

# echo DISPLAY



## USER MANUAL & INSTALLATION GUIDE

For all our User Manuals please visit [www.scynceled.com/support](http://www.scynceled.com/support)

# MANUAL FOR END USER AND INSTALLER

Thank you for purchasing the Echo Display. The Echo Display represents a significant leap forward in the control and management of your Scynce LED grow lights. This manual contains all the information needed to quickly familiarize yourself with the product. Please review this information carefully, before installing and/or operating the product.

We recommend you keep this manual on hand for future reference.

## For further information please contact:

SCYNCE

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# INCLUDED IN THE BOX

Several components are included in the Echo Display box, each of which is critical for your successful setup. If any parts are missing please reach out to us for assistance.



## PARTS INCLUDED

- A - Echo Display
- B - 120V Power Adapter
- C - Analog 0-10 Cable
- D - COM Cable, 10'
- E - COM Termination Plug
- F - RJ45 IP-Rated Adapter
- G - Surface Mount Feet (4x)
- H - Surface Mount Feet Screws (4x)
- J - Vesa Mount (75x75) Screws (4x)



# PRODUCT DESCRIPTION

## INTENDED USE

The Echo Display is intended for the control of Scynce LED lighting fixtures. For other applications in professional horticulture, please contact a representative at Scynce.

Any use other than the approved intended use described above is considered an unintended use. Scynce LED cannot be held responsible for possible consequential damage caused by improper, incorrect or inadvisable use.

Scynce LED software is closed source. Any unauthorized modification to the software is strictly prohibited. Scynce LED cannot be held responsible for damage caused.

## SYMBOLS USED

The following symbols are used in this manual to draw attention to specific topics or actions

**WARNING**

A warning indicates the possibility of injury to the user and/or damage to the product should the user not perform the procedures as described.

**ATTENTION**

A note alerts the user to potential problems which may occur if a procedure is not carried out as described.

# SPECIFICATIONS

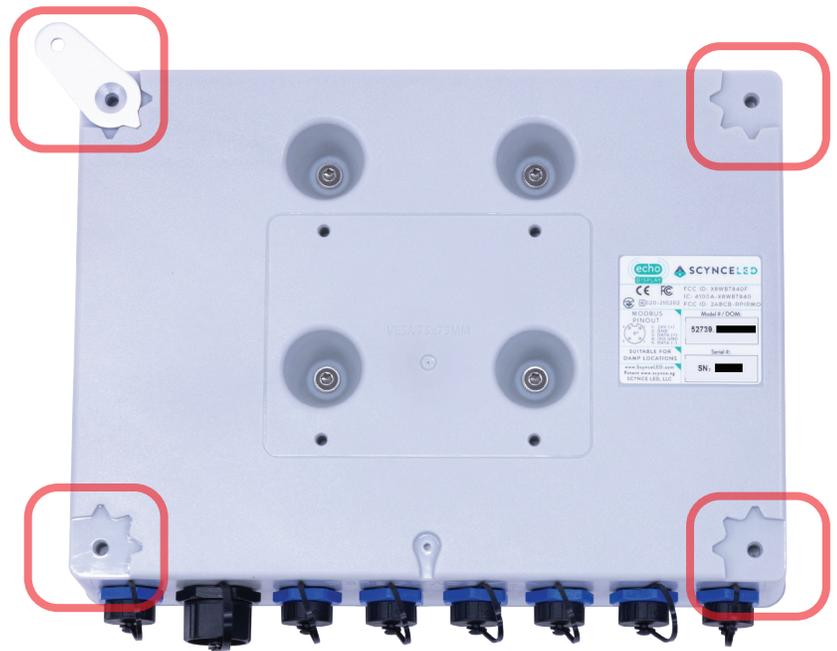
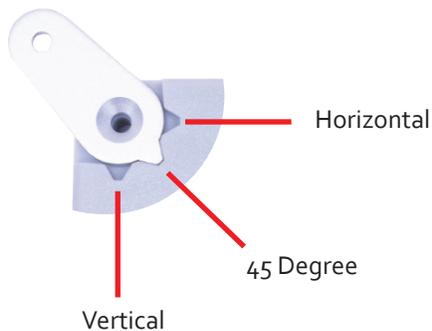
Product Name	Manufacture's ID	Screen Size	Size	Weight	Ingress Protection Rating	Installation Environment
Echo Display	52739	10in Touch Screen (1280 x 800)mm	(260 x 190 x 73)mm (10.25 x 7.5 x 2.875)in	5.4 lbs	IP65	Suitable for Damp Locations
Main Voltage Power Supply	Input Voltage	Power Draw	WiFi Frequency	Ambient Operating Temp	MODBUS Speed	MODBUS Data Pattern
120-240VAC (50/60HZ)	24VDC	12 Watts (with no sensors)	2.4GHZ 5GHZ	-40C ~ 30C	19200 or 9600	8N1
Analog 0-10 Source Speed	FCC Identification Numbers					
1mA	FCC ID: X8WBT840F IC: 4100A-X8WBT840 FCC ID: 2ABCB-RPIRMO					

# MOUNTING OPTIONS

The Echo Display comes with two mounting options: surface mounting, and vesa mount.

## SURFACE MOUNTING OPTION

If you elect to using the surface mounting option, start by locating the provided surface mounting feet (4x) and accompanying hardware. Place one surface mount foot in each of the four receptacles on the back side of the Echo Display. Note the three rotational location notches that align the mounting feet vertical, horizontal or at a 45 degree angle.

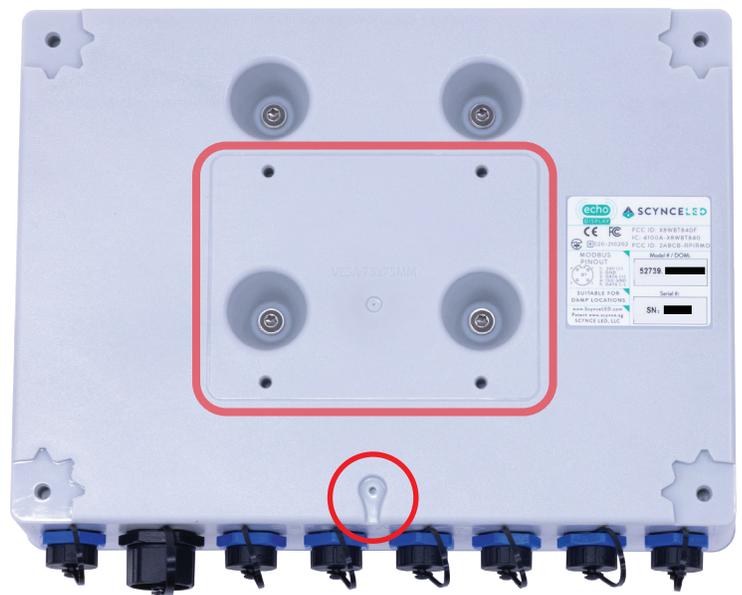


## VESA MOUNTING OPTION

If you elect to use the vesa mounting option, start by locating the provided vesa mounting hardware. The Echo Display is equipped with a standard 75mm x 75mm mounting holes as indicated on the back of the Echo Display. Mount any standard 75mm x 75mm vesa mount using the provided hardware.

## ATTENTION

The hole located on the back toward the bottom of the Echo Display shaped like a “drop” IS NOT an access hole. A thermal breather resides on the inside of the assembly that allows air to move in and out of the assembly for thermal expansion and contraction. DO NOT insert anything into the hole or the breather will be dislodged.



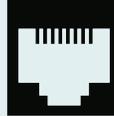
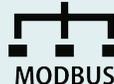
# INSTALLATION

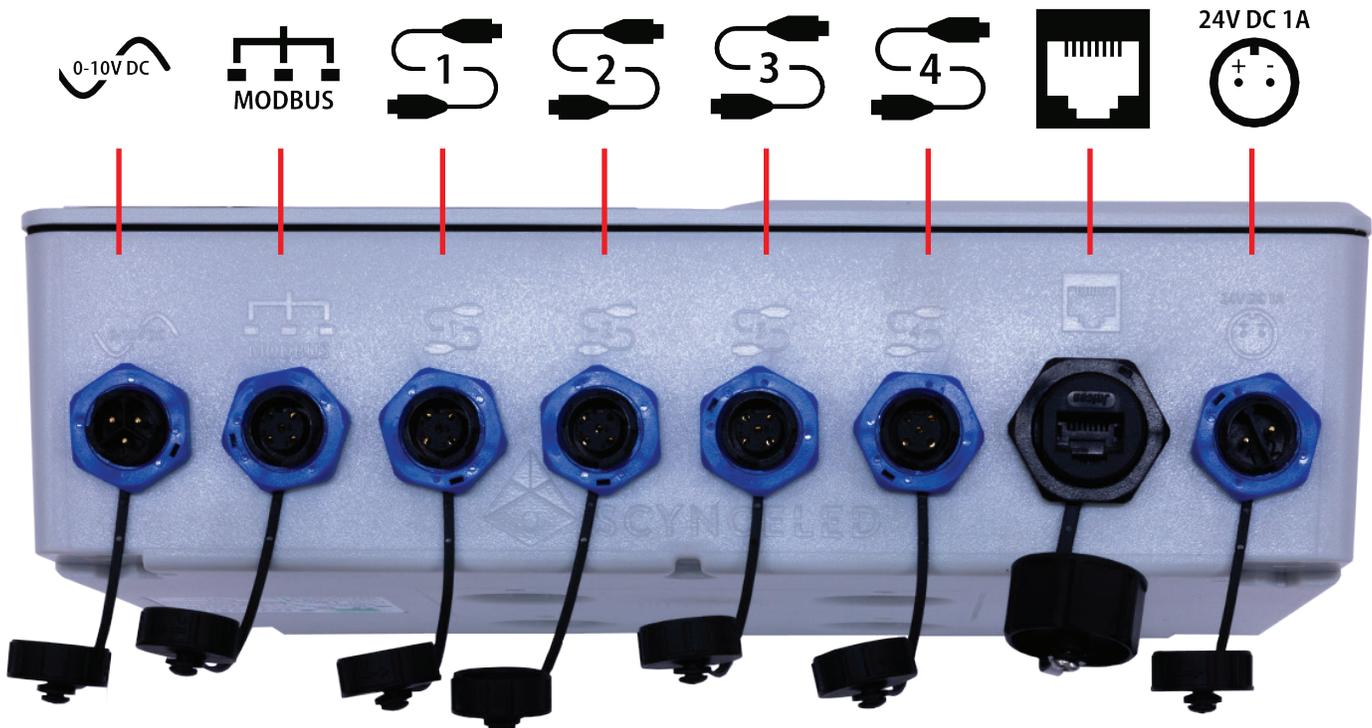
Several connectors are located on the bottom side of the Echo Display. Depending on how you set up the Echo Display in your environment will determine which of these connections are used. Each connection type has a unique connector to prevent an incorrect connection from being made. The connectors are IP66 rated to ensure the Echo Display can withstand a damp environment.

