



Intelligent Controller



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The ULight series intelligent controller is an exclusive design for the indoor garden and hydroponics industry. This all-in-one climate and lighting controller includes a 24-hour programmable mechanical timer, an environmental controller with a wireless remote sensor, along with a lighting controller that can power your HID, LED, T5, or DE Lamp Ballasts. This ULight user-friendly controller gives you the power to manage your indoor garden's lighting and environment remotely using an Android or iPhone app that is FREE to download.



1. SPECIAL FEATURES

All in one controller	1. Embedded lighting controller (includes a 24-hour programmable mechanical timer) Controls HID, LED, T5 or Double Ended Lamp Ballasts 2. Climate controller Controls CO2, Temperature, and Humidity wirelessly using a remote sensor
Wireless control	Local network and internet control, supports WIFI (2.4G, 802.11 b/g/n) .
Breaker protection	Staggered ignition delay feature eliminates circuit eliminate overload and protects lamp
Precise sensor control	Place sensors around your grow room at desired locations to wirelessly send data to main controller
ULight wireless phone APP features:	Alerts you of any power outages and equipment failures Check status and reconfigure lighting and/or environmental settings using our proprietary interface
Cloud Technology	ULight's proprietary interface allows you to check and control device settings anywhere with wifi or via cloud technology.
Overheat protection	This feature allows you to configure the settings to automatically shut down all 240V sockets (lighting ballasts) past a set temperature.

2. MAIN CONTROLLER SPECIFICATIONS

Size in inches:	(L) 18.19 (W) 17.13 (H) 4.5	
Weight:	19.84 LBS	
Main Voltage:	120/240 volts	
Maximum Amperage:	80 amps	
Minimum Feeder Cable Size:	#4cu AWG *Please check local codes for sizing requirements.	
Maximum Wattage:	ULight-8X8	8X1000 watts at 240 volts and 8X500 watts at 120 volts.
	ULight-12X4	12X1000 watts at 240 volts and 4X500 watts at 120 volts.
Receptacle Type:	ULight-8X8	8 NEMA 6-20R 240v plugs and 8 NEMA 5-15R 120v plugs.
	ULight-12X4	12 NEMA 6-20R 240v plugs and 4 NEMA 5-15R 120v plugs.
Operating Temperature Range:	32-120 °F	
Operating Humidity Range	0-99% RH	
Certification:	ETL Certified, FCC	


NEMA 5-15

NEMA 6-20
FCC ID: 2AOELULIGHT

Intertek
5001225
I.T.E.


3. POWER & WIRING REQUIREMENTS

WARNING: This product must be installed by a Licensed Electrician!

Avertissement: le produit doit être certifié par un électricien qualifié!

1) The main 240 volt / 80 amp power must be supplied to the ULight-8X8/12X4 using #4 AWG Cables.

NOTE: Please check local codes for wire sizing requirements.

2) You must provide overcurrent protection for the ULight-8X8/12X4 using an 80 amp double pole circuit breaker at the Main Panel.

3) 80 amps of power require a wire size of at least 4 AWG.

4) Make certain that your ballasts are wired for 240 volt.

4. CONNECTING THE MAIN 240 VOLT 80 AMP POWER

- 1) Secure the ULight-8X8/12X4 to the wall using appropriate hardware. Keyholes for screws are provided on the back for easy mounting.
- 2) Make sure that all ballasts are disconnected from the sockets on the front of the ULight-8X8/12X4. Make sure that all the circuit breakers on the ULight-8X8/12X4 are OFF.
- 3) Unmount ULight-8X8/12X4
- 4) Remove the back terminal cover of the ULight-8X8/12X4 by unscrewing the five screws on the back upper left corner of the unit.

NOTE: DO NOT rest front side of ULight controller face down. This can damage the circuit breaker knobs and mechanical timer.

