

Omni Network Diagnostic

This guide will cover what to do if you are unable to control your Omni system via the OmniLogic app. In most cases the app will display a red banner at the top of the screen, the message within the banner will indicate where the connection problem is occurring.

This guide covers:

- How to troubleshoot each of the 3 connectivity red banner error messages
- How to get to the network diagnostic screen
- How to get your MSP ID and verify what firmware is installed on your Omni
- How to upgrade your Omni's firmware
- How to connect to a Wi-Fi network
- Information on how to diagnose connection problems using the network diagnostic tool
- What to do if you need additional help diagnosing a connection problem

Understanding the red banner message:

- When there is no internet connection on the device the app will display **"You are offline"**
 - Go to page 2
- When the Omni server is down the app will display **"Server not available. Please try again later"**
 - Go to page 3
- When the Omni Controller is offline the app will display **"Omni controller lost connection to router"**
 - Go to page 4

What to do when receiving the error “You are offline”

The “You are offline” error message indicates that your device(smartphone/iPad) you are using is not connected to the internet.

To fix this, try the following:

- Verify that your device is online.
- Ensure that your device is not in airplane mode.
- If using Wi-Fi, turn it off and try using the cell network.

What to do when receiving the error “Server not available. Please try again later”

The “Server not available. Please try again later” error message indicates that there is a problem with the Omni web server. This is an issue on Hayward’s end.

- Web server issues are rare and if they occur, they are usually resolved quickly.
- If you receive this message and would like a status update of our web server, email customerappsupport@hayward.com for an update.

What to do when receiving the error “Omni controller lost connection to router”

The “Omni controller lost connection to router” error message indicates that there is a problem with the communication between your Omni controller and router.

The rest of this guide will cover how to troubleshoot this issue:

- First, make sure the Omni controller is powered on.
- If the control unit is powered on, we recommend that you update the firmware of your Omni controller. Updating the firmware requires being at the pool pad. The latest firmware has improved network connectivity and we encourage running the latest firmware. We suggest that you use a Pool Professional to upgrade your system, as this may involve removing the Omni's protective cover. If you would like to perform the firmware upgrade yourself, there are instructions on how to do this on pages 5-12
- If you already have the latest firmware or unable to connect to your router after upgrading the firmware, use the network diagnostic tool to help determine the cause of the problem. This is covered on pages 15-18
- In some cases the problem may be that the Wi-Fi signal from the router is not strong enough to allow for a consistent connection. To correct this you may have to install a Wi-Fi signal booster or wire the Omni directly to your router.

Upgrading the Omni firmware

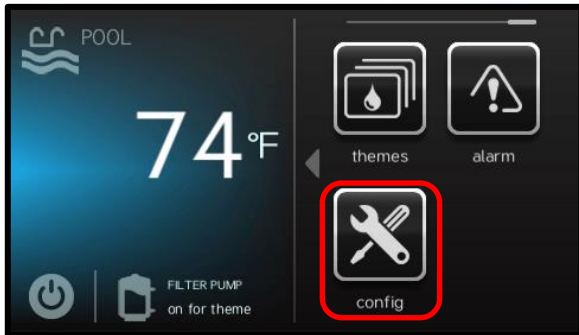
How to upgrade your Omni controller's firmware information

- **IMPORTANT:** Before you upgrade the firmware, check to see what version of the firmware you currently have installed(shown on page 6).
- As of April 2020, the latest version of the firmware is **R3.2.0-b35953**.
- If you're already running the latest firmware skip to page 15 in this guide to learn how to diagnose the connection problem.
- A USB drive is required to upgrade the firmware of the Omni controller.
- The MSP firmware can be downloaded from <https://www.hayward-pool.com/shop/en/pools/support-center-in-ground-products?category=Automation&product=OmniLogic&sku=HLBASE&tab=4>
- Do not place the upgrade file in a folder on the USB drive
- Ensure the upgrade file does not have an extension added. (pages 7-10 cover how to remove the file extension)
- When ready to upgrade the firmware, insert the USB drive it into the USB port of the Omni controller. (pages 11 &12)

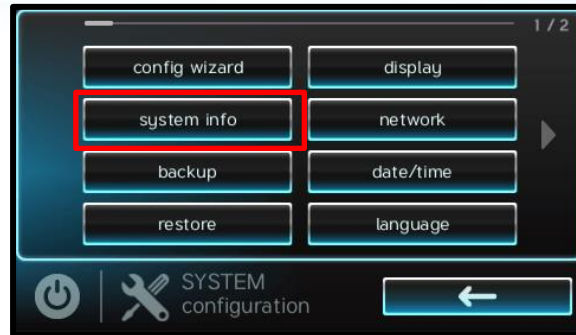
How to verify your MSPID and Firmware

IMPORTANT: Before you upgrade the firmware, check to see what version of the firmware you have currently installed. As of April 2020, the latest version of the MSP firmware is **R3.2.0-b35953**.

