



# Owner's Manual

## Original Instructions

Split Air Conditioner

### CONTENTS

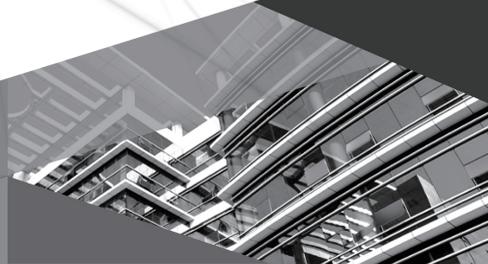
---

|   |    |
|---|----|
| Safety precautions .....                              | 01 |
| Parts name .....                                      | 05 |
| Operation and introduction of remote controller ..... | 06 |
| Clean and maintenance .....                           | 10 |
| Checked items before maintenance .....                | 11 |
| Installation notice .....                             | 12 |
| Installation of indoor unit .....                     | 14 |
| Installation of outdoor unit .....                    | 17 |
| Test and operation .....                              | 19 |
| Configuration of connection pipe .....                | 20 |

---

Thank you for choosing our product.  
Please read this Owner's Manual carefully before operation and retain it for future reference.  
If you have lost the Owner's Manual, please contact the local agent or visit [www.gree.com](http://www.gree.com) or send an email to [global@cn.gree.com](mailto:global@cn.gree.com) for the electronic version.

**NOTE:**  
Actual product may be different from graphics,  
please refer to actual products.



GWH07AGA-K3NNA1B  
GWH07AGA-K3NNA2B  
GWH07AGA-K3NNA4B  
GWH09AGA-K3NNA1A  
GWH09AGA-K3NNA2A  
GWH09AGA-K3NNA4A  
GWH09AGB-K3NNA1B  
GWH09AGB-K3NNA2B  
GWH09AGB-K3NNA4B  
GWH12AGB-K3NNA1A  
GWH12AGB-K3NNA2A  
GWH12AGC-K3NNA1B  
GWH12AGC-K3NNA2B  
GWH12AGC-K3NNA4B  
GWH18AGC-K3NNA1A  
GWH18AGC-K3NNA2A  
GWH18AGD-K3NNA2A  
GWH18AGD-K3NNA1B  
GWH18AGD-K3NNA4B  
GWH24AGD-K3NNA1A  
GWH24AGD-K3NNA2A  
GWH28AGE-K3NNA1A  
GWH28AGE-K3NNA2A  
GWH28AGE-K3NNA4A

## Explanation of Symbols

### **WARNING**

This symbol indicates the possibility of death or serious injury.

### **CAUTION**

This symbol indicates the possibility of injury or damage to property.

### **NOTICE**

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

## Exception Clauses

Manufacturer will bear no responsibilities when personal injury or property loss is caused by the following reasons.

1. Damage the product due to improper use or misuse of the product;
2. Alter, change, maintain or use the product with other equipment without abiding by the instruction manual of manufacturer;
3. After verification, the defect of product is directly caused by corrosive gas;
4. After verification, the defects are due to improper operation during transportation of product;
5. Operate, repair, maintain the unit without abiding by instruction manual or related regulations;
6. After verification, the problem or dispute is caused by the quality specification or performance of parts and components that produced by other manufacturers;
7. The damage is caused by natural calamities, bad using environment or force majeure.

If it needs to install, move or maintain the air conditioner, please contact dealer or local service center to conduct it at first. Air conditioner must be installed, moved or maintained by appointed unit. Otherwise, it may cause serious damage or personal injury or death.

When refrigerant leaks or requires discharge during installation, maintenance, or disassembly, it should be handled by certified professionals or otherwise in compliance with local laws and regulations.

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.



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

R410A(R32/125: 50/50): 2088

# Safety precautions

---



## WARNING

### Installation

- Installation or maintenance must be performed by qualified professionals.
- The appliance shall be installed in accordance with national wiring regulations.
- According to the local safety regulations, use qualified power supply circuit and circuit breaker.
- All wires of indoor unit and outdoor unit should be connected by a professional.
- Be sure to cut off the power supply before proceeding any work related to electricity and safety.
- 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.
- The grounding resistance should comply with national electric safety regulations.
- Air Conditioner should be properly grounded. Incorrect grounding may cause electric shock.
- Do not put through the power before finishing installation.
- Do install the circuit breaker. If not, it may cause malfunction.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- Circuit breaker should be included magnet buckle and heating buckle function. It can protect the overload and circuit-short.

# Safety precautions

---



## CAUTION

### Installation

- Instructions for installation and use of this product are provided by the manufacturer.
- Select a location which is out of reach for children and far away from animals or plants. If it is unavoidable, please add the fence for safety purpose.
- The indoor unit should be installed close to the wall.
- Don't use unqualified power cord.
- If the length of power connection wire is insufficient, please contact the supplier for a new one.
- The appliance must be positioned so that the plug is accessible.
- For the air conditioner with plug, the plug should be reachable after finishing installation.
- For the air conditioner without plug, a circuit breaker must be installed in the line.
- The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
- The air conditioner is the 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 temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.

