



HLX-EXP-DSP

Expansion Panel Conversion Kit

Installation Manual

Contents

Description.....	1
Before you Begin.....	1
Firmware Upgrade.....	1
Installation.....	3

HLX-EXP-DSP

Hayward Pool Products
620 Division Street, Elizabeth NJ 07207
(908)-355-7995
www.hayward.com



HAYWARD®

Description

The HLX-EXP-DSP is a conversion kit used to convert a standalone OmniLogic pool controller into an OmniLogic Expansion Panel. After the conversion, the Expansion Panel will connect via standard CAT5/6 ethernet to the "Master" OmniLogic as well as to your home router. After configuration, the OmniLogic will control all equipment connected to itself as well as the Expansion Panel.

Before you Begin

This installation assumes that there are currently two OmniLogics used to control the pool and/or other bodies of water. Currently, both OmniLogics are being used independently. If both OmniLogics have been added to your OmniLogic user account, they each have an ID that can be found on your account at www.haywardomnilogic.com. After installing the HLX-EXP-DSP, the ID of the OmniLogic that is converted to an Expansion Panel will no longer be functional and should be deleted. Please contact Hayward with these IDs so that we can delete them. The remaining single ID of the Master OmniLogic will control both units and offer all the functionality that you had previously.

Before you begin, determine which OmniLogic will become the "Expansion Panel". This is a random selection and there is no benefit to choosing one over the other. The only consideration is that the new "Expansion Panel" will require two ethernet connections; one to the Master OmniLogic and one to your home network. After choosing, refer to the information below and perform the following:

- Record existing configuration settings, operation settings and timers on both OmniLogics
- Upgrade firmware on the Master OmniLogic

Existing configuration settings will be lost after the conversion. You should record all configuration information from both OmniLogics as well as any existing settings and timers before starting the conversion procedure. Writing down this information now will aid you to configure the Master OmniLogic once installation is complete. Use the space provided on page 6.

You must upgrade the firmware of the Master OmniLogic before installing the HLX-EXP-DSP. Also, if you have wired or wireless remote control attached to either unit, those should be upgraded before the OmniLogic. This will ensure that the remote controls and Expansion Panel will be discovered by the Master after the conversion.

Upgrade Firmware

A USB thumb drive loaded with the latest firmware has been included in this kit. Locate the thumb drive and follow firmware upgrade instructions below.

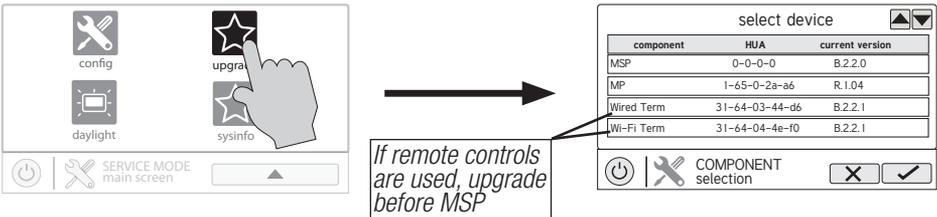
1. Disconnect power to the Master OmniLogic's electrical panel.

WARNING- The OmniLogic deadfront must not be removed when the OmniLogic's subpanel is powered. Power must be off when the thumb drive is inserted or removed.

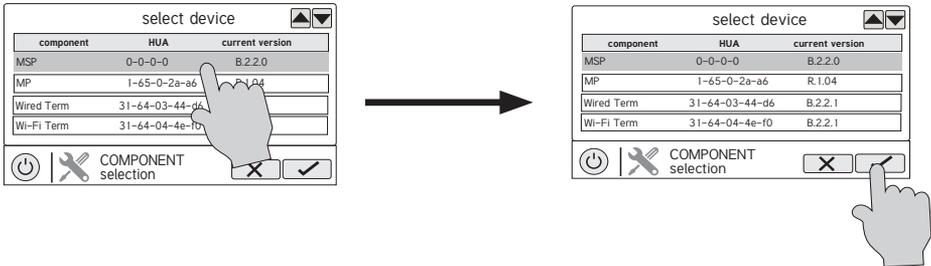
2. Remove the OmniLogic deadfront (front panel) to gain access to the local terminal display.
3. On the left side of the local terminal display, locate the USB port and insert the thumb drive.
4. Re-install the deadfront.

