

AIR CONDITIONING SYSTEMS

CITY MULTI

DATA BOOK

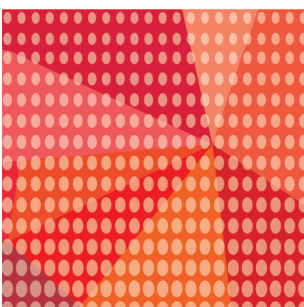
MODEL

CMB-P-V-J

CMB-P-V-JA

CMB-P-V-KA

CMB-P-V-KB



CMB-P-V-J, CMB-P-V-JA, CMB-P-V-KA, CMB-P-V-KB

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1. SPECIFICATIONS

Indoor units

Model			CMB-P104V-J		
Number of branch			4		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.067/0.076/0.085		0.054/0.061/0.067
	Heating	kW	0.030/0.034/0.038		0.024/0.027/0.030
Current input	Cooling	A	0.31/0.34/0.36		0.25/0.27/0.28
	Heating	A	0.14/0.15/0.16		0.11/0.12/0.13
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 596 x 495		
		in.	9-11/16 x 23-1/2 x 19-1/2		
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity	High press. pipe		Low press. pipe
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) 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	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.)
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	23 (51)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor/Heat source unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor/Heat source unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories		Drain Connection pipe, Washer, Tie band			
Remarks					

Notes:

- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
- 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

1. SPECIFICATIONS

Indoor units

Model			CMB-P106V-J		
Number of branch			6		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.097/0.110/0.123		0.078/0.088/0.097
	Heating	kW	0.045/0.051/0.057		0.036/0.041/0.045
Current input	Cooling	A	0.45/0.48/0.52		0.36/0.39/0.41
	Heating	A	0.21/0.23/0.24		0.17/0.18/0.19
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D			mm	246 x 596 x 495	
			in.	9-11/16 x 23-1/2 x 19-1/2	
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) 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	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.)	
Field drain pipe size			mm (in.)	O.D. 32 (1-1/4)	
Net weight			kg (lbs)	27 (60)	
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:

- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
- 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

1. SPECIFICATIONS

Indoor units

Model			CMB-P108V-J		
Number of branch			8		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.127/0.144/0.161		0.102/0.115/0.127
	Heating	kW	0.060/0.068/0.076		0.048/0.054/0.060
Current input	Cooling	A	0.58/0.63/0.68		0.47/0.50/0.53
	Heating	A	0.28/0.30/0.32		0.22/0.24/0.25
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 596 x 495		
		in.	9-11/16 x 23-1/2 x 19-1/2		
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13 To indoor unit	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
				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	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.)	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	31 (69)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories		Drain Connection pipe, Washer, Tie band			
Remarks					

- Notes:
- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
 - 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
 - 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
 - 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
 - 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
 - 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
 - 10.This unit is not designed for outside installations.
 - 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
 - 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
 - 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
 - 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

1. SPECIFICATIONS

Indoor units

Model			CMB-P1012V-J		
Number of branch			12		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.186/0.211/0.236		0.150/0.168/0.186
	Heating	kW	0.090/0.102/0.114		0.072/0.081/0.090
Current input	Cooling	A	0.85/0.92/0.99		0.69/0.74/0.78
	Heating	A	0.42/0.44/0.48		0.33/0.36/0.38
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D			mm	246 x 911 x 639	
			in.	9-11/16 x 35-7/8 x 25-3/16	
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13 To indoor unit	Liquid pipe		Gas pipe	
		mm (in.) O.D.	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		bigger than 50 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
Field drain pipe size			mm (in.)	O.D. 32 (1-1/4)	
Net weight			kg (lbs)	46 (102)	
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories			Drain Connection pipe, Washer, Tie band		
Remarks					

Notes:

- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
- 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

1. SPECIFICATIONS

Indoor units

Model			CMB-P1016V-J		
Number of branch			16		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.246/0.279/0.312		0.198/0.222/0.246
	Heating	kW	0.119/0.135/0.151		0.096/0.108/0.119
Current input	Cooling	A	1.12/1.22/1.30		0.90/0.97/1.03
	Heating	A	0.55/0.59/0.63		0.44/0.47/0.50
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P200 to P350		
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)		
External dimension H x W x D		mm	246 x 1,135 x 639		
		in.	9-11/16 x 44-11/16 x 25-3/16		
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
	*13 To indoor unit	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	Liquid pipe Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		Gas pipe 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.)
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	56 (124)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories		Drain Connection pipe, Washer, Tie band			
Remarks					

- Notes:
- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
 - 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
 - 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
 - 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
 - 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
 - 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
 - 10.This unit is not designed for outside installations.
 - 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
 - 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
 - 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
 - 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

1. SPECIFICATIONS

Indoor units

Model			CMB-P108V-JA			
Number of branch			8			
Power source			1-phase 220-230-240 V			
			50Hz	60Hz		
Power input	Cooling	kW	0.127/0.144/0.161		0.102/0.115/0.127	
	Heating	kW	0.060/0.068/0.076		0.048/0.054/0.060	
Current input	Cooling	A	0.58/0.63/0.68		0.47/0.50/0.53	
	Heating	A	0.28/0.30/0.32		0.22/0.24/0.25	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P900			
Indoor unit capacity connectable to 1 branch			*12 Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 911 x 639			
		in.	9-11/16 x 35-7/8 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
	*13	mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
		mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed
		*13	mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
			mm (in.) O.D.	P850/P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) 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	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.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
			mm (in.) O.D.	to P200	9.52 (3/8) Brazed	19.05 (3/4) Brazed
			mm (in.) O.D.	P201 to P300	9.52 (3/8) Brazed	22.2 (7/8) Brazed
			mm (in.) O.D.	P301 to P350	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P351 to P400	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P401 to P600	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P601 to P650	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P651 to P800	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
		mm (in.) O.D.	P1001 or above	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	45 (100)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	62(When P250 Outdoor/Heat source unit connected),65(P450),68(P700),69(P900)			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	44(When P250 Outdoor/Heat source unit connected),47(P450),50(P700),51(P900)			
	Defrost	dB <A>	56			
Accessories		Drain Connection pipe, Washer, Tie band				
Remarks						

Notes:

- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
- 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

BC controller

1. SPECIFICATIONS

Indoor units

Model			CMB-P1012V-JA			
Number of branch			12			
Power source			1-phase 220-230-240 V			
			50Hz	60Hz		
Power input	Cooling	kW	0.186/0.211/0.236		0.150/0.168/0.186	
	Heating	kW	0.090/0.102/0.114		0.072/0.081/0.090	
Current input	Cooling	A	0.85/0.92/0.99		0.69/0.74/0.78	
	Heating	A	0.42/0.44/0.48		0.33/0.36/0.38	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P900			
Indoor unit capacity connectable to 1 branch			*12 Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 1,135 x 639			
		in.	9-11/16 x 44-11/16 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe	
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
		*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
		*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed
		*13	mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
			mm (in.) O.D.	P850/P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed
	To indoor unit		Liquid pipe	Gas pipe		
			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		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.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
			to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
			P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
			P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
		P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	56 (124)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	62(When P250 Outdoor/Heat source unit connected),65(P450),68(P700),69(P900)			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	44(When P250 Outdoor/Heat source unit connected),47(P450),50(P700),51(P900)			
	Defrost	dB <A>	56			
Accessories		Drain Connection pipe, Washer, Tie band				
Remarks						

Notes:					
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. Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.					
5. The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.					
6. The sound pressure level values were obtained at the location below 1.5m from the unit.					
7. The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.					
8. Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)					
9. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.					
10. This unit is not designed for outside installations.					
11. When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.					
12. Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.					
13. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.					
14. The ambient relative humidity of the BC controller needs to be kept below 80%.					

BC controller

1. SPECIFICATIONS

Indoor units

Model			CMB-P1016V-JA			
Number of branch			16			
Power source			1-phase 220-230-240 V			
			50Hz	60Hz		
Power input	Cooling	kW	0.246/0.279/0.312		0.198/0.222/0.246	
	Heating	kW	0.119/0.135/0.151		0.096/0.108/0.119	
Current input	Cooling	A	1.12/1.22/1.30		0.90/0.97/1.03	
	Heating	A	0.55/0.59/0.63		0.44/0.47/0.50	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P900			
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 1,135 x 639			
		in.	9-11/16 x 44-11/16 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe	
	*13	mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
		mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed or 34.93 (1-3/8) Brazed
		*13	mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
	mm (in.) O.D.	P850/P900	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed		
	To indoor unit		Liquid pipe		Gas pipe	
			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		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.)	
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe
			to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
			P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
			P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
		P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)			
Net weight		kg (lbs)	63 (139)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	62(When P250 Outdoor/Heat source unit connected),65(P450),68(P700),69(P900)			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	44(When P250 Outdoor/Heat source unit connected),47(P450),50(P700),51(P900)			
	Defrost	dB <A>	56			
Accessories		Drain Connection pipe, Washer, Tie band				
Remarks						

Notes:

- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
- 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
- 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
- 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

BC controller

1. SPECIFICATIONS

Indoor units

Model			CMB-P1016V-KA			
Number of branch			16			
Power source			1-phase 220-230-240 V			
			50Hz	60Hz		
Power input	Cooling	kW	0.246/0.279/0.312		0.198/0.222/0.246	
	Heating	kW	0.119/0.135/0.151		0.096/0.108/0.119	
Current input	Cooling	A	1.12/1.22/1.30		0.90/0.97/1.03	
	Heating	A	0.55/0.59/0.63		0.44/0.47/0.50	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P200 to P1100			
Indoor unit capacity connectable to 1 branch *12			Model P80 or smaller (Use optional joint pipe combing 2 branches when the total unit capacity exceeds P81.)			
External dimension H x W x D		mm	246 x 1,135 x 639			
		in.	9-11/16 x 44-11/16 x 25-3/16			
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe	
		mm (in.) O.D.	P200	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P250/P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
		*13	mm (in.) O.D.	P350	19.05 (3/4) Brazed or 22.2 (7/8) Brazed	
			mm (in.) O.D.	P400 to P500	22.2 (7/8) Brazed	
		*13	mm (in.) O.D.	P550	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
			mm (in.) O.D.	P600	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
		*13	mm (in.) O.D.	P650	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P700 to P800	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P850 to P1000	28.58 (1-1/8) Brazed	41.28 (1-5/8) Brazed	
		mm (in.) O.D.	P1050/P1100	34.93 (1-3/8) Brazed	41.28 (1-5/8) 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		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.)
	To other BC controller	Total down-stream Indoor unit capacity		High press. pipe	Liquid pipe	Low press. pipe
		mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
	Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
	Net weight		kg (lbs)	65 (144)		
	Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P300 Outdoor/Heat source unit connected),61(P550),63(P800),66(P1100)		
		Defrost	dB <A>	73		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P300 Outdoor/Heat source unit connected),43(P550),45(P800),48(P1100)			
	Defrost	dB <A>	55			
Accessories		Drain Connection pipe, Washer, Tie band				
Remarks						

- Notes:
- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
 - 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
 - 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
 - 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
 - 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
 - 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
 - 10.This unit is not designed for outside installations.
 - 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
 - 12.Indoor unit capacity connectable to 1 branch is changed depending on the indoor unit type and connection method. Please refer to the Installation Manual for more information.
 - 13.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.
 - 14.The ambient relative humidity of the BC controller needs to be kept below 80%.

BC controller

1. SPECIFICATIONS

Indoor units

Model			CMB-P104V-KB				
Number of branch			4				
Power source			1-phase 220-230-240 V				
			50Hz	60Hz			
Power input	Cooling	kW	0.060/0.068/0.076		0.048/0.054/0.060		
	Heating	kW	0.030/0.034/0.038		0.024/0.027/0.030		
Current input	Cooling	A	0.28/0.30/0.32		0.22/0.24/0.25		
	Heating	A	0.14/0.15/0.16		0.11/0.12/0.13		
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)				
Connectable Main BC controller			CMB-P108/1012/1016V-JA, CMB-P1016V-KA				
The maximum number of connectable Sub BC controllers			11				
The maximum connectable capacity of indoor units			P350 for each				
External dimension H x W x D		mm	246 x 596 x 495				
		in.	9-11/16 x 23-1/2 x 19-1/2				
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe		
			mm (in.) O.D.	-	-		
	To indoor unit		Liquid pipe		Gas pipe		
			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		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.)		
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe	Low press. pipe	
			mm (in.) O.D.	to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
			mm (in.) O.D.	P201 to P300	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
			mm (in.) O.D.	P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P351 to P400	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
		mm (in.) O.D.	P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)				
Net weight		kg (lbs)	21 (47)				
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor/Heat source unit connected),57(P250),59(P350)				
	Defrost	dB <A>	71				
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor/Heat source unit connected),39(P250),40(P350)				
	Defrost	dB <A>	53				
Accessories		Drain Connection pipe, Washer, Tie band					
Remarks							

Notes:					
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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.					
5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.					
6.The sound pressure level values were obtained at the location below 1.5m from the unit.					
7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.					
8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)					
9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.					
10.This unit is not designed for outside installations.					
11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.					
12.Can't use singleness. (MAIN BC CONTROLLER is necessary)					
13.The ambient relative humidity of the BC controller needs to be kept below 80%.					

BC controller

1. SPECIFICATIONS

Indoor units

Model			CMB-P108V-KB		
Number of branch			8		
Power source			1-phase 220-230-240 V		
			50Hz	60Hz	
Power input	Cooling	kW	0.119/0.135/0.151		0.096/0.108/0.119
	Heating	kW	0.060/0.068/0.076		0.048/0.054/0.060
Current input	Cooling	A	0.55/0.59/0.63		0.44/0.47/0.50
	Heating	A	0.28/0.30/0.32		0.22/0.24/0.25
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable Main BC controller			CMB-P108/1012/1016V-JA, CMB-P1016V-KA		
The maximum number of connectable Sub BC controllers			11		
The maximum connectable capacity of indoor units			P350 for each		
External dimension H x W x D		mm	246 x 596 x 495		
		in.	9-11/16 x 23-1/2 x 19-1/2		
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity	High press. pipe	Low press. pipe
			mm (in.) O.D.	-	-
	To indoor unit		Liquid pipe		Gas pipe
			Indoor unit Model 50 or smaller 6.35 (1/4) Brazed bigger than 50 9.52 (3/8) Brazed		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.)
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe
			to P200	15.88 (5/8) Brazed	9.52 (3/8) Brazed
			P201 to P300	19.05 (3/4) Brazed	22.2 (7/8) Brazed
			P301 to P350	19.05 (3/4) Brazed	12.7 (1/2) Brazed
			P351 to P400	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
			P401 to P600	22.2 (7/8) Brazed	15.88 (5/8) Brazed
		P601 to P650	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	
		P651 to P800	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	
		P801 to P1000	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	
		P1001 or above	34.93 (1-3/8) Brazed	19.05 (3/4) Brazed	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		
Net weight		kg (lbs)	28 (62)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	56(When P200 Outdoor/Heat source unit connected),57(P250),59(P350)		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	38(When P200 Outdoor/Heat source unit connected),39(P250),40(P350)		
	Defrost	dB <A>	53		
Accessories		Drain Connection pipe, Washer, Tie band			
Remarks					

Notes:

- 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.Sound pressure/power level differs depending on the connected outdoor/heat source unit capacity or operation condition. The sound pressure/power level at the rated operation is the value of the cooling mode.
- 5.The sound pressure/power level values were obtained in an anechoic room. Actual sound pressure level is usually greater than that measured in anechoic room due to ambient noise and deflection sound.
- 6.The sound pressure level values were obtained at the location below 1.5m from the unit.
- 7.The solenoid valve switching sound is 56 dB (sound pressure level) regardless of the unit model.
- 8.Indoor units P100, P125, P140 can be connected to 1 branch. (In this case, cooling capacity decreases a little.)
- 9.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 10.This unit is not designed for outside installations.
- 11.When blazing the pipes, be sure to blaze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 12.Can't use singleness. (MAIN BC CONTROLLER is necessary)
- 13.The ambient relative humidity of the BC controller needs to be kept below 80%.

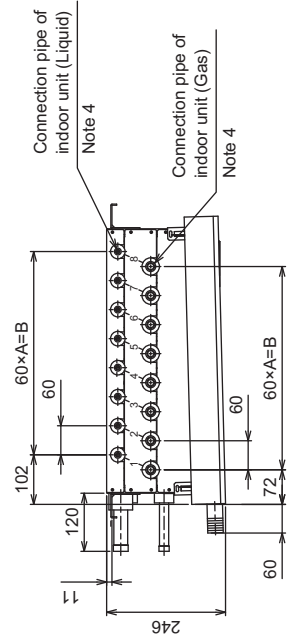
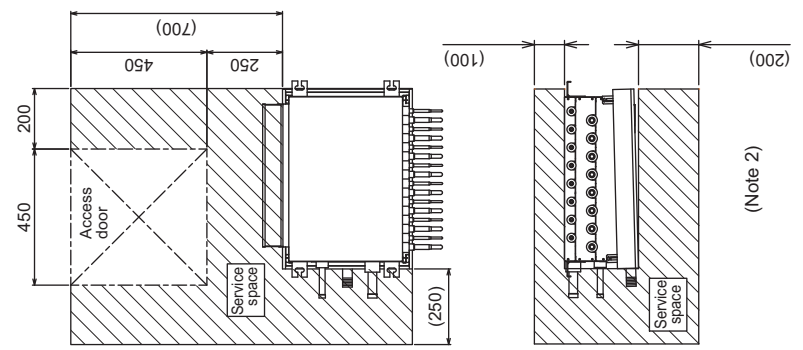
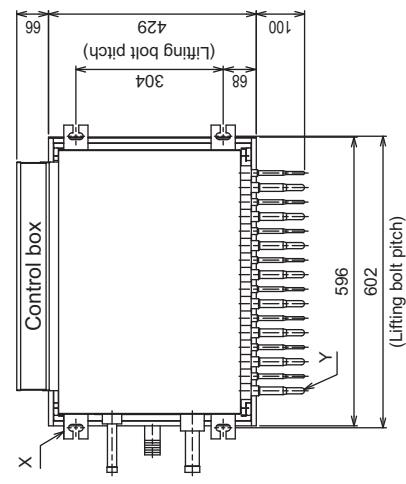
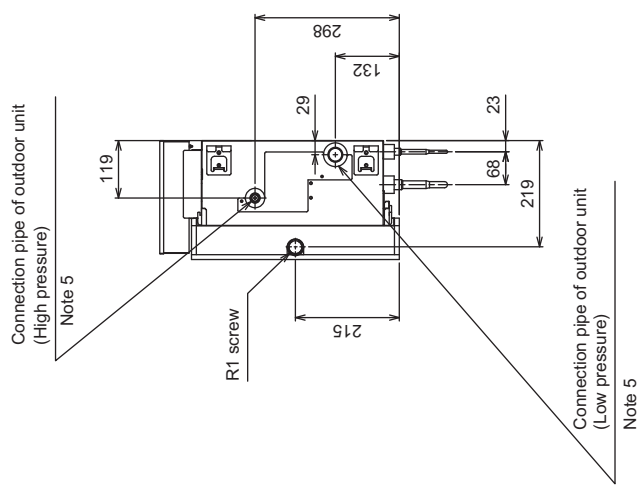
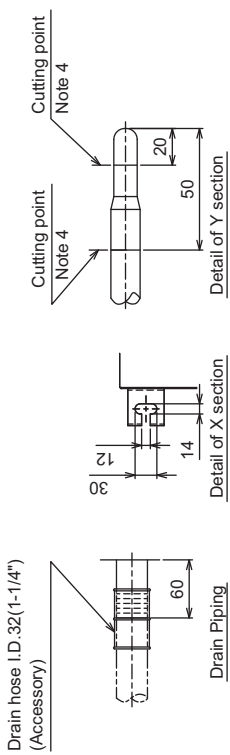
BC controller

CMB-P104, 106, 108V-J

Unit: mm

- <Accessories>
- Drain hose I.D.32(1-1/4") 1pc.
 - Tie band 3pcs.
 - Square washer (with cushion) 4pcs.
 - Square washer 4pcs.

