Owner's Manual

Split Type Wall-mounted Air Conditioner

Thank you for selecting our products.
For correct operation, please read and keep this manual for reference.

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Operation Notices

Precautions

Warning

- Do not connect the air conditioner to multi-purpose socket. It may cause a fire hazard.
- Please disconnect power supply when cleaning the air conditioner. Otherwise, it may cause electric shock.
- Do not spray water on indoor unit. It may cause electric shock or malfunction.
- Do not repair any air conditioner by yourself. It may cause electric shock or damage. Please contact a certified technician if you need to repair your air conditioner.
- Do not block the air outlet or air inlet. It may cause malfunction.
- If you need to relocate the air conditioner to another place, only a certified technician should perform the work. Otherwise, it may cause personal injury or damage.
- Do not step on the top panel of outdoor unit or put heavy objects on. It may cause damage or personal injury.
- Do not extend fingers or objects into the air inlet or air outlet. It may cause personal injury or damage.
- The air conditioner should be properly grounded. Incorrect grounding may cause electric shock.
- Install the air switch. If not, it may cause malfunction.
- Installation and maintenance must be performed by certified technicians. Otherwise, it may cause personal injury or damage.

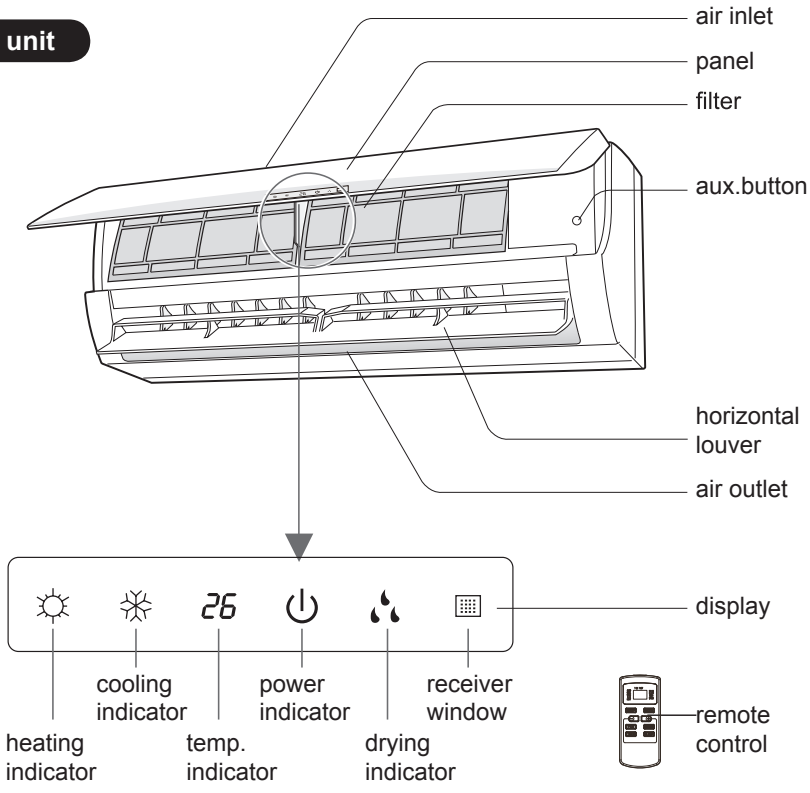
Working temperature range

	Indoor side DB/WB(℉)	Outdoor side DB/WB(℉)
Maximum cooling	89.6/73.4	109.4/78.8
Maximum heating	80.6/-	75.2/64.4

- The operating temperature range (outdoor temperature) for cooling only unit is 64.4 F ~ 109.4 F ; for heat pump unit is 19.4 F ~ 109.4 F.

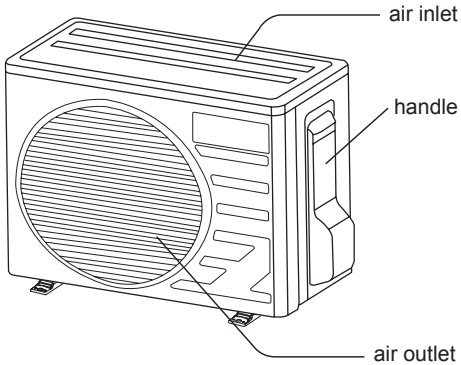
Parts name

Indoor unit



(Display content or position may be different from above graphics, please refer to actual products)

Outdoor unit



Notice:

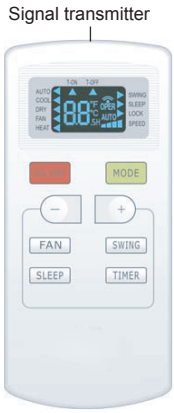
- Actual product may be different from above graphics, please refer to actual products.

