



3rd Generation WIFI



Air Conditioner Remote Access Modules

January 17

Contents

>> Product introduction	-----	01
>> How to connect WIFI air conditioner	-----	02
>> Troubleshooting	-----	03

Product Introduction

How to connect WIFI air conditioner

Troubleshooting

Overview

Conception

Mode

Composition



Remote Home



WIFI



Router

WIFI

WIFI



Android

iOS



➤ What is WIFI air-conditioner?

Air conditioners controlled by smartphone, smartpad through wireless router and internet.

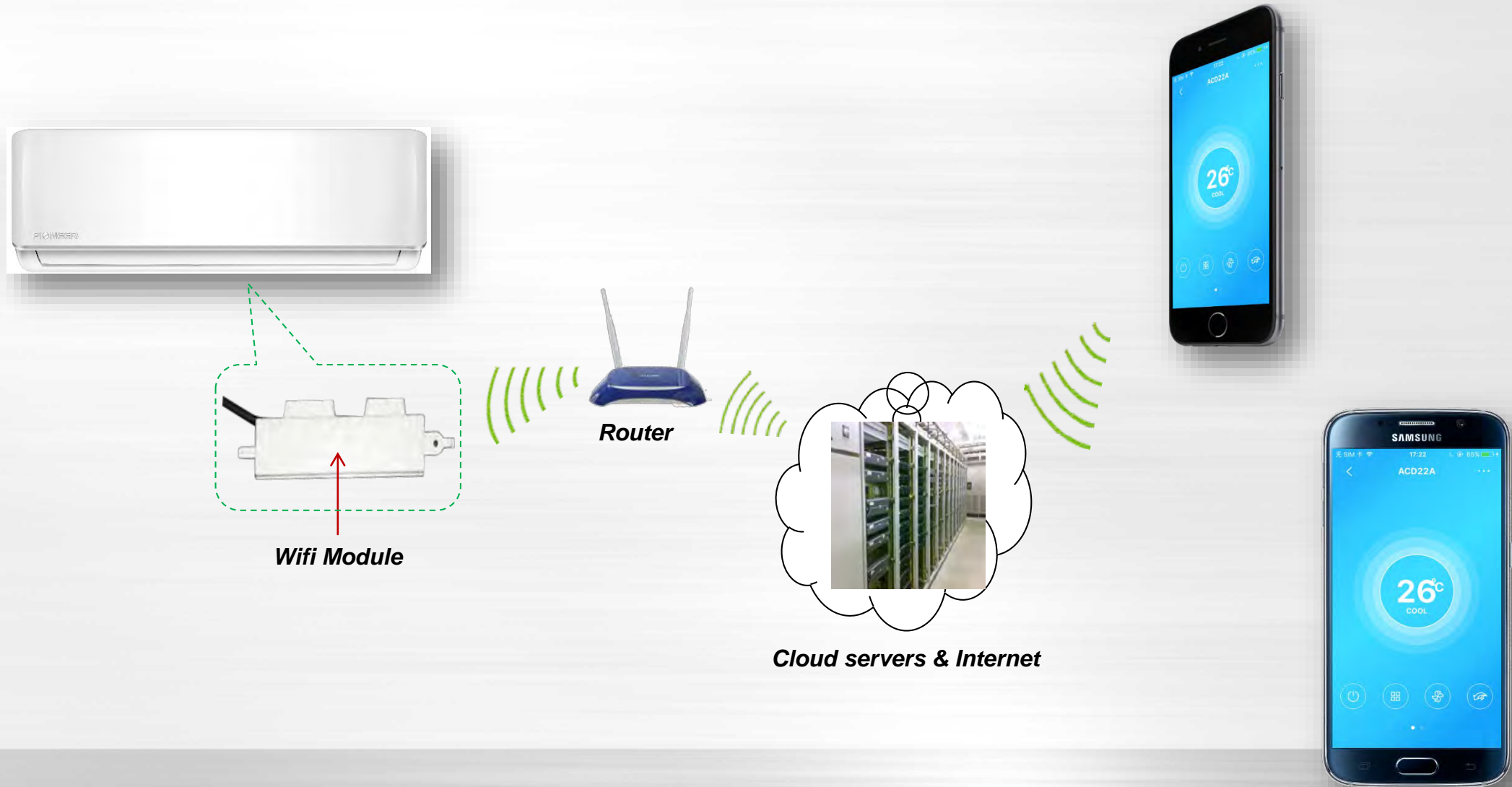
➤ Types of WIFI air-conditioner

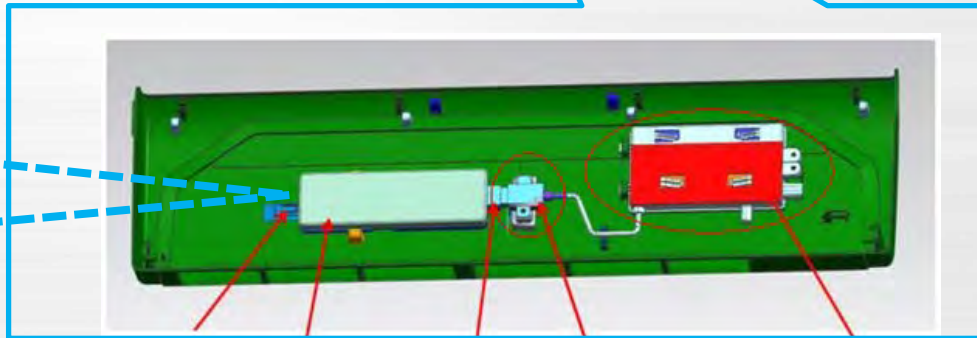
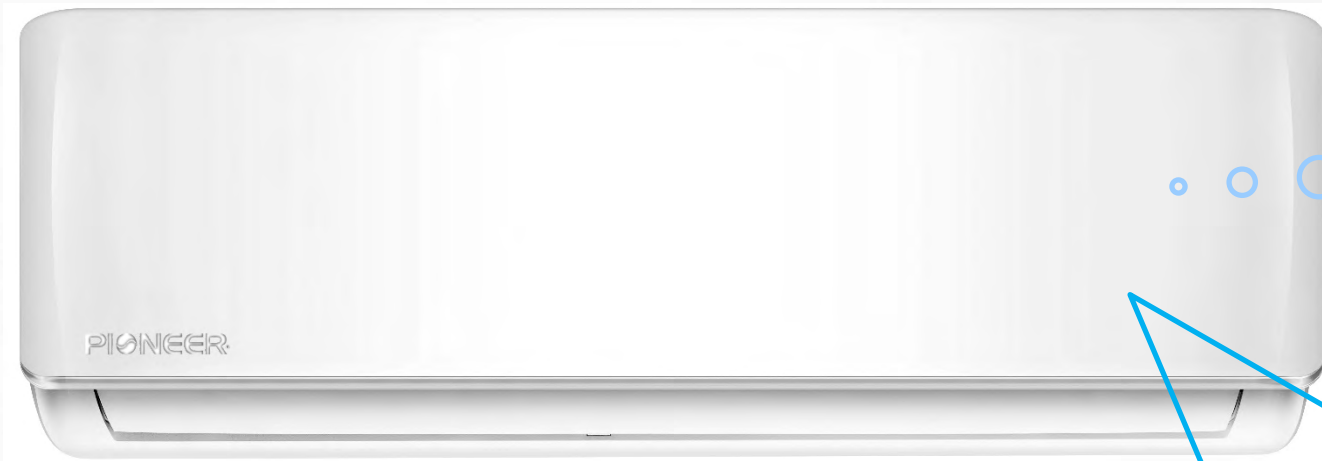
1st Generation: Based on integrated RF module and smart control box (433Hz , only suitable in some countries).

2nd Generation: with integrated WIFI module (2.4GHz, available all over the world) made by 3rd party.

3rd Generation: with new USB WIFI module (2.4GHz, available all over the world) and new APP created.

