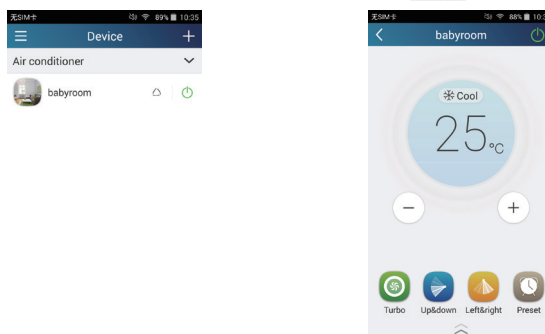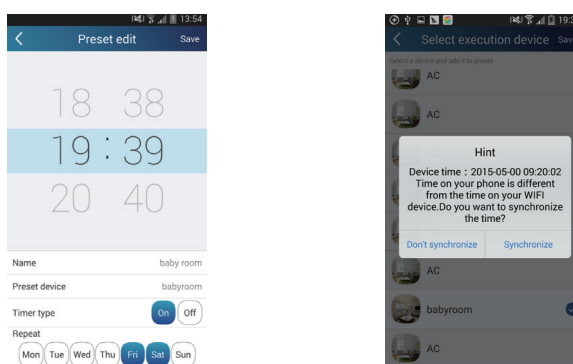(3) Preset includes single-device preset and multi-device preset

Single-device preset: This can preset a certain device to be On/Off at a specific time.

On the homepage "Device", take air conditioner "babyroom" as an example. Tap at the bottom of the page "babyroom". Then you will enter the page "Preset edit".
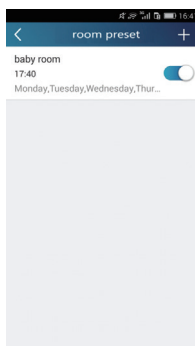

Slide up and down to set the time. If you need to synchronize the time, tap " synchronize". If such "Hint" interface doesn't show up, please skip this operation step.

Tap "Name" to customize the preset name.

Preset device can't be selected and it will default to "babyroom". Select "On" for the timer type. Select repeating days to complete the preset.

Multi-device preset: This can preset multiple devices to execute a command at a specific time.

Please refer to the instructions as how to set preset time, name, timer type and repeating days for a single device.

Tap "Preset device" to select one or more devices. Then return to the page "Device".

Technical Information

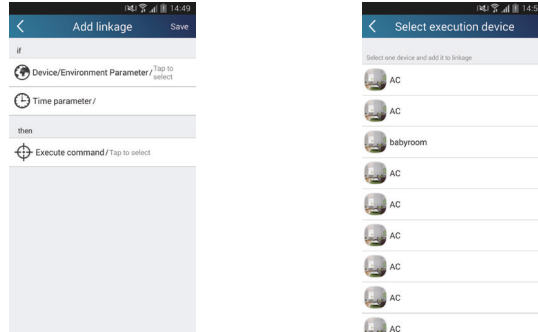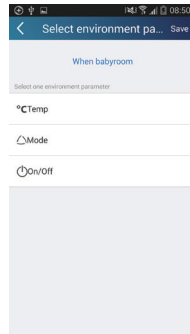(4) Link(This function is APPlicable to some models)

Select a master device. When the environment satisfies the parameters as set in the master device, slave devices will execute commands to realize devices linkage.

Step 1: Set the parameters of master device (Select master device, select environment parameters, select master device status).

Tap ⊞ at the top right corner of the homepage "Device". Select "Link" and enter the page "Add linkage". Tap "Device/Param" to enter the page "Select device". Take "baby room" as an example. Tap "babyroom".

Enter the page "Select environment parameters".

Tap "Temperature" to enter the page "Select temperature parameter". Slide up or down to adjust temperature. Tap "Upper limit" or "Lower limit".

Tap "Mode" and "On/Off" to select the status of master device. Then tap "Save".

Step 2: Set time parameter for linkage. Tap "Time parameter" to enter the page "Set time". Slide ⊙ rightwards to turn on the setting time.

Tap "Execution time"; then tap "Start" and "Stop" to set start time and stop time respectively. Tap "OK" at the top right corner to save the setting.

Tap the days below "Repeat" to select the repeating days. Then tap "Save".

Step 3: Select "Execute command"
Tap "Execute command" and enter the page "Select device".

Tap the name of device that you want to control. Tap "ON" or "OFF" and then tap "Save" to complete the linkage.

Tap "Save" and then repeat the above steps to set linkage of several scenes.

(5) Infrared control (only APPlicable to smart phones with infrared emitter).

Function: Smart phone can be used as a remote controller.

Tap ➕ at the top right corner of the homepage "Device". Select "Infrared" and enter the page "Remote controller". Tap ⌃ and slide up to enter the page of advanced functions.
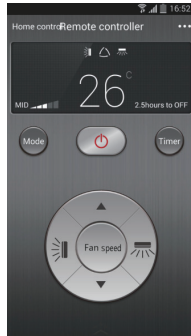
Tap ⏻ to turn on the device. Tap Mode to select mode. Tap ⊕ to adjust fan speed and swing angle. Tap "Health", "Energy saving", "Sleep" etc. to set advanced functions.

Tap "Sleep" to enter the page "Sleep". You can select "Traditional sleep", "Expert sleep" or "DIY sleep". Tap "DIY sleep" and then tap the left and right arrows to set sleep time. Tap up and down arrows to adjust temperature at a specific sleep time.
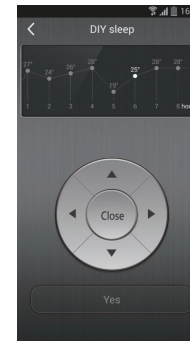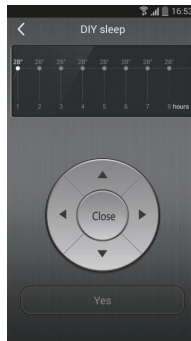
4.Menu functions

Menu functions (Share, Set, History, Feedback)

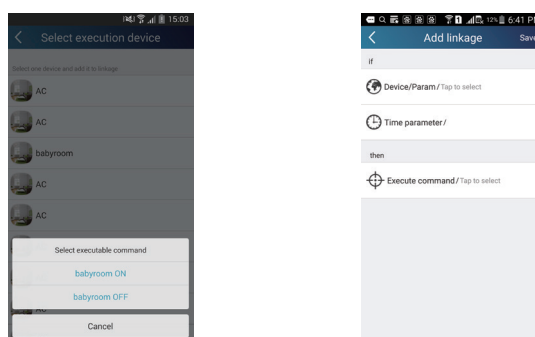(1) Share: To share quick configuration information and unit's information, including local export and local import.

For local import, you just need to tap "Local import" and wait for the data download.

Local export

Step 1: Export local data to another smart phone.

Enter "Menu" on the left side and tap "Share" to enter the page "Share". Then tap "Local export".
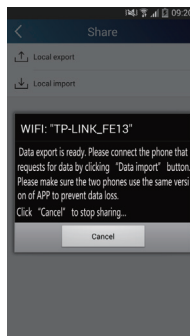
Step 2: Another smart phone to be imported.
Tap the model name and wait for the download.
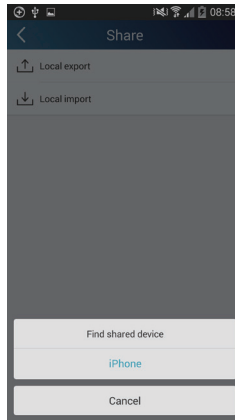
(2) Backup: To keep backup of the quick configuration information and unit's information, including backup to cloud and backup list on the cloud.
Backup to cloud
Enter the "Menu" on the left and tap "Backup".
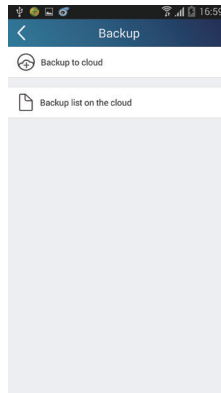
Tap "Backup to cloud" and then tap "Yes". Then wait for the data download.
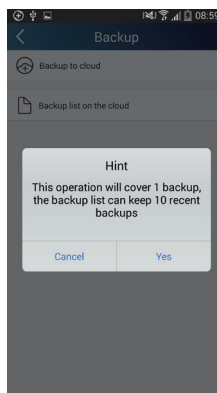
Select "Backup list on the cloud". Then backup records will APPear. Tap "Record" to download data and recover data to local unit.
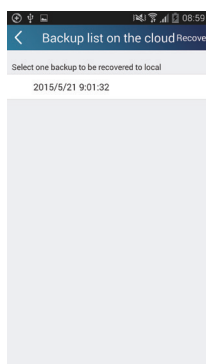
(3) Settings

User can set vibration, message alerts, server, updates, etc. The server setting here must be the same as the server setting in "Configuration" mentioned before.

Otherwise, remote control will be invalid.
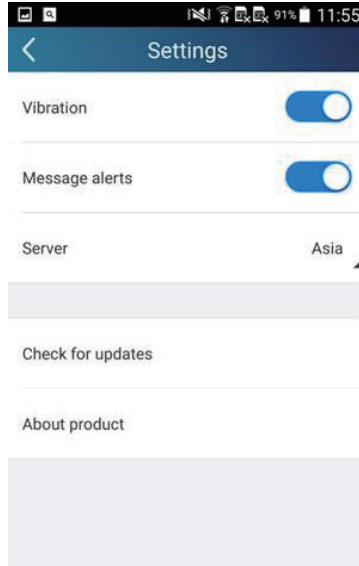
(4) Feedback

User can feedback suggestions to back-stage management for maintenance and development.

Tap "Feedback". Enter your suggestions and then submit it.
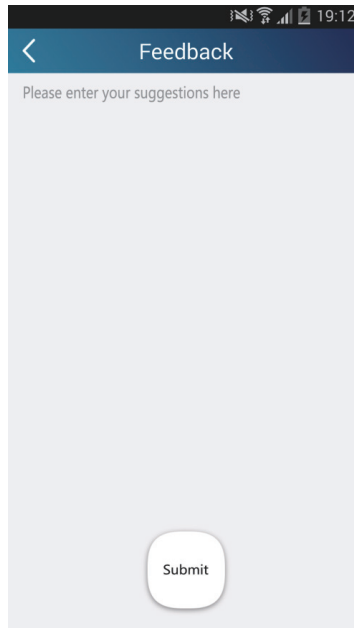
6.3 Operation of Smart Control (Smart Phone, Tablet PC)

Operation Instructions

Download and install APP
Scan the following QR code with your smart phone and download Wifi Smart.

Install the APP according to its guidance. When successfully installed, your smart phone homepage will show this icon

User of IOS system can search for the Wifi Smart in Apple store to download the Apple version APP. Android user can search "WiFi Smart" on Google Play to download it.

Configuration
NOTE: Select either the original configuration or AP configuration according to the APP functions.

1.Original configuration

Before operation, please finish the following configuration in order to realize Wifi control and the connection between air conditioner and intelligent device.

(1).Short-distance control setting for air conditioner using wifi hotspot

Step 1: Air conditioner wifi is set in APP mode in factory.

