HAYWARD®

HLXPLCONTROL

Replacement Controller for OmniPL, OmniLogic and OmniLogic Upgrade Kits

Installation Manual

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HLXPLCONTROL

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Before you Begin

The HLXPLCONTROL is a replacement touchscreen Controller for all OmniPL Controls, OmniLogic Controls built after 2023 and can be used to upgrade OmniLogic Controls built before 2023 (requires purchase of HLXBRIDGEPCB sold separately). Note that this Controller replacement kit is NOT compatible with OmniHub Controls. Before installation, clone the Controller as described in this manual. If a clone is not created before replacing the Controller, you'll have to reconfigure the system to manage your pool equipment. This is performed by following the Configuration Wizard instructions in the OmniPL or OmniLogic Installation manual.

What's Included

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

- Controller with 15' cable
- Grommet (only used to upgrade OmniLogic controls built before 2023)
- Modified Plastic Scaffolding (only used to upgrade OmniLogic controls built before 2023)

Sold Separately

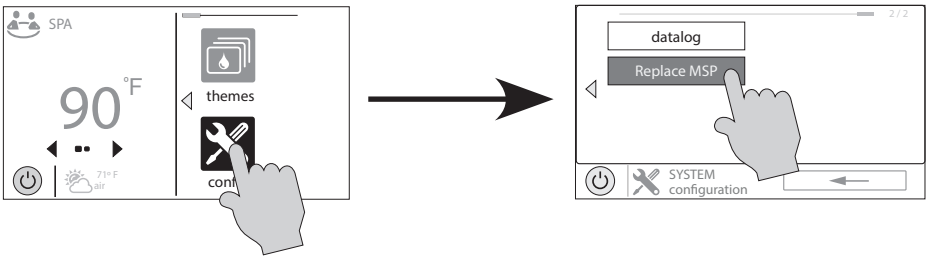
- HLXBRIDGEPCB Controller Bridge Board used to upgrade OmniLogic controls built before 2023
- HLX-DSP-MOUNT Plastic Scaffolding Mount (only used for OmniLogic controls built before 2023 AND using a HLIOEXPAND expansion board).

OmniPL Part Replacement

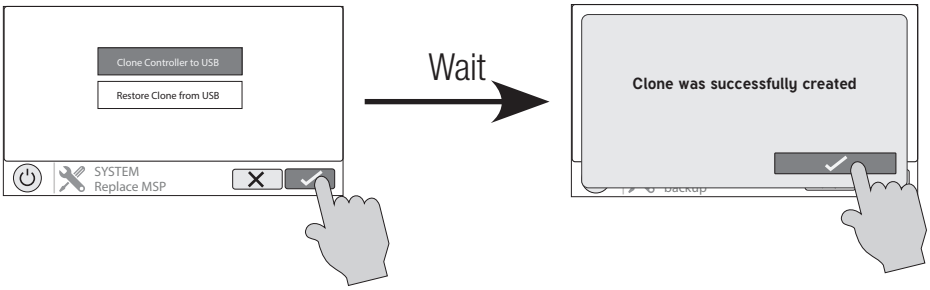
Clone Controller to USB

NOTE: Requires OmniPL firmware version R4.3.0 or greater. If OmniPL is using an older firmware version, upgrade before attempting this procedure. Before you begin this replacement, it is important to save the current OmniPL configuration to a USB thumb drive. Follow the procedure below to save the configuration. NOTE: If a clone cannot be saved because the Controller is not operational, then the OmniPL will have to be reconfigured using the Configuration Wizard or restored from a copy of the latest configuration available at www.haywardomnilogic.com after logging into your account. Refer to page 13 for more information.

1. Insert a USB thumb drive into the USB port on the bottom of the Controller.
2. Navigate to the Config menu and press "Replace MSP".



3. Press "Clone Controller to USB" and press the check mark at the bottom to start the clone. When the clone is complete, press the check mark to finish and remove the USB thumb drive.



