

PULSE 2 HUB

Setup Instructions for iOS and Android



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Pulse 2 Hub | Set up Instructions for iOS and Android

The Pulse 2 connects to home networks to unlock the luxury of automated shade control. Experience customization with scene and timer options as well as voice control via Google Assistant, Amazon Alexa, and Apple HomeKit.

THE APP ALLOWS FOR

1. Individual and group control – Group Automate shades by room and conveniently control them accordingly.
2. Remote connectivity - Control shades remotely, whether home or away on a local network or an internet connection.
3. Smart Shade Prediction Function that opens or closes shades with one tap depending on the time of the day
4. Scene control - Personalize shade control and organize how your shades operate by specific daily events.
5. Timer functionality - Set and forget. Lower, raise and activate shade scenes automatically at the optimal time.
6. Sunrise and Sunset - Utilizing time zone and location, the Pulse 2 can automatically raise or lower Automate shades according to the position of the sun.
7. Compatible IoT Integrations:
 - Amazon Alexa
 - Google Home
 - IFTTT
 - Smart Things
 - Apple HomeKit

GETTING STARTED

In order to experience automated shade control through the Automate Pulse 2 app, you will need to have:

- Downloaded the free app Automate Pulse 2 App via the Apple App Store (available under iPhone apps) or iPad apps for iPad devices.
- Purchased one or more Hub's depending on the size of the area you would like to cover.
- Familiarized yourself with the app navigation guide below.
- Created a Location then pair hub to that location. Our step by step guide will explain in more detail.

WI-FI HUB TECHNICAL SPECIFICATIONS

- Radio Frequency range: ~ 60 feet (no obstructions)
- Radio Frequency: 433 MHz
- Wi-Fi 2.4 GHz or Ethernet Connectivity (CAT 5)
- Power: 5V DC
- For Indoor Use Only

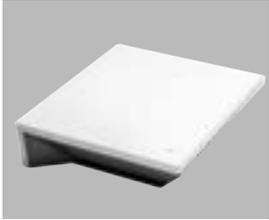
BEST PRACTICES FOR PAIRING THE HUB WITH YOUR WI-FI NETWORK

- Only pair your hub via 2.4GHZ Wi-Fi.
- The Hub must be within signal range of both the automated shades and 2.4GHZ Wi-Fi.
- Ensure 5Ghz are disabled on your Wi-Fi router or disconnected from your mobile device.
- Check your phone and confirm if the Home App has been installed.
- Environments with multiple WAPs (wireless access points) may need all but the main router temporarily disabled.
- Security settings on your router and on phone may need to be temporarily disabled.
- Place the Hub in a horizontal position. (avoid metal enclosures / ceiling or any other locations that may affect the range.
- Before starting the Hub installation, make sure that all your shades are functional and charged. You can test the shade using a remote control or pressing a "P1" Button on the motor head.
- In case of range issues, it is recommended you deploy the antenna or reposition the hub in your installation.
- Add additional repeaters if is required (Only two per Hub).

CAPABILITIES

- Motors per Hub: 30
- Locations per account: 5
- Hubs per location: 5
- Rooms per Location: 30 per Hub
- Scenes per Hub: 20 (100 per location)
- Timers per Hub: 20 (100 per location)

WHAT'S IN THE BOX?



A.
Automate Pulse 2 Hub



B.
USB Power Supply



C.
32" (80cm) USB
Power Cord



D.
Ethernet cable

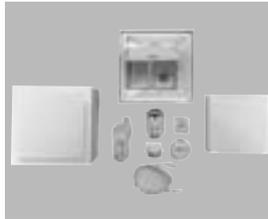


D.
Ethernet cable

UNPACKING THE HUB 2.0



1.
Unpack the Pulse 2



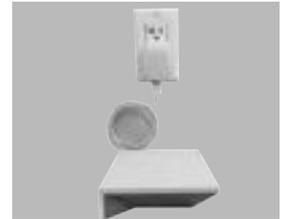
2.
Check the Box Contents



3.
Plug the USB Cord into the
Power Supply



4.
Connect the Micro USB end
into the back of the Pulse 2



5.
Plug the Power Supply into
the outlet and place the
Hub in a central location in
your home

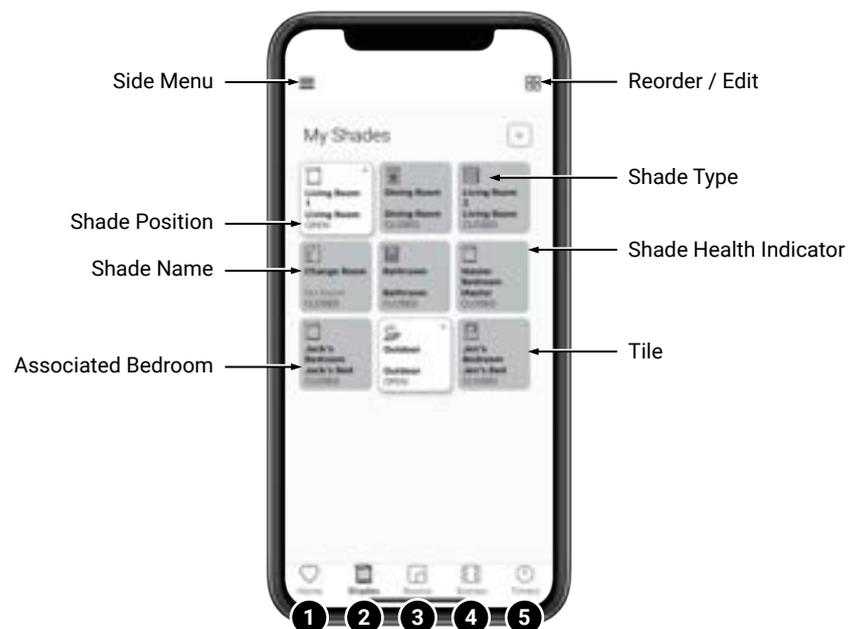
APP NAVIGATION

- 1 Home**
Create a list of your shades, rooms and scenes in one place.
- 2 Shades**
All the shades connected to Pulse 2 Hub will appear here
- 3 Rooms**
Add shades to Rooms and control an entire room with 1 button
- 4 Scenes**
Create a Scene that sets your shades to a particular position eg Sunrise (all Open)
- 5 Timers**
Show a list of Timers that can activate a scene or a single device

App Version 3.0

Supported Device Types

iOS 11 and higher Device Types, Android OS 6.0 OR HIGHER
Mobile and Tablets - Tablet (Landscape is supported)



IOS | APP SIGN UP



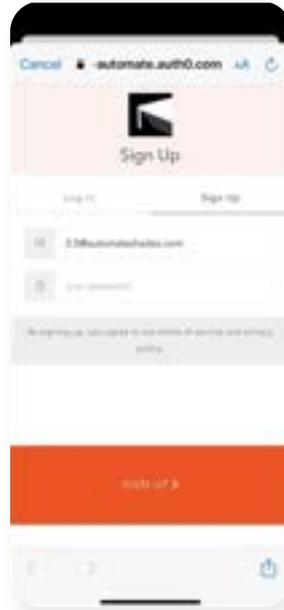
1 Open the App

Open the Automate Pulse 2 mobile App.



2 Sign Up

If required, create a new account. Select Sign Up on the Top Right corner of the screen.



3 Sign Up

Creating an account will require an email address and password.



4 Sign In

If you already have an account Log in with your account information.

IOS | QUICK START SETUP

NOTE: Wi-Fi only via a 2.4GHZ connection.
Quick Start prompt will only occur if there is no Locations in the App.



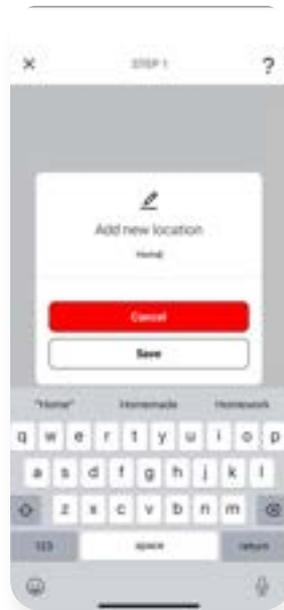
1 Quick Start

Please power up the Hub then follow the Quick Start guide. Select "YES". (Ensure there are locations present).



2 Add Location

Select New Location followed by next.



