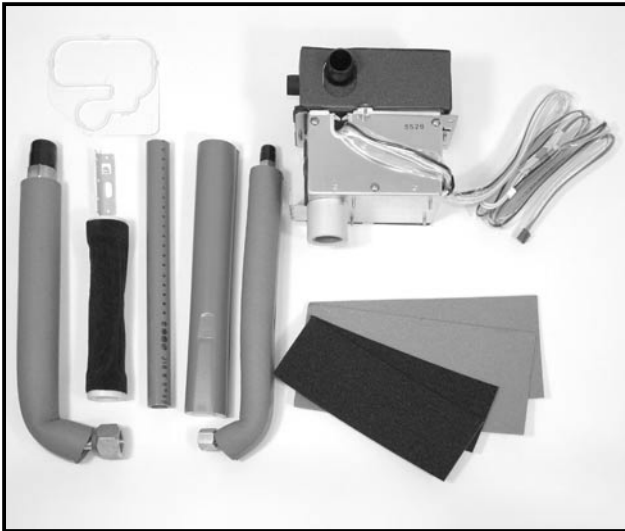




Photo



Descriptions

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

Applicable Models

- PCA-RP100GA ■ PCH-P100GAH
- PCA-RP125GA ■ PCH-P125GAH
- PCA-RP140GA ■ PCH-P140GAH

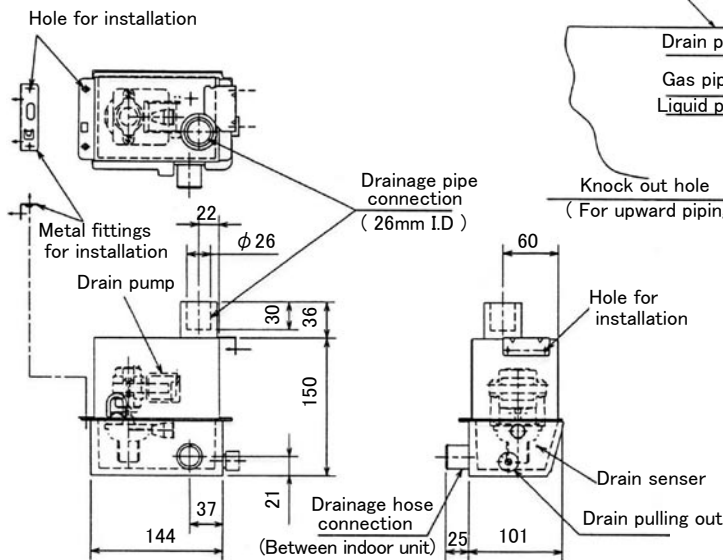
Specifications

Rated power	200V AC, single-phase, 50/60Hz	
Power consumption	10.9/9W	
Operating current	0.12/0.10A	
Drain lift	Max. 400mm from indoor unit's top surface	
Discharge rate	36l/h or higher (when operated with lift 600mm and water level 13mm)	
Operating conditions	Liquid temperature	0 to 50°C (no freezing)
	Ambient temperature	-10°C to 50°C
	Ambient humidity	RH95% or less
Driving motor	Shading type (Class E insulation)	
Drain piping	Connected to drain outlet. PVC pipe VP-20 (ED: Φ26) can be used.	
Accessory	Piping hole cover, Drain hose (between this device and indoor unit), VP-20 pipe (300mm), L-shape connection pipe (liquid, gas), Metal fittings for installation, Fixing screw (ST4x10), Heat insulator (for drain hose, VP-20 pipe, L-shape connection pipe)VP-20 (ED: Φ26) can be used.	

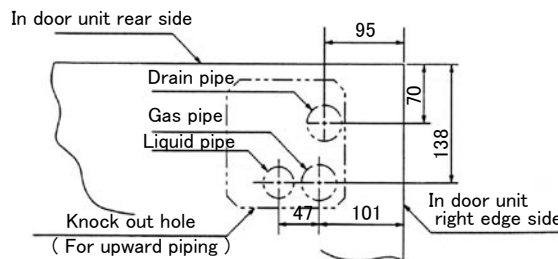
Dimensions

Unit : mm

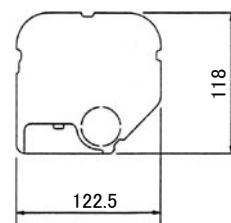
Drain pump



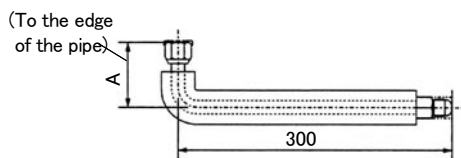
Piping position



Piping hole cover



L shape connection pipe

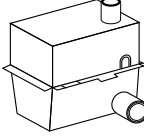



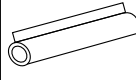
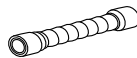
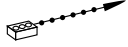
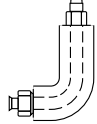
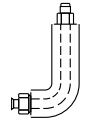






