

HYDRO ECO CASSETTE UNITS



2.7kW Unit - Unit size 580 x 580 x 250 and panel size is 680 x 680 x 30

4.5kW Unit – Unit size 710 x 710 x 290 and panel size is 830 x 830 x 30

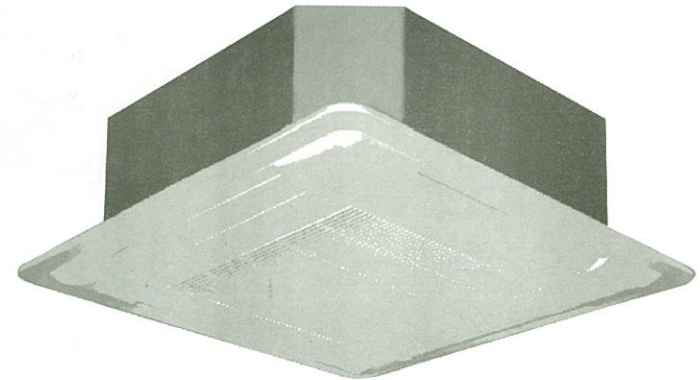
7.0kW Unit sizes as above

9.0kW Unit 832 x 832 x 290 and panel size is 980 x 980 x 30

For all sizes please allow 20mm clearance on unit size for all units mentioned above

CASSETTE FANCOIL UNIT

OPERATION AND INSTALLATION INSTRUCTIONS



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SAFETY PRECAUTIONS

SAFTY ICON

- **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 unexcepted affairs happen, for example, unusual noise, scent, smoke, rising temperature, electric power leaks out, fire accident and so on.

 Attention!

1. The machine must be assembled by professional installation man. Otherwise accidents may happen or the machine would work ineffective.
2. Pls do not disassemble the air conditioner without professional instructions. Otherwise unexpected affairs would happen or the machine would be destroyed.
3. Using poor quality water would make corrosion and fouling of the inset units. Problems caused by that are not responsibility of our company.
4. 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.
5. Don't let children touch the switch in order to prevent accidents happening.
6. Never sprinkle water or other liquid to the machine, or accidents may happen.
7. Don't touch the machine with water in your hand. Or it may cause electric shock.
8. Use electric wire fitting to the national standards. This wire has safty circuit to provide the earth and fixed terminal to connect to patch cord. It must not be destroyed. Otherwise a fire accident may happen or it may cause electric shock.
9. Pls do not put the condenser water pipe into container that may product harmful gas such as sulfid. Otherwise the harmful gas may be lead in the house.
10. Pls do install the drainpipe according to the instructions. If not, the water would leak.
11. Pls cut off the mainframe's power in thunder weather to prevent lightning from destroying the mainfrime or causing danger. If the machine would not be in use for a long time, please cut off the electric power in order to prevent accidents happening.

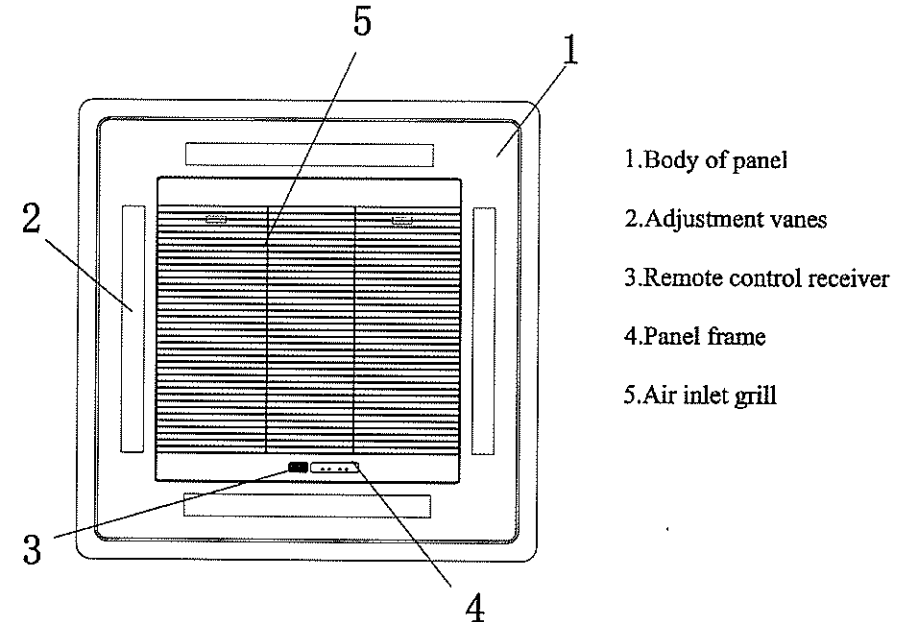
PARTS AND FUNCTIONS OF PANEL

 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. It would not be affected with dump. Or it may have short circuit or be destroyed.
3. Pls remember to close the air inlet grill properly after cleaning air filter.
4. Pls operate the unit according to instructions strictly for effective efforts. Otherwise it may leak and do worse work.
5. Please adjust indoor tempreture properly, especially when there are old people, children, patient and so on in the house.
6. Lightning and electromagnetic radiation may influence this machine. If the machine is influnced, please cut off electric power. Then turn on it again.
7. It is forbidden to block or cover the air outlet and inlet with some obstruction.

