



NEED SOME HELP?

www.mars-hydro.com

Pay a visit to Mars Hydro official for technical support, user guides, FAQs, warranty & more

WARRANTY

WITHIN 1 YEAR OF PURCHASE

Components, repairs, and shipping are provided free of charge.



Website: www.mars-hydro.com

Email: solutions@mars-hydro.com

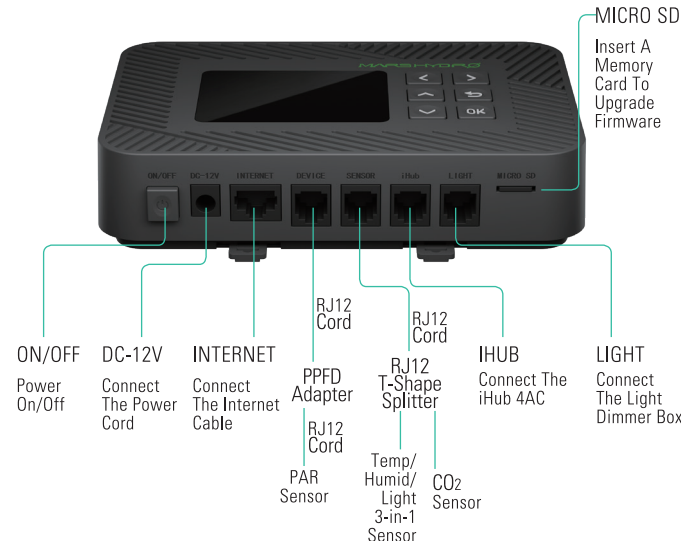
Address: JinTie Industrial Park,
LongGang District,
ShenZhen,518100,China

MADE IN CHINA

SPECIFICATIONS

Model Number	Controller 43
Input Voltage	12V DC
Power	4W
Power Cord Length	1.5m
RS485 Maximum Number of Devices	255 (theoretical data)
Humidity Range	5-95%
Humidity Accuracy	±3%
CO ₂ Range	0-5000PPM
CO ₂ Accuracy	±50 (PPM+5%)
Dimensions	158*108*37.5mm
Working Environment	Indoor,-20℃ ~ +35℃ , Humidity ≤ 90%
Warranty	1 Year
PPFD Measurement Range	0-4000μmol/ m ² /s
PPFD Response Spectrum	400nm-700nm
Temperature Measurement Range	-20-100℃
Temperature Measurement Accuracy	±0.75℃

CONTROLS & PORTS OVERVIEW



COMPONENTS

- Controller 43
- Power Supply
- Temp/Humid/Light 3-in-1 Sensor
- RJ12 Cord
- Installation Rail
- PPFD Adapter
- CO₂ Sensor
- PAR Sensor
- RJ12 T-Shape Splitter

Combo 1: MH-Controller43SET

- | | | |
|---------------------------|-----------------------------------|-----------------|
| 1x Controller 43 | 1x Temp/Humid/Light 3-in-1 Sensor | 1x PAR Sensor |
| 1x CO ₂ Sensor | 1x Power Supply | 3x 3m RJ12 Cord |
| 1x Installation Rail | 1x RJ12 T-Shape Splitter | 1x PPFD Adapter |

