
# Dyness WIFI-M01 Smart Wifi Module User Manual



Contents



## Dyness WIFI-M01 Smart Wifi Module


## Product Information

### WIFI-M01 System

The WIFI-M01 system is a serial Wi-Fi module that is designed to work together with Dynes's battery for monitoring data through the Dyness Smart App. This module is more convenient, efficient, and intelligent. The product is copyrighted by Jiangsu Daqin New Energy Technology (Taizhou) Co., Ltd.

## Safety Precautions

The following safety precautions should be observed when using the WIFI-M01 system:

- **Warning:** Any misuse or unauthorized modifications of the product may result in electric shock, fire, or personal injury.
- **Caution:** To prevent damage to the device, do not expose the product to moisture or high temperatures.

## Product Specification

The WIFI-M01 system has the following specifications:

- **Size and weight:** The dimensions of the module are 120mm x 70mm x 20mm, and it weighs approximately 100g.
- **Performance parameter:** The module supports IEEE802.11b/g/n wireless protocol and has a maximum data transfer rate of 300Mbps.
- **Interface definition:** The module has a front panel and a communication port for connecting to the battery.

## Installation and Configuration

The following steps should be followed for installation and configuration:

1. **Introduction:** The first section of the manual provides a brief introduction to the product, its properties, and its identity definition.
2. **Product Specification:** The second section of the manual describes the size, weight, performance parameters, and interface definition of the module.
3. **Installation and Configuration:** The third section of the manual covers the steps for installation and configuration. The environmental requirements and equipment preparation are discussed first. The next part

covers the equipment connected with the steps for connection in AP Mode.

4. **Troubleshooting:** The final section of the manual covers basic troubleshooting steps for the product.

## Statement of Law

 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 Jiangsu Daqin New Energy Technology (taizhou) Co., Ltd when the product or technology is updated. Web URL **http://www.dyness-tech.com** Please note that the product can be modified without prior notice.

### Revision History

| Revision NO. | Revision Date | Revision Reason |
|---|---|---|
| 1.0 | 2021.12.20 | 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.

## 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 an 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

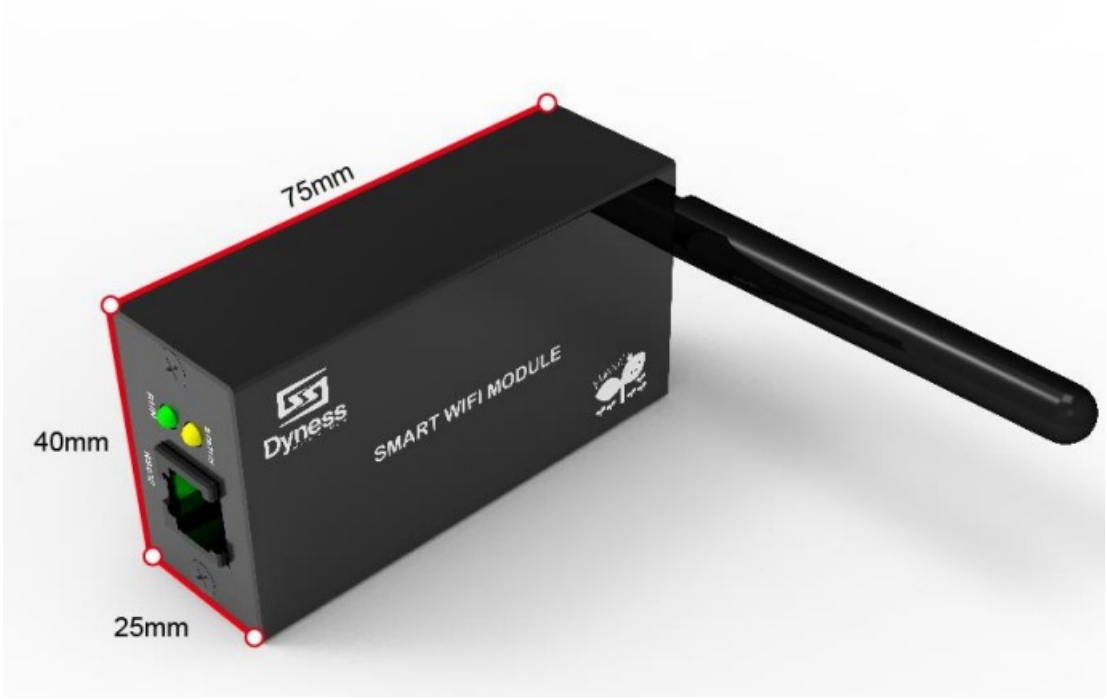
| | |
|---|---|
|  | Be careful with your actions and be aware of the dangers |
|  | Read the user manual before using |
|  | The WIFI Systems cannot be put into the garbage can and must be professionally recycled |
|  | After theWIFI-M01 System life is terminated, the WIFI-M01 System can continue to 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 |