Item	Liquid	Gas
Piping diameter (Flare size)	φ 9.52 (3/8 F)	φ 15.88 (5/8 F)
A	45	65

How to Use / How to Install

1 Confirming Supplied Accessories

* Before starting installation, make sure that the following accessories are present.

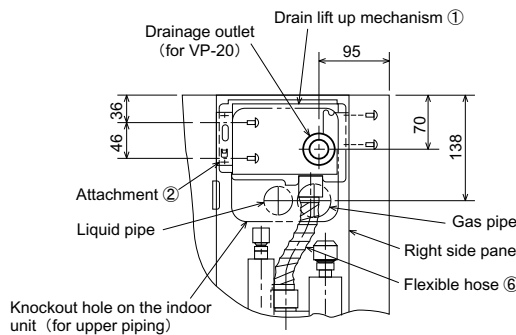
① Drain lift up mechanis  x1	② Attachment  x1 ① Drain-up machine fixture x1	③ Screws (4 × 10)  x6 For the insulation of drain-up machine①	④ VP-20 pipe  x1	⑤ Pipe cover  x1 For insulation of VP20pipe④	⑥ Flexible hose  x1	⑦ Fastener  x2
⑧ L-shaped pipe (gas pipe)  x1	⑨ L-shaped pipe (liquid pipe)  x1	⑩ Insulator A 6t × 220 × 80 (For internal insulation)  x2 For the insulation of L-shaped pipes ⑧ and ⑨ and the refrigerant pipes.	⑪ Insulator B 3t × 250 × 120 (For external insulation)  x2 For the insulation of L-shaped pipes ⑧ and ⑨ and the refrigerant pipes.	⑫ Rear side hole cover  x1	⑬ Screw cap  x2	

2 Installation Diagram of the Drain Pump

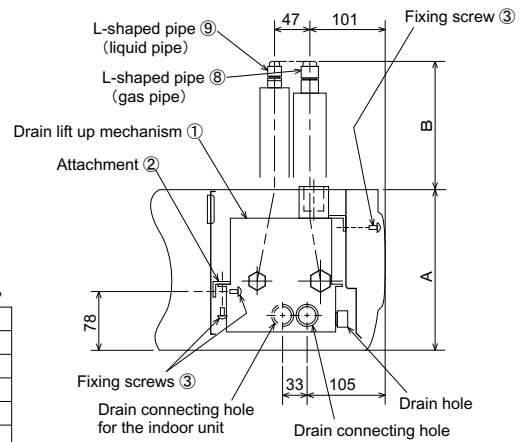
- * This drain lift up mechanism must be installed inside an indoor unit.
- * Installing this drain lift up mechanism enables upward discharge of drainage and refrigerant.
- * To facilitate installation of the drain lift up mechanism, it should be installed before indoor unit.
- * The size of the plumbing that must connect, by the refrigerant kind of the indoor unit that corresponds in the case of PAC-SH16, 17, 20, 22DM-E, changes.
- * Please refer to the installation manual of an indoor unit for details.
- * The L-shaped pipes there are bringing are corresponding to either refrigerant

