

AIR CONDITIONING SYSTEMS

CITY MULTI



DATA BOOK

MODEL

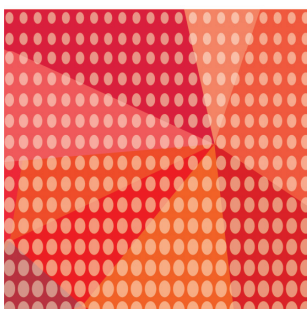
CMB-P-NU-J1

CMB-P-NU-JA1



CMB-P-NU-KA1

CMB-P-NU-KB1



CMB-P-NU-J1, CMB-P-NU-JA1, CMB-P-NU-KA1, CMB-P-NU-KB1

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1. SPECIFICATIONS

BC controller

BC controller

Model			CMB-P104NU-J1		
Number of branch			4		
Power source			1-phase 208-230 V		
			60 Hz		
Power input (208/230)	Cooling	kW	0.061/0.078		
	Heating	kW	0.030/0.039		
Current input (208/230)	Cooling	A	0.30/0.35		
	Heating	A	0.15/0.18		
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P72 to P120		
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)		
External dimension H x W x D		mm	250 x 596 x 398		
		in.	9-7/8 x 23-1/2 x 15-11/16		
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		*12 mm (in.) O.D.	P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	26 (58)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40		
	Defrost	dB <A>	53		
Accessories			Washer		
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. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
9. This unit is not designed for outside installations.
10. When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
11. 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.
12. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

Model			CMB-P106NU-J1			
Number of branch			6			
Power source			1-phase 208-230 V			
			60 Hz			
Power input (208/230)	Cooling	kW	0.091/0.118			
	Heating	kW	0.046/0.059			
Current input (208/230)	Cooling	A	0.44/0.52			
	Heating	A	0.22/0.26			
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P72 to P120			
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)			
External dimension H x W x D		mm	250 x 596 x 398			
		in.	9-7/8 x 23-1/2 x 15-11/16			
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe	
		mm (in.) O.D.		P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.		P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.		P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Gas pipe		
		mm (in.) O.D.	Indoor unit Model P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
Field drain pipe size		in.	3/4 NPT			
Net weight		kg (lbs)	29 (64)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59			
	Defrost	dB <A>	71			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40			
	Defrost	dB <A>	53			
Accessories			Washer			
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.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.
- 12.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

BC controller

Model			CMB-P108NU-J1		
Number of branch			8		
Power source			1-phase 208-230 V		
			60 Hz		
Power input (208/230)	Cooling	kW	0.122/0.157		
	Heating	kW	0.061/0.078		
Current input (208/230)	Cooling	A	0.59/0.69		
	Heating	A	0.30/0.35		
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P72 to P120		
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)		
External dimension H x W x D		mm	250 x 596 x 398		
		in.	9-7/8 x 23-1/2 x 15-11/16		
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		*12 mm (in.) O.D.	P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)
Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	33 (73)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40		
	Defrost	dB <A>	53		
Accessories			Washer		
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.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.
- 12.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

Model			CMB-P1012NU-J1			
Number of branch			12			
Power source			1-phase 208-230 V			
			60 Hz			
Power input (208/230)	Cooling	kW	0.182/0.235			
	Heating	kW	0.091/0.118			
Current input (208/230)	Cooling	A	0.88/1.03			
	Heating	A	0.44/0.52			
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P72 to P120			
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)			
External dimension H x W x D		mm	250 x 911 x 545 9-7/8 x 35-7/8 x 21-1/2			
		in.				
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe	
		mm (in.) O.D.		P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.		P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.		P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Gas pipe		
		mm (in.) O.D.	Indoor unit Model P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
Field drain pipe size		in.	3/4 NPT			
Net weight		kg (lbs)	49 (109)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59			
	Defrost	dB <A>	71			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40			
	Defrost	dB <A>	53			
Accessories			Washer			
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.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.
- 12.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

BC controller

Model			CMB-P1016NU-J1		
Number of branch			16		
Power source			1-phase 208-230 V		
			60 Hz		
Power input (208/230)	Cooling	kW	0.243/0.314		
	Heating	kW	0.122/0.157		
Current input (208/230)	Cooling	A	1.17/1.37		
	Heating	A	0.59/0.69		
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable outdoor/heat source unit capacity			P72 to P120		
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)		
External dimension H x W x D		mm	250 x 1,135 x 545		
		in.	9-7/8 x 44-11/16 x 21-1/2		
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe
		mm (in.) O.D.	P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		*12 mm (in.) O.D.	P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
	To indoor unit	Liquid pipe		Gas pipe	
		mm (in.) O.D.	Indoor unit Model P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed	Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 15.88 (5/8) Brazed (19.05 (3/4), 22.2 (7/8) with optional joint pipe used.)	
Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	59 (131)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40		
	Defrost	dB <A>	53		
Accessories			Washer		
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.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.
- 12.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

Model			CMB-P108NU-JA1				
Number of branch			8				
Power source			1-phase 208-230 V				
			60 Hz				
Power input (208/230)	Cooling	kW	0.137/0.176				
	Heating	kW	0.076/0.098				
Current input (208/230)	Cooling	A	0.66/0.77				
	Heating	A	0.37/0.43				
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)				
Connectable outdoor/heat source unit capacity			P72 to P336				
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)				
External dimension H x W x D		mm	250 x 911 x 545				
		in.	9-7/8 x 35-7/8 x 21-1/2				
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe		
		mm (in.) O.D.	P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed		
		mm (in.) O.D.	P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed		
		*12	mm (in.) O.D.	P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
			mm (in.) O.D.	P144 to P192	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		*12	mm (in.) O.D.	P216	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
			*12	mm (in.) O.D.	P240	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
		*12		mm (in.) O.D.	P264 to P288	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
			*12	mm (in.) O.D.	P312	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed or 41.28 (1-5/8) Brazed
		*12		mm (in.) O.D.	P336	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 P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 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 P72	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
			mm (in.) O.D.	P73 to P108	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
			mm (in.) O.D.	P109 to P126	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P127 to P144	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P145 to P216	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P217 to P234	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P235 to P288	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
			mm (in.) O.D.	P289 or above	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
	Field drain pipe size		in.	3/4 NPT			
Net weight		kg (lbs)	48 (106)				
Sound power level (measured in anechoic room)	Rated operation	dB <A>	68				
	Defrost	dB <A>	74				
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50				
	Defrost	dB <A>	56				
Accessories			Washer				
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. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
9. This unit is not designed for outside installations.
10. When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
11. 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.
12. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

BC controller

Model			CMB-P1012NU-JA1			
Number of branch			12			
Power source			1-phase 208-230 V			
			60 Hz			
Power input (208/230)	Cooling	kW	0.198/0.255			
	Heating	kW	0.106/0.137			
Current input (208/230)	Cooling	A	0.95/1.11			
	Heating	A	0.52/0.60			
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P72 to P336			
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)			
External dimension H x W x D		mm	250 x 1,135 x 545			
		in.	9-7/8 x 44-11/16 x 21-1/2			
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe
	*12	mm (in.) O.D.	P72		15.88 (5/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P96		19.05 (3/4) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P120		19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
		mm (in.) O.D.	P144 to P192		22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
	*12	mm (in.) O.D.	P216		22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P240		22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
	*12	mm (in.) O.D.	P264 to P288		28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P312		28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed or 41.28 (1-5/8) Brazed
		mm (in.) O.D.	P336		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 P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 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
	mm (in.) O.D.	to P72		15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		P73 to P108		19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		P109 to P126		19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		P127 to P144		22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		P145 to P216		22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		P217 to P234		28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		P235 to P288		28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		P289 or above		28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
	Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	60 (133)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	68			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50			
	Defrost	dB <A>	56			
Accessories			Washer			
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.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.
- 12.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

Model			CMB-P1016NU-JA1			
Number of branch			16			
Power source			1-phase 208-230 V			
			60 Hz			
Power input (208/230)	Cooling	kW	0.258/0.333			
	Heating	kW	0.137/0.176			
Current input (208/230)	Cooling	A	1.25/1.45			
	Heating	A	0.66/0.77			
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable outdoor/heat source unit capacity			P72 to P336			
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)			
External dimension H x W x D		mm	250 x 1,135 x 545			
		in.	9-7/8 x 44-11/16 x 21-1/2			
Refrigerant piping diameter	To outdoor/heat source unit	Connectable unit capacity		High press. pipe	Low press. pipe	
		mm (in.) O.D.	P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
		mm (in.) O.D.	P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
		mm (in.) O.D.	P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	
		mm (in.) O.D.	P144 to P192	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	
		*12 mm (in.) O.D.	P216	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
		*12 mm (in.) O.D.	P240	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		mm (in.) O.D.	P264 to P288	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
		*12 mm (in.) O.D.	P312	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed or 41.28 (1-5/8) Brazed	
		mm (in.) O.D.	P336	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 P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed	Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 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 P72	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed
		mm (in.) O.D.	P73 to P108	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed
		mm (in.) O.D.	P109 to P126	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P127 to P144	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P145 to P216	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P217 to P234	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed
		mm (in.) O.D.	P235 to P288	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed
		mm (in.) O.D.	P289 or above	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed
	Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	68 (150)			
Sound power level (measured in anechoic room)	Rated operation	dB <A>	68			
	Defrost	dB <A>	74			
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	50			
	Defrost	dB <A>	56			
Accessories			Washer			
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. Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
9. This unit is not designed for outside installations.
10. When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
11. 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.
12. For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

BC controller

Model			CMB-P1016NU-KA1						
Number of branch			16						
Power source			1-phase 208-230 V						
			60 Hz						
Power input (208/230)	Cooling	kW	0.258/0.333						
	Heating	kW	0.137/0.176						
Current input (208/230)	Cooling	A	1.25/1.45						
	Heating	A	0.66/0.77						
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)						
Connectable outdoor/heat source unit capacity			P72 to P432						
Indoor unit capacity connectable to 1 branch *11			Model P54 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P55.)						
External dimension H x W x D		mm	250 x 1,135 x 545						
		in.	9-7/8 x 44-11/16 x 21-1/2						
Refrigerant piping diameter	To outdoor/heat source unit		Connectable unit capacity		High press. pipe	Low press. pipe			
			mm (in.) O.D.		P72	15.88 (5/8) Brazed	19.05 (3/4) Brazed		
			mm (in.) O.D.		P96	19.05 (3/4) Brazed	22.2 (7/8) Brazed		
			*12		mm (in.) O.D.		P120	19.05 (3/4) Brazed	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed
					mm (in.) O.D.		P144 to P192	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed
			*12		mm (in.) O.D.		P216	22.2 (7/8) Brazed or 28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
					*12		mm (in.) O.D.		P240
			*12		mm (in.) O.D.		P264 to P288	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed
					mm (in.) O.D.		P312	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed or 41.28 (1-5/8) Brazed
	mm (in.) O.D.				P336 to P432	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 P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 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 P72	15.88 (5/8) Brazed	9.52 (3/8) Brazed	19.05 (3/4) Brazed	
			mm (in.) O.D.		P73 to P108	19.05 (3/4) Brazed	9.52 (3/8) Brazed	22.2 (7/8) Brazed	
			mm (in.) O.D.		P109 to P126	19.05 (3/4) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed	
			mm (in.) O.D.		P127 to P144	22.2 (7/8) Brazed	12.7 (1/2) Brazed	28.58 (1-1/8) Brazed	
			mm (in.) O.D.		P145 to P216	22.2 (7/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed	
			mm (in.) O.D.		P217 to P234	28.58 (1-1/8) Brazed	15.88 (5/8) Brazed	28.58 (1-1/8) Brazed	
			mm (in.) O.D.		P235 to P288	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	34.93 (1-3/8) Brazed	
	mm (in.) O.D.		P289 or above	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	41.28 (1-5/8) Brazed			
	Field drain pipe size		in.	3/4 NPT					
Net weight		kg (lbs)	69 (153)						
Sound power level (measured in anechoic room)	Rated operation	dB <A>	66						
	Defrost	dB <A>	73						
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	48						
	Defrost	dB <A>	55						
Accessories			Washer						
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.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.
- 12.For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

1. SPECIFICATIONS

BC controller

Model			CMB-P104NU-KB1		
Number of branch			4		
Power source			1-phase 208-230 V		
			60 Hz		
Power input	Cooling	kW	0.061/0.078		
	Heating	kW	0.030/0.039		
Current input	Cooling	A	0.30/0.35		
	Heating	A	0.15/0.18		
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable Main BC controller			CMB-P108/1012/1016NU-JA1, CMB-P1016NU-KA1		
The maximum number of connectable Sub BC controller			11		
The maximum connectable capacity of indoor units			P126 for each		
External dimension H x W x D		mm	250 x 596 x 398		
		in.	9-7/8 x 23-1/2 x 15-11/16		
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 P18 or smaller 6.35 (1/4) Brazed bigger than P18 9.52 (3/8) Brazed		Indoor unit Model P18 or smaller 12.7 (1/2) Brazed bigger than P18 15.88 (5/8) Brazed (19.05 (3/4) with optional joint pipe used.)
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe
			mm (in.) O.D.	to P72	15.88 (5/8) Brazed
			mm (in.) O.D.	P73 to P108	19.05 (3/4) Brazed
			mm (in.) O.D.	P109 to P126	19.05 (3/4) Brazed
			mm (in.) O.D.	P127 to P144	22.2 (7/8) Brazed
			mm (in.) O.D.	P145 to P216	22.2 (7/8) Brazed
			mm (in.) O.D.	P217 to P234	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P235 to P288	28.58 (1-1/8) Brazed
			mm (in.) O.D.	P289 or above	28.58 (1-1/8) Brazed
Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	23 (51)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40		
	Defrost	dB <A>	53		
Accessories			Washer		
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.Can't use singleness. (MAIN BC CONTROLLER is necessary)

1. SPECIFICATIONS

BC controller

BC controller

Model			CMB-P108NU-KB1		
Number of branch			8		
Power source			1-phase 208-230 V		
			60 Hz		
Power input (208/230)	Cooling	kW	0.122/0.157		
	Heating	kW	0.061/0.078		
Current input (208/230)	Cooling	A	0.59/0.69		
	Heating	A	0.30/0.35		
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		
Connectable Main BC controller			CMB-P108/1012/1016NU-JA1, CMB-P1016NU-KA1		
The maximum number of connectable Sub BC controller			11		
The maximum connectable capacity of indoor units			P126 for each		
External dimension H x W x D		mm	250 x 596 x 398		
		in.	9-7/8 x 23-1/2 x 15-11/16		
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
			mm (in.) O.D.	Indoor unit Model P18 or smaller 6.35 (1/4) Braze bigger than P18 9.52 (3/8) Braze	Indoor unit Model P18 or smaller 12.7 (1/2) Braze bigger than P18 15.88 (5/8) Braze (19.05 (3/4) with optional joint pipe used.)
	To other BC controller		Total down-stream Indoor unit capacity	High press. pipe	Liquid pipe
			mm (in.) O.D.	to P72	15.88 (5/8) Braze
			mm (in.) O.D.	P73 to P108	19.05 (3/4) Braze
			mm (in.) O.D.	P109 to P126	19.05 (3/4) Braze
			mm (in.) O.D.	P127 to P144	22.2 (7/8) Braze
			mm (in.) O.D.	P145 to P216	22.2 (7/8) Braze
			mm (in.) O.D.	P217 to P234	28.58 (1-1/8) Braze
			mm (in.) O.D.	P235 to P288	28.58 (1-1/8) Braze
			mm (in.) O.D.	P289 or above	28.58 (1-1/8) Braze
					19.05 (3/4) Braze
					41.28 (1-5/8) Braze
Field drain pipe size		in.	3/4 NPT		
Net weight		kg (lbs)	31 (69)		
Sound power level (measured in anechoic room)	Rated operation	dB <A>	59		
	Defrost	dB <A>	71		
Sound pressure level (measured in anechoic room)	Rated operation	dB <A>	40		
	Defrost	dB <A>	53		
Accessories			Washer		
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.Refrigerant piping diameter for connection of plural indoor units with 1 branch shall be referred to the Installation Manual.
- 9.This unit is not designed for outside installations.
- 10.When brazing the pipes, be sure to braze, after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- 11.Can't use singleness. (MAIN BC CONTROLLER is necessary)

CMB-P104, 106, 108NU-J1

Unit: mm(in)

<Accessories>

Note 1. Suspension bolt (ø10) and nut (M10) prepare in the field.
2. Take notice of service space as shown. (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 Table-1 for connection pipe of outdoor unit diameter size.

