

## RF GATEWAY GEN 2 SET UP GUIDE

The first part of this guide follows setup using the PowerShades Dashboard, which is the recommended way to set up your RF Gateway. You will use your login from the dealer portal in order to access your properties. The end of the guide demonstrates setup for a completely local installation. Before setup, it is important to note that the RF Gateway covers a range of approximately 30ft. A PowerShades RF Repeater is recommended to ensure connection across multiple rooms.

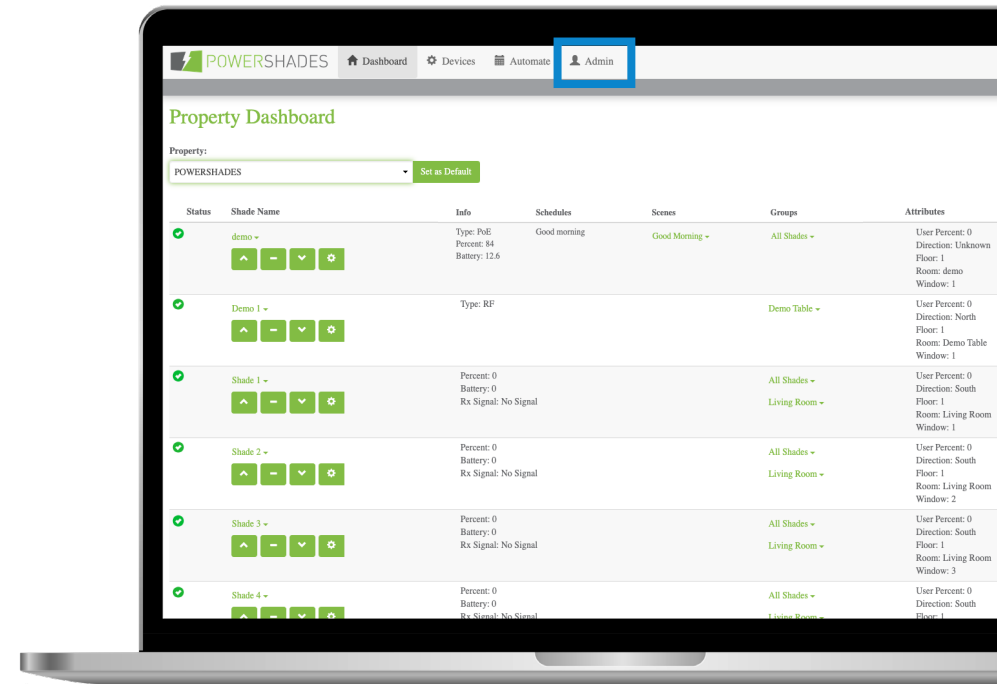
### BEFORE YOU BEGIN

Before setup, you will need to give yourself (or anyone who will need it) access to the property. Log in to your PowerShades Dashboard and follow the steps below.