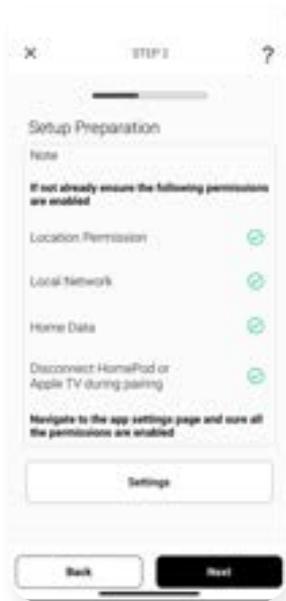
2a Name location

Name your location with your desired name.



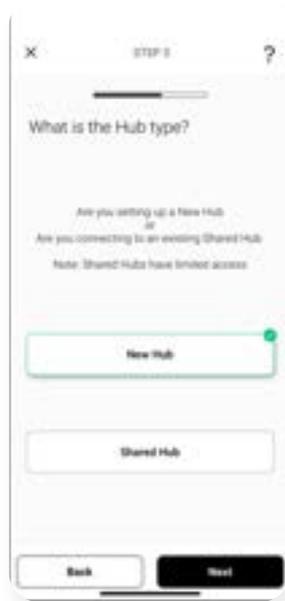
3 Select Location

Now select newly created location and press Next.



4 Prepare for Setup

Confirm all of your permissions are enabled.



5 Select Hub Type

Select New Hub and press Next.



6 Choose Method

For this setup we are using PAIR HUB WITH CABEL method. For WIFI pairing method refer to next section i.e "Adding additional Hub".



7 Select your Hub

Select your hub from the list which is connected to cable and press Next.



8 WIFI Backup

WIFI toggle ON to switch to WIFI automatically when cable is plugged off. If toggled off skip to step 10.



9 Wifi Password

Put in the password for your WIFI which is of the router the hub is connected to.



9a Saving Wifi

On this screen wait momentarily as WIFI credentials are being saved.



10 Scan QR code

Now Scan QR code which is at the bottom of the Hub.



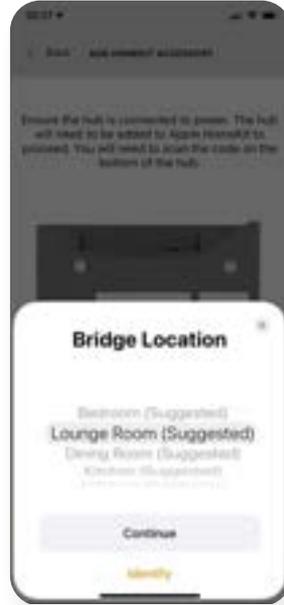
10a Scan QR code

Scan the QR Code on the bottom of the hub to sync with HomeKit.



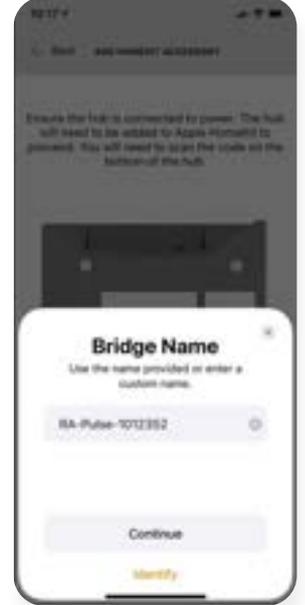
10 HomeKit Discovery

Select add to Home.



11 HK Location

Select the Location where the Hub will be placed. Select Continue.



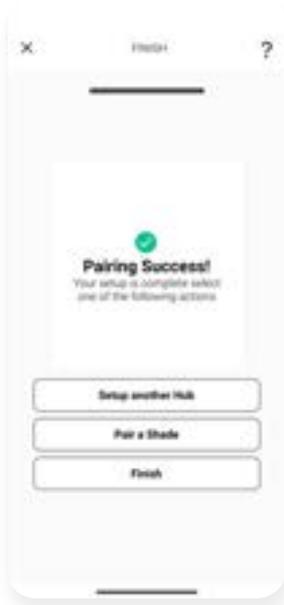
12 Name Hub

Enter and Unique Name for your Hub.



13 Select time zone

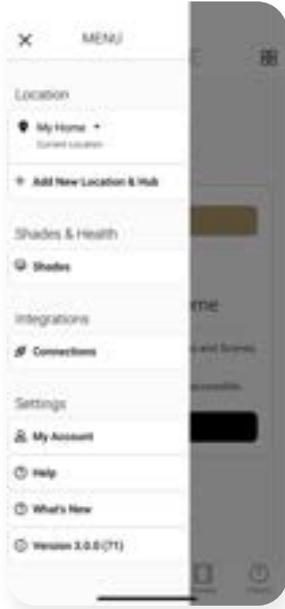
Select your time zone and press Next.



14 Success

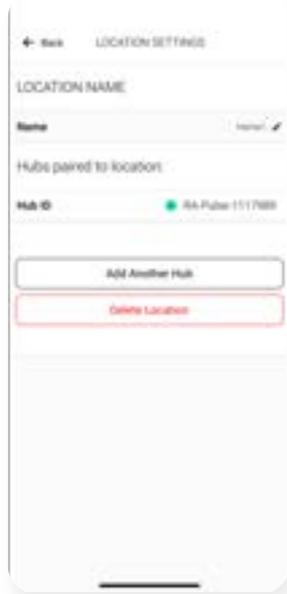
Hub has been successfully Paired.

IOS | ADDING ADDITIONAL HUB TO EXISTING LOCATION



1 Configure a Hub

Select menu then the desired location.



2 Add Hub

Click on "ADD ANOTHER HUB" to start the process to setting up your HUB on the App.



3 Select Location

Select location to add this hub to.



4 Prepare for Setup

Ensure all of your permissions are enabled.



5 Hub Type

Select menu then the desired location.



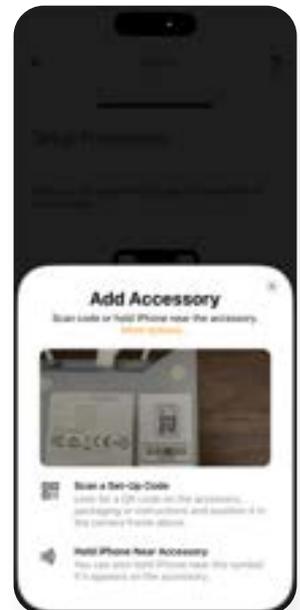
6 Choose Method

Click on "ADD ANOTHER HUB" to start the process to setting up your HUB on the App.



7 Scan QR code

Select location to add this hub to.



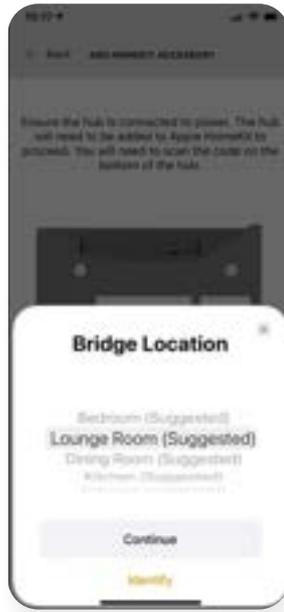
7a Scan QR code

Ensure all of your permissions are enabled.



8 HomeKit Discovery

Select add to Home.



9 HK Location

Select the Location where the Hub will be placed. Select Continue.



10 Name Hub

Enter and Unique Name for your Hub.



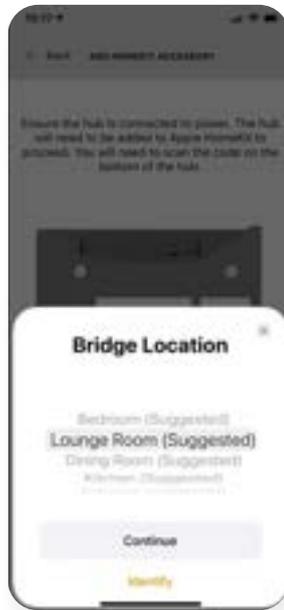
11 Select time zone

Select your time zone and press Next.



8 HomeKit Discovery

Select add to Home.



9 HK Location

Select the Location where the Hub will be placed. Select Continue.