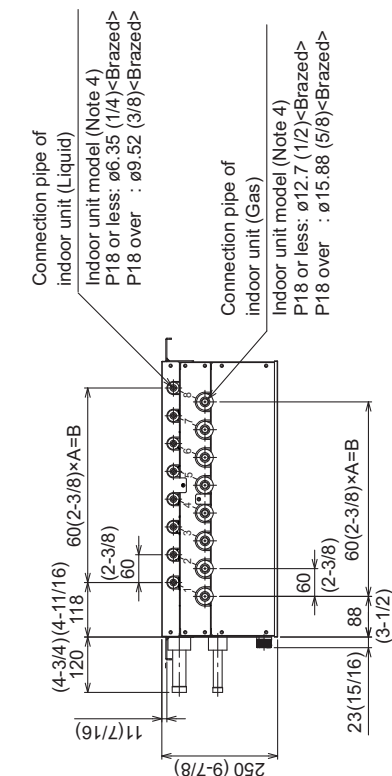
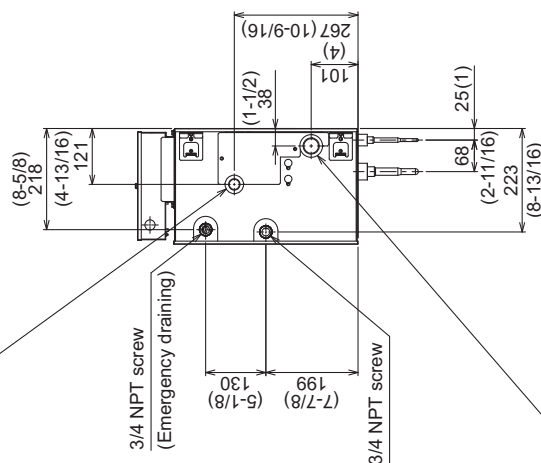
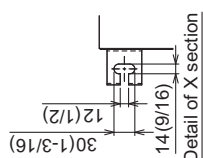
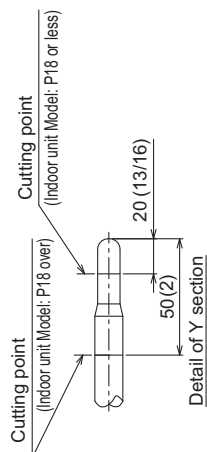
6. Refer to the Installation Manual for insulation of connection pipe and drain piping.

7. Do not place the BC controller directly on the floor.

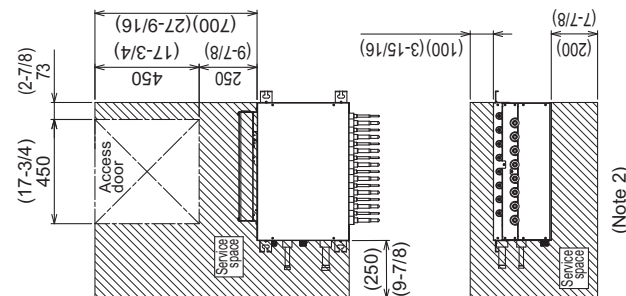
Table-1. To outdoor/heat source unit (Note.5)

Connectable unit capacity	High press. Pipe	Low press. Pipe
P72	ø15.88 (5/8)	ø19.05 (3/4)
P96	ø19.05 (3/4)	ø22.2 (7/8)
P120	ø19.05 (3/4)	ø22.2 (7/8) or ø28.58 (1-1/8)

For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.



	A	B
CMB-P104NU-J1	3	180 (7-1/8)
CMB-P106NU-J1	5	300 (11-13/16)
CMB-P108NU-J1	7	420 (16-9/16)



Unit: mm(in)

Note 1. Suspension bolt($\emptyset 10$) and nut(M10) prepare in the field.

2. Take notice of service space as shown.

- Square washer (with cushion).....4pcs.
- Square washer.....4pcs.

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 Table-1 for connection pipe of outdoor unit diameter size.

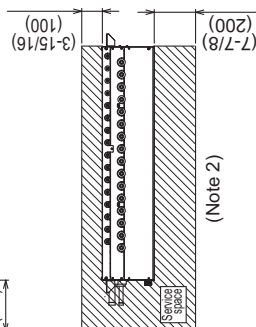
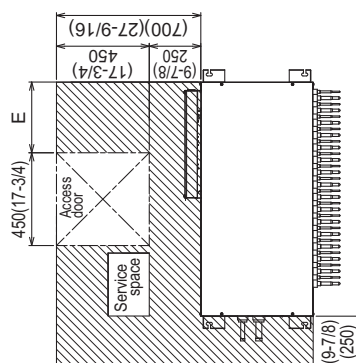
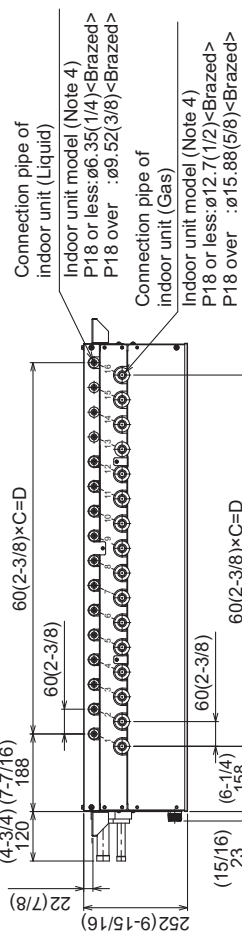
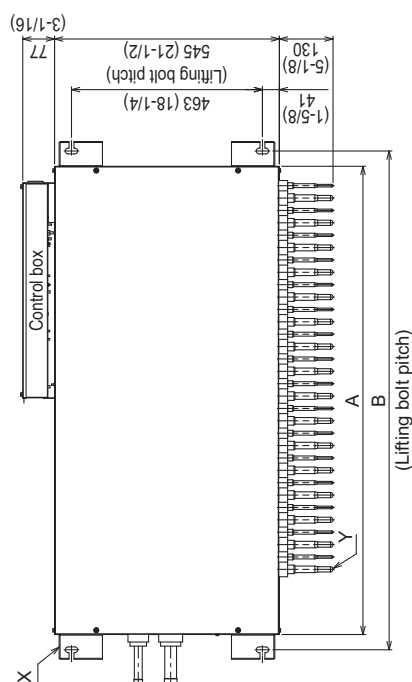
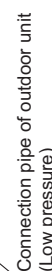
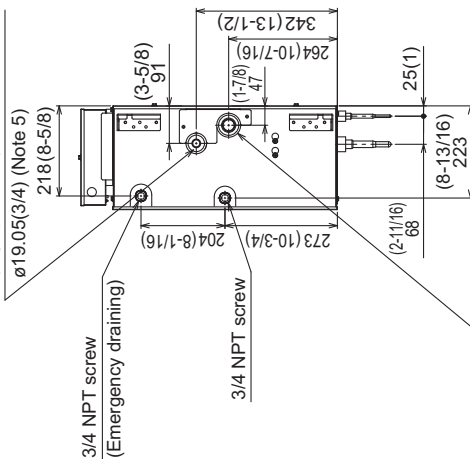
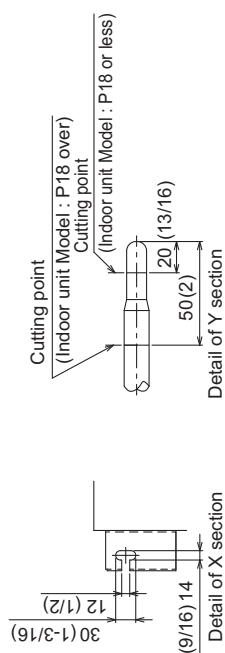
6. Refer to the Installation Manual for insulation of connection pipe and drain piping.

7. Do not place the BC controller directly on the floor.

Table-1. To outdoor/heat source unit (Note.5)

Connectable unit capacity	High press. Pipe	Low press. Pipe
P72	ø15,88(5/8)	ø19,05(3/4)
P96	ø19,05(3/4)	ø22,2(7/8)
P120	ø19,05(3/4)	ø22,2(7/8) or ø28,58(1-1/8)

For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.



	A	B	C	D	E
CMB-P1012NU-J1	911(35-7/8)	983(38-3/4)	11	660(26)	231(9-1/8)
CMB-P1016NI-L-11	1135(44-11/16)	1207(47-9/16)	15	900(35-7/16)	343(13-9/16)

Unit: mm (in)

	A	B	C	D	E
	91(35-78)	983(38-34)	7	420(16-916)	231(9-18)
	CMB-P108NU-JA1				
	CMB-P1072NU-JA1	1135(44-1116)	1207(47-916)	11	343(13-916)
	CMB-P1016NU-JA1	1135(44-1116)	1207(47-916)	15	343(13-916)
	CMB-P1016NU-JA1			900(35-716)	

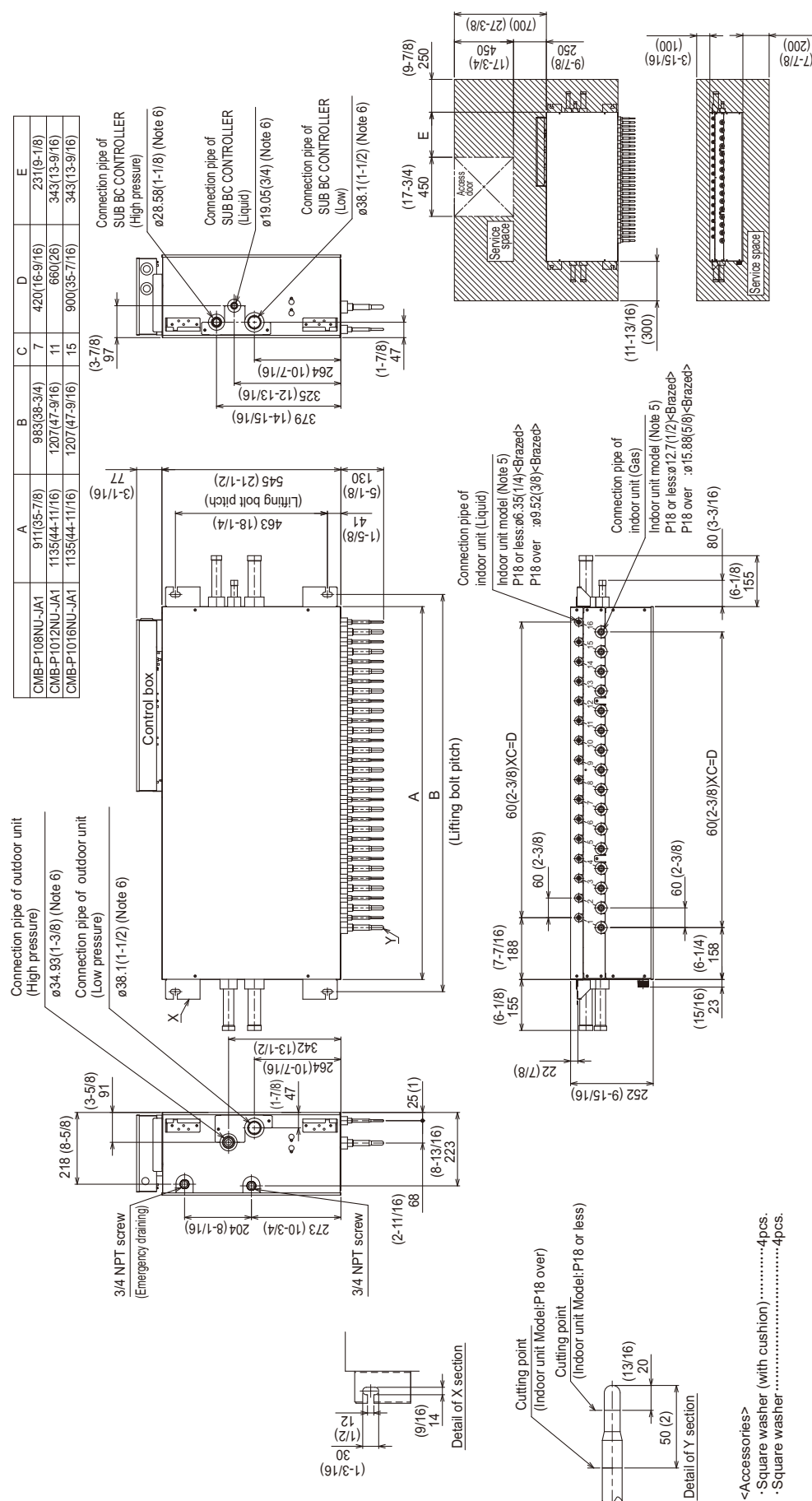


Table-2. To other BC controller (Note.6)

Total downstream indoor unit capacity	High press. Pipe	Liquid Pipe	Low press. Pipe
P72	ø15.88(5/8)	ø9.52(3/8)	ø19.05(3/4)
P73-108	ø19.05(3/4)	ø9.52(3/8)	ø22.27(7/8)
P109-126	ø19.05(3/4)	ø12.7(1/2)	ø28.58(1-1/8)
P127-144	ø22.27(7/8)	ø12.7(1/2)	ø28.58(1-1/8)
P145-216	ø22.27(7/8)	ø15.88(5/8)	ø28.58(1-1/8)
P217-234	ø28.58(1-1/8)	ø15.88(5/8)	ø28.58(1-1/8)
P235-288	ø28.58(1-1/8)	ø19.05(3/4)	ø34.93(1-3/8)
P290~	ø28.58(1-1/8)	ø19.05(3/4)	ø41.28(1-3/8)

Table-1. To outdoor/heat source unit (Note.6)

Connectable unit capacity	High press. Pipe	Low press. Pipe
P72	ø15.88(5/8)	ø19.05(3/4)
P96	ø19.05(3/4)	ø22.27(7/8)
P120	ø19.05(3/4)	ø22.27(7/8) or ø28.58(1-1/8)
P144 to P192	ø22.27(7/8)	ø28.58(1-1/8)
P216	ø22.27(7/8) or ø28.58(1-1/8)	ø28.58(1-1/8)
P240	ø22.27(7/8) or ø28.58(1-1/8)	ø34.93(1-3/8)
P264 to P288	ø28.58(1-1/8)	ø34.93(1-3/8)
P312	ø28.58(1-1/8)	ø41.28(1-5/8)
P336	ø28.58(1-1/8)	ø41.28(1-5/8)

For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

Note 1. Suspension bolt(ø10) and nut(M10) prepare in the field.

1. suspension $\text{bol}(\emptyset \cup \nu)$ and $\text{nu}(\text{MIO})$ prep
2. Take notice of service space as shown.

2. Take notice of service space as shown.
(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)

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

(For use in quiet environments with low background noise, position emitted by the unit will not disturb the neighbors).

the BC CONTROLLER at least 5m away from any indoor units.)

5. Refer to the Installation Manual for refrigerant piping diagram.

when connecting plural indoor units with 1 branch.

6. Refer to the Table-1,2 connection pipe of outdoor unit

or SUB BC CONTROLLER diameter size.

7. Refer to the Installation Manual for insulation of connected pipes.

drain piping.

CMB-P1016NU-KA1

Unit: mm (in)

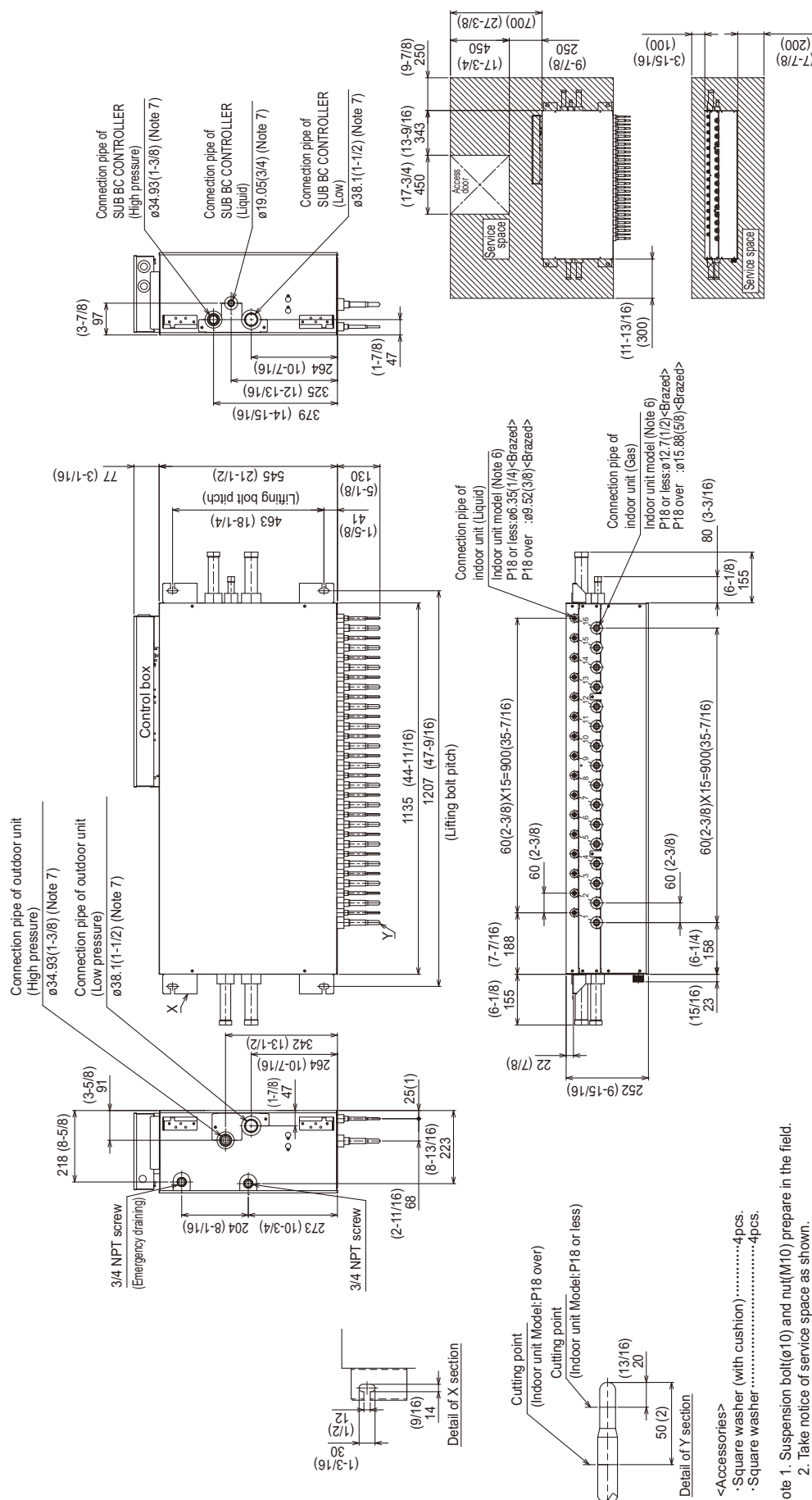


Table-2. To other BC controller (Note.7)