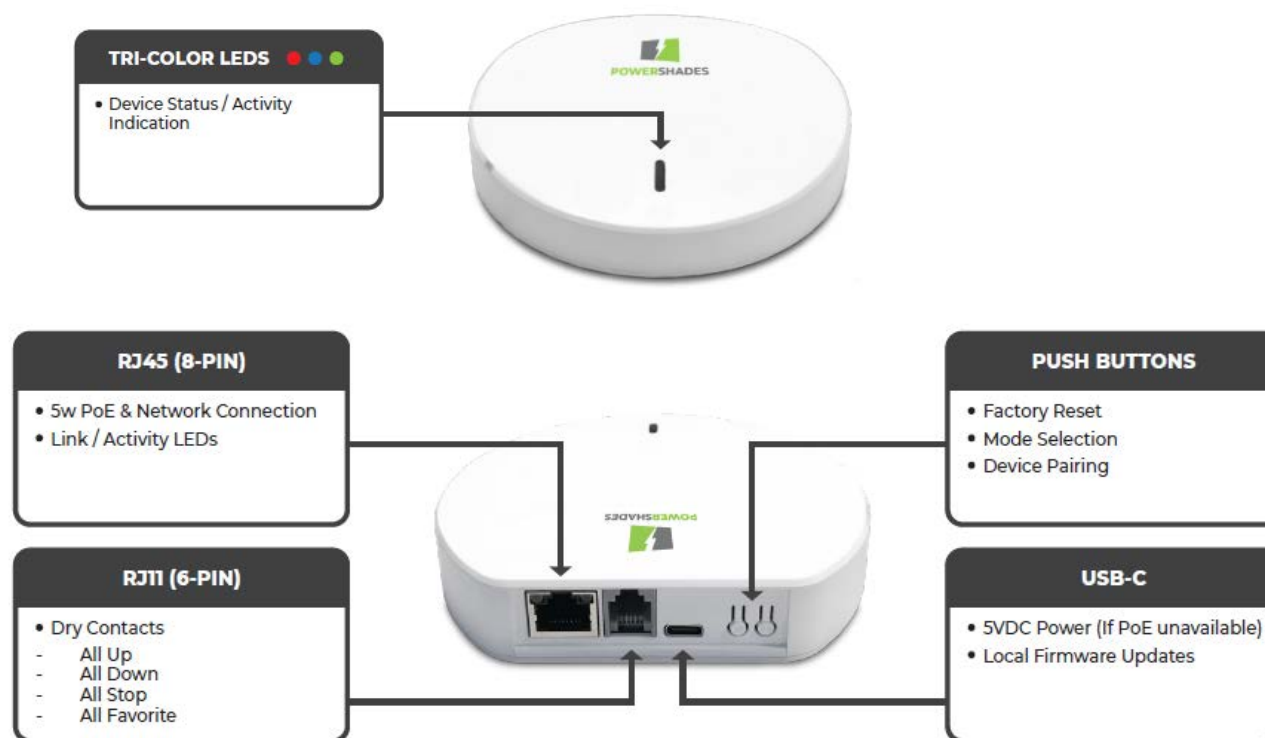
1. From the Dashboard **Home Page** Navigate to the **Admin** tab
2. Click **"Manage"** next to the user then, **"Property Permissions"** in the drop-down menu.
3. Select the properties you would like to assign to this user by clicking the check box next to them.

At this point, create the "user" account for the owner of the property. This can be done by clicking **"New"**, then select **"New User"**.

You will need to fill out their details, such as email address and password. You will also need to select the property(s) you would like to attach them to.



## RF GATEWAY OVERVIEW



### STATIC IP / DHCP MODE

Press the Mode Selection (P2) Button for two seconds and release. This puts the gateway into Network Setup mode. If the gateway is currently in STATIC IP mode, the LED will switch to solid RED. If the gateway is in DHCP mode, the LED will switch to solid GREEN. Click the Mode Selection (P2) Button to toggle between modes. STATIC IP is RED, DHCP is GREEN. Once the gateway is the mode you desire, wait 5 seconds, and the gateway will switch to your selected mode. The default static IP address is listed below.

|                 |               |
|-----------------|---------------|
| IP Address      | 192.168.1.240 |
| Subnet Mask     | 255.255.255.0 |
| Default Gateway | 0.0.0.0       |

## LED STATUS CODES

This table pertains to blink codes during normal operation, this does not apply when in RF Gateway Network Setup mode.

