



## OWNER'S MANUAL

GWC09MB-D3DN \*\*\*\*\*K  
GWC12MB-D3DN \*\*\*\*\*K  
GWC18MC-D3DN \*\*\*\*\*K  
GWC24MD-D3DN \*\*\*\*\*K  
GWH09MB-D3DN \*\*\*\*\*K  
GWH12MB-D3DN \*\*\*\*\*K  
GWH18MC-D3DN \*\*\*\*\*K  
GWH24MD-D3DN \*\*\*\*\*K

Thank you for choosing our Air Conditioner. Please read this owner's manual carefully before operating the unit and keep it for future reference.



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This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.



**DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



**CAUTION**

Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

**NOTICE**

Indicates important but not hazard-related information, used to indicate risk of property damage.



Indicates a hazard and it is assigned to the signal words DANGER, WARNING or CAUTION.

## Precautions



# WARNING

## Operation and Maintenance

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children.
- Do not connect air conditioner to multi-purpose socket. Otherwise, it may cause fire hazard.
- Do disconnect power supply when cleaning air conditioner. Otherwise, it may cause electric shock.
- If the power supply wire is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not wash the air conditioner with water to avoid electric shock.
- Do not spray water on indoor unit. It may cause electric shock or malfunction.
- After removing the filter, do not touch fins to avoid injury.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.

## Precautions



### Operation and Maintenance

- Maintenance must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.
- Do not repair air conditioner by yourself. It may cause electric shock or damage. Please contact dealer when you need to repair air conditioner.
- Do not extend fingers or objects into air inlet or air outlet. It may cause personal injury or damage.
- Do not block air outlet or air inlet. It may cause malfunction.
- Do not spill water on the remote control, otherwise the remote control may no longer operate.
- When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.
  - There's abnormal sound during operation.
  - Circuit break trips off frequently.
  - Air conditioner gives off burning smell.
  - Indoor unit is leaking.
- If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock or fire hazard.
- When turning on or turning off the unit by emergency operation switch, please press this switch with an insulating object other than metal.
- Do not step on top panel of outdoor unit, or put heavy objects. It may cause damage or personal injury.

## Precautions



# WARNING

## Attachment

- Installation must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.
- Must follow the electric safety regulations when installing the unit.
- According to the local safety regulations, use qualified power supply circuit and circuit break.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- Air Conditioner should be properly grounded. Incorrect grounding may cause electric shock.
- Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring may cause malfunction of the unit, electric shock or fire hazard.
- Properly connect the live wire, neutral wire and grounding wire.
- Be sure to cut off the power supply before proceeding any work related to electricity and safety.

## Precautions



# WARNING

- Do not put through the power before finishing installation.
- If the power supply wire is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
- The appliance shall be installed in accordance with national wiring regulations.
- Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.
- The air conditioner is a first class electric appliance. It must be properly grounded with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
- The yellow-green wire in the the air conditioner is grounding wire, which can't be used for other purposes.
- The grounding resistance should comply with national electric safety regulations.
- All wires of indoor unit and outdoor unit should be connected by a professional.
- If the length of power connection wire is insufficient, please contact the supplier for a new one. Do not extend the wire yourself.



## Precautions

**WARNING**

- If you need to relocate the air conditioner to another place, only a qualified person can perform the work. Otherwise, it may cause personal injury or damage.
- Select a location which is out of reach for children and far away from animals or plants. If it is unavoidable, please add a fence around the outdoor unit for safety purpose.
- The indoor unit should be installed close to the wall.
- Instructions for installation and use of this product are provided by the manufacturer.

**Working temperature range**

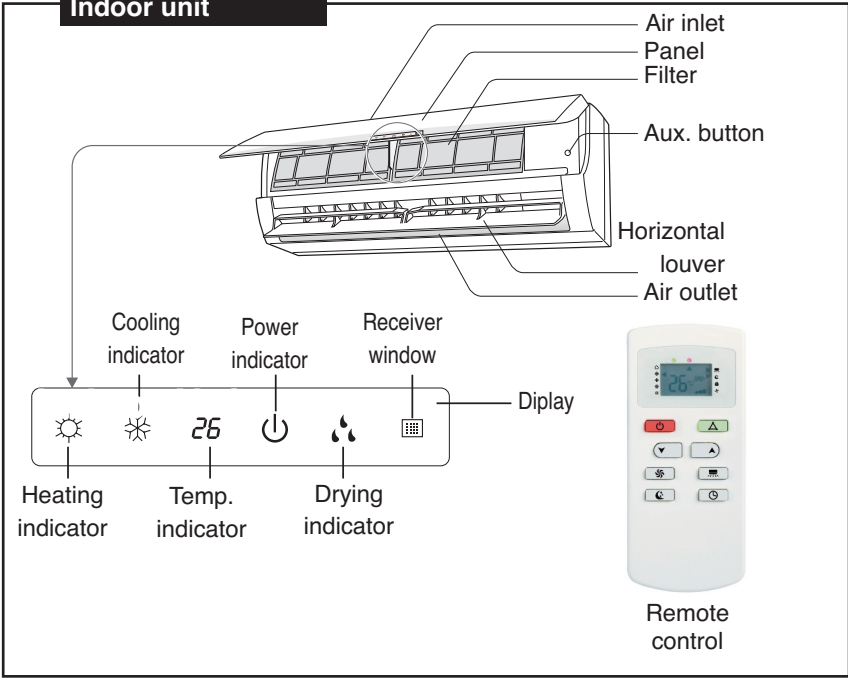
	Indoor side DB/WB(°C )	Outdoor side DB/WB(°C )
Maximum cooling	32/23	43/26
Maximum cooling	27/-	24/18

