



# WIFI-M01

## USER MANUAL

For HV System

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## Statement of Law

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Infringement will be prosecuted.

This product complies with the design requirements of environmental protection and personal safety. The storage, use and disposal of the products shall be carried out in accordance with the product manual, relevant contract or relevant laws and regulations.

Customer can check the related information on the website of Dyness Digital Energy Technology Co., LTD. when the product or technology is updated. Web URL:

<http://www.dyness.com/>

Please note that the product can be modified without prior notice.

## Revision History

Revision NO.	Revision Date	Revision Reason
1.0	2023.3.01	First Published

## Safety Precautions



### WARNING

1. Please do not put the system into water or fire, in case of explosion or any other situation that might endanger your life.
2. Please connect wires properly while installation.
3. Please do not stab, hit, trample or strike the system in any other way.
4. Please use dry powder extinguisher to put out the flame when encountering a fire hazard, liquid extinguisher could result in the risk of secondary disaster.
5. For your safety, please do not arbitrarily dismantle any component in any circumstances unless a specialist or an authorized one from our company, device breakdown due to improper operation will not be covered under warranty.



### CAUTION

1. We have strict inspection to ensure the quality when products are shipped out, however, please contact us if case bulging or another abnormal phenomenon.
2. For your safety, device shall be ground connected properly before normal use.
3. To assure the proper use please make sure parameters among the relevant device are compatible.
4. Please do not mixed-use batteries from different manufacturers, different types and models, as well as old and new together.
5. Ambient and storage method could impact the life span and product reliability, please consider the operation environment abundantly to make sure device works in proper condition.

## Preface

### Manual description

The Wi-Fi module, also known as the serial wi-fi module, belongs to the Transmission layer of the Internet of Things, and its function is to convert the serial port or TTL level into an embedded module that complies with wi-fi wireless network communication standards. It is equipped with IEEE802.11B.G.N protocol stack and TCP/IP protocol stack. Traditional hardware devices embedded with Wi-Fi modules can directly use Wi-Fi to connect to the Internet, which is an important part of the implementation of wireless smart home, M2M and other Internet of Things applications, and is an important component of intelligent hardware.

Dyness WiFi-M01 system is used together with the battery, and the user can monitor the data through the Dyness Smart App, which is more convenient, efficient and intelligent. This document describes in detail the basic structure, parameters, installation, and operation of the device.

# 1 Introduction

## Brief Introduction

WiFi-M01 System is a very convenient product. The addition of WiFi System makes the battery more intelligent. The users can monitor the battery data through Dyness Smart APP anytime and anywhere, which is very convenient.

## Product Properties

The WIFI-M01 System's features as below:

- Built-in low power KM4 MCU, can also be used as application processor
- Frequency 100 MHZ, Operating voltage: 4.5V-5.5V
- Wi-Fi / Bluetooth connectivity
- 802.11B/G/N20,channel 1-14@2.4GHz (CH1-11forUS/CA,CH1-13for EU/CN)
- support Bluetooth 4.2 Low Energy
- +20dBm output power in 802.11b mode
- SmartConfig (for Android and IOS devices)
- External IPEX FPC antenna
- CE,FCC certification

## Product identity definition

	Be careful with your actions and be aware of the dangers
	Read the user manual before using
	The WIFI Systems cannot be put into the garbage can and must be professionally recycled
	After theWIFI-M01 System life is terminated, the WIFI-M01 System can continue to be used after it recycled by the professional recycling organization and do not discard it at will
	This WIFI Systems product meets European directive requirements
	This WIFI Systems product meets USA directive requirements

## 2 Product Specification

### Size and Weight

Table 2-1 WIFI-M01 Spec&amp;Size

Product	Nominal Voltage	Dimension	Weight	Protection Level
WIFI-M01	DC5V	75mm*25mm*40mm	200g	IP20

