INSTALLATION INSTRUCTION

Branching Header / Branching Joint (Only for R410A)

Please read "Safety Cautions" described in the Installation Manual of the Air Conditioner.

- Check the following parts in the package.
- For piping material and size of the refrigerant pipes, refer to the Installation Manual of the Air Conditioner.

MODEL:

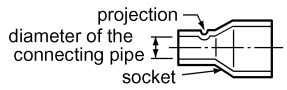
Branching Header	Branching Joint
RBM-HY1043FE	RBM-BY54FE
RBM-HY1083FE	RBM-BY104FE

PARTS

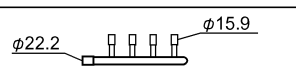
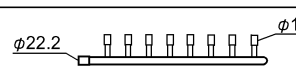
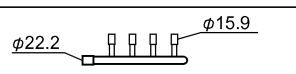
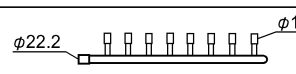
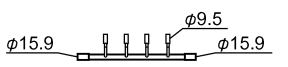
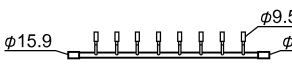
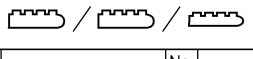
NOTE : 1. All dimensions are in millimeters. In the following tables, ( ) indicates diameter of the indicated position, and others indicate diameter of the connecting pipe.

2. Please connect pipe to the side with a projection of the socket. (⑫⑭⑦⑨ : without projection)

3. The branching pipe suction of gas side and discharge gas side are classified with the name label. when you connect the branching pipe, please confirm the name label so as not to make a mistake.

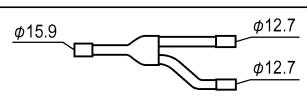
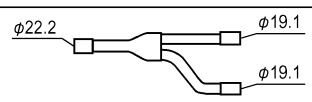
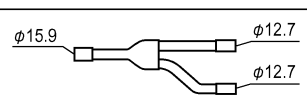
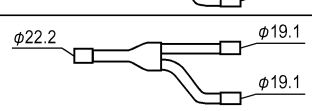
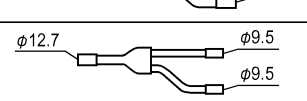
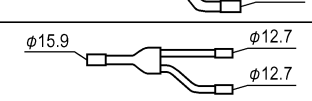
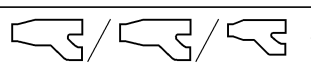
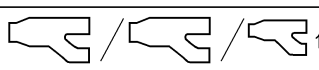


Branching Header

NAME \ MODEL	RBM-HY1043FE	RBM-HY1083FE
Suction gas side	 1pc	 1pc
Discharge gas side	 1pc	 1pc
Liquid side	 1pc	 1pc
Heat insulator (suction gas side/ discharge gas side/liquid side)	 1pc each	 1pc each

Socket		No.		No.		No.		No.	
Suction gas side	diameter of the connected pipe	⑭	φ15.9×(φ22.2)1pc ⑦⓪ φ28.6×(φ22.2)1pc	⑥	φ 9.5 ×(φ15.9)3pcs ⑨ φ12.7×(φ15.9)4pcs	⑭	φ15.9×(φ22.2)1pc ⑦⓪ φ28.6×(φ22.2)1pc	⑥	φ 9.5 ×(φ15.9)7pcs ⑨ φ12.7×(φ15.9)8pcs
Discharge gas side		⑧⑤	φ12.7×(φ22.2)1pc ⑱ φ19.1×(φ22.2)1pc	⑥ ⑨	φ 9.5 ×(φ15.9)4pcs φ12.7×(φ15.9)4pcs	⑧⑤	φ12.7×(φ22.2)1pc ⑱ φ19.1×(φ22.2)1pc	⑥ ⑨	φ 9.5 ×(φ15.9)8pcs φ12.7×(φ15.9)8pcs
Liquid side	external diameter of socket	⑥ ⑨	φ 9.5 ×(φ15.9)1pc φ12.7×(φ15.9)1pc	⑪	φ 6.4 ×(φ 9.5)4pcs	⑥ ⑨	φ 9.5 ×(φ15.9)1pc φ12.7×(φ15.9)1pc	⑪	φ 6.4 ×(φ 9.5)8pcs
Outlet sealed pipe at suction gas side					(φ15.9) 1pc				(φ15.9) 3pcs
Outlet sealed pipe at discharge gas side					(φ15.9) 3pcs				(φ15.9) 7pcs
Outlet sealed pipe at liquid side					(φ9.5) 1pc				(φ9.5) 3pcs
Header sealed pipe at liquid side					(φ15.9) 1pc				(φ15.9) 1pc

Branching Joint

NAME \ MODEL	RBM-BY54FE	RBM-BY104FE
Suction gas side	 1pc	 1pc
Discharge gas side	 1pc	 1pc
Liquid side	 1pc	 1pc
Heat insulator (suction gas side/ discharge gas side/liquid side)	 1pc each	 1pc each

