

CITY MULT OPTIONAL PARTS

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	For gas line			
This sheet 1 sheet	1 pc.	1 pc.	2 pcs.	2 pcs.	4 pcs.

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

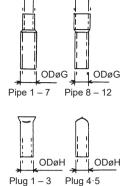
Header for 8 branching (CMY-Y108C-G)

ı	1) Instruction	(2) Header	(3) Header	4) Pipe cover - 1	(5) Pipe cover - 2	(6) Band	(7) Sealing materi
		For liquid line	For gas line		0		
	This sheet 1 sheet	1 pc.	1 pc.	Each 2 pcs.	4 pcs.	6 pcs.	Each 1 p
	Header for 1	hranching (CMV_V1010C	. G)			

Usable for 5/6/7/8 branching

Usable for 9/10 branching

Limitation on refrigerant piping length



Note: When the number of connecting pipes is less than the number of header branches, insert a plug of the appropriate size into each branch that does not have piping connected to it.

rable-1	Accessory p	(Unit:mm[in])				
	Pipe Connection	n Specification	Quantity				
	F (Connecting Pipe Size)	G (Outer Diameter)	CMY- Y104C-G	CMY- Y108C-G	CMY- Y1010C-G		
Pipe 1	ø9.52[3/8]	ø12.7[1/2]	1	1	1		
Pipe 2	ø15.88[5/8]	ø19.05[3/4]	1	1	2		
Pipe 3	ø12.7[1/2]	ø19.05[3/4]	-	1	2		
Pipe 4	ø6.35[1/4]	ø9.52[3/8]	3	6	5		
Pipe 5	ø12.7[1/2]	ø15.88[5/8]	3	5	6		
Pipe 6	ø19.05[3/4]	ø25.4[1]	-	1	1		
Pipe 7	ø22.2[7/8]	ø25.4[1]	_	1	1		
Pipe 8	ø28.58[1-1/8]	ø25.4[1]	-	1	1		
Pipe 9	ø15.88[5/8]	ø12.7[1/2]	-	_	3		
Pipe 10	ø9.52[3/8]	ø6.35[1/4]	-	_	5		
Pipe 11	ø19.05[3/4]	ø15.88[5/8]	_	2	1		
Pipe 12	ø22.2[7/8]	ø19.05[3/4]	_	1	1		

Table-2	Fable-2 Accessory plugs (Unit:mm[in])										
$\overline{}$	Pipe Connection Specification	Quantity									
	H (Connecting Pipe Size)	CMY- Y104C-G	CMY- Y108C-G	CMY- Y1010C-G							
Plug 1	ø6.35[1/4]	1	2	2							
Plug 2	ø9.52[3/8]	1	2	2							
Plug 3	ø12.7[1/2]	1	2	2							
Plug 4	ø15.88[5/8]	1	2	2							
Plug 5	ø19.05[3/4]	_	1	1							

	- F	1 1 1			0						
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	For gas line									
This sheet 1 sheet	1 pc.	1 pc.	Each 2 pcs.	4 pcs.	6 pcs.	Each 1 pc.					

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

Each 1 pc.

(1) Tape for sealing of insulation material

(2) Extension pipe for refrigerant circuit.

2 Please observe the items below for the mounting work.

- 1. 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.
- 2. Connect the header to piping or plug/pipe by brazing. Non-oxidized brazing should be applied.
- 3. The header is equipped with stopper. Push in the stopper until the pipe to be connected
- 4. 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.
- 5. Be careful that foreign materials like dust will not enter into the piping at the connection work.
- 6. Apply insulation material to all refrigerant pipings.
- 7. The piping after the header branching can not be branched again.

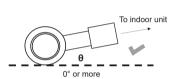
Be sure to connect it to the indoor unit.

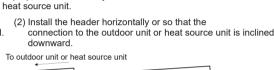
Restrictions of the header in the gas line

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.

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





Between branchings

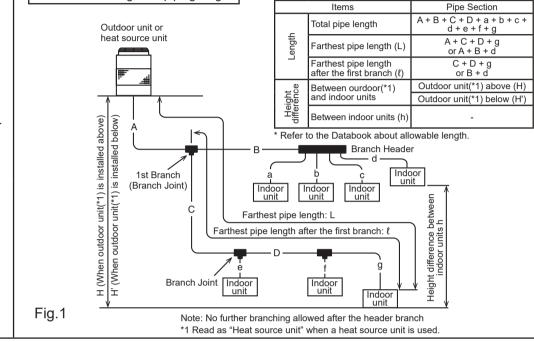


Table-3

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

- 1. Prepare the pipe to be connected in the field.
- 2. Determine the piping sizes of each part from Table-4 and 5. 3. The header can be connected to all piping sizes selected in the ite
- 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. 4. Cover the branch pipe end of the header, which are not in use, wit
- 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 pipo	Cas nins	
Non-US model	US model	Liquid pipe	Gas pipe	
~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 branchin	ıg (Fig.1-a∼g)	(Unit:mm[in]
Indoor ui	nit model	Liquid pipe	Gas pipe
Non-US model	US model	Liquid pipe	Gas pipe
~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.