## Product Specification

### Size and Weight

**Table2-1 WIFI-M01 Spec&Size**

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



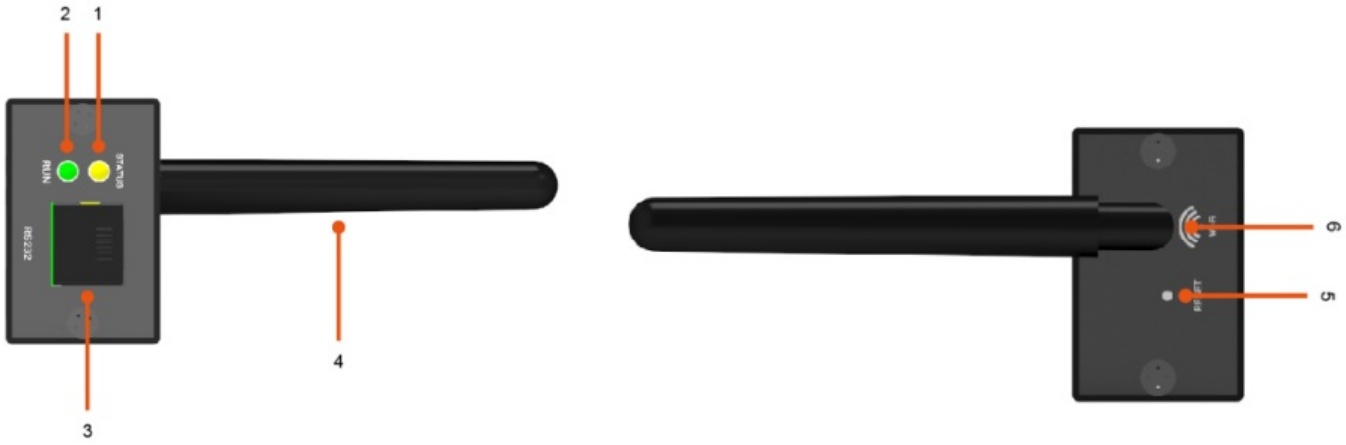

**Performance Parameter**

**Table2-2 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 |

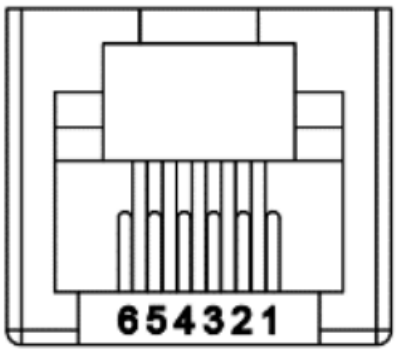
**Interface Definition**
WIFI-M01 product panel interface configuration and function.
This section details the interface functions of the front panel of the device

**Figure2-3.1 WIFI-M01 Front Panel of battery module**




| 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 |

**Communication port**




**Pin Definition**

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

## Installation and Configuration

#### Ready for installation

### Environmental requirements

- Working temperature  -20℃℃  +85
- Storage temperature  -10℃℃  +40
- Relative humidity 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 15~30℃℃.
- Keep away from dust and messy zones.