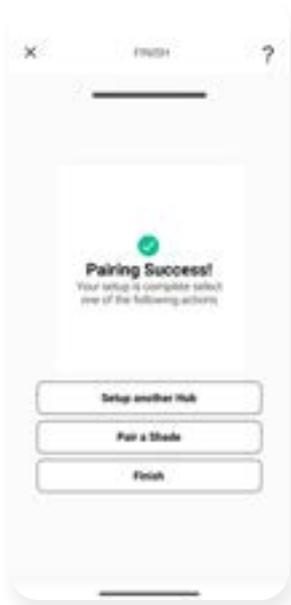
10 Name Hub

Enter and Unique Name for your Hub.



11 Select time zone

Select your time zone and press Next.



12 Success

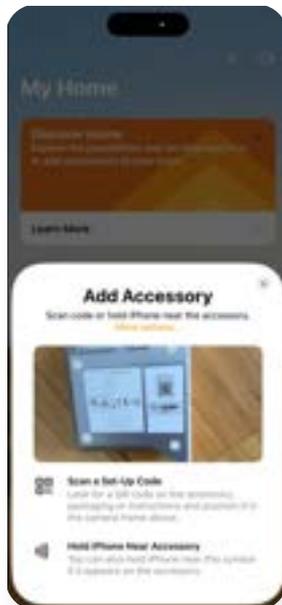
Hub has been successfully Paired.

IOS | CONFIGURATION IN APPLE HOMEKIT MANUAL OR



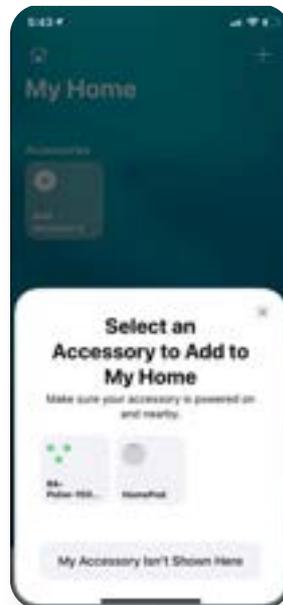
1 Open HomeKit App

Open the Home App.



2 Scan Hub

Scan the QR code at the bottom of the Hub. If the Code does not scan select " I don't have a Code or cannot scan".



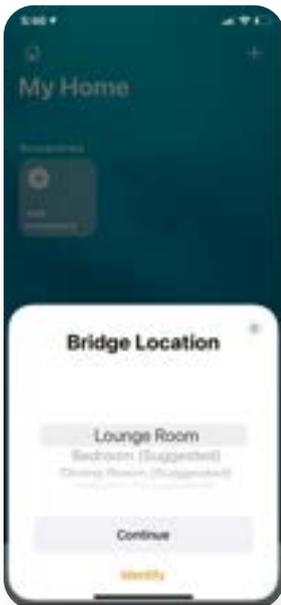
3 Select Hub

Select the RA Pulse ... Device.



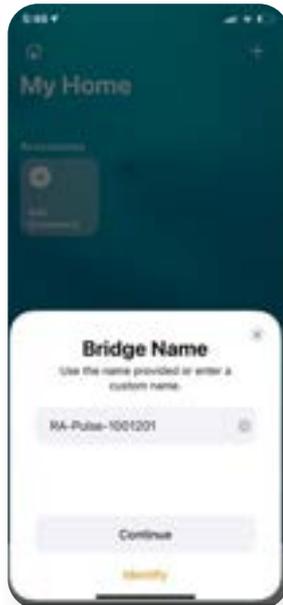
4 Manual Code Entry

Ensure all of your permissions are enabled.



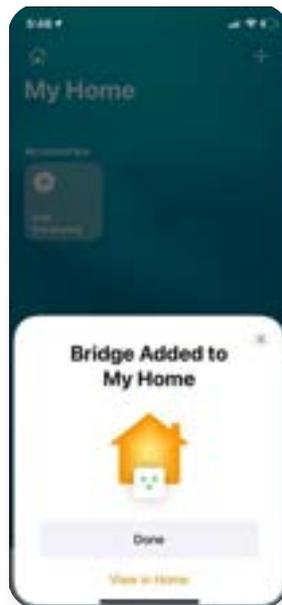
1 Select Hub location

Select the location where the Hub will be installed in.



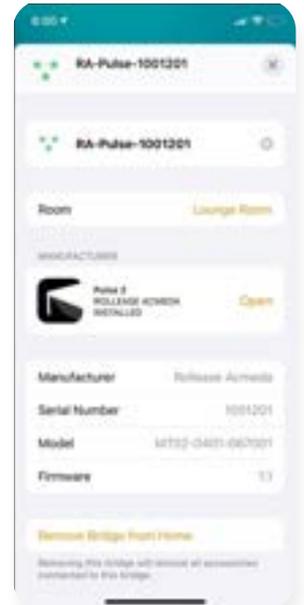
2 Configure a Hub

Enter and Unique Name for your Hub.



3 Configure a Hub

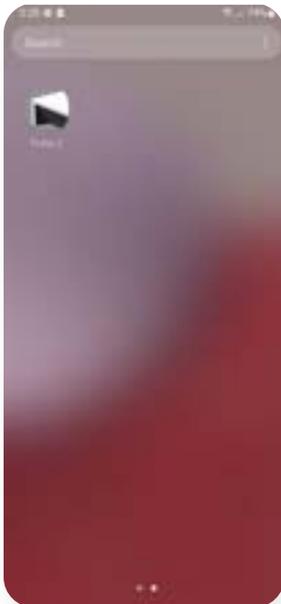
Setup complete select view in Home.



4 Configure a Hub

Verify Hub.

ANDROID | APP SIGN UP



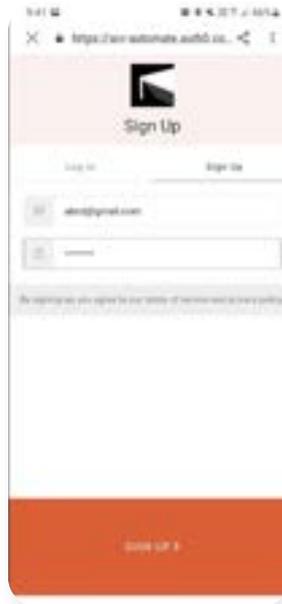
1 HomeKit Discovery

Open the Automate Pulse 2 mobile App.



2 HK Location

If required, create a new account. Select Sign Up on the Right tab of the screen.



3 Name Hub

Creating an account will require an email address and password.

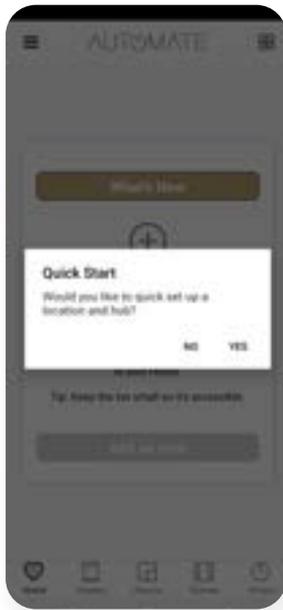


4 Select time zone

If you already have an account Log in with your account information.

ANDROID | QUICK START SETUP

NOTE: Wi-Fi only via a 2.4GHZ connection.
Refer to troubleshooting for more information.



1 Quick Start

Please power up the Hub then follow the Quick Start guide. Select "YES".



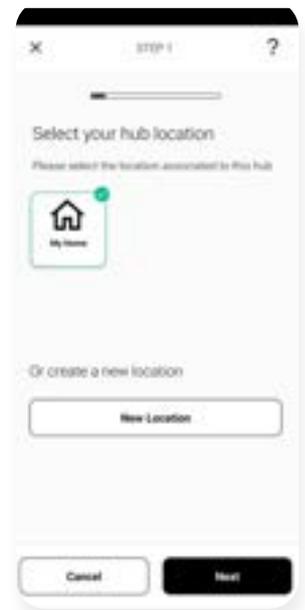
2 Add Location

Select new location and press next.



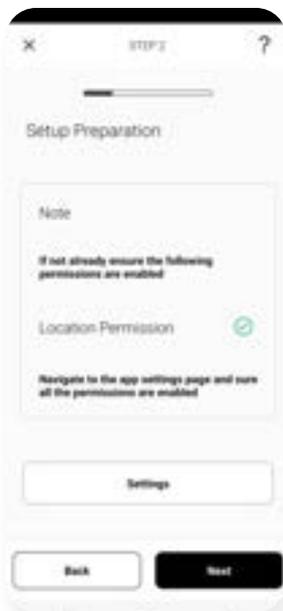
3 Location

Create a location name like "My home".