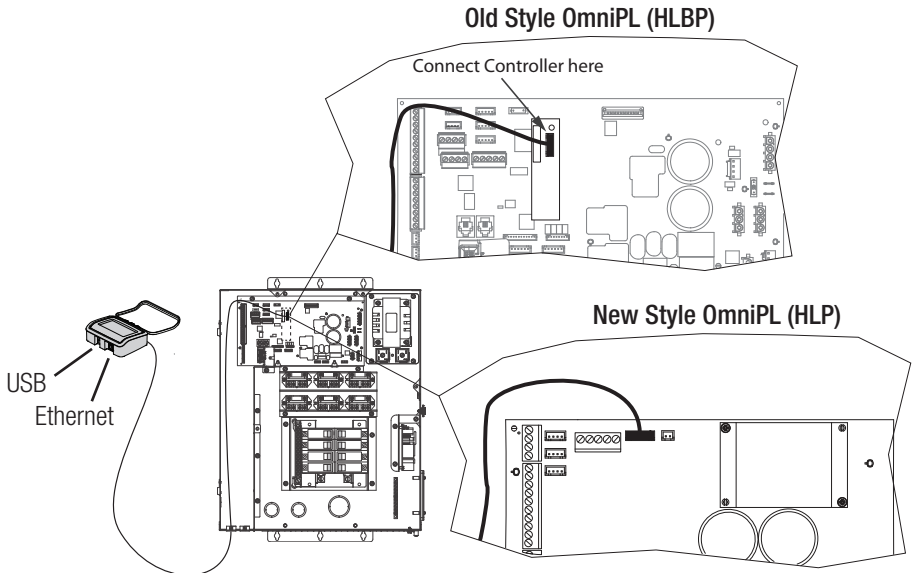
Installing HLXPLCONTROL

DANGER of Death, Injury or Property Damage if procedure not followed. This equipment connects to the OmniPL panel beneath the dead front. Dead front removal is required for this installation. Power to the entire system MUST be shut off before the dead front is removed.

1. With the power removed, open the OmniPL enclosure door and remove the dead front to expose the OmniPL Main Board.

2. Remove the existing Controller connection by unplugging its cable, then remove the cable from the enclosure. Unfasten the existing Controller from its mounting surface. If the Controller is connected to the home's access point via Ethernet, remove the connection.

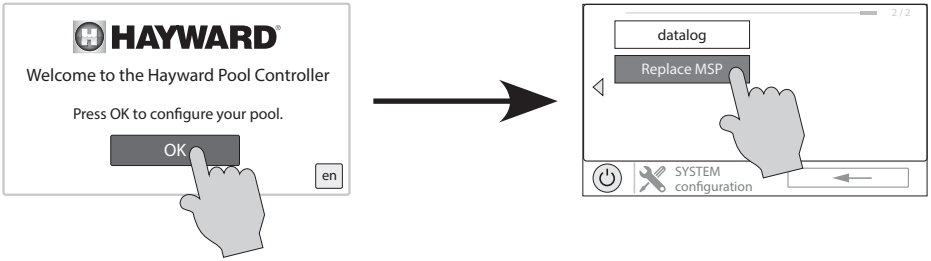
3. Reverse steps 1-2 to install the new Controller. Then proceed to restore the saved backup.



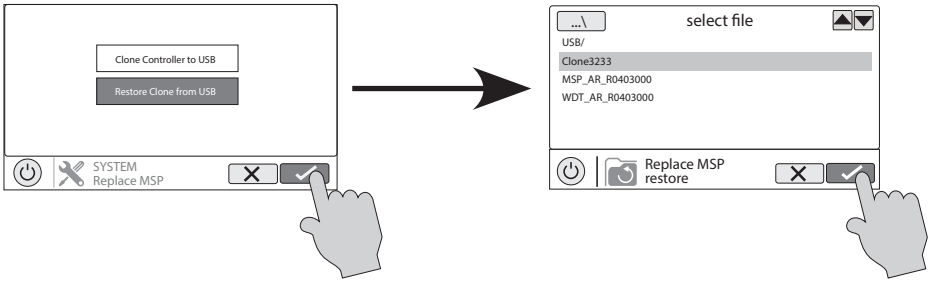
Load Clone onto New Controller

Out of the package, the new Controller will be set to factory defaults. In order to restore the original configuration and settings, you will have to load the clone that was previously saved to the USB thumb drive.

1. Insert the USB thumb drive into the USB port located on the bottom of the Controller.
2. Press the “OK” button and navigate to “Replace MSP”.



3. Press “Restore Clone from USB” and then select the clone file from the list. The file will be named “Clone” followed by the MSPID of the previous system.



4. Wait for the system to finish restoring the clone. This may take a couple minutes depending on the size of the configuration. Once it is complete, press the check mark and the system will reboot.
5. When the system is done rebooting, verify that the configuration was loaded successfully and there are no communication loss alarms. You are now finished replacing the OmniPL Controller.

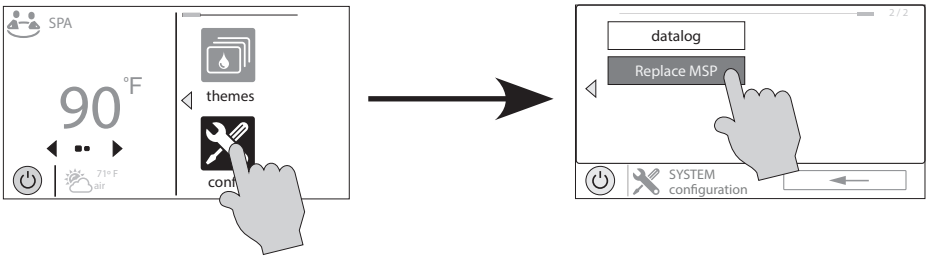
OmniLogic Part Replacement

NOTE: This procedure is for replacing the Controller on OmniLogic units built AFTER 2023. Refer to page 7 for units built before 2023.