# Safety 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 without supervision.
- 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.
- Do not connect air conditioner to multi-purpose socket. Otherwise, it may cause fire hazard.
- Do not disconnect power supply when cleaning air conditioner. Otherwise, it may cause electric shock.
- 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.
- Do not repair air conditioner by yourself. It may cause electric shock or damage. Please contact dealer when you need to repair air conditioner.
- After removing the filter, do not touch fins to avoid injury.
- Do not extend fingers or objects into air inlet or air outlet. It may cause personal injury or damage.

# Safety precautions

---



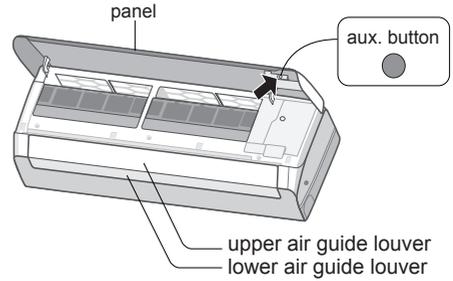
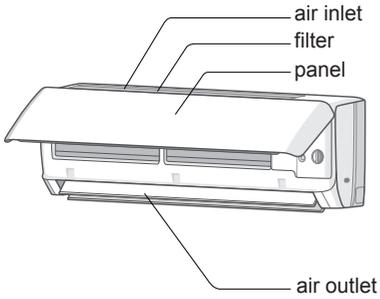
## CAUTION

### Operation and Maintenance

- Do not spill water on the remote controller, otherwise the remote controller may be broken.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.
- Do not block air outlet or air inlet. It may cause malfunction.
- Do not step on top panel of outdoor unit, or put heavy objects. It may cause damage or personal injury.
- When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.
  - Power cord is overheating or damaged.
  - There's abnormal sound during operation.
  - Circuit breaker trips off frequently.
- Air conditioner gives off burning smell.
- Indoor unit is leaking.

# Parts name

## Indoor Unit



- If remote controller is lost or damaged, please use aux.button to turn on or turn off the air conditioner. The operation in details is as below: As shown in the figure, open panel and press aux.button to turn off the air conditioner. When the air conditioner is turned on, it will operate under auto mode.

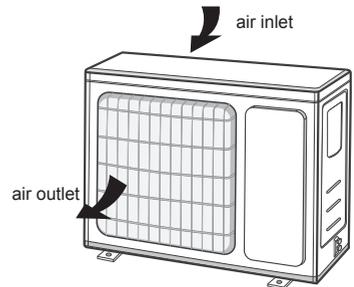
## Display

|                 |    |
|-----------------|----|
| Temp. indicator | 26 |
| Power indicator | ⏻  |

### NOTE

- This is the general introduction and the color of indicator is only for reference. Please refer to the actual display.
- Display content may be different from the actual. Please refer to the actual display.

## Outdoor Unit

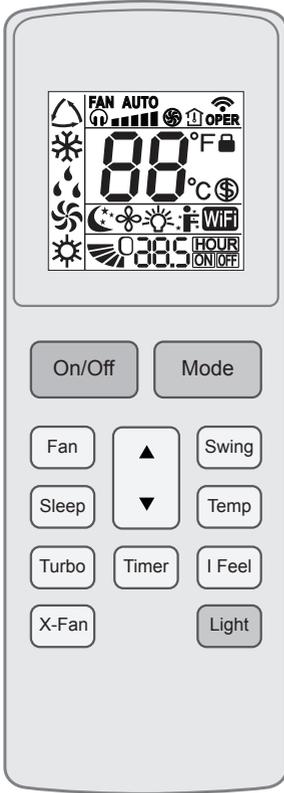


### NOTE

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

# Operation and introduction of remote controller

## Buttons on remote controller



## Introduction for icons on display screen

|                |                      |                |
|----------------|----------------------|----------------|
|                | Set fan speed        |                |
|                | Turbo mode           |                |
|                | Indoor ambient temp  |                |
|                | Send signal          |                |
| Operation mode |                      | Auto mode      |
|                |                      | Cool mode      |
|                |                      | Dry mode       |
|                |                      | Fan mode       |
|                |                      | Heat mode      |
|                |                      | Sleep mode     |
|                |                      | X-FAN function |
|                | Light                |                |
|                | I feel function      |                |
|                | WiFi function        |                |
|                | 8°C heating function |                |
|                | Child lock           |                |
|                | Set temperature      |                |
|                | Up & down swing      |                |
|                | Set time             |                |
|                | TIMER ON / TIMER OFF |                |



Timer

button

- Under ON status, press this button to set timer OFF; Under OFF status, press this button to set timer ON.
- Press this button once and the characters of HOUR ON (OFF) will flash to be displayed. Meanwhile, press "▲" or "▼" button to adjust timer setting (time will change quickly if holding "▲" or "▼" button). Timer setting range is 0.5~24hours.
- Press this button again to confirm timer setting and the characters of HOUR ON (OFF) will stop flashing.
- If the characters are flashing but you haven't press timer button, timer setting status will be quit after 5s. If timer is confirmed, press this button again to cancel timer.

X-Fan

button

- Press this button in COOL or DRY mode to turn on X-fan function.
- When this function is started up, indoor fan will still operate at low fan speed for a while after turning off the unit by remote controller.

Light

button

Press this button to turn on the display's light and press this button again to turn off the display's light.

## Function introduction for combination buttons

Combination of "▲" and "▼" buttons:  
About lock

Press "▲" and "▼" buttons simultaneously 3s to lock or unlock the keypad. If the remote controller is locked,  is displayed. In this case, pressing any button,  blinks three times.