➤ Remote Mode





WiFi Module

USB Connection

Display Board

Standard air conditioner set does not include the USB WIFI module, it needs to be purchased separately.

Overview

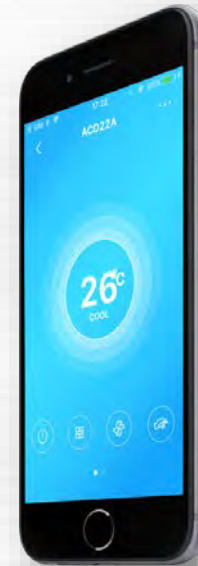
Conception

Mode

Composition

● Smartphone

- Operation system: Android (above version 3.1 and but **below version 6**) or IOS (above version 6.1)
- Storage space: at least 20MB.

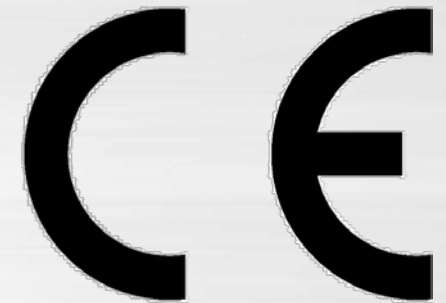


- *System with WIFI module*



There is QR code label on module which can identify the unit and build the connection between the Air conditioner and the Router.

The WIFI module is certified by FCC, CE and ID (Canada).

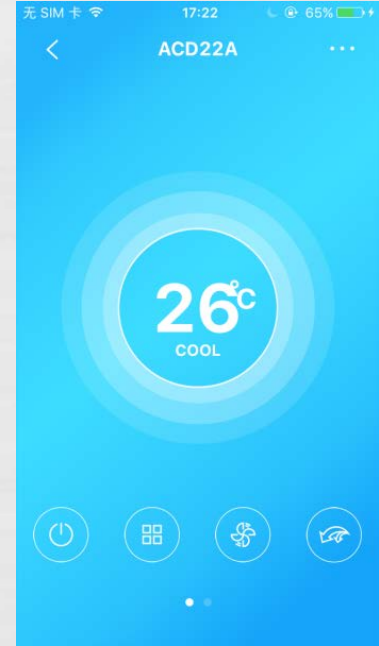
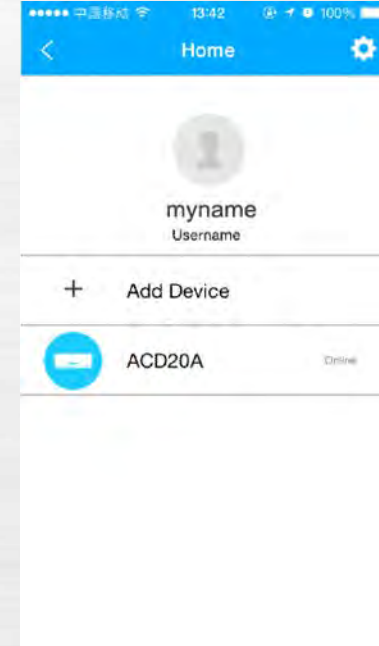
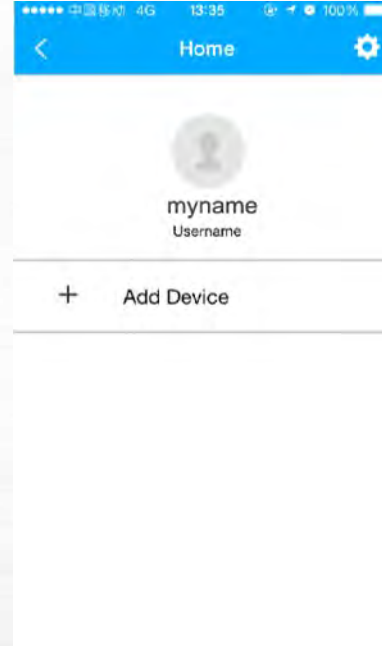
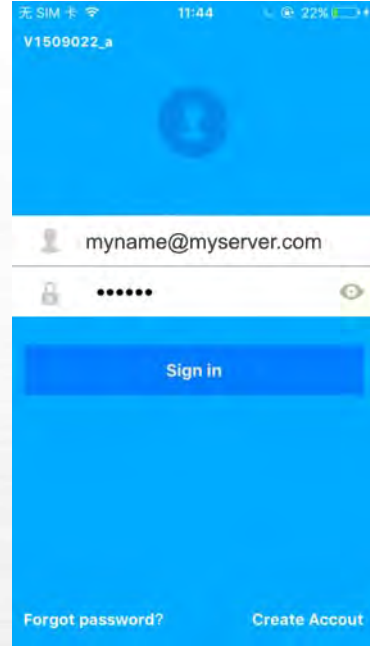


- **Wireless Router**

Any normal Home Wireless Router providing 2.4G Hz signal is suitable. But the routers providing 5G Hz signal is not supported for now. Please do not attempt to connect to 5G Hz WiFi signals.



● App

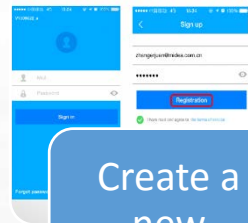


APP Interface

Device List

Operating Interface

You can download the software "NetHome Plus" from App Store for IOS system or GooglePlay® for Android system



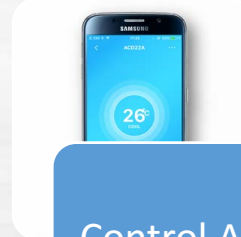
Create a new account with APP



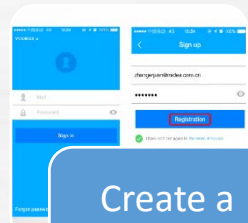
Set WIFI AC to AP mode



Connect AC to router via APP



Control AC via APP



Create a new account with APP



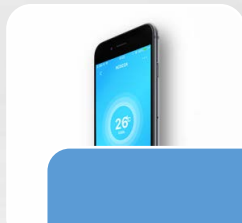
Set WIFI AC to AP mode



Make iphone connect to the WIFI AC



Connect AC to router via APP



Control AC via APP

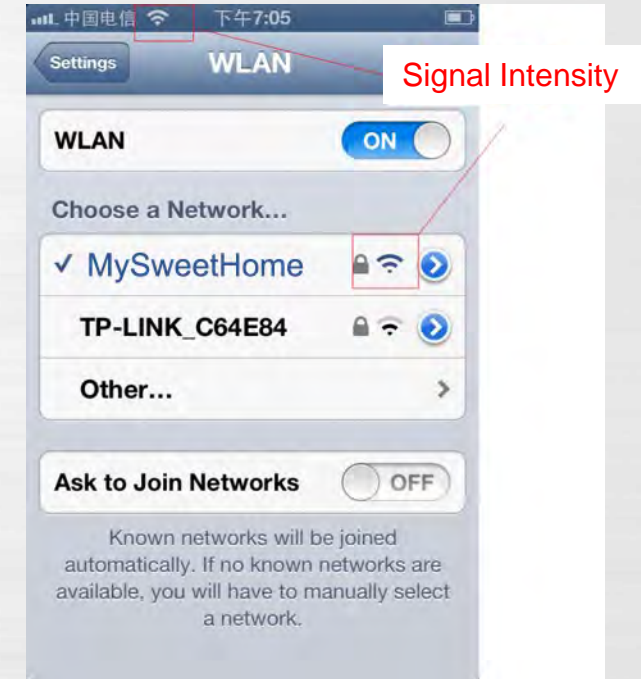
- **Before Start**

- **Check if everything is OK**

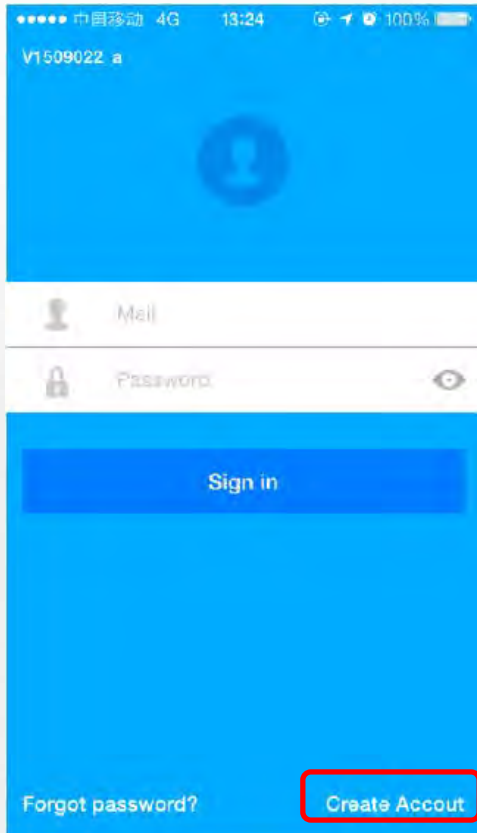
Turn on the WIFI of smartphone, check the WIFI signal to see if network is OK.

