

MADE IN CHINA



OWNER'S MANUAL

KW09HQ3D6DO
KW12HQ3D6DO
KW18HQ3D6DO
KW24HQ3D6DO



66139909206

CONTENTS

Operation Notices

Precautions	1
Parts Name	6

Installation Notice

Installation dimension diagram	7
Tools for installation	9
Selection of installation location	9
Requirements for electric connection	10

Installation

Installation of outdoor unit	11
Vacuum pumping	14
Leakage detection	14
Check after installation	15

Test and operation

Test operation	15
----------------------	----

Attachment

Configuration of connection pipe	16
Pipe expanding method	18

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.

1

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.

2

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.

3

Precautions



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	26.7/19.4(80/66.9)	46.1/23.9 (115/75)
Maximum cooling	26.7/-(80/-)	23.9/18.3(75/64.9)

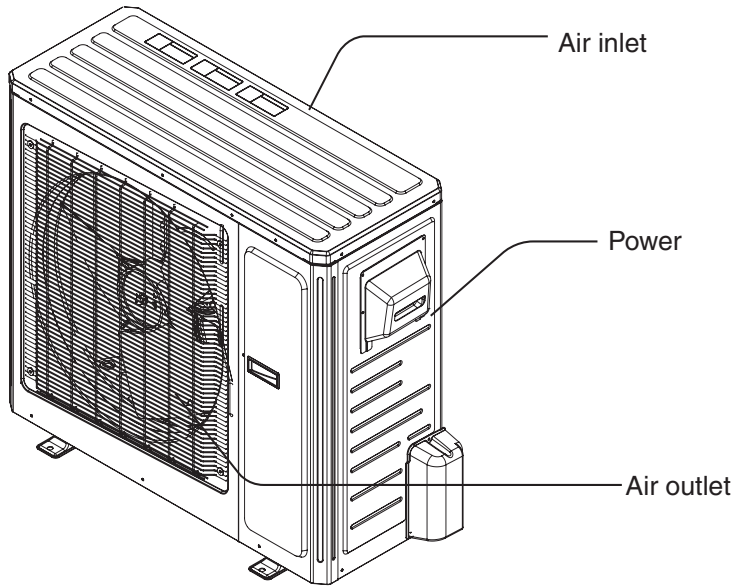
NOTICE :

- The operating temperature range (outdoor temperature) for cooling only unit is -18°C(-0.4°F)~54 (129°F) ; for heat pump unit is -30°C (-22°F)~24°C (75°F).

6

Parts name

outdoor Unit

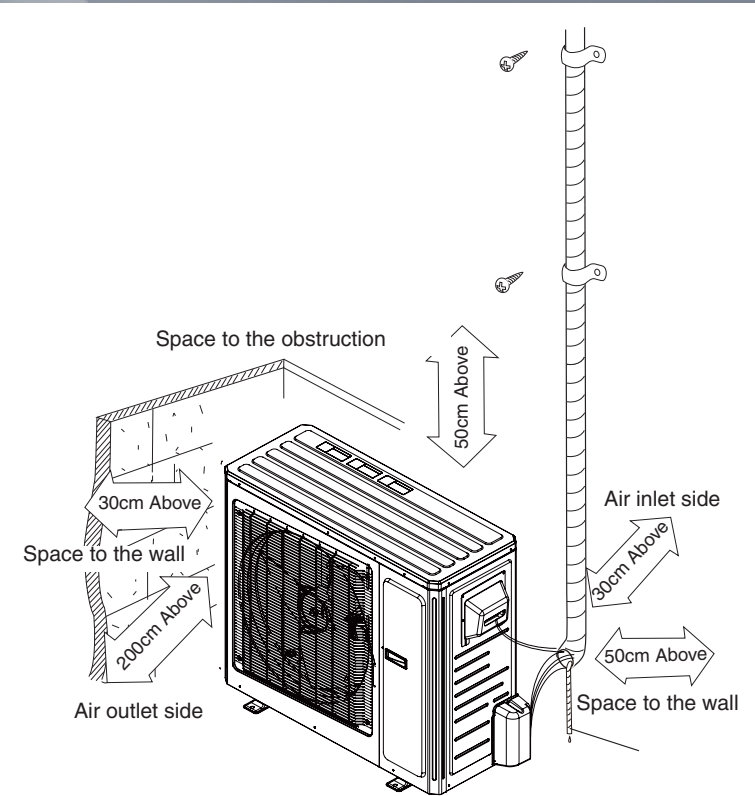


NOTICE :

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

7

Installation dimension diagram



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 series safety accident.
- **When refrigerant needs to be recovered during relocating or repairing the unit, be sure that the unit is running in cooling mode. Then, fully close the valve at high pressure side (liquid valve). About 30-40 seconds later, fully close the valve at low pressure side (gas valve), immediately stop the unit and disconnect power. Please note that the time for refrigerant recovery should not exceed 1 minute.**
If refrigerant recovery takes too much time, air may be sucked in and cause pressure rise or compressor rupture, resulting in injury.
- **During refrigerant recovery, make sure that liquid valve and gas valve are fully closed and power is disconnected before detaching the connection pipe.**
If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.
When installing the unit, make sure that connection pipe is securely connected before the compressor starts running.
If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.
- **Prohibit installing the unit at the place where there may be leaked corrosive gas or flammable gas.**
If there leaked gas around the unit, it may cause explosion and other accidents.
- **Do not use extension cords for electrical connections. If the electric wire is not long enough, please contact a local service center authorized and ask for a proper electric wire.**
Poor connections may lead to electric shock or fire.
- **Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the wires so that their terminals receive no external stresses.**
Electric wires with insufficient capacity, wrong wire connections and insecure wire terminals may cause electric shock or fire.

