EH98505101

TOSHIBA Carrier

Installation Manual

Super Heat Recovery Multi System Air Conditioner

Branching Headers (Only for R410A)

Model: RBM-HY1043FUL, HY1083FUL, HY2043FUL, HY2083FUL

Thank you for purchasing the "Branching Header" for TOSHIBA Carrier Air Conditioner. Before starting the installation work, please read this manual carefully and install the product properly.

Precautions for safety

- Please read "Precautions for safety" described in the Installation Manual of Super Heat Recovery Multi System outdoor unit.
- For piping material and size of the refrigerant pipes, refer to the Installation Manual of Super Heat Recovery Multi System outdoor unit.
- Installation work must be carried out by following this installation manual and using exclusive tools and pipes for the new refrigerant (R410A).
- Ask an authorized dealer or qualified installation professional to install this product.
- The parts shown in the lower right table are included in this package. Check those parts.

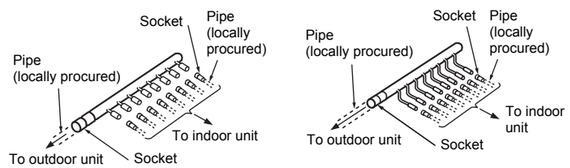
1. Connecting method

- Select the socket (No. in ○) fitting to the pipe diameter connected to the indoor unit.
- After cutting the pipe, be sure to remove the burrs and polish the end surface. When some squash or deformation occurs, improve the pipe insertion condition by using the flare tool.
- Confirm whether no dust, water, foreign matters exists on the branching joint and the socket to be inserted.

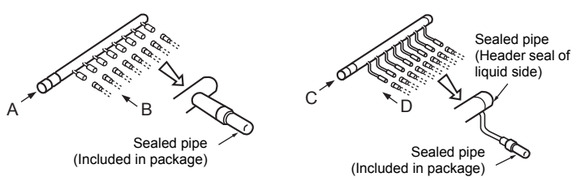
⚠ CAUTION

- When brazing the refrigerant pipes, be sure to put the nitrogen first to prevent from oxidizing the inner pipe. If not, the oxidization scale brings the refrigerant cycle clogging and result in malfunction.
- Use the brand new pipe for the refrigerant pipe, and prevent from water and dust when installing.

<Suction / Discharge gas side> **<Liquid side>**

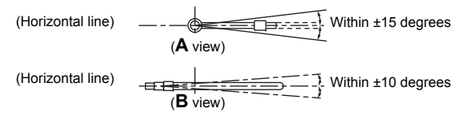


- If the number of indoor units to be connected is fewer than the maximum number of units that can be connected to the branching header, attach a sealed pipe to the unused connectors.

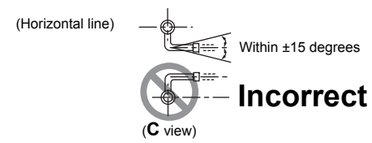


- **Install the branching header so that it branches horizontally.**

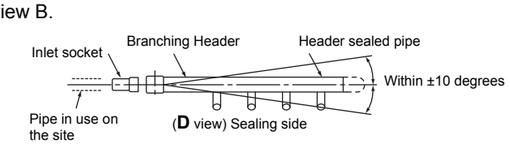
<Suction / Discharge gas side>



<Liquid side>



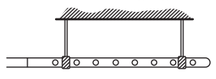
When arranging the branching header at the liquid side, attach a header sealed pipe on the sealing side of the header as shown in the figure at below.
Install the branch pipe downward.
Horizontal viewed from D point should be within ±10 degrees same as view B.



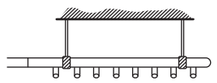
- **Supporting branching header**

After heat insulators are applied to the branching pipes, set some hanging metals (locally procured) as support.

Suction / Discharge gas side



Liquid side

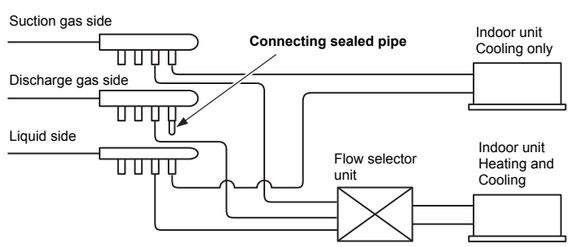


NOTE

- Install the branching header so that it branches horizontally. It cannot be used in a vertical position.
- 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.



