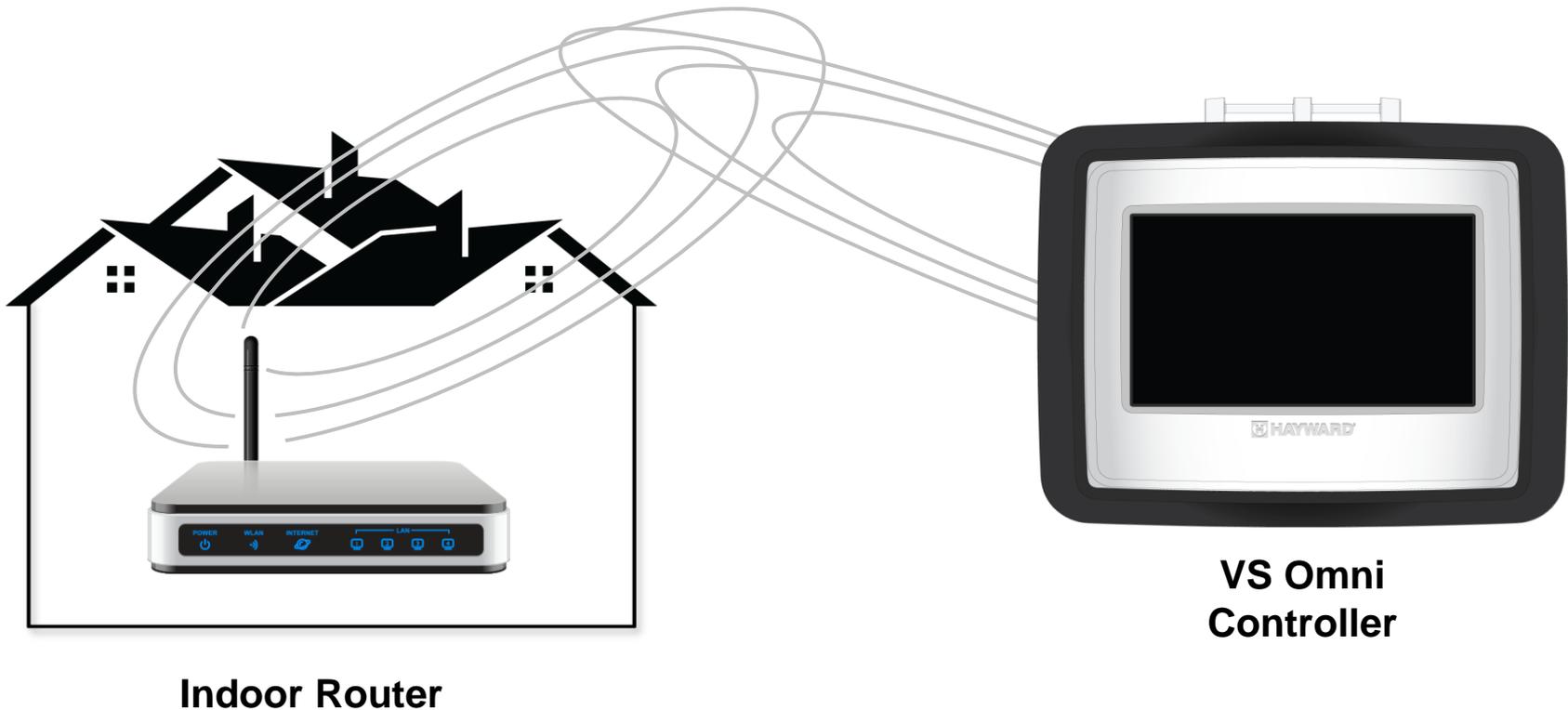
# Installation: S5: Networking (Wired)

For direct (wired) connection, supply an Ethernet cable that plugs into an available LAN port on the router. **DO NOT** plug the Ethernet cable into a PoE (Power of Ethernet) port. The cable will plug into the bottom of the controller.