## CONNECTING POWER

To connect power to the Echo Display using the farthest right connector depicted by . Use either the provided 24VCD Power Adapter or an equivalent source. Connection is made by aligning the alignment pin and pushing, the connector release mechanism will rotate 1/4 of a turn and snap into place to indicate that a firm connection has been made. To remove the connector twist the release mechanism in the direction indicated on the connector and pull.

## CONNECTOR LEGEND

- 24V DC 1A**  
 - Echo Display Power
-  - Ethernet, RJ45
-  - Scynce fixture COM (4x)
-  - MODBUS
-  - Analog 0-10



## CONNECTING SCYNCE LED FIXTURES

Scynce LED fixtures can be connected in one of two methods depending on the Generation of the fixtures. For Generation 3 and later fixtures, fixture to fixture communication is done through a daisy-chain COM cable provided. The COM cable is attached from one of the COM ports on the Echo Display, depicted by , to one of the COM ports on the Scynce fixture (located on the Power Hub or the fixture). The next fixture is then attached to the first using the same process and so on. The last fixture in the chain **MUST** be terminated with using the provided COM Termination Plug.

Each of the four COM Ports on the Echo Display will allow up to 75 fixtures to be attached, allowing a total of 300 fixtures controlled by one Echo Display. Note that if you require more than one COM Port populated you will need to purchase additional COM Termination Plugs. COM Cables are available at various lengths at [ScynceLED.com](http://ScynceLED.com).



## CONNECTING ETHERNET

The Echo Display is equipped with both a wired ethernet connection (RJ45) and a wireless ethernet connection option. If you elect to connect by wire, simply install the provided RJ45 IP-Rated Adaptor. This is done by installing a bare CAT cable through the adaptor, terminating the RJ45 connector, adjusting the adaptor over the RJ45 connector, and then tightening the adaptor backshell finger tight plus 1/2 turn. The cable can now be connected to the Echo Display by threading the adaptor into the RJ45 port, and tightening the connector finger tight.

## CONNECTING ANALOG 0-10

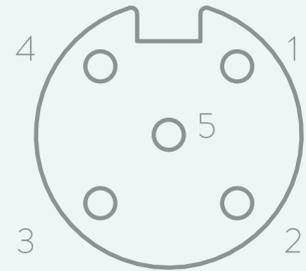
The Echo Display is equipped with an analog 0-10 input port, which is used for Master Dimming or an Emergency Override to dim the fixtures from an external controller. To connect installed the provided Analog 0-10 Cable to the far left port on the Echo Display, the port is depicted by . Connect the flying lead of the Analog 0-10 Cable, red is positive.

## CONNECTING MODBUS

The Echo Display is equipped with a MODBUS RTU port, depicted as  and configured to run at 19200 or 9600. This port can be used to monitor external sensor such as PAR, temperature, humidity... or the Echo Display can be controlled using an external control device. Two MODBUS Cables are available, the first is terminated with an RJ9 connector (p/n A-00485), the second has 5 wire flying leads (p/n A-00493). both can be purchased at ScynceLED.

### MODBUS CONNECTOR PIN-OUT

- 1 - 24V (+)
- 2 - Ground
- 3 - Data (+)
- 4 - Isolated Ground
- 5 - Data (-)



## OPERATION

### POWERING ON

After power is provided to the Echo display it may take a few minutes for the system to boot and load the operating system. During the loading process no action on your part is necessary.

### MAIN SCREEN (DURING SETUP)

When you first turn on the unit the main page will be displayed without any zones displayed.

Select the “3 dot” symbol in the upper left corner of the screen will display a menu. The 4 options on the menu are: Settings, Lights List, Sensors and About Device.

Settings will take you to the Echo Display Configuration Settings. Covered in detail starting on page 9.

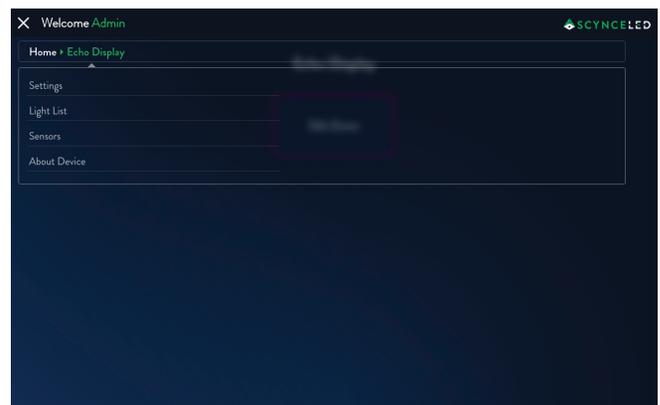
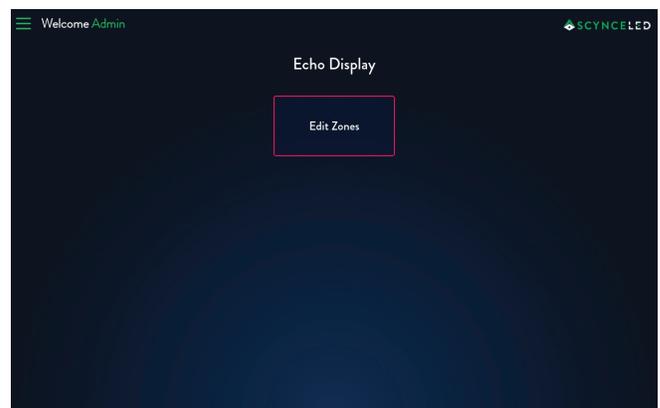
Light List will show a list of lights connected to the Echo Display. Covered in detail starting on page 12.

Sensors will show a list of sensors connected to the Echo Display. There are also options to configure the settings for any sensors that are connected to the MODBUS port. Covered in detail starting on page 12.

About DEVICE will display information about the Echo Display.

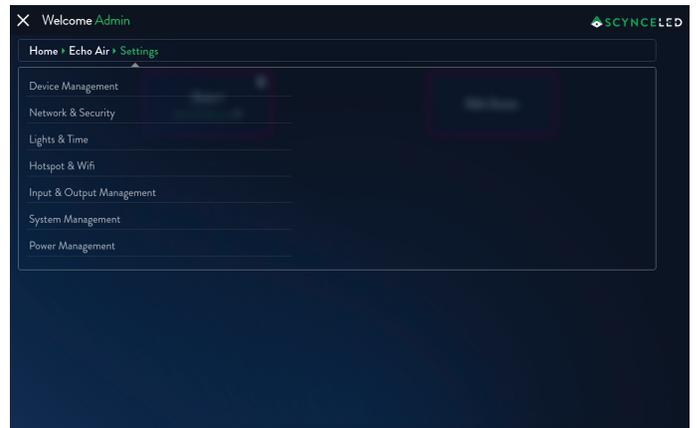
### ATTENTION

Prior to powering the Echo Display on for the first time, remove the protective film from the face of the touch screen.



## ECHO DISPLAY / SETTINGS

The Settings menu displays a list of options to configure the following: Device Management, Network & Security, Lights & Time, Hotspot & WiFi, Input & Output Management, System Management, Power Management.

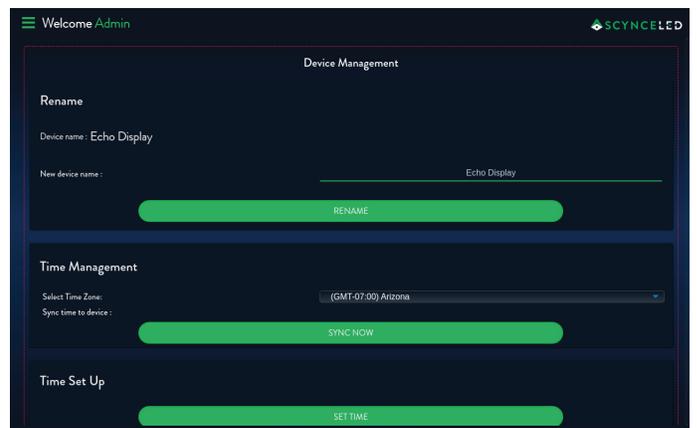


### SETTINGS / DEVICE MANAGEMENT

In device management you can rename any device (fixture) in the Echo Display network. The name will be displayed on the Echo Display home screen and also on the remote web-portal [scynce.cloud](https://scynce.cloud).

