Niwa Grow Hub

User Manual

www.getniwa.com

IMPORTANT INFORMATION BELOW

Due to updated features and functionality, our online manual is our most updated version. Please visit:

www.getniwa.com/manual

For support or additional feedback you can:

Browse *https://niwa-knowledge-base.groovehq.com/help*
Message us *at support@getniwa.com*
Call us *at 312.725.6408*

Table of contents

Table of contents
Introduction
Hardware overview
Set up instructions
- Set up your Niwa Grow Hub device
- Download the App and register your user
- Connect your Niwa Grow Hub to your Wi-Fi
- *Alternative Wi-Fi setup (Advanced AP mode)*
- Wi-Fi tips & Troubleshooting
  - General issues:
  - Internet Wi-Fi router related:
  - Standard mode common issues:
  - AP advanced mode common issues:

Using the Niwa Grow Hub
- Introduction
- Top and bottom toolbars
- The Dashboard
  - Grow Components section
  - Grow Data section
  - Grow Lifecyle section
- The alarms
  - How do the alarms work?
    - Temperature and relative humidity alarm
    - Blown lamp alarm
  - The notifications panel
- The recipes
  - The recipe menu
  - Stages and cycles
    - Light
    - Watering
    - Climate
    - Navigating stages in the app
  - How a recipe is executed
    - How climate control cycles operate the different devices
    - Dead zones
- The Stats
- Settings

Outlet Configuration
Sensor’s Offsets & calibration
Calibrate Light Sensor
Change Device’s Network
Account Settings
Support
Managing multiple Niwa Grow Hubs
Adding a new device
Controlling different devices
Niwa Grow Hub LED status
Warnings & Cautions
Main Features
Grow recipes
Recipe stages
Alarms
Live dashboard
Configuration, outlets.
Stats
Connectivity
Over-The-Air updates
Electrical specifications
What's in the box?
Contact
Warranty Information
Service and Repair Program
Warranty Service

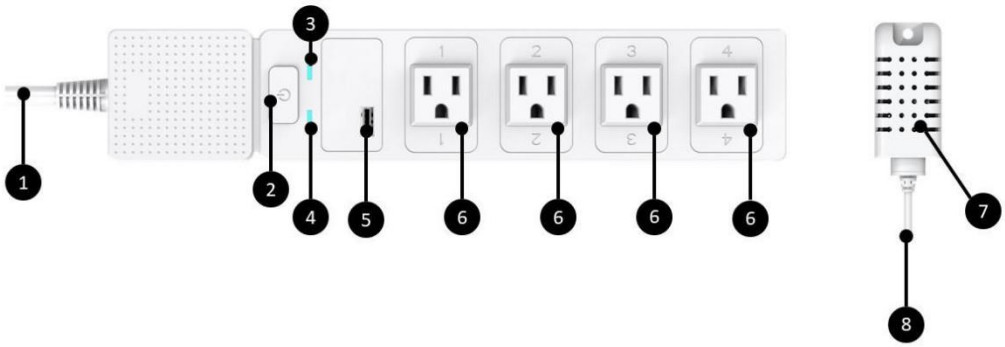
Introduction

With the goal of supporting a hassle free and high performance grow, Niwa has developed a powerful software that enable growers to automate their setups in a very simple way just by having them plug their existing devices (such as lamps, fans, humidifiers, dehumidifiers, A/C, pumps, or heaters) to their Niwa Grow Hub.

This document describes how to set up your Niwa Grow Hub. For further information about all its features please visit www.getniwa.com.

Warning! The Niwa Grow Hub can handle **resistive loads** up to **10A MAX** per outlet and **15A MAX in total for all four outlets**. **Make sure you don't exceed these loads**. Some grow lamps have very high inrush currents, so please take this into consideration or ask the Niwa support team (support@getniwa.com) if you are not sure or you don't understand it.

Hardware overview



1. Power cord.
2. Setup button.
3. Operation mode LED (Blue).
4. Malfunction LED (Red).
5. Niwa Sensors USB connector port (Do not plug anything else).
6. Configurable outlet for growing equipment (On & Off control).
7. Niwa Sensors.
8. Niwa Sensors cord.

Set up instructions

Set up your Niwa Grow Hub device

1. Place the **Grow Hub Sensors** module somewhere inside your grow chamber protected from water. We recommend placing it where it can get light from the grow lamp (if available) and sense the temperature and relative humidity of your plants' environment.
2. **Please note:** Make sure the ventilation grid of your Grow Hub Sensors is not covered so light and environmental values can be measured properly. Protect the sensors' cord from being damaged or cut.

   Pro tips:
   - *Do not place it under your lamps as it will get direct heat from it, interfering with the readings.*
   - *Since hot air rises, you should ideally place the sensor halfway between your plants and the top of your grow chamber.*
   - *Do not place it close to your climate control equipment (fans, heaters, A/C, humidifiers, dehumidifiers…) but make sure it receives good airflow.*

3. Place the Niwa Grow Hub, somewhere outside of your grow chamber protected from water spills or extremely humid conditions.
4. Plug in your selected pieces of equipment (Fan, lamp, humidifier, dehumidifier, cooler, heater, or watering pump) into the Niwa Grow Hub configurable outlets and note to what outlet number you connected each device for later in app configuration.
5. **Please note:** Only one outlet can be configured for each device type. For example, if you have two fans, you can only set one Niwa Grow Hub outlet for fan control.
6. **CAUTION!** Make sure the maximum total resistive load does not exceed 10A per outlet and 15A max in total for all four outlets
7. **CAUTION!** External lamp controllers must be used when operating high powered grow lamps, those controllers can be triggered by the Niwa Grow Hub.
8. Plug your Niwa Sensor into the Niwa Grow Hub.
9. **CAUTION!** Although it uses an USB plug, the Niwa Sensor must be connected to the Niwa Grow Hub only.
10. Plug your Niwa Grow Hub to a protected and grounded outlet.

Download the App and register your user

1. Search the keyword "**Niwa Grow Hub**" in the App Store or Google Play store to download and install the Niwa app. Make sure you **download the Niwa Grow Hub app**, *for there is our Niwa One Greenhouse app from our Niwa One product line. You will find links to the Niwa Grow Hub app in the getniwa.com site as well.*

Here are the direct links for the Niwa Grow Hub apps:
Android: https://play.google.com/store/apps/details?id=com.niwa.homegrow.beta
Apple iOS: https://apps.apple.com/us/app/niwa-grow-hub/id1503711468

2. Open the Niwa Grow Hub App and tap on "Don't have an account? Register".
3. The app will ask for your email and a password of at least 8 characters.

4. Repeat your password and tap on “Register”.
5. A code will automatically be sent to your email account. Once you have it tap on “Continue”.
6. Enter the code and tap on “Validate code”

Connect your Niwa Grow Hub to your Wi-Fi

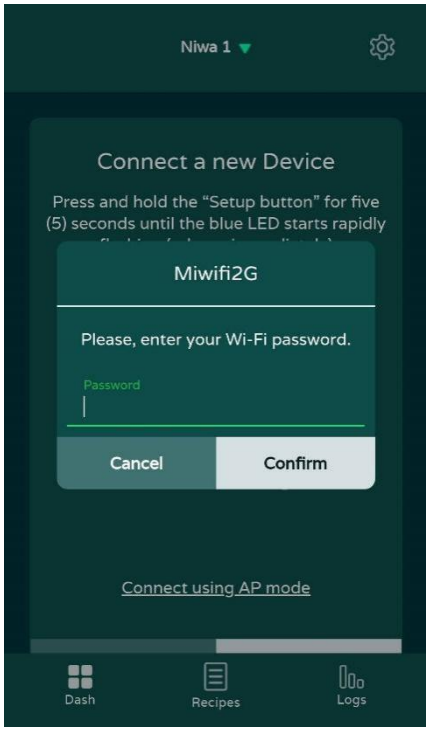
Important: Your Niwa Grow Hub will connect to the same Wi-Fi network that your mobile phone is connected to. As the majority of IoT devices, the **Niwa Grow Hub only works with 2.4GHz** b/g/n Wi-Fi networks. Most Internet routers are 2.4GHz or 2.4Ghz compatible. Nevertheless, some of them may need some settings adjustments in order to enable the 2.4GHz network. Check our troubleshooting section for additional information.

Tip: When connecting your Niwa Grow Hub for the first time, we recommend placing your Niwa Grow Hub in front of your router. Once you're connected, you can place your Niwa Grow Hub anywhere with a quality WiFi signal.