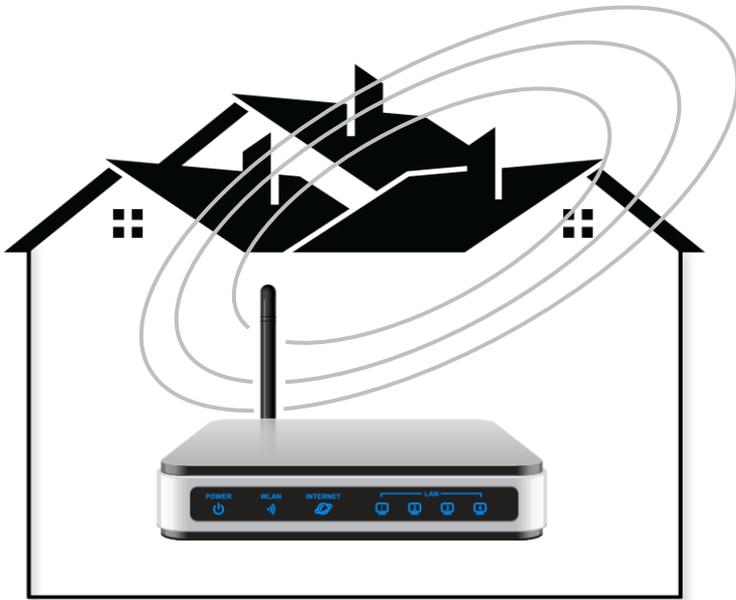
# Installation: S5: Networking (Wi-Fi)

*The VS Omni Controller is equipped with an internal Wi-Fi radio (802.11b/g/n Wireless) which allows the unit to connect to a strong 2.4 Ghz Wi-Fi signal. It is recommended to run network analysis prior to attempting a connection (Network Analyzer – from an Android device, Ookla speed test – from a Apple device).*



# Installation: S5: Networking (Wi-Fi cont.)

*NOTE: In instances where the Wi-Fi signal broadcasted from the router is not strong or reliable enough to ensure constant communication, the VS Omni Controller can be moved, closer to the router, up to 200' away from the Hub.*



**Indoor Router**



**VS Omni  
Controller**

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# Programming

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# Programming: Initial Screen

*The following screen will appear after initial power up.  
To proceed select the button entitled "OK".*



# Programming: Programming Options

The VS Omni features four main configuration options:

1. Pre Programmed Config,
2. New Typical Configuration,
3. New Advanced Configuration, &
4. Load Existing Configuration.

Quick config. with some assumptions

Quick config. all settings are preset

Use to load an existing config.

Represents a full system config. from scratch



# Programming: Pre Programmed Config (Defaults)

The following tables outline the system assumptions when using the Pre Programmed Config. option.

<System Preferences>	
VSP Display	Percentage
Time format	12-Hour
Units	Standard
Mood Color	Disabled
Simple Mode - Heater	NO
Simple Mode - Filter	NO
Simple Mode - Lights	NO
Backyard Name	Backyard
Air Sensor Name	Air Sensor

<BOW>	
Name	Pool
Type	BOW_POOL
<Filter>	
Name	Filter Pump
Filter Type	VSP
Max Pump Speed	100%
Min Pump Speed	18%
Max Pump RPM	3450
Min Pump RPM	600
Min Priming Interval	30 seconds
Priming	Enabled
Priming duration	180 seconds
Cool down duration	300 seconds
Flow monitor	Disabled
Filter Off Valve Change	Disabled
Freeze Protection	Enabled
Freeze Temp	38
Freeze Protection Speed	50%
VSP Low Speed	18%
VSP Med Speed	50%
VSP High Speed	100%
Water Sensor Name	WaterSensor

<LVR>	
Heater Status	Enabled
Name	Heater
Current Setpoint	70
Heater Type	Gas
Heater Priority	1
Heater Priority Duration	8hrs
Allow Low Speed Operatio	Enabled
Minimum VSP Speed	50%
Max water temp	104
Min Setpoint	65
Cooldown	Disabled
Extend	Disabled
<HVR>	
Light Status	Enabled
Light Type	Incandescent
Name	Light
Relay type	HVR
Freeze Protection	Disabled