Combination of "Mode" and "▼" buttons:  
About switch between Fahrenheit and centigrade

At unit OFF, press "Mode" and "▼" buttons simultaneously to switch between °C and °F.

Combination of "Temp" and "Timer" buttons:  
About Energy-saving Function

Press "Temp" and "Timer" 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 "Timer" buttons:  
About 8°C Heating Function

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

### Auto clean function

Under unit off status, hold "Mode" and "Fan" buttons simultaneously for 5s to turn on or turn off the auto clean function. When the auto clean function is turned on, indoor unit displays "CL". During the auto clean process of evaporator, the unit will perform fast cooling or fast heating. There may be some noise, which is the sound of flowing liquid or thermal expansion or cold shrinkage. The air conditioner may blow cool or warm air, which is a normal phenomenon. During cleaning process, please make sure the room is well ventilated to avoid affecting the comfort.

#### NOTE

- The auto clean function can only work under normal ambient temperature. If the room is dusty, clean it once a month; if not, clean it once every three months. After the auto clean function is turned on, you can leave the room. When auto clean is finished, the air conditioner will enter standby status.
- This function is only available for some models.

### WiFi function

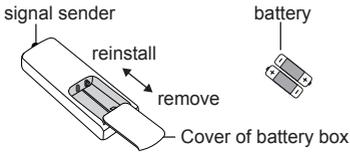
Press "Mode" and "Turbo" button simultaneously to turn on or turn off WiFi function. When WiFi function is turned on, the "WiFi" icon will be displayed on remote controller; Long press "Mode" and "Turbo" buttons simultaneously for 10s, remote controller will send WiFi reset code and then the WiFi function will be turned on. WiFi function is defaulted ON after energization of the

remote controller.

#### NOTE

- This function is only available for some models.

## Replacement of batteries in remote controller



1. Press the back side of remote controller marked with "ON", 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.

#### 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.
- 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.

## Clean and maintenance

### ⚠ WARNING

- Turn off the air conditioner and disconnect the power before cleaning the air conditioner 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.
- Do not use liquid or corrosive detergent to clean the appliance and do not splash water or other liquid onto it, otherwise, it may damage the plastic components, even cause electric shock.

### Clean surface of indoor unit

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

#### NOTICE

- Do not remove the panel when cleaning it.

### Clean filter

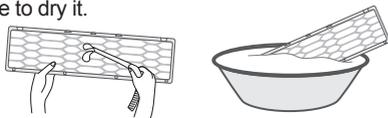
#### 1. Remove filter

Press the spring fasteners at both sides in the direction indicated by the arrows. Meanwhile, lift up the filter so that it is separated from the fasteners. Pull the filter forward and remove it.



#### 2. Clean filter

Use clear water to wash it or dust catcher to clean it. If the filter is very dirty (such as grease), use warm water (45 °C) dissolved with neutral detergent to clean it, and then put it at the shady place to dry it.



#### 3. Install filter

After cleaning, reinstall the filter in reverse order. Push it along the guide rails at both sides and then press the left and right edges of the filter. Refit the filter in the direction indicated by the arrows.



### ⚠ WARNING

- The filter should be cleaned every three months. If there is much dust in the operation environment, clean frequency can 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.

#### NOTICE: Checking before use-season

1. Check whether air inlets and air outlets are blocked.
2. Check whether air switch, plug and socket are in good condition.
3. Check whether filter is clean.
4. Check whether mounting bracket for outdoor unit is damaged or corroded. If yes, please contact dealer.
5. Check whether drainage pipe is damaged.

#### NOTICE: Checking after use-season

1. Disconnect power supply.
2. Clean filter 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 materials. Please dispose them in appropriate recycling unit.
2. If you want to dispose the air conditioner, please contact local dealer or consultant service center for the correct disposal method.

### Error Code

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

| Error code                 | Troubleshooting   |
|----------------------------|---|
| U8, H6, H3, E1, E5, E6, E8 | It can be eliminated after restarting the unit. If not, please contact qualified professionals for service. |
| C5, F0, F1, F2             | Please contact qualified professionals for service.   |

#### NOTE

- If there're other error codes, please contact qualified professionals for service.