**NOTICE :**

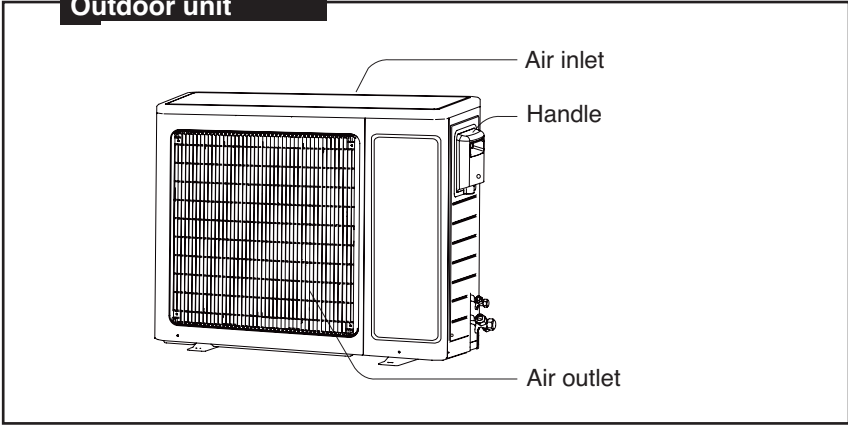
- The operating temperature range (outdoor temperature) for cooling only unit is 18 (°C) ~43 (°C) ; for heat pump unit is -7 (°C) ~ 43 (°C)

**Parts name**

**Indoor unit**



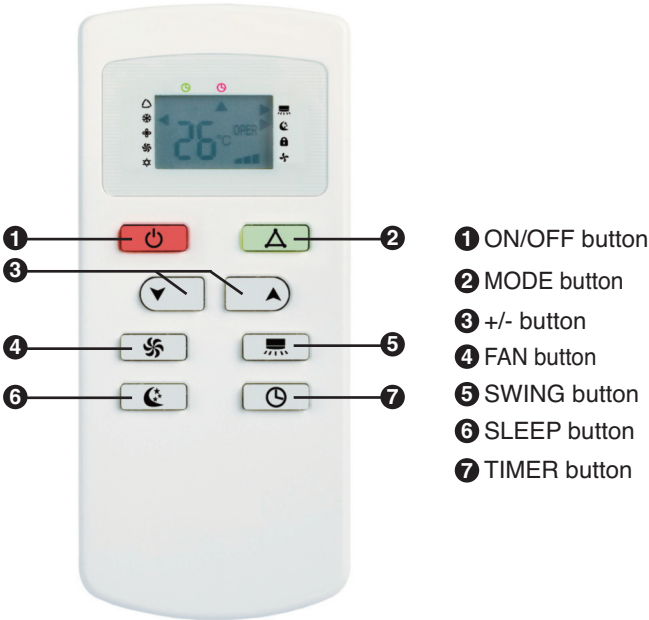
**Outdoor unit**



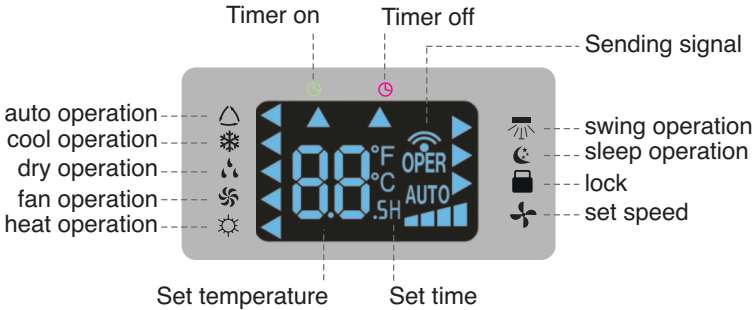
**NOTICE :**

Actual product may be different from above graphics, please refer to actual products.

Buttons on remote controller




Introduction for icons on display screen



## Introduction for buttons on remote controller

### NOTES :

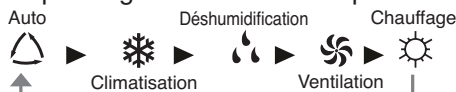
- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model doesn't have, if press the corresponding button on the remote controller that the unit will keep the original running status.
- When power is connected(stand by condition), you can operate the air conditioner through the remote controller.
- When unit is on, each time you press the button on remote controller, the sending signal icon "  "on the display of remote controller will blink once. If the air conditioner gives out a beep sound, it means the signal has been sent.
- When unit is off, set temperature will be displayed on the remote controller (If the light of indoor unit display is turned on, the corresponding icon will be displayed); When unit is on, it will display the icon of the on-going function.













### 1 ON/OFF button

Press this button to turn unit on/off.







### 2 MODE button

Pressing this button once can select your required mode circularly as below (the corresponding icon "◀" will be lit up after the mode is selected):







- When selecting  (auto mode), air conditioner will operate automatically according to ambient temperature. Set temperature can't be adjusted and won't be displayed either. Press  (FAN) button to adjust fan speed.
- When selecting  (cool mode), air conditioner will operate under cool mode. Then press  or  button to adjust set temperature. Press FAN button to adjust fan speed.
- When selecting  dry mode, air conditioner will operate at low fan speed under dry mode. In dry mode, fan speed can't be adjusted.
- When selecting  fan mode, air conditioner will operate in fan mode only. Then press  FAN button to adjust fan speed.
- When selecting heat mode, air conditioner will operate under heat mode. Then press  or  button to adjust set temperature. Press  FAN button to adjust fan speed. (Cooling only unit can't receive heating mode signal. If set  HEAT mode by remote controller, press ON/OFF button can't turn on the air conditioner.)

### 3 ▲ / ▼ MODE button

- Pressing  or  button once will increase or decrease set temperature by 1°F(°C). Hold  or  button for 2s, set temperature on remote control will change quickly. Release the button after your required set temperature is reached.
- When setting Timer On or Timer Off, press  or  button to adjust the time. (SeeTIMER Button for setting details)

## Introduction for buttons on remote controller

### 4 FAN button

Pressing this button can select fan speed circularly as: AUTO, SPEED 1  SPEED 2  SPEED 3  SPEED 4 



#### Note :

- Under Auto speed, air conditioner will select proper fan speed automatically according to ambient temperature.
- Fan speed can't be adjusted under Dry mode.

