

INSTALLATION INSTRUCTION

Branching Header/Branching Joint (Only for R410A)

MODEL:
RBM-HY2043FE
RBM-HY2083FE

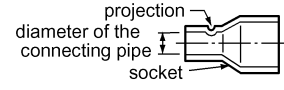
Branching Joint
RBM-BY204FE
RBM-BY304FE

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.

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. (51,52,54,58,59,70,89) : without projection



MODEL	RBM-HY2043FE	RBM-HY2083FE
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. 27 $\phi 28.6 \times (\phi 31.8)$ 1pc	No. 27 $\phi 28.6 \times (\phi 31.8)$ 1pc
	No. 59 $\phi 34.9 \times (\phi 31.8)$ 1pc	No. 59 $\phi 34.9 \times (\phi 31.8)$ 1pc
Suction gas side	No. 06 $\phi 9.5 \times (\phi 15.9)$ 2pcs	No. 06 $\phi 9.5 \times (\phi 15.9)$ 7pcs
	No. 09 $\phi 12.7 \times (\phi 15.9)$ 2pcs	No. 09 $\phi 12.7 \times (\phi 15.9)$ 7pcs
Discharge gas side	No. 70 $\phi 28.6 \times (\phi 22.2)$ 1pc	No. 70 $\phi 28.6 \times (\phi 22.2)$ 1pc
	No. 09 $\phi 12.7 \times (\phi 15.9)$ 4pcs	No. 09 $\phi 12.7 \times (\phi 15.9)$ 8pcs
Liquid side	No. 51 $\phi 19.1 \times (\phi 15.9)$ 1pc	No. 51 $\phi 19.1 \times (\phi 15.9)$ 1pc
	No. 01 $\phi 6.4 \times (\phi 9.5)$ 2pcs	No. 01 $\phi 6.4 \times (\phi 9.5)$ 7pcs
Outlet sealed pipe at suction gas side	($\phi 15.9$) 1pc	($\phi 15.9$) 3pcs
Outlet sealed pipe at discharge gas side	($\phi 15.9$) 3pcs	($\phi 15.9$) 7pcs
Outlet sealed pipe at liquid side	($\phi 9.5$) 1pc	($\phi 9.5$) 3pcs
Header sealed pipe at liquid side	($\phi 15.9$) 1pc	($\phi 15.9$) 1pc

