

CMB-P-V-G1, CMB-P-V-GA1, CMB-P-V-HA1, CMB-P-V-GB1, CMB-P-V-HB1

1. SPECIFICATIONS..... 1 - 226

2. EXTERNAL DIMENSIONS 1 - 235

3. ELECTRICAL WIRING DIAGRAMS 1 - 240

1. SPECIFICATIONS

YKB/YLM

Model name			CMB-P104V-G1		CMB-P105V-G1	
Number of branch			4		5	
Power source			1-phase 220/230/240V			
			50Hz		60Hz	
Power input (220/230/240)	Cooling	kW	0.067/0.076/0.085	0.054/0.061/0.067	0.082/0.093/0.104	0.066/0.074/0.082
	Heating		0.030/0.034/0.038	0.024/0.027/0.030	0.038/0.043/0.048	0.030/0.034/0.038
Current (220/230/240)	Cooling	A	0.31/0.34/0.36	0.25/0.27/0.28	0.38/0.41/0.44	0.30/0.33/0.35
	Heating		0.14/0.15/0.16	0.11/0.12/0.13	0.18/0.19/0.20	0.14/0.15/0.16
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)			
Connectable outdoor unit/heat source unit			PURY-(E)P200/250/300/350YLM-A(1)(-BS) PQRY-P200/250/300YHM-A			
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)			
External dimension H x W x D		mm (in.)	284 x 648 x 432 (11-3/16 x 25-17/32 x 17-1/32)			
Refrigerant piping diameter	Connectable outdoor unit		To outdoor unit			
	capacity		High press. pipe		Low press. pipe	
		to P200	15.88 (5/8)		19.05 (3/4)	
		mm (in.) O.D.	Brazed		Brazed	
		P250/P300	19.05 (3/4)		22.2 (7/8)	
		mm (in.) O.D.	Brazed		Brazed	
		to P350	19.05 (3/4)		28.58 (1-1/8)	
		mm (in.) O.D.	Brazed		Brazed	
			To indoor unit			
		mm (in.) O.D.	Liquid pipe		Gas pipe	
			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed (12.7 (1/2) with optional joint pipe used.)		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4) with optional joint pipe used.)	
Field drain pipe size		mm (in.) O.D.	32 (1-1/4)			
Net weight		kg (lbs)	26 (58)		27 (60)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark						
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 4. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 5. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.						

Model name			CMB-P106V-G1		CMB-P108V-G1	
Number of branch			6		8	
Power source			1-phase 220/230/240V			
			50Hz	60Hz	50Hz	60Hz
Power input	Cooling	kW	0.097/0.110/0.123	0.078/0.088/0.097	0.127/0.144/0.161	0.102/0.115/0.127
(220/230/240)	Heating		0.045/0.051/0.057	0.036/0.041/0.045	0.060/0.068/0.076	0.048/0.054/0.060
Current	Cooling	A	0.45/0.48/0.52	0.36/0.39/0.41	0.58/0.63/0.68	0.47/0.50/0.53
(220/230/240)	Heating		0.21/0.23/0.24	0.17/0.18/0.19	0.28/0.30/0.32	0.22/0.24/0.25
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)			
Connectable outdoor unit/heat source unit			PURY-(E)P200/250/300/350YLM-A(1)(-BS) PQRY-P200/250/300YHM-A			
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)			
External dimension H x W x D		mm (in.)	284 x 648 x 432 (11-3/16 x 25-17/32 x 17-1/32)			
Refrigerant piping diameter	Connectable outdoor unit capacity		To outdoor unit			
			High press. pipe		Low press. pipe	
	to P200		15.88 (5/8)		19.05 (3/4)	
	mm (in.) O.D.		Braze		Braze	
	P250/P300		19.05 (3/4)		22.2 (7/8)	
	mm (in.) O.D.		Braze		Braze	
	to P350		19.05 (3/4)		28.58 (1-1/8)	
	mm (in.) O.D.		Braze		Braze	
			To indoor unit			
			Liquid pipe		Gas pipe	
	mm (in.) O.D.		Indoor unit Model 50 or smaller 6.35 (1/4) Braze bigger than 50 9.52 (3/8) Braze (12.7 (1/2) with optional joint pipe used.)		Indoor unit Model 50 or smaller 12.7 (1/2) Braze bigger than 50 15.88 (5/8) Braze (19.05 (3/4) with optional joint pipe used.)	
Field drain pipe size		mm (in.) O.D.	32 (1-1/4)			
Net weight		kg (lbs)	28 (62)		33 (73)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark						
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 4. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 5. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.						

1. SPECIFICATIONS

YKB/YLM

Model name			CMB-P1010V-G1		CMB-P1013V-G1	
Number of branch			10		13	
Power source			1-phase 220/230/240V			
			50Hz		60Hz	
Power input (220/230/240)	Cooling	kW	0.156/0.177/0.198	0.126/0.141/0.156	0.201/0.228/0.255	0.162/0.182/0.201
	Heating		0.075/0.085/0.095	0.060/0.068/0.075	0.097/0.110/0.123	0.078/0.088/0.097
Current (220/230/240)	Cooling	A	0.71/0.77/0.83	0.58/0.62/0.65	0.92/1.00/1.07	0.74/0.80/0.84
	Heating		0.35/0.37/0.40	0.28/0.30/0.32	0.45/0.48/0.52	0.36/0.39/0.41
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)			
Connectable outdoor unit/heat source unit			PURY-(E)P200/250/300/350YLM-A(1)(-BS) PQRY-P200/250/300YHM-A			
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)			
External dimension H x W x D		mm (in.)	284 x 648 x 432 (11-3/16 x 25-17/32 x 17-1/32)		284 x 1,098 x 432 (11-3/16 x 43-1/4 x 17-1/32)	
Refrigerant piping diameter	Connectable outdoor unit		To outdoor unit			
	capacity		High press. pipe		Low press. pipe	
		to P200	15.88 (5/8)		19.05 (3/4)	
		mm (in.) O.D.	Brazed		Brazed	
		P250/P300	19.05 (3/4)		22.2 (7/8)	
		mm (in.) O.D.	Brazed		Brazed	
		to P350	19.05 (3/4)		28.58 (1-1/8)	
		mm (in.) O.D.	Brazed		Brazed	
	To indoor unit					
			Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed (12.7 (1/2) with optional joint pipe used.)		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4) with optional joint pipe used.)	
Field drain pipe size		mm (in.) O.D.	32 (1-1/4)			
Net weight		kg (lbs)	38 (84)		49 (109)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark						
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 4. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 5. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.						

Model name			CMB-P1016V-G1	
Number of branch			16	
Power source			1-phase 220/230/240V	
			50Hz	60Hz
Power input	Cooling	kW	0.246/0.279/0.312	0.198/0.222/0.246
(220/230/240)	Heating		0.119/0.135/0.151	0.096/0.108/0.119
Current	Cooling	A	1.12/1.22/1.30	0.90/0.97/1.03
(220/230/240)	Heating		0.55/0.59/0.63	0.44/0.47/0.50
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)	
Connectable outdoor unit/heat source unit			PURY-(E)P200/250/300/350YLM-A(1)(-BS) PQRY-P200/250/300YHM-A	
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)	
External dimension H x W x D		mm (in.)	284 x 1,098 x 432 (11-3/16 x 43-1/4 x 17-1/32)	
Refrigerant piping diameter	Connectable outdoor unit capacity		To outdoor unit	
			High press. pipe	Low press. pipe
	to P200		15.88 (5/8)	19.05 (3/4)
	mm (in.) O.D.		Brazed	Brazed
	P250/P300		19.05 (3/4)	22.2 (7/8)
	mm (in.) O.D.		Brazed	Brazed
	to P350		19.05 (3/4)	28.58 (1-1/8)
	mm (in.) O.D.		Brazed	Brazed
			To indoor unit	
			Liquid pipe	Gas pipe
	mm (in.) O.D.		Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed (12.7 (1/2) with optional joint pipe used.)	Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4) with optional joint pipe used.)
	Field drain pipe size		mm (in.) O.D.	32 (1-1/4)
Net weight		kg (lbs)	56 (124)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark				
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 4. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 5. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.				

1. SPECIFICATIONS

YKB/YLM

Model name			CMB-P108V-GA1		CMB-P1010V-GA1		
Number of branch			8		10		
Power source			1-phase 220/230/240V				
			50Hz		60Hz		
Power input (220/230/240)	Cooling	kW	0.127/0.144/0.161	0.102/0.115/0.127	0.156/0.177/0.198	0.126/0.141/0.156	
	Heating		0.060/0.068/0.076	0.048/0.054/0.060	0.075/0.085/0.095	0.060/0.068/0.075	
Current (220/230/240)	Cooling	A	0.58/0.63/0.68	0.47/0.50/0.53	0.71/0.77/0.83	0.58/0.62/0.65	
	Heating		0.28/0.30/0.32	0.22/0.24/0.25	0.35/0.37/0.40	0.28/0.30/0.32	
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)				
Connectable outdoor unit/heat source unit			PURY-(E)P200/250/300/350/400/450/500/550/600/650Y(S)LM-A(1)(-BS) PQRY-P200/250/300/400/450/500/550/600Y(S)HM-A				
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)				
External dimension H x W x D		mm (in.)	289 x 1,110 x 520 (11-13/32 x 43-23/32 x 20-1/2)				
Refrigerant piping diameter	Connectable outdoor unit capacity		To outdoor unit				
			High press. pipe		Low press. pipe		
	to P200 mm (in.) O.D.		15.88 (5/8)		19.05 (3/4)		
			Brazed		Brazed		
		P250/P300 mm (in.) O.D.		19.05 (3/4)		22.2 (7/8)	
				Brazed		Brazed	
		to P350 mm (in.) O.D.		19.05 (3/4)		28.58 (1-1/8)	
				Brazed		Brazed	
		P400 to P500 mm (in.) O.D.		22.2 (7/8)		28.58 (1-1/8)	
			Brazed		Brazed		
	P550 to P650 mm (in.) O.D.		28.58 (1-1/8)		28.58 (1-1/8)		
			Brazed		Brazed		
			To indoor unit				
		mm (in.) O.D.	Liquid pipe		Gas pipe		
			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed		
			bigger than 50 9.52 (3/8) Brazed (12.7 (1/2) with optional joint pipe used.)		bigger than 50 15.88 (5/8) Brazed (19.05 (3/4) with optional joint pipe used.)		
	Total indoor unit capacity connected to this Sub BC controller		To other BC controller				
			High press. pipe		Low press. pipe		
			Liquid pipe				
			to P200 mm (in.) O.D.	15.88 (5/8) Brazed		19.05 (3/4) Brazed	
				9.52 (3/8) Brazed			
			P201 to P300 mm (in.) O.D.	19.05 (3/4) Brazed		22.2 (7/8) Brazed	
				9.52 (3/8) Brazed			
			P301 to P350 mm (in.) O.D.	19.05 (3/4) Brazed		28.58 (1-1/8) Brazed	
	12.7 (1/2) Brazed						
	Field drain pipe size	mm (in.) O.D.	32 (1-1/4)				
Net weight		kg (lbs)	47 (104)		50 (111)		
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		Drain Connection pipe (with flexible hose and insulation) Reducer		
Remark							
Note:							
1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual.							
2. The equipment is for R410A refrigerant.							
3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)							
4. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.)							
5. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.							

