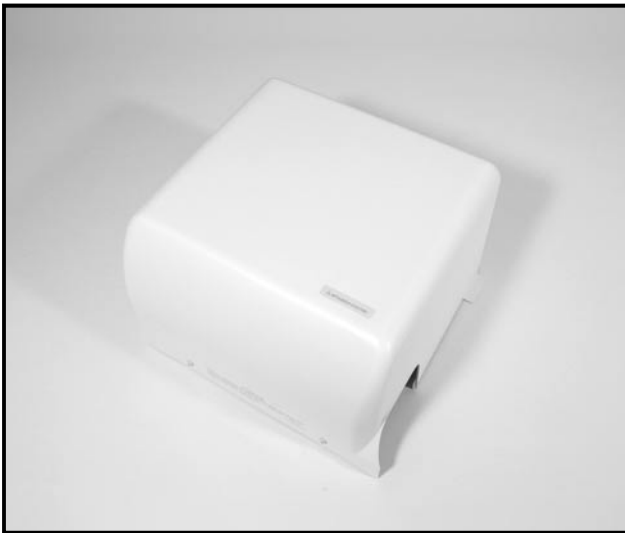




Photo



Descriptions

Raises drain generated during unit's operation to secure the appropriate angle of the drain pipe.

Applicable Models

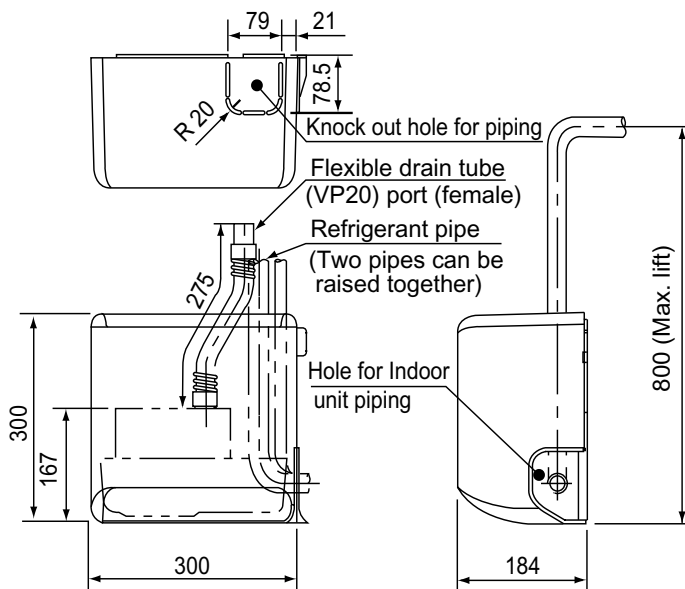
- PKA-RP60FAL ■ PKH-P60FALH
- PKA-RP71FAL ■ PKH-P71FALH
- PKA-RP100FAL ■ PKH-P100FALH

Specifications

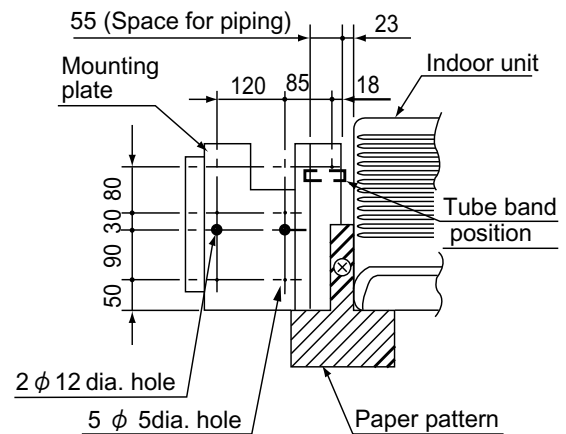
Rated voltage	200-240V 50Hz / 220V 60Hz	
Power consumption	17 / 15W	
Open current	0.17 / 0.15A	
Discharge lift	Max. 460mm from indoor unit's top surface	
Discharge rate	24/h or higher (when operated with lift 800mm and water level 13mm)	
External dimensions (mm)	300 (H) x 300 (W) x 184 (D)	
Exterior	Cover : ABS resin (Munsell 3.2Y 8.3/1.0)	
Operating conditions	Drain water temperature	0 to 50°C (no freezing)
	Ambient temperature	-10 to 50°C
	Ambient humidity	95%RH or less
Driving motor	Single, shading type (Class E insulation)	
Drain piping	Connected to drain outlet. PVC pipe VP-20 (ED:Φ 26) can be used	