You can search the air conditioner wifi hotspot through your smart phone.The name of wifi hotspot is the last 8 numbers of the air conditioner mac address. Password is 12345678.
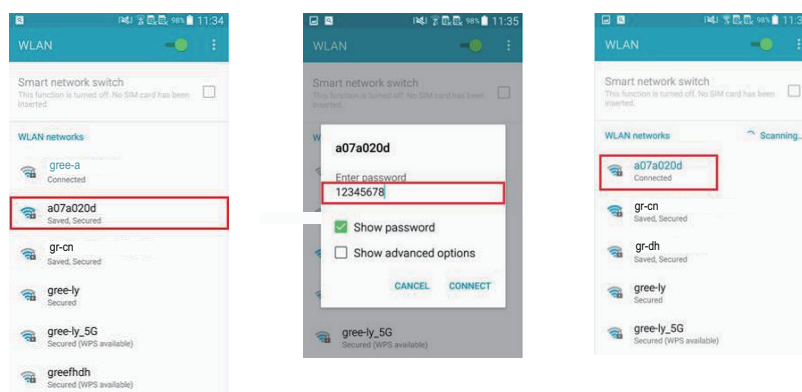
Step 2: Open APP and the screen will show the air conditioner that you just connected. Tap the name of this air conditioner on your phone to enter and realize short-distance control, as shown below. Please refer to "Functions introduction" for specific control methods.
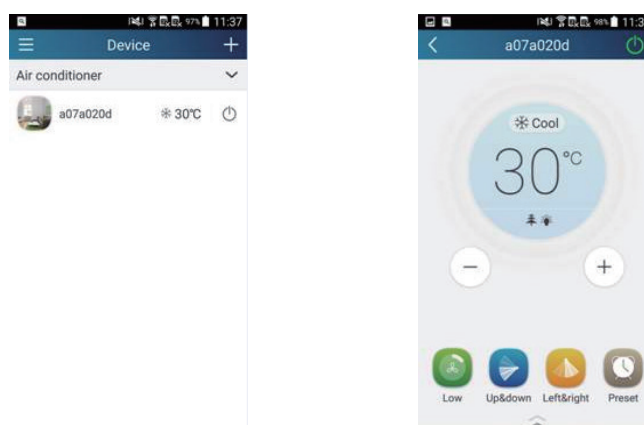
2.Configuration method for Android phones

4 steps of configuration

Step 1: Enter homepage "Device", and then tap [+] at the top right corner.

Select "Add device" and enter the page "Add device".

Tap "Manual configuration" and enter the page "Manual configuration".
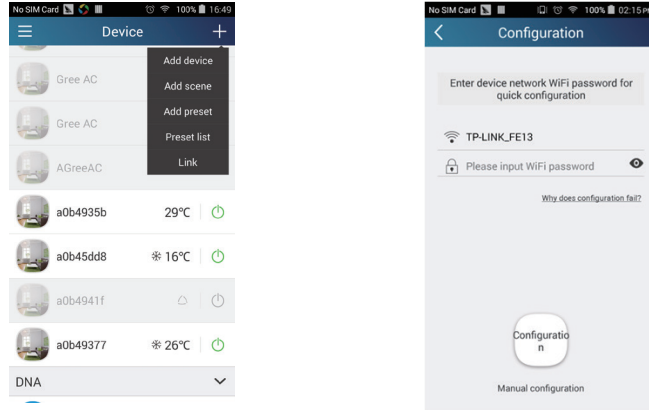
Step 2: Tap "Next" in the First Step.
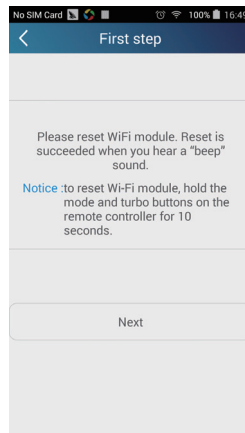
Step 3: Select the wireless network of air conditioner. APP will show the password 12345678 (default password of the network of air conditioner). Then tap "Next"; select the name of home WiFi router, then enter the correct password and select a server.
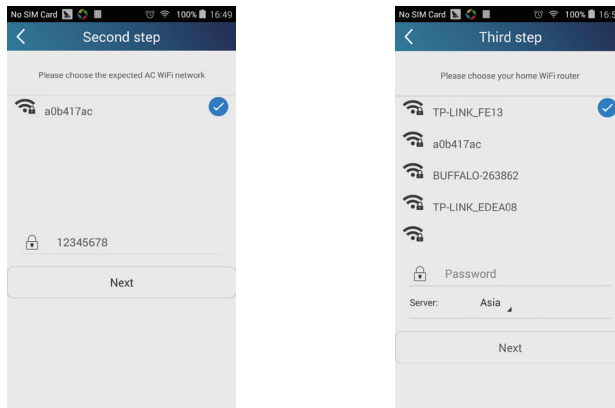
Step 4: If configuration is successful, a window will pop up and read "WIFI module starts to connect the configured wireless router".Then configuration is completed.
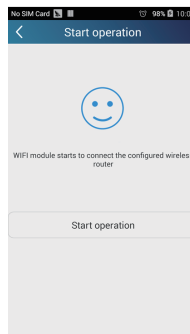
NOTE: After configuration is completed, the air conditioner hot spot connected to your phone will disappear. You should reconnect your phone to the home WiFi router to realize long-distance control.The above configuration only needs onephone. Other types of phones shall install this APP, connect with the air conditioner hot spot or wireless router of WiFi air conditioner. When connection is done, open the APP to use short-distance operation to control the air conditioner and then you can use the long-distance control.

3.Configuration method for Apple phones

Step 1: Turn on Wi-Fi "Settings" on the phone.
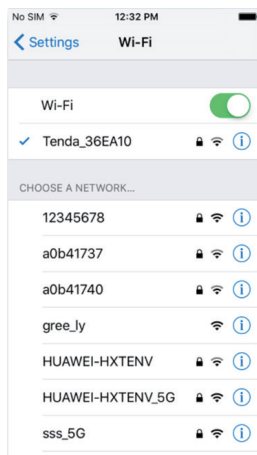
Step 2: In general, the hot spot signal of air conditioner is the last 8 bits of MAC address. Eg: Select "a0b41737" and enter the defaulted password "12345678" to connect it.
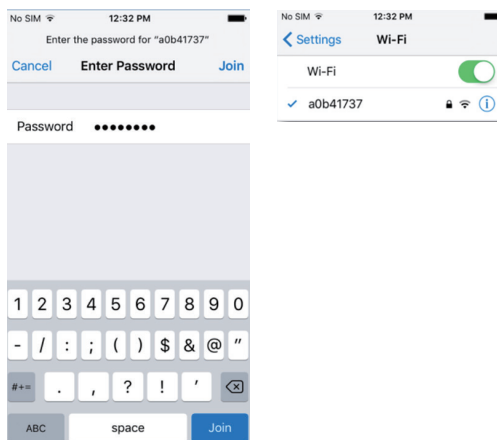
Step 3: Turn on APP, press "+" button, press "Add device" to enter into the page of "Add device" and then select "Manual configuration". Enter wireless router's SSID and PSW on the page of "Manual configuration". The display on the server will be the same as the selection when registering the account (server selection in "Setting").

Eg: WiFi name: Tenda_XXX;

WiFi password:123456789

Server: Europe

Check whether the filled information is correct. If the information is wrong, configuration will fail. Press "Configuration" to start configuration.
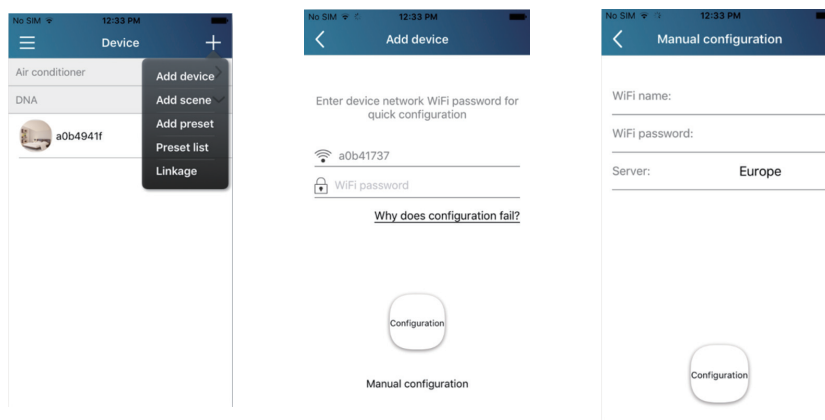
Notice:
- Finally, press "Configuration", and APP will send the filled information to Wifi Smart. At this time, the buzzer will give out a sound, which indicates it has started to connect the wireless router.

- If the name of router or the password is wrong, Wifi Smart can't connect to the wireless router. 2 mins later, please conduct the configuration operation again. Reset Wi-Fi adaptor by pointing you remote at the indoor unit and holding the mode and Turbo buttons on your remote control for 10 seconds and until you hear the beep.
- Wrong server selection will cause long-distance control invalid. Therefore, please make sure thatthe server selection when registering the account is the same as this one.
- If the password is blank, no password is defaulted for the wireless router, which is the OPEN mode.
- Configuration should be conducted at one time. As for other phones, they can automatically search for the device after connecting to the wireless router (such as Tenda_XXX) and turning on the APP.

Functions introduction

1.User registration
Purpose: To realize long-distance control.
Operation instruction: For the first time login, you have to register a new username. If you already have a username, skip the registration step and enter email address and password on the "Login Page" to log in. If password is forgotton, you can reset the password.
Operation steps:
(1) Select the sever address.
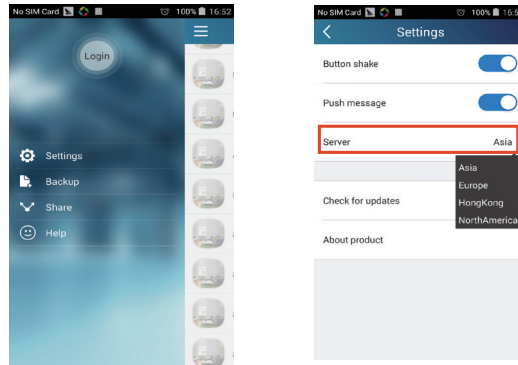
(2) Account login: Slide the page "Device", and enter the menu page on the left.Tap "Login" to enter the page "Register username". New user must first register a username. Tap "Register".
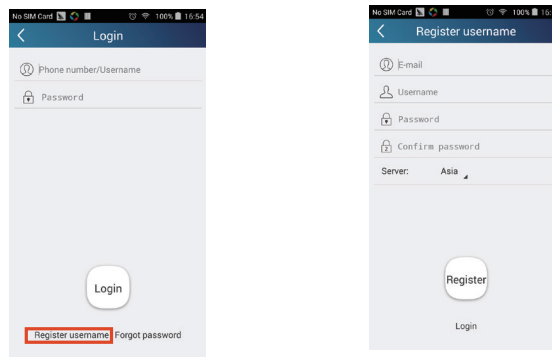
(3) If password is forgotten, you can reset the password with your email address.
Tap "Forgot password" and enter the page "Forgot password". Enter your registered email account the first. Tap "Get verification code" to get an email verification code. Enter a new password and tap "OK" to log in.

Technical Information ● ● ● ● ● ● ●
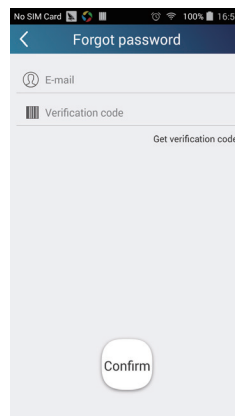
2.Personal settings

Purpose: Set name (device name, preset name, etc.) and images (device image) in order to identify a user easily.