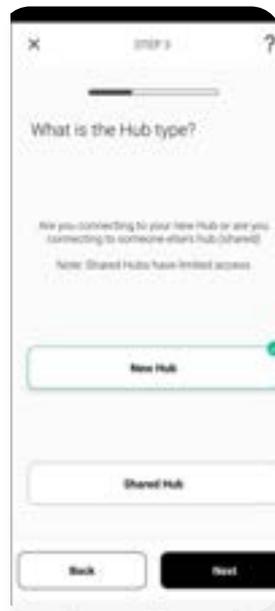
4 Location

Select the location you have just created.



5 Prepare for Setup

Ensure from settings that Location permission is allowed.



6 Hub Type

Select New Hub and press Next.



7 Choose Method

For this setup we are using PAIR HUB WITH CABLE method. For WIFI pairing method refer to next section i.e "Adding additional Hub".



8 Select Time Zone

Choose your time zone and toggle on Daylight savings if applicable.



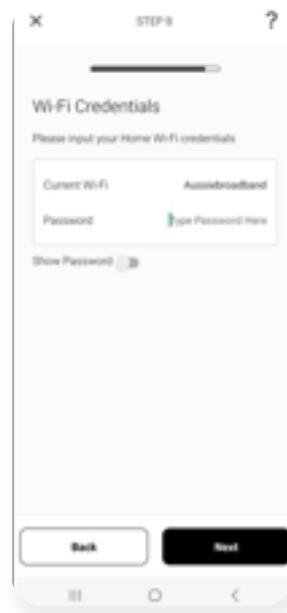
9 Select your Hub

Select your hub from the list which is connected to cable and press Next.



10 WIFI Backup

Turn WIFI toggle ON to switch to WIFI automatically when cable is plugged off. If toggled off and press next, app will take you to step 10.



11 Wifi Password

Put in the password for your WIFI which is of the router the hub is connected to and enter Next.



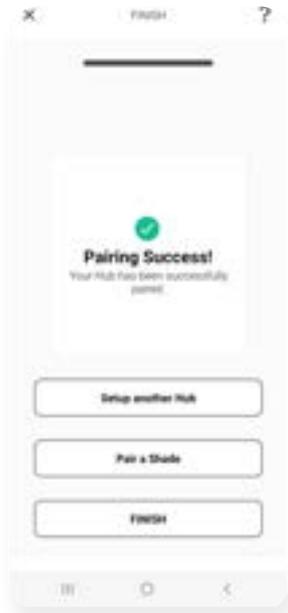
12 Connecting..

Now screen will show connecting your Hub and it connects Hub with internet.



13 Nearly Done

Almost done, press Next on this screen.



14 Success

Complete. Now pair another hub or start adding shades.

ANDROID | ADDING ADDITIONAL HUB TO EXISTING LOCATION



1 Configure a Hub

Select menu then the desired location.



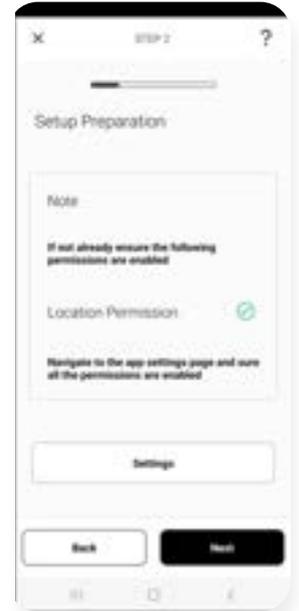
2 Add Hub

Click on "ADD ANOTHER HUB" to start the process to setting up your HUB on the App.



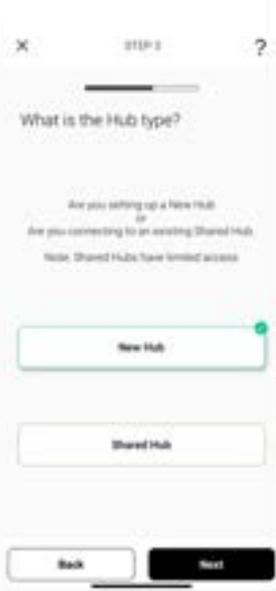
3 Select Location

Select location to add this hub to.



4 Prepare for Setup

Ensure location permissions is enabled.



5 Hub Type

Select New Hub and press Next.



6 Choose Method

For this setup we are using PAIR HUB WITH WIFI method. For Cable pairing method refer to previous section i.e "Android Quick Start Guide".



7 Select Timezone

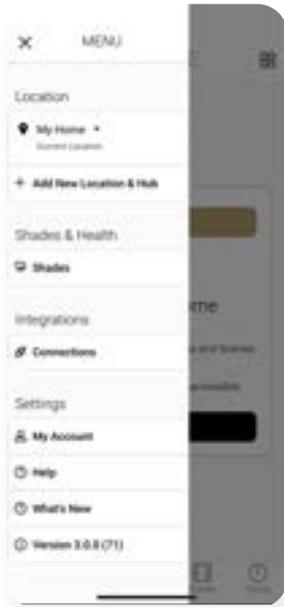
Choose Time zone and if applicable toggle on Daylight savings.



8 Connection

Ensure the Wi-Fi that you going to use is displayed in current connection.

CREATING A LOCATION



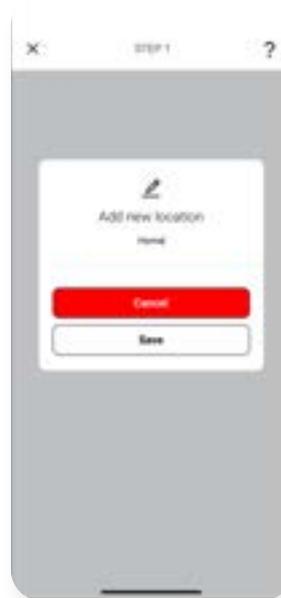
1 Add Location

Open the App from the home screen and select the menu button, click "ADD NEW LOCATION and HUB".



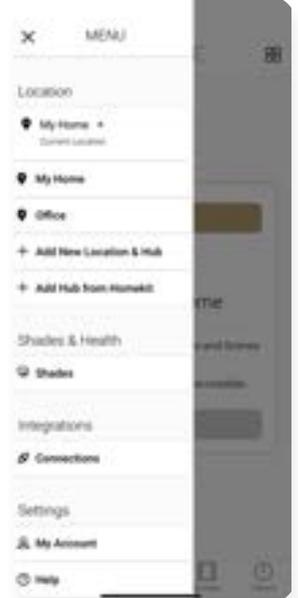
2 Add Location

Select new location and press next.



3 Update Name

Change Description of the Location.

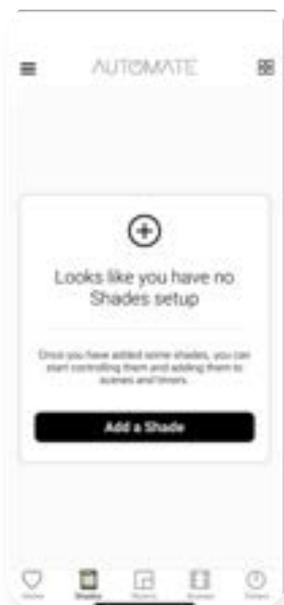


4 Toggle

Select the location icon, and Long press the location to change the locations.

HOW TO PAIR A MOTOR TO THE APP

During the setup, the hub may need to be moved room to room during the pairing process. We recommend setting up your motors with a remote prior to syncing with the App



1 Add New Shade

On the Shades screen select the 'Plus' icon to add a new shade.



2 Select hub

From the list select the HUB you wish to pair the motor too.



3 Device Type

Select which device type best represents your shade.. (NOTE this can't be changed later).



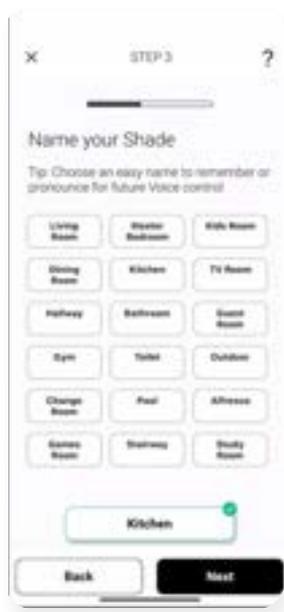
4 Name Shade

Select the shade name from the list or create a custom name. Press next.