# Checked items before maintenance

## General phenomenon analysis

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

| Phenomenon   | Check items  | Solution  |
|--|--|---|
| Indoor unit can't receive remote controller's signal or remote controller has no action. | Whether it's interfered severely (such as static electricity, stable voltage?) | Pull out the plug. Reinsert the plug after about 3min, and then turn on the unit again.   |
|  | Whether remote controller is within the signal receiving range?                | Signal receiving range is 8m.   |
|  | Whether there are obstacles?   | Remove obstacles.   |
|  | Whether remote controller is pointing at the receiving window?                 | Select proper angle and point the remote controller at the receiving window on indoor unit.   |
|  | Is sensitivity of remote controller low; fuzzy display or no display?          | Check the batteries. If the power of batteries is too low, please replace them.   |
|  | No display when operating remote controller?                                   | Check whether remote controller appears to be damaged. If yes, replace it.  |
|  | Fluorescent lamp in room?  | Take the remote controller close to indoor unit. Turn off the fluorescent lamp and then try it again.                                   |
| No air emitted from indoor unit  | Air inlet or air outlet of indoor unit is blocked?                             | Eliminate obstacles.  |
|  | Under heating mode, indoor temperature is reached to set temperature?          | After reaching to set temperature, indoor unit will stop blowing out air.   |
|  | Heating mode is turned on just now?  | In order to prevent blowing out cold air, indoor unit will be started after delaying for several minutes, which is a normal phenomenon. |
| Air conditioner can't operate  | Power failure?   | Wait until power recovery.  |
|  | Is plug loose?   | Reinsert the plug.  |
|  | Air switch trips off or fuse is burnt out?                                     | Ask professional to replace air switch or fuse.   |
|  | Wiring has malfunction?  | Ask professional to replace it.   |
|  | Unit has restarted immediately after stopping operation?                       | Wait for 3min, and then turn on the unit again.   |
|  | Whether the function setting for remote controller is correct?                 | Reset the function.   |
| Mist is emitted from indoor unit's air outlet  | Indoor temperature and humidity is high?                                       | Because indoor air is cooled rapidly. After a while, indoor temperature and humidity will decrease and mist will disappear.             |

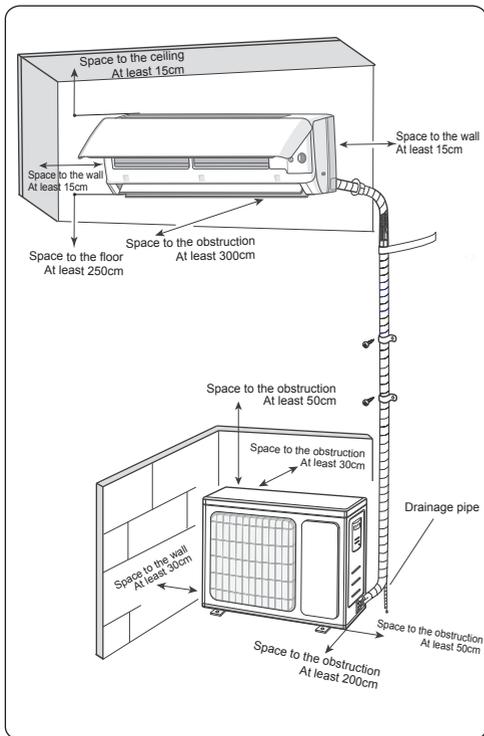
| Phenomenon                                | Check items   | Solution   |
|---|---|--|
| Odours are emitted                        | Whether there's odour source, such as furniture and cigarette, etc.   | Eliminate the odour source. Clean the filter.  |
| Set temperature can't be adjusted         | Your required temperature exceeds the set temperature range?          | Set temperature range: 16 C ~ 30 C.  |
| Cooling (heating) effect is not good.     | Voltage is too low?   | Wait until the voltage resumes normal.   |
|   | Filter is dirty?  | Clean the filter.  |
|   | Set temperature is in proper range?                                   | Adjust temperature to proper range.  |
|   | Door and window are open?   | Close door and window.   |
| Air conditioner operates abnormally       | Whether there's interference, such as thunder, wireless devices, etc. | Disconnect power, put back power, and then turn on the unit again.   |
| Outdoor unit has vapor                    | Heating mode is turned on?  | During defrosting under heating mode, it may generate vapor, which is a normal phenomenon.   |
| "Water flowing" noise                     | Air conditioner is turned on or turned off just now?                  | The noise is the sound of refrigerant flowing inside the unit, which is a normal phenomenon.   |
| Cracking noise                            | Air conditioner is turned on or turned off just now?                  | This is the sound of friction caused by expansion and or contraction of panel or other parts due to the change of temperature.   |
| Air guide louver can't be closed normally | Whether the air guide louver has been adjusted?                       | Disconnect the power for 3s and then connect the power; if the problem still exists, disconnect the power, reinstall the air guide louver (install the upper air guide louver and then install the lower air guide louver) and then connect the power. |



### WARNING

- When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.
  - Power cord is overheating or damaged.
  - There's abnormal sound during operation.
  - Air switch trips off frequently.
  - Air conditioner gives off burning smell.
  - Indoor unit is leaking.
- Do not repair or refit the air conditioner by yourself.
- If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock or fire hazard.

## Installation notice



### ■ Safety precautions for installing and relocating the unit

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

#### ⚠ WARNING

- **When installing or relocating the unit, be sure to keep the refrigerant circuit free from air or substances other than the specified refrigerant.**

Any presence of air or other foreign substance in the refrigerant circuit will cause system pressure rise or compressor rupture, resulting in injury.

- **When installing or moving this unit, do not charge the refrigerant which is not comply with that on the nameplate or unqualified refrigerant.**

Otherwise, it may cause abnormal operation, wrong action, mechanical malfunction or even serious safety accident.

- **When refrigerant needs to be recovered during relocating or repairing the unit, be**

#### ⚠ WARNING

sure that the unit is running in cooling mode. Then, fully close the valve at high pressure side (liquid valve). About 30-40 seconds later, fully close the valve at low pressure side (gas valve), immediately stop the unit and disconnect power. Please note that the time for refrigerant recovery should not exceed 1 minute.

If refrigerant recovery takes too much time, air may be sucked in and cause pressure rise or compressor rupture, resulting in injury.