- Note 1. Suspension bolt(φ10) 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. 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. Refer to the Installation Manual for refrigerant piping diameter size when connecting plural indoor units with 1 branch.
 5. Refer to the Installation Manual for connection pipe of outdoor unit diameter size.
 6. Refer to the Installation Manual for insulation of connection pipe and drain piping.
 7. Refer to the Installation Manual for Installation of drain pan.
 8. Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.



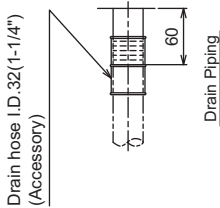
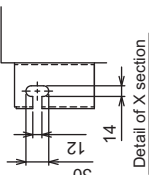
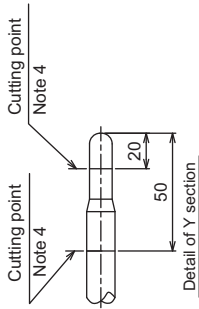
	A	B
CMB-P104V-J	3	180
CMB-P106V-J	5	300
CMB-P108V-J	7	420

CMB-P1012, 1016V-J

Unit: mm

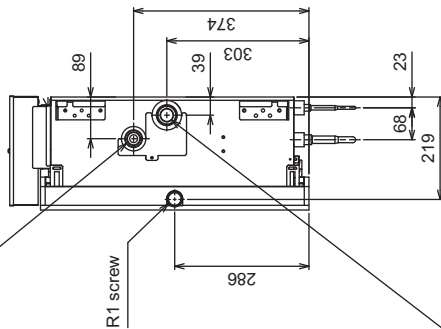
- <Accessories>
- Drain hose I.D.32(1-1/4") 1pc.
 - Tie band 3pcs.
 - Square washer (with cushion) 4pcs.
 - Square washer 4pcs.

- Note 1. Suspension bolt(φ10) and nut(M10) prepare in the field.
- Note 2. Take notice of service space as follows.
(Please give attention not to occupy service space by letting ducts and pipes through.)
- Note 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.)
- Note 4. Refer to the Installation Manual for refrigerant piping diameter size when connecting plural indoor units with 1 branch.
- Note 5. Refer to the Installation Manual for connection pipe of outdoor unit diameter size.
- Note 6. Refer to the Installation Manual for insulation of connection pipe and drain piping.
- Note 7. Refer to the Installation Manual for installation of drain pan.
- Note 8. Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.



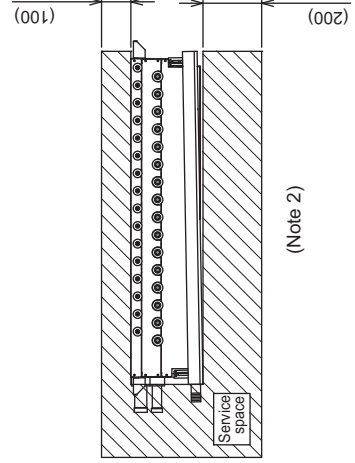
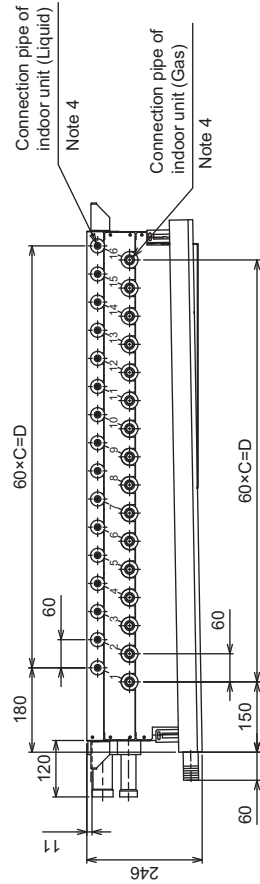
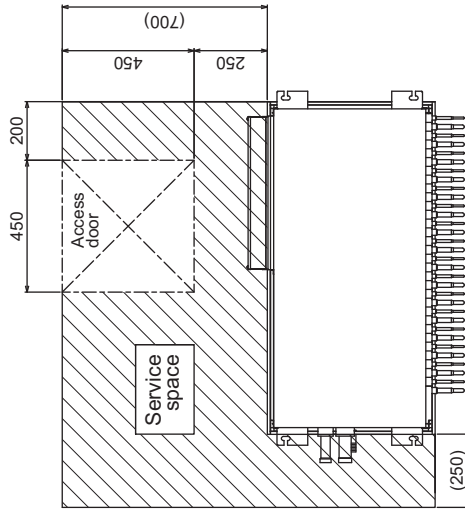
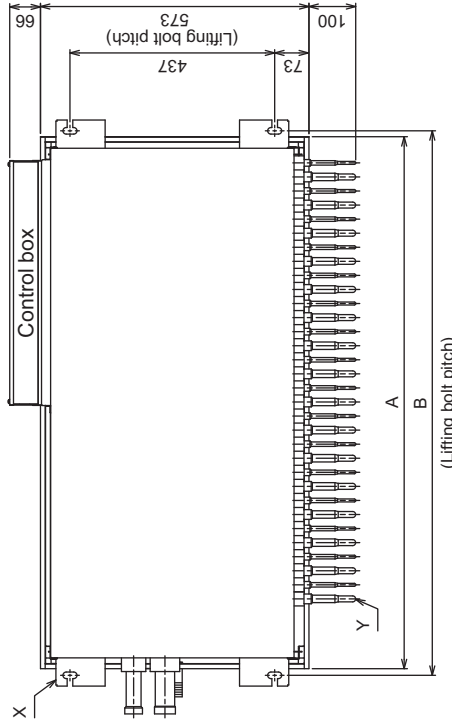
Connection pipe of outdoor unit (High pressure)

Note 5



Connection pipe of outdoor unit (Low pressure)

Note 5



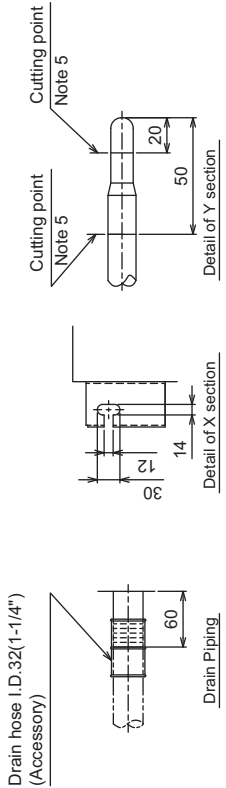
	A	B	C	D
CMB-P1012V-J	911	938	11	660
CMB-P1016V-J	1135	1161	15	900

CMB-P108, 1012, 1016V-JA

Unit: mm

- <Accessories>
- Drain hose I.D.32(1-1/4") 1pc.
 - Tie band 3pcs.
 - Square washer (with cushion) 4pcs.
 - Square washer 4pcs.

- Note 1. Suspension bolt(φ10) 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.
 6. Refer to the Installation Manual for connection pipe of outdoor unit or SUB BC CONTROLLER diameter size.
 7. Refer to the Installation Manual for insulation of connection pipe and drain piping.
 8. Refer to the Installation Manual for Installation of drain pan.
 9. Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.



Drain hose I.D.32(1-1/4") (Accessory)

Drain Piping

Connection pipe of outdoor unit (High pressure)

Connection pipe of outdoor unit (Low pressure)

R1 screw

Note 6

Connection pipe of SUB BC CONTROLLER (High pressure)

Note 6

Connection pipe of SUB BC CONTROLLER (Liquid)

Note 6

65

73

278

357

66

573

437

73

100

Control box

(Lifting bolt pitch)

A

B

X

374

303

39

89

286

23

68

219

Note 6

Access door

450

200

250

250

700

Service space

300

Connection pipe of indoor unit (Liquid)

Note 5

120

60×C=D

60

180

166

11

246

Connection pipe of indoor unit (Gas)

Note 5

60

60×C=D

60

150

60

Service space

(100)

(200)

(Note 2.3)

	A	B	C	D
CMB-P108V-JA	911	938	7	420
CMB-P1012V-JA	1135	1161	11	660
CMB-P1016V-JA	1135	1161	15	900

BC controller

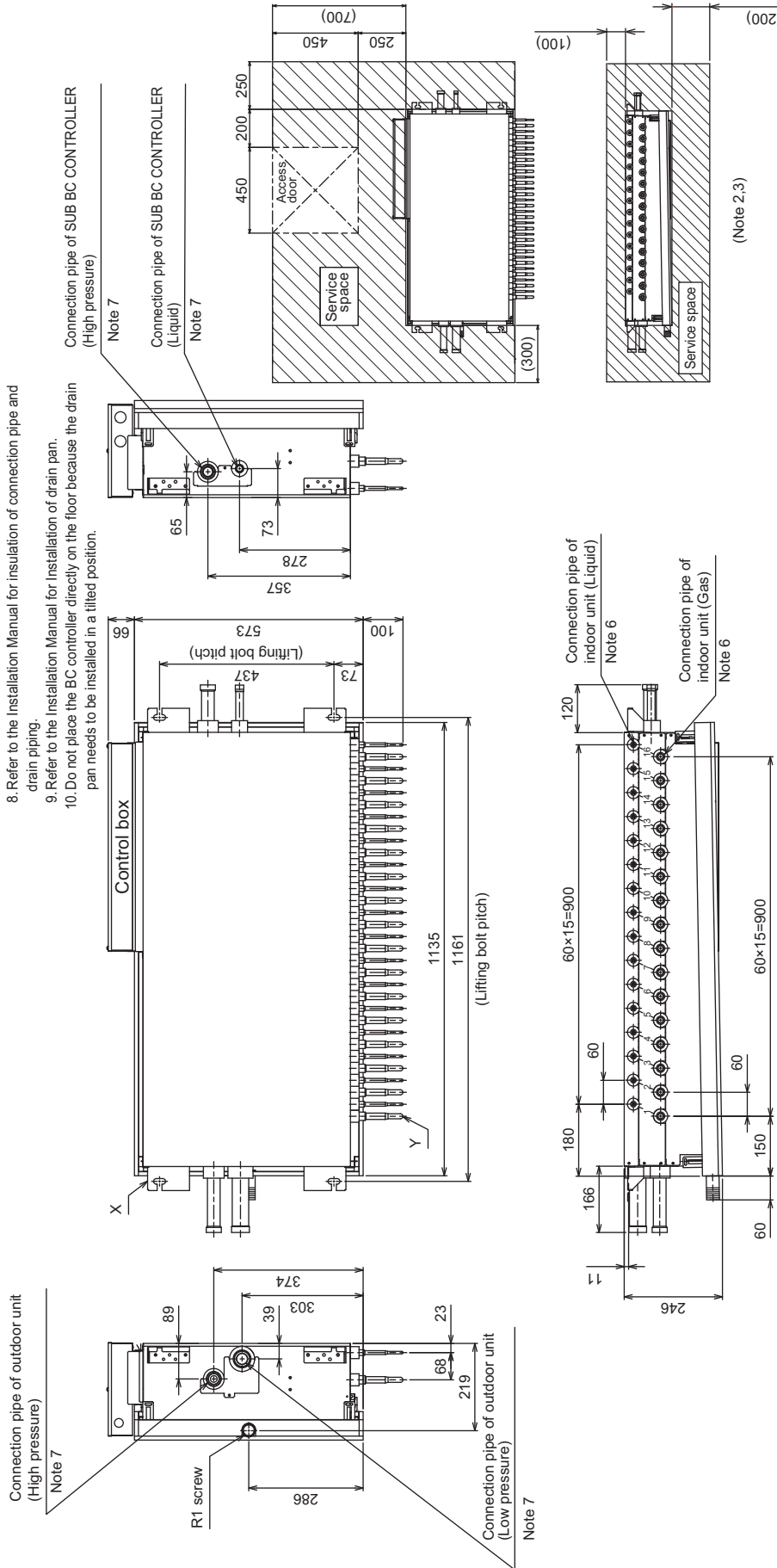
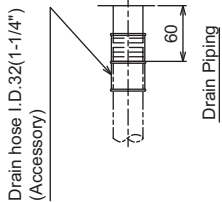
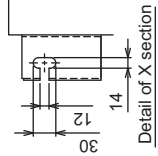
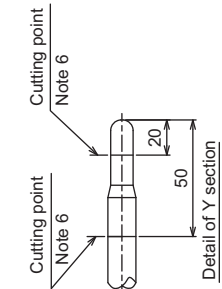
CMB-P1016V-KA

Unit: mm

BC controller

- <Accessories>
- Drain hose I.D. 32(1-1/4") 1pc.
 - Tie band 3pcs.
 - Square washer (with cushion) 4pcs.
 - Square washer 4pcs.

- Note 1. Suspension bolt(φ10) 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. When using an outdoor unit-38HP(P950) 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.
 7. Refer to the Installation Manual for connection pipe of outdoor unit or SUB BC CONTROLLER diameter size.
 8. Refer to the Installation Manual for insulation of connection pipe and drain piping.
 9. Refer to the Installation Manual for Installation of drain pan.
 10. Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.

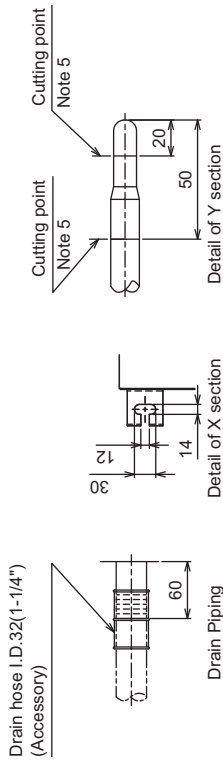


CMB-P104V-KB

Unit: mm

- <Accessories>
- Drain hose I.D.32(1-1/4") 1pc.
 - Tie band 3pcs.
 - Square washer (with cushion) 4pcs.
 - Square washer 4pcs.

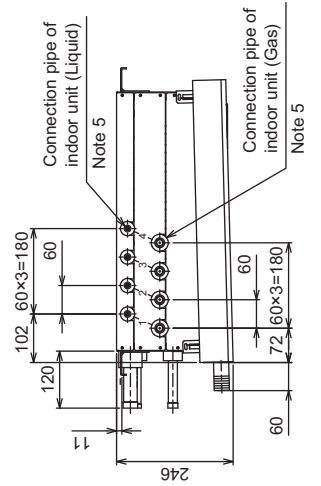
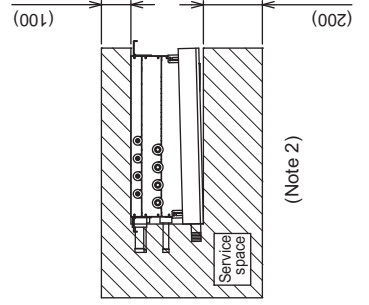
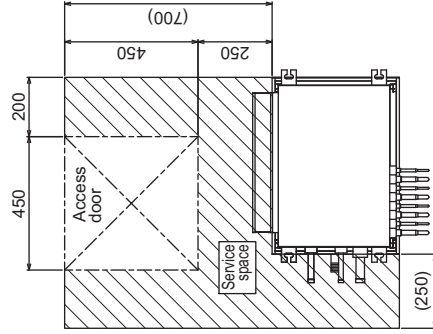
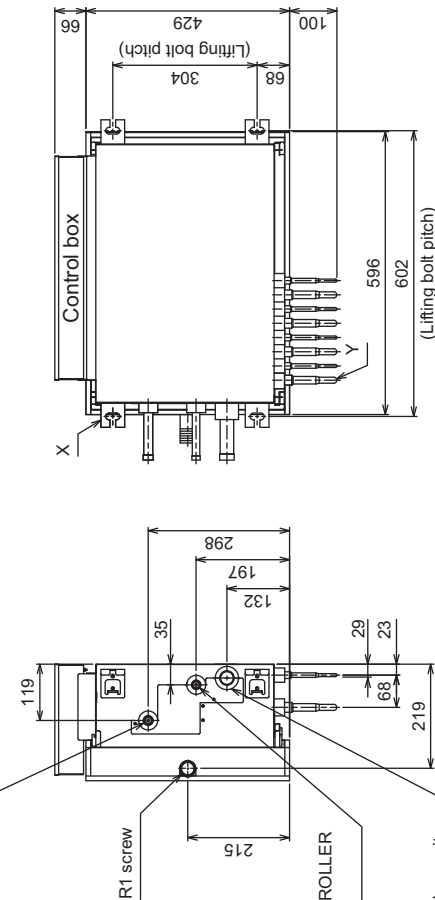
- Note 1. Suspension bolt(φ10) and nut(M10) prepare in the field.
 2. Take notice of service space as follows.
 (Please give attention not to occupy service space by letting ducts and pipes through.)
 3. Can't use singleness. (MAIN BC CONTROLLER is necessary.)
 4. Install this product in a location where 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.
 6. Refer to the Installation Manual for connection pipe of MAIN BC CONTROLLER or outdoor unit diameter size.
 7. Refer to the Installation Manual for insulation of connection pipe and drain piping.
 8. Refer to the Installation Manual for installation of drain pan.
 9. Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.