5 Name Shade

Type the custom name and select save.



6 Name Shade

The custom name will be displayed and press next. The shade name can be edited later.



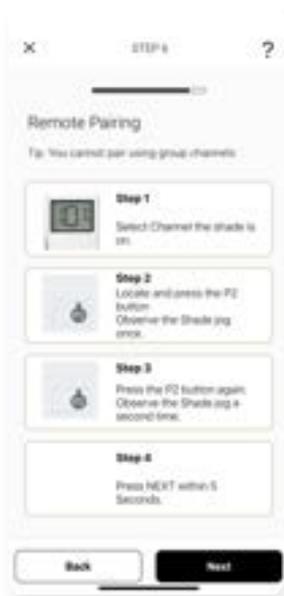
7 Prepare Hub

Ensure the hub is close by then press next.



8 Pair Method

Choose your pairing method: 'PAIR USING A REMOTE' or 'PAIR DIRECTLY TO THE SHADE'



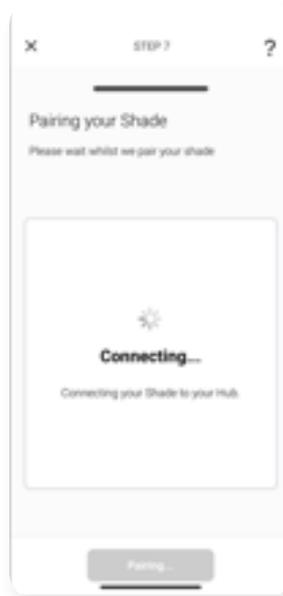
9a Pair With Remote

Make sure the remote is tuned to the shade's individual channel (not Ch 0). Remove the remote battery cover and press the upper left P2 button Twice, then "Next". to the battery. The motor will jog up and down.



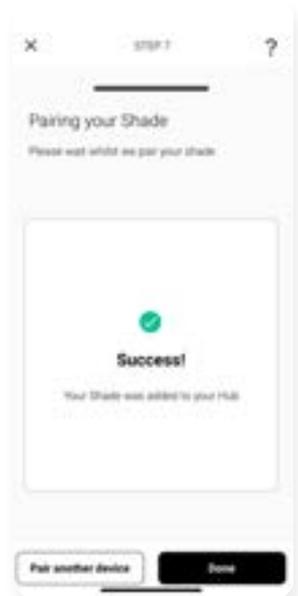
9b Pair Without Remote

Press and hold the P1 button on the motor head ~2 seconds. The motor will jog up and down once and you will hear one audible beep. Press 'PAIR' on the app screen. Then press next.



10 Pair a Shade

Wait as the app connects and pairs your shade. The shade will respond that its been paired.



11 Success

If the pairing process was successful, Press "Done" or pair another shade.



12 Check

Tap the tile to test the shade long press the tile to proceed to the next screen.



13 Check Details

Check icons are present, check the signal strength and battery. Press the settings icon to check shade details.



14 Shade Ready

Additional shade settings.

HOW TO CREATE A ROOM



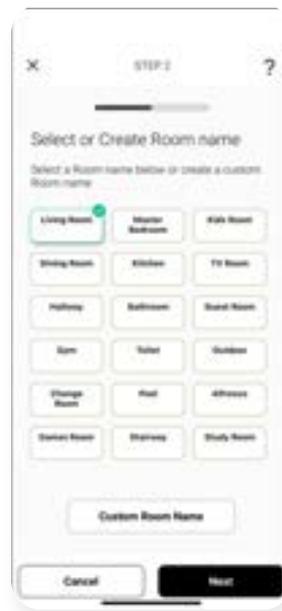
1 Create a Room

Once the Shade is paired to the App. Click 'ROOMS' tab. Select the "Plus" icon to add a new room.



2 Create a Room

Select the hub that will be associated to the room. If not known select any hub.



3 Create a Room

Select the room name from the list or create a custom name. Press next.



4 Create a Room

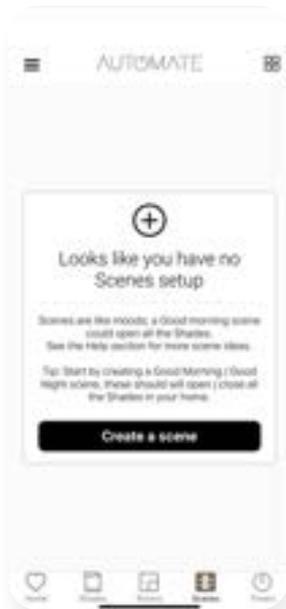
Select 'ROOM IMAGE' to select an icon to represent the room.



5 Create a Room

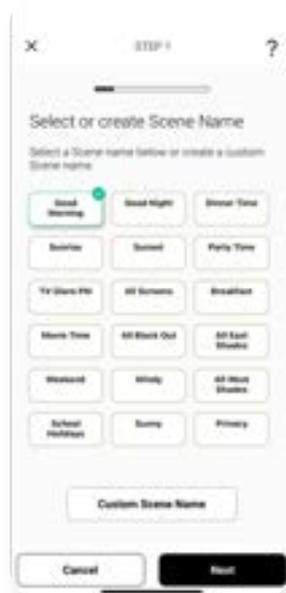
Select all the shades associated to that room. Then press Save.

HOW TO CREATE A SCENE



1 Create a Scene

Select Scenes then, 'Create New Scene' to begin programming your desired scene.



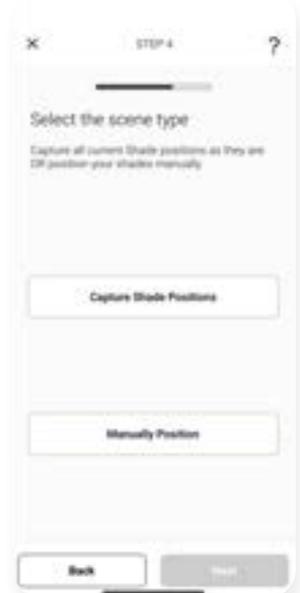
2 Create a Scene

Select the Scene name from the list or create a custom name. Press next.



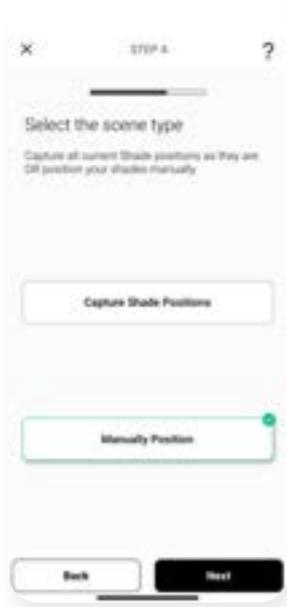
3 Create a Scene

Select the Scene Image that best suits your scene.



4 Create a Scene

Either the current positions of the shades or Create a manual scene with manually setting the positions.



Manual Scenes



5 Create a Scene

Select and press next.

6 Manual Scene

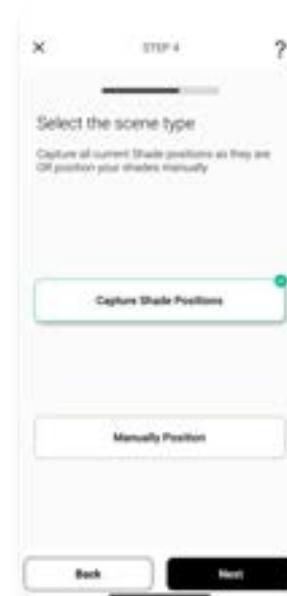
Use presents open 50 or close to set the shade positions or manually set the positions by using the slider. Press save.

7 Manual Scene Creation

Your Scene can now be activated by pressing Go or Link that Scene to a Timer.

Automatic Scenes

Start from Step 5



8 Automatic Scene

Automatic scene creation Set all devices with the remote to desired position. Then use the "Capture All Devices" button to create a scene of all current shades are positions. Select "Done".

9 Save Scene

Note the Current positions of the shades and select Done to save that as a scene.