Total downstream indoor unit capacity	High press. Pipe	Liquid Pipe	Low press. Pipe
P72	ø15.88(5/8)	ø9.52(3/8)	ø19.05(3/4)
P73-108	ø19.05(3/4)	ø9.52(3/8)	ø22.2(7/8)
P109-126	ø19.05(3/4)	ø12.7(1/2)	ø28.58(1-1/8)
P127-144	ø22.2(7/8)	ø12.7(1/2)	ø28.58(1-1/8)
P145-216	ø22.2(7/8)	ø15.88(5/8)	ø28.58(1-1/8)
P217-234	ø28.58(1-1/8)	ø15.88(5/8)	ø28.58(1-1/8)
P235-288	ø28.58(1-1/8)	ø19.05(3/4)	ø34.93(1-3/8)
P290-	ø28.58(1-1/8)	ø19.05(3/4)	ø41.28(1-5/8)

Table-1. To outdoor/heat source unit (Note.7)

Connectable unit capacity	High press. Pipe	Low press. Pipe
P72	ø15.88(5/8)	ø19.05(3/4)
P96	ø19.05(3/4)	ø22.27(7/8)
P120	ø19.05(3/4)	ø22.27(7/8) or ø28.58(1-1/8)
P144 to P192	ø22.27(7/8)	ø28.58(1-1/8)
P216	ø22.27(7/8) or ø28.58(1-1/8)	ø28.58(1-1/8)
P240	ø22.27(7/8) or ø28.58(1-1/8)	ø34.93(1-3/8)
P264 to P288	ø28.58(1-1/8)	ø34.93(1-3/8)
P312	ø28.58(1-1/8)	ø34.93(1-3/8) or ø41.28(1-5/8)
P336 to P432	ø28.58(1-1/8)	ø41.28(1-5/8)

For the refrigerant pipe size, refer to Installation Manual of outdoor units/heat source units.

Note 1. Suspension bolt(ø10) and nut(M10) prepare in the field.

2. Take notice of service space as shown.
(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-384HP(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 Table-1,2 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. Do not place the BC controller directly on the floor.

BC controller

CMB-P104, 108NU-KB1

Unit: mm (in)

Note 1. Suspension bolt(ø10) and nut(M10) prepare in the field.

2. Take notice of service space as shown.

Let tanks, hoses or service space be empty.
(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.

3. Refer to the installation manual for refrigerant piping diameter sizes when connecting plural indoor units with 1 branch.

6. Refer to the Table-1 for connection pipe of MAIN BC CONTROLLER

7. Refer to the Installation Manual for insulation of connection pipe and drain piping.

8. Do not place the BC controller directly on the floor.

<Accessories>

• Square washer (with cushion) 4 pcs.

• Square washer.....4pcs.

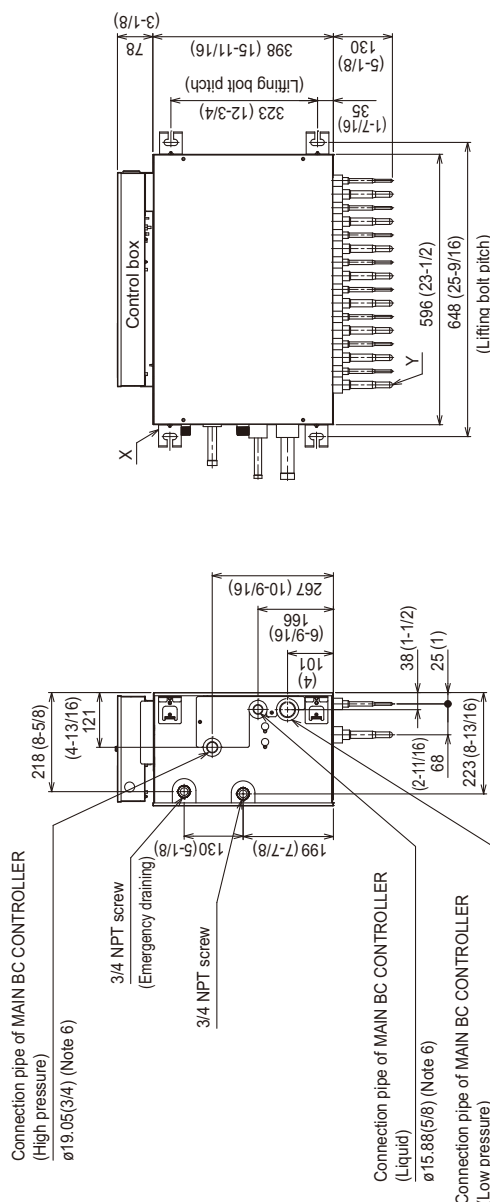
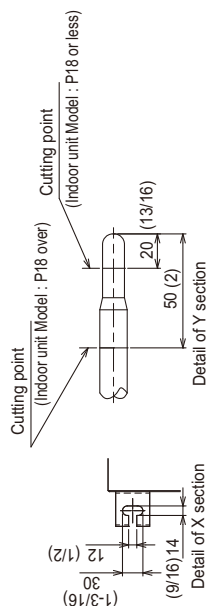
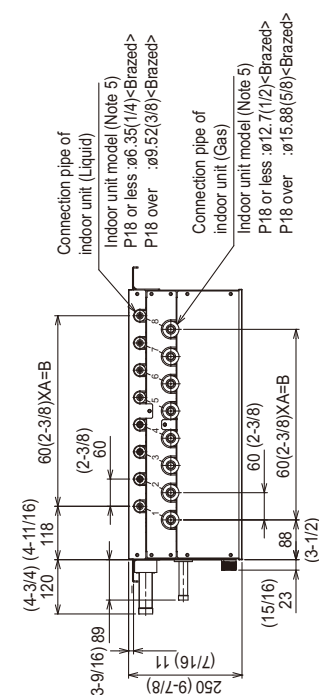
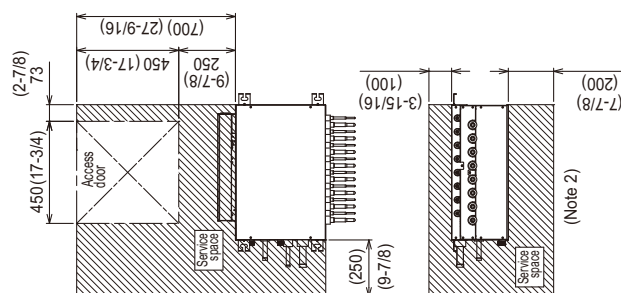


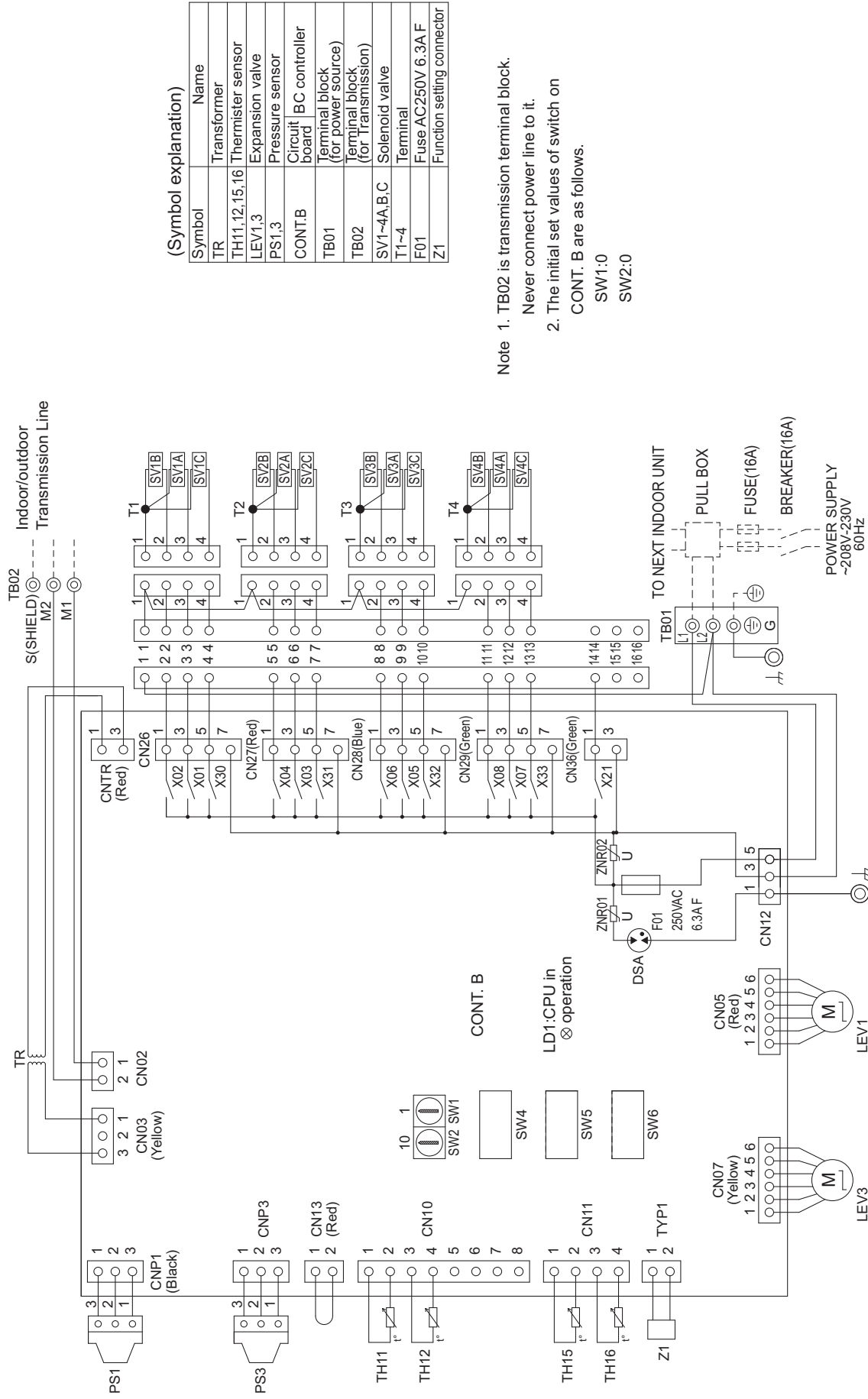
Table-1. To other BC controller (Note.6)

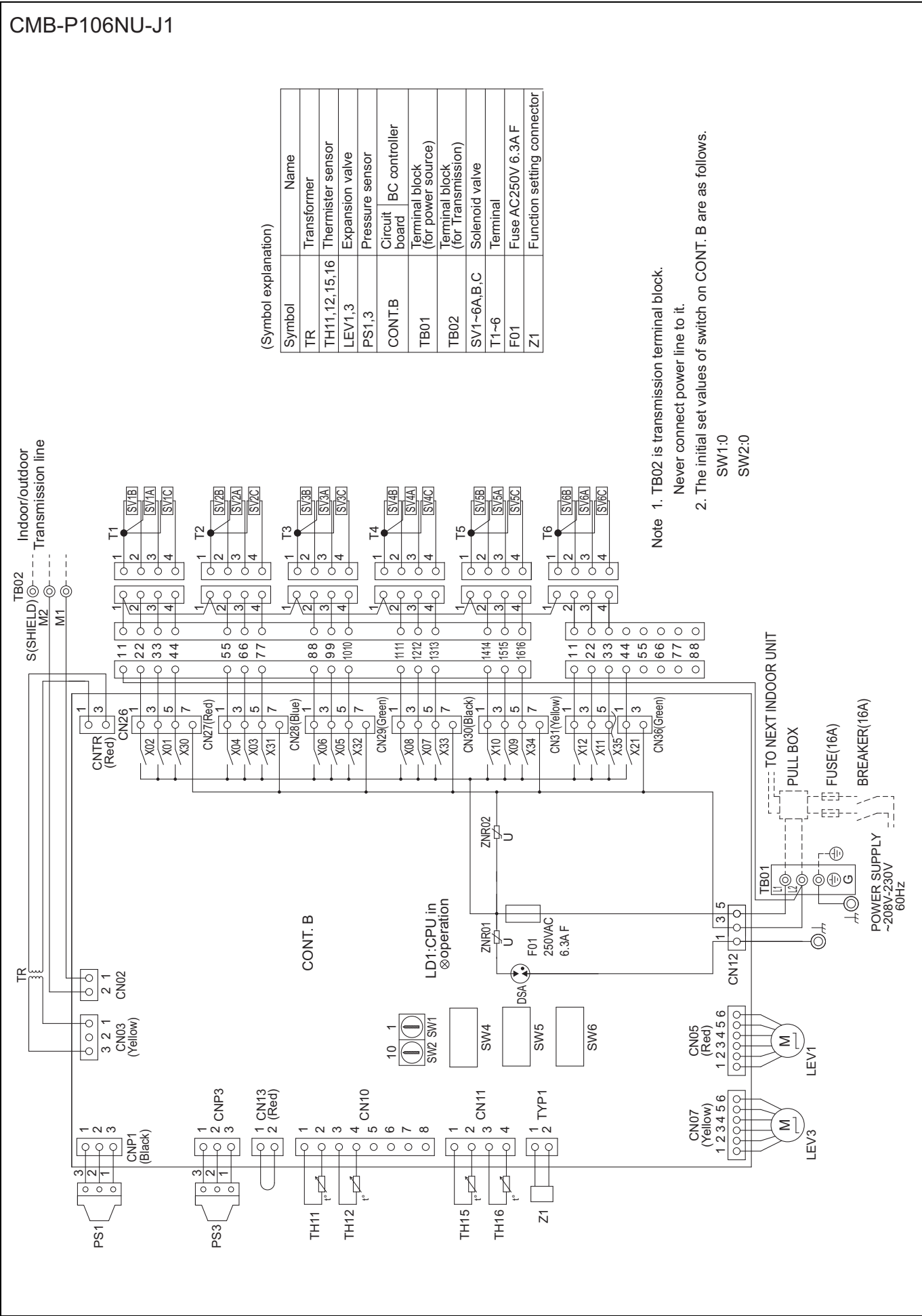
Total downstream indoor unit capacity	High press. Pipe	Liquid Pipe	Low press. Pipe
-P72	ø15.88(5/8)	ø9.52(3/8)	ø19.05(3/4)
P73~108	ø19.05(3/4)	ø9.52(3/8)	ø22.27(7/8)
P109~126	ø19.05(3/4)	ø12.7(1/2)	ø28.58(1-1/8)
P127~144	ø22.27(7/8)	ø12.7(1/2)	ø28.58(1-1/8)
P145~216	ø22.27(7/8)	ø15.88(5/8)	ø28.58(1-1/8)
P217~234	ø22.27(7/8)	ø15.88(5/8)	ø28.58(1-1/8)
P235~288	ø19.05(3/4)	ø19.05(3/4)	ø34.93(3-1/8)
P289~	ø28.58(1-1/8)	ø19.05(3/4)	ø41.28(1-5/8)



	A	B
CMB-P104NU-KB1	3	180(7-1/8)
CMB-P108NU-KB1	7	420(16-9/16)