# Programming: New Typical Config. (Defaults)

The following tables outline the system assumptions when using the New Typical Config. option. **NOTE: Orange fields are either conditional items or require answers.**

<System Preferences>	
VSP Display	
Time format	12-Hour
Units	
Mood Color	Disabled
Simple Mode - Heater	NO
Simple Mode - Filter	NO
Simple Mode - Lights	NO
Backyard Name	Backyard
Air Sensor Name	Air Sensor

<BOW>		
Name	Pool	
Type	BOW_POOL	
<Filter>		
Name	Filter Pump	
Filter Type	VSP	
Max Pump Speed	100%	
Min Pump Speed	18%	
Max Pump RPM	3450	
Min Pump RPM	600	
Min Priming Interval	30 seconds	
Priming	Enabled	
Priming duration	180 seconds	
Cool down duration	300 seconds	
Flow monitor	Disabled	
Filter Off Valve Change	Disabled	
Freeze Protection	Enabled	
Freeze Temp	38	
Freeze Protection Speed	50%	
VSP Low Speed	18%	
VSP Med Speed	50%	
VSP High Speed	100%	
Water Sensor Name	WaterSensor	

<LVR>		
Heater Status		
Name	Heater	
Current Setpoint	70	
Heater Type		
Heater Priority	1	
Heater Priority Duration	8hrs	
Allow Low Speed Operatio	Enabled	
Minimum VSP Speed	50%	
Max water temp	104	
Min Setpoint	65	
Cooldown	Disabled	
Extend	Disabled	



**\*Configuration options vary based on the equipment being added (for example: if 2 Smart Relays and 2 Variable Speed pumps are attached, additional questions will be asked).**

# Programming: New Typical Config. (Defaults-cont.)

The following tables outline the system assumptions when using the New Typical Config. option. **NOTE: Orange fields are either conditional items or require answers.**

<HVR>	
Would you like to add?	
HVR Type	

## Water Feature

Name	Wtrfeature
Relay type	HVR
Freeze Protection	Disabled

## Light

Name	Light
Light type	
Freeze Protection	N/A

## Cleaner

Name	Cleaner
Relay type	HVR
Freeze	Disabled

## Accessory

Name	Accessory
Relay type	HVR
Freeze	Disabled

# Programming: Network Fundamentals



*“Here’s your network ticket”*

## *Dynamic Network (DHCP):*

This network IP assignment type means the router will “auto-assign” an IP address to anything plugged into the router. This IP address is subject to change.



*“Ticket please”*

## *Static Network (fixed IP):*

This network IP assignment type means that all devices communicating with the router must be preprogrammed with an IP address, once programmed, specific ports of the router are assigned to specific IP addresses. This is more prevalent in more sophisticated networks such as office networks.

# Programming: Setting up Wi-Fi (step 1)

*The following steps outline how to setup a Wi-Fi network connection. First start by selecting “YES”, when asked “Would you like to setup a wireless connection?”*

*Once selected, press the right arrow button.*



# Programming: Setting up Wi-Fi (step 2)

*A list of all available wireless signals will appear, select the desired SSID to continue. Use the up and down arrows to navigate through the list. Finally, if the network is not appearing toggle the On/Off feature in the top left to refresh the list.*



# Programming: Setting up Wi-Fi (step 3)

The next prompt will request that the password should be recorded and entered into the VS Omni. **NOTE: the password is case sensitive, so be sure to record the password exactly.**

Press the check mark to advance.



# Programming: Setting up Wi-Fi (step 4)

*Enter the password, toggling between both upper and lower cases as needed. Be sure to enter any numbers or symbols.*

*Press the check mark to advance.*



# Programming: Setting up Wi-Fi (step 5)

*At this point the Controller will attempt to connect to the network using the password credentials provided.*

*Once the Controller has connected, press the check mark to advance.*



# Programming: Setting up Wi-Fi (step 6)

*The Controller has a network diagnostics tool built into it. If the VS Omni determines there is a problem with any part of the network connection, it will recommend steps to resolving the issue.*

*After successfully passing diagnostics, press the check mark to advance.*



# Programming: Network Setup (Special Note)

**IMPORTANT:** If changes need to be made to the Network connection type, make sure all programming has been saved first.

