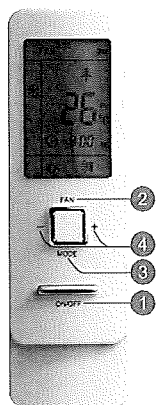


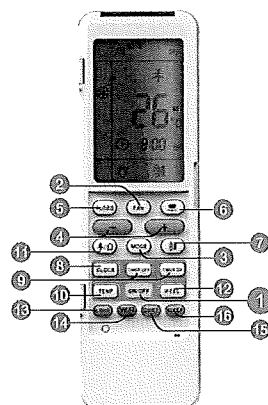
6. Function and Control

6.1 Remote Controller Introduction

Buttons on Remote Controller YAG1FB4



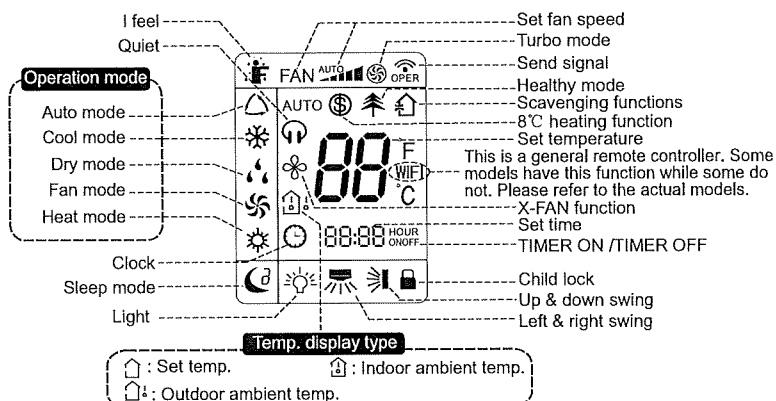
(before opening cover)



(after opening cover)

- ① ON/OFF button
- ② FAN button
- ③ MODE button
- ④ +/- button
- ⑤ TURBO button
- ⑥ button
- ⑦ button
- ⑧ CLOCK button
- ⑨ TIMER ON/ TIMER OFF button
- ⑩ TEMP button
- ⑪ button
- ⑫ I FEEL button
- ⑬ LIGHT button
- ⑭ WiFi button
- ⑮ QUIET button
- ⑯ SLEEP button

Introduction for Icons on Display Screen



Introduction for Buttons on Remote Controller

Note:

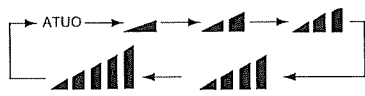
- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model don't have, if press the corresponding button on the remote controller that the unit will keep the original running status.
- After putting through the power, the air conditioner will give out a sound. Operation indicator " " is ON (red indicator, the colour is different for different models). After that, you can operate the air conditioner by using remote controller.
- Under on status, pressing the button on the remote controller, the signal icon " " on the display of remote controller will blink once and the air conditioner will give out a "de" sound, which means the signal has been sent to the air conditioner.
- Under off status, set temperature and clock icon will be displayed on the display of remote controller (If timer on, timer off and light functions are set, the corresponding icons will be displayed on the display of remote controller at the same time); Under on status, the display will show the corresponding set function icons.
- As for the models with functions of WiFi or wired controller, the indoor unit must has been controlled by standard remote controller under auto mode first, and then the function of adjustable temperature under auto mode can be realized by APP or the wired controller.
- This remote controller can adjust the temperature under auto mode. When matching with the unit which is without the function of adjustable temperature under auto mode, the set temperature under auto mode may be invalid, or the displayed set temperature on the unit is not same as that on the remote controller under auto mode.

1. ON/OFF button

Press this button to turn on the unit. Press this button again to turn off the unit.

2. FAN button

Press this button, Auto, Low, Medium-low, Medium, Medium-high, High speed can be circularly selected. After powered on, Auto fan speed is default. Under DRY mode, Low fan speed only can be set up.



Low fan Medium-low fan Medium fan Medium-high fan High fan

Note:

It's Low fan speed under Dry mode.

X-FAN function: Hold fan speed button for 2s in COOL or DRY mode, the icon "☼" is displayed and the indoor fan will continue operation for a few minutes in order to dry the indoor unit even though you have turned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.

This function indicates that moisture on evaporator of indoor unit will be blown after the unit is stopped to avoid mould.

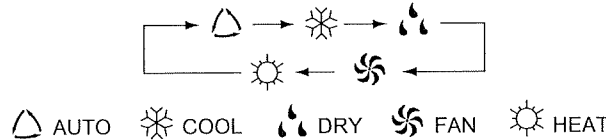
Having set X-FAN function on: After turning off the unit by pressing ON/OFF button indoor fan will continue running for a few minutes. at low speed. In this period, Hold fan speed button for 2 s to stop indoor fan directly.

Having set X-FAN function off: After turning off the unit by pressing ON/OFF button, the complete unit will be off directly.

3. MODE button

Press this button, Auto, Cool, Dry, Fan, Heat mode can be selected circularly. Auto mode is default while power on.

Under Heat mode, the initial value is 28°C(82°F); Under other modes, the initial value is 25°C(77°F).



(only for cooling and heating unit. As for cooling only unit, it won't have any action when it receives the signal of heating operation.)

Note: Under auto mode, set temperature can be adjusted.

4. +/- button

Press "+" or "-" button once increase or decrease set temperature 0.1°C(°F). Holding "+" or "-" button, set temperature on remote controller will change quickly. On releasing button after setting is finished, temperature indicator on indoor unit will change accordingly. When setting TIMER ON, TIMER OFF or CLOCK, press "+" or "-" button to adjust time. (Refer to CLOCK, TIMER ON, TIMER OFF buttons) When setting TIMER ON, TIMER OFF or CLOCK, press "+" or "-" button to adjust time. (Refer to CLOCK, TIMER ON, TIMER OFF buttons)

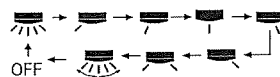
Note: Under auto mode, temperature can be adjusted and displayed.

5. TURBO button

Under Cool or Heat mode, press this button can turn on or turn off the Turbo function. After the Turbo function turned on, the signal of Turbo will display. The signal will be automatically cancelled if changing the mode or fan speed.

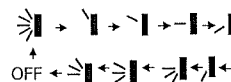
6. Fan swing button

Press this button to set left & right swing angle cycling as below:



7. Guide louver button

Press this button to set swing angle, which circularly changes as below:



This remote controller is universal. If it receives three kinds of following status, the swing angle will remain original.




If guide louver is stopped when it is swinging up and down, it will remain its present position.

☼ indicates guide louver swings back and forth in the five places, as shown in the figure.

8. CLOCK button

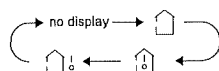
Press this button, the clock can be set up, signal ⌚ blink and display. Within 5 seconds, the value can be adjusted by pressing + or - button, if continuously press this button for 2 seconds above, in every 0.5 seconds, the value on ten place of Minute will be increased 1. During blinking, press the Clock button or Confirm button, signal ⌚ will be constantly displayed and it denotes the setting succeeded. After powered on, 12:00 is defaulted to display and signal ⌚ will be displayed. If there is signal ⌚ be displayed that denotes the current time value is Clock value, otherwise is Timer value.