CMB-P104NU-J1



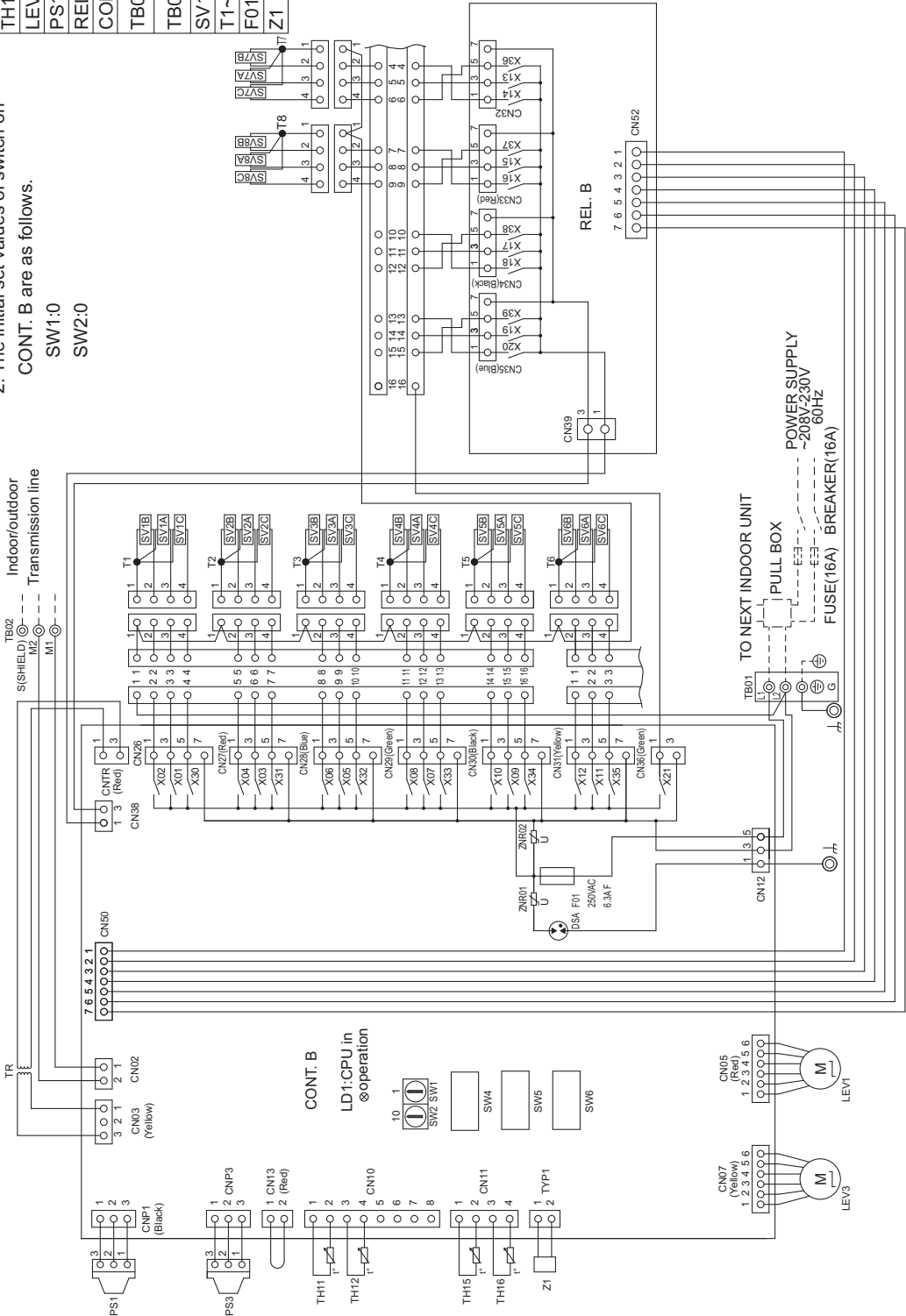


CMB-P108NU-J1

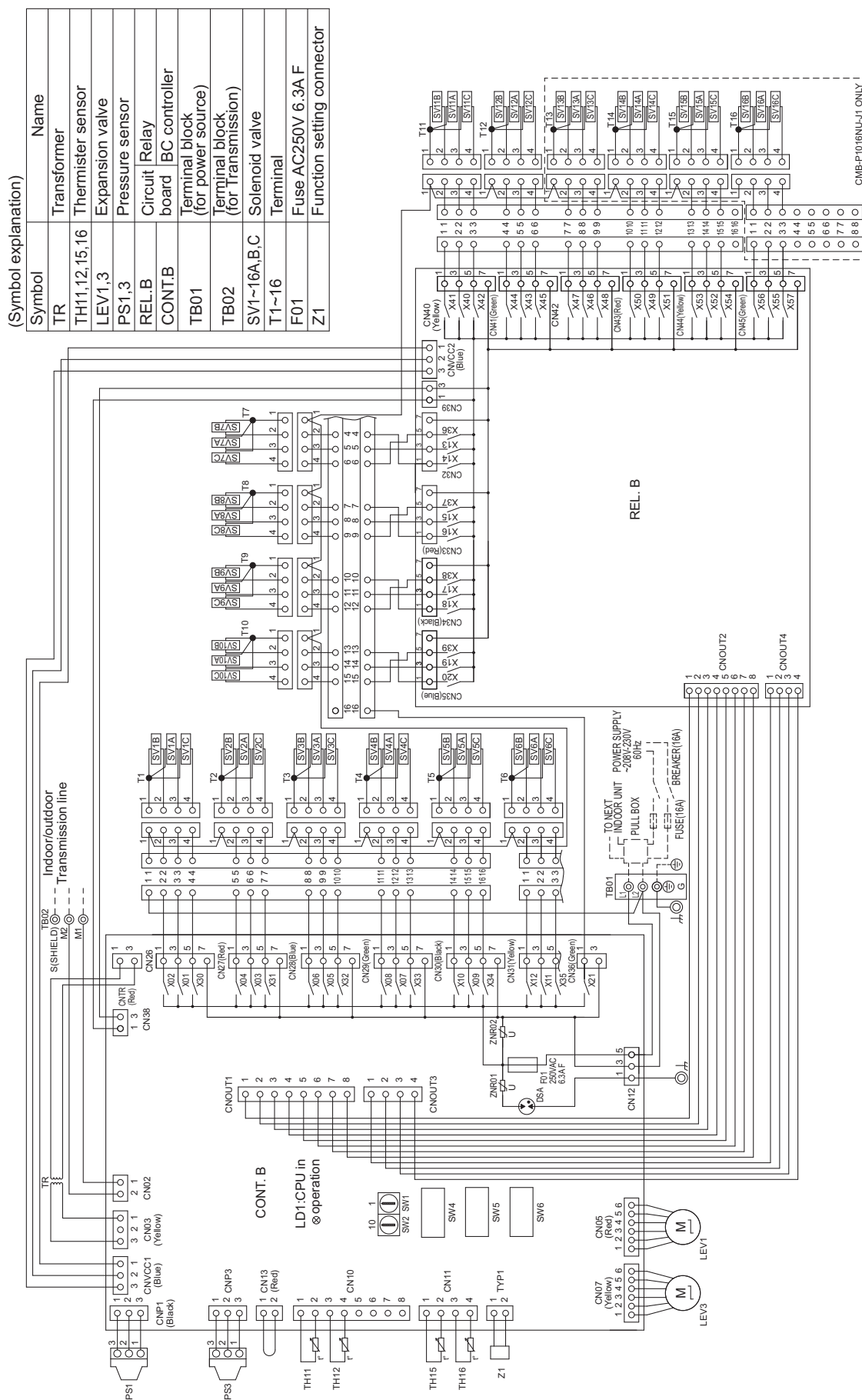
(Symbol explanation)

Symbol	Name
TR	Transformer
TH11,12,15,16	Thermister sensor
LEV1,3	Expansion valve
PS1,3	Pressure sensor
REL.B	Circuit Relay
CONT.B	board BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for transmission)
SV1~8A,B,C	Solenoid valve
T1~8	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



CMB-P1012, 1016NU-J1



Note 1. TB02 is transmission terminal block.

Never connect power line to it.

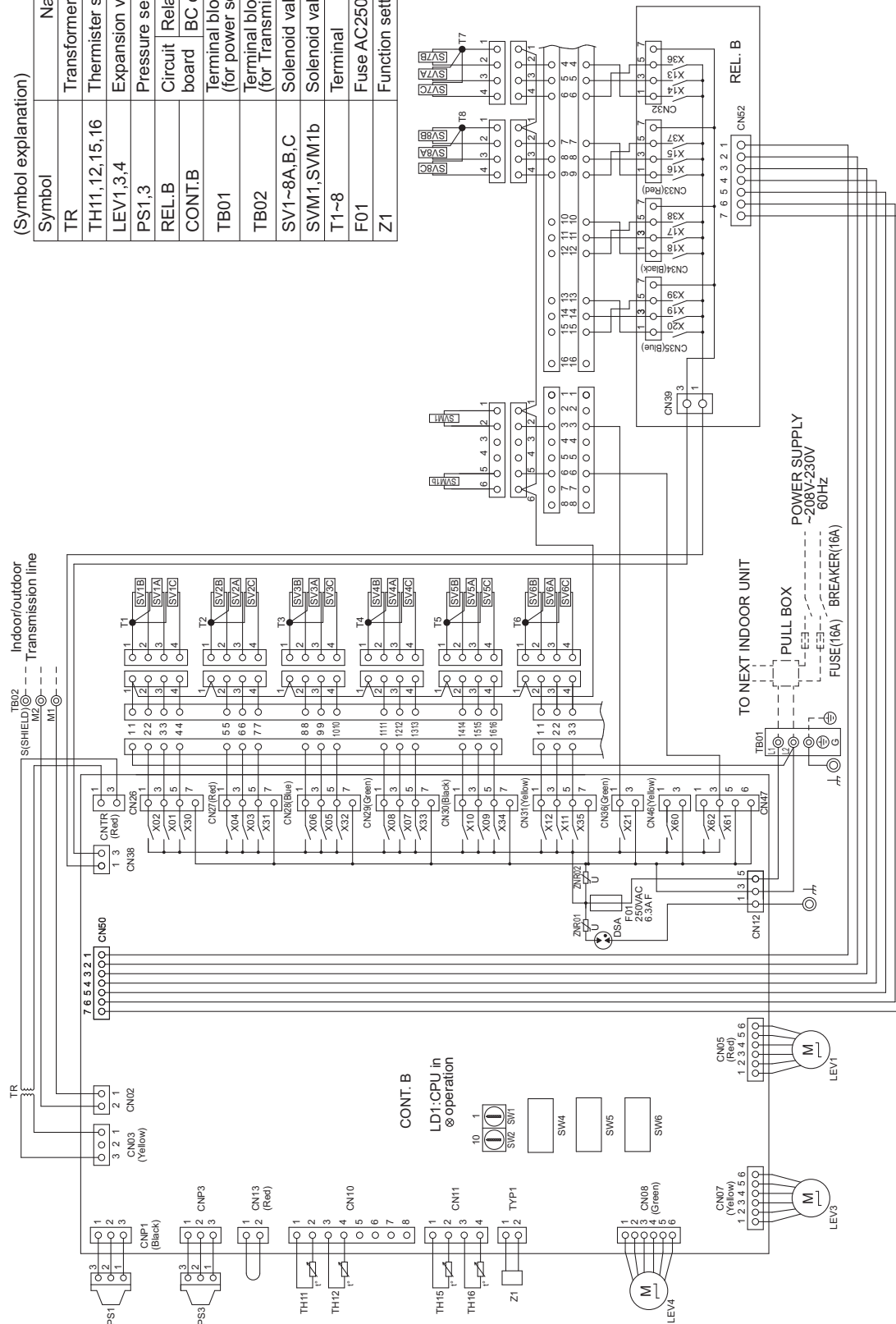
2. The initial set values of switch on CONT. B are as follows.

SW1:0

SW2:0

(Symbol explanation)

(Symbol 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	board BC controller
	TB01	Terminal block (for power source)
	TB02	Terminal block (for Transmission)
	SV1~8A,B,C	Solenoid valve
	SVM1,SVM1b	Solenoid valve
	T1~8	Terminal
	F01	Fuse AC250V 6.3A F
	Z1	Function setting connector

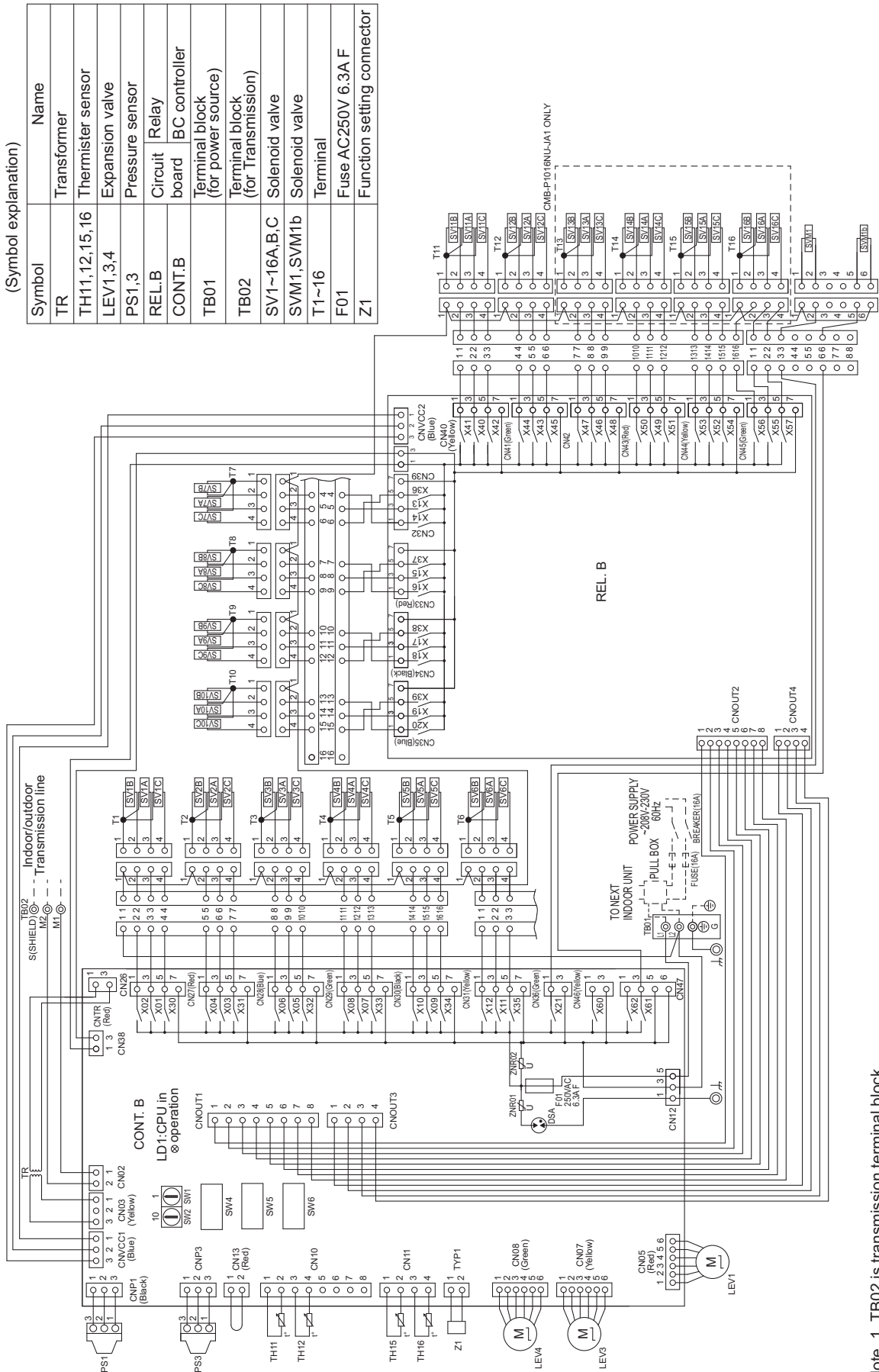


Note 1. TB02 is transmission terminal block.
Never connect power line to it.

