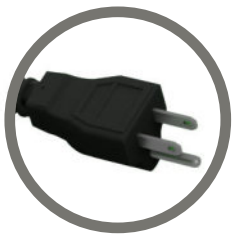
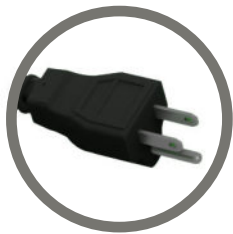


WWW.PIXELLIGHTS.COM

CONTROLLER
SETUP GUIDE



PixelLights



POWER PLUG: North American 3 Prong Plug



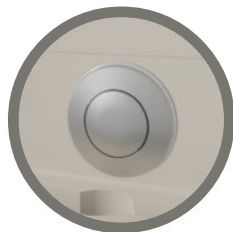
WIFI ANTENNA: 3dBi 2.4GHz Universal External Antenna



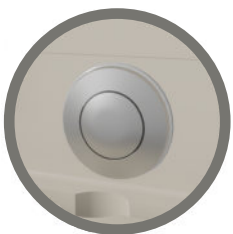
MOUNTING HOLES: Built in mounting holes for easy installation



OUTPUT PORTS: Dual outputs, each capable of up to 200' linear feet of Pixel Lights



RESET BUTTON: External reset button, hold to reset wireless settings



Page 1: Introduction

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INTRODUCTION

GETTING STARTED:

SETTING UP YOUR CONTROLLER:

You've got Pixel Lights! Now it's time to set up your controller, test it and then install your new permanent holiday lighting system on your home or business.

First things you will need to do are:

- Attach the antenna.
- Attach two light strings, one string to each output.
- Plug the controller into power.

* Make sure that your controller is unplugged from power before connecting light strings. Connecting while powered is called "Hot Plugging" and can result in a damaged Pixel. The product warranty does NOT cover damages from "Hot Plugging".

PREPARATION

**The Pixel Light controller requires a 2.4GHz network, please check check to ensure your home network is compatible. If you only have a 5Ghz, or a combination 2.4/5Ghz router, please read the FAQ section of our website for further information. Due to the variety of Internet providers and router models, Pixel Lights cannot guarantee controller connectivity. That being said, we have found there to be simple solutions to make those unique applications work as needed. We have a team of experienced technicians to help troubleshoot any issues you may encounter.

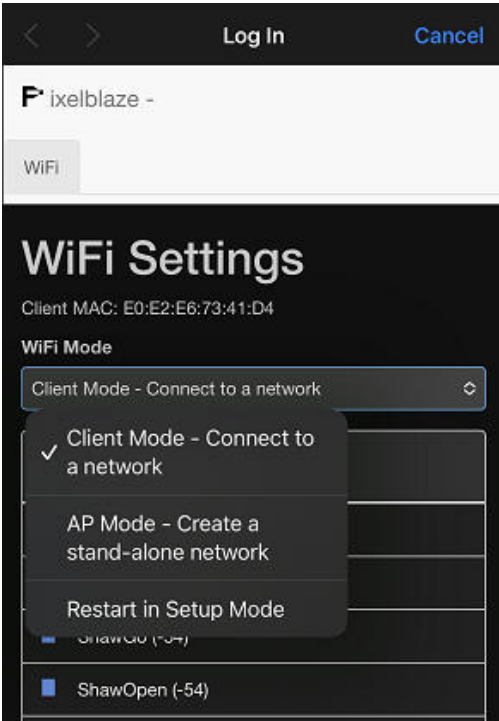
When you plug in your controller, you will see the lights flash and then turn off. Now you can go to the WiFi settings on your phone or other device such as; tablet, laptop or PC to connect your controller to your WiFi network.

CONNECTING TO YOUR CONTROLLER

STEP 1:

OPENING THE WIFI MANAGER:

- Go to the WiFi settings on your, device and select Pixelblaze_xxxxxx
- After connecting to the controller, the WiFi Manager screen will open automatically. If it does not, open your internet browser and enter 192.168.4.1 into the address bar.
- Now you will need to select which method you will use to connect to your controller.