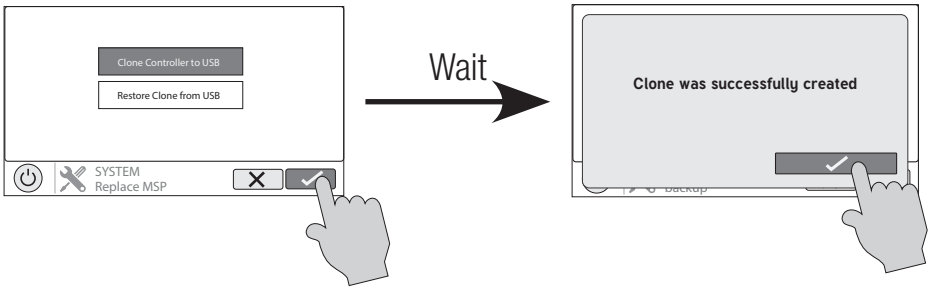
Clone Controller to USB

NOTE: Requires OmniLogic firmware version R4.3.0 or greater. If OmniLogic is using an older firmware version, upgrade before attempting this procedure. Before you begin this replacement, it is important to save the current OmniLogic configuration to a USB thumb drive. Follow the procedure below to save the configuration. NOTE: If a clone cannot be saved because the Controller is not operational, then the OmniLogic will have to be reconfigured using the Configuration Wizard or restored from a copy of the latest configuration available at www.haywardomnilogic.com after logging into your account. Refer to page 13 for more information.

1. Insert a USB thumb drive into the USB port on the bottom of the Controller.
2. Navigate to the Config menu and press “Replace MSP”.



3. Press “Clone Controller to USB” and press the check mark at the bottom to start the clone. When the clone is complete, press the check mark to finish and remove the USB thumb drive.



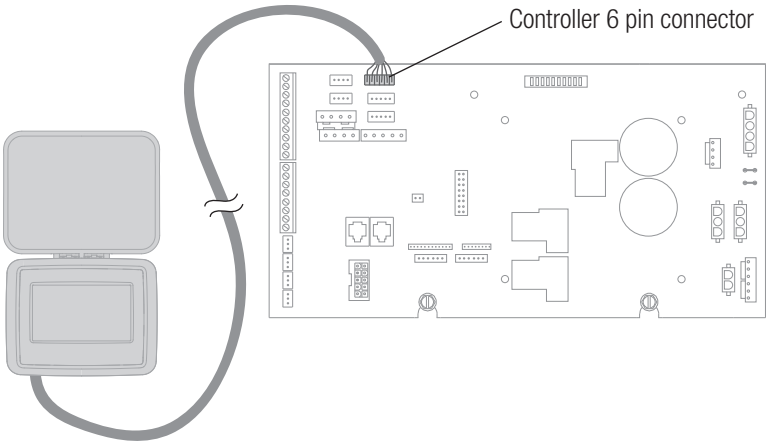
Installing HLXPLCONTROL

DANGER of Death, Injury or Property Damage if procedure not followed. This equipment connects to the OmniLogic panel beneath the dead front. Dead front removal is required for this installation. Power to the entire system MUST be shut off before the dead front is removed.

1. With the power removed, open the OmniLogic enclosure door and remove the dead front to expose the OmniLogic Main Board.

2. Remove the existing Controller connection by unplugging its cable, then remove the cable from the enclosure. Unfasten the existing Controller from its mounting surface. If the Controller is connected to the home's access point via Ethernet, remove the connection.

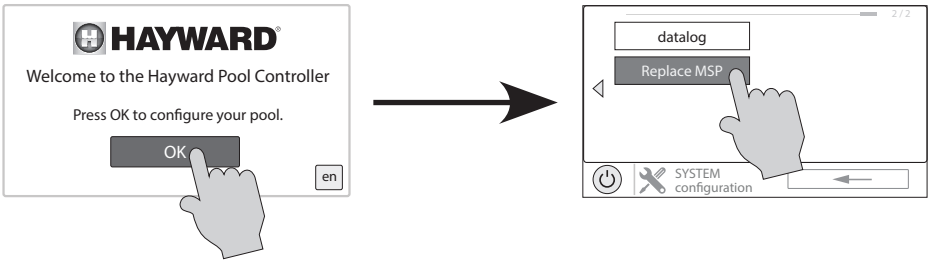
3. Reverse steps 1-2 to install the new Controller.



