#### IQ WIFI INSTALLATION MANUAL





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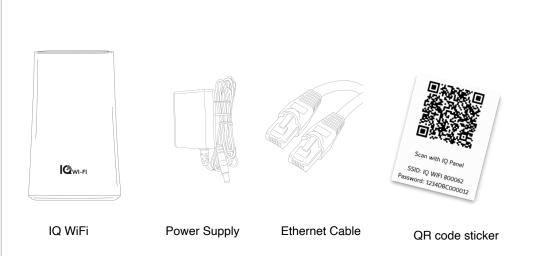
#### **SPECIFICATIONS**

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### IQ WIFI OVERVIEW





#### SUPPORT



#### **QUESTIONS?**

Contact us at 855-4QOLSYS Or email us at intrusionsupport@tycoint.com

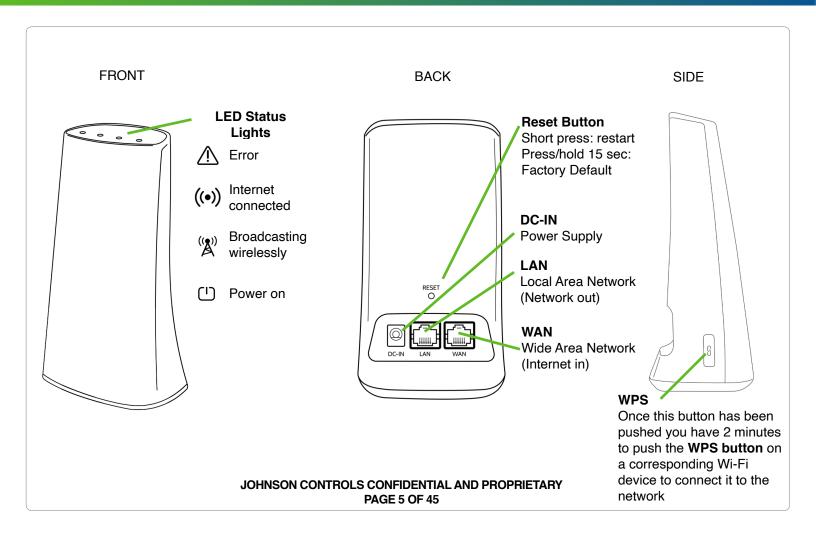
#### **ABOUT THIS GUIDE**

This document outlines the basic hardware specifications and software directions to install and customize the IQ WiFi. Note that the information presented is not comprehensive, but is specifically dedicated to those menus, features, and systems accessible solely to those with the proper installation code. The information contained is confidential and proprietary, and is solely owned by Johnson Controls. Any reproduction, modification, or distribution without permission is strictly prohibited.

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#### IQ WIFI OVERVIEW: EXTERIOR



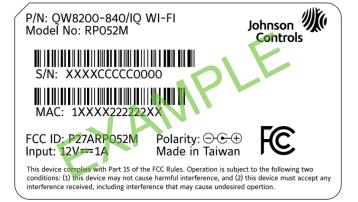


#### **IQ WIFI OVERVIEW: LABELS**



The label on the bottom of IQ WiFi shows the device's MAC address and serial number.

The packaging also includes a QR code that can be scanned by a smartphone camera for easy setup



Label on the bottom of each unit



QR code included in the box

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#### **CHOOSE YOUR INSTALLATION TYPE**



#### You can set up the IQ WiFi in either of these ways:

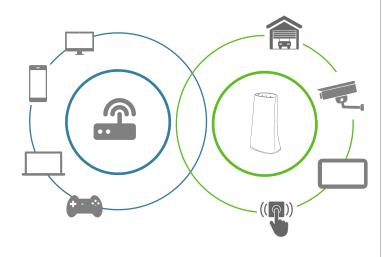
As the only wireless network on the premises:



#### Great for:

- -Improving connectivity for ALL Wi-Fi devices on the network
- -Offering support for the entire network

In parallel with an existing wireless network:

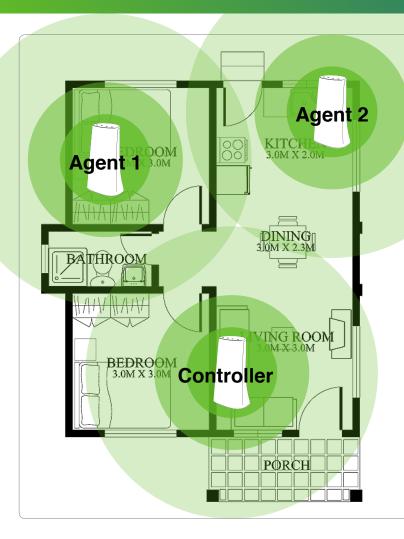


#### Great for:

- -Keeping the security and smart-home devices private/hidden from the rest of the Wi-Fi connected devices on the network
- -Making online/remote support easier as only known/authorized devices should be connected
- -Ensuring better connectivity for dealer supported devices