The WIFI signal should be at least one bar. Adjust the position of router to make it close to the air conditioner if the signal is too weak.

- **Get the WIFI SSID and password**



● *Register a New Account*



Start the APP and press “Create Account” button to create a new account.

The user name should be an e-mail address.

● AP mode setting

Use the present remote controller, press the [LED digital display] button no less than 7 times continuously within 3 minutes until AP appears on the panel. Note LED function is activated through the left side of this multi function button.

AP mode means the WIFI module works as a WIFI hotspot with default password "12345678".

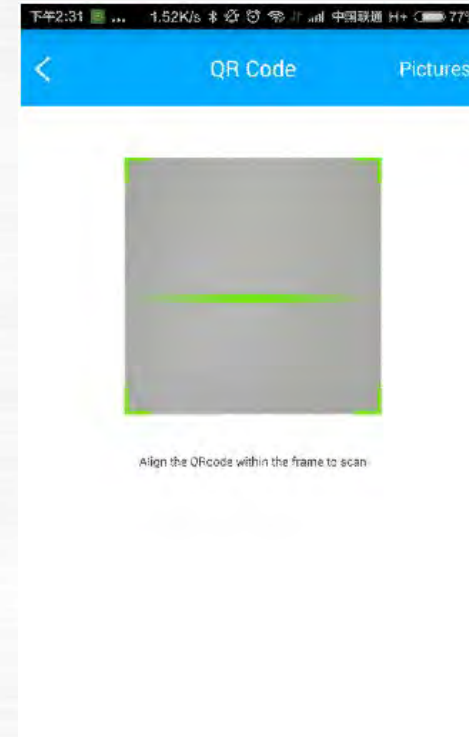
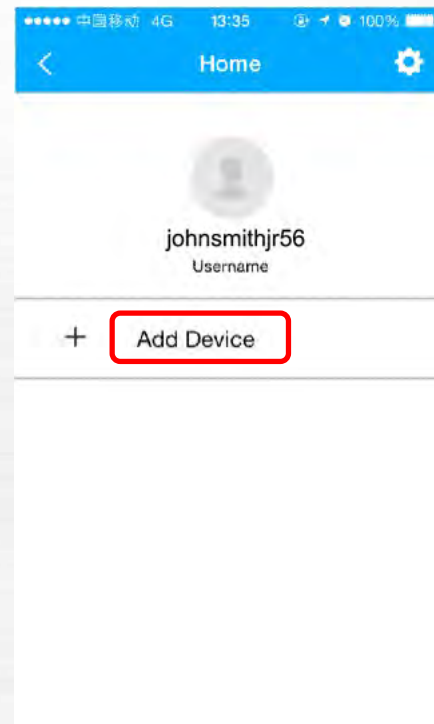
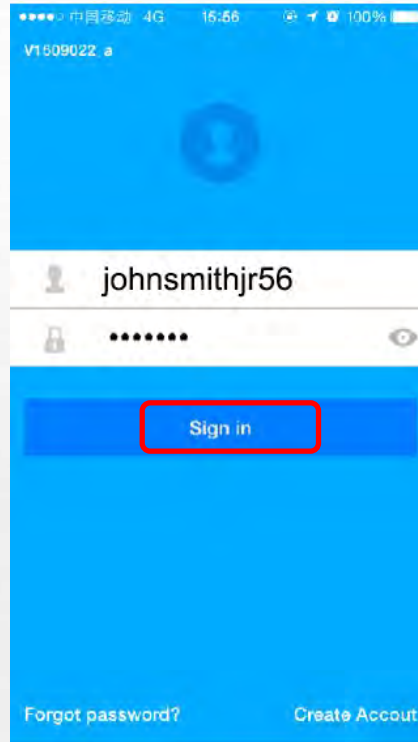


WIFI signal display from the panel



- **Building connection between Air-conditioner and Router via APP**

Input the username and password , click “ Sign in ” button , click “Add Device” , then Scan QR Code which provides connection with WIFI module.



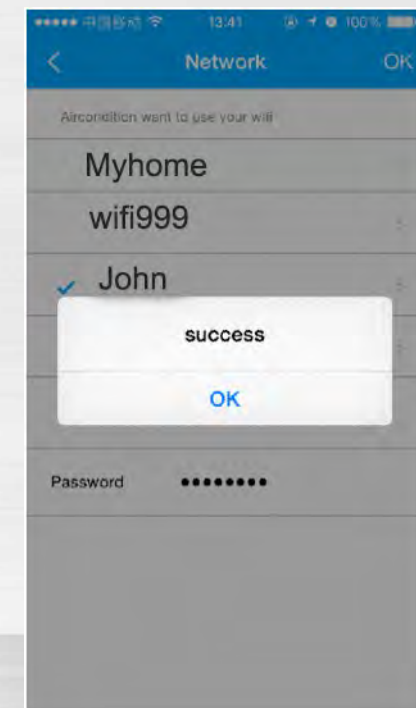
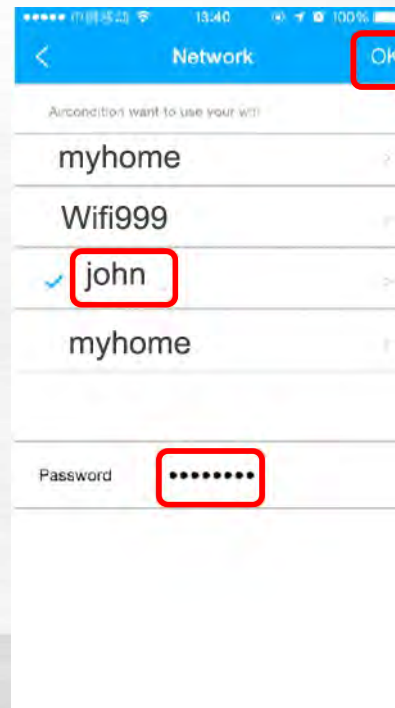
Note: Make sure your smartphone is connected to your own WIFI router when setting (not 3G/4G).

- **Building connection between Air-conditioner and Router via APP**

When you use an Android device:

- ◆ APP will connect to network directly, choose your Router name, enter the correct password, press the "OK" button , Now connection will be established.

