

INSTALLATION MANUAL FOR MULTI-KITS

Models:
E-102SN, E-162SN, E-242SN and E-302SN

i NOTE:
Hand over this installation manual to the next installation work personnel.

1 APPLICABLE OUTDOOR UNITS

These multiple pipe connecting kits can be applied to the R410A SET-FREE series:

2 TRANSPORTATION

Transport the product as close to the installation location as practical before unpacking.

▲ CAUTION:
Do not put any material on the product.

3 BEFORE INSTALLATION

- Confirm the number of the following parts by referring to the model printed on the package before unpacking.
- Do not put foreign materials into the parts. Check to confirm that no foreign materials are inside the parts before the fixing work is initiated.

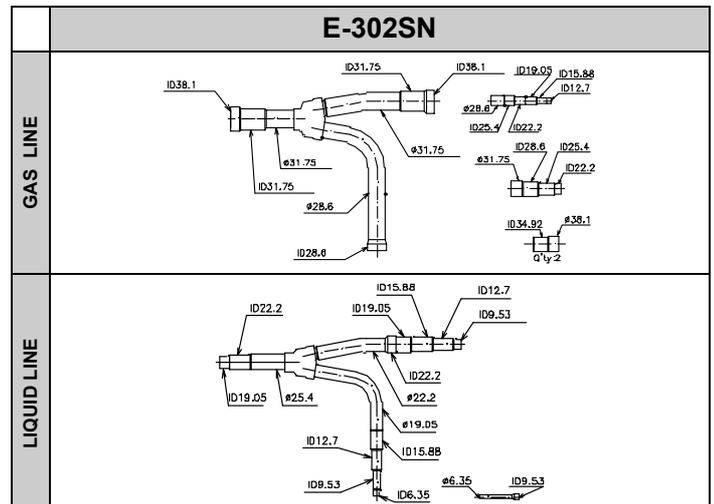
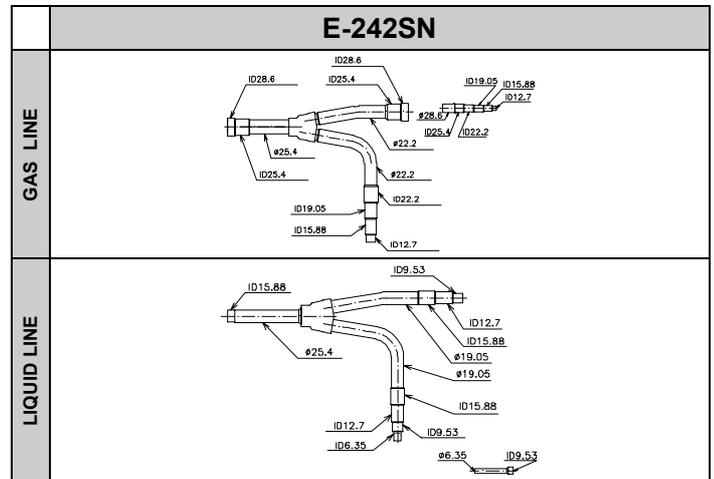
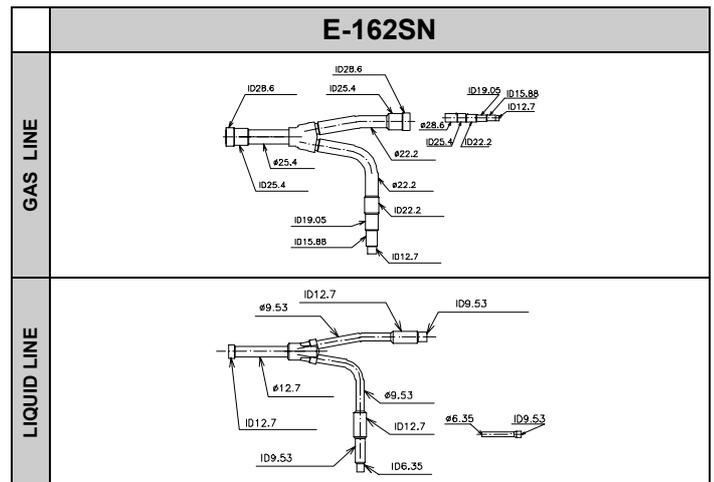
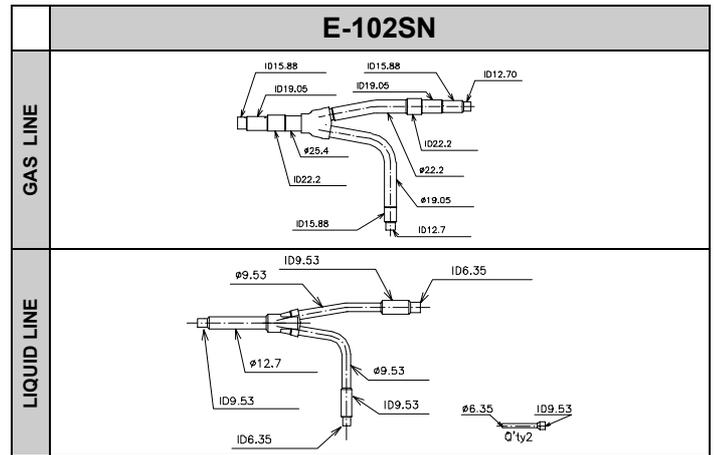
Name of parts		E-102SN	E-162SN	E-242SN	E-302SN	Figure
Branch Pipe for Gas Line			1			
Branch Pipe for Liquid Line			1			
Insulation for Gas Line			1			
Insulation for Liquid Line			1			
Accessories	Reducer for Gas Line	-	1	1	4	
	Expander for liquid Line	2	1	1	1	
	Tape	2	2	2	2	