5. Apply power to the OmniLogic and allow enough time for the OmniLogic to fully start.
6. Enter Service Mode by pushing the Power Button.
7. Touch the Upgrade button.

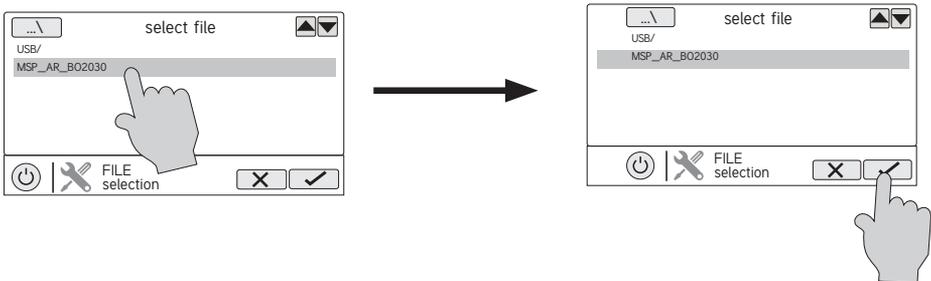
IMPORTANT: If there are wired or wireless remote controls being used with the OmniLogic, their firmware must be upgraded BEFORE the OmniLogic. The procedure below shows how to upgrade the OmniLogic (shown as "MSP" on OmniLogic Upgrade screen) but the procedure is the same for wired/wireless remotes (shown as "Wired Wall Mount", "Wired Term", "Waterproof" or "Wi-Fi Term" on OmniLogic Upgrade screen). If any wired/wireless remotes are shown, upgrade those BEFORE upgrading "MSP" using the same procedure shown.



8. Select "MSP" and touch the Save button.



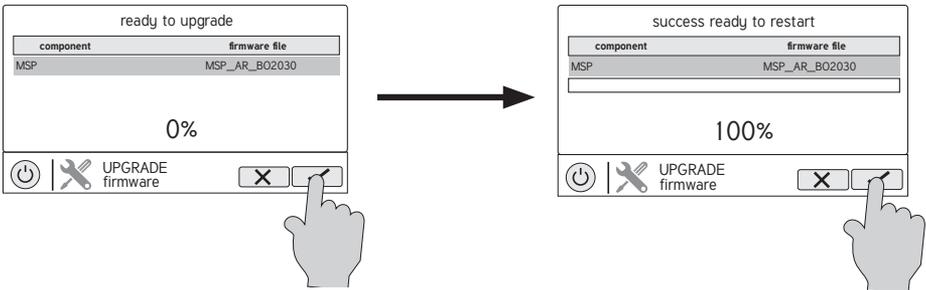
9. The OmniLogic will now look at your USB thumb drive. Select the firmware file that is stored on the drive and then touch the Save button.





HAYWARD®

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



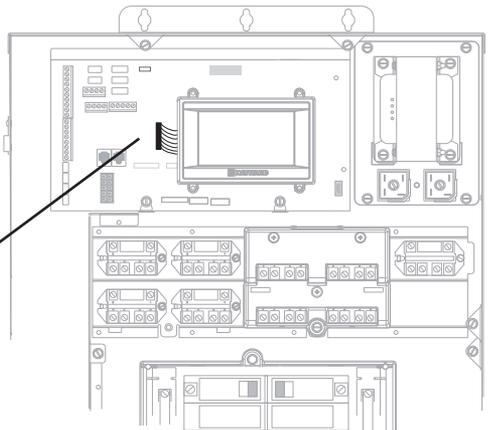
11. After the OmniLogic has fully started (wait 2 minutes to ensure that the unit is done starting), remove power to the OmniLogic.
12. Remove the deadfront.
13. Remove the thumb drive.
14. Re-install the deadfront.
15. Apply power to the OmniLogic and proceed with the installation of the HLX-EXP-DSP.