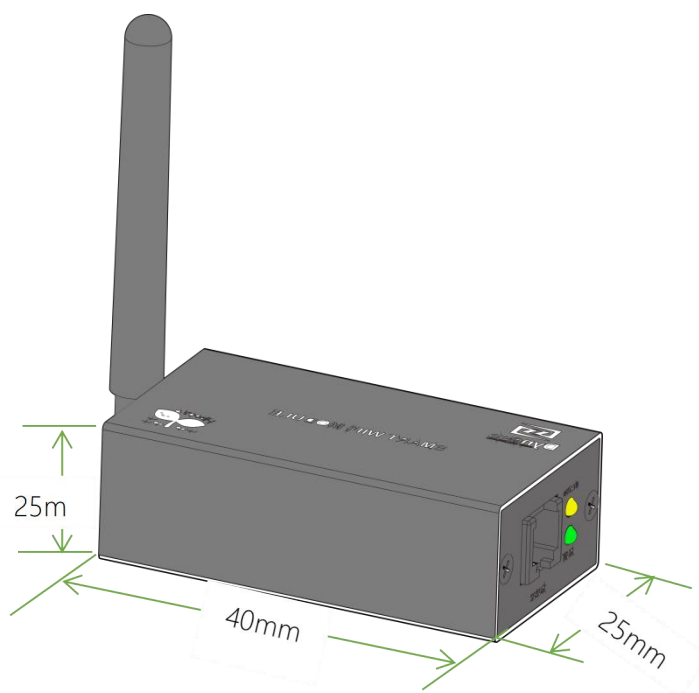


Figure 2-1 WIFI-M01 Module

### Performance Parameter

Table 2-2 WIFI-M01 performance parameter

Nominal Voltage	5V
Operating Voltage Range	4.5~5.5V
Frequency	100MHZ
Connection Type	Wi-Fi/Bluetooth
Protocol	802.11 B/G/N20
Channel	1-14@2.4GHz (CH1-11 for US/CA, CH1-13 for EU/CN)
Output Power	+20dBm

### Interface Definition

WIFI-M01 product panel interface configuration and function.

This section details the interface functions of the front panel of the device.

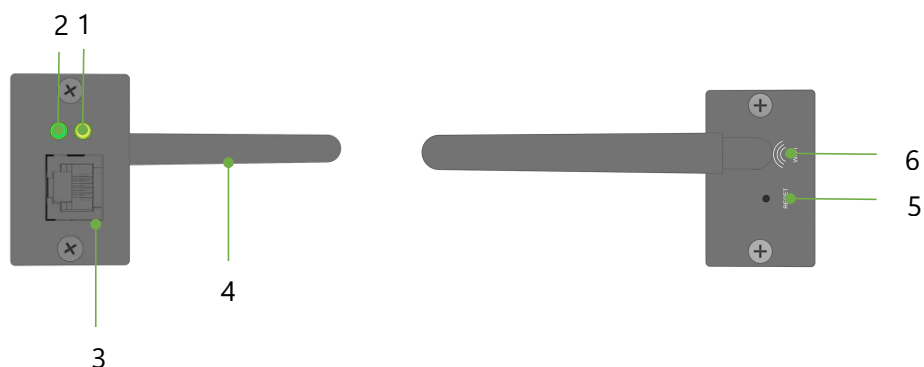


Figure 2-2 WIFI-M01 Front Panel of battery module

Table 2-3 WIFI-M01 Front Panel of battery module definition

item	Name	Definition
1	Power display	Light on means WiFi module works
2	Distribution network display	If the indicator blinks quickly, the network is ready to be configured. If the indicator blinks slowly, the network is ready to be connected. If the indicator is steady on, the network is configured successfully
3	RS232	Communication with the battery's COM port enables monitoring of battery data and upgrades
4	WiFi	2.4g Bluetooth wifi antenna
5	RESET	Configuration button for network configuration or resetting
6	Wifi interface	Used to connect wifi antenna rod

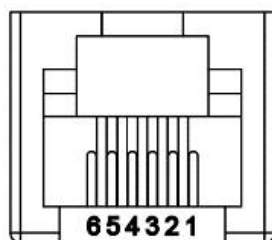


Figure 2-3 Communication port

Table 2-4 Pin Definition

Foot position	Definition
PIN1	5V
PIN2	GND
PIN3	RXD
PIN4	TXD
PIN5	GND
PIN6	5V

## 3 Installation and Configuration

### Ready for installation

#### Environmental requirements

- Working temperature:  $-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Storage temperature:  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- Relative humidity: 5%~85% RH
- Elevation: no more than 4000m
- Operating environment: Indoor installation, sites avoid the sun and no wind, no conductive dust and corrosive gas.
- And the following conditions are met: Installation location should be away from the sea to avoid brine and high humidity environment; The ground is flat and level; There is no flammable explosive near to the installation places; The optimal ambient temperature is  $15 \sim 30^{\circ}\text{C}$ .
- Keep away from dust and messy zones.

