

AIR CONDITIONER OPTIONAL PARTS Branch pipes



PART No. 9379191029

INSTALLATION MANUAL

For authorized service personnel only.

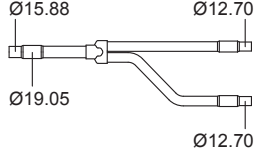
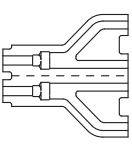
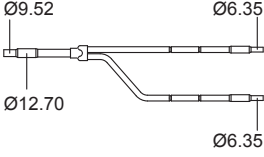
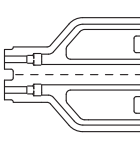
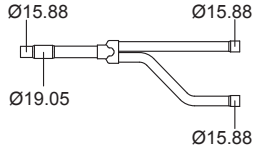
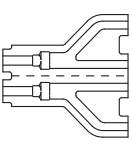
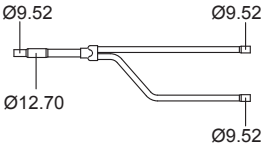
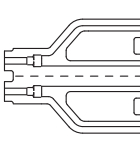
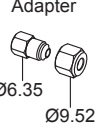
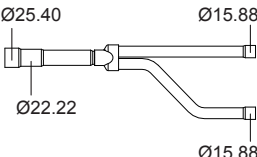
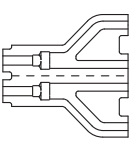
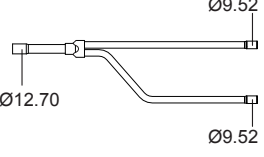
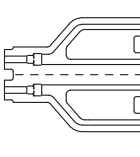
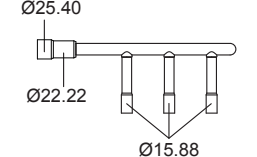
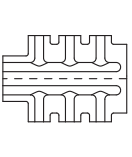
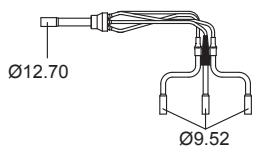
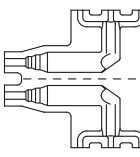
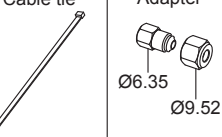
1. SAFETY PRECAUTIONS

⚠ CAUTION

- These branch pipes are to be used for R410A refrigerant.
- This installation manual is intended for branch pipes that are used on a simultaneous multi system.
- Before installation, check the combination of indoor units, outdoor unit, and branch pipes thoroughly.
- Before installation, read the installation manual of the indoor and outdoor units carefully.
- The indoor units must be installed in the same room.
- For the acceptable length of the refrigerant pipe and the acceptable difference in height, please refer to the installation manual of the outdoor unit.

2. ABOUT THE UNIT

2.1. Parts and accessories

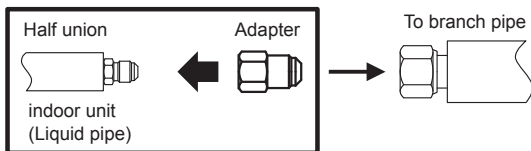
	Gas side		Liquid side		Others
	Gas pipe	Insulation	Liquid pipe	Insulation	
UTP-SX236 □					
UTP-SX254 □					 Adapter Q'ty : 2
UTP-SX272 □					
UTP-SX372 □					 Cable tie Adapter Q'ty : 1 Q'ty : 3

2.2. Selection procedure

Type	Kit name	Number of kits	Capacity of outdoor unit connected (BTU/h)	Piping diameter		Number of indoor units	Place of use (branch)
				Kit to outdoor unit (Standard) *1	Kit to indoor unit		
Twin connection	UTP-SX272□	1	72,000	Ø 12.70 (Liquid)	Ø 9.52 (Liquid)	2	1st
			90,000	Ø 25.40 (Gas)	Ø 15.88 (Gas)		
Triple connection	UTP-SX372□	1	72,000	Ø 12.70 (Liquid)	Ø 9.52 (Liquid) *2	3	1st
		1	90,000	Ø 25.40 (Gas)	Ø 15.88 (Gas)		
Double-twin connection	UTP-SX272□	1	72,000	Ø 12.70 (Liquid)	Ø 9.52 (Liquid)	4	1st
	UTP-SX236□	2		Ø 25.40 (Gas)	Ø 15.88 (Gas)		2nd
	UTP-SX272□	1	90,000	Ø 9.52 (Liquid)	Ø 6.35 (Liquid)	4	1st
	UTP-SX254□	2		Ø 15.88 (Gas)	Ø 12.70 (Gas)		2nd