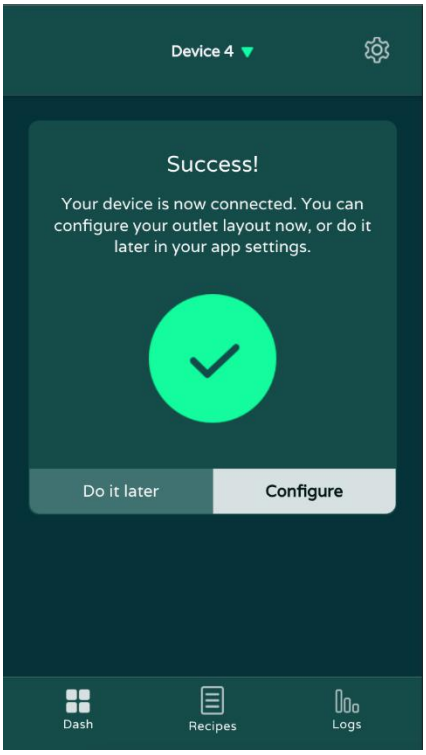
1. Once you have installed the Niwa Grow Hub app, registered your user and logged into the app, the device set up will automatically show.

2. Press **and hold** the "Setup button" in your Niwa Grow Hub for six (6) seconds until the blue LED starts rapidly flashing (then **release it immediately**).
3. Tap on "**Ready**" in the Niwa app, then enter the password of the **2G Wi-Fi network** that your mobile device is connected to, then tap **"Confirm"**.

   Note: *If your phone is an iPhone, you will also need to enter your Wi-Fi network name, this name is case sensitive. Also, remember that your phone needs to be connected to that Wi-Fi network.*



4. **<u>Please wait until you get the confirmation message</u>**, this can take a while. If something goes wrong please;
    - Tap on "Try again".
    - Unplug your Niwa Grow Hub from power.
    - Wait for about ten seconds, plug it back and repeat the whole process from step 2.
5. Once you get your confirmation message you can tap on "Configure" to set your Niwa Grow Hub up, assigning the different outlets to your different grow devices, or "Do it later".



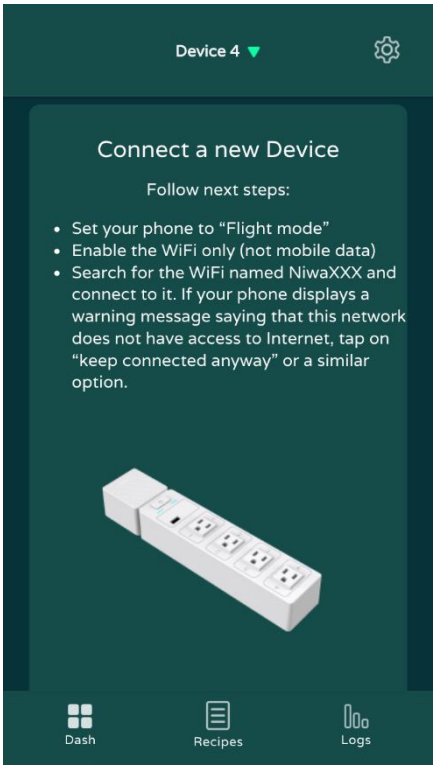
6. If you get an error message or experience any issue, **please check the Wi-Fi Tips & Troubleshooting section below.**

Alternative Wi-Fi setup (Advanced AP mode)

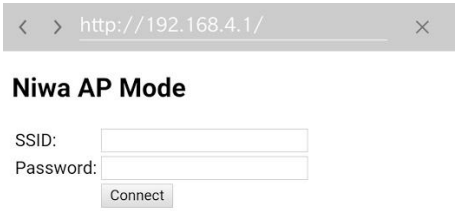
Depending on your own Wi-Fi network configuration, the default Wi-Fi setup may not work as expected, so there is an alternative **advanced AP mode** that you can use following the steps below.

1. Power cycle your Niwa Grow Hub: unplug it from the main outlet, wait 5 seconds, and plug it back to the main outlet.
2. Once you have logged into the app, the device set up will automatically show.

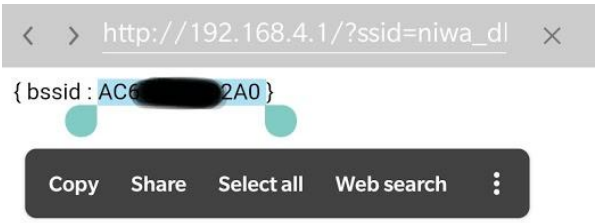
2. On the bottom of the screen tap on "**Connect using AP mode**"
3. **Press and hold** the "Setup button" in your Niwa Grow Hub **for twelve (12) seconds** until the blue **and the red** LED starts rapidly flashing (then **release it immediately**).
4. Tap on "**Ready**".
5. The app will ask you to **connect your mobile phone to a Wi-Fi network named "Niwa****"**, then go to your mobile phone settings and:
    a. Disable your mobile data connection.
    b. Search for the Wi-Fi network named Niwa**** and connect to it.
    If your mobile phone displays a warning message saying that "this network does not have access to the Internet…", tap on "keep connected anyway" or a similar option.



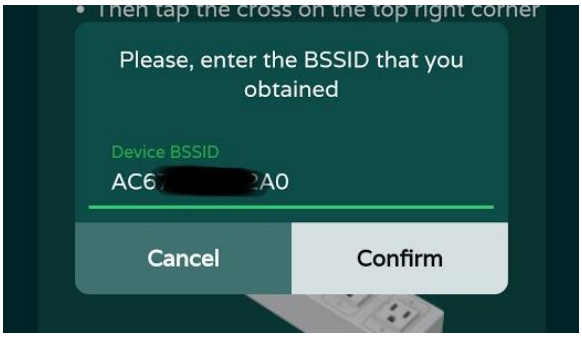
6. Once your **phone is connected to the Niwa**** network**, tap on "**Connect**" in the Niwa app, then enter:
    a. Your **Wi-Fi network name** (SSID) where you want to connect your Niwa Grow Hub. **Take into account it must be a 2.4Ghz Wi-Fi network** and the router should be near the Niwa Grow Hub, at least for the first time setup.
    b. The password for your Wi-Fi network.
    c. Tap on "**Connect**".



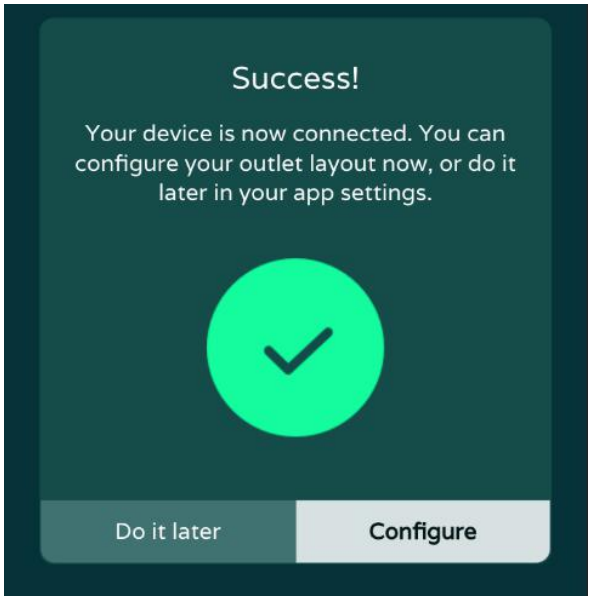
7. Then you will get a BSSID number in your screen, **please take note or copy that number** as you will need to enter it in the next step. Close this screen hitting on the cross or the "Done" button.



8. Enter the copied number (BSSID) in the next screen and hit “Confirm”



9. **Please wait until you get the confirmation message.** If something goes wrong, you can tap on “Try again” and repeat the process from the beginning.
10. Once you get your confirmation message you can tap on “Configure” to set your Niwa Grow Hub up, assign the different outlets to your different grow devices, or “Do it later”.