OPERATION OF WIRELESS REMOTE CONTROL

Notice: This is a general use remote controller, it can be used for air conditioners with multifunctions. For some functions,which the model doesn't have, if pressing the corresponding button on the remote controller the unit will keep the original running status.

● Names and functions of wireless remote control

Note: Be sure that there are no obstructions between receiver and remote controller. Don't drop or throw the remote control. Don't let any liquid in the remote control or put the remote control directly under the sunlight or any place where it is very hot.



ON/OFF

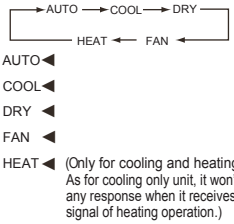
ON/OFF button

- Press this button, the unit will be turned on, press it once more, the unit will be turned off. When turning on or turning off the unit, the Timer and Sleep function are canceled, but the preset timing still remains.

MODE

MODE button

- Press this button, Auto, Cool,Dry, Fan, Heat mode can be selected circularly. Auto mode is default while power on. Under Automode,the temperature will not be displayed; under Heatmode, the initial value is 28℃(82℉); Under other modes,the initial value is 25℃(77℉).



SLEEP

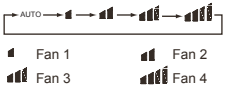
SLEEP button

- Press this button, Sleep On and Sleep Off can be selected. After powered on,Sleep Off is defaulted. After the unit is turned off, the Sleep function is cancelled. After Sleep function is set up, the signal of Sleep will display. In this mode,the time of timer can be adjusted. Under Fan and Auto modes, this function is not available.

FAN

FAN button

- By pressing this key,you may select AUTO, FAN 1, FAN 2, FAN 3 or FAN 4, and may also cycle between them. FAN 4 is only in cool mode. After being energized, AUTO is defaulted. Only LOW fan can be set under DRY mode, pressing this key will not adjust the fan speed, but can send message.
(Note:When selecting Fan 4, the fan speed is the same as Fan 3 on this unit)



OPERATION OF WIRELESS REMOTE CONTROL

Remote control

+

+ button

- For presetting temperature increases. Press this button to set up the temperature, when unit is on. Continuously press and hold this button for more than 2 seconds, the corresponding contents will be changed rapidly until unpressing the button and then sending the information, C (F) signal will be displayed all the time. In Auto mode, the temperature can not be set up, but operate this button and you can send the signal. Centigrade setting range : 16-30; Fahrenheit scale setting range 61-86.

-

- button

- Presetting temperature can be decreased. Press this button, the temperature can be set up, continuously press this button and hold for two seconds, the corresponding contents will be changed rapidly until unpressing the button and then sending the information, C (F) signal will be displayed all the time. The temperature adjustment is unavailable under the Auto mode, but the order can be sent by pressing this button.

TIMER

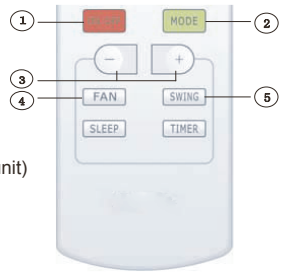
TIMER button

- By pressing this key under switch-off state,you may set the time for auto switch-on. The range of setting is 0.5 ~ 24 hours. The characters "T-ON" and "H" will flash for 5 seconds. Within 5 seconds, you may make one press of this key to complete the setting and send the message. If the setting is valid, the set time will be displayed for 2 seconds before display of the temperature message. During flash,you may press "+" key to increase the value and press "-" key to decrease the value. The time will increase or decrease by 0.5 hours with each press of this key. If pressing "+" or "-" key continuously, the time value will change rapidly. The remote controller can increase the set time by 0.5 hours every 0.25 seconds. After being energized, the default is no timer setting, and there is no display of "T-ON" or "H". Press ON/OFF key to switch on the unit and cancel the auto switch-on. When the temperature display becomes constant, you may press this key again to display the remaining set time. The time value, "T-On" and "H" will display constantly for 2 seconds. After 2 seconds,the preset temperature will be displayed. within these 2 seconds,you may press this key again to cancel the auto switch-on and send the message. By pressing this key under switch-on state,set the time for auto switch-off.
  The method of setting as the same as for auto switch-on.