METHOD 1: CLIENT MODE

Client Mode will connect the controller to an available 2.4Ghz wireless network ie; your home network. This will allow access from any device that is also connected to that network. The list will populate with all available networks, but the controller will only work with a 2.4Ghz option. To set up Client Mode;

- Select "Client Mode"
- Select your network, if you do not see your network hit "refresh" and it will scan for available networks again.
- Enter your password
- Click "Submit"

The controller will now reset and connect to your network. It will notify you as "Connected" and then the screen will close on its own, and return you to your WiFi network list. Now you are connected to your network and you can access the controller through the web interface or through the Pixel Lights App.

METHOD 2: AP MODE

AP Mode will set up the controller on its own network. This method is used when there is no available WiFi networks, or you would like to limit access to the controller. After you set up the controller in AP Mode, you will need to connect to this new network in order to access the controller. Find it in your list of available WiFi networks, connect to it and then you can access your controller through the web interface, or with the App. To set up AP Mode;

- Select "AP Mode"
- Enter a name for your network
- Enter a password, it must be 8 characters
- Click "Submit"

The controller will now reset and create the new network. The WiFi Manager will now close and return you to the list of available WiFi networks. To connect to the controllers network;

- Select the network you created
- Enter in the password
- Click "Connect"

Once you are connected to the new AP Mode network you can access the controller. You can access it by opening up your App, or you can access it through the web interface. To do this, open your web browser and enter 192.168.4.1 into the address bar.

WEB INTERFACE & PIXEL LIGHTS APP

There are two ways to access your controller. You can use the Pixel Lights App, or the web interface. Generally the Pixel Lights App is for everyday use, and the web interface is used for the initial set up and configuring of the controller.

WEB INTERFACE:

To access the web interface, you can find it in the settings tab in the Pixel Lights App.

- Go to the Settings Tab
- Click on "Web Interface"
- Select which controller, if you have more than one.

STEP 2:

SETTING UP YOUR CONTROLLER:

During the initial setup of your controller, you will need to access the web interface. After setting up the controller, regular daily use is done within the Pixel Lights App. The main Tab used for setting up the controller is the Settings Tab. The other tabs are less important, but will be explained below.

- In the web interface at the top of the screen will be a Tab Bar, and important information.



- The Tab Bar displays the following information:
 - The Blue Check mark shows that the controller is connected
 - The Clock displays the "frames per second" of the pattern
 - The Black Bar displays the Pattern that is being used, and also the brightness slider.

Patterns Tab:

- This Tab shows the patterns saved on your controller. Selecting a pattern will play it on your install. Selecting a pattern to play in this tab, is similar to using the old interface within the App. If you select a pattern here, the new interface of the App will not work until you change it back to the Master Pattern. The Master Pattern is displayed above in the Black Bar as "Master V4.13".

Edit Tab:

- This is where you can modify, delete and upload new patterns. In this tab you can edit the patterns code, or code your own pattern from scratch. Coding your own patterns is for more advanced users, who have experience with coding. The ability to create your own patterns with animated effects is built into the App. The pattern used to include this functionality is the "Master VX.XX" pattern.

Mapper Tab:

- This feature is not applicable to Pixel Lights, Mapping functions will be included in the App under "Preview Editor"

WiFi Tab:

- This is where you can change how your controller is connected. For example, here you can change the router that the controller is connected to, change to "AP Mode" or "Restart in Setup Mode".
- "Restart in Setup Mode" will erase the WiFi settings only. The rest settings and patterns will remain the same. You can also do this by holding down the reset button on the outside of the controller for 10 seconds. You will see the lights flash and then turn off. Release the button after you see them turn off.