#### Equipment preparation

Equipment that may be used are shown in table 3-1:

Table 3-1

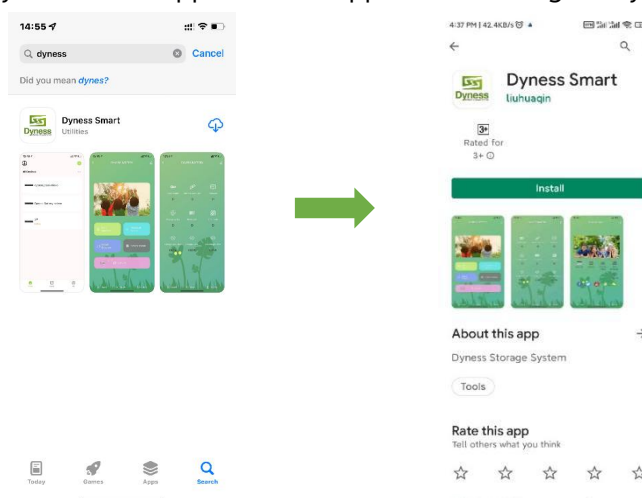
Name
Dyness battery (with WiFi function)
WiFi module
network cable (both crystal heads are RJ11 (6p6c) , wires pin to pin, Dyness supply the cable)
mobile phone (the Dyness smart app has been downloaded)
WiFi ( 2.4GHz )

### Equipment connection

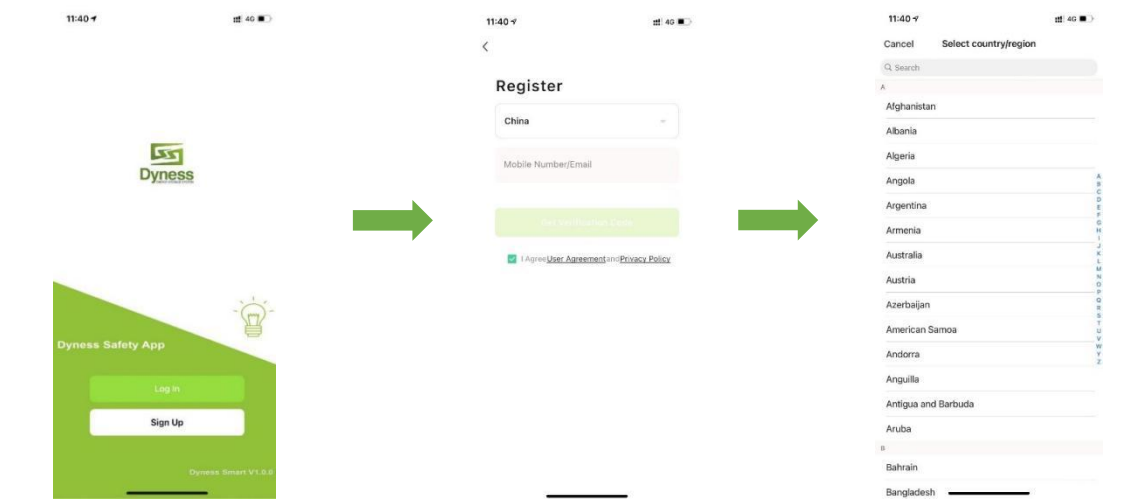
#### connection preparation

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1.Download the Dyness Smart App from the App Store or Google Play.