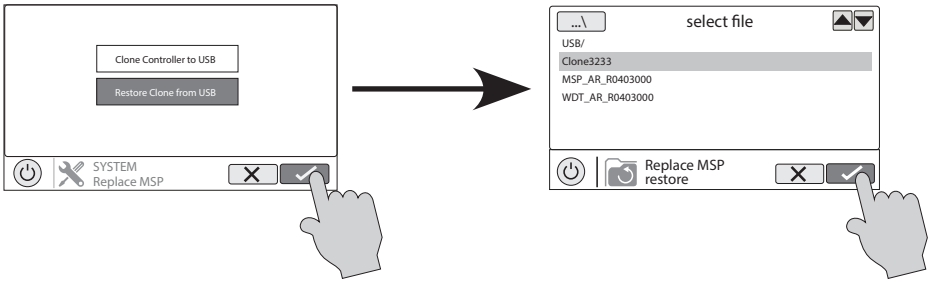
Load Clone onto New Controller

Out of the package, the new Controller will be set to factory defaults. In order to restore the original configuration and settings, you will have to load the clone that was previously saved to the USB thumb drive.

1. Insert the USB thumb drive into the USB port located on the bottom of the Controller.
2. Press the “OK” button and navigate to “Replace MSP”.



3. Press “Restore Clone from USB” and then select the clone file from the list. The file will be named “Clone” followed by the MSPID of the previous system.



4. Wait for the system to finish restoring the clone. This may take a couple minutes depending on the size of the configuration. Once it is complete, press the check mark and the system will reboot.
5. When the system is done rebooting, verify that the configuration was loaded successfully and there are no communication loss alarms. You are now finished replacing the OmniLogic Controller.

OmniLogic Controller Upgrade

NOTE: This procedure is for OmniLogic units built BEFORE 2023.

The HLXPLCONTROL is designed to upgrade an OmniLogic system to replace the existing Local Display with a more convenient remote touchscreen Controller. The Controller is weather resistant and contains a built-in WiFi radio for wireless internet connection. If currently using an HLWLAN for wireless communication, this is no longer used and must be removed. Its resistive touchscreen with flip down cover is designed to function year round directly in the elements.

IMPORTANT: Before upgrading, an HLXBRIDGEPCB Controller Bridge Board (sold separately) must be purchased. This will allow the new remote-style Controller to connect to the old (pre-2023) OmniLogic Main Board. If using an HLIOEXPAND expansion board, you must also purchase and install the HLX-DSP-MOUNT (sold separately) plastic scaffolding mount.

Overview

Below is an overview of the installation procedure of the HLXPLCONTROL:

IMPORTANT: Make sure that ALL circuit breakers are OFF and the unit power is disconnected before removing dead front panel and replacing parts.

1. **Clone Controller to a USB Thumb Drive (page 8):** Replacing the Local Display will remove the current configuration and all existing settings. Cloning the Controller to a USB thumb drive beforehand will eliminate the need to reconfigure the system.

2. **Remove Old Local Display (page 8):** Disconnect and remove the old Local Display and plastic scaffolding from the OmniLogic enclosure. Save the Local Display for a later step.

3. **Install the Controller Bridge Board & Modified Scaffolding (page 9):** Install the HLXBRIDGEPCB Controller Bridge Board (sold separately) onto the Main Board where the Local Display was previously connected. Install the HLX-DSP-MOUNT (sold separately) modified plastic scaffolding in the same location as the old plastic scaffolding, if using an HLIOEXPAND expansion board.

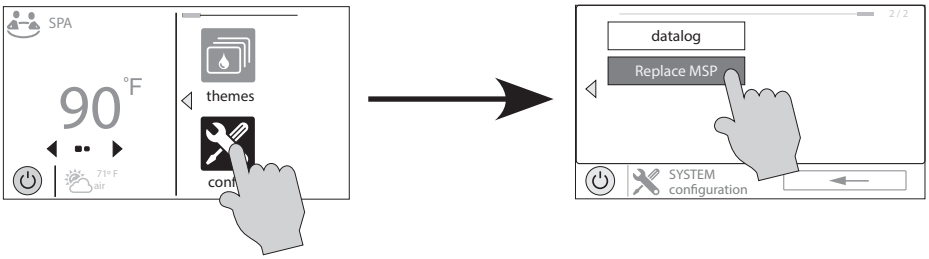
4. **Install the New Controller and Old Local Display (page 10):** Mount the new Controller in a convenient location and connect it to the Bridge Board. Install the old Local Terminal onto the modified plastic scaffolding. The Local Terminal will act as a plug to fill the hold in the dead front panel (it will not be operational). Reinstall the dead front panel.

5. **Load Clone onto New Controller (page 12):** With the new Controller installed, plug the USB thumb drive into the port underneath the Controller. Load the previously cloned system onto the new Controller and verify operation.