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## 1 unit covers up to 1,500 sq ft

#### Add up to 8 units

If a single IQ WiFi does does not cover the location as desired, you can add up to eight (8) additional nodes to eliminate dead spots and boost overall network performance.\*

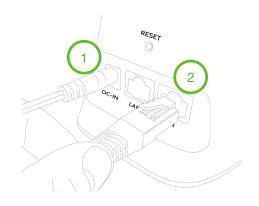
\*IQ WiFi will not increase the speed coming from the customer's ISP (Internet Service Provider) but can ensure the customer is getting the best coverage throughout their location. Please note that not all buildings are the same, and building materials, wireless interface, and other factors can limit Wi-Fi range.

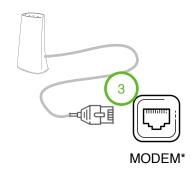


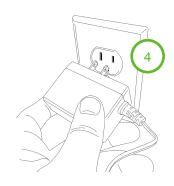
## INSTALLING THE IQ WIFI

#### **CONNECTING THE WIRES**









- Plug the barrel jack end of the power supply into the "DC-IN" port
- 2. Connect the provided ethernet cable into the "WAN" port
- Connect the opposite end of the provided ethernet cable into the "ETHERNET" port on the modem\*.
- 4. Plug in your power supply to the wall outlet. System may take up to 3 minutes to power up.

\*Please note: If you are installing IQ WiFi to run in parallel to the customer's primary network, plug the ethernet cable into an available port on the customer's existing router. When connecting an ethernet cable to the WAN port of IQ WIFI that has internet connectivity IQ WIFI will default to Controller.

#### **CONNECTING ADDITIONAL AGENTS**



You may choose to improve the WIFI network by adding additional "agents" to the network (up to 7). Agents must be within range of IQ WIFI in order to sync wirelessly.



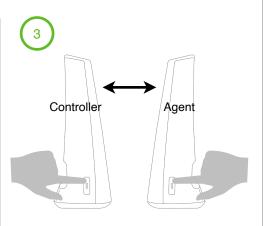


Example of where controllers and agents may be placed for best performance.

 Place the Agents in optimal locations. Choose areas that may have poor coverage otherwise.



2. Connect both ends of the power supply to an available outlet.



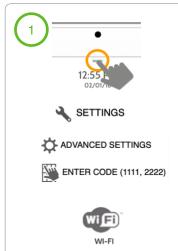
3. Enable WPS mode. Start by touching the WPS button on the Agent first.

\*If Agents don't pair, try moving closer to the Controller. Wait about 5 minutes between adding each Agent.

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#### SETTING UP THE NETWORK





1. Connect IQ Panel to IQ WiFi. (Open settings tray, touch settings, advanced settings, type valid code, choose WI-FI.)



 Look for the broadcasting SSID or network name of the WAN connected IQ WiFi. SSID will be IQ WiFi XXXXXX. Once located, touch the SSID or Network Name. This first WAN connected IQ WiFi will become your controller.



- Enter password printed on sticker or bottom of router.
- 4. Touch connect

\*Please note: Once IQ Panel or IQ Remote have connected to IQ WiFi, IQ Panel and IQ Remote will move to a hidden security SSID or Network Name.

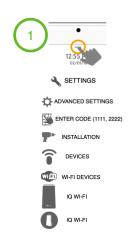


# MANAGING IQ WIFI FROM IQ PANEL

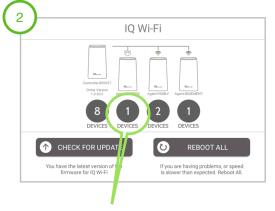
#### SOFTWARE UPDATES



After the initial setup, update you're IQ WIFI to the latest version of firmware and validate that the IQ WIFI mesh is on the same version of firmware

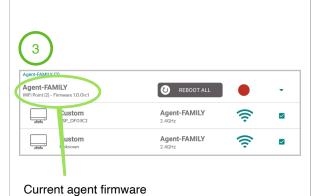


Open settings tray, touch settings, advanced settings, type valid code, touch installation, devices, WI-FI devices, IQ WI-FI, IQ WI-FI



Touch agent **DEVICES** icon to verify the version of firmware on each added agent.

Touch the **CHECK FOR UPDATE** icon to update the entire IQ WIFI mesh.

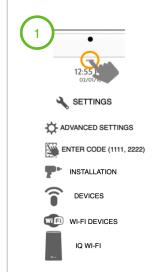


\*Note: If adding an additional agent to a preexisting IQ WIFI to improve wireless performance validate that the firmware on the IQ WIFI mesh is the same and if it is not, update.