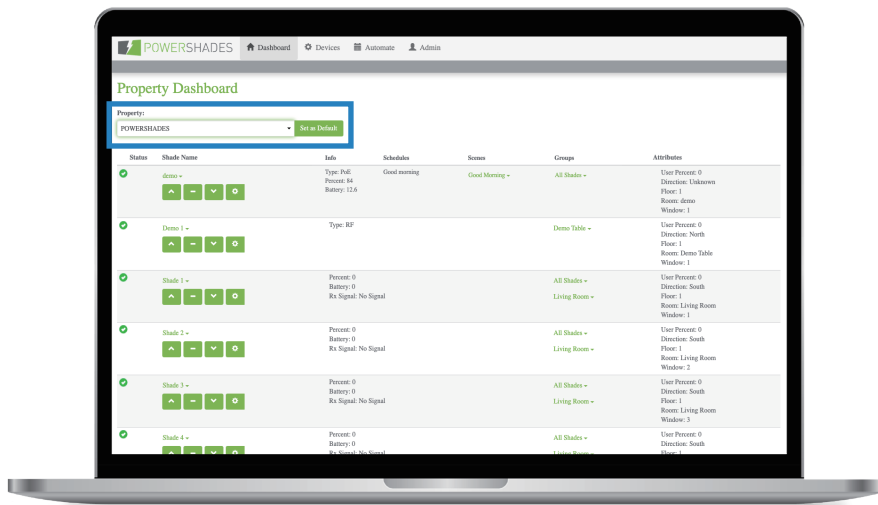
| LED COLOR | ACTIVITY      | DESCRIPTION                                                            |
|-----------|---------------|------------------------------------------------------------------------|
| BLUE      |               |                                                                        |
|           | 1 FAST BLINK  | 433 MHz RF Packet Activity.                                            |
|           | 2 SLOW BLINK  | 433 MHz Shade Pair Success.                                            |
| GREEN     |               |                                                                        |
|           | 1 FAST BLINK  | No Network Connection to PoE / WiFi.                                   |
|           | 2 FAST BLINKS | Network Connection to PoE / WiFi lost.                                 |
|           | 3 FAST BLINKS | Acquiring IP Address to PoE / WiFi.                                    |
|           | 4 FAST BLINKS | PoE / WiFi waiting to establish connection with PowerShades Dashboard. |
|           | SOLID         | Connection established to PowerShades Dashboard.                       |
| RED       |               |                                                                        |
|           | 2 SLOW BLINK  | 433 MHz Shade Pair Failure.                                            |
|           |               |                                                                        |

## RF GATEWAY SETUP INSTRUCTIONS (RECOMMENDED SETUP)

Once the Property is designated in the PowerShades Dashboard. You are ready to connect your RF Gateway to the network and begin the setup process. Follow these steps to for a quick and easy setup. Bluetooth function: Used to transmit wifi, ssid and pswd. After the computer is connected to the RF Gateway. After receiving the instructions from the computer, the RF Gateway converts them into 433 signals and sends the instructions to the motor. The 433 signal is used to control the motor up and down.

### STEP 1

Plug in the Ethernet cable. If not using PoE plug in 5VDC power to the USB-C port. **Wait for up to 30 seconds. Once the Status LED is solid Green, you are good to continue.** The RF Gateway is in DHCP mode by default.