Parts and functions of panel

● Form of panel



PARTS AND FUNCTIONS OF PANEL

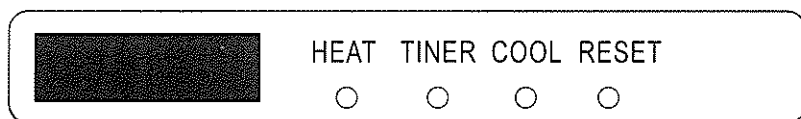
● Remote signal receiver and functional direction lamp display panel

Remote signal receiver. It receives operational orders sended out by remote control. In order to make operations of remote control quick and effective, please remote signal transmitting point aims at remote signal receiver.

Buzzer. It would sound when you do any one of the following actions: you turn on the current or operate the air conditioner by using remote control or by hand.

When the air conditioner has malfunction, its intellectual identification system will identify the type of malfunction automatically and light display malfunction code. Please refer to "Identification and remedy of air conditioning malfunction"

● LED LIGHTS



REMOTE RECEIVING POIN

LIGHT SIGNAL: THE SIGNAL LIGHT IS UNUSEFUL

GREEN LIGHT : COOL
YELLOW LIGHT : TIMER
RED LIGHT : HEAT

RESET: PRESS THIS BUTTON WHEN THE MACHINE STAND BY, THE MACHINE GOES TO AUTO MODE. PRESS THIS BUTTON WHEN THE MACHINE WORKS, IT GOES TO STAND BY.

MAITENANCE

● HOW TO GET THE BEST EFFICIENCY

1. Clean the air filter frequently.

Dirty or blocked filter will influence the efficiency. If the filter is dirty, it will cause the air-conditioning malfunction. Pls clean it at least one time every two weeks.

2. Set the reasonable temperature

Cooling is more efficient when the difference between room and outdoor temperature is less than 5 centigrades. When cooling operation higher 1 can save 10% power.

3. Avoid sources of outside heat

Use curtains to cover windows subject to direct sunlight during cooling. Avoid opening doors often unless necessary.

4. Exchange air

Allow fresh air into room occasionally.

● Method of maintenance

Attention: When clean the air conditioner, you must turn off the power.

1. Clean air filter

a. take out air filter

b. clean it with vacuum cleaner water

c. after cleaning it with water, please dry it. Donot parch it.

2. Clean indoor unit

Method 1: clean it with a clean and soft cloth.

Method 2: clean out blotch with neuter house use cleanser.

3. Maintenance for season finishing (when the unit will not be used for a long time)

a. Switch on air conditioner, set fan mode; keep it running for 3-4 hours to dry the spare parts.

b. Switch off air conditioner, cut off the power supply.

c. Clean air filter and indoor unit drastically.

d. Take out the battery.

4. Maintenance for season start.

a. Check the unit's water inlet and outlet whether blocked or not.

b. Check the drainage hose whether blocked or not, the inner whether normal or not.

c. Check the installation of air filter whether is installed correctly or not.

INSTALLATION

● INSTALLATION

Please read all chapters within "Safety precautions" before installation.
 Please follow the instructions to do installation.
 Please read marks upon the unit.

⚠ Warning

The unit is not assembled by customer but by the dealer or the authorized technicians. Any building construction change because of installing must reach the local building standard.

This unit must be installed in the ceiling which can support the weight of the unit. Use certain or proper cable to connect.

According to the local stipulation and this instruction, all electric operation must be made by verified technicians.

In the process of installation, please look to safety.

Do not turn on the power before installation finished.

⚠ Attention

After air conditioner is installed, installation worker should tell customer how to use and maintain.

Please let customer read carefully and preserve good instruction.

If the unit should not be installed in the field full of vitriol fog, otherwise it will damage inner spare parts of the unit.

Use the fuse of appointed capacity.