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

SW1:0
SW2:0

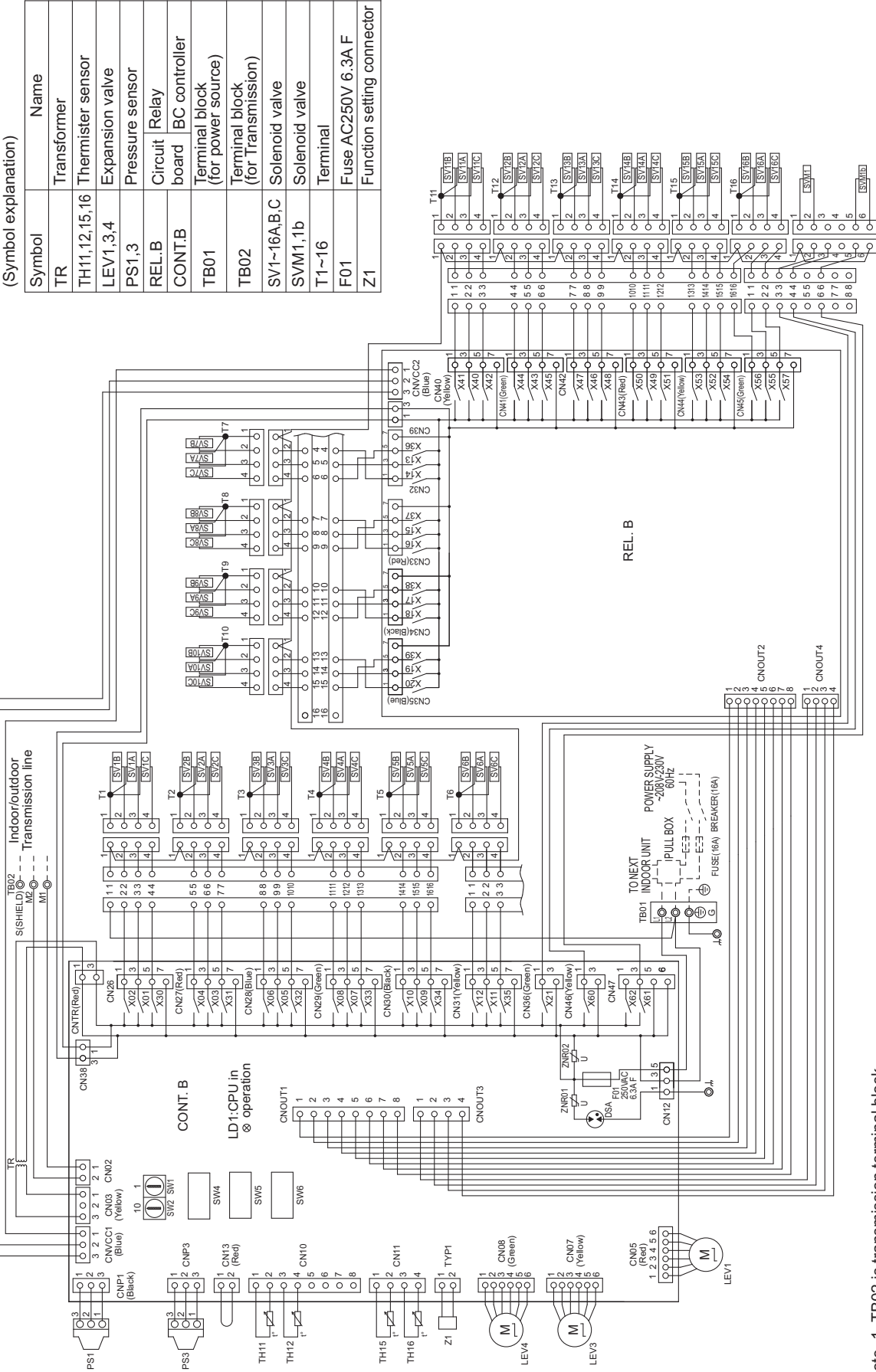
CMB-P1012, 1016NU-JA1



- 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

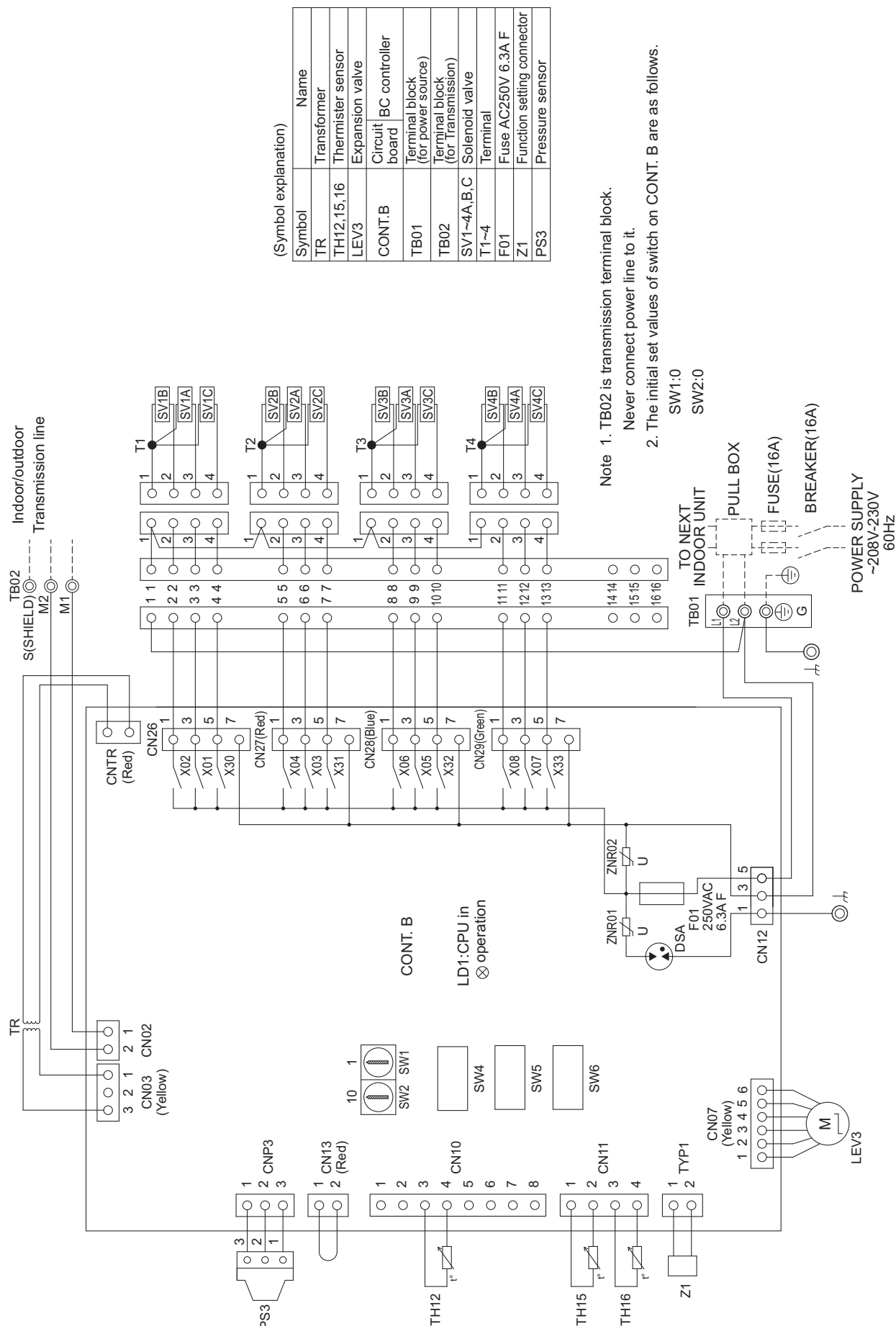
3. ELECTRICAL WIRING DIAGRAMS

CMB-P1016NU-KA1



BC controller

CMB-P104NU-KB1

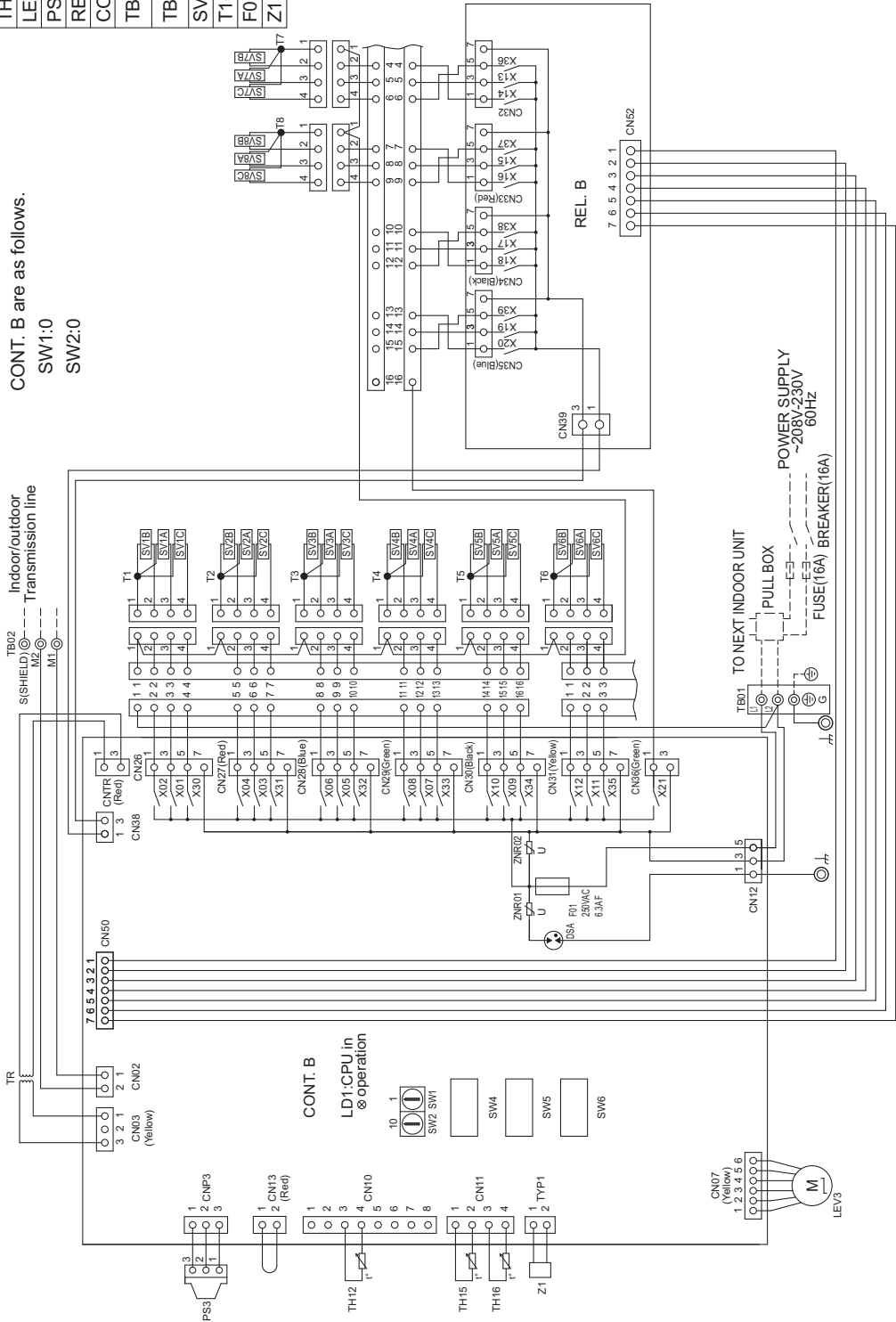


CMB-P108NU-KB1

(Symbol explanation)

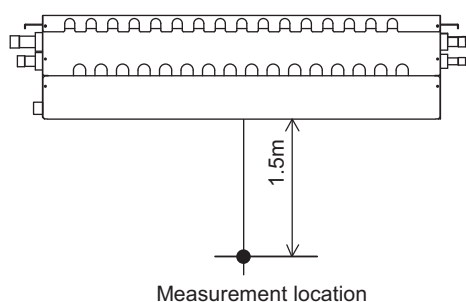
Symbol	Name
TR	Transformer
TH12, 15, 16	Thermister sensor
LEV3	Expansion valve
PS3	Pressure sensor
REL.B	Circuit Relay board
CONT.B	BC controller
TB01	Terminal block (for power source)
TB02	Terminal block (for Transmission)
SV1~8A,B,C	Solenoid valve
T1~8	Terminal
F01	Fuse AC250V 6.3A F
Z1	Function setting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

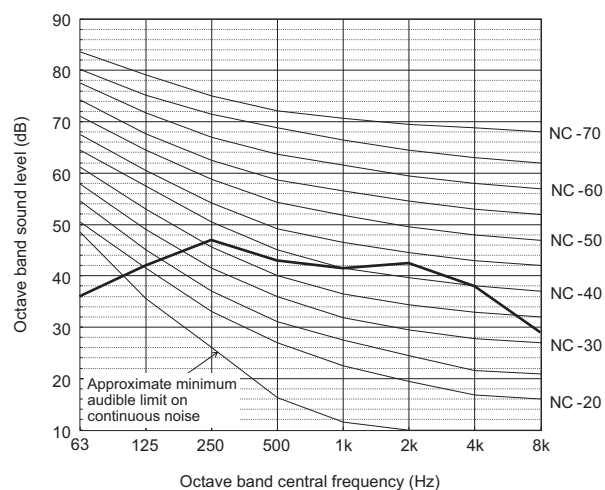


4-1. Sound levels in cooling mode

Measurement condition

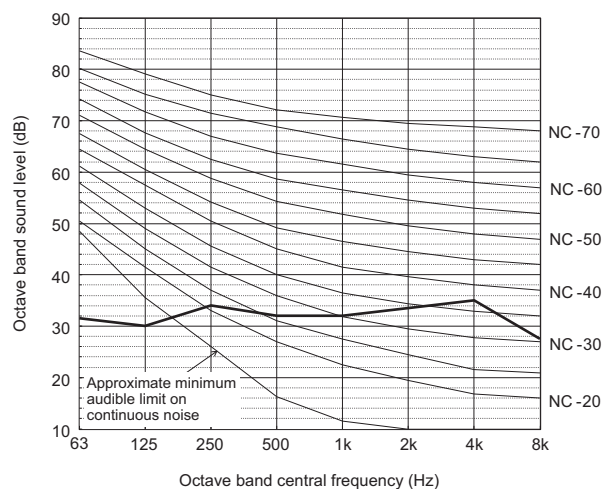


Sound level of CMB-P1016NU-KA1



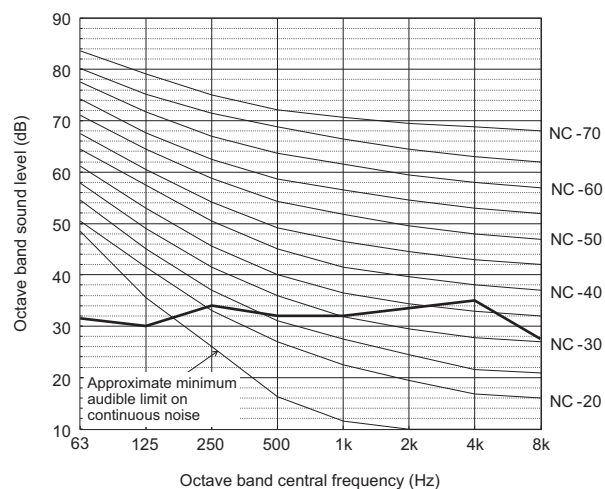
	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Cooling 60Hz	36.0	42.0	47.0	43.0	41.5	42.5	38.0	29.0	48.0

Sound level of CMB-P104-1016NU-J1



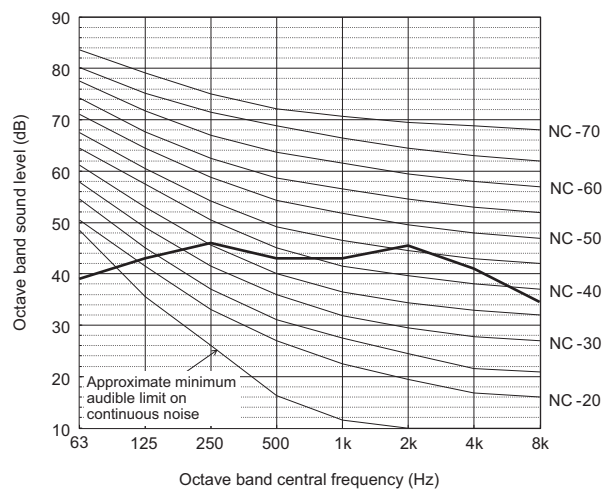
	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Cooling 60Hz	31.5	30.0	34.0	32.0	32.0	33.5	35.0	27.5	40.0

Sound level of CMB-P104, 108NU-KB1



	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Cooling 60Hz	31.5	30.0	34.0	32.0	32.0	33.5	35.0	27.5	40.0

Sound level of CMB-P108-1016NU-JA1

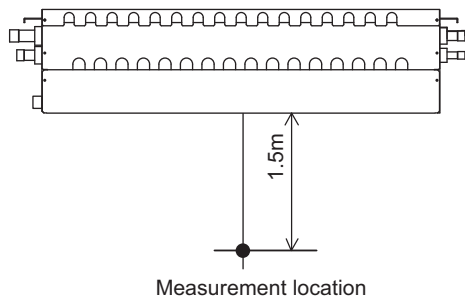


	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Cooling 60Hz	39.0	43.0	46.0	43.0	43.0	45.5	41.0	34.5	50.0

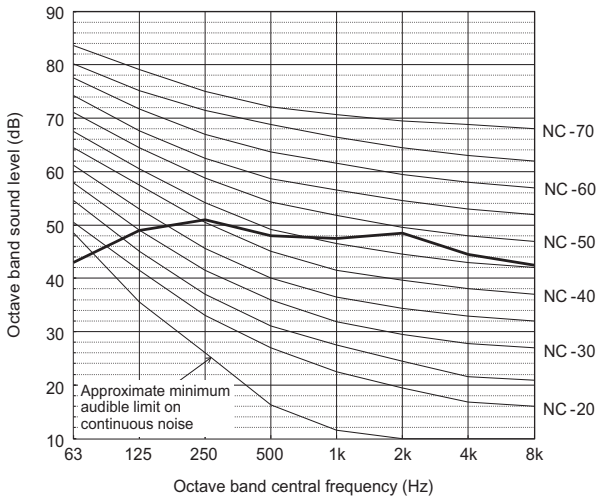
• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

4-2. Sound levels in heating mode

Measurement condition

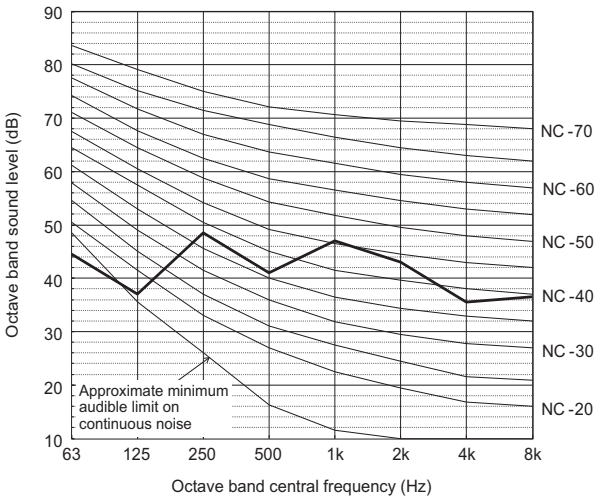


Sound level of CMB-P1016NU-KA1



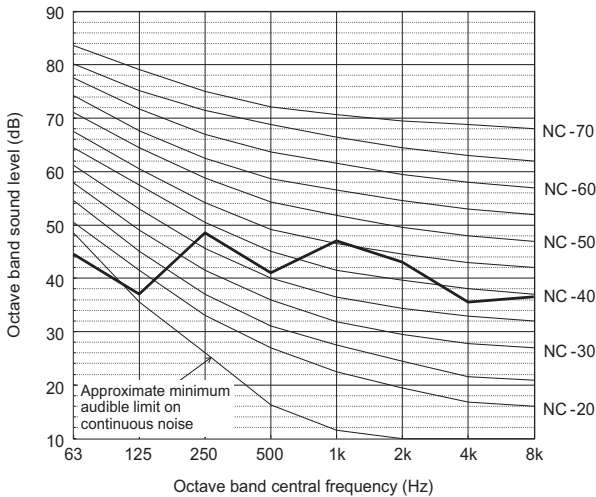
	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Heating	60Hz	43.0	49.0	51.0	48.0	47.5	48.5	44.5	54.0

