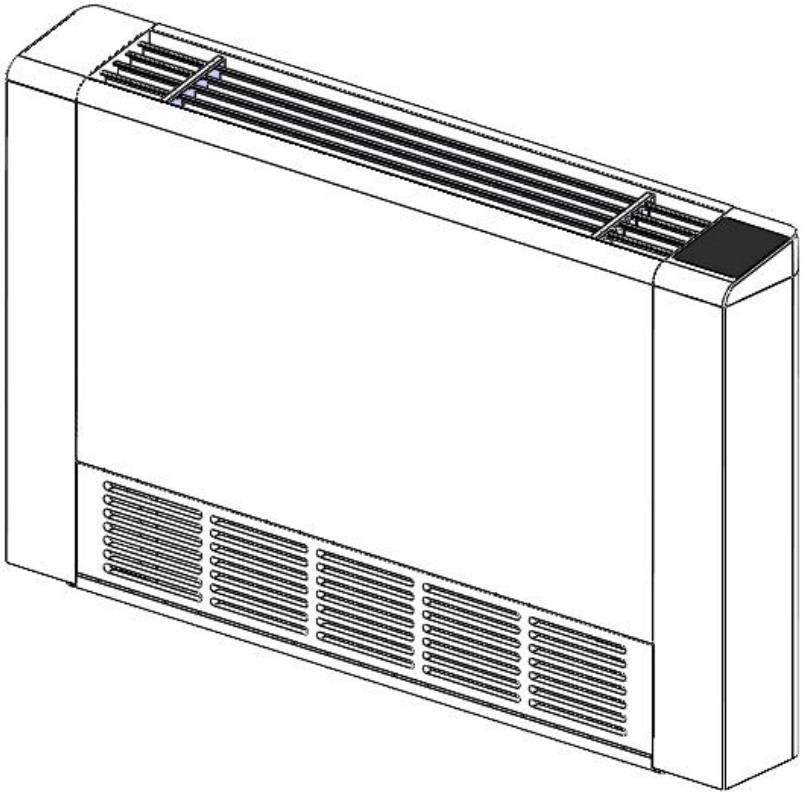
Slim Fan Coil
Installation instruction manual



·Please read this manual carefully before use
·Please refer to the actual product for product appearance.
·The company reserves the right to interpret the instructions
· Please keep it properly after reading
·In case of product technology or software upgrades, no further notice will be given

Important hint:

1. The fan coil unit is the terminal device of the chiller air conditioning system and has strong professionalism, technical specifications and requirements. Therefore, the installation, commissioning, operation and management of the unit must be carried out by professionally trained technicians.
2. The fan coil unit has a wide range of applications, but it is not suitable for humid areas, outdoors, dusty, corrosive environments and places with explosion risks.
3. Conditions of use:

(1)Power supply: 220V～,50Hz.

(2) The maximum working pressure of the unit is 1.6MPa.

Implement national standards:

GB/T 19232-2019

Note:

All illustrations and information in this manual are for reference only.

Our company follows the principle of continuous product improvement. We apologize for the difficulty in notifying you of some improvements in product specifications, performance, materials and structures.

Content

Read this manual carefully before use and keep it properly.

The appearance and color of the unit may refer to the actual product.

Product introduction

This product is mainly composed of cross-flow fans, coil heat exchangers, etc. It is the terminal device of the chiller/heat pump air-conditioning system. It is widely used in hotels, restaurants, factories, hospitals, exhibition halls, shopping malls, office buildings and other multi-room or large buildings. Air-conditioned places in space industries and civil buildings can meet cooling, dehumidification, heating and other requirements, and create a fresh, quiet, spring-like living environment or workplace for people all year round.

Features:

Safe, reliable, long life

Each coil heat exchanger has been pressure tested for leaks; the inlet and outlet pipes (collection heads) are made of forged brass, which is reliable and durable; the water tray is stamped with a mold and then spray-painted to prevent rust; the motor is low-noise The rolling bearing does not require user refueling and maintenance, and has a service life of up to 60,000 hours; the long shaft of the motor has been specially treated to be corrosion-free.