Model name			CMB-P1013V-GA1		CMB-P1016V-GA1	
Number of branch			13		16	
Power source			1-phase 220/230/240V			
			50Hz		60Hz-	
Power input (220/230/240)	Cooling	kW	0.201/0.228/0.255	0.162/0.182/0.201	0.246/0.279/0.312	0.198/0.222/0.246
	Heating		0.097/0.110/0.123	0.078/0.088/0.097	0.119/0.135/0.151	0.096/0.108/0.119
Current (220/230/240)	Cooling	A	0.92/1.00/1.07	0.74/0.80/0.84	1.12/1.22/1.30	0.90/0.97/1.03
	Heating		0.45/0.48/0.52	0.36/0.39/0.41	0.55/0.59/0.63	0.44/0.47/0.50
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)			
Connectable outdoor unit/heat source unit			PURY-(E)P200/250/300/350/400/450/500/550/600/650Y(S)LM-A(1)(-BS) PQRY-P200/250/300/400/450/500/550/600Y(S)HM-A			
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)			
External dimension H x W x D		mm (in.)	289 x 1,110 x 520 (11-13/32 x 43-23/32 x 20-1/2)			
Refrigerant piping diameter	Connectable outdoor unit capacity		To outdoor unit			
			High press. pipe		Low press. pipe	
	to P200		15.88 (5/8)		19.05 (3/4)	
	mm (in.) O.D.		Braze		Braze	
	P250/P300		19.05 (3/4)		22.2 (7/8)	
	mm (in.) O.D.		Braze		Braze	
	to P350		19.05 (3/4)		28.58 (1-1/8)	
	mm (in.) O.D.		Braze		Braze	
	P400 to P500		22.2 (7/8)		28.58 (1-1/8)	
	mm (in.) O.D.		Braze		Braze	
	P550 to P650		28.58 (1-1/8)		28.58 (1-1/8)	
	mm (in.) O.D.		Braze		Braze	
			To indoor unit			
			Liquid pipe		Gas pipe	
	mm (in.) O.D.		Indoor unit Model 50 or smaller 6.35 (1/4) Braze bigger than 50 9.52 (3/8) Braze (12.7 (1/2) with optional joint pipe used.)		Indoor unit Model 50 or smaller 12.7 (1/2) Braze bigger than 50 15.88 (5/8) Braze (19.05 (3/4) with optional joint pipe used.)	
	Total indoor unit capacity connected to this Sub BC controller		To other BC controller			
			High press. pipe		Low press. pipe	
			Liquid pipe			
	to P200		15.88 (5/8) Braze		19.05 (3/4) Braze	
	mm (in.) O.D.		9.52 (3/8) Braze			
	P201 to P300		19.05 (3/4) Braze		22.2 (7/8) Braze	
	mm (in.) O.D.		9.52 (3/8) Braze			
	P301 to P350		19.05 (3/4) Braze		28.58 (1-1/8) Braze	
	mm (in.) O.D.		12.7 (1/2) Braze			
Field drain pipe size		mm (in.) O.D.	32 (1-1/4)			
Net weight		kg (lbs)	55 (122)		62 (137)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark						
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 4. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 5. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.						

1. SPECIFICATIONS

YKB/YLM

Model name			CMB-P1016V-HA1		
Number of branch			16		
Power source			1-phase 220/230/240V		
			50Hz	60Hz	
Power input (220/230/240)	Cooling	kW	0.246/0.279/0.312	0.198/0.222/0.246	
	Heating		0.119/0.135/0.151	0.096/0.108/0.119	
Current (220/230/240)	Cooling	A	1.12/1.22/1.30	0.90/0.97/1.03	
	Heating		0.55/0.59/0.63	0.44/0.47/0.50	
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)		
Connectable outdoor unit/heat source unit			PURY-(E)P700/750/800/850/900YSLM-A(1)(-BS)		
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)		
External dimension H x W x D		mm (in.)	289 x 1,110 x 520 (11-13/32 x 43-23/32 x 20-1/2)		
Refrigerant piping diameter	Connectable outdoor unit capacity		To outdoor unit		
			High press. pipe	Low press. pipe	
			P700/P750/ P800	28.58 (1-1/8)	34.93 (1-3/8)
			mm (in.) O.D.	Brazed	Brazed
			P850/P900	28.58 (1-1/8)	41.28 (1-5/8)
			mm (in.) O.D.	Brazed	Brazed
	To indoor unit				
			Liquid pipe	Gas pipe	
	mm (in.) O.D.	Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed (12.7 (1/2) with optional joint pipe used.)		Indoor unit Model 50 or smaller 12.7 (1/2) Brazed bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
	Total indoor unit capacity connected to this Sub BC controller		To other BC controller		
			High press. pipe	Low press. pipe	
			Liquid pipe		
			to P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
			mm (in.) O.D.	9.52 (3/8) Brazed	
			P201 to P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
			mm (in.) O.D.	9.52 (3/8) Brazed	
			P301 to P350	19.05 (3/4) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	12.7 (1/2) Brazed	
			P351 to P400	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
mm (in.) O.D.	12.7 (1/2) Brazed				
P401 to P450	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed			
mm (in.) O.D.	15.88 (5/8) Brazed				
Field drain pipe size		mm (in.) O.D.	32 (1-1/4)		
Net weight		kg (lbs)	69 (153)		
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		
Remark					
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. When using an outdoor unit -28HP(P700) or more, use this product. 4. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 5. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 6. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.					

Model name			CMB-P104V-GB1		CMB-P108V-GB1	
Number of branch			4		8	
Power source			1-phase 220/230/240V			
			50Hz		60Hz	
Power input (220/230/240)	Cooling	kW	0.060/0.068/0.076	0.048/0.054/0.060	0.119/0.135/0.151	0.096/0.108/0.119
	Heating		0.030/0.034/0.038	0.024/0.027/0.030	0.060/0.068/0.076	0.048/0.054/0.060
Current (220/230/240)	Cooling	A	0.28/0.30/0.32	0.22/0.24/0.25	0.55/0.59/0.63	0.44/0.47/0.50
	Heating		0.14/0.15/0.16	0.11/0.12/0.13	0.28/0.30/0.32	0.22/0.24/0.25
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)			
Connectable BC controller			CMB-P108/1010/1013/1016V-GA1, CMB-P1016V-HA1 CMB-P104/108V-GB1, CMB-P1016V-HB1			
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds 81.)			
External dimension H x W x D		mm (in.)	284 x 648 x 432 (11-3/16 x 25-17/32 x 17-1/32)			
Refrigerant piping diameter	To indoor unit					
			Liquid pipe		Gas pipe	
	mm (in.) O.D.		Indoor unit Model 50 or smaller 6.35 (1/4) Braze bigger than 50 9.52 (3/8) Braze (12.7 (1/2) with optional joint pipe used.)		Indoor unit Model 50 or smaller 12.7 (1/2) Braze bigger than 50 15.88 (5/8) Braze (19.05 (3/4) with optional joint pipe used.)	
	Total indoor unit capacity connected to this Sub BC controller		To other BC controller			
			High press. pipe		Low press. pipe	
			Liquid pipe			
	to P200		15.88 (5/8) Braze		19.05 (3/4) Braze	
	mm (in.) O.D.		9.52 (3/8) Braze			
	P201 to P300		19.05 (3/4) Braze		22.2 (7/8) Braze	
	mm (in.) O.D.		9.52 (3/8) Braze			
	P301 to P350		19.05 (3/4) Braze		28.58 (1-1/8) Braze	
	mm (in.) O.D.		12.7 (1/2) Braze			
	Field drain pipe size		mm (in.) O.D.	32 (1-1/4)		
Net weight		kg (lbs)	22 (49)		32 (71)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer		Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark						
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. For sub BC controller CMB-P-V-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P350 unit. 4. To use the Sub BC controller, the Main BC controller is necessary to be connected with. 5. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 6. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 7. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.						

