



## Hayward Omni Control Products

### Release Notes for Firmware Revision R4.4.0 MSP/WDT/WLT/EPG

May 9th, 2022

### Features and Enhancements

Hayward Variable Speed HeatPro is equipped with RS-485 2 way communication necessary to be considered a Smart Heat/Cool Pump. In the future, other Heaters/ Heat Pumps may be equipped with RS-485 2 way communication. Omni now has support for these smart heat devices. This includes smart heat configuration, smart heat diagnostics, and smart heat service mode. The VS HeatPro Heat/Cool Pumps allow for two-way communication with Omni, thus allowing Omni to communicate a set point and operation mode (e.g. Heat, Cool, Auto) to the Heat/Cool Pump and can communicate status and diagnostic information to Omni.

#### Smart Heaters

- Omni's Pool Logic algorithms will control whether a configured Smart Heater is enabled or disabled and will communicate the current set point and mode to the Smart Heater. The Smart Heater will control whether the heater will actively heat or cool the water based on its own algorithms. Omni will not control the heater based on the current water temperature and set point. The status of whether the Smart Heater is actively heating or cooling will be communicated to Omni to display on the UI.
- If a Smart Heater is the only heater configured for a body of water, it will be enabled whenever the body of water's virtual heater is allowed to run. This means the filter must be on, freeze protect must not be active, the BOW must have the shared valves if the smart heater is shared, and the virtual heater must be enabled. If these conditions are not met, the heater will be disabled.
- If a Smart Heater is configured along with other heaters, then it will be enabled whenever the body of water's virtual heater is allowed to run AND it has priority to run. This means all of the conditions above must be true AND any other heater that is configured at a higher priority must have finished its priority duration. Alternatively, if the higher priority heaters are not able to run, they will be skipped in the priority order until they become available and the smart heater will be enabled. Additionally, the smart heater must be set to "enabled" on the UI screen that allows the user to enable and disable individual heaters. If these conditions are not met, the heater will be disabled.
- If there are any un-configured Smart Heaters discovered when configuring an individual heater, the user will first be asked if they would like to configure a Smart Heater.
  - If YES, the user will select an HUA.
  - If NO, the normal heater configuration flow will be started.
- The minimum set point for a heater is defined as the LOWEST value between the min heat and min cool capabilities and the maximum set point for a heater is now defined as the HIGHEST value between the max heat and max cool capabilities (no higher than 104°F).

#### Silent Mode

- Some Smart Heaters support a Silent Mode setting that allows the heater to run quieter. On Omni, this setting applies to the virtual heater and, if enabled, all heaters that support it will be put into the silent mode. The user has the ability to control the setting within a schedule.

If the user has a Smart Heater that supports Silent Mode, they will have the ability to set whether it should be enabled or disabled within a schedule. Any schedules that are loaded from a previous version that do not have the silent mode parameter will be set to run with Silent Mode disabled.

## Service Mode

- Smart Heaters, like VSPs and CSADs, have been given their own menu section in service mode. When a Smart Heater is accessed through Service Mode, the servicer has the ability to enable/disable the heater, set a set point, set the mode, view heater diagnostics, and enable and disable silent mode if the heater supports it. Setting of the mode has been made available based on the capabilities of the heater. The individual Smart Heater's page is a simplified version of the main heater screen from outside of service mode.

## Also fixed in this Release:

1. Multiple Omni Direct lights configured as separate lights will now be in sync if they are running the same show and speed within a theme.
2. A schedule that is interrupted by an interlock forcing the equipment off will be returned to when the interlock condition goes away.
3. Improvements provisioning and connecting to the upgrade server

## Firmware Revisions Included in this Release

R4.4.0 - **MSP\_AR\_R0404000** - Unified OmniLogic Control (OmniLogic, OmniPL and OmniHub)

After upgrading the MSP controller, the following firmware updates will be available over the air:

R4.4.0 - **WDT\_AR\_R0404000** - Unified OmniLogic Remote (Wired Wall Mount and Wireless Waterproof) to be downloaded over the air.

