### **IQ WIFI 6 INSTALLATION MANUAL**



### TABLE OF CONTENTS



### **IQ WIFI 6 OVERVIEW**

- 4- Whats included in the box
- 5- IQ WIFI overview: exterior
- 6- IQ WIFI 6 overview: labels
- 7- Choose your installation type
- 8- Evaluating network coverage

### **INSTALLING THE IQ WIFI 6**

- 10- Connecting the wires
- 11- Setting up the network
- 12- Connecting to the network

### MANAGING IQ WIFI 6 FROM IQ PANEL

- 14- Connecting additional agents
- 15- Software updates
- 16- Renaming your network name (SSID)
- 17- Creating a guest network
- 18- Testing your speed
- 19- Rebooting IQ WIFI 6 mesh
- 20- Renaming controller or agents
- 21- Viewing connected devices

### MANAGING IQ WIFI 6 FROM WEB

### **INTERFACE**

- 23- Connecting additional agents from web
- 24- Software updates from web
- 25- Renaming default network name (SSID)
- 26- Creating a guest network from web
- 27- Renaming controller or agents from web
- 28- Viewing connected devices from web
- 29- WAN settings
- 30- Connection type
- 31- LAN settings
- 32- DHCP server
- 33- DHCP reservation
- 34- How to change admin password

### **TROUBLESHOOTING**

36- Sequence to restart your network

- 37- Controller and agents do not sync
- 38- You can't login into the IQ WIFI 6
- 39- How to troubleshoot network connectivity issues

### **SPECIFICATIONS**

42- Specifications

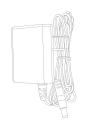


# IQ WIFI 6 OVERVIEW



## 10....





Power Supply



**Ethernet Cable** 



QR code sticker

### **SUPPORT**



### **QUESTIONS?**

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

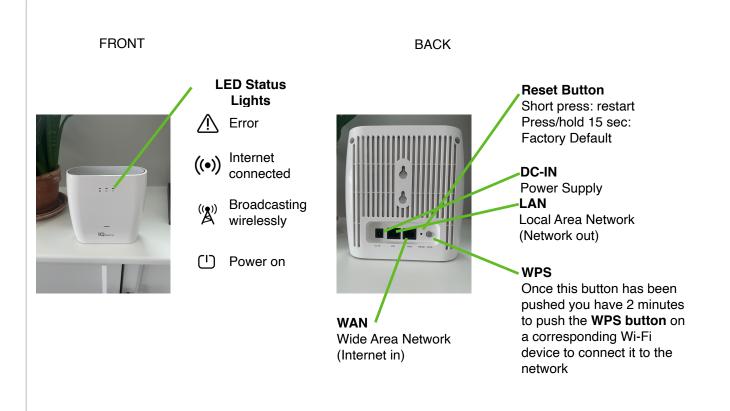
### **ABOUT THIS GUIDE**

This document outlines the basic hardware specifications and software directions to install and customize the IQ WIFI 6. 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.

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 4 OF 44

### **IQ WIFI 6 OVERVIEW: EXTERIOR**





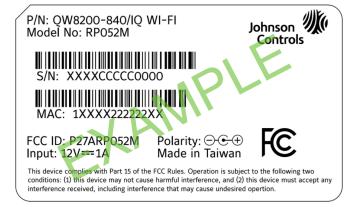
JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 5 OF 44

### **IQ WIFI 6 OVERVIEW: LABELS**



The label on the bottom of IQ WIFI 6 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







QR code included in the box

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 6 OF 44

### **CHOOSE YOUR INSTALLATION TYPE**



### You can set up the IQ WIFI 6 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:

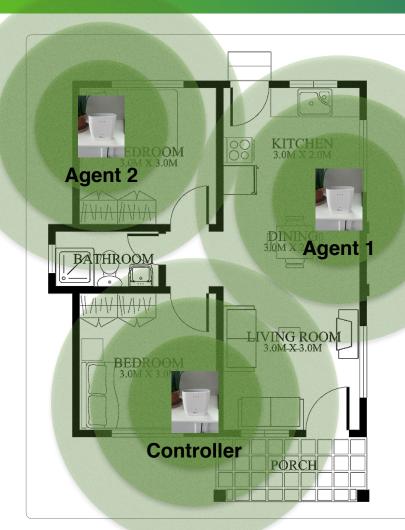


### Great for:

- -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

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 7 OF 44





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

Add up to 8 units

If a single IQ WIFI 6 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 6 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.