1. SPECIFICATIONS

YKB/YLM

Model name			CMB-P1016V-HB1	
Number of branch			16	
Power source			1-phase 220/230/240V	
			50Hz	60Hz
Power input (220/230/240)	Cooling	kW	0.237/0.269/0.301	0.192/0.216/0.237
	Heating		0.119/0.135/0.151	0.096/0.108/0.120
Current (220/230/240)	Cooling	A	1.08/1.17/1.26	0.88/0.94/0.99
	Heating		0.55/0.59/0.63	0.44/0.47/0.50
External finish			Galvanized steel plate (Lower part drain pan painting N1.5)	
Connectable BC controller		Main BC	CMB-P108/1010/1013/1016V-GA1,CMB-P1016V-HA1	
		Sub BC	CMB-P104/108V-GB1, CMB-P1016V-HB1	
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds 81.)	
External dimension H x W x D		mm (in.)	284 x 1,098 x 432 (11-3/16 x 43-1/4 x 17-1/32)	
Refrigerant piping diameter	Connectable outdoor unit capacity		To outdoor unit	
	mm (in.) O.D.		High press. pipe	Low press. pipe
				-
			To indoor unit	
	mm (in.) O.D.		Liquid pipe	Gas pipe
			Indoor unit Model 50 or smaller 6.35 (1/4) Braze bigger than 50 9.52 (3/8) Braze (12.7 (1/2) with optional joint pipe used.)	Indoor unit Model 50 or smaller 12.7 (1/2) Braze bigger than 50 15.88 (5/8) Braze (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
	Total indoor unit capacity connected to this Sub BC controller		To other BC controller	
	to P200 mm (in.) O.D. P201 to P300 mm (in.) O.D. P301 to P350 mm (in.) O.D. P351 to P400 mm (in.) O.D. P401 to P450 mm (in.) O.D.		High press. pipe	Low press. pipe
			Liquid pipe	
			15.88 (5/8) Braze	19.05 (3/4) Braze
			9.52 (3/8) Braze	
			19.05 (3/4) Braze	22.2 (7/8) Braze
			9.52 (3/8) Braze	
			19.05 (3/4) Braze	28.58 (1-1/8) Braze
			12.7 (1/2) Braze	
			22.2 (7/8) Braze	28.58 (1-1/8) Braze
		12.7 (1/2) Braze		
		22.2 (7/8) Braze	28.58 (1-1/8) Braze	
	15.88 (5/8) Braze			
Field drain pipe size		mm (in.) O.D.	32 (1-1/4)	
Net weight		kg (lbs)	55 (122)	
Accessories			Drain Connection pipe (with flexible hose and insulation) Reducer	
Remark				
Note: 1. Installation/foundation work, electrical connection work, insulation work, power source switch, and other items shall be referred to the Installation Manual. 2. The equipment is for R410A refrigerant. 3. For sub BC controller CMB-P1016V-HB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P450 unit. 4. To use the Sub BC controller, the Main BC controller is necessary to be connected with. 5. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors. (For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.) 6. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decrease a little.) 7. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.				

Unit : mm

	A	B	C	D
CMB-P104V-G1			3	180
CMB-P105V-G1			4	240
CMB-P106V-G1	648	702	5	300
CMB-P108V-G1			7	420
CMB-P1010V-G1			9	540
CMB-P1013V-G1	1098	1152	12	720
CMB-P1016V-G1			15	900

CMB-P108, 1010, 1013, 1016V-GA1

Unit : mm

- <Accessories>
- Refrigerant<Low pressure> conn. pipe...1pc.
 - Refrigerant<high pressure> conn. pipe...2pcs.
 - Drain hose I.D.32 (1-1/4").....1pc.
 - Hose band.....1pc.
 - Tie band.....1pc.

Connection pipe of SUB BC CONTROLLER (High pressure)

Total capacity of indoor unit at SUB BC CONTROLLER (use attachment pipe of SUB BC CONTROLLER)

P200 or less:ø15.88<Brazed>

P350 or less:ø19.05<Brazed>

P350 over :ø22.2<Brazed> (use attachment pipe of JOINT<option>)

Connection pipe of SUB BC CONTROLLER (Liquid)

Total capacity of indoor unit at SUB BC CONTROLLER (P300 or less :ø9.52<Brazed> P400 or less :ø12.7<Brazed> (use attachment pipe of SUB BC CONTROLLER)

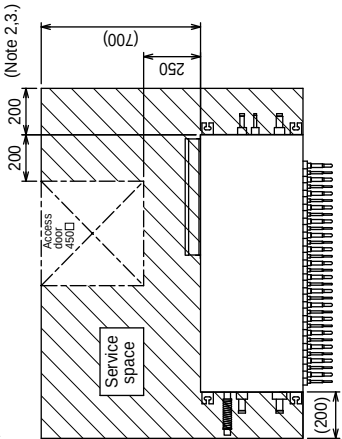
P400 over :ø15.88<Brazed> (use attachment pipe of JOINT<option>)

Connection pipe of SUB BC CONTROLLER (Low pressure)

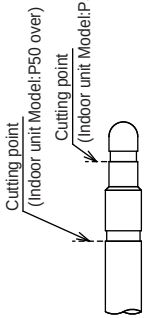
Total capacity of indoor unit at SUB BC CONTROLLER (P200 or less:ø19.05<Brazed> (use attachment pipe of SUB BC CONTROLLER)

P300 or less:ø22.2<Brazed>

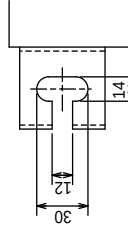
P300 over:ø28.6<Brazed> (use attachment pipe of SUB BC CONTROLLER)



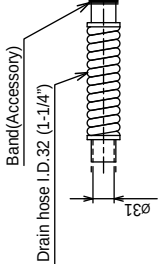
- Note1.Suspension bolt(ø10), washer(M10), and nut(M10) prepare in the field.
- 2.Take notice of service space as follows.
(Please give attention not to occupy service space by letting ducts and pipes through.)
- 3.Please take service space for connection pipe of SUB BC CONTROLLER.
- 4.Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.
(For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)
- 5.Refer to the Installation Manual for refrigerant piping diameter size when connecting plural indoor units with 1 branch.



Detail of Z section



Detail of Y section



Detail of X section

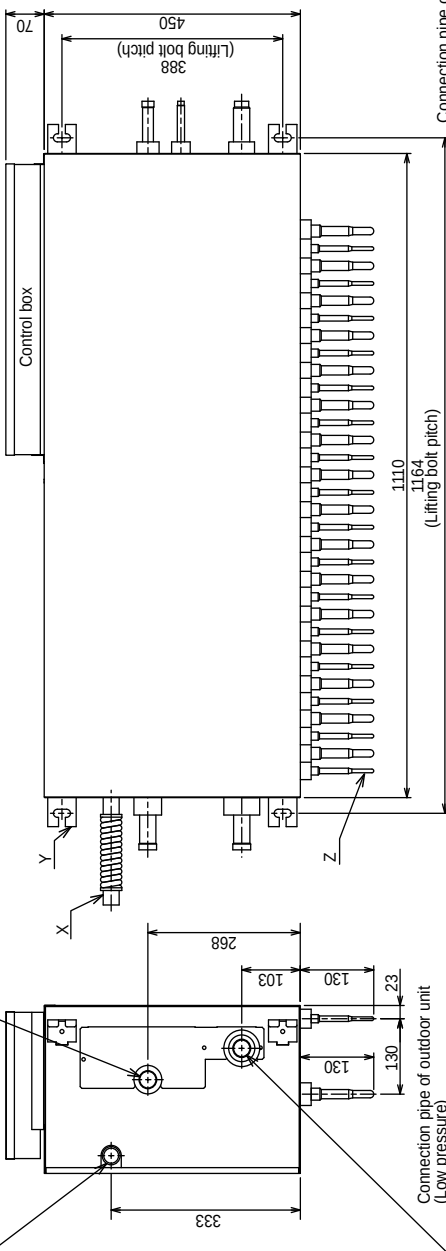
Connection pipe of outdoor unit(High pressure)

P250,300,350:ø19.05<Brazed> (use attachment pipe)

P400,450,500:ø22.2 <Brazed>

P550,600,650:ø28.6 <Brazed> (use attachment pipe)

Drain pipe O.D.32 (1-1/4")



Connection pipe of outdoor unit (Low pressure)

P250,300,ø22.2<Brazed>(use attachment pipe)

P350,400,450,500,550,600,650:ø28.6<Brazed>

Connection pipe of indoor unit(Liquid)

Indoor unit model (Note 5.)

P50 or less:ø6.35<Brazed>

P50 over :ø9.52<Brazed>

Connection pipe of indoor unit(Gas)

Indoor unit model (Note 5.)

P50 or less:ø12.7<Brazed>

P50 over :ø15.88<Brazed>

	A	B
CMB-P108V-GA1	7	420
CMB-P1010V-GA1	9	540
CMB-P1013V-GA1	12	720
CMB-P1016V-GA1	15	900

- Refrigerant<Low pressure> conn. pipe.....1pc.
- Drain hose I.D.32 (1-1/4").....1pc.
- Hose band.....1pc.
- Tie band.....1pc.

Note1.Suspension bolt(ø10),washer(M10),and nut(M10) prepare in the field.

2. Take notice of service space as follows.
(Please give attention not to occupy service space by letting ducts and pipes through.)

3.3. Please take service space for connection pipe of SUB BC CONTROLLER.

4. When using an outdoor unit-28HP(P700) or more, use this product.
5. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.

(For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)

6. Refer to the Installation Manual for refrigerant piping diameter size when connecting plural indoor units with 1 branch.

Connection pipe of
SUB BC CONTROLLER
(High pressure)

Sub BC CONTROLLER
use attachment pipe of
SUB BC CONTROLLER)
ø15.88<Brazed>
ø19.05<Brazed>
ø22.2<Brazed>
use attachment pipe of
DINT<option>

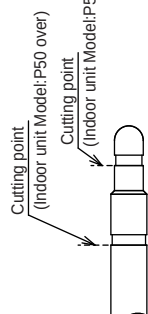
Connection pipe of
SUB BC CONTROLLER
(Liquid)

total capacity of indoor unit
SUB BC CONTROLLER
300 or less :ø9.52<Braze>
400 or less :ø12.7<Braze>
use attachment pipe of
SUB BC CONTROLLER)
400 over:ø15.88<Braze>
use attachment pipe of
OINT<option>)

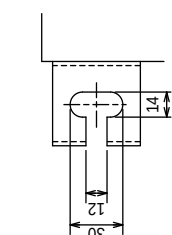
Connection pipe of
SUB BC CONTROLLER

(Low pressure)