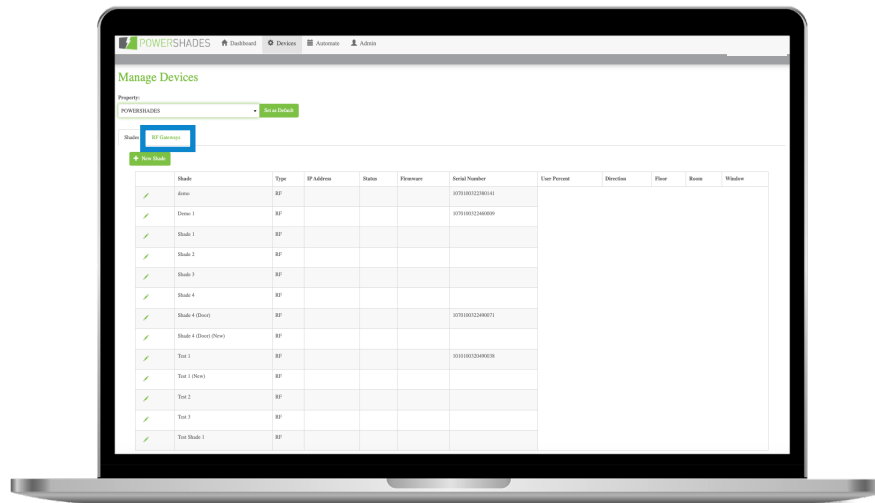
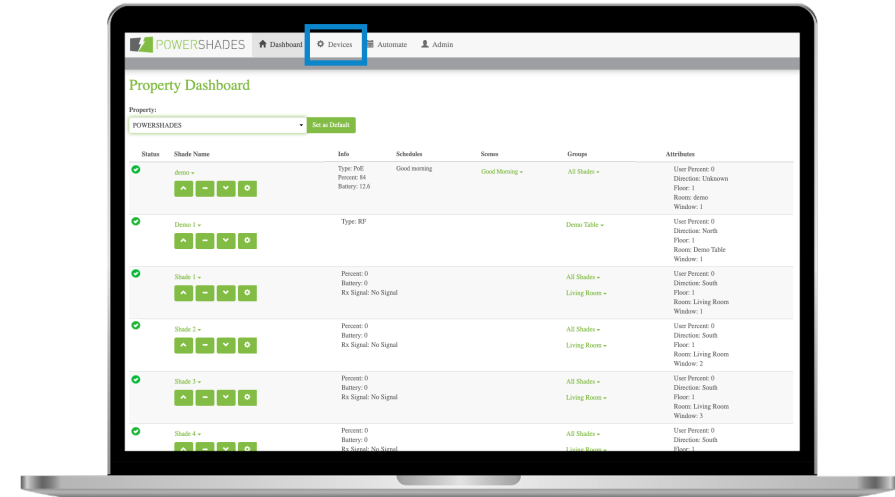


### STEP 2

Log into the PowerShades Dashboard. If you have multiple properties, make sure you have the correct one selected. You can change the property by clicking the property name under "Property", and selecting the correct property.

### STEP 3

Navigate to the **"Devices"** tab at the top of the page.

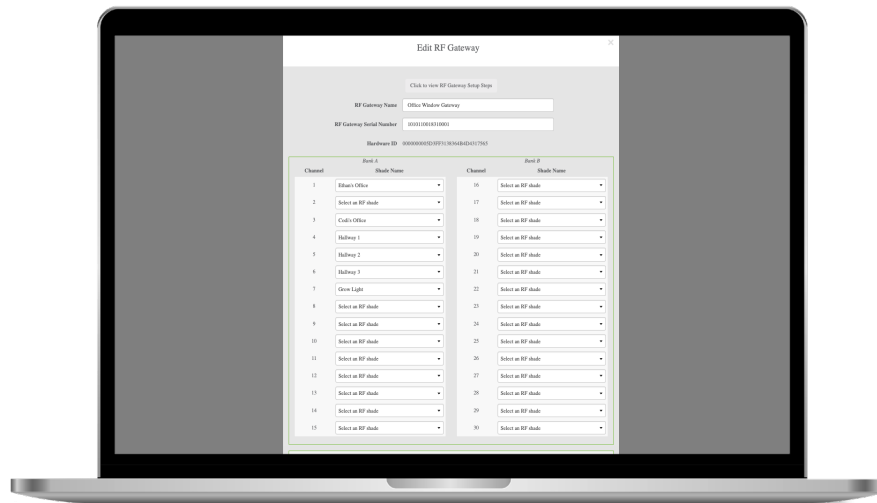
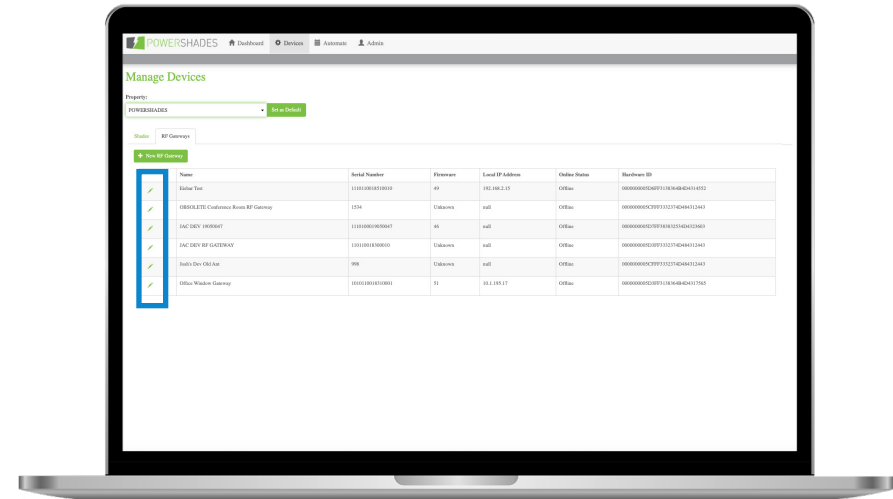