- From the Omni controller do the following to get to the system info screen:



1. Press "config"



2. Press "system info"



3. System info screen:

Your system's msp id

Your current firmware version

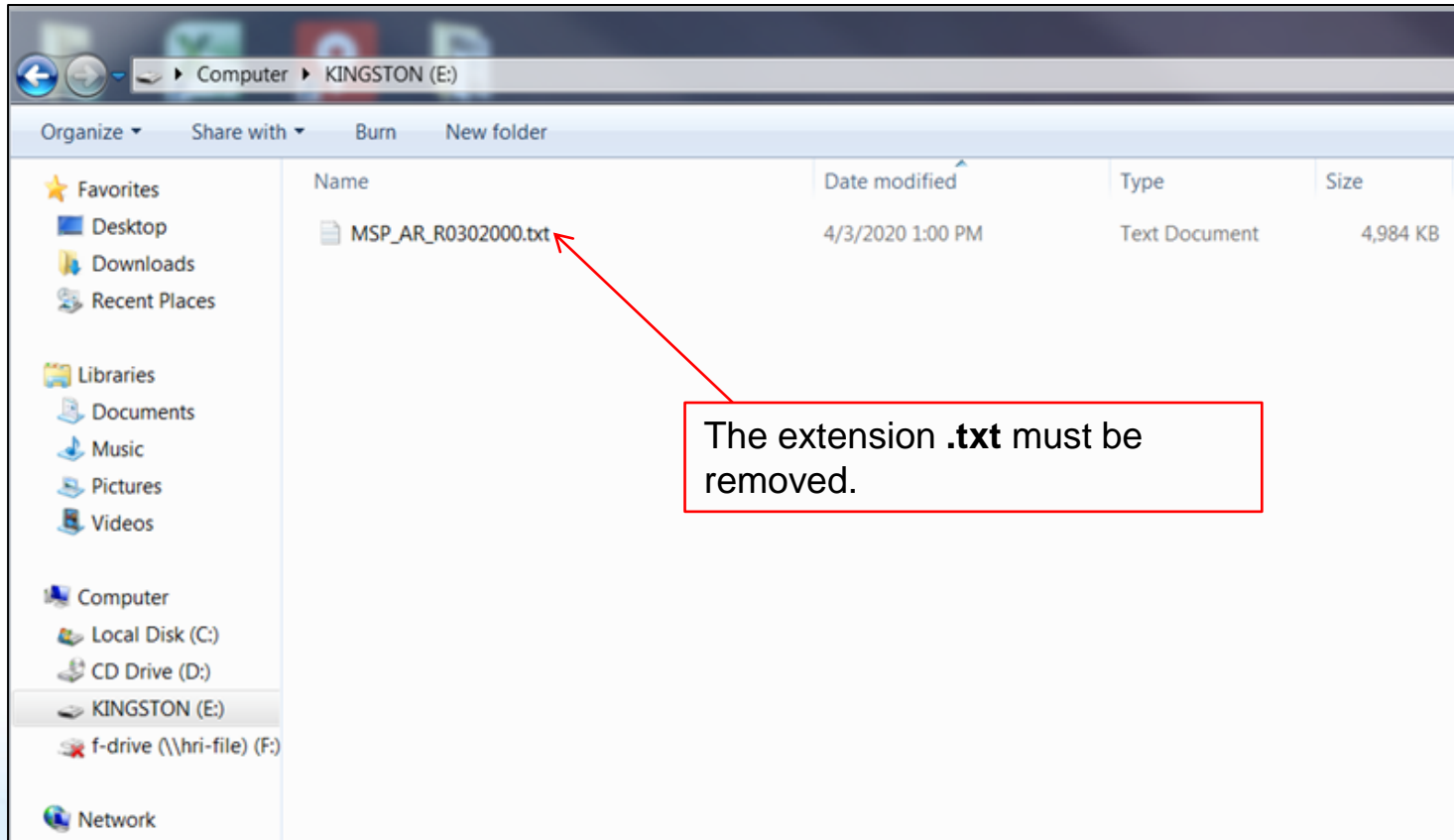
The component



Upgrading the Omni firmware

How to remove the .txt file extension from the upgrade file