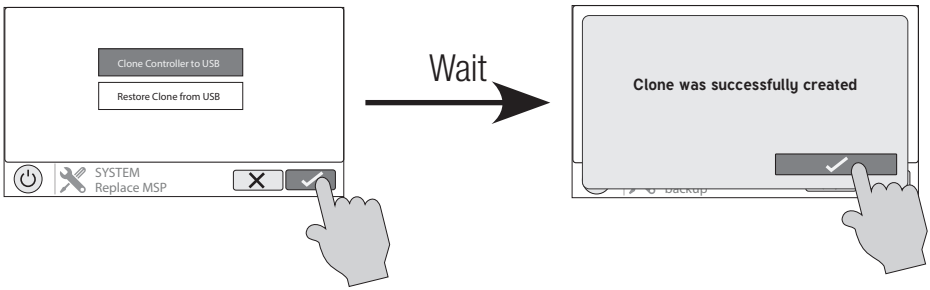
Clone Controller to USB

Requires OmniLogic firmware version R4.3.0 or greater. If OmniLogic is using an older firmware version, upgrade before attempting this procedure. Before you begin this upgrade, it is important to save the current OmniLogic configuration to a USB thumb drive. Follow the procedure below to save the configuration. NOTE: If a clone cannot be saved because the Controller is not operational, then the OmniLogic will have to be reconfigured using the Configuration Wizard or restored from a copy of the latest configuration available at www.haywardomnilogic.com after logging into your account. Refer to page 13 for more information.

1. COMPLETELY DISCONNECT POWER TO THE CONTROL AND ITS ELECTRICAL PANEL.
2. Remove the dead front panel.
3. Insert a USB thumb drive into the USB port on the left side of the Local Display.
4. Reinstall the dead front panel.
5. Apply power to the OmniLogic system.
6. From the OmniLogic Local Display, Navigate to the Config menu and press “Replace MSP”.



7. Press “Clone Controller to USB” and press the check mark at the bottom to start the clone. When the clone is complete, press the check mark to finish.

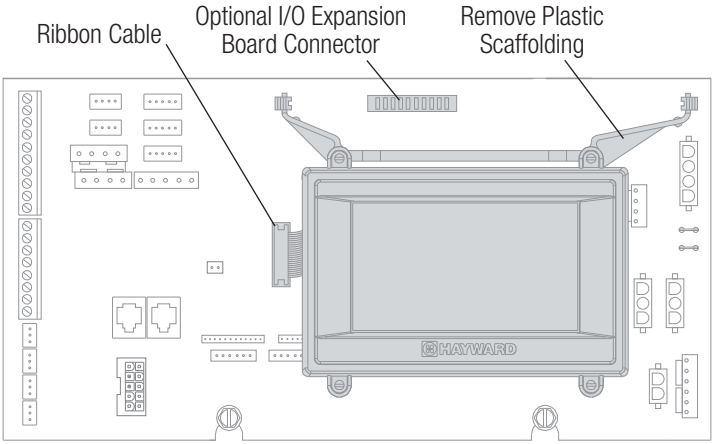


8. Clone is now complete. Remove power to the OmniLogic and then remove the deat front. Remove the thumb drive from the Local Display and put it aside for now.

Remove Local Display

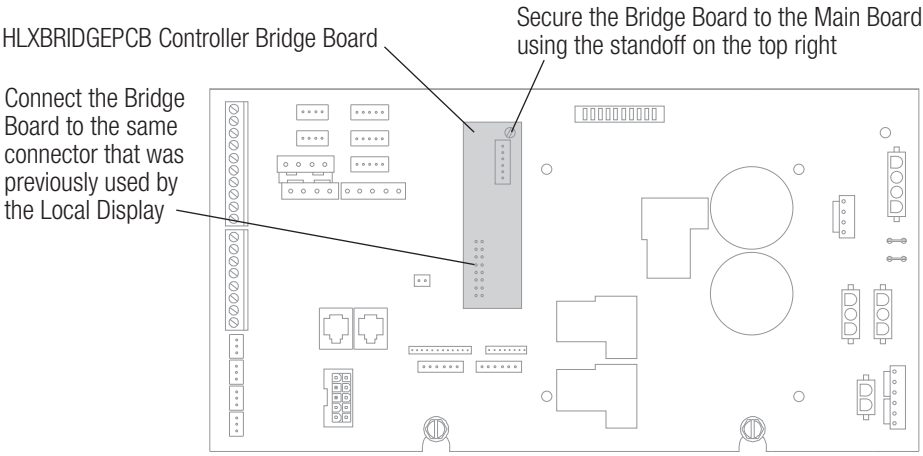
Follow the steps below to remove the existing Local Display from the Main Board. Note that the plastic scaffolding also needs to be removed for the new HLXBRIDGEPCB Controller Bridge Board (sold separately) to fit. If an IOEXPAND expansion board is installed, the HLX-DSP-MOUNT modified scaffolding must be purchased and installed.