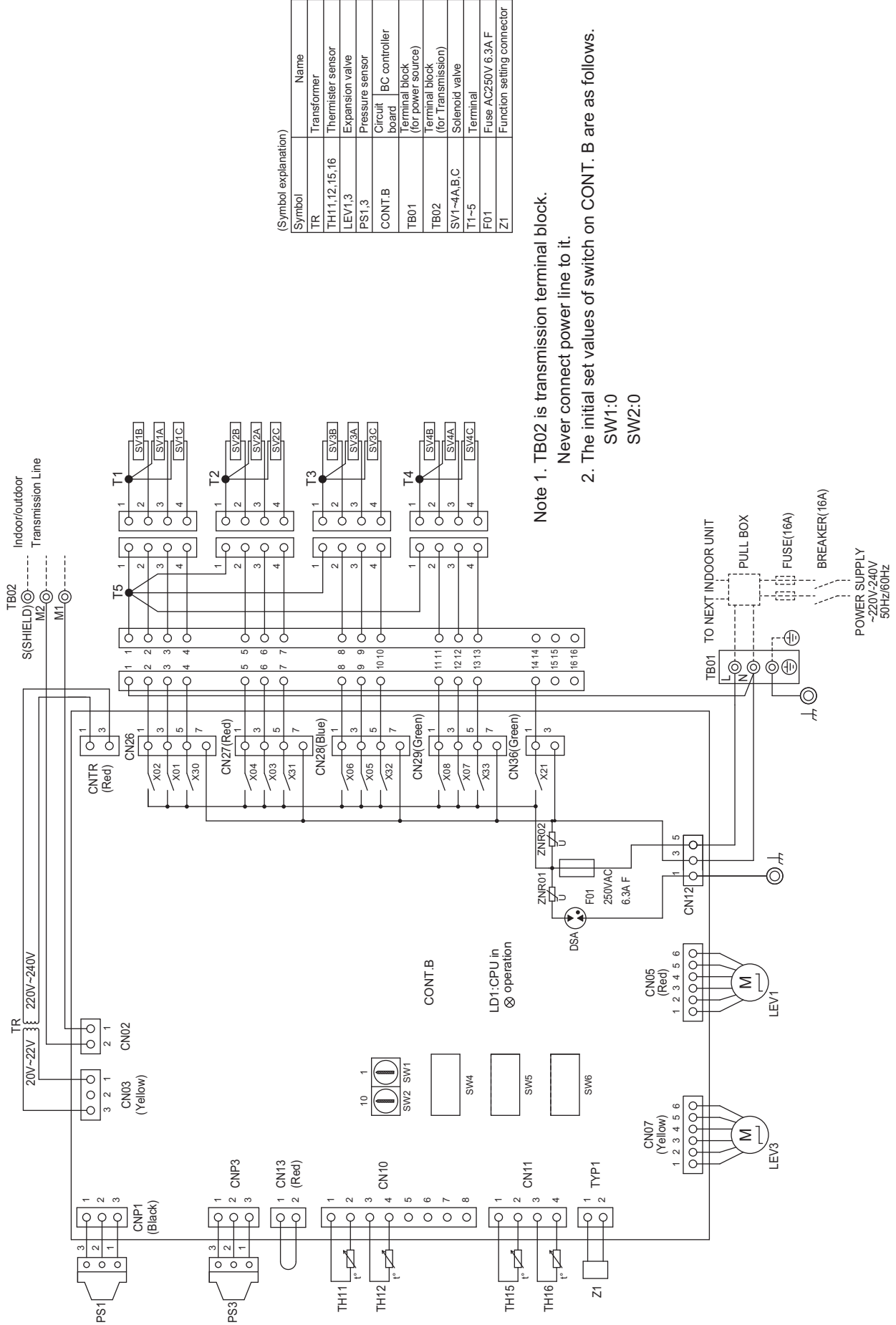
Connection pipe of MAIN BC CONTROLLER (High pressure)
 Note 6

Connection pipe of MAIN BC CONTROLLER (Liquid)
 Note 6

Connection pipe of outdoor unit (Low pressure)
 Note 6



CMB-P104V-J



(Symbol explanation)

Symbol	Name
TR	Transformer
TH1,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
CONT.B	Circuit BC controller board
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~4A,B,C	Solenoid valve
T1~5	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

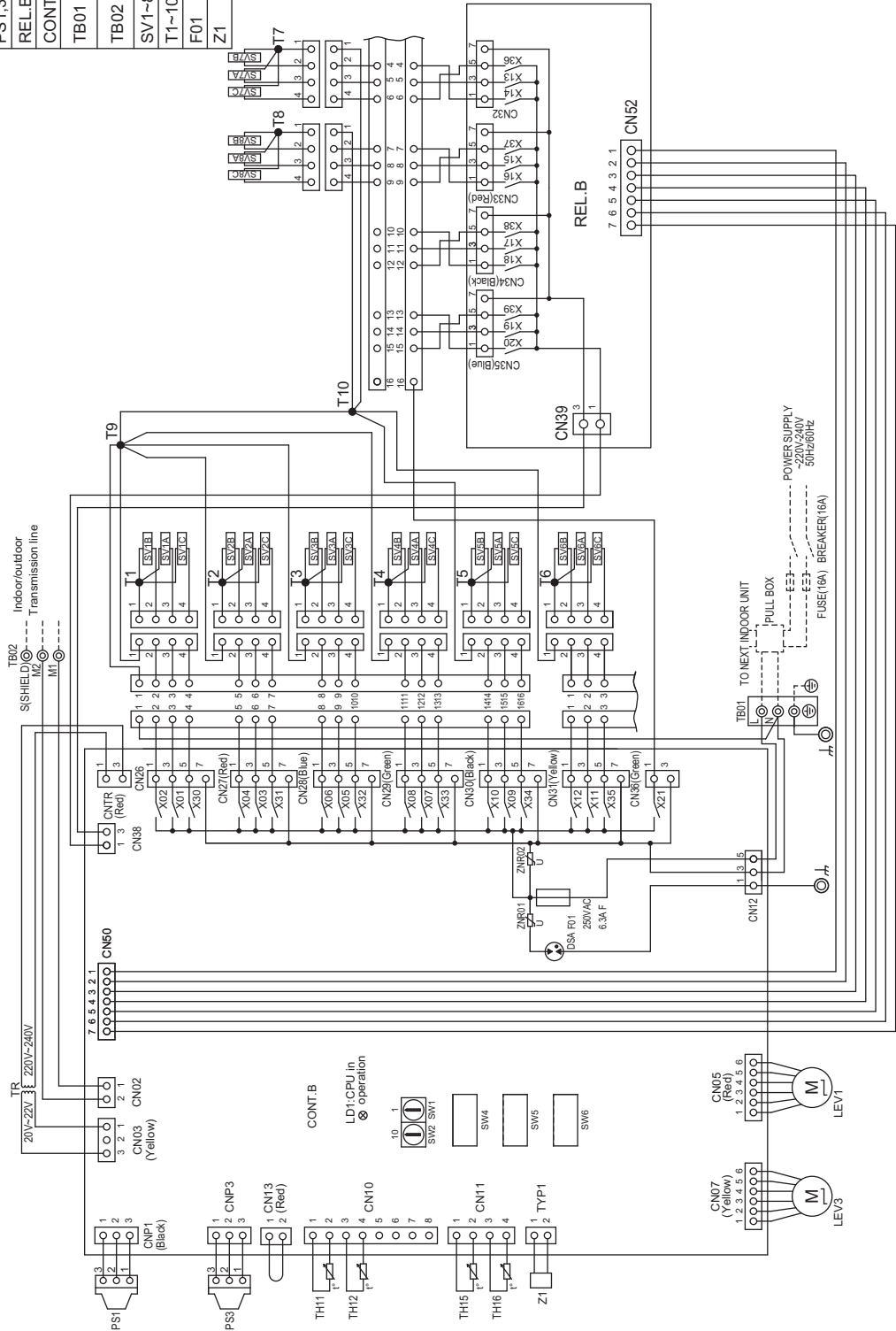
- Note 1. TB02 is transmission terminal block.
 Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
 SW1:0
 SW2:0

BC controller

CMB-P108V-J

(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)
	SV1~8A,B,C	Solenoid valve
	T1~10	Terminal
	F01	Fuse AC250V 6.3A F
	Z1	Function setting connector

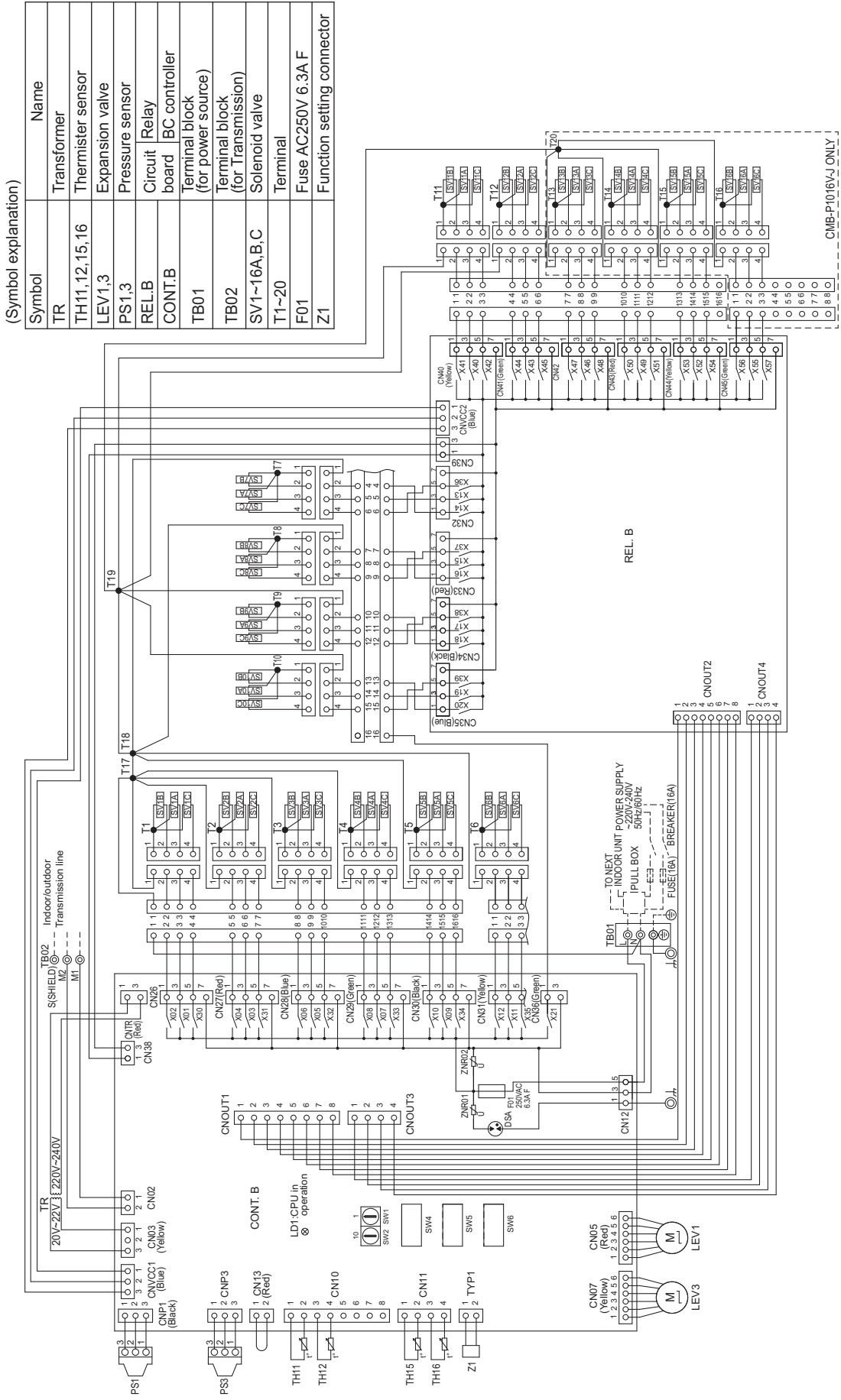
- Note 1. TB02 is transmission terminal block.
Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
SW1:0
SW2:0



BC controller

CMB-P1012,1016V-J

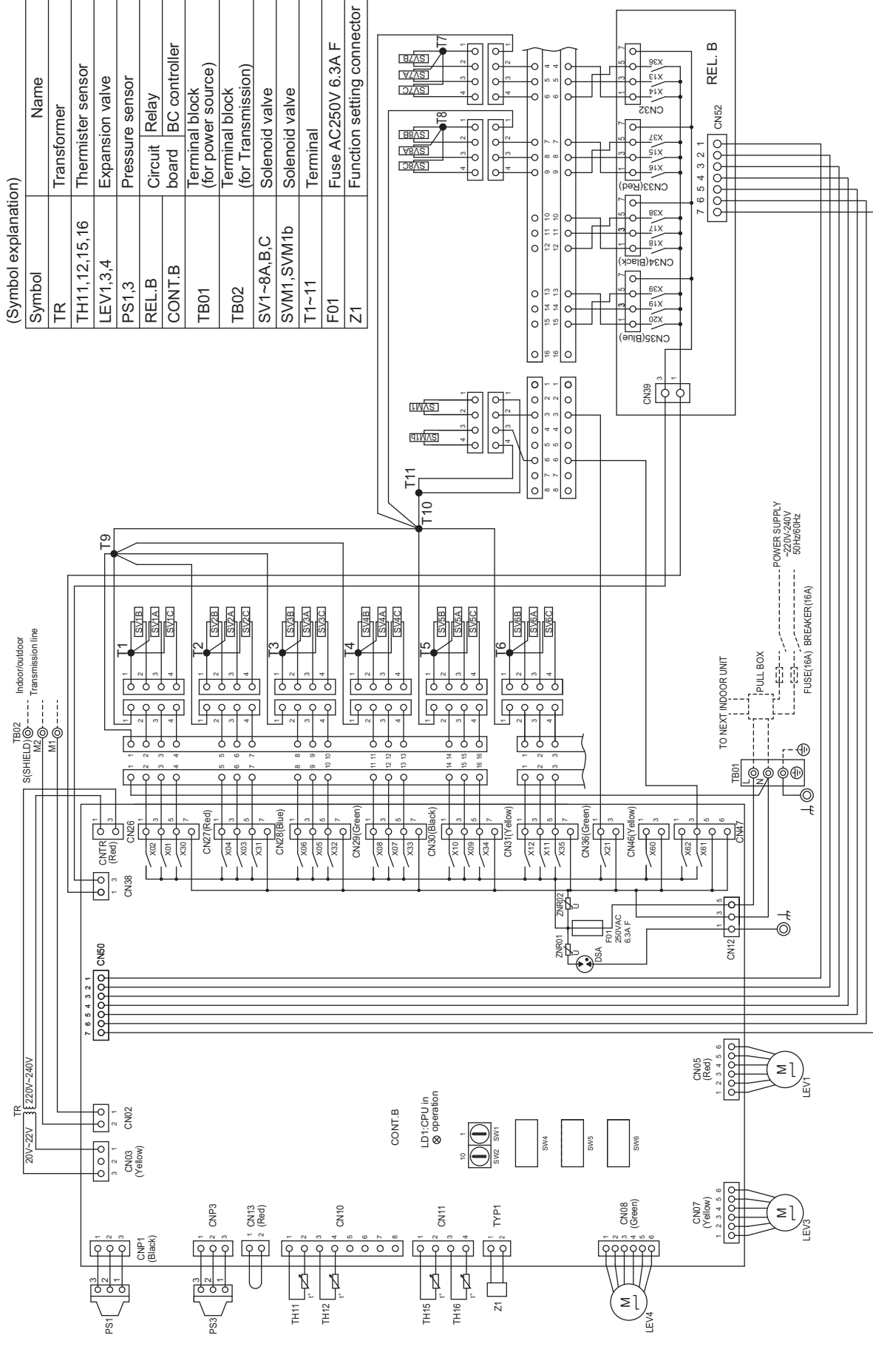
- Note 1. TB02 is transmission terminal block.
 Never connect power line to it.
 2. The initial set values of switch on CONT. B are as follows.
 SW1:0
 SW2:0



CMB-P108V-JA

(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3,4	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)
SV1~8A,B,C	Solenoid valve
SVM1,SVM1b	Solenoid valve
T1~11	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

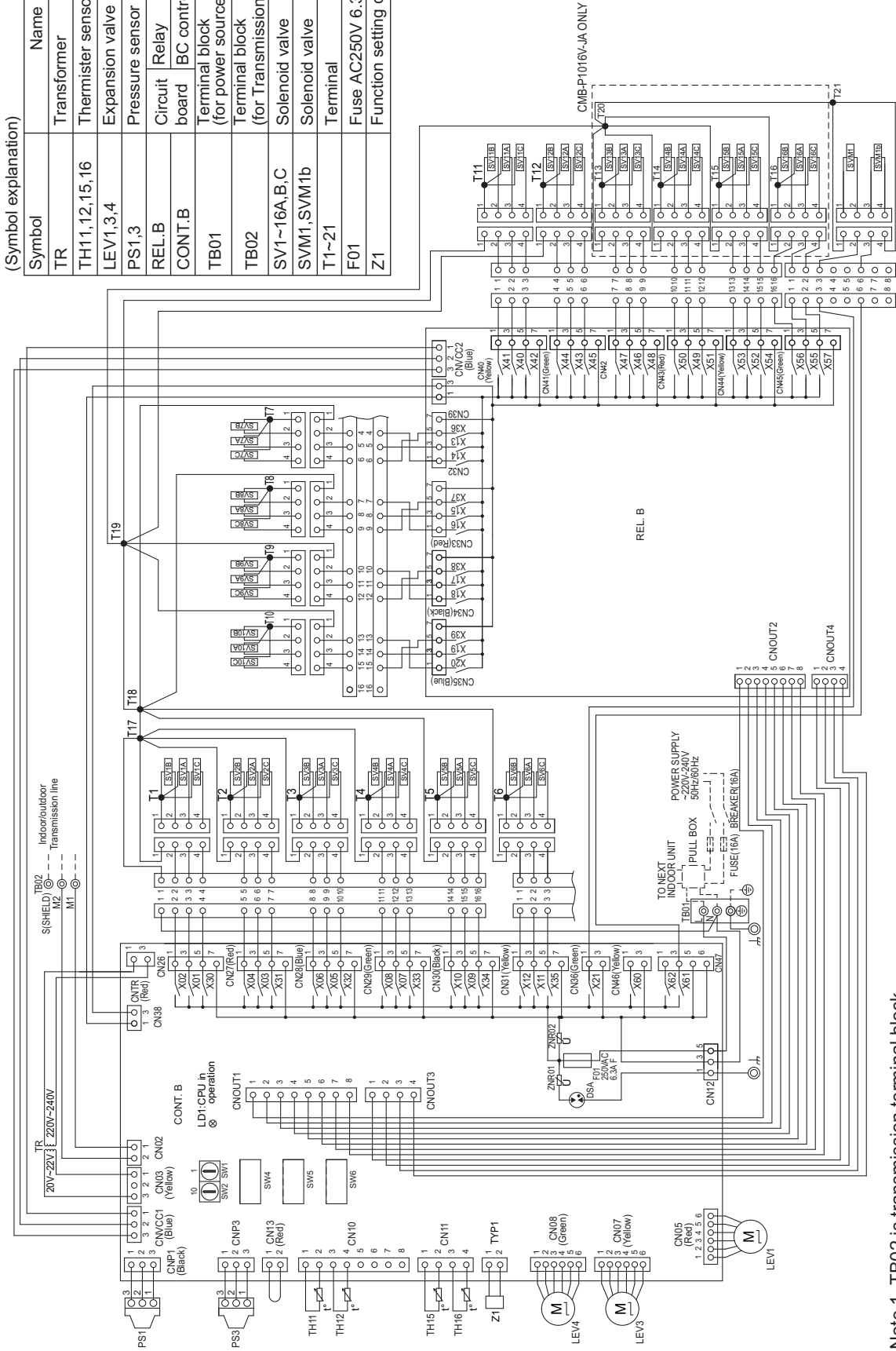


- Note 1. TB02 is transmission terminal block.
 Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
 SW1:0
 SW2:0