### Equipment preparation

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

**Table 3-1**

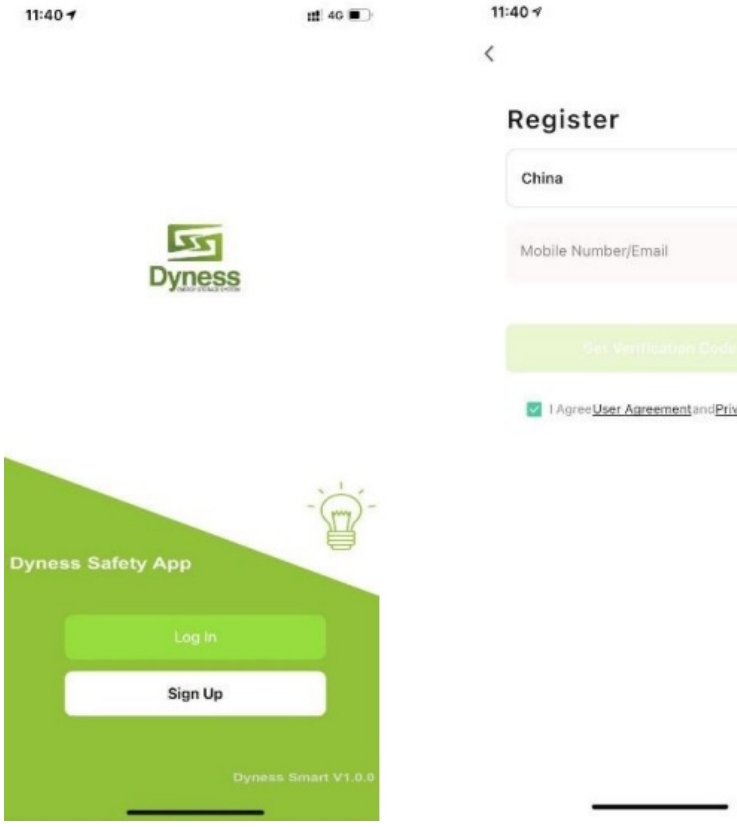
| **Name** |
| --- |
| Dyness battery (with WiFi function) |
| WiFi module |
| network cable  both crystal heads are RJ11 6p6c  wires pin to<br>pin Dyness supply the cable |
| mobile phone (the Dyness smart app has been downloaded) |
| WiFi  2.4GHz |

### Equipment connection

**connection preparation**
Download the Dyness Smart App from the App Store or Google Play.



- Register after the APP is installed click “Sign Up” choose“ Local Region” Input “Phone number or email address” Click “Get Verification Code”  Input Verification Code Registration completed.