(1) Set device name

After quick configuration, a list of controllable smart devices will be generated. Default name for air conditioner is the last 8 numbers of the air condtioner mac address.
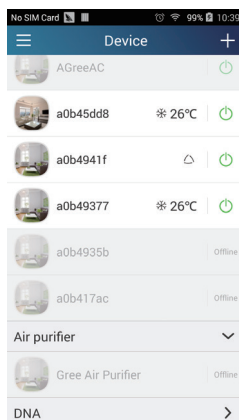
Step 1: Tap and hold the Wifi model name, such as "a0b417ac", to enter the page "Edit device". Tap "Image" to select the source of image. Select from "Default images " or " Take photo" or "Choose from photos" and save an image.
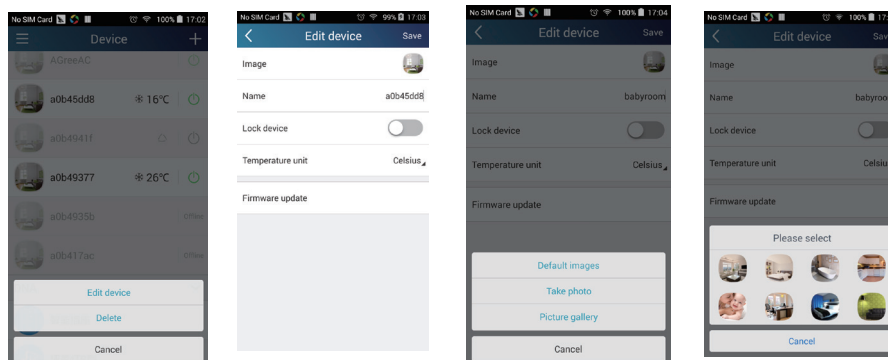
Step 2: Tap "Name" to change device name. Save it and the new device name will be shown. Enable button "Lock device"to lock the device so that other smart phones can't search the device. Tap "Temperature unit" to change the temperature unit.
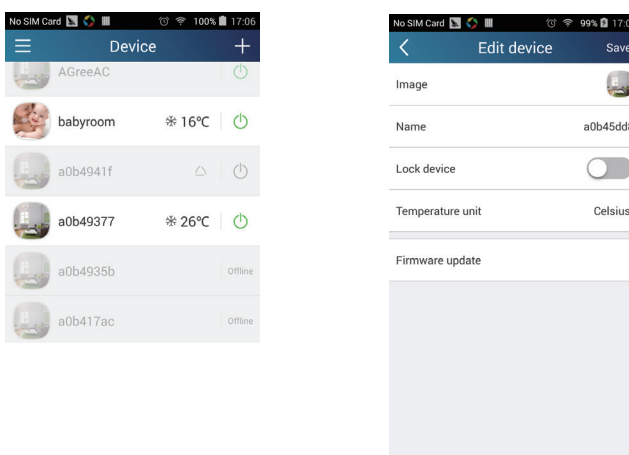
Notice: If this device is not locked, other phones within the local area network can be found through wifi smart APP and operate the device.

Step 3: Tap "Firmware update" to upgrade the firmware of the device. Tap"1.7" and then the device will be updated automatically.
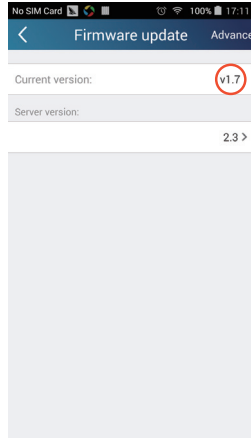
(2) Set preset name

Step 1: Tap ➕ at the top right corner of the homepage "Device". Select "Add preset" and enter the page "Preset edit".
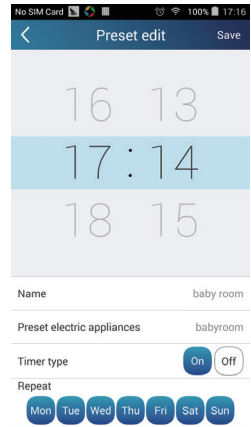
Step 2: Choose the time. Tap "Name". As shown in the picture, its name is "baby room". For timer type, select "On". Then select the repeating days. Save the setting of preset name.
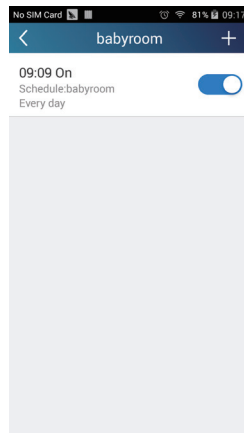
(3) Set device image

Please refer to step 1 in 2(1)

3.Control functions

(1) Common control functions: General control on the operation of smart devices (On/Off, temperature, fan speed, mode, etc.) and the setting of advanced functions (air exchange, dry, health, light, sleep, energy saving upper limit).

Step 1: General control

Enter the homepage "Device" first. Take "babyroom" as an example.
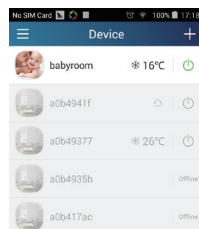
Tap "babyroom" and enter the page of air conditioner control. Tap ⏻ to turn on the control switch.
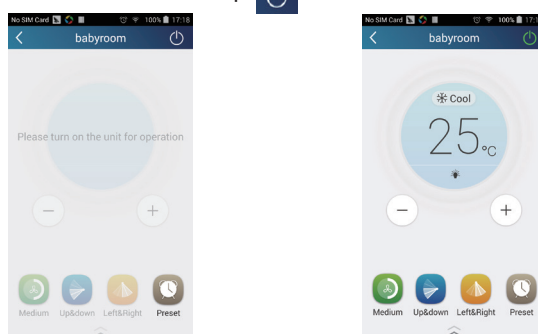
Tap ⊕ or ⊖ to increase or decrease temperature. Tap to ❄ Cool change working mode. Tap to enter the page of fan speed adjustment.
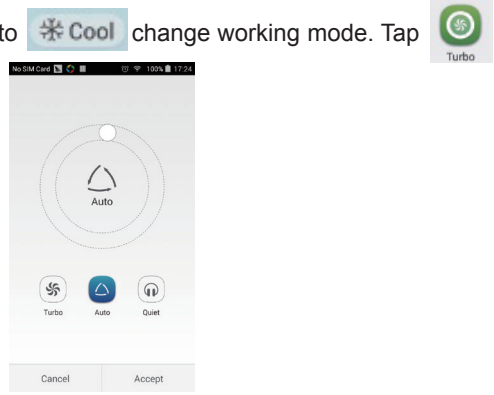
Tap and go around the circle to adjust fan speed.
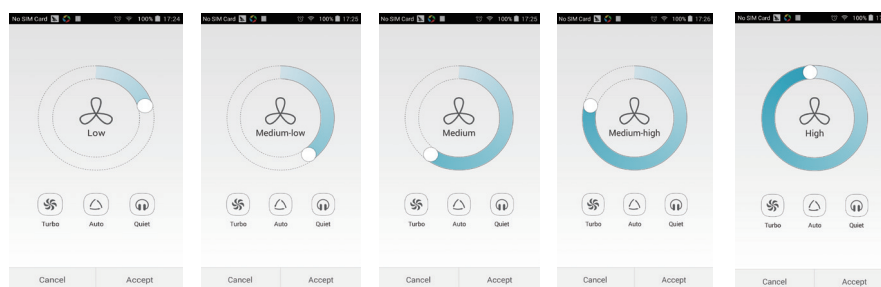
Step 2: Advanced settings
Tap to enter advanced settings. You may select "Air", "Dry", "Health", "Light", "Sleep" or "Energy saving".
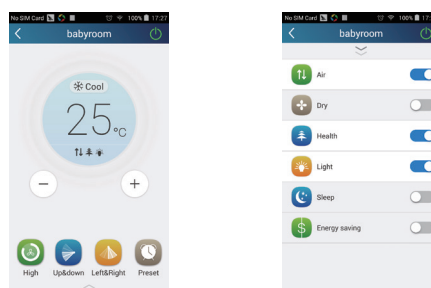
(2) Advanced control functions; Set scene; Preset; Link: Infrared control(only applicable to smart phones with infrared emitter)
Set scene: Preset the operation of several smart devices by one tap. On the page "Device", tap the image of "Device" to enter the page "Edit scene".
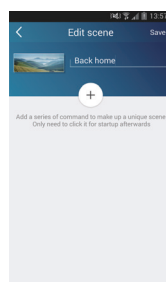
Tap "Add scene" and edit the scene name, for example, "Back home". Add execution devices.
Tap ⊕ to add commands. On the page "Select execution device", select the air conditioner named "babyroom". Then select "ON" or "OFF".
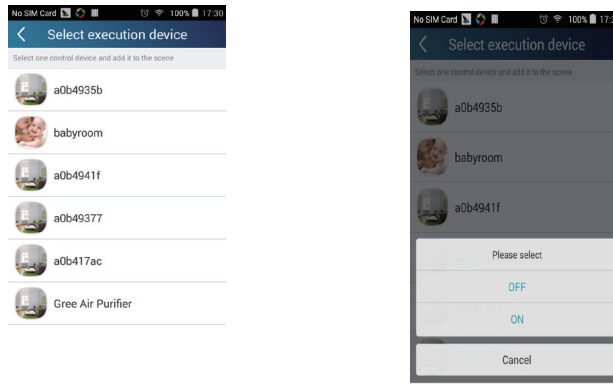
Continue to select the next execution device as instructed above. Tap [0.5s] to set the interval.
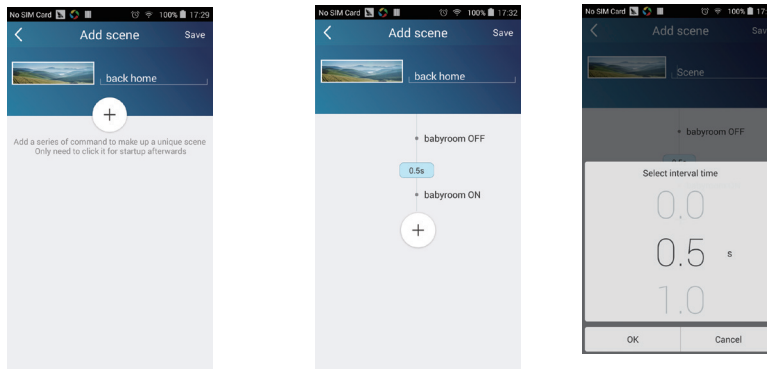
Tap "Save". Tap the scene picture displayed on homepage "Device" to send the command. Then the scene "Back home" will be in execution. You may view the execution condition of the scene.

(3) Preset includes single-device preset and multi-device preset
Single-device preset: This can preset a certain device to be On/Off at a specific time.
On the homepage "Device", take air conditioner "babyroom" as an example. Tap [ ] at the bottom of the page "babyroom".
Then you will enter the page "Preset edit".

Slide up and down to set the time. If you need to synchronize the time, tap " synchronize". If such "Hint" interface doesn't show up, please skip this operation step.

Tap "Name" to customize the preset name.

Preset device can't be selected and it will default to "babyroom". Select "On" for the timer type. Select repeating days to complete the preset.

Multi-device preset: This can preset multiple devices to execute a command at a specific time.

Please refer to the instructions as how to set preset time, name, timer type and repeating days for a single device.

Tap "Preset device" to select one or more devices. Then return to the page "Device".

(4) Link(This function is applicable to some models)

Select a master device. When the environment satisfies the parameters as set in the master device, slave devices will execute commands to realize devices linkage.

Step 1: Set the parameters of master device (Select master device, select environment parameters, select master device status).

Tap ➕ at the top right corner of the homepage "Device". Select "Link" and enter the page "Add linkage". Tap "Device/Param" to enter the page "Select device". Take "baby room" as an example. Tap "babyroom".

Enter the page "Select environment parameters".

Tap "Temperature" to enter the page "Select temperature parameter". Slide up or down to adjust temperature. Tap "Upper limit" or "Lower limit".

Tap "Mode" and "On/Off" to select the status of master device. Then tap "Save".

Step 2: Set time parameter for linkage. Tap "Time parameter" to enter the page "Set time". Slide ⬤ rightwards to turn on the setting time.

Tap "Execution time"; then tap "Start" and "Stop" to set start time and stop time respectively. Tap "OK" at the top right corner to save the setting.

Tap the days below "Repeat" to select the repeating days. Then tap "Save".

Step 3: Select "Execute command" Tap "Execute command" and enter the page "Select device".

Tap the name of device that you want to control. Tap "ON" or "OFF" and then tap "Save" to complete the linkage.