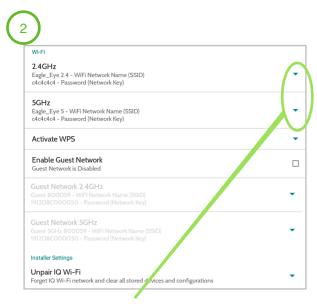
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#### **RENAMING YOUR NETWORK NAME (SSID)**





Open settings tray, touch settings, advanced settings, type valid code, touch installation, devices, WI-FI devices, IQ WI-FI



Touch the down arrows to make edits to the Network Names (SSIDs)



Enter in a unique **Network Name (SSID)** of your choice.

Enter a password that you can remember.

This information will be needed to connect to the IQ WIF from any other wireless device.

A Hidden option is disabled by default. (Checking this box will hide the Network Name (SSID) but still allow connectivity)

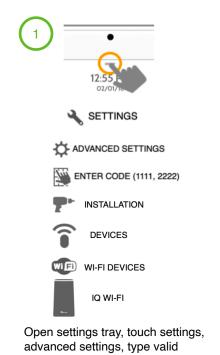
\*Note: By default the IQ WIFI will broadcast two visible Network Names (SSID) for 2.4GHz and 5GHz and two hidden Network Names (SSID) for Security 2.4GHz or 5GHz XXXXXX. With the hidden security SSID feature designed to push IQ Panel and IQ Remote to once SSID has been updated no need to reconnect IQ devices. Password must be between 8 and 64 characters, and SSID cannot contain any of the following characters: &()|<>\times

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#### CREATING A GUEST NETWORK



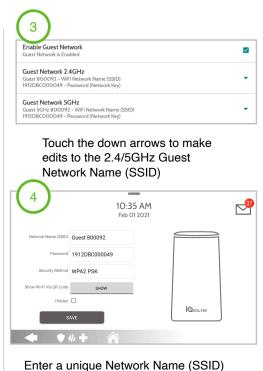
#### By default the Guest Network is disabled by default. To enable follow these steps



code, touch installation, devices,

WI-FI devices, IQ WI-FI





Password must be between 8 and 64 characters, and SSID cannot contain any of the following characters: &()l⇔\;' or the space characters.

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#### **TESTING YOUR SPEED**

















WI-FI DEVICES



Open settings tray, touch settings, advanced settings, type valid code, touch installation, devices, WI-FI devices, IQ WI-FI





#### Touch the **INTERNET** icon



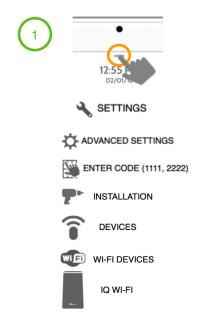
Touch the **TEST MY SPEED** button

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#### REBOOTING IQ WIFI MESH



If you are having problems, or speed is slower than expected, reboot your IQ WIFI Mesh



Open settings tray, touch settings, advanced settings, type valid code, touch installation, devices, WI-FI devices, IQ WI-FI



Touch the **REBOOT ALL** button

**REBOOT ALL** 

If you are having problems, or speed

is slower than expected. Reboot All.

CHECK FOR UPDATE

You have the latest version of the

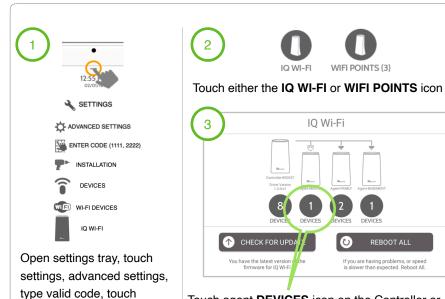
firmware for IO Wi-Fi

\*IQ WiFi will not increase the speed coming from the customer's ISP (Internet Service Provider) but can ensure the customer is getting the best coverage throughout their location. Please note that not all buildings are the same, and building materials, wireless interface, and other factors can limit Wi-Fi range.

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#### RENAMING CONTROLLER OR AGENTS





installation, devices, WI-FI

devices, IQ WI-FI, IQ WI-FI

Touch agent **DEVICES** icon on the Controller or Agent you wish to rename.

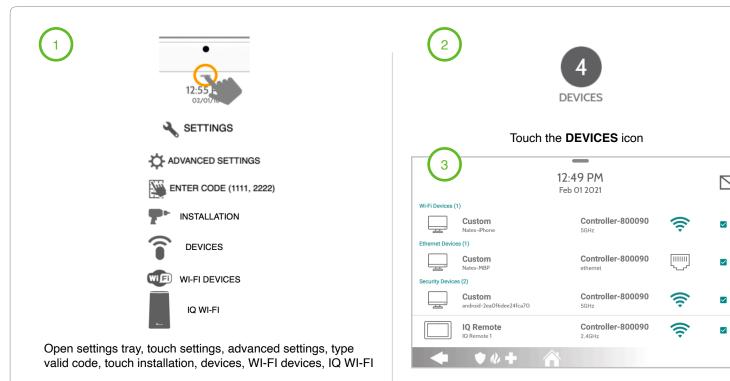


\*When renaming a controller or agent, please note that the unique name entered can't have any spaces.