Dimensions

Unit : mm



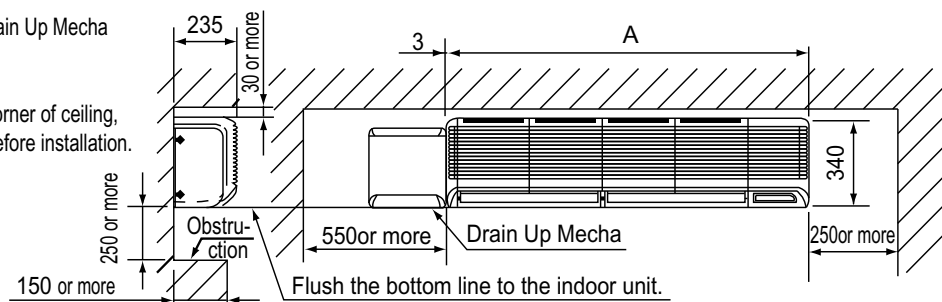
Dimension of Mounting plate



Required space for installation of Drain Up Mecha (Maintenance space)

※In case that there is a rim at the corner of ceiling, consider the dimension of the rim before installation.

Models	A
2.5, 3 / 60, 71	1400
4 / 100	1680

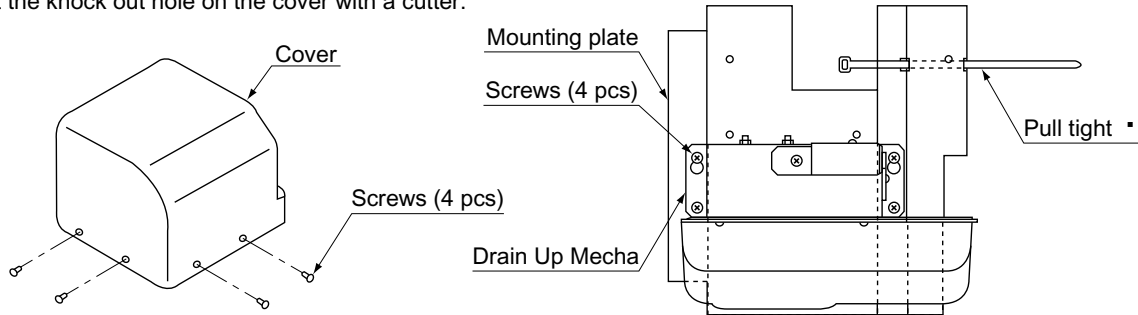


How to Use / How to Install

1. Before installation of the Drain Pump (※Position the indoor unit first.)

1-1 Set up of the Drain Up Mecha

- Remove the cover and the mounting plate which is fixed on the back of the Drain Up Mecha each.
 - ※ The packaging material which is put between the cover and the Drain Up Mecha is only for cushion for transportation. Take it out as it is unnecessary.
 - ※ Take out the accessories.
- Run the pull tight ▪ attached through the square hole on the mounting plate.
- Cut the knock out hole on the cover with a cutter.



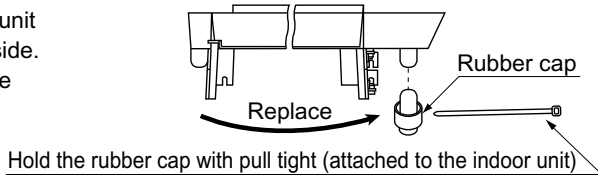
※ The screws removed will be used later. Keep them not to lose.

1-2 Set up and installation of the indoor unit (※See the item of piping connection set up in the installation manual of the indoor unit.)

(1) Make the knock out hole for left side piping on the left side panel.

(2) Remove the drain hose (will not be used) of the indoor unit and replace the drain rubber cap from left side to right side.