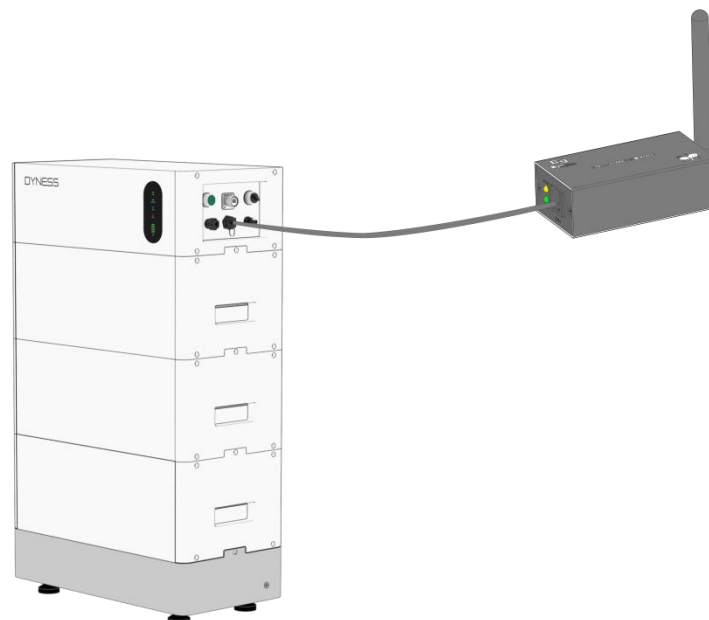
2.Register after the APP is installed, click "Sign Up", choose " Local Region", Input "Phone number or email address", Click "Get Verification Code, nput Verification Code, Registration completed.After registration, use your account and password to Log In.




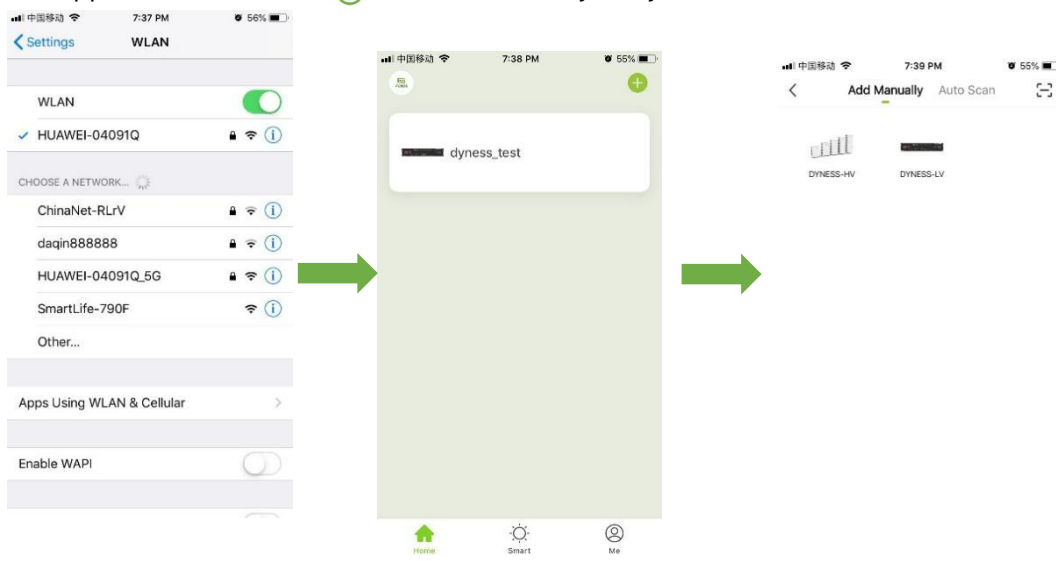
#### Steps of connection (AP Mode)