Installation

DANGER of Death, Injury or Property Damage if procedure not followed. This procedure requires removal of the dead fronts to both OmniLogics. Because dead front removal is required, power **MUST** be completely shutdown to the OmniLogic panels **BEFORE** starting this procedure.

1. Write down the existing configurations, settings, and timers from both OmniLogic controls on page 6 of this manual.
2. Disconnect power to both OmniLogics and remove their dead fronts.
3. If a HLWLAN is connected to the selected Master, remove it completely including the power wire connection at the Main Board. If a hardwire ethernet connection is used, unplug it from the Local Terminal and remove the wire completely from the enclosure.
4. At the selected Expansion Panel, remove any thumb drive and/or the ethernet connection to the Local Terminal. Remove the Local Terminal by first unplugging its ribbon cable as shown below.

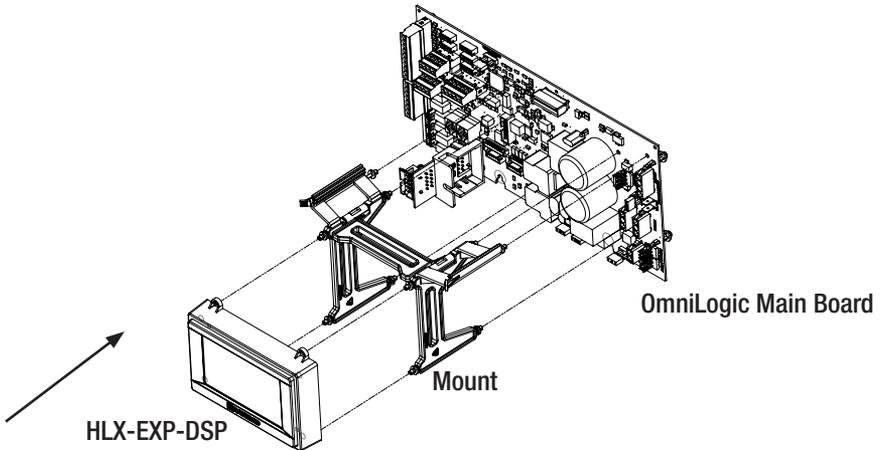
Unplug Local Terminal ribbon cable





HAYWARD®

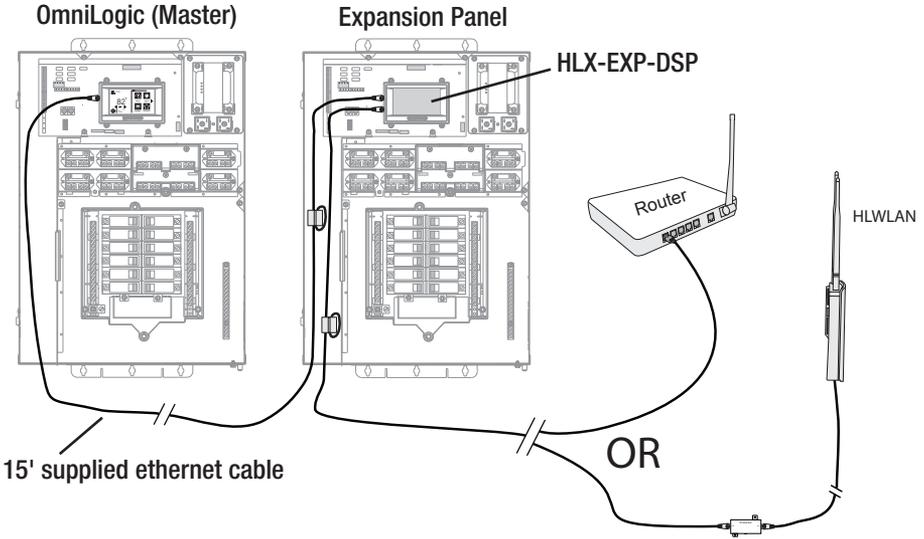
5. Pull straight out on the Local Terminal to separate it from the mount. To prevent the mount from detaching from the Main Board, you may have to hold down on the mount while lifting the Local Terminal.
6. Now that the Local Terminal is removed, you can insert the new HLX-EXP-DSP onto the top of the mount as shown on the top of the following page.