Settings Tab:

The Settings Tab is where you will input the specific data needed to make your Pixel Lights function properly. This will only need to be done once during the installation process. Some of the settings are replicated inside the App such as the Timer function. This is so you don't need to return to the web interface to use it.

SETTINGS TAB:

Settings

Controller Settings

Name

House

☒ Enable Discovery Service and Clock Sync

Do you want to enable discovery via <http://discover.electromage.com?> It makes it much easier to find your Pixelblaze on your network, and sets the time for clock functions.

Time Zone

America/Edmonton

Time zone is used for clock functions.

Auto Off Timer

Enable: ☐

Turn off at 12:00 AM

Turn on at 04:15 PM

If checked, automatically turn off the LEDs between the specified times.

LED Settings

Limit Brightness

95%

This limits the total brightness and can be used to limit power consumption.

LED Type

Pixelblaze Output Expander

Pixels

194

Data Speed

2 Mbps

Color Order

BGR

***If you see a setting that is not discussed, it is not applicable.

Name: Enter a name for your controller here.

Enable Discovery Page: Enable this feature. This allows you to access the web interface from within the App.

Time Zone: Select you time zone from the drop down list. The timer will not function properly unless your specific time zone is selected.

Auto Off Timer: Set the On & Off times for your lights here. You can set and enable the timer here, and also within the App.

Limit Brightness: Adjusting this value will set a maximum brightness level for the lights. The slider will then adjust the brightness from 0-100 based on this limit.

LED Type: Leave this setting on "Pixelblaze Output Expander".

Pixels: The total number of lights is displayed here. Do NOT adjust this number. It is automatically generated by the quantities set in the "Output Expander Configuration".

Data Speed: This value is automatically set and doesn not need to be adjusted.

Color Order: The standard setting for the single diode lights is BGR.

Output Expander Configuration

Board @ Address: 7

Remove

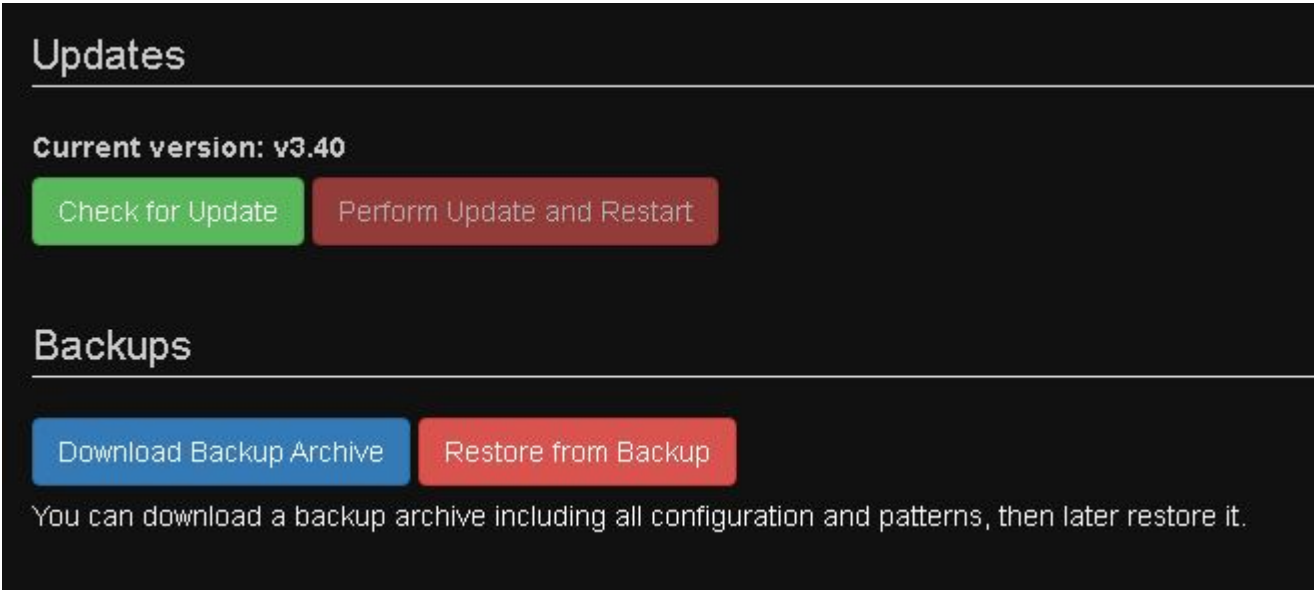
Channel	Type	Start Index	Count	Options
0	WS2812	0	0	BGR
1	WS2812	0	150	BGR
2	WS2812	150	0	BGR
3	WS2812	150	150	BGR
4	WS2812	300	0	BGR
5	WS2812	300	0	BGR
6	WS2812	300	0	BGR
7	WS2812	300	0	BGR