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.

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.

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.

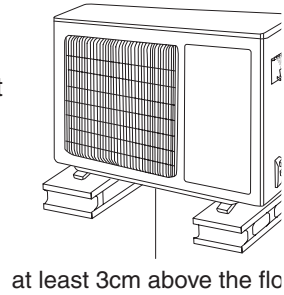
Installation of outdoor unit

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:

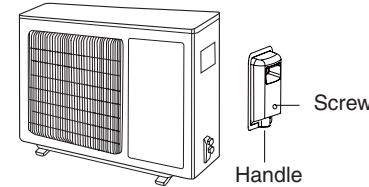
- Take sufficient protective measures when installing the outdoor unit.
 - Make sure the support can withstand at least four times the unit weight.
 - The outdoor unit should be installed at least 3cm above the floor in order to install drain joint.
 - Expansion screws needed per type of unit:
- | Cooling capacity | # screws |
|------------------|----------|
| 2300-5000W | 6 |
| 6000-8000W | 8 |
| 10000-16000W | 10 |



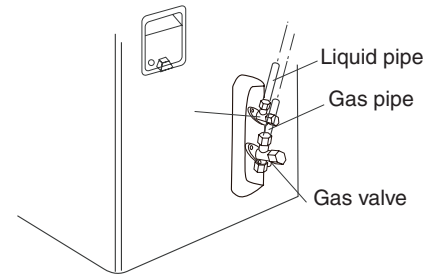
Installation of outdoor unit

Step four: connect indoor and outdoor pipes

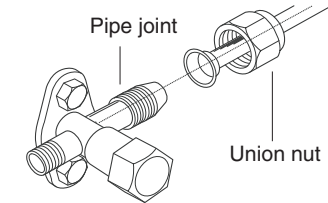
1. Remove the screw on the right handle of outdoor unit and then remove the handle.



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.

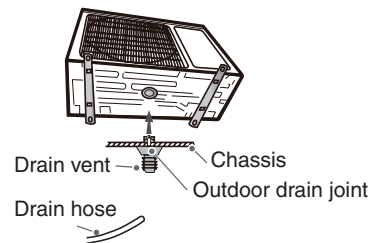


4. Tighten the union nut with torque wrench by referring to the sheet below.

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

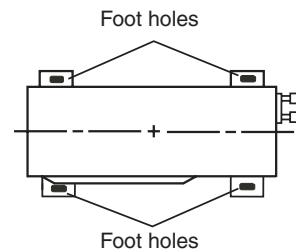
Step two: install drain joint (Only for cooling and heating unit)

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.



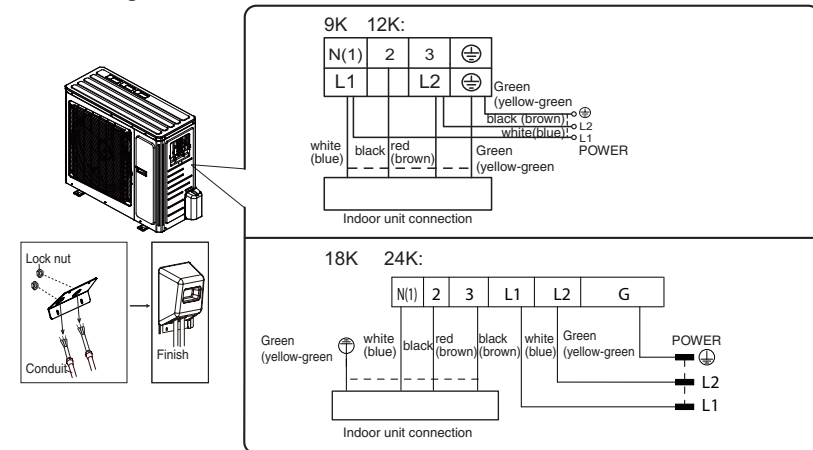
Step three: fix outdoor unit

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



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.



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

Installation de l'unité extérieure

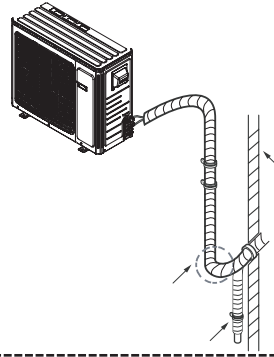
- Fix the power connection wire and signal control wire with wire clip (only for cooling and heating unit).