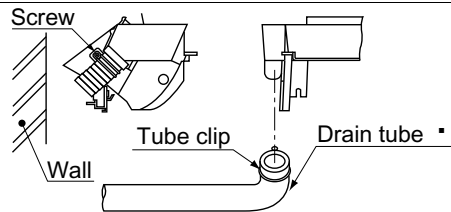
- Loosen the tube clip which holds the drain tube before removing the drain tube.
- The tube clip removed will be used when the Drain Up Mecha will be installed. Keep the tube clip.



(3) Connect the drain tube ▪ attached to the left side drain port, and fix it with the tube clip which was removed from right side.

※ Tighten the tube so that the screw will face to the wall.

(Otherwise, it will be difficult to put the side panel.)



(4) Install the indoor unit.

- ※ The indoor unit must be installed horizontally. Otherwise, the water can leak and it will make the wall dirty.
- After the indoor unit has been installed, install the left side panel.

2. Installation of the Drain Up Mecha

2-1 Fixing of the mounting plate

- The installation place should be carefully considered if it is proper for installation. If it is not strong enough to hold the unit, make it stronger by using board or beam before installation.

(1) Decide the installation position of the mounting plate by using the paper pattern ▪ attached.

(※The left end of the indoor unit should be marked in advance.)

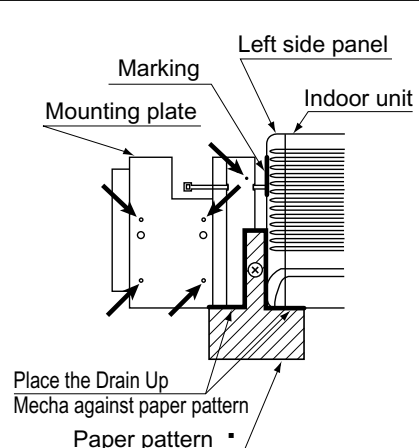
- Fix the paper pattern on the wall with the screw ▪ (M4x16) attached with putting it to the left side panel of the indoor unit for positioning of the Drain Up Mecha as shown in the drawing.
- Position the mounting plate with pushing it against the paper pattern.

(2) Fix the mounting plate with the screws ▪ (M4x35) attached.

(5 locations pointed by arrows in the drawing.)

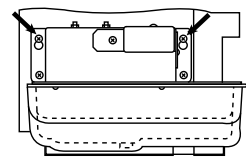
In case that the mounting plate is fixed by fixing bolts (through bolts, bolt anchors, or nut anchors), get M10 or W3/8 screws locally and put them into 2 x 12 dia. holes of the mounting plate to fix it.

(3) When the mounting plates is installed, remove the paper pattern.



2-2 Installation of the Drain Pump

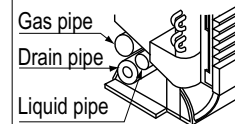
- Fix the Drain Up Mecha on the mounting plate
 - Install the screws to the 2 upper holes (pointed by arrows in the drawing) of the mounting plate by hand tight and hook the Drain Up Mecha on the screws.
 - Level the Drain Up Mecha by using a spirit level. Then tighten the 4 screws securely to fix the Drain Up Mecha.



※The Drain Up Mecha must be leveled. Otherwise, the water leaks and it makes wall dirty.

3. Installation of refrigerant piping (※See the item of refrigerant piping connection in the installation manual of the indoor unit.)

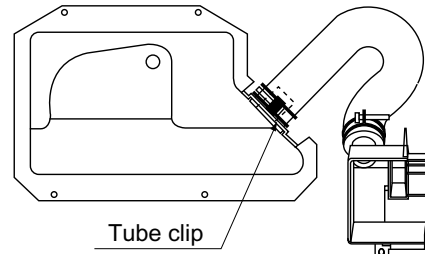
- (1) Remove the right and left side panels of the indoor unit.
- (2) Remove the bottom panel of the indoor unit.
- (3) Install the tube by the way of left piping.
- (4) In case that the refrigerant tube is raised together with the drain tube, run the both pipes in the space for tube.
 - Be sure that the indoor unit must be positioned at the place where was marked at 4-1.
 - The bending radius of the refrigerant pipe must be R80 or less.
 - The tube raised should be fixed with the pull tight which was put through the square hole of the mounting plate.
- (5) The refrigerant pipe should be arranged in the left piping space of the indoor unit like the right drawing.



