

HEADER FOR 4 BRANCHING (CMY-Y104C-G) HEADER FOR 8 BRANCHING (CMY-Y108C-G) HEADER FOR 10 BRANCHING (CMY-Y1010C-G)

INSTALLATION MANUAL

Caution
The incorrect selection of the type of branch pipe and the size of connecting pipe does not allow the air conditioner to provide the rated capacity.
Please read this instruction manual carefully for correct mounting work.

- 1 The following parts are contained in this box. Please identify the quantity with types.

Header for 4 branching (CMY-Y104C-G)

① Instruction	② Header	③ Header	④ Pipe cover - 1	⑤ Pipe cover - 2	⑥ Band
	For liquid line 1 pc.	For gas line 1 pc.	2 pcs.	2 pcs.	4 pcs.

Usable for 3/4 branching
(* For 2 branching, use the optional header for 2 branching.)

Header for 8 branching (CMY-Y108C-G)

① Instruction	② Header	③ Header	④ Pipe cover - 1	⑤ Pipe cover - 2	⑥ Band	⑦ Sealing material
	For liquid line 1 pc.	For gas line 1 pc.	Each 2 pcs.	4 pcs.	6 pcs.	Each 1 pc.

Usable for 5/6/7/8 branching

Header for 10 branching (CMY-Y1010C-G)

① Instruction	② Header	③ Header	④ Pipe cover - 1	⑤ Pipe cover - 2	⑥ Band	⑦ Sealing material
	For liquid line 1 pc.	For gas line 1 pc.	Each 2 pcs.	4 pcs.	6 pcs.	Each 1 pc.

Usable for 9/10 branching

Note 1 Please prepare the following materials in addition to the items above.

(1) Tape for sealing of insulation material

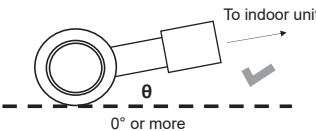
(2) Extension pipe for refrigerant circuit.

- 2 Please observe the items below for the mounting work.

- Refer to the Databook that came with the outdoor unit or the heat source unit for restrictions that apply to the refrigerant piping length and height difference between units.
- Connect the header to piping or plug/pipe by brazing. Non-oxidized brazing should be applied.
- The header is equipped with stopper. Push in the stopper until the pipe to be connected stops.
- The restrictions described in the figure below apply to the installation position of gas pipes. No restrictions for the installation position apply to liquid pipes.
- Be careful that foreign materials like dust will not enter into the piping at the connection work.
- Apply insulation material to all refrigerant pipings.
- The piping after the header branching can not be branched again.
Be sure to connect it to the indoor unit.

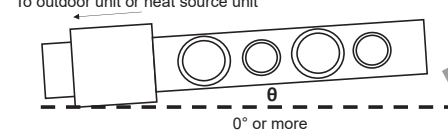
Restrictions of the header in the gas line

- (1) Install the header horizontally or so that the connection to the indoor unit is inclined upward.

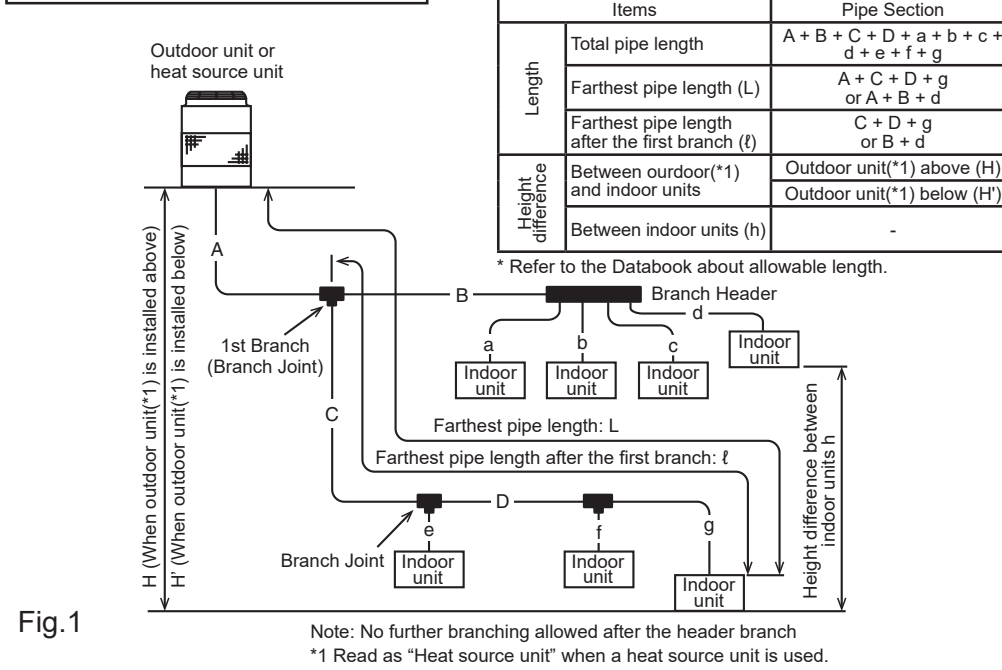


Be careful on return oil.
Note the following two points when installing the header. Improper installation may lead to malfunction of outdoor unit or heat source unit.