### STEP 4

Select the **"RF Gateways"** tab under the selected property.

## STEP 5

Select the RF Gateway, then click the **Edit Button** on the left side of the page.



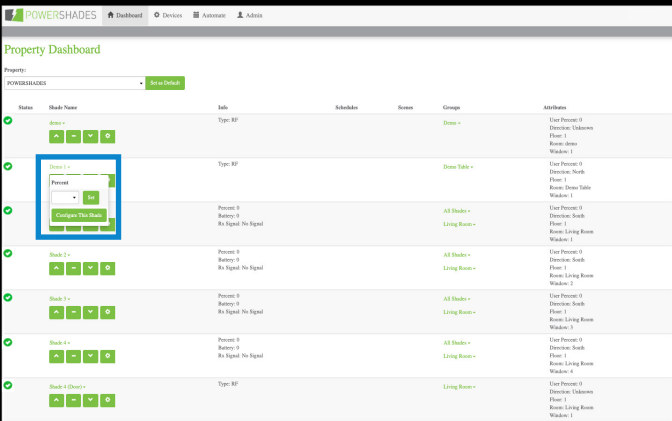
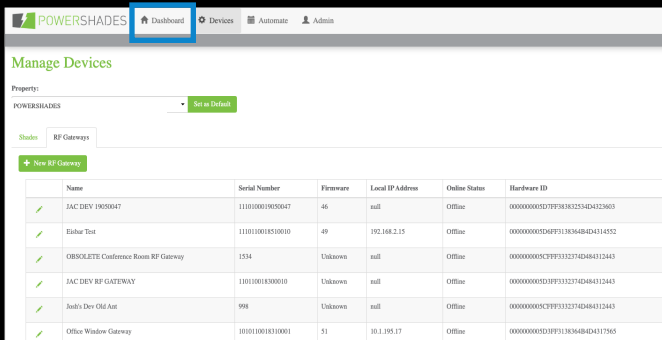
## STEP 6

Assign the shades on the property to the channels on the dialog box that opened. You have 30 channels per Gateway. Once you've finished assigning the shades, scroll down and click "Save RF Gateway".

## NOTE

Make sure you do not have shades cross banks within the same room. All shades within a room should be on the same bank.

