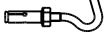







# INSTALLATION INSTRUCTIONS

## 2. Four-way cassette type

### Attached fittings

Please check whether the following fittings are of full scope. If there are some attached fittings free from use, please restore them carefully.

	(on some models)	(on some models)
1. Installation manual.....1	5. Out-let pipe sheath.....1	11. Expansible hook.....4
2. Owner's manual.....1	6. Out-let pipe Clasp.....1	
3. Remote controller.....1	7. Drain joint.....1	12. Installation hook.....4
	8. Installation paper board.....1	
4. Alkaline dry batteries (AM4).....2		13. Orifice.....1
	9. Soundproof / insulation sheath.....1	14. Frame.....1
	10. Seal ring.....1	
		15. Mounting screw(ST2.9×10-C-H) ...2

### Notes before installation

1. Decide the correct carry-in path.
2. Move this unit as originally packaged as possible.
3. If the air conditioner is installed on a metal part of the building, it must be electrically insulated according to the relevant electrical code.
4. If installing in a lonely building or at a high position where it is hot and humid with frequent thunderstorm, lightning-protection equipment is necessary.

### Indoor unit installation

#### 1. Install the main body

- A. The existing ceiling (to be horizontal)
- a. Please cut a quadrangular hole of 600×600mm in the ceiling according to the shape of the installation paper board. (Refer to Fig.15 & 16)
    - The center of the hole should be at the same position of that of the air conditioner body.
    - Determine the lengths and outlets of the connecting pipe, drain pipe and cables.
    - To balance the ceiling and to avoid vibration, please enforce the ceiling when necessary.
  - b. Please select the position of installation hooks according to the hook holes on the installation board.
    - Drill four holes of  $\phi 12$ mm, 50~55mm deep at the selected positions on the ceiling. Then embed the expansible hooks(fittings).
    - Face the concave side of the installation hooks toward the expansible hooks. Determine the length of the installation hooks from the height of ceiling, then cut off the unnecessary part.
    - If the ceiling is extremely high, please determine the length of the installation hook according to facts.
    - Cut the installation hook open in the middle position, then use appropriate length of reinforcing rod ( $\phi 12$ ) to weld together.

### Necessary room

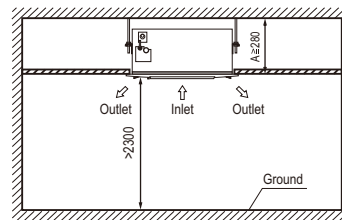


Fig.13

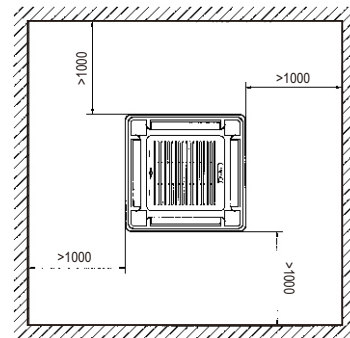


Fig.14

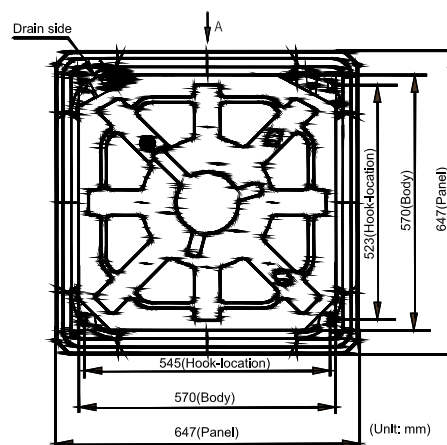


Fig.15

## INSTALLATION INSTRUCTIONS

The length could be calculated from Fig.17:  
 $\text{Length} = 210 + L$  (in general, L is half of the whole length of the installation hook)

- c. Please adjust the hexangular nuts on the four installation hooks evenly, to ensure the balance of the body.
  - Use the transparent hose filled with water to check the lever of the main body from the four sides or diagonal line direction, the lever indicator also can check the lever from four sides of the main body. (Refer to Fig.18)
  - If the drainpipe is awry, leakage will be caused by the malfunction of the water-level switch.
  - Adjust the position to ensure the gaps between the body and the four sides of ceiling are even.
  - The body's lower part should sink into the ceiling for 10~12mm (Refer to Fig.17).
  - Locate the air conditioner firmly by wrenching the nuts after having adjusted the body's position well.