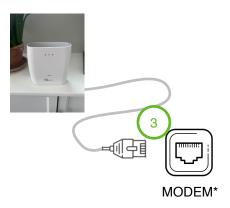
## INSTALLING THE IQ WIFI 6

### **CONNECTING THE WIRES**





- 1. 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 6 to run in parallel to the customer's primary network, plug the ethernet cable into an available port on the customer's existing router

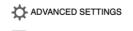
### SETTING UP THE NETWORK

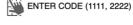














Once the IQ WIFI 6 has powered up completely, the power LED will stop flashing. Activate WPS on IQ Panel. (Open settings tray, touch settings, advanced settings, type valid code, choose WI-FI.)



Touch "CONNECT"



Press the physical WPS button on IQ WIFI 6



IQ Panel will confirm when connection is complete. (If, fails repeat from step 5)

\*Please note: If you prefer to connect to IQ WIFI 6 manually from IQ Panel choose Network Name (SSID) IQ WIFI 6 XXXXXX (the "X" represents the MAC address printed on the label located on the bottom of the IQ WIFI 6). The default password is the serial number printed on the bottom label of the IQ WIFI 6.

### CONNECTING TO THE NETWORK



### Wired Connection:

- Connect your laptop to the IQ WIFI 6 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)



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 opertion.

### **Wireless Connection:**

- The default SSID is "IQ WIFI 6 XXXXXX" and "IQ WIFI 6 XXXXXX 5G". (XXXXXX is the last 6 digits of the MAC address of the IQ WIFI 6)
- 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 6 is the default password. Note: Passwords are case sensitive



JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 12 OF 44



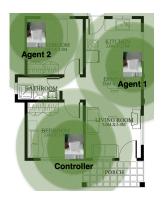
## MANAGING IQ WIFI 6 FROM IQ PANEL

### **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 6 in order to sync wirelessly.





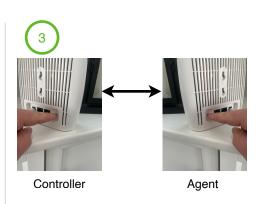
Example of where controllers and agents may be placed for best performance.

Choose your location to maximize your mesh WI-FI network. Ensure desired location has an available power outlet.



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

\* You may choose to connect your agents power close to your controller during the pairing process and move to your desired location once pairing is complete.



Once the agent has powered up completely, the power LED will stop flashing. Activate WPS on the controller, then activate WPS on the agent

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 14 OF 44

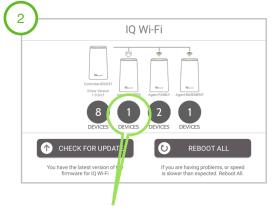
### SOFTWARE UPDATES



After the initial setup, update you're IQ WIFI 6 to the latest version of firmware and validate that the IQ WIFI 6 mesh is on the same version of firmware

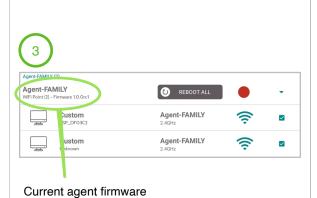


Open settings tray, touch settings, advanced settings, type valid code, touch installation, devices, WI-FI devices, IQ WI-FI, IQ WI-FI



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

Touch the CHECK FOR UPDATE icon to update the entire IO WIFI 6 mesh

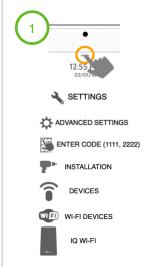


\*Note: If adding an additional agent to a preexisting IQ WIFI 6 to improve wireless performance validate that the firmware on the IQ WIFI 6 mesh is the same and if it is not, update.