9. TIMER ON/TIMER OFF button

- Timer On setting: Signal "ON" will blink and display, signal  will conceal, the numerical section will become the timer on setting status. During 5 seconds blink, by pressing + or - button to adjust the time value of numerical section, every press of that button, the value will be increased or decreased 1 minute. Hold pressing + or - button, 2 seconds later, it quickly change, the way of change is: During the initial 2.5 seconds, ten numbers change in the one place of minute, then the one place is constant, ten numbers change in the ten place of minute at 2.5 seconds speed and carry. During 5s blink, press the Timer button, the timer setting succeeds. The Timer On has been set up, repress the timer button, the Timer On will be canceled. Before setting the Timer, please adjust the Clock to the current actual time.
- One press this key to enter into TIMER OFF setup, in which case the TIMER OFF icon will blink. The method of setting is the same as for TIMER ON.

10. TEMP button


Press this button, you can see indoor set temperature, indoor ambient temperature or outdoor ambient temperature on indoor unit's display. The setting on remote controller is selected circularly as below:







When selecting " " with remote controller or no display, temperature indicator on indoor unit displays set temperature; When selecting " " with remote controller, temperature indicator on indoor unit displays indoor ambient temperature; When selecting " " with remote controller, temperature indicator on indoor unit displays outdoor ambient temperature. 3s later it will return to the setting temperature or it depends on the other received signal within 3s.

Attention: When displaying the outdoor ambient, the displaying range is 0-60°C. When it goes beyond the range, it keeps the threshold data (the smallest—0°C and the largest 60°C).

Warm tips: When operating buttons on the cover please make sure the cover is closed completely.

Note: Outdoor temperature display is not available for some models. At that time, indoor unit receives " " signal, while it displays indoor set temperature.

11. / button

Press this button to achieve the on and off of healthy and scavenging functions in operation status. Press this button for the first time to start scavenging function; LCD displays " ". Press the button for the second time to start healthy and scavenging functions simultaneously; LCD displays " " and " ". Press this button for the third time to quit healthy and scavenging functions simultaneously. Press the button for the fourth time to start healthy function; LCD display " ". Press this button again to repeat the operation above.

NOTE: This function is applicable to partial of models.

12. I FEEL button

Press this button once, to turn on the I FEEL function, then the figure of "I FEEL" will be displayed, after every press of other function button, every 200ms to send I FEEL once, after this function started, the remote controller will send temperature to the main unit in every 10 minutes. When repress this button, this function will be turned off.

When I FEEL function is turned on, the remote controller should be put within the area where indoor unit can receive the signal sent by the remote controller.

13. LIGHT button





Press this button at unit On or Off status, Light On and Light Off can be set up. After powered on, Light On is defaulted.

14. WiFi button




Press "WiFi" button simultaneously to turn on or turn off WiFi function. When WiFi function is turned on, the "WiFi" icon will be displayed on remote controller; Under status of unit off, Long press "MODE" and "WiFi" buttons simultaneously for 1s, remote controller will send WiFi reset code and then the WiFi function will be turned on. WiFi function is defaulted OFF after energization of the remote controller.

- This function is only available for some models.

15. QUIET button

Press this button, the Quiet status is under the Auto Quiet mode (display " " and "Auto" signal) and Quiet mode (display " " signal) and Quiet OFF (there is no signal of " " displayed), after powered on, the Quiet OFF is defaulted. Under the Quiet mode (Display " " signal), The Quiet function is only available for some models.

16. SLEEP button

- Press this button, can select Sleep 1 (), Sleep 2 (), Sleep 3 () and cancel the Sleep, circulate between these, after electrified, Sleep Cancel is defaulted.

- Sleep 1 is Sleep mode 1, in Cool, modes: sleep status after run for one hour, the main unit setting temperature will increase 1°C, 2 hours, setting temperature increased 2°C, the unit will run at this setting temperature; In Heat mode: sleep status after run for one hour, the setting temperature will decrease 1°C, 2 hours, setting temperature will decrease 2°C, then the unit will run at this setting temperature.
- Sleep 2 is sleep mode 2, that is air conditioner will run according to the presetting a group of sleep temperature curve.

In Cool mode:

- (1) When setting the initial temperature 16~23°C, after turned on Sleep function, the temperature will be increased 1°C in every hour, after 3°C the temperature will be maintained, after 7 hours, the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;
- (2) When setting the initial temperature 24~27°C, after turned on Sleep function, the temperature will be increased 1°C in every hour, after 2°C the temperature will be maintained, after 7 hours, the temperature will be decreased 1°C, after that the unit will keep on running under

this temperature;

(3) When setting the initial temperature 28~29°C, after turned on Sleep function, the temperature will be increased 1°C in every hour, after 1°C the temperature will be maintained, after 7hours, the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;

(4) When setting the initial temperature 30°C, under this temperature setting, after 7hours, the temperature will be decreased 1°C, after that the unit will keep on running under this temperature;

In Heat mode:

(1) Under the initial presetting temperature 16°C, it will run under this setting temperature all along.

(2) Under the initial presetting temperature 17~20°C, after Sleep function started up, the temperature will decrease 1°C in every hour, after 1°C decreased, this temperature will be maintained.

(3) Under the initial presetting temperature 21~27°C, after Sleep function started up, the temperature will decrease 1°C in every hour, after 2°C decreased, this temperature will be maintained.

(4) Under the initial presetting temperature 28~30°C, after Sleep function started up, the temperature will decrease 1°C in every hour, after 3°C decreased, this temperature will be maintained

●Sleep 3- the sleep curve setting under Sleep mode by DIY:

(1) Under Sleep 3 mode, press "Turbo" button for a long time, remote control enters into user individuation sleep setting status, at this time, the time of remote control will display "1hour", the setting temperature "88" will display the corresponding temperature of last setting sleep curve and blink (The first entering will display according to the initial curve setting value of original factory);

(2) Adjust "+" and "-" button, could change the corresponding setting temperature, after adjusted, press "Turbo" button for confirmation;

(3) At this time, 1hour will be automatically increased at the timer position on the remote control, (that are "2hours" or "3hours" or "8hours"), the place of setting temperature "88" will display the corresponding temperature of last setting sleep curve and blink;

(4) Repeat the above step (2)~(3) operation, until 8hours temperature setting finished, sleep curve setting finished, at this time, the remote controller will resume the original timer display; temperature display will resume to original setting temperature.

Sleep3 - the sleep curve setting under Sleep mode by DIY could be inquired: The user could accord to sleep curve setting method to inquire the presetting sleep curve, enter into user individuation sleep setting status, but do not change the temperature, press "Turbo" button directly for confirmation.

Note: In the above presetting or enquiry procedure, if continuously within 10s, there is no button pressed, the sleep curve setting status will be automatically quit and resume to display the original displaying. In the presetting or enquiry procedure, press "ON/OFF" button, "Mode" button, "Timer" button or "Sleep" button, the sleep curve setting or enquiry status will quit similarly.


