



HAYWARD®

HLWLAN 802.11b/g/n Transceiver Kit

Wireless Communications for OmniLogic

Owner's Manual

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HLWLAN

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FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Hayward could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

The term "IC" before the certification / registration number only signifies that the Industry Canada technical specifications were met.

Radio Information

FCC ID: A8J-ENS200

IC: 10103A-ENS200



Introduction

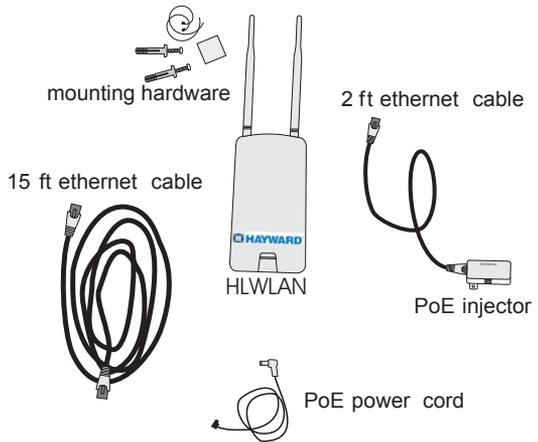
The HLWLAN is a 802.11b/g/n Transceiver kit that can make a wireless connection from the OmniLogic up to 250' to the home's router/access point preventing the need to run ethernet cable for web access. Connection to the web is necessary for remote access to the OmniLogic using web enabled devices.

Before You Begin

The HLWLAN kit contains the following:

- HLWLAN 802.11b/g/n Transceiver
- Power Injector
- OmniLogic power supply cable for Power over Ethernet (PoE) Injector
- 2 Ethernet Cables
- Miscellaneous mounting hardware

Installation of the HLWLAN requires that you have an existing wireless home network in range of the intended HLWLAN mounting location. The HLWLAN has a radio range of about 250ft. To connect the HLWLAN to your home network, you will need to know the home network's SSID, security type and password.



Survey the location near the OmniLogic to locate the best mounting location. The HLWLAN has a 15ft ethernet cable that connects to the OmniLogic. When determining the best mounting location for the HLWLAN, note that it can be mounted on the two provided screws or strapped to an object using the two included zip ties. To help determine if the mounting location is in range of the router/access point, test the connection of other devices (phone, tablet, laptop, etc.) at that same location.

If a reliable wireless connection can't be made in the intended location, consider moving the router/access point closer to the OmniLogic or using a longer outdoor rated ethernet cable to move the HLWLAN closer to the router/access point.



Router/Access Point Information

The HLWLAN cannot be configured without the following information. Before going any further with the installation, fill in the information below.

Router or Access Point's SSID *(wireless network name - case sensitive)* _____

To find the SSID:

- 1) Ask the homeowner. Each wireless router or access point has a default SSID which may be in use, or has been changed by the network administrator (homeowner).
- 2) If the homeowner doesn't know, have them login to the router/access point and read the information from the device. The SSID should be shown along with other router settings. The router's documentation or manual should show how to access administrative settings and find the SSID.
- 3) If a wireless device is already connected to the home network (phone, tablet, laptop, etc.), the device's connection properties may show the SSID.

Router or Access Point's Security Type _____

To find the Security Type:

- 1) Ask the homeowner. The network administrator (homeowner) would have set up the security type based on the desired security level and the type of devices that will be connecting to the wireless network.
- 2) If the homeowner doesn't know, have them login to the router/access point and read the security type from the device. This information should be shown along with other router settings. The router's documentation or manual will show how to access administrative settings and find the security type.
- 3) If a wireless device is already connected to the home network (phone, tablet, laptop, etc.), the device's connection properties may show the security type that is in use.

Wireless Network Password *(case sensitive)* _____

The wireless network password is not broadcast or typically saved in the router/access point's administrative settings. The network administrator (homeowner) would have set up a password when initially setting up the wireless security type. If no security was selected, the network is Open and there is no password.

Installation

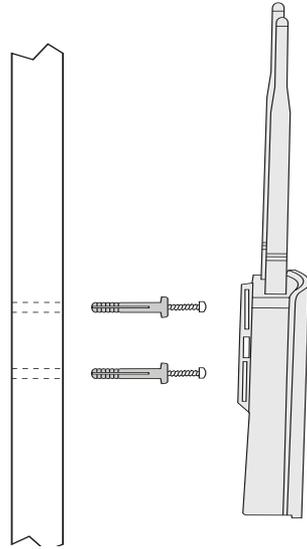
DANGER of Death, Injury or Property Damage if procedure not followed. This accessory connects to the OmniLogic panel beneath the dead front. Dead front removal is required for this installation. Power to the OmniLogic panel **MUST** be shut off before the dead front is removed. This means a complete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