Add Board

Output Expander Configuration: This section controls the two outputs on your controller. Each controller comes preset using output channels 1 & 3. The only column you will need to adjust is "Count". Here is where you enter the total amount of lights, NOT the length in feet. It is recommended that you enter in these numbers as accurately as you as possible. Entering a number that is much higher than the actual count will cause some patterns to display incorrectly.

- Board Address: Standard setting is #7 after 1/1/2023.
- Channel: Standard channels are 1 & 3.
- Type: Standard is WS2812.
- Start Index: This is where addresses are assigned to the individual lights. You can press "Auto" after entering your Count quantities.
- Count: Enter in the total amount of lights per channel here.
- Options: This needs to match the "Color Order" selected.

***When setting the "Count", if you see a green light at the end of your string don't panic. This is showing the last address that has been assigned. Simply increase the "Count" quantity until the green light is gone.

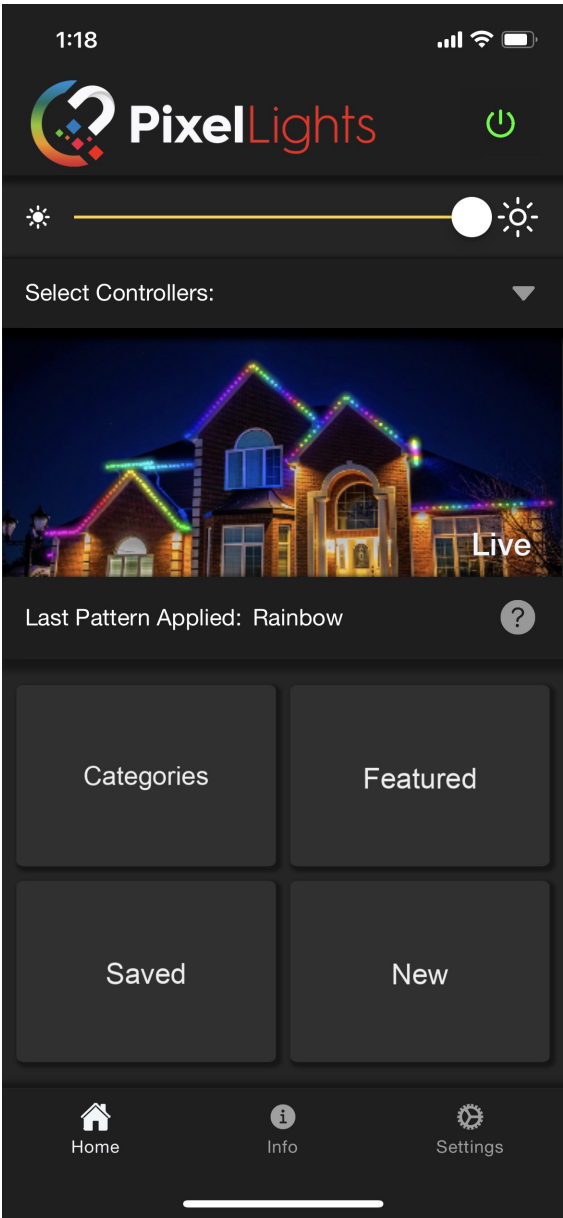


Updates: Click to check for available controller updates.