**Time Management:** Select this option if the Echo Display is connected to the Internet. You will be asked to set the global Time Zone. The Echo Display will automatically retrieve the correct time from Internet time servers.

**Set Time:** Use this option if the Echo Display is not connected to the Internet, and input your local time.



### SETTINGS / NETWORK & SECURITY

This section applies only to fixtures on the THREAD Mesh network.

The THREAD Mesh network has 15 groups (RF channels). The Echo Display and the fixtures being controlled can only operate on 1 of the groups at a time. To change the group, type the new group number (1-15) and then select Single or Network. Selecting the Change Group Single will change the group of the Echo Display, selecting the Change Group Network will move both the Echo Display and the fixtures being controlled to the new group.

**Security:** Thread Mesh networks are encrypted. The Echo Display and fixtures come from the factory with a default encryption key. Enabling the security changes the encryption key for the mesh network.

Enabling or disabling security requires the Echo Display to have Internet access and access to the [scynce.cloud](https://scynce.cloud) servers.

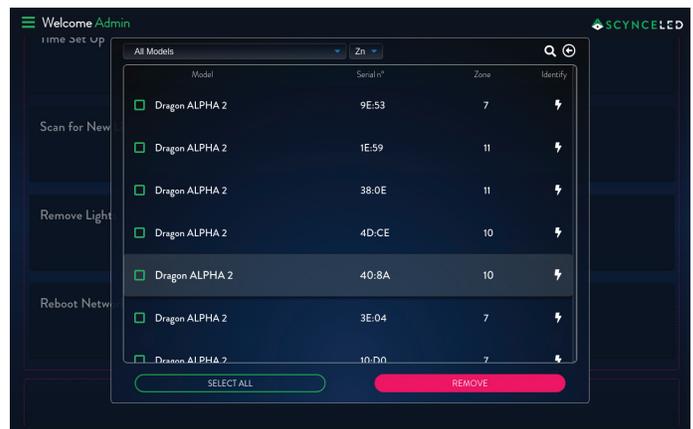
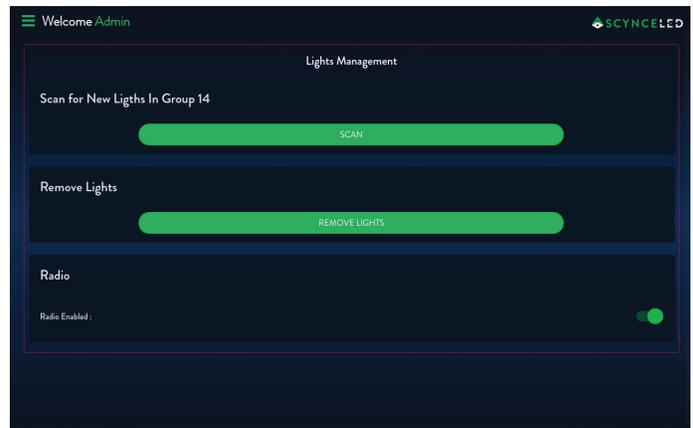


## SETTINGS / LIGHTS & TIME

This section applies only to fixtures on the THREAD Mesh network and the Wired network.

**Scan:** To locate new or existing fixtures that have been added to the network, select Scan. The Echo Display will scan both the THREAD Mesh (important to note that the fixture must be in the same group as the Echo Display) and Wired networks for fixtures. All fixtures will be listed in the zone they have been assigned. Note that new fixtures from the factory are set to zone 0.

**Remove Lights:** If you plan to physically remove a fixture from you the network, it is good practice to also remove the fixture from the Echo Display environment. This can be accomplished by selecting Remove Lights. Selecting Remove Lights will display a list of fixtures by zone. The list can be sorted by zone, fixture model, or if needed you can search by serial number. Select the fixture or multiple fixtures by “checking” the box to the left and then select the Remove button. Note that the fixture or fixtures will be removed from the Echo Display, but the fixture itself is not reset or changed.

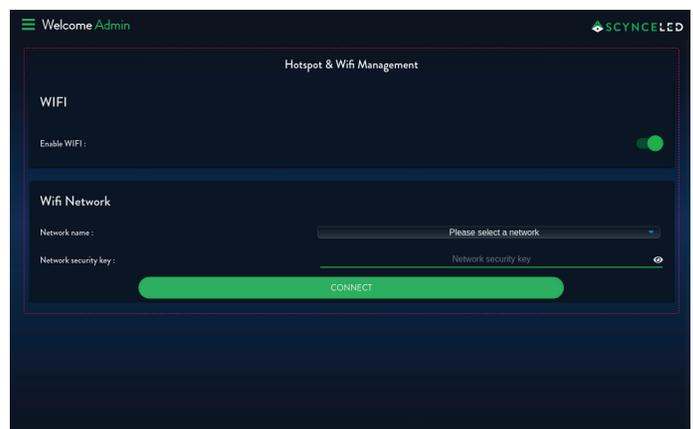


## SETTINGS / HOTSPOT & WIFI

The Echo Display offers both wireless and wired Ethernet connection options. If you have elected to set up your Echo Display with a wired Ethernet connection, the wireless option will be automatically disabled and the Echo Display will automatically connect to the wired Ethernet connection.

To enable or disable the WiFi by sliding the toggle left or right. Once WiFi is enabled you will be prompted to select the designed Ethernet network from a list. Select the designed network and enter the pass phrase. Complete the connection by selecting Connect.

Note that if you elect to use wireless Ethernet, the wired connection CAN NOT be installed.



## ATTENTION

The Echo Display does not require an Internet connection. However an Internet connection is required for system updates and remote access.

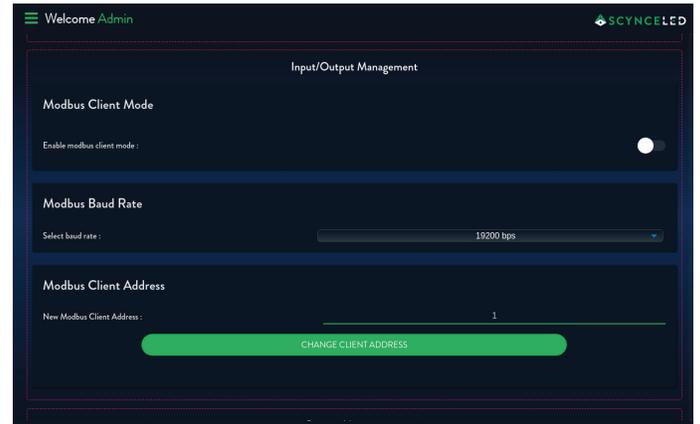
## SETTINGS / INPUT & OUTPUT MANAGEMENT

The Echo Display can connect to and control external devices and sensors, or be controlled by an external controller using the MODBUS feature.

MODBUS can be enable or disable by toggling Enable MODBUS Client Mode.

**MODBUS Baud Rate:** By default the serial communications speed is 19200 with a data format of 8N1, a second option is also available, 9600 8N1. The default MODBUS address is 1 but can be changed to any value address.

**MODBUS Client Address:** The Echo Display defaults to be the MODBUS master. In this mode the unit reads data from sensors. If you want to control the Echo Display using an external control system, enter the New MODBUS Client Address. Contact Scynce LED for assistance setting up an external control system.



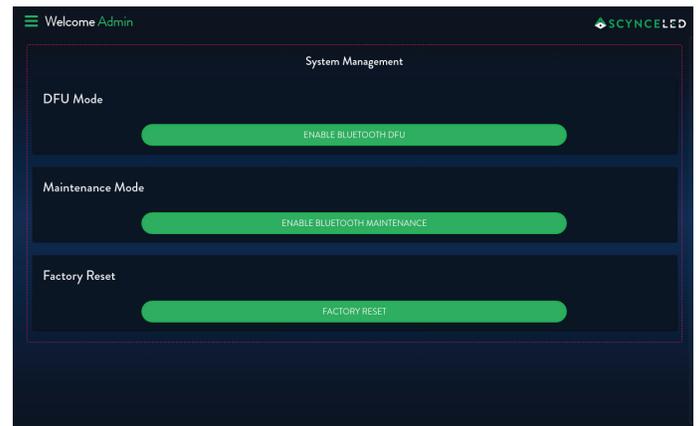
## SETTINGS / SYSTEM MANAGEMENT

Occasionally Scynce LED will release a firmware update. The update is pushed to the fixtures using a process called DFU.

**DFU Mode:** This option applies to fixtures on the THREAD Mesh network only. Selecting Enable BLUETOOTH DFU will turn on BLUETOOTH advertising on all fixtures in the network, allowing the Thea Stratus app can connect to the fixtures and update the firmware. The fixtures will continue to advertise until they are rebooted or power cycled.