Unit:mm

Viewed from the Top



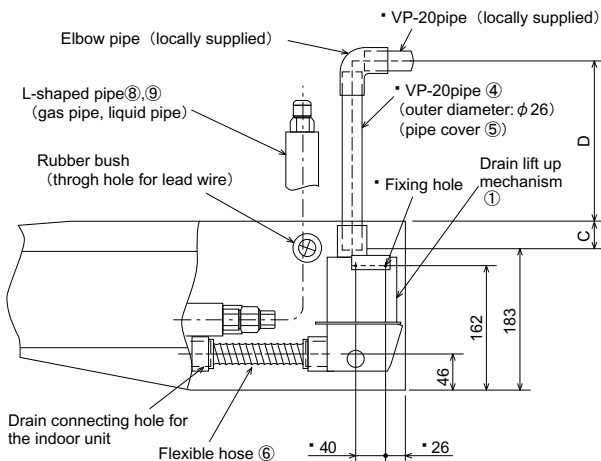
Viewed from the Front



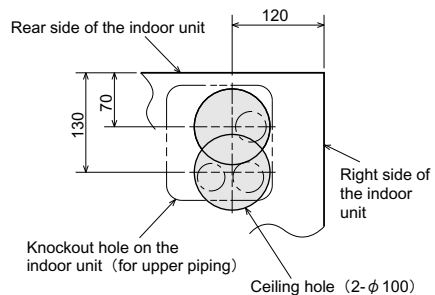
<Table 1>

Gas pipe	Liquid Pipe	A	B	C	D	Drain lift up mechanism Model
φ 12.7	φ 6.35	210	210	38	Max.400	PAC-SE84
φ 15.88	φ 9.52	210	210	38	Max.400	PAC-SE85 / SH21
φ 19.05	φ 9.52	270	150	98	Max.350	PAC-SE86
φ 12.7/φ 15.88	φ 6.35/φ 9.52	210	210	38	Max.400	PAC-SH16 / 20
φ 15.88/φ 19.05	φ 9.52	270	150	98	Max.350	PAC-SH17 / 22

Viewed from the Right

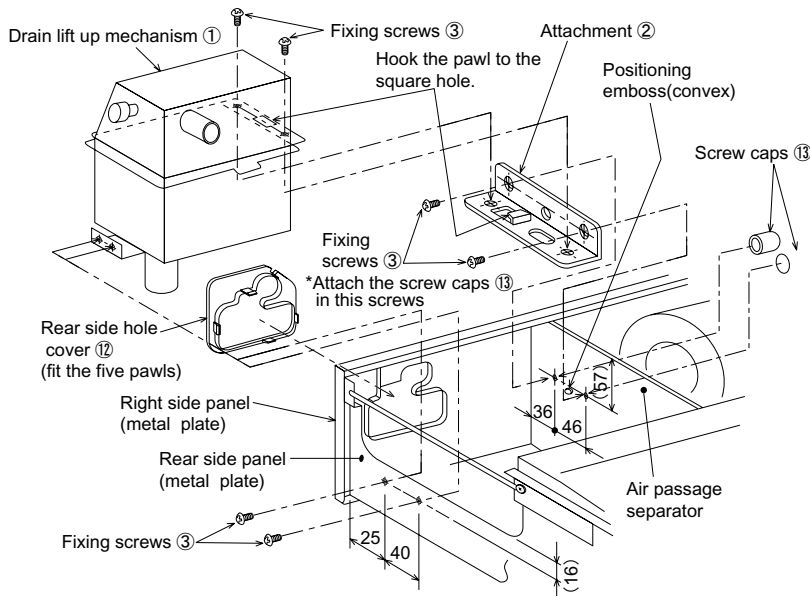


Positions of Holes on the Ceiling



3 Installing the Drain Pump

1. Remove the intake grille and side panel. (Refer to the indoor unit installation manual.)
2. Prepare the knockout hole to be used for the upper piping of the indoor unit.
3. Fix the attachment ② with the fixing screws ③ (× 2).
- Attach the screw caps ⑬ (× 2) in the screws that is exposing it in the reverse side of the Air passage separator, after the Attachment fixed it.
4. Fix the drain lift up mechanism ① with the fixing screws ③ (× 4)
5. Fit the rear side hole cover ⑫ into the piping hole on the rear side panel.



4 Refrigerant Piping

*For details on piping, refer to the installation manual of the indoor unit.

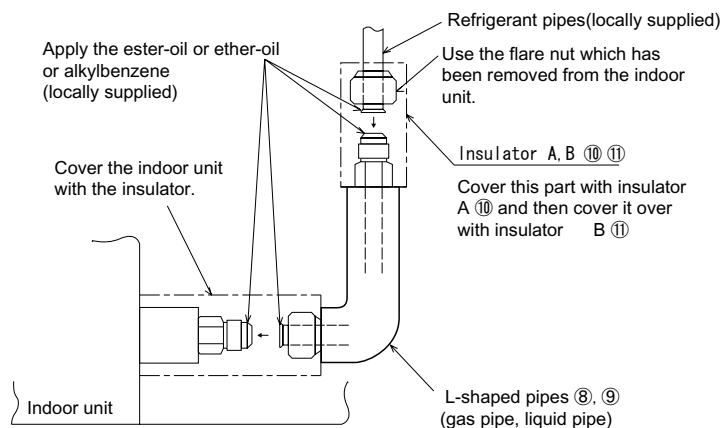
[With the stop valve of the outdoor unit fully closed]