11. If the Wi-Fi set up went well, the blue LED should be slow blinking blue now.

Wi-Fi tips & Troubleshooting

General issues:

- When connecting your Niwa Grow Hub **for the first time**, we recommend you placing your Niwa Grow Hub in front of your router. Once you're connected, you can place your Niwa Grow Hub anywhere with a quality WiFi signal.
- Make sure the correct LEDs are flashing before trying to set up; blue LED for the standard mode; both blue and red simultaneasly for advanced AP mode..
- Your Niwa Grow Hub **blue LED should start slowly blinking** after it is connected. If that’s not the case, and something went wrong, you may need to repeat the Wi-Fi connecting process from the beginning, after disconnecting and connecting your Niwa Grow Hub from power.
- If you want to change your Niwa Grow Hub from one Wi-Fi set up mode to

another (i.e. from standard mode to access point mode or vice versa) please **power cycle your Niwa Grow Hub**, (unplug it from main outlet, wait for 10 seconds, and plug it back to the main outlet) and then push and hold the Setup button 6 or 11 seconds accordingly.
- Make sure you are entering the right Wi-Fi password and/or the exact Wi-Fi network name (if required). **Both are case sensitive.**

Internet Wi-Fi router related:

- **The Niwa Grow Hub only works with 2.4GHz** b/g/n Wi-Fi networks, make sure you are connecting to the 2G Wi-Fi network of your Internet router.
- Some Internet routers enable a single Wi-Fi network for both 2.4GHz and 5GHz channels under the same name (SSID). This might not allow your Niwa Grow Hub to connect to the Internet. If that's the case, please **go to your router's settings and disable the 5GHz network** before proceeding with the Wi-Fi Setup. You can enable it after your Niwa Grow Hub is set-up.
- Make sure **DHCP** (Dynamic IP) **is enabled.**
- Make sure **MAC filtering is NOT enabled** and make sure that the router is not prohibiting devices from connection.
- If your router has reached the maximum number of devices, that can be connected, please turn off the Wi-Fi connection of another device and repeat the setup process.
- If you have a firewall enabled, **make sure ports 443 and 8883 are open.**

Standard mode common issues:

- If nothing happens when you hit "Ready"; make sure your phone is connected to the same Wi-Fi network you want to connect your Niwa Grow Hub.
- If you enter your Wi-Fi password and the app keeps showing the green spinning wheel for a long time, please check your device. If the blue LED is slowly flashing (on every 2 seconds) that means your device successfully connected, but your app did not detect it. Please force close the app and open it again. You should be able to see live data in your dashboard after a few seconds.
- If you are not able to connect your device to your 2G Wi-Fi network and you are close to your router; please try restarting your router.

AP advanced mode common issues:

- If you find difficulties on the AP mode, we recommend you going to your phone's Wi-Fi settings and "forget" any Wi-Fi network within the current range of your phone. Some phones, even when they are connected to the Niwa**** network AP, will keep trying to connect to **other available known Wi-Fi networks in range**.

Using the Niwa Grow Hub

Introduction

The Niwa Grow Hub is not just a monitoring system but a growing controller. Hence the main benefit for the grower is being able to **automate** climate control, light cycles and watering cycles reducing the human error and making sure all the parameters are kept as desired.

Controlling all of your connected pieces of equipment is done within a Grow Recipe. A Grow recipe defines the different desired parameters (temperature, RH, light schedules…) for every different plant stage (seedling, vegatative , flowering…).

Growers can use existing Grow Recipes or create their own. Once a Grow recipe is loaded into the Niwa Grow Hub, the system will keep those defined parameters using the different pieces of equipment connected to the Grow Hub, such as a lamp, pump, fan, etc…

Top and bottom toolbars

On the top toolbar, you will see the current Niwa device available. Use the dropdown menu to switch to your other available Grow Hubs.

You can access your setting by selecting the gear icon (right of the dropdown). And from the bell icon on the left you will open your notifications panel.

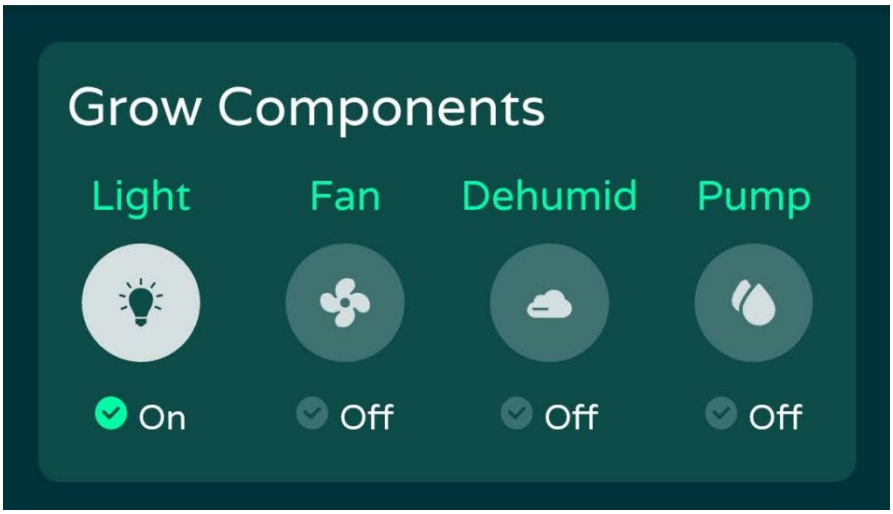
On the bottom toolbar, you can access the different sections of the app;

- Dashboard
- Recipes
- Stats

The Dashboard

Grow Components section

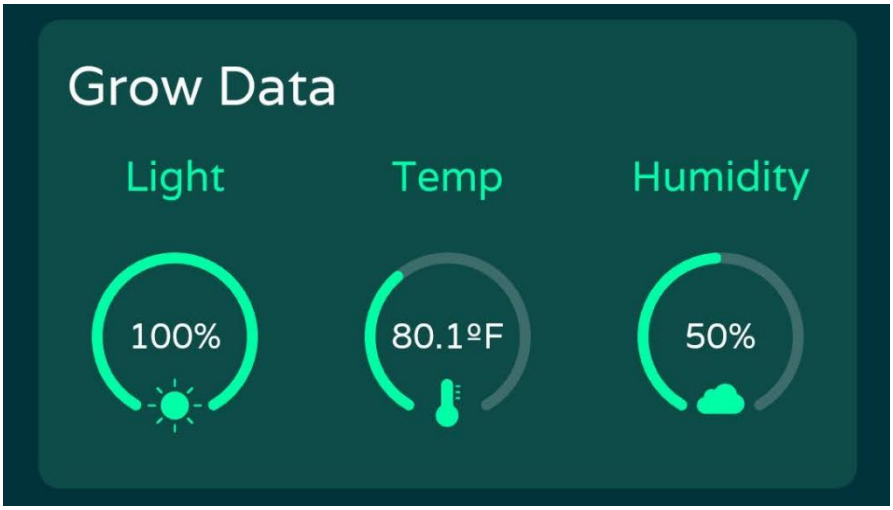
This will show your current outlet configuration and the status of each device, **please note you cannot operate the different devices manually**, all of them are operated following the current recipe settings.



Grow Data section

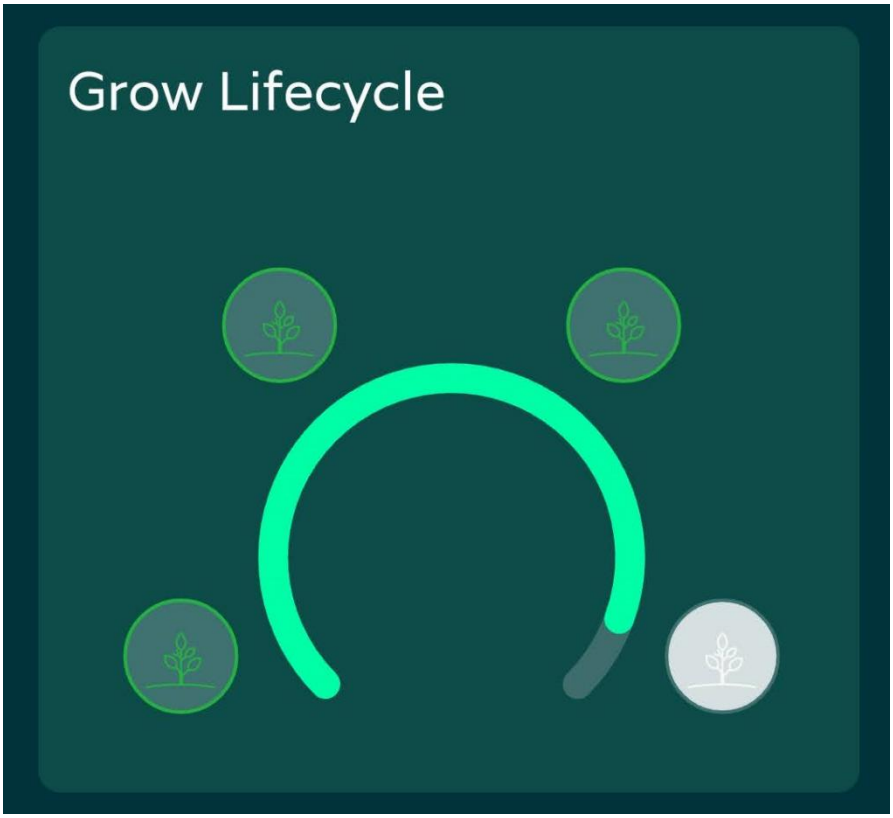
The gauges show:

- Current temperature.
- Current relative humidity
- Current light level. The Grow Hub sensor incorporates an illuminance sensor, **measuring luminous flux per unit area**. This measurement shows the current light level percentage between 0 and the maximum set from the settings menu “Calibrate light sensor”. When you “Calibrate” your light sensor, make sure your light is at full capacity so the sensor can produce accurate readings.