**Maintenance Mode:** This option applies to fixtures on the THREAD Mesh network only. Selecting Enable BLUETOOTH Maintenance will enable BLUETOOTH advertising on the all fixtures in the network for 1 hour, after which the fixtures will turn off advertising.

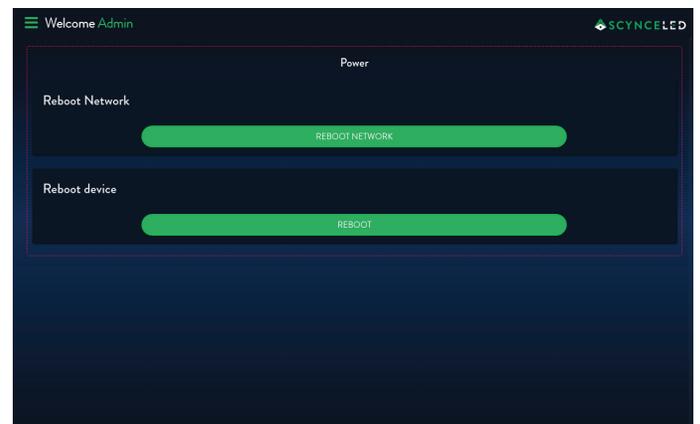
**Factory Reset:** By selecting Factory Reset the Echo Display will return to the original factory settings.



## SETTINGS / POWER MANAGEMENT

**Reboot Network:** By selecting Reboot Network the Echo Display and all fixtures on the network will be rebooted.

**Reboot Device:** By selection Reboot Device the Echo Display will be rebooted. The fixtures on the network will NOT be rebooted.



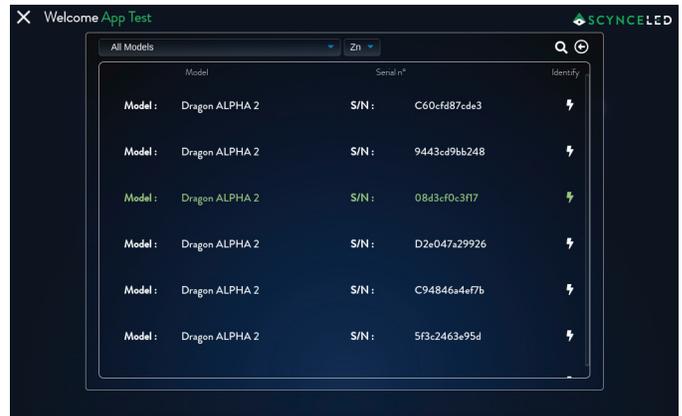
## ECHO DISPLAY / LIGHT LIST

Pressing the 3 bar symbol in the upper left corner of the screen will display a menu. The 4 options on the menu are: Settings, Lights List, Sensors and About Device.

Selecting Light List will display a list of all fixtures connected to the Echo Display. The list can be filtered by fixture model or by zone. In the case where you are looking for a specific serial number, select the search function designated by a magnifying glass.

Selecting the “Lightning Bolt” symbol to the right of any fixture listed will result in fixture to identify itself by flashing.

To exit the page press the Back Arrow at the top right.



## ECHO DISPLAY / SENSORS

The Echo Display is able to receive information from environmental sensors (ePAR and Temperature) and trigger lighting responses. Sensors are attached to the Echo Display through the MODBUS port. The sensors are added and configured by selecting Add New Sensors.

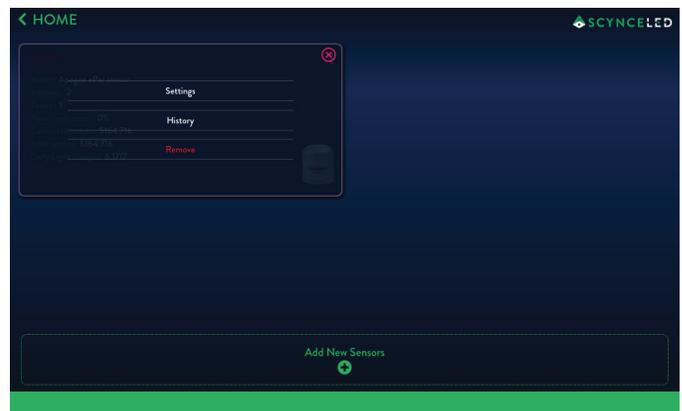
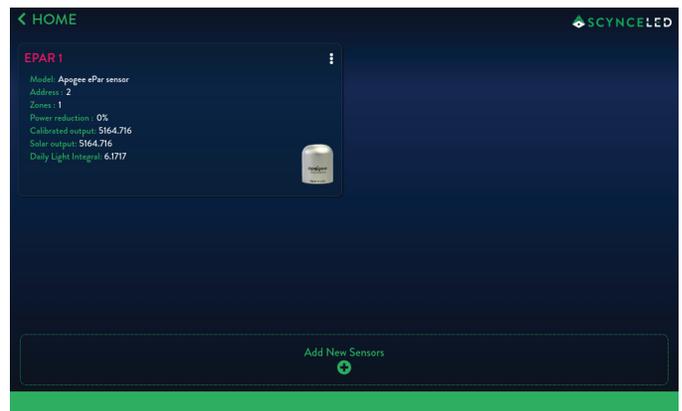
Contact the Scynce LED Support Team for more information regarding supported sensors.

In the sensor list, each sensor is displayed with an information tile. Actions can be taken on the sensor by selecting the “3 Dot” at the upper right corner of each sensor tile.

Settings: Display the sensor configuration page.

History: Displays a graph of the last 24 hours of data.

Remove: Remove the sensor from the list.



## SENSORS / SETTINGS

Selecting Settings allows you to edit all sensor settings. Each sensor type will have options that apply to that sensor.

**Sensor Name:** Displays the sensor name, to be changed the name simply update the field.

**Sensor Address:** Displays the current MODBUS address, to change the address simply update the field.

**MAX PPF:** For ePAR sensors set the to the maximum PPF the plants should receive. In the case that the maximum PPF is reached the Echo Display will dim the fixtures to reduce the PPF to reach the target PPF

**MAX Temp:** For Temperature sensors set this to the max temperature for the environment. In the case that the maximum temperature is reached the Echo Display will dim the fixtures to reduce the temperature.



**Zones:** Indicates the active zones on the Echo Display. Select the zone this sensor should control.

Complete the changes by selecting Apply.

## SENSORS / ADD NEW SENSORS

**Add New Sensor (+):** A new sensor can be added by selecting Add New Sensor and adding the required information.

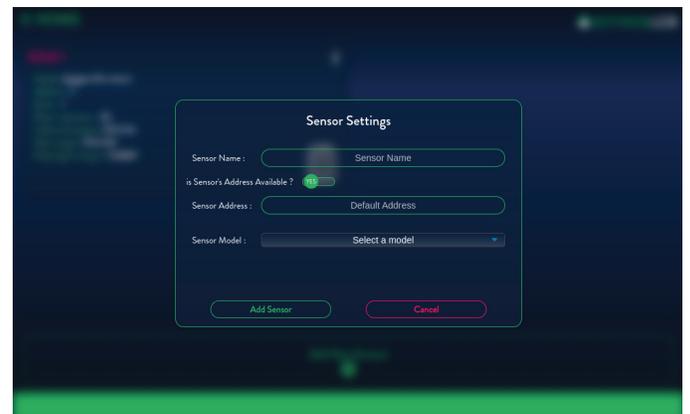
**Sensor Name:** The name that will be displayed for the sensor.

**Is the Sensor address Available:** If set to No the Unit will search the MODBUS port for the type of sensor selected.

**Sensor Address:** If the MODBUS address is known enter it here otherwise leave the space blank.

**Sensor Model:** Select a Sensor Model from the drop-down list.

Press Add Sensor to complete the process and add the sensor to the list of sensors displayed.



## MAIN SCREEN (AFTER SETUP)

Now that you have completed setup and configured fixtures into zone, the Main Screen will display a list of all the zones that are configured on the Echo Display. By selecting any zones in the list, you can make monitor or make changes to that zone.

After a zone is selected, select the “3 dot” symbol in the upper left corner of the screen to display a menu. There are now 5 options in the menu: Basic or Advanced Mode, Settings, Lights List, Sensors and About Device.

Basic or Advanced Mode are two independent lighting setup modes, you can toggle between the two Modes here. Basic Mode is covered starting on Page 14, Advanced Mode is covered starting on Page 17.

Settings will take you to the Echo Display Configuration Settings. Covered in detail starting on page 9.

Light List will show a list of lights connected to the Echo Display. Covered in detail starting on page 12.

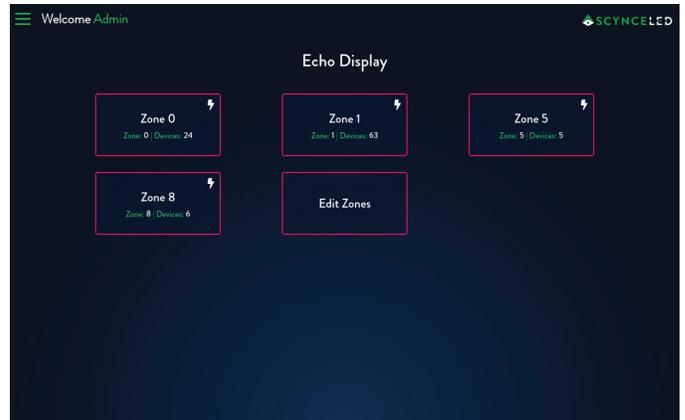
## ZONE / BASIC MODE

The Echo Display default setting is Basic Mode. Basic Mode is designed to help you get started by simplifying the use of features like: Adjustable Spectrum, Daily Recipe, and Grow Schedules, Sunrise and Sunset. Basic Mode has everything you need to operate your lighting.