1. Apply lubricant to the flare sheet of the L-shaped pipes (gas pipe, liquid pipe) ⑧⑨
2. Remove the flare nut and cap from the indoor unit.
3. Apply lubricant to the flare sheet connecting section of the indoor unit.
4. Connect the L-shaped pipes (gas pipe, liquid pipes) ⑧ and ⑨ quickly.
5. Fit the removed flare nut to the existing pipes and carry out flaring.
6. Connect the L-shaped pipes with the existing pipes in the same way.
7. Cover each connection with heat insulator ⑩⑪

[After the refrigerant circuit is complete]

8. Purge the air from the stop valve service port of the outdoor unit.
9. Fully open the stop valves (both liquid and gas).

* The method for handling the stop valve is described on the outdoor unit.

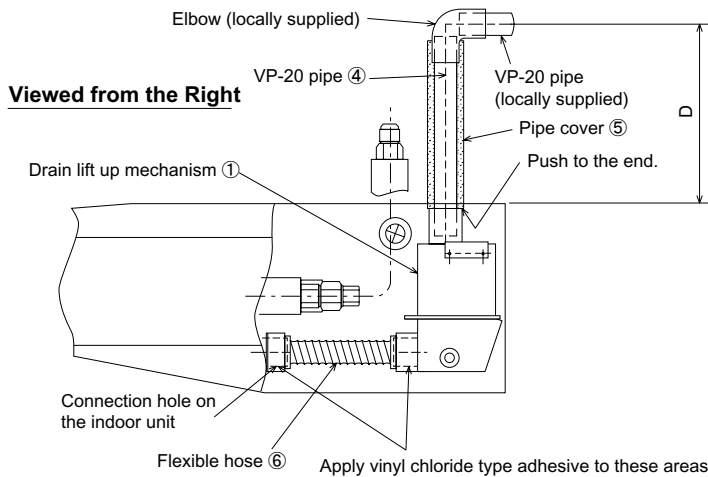


5 Drain Piping

1. Apply vinyl chloride type adhesive to the drainage outlet of the drain lift up mechanism ①, then insert the VP-20 pipe ④ into it, (30mm deep)
2. Connect the insert the VP20 pipe ④ and existing drain pipe using a 90-degree elbow etc. and adhesive.
3. Cover the VP-20 pipe ④ with the pipe cover ⑤.
4. Apply vinyl chloride type adhesive to the drain lift up mechanism ① and drain connecting hole on the indoor unit, then insert the flexible hose ⑥ into them.

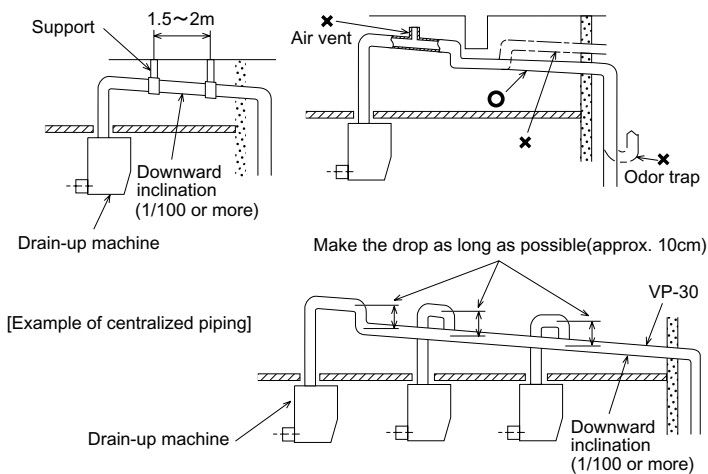
Take care that the hose does not twist.

*Insulate all pipes, from the drain lift up mechanism up to the outside.



[Make sure to follow the following points during drain piping.]

- *Keep the max. length of "D" within the requirement shown on table 1.
- *Incline the drain pipe downwards (1/100 or larger) to the drainage side (outdoor).
- *Do not create traps or peaks.
- *Keep the horizontal piping within 20m. Use fixtures to prevent the pipe from waving.
- *Do not install air vent pipes. The drainage may spout out.
- *Use general-purpose hard vinyl chloride pipes (outer diameter: $\phi 26$) and apply vinyl chloride type adhesive to prevent any leakage.
- *Cover with insulator (made of foamed polyethylene, with specific gravity of 0.03 thickness of 9mm or more).
- *Do not install odor trap at the drain outlet.
- *Locate the end of pipe at a point where odor is unlikely to occur.
- *Do not insert the pipe directly into a drainage ditch where sulfur gas may be produced.
- *Use VP-30 pipes for centralized piping. Install the centralized drain pipe approximately 10cm below the output of pipes connected from the drain lift up mechanism.