### New built houses and ceilings

- a. In the case of new built house, the hook can be embedded in advance (refer to the A.b mentioned above). But it should be strong enough to bear the indoor unit and will not become loose because of concrete shrinking.
- b. After installing the body, please fasten the installation paper board onto the air conditioner with bolts (M5×16) to determine in advance the sizes and positions of the hole opening on ceiling. Please first guarantee the flatness and horizontal of ceiling when installing it. Refer to the A.a mentioned above for others.
- c. Refer to the A.c mentioned above for installation.
- d. Remove the installation paper board.

## 2. Install The Panel

### CAUTIONS

- Never put the panel face down on floor or against the wall, or on bulgy objects.
- Never crash or strike it.

#### (1) Remove the inlet grid.

- a. Slide two grid switches toward the middle at the same time, and then pull them up. (Refer to Fig.21)
- b. Draw the grid up to an angle of about 30°, and remove it. (Refer to Fig.22)

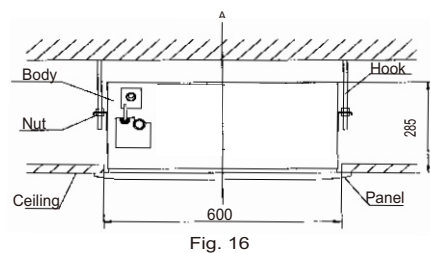


Fig. 16

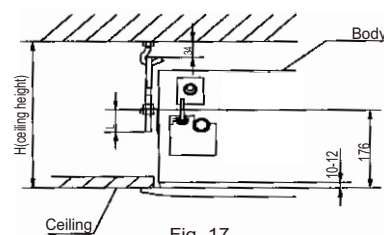


Fig. 17

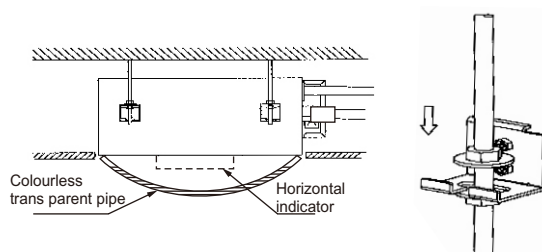


Fig.18

Fig.19

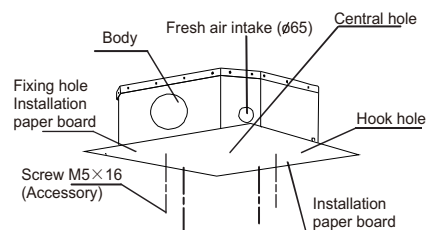


Fig.20

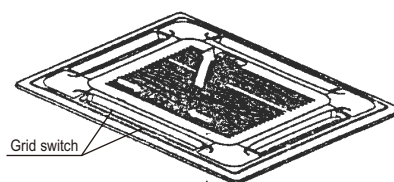


Fig.21

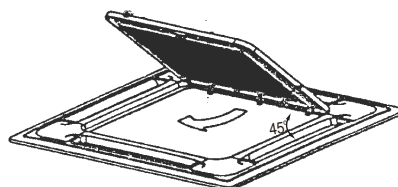


Fig.22

# INSTALLATION INSTRUCTIONS

## (2) Install the panel

- a. Align the swing motor on the panel to the water receiver of the body properly. (Refer to Fig.23)
- b. Hang the four fixed rope of the main body to the installation cover and the other three covers of the swing motor: (Refer to Fig.23 )

### CAUTIONS:

The installation cover of the swing motor must sink into the corresponding water receiver.