- (2) Install the header horizontally or so that the connection to the outdoor unit or heat source unit is inclined downward.



Limitation on refrigerant piping length



Limitation on indoor unit connection

- Refer to the Databook and the Installation manual that came with the outdoor unit or the heat source unit for restrictions that apply to the number of connectable indoor units, connectable indoor unit capacity, and total indoor unit capacity.

- 3 Selection of refrigerant piping size and use of header

- Prepare the pipe to be connected in the field.
- Determine the piping sizes of each part from Table-4 and 5.
- The header can be connected to all piping sizes selected in the item 2. To match a specified piping size.
(1) use the joint as it is.
(2) use it by connecting the auxiliary pipe.
Please conduct actual work by referring Fig.2 and Table-4 ~ 9.
- Cover the branch pipe end of the header, which are not in use, with the plugs 1 ~ 5 provided.

Table-4 Piping size between branching (Fig.1-B,C,D) (Unit:mm[in])

Total capacity of indoor units		Liquid pipe	Gas pipe
Non-US model	US model		
~140	~54	ø9.52[3/8]	ø15.88[5/8]
141~200	55~72	ø9.52[3/8]	ø19.05[3/4]
201~300	73~108	ø9.52[3/8]	ø22.2[7/8]
301~400	109~144	ø12.7[1/2]	ø28.58[1-1/8]
401~650	145~240	ø15.88[5/8]	ø28.58[1-1/8]
651~800	241~308	ø19.05[3/4]	ø34.93[1-3/8]
801~	309~	ø19.05[3/4]	ø41.28[1-5/8]

Note: If indoor unit capacity is 651/241 or more, it can't connect to Fig.1-B directly. Then use the 2-branch joints. (Fig.1-C-D)

Table-5 Piping size branching (Fig.1-a~g) (Unit:mm[in])

Indoor unit model		Liquid pipe	Gas pipe
Non-US model	US model		
~50	~18	ø6.35[1/4]	ø12.7[1/2]
63~140	24~54	ø9.52[3/8]	ø15.88[5/8]
200	72	ø9.52[3/8]	ø19.05[3/4]
250	96	ø9.52[3/8]	ø22.2[7/8]

Note: If indoor unit model is 200/72 and 250/96, it can't use the CMY-Y104C, Y108C and Y1010C-G. Then use the 2-branch joints.

Table-6 Between branching (Fig.1-B) (Unit:mm[in])

Down stream capacity		Connecting Pipe Size (X)	Non-US model	~140	141~200	201~300	301~400	401~650	651~800	801~
Pipe types			US model	~54	55~72	73~108	109~144	145~240	241~308	309~
CMY-Y104C-G	Liquid pipe	ø12.7[1/2]		Pipe1	Pipe1	-	-	-	-	-
	Gas pipe	ø19.05[3/4]		Pipe2	No need pipe	-	-	-	-	-
CMY-Y108C-G	Liquid pipe	ø12.7[1/2]		Pipe1	Pipe1	Pipe1	No need pipe	-	-	-
	Gas pipe	ø25.4[1]		Pipe2,6	Pipe6	Pipe7	No need pipe	-	-	-
CMY-Y1010C-G	Liquid pipe	ø15.88[5/8]		-	Pipe1,5	Pipe1,5	Pipe5	No need pipe	-	-
	Gas pipe	ø25.4[1]		-	Pipe6	Pipe7	Pipe8	Pipe8	-	-

Table-7 4-branch header (CMY-Y104C-G) (Fig.1-a~d) (Unit:mm[in])

Section	Indoor unit	Connecting Pipe Size	Non-US model		~50	63~140	200	250
			US model	~18				
1	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
2	Liquid pipe	ø6.35[1/4]		No need pipe	-	-	-	-
	Gas pipe	ø12.7[1/2]		No need pipe	-	-	-	-
3	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
4	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-

Table-8 8-branch header (CMY-Y108C-G) (Fig.1-a~d) (Unit:mm[in])

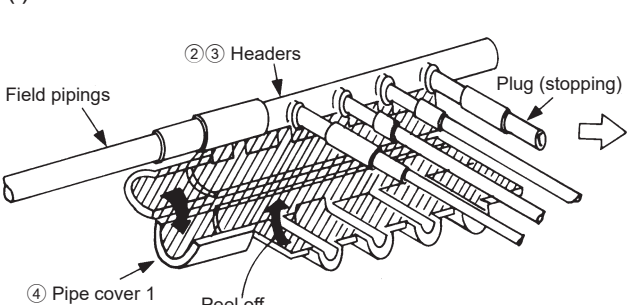
Section	Indoor unit	Connecting Pipe Size	Non-US model		~50	63~140	200	250
			US model	~18				
1	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	No need pipe	No need pipe
	Gas pipe	ø19.05[3/4]		Pipe3	No need pipe	No need pipe	No need pipe	Pipe12
2	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	Pipe11	-	-
3	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	Pipe11	-	-
4	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
5	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
6	Liquid pipe	ø6.35[1/4]		No need pipe	-	-	-	-
	Gas pipe	ø12.7[1/2]		No need pipe	-	-	-	-
7	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
8	Liquid pipe	ø6.35[1/4]		No need pipe	-	-	-	-
	Gas pipe	ø12.7[1/2]		No need pipe	-	-	-	-