- **During refrigerant recovery, make sure that liquid valve and gas valve are fully closed and power is disconnected before detaching the connection pipe.**

If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.

- **When installing the unit, make sure that connection pipe is securely connected before the compressor starts running.**

If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.

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

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

- **Do not use extension cords for electrical connections. If the electric wire is not long enough, please contact a local service center authorized and ask for a proper electric wire.** Poor connections may lead to electric shock or fire.

- **Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the wires so that their terminals receive no external stresses.**

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

### ■ Tools for installation

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

#### NOTICE

- Please contact the local agent for installation.
- Don't use unqualified power cord.

## ■ Selection of installation location

### 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.
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).

### 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. Please try your best to keep away from fluorescent lamp.

### 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 the fence for safety purpose.

### 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.

## ■ Requirements for electric connection

3. Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring 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.

### Grounding requirement

1. The air conditioner is the 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 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.

## ■ Air switch capacity

Including an air switch with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload. (Caution: please do not use the fuse only for protecting the circuit)

| Air-conditioner                      | Air switch capacity |
|--------------------------------------|---------------------|
| 07K、09K、12K                          | 10A                 |
| GWH18AGC-K3NNA1A<br>GWH18AGC-K3NNA2A | 16A                 |
| 18K、24K                              | 25A                 |
| 28K                                  | 32A                 |

# Installation of indoor unit

## Step 1:

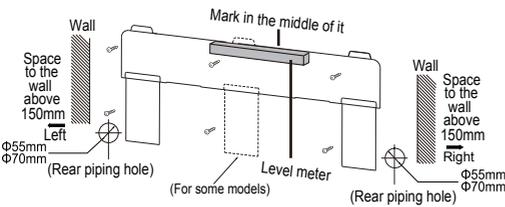
### Choose installation location

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

## Step 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 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 3:

### 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.

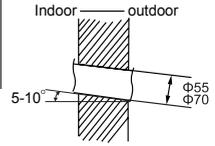
#### NOTE

- The wall panel is for illustrative purposes only, please refer to the actual installation.
- Please refer to the actual circumstances for the number of screws and the position of screws.

2. When installation is finished, pull the mounting plate with hand to confirm whether it is fixed tightly. The force distribution for all screws should be uniform.
3. 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  $5-10^\circ$ .

#### NOTE

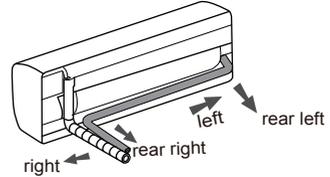
- Pay attention to dust prevention and take relevant safety measures when opening the hole.



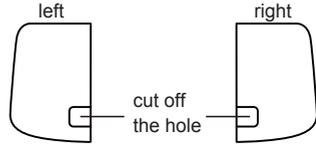
## Step 4:

### Outlet pipe

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



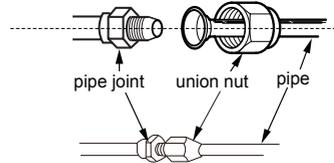
2. When select leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.



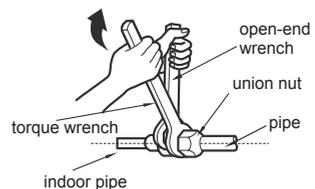
## Step 5:

### Connect the pipe of indoor unit

1. Aim the pipe joint at the corresponding bellmouth.
2. Pretighten the union nut with hand.

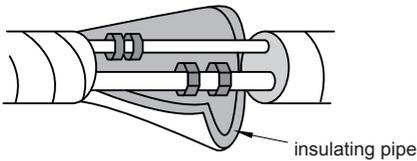


3. Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.



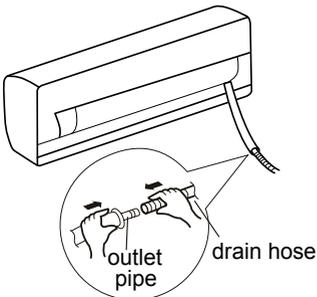
| Hex nut diameter | Tightening torque (N.m) |
|------------------|-------------------------|
| 1/4"             | 15~20                   |
| 3/8"             | 30~40                   |
| 1/2"             | 45~55                   |
| 5/8"             | 60~65                   |
| 3/4"             | 70~75                   |

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

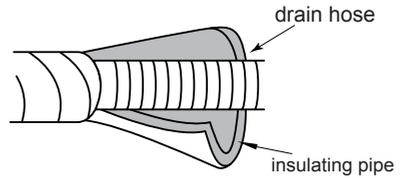
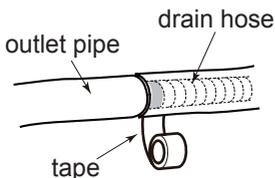


### Step 6: Install drain hose

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



2. Bind the joint with tape.



#### NOTE

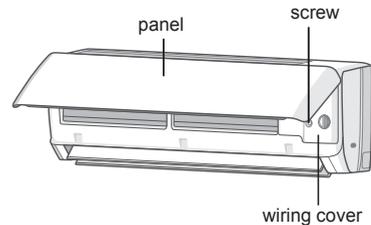
- Add insulating pipe in the indoor drain hose in order to prevent condensation.
- The plastic expansion particles are not provided.