i NOTE:
In any of these parts is not contained, please contact your distributor

4 INSTALLATION WORK

4.1. Piping Connection Size

- The end of the multi-Kits is finished as shown in the following figures. Cut the end of the pipe to meet with the pipe size.



4.2. Installation Position

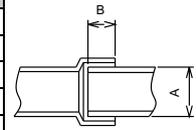
Horizontal Installation

Locate the branch pipes on the same horizontal plane. (Inclination Max. 30°) Make the straight length a minimum of 0.5 m after the vertical bend.

CORRECT

INCORRECT

A: Outer Diameter	B: Minimum Depth
5 O.D. <8	6
8 O.D. <12	7
12 O.D. <16	8
16 O.D. <25	10
25 O.D. <35	12
35 O.D. <45	14



Cautions for Refrigerant Piping

When installing the pipe through the wall, secure a cap at the end of the pipe.

Put the cap or vinyl tape.

Correct Incorrect

Do not place the piping directly on the ground.

Put the cap or vinyl tape.

Correct Incorrect

Rain

Cap or Vinyl Bag Rubber Band

Rain can invade.

Correct Incorrect

Vertical Installation

CORRECT

CORRECT

- (3) Make sure that the stop valves are closed completely.
- (4) Blow the inside of the pipes with nitrogen when brazing.

DANGER:

Check for the refrigerant leakage in detail. If a large refrigerant leakage occurs, it will cause difficulty with breathing or harmful gases would occur if a fire were being used in the room.

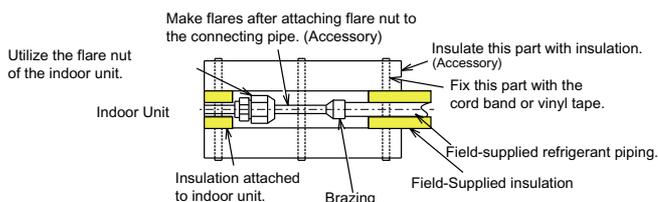
- (5) An air tight test pressure of this product is 4.15MPa.
- (6) Attach insulation packed with Multi-Kit to each branch utilizing a vinyl tape. Also attach insulation to piping supplied in the field. Set up the insulation closely by field supplied tape.

NOTE:

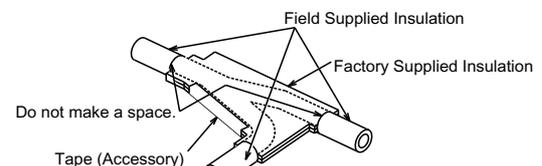
When polyethylene foam is applied, a thickness of 10mm for the liquid piping and 15mm to 20mm for the gas piping is recommended. (Utilize insulation for gas piping with a heat resistance of 100°C)

4.3. Piping Connection

■ When connecting liquid piping for the unit with a capacity of 2HP or smaller and with the length of piping is 15 meters or longer, apply a piping size of ϕ 9.53mm. Fix the connecting pipe as shown in the figure below. Utilize the insulation attached to the Multi-Kit.



- (1) Utilize clean copper pipes without any moisture and foreign materials on the interior surface of pipes. When connecting refrigerant piping, cut copper pipes with a pipe cutter and blow the pipes with nitrogen, remaining no dust inside the pipe. Do not utilize a saw and a grindstone and others which causes a great amount of powder.
- (2) When cutting the pipe, secure the part for brazing as shown in the following table.



CAUTION:

- (1) When the temperature of the piping decrease to room temperature, perform insulation work. If insulation work is performed immediately after brazing, insulation can melt.
- (2) If the ends of piping system are open to the atmosphere for a while after accomplishing piping work, securely put caps or vinyl bags to the ends of the piping, avoiding the intrusion of moisture and dust. After installing work has been finished, it is recommend that this manual shall be retained carefully by a customer.