OPERATION OF WIRELESS REMOTE CONTROL

● Guide for operation-General operation

1. After powered on, press ON/OFF button and, the unit will start to run.
2. Press MODE button to select the desired running mode.
3. Pressing + or - button will set the desired temperature. (It is unnecessary set the temp. in AUTO mode.)
4. Press the FAN button to set the fan speed to AUTO, FAN 1, FAN 2, FAN 3 or FAN 4.
   (Note: If selecting Fan 4, the fan speed is same as Fan 3 on this unit)
5. Pressing SWING button, to select the swing. (Note: Not available on this unit)



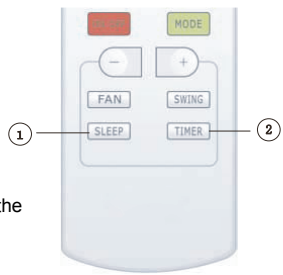
● Guide for operation-Optional operation

1. Press SLEEP button to set the sleep mode.
2. Press TIMER button to set the scheduled timer on or timer off.

● Introduction for special function

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

★ About LOCK
Under switch-on or switch-off state, you may hold "+" and "-" key simultaneously to lock and unlock the keypad. When locked, the display will show the LOCK icon, in which case the lock icon will flash three times upon operation of any key. After the keypad is unlocked, the lock icon on the display will be hidden. After being energized, the default is unlocked.

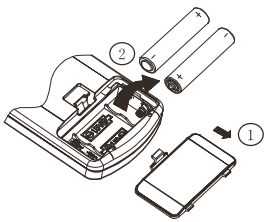


★ About switch between Fahrenheit and Centigrade
Under switch-off state, you may hold "-" and "MODE" keys simultaneously to switch between ℃ and ℉.

★ About Lamp
Under switch-on or switch-off state, you may hold "+" and "FAN" key simultaneously for 3 seconds to set the lamp on or off and send the code. After being energized, the lamp is defaulted on.

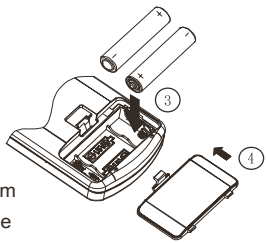
● Changing batteries and notices

1. Slightly press the place to take out the back cover of wireless remote control.(As shown in figure)
2. Take out the old batteries. (As show in figure)
3. Insert two new AAA1.5V dry batteries, and pay attention to the polarity. (As show in figure)
4. Attach the back cover of wireless remote control. (As show in figure)



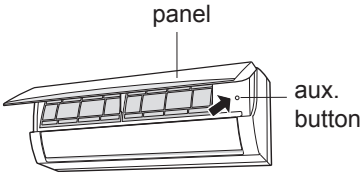
★NOTE:

- When changing the batteries, do not use the old or different size batteries, as it can cause malfunction of the wireless remote control.
- If the wireless remote control will not be used for a long time, please take them out, and don't let the leakage of liquid damage the wireless remote control.
- The operation should be in its receiving range.
- It should be placed at 1m away from the TV set or stereo sound sets
- If the wireless remote control can not operate normally, please take them out, wait 30 seconds and reinsert, if they still cannot run normally, please change them.



Emergency operation

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



Maintenance

Clean and maintenance

Note:

- Turn off the air conditioner and disconnect the power before cleaning the air conditioner, to avoid electric shock.
- Avoid washing the air conditioner with water in order to avoid electrical shock.

- Do not use volatile liquid to clean the air conditioner.

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

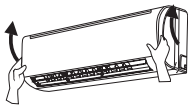
Note:

- Do not remove the panel when cleaning it.

Clean filter

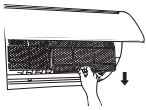
1. Open panel

Pull out the panel to a certain angle as shown in the fig.



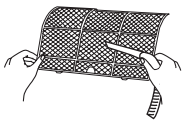
2. Remove filter

Remove the filter as indicated in the fig.



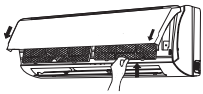
3. Clean filter

- Use a dust catcher or water to clean the filter.
- When the filter is very dirty, use water (below 113 F) to clean it, and then put it in a shady and cool place to dry.



4. Install filter

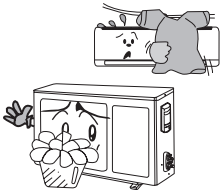
Install the filter and then close the panel cover tightly.



Note:

- The filter should be cleaned every three months. If the operating environment is very dusty, cleaning 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.

Checking before seasonal use



1. Check whether the air inlet and air outlet are blocked.
2. Check whether the air switch is in good condition.
3. Check whether thefilter is clean.
4. Check whether the mounting bracket for outdoor unit is damaged or corroded. If yes, please contact dealer.
5. Check whether the drainage pipe is damaged.

Checking after seasonal use

1. Disconnect power supply.
2. Clean filter and indoor unit's panel.
3. Check whether the 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 of them in appropriate recycling unit.
2. If you want to dispose of the air conditioner, please contact your local dealer or consultant service center for the correct disposal method.

Malfunction

General phenomenon analysis

Please check the following items before asking for maintenance. If the malfunction still can't be eliminated, please contact your local dealer or a certified technician.

