

Operating Manual V2

WIFI Controller Module and App Software

Your new LED light has built in connectivity to the included WIFI Controller Module. This module can be used manually without Wifi connections to control pre-set dimming. This controller is not required to operate your new light manually. The controller can be disconnected and removed for manual operation.

This controller uses a 2.4G wireless network signal to connect the light to the internet which allows for App based control and programming. You cannot connect this device without a 2.4GHZ wifi signal from your router. Newer dual band routers broadcast two channels simultaneously. If you encounter difficulty connecting please refer to the troubleshooting guide at the end of this manual.

This includes the ability to use a phone or tablet to turn the light on and off, dim the light, program timers to turn the light on and off on a daily schedule, and also set a temperature threshold which will dim the light down to cool the area if it runs too warm.

Phone App Software Download

There are two methods for downloading the App software for Android or Iphone;

- Method one: Visit your app store and search for the **Cloud Intelligence** app and download to install.

- Method two: Locate the QR Code sticker on the top of the WIFI Controller. Use your phones camera to scan the QR Code on the module which will take you to your app store download.

Setting up the App

Use your Android Phone or Iphone and open the **Cloud Intelligence** App which you downloaded and installed earlier. Set up a new account as instructed.

IMPORTANT: You must correctly enter the country you are located in to associate the app with your and the local time. The App may not function properly if the wrong country is chosen.

IMPORTANT: You can only connect to the light with a 2.4ghz Wifi channel on your router.

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Once connected and programmed you can switch to 5.0G WIFI or Dual Band. The light will continue to operate as programmed regardless of what channel your phone is connected to once you have completed programming. The controller will continue to use your 2.4ghz channel to stay connected to the cloud which is where it gets the local time and weather data from.

Cloud Intelligence is one of several popular Smart device control apps which are widely used in the USA. From their App Store page:

- Use the Cloud Intelligence app to control multiple smart devices
- SMART plugs are available on Amazon from Amysen. For 110V appliances such as fans, humidifiers, our FGI single color lightbars etc. Do not exceed 10A per plug.
- Remotely control your appliances anytime, anywhere
- Supports Amazon Echo and Google Home voice control
- Use Scene Settings to control multiple devices by one key
- Build WeatherEFX weather simulations
- Mimic local weather conditions using temperature or humidity to trigger programmed dimming on your lights.

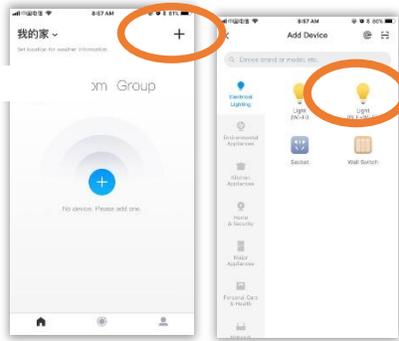
Connecting your new led fixture using the App to the WIFI module

Steps:

1. Open Cloud Intelligence on your phone and login, set up account as necessary
2. Turn on your LED. Connect the Wifi Module. Check the blue light for quick blinking
3. From the main App Home Page click the Plus button in the upper right
4. If requested, input your 2.4ghz Wifi password, or your dual band router password
5. The blue light will indicate the light is paired successfully if it turns solid.
6. You will receive a confirmation the light is paired on the App.
7. An icon will appear (which you can rename) for the light.

There are several optional methods which can be used to connect your LED to the App if the auto discover does not work.

Method 1: Look for the + symbol in the upper right corner of the App. The App is now in Auto Discover Mode. The light is in pairing mode. The App will now create an auto-connection to the Light. Wait for the radar sweep to complete the pairing. Be patient this can take up to one minute to complete.



Pairing Your LED Window

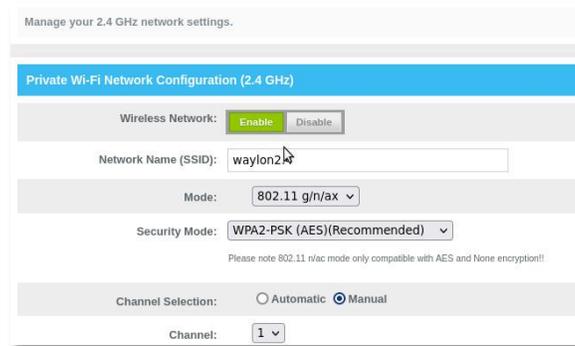
Method 2: Select the Add Manually button on the bottom of the screen. Find the Lightbulb Icon that says Light (BLE/WI-FI). Selecting this will bring up the current WIFI connection.

For troublesome connections with some newer dual band routers, users have reported that this trick can fix 2.4ghz connectivity issues: Prior to starting Method 2, turn off wifi on your phone. Follow the instructions for method 2. When prompted, enter your wifi name and password. The App will search for a 2.4ghz channel automatically.