High efficiency and sufficient energy

The coil is made of seamless copper tubes strung together with cracked hydrophilic foils, and then mechanical expansion is performed to make the copper tubes and hydrophilic foils expand and tighten into one body. The heat transfer efficiency is high and the cold (heat) amount is sufficient.

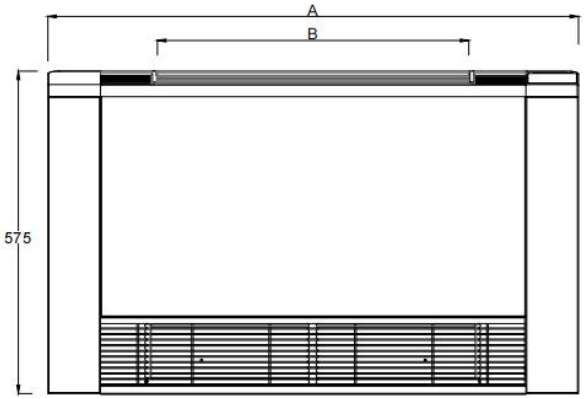
Large air volume, low noise

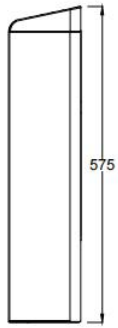
It adopts low-noise full DC cross-flow fan, which has undergone strict dynamic/static balance testing and has low noise and small vibration.

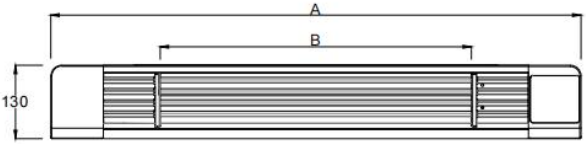
Strong versatility

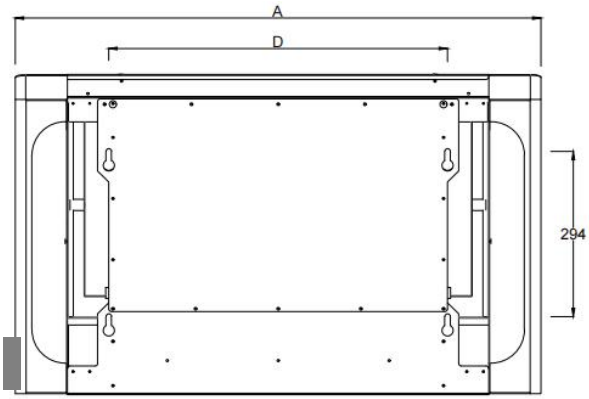
The left and right water inlet of this fan coil unit can be changed on site, and the change method is simple and flexible.

Unit diagram





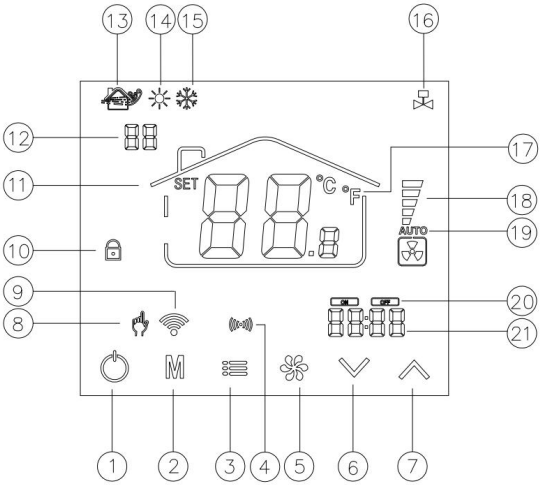




	FP-85	FP-136
A Total Length	950	1220
B Air outlet length	550	820
D Space between lifting hole	611	810

Use and Function

Description



NO.	Display
1	Power
2	Mode
3	Timer
4	Fan speed， long press lock the display
5	Down
6	Up
7	Manual mode icon
8	WIFI icon
9	Alarm icon
10	Communication icon
11	Lock icon
12	Temperature display zone
13	Fault code dispaly zone
14	Fan mode icon
15	Heat mode icon
16	Cold mode icon
17	Valve open icon
18	Fan speed dispaly zone， more cell faster speed
19	Auto icon
20	Timer icon
21	Time display zone

2. Key Description:

Power button: Short press the power button to turn the instrument on and off when the power is on.