### Step 7: Connect wire of indoor unit

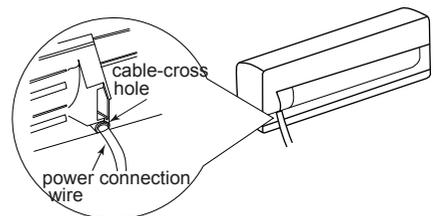
#### NOTICE

- 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.
- For the air conditioner with plug, the plug should be reachable after finishing installation.
- 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.

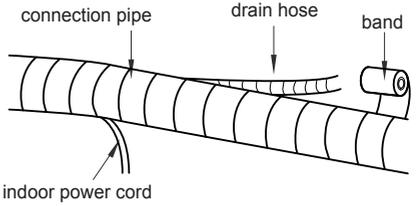
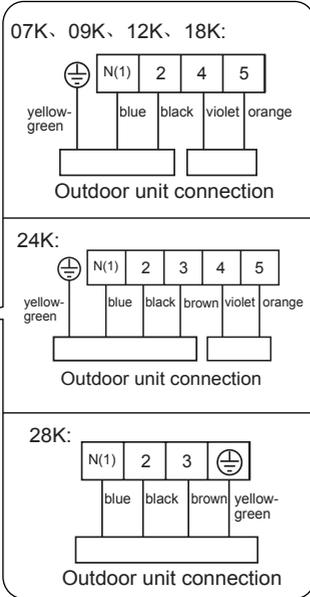
1. Open the panel, remove the screw on the wiring cover and then take down the cover.



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.



- 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.



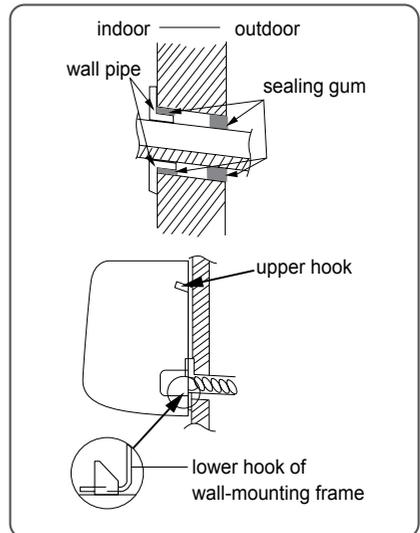
- Bind them evenly.
- The liquid pipe and gas pipe should be bound separately at the end.

#### NOTICE

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

### Step 9: Hang the indoor unit

- Put the bound pipes in the wall pipe and then make them pass through the wall hole.
- Hang the indoor unit on the wall-mounting frame.
- Stuff the gap between pipes and wall hole with sealing gum.
- Fix the wall pipe.
- Check if the indoor unit is installed firmly and closed to the wall.



#### NOTICE

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

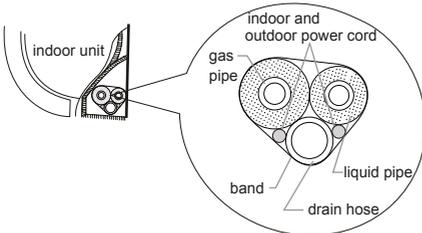
#### NOTICE

- The wiring board is for reference only, please refer to the actual one.

- Put wiring cover back and then tighten the screw.
- Close the panel.

### Step 8: Bind up pipe

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



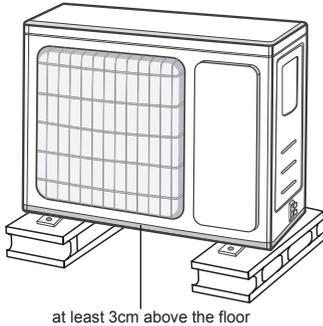
- Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.

## Installation of outdoor unit

### Step 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.



#### NOTICE

- Take sufficient protective measures when installing the outdoor unit.
- Make sure the support can withstand at least four times of the unit weight.
- The outdoor unit should be installed at least 3cm above the floor in order to install drain joint. (for the model with heating tube, the installation height should be no less than 20cm.)
- 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.

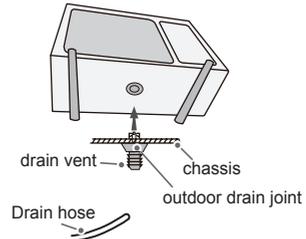
### Step 2:

#### Install drain joint (only for some models)

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.

#### NOTICE

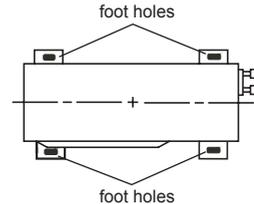
- As for the shape of drainage joint, please refer to the current product. Do not install the drainage joint in the severe cold area. Otherwise, it will be frosted and then cause malfunction.



### Step 3:

#### Fix outdoor unit

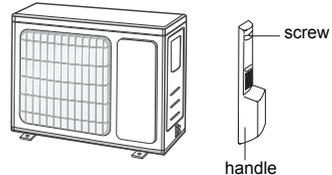
1. Place the outdoor unit on the support.
2. Fix the foot holes of outdoor unit with bolts.



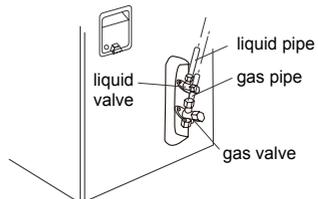
### Step 4:

#### Connect indoor and outdoor pipes

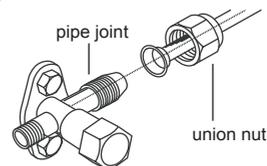
1. Remove the screw on the right handle of outdoor unit and then remove the handle.