### 5 SWING button

Press this button to turn on up&down air swing.

### 6 SLEEP button

Under Cool, Heat and Dry mode, press this button to turn on Sleep function. Press this button to cancel Sleep function. Under Fan and Auto mode, this function is unavailable.

### 7 SLEEP button

- When unit is on, press this button to set Timer Off. T-OFF and H icon will be blinking. Within 5s, press + or - button to adjust the time for Timer Off. Pressing + or - button once will increase or decrease the time by 0.5h. Hold + or - button for 2s, time will change quickly. Release the button after your required set time is reached. Then press TIMER button to confirm it. T-OFF and H icon will stop blinking.
- When unit is off, press this button to set Timer On. T-ON and H icon will be blinking. Within 5s, press + or - button to adjust the time for Timer On. Pressing + or - button once will increase or decrease the time by 0.5h. Hold + or - button for 2s, time will change quickly. Release the button after your required set time is reached. Then press TIMER button to confirm it. T-ON and H icon will stop blinking.
- Cancel Timer On/Off: If Timer function is set up, press TIMER button once to review the remaining time. Within 5s, press TIMER button again to cancel this function.

## Introduction for buttons on remote controller

### Note :

- Range of time setting is: 0.5~24h
- The interval between two motions can't exceed 5s, otherwise the remote controller will exit setting status.

## Function introduction for combination buttons

### Child lock function

Press "+" and "-" buttons simultaneously can turn on or turn off child lock function. When child lock function is started up, LOCK indicator on remote controller is ON. If you operate the remote controller, remote controller won't send signal.


### Temperature display switchover function

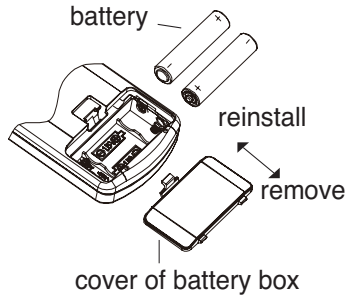
Under OFF status, press "-" button and "MODE" button simultaneously can switch between °C and °F.

### Operation guide

1. After putting through the power, press "ON/OFF" button on remote control to turn on the air conditioner.
2. Press "MODE" button to select your required mode: AUTO, COOL, DRY, FAN, HEAT.
3. Press "+" or "-" button to set your required temperature. (Temperature can't be adjusted under auto mode).
4. Press "FAN" button to set your required fan speed: auto, low, medium and high speed.
5. Press "SWING" button to select fan blowing angle.

## Replacement of batteries in remote controller

1. Press the back side of remote controller on the spot marked with "", and then push out the cover of battery box along the arrow direction.
2. Replace two No.7 (AAA 1.5V) dry batteries and make sure the positions of + and- polar are correct.
3. Reinstall the cover of battery box.



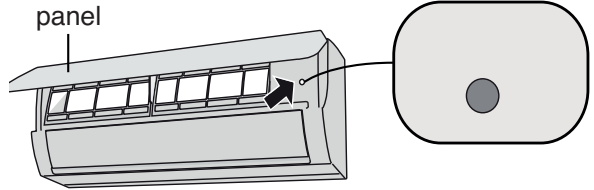
### NOTICE

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. 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.

## Emergency operation

If the remote control is lost or damaged, please use auxiliary button to turn on or turn off the air conditioner. As shown in the figure, open the panel, press the auxiliary button to turn on or turn off the air conditioner. When the air conditioner is turned on, it will operate under auto mode.



### WARNING

Use insulated object to press the auto button

## Clean and Maintenance



### WARNING

- Turn off the air conditioner and disconnect the power before cleaning the unit to avoid electric shock.
- Do not wash the air conditioner with water to avoid electric shock.
- Do not use volatile liquid to clean the air conditioner.

## Clean surface of indoor unit

When the surface of indoor unit is dirty, it is recommended to use a soft dry cloth or lightly moistened with water to wipe it.

### NOTICE:

- Do not remove the panel when cleaning it.

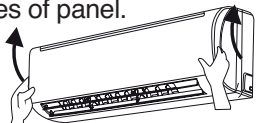


## Clean and maintenance

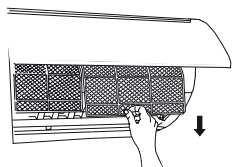
## Clean filter

**1 Open panel**

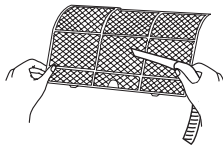
Open the panel into a certain angle (less than  $60^\circ$ , do not force the panel) along the arrow direction from the two sides of panel.

**2 Remove filter**

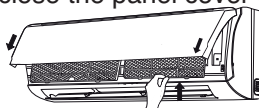
Remove the filter as indicated.

**3 Clean filter**

- Use a vacuum or water to clean the filter.
- When the filter is very dirty, use water (below  $45^\circ\text{C}$ ) to clean it, and then put it in a shady and cool place to dry.

**4 Install filter**

Install the filter and then close the panel cover tightly.

**WARNING**

- The filter should be cleaned every three months. If the unit operates in a highly dusty environment, clean frequency should be increased.
- After removing the filter, do not touch fins to avoid injury.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.

## Clean and Maintenance

1. Check that air inlets and air outlets are not blocked.
2. Check if circuit breaker and connection, are in good condition.
3. Check that filters are clean.
4. Check that drainage pipe is not damaged.

1. Disconnect power supply.
2. Clean filters and indoor unit's panel.
3. Check whether mounting bracket for outdoor unit is damaged or corroded.  
If yes, please contact dealer.

### Notice for recovery

1. Many packing materials are recyclable.  
Please dispose of them in appropriate recycling bin.
2. If you want to get rid of the air conditioner, please contact local dealer or recycling service center for the correct disposal method.