About AUTO RUN

When AUTO RUN mode is selected, the setting temperature will not be displayed on the LCD, the unit will be in accordance with the room temp. automatically to select the suitable running method and to make ambient comfortable.

About turbo function



If start this function, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temp. approaches the preset temp. as soon as possible.

About lock

Press + and - buttons simultaneously to lock or unlock the keyboard. If the remote controller is locked, the icon  will be displayed on it, in which case, press any button, the mark will flicker for three times. If the keyboard is unlocked, the mark will disappear.



About swing up and down

(1) Press swing up and down button continuously more than 2s, the main unit will swing back and forth from up to down, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.

(2) Under swing up and down mode, when the status is switched from off to , if press this button again 2s later,  status will switch to off status directly; if press this button again within 2s, the change of swing status will also depend on the circulation sequence stated above.

About swing left and right

(1) Press swing left and right button continuously more than 2s, the main unit will swing back and forth from left to right, and then loosen the button, the unit will stop swinging and present position of guide louver will be kept immediately.

(2) Under swing left and right mode, when the status is switched from off to , if press this button again 2s later,  status will switch to off status directly; if press this button again within 2s, the change of swing status will also depend on the circulation sequence stated above.


About switch between Fahrenheit and Centigrade

Under status of unit off, press MODE and - buttons simultaneously to switch °C and °F.

Combination of "TEMP" and "CLOCK" buttons : About Energy-saving Function

Press "TEMP" and "CLOCK" simultaneously in COOL mode to start energy-saving function. Nixie tube on the remote controller displays "SE". Repeat the operation to quit the function.

Combination of "TEMP" and "CLOCK" buttons : About 8°C Heating Function (This function is only available for some models)

Press "TEMP" and "CLOCK" simultaneously in HEAT mode to start 8°C Heating Function. Nixie tube on the remote controller displays  "and a selected temperature of "8°C" (46°F if Fahrenheit is adopted). Repeat the operation to quit the function.

About Quiet function

When auto quiet function is selected:

(1) Under cooling mode: indoor fan operates at notch 4 speed. 10 minutes later or when indoor ambient temperature $\leq 28^{\circ}\text{C}$, indoor fan will operate at notch 2 speed or quiet mode according to the comparison between indoor ambient temperature and set temperature.

(2) Under heating mode: indoor fan operates at notch 3 speed or quiet mode according to the comparison between indoor ambient temperature and set temperature.

(3) Under dry, fan mode: indoor fan operates at quiet mode.



(4) Under auto mode: the indoor fan operates at the auto quiet mode according to actual cooling, heating or fan mode.

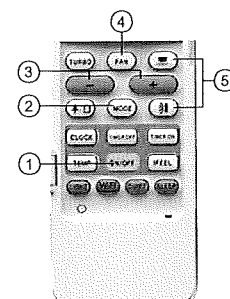
About Sleep function

Under the Fan, Dry and Auto mode, the Sleep function cannot be set up, Select and enter into any kind of Sleep mode, the Quiet function will be attached and started, different Quiet status could be optional and turned off.

Operation Guide

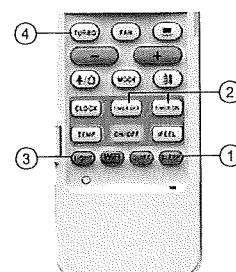
1. General operation

- (1)After powered on, press ON/OFF button, the unit will start to run. (Note: When it is powered on, the guide louver of main unit will close automatically.)
- (2)Press MODE button, select desired running mode.
- (3)Pressing + or - button, to set the desired temperature .
- (4)Pressing FAN button, set fan speed, can select AUTO FAN, LOW, MEDIUM-LOW, MEDIUM, MEDIUM-HIGH and HIGH.
- (5)Pressing  and  button, to select the swing.




2. Optional operation

- (1)Press SLEEP button, to set sleep.
- (2)Press TIMER ON and TIMER OFF button, can set the scheduled timer on or timer off.
- (3)Press LIGHT button, to control the on and off of the displaying part of the unit (This function may be not available for some units).
- (4)Press TURBO button, can realize the ON and OFF of TURBO function.

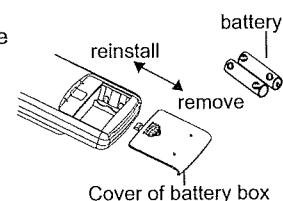


Replacement of Batteries in Remote Controller

1. Press the back side of remote controller marked with , as shown in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "+" polar and "-" polar are correct.
3. Reinstall the cover of battery box.

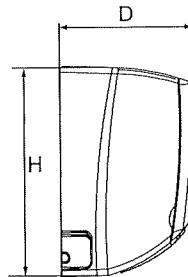
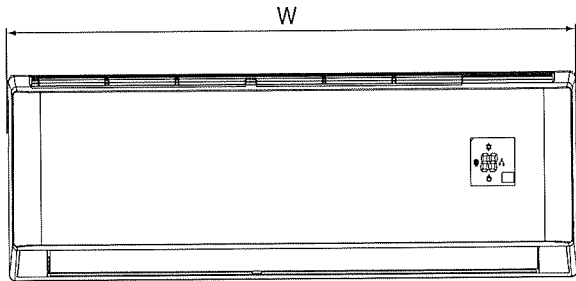
Note:

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.