BC controller

CMB-P1012,1016V-JA

(Symbol explanation)	
Symbol	Name
TR	Transformer
TH11, 12, 15, 16	Thermister sensor
LEV1, 3, 4	Expansion valve
PS1, 3	Pressure sensor
REL.B	Circuit Relay board
CONT.B	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~16A,B,C	Solenoid valve
SVM1,SVM1b	Solenoid valve
T1~21	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector



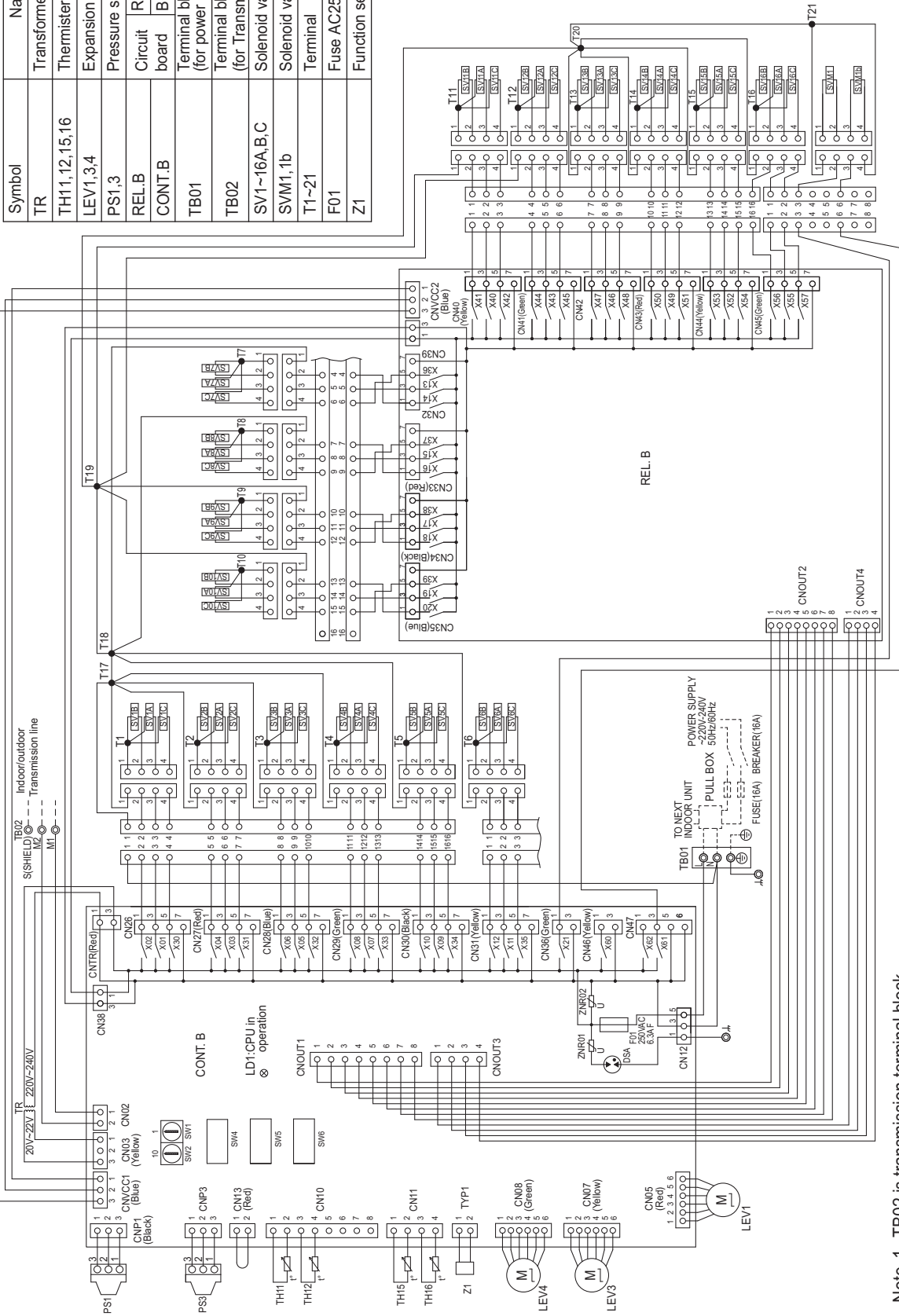
- Note 1. TB02 is transmission terminal block.
 Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
 SW1:0
 SW2:0

BC controller

CMB-P1016V-KA

(Symbol explanation)

Symbol	Name
TR	Transformer
TH1, 12, 15, 16	Thermister sensor
LEV1, 3, 4	Expansion valve
PS1, 3	Pressure sensor
REL.B	Relay
CONT.B	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~16A, B, C	Solenoid valve
SVM1, 1b	Solenoid valve
T1~21	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector



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

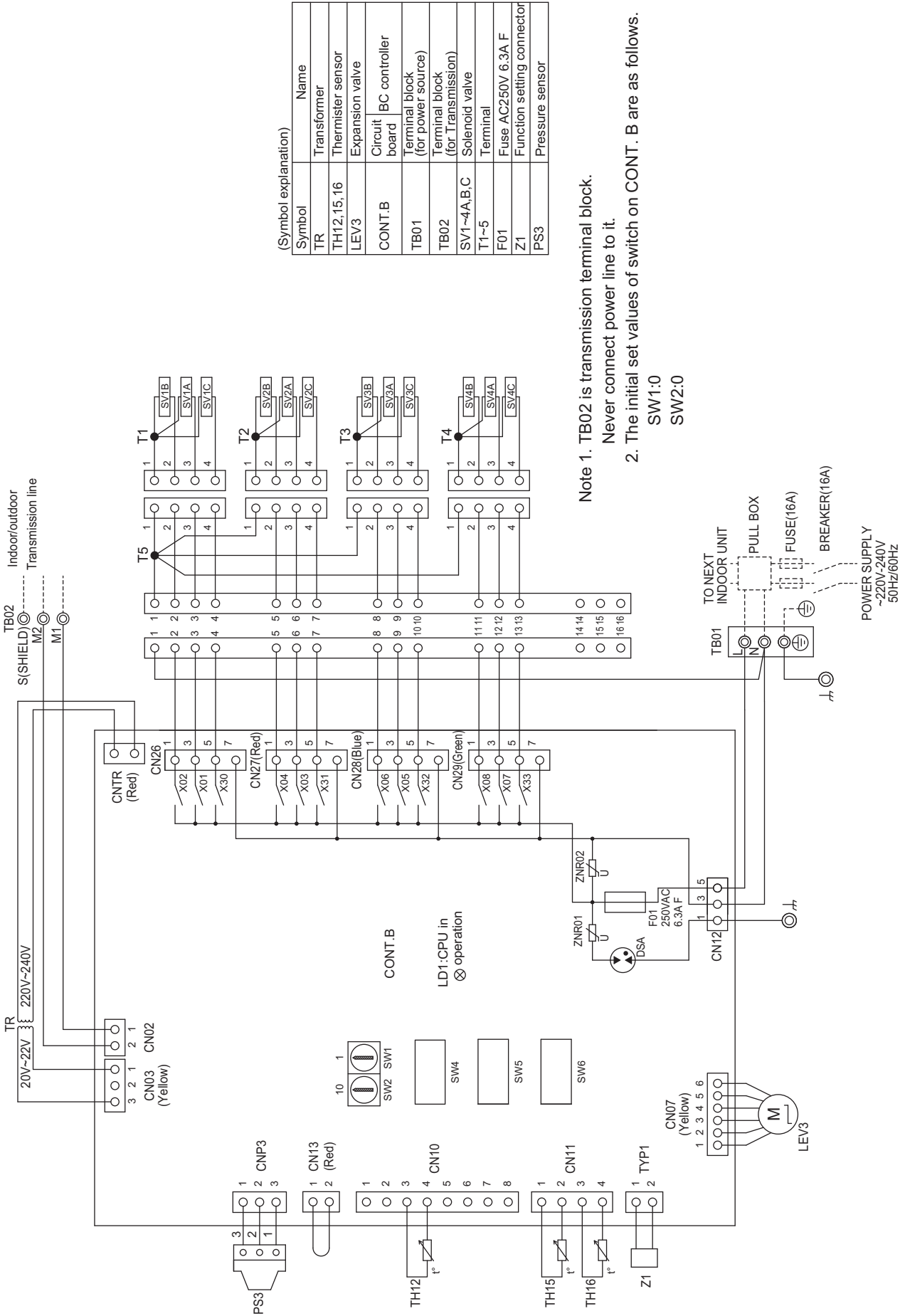
BC controller

3. ELECTRICAL WIRING DIAGRAMS

Indoor units

CMB-P104V-KB

BC controller



Symbol	Name
TR	Transformer
TH12,15,16	Thermister sensor
LEV3	Expansion valve
CONT.B	Circuit board
TB01	BC controller
TB02	Terminal block (for power source)
SV1~4A,B,C	Terminal block (for Transmission)
T1~5	Solenoid valve
F01	Terminal
Z1	Fuse AC250V 6.3A F
PS3	Function setting connector
	Pressure sensor

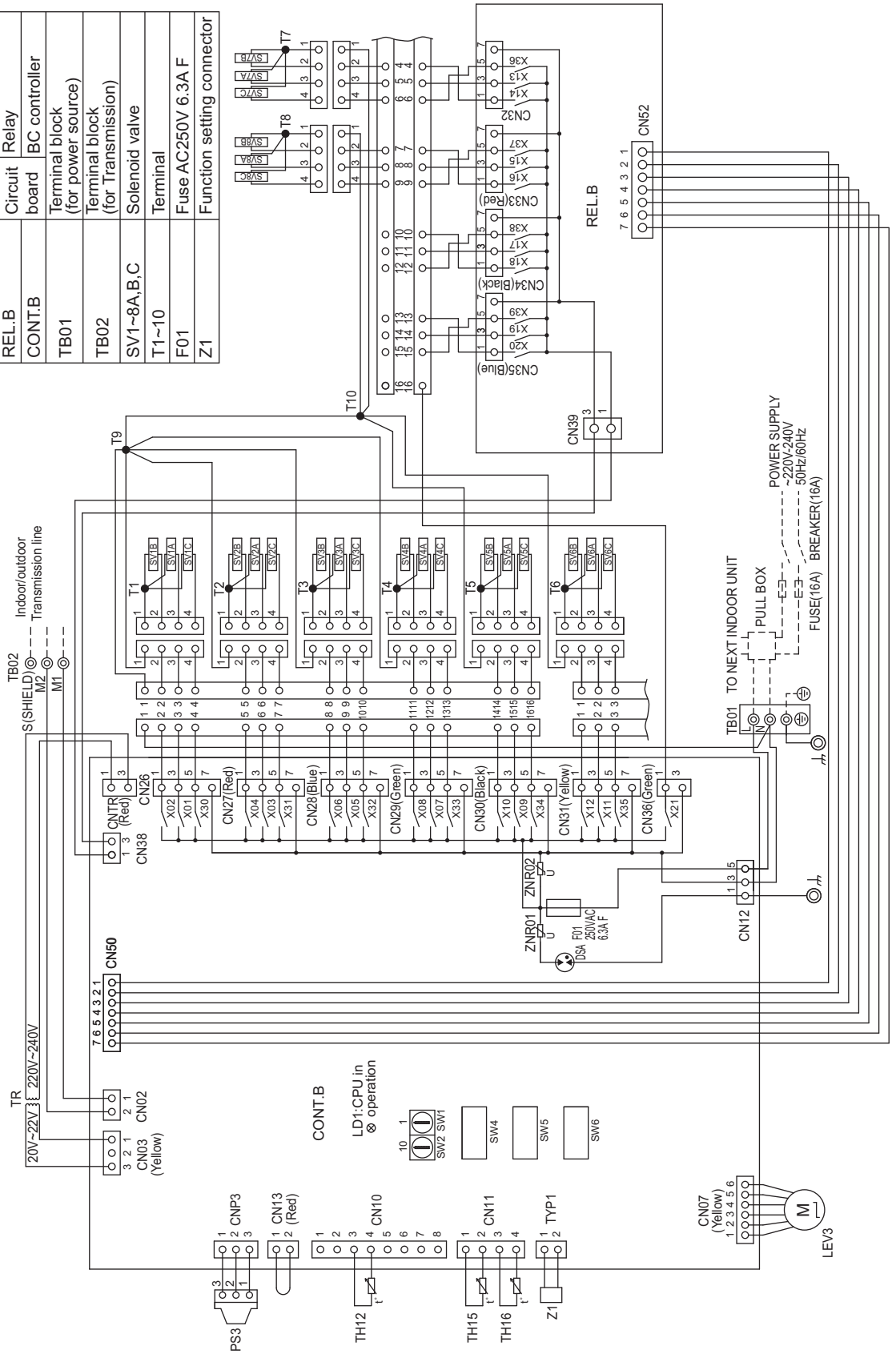
- Note 1. TB02 is transmission terminal block.
 Never connect power line to it.
2. The initial set values of switch on CONT. B are as follows.
 SW1:0
 SW2:0

CMB-P108V-KB

(Symbol explanation)

Symbol	Name
TR	Transformer
TH12,15,16	Thermister sensor
LEV3	Expansion valve
PS3	Pressure sensor
REL.B	Circuit Relay
CONT.B	BC controller board
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~8A,B,C	Solenoid valve
T1~10	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting connector

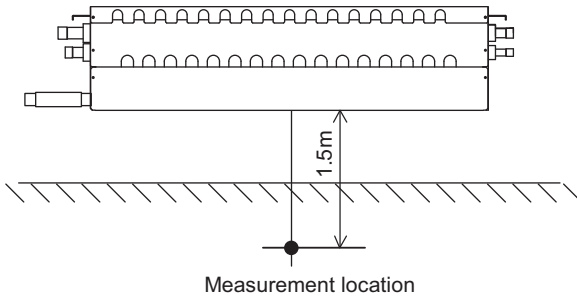
- Note 1. TB02 is transmission terminal block.
 Never connect power line to it.
 2. The initial set values of switch on CONT. B are as follows.
 SW1:0
 SW2:0



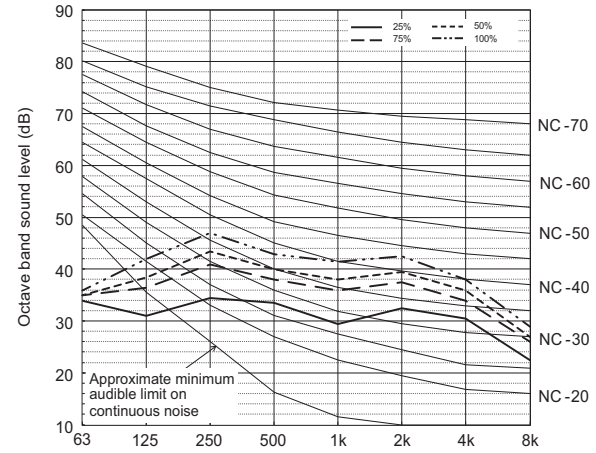
BC controller

4-1. Sound levels in cooling mode

Measurement condition

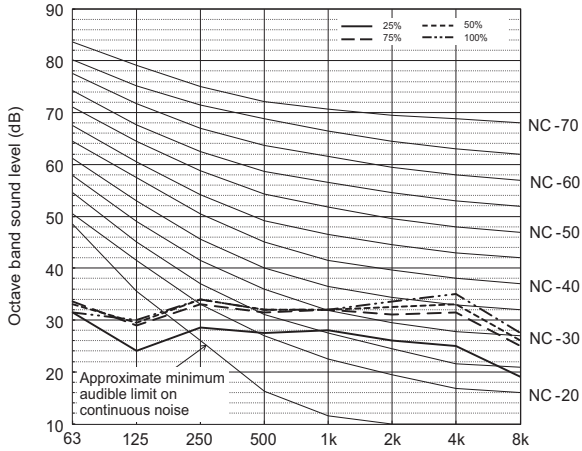


Sound level of CMB-P1016V-KA



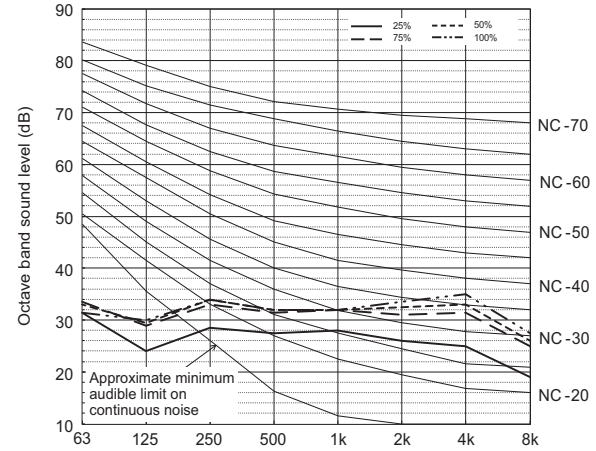
Cooling operation		Octave band central frequency (Hz)								
Total down-stream indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)	
25%	34.0	31.0	34.5	33.5	29.5	32.5	30.5	22.5	38.0	
50%	35.0	36.5	41.0	38.0	36.0	37.5	34.0	26.0	43.0	
75%	35.0	38.5	43.5	40.0	38.0	39.5	36.0	27.0	45.0	
100%	36.0	42.0	47.0	43.0	41.5	42.5	38.0	29.0	48.0	