**Malfunction analysis**

Please check below items before asking for maintenance. If the malfunction still can't be eliminated, please contact local dealer or qualified professionals.

Problem	Check items	Solution
Indoor unit can't receive remote control signal or remote control has no power.	Whether it's interfered severely (such as static electricity, stable voltage)?	Cut the power supply off and put the power back after about 3min, and then turn on the unit again.
	Whether remote control is within the signal receiving range?	Signal receiving range is 8m.
	Whether there are obstacles?	Remove obstacles.
	Whether remote control is pointing at the receiving window?	Select proper angle and point the remote control at the receiving window on indoor unit.
	Is the remote control display fuzzy or there is no display at all ?	Check the batteries. If the battery charge level is too low, please replace them.
	No display when operating the remote control?	Check whether remote control appears to be damaged. If yes, replace it.
	Fluorescent lamp in the room?	Bring the remote control close to the indoor unit.  Turn off the fluorescent lamp and then try it again.
No air flow from indoor unit	Are air inlet or air outlet of indoor unit blocked?	Eliminate obstacles.
	Under heating mode, indoor temperature reached set temperature?	After reaching set temperature, indoor unit will stop blowing out air.
	Has the heating mode been just turned on ?	In heating mode, in order to prevent blowing out cold air, indoor unit will start several minutes after the unit has been turned on, which is normal.

## Malfunction analysis

Problem	Check items	Solution
Air conditioner can't operate	Power failure?	Wait until power resumes.
	Air switch trips off ?	Ask professional to replace air switch.
	Wiring has malfunction?	Ask professional to replace it.
	Has the unit been turned on immediately after being stopped ?	Wait for 3min, and then turn on the unit again.
	Is the function setting on remote control correct ?	Reset the function.

Mist is emitted from indoor unit's air outlet	Are indoor temperature and humidity level high ?	This is because indoor air is cooled rapidly. After a while, indoor temperature and humidity level will decrease and mist will disappear.
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Set temperature can't be adjusted	Unit is operating under auto mode?	Temperature can't be adjusted under auto mode. Please switch the operation mode if you need to adjust temperature.
	Your required temperature exceeds the set temperature range?	Set temperature range: 15°C -30 °C .

Air cooling (heating) is not efficient	Voltage is too low?	Wait until the voltage resumes to normal.
	Filter is dirty?	Clean the filter.
	Set temperature is in proper range?	Adjust temperature to proper range.
	Doors and windows are open?	Close doors and windows.

**Malfunction analysis**

Problem	Check items	Solution
Odours are emitted	Either there is an odour source in the room, such as furniture or cigarette, or the filter is dirty.	Eliminate the source of the odour. Clean the filter.
Air conditioner suddenly turns on and operates normally	There may be interference, such as thunder, wireless devices, etc.	Cut the power supply off and put the power back and then turn on the unit again.
Outdoor unit emits vapor	Heating mode is turned on?	During defrosting under heating mode, it may produce vapor, which is a normal.
Water flowing noise	Has the air conditioner just been turned on and off ?	The noise is the sound of refrigerant flowing inside the unit, which is a normal.
Craking noise	Has the air conditioner just been turned on and off ?	This is the sound of friction caused by expansion and/or contraction of panel or other parts due to the change of temperature.

## Malfunction analysis

### Error code

When air conditioner status is abnormal, temperature indicator on indoor unit will blink and display corresponding error code. Please refer to list below for identification of error code.



Above indicator diagram is only for reference. Please refer to actual product for the actual indicator and position.

Error code	Troubleshooting
H1 (Heating indicator ON 10s OFF 0.5s)	Means defrosting status. It's the normal phenomenon.
E5	It can be eliminated after restarting the unit. If not , please contact qualified professionals for service.
E6	It can be eliminated after restarting the unit. If not , please contact qualified professionals for service.
H6	It can be eliminated after restarting the unit. If not, please contact qualified professionals for service.
C5	Please contact qualified professionals for service.
F1	Please contact qualified professionals for service.
F2	Please contact qualified professionals for service.

