

# **FAN COIL UNIT**

(ONE WAY CASSETTE)



TRUST AIR CONDITIONING EQUIPMENT CO. Prepared By: Engineering & R & D Department.



## **The Installation of TMFCC1**

Installation Attention	2
Install the Main Body	3
Install the Panel	5
Install Drain Pipe	6
Wring	8



## **Installation Attention**

## Installation place

There is enough room for installation and maintenance.

The ceiling is horizontal, and its structure can endure the weight of the indoor unit.

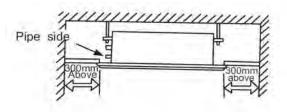
The air outlet and the air inlet are not impeded, and the influence of external air is the least.

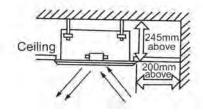
The air flow can reach throughout the room.

The connecting pipe and drainpipe could be extracted out easily.

There is no direct radiation from heaters

## Service space:





#### TMFCC1-300 TMFCC1-400

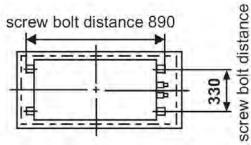
Location in the following places may cause malfunction of the machine. (If unavoidable, please consult your local dealer.)

- a. There exists petrolatum.
- b. There is salty air surrounding (near the coast).
- c. There is caustic gas (the sulfide, for example) existing in the air (near a hot spring).
- d. The Volt vibrates violently (in the factories)



## **Install the Main Body**

- Please refer to the following figure for the hanging screw bolts.
- Please install with Ø10 hanging screw bolts.
- The handling to the ceiling varies from the constructions, consult the construction person for the specific condition.
- 1. The size of the ceiling to be handled----- Do keep the ceiling flat. Consolidate the roof beam for possible vibration.
- 2. Cut off the roof beam.
- 3. Strengthen the place that has been cut off, and consolidate the roof beam.
- 4. Connect wires and pipes inside the ceiling after the air conditioner is hanged.

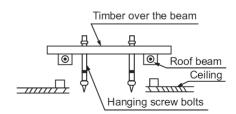


#### TMFCC1-300 TMFCC1-400

- After the selection of installation location, position the water pipes, drain pipes, indoor & outdoor wires to the connection places before hanging up the machine.
- The installation of hanging screw bolts.

## WOODEN CONSTRUCTION

Put the square timber over the roof beam, then install the hanging screw bolts.



## NEW CONCRETE BRICKS

screw bolt)

Inlaying or embedding the screw bolts.

(Blade shape (Slide insertion) insertion)

Steel bar

Embedding screw bolt (Pipe hanging and embedding



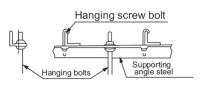
## FOR ORIGINAL CONCRETE BRICKS

Install the hanging hook with expansible bolt into the concrete deep to 45~50mm to prevent loose.



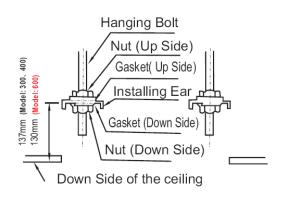
## STEEL ROOF BEAM STRUCTRUE

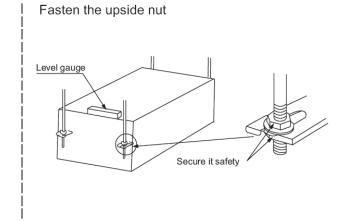
Install and use directly the supporting angle steel.



## **OVERHANGING THE INDOOR UNIT**

Adjust the gasket (down side)

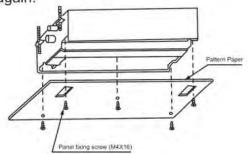


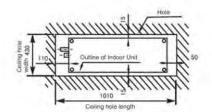


 Install the hanging bolt into U groove of the hanging tool. Overhang the indoor unit and ensure it is level using a level gauge.

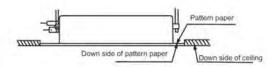


 Adjust the relative position between indoor unit and ceiling hole with the pattern paper again.

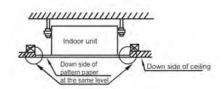




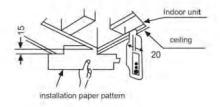
 Fix the pattern paper to the down side of indoor unit with panel fixing screw.
 Adjust the size of ceiling hole according to pattern paper.

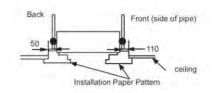


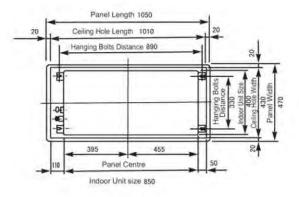
 Down side of ceiling must be level with down side of the pattern paper.



- Use the installation paper pattern to confirm the position between the body and the ceiling opening
- Please refer to the following figure to install.







Model: 300, 400

## **Install the Panel**

#### Note:

- The panel and the ceiling, the panel and the unit body should be connected closely, or air leakage, water leakage and condensate dew will be caused.
- Please refer to the panel installation manual to install the panel.
- Please confirm if the installation places of unit body and panel are proper.