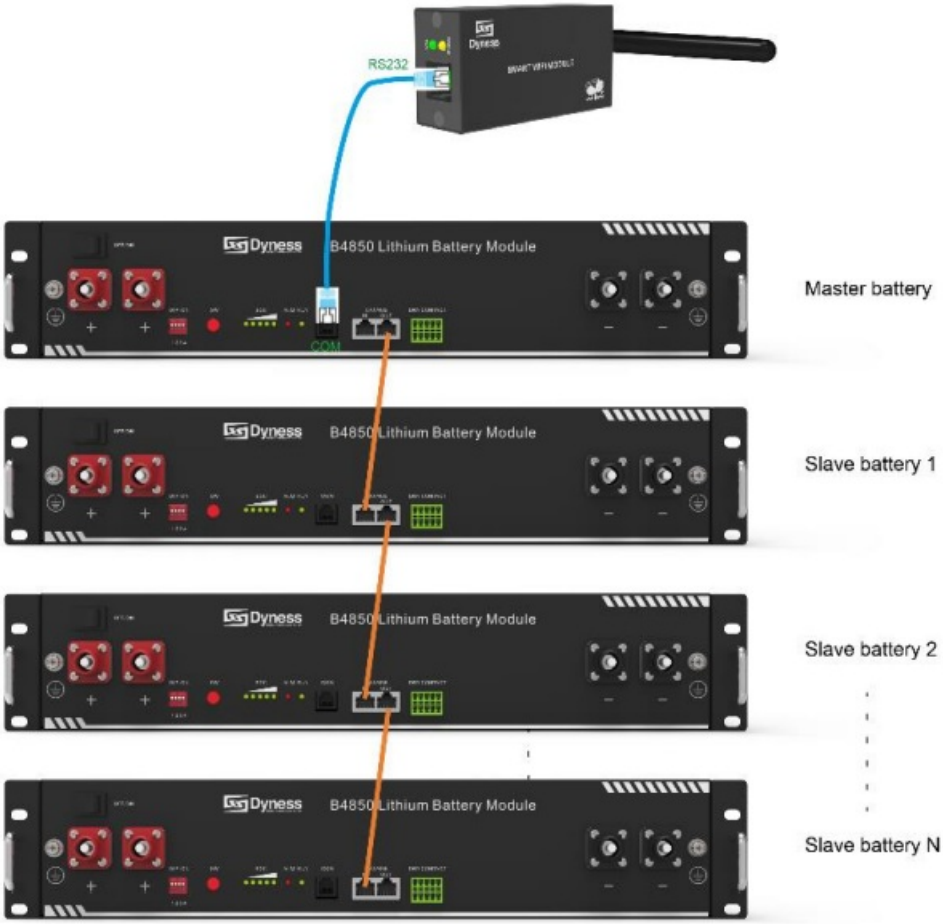




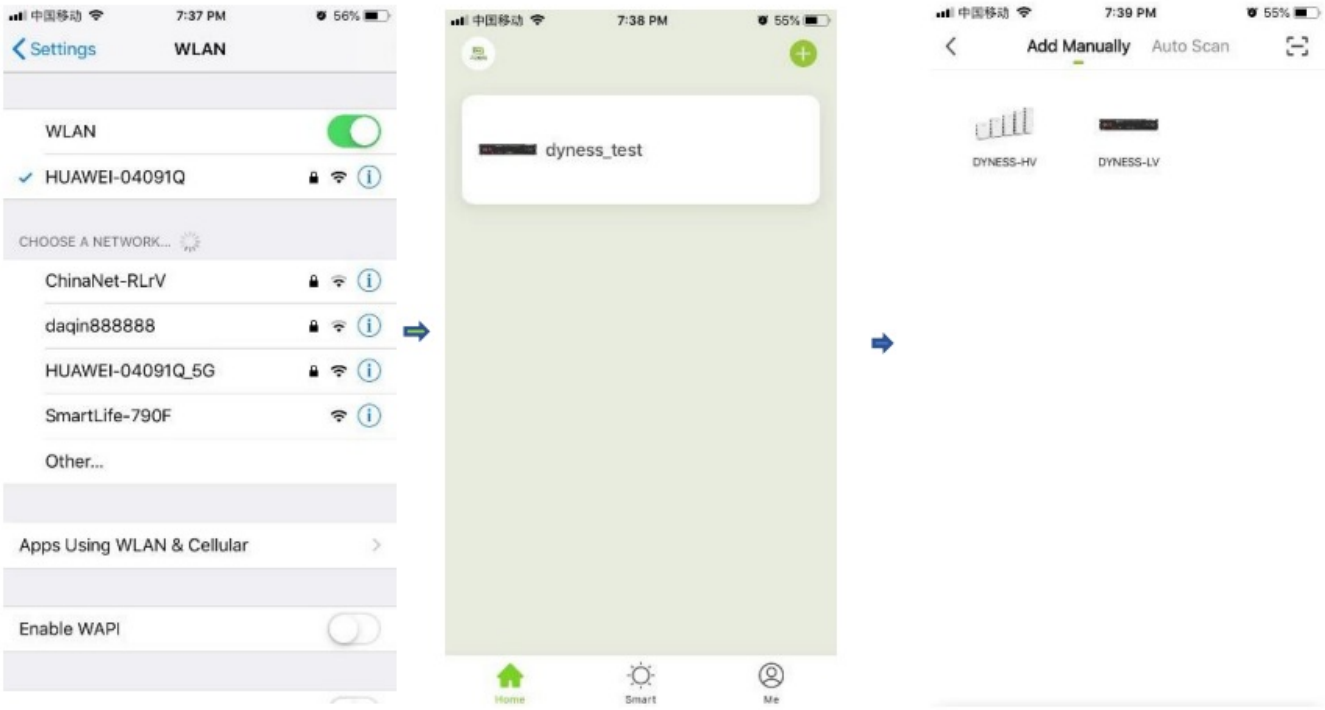

- After registration, use your account and password to Log In.