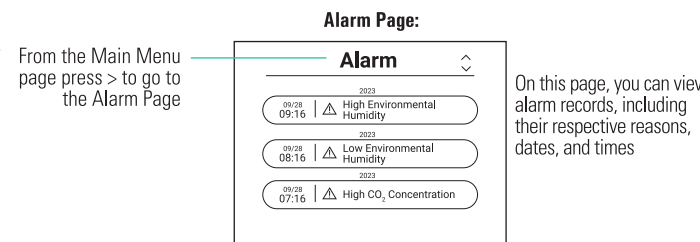
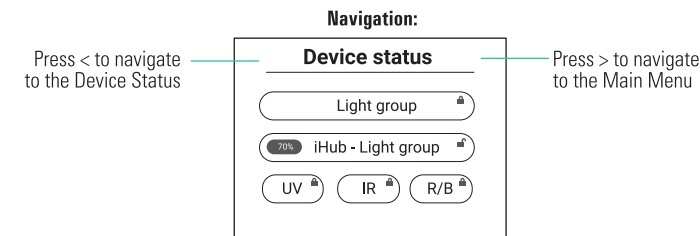
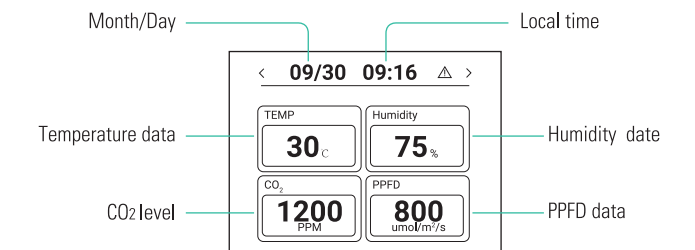
Combo 2: MH-Controller43

- | | | |
|------------------|-----------------------------------|-----------------|
| 1x Controller 43 | 1x Temp/Humid/Light 3-in-1 Sensor | 1x Power Supply |
| 1x 3m RJ12 Cord | 1x Installation Rail | |

Combo 3: MH-Sensor

- | | | |
|-----------------|--------------------------|---------------------------|
| 1x PAR Sensor | 1x RJ12 T-Shape Splitter | 1x CO ₂ Sensor |
| 1x PPFD Adapter | 2x 3m RJ12 Cord | |

HOME PAGE OVERVIEW



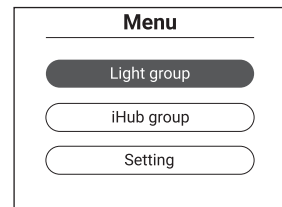
MARSHYDRO USER MANUAL CONTROLLER 43



MENU PAGE OVERVIEW

Home Page:

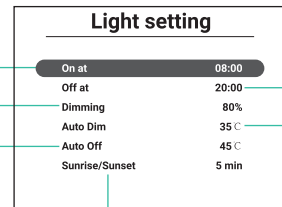
From the Home Page press OK to enter the Menu Page.



The controller provides expanded control of the RJ12 wire-connected lights (dimmer box). It adjusts brightness based on preset sunrise and sunset times. It also features high-temperature protection, automatically dimming the brightness when the temperature threshold is reached, and turning off the light when necessary.

Light Settings:

The lights connecting with controller



On At:
Sets the light on time

Off At:
Sets the light off time

Dimming:
Adjusts the brightness when the light turns on

Auto Off:
Automatically switches off the lamp when the set temperature is reached

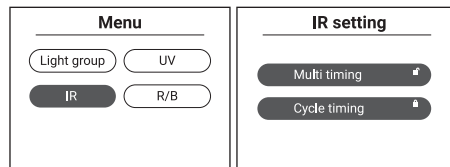
Auto Dim:
Automatically dims the brightness upon reaching the set temperature value.

Sunrise/sunset:
Automatically adjusts light brightness according to preset sunrise and sunset times

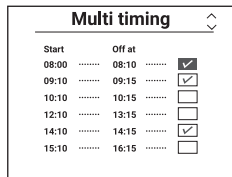
IHUB 4AC PAGE



Connect the iHub 4AC with the Controller 43 to regulate UV, IR, and Red/Blue light settings.



The iHub 4AC can also be connected to a main light.

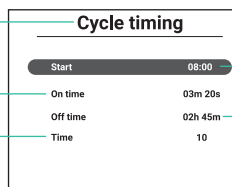


Multi Timing: Set multiple time intervals for IR activation and deactivation (up to 12 intervals).

Cycle Timing:
Set the IR cycle execution time command

On Time:
Specifies the time to activate IR

Cycle Count:
Sets the number of activation cycles for IR



Start:
Specifies the time IR will commence operation

Off Time:
Specifies the time to deactivate IR

USAGE TIPS FOR ADLITE SERIES

UV and R/B Settings: These settings function identically to the IR configuration, with multi-timing and cycle options available.