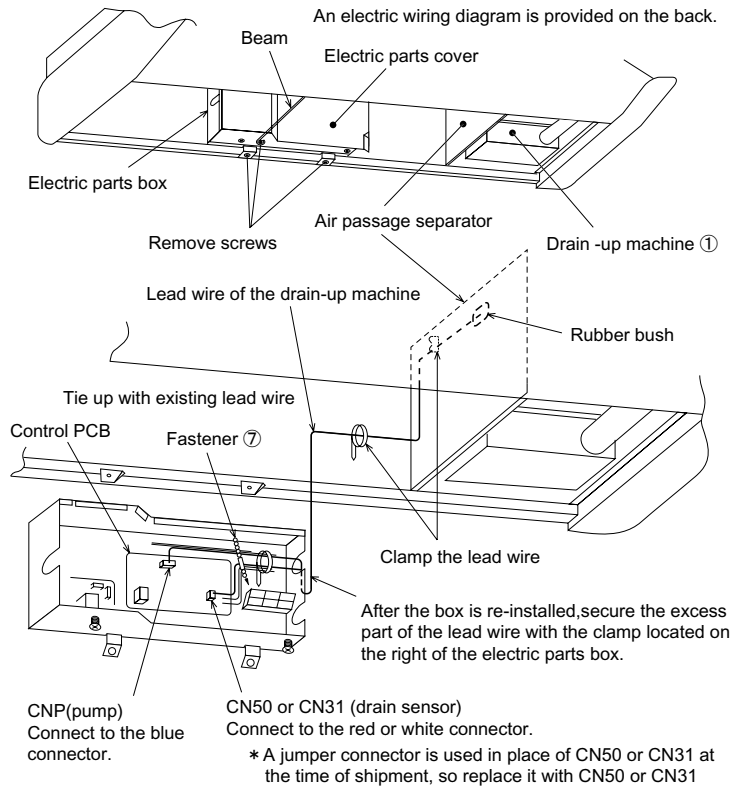


6 Electric Wiring

*Refer to the installation manual of the indoor unit together with this manual.

*Perform the work after checking that the power supply is off.

- 1.Remove the beam.
- 2.Remove the electric parts cover.
- 3.Pull the electric parts box downwards.
- 4.Pass the lead wire of drain lift up mechanism ① through the rubber bush on the air passage separator.
- 5.Connect each lead wire to the CNP and CN50 or CN31 connectors provided on the control PCB of the indoor unit.
- 6.Tie up the lead wires with the fastener ⑦ so that the wires do not come apart inside the electric parts box.
- 7.When the wiring is finished, re-install the electric parts box, its cover and the beam.



*The positions of the connectors which must be connected to the control PCB in certain models differ from those specified in the above diagram. Make sure that the lead wires are connected to CNP and CN50 or CN31 connectors.

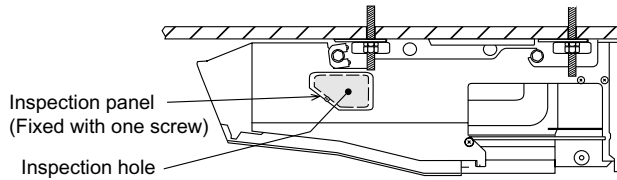
Drain sensor	Model
CN50 (red connector)	PAC-SE84~86DM-E
CN31 (white connector)	PAC-SE84~86DMA-E PAC-SH16, 17DM-E PAC-SH20~22DM-E

7 Test Run

*Through this test run, check that drainage is discharged properly and that there is no water leakage from any of the connections.
*Refer to the installation manual of the indoor unit together with this manual.

1. Supplying water

Remove the inspection panel from the right-side panel. Supply approximately 1000cc of water to the inspection hole.



2. Carrying out a test run

Turn the power ON.

Press the TEST RUN button on the remote controller twice.

Press the MODE button to select cooling mode.

*The drain lift up mechanism will be activated to start discharging the water.

Check whether water is discharged properly.

Press the POWER ON/OFF button to cancel the test run.

Turn the power OFF.

3. Re-install each part after checking.

*If the drain lift up mechanism is installed at the time of the year when heating is used, make sure that the drainage has been removed.

After removal of the drainage, reinstall the drainage plug.