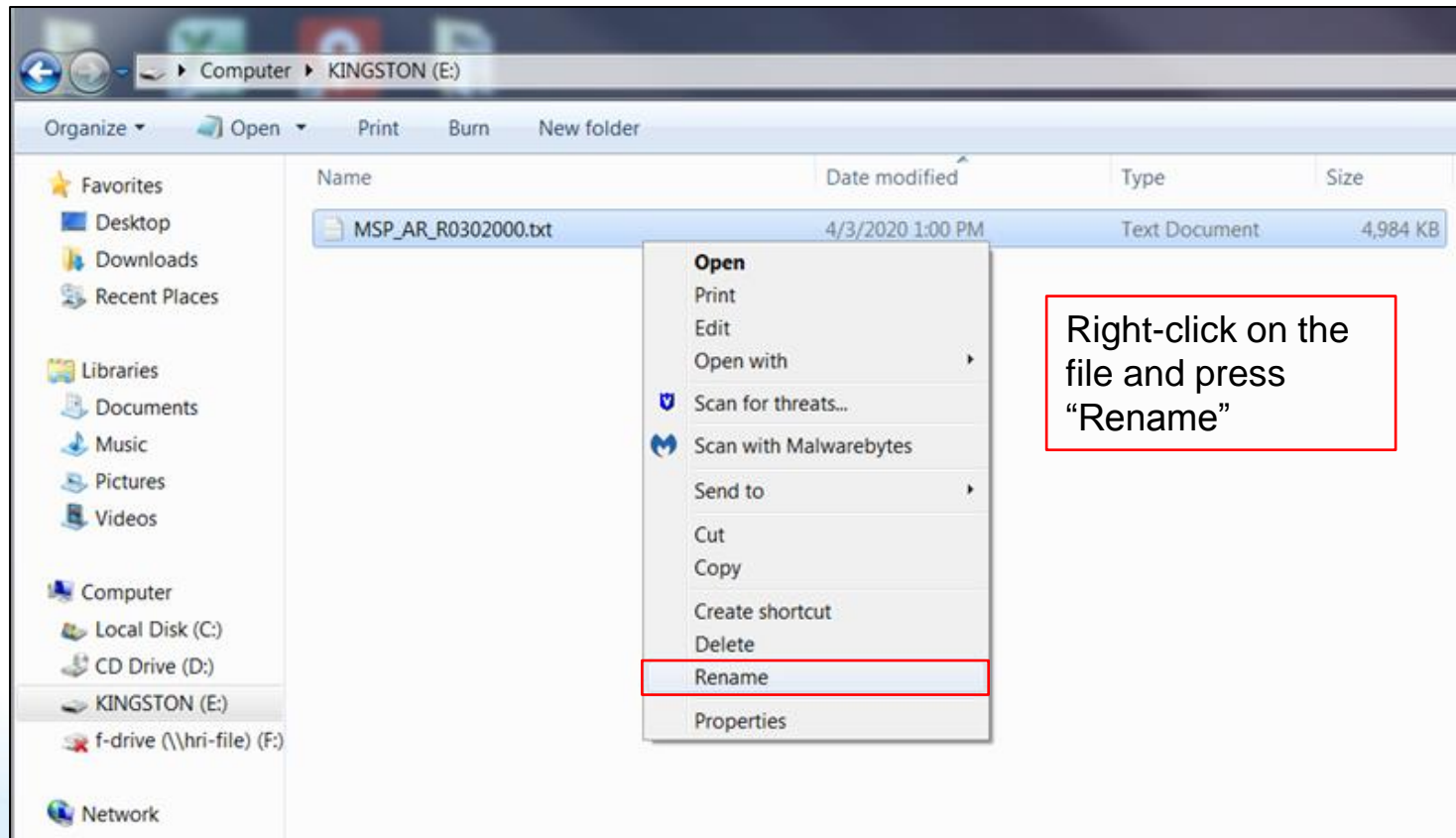
- After downloading the firmware from the Hayward's website check to see if a file extension was added.
- Any extension added to the firmware file must be removed for the Omni controller to be able to read the file.
- To remove the extension you must rename the file (shown below).