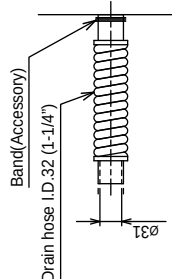
Unit : mm



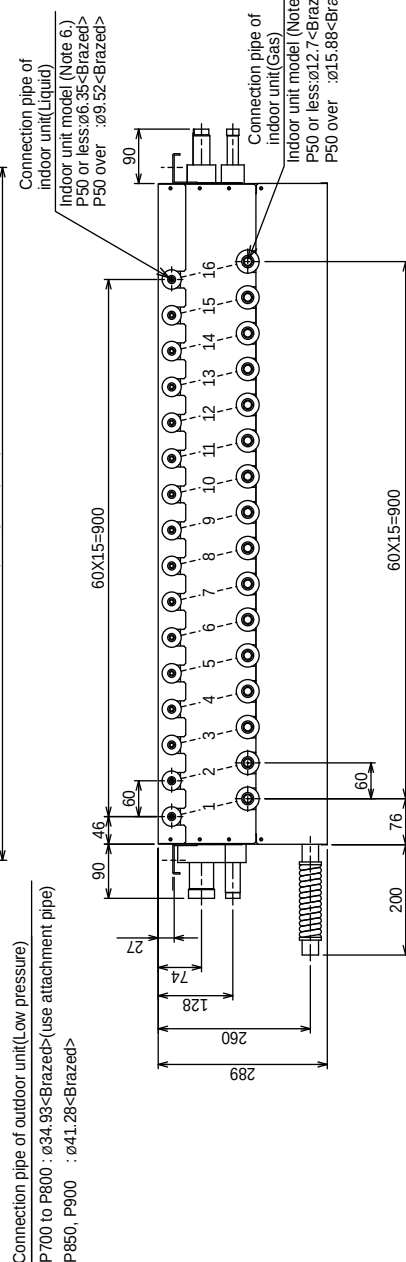
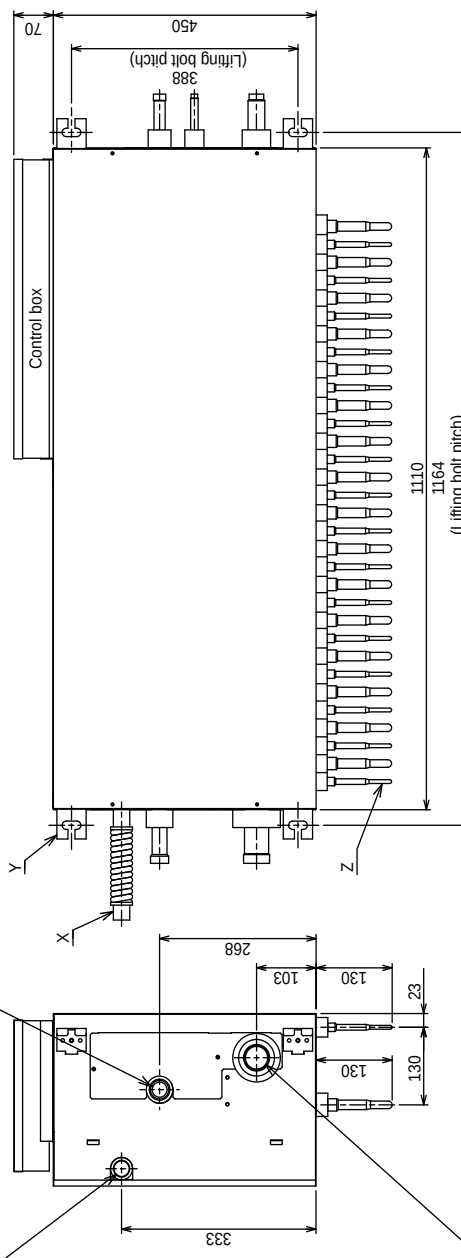
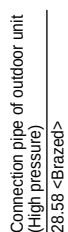
Detail of Z section



Detail of Y section



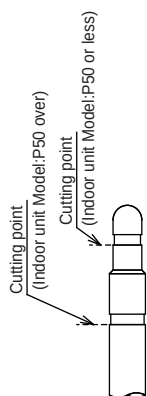
Detail of X section



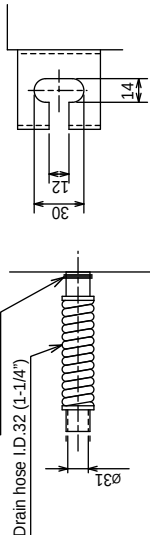
Unit : mm

- <Accessories>
- Refrigerant<Low pressure> conn. pipe.....4pcs.
 - Refrigerant<High pressure> conn. pipe.....2pcs.
 - Refrigerant<Liquid> conn. pipe.....2pcs.
 - Drain hose (D.32 (1-1/4")).....1pc.
 - Hose band.....1pc.
 - Tie band.....1pc.

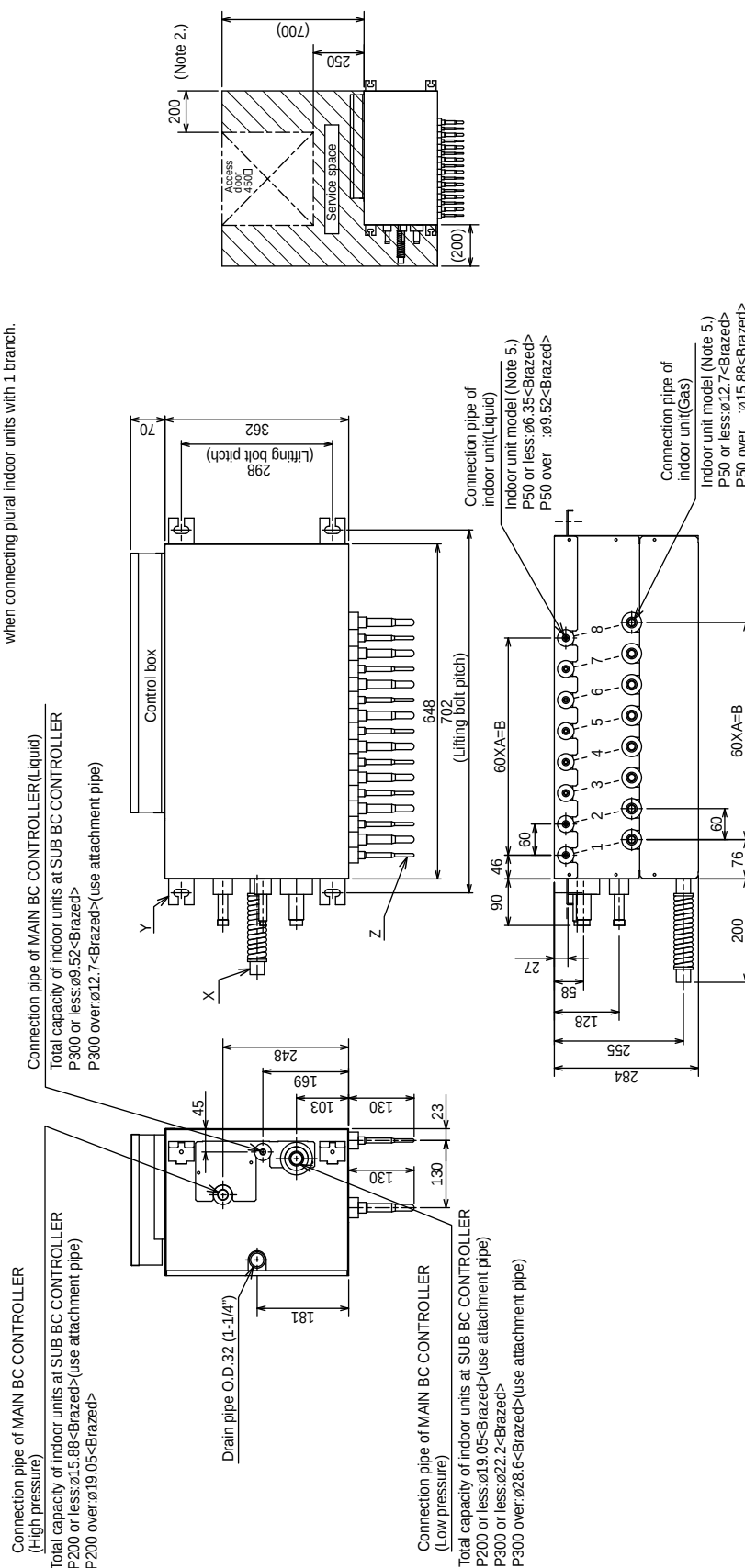
1. Note 1. Suspension bolt(M10), washer(M10), and nut(M10) prepare in the field.
2. Take notice of service space as follows.
(Please give attention not to occupy service space by letting ducts and pipes through.)
3. Can't use singleness.(MAIN BC CONTROLLER is required.)
4. Install this product in a location where noise (refrigerant emitted by the unit will not disturb the neighbors.
(For use in quiet environments with low background noise level.)
5. Refer to the Installation Manual for refrigerant piping when connecting plural indoor units with 1 branch, the BC CONTROLLER at least 5m away from any other indoor unit.



Detail of Z section



Detail of Y section



	A	B
CMB-P104V-GB1	3	180
CMB-P103V-GB1	7	120

CMB-P1016V-HB1

Unit : mm

- <Accessories>
- Refrigerant<Low pressure> conn. pipe.....4pcs.
 - Refrigerant<High pressure> conn. pipe.....2pcs.
 - Refrigerant<Liquid> conn. pipe.....2pcs.
 - Drain hose I.D.32 (1-1/4").....1pc.
 - Hose band.....1pc.
 - Tie band.....1pc.

Note1. Suspension bolt(φ10), washer(M10), and nut(M10) prepare in the field.

2. Take notice of service space as follows.

space by letting ducts and pipes through.)

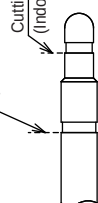
3. Can't use singleness (MAIN BC CONTROLLER is necessary)

4. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.

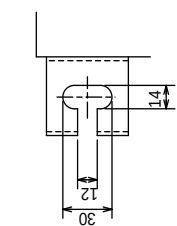
(For use in quiet environments with low background noise, position the BC CONTROLLER at least 5m away from any indoor units.)

5. Refer to the Installation Manual for refrigerant piping diameter size when connecting plural indoor units with 1 branch.