**Make any network changes in Quick Edit AFTER the main programming has been saved; otherwise the configuration will fail to save.**

## 1. Save Config.



## 2. Change Connection Type



# Programming: Set Day and Time

*To set the day and time: first, select the hour, then the minute, then select am/pm, and finally choose the preferred time format (12 or 24 hours).*



# Programming: Set Day and Time (cont.)

*Next, select the top right banner option to set the date. Set the month from the list, set the day, then set the year.*

*Once complete select the check mark to complete this portion of the programming.*



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# Product FAQs

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# FAQs: Upgrading Firmware (1 of 4)

## How can I upgrade my VS Omni firmware?

- Download firmware for free from [hayward.com>inground>pumps>VS Omni>support](http://hayward.com>inground>pumps>VS Omni>support)
- Once the firmware file is on the USB storage device, eject it and plug it into the bottom of the VS Omni touch screen display.
- Enter service mode, and select the upgrade firmware option.
- Select the hardware to upgrade and the file, followed by the check mark.

Video Library Quick Reference Guides **Firmware Updates** Manuals

### Firmware Updates

Below you will find the latest Hayward VS Omni Firmware updates available. Please locate the Hardware that you would like to update and download the latest Firmware onto your USB memory stick. You need to bring the USB memory stick to the VS Omni and simply plug it into the bottom of the Controller. Next you will go into service mode on the VS Omni and select Upgrade. Then select the correct firmware file. The VS Omni will automatically reboot with the new Firmware once the upgrade is complete. We suggest you consult your pool professional when upgrading firmware.

Hardware	Version	Release Date	Release Notes	Download
MSP (Main System Processor / Controller)	R2.2.0	1/26/2018	<a href="#">View</a>	<a href="#">3.8 MB</a> <a href="#">Previous Version</a>



# FAQs: Upgrading Firmware (2 of 4)

To download the latest firmware to a USB drive go to [www.hayward.com](http://www.hayward.com)  
Support Center > Automation > VS Omni > Support

**Step 1:** Right click on the link of the file you wish to download.

**Step 2:** Within the options menu select "Save link as..."

(**Note:** USB drive must already be connected to your computer).

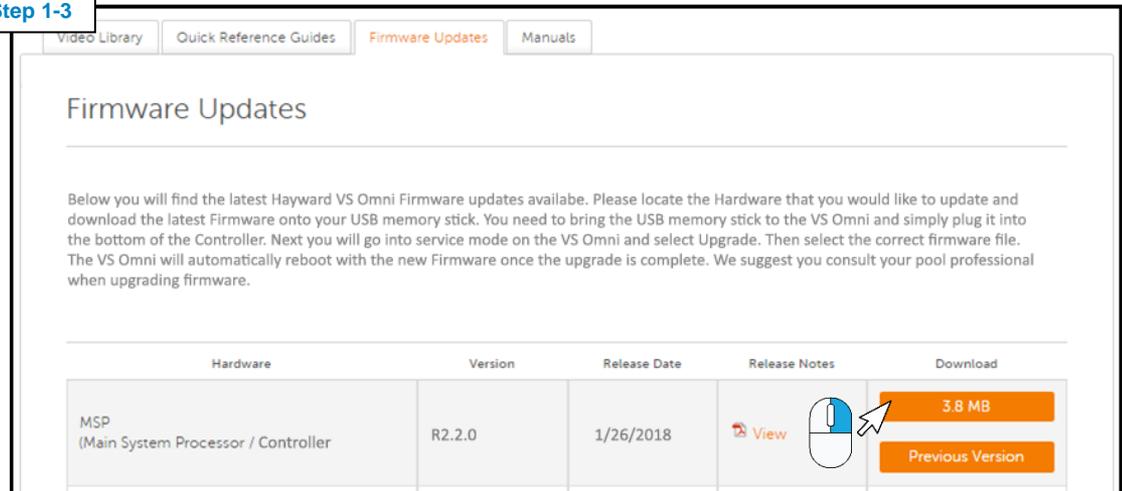
**Step 3:** From the "Save As" window navigate to the desired USB drive.