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#### VIEWING CONNECTED DEVICES





<sup>\*</sup>Note: When viewing connected devices, you can manage internet connectivity by unchecking (not internet) the checkbox of a connected device.

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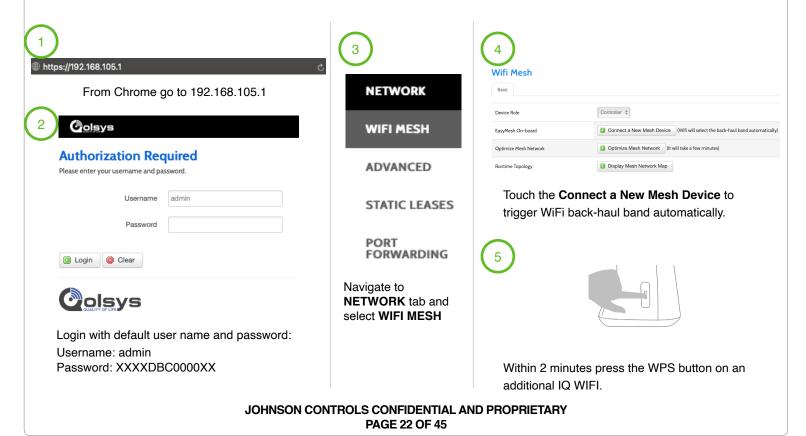


# MANAGING IQ WIFI FROM WEB INTERFACE

#### CONNECTING ADDITIONAL AGENTS FROM WEB



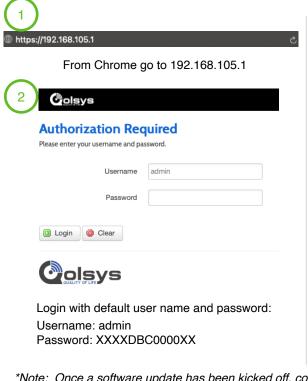
After all the physical connections are made (see steps 1-4 on page 10), the back-haul mesh activation can be enabled through the web interface, without accessing the IQ Panel settings.



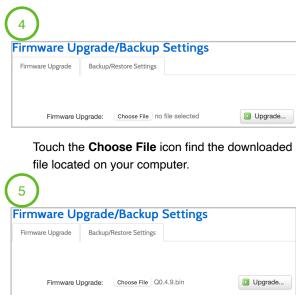
#### SOFTWARE UPDATES FROM WEB



A software update can be done manually after downloading an updated version of firmware from the dealer site.



SYSTEM CHANGE **PASSWORD FIRMWARE UPGRADE / BACKUP SETTINGS REBOOT** Navigate to SYSTEM tab, and down to **FIRMWARE UPGRADE /** 



Press **Upgrade** icon once the updated file has been selected.

\*Note: Once a software update has been kicked off, could take as long as 20 minutes plus the time to reboot. LEDs on the IQ WIFI will flash indicating it is updating.