**steps of connection (AP Mode)**

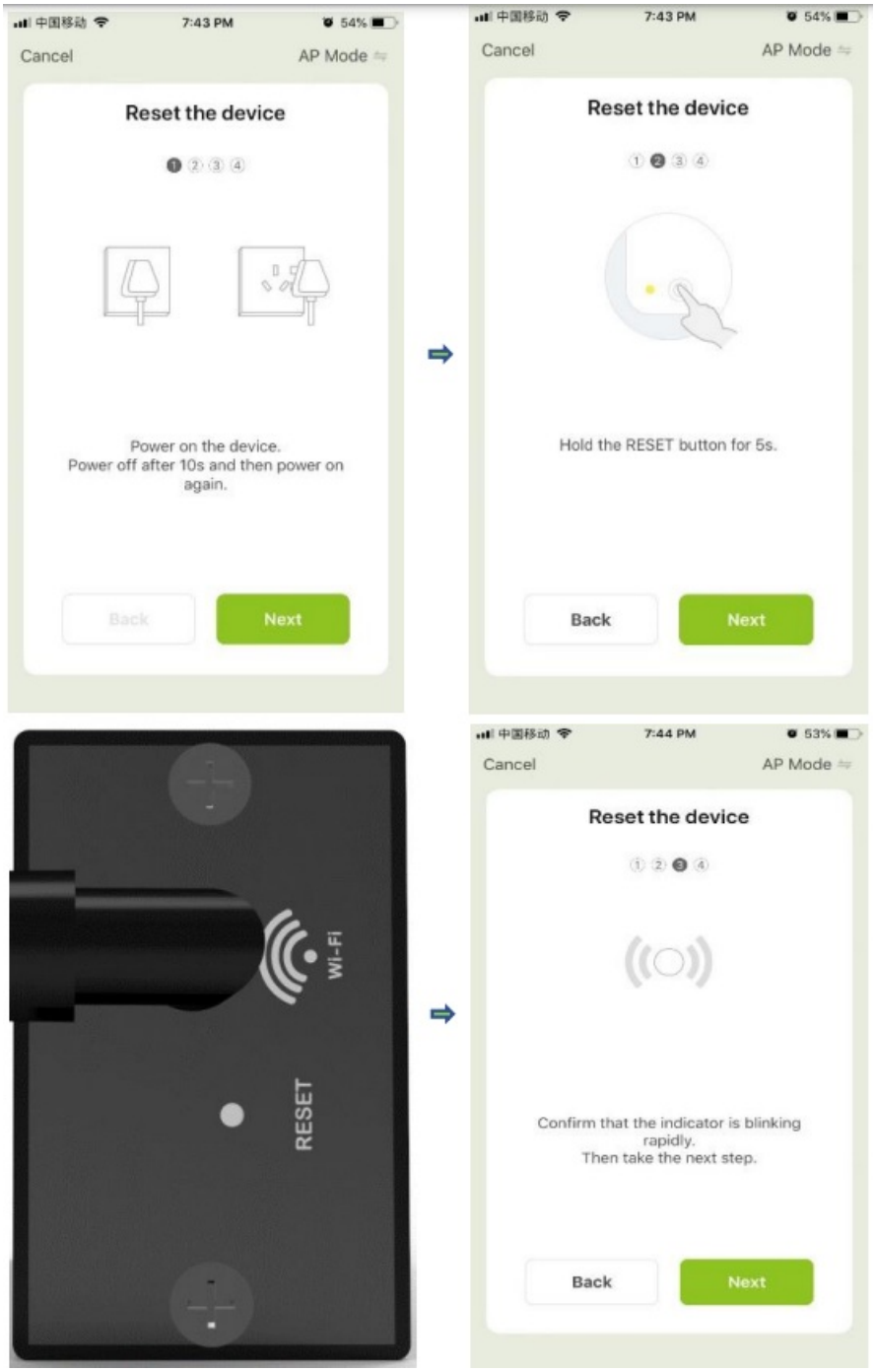
1. Connect the WiFi module and battery with a 6p6c network cable. One end of the network cable is connected to the COM port of Master battery, the other end connected to WiFI module RS232 com port, then press the “SW” of the battery to power on the battery, Confirm that the WiFi module yellow LED is always on.