(**Note:** please make sure to select the root directory of the USB drive).

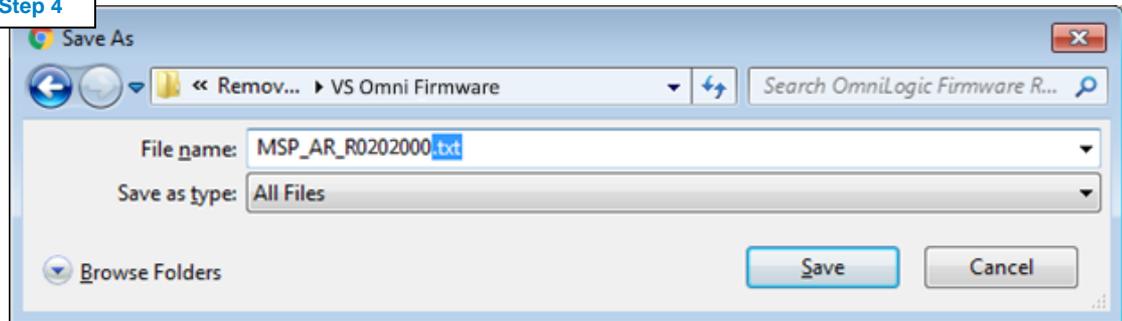
**Step 4:** Before saving, change the "Save as type" to "All Files" AND remove the ".txt" file extension that automatically appears. Then click on "Save" button.

(**Note:** failing to remove the .txt file extension will result in an unreadable firmware upgrade file).

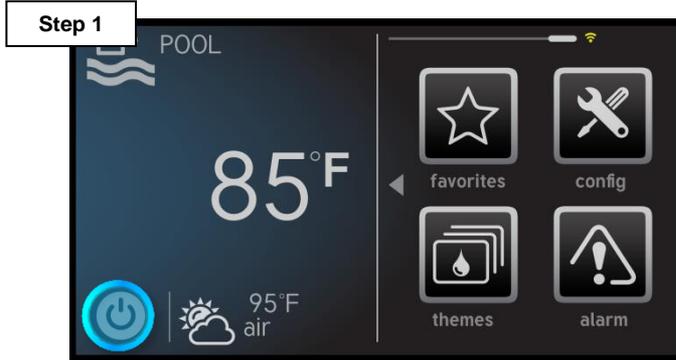
Step 1-3



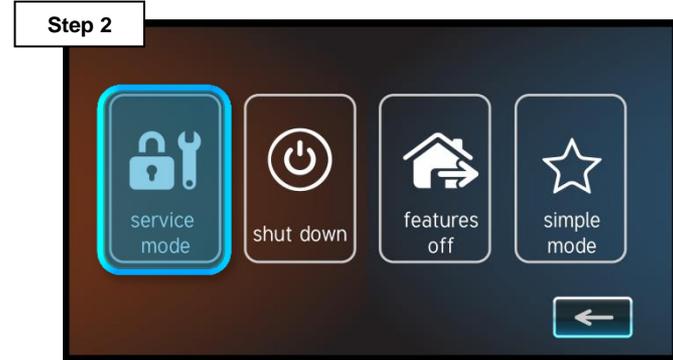
Step 4



# FAQs: Upgrading Firmware (3 of 4)



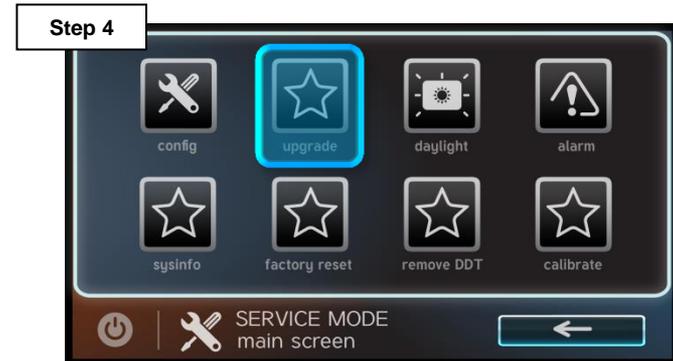
Press the power button.