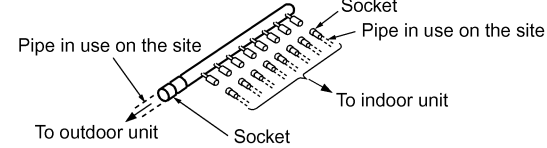
MODEL	RBM-BY204FE	RBM-BY304FE
Suction gas side	1pc	1pc
Discharge gas side	1pc	1pc
Liquid side	1pc	1pc
Heat insulator (suction gas side/discharge gas side/liquid side)	1pc each	1pc each
Socket	No. 27 $\phi 28.6 \times (\phi 31.8)$ 1pc	No. 61 $\phi 34.9 \times (\phi 38.1)$ 1pc
	No. 59 $\phi 34.9 \times (\phi 31.8)$ 1pc	No. 77 $\phi 9.5 \times (\phi 38.1)$ 1pc
Suction gas side	No. 49 $\phi 9.5 \times (\phi 28.6)$ 1pc	No. 76 $\phi 12.7 \times (\phi 38.1)$ 1pc
	No. 16 $\phi 15.9 \times (\phi 28.6)$ 1pc	No. 75 $\phi 15.9 \times (\phi 38.1)$ 1pc
Discharge gas side	No. 43 $\phi 22.2 \times (\phi 28.6)$ 2pcs	No. 73 $\phi 22.2 \times (\phi 38.1)$ 1pc
	No. 58 $\phi 34.9 \times (\phi 28.6)$ 1pc	No. 71 $\phi 28.6 \times (\phi 38.1)$ 2pcs
Liquid side	No. 02 $\phi 6.4 \times (\phi 12.7)$ 1pc	No. 04 $\phi 6.4 \times (\phi 19.1)$ 1pc
	No. 05 $\phi 9.5 \times (\phi 12.7)$ 1pc	No. 07 $\phi 9.5 \times (\phi 19.1)$ 1pc
Outlet sealed pipe at suction gas side	No. 10 $\phi 12.7 \times (\phi 19.1)$ 1pc	No. 20 $\phi 19.1 \times (\phi 28.6)$ 1pc
	No. 52 $\phi 22.2 \times (\phi 19.1)$ 2pcs	No. 43 $\phi 22.2 \times (\phi 28.6)$ 2pcs
Outlet sealed pipe at discharge gas side	No. 89 $\phi 28.6 \times (\phi 19.1)$ 1pc	No. 43 $\phi 22.2 \times (\phi 28.6)$ 2pcs
	No. 10 $\phi 12.7 \times (\phi 19.1)$ 1pc	No. 43 $\phi 22.2 \times (\phi 28.6)$ 2pcs
Outlet sealed pipe at liquid side	No. 02 $\phi 6.4 \times (\phi 12.7)$ 1pc	No. 04 $\phi 6.4 \times (\phi 19.1)$ 1pc
	No. 05 $\phi 9.5 \times (\phi 12.7)$ 1pc	No. 07 $\phi 9.5 \times (\phi 19.1)$ 1pc
Header sealed pipe at liquid side	No. 18 $\phi 19.1 \times (\phi 22.2)$ 1pc	No. 13 $\phi 15.9 \times (\phi 19.1)$ 2pc
	No. 02 $\phi 6.4 \times (\phi 12.7)$ 1pc	No. 04 $\phi 6.4 \times (\phi 19.1)$ 1pc

CONNECTING METHOD

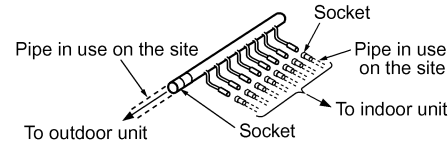
- Select and install the socket that matches the diameter of a pipe to be connected to the indoor unit.

Branching Header

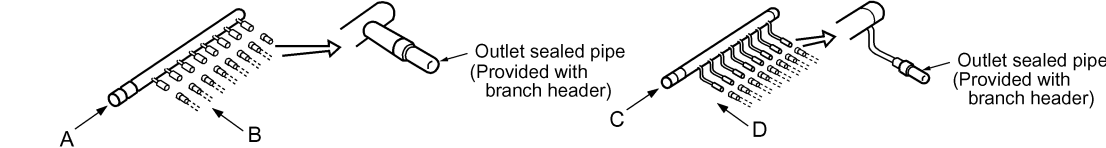
<Suction/Discharge gas side>



<Liquid side>

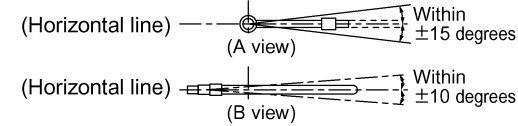


- If the number of indoor units to be connected is fewer than the maximum number of units that can be connected to the branching header, attach a sealed pipe to the unused connectors.

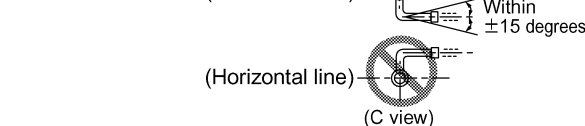


- Install the branching header so that it branches horizontally.