R4.4.0 - **EP\_AP\_R0404000** - OmniLogic Expansion Panel

## Upgrade Steps

- Ensure that the MSP is connected to the network and that it is able to be controlled from the mobile app.
- Ensure that the MSP's date and time are set correctly and have the correct time zone selected for release R2.0.0 and later. Enable "Automatic get date from internet" by switching the button to ON and save by selecting the checkmark. For release R1.4.7, if the date and time is not correct, use config->date/time to set it correctly before upgrading.
- Firmware files used for the upgrades should be stored at the top level (root) of the USB (not placed in folders and subfolders).
- The preferred USB drive to use is the Sandisk Cruzer. USB drives must be 16GB or less.
- When swapping hardware, use the config wizard edit function to map the equipment to the new hardware, avoid using Factory Reset.
- The system no longer supports multiple pieces of equipment configured to the same relay, valve actuator or the same pump. They can be installed together, but can only have one icon for activation.
- The MSP may lose the configuration. Always keep a backup of the configuration file.

- Always backup the Omni's configuration prior to upgrading the firmware

## To upgrade Omni Control Products:

### Omni MSP Controller firmware to R4.4.0 from Release R3.2.2 and older :

1. Install firmware files onto an Omni compatible USB drive and place the drive into your Omni controller usb port.
2. Back up your current configuration file by going to “config” > “backup config” > “Backup to USB”
3. Place the system in service mode by pressing the power button in the lower left-hand corner and then select <service mode>
4. Read the warning message and then select “Yes”
5. Press the down arrow at the bottom of the first service mode screen and then select “Upgrade”
6. Select <MSP> from the list of devices and press the checkmark.
7. Next press <USB>, then navigate to the file <MSP\_AR\_R0404000>, then press the checkmark (the same image can be used to upgrade both the OmniPL and the Omni Hub controllers)
8. Press the checkmark again to begin the upgrade
9. When the upgrade has finished, press the checkmark and the system will reboot.

### Recommended steps to upgrade over the air for Release R4.0.0 and later:

1. Ensure that the MSP is communicating with the mobile app.
2. Ensure that the time clock and time zone on the MSP is correct.
3. When you see the “upgrade available alarm”, follow the instructions below to complete the upgrade. If you do not see the alarm try rebooting the MSP.
  - a. Tap on the alarm to display the alarm’s details.
  - b. Tap on the **Upgrade** button.
  - c. The system warns you that you are entering Service Mode..
  - d. Select the **checkmark** to continue the upgrade.
  - e. It will bring you to the list of components that have an upgrade available.
  - f. Select **Upgrade All** and press the **checkmark** button.
  - g. The upgrade will start.
  - h. Wait for the upgrade to complete and verify it is successful.
  - i. The screen will display "Your system is up to date".
  - j. Select the **checkmark** and the system will reboot.

### Recommended steps to upgrade over the air for Release R4.0.0 and later with no alarm present

1. Enter Service Mode
2. Select Upgrade and press on Upgrade from Internet
3. If there is an upgrade available the new images and new versions will be displayed.
4. Select Upgrade All and press the checkmark button.
5. The upgrade will start.
6. Wait for the upgrade to complete and verify it is successful.
7. The screen will display "Your system is up to date".
8. Select the checkmark and the system will reboot.

## **Known Issues**

1. If you see the “Running the backup configuration” alarm after the upgrade, check to make sure the VSP pumps are still configured properly. If not, reconfigure the VSP pumps. Please report back to the engineering team below if you experience this issue.
2. Heater extend and cooldown should be disabled when running back to back 24 hour filter pump schedules or the second schedule will fail to run if the heater is running when the first schedule ends.
3. During the upgrade the TriStar 950 might run. This is a pump issue and the firmware on the pump needs to be upgraded and therefore the pump needs to be swapped.
4. Equipment to Equipment interlock that includes a cleaner or water feature with pump and valve does not work consistently if “paused for valve change” is enabled.
5. PoolCover Interlocks does not support Cooling or Auto Mode. Heater will only run in Heat Mode for PoolCover Interlocks.

## **Reporting Issues**

Please report issues by calling Hayward’s Technical Support or emailing [hflowtechservices@hayward.com](mailto:hflowtechservices@hayward.com).