*1: For the diameter of the connection piping between the outdoor unit and the branch pipes, please refer to the installation manual of the outdoor unit.

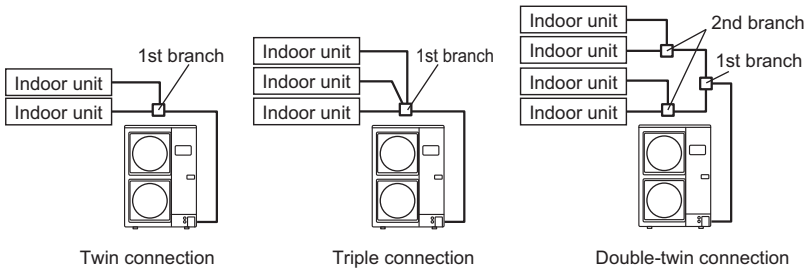
*2: It is necessary to attach the adapter (accessory) to the half union of the liquid pipe of the indoor unit.



Adapter tightening torque

Adapter type	Tightening torque [N·m] (kgf·cm)
Ø6.35 → Ø9.52	14 to 18 (140 to 180)

- When using the adapter (accessory), be careful not to overtighten the nut, or the smaller pipe may be damaged.
- Use appropriate wrenches to avoid damaging the connection thread by overtightening the flare nut.
- Apply wrenches on both the flare nut (locally purchased), and Adapter to tighten them.



3. INSTALLATION WORK

CAUTION

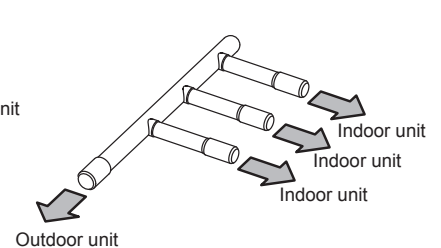
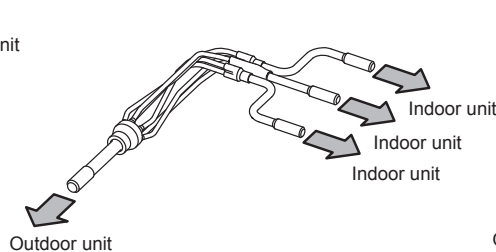
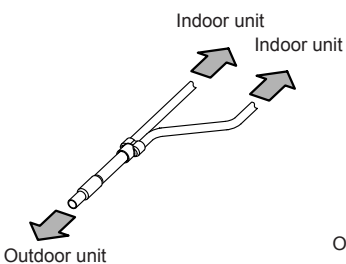
- Do not mistake the direction of connection.
- Set the piping from the branch pipe to the indoor units to be of the same length. (Max. difference: 8 m)
- Shorten the length of the piping after branching as much as possible. (Max. length: 20 m)

(1) Check the direction of connection.

Twin and Double-twin connection type

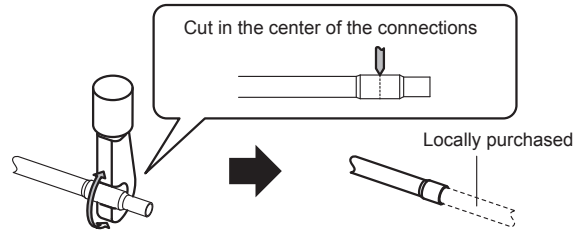
Triple connection type (Liquid)

Triple connection type (Gas)



(2) If the diameter of the connection piping is too large, use a pipe cutter to cut as shown in the following.