1. COMPLETELY DISCONNECT POWER TO THE CONTROL AND ITS ELECTRICAL PANEL.
2. Remove the dead front panel to expose the Main Board.
3. If using the optional I/O expansion board, disconnect all connections from the I/O expansion board and then remove it from the plastic scaffolding.
4. Remove the Local Display's ribbon cable from the Main Board and then remove the Local Display from the plastic scaffolding by pulling straight out. The Local Display will no longer be used.
5. Remove and discard the plastic scaffolding by pulling each leg straight up away from the Main Board. If using the optional I/O expansion board, the original scaffolding cannot be reused and a new HLX-DSP-MOUNT scaffolding mount will need to be purchased.

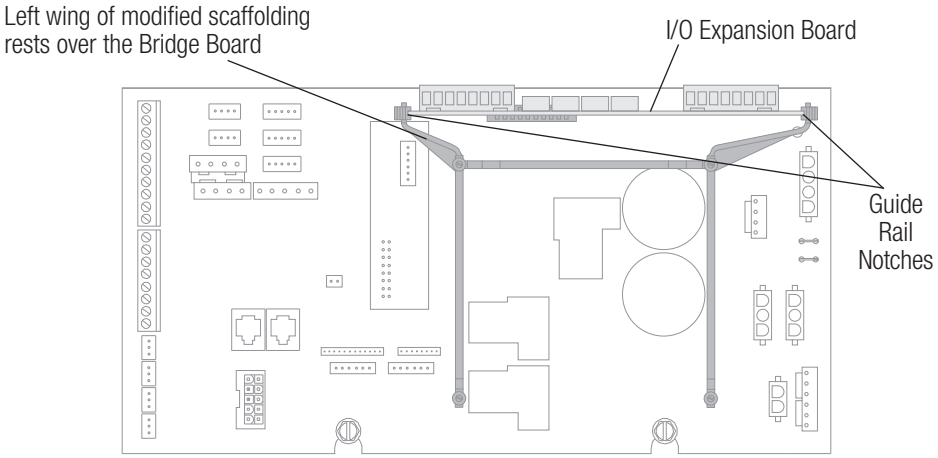


Install the New Controller Bridge Board & Modified Scaffolding

With the old Local Display and scaffolding removed, install the new Controller Bridge Board (sold separately) in its place. The Bridge Board connects to the same connector that was previously used by the Local Display. Refer to the graphic below.



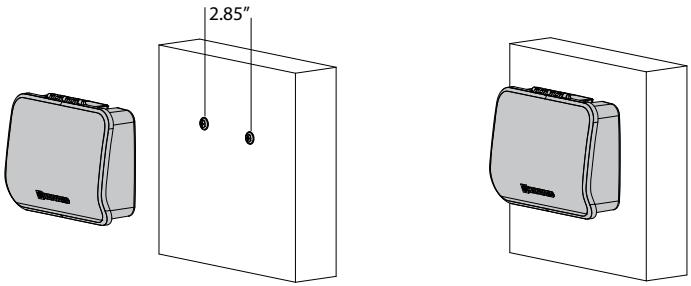
If using an I/O expansion board, mount the HLX-DSP-MOUNT (sold separately) onto the Main Board as shown below. Once installed, slide the I/O expansion board into the notches in the guide rails of the plastic scaffolding. Reconnect all wiring connections to the I/O expansion board that were previously removed, then push the board in until it plugs into the connector on the Main Board.



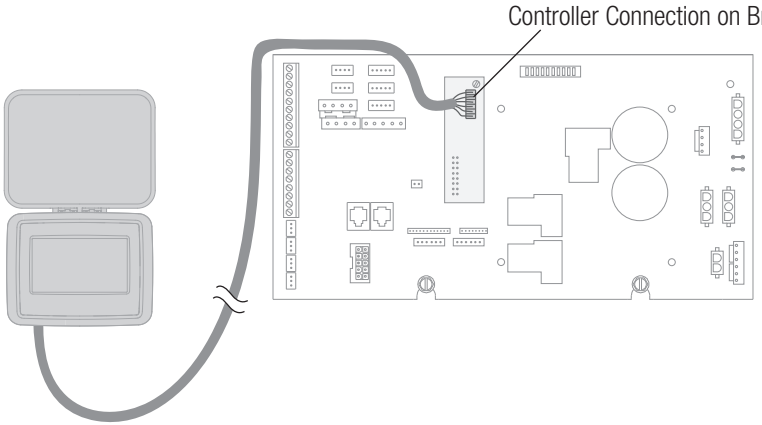
Install New Controller and Old Local Display