Mode key: Short press the M key to switch working modes, which are divided into ventilation mode, cooling mode and heating mode. Press and hold the M key to enter Beijing time setting.

Timing key: Press and hold to activate the timer power on and off function when the phone is turned on, short press to set the timer to power on and off.

Down key: adjust the set temperature, when setting, it is minus.

Up key: adjust the set temperature, when setting, it is plus.

Fan speed key: Short press to adjust the wind speed and automatically control the wind speed status. Long press the wind speed key to lock or unlock the keyboard.

3. Operating instructions:

Timer power on/off: Press and hold the timer button  after powering on to start the timer power on/off function until the icon  is always on, then short press the button  to enter the timer on/off time setting. At this time, the icon  is always on and the hour position flashes. Press the up/down button to adjust. , press the button  again and the minute position will flash. Press the up/down button to adjust. Press the timer button  again. The icon  will always be on. The hour position will flash. Press the up/down button to adjust. Press the timer button  again. The minute position will flash. Press the up/down keys to adjust, then press the timer key to save and exit/it will automatically save and exit if no operation is performed for 5 seconds.

Set time: Under turn on station, long press the M key, the time hour position flashes, press the up/down keys to correct, short press the M key again to switch to the time minute setting, press the up/ down keys to correct. Press the M key again to save and exit/it will automatically save and exit if no operation for 5 seconds.

Reset: Under turn on station, press and hold the power button + fan speed button at the same time to restore factory settings.

APP WIFI connection: Under turn on station, press and hold the power button  + up button at the same time to connect the APP distribution network. When the icon  flashes quickly (the icon  flashes twice in 1 second), you can open the mobile APP and enter the router account and password to connect. The icon  will always light up after the connection is successful.

Fan speed setting: Under turning on station, long press the wind speed key + the down key to set the output speed of each gear, short press the wind speed key to switch to the next gear, press the up and down keys to adjust the data, a total of 5 speed levels are adjustable, short press the power button after the setting is completed to exist.

Check the coil temperature: press and hold the up button when the power is turned on.

Anti-cold wind function: 1. If the coil temperature sensor not connected, the anti-cold wind function will not be activated. 2. If the anti-cold wind temperature is set to “0”, the anti-cold wind function will not be activated regardless of whether the coil temperature sensor is connected or not. When the anti-cold wind temperature is not set to 0, the coil temperature sensor is connected. When

the coil temperature is lower than the set anti-cold wind temperature, the fan has no output in the heating mode and the heating icon flashes. When the coil temperature is higher than the set anti-cold wind temperature, the fan work and the heating icon does not flash.

4. Error code:

Room temperature sensor failure	E1
Coil temperature sensor failure (only displayed on the coil temperature viewing interface)	E2
Communication failure	E3
Fan failure	E4

5. In the shutdown state, press and hold the M key to start the standard parameter setting items.（As following form）

NO.	Function	Data	Function	Default	Note
1F	485 communication address	0-99		1	
2F	Temperature sensor location selection	0-1		0	Selection is not supported
3F	Set max temperature	Minimum value -55		35℃（95℉）	
4F	Set min temperature	0-max value		15℃（59℉）	
5F	Temperature Calibration	+-9 degree	+for up -for down	0℃（32℉）	
7F	anti-cold wind temperature	0-50		28℃（82℉）	
8F	Anti-freez	0-1	0 close 1 open	0	After turning on antifreeze, when the unit turned off, the Temp. ≤4 ℃it starts and stops when the Temp. ≥7℃

9F	No function				
10F	Standby backlight brightness	0-100	0 close 100 total bright	20	
11F	Screen off selection	0-1	0 Keep the screen on 1 ： after 30s screen off	0	

6.After shutting down, long press the power button + up button to start the function setting.