4. Installation of drain piping

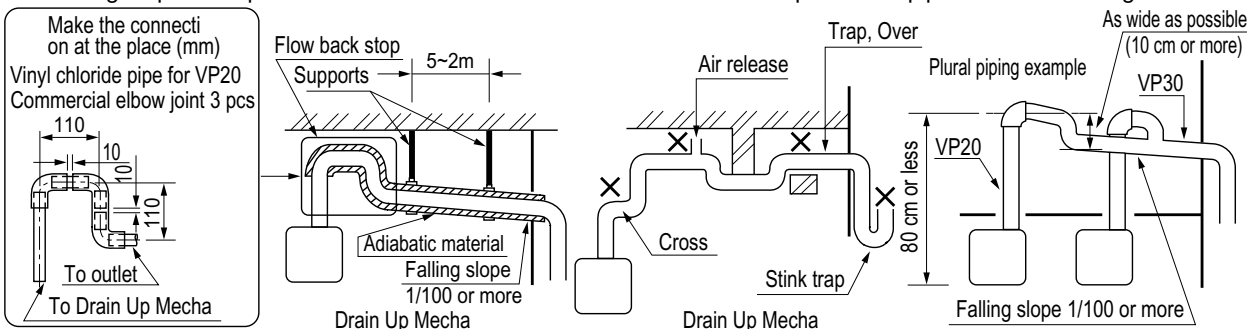
4-1 Connection of drain tube

- (1) Connect the drain tube which is installed to the left side drain port of the indoor unit to the drain port of the Drain Up Mecha.
- (2) Fix the connection port securely with the tube clip which is attached.
- (3) Connect the flexible drain tube which is run from top panel of the Drain Up Mecha with the drain tube at the place. The part connected must be closed by vinyl chloride type glue.
- (4) Insulate the flexible drain tube runs from Drain Up Mecha with the drain tube cover which is attached.



4-2 Installation of drain piping

- (1) The drain pipe should be installed in accordance with the following procedure.
 - The drain pipe should be installed so that the outdoor side (drain side) becomes falling slope (1/100 or more) and do not make trap or go up.
 - The horizontal run of the drain pipe should be 20 m or less. In case that the tube is horizontally run for long distance, some support brackets should be installed to prevent the pipe from being wavy. Never install the air drain pipe. The drain will blow out.
 - The hard vinyl chloride pipe VP20 (outer dia. 26mm) should be used for the drain pipe. And the part connected must be closed by vinyl chloride type glue to prevent water leak.
 - Be sure to wrap the drain pipe with adiabatic material (foam polyethylene : specific gravity 0.03, thickness 9 mm or more).available on the market.
 - Do not install stink trap to the outlet of the drain pipe.
 - The outlet of the drain pipe should be installed the place where it is not possible to cause stink.
 - In case that plural drain pipes are installed, install the main pipe so that it comes approximately 10 cm lower than the drain outlet and the pipes must be made of material of VP30 or similar and they should be falling slope (1/100 or more).
 - It is possible to raise the outlet of the drain pipe (pop lift) to 80 cm from bottom face of the indoor unit. However, if there is horizontal part the water will over flows from drain pan, because the too much water flow back when the operation stops. Therefore, the drain pipe must be raised vertically. Also, install the flow back stop at the heights point to prevent the water from flow back from the horizontal part of the pipe. See the drawing below.



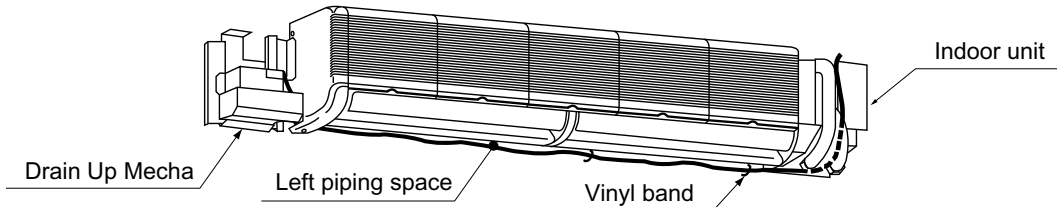
5. Electric wiring

5-1 Set up of the indoor unit (※See the item of electric wiring in the installation manual of the indoor unit.)