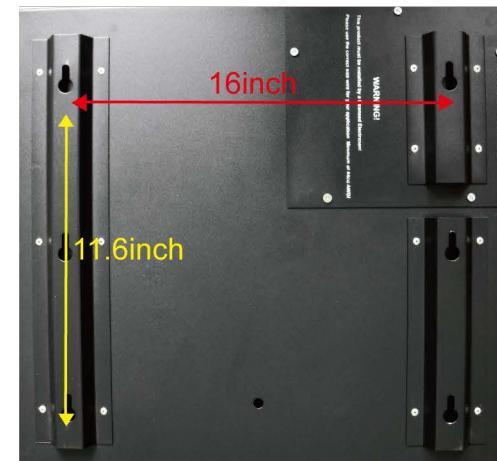
- 5) Carefully strip the four wires (2 power wires, 1 ground, and 1 neutral) approximately 1". Pass all the wires through the strain relief connector on the upper left side of the ULight-8X8/12X4. Please use the correct size wire for your application. Minimum of 4 AWG.

NOTE: Please check local codes for wire sizing requirements.

- 6) Connect the 2 power wires to the lugs on the breaker panel plate labeled "L" and tighten them using an allen wrench. Make sure that you strip the wire enough so that you do not have any insulation under the nut. Tighten again with an allen wrench.
- 7) Connect the 1 neutral wire to the aluminum lug labeled "N". Tighten securely using an allen wrench. Make sure that you strip the wire enough so that you do not have any insulation under the nut. Tighten again with an allen wrench.
- 8) Connect the 1 ground wire to the aluminum lug labeled "GND". Tighten securely using an allen wrench. Make sure that you strip the wire enough so that you do not have any insulation under the nut. Tighten again with an allen wrench.

CAUTION: Tighten all of your connections. Loose connections will cause extreme heat buildup in the wires followed by arcing. Arcing is NOT covered by the warranty! Tighten your Connections! Tighten them again!

- 7) Resecure the cover on the ULight-8X8/12X4 by putting the 5 screws back into the front cover.
- 8) Remount ULight-8X8/12X4. Connect ballast to 240V sockets, connect environmental equipment to 120V sockets. Turn on circuit breakers and controller is ready to use.



WARNING: This product must be installed by a Licensed Electrician!

Avertissement: le produit doit être certifiée électrique monté!

5. SENSOR SPECIFICATIONS

Name:	Sensor Controller
Size:	105(L)X60(W)X24(H) mm
Work Voltage:	5 vlots DC
Maximum Amperage:	1 amps
Wireless Frequency:	Zigbee : 2.4G
Operating Temperature Range:	32-120°F
Operating Humidity Range:	0-95%RH



Name:	Temperature and Humidity Sensor
Size:	113(L)X66(W)X37(H) mm
Temperature Control Range:	14-185°F
Temperature Accuracy:	+/-2°F
Humidity Control Range:	5%-95% RH
Humidity Accuracy:	+/-4% RH
Operating Temperature Range:	32-120°F
Operating Humidity Range:	0-95%RH



Name:	CO2 Sensor
Size:	113(L)X66(W)X37(H) mm
CO2 Control Range:	0-5000 PPM
CO2 Accuracy:	+/-50 PPM
Operating Temperature Range:	32-120°F
Operating Humidity Range:	0-95%RH

6. HOW TO USE

1. Turn on all the circuit breakers.
2. Turn power switch ON. The intelligent controller is ready to use when the green reset indicator light stops flashing.
3. Three modes can be selected:

Intelligent mode: (Download ULight APP for Android/iPhone)

1. Press and hold the intelligent mode button until the indicator light quickly flashes.

2. Intelligent mode configuration is ready.

Using Android/iPhone: ULight APP SET UP –

- a) Download and open APP.
- b) Click the "Add Device" button.
- c) Enter your WIFI password.
- d) Press "START" button to connect to intelligent controller. The green intelligent mode indicator light will slowly flash.
- e) When green intelligent mode indicator light stops flashing, the intelligent controller icon will appear in the APP interface indicating that APP is successfully connected with the intelligent controller.
- f) Click the controller icon to log in.
- g) If you do not have internet access. You can control your devices wirelessly, within 100 ft of intelligent controller, using wireless router.
- h) If you have internet access. You can control your devices using the ULight APP on your Android/iPhone from anywhere in the world.
- i) Sensors are only applicable under the intelligent mode.

Note: Sensors must maintain a distance of less than 70 ft from the intelligent controller. It's recommended that the Sensors and the intelligent controller is placed in the same room for maximum efficiency.

Analog timer Mode:

1. All sockets are NOT controlled by the ULight APP.
2. All 120V sockets are automatically powered on and is NOT controlled by the analog timer.
3. All 240V sockets are controlled by the analog timer.