Input your network password to connect to your WIFI. The App will now search and connect to your network. Be patient this can take up to one minute to complete. The blue light the controller will turn solid.

If you continue to have problems connecting, inspect the speed of the blue blinking. Fast blinking means the device is ready to search for a connection. Slow blinking means the light has found a 2.4ghz channel and is trying to connect, but something is blocking the connection. Users have reported two different ways to overcome routers which are blocking the connection.

For **Xfinity dual band** routers, you should log in to the Admin control using a computer on the same network. <http://10.0.0.1> Default login name is Admin and default password is Password. Navigate using the left side menu to Wifi. Locate the option to Enable/Disable the 5.0ghz band. (this is temporary as you will be turning it back on after a successful connection).



Follow the routers instructions to continue. Return to Method 2 and repeat the pairing steps.

Some users have reported that temporarily turning off the IPV4 and 6 firewalls on the router is the final solution depending on where you are located on the Xfinity network. This is also temporary. After successfully pairing, turn the IPV firewalls back on, as well as the 5Ghz channel.

For Netgear or other newer model Dual Band routers access the Admin control panel at <http://192.168.1.1>. You may need to google the proper Admin IP address as some use .2 or .3 instead of .1.

As noted in red above, try temporarily disabling the 5ghz channel and if necessary, the IPV firewalls to clear the connection to the router. Enable the 5ghz and IPV firewalls after successful connection.

Method 3: From the same Add Manual window find locate the minus (-) symbol in the upper right corner, select to turn on your phone and scan the QR code on the bottom of the WIFI module and the manual setup mode will be available. Wait for the radar sweep window to complete pairing. Be patient this can take up to one minute to complete.

Follow the troubleshooting steps in red above if you are not able to easily pair.



Manual Setup Mode Window



Pairing Mode Window

The Module may take up to 60 seconds to successfully pair with your LED. Do not interrupt this process. A sweeping radar graphic will show you the timer as it pairs with your LED.



Seeking the LED/Timer Countdown Window

If your light successfully paired, please continue:

Successful Connection Made: You will see the LED light name displayed on the App when paired. You can change the name of your LED if desired by clicking the Edit pencil icon next to the current name. This is useful if you will be operating two or more lights with the App. Its important to identify each. Such as Flex 1, Flex 2. Or if you are programming CloudEFX weather simulations.



Device Added Confirmation Window

Congratulations! The LED can now be operated using the App. In this mode you can turn the light on and off and dim the light as seen below.



Basic Control Mode Window

Advanced Programming Operation

Returning to the Home screen (use the arrow in the upper left button, pressure point is slightly below the arrow, to go to Home) will give you access to more programming options as seen along the bottom



Main Screen shows connected LED with buttons for more programming window

Programming Timer and Temperature

The controller uses a “set it and forget it programming setup”. Your phone does not need to be near the light once programmed. And you can access and program the light from anywhere once paired. You can also check on the lights operation from your phone from anywhere.

Basic light programming includes setting temperature thresholds, and programming a scheduled on/off timer. Click on the LED light on the home screen to enter the basic programming menu.

Setting temperature: Ensure you have the temperature probe plugged in and located away from heat created by the light and driver or other heat sources. Locate the probe in an area of average temperature.

From this menu select the temperature button on the bottom of the screen. Select from the options listed to program temperature thresholds as desired. The actual power reduction needed to cool your space depends on many factors and we suggest you experiment based on the actual space you are in.



Basic Settings Screen Window

Settings available in this window:

- Temp Units: Switches between F & C.
- Dim Temperature: When the ambient temperature is higher than the set temperature, the WIFI controller will adjust the dimming according to the value you choose. Select Power Dim temperature range (0-100 °C), Dimming can be set between 20% and 100%.
- Off Temperature: When ambient temperature is higher than temperature of light it will turn your light off. Be very careful that you understand this setting and don't accidentally turn your light off when unwanted. Temperature range (0-100 °C). Auto off at pre-set temp you choose.
- Power Dim: The corresponding dimming value when the ambient temperature is higher than the Dim Temperature you selected, range (20-100 %).

Timer control settings: From the Basic light programming menu locate the Local Timer button on the bottom right of the screen.