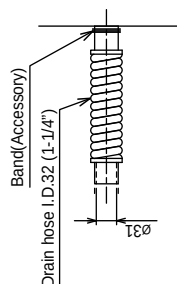
Cutting point
(Indoor unit Model:P50 over)



Detail of Z section



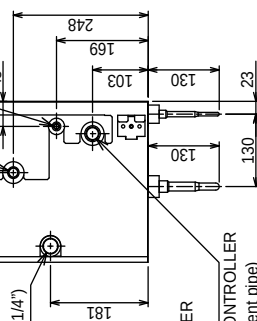
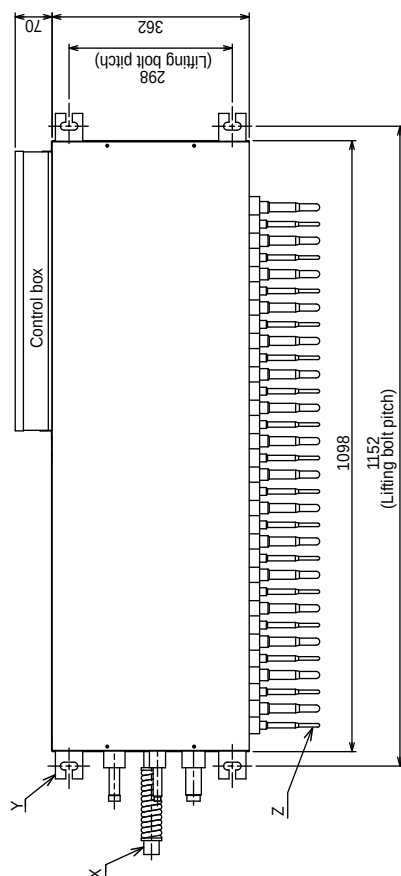
Detail of Y section



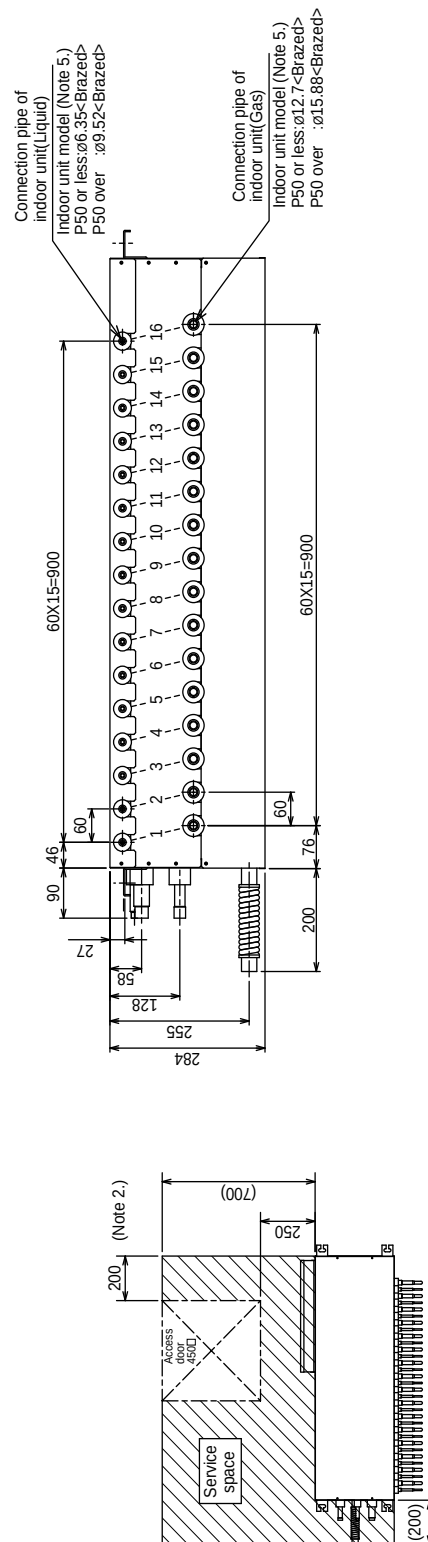
Detail of X section

Connection pipe of MAIN BC CONTROLLER(Liquid)
Total capacity of indoor units at SUB BC CONTROLLER
P300 or less:φ9.52 <Brazed>
P300 over :φ12.7 <Brazed>(use attachment pipe)

Connection pipe of MAIN BC CONTROLLER
(High pressure)
Total capacity of indoor units at SUB BC CONTROLLER
P200 or less:φ15.88<Brazed>(use attachment pipe)
P200 over :φ19.05<Brazed>



Connection pipe of MAIN BC CONTROLLER
(Low pressure)
Total capacity of indoor units at SUB BC CONTROLLER
P200 or less:φ19.05<Brazed>(use attachment pipe)
P300 or less:φ22.2 <Brazed>
P300 over :φ28.58<Brazed>(use attachment pipe)

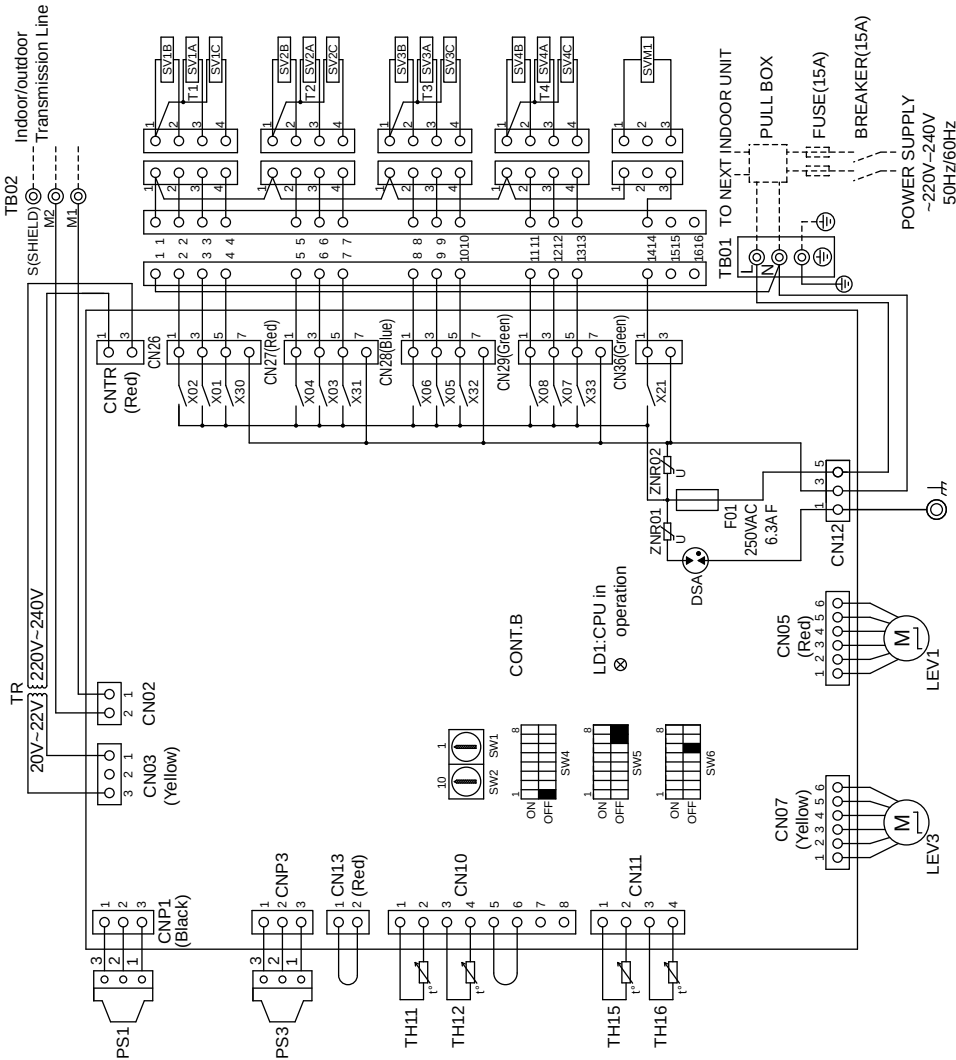


CMB-P104V-G1

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
CONT.B	Circuit board
	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1-4A,B,C	Solenoid valve
SVM1	Solenoid valve
T1-4	Terminal
F01	Fuse AC250V 6.3A F

Note: 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows.
SW1:0
SW2:0



(Symbol explanation)	Symbol	Name
	TR	Transformer
	TH11, 12, 15, 16	Thermister sensor
	LEV1.3	Expansion valve
	PS1.3	Pressure sensor
	CONT.B	Circuit board
		BC controller
	TB01	Terminal block (for power source)
	TB02	Terminal block (for Transmission)
	SV1-6A,B,C	Solenoid valve
	SVM1	Solenoid valve
	T1-6	Terminal
	F01	Fuse AC250V 6.3A F

Note: 1. TB02 is transmission terminal block.
Never connect power line to it.