**Note:** If there're other error codes, please contact qualified professionals for service.

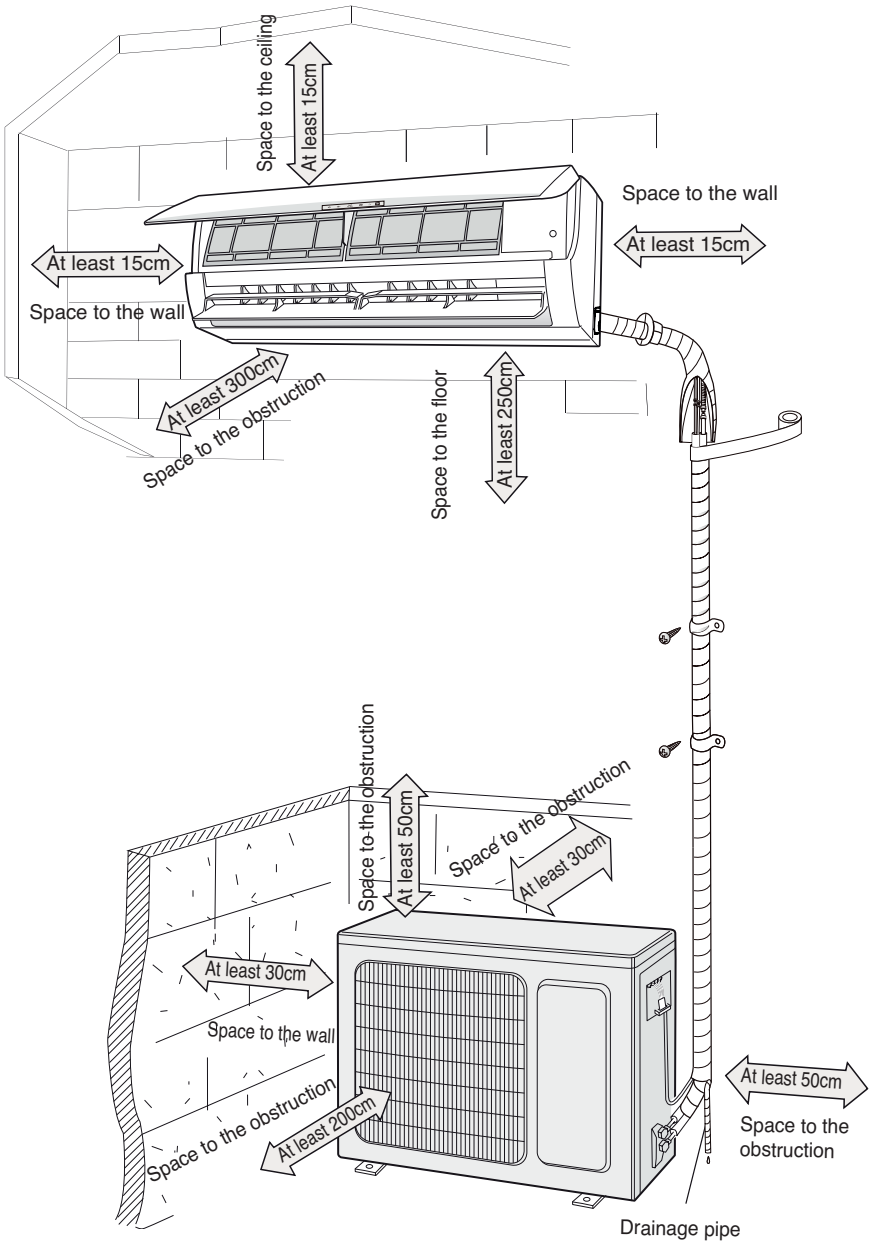
### ⚠ WARNING

- When situations below happen, please turn off the air conditioner and disconnect power immediately, then contact the dealer or qualified professionals for service.
- There is an unusual sound during operation.
- Air switch trips off frequently.
- Air conditioner generates a burning smell.
- Indoor unit is leaking.

### ATTENTION:

- Do not repair or refit the air conditioner by yourself.
- If the air conditioner operates under abnormal conditions, it may damage the unit, or cause electric shock or fire hazard.

Installation dimension diagram



### Tools for installation

1 Level meter	2 Screw driver	3 Impact drill
4 Drill head	5 Pipe expander	6 Torque wrench
7 Open-end wrench	8 Pipe cutter	9 Leakage detector
10 Vacuum pump	11 Manometer	12 Universal meter
13 Inner hexagon spanner		14 Measuring tape

#### Note:

- Contact your local agent or a certified technician for installation.

### Selection of installation location

#### Basic requirement

Installing the unit in the following places may cause malfunction. If it is unavoidable, please consult your local dealer or a certified technician:

1. A place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
2. A place with high-frequency devices (such as welding machine, medical equipment).
3. A place near coast area.
4. A place with oil or fumes in the air.
5. A place with sulphurous gas.
6. Other places with special environment.
7. The appliance cannot be installed in a laundry.

#### 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 people.
3. Select a location which is convenient to connect the outdoor unit and the closest possible to the power supply.
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 an electric appliance.
8. Please try your best to keep the unit away from fluorescent lamps.

#### 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, where 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 a fence for safety purpose.



## Requirements for electric connection

### 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 cause mal function and damage the unit.
4. Properly connect the live wire, neutral wire and grounding wire
5. To work safely, be sure to cut off the power supply before proceeding any work related to electricity.
6. Do not put through the power before finishing installation.
7. The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
8. The appliance shall be installed in accordance with national wiring regulations.
9. Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.

### Grounding requirement

1. The air conditioner is a first class electric appliance. It must be properly grounded 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 the grounding wire, which can't be used for other purposes.
3. The grounding resistance should comply with national electric safety regulations.
4. An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.

Air-conditioner	Circuit break capacity
09K	10A
12k	16A
18K(cooling only model)	20A
18K(cooling and heating model)	25A
24k	10A

## Installation of indoor unit

### Step One: choosing installation location

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

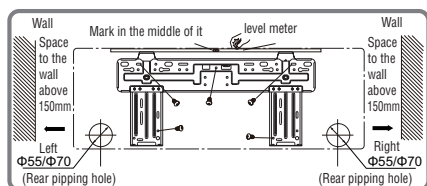
### Step Two: install wall-mounting frame

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 the 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.

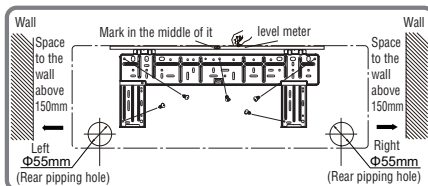
### Step Three: open piping hole

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, shown as below.

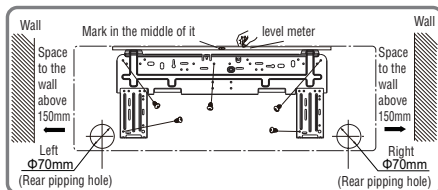
09、12K:



18K:



24K:

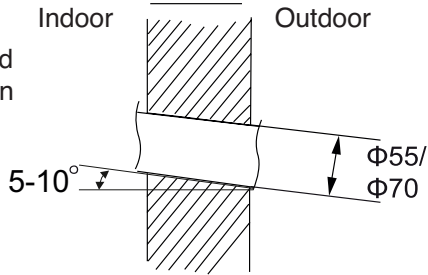


2. Open a piping hole with the diameter of  $\Phi 55$  or  $\Phi 70$  on the selected outlet pipe position. In order to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with the gradient of  $5\text{-}10^\circ$ .