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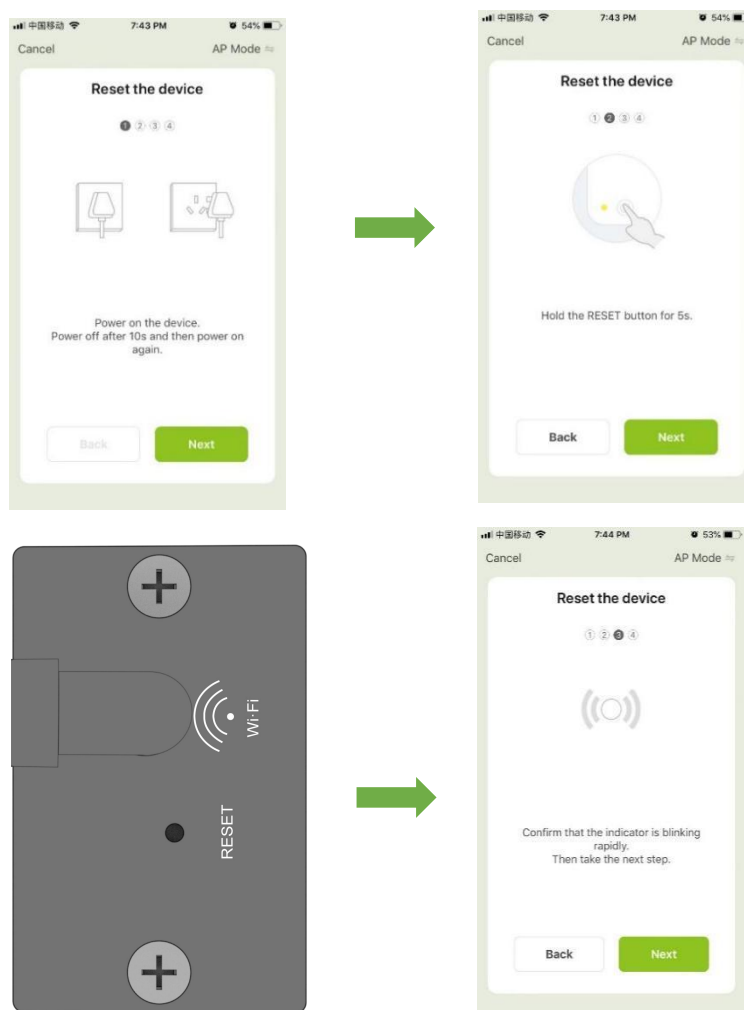
1.Connect the WiFi module and battery with the 6p6c network cable. One end of the network cable is connected to the RS232 interface of the battery, and the other end is connected to the RS232 communication port of the WiFi module. Then turn on the battery, and confirm that the yellow LED of the WiFi module is always on.



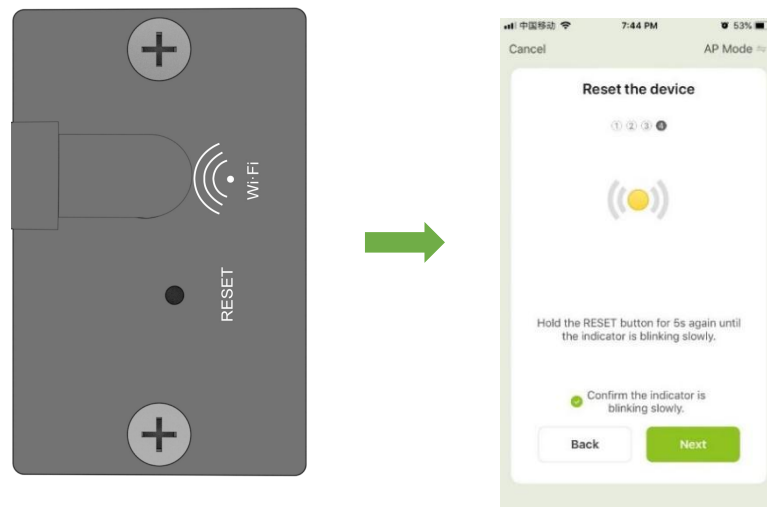
2. The mobile phone is connected to the 2.4GHz wireless network ,enter "home page" of the app, then click the "  ", "Add manually", "Dyness-HV".