Upon selecting a zone from the Main screen, an information page of the selected zone will be displayed. This page indicates the fixtures in the selected zone current settings: spectrograph of the current spectrum, the current operational Mode, the current State of the fixtures, if Maintenance mode is active, what the master intensity is set at and which of the 12 Scynce LED Preset Spectrum s is currently running. In addition, there are 5 action buttons that can be selected.

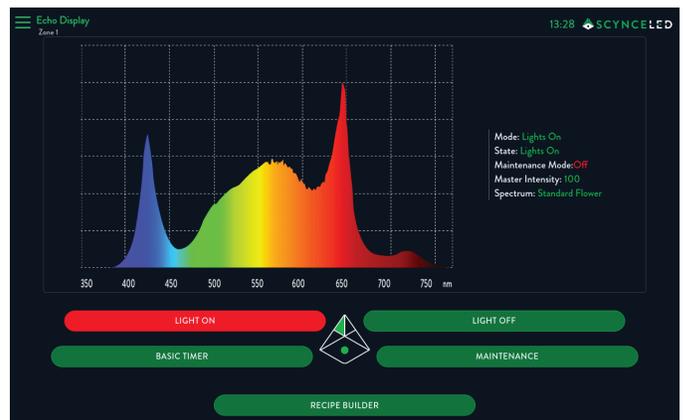
Light On: Opens a screen to select preset spectrum s and adjust light intensity.

Light Off: Turns the lights in the zone off.



Sensors will show a list of sensors connected to the Echo Display. There are also options to configure the settings for any sensors that are connected to the MODBUS port. Covered in detail starting on page 12.

About DEVICE will display information about the Echo Display.



Basic Timer: Set a simple timer for lights, including sunrise/sunset options and spectrum selection.

Recipe Builder: Create or edit custom light recipes with up to 6 phases (duration, intensity, spectrum).

Maintenance: Temporarily Override the current light mode.

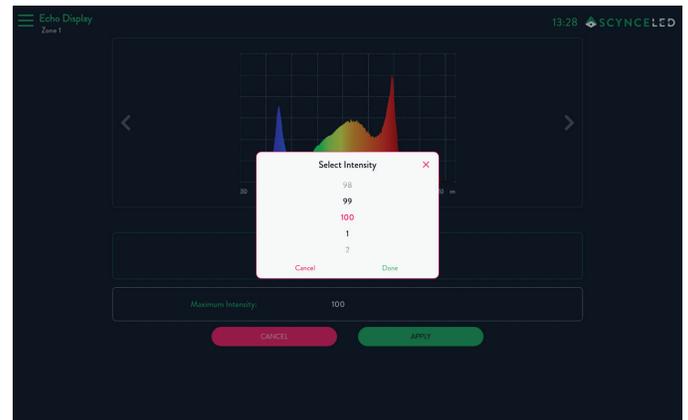
### BASIC MODE / LIGHT ON

Selecting the Light On will open a screen where you can select from any of 12 Scynce LED Preset Spectrums. To select a spectrum, swipe left or right on the spectrum graph or press the left and right arrows.

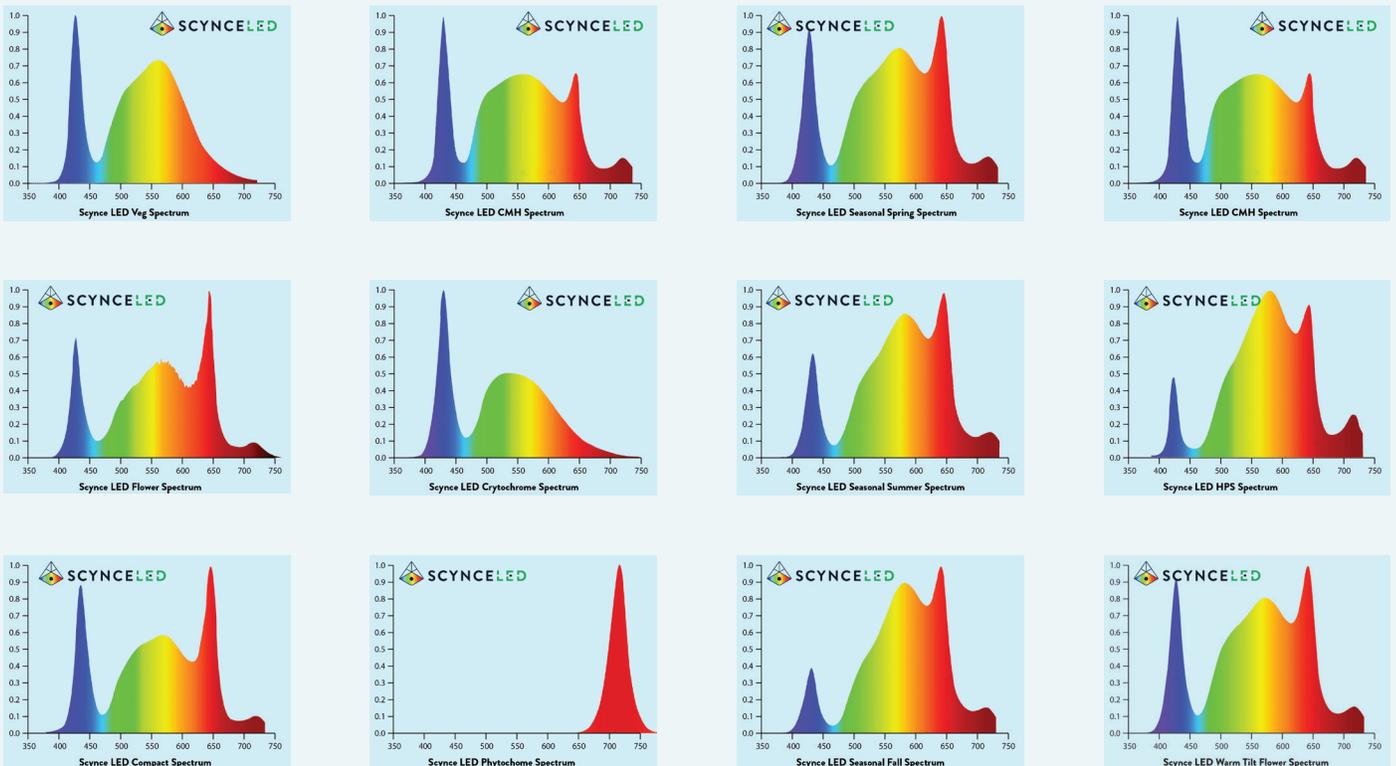


To change the light intensity at the selected spectrum, select Maximum Intensity. A popup spinner will appear allowing you to the desired intensity.

When you have made your desired selection select Apply. The fixtures in the selected zone will be updated to the new spectrum and intensity selections.



### SCYNCE LED PRESET SPECTRUMS



## BASIC MODE / BASIC TIMER

The Basic Timer is a very simple timer that will turn on the fixtures at a predetermined time and run the fixtures for a specified amount of time. There is also an option to apply sunrise and sunset to the beginning and end of the timer.

## BASIC MODE / RECIPE BUILDER

The Recipe Builder in Basic Mode allows the building of a custom recipe with up to 6 different phases daily. A phase consists of: On Duration, Start Intensity, End Intensity, and selected Spectrum. Selecting the Recipe Builder will show a list of saved recipes that can be edited and an option at the bottom of the screen to Create Recipe. On the right side of each recipe there is a “3 dot” symbol that allows the following options: Copy, Rename, Delete, and Edit.

If one of the recipes is selected for editing, or Create Recipe is selected, the edit page is displayed. To edit an existing recipe: select Edit from the “3 dot” menu or simply tap the name of the recipe in the recipe list. The recipe name will be in the top-left corner. A pulldown menu to select the light model is located below the recipe name.

In the center of the page is a round circle that represents a 24 hour clock. The circle will be green when the fixtures are on. A red dot on the circle represents the current time and the other dots represent the start and end of each phase.

Across the middle of the page are 3 buttons: Add Phase, Set Start, and Simulate. Below that is the linear time graph which shows the light intensity across a 24 hour period, with 12:00 PM being the center point of the graph. At the bottom of the page is the Step Settings table of Phases with Start time, Duration, selected Spectrum, Start Intensity, End Intensity, and Fade information.

Simulate: will cause the recipe to run at an accelerated speed (1 minute for a 24 hour day).