Sound level of CMB-P104-1016V-J



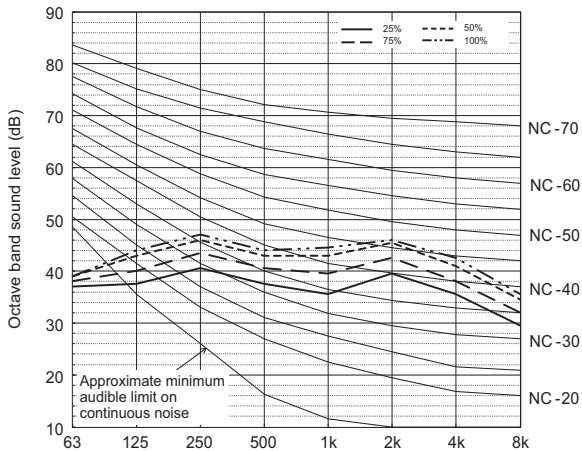
Cooling operation		Octave band central frequency (Hz)								
Total down-stream indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)	
25%	31.5	24.0	28.5	27.5	28.0	26.0	25.0	19.0	33.0	
50%	33.5	29.0	33.0	31.5	32.0	31.0	31.5	25.0	38.0	
75%	33.0	29.5	34.0	32.0	32.0	32.5	33.0	26.0	39.0	
100%	31.5	30.0	34.0	32.0	32.0	33.5	35.0	27.5	40.0	

Sound level of CMB-P104,108V-KB



Cooling operation		Octave band central frequency (Hz)								
Total down-stream indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)	
25%	31.5	24.0	28.5	27.5	28.0	26.0	25.0	19.0	33.0	
50%	33.5	29.0	33.0	31.5	32.0	31.0	31.5	25.0	38.0	
75%	33.0	29.5	34.0	32.0	32.0	32.5	33.0	26.0	39.0	
100%	31.5	30.0	34.0	32.0	32.0	33.5	35.0	27.5	40.0	

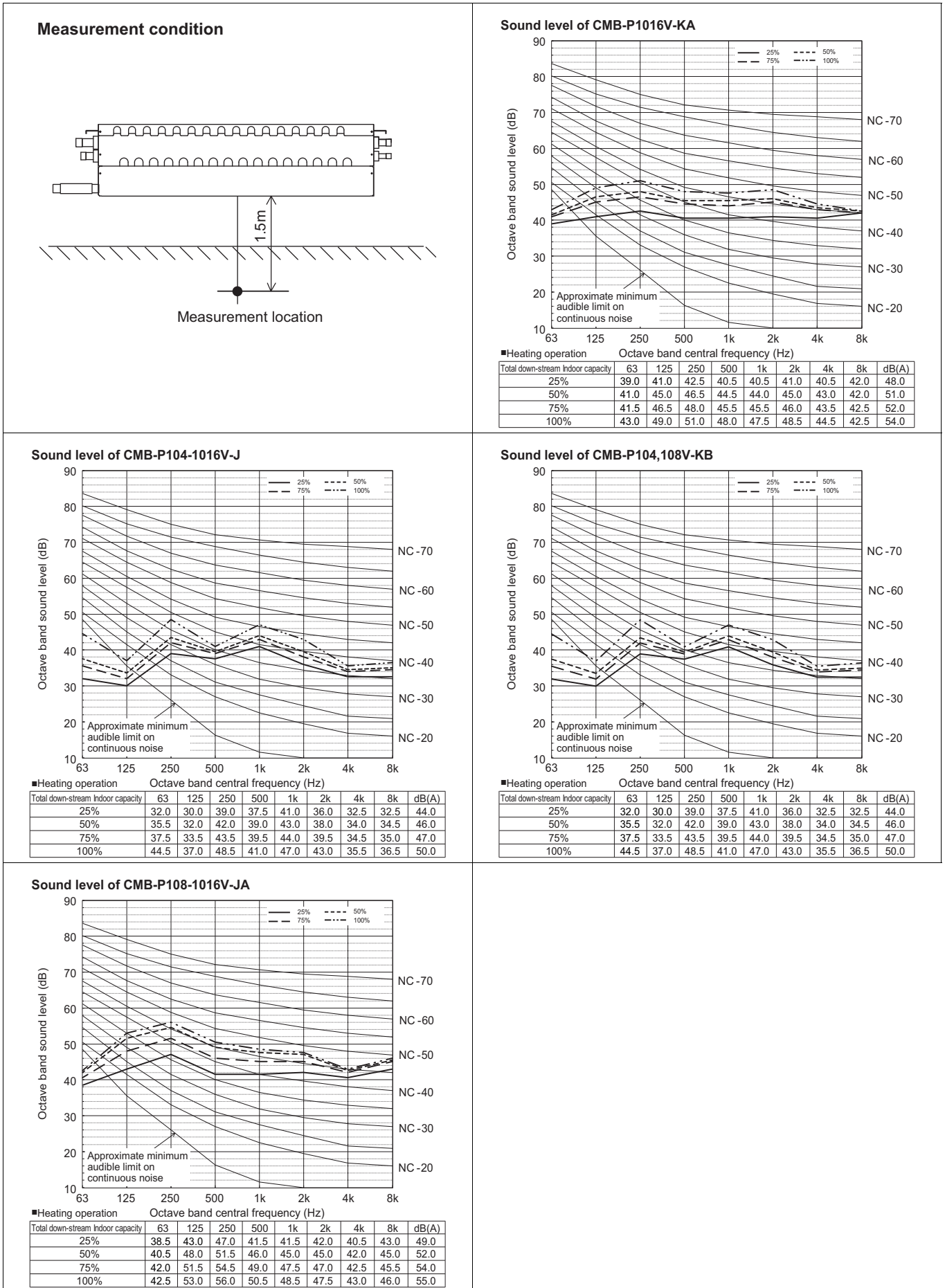
Sound level of CMB-P108-1016V-JA



Cooling operation		Octave band central frequency (Hz)								
Total down-stream indoor capacity	63	125	250	500	1k	2k	4k	8k	dB(A)	
25%	37.0	37.5	40.5	37.5	35.5	39.5	35.5	29.5	44.0	
50%	38.0	40.0	43.5	40.5	39.5	42.5	38.0	32.0	47.0	
75%	39.0	43.0	46.0	43.0	43.0	45.5	41.0	34.5	50.0	
100%	39.0	44.0	47.0	44.0	44.5	46.0	42.5	35.5	51.0	

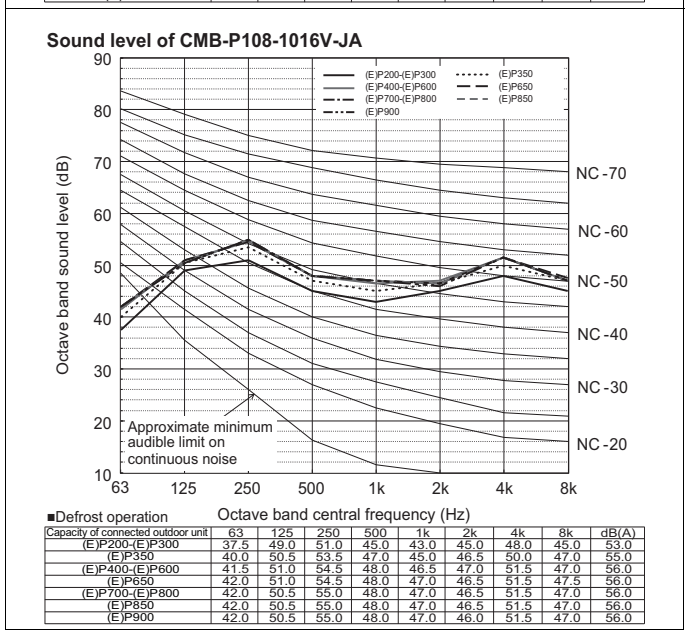
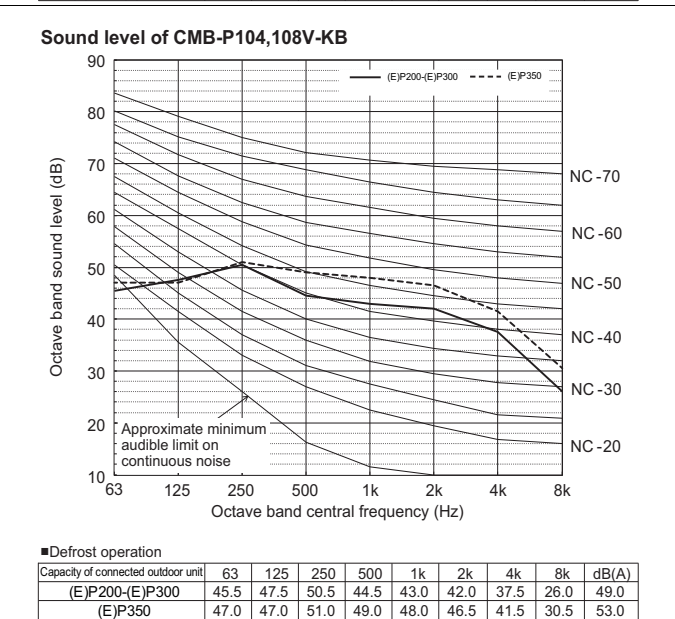
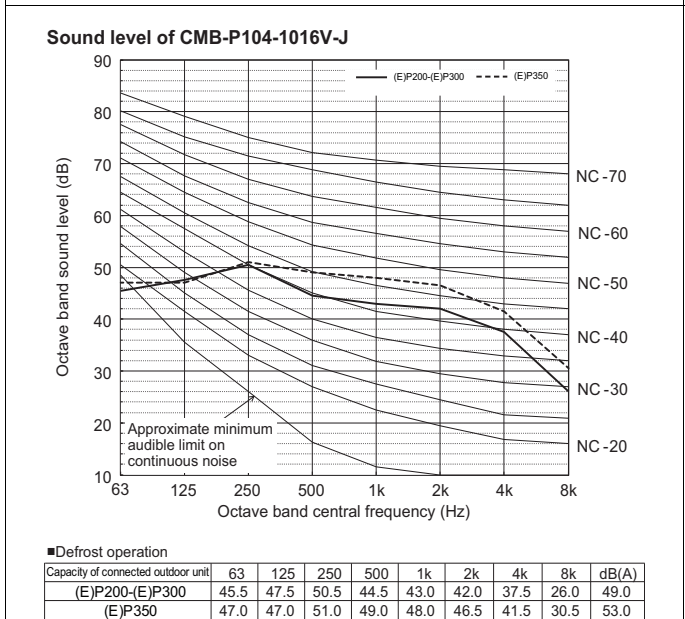
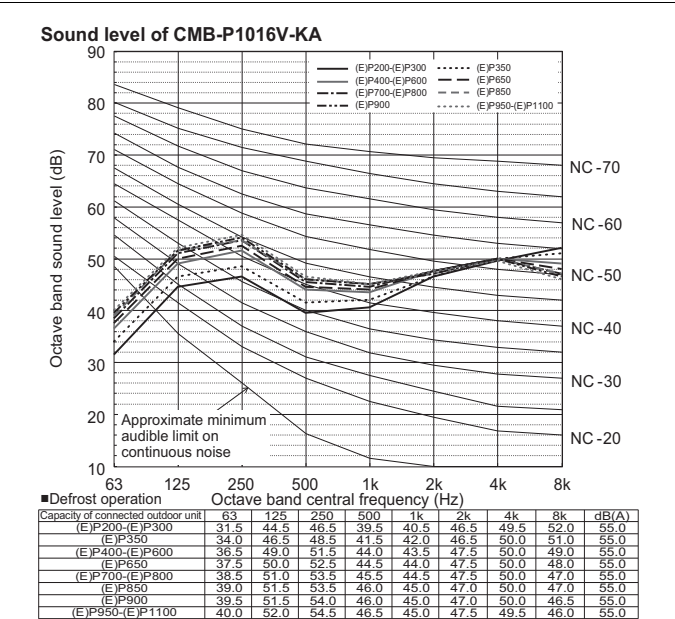
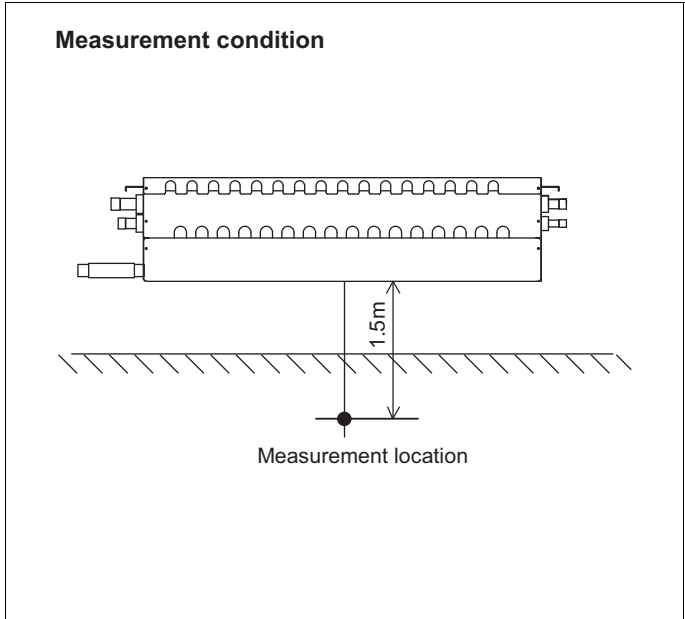
♦ Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

4-2. Sound levels in heating mode



• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

4-3. Sound levels in defrost mode



♦ Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

BC controller

5. ELECTRICAL CHARACTERISTICS

Indoor units

Symbols: MCA (Max. Circuit Amps), MFA (Max. Fuse Amps), RLA (Rated Load Amps)

BC controller	Power supply					RLA(A)
	Hz	Volts	Range+-10%	MCA(A)	MFA(A)	
CMB-P104V-J	50/60	220	Max.: 264V Min.: 198V	0.45	15	0.31
		230				0.34
		240				0.36
CMB-P106V-J		220		0.65		0.45
		230				0.48
		240				0.52
CMB-P108V-J		220		0.85		0.58
		230				0.63
		240				0.68
CMB-P1012V-J		220		1.24		0.85
		230				0.92
		240				0.99
CMB-P1016V-J		220		1.63		1.12
		230				1.22
		240				1.30
CMB-P108V-JA		220		0.85		0.58
		230				0.63
		240				0.68
CMB-P1012V-JA	220	1.24	0.85			
	230		0.92			
	240		0.99			
CMB-P1016V-JA	220	1.63	1.12			
	230		1.22			
	240		1.30			
CMB-P1016V-KA	220	1.63	1.12			
	230		1.22			
	240		1.30			
CMB-P104V-KB	220	0.40	0.28			
	230		0.30			
	240		0.32			
CMB-P108V-KB	220	0.79	0.55			
	230		0.59			
	240		0.63			