(1) Remove the board cover and terminal cover from the electric box.

5-2 Electric wiring

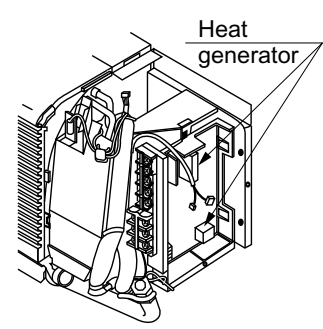
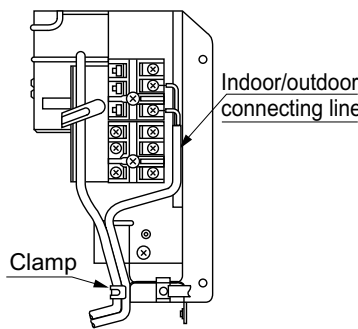
- The electric wires should be run to the electric box together with the lead wires for bane motor through the left tubing space of the indoor unit as the drawing below.
- The electric wires should be tightened together with refrigerant tube by vinyl band which is attached to the left tubing space of the indoor unit.



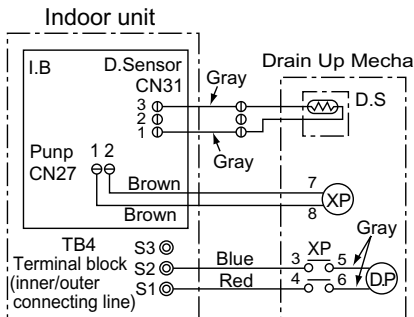
5-3 Electric wiring operation

- The power wires (lead wires with round terminal) should be connected to the terminals S1 and S2 of the terminal block for inner/outer connecting line.
- The lead wire with connector should be connected to the connectors "CN27" and "CN31" each. At this time, remove the bypass connector (will be unused) from the terminal CN31 of the control board.
- Be sure not to have the lead wires touch the heat generator (heat sink) on the control board.

Electric wiring (around electric box)



Electric circuit diagram

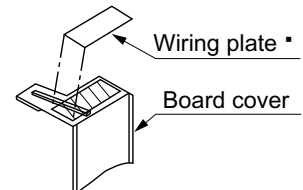


Symbol	Name	Symbol	Name
TB4	Terminal block (inner/outer connecting line)	DP	Drain pump
I.B	Indoor control board	DS	Drain sensor
CN27	Connector (Pump)	XP	Relay (Drain pump)
CN31	Connector (D.Sensor)		

Note: ⊙ stands for terminal connection.
 ⊕ stands for connector joint.

Wiring plate

- Put the Wiring plate on the top face of the board cover.



- When the wiring has been completed, put the each cover of the indoor unit and right side panel back in place.

6. Test run

★ After the installation of the Drain Up Mecha has been completed, make sure that the drain works correctly and the water does not leak from any part of connection.

(1) Pour water

Remove the left side panel of the indoor unit and pour water approximately 800cc to the drain pan. (※If the water is poured too much, it is possible that the drainage does not work due to alarm stop by activation of drain over flow protection device.)

(2) Test run

In accordance with the procedure for test run in the installation manual for the indoor unit, operate the air cooling and make sure that the drainage works and the water does not leak.

※When the Drain Up Mecha is installed in winter season, the water must be drained.

To drain water, remove the drain plug under the Drain Up Mecha. Use the drain pan.

When the drainage has been completed, put the drain plug back in place.

(3) After checking, put the side panel and cover back in place in order.

※Install the indoor unit left side panel first and make sure that the left end of the indoor unit perfectly comes on the point marked at 4-1. (If they do not match, it causes problem that it will not be able to the cover or there will be gap between the cover and the indoor unit.)