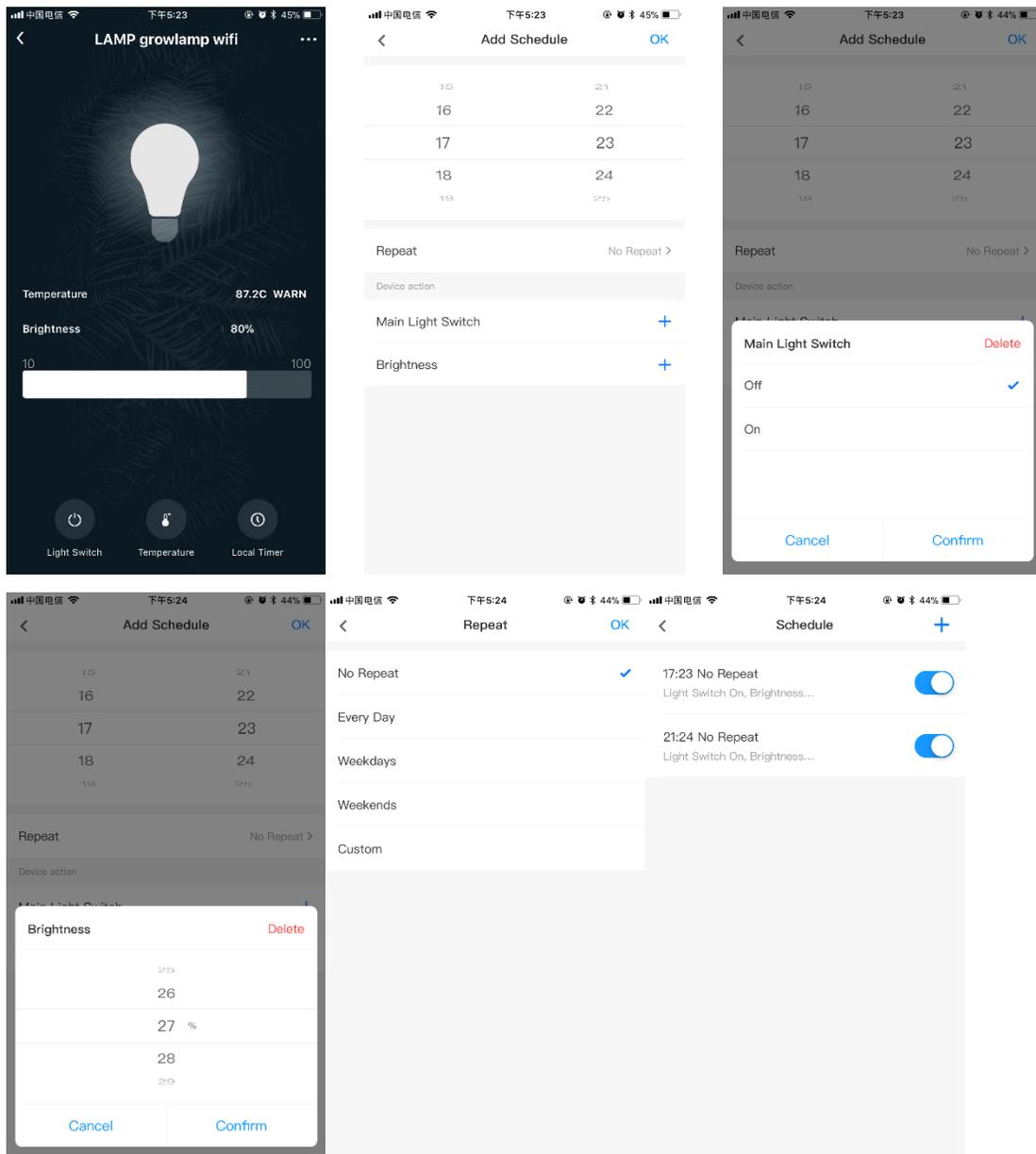
Select a time you want to program for on/off and brightness levels. For example, if you want the light to turn on at 7AM choose 7 and 0 on the thumb dial. Then select the frequency, such as Every Day. Choose Okay then select Main Light Switch and check On. Confirm this setting then choose the brightness level you want to start at between 20-100%. Choose Okay and you will see the program you have created in the Schedule window. Next, set an Off timer. Use the plus button in the upper right and follow the same process but this time under Main Light Switch choose Off. Note the system uses a military 1-24 hour timing.

Tips/tricks: To simulate a sunrise/sunset and clouds (and also to create backup on/off timers), create multiple On programs and Off programs using various dimming settings. For instance you could set up 5 On timers, the first at 7AM at 20% and the next at 7:15AM

at 40% and so on until you reach the maximum intensity you prefer. Sunrise can be as fast or slow as you like. Follow the same procedure to create a sunset.

Creating two or more identical On and off timers is a good way to create a simple precautionary backup should your internet or router accidentally miss a programmed instruction. However it is not absolutely necessary based on two years of our own use of these control modules.

Examples of various Basic Programming Windows



Windows available in this mode

Extended Feature Programming

We have produced detailed YouTube videos on Cloud Intelligence and WeatherEFX. Find them on our [YouTube channel at Forever Green Indoors](#).

The WIFI module has many additional extended features with new ones being introduced with each new software revision.

Automations can be used to program advanced functions including the ability to build based on various Conditions such as actual sunrise sunset, actual temperature and humidity in your city.