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

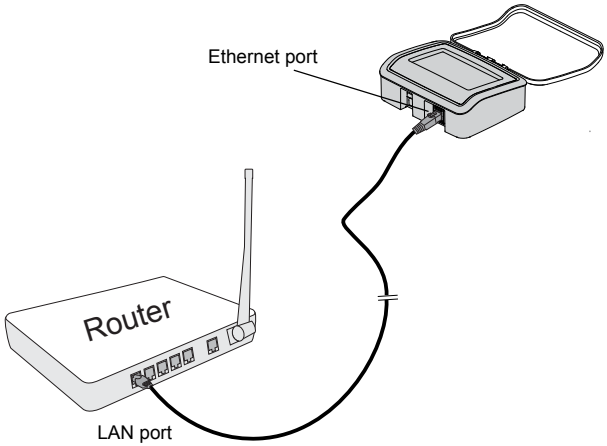
The Controller has two keyhole cutouts on the back of its enclosure. A mounting template is provided on page 14 of this manual. To mount, screw two appropriate fasteners into the mounting surface at the desired location as shown below. Tighten until the bottom of the screw heads are 1/8" off the mounting surface. Position the Controller cutouts over the screw and slide the unit downward. You may have to tighten or loosen the screws slightly to fully engage the screw heads to get a snug fit.



Once mounted, remove one of the existing spider grommets on the OmniLogic enclosure and replace it with the included open grommet. Run the Controller's 15 ft cable back to the OmniLogic and route the cable through the knockout with the newly installed grommet alone or with other low voltage wiring only (never with high voltage). Run the cable up through the OmniLogic's low voltage channel and connect to the Bridge Board connector as shown.



In most cases users will want to use the Controller's built-in wifi connection to their home's network. In this case, a 2.4GHz connection to the router is required. If for some reason a wired connection is desired, an Ethernet port is provided. For Ethernet connections, use outdoor rated Cat5e or Cat6 Ethernet cable. Connect one end to the Controller and the other to an available LAN port (not WAN) on the home router or access point as shown. Note that there are rubber plugs covering the USB port and Ethernet port on the bottom of the Controller for protection from the elements.



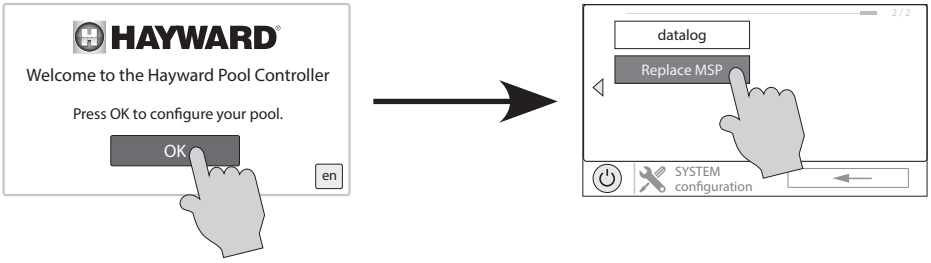
IMPORTANT: Once the new Controller is connected, install the old Local Terminal onto the plastic scaffolding. The Local Terminal will not be plugged it. It will simply act as a plug to fill the hole in the

dead front panel so that the Main Board is not exposed. Once all connections are made, install the provided dead front panel and apply power to the OmniLogic system.

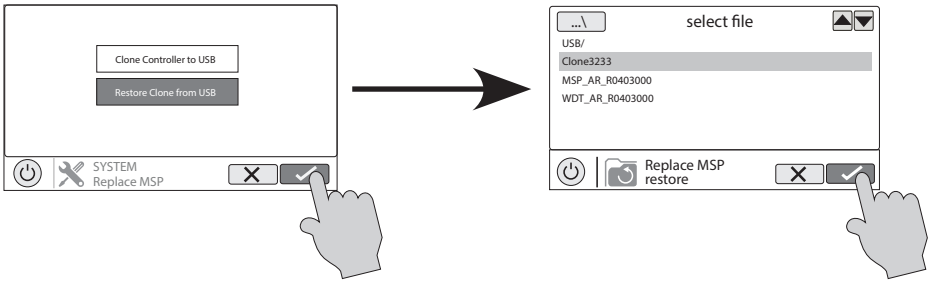
Load Clone onto New Controller

Out of the package, the new Controller will be set to factory defaults. In order to restore the original configuration and settings, you will have to load the clone that was previously saved to the USB thumb drive.

1. Insert the USB thumb drive into the USB port located on the bottom of the Controller.
2. Press the “OK” button and navigate to “Replace MSP”.



3. Press “Restore Clone from USB” and then select the clone file from the list. The file will be named “Clone” followed by the MSPID of the previous system.