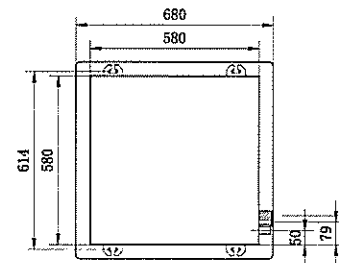
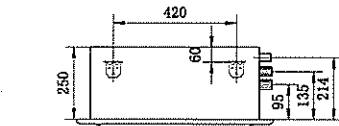
Insure the grounded leakage electricity breaker is installed.

Insure that grounded wire is installed.

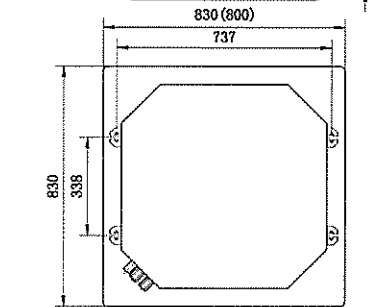
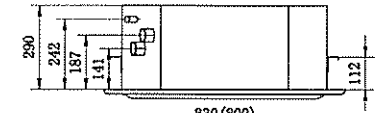
If the air conditioner is installed on the metal part of building, insulated work must be done and be accord with the related technical standard of electric equipment.

INSTALLATION OF INDOOR UNIT

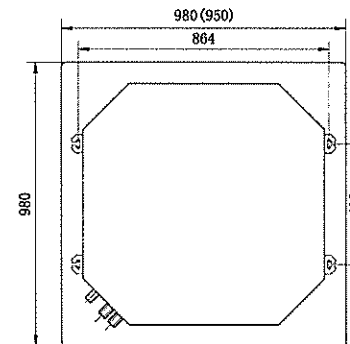
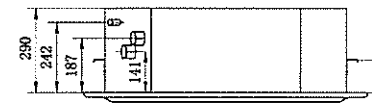
● Size of installation (290 series)



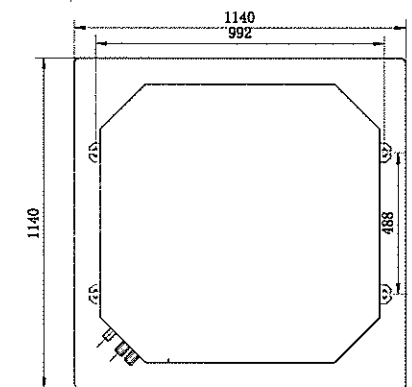
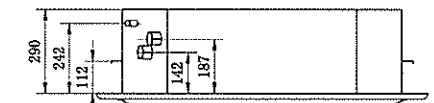
FP-34 (51, 68) KM4



FP-85 (102, 136) KM4



FP-170 (204, 238) KM4



FP-289KM4

INSTALLATION OF THE UNIT

● Installation instructions of indoor unit

1. Confirm the size of ceiling hatch according to installing size.

2. Choose the hanging base

For safety, the hanging base that may be a wooden shelf or reinforced concrete structure must be firm and secure enough to have more than 200kgs load-bearing. It also must keep its firm for a long time under certain shock. Please get the agreement of builder and interior upholsterer before installing.

3. Fixing of hanging bolts

Fix up hanging bolts M10(3/8") at following places:

- a. ceiling
- b. girder, for example, cross beam or roof bar
- c. reinforcing steel bar
- c. pothook to support more than 120kg

4. Fix up the unit

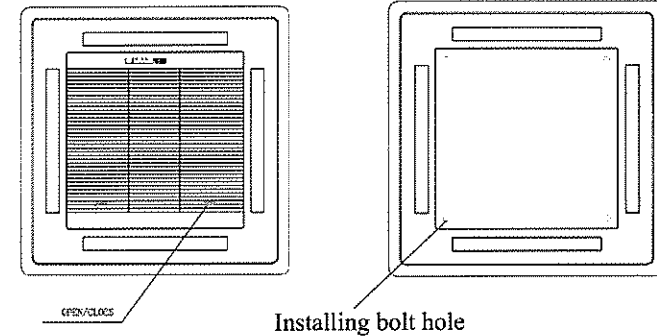
Use a levelling instrument to adjust the unit under level position (screw down or unscrew the two nuts to adjust the position of two nuts). Make sure that there is interspace neither between ceiling and panel nor mainframe and panel. Use a tapeline to measure the distance between the unit and the ceiling. Make sure the mainframe is in the middle of ceiling hatch. After that, tighten the nuts above and under each hanging bolt in order to fix up the mainframe.

△ ATTENTION

Pls pay attention to such situation when the unit is installed into the ceiling:
The ceiling must keep horizontal. To prevent the ceiling from shaking.