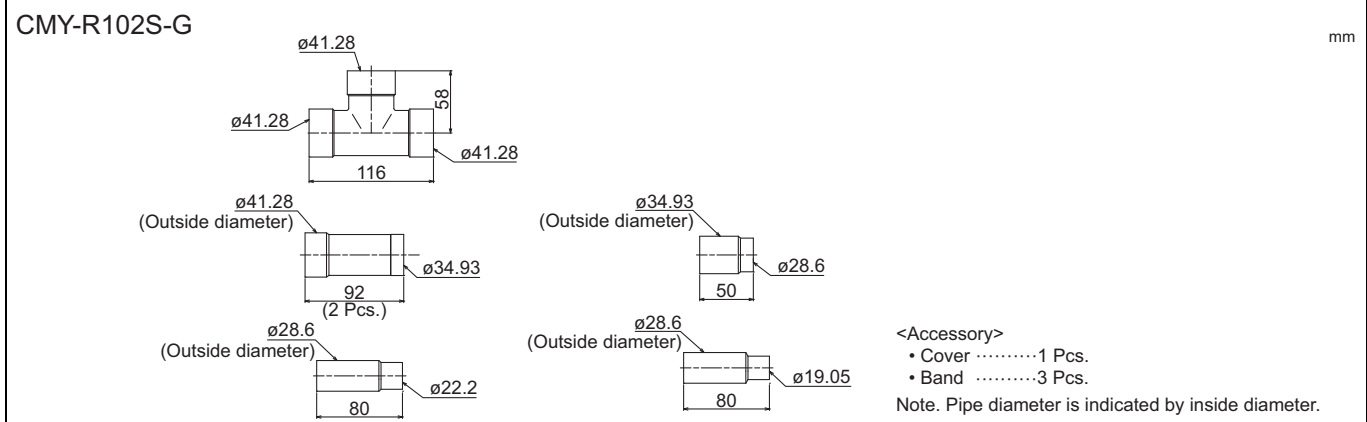
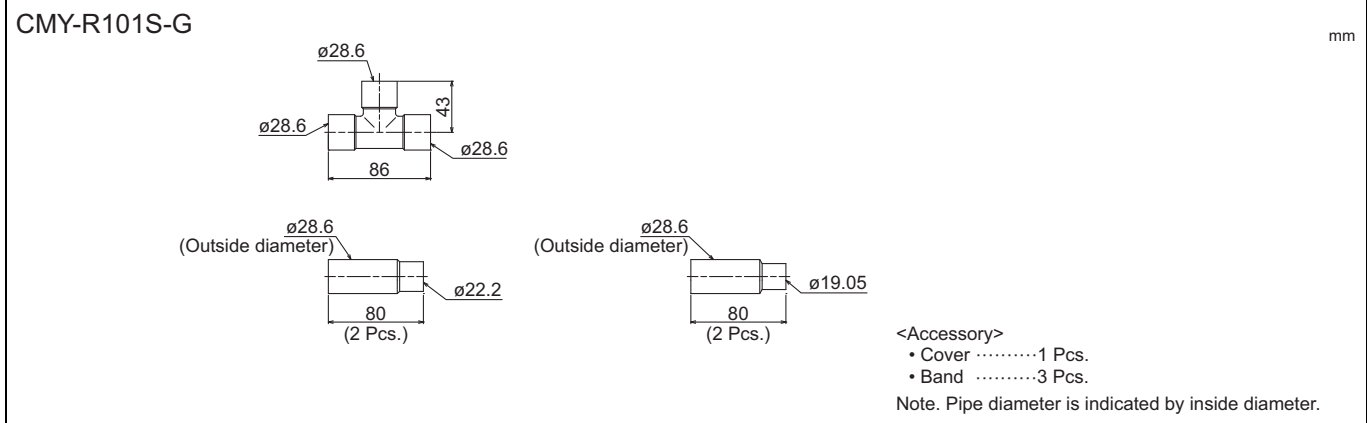
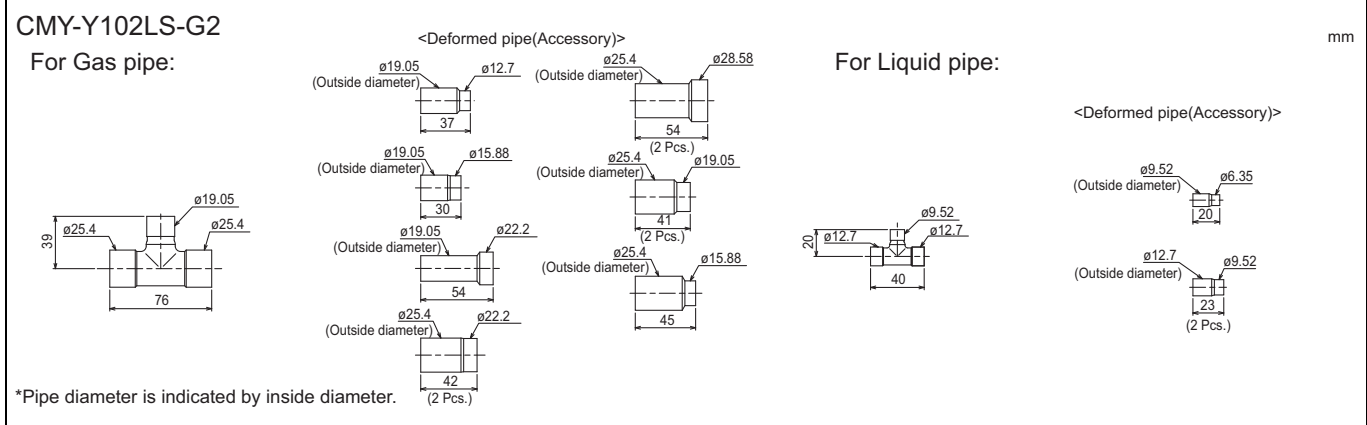
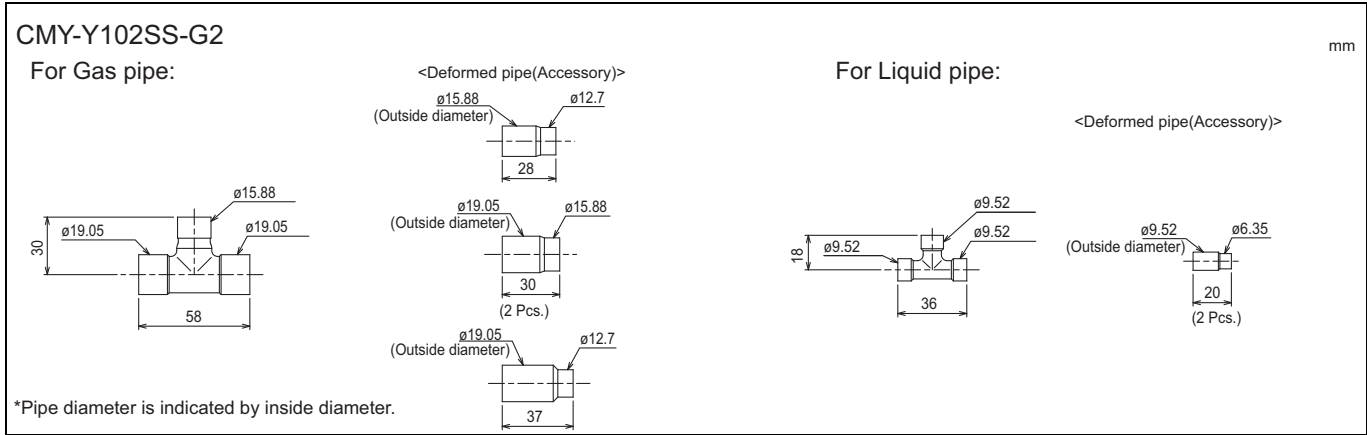
BC controller

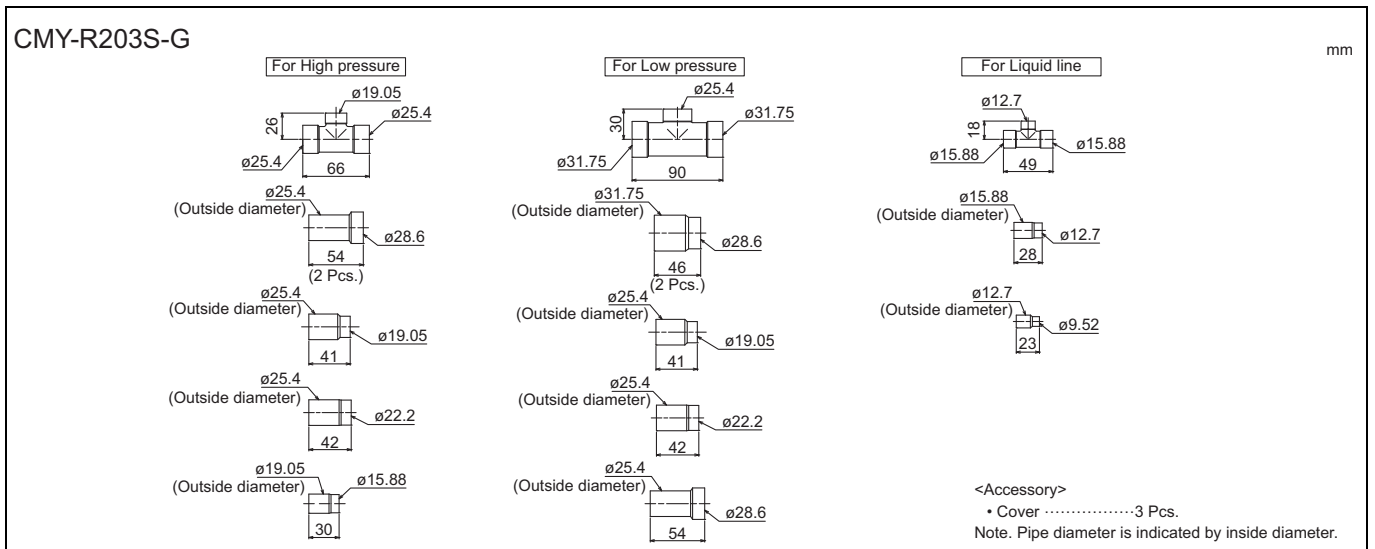
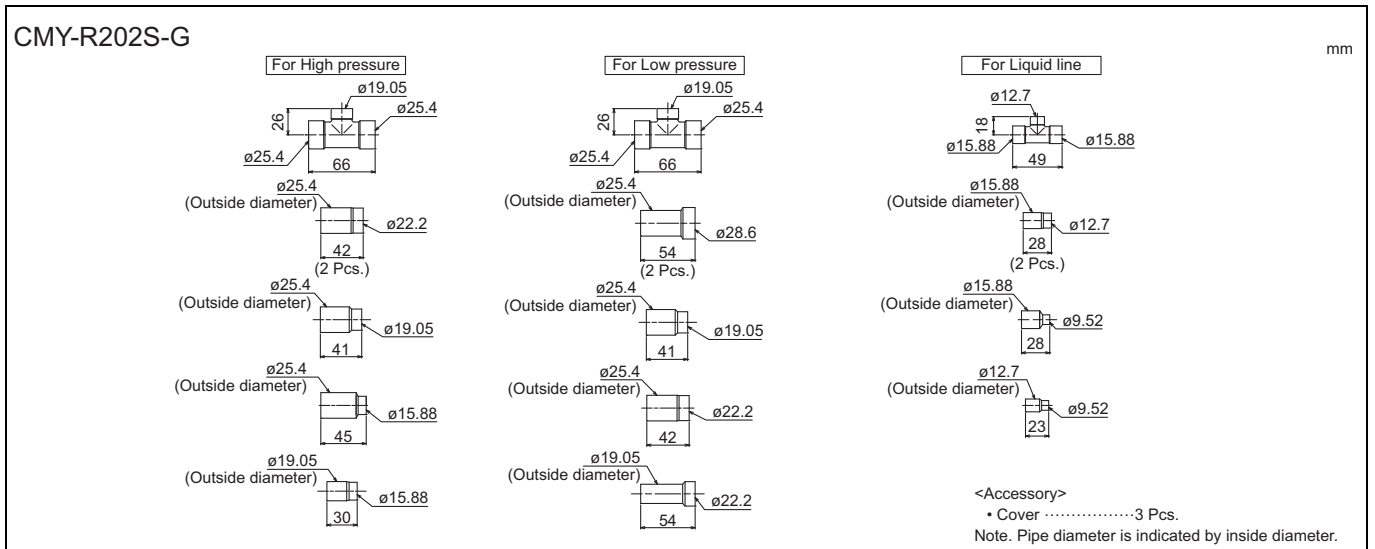
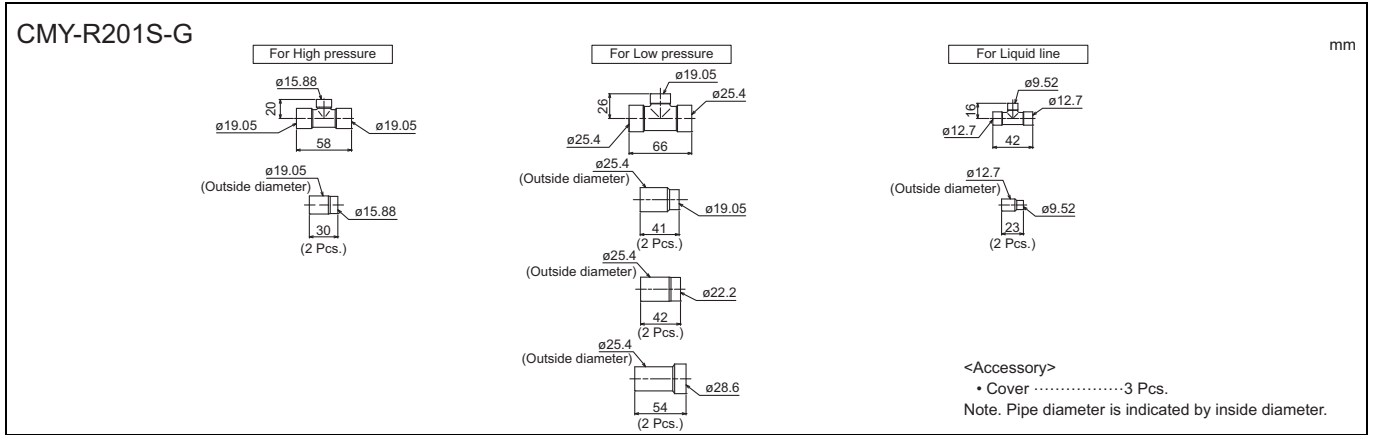
6. OPTIONAL PARTS

Indoor units

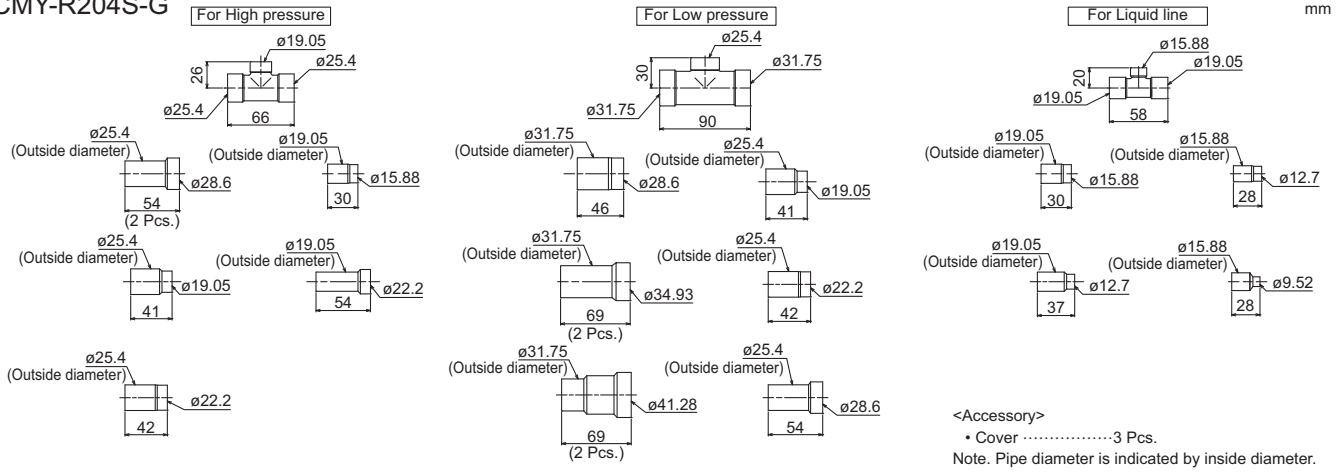
6-1. JOINT and REDUCER

CITY MULTI units can be easily connected by using Joint sets and Reducer sets provided by Mitsubishi Electric. Refer to section "Piping Design" or the Installation Manual that comes with the Joint set or Reducer set for how to install the Joint set or Reducer set.