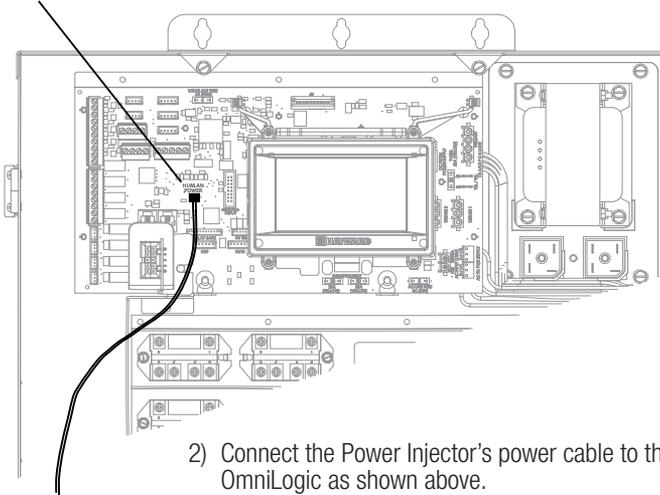
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- 1) Depending on the mounting surface, use either the included screws/anchors or tie straps. A drilling template is included when using screws. Be sure that there are no major obstacles between the HLWLAN and the home's router/access point.

Loosely mount the HLWLAN so that you have visible access to the LED indicators on the bottom back of the unit. You will need to refer to these indicators before permanently fastening the HLWLAN.



Attach PoE injector power cable to connector labeled "HLWLAN Power"

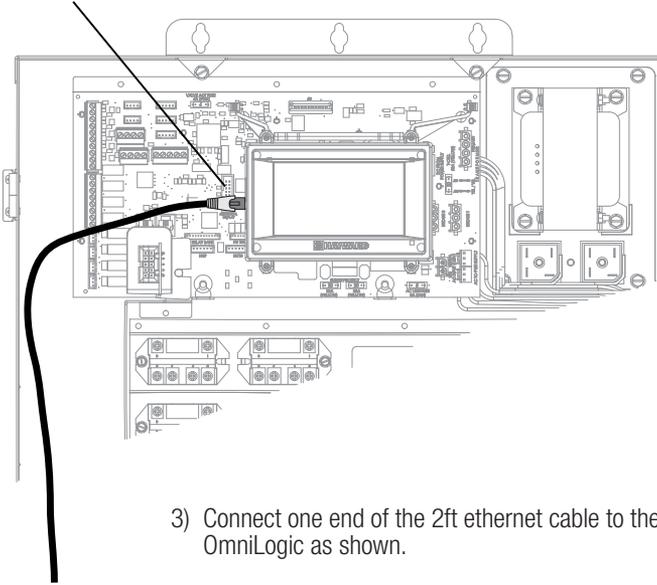


- 2) Connect the Power Injector's power cable to the OmniLogic as shown above.



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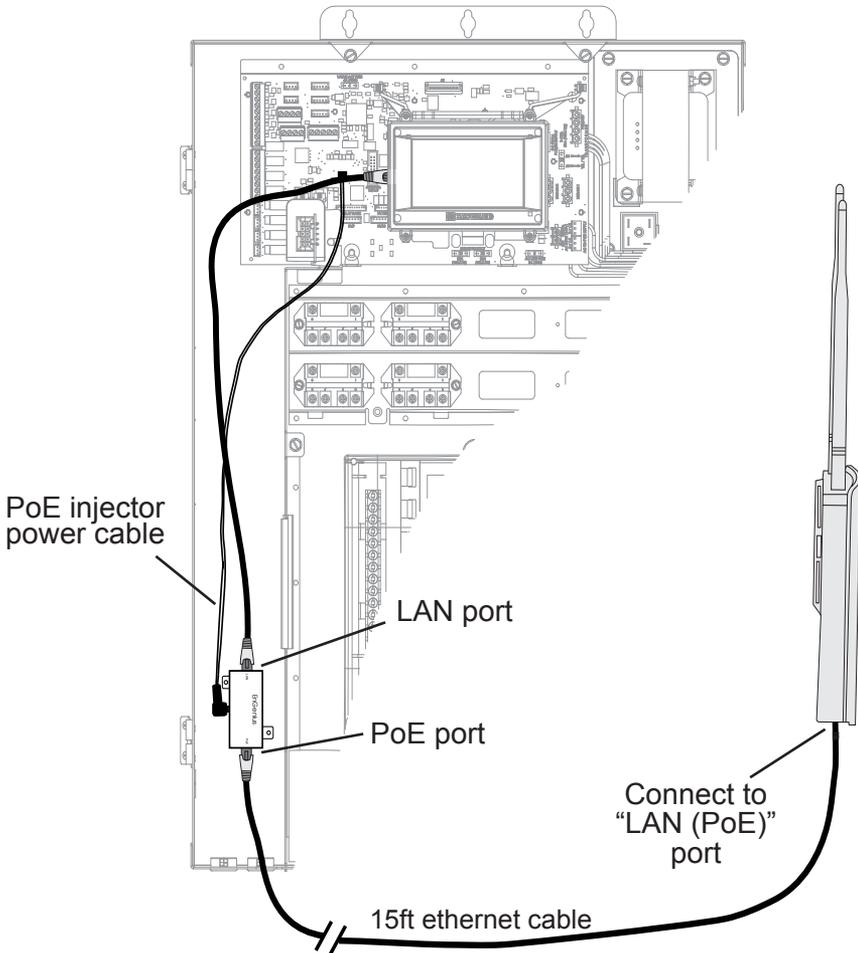
Connect 2ft ethernet cable here



