

TOSHIBA Carrier INSTALLATION MANUAL

SUPER MODULAR MULTI SYSTEM AIR CONDITIONER

Branching Joints (Only for R410A)

Model: RBM-BY55UL, BY105UL, BY205UL, BY305UL

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

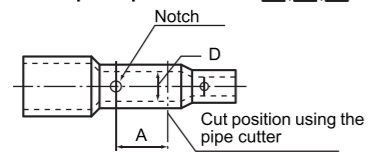
PRECAUTIONS FOR SAFETY

- Please read "PRECAUTIONS FOR SAFETY" described in the Installation Manual of Super Modular Multi System outdoor unit.
- For piping material and size of the refrigerant pipes, refer to the Installation Manual of Super Modular 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 right table are included in this package. Check those parts.

1. CONNECTING METHOD

- Select the socket (No. in ○) or plural socket (No. in □) fitting to the pipe diameter connected to the indoor unit. When using the plurals socket, cut with the pipe cutter as shown on the right.

<Example of plurals socket 91, 92, 94 >



Unit : inch

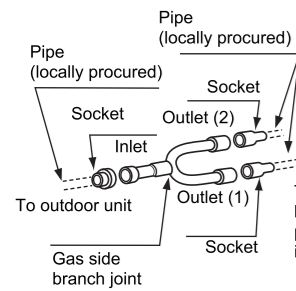
Insertion pipe diameter D	Ø3/8"	Ø1/2"	Ø3/4"
Dimensions A (rough standard)	0.39"	0.43"	0.67"

- After cutting the pipe, be sure to remove the burrs and polish the end surface. When some squash or deformation, etc. occurs, improve the pipe insertion condition by using the flare tool.
- Confirm whether no dust, water, foreign matters, etc exists on the branching joint, the socket to be inserted, and inside the plurals socket.

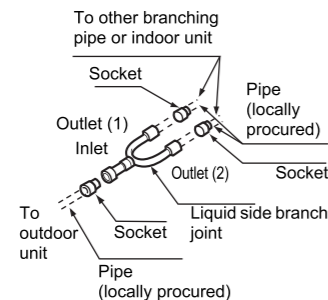
CAUTION

- When brazing the refrigerant pipes, be sure to put the nitrogen first to prevent from oxidizing the inner pipe. If not, the oxidation 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.

<Gas side>

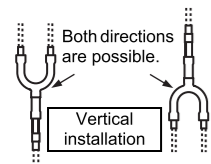


<Liquid side>



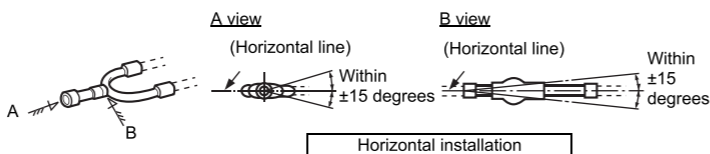
<Gas / Liquid side>

Install the branching pipes horizontally or vertically to make the flow split evenly.

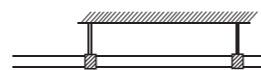


CAUTION

- When a branching pipe is installed horizontally, make its gradient within ± 15 degrees.



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



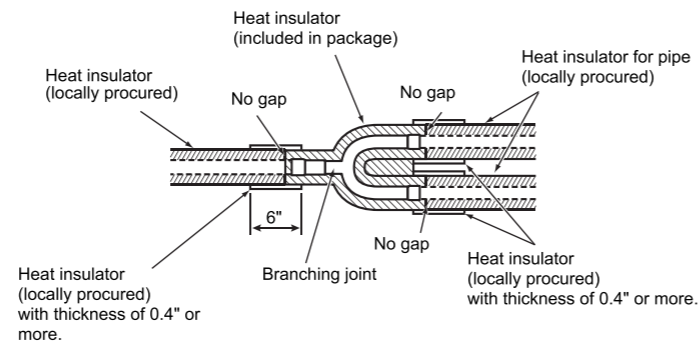
2. HEAT INSULATING METHOD

- 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/ft³ (16 to 20 kg/m³), 0.4" thick or more) on the heat insulator described above for a sufficient heat insulation.

<Gas, liquid side>



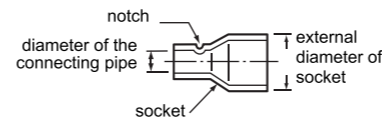
- Once heat insulators have been applied as shown above, tape up the heat insulator ends.