Table-9 10-branch header (CMY-Y1010C-G) (Fig.1-a~d) (Unit:mm[in])

Section	Indoor unit	Connecting Pipe Size	Non-US model		~50	63~140	200	250
			US model	~18				
1	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	No need pipe	No need pipe
	Gas pipe	ø19.05[3/4]		Pipe3	No need pipe	No need pipe	No need pipe	Pipe12
2	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	Pipe10	-	-
	Gas pipe	ø15.88[5/8]		No need pipe	Pipe10	Pipe11	-	-
3	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	-	-
	Gas pipe	ø19.05[3/4]		Pipe3	No need pipe	No need pipe	-	-
4	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
5	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
6	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	-	-
	Gas pipe	ø12.7[1/2]		No need pipe	Pipe9	-	-	-
7	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
8	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	-	-
	Gas pipe	ø12.7[1/2]		No need pipe	Pipe9	-	-	-
9	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-	-
10	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	-	-
	Gas pipe	ø12.7[1/2]		No need pipe	Pipe9	-	-	-

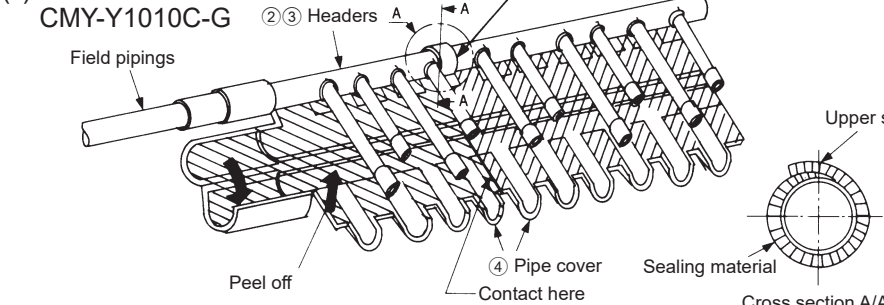
- 4 Mounting of cover (insulation material)

(i) CMY-Y104C-G

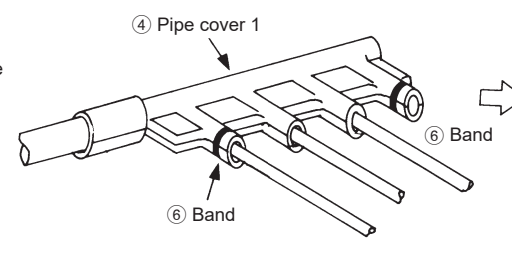


- (1) Insert the ②③ headers into the pipe cover 1 (2 pcs.) respectively, peel off the paper pasted on the inner surface of the ④ pipe cover, and catch the ②③ headers with the ④ pipe cover 1.

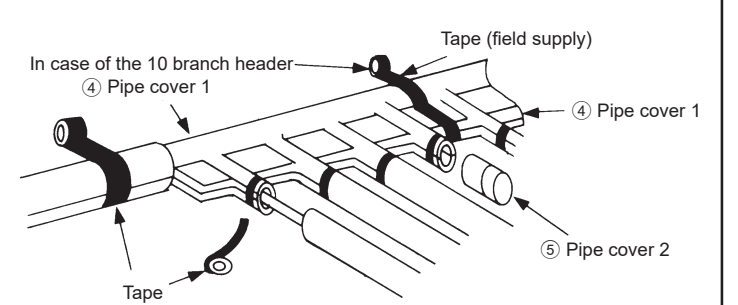
(ii) CMY-Y108C-G CMY-Y1010C-G



- (1) Wind sealing material onto A-section of ②③ headers, [thin piping-small sealing material, thick piping-large sealing material], insert each header into ④ pipe cover 1, and put ②③ headers between ④ pipe cover 1.
Note) For a part where sealing material is overlapped, wind sealing material onto the header so that the overlapped part locates at the upper side when the 10 branch header is installed.



- (2) Fasten both ends of the indoor side branching of the ④ pipe cover 1 with the ⑥ band as shown in the figure above.
Cut off the surplus of the band.



- (3) Mount the ⑤ pipe cover 2 onto the positions stopped with the plugs 1 ~ 5 provided.
Fully seal the butting section of the pipe cover with a tape (field supply). (Insufficient sealing causes condensation dripping.)