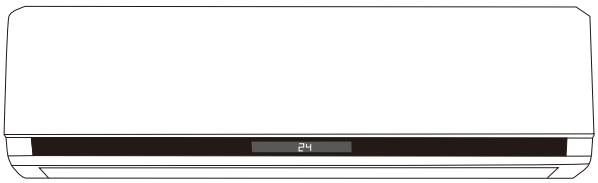
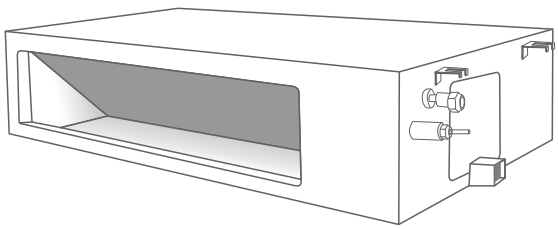
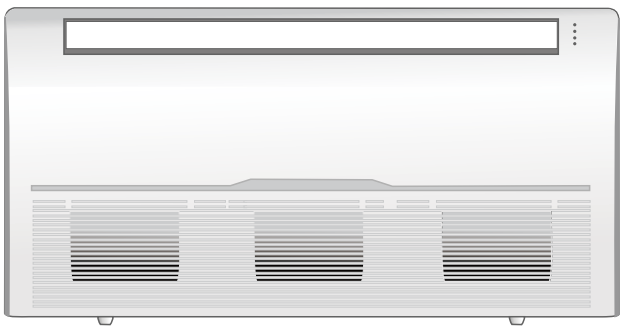
Installation
Operation
Instruction Manual

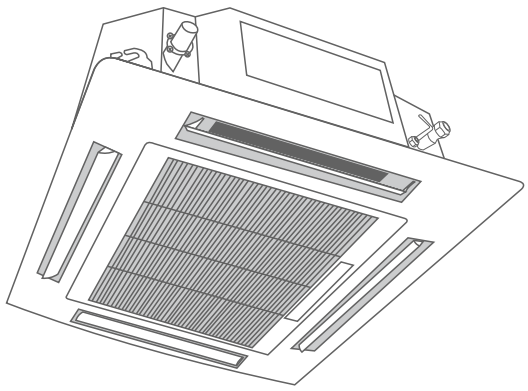
DC Inverter Type Air Conditioner (Indoor Unit)

- ◆ Installation should only be carried out by qualified technicians.
- ◆ For your convenience, please read this manual carefully and carry out all instructions in full.
- ◆ Please keep this manual in good condition for your reference.









Safety precautions

In order to prevent the risk of death, serious injury or damage to property please comply with the following important safety instructions.

The extent of possible harm is described by the following symbols

⚠ Warning

This symbol indicates danger of death or serious injury

⚠ Caution

This symbol indicates danger of injury or damage to property

The unit must be operated in accordance with the following symbols

This symbol indicates something which is strictly forbidden

This symbol indicates something which must be adhered to

★Protective measure

⚠ Warning

- Your air conditioner is not designed to be installed by yourself and should only be installed by a qualified, competent and trained technician.
  The presence of Mains Voltage electricity and high pressure refrigerant gas make installing this system a specialist task which you should not attempt yourself.
- Any electrical work on the air conditioner should only be carried out by a qualified, competent and trained technician and not by yourself
- Ensure the electrical power is disconnected during service and maintenance

Important

- This unit is not suitable for operation by minors or disabled users
- Children should be prevented from operating the air conditioner

⚠ Warning

- The unit must be correctly earthed.
  Incorrect grounding will cause earth leakage and electric shock

- Earth Leakage Protection must be installed.
  Failure to do so carries the risk of electric shock and fire

⚠ Caution

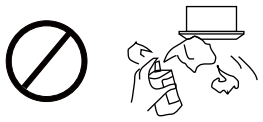
- Do not install either the indoor or outdoor unit in a place where flammable or explosive gases are present or there is a high risk of a fire or explosion occuring

- Ensure the unit drain pipe work is properly connected and made or water leaks will occur

★Safety precautions

⚠ Warning

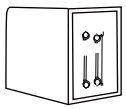
Don't use flammable sprays near the air-conditioner.



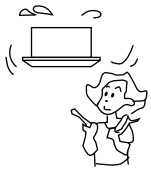
If there are some abnormalities (such as the smell of scorching), please shut down and cut off power supply.

Don't use open flame near the air-conditioner.

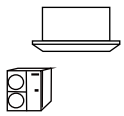
Do not use sub-standard or damaged wires.



Do not attempt to repair the air conditioner yourself



Do not put fingers or other objects into the air conditioner. Do not touch metal parts of the heat exchanger.

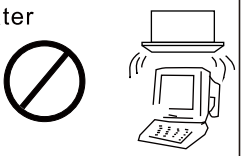


⚠ Caution

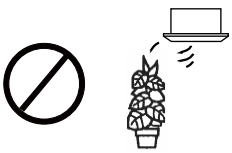
Your air conditioner is designed for comfort cooling or heating. It is not designed for any other purpose and specifically should not be used for storing food, animals, plants, precision instruments, art or antiques, nor any other special item. It is not designed for specialist computer rooms

Do not use naked flames where the air flow from the unit can reach directly. The air from the unit will interrupt the combustion process and either extinguish the flame or misdirect it. Either is a danger of fire or explosion

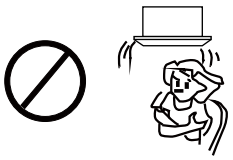
Your air conditioner contains water and may also drip if the humidity is the room is too high. Do not, therefore, place any object under the unit which could be damaged in the event of water dripping on it.



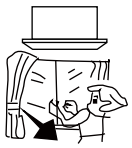
Do not direct the air from the unit directly onto animals or plants as this may be harmful to them



Do not sit in the cold air stream directly for long periods

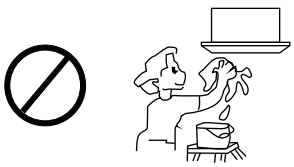


Ensure the room is properly ventilated

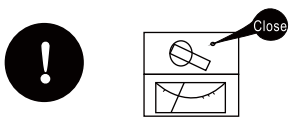


Check the air conditioner regularly to ensure correct operation and that nothing has become loose

Do not clean the air-conditioner with water.



Before cleaning the air-conditioner, cut off the power.



★Installation precautions

- Before commencing with the installation please read these Installation Precautions thoroughly, making sure you understand them in full.
- These Installation Precautions are very important for the safety of you and others and should be complied with in full.
- The potential risks are described by the following symbols

⚠ **Warning**	Danger of serious injury or death
⚠ **Caution**	Danger of damage to property
⊘ **Forbidden**	Do not do this under any circumstances

- The below symbols indicate steps which are mandatory

❗ ⏚	These steps are mandatory and should be carried out without fail

- It is important that the unit is correctly commissioned after the installation is complete to ensure it is operating correctly.
  After commissioning you should use this manual to explain to the user the correct method of operating the unit and its maintenance requirements.

⚠ Warning

- Do not attempt to install this unit yourself. Incorrect installation can cause refrigerant or water leakage, electric shock, fire or other danger to health and safety or property.
- Where the unit is installed must be solid enough to withstand the weight of the unit. If it is not then there is the danger of the structure collapsing or the unit falling creating a danger of serious injury or death.
- The installation should be mindful of potential damage by strong winds, earthquakes or other natural phenomena. These should not be able to cause the unit to fall over and cause an accident.
- The electrical installation should be in accordance with local and national specifications and only be carried out by qualified personnel in accordance with the installation instructions. The air conditioner should have its own dedicated power supply.
- Ensure the power supply is of sufficient capacity for the unit or there is a risk of fire, electric shock or other failure.
- The wiring should be made correctly using the specified cable and properly secured to avoid the risk of external forces causing the connections to come loose. Failure to do this runs the risk of electric shock or fire.
- Ensure the refrigerant pipe work is fully evacuated and leak tested and do not over charge with refrigerant. Over charging with refrigerant can cause a leak to occur after installation. Leaks can cause a high concentration of refrigerant in an area which may result in sudden death by asphyxiation.
- Do not carry out any electrical work unless the power supply has been disconnected.
- If the unit is installed in a small room there is danger of a leak causing the refrigerant gas concentration to exceed the maximum permissible for safe breathing and this can cause sudden death by asphyxiation. Please consult your dealer about preventative measures such as audible visual leak detectors.
- When making pipe connections be sure to use a torque wrench and tighten the flare nuts to the correct torque, Over and under tightened nuts can cause refrigerant gas to leak. Do not operate the compressor unit the pipe work has been correctly made, leak tested and evacuated.
- While performing installation or maintenance ensure that no foreign objects can enter either the unit or pipe work
- Do not use any refrigerant other than the one indicated on the outdoor unit nameplate. Do not allow foreign bodies or moisture to enter the pipe work during installation and ensure the pipe work is fully leak tested and evacuated before running the unit. If the refrigerant gas becomes contaminated with moisture, air or other gases then the unit will not perform correctly and there is a risk of leakage, explosion or other damage to the unit.
- Do not extend the power cable or use multiple power cables.

⚠ Warning

- Do not place the outdoor unit near balconies or anywhere where children can climb onto it and potentially fall off and injure themselves
- The indoor unit should be mounted at least 2.5 metres above the ground to prevent people from interfering with it
- If there is a refrigerant leak during installation immediately ventilate the space thoroughly.
  Once the installation is complete carry out a thorough leak test of the system.
  Never allow refrigerant gas to make contact with sparks or naked flames as burning refrigerant releases poisonous gases.
- Ensure the electrical supply cable is properly protected and connections are made properly.
  Bad connections will cause the cable to overheat and potentially cause electric shocks or fire.
- An Earth Leakage protector must be installed. The entire electrical installation should be checked by a qualified electrician to avoid the potential for electrical shocks or fire.
- The unit must be adequately earthed
  Never connect the earth wire to gas or water pipes, lightning rods or telephone cables.
  Inadequate grounding of the earth cable may lead to the danger of serious injury or death by electric shock

- 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.
  (Only for the AC with CE-MARKING except for the AC with CE-MARKING)
- Children should be supervised to ensure that they do not play with the appliance.
  (Except for the AC with CE-MARKING)

- The air conditioner cannot produce smells by itself but odours or bacteria taken in from the room may accumulate inside the unit and produce unpleasant odours.
- Try cleaning the air filter. If the problem persists the unit must be cleaned by a professional so please contact your dealer or service centre.

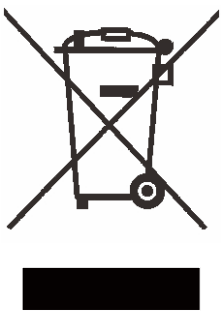
- In order to prevent cold drafts in the room the indoor fan only runs when the air is hot during heating mode. When there is a requirement for heating and the unit starts to heat then the fan will start, after a short time.
- The unit has a memory function and, in case of a power failure, will restart after power is restored in the same mode and with the same settings as before the power failure.

★ Notices for R410A models

N 842/2006： If the air conditioner you bought used the refrigerant R410A, the amount of refrigerant is in a closed cooling circuit. The coolant does have zero ozone depletion potential, but is a so-called greenhouse gases under the Kyoto Protocol and may thus contribute to global warming,if it is released to the atmosphere. Therefore only trained technicians with refrigerant certificate make a filling or emptying.
GWP: R410A(R32/125:50:50):2088

★ Meaning of crossed out wheeled dustbin:

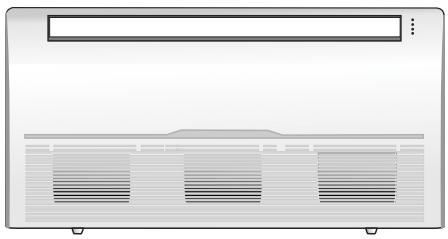
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.
Contact you local government for information regarding the collection systems available.
If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.
When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposals at least free of charge.
(Only for the AC with CE-MARKING)



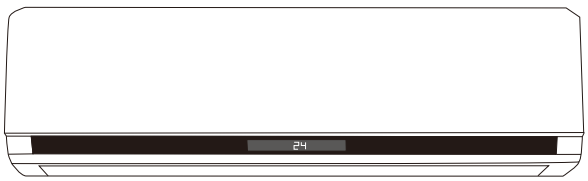
1. Indoor unit

NOTE:the pictures are for reference olny，please consult with the real products.

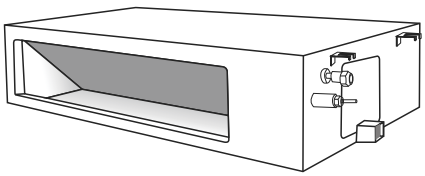
Ceiling&Floor Ait Conditioner Unit



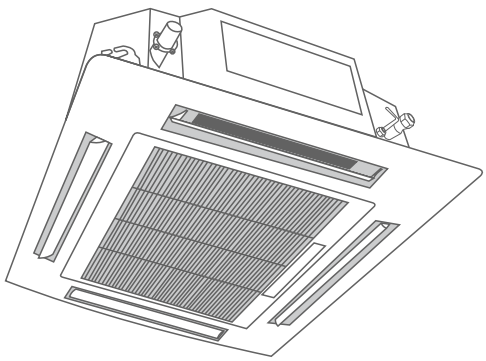
Wall-mounted Air Conditioner Unit



Duct Type

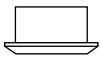
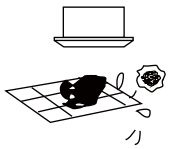


Ceiling cassette split air conditioner unit

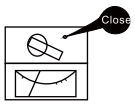


2. Operation instructions

Following the instructions below will allow you to get the best from your air conditioner

Proper use method	
● **During cooling, avoid direct sunshine** Please close the curtains 	● **Do not obstruct air flow** Do not place objects near the air inlet or outlet of either the indoor or outdoor unit. If the air flow is obstructed then the air conditioner will be unable to perform correctly. 
● **Try not to cool excessively** Suggestion of setting temperature: Cooling: 26～28℃ Heating: 18～22℃ Dehumidify: 20～24℃ 	● **Do not use other heating equipment when unit run cooling function** Using heating equipment will affect the cooling effect. 
● **Keep the windows or doors shut** Open windows or doors will increase the amount of heating or cooling required and may prevent the unit being able to perform correctly 	● **Clean the air filter regularly** Dirty filters will prevent the unit from being able to perform correctly and may cause expensive damage. Clean regularly by washing or with a vacuum cleaner. Replace if necessary. We recommend filter cleaning once a month or more frequently if required. 

⚠ Caution

●Before Cleaning the air filter stop the unit on the controller and turn off at the power supply. 

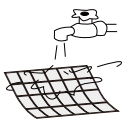
●Do not clean the air conditioner with water or you risk both electric shock and short circuit.

●When cleaning the air filter ensure you pay attention to health and safety.

★Cleaning the Air Filter

In order to ensure the best performance from your air conditioner clean the air filter regularly
We recommend cleaning once a month or more frequently if required.

1. The filter can be cleaned using a vacuum cleaner or with soap and water.
2. Take off the air filter
   (1) First, take off the bolt casing on the air inlet grille, then take off the blots using the screwdriver, and take off the filter net.
   (2) Set the filter net back to the air inlet grille, fix its bolt and the casing.

⚠ Caution

- Electricity ,Dangerous!Cut off all the power supply before maintenance .
- When the filter is very dirty it can be washed in detergent and hot water (below 45°C).
- Ensure the filter is fully dry before reinstallation to avoid risk of electric shock or short circuiting.
- Do not dry the filter using direct sunlight.

2.1 Maintenance and service

★At the beginning of each Season you should check

1.There are no physical obstructions at the air inlet or outlet of either indoor or outdoor unit. These will prevent the unit from operating correctly and may cause expensive damage to your unit

2. The electrical cables are in good condition, particularly the earth cable. Damage must be immediately rectified by a trained person

3.Are the drains blocked? If the drain is blocked then the unit will be prevented from operating and an expensive water leak may occur.

★Check at the end of service season

Operate for 2～3 hours under the ventilation condition; remove the moisture of the indoor unit.

▼

Close power after the unit stops.

Note: when the unit is not in use for a long time, please cut-off power supply.
If the unit is stopped by the remote controller, it will still consume some power.

★Other check

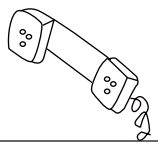
1. After several seasons you should have the dealer or service centre clean the indoor and outdoor unit thoroughly. This will ensure the unit continues to work correctly.
2. It is possible that contaminant build up inside the unit may cause drain blockage, bad smells, water leaks and shortage of airflow, cooling or heating performance. If these occur you should have the dealer or service centre clean the system and investigate.
3. Do not attempt to clean the inside of either the indoor or outdoor unit yourself. This is a hazard to health and may cause system failure.

2.2 Fault diagnosis

⚠ Caution

If you experience abnormal operation such as the smell of burning, water leaks, loud noises etc. Turn off the power supply and contact the dealer or service centre.
If you leave the unit running then major damage may occur.

Do not attempt to service or repair the unit yourself.
Errors by untrained personnel can cause short circuits, gas leakage and fire as well as being A serious danger to health and safety.
Please have all service work done by your dealer or a trained service centre.

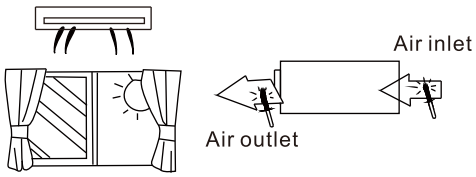
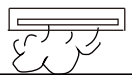
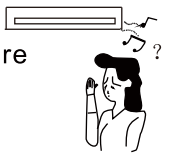


★When there is the following phenomenon, please contact the dealer or the customer service center.

- Unusual Sound During Operation
- Water Leakage at the indoor unit
- The unit wont respond to the controller
- Burning smells or smoke
- Failure of the electrical circuit or tripping the fuse
- Cables are abnormally hot

➤ ● Stop the unit and cut off power supply

In case one of the following conditions happens, please check the unit as shown below. If the problems persist, please contact the dealer or the customer service center.

Fault	Check
The unit dose not operate	● Has the Earth Leakage device tripped? ● Has the circuit breaker or fuse tripped ● fuse tripped ● Is the electrical Voltage normal (between 90 & 110%) 
The cooling or heating performance is poor	● Is the air filter dirty (if the filter has been installed)? ● Are the air inlet and outlet blocked? ● Are the door and window closed? When the unit has been running for 15 minutes, measure the temperature of the air inlet and outlet. If the two temperature differ 8℃ or above during cooling and differ 14℃ or above during heating, it is normal. In different environments these figures may vary. Please consult your installer for advice. 
The indoor fan does not appear to operate	● During heating or under certain other circumstances the indoor fan may slow down or stop as part of the systems normal operation. 
Indoor Unit produces water vapour	● This can occur when the cold air from the unit meets the warm air in the room 
The indoor unit makes strange sounds	● When the air conditioner stops, or changes between cooling and heating modes a gurgling or whooshing sound is normally made. ● The indoor unit will expand or contract due to the temperature change and may produce creaking or groaning sounds. ● A gurgling sound is made by the flow of refrigerant through the pipes. 
The air conditioner seems to produce unpleasant smells	● The air conditioner cannot produce smells by itself but odours or bacteria take in from the room may accumulate inside the unit and produce unpleasant odours. ● Try cleaning the air filter. If the problem persists the unit must be cleaned by a professional so please contact your dealer or service centre.

Fault	Check
During heating the indoor fan only operates after the unit starts heating and the operation light on the wired controller (optional) flashes	● In order to prevent cold drafts in the room the indoor fan only runs when the air is hot during heating mode. When there is a requirement for heating and the unit starts to heat then the fan will start, after a short time. ● The unit has a memory function and, in case of a power failure, will restart after power is restored in the same mode and with the same settings as before the power failure.

★Fault code

●Indoor fault code

code	Description	code	Description
A1	Failure of indoor ambient temperature sensor	A8	Failure of EEPROM
A2	Midpoint temperature sensor failure of indoor coil pipe	A9	Communication failure of indoor and outdoor units
A3	Inlet temperature sensor failure of indoor coil pipe	AA	Communication failure of indoor unit and wired controller
A4	Outlet temperature sensor failure of indoor coil pipe	AC	Failure of centralized heavy unit
A5	Failure of indoor water pump	AE	Different modes operation
A6	Failure of indoor PG fan	AH	Address conflict of indoor unit
A7	Failure of reversible synchronous motor	AJ	Overlarge total power of indoor unit

●Faults:

1.Wired controller uses failure code of two digits, the first digit of which indicates characters in column “B” and the second digit of which indicates “0~F” characters corresponding to each row.

2.Remote receiving panel uses three indicators.

Power light and timing light have three states respectively corresponding to row “9” and column “B”.

Flickering times of running light correspond to “0~F” characters of each row.

The details are shown below:

Power lamp	Timing lamp	Running lamp	Faults			Remark
○	○	★(1～15times)	Indoor	A	1～F	○ off ● on ★ Flicker
○	●		Outdoor	C		
○	★			E		
●	○			H		
●	●			F		
●	★			J		
★	○			3		
★	●			4		
★	★			5		

Remarks: when power light or timing light flickers, it only flickers one time for each warning.

After flickering, running light indicates according to specific failure.

Example: 53 failures, power light and timing light flicker one time at the same time.

Two seconds later, running light fickers three times. Interval between the two warnings is eight seconds.

3. Installtion of indoor unit

3.1 Ceiling&Floor Ait Conditioner Unit

■ Select installation site

※Ensure the following conditions are satisfied and confirm the position with the customer.

1. There are no obstacles to hinder air circulation. The air should be able to reach every part of the room.
2. The installation site should be convenient for water draining.

⚠Warning	3. Ensure the installation position is able to take four times of the unit weight. There should be no increase in noise and vibration.

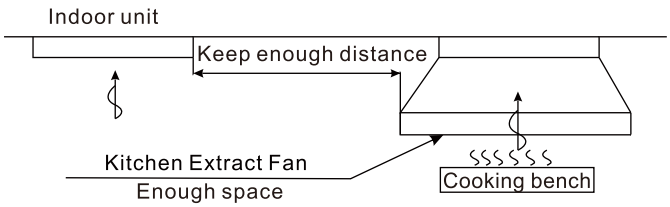
4. The indoor unit must be away from source of heat or steam. It should be some distance from the entrance to the room.
5. It should be close to the dedicated power supply designated for its use.
6. It should be as close as possible to the outdoor unit
7. It should not be exposed to direct sunlight and away from sources of moisture
8. The height of the unit above the ceiling should allow for correct drainage from the unit
9. Do not install the unit in a washing or drying room risk of electric shock.
10. In the inlet and outlet of indoor unit, protective barriers should be installed to prevent finger from inserting or contacting the fan with high speed and metal fin.

■Matters requiring attention 1

In the following places, please carry out a full inspection and take appropriate action.

1. In restaurants, kitchens and other eating places, dust, flour, grease steam and other cooking by products will easily attach to the indoor fan, heat exchanger and drain pump. This will cause the performance to reduce and cause the unit to spray water, leak and may lead to the drain pump or other components to fail.

Please consider adopting the following improvement measures.



The capacity of the kitchen extract fan and extract hood should be great enough to ensure that the oil, steam, flour and other cooking products will be exhausted through it and not attracted into the air conditioner.

The indoor unit should be far enough away from the cooking and food preparation equipment to ensure that cooking products are not attracted into the unit.

2. When installing the unit in a factory, ensure it is situated in a place where it will not be contaminated by oil, powder, iron filings or dust.
3. Do not install near potential sources of combustible gas
4. Do not install where acidic or corrosive gases are present

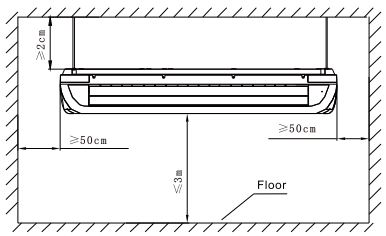
■Matters requiring attention 2

Do not drop the indoor unit or allow it to fall during transport.

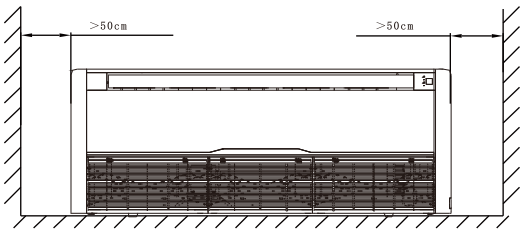
★Installation

There are two ways of indoor unit installation: ceiling and floor.

1.Floor

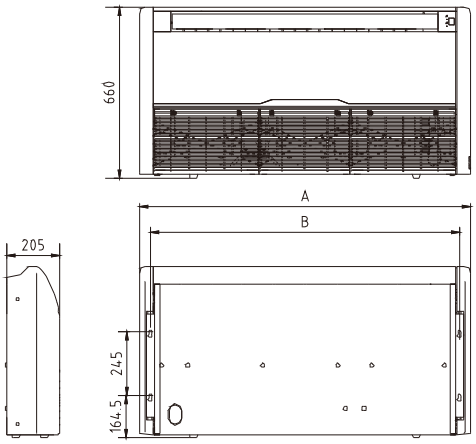


2.Ceiling



■The dimension of indoor unit

Unit: mm



Type	A	B
9000BTU 12000BTU 16000BTU 18000BTU	929	841
24000BTU 30000BTU 36000BTU-10.0KW	1280	1192
36000BTU-11.2KW 42000BTU 48000BTU	1631	1543

★Installation

There are two ways of indoor unit installation: ceiling and floor.

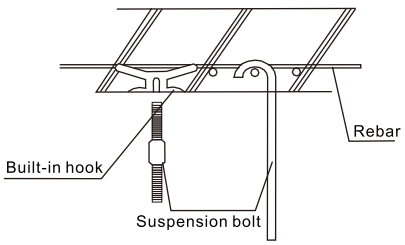
■Ceiling installation

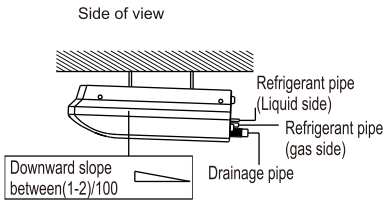
1.Select the suspension foundation
The suspension foundation is a structure of either wooden frame or reinforced concrete. It must be firm and reliable to bear the weight of more than 200kg and capable of bearing vibration for long periods.

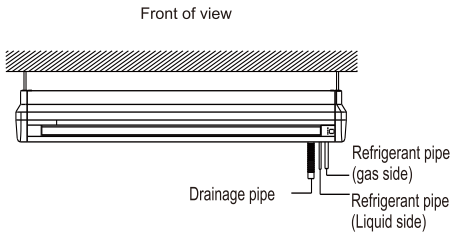
2.Fixing of suspension foundation
Fix the suspension foundation bolts either as shown on the right or by a steel or wooden bracket.

3. The suspension of indoor unit
the indoor unit should be suspension as shown below:

①Adjust the relative positions of the suspension hooks .
②Tighten the nuts and ensure that the hooks are tightly connected to the nuts and shims.
③After the unit is installed ensure it is secure and does not shake or sway.



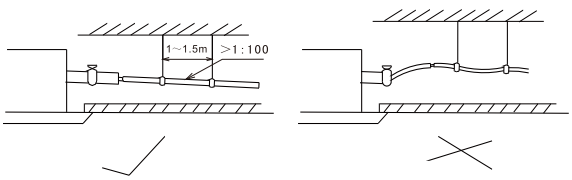




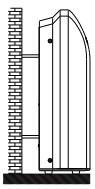
⚠ Caution	1.In order to ensure the drainage water come out successfully, the unit must be declined to the bottom side of unit when finished installation. 2.Please make sure the front side higher, otherwise it may cause drainage come out from the air outlet.

4.Installation of drainage pipe

①The drain pipe should be properly insulated to prevent the generation of condensation.
②Pipes it should be installed with a downward gradient to allow the water to drain away.
③The pipe should not rise at any point.



■ Wall-Mounted Installation



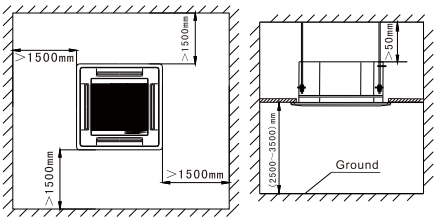
⚠ Caution	The unit must be horizontal or declined to drain hose when finished installation

3.2 Built In Ceiling Cassette Split Air Conditioner Unit

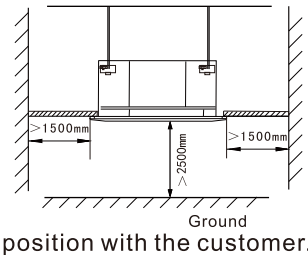
■ Select installation site

To ensure ease of maintenance please allow the space shown below for access to the unit

Four-way Cassette

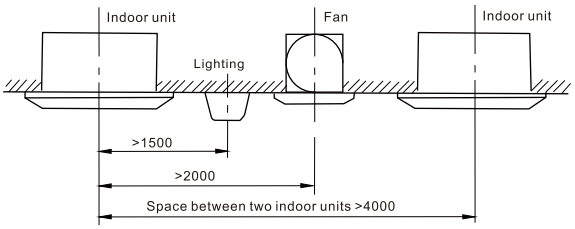


One-way and two-way Cassette



※ Ensure the following conditions are satisfied and confirm the position with the customer.

1. There are no obstacles to hinder air circulation. The air should be able to reach every part of the room.
2. The distance away from the ceiling and obstacles is shown in the below drawing. (Four-way Cassette)



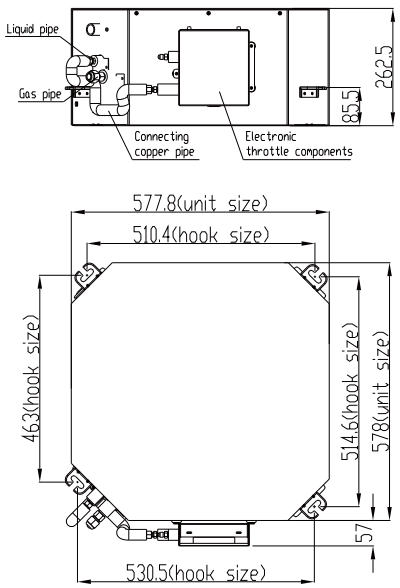
3. The installation site should be convenient for water draining (See "Installation of drainage pipe" for details.)

⚠ Warning	4. Ensure the installation position is able to take four times of the unit weight. There should be no increase in noise and vibration.

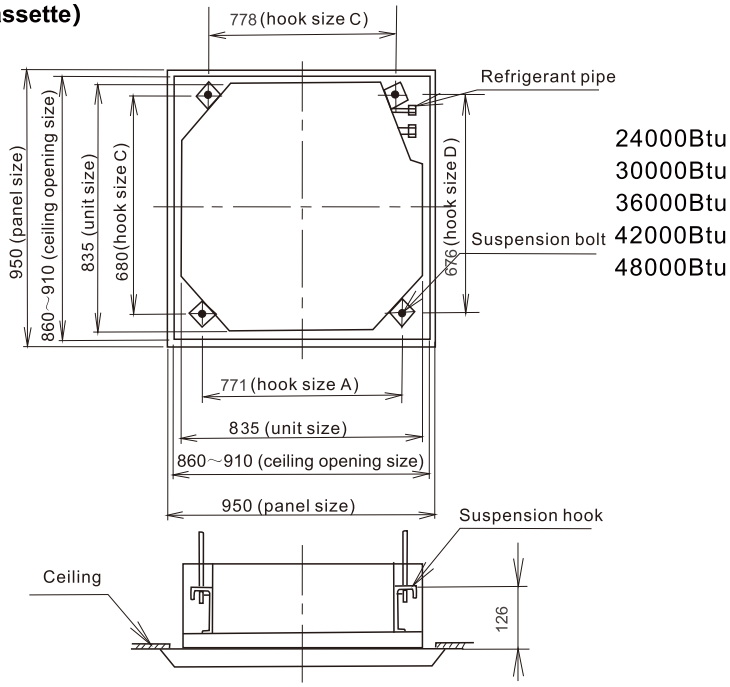
5. The indoor unit must be away from source of heat or steam. It should be some distance from the entrance to the room.
6. It should be close to the dedicated power supply designated for its use.
7. It should be as close as possible to the outdoor unit
8. It should not be exposed to direct sunlight and away from sources of moisture
9. The height of the unit above the ceiling should allow for correct drainage from the unit
10. Do not install the unit in a washing or drying room risk of electric shock.

■ The dimension of indoor unit (Four-way Cassette)

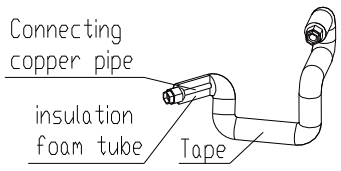
9000Btu
12000Btu
16000Btu
18000Btu



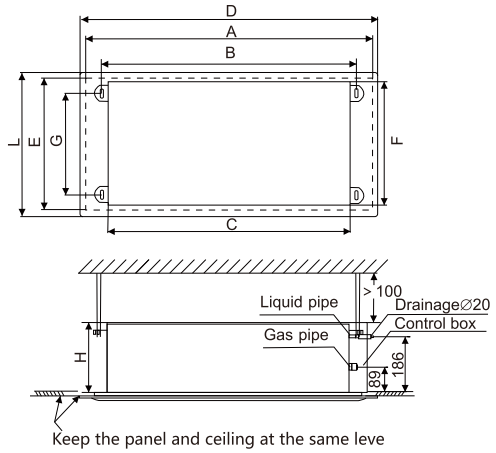
24000Btu
30000Btu
36000Btu
42000Btu
48000Btu



Note:For 2.2kw,2.8kw,3.6kw,4.5kw,5.6kw cassette unit,make sure do insulation work with insulation foam tube as the following picture showing before install the connecting copper pipe

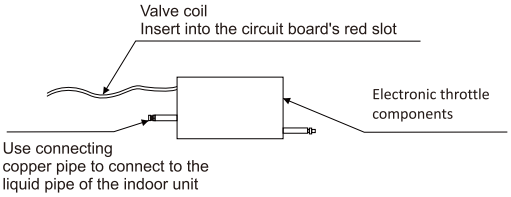


■ **The dimension of one-way cassette**

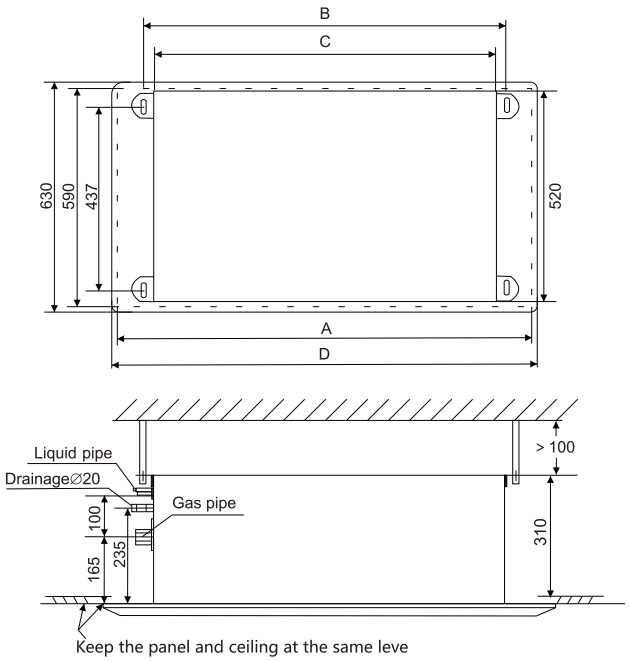


TYPE	9000Btu 12000Btu 16000Btu	18000Btu 24000Btu
ceiling opening sise(A*E)	1030*480	1070*520
hook size(B*G)	916*360	1230*390
unit size (C*F*H)	870*460*250	1180*495*290
panel size(D*L)	1070*520	1380*550

■ Install One-way Cassette's electronic trottle components



Note: For one-way cassette unit,make sure do insulation work with insulation foam tube before install the connecting copper pipe.

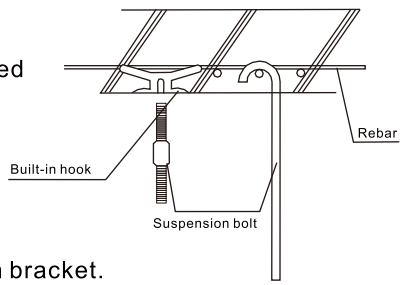


TYPE	9000Btu 12000Btu 16000Btu 18000Btu	24000Btu
ceiling opening sise(A)	1135	1375
hook size(B)	1008	1248
unit size(C)	960	1200
panel size(D)	1176	1416

■Suspension foundation of the indoor unit

1. Select the suspension foundation

The suspension foundation is a structure of either wooden frame or reinforced concrete. It must be firm and reliable to bear the weight of more than 200kg and capable of bearing vibration for long periods.

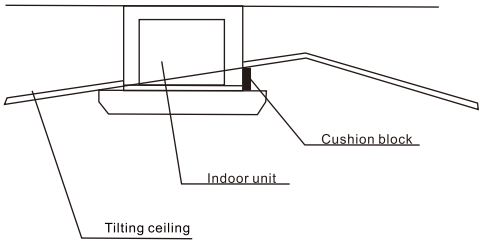


2. Fixing of suspension foundation

Fix the suspension bolts either as shown on the right or by a steel or wooden bracket.

If this unit is installed on a sloping ceiling, a cushion block should be installed between the ceiling and the air outlet panel, in order to ensure that the unit is installed on a level surface.

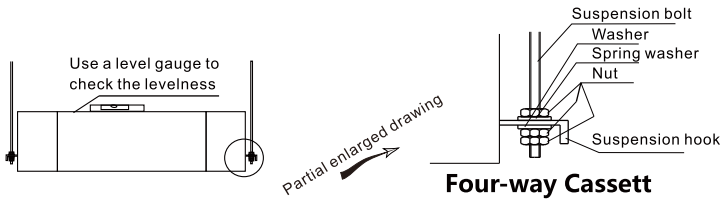
This is as shown in the drawing on the right



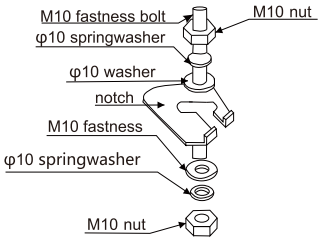
■The suspension of indoor unit

The indoor unit should be suspended as shown in the below sketch:

1. Adjust the relative position of the suspension hook on the suspension bolt so that the unit can be in level position in all directions. Check with a level gauge after the installation is complete in order to ensure that the indoor unit is horizontal, otherwise it will cause water leakage, air leak age etc.
2. Tighten the bolt and ensure that four hooks are in close contact with the nuts and washers, and the unit is suspended firmly and reliably onto the hooks.
3. After the unit is installed ensure it is secure and does not shake or sway.
4. Ensure that the centre of the indoor unit is in alignment with the centre of the opening in the ceiling.



Four-way Cassett



One-way and Two-way Cassette

★Installation of drainage pipe

1.Make sure do good insulation work on the drainage pipe as following steps:

(1)Use the clamp to fix the connecter of the drainage pipe,as figure 1

(2)Wrap the clamp with insulation pipe, as figure 2;

(3)Use the 2 ties to fix the insulation pipe,as figure3;

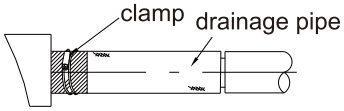


figure 1

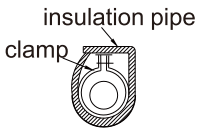


figure 2

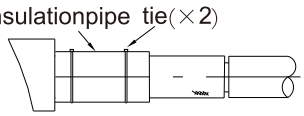
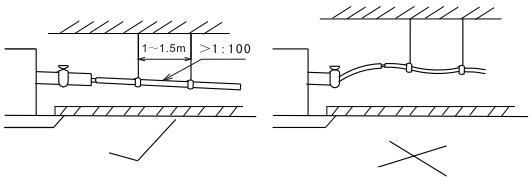


figure 3

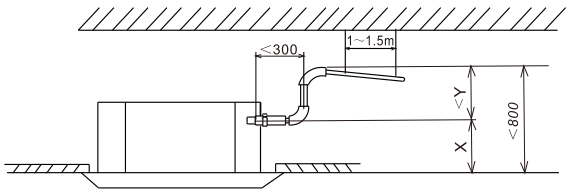
The drain pipe should be properly insulated to prevent the generation of condensation.

It should be installed with a downward gradient .



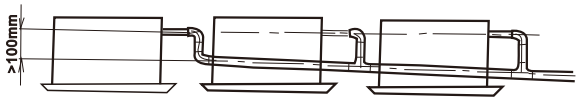
2. The unit has a drain pump which will lift up to 1200mm. However after the pump stops the water still in the pipe will drain back and may overflow the drain tray causing a water leak. For this reason please install the drain pipe as shown on the right.

Unit: mm



	One-way Cassett	Two-way Cassett	Four-way Cassett
X	186	235	200
Y	300	300	600

3. When draining multiple units into a common drain line, this common drain should be installed about 100mm below each units drain outlet, as shown in the drawing on the right .



★Grille Installation

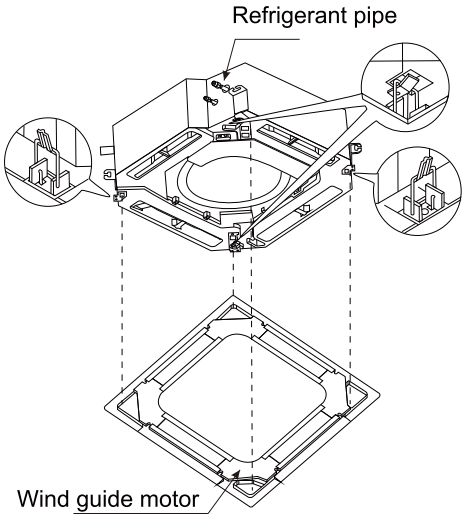
●Four-way Cassett

Please refer to the picture on the right.

The grille has four clips which attach to corresponding hangers on the unit and the grille should be positioned using these first.

The grille is then fixed into the position by four bolts which are accessed through the four corner panels on the grille. The four connection bolts are located inside the inlet panel of the grille.

Note: During installation please ensure that the air vane motor in the grille corresponds to the position of the refrigerant pipe entry into the indoor unit.



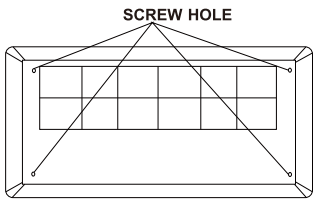
●One-way and Two-way Cassette

Take off return grid.

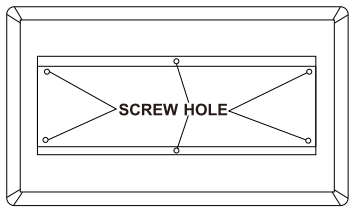
Fix the panel on unit by the screw through the screw holes on the panel.

Make sure there is no gap between the surface and the panel. It may cause the condensate water or air leakage.

One-way Cassette



Two-way Cassette



3.3 Low Static Pressure Ducted Air Conditioner Unit

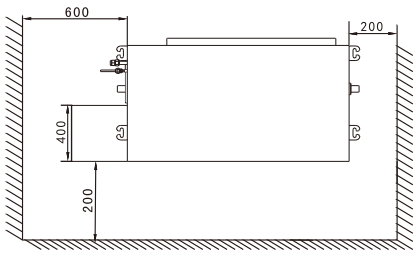
■ Select installation site

■ The location of hoisting bolt

For convenience of maintenance, please set a inspection port.

※After the installation site that meets the following conditions is selected and approved by customer, the installation can be carried on.

1. There are no obstacles which hinder the air circulation, so the cold air can be spread to all corners in the room.
2. The distance away from the wall and obstacles is shown in the below drawing.
3. The installation site should be convenient for water draining (See "Installation of drainage pipe" for details.)



Warning	4. For ducted type indoor unit, the suspension site should be able to support the weight 4 times more than the indoor unit. There should be no increase in noise and vibration. If it needs to be reinforced, the installation should be carried on after reinforcement (if reinforcement is poor, the indoor unit will fall and cause damage).

5. There should be no heat source and steam source near the installation site.
6. The place is near the power supply (special line).
7. The place should be easy to connect to the outdoor unit.
8. The place should keep away from direct sunlight and moisture.
9. The height inside the ceiling should reach the drainage requirements to ensure the installation of indoor unit.
10. The unit can't be installed in the washhouse (it will cause electric shock).
11. In the inlet and outlet of indoor unit, protective barriers should be installed to prevent finger from inserting or contacting the fan with high speed and metal fin.

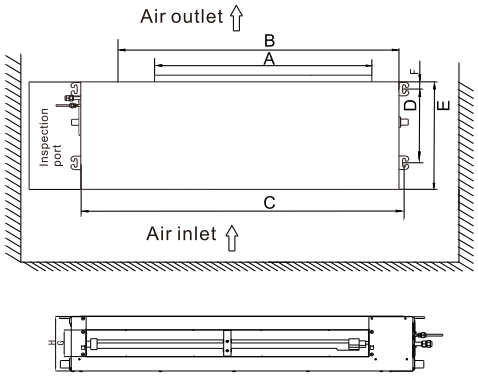
■Matters requiring attention

Do not drop the indoor unit or allow it to fall during transport.

★ Installation

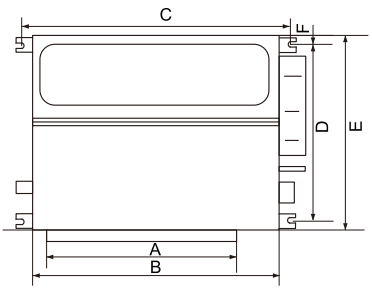
■The location of hoisting bolt

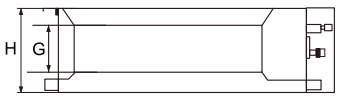
E series low static pressure ducted air conditioner unit



Type	A	B	C	D	E	F	G	H
7000Btu~12000Btu	642	840	880	300	440	31	90	185
16000Btu~24000Btu	962	1160	1200	300	440	31	90	185

Y series low static pressure ducted air conditioner unit

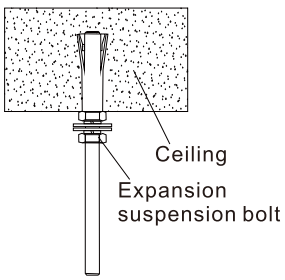




Type	A	B	C	D	E	F	G	H
7000Btu~12000Btu	532	700	750	412	450	19	110	200
16000Btu~18000Btu	832	1000	1050	412	450	19	110	200
24000Btu	1142	1300	1360	412	450	19	110	200

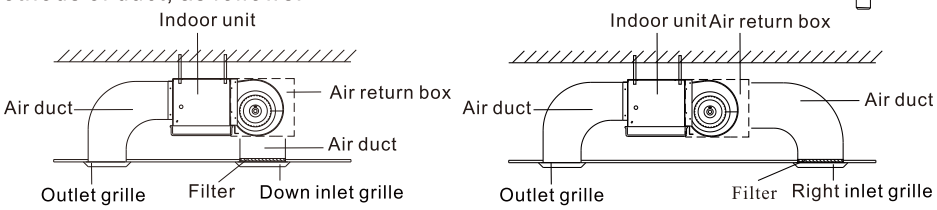
■The suspension drawing of indoor unit

Warning	Must seriously fasten bolts and nuts. The loosening would lead to air-conditioner falling and so on.

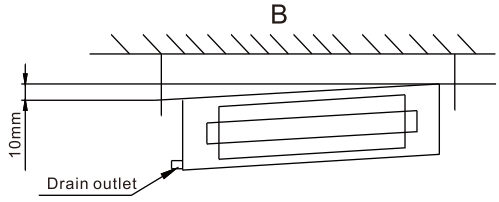


■Duct and drain pipe installation

There are two installation methods of duct, as follows.



- Use canvas to connect the indoor unit and duct in order to reduce unnecessary vibration.
- As shown, the indoor unit should be leaning to the drain hole to be convenient for drainage.



★Installation of drainage pipe

1.Make sure do good insulation work on the drainage pipe as following steps:
(1)Use the clamp to fix the connecter of the drainage pipe,as figure 1
(2)Wrap the clamp with insulation pipe,as figure 2;
(3)Use the 2 ties to fix the insulation pipe,as figure3;
The drain pipe must have a downward gradient (1 / 50 ～ 1 / 100).
If the drain pipe is installed ups and downs or upward, it will lead to water backflow or leakage etc.

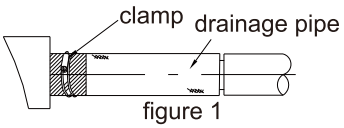


figure 1

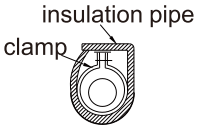


figure2

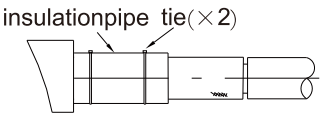
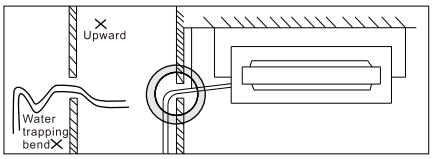


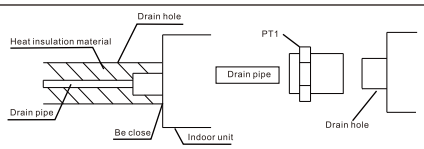
figure3

2.The external connection water pipe must use the soft connection water pipe or the transfer pipe use the soft connection water pipe
3. During pipe connection, do not use too much force to the drain joint of indoor unit.
4. The joint is PT1.
5. There is a drain hole on each side of indoor unit; unused drain pipe must be closed.



Note: The drain pipe must be wrapped heat insulation material, otherwise it will cause condensation or water drops.

Heat insulation material: rubber insulation pipe with thickness more than 8mm



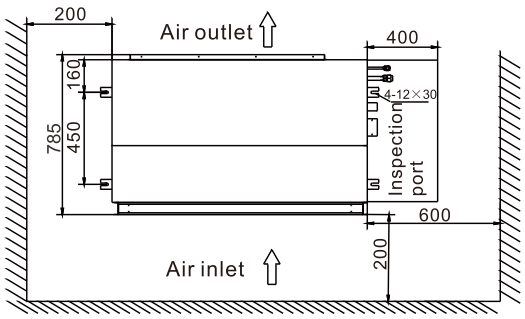
3.4 Middle Static Pressure Ducted Air Conditioner Unit

■ Select installation site

For convenience of maintenance, please reserve a service port.

※Ensure the following conditions are satisfied and confirm the position with the customer.

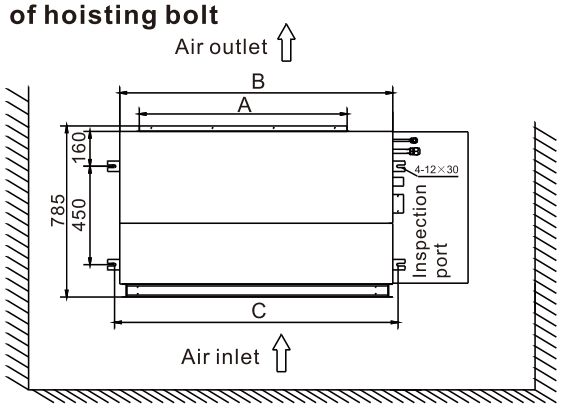
1. The position must allow the air to not be obstructed.
2. The distance away from the wall and obstacles is shown in the below drawing.
3. The installation site should be convenient for water draining (See "Installation of drainage pipe" for details.)

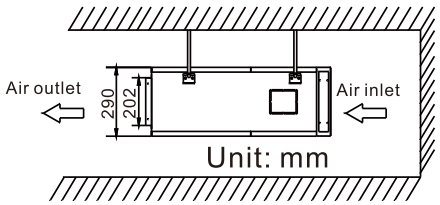


Warning	4. Ensure the installation position is able to take four times of the unit weight. There should be no increase in noise and vibration.

★ Installation

■The location of hoisting bolt





Type	A	B	C
16000Btu~36000Btu(10kW)	590	890	940
42000Btu~60000Btu	950	1250	1300

■The suspension drawing of indoor unit

Warning	Must seriously fasten bolts and nuts. The loosening would lead to air-conditioner falling and so on.

■Drain pipe installation

1.Make sure do good insulation work on the drainage pipe as following steps:
(1)Use the clamp to fix the connecter of the drainage pipe,as figure 1
(2)Wrap the clamp with insulation pipe, as figure 2;
(3)Use the 2 ties to fix the insulation pipe,as figure3;
The drain pipe must have a downward gradient (1 / 50 ～ 1 / 100).
If the drain pipe is installed ups and downs or upward, it will lead to water backflow or leakage etc.

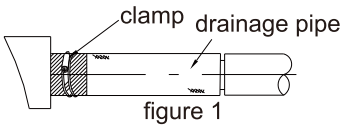


figure 1

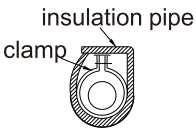


figure2

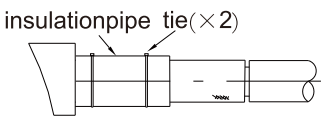
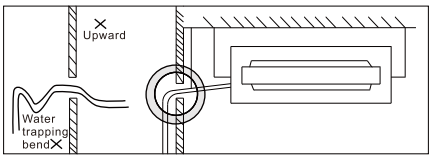


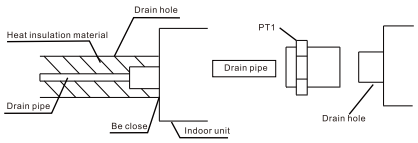
figure3

2.The external connection water pipe must use the soft connection water pipe or the transfer pipe use the soft connection water pipe.
3. During pipe connection, do not use too much force to the drain joint of indoor unit.
4. The joint is PT1.
5. There is a drain hole on each side of indoor unit; unused drain pipe must be closed.



Note: The drain pipe must be wrapped heat insulation material, otherwise it will cause condensation or water drops.

Heat insulation material: rubber insulation pipe with thickness more than 8mm

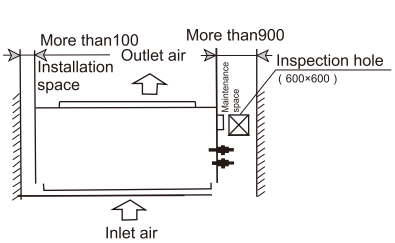


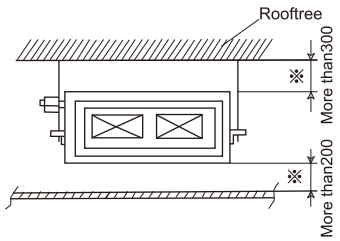
3.5 High Static Pressure Ducted Air Conditioner Unit

■ Select installation site

1. The machine should be installed in the place which shows in below chart, and satisfies the follow conditions.

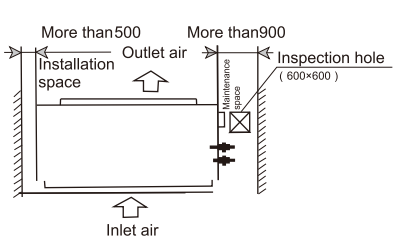
Unit: mm

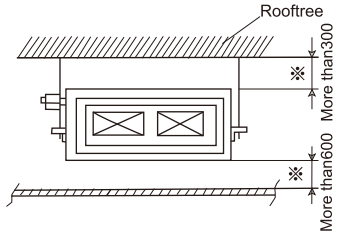




※ Reserve obligatory space for install the flange.

For 8000BTU, 10000BTU(Y Series)
Unit: mm





※ Reserve obligatory space for install the flange.

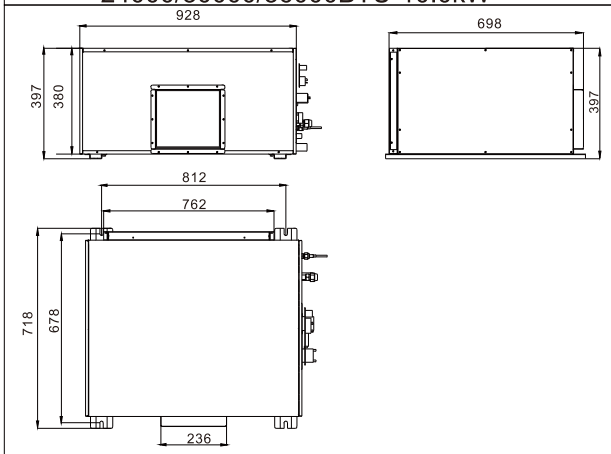
2. The install place should have good drain and enough draining water gradient.
3. Select the place where the air inlet and outlet are not blocked and strong wind cannot blow.
4. Select the place where the environment dew-point temperature is lower than 28 ℃ and relative humidity is lower than 80%.
(When the install place has higher humidity, please pay attention to the heat insulation of the machine to prevent condensation.)
5. Please do not install in the place where there is many greasy dirt or vapor.
If select the install place like this, it will cause the performance reduction, the corrosion of the heat interchanger or the damage of the synthetic resin.
6. Please do not install in the place which may produce the corrosive gas (for example sulfuric acid gas, combustible gas, diluent, gasoline and so on).
If select the install place like this, it will cause the corrosion of the heat interchanger or the damage of the synthetic resin.
7. Please do not install near the place which can produce the electromagnetic wave or high-frequency wave equipment.
The sound of the equipment may cause the failure of the controller.

★ Installation

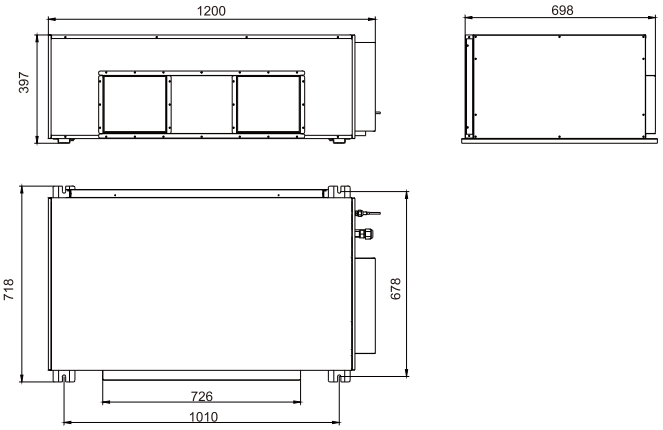
■The location of hoisting bolt

Unit: mm

24000/30000/36000BTU-10.0kW

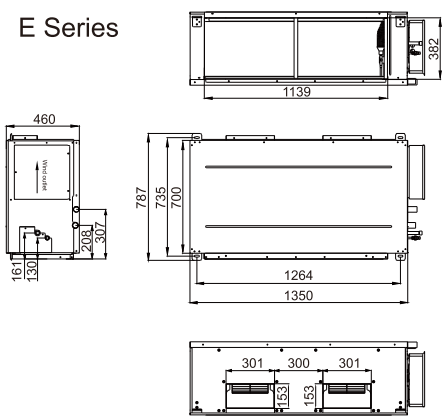


36000-11.2kW/42000/48000/60000BTU



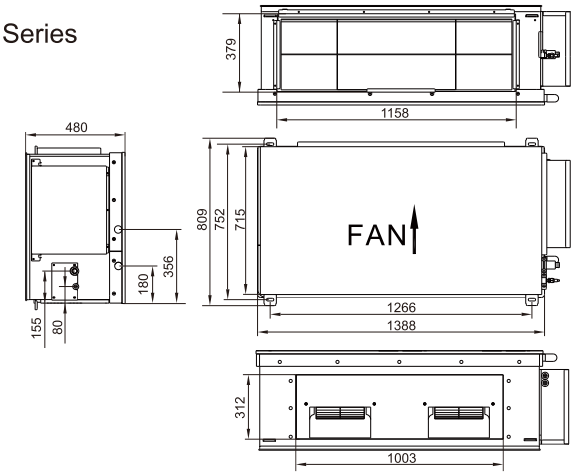
80000/ 100000 BTU

E Series

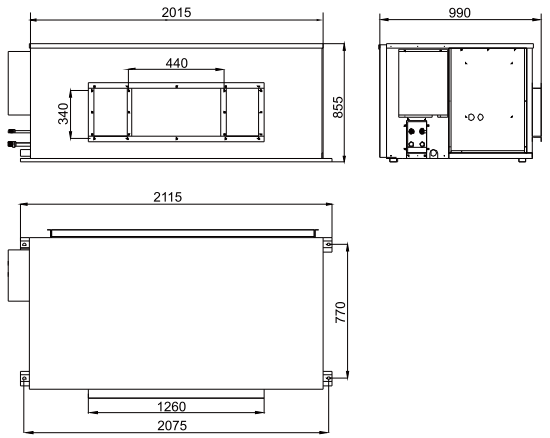


80000/ 100000 BTU

Y Series



160000/ 185000 BTU

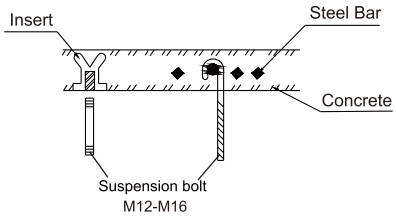


■The suspension drawing of indoor unit

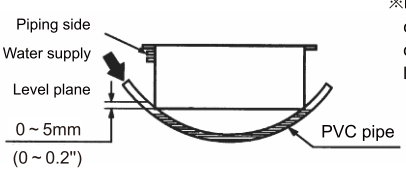
⚠Warning	Must seriously fasten bolts and nuts. The loosening would lead to air-conditioner falling and so on.

★Installation notes

1. Fixed method of suspension bolt



2. Leveling

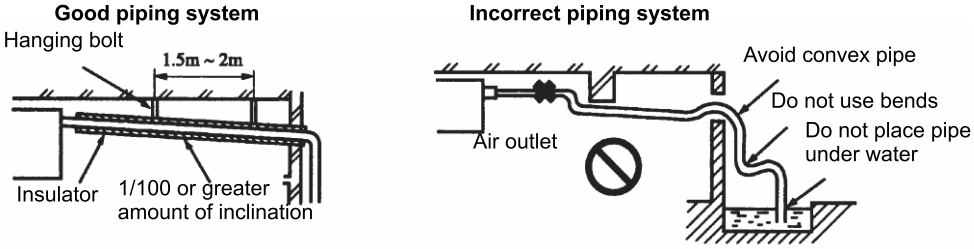


Adjust piping side to lower position.

※In order to adjust levelness, can use the gradienter or defer to the method which the left chart shows to adjust.

3. Drain piping

① Drain piping should always be mounted at an amount of inclination (1/50~1/100), and avoid convex or water bending.



② When connecting drain pipe with the equipment, never apply too great force on the piping on equipment side, and the piping should be fixed as near to the equipment as possible.

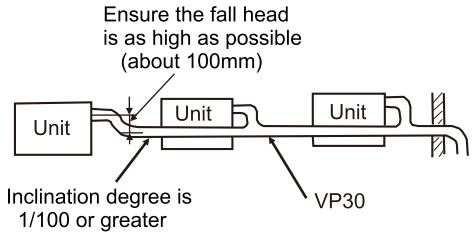
③ It is possible to purchase ordinary hardened PVC pipe from local sources, for use as drain piping.

④ If the draining piping is used for several equipments, the common piping should be laid at about 100mm below draining outlet of each equipment, as shown in the figure.
In this case,pipe with thicker walls should be used.

⑤ The hard PVC pipe laid in rooms must be coated with insulation coating.

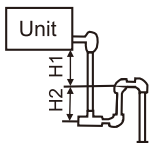
⑥ Must not have the air vent.

⑦ Do not position the draining piping outlet in the area where there is stimulating gas.
Do not insert draining pipe directly into the sewage, where sulfur bearing gas exists.



4. Elbow installation

(1)Because the discharge pipe outlet position is easy to produce negative pressure, therefore an elbow must be installed (during pipeline installation) to avoid the water leakage due to the rise of the water surface in the drain pan. The elbow should be convenient to clean. It is best to use T joint shown below.
In addition, the elbow size also should use the size shown below. Please install the elbow near the unit.

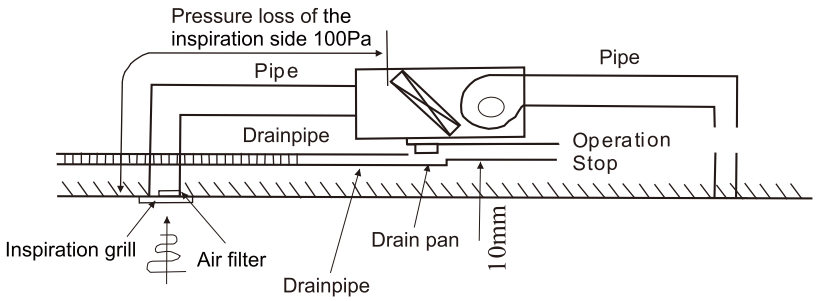


H1=100mm or static press of blower

H2=1/2H1 or 50 ~ 100mm

(2)If the pipeline installation is complete and the blower is working, then the unit interior is at the negative pressure condition relative to the atmospheric pressure.

Example: If the pressure of the inspiration side loses to reach 100Pa due to the inspiration grill, air filter and the pipeline, then the drainage water level is high than 10mm when running as when stopping.



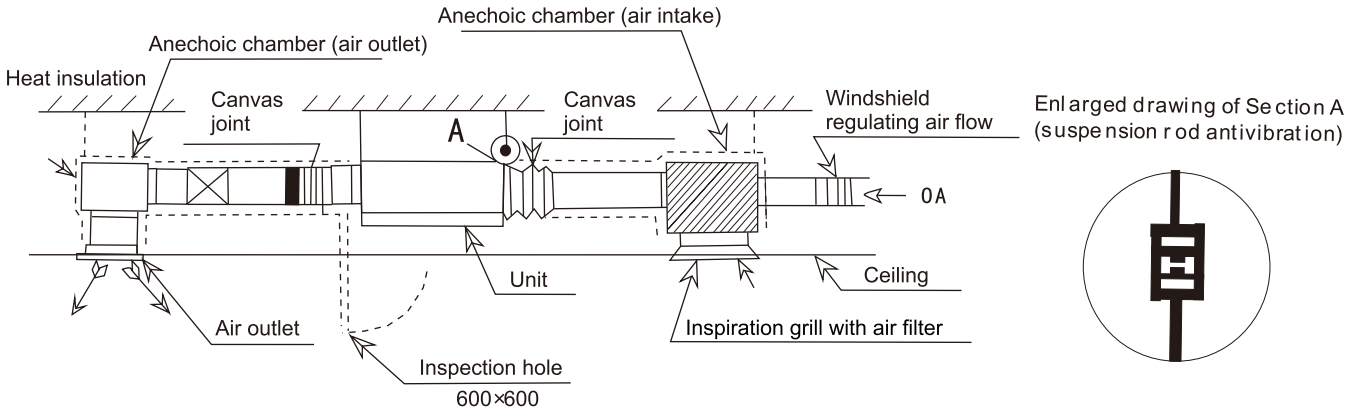
5. Drainage test

After completing the pipeline installation, check the pipeline is correctly or not.
Remove the side plate, inject 1000cc water slowly, and confirm whether the drainage is smooth and there is water leakage.

6. Pipeline installation

(1) The air-conditioner indoor unit has the air filter. Please install it in the inspiration grill which is easy to clean.

(2) Please install the anechoic chamber in accordance with the permissible Noise level. For the place with the request of special low noise, additional silencer must be installed.
(The office, the conference room must install the silencer.)



(3) Please use the canvas joint in the pipeline or use antivibration rubber insert on the air conditioner indoor unit and so on antivibration measure, in order to avoid the vibration of the air-conditioner indoor unit transmits to the ceiling or the plate.

(4)The windshield regulating air flow should be installed in the OA pipeline joint so that it is easy to regulate air flow after the install is complete.

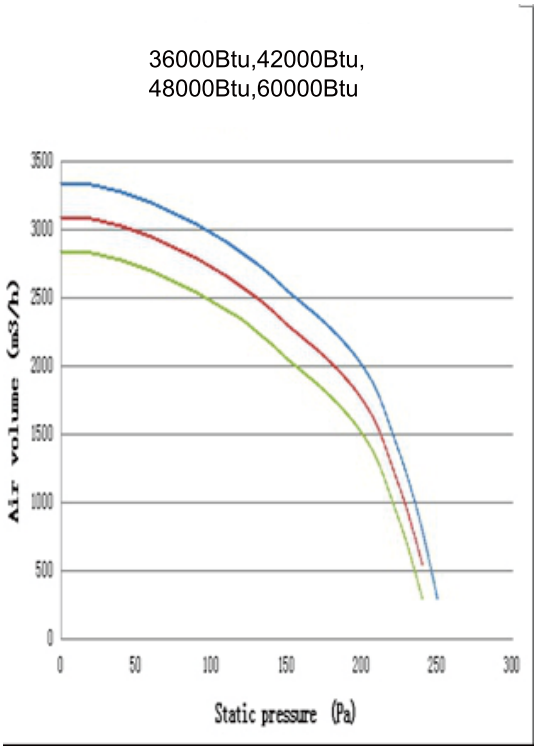
(5) Select the position and mode of the supply-air outlet properly in order to the air can flow to every corner of room. Besides the equipment regulating air flow should be installed.

(6) Be sure to install an inspection hole on the ceiling. It is necessary to maintain the electrical equipment, the electric motor, the function part service and clean the heat exchanger.

(7)The heat insulation measures must be adopted to the pipeline, in order to prevent the pipeline condensation.

7.The installation of static pressure requirement

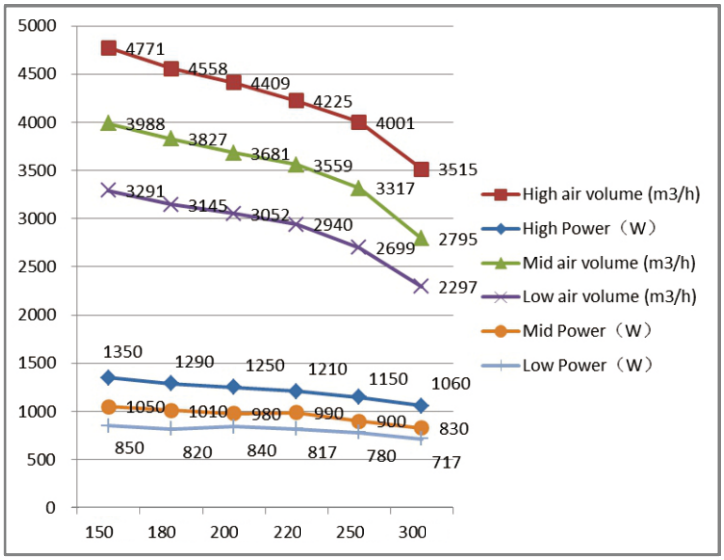
(1)Fan performance



36000Btu,42000Btu, 48000Btu,60000Btu			
Static Pressure	Air Volumem³/h		
(Pa)	High	Mid	Low
0	3345	3095	2845
10	3340	3090	2840
20	3330	3080	2830
30	3310	3060	2810
40	3280	3030	2780
50	3240	2990	2740
60	3200	2950	2700
70	3150	2900	2650
80	3100	2850	2600
90	3040	2790	2540
100	2980	2730	2480
110	2910	2660	2410
120	2840	2590	2340
130	2760	2510	2260
140	2665	2415	2165
150	2560	2310	2060
160	2470	2220	1970
170	2370	2120	1870
180	2270	2020	1770
190	2150	1900	1650
200	2000	1750	1500
210	1800	1550	1300
220	1500	1250	1000
230	1200	950	700
240	800	550	300
250	300	/	/

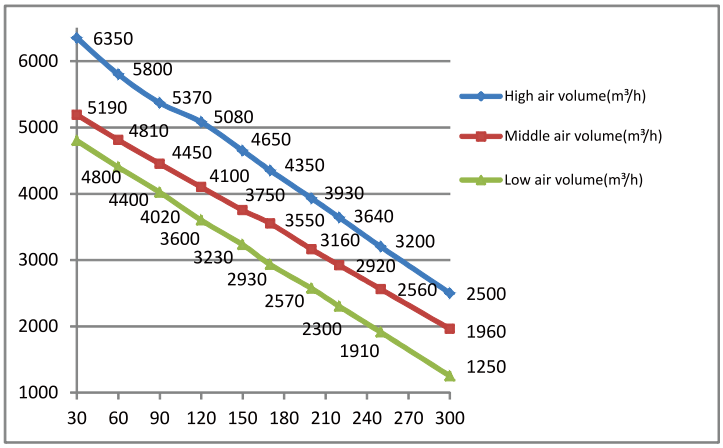
②For E Series in order to ensure the use reliability of the wind turbine,the requirements set in installation and use of static pressure in the range of 120-220Pa.The data curve as follows:

80000Btu,100000Btu (E Series)			
Static Pressure	Air volume (m³/h)		
Pa	High	Mid	Low
150	4771	3988	3291
180	4558	3827	3145
200	4409	3681	3052
220	4225	3559	2940
250	4001	3317	2699
300	3515	2795	2297



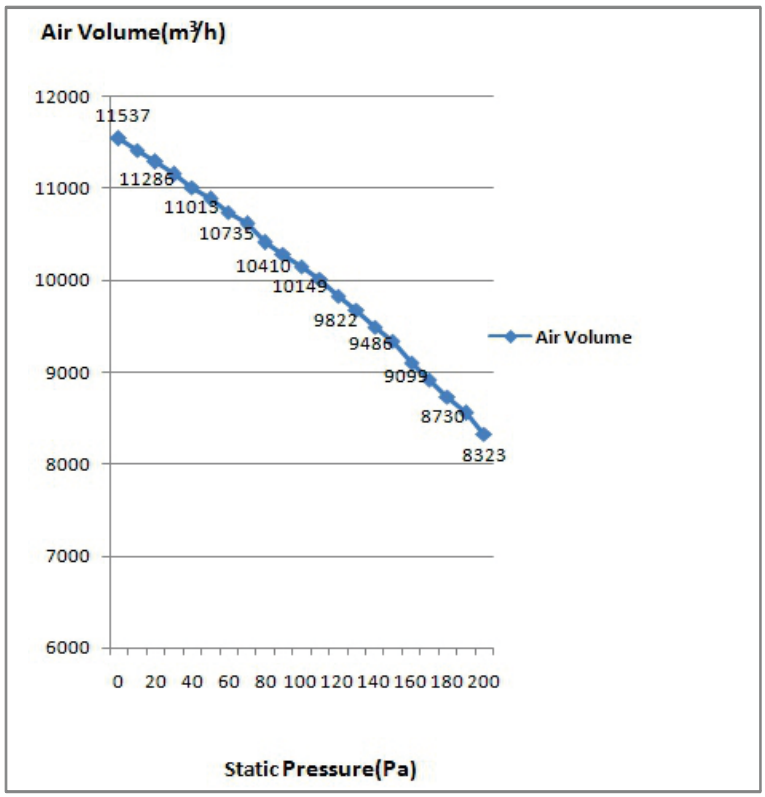
For Y Series, the requirements set in installation and use of static pressure in the range of 30-250Pa.
In default mode(170Pa), the data curve as follows:

80000Btu,100000Btu (Y Series)			
Static Pressure	Air volume (m³/h)		
Pa	High	Mid	Low
30	6350	5190	4800
60	5800	4810	4400
90	5370	4450	4020
120	5080	4100	3600
150	4650	3750	3230
170	4350	3550	2930
200	3930	3160	2570
220	3640	2920	2300
250	3200	2560	1910
300	2500	1960	1250



③Fan performance

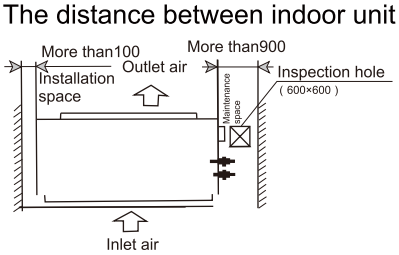
160000Btu,185000Btu		
Static Pressure	Air Volume	FLA
(Pa)	m³/h	A
0	11537	5.11
10	11416	5.07
20	11286	5.02
30	11154	4.97
40	11013	4.91
50	10883	4.87
60	10735	4.82
70	10610	4.77
80	10410	4.72
90	10279	4.68
100	10149	4.63
110	10011	4.59
120	9822	4.54
130	9681	4.47
140	9486	4.41
150	9333	4.34
160	9099	4.29
170	8920	4.23
180	8730	4.18
190	8553	4.12
200	8323	4.06

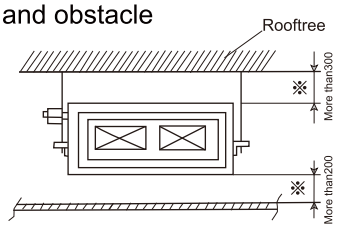


3.6 Fresh Air Processing Unit

■ Installation

1. The distance between indoor unit and obstacle





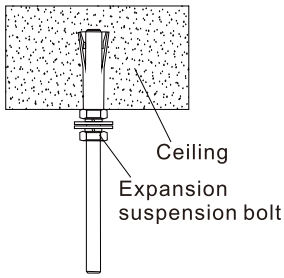
2. Suspension unit

◇Select the suspension foundation

The suspension foundation is a structure of either wooden frame or reinforced concrete. It must be firm and reliable to bear at least 4 times weight of itself and capable of bearing vibration for long periods

◇Fixing of suspension foundation

Fix the suspension bolts either as shown in the picture or by a steel or wooden bracket



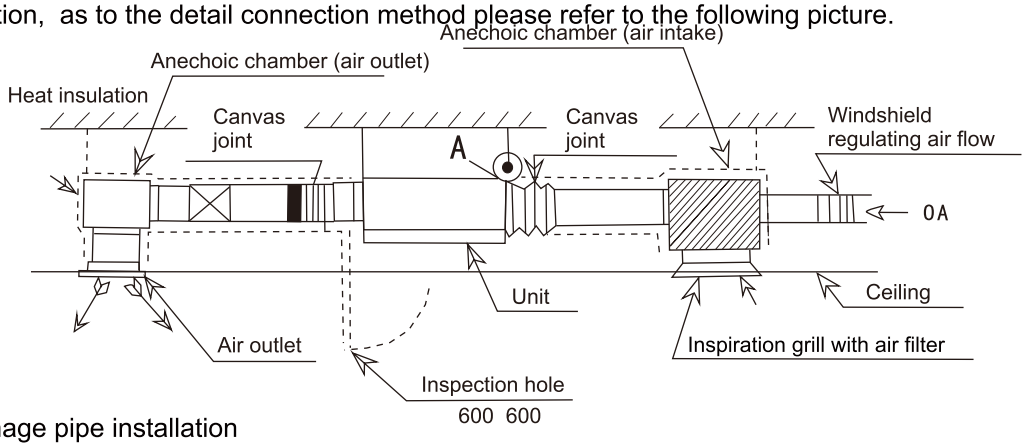
◇Adjust the relative positions of the suspension hooks to ensure the indoor unit is level in all directions. Use a spirit level to ensure this, otherwise water leakage, air leakage etc. will be resulted

◇Tighten the nuts and ensure that the hooks are tightly connected to the nuts and shims, and there is no phenomenon of virtual hanging

◇After the unit is installed ensure it is secure and does not shake or sway

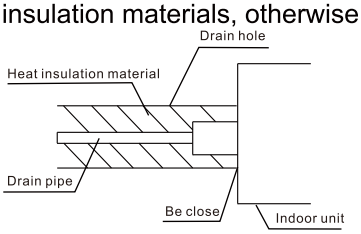
3. Duct pipeline installation

◇Using canvas to connect between indoor unit and duct pipeline, in order to save unnecessary vibration, as to the detail connection method please refer to the following picture.



4. Drainage pipe installation

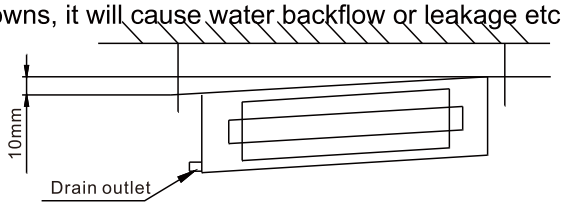
◇Drainage pipes must be wrapped with heat insulation materials, otherwise it will cause frost or droplets, see picture as follows

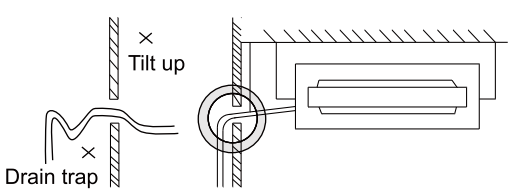


Notice:

Heat insulation material: rubber insulation pipe with the thickness of more than 8mm

◇Drainage pipe must have a downward gradient (1/50--1/100).If the drain pipe is installed ups and downs, it will cause water backflow or leakage etc





◇When finish installation please carry out the drainage test to ensure that the water flow through the pipeline fluently, and carefully observe the junction to ensure that there is no water leakage at the junction. If the unit is installed in the newly built house, strongly recommend that this test taken before the ceiling installation. Even it is the heating only unit, this test is unavoidable.

5. Remote controller receiver installation.

◇Installation site: recommend that the receiver is mounted with the distance of 30~50 cm to the indoor unit air outlet (on your choice as well), while must ensure that the receiver can get the signal that the remote controller sends, please refer to the following installation picture:

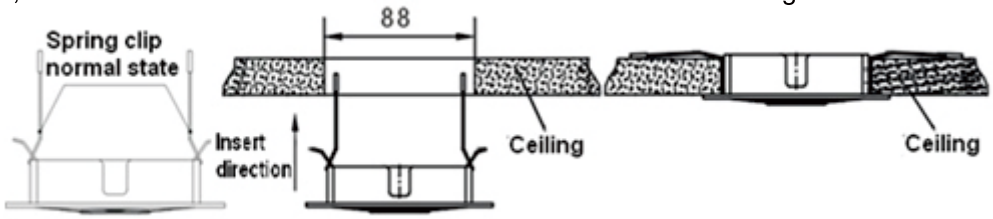
Notes:

The remote control signal effectively work for straight line from 8 meters, when the battery after the power consumption, effective work will shorten the distance

◇Mounting hole set up: please use certain instrument to dig a square hole with 88x88mm on the ceiling

◇Remote controller receiver installation

Hold the two sides (with clip sides) of the receiver, set the spring clip in the vertical way then put it into the mounting hole, if the two sides of the receiver is in the same level with the ceiling the installationis finished



◇Signal line connection: connect the wire of remote controller receiver to the CN-DISP terminal board on PCB of indoor unit wire box then fix it.

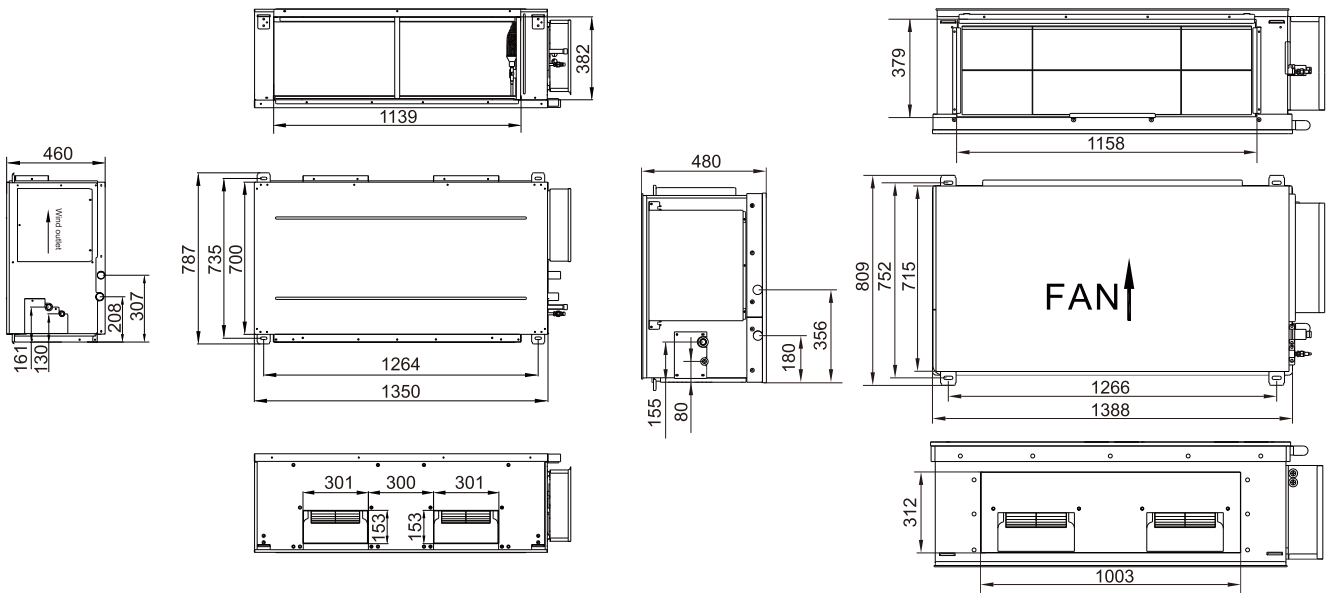
■ Dimension

80000Btu, 100000Btu,160000Btu, 185000Btu

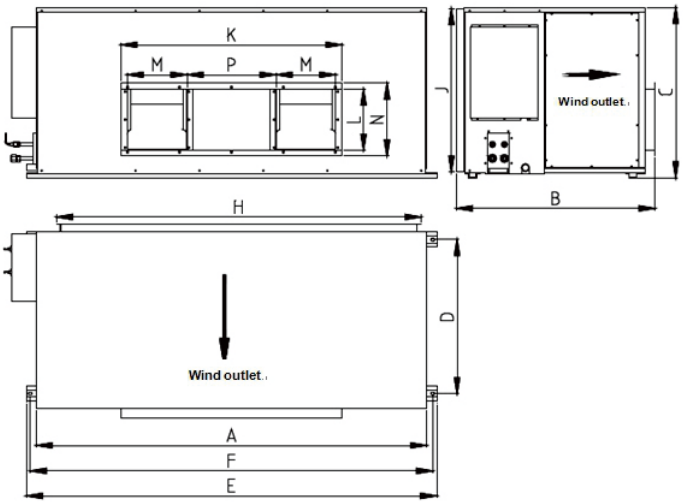
80000Btu,100000Btu (E Series)

80000Btu,100000Btu (Y Series)

Unit: mm



160000Btu,185000Btu

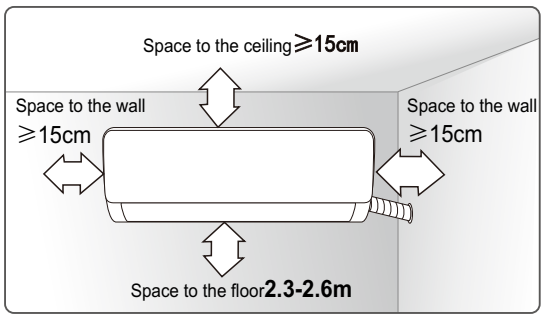


Model	A	B	C	D	E	F	H	J	K	L	M	N	P
160000BTU	1710	990	855	770	1820	1780	1610	830	1200	265	350	325	440
185000BTU	2020	990	855	770	2120	2080	1910	830	1260	310	380	370	440

3.7 Wall-mounted Air Conditioner Unit

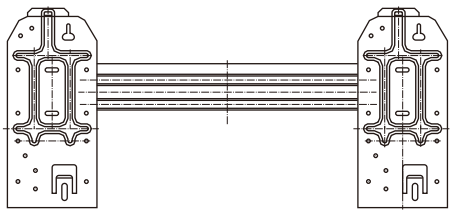
■ Select installation site

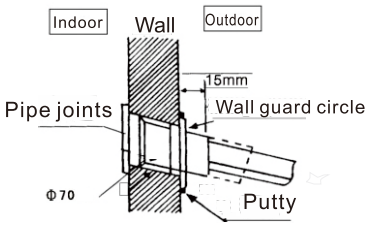
1.There should be no source of heat or gas near the position for future installation;
2.There should be nothing that will block the air circulation;
3.Good air circulation inside the room should be ensured;
4.Easy to avoid noise;
5.Choose connection tube can be derived.The position of outdoor convenient
6.Don't install the product near the porch;
7.Allow maintenance and installation space;
8.To ensure the distance between the product and the wall, the ceiling and other decorations as illustrated in the picture;



9.The distance between the product and the floor should be about **2.3-2.6**m.

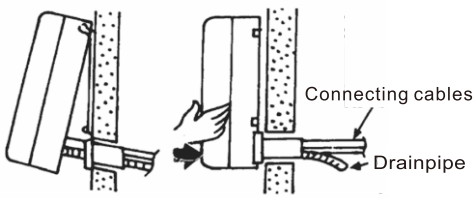
★ Installation





Note: this is just an illustration for reference.

1.Fix the hanging board on the wall with 4 “+” type bolts.
Ensure that the board is well positioned both hori zontallyand vertically.
The wall should be hard enough to avoid vibration.
2.Drill a hole on the bottom left or right of the board of 70mm in diameter.
Note that the hole should lean outwards a bit.



3.Hang the indoor unit on the board; Ensure that the clasps on the indoor unit are in the rights lots on the board.
4.There is a stand for the anti-bacterial net on the wind intake.
Open the lid on the top of the stand and put the net in. Close the lid.
5.Pushing the machine towards the left down and right down side of the installation board until the hangers enters tightly the grooves(it produces “click” sound)

■ Drainage checking

1.Take down the grid from the indoor unit.

The grid should be taken down during maintenance as follows:

(1)take off the two bolts on the two sides of the front grid as illustrated in the picture;

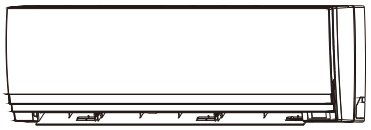
(2)hold the bottom of the grid and pull it towards yourself ;

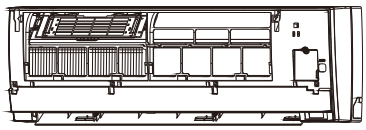
Repeat the above operations from ② to ① and you can put back the grid.Please ensure that the grid is installed properly after that.(There is slight difference in grid installation among different models)

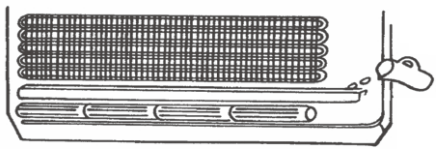
2.drainage checking

(1) pour a cup of water into the plastic drainage slot;

(2)confirm that the water runs through the drainage hole of the indoor unit.







⚠ Caution

1.The definition of power cord is the power supply cable from the isolating switch attached to the dedicated power supply to the indoor unit or outdoor unit. Interconnecting cable for the indoor and outdoor unit is the power supply cable that connects indoor unit and outdoor unit.

2. Above-mentioned definitions are the specifications of power supply, power cord and interconnecting cable of indoor unit and outdoor unit of all different types of air-conditioners.

3. To avoid voltage drops, when the cross sectional area of a power cable core reaches the minimum size, and the power cord is lengthened, you should choose another bigger power cable size.

4. The power cord connected to the indoor unit is 227 IEC53 type cable. The power cord connected to outdoor unit and the Interconnecting cable between indoor unit and outdoor unit are both H05RN-F (neoprene) stranded wire.
   If you use single-strand two ply wire, please select wire with larger cross-section area by one size and a special electric jacket should be used.

★Connection method

1. Connection method of indoor unit
   Open the cover of terminal box cover. Connect the cables according to the electric connection diagram.
   Note: Line on the wiring terminal must be pressed, not any shake.

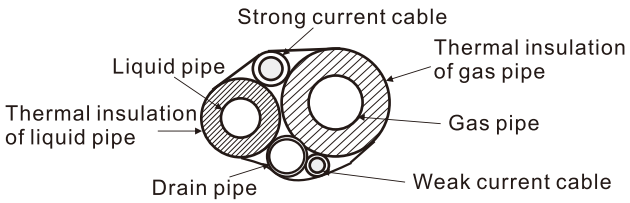
2. Connection method of outdoor unit
   Open the right front plate outdoor unit to connect the cables. Be sure to lead the connecting line through the pressing plates and connect them according to the circuit diagram. Cable end must be pressed firmly on the terminals, and should not get loose. Earth wire must be connected at the specified location.

Note: The PC board of outdoor unit whose power supply is 380V-415V has phase sequence protection. Please pay attentions to it while connecting power cable.

After cables are connected correctly, bind connecting tubing, connecting line and drain pipes with binding tapes.

The cross section is as shown in the figure below after binding:

Caution: never squash the drain pipe during binding operation!



3.8 Commissioning

1. Turn on the Power Supply and select cooling operation as shown in the remote controller section of this manual.

2. After the 3 minute compressor protection delay, check the indoor unit louver is operating correctly and both the indoor and outdoor units are operating correctly without abnormal noise. Check that cold air is produced after a short time.
3. Select heating operation on the controller and wait for 5 minutes. Check that the indoor fan starts correctly and that hot air is produced after a short time.
4. Select Fan operation on the controller. Check that the fan operates correctly in all fan speeds.
5. Test the other functions on your controller as shown in the controller section of this manual.
6. Select Cooling operation, and check the drain pump operates correctly.
7. After confirming the unit operates correctly, turn the unit off and disconnect the power supply.

3.9 Electrical connections

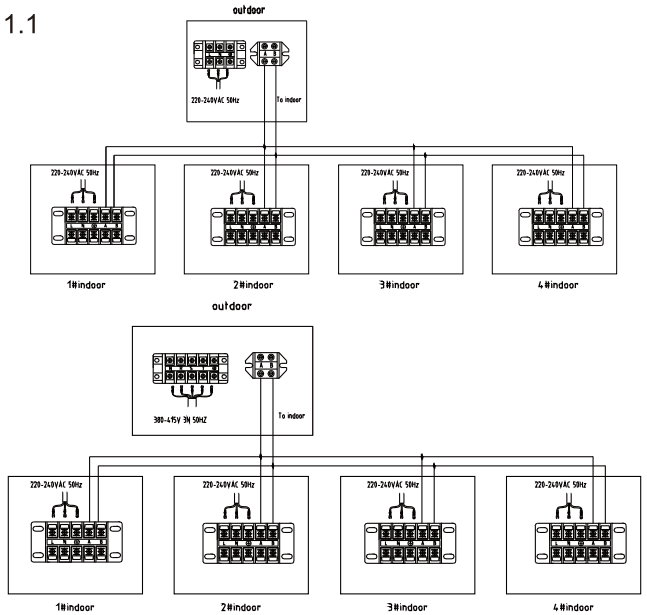
⚠ Warning
All electrical works must be carried out & checked by a qualified electrician and must adhere to the IET regulations, local and national legislation and industry best practice . The system must have its own independent power supply. An all pole isolating disconnect switch with at least 3mm contact separation must be installed. The power cord and connecting cable should be either as supplied with the unit or otherwise as specified in this manual. Do not attempt any electrical works yourself.
An Earth Leakage Protector, Power Switch and Circuit Breaker or Fuse must be installed in the dedicated power supply or there is the risk of electric shock.
The indoor fuse specification of control panel is T3.15AL 250V.
The grounding must be reliable. If grounding is not correct, it may lead to electric shock.
All power cables should be properly secured with cable ties so that external forces cannot disconnect the wired from the terminals. Improper connections or insecure fastening can cause electric shocks or fire.
⚠ Caution
Do not connect the earth cable to gas or water pipes, telephone lines, lightning rods or the earth cables of other products
Once the indoor and outdoor unit have been switched on, do not cut off power supply in 1 minute, (the system automatically set) otherwise abnormal operation will be caused.

- Please connect the power cord and interconnecting cable according to the wiring diagram.
- Connect the wire firmly to the terminal block using crimps and secure in order to prevent external forces pulling on the wire causing risk of fire or electric shock.
- After the electrical connection is completed, all wires should be prevented from touching other parts such as tubing, compressor etc.

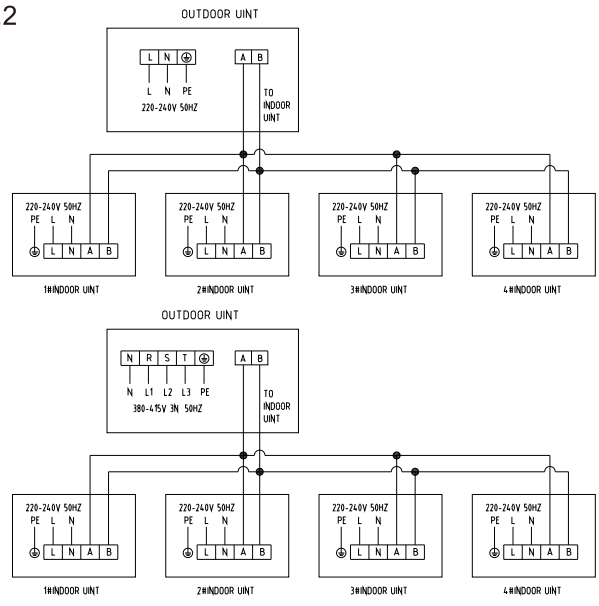
★Wiring diagram

1.Min VRF Outdoor Units(single-phase & three-phase)(AC & DC)

1.1

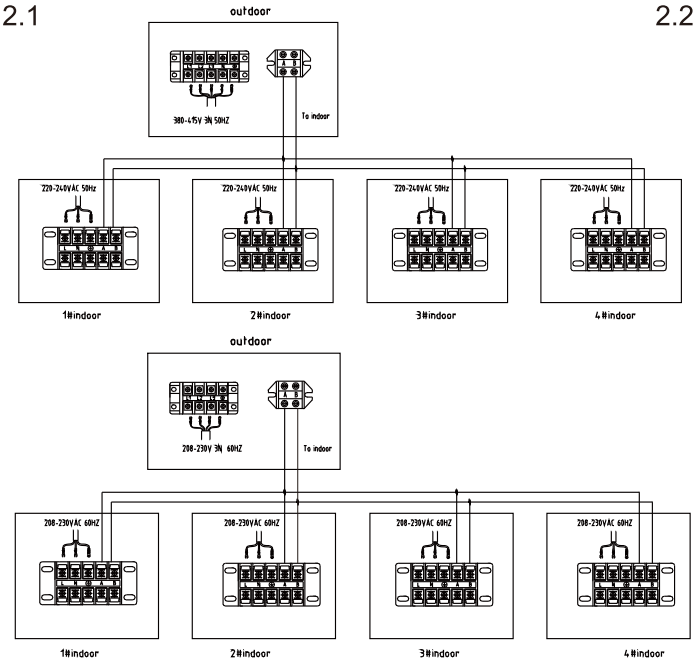


1.2

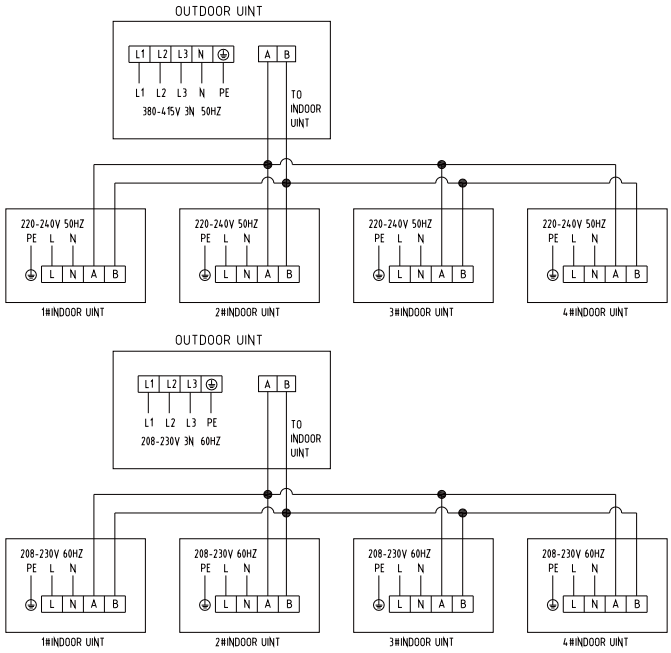


2.Modular VRF Outdoor Units(50Hz & 60Hz)(AC & DC)

2.1



2.2



★Cable Specifications

Note：

1.The yellow cable and the green wire should be connected with the terminal signed with "⏚".

2.Please check the number on the terminal board of outdoor and indoor unit ,while connecting the indoor unit cable to the outdoor unit.

The terminals that have the same number should bi connected by a cable.

3.Some electrical equipments may not work well, if there are incorrect cable connecting.

4.Power cable connecting as X connecting, if power cable is destroyed, it is necessary to change cables by qualified technicians.

5.Specifications of the power cable is H05VV-F cable, power connecting cables of indoor unit and outdoor unit is H05RN-F.

6.The air circuit breaker model is 6A.

AC:

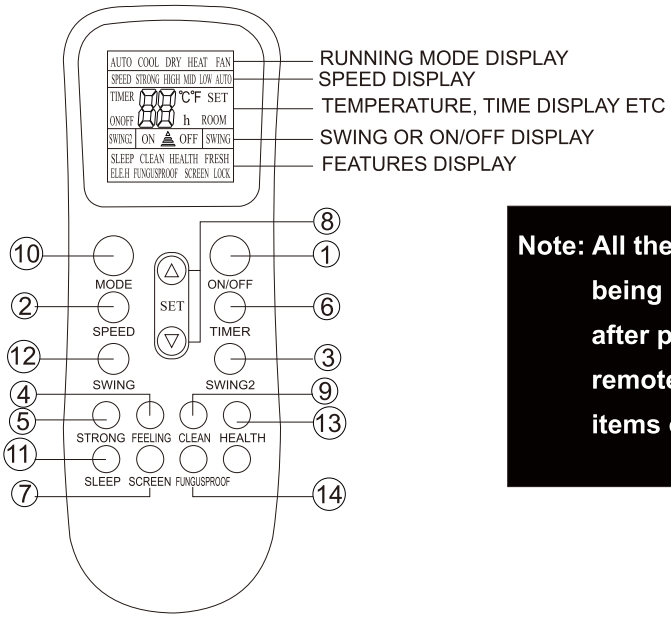
Type	Power Specifications	Power into Line way	Power
7000Btu	220V-240V ~50HZ (220V-240V ~/60HZ)	Inside the machine into the line	3×1 mm²
9000Btu			
12000Btu			
16000Btu			
18000Btu			
24000Btu			
30000Btu			
36000Btu			
42000Btu			
48000Btu			
60000Btu			
80000Btu			3×2mm²
100000Btu			
160000Btu	380V~415V 3N~/50HZ		
185000Btu			

DC:

Type	Power Specifications	Power into Line way	Power
7000Btu	220V-240V ～/50/60Hz	Inside the machine into the line	3×1 mm²
9000Btu			
12000Btu			
16000Btu			
18000Btu			
24000Btu			
30000Btu			
36000Btu			
42000Btu			
48000Btu			
60000Btu			
80000Btu			
100000Btu			
160000Btu			
185000Btu			

4.Control

4.1 Remote Control



Note: All the figures above are the displays after being initially electrified or re-electrified after power off. In actual operations, the remote controller screen displays related items only.

Note: The picture is general remote controller, contains almost all of the function buttons. They may be slightly different from material abject(depend on model).

①【**ON/OFF**】button

You can start or stop the air-conditioner by pressing this button.

②【**SPEED**】button

You can select fan speed as the following:

③【**SWING2**】button

Press this button, the vertical wind direction vanes can rotate automatically, when you have the desired horizontal wind direction, press it again, the vertical wind direction vanes will be stopped at the situation of your choice.

④【**FEELING**】button

When it displays “**FEELING**” button:Press this button can be used to set the feeling function. The LCD shows the actual room temperature when the function set and it shows the setting temperature when the function cancelled. This function is invalid when the appliance at the Fan mode.

⑤【**STRONG**】button

Only under the state of cooling or heating mode, press this button, the fan speed is adjusted to strong auto-maticlly and the LCD displays “high fan”, the “strong” function is started to reach the highest cooling or heating.

⑥【**TIMER**】button

Setting the “ON” timer time：

a. When remote controller is at off state, press “TIMER” button, the LCD displays “TIMER On” and the timer time, the range of setting time is 0.5h to 24h.

b. You can press the “△” or “▽” button to adjust the timer time, each touch will be set time to increase or reduce 0.5h before 10 hours ago, after ten hours will be set time to increase or reduce 1h per pressing, to enables your required timer.

c. Press “TIMER” button again, to set the timer on function.

d. You can set another function to insure the suitable state after air conditioner turn on(including mode, temperature, swing, fan speed and etc). The LCD will displays all your setting and keep it, when the timer reach to the set time, the air conditioner will be working according to your set automatically.

e. After setting “clean ” function, press “clean ” button again to cancel “clean ” function or press “ON/OFF ” button to cancel “clean ” function and start A/C.

f. The clean function will be stop working after 35 minutes running working without any operation.

Note: “clean ” function can be set in parallel with “time start ” function; in this case , “time start ” function will be executed after “clean ” function.

Setting the “OFF” timer time：

a. When remote controller is at on state, press “TIMER” button, the LCD displays “TIMER OFF” and the timer time, the range of setting time is 0.5h to 24h.

b. You can press the “△” or “▽” button to adjust the timer time, each touch will be set time to increase or reduce 0.5h before 10 hours ago, after ten hours will be set time to increase or reduce 1h per pressing, to enable your required timer.

c. Press “TIMER” button again, to set the timer off function.d

⑦【**SCREEN**】button

You can let the LCD display working or not by pressing this button.

⑧【△】or【▽】button

Press the “+” or “-” button,you can set the temperature range from 16℃ to 32℃,Display will change when you touch the button.

⑨【**CLEAN**】button

a. When remote controller is at the off state, press “clean ” button, the wind guiding bars turn to initial postions for cooling, the A/C runs “clean ” function with max duration 35mins.The purpose of this function is to clean dust on evaporator and dry the inside water of evaporator and to prevent the evaporator going moldy due to water deposition and boasting strange smell .

⑩【**MODE**】button

Which enables you to select different operation mode,after each pressing, the operation mode will be changed. It shows in the following display.

AUTO→COOL→DRY→HEAT→FAN→AUTO

Remark: cold wind type has no heating function.

⑪【**SLEEP**】button

1.Press the SLEEP button, the sleeping indicator light of ndoor unit flashes on.

2.After the setting of sleeping mode, the cooling operation enables the set temperature to increase 1℃ after 1hour and another 1℃ automatically after 1 hour.

3.After the setting of sleeping mode, the heating operation enables the set temperature to drop 2℃ after 1hour and another 2℃ automatically after 1 hour.

4.The air-conditioner runs in sleeping mode for 7 hours and stops automatically.

Remark: press the MODE or ON/OFF button, the remote controller clears sleeping mode away.

⑫【**SWING**】button

Press this button, the horizontal wind direction vanes can swing automatically, when you have the desired vertical wind direction, press it again, the horizontal wind direction vanes will be stopped at the situation of your choice.

⑬【**HEALTH**】button

Press this button, you can turn on or off the health function.

⑭【**FUNGUSPROOF**】button

This A/C has special dry and anti-mold function which has “yes ” or “no” two selections. This function is controlled by the remote controller under cooling, dry and auto (cooling and dry) modes, the horizontal wind guiding bars are at the initial position for cooling. The A/C runs under heating mode(the cooling onlyA/C only runs under fan mode), the internal fan runs for three minutes with weak wind before stop. Thepurpose of this function is to dry the inside of the evaporator and to prevent the evaporator from going mouldy due to water deposition and thus dispersing strange smell.

Note:

1.This function has not been set in the factory. You may freely set and cancel this function. The setting method is: under "off" status of the A/C and the remote controller, point the remote controller toward the A/C and continuously press "FUNGUSPROOF" pushbutton for one time,the buzzer keep beeping five times again after five times beep, indicating that this function is ready. In case this function has been set, unless the whole A/C is powered off or the function is manually cancelled, the A/C then has this function as default;

2.To cancel the function: 1. Power off the whole A/C; 2. Under "off" status of the A/C and the remote controller, point the remote controller toward the A/C and continuously press "FUNGUSPROOF" pushbutton for one time, the buzzer keep beeping three times again after five times beep, indicating that this function has been cancelled;

3.When this function is on, it is suggested not to restart the A/C before it is completely stop;

4.This function will not run in case of time stop or sleep stop.

★Usage

Automatic operation mode

1.Press the ON/OFF button, the air-conditioner starts to operate.
2.Press the MODE button, select the automatic operation mode.
3.Press the SPEED button, you can select fan speed.You can select fan speed from LOW, MID, HIGH, AUTO.
4.Press the button again, the air-conditioner stops.

●Cooling/Heating operation mode(cold wind type has no heating function)

1.Press the ON/OFF button, the air-conditioner starts to operate.
2.Press the MODE button, select the Cooling or Heating operation mode.
3.Press the "△" or "▽" button, set the temperature, temperature can be set at 1℃ difference range from 16-32℃.
4.Press the SPEED button, you can select fan speed. You can select fan speed fromLOW, MID, HIGH, AUTO.
5.Press the button again, the air-conditioner stops.

●Fan operation mode

1.Press the ON/OFF button, the air-conditioner starts to operate.
2.Press the MODE button, select the Cooling or Heating operation mode.
3.Press the SPEED button, you can select fan speed.You can select fan speed from LOW, MID, HIGH.
4.Press the button again, the air-conditioner stops.

Remark: In the circulation operation mode, to set the temperature is noneffective.

●Drying operation mode

1.Press the ON/OFF button, the air-conditioner starts to operate.
2.Press the MODE button, select the Dry operation mode.
3.Press the "△" or "▽" button, set the temperature, temperature can be set at 1℃ difference range from 16-32℃.
4.Press the SPEED button, you can select fan speed.You can select fan speed from LOW, MID, HIGH, AUTO.
5.Press the button again, the air-conditioner stops.

Note:

This manual introduces function for all of the remote control, maybe you press one button without any reaction, well, the air-conditioner you bought hasn't this function.

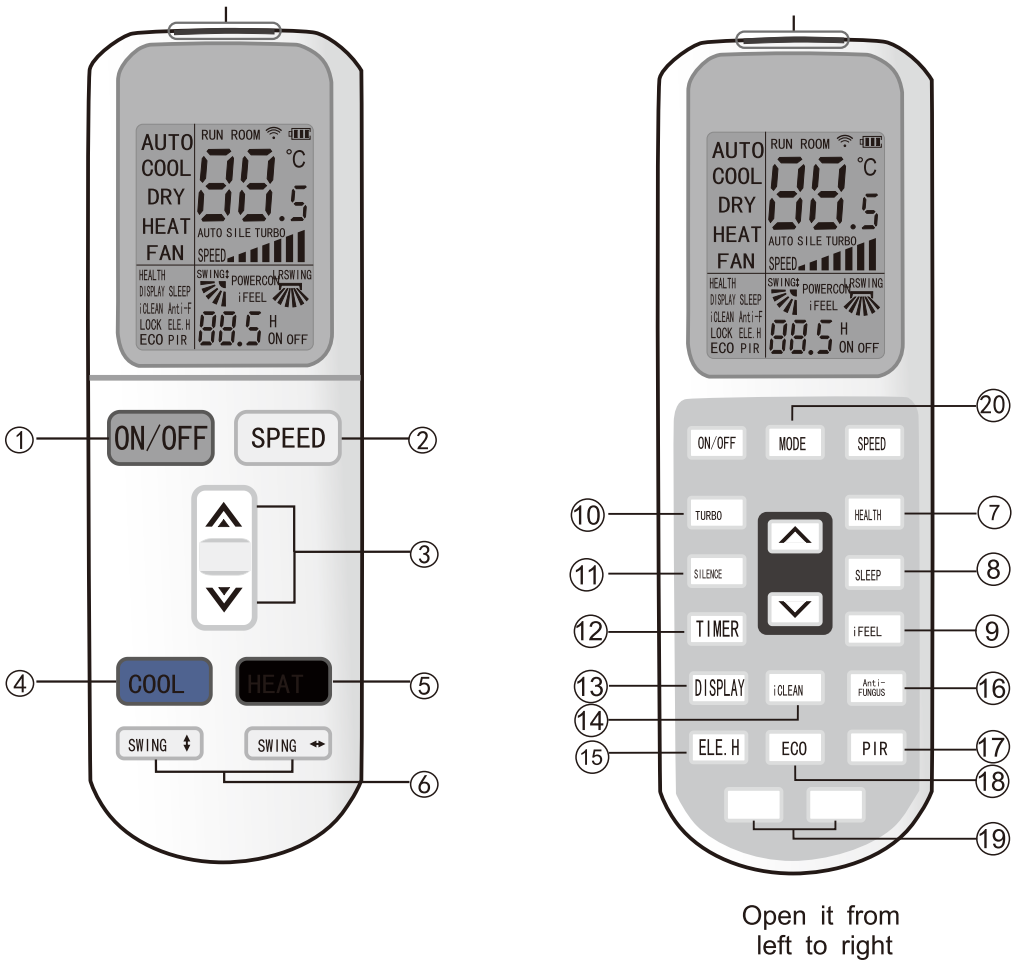
★Fix batteries

1.Slide open the cover according the direction indicated by arrowhead.
2.Put into two brand new batteries (7#), position the batteries to right electric poles (+&-).
3.Put back the cover.

★Attention

1.Aim the remote controller towards the receiver on the air-conditioner.
2.The remote controller should be within 8 meters away from the receiver.
3.No obstacles between the remote controller and receiver.
4.Do not drop or throw the remote controller.
5.Do not put the remote controller under the forceful sun rays or heating facilities and other heating sources.
6.Use two 7# batteries, do not use the electric batteries.
7.Take the batteries out of remote controller before stop its using for long.
8.When the noise of transmitting signal can t be heard indoor unit or the transmission symbol on the display screen does not flare, batteries need be replaced.
9.If reset phenomenon occurs on pressing the button of the remote controller, the electric quantity is deficient and new batteries need to be substituted.
10.The waste battery should be disposed properly.

4.2Remote controller L



Open it from left to right

Note: 1. Remote controller outside buttons only valid when surface cover is closed.

2. Two white button is only for addressing set. If it has been set, remember not to reset by yourself.

4.2.1Buttons description

①"ON/OFF"button

You can start the air-conditioner by pressing this button and stop its operation by pressing it again.

②"SPEED"button

You can select fan speed from "Low", "Mid", "High", "Auto".

Low → Mid → High → Auto

③"∧/∨"button

When press ∧ button,the setting temperature will be increased by 0.5℃.When press ∨ button, the setting temperature will be decreased by 0.5℃.

The temperature will be changed quickly by pressing the button continuously and setting temperature range is 16℃ to 32℃.

④"COOL"button

Press the COOL button, you can directly enter cooling mode.

⑤"HEAT"button

Press the HEAT button, you can directly enter heating mode.

Note: cooling only unit has no heating function.

⑥**“SWING”button**

Press this button, the horizontal wind direction vanes can swing automatically, when you have the desired vertical wind direction, press it again, the horizontal wind direction vanes will be stopped at the situation of your choice.

⑦**“HEALTH”button**

Press this button; you can turn on or off the health function.

⑧**“SLEEP”button**

Press SLEEP button, then display screen shows "SLEEP",the sleeping function of the air conditioner is activated.

Note: press the MODE or ON/OFF button, the remote controller clears sleeping mode away.

⑨**“iFEEL”button**

Press this button to set “iFEEL” function. The LCD shows the actual room temperature when the function set and it shows the setting temperature when the function cancelled This function is invalid at Fan mode.

⑩"**TIMER**"button

This buttton is used to set the Timing On or the Timing Off function.

⑪**"SILENCE" button**

Set silence on or off(the characters of silence will appear or disappear)by pressing this key. Once energized, the unit will be defaulted to be silence off.

⑫**"TURBO"** button

Set turbo on or off(the characters of turbo will appear or disappear)by pressing this key under cooling or heating mode.

Once energized, the unit will be defaulted to be turbo off.

This function can not be set under auto, dry or fan mode, and characters of turbo won’t appear.

⑬"**DISPLAY "button**

In display mode, press button once, switch off “DISPLAY”.Press “DISPLAY”again.LCD will show ambient & setting temperature after flashing 5s. It's convenient for users to check ambient or setting temperature at any time in darkness.

⑭**"iCLEAN "button**

When remote controller is at the off state, press“iCLEAN” button, the unit runs“iCLEAN” function.

The purpose of this function is to clean dust on evaporator and dry the inside water of evaporator and to prevent the evaporator going moldy due to water deposition and boasting strange smell.

After setting "iCLEAN" function, press"iCLEAN"button or “ON/OFF “button to quit.

The clean function will stop working after about 30 minutes running without any operation.

⑮**"ELE. H "button（for auxiliary electric heating IDU）**

In heating mode, press this button, auxiliary electric heating will work.

⑯**"Anti-FUNGUS "button**

The purpose of this function is to dry the inside of the evaporator and to prevent the evaporator from going mouldy due to water deposition and thus dispersing strange smell.

To operate the function: under“off”status of the A/C and the remote controller, press "Anti-FUNGUS" button for one time, the buzzer keep beeping five times again after five times beep, indicating that this function is ready.

To cancel the function: 1. under "OFF " status of the A/C and the remote controller, press "Anti-FUNGUS"button again.

⑰**"SPOT SWING "button**

Press this button, the horizontal wind direction vanes can swing automatically, when you have the desired vertical wind direction.

Press "SPOT SWING" again, the horizontal wind direction vanes will be stopped depend on you.

⑱**"ECO"button**

In cooling mode, press this button, the unit will run “ECO”economic operation mode which takes the least power consumption.

After running for 8h, it will automatically quit. You can press “ECO”button once again to quit .

Note: The unit will turn off automatically if the timing mode is running out of time.

⑲**Two white button:Addressing set**

With the controller off, pressing the two white button simultaneously 10 seconds or more to enter address settting. This status displays only temperature and time parameters, temperature display area shows “Serial number" parameters, the range is 0-99. Time display area shows "Set value", the range is 0-255. The initial value is 1.

By pressing “ ∧/∨ ” to set serial number + and -.Parameters within the serial number displays from 0 to 99 in circulation.

By pressing “ECO” and “iCLEAN” to set value number + and -.Parameters within the value number displays from 0 to 255 in circulation. After setting the two numbers, press the MODE button to confirm the setting.

⑳**"MODE"button**

This enables you to select different operation mode, after each pressing, the operation mode will be changed.

It shows in the following display.

★ 4.2.2Usage

•Automatic operation mode

1. Press ON/OFF button, air-conditioner starts to operate.
2. Press MODE button, select the automatic operation mode.
3. Press SPEED button, you can select fan speed from LOW, MID, HIGH, AUTO.
4. Press ON/OFF button again, the air-conditioner stops.

•Cooling/Heating operation mode

(Cooling only type has no heating function)

1. Press the ON/OFF button, or just press HEAT/COOL to operate the air-conditioner.
2. Press the MODE button; select Cooling or Heating operation mode.
3. Press the “ ∧/∨ ”button, set the temperature, temperature can be set at 0.5℃. difference range from16-32℃.
4. Press the SPEED button, you can select fan speed from LOW, MID, HIGH, AUTO.
5. Press ON/OFF button again, the air-conditioner stops.

•Drying operation mode

1.Press the ON/OFF button, the air-conditioner starts to operate.

2.Press the MODE button, select the Dry operation mode.

3.Press the “∧” or “∨” button, set the temperature, temperature can be set at 1℃ difference range from 16-32℃.

4.Press the SPEED button, you can select fan speed.You can select fan speed from LOW , MID, HIGH, AUTO.

5.Press ON/OFF button again, the air-conditioner stops.

Note:

This manual introduces function for all of the remote controller ,may be you press one button without any reaction, well, the air-conditioner you bought has no this function.

- Timer button mode

1) Clock Function

Clock setting during using period,the method just like below :

1.Open the lid of the remote controller,then press Timer button,the Clock functionis activated.

2.Press the “△” or “▽” button to set the clock time, The time is 12-hour system with a.m.& p.m.

3.Press the TIMER button again to confirm the clock time.

2) Timing ON Function

Timer ON function must be set when the air conditioner is off.

The method just like below:

1.Open the lid of the remote controller , then press TIMER button, the letter “ON” will be displayed and flicker.

2.Press the “△” or “▽” button to set the time, the time is 12-hour system with a.m.& p.m.

3.Press the TIMER button again to confirm the clock time.

4.Press other button to select the operation condition.(including mode ,temperature,swing,fan speed,etc.).

Note: When the Clock or Timing on setting is the same as the setting time, the air conditioner will automaticlly close or operate .

- **Fan operation mode**

1. Press ON/OFF button, air-conditioner starts to operate.
2. Press MODE button, select Cooling or Heating operation mode.
3. Press SPEED button, you can select fan speed from LOW, MID, HIGH, AUTO.
4. Press ON/OFF button again, air-conditioner stops.

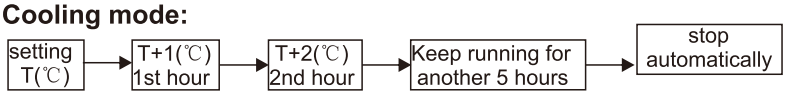
Remark: In the circulation operation mode, temperature setting can't work

- **Sleep operation mode**

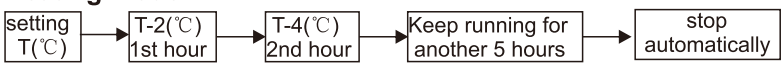
1. Press ON/OFF button, the air conditioner starts to operate.
2. Press the MODE button to select cooling or heating status.
3. Open the lid of the wired controller, press the SLEEP button,the display will shows ,the sleeping function will be activated.
4. Press SLEEP button again ,the sleeping function will be cancelled. Then the air conditioner will keep its setting to operate.
5. Press ON/OFF button ,the air conditioner stops.

When the sleep function starts,it will operate like follows:

1.Cooling mode:

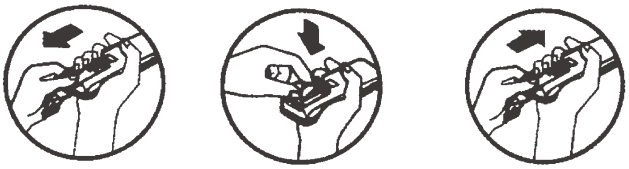


2.Heating mode:



3.The sleep mode will last for 7 hours ,and then stop automatically.

4.3 Fix batteries



1.Slide and open the cover according to the direction indicated by arrowhead.

2.Put into two brand new batteries (7#), position the batteries to right electric poles (+&-).

3.Put back the cover.