NO.	Function	Data	Function	Default	Note
01E	Show EE reminder				
02E	Time function selection	0-1	0 No time function 1 Timing	1	
03E	Fan off selection	0-2	0 When the set temperature is reached, the fan is turned off and the valve is closed at the same time. 1. When the set temperature is reached, the fan will not be turned off for cooling and only the valve will be turned off. The fan will be turned off for heating and the valve will be turned off. 2. When the set temperature is reached, the fan will not be turned off, only the valve will be closed.	0	0 is changed to the valve closing when the set temperature is reached, and the fan is changed to low speed for 30 seconds and then closed.

04E	Powered on, on/off selection	0-2	0 Memorize the power on and off status before power outage 1 Power on and start up 2 Power on and shut down	0	
05E	Switch ℃/℉	0-1	0 show ℃, 1 show ℉	0	

7.APP download

Pls scan the QR code to download the APP.

Unit Installation

Equipment acceptance check

Each unit is individually packaged in cartons to prevent damage during

transportation, loading and unloading, and installation on the construction site. To ensure that no damage occurred during shipping, please check the following steps upon receipt:

1. Before signing for receipt, please check whether there are any abnormalities in each unit, whether the corners of the carton are intact, and whether there are any obvious signs of damage;
2. If there are obvious signs of damage to the carton, please open it immediately and check the condition of the unit itself. If the main body is indeed damaged, please indicate the actual situation on the receipt and reject the goods. Also check out other accessories;
3. Check whether there is any hidden damage to the unit;
4. If hidden damage is found, please do not move the unit at the receiving site. The recipient is obliged to prove that the hidden damage did not occur after delivery. If hidden damage is found, stop unloading and take photos to keep the record;
5. If any damage is found, please notify the carrier and ask the carrier and recipient to conduct a joint inspection;
6. Please do not repair by yourself before inspection and confirmation by the carrier's representative;
7. After confirming that there is indeed damage, contact the relevant personnel for replacement.

Installation Precautions

To ensure smooth installation and operation, please check the following items before installing the unit:

1. The unit must have enough space for installation and maintenance. Please refer to the overall dimension drawing for unit dimensions. An inspection space must be left for routine maintenance;
2. Please confirm the location of pipelines and electrical wiring before installation;
3. Please check whether the lifting position structure can bear the weight of the unit;
4. All units must be installed horizontally to ensure smooth drainage and normal operation;
5. The insulation of water valves and pipelines must be provided by the installation contractor.

Warning

When adjusting the level, you need to refer to the casing of the fan coil because its coil and water tray have been designed to be horizontal to the casing to

facilitate drainage.

Water Pipe Connection

◆ Chilled water pipe connection

1. Use a 3/4" external threaded joint to connect the chilled water pipe to the unit. It is recommended to use a flexible connecting pipe to connect and seal it with a raw material tape. The water inlet of the fan coil is at the bottom and the water outlet is at the top. Double wrenches must be used when taking over the pipe. Operate to avoid excessive force, which may cause the copper pipe to deform, crack, or leak. The dimensions of the coil interface are shown in the overall dimension diagram.
2. If the unit is installed in a high temperature and high humidity environment, an electric valve linked to the thermostat must be installed on the water inlet pipe of the unit to prevent condensation on the unit.
3. A water filter should be installed at the inlet of the chilled water pump and the water inlet pipe of the unit to avoid dirt and blockage.

◆ Condensate water pipe connection

The condensate water pipe can be made of PVC material or steel. The condensate water pipe should be connected flexibly. The length of the hose should not be more than 300mm. The material should be transparent rubber hose, and it should be tightened tightly with a hose hoop to prevent leakage. The slope of the drain pipe is recommended to be at least 1:50.