- 3) Connect one end of the 2ft ethernet cable to the OmniLogic as shown.



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- 4) Position the Power Injector in a convenient location within the low voltage wiring compartment of the OmniLogic. You can fasten the Power Injector with double sided tape or Velcro, if desired. Connect the opposite end of the power supply cable. Connect the 2ft ethernet cable to the Power Injector's LAN port.

WARNING: The 2' ethernet cable comes plugged into the LAN port on the PoE Injector. DO NOT CHANGE THIS or you will damage the OmniLogic.

Connect one end of the 15ft outdoor ethernet cable to the Power Injector's PoE port and the other end to the port on the HLWLAN marked "LAN PoE". To access this port, remove the HLWLAN's bottom cover. Be sure to replace the cover when done.

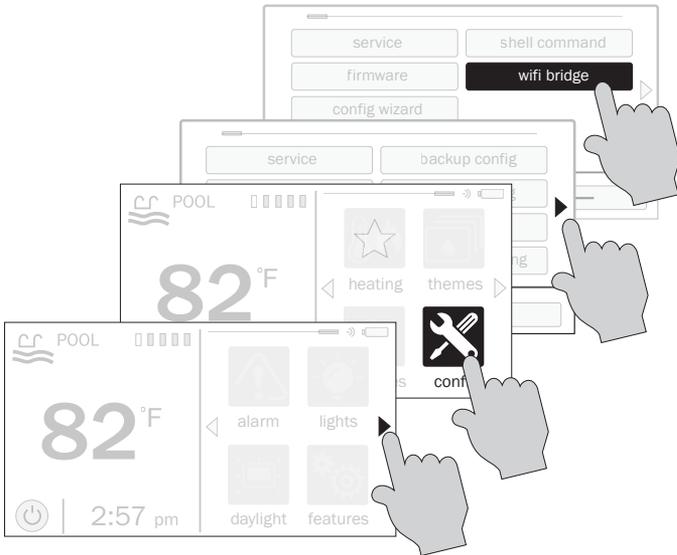
After all connections are made, replace the OmniLogic Dead Front taking care that no wires are pinched.



Configuration

With the HLWLAN now connected, power up the OmniLogic. Wait about 3-4 minutes for the OmniLogic to fully start. Verify that the HLWLAN is being powered and is connected to the OmniLogic by looking at the PWR and LAN LED indicators on the backside near the ethernet connection. Both LEDs should be lit.

After verifying that the HLWLAN is powered, it must now be configured to connect to the wireless home network. From the OmniLogic's Local Terminal touchscreen, select the "Wifi Bridge" screen as shown below. Note that this cannot be performed from Remote Terminals.





Wireless Bridge Configuration

Note that the HLWLAN is not capable of scanning for local Wifi networks. The wireless home network information that was collected on page 2 must be entered (see below) for the HLWLAN to connect with the router/access point.

Select the type of security that is used by the home network

Enter the name of the home's wireless network (case sensitive)

The image shows a 'Wireless Bridge Configuration' screen. On the left, there is a list of security options: OPEN, WEP, WPA_PSK TKP, WPA_PSK AES, WPA2_PSK TKP, and WPA2_PSK AES. An arrow points to 'OPEN'. To the right, there is a text input field for 'Wireless Network Name (SSID)' and another for 'Key/Password'. An arrow points to the SSID field. At the bottom, there is a 'wifi bridge config' section with a power icon, a wrench icon, and two buttons: a red 'X' and a green checkmark. An arrow points to the checkmark button with the text: 'If network is not "Open", enter the password (case sensitive)'.