- Always use a pipe cutter.
- After cutting, remove the burr and clean the cut section.



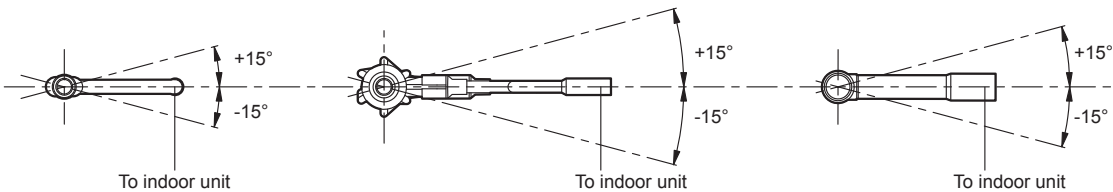
(3) Positioning of branch pipes

- If the branch pipe is placed horizontally, keep it within +/- 15 degrees. Otherwise, it will not separate the refrigerant evenly, causing a reduction in performance.

Twin and Double-twin connection type

Triple connection type (Liquid)

Triple connection type (Gas)

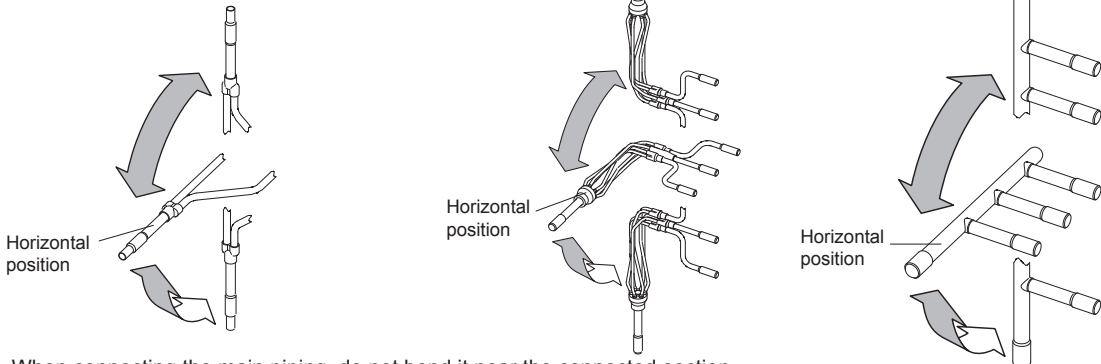


- Place the branch pipe in a horizontal position as far as possible. Only place the branch pipe as shown in the following during unavoidable circumstances.

Twin and Double-twin connection type

Triple connection type (Liquid)

Triple connection type (Gas)



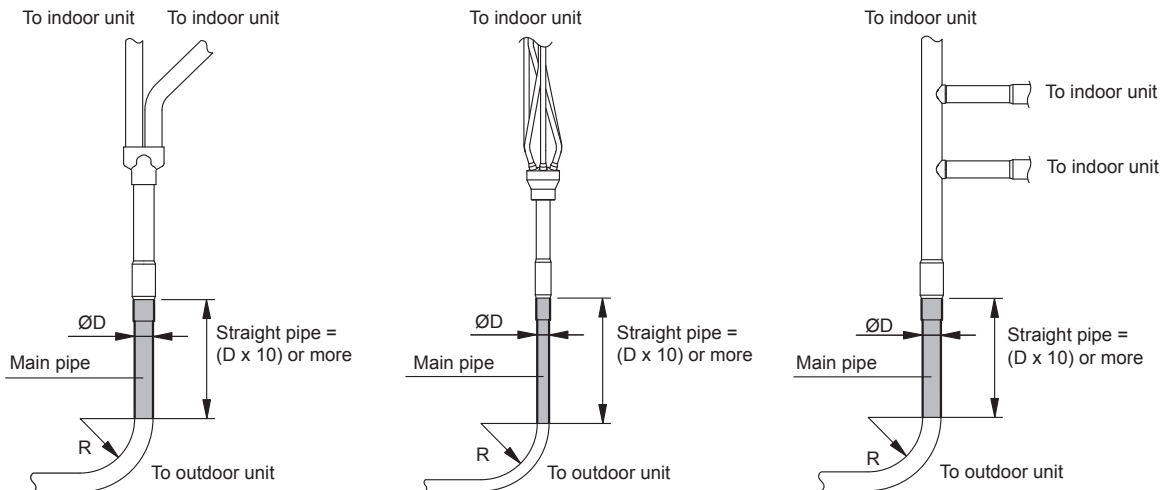
- When connecting the main piping, do not bend it near the connected section.