2. The initial set values of switch on CONT.B are as follows.

SW1:0
SW2:0

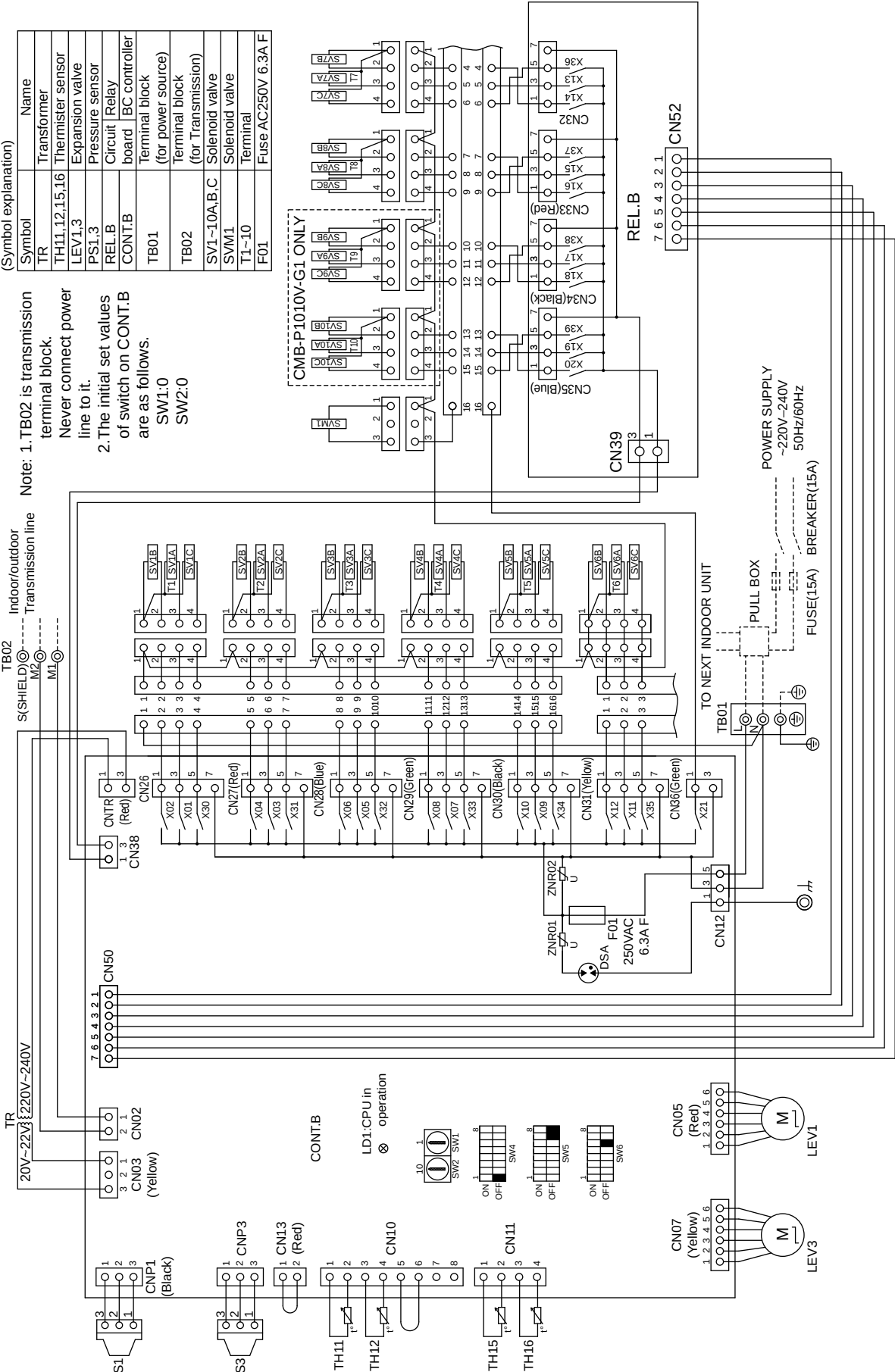


CMB-P108,1010V-G1

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit Relay
CONT.B	board BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~10A,B,C	Solenoid valve
SVM1	Solenoid valve
T1~10	Terminal
F01	Fuse AC250V 6.3A F

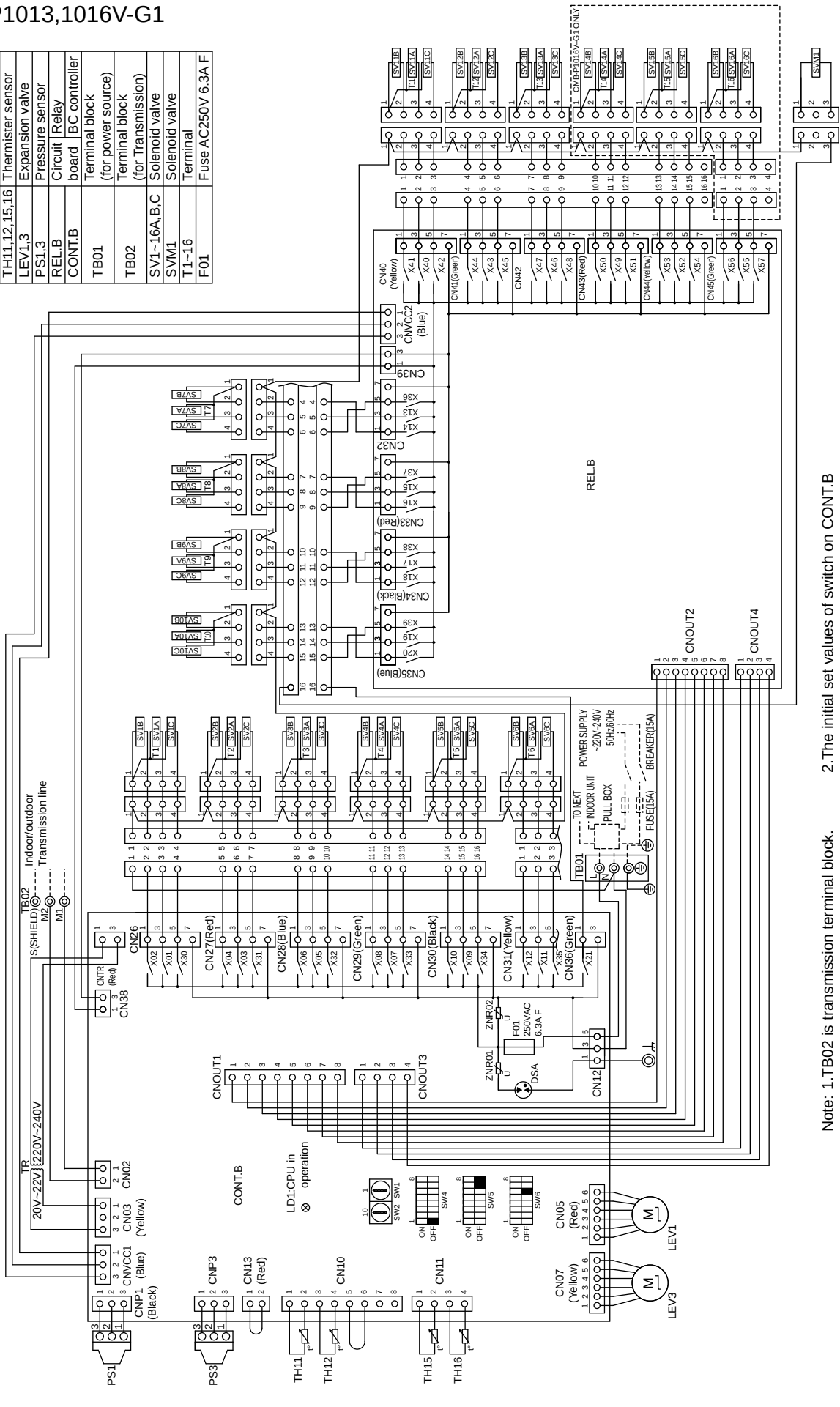
Note: 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows.
SW1:0
SW2:0



CMB-P1013,1016V-G1

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit Relay
CONT.B	board IC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1-16A,B,C	Solenoid valve
SVM1	Solenoid valve
T1-16	Terminal
F01	Fuse AC250V 6.3A F



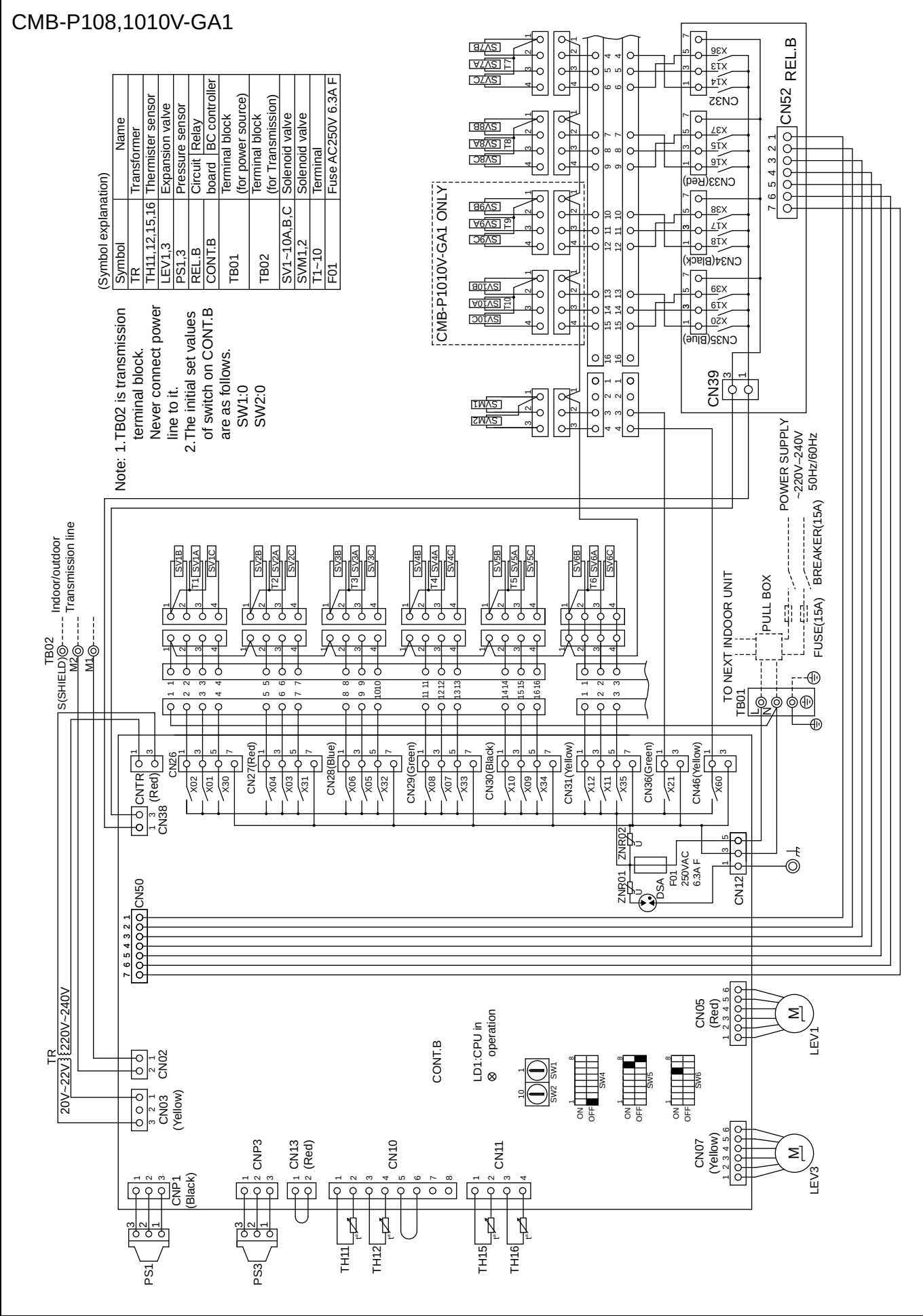
Note: 1. TB02 is transmission terminal block.
Never connect power line to it.