## Installation of the indoor unit

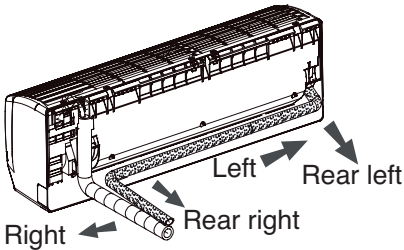
### Note:

- Pay attention to dust prevention and take relevant safety measures when opening the hole.
- The plastic expansion particles are not provided and should be bought 5-10° locally.

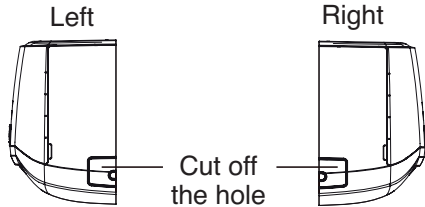


### Step Four: outlet pipe

1. The pipe can be led out in the direction of right, rear right, left or rear left.

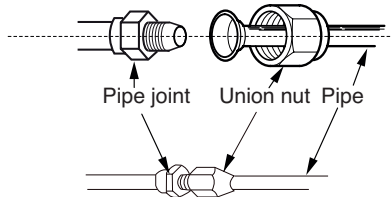


2. When select leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.



### Step Five: connect the pipe of indoor unit

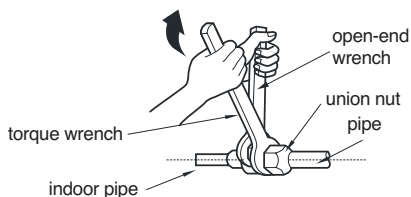
1. Aim the pipe joint at the corresponding bell mouth.



2. Pretightening the union nut with hand.

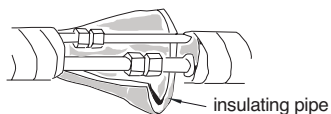
3. Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.

## Installation of indoor unit



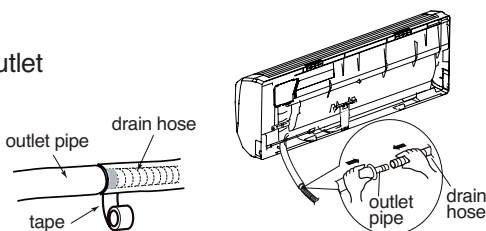
Hex nut diameter	Tightening torque (N-m)
Φ 6	15~20
Φ 9.52	30~40
Φ 12	45~55
Φ 16	60~65
Φ 19	70~75

4. Wrap the indoor pipe and joint of connection pipe with insulating pipe, and then wrap it with tape.



### Step Six: install drain hose

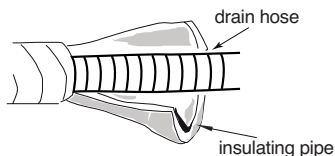
1. Connect the drain hose to the outlet pipe of indoor unit.



2. Bind the joint with tape.

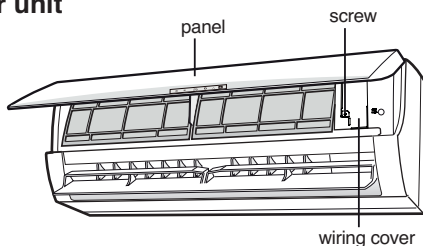
#### Note:

- Add insulating pipe in the indoor drain hose in order to prevent condensation.
- The plastic expansion particles are not provided.



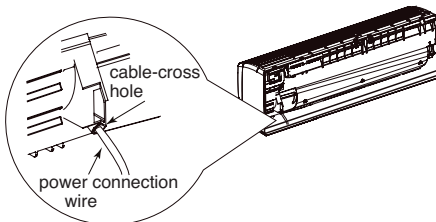
### Step Seven: connect wire of indoor unit

1. Open the panel, remove the screw on the wiring cover and then take down the cover.

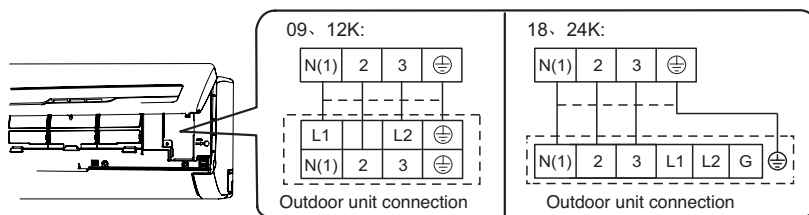


## Installation of indoor unit

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.



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. After finishing wiring, clamp the grounding wire (yellow-green wire) into the wire-crossing groove as shown in the following figure, in order to avoid pressing the wire when closing the electric box cover.



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

4. Put wiring cover back and then tighten the screw

5. Close the panel.

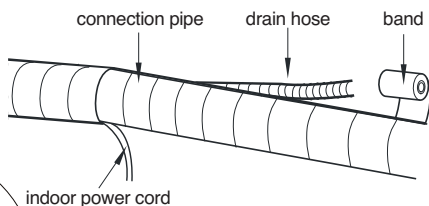
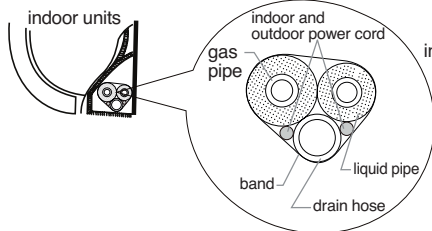
### Note:

- All wires of indoor unit and outdoor unit should be connected by a professional.
- If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
- 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.

## Installation of indoor unit

### Step Eight: bind up pipe

1. Bind up the connection pipe, power cord and drain hose with the band.



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.

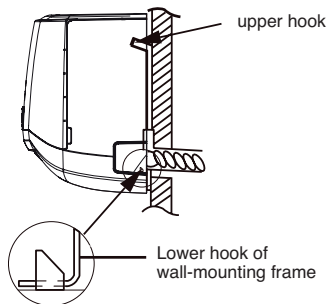
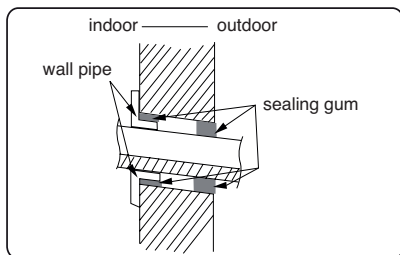
3. Bind them evenly.
4. The liquid pipe and gas pipe should be bound separately at the end.