<Suction/Discharge gas side>



<Liquid side>



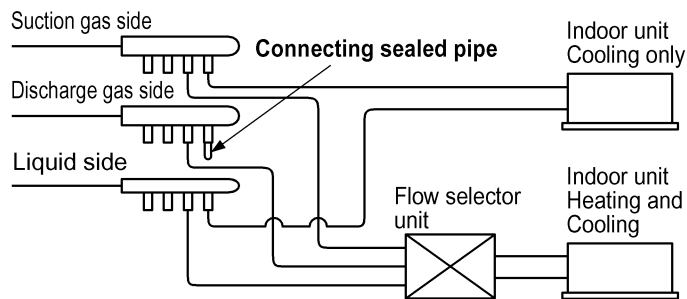
When arranging the branching header at the liquid side, attach a header sealed pipe on the sealing side of the header as shown in the figure at right. Be sure to install the branch pipe downward. Horizontal viewed from D point should be within ± 10 degrees same as view B.

- 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.

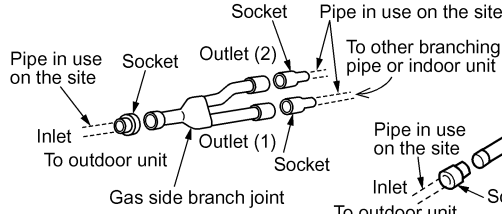
Example of the connection method to indoor unit

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

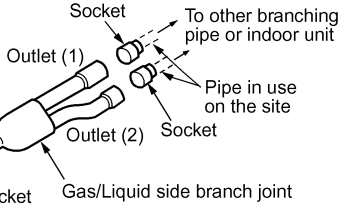


Branching Joint

<Suction/Discharge gas side>

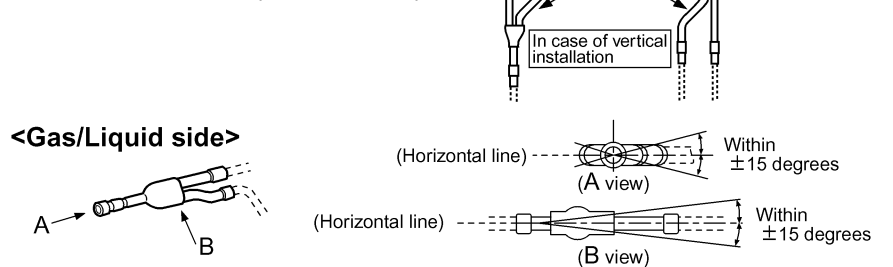


<Liquid side>



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

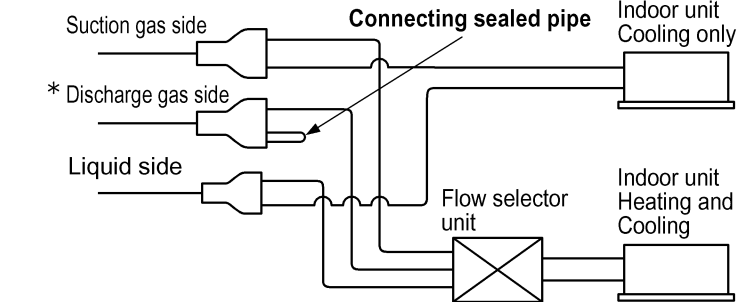
<Gas/Liquid side>



- 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.

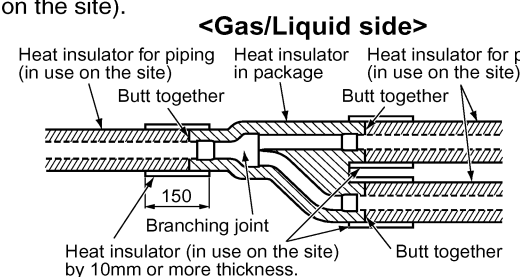


- * Refer to above. There is the method of connecting without using branching joint pipe of discharge gas side. Please refer to the installation manual of the air conditioner.

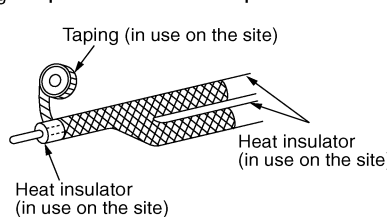
Heat insulating for pipes (Branching Joint)

- 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 discharge gas-side pipe, use insulation that can withstand heat of 120°C or higher.



- After applying as the following, tape the insulator 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.