Upgrading the Omni firmware

How to remove the .txt file extension from the upgrade file

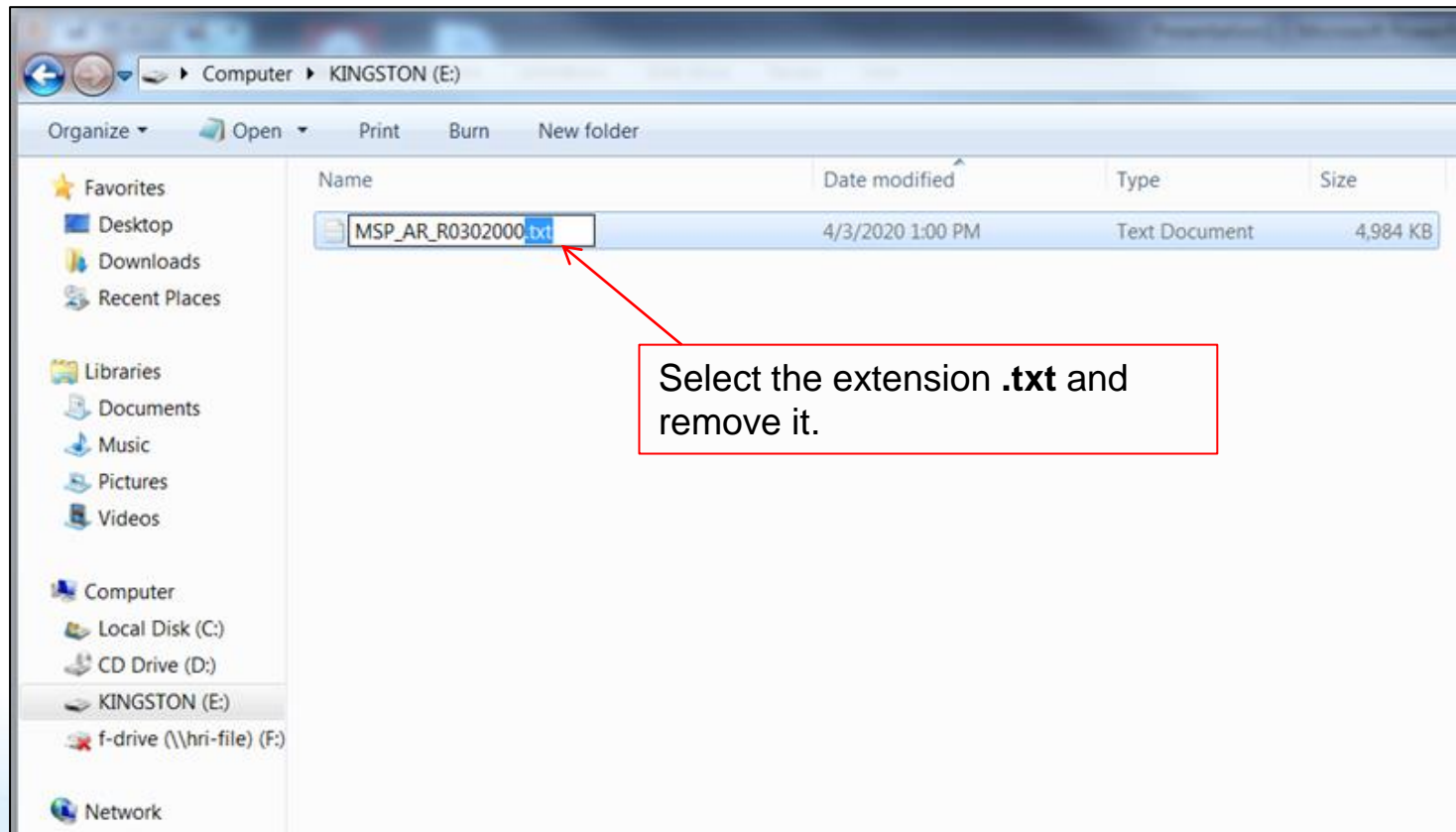
- Right-click on the file and press “Rename”