Grow Lifecyle section

In this section you will find the Circle of Life, from which you can check what current stage is live within your grow recipe and where you can choose to move to a different stage.



The alarms

How do the alarms work?

You can enable different types of alarms and get push notifications when your Niwa Grow Hub detects any parameter that is out of the pre-selected desired range(s).

Depending on several factors, the alarm can take a few minutes to trigger and notify you through your mobile phone. Make sure your push notifications are enabled on your phone. You will get a push notification every time a new alarm is triggered and your alarms will also be logged on the notifications panel.

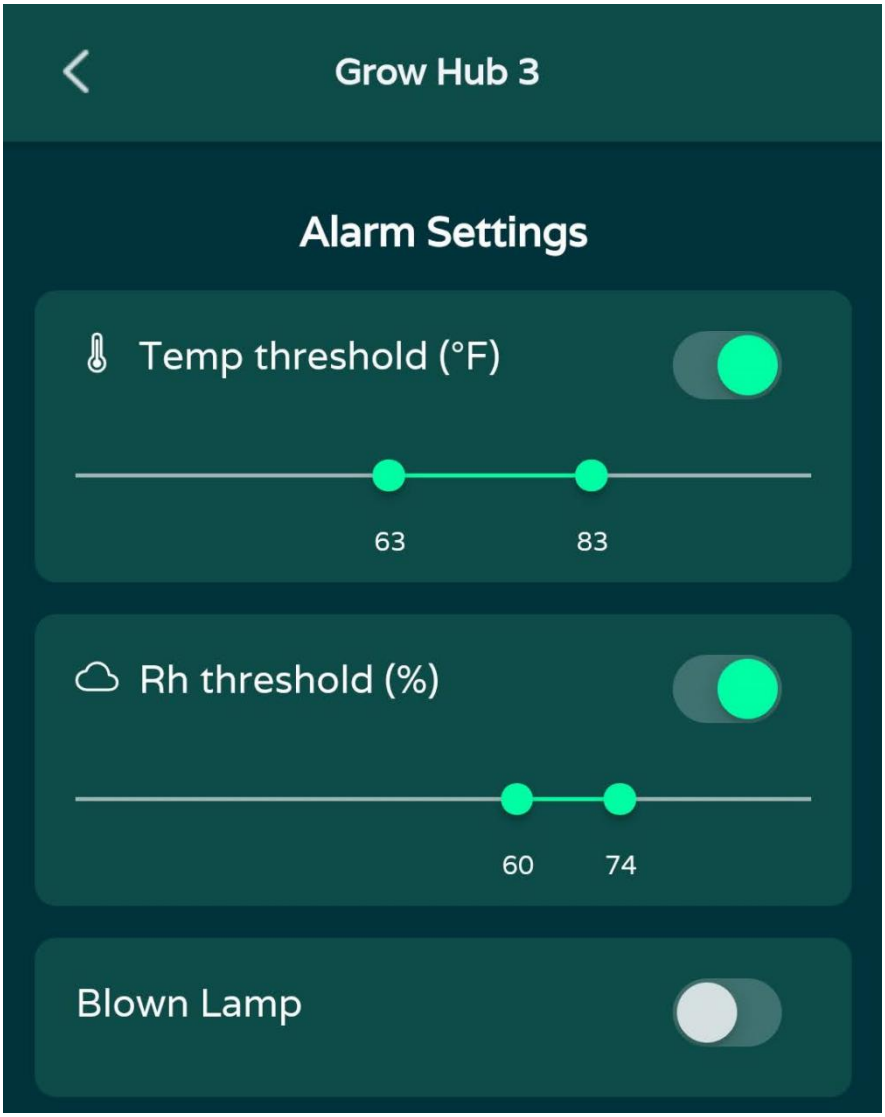
The Niwa Grow Hub must be online (blue LED flashing every 2 seconds) for the alarm to be triggered and received then sent to your mobile phone.

To set up an alarm, go to Settings > Alarm Settings, then:

Temperature and relative humidity alarm

To enable these alarms, tap on the button to the right of the title of the desired alarm which will turn green once enabled. Then you will be able to set the minimum and maximum acceptable values for your temperature and relative humidity.

Once you've finished, tap on "Save Changes"



Blown lamp alarm

This alarm will notify you if the Niwa detects your lamp is not performing as usual and will use the light level readings to determine if the performance is reduced.

Once you have your sensor placed into position, please calibrate your light sensor (instructions in the 'settings' section of this manual). If you change your lamp, the desired intensity of your light or your sensor's position, please calibrate it again.

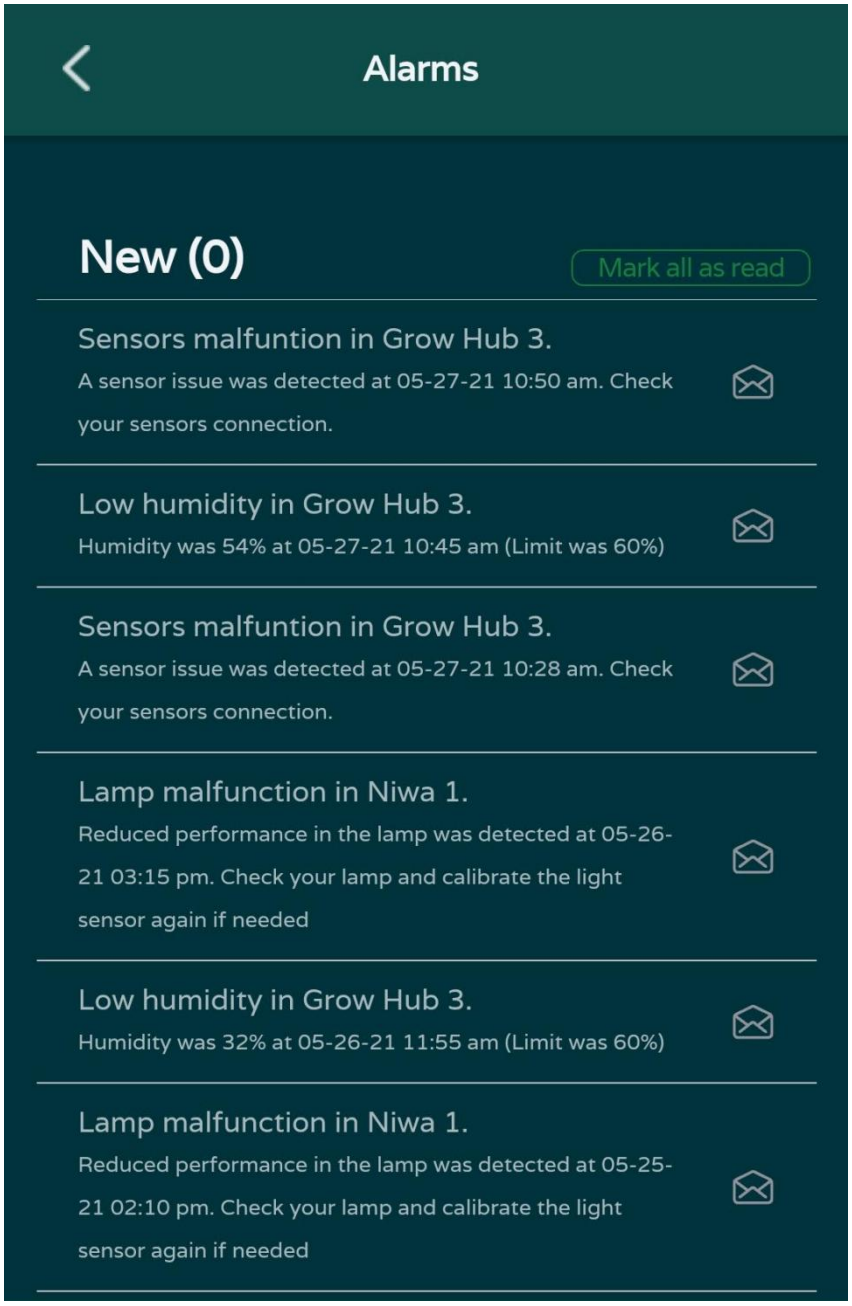
To enable this alarm, tap on the button to the right of “Blown Lamp”, once it is green, **tap on “Save Changes”**

The notifications panel

When you tap on the bell icon of your dashboard (left of the dropdown toolbar), the notifications section will open. Here you can see all different triggered alerts **from all your different devices** and information about them. From here, you can mark the different alarms as ‘read’ by tapping on the envelope icon once you have taken action to solve the situation. You can also mark all as read by tapping on “Mark all as read”.