If the main pipe must be bent due to unavoidable circumstances, ensure that the linear section is 10 times or more than the diameter of the connection piping.

Twin and Double-twin connection type

Triple connection type (Liquid)

Triple connection type (Gas)



(4) Brazing the piping

- Check that the connection piping is securely inserted into the branch pipe before brazing.

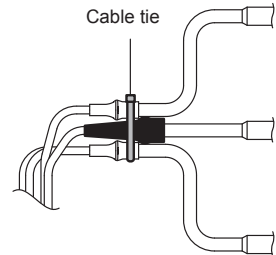
CAUTION

- During piping work, apply nitrogen gas while brazing the pipes. If pipes are brazed without applying nitrogen gas, it will create a large amount of oxidation film, which will cause a critical malfunction.
- To prevent moisture or foreign matter from entering during work, do not leave the piping open.
- Refer to the installation manual supplied with the outdoor unit for sealing test evacuation procedures.

- Do not braise the rubber on the branch pipe. (UTP-SX372□ only)

(5) Installing the cable tie (UTP-SX372□ only)

- Install the cable tie as shown in the following.
- After installing the cable tie, cut away the excess portion neatly.



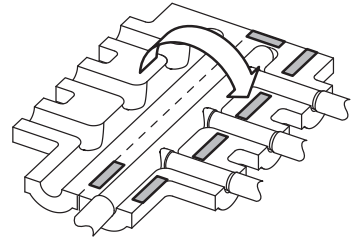
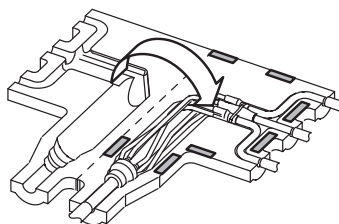
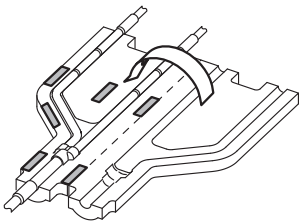
(6) After brazing the pipes, use the heat insulation supplied to insulate them.

- Remove the protective sheet from the double-stick tape that is affixed to the heat insulation.

Twin and Double-twin connection type

Triple connection type (Liquid)

Triple connection type (Gas)

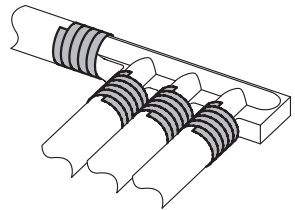
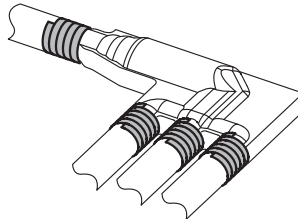
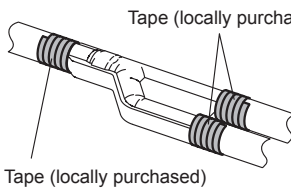


- Use tape (locally purchased) to seal the seam so that there will be no gap at the junction between the aforementioned heat insulation and the heat insulation on the local piping.

Twin and Double-twin connection type

Triple connection type (Liquid)

Triple connection type (Gas)



CAUTION

- Be sure to install the heat insulation on liquid pipes and gas pipes. Unless they are thermally insulated, water condensation can cause accidents or reduction in performance.
- After installing the heat insulation, if you worry about possible condensation due to the high humidity of the installation position, please use locally purchased heat insulation to reinforce insulation.

Twin and Double-twin connection type

Triple connection type (Liquid)

Triple connection type (Gas)