Normal Mode:

1. All sockets are not controlled by the ULight APP.
2. All 120V and 240V sockets are automatically powered on.
3. Analog timer is disabled.

Reset Button: (Restore factory settings)

Press and hold the reset button until all four indicator lights quickly flashes. (This activates the intelligent controller into recovery mode). Unhold the reset button and the reset indication light will start flashing. When the reset indication light stops flashing, the recovery mode is complete.

***Refer to (7.APP set up) for more information**



Android or iPhone APP is FREE to download and upgrade.
Download ULight APP from APP Store or Google Play.
Requires iOS8.0 or higher version, Android5.0 or higher version.

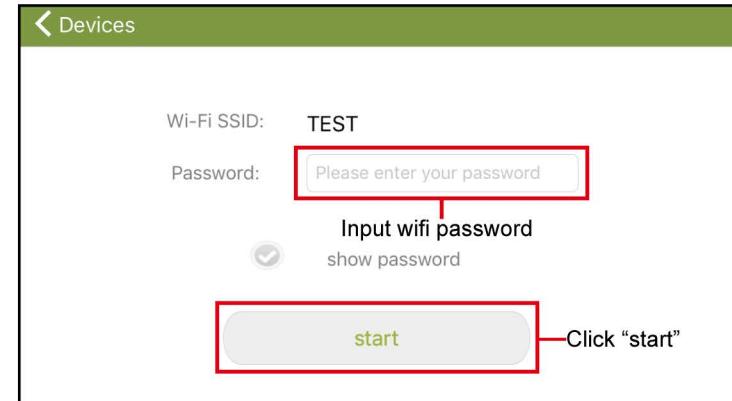
7. APP set up

1. Configured with WIFI

Step 1: Add device

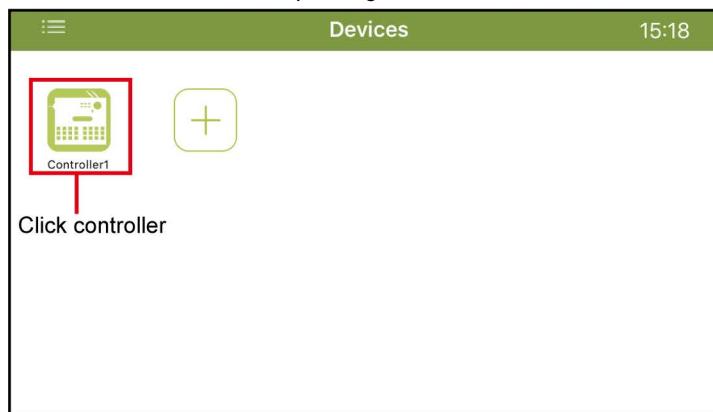


Step 2: Input wifi password and click start

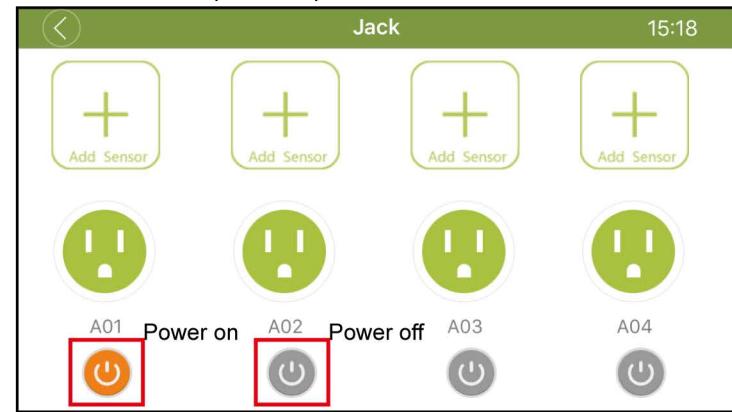


2. Power on/Power off socket

Step 1: Log-in controller

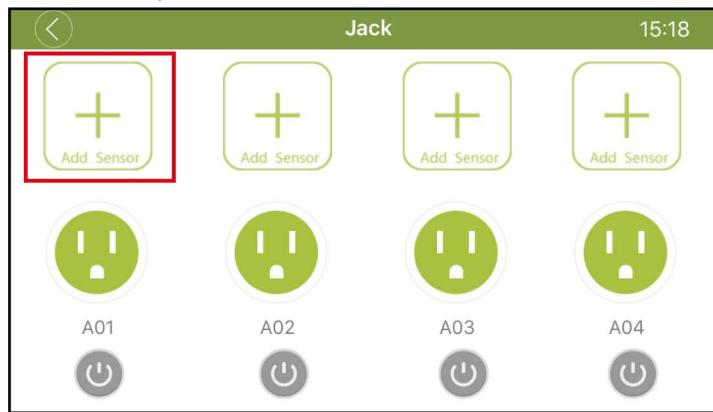


Step 2: Click power switch button on/off

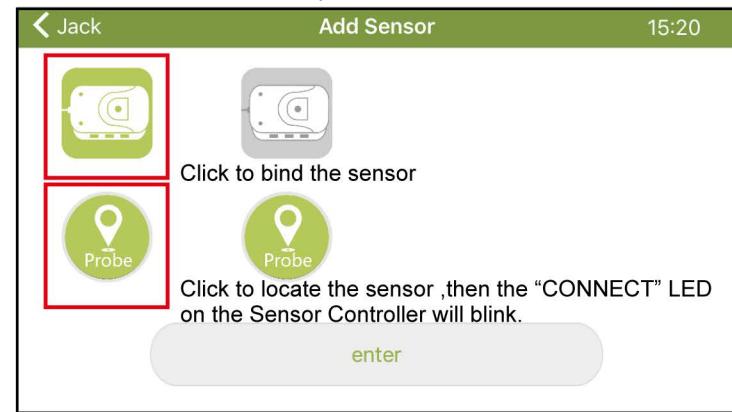


3. Set sensor task **Notification: Day/night mode AUTO changed**

Step 1: Click "Add Sensor" button to add sensor

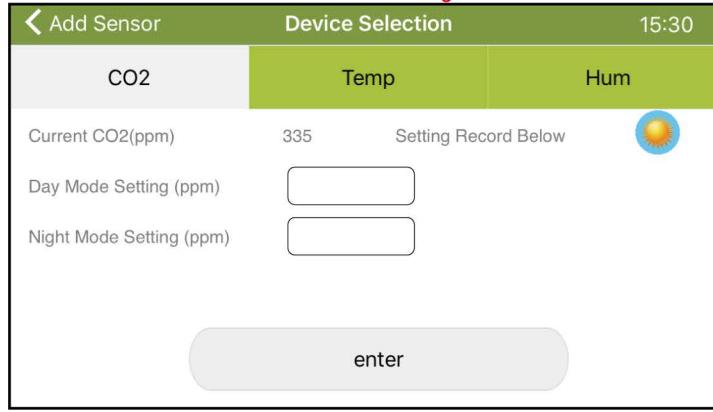


Step 2: Bind sensor



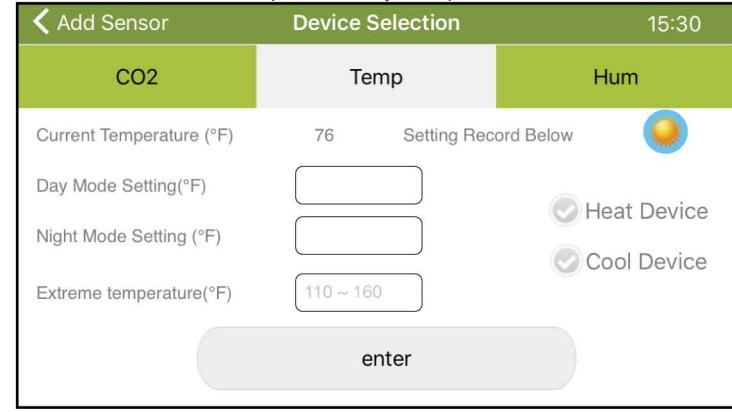
Step 3: Set CO2 task
-Input the range of value:0-5000PPM
-Click "enter"