Important: Once you get an alarm, for example “*High temperature in Grow Hub 1*” this alarm won’t be notified again while it is **unread** (otherwise you would be getting notifications continuously). If more than 24 hours pass and the situation is still unchanged, i.e. the temperature is still higher than the desired max in the Grow Hub 1, you will be notified again.

New types of alarms from this or other devices will keep being notified, for example, if at some point the humidity in your Grow Hub 1 is below the threshold, you will get a new alarm “*Low humidity in Grow Hub 1*”.



The recipes

In the Recipes section you can either load an existing recipe from the Niwa catalog, or create your own recipe according to your specific needs.

The recipe menu

When you select a recipe you can:

- **See details**; you can check the different settings for all different recipe stages.
- **Let's get growing!**; this button will load the **first stage** of the selected recipe into the Grow Hub.

- **Stop growing!**; this button will enable if the selected recipe is the currently loaded one, hit it to stop the recipe. **Please note:** the Grow Hub wont activate any outlet if there is no grow recipe running.
- **Edit recipe***; this button allows you to edit the different settings for all the recipe stages.
- **Delete recipe***; this button will erase your recipe from your personal catalog.

** Only available for personal recipes.*

Stages and cycles

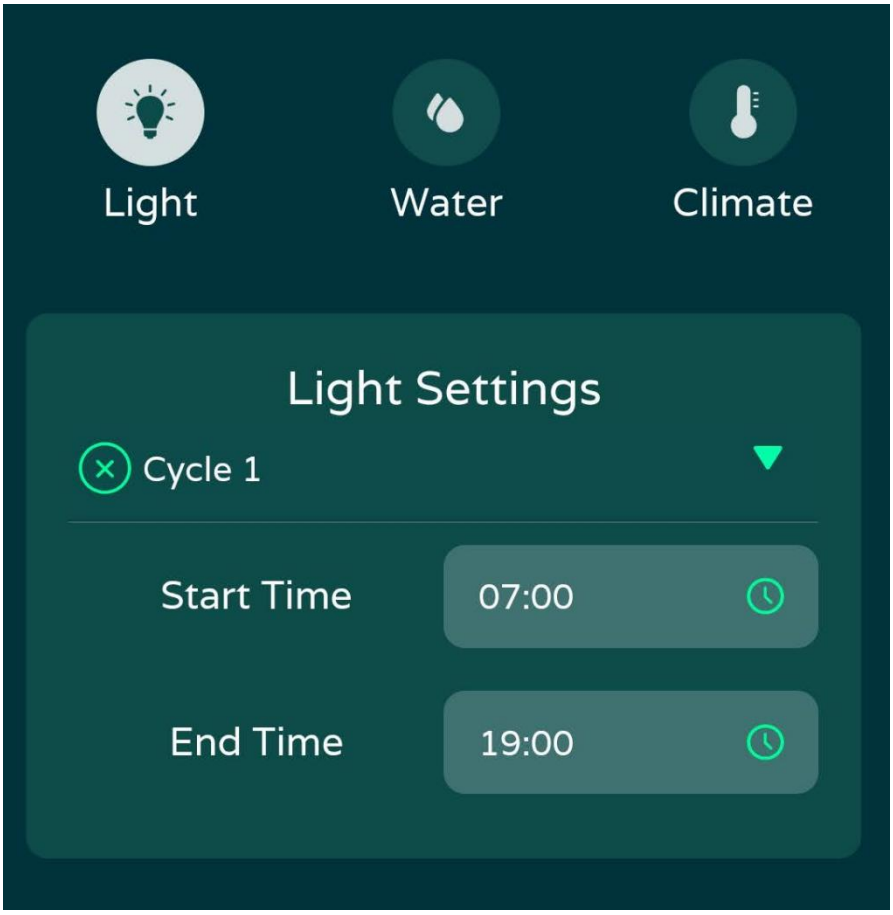
Plants have different stages of growth (Germination, Seedling, Vegetative, Flowering...) and each stage requires different care (i.e. different climate, hours of light, etc.). Because of this, a recipe can also have multiple stages (from 1 to 7).

Stages define how your system will behave (temperature, hours of light, etc.) along the day; these days will keep repeating starting at 12.00AM (0.00) and ending at 11.59PM (23.59) and you can add different cycles within the day for:

Light

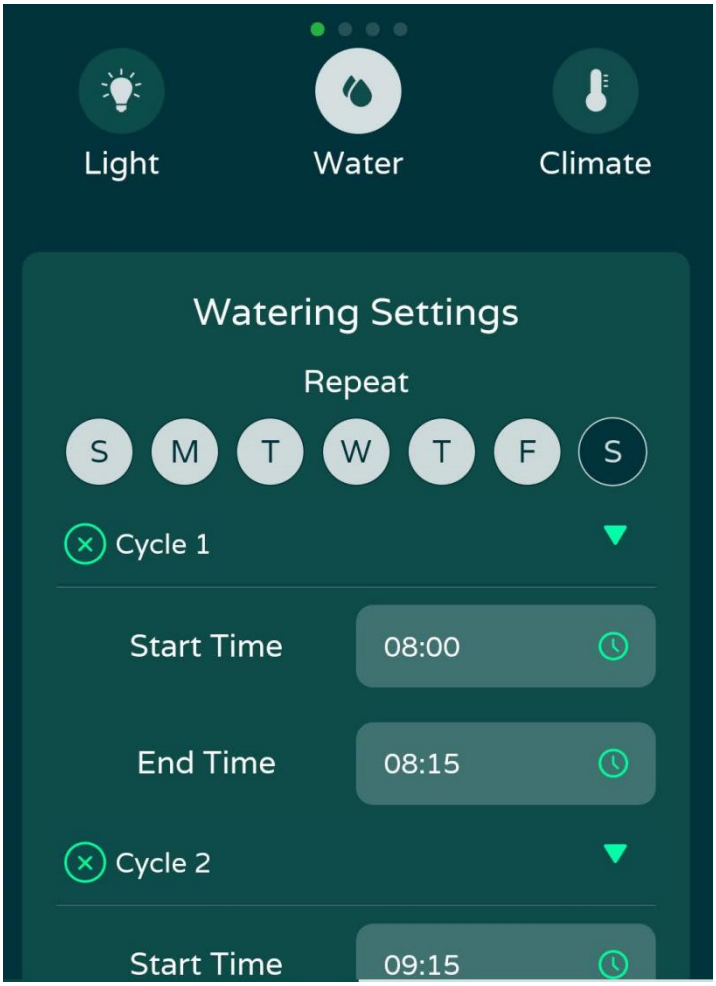
Set the time range you want your lamp ON.
You can add up to two cycles per day, to add an additional cycle, just tap into “Add cycle” and a new dropdown will show.

Pro tip: *If you need to create an* ***overnight cycle****, for example from 8.00 pm (20.00) to 8.00 am (8.00), and since the days ends at 11.59pm (23.59), you need to create two separate light cycles:*
- *1st light cycle from 20:00 to 23:59*
- *2nd light cycle form 0:00 to 8:00*



Watering

Set the time range(s) you want your pump ON. You can also set which days of the week your system will water.
You can add up to four cycles per day, to add an additional cycle, just tap into “Add cycle” and a new dropdown will show.