Tap "Save" and then repeat the above steps to set linkage of several scenes.

4.Menu functions

Menu functions (Share, Set, History, Feedback)

(1) Share: To share quick configuration information and unit's information, including local export and local import.

For local import, you just need to tap "Local import" and wait for the data download.

Local export

Step 1: Export local data to another smart phone.

Enter menu page on the left side and tap "Share" to enter the page "Share". Then tap "Local export".
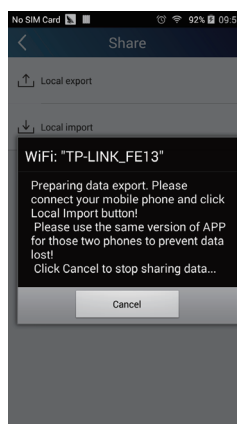
Step 2: Another smart phone to be imported.
Tap the model name and wait for the download.
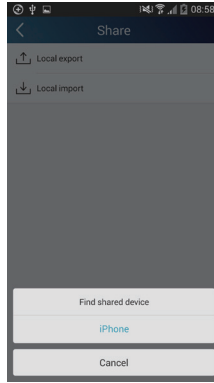
Notice:

This function requires that the two phones are of the same operating system. They are either Android phones or Apple phones,and are connecting to the same wireless router.

(2) Backup: To keep backup of the quick configuration information and unit's information, including backup to cloud and backup list on the cloud.

Backup to cloud

Enter the menu page on the left and tap "Backup".
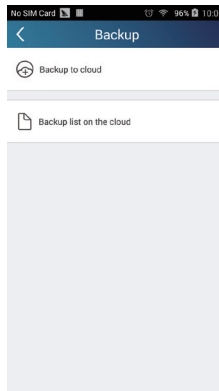
Tap "Backup to cloud" and then tap "Yes". Then wait for the data download.
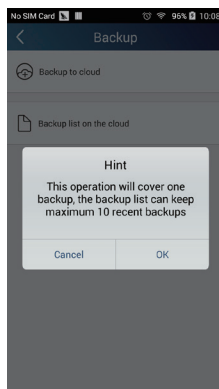
Select "Backup list on the cloud". Then backup records will appear. Tap "Record" to download data and recover data to local unit.
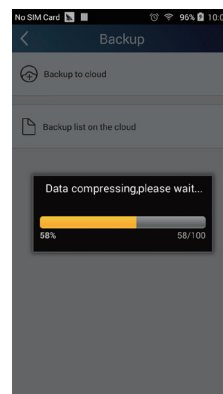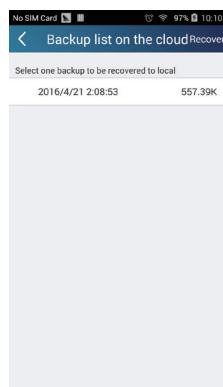
(3) Settings

User can set vibration, message alerts, server, updates, etc. The server setting here must be the same as the server setting in "Configuration" mentioned before.

Otherwise, remote control will be invalid.
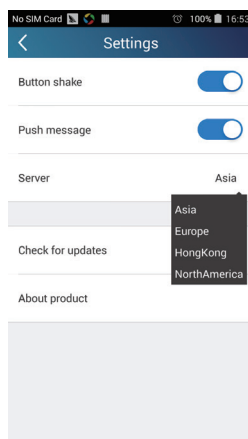
(4) Help

Please refer to "Help" of APP for the instruction of the latest functions.

Technical Information

6.4 Brief Description of Modes and Functions

● **Indoor Unit**

1.Temperature Parameters

Indoor preset temperature (Tpreset)

Indoor ambient temperature (Tamb.)

2.Basic functions (The temperature in this manual is expressed by Centigrade. If Fahrenheit is used, the switchover between them Tf=TcX1.8+32.)

Once the compressor is energized, there should be a minimum interval of 3 minutes between two start-ups. But if the unit is de-energized and then energized, the compressor can restart within 3 minutes.

(1)Cooling mode

① Cooling conditions and process

When Tamb. ≥Tpreset, the unit starts cooling operation. In this case, the compressor and the outdoor fan operate and the indoor fan operates at set speed.

When Tamb. ≤Tpreset-3°C, the compressor and the outdoor fan stop while the indoor fan runs at set speed.

When Tpreset-3°C<Tamb.<Tpreset, the unit will maintain its previous running status.

In cooling mode, temperature setting range is 16~30°C; the indoor unit displays operation icon, cooling icon and set temperature.
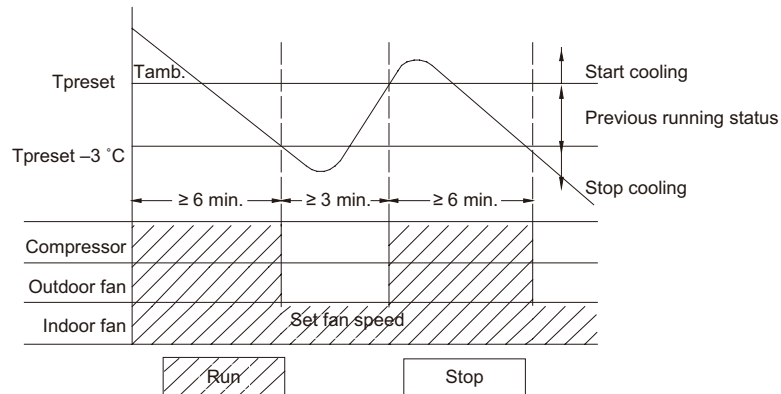
② When outdoor unit has malfunction or stops for protection, indoor unit will keep previous operation status and display malfunction code.

③ The protection status is as the same as the cooling mode.

(2)Dry Mode

When Tamb.>Tpreset, the unit operates in cooling mode. Meanwhile, compressor and outdoor fan operate, and indoor fan operates at set fan speed (low fan speed, quiet fan speed or auto quiet fan speed).

When Tpreset-2°C<Tamb. ≤Tpreset, the unit keeps previous operation status.

When Tamb.≤Tpreset-2°C, compressor, outdoor fan and indoor fan operate at set fan speed (low fan speed, quiet fan speed or auto quiet fan speed).

Under this mode, the temperature setting range is 16~30°C. Display displays operation icon, drying icon and set temperature.
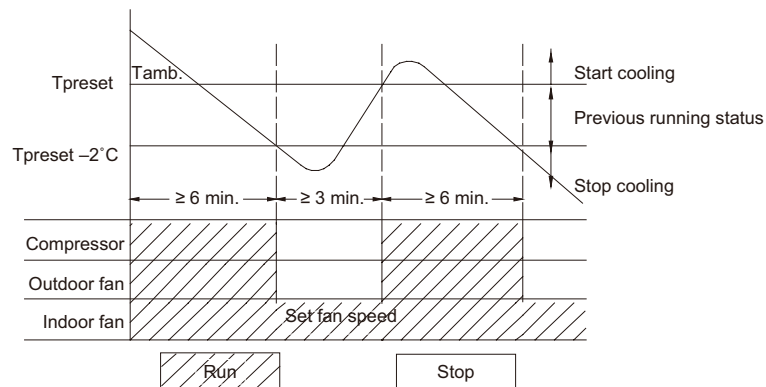
(3)Heating mode (not available for cooling only type)

① Heating conditions and process

When Tamb. ≤Tpreset+2°C, the unit starts heating operation. In this case, compressor and outdoor fan operate simultaneously; the indoor fan operates at cold-air prevention mode.

When Tamb.≥Tpreset+5°C, the compressor and outdoor fan stop operation; the indoor fan blows residual heat.

When Tpreset+2°C<Tamb.<Tpreset +5°C, the unit will maintain its previous running status.

Under this mode, temperature setting range is 16~30°C; the indoor unit displays operation icon, heating icon and set temperature.
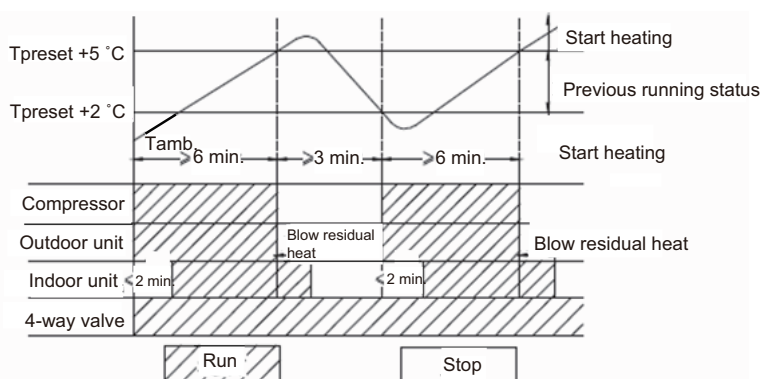
② Defrosting and Oil Return

When receiving the signal of defrosting and oil return, the horizontal louver(big one) will rotate to the position where the angle is minimum and the other horizontal louver(small one) will close. In 10 seconds later, indoor fan will stop operation. During defrosting, oil return and 5 minutes after quit, all indoor pipe temperature sensors will not be detected. When receiving oil return signal or defrosting signal sent by outdoor unit, Heating indicator on indoor unit is off for 0.5s and then blinks for 10s.

③ Blow residual heat

In heating mode, when temperature reaches the set temperature, the compressor and outdoor fan will stop.

The horizontal louver (big one) will rotate to the default position for cooling and the other one (small one) will close. Indoor unit will operate at set speed for 60s and then stop operation.

When the unit is in heating mode or auto heating mode, and also the compressor and indoor fan are operating, if turning off the unit,compressor and outdoor fan will stop. Horizontal louver (big one) will rotate to the position where gentle wind is blown out (default position for cooling) and the other horizontal louver (small one) will close. Indoor unit will operate at low speed for 10 seconds and then the unit will be turned off.

(4)Fan Mode

In this mode, indoor fan operates at set speed while compressor and outdoor fan stop operation. The set temperature range is 16~30°C. Operation icon and set temperature are displayed.

(5)Auto Mode

In this mode, operation mode (Cool, Heat, Fan) will be automatically selected according to change of ambient temperature. Operation icon, actual operation icon and set temperature will be displayed. There is 30s delay for protection when changing mode. The protection function is as the same as that under each mode.

① When Tamb.≥26°C the unit will operate at cooling mode, the default set temperature is 25°C.

② When Tamb. ≤21°C the unit will operate at heating mode, the default set temperature is 20°C if the cooling only unit operates at fan mode, the default set temperature is 25°C;

③ When 22°C≤Tamb.≤25°C and the unit is turned on for the first time, if it changes to auto mode from other mode, the previous operation mode will be maintained; If it changes to auto mode from dry mode, the unit will operate at fan mode.

④ When the unit operates at auto mode, the frequency of compressor is as the same as that under cooling mode, while it is as the same as that under heating mode.

Protection function

A. Under cooling mode, the protection function is as the same as that under cooling mode.

B. Under heating mode, the protection function is as the same as that under heating mode.
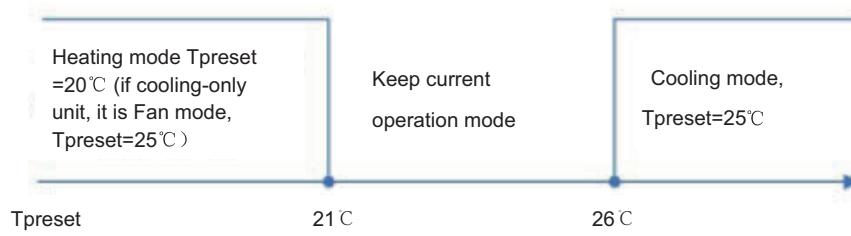
(6) "8°C" Heating

Under heating mode, press buttons "Temp" and "Clock" simultaneously, the 8°C heating function will be activated and "cold air prevention" will be shielded.