2. The initial set values of switch on CONT.B
are as follows.
SW1:0
SW2:0

CMB-P108,1010V-GA1

(Symbol explanation)	
Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit Relay
CONT.B	BC controller board
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~10A,B,C	Solenoid valve
SVM1,2	Solenoid valve
T1~10	Terminal
F01	Fuse AC250V 6.3A F

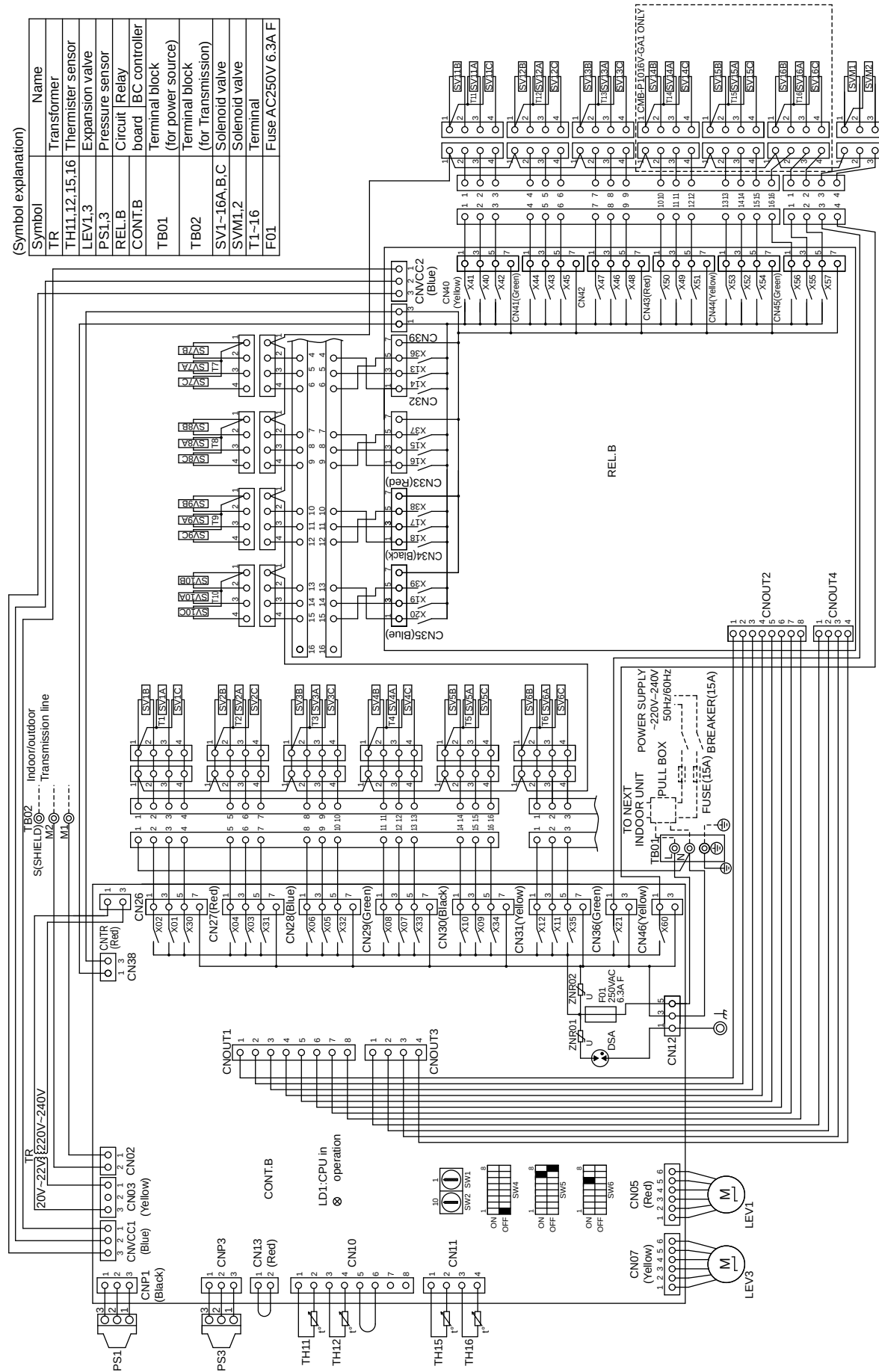
Note: 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows.
SW1:0
SW2:0



CMB-P1013,1016V-GA1

(Symbol explanation)

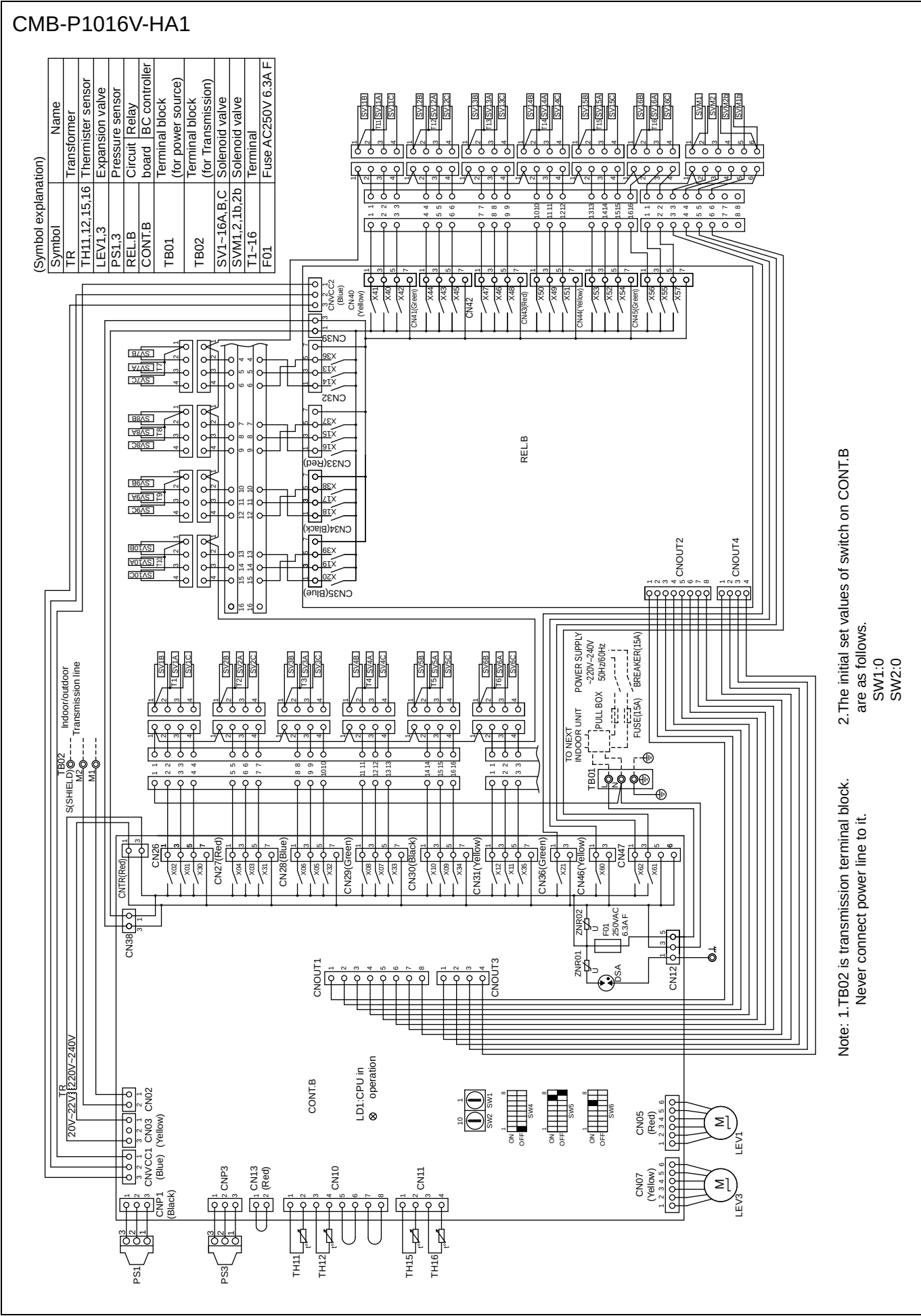
Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit Relay
CONT.B	board IC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1-16A,B,C	Solenoid valve
SVM1,2	Solenoid valve
T1-16	Terminal
F01	Fuse AC250V 6.3A F



Note: 1. TB02 is transmission terminal block.
Never connect power line to it.

2. The initial set values of switch on CONT.B
are as follows.
SW1:0
SW2:0

CMB-P1016V-HA1



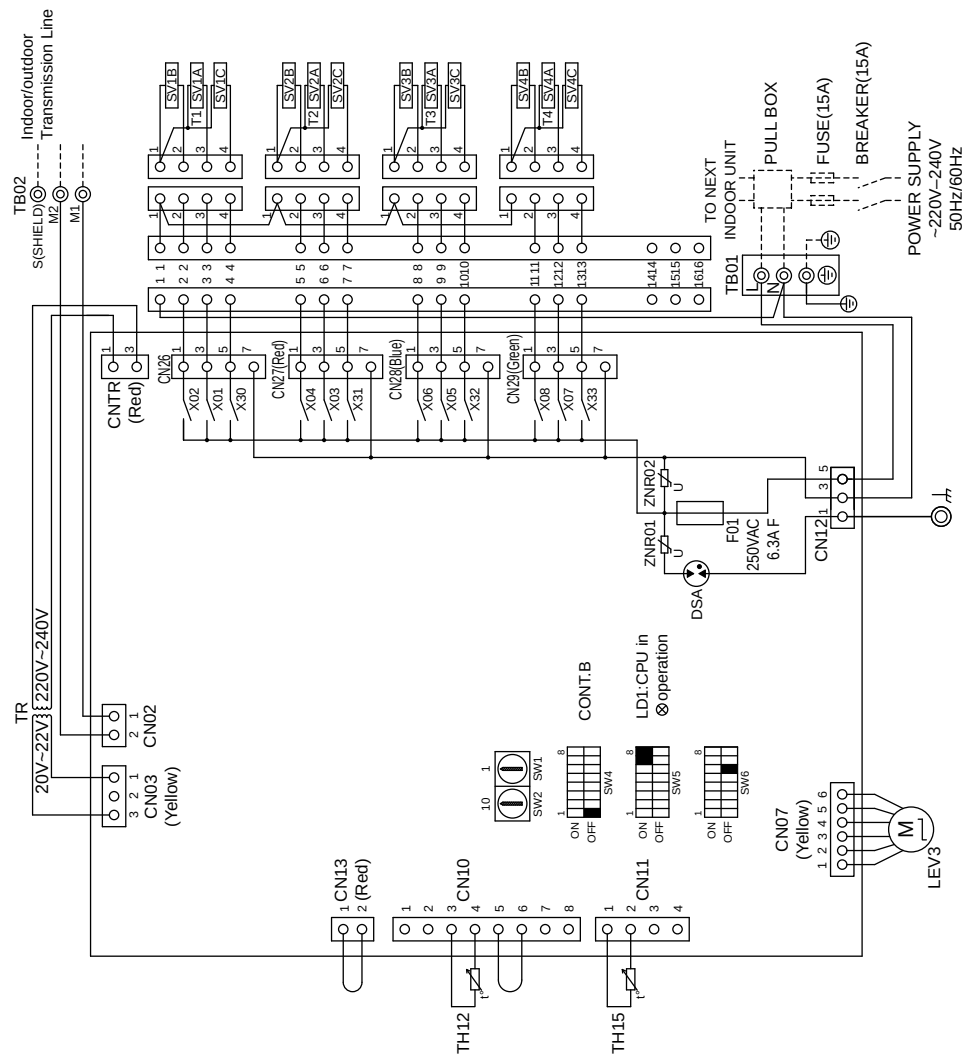
Note: 1. TB02 is transmission terminal block.
Never connect power line to it.