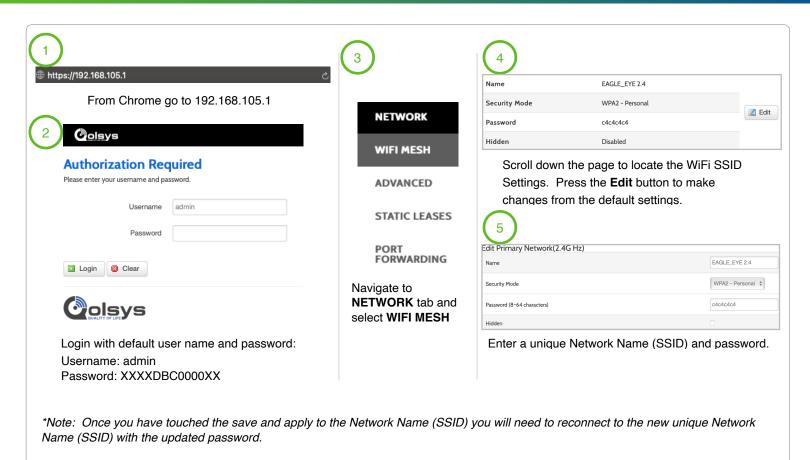
**BACKUP** 

**SETTINGS** 

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#### RENAMING DEFAULT NETWORK NAME (SSID) FROM WEB

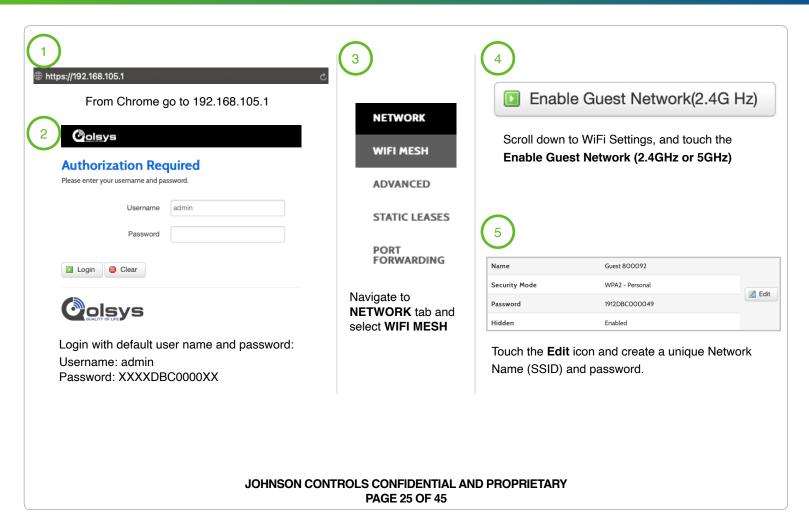




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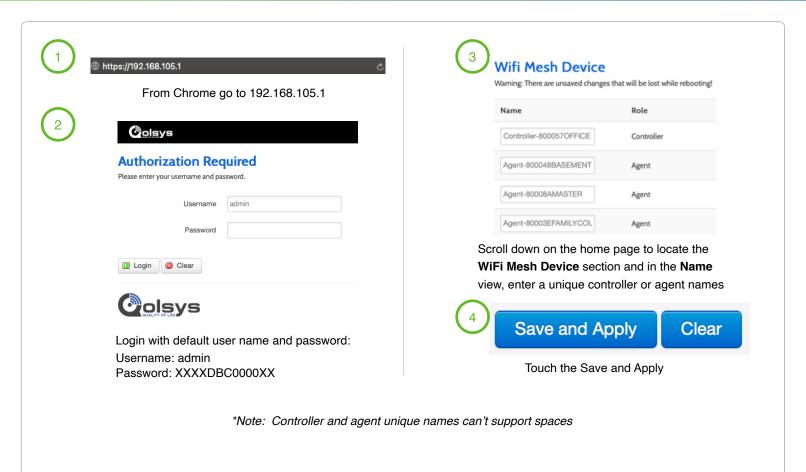
#### CREATING A GUEST NETWORK FROM WEB





#### RENAMING CONTROLLER OR AGENTS FROM WEB

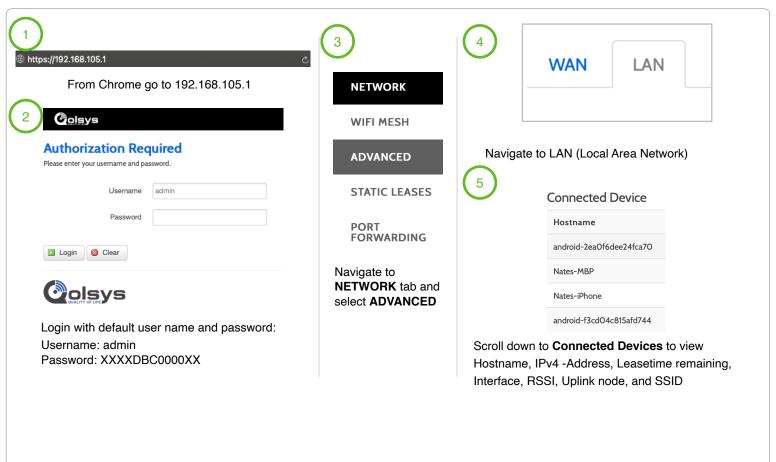




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#### VIEWING CONNECTED DEVICES FROM WEB