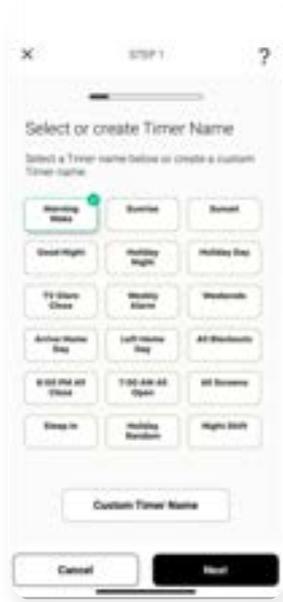
CREATING TIMERS

You can program timers to trigger the specific operation of your shades and scenes at your desired times throughout the day



1 Create a Timer

Select 'TIMERS' then, 'CREATE NEW TIMER' to program your timer.



2 Create a Timer

Select the Timer name from the list or create a custom name. Press next.



3 Create a Timer

Select the Timer Image best suited.



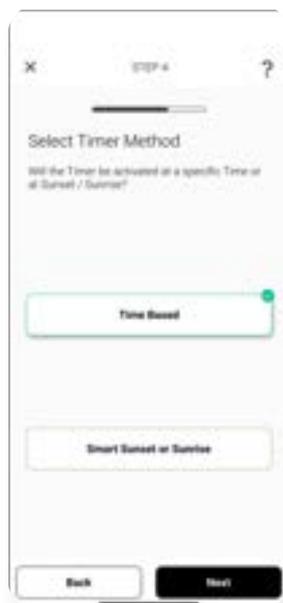
4 Create a Timer

What will this timer activate? A Scene or a single shade?



5 Create a Timer

Select the appropriate scene that timer will activate



6 Create a Timer

Select if the timer will be time based or based of sunset/sunrise.



7 Create a Timer

If timed select the time and press the green tick.



8 Create a Timer

Select the days of the week that timer will be active. And select Save.



9 Create a Timer

Create another timer or select No Thanks.



10 Create a Timer

Your timer has now been created and switched on.

USER MANUAL | TILE CONTROL



One Tap Control

A single tap will move the shade. If the shade is open it will close or if it's closed it will open. Tapping the tile while moving will change the direction



Predictive Control

If the shade is in the middle a single tap will open or close the shade depending on the time of the day (open 6am to 4pm) other times, it will close.



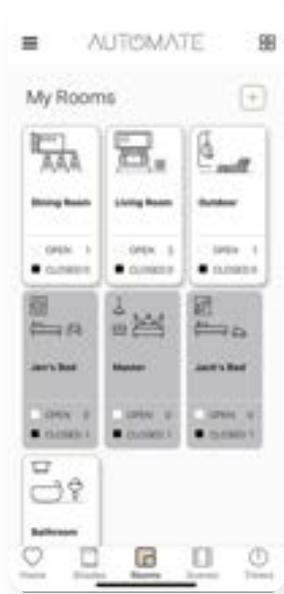
Stop Controls

Double Tap a Shade Room or Scene to Stop the shades.



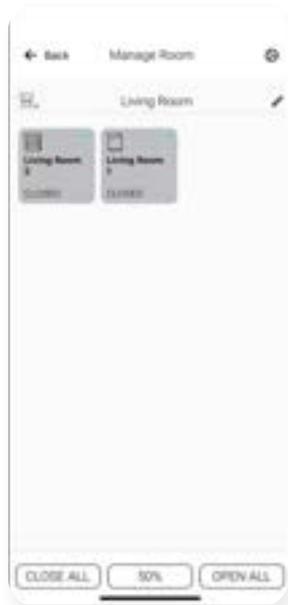
Long Press Shade

Long press on any Tile, will allow additional control to move a shade to any position. As well as the shade health. Further shade information can also be accessed by pressing setting icon in the top right.



One Tap Room Control

A single tap will move the Room. If the Room is open it will close or if it's closed it will open. Tapping the tile while moving will change the direction. Double Tap will stop the room



Further Room control

Long press on any Tile, will allow additional or individual control to shades in that room. Touch the tile to control a shade individually.



Scene Control

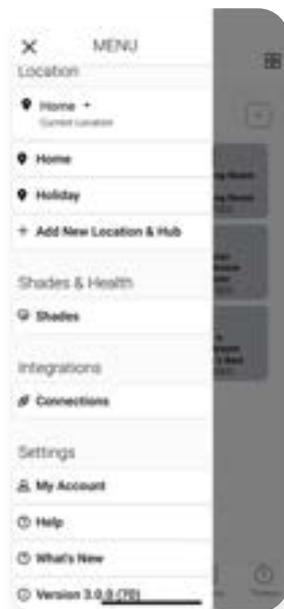
Scenes that are active in the preset position will be grey. Tap an inactive Tile to activate a scene. Double tap will stop the scene.



Timer Control

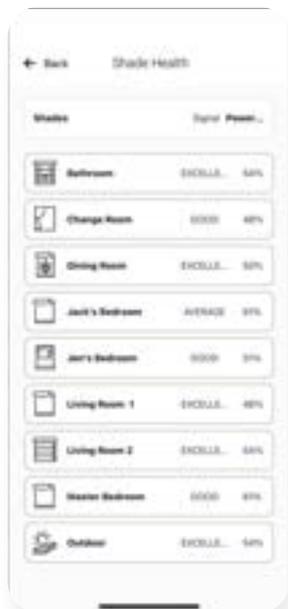
Activate or deactivate timers by pressing on the Tile itself. Pause and un-pause timers with the pause all timers button on the top.

SHADE HEALTH, HELP, & OTHERS



Main Menu

The main menu has access to changing locations Shade health, Alexa, Google Home links, Help what's new and the current app version number.



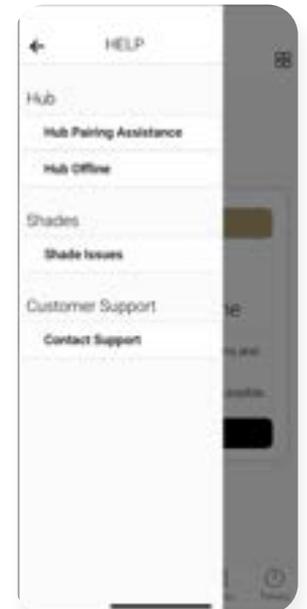
Shade Health

If any shades tiles highlight a red dot: From the main menu navigate to shade health. This will show a list view of all your shades and health in terms of power and signal strength.



Integrations

Navigate from the main menu to find the integrations options. Discover our Alexa Skill or Google Home action via these links.



Help

Help is accessible in many ways for example during any setup of Hubs, Shades, Rooms Scenes or timers Simple press the ? icon or access the help. Further help can be access on the main menu.

SIGNAL STRENGTH



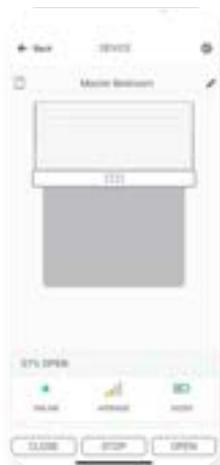
Excellent

Shades with EXCELLENT Status Should perform as Normal without any issues.



Good

Shades with GOOD Status Should perform as Normal without any issues.



Average

Shades with AVERAGE Status may not always perform as they should, especially if the strength is greater than -89db. Move the Hub Closer or adjust the antenna.



Poor

Shades with POOR Status will be problematic and its required to be resolved shade position feedback may be limited.



Offline

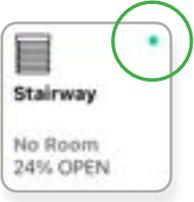
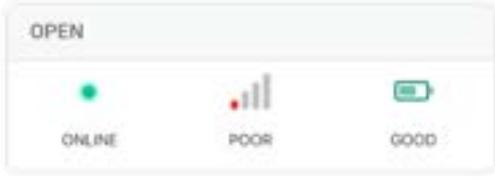
Shades with Poor signal will often show Poor or even offline Ensure shades antenna is adjusted or an additional hub is installed.

HUB LED BEHAVIOUR

The light on your hub indicates a certain status. Below table indicates the colour of LED and what it means.