Upgrading the Omni firmware

How to remove the .txt file extension from the upgrade file

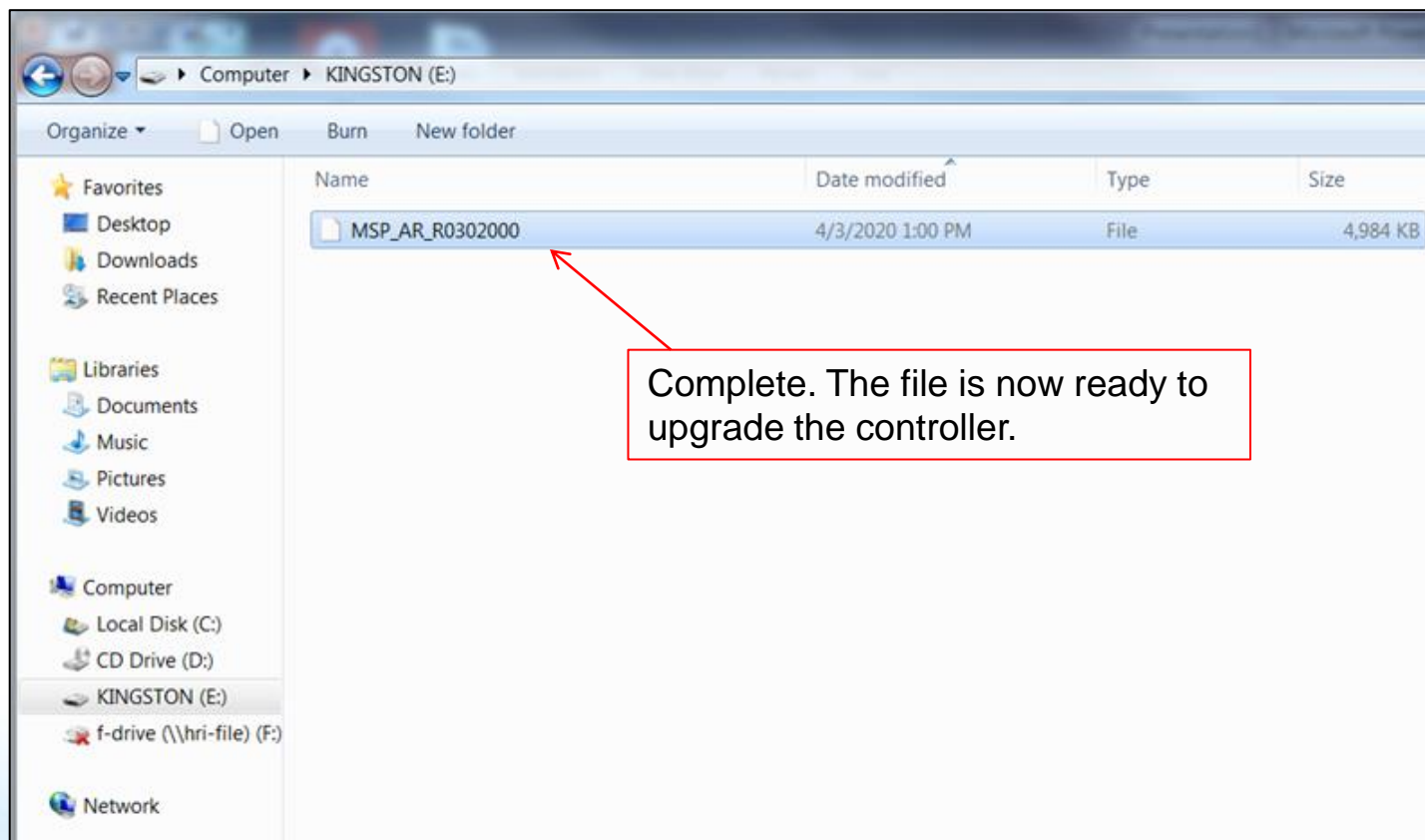
- Select **.txt** and remove it.



Upgrading the Omni firmware

How to remove the .txt file extension from the upgrade file

- When ready, insert the USB drive it into the USB port of the Omni controller.
- Pages 11 & 12 will demonstrate how to complete the upgrade from the Omni controller.

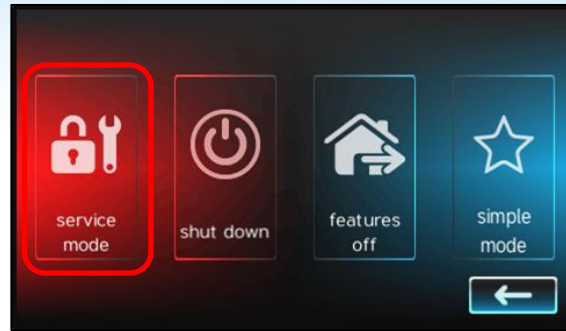


Upgrading the Omni firmware

With the USB drive inserted, perform the following from the Omni controller's screen



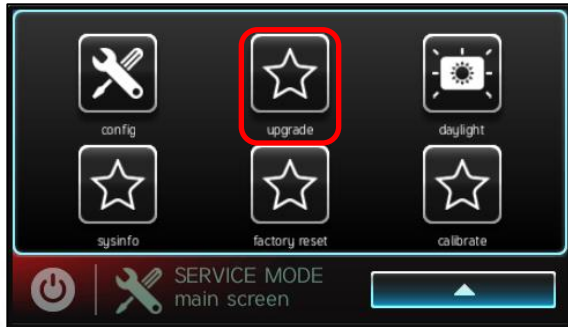
1. Press the power button icon.



2. Press "service mode"



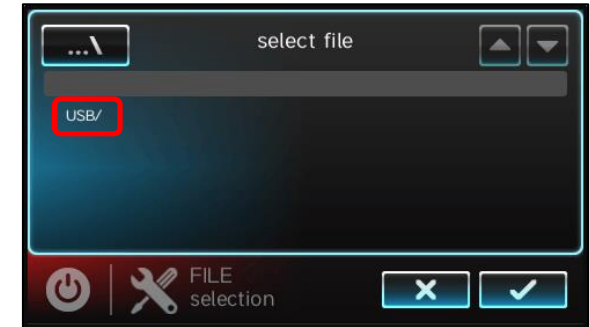
3. Press "Yes".