Phenomenon	Check items	Solution
Indoor unit can't receive remote controller's signal or remote controller has no action.	● Whether it's severely interfered (such as static electricity, stable voltage)?	● Cut off the power supply. Turn on the power, after about 3 minutes turn on the unit again.
	● Whether remote controller is within the signal receiving range?	● Signal receiving range is 26 feet.
	● 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 and 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 fluoresent lamp and then try it again.
Air conditioner can't operate	● Power failure?	● Wait until power recovery.
	● 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?	● Power off, wait for 3 min, 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 be decrease and mist will disappear.

Phenomenon	Check items	Solution
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.
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: 60.8 F ~ 86 F
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.
Odours are emitted	● Whether there's odor source, such as furniture and cigarette, etc.	● Eliminate the odour source.
		● Clean the filter.
Air conditioner operates normally suddenly	● 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?	● While 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.

Error code

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

Error code	Troubleshooting
H1	Means defrosting status. It's a normal phenomenon.
E5	It can be eliminated after restarting the unit. If not, please contact certified technician for service.
H4	It can be eliminated after restarting the unit. If not, please contact certified technician for service.
U8	It can be eliminated after restarting the unit. If not, please contact certified technician for service.
H6	It can be eliminated after restarting the unit. If not, please contact certified technician for service.
C5	Please contact certified technician for service.
F1	Please contact certified technician for service.
F2	Please contact certified technician for service.

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

Warning

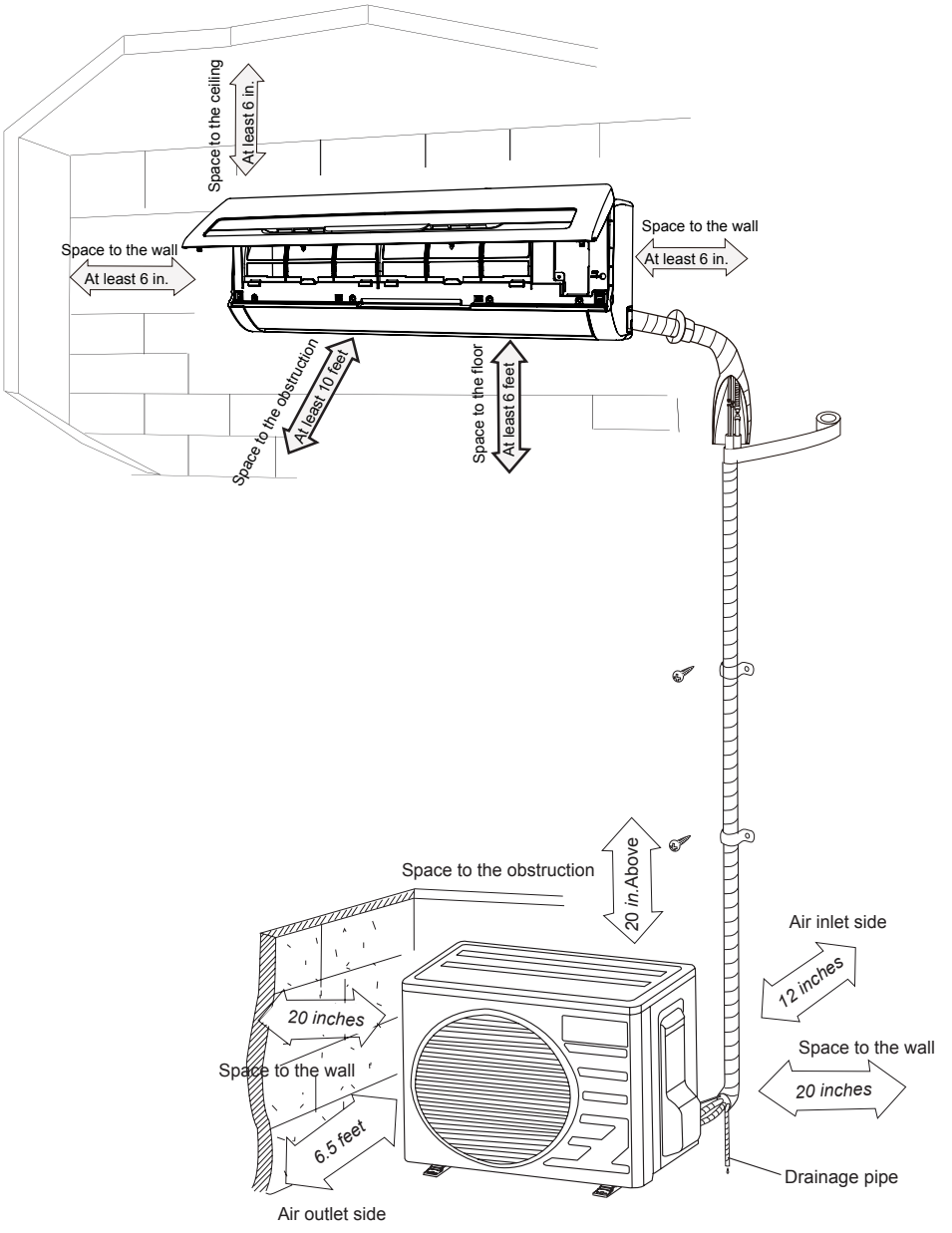
- When a phenomenon below occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or a certified technician for service.