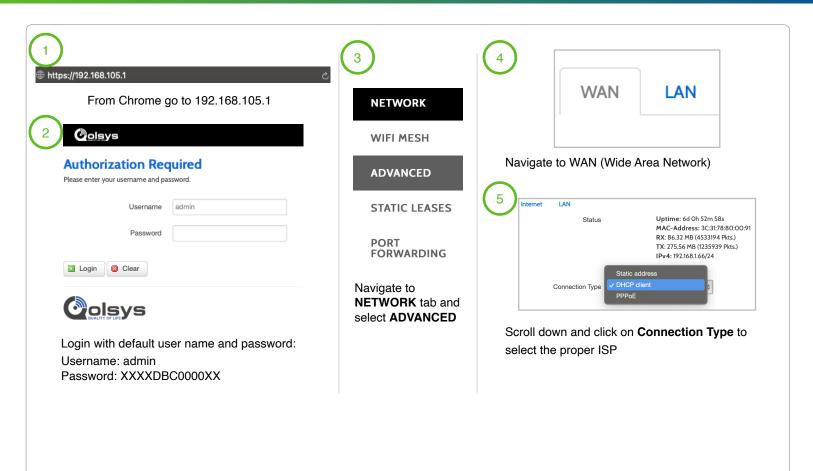




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#### WAN SETTINGS





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#### **CONNECTION TYPE**



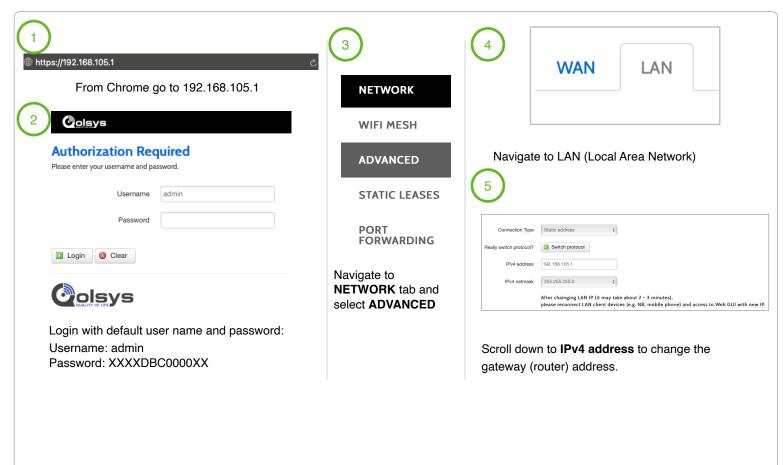
**PPPoE** is a **connection** protocol (mainly for xDSL **connections**). Using that protocol a PC can **connect** to a network **and** receive an IP. PPPoE is a way to encapsulate network traffic, based on credentialed access (i.e. username and password provided from an ISP).

**Static IP** means that regardless of the **connection method**/request the same Network Interface Card (PC) will be issued one, pre-defined IP that will never change.

**DHCP** is a way for a network to allocate unique IP addresses to the devices (i.e. computers and smartphones, etc.) within it so that traffic can be delivered back-n-forth without confusion.

#### LAN SETTINGS

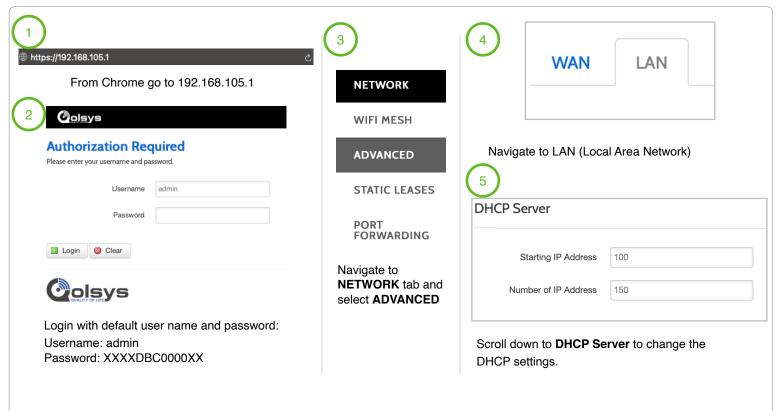




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#### **DHCP SERVER**



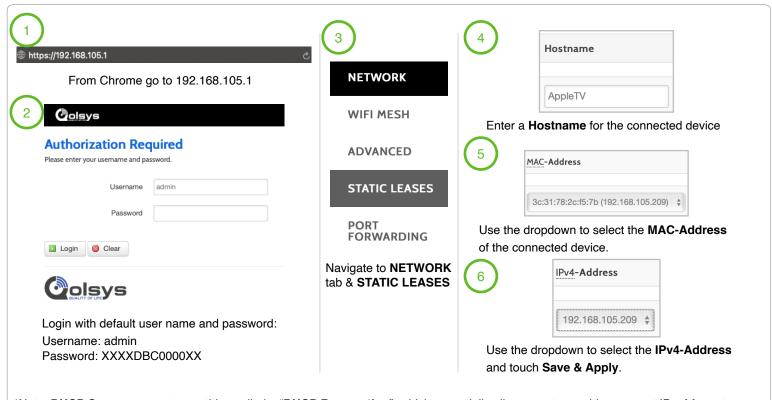


\*Note: DHCP server default settings support up to 150 addresses beginning at 192.168.105.100 through 192.168.105.250