Notification: CO2 maker will be closed at night mode

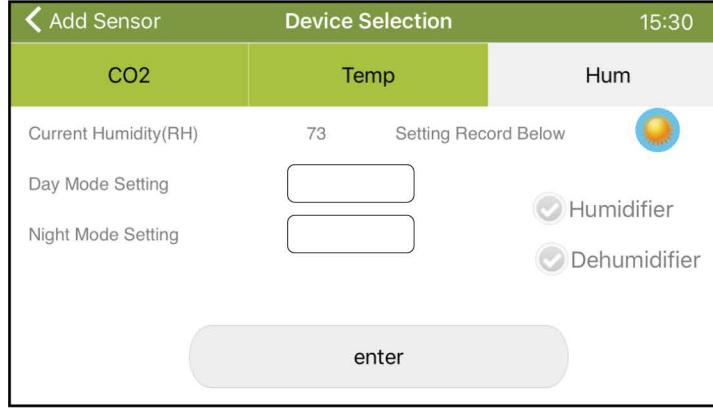


Step 4: Set Temp task
-Input the range of value:32-160°F
-Choose the device
-Click "enter"

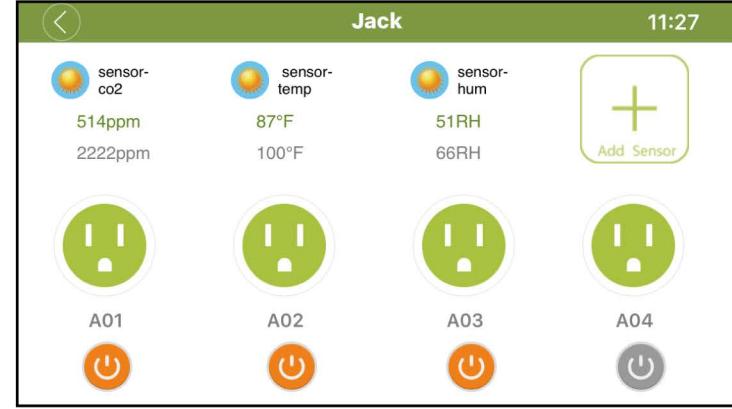
Notification: Extreme temperature is your option; default is 160°F



Step 5: Set Hum task
-Input the range of value:10-99RH
-Choose the device
-Click "enter"