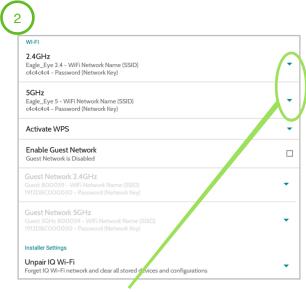
JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 15 OF 44

### **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)

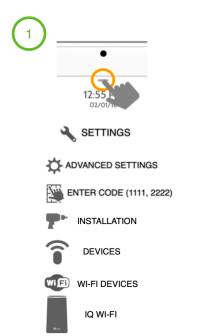
\*Note: By default the IQ WIFI 6 will broadcast two visible Network Names (SSID) for 2.4GHz and 5GHz and two hidden Network Names (SSID) for Security 2.4GHz or 5GHz XXXXXX.

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 16 OF 44

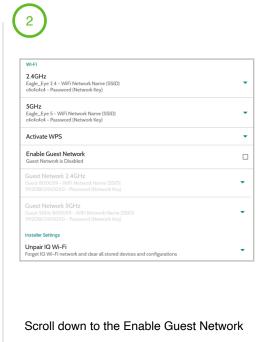
### CREATING A GUEST NETWORK

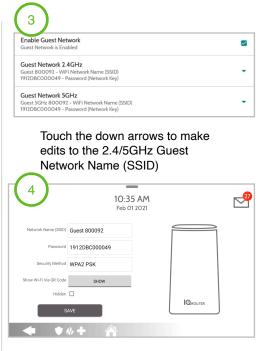


### By default the Guest Network is disabled by default. To enable follow these steps



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





Enter a unique Network Name (SSID)

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 17 OF 44

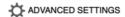
### **TESTING YOUR SPEED**





















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





### Touch the **INTERNET** icon



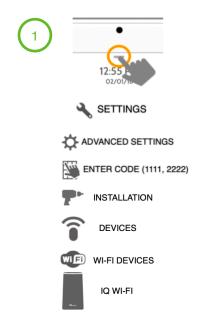
Touch the **TEST MY SPEED** button

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 18 OF 44

### **REBOOTING IQ WIFI 6 MESH**



If you are having problems, or speed is slower than expected, reboot your IQ WIFI 6 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

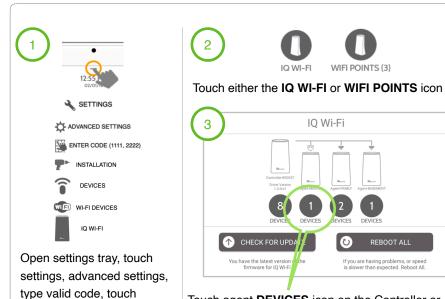
firmware for IO Wi-Fi

\*IQ WIFI 6 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.

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 19 OF 44

### RENAMING CONTROLLER OR AGENTS

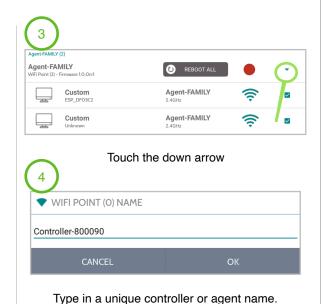




installation, devices, WI-FI

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.

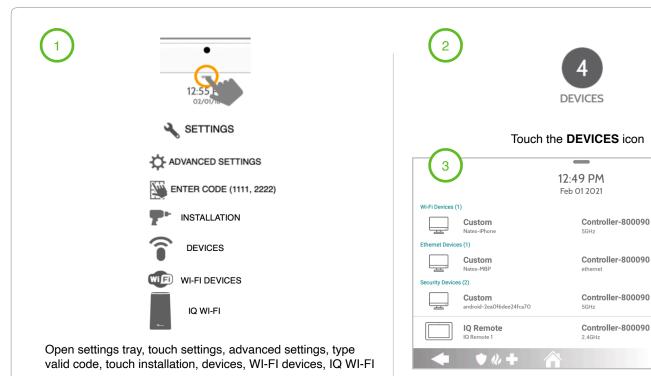
JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 20 OF 44