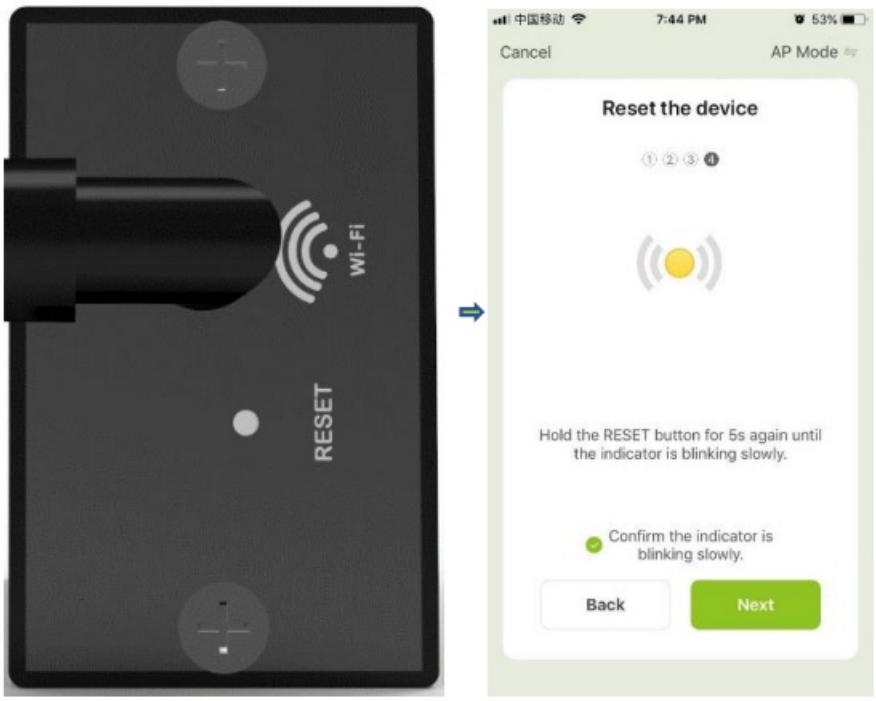

2. The mobile phone is connected to the 2.4GHz wireless network ,enter “home page” of the app, then click the” “+“Add manually” , “Dyness-LV”.



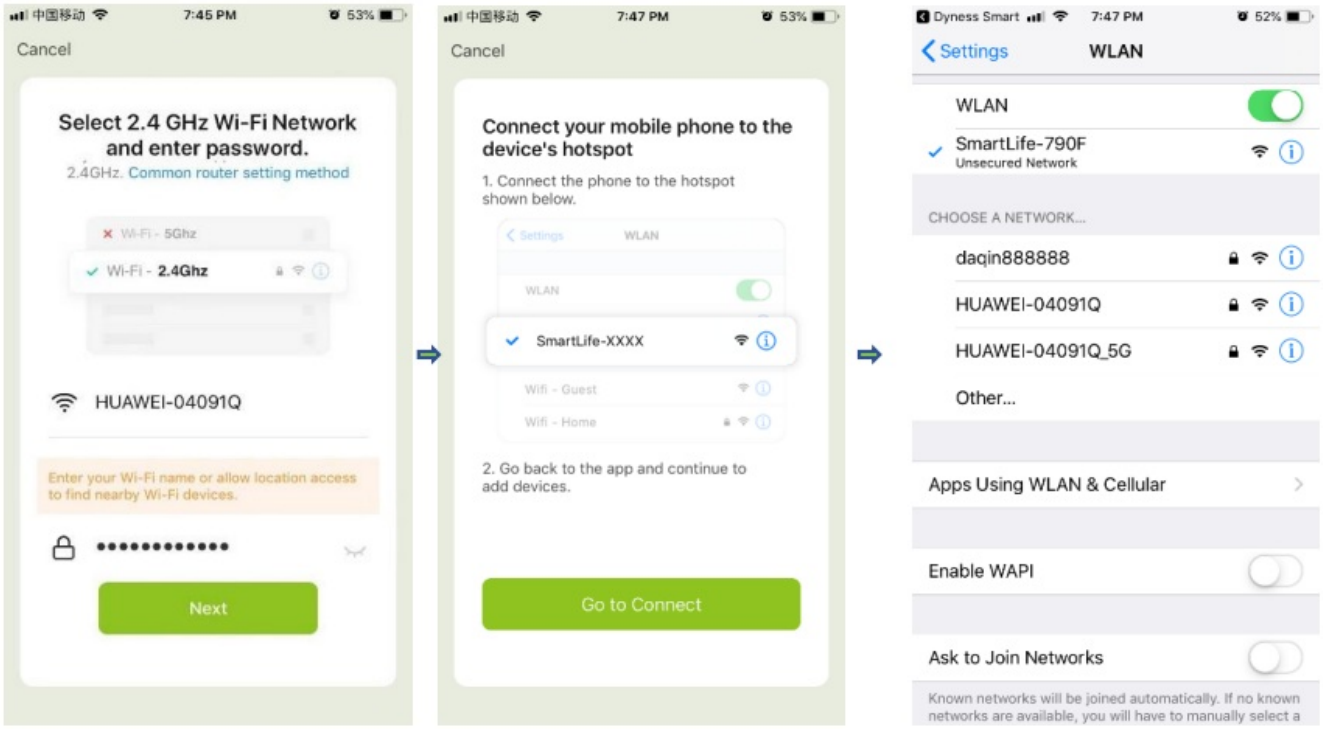
3. Please choose device’s interface of the app in AP Mode, click the RESET Button of the WiFi module once, waiting for the WiFi module green light is blinking rapidly,proceed the next step.