Backups: Click to download a backup copy of your settings after installation and setup. If anything were to happen, and something was deleted by accident you can restore. To restore from backup click on "Restore from Backup" and select your backup file.

PIXEL LIGHTS APP:

The Pixel Lights App is available to download for free. You can find the App in the Google Play and Apple App Stores by searching for "Pixel Lights". To use the App you will need to have a Pixel Lights controller that has been connected to your home network, or set up in AP Mode. Then your device (mobile) must also be connected to the same network.



Turn Lights On / Off

Brightness Slider

Select which Controller(s) to use

Preview Image

Last Pattern Selected & Help Button

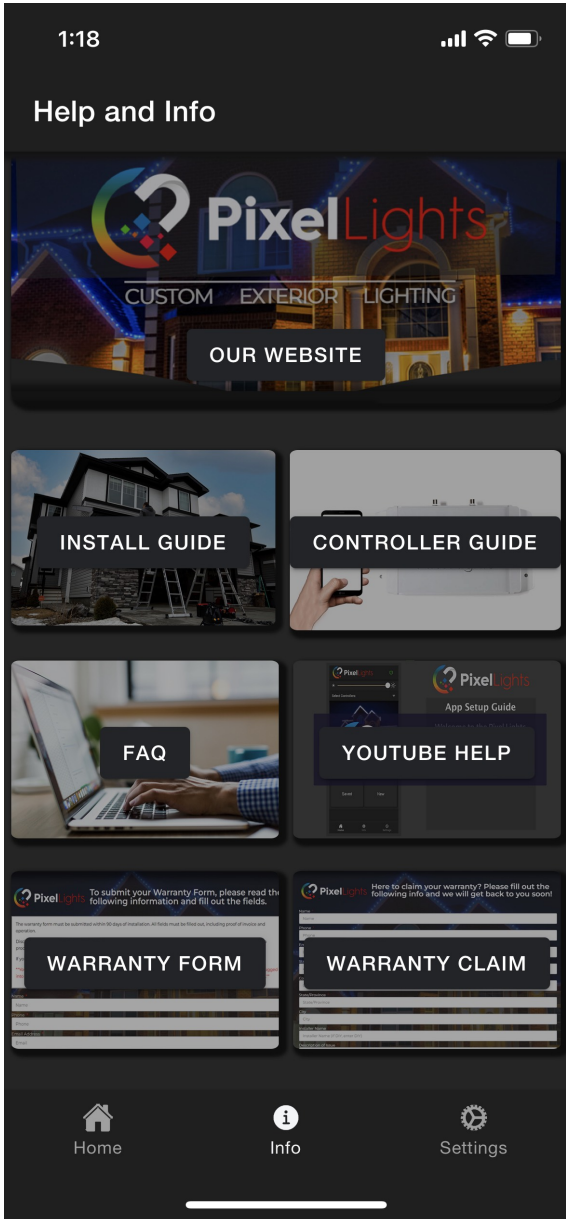
Available Patterns

Create your own Pattern

Navigation Tabs

PIXEL LIGHTS APP: (continued)