Sound level of CMB-P104-1016NU-J1



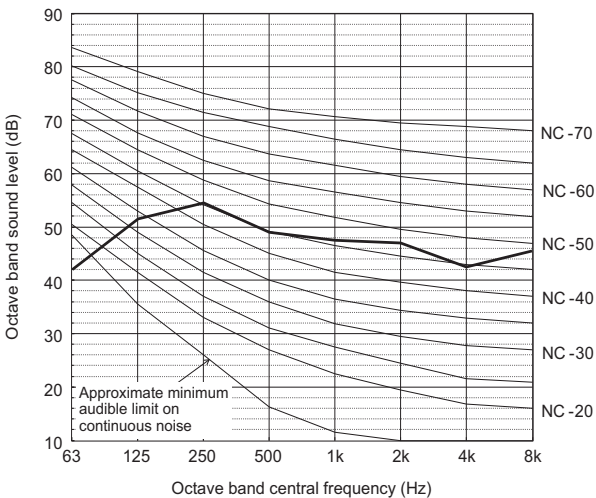
	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Heating	60Hz	44.5	37.0	48.5	41.0	47.0	43.0	35.5	50.0

Sound level of CMB-P104, 108NU-KB1



	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Heating	60Hz	44.5	37.0	48.5	41.0	47.0	43.0	35.5	50.0

Sound level of CMB-P108-1016NU-JA1

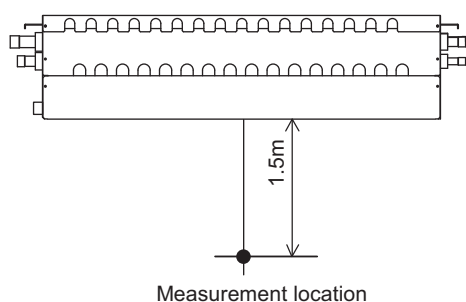


	63	125	250	500	1k	2k	4k	8k	dB(A)
Standard Heating	60Hz	42.0	51.5	54.5	49.0	47.5	47.0	42.5	54.0

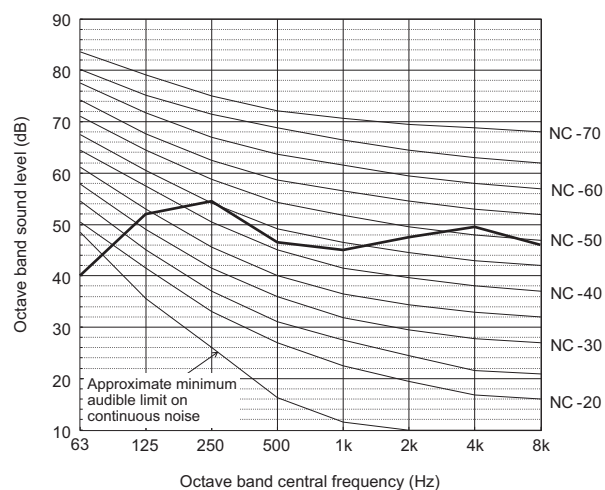
♦Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required.

4-3. Sound levels in defrost mode

Measurement condition

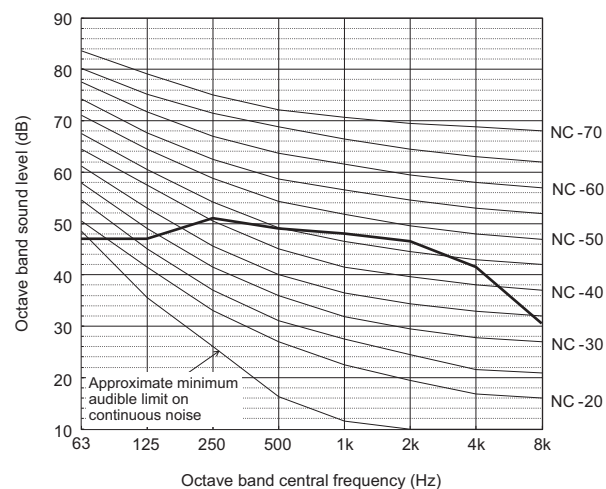


Sound level of CMB-P1016NU-KA1



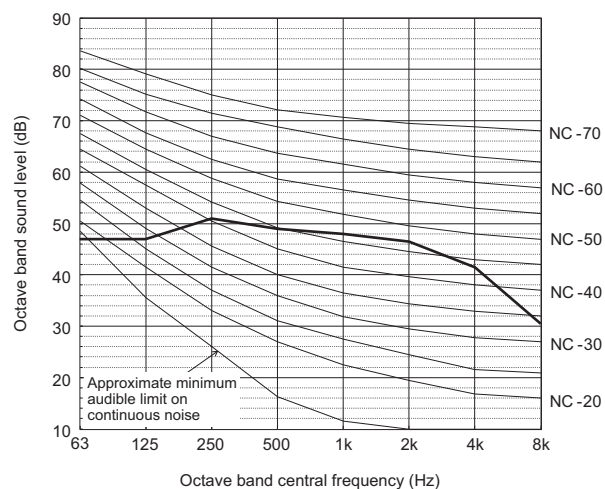
		63	125	250	500	1k	2k	4k	8k	dB(A)
Defrost	60Hz	40.0	52.0	54.5	46.5	45.0	47.5	49.5	46.0	55.0

Sound level of CMB-P104-1016NU-J1



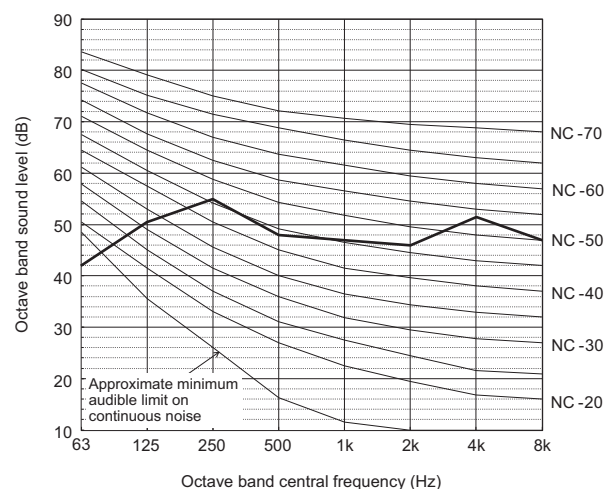
		63	125	250	500	1k	2k	4k	8k	dB(A)
Defrost	60Hz	47.0	47.0	51.0	49.0	48.0	46.5	41.5	30.5	53.0

Sound level of CMB-P104, 108NU-KB1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Defrost	60Hz	47.0	47.0	51.0	49.0	48.0	46.5	41.5	30.5	53.0

Sound level of CMB-P108-1016NU-JA1



		63	125	250	500	1k	2k	4k	8k	dB(A)
Defrost	60Hz	42.0	50.5	55.0	48.0	47.0	46.0	51.5	47.0	56.0

• 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.

BC controller

Symbols: MCA: Minimum Circuit Ampacity
FLA: Full Load Amps RLA: Rated Load Amps

Model	Hz	Volts	Voltage range	MCA(A)	FLA(A)	RLA(A)
CMB-P104NU-J1	60	208	Max.: 253V Min.: 188V	0.38	15	0.30
		230		0.44		0.35
CMB-P106NU-J1		208		0.55		0.44
		230		0.65		0.52
CMB-P108NU-J1		208		0.74		0.59
		230		0.87		0.69
CMB-P1012NU-J1		208		1.10		0.88
		230		1.29		1.03
CMB-P1016NU-J1		208		1.47		1.17
		230		1.72		1.37
CMB-P108NU-JA1		208		0.83		0.66
		230		0.97		0.77
CMB-P1012NU-JA1		208		1.19		0.95
		230		1.39		1.11
CMB-P1016NU-JA1		208		1.57		1.25
		230		1.82		1.45
CMB-P1016NU-KA1		208		1.57		1.25
		230		1.82		1.45
CMB-P104NU-KB1		208		0.38		0.30
		230		0.44		0.35
CMB-P108NU-KB1		208		0.74		0.59
		230		0.87		0.69

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-Y102SS-G2

For Gas pipe:

*Pipe diameter is indicated by inside diameter.

<Reducer(Accessory)>

in.

For Liquid pipe:

*Pipe diameter is indicated by inside diameter.

<Reducer(Accessory)>

in.

CMY-Y102LS-G2

For Gas pipe:

*Pipe diameter is indicated by inside diameter.

<Reducer(Accessory)>

in.

For Liquid pipe:

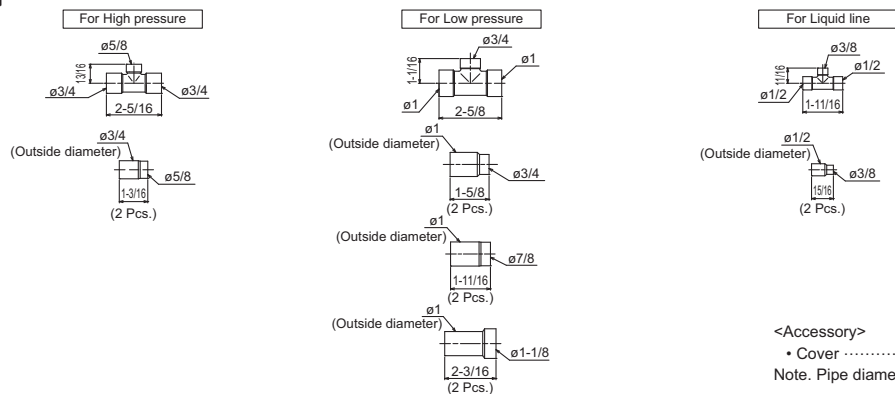
*Pipe diameter is indicated by inside diameter.

<Reducer(Accessory)>

in.

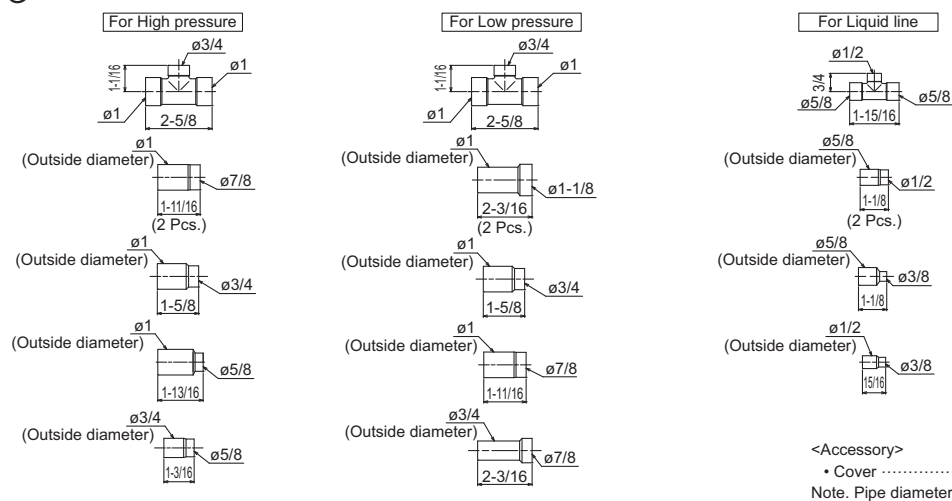
CMY-R201S-G

in.



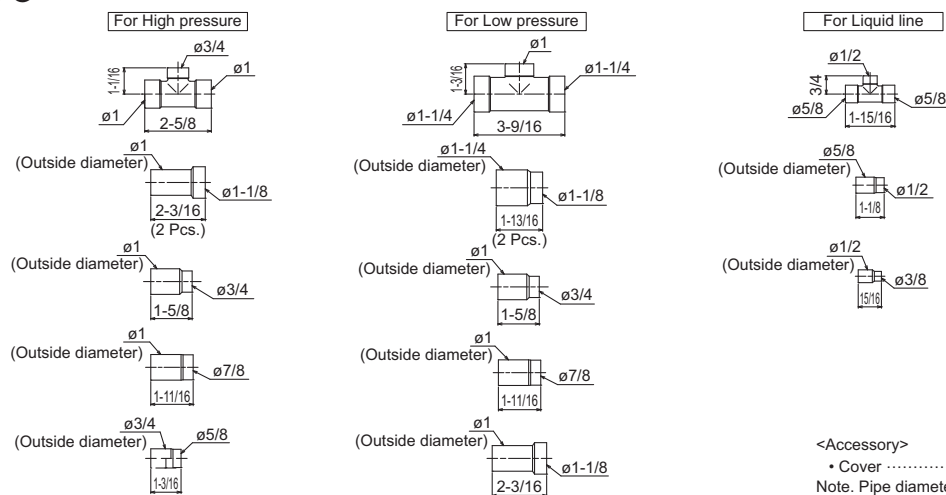
CMY-R202S-G

in.



CMY-R203S-G

in.



in.

Note. Pipe diameter is indicated by inside diameter.

in.

Note. Pipe diameter is indicated by inside diameter.

in

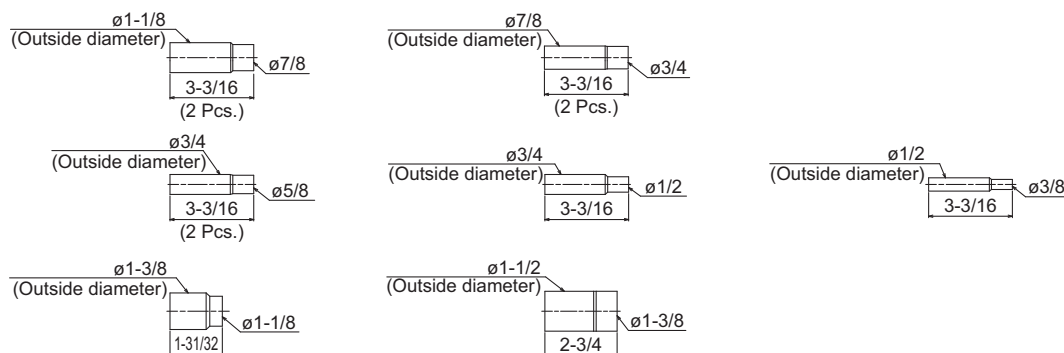
Note. Pipe diameter is indicated by inside diameter.

in

Note. Pipe diameter is indicated by inside diameter.

CMY-R303S-G1

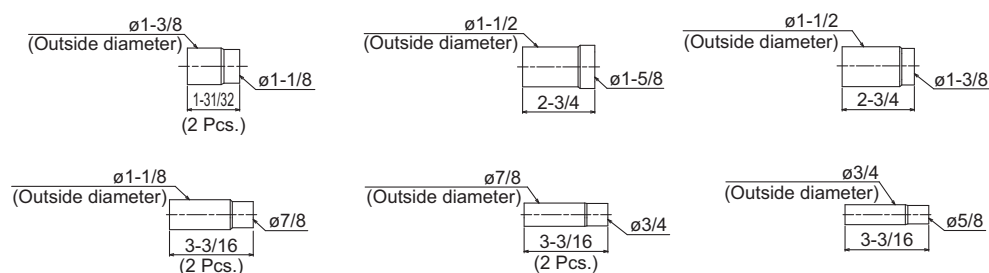
in.



Note. Pipe diameter is indicated by inside diameter.

CMY-R304S-G1

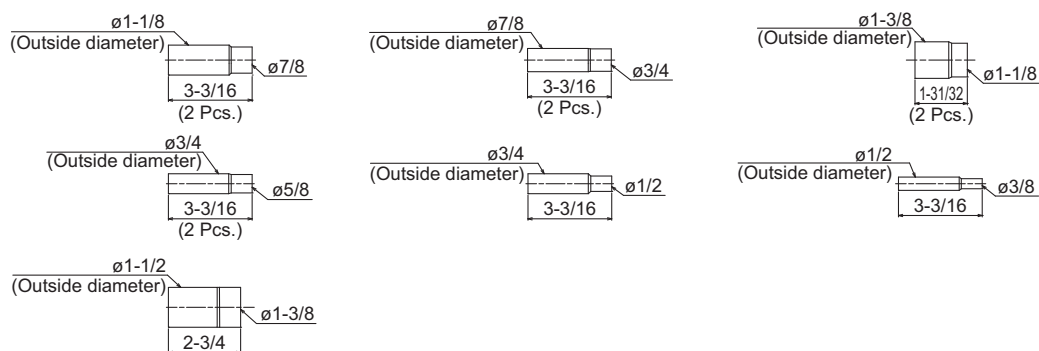
in.