① 8°C heating can't co-exist with sleep function. If 8°C heating function is set, it can be cancelled by pressing sleep button, In that case, the set temperature will be that before entering 8 heating; If sleep function is set, press buttons "Temp" and "Clock" simultaneously to activate 8°C function and cancel sleep function at the same time.

② Set temperature is 8°C and it is displayed on the indoor display panel.

⚫ ⚫ ⚫ ⚫ ⚫ ⚫ Technical Information

③ In this mode, TURBO can't be set and fan speed can't be adjusted.

④ In this mode, when compressor operates, fan speed will be adjusted as follows; when compressor stops operation, indoor unit will operate at blowing residual heat.

When Tindoor amb. ≤9°C, indoor fan operates at high fan speed;

When 9°C < Tindoor amb. < 11°C, indoor fan operates at medium fan speed;

When Tindoor amb.≥11°C, indoor fan operates at low fan speed;

When changing among low high, medium, and low speeds, the minimum operation time is 210 seconds.

⑤ The unit with memory function can memorize 8°C heating mode.
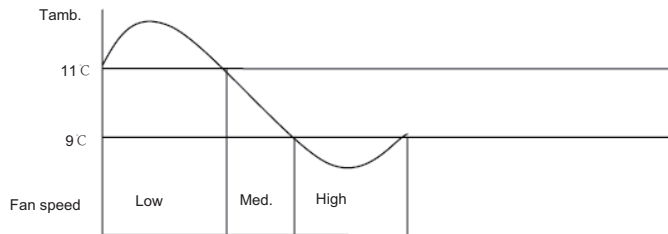
(7)Energysaving Function

① In cooling mode, when receiving command of energysaving sent by remote control, the controller enters energysaving mode; If the unit is under energysaving mode already, such command will not be executed.

② When remote control is set to display set temperature, "dual 8"nixie tube displays "SE".

③ In this mode, when compressor operates, fan speed will be adjusted according to auto fan mode under energysaving operation; when compressor stops operation, indoor fan will operate at low speed.

a. When Tamb.≥31°C, indoor fan will operate at super high speed;

b. When 31°C>Tamb.≥Tpreset+3°C, indoor fan will operate at high speed;

c. When Tpreset+1<Tamb.<Tpreset+3°C indoor fan will operate at medium speed;

d. When Tamb.≤Tpreset+1°C indoor fan will operate at low speed;

Note: The switchover among superhigh speed, high speed, medium speed and low speed requires minimum 210seconds of operation.
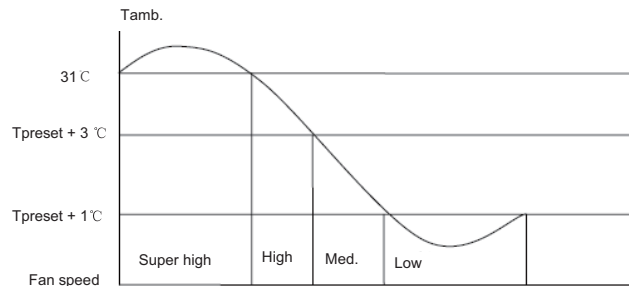
④ In this mode, set temperature will be automatically adjusted according to actual operation conditions.

3.Other Control

(1)Clock Timer

Timer ON

If timer ON is set during operation of the unit, the unit will continue to operate. If timer ON is set at unit OFF, upon ON time reaches the unit will start to operate according to previous setting status.

Timer OFF

If timer OFF is set at unit OFF, the system will keep standby status. If timer OFF is set at unit ON, upon OFF time reaches the unit will stop operation.

Timer Change

Although timer has been set, the unit still can be turned on/off by pressing ON/OFF button of the remote controller. You can also set the timer once again, and then the unit will operate according to the last setting.

If timer ON and timer OFF are set at the same time during operation of the unit, the unit will keep operating at current status till OFF time reaches.

If timer ON and timer OFF are set at the same time at unit OFF, the unit will keep off status till ON time reaches.

Each day in future, the system will operate according to preset mode till OFF time reaches and stop operation till ON time reaches. If ON time and OFF time are the same, OFF command will prevail.

(2)Auto Button

If this button is pressed, the unit will operate in AUTO mode and indoor fan will operate at auto speed; meanwhile, the swing motor operates. Press this button again to turn off the unit.

(3)Buzzer

Upon energization or availably operating the unit or remote controller, the buzzer will give out a beep.

(4)Sleep Function

In SLEEP mode, the unit will automatically select appropriate sleep curve to operate according to different temperature setting.

(5)Turbo Function

This function can be set in cooling or heating mode to quickly cool or heat the room.

(6)X-FAN Function

① When the unit is operating at COOL or DRY mode(it is not available under AUTO, HEAT, FAN modes), the X-FAN function can be turned on/off. When it is turned on,once pressing ON/OFF button to turn off the unit, indoor fan will continue operation at low speed for 2 minutes. Within the 2 minutes, horizontal louver will keep its previous status while cold plasma and static dedusting will be forced to be turned on and other loads will be turned off. Then the complete unit will be turned off; When X-FAN function is set to be off,once pressing ON./OFF button, the complete unit will be turned on immediately.

② During X-FAN operation, press X-FAN button, the indoor fan, horizontal louver, cold plasma and static-dedusting will be turned off immediately.

(7)Control of Indoor Fan

Indoor fan can be set by remote control within the range of Mute, Fan speed 1, Fan speed 2, Fan speed 3, Fan speed 4, Fan speed 5 and Turbo and Fan will operate at low, med. high or super high speed accordingly. And also, auto fan speed can be set. Under auto fan speed mode, indoor fan will automatically select high, med., low or mute speed according to change of ambient temperature.

① Under Auto Heat mode or regular Heat mode, auto fan speed will be as follows:

When Tamb.<Tpreset-3°C, indoor fan will operate at high speed;

When Tpreset-3°C≤Tamb.<Tpreset+2°C indoor fan will operate at med. speed;

When Tpreset+2°C≤Tamb.<Tpreset+4°C, indoor fan will operate at low fan speed;

When Tamb≥Tpreset+4°C indoor fan will operate at mute.

Control Diagram of Auto Fan Speed under HEAT Mode
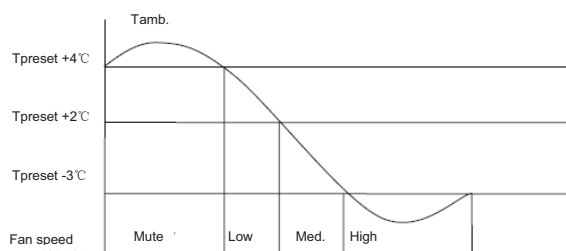
② Under FAN or COOL mode: if it is auto cooling mode or regular cooling mode, auto fan speed will be as follows:

When Tamb.≥Tpreset+3°C, indoor fan will operate at high speed;

When Tpreset<Tamb.<Tpreset+3°C indoor fan will operate at med. speed;

When Tpreset-2°C<Tamb.≤Tpreset, indoor fan will operate at low speed;

When Tamb.≤Tpreset-2°C indoor fan will operate at mute;

③ There is no auto fan speed under DRY mode

Note: Fan speed "High", "Med." and "Low" are respectively corresponding to "Fan speed 5", "Fan speed 3" and "Fan speed 1". There is 210 seconds delay for fan speed switchover of auto fan.
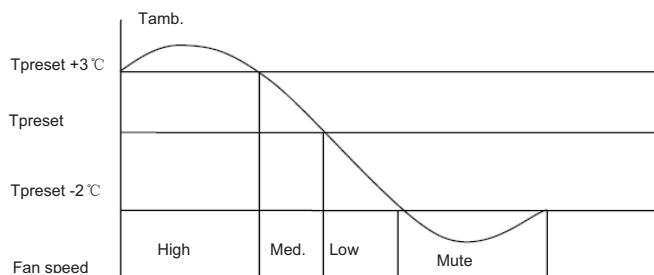
(8)Vertical Swing

① Small Horizontal Louver

After energization, vertical swing motor will firstly have the horizontal louver rotate anticlockwise to position O to close air outlet. If swing function has not been set after startup of the unit, horizontal louver will turn clockwise to position D1 in HEAT mode. If swing function is set when starting up the unit, the horizontal louver will swing between O and D1.There are 7 swing status of horizontal louver: Positions O, A1, B1, C1 and D1, swing between O and D1 and stop at any position between L and D (angles between O and D1 are equiangular). Upon turning off the unit, the horizontal louver will close at position O. Swing function is available only when

swing function is set and indoor fan is operating.

Note:

a. If the position is set between O and D1, A 1and C1 or B1 and D1 by remote controller, the horizontal louver will swing between O and D1.

b. For model 9K/12K, only when big horizontal louver rotates to the second position for heating(62°of corresponding angle), this louver will be activated. For model 18K, only when big horizontal louver rotates to the first position for heating(63°of corresponding angle), this louver will be activated,For model 24K, only when big horizontal louver rotates to the first position for heating(40°of corresponding angle), this louver will be activated.

c. Under cooling mode, this horizontal louver will be always in the position O.

O (0 degree)
A1
B1
C1
D1
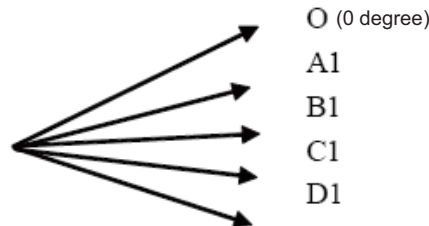
② Big Horizontal Louver

After energization, up & down swing motor will firstly have the horizontal louver rotate anticlockwise to position O to close air outlet. If swing function has not been set after startup of the unit, horizontal louver will turn clockwise to position D in HEAT mode, or turn clockwise to level position L in other modes. If swing function is set when starting up the unit, the horizontal louver will swing between L and D.There are 7 swing status of horizontal louver: Positions L, A, B, C and D, swing between L and D and stop at any position between L and D (angles between L and D are equiangular). Upon turning off the unit, the horizontal louver will close at position O.

Note: If the position is set between L and B, A and C or B and D by remote controller, the horizontal louver will swing between L and D.

(0 degree)

L
A
B
C
D
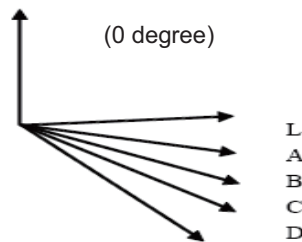
(9)Horizontal Swing

Upon energization, the vertical louver will be reset to the start position firstly and then stop in the middle position. When setting horizontal swing, there are 7 status: Position ① , Position ② , Position ③ , Positon ④ , Position ⑤ , swing between ① and ⑤ and stop at any position between ① and ⑤ . If setting horizontal swing during operation of the unit, the horizontal swing motor will drive the louver to swing horizontally. When cancelling horizontal swing or it is not set when turning on the unit, the louver will stop in the current.

This position is start point 0 °

① ② ③ ④ ⑤
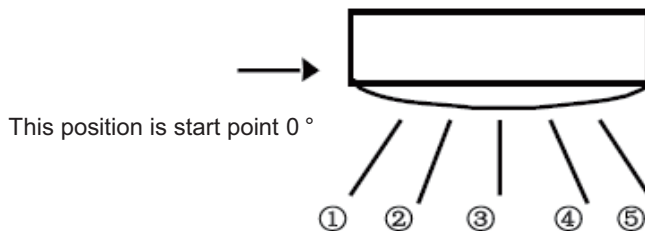
(10)Display

① Operation and Mode Icons

Upon energization, the unit will display all icons within 3 seconds. Under standby state, LED lamp of standby is on. If the unit is turned on by remote controller, LED lamp of operation is on; meanwhile, the mark of current running mode will be displayed. If the light button is turned off, no mark will be displayed.