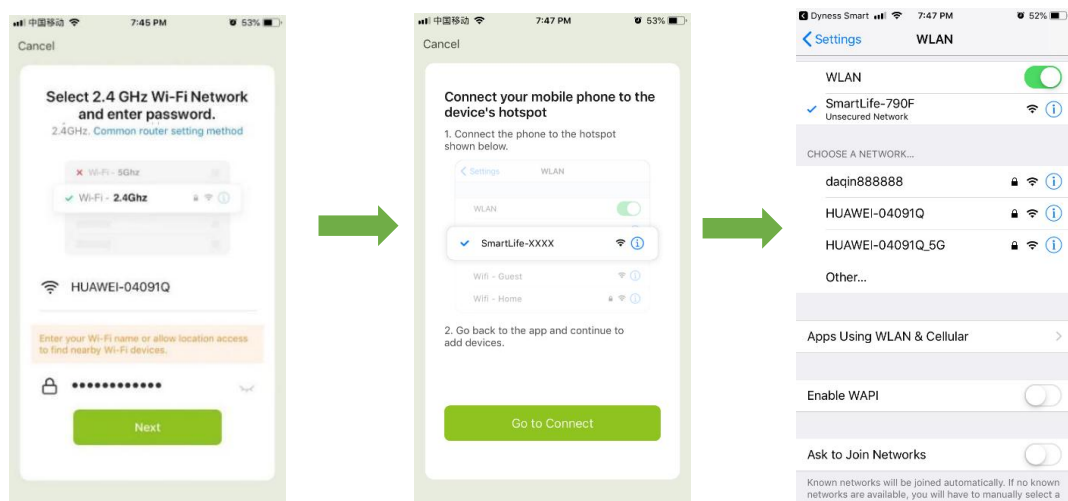
3. Please choose device's interface of the app in AP Mode, click the RESET Button of the WiFi module once, waiting for the WiFi module green light is blinking rapidly, proceed the next step.




4. Click the RESET Button of the WiFi module again, waiting for the green light is blinking slowly, click on the "confirm the indicator is blinking slowly" of the APP. Click "Next" to continue...

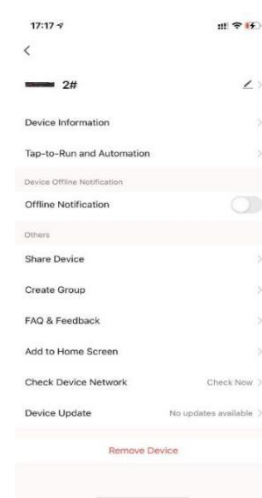
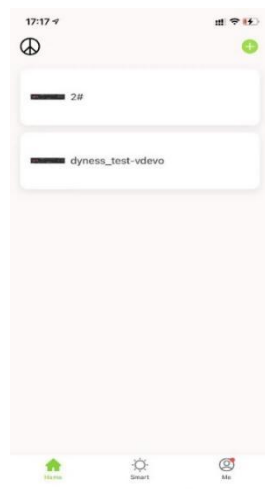
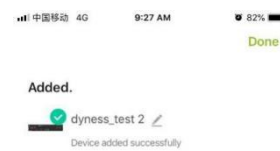