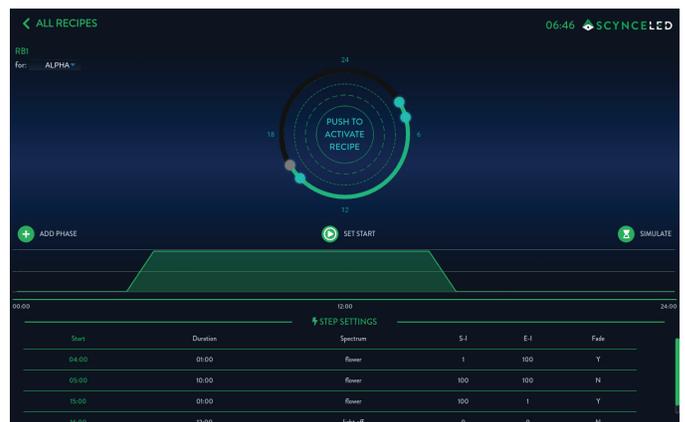
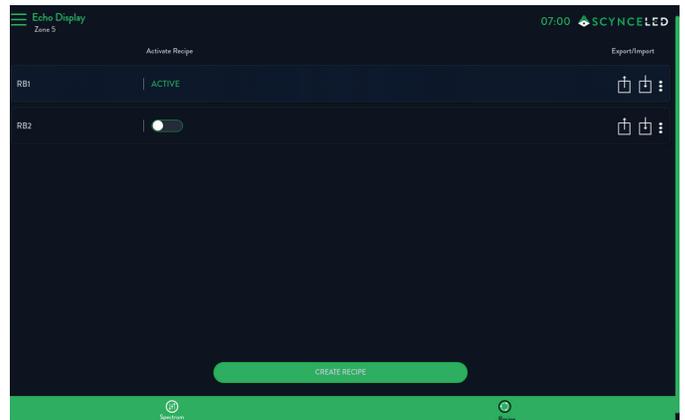
Set Start: will display a spinner to set the recipe start time. Each of the phase start time is automatically calculated from the start time.

Add Phase: opens the phase editor page.

Selecting a phase in to bottom table will open that phase in the Phase Editor Page.

To activate the recipe press PUSH TO ACTIVE RECIPE in the middle of the circle on the page.

Note: In order for a Recipe to function the Recipe toggle must be activated.



## RECIPE BUILDER / PHASE EDITOR

From the Recipe Builder, if you select any of the Phase lines in the Step Setting Table, you will be directed the Phase Editor, where the parameters of the selected Phase is displayed. Spectrum can be changed using the spectrum graph selection tool, along with other parameters.

**Fade:** allows a slow change of intensity over the Duration of this Phase. Selecting this will add an End Intensity parameter.

**Duration:** is the length of time this Phase will be active.

**Start Intensity:** represents the light intensity of the fixture when the Phase starts.

**End Intensity:** is enabled by selecting the Fade options above. This indicated the light intensity of the fixture at the end of the Phase Duration.

Press **Apply** for the changes to be saved and take effect.



## ZONE / ADVANCED MODE

The Echo Display default setting is Basic Mode. To change to Advanced Mode, select the desired zone and click the “3 Dash” symbol at the top left of the screen and select Advanced. This will move the selected zone from Basic to Advanced Mode.

Once Advance Mode is selected the zone screen options change. In the center of the screen are 5 sliders that give full access to adjust the light spectrum of the fixture.

- **White Color Shift:** Controls the shift between warm and cool white.
- **White Intensity:** Controls the brightness of the white LEDs.
- **Red Color shift:** Controls the shift between deep and far red LEDs.
- **Red Intensity:** Controls the brightness of the red LEDs.
- **Master Intensity:** Controls the overall brightness of the LEDs

Below the 5 slider, 3 options are available:

- **FLOWER:** Sets the sliders to the flower spectrum and locks the color sliders. In this setting you only have Master Intensity control.



- **VEG:** Sets the sliders to the veg spectrum and locks the color sliders. In this setting you only have Master Intensity control.
- **CUSTOM:** Unlocks the color sliders for full control.

There is also an toggle options for both Recipe and Schedule, by selecting either of these toggles you turn these features on or off.

Lastly there are three additional options that provide more setting at the bottom of the page in the green border: Spectrum, Schedule, and Recipe

## ADVANCED MODE / RECIPE

The Advanced Recipe Editor offers intricate customization of lighting schedules, allowing for the creation of highly tailored recipes with up to 12 distinct steps within a 24-hour period. Each step functions as a precise point in time where the light settings can be meticulously adjusted. These settings encompass full control over the light spectrum and intensity, managed through five individual sliders. This level of granularity empowers users to craft unique spectral outputs beyond preset options. Furthermore, the editor incorporates a ramping feature, enabling the gradual and seamless transition of light settings between steps, promoting a more controlled and nuanced lighting environment for plant growth.

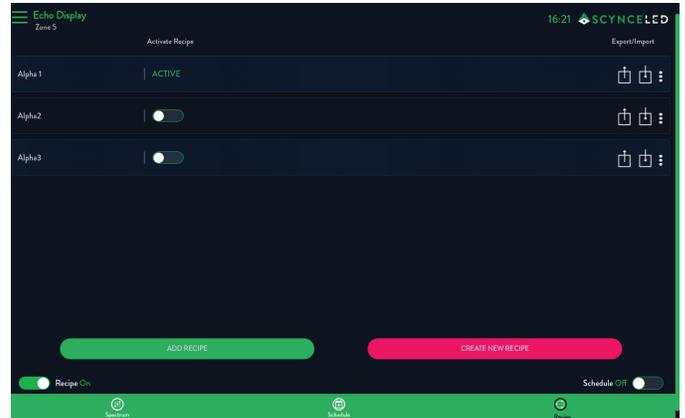
By toggling the Recipe selection an Advanced Recipe list will appear. The first time you access the Advanced Recipe list you either have to create a new Recipe, or you have the option of downloading any of the pre-configured Recipes from Scynce.cloud. After Recipes have been created or downloaded, they will be listed here.

Any Recipe in the list can be activated to run or be edited. Selecting the name on the left will open the recipe in the Advanced Recipe Editor. On the left the “3 dot” symbol will provide additional options: Rename, Delete, Copy, Edit.

To add Recipes to the list, select one of the two options at the bottom of the page.

**Add Recipe:** Opens a page where you can select from pre-made recipes and download them to the Echo Display. Note that Internet access is required for this option.

**Create New Recipe:** Opens the Advanced Recipe Editor with an empty recipe.



## ATTENTION

If you are operating without Internet access and would like access to the prebuilt list of Recipes, reach out to your Scynce LED representative.

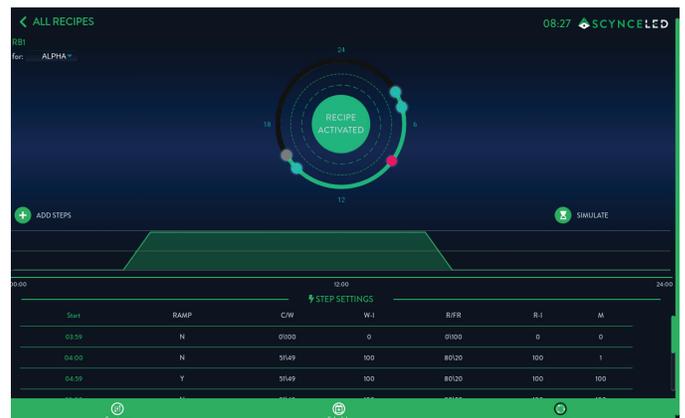
## ADVANCED MODE / ADVANCED RECIPE EDITOR

Upon selecting Create New Recipe the Advanced Recipe Editor screen will appear. The upper left corner shows the recipe name followed by a pull-down menu to select the fixture mode assigned to this Recipe. In the center of the page is a round circle that represents a 24 hour clock. The circle will be green when the fixtures are on. A red dot on the circle represents the current time and the other dots represent a step in the recipe. Just below the circle on either side of the screen are two options: Add Step and Simulate. Selecting Step will open the Advanced Step Editor screen. Selecting Simulate will cause the recipe to run at an accelerated speed. (1 minute for a 24 hour day).

In the middle of the screen, stretching from the left to right side is a Time Graph that depicts the fixture light intensity across a 24 hour period with 12:00PM being the center point of the graph. At the bottom of the screen is the Step Settings Table that outlines: Start time, Ramp, and the values for each of the 5 sliders (C/W, W-I, R/FR, R-I, M).

Selecting any row in the Step Settings Table will open that Step in the Advanced Step Editor.

To activate the recipe press the button in the middle of the circle on the page.



## ADVANCED RECIPE EDITOR / ADVANCED STEP EDITOR

By selecting any line in the Step Settings Table or by selecting Add Steps inside the Advance Recipe Editor you will gain access to the Advanced Step Editor. The Advanced Step Editor screen is similar in control and settings to the Zone Editor in Advanced Mode but with some additional options.

In the upper left corner is a control to set the Start Time of the Step. If this step is to be the first Step in the Recipe, select the check box In the upper right corner. When the Initial Step is selected a change to the Start Time function is triggered. When changing the Start Time of the Initial Step the user is given a choice of moving the Start Time of the entire Recipe or just the Start Time of the Step.