Note. Pipe diameter is indicated by inside diameter.

CMY-R305S-G1

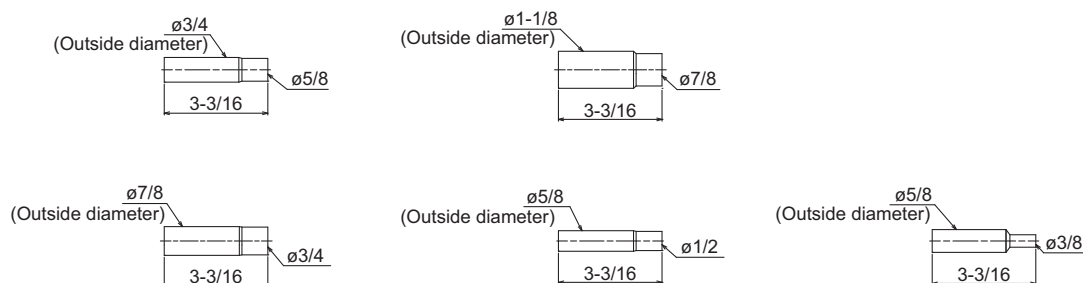
in.



Note. Pipe diameter is indicated by inside diameter.

CMY-R306S-G

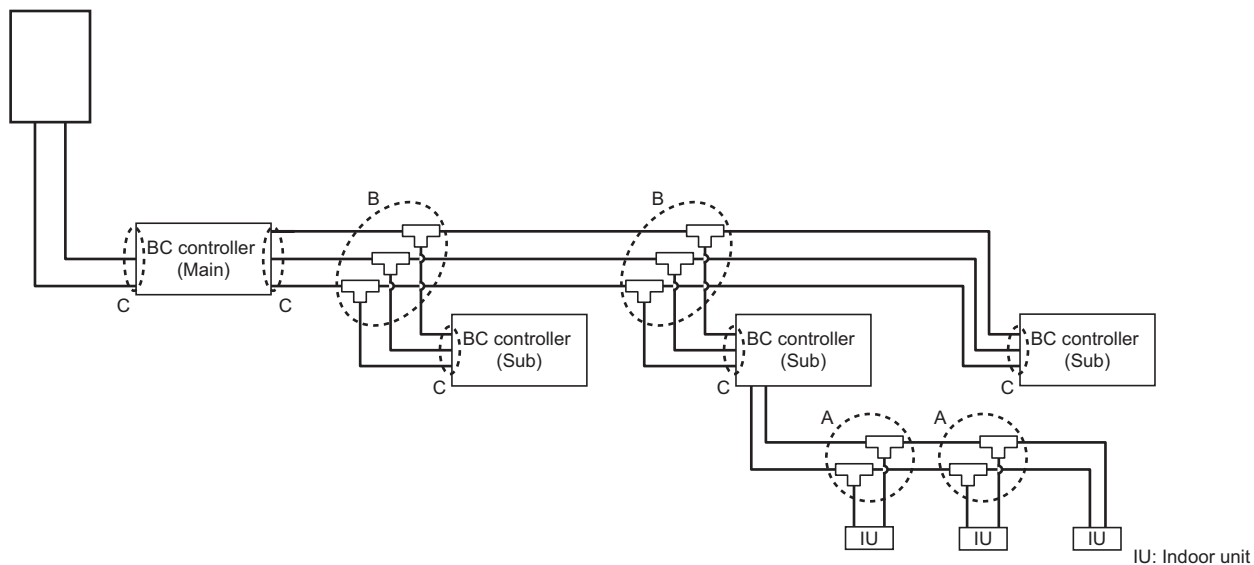
in.



Note. Pipe diameter is indicated by inside diameter.

How to select Joint and Reducer

Outdoor/Heat source unit



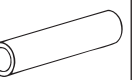
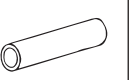
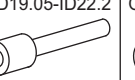
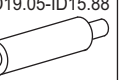
A	Branch joint	Between BC and indoor units	CMY-Y102SS-G2	Total down-stream indoor unit capacity: -P72
			CMY-Y102LS-G2	Total down-stream indoor unit capacity: P73-P96
B	Branch joint	Between Main BC and Sub BC	CMY-R201S-G	Total down-stream indoor unit capacity: -P126
			CMY-R202S-G	Total down-stream indoor unit capacity: P127-P216
			CMY-R203S-G	Total down-stream indoor unit capacity: P217-P234
			CMY-R204S-G	Total down-stream indoor unit capacity: P235-P360
			CMY-R205S-G	Total down-stream indoor unit capacity: P361-
C	Reducer	Between outdoor units and BC	CMY-R301S-G	For J1 type (Outdoor unit capacity: P72-P120)
			CMY-R302S-G1	For JA1 type (Outdoor unit capacity: P72-P336)
			CMY-R304S-G1	For KA1 type (Outdoor unit capacity: P72-P432)
		Between Main BC and Sub BC	CMY-R303S-G1	For JA1 type (When using the Sub BC controller)
			CMY-R305S-G1	For KA1 type (When using the Sub BC controller)
			CMY-R306S-G	For KB1 type

•Item "B" is not necessary when J1-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 P54 as shown in Fig. 1.

The Joint kit include following items:

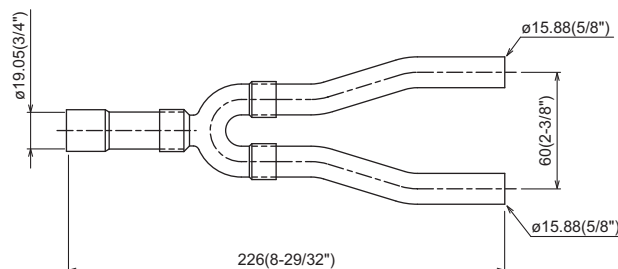
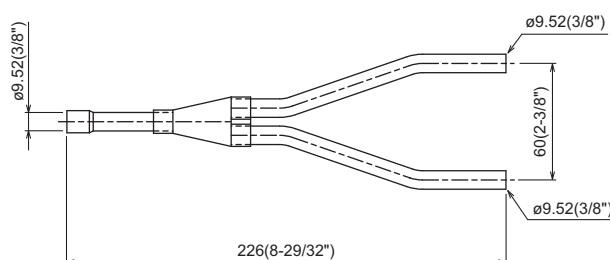
① Instruction	② Joint pipe (Small)	③ Joint pipe (Large)	④ Cover 1	⑤ Cover 2	⑥ Cover 3	⑦ Band	⑧ Reducer 1	⑨ Reducer 2
								
This sheet 1pc	1pc	1pc	2pcs	1pc for gas side	1pc for liquid side	8pcs	1pc	1pc

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 P54. When the down-stream Indoor capacity is above P54, 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.

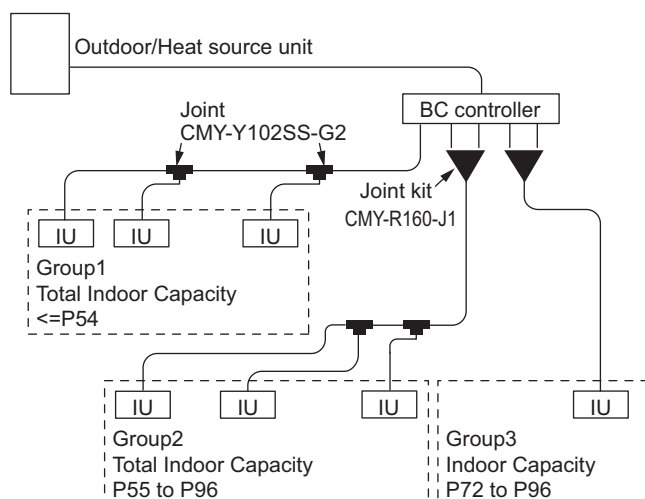


Fig.1. CMY-R160-J1 applying scheme

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.

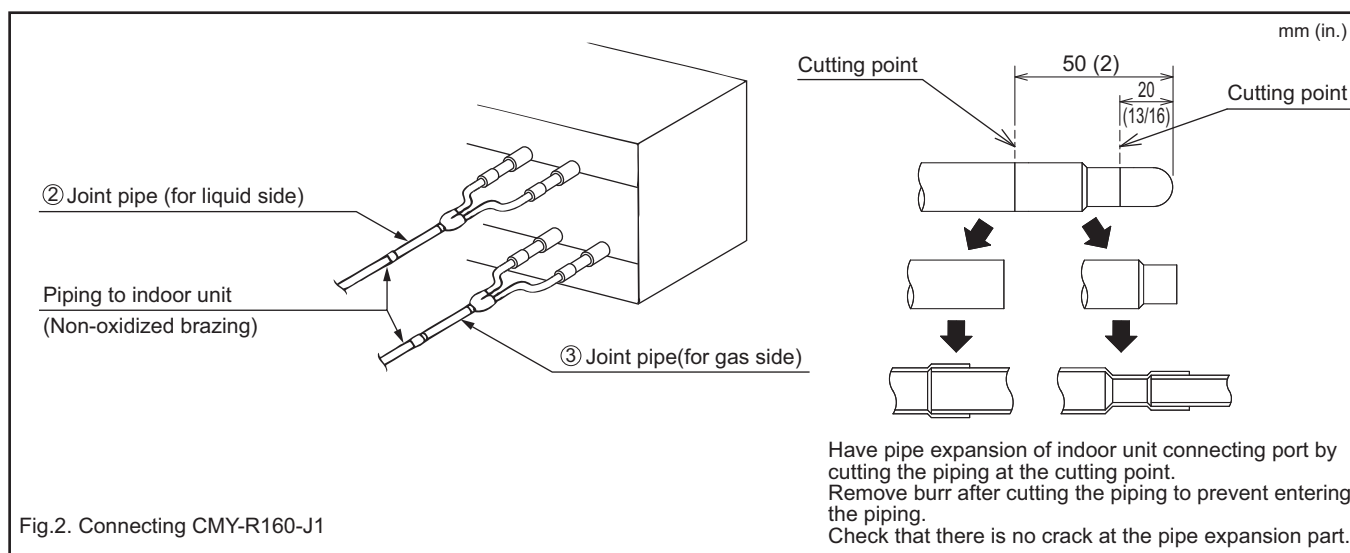


Fig.2. Connecting CMY-R160-J1

7-1. Installing BC controllers

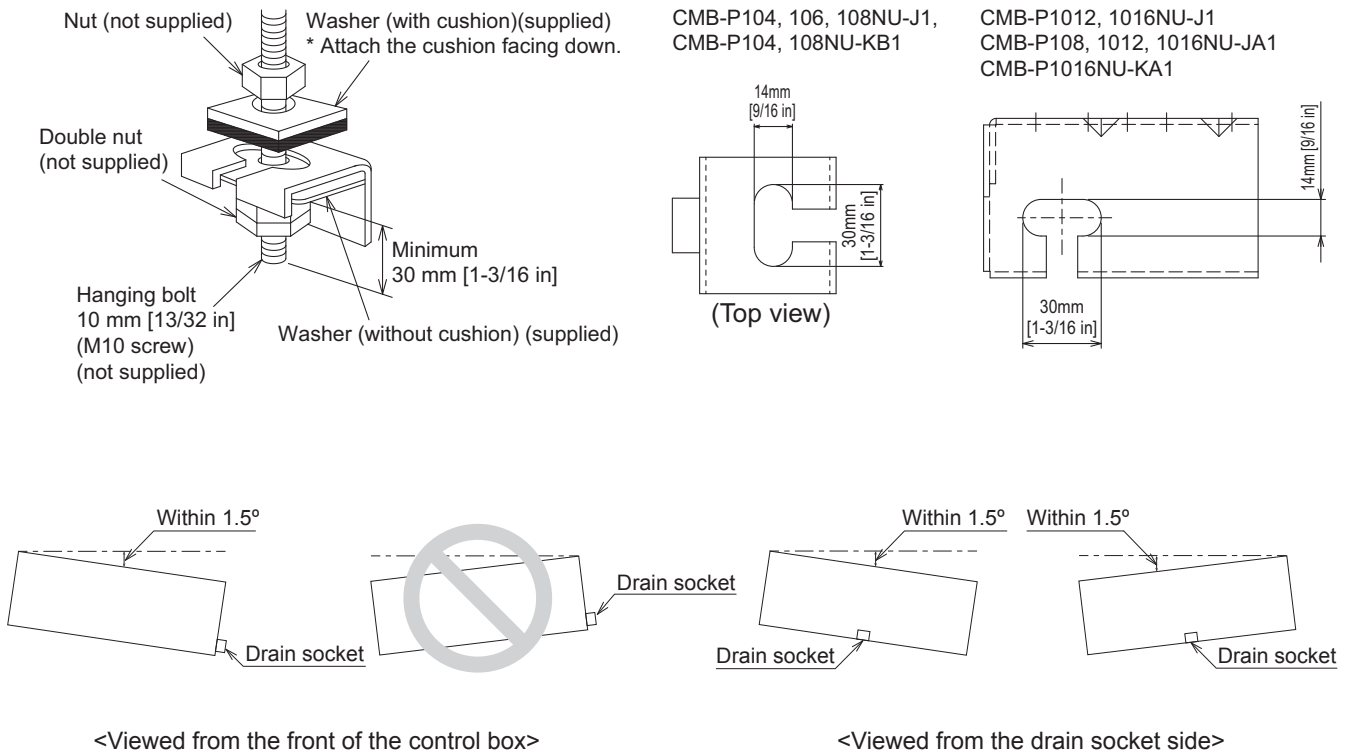
Installing hanging bolts

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

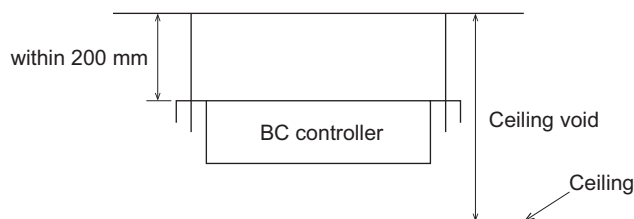
The hanging bolt size is 10 mm [13/32 in] (M10 screw).

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

Suspension bracket has an oval hole. Use a large diameter washer.



- 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. Doing so may cause damage to the unit or the floor.
- Install the BC controllers with the hanging length within 200 mm [7-7/8 in] or shorter.



⚠ CAUTION

Be sure to install the unit body level.

8-1. Compatibility

BC controller

Outdoor/Heat source unit	BC controller	Compatibility
PURY-(E)P-T/Y(S)NU PURY-HP-T/Y(S)NU PURY-P-T/Y(S)LMU S/W Ver. 7.08 or later PQRY-P-T/Y(S)LMU S/W Ver. 6.42 or later PURY-P-T/Y(S)KMU S/W Ver. 5.28 or later PURY-P-T/Y(S)JMU S/W Ver. 5.59 or later PURY-HP-T/Y(S)KMU S/W Ver. 5.28 or later PURY-P-Z(S)KMU S/W Ver. 6.42 or later PQRY-P-Z(S)KMU S/W Ver. 6.42 or later PQRY-P-Z(S)LMU S/W Ver. 6.42 or later	J1 type	Compatible
PURY-(E)P-T/Y(S)NU PURY-HP-T/Y(S)NU PURY-P-T/Y(S)LMU PQRY-P-T/Y(S)LMU PURY-P-T/Y(S)KMU PURY-P-T/Y(S)JMU PURY-HP-T/Y(S)KMU PURY-P-Z(S)KMU PQRY-P-Z(S)KMU PQRY-P-Z(S)LMU	G1 type	Compatible
PURY-(E)P-T/Y(S)NU PURY-HP-T/Y(S)NU PURY-P-T/Y(S)LMU PQRY-P-T/Y(S)LMU PURY-P-T/Y(S)KMU PURY-P-T/Y(S)JMU PURY-HP-T/Y(S)KMU PURY-P-Z(S)KMU PQRY-P-Z(S)KMU PQRY-P-Z(S)LMU	G type	Compatible

Outdoor/Heat source unit	BC controller			Compatibility
	Main	Sub		
PURY-(E)P-T/Y(S)NU	JA1/KA1 type	GB1/HB1 type	GB1/HB1 type	Compatible
PURY-HP-T/Y(S)NU	JA1/KA1 type	KB1 type	GB1/HB1 type	Not compatible
PURY-P-T/Y(S)LMU S/W Ver. 7.08 or later	JA1/KA1 type	GB1/HB1 type	GB/HB type	Compatible
PQRY-P-T/Y(S)LMU S/W Ver. 6.42 or later	JA1/KA1 type	GB/HB type	GB/HB type	Compatible
PURY-P-T/Y(S)KMU S/W Ver. 5.28 or later	JA1/KA1 type	KB1 type	GB/HB type	Not compatible
PURY-P-T/Y(S)JMU S/W Ver. 5.59 or later	JA1/KA1 type	GB1/HB1 type	-	Compatible
PURY-HP-T/Y(S)KMU S/W Ver. 5.28 or later	JA1/KA1 type	GB/HB type	-	Compatible
PURY-P-Z(S)KMU S/W Ver. 6.42 or later	GA1/HA1 type	KB1 type	KB1 type	Compatible
PQRY-P-Z(S)KMU S/W Ver. 6.42 or later	GA1/HA1 type	KB1 type	GB1/HB1 type	Not compatible
PQRY-P-Z(S)LMU S/W Ver. 6.42 or later	GA1/HA1 type	KB1 type	GB/HB type	Not compatible
	GA1/HA1 type	KB1 type	-	Compatible
	GA/HA type	KB1 type	KB1 type	Compatible
	GA/HA type	KB1 type	GB1/HB1 type	Not compatible
	GA/HA type	KB1 type	GB/HB type	Not compatible
	GA/HA type	KB1 type	-	Compatible

Outdoor/Heat source unit	BC controller		Compatibility
	Main	Sub	
PURY-(E)P-T/Y(S)NU PURY-HP-T/Y(S)NU PURY-P-T/Y(S)LMU S/W Ver. 7.08 or later PQRY-P-T/Y(S)LMU S/W Ver. 6.42 or later PURY-P-T/Y(S)KMU S/W Ver. 5.28 or later PURY-P-T/Y(S)JMU S/W Ver. 5.59 or later PURY-HP-T/Y(S)KMU S/W Ver. 5.28 or later PURY-P-Z(S)KMU S/W Ver. 6.42 or later PQRY-P-Z(S)KMU S/W Ver. 6.42 or later PQRY-P-Z(S)LMU S/W Ver. 6.42 or later	JA1/KA1 type	KB1 type	Compatible(*)

*Up to 11 Sub BC controllers can be connected.