Select "service mode".



Select either "Yes" or "Timed" to continue.

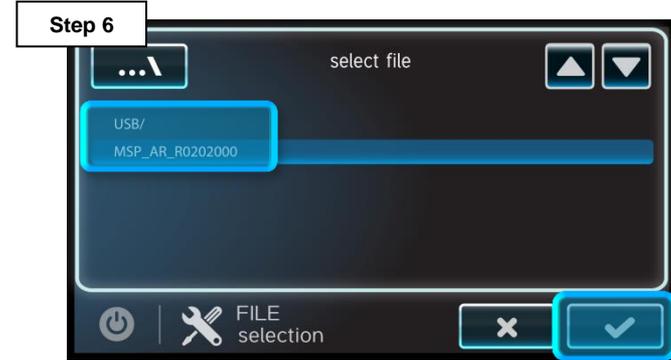


Tap the "upgrade" icon.

# FAQs: Upgrading Firmware (4 of 4)



Select the "MSP" to upgrade the controller.



Select USB, latest file, and then check mark.



Once the upgrade has started **DO NOT** power off while in process.



Once the firmware upgrade has completed, press the check mark to power cycle the unit.

# FAQs: Connecting to WiFi (1 of 3)

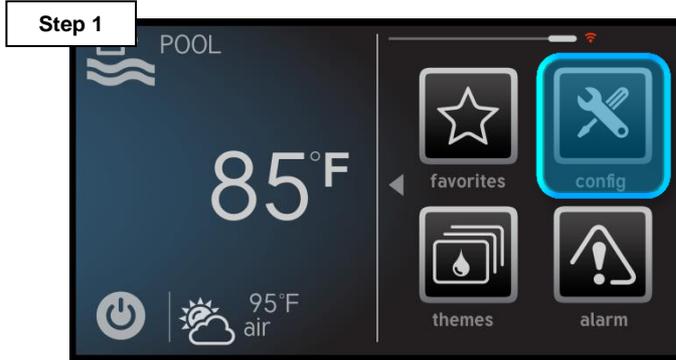
## How can I connect to WiFi after the system has been configured?

- The VS Omni comes with an internal WiFi chip to connect to 2.4 ghz WiFi signals.
- The first step is to navigate to the configuration menu.
- Select the “network” option, then select the network name.
- Enter the password and the system will run system diagnostics to confirm a proper connection.



# FAQs: Connecting to WiFi (2 of 3)

**NOTE: The network password IS CASE SENSITIVE. To confirm connection, go to Config>Network and verify IP addresses appear under the dynamic tab.**



On the right of the dashboard locate and tap the “config” icon.



Select the “network” option, on the right side of the screen.

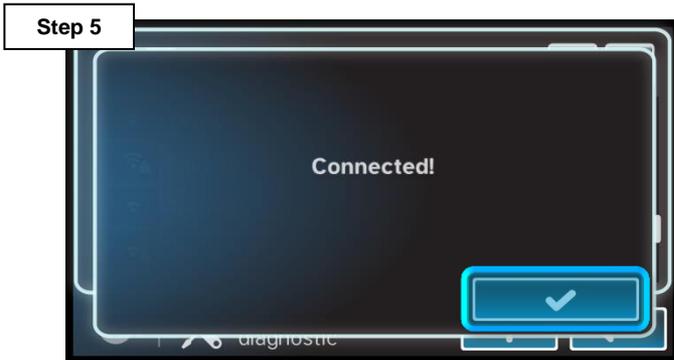


If no network has been setup prior, select the desired Wi-Fi signals, otherwise skip to Step 6.