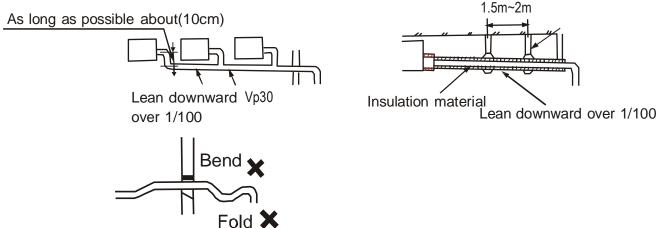


## **Install Drain Pipe**

When connecting the pipe, please use the sealing material and pipe glove.

#### Caution:

- The drain pipe of indoor unit must be heat insulated, or it will condense dew, as well as the connections
  of the indoor unit.
- Hard PVC binder must be used for pipe connection, and make sure there is no leakage.
- With the connection part to the indoor unit, please note not to impose pressure on the side of indoor unit pipes.
- When the declivity of the drain pipe downwards is over 1/100, there should not be any winding.
- The total length of the drain pipe when pulled out breadth wise shall not exceed 20m. When the pipe is over long, a bracket must be installed to prevent winding.
- Refer to the following figures to install the pipes.

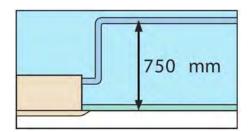


#### Note

- 1. Injury means causing from the harm, burn and electrical shock, but not serious for the hospitalization.
- The damage of material means the disrepair of property and material.

### **Upward drainage:**

- To make sure that the drainage pipe would not slant downward. Lead it upward to a height 750mm maximum, then downward lead it.
- When the drainage is upward, the upward drain pipe and elbow of the accessories must be adopted and the height is less than 750mm, otherwise the drain pump water level switch malfunction will be caused.

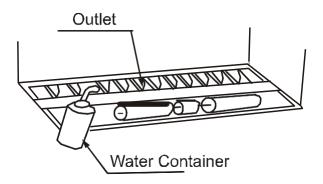


After upward piping, the lead drain pipe must slant downward immediately. (Over 1/100)



#### **Drainage test**

- Check whether the drainpipe is unhindered
- New built house should have this test done before paving the ceiling.
- 1) Stow 600-800cc water with pot or hose from outlet slowly.
- 2) Turn on the power, and operate the air conditioner under the "COOLING" mode. The drainage test is doing during checking the drain pump motor running sound.
- 3) Turn off the power, drain the water away.



## Pipe connection

- 1. The water vent is with the air outlet valve; the other side is water inlet.
- 2. When connecting the water collecting box, the torque is 60~75N·m.
- 3. Put the connecting tubing at the proper position, wrench the nuts with hands, then fasten it with a wrench.( Refer to Chart)





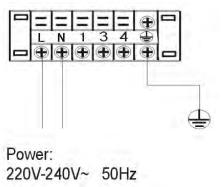
## Wring

#### Caution:

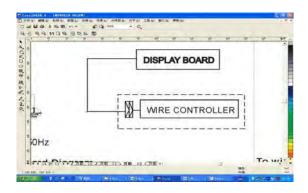
- 1. The air conditioner should use separate power supply with rated voltage; the voltage of power supply must be within 90%~110% of rated value.
- 2. The wiring work should be done by qualified persons according to circuit drawing.
- 3. A disconnection device having an air gap contact separation in all active conductors should incorporated in the fixed wiring according to the National wiring regulation.
- 4. Be sure to locate the power wiring and the signal wiring well to avoid cross-disturbance and their contact with connecting pipe or stop valve body.
- 5. The wiring (5-core shield cable) attached between the signal receiving board and the wire controller is not more than 2m. Be sure to prolong it with wiring of the same type and proper length if necessary. Generally, do not twist two wiring together unless .the joint is soldered well and covered with insulator tape.
- 6. Do not turn on the power until you have checked carefully after wiring.
- 7. The yellow and green wire can only be used to link to the ground wiring.

#### **Terminal Board Diagram**

Please refer to the indoor unit wiring diagram for the wiring.



#### To wire controller



The reserved wire control function is indicated in broken line table, users can purchase the wire controller when necessary.



Air Conditioning Systems Cooling & Heating

TRUST AIR-CONDITIONING EQUIPMENT CO. Shiraz office: 8 th floor, Alvand Blog., Dostan St.,

Moaliabad Ave., SHIRAZ, IRAN., Post code: 71877-14446

Tel.: +98-71-36341070 Fax.: +98-71-36341094

Tehran office: No. 19- koohe nour St.- Motahhari St.-

TEHRAN, IRAN., Post code: 15876-73111

Tel.: +98-21-89389 Fax.: +98-21-88541903

Ahwaz office: No. 309- Kaveh St.- AHWAZ, IRAN., Post code: 61939-

47911

Tel.: +98-61-32230647-8 Fax.: +98-61-32230647

E-mail: info@trustacs.com