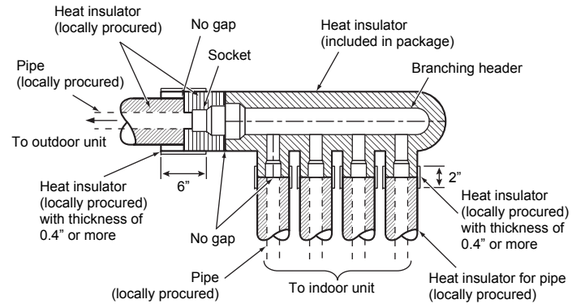
2. Heat insulating method

- In order to prevent dripping condensation, do not leave any gap between heat insulator for branching joint (included in package) and heat insulator for pipe (locally procured). And then, wrap the seam with heat insulators with thickness of 0.4" or more (locally procured).
- Use heat insulators with heat resistance of 248 °F or more for the gas side pipes.

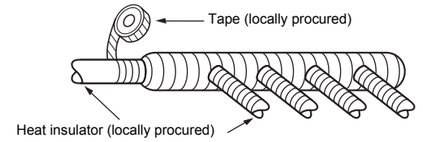
⚠ CAUTION

Condensation may occur on the heat insulator according to the atmosphere of the inside of the ceiling.
If the inside of the ceiling is subject to be high temperature and high humidity, add glass wool {1.0 to 1.25 lbs/ft^3 (16 to 20 kg/m^3), 0.4" thick or more} on the heat insulator described above for a sufficient heat insulation.

<Suction / Discharge gas, liquid side>

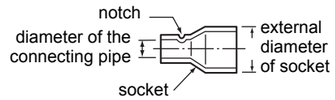


- Once heat insulators have been applied as shown above, tape up the heat insulator ends.



NOTE

1 Unit: inch
2 ( ): indicates outer diameter.
3 For the sockets, the side with a notch is the side to connect a pipe.
(51, 59, 70: without notch)



Parts list

Unit : in [mm]