INSTALLATION OF PANEL

● INSTALLATION OF PANEL



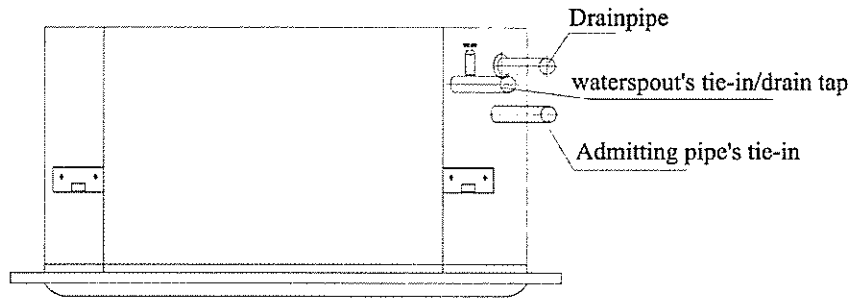
● Installation of panel

1. Front-panel bolt hole in response to the thread position of indoor unit is to install panel. Two opposite angles bolt M6*20 and M10 are screw into indoor unit.
2. Connect the proper wires of step motor in panel and the connection board and electric wire box together.
3. Put cushions of another couple of M6*20 and M10 bolts into them. Then screw them into indoor unit through the hole of panel.
4. Adjust the location and direction of panel to make air outlet frame and the defrosting pan wind way accordant. Then screw down bolt to tighten the panel and indoor unit.
5. Install the air inlet grill back according to the opposite side.

CONNECTION OF PIPELINE AND DRAINPIPE

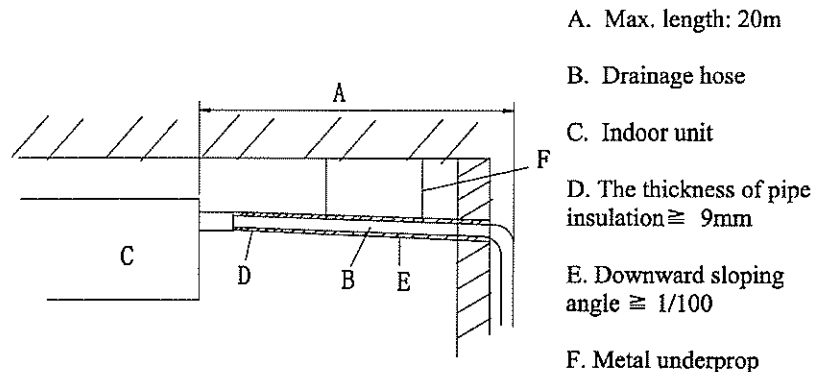
● Connection of pipeline

First connect refrigerated pipe to admitting pipe's tie-in that shows in the sketch map with 3/4 external thread. Then use pipe insulation to airproof them.



● Installation of drainpipe

- 1) Connect the drainage, one end with unit water outlet, one end with PVC pipe (diameter is 20mm)
- 2) The drainage hose must be downward sloping at an angle more than 1%.
- 3) Bind up the PVC pipe with pipe insulation in order to prevent moisture from forming coagulation on it.
- 4) Connect tie-ins tightly in order to prevent water from leaking.



TRIAL OPERATION

● TRIAL OPERATION

1. Confirmation before trial operation

Before trial operation, pls check up installation is done correctly and firmly containing connection of wire and pipe and heat prevention of pipeline, etc.

2. Exhausting of FCU

There is little air left in FCU which focus on the top of it when water goes into it at the 1st time. So there is a handle valve in the drainpipe's tie-in. Handle it to send air out of the drainpipe until steady-going water flows. At last tie in the valve.

3. Trial operation

- a. Put on the power, and open the air conditioner by operating the remote control.
- b. Adjust the fan speed (High-Medium-Low), and check whether there is exceptional noise.
- c. If cooling and heating water revolves in the pipe system, check whether cooling and heating air blow out from air outlet. If the mode is cooling, observe whether the condensate water is drained.
- d. If there is electric valve in the water inlet pipe, set the workong mode cooling or heating, check whether electric valve can open normally and cooling or heating air blows from air outlet.
- e. Press swing button, check whether the adjusting vane swing normally.
- f. After confirm the machine runs normally, Stop the trial operation.

● INDICATION FUNCTION AND MALFUNCTION CHECK

COOL MODE	Green LED light on
Return air sensor failure	Blink 3 times, stop 3 sec
Indoor coil sensor failure	Blink 4 times, stop 3 sec
Indoor coil low temperature protection	Blink 5 times, stop 3 sec
Indoor coil over heat protection	Blink 6 times, stop 3 sec
Water pump failure	Blink 7 times, stop 3 sec

Wiring diagram of electric apparatus

● Wiring diagram of electric apparatus