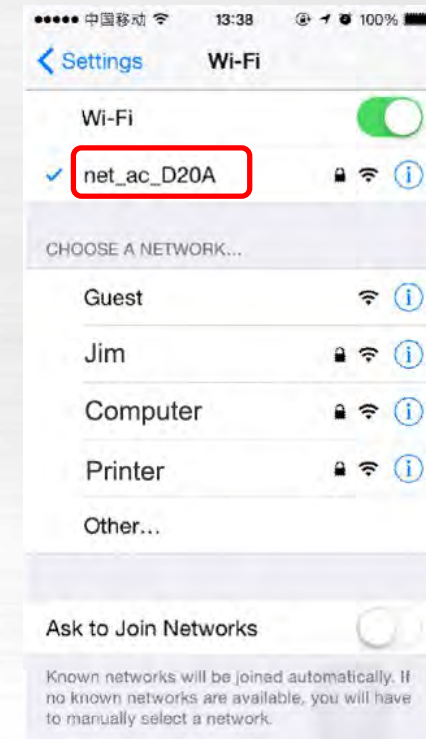
NOTE: If you input a wrong password, there will be no error information. Start from "Set AP mode" again if you find there is no response for a long time.



- **Building connection between Air-conditioner and Router via APP**

When you have Apple device:

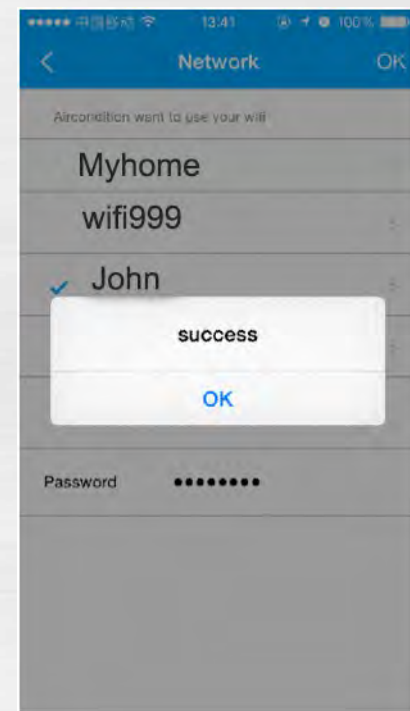
- ◆ APP will remind you to return to the setting page of IOS device to connect WIFI kit. Choose the related WIFI named with “net_ac_....” on your smart phone and enter the password: 12345678.



- **Building connection between Air-conditioner and Router via APP**

When you have Apple device:

- ◆ Then go back to APP, click “Next” button and choose your Router name, enter the correct password, press the “OK” button. Now connection will be established.



- **Building connection between Air-conditioner and Router via APP**

When you press network button to start the connection between AC and router, the WIFI module will quit AP mode and become a client of WIFI. After establishing the connection successfully, the AC will keep the connection to the router and store this information. Even there is power failure, the AC will restore this connection when power is back.

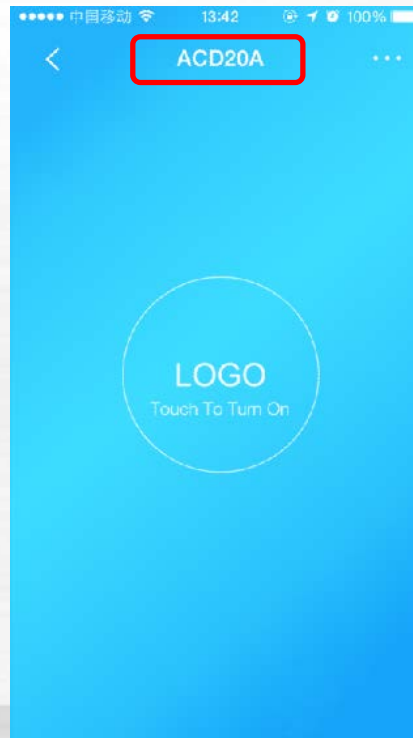
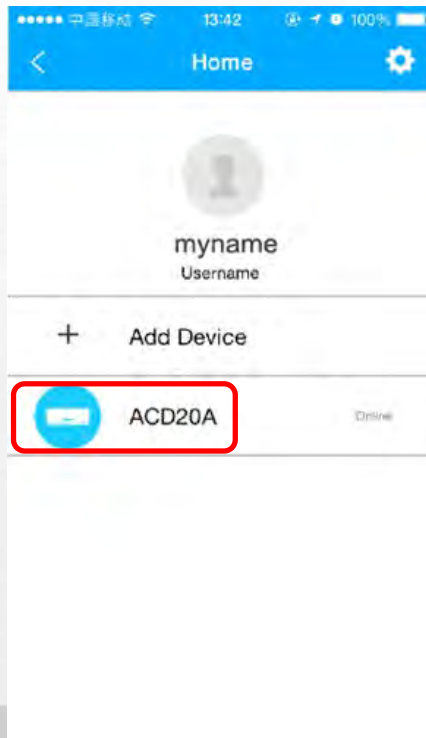
NOTE: If SSID or password of the router is reset or changed, you must re-connect the WIFI AC again from AP mode. On the contrary, if you change a new router but still set the previous SSID and password, this connection is still available.



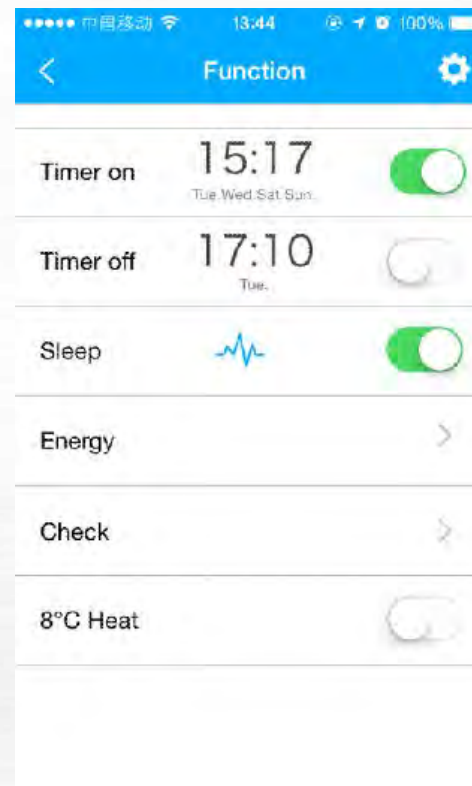
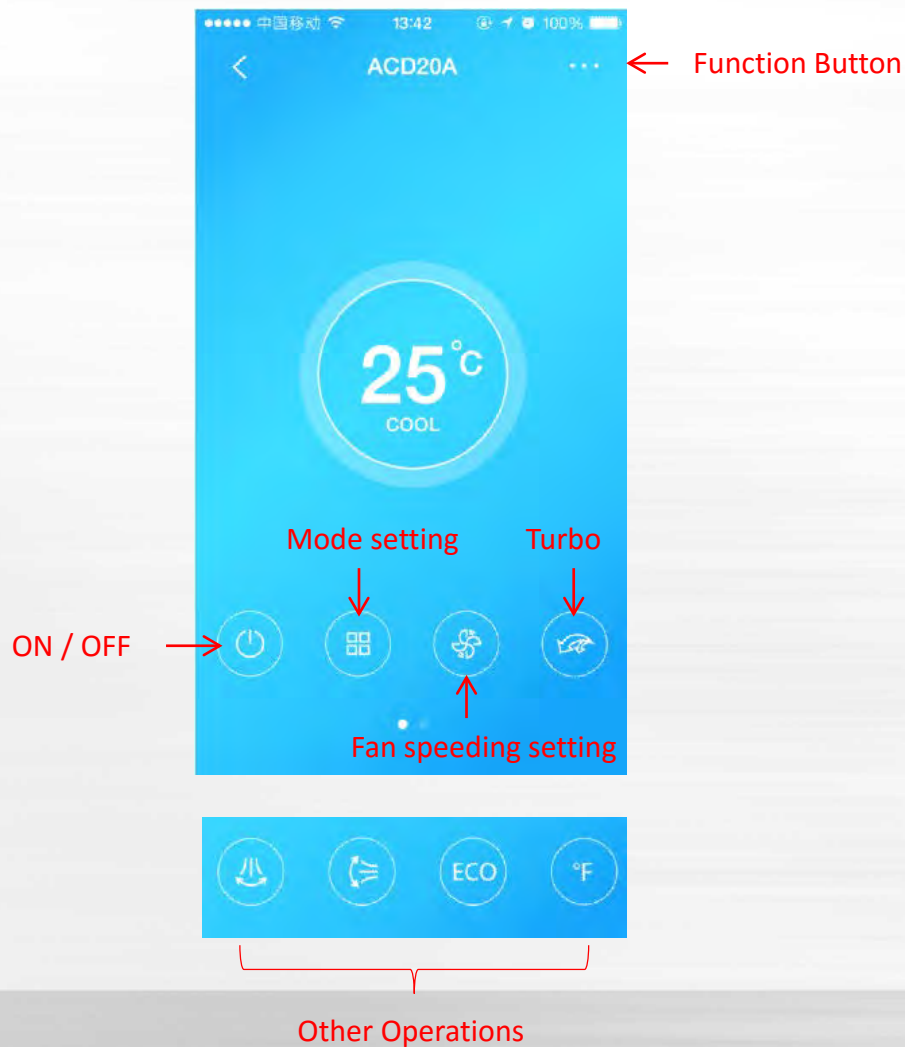
● Control AC with Smartphone