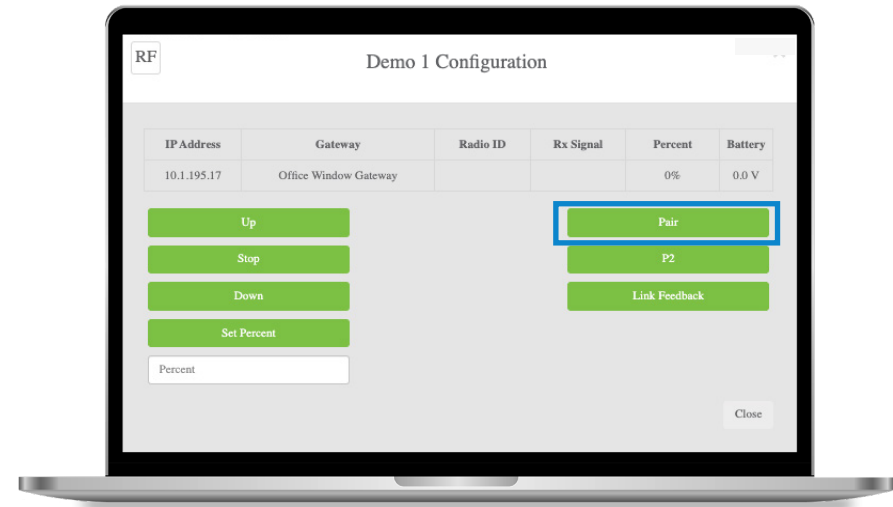
Navigate back to the homepage of the dashboard by clicking **"Dashboard"** at the top of the page.



You will now need to pair the shades to the RF Gateway. This can be done by clicking the **Shade Name** you're wanting to pair, then selecting "**Configure This Shade**".

## STEP 9

A new dialog box will pop up labeled "**Shade Name Configuration**". On the right side of this dialogue box, you will see "Pair". After you have selected "**Pair**" your shade should successfully pair to your RF Gateway.



## PAIR THE SHADE FROM THE REMOTE

1. Slide the back of the remote off.
2. If using a multi-channel remote, select the correct channel for this shade.
3. Press the **P Button** on the back of the remote. The motor will respond with jogs.
4. Once the motor has responded, press the **P button** on the remote again. The motor will respond with jogs.
5. Once the motor has responded again, click "**Pair**" on the PowerShades Dashboard.

## PAIR THE SHADE FROM THE MOTOR PROGRAMMING BUTTON

1. Hold the motor head button for 2 seconds, the motor will jog once and beep once.
2. Once the motor has responded, click "Pair" on the PowerShades Dashboard.

Once the motor has paired, test functionality by sending an Up or Down command.

## RF GATEWAY LOCAL INSTALLATION - NO DASHBOARD CONNECTION (ADVANCED SETUP)

### NOTE

Local setup should only be performed by users with basic knowledge of TCP/IP networking. For less advanced setup, please refer to the Recommended Setup section earlier in this document.