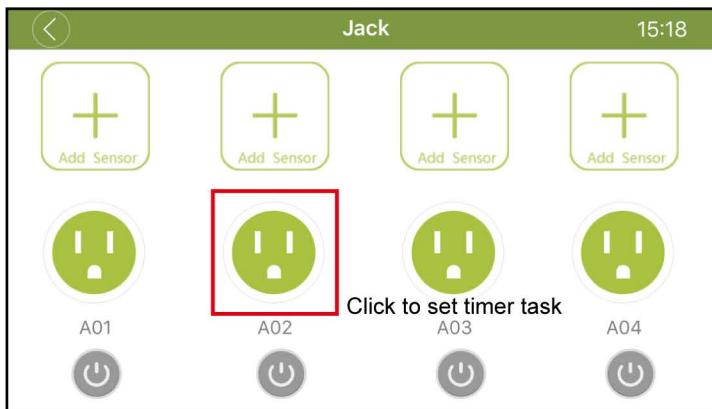


Step 6: Sensor task overview

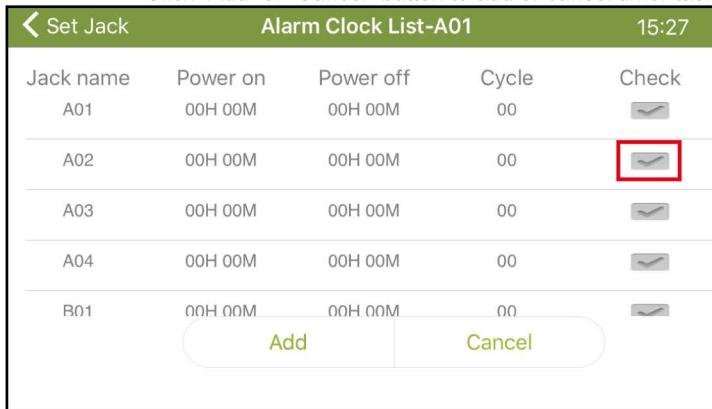


4. Set timer task

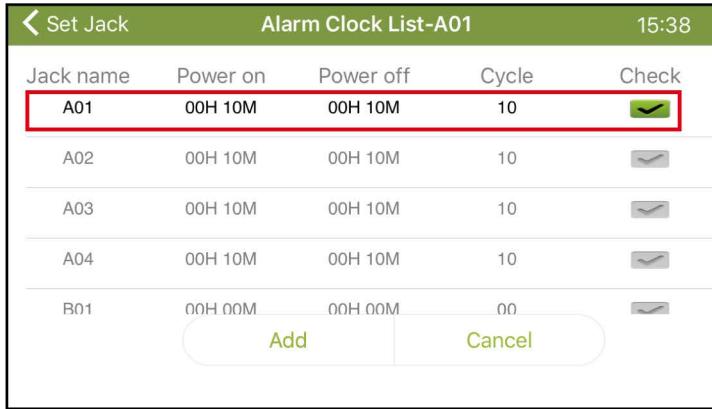
Step 1: Choose any socket, such as "A02"



Step 3: Choose jack
 -Click the check button to select jack
 -You can select one or more jacks at one time
 -Click "Add" or "Cancel" button to add or cancel timer task

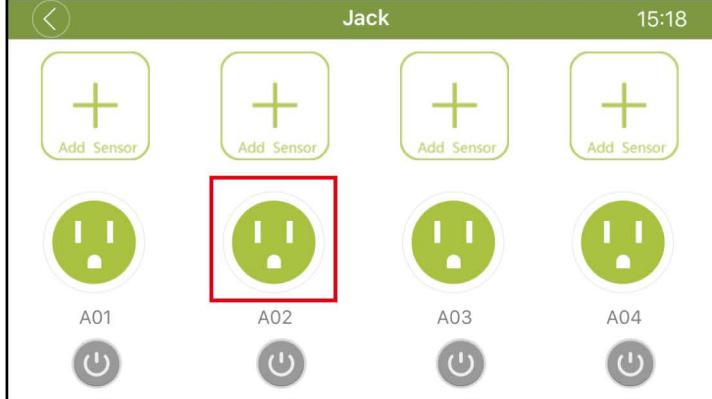


Step 5: View existing timer task
 -Choose one jack
 -Click "Add" button

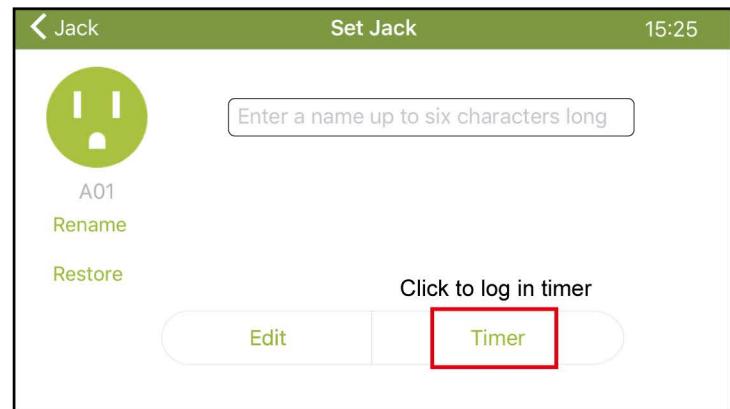


5. Change icon and jack rename

Step 1: Choose any socket, such as "A02"