Phenomenon
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

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 Inner hexagon spanner
9 Leakage detector
10 Vacuum pump
11 Pressure meter
12 Universal meter
13 Pipe cutter
14 Measuring tape

Note:

- 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 is near strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.

2.The place is near high-frequency devices (such as welding machine, medical equipment).

3.The place is near a coastal area.

4.The place has oil or fumes in the air.

5.The place has sulfureted gas.

6.Other places with special circumstances.

Indoor unit

1.There should be no obstruction near the 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 a power socket.

4.Select a location which is out of reach of children.

5.The location should be able to withstand the weight of the indoor unit and won't increase noise and vibration.

6.The height of indoor unit should be between 6 feet from the floor, in order to provide sufficient space for maintenance.

7.Don't install the indoor unit right above the electric appliance.

8.The appliance should not be installed in the laundry area.

Outdoor unit

1.Select a location where the noise and outflow air emitted by the outdoor unit will not affect the 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 requirements of the installation dimension diagram.

5.Select a location which is out of reach of children and far away from animals or plants. If it is unavoidable, please add a fence around unit for safety purposes.

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 a qualified power supply circuit and air switch.

3.Make sure the power supply matches with the requirement of air conditioner. Unstable power supply or incorrect wiring may result in electric shock,fire hazard or malfunction. Please install proper power supply cables before using the air conditioner.

4.Properly connect the live wire, neutral wire and grounding wire of power socket.

5.Be sure to cut off the power supply before proceeding with any work related to electricity and safety.

6.Do not turn on the power before finishing installation.

7. For appliances with type Y attachment,the instructions shall contain the substance of the following. If the supply cord is damaged,it must be replaced by the manufacturer, its service agent or a certified technician 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.

Grounding requirement

1.The air conditioner is a first class electric appliance. It must be properly grounded with a specialized grounding device by a certified technician. Please make sure it is always grounded effectively, otherwise it may cause electric shock.

2.The yellow-green wire in the 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.The appliance must be positioned so that the air switch is accessible.

5.An all-pole disconnection switch having a contact separation of at least 3 cm in all poles should be connected in fixed wiring.

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

Air-conditioner	Air switch capacity
09K	10A
12K	16A

Installation

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

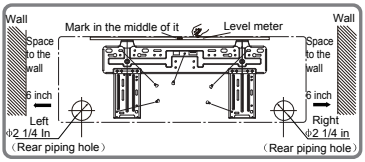
1.Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.

2.Drill the screw fixing holes on the wall with 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.

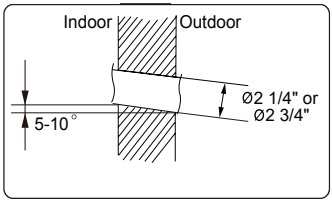
3.Fix the wall-mounting frame on the wall with tapping screws (ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

Step three: Open piping hole

1.Choose the position of piping hole according to the direction of outlet pipe.



2.Open a piping hole with the diameter of 2 1/4 inches or 2 3/4 inches 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°.



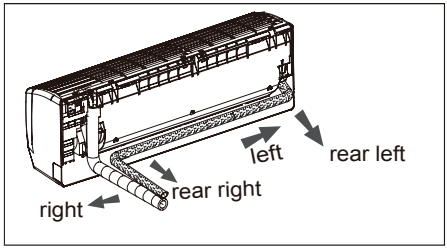
Piping hole	Model
2 1/4 In.	Cooling capacity < 6000W
2 3/4 In.	Cooling capacity ⩾ 6000W

Note:

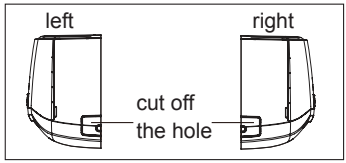
- Pay attention to dust prevention and take relevant safety measures when opening the hole.
- The plastic expansion particles are not provided and should be bought locally.

Step four: outlet pipe

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

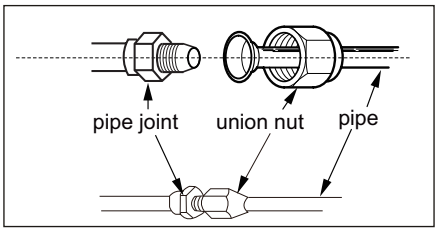


2.When selecting leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.



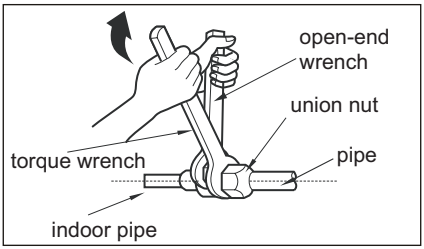
Step five: connect the pipe of indoor unit

1.Aim the pipe joint at the corresponding bellmouth.



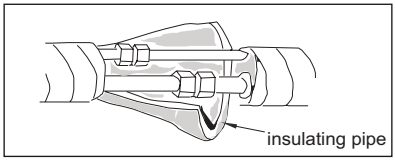
2.Pre-tighten the union nut with hand.

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.



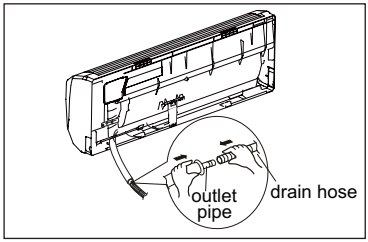
Pipe Diameter	Tightening torque (ft-lbs)
Φ 1/4″	10～13
Φ 3/8″	25～30
Φ 1/2″	36～45
Φ 5/8″	50～60

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

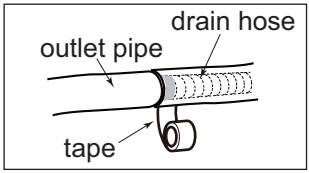


Step six: install drain hose

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

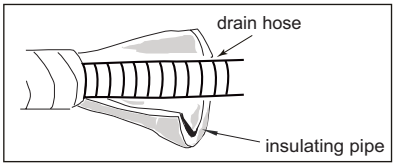


2.Bind the joint with tape.



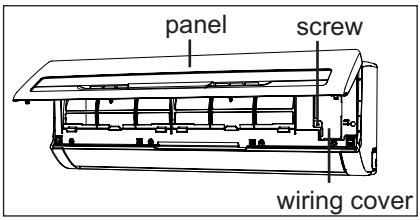
Note:

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

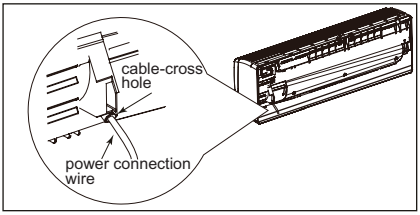


Step seven: connect wire of indoor unit

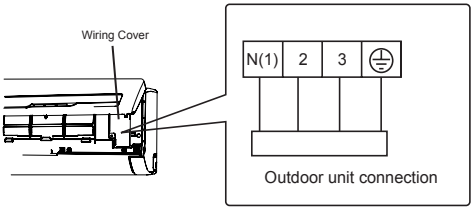
1.Open the panel, remove the screw on the wiring cover and then take down the cover.



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 ; tighten the screw and then fix the power connection wire with wire clip.



4.Put wiring cover back and then tighten the screw.

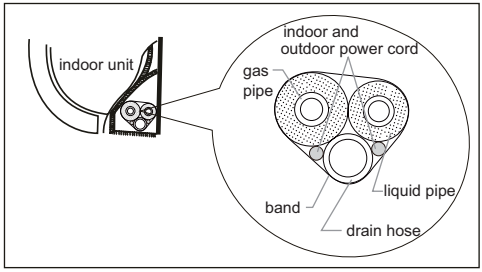
5.Close the panel.

Note:

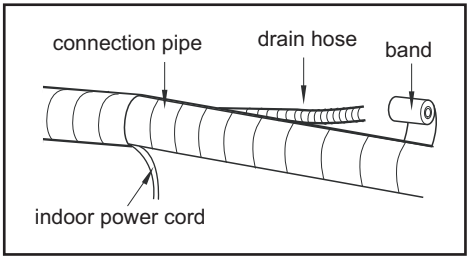
- All wires of the indoor units and outdoor units should be connected by a certified technician.
- If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
- For the air conditioners with plugs, the plugs should be reachable after finishing installation.
- For the air conditioners without plugs, 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.

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 winding.
- The drain hose should be bound at the bottom.

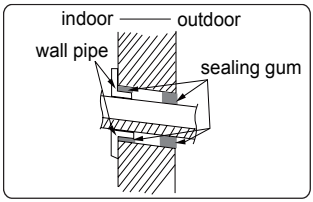
Step nine: hang the indoor unit

1.Put the bound pipes in the wall pipe and then make them pass through the wall hole.

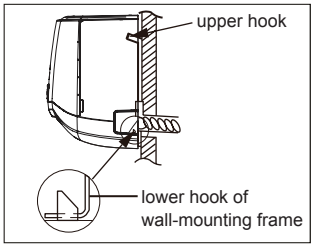
2.Hang the indoor unit on the wall-mounting frame.

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

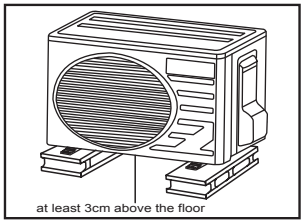
Step one: fix the support of outdoor unit(select it according to the actual installation situation)

1.Select installation location according to the house structure.

2.Fix the support of outdoor unit on the selected location with expansion screws.

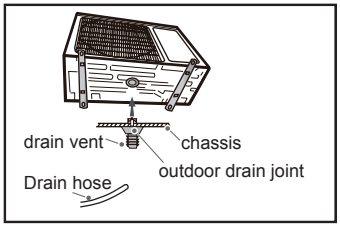
Note:

- ●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.
- ●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 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.

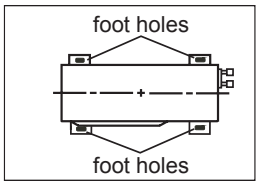


2.Connect the drain hose into the drain vent.

Step three: fix outdoor unit

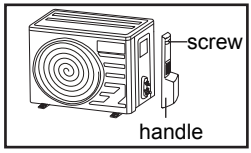
1.Place the outdoor unit on the support.

2.Fix the foot holes of outdoor unit with bolts.

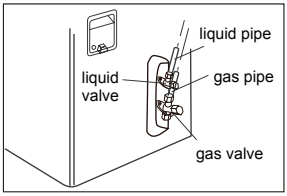


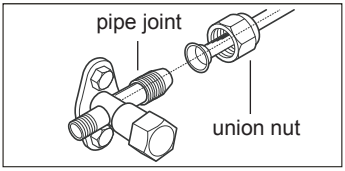
Step four: connect indoor and outdoor pipes

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 bellmouth of pipe.





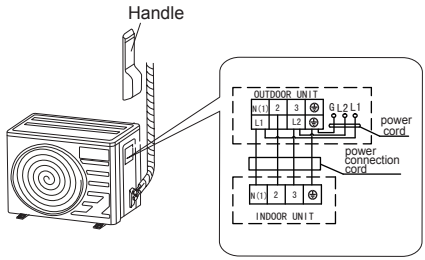
3.Pre-tighten the union nut with hand.

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

Hex nut diameter	Tightening torque (ft-lbs)
Φ 1/4"	10~13
Φ 3/8"	25~30
Φ 1/2"	36~45
Φ 5/8"	50~60

Step five: connect outdoor electric wire

1. Remove the handle from the right side plate for outdoor unit.
2. Pass the power connection cord and power cord through the wire hole.
3. Remove wire clamps, and then connect power connection cord and power cord to the terminal and fix them tightly. Wiring distribution must consistent with the wiring diagram.
4. Fix power connection cord and power cord with wire clamps.
5. Make sure that the wiring is fixed tightly.
6. Reinstall the handle.



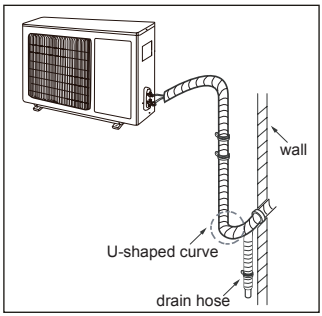
Note:

- After tightening 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

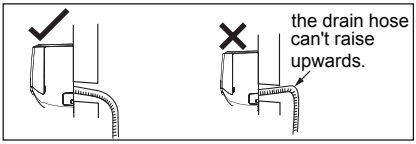
1.The pipes should be placed along the wall, bent reasonably and hidden possibly. Min. semidiameter of bending the pipe is 10cm.

2.If the outdoor unit is higher than the wall hole, you must set a U-shaped curve in the pipe before pipe goes into the room, in order to prevent rain from getting into the room.

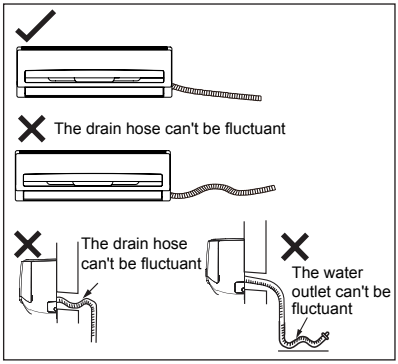


Note:

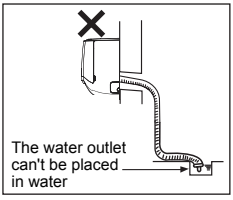
- The through-wall height of drain hose shouldn't be higher than the outlet pipe hole of indoor unit.



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



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



Vacuum pumping

Use vacuum pump

1.Remove the valve caps on the liquid, gas valve, and the nut of the 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.