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



3. Pretighten the union nut with hand.



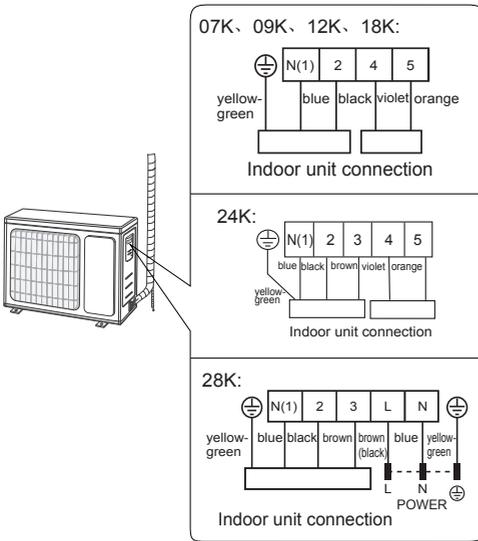
4. Tighten the union nut with torque wrench by referring to the sheet below.

| Hex nut diameter | Tightening torque(N·m) |
|------------------|------------------------|
| 1/4"             | 15~20                  |
| 3/8"             | 30~40                  |
| 1/2"             | 45~55                  |
| 5/8"             | 60~65                  |
| 3/4"             | 70~75                  |

## Step 5:

### Connect outdoor electric wire

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



### NOTICE

- The wiring board is for reference only, please refer to the actual one.

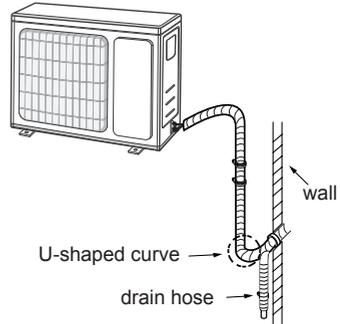
2. Fix the power connection wire and signal control wire with wire clip (only for cooling and heating unit).

### NOTICE

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

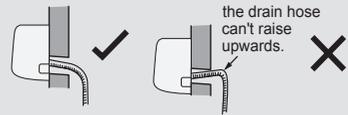
## Step 6: Neaten the pipes

- The pipes should be placed along the wall, bent reasonably and hidden possibly. Min. semidiameter of bending the pipe is 10cm.
- 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.

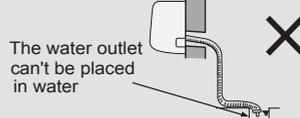


### NOTICE

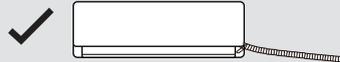
- The through-wall height of drain hose should not be higher than the outlet pipe hole of indoor unit.



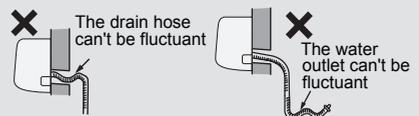
- The water outlet can't be placed in water in order to drain smoothly.



- Slant the drain hose slightly downwards. The drain hose can't be curved, raised and fluctuant, etc.



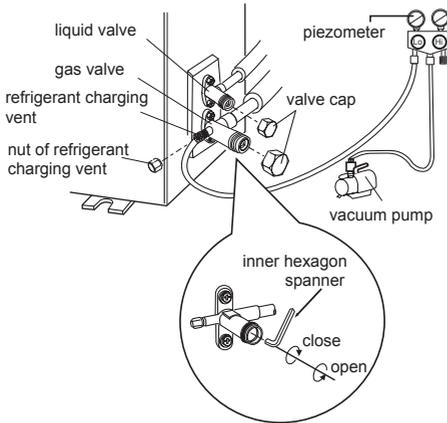
- The drain hose can't be fluctuant



# Test and operation

## 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.
7. Reinstall the handle.



## 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, there's a leakage.

## Check after installation

- Check according to the following requirement after finishing installation.

| Items to be checked  | Possible malfunction   |
|--|--|
| Has the unit been installed firmly?  | 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 damage the parts.                              |
| Is electric wiring and pipeline installed correctly?                             | It may cause malfunction or damage the parts.                              |
| Is the unit grounded securely?   | It may cause electric leakage.   |
| Does the power cord follow the specification?                                    | It may cause malfunction or damage 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 damage the parts.                              |
| The gas valve and liquid valve of connection pipe are open completely?           | It may cause insufficient cooling (heating) capacity.                      |
| Is the inlet and outlet of piping hole been covered?                             | It may cause insufficient cooling (heating) capacity or waste electricity. |

## Test operation

### 1. Preparation of test operation

- The client approves the air conditioner.
- 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℃, the air conditioner can't start cooling.

## Configuration of connection pipe

1. Standard length of connection pipe: 5m, 7.5m, 8m.
2. Min. length of connection pipe is 3m.
3. Max. length of connection pipe is shown as below.