Click the device name you added, then press the “touch to turn on” button. Now you can control the unit using the phone though internet.

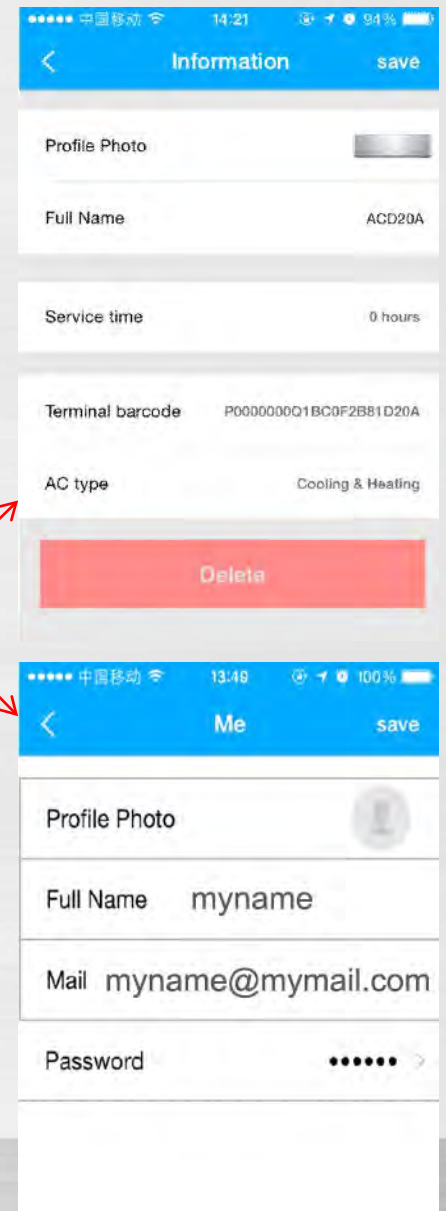
You also can login your username to control your WIFI AC by smartphone though mobile 3G/4G network if you are away from any WiFi area.



Operation Interface

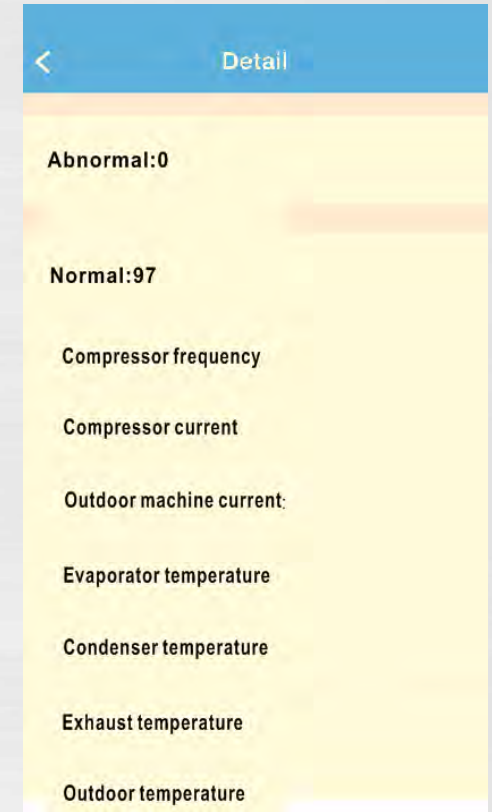
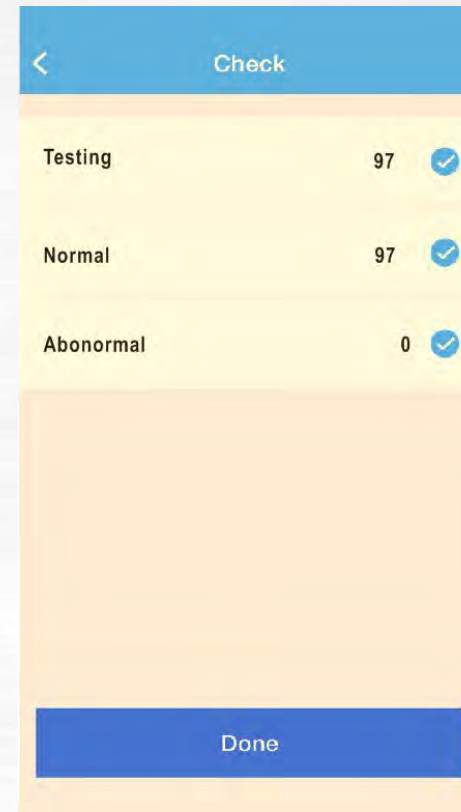
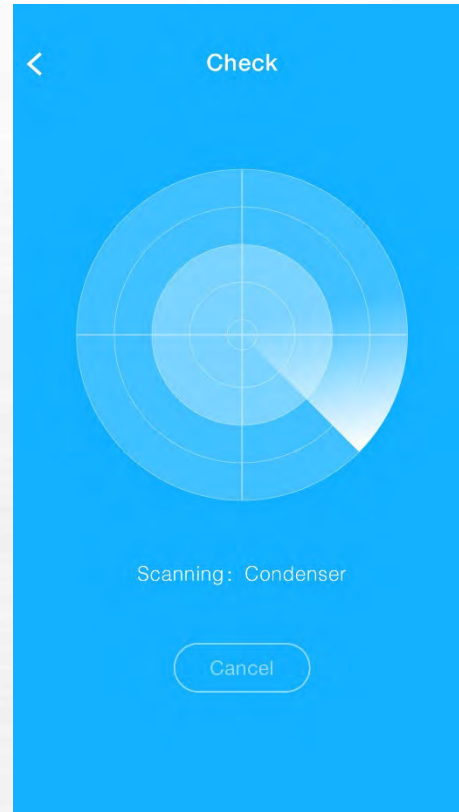
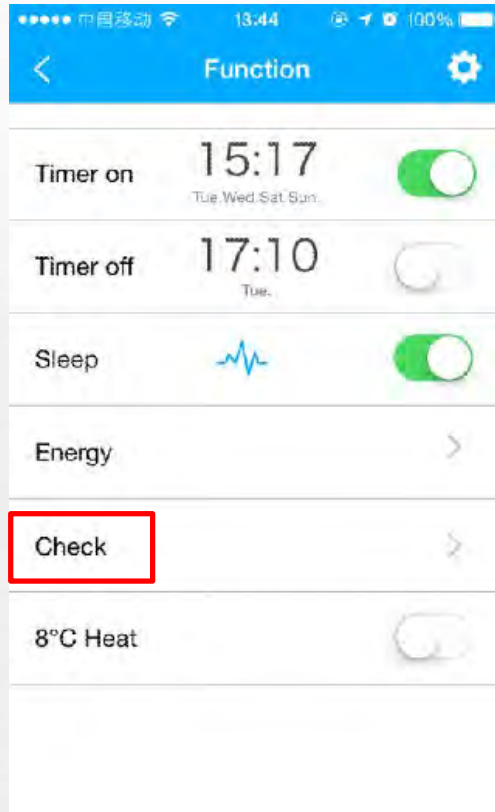


More information



Detect the AC connection condition and ERROR code

Press "Check" button to start self-check of the A/C unit, and the detailed information will be shown.