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#### **DHCP RESERVATION**



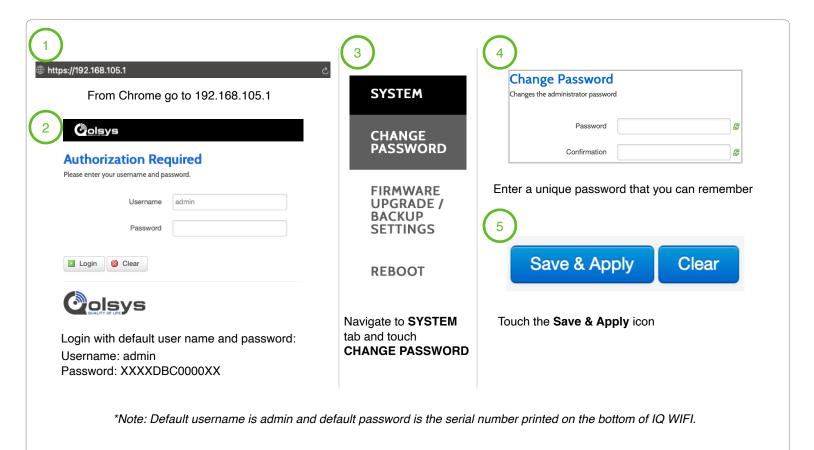


\*Note: **DHCP** Servers support something called a "**DHCP Reservation**", which essentially allows you to provide a pre-set IP **address** to a specific client based on it's physical **MAC address**. This means that the device will always get the same IP **address** and it will never change.

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#### **HOW TO CHANGE ADMIN PASSWORD**





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# CONNECTING TO THE NETWORK

#### CONNECTING TO THE NETWORK



#### Wired Connection:

- Connect your laptop to the IQ WiFi via the LAN port on the back of the controller or agent LAN port.
- Open up a web browser (chrome recommended) and type in the following:
  - \\192.168.105.1 (default gateway address)

# P/N: QW8200-840/IQ WI-FI Model No: RP052M S/N: XXXXCCCCC0000 MAC: 1XXXX222222XX FCC ID: P27ARP052M Input: 12V=1A 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.

#### **Wireless Connection:**

- The default SSID is "IQ WIFI XXXXXX" and "IQ WIFI XXXXXX 5G". (XXXXXX is the last 6 digits of the MAC address of the IQ WIFI)
- Using the QR code sticker you can auto connect to the default Network Name (SSID)
- WPS mode is also supported for wireless connection.

#### **Default User Name:**

- admin

#### **Default Password:**

 The S/N number printed not he bottom of the IQ WiFi is the default password. Note: Passwords are case sensitive



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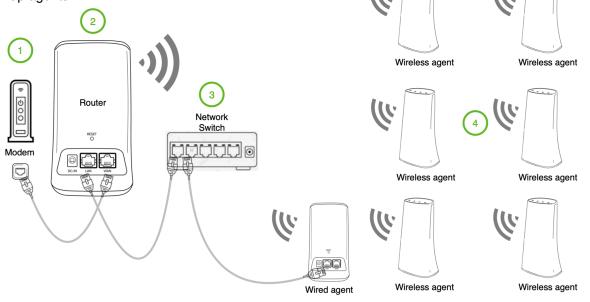
### TROUBLESHOOTING

#### SEQUENCE TO RESTART YOUR NETWORK



#### REBOOTING SEQUENCE

- 1. Unplug modem power up modem
- 2. Unplug IQ WIFI power up IQ WIFI
- 3. (If applicable) Unplug network switch power up network switch
- 4. Unplug agents power up agents



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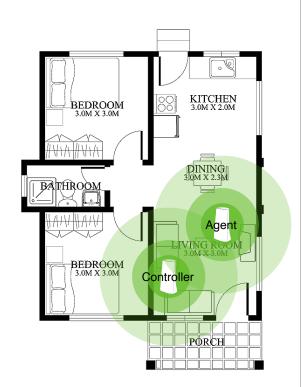
#### CONTROLLER AND AGENTS DO NOT SYNC



If you are experiencing difficulty syncing the controller and the agent, we recommend that you move the agent into the same room as the controller during the sync. Then move the agent to a different location.

To sync the controller and the agent (see page 14):

- 1. Place the agent in the same room as the IQ WIFI. Use this agent location only during the sync process.
- 2. Connect the agent to a power source.
- 3. Wait for the agent power LED to light solid GREEN.
- 4. Press the WPS button on the controller and then within two minutes, press the WPS button on the agent.
- 5. Wait for the agent internet LED to light solid GREEN. The agent WiFi LED will slowly blink GREEN when communicating.
- Move the agent to a new location and connect the agent to a power source.
- 7. At the new location, check the agent power LED and make sure it is solid GREEN.
  - If the agent error LED lights up RED, make sure you are within range and try again.