After entering the required information, select the "Check" button and the OmniLogic will prompt you to connect to the wireless home network. Proceed and the OmniLogic will configure itself to use those Wifi settings and prompt you to reboot the system. Wait 3-4 minutes for the OmniLogic to fully start. To verify that you have connected to the home network, make sure that you have an entry next to "Local IP" in Protocol Properties, as shown below. Note that your Local IP address will likely be different than the one shown below. If *any* IP address is shown, the OmniLogic is connected to your home network. If "Not assigned" is shown, the OmniLogic is not connected to the home network and you should refer to Troubleshooting.

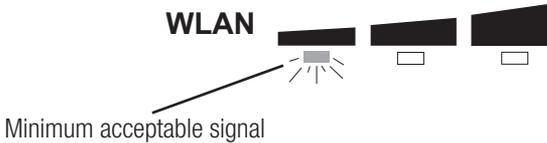
This block contains three overlapping screenshots. The top screenshot shows network settings with 'static' selected and 'dynamic' highlighted. Below it is a 'protocol properties' table:

Local IP	192.168.10.102
Netmask	255.255.255.0
Gateway	192.168.10.1
DNS1	192.168.10.1
	0.0.0

The middle screenshot shows a 'wired networking' service menu with a hand icon pointing to the 'wired networking' tab. The bottom screenshot shows a home control interface with a hand icon pointing to a 'conf' (configuration) icon.

Signal Strength

When connected to the home network, the WLAN LED indicator will be lit and one of the Signal Strength LED indicators will be illuminated on the back of the HLWLAN. There are 3 LEDs indicating increasing signal strength from left to right. Be sure that at least the left most LED is on steady. If it is intermittently blinking, or not on at all, consider re-locating the HLWLAN or router/access point to acquire a better connection.

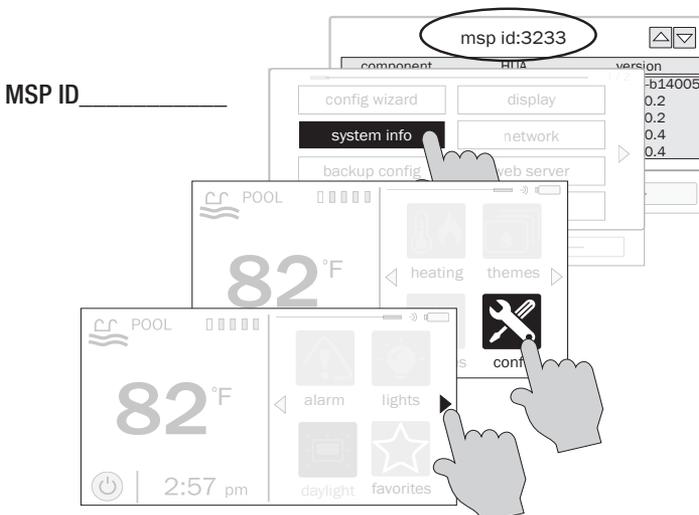


After verifying an acceptable signal, secure the HLWLAN to the mounting surface.

Operation

After successfully installing the HLWLAN, you will need to setup a Hayward OmniLogic user account in order to remotely access the OmniLogic through the web using a standard internet browser or mobile app. Follow instructions 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. While filling out the form to register your OmniLogic, you'll 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 app 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.

Troubleshooting

1. **The PWR and LAN LEDs are not lit.**

This is an indication that the HLWLAN is not connected to the OmniLogic. Perform the following:

- Make sure that both ends of the ethernet cable are firmly connected; one side in the HLWLAN and the other in the PoE Injector (see Installation Steps 3 and 4).
- Make sure that the PoE Injector cable is firmly inserted in the HLBASE Main Board (Installation Step 2).
- Verify that the OmniLogic has power and that there is no break in the ethernet cable.

2. **There is no "Local IP" address (page 7)**

This is an indication that the HLWLAN is not connected to the home network.

- The HLWLAN may be mounted too far away from the home's router/access point or there may be too many obstructions between them. Using a Wifi capable phone, tablet or laptop, verify that other mobile devices can connect from that same location as the HLWLAN.
 - If other devices can connect, the most likely cause is an error in the configuration settings that were entered into the OmniLogic. Recheck and re-enter the settings (see top of page 7).
 - If other devices cannot connect to the wireless network, consider relocating your router/access point or moving the HLWLAN closer using a longer outdoor rated ethernet cable.

3. **Web enabled devices cannot connect to the OmniLogic**

- Verify that you have an internet connection at your router/access point. Temporary outages with Internet Service Providers (ISPs) are not uncommon and the OmniLogic will be offline until service is restored.
- Have any changes been made to your home network? Any changes to your home network (router replacement, SSID name change, changes in security settings, IP reservation, etc.) may require you to repeat the configuration steps using the new information.
- Have you removed power from the OmniLogic or made changes that require it to re-boot? If so, give the HLWLAN some additional time to reconnect to the home network.

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

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