Colour	Response	Status
	Blue LED blinks one time a second	Ready for Pairing
	Violet LED short blinks five times a second	Firmware Updating
	Blue and Red LED blinks for 3-5 Seconds	Pulse received configuration via the app while pairing
	Blue LED is Solid	Connected to Internet (Paired)
	Orange LED 1 times per second 10 times	Factory Reset Button Pressed (Paperclip Needed)
	Red LED short blinks four times a second (On for 100ms and off for 150ms).	Network Disconnected ISP down or Bumped from Network
	Red LED is solid	Hub not connected to Wifi (check within Range or if Bumped off Wifi)
	Green LED Solid (On for 100ms and off 100ms)	While Pressing P Button on Hub Clear Cache and Ready for Pairing
	LED is Off	Hub is not connected to Power

SHADE HEALTH INDICATORS

Indicator	Shade Screen	Solution	Additional Solutions
 <p>Stairway No Room 24% OPEN</p>	 <p>CLOSED ONLINE EXCELLENT EXCELLENT</p>	<p>System is operating as normal</p>	<p>If some shades don't operate or a timer has not run those shades may be offline.</p>
 <p>Kitchen Kitchen OPEN</p>	 <p>OPEN ONLINE POOR GOOD</p>	<p>Poor Signal Adjust antenna and/or hub position.</p>	<p>35% Shades with low battery percentages may not function correctly. Try changing the battery.</p>
 <p>Dining Room No Room OPEN</p>	 <p>Your Shade is Offline More OPEN OFFLINE OFFLINE GOOD</p>	<p>Low Battery Recharge battery.</p> <p>Shade Offline Operate shade from remote, power cycle the hub.</p>	<p>Shades with low signal strength may need the Hub to be repositioned closer.</p> <p>Ensure the Hub is placed flat and in open sight</p> <p>Adjust the Motor antenna cable for better reception</p> <p>Install a second Hub if required</p>

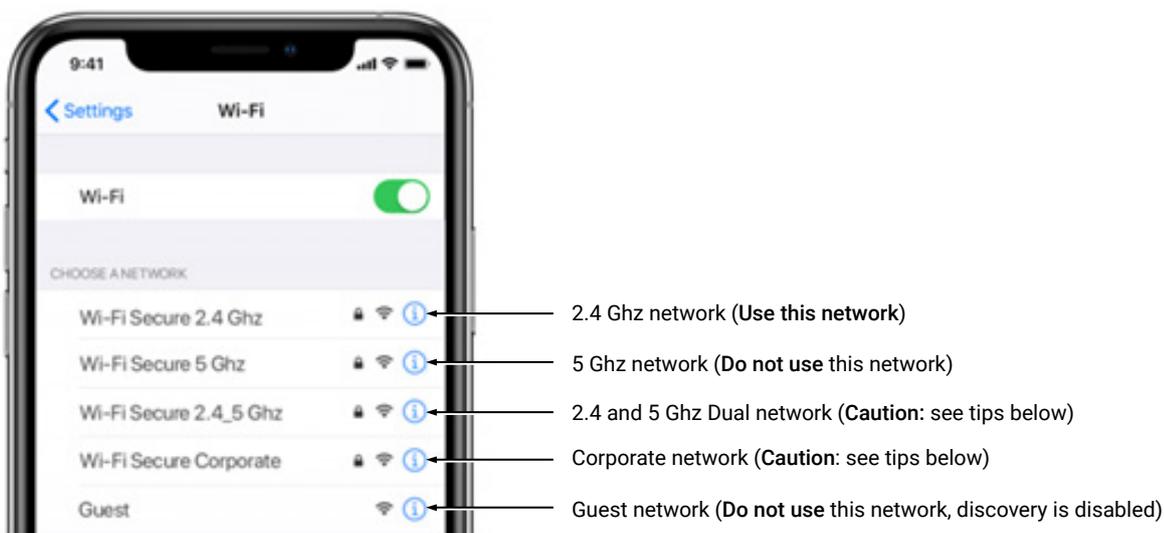
TROUBLESHOOTING INFORMATION

Not all Networks are compatible with the Pulse 2 Hub

INCOMPATIBLE NETWORKS – WIRELESS

- 2.4 GHz Networks only
- The Pulse 2 Hub must be connected to a 2.4 GHz network
- The Pulse 2 Hub CANNOT connect to a 5 GHz Network

COMMON WIFI SETUPS



5 GHZ NETWORKS

The Automate Pulse2 Hub is not compatible with these networks. Turn OFF Autojoin to the 5 GHz network and 'Forget' that network. Connect to the 2.4 GHz network. (Only during the hub pairing process).

DUAL-BAND NETWORKS

A dual-band network means the 2.4 GHz network and 5GHz are combined into one. The phone will automatically switch between the 2.4 GHz and 5 GHz band. If the phone is connected to the 5 GHz band the hub pairing process will fail.

RESOLUTION

Option 1

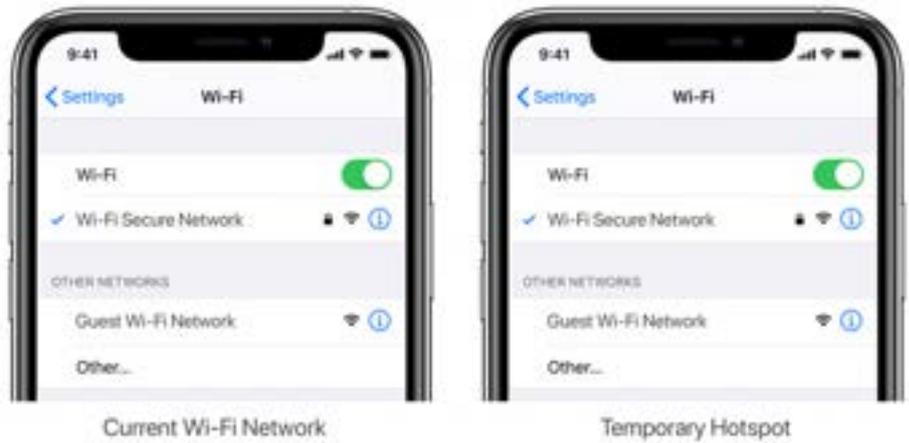
You can temporarily disable the 5ghz band in the Modem or Router settings while pairing the hub. Your Internet Service provider can guide you through this process.

Option 2

If you move far enough away from your modem the phone should connect to the 2.4 GHz band, allowing the pairing process to go through. This may not always work, so ensure you know the location of the router and move as far away as possible. If pairing failure persists, proceed with Option 1.

Option 3

Disable or your modem or router, create a hotspot with another device, name the hotspot and password identical to your dual-band network. Pair the hub to the hotspot. Now turn your modem back on and turn the hotspot off. This will allow you to connect to the Dual WiFi Network.



MULTIPLE ACCESS POINTS

In larger homes or corporate environments, pairing the hub while multiple access points are active can be troublesome.

Resolution

Option 1

Disable the access points and pair to the modem only, re-enable the access points after pairing.

Option 2

Disable or your modem or router, create a hotspot with another device, name the hotspot and password identical to your network. Pair the hub to the hotspot. Now turn your modem back on and turn the hotspot off. This will allow you to connect to your WiFi Network.

The Network security settings could be interfering with the setup process.

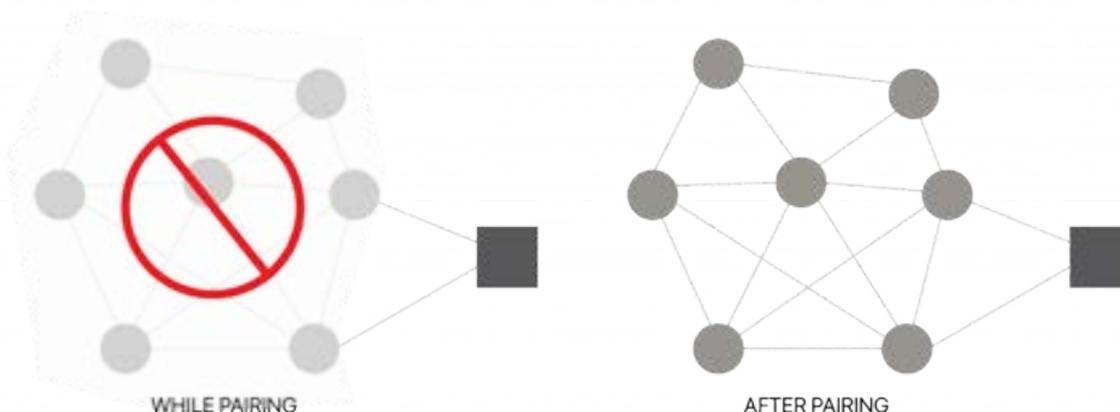
Ensure you are NOT on the Guest network. Guest networks have discovery mode switch off and is troublesome

GUEST NETWORK

Some companies or homes have network security settings more advanced than the typical homeowner. If you are setting up in this environment, please consult your network administrator. Ensure you remove firewall during the pairing process or create a DHCP reservation. This is a permanent IP address assignment that is reserved. Using the Mac ID listed in under the Hub info, create a DHCP reservation to ensure that every time your hubs connects to your router, it will be given the same address.