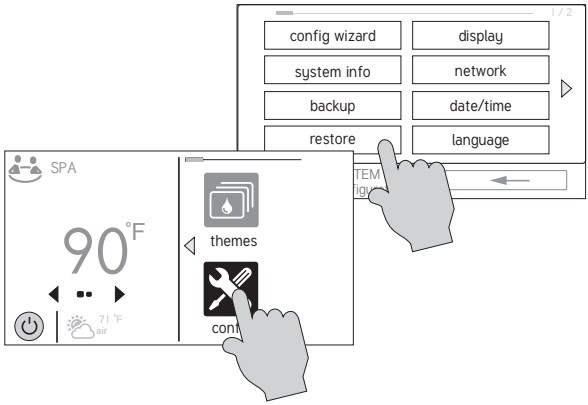


4. Wait for the system to finish restoring the clone. This may take a couple minutes depending on the size of the configuration. Once it is complete, press the check mark and the system will reboot.
5. When the system is done rebooting, verify that the configuration was loaded successfully and there are no communication loss alarms. You are now finished upgrading the OmniLogic.

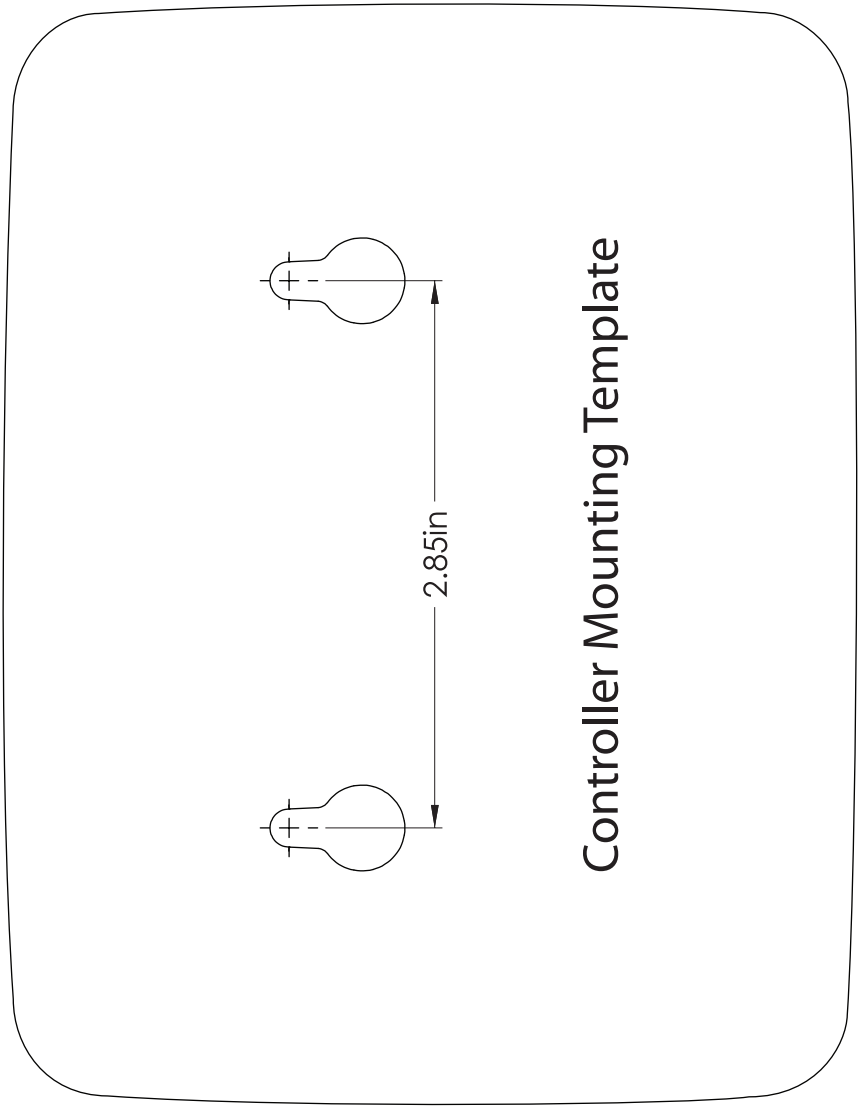
Backup Configuration from the Web

If a clone cannot be saved because your Controller is not operational, follow the instructions below to download the latest version of the configuration from the web. Note that these instructions will only work if the Omni Control had been connected to the internet and registered on the Hayward OmniLogic website.

1. Insert a USB thumb drive into a computer with internet access.
2. Using a web browser such as Google Chrome, navigate to www.haywardomnilogic.com and log in with valid user credentials for the Omni Control.
3. Hover over the "Profile" button at the top of the home page and select "Msp Configuration."
4. Press the "Download" button to download the latest version of the configuration. After downloading, verify that the file extension is ".xml" (some browsers may try to change the file extension).
5. Save the downloaded file to the USB thumb drive.
6. Eject the USB thumb drive from the computer and set aside until after the Controller replacement/upgrade process is complete.
7. Once the new Controller is installed, insert the USB thumb drive into the bottom of the Controller. The configuration can be restored as shown below.



8. After restoring the configuration, verify that there are no communication loss alarms on the system and all equipment is functioning correctly. If not, some equipment may need to be remapped in the configuration wizard. For more information on configuration, refer to the Omni Control Installation manual.


Controller Mounting Template
2.85in