### VIEWING CONNECTED DEVICES



 $\checkmark$ 

 $\checkmark$ 



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

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 21 OF 44

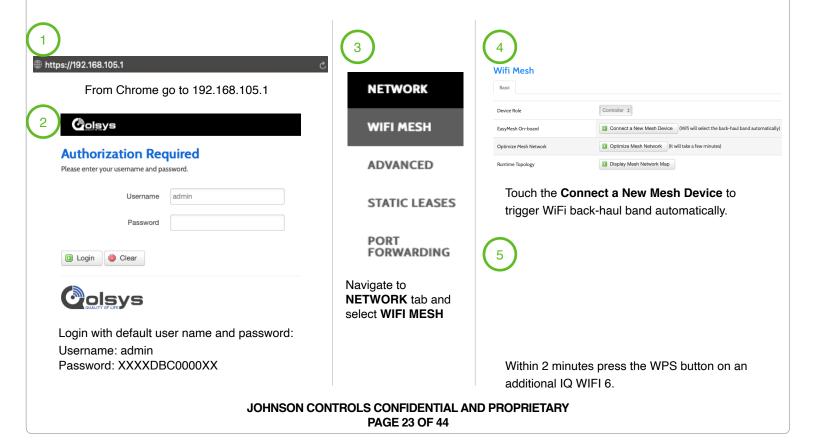


## MANAGING IQ WIFI 6 FROM WEB INTERFACE

### **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



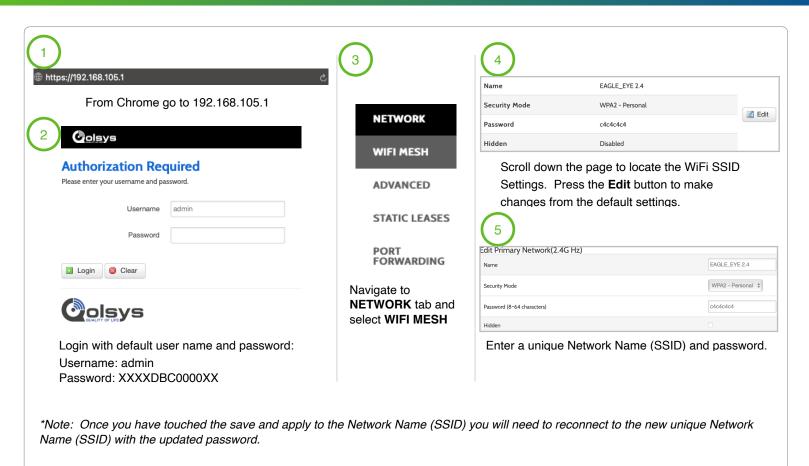
A software update can be done manually after downloading an updated version of firmware from the dealer site. https://192.168.105.1 Firmware Upgrade/Backup Settings SYSTEM From Chrome go to 192.168.105.1 Firmware Upgrade Backup/Restore Settings Colsys CHANGE **PASSWORD** Firmware Upgrade: Choose File no file selected Upgrade... **Authorization Required** Please enter your username and password. Touch the Choose File icon find the downloaded **FIRMWARE** file located on your computer. **UPGRADE /** Username **BACKUP SETTINGS** Password Firmware Upgrade/Backup Settings **REBOOT** Firmware Upgrade Backup/Restore Settings Login Clear Navigate to Polsys SYSTEM tab, and Firmware Upgrade: Choose File Q0.4.9.bin Upgrade... down to **FIRMWARE** Login with default user name and password: **UPGRADE /** Press **Upgrade** icon once the updated file has Username: admin **BACKUP** been selected. Password: XXXXDBC0000XX **SETTINGS** 

\*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 6 will flash indicating it is updating.