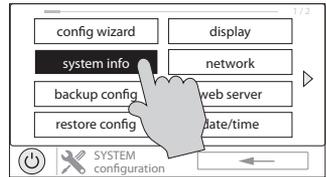
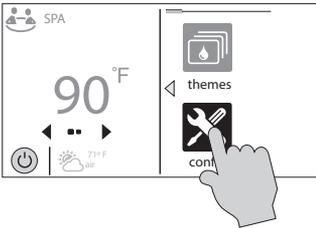
7. Plug the HLX-EXP-DSP ribbon cable into the Main Board.
8. You'll see that there are now two ethernet ports on the new HLX-EXP-DSP.
 - A. Connect one port (either one) to the home's network using the previous connection method, either wired directly to home router or to a Hayward HLWLAN.
 - B. Connect the other port to the Master OmniLogic's ethernet connection using the supplied 15' ethernet cable and ferrite bead. Refer on the top of page 5.



HAYWARD®



9. Replace both dead fronts and power up the Master OmniLogic only. Once fully started, power up the Expansion Panel.
10. After the Expansion Panel has fully started, confirm that the OmniLogic has discovered it in "System Info" as shown below then configure the OmniLogic.



"EPGxxx" entries confirm that the OmniLogic is communicating with the Expansion Panel. If these entries are not found, review your installation for errors starting at the beginning.

msp id:3233

component	HUA	version
EPGOMP	01-46-01-12-75	R.2.01
EPGORB	01-46-01-80-26	R.2.01
Relays	3-10-0-0-1	R.1.0.4
EcoStar pump	10-0-0-0-4e	R.3.0.4
EcoStar pump	10-0-0-0-54	R.3.0.4

SYSTEM INFO



HAYWARD®

Configuration

The OmniLogic must now be configured for use with the Expansion Panel. Run the Configuration Wizard and select "New Configuration". Do not attempt to modify an existing configuration or use Quick Edit.

During configuration, you'll need to assign equipment to relay and valve outputs or select sensors and external switches. This equipment is displayed in tables. Prefixes are used to help identify each connection within the tables. Refer to the prefixes below to identify where each piece of equipment is connected.

- MP** inputs and outputs included in the HLBASE OmniLogic
- RB** additional high voltage relays when an optional HLRELAYBANK has been installed in an OmniLogic
- IO EXPANDER** additional low voltage relays and sensor/ext switch inputs when an optional IOEXPANDER has been installed in an OmniLogic
- EPGO.MP** inputs and outputs included in the HLEXPAND Expansion Panel
- EPGO.RB** additional high voltage relays when an optional HLRELAYBANK has been installed in an HLEXPAND
- EPGO.IO EXPANDER** additional low voltage relays and sensor/ext switch inputs when an optional IOEXPANDER has been installed in an HLEXPAND

After configuration, refer to the OmniLogic Operation manual for Operation instructions. Test that all pool equipment is operating properly.

Create and/or login to your account at www.haywardomnilogic.com and confirm that you can remotely control your equipment. Your installation is now complete.

RECORD YOUR CONFIGURATION, SETTINGS AND TIMERS BELOW

For further information or consumer
technical support, visit our website at
www.hayward.com



Hayward is a registered trademark and OmniLogic is
a trademark of Hayward Industries, Inc. © 2018 Hayward Industries, Inc.

All other trademarks not owned by Hayward are the property of their respective owners.
Hayward is not in any way affiliated with or endorsed by those third parties.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS