

Fan Coil Unit

Installation and Operation Manual

Floor, Ceiling, Wall, Concealed Type



Please read the manual before using the fan coil.

The installation and service must be carried out by trained and qualified technician only

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Safety precautions:

“Safety Precautions” provides some important safety consideration and the key usage points of the units.

Please ensure the units will be operation as per the “Safety Precautions.”



WARNING

The error of operation may result in dying, being injured and other serious results.



ATTENTION

Inadequate use should cause incident, the damage of machine and using efficiency.

Please read the icon on the indoor unit carefully.

Please cut off the electric power immediately if the following unexpected affairs happen, for example, unusual noise, scent, smoke, rising temperature, electric power leaks out, fire accident and so on. Contact the local fire and emergency department immediately if necessary.



WARNING

1. The machine must be assembled by the dealer or the authorized technicians. Otherwise, accidents may happen or would cause the damage of the machine and using efficiency.
2. Please do not disassemble the air conditioner without professional instructions. Otherwise unexpected affairs would happen or the machine would be damaged.
3. Do not use or store flammable gas or liquid around or under the machine, such as fixture, paint, gas. Otherwise a fire accident may happen.
4. Do not let children touch the switch in order to prevent accidents happening.
5. Do not sprinkle water or other liquid to the machine, or accidents may happen.
6. Don't touch the machine with water in your hand. Or it may cause electric shock.
7. Please cut off the main frame's power in thunder weather to prevent lightning from destroying the mainframe or causing danger.
8. If the machine would not be in use for a long time, please cut-off the electric power in order to prevent accidents happening.
9. The unit needs to use separate power switch and dedicated power line, avoid to share the same circuit with other equipments; please use the specified power line and circuit breaker(with leakage protection function).
10. The unit needs to be reliable grounding with specified earth grounding wire; please do not connect with fuel gas pipelines, lightning conductor or telephone grounding wire, or it may cause electric shock.
11. Please do not cut off the power if the unit under normal operation, or it may cause accidents.



ATTENTION

1. Do not insert hands or sticks into outlet or inlet of indoor unit, otherwise the fan with high-speed may put you into danger.

2. Please keep the electric unit dry to avoid any moisture, or it may cause short circuit or unit damage.
3. Please remember to close the air inlet grille properly after cleaning air filter. Or it may affect the efficiency of the unit.
4. Please adjust indoor temperature properly, especially when there are old people, children, patient and so on in the house.
5. Lightning and electromagnetic radiation may influence this machine. If the machine is influenced, please cut off electric power. Then turn on it again.
6. It is forbidden to block or cover the air outlet and inlet with some obstruction.

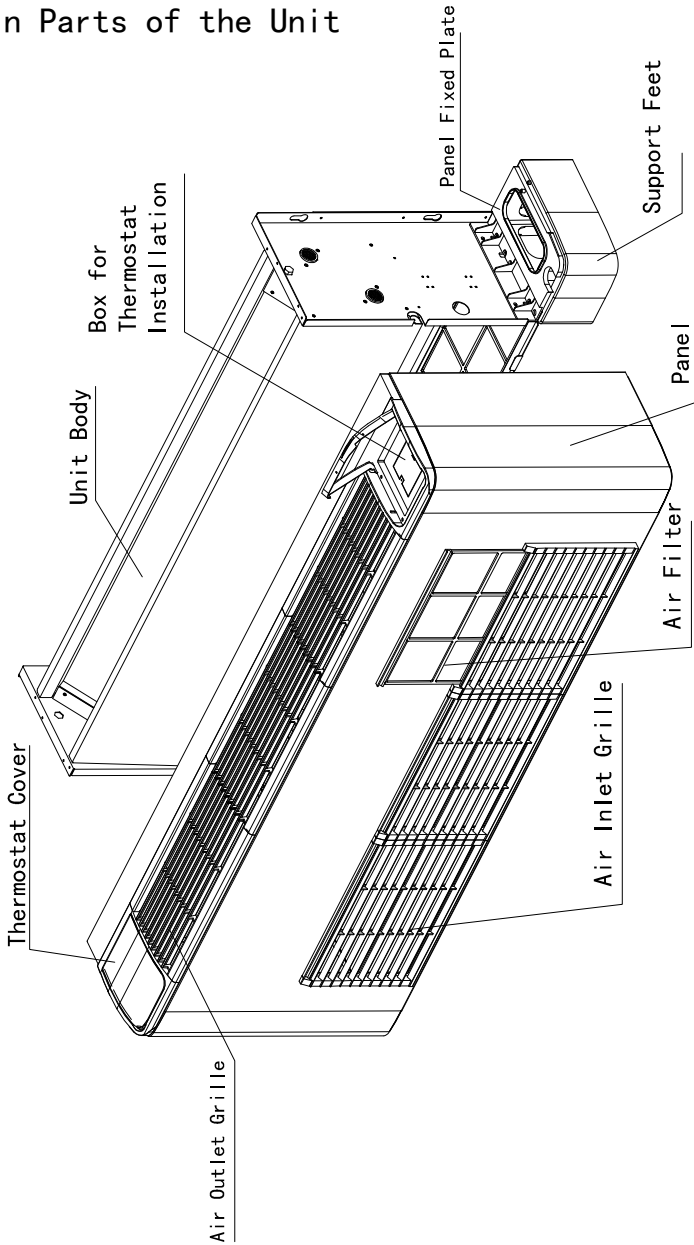
Use of Attention

1. The unit must be installed in the ceiling which can support the weight of the unit.
2. Please do not touch any electrical components and buttons when the unit under operation expect the professional technicians. Or it may cause accidents.
3. Please do not repair the unit by yourself, contact with the Company's Service Center when the unit fails. Or it may cause accidents.
4. Please do maintenance and cleaning the air filter regularly to ensure the unit running in good condition.

Other Safety Precautions:

1. Please use a required capacity fuse and can not use iron wire or copper wire.
2. The unit working environment should be far away from the fire hidden place. Please cut off the power switch immediately and put out the flame with a dry powder extinguisher.
3. Cut off the power supply before doing maintenance .
4. Please do not touch the sharp edge or fins, or it may cause accidents.
5. Do not freely move the unit with no guidance by the professional technicians. Or it may damage the unit.
6. Do not use your hand or other objects to touch the rotating wheel. Or it may cause casualties or machine damage.

Main Parts of the Unit



Note: The socle just for floor standing use

INSTALLATION

1. Ceiling mount the unit

- 1) Open the box and take out the unit, disassemble the panel and safe keeping.
- 2) If the unit will be installed in horizontal, please choose the firm and secure ceiling which can support the weight of the unit. Use 4 hangers to fixup the unit and make sure the unit is installed in level position. If the unit will be installed in vertical, please fixup the unit on the wall or floor standing.

2. Connection of Pipeline

1) Please choose a proper pipeline connectin according to the side situation. The drainage pipe should be installed in a certain slope if there' s 2-way valve or 3 way valve installed on the water connection.

2) Do insulation for all of the pipes to ensure there' s no any leakage. Any part of the pipelines shall not be directly exposed to the air. And the thickness of the insulation shuld be no less then 10mm.

3. Wiring Diagram

1) Please do wiring according to the wiring diagram; use the electric wire (>1mm²) fitting to the national standard; and the wired should be done by the relevant qualified person.

2) Voltage: $\pm 10\%$ rated voltage

3) It is prohibit to use a controler to control the different model units.

4. Attention:

1) Do not hold the fan wheel to move the unit during the installation.

2) When horizontal installation, please ensure the unit is mounted in level positon and the drainage pipe is well connected.

3) After installation of the water system, please do pressure testing to ensure there' s no leakage.

4) Please do insulation on the water inlet/outlet pipe to prevent the condensate leakage.

5) Please use the flexible pipe connection between the unit water connection and outlet pipe.

6) Ensure there' s enough inpection room for maintance during design.

7) Before system running, please clean the water systme to prevent the coil blockage .

8) Before trail operation, please open the exhaust valve to send out the air from the tube.

9) Before running, please check the mechanical transmission parts:

a) No abnormal sound between fan wheel and unit casing

b) Check and ensure the fan wheel running smoothly

c) Ensure the rotation direction of the fan wheel is correct

If there' s no problem, then do running to see if the fan wheel rotates on the right direction.

a) Start running the circulation pump

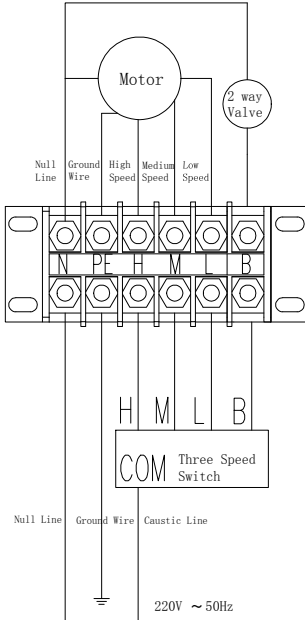
b) Input suitable concentration of antifreeze solution

c) If the unit will stop running for a long time, please drainage all of the water inside the system.

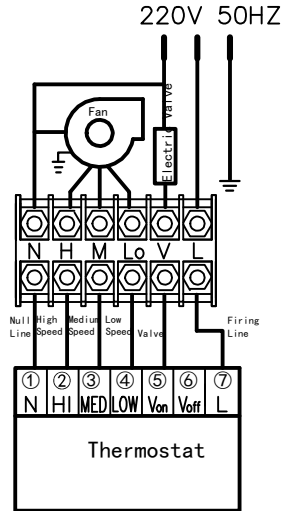
5. Installed the panel to the unit casing and remove the plastic protective film after confirming all of the parts have assembled collectly.

Wiring Diagram

Three Speed Switch



Thermostat



WARNING: Air conditioning unit must be reliable grounding.

Trial Operation

1. Before trial operation, please check up installation is done completely and correctly:
 - a. all of the water pipes are well connected
 - b. the power wiring is well connected
 - c. the air duct is connected
 - d. the air filter is properly installed.
2. Heat exchanger refrigerant for pure demineralized water, and it's work pressure is less than 1.6Mpa.

MAINTENANCE

1. When the unit will not be used for a long time, the heat exchagne should be filled with water to reduce the rust in summer, but it should be cleaned in winter to avoid any burst.
2. Please clean the air filter frequently, at least 1 ~ 2 times every month to maintain good ventilation and obtain a higher heat exchange efficiency.
3. Please do full maintantance after running for 2 years. Recommend to use the chemical process to clean the water scale in the heat exchanger.
4. When use the hot water in winter for heating, please open the exhaust valve to send out the air from the tube.
5. During operation, please clean the air filter regularly. After running for a period, please do cleaning in consideration of it's dust to avoid the affective of coil efficiency.
6. The chilled water shuld be no less then 5°C to prevent frosting, the hot water should be less then 80°C; please ensure clean water quality too.
7. It is prohibit to use the steam or more than 85°C of hot water, or the supply air temperature will become very high which is very dangerous and will cause the failure of the supply air grille deformation. The woking pressure shuld be less then 1.6MPa. When the unit is running in a new building with very high temperature, somtimes there will have some condensation, so please set the water temperature within 9 - 11°C.
8. If needs to stop running the circulating pump under the minus zero outside temperature, please do drainage and to make sure there's no any water exists in the coils. Or the water inside the tube will freeze and damage the coils and distrubuters.

Technical data shown in this manual are not binding. The manufacture reserves the rights of change for the improvement of products without previous notice. Please kindly contact manufacturer in time if you have special requirmetns.