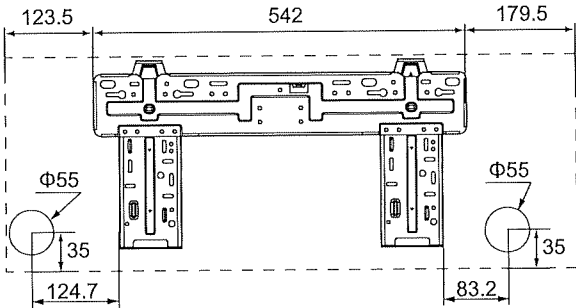


3. Outline Dimension Diagram

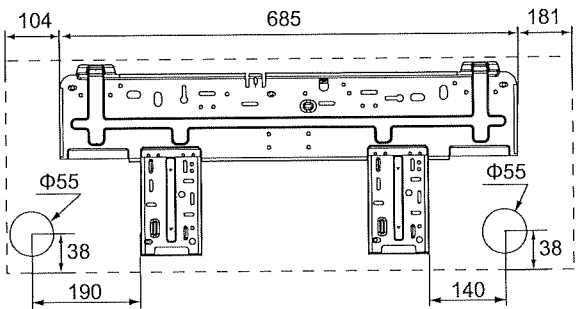
3.1 Indoor Unit



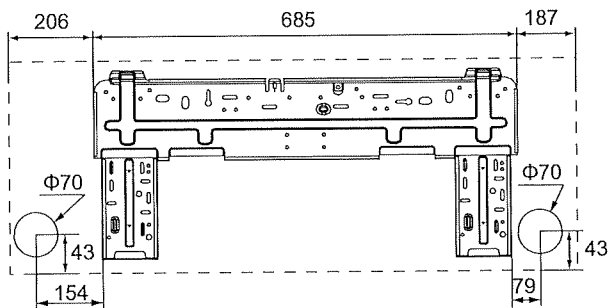
09/12K



18K



21/24/28K

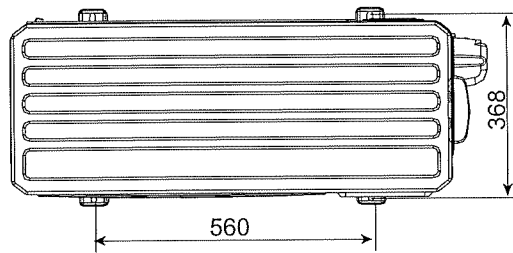
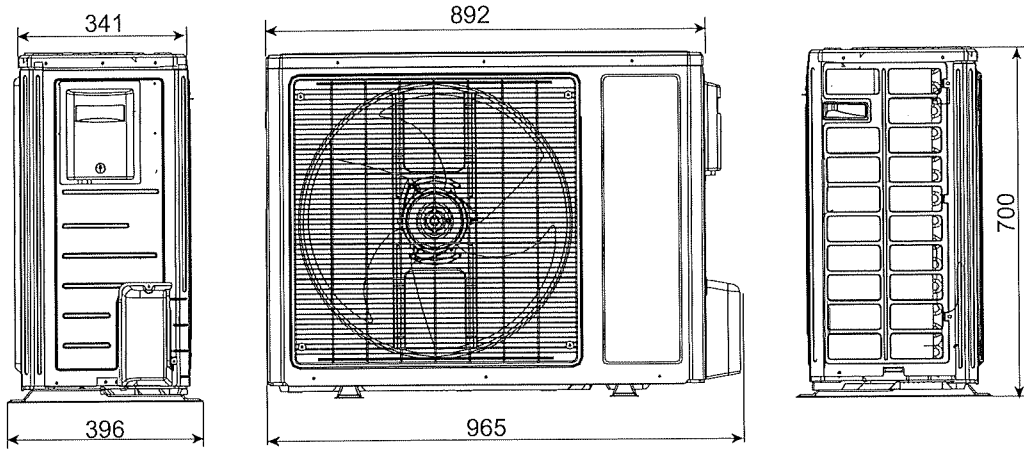


Unit:mm

Model	W	H	D
09/12K	845	596	320
18K	970	300	224
21/24/28K	1078	325	246

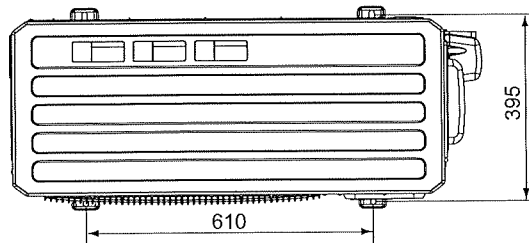
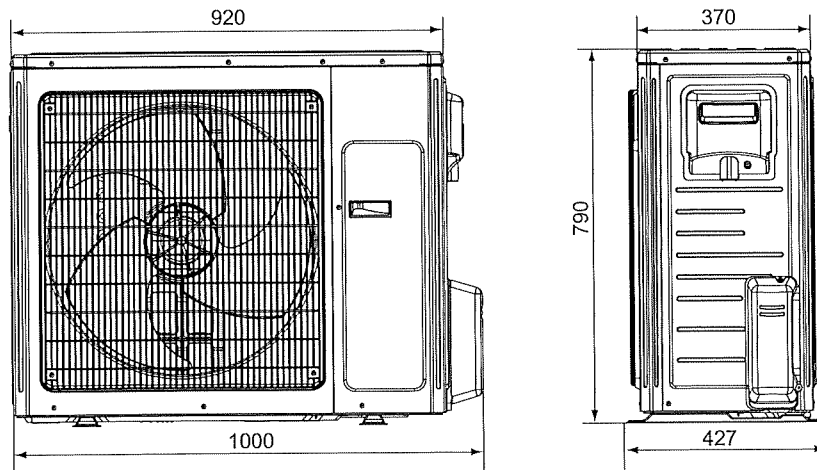
3.2 Outdoor Unit

GWH24QE-K3DNB2H/O GWH21QE-K3DNB2A/O GWH18QD-K3DNB2L/O



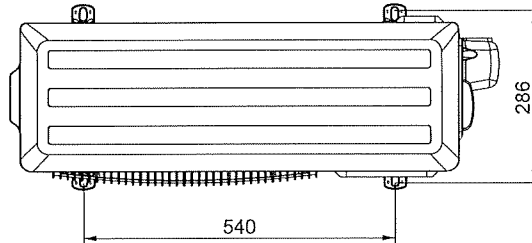
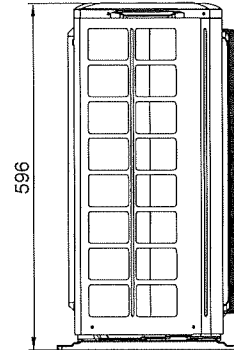
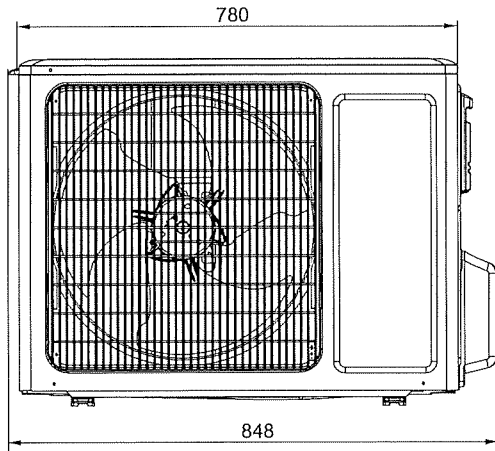
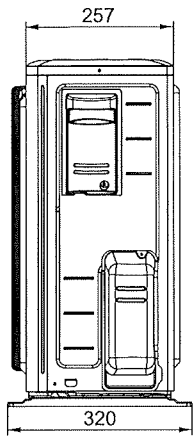
Unit:mm

GWH28QE-K3DNB2H/O



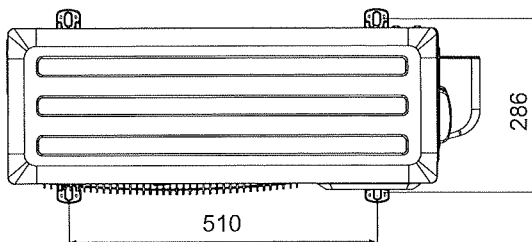
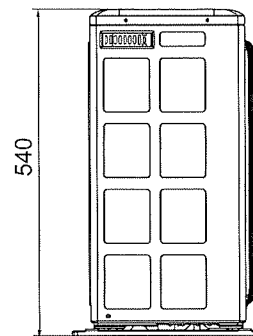
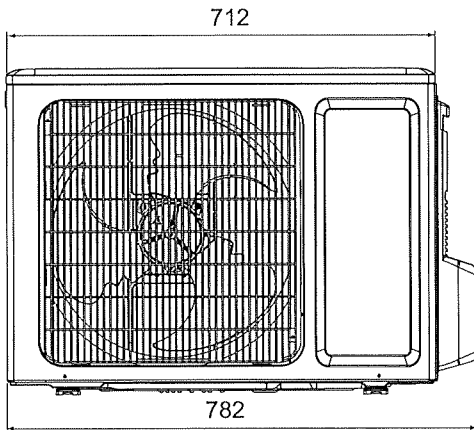
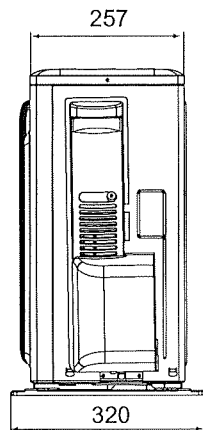
Unit:mm

GWH12QC-K3DNB2D/O



Unit:mm

GWH09QC-K3DNB2A/O



Unit:mm



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 cant 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 cant 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; dont 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.