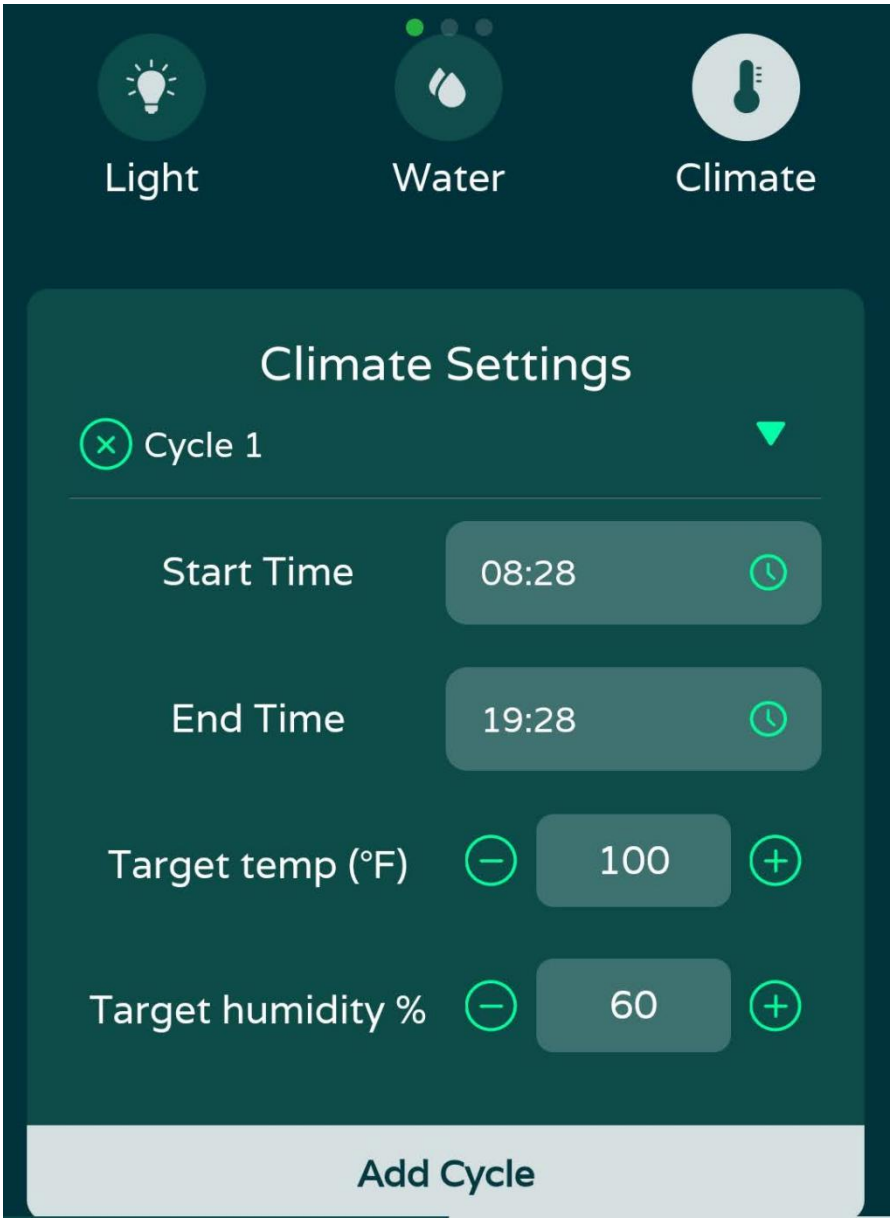


Climate

Set temperature and humidity targets for a defined period of time within the day. The Grow Hub will control your heater, fan, a/c, humidifier and/or dehumidifier depending on your outlet configuration.
You can add up to three cycles per day.

Pro tip: *If you need to create an* ***overnight cycle****, for example from 8.00 pm (20.00) to 8.00 am (8.00), and since the days ends at 11.59pm (23.59), you need to create two separate climate cycles:*

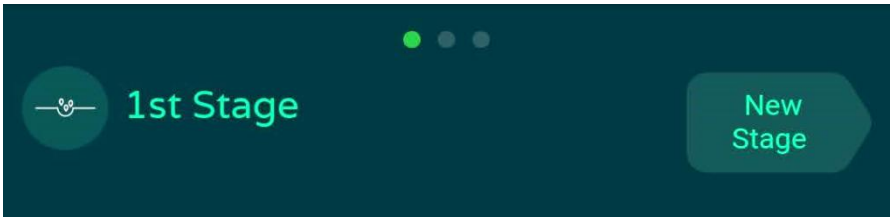
- *1st light cycle from 20:00 to 23:59*
- *2nd light cycle form 0:00 to 8:00*



Navigating stages in the app

You can:

- **Add new stages** tapping on the top right **"New Stage**" button while creating or editing a recipe.
- **Navigate between stages**; Slide your finger right or left to view all the different stages that have been created.



- **Delete a stage**; tapping on the bottom left “Delete stage” button will delete the current displayed stage while creating or editing a recipe.

- **Save your recipe;** once you have finished editing your recipe, tap on “Finish & Save” to exit the recipe edit and save the changes.

How a recipe is executed

Once you load a recipe from the recipe menu, the first stage will automatically start to run, you can select a different stage anytime from the dashboard’s Circle of Life, just tap over the desired stage and confirm. The Grow Hub will automatically load the new settings for your grow set up.

When a recipe’s stage is loaded, it will keep running and repeating every 24h until you change the stage or the recipe.

Regardless of the recipe settings, the Grow Hub will automatically adapt the recipe to match its current outlet setup. **For example**, if you set a temperature target of 80ºF but you don’t have any heating element plugged into your Grow Hub, it won’t try to connect the heater when temperature is below target.

How climate control cycles operate the different devices

In the current(*) version of our Firmware there are two different control threads. One is for temperature that operates exclusively the A/C, the fan (if there is no A/C present in the outlet configuration) and the heater based on the current temperature readings and the temperature target.

The other thread controls the relative humidity and it actuates exclusively the humidifier and the dehumidifier based on the current humidity readings and the humidity target.

The control cycle will adapt to operate only the devices present in the outlet configuration.

(*) At the moment of writing this paragraph, a new Firmware version is being developed. Our next firmware version will operate the fan based on humidity too. Please reach out to support@getniwa.com if you have any questions about this.

Dead zones

In order to protect your climate control equipment (heater, fan, A/C, humidifier or dehumidifier), the Grow Hub enables a "dead zone" for **both temperature control and**

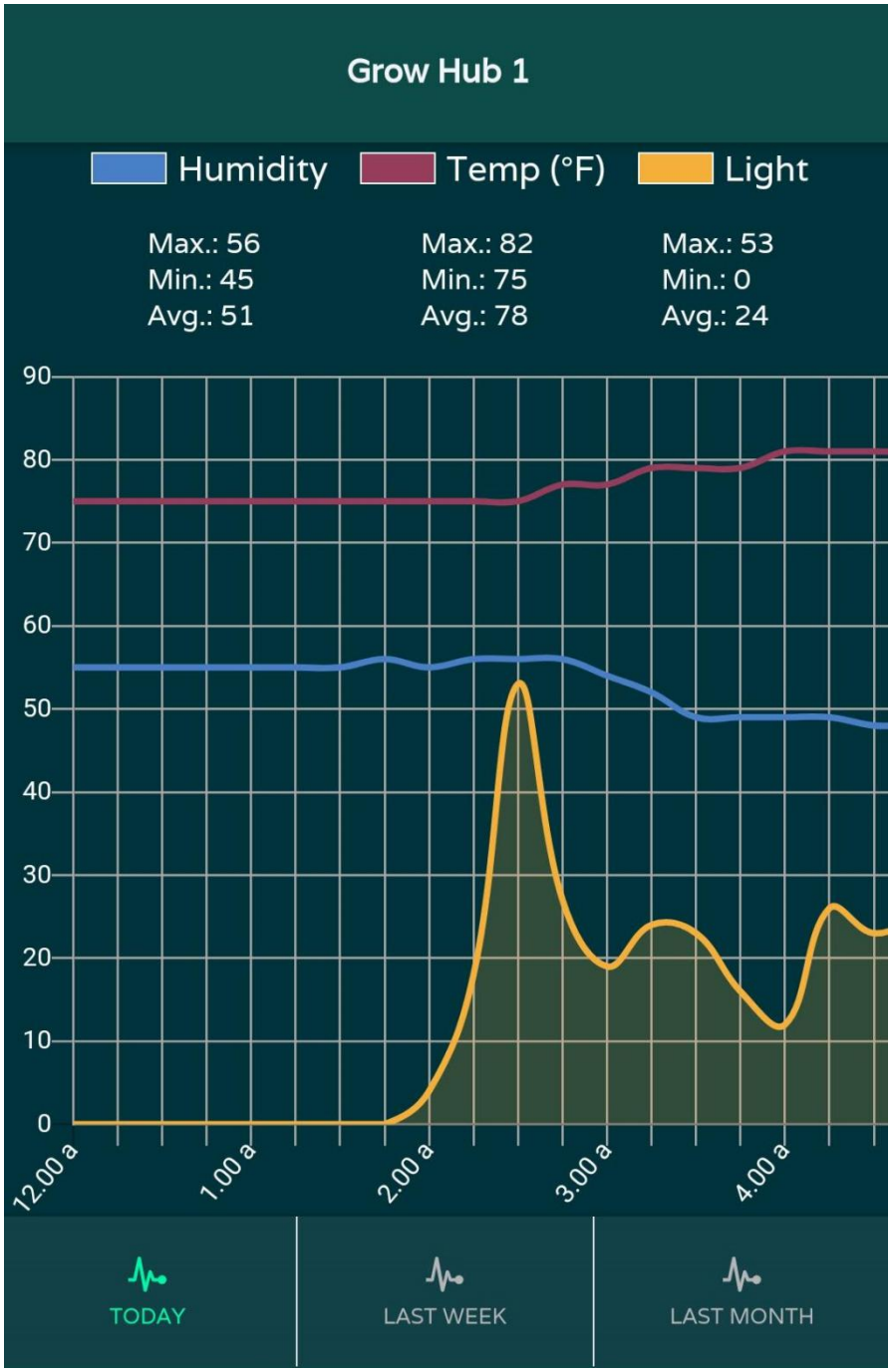
humidity control.