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 24 OF 44

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

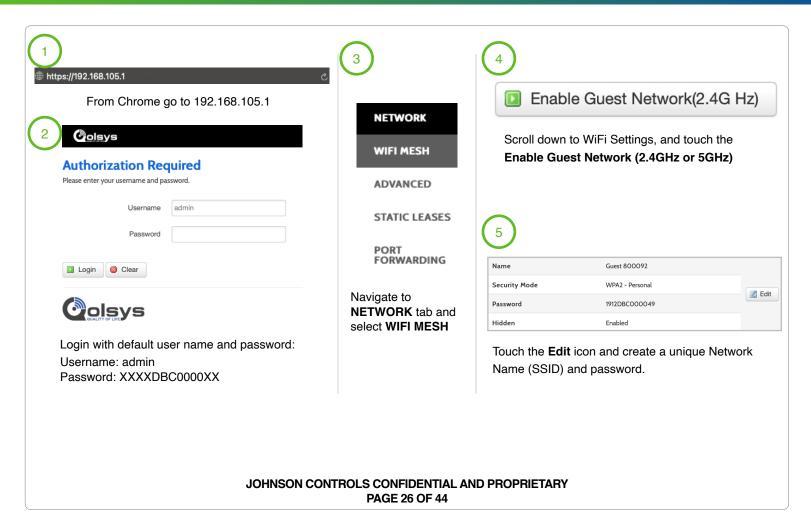




JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 25 OF 44

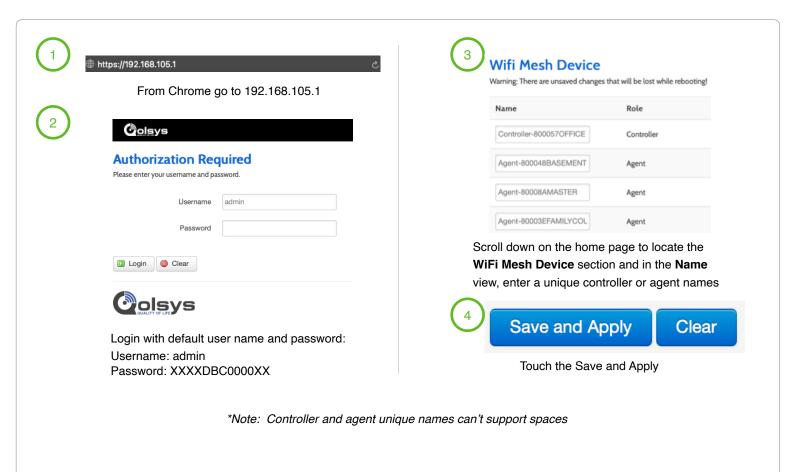
### CREATING A GUEST NETWORK FROM WEB





### RENAMING CONTROLLER OR AGENTS FROM WEB

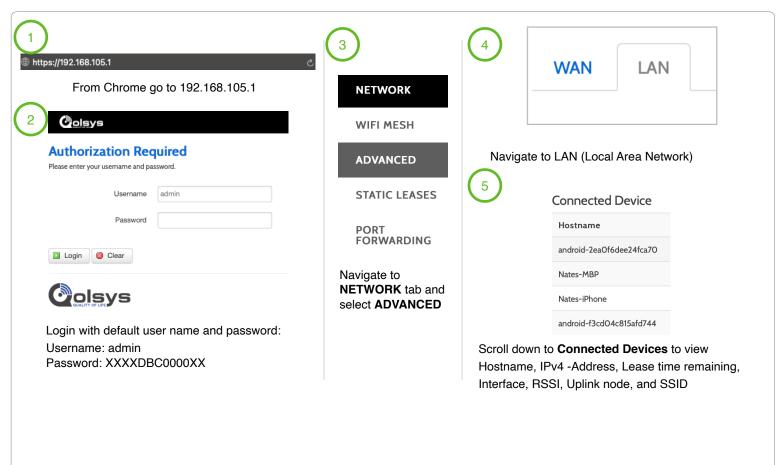




JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 27 OF 44

### VIEWING CONNECTED DEVICES FROM WEB

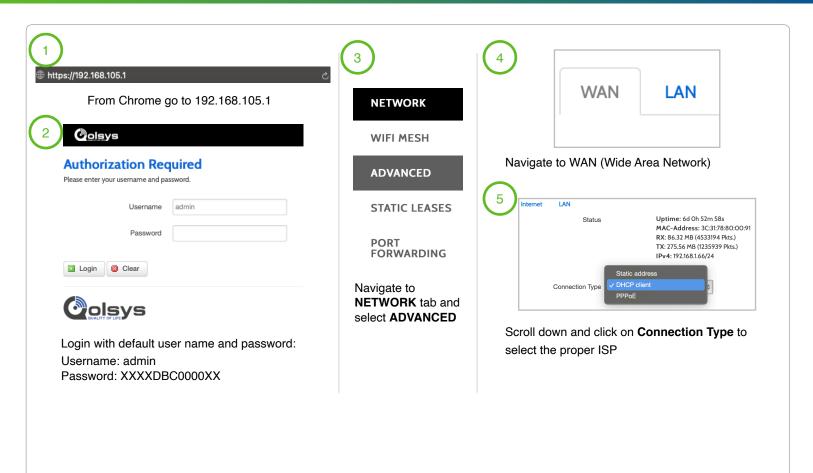




JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 28 OF 44

### WAN SETTINGS





JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 29 OF 44