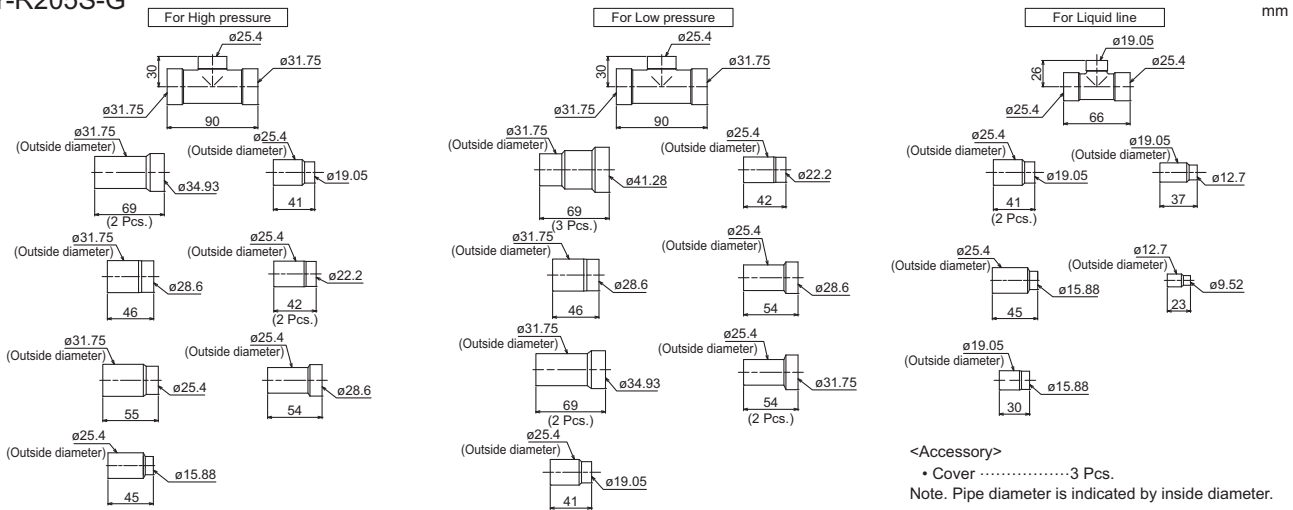




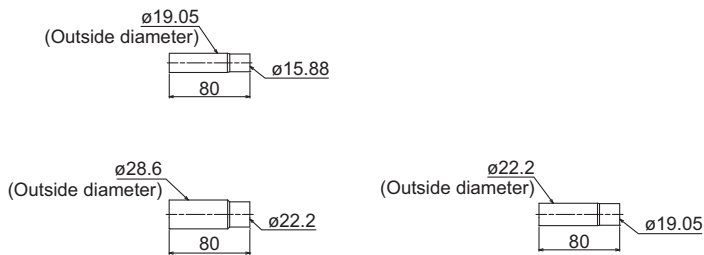
CMY-R204S-G



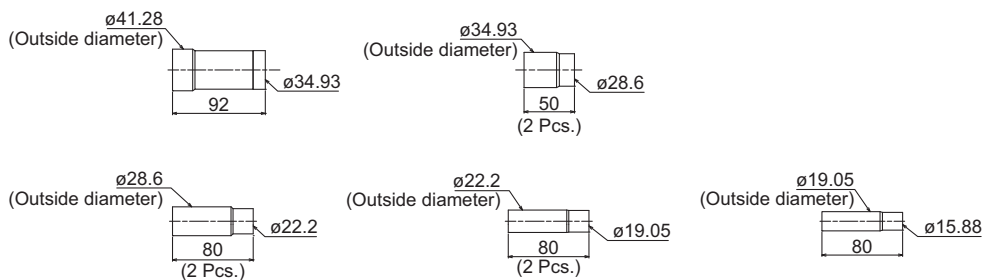
CMY-R205S-G



CMY-R301S-G

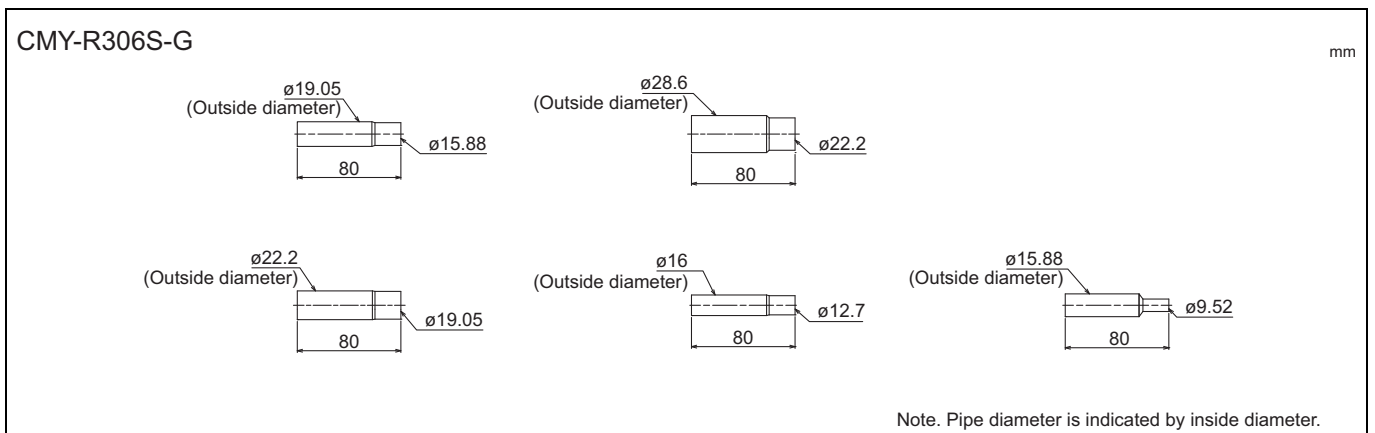
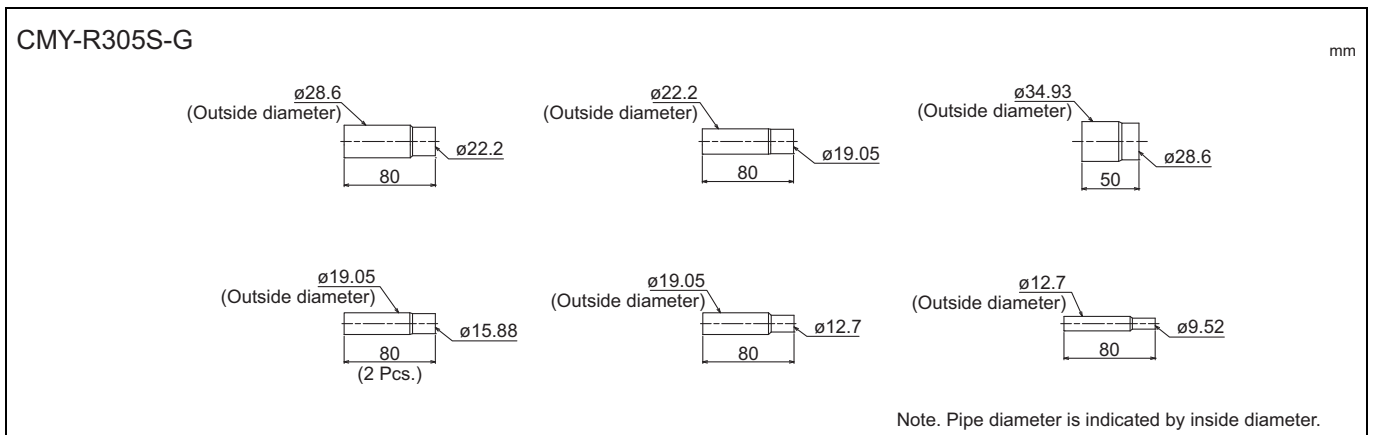
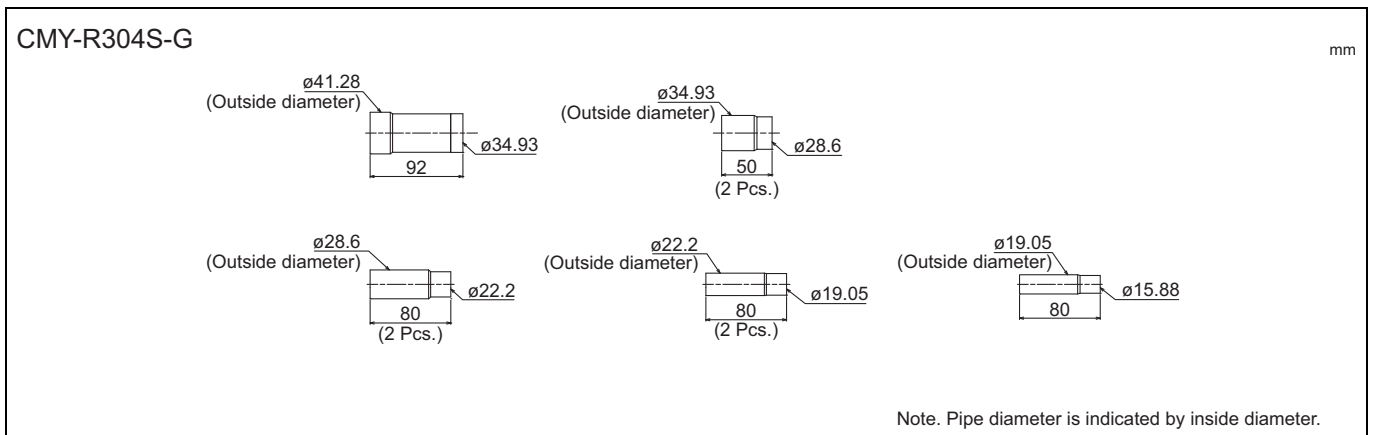
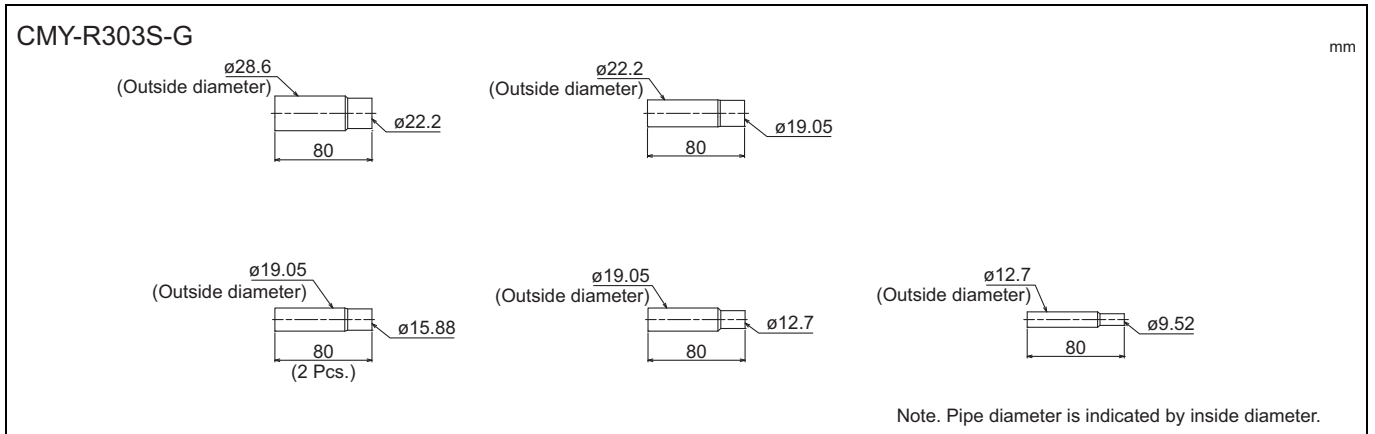


CMY-R302S-G



6. OPTIONAL PARTS

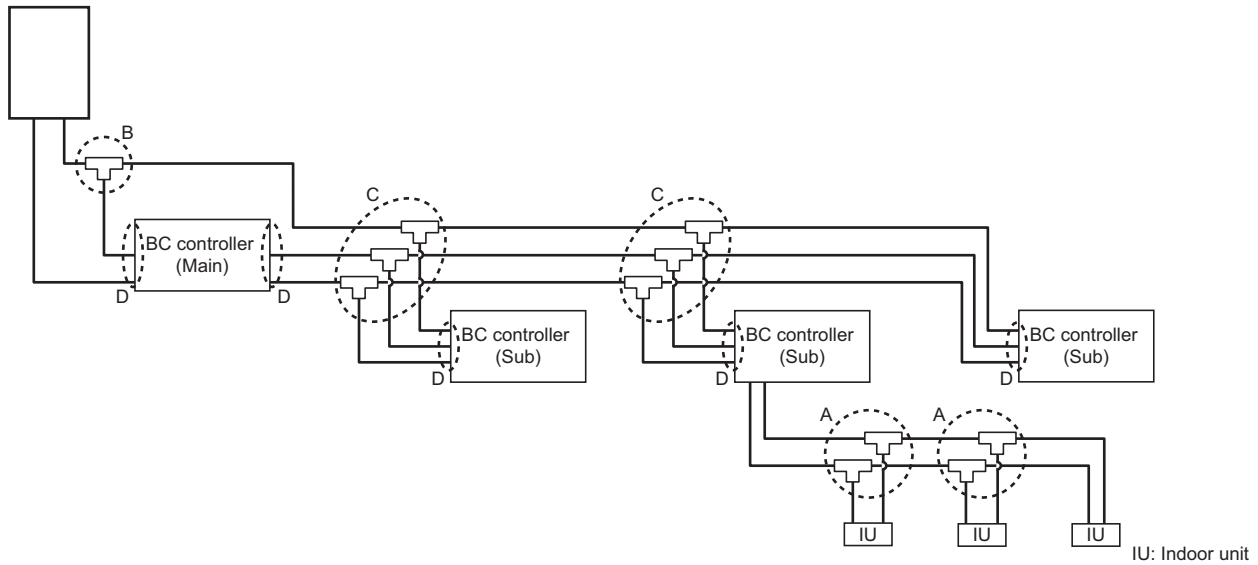
Indoor units



BC controller

How to select Joint and Reducer

Outdoor/Heat source unit



A	Branch joint	Between BC and indoor units	CMY-Y102SS-G2	Total down-stream indoor unit capacity: -P200
			CMY-Y102LS-G2	Total down-stream indoor unit capacity: P201-P250
B	Low pressure pipe joint	Between outdoor units and Sub BC	CMY-R101S-G	Outdoor unit capacity: P200-P650
			CMY-R102S-G	Outdoor unit capacity: P700-P1100
C	Branch joint	Between Main BC and Sub BC	CMY-R201S-G	Total down-stream indoor unit capacity: -P350
			CMY-R202S-G	Total down-stream indoor unit capacity: P351-P600
			CMY-R203S-G	Total down-stream indoor unit capacity: P601-P650
			CMY-R204S-G	Total down-stream indoor unit capacity: P651-P1000
			CMY-R205S-G	Total down-stream indoor unit capacity: P1001-
D	Reducer	Between outdoor units and BC	CMY-R301S-G	For J type (Outdoor unit capacity: P200-P300)
			CMY-R302S-G	For JA type (Outdoor unit capacity: P200-P900)
			CMY-R304S-G	For KA type (Outdoor unit capacity: P200-P1000)
		Between Main BC and Sub BC	CMY-R303S-G	For JA type (When using the Sub BC controller)
			CMY-R305S-G	For KA type (When using the Sub BC controller)
			CMY-R306S-G	For KB type

- ♦Main BC controller has two ports for Sub BC controller. Low pressure pipe has to be branched from the outdoor unit. ("B" in the figure)
- ♦Items "B" and "C" are not necessary when J-type BC controller is used.

6-2. JOINT KIT "CMY-R160-J1" FOR BC CONTROLLER

Joint kit "CMY-R160-J1" for BC controller is used to combine 2 ports of the BC controller at a PURY/PQRY system so as to enable down-stream Indoor capacity above P80 as shown in Fig. 1.

The Joint kit include following items:

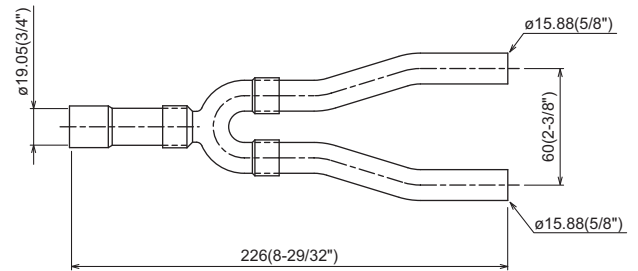
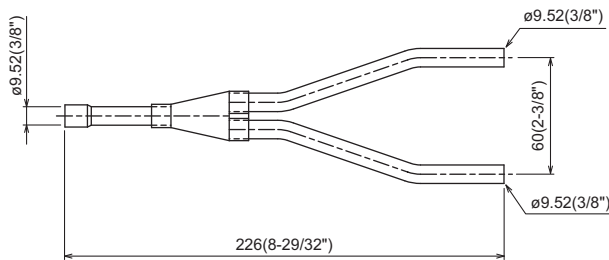
① Instruction	② Joint pipe (Small)	③ Joint pipe (Large)	④ Cover 1	⑤ Cover 2	⑥ Cover 3	⑦ Band	⑧ Reducer 1	⑨ Reducer 2
This sheet 1pc	1pc	1pc	2pcs	1pc for gas side	1pc for liquid side	8pcs	OD19.05-ID22.2 1pc	OD19.05-ID15.88 1pc

Please prepare the following items in the field. ① Tape for insulation material sealing ② Extension pipe for refrigerant circuit

② Joint pipe (for liquid side)

③ Joint pipe (for gas side)

mm (in.)



1. Designing CMY-R160-J1 to a PURY/PQRY system

The maximum down-stream Indoor capacity for 1 port of BC controller is P80. When the down-stream Indoor capacity is above P80, Joint kit CMY-R160-J1 is needed to combined 2 ports of BC controller to enlarge the capacity, like Group 2 and 3 in Fig. 1.

Maximum 3 Indoor units are allowed to connect to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1.

When connecting Indoor units to 1 port of BC controller or 2 combined ports of BC controller using CMY-R160-J1 or CMY-Y102SS-G2 is applicable, like Group 1 and 2 in Fig. 1

Caution: Mixed cooling and heating mode at the same time for Indoor units connecting to 1 port or 2 combined ports is not available.

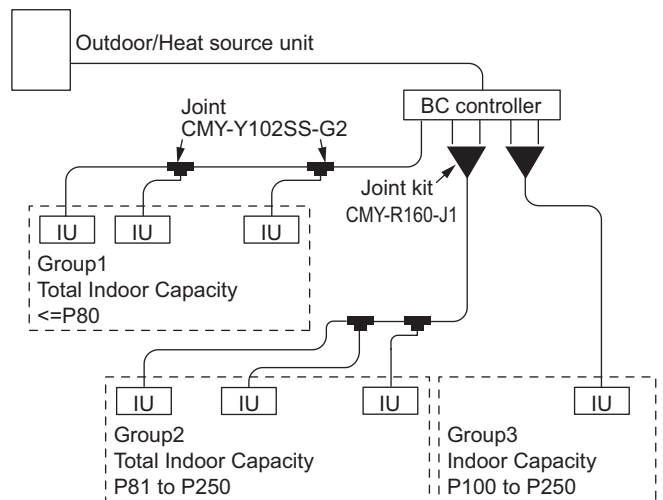


Fig.1. CMY-R160-J1 applying scheme

2. Piping at the installation site

The connection of CMY-R160-J1 to BC controller and pipe leading to Indoor units is referable to Fig. 2. Non-oxidized brazing is necessary. All piping must be careful to avoid foreign material getting inside.

After piping and air-tight testing, insulation work to the Joint and pipe should be done. Details is available at the Installation Manual.

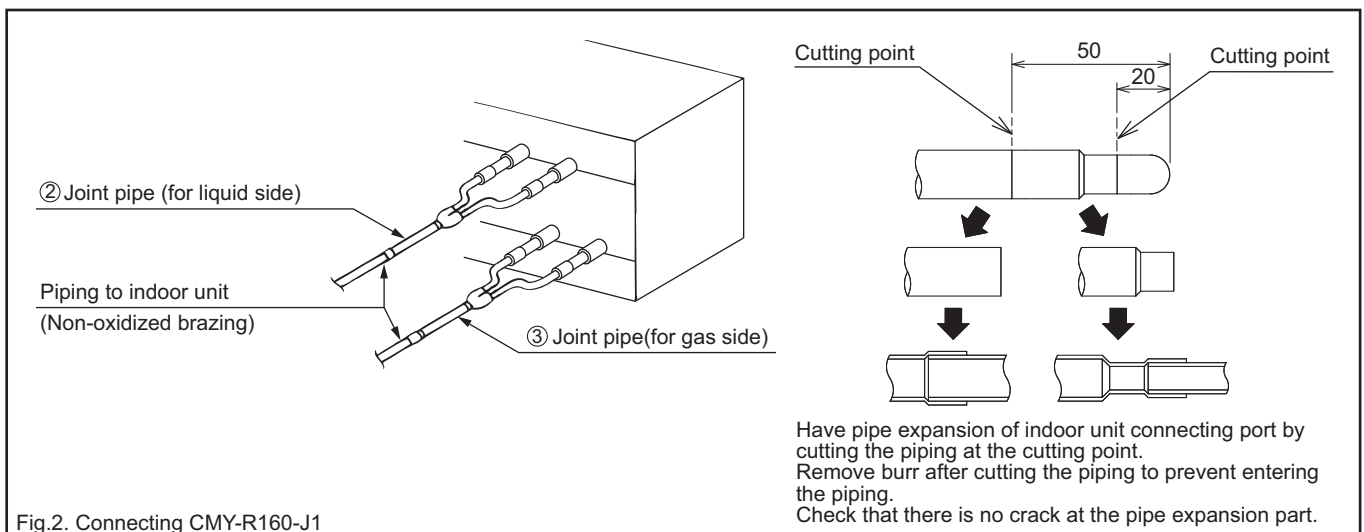


Fig.2. Connecting CMY-R160-J1

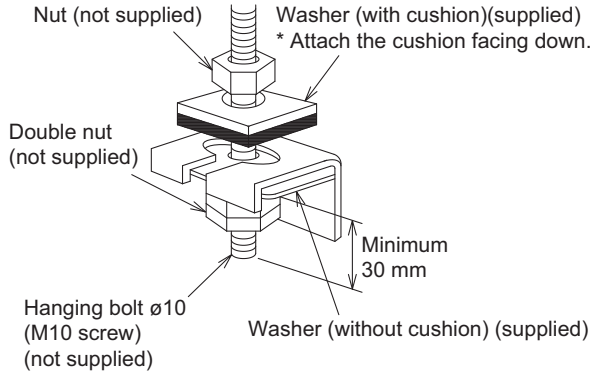
7-1. Installing BC controllers

Installing hanging bolts

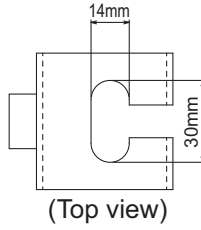
Install locally procured hanging bolts (threaded rod) following the procedure given in the figure.