- Temperature dead zone range: 0.5ºC
- Humidity dead zone range: 5%

For example: If you set a humidity target of 65%, your dehumidifier will turn ON when the current humidity is lower than 60%; and it will turn OFF when humidity is greater than 65%, this will prevent your dehumidifier to turn ON and OFF constantly when the current humidity is close to the humidity target.

The Stats

In this section you can check the historic information captured by the Grow Hub sensors. You can choose between current day, week or month views.



Settings

Outlet Configuration

Once you have installed your Niwa Grow Hub sensor inside your growing tent is time to plug your existing devices into your outlets, you can plug up to four of the following devices at the same time:

- Fan
- Lamp
- Humidifier

- Dehumidifier
- Cooler (A/C)
- Heater
- Watering Pump

To do so, go to your settings section in the app (Gear icon) and select "Outlet Configuration". There you can select which device is connected to each specific outlet. Only one (1) device type can be connected to one outlet. For example, you **cannot** connect two lamps to two different outlets.

WARNING! The Niwa Grow Hub can handle **resistive loads** up to **10A MAX** (1200W @120V) per outlet and **15A MAX** (1800W @120V) **in total for all four outlets**. **Make sure you don't exceed these loads**. Some grow lamps have very high inrush currents, so please take this into consideration or ask Niwa support team if you are not sure or you don't understand it.

WARNING! 1500/750W heaters.

Some heaters have Hi/Low settings connected to one or two independent resistors and depending on the selected power setting it can draw different levels of power. There are heaters electronically controlled, **so they can draw up to the MAX rated power even if the Low position is selected.**

Please always consider the MAX rated power for any devices to be connected to the Grow Hub and make sure it is below the MAX power ratings of the Grow Hub -*10A MAX (1200W @120V) per outlet; 15A MAX (1800W @120V) total*.- Otherwise **it's risky** and while it may work for a period of time, **it will damage your Grow Hub at some point and thus voiding the guarantee.**

It will fry your Grow Hub!

If you need to handle a load greater than 10A (or 1200W for resistive loads) you can use the Niwa Grow Hub as a trigger for a dedicated light controller or an external electrical device such as a contactor to handle the load. We recommend having a technician performing those jobs and we are happy to offer advice from support@getniwa.com.

Sensor's Offsets & calibration

The Niwa Grow Hub uses a high precision sensor and it comes precalibrated from the

factory. In order to get accurate readings, it's very important where you place it:

- Do not place it under your lamps as it will get direct heat from it, interfering with the readings.
- Since hot air rises, you should ideally place the sensor halfway between your plants and the top of your grow chamber.
- Do not place it close to your climate control equipment (fans, heaters, A/C, humidifiers, dehumidifiers…) but make sure it receives good airflow.

Once you have placed your sensor, if you still need some fine tuning, please follow the steps below:

- Get a high precision thermometer and hygrometer and place it as close as possible to the Niwa sensor. Leave it there for a day.
- Your Niwa Grow Hub should be on-line (flashing blue slowly)
- Open your Niwa app > Note down the current temperature and relative humidity readings from your dashboard
- Tap on the Gear icon > Sensor's Offsets
- If necessary, Slide the dials left or right in order to add or subtract temperature or relative humidity to the readings you just noted down to match the readings from you high precision thermometer and hygrometer
- Tap on "Save changes"
- Then, after a few seconds, you can check adjusted readings from your dashboard

Your grow recipe will automatically adapt to follow the updated readings when managing your desired climate.

Calibrate Light Sensor

Your Grow Hub sensor measures illuminance, the goal of this information is to track the performance of your lamp to make sure the lamp is working properly. The light level is a percentage showing the current amount of light between 0 (total darkness) and the maximum level when your lamp is ON.

Every set up is different so you need to calibrate your sensor to let the Grow Hub learn the light level when the lamp is connected.

Tap on continue to proceed with the calibration. If you have a lamp plugged into the Grow Hub and is not connected, it will switch on momentarily to let the sensor measure the light level.

Change Device's Network

If you need to connect your Grow Hub to a new Wi-Fi network, you can do it from here using the standard Wi-Fi connection setting or the advanced one. Please refer to the "Connect your Niwa Grow Hub to your Wi-Fi" section as the steps are similar.

Account Settings

From here you can select the desired temperature scale; change your accounts password and Log Out from the app.

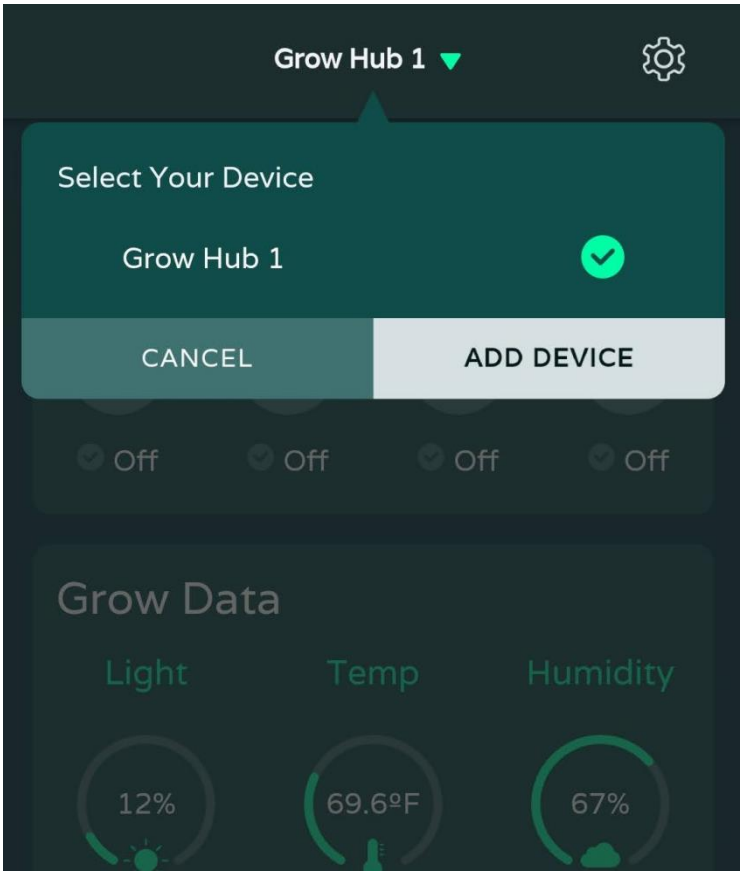
Support

From here you can email our support service support@getniwa.com

Managing multiple Niwa Grow Hubs

Adding a new device

To add an additional Niwa device to your account, tap on the name of your current device, a dropdown will show:



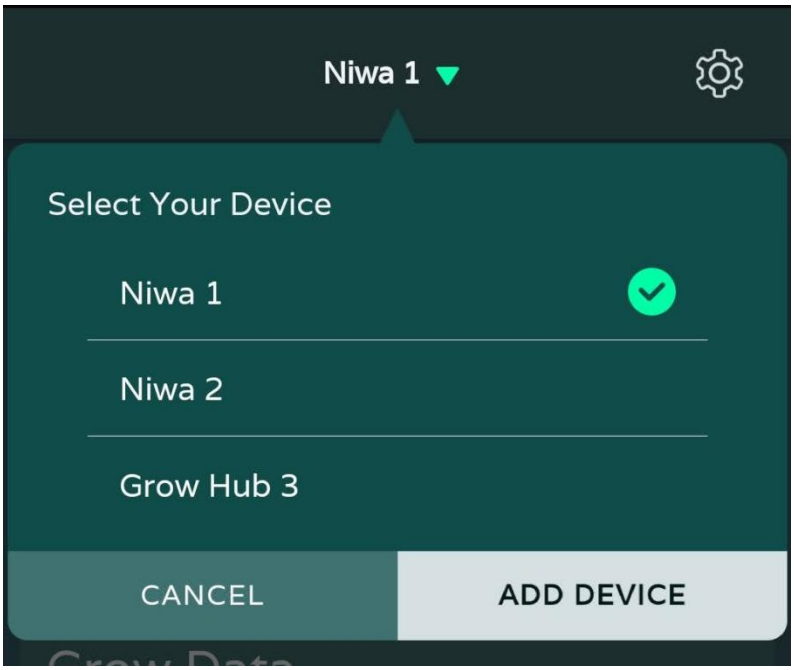
From there tap on “add device” and follow the same steps you followed when you added your first device. You can learn more in the Connect your Niwa Grow Hub to your Wi-Fi section and the Alternative Wi-Fi setup (Advanced AP mode) section of our manual. If you face any issue, please refer to the Wi-Fi tips & Troubleshooting section.