4. Press "upgrade". Note: you may have to scroll down to find it.



5. Select "MSP" then press the checkmark to continue.

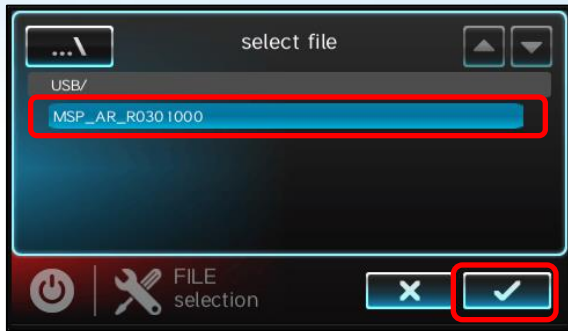


6. Press "USB/"

Continues on the next page.

Upgrading the Omni firmware

Follow the instructions below to complete upgrade of the Omni firmware:



7. Select the upgrade file, then press the checkmark to continue.



8. Press the checkmark to begin the firmware upgrade.

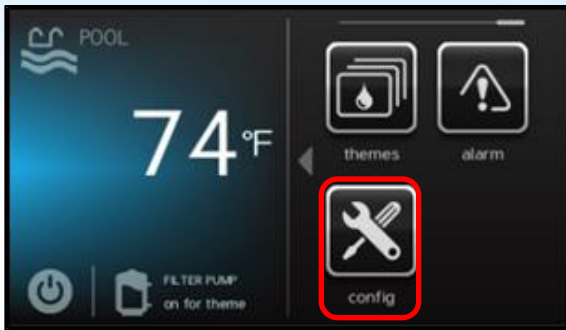


9. Press the checkmark to complete the upgrade and restart the controller.

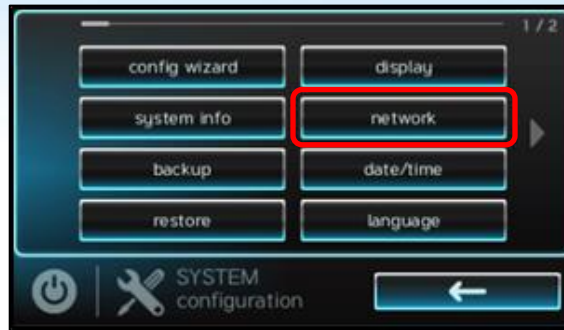
- The MSP upgrade is now complete, now try connecting to your Wi-Fi network. The next two pages demonstrate how to connect to a Wi-Fi network.

Connecting to a Wi-Fi network

To connect to a Wi-Fi network perform the following from the Omni controller:



1. Press “config”



2. Press “network”



3. Press “setup wifi”



4. Select your Wi-Fi network



5. Press the checkmark

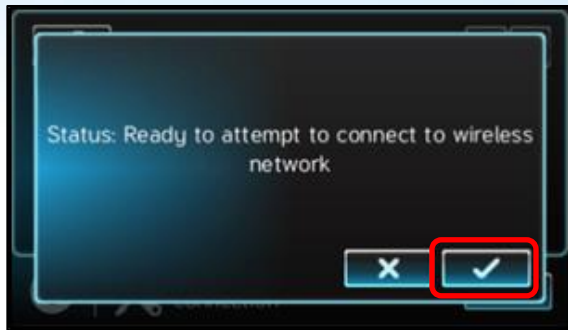


6. Enter your network password, then press the checkmark

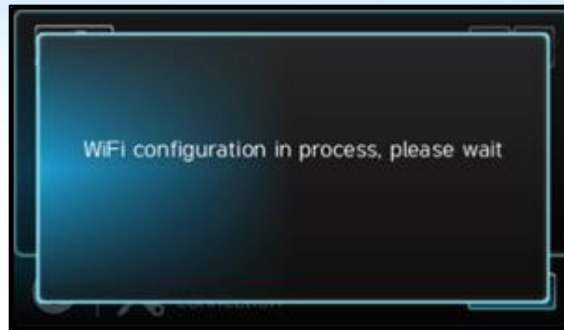
Continues on the next page:

Connecting to a Wi-Fi network

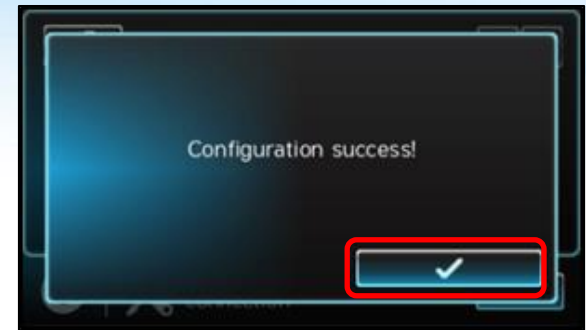
To connect to a Wi-Fi network perform the following from the Omni controller:



7. Press the checkmark



8. Configuration can take up to 5 minutes

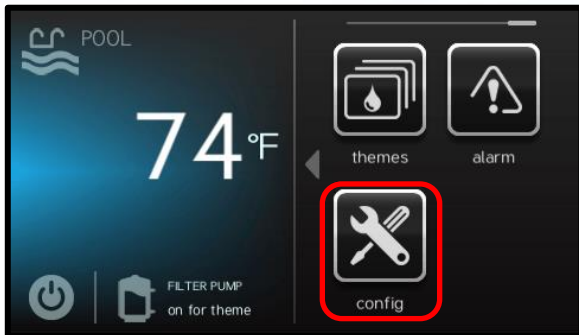


9. Press the checkmark to complete.

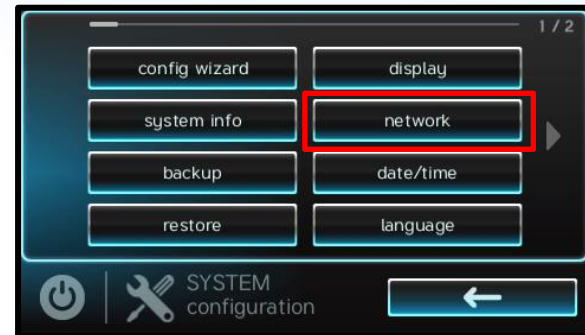
- If the connection is successful and you are able to use the Omni app, no further action is needed.
- If the connection was not successful or it was but you are still unable to control your system from the Omni app, continue on in this guide for help with diagnosing the problem.

Omni Network Diagnostic Screen

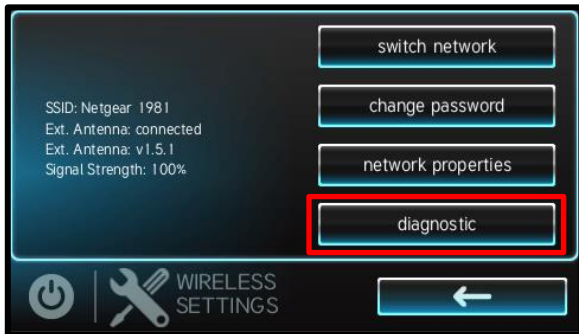
How to get to the network diagnostic screen: From the Omni controller do the following



1. Press “config”



2. Press “network”



3. Press “diagnostic”

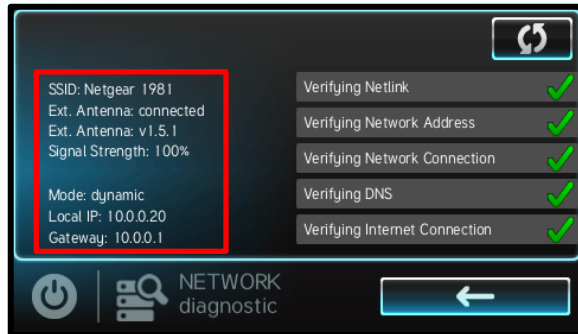


“NETWORK diagnostic” screen

Omni Network Diagnostic

Network Diagnostic Screen: How to read the diagnostic screen.

OmniLogic



- **SSID:** When connected to your Wi-Fi network, the name of your network will display here.
- **Ext. Antenna:** Will display “connected” when the EnGenius antenna is connected to a router.
- **Ext. Antenna:** This will display the firmware of the EnGenius antenna.
- **Signal Strength:** Will display the strength of the Wi-Fi connection.
- **Mode:** Displays connection type either dynamic or static
- **Local IP:** The IP address of the Omni
- **Gateway:** The router’s IP address