### **CONNECTION TYPE**



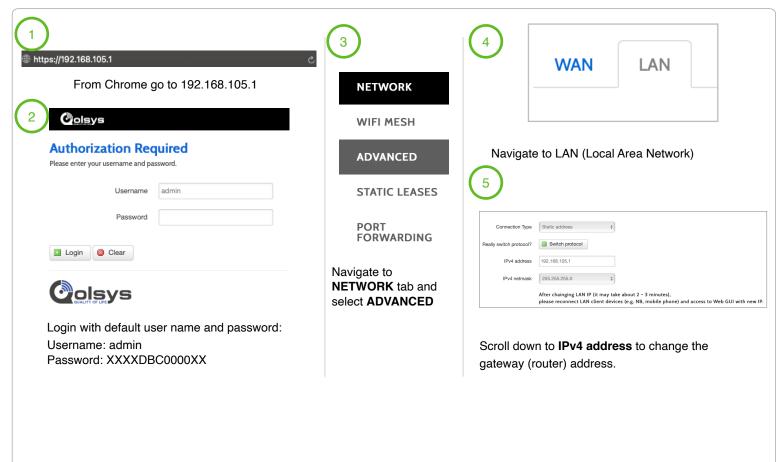
**PPPoE** is a **connection** protocol (mainly for xDSL **connections**). Using that protocol a PC can **connect** to a network **and** receive an IP. PPPoE is a way to encapsulate network traffic, based on credentialed access (i.e. username and password).

**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

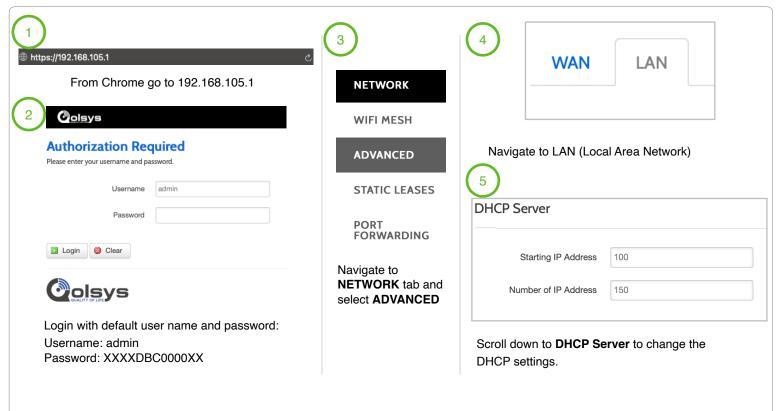




JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 31 OF 44

### **DHCP SERVER**



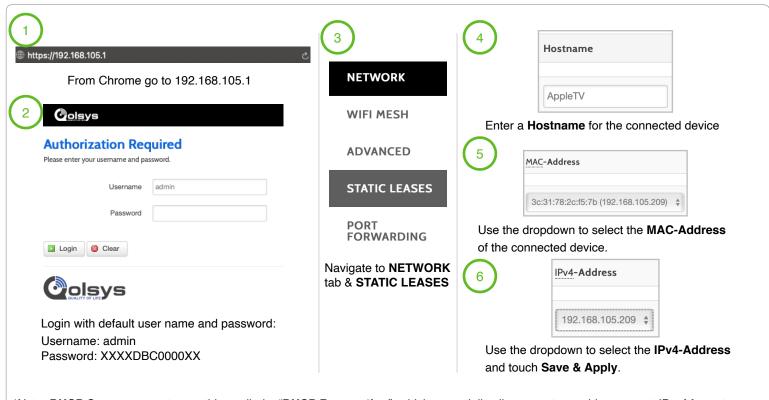


\*Note: DHCP server default settings support up to 150 addresses beginning at 192.168.105.100 through 192.168.105.250