Please note: Make sure the new device you want to add has not been previously linked to any user account. If the new device you want to add is already linked to an account please contact support@getniwa.com.

Controlling different devices

You can control and monitor your different Niwa devices linked to your account from the app by choosing which of your devices you want to interact with.

To switch to a different device, tap on the name of the device which will show a dropdown with all the devices linked to your account. Then, tap on the name of the device you want to monitor and the app will load the data for that device. You can access the different sections; Dashboard, Recipes, Stats and Settings as usual for the current device you selected.



Niwa Grow Hub LED status

Mode / status	Blue LED	Red LED
Standard SC Wi-Fi setup is enabled	Fast blinking	Off
Backup AP Wi-Fi setup is enabled	Fast blinking	Fast blinking
The Internet is connected. All OK	Slow blinking	Off
Internet disconnected. Time is synced. Offline data logger enabled. Recipe keeps executing.	Off	Slow blinking
Internet disconnected. Time does not sync. Offline data logger not enabled. Recipe can't be executed.	Off	Fast blinking

Note:

Slow blinking: 2 seconds on, 2 seconds off…
Fast blinking: 1 second on, 1 second off…

Warnings & Cautions

- Read all printed and online instructions before operating your Niwa Grow Hub.
- The Niwa Grow Hub can handle **resistive loads** up to **10A MAX** per outlet and **15A MAX in total for all four outlets**. **Make sure you don't exceed these loads**. Some grow lamps have very high inrush currents, so please take this into consideration or ask Niwa support team (support@getniwa.com) if you are not sure or you don't understand it.
- When operating high powered grow lamps, external lamp controllers must be used. Those controllers can be triggered by the Niwa Grow Hub. There is more information on our website.
- Do not connect anything except the Niwa Sensors to the USB connector port located on the Niwa Grow Hub.
- Do not connect the Niwa Sensors cord to anything but the Niwa Grow Hub USB connector port.
- Do not put your Niwa Grow Hub or your Niwa Sensors in an area where it can get wet or sprayed.
- When using "bug bombs" or similar products, please cover your Niwa Grow Hub and the Sensors module completely to avoid corrosion.
- Do not put paper clips, tools, etc. into the Niwa Grow Hub outlets or Niwa Sensors ventilation grid. Possible electrocution and malfunction may occur.
- Plug the Niwa Grow Hub into a surge protector to avoid potential damage to the unit.
- Confirm that your power source is 120 Volts/15 Amps prior to plugging any equipment into any outlet on the Niwa Grow Hub.
- Check all equipment that will be activated by the Niwa Grow Hub is the proper voltage.
- The Niwa Grow Hub and the Niwa Sensor is designed for "indoor use" only and is not waterproof or splash proof.
- Further damage can occur when operating Niwa Grow Hub in extremely humid environments (90% and above).
- Do not use the Niwa Grow Hub for purposes other than what the unit was designed for.
- Ask your retailer for tips and techniques regarding the use of this product.

Main Features

Grow recipes

Growers can pick one of the existing Niwa grow recipes or create one themselves. Temperature, humidity, watering and light schedules are completely customizable, so growers can have the optimum control over their plants. The recipe will adapt to different equipment configurations.

Recipe stages

Plants have different needs in terms of their climate, lighting and how much water is required. Custom grow recipes offer several stages that define the different parameters needed for each plant stage. As the plants evolve, the grower needs to

click “next stage” and choose their optimum settings for their plants' next growth phase.

Alarms

The Niwa app will notify growers if something is going wrong in their grow set-up. High temperatures and humidity along with mold or lamp malfunction are some of the possible alerts a grower can set to keep their plants safe and healthy.

Live dashboard

Growers can check the current status of their garden by glancing at their live dashboard, anytime, anywhere, and in a secure way.

Configuration, outlets.

Every setup is different. Growers can configure their Niwa Grow Hub to control **up to four of the following** devices at the same time:

- Fan
- Lamp
- Humidifier
- Dehumidifier
- Cooler (A/C)
- Heater
- Watering Pump

Each outlet is capable of handling 10A (resistive load) at 120V for a total of 15A MAX. Larger loads can be handled through accessories (not included).

Stats

Logging & measuring the different parameters affecting a grower’s crop is fundamental in order to achieve maximum performance and avoid future mistakes. The Niwa Grow Hub has a built-in data logger where growers can check and review their current or past parameters anytime from the Niwa app.

Connectivity

The Niwa Grow Hub incorporates the reliable Wi-Fi 2.4GHz standard to guarantee growers can access their plants from anywhere at any time. Additionally, strict security protocols are built into our software to guarantee absolute privacy and protection.

Over-The-Air updates

The Niwa Grow Hub is enabled with Over-The-Air Firmware and app updates that guarantee the latest features are instantly accessible to all growers. On top of that, the Niwa Grow Hub is fitted with the Niwa Grownet standard that will connect growers with the next generation of Niwa Grow devices effortlessly and wirelessly.

Electrical specifications

Input	10A AC120V 50/60Hz
Output	15A Resistive 120V Max 1875W
Max Load	**15A in total** **10A per every individual outlet**
Overload Protection	Yes
Surge Protection	Yes
Wi-Fi network	2.4G b/n/g
Operating temperature and relative humidity	-50°F ~ 130°F, (-10ºC ~ 55ºC) 10%~90%RH, Non-condensing

What's in the box?

1. Niwa Grow Hub.
2. Niwa Sensors.
3. Instruction manual.

Contact

For further information about how to use the Niwa Grow Hub please visit **www.geniwa.com**.

For any service enquiries please email: **support@getniwa.com**

Warranty Information

- Niwa warrants the original purchase of this product against defects in material and workmanship under normal use for one (1) year from the date of purchase.
- All returns or repairs must be accompanied by a Return Merchandise Authorization (RMA) number given by a Niwa representative prior to any service of a Niwa product.
- This warranty shall not apply to this product or any part thereof which had been damaged by accident, abuse, misuse, modification, negligence, alteration or misapplication. This determination will be decided upon after a product review has been executed by a Niwa representative.
- This warranty shall apply only to the United States, including Alaska, Hawaii and territories of the United States and Canada.
- Defective devices need to be returned with a “proof of purchase” receipt.

- For additional warranty information, contact the Niwa support team at support@getniwa.com. Our normal business hours are Monday – Friday, 9 a.m. to 4 p.m. Eastern Standard Time. We are closed for most major holidays.
- Monetary refunds of the warranty will not be given.
- All warranty service is provided through the factory or an authorized retail partner.

Service and Repair Program

For all service and repairs please contact our support team at support@getniwa.com. Our normal business hours are Monday – Friday, 9 a.m. to 4 p.m. Eastern Standard Time. We are closed for most major holidays.

Warranty Service

If, after reviewing the troubleshooting tips online, and your unit still doesn't work, you may contact us directly for technical support at support@getniwa.com. If we cannot help you resolve the problem, we will issue you an RMA # (Return Merchandise Authorization) authorizing you to return the controller to us for review (if the unit is under warranty). Contact support@getniwa.com for an RMA and shipping address. Complete the form (ask suppoert@getniwa.com for it) and include it with your unit. Also, please write the RMA # on the outside of the box. Additionally, please package the unit in its original packaging. If it is damaged in shipment, we cannot be responsible. Once we receive the unit back, we will alert you and notify you of our review. We will return it to you freight prepaid if the product is within warranty and was not damaged by accident, abuse, misuse, modification, negligence, alteration or misapplication.

FCC Requirement

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.

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.