Connection failure between WIFI AC and router

Possible reasons:

1) *Wrong password inputted.*

There is no error information if you input the wrong password of router when you try to connect the WIFI AC to the router. If there is no response for a long time, please re-connect from AP mode.

2) *Composition of password*

*For now WIFI module supports the password containing **letters and numbers** only. If there are “*, @, /” symbols inside the password, the system will not connect to the router.*

3) *Unsupported encryption*

*This is about WIFI security setting of your router. There are some encryption types you can choose in normal household router such as WEP, WAP-PSK, WAP2-PSK. **WEP** is **NOT** supported.*

Supported encryption:

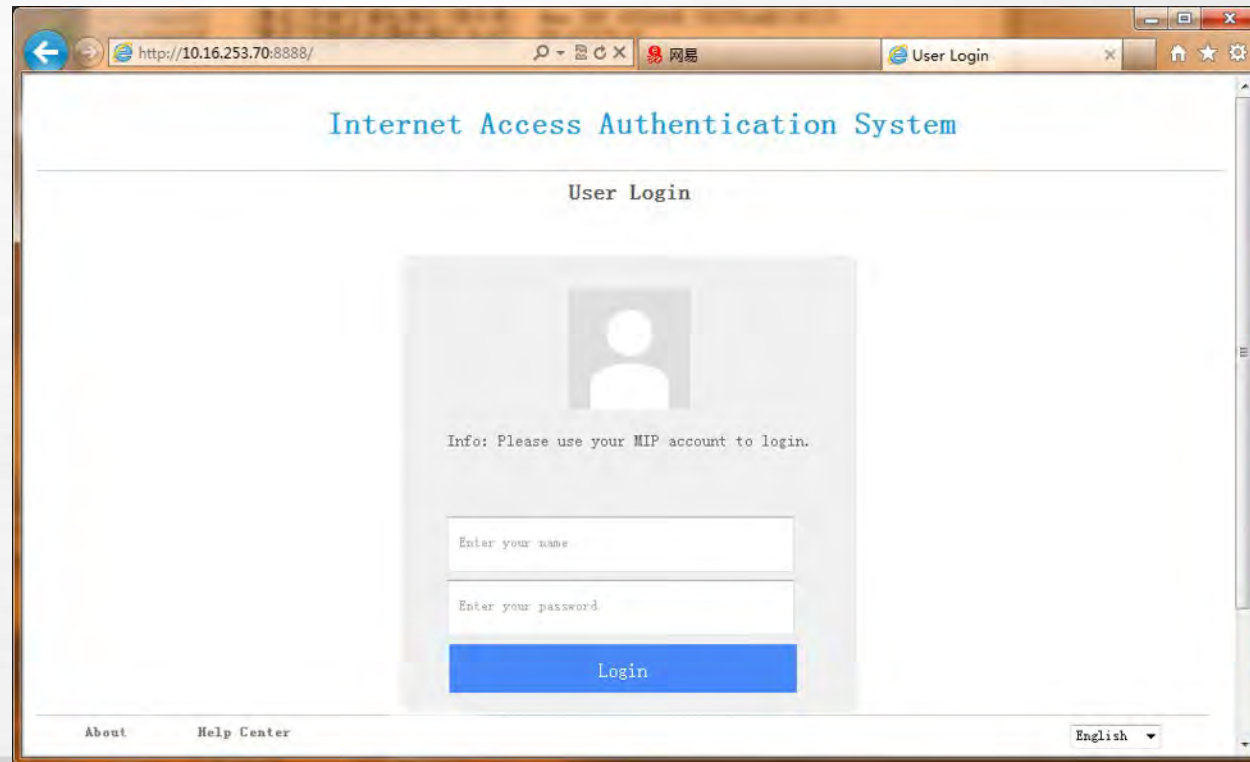
WPA2-PSK	WPA2-AES
	WPA2-TKIP
WPA-PSK	WPA-AES
	WPA-TKIP

Connection failure between WIFI AC and router

Possible reasons:

4) The WIFI that needs a **Browser Login** is **NOT** supported.

Some WIFI in public places such as shopping malls, airports, hotels, etc. needs you to input username and password through a browser to log in. This system cannot be connected through such WIFI.



Connection failure between WIFI AC and router

Possible reasons:

5) The router is set to filter MAC addresses.

This router forbids other client to connect in except for the devices in the list. You need to add MAC address of WIFI AC into this list or disable the MAC address filtering function.

The screenshot shows the 'Firewall > MAC address filtering' configuration page in a Mozilla Firefox browser. The page title is 'Firewall > MAC address filtering - Mozilla Firefox' and the URL is 'http://192.168.2.1/fw_mac.html'. The page is part of the 'BELKIN Cable/DSL Gateway Router Setup Utility' and includes a navigation menu on the left with options like LAN Setup, Internet WAN, Firewall, and Utilities. The main content area shows the 'MAC Address Filtering List' configuration. A checkbox labeled 'Enable MAC Address Filtering' is checked. Below it is a table with columns for 'Block', 'Host', and 'MAC Address'. The table contains 11 rows, each with a 'Block' checkbox, a 'Host' field, and a 'MAC Address' field. The 4th row is highlighted in red and contains the text 'Apple iPhone' in the Host field and '002500' in the MAC Address field. A red arrow points from the text 'Apple iPhone' to the MAC Address field. At the bottom of the page, there are two buttons: 'Clear Changes' and 'Apply Changes'.