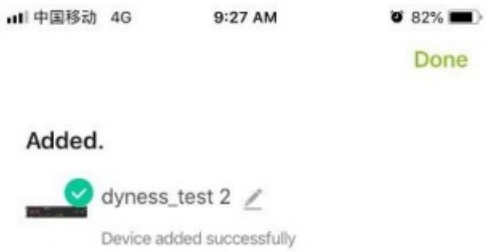

4. Click the RESET Button of the WiFi module again, waiting for the green light is blinking slowly, click on the “confirm the indicator is blinking slowly” of the APP. Click “Next” continue…



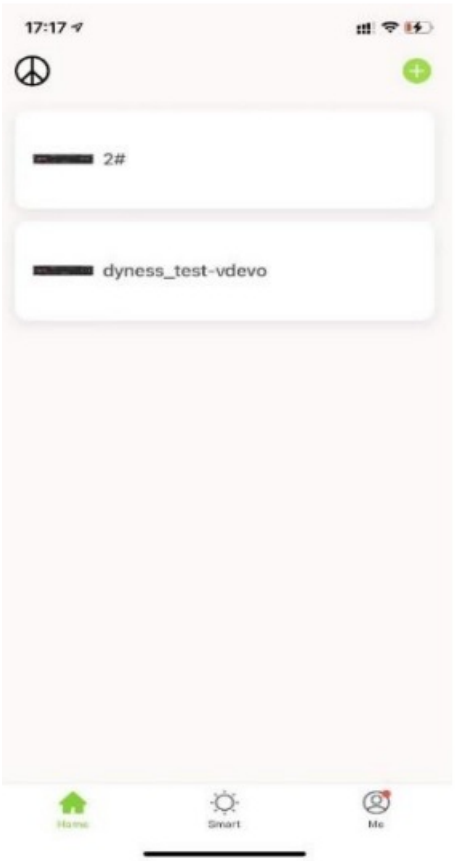

5. Enter the WiFi name and password your mobile phone is using.then click “next” , On the page that pops up,choose the WiFi which name is SmartLife-XXXX,then click “Go to Connect”.