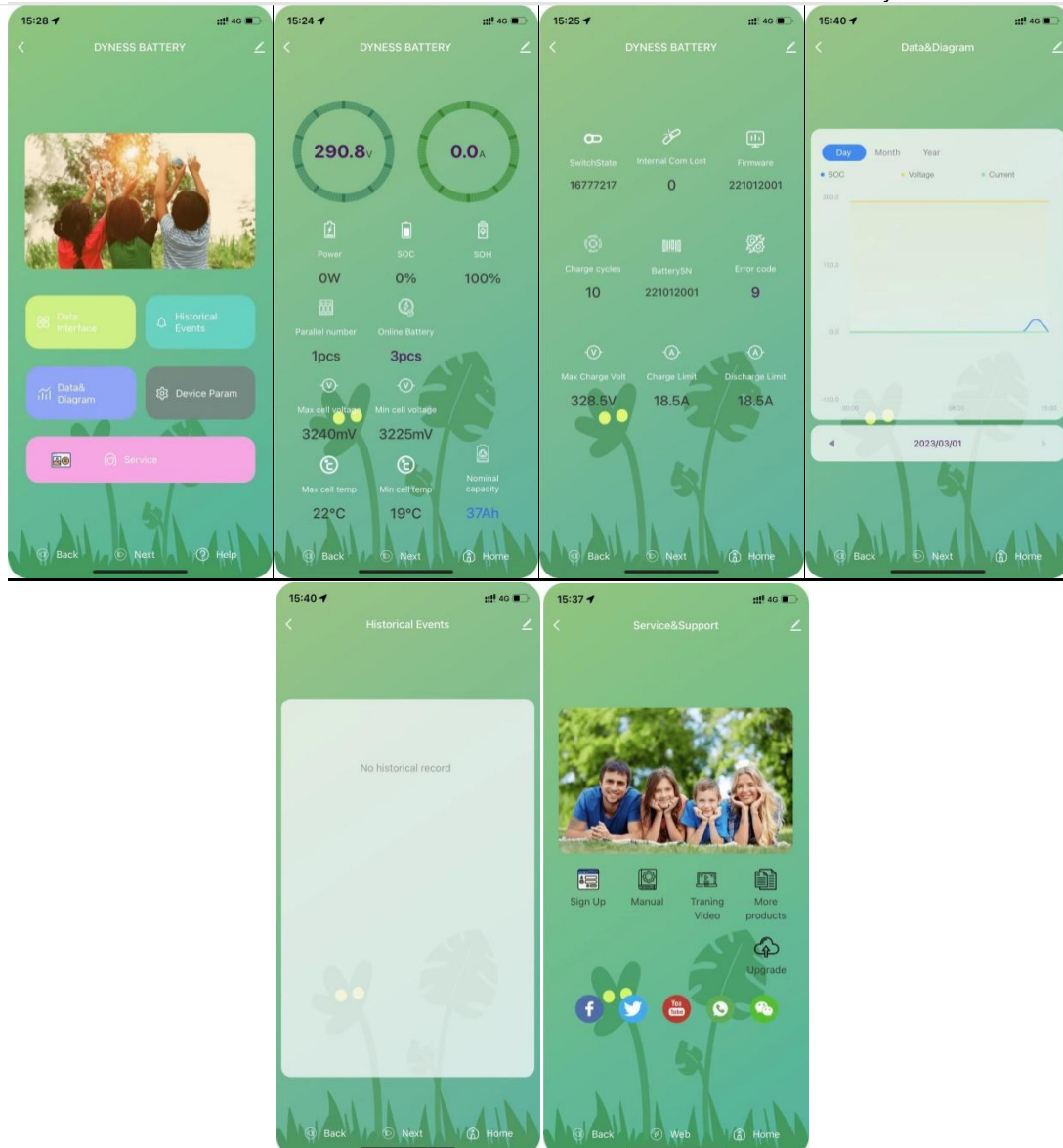
5. Enter the WiFi name and password your mobile phone is using, then click "next". On the page that pops up choose the WiFi which name is SmartLife-XXXX , then click "Go to Connect".



6. After connected to the WiFi " SmartLife-XXXX ", return to the APP interface and you can see "Adding device..." is displayed. After a while, "Adding device succeeded" is displayed, and the connection is successful.