### Max. length of connection pipe

| Cooling capacity    | Max. length of connection pipe(m) |
|---------------------|-----------------------------------|
| 5000Btu/h (1465W)   | 15                                |
| 7000Btu/h (2051W)   | 15                                |
| 9000Btu/h (2637W)   | 15                                |
| 12000Btu/h (3516W)  | 20                                |
| 18000Btu/h (5274W)  | 25                                |
| 24000Btu/h (7032W)  | 25                                |
| 28000Btu/h (8204W)  | 30                                |
| 36000Btu/h (10548W) | 30                                |
| 42000Btu/h (12306W) | 30                                |
| 48000Btu/h (14064W) | 30                                |

4. The additional refrigerant oil and refrigerant charging required after prolonging connection pipe.

- After the length of connection pipe is prolonged for 10m at the basis of standard length, you should add 5ml of refrigerant oil for each additional 5m of connection pipe.
- The calculation method of additional refrigerant charging amount(on the basis of liquid pipe):  
Additional refrigerant charging amount = prolonged length of liquid pipe × additional refrigerant charging amount per meter
- Basing on the length of standard pipe, add refrigerant according to the requirement as shown in the table. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See the following sheet.

## Additional refrigerant charging amount for R22, R407C, R410A and R134a

| Outdoor unit throttle | Cooling and heating(g/m) | 20           | 50           | 120          | 120          | 250  | 350  |
|-----------------------|--------------------------|--------------|--------------|--------------|--------------|------|------|
|                       | Cooling only(g/m)        | 15           | 15           | 30           | 60           | 250  | 350  |
| Piping size           | Gas pipe                 | 3/8" or 1/2" | 5/8" or 3/4" | 3/4" or 7/8" | 1" or 1 1/4" | -    | -    |
|                       | Liquid pipe              | 1/4"         | 1/4" or 3/8" | 1/2"         | 5/8"         | 3/4" | 7/8" |

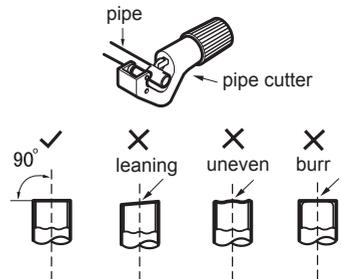
## Pipe expanding method

### NOTICE

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

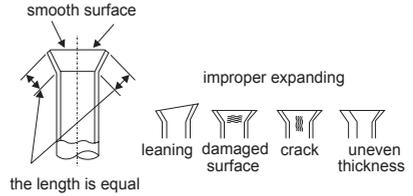
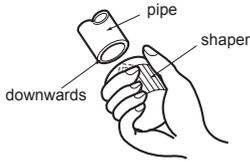
### A: Cut the pipe

- 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.



## Working temperature range

For some models:

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

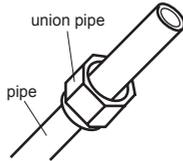
### NOTE

- The operating temperature range (outdoor temperature) for cooling only unit is 18 °C~43 °C ; for heat pump unit is -15 °C~43 °C .

## C: Put on suitable insulating pipe

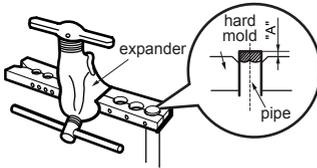
## D: Put on the union nut

- 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.



### NOTICE

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

| Outer diameter<br>(mm) | A(mm) |     |
|------------------------|-------|-----|
|                        | Max   | Min |
| Φ6 - 6.35(1/4")        | 1.3   | 0.7 |
| Φ9 - 9.52(3/8")        | 1.6   | 1.0 |
| Φ12-12.7(1/2")         | 1.8   | 1.0 |
| Φ15.8-16(5/8")         | 2.4   | 2.2 |

## Impedance value

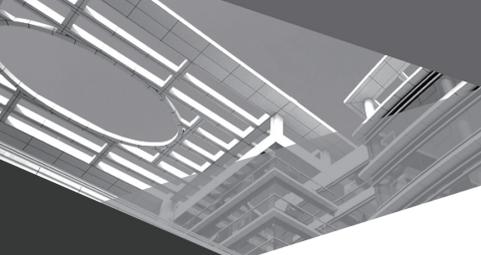
To be in compliance with IEC/EN 61000-3-11, impedance value of power-supply system connected to product must be less than or equal to the allowable maximum value of  $|Z_{sys}|$  in the following sheet:

| models   | max $ Z_{sys} $ unit:ohm |
|--|--------------------------|
| GWH12AGC-K3NNA1B<br>GWH12AGC-K3NNA2B<br>GWH12AGC-K3NNA4B | 0.102                    |
| GWH18AGD-K3NNA2A<br>GWH18AGD-K3NNA1B<br>GWH18AGD-K3NNA4B | 0.177                    |
| GWH24AGD-K3NNA1A<br>GWH24AGD-K3NNA2A                     | 0.128                    |
| GWH28AGE-K3NNA1A<br>GWH28AGE-K3NNA2A<br>GWH28AGE-K3NNA4A | 0.041                    |

Before connecting the product to public power network, please consult your local power supply authority to ensure that the power network has met the above requirements. No requirement for the unlisted product's impedance value of power-supply system.

## F: Inspection

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



**GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI**

Add: West Jinji Rd, Qianshan, Zhuhai, Guangdong, China, 519070

Tel: (+86-756) 8522218

Fax: (+86-756) 8669426

E-mail: [global@cn.gree.com](mailto:global@cn.gree.com)

Web: [www.gree.com](http://www.gree.com)



600005061987