The hanging bolt size is $\phi 10$ (M10 screw).

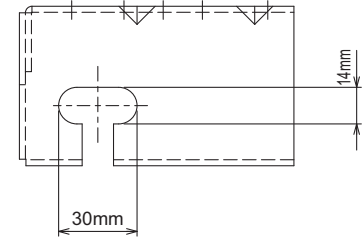
To hang the unit, use a lifting machine to lift and pass it through the hanging bolts.



CMB-P104, 106, 108V-J,
CMB-P104, 108V-KB



CMB-P1012, 1016V-J
CMB-P108, 1012, 1016V-JA
CMB-P1016V-KA



- ▶ Be sure to install the BC controller horizontally, using a level. If the controller is installed at an angle, drain water may leak out. If the controller is slanted, loosen the fixing nuts on the hanging brackets to adjust its position.
- ▶ Provide a downward pitch of 1.5° or below to the BC controller.
- ▶ Do not place the BC controller directly on the floor because the drain pan needs to be installed in a tilted position.

8-1. Compatibility

Outdoor/Heat source unit	BC controller	Compatibility
PURY-(E)P-Y(S)NW PURY-(E)P-Y(S)LM PQRY-P-Y(S)LM PURY-RP-Y(S)JM PURY-(E)P-Y(S)JM	G1 type	Compatible
PURY-(E)P-Y(S)NW PURY-(E)P-Y(S)LM S/W Ver. 7.08 or later PQRY-P-Y(S)LM S/W Ver. 6.42 or later PURY-RP-Y(S)JM S/W Ver. 5.58 or later PURY-(E)P-Y(S)JM S/W Ver. 1.42 or later	J type	Compatible

Outdoor/Heat source unit	BC controller			Compatibility
	Main	Sub		
PURY-(E)P-Y(S)NW	JA/KA type	GB1/HB1 type	GB1/HB1 type	Compatible
PURY-(E)P-Y(S)LM S/W Ver. 7.08 or later	JA/KA type	KB type	GB1/HB1 type	Not compatible
PQRY-P-Y(S)LM S/W Ver. 6.42 or later	JA/KA type	GB1/HB1 type		Compatible
PURY-RP-Y(S)JM S/W Ver. 5.58 or later	GA1/HA1 type	KB type	KB type	Compatible
PURY-(E)P-Y(S)JM S/W Ver. 1.42 or later	GA1/HA1 type	KB type	GB1/HB1 type	Not compatible
	GA1/HA1 type	KB type		Compatible

Outdoor/Heat source unit	BC controller		Compatibility
	Main	Sub	
PURY-(E)P-Y(S)NW PURY-(E)P-Y(S)LM S/W Ver. 7.08 or later PQRY-P-Y(S)LM S/W Ver. 6.42 or later PURY-RP-Y(S)JM S/W Ver. 5.58 or later PURY-(E)P-Y(S)JM S/W Ver. 1.42 or later	JA/KA type	KB type	Compatible(*)

*Up to 11 Sub BC controllers can be connected.

GA1/HA1/GB1/HB1 type and JA/KA/KB type can be mixed.

The only combination that is not available is mix of GB1/HB1 type and KB type.

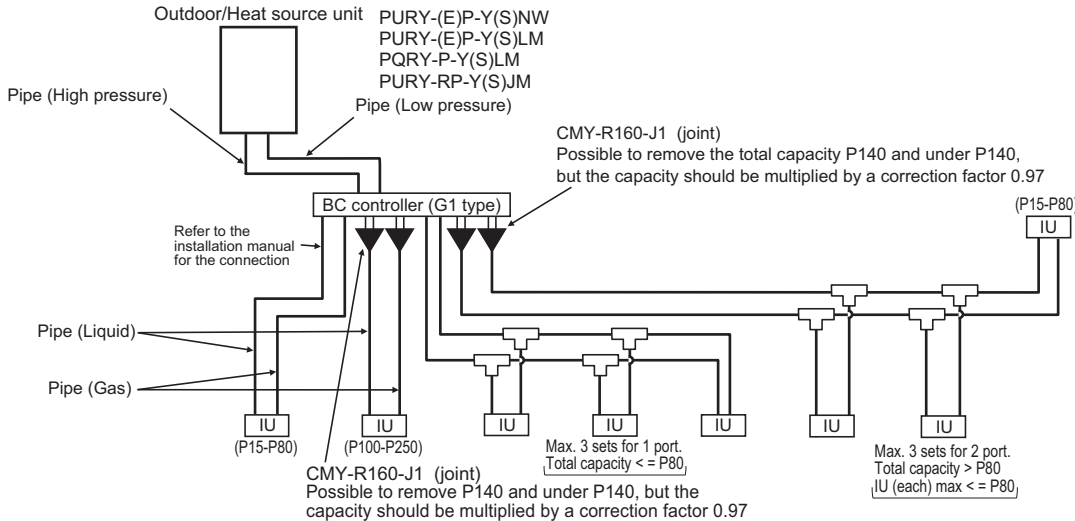
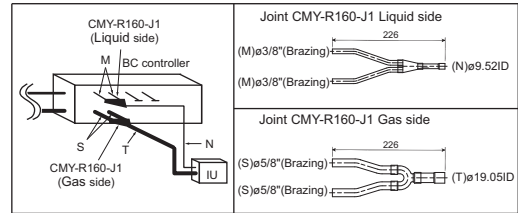
When mixing GA1/HA1/GB1/HB1 type and JA/KA/KB type, specifications and restrictions is according to GA1/HA1/GB1/HB1 type. (piping length, connectable number of Sub BC)

8-2. System examples

Refer to “6-1. JOINT and REDUCER” and “Piping Design of Outdoor/Heat source Units” for joint/reducer selection rules, pipe length restrictions, and pipe diameter.

8-2-1. When G1-type BC controller is used

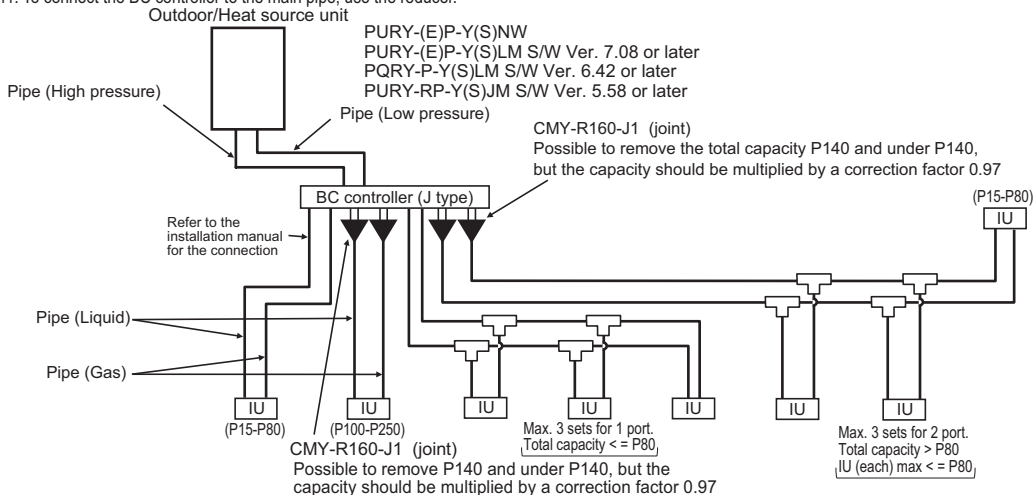
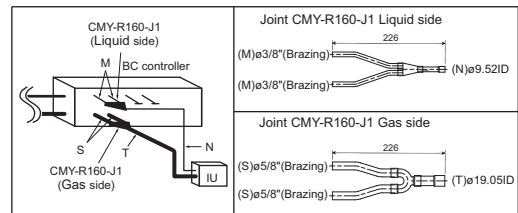
- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
- Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+“M” x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
- Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF).
However, the cooling capacity decreases a little.
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
- Note8. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream.
For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note10. To enable the continuous heating mode, set SW4 (848) to ON.



IU: Indoor unit

8-2-2. When J-type BC controller is used

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ;
Piping length needs to consider the actual length and equivalent length which bents are counted.
Equivalent piping length (m)=Actual piping length+“M” x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF).
PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port.
However, the cooling capacity decreases a little.
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
- Note8. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E: Total Indoor capacity = P63 + P32 = P95.
- Note10. To enable the continuous heating mode, set SW4 (848) to ON.
- Note11. To connect the BC controller to the main pipe, use the reducer.

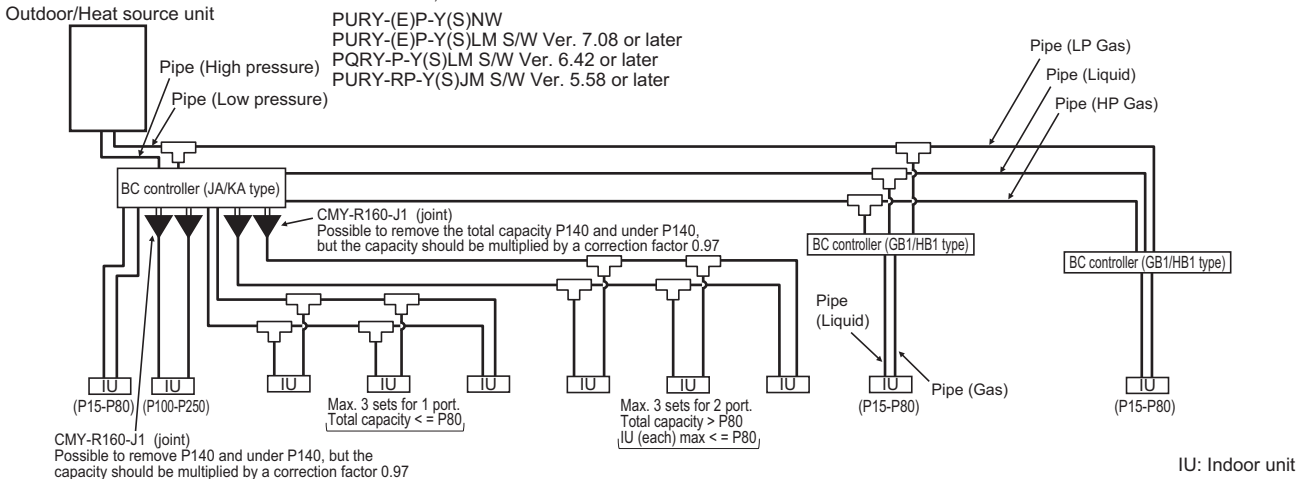
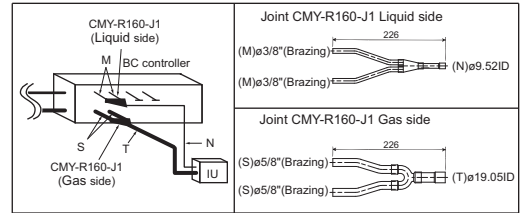


IU: Indoor unit

BC controller

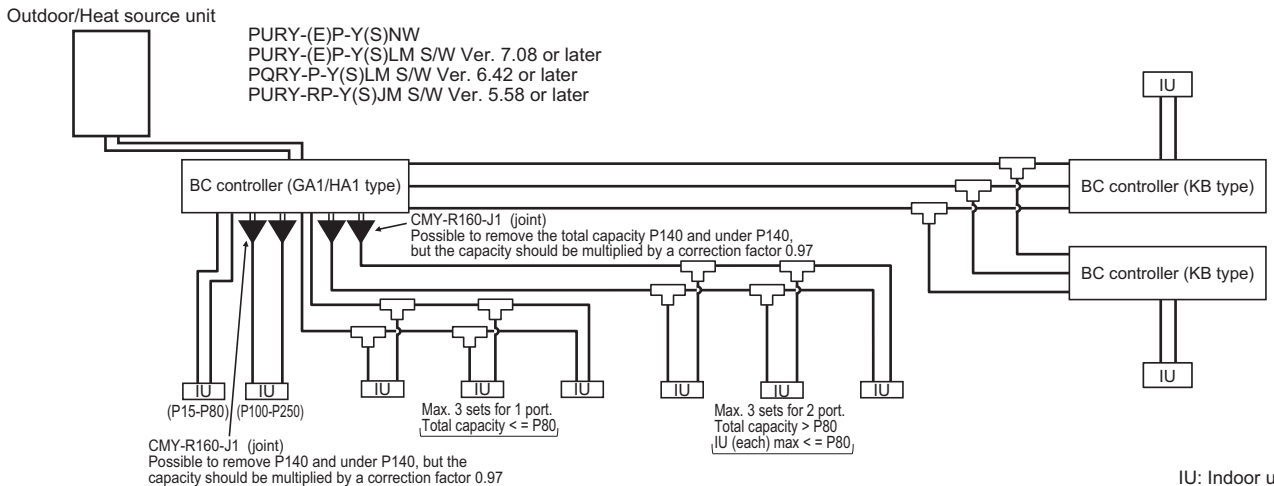
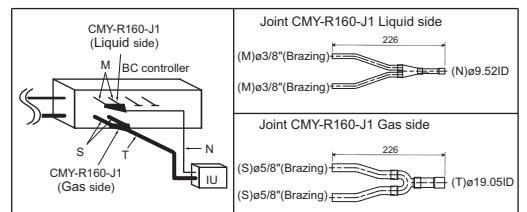
8-2-3. When JA/KA- and GB1/HB1-type BC controllers are used together

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+“M” x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little.
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
- Note8. 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 of a P350 unit. For sub BC controller CMB-P1016V-HB1 the connectable indoor unit capacities may sum to equal that or 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 of a P450 unit.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the BC controller to the main pipe, use the reducer.
- Note13. To connect the sub BC controller to the main BC controller, use the reducer.



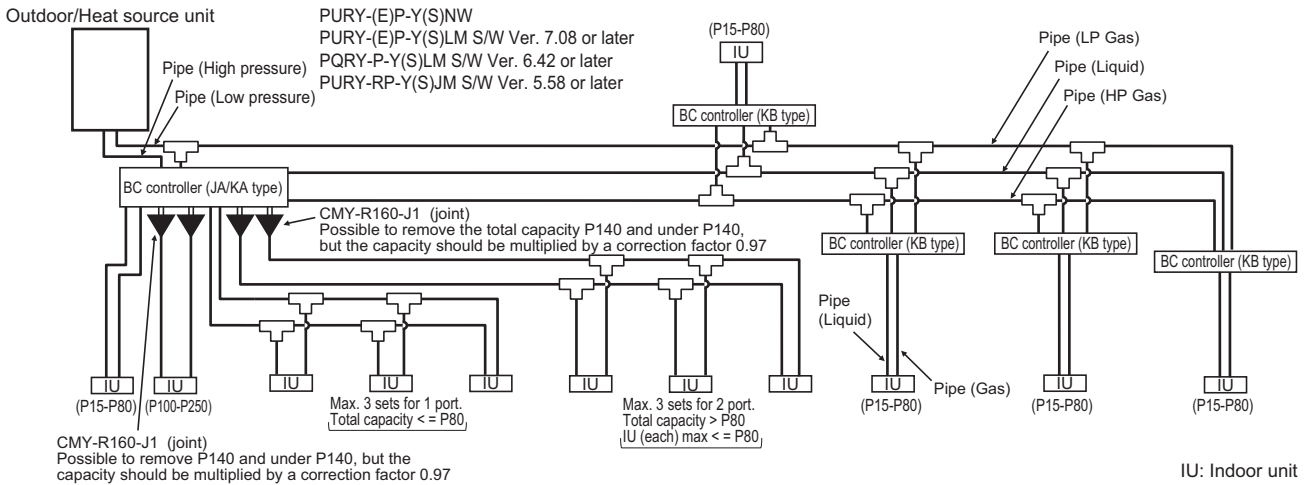
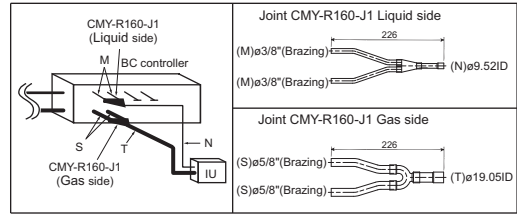
8-2-4. When GA1/HA1- and KB-type BC controllers are used together

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ;
- Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+“M” x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports.
- Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-6 to OFF). However, the cooling capacity decreases a little.
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
- Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P-V-KB is 350.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the sub BC controller to the main BC controller, use the reducer.



8-2-5. When JA/KA- and KB-type BC controllers are used together

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P100-P250 should be connected to BC controller via Y shape joint CMY-R160-J1 ; If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, connect to the BC controller via Y-shape joint CMY-R160-J1.
- Note3. Indoor unit sized P100-P250 does NOT share BC controller ports with other Indoor units ;
- Note4. As bents cause pressure loss on transportation of refrigerant, fewer bents design is better ; Piping length needs to consider the actual length and equivalent length which bents are counted. Equivalent piping length (m)=Actual piping length+"M" x Number of bent.
- Note5. Set DIP-SW 4-6 to ON of BC controller, in case of connected Indoor unit sized P100-P250 with 2 ports. If the system consists only of PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units, set the dipswitches SW4-1 and SW4-6 on the BC controller to ON.
- Note6. It is also possible to connect Indoor unit sized P100-P140 with 1 port (set DIP-SW 4-1 and 4-6 to OFF). PEFY-P50, 63, 71, 80, 100VMHS2-E models of indoor units can be connected to the system using a single port. However, the cooling capacity decreases a little.
- Note7. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). The indoor units connected to the same port must be set to operate in the same mode. Set them in the same group to make them run/stop in the same mode all together. For other options, enable the thermo setting on the remote controller, or set the common thermostat (optional) to run/stop the units in the same mode based on a representative temperature.
- Note8. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P•V-KB is 350.
- Note9. Indoor capacity is described as its model size. For example, PEFY-P63VML-E, its capacity is P63.
- Note10. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P63VML-E + PEFY-P32VML-E : Total Indoor capacity = P63 + P32 = P95.
- Note11. To enable the continuous heating mode, set SW4 (848) to ON.
- Note12. To connect the BC controller to the main pipe, use the reducer.
- Note13. To connect the sub BC controller to the main BC controller, use the reducer.





for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

⚠ Warning

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
 - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, repair, or at the time of disposal of the unit.
 - It may also be in violation of applicable laws.
 - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our airconditioning equipment and heat pumps contain a fluorinated greenhouse gas, R410A.

MITSUBISHI ELECTRIC CORPORATION

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