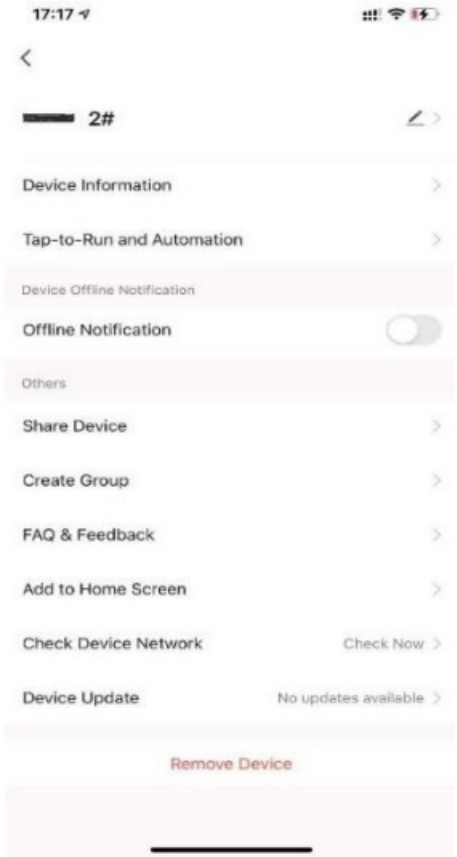


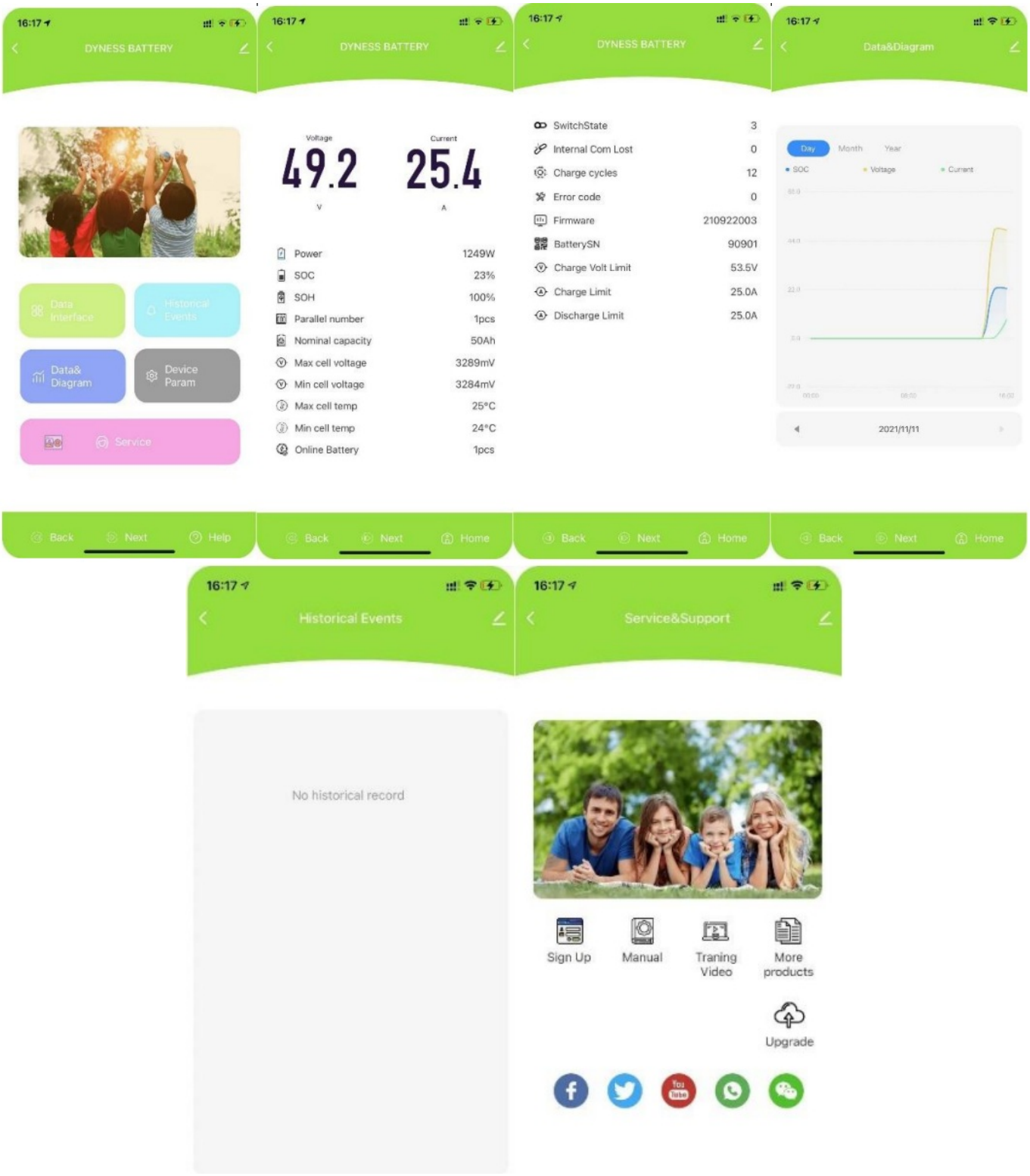

6. After connected to the WiFi ” SmartLife-XXXX ” ,then Return to the APP interface and you can see “Adding device…” is displayed. After a while, “Adding device succeeded” is displayed, the connection is successful.


7. After the device is added successfully, the following is the operating page, You can user define the device name by clicking” 






## Troubleshooting

### Table4-1 WIFI-M01 troubleshooting

| Trouble | Indicate | Troubleshooting |
| --- | --- | --- |
| STATUS LED is dark | WiFi module doesn‘t works | 1.Please check the 6p6c network c able and RS232 port |
| The network connection has timed out | the network isn’t configured succes sfully | 1.Make sure the device is reset, the light is blinking slowly,<br>2.Whether to connect to a hotspot<br>3. Verify that the WIFI password is correct |

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

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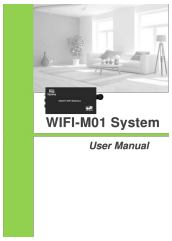
- **Website:** www.dyness-tech.com.cn

## Documents / Resources

| | |
| --- | --- |
|  | Dyness WIFI-M01 Smart Wifi Module [pdf] User Manual<br>WIFI-M01 Smart Wifi Module, WIFI-M01, Smart Wifi Module, Wifi Module, Module |

## References

- ltd.no
- Dyness-Battery Energy Storage System Innovator
- Dyness-Battery Energy Storage System Innovator
- Dyness-Battery Energy Storage System Innovator