SMART MESH NETWORKS

Mesh networks are becoming more common, which means you have a central router with Wireless Access Points (WAPs) around the home. Normally there are no issues, however on occasion it is required to deactivate all WAPs but the main router during the Pulse 2 pairing process.



For Mesh networks, you can often control the 2.4 GHz/5 GHz capabilities in the router app for your system and potentially disable access points if necessary. Ensure you find the manufactures instructions on how to do this, which will allow you to pair the hub. Then go ahead and return settings as normal

Common Mesh Systems:

1. Google Nest WIFI
2. Asus ZenWiFi AX (XT8)
3. Netgear Orbi
4. Netgear Orbi WiFi 6
5. Netgear Nighthawk MK63
6. Netgear Orbi AC1200
7. TP-Link Deco M5
8. Ubiquiti Amplifi HD
9. Linksys Velop

SHADE ISSUES

UNDERSTANDING WIRELESS SIGNAL STRENGTH

This article will help you understand your signal strength and offer solutions on how to improve it.

If you have seen a message in the app, you may find yourself on this page, thinking about how you can go about resolving this. One common cause may be that the shade is simply out of range, in relation to the hub.

To explain signal strength in simple terms, talking to a friend at 50db in a library will mean your friend will have no problem hearing you even if he/she is several feet away. However, talking to your friend at the same noise level in a sports arena may mean they won't hear you at all, and the sound won't travel that far. In order for your friend to hear you, you need to take away the noise (interference), stand closer or talk louder. This methodology can be applied to wireless devices; take the hub closer to the shade and remove the interference or boost the signal.

Within our advanced motors, we can record the Received Signal Strength. When the shade communicates with the hub it updates the last known Signal Strength (the raw value will be displayed in the settings menu for that device e.g. -76). If the Signal Strength value is between -50 to -81 the signal strength is excellent or good.

-60dB means it is in a good environment that has little interference while -95db means the signal needs is weak due to distance or interference.

We have made it easy for you to understand by ensuring the signal strength of the shade is shown in the device screen represented by one of these four categories; Excellent, Good, Average or Poor.

This indicator will also change color based on the table below. These values will fluctuate slightly as the hub or motor's environment degrades or gets better. If the signal strength is Average and 90 you may find it can worsen depending on the environment.

Some cases, shades with Poor signal strength may seem to operate just fine, but it may not always report an accurate position due to a poor signal.

Shades higher than -97 are known to be inoperable, and should be addressed.

SO NOW THAT YOU UNDERSTAND WHAT THIS MEANS, WHAT CONTRIBUTES TO LOW SIGNAL STRENGTH YOU ASK?

Interference or low signal can be attributed to the following:

1. Physical obstructions in the home like concrete floors and walls
2. Metal infrastructure in home that absorbs the signal
3. Competing systems on the same radio frequency
4. Mirrors and (Windows Made from Low-E glass)
5. Baby monitors, Alarms, and doorbells
6. Other home appliances and devices.

SO, HOW DO YOU MAKE THE HUB OR SHADES PERFORM BETTER?

You have two options; you can move the hub closer but remember that can impact other shades, so before we do that let's adjust / check the antenna on the shade itself.

Adjusting the motor antenna

The Automate Pulse2 Hub is not compatible with these networks. Turn OFF Auto join to the 5 GHz network and 'Forget' that network. Connect to the 2.4 GHz network. (Only during the hub pairing process).

Our motors can send and receive signals, it may be the hub sends the signal without any issues but it may be when the motor sends the hub a signal, it gets lost.

Adjusting the antenna on the motor will certainly help, and we found even a minor adjustment can improve or degrade the strength by 25%.

Some motors allow you to wrap the antenna around the head of the motor, in which you can still keep it wrapped but you may need to slightly expose the antenna. See some illustrations and tips on how this can be done.

NOTE: In some instances the antenna may get caught up in the fabric, so ensure it is free when moving the shade up and down.

I've adjusted the antenna and it's improved, but it's still not satisfactory.

Move the Hub

The simple thing to do is invest in a second or even a third hub, allowing the system to operate as one.

But before you invest in a second hub, let's try some of the options listed below.

In some cases, moving the hub improves some shades but degrades others. After you adjusted or tried any of these options, be sure you check the signal strength of all the shades, as it may have improved one but degrade another.

Tip: Connect the hub into a power bank that allows you to place the hub anywhere while testing.

Tips	Potential result
Always deploy the hub in a horizontal position. The hub antenna was designed to have a better performance to spread the signal when the hub is placed horizontally.	Could add +/- 5- 15% strength
Ensure the hub is in the open environment and not covered	Could add +/- 5- 15% strength
Simply rotating the hub 90 degrees while still flat on the surface could have a small impact and make the difference required.	Could add +/- 2- 5% strength
Move the hub a foot or two higher and check again. If the hub is too high, maybe move it lower. We recommend placing the hub no lower than 20 inches or 50cm from the floor. You may want to try a few options here and test the performance.	Could add +/- 10- 20% strength
Then more drastic things you can do is move the hub closer to the affected shade. Often problematic shades (a lot of interference) need to be a lot closer than others. Move the hub and check the affected shade to see if the performance has improved.	Could add +/- 10- 20% strength
Check the path of the signal from the hub to check the motor. If there are any items made of metal e.g. Tv or microwaves or even an aquarium), try to move the hub to avoid these paths	Could add +/- 2- 5% strength
You could have other radio frequency interference, and you have 20-30 shades connected to one hub which may mean you may need an additional hub, to allow a stronger signal strength per hub and ultimately spread the load.	Could add +/- 10- 20% strength

REPEATERS

Repeaters are great if you have 1 or 2 problematic shades, they will assist to boost the signal. However when there are more than 2 problematic shades, and you tried all of the above with no success, need to install a second hub.

In some rare cases, it's found repeaters degrade the overall performance as it makes the signal path of some shades longer and creates additional unnecessary interference.

Tips

- Change the orientation of the repeater. Some environments require you to point the repeater vertically while others need horizontal orientations.
- Try putting the repeaters in other rooms.
- Never use more than 2 repeaters per home.

CHANGE YOUR MOTOR

If you see the low battery icon, it may mean it is time to charge your motor. A depleted battery may also impact the signal strength,

HUB OFFLINE ASSISTANCE

Your hub should always be connected to the internet.

- A blinking red light means there is no internet connection. This can happen when your Internet Service Provider (ISP) has an interruption of service. Check other internet devices connected to your Wifi network. If they have lost internet access as well, then contact your ISP. Sometimes a simple power cycle of your router can fix this issue for all devices on your network.
- If the Red light is solid, it means the hub is not able to detect the Wifi network it was configured to. This often happens because the hub is placed too far away from your Wifi router. Try reconnecting your hub closer to your Wifi router with as few obstructions as possible. Be mindful that moving your hub can reduce the signal strength to some of your paired shades. RF repeaters or an additional hub may be required if you notice reduced performance from your shades after moving your hub.
- No light illuminated on your hub means the hub is not getting adequate power. Ensure you are powering the hub with the included Micro USB cable and power brick. Ensure the hub is connected to a power outlet in your home and not devices that could provide intermittent power like computers or televisions. Test the power outlet with a different electrical device to ensure the outlet is providing adequate power. Certain router configurations can interfere with the hub's internet connection. These include:
- Router IP limits. Some Wifi routers limit the number of devices that may be connected to it at one time. Check your router settings. You can create a permanent DHCP reservation to ensure your hub never gets kicked off your router due to limits. Review your router's manual or contact their support for more info.
- Newly placed Firewalls or other security measures can block the hub from properly connecting to the internet. Try whitelisting your hub's IP address within your router settings and see if the behaviour improves. Review your router's manual or contact their support for more info.
- If your hub is connected to your Wifi router via an ethernet cable, ensure you have a solid connection. Try connecting to a different ethernet port on your Wifi router if available. If you are connecting your hub to a third-party integration (BEMO, Control4) via ethernet, ensure that third-party device is connected to your router and provides internet access via its ethernet port.

LEGAL

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.

Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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.

To satisfy FCC&IC RF exposure requirements, a separation distance of 20cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l'antenne.

Limited by local law regulations, version for North America does not have region selection option.