Scenes can be used to build actions such as On/Off and dimming and can be used in conjunction with Automations or used stand alone to replace the Basic Programming. Scenes would be used to control multiple lights using the same on/off and dimming timers. Groups can be created on the main Home menu by scrolling right to Groups. This makes creating a multiple LED room installation much easier to program.

Both Scenes and Automations offer the additional option of receiving a notification for any or all of the programs you build letting you know these tasks have been completed.

Automations and Scenes can include other Smart devices such as room humidity sensors, light sensors, water detection sensors and certain smart appliances such as dehumidifiers, humidifiers, air conditioners that are Smart enabled.

Explore these programs over time. Consider how you might combine notifications and timers and even install additional smart devices to monitor your grow area.

Trouble shooting & precautions

Network connectivity problems are discussed in red, in the network connection sections above.

To confirm whether the network device to be configured is powered on and in the network distribution mode check to be sure the NET indicator light flashes quickly, which means that the device is normally powered on and enters the network distribution/pairing mode.

Button Indicator	Status	Explanation
flashes quickly (200 ms interval)	Network distribution mode	To complete the network configuration within 3 minutes after the device is powered on, otherwise it will enter the standby mode and the network cannot be configured (try to power on the LED and the Controller device again before each network configuration)
Slow flashing (500ms interval)	Server connection mode	The device has been successfully configured and is in the state of connecting to the server. If it is in this state for a long time, please check whether the wireless router can access the internet normally, and whether there are firewalls, port restrictions, etc. This device will usually connect through standard firewall and security settings on your router.
light stays on	Connection is ok	Your light is connecting to the internet correctly.
light off	Power failure/device hardware failure	The device is not powered, or the device fails to work. There is a hardware problem or a cable connection problem.

Basic Troubleshooting Steps:

- If your location is prone to power outages, or power spikes, install a basic surge suppressor or plug the light into a power strip with a built-in surge protector.

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-Power spikes can cause the controller to become disconnected from the light. A disconnected light will not turn on as programmed. The default for a disconnected controller is to keep the light off to protect plants.

-Check if the mobile phone is connected to the router and use the 2.4G frequency channel;

-Make sure that the phone is connected to the WIFI router and uses a 2.4G frequency channel. For Dual Band Routers, try turning off your Wifi connection until prompted by the Cloud Intelligence App to force a 2.4ghz connection.

-Make sure the entered WIFI account and password are correct for your router.

-Make sure that the distance between the WIFI module and WIFI router is not too far. You need a good WIFI signal for the App and the Module to work. Make sure you phone is close to the Wifi Module during pairing. The range is no more than 8'. Once connected you can operate the light from anywhere.

-Using APP control, if dimming fails to respond as you set it this is usually due to network issues, check to make sure the WIFI router's network is powered on, has an internet connection and a good signal. A working internet connected router and WIFI connection is required at all times for the light to work as programmed.

-To soft reset the WIFI device, press MODE out of WIFI and use a paper clip or small sharp object to depress the Reset button next to the USB style port on the module.

-To hard reset the light and module (to factory settings), cycle the light on and off by unplugging it, count to 10, plug in briefly and repeat this cycle three times. You must have three 10 second cycles to reset the unit. It is now in factory reset and the light must be paired again to your App. This reset does not affect the App programs you have saved.

-If APP control is desired, the WIFI module needs to be switched to WIFI position, other positions do not support WIFI control.

Precautions

- Do not install light / controller in a wet location or place where it may come in direct contact with water. The light is not waterproof.
- Deteriorated insulation on electrical parts may cause an electric shock or fire.
- Do not place this light / controller in direct heat from room heaters or beneath HPS or CMH lights which create additional heat.
- Do not plug several lights / controllers into the same power strip exceeding the Amps allowed. The light / controller should always be plugged into an electrical outlet which has an amp rating that matches the lights requirements. This provides the best performance and also prevents overloading of house wiring circuits, which could cause a fire hazard from overheated wires.
- Do not use a power cord that has cracks or abrasion damage along its length or at either end.
- Do not bend the power cord excessively or place heavy objects on it.
- Do not twist or tie the power cord or dimming control cables too tightly.
- Never unplug your light / controller by pulling on the power cord.
- Do not spray the light / controller with chemicals. Use of VOCs such as sulfur voids our warranty. Clean the light / controller with a lightly damp cloth using water only.
- Before cleaning or performing maintenance, unplug the light / controller from the wall socket, or turn off at the breaker.
- Do not apply chemical cleaners or abrasives. Do not expose the light / controller to volatile organic compounds (VOCs). Any of which void the warranty.

Disclaimer

ForeverGreen Indoors Inc does not warrant that this controller will perform reliably due to the internet and a customer provided wireless routers or modems or power interruptions caused by spikes or blackouts. By using this device the customer accepts all forms of liability for the operation of this module relative to plant health.

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