Enter the network password, followed by the check mark to complete.

# FAQs: Connecting to WiFi (3 of 3)



If the password was accepted, press the check mark. If not, go back and verify credentials.



A network diagnostics test will run, if all green check marks appear press the back button.



Test	Description
Verifying Netlink	Confirms network password acceptance
Verifying Network Address	Verifies the Controller has an IP credentials (supplied by router)
Verifying Network Connection	Confirms the router is communicating
Verifying DNS	Conducts a web test (pings a webpage)
Verifying Internet Connection	Verifies connection with the OmniLogic Web Server

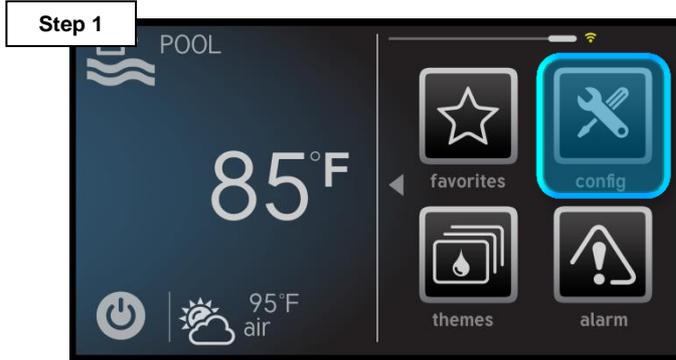
The following table outlines a description of each test, conducted by the Network Diagnostics. A failure of any of these items will provide additional troubleshooting steps.

## How can I backup and restore a configuration?

- Backing up a configuration is a great way to ensure that system programming is not lost.
- If the touch screen display ever needs to be replaced, restoring a configuration from a USB drive is not only quick but effective.
- The next two slides will explain in detail how these actions can be accomplished.



# FAQs: Backup and Restore Config. (2 of 3)



On the right of the dashboard locate and tap the “config” icon.



Select the “Backup config” option (third down on the left most column).



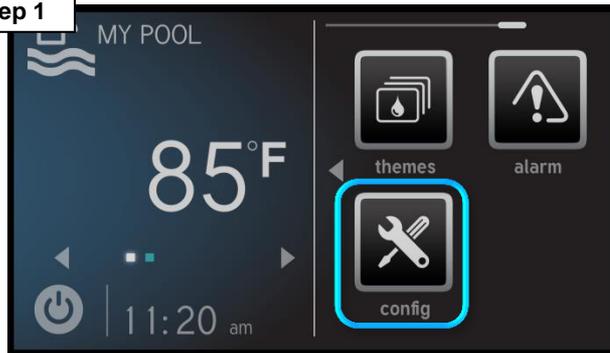
Select “Backup to USB”, after inserting a USB drive, then press the check mark.



Once the backup is confirmed press the check mark to finalize.

# FAQs: Backup and Restore Config. (3 of 3)

Step 1



On the right of the dashboard locate and tap the “config” icon.

Step 2



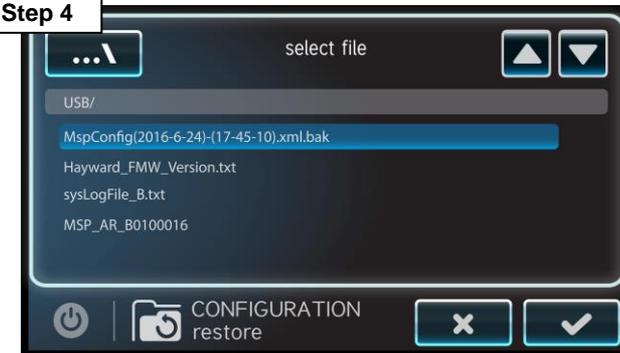
Select the “restore config” option (left most column).

Step 3



Select where the file is stored, in this case “Restore from USB”.

Step 4



Select desired file to restore with .bak file extension and press the check to finalize.