The additional 5 options that differ from the Zone Editor are:

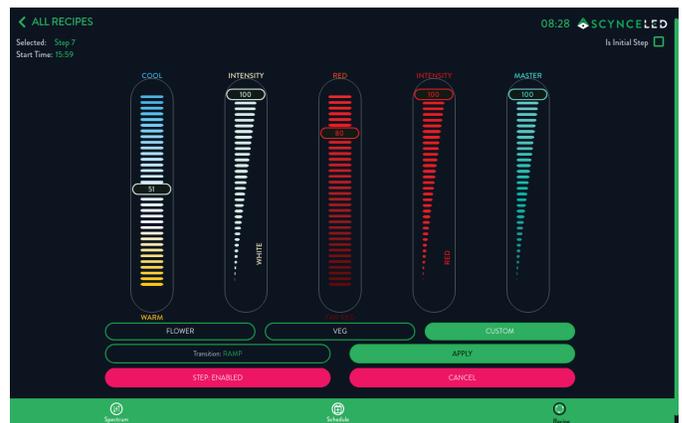
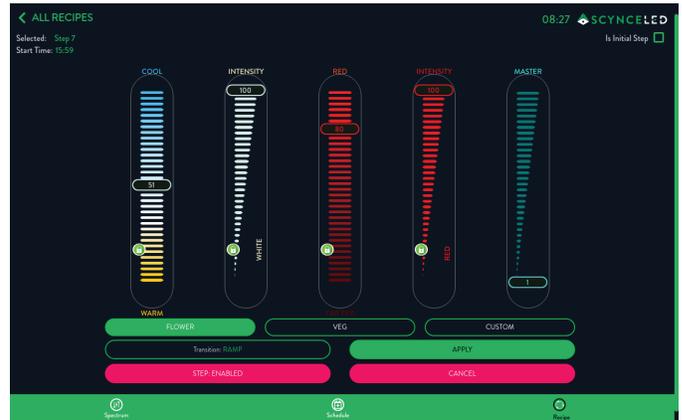
Transition: Enables or disables the ramp function.

Step Enable / Step Delete: If Step Delete is displayed when Apply is selected the Step will be deleted.

Apply: Saves the changes and returns to the Advanced Recipe Editor.

Cancel: Discards the changes and returns to the Advanced Recipe Editor.

Spectrum: Will display a spectrum-graph of the fixture light output based on the 5 slider configuration.

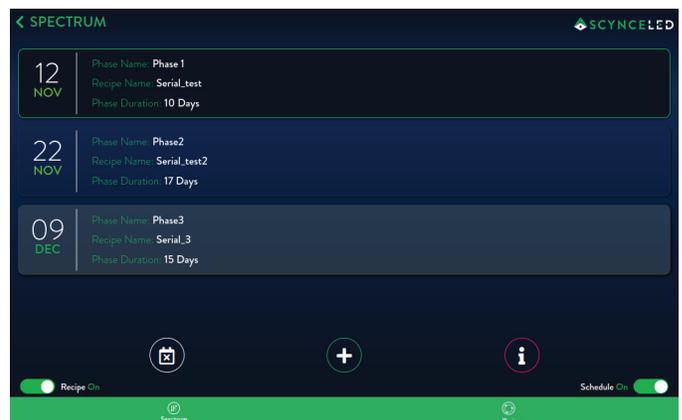


## ADVANCED RECIPE EDITOR / SCHEDULING RECIPES

Now that you have a list of Recipes, either downloaded or created, you can create a Schedule for the entire time duration of your grow cycle. The Echo Displays allows one Schedule per Zone. The Scheduling feature can be activated from the Advanced Recipe screen or the Advanced Zone screen, by toggling the Schedule option.

Upon activating the Schedule option, the Schedule Recipes screen will be displayed. A list with different Phases of the Schedule are shown along with 3 options along the bottom of the screen.

-  : Clears the Schedule to start over.
-  : Opens the Add Phase screen.
-  : Displays summary information about the schedule.



## SCHEDULING RECIPES / PHASE EDITOR

By selecting any Phase from the list will prompt the Phase Editor screen to open and display Phase Calendar. If starting a new Schedule the Calendar will blank. The current date is highlighted in red.

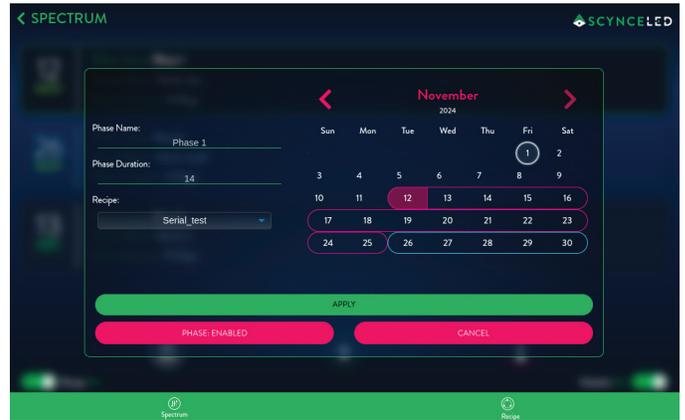
There are 3 required data entry options to the left of the Calendar.

Phase Name: Can be changed by clicking on the text.

Phase Duration: Sets the duration of the Phase in days.

Recipe: Drop-down list of your built Recipes.

On the Calendar selected the date you want the Schedule to start. Note that this option is only available for the first Phase, all subsequent Phases will follow behind Phase 1.



Step Enable / Step Delete: If Step Delete is displayed when Apply is selected the Step will be deleted.

Cancel: Discards the changes and returns to the Advanced Recipe Editor.

Apply: Saves the changes and returns to the Advanced Recipe Editor.

## SCHEDULING RECIPES / INFORMATION

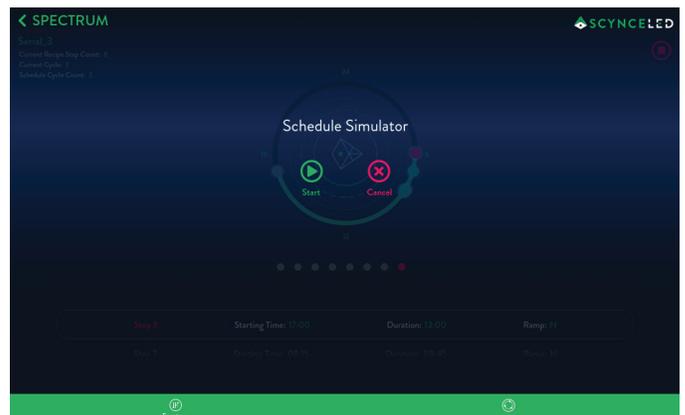
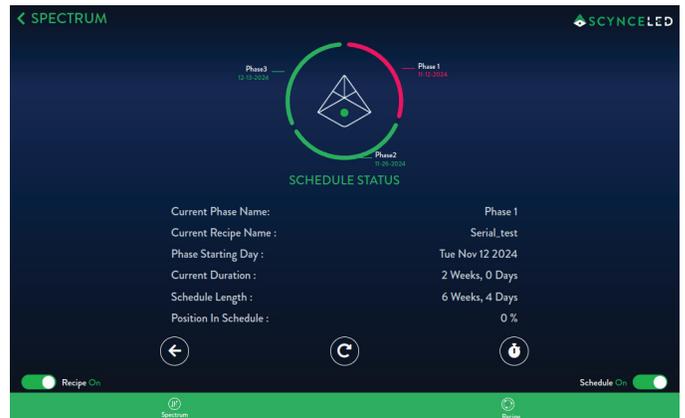
By selecting  from the Scheduling Recipes screen you will be taken to the Information screen displaying information about the current Phase and Schedule Length and Schedule Progress.

There are 3 options below the status information.

 : Take you back to the previous screen.

 : Opens the Phase Editor screen to select a new Schedule start date. Selecting a new start date will shift the whole Schedule in time, which allows you to repeat the Schedule without rebuilding.

 : Will activate the Schedule Simulator. The simulation will display 1 day of each phase of the schedule. And each day is compressed into 1 minute. Press the cancel button to exit the Schedule Simulator.



## REMOTE ACCESS

The Echo Display can be accessed from anywhere in the world using the Remote Access feature. This feature grants you full access to the Echo Display just as if you were standing in front of it. Internet access is required, and you need to register the Echo Display on scynce.cloud servers.

From the Echo Display Main screen, select the “3 dot” symbol in the upper left corner and select Add to Scynce Cloud. A screen will appear with options to login using your email, Google login or Apple login. Once the device is registered with Scynce Cloud you will be able to access the unit from anywhere with an Internet connection. The Scynce Thea Cirrus App. Or You can use Chrome, Edge, Safari and Firefox web browsers. Other browsers may work but are not tested.

## SCYNCE LED FIXTURE SETUP

For information regarding a Scynce LED fixture setup and operation please refer to the specific fixture’s User Manual at:

[www.scynceled.com/support/](http://www.scynceled.com/support/)

# MAINTENANCE

## WARNING

- High Voltage - Switch off the main voltage before commencing maintenance work.
- Do not open or disassemble the product. Opening the product can prove hazardous and will void the warranty.
- Caution - Risk of shock

## ATTENTION

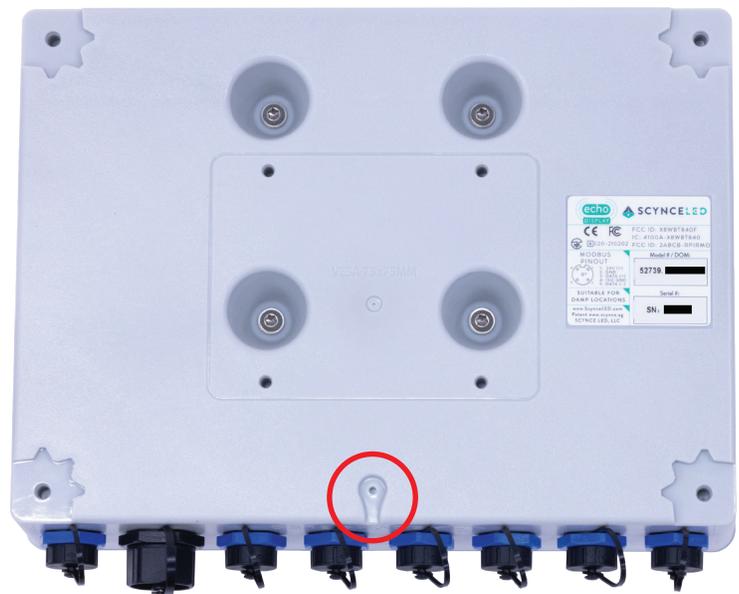
In the event that the product is defective or damaged, contact Scynce Customer Support ([www.scynceled.com](http://www.scynceled.com)) for assistance.