### STATIC IP / DHCP MODE

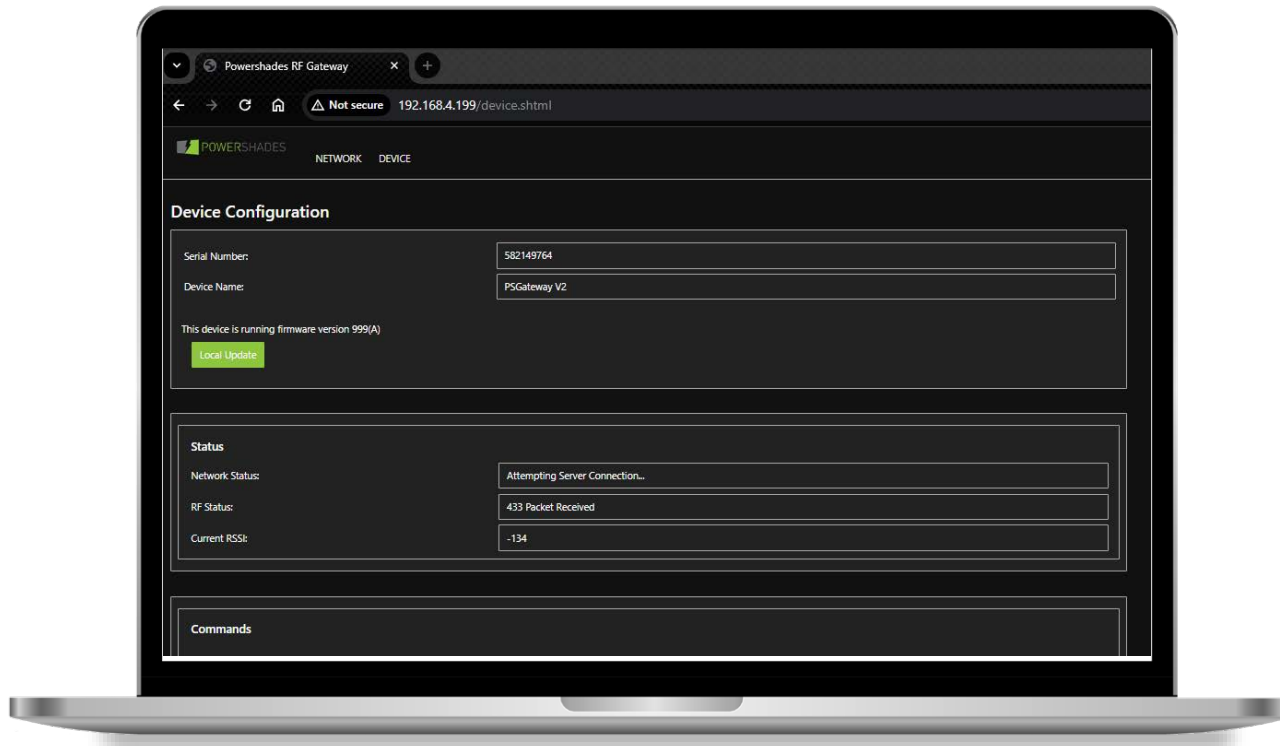
Press the Mode Selection (P2) Button for two seconds and release. This puts the gateway into Network Setup mode. If the gateway is currently in STATIC IP mode, the LED will switch to solid RED. If the gateway is in DHCP mode, the LED will switch to solid GREEN. Click the Mode Selection (P2) Button to toggle between modes. STATIC IP is RED, DHCP is GREEN. Once the gateway is the mode you desire, wait 5 seconds, and the gateway will switch to your selected mode. The default static IP address is listed below.

|                 |               |
|-----------------|---------------|
| IP Address      | 192.168.1.240 |
| Subnet Mask     | 255.255.255.0 |
| Default Gateway | 0.0.0.0       |

## OPEN LOCAL WEB SERVER

Ensure your computer is using an IP address on the same network as your gateway. Open your browser and navigate to either of the following into your address bar:

- `http://<Gateway IP Address>`
  - Example: `http://192.168.1.240`
- `http://ps-<Last 8 digits of Serial Number>`
  - Example `http://ps-79921043`



## NETWORK SETTINGS

Clicking the NETWORK Tab will show the current Network Information and allow configuration of the following:

- DHCP (Settings will be determined automatically by the router.)
- STATIC
  - IP Address
  - Subnet
  - Gateway
  - Primary DNS
  - Secondary DNS

Once the desired settings have been entered, click the "Save Ethernet Settings" button at the bottom of the page to apply the changes. The gateway will apply the changes and restart.

### NOTE:

If you have changed the IP address, you will need to navigate to that address in your browser to continue using the web server.

The screenshot shows a web browser window with the address bar displaying "192.168.1.240/network.shtml". The page has a dark theme and a navigation bar with "POWERSHADES" and two tabs: "NETWORK" (highlighted with a blue box) and "DEVICE".