# FAQs: Theme Creation (1 of 3)

## How can I create a theme in the VS Omni?

- Supports up to 25 themes also known as groups.
- With the push of one button multiple actions can be executed.
- To create a theme, simply turn on/off all the equipment to simulate what should happen when the theme is active (this includes adjusting set points to desired settings).
- Then add the theme as shown on the new few screens.



# FAQs: Theme Creation (2 of 3)

Step 1



Select the body of water desired theme equipment resides.

Step 2



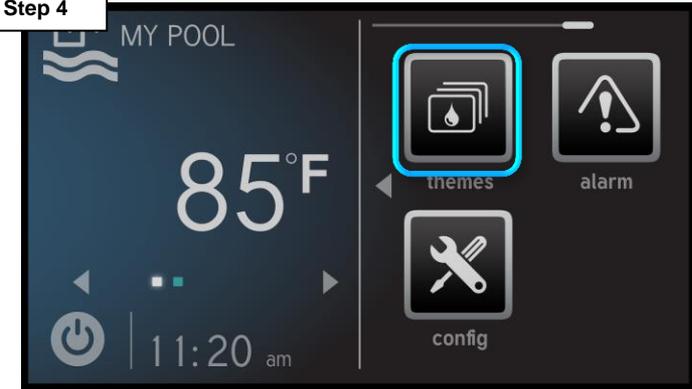
Activate all desired equipment to be included in the theme.

Step 3



Verify all equipment is running, then select the "back arrow" to return.

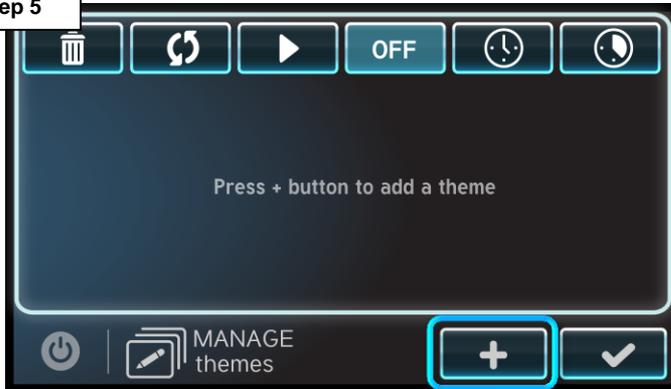
Step 4



Navigate and select the "themes" icon to add a new theme.

# FAQs: Theme Creation (3 of 3)

Step 5



Select the “+” button to add a new theme use the “check mark” confirming equipment is on.

Step 7



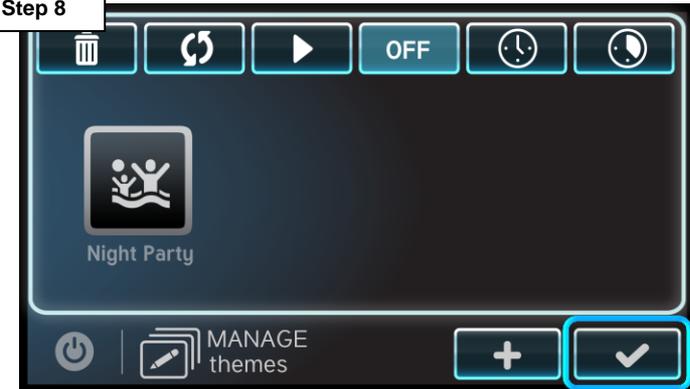
Once complete, review that the name and icon are correct, then press the “check mark”.

Step 6



Change the name, icon, and verify it is added as a favorite.

Step 8



Press the “check mark” when complete, repeat steps 1-8 to add additional themes.

## Can the VS Omni Manage Salt Chlorination?

- The VS Omni in concert with an AquaRite, equipped with a daughter board, can manage salt chlorination;
- If a legacy AquaRite or AquaRite 900 already exists, purchasing the salt chlorination daughter board will allow older chlorinators to communicate with the VS Omni system.
- In order for this solution to work the AquaRite will require constant power, instead of powered on the load side of a pump timer.