 Warning

Chilled water pipes and condenser water pipes must be insulated, and special attention should be paid to the end treatment of the insulation material to prevent condensation during refrigeration operation.

Electrical wiring

Please connect the power supply strictly in accordance with the requirements.
The grounding point provided by the unit must be connected to the building's grounding system.
All electrical connections must comply with local electrical installation codes.
Before servicing the unit, disconnect the power supply to prevent personal injury.
The material of the connecting wire should be copper, other conductors may cause overheating and damage to the unit.

Installation check and startup

Installation check

Next, check and confirm the previous installation steps. The installer must check and confirm again according to the following requirements.

Before unit inspection, the power supply needs to be disconnected to prevent personal injury.

1. The connection between the unit, the expansion hook and the wall is firm;
2. The water pipes are connected, and the valves and inlet and outlet pipes have strict insulation measures and no leaks;
3. The drainage pipes are connected, strict insulation measures are in place, and there is no leakage;
4. There is no fallen debris in the unit;
5. The electrical connection is completed, and there are no bad contacts, missed connections, wrong connections, etc.;
6. If other building decorations are still under construction, the appearance of the unit must be protected;
7. Have read the instructions, are basically familiar with the unit, and can operate it.

Start running

1. Before operating the unit, please remove debris from the condensate water pan, the fan volute and around the unit.
3. Before running the unit, please reconfirm whether the power supply specifications meet the machine requirements.
4. Before the first operation, the water inlet and outlet valves of the unit should be closed, and after cleaning the pipeline system, the water inlet and outlet valves should be opened again.

Exhaust

When the system is first supplied with water, some gas may remain in the coil piping system, and the remaining gas will be concentrated at the top of the coil. The water outlet joint of the coil is equipped with a manual exhaust valve. When air remains in the coil, it will make abnormal noise. Turn the exhaust valve knob to release the air. When the knob is too tight, you can use pliers or a flat-blade screwdriver to twist it and Turn counterclockwise until a steady stream of water flows out of the exhaust valve, then tighten the knob.

Unit application and operation precautions

1. The temperature of the cold water entering the unit should not be lower than

5℃, otherwise it may cause condensation in the unit. The temperature of the incoming hot water should not be higher than 80° C (60° C is commonly used), otherwise it may cause corrosion of the copper tubes of the unit's heat exchanger.
2. This product is only used as a comfort air conditioner. It should not be used in special occasions or installed in areas with corrosive gases.
3. Do not stop the unit while continuously supplying cold water (except if the unit is equipped with an electric valve), otherwise it may cause condensation on the surface of the unit and nearby objects. If the unit stops running for more than 8 hours, please close the inlet and outlet valves and stop water supply.
If the water supply cannot be stopped, please adjust the unit to low speed.
4. When the unit is installed and used in an environment with a humidity greater than 80%, the unit should be insulated, otherwise water may drip from the unit.
5. Please install the unit away from frequently opening and closing doors, open ventilation windows and places where steam is generated.

Unit maintenance

⚠ Recommended maintenance plan

Before servicing the unit, be sure to disconnect the power supply to prevent electric shock.
Check every month whether the air inlet is clean and whether condensed water can flow freely to the drain pipe.
Every year 1. Check whether the unit shell is corroded, clean and renovate;
2. Check whether the fan blades and volute are damaged, and manually turn the fan blades to ensure that there are no foreign objects impeding their rotation;
3. Check whether the coil fins are dirty and damaged;
4. Clean and tighten all electrical wiring;
5. Drain the chilled water from the entire system and perform descaling and renewal.

⚠ Warning

The use of untreated water will lead to scaling, corrosion and poor performance of the unit; system debugging and maintenance require the guidance of water treatment experts; the company is not responsible for the consequences caused by poor water quality.