GA(1)/HA(1)/GB(1)/HB(1) type and JA1/KA1/KB1 type can be mixed.

The only combination that is not available is mix of GB(1)/HB(1) type and KB1 type.

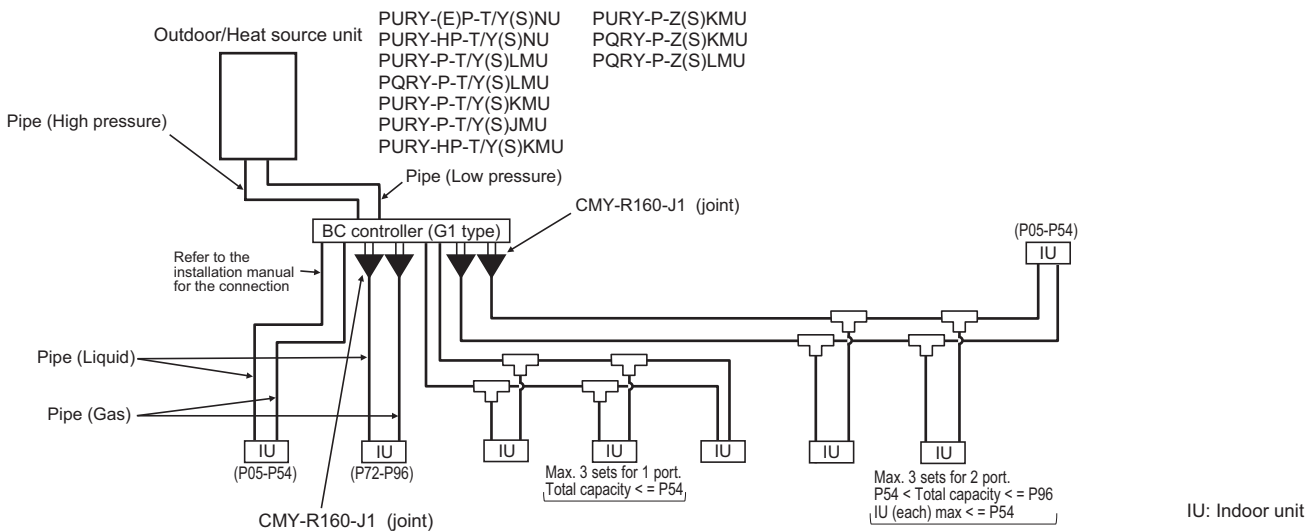
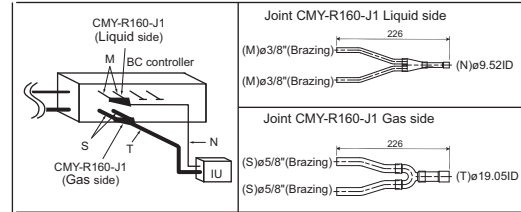
When mixing GA(1)/HA(1)/GB(1)/HB(1) type and JA1/KA1/KB1 type, specifications and restrictions are according to GA(1)/HA(1)/GB(1)/HB(1) type. (piping length, connectable number of Sub BC)

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.

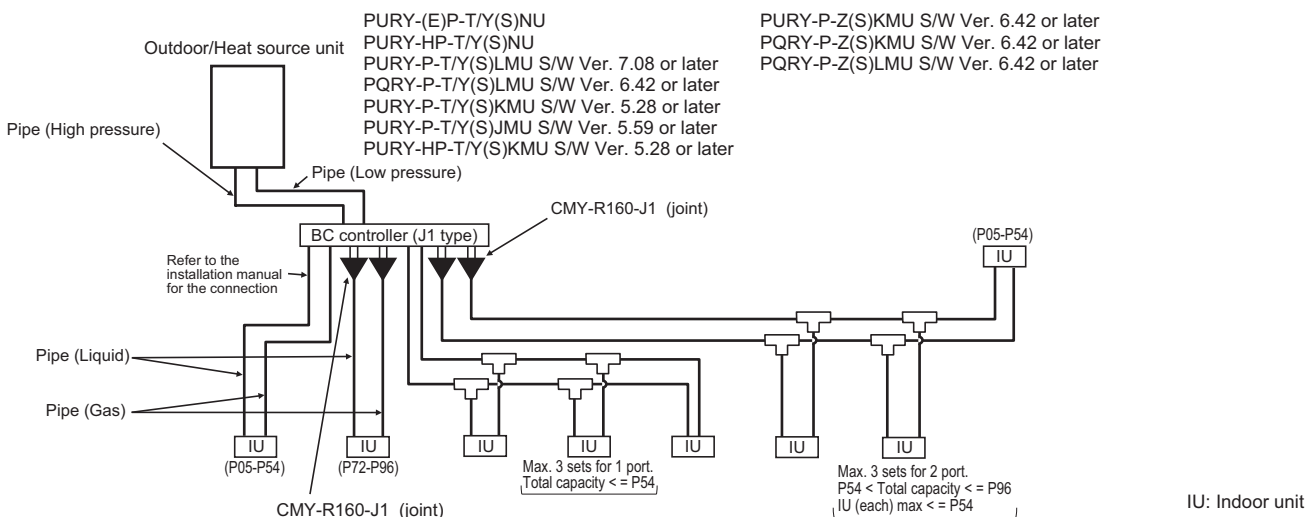
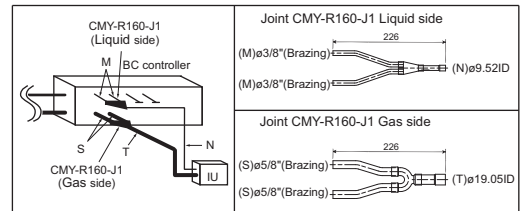
8-2-1. When G1-type BC controller is used

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1.
- Note3. Indoor unit sized P72-P96 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 P72-P96 with 2 ports.
- Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note7. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24.
- Note8. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3: Total Indoor capacity = P24 + P06 = P30.



8-2-2. When J1-type BC controller is used

- Note1. No Header usable on PURY system.
- Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1.
- Note3. Indoor unit sized P72-P96 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 P72-P96 with 2 ports.
- Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.
- Note7. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24.
- Note8. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3: Total Indoor capacity = P24 + P06 = P30.
- Note9. To connect the BC controller to the main pipe, use the reducer (CMY-R301S-G).



8-2-3. When JA1/KA1- and GB1/HB1-type BC controllers are used together

Note1. No Header usable on PURY system.

Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1.

Note3. Indoor unit sized P72-P96 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 P72-P96 with 2 ports.

Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.

Note7. For sub BC controller CMB-P-NU-GB1 the connectable indoor unit capacities may sum to equal that of a P126 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 P126 unit.

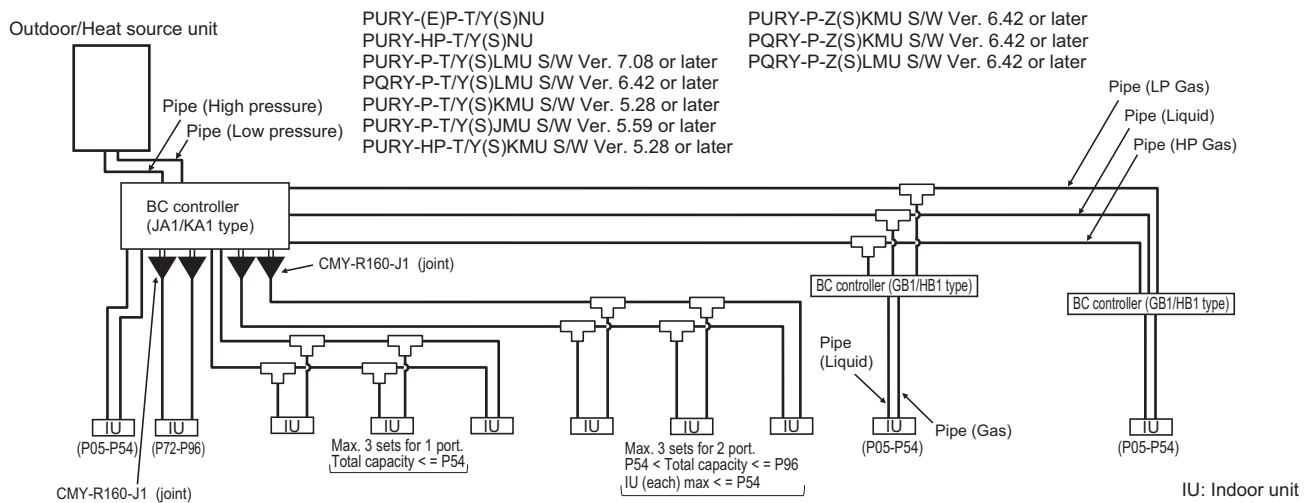
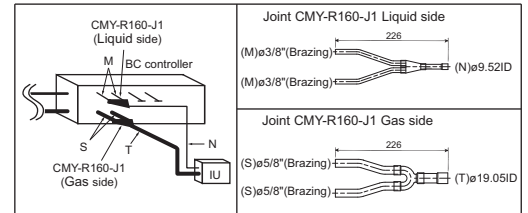
For sub BC controller CMB-P1016NU-HB1 the connectable indoor unit capacities may sum to equal that of a P126 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that of a P168 unit.

Note8. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24.

Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3: Total Indoor capacity = P24 + P06 = P30.

Note10. To connect the BC controller to the main pipe, use the reducer (CMY-R302S-G1 or CMY-R304S-G1).

Note11. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R303S-G1, CMY-R305S-G1, or CMY-R306S-G).



8-2-4. When GA1/HA1- and KB1-type BC controllers are used together

Note1. No Header usable on PURY system.

Note2. Indoor unit sized P72-P96 should be connected to BC controller via Y shape joint CMY-R160-J1.

Note3. Indoor unit sized P72-P96 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 P72-P96 with 2 ports.

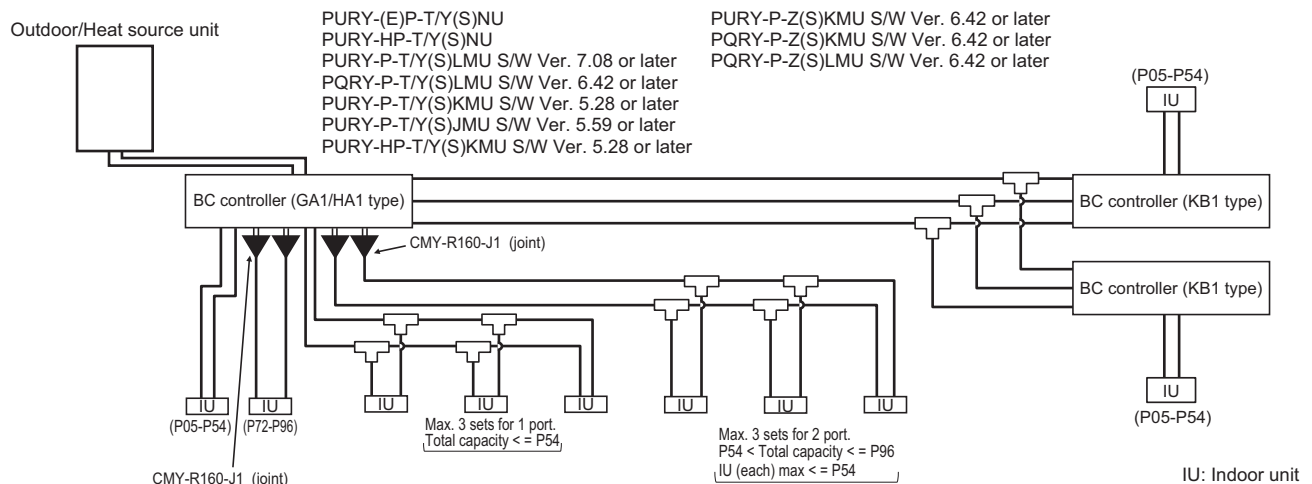
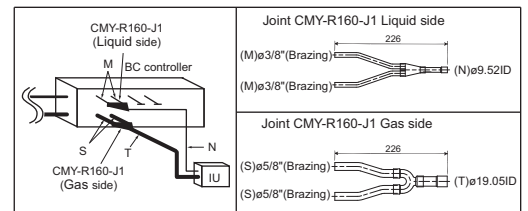
Note6. Do not connect multiple indoor units to the same port when operating each of them in different mode (cooling, heating, stop, and thermo-off). In case of connecting multiple indoor units to the same port, connecting all indoor units to one remote controller and switching SW1-1 ON in the all connected indoor units (switch to thermostat built in the remote controller) are recommended.

Note7. The maximum total capacity of indoor units that can be connected to each sub BC controller CMB-P-NU-KB1 is P126.

Note8. Indoor capacity is described as its model size. For example, PEFY-P24NMAU-E3, its capacity is P24.

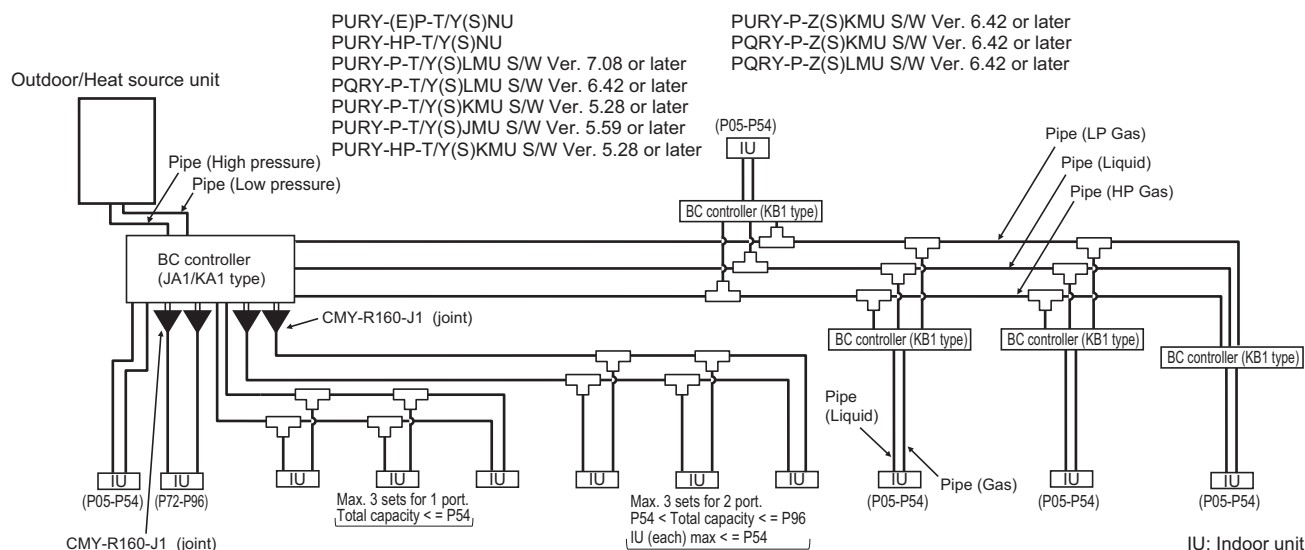
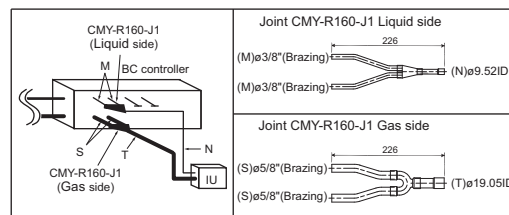
Note9. Total down-stream Indoor capacity is the summary of the model size of Indoors down-stream. For example, PEFY-P24NMAU-E3 + PEFY-P06NMAU-E3: Total Indoor capacity = P24 + P06 = P30.

Note10. To connect the sub BC controller to the main BC controller, use the reducer (CMY-R306S-G).



BC controller

Note11. To connect the sub BC controller to the main BC controller, use the reducer (CMY-B303S-G1, CMY-B305S-G1, or CMY-B306S-G1).



⚠ 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 air conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R410A.

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