NOTES :

- 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 six: neaten the pipes

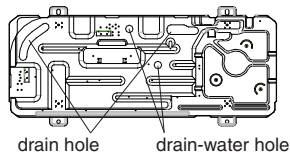
- The pipes should be placed along the wall, bent reasonably and hidden possibly. Min. semidiameter of bending the pipe is 10cm.
- If the outdoor unit is higher than the wall hole, you must set a U-shaped curve in the pipe before pipe goes into the room, in order to prevent rain from getting into the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



Outdoor Condensate Drainage (only for Heat pump unit)

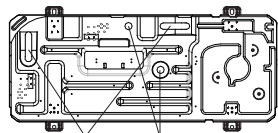
During heating operation, the condensate and defrosting water should be drained out reliably through the drain hose. Install the outdoor drain connector in a $\Phi 25$ hole or $\Phi 42$ hole on the base plate and attach the drain hose to the connector so that the waste water formed in the outdoor unit can be drained out. The hole diameter 25 or 42 must be plugged. Whether to plug other holes will be determined by the dealers to actual conditions.

18K UNIT:

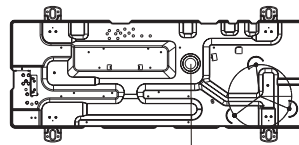


drain hole drain-water hole

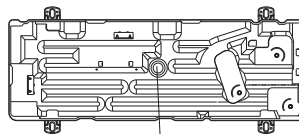
24K UNIT:

drain hole drain-water hole
Bottom frame

9K UNIT:

drain-water hole
Bottom frame

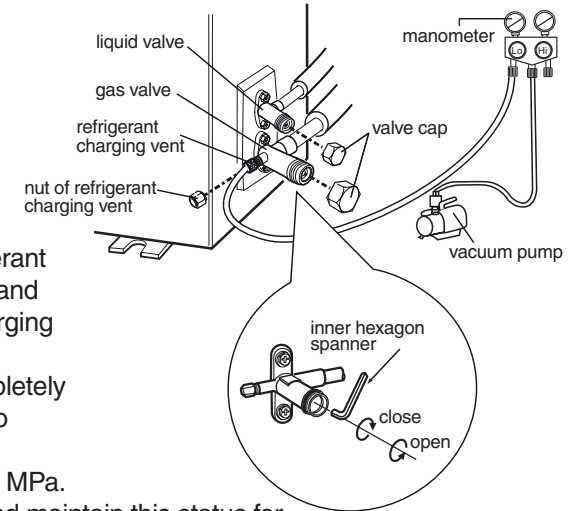
12K UNIT:

drain-water hole
Bottom frame

Vacuum pumping

Use vacuum pump

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



Leakage detection

- With leakage detector; check if there is leakage.
- 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, there's a leakage.

Check after installation

- Check the following after finishing installation.

Items to be checked	Possible malfunction
Is the unit securely fixed ?	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.
Is there any obstruction in the air inlet and outlet?	It may cause insufficient cooling (heating) capacity.
The dust and sundries caused during installation have been 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.

Operation test

1. Before test operation

- The client approves the air conditioner.
- Specify the important notes on 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
9000Btu/h (2637W)	20
12000Btu/h (3516W)	20
18000Btu/h (5274W)	25

Cooling capacity	Max length of connection pipe
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

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)
Φ6	Φ9.52 or Φ12	15	20
Φ6 or Φ9.52	Φ16 or Φ19	15	50
Φ12	Φ19 or Φ22.2	30	120
Φ16	Φ25.4 or Φ31.8	60	120
Φ19	—	250	250
Φ22.2	—	350	350

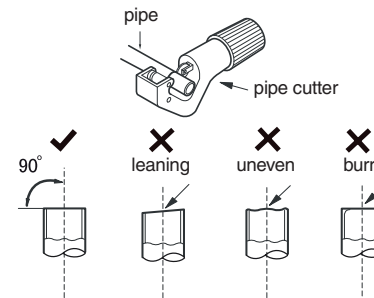
Pipe expanding method

Note:

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

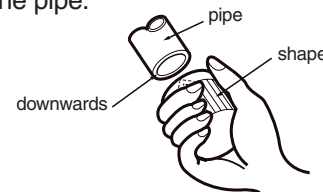
A: Cut the pipe

- 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

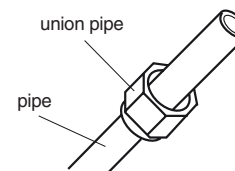
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.



C: Put on suitable insulating pipe

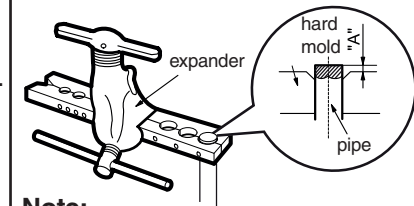
D: Put on the union nut

- 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.



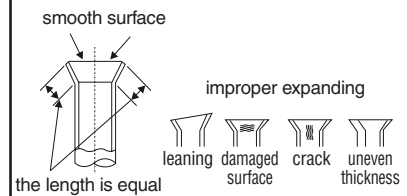
Note:

- "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.



0.06