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 Installing and Relocating the Unit:

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



Warnings

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

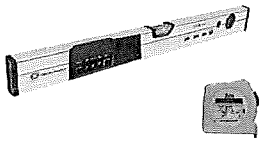
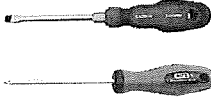
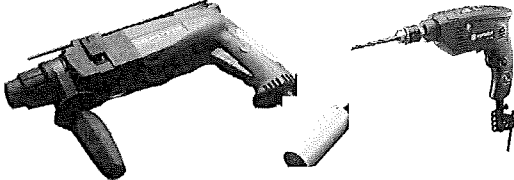


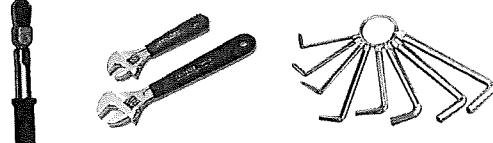

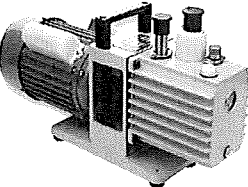
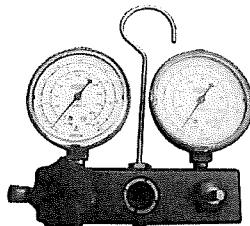
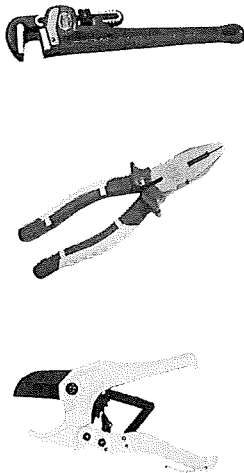
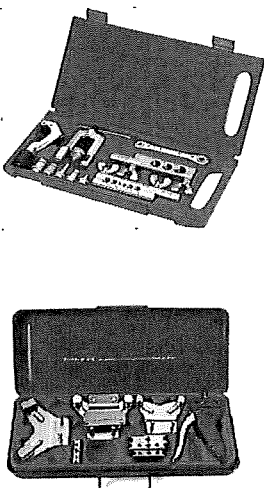
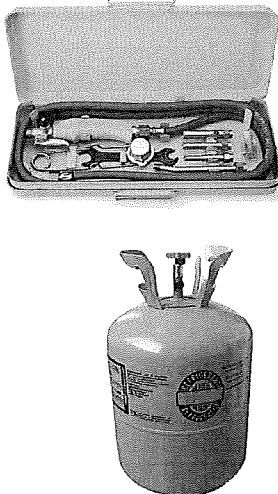
7. Do not use extension cords for electrical connections. If the electric wire is not long enough, please contact a local service center authorized and ask for a proper electric wire.

Poor connections may lead to electric shock or fire.

8. 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.

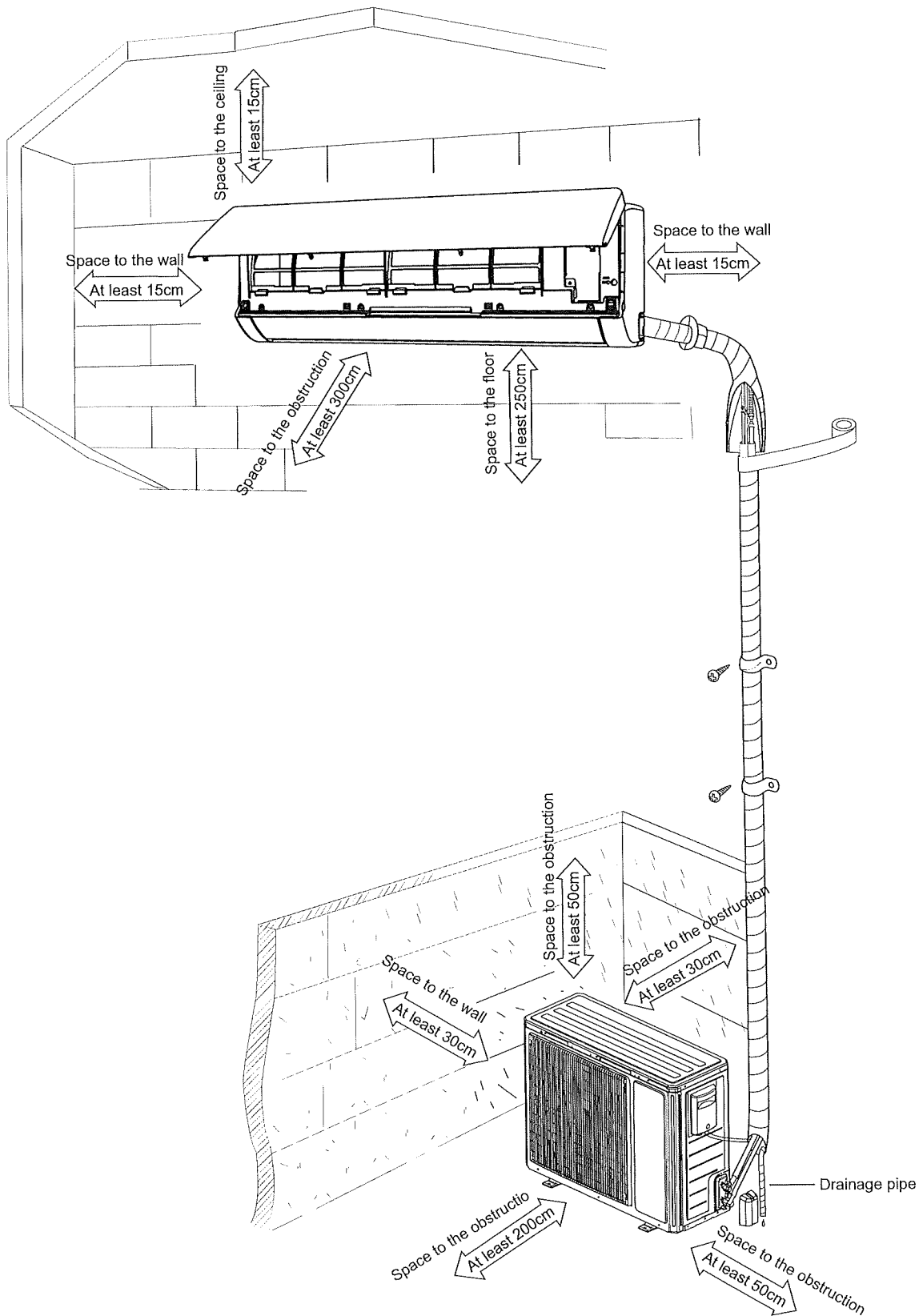
Electric wires with insufficient capacity, wrong wire connections and insecure wire terminals may cause electric shock or fire.