Clean coils and drain pans

A clogged or dirty coil will reduce cooling capacity. Please follow these steps to clean:

1. Disconnect the power supply and motor wiring and let the fan blades stop rotating;
2. Close the valve and loosen the water pipe connection, or turn the machine to the position where the back plate can be removed;
3. Loosen the fixing screws between the back panel and the side panels, and separate the back panel and side panels;
4. You can see the position of the windward side of the coil evaporator; the bottom of the coil is the inside of the water tray
5. Clean the inside of the coil and water tray to remove dirt;
6. Reinstall the back panel and secure it with screws;
7. Connect the power supply and water source to conduct an operation experiment and check the effect.

Antifreeze protection

During the shutdown of the unit, if the ambient temperature is above 0° C, the coil should be kept filled with water to reduce corrosion; if the ambient temperature is at or below 0° C, one of the following evaporator anti-freeze measures must be taken:

1. Ensure the continuous operation of the circulation pump.
2. Add antifreeze of appropriate concentration to the water system.
3. Drain the water in the evaporator and outdoor water pipes, and the water in the evaporator must be blown clean with high-pressure gas. Otherwise, our company will not bear any responsibility for damage to the unit caused by freezing.

Important hint

Add sufficient concentration of antifreeze to the cold water circuit of the unit according to local climate conditions to ensure that the unit can operate in climate conditions that are 10° C lower than the local minimum temperature. If the unit does not operate in winter, it is recommended to drain the water in the water pipeline, and it is best to add antifreeze to the heat exchanger as a preventive measure, and refill it with water when the next operating season arrives.

Fault Handling

Problem	Cause	Solve
Does not work	Power outage or no power on	Wait for power supply or turn on power
	Power plug is loose	Plug in the power plug
	Motor broken	Change motor
Abnormal noise or vibration from the unit	Damaged fan bearings	Replace motor
	Fan motor fixing screw loose	Fastening screws
	Damaged volute or fan	Replace volute and fan
	There is foreign matter in the air duct or at the air outlet.	Remove foreign matter
	The air outlet is blocked	Remove blockage
Water Leakage	The water outlet of the drain pan is clogged	Remove blockage
	Pipes and fittings are not tightly insulated	Insulation
	Uneven installation	Leveling
	Heat exchanger freeze crack	Repair or replace
	The fan stops running but the unit continues to provide cold water	Turn off the electric valve of the unit or set the unit to low speed.
	High ambient air humidity	Dehumidify and prevent hot and humid air from entering the room
	Exhaust valve loose	Tighten the exhaust valve
Insufficient cooling (heating)	The electric valve of the unit does not open	Start the electric valve of the unit
	The circulating water pump is not turned on and cold or	Turn on the circulation pump

	hot water does not flow.	
	Heat exchanger fins clogged or reversed	Clean and repair heat exchangers
	The set temperature of the cold water of the unit is high or the set temperature of hot water is low	Adjust the set temperature of the external unit
	Water inlet valve filter dirty	Clean or replace

Warranty

Dear customers:

1. Under the condition that the user abides by the regulations on unit transportation, storage, installation, use, maintenance, etc., within 36 months from the date of leaving the factory or within 36 months from the date of commissioning (whichever expires first), If the product is damaged or fails to work properly due to poor manufacturing quality, our company will provide free service and replacement parts. However, damage caused by human factors (such as damage caused by external force, illegal operation by operators, poor storage, installation or repair by non-contracted installation and maintenance units, damage caused by improper transportation, hoisting and engineering installation by the user) and force majeure factors caused by external forces Damage caused by (such as earthquake, fire, lightning strike, etc.) will not be repaired free of charge (if service and replacement of parts are required, the cost

will be charged according to the company's regulations).

2. This product is subject to lifelong maintenance. If the unit breaks down outside the warranty period and requires service, the cost will be charged according to the company's service regulations.

List in the package

Name	Picture	NO.	Usage
Fan coil unit		1	
Manual		1	
Drain pipe		1	
Expansion anchor bolt		2	