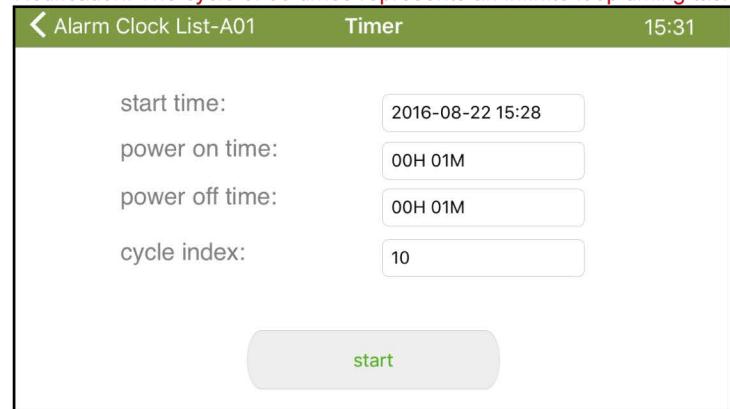


Step 2: Click "Timer" button

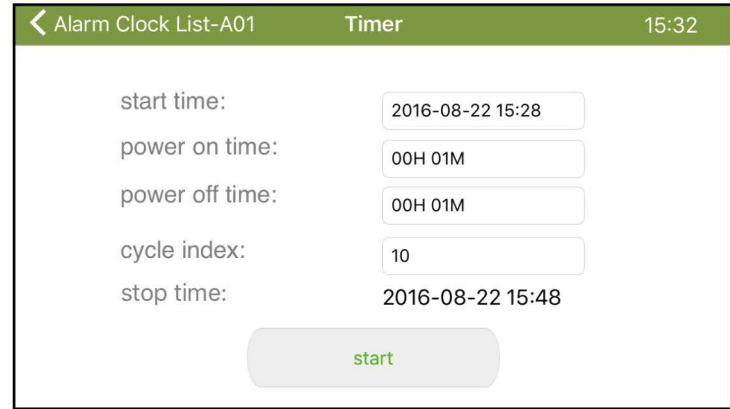


Step 4: Set timer task
 -Input the time and cycle index
 -Click "start" button

Notification: The cycle of 99 times represents an infinite loop timing task.



Step 6: Timer task overview



Step 2:

-Click "Edit" to change jack icon
 -Input JACK new name and click "rename" to change the name



8.ICON indicate

ICON	STATUS
	Controller
	Breaker down or sensor off line
	Jack binding timer task
	Power on
	Power off
	Selection sensor
	Find sensor
	Sensor off line
	One kind of sensor off line
	Locate sensor
	Nighttime mode
	Daytime mode

FCC Caution.

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.

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

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.

Avertissement de la FCC

Ce dispositif est conforme à l'article 15 des règles de la FCC. Le fonctionnement est soumis aux conditions suivantes: (1) Cet engin ne peut causer d'interférences nuisibles envers autres et (2) ce dispositif doit accepter toute interférence reçue, y compris ceux qui peuvent provoquer un fonctionnement inadéquat de l'appareil.

Tous les changements ou modifications non approuvés par le parti responsable de la conformité peut entraîner l'annulation du droit d'utilisation de l'appareil par l'utilisateur en question.

Note: Cet équipement a été testé et jugé conforme aux limites d'un dispositif numérique de classe B, conformément l'article 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences dans le cas d'une installation résidentielle. L'équipement en question produit des ondes de fréquence radio et, lorsque installé ou utilisé dans une manière pas conforme aux instructions, peut causer des interférences nuisibles aux communications radios. Toutefois, il n'y a pas de garantie que l'interférence ne soit pas produite dans des cas spéciaux. Si l'équipement produit de l'interférence avec la radio ou la télévision, l'utilisateur est encouragé d'essayer une des solutions suivantes :

- Déplacer l'antenne de réception
- Distancier l'équipement de la réception
- Connecter l'équipement à une prise d'alimentation différente ou un circuit différent du récepteur
- Consulter un technicien ou le concessionnaire pour plus d'aide

Important Notes

- Suggesting to use a dedicated router WiFi services for the intelligent controller, and the intelligent controller must be in the effective range of the router WiFi.
- Before RESET, must remove all equipments from the sockets and then RESET.
Warning: RESET will remove all settings in the intelligent controller !
- Before entering the ULight APP every time, you must make sure that the mobile phone's date and time are accurate, suggest to set the mobile phone and get time and time zone from the network.
- After finished the intelligent controller settings on the APP, the every socket of the intelligent controller will turn on or turn off by your setting. Clicking on the "<" in the upper-left corner and returning to the "Devices" interface, and must exit APP.
- Allowing three mobile phones to configure and connect the intelligent controller, and all phones must choose the specified and same WiFi to configure and connect this controller, but forbidding multiple mobile phones APP to set the intelligent controller at the same time.
Warning: Forbid to configure with different WiFi !
- Allowing the intelligent controller to automatically connect several sets of sensors, the climate data in the growing room will be more accurate.
- The battery model is PANASONIC CR2032-3V.
- When the environment temperature in growing room is higher than the temperature sensor setting extreme temperature, all the 240V sockets will immediately power off. After environment temperature decreases, all the 240V sockets will restore to the previous state.
- Normal working temperature range: 32-120 °F.



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