- c. Install the panel on the main body with bolt (M5×16) and washer. (Refer to Fig.23)
- d. Adjust the four panel hook screws to keep the panel horizontal, and screw them up to the ceiling evenly.
- e. Regulate the panel in the direction of the arrow in Fig.11 slightly to fit the panel's center to the center of the ceiling's opening. Guarantee that hooks of four corners are fixed well.
- f. Keep fastening the screws under the panel hooks, until the thickness of the sponge between the body and the panel's outlet has been reduced to about 4~6mm. The edge of the panel should contact with the ceiling well. (Refer to Fig.24) Malfunction described in Fig.25 can be caused by inappropriate tightness the screw. If the gap between the panel and ceiling still exists after fastening the screws, the height of the indoor unit should be modified again. You can modify the height of the indoor unit through the openings on the panel's four corners, if the lift of the indoor unit and the drainpipe is not influenced (refer to Fig.26-right).

- (3) Hang the air-in grid to the panel, then connect the lead terminator of the swing motor and that of the control box with corresponding terminators on the body respectively.
- (4) Relocate the air-in grid in the procedure of reversed order, install the air-in grid.

## (3) The installation of ventilation motor and ventilation pipe (if necessary)

- a. Using a tool to knock off the pre-punching hole. (Refer to Fig.27)
- b. Four screw hole reserved for installation. (Refer to Fig.27 )

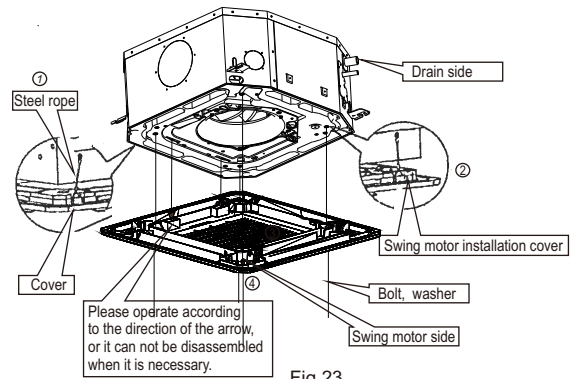


Fig.23

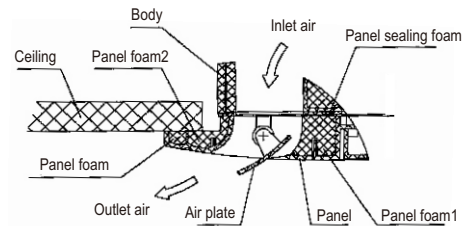


Fig.24

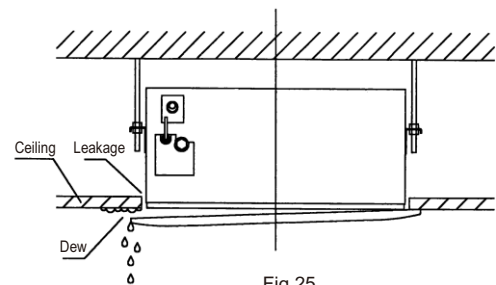


Fig.25

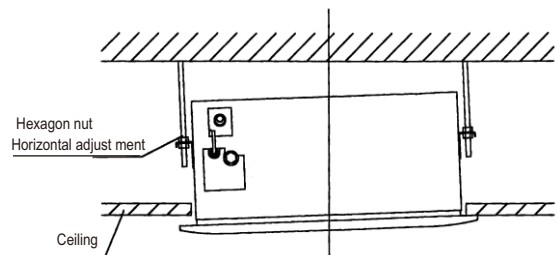


Fig.26

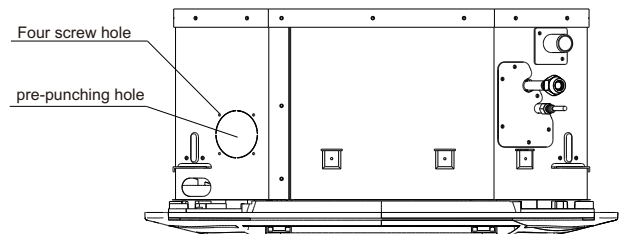


Fig.27

# INSTALLATION INSTRUCTIONS

## (4) water-pump drainage

The maximum lifting height is 750mm.