② Display of Nixie Tube on Indoor Unit

When energized & started for the first time, the indoor unit defaults to displaying current set temperature (16~30°C). When set temperature display is set by remote controller, it will display set temperature; when room temperature display is set, it will display room or outdoor temperature. After that, when operating the remote controller for other settings, the temperature display method will keep original. When operating the remote controller during room temperature display, the set temperature will be displayed for 5

seconds firstly and then room temperature display returns. If there is malfunction, corresponding malfunction code will be displayed. For example, if ambient temperature sensor has malfunction, "F1" will be displayed; if indoor pipe temperature has malfunction, "F2" will be displayed; if jumper cap has malfunction, "C5" will be displayed.

(11)Memory Function

① Memory when power failure upon turning on the unit

◆ Memory content: ON status, mode, up&down swing, light, set temperature, set fan speed, general timer, Fahrenheit/ Centigrade

◆ General timer can be memorized. Timer will be recalculated from the time of energization.

◆ Clock timer can't be memorized.

② Memory when power failure upon turning off the unit

◆ Memory content: ON status, mode, up&down swing, light, set temperature, set fan speed, general timer, Fahrenheit/ Centigrade

◆ General timer can be memorized. Timer will be recalculated from the time of energization.

◆ Clock timer can't be memorized.

(12)I Feel function

When I FEEL command is received by controller, and also the ambient temperature is received from remote control, the controller will operate according to the ambient temperature sent by the remote controller (For cold blow prevention, the unit operates according to the ambient temperature sensed by the air conditioner). The remote controller will send ambient temperature data to the controller for every 10 minutes. When the data has not been received for 11 minutes, the unit will operate according to the temperature sensed by the air conditioner. If I FEEL function is not selected, the ambient temperature will be that sensed by the air conditioner. Ambient temperature of I FEEL displayed by controller is 1 ~59°C.

(13)Health and Cold Plasma Function

When the unit is operating, turn health or cold plasma to be ON/OFF by health button in remote control (if there is no such button in remote control, the health is on as default). Only when health or cold plasma is turned on and indoor fan is operation, such function can be activated.

(14)Static Dedusting Function

When the unit is operating, turn static dedusting ON/OFF by health button in remote control (if there is no such button in remote control, the health is on as default). Only when static dedusting is turned on and indoor fan is operation, such function can be activated.

(15)Fahrenheit Display

Nixie tube displays current set temperature. If remote signal is Fahrenheit, the temperature will be displayed in Fahrenheit. The set temperature range is 16~30°C. Under Auto mode, in COOL operation and FAN operation, 25°C will be displayed, while in HEAT operation and FAN operation, 20°C will be displayed. For cooling-only controller, only 25°C will be displayed.

(16)Locked protection to Indoor Fan Motor

If the indoor fan motor keeps low rotation speed for a continuous period of time after startup, the unit will stop operation and display"H6".

(17)Mute Mode

① Auto Mute: When selecting fan speed of auto mute, the fan speed will be adjusted according to change of ambient temperature; when temperature meets the requirement of the setting, the unit will operate at lowest speed.

② Mute mode: When selecting fan speed of mute, the unit will directly operate at lowest fan speed.

This position is start point

(18)Compulsive Defrosting Function

① Start up compulsory defrosting function

Under ON status, set heating mode with remote controller and adjust the temperature to 16℃ . Press "+, -, +, -, +,-" button successively within 5s and the complete unit will enter into compulsory defrosting status. Meanwhile, heating indicator on indoor unit will ON 10s and OFF 0.5s successively. (Note: If complete unit has malfunction or stops operation due to protection, compulsory defrosting function can be started up after malfunction or protection is resumed.

② Exit compulsory defrosting mode

After compulsory defrosting is started up, the complete unit will exit defrosting operation according to the actual defrosting result, and the complete unit will resume normal heating operation.

(19)Refrigerant Recycling Function

① Enter refrigerant recycling function

Within 5min after energizing(unit ON or OFF status is ok), continuously press LIGHT button for 3 times within 3s to enter refrigerant Recycling mode; Fo is displayed and refrigerant recycling function is started, Ar this moment, the maintenance people closes liquid Valve. After 5min,stick the thimble of maintenance valve with a tool. If there is no refrigerant spraying out, close the gas valve Immediately and then turn off the unit to remove the connection pipe.

② Exit refrigerant recycling function

After entering refrigerant recycling mode, when receive any remote control signal or enter refrigerant recycling mode for 25min, the Unit will exit refrigerant recycling mode automatically. If the unit is in standby mode before refrigerant recycling, it will be still in standby mode after finishing refrigerant recycling; If the unit is in ON status before refrigerant recycling, it will still run in original operation mode.

● **Outdoor Unit**

1. Compensation function of input parameters

According to the structure of wall-mounting unit, considering the comfortability for operation, indoor ambient temperature when the compressor is at OFF status is higher than set temperature under heating mode.

2. Control of detecting the availability of parameters

For ensuring the safety and reliability of operation, please insert the outdoor discharge temperature sensor into the corresponding temperature sensor bushing to make sure that the control system can detect system discharge temperature accurately. Otherwise, the unit will stop operation and it displays malfunction of discharge temperature sensor (discharge temperature sensor hasn't been inserted well), which can only be resumed by pressing ON/OFF button on remote controller. Basic functions:

3. Cooling mode

3.1 Working condition and process for cooling

3.1.1 If compressor is at OFF status, and 〔T_{preset}-($T_{indoor\ amb.}$-$\triangle T_{indoor\ amb.\ compensation\ of\ cooling}$)〕≤0℃, the unit operates in cooling mode;

3.1.2 During cooling operation, if 0℃≤〔T_{preset}-($T_{indoor\ amb.}$-$\triangle T_{indoor\ amb.\ compensation\ of\ cooling}$)〕<3℃, the unit still operates in cooling mode;

3.1.3 During cooling operation, if 3℃≤〔T_{preset}-($T_{indoor\ amb.}$-$\triangle T_{indoor\ amb.\ compensation\ of\ cooling}$)〕, the unit stops operation when reaching the temperature point in cooling.

3.2 Temperature setting range:

3.2.1 If $T_{outdoor\ amb.}$≥$T_{cooling\ temperature(low\ temperature)}$, the temperature setting range is 16-30℃ (cooling in room temperature);

3.2.2 If $T_{outdoor\ amb.}$<$T_{cooling\ temperature(low\ temperature)}$, the temperature setting range is 25-30℃. That is: the lower limit of set temperature for outdoor unit is 25℃.

4. Dry mode

4.1 Working conditioner and process for drying is same as that for cooling mode;

4.2 Temperature setting range is 16-30℃;

5. Fan mode

5.1 Compressor, outdoor fan and 4-way valve are all turned off;

5.2 Temperature setting range is 16-30℃.

6. Heating ode

6.1 Working conditioner and process of heating: ($T_{indoor\ amb.}$ is the actual temperature detected by indoor ambient temperature sensor; $\triangle T_{indoor\ amb.\ compensation\ of\ heating}$ is indoor ambient temperature compensation during heating operation).

6.1.1 If compressor is at OFF status, and 〔($T_{indoor\ amb.}$ - $\triangle T_{indoor\ amb.\ compensation\ of\ heating}$) -$T_{preset}$〕≤-1℃, the unit operates in heating mode.

6.1.2 During heating operation, if 0℃≤〔($T_{indoor\ amb.}$- $\triangle T_{indoor\ amb.\ compensation\ of\ heating}$)-$T_{preset}$〕<2℃, the unit still operates in heating mode.

6.1.3 During heating mode, if 2℃≤〔($T_{indoor\ amb.}$ - $\triangle T_{indoor\ amb.\ compensation\ of\ heating}$)-$T_{preset}$〕, the unit stops operation when reaching the temperature point in heating.

6.2 Under this mode, the temperature setting range is 16-30℃.

7. Defrosting control （heating mode）

7.1 If it turns to defrosting time and it detected that the defrosting temperature is satisfied for 3mins successively, the unit turns into defrosting process.

7.2 Defrosting-starting: compressor stops operation and restart it up after 55s delayed,

7.3 Defrosting-ending: Compressor stops operation and it starts up after 55s delayed.

7.4 When any one of below defrosting-ending conditions is satisfied, the unit will quit from defrosting operation:

7.4.1 $T_{outdoor\ tube}$≥$T_{quit\ temperature\ 1}$ for defrosting;

7.4.2 Defrosting operation time is reached $T_{max.defrosting\ time.}$

8. Control of compressor

8.1 Frequecny of compressor intangibly controls the frequency according to the relation between ambient temperature and set temperature, and the change speed of ambient temperature;

8.2 Under cooling, heating or drying mode, compressor will be started up after outdoor fan is started for 5s.

8.3 At the OFF status, stop operation because of protection and switchover to fan mode, the compressor stops operation immediately.

8.4 Under each mode: Once the compressor is started up, it can be stopped only after operation.

8.5 Under each mode, one the compressor is stopped, it can be restarted up only after 3min delayed

9. Control of outdoor fan

9.1 When turn off the unit by remote controller, stop operation because of protection or stop operation after reaching the temperature point, outdoor can stop operation only after the compressor is stopped for 1min;

9.2 Under fan mode: outdoor fan stops operation.

9.3 defrosting-starting: enter into defrosting. Outdoor fan stops operation after compressor stops for 50s.

9.4 Defrosting-ending: quit defrosting. When the compressor stops operation, the outdoor fan operates.

10. Control of 4-way valve

10.1 4-way valve status under cooling, drying and fan modes: OFF;

10.2 When the unit turned on and operated in heating mode, the 4-way valve is energized immediately.

10.3 If turn off unit or switch to other mode in heating mode, the 4-way valve is de-energized after the compressor stops for 2min;

10.4 When the unit is turned off because of each protection, the 4-way valve is de-energized after 4 mins delayed.

10.5 Defrosting-starting: enter into defrosting. After the compressor stops for 50s, the 4-way valve will be de-energized.

10.6 Defrosting-ending: quit defrosting. After the compressor stops for 50s, the 4-way valve is energized.

11. Freeze protection

11.1 Under cooling or drying mode, if it's detected that $T_{inner\ tube}$<0 for 3min successively, the unit will stop operation due to freeze protection. If $T_{limit\ temperature\ of\ freeze\ protection}$ <$T_{inner\ tube}$, and compressor stops for 3min, the complete can resume operation;

11.2 Under cooling or drying mode, if $T_{inner\ tube}$ <6, the operation frequency of compressor may increase or decrease;

11.2.1 If the unit is stopped because of freeze protection for 6 times successively, it can't resume operation automatically and the malfunction will be displayed continuously, which can only be resumed by pressing ON/OFF button. During operation, if operation time of compressor is over, the times of stop operation because of freeze protection will be cleared. If turn off the unit or switch to fan/heating mode, malfunction and times of malfunction is eliminated immediately.

12. Overload protection

12.1 Overload protection under cooling or drying mode: If $T_{overload\ stop\ operation\ temp.\ in\ cooling}{\le}T_{outdoor\ tube}$，the unit stops operation because of overload in cooling; if $T_{outdoor\ tube}{<}$ $T_{overload\ limit-frequecny\ temp\ in\ cooling}$ and the compressor has stopped for 3min, the complete unit can resume operation.

12.2 Under cooling or drying mode, if $T_{overload\ limit-frequency\ temp.\ in\ cooling}{\le}T_{outdoor\ tube}$，the frequency of compressor may increase or decrease;

12.3 Overload protection under heating mode: If $T_{overload\ stop\ operation\ temp.\ in\ heating}{\le}T_{indoor\ tube}$，the unit stops operation because of overload in heating; if $T_{indoor\ tube}{<}T_{overload\ limit-frequecny\ temp.\ in\ heating}$ and the compressor has stopped for 3min, the complete unit can resume operation.