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 32 OF 44

### **DHCP RESERVATION**



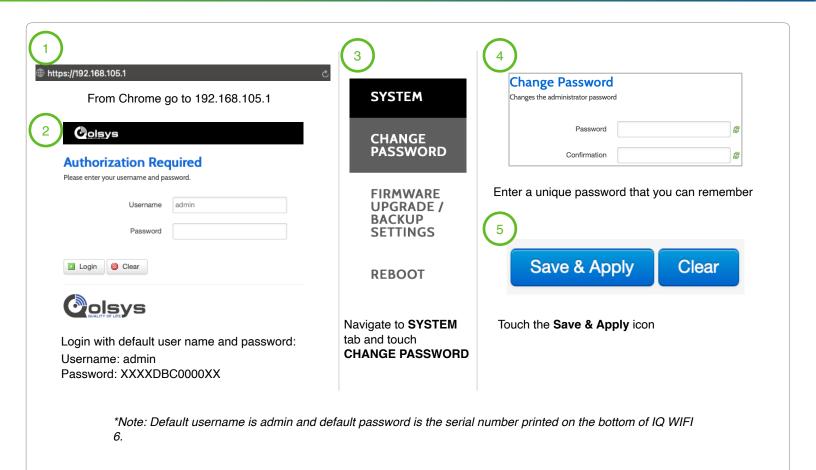


\*Note: **DHCP** Servers support something called a "**DHCP Reservation**", which essentially allows you to provide a pre-set IP **address** to a specific client based on it's physical **MAC address**. This means that the device will always get the same IP **address** and it will never change.

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 33 OF 44

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





JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 34 OF 44



### TROUBLESHOOTING

### SEQUENCE TO RESTART YOUR NETWORK



When you restart your network, follow this sequence:

- 1. Turn off and unplug the modem.
- 2. Turn off the IQ WIFI 6.
- 3. Plug in the modem and turn it on. Wait two minutes.
- 4. Turn on the IQ WIFI 6 and wait two minutes.

### 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:

- 1. Place the agent in the same room as the IQ WIFI 6. Use this agent location only during the sync process.
- 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.
- 6. Move the agent to a new location and connect the agent to a power source.
- 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.

### YOU CAN'T LOGIN INTO THE IQ WIFI 6



Make sure that your computer or IQ Panel is connected to the IQ WIFI 6 network. If you do not want to use a WiFi connection, you can connect your computer to the IQ WIFI 6 with an Ethernet cable.

If you changed the admin password and you forgot what it is, reset the IQ WIFI 6 back to factory default settings.

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY
PAGE 38 OF 44

### 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.
- 3. Launch a web browser from a computer or WiFi device that is connected to the network.
- 4. Enter the DEFAULT GATEWAY ADDRESS, A login window opens.
- 5. Enter the IQ WIFI 6 admin username and password.
- 6. The user name is **admin**. 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

### HOW TO TROUBLESHOOT NETWORK CONNECTIVITY ISSUES



- 8. 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 6 did not obtain an IP address from your Internet service provider (ISP). If your IQ WIFI 6 cannot obtain an IP address from the ISP, you can force your cable or DSL modem to recognize your new IQ WIFI 6 by restarting your network. For more information, see Sequence to restart your network on page 41.

If your IQ WIFI 6 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.



### **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, 0.68 Max Output: 1.5A 18.0W
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)

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 42 OF 44

### **SPECIFICATIONS**



Network and Software	Notes
Ethernet	LAN and WAN Gigabit Ethernet Ports
Wireless	IEEE 802.11 b/g/n/ax 2.4GHz IEEE 802.11 a/n/ac/ax 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

JOHNSON CONTROLS CONFIDENTIAL AND PROPRIETARY PAGE 43 OF 44

# Johnson (M) Controls

Conforms to UL Std. S985, 1023. & 1610
Certified to ULC Sub C1023 & ULC Std S545
Johnson Controls Inc. proprietary.
Reproduction without permission is not permitted.

Document#: IQP2-IM-8-20 Revision Date: 12-16-2020 Software version: 2.5.0