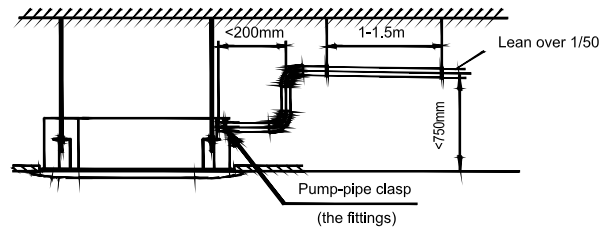


Fig.28

## 3. Drainage pipe installation

### (1) Installation principle

- Ensure at least 1/100 slope of the drainage pipe.
- Adopt suitable pipe diameter.
- Adopt nearby condensate water discharge.
- Before installing condensate water pipeline, determine its route and elevation to avoid intersection with other pipelines and ensure slope is straight.
- In general, the supporter gap of the drainage pipe horizontal pipe and vertical pipe is respectively  $1\text{m}\sim 1.5\text{m}$  and  $1.5\text{m}\sim 2.0\text{m}$ .

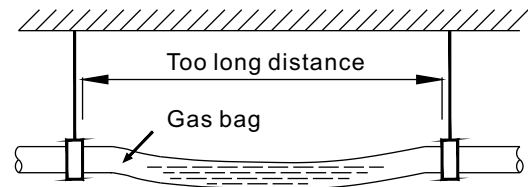


Fig.29

### (2) Drainage pipe selection

- The drainage pipe diameter shall not small than the drain hose of indoor unit.
- According to the water flowrate and drainage pipe slope to choose the suitable pipe, the water flowrate is decided by the capacity of indoor unit.

Capacity(x1000Btu/h)	Water flowrate(l/h)
12	2.4
18	4
24	6
30	7
36	8
42	10
48	12
60	14

- According to the above table to calculate the total water flowrate for the confluence pipe selection.

## INSTALLATION INSTRUCTIONS

**For horizontal drainage pipe**(The following table is for reference)  
Attention: Adopt PVC40 or bigger pipe to be the main pipe.

PVC pipe	Reference value of inner diameter of pipe (mm)	Allowable maximum water flowrate (l/h)		Remark
		Slope 1/50	Slope 1/100	
PVC 25	20	39	27	For branch pipe
PVC 32	25	70	50	
PVC 40	31	125	88	Could be used for confluence pipe
PVC 50	40	247	175	
PVC 63	51	473	334	

**For vertical drainage pipe**(The following table is for reference)  
Attention: Adopt PVC40 or bigger pipe to be the main pipe.

PVC pipe	Reference value of inner diameter of pipe (mm)	Allowable maximum water flowrate (l/h)	Remark
PVC 25	20	220	For branch pipe
PVC 32	25	410	
PVC 40	31	730	Could be used for confluence pipe
PVC 50	40	1440	
PVC 63	51	2760	

- The horizontal pipe layout should avoid converse flow or bad flow:

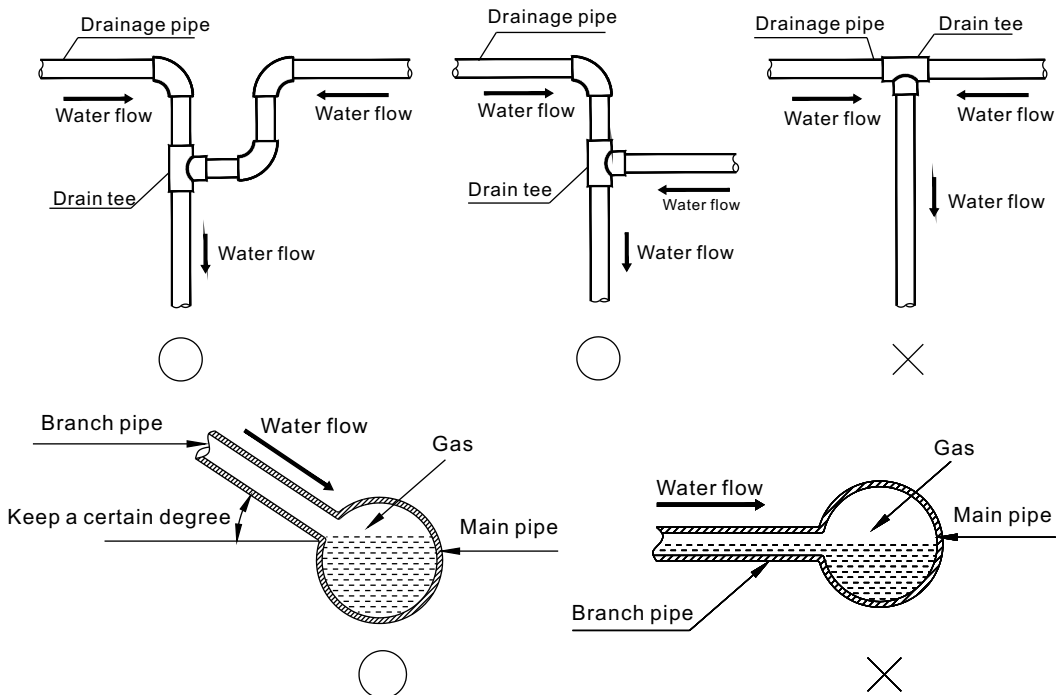


Fig.30

## INSTALLATION INSTRUCTIONS

### (3) Water storage pipe setting

- If the indoor unit has high extra static pressure and without water pump to elevate the condensate water, such as high extra static pressure duct unit, the water storage pipe should be set to avoid converse flow or blow water phenomena.

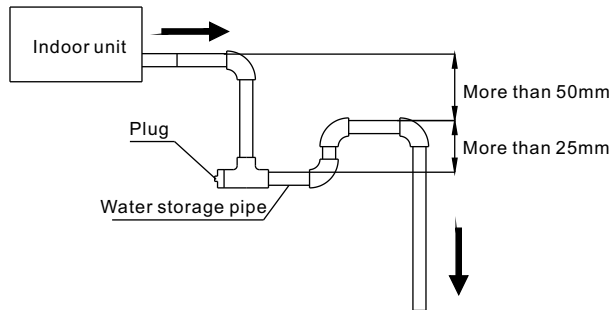


Fig.31

### (4) Lifting pipe setting of indoor unit with water pump

- The length of lifting pipe should not exceed the pump head of indoor unit water pump.
- Pump head of big four way cassette: 750mm.
- Pump head of compact four way cassette: 500mm(9k, 12k, 18k units).
- The drainage pipe should be set down inclined after the lifting pipe immediately to avoid wrong operation of water level switch.
- Refer the following picture for installation reference.

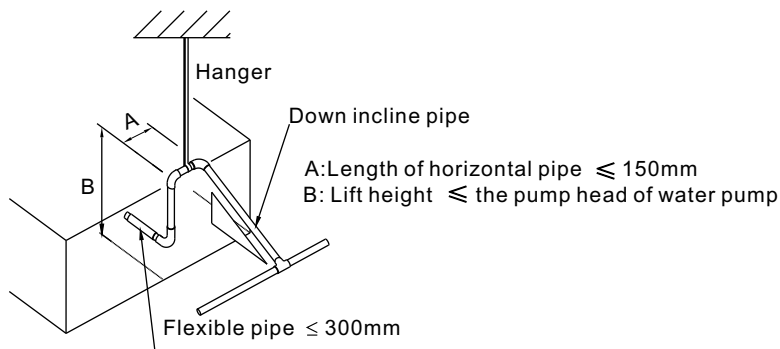


Fig.32

### (5) Blowhole setting

- For the concentrated drainage pipe system, there should design a blowhole at the highest point of main pipe to ensure the condensate water discharge smoothly. The air outlet shall face down to prevent dirt entering pipe. Each indoor system should be installed it. The installation should be considering the convenience for future cleaning.

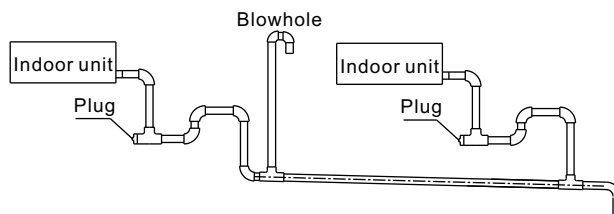


Fig.33