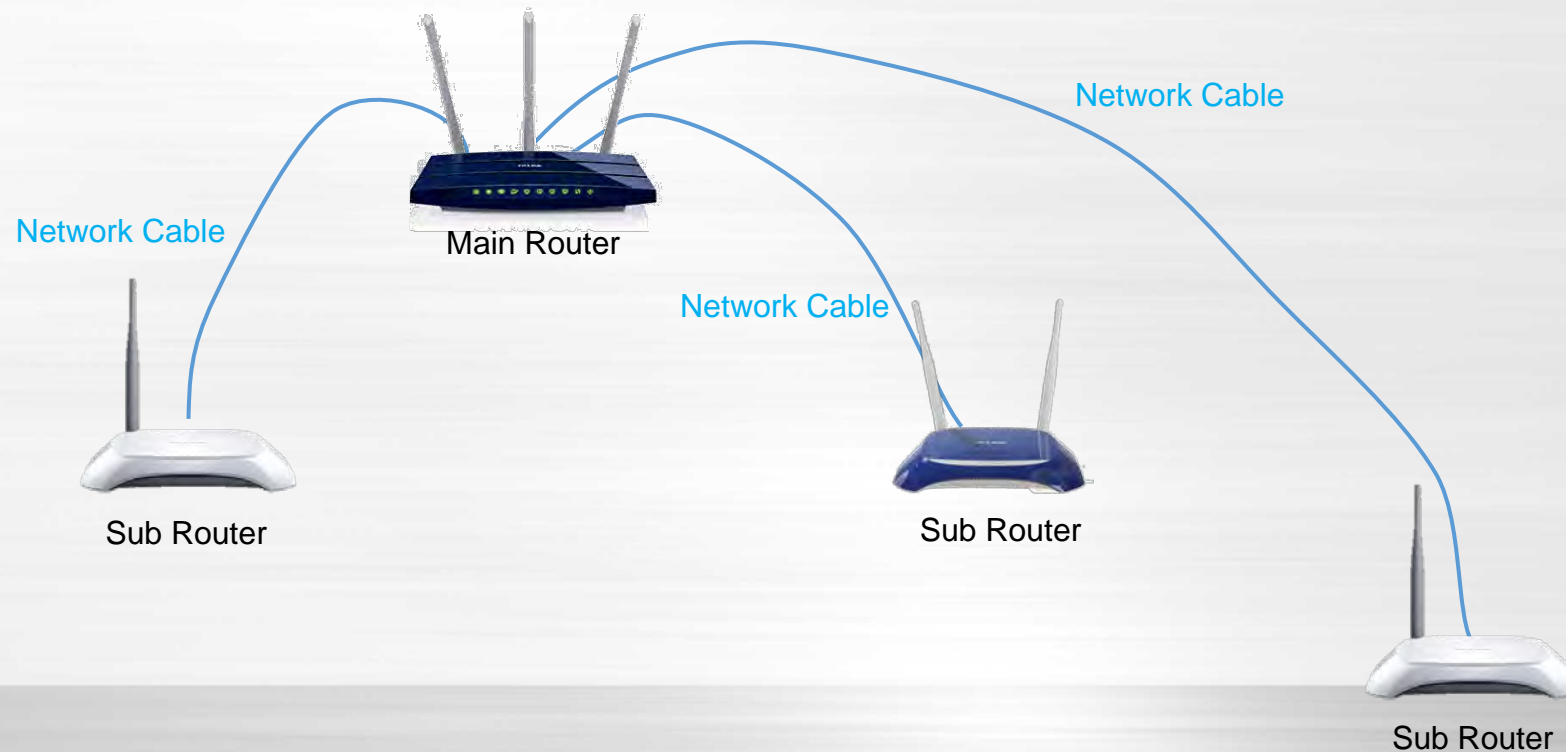
Block	Host	MAC Address	
<input type="checkbox"/>			<< Add
1. <input type="checkbox"/>		0022fb	Delete
2. <input type="checkbox"/>		001e58	Delete
3. <input type="checkbox"/>		001a4d	Delete
4. <input type="checkbox"/>		001921	Delete
5. <input type="checkbox"/>		0019d2	Delete
6. <input type="checkbox"/>		001A4D	Delete
7. <input type="checkbox"/>		001150	Delete
8. <input type="checkbox"/>		001E58	Delete
9. <input type="checkbox"/>		0015B7	Delete
10. <input type="checkbox"/>		002354	Delete
1. <input type="checkbox"/>		0022FB	Delete
2. <input type="checkbox"/>		001ADC	Delete
3. <input type="checkbox"/>		00237A	Delete
4. <input type="checkbox"/>	Apple iPhone	002500	Delete

Connection failure between WIFI AC and router

Possible reasons:

6) There are too many clients connected to the router.

Normal household router cannot support more than 8 clients connections. If connection failure is caused by this reason, reduce some clients or add routers with network cable.



Connection failure between router and Cloud Server

1) Check the internet connection.

You can connect your smartphone or a computer to the router and browse a web to see if the internet connection is OK.

3) Use browser of computer or smartphone, input

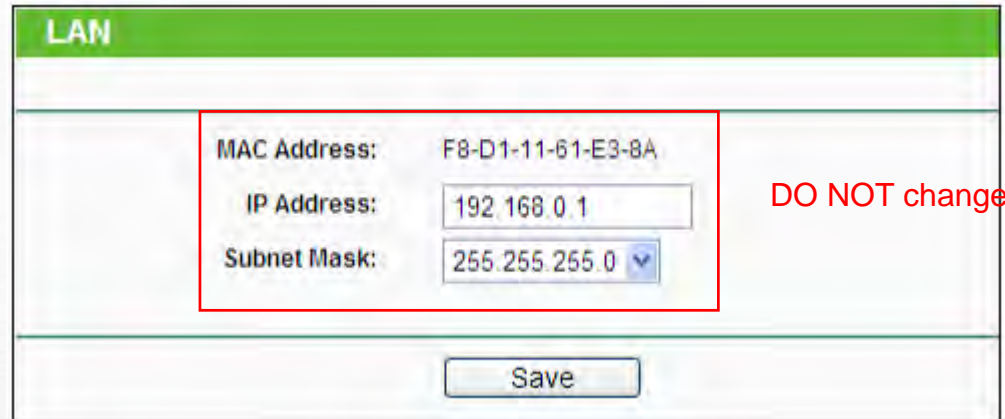
<https://app.v1.appsmb.com:8443/V2/Login.ashx> into the address bar.

If you can see the following message, your connection to the server is OK.



Note: Amazon Cloud is used as server of WIFI control service which can be reached from most countries of the world. In some countries or with carriers, restricting the connection to Amazon Cloud, you can not use this system.

LAN Setup



The screenshot shows a web interface for LAN configuration. At the top, there is a green header with the text "LAN". Below this, there are three rows of configuration fields: "MAC Address: F8-D1-11-61-E3-8A", "IP Address: 192.168.0.1", and "Subnet Mask: 255.255.255.0". A red rectangular box highlights the IP Address and Subnet Mask fields. To the right of this box, the text "DO NOT change anything" is written in red. At the bottom of the form, there is a "Save" button.

DO NOT change anything

Wireless Setup

Wireless Settings

Wireless Network Name: (Also called the SSID)

Region: ▼

Warning: Ensure you select a correct country to conform local law. Incorrect settings may cause interference.

Channel: ▼

Mode: ▼

Channel Width: ▼

Max Tx Rate: ▼

Enable Wireless Router Radio

Enable SSID Broadcast

Enable WDS Bridging

Use any name you can recognize and remember

Wireless Security Setup

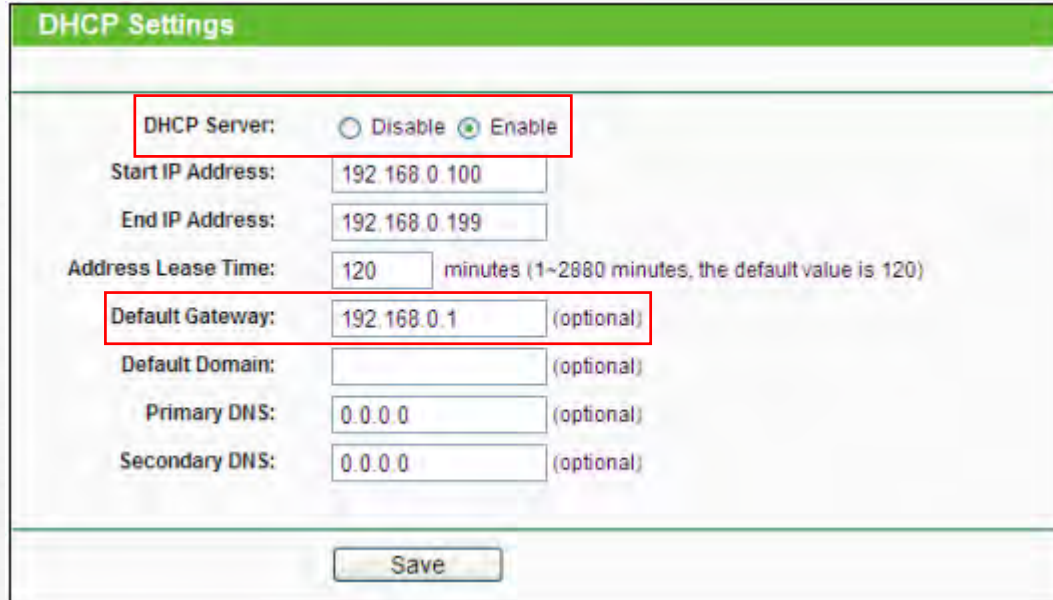
The screenshot shows the 'Wireless Security' configuration page. It has three main sections: 'Disable Security' (selected), 'WEP', and 'WPA/WPA2 - Enterprise'. The 'WEP' section is highlighted with a red box and contains a red annotation 'DO NOT use it'. The 'WPA/WPA2 - Personal(Recommended)' section is highlighted with a blue box and contains a blue annotation 'Recommended'. A red box highlights the 'PSK Password' field in the 'WPA/WPA2 - Personal' section, with a red arrow pointing to a text box on the right that says 'Use combination of letters and numbers as password DO NOT use any special symbols.' A 'Save' button is at the bottom.