#### Note:

- The power cord and control wire can't be crossed or winded.
- The drain hose should be bound at the bottom.

### Step Nine: 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.
5. Check if the indoor unit is installed firmly and close to the wall.



#### Note:

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

## Installation of outdoor unit

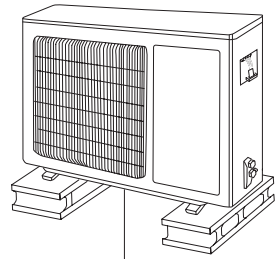
### Step one: fix the support of outdoor unit (select it according to the actual installation situation)

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

#### Note:

- Take sufficient protective measures when installing the outdoor unit.
- Make sure the support can withstand at least four times the unit weight.
- The outdoor unit should be installed at least 3cm above the floor in order to install drain joint.
- Expansion screws needed per type of unit:

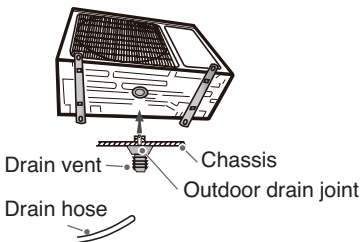
Cooling capacity	# screws
2300-5000W	6
6000-8000W	8
10000-16000W	10



at least 3cm above the floor

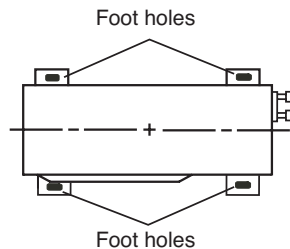
### Step two: install drain joint (Only for cooling and heating unit)

1. Connect the outdoor drain joint into the hole on the chassis, as shown in the picture below.
2. Connect the drain hose into the drain vent.



### Step three: fix outdoor unit

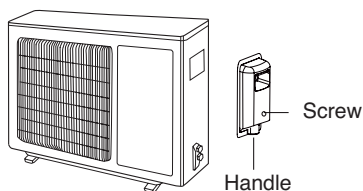
1. Place the outdoor unit on the support.
2. Fix the foot holes of outdoor unit with bolts.



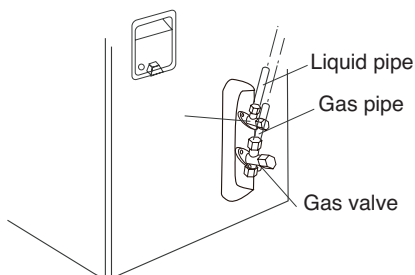
## Installation of outdoor unit

### Step four: connect indoor and outdoor pipes

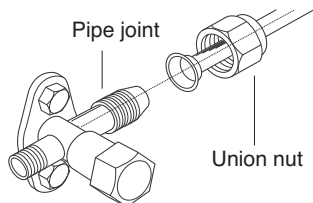
1. Remove the screw on the right handle of outdoor unit and then remove the handle.



2. Remove the screw cap of valve and aim the pipe joint at the bell mouth of pipe.



3. Pretighten the union nut with hand.

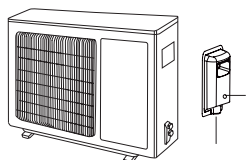


4. Tighten the union nut with torque wrench by referring to the sheet below.

HEX NUT DIAMETER	TIGHTENING TORQUE (N·M)
Φ 6	15~20
Φ 9.52	30~40
Φ 12	45~55
Φ 16	60~65
Φ 19	70~75

### Step five: connect outdoor electric wire

1. Remove the wire clip; connect the power connection wire and signal control wire (only for heating unit) to the wiring terminal according to the color; fix them with screws.



Alimentation  
électrique

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



### Installation of outdoor unit

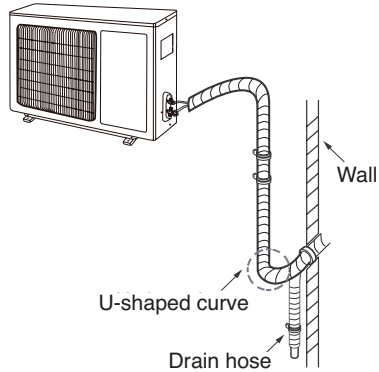
- Fix the power connection wire and signal control wire with wire clip (only for cooling and heating unit).

**Note:**

- After tightening the screw, pull the power cord slightly to check if it is solid.
- Never cut the power connection wire to extend or shorten the distance.

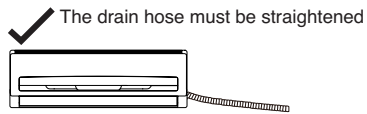
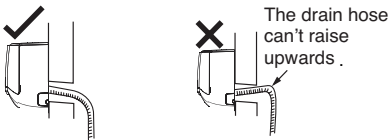
### Step Six: Pipe arrangement

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

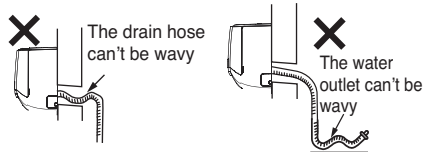
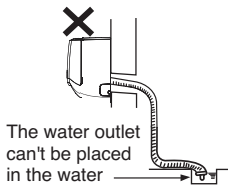
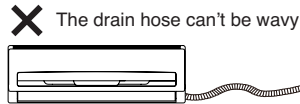


**NOTES:**

- The through-wall height of drain hose shouldn't be higher than the outlet pipe hole of indoor unit.
- Slant the drain hose slightly downwards; the drain hose can't be curved, raised, wavy, etc.