PARTS LIST

NOTE

- 1 (): indicates outer diameter.
- 2 For the sockets, the side with a notch is the side to connect a pipe. (51, 59, 59, 61, 62, 70) : without notch



↕ shows the combination. [Unit : inch]

NAME	MODEL	RBM-BY55UL	RBM-BY105UL	RBM-BY205UL	RBM-BY305UL	
Gas side						
Liquid side						
Heat insulator (gas side / liquid side)						
Socket	Gas side	Inlet side	No. 09 Ø1/2" × (Ø5/8") [Ø12.7×(Ø15.9)] 1pc No. 51 Ø3/4" × (Ø5/8") [Ø19.1×(Ø15.9)] 1pc	No. 70 Ø1 1/8" × (Ø7/8") [Ø28.6×(Ø22.2)] 1pc	No. 59 Ø1 3/8" × (Ø1 1/4") [Ø34.9×(Ø31.8)] 1pc No. 27 Ø1 1/8" × (Ø1 1/4") [Ø28.6×(Ø31.8)] 1pc	No. 62 Ø1 5/8" × (Ø1 1/2") [Ø41.3×(Ø38.1)] 1pc No. 61 Ø1 3/8" × (Ø1 1/2") [Ø34.9×(Ø38.1)] 1pc
		Outlet side	No. 51 (Ø5/8") × Ø3/4" [(Ø15.9)×Ø19.1] 1pc No. 91 (Ø5/8") × Ø1/2" × Ø3/8" [(Ø15.9)×Ø12.7×Ø9.5] 2pcs	No. 70 (Ø7/8") × Ø1 1/8" [(Ø22.2)×Ø28.6] 1pc No. 14 (Ø7/8") × Ø5/8" [(Ø22.2)×Ø15.9] ... 2pcs No. 91 (Ø5/8") × Ø1/2" × Ø3/8" [(Ø15.9)×Ø12.7×Ø9.5] 1pc	No. 58 (Ø1 1/8") × Ø1 3/8" [(Ø28.6)×Ø34.9] 1pc No. 43 (Ø1 1/8") × Ø7/8" [(Ø28.6)×Ø22.2] 2pcs No. 16 (Ø1 1/8") × Ø5/8" [(Ø28.6)×Ø15.9] 1pc No. 91 (Ø5/8") × Ø1/2" × Ø3/8" [(Ø15.9)×Ø12.7×Ø9.5] 1pc	No. 62 (Ø1 1/2") × Ø1 5/8" [(Ø38.1)×Ø41.3] 1pc No. 61 (Ø1 1/2") × Ø1 3/8" [(Ø38.1)×Ø34.9] 2pcs No. 71 (Ø1 1/2") × Ø1 1/8" [(Ø38.1)×Ø28.6] 2pcs No. 43 (Ø1 1/8") × Ø7/8" [(Ø28.6)×Ø22.2] 1pc No. 75 (Ø1 1/2") × Ø5/8" [(Ø38.1)×Ø15.9] 1pc No. 91 (Ø5/8") × Ø1/2" × Ø3/8" [(Ø15.9)×Ø12.7×Ø9.5] 1pc
	Liquid side	Inlet side		No. 09 Ø1/2" × (Ø5/8") [Ø12.7×(Ø15.9)] 1pc	No. 51 Ø3/4" × (Ø5/8") [Ø19.1×(Ø15.9)] 1pc	No. 94 (Ø5/8") × Ø3/4" × (Ø7/8") [(Ø15.9)×Ø19.1×(Ø22.2)] 1pc
		Outlet side	No. 01 (Ø3/8") × Ø1/4" [(Ø9.5)×Ø6.4] 2pcs	No. 91 (Ø5/8") × Ø1/2" × Ø3/8" [(Ø15.9)×Ø12.7×Ø9.5] 1pc No. 09 (Ø5/8") × Ø1/2" × Ø3/8" × Ø1/4" [(Ø15.9)×Ø12.7×Ø9.5×Ø6.4] 1pc	No. 51 (Ø5/8") × Ø3/4" [(Ø15.9)×Ø19.1] 1pc No. 09 (Ø5/8") × Ø1/2" [(Ø15.9)×Ø12.7] 1pc No. 92 (Ø5/8") × Ø1/2" × Ø3/8" × Ø1/4" [(Ø15.9)×Ø12.7×Ø9.5×Ø6.4] 1pc	No. 94 (Ø7/8") × Ø3/4" × Ø5/8" [(Ø22.2)×Ø19.1×Ø15.9] 2pcs No. 92 (Ø5/8") × Ø1/2" × Ø3/8" × Ø1/4" [(Ø15.9)×Ø12.7×Ø9.5×Ø6.4] 1pc
Installation manual		This manual				