## CLEANING

- Never clean the Echo Display with corrosive cleaning agents or other aggressive liquids. The following cleaners are known to cause damage to housing and gaskets.
  - o Solvents: Acetone, Alcohol...
  - o Window Cleaner: Windex, 409...
  - o Alkaline Cleaners
- Never use abrasive cleaners, abrasive pads, or gritty cloths to clean, the Echo Display display will scratch.
- Never scrape the Echo Display display to remove build-up. Only use a vinegar and water solution (1:100 ratio) to remove build-up of limescale on the display.

## ATTENTION

The hole located on the back toward the bottom of the Echo Display shaped like a “drop” IS NOT an access hole. A thermal breather resides on the inside of the assembly that allows air to move in and out of the assembly for thermal expansion and contraction. DO NOT insert anything into the hole or the breather will be dislodged.



# TROUBLESHOOTING

## WARNING

Do not open or disassemble the product. Opening the product can prove hazardous and will void the warranty.

## ATTENTION

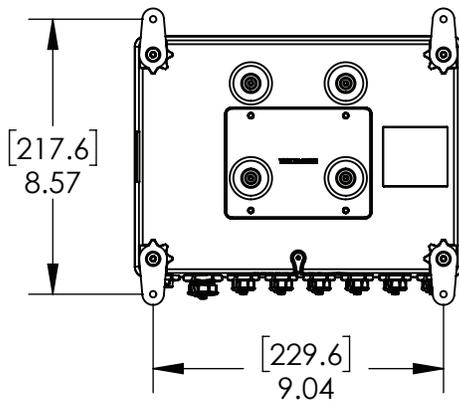
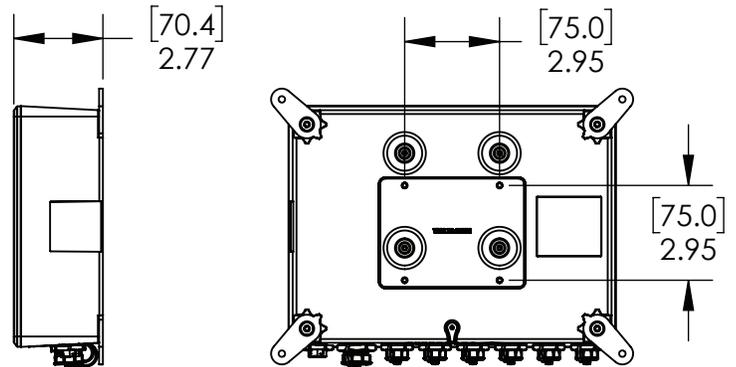
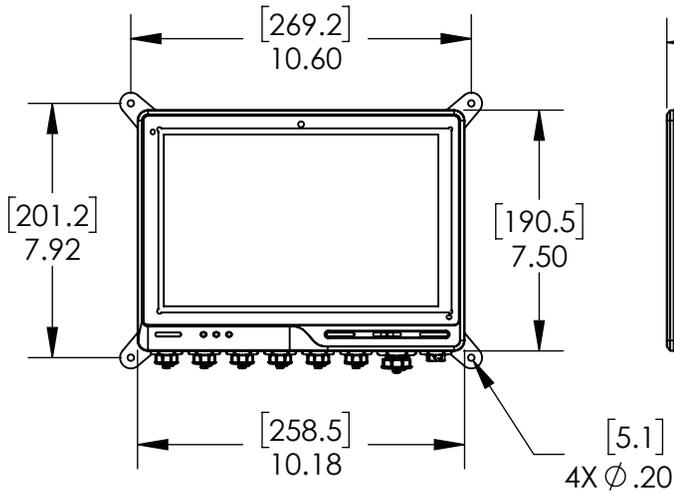
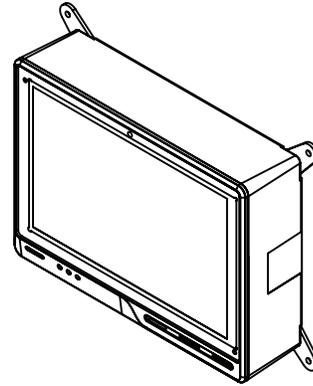
Never switch on a defective or damaged product. In the event the product is defective or damaged, contact Scynce Customer Support ([www.scynceled.com](http://www.scynceled.com)) for assistance.

### WHAT CAN YOU SEE?

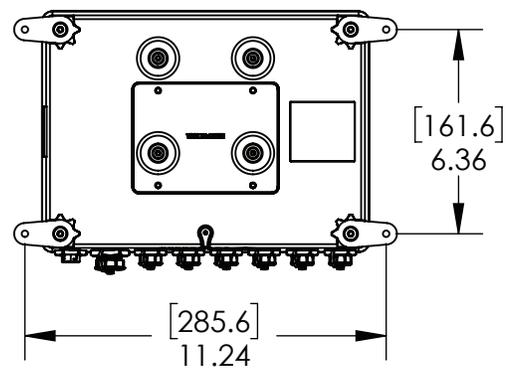
### WHAT SHOULD I DO?

Coming in the next release

# ECHO DISPLAY DIMENSIONS (IN MM)



**MOUNT OPTION #1**



**MOUNT OPTION #2**

# QUICK START GUIDES

## SETTING THE MESH GROUP AND SCANNING FOR LIGHTS

To connect with and control your Scynce lights, you'll need to ensure the Echo Display and the lights are on the same mesh group. Then, you can scan for the lights to add them to the Echo Display's control.

### 1. Setting the Mesh Group:

- Navigate to the Settings menu and select Mesh Network & Security.
- In the Group section, enter the desired group number (1-15) that matches your lights' group.
- Choose the type of group change:
  - Change Group (Single): Changes the group of the Echo Display only.
  - Change Group (Network): Changes the group of the Echo Display and any lights currently in its group to the new group.

### 2. Scanning for Lights:

- From the Settings menu, go to Network Lights.
- Press the Scan button. The Echo Display will scan both Thread Mesh and hardwired networks for connected lights.
- The scan may take a few minutes, depending on the number of lights.
- Once completed, any newly found lights will be added to the appropriate zone list.

## USING THE BASIC TIMER

The Basic Timer offers a straightforward way to schedule light cycles with sunrise and sunset options.

1. Access Basic Timer: Navigate to the Basic Mode screen for the desired zone and select the "Basic Timer" button.
2. Set Start and End Times: Use the provided controls to set the desired start and end times for the light cycle.
3. Enable Sunrise/Sunset: Toggle the Sunrise and/or Sunset options if you want to include gradual light intensity transitions at the beginning and/or end of the light cycle.
4. Select Spectrum: Choose the desired light spectrum from the available preset options.
5. Apply Settings: Confirm your settings to activate the Basic Timer.

Remember: The Basic Timer provides a simple on/off schedule with optional sunrise/sunset fades. For more complex, multi-phase light recipes, use the Recipe Builder.

## CREATING A RECIPE WITH THE RECIPE BUILDER

The Recipe Builder simplifies the process of creating custom light recipes. Here's how to use it:

1. Access the Recipe Builder: Navigate to the Basic Mode screen for your desired zone and select the "Recipe Builder" button. You'll see a list of saved recipes and a button to create new ones.
2. Create a New Recipe: Press the "Create New Recipe" button to open the Recipe Builder interface.
3. Set the Light Model: Use the pull-down menu in the upper left corner to select the model of light the recipe is for.
4. Add Phases: Each recipe consists of up to 6 phases. Click the "Add Phase" button to define the settings for each phase.
5. Configure Phase Settings: In the Phase Editor page, set the following parameters for each phase:
  - Spectrum: Choose the desired light spectrum using the spectrum graph.
  - Duration: Use the spinner to set the duration of the phase.
  - Fade (Sunrise/Sunset): Select whether you want a gradual fade during the phase.
  - Start and End Intensity: Set the light intensity at the start and end of the phase. (End intensity is only available if fade is enabled.)
  - Disable Phase: Unchecked the "Phase Enabled" button to disable and remove the phase from the recipe.
6. Set Start Time: Click the "Set Start Time" button and use the spinner to set the time when the recipe should begin.
7. Activate the Recipe: Press the button in the middle of the circle to activate and start running the recipe.

### Additional Options

- Simulate Recipe: Use the "Simulate" button to preview how the recipe will run over a 24-hour period at an accelerated speed.
- Edit Existing Recipe: From the Recipe Builder list, select a recipe and press the "3 dot" symbol to access options to copy, rename, delete, or edit the recipe.

Remember: Recipes allow you to customize light settings (spectrum, intensity, duration) throughout a 24-hour cycle. Up to 6 phases can be created within a single recipe using the Recipe Builder.