Main Tools for Installation and Maintenance

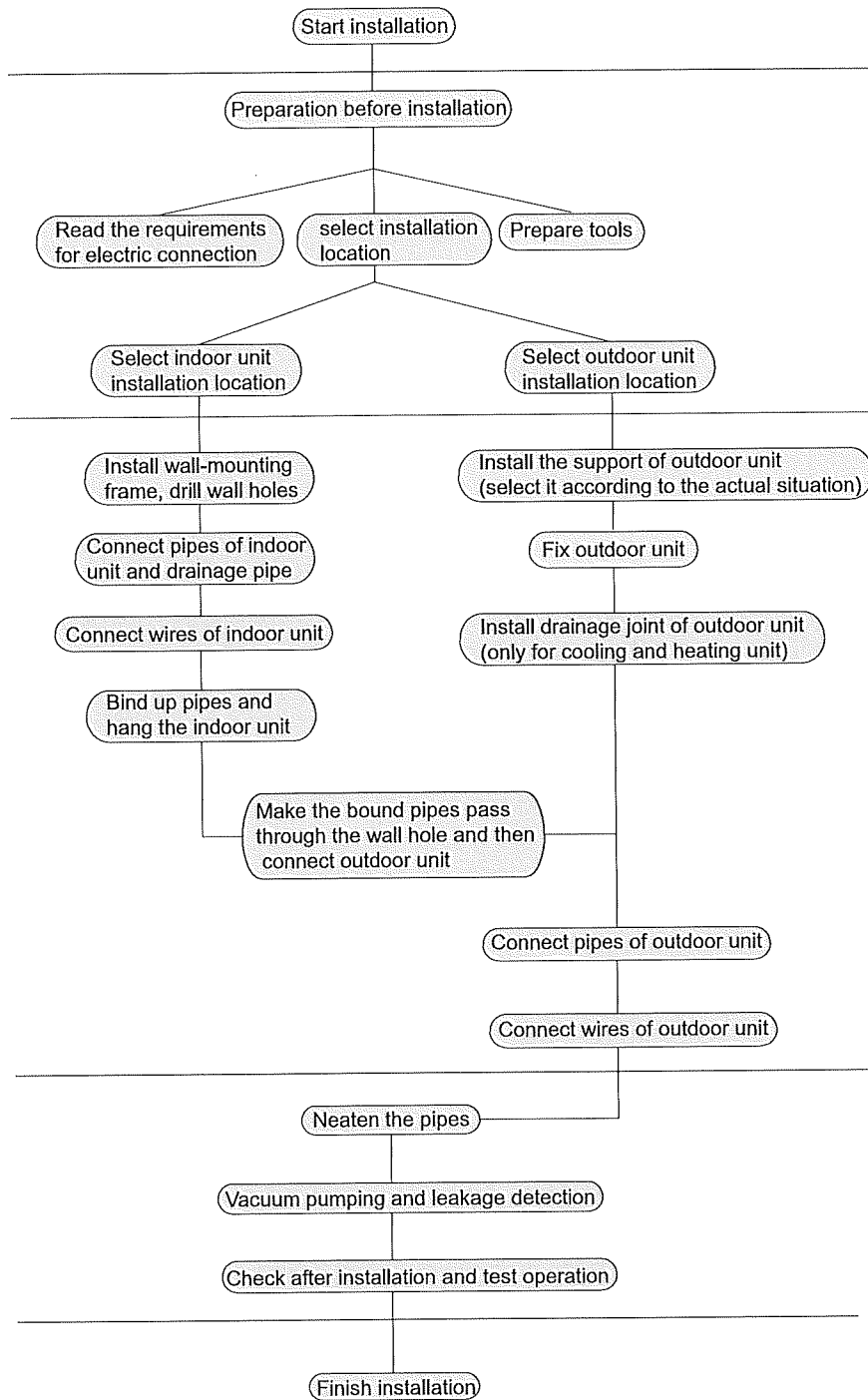
<p>1. Level meter, measuring tape</p> 	<p>2. Screw driver</p> 	<p>3. Impact drill, drill head, electric drill</p> 
<p>4. Electroprobe</p> 	<p>5. Universal meter</p> 	<p>6. Torque wrench, open-end wrench, inner hexagon spanner</p> 
<p>7. Electronic leakage detector</p> 	<p>8. Vacuum pump</p> 	<p>9. Pressure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

8. Installation

8.1 Installation Dimension Diagram



Installation procedures



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	Owners 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.
- (7) The appliance shall not be installed in the laundry.
- (8) It's not allowed to be installed on the unstable or motive base structure (such as truck) or in the corrosive environment (such as chemical factory).

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.
- (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) 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.

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. For models with a power plug, make sure the plug is within reach after installation
- (6) Including an circuit break 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)

Air-conditioner	Circuit break capacity	Number of power cord* Min sectional area
09K	10A	3*1.0mm ²
12、18K	16A	3*1.5mm ²
21、24、28K	25A	3*2.5mm ²

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)

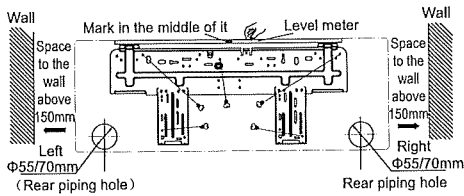


Fig.1

- (2) Open a piping hole with the diameter Φ55/70mm 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)

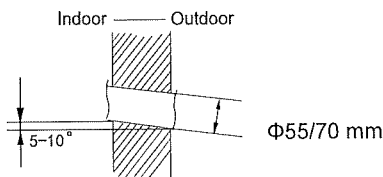


Fig.2

⚠ 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)

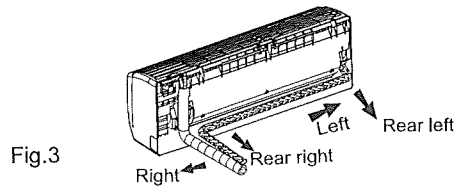


Fig.3

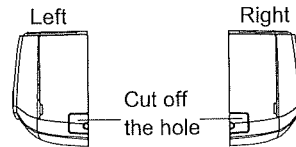


Fig.4

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)

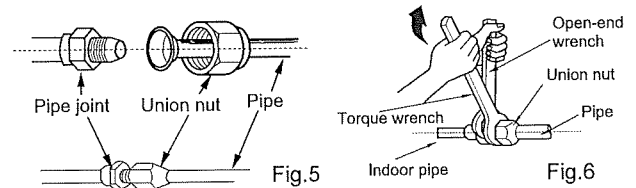


Fig.5

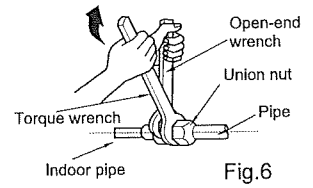


Fig.6

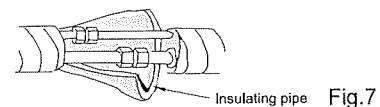


Fig.7

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)