Key Selected	WEP Key (Password)	Key Type
Key 1:	<input type="text"/>	Disabled
Key 2:	<input type="text"/>	Disabled
Key 3:	<input type="text"/>	Disabled
Key 4:	<input type="text"/>	Disabled

Use combination of letters and numbers as password
DO NOT use any special symbols.

Gateway and DHCP Setup

Enable DHCP server which can manage the IP address distribution of connected clients automatically.



The screenshot shows the DHCP Settings configuration page. The 'DHCP Server' option is set to 'Enable'. The 'Start IP Address' is 192.168.0.100, the 'End IP Address' is 192.168.0.199, and the 'Address Lease Time' is 120 minutes. The 'Default Gateway' is set to 192.168.0.1. Other optional fields include 'Default Domain', 'Primary DNS', and 'Secondary DNS', all set to 0.0.0.0. A 'Save' button is located at the bottom.

DHCP Settings	
DHCP Server:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Start IP Address:	192.168.0.100
End IP Address:	192.168.0.199
Address Lease Time:	120 minutes (1~2880 minutes, the default value is 120)
Default Gateway:	192.168.0.1 (optional)
Default Domain:	(optional)
Primary DNS:	0.0.0.0 (optional)
Secondary DNS:	0.0.0.0 (optional)
Save	

Wireless MAC address filtering

Wireless MAC Filtering

Wireless MAC Filtering: **Disabled** Disabled is recommended

Filtering Rules

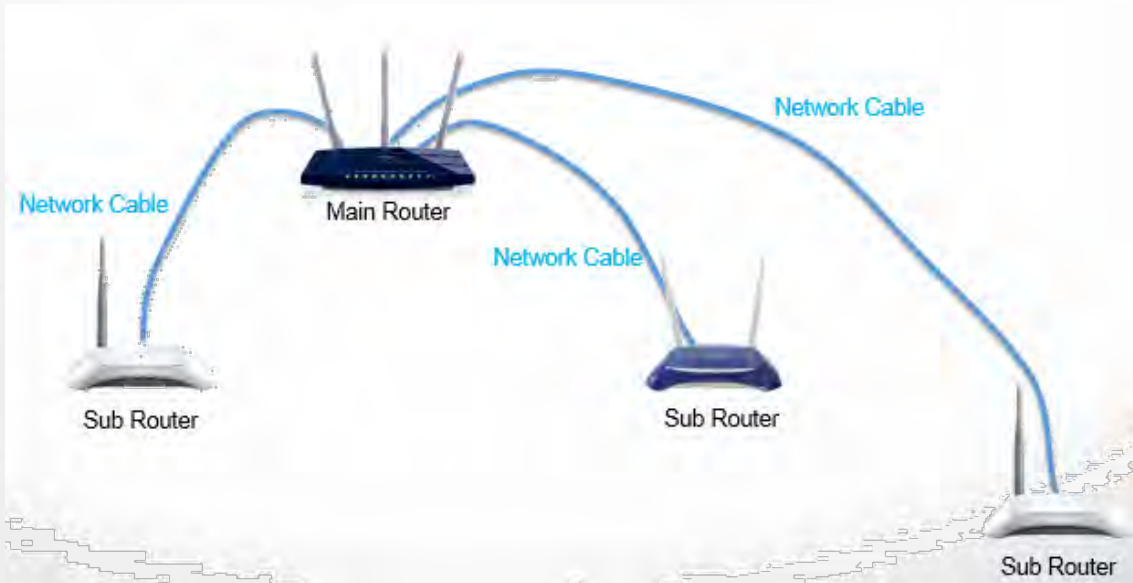
Allow the stations not specified by any enabled entries in the list to access.

Deny the stations not specified by any enabled entries in the list to access.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	wireless station A	Modify Delete

Multi router Setup

Settings of main router is as same as above. WAN setting of sub router should as follows:



The screenshot shows the WAN configuration interface. The 'WAN Connection Type' is set to 'Dynamic IP', which is highlighted with a red box. A red text annotation says 'Choose "Dynamic IP"'. Other fields include IP Address, Subnet Mask, Default Gateway, MTU Size, DNS Servers, and Host Name.

Field	Value
WAN Connection Type	Dynamic IP
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Default Gateway	0.0.0.0
MTU Size (in bytes)	1500
Use These DNS Servers	<input type="checkbox"/>
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0 (Optional)
Host Name	TL-WR941N
Get IP with Unicast DHCP	<input type="checkbox"/> (It is usually not required.)

Multi router Setup

LAN setting of sub router should as follows



The screenshot shows a web interface for LAN configuration. At the top, there is a green header with the text "LAN". Below the header, there are three rows of configuration fields: "MAC Address: F8-D1-11-61-E3-8A", "IP Address: 192.168.0.1", and "Subnet Mask: 255.255.255.0". The IP Address field is highlighted with a red rectangular box. At the bottom of the form, there is a "Save" button.

Change to "192.168.1.1",
If you have other sub router, set them as
"192.168.2.1", "192.168.3.1"...

Multi router Setup

Wireless Settings

Wireless Network Name: (Also called the SSID)

Region: **Must same as main router**

Warning: Ensure you select a correct country to conform local law. Incorrect settings may cause interference.

Channel:

Mode:

Channel Width:

Max Tx Rate:

Enable Wireless Router Radio

Enable SSID Broadcast

Enable WDS Bridging

Multi router Setup

Wireless Security

Disable Security

WEP

Type: Automatic

WEP Key Format: Hexadecimal

Key Selected	WEP Key (Password)	Key Type
Key 1:		Disabled
Key 2:		Disabled
Key 3:		Disabled
Key 4:		Disabled

WPA/WPA2 - Enterprise

Version: Automatic

Encryption: Automatic

Radius Server IP:

Radius Port: 1812 (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period: 0 (in second, minimum is 30, 0 means no update)

WPA/WPA2 - Personal(Recommended)

Version: Automatic(Recommended)

Encryption: Automatic(Recommended)

PSK Password:

(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period: 0 Seconds (Keep it default if you are not sure, minimum is 30, 0 means no update)

Save

Recommended

Same as main router

Multi router Setup

Wireless Security

Disable Security

WEP

Type: Automatic

WEP Key Format: Hexadecimal

Key Selected	WEP Key (Password)	Key Type
Key 1:		Disabled
Key 2:		Disabled
Key 3:		Disabled
Key 4:		Disabled

WPA/WPA2 - Enterprise

Version: Automatic

Encryption: Automatic

Radius Server IP:

Radius Port: 1812 (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period: 0 (in second, minimum is 30, 0 means no update)

WPA/WPA2 - Personal(Recommended) **Recommended**

Version: Automatic(Recommended)

Encryption: Automatic(Recommended)

PSK Password:

(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period: 0 Seconds (Keep it default if you are not sure, minimum is 30, 0 means no update)

Save

Same as main router

Multi router Setup

The screenshot shows a 'DHCP Settings' window with the following fields and values:

- DHCP Server: Disable Enable
- Start IP Address: 192.168.0.100
- End IP Address: 192.168.0.199
- Address Lease Time: 120 minutes (1~2880 minutes, the default value is 120)
- Default Gateway: 192.168.0.1 (optional)
- Default Domain: (empty) (optional)
- Primary DNS: 0.0.0.0 (optional)
- Secondary DNS: 0.0.0.0 (optional)

A 'Save' button is located at the bottom of the form.

Change to "192.168.1.100" to "192.168.1.199",
"192.168.2.100" to "192.168.2.199",

Change to "192.168.1.1", "192.168.2.1",
"192.168.3.1"...