OmniHub

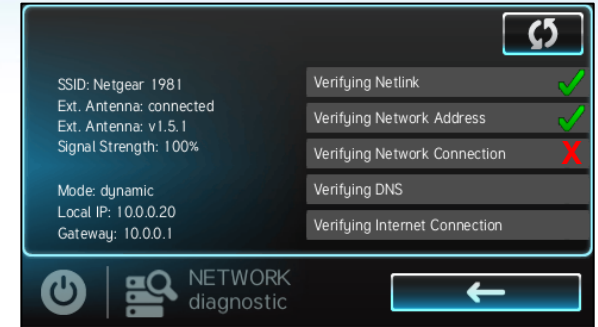
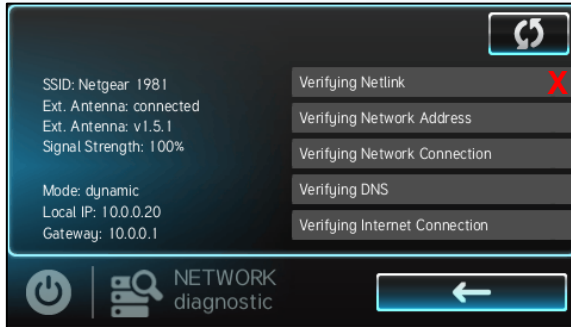


- **SSID:** When connected to your Wi-Fi network, the name of your network will display here.
- **WiFi:** Will display “connected” when the OmniHub is connected to a router.
- **Signal Strength:** Will display the strength of the Wi-Fi connection.
- **Mode:** Displays connection type either dynamic or static
- **Local IP:** The IP address of the Omni
- **Gateway:** The router’s IP address

Omni Network Diagnostic

Network Diagnostic Screen

Upon entering the diagnostic screen the Omni will begin to perform a diagnostic of your connection.



Verifying Netlink: The antenna is not connected to your router or the OmniHub is not communicating with the router.

What to do: Ensure that the password was typed correctly. Attempt connecting to your router again and re-enter the password.

Verifying Network Address: The router may not be providing an IP address.

What to do: Verify that the router has DHCP enabled. If so, or if you're unable to connect try using a Static IP address.*

Verifying Network connection: Your router's firewall maybe preventing the router from answering ping or you're attempting to connect to a guest network.

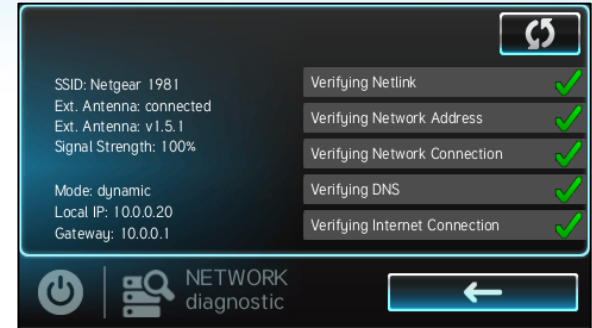
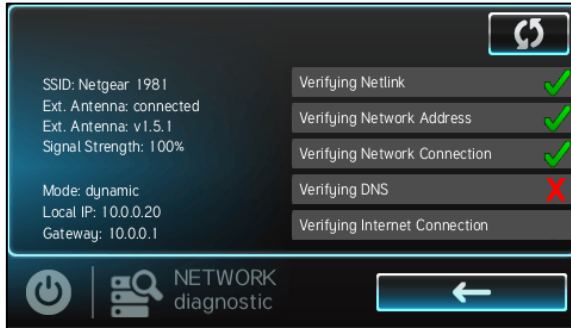
What to do: You may have to adjust your router's firewall settings to allow ping.* If using a guest network switch to a non-guest network.

*You may need to contact your internet service provider or an IT professional for assistance with making changes to your routers settings.

Omni Network Diagnostic

Network Diagnostic Screen

Upon entering the diagnostic screen the Omni will begin to perform a diagnostic of your connection.



Verifying DNS: The router firewall is blocking ping or the router is not connected to the internet.

What to do: Verify that the router is connected to the internet. If connected, adjust your router's firewall settings to allow ping.*

Verifying Internet Connection: The router may not be connected to the internet, or the firewall is blocking ping.

What to do: Verify that the router is connected to the internet. If connected, adjust your router's firewall settings to allow ping.*

No visible error message: You may not be using the correct account login on your mobile device, or the router's firewall is blocking UDP Port 5858.

What to do: Verify that you are using the correct login. If so, use port triggering or port forwarding in your router's settings to open UDP Port 5858.*

*You may need to contact your internet service provider or an IT professional for assistance with making changes to your routers settings.

Omni Network Diagnostic

For additional assistance:

If you are still unable to connect and would like us to help diagnose the problem further, we will need you to do the following.

- Go to the network diagnostic screen
- Take note at which step of the diagnostic failed and what was the specific error message received when it failed.
- Verify your MSP ID, from the Omni controller press “config”, then “system info”, the MSP ID is displayed at the top of the screen. (page 6)

Email a brief description the problem along with

- The step at which the diagnostic failed
- The specific error message
- And your MSP ID

To customerappsupport@hayward.com. Someone will respond within 24-48 hours.