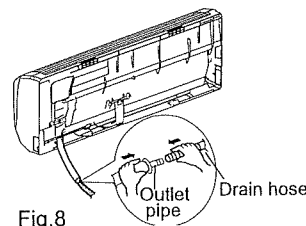


Fig.8

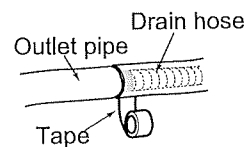
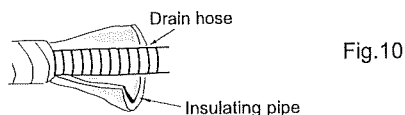


Fig.9

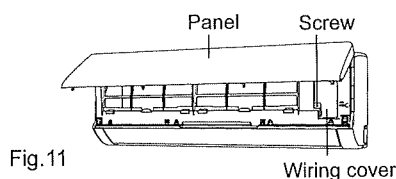
⚠ Note:

- (1) Add insulating pipe in the indoor drain hose in order to prevent condensation.
- (2) The plastic expansion particles are not provided. (As show in Fig.10)

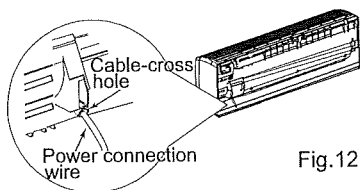


7. Connect Wire of Indoor Unit

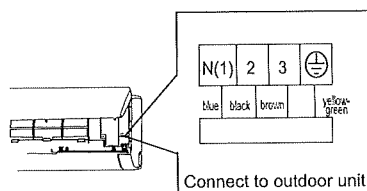
- (1) Open the panel, remove the screw on the wiring cover and then take down the cover.(As show in Fig.11)



- (2) Make the power connection wire go through the cable-cross hole at the back of indoor unit and then pull it out from the front side.(As show in Fig.12)



- (3) Remove the wire clip; connect the power connection wire to the wiring terminal according to the color; tighten the screw and then fix the power connection wire with wire clip.(As show in Fig.13)



Note: The wiring connect is for reference only, please refer to the actual one.

Fig.13

- (4) Put wiring cover back and then tighten the screw.
- (5) Close the panel.

⚠ Note:

- (1) All wires of indoor unit and outdoor unit should be connected by a professional.
- (2) If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
- (3) For the air conditioner with plug, the plug should be reachable after finishing installation.
- (4) For the air conditioner without plug, an air switch must be installed in the line. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

8. Bind up pipe

- (1) Bind up the connection pipe, power cord and drain hose with the band.(As show in Fig.14)
- (2) Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.(As show in Fig.15)
- (3) Bind them evenly.
- (4) The liquid pipe and gas pipe should be bound separately at the end.

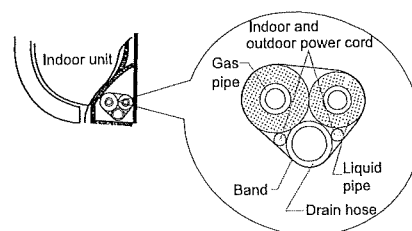


Fig.14

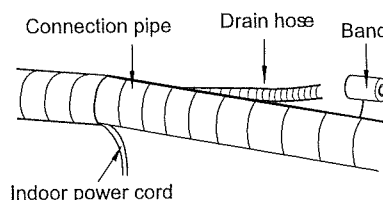


Fig.15

⚠ Note:

- (1) The power cord and control wire cant be crossed or winding.
- (2) The drain hose should be bound at the bottom.

9. Hang the indoor unit

- (1) Put the bound pipes in the wall pipe and then make them pass through the wall hole.
- (2) Hang the indoor unit on the wall-mounting frame.
- (3) Stuff the gap between pipes and wall hole with sealing gum.
- (4) Fix the wall pipe.(As show in Fig.16)
- (5) Check if the indoor unit is installed firmly and closed to the wall.(As show in Fig.17)

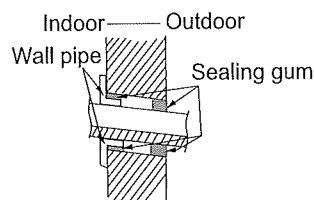


Fig.16

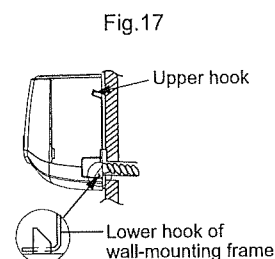


Fig.17

⚠ Note:

Do not bend the drain hose too excessively in order to prevent blocking.

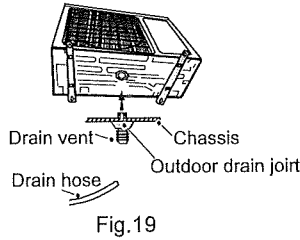
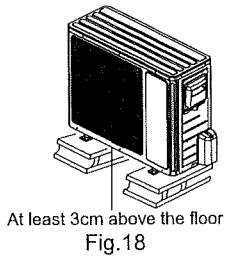
8.6 Installation of Outdoor Unit

1. Fix the support of outdoor unit(select it according to the actual installation situation)

- (1) Select installation location according to the house structure.
- (2) Fix the support of outdoor unit on the selected location with expansion screws.

▲ Note:

- (1) Take sufficient protective measures when installing the outdoor unit.
- (2) Make sure the support can withstand at least four times the unit weight.
- (3) The outdoor unit should be installed at least 3cm above the floor in order to install drain joint.(As show in Fig.18)
- (4) For the unit with cooling capacity of 2300W~5000W, 6 expansion screws are needed; for the unit with cooling capacity of 6000W~8000W, 8 expansion screws are needed; for the unit with cooling capacity of 10000W~16000W, 10 expansion screws are needed.

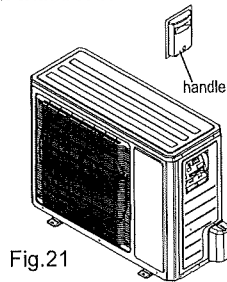
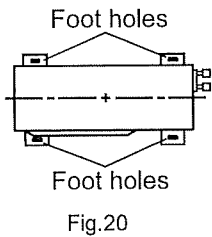


2. Install drain joint(only for cooling and heating unit)

- (1) Connect the outdoor drain joint into the hole on the chassis.
 - (2) Connect the drain hose into the drain vent.
- (As show in Fig.19)

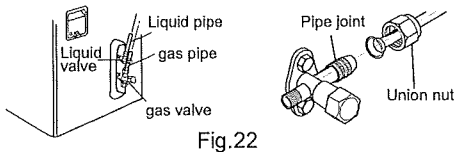
3. Fix outdoor unit

- (1) Place the outdoor unit on the support.
 - (2) Fix the foot holes of outdoor unit with bolts.
- (As show in Fig.20)