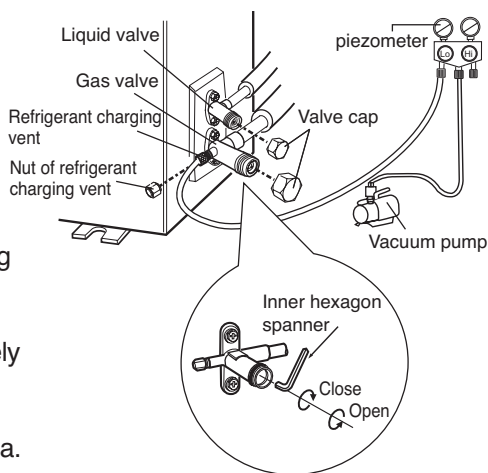
- The water outlet can't be placed in water in order to drain smoothly.



## Vacuum pumping

### Use vacuum pumping

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  $-0.1$  MPa.
4. Close the vacuum pump and maintain this status for 1-2min to check if the pressure of piezometer remains in  $-0.1$  MPa. 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.



### Leakage detection

1. With a leakage detector, check if there is leakage.
2. 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, there's a leakage.

## Check after installation

- Check the following after finishing installation.

Items to be checked	Possible malfunction
Has the unit been installed solidly?	The unit may drop, shake or emit noise.
Have you done the refrigerant leakage test?	It may cause insufficient cooling (heating) capacity.
Is heat insulation of pipeline sufficient?	It may cause condensation and water dripping.
Is water drained well?	It may cause condensation and water dripping.
Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damaging the parts.
Is electric wiring and pipeline installed correctly?	It may cause malfunction or damaging the parts.
Is the unit grounded securely?	It may cause electric leakage.
Does the power wire follow the specification?	It may cause malfunction or damaging the parts.
Is there any obstruction in the air inlet and outlet?	It may cause insufficient cooling (heating) capacity.
The dust and sundries caused during installation are removed?	It may cause malfunction or damaging the parts.
The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.

## Check after installation

### 1. Preparation of test operation

- The client approves the air conditioner.
- Specify the important features of the air conditioner to the client.

### 2. Method of test operation

- Put through the power, press ON/OFF button on the remote control 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 can't start cooling.

### Check after installation

1. Standard length of connection pipe: • 5m, 7.5m, 8m.
2. Min. length of connection pipe is 3m.
3. Max. length of connection pipe and max. rise difference.

Cooling capacity	Max length of connection pipe	Max rise difference
5000Btu/h (1465W)	15	5
7000Btu/h (2051W)	15	5
9000Btu/h (2637W)	15	5
12000Btu/h (3516W)	20	10
18000Btu/h (5274W)	25	10

Cooling capacity	Max length of connection pipe	Max rise difference
24000Btu/h (7032W)	25	10
28000Btu/h (8204W)	30	10
36000Btu/h (10548W)	30	20
42000Btu/h (12306W)	30	20
48000Btu/h (14064W)	30	20

#### 4. Additional refrigerant liquid and refrigerant charging required after extending connection pipe

- The calculation method of additional refrigerant charging amount (on the basis of liquid pipe):  

$$\text{Additional refrigerant charging quantity} = \text{prolonged length of liquid pipe} \times \text{additional refrigerant charging amount per meter}$$
- Based on the length and diameter of standard pipe, add refrigerant as per the following chart.

### Configuration of connection pipe

Additional refrigerant charging amount for R410A

Diameter of connection pipe		Outdoor unit throttle	
Liquid pipe (mm)	Gas pipe (mm)	Cooling only(g/m)	Cooling and heating(g/m)
∅6	∅9.52 or ∅12	15	20
∅6 or ∅9.52	∅16 or ∅19	15	50
∅12	∅19 or ∅22.2	30	120
∅16	∅25.4 or ∅31.8	60	120
∅19	-	250	250
∅22.2	-	350	350

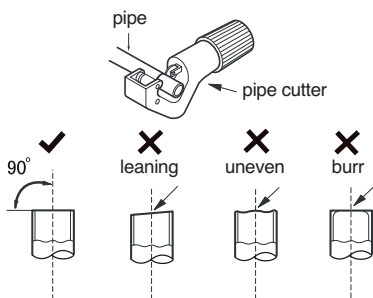
## Pipe expanding method

### Note:

Improper pipe expanding is the main cause of refrigerant leakage. Please expand the pipe according to the following steps:

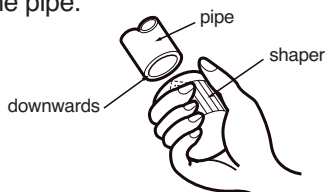
### A: Cut the pipe

- Confirm the pipe length according to the distance of indoor unit and outdoor unit.
- Cut the required pipe with pipe cutter.



### B: Remove the burrs

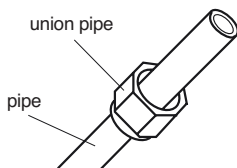
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.



### C: Put on suitable insulating pipe

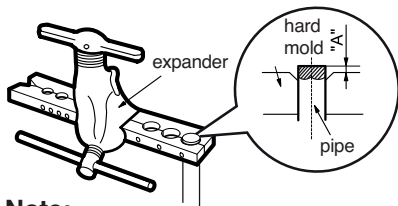
### D: Put on the union nut

- Remove the union nut on the indoor connection pipe and outdoor valve; install the union nut on the pipe.



### E: Expand the port

- Expand the port with expander.



### Note:

- "A" varies according to the diameter, please refer to the sheet below:

Outer diameter (mm)	A (mm)	
	Max	Min
ø6-6.35(1/4")	1.3	0.7
ø9.52(3/8")	1.6	1.0
ø12-12.7(1/2")	1.8	1.0
ø15.8-16(5/8")	2.4	2.2

### F: Inspection

- Check the quality of expanding port. If there is any blemish, expand the port again according to the steps above.