	Outdoor unit or heat source unit	Between first branching and outdoor unit or heat source unit	Select the correct size pipe referring to the installation manual or the Databook of outdoor unit or	r heat sourc	ce unit.	
item	# #	\	Header			
with	Joint	*	Table-8 8-branch header (CMY-Y108C-G) (Fi	9 " " " " " " " " " " " " "	10	フ -
			Indoor unit Connecting Non-US model	~50	63~140	
			Section Pipe Size US model	~18	24~54	
			Liquid pipe ø9.52[3/8]	Pipe4	No need pipe	No
		ı	Gas pipe Ø19.05[3/4]	Pine3	Pine2	No

Table-6 Between branching (Fig.1-B) (Unit:mm[in])										
Down s	Down stream capacity		Non-US model	~140	141~200	201~300	301~400	401~650	651~800	801~
Pipe types		Pipe Size (X)	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	-	-	-	-	-
CMY-Y104C-G	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	-	-	-
CIVIT-T 106C-G	Gas pipe	ø25.4[1]		Pipe2,6	Pipe6	Pipe7	No need pipe	-	-	-
CMV V1010C C	Liquid pipe	ø15.88[5/8]		-	Pipe1,5	Pipe1,5	Pipe5	No need pipe	-	-
CMY-Y1010C-G	Gas pipe	ø25.4[1]		_	Pipe6	Pipe7	Pipe8	Pipe8	_	_

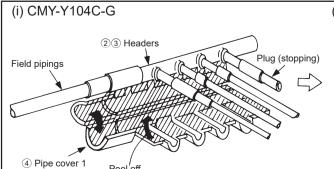
Fig.2

Table-7	4-branch he	eader (CM)	/-Y104C-G) (F	=ig.1-a~d)		(U	Jnit:mm[in])
	Indoor unit	Connecting	Non-US model	~50	63~140	200	250
Section		Pipe Size	US model	~18	24~54	72	96
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	-	-	-
2	Gas pipe	ø12.7[1/2]		No need pipe	-	-	-
3	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-
3	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-
4	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-
4	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	_	_

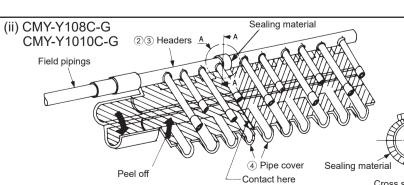
	Indoor unit	Connecting	Non-US model	~50	63~140	200	250
Section		Pipe Size	US model	~18	24~54	72	96
1	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	No need pipe
'	Gas pipe	ø19.05[3/4]		Pipe3	Pipe2	No need pipe	Pipe12
2	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	-
	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	Pipe11	-
3	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	_
3	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	Pipe11	-
4	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	_	-
4	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	_	_	-
О	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	-	-
0	Liquid pipe	ø6.35[1/4]		No need pipe	_	_	-
8	Gas pipe	ø12.7[1/2]		No need pipe	_	_	_

				/ (· · · · · · · /			(- L .
	Indoor unit		Non-US model	~50	63~140	200	250
Section		Pipe Size	US model	~18	24~54	72	96
1	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	No need pipe	No need pipe
'	Gas pipe	ø19.05[3/4]		Pipe3	Pipe2	No need pipe	Pipe12
2	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	Pipe10	_
2	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	-
3	Gas pipe	ø19.05[3/4]		Pipe3	Pipe2	No need pipe	-
4	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	_	-
4	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	-	-
	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	-	-
5	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	_	_
6	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	-
0	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	-	-
0	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	-
8	Gas pipe	ø12.7[1/2]		No need pipe	Pipe9	-	-
	Liquid pipe	ø9.52[3/8]		Pipe4	No need pipe	_	_
9	Gas pipe	ø15.88[5/8]		Pipe5	No need pipe	_	_
10	Liquid pipe	ø6.35[1/4]		No need pipe	Pipe10	-	_
10	Gas pipe	ø12.7[1/2]		No need pipe	Pipe9	-	-

4 Mounting of cover (insulation material)

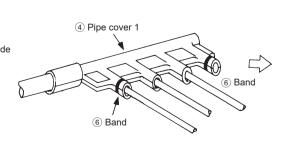


(1) Insert the 23 headers into the pipe cover 1 (2 pcs.) respectively, peel off the paper pasted on the inner surface of the 4 pipe cover, and catch the 23 headers with the 4 pipe cover 1.

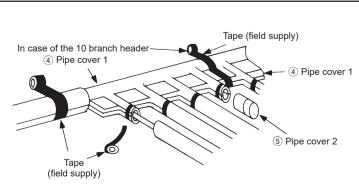


(1) Wind sealing material onto A-section of 23 headers, [thin piping-small sealing material, thick piping-large sealing material], insert each header into 4 pipe cover 1, and put 23 headers between 4 pipe cover 1.

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.)

(Unit:mm[in])