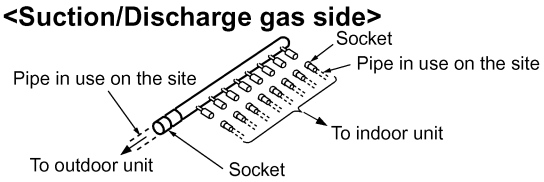
Socket		No.		No.		No.		No.	
Suction gas side	diameter of the connected pipe			⑤ ⑤④	φ 9.5 ×(φ12.7)2pcs φ15.9×(φ12.7)2pcs	⑦⓪	φ28.6×(φ22.2)1pc	⑦	φ 9.5 ×(φ19.1)1pc ⑩ φ12.7×(φ19.1)1pc ⑬ φ15.9×(φ19.1)2pcs ⑤② φ22.2×(φ19.1)2pcs ⑧⑨ φ28.6×(φ19.1)1pc
Discharge gas side		⑨	φ12.7×(φ15.9)1pc	⑤ ⑤④	φ 9.5 ×(φ12.7)2pcs φ15.9×(φ12.7)1pc Sealed pipe (φ12.7)1pc	⑱	φ19.1×(φ22.2)1pc	⑩ ⑤②	φ12.7×(φ19.1)2pcs φ22.2×(φ19.1)1pc Sealed pipe (φ19.1)1pc
Liquid side	external diameter of socket	⑤	φ 9.5×(φ12.7)1pc	⑪	φ 6.4 ×(φ9.5)2pcs	⑨	φ12.7×(φ15.9)1pc	⑫ ⑤ ⑤④	φ 6.4 ×(φ12.7)1pc φ 9.5 ×(φ12.7)2pcs φ15.9×(φ12.7)1pc

CONNECTING METHOD

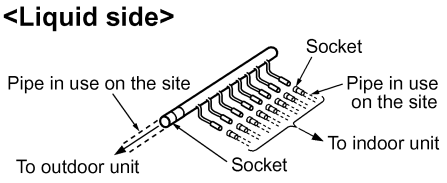
- Select and install the socket that matches the diameter of a pipe to be connected to the indoor unit.
- The branching pipe suction gas side and discharge gas side are classified with the name label. Please confirm the name label so as not to make a mistake.

Branching Header

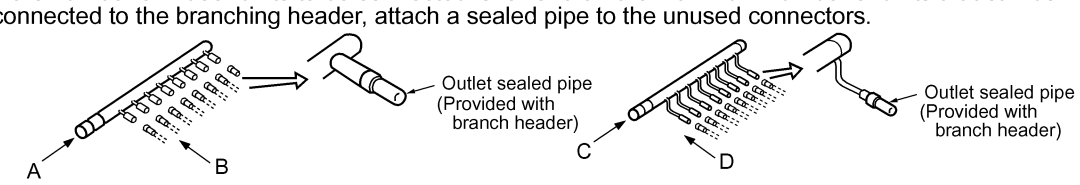
<Suction/Discharge gas side>



<Liquid side>

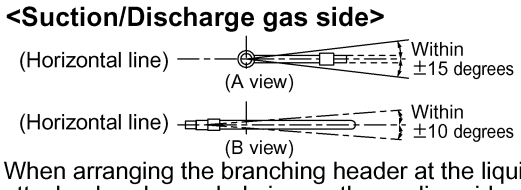


- If the number of indoor units to be connected is fewer than the maximum number of units that can be connected to the branching header, attach a sealed pipe to the unused connectors.

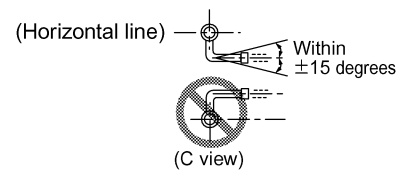


- Install the branching header so that it branches horizontally.

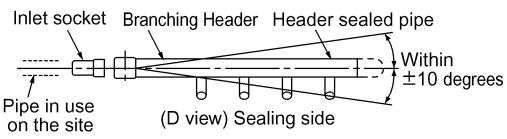
<Suction/Discharge gas side>



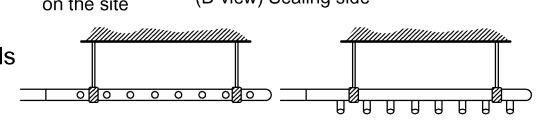
<Liquid side>



When arranging the branching header at the liquid side, attach a header sealed pipe on the sealing side of the header as shown in the figure at right.
Be sure to install the branch pipe downward.
Horizontal viewed from D point should be within ±10 degrees same as view B.



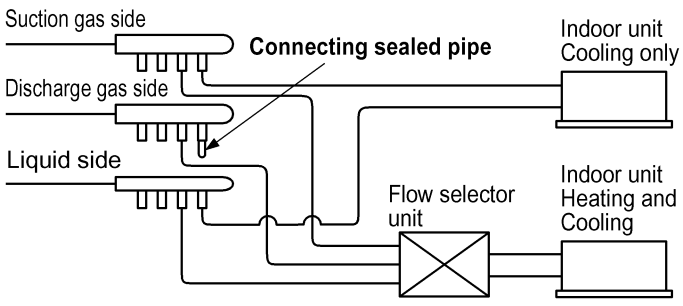
- Supporting branching header
  After applying the insulation, set the hanging metals as support. (in use on the site).