**Network Information**

|                |                   |
|----------------|-------------------|
| Host Name:     | PSGateway_V2      |
| MAC Address:   | d8:3a:f5:00:00:00 |
| IP Address:    | 192.168.1.240     |
| Subnet:        | 255.255.255.0     |
| Gateway:       | 0.0.0.0           |
| Primary DNS:   | 8.8.8.8           |
| Secondary DNS: | 8.8.4.4           |

**Ethernet Settings**

☒ Determine network settings automatically with DHCP

☐ Use the following network settings:

IP address:

Subnet:

Gateway:

Primary DNS:

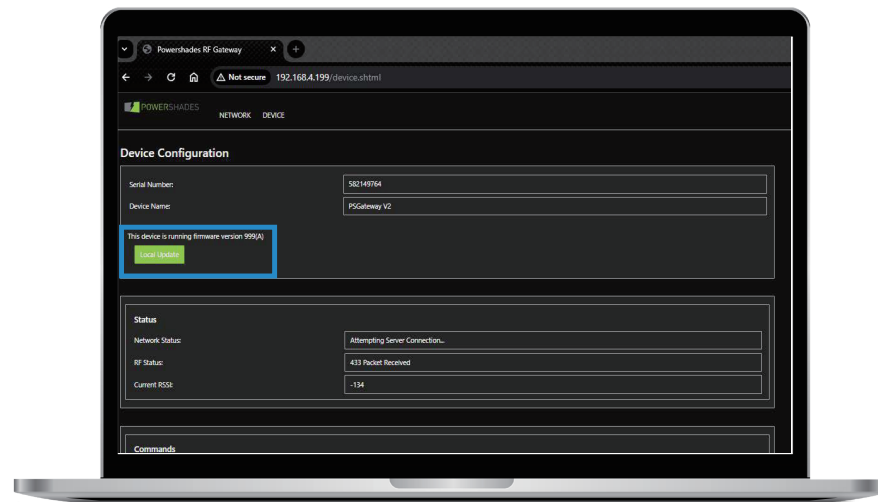
Secondary DNS:

## DEVICE CONFIGURATION

The device configuration tab shows useful information like the Serial Number and Device Name for the Gateway.

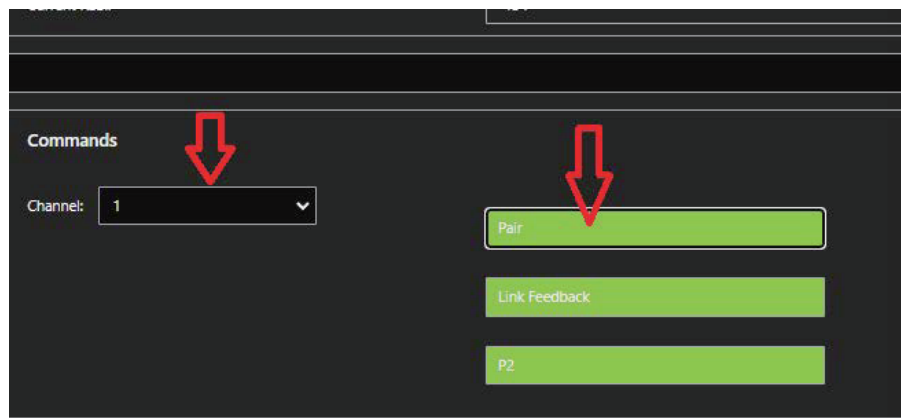
Additionally, you can update the firmware on the gateway using a .bin file that can be obtained from the PowerShades Service Department.

Additional Status messages can be viewed here, including the Network Status, RF Status and the RSSI value to the motor most recently commanded.



## PAIR THE SHADE FROM THE MOTOR PROGRAMMING BUTTON

1. Select the channel using the on-screen drop-down in the browser.
2. Hold the motor head button for 2 seconds, the motor will jog once and beep once.
3. Once the motor has responded, click the "Pair" button in the browser.



Once the motor has paired, test functionality by sending an Up or Down command using the on-screen buttons, it will send a TX command once and Stop transmitting even if the button is held down, cannot TX continuously. It work with any PowerShades RF Motor.

**FCC Statement**

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

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.

**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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.