4. Connect Indoor and Outdoor Pipes

- (1) Remove the screw on the right handle of outdoor unit and then remove the handle.(As show in Fig.21)
- (2) Remove the screw cap of valve and aim the pipe joint at the bellmouth of pipe.(As show in Fig.22)



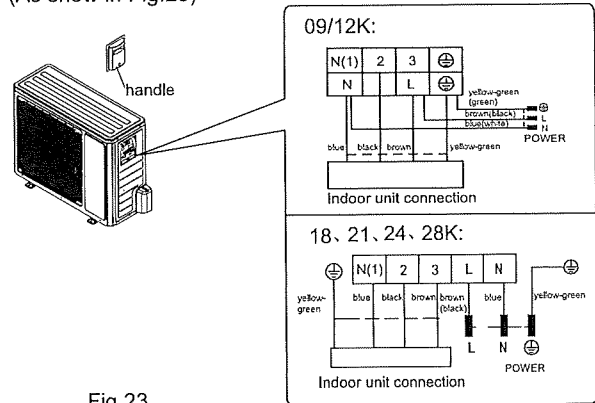
- (3) Pretightening the union nut with hand.
- (4) Tighten the union nut with torque wrench .

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

5. Connect outdoor electric wire

- (1) Remove the wire clip; connect the power connection wire to the wiring terminal according to the color; fix them with screws.
- (As show in Fig.23)



Note: the wiring connect is for reference only, please refer to the actual one.

- (2) Fix the power connection wire with wire clip .

▲ Note:

- (1) After tightening the screw, pull the power cord slightly to check if it is firm.
- (2) Never cut the power connection wire to prolong or shorten the distance.

6. Neaten the pipes

- (1) The pipes should be placed along the wall, bent reasonably and hidden possibly. Min. semidiameter of bending the pipe is 10cm.
- (2) If the outdoor unit is higher than the wall hole, you must set a U-shaped curve in the pipe before pipe goes into the room, in order to prevent rain from getting into the room.(As show in Fig.24)

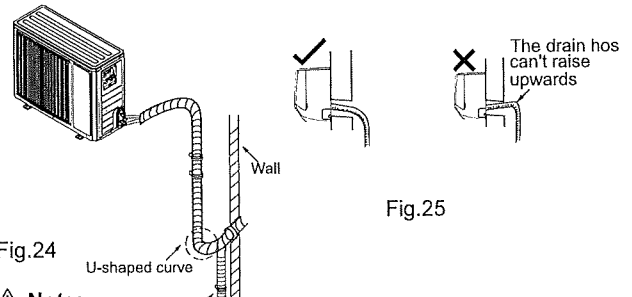


Fig.24

Fig.25

▲ Note:

- (1) The through-wall height of drain hose shouldnt be higher than the outlet pipe hole of indoor unit.(As show in Fig.25)
- (2) Slant the drain hose slightly downwards. The drain hose cant be curved, raised and fluctuant, etc.(As show in Fig.26)

(3) The water outlet can't be placed in water in order to drain smoothly.(As show in Fig.27)

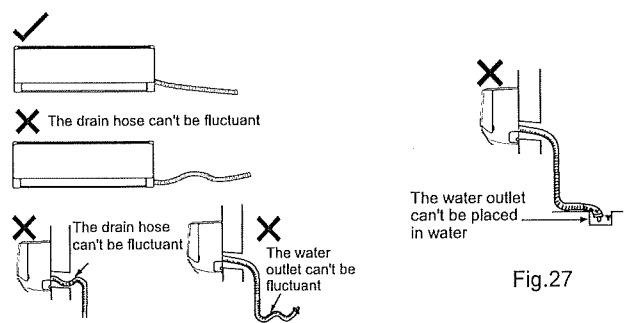


Fig.26

Fig.27

8.7 Vacuum Pumping and Leak Detection

1. Use vacuum pump

- (1) Remove the valve caps on the liquid valve and gas valve and the nut of refrigerant charging vent.
- (2) Connect the charging hose of piezometer to the refrigerant charging vent of gas valve and then connect the other charging hose to the vacuum pump.
- (3) Open the piezometer completely and operate for 10-15min to check if the pressure of piezometer remains in -0.1MPa .
- (4) Close the vacuum pump and maintain this status for 1-2min to check if the pressure of piezometer remains in -0.1MPa . If the pressure decreases, there may be leakage.
- (5) Remove the piezometer, open the valve core of liquid valve and gas valve completely with inner hexagon spanner.
- (6) Tighten the screw caps of valves and refrigerant charging vent.(As show in Fig.28)

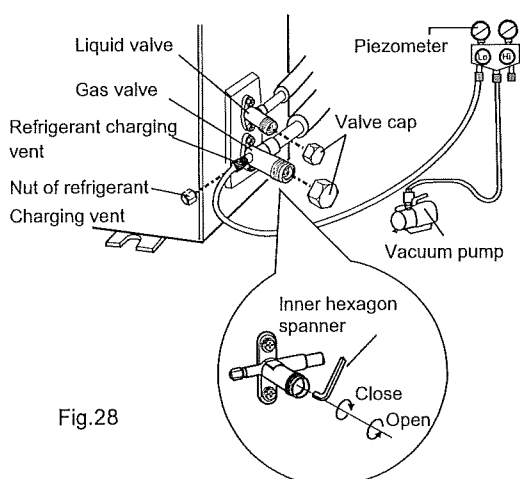


Fig.28

2. Leakage detection

- (1) With leakage detector:
Check if there is leakage with leakage detector.
- (2) With soap water:
If leakage detector is not available, please use soap water for leakage detection. Apply soap water at the suspected position and keep the soap water for more than 3min. If there are air bubbles coming out of this position, theres a leakage.

8.8 Check after Installation and Test Operation

1. Check after installation

Check according to the following requirement after finishing installation.

No.	Items to be checked	Possible malfunction
1	Has the unit been installed firmly?	The unit may drop, shake or emit noise.
2	Have you done the refrigerant leakage test?	It may cause insufficient cooling (heating) capacity.
3	Is heat insulation of pipeline sufficient?	It may cause condensation and water dripping.
4	Is water drained well?	It may cause condensation and water dripping.
5	Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damage the parts.
6	Is electric wiring and pipeline installed correctly?	It may cause malfunction or damage the parts.
7	Is the unit grounded securely?	It may cause electric leakage.
8	Does the power cord follow the specification?	It may cause malfunction or damage the parts.
9	Is there any obstruction in air inlet and air outlet?	It may cause insufficient cooling (heating) capacity.
10	The dust and sundries caused during installation are removed?	It may cause malfunction or damaging the parts.
11	The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.
12	Is the inlet and outlet of piping hole been covered?	It may cause insufficient cooling (heating) capacity or waster eletricity.

2. Test operation

- (1) Preparation of test operation
 - The client approves the air conditioner installation.
 - Specify the important notes for air conditioner to the client.
- (2) Method of test operation
 - Put through the power, press ON/OFF button on the remote controller to start operation.
 - Press MODE button to select AUTO, COOL, DRY, FAN and HEAT to check whether the operation is normal or not.
 - If the ambient temperature is lower than 16°C , the air conditioner cant start cooling.