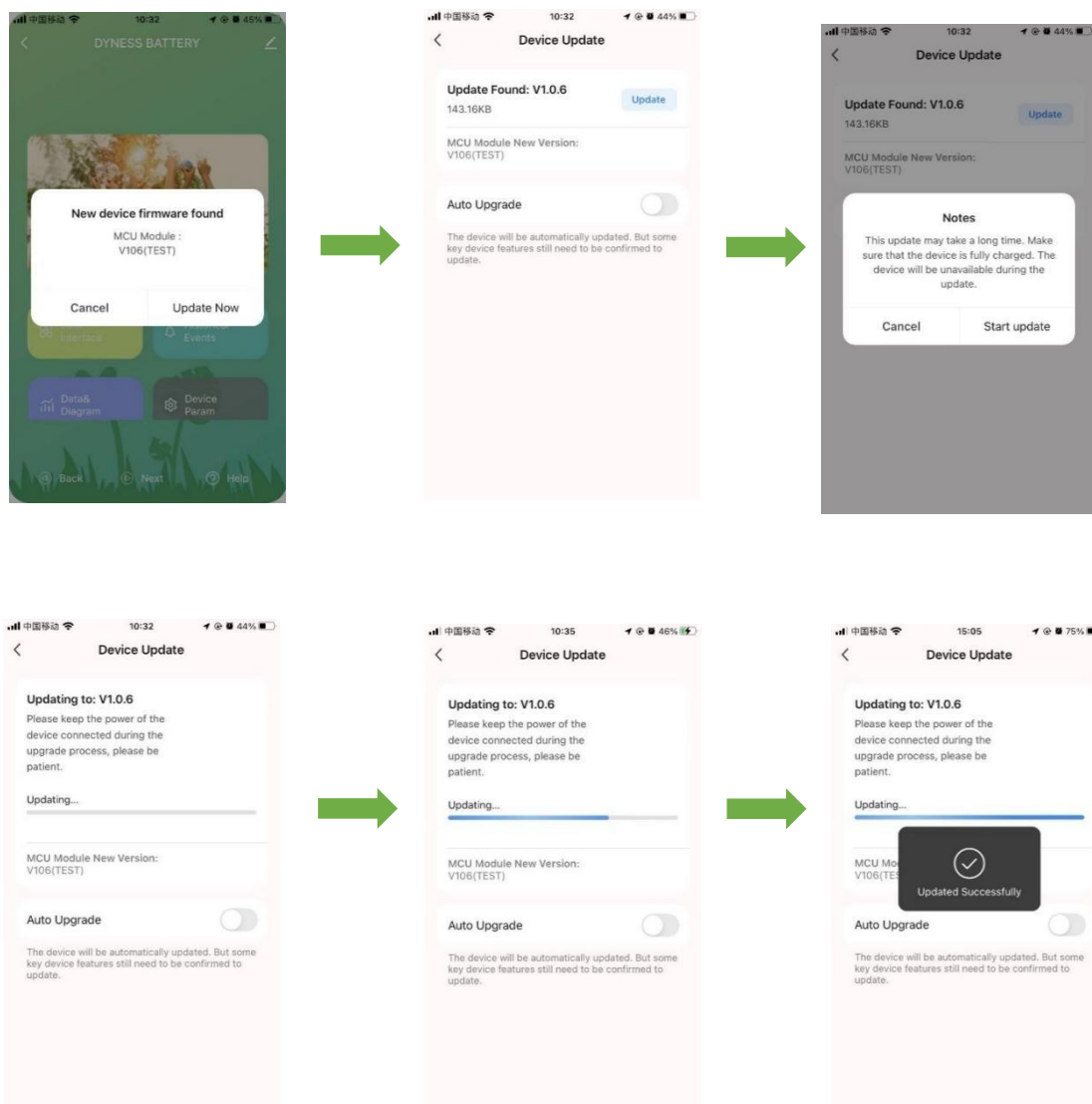
After the device is added successfully, the following is the operating page, You can user define the device name by click "  " .





## 4 Device Update

Please contact Dy Ness engineer before firmware upgrade, Dy Ness engineer will upload the corresponding files in the background. Then when you open the interface of the mobile app, the window to discover the new device firmware will pop up, click "update", the "notes" will appear, click "start update" to start the update, and the app will show that the update is in progress. After the update is successful, it will display "Updated successfully".



## 5 Serial Number

The SN code of the WIFI module is shown in the figure below.

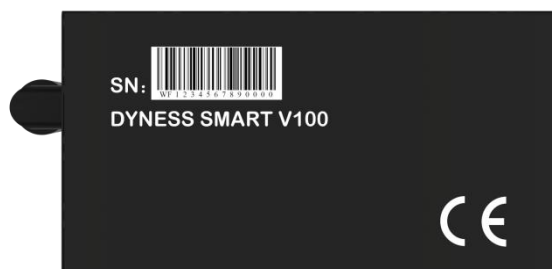


Table 5-1 The SN code of the WIFI module

## 6 Troubleshooting

Table 6-1 WIFI-M01 troubleshooting

Trouble	Indicate	Troubleshooting
STATUS LED is dark	WiFi module doesn't work	Please check the 6p6c network cable and RS232 port
The network connection has timed out	the network isn't configured successfully	Make sure the device is reset, the light is blinking slowly, Whether to connect to a hotspot 3. Verify that the WIFI password is correct

If you have any technical help or question, please contact DYNESS in time.



DISCOVER YOUR NATURE

Address: No. 511 Chenzhuang West Road, Sanshui Street,  
Jiangyan District, Taizhou City

Email: [service@dyness-tech.com](mailto:service@dyness-tech.com)

Tel: +86 400 666 0655

Web: [www.dyness.com](http://www.dyness.com)



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