	Model / Name	RBM-HY1043FUL	RBM-HY1083FUL	RBM-HY2043FUL	RBM-HY2083FUL
Branching Header	Suction gas side	Ø7/8" Ø5/8" 1pc	Ø7/8" Ø5/8" 1pc	Ø1 1/4" Ø5/8" 1pc	Ø1 1/4" Ø5/8" 1pc
	Discharge gas side	Ø7/8" Ø5/8" 1pc	Ø7/8" Ø5/8" 1pc	Ø7/8" Ø5/8" 1pc	Ø7/8" Ø5/8" 1pc
	Liquid side	Ø5/8" Ø3/8" Ø5/8" 1pc	Ø5/8" Ø3/8" Ø5/8" 1pc	Ø5/8" Ø3/8" Ø5/8" 1pc	Ø5/8" Ø3/8" Ø5/8" 1pc
	Heat insulator (suction gas side/ discharge gas side/ liquid side)	1pc each	1pc each	1pc each	1pc each
	Socket	No. Inlet side / No. Outlet side	No. Inlet side / No. Outlet side	No. Inlet side / No. Outlet side	No. Inlet side / No. Outlet side
	Suction gas side	⑭ Ø5/8"×(Ø7/8") 1pc [Ø15.9×(Ø22.2)] ⑦⓪ Ø1 1/8"×(Ø7/8") 1pc [Ø28.6×(Ø22.2)] ⑥ Ø3/8"×(Ø5/8") 3pcs [Ø9.5 ×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 4pcs [Ø12.7×(Ø15.9)]	⑭ Ø5/8"×(Ø7/8") 1pc [Ø15.9×(Ø22.2)] ⑦⓪ Ø1 1/8"×(Ø7/8") 1pc [Ø28.6×(Ø22.2)] ⑥ Ø3/8"×(Ø5/8") 7pcs [Ø9.5 ×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 8pcs [Ø12.7×(Ø15.9)]	㉗ Ø1 1/8"×(Ø1 1/4") 1pc [Ø28.6×(Ø31.8)] ㊾ Ø1 3/8"×(Ø1 1/4") 1pc [Ø34.9×(Ø31.8)] ⑥ Ø3/8"×(Ø5/8") 2pcs [Ø9.5×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 2pcs [Ø12.7×(Ø15.9)]	㉗ Ø1 1/8"×(Ø1 1/4") 1pc [Ø28.6×(Ø31.8)] ㊾ Ø1 3/8"×(Ø1 1/4") 1pc [Ø34.9×(Ø31.8)] ⑥ Ø3/8"×(Ø5/8") 7pcs [Ø9.5×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 7pcs [Ø12.7×(Ø15.9)]
	Discharge gas side (Diameter of the connected pipe / External diameter of socket)	⑧⑤ Ø1/2"×(Ø7/8") 1pc [Ø12.7×(Ø22.2)] ⑱ Ø3/4"×(Ø7/8") 1pc [Ø19.1×(Ø22.2)] ⑥ Ø3/8"×(Ø5/8") 4pcs [Ø9.5×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 4pcs [Ø12.7×(Ø15.9)]	⑧⑤ Ø1/2"×(Ø7/8") 1pc [Ø12.7×(Ø22.2)] ⑱ Ø3/4"×(Ø7/8") 1pc [Ø19.1×(Ø22.2)] ⑥ Ø3/8"×(Ø5/8") 8pcs [Ø9.5×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 8pcs [Ø12.7×(Ø15.9)]	⑦⓪ Ø1 1/8"×(Ø7/8") 1pc [Ø28.6×(Ø22.2)] ⑨ Ø1/2"×(Ø5/8") 4pcs [Ø12.7×(Ø15.9)]	⑦⓪ Ø1 1/8"×(Ø7/8") 1pc [Ø28.6×(Ø22.2)] ⑨ Ø1/2"×(Ø5/8") 8pcs [Ø12.7×(Ø15.9)]
	Liquid side	⑥ Ø3/8"×(Ø5/8") 1pc [Ø9.5×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 1pc [Ø12.7×(Ø15.9)] ⑪ Ø1/4"×(Ø3/8") 4pcs [Ø6.4×(Ø9.5)]	⑥ Ø3/8"×(Ø5/8") 1pc [Ø9.5×(Ø15.9)] ⑨ Ø1/2"×(Ø5/8") 1pc [Ø12.7×(Ø15.9)] ⑪ Ø1/4"×(Ø3/8") 8pcs [Ø6.4×(Ø9.5)]	㊶ Ø3/4"×(Ø5/8") 1pc [Ø19.1×(Ø15.9)] ⑪ Ø1/4"×(Ø3/8") 2pcs [Ø6.4×(Ø9.5)]	㊶ Ø3/4"×(Ø5/8") 1pc [Ø19.1×(Ø15.9)] ⑪ Ø1/4"×(Ø3/8") 7pcs [Ø6.4×(Ø9.5)]
Sealed pipe	Outlet sealed pipe at suction gas side	—	(Ø5/8") 1pc [(Ø15.9)]	(Ø5/8") 3pcs [(Ø15.9)]	(Ø5/8") 3pcs [(Ø15.9)]
	Outlet sealed pipe at discharge gas side	—	(Ø5/8") 3pcs [(Ø15.9)]	(Ø5/8") 7pcs [(Ø15.9)]	(Ø5/8") 7pcs [(Ø15.9)]
	Outlet sealed pipe at liquid side	—	(Ø3/8") 1pc [(Ø9.5)]	(Ø3/8") 3pcs [(Ø9.5)]	(Ø3/8") 3pcs [(Ø9.5)]
	Header sealed pipe at liquid side	—	(Ø5/8") 1pc [(Ø15.9)]	(Ø5/8") 1pc [(Ø15.9)]	(Ø5/8") 1pc [(Ø15.9)]
Installation manual		This manual			