Suggested usage times for UV, IR, and Deep Red are provided.

Light Type	Grow Stage	Maximum Daily Duration	Solution	Recommended timing mode
IR	Flowering	30 mins	Before light on: 15 mins After light off: 15 mins	"Multi Timing"
UV	Vegetative	1.5hrs	5 mins/hr at light on cycle	"Cycle Timing"
	Flowering	2hrs	10 mins/hr at light on cycle	
Red	Flowering	12hrs	Consistent with the light on cycle	"Multi Timing" Or "Cycle Timing"

SETTINGS OVERVIEW

Temp Format:
Choose between Fahrenheit or Celsius

Language Selection:
English, Chinese, Spanish, Dutch, Italian

Override:
Manually control the device

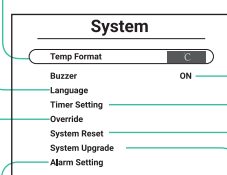
Alarm Setting:
Triggers an alarm when the preset temperature, humidity, or CO₂ concentration is surpassed.

Buzzer:
Turn the alarm on or off

Time Setting:
Set the local time and date

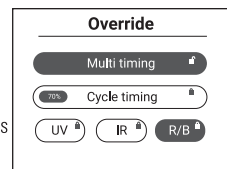
System Reset:
Restore factory settings

System Upgrade:
Upgrade using an SD card



Override: You can set the Light group, iHub-Light group, UV, IR, and R/B modes, which are divided into three modes: automatic execution, manual on, and manual off.

Auto:
The device automatically carries out commands according to the set values

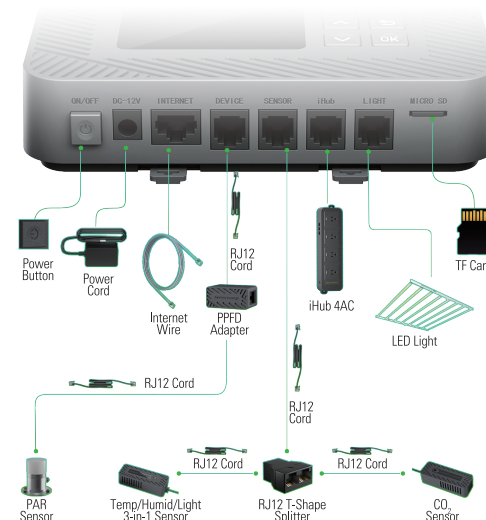


ON:
Manually turn on

OFF:
Manually turn off

CONNECTIONS

* The light sensor on the Temp/Humid/Light 3-in-1 Sensor detects ambient light to determine if a light is on or off.



USE CONTROLLER 43 THROUGH THE MARSPRO APP

1. Search "MarsPro" on Google Play or Apple Store to download, or scan the QR code below.



2. Open the MarsPro APP, log in, and click "+" to add a device. On the controller interface, select System Settings, then choose System Reset on the System Settings screen, and click Restore Factory Settings.

3. Connect and activate the device to enter the operating interface, where you can access data from temperature, humidity, VPD, CO₂, and PAR sensors. You can also control the light with ON/OFF, dimming, and timing functions.

ATTENTION

Contact Mars Hydro for controller upgrades.

CAUTION

DO NOT expose the Controller 43 to water or excessive heat, or attempt to open, repair, or disassemble it, as this will void the warranty. If the surface is dirty, clean it with a dry towel. The controller operates normally under natural ventilation conditions.

Batteries: Batteries are included with the controller. Please note:

-Replacing a battery with an incorrect type can defeat safety features (e.g., in the case of some lithium battery types).

-Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting a battery, can result in an explosion.

-Leaving a battery in an extremely high-temperature environment can result in an explosion or the leakage of flammable liquid or gas.

-A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.