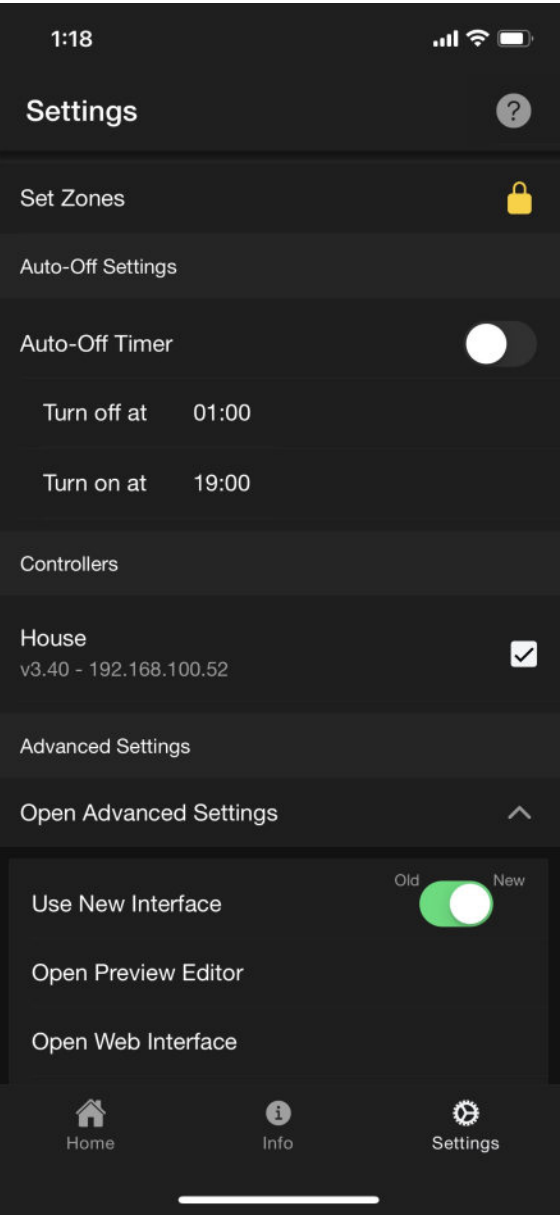
INFO TAB:



- Pixel Lights Website Link
- Installation & Controller Setup Links
- FAQ & YouTube Video Links
- Warranty Form & Warranty Claim Form Links

PIXEL LIGHTS APP: (continued)

SETTINGS TAB:



- Click to Set/Create Lighting Zones
- Slide to Enable On/Off Timer
- Set On & Off times
- Select which controller(s) to control
- Select between New & Old App versions
- Open Preview Editor, to select image
- Open link to web interface

***For more information on how to use the Pixel Lights App, please go to our YouTube instruction videos. Click on the link in the Info Tab.

TIPS, TRICKS & RECOMMENDATIONS:

2.4GHz Network:

Pixel Lights requires a 2.4GHz network to function to connect. If your network is 5GHz or a combination of 2.4/5GHz, you may need to either separate the 2.4/5GHz networks or purchase a dedicated 2.4GHz WiFi router. These routers are cheap and readily available.

Garage Door Opener Interference:

It is possible that installing the Pixel Lights system may interfere with garage door openers. This will result in a reduction of the distance the opener will operate. This is more common with older style garage door opening systems. Upgrade kits are available, please contact a garage door service company for information about your specific model.

WiFi Signal:

WiFi signal strength is unique to every installation. Things to keep in mind are any obstructions in between the controller and the router. How many walls, and what the walls are made out of will play a factor. Specifically exteriors that are made of metal will cause the most signal interference. Off the shelf solutions such as WiFi repeaters can help extend the existing network.

New Router and/or new Internet Provider:

If the router is upgraded, or a new Internet Provider is used, you will need to connect the controller again. To do this follow Step 1 again, to re-connect the controller. You will need to hold down the reset button on the controller for 5-10 seconds to reset the network settings.

Controller & App Updates:

We recommend periodically checking to see if your controller has any available updates. This can be done by going to "Open Web Interface" in the settings tab on the App. This will open the web interface, and you can find "Check for Update" in the settings tab.

To check for App updates you can search "Pixel Lights" in the Apple or Google App stores, or set you device to automatically apply updates.

App Functions:

To learn more about the features and functions of the App, there are help icons inside the App that you can click. They will describe the different features and how to use them.

You can also go to the Info Tab of the App, and click on the link to our YouTube video guides and walk-throughs.