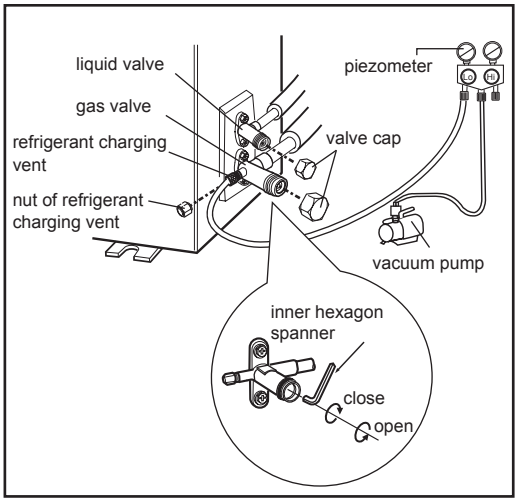
3.Open the piezometer completely and operate for 10-15 min to check if the pressure of piezometer remains in -0.1MPa.

4.Close the vacuum pump and maintain this status for 1-2 min 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 3 min. If there are air bubbles coming out of this position, there's a leak.

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 air inlet and air outlet?	It may cause insufficient cooling (heating).
The dust and sundries caused during installation are removed?	It may cause malfunction or damage to parts.
The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.

Test operation

1.Preparation of test operation

- The client approves the air conditioner installation.
- Specify the important notes for the 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 60.8 F, the air conditioner can’t start cooling.

Attachment pipe

Configuration of connection pipe

1.Standard length of connection pipe

● 15 ft, 25 ft, 35 ft, 50 ft.

2.Min. length of connection pipe is 9.8 feet.

3.Max. length of connection pipe and max. high difference

Cooling capacity	Max length of connection pipe	Max height difference	Cooling capacity	Max length of connection pipe	Max height difference
5000Btu/h(1465W)	15	5	24000Btu/h(7032W)	25	10
7000Btu/h(2051W)	15	5	28000Btu/h(8204W)	30	10
9000Btu/h(2637W)	15	5	36000Btu/h(10548W)	30	20
12000Btu/h(3516W)	20	10	42000Btu/h(12306W)	30	20
18000Btu/h(5274W)	25	10	48000Btu/h(14064W)	30	20

4.Additional refrigerant oil and refrigerant charging are required after prolonging connection pipe

● After the length of connection pipe is prolonged for 32.8 feet at the basis of standard length, you should add 5ml of refrigerant oil for each additional 16.4 feet of connection pipe.

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

● When the length of connection pipe is above 16.4 feet, add refrigerant according to the prolonged length of liquid pipe. The additional refrigerant charging amount per meter is different according to the diameter of liquid pipe. See the following sheet.

● Additional refrigerant charging amount = prolonged length of liquid pipe × additional refrigerant charging amount per meter

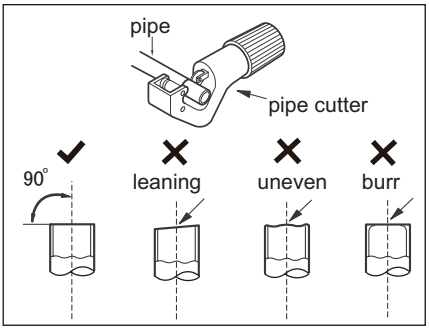
Additional refrigerant charging amount for R22, R407C, R410A and R134a

Diameter of connection pipe		Outdoor unit throttle	
Liquid pipe(Inch)	Gas pipe(Inch)	Cooling only(g/m)	Cooling and heating(g/m)
Φ1/4″	Φ3.8″ or 1/2″	15	20
Φ1/4″or 3.8″	Φ1/2″ or 3/4″	15	50
Φ1/2″	Φ3/4″ or 7/8″	30	120
Φ5/8″	Φ1″ or Φ1 1/4″	60	120
Φ3/4″	_	250	250
Φ7/8″	_	350	350

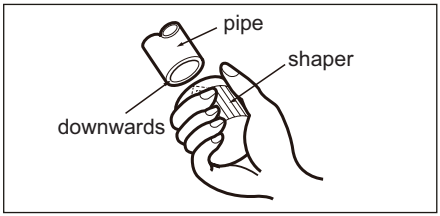
Pipe expanding method

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.

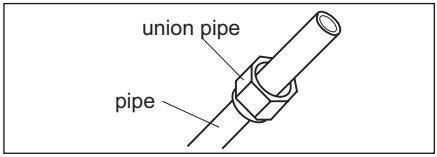


B:Remove the burrs
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.

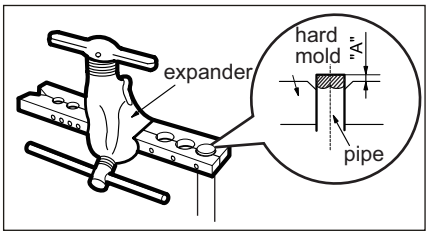


C:Put on suitable insulating pipe

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

Outer diameter(Inch)	A(mm)	
	Max	Min
Φ1/4″	1.3	0.7
Φ3/8″	1.6	1.0
Φ1/2″	1.8	1.0
Φ5/8″	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.