12.4 Under heating mode. If $T_{overload\ limit-frequecny\ temp.\ in\ heating}{\le}T_{indoor\ tube}$，operation frequency of compressor may increase or decrease;

12.5 If the unit is stopped because of overload protection for 6 times successively, it can't resume operation automatically and the malfunction will be displayed continuously, which can only be resumed by pressing ON/OFF button. During operation, if operation time of compressor is over, the times of stop operation because of overload protection will be cleared. If turn off the unit, fan or switch to fan/heating mode, malfunction and times of malfunction is eliminated immediately.

13. Discharge temperature protection of compressor

13.1 If $T_{stop\ operation\ temperature\ for\ discharge}{\le}T_{discharge}$，the unit stops operation because of discharge protection; If $T_{discharge}{<}T_{limit-frequecny\ temperature\ for\ discharge}$ and compressor has stopped for 3min, the complete unit can resume operation;

13.2 If $T_{normal\ speed\ decrease-frequency\ for\ discharge}{\le}T_{discharge}$，operation frequency of compressor may decrease or increase;

13.3 If the unit is stopped because of discharge protection of compressor for 6 times successively, it can't resume operation automatically, which can only be resumed by pressing ON/OFF button. During operation, if operation time of compressor is over, the times of stop operation because of discharge protection will be cleared. If turn off the unit, or switch to fan/heating mode, malfunction and times of malfunction is eliminated immediately.

14. Current protection function

14.1 If 13A${\le}I_{AC\ current,}$ operation frequency of compressor may decrease or increase;

14.2 If 17A${\le}I_{AC\ current,}$ the system will stop operation because of overcurrent; the complete unit can resume operation only after the compressor stops for 3min;

14.3 If the unit is stopped because of overcurrent for 6 times successively, it can't resume operation automatically, which can only be resumed by pressing ON/OFF button. During operation, if operation time of compressor is over, the times of stop operation because of overcurrent protection will be cleared.

15. Voltage drop protection

During operation of compressor, if the voltage is decreasing quickly, the system may stop operation and voltage drop malfunction is caused. 3min later, the system will be restarted up automatically.

16. Communication malfunction

When it hasn't received the correct signal from indoor unit for 3min, the unit will stop operation because if communication malfunction; If communication malfunction is eliminated and compressor has stopped for 3in, the complete unit can resume operation.

17. OPM module protection

After compressor is turned on, if the overcurrent happens for IPM module, or control voltage is too low because of abnormal causes, IPM will detect module protection signal immediately. Once it detected the module protection signal, the unit will stop operation because of module protection. If module protection is resumed and compressor has stopped for 3min, the complete unit will resume operation.

If the unit is stopped because of module protection for 3 times successively, the unit can resume operation automatically unless press ON/OFF button. If the operation time for compressor is over, the times of stop operation because of module protection will be cleared.

18. Overheat protection of module

18.1 If $T_{normal\ speed\ frequency-decreasing\ temp.\ of\ module}{\le}T_{module,}$ the operation frequency of compressor may decrease or increase;

18.2 If $T_{stop\ operation\ temperature\ of\ module}{\le}T_{module,}$ the syste will stop operation for protection. If T_{module} ${<}T_{frequency-limiting\ temperature\ of\ module}$ and compressor has stopped for 3min, the complete unit will resume operation;

18.3 If the unit is stopped because of overheating of compressor module for 6 times successively, it can't resume operation automatically, which can only be resumed by pressing ON/OFF button. During operation, if operation time of compressor is over, the times of stop operation because of compressor overheating protection will be cleared. If turn off the unit, or switch to fan mode, times of malfunction is eliminated immediately.

19. Overload protection of compressor

19.1 If it detected that the overload switch for compressor is open for 3min successively, the complete unit will stop operation for protection;

19.2 If overload protection is resumed and compressor has stopped for 3min, the complete unit can resume operation;

19.3 If the unit stops operation because of overload protection for compressor for 3times successively, it can't resume operation automatically, which can only be resumed by pressing ON/OFF button. After compressor has operated for 30min, overload protection times for compressor will be eliminated.

Part Ⅱ: Installation and Maintenance

7. Notes for Installation and Maintenance

Safety Precautions:
Important!

Please read the safety precautions carefully before installation and maintenance.
The following contents are very important for installation and maintenance.

Please follow the instructions below.

●The installation or maintenance must accord with the instructions.
●Comply with all national electrical codes and local electrical codes.
●Pay attention to the warnings and cautions in this manual.
●All installation and maintenance shall be performed by distributor or qualified person.
●All electric work must be performed by a licensed technician according to local regulations and the instructions given in this manual.
●Be caution during installation and maintenance. Prohibit incorrect operation to prevent electric shock, casualty and other accidents.

⚠ Warnings

Electrical Safety Precautions:

1. Cut off the power supply of air conditioner before checking and maintenance.
2. The air condition must apply specialized circuit and prohibit share the same circuit with other appliances.
3. The air conditioner should be installed in suitable location and ensure the power plug is touchable.
4. Make sure each wiring terminal is connected firmly during installation and maintenance.
5. Have the unit adequately grounded. The grounding wire can't be used for other purposes.
6. Must apply protective accessories such as protective boards, cable-cross loop and wire clip.
7. The live wire, neutral wire and grounding wire of power supply must be corresponding to the live wire, neutral wire and grounding wire of the air conditioner.
8. The power cord and power connection wires can't be pressed by hard objects.
9. If power cord or connection wire is broken, it must be replaced by a qualified person.

10. If the power cord or connection wire is not long enough, please get the specialized power cord or connection wire from the manufacture or distributor. Prohibit prolong the wire by yourself.
11. For the air conditioner without plug, an air switch must be installed in the circuit. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.
12. Make sure all wires and pipes are connected properly and the valves are opened before energizing.
13. Check if there is electric leakage on the unit body. If yes, please eliminate the electric leakage.
14. Replace the fuse with a new one of the same specification if it is burnt down; don't replace it with a cooper wire or conducting wire.
15. If the unit is to be installed in a humid place, the circuit breaker must be installed.

To ensure safety, please be mindful of the following precautions.

●When installing or relocating the unit, be sure to keep the refrigerant circuit free from air or substances other than the specified refrigerant.
Any presence of air or other foreign substance in the refrigerant circuit will cause system pressure rise or compressor rupture, resulting in injury.
●When installing or moving this unit, do not charge the refrigerant which is not comply with that on the nameplate or unqualified refrigerant.
Otherwise, it may cause abnormal operation, wrong action, mechanical malfunction or even series safety accident.
●When refrigerant needs to be recovered during relocating or repairing the unit, be sure that the unit is running in cooling mode.Then, fully close the valve at high pressure side (liquid valve).About 30-40 seconds later, fully close the valve at low pressure side (gas valve), immediately stop the unit and disconnect power. Please note that the time for refrigerant recovery should not exceed 1 minute.
If refrigerant recovery takes too much time, air may be sucked in and cause pressure rise or compressor rupture, resulting in injury.
●During refrigerant recovery, make sure that liquid valve and gas valve are fully closed and power is disconnected before detaching the connection pipe.
If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.
●When installing the unit, make sure that connection pipe is securely connected before the compressor starts running.
If compressor starts running when stop valve is open and

connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.

●Prohibit installing the unit at the place where there may be leaked corrosive gas or flammable gas.

If there leaked gas around the unit, it may cause explosion and other accidents.

●Do not use extension cords for electrical connections. If the electric wire

is not long enough, please contact a local service center authorized and ask for a proper electric wire.

Poor connections may lead to electric shock or fire.

●Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the wires so that their terminals receive no external stresses. Electric wires with insufficient capacity, wrong wire connections and insecure wire terminals may cause electric shock or fire.

Installation Safety Precautions:

1. Select the installation location according to the requirement of this manual.(See the requirements in installation part)

2. Handle unit transportation with care; the unit should not be carried by only one person if it is more than 20kg.

3. When installing the indoor unit and outdoor unit, a sufficient fixing bolt must be installed; make sure the installation support is firm.

4. Ware safety belt if the height of working is above 2m.

5. Use equipped components or appointed components during installation.

6. Make sure no foreign objects are left in the unit after finishing installation.

Refrigerant Safety Precautions:

1. Avoid contact between refrigerant and fire as it generates poisonous gas; Prohibit prolong the connection pipe by welding.

2. Apply specified refrigerant only. Never have it mixed with any other refrigerant. Never have air remain in the refrigerant line as it may lead to rupture or other hazards.

3. Make sure no refrigerant gas is leaking out when installation is completed.

4. If there is refrigerant leakage, please take sufficient measure to minimize the density of refrigerant.

5. Never touch the refrigerant piping or compressor without wearing glove to avoid scald or frostbite.

Improper installation may lead to fire hazard, explosion, electric shock or injury.

Safety Precautions for Refrigerant

●To realize the function of the air conditioner unit, a special refrigerant circulates in the system. The used refrigerant is the fluoride R32,which is specially cleaned. The refrigerant is flammable and inodorous. Furthermore, it can leads to explosion under certain conditions. But the flammability of the refrigerant is very low. It can be ignited only by fire.

●Compared to common refrigerants, R32 is a nonpolluting refrigerant with no harm to the ozonosphere. The influence upon the greenhouse effect is also lower. R32 has got very good thermodynamic features which lead to a really high energy efficiency. The units therefore need a less filling.

WARNING:

●Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacture. Should repair be necessary,contact your nearest authorized Service Centre. Any repairs carried out by unqualified personnel may be dangerous. The appliance shall be stored in a room without continuously operating ignition sources. (for example:open flames , an operating gas appliance or an operating electric heater.)

●Do not pierce or burn.

●Appliance shall be installed, operated and stored in a room with a floor area larger than 4m (or 6m).

●Appliance filled with flammable gas R32. For repairs, strictly follow manufacturer's instructions only.Be aware that refrigrants not contain odour.

●Read specialist's manual.

Safety Operation of Flammable Refrigerant

Qualification requirement for installation and maintenance man

●All the work men who are engaging in the refrigeration system should bear the valid certification awarded by the authoritative organization and the qualification for dealing with the refrigeration system recognized by this industry. If it needs other technician to maintain and repair the appliance, they should be supervised by the person who bears the qualification for using the flammable refrigerant.

●It can only be repaired by the method suggested by the equipment's manufacturer.

Installation notes

●The air conditioner is not allowed to use in a room that has running fire (such as fire source,working coal gas ware, operating heater).

●It is not allowed to drill hole or burn the connection pipe.

●The air conditioner must be installed in a room that is larger than the minimum room area.

The minimum room area is shown on the nameplate or following table a.

●Leak test is a must after installation.

<div align="center">

table a - Minimum room area(m^2)

</div>

	Charge amount (kg)	≤1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5
Minimum room area(m^2)	floor location	/	14.5	16.8	19.3	22	24.8	27.8	31	34.3	37.8	41.5	45.4	49.4	53.6
	window mounted	/	5.2	6.1	7	7.9	8.9	10	11.2	12.4	13.6	15	16.3	17.8	19.3
	wall mounted	/	1.6	1.9	2.1	2.4	2.8	3.1	3.4	3.8	4.2	4.6	5	5.5	6
	ceiling mounted	/	1.1	1.3	1.4	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.4	3.7	4

Maintenance notes

●Check whether the maintenance area or the room area meet the requirement of the nameplate.

— It's only allowed to be operated in the rooms that meet the requirement of the nameplate.

●Check whether the maintenance area is well-ventilated.

— The continuous ventilation status should be kept during the operation process.

●Check whether there is fire source or potential fire source in the maintenance area.

— The naked flame is prohibited in the maintenance area; and the "no smoking" warning board should be hanged.

●Check whether the appliance mark is in good condition.

— Replace the vague or damaged warning mark.