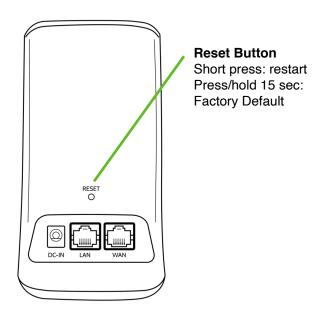
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#### YOU CAN'T LOGIN INTO THE IQ WIFL



Make sure that your computer or IQ Panel is connected to the IQ WiFi network. If you do not want to use a WiFi connection, you can connect your computer to the IQ WIFI with an Ethernet cable.

If you changed the admin password and you forgot what it is, reset the IQ WIFI back to factory default settings.



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#### HOW TO TROUBLESHOOT NETWORK CONNECTIVITY ISSUES



#### Check your network and Internet connections:

- Make sure that your WiFi-enabled computer or IQ Panel is connected to the IQ network.
- 2. If you are connected to the IQ network but can not access the Internet, check to see if your Internet connection is working.
- Launch a web browser from a computer or WiFi device that is connected to the network.
- 4. Enter the DEFAULT GATEWAY ADDRESS 192.168.105.1, A login window opens.
- 5. Enter the IQ WIFI admin username and password. The user name is admin.
- 6. The default password is the S/N printed on the bottom label of the Controller. The user name and password are case-sensitive.
- 7. The Home Screen is displayed



From Chrome go to 192.168.105.1



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#### HOW TO TROUBLESHOOT NETWORK CONNECTIVITY ISSUES

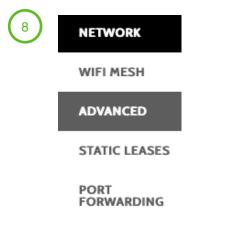


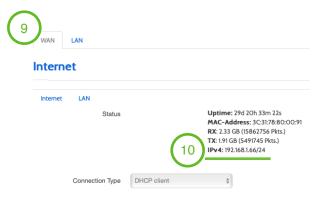
- 8. From the web interface Click NETWORK > ADVANCED tab. The ADVANCED Home page displays.
- 9. Check that an IP address is shown for the WAN Internet IPv4 section.
- 10. If 0.0.0.0 is shown, your IQ WIFI did not obtain an IP address from your Internet service provider (ISP) or from the customers existing network.

If your IQ WIFI cannot obtain an IP address from the WAN, you can force your cable or DSL modem to recognize your new IQ WIFI by restarting your network. For more information, see Sequence to restart your network on page 41.

If your IQ WIFI is still unable to obtain an IP address from the ISP, the problem might be one of the following:

- Your Internet service provider (ISP) might require a login program. Ask your ISP whether they require PPP over Ethernet (PPPoE) or some other type of login.
- If your ISP requires a login, the login name and password might be set incorrectly.





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### **SPECIFICATIONS**

#### **SPECIFICATIONS**



Part	Description
Process and Memory	SSoC: MT7621DA (MIPS1004Kc dual-core 880MHz, SPI NOR Flash 64MB) Memory: 128MB DDR3 embedded
Connectors	1 DC Power Jack 2 RJ-45 Connectors
LED and Button	LEDs: 4 Single Color LED Buttons: 1 WPS Button on the side 1 Reset button on the back
Antenna	4 Wi-Fi internal antennas
Power Adapter	Input: 100-240VAC, 50-60Hz, 0.3A Max Output: 12 VDC, 1A
Compliance	FCC
Dimensions (H x W x D)	150mm x 89mm x 57.2mm
Weight	172g
Operating Temperature	0°C - 40°C (32°F - 104°F)
Operating Humidity	10% - 90% RH (non-condensing)
Storage Temperature	-20°C -60°C (-4°F - 140°F)
Storage Humidity	5% - 95% RH (non-condensing)

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#### **SPECIFICATIONS**



Network and Software	Notes
Ethernet	LAN and WAN Gigabit Ethernet Ports
Wireless	IEEE 802.11 b/g/n 2.4GHz IEEE 802.11 a/n/ac 5GHz
DHCP	Server, Client
Protocols	IPv4 and IPv6
Guest Network	2.4GHz/5GHz
WiFi EasyMesh Standard	Supported
Ethernet On-Boarding	Supported
Topology Dump	Supported
ОТА	Supported
Application	OpenWRT Web GUI Configuration

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# Johnson (M) Controls

Conforms to UL Std. S985, 1023. & 1610
Certified to ULC Sub C1023 & ULC Std S545
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Document#: IQP2-IM-8-20 Revision Date: 12-16-2020 Software version: 2.5.0