NOTE :
1. Install the branching header so that it branches horizontally. It cannot be used in a vertical position.
2. Do not use T-type pipe for the branching section.

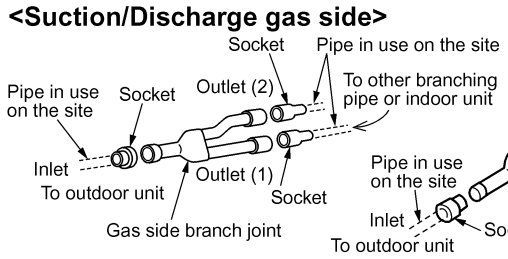
Example of the connection method to indoor unit

- When connecting cooling only indoor unit, attach a sealed pipe to the unused connectors of the branching pipe of discharge gas side.

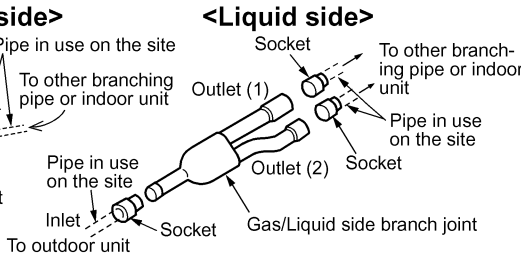


Branching Joint

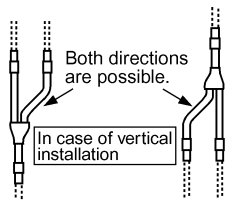
<Suction/Discharge gas side>



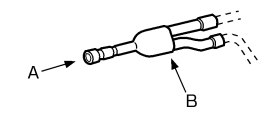
<Liquid side>

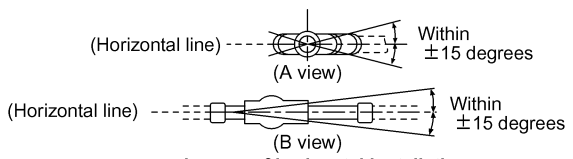


- Installation direction of branch pipe
  Install the branching pipes so that it branch either vertically or horizontally.



<Gas/Liquid side>



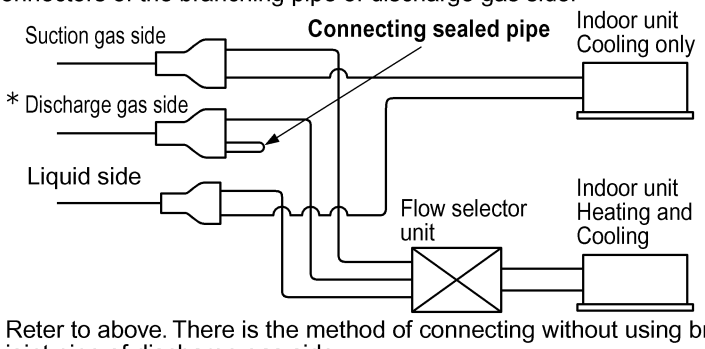


<In case of horizontal installation>

NOTE :
Install the branch pipes horizontally or vertically so that they branch evenly.
Install the branching joint within ±15 degrees.

Example of the connection method to indoor unit

- When connecting cooling only indoor unit, attach a sealed pipe to the unused connectors of the branching pipe of discharge gas side.

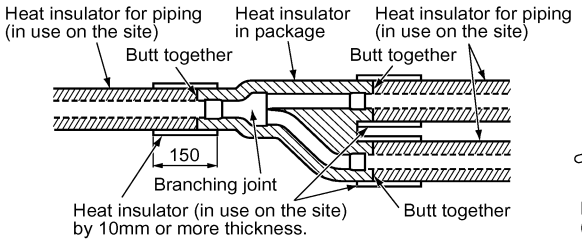


* Reter to above. There is the method of connecting without using branching joint pipe of discharge gas side.
  Please refer to the installation manual of the air conditioner.

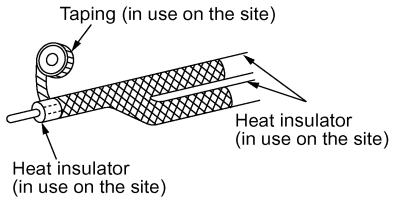
Heat insulating for pipes(Branching Joint)

- In order to prevent dripping at the place where the insulation provided with the branching kit meets the insulating material obtained on the site, butt the two types of insulation up against each other, and then wrap the seam between the two types of insulation in at least 10mm of the insulating material (in use on the site).
- On the gas-side pipe, use insulation that can withstand heat of 120℃or higher.

<Gas, liquid side>



- After applying as outlined above, tape the insulation in place.



◇ REQUIREMENT◇

Condensation may occur on the heat insulator according to the atmosphere inside of the ceiling.
If the inside of the ceiling is subject to high temperature and high humidity, please add the glass wool (16 to 20 kg/m³, 10mm thick or more) on the heat insulator described above for the perfect heat insulation.