Welding

●**If you should cut or weld the refrigerant system pipes in the process of maintaining, please follow the steps as below:**

a. **Shut down the unit and cut power supply**

b. **Eliminate the refrigerant**

c. **Vacuuming**

d. **Clean it with N2 gas**

e. **Cutting or welding**

f. **Carry back to the service spot for welding**

●**Make sure that there isn't any naked flame near the outlet of the vacuum pump and it's well-ventilated.**

●**The refrigerant should be recycled into the specialized storage tank.**

Filling the refrigerant

●**Use the refrigerant filling appliances specialized for R32. Make sure that different kinds of refrigerant won't contaminate with each other.**

●**The refrigerant tank should be kept upright at the time of filling refrigerant.**

●**Stick the label on the system after filling is finished (or haven't finished).**

●**Don't overfilling.**

●**After filling is finished, please do the leakage detection before test running; another time of leak detection should be done when it's removed.**

Safety instructions for transportation and storage

●**Please use the flammable gas detector to check before unload and open the container.**

●**No fire source and smoking.**

●**According to the local rules and laws.**

Installation and Maintenance

Main Tools for Installation and Maintenance

1. Level meter, measuring tape	2. Screw driver	3. Impact drill, drill head, electric drill
4. Electroprobe	5. Universal meter	6. Torque wrench, open-end wrench, inner hexagon spanner
7. Electronic leakage detector	8. Vacuum pump	9. Pressure meter
10. Pipe pliers, pipe cutter	11. Pipe expander, pipe bender	12. Soldering appliance, refrigerant container

8. Installation

8.1 Installation Dimension Diagram

Space to the ceiling
At least 15cm

Space to the wall
At least 15cm

Space to the wall
At least 15cm

Space to the obstruction
At least 300cm

Space to the floor
At least 250cm

Space to the obstruction
At least 50cm

Space to the obstruction
At least 30cm

Space to the wall
At least 30cm

Drainage pipe

Space to the obstructio
At least 200cm

Space to the obstruction
At least 50cm

Installation procedures

```
                          ( Start installation )
                                    │
                    ( Preparation before installation )
                                    │
        ┌───────────────────────────┼───────────────────────────┐
( Read the requirements )   ( select installation )   ( Prepare tools )
( for electric connection )  ( location )
                                    │
                    ┌───────────────┴───────────────┐
        ( Select indoor unit )            ( Select outdoor unit )
        ( installation location )         ( installation location )
                    │                                 │
        ( Install wall-mounting )         ( Install the support of outdoor unit )
        ( frame, drill wall holes )       ( (select it according to the actual situation) )
                    │                                 │
        ( Connect pipes of indoor )           ( Fix outdoor unit )
        ( unit and drainage pipe )                    │
                    │                 ( Install drainage joint of outdoor unit )
        ( Connect wires of indoor unit )  ( (only for cooling and heating unit) )
                    │                                 │
        ( Bind up pipes and )                         │
        ( hang the indoor unit )                      │
                    │                                 │
        ( Make the bound pipes pass )                 │
        ( through the wall hole and then )────────────┤
        ( connect outdoor unit )                      │
                                                      │
                            ( Connect pipes of outdoor unit )
                                                      │
                             ( Connect wires of outdoor unit )
                                                      │
                    ( Neaten the pipes )──────────────┘
                            │
            ( Vacuum pumping and leakage detection )
                            │
            ( Check after installation and test operation )
                            │
                    ( Finish installation )
```

Note: this flow is only for reference; please find the more detailed installation steps in this section.

8.2 Installation Parts-checking

No.	Name	No.	Name
1	Indoor unit	8	Sealing gum
2	Outdoor unit	9	Wrapping tape
3	Connection pipe	10	Support of outdoor unit
4	Drainage pipe	11	Fixing screw
5	Wall-mounting frame	12	Drainage plug(cooling and heating unit)
6	Connecting cable(power cord)	13	Owner's manual, remote controller
7	Wall pipe		

⚠ **Note:**
1.Please contact the local agent for installation.
2.Don't use unqualified power cord.

8.3 Selection of Installation Location

1. Basic Requirement:
Installing the unit in the following places may cause
malfunction. If it is unavoidable, please consult the local dealer:
(1) The place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
(2) The place with high-frequency devices (such as welding machine, medical equipment).
(3) The place near coast area.
(4) The place with oil or fumes in the air. in the air.
(5) The place with sulfureted gas.
(6) Other places with special circumstances.
The appliance shall nost be installed in the laundry.

2. Indoor Unit:
(1) There should be no obstruction near air inlet and air outlet.
(2) Select a location where the condensation water can be dispersed easily and won't affect other people.
(3) Select a location which is convenient to connect the outdoor unit and near the power socket.
(4) Select a location which is out of reach for children.
(5) The location should be able to withstand the weight of indoor unit and won't increase noise and vibration.
(6) The appliance must be installed 2.5m above floor.
(7) Don't install the indoor unit right above the electric appliance.
(8) The appliance shall not be installed in the laundry.

3. Outdoor unit:
1.Select a location where the noise and outflow air emitted by the outdoor unit will not affect neighborhood.
2.The location should be well ventilated and dry, in which the outdoor unit won't be exposed directly to sunlight or strong wind.
3.The location should be able to withstand the weight of outdoor unit.
4.Make sure that the installation follows the requirement of installation dimension diagram.
5.Select a location which is out of reach for children and far away from animals or plants.If it is unavoidable, please add fence for safety purpose.

8.4 Requirements for electric connection

1. Safety precaution
(1) Must follow the electric safety regulations when installing the unit.
(2) According to the local safety regulations, use qualified power supply circuit and air switch.
(3) Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring may result in electric shock,fire hazard or malfunction. Please install proper power supply cables before using the air conditioner.

Air-conditioner	Air switch capacity
15/18K	16A
21/24/28K	25A

(4) Properly connect the live wire, neutral wire and grounding wire of power socket.
(5) Be sure to cut off the power supply before proceeding any work related to electricity and safety.
(6) Do not put through the power before finishing installation.
(7) For appliances with type Y attachment,the instructions shall contain the substance of thefollowing.If the supply cord is damaged,it must be replaced by the manufacturer,its service agent or similarly qualified persons in order to avoid a hazard.
(8) The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
9.The appliance shall be installed in accordance with national wiring regulations.
10.Appliance shall be installed, operated and stored in a room with a floor area larger than Xm^2.(Please refer to table "a" in section of " Safety Operation of Inflammable Refrigerant" for Space X.)

Please notice that the unit is filled with flammable gas R32. Inappropriate treatment of the unit involves the risk of severe damages of people and material. Details to this refrigerant are found in chapter "refrigerant".

2. Grounding requirement:
(1) The air conditioner is first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
(2) The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
(3) The grounding resistance should comply with national electric safety regulations.
(4) The appliance must be positioned so that the plug is accessible
(5) An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
(6) Including an air switch with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload. (Caution: please do not use the fuse only for protect the circuit)

8.5 Installation of Indoor Unit

1. Choosing Installation location
Recommend the installation location to the client and then confirm it with the client.

2. Install Wall-mounting Frame
(1) Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.
(2) Drill the screw fixing holes on the wall with impact drill (the specification of drill head should be the same as the plastic expansion particle) and then fill the plastic expansion particles

2. Install Wall-mounting Frame
(1) Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.
(2) Drill the screw fixing holes on the wall with impact drill (the specification of drill head should be the same as the plastic expansion particle) and then fill the plastic expansion particles in the holes.
(3) Fix the wall-mounting frame on the wall with tapping screws (ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

3. Install Wall-mounting Frame
(1) Choose the position of piping hole according to the direction of outlet pipe. The position of piping hole should be a little lower than the wall-mounted frame.(As show in Fig.1)
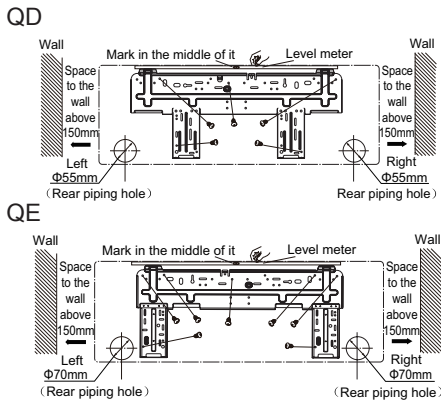
Fig.1

(2) Open a piping hole with the diameter 55/70mm on the selected outlet pipe position.In order to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with the gradient of 5-10°.(As show in Fig.2)
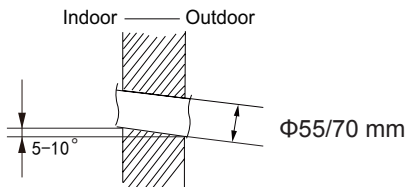
Fig.2

⚠ **Note:**
(1) Pay attention to dust prevention and take relevant safety measures when opening the hole.
(2) The plastic expansion particles are not provided and should be bought locally.

4. Outlet pipe
(1) The pipe can be led out in the direction of right, rear right, left or rear left.(As show in Fig.3)
(2) When selecting leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.(As show in Fig.4)
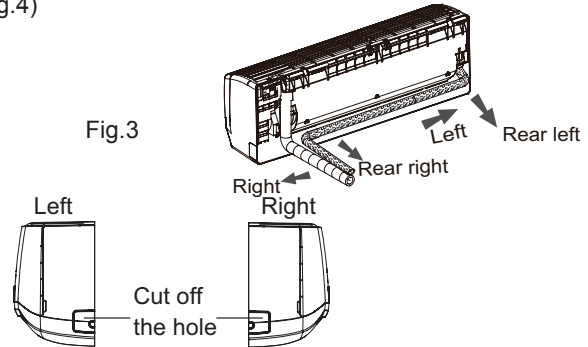
Fig.3

Fig.4

5. Connect the pipe of indoor unit
(1) Aim the pipe joint at the corresponding bellmouth.(As show in Fig.5)
(2) Pretightening the union nut with hand.
(3) Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.(As show in Fig.6)
(4) Wrap the indoor pipe and joint of connection pipe with insulating pipe, and then wrap it with tape.(As show in Fig.7)

Fig.5

Fig.6

Fig.7
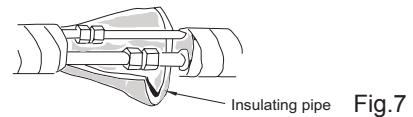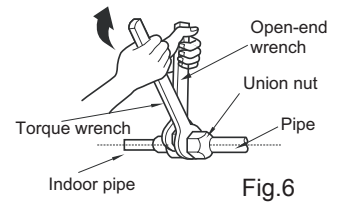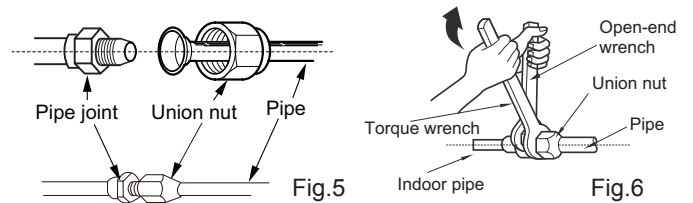
Refer to the following table for wrench moment of force：

Hex nut diameter(mm)	Tightening torque(N.m)
Φ6	15~20
Φ9.52	30~40
Φ12	45~55
Φ16	60~65
Φ19	70~75

6. Install Drain Hose
(1) Connect the drain hose to the outlet pipe of indoor unit.(As show in Fig.8)
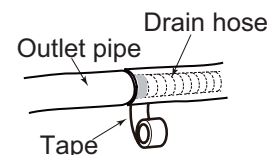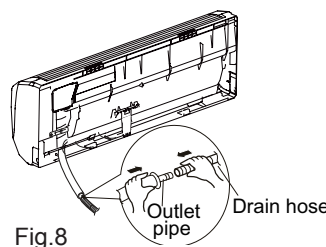(2) Bind the joint with tape.(As show in Fig.9)

Fig.8

Fig.9