2. The initial set values of switch on CONT.B
are as follows.
SW1:0
SW2:0

CMB-P104V-GB1

(Symbol explanation)	
Symbol	Name
TR	Transformer
TH12.15	Thermister sensor
LEV3	Expansion valve
CONT.B	Circuit BC controller board
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1-4A,B,C	Solenoid valve
T1-4	Terminal
F01	Fuse AC250V 6.3A F

Note: 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows.
SW1:0
SW2:0

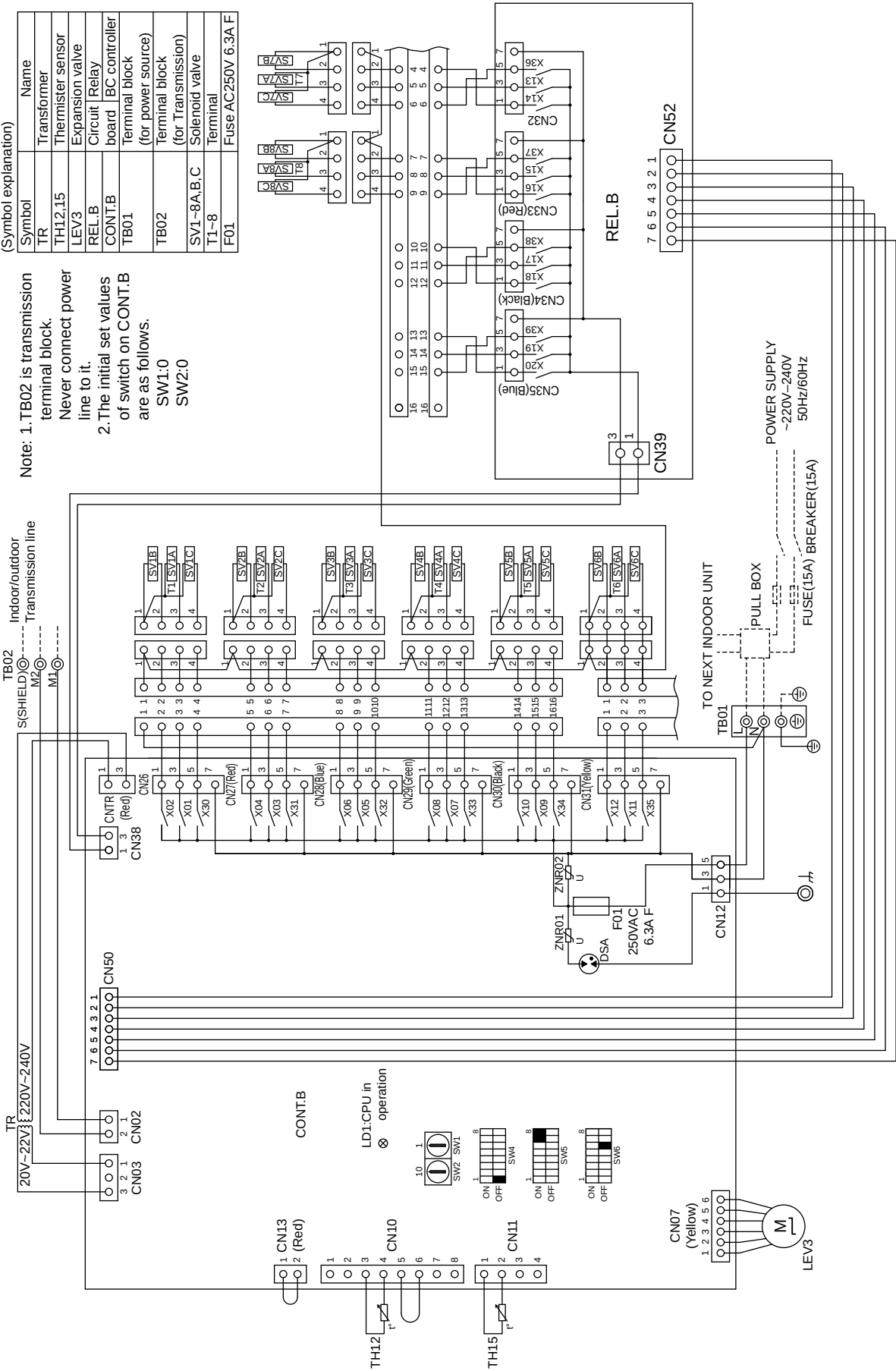


CMB-P108V-GB1

(Symbol explanation)

Symbol	Name
TR	Transformer
TH12.15	Thermister sensor
LEV3	Expansion valve
REL.B	Circuit Relay
CONT.B	board
TB01	BC controller
TB02	Terminal block (for power source)
SV1-8A,B,C	Terminal block (for Transmision)
T1-8	Solenoid valve
F01	Terminal
	Fuse AC250V 6.3A F

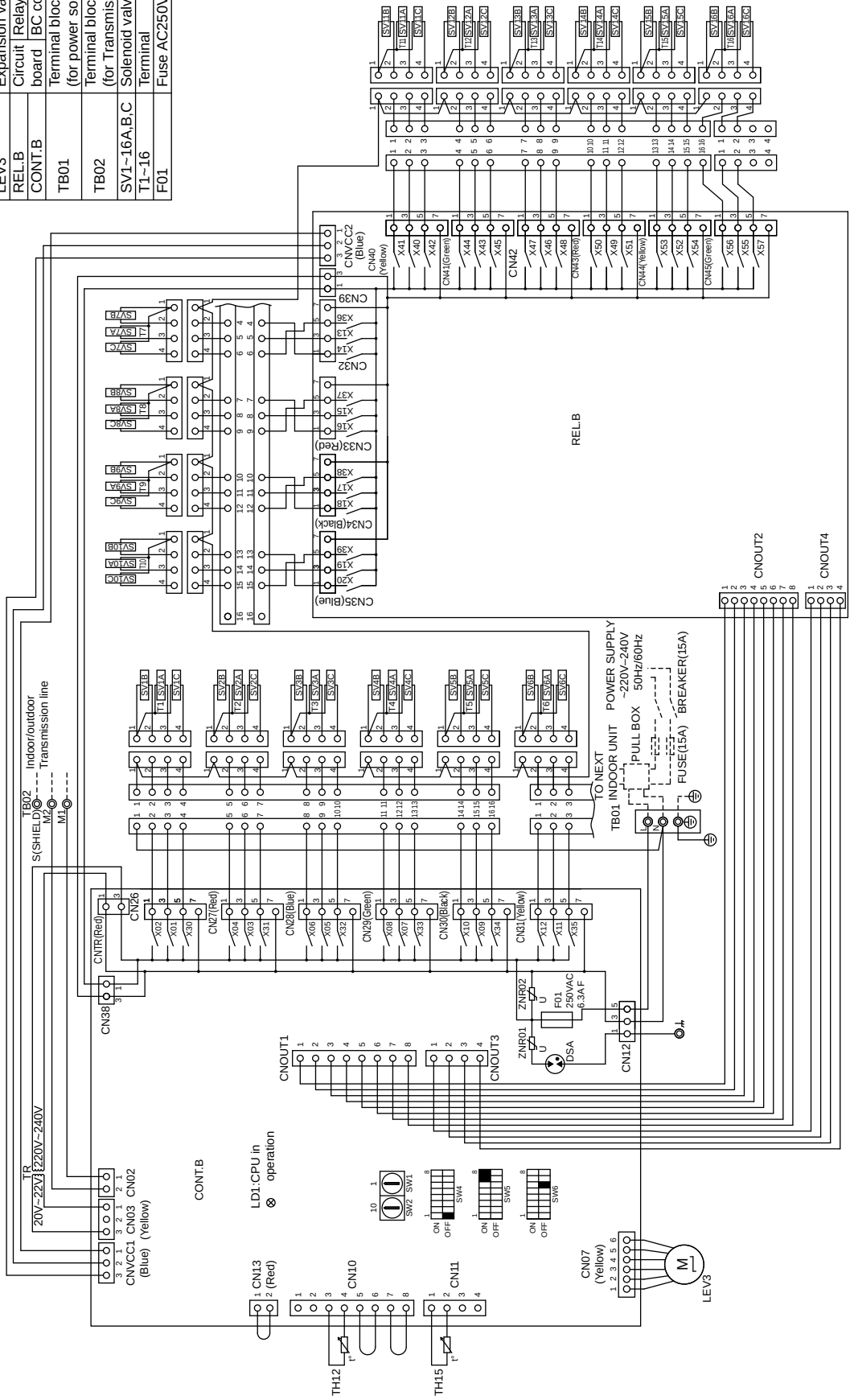
Note: 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT.B are as follows.
SW1:0
SW2:0



CMB-P1016V-HB1

(Symbol explanation)

Symbol	Name
TR	Transformer
TH12.15	Thermister sensor
LEV3	Expansion valve
REL.B	Circuit Relay
CONT.B	board BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~16A,B,C	Solenoid valve
F01	Fuse AC250V 6.3A F



Note: 1. TB02 is transmission terminal block.
Never connect power line to it.

2. The initial set values of switch on CONT.B
are as follows.
SW1:0
SW2:0

